TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-71952-1

Job Description: Harley Davidson

For:
Groundwater Sciences Corporation
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Approved for release.
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11/14/2017 2:15 PM

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
^c	CCV Recovery is outside acceptance limits.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

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: 180-71952-1

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 11/01/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.3 C.

VOLATILES

Several samples required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Surrogate recovery for the following samples was outside control limits: HD-MW-179-0/1-0 (180-71952-3), HD-QC7-0/1-2 (180-71952-11) and HD-MW-184D-0/1-0 (180-71952-16). Evidence of matrix interference is present and the samples needed further dilution.

The laboratory control sample (LCS) for analytical batch 180-228475 recovered outside control limits for the following analytes Chloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Chloromethane failed the recovery criteria high for the MS of sample HD-MPE-3-0/1-0 (180-71952-12) in batch 180-228475.

The continuing calibration verification (CCV) analyzed in batch 180-228418 was outside the method criteria for the following analytes: Ethylbenzene, Methylcyclohexane, Naphthalene, Isopropylbenzene Tetrachloroethene and Trichloroethene (LOW) & 2-Butanone, Acetone and Methyl acetate.(HIGH) 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.

The continuing calibration verification (CCV) analyzed in batch 180-228645 was outside the method criteria for the following analytes: 2-Butanone (MEK), Acetone, Bromomethane, Chloroethane and Chloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-228566 was outside the method criteria for the following analytes: Carbon disulfide, Chloroethane, Chloromethane and Bromomethane (HIGH). 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.

The continuing calibration verification (CCV) analyzed in batch 180-228533 was outside the method criteria for the following analytes: Bromomethane, Acetone, 1,4-Dioxane, 1,2-Dichloroethane-d4, Chloromethane and Vinyl chloride (LOW) & 4-Methyl-2-pentanone, Bromoform, Naphthalene and Toluene (HIGH). 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.

The continuing calibration verification (CCV) analyzed in batch 180-228475 was outside the method criteria for the following analytes: 1,2,4-Trichlorobenzene, 1,4-Dioxane , Naphthalene,Methylcyclohexane and Trichlorofluoromethane (LOW) & Chloroethane, Chloromethane and Dichloro-difluoromethane (HIGH). 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: 180-71952-1

Client Sample ID: HD-MW-180-0/1-0 — Lab Sample ID: 180-71952-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.6		1.0	0.55	ug/L	1		8260C	Total/NA
Trichloroethene	260	^c E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	460	^c E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	260		40	28	ug/L	40		8260C	Total/NA
Tetrachloroethene - DL	690		40	19	ug/L	40		8260C	Total/NA

Client Sample ID: HD-MW-178D-0/1-0 — Lab Sample ID: 180-71952-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.2		1.0	0.71	ug/L	1		8260C	Total/NA
Trichloroethene	320	^c E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	370	^c E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	240		30	21	ug/L	30		8260C	Total/NA
Tetrachloroethene - DL	410		30	14	ug/L	30		8260C	Total/NA

Client Sample ID: HD-MW-179-0/1-0 — Lab Sample ID: 180-71952-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.64	J	1.0	0.55	ug/L	1		8260C	Total/NA
Trichloroethene	53	^c E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	260	^c E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	35		20	14	ug/L	20		8260C	Total/NA
Tetrachloroethene - DL	210		20	9.3	ug/L	20		8260C	Total/NA

Client Sample ID: HD-MPE-2-0/1-0 — Lab Sample ID: 180-71952-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.71	J	1.0	0.71	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	14	^c	5.0	2.6	ug/L	1		8260C	Total/NA
Trichloroethene	130	^c E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	220	^c E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	85		20	14	ug/L	20		8260C	Total/NA
Tetrachloroethene - DL	220		20	9.3	ug/L	20		8260C	Total/NA

Client Sample ID: HD-MW-178S-0/1-0 — Lab Sample ID: 180-71952-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	90	^c E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	120	^c E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	53		10	6.9	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	100		10	4.7	ug/L	10		8260C	Total/NA

Client Sample ID: HD-MW-181S-0/1-0 — Lab Sample ID: 180-71952-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	110	^c E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	160	^c E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	76		5.0	3.4	ug/L	5		8260C	Total/NA
Tetrachloroethene - DL	110		5.0	2.3	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71952-1

Client Sample ID: HD-MW-177-0/1-0 — Lab Sample ID: 180-71952-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	330	E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	230	E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	350		25	17	ug/L	25		8260C	Total/NA
Tetrachloroethene - DL	220		25	12	ug/L	25		8260C	Total/NA

Client Sample ID: HD-CW-1A-0/1-0 — Lab Sample ID: 180-71952-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	52	E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.8		1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	53		2.5	1.7	ug/L	2.5		8260C	Total/NA
Tetrachloroethene - DL	1.6	J	2.5	1.2	ug/L	2.5		8260C	Total/NA

Client Sample ID: HD-MPE-1-0/1-0 — Lab Sample ID: 180-71952-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21		5.0	3.4	ug/L	1		8260C	Total/NA
Carbon disulfide	1.4		1.0	0.88	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	1100	E	5.0	2.6	ug/L	1		8260C	Total/NA
Trichloroethene	100	E	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	110	E	1.0	0.47	ug/L	1		8260C	Total/NA
2-Butanone (MEK) - DL	1600		250	130	ug/L	50		8260C	Total/NA
Trichloroethene - DL	110		50	34	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	100		50	23	ug/L	50		8260C	Total/NA

Client Sample ID: HD-MW-183-0/1-0 — Lab Sample ID: 180-71952-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.98	J	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	14		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC7-0/1-2 — Lab Sample ID: 180-71952-11

No Detections.

Client Sample ID: HD-MPE-3-0/1-0 — Lab Sample ID: 180-71952-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.3		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.7		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC4-0/1-1 — Lab Sample ID: 180-71952-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.6	J ^c	5.0	2.6	ug/L	1		8260C	Total/NA
Trichloroethene	1.3		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.5		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC4-0/1-3 — Lab Sample ID: 180-71952-14

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-QC4-0/1-3 (Continued) — Lab Sample ID: 180-71952-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.60	J	1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC4-0/1-4 — Lab Sample ID: 180-71952-15

No Detections.

Client Sample ID: HD-MW-184D-0/1-0 — Lab Sample ID: 180-71952-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.9		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	57	E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	1.8	J	2.5	1.7	ug/L	2.5		8260C	Total/NA
Tetrachloroethene - DL	57		2.5	1.2	ug/L	2.5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-MW-180-0/1-0
Date Collected: 10/31/17 08:42
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 05:17	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 05:17	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 05:17	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 05:17	1
1,1-Dichloroethene	**2.6**		1.0	0.55	ug/L			11/09/17 05:17	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 05:17	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 05:17	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 05:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 05:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 05:17	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 05:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 05:17	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 05:17	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/09/17 05:17	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 05:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 05:17	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 05:17	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 05:17	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 05:17	1
Trichloroethene	**260**	**^c E**	1.0	0.69	ug/L			11/09/17 05:17	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 05:17	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 05:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 05:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 05:17	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 05:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 05:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 05:17	1
Tetrachloroethene	**460**	**^c E**	1.0	0.47	ug/L			11/09/17 05:17	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 05:17	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 05:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 05:17	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 05:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 05:17	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 05:17	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 05:17	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 05:17	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 05:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 05:17	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 05:17	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*65 - 121*		*11/09/17 05:17*	*1*
Toluene-d8 (Surr)	*85*		*73 - 120*		*11/09/17 05:17*	*1*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*11/09/17 05:17*	*1*
Dibromofluoromethane (Surr)	*106*		*73 - 120*		*11/09/17 05:17*	*1*

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

Client Sample ID: HD-MW-178D-0/1-0
Date Collected: 10/30/17 13:10
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 03:18	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 03:18	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 03:18	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 03:18	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 03:18	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 03:18	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 03:18	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 03:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 03:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 03:18	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 03:18	1
cis-1,2-Dichloroethene	**2.2**		1.0	0.71	ug/L			11/09/17 03:18	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 03:18	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/09/17 03:18	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 03:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 03:18	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 03:18	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 03:18	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 03:18	1
Trichloroethene	**320**	**^c E**	1.0	0.69	ug/L			11/09/17 03:18	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 03:18	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 03:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 03:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 03:18	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 03:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 03:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 03:18	1
Tetrachloroethene	**370**	**^c E**	1.0	0.47	ug/L			11/09/17 03:18	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 03:18	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 03:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 03:18	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 03:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 03:18	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 03:18	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 03:18	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 03:18	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 03:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 03:18	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 03:18	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*65 - 121*		*11/09/17 03:18*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*11/09/17 03:18*	*1*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*11/09/17 03:18*	*1*
Dibromofluoromethane (Surr)	*109*		*73 - 120*		*11/09/17 03:18*	*1*

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

Client Sample ID: HD-MW-179-0/1-0
Date Collected: 10/31/17 08:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 05:41	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 05:41	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 05:41	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 05:41	1
1,1-Dichloroethene	**0.64**	**J**	1.0	0.55	ug/L			11/09/17 05:41	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 05:41	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 05:41	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 05:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 05:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 05:41	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 05:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 05:41	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 05:41	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/09/17 05:41	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 05:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 05:41	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 05:41	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 05:41	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 05:41	1
Trichloroethene	**53**	**^c E**	1.0	0.69	ug/L			11/09/17 05:41	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 05:41	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 05:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 05:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 05:41	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 05:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 05:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 05:41	1
Tetrachloroethene	**260**	**^c E**	1.0	0.47	ug/L			11/09/17 05:41	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 05:41	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 05:41	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 05:41	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 05:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 05:41	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 05:41	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 05:41	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 05:41	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 05:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 05:41	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 05:41	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*65 - 121*		*11/09/17 05:41*	*1*
Toluene-d8 (Surr)	*85*		*73 - 120*		*11/09/17 05:41*	*1*
4-Bromofluorobenzene (Surr)	*79*	*X*	*80 - 120*		*11/09/17 05:41*	*1*
Dibromofluoromethane (Surr)	*115*		*73 - 120*		*11/09/17 05:41*	*1*

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

Client Sample ID: HD-MPE-2-0/1-0
Date Collected: 10/30/17 15:45
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 03:42	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 03:42	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 03:42	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 03:42	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 03:42	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 03:42	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 03:42	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 03:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 03:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 03:42	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 03:42	1
cis-1,2-Dichloroethene	**0.71**	**J**	1.0	0.71	ug/L			11/09/17 03:42	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 03:42	1
2-Butanone (MEK)	**14**	**^c**	5.0	2.6	ug/L			11/09/17 03:42	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 03:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 03:42	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 03:42	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 03:42	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 03:42	1
Trichloroethene	**130**	**^c E**	1.0	0.69	ug/L			11/09/17 03:42	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 03:42	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 03:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 03:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 03:42	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 03:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 03:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 03:42	1
Tetrachloroethene	**220**	**^c E**	1.0	0.47	ug/L			11/09/17 03:42	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 03:42	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 03:42	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 03:42	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 03:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 03:42	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 03:42	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 03:42	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 03:42	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 03:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 03:42	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 03:42	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*65 - 121*		*11/09/17 03:42*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*11/09/17 03:42*	*1*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*		*11/09/17 03:42*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*11/09/17 03:42*	*1*

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

Client Sample ID: HD-MW-178S-0/1-0
Date Collected: 10/30/17 12:20
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 04:06	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 04:06	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 04:06	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 04:06	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 04:06	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 04:06	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 04:06	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 04:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 04:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 04:06	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 04:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 04:06	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 04:06	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/09/17 04:06	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 04:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 04:06	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 04:06	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 04:06	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 04:06	1
Trichloroethene	**90**	**^c E**	1.0	0.69	ug/L			11/09/17 04:06	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 04:06	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 04:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 04:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 04:06	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 04:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 04:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 04:06	1
Tetrachloroethene	**120**	**^c E**	1.0	0.47	ug/L			11/09/17 04:06	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 04:06	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 04:06	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 04:06	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 04:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 04:06	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 04:06	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 04:06	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 04:06	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 04:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 04:06	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 04:06	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*65 - 121*		*11/09/17 04:06*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*11/09/17 04:06*	*1*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*		*11/09/17 04:06*	*1*
Dibromofluoromethane (Surr)	*111*		*73 - 120*		*11/09/17 04:06*	*1*

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

Client Sample ID: HD-MW-181S-0/1-0
Date Collected: 10/31/17 10:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 06:05	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 06:05	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 06:05	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 06:05	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 06:05	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 06:05	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 06:05	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 06:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 06:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 06:05	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 06:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 06:05	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 06:05	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/09/17 06:05	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 06:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 06:05	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 06:05	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 06:05	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 06:05	1
Trichloroethene	**110**	**^c E**	1.0	0.69	ug/L			11/09/17 06:05	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 06:05	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 06:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 06:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 06:05	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 06:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 06:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 06:05	1
Tetrachloroethene	**160**	**^c E**	1.0	0.47	ug/L			11/09/17 06:05	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 06:05	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 06:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 06:05	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 06:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 06:05	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 06:05	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 06:05	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 06:05	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 06:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 06:05	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 06:05	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 06:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*65 - 121*		*11/09/17 06:05*	*1*
Toluene-d8 (Surr)	*92*		*73 - 120*		*11/09/17 06:05*	*1*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*11/09/17 06:05*	*1*
Dibromofluoromethane (Surr)	*110*		*73 - 120*		*11/09/17 06:05*	*1*

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

Client Sample ID: HD-MW-177-0/1-0
Date Collected: 10/31/17 09:50
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U * ^c	1.0	0.90	ug/L			11/09/17 15:55	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 15:55	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 15:55	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 15:55	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 15:55	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 15:55	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 15:55	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 15:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 15:55	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 15:55	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 15:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 15:55	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 15:55	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 15:55	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 15:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 15:55	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 15:55	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 15:55	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 15:55	1
Trichloroethene	**330**	**E**	1.0	0.69	ug/L			11/09/17 15:55	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 15:55	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 15:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 15:55	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 15:55	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 15:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 15:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 15:55	1
Tetrachloroethene	**230**	**E**	1.0	0.47	ug/L			11/09/17 15:55	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 15:55	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 15:55	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 15:55	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 15:55	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 15:55	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 15:55	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 15:55	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 15:55	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 15:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 15:55	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 15:55	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*65 - 121*		*11/09/17 15:55*	*1*
Toluene-d8 (Surr)	*86*		*73 - 120*		*11/09/17 15:55*	*1*
4-Bromofluorobenzene (Surr)	*82*		*80 - 120*		*11/09/17 15:55*	*1*
Dibromofluoromethane (Surr)	*108*		*73 - 120*		*11/09/17 15:55*	*1*

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

Client Sample ID: HD-CW-1A-0/1-0
Date Collected: 10/31/17 11:15
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U * ^c	1.0	0.90	ug/L			11/09/17 16:43	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 16:43	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 16:43	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 16:43	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 16:43	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 16:43	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 16:43	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 16:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 16:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 16:43	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 16:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 16:43	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 16:43	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 16:43	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 16:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 16:43	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 16:43	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 16:43	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 16:43	1
Trichloroethene	**52**	**E**	1.0	0.69	ug/L			11/09/17 16:43	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 16:43	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 16:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 16:43	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 16:43	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 16:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 16:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 16:43	1
Tetrachloroethene	**1.8**		1.0	0.47	ug/L			11/09/17 16:43	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 16:43	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 16:43	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 16:43	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 16:43	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 16:43	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 16:43	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 16:43	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 16:43	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 16:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 16:43	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 16:43	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*65 - 121*		*11/09/17 16:43*	*1*
Toluene-d8 (Surr)	*95*		*73 - 120*		*11/09/17 16:43*	*1*
4-Bromofluorobenzene (Surr)	*84*		*80 - 120*		*11/09/17 16:43*	*1*
Dibromofluoromethane (Surr)	*115*		*73 - 120*		*11/09/17 16:43*	*1*

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

Client Sample ID: HD-MPE-1-0/1-0
Date Collected: 10/31/17 10:00
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c *	1.0	0.90	ug/L			11/09/17 17:31	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 17:31	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 17:31	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 17:31	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 17:31	1
Acetone	**21**		5.0	3.4	ug/L			11/09/17 17:31	1
Carbon disulfide	**1.4**		1.0	0.88	ug/L			11/09/17 17:31	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 17:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 17:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 17:31	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 17:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 17:31	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 17:31	1
2-Butanone (MEK)	**1100**	**E**	5.0	2.6	ug/L			11/09/17 17:31	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 17:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 17:31	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 17:31	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 17:31	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 17:31	1
Trichloroethene	**100**	**E**	1.0	0.69	ug/L			11/09/17 17:31	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 17:31	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 17:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 17:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 17:31	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 17:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 17:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 17:31	1
Tetrachloroethene	**110**	**E**	1.0	0.47	ug/L			11/09/17 17:31	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 17:31	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 17:31	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 17:31	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 17:31	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 17:31	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 17:31	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 17:31	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 17:31	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 17:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 17:31	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 17:31	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*65 - 121*		*11/09/17 17:31*	*1*
Toluene-d8 (Surr)	*92*		*73 - 120*		*11/09/17 17:31*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*11/09/17 17:31*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*11/09/17 17:31*	*1*

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

Client Sample ID: HD-MW-183-0/1-0
Date Collected: 10/31/17 10:15
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/10/17 13:05	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/10/17 13:05	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/10/17 13:05	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/10/17 13:05	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/10/17 13:05	1
Acetone	5.0	U	5.0	3.4	ug/L			11/10/17 13:05	1
Carbon disulfide	1.0	U ^c	1.0	0.88	ug/L			11/10/17 13:05	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/10/17 13:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/10/17 13:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/10/17 13:05	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/10/17 13:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/10/17 13:05	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/10/17 13:05	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/10/17 13:05	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/10/17 13:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/10/17 13:05	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/10/17 13:05	1
Benzene	1.0	U	1.0	0.60	ug/L			11/10/17 13:05	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/10/17 13:05	1
Trichloroethene	**0.98**	**J**	1.0	0.69	ug/L			11/10/17 13:05	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/10/17 13:05	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/10/17 13:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/10/17 13:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/10/17 13:05	1
Toluene	1.0	U	1.0	0.46	ug/L			11/10/17 13:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/10/17 13:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/10/17 13:05	1
Tetrachloroethene	**14**		1.0	0.47	ug/L			11/10/17 13:05	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/10/17 13:05	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/10/17 13:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/10/17 13:05	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/10/17 13:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/10/17 13:05	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/10/17 13:05	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/10/17 13:05	1
Styrene	1.0	U	1.0	0.47	ug/L			11/10/17 13:05	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/10/17 13:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/10/17 13:05	1
Acrylonitrile	20	U	20	7.8	ug/L			11/10/17 13:05	1
1,4-Dioxane	200	U	200	14	ug/L			11/10/17 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*65 - 121*		*11/10/17 13:05*	*1*
Toluene-d8 (Surr)	*84*		*73 - 120*		*11/10/17 13:05*	*1*
4-Bromofluorobenzene (Surr)	*80*		*80 - 120*		*11/10/17 13:05*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*11/10/17 13:05*	*1*

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

Client Sample ID: HD-QC7-0/1-2
Date Collected: 10/30/17 12:00
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/09/17 04:53	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 04:53	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 04:53	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 04:53	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 04:53	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 04:53	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 04:53	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 04:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 04:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 04:53	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 04:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 04:53	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 04:53	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/09/17 04:53	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 04:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 04:53	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 04:53	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 04:53	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 04:53	1
Trichloroethene	1.0	U ^c	1.0	0.69	ug/L			11/09/17 04:53	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 04:53	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 04:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 04:53	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 04:53	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 04:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 04:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 04:53	1
Tetrachloroethene	1.0	U ^c	1.0	0.47	ug/L			11/09/17 04:53	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 04:53	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 04:53	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 04:53	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 04:53	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 04:53	1
Ethylbenzene	1.0	U ^c	1.0	0.51	ug/L			11/09/17 04:53	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 04:53	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 04:53	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 04:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 04:53	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/09/17 04:53	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*65 - 121*		*11/09/17 04:53*	*1*
Toluene-d8 (Surr)	*89*		*73 - 120*		*11/09/17 04:53*	*1*
4-Bromofluorobenzene (Surr)	*79*	*X*	*80 - 120*		*11/09/17 04:53*	*1*
Dibromofluoromethane (Surr)	*109*		*73 - 120*		*11/09/17 04:53*	*1*

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

Client Sample ID: HD-MPE-3-0/1-0
Date Collected: 10/31/17 12:15
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U * ^c F1	1.0	0.90	ug/L			11/09/17 13:55	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 13:55	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 13:55	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 13:55	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 13:55	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 13:55	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 13:55	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 13:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 13:55	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 13:55	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 13:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 13:55	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 13:55	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 13:55	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 13:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 13:55	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 13:55	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 13:55	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 13:55	1
Trichloroethene	**1.3**		1.0	0.69	ug/L			11/09/17 13:55	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 13:55	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 13:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 13:55	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 13:55	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 13:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 13:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 13:55	1
Tetrachloroethene	**9.7**		1.0	0.47	ug/L			11/09/17 13:55	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 13:55	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 13:55	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 13:55	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 13:55	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 13:55	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 13:55	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 13:55	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 13:55	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 13:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 13:55	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 13:55	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*65 - 121*		*11/09/17 13:55*	*1*
Toluene-d8 (Surr)	*90*		*73 - 120*		*11/09/17 13:55*	*1*
4-Bromofluorobenzene (Surr)	*82*		*80 - 120*		*11/09/17 13:55*	*1*
Dibromofluoromethane (Surr)	*108*		*73 - 120*		*11/09/17 13:55*	*1*

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

Client Sample ID: HD-QC4-0/1-1
Date Collected: 10/31/17 08:00
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/11/17 11:42	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/11/17 11:42	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/11/17 11:42	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/11/17 11:42	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/11/17 11:42	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/11/17 11:42	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/11/17 11:42	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/11/17 11:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/11/17 11:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/11/17 11:42	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/11/17 11:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/11/17 11:42	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/11/17 11:42	1
2-Butanone (MEK)	**3.6**	**J ^c**	5.0	2.6	ug/L			11/11/17 11:42	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/11/17 11:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/11/17 11:42	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/11/17 11:42	1
Benzene	1.0	U	1.0	0.60	ug/L			11/11/17 11:42	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/11/17 11:42	1
Trichloroethene	**1.3**		1.0	0.69	ug/L			11/11/17 11:42	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/11/17 11:42	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/11/17 11:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/11/17 11:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/11/17 11:42	1
Toluene	1.0	U	1.0	0.46	ug/L			11/11/17 11:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/11/17 11:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/11/17 11:42	1
Tetrachloroethene	**9.5**		1.0	0.47	ug/L			11/11/17 11:42	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/11/17 11:42	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/11/17 11:42	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/11/17 11:42	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/11/17 11:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/11/17 11:42	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/11/17 11:42	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/11/17 11:42	1
Styrene	1.0	U	1.0	0.47	ug/L			11/11/17 11:42	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/11/17 11:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/11/17 11:42	1
Acrylonitrile	20	U	20	7.8	ug/L			11/11/17 11:42	1
1,4-Dioxane	200	U ^c	200	14	ug/L			11/11/17 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*65 - 121*		*11/11/17 11:42*	*1*
Toluene-d8 (Surr)	*81*		*73 - 120*		*11/11/17 11:42*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/11/17 11:42*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*11/11/17 11:42*	*1*

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

Client Sample ID: HD-QC4-0/1-3
Date Collected: 10/31/17 13:40
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U * ^c	1.0	0.90	ug/L			11/09/17 14:19	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 14:19	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 14:19	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 14:19	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 14:19	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 14:19	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 14:19	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 14:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 14:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 14:19	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 14:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 14:19	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 14:19	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 14:19	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 14:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 14:19	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 14:19	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 14:19	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 14:19	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/09/17 14:19	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 14:19	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 14:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 14:19	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 14:19	1
Toluene	**0.60**	**J**	1.0	0.46	ug/L			11/09/17 14:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 14:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 14:19	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/09/17 14:19	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 14:19	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 14:19	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 14:19	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 14:19	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 14:19	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 14:19	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 14:19	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 14:19	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 14:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 14:19	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 14:19	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*65 - 121*		*11/09/17 14:19*	*1*
Toluene-d8 (Surr)	*92*		*73 - 120*		*11/09/17 14:19*	*1*
4-Bromofluorobenzene (Surr)	*84*		*80 - 120*		*11/09/17 14:19*	*1*
Dibromofluoromethane (Surr)	*110*		*73 - 120*		*11/09/17 14:19*	*1*

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

Client Sample ID: HD-QC4-0/1-4
Date Collected: 10/31/17 13:50
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 14:29	1
Vinyl chloride	1.0	U ^c	1.0	0.88	ug/L			11/09/17 14:29	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/09/17 14:29	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 14:29	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 14:29	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/09/17 14:29	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 14:29	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 14:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 14:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 14:29	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 14:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 14:29	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 14:29	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 14:29	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 14:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 14:29	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 14:29	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 14:29	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 14:29	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/09/17 14:29	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 14:29	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 14:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 14:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U ^c	5.0	3.1	ug/L			11/09/17 14:29	1
Toluene	1.0	U ^c	1.0	0.46	ug/L			11/09/17 14:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 14:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 14:29	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/09/17 14:29	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 14:29	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 14:29	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 14:29	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 14:29	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 14:29	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 14:29	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 14:29	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 14:29	1
Bromoform	1.0	U ^c	1.0	0.98	ug/L			11/09/17 14:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 14:29	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 14:29	1
1,4-Dioxane	200	U ^c	200	14	ug/L			11/09/17 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*	*^c*	*65 - 121*		*11/09/17 14:29*	*1*
Toluene-d8 (Surr)	*107*		*73 - 120*		*11/09/17 14:29*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*11/09/17 14:29*	*1*
Dibromofluoromethane (Surr)	*87*		*73 - 120*		*11/09/17 14:29*	*1*

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

Client Sample ID: HD-MW-184D-0/1-0
Date Collected: 10/31/17 10:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c *	1.0	0.90	ug/L			11/09/17 21:29	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 21:29	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 21:29	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/09/17 21:29	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 21:29	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 21:29	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 21:29	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 21:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 21:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 21:29	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 21:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 21:29	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 21:29	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 21:29	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 21:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 21:29	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 21:29	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 21:29	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 21:29	1
Trichloroethene	**1.9**		1.0	0.69	ug/L			11/09/17 21:29	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 21:29	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 21:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 21:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 21:29	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 21:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 21:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 21:29	1
Tetrachloroethene	**57**	**E**	1.0	0.47	ug/L			11/09/17 21:29	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 21:29	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 21:29	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 21:29	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 21:29	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 21:29	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 21:29	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 21:29	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 21:29	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 21:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 21:29	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 21:29	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*65 - 121*		*11/09/17 21:29*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*11/09/17 21:29*	*1*
4-Bromofluorobenzene (Surr)	*79*	*X*	*80 - 120*		*11/09/17 21:29*	*1*
Dibromofluoromethane (Surr)	*116*		*73 - 120*		*11/09/17 21:29*	*1*

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

Client Sample ID: HD-MW-180-0/1-0
Date Collected: 10/31/17 08:42
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	40	U ^c	40	36	ug/L			11/10/17 15:52	40
Vinyl chloride	40	U	40	35	ug/L			11/10/17 15:52	40
Bromomethane	40	U ^c	40	35	ug/L			11/10/17 15:52	40
Chloroethane	40	U ^c	40	36	ug/L			11/10/17 15:52	40
1,1-Dichloroethene	40	U	40	22	ug/L			11/10/17 15:52	40
Acetone	200	U	200	140	ug/L			11/10/17 15:52	40
Carbon disulfide	40	U ^c	40	35	ug/L			11/10/17 15:52	40
Methylene Chloride	40	U	40	14	ug/L			11/10/17 15:52	40
trans-1,2-Dichloroethene	40	U	40	27	ug/L			11/10/17 15:52	40
Methyl tert-butyl ether	40	U	40	24	ug/L			11/10/17 15:52	40
1,1-Dichloroethane	40	U	40	25	ug/L			11/10/17 15:52	40
cis-1,2-Dichloroethene	40	U	40	28	ug/L			11/10/17 15:52	40
Bromochloromethane	40	U	40	25	ug/L			11/10/17 15:52	40
2-Butanone (MEK)	200	U	200	100	ug/L			11/10/17 15:52	40
Chloroform	40	U	40	24	ug/L			11/10/17 15:52	40
1,1,1-Trichloroethane	40	U	40	24	ug/L			11/10/17 15:52	40
Carbon tetrachloride	40	U	40	35	ug/L			11/10/17 15:52	40
Benzene	40	U	40	24	ug/L			11/10/17 15:52	40
1,2-Dichloroethane	40	U	40	23	ug/L			11/10/17 15:52	40
Trichloroethene	**260**		40	28	ug/L			11/10/17 15:52	40
1,2-Dichloropropane	40	U	40	26	ug/L			11/10/17 15:52	40
Bromodichloromethane	40	U	40	26	ug/L			11/10/17 15:52	40
cis-1,3-Dichloropropene	40	U	40	24	ug/L			11/10/17 15:52	40
4-Methyl-2-pentanone (MIBK)	200	U	200	120	ug/L			11/10/17 15:52	40
Toluene	40	U	40	18	ug/L			11/10/17 15:52	40
trans-1,3-Dichloropropene	40	U	40	23	ug/L			11/10/17 15:52	40
1,1,2-Trichloroethane	40	U	40	18	ug/L			11/10/17 15:52	40
Tetrachloroethene	**690**		40	19	ug/L			11/10/17 15:52	40
2-Hexanone	200	U	200	130	ug/L			11/10/17 15:52	40
Dibromochloromethane	40	U	40	34	ug/L			11/10/17 15:52	40
1,2-Dibromoethane (EDB)	40	U	40	20	ug/L			11/10/17 15:52	40
Chlorobenzene	40	U	40	20	ug/L			11/10/17 15:52	40
1,1,1,2-Tetrachloroethane	40	U	40	23	ug/L			11/10/17 15:52	40
Ethylbenzene	40	U	40	20	ug/L			11/10/17 15:52	40
Xylenes, Total	80	U	80	36	ug/L			11/10/17 15:52	40
Styrene	40	U	40	19	ug/L			11/10/17 15:52	40
Bromoform	40	U	40	39	ug/L			11/10/17 15:52	40
1,1,2,2-Tetrachloroethane	40	U	40	24	ug/L			11/10/17 15:52	40
Acrylonitrile	800	U	800	310	ug/L			11/10/17 15:52	40
1,4-Dioxane	8000	U	8000	540	ug/L			11/10/17 15:52	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*65 - 121*		*11/10/17 15:52*	*40*
Toluene-d8 (Surr)	*82*		*73 - 120*		*11/10/17 15:52*	*40*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/10/17 15:52*	*40*
Dibromofluoromethane (Surr)	*100*		*73 - 120*		*11/10/17 15:52*	*40*

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

Client Sample ID: HD-MW-178D-0/1-0
Date Collected: 10/30/17 13:10
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	30	U ^c	30	27	ug/L			11/09/17 16:36	30
Vinyl chloride	30	U ^c	30	27	ug/L			11/09/17 16:36	30
Bromomethane	30	U ^c	30	27	ug/L			11/09/17 16:36	30
Chloroethane	30	U	30	27	ug/L			11/09/17 16:36	30
1,1-Dichloroethene	30	U	30	17	ug/L			11/09/17 16:36	30
Acetone	150	U ^c	150	100	ug/L			11/09/17 16:36	30
Carbon disulfide	30	U	30	26	ug/L			11/09/17 16:36	30
Methylene Chloride	30	U	30	11	ug/L			11/09/17 16:36	30
trans-1,2-Dichloroethene	30	U	30	20	ug/L			11/09/17 16:36	30
Methyl tert-butyl ether	30	U	30	18	ug/L			11/09/17 16:36	30
1,1-Dichloroethane	30	U	30	19	ug/L			11/09/17 16:36	30
cis-1,2-Dichloroethene	30	U	30	21	ug/L			11/09/17 16:36	30
Bromochloromethane	30	U	30	19	ug/L			11/09/17 16:36	30
2-Butanone (MEK)	150	U	150	77	ug/L			11/09/17 16:36	30
Chloroform	30	U	30	18	ug/L			11/09/17 16:36	30
1,1,1-Trichloroethane	30	U	30	18	ug/L			11/09/17 16:36	30
Carbon tetrachloride	30	U	30	26	ug/L			11/09/17 16:36	30
Benzene	30	U	30	18	ug/L			11/09/17 16:36	30
1,2-Dichloroethane	30	U	30	17	ug/L			11/09/17 16:36	30
Trichloroethene	**240**		30	21	ug/L			11/09/17 16:36	30
1,2-Dichloropropane	30	U	30	20	ug/L			11/09/17 16:36	30
Bromodichloromethane	30	U	30	19	ug/L			11/09/17 16:36	30
cis-1,3-Dichloropropene	30	U	30	18	ug/L			11/09/17 16:36	30
4-Methyl-2-pentanone (MIBK)	150	U ^c	150	93	ug/L			11/09/17 16:36	30
Toluene	30	U ^c	30	14	ug/L			11/09/17 16:36	30
trans-1,3-Dichloropropene	30	U	30	17	ug/L			11/09/17 16:36	30
1,1,2-Trichloroethane	30	U	30	14	ug/L			11/09/17 16:36	30
Tetrachloroethene	**410**		30	14	ug/L			11/09/17 16:36	30
2-Hexanone	150	U	150	98	ug/L			11/09/17 16:36	30
Dibromochloromethane	30	U	30	25	ug/L			11/09/17 16:36	30
1,2-Dibromoethane (EDB)	30	U	30	15	ug/L			11/09/17 16:36	30
Chlorobenzene	30	U	30	15	ug/L			11/09/17 16:36	30
1,1,1,2-Tetrachloroethane	30	U	30	17	ug/L			11/09/17 16:36	30
Ethylbenzene	30	U	30	15	ug/L			11/09/17 16:36	30
Xylenes, Total	60	U	60	27	ug/L			11/09/17 16:36	30
Styrene	30	U	30	14	ug/L			11/09/17 16:36	30
Bromoform	30	U ^c	30	29	ug/L			11/09/17 16:36	30
1,1,2,2-Tetrachloroethane	30	U	30	18	ug/L			11/09/17 16:36	30
Acrylonitrile	600	U	600	230	ug/L			11/09/17 16:36	30
1,4-Dioxane	6000	U ^c	6000	410	ug/L			11/09/17 16:36	30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*77*	*^c*	*65 - 121*		*11/09/17 16:36*	*30*
Toluene-d8 (Surr)	*108*		*73 - 120*		*11/09/17 16:36*	*30*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*11/09/17 16:36*	*30*
Dibromofluoromethane (Surr)	*88*		*73 - 120*		*11/09/17 16:36*	*30*

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

Client Sample ID: HD-MW-179-0/1-0
Date Collected: 10/31/17 08:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	20	U ^c	20	18	ug/L			11/10/17 17:28	20
Vinyl chloride	20	U	20	18	ug/L			11/10/17 17:28	20
Bromomethane	20	U ^c	20	18	ug/L			11/10/17 17:28	20
Chloroethane	20	U ^c	20	18	ug/L			11/10/17 17:28	20
1,1-Dichloroethene	20	U	20	11	ug/L			11/10/17 17:28	20
Acetone	100	U	100	69	ug/L			11/10/17 17:28	20
Carbon disulfide	20	U ^c	20	18	ug/L			11/10/17 17:28	20
Methylene Chloride	20	U	20	7.2	ug/L			11/10/17 17:28	20
trans-1,2-Dichloroethene	20	U	20	13	ug/L			11/10/17 17:28	20
Methyl tert-butyl ether	20	U	20	12	ug/L			11/10/17 17:28	20
1,1-Dichloroethane	20	U	20	13	ug/L			11/10/17 17:28	20
cis-1,2-Dichloroethene	20	U	20	14	ug/L			11/10/17 17:28	20
Bromochloromethane	20	U	20	13	ug/L			11/10/17 17:28	20
2-Butanone (MEK)	100	U	100	52	ug/L			11/10/17 17:28	20
Chloroform	20	U	20	12	ug/L			11/10/17 17:28	20
1,1,1-Trichloroethane	20	U	20	12	ug/L			11/10/17 17:28	20
Carbon tetrachloride	20	U	20	18	ug/L			11/10/17 17:28	20
Benzene	20	U	20	12	ug/L			11/10/17 17:28	20
1,2-Dichloroethane	20	U	20	11	ug/L			11/10/17 17:28	20
Trichloroethene	**35**		20	14	ug/L			11/10/17 17:28	20
1,2-Dichloropropane	20	U	20	13	ug/L			11/10/17 17:28	20
Bromodichloromethane	20	U	20	13	ug/L			11/10/17 17:28	20
cis-1,3-Dichloropropene	20	U	20	12	ug/L			11/10/17 17:28	20
4-Methyl-2-pentanone (MIBK)	100	U	100	62	ug/L			11/10/17 17:28	20
Toluene	20	U	20	9.1	ug/L			11/10/17 17:28	20
trans-1,3-Dichloropropene	20	U	20	12	ug/L			11/10/17 17:28	20
1,1,2-Trichloroethane	20	U	20	9.1	ug/L			11/10/17 17:28	20
Tetrachloroethene	**210**		20	9.3	ug/L			11/10/17 17:28	20
2-Hexanone	100	U	100	66	ug/L			11/10/17 17:28	20
Dibromochloromethane	20	U	20	17	ug/L			11/10/17 17:28	20
1,2-Dibromoethane (EDB)	20	U	20	10	ug/L			11/10/17 17:28	20
Chlorobenzene	20	U	20	10	ug/L			11/10/17 17:28	20
1,1,1,2-Tetrachloroethane	20	U	20	11	ug/L			11/10/17 17:28	20
Ethylbenzene	20	U	20	10	ug/L			11/10/17 17:28	20
Xylenes, Total	40	U	40	18	ug/L			11/10/17 17:28	20
Styrene	20	U	20	9.4	ug/L			11/10/17 17:28	20
Bromoform	20	U	20	20	ug/L			11/10/17 17:28	20
1,1,2,2-Tetrachloroethane	20	U	20	12	ug/L			11/10/17 17:28	20
Acrylonitrile	400	U	400	160	ug/L			11/10/17 17:28	20
1,4-Dioxane	4000	U	4000	270	ug/L			11/10/17 17:28	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*65 - 121*		*11/10/17 17:28*	*20*
Toluene-d8 (Surr)	*76*		*73 - 120*		*11/10/17 17:28*	*20*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/10/17 17:28*	*20*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*11/10/17 17:28*	*20*

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

Client Sample ID: HD-MPE-2-0/1-0
Date Collected: 10/30/17 15:45
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	20	U ^c	20	18	ug/L			11/09/17 17:05	20
Vinyl chloride	20	U ^c	20	18	ug/L			11/09/17 17:05	20
Bromomethane	20	U ^c	20	18	ug/L			11/09/17 17:05	20
Chloroethane	20	U	20	18	ug/L			11/09/17 17:05	20
1,1-Dichloroethene	20	U	20	11	ug/L			11/09/17 17:05	20
Acetone	100	U ^c	100	69	ug/L			11/09/17 17:05	20
Carbon disulfide	20	U	20	18	ug/L			11/09/17 17:05	20
Methylene Chloride	20	U	20	7.2	ug/L			11/09/17 17:05	20
trans-1,2-Dichloroethene	20	U	20	13	ug/L			11/09/17 17:05	20
Methyl tert-butyl ether	20	U	20	12	ug/L			11/09/17 17:05	20
1,1-Dichloroethane	20	U	20	13	ug/L			11/09/17 17:05	20
cis-1,2-Dichloroethene	20	U	20	14	ug/L			11/09/17 17:05	20
Bromochloromethane	20	U	20	13	ug/L			11/09/17 17:05	20
2-Butanone (MEK)	100	U	100	52	ug/L			11/09/17 17:05	20
Chloroform	20	U	20	12	ug/L			11/09/17 17:05	20
1,1,1-Trichloroethane	20	U	20	12	ug/L			11/09/17 17:05	20
Carbon tetrachloride	20	U	20	18	ug/L			11/09/17 17:05	20
Benzene	20	U	20	12	ug/L			11/09/17 17:05	20
1,2-Dichloroethane	20	U	20	11	ug/L			11/09/17 17:05	20
Trichloroethene	**85**		20	14	ug/L			11/09/17 17:05	20
1,2-Dichloropropane	20	U	20	13	ug/L			11/09/17 17:05	20
Bromodichloromethane	20	U	20	13	ug/L			11/09/17 17:05	20
cis-1,3-Dichloropropene	20	U	20	12	ug/L			11/09/17 17:05	20
4-Methyl-2-pentanone (MIBK)	100	U ^c	100	62	ug/L			11/09/17 17:05	20
Toluene	20	U ^c	20	9.1	ug/L			11/09/17 17:05	20
trans-1,3-Dichloropropene	20	U	20	12	ug/L			11/09/17 17:05	20
1,1,2-Trichloroethane	20	U	20	9.1	ug/L			11/09/17 17:05	20
Tetrachloroethene	**220**		20	9.3	ug/L			11/09/17 17:05	20
2-Hexanone	100	U	100	66	ug/L			11/09/17 17:05	20
Dibromochloromethane	20	U	20	17	ug/L			11/09/17 17:05	20
1,2-Dibromoethane (EDB)	20	U	20	10	ug/L			11/09/17 17:05	20
Chlorobenzene	20	U	20	10	ug/L			11/09/17 17:05	20
1,1,1,2-Tetrachloroethane	20	U	20	11	ug/L			11/09/17 17:05	20
Ethylbenzene	20	U	20	10	ug/L			11/09/17 17:05	20
Xylenes, Total	40	U	40	18	ug/L			11/09/17 17:05	20
Styrene	20	U	20	9.4	ug/L			11/09/17 17:05	20
Bromoform	20	U ^c	20	20	ug/L			11/09/17 17:05	20
1,1,2,2-Tetrachloroethane	20	U	20	12	ug/L			11/09/17 17:05	20
Acrylonitrile	400	U	400	160	ug/L			11/09/17 17:05	20
1,4-Dioxane	4000	U ^c	4000	270	ug/L			11/09/17 17:05	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*77*	*^c*	*65 - 121*		*11/09/17 17:05*	*20*
Toluene-d8 (Surr)	*107*		*73 - 120*		*11/09/17 17:05*	*20*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*11/09/17 17:05*	*20*
Dibromofluoromethane (Surr)	*87*		*73 - 120*		*11/09/17 17:05*	*20*

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

Client Sample ID: HD-MW-178S-0/1-0
Date Collected: 10/30/17 12:20
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U ^c	10	9.0	ug/L			11/09/17 17:34	10
Vinyl chloride	10	U ^c	10	8.8	ug/L			11/09/17 17:34	10
Bromomethane	10	U ^c	10	8.9	ug/L			11/09/17 17:34	10
Chloroethane	10	U	10	9.0	ug/L			11/09/17 17:34	10
1,1-Dichloroethene	10	U	10	5.5	ug/L			11/09/17 17:34	10
Acetone	50	U ^c	50	34	ug/L			11/09/17 17:34	10
Carbon disulfide	10	U	10	8.8	ug/L			11/09/17 17:34	10
Methylene Chloride	10	U	10	3.6	ug/L			11/09/17 17:34	10
trans-1,2-Dichloroethene	10	U	10	6.7	ug/L			11/09/17 17:34	10
Methyl tert-butyl ether	10	U	10	5.9	ug/L			11/09/17 17:34	10
1,1-Dichloroethane	10	U	10	6.3	ug/L			11/09/17 17:34	10
cis-1,2-Dichloroethene	10	U	10	7.1	ug/L			11/09/17 17:34	10
Bromochloromethane	10	U	10	6.3	ug/L			11/09/17 17:34	10
2-Butanone (MEK)	50	U	50	26	ug/L			11/09/17 17:34	10
Chloroform	10	U	10	6.0	ug/L			11/09/17 17:34	10
1,1,1-Trichloroethane	10	U	10	6.0	ug/L			11/09/17 17:34	10
Carbon tetrachloride	10	U	10	8.8	ug/L			11/09/17 17:34	10
Benzene	10	U	10	6.0	ug/L			11/09/17 17:34	10
1,2-Dichloroethane	10	U	10	5.7	ug/L			11/09/17 17:34	10
Trichloroethene	**53**		10	6.9	ug/L			11/09/17 17:34	10
1,2-Dichloropropane	10	U	10	6.6	ug/L			11/09/17 17:34	10
Bromodichloromethane	10	U	10	6.4	ug/L			11/09/17 17:34	10
cis-1,3-Dichloropropene	10	U	10	5.9	ug/L			11/09/17 17:34	10
4-Methyl-2-pentanone (MIBK)	50	U ^c	50	31	ug/L			11/09/17 17:34	10
Toluene	10	U ^c	10	4.6	ug/L			11/09/17 17:34	10
trans-1,3-Dichloropropene	10	U	10	5.8	ug/L			11/09/17 17:34	10
1,1,2-Trichloroethane	10	U	10	4.5	ug/L			11/09/17 17:34	10
Tetrachloroethene	**100**		10	4.7	ug/L			11/09/17 17:34	10
2-Hexanone	50	U	50	33	ug/L			11/09/17 17:34	10
Dibromochloromethane	10	U	10	8.4	ug/L			11/09/17 17:34	10
1,2-Dibromoethane (EDB)	10	U	10	5.0	ug/L			11/09/17 17:34	10
Chlorobenzene	10	U	10	5.0	ug/L			11/09/17 17:34	10
1,1,1,2-Tetrachloroethane	10	U	10	5.7	ug/L			11/09/17 17:34	10
Ethylbenzene	10	U	10	5.1	ug/L			11/09/17 17:34	10
Xylenes, Total	20	U	20	8.9	ug/L			11/09/17 17:34	10
Styrene	10	U	10	4.7	ug/L			11/09/17 17:34	10
Bromoform	10	U ^c	10	9.8	ug/L			11/09/17 17:34	10
1,1,2,2-Tetrachloroethane	10	U	10	6.0	ug/L			11/09/17 17:34	10
Acrylonitrile	200	U	200	78	ug/L			11/09/17 17:34	10
1,4-Dioxane	2000	U ^c	2000	140	ug/L			11/09/17 17:34	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*78*	*^c*	*65 - 121*		*11/09/17 17:34*	*10*
Toluene-d8 (Surr)	*113*		*73 - 120*		*11/09/17 17:34*	*10*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*11/09/17 17:34*	*10*
Dibromofluoromethane (Surr)	*89*		*73 - 120*		*11/09/17 17:34*	*10*

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

Client Sample ID: HD-MW-181S-0/1-0
Date Collected: 10/31/17 10:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U ^c	5.0	4.5	ug/L			11/10/17 14:17	5
Vinyl chloride	5.0	U	5.0	4.4	ug/L			11/10/17 14:17	5
Bromomethane	5.0	U ^c	5.0	4.4	ug/L			11/10/17 14:17	5
Chloroethane	5.0	U ^c	5.0	4.5	ug/L			11/10/17 14:17	5
1,1-Dichloroethene	5.0	U	5.0	2.8	ug/L			11/10/17 14:17	5
Acetone	25	U	25	17	ug/L			11/10/17 14:17	5
Carbon disulfide	5.0	U ^c	5.0	4.4	ug/L			11/10/17 14:17	5
Methylene Chloride	5.0	U	5.0	1.8	ug/L			11/10/17 14:17	5
trans-1,2-Dichloroethene	5.0	U	5.0	3.4	ug/L			11/10/17 14:17	5
Methyl tert-butyl ether	5.0	U	5.0	3.0	ug/L			11/10/17 14:17	5
1,1-Dichloroethane	5.0	U	5.0	3.1	ug/L			11/10/17 14:17	5
cis-1,2-Dichloroethene	5.0	U	5.0	3.5	ug/L			11/10/17 14:17	5
Bromochloromethane	5.0	U	5.0	3.1	ug/L			11/10/17 14:17	5
2-Butanone (MEK)	25	U	25	13	ug/L			11/10/17 14:17	5
Chloroform	5.0	U	5.0	3.0	ug/L			11/10/17 14:17	5
1,1,1-Trichloroethane	5.0	U	5.0	3.0	ug/L			11/10/17 14:17	5
Carbon tetrachloride	5.0	U	5.0	4.4	ug/L			11/10/17 14:17	5
Benzene	5.0	U	5.0	3.0	ug/L			11/10/17 14:17	5
1,2-Dichloroethane	5.0	U	5.0	2.9	ug/L			11/10/17 14:17	5
Trichloroethene	**76**		5.0	3.4	ug/L			11/10/17 14:17	5
1,2-Dichloropropane	5.0	U	5.0	3.3	ug/L			11/10/17 14:17	5
Bromodichloromethane	5.0	U	5.0	3.2	ug/L			11/10/17 14:17	5
cis-1,3-Dichloropropene	5.0	U	5.0	3.0	ug/L			11/10/17 14:17	5
4-Methyl-2-pentanone (MIBK)	25	U	25	15	ug/L			11/10/17 14:17	5
Toluene	5.0	U	5.0	2.3	ug/L			11/10/17 14:17	5
trans-1,3-Dichloropropene	5.0	U	5.0	2.9	ug/L			11/10/17 14:17	5
1,1,2-Trichloroethane	5.0	U	5.0	2.3	ug/L			11/10/17 14:17	5
Tetrachloroethene	**110**		5.0	2.3	ug/L			11/10/17 14:17	5
2-Hexanone	25	U	25	16	ug/L			11/10/17 14:17	5
Dibromochloromethane	5.0	U	5.0	4.2	ug/L			11/10/17 14:17	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	2.5	ug/L			11/10/17 14:17	5
Chlorobenzene	5.0	U	5.0	2.5	ug/L			11/10/17 14:17	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.9	ug/L			11/10/17 14:17	5
Ethylbenzene	5.0	U	5.0	2.5	ug/L			11/10/17 14:17	5
Xylenes, Total	10	U	10	4.5	ug/L			11/10/17 14:17	5
Styrene	5.0	U	5.0	2.4	ug/L			11/10/17 14:17	5
Bromoform	5.0	U	5.0	4.9	ug/L			11/10/17 14:17	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	3.0	ug/L			11/10/17 14:17	5
Acrylonitrile	100	U	100	39	ug/L			11/10/17 14:17	5
1,4-Dioxane	1000	U	1000	68	ug/L			11/10/17 14:17	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*65 - 121*		*11/10/17 14:17*	*5*
Toluene-d8 (Surr)	*78*		*73 - 120*		*11/10/17 14:17*	*5*
4-Bromofluorobenzene (Surr)	*82*		*80 - 120*		*11/10/17 14:17*	*5*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*11/10/17 14:17*	*5*

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

Client Sample ID: HD-MW-177-0/1-0
Date Collected: 10/31/17 09:50
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U ^c	25	22	ug/L			11/10/17 14:41	25
Vinyl chloride	25	U	25	22	ug/L			11/10/17 14:41	25
Bromomethane	25	U ^c	25	22	ug/L			11/10/17 14:41	25
Chloroethane	25	U ^c	25	22	ug/L			11/10/17 14:41	25
1,1-Dichloroethene	25	U	25	14	ug/L			11/10/17 14:41	25
Acetone	130	U	130	86	ug/L			11/10/17 14:41	25
Carbon disulfide	25	U ^c	25	22	ug/L			11/10/17 14:41	25
Methylene Chloride	25	U	25	9.0	ug/L			11/10/17 14:41	25
trans-1,2-Dichloroethene	25	U	25	17	ug/L			11/10/17 14:41	25
Methyl tert-butyl ether	25	U	25	15	ug/L			11/10/17 14:41	25
1,1-Dichloroethane	25	U	25	16	ug/L			11/10/17 14:41	25
cis-1,2-Dichloroethene	25	U	25	18	ug/L			11/10/17 14:41	25
Bromochloromethane	25	U	25	16	ug/L			11/10/17 14:41	25
2-Butanone (MEK)	130	U	130	65	ug/L			11/10/17 14:41	25
Chloroform	25	U	25	15	ug/L			11/10/17 14:41	25
1,1,1-Trichloroethane	25	U	25	15	ug/L			11/10/17 14:41	25
Carbon tetrachloride	25	U	25	22	ug/L			11/10/17 14:41	25
Benzene	25	U	25	15	ug/L			11/10/17 14:41	25
1,2-Dichloroethane	25	U	25	14	ug/L			11/10/17 14:41	25
Trichloroethene	**350**		25	17	ug/L			11/10/17 14:41	25
1,2-Dichloropropane	25	U	25	16	ug/L			11/10/17 14:41	25
Bromodichloromethane	25	U	25	16	ug/L			11/10/17 14:41	25
cis-1,3-Dichloropropene	25	U	25	15	ug/L			11/10/17 14:41	25
4-Methyl-2-pentanone (MIBK)	130	U	130	77	ug/L			11/10/17 14:41	25
Toluene	25	U	25	11	ug/L			11/10/17 14:41	25
trans-1,3-Dichloropropene	25	U	25	15	ug/L			11/10/17 14:41	25
1,1,2-Trichloroethane	25	U	25	11	ug/L			11/10/17 14:41	25
Tetrachloroethene	**220**		25	12	ug/L			11/10/17 14:41	25
2-Hexanone	130	U	130	82	ug/L			11/10/17 14:41	25
Dibromochloromethane	25	U	25	21	ug/L			11/10/17 14:41	25
1,2-Dibromoethane (EDB)	25	U	25	13	ug/L			11/10/17 14:41	25
Chlorobenzene	25	U	25	13	ug/L			11/10/17 14:41	25
1,1,1,2-Tetrachloroethane	25	U	25	14	ug/L			11/10/17 14:41	25
Ethylbenzene	25	U	25	13	ug/L			11/10/17 14:41	25
Xylenes, Total	50	U	50	22	ug/L			11/10/17 14:41	25
Styrene	25	U	25	12	ug/L			11/10/17 14:41	25
Bromoform	25	U	25	24	ug/L			11/10/17 14:41	25
1,1,2,2-Tetrachloroethane	25	U	25	15	ug/L			11/10/17 14:41	25
Acrylonitrile	500	U	500	200	ug/L			11/10/17 14:41	25
1,4-Dioxane	5000	U	5000	340	ug/L			11/10/17 14:41	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*65 - 121*		*11/10/17 14:41*	*25*
Toluene-d8 (Surr)	*79*		*73 - 120*		*11/10/17 14:41*	*25*
4-Bromofluorobenzene (Surr)	*82*		*80 - 120*		*11/10/17 14:41*	*25*
Dibromofluoromethane (Surr)	*102*		*73 - 120*		*11/10/17 14:41*	*25*

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

Client Sample ID: HD-CW-1A-0/1-0
Date Collected: 10/31/17 11:15
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.5	U ^c	2.5	2.2	ug/L			11/10/17 17:04	2.5
Vinyl chloride	2.5	U	2.5	2.2	ug/L			11/10/17 17:04	2.5
Bromomethane	2.5	U ^c	2.5	2.2	ug/L			11/10/17 17:04	2.5
Chloroethane	2.5	U ^c	2.5	2.2	ug/L			11/10/17 17:04	2.5
1,1-Dichloroethene	2.5	U	2.5	1.4	ug/L			11/10/17 17:04	2.5
Acetone	13	U	13	8.6	ug/L			11/10/17 17:04	2.5
Carbon disulfide	2.5	U ^c	2.5	2.2	ug/L			11/10/17 17:04	2.5
Methylene Chloride	2.5	U	2.5	0.90	ug/L			11/10/17 17:04	2.5
trans-1,2-Dichloroethene	2.5	U	2.5	1.7	ug/L			11/10/17 17:04	2.5
Methyl tert-butyl ether	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
1,1-Dichloroethane	2.5	U	2.5	1.6	ug/L			11/10/17 17:04	2.5
cis-1,2-Dichloroethene	2.5	U	2.5	1.8	ug/L			11/10/17 17:04	2.5
Bromochloromethane	2.5	U	2.5	1.6	ug/L			11/10/17 17:04	2.5
2-Butanone (MEK)	13	U	13	6.5	ug/L			11/10/17 17:04	2.5
Chloroform	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
1,1,1-Trichloroethane	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
Carbon tetrachloride	2.5	U	2.5	2.2	ug/L			11/10/17 17:04	2.5
Benzene	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
1,2-Dichloroethane	2.5	U	2.5	1.4	ug/L			11/10/17 17:04	2.5
Trichloroethene	**53**		2.5	1.7	ug/L			11/10/17 17:04	2.5
1,2-Dichloropropane	2.5	U	2.5	1.6	ug/L			11/10/17 17:04	2.5
Bromodichloromethane	2.5	U	2.5	1.6	ug/L			11/10/17 17:04	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
4-Methyl-2-pentanone (MIBK)	13	U	13	7.7	ug/L			11/10/17 17:04	2.5
Toluene	2.5	U	2.5	1.1	ug/L			11/10/17 17:04	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
1,1,2-Trichloroethane	2.5	U	2.5	1.1	ug/L			11/10/17 17:04	2.5
Tetrachloroethene	**1.6**	**J**	2.5	1.2	ug/L			11/10/17 17:04	2.5
2-Hexanone	13	U	13	8.2	ug/L			11/10/17 17:04	2.5
Dibromochloromethane	2.5	U	2.5	2.1	ug/L			11/10/17 17:04	2.5
1,2-Dibromoethane (EDB)	2.5	U	2.5	1.3	ug/L			11/10/17 17:04	2.5
Chlorobenzene	2.5	U	2.5	1.3	ug/L			11/10/17 17:04	2.5
1,1,1,2-Tetrachloroethane	2.5	U	2.5	1.4	ug/L			11/10/17 17:04	2.5
Ethylbenzene	2.5	U	2.5	1.3	ug/L			11/10/17 17:04	2.5
Xylenes, Total	5.0	U	5.0	2.2	ug/L			11/10/17 17:04	2.5
Styrene	2.5	U	2.5	1.2	ug/L			11/10/17 17:04	2.5
Bromoform	2.5	U	2.5	2.4	ug/L			11/10/17 17:04	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	1.5	ug/L			11/10/17 17:04	2.5
Acrylonitrile	50	U	50	20	ug/L			11/10/17 17:04	2.5
1,4-Dioxane	500	U	500	34	ug/L			11/10/17 17:04	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*65 - 121*		*11/10/17 17:04*	*2.5*
Toluene-d8 (Surr)	*78*		*73 - 120*		*11/10/17 17:04*	*2.5*
4-Bromofluorobenzene (Surr)	*86*		*80 - 120*		*11/10/17 17:04*	*2.5*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*11/10/17 17:04*	*2.5*

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

Client Sample ID: HD-MPE-1-0/1-0
Date Collected: 10/31/17 10:00
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U ^c	50	45	ug/L			11/10/17 16:16	50
Vinyl chloride	50	U	50	44	ug/L			11/10/17 16:16	50
Bromomethane	50	U ^c	50	44	ug/L			11/10/17 16:16	50
Chloroethane	50	U ^c	50	45	ug/L			11/10/17 16:16	50
1,1-Dichloroethene	50	U	50	28	ug/L			11/10/17 16:16	50
Acetone	250	U	250	170	ug/L			11/10/17 16:16	50
Carbon disulfide	50	U ^c	50	44	ug/L			11/10/17 16:16	50
Methylene Chloride	50	U	50	18	ug/L			11/10/17 16:16	50
trans-1,2-Dichloroethene	50	U	50	34	ug/L			11/10/17 16:16	50
Methyl tert-butyl ether	50	U	50	30	ug/L			11/10/17 16:16	50
1,1-Dichloroethane	50	U	50	31	ug/L			11/10/17 16:16	50
cis-1,2-Dichloroethene	50	U	50	35	ug/L			11/10/17 16:16	50
Bromochloromethane	50	U	50	31	ug/L			11/10/17 16:16	50
2-Butanone (MEK)	**1600**		250	130	ug/L			11/10/17 16:16	50
Chloroform	50	U	50	30	ug/L			11/10/17 16:16	50
1,1,1-Trichloroethane	50	U	50	30	ug/L			11/10/17 16:16	50
Carbon tetrachloride	50	U	50	44	ug/L			11/10/17 16:16	50
Benzene	50	U	50	30	ug/L			11/10/17 16:16	50
1,2-Dichloroethane	50	U	50	29	ug/L			11/10/17 16:16	50
Trichloroethene	**110**		50	34	ug/L			11/10/17 16:16	50
1,2-Dichloropropane	50	U	50	33	ug/L			11/10/17 16:16	50
Bromodichloromethane	50	U	50	32	ug/L			11/10/17 16:16	50
cis-1,3-Dichloropropene	50	U	50	30	ug/L			11/10/17 16:16	50
4-Methyl-2-pentanone (MIBK)	250	U	250	150	ug/L			11/10/17 16:16	50
Toluene	50	U	50	23	ug/L			11/10/17 16:16	50
trans-1,3-Dichloropropene	50	U	50	29	ug/L			11/10/17 16:16	50
1,1,2-Trichloroethane	50	U	50	23	ug/L			11/10/17 16:16	50
Tetrachloroethene	**100**		50	23	ug/L			11/10/17 16:16	50
2-Hexanone	250	U	250	160	ug/L			11/10/17 16:16	50
Dibromochloromethane	50	U	50	42	ug/L			11/10/17 16:16	50
1,2-Dibromoethane (EDB)	50	U	50	25	ug/L			11/10/17 16:16	50
Chlorobenzene	50	U	50	25	ug/L			11/10/17 16:16	50
1,1,1,2-Tetrachloroethane	50	U	50	29	ug/L			11/10/17 16:16	50
Ethylbenzene	50	U	50	25	ug/L			11/10/17 16:16	50
Xylenes, Total	100	U	100	45	ug/L			11/10/17 16:16	50
Styrene	50	U	50	24	ug/L			11/10/17 16:16	50
Bromoform	50	U	50	49	ug/L			11/10/17 16:16	50
1,1,2,2-Tetrachloroethane	50	U	50	30	ug/L			11/10/17 16:16	50
Acrylonitrile	1000	U	1000	390	ug/L			11/10/17 16:16	50
1,4-Dioxane	10000	U	10000	680	ug/L			11/10/17 16:16	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*65 - 121*		*11/10/17 16:16*	*50*
Toluene-d8 (Surr)	*81*		*73 - 120*		*11/10/17 16:16*	*50*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*11/10/17 16:16*	*50*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*11/10/17 16:16*	*50*

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

Client Sample ID: HD-MW-184D-0/1-0
Date Collected: 10/31/17 10:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.5	U ^c	2.5	2.2	ug/L			11/10/17 16:40	2.5
Vinyl chloride	2.5	U	2.5	2.2	ug/L			11/10/17 16:40	2.5
Bromomethane	2.5	U ^c	2.5	2.2	ug/L			11/10/17 16:40	2.5
Chloroethane	2.5	U ^c	2.5	2.2	ug/L			11/10/17 16:40	2.5
1,1-Dichloroethene	2.5	U	2.5	1.4	ug/L			11/10/17 16:40	2.5
Acetone	13	U	13	8.6	ug/L			11/10/17 16:40	2.5
Carbon disulfide	2.5	U ^c	2.5	2.2	ug/L			11/10/17 16:40	2.5
Methylene Chloride	2.5	U	2.5	0.90	ug/L			11/10/17 16:40	2.5
trans-1,2-Dichloroethene	2.5	U	2.5	1.7	ug/L			11/10/17 16:40	2.5
Methyl tert-butyl ether	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
1,1-Dichloroethane	2.5	U	2.5	1.6	ug/L			11/10/17 16:40	2.5
cis-1,2-Dichloroethene	2.5	U	2.5	1.8	ug/L			11/10/17 16:40	2.5
Bromochloromethane	2.5	U	2.5	1.6	ug/L			11/10/17 16:40	2.5
2-Butanone (MEK)	13	U	13	6.5	ug/L			11/10/17 16:40	2.5
Chloroform	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
1,1,1-Trichloroethane	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
Carbon tetrachloride	2.5	U	2.5	2.2	ug/L			11/10/17 16:40	2.5
Benzene	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
1,2-Dichloroethane	2.5	U	2.5	1.4	ug/L			11/10/17 16:40	2.5
Trichloroethene	**1.8**	**J**	2.5	1.7	ug/L			11/10/17 16:40	2.5
1,2-Dichloropropane	2.5	U	2.5	1.6	ug/L			11/10/17 16:40	2.5
Bromodichloromethane	2.5	U	2.5	1.6	ug/L			11/10/17 16:40	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
4-Methyl-2-pentanone (MIBK)	13	U	13	7.7	ug/L			11/10/17 16:40	2.5
Toluene	2.5	U	2.5	1.1	ug/L			11/10/17 16:40	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
1,1,2-Trichloroethane	2.5	U	2.5	1.1	ug/L			11/10/17 16:40	2.5
Tetrachloroethene	**57**		2.5	1.2	ug/L			11/10/17 16:40	2.5
2-Hexanone	13	U	13	8.2	ug/L			11/10/17 16:40	2.5
Dibromochloromethane	2.5	U	2.5	2.1	ug/L			11/10/17 16:40	2.5
1,2-Dibromoethane (EDB)	2.5	U	2.5	1.3	ug/L			11/10/17 16:40	2.5
Chlorobenzene	2.5	U	2.5	1.3	ug/L			11/10/17 16:40	2.5
1,1,1,2-Tetrachloroethane	2.5	U	2.5	1.4	ug/L			11/10/17 16:40	2.5
Ethylbenzene	2.5	U	2.5	1.3	ug/L			11/10/17 16:40	2.5
Xylenes, Total	5.0	U	5.0	2.2	ug/L			11/10/17 16:40	2.5
Styrene	2.5	U	2.5	1.2	ug/L			11/10/17 16:40	2.5
Bromoform	2.5	U	2.5	2.4	ug/L			11/10/17 16:40	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	1.5	ug/L			11/10/17 16:40	2.5
Acrylonitrile	50	U	50	20	ug/L			11/10/17 16:40	2.5
1,4-Dioxane	500	U	500	34	ug/L			11/10/17 16:40	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*65 - 121*		*11/10/17 16:40*	*2.5*
Toluene-d8 (Surr)	*79*		*73 - 120*		*11/10/17 16:40*	*2.5*
4-Bromofluorobenzene (Surr)	*86*		*80 - 120*		*11/10/17 16:40*	*2.5*
Dibromofluoromethane (Surr)	*102*		*73 - 120*		*11/10/17 16:40*	*2.5*

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71952-1

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: 180-71952-1

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)
180-71952-1	HD-MW-180-0/1-0	120	85	83	106
180-71952-1 - DL	HD-MW-180-0/1-0	103	82	94	100
180-71952-2	HD-MW-178D-0/1-0	118	87	83	109
180-71952-2 - DL	HD-MW-178D-0/1-0	77 ^c	108	96	88
180-71952-3	HD-MW-179-0/1-0	120	85	79 X	115
180-71952-3 - DL	HD-MW-179-0/1-0	96	76	98	92
180-71952-4	HD-MPE-2-0/1-0	116	87	85	107
180-71952-4 - DL	HD-MPE-2-0/1-0	77 ^c	107	95	87
180-71952-5	HD-MW-178S-0/1-0	118	87	85	111
180-71952-5 - DL	HD-MW-178S-0/1-0	78 ^c	113	96	89
180-71952-6	HD-MW-181S-0/1-0	116	92	83	110
180-71952-6 - DL	HD-MW-181S-0/1-0	103	78	82	98
180-71952-7	HD-MW-177-0/1-0	113	86	82	108
180-71952-7 - DL	HD-MW-177-0/1-0	105	79	82	102
180-71952-8	HD-CW-1A-0/1-0	114	95	84	115
180-71952-8 - DL	HD-CW-1A-0/1-0	101	78	86	99
180-71952-9	HD-MPE-1-0/1-0	103	92	96	99
180-71952-9 - DL	HD-MPE-1-0/1-0	101	81	97	99
180-71952-10	HD-MW-183-0/1-0	109	84	80	99
180-71952-11	HD-QC7-0/1-2	118	89	79 X	109
180-71952-12	HD-MPE-3-0/1-0	116	90	82	108
180-71952-12 MS	HD-MPE-3-0/1-0	93	113	99	91
180-71952-12 MSD	HD-MPE-3-0/1-0	94	113	104	92
180-71952-13	HD-QC4-0/1-1	111	81	92	107
180-71952-14	HD-QC4-0/1-3	118	92	84	110
180-71952-15	HD-QC4-0/1-4	83 ^c	107	97	87
180-71952-16	HD-MW-184D-0/1-0	121	87	79 X	116
180-71952-16 - DL	HD-MW-184D-0/1-0	101	79	86	102
LCS 180-228418/3	Lab Control Sample	113	113	104	104
LCS 180-228475/4	Lab Control Sample	108	109	102	100
LCS 180-228533/4	Lab Control Sample	83	95	94	94
LCS 180-228566/5	Lab Control Sample	97	99	101	91
LCS 180-228645/4	Lab Control Sample	99	106	100	94
MB 180-228418/5	Method Blank	109	95	93	99
MB 180-228475/6	Method Blank	119	90	83	110
MB 180-228533/8	Method Blank	87	113	99	91
MB 180-228566/8	Method Blank	104	85	90	98
MB 180-228645/6	Method Blank	112	86	85	105

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 180-228418/5
Matrix: Water
Analysis Batch: 228418

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			11/08/17 23:01	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/08/17 23:01	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/08/17 23:01	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/08/17 23:01	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/08/17 23:01	1
Acetone	5.0	U	5.0	3.4	ug/L			11/08/17 23:01	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/08/17 23:01	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/08/17 23:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/08/17 23:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/08/17 23:01	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/08/17 23:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/08/17 23:01	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/08/17 23:01	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/08/17 23:01	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/08/17 23:01	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 23:01	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/08/17 23:01	1
Benzene	1.0	U	1.0	0.60	ug/L			11/08/17 23:01	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 23:01	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/08/17 23:01	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/08/17 23:01	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/08/17 23:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/08/17 23:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/08/17 23:01	1
Toluene	1.0	U	1.0	0.46	ug/L			11/08/17 23:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/08/17 23:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/08/17 23:01	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/08/17 23:01	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/08/17 23:01	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/08/17 23:01	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/08/17 23:01	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/08/17 23:01	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 23:01	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/08/17 23:01	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/08/17 23:01	1
Styrene	1.0	U	1.0	0.47	ug/L			11/08/17 23:01	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/08/17 23:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 23:01	1
Acrylonitrile	20	U	20	7.8	ug/L			11/08/17 23:01	1
1,4-Dioxane	200	U	200	14	ug/L			11/08/17 23:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*65 - 121*		*11/08/17 23:01*	*1*
Toluene-d8 (Surr)	*95*		*73 - 120*		*11/08/17 23:01*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/08/17 23:01*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*11/08/17 23:01*	*1*

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

Lab Sample ID: LCS 180-228418/3
Matrix: Water
Analysis Batch: 228418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	13.2		ug/L		132	49 - 135
Vinyl chloride	10.0	11.5		ug/L		115	52 - 136
Bromomethane	10.0	13.9		ug/L		139	37 - 150
Chloroethane	10.0	13.7		ug/L		137	44 - 139
1,1-Dichloroethene	10.0	10.3		ug/L		103	64 - 131
Acetone	20.0	28.0		ug/L		140	24 - 150
Carbon disulfide	10.0	11.4		ug/L		114	20 - 150
Methylene Chloride	10.0	9.99		ug/L		100	66 - 123
trans-1,2-Dichloroethene	10.0	9.94		ug/L		99	70 - 123
Methyl tert-butyl ether	10.0	10.6		ug/L		106	66 - 130
1,1-Dichloroethane	10.0	10.5		ug/L		105	66 - 122
cis-1,2-Dichloroethene	10.0	9.79		ug/L		98	73 - 120
Bromochloromethane	10.0	9.85		ug/L		98	73 - 122
2-Butanone (MEK)	20.0	21.9		ug/L		109	37 - 150
Chloroform	10.0	9.87		ug/L		99	72 - 123
1,1,1-Trichloroethane	10.0	10.3		ug/L		103	66 - 129
Carbon tetrachloride	10.0	10.4		ug/L		104	58 - 145
Benzene	10.0	9.53		ug/L		95	75 - 123
1,2-Dichloroethane	10.0	11.3		ug/L		113	63 - 130
Trichloroethene	10.0	8.64		ug/L		86	74 - 121
1,2-Dichloropropane	10.0	10.3		ug/L		103	67 - 119
Bromodichloromethane	10.0	9.73		ug/L		97	62 - 127
cis-1,3-Dichloropropene	10.0	9.31		ug/L		93	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	16.0		ug/L		80	41 - 135
Toluene	10.0	10.2		ug/L		102	76 - 129
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	61 - 136
1,1,2-Trichloroethane	10.0	10.6		ug/L		106	74 - 126
Tetrachloroethene	10.0	8.80		ug/L		88	76 - 128
2-Hexanone	20.0	17.8		ug/L		89	37 - 150
Dibromochloromethane	10.0	10.2		ug/L		102	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.77		ug/L		98	76 - 128
Chlorobenzene	10.0	9.70		ug/L		97	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	70 - 130
Ethylbenzene	10.0	9.39		ug/L		94	77 - 124
Xylenes, Total	20.0	18.5		ug/L		92	76 - 124
Styrene	10.0	9.42		ug/L		94	80 - 125
Bromoform	10.0	9.10		ug/L		91	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.98		ug/L		100	72 - 128
Acrylonitrile	100	126		ug/L		126	60 - 130
1,4-Dioxane	200	196	J	ug/L		98	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*65 - 121*
Toluene-d8 (Surr)	*113*		*73 - 120*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*73 - 120*

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

Lab Sample ID: MB 180-228475/6
Matrix: Water
Analysis Batch: 228475

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			11/09/17 13:06	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 13:06	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 13:06	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 13:06	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 13:06	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 13:06	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 13:06	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 13:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 13:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 13:06	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 13:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 13:06	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 13:06	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 13:06	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 13:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 13:06	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 13:06	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 13:06	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 13:06	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/09/17 13:06	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 13:06	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 13:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 13:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 13:06	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 13:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 13:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 13:06	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/09/17 13:06	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 13:06	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 13:06	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 13:06	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 13:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 13:06	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 13:06	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 13:06	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 13:06	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 13:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 13:06	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 13:06	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*65 - 121*		*11/09/17 13:06*	*1*
Toluene-d8 (Surr)	*90*		*73 - 120*		*11/09/17 13:06*	*1*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*11/09/17 13:06*	*1*
Dibromofluoromethane (Surr)	*110*		*73 - 120*		*11/09/17 13:06*	*1*

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

Lab Sample ID: LCS 180-228475/4
Matrix: Water
Analysis Batch: 228475

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	16.7	*	ug/L		167	49 - 135
Vinyl chloride	10.0	10.3		ug/L		103	52 - 136
Bromomethane	10.0	12.1		ug/L		121	37 - 150
Chloroethane	10.0	12.2		ug/L		122	44 - 139
1,1-Dichloroethene	10.0	10.0		ug/L		100	64 - 131
Acetone	20.0	19.2		ug/L		96	24 - 150
Carbon disulfide	10.0	10.5		ug/L		105	20 - 150
Methylene Chloride	10.0	10.5		ug/L		105	66 - 123
trans-1,2-Dichloroethene	10.0	9.91		ug/L		99	70 - 123
Methyl tert-butyl ether	10.0	10.2		ug/L		102	66 - 130
1,1-Dichloroethane	10.0	10.1		ug/L		101	66 - 122
cis-1,2-Dichloroethene	10.0	9.41		ug/L		94	73 - 120
Bromochloromethane	10.0	9.77		ug/L		98	73 - 122
2-Butanone (MEK)	20.0	18.9		ug/L		94	37 - 150
Chloroform	10.0	9.49		ug/L		95	72 - 123
1,1,1-Trichloroethane	10.0	9.50		ug/L		95	66 - 129
Carbon tetrachloride	10.0	9.70		ug/L		97	58 - 145
Benzene	10.0	9.31		ug/L		93	75 - 123
1,2-Dichloroethane	10.0	11.1		ug/L		111	63 - 130
Trichloroethene	10.0	8.42		ug/L		84	74 - 121
1,2-Dichloropropane	10.0	10.1		ug/L		101	67 - 119
Bromodichloromethane	10.0	9.44		ug/L		94	62 - 127
cis-1,3-Dichloropropene	10.0	9.73		ug/L		97	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	22.3		ug/L		112	41 - 135
Toluene	10.0	10.6		ug/L		106	76 - 129
trans-1,3-Dichloropropene	10.0	10.9		ug/L		109	61 - 136
1,1,2-Trichloroethane	10.0	11.7		ug/L		117	74 - 126
Tetrachloroethene	10.0	9.41		ug/L		94	76 - 128
2-Hexanone	20.0	19.0		ug/L		95	37 - 150
Dibromochloromethane	10.0	11.3		ug/L		113	63 - 131
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	76 - 128
Chlorobenzene	10.0	9.68		ug/L		97	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	70 - 130
Ethylbenzene	10.0	9.07		ug/L		91	77 - 124
Xylenes, Total	20.0	18.0		ug/L		90	76 - 124
Styrene	10.0	9.65		ug/L		97	80 - 125
Bromoform	10.0	9.45		ug/L		94	54 - 136
1,1,2,2-Tetrachloroethane	10.0	10.6		ug/L		106	72 - 128
Acrylonitrile	100	127		ug/L		127	60 - 130
1,4-Dioxane	200	160	J	ug/L		80	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*65 - 121*
Toluene-d8 (Surr)	*109*		*73 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*73 - 120*

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

Lab Sample ID: 180-71952-12 MS
Matrix: Water
Analysis Batch: 228475

Client Sample ID: HD-MPE-3-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U * ^c F1	10.0	13.8	F1	ug/L		138	49 - 135
Vinyl chloride	1.0	U	10.0	10.9		ug/L		109	52 - 136
Bromomethane	1.0	U	10.0	11.0		ug/L		110	37 - 150
Chloroethane	1.0	U ^c	10.0	12.6		ug/L		126	44 - 139
1,1-Dichloroethene	1.0	U	10.0	10.2		ug/L		102	64 - 131
Acetone	5.0	U	20.0	16.3		ug/L		81	24 - 150
Carbon disulfide	1.0	U	10.0	10.7		ug/L		107	20 - 150
Methylene Chloride	1.0	U	10.0	8.83		ug/L		88	66 - 123
trans-1,2-Dichloroethene	1.0	U	10.0	9.85		ug/L		98	70 - 123
Methyl tert-butyl ether	1.0	U	10.0	7.85		ug/L		79	66 - 130
1,1-Dichloroethane	1.0	U	10.0	9.32		ug/L		93	66 - 122
cis-1,2-Dichloroethene	1.0	U	10.0	8.48		ug/L		85	73 - 120
Bromochloromethane	1.0	U	10.0	8.43		ug/L		84	73 - 122
2-Butanone (MEK)	5.0	U	20.0	20.1		ug/L		100	37 - 150
Chloroform	1.0	U	10.0	8.68		ug/L		87	72 - 123
1,1,1-Trichloroethane	1.0	U	10.0	9.29		ug/L		93	66 - 129
Carbon tetrachloride	1.0	U	10.0	9.72		ug/L		97	58 - 145
Benzene	1.0	U	10.0	8.68		ug/L		87	75 - 123
1,2-Dichloroethane	1.0	U	10.0	8.88		ug/L		89	63 - 130
Trichloroethene	1.3		10.0	9.11		ug/L		78	74 - 121
1,2-Dichloropropane	1.0	U	10.0	9.17		ug/L		92	67 - 119
Bromodichloromethane	1.0	U	10.0	8.25		ug/L		83	62 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	7.36		ug/L		74	61 - 127
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.1		ug/L		95	41 - 135
Toluene	1.0	U	10.0	10.5		ug/L		105	76 - 129
trans-1,3-Dichloropropene	1.0	U	10.0	9.39		ug/L		94	61 - 136
1,1,2-Trichloroethane	1.0	U	10.0	10.2		ug/L		102	74 - 126
Tetrachloroethene	9.7		10.0	20.5		ug/L		109	76 - 128
2-Hexanone	5.0	U	20.0	17.4		ug/L		87	37 - 150
Dibromochloromethane	1.0	U	10.0	9.92		ug/L		99	63 - 131
1,2-Dibromoethane (EDB)	1.0	U	10.0	8.82		ug/L		88	76 - 128
Chlorobenzene	1.0	U	10.0	9.57		ug/L		96	79 - 124
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.87		ug/L		99	70 - 130
Ethylbenzene	1.0	U	10.0	9.38		ug/L		94	77 - 124
Xylenes, Total	2.0	U	20.0	18.6		ug/L		93	76 - 124
Styrene	1.0	U	10.0	9.22		ug/L		92	80 - 125
Bromoform	1.0	U	10.0	8.31		ug/L		83	54 - 136
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.04		ug/L		90	72 - 128
Acrylonitrile	20	U	100	91.3		ug/L		91	60 - 130
1,4-Dioxane	200	U	200	124	J	ug/L		62	26 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 121*
Toluene-d8 (Surr)	*113*		*73 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*73 - 120*

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

Lab Sample ID: 180-71952-12 MSD
Matrix: Water
Analysis Batch: 228475

Client Sample ID: HD-MPE-3-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	1.0	U * ^c F1	10.0	11.8		ug/L		118	49 - 135	15	20
Vinyl chloride	1.0	U	10.0	9.60		ug/L		96	52 - 136	13	19
Bromomethane	1.0	U	10.0	10.1		ug/L		101	37 - 150	9	23
Chloroethane	1.0	U ^c	10.0	11.1		ug/L		111	44 - 139	12	19
1,1-Dichloroethene	1.0	U	10.0	9.35		ug/L		94	64 - 131	9	20
Acetone	5.0	U	20.0	16.9		ug/L		84	24 - 150	4	35
Carbon disulfide	1.0	U	10.0	9.45		ug/L		94	20 - 150	12	21
Methylene Chloride	1.0	U	10.0	8.53		ug/L		85	66 - 123	3	22
trans-1,2-Dichloroethene	1.0	U	10.0	8.98		ug/L		90	70 - 123	9	19
Methyl tert-butyl ether	1.0	U	10.0	8.15		ug/L		82	66 - 130	4	23
1,1-Dichloroethane	1.0	U	10.0	9.00		ug/L		90	66 - 122	4	20
cis-1,2-Dichloroethene	1.0	U	10.0	8.21		ug/L		82	73 - 120	3	23
Bromochloromethane	1.0	U	10.0	8.51		ug/L		85	73 - 122	1	24
2-Butanone (MEK)	5.0	U	20.0	20.8		ug/L		104	37 - 150	4	35
Chloroform	1.0	U	10.0	8.30		ug/L		83	72 - 123	4	20
1,1,1-Trichloroethane	1.0	U	10.0	8.60		ug/L		86	66 - 129	8	21
Carbon tetrachloride	1.0	U	10.0	8.85		ug/L		89	58 - 145	9	22
Benzene	1.0	U	10.0	8.20		ug/L		82	75 - 123	6	20
1,2-Dichloroethane	1.0	U	10.0	8.84		ug/L		88	63 - 130	1	21
Trichloroethene	1.3		10.0	8.79		ug/L		75	74 - 121	4	20
1,2-Dichloropropane	1.0	U	10.0	8.60		ug/L		86	67 - 119	6	21
Bromodichloromethane	1.0	U	10.0	7.85		ug/L		78	62 - 127	5	19
cis-1,3-Dichloropropene	1.0	U	10.0	7.28		ug/L		73	61 - 127	1	22
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.0		ug/L		95	41 - 135	1	35
Toluene	1.0	U	10.0	9.67		ug/L		97	76 - 129	9	18
trans-1,3-Dichloropropene	1.0	U	10.0	9.25		ug/L		92	61 - 136	1	17
1,1,2-Trichloroethane	1.0	U	10.0	10.0		ug/L		100	74 - 126	1	20
Tetrachloroethene	9.7		10.0	18.8		ug/L		91	76 - 128	9	20
2-Hexanone	5.0	U	20.0	17.8		ug/L		89	37 - 150	2	35
Dibromochloromethane	1.0	U	10.0	9.32		ug/L		93	63 - 131	6	20
1,2-Dibromoethane (EDB)	1.0	U	10.0	8.90		ug/L		89	76 - 128	1	21
Chlorobenzene	1.0	U	10.0	9.03		ug/L		90	79 - 124	6	16
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.26		ug/L		93	70 - 130	6	17
Ethylbenzene	1.0	U	10.0	8.49		ug/L		85	77 - 124	10	16
Xylenes, Total	2.0	U	20.0	17.6		ug/L		88	76 - 124	5	17
Styrene	1.0	U	10.0	8.87		ug/L		89	80 - 125	4	18
Bromoform	1.0	U	10.0	7.83		ug/L		78	54 - 136	6	23
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.39		ug/L		84	72 - 128	7	24
Acrylonitrile	20	U	100	94.9		ug/L		95	60 - 130	4	32
1,4-Dioxane	200	U	200	135	J	ug/L		67	26 - 150	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*65 - 121*
Toluene-d8 (Surr)	*113*		*73 - 120*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*73 - 120*

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

Lab Sample ID: MB 180-228533/8
Matrix: Water
Analysis Batch: 228533

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			11/09/17 11:36	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/09/17 11:36	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/09/17 11:36	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/09/17 11:36	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/09/17 11:36	1
Acetone	5.0	U	5.0	3.4	ug/L			11/09/17 11:36	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/09/17 11:36	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/09/17 11:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/09/17 11:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/09/17 11:36	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/09/17 11:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/09/17 11:36	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/09/17 11:36	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/09/17 11:36	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/09/17 11:36	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 11:36	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/09/17 11:36	1
Benzene	1.0	U	1.0	0.60	ug/L			11/09/17 11:36	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 11:36	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/09/17 11:36	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/09/17 11:36	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/09/17 11:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/09/17 11:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/09/17 11:36	1
Toluene	1.0	U	1.0	0.46	ug/L			11/09/17 11:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/09/17 11:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/09/17 11:36	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/09/17 11:36	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/09/17 11:36	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/09/17 11:36	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/09/17 11:36	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/09/17 11:36	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/09/17 11:36	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/09/17 11:36	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/09/17 11:36	1
Styrene	1.0	U	1.0	0.47	ug/L			11/09/17 11:36	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/09/17 11:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/09/17 11:36	1
Acrylonitrile	20	U	20	7.8	ug/L			11/09/17 11:36	1
1,4-Dioxane	200	U	200	14	ug/L			11/09/17 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*65 - 121*		*11/09/17 11:36*	*1*
Toluene-d8 (Surr)	*113*		*73 - 120*		*11/09/17 11:36*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/09/17 11:36*	*1*
Dibromofluoromethane (Surr)	*91*		*73 - 120*		*11/09/17 11:36*	*1*

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

Lab Sample ID: LCS 180-228533/4
Matrix: Water
Analysis Batch: 228533

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	7.53		ug/L		75	49 - 135
Vinyl chloride	10.0	6.63		ug/L		66	52 - 136
Bromomethane	10.0	7.80		ug/L		78	37 - 150
Chloroethane	10.0	9.19		ug/L		92	44 - 139
1,1-Dichloroethene	10.0	6.67		ug/L		67	64 - 131
Acetone	20.0	16.7		ug/L		84	24 - 150
Carbon disulfide	10.0	10.2		ug/L		102	20 - 150
Methylene Chloride	10.0	11.1		ug/L		111	66 - 123
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	70 - 123
Methyl tert-butyl ether	10.0	9.70		ug/L		97	66 - 130
1,1-Dichloroethane	10.0	8.98		ug/L		90	66 - 122
cis-1,2-Dichloroethene	10.0	9.89		ug/L		99	73 - 120
Bromochloromethane	10.0	9.52		ug/L		95	73 - 122
2-Butanone (MEK)	20.0	23.5		ug/L		118	37 - 150
Chloroform	10.0	8.98		ug/L		90	72 - 123
1,1,1-Trichloroethane	10.0	9.28		ug/L		93	66 - 129
Carbon tetrachloride	10.0	10.4		ug/L		104	58 - 145
Benzene	10.0	11.3		ug/L		113	75 - 123
1,2-Dichloroethane	10.0	8.53		ug/L		85	63 - 130
Trichloroethene	10.0	10.3		ug/L		103	74 - 121
1,2-Dichloropropane	10.0	10.6		ug/L		106	67 - 119
Bromodichloromethane	10.0	9.48		ug/L		95	62 - 127
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	25.2		ug/L		126	41 - 135
Toluene	10.0	12.4		ug/L		124	76 - 129
trans-1,3-Dichloropropene	10.0	10.0		ug/L		100	61 - 136
1,1,2-Trichloroethane	10.0	11.4		ug/L		114	74 - 126
Tetrachloroethene	10.0	9.48		ug/L		95	76 - 128
2-Hexanone	20.0	24.2		ug/L		121	37 - 150
Dibromochloromethane	10.0	11.3		ug/L		113	63 - 131
1,2-Dibromoethane (EDB)	10.0	11.1		ug/L		111	76 - 128
Chlorobenzene	10.0	11.6		ug/L		116	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.7		ug/L		107	70 - 130
Ethylbenzene	10.0	10.4		ug/L		104	77 - 124
Xylenes, Total	20.0	20.5		ug/L		103	76 - 124
Styrene	10.0	11.1		ug/L		111	80 - 125
Bromoform	10.0	12.7		ug/L		127	54 - 136
1,1,2,2-Tetrachloroethane	10.0	11.7		ug/L		117	72 - 128
Acrylonitrile	100	120		ug/L		120	60 - 130
1,4-Dioxane	200	229		ug/L		114	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*65 - 121*
Toluene-d8 (Surr)	*95*		*73 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*73 - 120*

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

Lab Sample ID: MB 180-228566/8
Matrix: Water
Analysis Batch: 228566

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			11/10/17 11:27	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/10/17 11:27	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/10/17 11:27	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/10/17 11:27	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/10/17 11:27	1
Acetone	5.0	U	5.0	3.4	ug/L			11/10/17 11:27	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/10/17 11:27	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/10/17 11:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/10/17 11:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/10/17 11:27	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/10/17 11:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/10/17 11:27	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/10/17 11:27	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/10/17 11:27	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/10/17 11:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/10/17 11:27	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/10/17 11:27	1
Benzene	1.0	U	1.0	0.60	ug/L			11/10/17 11:27	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/10/17 11:27	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/10/17 11:27	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/10/17 11:27	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/10/17 11:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/10/17 11:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/10/17 11:27	1
Toluene	1.0	U	1.0	0.46	ug/L			11/10/17 11:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/10/17 11:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/10/17 11:27	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/10/17 11:27	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/10/17 11:27	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/10/17 11:27	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/10/17 11:27	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/10/17 11:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/10/17 11:27	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/10/17 11:27	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/10/17 11:27	1
Styrene	1.0	U	1.0	0.47	ug/L			11/10/17 11:27	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/10/17 11:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/10/17 11:27	1
Acrylonitrile	20	U	20	7.8	ug/L			11/10/17 11:27	1
1,4-Dioxane	200	U	200	14	ug/L			11/10/17 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*65 - 121*		*11/10/17 11:27*	*1*
Toluene-d8 (Surr)	*85*		*73 - 120*		*11/10/17 11:27*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*11/10/17 11:27*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*11/10/17 11:27*	*1*

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

Lab Sample ID: LCS 180-228566/5
Matrix: Water
Analysis Batch: 228566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	12.5		ug/L		125	49 - 135
Vinyl chloride	10.0	10.7		ug/L		107	52 - 136
Bromomethane	10.0	13.7		ug/L		137	37 - 150
Chloroethane	10.0	12.7		ug/L		127	44 - 139
1,1-Dichloroethene	10.0	9.32		ug/L		93	64 - 131
Acetone	20.0	19.0		ug/L		95	24 - 150
Carbon disulfide	10.0	10.5		ug/L		105	20 - 150
Methylene Chloride	10.0	9.39		ug/L		94	66 - 123
trans-1,2-Dichloroethene	10.0	9.36		ug/L		94	70 - 123
Methyl tert-butyl ether	10.0	9.27		ug/L		93	66 - 130
1,1-Dichloroethane	10.0	9.47		ug/L		95	66 - 122
cis-1,2-Dichloroethene	10.0	8.89		ug/L		89	73 - 120
Bromochloromethane	10.0	9.03		ug/L		90	73 - 122
2-Butanone (MEK)	20.0	19.3		ug/L		96	37 - 150
Chloroform	10.0	8.88		ug/L		89	72 - 123
1,1,1-Trichloroethane	10.0	9.19		ug/L		92	66 - 129
Carbon tetrachloride	10.0	9.18		ug/L		92	58 - 145
Benzene	10.0	9.01		ug/L		90	75 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	63 - 130
Trichloroethene	10.0	8.50		ug/L		85	74 - 121
1,2-Dichloropropane	10.0	10.1		ug/L		101	67 - 119
Bromodichloromethane	10.0	8.95		ug/L		90	62 - 127
cis-1,3-Dichloropropene	10.0	8.85		ug/L		88	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	22.9		ug/L		114	41 - 135
Toluene	10.0	10.1		ug/L		101	76 - 129
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	61 - 136
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	74 - 126
Tetrachloroethene	10.0	9.11		ug/L		91	76 - 128
2-Hexanone	20.0	19.8		ug/L		99	37 - 150
Dibromochloromethane	10.0	10.9		ug/L		109	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.96		ug/L		100	76 - 128
Chlorobenzene	10.0	10.0		ug/L		100	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.3		ug/L		103	70 - 130
Ethylbenzene	10.0	9.50		ug/L		95	77 - 124
Xylenes, Total	20.0	18.2		ug/L		91	76 - 124
Styrene	10.0	9.36		ug/L		94	80 - 125
Bromoform	10.0	9.33		ug/L		93	54 - 136
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	72 - 128
Acrylonitrile	100	112		ug/L		112	60 - 130
1,4-Dioxane	200	175	J	ug/L		87	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*65 - 121*
Toluene-d8 (Surr)	*99*		*73 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*73 - 120*

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

Lab Sample ID: MB 180-228645/6
Matrix: Water
Analysis Batch: 228645

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			11/11/17 07:35	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/11/17 07:35	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/11/17 07:35	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/11/17 07:35	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/11/17 07:35	1
Acetone	5.0	U	5.0	3.4	ug/L			11/11/17 07:35	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/11/17 07:35	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/11/17 07:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/11/17 07:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/11/17 07:35	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/11/17 07:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/11/17 07:35	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/11/17 07:35	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/11/17 07:35	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/11/17 07:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/11/17 07:35	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/11/17 07:35	1
Benzene	1.0	U	1.0	0.60	ug/L			11/11/17 07:35	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/11/17 07:35	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/11/17 07:35	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/11/17 07:35	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/11/17 07:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/11/17 07:35	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/11/17 07:35	1
Toluene	1.0	U	1.0	0.46	ug/L			11/11/17 07:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/11/17 07:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/11/17 07:35	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/11/17 07:35	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/11/17 07:35	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/11/17 07:35	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/11/17 07:35	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/11/17 07:35	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/11/17 07:35	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/11/17 07:35	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/11/17 07:35	1
Styrene	1.0	U	1.0	0.47	ug/L			11/11/17 07:35	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/11/17 07:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/11/17 07:35	1
Acrylonitrile	20	U	20	7.8	ug/L			11/11/17 07:35	1
1,4-Dioxane	200	U	200	14	ug/L			11/11/17 07:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*65 - 121*		*11/11/17 07:35*	*1*
Toluene-d8 (Surr)	*86*		*73 - 120*		*11/11/17 07:35*	*1*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*		*11/11/17 07:35*	*1*
Dibromofluoromethane (Surr)	*105*		*73 - 120*		*11/11/17 07:35*	*1*

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

Lab Sample ID: LCS 180-228645/4
Matrix: Water
Analysis Batch: 228645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	13.0		ug/L		130	49 - 135
Vinyl chloride	10.0	10.5		ug/L		105	52 - 136
Bromomethane	10.0	5.49		ug/L		55	37 - 150
Chloroethane	10.0	12.5		ug/L		125	44 - 139
1,1-Dichloroethene	10.0	9.33		ug/L		93	64 - 131
Acetone	20.0	24.7		ug/L		124	24 - 150
Carbon disulfide	10.0	10.4		ug/L		104	20 - 150
Methylene Chloride	10.0	8.79		ug/L		88	66 - 123
trans-1,2-Dichloroethene	10.0	9.03		ug/L		90	70 - 123
Methyl tert-butyl ether	10.0	8.66		ug/L		87	66 - 130
1,1-Dichloroethane	10.0	9.24		ug/L		92	66 - 122
cis-1,2-Dichloroethene	10.0	8.69		ug/L		87	73 - 120
Bromochloromethane	10.0	8.48		ug/L		85	73 - 122
2-Butanone (MEK)	20.0	19.9		ug/L		100	37 - 150
Chloroform	10.0	8.50		ug/L		85	72 - 123
1,1,1-Trichloroethane	10.0	9.23		ug/L		92	66 - 129
Carbon tetrachloride	10.0	9.58		ug/L		96	58 - 145
Benzene	10.0	8.76		ug/L		88	75 - 123
1,2-Dichloroethane	10.0	9.38		ug/L		94	63 - 130
Trichloroethene	10.0	7.79		ug/L		78	74 - 121
1,2-Dichloropropane	10.0	8.73		ug/L		87	67 - 119
Bromodichloromethane	10.0	8.32		ug/L		83	62 - 127
cis-1,3-Dichloropropene	10.0	7.83		ug/L		78	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	13.2		ug/L		66	41 - 135
Toluene	10.0	9.56		ug/L		96	76 - 129
trans-1,3-Dichloropropene	10.0	9.24		ug/L		92	61 - 136
1,1,2-Trichloroethane	10.0	9.21		ug/L		92	74 - 126
Tetrachloroethene	10.0	8.64		ug/L		86	76 - 128
2-Hexanone	20.0	17.4		ug/L		87	37 - 150
Dibromochloromethane	10.0	8.97		ug/L		90	63 - 131
1,2-Dibromoethane (EDB)	10.0	8.73		ug/L		87	76 - 128
Chlorobenzene	10.0	9.06		ug/L		91	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.48		ug/L		95	70 - 130
Ethylbenzene	10.0	8.83		ug/L		88	77 - 124
Xylenes, Total	20.0	17.1		ug/L		86	76 - 124
Styrene	10.0	8.73		ug/L		87	80 - 125
Bromoform	10.0	7.88		ug/L		79	54 - 136
1,1,2,2-Tetrachloroethane	10.0	8.82		ug/L		88	72 - 128
Acrylonitrile	100	104		ug/L		104	60 - 130
1,4-Dioxane	200	164	J	ug/L		82	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*65 - 121*
Toluene-d8 (Surr)	*106*		*73 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*73 - 120*

GC/MS VOA

Analysis Batch: 228418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71952-1	HD-MW-180-0/1-0	Total/NA	Water	8260C	
180-71952-2	HD-MW-178D-0/1-0	Total/NA	Water	8260C	
180-71952-3	HD-MW-179-0/1-0	Total/NA	Water	8260C	
180-71952-4	HD-MPE-2-0/1-0	Total/NA	Water	8260C	
180-71952-5	HD-MW-178S-0/1-0	Total/NA	Water	8260C	
180-71952-6	HD-MW-181S-0/1-0	Total/NA	Water	8260C	
180-71952-11	HD-QC7-0/1-2	Total/NA	Water	8260C	
MB 180-228418/5	Method Blank	Total/NA	Water	8260C	
LCS 180-228418/3	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 228475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71952-7	HD-MW-177-0/1-0	Total/NA	Water	8260C	
180-71952-8	HD-CW-1A-0/1-0	Total/NA	Water	8260C	
180-71952-9	HD-MPE-1-0/1-0	Total/NA	Water	8260C	
180-71952-12	HD-MPE-3-0/1-0	Total/NA	Water	8260C	
180-71952-14	HD-QC4-0/1-3	Total/NA	Water	8260C	
180-71952-16	HD-MW-184D-0/1-0	Total/NA	Water	8260C	
MB 180-228475/6	Method Blank	Total/NA	Water	8260C	
LCS 180-228475/4	Lab Control Sample	Total/NA	Water	8260C	
180-71952-12 MS	HD-MPE-3-0/1-0	Total/NA	Water	8260C	
180-71952-12 MSD	HD-MPE-3-0/1-0	Total/NA	Water	8260C	

Analysis Batch: 228533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71952-2 - DL	HD-MW-178D-0/1-0	Total/NA	Water	8260C	
180-71952-4 - DL	HD-MPE-2-0/1-0	Total/NA	Water	8260C	
180-71952-5 - DL	HD-MW-178S-0/1-0	Total/NA	Water	8260C	
180-71952-15	HD-QC4-0/1-4	Total/NA	Water	8260C	
MB 180-228533/8	Method Blank	Total/NA	Water	8260C	
LCS 180-228533/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 228566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71952-1 - DL	HD-MW-180-0/1-0	Total/NA	Water	8260C	
180-71952-3 - DL	HD-MW-179-0/1-0	Total/NA	Water	8260C	
180-71952-6 - DL	HD-MW-181S-0/1-0	Total/NA	Water	8260C	
180-71952-7 - DL	HD-MW-177-0/1-0	Total/NA	Water	8260C	
180-71952-8 - DL	HD-CW-1A-0/1-0	Total/NA	Water	8260C	
180-71952-9 - DL	HD-MPE-1-0/1-0	Total/NA	Water	8260C	
180-71952-10	HD-MW-183-0/1-0	Total/NA	Water	8260C	
180-71952-16 - DL	HD-MW-184D-0/1-0	Total/NA	Water	8260C	
MB 180-228566/8	Method Blank	Total/NA	Water	8260C	
LCS 180-228566/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 228645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71952-13	HD-QC4-0/1-1	Total/NA	Water	8260C	
MB 180-228645/6	Method Blank	Total/NA	Water	8260C	
LCS 180-228645/4	Lab Control Sample	Total/NA	Water	8260C	

Client Sample ID: HD-MW-180-0/1-0
Date Collected: 10/31/17 08:42
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228418	11/09/17 05:17	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	40	5 mL	5 mL	228566	11/10/17 15:52	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MW-178D-0/1-0
Date Collected: 10/30/17 13:10
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228418	11/09/17 03:18	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	30	5 mL	5 mL	228533	11/09/17 16:36	PJJ	TAL PIT
	Instrument ID: CHHP7									

Client Sample ID: HD-MW-179-0/1-0
Date Collected: 10/31/17 08:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228418	11/09/17 05:41	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	20	5 mL	5 mL	228566	11/10/17 17:28	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MPE-2-0/1-0
Date Collected: 10/30/17 15:45
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228418	11/09/17 03:42	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	20	5 mL	5 mL	228533	11/09/17 17:05	PJJ	TAL PIT
	Instrument ID: CHHP7									

Client Sample ID: HD-MW-178S-0/1-0
Date Collected: 10/30/17 12:20
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228418	11/09/17 04:06	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MW-178S-0/1-0

Lab Sample ID: 180-71952-5
Matrix: Water
Date Collected: 10/30/17 12:20
Date Received: 11/01/17 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	DL	10	5 mL	5 mL	228533	11/09/17 17:34	PJJ	TAL PIT
	Instrument ID: CHHP7									

Client Sample ID: HD-MW-181S-0/1-0

Lab Sample ID: 180-71952-6
Matrix: Water
Date Collected: 10/31/17 10:35
Date Received: 11/01/17 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	228418	11/09/17 06:05	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	5	5 mL	5 mL	228566	11/10/17 14:17	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MW-177-0/1-0

Lab Sample ID: 180-71952-7
Matrix: Water
Date Collected: 10/31/17 09:50
Date Received: 11/01/17 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	228475	11/09/17 15:55	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	25	5 mL	5 mL	228566	11/10/17 14:41	PJJ	TAL PIT
	Instrument ID: CHHP5									

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

Lab Sample ID: 180-71952-8
Matrix: Water
Date Collected: 10/31/17 11:15
Date Received: 11/01/17 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	228475	11/09/17 16:43	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	2.5	5 mL	5 mL	228566	11/10/17 17:04	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MPE-1-0/1-0

Lab Sample ID: 180-71952-9
Matrix: Water
Date Collected: 10/31/17 10:00
Date Received: 11/01/17 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	228475	11/09/17 17:31	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	50	5 mL	5 mL	228566	11/10/17 16:16	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MW-183-0/1-0
Date Collected: 10/31/17 10:15
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228566	11/10/17 13:05	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-QC7-0/1-2
Date Collected: 10/30/17 12:00
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228418	11/09/17 04:53	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MPE-3-0/1-0
Date Collected: 10/31/17 12:15
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228475	11/09/17 13:55	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-QC4-0/1-1
Date Collected: 10/31/17 08:00
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228645	11/11/17 11:42	FBB	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-QC4-0/1-3
Date Collected: 10/31/17 13:40
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228475	11/09/17 14:19	PJJ	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-QC4-0/1-4
Date Collected: 10/31/17 13:50
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228533	11/09/17 14:29	PJJ	TAL PIT
	Instrument ID: CHHP7									

Client Sample ID: HD-MW-184D-0/1-0

Date Collected: 10/31/17 10:35
Date Received: 11/01/17 09:00

Lab Sample ID: 180-71952-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228475	11/09/17 21:29	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	2.5	5 mL	5 mL	228566	11/10/17 16:40	PJJ	TAL PIT
	Instrument ID: CHHP5									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

FBB = Frank Bungard

PJJ = Patrick Journet

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
TestAmerica Job ID: 180-71952-1
Project/Site: Harley Davidson

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: 180-71952-1

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: 180-71952-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-71952-1	HD-MW-180-0/1-0	Water	10/31/17 08:42	11/01/17 09:00
180-71952-2	HD-MW-178D-0/1-0	Water	10/30/17 13:10	11/01/17 09:00
180-71952-3	HD-MW-179-0/1-0	Water	10/31/17 08:35	11/01/17 09:00
180-71952-4	HD-MPE-2-0/1-0	Water	10/30/17 15:45	11/01/17 09:00
180-71952-5	HD-MW-178S-0/1-0	Water	10/30/17 12:20	11/01/17 09:00
180-71952-6	HD-MW-181S-0/1-0	Water	10/31/17 10:35	11/01/17 09:00
180-71952-7	HD-MW-177-0/1-0	Water	10/31/17 09:50	11/01/17 09:00
180-71952-8	HD-CW-1A-0/1-0	Water	10/31/17 11:15	11/01/17 09:00
180-71952-9	HD-MPE-1-0/1-0	Water	10/31/17 10:00	11/01/17 09:00
180-71952-10	HD-MW-183-0/1-0	Water	10/31/17 10:15	11/01/17 09:00
180-71952-11	HD-QC7-0/1-2	Water	10/30/17 12:00	11/01/17 09:00
180-71952-12	HD-MPE-3-0/1-0	Water	10/31/17 12:15	11/01/17 09:00
180-71952-13	HD-QC4-0/1-1	Water	10/31/17 08:00	11/01/17 09:00
180-71952-14	HD-QC4-0/1-3	Water	10/31/17 13:40	11/01/17 09:00
180-71952-15	HD-QC4-0/1-4	Water	10/31/17 13:50	11/01/17 09:00
180-71952-16	HD-MW-184D-0/1-0	Water	10/31/17 10:35	11/01/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 213537

Lab Sample ID: IC 180-213537/2 Client Sample ID:

Date Analyzed: 06/08/17 06:03 Lab File ID: 50608D02.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.82	Poor chromatography	bungardf	06/08/17 07:42
1,3-Butadiene	1.97	Poor chromatography	bungardf	06/08/17 08:14

Lab Sample ID: IC 180-213537/3 Client Sample ID:

Date Analyzed: 06/08/17 06:27 Lab File ID: 50608D03.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.99	Poor chromatography	bungardf	06/08/17 08:14

Lab Sample ID: ICIS 180-213537/4 Client Sample ID:

Date Analyzed: 06/08/17 06:50 Lab File ID: 50608D04.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.97	Poor chromatography	bungardf	06/08/17 08:15

Lab Sample ID: IC 180-213537/5 Client Sample ID:

Date Analyzed: 06/08/17 07:24 Lab File ID: 50608D05.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.98	Poor chromatography	bungardf	06/08/17 08:16

Lab Sample ID: IC 180-213537/6 Client Sample ID:

Date Analyzed: 06/08/17 07:48 Lab File ID: 50608D06.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.98	Poor chromatography	bungardf	06/08/17 08:17

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 213537

Lab Sample ID: IC 180-213537/7 Client Sample ID:

Date Analyzed: 06/08/17 08:11 Lab File ID: 50608D07.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.27	Poor chromatography	bungardf	06/08/17 08:55

Lab Sample ID: IC 180-213537/9 Client Sample ID:

Date Analyzed: 06/08/17 08:59 Lab File ID: 50608D09.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloro-1,2,2-trifluoroethane	3.45	Poor chromatography	bungardf	06/09/17 03:08

Lab Sample ID: ICV 180-213537/21 Client Sample ID:

Date Analyzed: 06/08/17 13:42 Lab File ID: 50608D21.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.80	Poor chromatography	bungardf	06/09/17 03:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 218218

Lab Sample ID: IC 180-218218/2 Client Sample ID:

Date Analyzed: 07/27/17 00:51 Lab File ID: 50727D02.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.76	Poor chromatography	bungardf	07/27/17 03:06

Lab Sample ID: IC 180-218218/3 Client Sample ID:

Date Analyzed: 07/27/17 01:15 Lab File ID: 50727D03.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.75	Poor chromatography	bungardf	07/27/17 03:13
1,4-Dioxane	8.05	Poor chromatography	bungardf	07/27/17 03:14

Lab Sample ID: ICIS 180-218218/4 Client Sample ID:

Date Analyzed: 07/27/17 01:39 Lab File ID: 50727D04.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.75	Poor chromatography	bungardf	07/27/17 03:15
1,4-Dioxane	8.05	Poor chromatography	bungardf	07/27/17 03:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 228418

Lab Sample ID: CCVIS 180-228418/2 Client Sample ID:

Date Analyzed: 11/08/17 20:39 Lab File ID: 51108D02.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.74	Poor chromatography	bungardf	11/08/17 20:58
Ethylbenzene	10.56	Poor chromatography	bungardf	11/08/17 21:04
Naphthalene	15.03	Poor chromatography	bungardf	11/08/17 21:04

Lab Sample ID: 180-71952-11 Client Sample ID: HD-QC7-0/1-2

Date Analyzed: 11/09/17 04:53 Lab File ID: 51108D19.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.45	Poor chromatography	journetp	11/09/17 09:30

Lab Sample ID: 180-71952-3 Client Sample ID: HD-MW-179-0/1-0

Date Analyzed: 11/09/17 05:41 Lab File ID: 51108D21.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.56	Poor chromatography	journetp	11/09/17 09:32
Chloroform	6.43	Poor chromatography	journetp	11/09/17 09:32

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 228475

Lab Sample ID: LCS 180-228475/4 Client Sample ID:

Date Analyzed: 11/09/17 12:19 Lab File ID: 51109D04.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.41	Poor chromatography	journetp	11/09/17 17:53

Lab Sample ID: 180-71952-12 MS Client Sample ID: HD-MPE-3-0/1-0 MS

Date Analyzed: 11/09/17 14:43 Lab File ID: 51109D10.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.91	Poor chromatography	journetp	11/09/17 17:55
Bromomethane	2.41	Poor chromatography	journetp	11/09/17 15:29

Lab Sample ID: 180-71952-12 MSD Client Sample ID: HD-MPE-3-0/1-0 MSD

Date Analyzed: 11/09/17 15:06 Lab File ID: 51109D11.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.41	Poor chromatography	journetp	11/09/17 15:29

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 228566

Lab Sample ID: CCVIS 180-228566/3 Client Sample ID:

Date Analyzed: 11/10/17 08:27 Lab File ID: 51110D03.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl methacrylate	9.36	Poor chromatography	journetp	11/10/17 09:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 228645

Lab Sample ID: 180-71952-13 Client Sample ID: HD-QC4-0/1-1

Date Analyzed: 11/11/17 11:42 Lab File ID: 51111D16.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.45	Poor chromatography	bungardf	11/12/17 14:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 212441

Lab Sample ID: IC 180-212441/3 Client Sample ID:

Date Analyzed: 05/26/17 14:37 Lab File ID: 70526N03.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.94	Poor chromatography	journetp	05/26/17 15:00

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260INT_00070	06/22/17	05/22/17	Methanol, Lot 127999	10 mL	VOA8260INTRES_00121	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_00121	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_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_00075	11/20/17	10/20/17	Methanol, Lot 2469125	10 mL	VOA8260INTRES_00136	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_00136	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_00069	06/22/17	05/22/17	Methanol, Lot 127999	100 mL	VOA8260SURRES_00126	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_00126	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_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_00074	11/20/17	10/20/17	Methanol, Lot 2469125	100 mL	VOA8260SURRES_00120	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_00120	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00255	08/03/17	07/27/17	Methanol, Lot 2019056	10 mL	VOA8260GAS2ND_00201	100 uL	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
							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_00201	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOA2ND_00271	11/13/17	11/06/17	Methanol, Lot 2469119	10 mL	VOA8260GAS2ND_00217	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00268	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260GAS2ND_00217	06/30/20		Restek, Lot A0128832		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00268	11/16/17	10/16/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA2_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-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00065	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00253	05/26/17	05/19/17	Methanol, Lot 136118	10 mL	VOA8260GAS1ST_00195	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00251	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00195	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_00251	06/09/17	05/09/17	Methanol, Lot 136118	10 mL	VOA8260KET1ST_00090	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_00063	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00090	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_00063	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00255	06/09/17	06/04/17	Methanol, Lot 2019054	10 mL	VOA8260GAS1ST_00197	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00251	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00197	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_00251	06/09/17	05/09/17	Methanol, Lot 136118	10 mL	VOA8260KET1ST_00090	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_00063	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00090	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VOA8260MEGA1_00063	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	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_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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
VOABFB25_00095							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00097	5 mL	BFB	25 ug/mL
.VOABFB50_00097	12/10/17	11/10/17	Methanol, Lot 2469125	50 mL	VOABFBRES_00059	1 mL	BFB	50 ug/mL
..VOABFBRES_00059	04/30/22		Restek, Lot A0127174		(Purchased Reagent)		BFB	2500 ug/mL
VOABFB50_00091							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFBRES_00052	1 mL	BFB	50 ug/mL
.VOABFBRES_00052	05/31/21		Restek, Lot A0119122		(Purchased Reagent)		BFB	2500 ug/mL
voaW2clev1stR_00008	06/12/17	06/05/17	Methanol, Lot 136118	10 mL	VOACEVERES_00124	0.2 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00124	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	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_00014	06/12/17	05/12/17	Methanol, Lot 127999	100 mL	VOAACRORES_00113	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00113	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 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_00007	07/02/17	06/02/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00038	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOARESEE1ST_00038	01/01/18		Restek, Lot A0120234		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(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
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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKet2ndRes_00022	11/16/17	10/16/17	Methanol, Lot 2469120	50 mL	VOA8260KET2ND_00103	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00103	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_00003	06/25/17	05/25/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00097	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_00097	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_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
voaWVA1stRest_00015	07/05/17	06/05/17	Methanol, Lot 136118	25 mL	VOA8260VARES_00081	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00081	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
voaWVA1stRest_00017	07/31/17	07/24/16	Methanol, Lot 2019067	25 mL	VOA8260VARES_00083	125 uL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00083	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00195

RESTEK
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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)

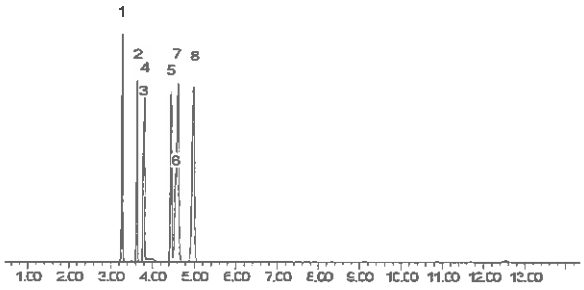
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

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Reagent

VOA8260GAS1ST_00197

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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)

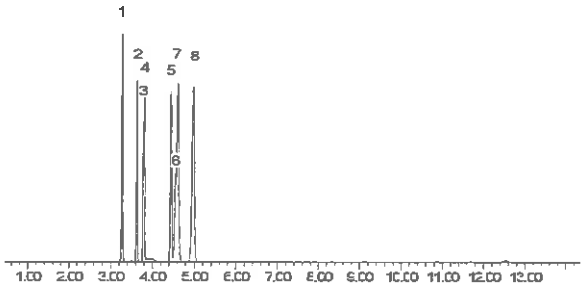
Carrier Gas:
helium-constant flow 2.0 mL/min.

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_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)

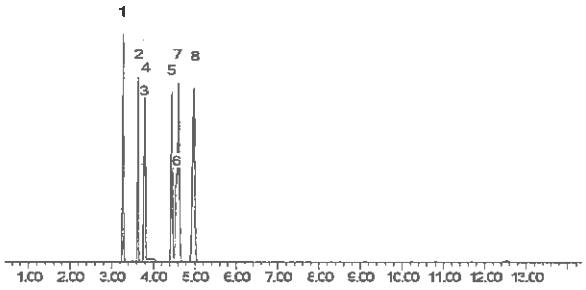
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

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Certificate #FM 80397

Reagent

VOA8260GAS2ND_00201

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

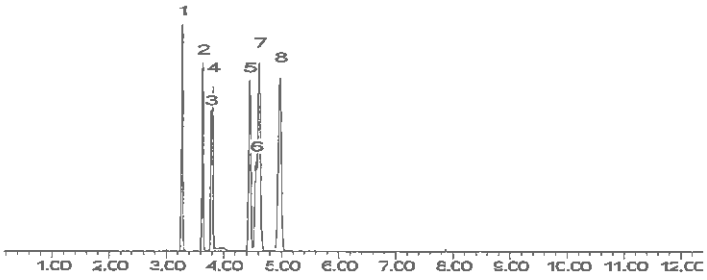
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

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Certificate #FM 80397

Reagent

VOA8260GAS2ND_00217

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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.SEC **Lot No.:** A0128832

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 : June 30, 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)	2,505.9 µg/mL	+/- 22.3986 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 23586)		+/- 141.5312 µg/mL	Unstressed
	Purity 99%		+/- 144.7955 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,503.7 µg/mL	+/- 24.8413 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 141.8153 µg/mL	Unstressed
	Purity 99%		+/- 145.0675 µg/mL	Stressed
3	Vinyl chloride	2,503.2 µg/mL	+/- 25.9197 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 141.9813 µg/mL	Unstressed
	Purity 99%		+/- 145.2285 µg/mL	Stressed
4	1,3-Butadiene	2,508.9 µg/mL	+/- 20.6969 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 24033)		+/- 141.4379 µg/mL	Unstressed
	Purity 99%		+/- 144.7121 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,502.6 µg/mL	+/- 26.2540 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 142.0076 µg/mL	Unstressed
	Purity 99%		+/- 145.2526 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,510.6 µg/mL	+/- 24.9094 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 142.2038 µg/mL	Unstressed
	Purity 99%		+/- 145.4650 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,510.9 µg/mL	+/- 25.6719 µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 142.3575 µg/mL	Unstressed
	Purity 99%		+/- 145.6160 µg/mL	Stressed

Reagent

VOA8260INTRES_00121

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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_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 +/- 106.0450 +/- 106.5155	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 **Purity** 99%	(Lot M276P24)	1,250.2	µg/mL	+/- 7.2688 +/- 26.5135 +/- 26.6311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Fluorobenzene **CAS #** 462-06-6 **Purity** 99%	(Lot BCBK8171V)	250.2	µg/mL	+/- 1.4580 +/- 5.3070 +/- 5.3305	µg/mL µg/mL 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 +/- 106.0502 +/- 106.5208	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	250.4	µg/mL	+/- 1.4592 +/- 5.3113 +/- 5.3348	µg/mL µg/mL 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 +/- 5.3028 +/- 5.3263	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Reagent

VOA8260INTRES_00136

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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.:** 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_00090

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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

VOA8260KET1ST_00097

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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 **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_00099

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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 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_00100

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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 **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

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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

VOA8260KET2ND_00103

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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	12,501.6 µg/mL	+/- 73.1996 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot P14A572)		+/- 754.3267 µg/mL	Unstressed
	Purity 99%		+/- 756.1173 µg/mL	Stressed
2	2-Butanone (MEK)	12,503.6 µg/mL	+/- 73.2113 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RA58J)		+/- 754.4473 µg/mL	Unstressed
	Purity 99%		+/- 756.2383 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,506.0 µg/mL	+/- 73.2254 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 754.5921 µg/mL	Unstressed
	Purity 99%		+/- 756.3834 µg/mL	Stressed
4	2-Hexanone	12,504.0 µg/mL	+/- 73.2137 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot V3NRA)		+/- 754.4715 µg/mL	Unstressed
	Purity 99%		+/- 756.2625 µg/mL	Stressed

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

Reagent

VOA8260MEGA1_00063

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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)

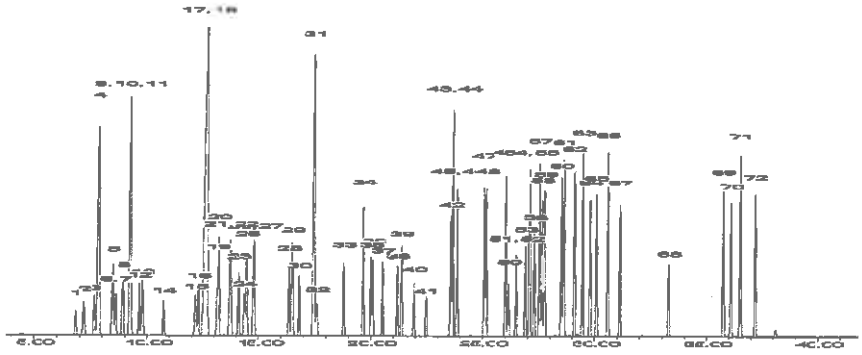
Carrier Gas:
helium-constant pressure 30 psi

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_00065

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 **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)

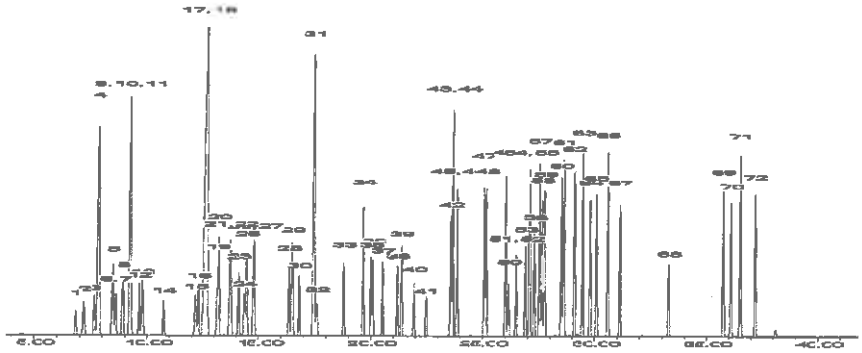
Carrier Gas:
helium-constant pressure 30 psi

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

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

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. : 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)

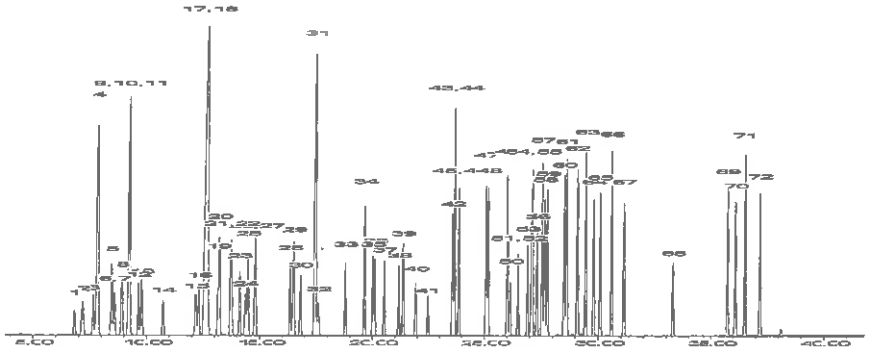
Carrier Gas:
helium-constant pressure 30 psi

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

VOA8260MEGA2_00065

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)

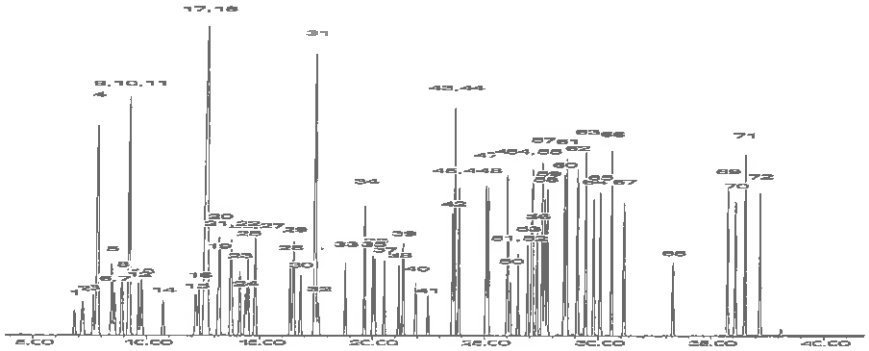
Carrier Gas:
helium-constant pressure 30 psi

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

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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. : 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 +/- 140.6996 +/- 143.9918	µg/mL µg/mL 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 +/- 140.6769 +/- 143.9686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-26282) **Purity** 99%	2,507.0 µg/mL	+/- 14.5759 +/- 140.5650 +/- 143.8540	µg/mL µg/mL 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 +/- 140.3744 +/- 143.6590	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260SURRES_00120

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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

VOA8260SURRES_00126

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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_00081

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

VOA8260VARES_00083

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724 **Lot No.:** 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_00113

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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. : 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

VOAACRORES_00115

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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. : 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

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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. : 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) **CAS #** 460-00-4 (Lot 20401KOV) **Purity** 99%	2,501.0 µg/mL	+/- 14.6773 µg/mL +/- 140.2428 µg/mL +/- 143.5236 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOABFBRES_00055

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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. : 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

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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. : 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_00059

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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. : 30067 **Lot No.:** A0127174

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 : April 30, 2022 **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)		2,506.0 µg/mL	+/- 14.7066	µg/mL	Gravimetric
	CAS # 460-00-4	(Lot 01127COV)		+/- 140.5232	µg/mL	Unstressed
	Purity 99%			+/- 143.8106	µg/mL	Stressed

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

Reagent

VOACEVERES_00124

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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. : 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

VOACEVERES_00127

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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.

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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_00038

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL **Lot No.:** 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 (Lot 21324DO) **Purity** 99%	5,025.0 µg/mL	+/- 29.4895 +/- 281.7753 +/- 288.3671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	4-Chlorobenzotrifluoride **CAS #** 98-56-6 (Lot 08507BO) **Purity** 99%	5,031.0 µg/mL	+/- 29.5247 +/- 282.1117 +/- 288.7115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorobenzotrifluoride **CAS #** 88-16-4 (Lot I0316DQ) **Purity** 99%	5,011.0 µg/mL	+/- 29.4074 +/- 280.9902 +/- 287.5637	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	3-Chlorotoluene **CAS #** 108-41-8 (Lot 13528LX) **Purity** 99%	5,046.0 µg/mL	+/- 29.6128 +/- 282.9528 +/- 289.5723	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	2,4-Dichlorobenzotrifluoride **CAS #** 320-60-5 (Lot MKBL3552V) **Purity** 99%	5,018.0 µg/mL	+/- 29.4484 +/- 281.3828 +/- 287.9654	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	3,4-Dichlorobenzotrifluoride **CAS #** 328-84-7 (Lot 11105EJV) **Purity** 99%	5,031.0 µg/mL	+/- 29.5247 +/- 282.1117 +/- 288.7115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	2,5-Dichlorobenzotrifluoride **CAS #** 320-50-3 (Lot 04415DSV) **Purity** 99%	5,047.0 µg/mL	+/- 29.6186 +/- 283.0089 +/- 289.6296	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

Reagent

VOARESEE1ST_00045

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.

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.: 180-71952-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-180-0/1-0	180-71952-1	106	120	85	83
HD-MW-180-0/1-0 DL	180-71952-1 DL	100	103	82	94
HD-MW-178D-0/1-0	180-71952-2	109	118	87	83
HD-MW-178D-0/1-0 DL	180-71952-2 DL	88	77 ^c	108	96
HD-MW-179-0/1-0	180-71952-3	115	120	85	79 X
HD-MW-179-0/1-0 DL	180-71952-3 DL	92	96	76	98
HD-MPE-2-0/1-0	180-71952-4	107	116	87	85
HD-MPE-2-0/1-0 DL	180-71952-4 DL	87	77 ^c	107	95
HD-MW-178S-0/1-0	180-71952-5	111	118	87	85
HD-MW-178S-0/1-0 DL	180-71952-5 DL	89	78 ^c	113	96
HD-MW-181S-0/1-0	180-71952-6	110	116	92	83
HD-MW-181S-0/1-0 DL	180-71952-6 DL	98	103	78	82
HD-MW-177-0/1-0	180-71952-7	108	113	86	82
HD-MW-177-0/1-0 DL	180-71952-7 DL	102	105	79	82
HD-CW-1A-0/1-0	180-71952-8	115	114	95	84
HD-CW-1A-0/1-0 DL	180-71952-8 DL	99	101	78	86
HD-MPE-1-0/1-0	180-71952-9	99	103	92	96
HD-MPE-1-0/1-0 DL	180-71952-9 DL	99	101	81	97
HD-MW-183-0/1-0	180-71952-10	99	109	84	80
HD-QC7-0/1-2	180-71952-11	109	118	89	79 X
HD-MPE-3-0/1-0	180-71952-12	108	116	90	82
HD-QC4-0/1-1	180-71952-13	107	111	81	92
HD-QC4-0/1-3	180-71952-14	110	118	92	84
HD-QC4-0/1-4	180-71952-15	87	83 ^c	107	97
HD-MW-184D-0/1-0	180-71952-16	116	121	87	79 X
HD-MW-184D-0/1-0 DL	180-71952-16 DL	102	101	79	86
	MB 180-228418/5	99	109	95	93
	MB 180-228475/6	110	119	90	83
	MB 180-228533/8	91	87	113	99
	MB 180-228566/8	98	104	85	90
	MB 180-228645/6	105	112	86	85
	LCS 180-228418/3	104	113	113	104
	LCS 180-228475/4	100	108	109	102

	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 II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

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 #
	LCS 180-228533/4	94	83	95	94
	LCS 180-228566/5	91	97	99	101
	LCS 180-228645/4	94	99	106	100
HD-MPE-3-0/1-0 MS	180-71952-12 MS	91	93	113	99
HD-MPE-3-0/1-0 MSD	180-71952-12 MSD	92	94	113	104

	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.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51108D03.D

Lab ID: LCS 180-228418/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	13.2	132	49-135	
Vinyl chloride	10.0	11.5	115	52-136	
Bromomethane	10.0	13.9	139	37-150	
Chloroethane	10.0	13.7	137	44-139	
1,1-Dichloroethene	10.0	10.3	103	64-131	
Acetone	20.0	28.0	140	24-150	
Carbon disulfide	10.0	11.4	114	20-150	
Methylene Chloride	10.0	9.99	100	66-123	
trans-1,2-Dichloroethene	10.0	9.94	99	70-123	
Methyl tert-butyl ether	10.0	10.6	106	66-130	
1,1-Dichloroethane	10.0	10.5	105	66-122	
cis-1,2-Dichloroethene	10.0	9.79	98	73-120	
Bromochloromethane	10.0	9.85	98	73-122	
2-Butanone (MEK)	20.0	21.9	109	37-150	
Chloroform	10.0	9.87	99	72-123	
1,1,1-Trichloroethane	10.0	10.3	103	66-129	
Carbon tetrachloride	10.0	10.4	104	58-145	
Benzene	10.0	9.53	95	75-123	
1,2-Dichloroethane	10.0	11.3	113	63-130	
Trichloroethene	10.0	8.64	86	74-121	
1,2-Dichloropropane	10.0	10.3	103	67-119	
Bromodichloromethane	10.0	9.73	97	62-127	
cis-1,3-Dichloropropene	10.0	9.31	93	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	16.0	80	41-135	
Toluene	10.0	10.2	102	76-129	
trans-1,3-Dichloropropene	10.0	10.5	105	61-136	
1,1,2-Trichloroethane	10.0	10.6	106	74-126	
Tetrachloroethene	10.0	8.80	88	76-128	
2-Hexanone	20.0	17.8	89	37-150	
Dibromochloromethane	10.0	10.2	102	63-131	
1,2-Dibromoethane (EDB)	10.0	9.77	98	76-128	
Chlorobenzene	10.0	9.70	97	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	70-130	
Ethylbenzene	10.0	9.39	94	77-124	
Xylenes, Total	20.0	18.5	92	76-124	
Styrene	10.0	9.42	94	80-125	
Bromoform	10.0	9.10	91	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.98	100	72-128	
Acrylonitrile	100	126	126	60-130	
1,4-Dioxane	200	196 J	98	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51109D04.D

Lab ID: LCS 180-228475/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	16.7	167	49-135	*
Vinyl chloride	10.0	10.3	103	52-136	
Bromomethane	10.0	12.1	121	37-150	
Chloroethane	10.0	12.2	122	44-139	
1,1-Dichloroethene	10.0	10.0	100	64-131	
Acetone	20.0	19.2	96	24-150	
Carbon disulfide	10.0	10.5	105	20-150	
Methylene Chloride	10.0	10.5	105	66-123	
trans-1,2-Dichloroethene	10.0	9.91	99	70-123	
Methyl tert-butyl ether	10.0	10.2	102	66-130	
1,1-Dichloroethane	10.0	10.1	101	66-122	
cis-1,2-Dichloroethene	10.0	9.41	94	73-120	
Bromochloromethane	10.0	9.77	98	73-122	
2-Butanone (MEK)	20.0	18.9	94	37-150	
Chloroform	10.0	9.49	95	72-123	
1,1,1-Trichloroethane	10.0	9.50	95	66-129	
Carbon tetrachloride	10.0	9.70	97	58-145	
Benzene	10.0	9.31	93	75-123	
1,2-Dichloroethane	10.0	11.1	111	63-130	
Trichloroethene	10.0	8.42	84	74-121	
1,2-Dichloropropane	10.0	10.1	101	67-119	
Bromodichloromethane	10.0	9.44	94	62-127	
cis-1,3-Dichloropropene	10.0	9.73	97	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	22.3	112	41-135	
Toluene	10.0	10.6	106	76-129	
trans-1,3-Dichloropropene	10.0	10.9	109	61-136	
1,1,2-Trichloroethane	10.0	11.7	117	74-126	
Tetrachloroethene	10.0	9.41	94	76-128	
2-Hexanone	20.0	19.0	95	37-150	
Dibromochloromethane	10.0	11.3	113	63-131	
1,2-Dibromoethane (EDB)	10.0	10.2	102	76-128	
Chlorobenzene	10.0	9.68	97	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	70-130	
Ethylbenzene	10.0	9.07	91	77-124	
Xylenes, Total	20.0	18.0	90	76-124	
Styrene	10.0	9.65	97	80-125	
Bromoform	10.0	9.45	94	54-136	
1,1,2,2-Tetrachloroethane	10.0	10.6	106	72-128	
Acrylonitrile	100	127	127	60-130	
1,4-Dioxane	200	160 J	80	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7110904.D

Lab ID: LCS 180-228533/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.53	75	49-135	
Vinyl chloride	10.0	6.63	66	52-136	
Bromomethane	10.0	7.80	78	37-150	
Chloroethane	10.0	9.19	92	44-139	
1,1-Dichloroethene	10.0	6.67	67	64-131	
Acetone	20.0	16.7	84	24-150	
Carbon disulfide	10.0	10.2	102	20-150	
Methylene Chloride	10.0	11.1	111	66-123	
trans-1,2-Dichloroethene	10.0	10.3	103	70-123	
Methyl tert-butyl ether	10.0	9.70	97	66-130	
1,1-Dichloroethane	10.0	8.98	90	66-122	
cis-1,2-Dichloroethene	10.0	9.89	99	73-120	
Bromochloromethane	10.0	9.52	95	73-122	
2-Butanone (MEK)	20.0	23.5	118	37-150	
Chloroform	10.0	8.98	90	72-123	
1,1,1-Trichloroethane	10.0	9.28	93	66-129	
Carbon tetrachloride	10.0	10.4	104	58-145	
Benzene	10.0	11.3	113	75-123	
1,2-Dichloroethane	10.0	8.53	85	63-130	
Trichloroethene	10.0	10.3	103	74-121	
1,2-Dichloropropane	10.0	10.6	106	67-119	
Bromodichloromethane	10.0	9.48	95	62-127	
cis-1,3-Dichloropropene	10.0	10.1	101	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	25.2	126	41-135	
Toluene	10.0	12.4	124	76-129	
trans-1,3-Dichloropropene	10.0	10.0	100	61-136	
1,1,2-Trichloroethane	10.0	11.4	114	74-126	
Tetrachloroethene	10.0	9.48	95	76-128	
2-Hexanone	20.0	24.2	121	37-150	
Dibromochloromethane	10.0	11.3	113	63-131	
1,2-Dibromoethane (EDB)	10.0	11.1	111	76-128	
Chlorobenzene	10.0	11.6	116	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.7	107	70-130	
Ethylbenzene	10.0	10.4	104	77-124	
Xylenes, Total	20.0	20.5	103	76-124	
Styrene	10.0	11.1	111	80-125	
Bromoform	10.0	12.7	127	54-136	
1,1,2,2-Tetrachloroethane	10.0	11.7	117	72-128	
Acrylonitrile	100	120	120	60-130	
1,4-Dioxane	200	229	114	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51110D05.D

Lab ID: LCS 180-228566/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.5	125	49-135	
Vinyl chloride	10.0	10.7	107	52-136	
Bromomethane	10.0	13.7	137	37-150	
Chloroethane	10.0	12.7	127	44-139	
1,1-Dichloroethene	10.0	9.32	93	64-131	
Acetone	20.0	19.0	95	24-150	
Carbon disulfide	10.0	10.5	105	20-150	
Methylene Chloride	10.0	9.39	94	66-123	
trans-1,2-Dichloroethene	10.0	9.36	94	70-123	
Methyl tert-butyl ether	10.0	9.27	93	66-130	
1,1-Dichloroethane	10.0	9.47	95	66-122	
cis-1,2-Dichloroethene	10.0	8.89	89	73-120	
Bromochloromethane	10.0	9.03	90	73-122	
2-Butanone (MEK)	20.0	19.3	96	37-150	
Chloroform	10.0	8.88	89	72-123	
1,1,1-Trichloroethane	10.0	9.19	92	66-129	
Carbon tetrachloride	10.0	9.18	92	58-145	
Benzene	10.0	9.01	90	75-123	
1,2-Dichloroethane	10.0	10.2	102	63-130	
Trichloroethene	10.0	8.50	85	74-121	
1,2-Dichloropropane	10.0	10.1	101	67-119	
Bromodichloromethane	10.0	8.95	90	62-127	
cis-1,3-Dichloropropene	10.0	8.85	88	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	22.9	114	41-135	
Toluene	10.0	10.1	101	76-129	
trans-1,3-Dichloropropene	10.0	10.4	104	61-136	
1,1,2-Trichloroethane	10.0	10.9	109	74-126	
Tetrachloroethene	10.0	9.11	91	76-128	
2-Hexanone	20.0	19.8	99	37-150	
Dibromochloromethane	10.0	10.9	109	63-131	
1,2-Dibromoethane (EDB)	10.0	9.96	100	76-128	
Chlorobenzene	10.0	10.0	100	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.3	103	70-130	
Ethylbenzene	10.0	9.50	95	77-124	
Xylenes, Total	20.0	18.2	91	76-124	
Styrene	10.0	9.36	94	80-125	
Bromoform	10.0	9.33	93	54-136	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	72-128	
Acrylonitrile	100	112	112	60-130	
1,4-Dioxane	200	175 J	87	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51111D04.D

Lab ID: LCS 180-228645/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	13.0	130	49-135	
Vinyl chloride	10.0	10.5	105	52-136	
Bromomethane	10.0	5.49	55	37-150	
Chloroethane	10.0	12.5	125	44-139	
1,1-Dichloroethene	10.0	9.33	93	64-131	
Acetone	20.0	24.7	124	24-150	
Carbon disulfide	10.0	10.4	104	20-150	
Methylene Chloride	10.0	8.79	88	66-123	
trans-1,2-Dichloroethene	10.0	9.03	90	70-123	
Methyl tert-butyl ether	10.0	8.66	87	66-130	
1,1-Dichloroethane	10.0	9.24	92	66-122	
cis-1,2-Dichloroethene	10.0	8.69	87	73-120	
Bromochloromethane	10.0	8.48	85	73-122	
2-Butanone (MEK)	20.0	19.9	100	37-150	
Chloroform	10.0	8.50	85	72-123	
1,1,1-Trichloroethane	10.0	9.23	92	66-129	
Carbon tetrachloride	10.0	9.58	96	58-145	
Benzene	10.0	8.76	88	75-123	
1,2-Dichloroethane	10.0	9.38	94	63-130	
Trichloroethene	10.0	7.79	78	74-121	
1,2-Dichloropropane	10.0	8.73	87	67-119	
Bromodichloromethane	10.0	8.32	83	62-127	
cis-1,3-Dichloropropene	10.0	7.83	78	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	13.2	66	41-135	
Toluene	10.0	9.56	96	76-129	
trans-1,3-Dichloropropene	10.0	9.24	92	61-136	
1,1,2-Trichloroethane	10.0	9.21	92	74-126	
Tetrachloroethene	10.0	8.64	86	76-128	
2-Hexanone	20.0	17.4	87	37-150	
Dibromochloromethane	10.0	8.97	90	63-131	
1,2-Dibromoethane (EDB)	10.0	8.73	87	76-128	
Chlorobenzene	10.0	9.06	91	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.48	95	70-130	
Ethylbenzene	10.0	8.83	88	77-124	
Xylenes, Total	20.0	17.1	86	76-124	
Styrene	10.0	8.73	87	80-125	
Bromoform	10.0	7.88	79	54-136	
1,1,2,2-Tetrachloroethane	10.0	8.82	88	72-128	
Acrylonitrile	100	104	104	60-130	
1,4-Dioxane	200	164 J	82	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51109D10.D

Lab ID: 180-71952-12 MS Client ID: HD-MPE-3-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	13.8	138	49-135	F1
Vinyl chloride	10.0	1.0 U	10.9	109	52-136	
Bromomethane	10.0	1.0 U	11.0	110	37-150	
Chloroethane	10.0	1.0 U	12.6	126	44-139	
1,1-Dichloroethene	10.0	1.0 U	10.2	102	64-131	
Acetone	20.0	5.0 U	16.3	81	24-150	
Carbon disulfide	10.0	1.0 U	10.7	107	20-150	
Methylene Chloride	10.0	1.0 U	8.83	88	66-123	
trans-1,2-Dichloroethene	10.0	1.0 U	9.85	98	70-123	
Methyl tert-butyl ether	10.0	1.0 U	7.85	79	66-130	
1,1-Dichloroethane	10.0	1.0 U	9.32	93	66-122	
cis-1,2-Dichloroethene	10.0	1.0 U	8.48	85	73-120	
Bromochloromethane	10.0	1.0 U	8.43	84	73-122	
2-Butanone (MEK)	20.0	5.0 U	20.1	100	37-150	
Chloroform	10.0	1.0 U	8.68	87	72-123	
1,1,1-Trichloroethane	10.0	1.0 U	9.29	93	66-129	
Carbon tetrachloride	10.0	1.0 U	9.72	97	58-145	
Benzene	10.0	1.0 U	8.68	87	75-123	
1,2-Dichloroethane	10.0	1.0 U	8.88	89	63-130	
Trichloroethene	10.0	1.3	9.11	78	74-121	
1,2-Dichloropropane	10.0	1.0 U	9.17	92	67-119	
Bromodichloromethane	10.0	1.0 U	8.25	83	62-127	
cis-1,3-Dichloropropene	10.0	1.0 U	7.36	74	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	19.1	95	41-135	
Toluene	10.0	1.0 U	10.5	105	76-129	
trans-1,3-Dichloropropene	10.0	1.0 U	9.39	94	61-136	
1,1,2-Trichloroethane	10.0	1.0 U	10.2	102	74-126	
Tetrachloroethene	10.0	9.7	20.5	109	76-128	
2-Hexanone	20.0	5.0 U	17.4	87	37-150	
Dibromochloromethane	10.0	1.0 U	9.92	99	63-131	
1,2-Dibromoethane (EDB)	10.0	1.0 U	8.82	88	76-128	
Chlorobenzene	10.0	1.0 U	9.57	96	79-124	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	9.87	99	70-130	
Ethylbenzene	10.0	1.0 U	9.38	94	77-124	
Xylenes, Total	20.0	2.0 U	18.6	93	76-124	
Styrene	10.0	1.0 U	9.22	92	80-125	
Bromoform	10.0	1.0 U	8.31	83	54-136	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.04	90	72-128	
Acrylonitrile	100	20 U	91.3	91	60-130	
1,4-Dioxane	200	200 U	124 J	62	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51109D11.D

Lab ID: 180-71952-12 MSD Client ID: HD-MPE-3-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	11.8	118	15	20	49-135	
Vinyl chloride	10.0	9.60	96	13	19	52-136	
Bromomethane	10.0	10.1	101	9	23	37-150	
Chloroethane	10.0	11.1	111	12	19	44-139	
1,1-Dichloroethene	10.0	9.35	94	9	20	64-131	
Acetone	20.0	16.9	84	4	35	24-150	
Carbon disulfide	10.0	9.45	94	12	21	20-150	
Methylene Chloride	10.0	8.53	85	3	22	66-123	
trans-1,2-Dichloroethene	10.0	8.98	90	9	19	70-123	
Methyl tert-butyl ether	10.0	8.15	82	4	23	66-130	
1,1-Dichloroethane	10.0	9.00	90	4	20	66-122	
cis-1,2-Dichloroethene	10.0	8.21	82	3	23	73-120	
Bromochloromethane	10.0	8.51	85	1	24	73-122	
2-Butanone (MEK)	20.0	20.8	104	4	35	37-150	
Chloroform	10.0	8.30	83	4	20	72-123	
1,1,1-Trichloroethane	10.0	8.60	86	8	21	66-129	
Carbon tetrachloride	10.0	8.85	89	9	22	58-145	
Benzene	10.0	8.20	82	6	20	75-123	
1,2-Dichloroethane	10.0	8.84	88	1	21	63-130	
Trichloroethene	10.0	8.79	75	4	20	74-121	
1,2-Dichloropropane	10.0	8.60	86	6	21	67-119	
Bromodichloromethane	10.0	7.85	78	5	19	62-127	
cis-1,3-Dichloropropene	10.0	7.28	73	1	22	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	19.0	95	1	35	41-135	
Toluene	10.0	9.67	97	9	18	76-129	
trans-1,3-Dichloropropene	10.0	9.25	92	1	17	61-136	
1,1,2-Trichloroethane	10.0	10.0	100	1	20	74-126	
Tetrachloroethene	10.0	18.8	91	9	20	76-128	
2-Hexanone	20.0	17.8	89	2	35	37-150	
Dibromochloromethane	10.0	9.32	93	6	20	63-131	
1,2-Dibromoethane (EDB)	10.0	8.90	89	1	21	76-128	
Chlorobenzene	10.0	9.03	90	6	16	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.26	93	6	17	70-130	
Ethylbenzene	10.0	8.49	85	10	16	77-124	
Xylenes, Total	20.0	17.6	88	5	17	76-124	
Styrene	10.0	8.87	89	4	18	80-125	
Bromoform	10.0	7.83	78	6	23	54-136	
1,1,2,2-Tetrachloroethane	10.0	8.39	84	7	24	72-128	
Acrylonitrile	100	94.9	95	4	32	60-130	
1,4-Dioxane	200	135 J	67	8	35	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.: 180-71952-1

SDG No.:

Lab File ID: 51108D05.D Lab Sample ID: MB 180-228418/5

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

Instrument ID: CHHP5 Date Analyzed: 11/08/2017 23:01

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 180-228418/3	51108D03.D	11/08/2017 22:05
HD-MW-178D-0/1-0	180-71952-2	51108D15.D	11/09/2017 03:18
HD-MPE-2-0/1-0	180-71952-4	51108D16.D	11/09/2017 03:42
HD-MW-178S-0/1-0	180-71952-5	51108D17.D	11/09/2017 04:06
HD-QC7-0/1-2	180-71952-11	51108D19.D	11/09/2017 04:53
HD-MW-180-0/1-0	180-71952-1	51108D20.D	11/09/2017 05:17
HD-MW-179-0/1-0	180-71952-3	51108D21.D	11/09/2017 05:41
HD-MW-181S-0/1-0	180-71952-6	51108D22.D	11/09/2017 06:05

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 711090n8.D Lab Sample ID: MB 180-228533/8

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

Instrument ID: CHHP7 Date Analyzed: 11/09/2017 11:36

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 180-228533/4	7110904.D	11/09/2017 09:42
HD-QC4-0/1-4	180-71952-15	7110914.D	11/09/2017 14:29
HD-MW-178D-0/1-0 DL	180-71952-2 DL	7110918.D	11/09/2017 16:36
HD-MPE-2-0/1-0 DL	180-71952-4 DL	7110919.D	11/09/2017 17:05
HD-MW-178S-0/1-0 DL	180-71952-5 DL	7110920.D	11/09/2017 17:34

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51109D06.D Lab Sample ID: MB 180-228475/6

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

Instrument ID: CHHP5 Date Analyzed: 11/09/2017 13:06

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 180-228475/4	51109D04.D	11/09/2017 12:19
HD-MPE-3-0/1-0	180-71952-12	51109D08.D	11/09/2017 13:55
HD-QC4-0/1-3	180-71952-14	51109D09.D	11/09/2017 14:19
HD-MPE-3-0/1-0 MS	180-71952-12 MS	51109D10.D	11/09/2017 14:43
HD-MPE-3-0/1-0 MSD	180-71952-12 MSD	51109D11.D	11/09/2017 15:06
HD-MW-177-0/1-0	180-71952-7	51109D13.D	11/09/2017 15:55
HD-CW-1A-0/1-0	180-71952-8	51109D15.D	11/09/2017 16:43
HD-MPE-1-0/1-0	180-71952-9	51109D17.D	11/09/2017 17:31
HD-MW-184D-0/1-0	180-71952-16	51109D25.D	11/09/2017 21:29

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51110D08.D Lab Sample ID: MB 180-228566/8

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

Instrument ID: CHHP5 Date Analyzed: 11/10/2017 11:27

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 180-228566/5	51110D05.D	11/10/2017 09:30
HD-MW-183-0/1-0	180-71952-10	51110D12.D	11/10/2017 13:05
HD-MW-181S-0/1-0 DL	180-71952-6 DL	51110D15.D	11/10/2017 14:17
HD-MW-177-0/1-0 DL	180-71952-7 DL	51110D16.D	11/10/2017 14:41
HD-MW-180-0/1-0 DL	180-71952-1 DL	51110D19.D	11/10/2017 15:52
HD-MPE-1-0/1-0 DL	180-71952-9 DL	51110D20.D	11/10/2017 16:16
HD-MW-184D-0/1-0 DL	180-71952-16 DL	51110D21.D	11/10/2017 16:40
HD-CW-1A-0/1-0 DL	180-71952-8 DL	51110D22.D	11/10/2017 17:04
HD-MW-179-0/1-0 DL	180-71952-3 DL	51110D23.D	11/10/2017 17:28

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51111D06.D Lab Sample ID: MB 180-228645/6

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

Instrument ID: CHHP5 Date Analyzed: 11/11/2017 07:35

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 180-228645/4	51111D04.D	11/11/2017 06:37
HD-QC4-0/1-1	180-71952-13	51111D16.D	11/11/2017 11:42

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 50608D01.D BFB Injection Date: 06/08/2017

Instrument ID: CHHP5 BFB Injection Time: 05:32

Analysis Batch No.: 213537

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.3	
75	30.0 - 60.0 % of mass 95	46.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	77.0	
175	5.0 - 9.0 % of mass 174	5.8	(7.5) 1
176	95.0 - 101.0 % of mass 174	75.7	(98.3) 1
177	5.0 - 9.0 % of mass 176	5.6	(7.4) 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 180-213537/2	50608D02.D	06/08/2017	06:03
	IC 180-213537/3	50608D03.D	06/08/2017	06:27
	ICIS 180-213537/4	50608D04.D	06/08/2017	06:50
	IC 180-213537/5	50608D05.D	06/08/2017	07:24
	IC 180-213537/6	50608D06.D	06/08/2017	07:48
	IC 180-213537/7	50608D07.D	06/08/2017	08:11
	IC 180-213537/8	50608D08.D	06/08/2017	08:35
	IC 180-213537/9	50608D09.D	06/08/2017	08:59
	ICV 180-213537/21	50608D21.D	06/08/2017	13:42

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 50727D01.D BFB Injection Date: 07/27/2017

Instrument ID: CHHP5 BFB Injection Time: 00:22

Analysis Batch No.: 218218

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.9	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	75.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.2) 1
176	95.0 - 101.0 % of mass 174	74.0	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.5) 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
	IC 180-218218/2	50727D02.D	07/27/2017	00:51
	IC 180-218218/3	50727D03.D	07/27/2017	01:15
	ICIS 180-218218/4	50727D04.D	07/27/2017	01:39
	IC 180-218218/5	50727D05.D	07/27/2017	02:02
	IC 180-218218/6	50727D06.D	07/27/2017	02:26
	IC 180-218218/8	50727D08.D	07/27/2017	03:13
	IC 180-218218/10	50727D10.D	07/27/2017	04:00
	IC 180-218218/11	50727D11.D	07/27/2017	04:24
	ICV 180-218218/12	50727D12.D	07/27/2017	05:03

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51108D01.D BFB Injection Date: 11/08/2017

Instrument ID: CHHP5 BFB Injection Time: 20:06

Analysis Batch No.: 228418

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	47.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.1	(0.2) 1
174	50.0 - 120.00 % of mass 95	64.4	
175	5.0 - 9.0 % of mass 174	4.7	(7.2) 1
176	95.0 - 101.0 % of mass 174	62.9	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.3	(8.4) 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 180-228418/2	51108D02.D	11/08/2017	20:39
	LCS 180-228418/3	51108D03.D	11/08/2017	22:05
	MB 180-228418/5	51108D05.D	11/08/2017	23:01
HD-MW-178D-0/1-0	180-71952-2	51108D15.D	11/09/2017	03:18
HD-MPE-2-0/1-0	180-71952-4	51108D16.D	11/09/2017	03:42
HD-MW-178S-0/1-0	180-71952-5	51108D17.D	11/09/2017	04:06
HD-QC7-0/1-2	180-71952-11	51108D19.D	11/09/2017	04:53
HD-MW-180-0/1-0	180-71952-1	51108D20.D	11/09/2017	05:17
HD-MW-179-0/1-0	180-71952-3	51108D21.D	11/09/2017	05:41
HD-MW-181S-0/1-0	180-71952-6	51108D22.D	11/09/2017	06:05

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51109D01.D BFB Injection Date: 11/09/2017

Instrument ID: CHHP5 BFB Injection Time: 09:40

Analysis Batch No.: 228475

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	49.2	
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	1.0	(1.4) 1
174	50.0 - 120.00 % of mass 95	69.6	
175	5.0 - 9.0 % of mass 174	5.6	(8.1) 1
176	95.0 - 101.0 % of mass 174	68.7	(98.6) 1
177	5.0 - 9.0 % of mass 176	4.1	(6.0) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-228475/3	51109D03.D	11/09/2017	11:45
	LCS 180-228475/4	51109D04.D	11/09/2017	12:19
	MB 180-228475/6	51109D06.D	11/09/2017	13:06
HD-MPE-3-0/1-0	180-71952-12	51109D08.D	11/09/2017	13:55
HD-QC4-0/1-3	180-71952-14	51109D09.D	11/09/2017	14:19
HD-MPE-3-0/1-0 MS	180-71952-12 MS	51109D10.D	11/09/2017	14:43
HD-MPE-3-0/1-0 MSD	180-71952-12 MSD	51109D11.D	11/09/2017	15:06
HD-MW-177-0/1-0	180-71952-7	51109D13.D	11/09/2017	15:55
HD-CW-1A-0/1-0	180-71952-8	51109D15.D	11/09/2017	16:43
HD-MPE-1-0/1-0	180-71952-9	51109D17.D	11/09/2017	17:31
HD-MW-184D-0/1-0	180-71952-16	51109D25.D	11/09/2017	21:29

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51110D01.D BFB Injection Date: 11/10/2017

Instrument ID: CHHP5 BFB Injection Time: 06:43

Analysis Batch No.: 228566

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	46.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.8	(1.2) 1
174	50.0 - 120.00 % of mass 95	70.5	
175	5.0 - 9.0 % of mass 174	5.4	(7.6) 1
176	95.0 - 101.0 % of mass 174	67.9	(96.2) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.9) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-228566/3	51110D03.D	11/10/2017	08:27
	LCS 180-228566/5	51110D05.D	11/10/2017	09:30
	CCV 180-228566/6	51110F06.D	11/10/2017	10:40
	MB 180-228566/8	51110D08.D	11/10/2017	11:27
HD-MW-183-0/1-0	180-71952-10	51110D12.D	11/10/2017	13:05
HD-MW-181S-0/1-0 DL	180-71952-6 DL	51110D15.D	11/10/2017	14:17
HD-MW-177-0/1-0 DL	180-71952-7 DL	51110D16.D	11/10/2017	14:41
HD-MW-180-0/1-0 DL	180-71952-1 DL	51110D19.D	11/10/2017	15:52
HD-MPE-1-0/1-0 DL	180-71952-9 DL	51110D20.D	11/10/2017	16:16
HD-MW-184D-0/1-0 DL	180-71952-16 DL	51110D21.D	11/10/2017	16:40
HD-CW-1A-0/1-0 DL	180-71952-8 DL	51110D22.D	11/10/2017	17:04
HD-MW-179-0/1-0 DL	180-71952-3 DL	51110D23.D	11/10/2017	17:28

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 51111D01.D BFB Injection Date: 11/11/2017

Instrument ID: CHHP5 BFB Injection Time: 04:07

Analysis Batch No.: 228645

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.6	
75	30.0 - 60.0 % of mass 95	46.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	1.1	(1.7) 1
174	50.0 - 120.00 % of mass 95	67.1	
175	5.0 - 9.0 % of mass 174	5.0	(7.5) 1
176	95.0 - 101.0 % of mass 174	65.2	(97.2) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.9) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-228645/2	51111D02.D	11/11/2017	05:19
	LCS 180-228645/4	51111D04.D	11/11/2017	06:37
	MB 180-228645/6	51111D06.D	11/11/2017	07:35
HD-QC4-0/1-1	180-71952-13	51111D16.D	11/11/2017	11:42

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 70526N01.D BFB Injection Date: 05/26/2017

Instrument ID: CHHP7 BFB Injection Time: 13:55

Analysis Batch No.: 212441

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.1	
75	30.0 - 60.0 % of mass 95	58.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	76.8	
175	5.0 - 9.0 % of mass 174	6.2	(8.1) 1
176	95.0 - 101.0 % of mass 174	75.9	(98.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.6) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-212441/3	70526N03.D	05/26/2017	14:37
	IC 180-212441/4	70526N04.D	05/26/2017	15:06
	ICIS 180-212441/5	70526N05.D	05/26/2017	15:36
	IC 180-212441/6	70526N06.D	05/26/2017	16:06
	IC 180-212441/7	70526N07.D	05/26/2017	16:36
	IC 180-212441/8	70526N08.D	05/26/2017	17:05
	IC 180-212441/9	70526N09.D	05/26/2017	17:34
	IC 180-212441/10	70526N10.D	05/26/2017	18:04

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab File ID: 711090n1.D BFB Injection Date: 11/09/2017

Instrument ID: CHHP7 BFB Injection Time: 07:17

Analysis Batch No.: 228533

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	77.5	
175	5.0 - 9.0 % of mass 174	5.7	(7.3) 1
176	95.0 - 101.0 % of mass 174	75.9	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.8) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-228533/2	711090n3.D	11/09/2017	08:58
	LCS 180-228533/4	7110904.D	11/09/2017	09:42
	MB 180-228533/8	711090n8.D	11/09/2017	11:36
HD-QC4-0/1-4	180-71952-15	7110914.D	11/09/2017	14:29
HD-MW-178D-0/1-0 DL	180-71952-2 DL	7110918.D	11/09/2017	16:36
HD-MPE-2-0/1-0 DL	180-71952-4 DL	7110919.D	11/09/2017	17:05
HD-MW-178S-0/1-0 DL	180-71952-5 DL	7110920.D	11/09/2017	17:34

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Sample No.: ICIS 180-213537/4 Date Analyzed: 06/08/2017 06:50

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50608D04.D Heated Purge: (Y/N) N

Calibration ID: 34799

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		265733	4.34	343353	7.34	84081	10.43
UPPER LIMIT		531466	4.84	686706	7.84	168162	10.93
LOWER LIMIT		132867	3.84	171677	6.84	42041	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 180-213537/21		184072	4.34	340635	7.34	86815	10.43

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.: 180-71952-1

SDG No.:

Sample No.: ICIS 180-213537/4 Date Analyzed: 06/08/2017 06:50

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50608D04.D Heated Purge: (Y/N) N

Calibration ID: 34799

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		124675	12.78				
UPPER LIMIT		249350	13.28				
LOWER LIMIT		62338	12.28				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 180-213537/21		123546	12.78				

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.: 180-71952-1

SDG No.:

Sample No.: ICIS 180-218218/4 Date Analyzed: 07/27/2017 01:39

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50727D04.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		240414	4.33	539679	7.30	132843	10.41
UPPER LIMIT		480828	4.83	1079358	7.80	265686	10.91
LOWER LIMIT		120207	3.83	269840	6.80	66422	9.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 180-218218/12		309556	4.31	616746	7.30	146808	10.41

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.: 180-71952-1

SDG No.:

Sample No.: ICIS 180-218218/4 Date Analyzed: 07/27/2017 01:39

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50727D04.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		174621	12.77				
UPPER LIMIT		349242	13.27				
LOWER LIMIT		87311	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 180-218218/12		194967	12.78				

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228418/2 Date Analyzed: 11/08/2017 20:39

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51108D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		231749	4.37	517958	7.34	115625	10.43
UPPER LIMIT		463498	4.87	1035916	7.84	231250	10.93
LOWER LIMIT		115875	3.87	258979	6.84	57813	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228418/3		243460	4.37	509260	7.34	115546	10.43
MB 180-228418/5		255496	4.36	542451	7.34	126783	10.43
180-71952-2	HD-MW-178D-0/1-0	220002	4.36	474288	7.34	132187	10.43
180-71952-4	HD-MPE-2-0/1-0	228389	4.37	502323	7.34	131283	10.43
180-71952-5	HD-MW-178S-0/1-0	221165	4.37	472798	7.34	127184	10.43
180-71952-11	HD-QC7-0/1-2	194227	4.36	451519	7.34	112579	10.44
180-71952-1	HD-MW-180-0/1-0	222448	4.36	488309	7.34	139593	10.43
180-71952-3	HD-MW-179-0/1-0	207972	4.36	454352	7.35	128326	10.43
180-71952-6	HD-MW-181S-0/1-0	201868	4.36	461541	7.34	117708	10.43

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228418/2 Date Analyzed: 11/08/2017 20:39

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51108D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		160818	12.77				
UPPER LIMIT		321636	13.27				
LOWER LIMIT		80409	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228418/3		155402	12.77				
MB 180-228418/5		175009	12.77				
180-71952-2	HD-MW-178D-0/1-0	156164	12.77				
180-71952-4	HD-MPE-2-0/1-0	160805	12.77				
180-71952-5	HD-MW-178S-0/1-0	182822	12.77				
180-71952-11	HD-QC7-0/1-2	144299	12.77				
180-71952-1	HD-MW-180-0/1-0	171292	12.77				
180-71952-3	HD-MW-179-0/1-0	153929	12.77				
180-71952-6	HD-MW-181S-0/1-0	149409	12.77				

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228475/3 Date Analyzed: 11/09/2017 11:45

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51109D03.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		181126	4.37	443850	7.34	90700	10.43
UPPER LIMIT		362252	4.87	887700	7.84	181400	10.93
LOWER LIMIT		90563	3.87	221925	6.84	45350	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228475/4		192812	4.38	418563	7.34	89751	10.43
MB 180-228475/6		234356	4.36	491250	7.34	124894	10.43
180-71952-12	HD-MPE-3-0/1-0	223764	4.36	494802	7.34	123270	10.43
180-71952-14	HD-QC4-0/1-3	205594	4.36	435041	7.34	106456	10.43
180-71952-12 MS	HD-MPE-3-0/1-0 MS	191852	4.39	553318	7.34	108881	10.43
180-71952-12 MSD	HD-MPE-3-0/1-0 MSD	214800	4.38	577133	7.34	117622	10.43
180-71952-7	HD-MW-177-0/1-0	215359	4.36	470604	7.34	128029	10.43
180-71952-8	HD-CW-1A-0/1-0	224336	4.36	466460	7.34	115179	10.43
180-71952-9	HD-MPE-1-0/1-0	213364	4.36	569432	7.34	131712	10.43
180-71952-16	HD-MW-184D-0/1-0	190015	4.36	434916	7.34	110166	10.43

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228475/3 Date Analyzed: 11/09/2017 11:45

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51109D03.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		141671	12.77				
UPPER LIMIT		283342	13.27				
LOWER LIMIT		70836	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228475/4		137819	12.77				
MB 180-228475/6		162356	12.77				
180-71952-12	HD-MPE-3-0/1-0	159968	12.77				
180-71952-14	HD-QC4-0/1-3	144529	12.77				
180-71952-12 MS	HD-MPE-3-0/1-0 MS	170131	12.77				
180-71952-12 MSD	HD-MPE-3-0/1-0 MSD	174148	12.77				
180-71952-7	HD-MW-177-0/1-0	159904	12.77				
180-71952-8	HD-CW-1A-0/1-0	154206	12.77				
180-71952-9	HD-MPE-1-0/1-0	220517	12.77				
180-71952-16	HD-MW-184D-0/1-0	141173	12.77				

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228566/3 Date Analyzed: 11/10/2017 08:27

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51110D03.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		180969	4.37	459979	7.34	98122	10.43
UPPER LIMIT		361938	4.87	919958	7.84	196244	10.93
LOWER LIMIT		90485	3.87	229990	6.84	49061	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228566/5		190976	4.36	453012	7.34	97389	10.43
CCV 180-228566/6		160927	4.36	543711	7.34	105661	10.43
MB 180-228566/8		262677	4.37	561951	7.34	133341	10.43
180-71952-10	HD-MW-183-0/1-0	213740	4.36	495018	7.34	124161	10.43
180-71952-6 DL	HD-MW-181S-0/1-0 DL	208714	4.35	492369	7.34	121223	10.43
180-71952-7 DL	HD-MW-177-0/1-0 DL	207495	4.37	476024	7.34	116511	10.43
180-71952-1 DL	HD-MW-180-0/1-0 DL	236065	4.37	529670	7.34	131839	10.43
180-71952-9 DL	HD-MPE-1-0/1-0 DL	209669	4.36	507292	7.34	119540	10.43
180-71952-16 DL	HD-MW-184D-0/1-0 DL	218415	4.36	489317	7.34	118906	10.43
180-71952-8 DL	HD-CW-1A-0/1-0 DL	211599	4.36	508027	7.34	131020	10.43
180-71952-3 DL	HD-MW-179-0/1-0 DL	216277	4.36	528691	7.34	126476	10.43

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228566/3 Date Analyzed: 11/10/2017 08:27

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51110D03.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135695	12.77				
UPPER LIMIT		271390	13.27				
LOWER LIMIT		67848	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228566/5		141218	12.77				
CCV 180-228566/6		99232	12.77				
MB 180-228566/8		176267	12.77				
180-71952-10	HD-MW-183-0/1-0	158068	12.77				
180-71952-6 DL	HD-MW-181S-0/1-0 DL	155708	12.77				
180-71952-7 DL	HD-MW-177-0/1-0 DL	152064	12.77				
180-71952-1 DL	HD-MW-180-0/1-0 DL	167708	12.77				
180-71952-9 DL	HD-MPE-1-0/1-0 DL	159635	12.77				
180-71952-16 DL	HD-MW-184D-0/1-0 DL	160499	12.77				
180-71952-8 DL	HD-CW-1A-0/1-0 DL	161643	12.77				
180-71952-3 DL	HD-MW-179-0/1-0 DL	170645	12.77				

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228645/2 Date Analyzed: 11/11/2017 05:19

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51111D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		232304	4.39	568447	7.33	124373	10.43
UPPER LIMIT		464608	4.89	1136894	7.83	248746	10.93
LOWER LIMIT		116152	3.89	284224	6.83	62187	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228645/4		242650	4.38	607240	7.34	134587	10.43
MB 180-228645/6		244036	4.36	517243	7.34	128325	10.44
180-71952-13	HD-QC4-0/1-1	217740	4.37	471595	7.34	118321	10.43

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228645/2 Date Analyzed: 11/11/2017 05:19

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51111D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		181322	12.77				
UPPER LIMIT		362644	13.27				
LOWER LIMIT		90661	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228645/4		186168	12.77				
MB 180-228645/6		164524	12.77				
180-71952-13	HD-QC4-0/1-1	156408	12.77				

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228533/2 Date Analyzed: 11/09/2017 08:58

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 711090n3.D Heated Purge: (Y/N) N

Calibration ID: 34724

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		90540	4.25	124890	7.26	29539	10.37
UPPER LIMIT		181080	4.75	249780	7.76	59078	10.87
LOWER LIMIT		45270	3.75	62445	6.76	14770	9.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228533/4		105721	4.26	119931	7.27	28985	10.36
MB 180-228533/8		164920	4.24	186269	7.27	40347	10.36
180-71952-15	HD-QC4-0/1-4	177392	4.25	218709	7.27	48245	10.37
180-71952-2 DL	HD-MW-178D-0/1-0 DL	166378	4.25	204107	7.27	44466	10.36
180-71952-4 DL	HD-MPE-2-0/1-0 DL	173566	4.25	208918	7.26	45781	10.36
180-71952-5 DL	HD-MW-178S-0/1-0 DL	158903	4.25	199845	7.27	42387	10.36

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.: 180-71952-1

SDG No.:

Sample No.: CCVIS 180-228533/2 Date Analyzed: 11/09/2017 08:58

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 711090n3.D Heated Purge: (Y/N) N

Calibration ID: 34724

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		40796	12.71				
UPPER LIMIT		81592	13.21				
LOWER LIMIT		20398	12.21				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228533/4		39802	12.71				
MB 180-228533/8		58263	12.71				
180-71952-15	HD-QC4-0/1-4	70068	12.71				
180-71952-2 DL	HD-MW-178D-0/1-0 DL	63482	12.71				
180-71952-4 DL	HD-MPE-2-0/1-0 DL	65214	12.71				
180-71952-5 DL	HD-MW-178S-0/1-0 DL	58878	12.71				

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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-180-0/1-0 | Lab Sample ID: 180-71952-1

Matrix: Water | Lab File ID: 51108D20.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:42

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 05:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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	2.6		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 ^c	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*	*260*	*^c E*	*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*	*460*	*^c E*	*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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-180-0/1-0 | Lab Sample ID: 180-71952-1

Matrix: Water | Lab File ID: 51108D20.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:42

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 05:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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)	120		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D20.D
Lims ID: 180-71952-C-1
Client ID: HD-MW-180-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 05:17:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-020
Misc. Info.: 180-71952-C-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:31:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.373	-0.015	0	222448	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.341	0.004	98	488309	50.0	
* 3 Chlorobenzene-d5	119	10.428	10.430	-0.002	88	139593	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	98	171292	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.621	6.617	0.004	92	125013	53.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.992	6.982	0.010	0	171679	59.9	
$ 7 Toluene-d8 (Surr)	98	8.980	8.976	0.004	94	473211	42.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.610	0.003	83	165688	41.3	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.342				ND	
16 Chloroethane	64		2.433				ND	
22 1,1-Dichloroethene	96	3.440	3.418	0.022	98	31167	13.0	
24 Acetone	43	3.537	3.528	0.009	72	7703	6.03	
26 Carbon disulfide	76		3.716				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.610				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.273				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.438	6.434	0.004	93	6865	1.45	
53 1,1,1-Trichloroethane	97	6.608	6.592	0.016	35	9828	2.75	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.727	7.724	0.003	94	3838760	1284.8	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.047	9.043	0.004	96	14450	1.04	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97	9.479	9.487	-0.008	1	1091	0.3762	
80 Tetrachloroethene	164	9.564	9.554	0.010	76	6117016	2304.4	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131	10.561	10.551	0.010	77	2255	0.7826	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

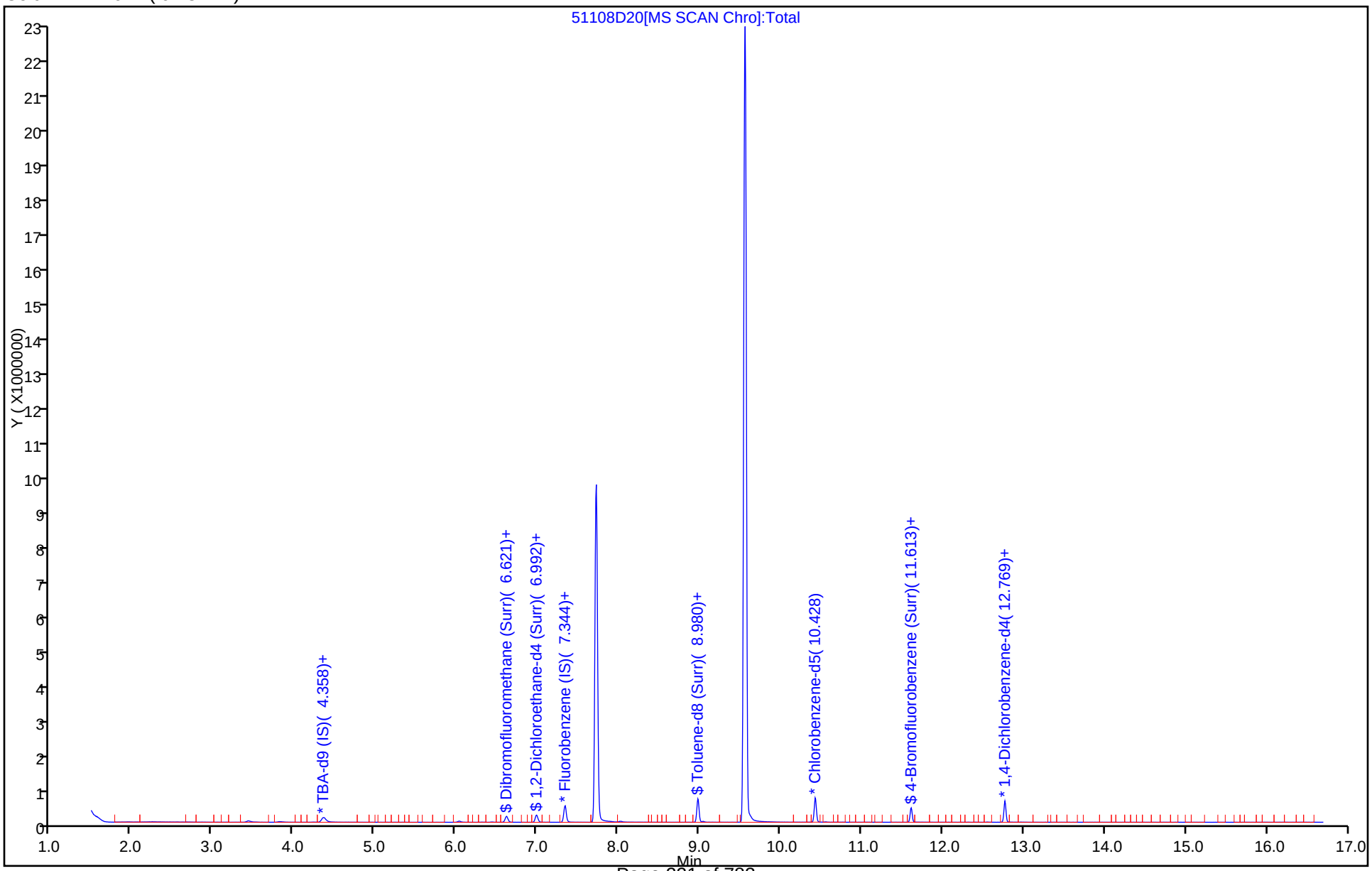
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 09-Nov-2017 09:46:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D20.D				
Injection Date:	09-Nov-2017 05:17:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-C-1	Lab Sample ID:	180-71952-1	Worklist Smp#:	20
Client ID:	HD-MW-180-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D20.D				
Lims ID:	180-71952-C-1				
Client ID:	HD-MW-180-0/1-0				
Sample Type:	Client				
Inject. Date:	09-Nov-2017 05:17:30	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019227-020				
Misc. Info.:	180-71952-C-1				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 09:44:05	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: journetp		Date:	09-Nov-2017 09:31:47		

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.2	106.42
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	59.9	119.82
$ 7 Toluene-d8 (Surr)	50.0	42.6	85.19
$ 8 4-Bromofluorobenzene (Surr)	50.0	41.3	82.59

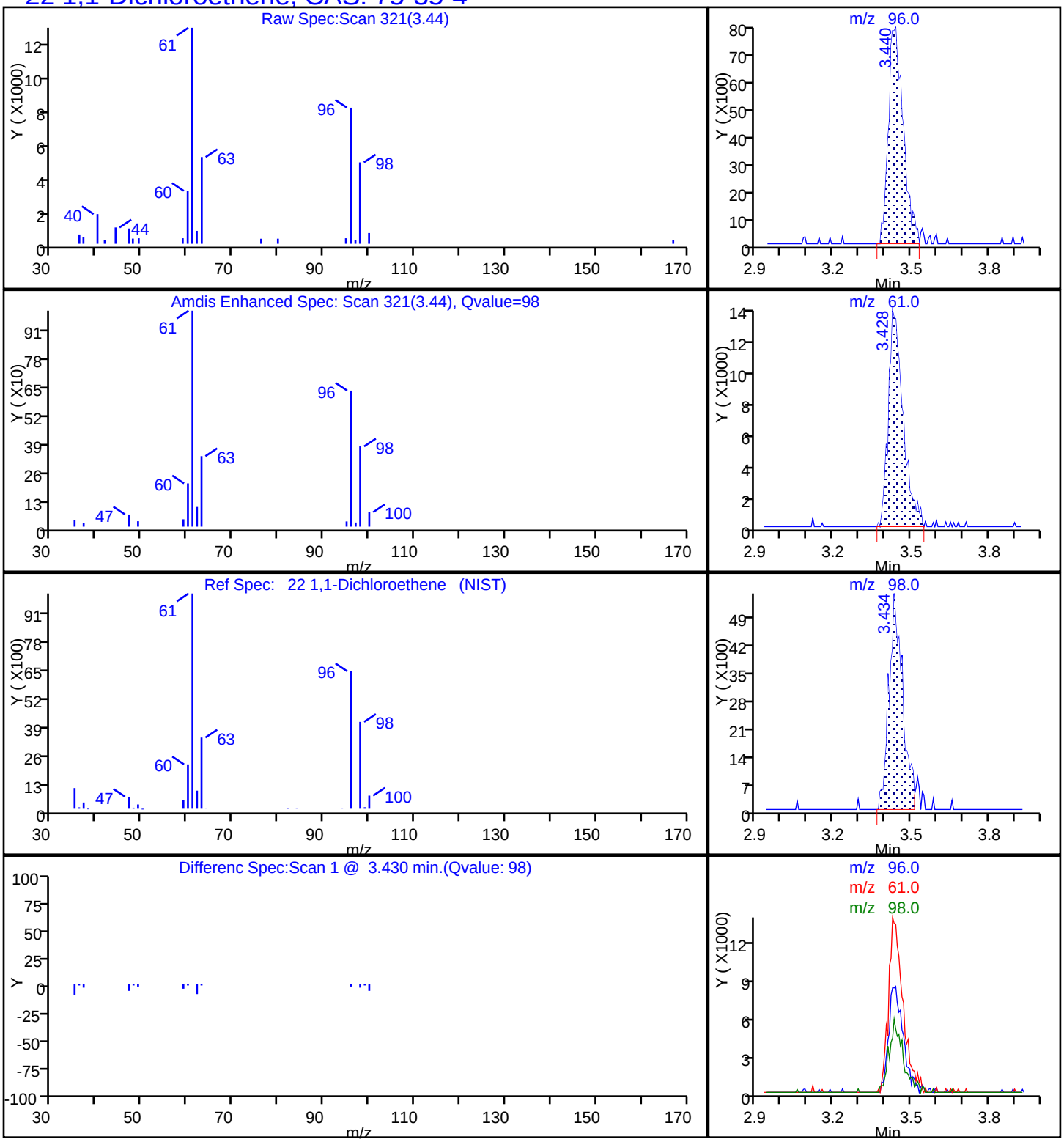
Report Date: 09-Nov-2017 09:46:17 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D20.D

Injection Date:	09-Nov-2017 05:17:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-1	Lab Sample ID:	180-71952-1		
Client ID:	HD-MW-180-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

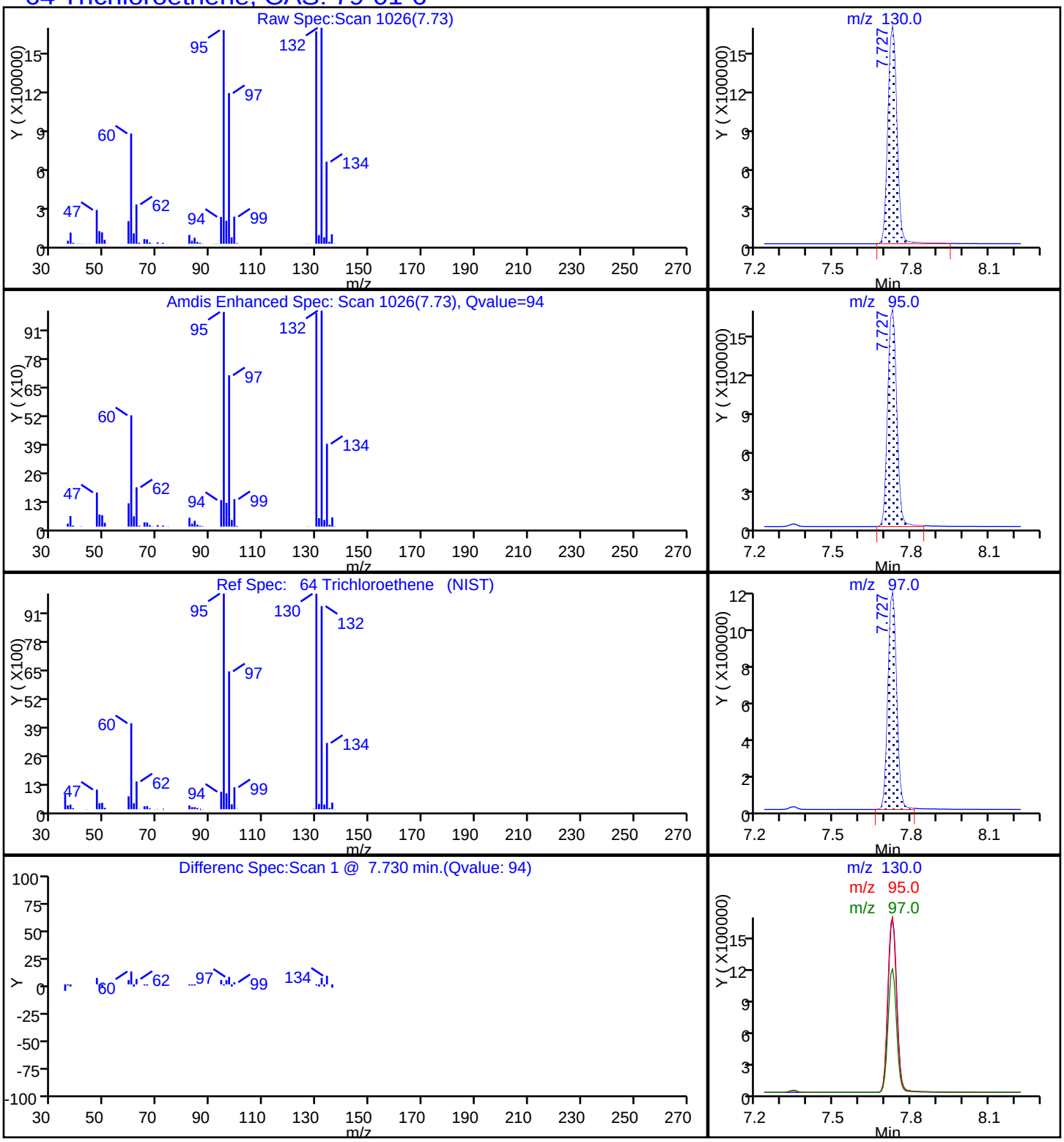


Report Date: 09-Nov-2017 09:46:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D20.D				
Injection Date:	09-Nov-2017 05:17:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-1	Lab Sample ID:	180-71952-1		
Client ID:	HD-MW-180-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



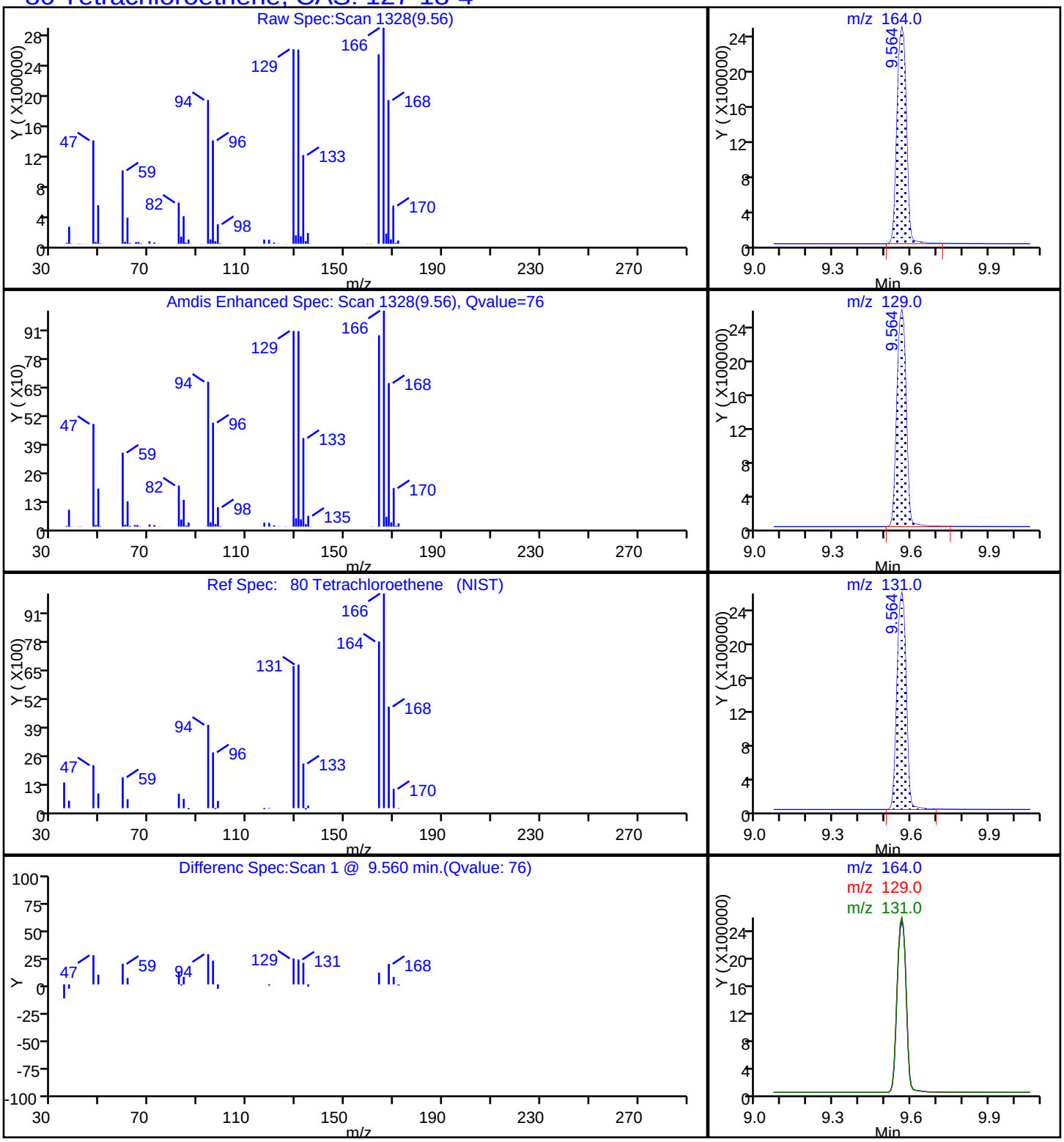
Report Date: 09-Nov-2017 09:46:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D20.D

Injection Date:	09-Nov-2017 05:17:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-1	Lab Sample ID:	180-71952-1		
Client ID:	HD-MW-180-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-180-0/1-0 DL | Lab Sample ID: 180-71952-1 DL

Matrix: Water | Lab File ID: 51110D19.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:42

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 15:52

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	40	U ^c	40	36
75-01-4	Vinyl chloride	40	U	40	35
74-83-9	Bromomethane	40	U ^c	40	35
75-00-3	Chloroethane	40	U ^c	40	36
75-35-4	1,1-Dichloroethene	40	U	40	22
67-64-1	Acetone	200	U	200	140
75-15-0	Carbon disulfide	40	U ^c	40	35
75-09-2	Methylene Chloride	40	U	40	14
156-60-5	trans-1,2-Dichloroethene	40	U	40	27
1634-04-4	Methyl tert-butyl ether	40	U	40	24
75-34-3	1,1-Dichloroethane	40	U	40	25
156-59-2	cis-1,2-Dichloroethene	40	U	40	28
74-97-5	Bromochloromethane	40	U	40	25
78-93-3	2-Butanone (MEK)	200	U	200	100
67-66-3	Chloroform	40	U	40	24
71-55-6	1,1,1-Trichloroethane	40	U	40	24
56-23-5	Carbon tetrachloride	40	U	40	35
71-43-2	Benzene	40	U	40	24
107-06-2	1,2-Dichloroethane	40	U	40	23
79-01-6	Trichloroethene	260		40	28
78-87-5	1,2-Dichloropropane	40	U	40	26
75-27-4	Bromodichloromethane	40	U	40	26
10061-01-5	cis-1,3-Dichloropropene	40	U	40	24
108-10-1	4-Methyl-2-pentanone (MIBK)	200	U	200	120
108-88-3	Toluene	40	U	40	18
10061-02-6	trans-1,3-Dichloropropene	40	U	40	23
79-00-5	1,1,2-Trichloroethane	40	U	40	18
127-18-4	Tetrachloroethene	690		40	19
591-78-6	2-Hexanone	200	U	200	130
124-48-1	Dibromochloromethane	40	U	40	34
106-93-4	1,2-Dibromoethane (EDB)	40	U	40	20
108-90-7	Chlorobenzene	40	U	40	20
630-20-6	1,1,1,2-Tetrachloroethane	40	U	40	23
100-41-4	Ethylbenzene	40	U	40	20
1330-20-7	Xylenes, Total	80	U	80	36
100-42-5	Styrene	40	U	40	19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-180-0/1-0 DL | Lab Sample ID: 180-71952-1 DL

Matrix: Water | Lab File ID: 51110D19.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:42

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 15:52

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*40*	*U*	*40*	*39*
79-34-5	*1,1,2,2-Tetrachloroethane*	*40*	*U*	*40*	*24*
107-13-1	*Acrylonitrile*	*800*	*U*	*800*	*310*
123-91-1	*1,4-Dioxane*	*8000*	*U*	*8000*	*540*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	82		73-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D19.D
Lims ID: 180-71952-A-1
Client ID: HD-MW-180-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 15:52:30 ALS Bottle#: 3 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 40.0000
Sample Info: 180-0019249-019
Misc. Info.: 180-71952-A-1 ,40x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 16:47:12 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 16:18:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.367	4.365	0.002	0	236065	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.339	0.002	98	529670	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.428	0.002	86	131839	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	97	167708	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.615	0.002	93	127040	49.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.986	0.002	0	159455	51.3	
$ 7 Toluene-d8 (Surr)	98	8.983	8.981	0.002	94	428061	40.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.608	0.002	84	178267	47.0	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.376				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.237				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83		6.439				ND	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.724	7.728	-0.004	98	105389	32.5	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.560	9.558	0.002	93	217267	86.7	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

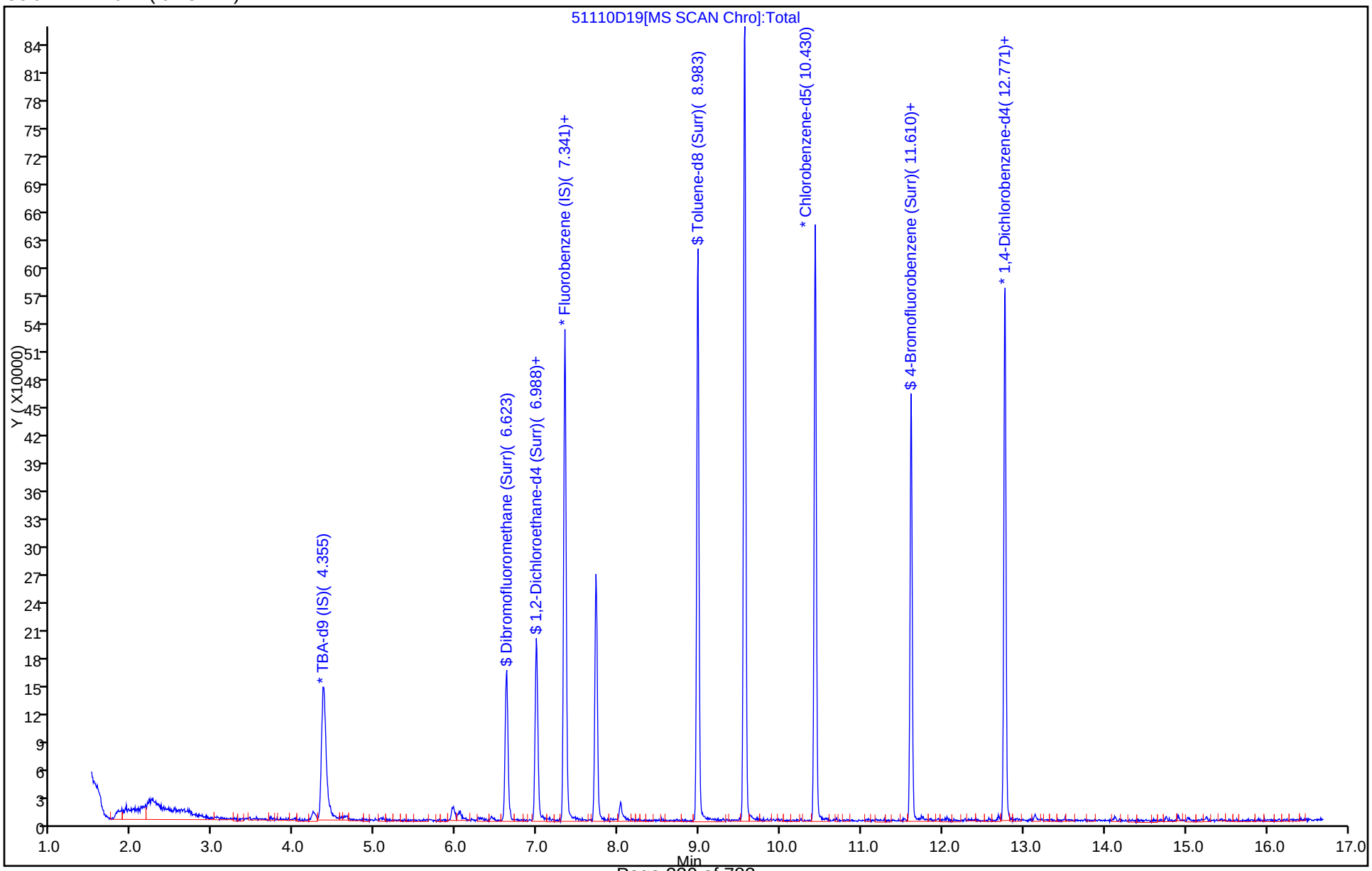
Report Date: 10-Nov-2017 16:47:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D19.D

Injection Date:	10-Nov-2017 15:52:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-1	Lab Sample ID:	180-71952-1	Worklist Smp#:	19
Client ID:	HD-MW-180-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	40.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D19.D
Lims ID: 180-71952-A-1
Client ID: HD-MW-180-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 15:52:30 ALS Bottle#: 3 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 40.0000
Sample Info: 180-0019249-019
Misc. Info.: 180-71952-A-1 ,40x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 16:47:12 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 16:18:13

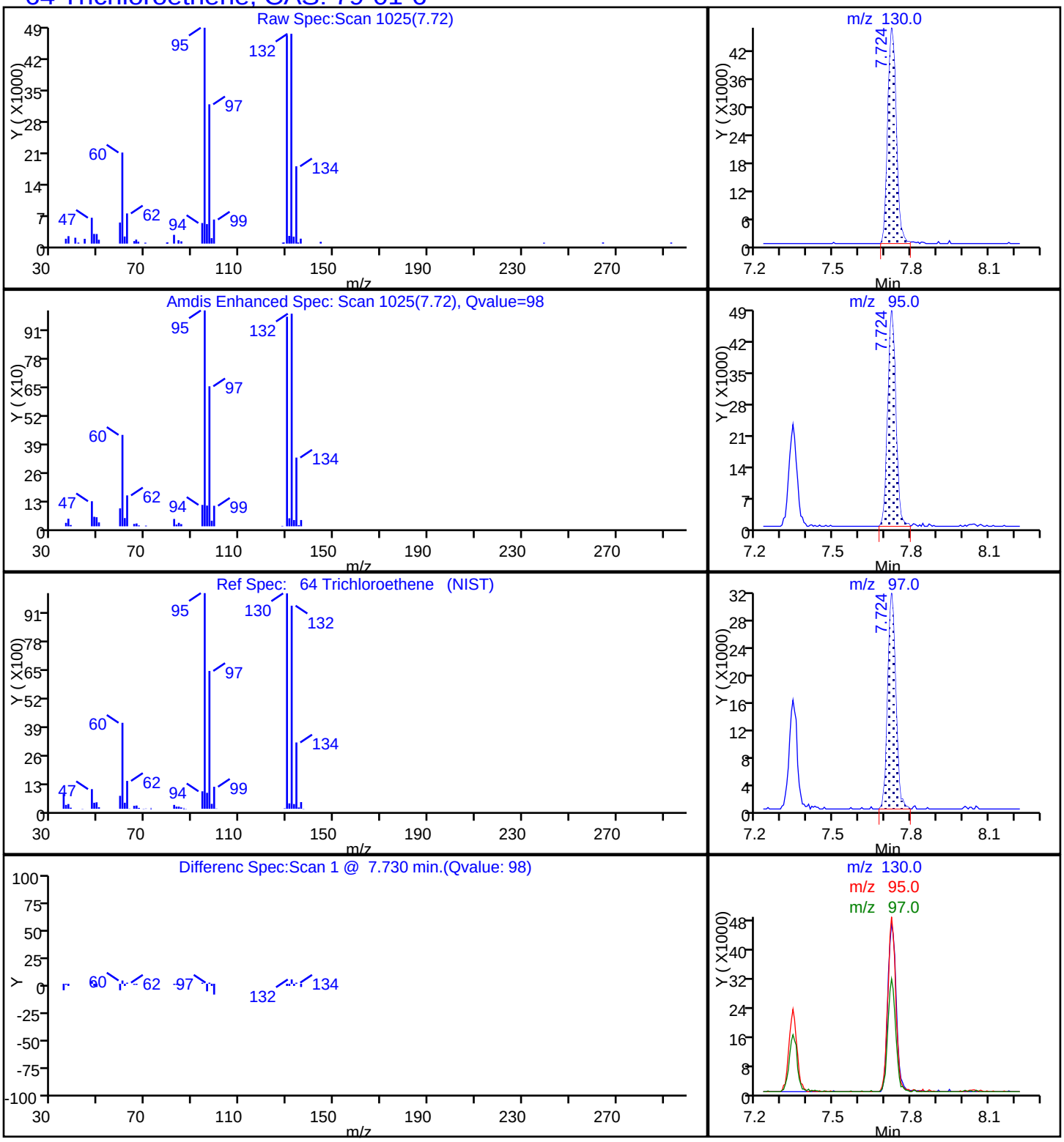
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.8	99.70
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.3	102.60
$ 7 Toluene-d8 (Surr)	50.0	40.8	81.59
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.0	94.08

Report Date: 10-Nov-2017 16:47:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D19.D		
Injection Date:	10-Nov-2017 15:52:30	Instrument ID:	CHHP5
Lims ID:	180-71952-A-1	Lab Sample ID:	180-71952-1
Client ID:	HD-MW-180-0/1-0		
Operator ID:	034635	ALS Bottle#:	3 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



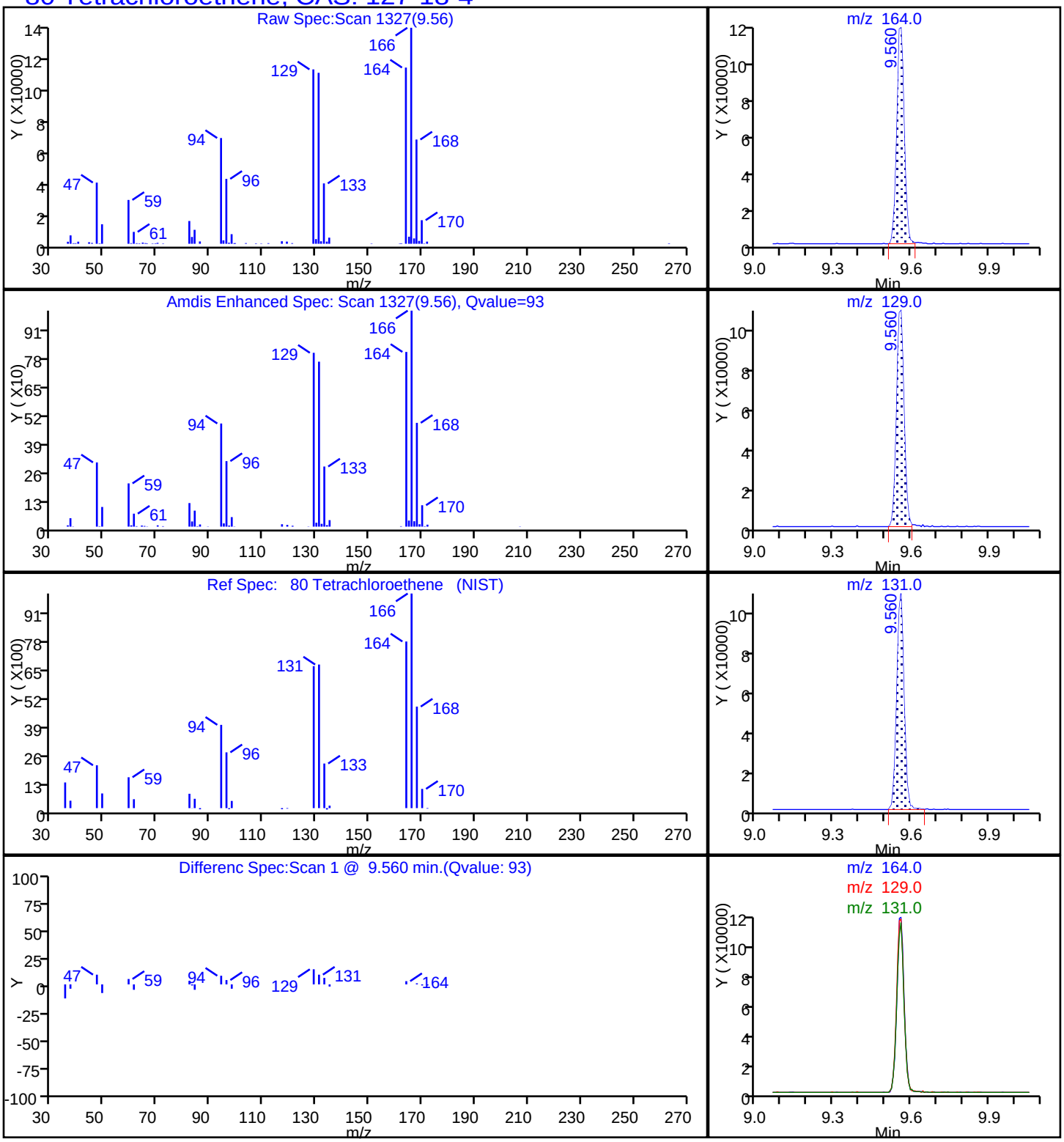
Report Date: 10-Nov-2017 16:47:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D19.D

Injection Date:	10-Nov-2017 15:52:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-1	Lab Sample ID:	180-71952-1		
Client ID:	HD-MW-180-0/1-0				
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178D-0/1-0 | Lab Sample ID: 180-71952-2

Matrix: Water | Lab File ID: 51108D15.D

Analysis Method: 8260C | Date Collected: 10/30/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 03:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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	2.2		1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U ^c	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*	*320*	*^c E*	*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*	*370*	*^c E*	*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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178D-0/1-0 | Lab Sample ID: 180-71952-2

Matrix: Water | Lab File ID: 51108D15.D

Analysis Method: 8260C | Date Collected: 10/30/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 03:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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)	118		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	109		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D15.D
Lims ID: 180-71952-A-2
Client ID: HD-MW-178D-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 03:18:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-015
Misc. Info.: 180-71952-A-2
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:26:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.359	4.373	-0.014	0	220002	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.341	-0.001	98	474288	50.0	
* 3 Chlorobenzene-d5	119	10.428	10.430	-0.002	87	132187	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	96	156164	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.621	6.617	0.004	92	123953	54.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.982	0.004	0	163547	58.8	
$ 7 Toluene-d8 (Surr)	98	8.981	8.976	0.005	94	457423	43.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.610	0.004	83	158452	41.7	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.342				ND	
16 Chloroethane	64		2.433				ND	
22 1,1-Dichloroethene	96	3.429	3.418	0.011	16	1946	0.8381	
24 Acetone	43		3.528				ND	
26 Carbon disulfide	76		3.716				ND	
31 Methylene Chloride	84	4.243	4.227	0.016	17	1486	-2.80	
33 Acrylonitrile	53		4.610				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.273				ND	
45 cis-1,2-Dichloroethene	96	6.019	6.009	0.010	82	33683	11.1	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.445	6.434	0.011	94	8184	1.78	
53 1,1,1-Trichloroethane	97	6.597	6.592	0.005	1	2123	0.6106	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78	6.992	6.994	-0.002	41	3699	0.3208	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.728	7.724	0.004	93	4680844	1612.9	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.054	9.043	0.011	54	5935	0.4503	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.565	9.554	0.011	82	4641245	1846.4	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131	10.550	10.551	-0.001	89	2197	0.8052	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106	10.690	10.685	0.005	0	938	0.1603	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106				0		0.1603	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

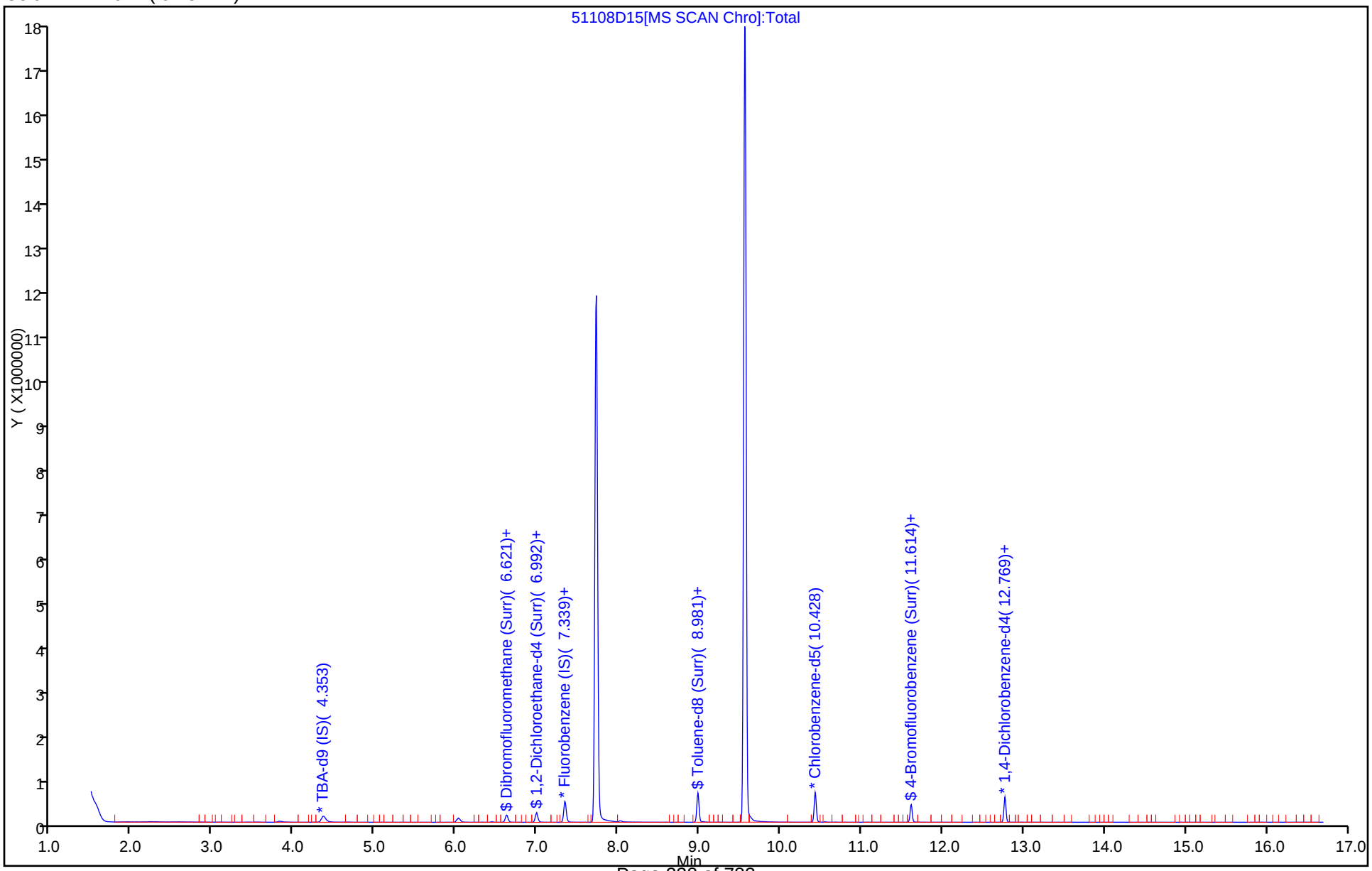
Report Date: 09-Nov-2017 09:46:34 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D15.D

Injection Date:	09-Nov-2017 03:18:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-2	Lab Sample ID:	180-71952-2	Worklist Smp#:	15
Client ID:	HD-MW-178D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D15.D
Lims ID: 180-71952-A-2
Client ID: HD-MW-178D-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 03:18:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-015
Misc. Info.: 180-71952-A-2
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:26:34

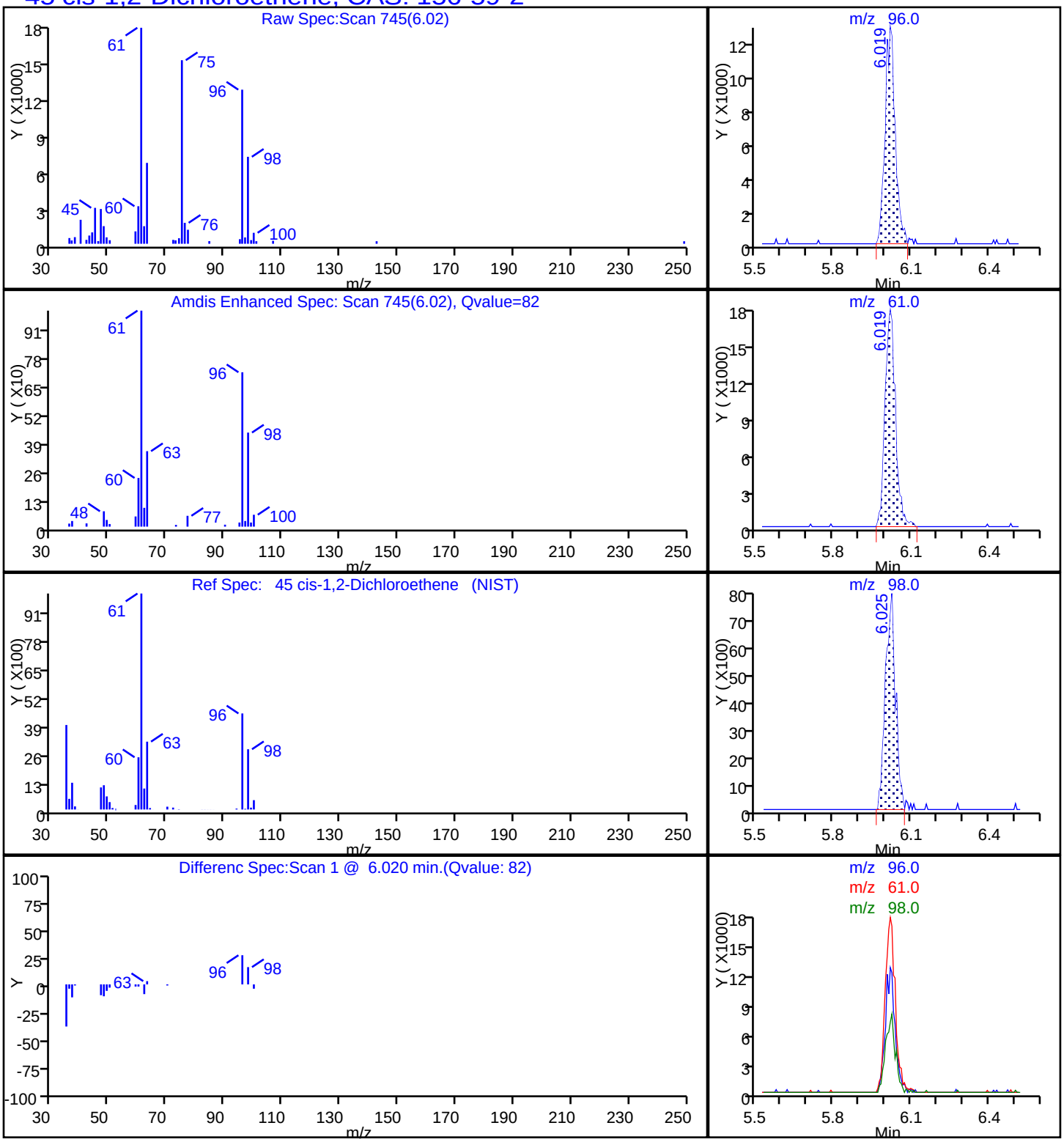
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	54.3	108.63
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.8	117.52
$ 7 Toluene-d8 (Surr)	50.0	43.5	86.96
$ 8 4-Bromofluorobenzene (Surr)	50.0	41.7	83.40

Report Date: 09-Nov-2017 09:46:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D15.D				
Injection Date:	09-Nov-2017 03:18:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-2	Lab Sample ID:	180-71952-2		
Client ID:	HD-MW-178D-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

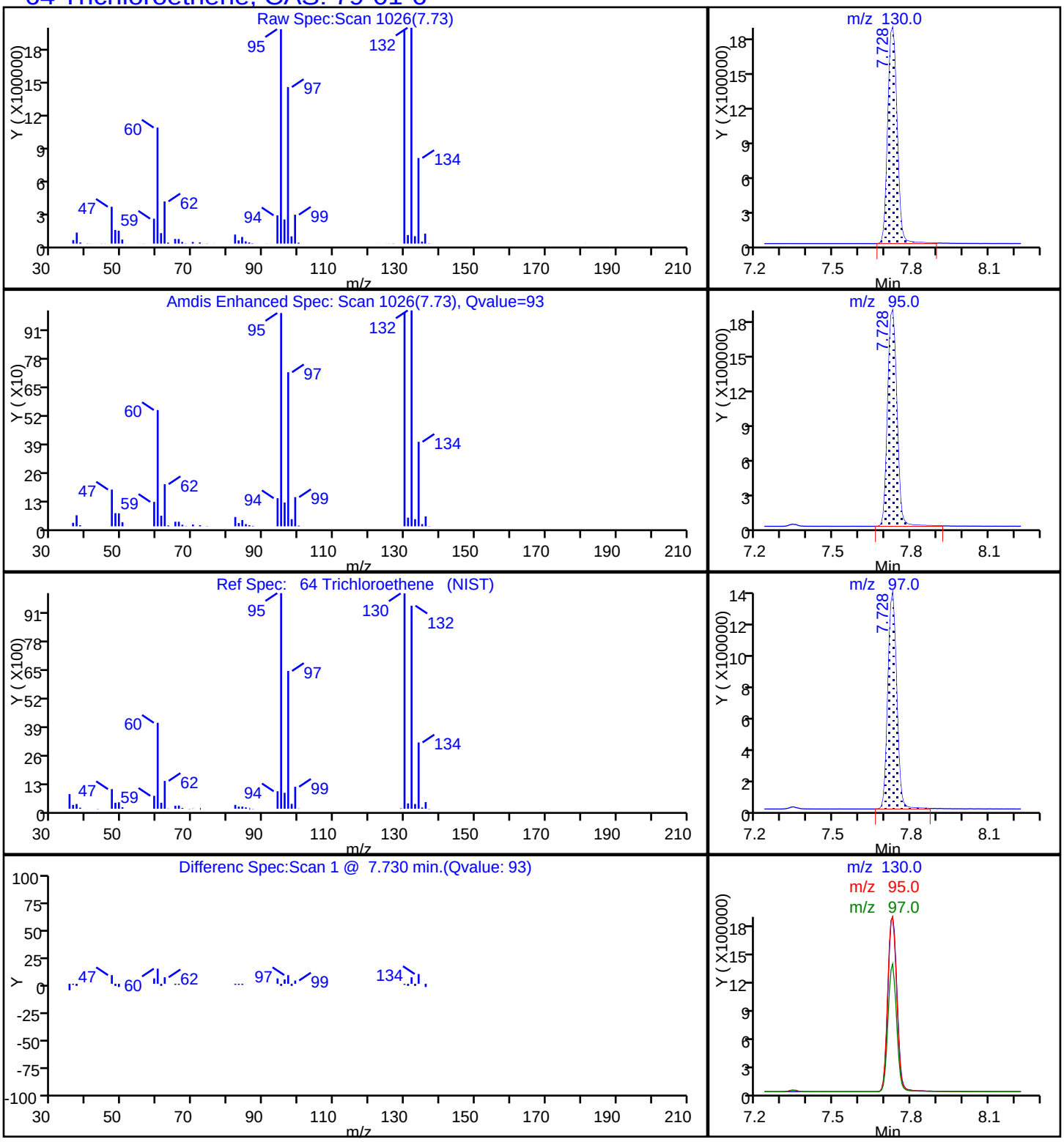


Report Date: 09-Nov-2017 09:46:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D15.D		
Injection Date:	09-Nov-2017 03:18:30	Instrument ID:	CHHP5
Lims ID:	180-71952-A-2	Lab Sample ID:	180-71952-2
Client ID:	HD-MW-178D-0/1-0		
Operator ID:	034635	ALS Bottle#:	14 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



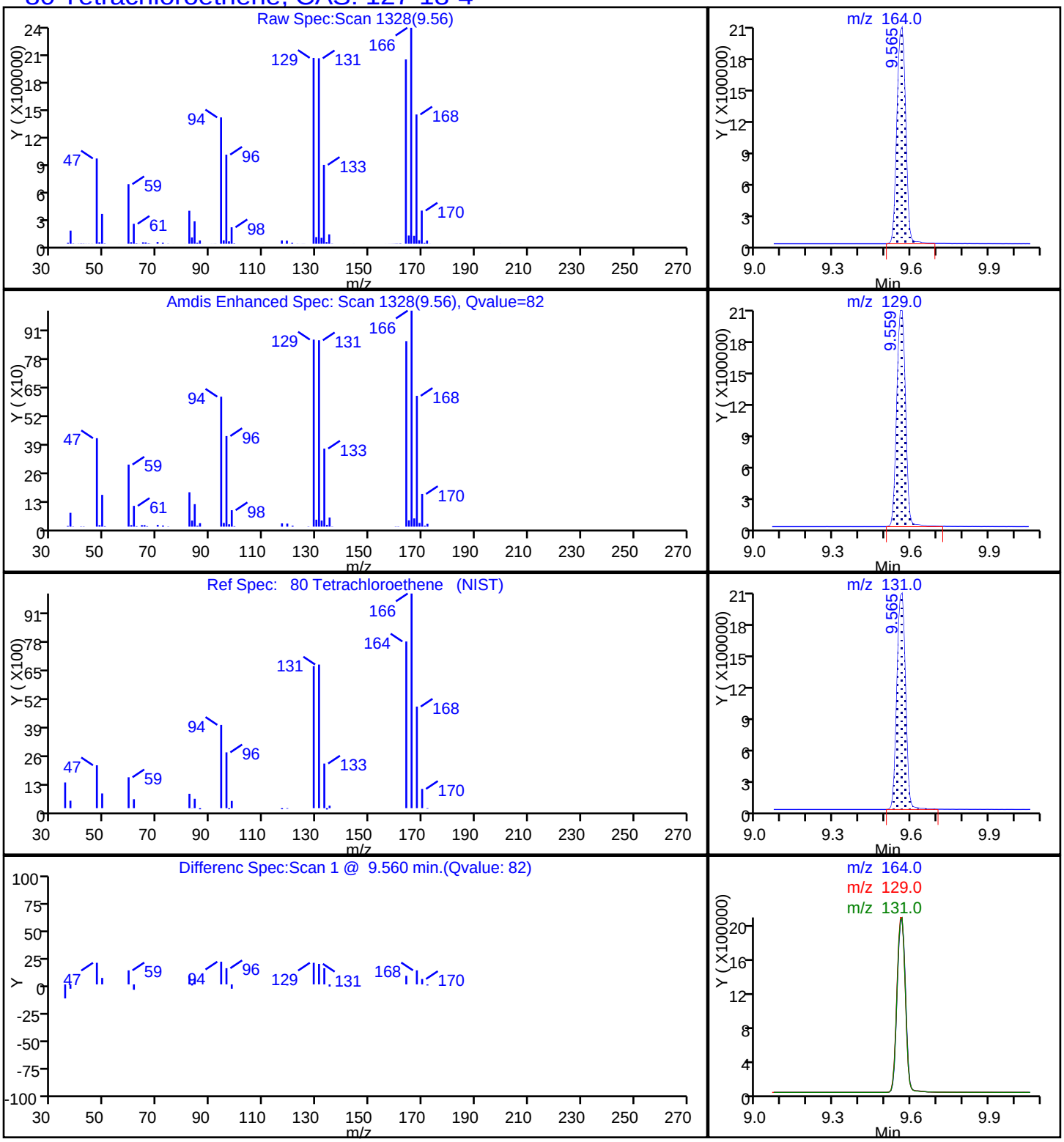
Report Date: 09-Nov-2017 09:46:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D15.D

Injection Date:	09-Nov-2017 03:18:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-2	Lab Sample ID:	180-71952-2		
Client ID:	HD-MW-178D-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178D-0/1-0 DL | Lab Sample ID: 180-71952-2 DL

Matrix: Water | Lab File ID: 7110918.D

Analysis Method: 8260C | Date Collected: 10/30/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 16:36

Soil Aliquot Vol: | Dilution Factor: 30

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	30	U ^c	30	27
75-01-4	Vinyl chloride	30	U ^c	30	27
74-83-9	Bromomethane	30	U ^c	30	27
75-00-3	Chloroethane	30	U	30	27
75-35-4	1,1-Dichloroethene	30	U	30	17
67-64-1	Acetone	150	U ^c	150	100
75-15-0	Carbon disulfide	30	U	30	26
75-09-2	Methylene Chloride	30	U	30	11
156-60-5	trans-1,2-Dichloroethene	30	U	30	20
1634-04-4	Methyl tert-butyl ether	30	U	30	18
75-34-3	1,1-Dichloroethane	30	U	30	19
156-59-2	cis-1,2-Dichloroethene	30	U	30	21
74-97-5	Bromochloromethane	30	U	30	19
78-93-3	2-Butanone (MEK)	150	U	150	77
67-66-3	Chloroform	30	U	30	18
71-55-6	1,1,1-Trichloroethane	30	U	30	18
56-23-5	Carbon tetrachloride	30	U	30	26
71-43-2	Benzene	30	U	30	18
107-06-2	1,2-Dichloroethane	30	U	30	17
79-01-6	Trichloroethene	240		30	21
78-87-5	1,2-Dichloropropane	30	U	30	20
75-27-4	Bromodichloromethane	30	U	30	19
10061-01-5	cis-1,3-Dichloropropene	30	U	30	18
108-10-1	4-Methyl-2-pentanone (MIBK)	150	U ^c	150	93
108-88-3	Toluene	30	U ^c	30	14
10061-02-6	trans-1,3-Dichloropropene	30	U	30	17
79-00-5	1,1,2-Trichloroethane	30	U	30	14
127-18-4	Tetrachloroethene	410		30	14
591-78-6	2-Hexanone	150	U	150	98
124-48-1	Dibromochloromethane	30	U	30	25
106-93-4	1,2-Dibromoethane (EDB)	30	U	30	15
108-90-7	Chlorobenzene	30	U	30	15
630-20-6	1,1,1,2-Tetrachloroethane	30	U	30	17
100-41-4	Ethylbenzene	30	U	30	15
1330-20-7	Xylenes, Total	60	U	60	27
100-42-5	Styrene	30	U	30	14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178D-0/1-0 DL | Lab Sample ID: 180-71952-2 DL

Matrix: Water | Lab File ID: 7110918.D

Analysis Method: 8260C | Date Collected: 10/30/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 16:36

Soil Aliquot Vol: | Dilution Factor: 30

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*30*	*U ^c*	*30*	*29*
79-34-5	*1,1,2,2-Tetrachloroethane*	*30*	*U*	*30*	*18*
107-13-1	*Acrylonitrile*	*600*	*U*	*600*	*230*
123-91-1	*1,4-Dioxane*	*6000*	*U ^c*	*6000*	*410*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77	*^c*	65-121
2037-26-5	Toluene-d8 (Surr)	108		73-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	88		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110918.D
Lims ID: 180-71952-B-2
Client ID: HD-MW-178D-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 16:36:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 30.0000
Sample Info: 180-71952-B-2 ,30x
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:26:44 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:20:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.250	4.251	-0.001	99	166378	1000.0	
* 2 Fluorobenzene (IS)	96	7.267	7.263	0.004	98	204107	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.365	-0.002	90	44466	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.706	12.707	-0.001	97	63482	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.543	6.539	0.004	93	44376	43.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.914	6.910	0.004	91	75564	38.5	
$ 7 Toluene-d8 (Surr)	98	8.910	8.911	-0.001	94	181617	53.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.550	11.545	0.005	85	69465	48.2	
12 Chloromethane	50		1.793				ND	
13 Vinyl chloride	62		1.921				ND	
15 Bromomethane	94		2.280				ND	
16 Chloroethane	64		2.414				ND	
22 1,1-Dichloroethene	96		3.345				ND	
24 Acetone	43		3.436				ND	
26 Carbon disulfide	76		3.625				ND	
31 Methylene Chloride	84		4.123				ND	
33 Acrylonitrile	53		4.507				ND	
34 trans-1,2-Dichloroethene	96		4.555				ND	
35 Methyl tert-butyl ether	73		4.561				ND	
37 1,1-Dichloroethane	63		5.182				ND	
45 cis-1,2-Dichloroethene	96		5.930				ND	
46 2-Butanone (MEK)	43		5.936				ND	
49 Chlorobromomethane	128		6.210				ND	
52 Chloroform	83	6.361	6.362	-0.001	1	1170	0.4537	
53 1,1,1-Trichloroethane	97		6.514				ND	
56 Carbon tetrachloride	117		6.691				ND	
58 Benzene	78		6.922				ND	
59 1,2-Dichloroethane	62		6.995				ND	
64 Trichloroethene	130	7.656	7.646	0.010	96	50070	39.9	
67 1,2-Dichloropropane	63		7.926				ND	
70 1,4-Dioxane	88		8.011				ND	
71 Dichlorobromomethane	83		8.205				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 cis-1,3-Dichloropropene	75		8.650				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.802				ND	
76 Toluene	91		8.978				ND	
77 trans-1,3-Dichloropropene	75		9.227				ND	
79 1,1,2-Trichloroethane	97		9.422				ND	
80 Tetrachloroethene	164	9.494	9.495	-0.001	97	52534	68.0	
82 2-Hexanone	43		9.635				ND	
84 Chlorodibromomethane	129		9.787				ND	
85 Ethylene Dibromide	107		9.909				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.481				ND	
90 Ethylbenzene	106		10.493				ND	
91 m-Xylene & p-Xylene	106		10.621				ND	
92 o-Xylene	106		11.004				ND	
93 Styrene	104		11.022				ND	
94 Bromoform	173		11.211				ND	
99 1,1,2,2-Tetrachloroethane	83		11.685				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent

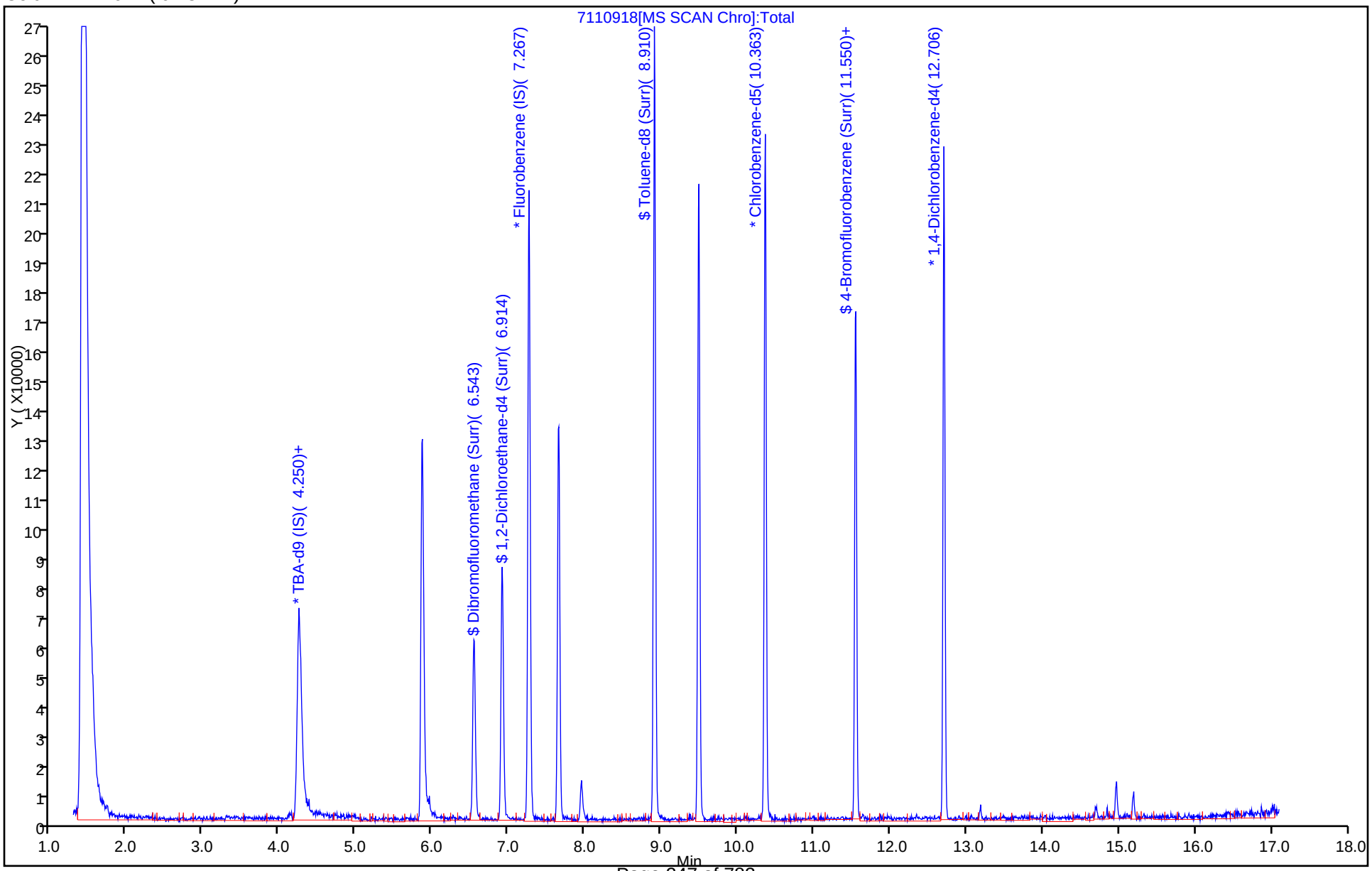
Report Date: 09-Nov-2017 17:27:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110918.D

Injection Date:	09-Nov-2017 16:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-71952-B-2	Lab Sample ID:	180-71952-2	Worklist Smp#:	18
Client ID:	HD-MW-178D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	30.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110918.D
Lims ID: 180-71952-B-2
Client ID: HD-MW-178D-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 16:36:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 30.0000
Sample Info: 180-71952-B-2 ,30x
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:26:44 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:20:57

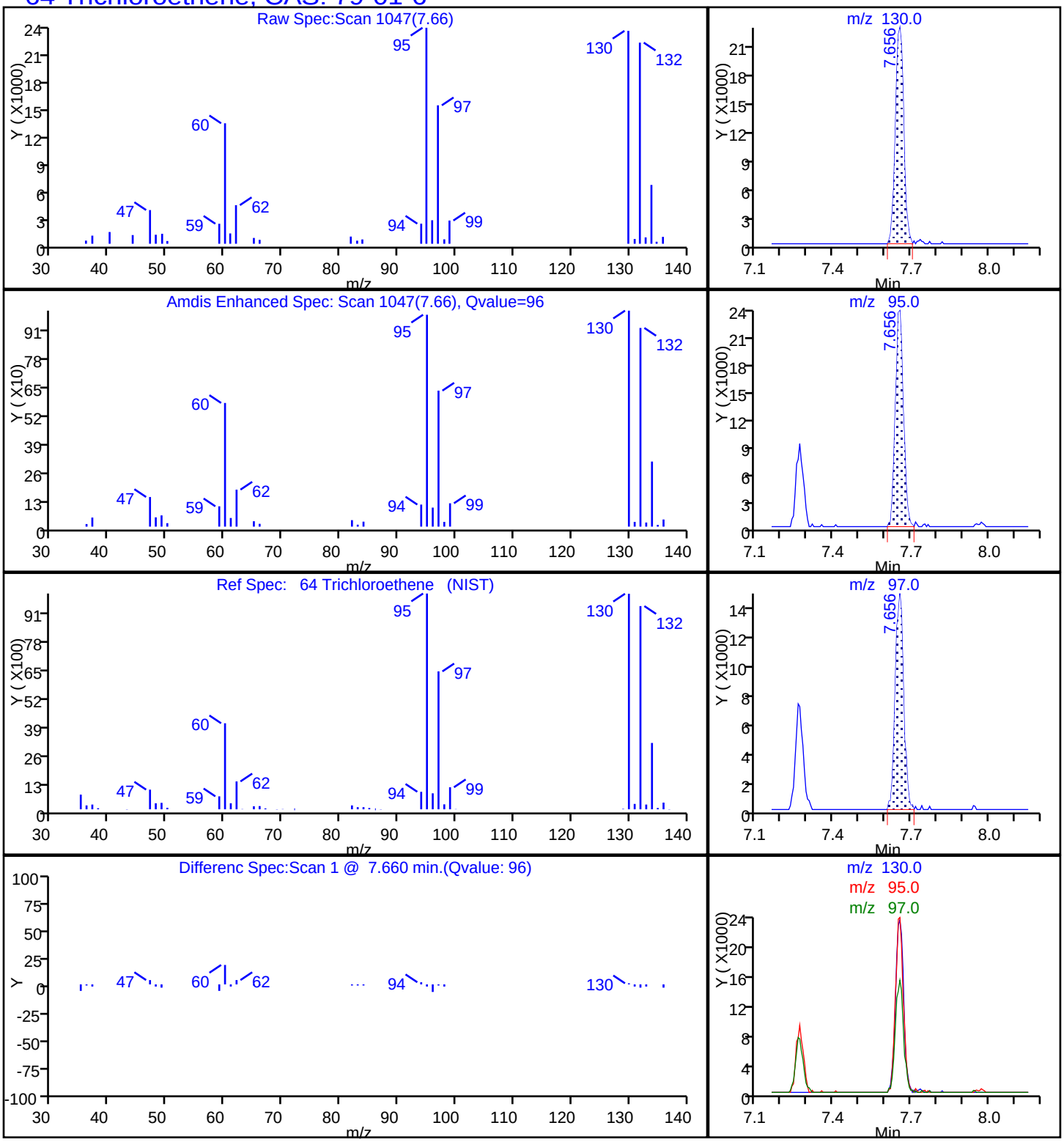
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	43.9	87.87
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	38.5	76.93
$ 7 Toluene-d8 (Surr)	50.0	53.9	107.83
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.2	96.37

Report Date: 09-Nov-2017 17:27:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110918.D				
Injection Date:	09-Nov-2017 16:36:30	Instrument ID:	CHHP7		
Lims ID:	180-71952-B-2	Lab Sample ID:	180-71952-2		
Client ID:	HD-MW-178D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	30.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



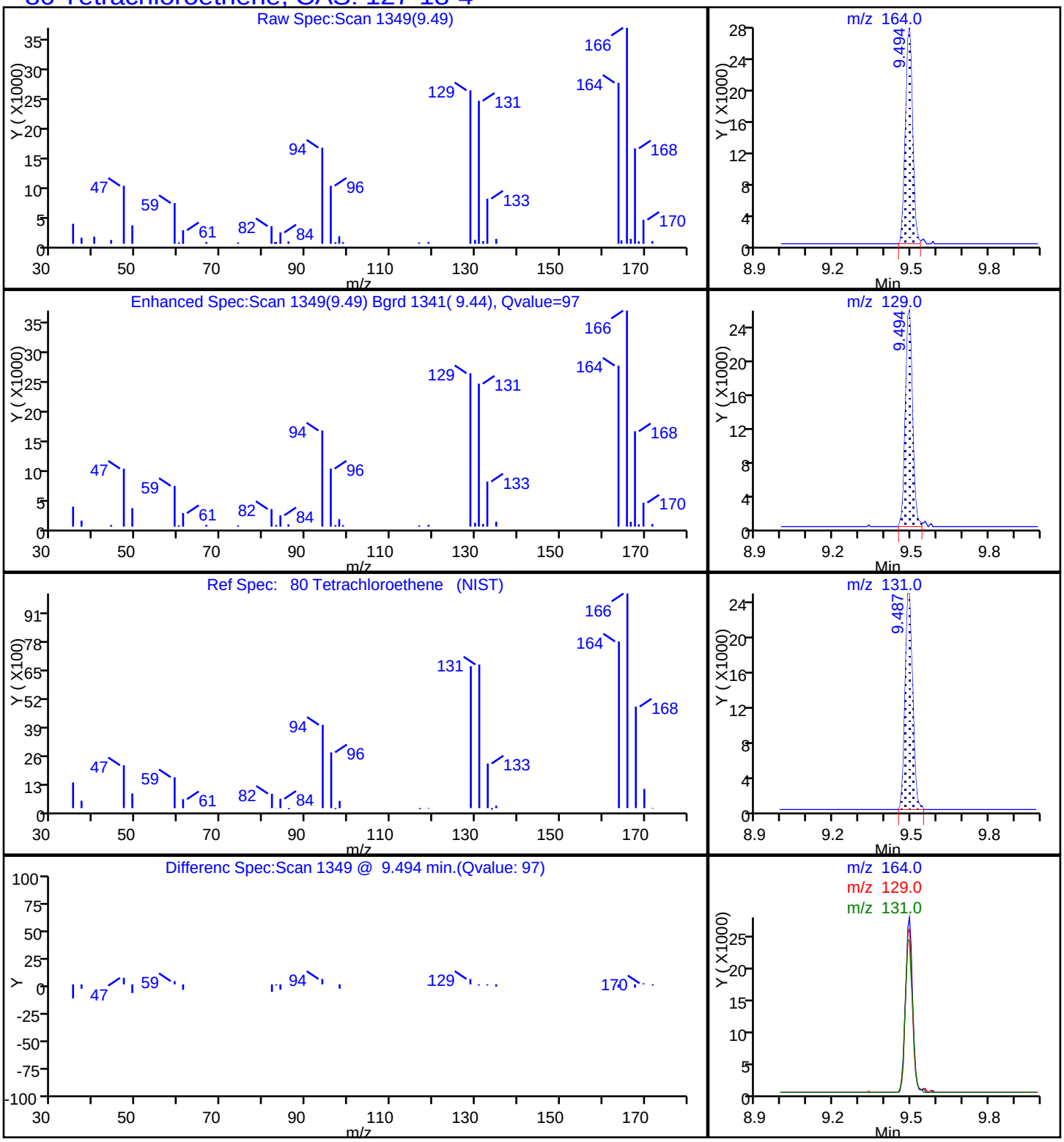
Report Date: 09-Nov-2017 17:27:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110918.D

Injection Date:	09-Nov-2017 16:36:30	Instrument ID:	CHHP7		
Lims ID:	180-71952-B-2	Lab Sample ID:	180-71952-2		
Client ID:	HD-MW-178D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	30.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-179-0/1-0 | Lab Sample ID: 180-71952-3

Matrix: Water | Lab File ID: 51108D21.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 05:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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	0.64	J	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 ^c	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*	*53*	*^c E*	*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*	*260*	*^c E*	*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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-179-0/1-0 | Lab Sample ID: 180-71952-3

Matrix: Water | Lab File ID: 51108D21.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 05:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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)	120		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	79	X	80-120
1868-53-7	Dibromofluoromethane (Surr)	115		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D
Lims ID: 180-71952-A-3
Client ID: HD-MW-179-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 05:41:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-021
Misc. Info.: 180-71952-A-3
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:32:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.359	4.373	-0.014	0	207972	1000.0	
* 2 Fluorobenzene (IS)	96	7.345	7.341	0.005	98	454352	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.430	-0.001	87	128326	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	97	153929	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.622	6.617	0.005	93	126056	57.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.982	0.004	0	160425	60.2	
$ 7 Toluene-d8 (Surr)	98	8.981	8.976	0.005	94	435042	42.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.610	0.004	84	144933	39.3	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.342				ND	
16 Chloroethane	64		2.433				ND	
22 1,1-Dichloroethene	96	3.441	3.418	0.023	92	7109	3.20	
24 Acetone	43	3.557	3.528	0.029	60	7104	5.98	M
26 Carbon disulfide	76		3.716				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.610				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.273				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.433	6.434	-0.001	1	2625	0.5965	M
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.722	7.724	-0.002	97	742125	266.9	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.043				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.559	9.554	0.005	87	3199972	1311.3	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

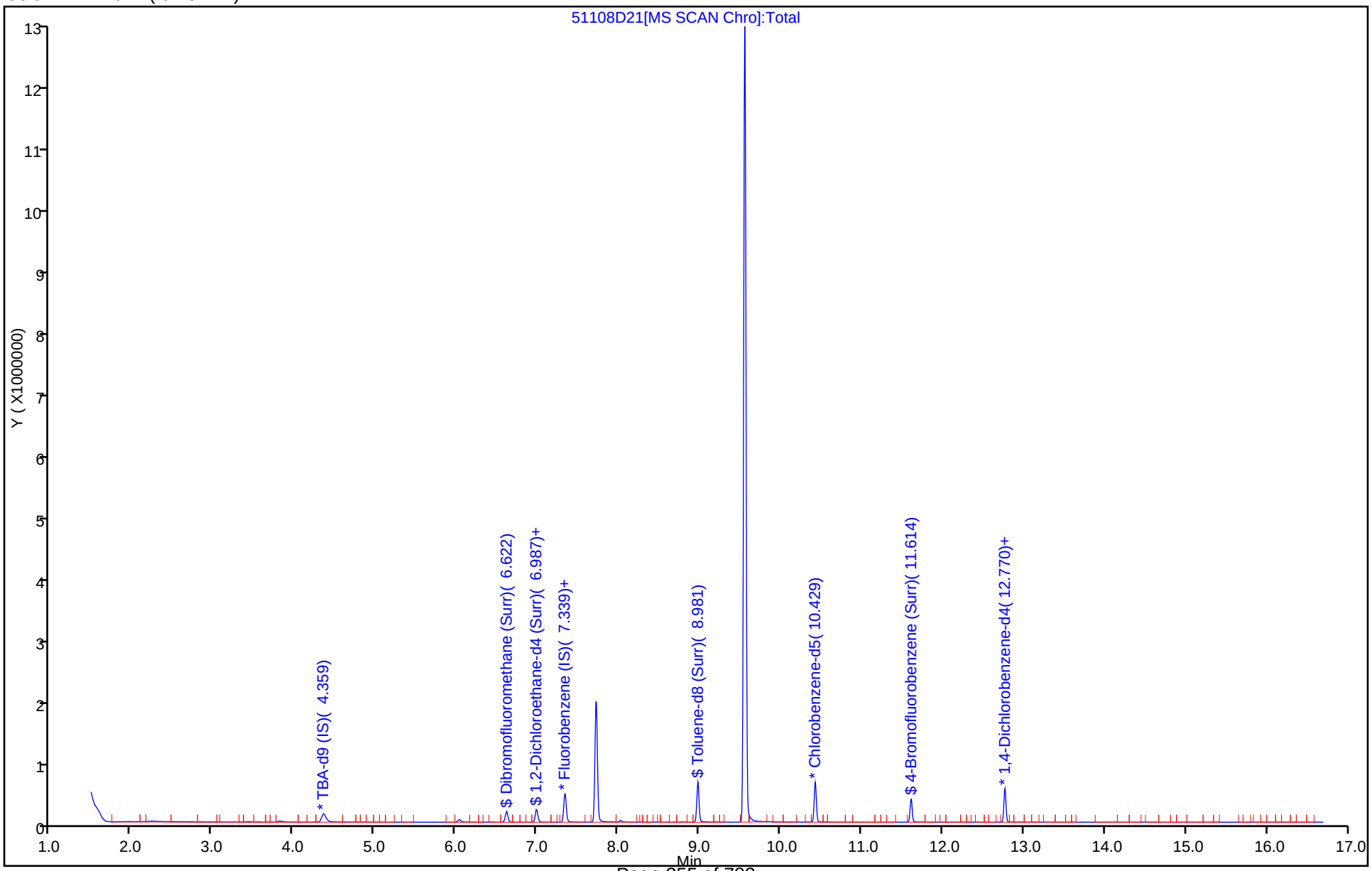
Report Date: 09-Nov-2017 09:46:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D

Injection Date:	09-Nov-2017 05:41:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-3	Lab Sample ID:	180-71952-3	Worklist Smp#:	21
Client ID:	HD-MW-179-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D				
Lims ID:	180-71952-A-3				
Client ID:	HD-MW-179-0/1-0				
Sample Type:	Client				
Inject. Date:	09-Nov-2017 05:41:30	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019227-021				
Misc. Info.:	180-71952-A-3				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 09:44:05	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: journetp		Date:	09-Nov-2017 09:32:55		

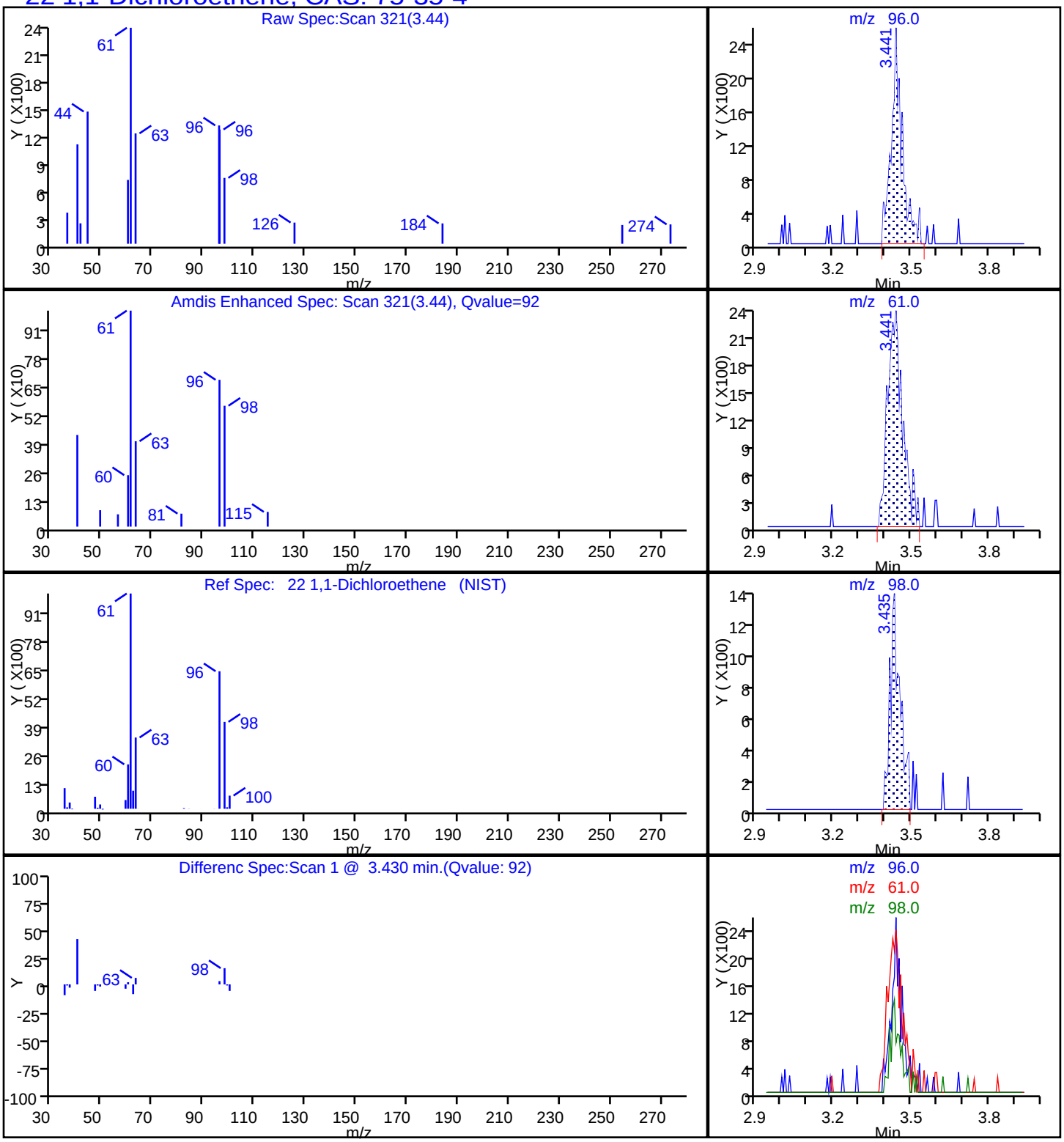
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	57.7	115.32
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	60.2	120.33
$ 7 Toluene-d8 (Surr)	50.0	42.6	85.19
$ 8 4-Bromofluorobenzene (Surr)	50.0	39.3	78.58

Report Date: 09-Nov-2017 09:46:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D				
Injection Date:	09-Nov-2017 05:41:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

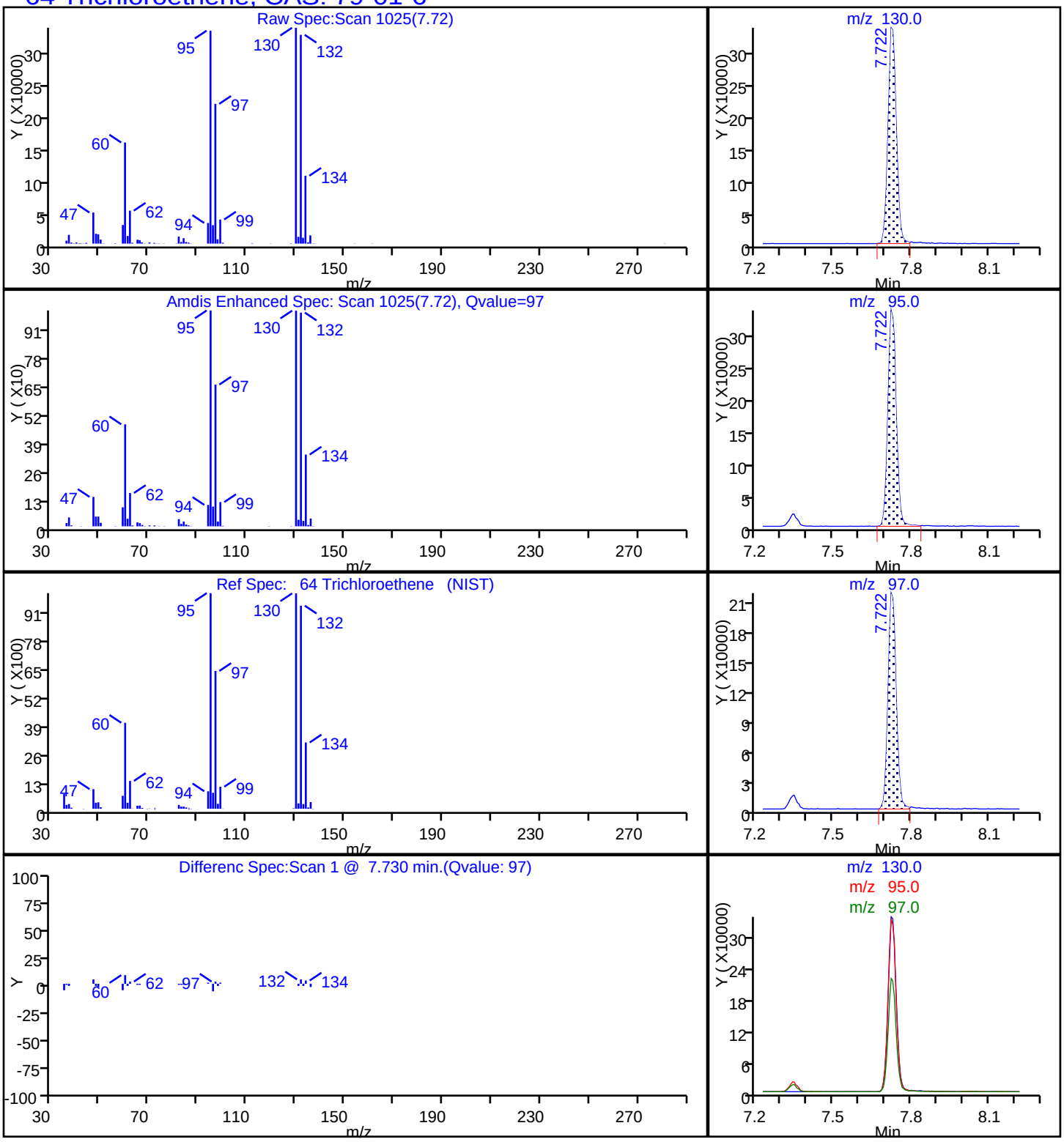


Report Date: 09-Nov-2017 09:46:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D				
Injection Date:	09-Nov-2017 05:41:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



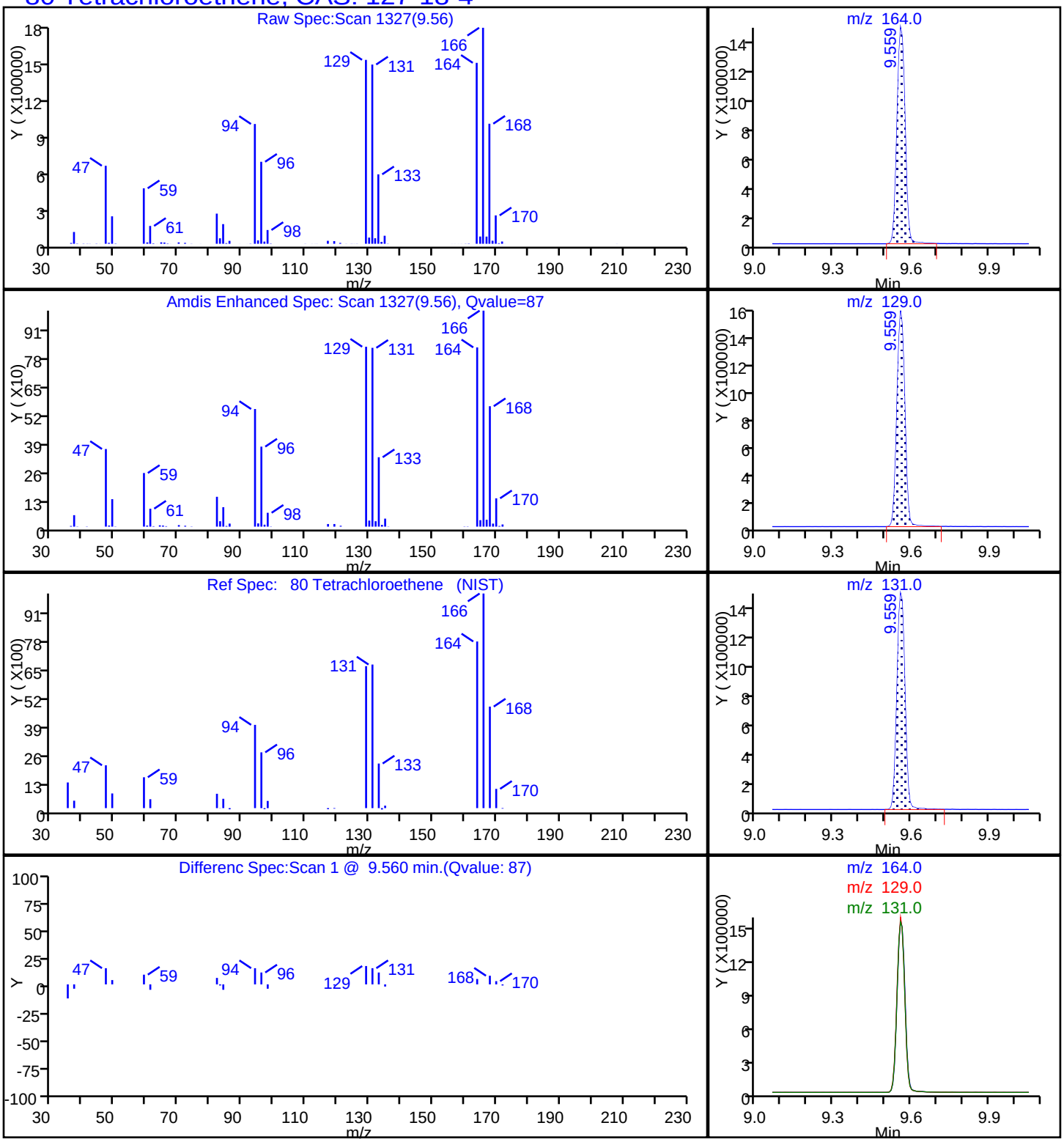
Report Date: 09-Nov-2017 09:46:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D

Injection Date:	09-Nov-2017 05:41:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

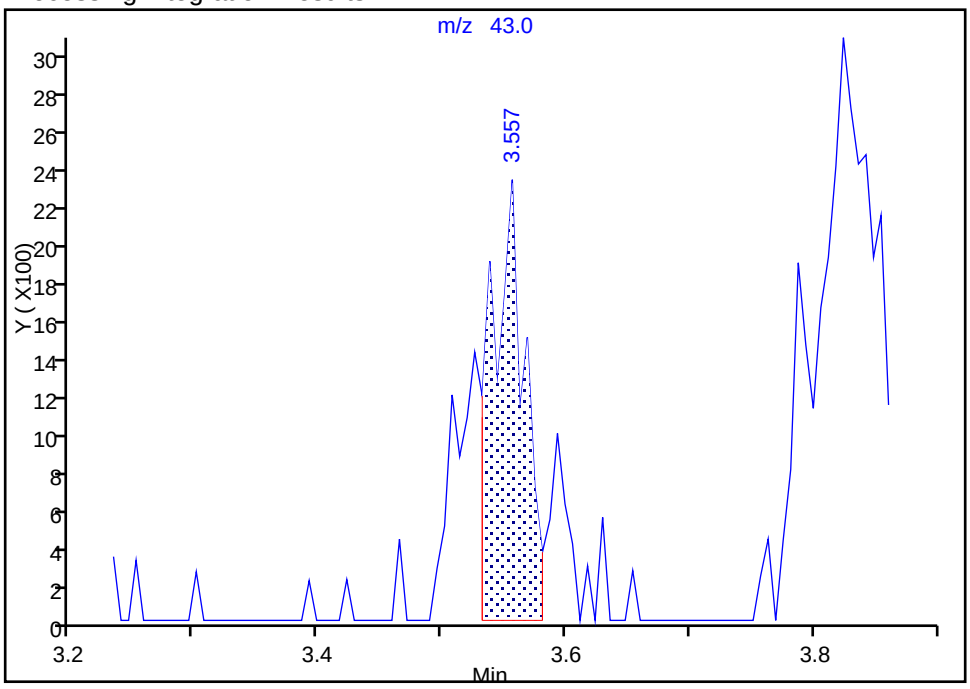
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D				
Injection Date:	09-Nov-2017 05:41:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

Signal: 1

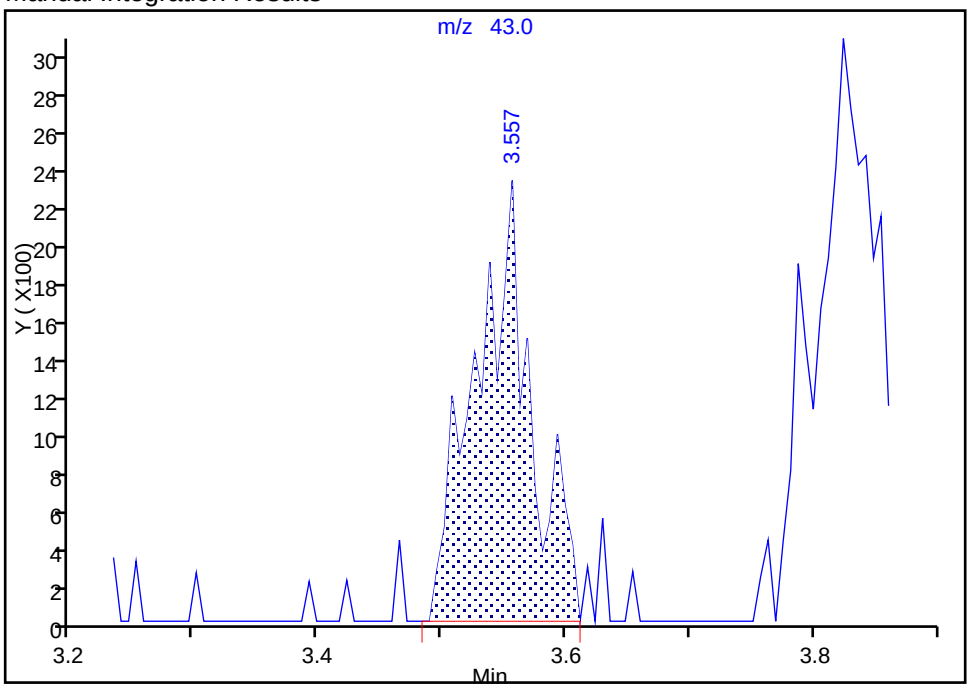
Processing Integration Results

RT: 3.56
Area: 4300
Amount: 3.619008
Amount Units: ng



Manual Integration Results

RT: 3.56
Area: 7104
Amount: 5.978939
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 09:32:17

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

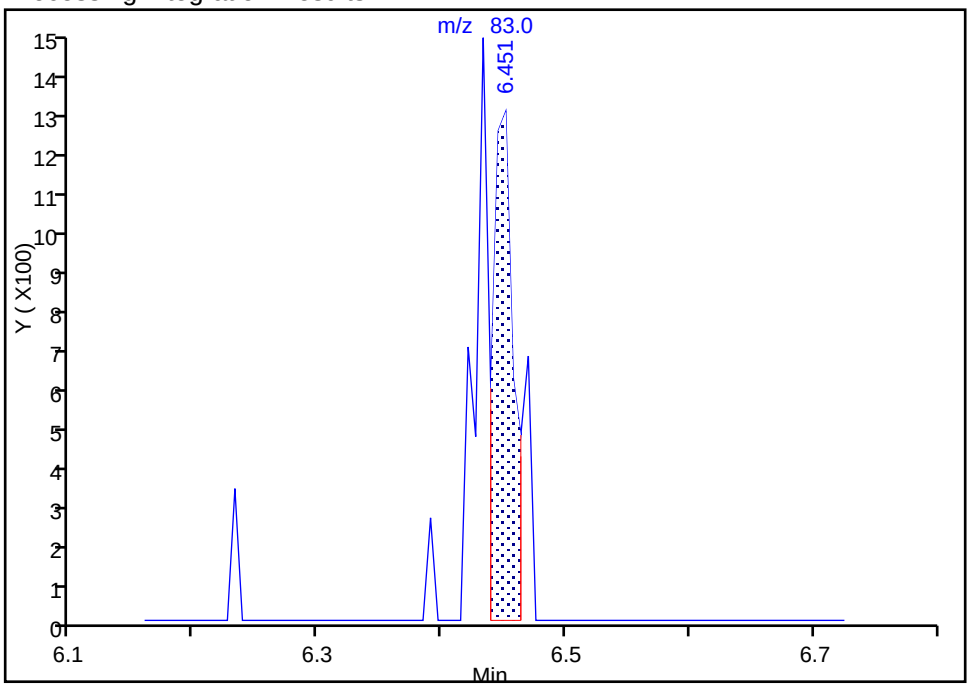
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D21.D				
Injection Date:	09-Nov-2017 05:41:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

Signal: 1

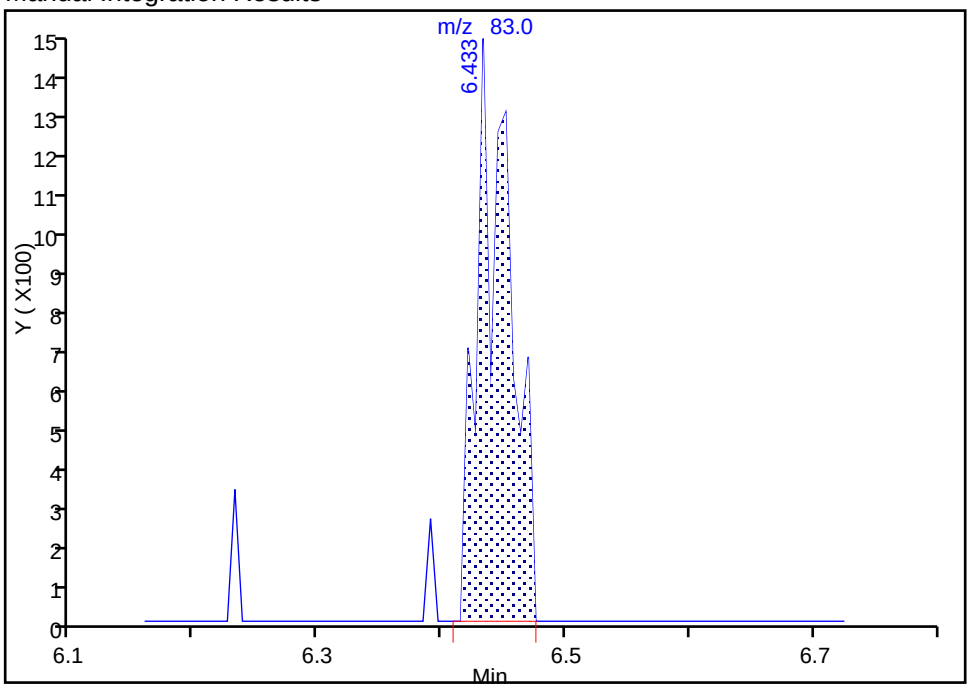
Processing Integration Results

RT: 6.45
Area: 1469
Amount: 0.333809
Amount Units: ng



Manual Integration Results

RT: 6.43
Area: 2625
Amount: 0.596493
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 09:32:26

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-179-0/1-0 DL | Lab Sample ID: 180-71952-3 DL

Matrix: Water | Lab File ID: 51110D23.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 17:28

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	20	U ^c	20	18
75-01-4	Vinyl chloride	20	U	20	18
74-83-9	Bromomethane	20	U ^c	20	18
75-00-3	Chloroethane	20	U ^c	20	18
75-35-4	1,1-Dichloroethene	20	U	20	11
67-64-1	Acetone	100	U	100	69
75-15-0	Carbon disulfide	20	U ^c	20	18
75-09-2	Methylene Chloride	20	U	20	7.2
156-60-5	trans-1,2-Dichloroethene	20	U	20	13
1634-04-4	Methyl tert-butyl ether	20	U	20	12
75-34-3	1,1-Dichloroethane	20	U	20	13
156-59-2	cis-1,2-Dichloroethene	20	U	20	14
74-97-5	Bromochloromethane	20	U	20	13
78-93-3	2-Butanone (MEK)	100	U	100	52
67-66-3	Chloroform	20	U	20	12
71-55-6	1,1,1-Trichloroethane	20	U	20	12
56-23-5	Carbon tetrachloride	20	U	20	18
71-43-2	Benzene	20	U	20	12
107-06-2	1,2-Dichloroethane	20	U	20	11
79-01-6	Trichloroethene	35		20	14
78-87-5	1,2-Dichloropropane	20	U	20	13
75-27-4	Bromodichloromethane	20	U	20	13
10061-01-5	cis-1,3-Dichloropropene	20	U	20	12
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U	100	62
108-88-3	Toluene	20	U	20	9.1
10061-02-6	trans-1,3-Dichloropropene	20	U	20	12
79-00-5	1,1,2-Trichloroethane	20	U	20	9.1
127-18-4	Tetrachloroethene	210		20	9.3
591-78-6	2-Hexanone	100	U	100	66
124-48-1	Dibromochloromethane	20	U	20	17
106-93-4	1,2-Dibromoethane (EDB)	20	U	20	10
108-90-7	Chlorobenzene	20	U	20	10
630-20-6	1,1,1,2-Tetrachloroethane	20	U	20	11
100-41-4	Ethylbenzene	20	U	20	10
1330-20-7	Xylenes, Total	40	U	40	18
100-42-5	Styrene	20	U	20	9.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-179-0/1-0 DL | Lab Sample ID: 180-71952-3 DL

Matrix: Water | Lab File ID: 51110D23.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 17:28

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*20*	*U*	*20*	*20*
79-34-5	*1,1,2,2-Tetrachloroethane*	*20*	*U*	*20*	*12*
107-13-1	*Acrylonitrile*	*400*	*U*	*400*	*160*
123-91-1	*1,4-Dioxane*	*4000*	*U*	*4000*	*270*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		65-121
2037-26-5	Toluene-d8 (Surr)	76		73-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D23.D
Lims ID: 180-71952-B-3
Client ID: HD-MW-179-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 17:28:30 ALS Bottle#: 7 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 180-0019249-023
Misc. Info.: 180-71952-B-3 ,20x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 15:50:25 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.365	-0.001	0	216277	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.339	-0.001	98	528691	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.428	0.006	87	126476	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.769	0.000	97	170645	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.621	6.615	0.006	91	117191	46.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.986	-0.001	0	149241	48.1	
$ 7 Toluene-d8 (Surr)	98	8.980	8.981	-0.001	94	381518	37.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.608	0.005	83	178693	49.2	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94	2.248	2.376	-0.128	1	775	0.5228	
16 Chloroethane	64	2.358	2.461	-0.103	1	82	0.0476	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84	4.237	4.237	0.000	96	12568	0.8286	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83	6.450	6.439	0.011	23	5174	1.01	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78	6.991	6.998	-0.007	39	205	0.0159	
59 1,2-Dichloroethane	62	7.058	7.071	-0.013	1	348	0.0929	
64 Trichloroethene	130	7.727	7.728	-0.001	98	28533	8.82	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	
71 Dichlorobromomethane	83		8.275				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43	8.992	8.871	0.121	33	1889	0.5823	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97	9.552	9.485	0.067	36	717	0.2729	
80 Tetrachloroethene	164	9.558	9.558	0.000	94	128194	53.3	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

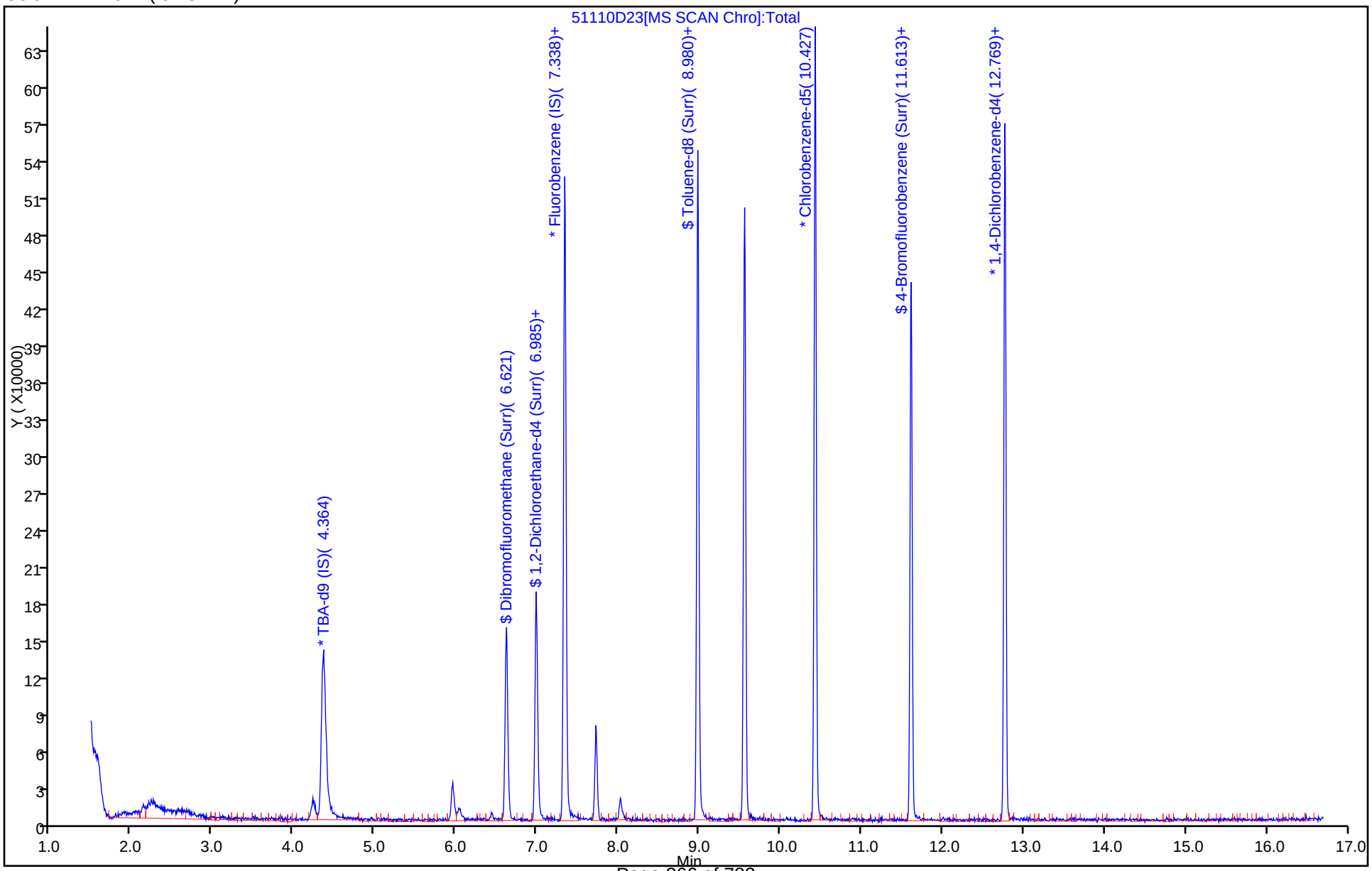
Report Date: 10-Nov-2017 18:00:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D23.D

Injection Date:	10-Nov-2017 17:28:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-B-3	Lab Sample ID:	180-71952-3	Worklist Smp#:	23
Client ID:	HD-MW-179-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D23.D
Lims ID: 180-71952-B-3
Client ID: HD-MW-179-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 17:28:30 ALS Bottle#: 7 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 180-0019249-023
Misc. Info.: 180-71952-B-3 ,20x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 15:50:25 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.1	92.14
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.1	96.21
$ 7 Toluene-d8 (Surr)	50.0	37.9	75.80
$ 8 4-Bromofluorobenzene (Surr)	50.0	49.2	98.31

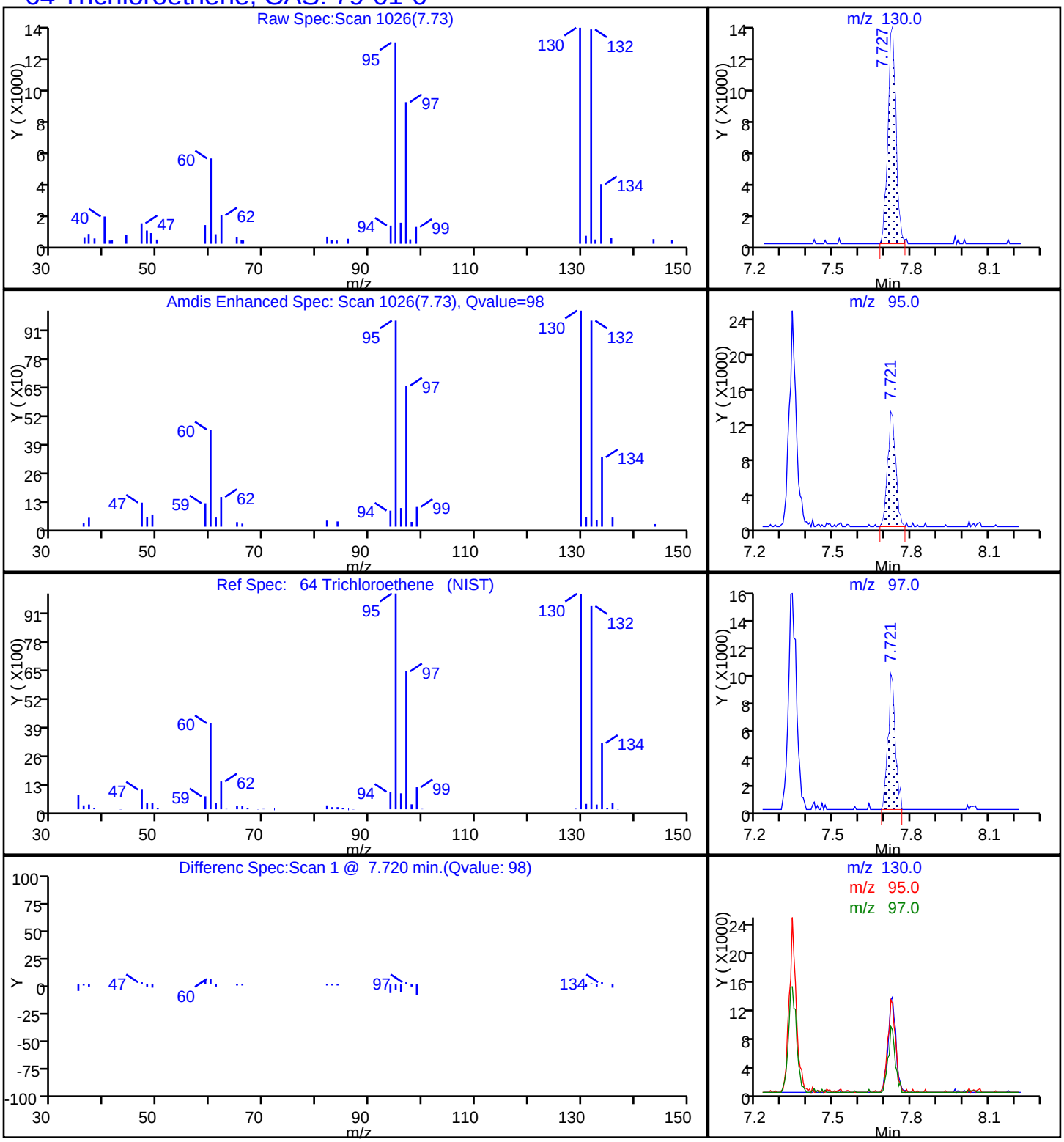
Report Date: 10-Nov-2017 18:00:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D23.D

Injection Date:	10-Nov-2017 17:28:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

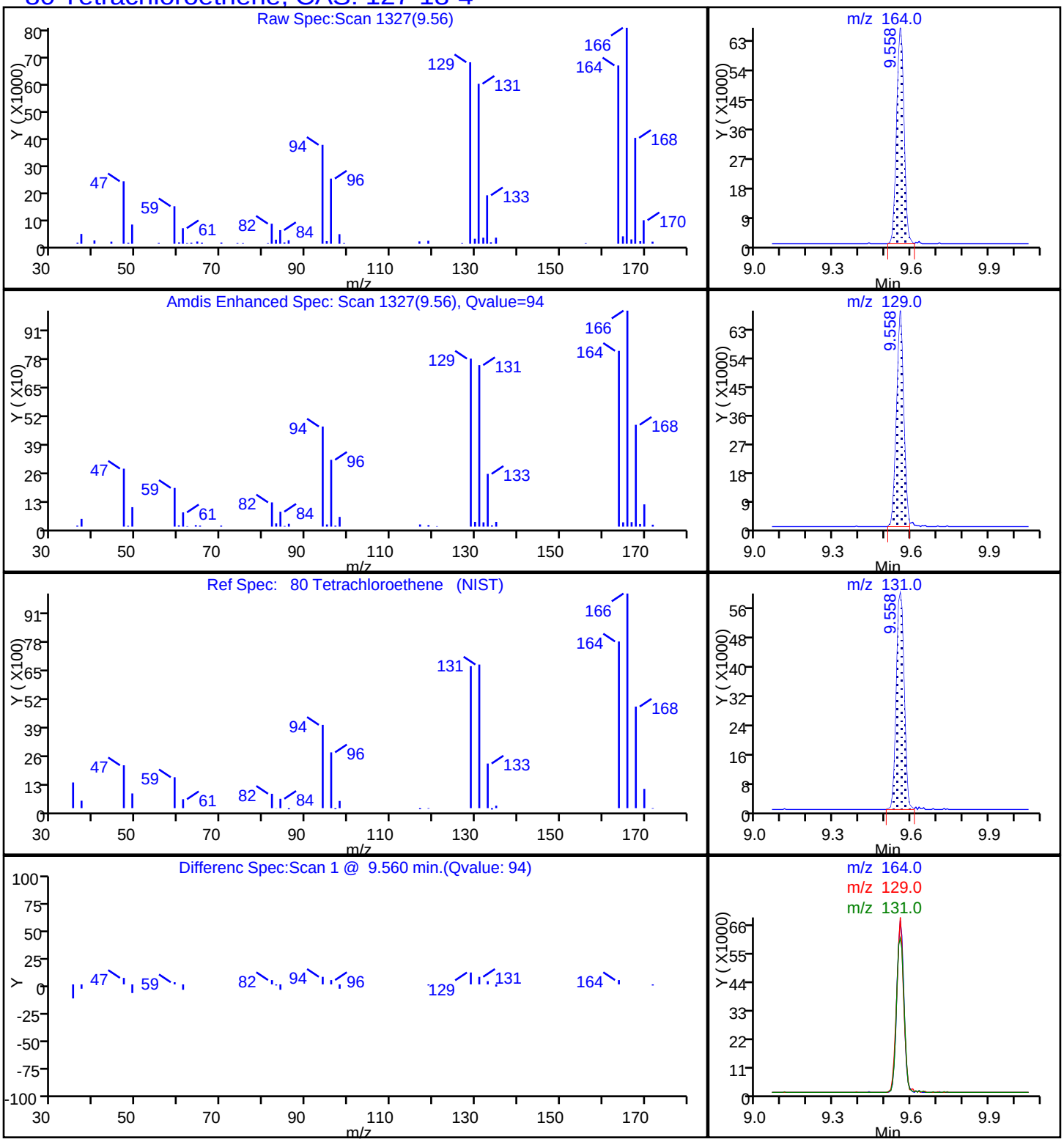


Report Date: 10-Nov-2017 18:00:43 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D23.D				
Injection Date:	10-Nov-2017 17:28:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-3	Lab Sample ID:	180-71952-3		
Client ID:	HD-MW-179-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-2-0/1-0 | Lab Sample ID: 180-71952-4

Matrix: Water | Lab File ID: 51108D16.D

Analysis Method: 8260C | Date Collected: 10/30/2017 15:45

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 03:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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	0.71	J	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	14	^c	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*	*130*	*^c E*	*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*	*220*	*^c E*	*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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-2-0/1-0 | Lab Sample ID: 180-71952-4

Matrix: Water | Lab File ID: 51108D16.D

Analysis Method: 8260C | Date Collected: 10/30/2017 15:45

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 03:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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)	116		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	85		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D
Lims ID: 180-71952-A-4
Client ID: HD-MPE-2-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 03:42:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-016
Misc. Info.: 180-71952-A-4
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:27:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.367	4.373	-0.006	0	228389	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.341	0.001	98	502323	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	87	131283	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.771	0.001	98	160805	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.623	6.617	0.006	93	129797	53.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.982	0.006	0	171258	58.1	
$ 7 Toluene-d8 (Surr)	98	8.983	8.976	0.007	94	452960	43.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	84	160731	42.6	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.342				ND	
16 Chloroethane	64		2.433				ND	
22 1,1-Dichloroethene	96	3.443	3.418	0.025	51	4283	1.74	
24 Acetone	43		3.528				ND	
26 Carbon disulfide	76		3.716				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.610				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.273				ND	
45 cis-1,2-Dichloroethene	96	6.009	6.009	0.000	82	11350	3.54	
46 2-Butanone (MEK)	43	6.027	6.021	0.006	98	130700	69.9	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.435	6.434	0.001	89	7164	1.47	
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.724	7.724	0.000	96	1943918	632.4	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.043				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.561	9.554	0.007	88	2717861	1088.7	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

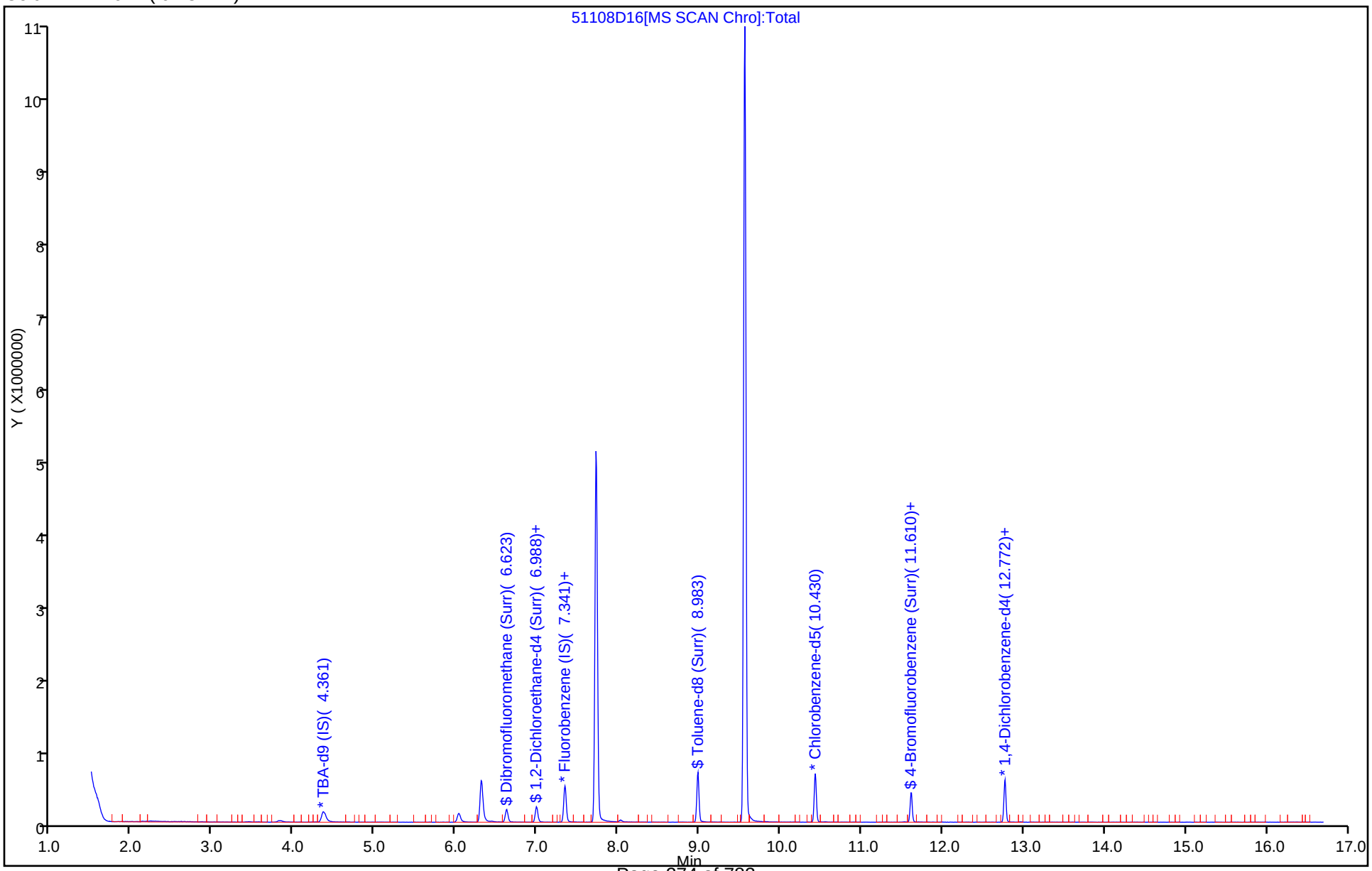
Report Date: 09-Nov-2017 09:46:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D

Injection Date:	09-Nov-2017 03:42:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-4	Lab Sample ID:	180-71952-4	Worklist Smp#:	16
Client ID:	HD-MPE-2-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D				
Lims ID:	180-71952-A-4				
Client ID:	HD-MPE-2-0/1-0				
Sample Type:	Client				
Inject. Date:	09-Nov-2017 03:42:30	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019227-016				
Misc. Info.:	180-71952-A-4				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 09:44:05	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: journetp		Date:	09-Nov-2017 09:27:18		

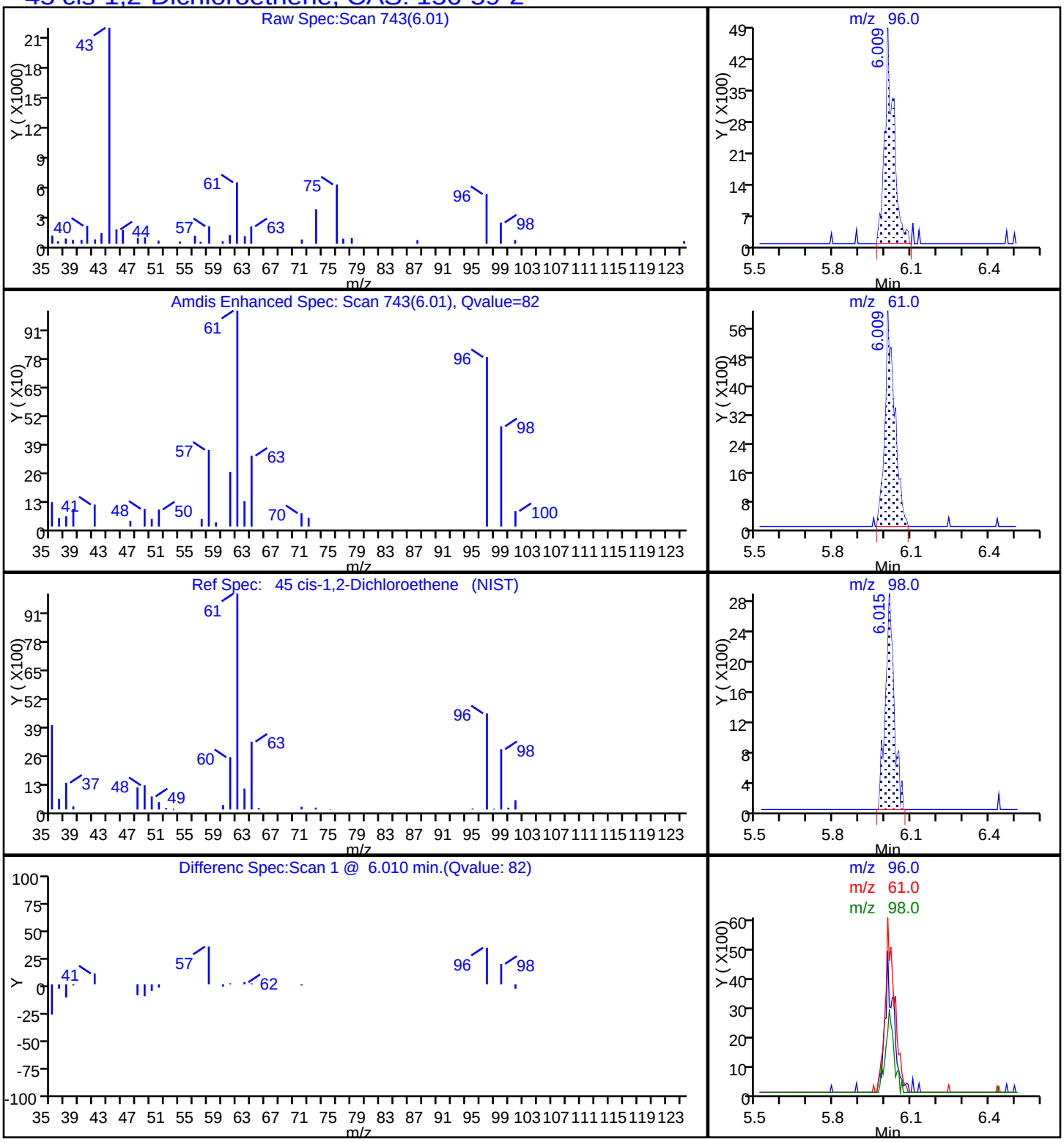
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.7	107.41
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.1	116.19
$ 7 Toluene-d8 (Surr)	50.0	43.4	86.70
$ 8 4-Bromofluorobenzene (Surr)	50.0	42.6	85.19

Report Date: 09-Nov-2017 09:46:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D				
Injection Date:	09-Nov-2017 03:42:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-4	Lab Sample ID:	180-71952-4		
Client ID:	HD-MPE-2-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



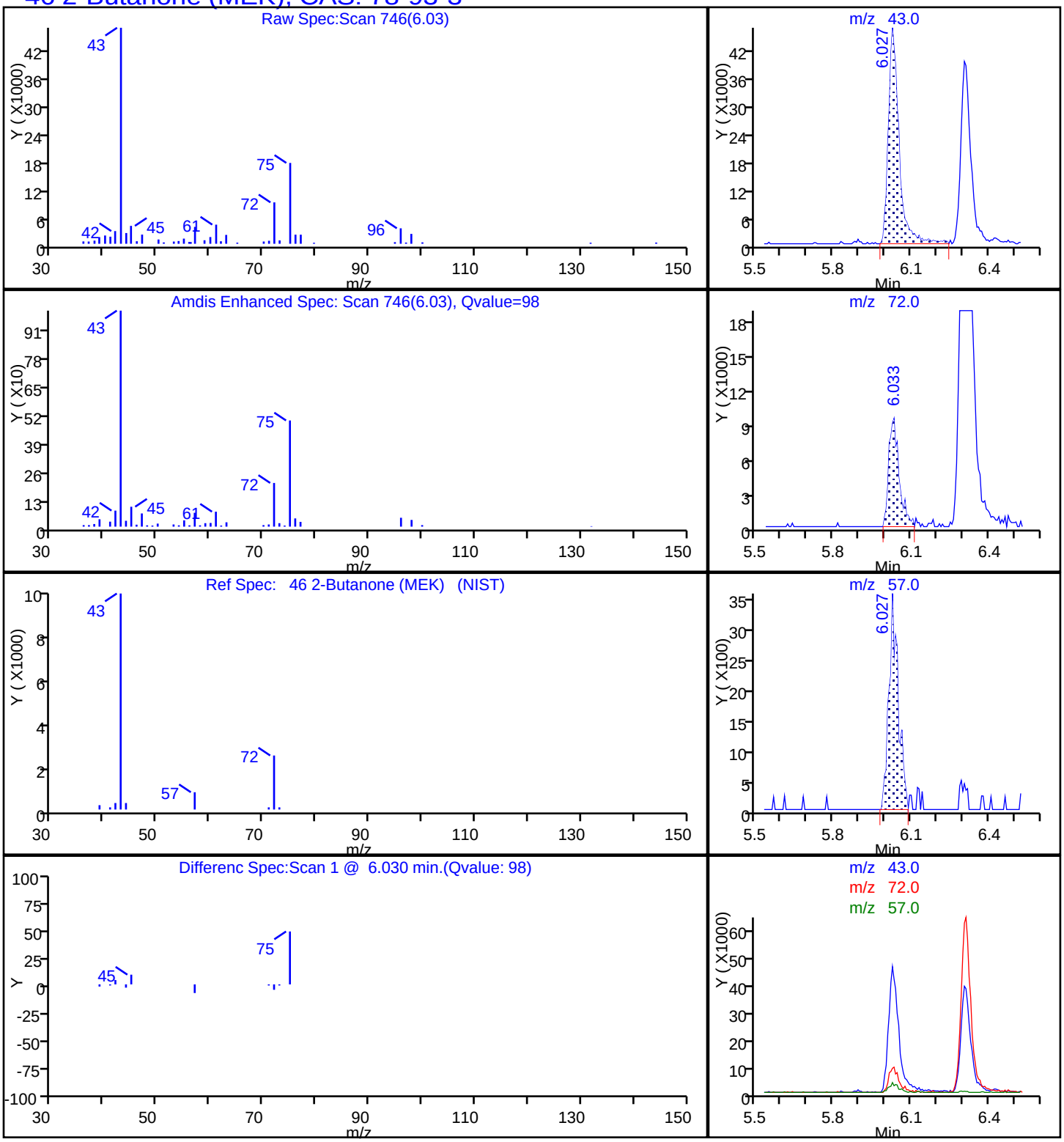
Report Date: 09-Nov-2017 09:46:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D

Injection Date:	09-Nov-2017 03:42:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-4	Lab Sample ID:	180-71952-4		
Client ID:	HD-MPE-2-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

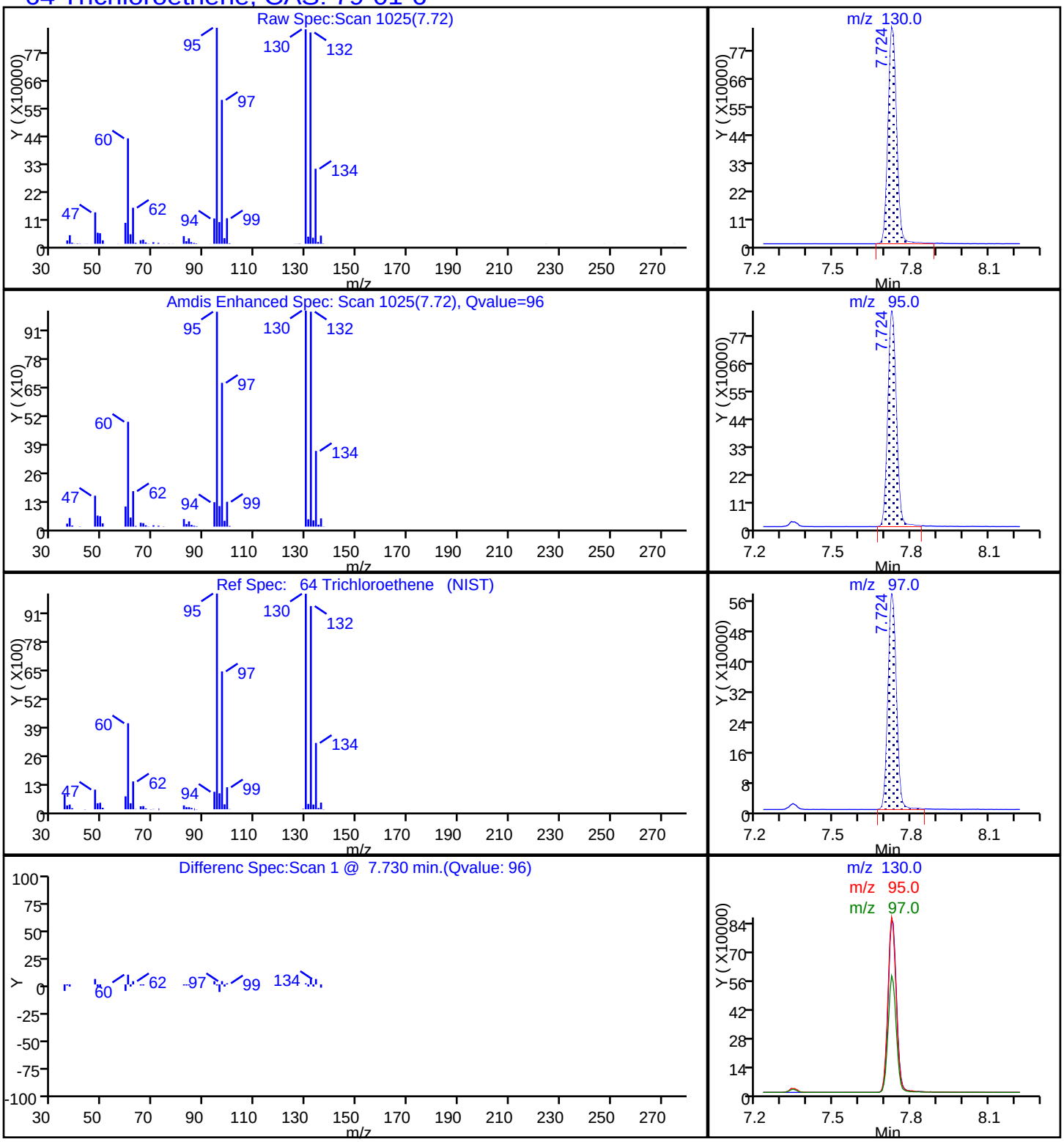


Report Date: 09-Nov-2017 09:46:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D				
Injection Date:	09-Nov-2017 03:42:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-4	Lab Sample ID:	180-71952-4		
Client ID:	HD-MPE-2-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

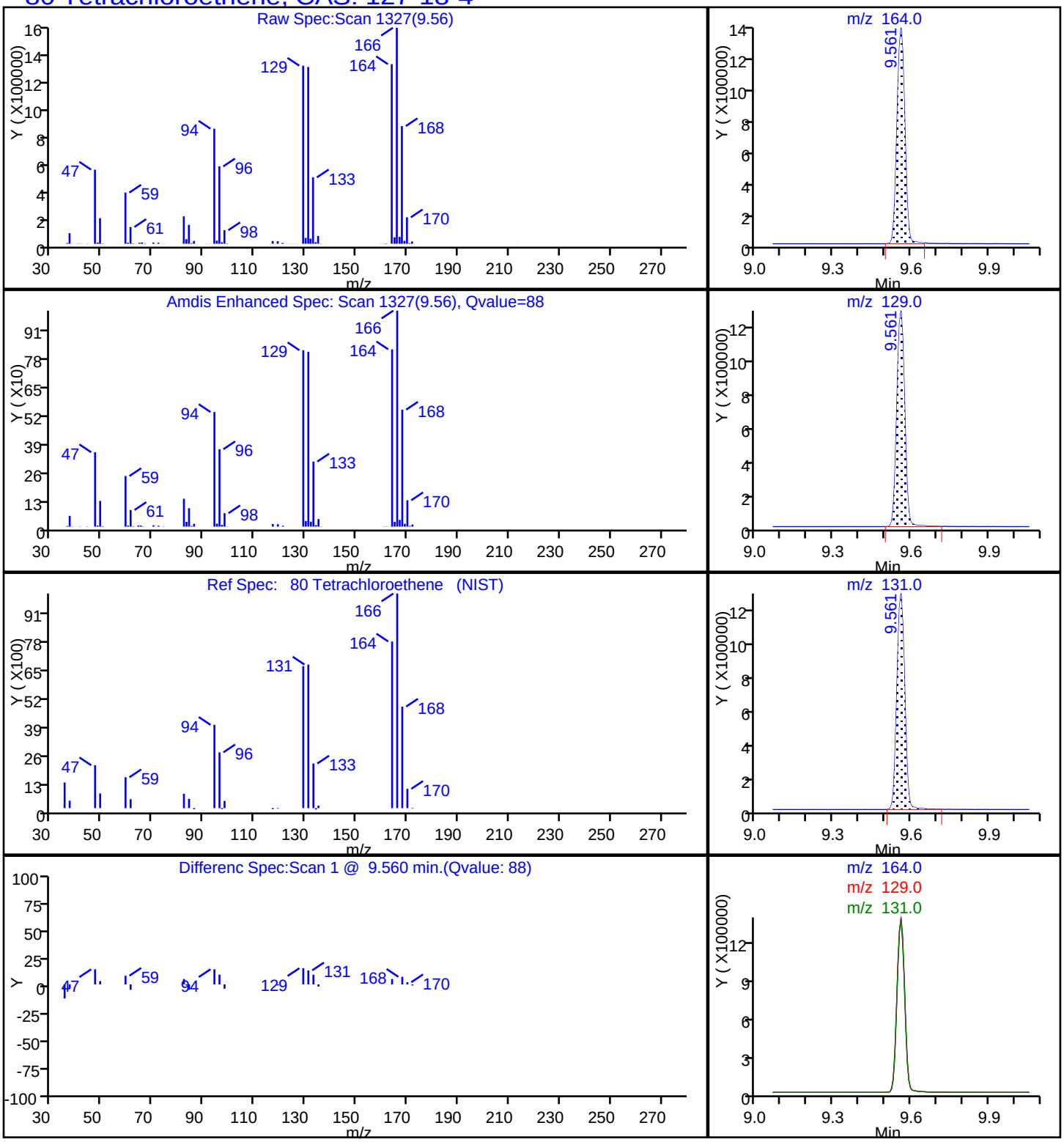


Report Date: 09-Nov-2017 09:46:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D16.D		
Injection Date:	09-Nov-2017 03:42:30	Instrument ID:	CHHP5
Lims ID:	180-71952-A-4	Lab Sample ID:	180-71952-4
Client ID:	HD-MPE-2-0/1-0		
Operator ID:	034635	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-2-0/1-0 DL | Lab Sample ID: 180-71952-4 DL

Matrix: Water | Lab File ID: 7110919.D

Analysis Method: 8260C | Date Collected: 10/30/2017 15:45

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 17:05

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	20	U ^c	20	18
75-01-4	Vinyl chloride	20	U ^c	20	18
74-83-9	Bromomethane	20	U ^c	20	18
75-00-3	Chloroethane	20	U	20	18
75-35-4	1,1-Dichloroethene	20	U	20	11
67-64-1	Acetone	100	U ^c	100	69
75-15-0	Carbon disulfide	20	U	20	18
75-09-2	Methylene Chloride	20	U	20	7.2
156-60-5	trans-1,2-Dichloroethene	20	U	20	13
1634-04-4	Methyl tert-butyl ether	20	U	20	12
75-34-3	1,1-Dichloroethane	20	U	20	13
156-59-2	cis-1,2-Dichloroethene	20	U	20	14
74-97-5	Bromochloromethane	20	U	20	13
78-93-3	2-Butanone (MEK)	100	U	100	52
67-66-3	Chloroform	20	U	20	12
71-55-6	1,1,1-Trichloroethane	20	U	20	12
56-23-5	Carbon tetrachloride	20	U	20	18
71-43-2	Benzene	20	U	20	12
107-06-2	1,2-Dichloroethane	20	U	20	11
79-01-6	Trichloroethene	85		20	14
78-87-5	1,2-Dichloropropane	20	U	20	13
75-27-4	Bromodichloromethane	20	U	20	13
10061-01-5	cis-1,3-Dichloropropene	20	U	20	12
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U ^c	100	62
108-88-3	Toluene	20	U ^c	20	9.1
10061-02-6	trans-1,3-Dichloropropene	20	U	20	12
79-00-5	1,1,2-Trichloroethane	20	U	20	9.1
127-18-4	Tetrachloroethene	220		20	9.3
591-78-6	2-Hexanone	100	U	100	66
124-48-1	Dibromochloromethane	20	U	20	17
106-93-4	1,2-Dibromoethane (EDB)	20	U	20	10
108-90-7	Chlorobenzene	20	U	20	10
630-20-6	1,1,1,2-Tetrachloroethane	20	U	20	11
100-41-4	Ethylbenzene	20	U	20	10
1330-20-7	Xylenes, Total	40	U	40	18
100-42-5	Styrene	20	U	20	9.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-2-0/1-0 DL | Lab Sample ID: 180-71952-4 DL

Matrix: Water | Lab File ID: 7110919.D

Analysis Method: 8260C | Date Collected: 10/30/2017 15:45

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 17:05

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*20*	*U ^c*	*20*	*20*
79-34-5	*1,1,2,2-Tetrachloroethane*	*20*	*U*	*20*	*12*
107-13-1	*Acrylonitrile*	*400*	*U*	*400*	*160*
123-91-1	*1,4-Dioxane*	*4000*	*U ^c*	*4000*	*270*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77	*^c*	65-121
2037-26-5	Toluene-d8 (Surr)	107		73-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110919.D
Lims ID: 180-71952-B-4
Client ID: HD-MPE-2-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 17:05:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 180-71952-B-4 ,20x
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:26:44 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:26:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.252	4.251	0.001	98	173566	1000.0	
* 2 Fluorobenzene (IS)	96	7.263	7.263	0.000	98	208918	50.0	
* 3 Chlorobenzene-d5	119	10.360	10.365	-0.005	91	45781	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.708	12.707	0.001	97	65214	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.539	6.539	0.000	94	45116	43.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.910	6.910	0.000	92	77159	38.4	
$ 7 Toluene-d8 (Surr)	98	8.912	8.911	0.001	94	185577	53.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.546	11.545	0.001	86	70290	47.3	
12 Chloromethane	50		1.793				ND	
13 Vinyl chloride	62		1.921				ND	
15 Bromomethane	94		2.280				ND	
16 Chloroethane	64		2.414				ND	
22 1,1-Dichloroethene	96		3.345				ND	
24 Acetone	43		3.436				ND	
26 Carbon disulfide	76		3.625				ND	
31 Methylene Chloride	84		4.123				ND	
33 Acrylonitrile	53		4.507				ND	
34 trans-1,2-Dichloroethene	96		4.555				ND	
35 Methyl tert-butyl ether	73		4.561				ND	
37 1,1-Dichloroethane	63		5.182				ND	
45 cis-1,2-Dichloroethene	96		5.930				ND	
46 2-Butanone (MEK)	43		5.936				ND	
49 Chlorobromomethane	128		6.210				ND	
52 Chloroform	83		6.362				ND	
53 1,1,1-Trichloroethane	97		6.514				ND	
56 Carbon tetrachloride	117		6.691				ND	
58 Benzene	78		6.922				ND	
59 1,2-Dichloroethane	62		6.995				ND	
64 Trichloroethene	130	7.653	7.646	0.007	97	27153	21.1	
67 1,2-Dichloropropane	63		7.926				ND	
70 1,4-Dioxane	88		8.011				ND	
71 Dichlorobromomethane	83		8.205				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 cis-1,3-Dichloropropene	75		8.650				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.802				ND	
76 Toluene	91		8.978				ND	
77 trans-1,3-Dichloropropene	75		9.227				ND	
79 1,1,2-Trichloroethane	97		9.422				ND	
80 Tetrachloroethene	164	9.496	9.495	0.001	95	42796	53.8	
82 2-Hexanone	43		9.635				ND	
84 Chlorodibromomethane	129		9.787				ND	
85 Ethylene Dibromide	107		9.909				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.481				ND	
90 Ethylbenzene	106		10.493				ND	
91 m-Xylene & p-Xylene	106		10.621				ND	
92 o-Xylene	106		11.004				ND	
93 Styrene	104		11.022				ND	
94 Bromoform	173		11.211				ND	
99 1,1,2,2-Tetrachloroethane	83		11.685				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent

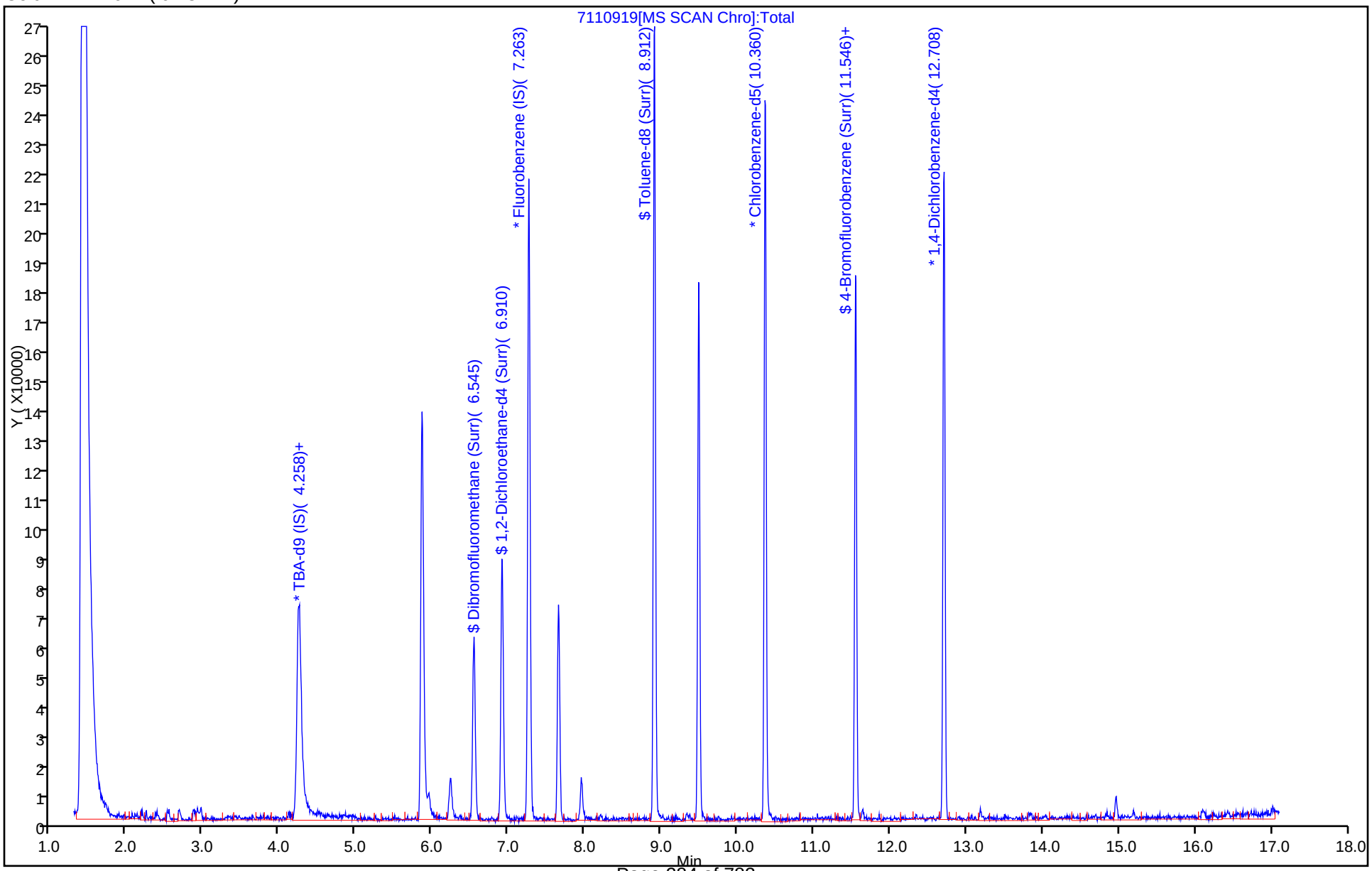
Report Date: 09-Nov-2017 17:27:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110919.D

Injection Date:	09-Nov-2017 17:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-71952-B-4	Lab Sample ID:	180-71952-4	Worklist Smp#:	19
Client ID:	HD-MPE-2-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110919.D
Lims ID: 180-71952-B-4
Client ID: HD-MPE-2-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 17:05:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 180-71952-B-4 ,20x
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:26:44 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:26:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	43.6	87.28
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	38.4	76.75
$ 7 Toluene-d8 (Surr)	50.0	53.5	107.02
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.3	94.58

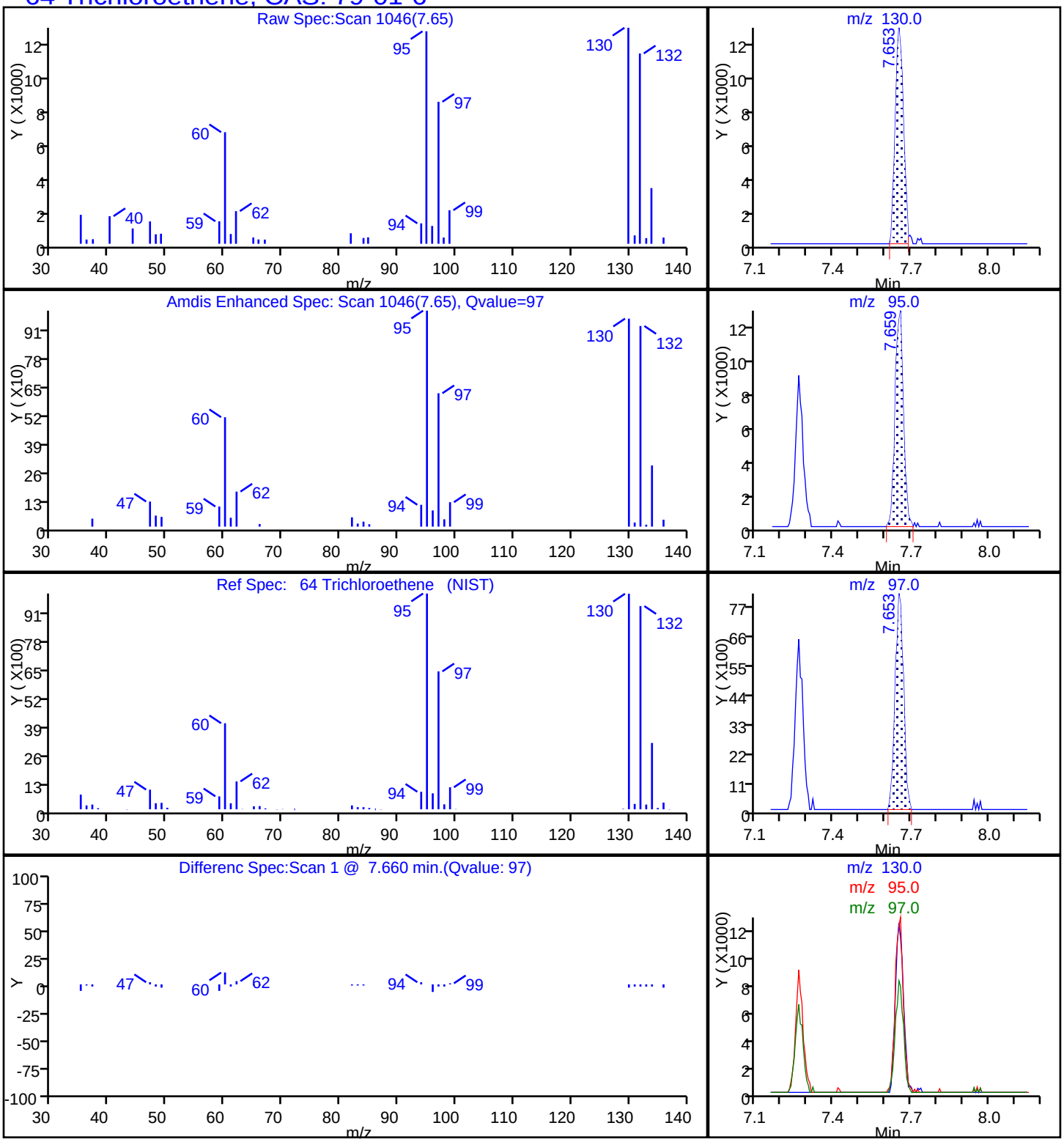
Report Date: 09-Nov-2017 17:27:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110919.D

Injection Date:	09-Nov-2017 17:05:30	Instrument ID:	CHHP7		
Lims ID:	180-71952-B-4	Lab Sample ID:	180-71952-4		
Client ID:	HD-MPE-2-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



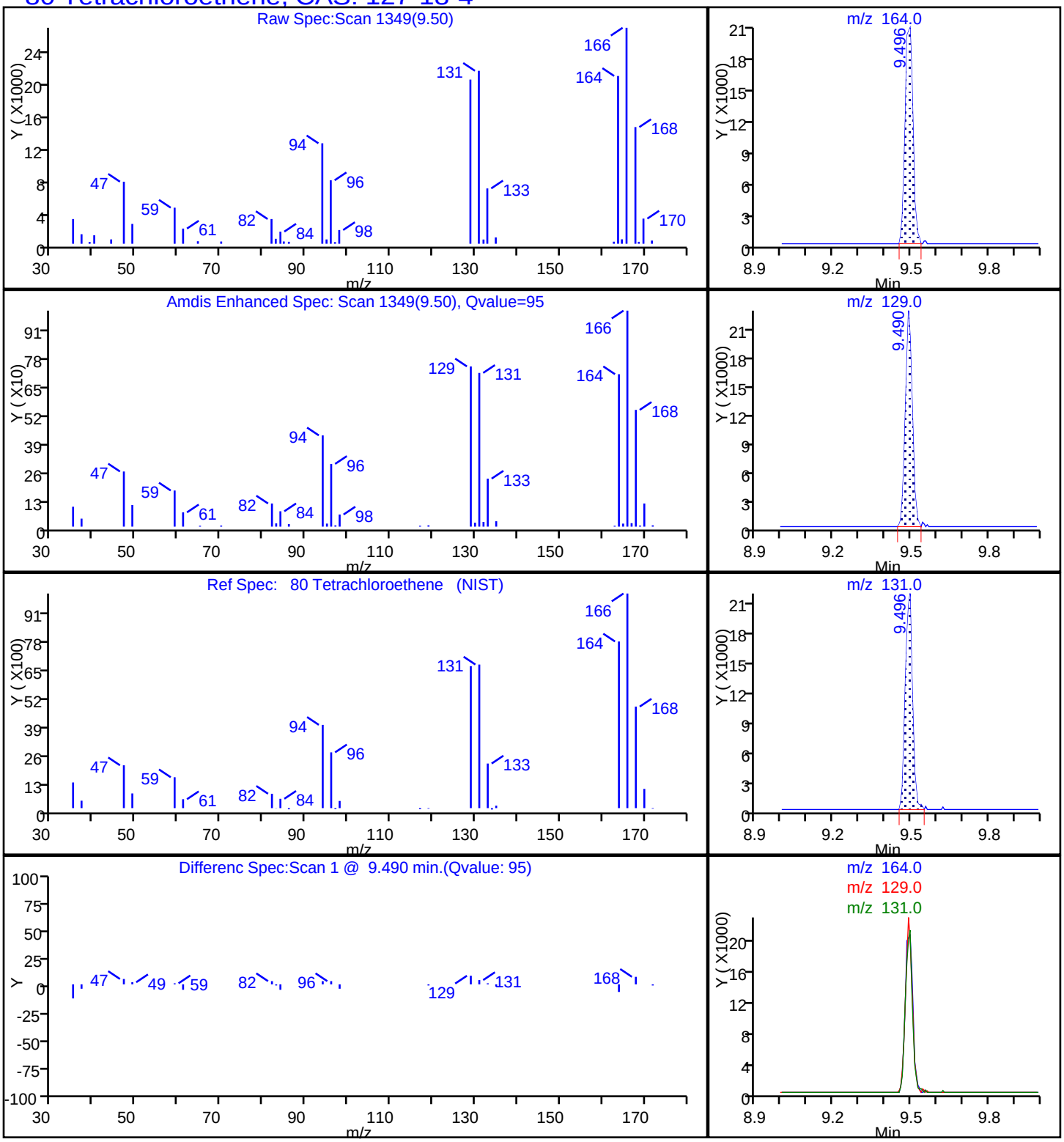
Report Date: 09-Nov-2017 17:27:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110919.D

Injection Date:	09-Nov-2017 17:05:30	Instrument ID:	CHHP7		
Lims ID:	180-71952-B-4	Lab Sample ID:	180-71952-4		
Client ID:	HD-MPE-2-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178S-0/1-0 | Lab Sample ID: 180-71952-5

Matrix: Water | Lab File ID: 51108D17.D

Analysis Method: 8260C | Date Collected: 10/30/2017 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 04:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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 ^c	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*	*90*	*^c E*	*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*	*120*	*^c E*	*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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178S-0/1-0 | Lab Sample ID: 180-71952-5

Matrix: Water | Lab File ID: 51108D17.D

Analysis Method: 8260C | Date Collected: 10/30/2017 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 04:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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)	118		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	85		80-120
1868-53-7	Dibromofluoromethane (Surr)	111		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D17.D
Lims ID: 180-71952-A-5
Client ID: HD-MW-178S-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 04:06:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-017
Misc. Info.: 180-71952-A-5
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:28:50

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.366	4.373	-0.007	0	221165	1000.0	
*	2 Fluorobenzene (IS)	96	7.340	7.341	0.000	98	472798	50.0	
*	3 Chlorobenzene-d5	119	10.429	10.430	-0.001	87	127184	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	97	182822	50.0	
$	5 Dibromofluoromethane (Surr	113	6.622	6.617	0.005	93	126322	55.5	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.982	0.005	0	163871	59.1	
$	7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	93	442318	43.7	
$	8 4-Bromofluorobenzene (Surr	95	11.609	11.610	-0.001	84	154751	42.3	
	12 Chloromethane	50		1.886				ND	
	13 Vinyl chloride	62		2.013				ND	
	15 Bromomethane	94		2.342				ND	
	16 Chloroethane	64		2.433				ND	
	22 1,1-Dichloroethene	96		3.418				ND	
	24 Acetone	43	3.551	3.528	0.023	99	18120	14.7	
	26 Carbon disulfide	76		3.716				ND	
	31 Methylene Chloride	84		4.227				ND	
	33 Acrylonitrile	53		4.610				ND	
	34 trans-1,2-Dichloroethene	96		4.634				ND	
	35 Methyl tert-butyl ether	73		4.659				ND	
	37 1,1-Dichloroethane	63		5.273				ND	
	45 cis-1,2-Dichloroethene	96	6.027	6.009	0.017	41	4409	1.46	
	46 2-Butanone (MEK)	43		6.021				ND	
	49 Chlorobromomethane	128		6.295				ND	
	52 Chloroform	83		6.434				ND	
	53 1,1,1-Trichloroethane	97		6.592				ND	
	56 Carbon tetrachloride	117		6.769				ND	
	58 Benzene	78		6.994				ND	
	59 1,2-Dichloroethane	62		7.073				ND	
	64 Trichloroethene	130	7.723	7.724	-0.001	97	1306700	451.7	E
	67 1,2-Dichloropropane	63		7.991				ND	
	70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.055	9.043	0.012	85	6741	0.5316	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.560	9.554	0.006	91	1404083	580.5	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

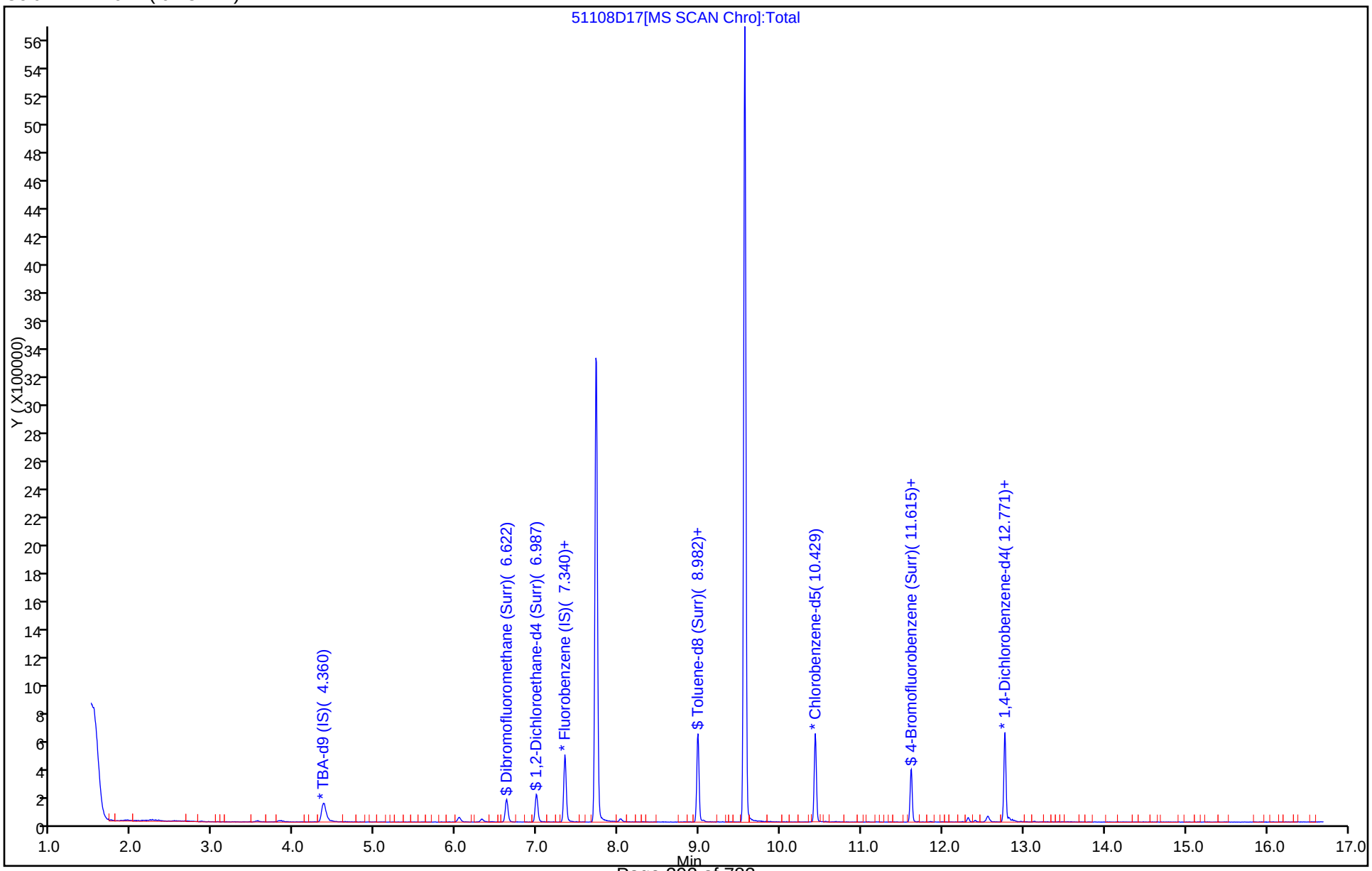
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 09-Nov-2017 09:46:26 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D17.D				
Injection Date:	09-Nov-2017 04:06:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-5	Lab Sample ID:	180-71952-5	Worklist Smp#:	17
Client ID:	HD-MW-178S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D17.D
Lims ID: 180-71952-A-5
Client ID: HD-MW-178S-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 04:06:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-017
Misc. Info.: 180-71952-A-5
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:28:50

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	55.5	111.06
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	59.1	118.12
$ 7 Toluene-d8 (Surr)	50.0	43.7	87.40
$ 8 4-Bromofluorobenzene (Surr)	50.0	42.3	84.66

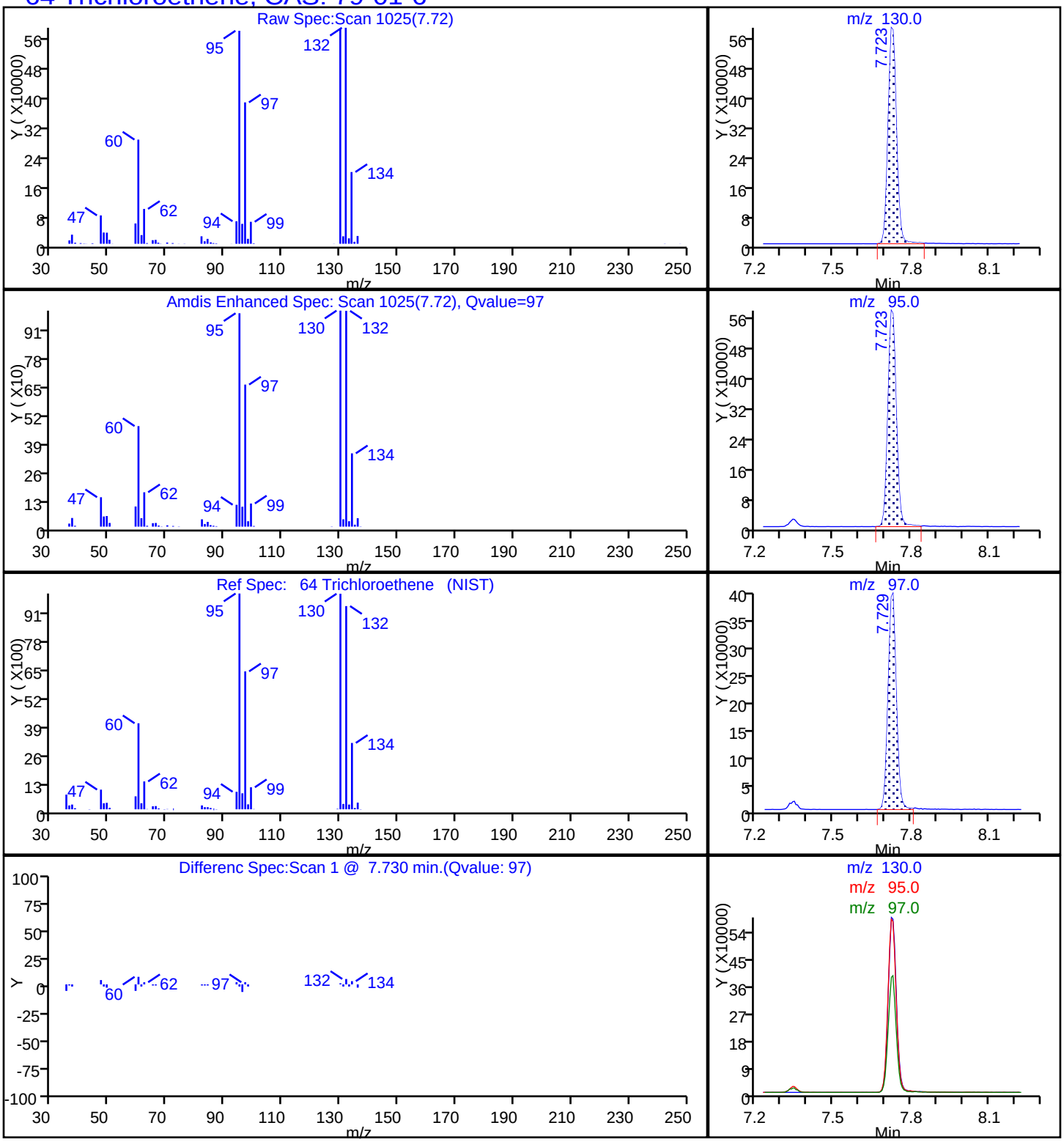
Report Date: 09-Nov-2017 09:46:27 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D17.D

Injection Date:	09-Nov-2017 04:06:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-5	Lab Sample ID:	180-71952-5		
Client ID:	HD-MW-178S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



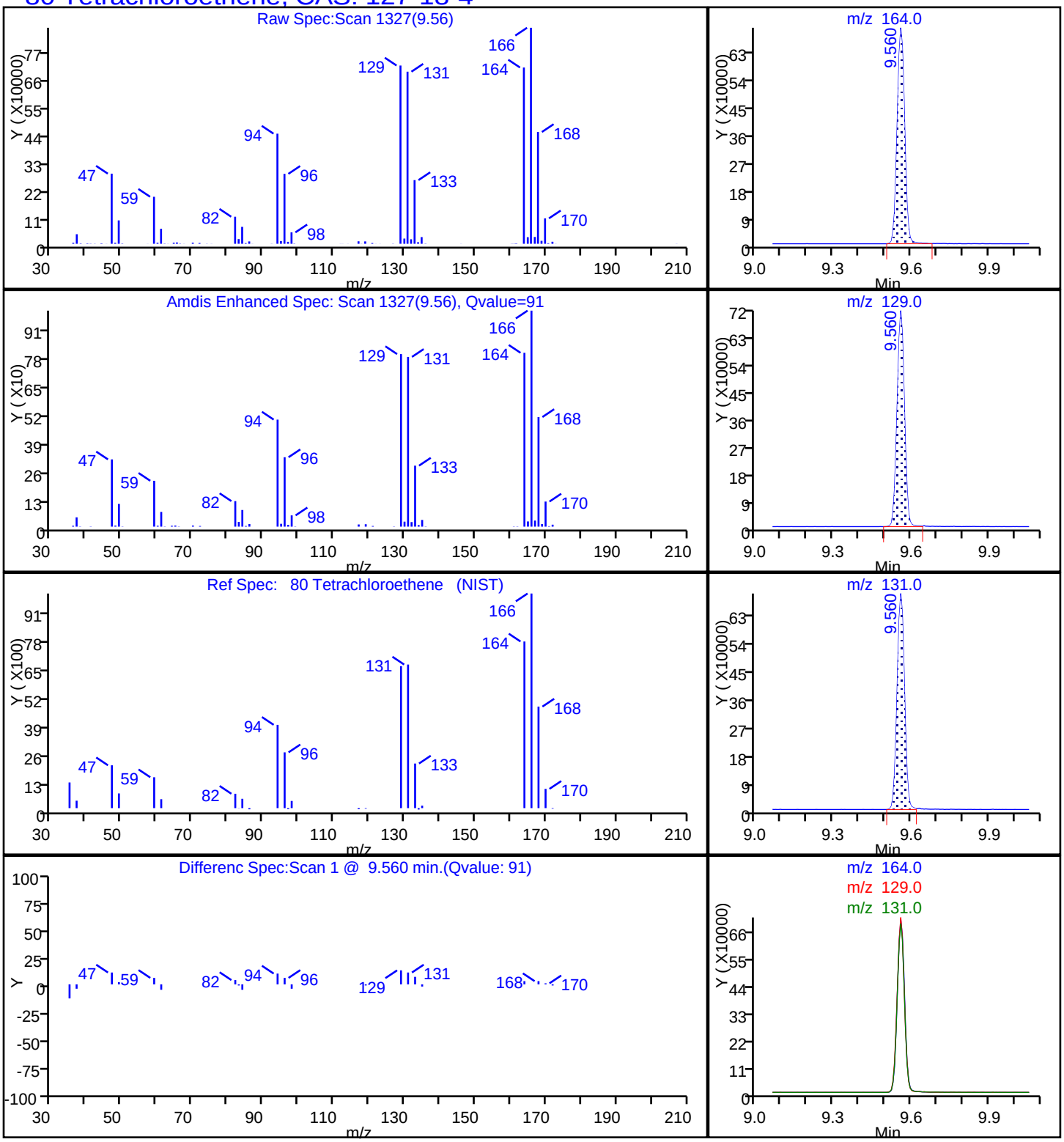
Report Date: 09-Nov-2017 09:46:28 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D17.D

Injection Date:	09-Nov-2017 04:06:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-5	Lab Sample ID:	180-71952-5		
Client ID:	HD-MW-178S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178S-0/1-0 DL | Lab Sample ID: 180-71952-5 DL

Matrix: Water | Lab File ID: 7110920.D

Analysis Method: 8260C | Date Collected: 10/30/2017 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 17:34

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U ^c	10	9.0
75-01-4	Vinyl chloride	10	U ^c	10	8.8
74-83-9	Bromomethane	10	U ^c	10	8.9
75-00-3	Chloroethane	10	U	10	9.0
75-35-4	1,1-Dichloroethene	10	U	10	5.5
67-64-1	Acetone	50	U ^c	50	34
75-15-0	Carbon disulfide	10	U	10	8.8
75-09-2	Methylene Chloride	10	U	10	3.6
156-60-5	trans-1,2-Dichloroethene	10	U	10	6.7
1634-04-4	Methyl tert-butyl ether	10	U	10	5.9
75-34-3	1,1-Dichloroethane	10	U	10	6.3
156-59-2	cis-1,2-Dichloroethene	10	U	10	7.1
74-97-5	Bromochloromethane	10	U	10	6.3
78-93-3	2-Butanone (MEK)	50	U	50	26
67-66-3	Chloroform	10	U	10	6.0
71-55-6	1,1,1-Trichloroethane	10	U	10	6.0
56-23-5	Carbon tetrachloride	10	U	10	8.8
71-43-2	Benzene	10	U	10	6.0
107-06-2	1,2-Dichloroethane	10	U	10	5.7
79-01-6	Trichloroethene	53		10	6.9
78-87-5	1,2-Dichloropropane	10	U	10	6.6
75-27-4	Bromodichloromethane	10	U	10	6.4
10061-01-5	cis-1,3-Dichloropropene	10	U	10	5.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U ^c	50	31
108-88-3	Toluene	10	U ^c	10	4.6
10061-02-6	trans-1,3-Dichloropropene	10	U	10	5.8
79-00-5	1,1,2-Trichloroethane	10	U	10	4.5
127-18-4	Tetrachloroethene	100		10	4.7
591-78-6	2-Hexanone	50	U	50	33
124-48-1	Dibromochloromethane	10	U	10	8.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	5.0
108-90-7	Chlorobenzene	10	U	10	5.0
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	5.7
100-41-4	Ethylbenzene	10	U	10	5.1
1330-20-7	Xylenes, Total	20	U	20	8.9
100-42-5	Styrene	10	U	10	4.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-178S-0/1-0 DL | Lab Sample ID: 180-71952-5 DL

Matrix: Water | Lab File ID: 7110920.D

Analysis Method: 8260C | Date Collected: 10/30/2017 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 17:34

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*10*	*U ^c*	*10*	*9.8*
79-34-5	*1,1,2,2-Tetrachloroethane*	*10*	*U*	*10*	*6.0*
107-13-1	*Acrylonitrile*	*200*	*U*	*200*	*78*
123-91-1	*1,4-Dioxane*	*2000*	*U ^c*	*2000*	*140*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78	*^c*	65-121
2037-26-5	Toluene-d8 (Surr)	113		73-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	89		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110920.D
Lims ID: 180-71952-B-5
Client ID: HD-MW-178S-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 17:34:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-71952-B-5 ,10x
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 07:19:33 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 09-Nov-2017 17:56:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.250	4.251	-0.001	98	158903	1000.0	
* 2 Fluorobenzene (IS)	96	7.267	7.263	0.004	98	199845	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.365	-0.002	90	42387	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.706	12.707	-0.001	98	58878	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.537	6.539	-0.002	94	43820	44.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.914	6.910	0.004	91	75232	39.1	
$ 7 Toluene-d8 (Surr)	98	8.909	8.911	-0.002	94	181844	56.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.550	11.545	0.005	87	65893	47.9	
12 Chloromethane	50		1.793				ND	
13 Vinyl chloride	62		1.921				ND	
15 Bromomethane	94		2.280				ND	
16 Chloroethane	64		2.414				ND	
22 1,1-Dichloroethene	96		3.345				ND	
24 Acetone	43		3.436				ND	
26 Carbon disulfide	76		3.625				ND	
31 Methylene Chloride	84		4.123				ND	
33 Acrylonitrile	53		4.507				ND	
34 trans-1,2-Dichloroethene	96		4.555				ND	
35 Methyl tert-butyl ether	73		4.561				ND	
37 1,1-Dichloroethane	63		5.182				ND	
45 cis-1,2-Dichloroethene	96		5.930				ND	
46 2-Butanone (MEK)	43		5.936				ND	
49 Chlorobromomethane	128		6.210				ND	
52 Chloroform	83		6.362				ND	
53 1,1,1-Trichloroethane	97		6.514				ND	
56 Carbon tetrachloride	117		6.691				ND	
58 Benzene	78		6.922				ND	
59 1,2-Dichloroethane	62		6.995				ND	
64 Trichloroethene	130	7.656	7.646	0.010	95	32317	26.3	
67 1,2-Dichloropropane	63		7.926				ND	
70 1,4-Dioxane	88		8.011				ND	
71 Dichlorobromomethane	83		8.205				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 cis-1,3-Dichloropropene	75		8.650				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.802				ND	
76 Toluene	91		8.978				ND	
77 trans-1,3-Dichloropropene	75		9.227				ND	
79 1,1,2-Trichloroethane	97		9.422				ND	
80 Tetrachloroethene	164	9.493	9.495	-0.002	94	38051	51.7	
82 2-Hexanone	43		9.635				ND	
84 Chlorodibromomethane	129		9.787				ND	
85 Ethylene Dibromide	107		9.909				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.481				ND	
90 Ethylbenzene	106		10.493				ND	
91 m-Xylene & p-Xylene	106		10.621				ND	
92 o-Xylene	106		11.004				ND	
93 Styrene	104		11.022				ND	
94 Bromoform	173		11.211				ND	
99 1,1,2,2-Tetrachloroethane	83		11.685				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent

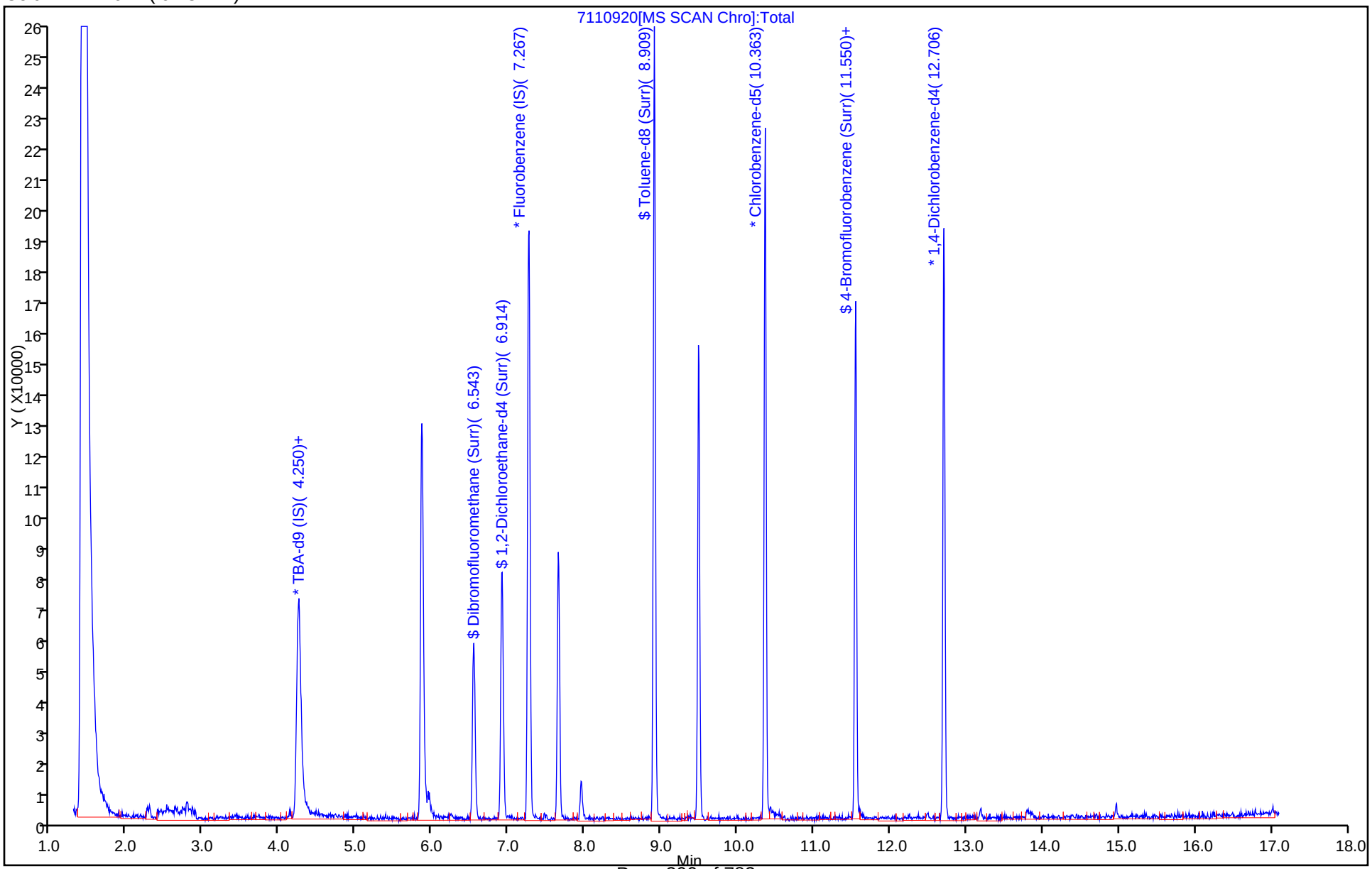
Report Date: 10-Nov-2017 07:19:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110920.D

Injection Date:	09-Nov-2017 17:34:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-71952-B-5	Lab Sample ID:	180-71952-5	Worklist Smp#:	20
Client ID:	HD-MW-178S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110920.D
Lims ID: 180-71952-B-5
Client ID: HD-MW-178S-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 17:34:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-71952-B-5 ,10x
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 07:19:33 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 09-Nov-2017 17:56:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	44.3	88.62
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	39.1	78.23
$ 7 Toluene-d8 (Surr)	50.0	56.6	113.26
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.9	95.86

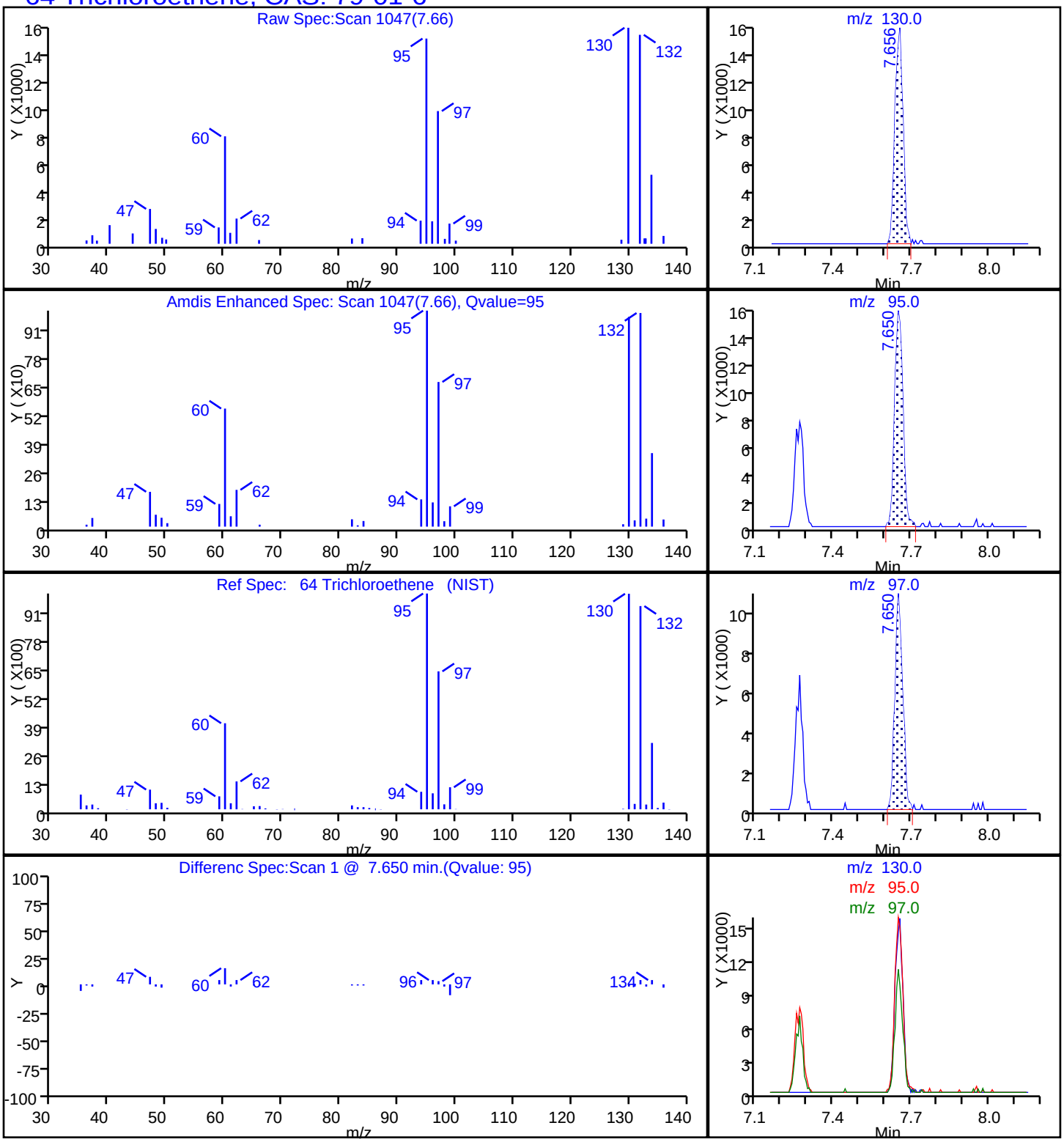
Report Date: 10-Nov-2017 07:19:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110920.D

Injection Date:	09-Nov-2017 17:34:30	Instrument ID:	CHHP7		
Lims ID:	180-71952-B-5	Lab Sample ID:	180-71952-5		
Client ID:	HD-MW-178S-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



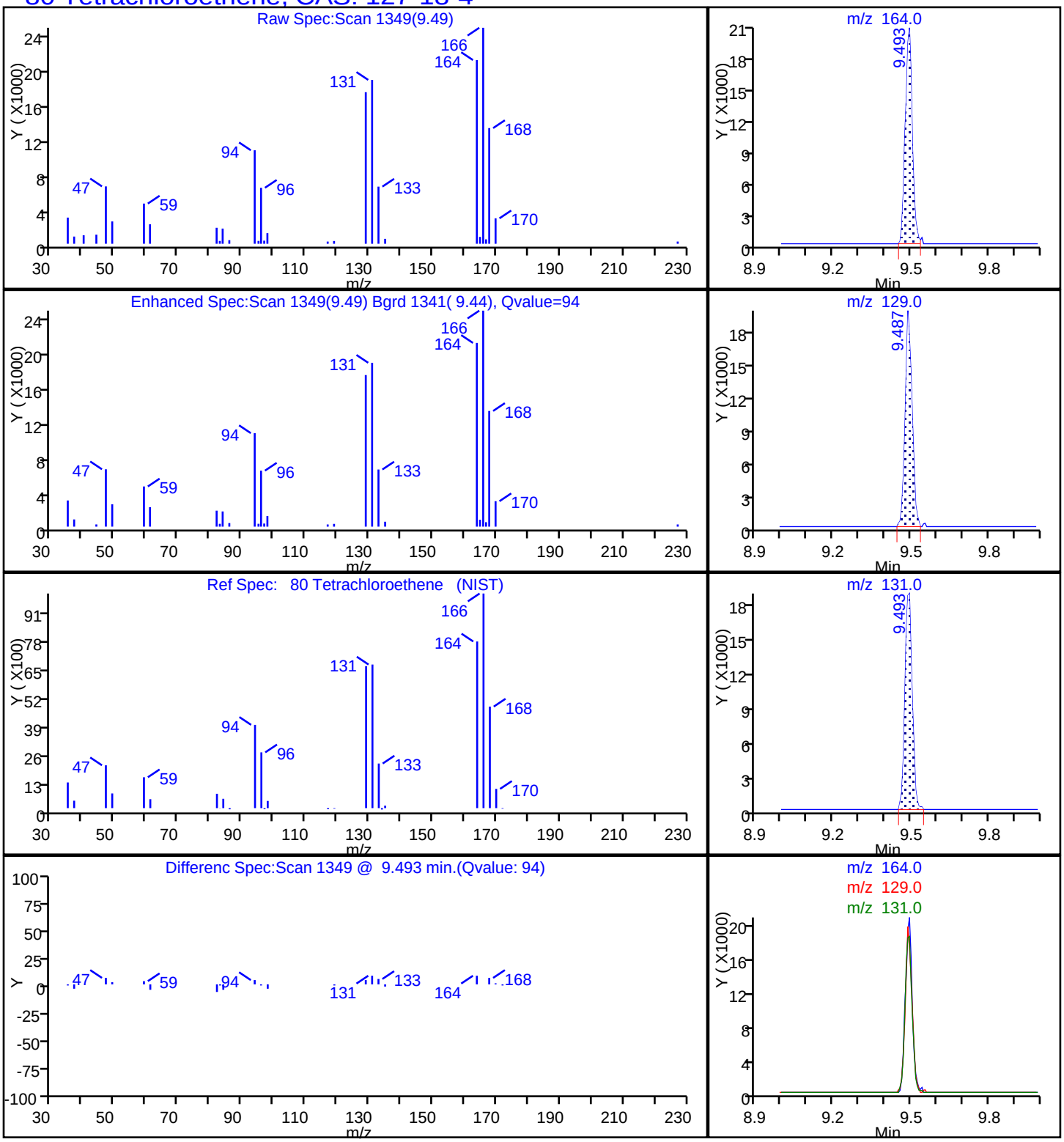
Report Date: 10-Nov-2017 07:19:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110920.D

Injection Date:	09-Nov-2017 17:34:30	Instrument ID:	CHHP7		
Lims ID:	180-71952-B-5	Lab Sample ID:	180-71952-5		
Client ID:	HD-MW-178S-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-181S-0/1-0 | Lab Sample ID: 180-71952-6

Matrix: Water | Lab File ID: 51108D22.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 06:05

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.: 228418 | 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 ^c	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*	*110*	*^c E*	*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*	*160*	*^c E*	*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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-181S-0/1-0 | Lab Sample ID: 180-71952-6

Matrix: Water | Lab File ID: 51108D22.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 06:05

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.: 228418 | 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)	116		65-121
2037-26-5	Toluene-d8 (Surr)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	110		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D22.D
Lims ID: 180-71952-A-6
Client ID: HD-MW-181S-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 06:05:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-022
Misc. Info.: 180-71952-A-6
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:36:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.357	4.373	-0.016	0	201868	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.341	-0.003	98	461541	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.430	-0.003	87	117708	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	97	149409	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.620	6.617	0.003	92	122535	55.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.982	0.009	0	156868	57.9	
$ 7 Toluene-d8 (Surr)	98	8.985	8.976	0.009	94	431816	46.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.610	0.003	83	140199	41.4	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.342				ND	
16 Chloroethane	64		2.433				ND	
22 1,1-Dichloroethene	96	3.421	3.418	0.003	26	2471	1.09	
24 Acetone	43	3.549	3.528	0.021	66	14982	12.4	
26 Carbon disulfide	76		3.716				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.610				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.273				ND	
45 cis-1,2-Dichloroethene	96	6.012	6.009	0.003	80	10376	3.52	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.437	6.434	0.003	90	7059	1.58	
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.727	7.724	0.003	97	1507590	533.8	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.052	9.043	0.009	25	1321	0.1126	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.563	9.554	0.009	91	1738163	776.5	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131	10.548	10.551	-0.003	1	565	0.2325	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

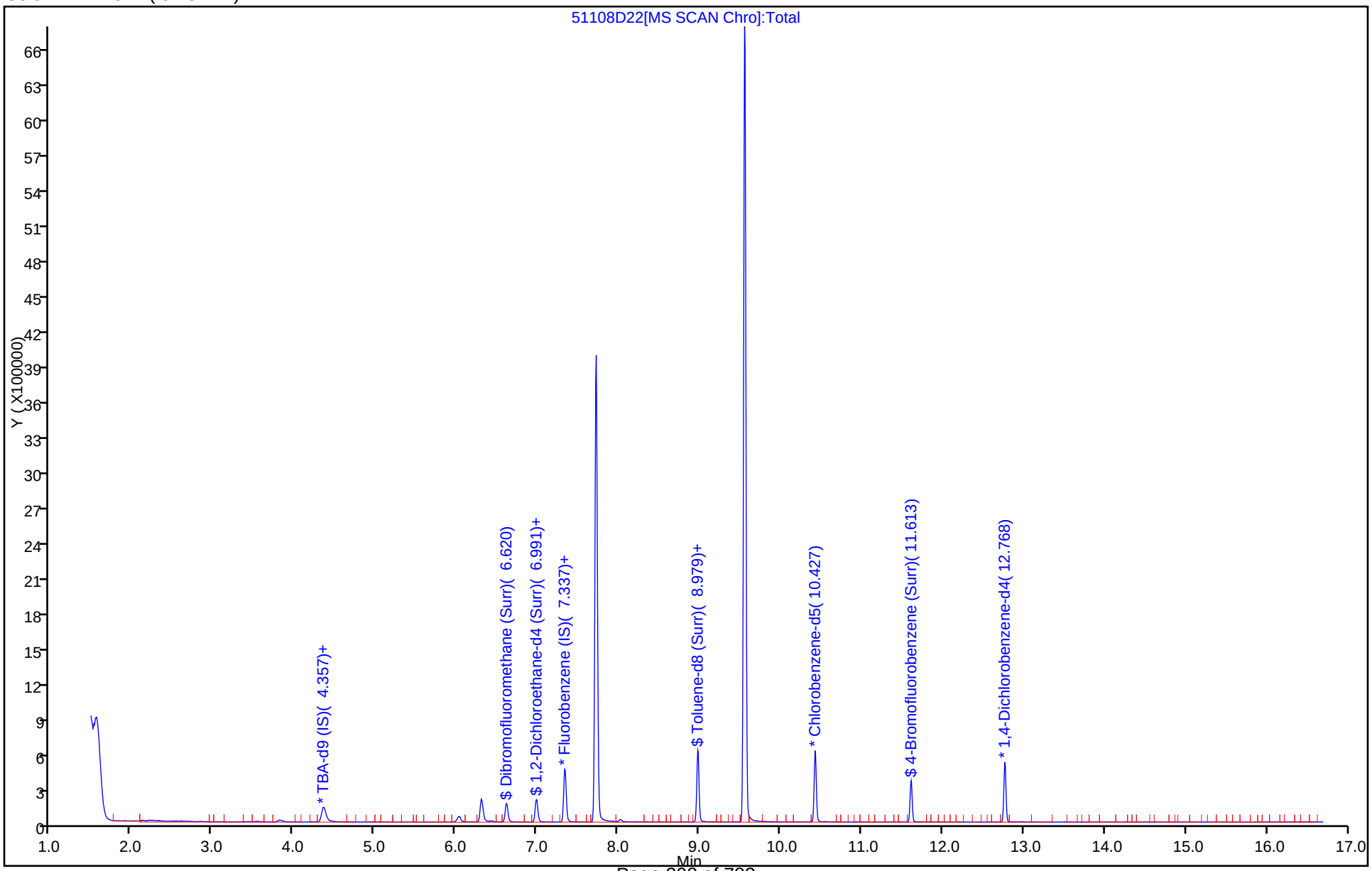
Report Date: 09-Nov-2017 09:46:07 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D22.D

Injection Date:	09-Nov-2017 06:05:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-6	Lab Sample ID:	180-71952-6	Worklist Smp#:	22
Client ID:	HD-MW-181S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D22.D				
Lims ID:	180-71952-A-6				
Client ID:	HD-MW-181S-0/1-0				
Sample Type:	Client				
Inject. Date:	09-Nov-2017 06:05:30	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019227-022				
Misc. Info.:	180-71952-A-6				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 09:44:05	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: journetp		Date:	09-Nov-2017 09:36:52		

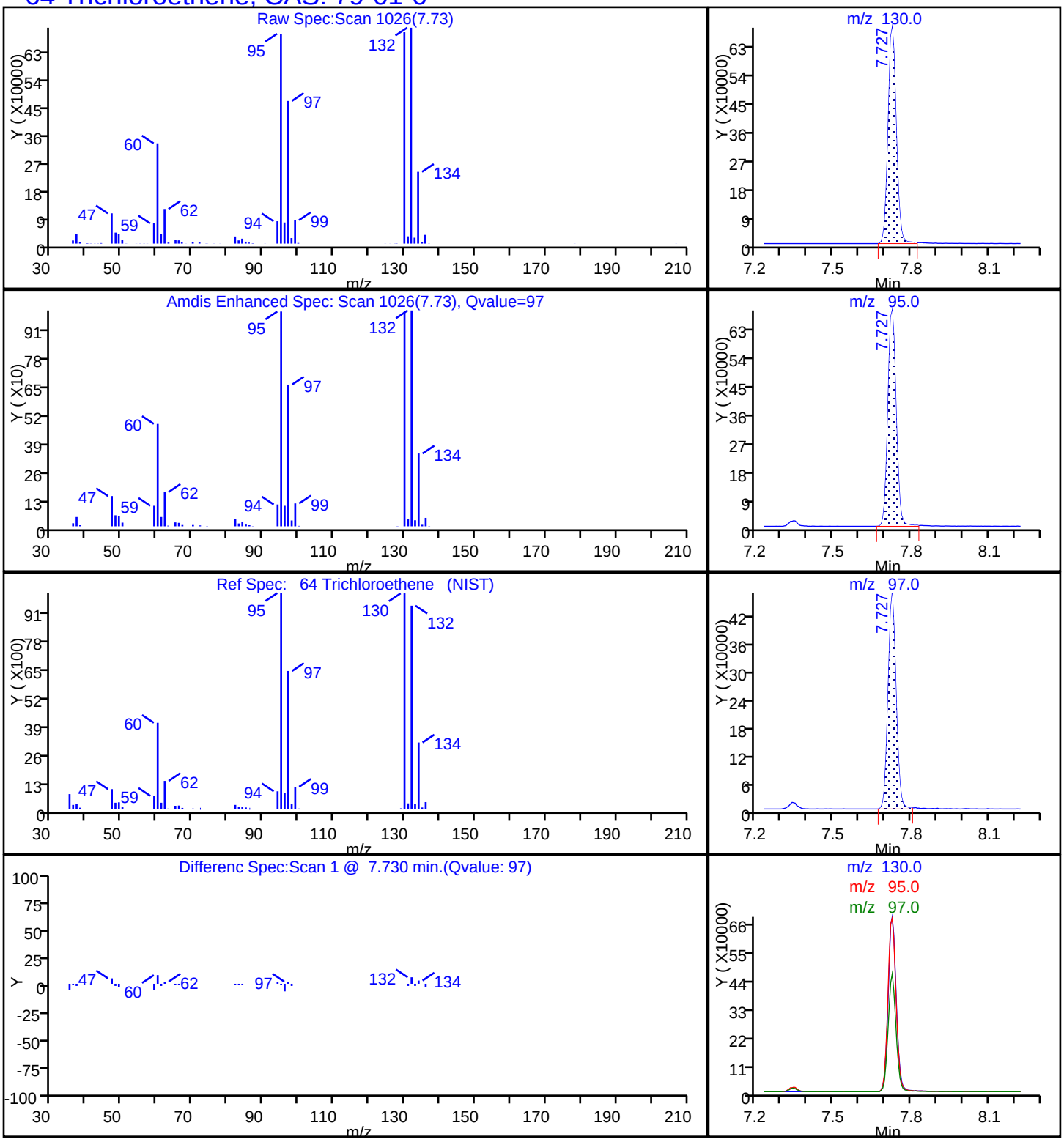
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	55.2	110.36
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	57.9	115.83
$ 7 Toluene-d8 (Surr)	50.0	46.1	92.19
$ 8 4-Bromofluorobenzene (Surr)	50.0	41.4	82.87

Report Date: 09-Nov-2017 09:46:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D22.D				
Injection Date:	09-Nov-2017 06:05:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-6	Lab Sample ID:	180-71952-6		
Client ID:	HD-MW-181S-0/1-0				
Operator ID:	034635	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



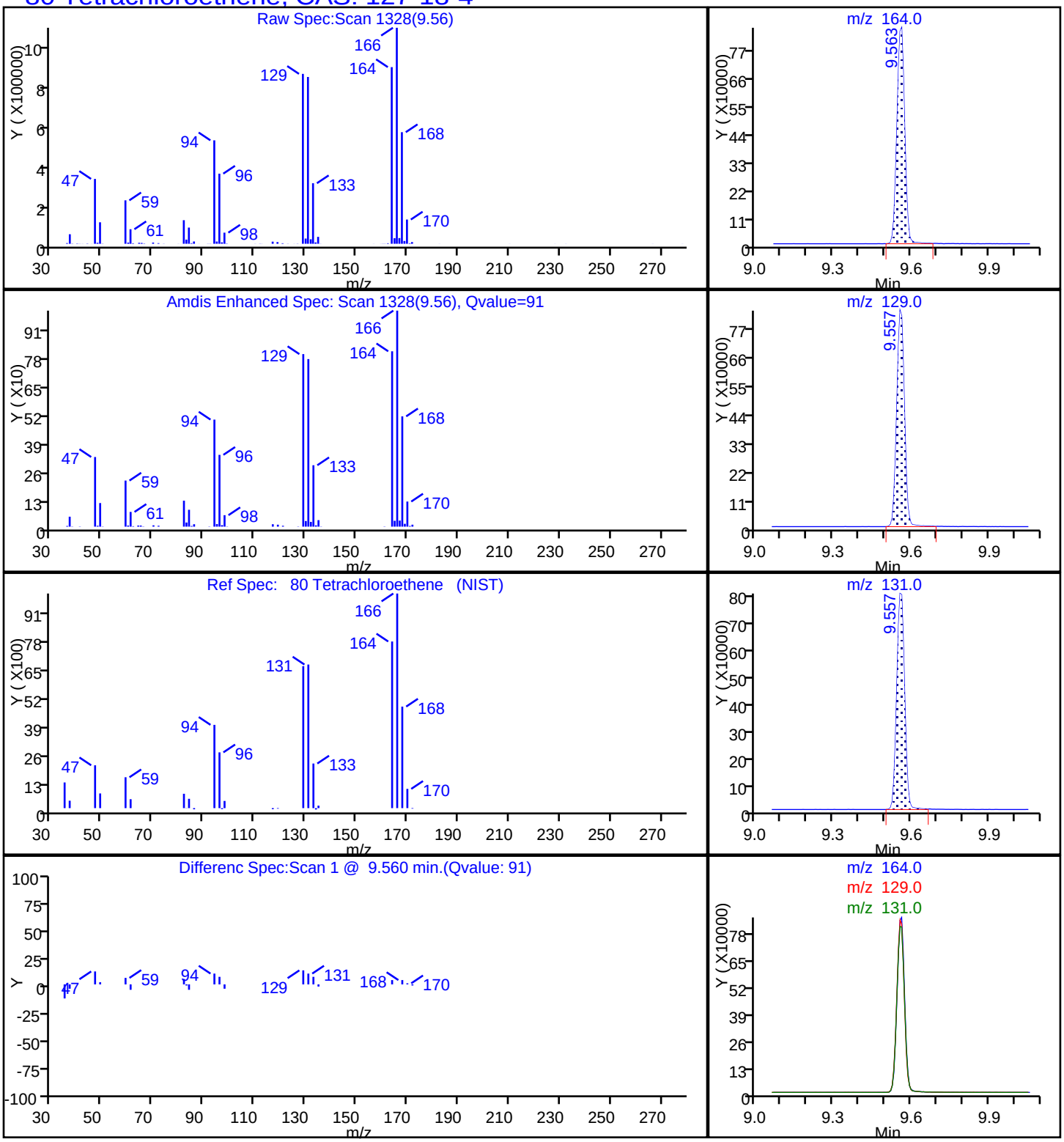
Report Date: 09-Nov-2017 09:46:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D22.D

Injection Date:	09-Nov-2017 06:05:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-6	Lab Sample ID:	180-71952-6		
Client ID:	HD-MW-181S-0/1-0				
Operator ID:	034635	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-181S-0/1-0 DL | Lab Sample ID: 180-71952-6 DL

Matrix: Water | Lab File ID: 51110D15.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 14:17

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U ^c	5.0	4.5
75-01-4	Vinyl chloride	5.0	U	5.0	4.4
74-83-9	Bromomethane	5.0	U ^c	5.0	4.4
75-00-3	Chloroethane	5.0	U ^c	5.0	4.5
75-35-4	1,1-Dichloroethene	5.0	U	5.0	2.8
67-64-1	Acetone	25	U	25	17
75-15-0	Carbon disulfide	5.0	U ^c	5.0	4.4
75-09-2	Methylene Chloride	5.0	U	5.0	1.8
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	3.4
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	3.0
75-34-3	1,1-Dichloroethane	5.0	U	5.0	3.1
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	3.5
74-97-5	Bromochloromethane	5.0	U	5.0	3.1
78-93-3	2-Butanone (MEK)	25	U	25	13
67-66-3	Chloroform	5.0	U	5.0	3.0
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	3.0
56-23-5	Carbon tetrachloride	5.0	U	5.0	4.4
71-43-2	Benzene	5.0	U	5.0	3.0
107-06-2	1,2-Dichloroethane	5.0	U	5.0	2.9
79-01-6	Trichloroethene	76		5.0	3.4
78-87-5	1,2-Dichloropropane	5.0	U	5.0	3.3
75-27-4	Bromodichloromethane	5.0	U	5.0	3.2
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	3.0
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	15
108-88-3	Toluene	5.0	U	5.0	2.3
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	2.9
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	2.3
127-18-4	Tetrachloroethene	110		5.0	2.3
591-78-6	2-Hexanone	25	U	25	16
124-48-1	Dibromochloromethane	5.0	U	5.0	4.2
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	2.5
108-90-7	Chlorobenzene	5.0	U	5.0	2.5
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.9
100-41-4	Ethylbenzene	5.0	U	5.0	2.5
1330-20-7	Xylenes, Total	10	U	10	4.5
100-42-5	Styrene	5.0	U	5.0	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-181S-0/1-0 DL | Lab Sample ID: 180-71952-6 DL

Matrix: Water | Lab File ID: 51110D15.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 14:17

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*5.0*	*U*	*5.0*	*4.9*
79-34-5	*1,1,2,2-Tetrachloroethane*	*5.0*	*U*	*5.0*	*3.0*
107-13-1	*Acrylonitrile*	*100*	*U*	*100*	*39*
123-91-1	*1,4-Dioxane*	*1000*	*U*	*1000*	*68*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	78		73-120
460-00-4	4-Bromofluorobenzene (Surr)	82		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D15.D
Lims ID: 180-71952-C-6
Client ID: HD-MW-181S-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 14:17:30 ALS Bottle#: 4 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-0019249-015
Misc. Info.: 180-71952-C-6 ,x5
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 16:47:12 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 15:10:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.365	-0.011	0	208714	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.339	0.001	98	492369	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.428	0.001	87	121223	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	97	155708	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.622	6.615	0.007	93	116300	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	149097	51.6	
$ 7 Toluene-d8 (Surr)	98	8.982	8.981	0.001	94	377936	39.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.608	0.007	84	142151	40.8	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.376				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43	3.557	3.526	0.031	61	2271	1.76	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.237				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96	6.020	6.013	0.007	1	2020	0.6430	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83	6.446	6.439	0.007	40	4708	0.9872	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.723	7.728	-0.005	97	228534	75.9	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.560	9.558	0.002	94	256491	111.3	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

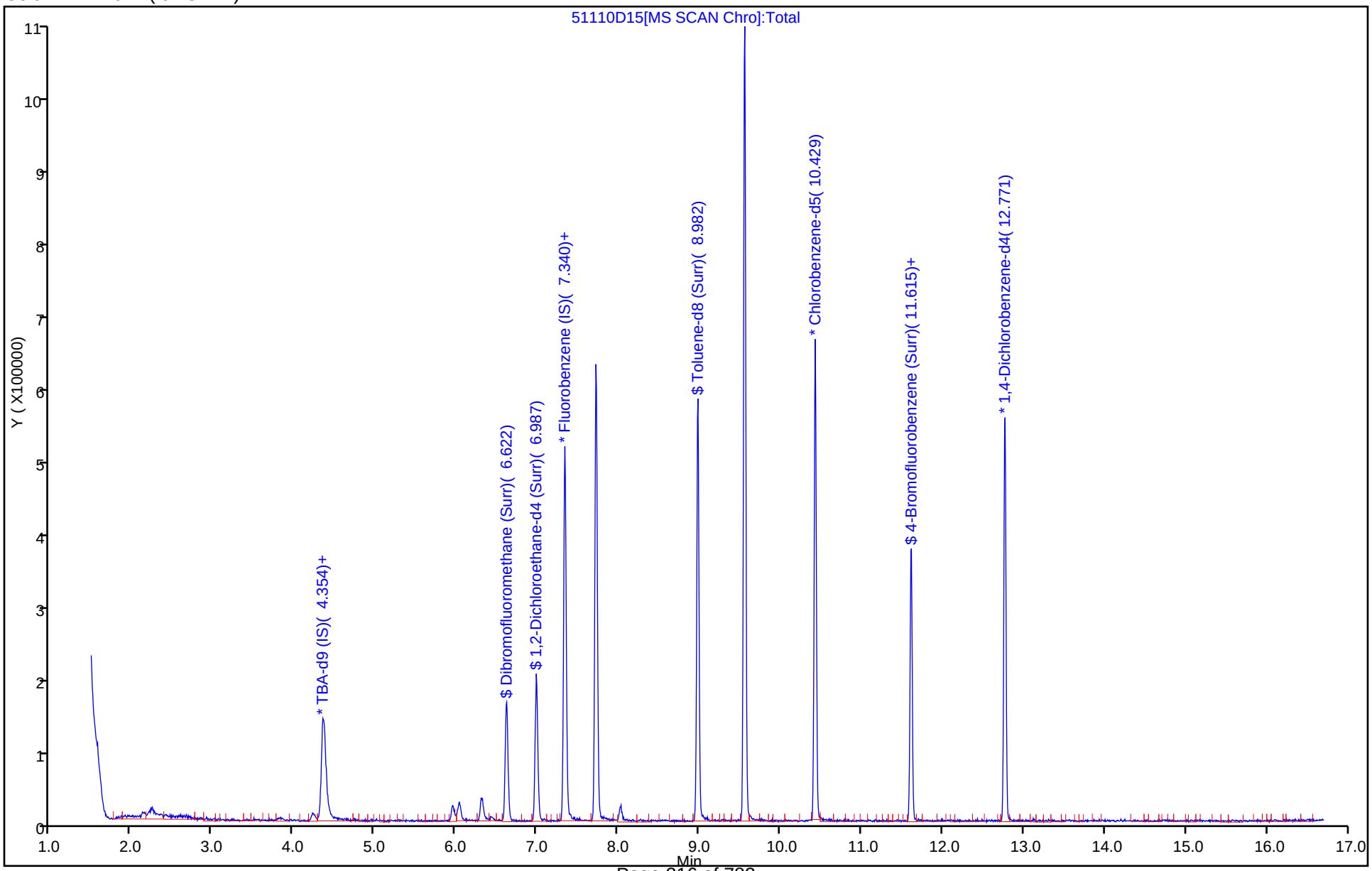
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 10-Nov-2017 16:47:29 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D15.D				
Injection Date:	10-Nov-2017 14:17:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-C-6	Lab Sample ID:	180-71952-6	Worklist Smp#:	15
Client ID:	HD-MW-181S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D15.D
Lims ID: 180-71952-C-6
Client ID: HD-MW-181S-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 14:17:30 ALS Bottle#: 4 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-0019249-015
Misc. Info.: 180-71952-C-6 ,x5
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 16:47:12 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 15:10:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.1	98.18
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.6	103.20
$ 7 Toluene-d8 (Surr)	50.0	39.2	78.35
$ 8 4-Bromofluorobenzene (Surr)	50.0	40.8	81.59

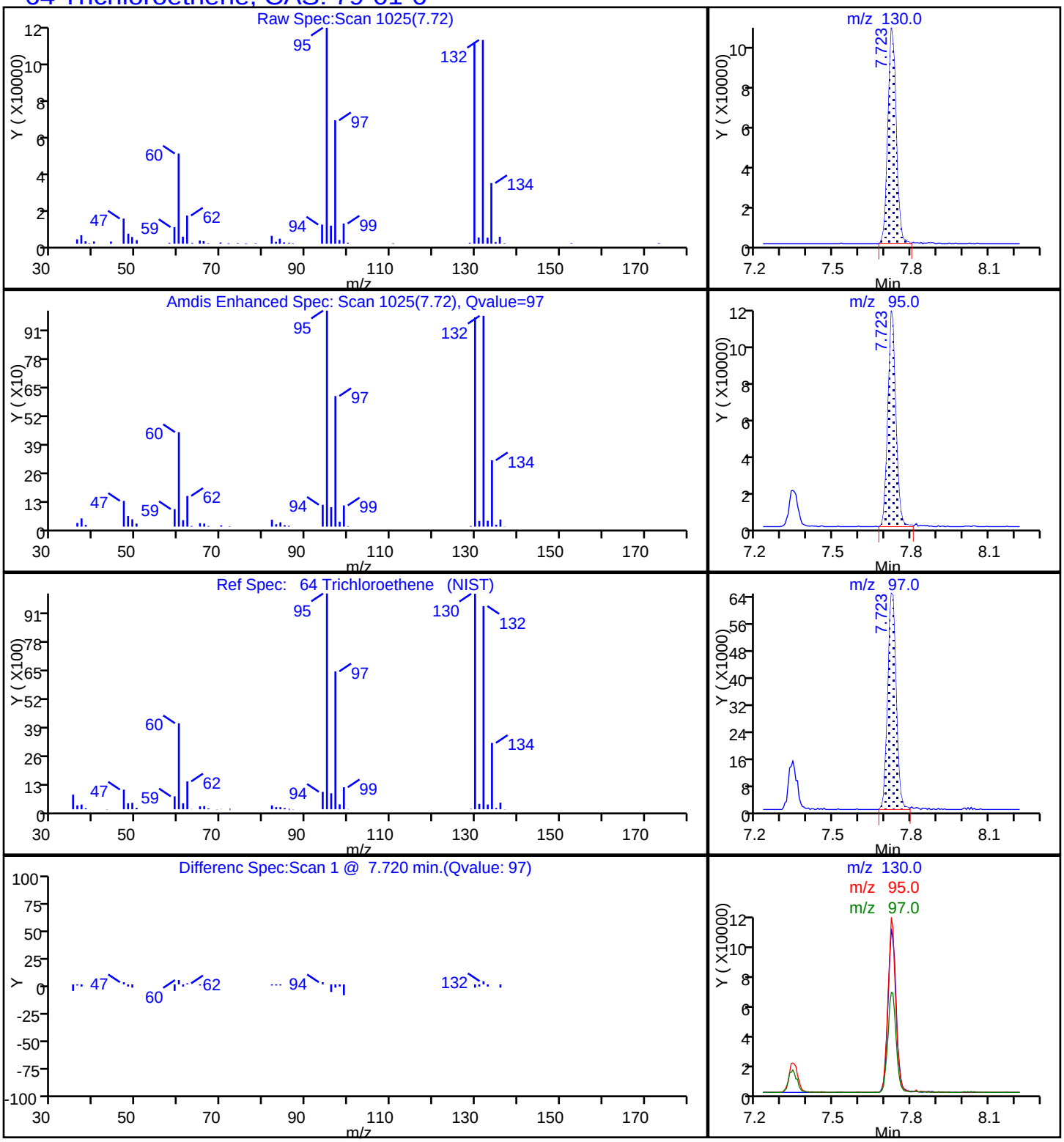
Report Date: 10-Nov-2017 16:47:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D15.D

Injection Date:	10-Nov-2017 14:17:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-6	Lab Sample ID:	180-71952-6		
Client ID:	HD-MW-181S-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

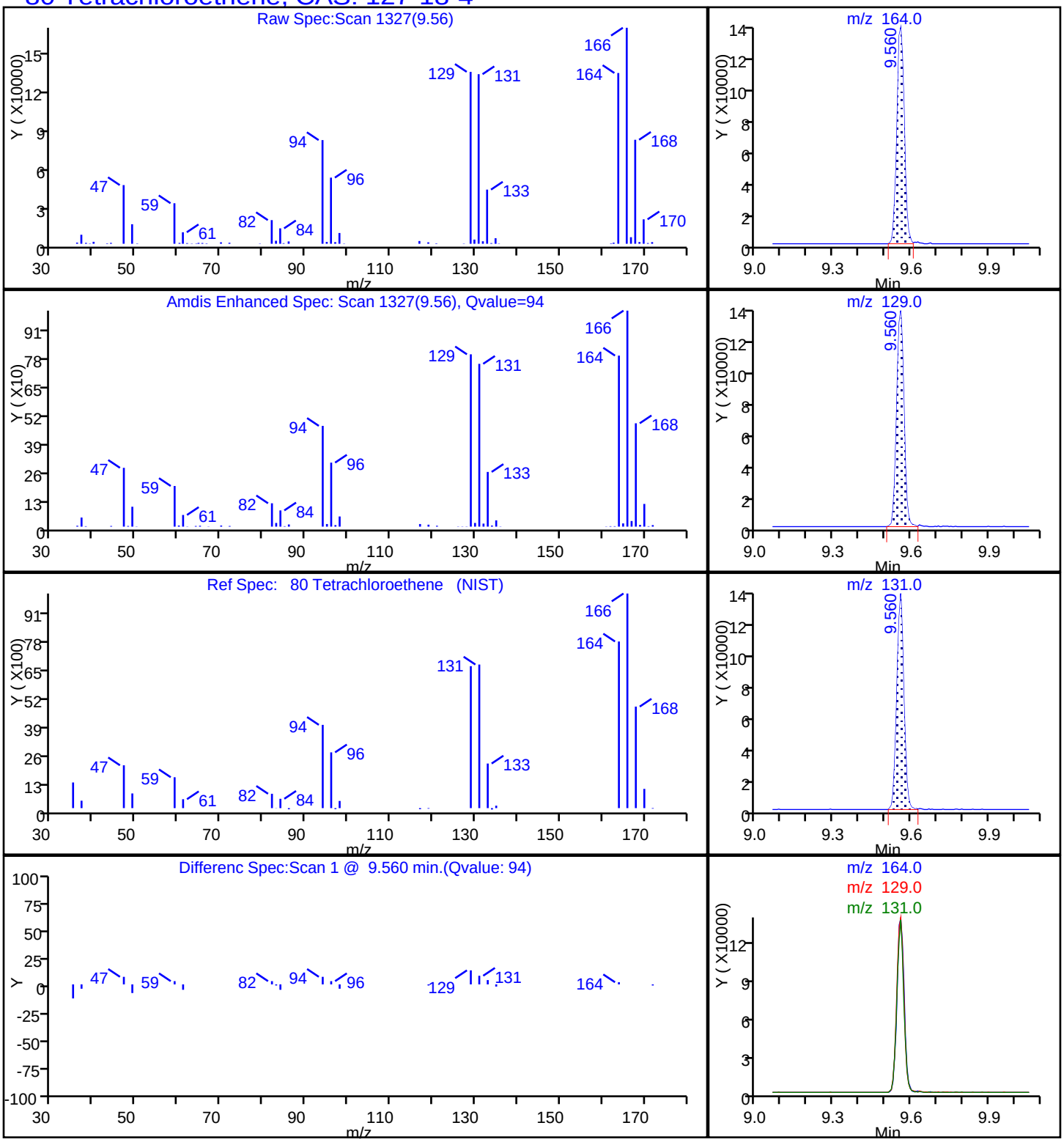


Report Date: 10-Nov-2017 16:47:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D15.D		
Injection Date:	10-Nov-2017 14:17:30	Instrument ID:	CHHP5
Lims ID:	180-71952-C-6	Lab Sample ID:	180-71952-6
Client ID:	HD-MW-181S-0/1-0		
Operator ID:	034635	ALS Bottle#:	4 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-177-0/1-0 | Lab Sample ID: 180-71952-7

Matrix: Water | Lab File ID: 51109D13.D

Analysis Method: 8260C | Date Collected: 10/31/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 15:55

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U * ^c	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 ^c	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*	*330*	*E*	*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*	*230*	*E*	*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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-177-0/1-0 | Lab Sample ID: 180-71952-7

Matrix: Water | Lab File ID: 51109D13.D

Analysis Method: 8260C | Date Collected: 10/31/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 15:55

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	113		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	82		80-120
1868-53-7	Dibromofluoromethane (Surr)	108		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D13.D
Lims ID: 180-71952-C-7
Client ID: HD-MW-177-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 15:55:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-013
Misc. Info.: 180-71952-C-7
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 16:54:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.367	-0.009	0	215359	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.335	0.010	98	470604	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.430	-0.003	87	128029	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	97	159904	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.620	6.617	0.003	92	122262	54.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.982	0.009	0	156469	56.7	
$ 7 Toluene-d8 (Surr)	98	8.980	8.976	0.004	94	437710	43.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.610	0.003	83	150518	40.9	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.019				ND	
15 Bromomethane	94		2.354				ND	
16 Chloroethane	64		2.445				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.543	3.540	0.003	80	10112	8.22	
26 Carbon disulfide	76		3.710				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.616				ND	
34 trans-1,2-Dichloroethene	96		4.647				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96	6.018	6.009	0.009	41	4001	1.33	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.444	6.441	0.003	90	5469	1.20	
53 1,1,1-Trichloroethane	97		6.599				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.067				ND	
64 Trichloroethene	130	7.727	7.724	0.003	93	4787226	1662.5	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.041	9.049	-0.008	97	18841	1.48	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.558	9.560	-0.002	88	2777310	1140.8	E
82 2-Hexanone	43		9.700				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.552	0.003	1	493	0.1866	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

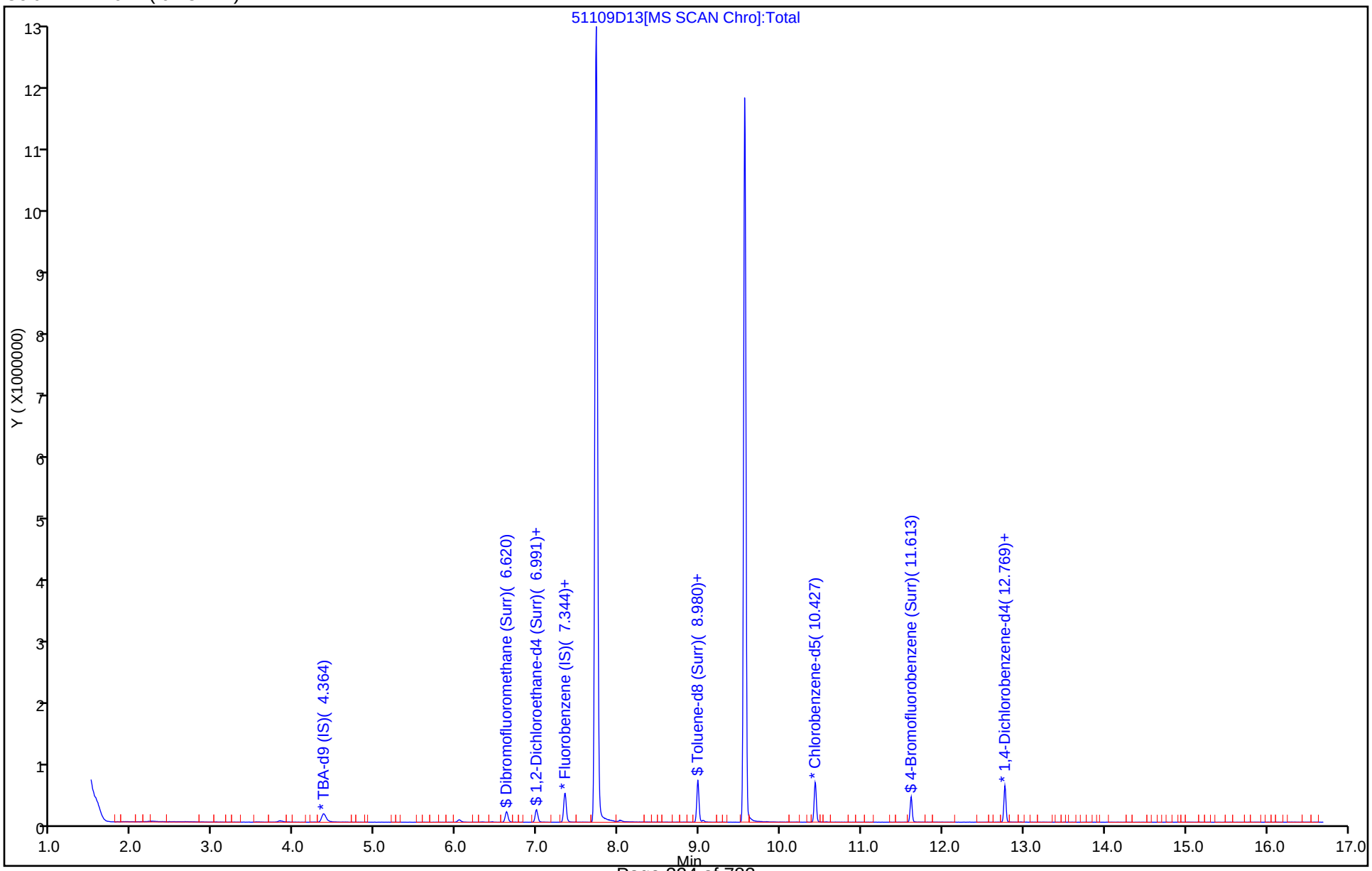
Report Date: 09-Nov-2017 17:33:01 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D13.D

Injection Date:	09-Nov-2017 15:55:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-C-7	Lab Sample ID:	180-71952-7	Worklist Smp#:	13
Client ID:	HD-MW-177-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D13.D
Lims ID: 180-71952-C-7
Client ID: HD-MW-177-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 15:55:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-013
Misc. Info.: 180-71952-C-7
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 16:54:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	54.0	107.99
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.7	113.31
$ 7 Toluene-d8 (Surr)	50.0	43.0	85.91
$ 8 4-Bromofluorobenzene (Surr)	50.0	40.9	81.80

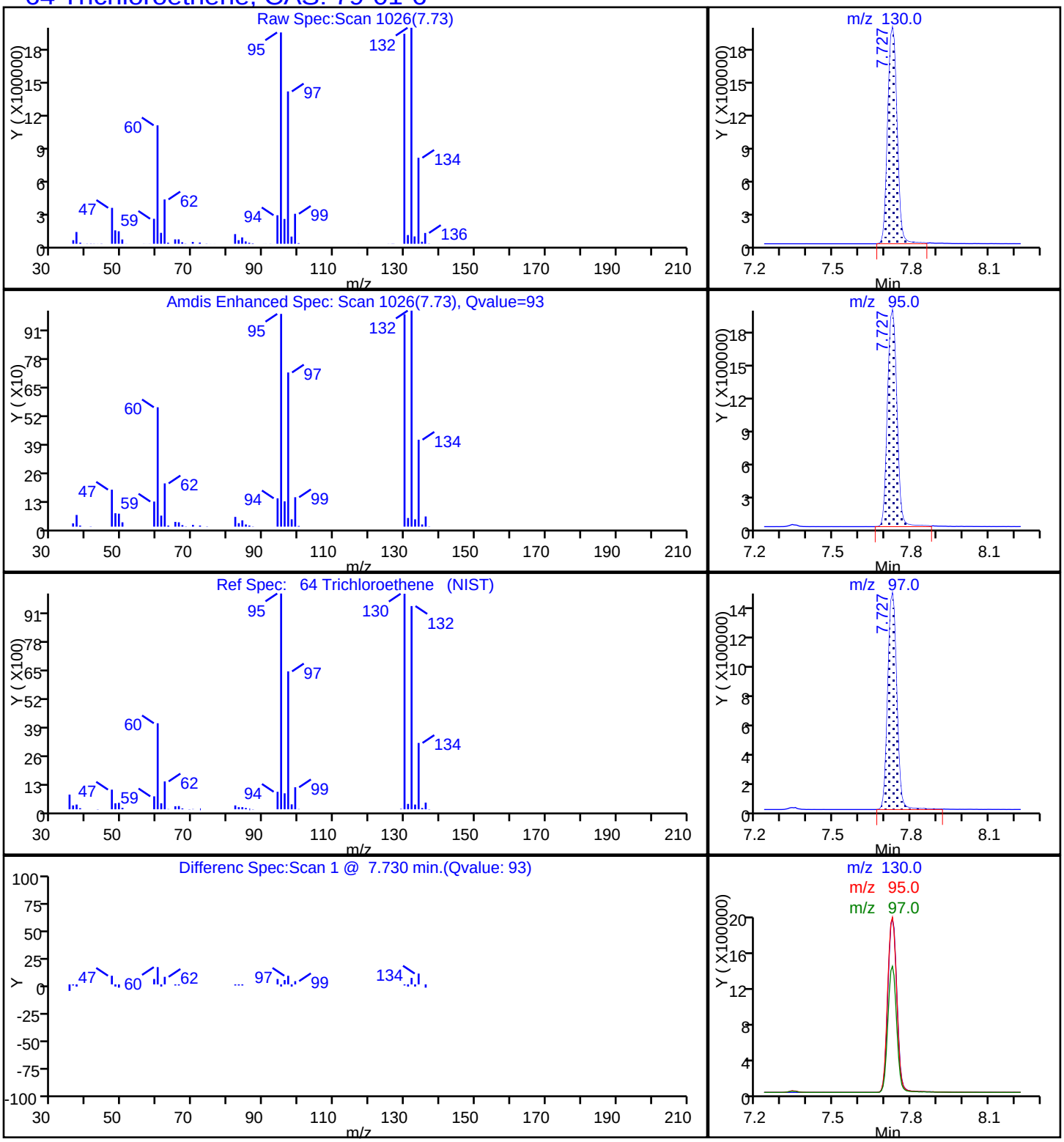
Report Date: 09-Nov-2017 17:33:01 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D13.D

Injection Date:	09-Nov-2017 15:55:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-7	Lab Sample ID:	180-71952-7		
Client ID:	HD-MW-177-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



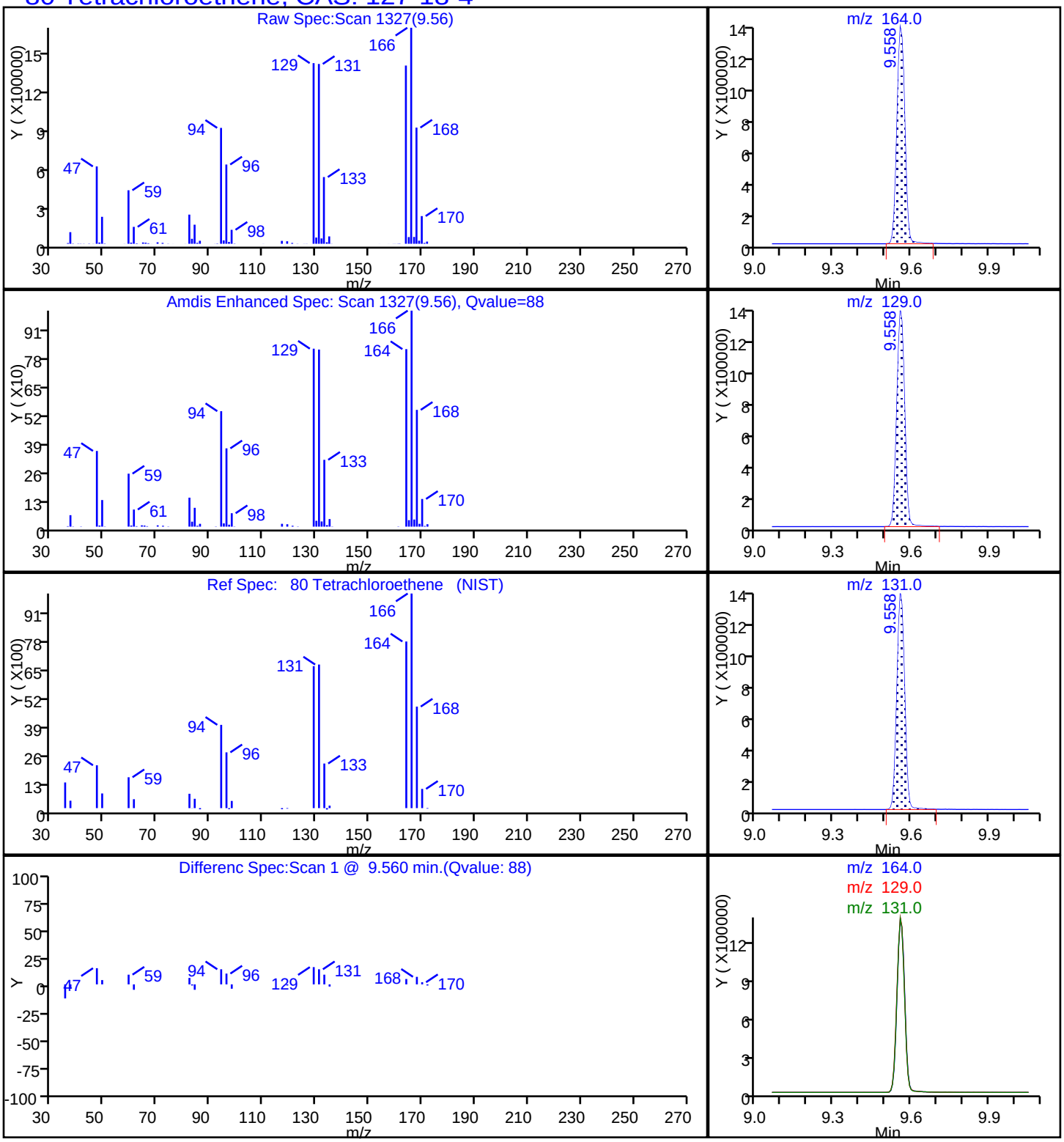
Report Date: 09-Nov-2017 17:33:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D13.D

Injection Date:	09-Nov-2017 15:55:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-7	Lab Sample ID:	180-71952-7		
Client ID:	HD-MW-177-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-177-0/1-0 DL | Lab Sample ID: 180-71952-7 DL

Matrix: Water | Lab File ID: 51110D16.D

Analysis Method: 8260C | Date Collected: 10/31/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 14:41

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U ^c	25	22
75-01-4	Vinyl chloride	25	U	25	22
74-83-9	Bromomethane	25	U ^c	25	22
75-00-3	Chloroethane	25	U ^c	25	22
75-35-4	1,1-Dichloroethene	25	U	25	14
67-64-1	Acetone	130	U	130	86
75-15-0	Carbon disulfide	25	U ^c	25	22
75-09-2	Methylene Chloride	25	U	25	9.0
156-60-5	trans-1,2-Dichloroethene	25	U	25	17
1634-04-4	Methyl tert-butyl ether	25	U	25	15
75-34-3	1,1-Dichloroethane	25	U	25	16
156-59-2	cis-1,2-Dichloroethene	25	U	25	18
74-97-5	Bromochloromethane	25	U	25	16
78-93-3	2-Butanone (MEK)	130	U	130	65
67-66-3	Chloroform	25	U	25	15
71-55-6	1,1,1-Trichloroethane	25	U	25	15
56-23-5	Carbon tetrachloride	25	U	25	22
71-43-2	Benzene	25	U	25	15
107-06-2	1,2-Dichloroethane	25	U	25	14
79-01-6	Trichloroethene	350		25	17
78-87-5	1,2-Dichloropropane	25	U	25	16
75-27-4	Bromodichloromethane	25	U	25	16
10061-01-5	cis-1,3-Dichloropropene	25	U	25	15
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	77
108-88-3	Toluene	25	U	25	11
10061-02-6	trans-1,3-Dichloropropene	25	U	25	15
79-00-5	1,1,2-Trichloroethane	25	U	25	11
127-18-4	Tetrachloroethene	220		25	12
591-78-6	2-Hexanone	130	U	130	82
124-48-1	Dibromochloromethane	25	U	25	21
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	13
108-90-7	Chlorobenzene	25	U	25	13
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	14
100-41-4	Ethylbenzene	25	U	25	13
1330-20-7	Xylenes, Total	50	U	50	22
100-42-5	Styrene	25	U	25	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-177-0/1-0 DL | Lab Sample ID: 180-71952-7 DL

Matrix: Water | Lab File ID: 51110D16.D

Analysis Method: 8260C | Date Collected: 10/31/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 14:41

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*25*	*U*	*25*	*24*
79-34-5	*1,1,2,2-Tetrachloroethane*	*25*	*U*	*25*	*15*
107-13-1	*Acrylonitrile*	*500*	*U*	*500*	*200*
123-91-1	*1,4-Dioxane*	*5000*	*U*	*5000*	*340*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		65-121
2037-26-5	Toluene-d8 (Surr)	79		73-120
460-00-4	4-Bromofluorobenzene (Surr)	82		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D16.D
Lims ID: 180-71952-B-7
Client ID: HD-MW-177-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 14:41:30 ALS Bottle#: 5 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-0019249-016
Misc. Info.: 180-71952-B-7 ,25x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 16:47:12 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 15:10:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.365	0.000	0	207495	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.339	0.000	99	476024	50.0	
* 3 Chlorobenzene-d5	119	10.428	10.428	0.000	87	116511	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.769	0.001	97	152064	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.621	6.615	0.006	93	117201	51.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	146856	52.6	
$ 7 Toluene-d8 (Surr)	98	8.981	8.981	0.000	94	367053	39.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.608	0.000	83	137972	41.2	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.376				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.237				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83	6.439	6.439	0.000	91	5796	1.26	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.728	7.728	0.000	96	204494	70.2	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.559	9.558	0.001	94	99581	44.9	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

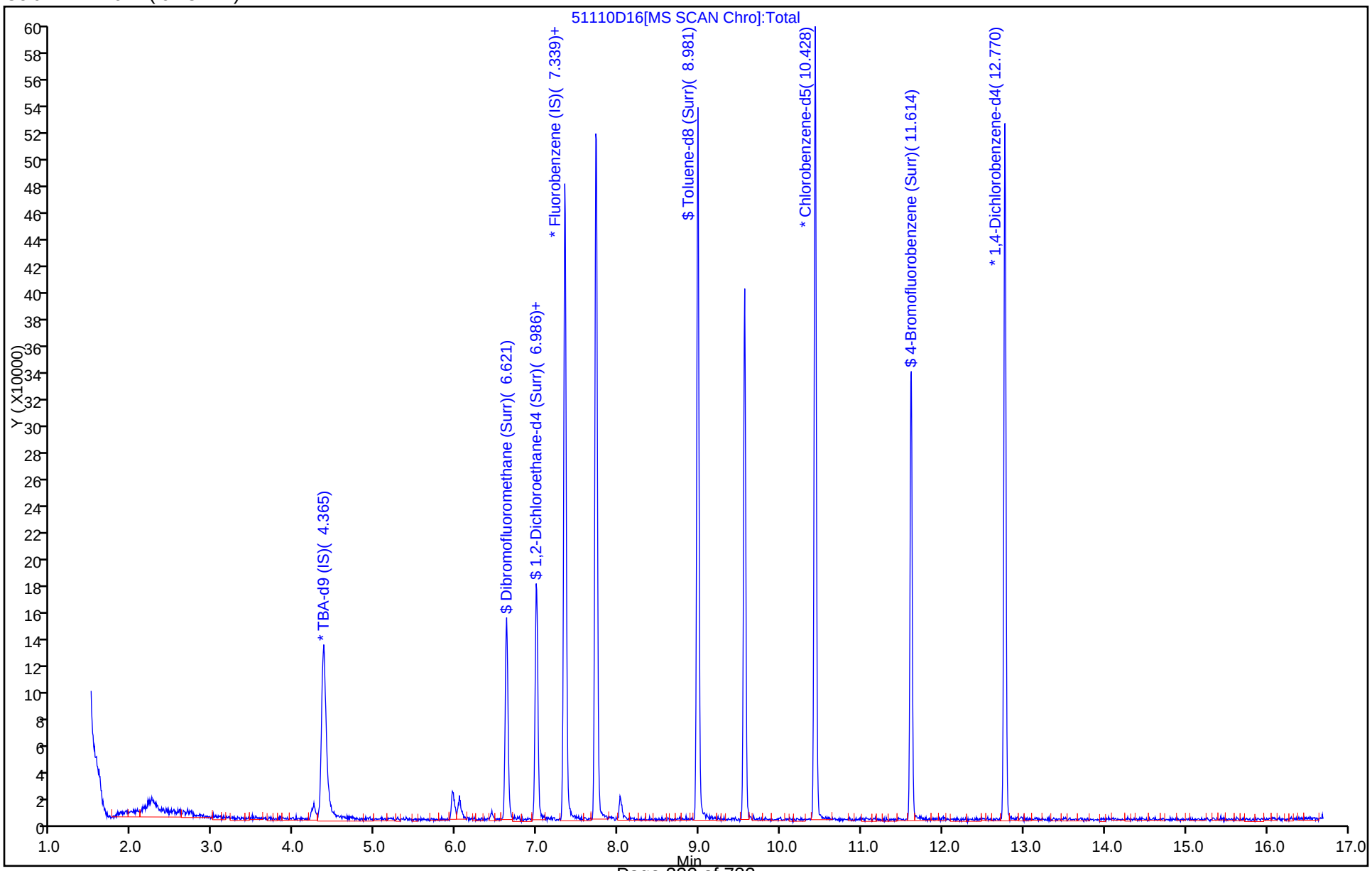
Report Date: 10-Nov-2017 16:47:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D16.D

Injection Date:	10-Nov-2017 14:41:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-B-7	Lab Sample ID:	180-71952-7	Worklist Smp#:	16
Client ID:	HD-MW-177-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D16.D
Lims ID: 180-71952-B-7
Client ID: HD-MW-177-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 14:41:30 ALS Bottle#: 5 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-0019249-016
Misc. Info.: 180-71952-B-7 ,25x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 16:47:12 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 15:10:40

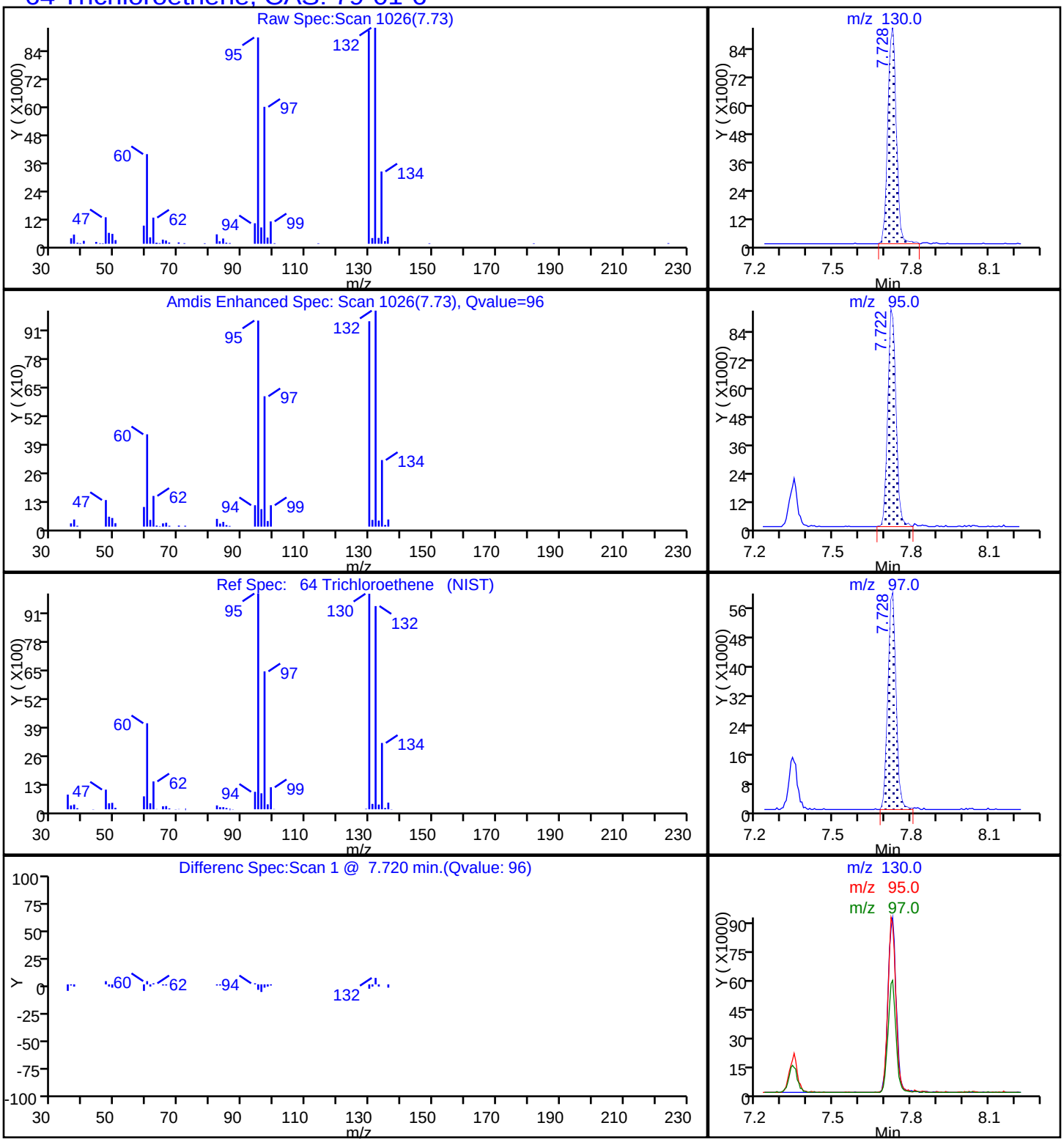
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	51.2	102.34
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	52.6	105.14
$ 7 Toluene-d8 (Surr)	50.0	39.6	79.17
$ 8 4-Bromofluorobenzene (Surr)	50.0	41.2	82.40

Report Date: 10-Nov-2017 16:47:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D16.D		
Injection Date:	10-Nov-2017 14:41:30	Instrument ID:	CHHP5
Lims ID:	180-71952-B-7	Lab Sample ID:	180-71952-7
Client ID:	HD-MW-177-0/1-0		
Operator ID:	034635	ALS Bottle#:	5 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6

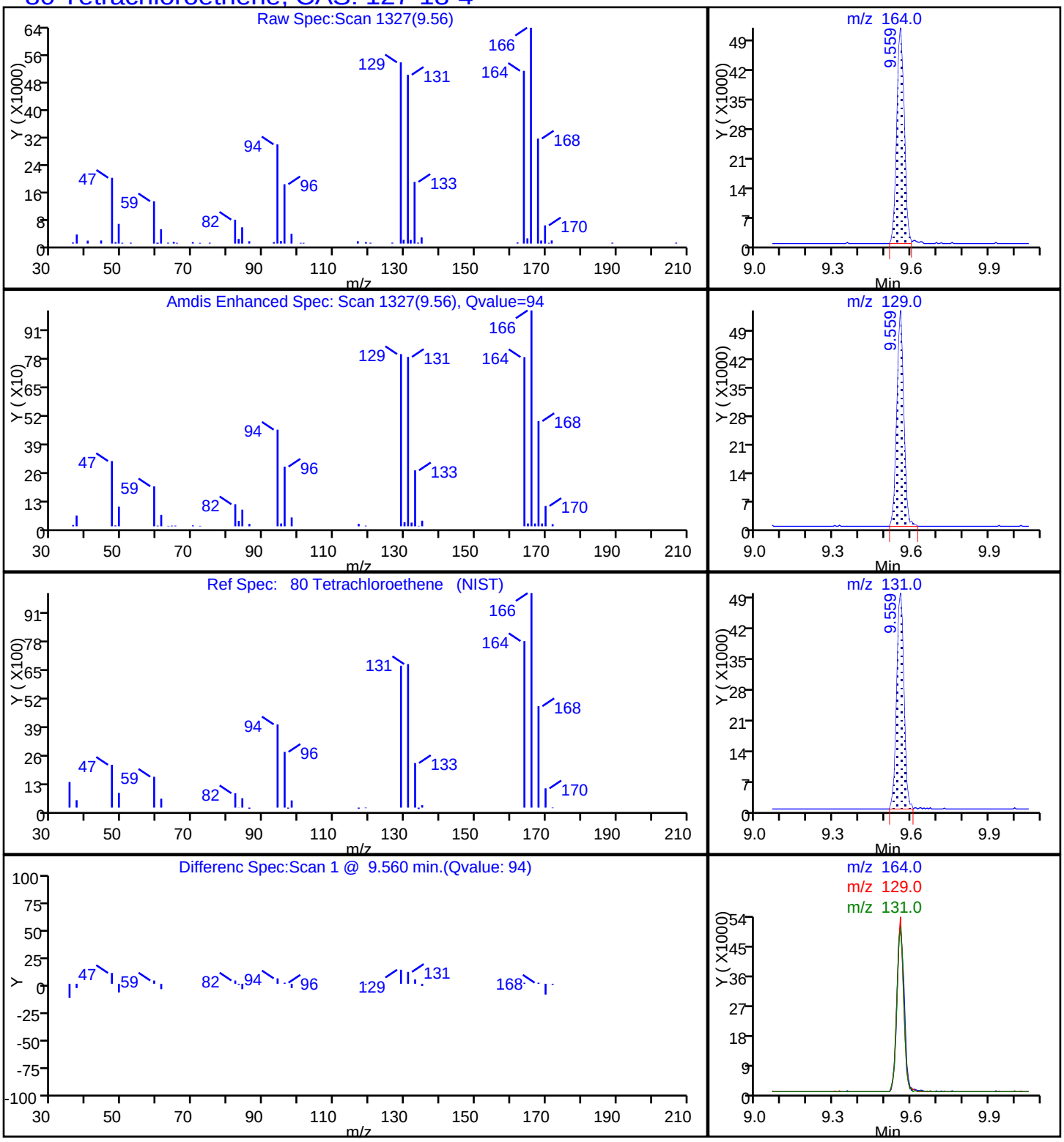


Report Date: 10-Nov-2017 16:47:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D16.D		
Injection Date:	10-Nov-2017 14:41:30	Instrument ID:	CHHP5
Lims ID:	180-71952-B-7	Lab Sample ID:	180-71952-7
Client ID:	HD-MW-177-0/1-0		
Operator ID:	034635	ALS Bottle#:	5 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-CW-1A-0/1-0 | Lab Sample ID: 180-71952-8

Matrix: Water | Lab File ID: 51109D15.D

Analysis Method: 8260C | Date Collected: 10/31/2017 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 16:43

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U * ^c	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 ^c	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*	*52*	*E*	*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	1.8		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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-CW-1A-0/1-0 | Lab Sample ID: 180-71952-8

Matrix: Water | Lab File ID: 51109D15.D

Analysis Method: 8260C | Date Collected: 10/31/2017 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 16:43

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	114		65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	84		80-120
1868-53-7	Dibromofluoromethane (Surr)	115		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D15.D
Lims ID: 180-71952-C-8
Client ID: HD-CW-1A-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 16:43:30 ALS Bottle#: 12 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-015
Misc. Info.: 180-71952-C-8
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:26:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.367	-0.003	0	224336	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.335	0.010	99	466460	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.430	-0.003	87	115179	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	97	154206	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.620	6.617	0.003	92	128537	57.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.982	0.003	0	156572	57.2	
$ 7 Toluene-d8 (Surr)	98	8.980	8.976	0.004	95	433419	47.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.610	0.003	83	139213	42.0	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.019				ND	
15 Bromomethane	94		2.354				ND	
16 Chloroethane	64		2.445				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.537	3.540	-0.003	79	7477	6.13	
26 Carbon disulfide	76		3.710				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.616				ND	
34 trans-1,2-Dichloroethene	96		4.647				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96	6.024	6.009	0.015	44	5685	1.91	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.444	6.441	0.003	93	10200	2.26	
53 1,1,1-Trichloroethane	97		6.599				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.067				ND	
64 Trichloroethene	130	7.727	7.724	0.003	97	737818	258.5	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.557	9.560	-0.003	93	19713	9.00	
82 2-Hexanone	43		9.700				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

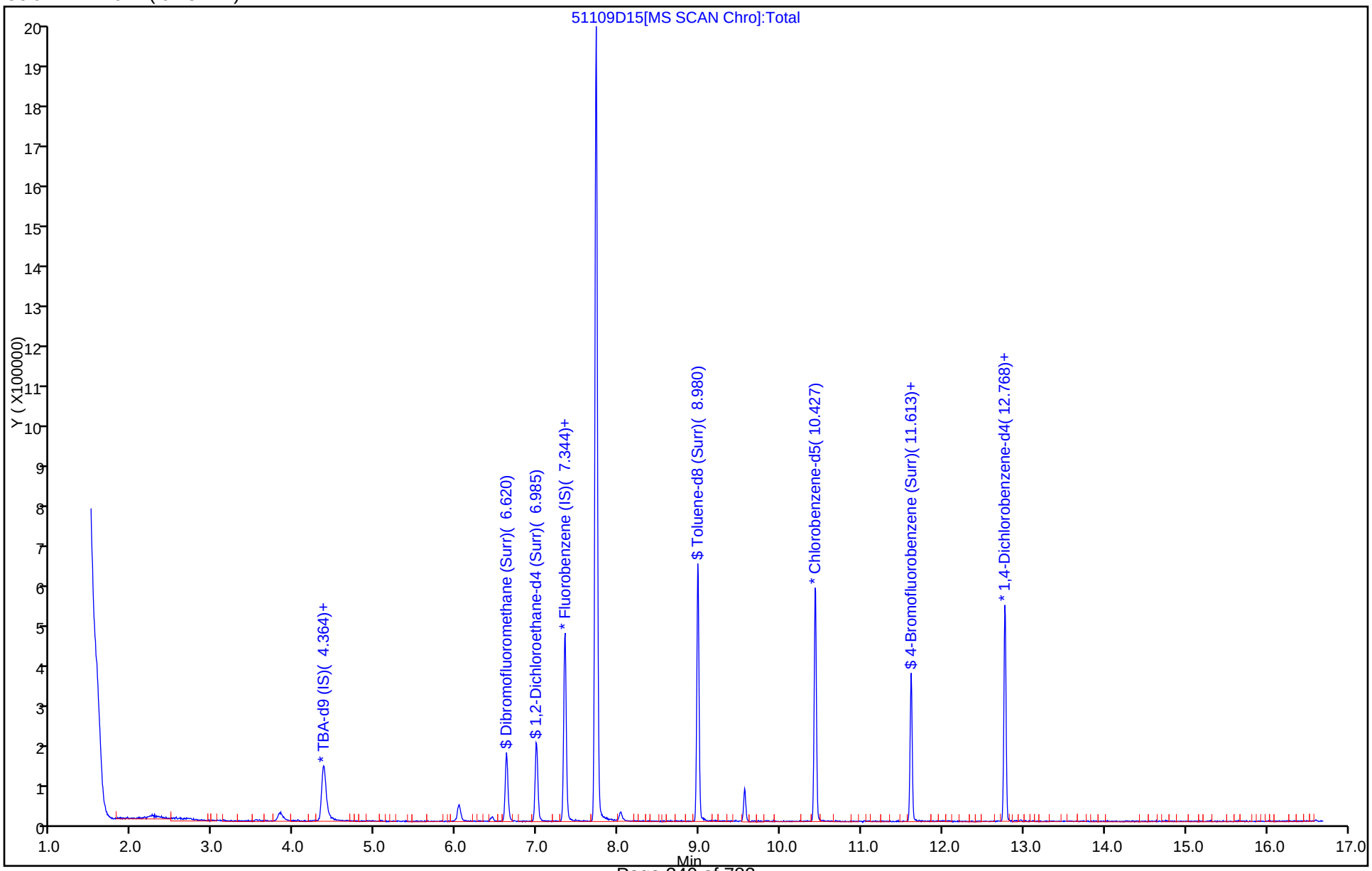
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 09-Nov-2017 17:32:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D15.D				
Injection Date:	09-Nov-2017 16:43:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-C-8	Lab Sample ID:	180-71952-8	Worklist Smp#:	15
Client ID:	HD-CW-1A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D15.D
Lims ID: 180-71952-C-8
Client ID: HD-CW-1A-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 16:43:30 ALS Bottle#: 12 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-015
Misc. Info.: 180-71952-C-8
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:26:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	57.3	114.54
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	57.2	114.40
$ 7 Toluene-d8 (Surr)	50.0	47.3	94.56
$ 8 4-Bromofluorobenzene (Surr)	50.0	42.0	84.10

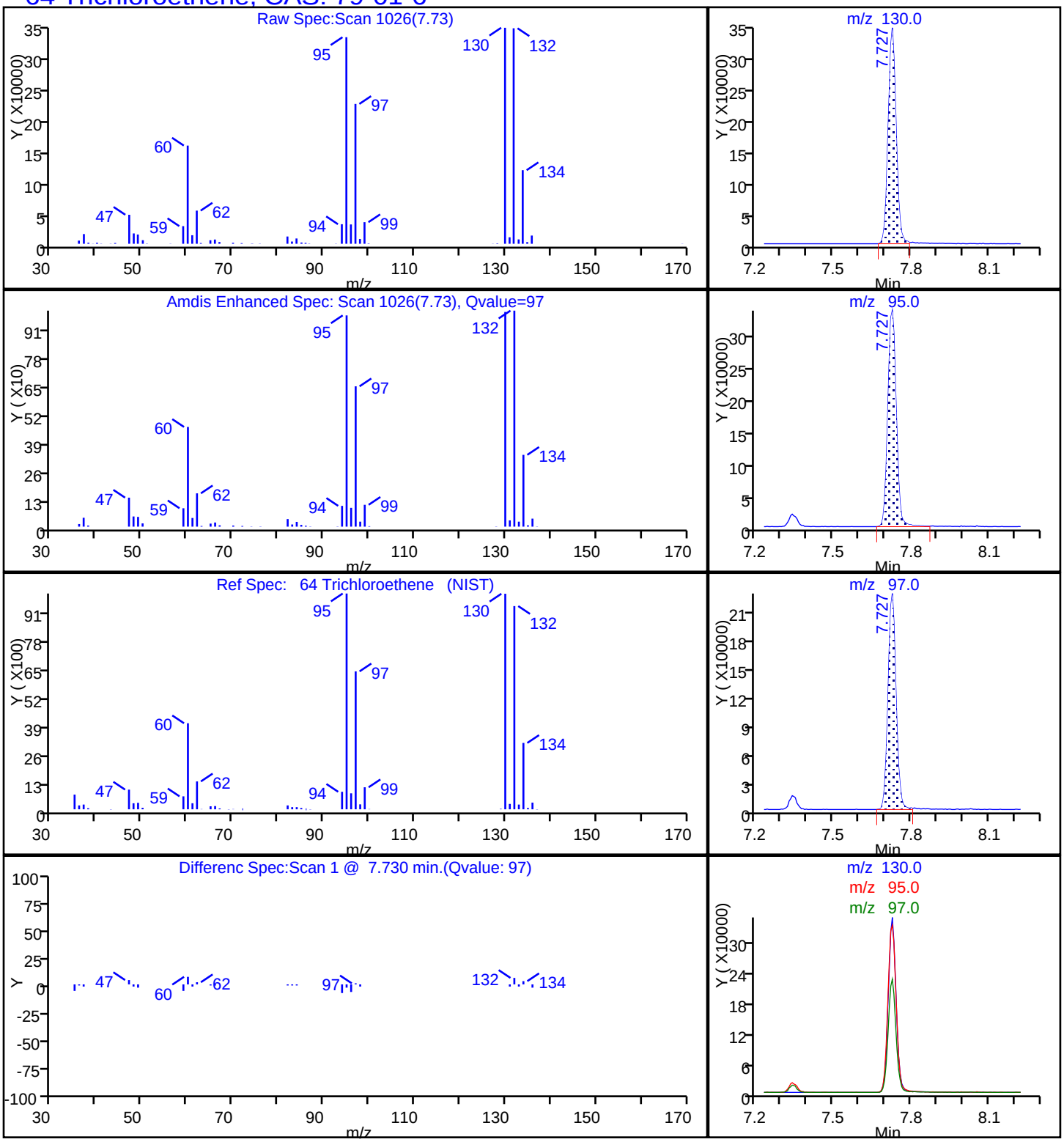
Report Date: 09-Nov-2017 17:32:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D15.D

Injection Date:	09-Nov-2017 16:43:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-8	Lab Sample ID:	180-71952-8		
Client ID:	HD-CW-1A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



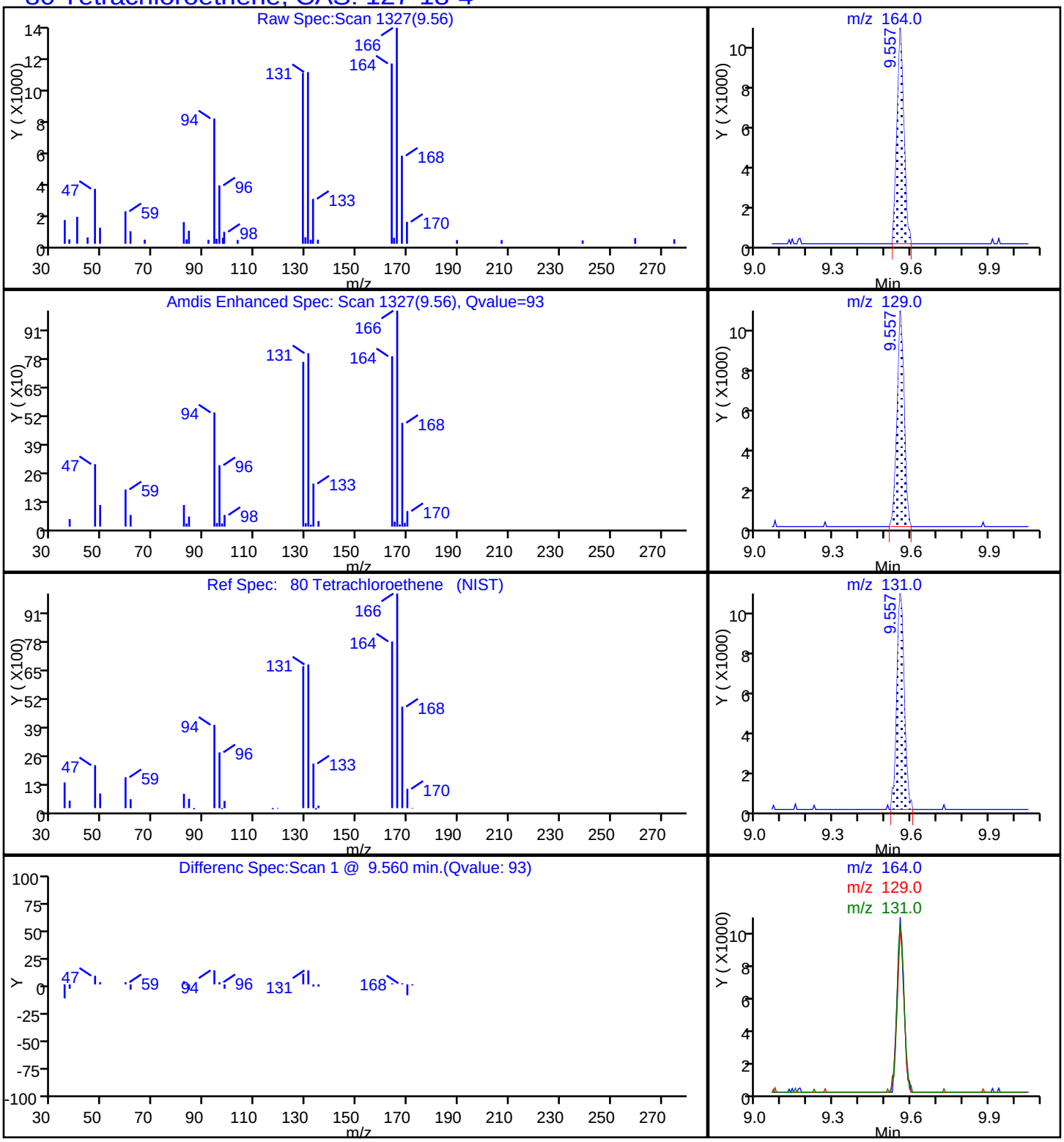
Report Date: 09-Nov-2017 17:32:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D15.D

Injection Date:	09-Nov-2017 16:43:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-8	Lab Sample ID:	180-71952-8		
Client ID:	HD-CW-1A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-CW-1A-0/1-0 DL | Lab Sample ID: 180-71952-8 DL

Matrix: Water | Lab File ID: 51110D22.D

Analysis Method: 8260C | Date Collected: 10/31/2017 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 17:04

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.5	U ^c	2.5	2.2
75-01-4	Vinyl chloride	2.5	U	2.5	2.2
74-83-9	Bromomethane	2.5	U ^c	2.5	2.2
75-00-3	Chloroethane	2.5	U ^c	2.5	2.2
75-35-4	1,1-Dichloroethene	2.5	U	2.5	1.4
67-64-1	Acetone	13	U	13	8.6
75-15-0	Carbon disulfide	2.5	U ^c	2.5	2.2
75-09-2	Methylene Chloride	2.5	U	2.5	0.90
156-60-5	trans-1,2-Dichloroethene	2.5	U	2.5	1.7
1634-04-4	Methyl tert-butyl ether	2.5	U	2.5	1.5
75-34-3	1,1-Dichloroethane	2.5	U	2.5	1.6
156-59-2	cis-1,2-Dichloroethene	2.5	U	2.5	1.8
74-97-5	Bromochloromethane	2.5	U	2.5	1.6
78-93-3	2-Butanone (MEK)	13	U	13	6.5
67-66-3	Chloroform	2.5	U	2.5	1.5
71-55-6	1,1,1-Trichloroethane	2.5	U	2.5	1.5
56-23-5	Carbon tetrachloride	2.5	U	2.5	2.2
71-43-2	Benzene	2.5	U	2.5	1.5
107-06-2	1,2-Dichloroethane	2.5	U	2.5	1.4
79-01-6	Trichloroethene	53		2.5	1.7
78-87-5	1,2-Dichloropropane	2.5	U	2.5	1.6
75-27-4	Bromodichloromethane	2.5	U	2.5	1.6
10061-01-5	cis-1,3-Dichloropropene	2.5	U	2.5	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	13	7.7
108-88-3	Toluene	2.5	U	2.5	1.1
10061-02-6	trans-1,3-Dichloropropene	2.5	U	2.5	1.5
79-00-5	1,1,2-Trichloroethane	2.5	U	2.5	1.1
127-18-4	Tetrachloroethene	1.6	J	2.5	1.2
591-78-6	2-Hexanone	13	U	13	8.2
124-48-1	Dibromochloromethane	2.5	U	2.5	2.1
106-93-4	1,2-Dibromoethane (EDB)	2.5	U	2.5	1.3
108-90-7	Chlorobenzene	2.5	U	2.5	1.3
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	2.5	1.4
100-41-4	Ethylbenzene	2.5	U	2.5	1.3
1330-20-7	Xylenes, Total	5.0	U	5.0	2.2
100-42-5	Styrene	2.5	U	2.5	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-CW-1A-0/1-0 DL | Lab Sample ID: 180-71952-8 DL

Matrix: Water | Lab File ID: 51110D22.D

Analysis Method: 8260C | Date Collected: 10/31/2017 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 17:04

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*2.5*	*U*	*2.5*	*2.4*
79-34-5	*1,1,2,2-Tetrachloroethane*	*2.5*	*U*	*2.5*	*1.5*
107-13-1	*Acrylonitrile*	*50*	*U*	*50*	*20*
123-91-1	*1,4-Dioxane*	*500*	*U*	*500*	*34*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	78		73-120
460-00-4	4-Bromofluorobenzene (Surr)	86		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D22.D
Lims ID: 180-71952-B-8
Client ID: HD-CW-1A-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 17:04:30 ALS Bottle#: 6 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 2.5000
Sample Info: 180-0019249-022
Misc. Info.: 180-71952-B-8 ,2.5x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 15:50:25 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 17:26:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.365	-0.007	0	211599	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.339	-0.001	98	508027	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.428	0.005	86	131020	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.769	-0.001	98	161643	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.620	6.615	0.005	93	121447	49.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.986	-0.001	0	151123	50.7	
$ 7 Toluene-d8 (Surr)	98	8.980	8.981	-0.001	94	405279	38.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.608	0.005	83	162115	43.0	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.376				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43	3.555	3.526	0.029	66	4626	3.48	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.237				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96	6.012	6.013	-0.001	38	3106	0.9582	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83	6.450	6.439	0.011	95	7702	1.57	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.727	7.728	-0.001	98	328863	105.8	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.557	9.558	-0.001	87	7830	3.14	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

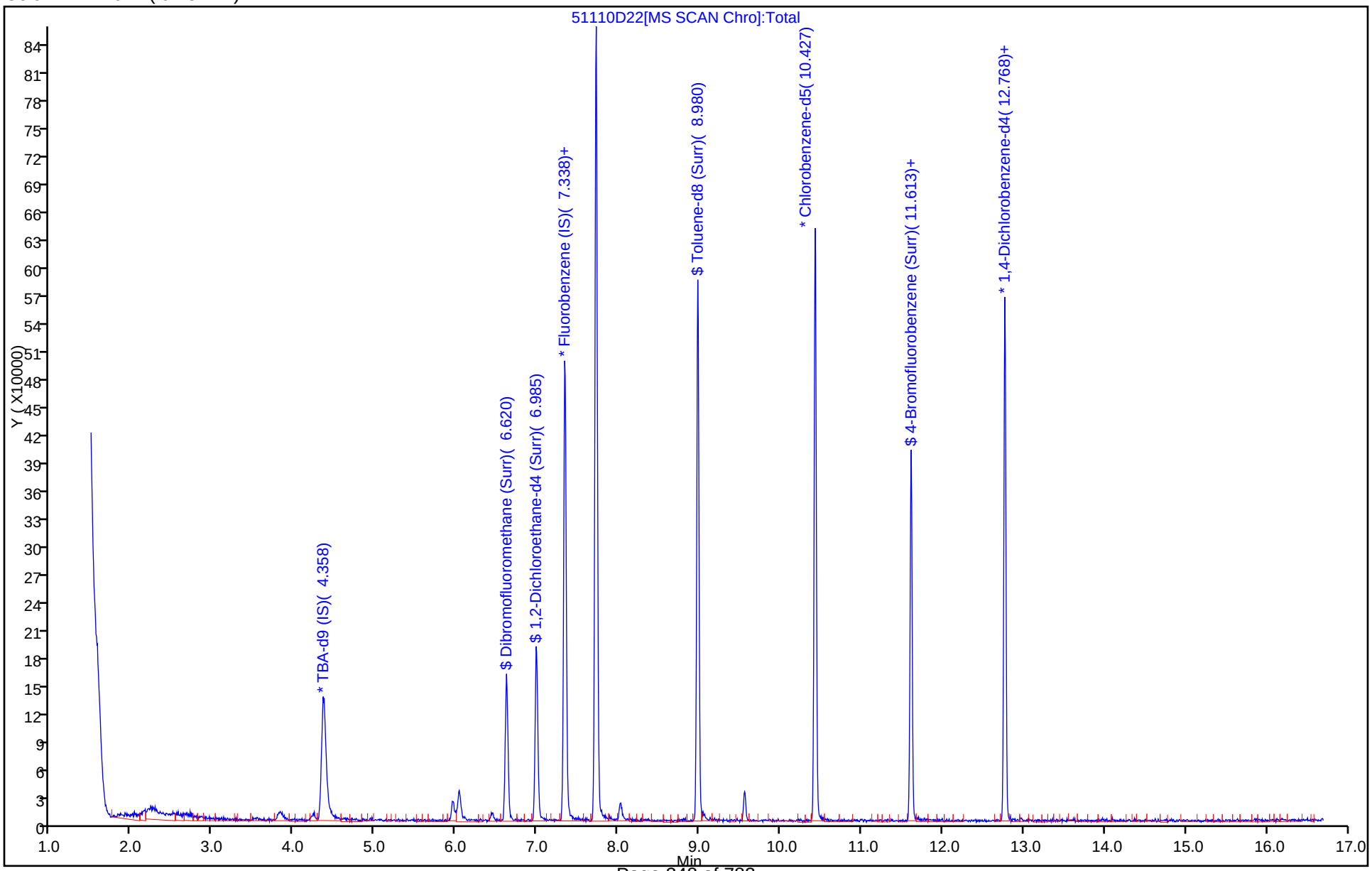
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 10-Nov-2017 18:00:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D22.D				
Injection Date:	10-Nov-2017 17:04:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-B-8	Lab Sample ID:	180-71952-8	Worklist Smp#:	22
Client ID:	HD-CW-1A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.5000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D22.D
Lims ID: 180-71952-B-8
Client ID: HD-CW-1A-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 17:04:30 ALS Bottle#: 6 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 2.5000
Sample Info: 180-0019249-022
Misc. Info.: 180-71952-B-8 ,2.5x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 15:50:25 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 17:26:00

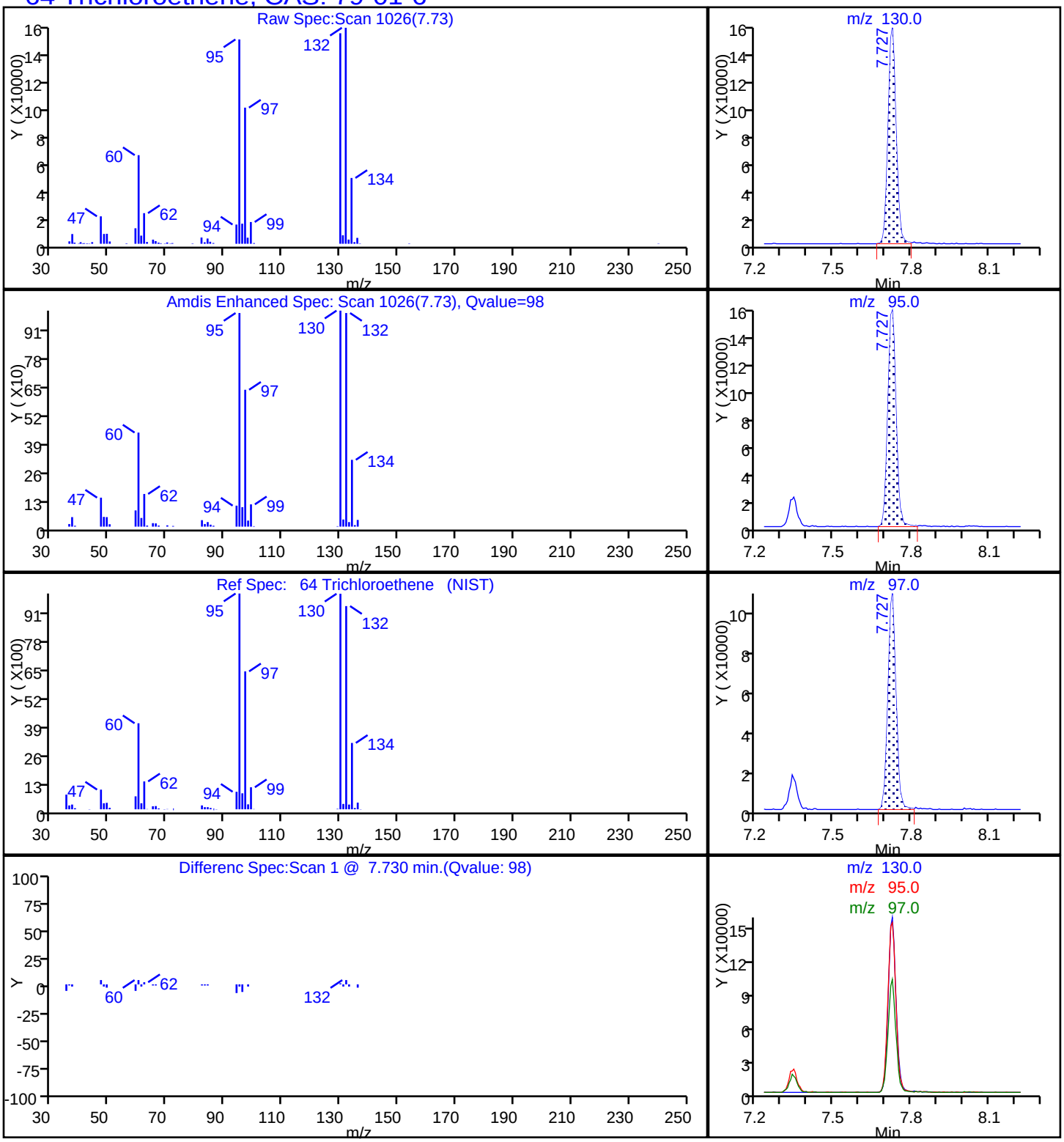
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.7	99.37
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.7	101.38
$ 7 Toluene-d8 (Surr)	50.0	38.9	77.73
$ 8 4-Bromofluorobenzene (Surr)	50.0	43.0	86.09

Report Date: 10-Nov-2017 18:00:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D22.D				
Injection Date:	10-Nov-2017 17:04:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-8	Lab Sample ID:	180-71952-8		
Client ID:	HD-CW-1A-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

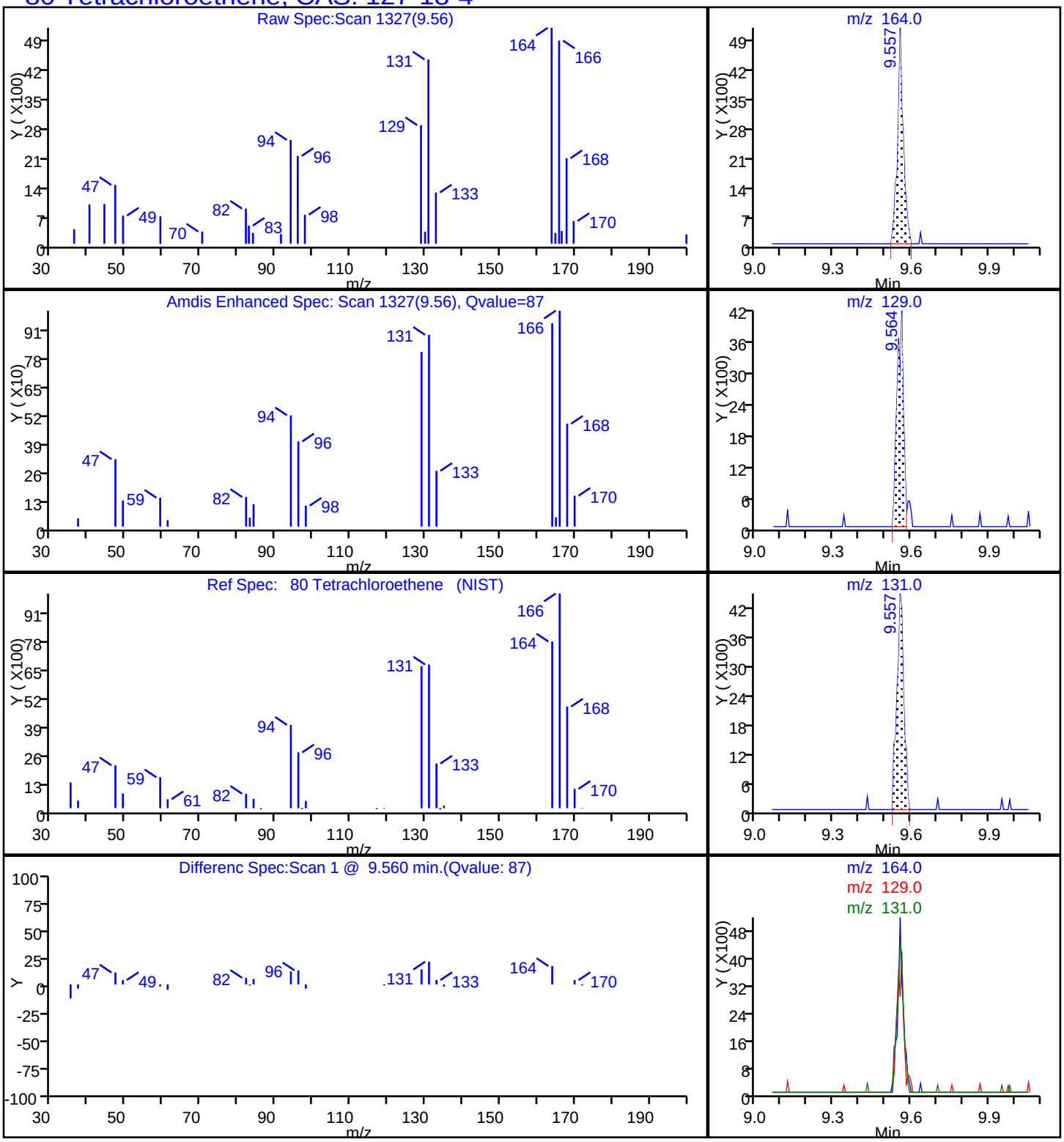


Report Date: 10-Nov-2017 18:00:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D22.D		
Injection Date:	10-Nov-2017 17:04:30	Instrument ID:	CHHP5
Lims ID:	180-71952-B-8	Lab Sample ID:	180-71952-8
Client ID:	HD-CW-1A-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-1-0/1-0 | Lab Sample ID: 180-71952-9

Matrix: Water | Lab File ID: 51109D17.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 17:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c *	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 ^c	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	21		5.0	3.4
75-15-0	Carbon disulfide	1.4		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)*	*1100*	*E*	*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*	*100*	*E*	*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*	*110*	*E*	*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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-1-0/1-0 | Lab Sample ID: 180-71952-9

Matrix: Water | Lab File ID: 51109D17.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 17:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	103		65-121
2037-26-5	Toluene-d8 (Surr)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D
Lims ID: 180-71952-C-9
Client ID: HD-MPE-1-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 17:31:30 ALS Bottle#: 14 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-017
Misc. Info.: 180-71952-C-9
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 07:45:17 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 07:40:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.367	-0.004	0	213364	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.335	0.009	98	569432	50.0	
* 3 Chlorobenzene-d5	119	10.426	10.430	-0.004	86	131712	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	97	220517	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.626	6.617	0.009	93	135699	49.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.990	6.982	0.008	0	172766	51.7	
$ 7 Toluene-d8 (Surr)	98	8.979	8.976	0.003	94	482023	46.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.610	0.002	84	182616	48.2	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.019				ND	
15 Bromomethane	94		2.354				ND	
16 Chloroethane	64		2.445				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.536	3.540	-0.004	100	155692	104.6	
26 Carbon disulfide	76	3.725	3.710	0.015	96	41768	6.83	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.616				ND	
34 trans-1,2-Dichloroethene	96		4.647				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43	6.023	6.021	0.002	92	12154359	5733.9	E
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.449	6.441	0.008	81	4470	0.8105	
53 1,1,1-Trichloroethane	97		6.599				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.067				ND	
64 Trichloroethene	130	7.726	7.724	0.002	97	1758462	504.7	E
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.046	9.049	-0.003	99	20390	1.55	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.563	9.560	0.003	91	1329690	530.9	E
82 2-Hexanone	43		9.700				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

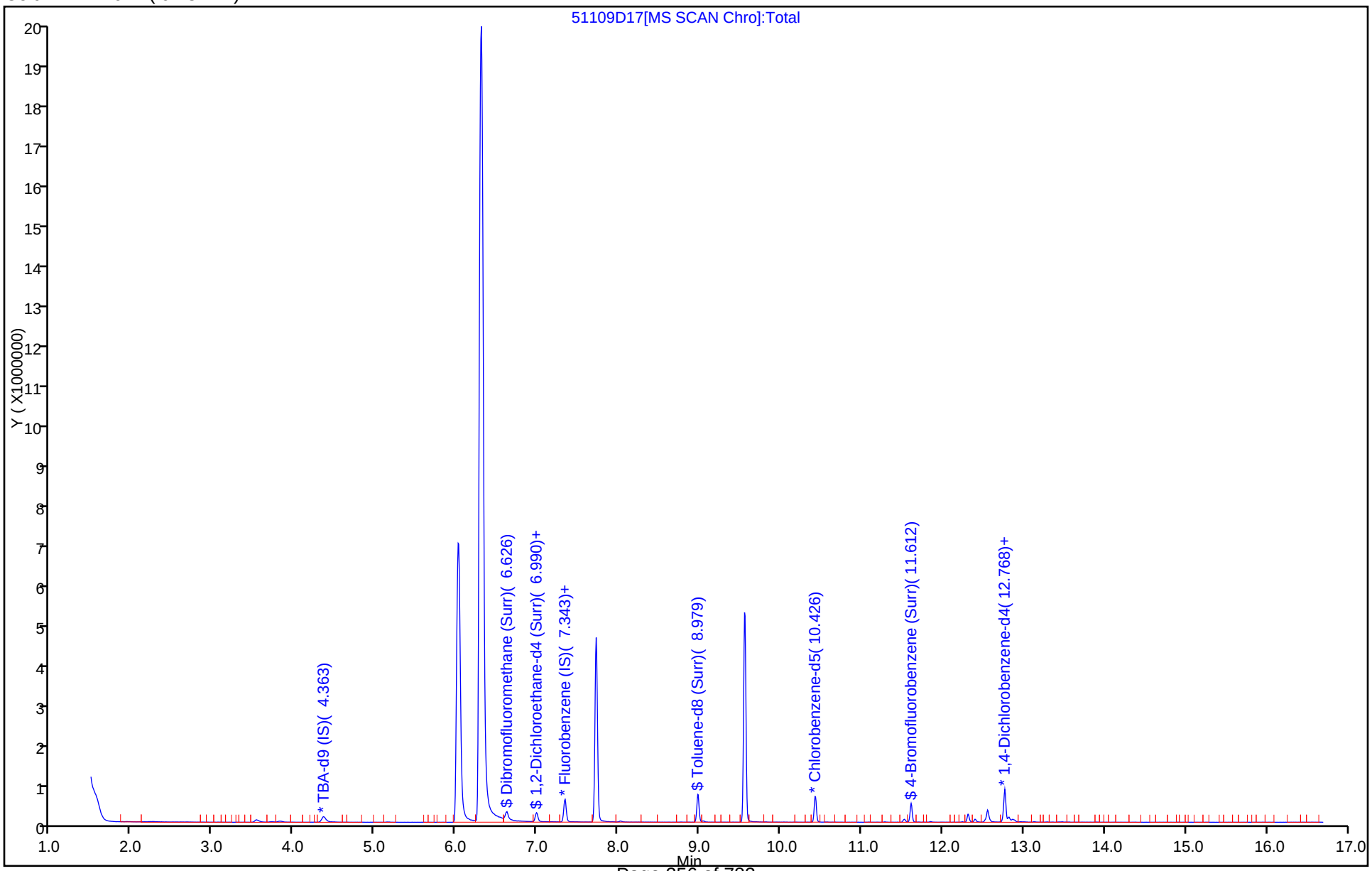
Report Date: 10-Nov-2017 08:09:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D

Injection Date:	09-Nov-2017 17:31:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-C-9	Lab Sample ID:	180-71952-9	Worklist Smp#:	17
Client ID:	HD-MPE-1-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D
Lims ID: 180-71952-C-9
Client ID: HD-MPE-1-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 17:31:30 ALS Bottle#: 14 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-017
Misc. Info.: 180-71952-C-9
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 07:45:17 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 07:40:31

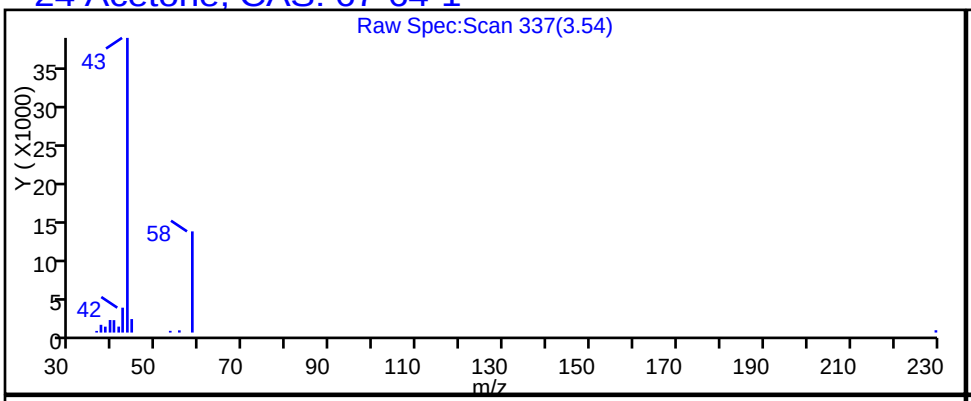
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.5	99.06
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.7	103.40
$ 7 Toluene-d8 (Surr)	50.0	46.0	91.97
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.2	96.47

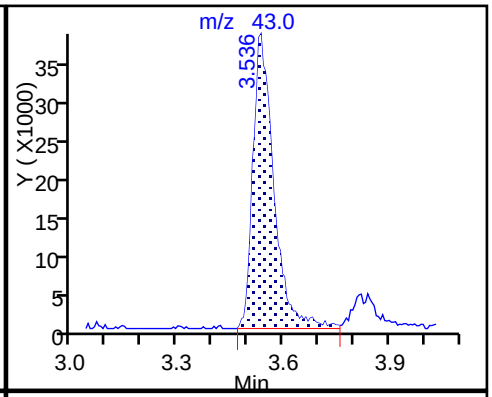
Report Date: 10-Nov-2017 08:09:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

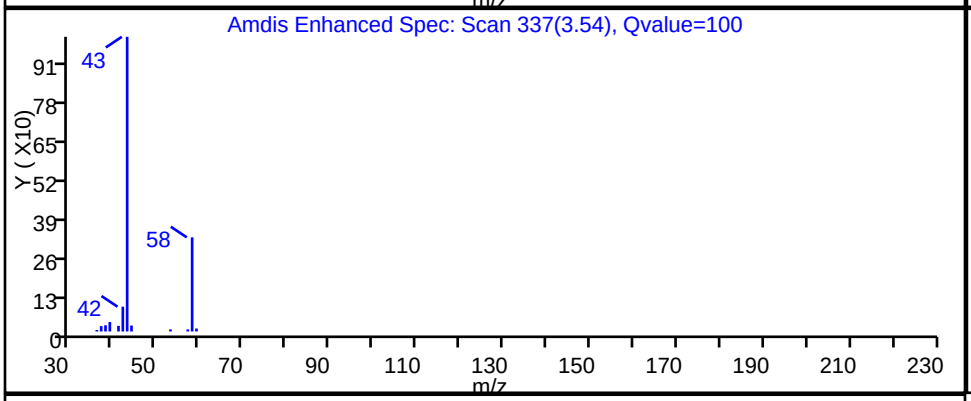
TestAmerica Pittsburgh

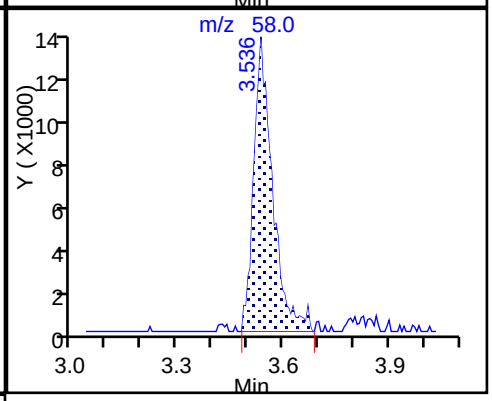
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D		
Injection Date:	09-Nov-2017 17:31:30	Instrument ID:	CHHP5
Lims ID:	180-71952-C-9	Lab Sample ID:	180-71952-9
Client ID:	HD-MPE-1-0/1-0		
Operator ID:	034635	ALS Bottle#:	14 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

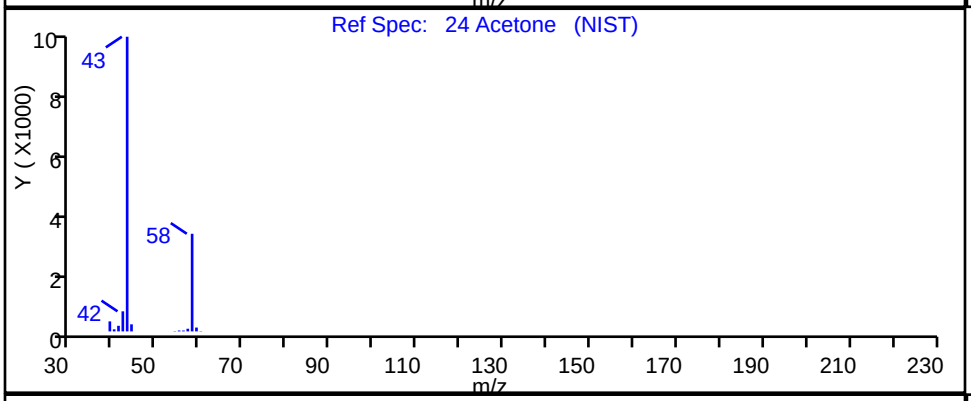
24 Acetone, CAS: 67-64-1

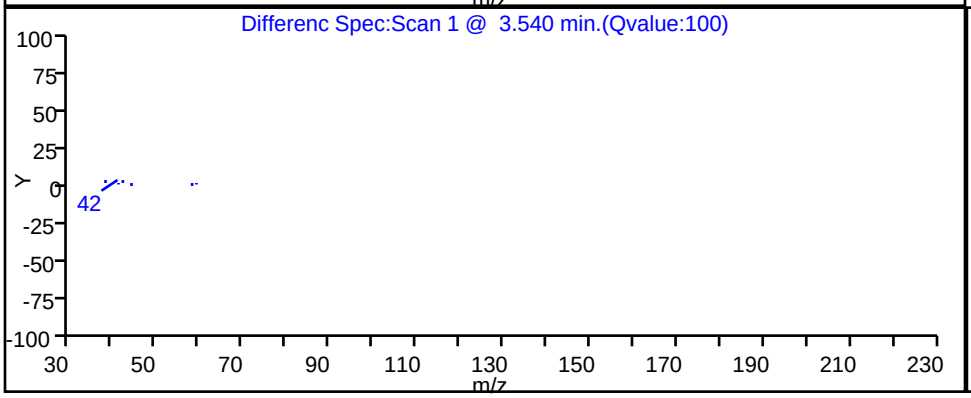


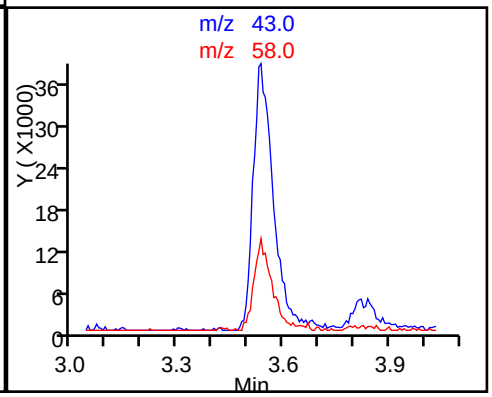










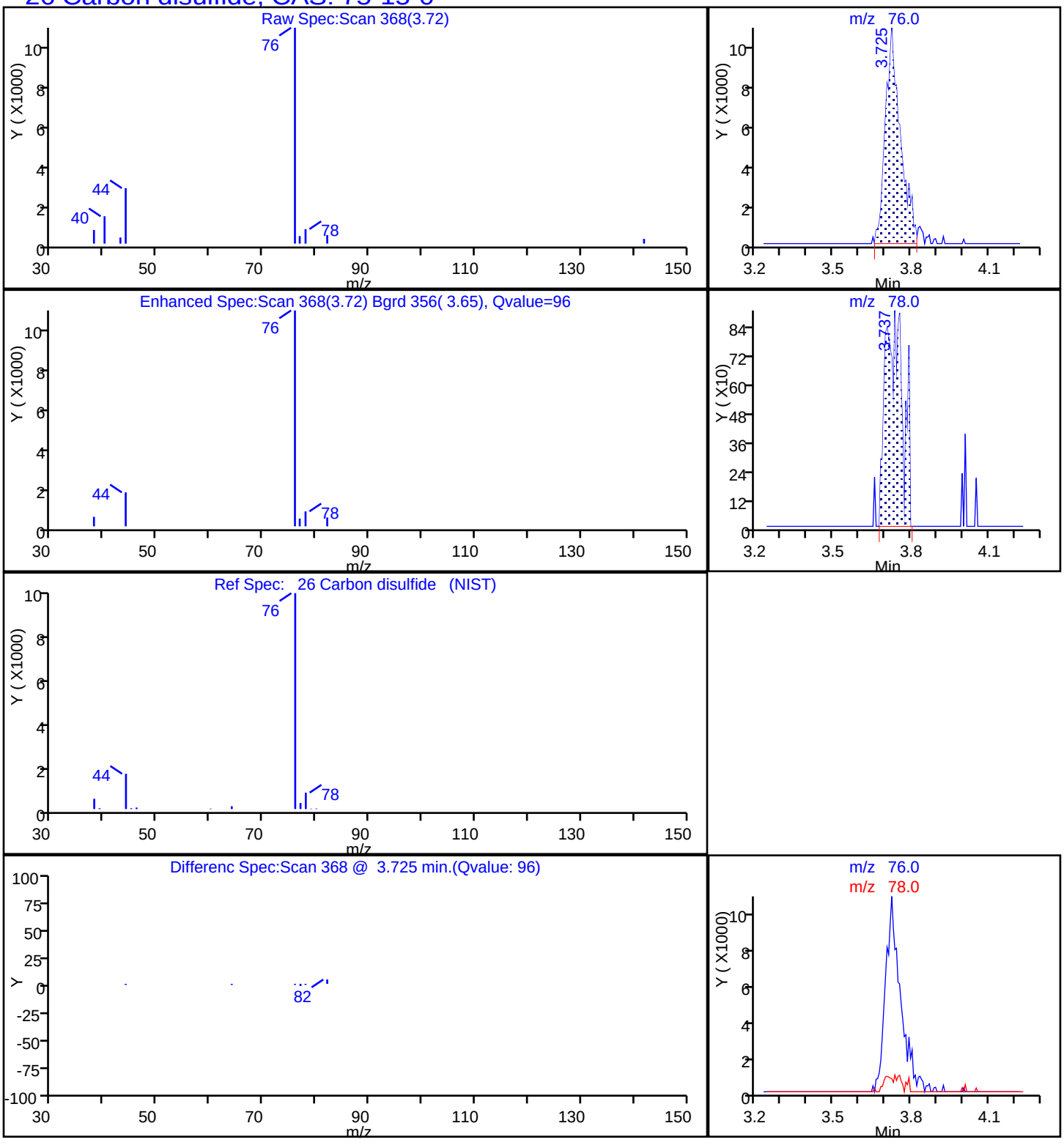


Report Date: 10-Nov-2017 08:09:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D				
Injection Date:	09-Nov-2017 17:31:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-9	Lab Sample ID:	180-71952-9		
Client ID:	HD-MPE-1-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

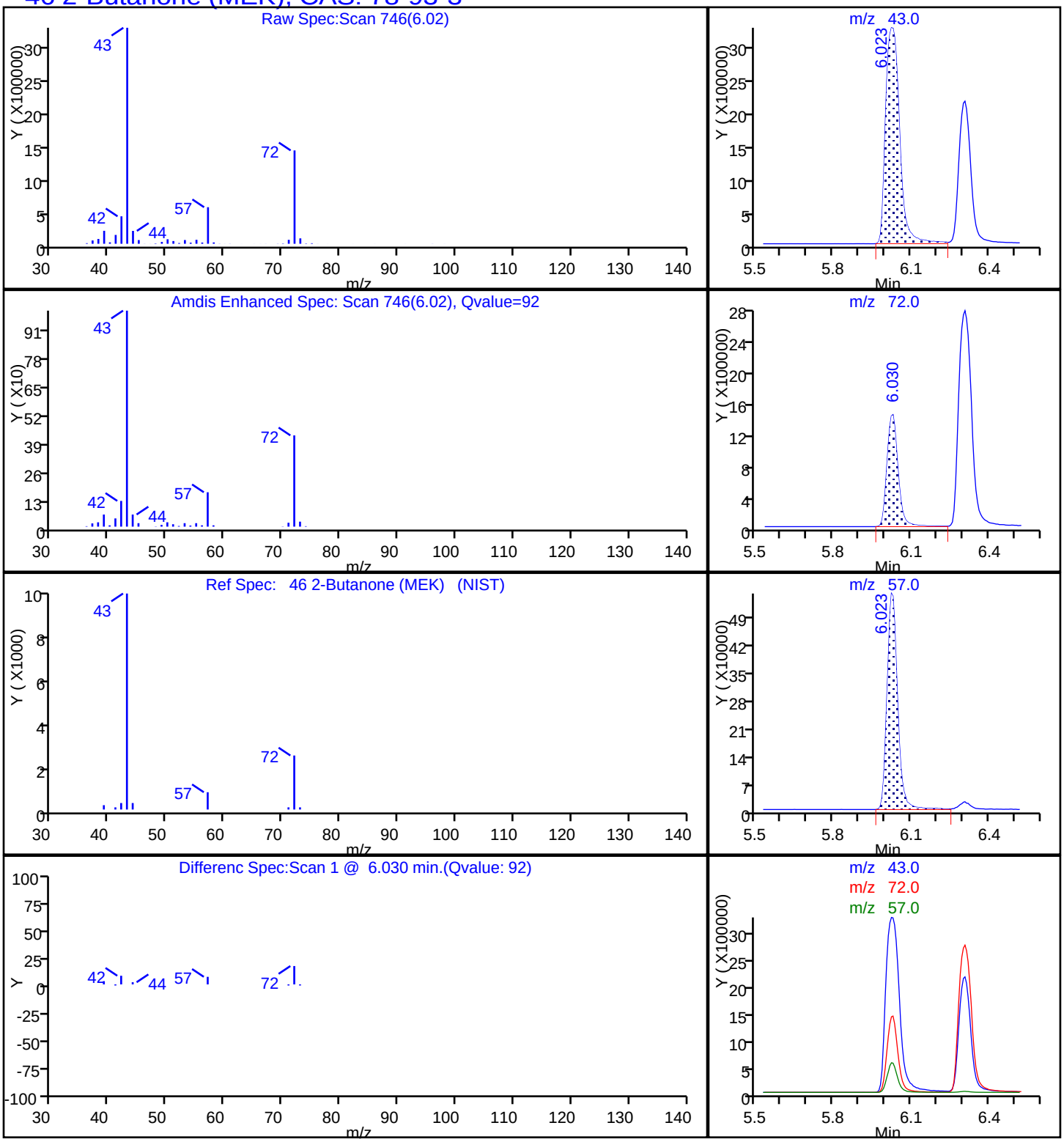


Report Date: 10-Nov-2017 08:09:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D				
Injection Date:	09-Nov-2017 17:31:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-9	Lab Sample ID:	180-71952-9		
Client ID:	HD-MPE-1-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

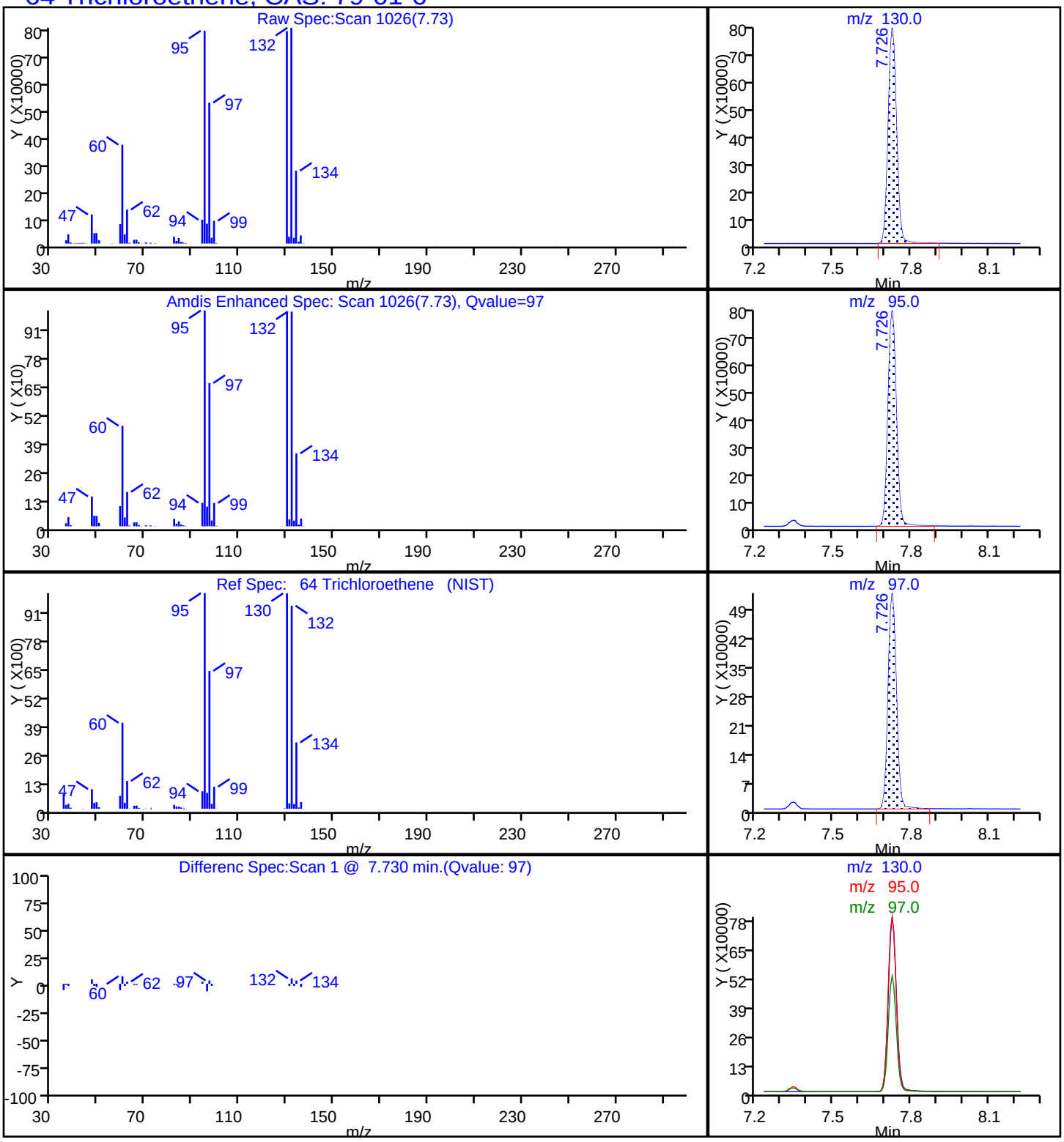


Report Date: 10-Nov-2017 08:09:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D				
Injection Date:	09-Nov-2017 17:31:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-9	Lab Sample ID:	180-71952-9		
Client ID:	HD-MPE-1-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

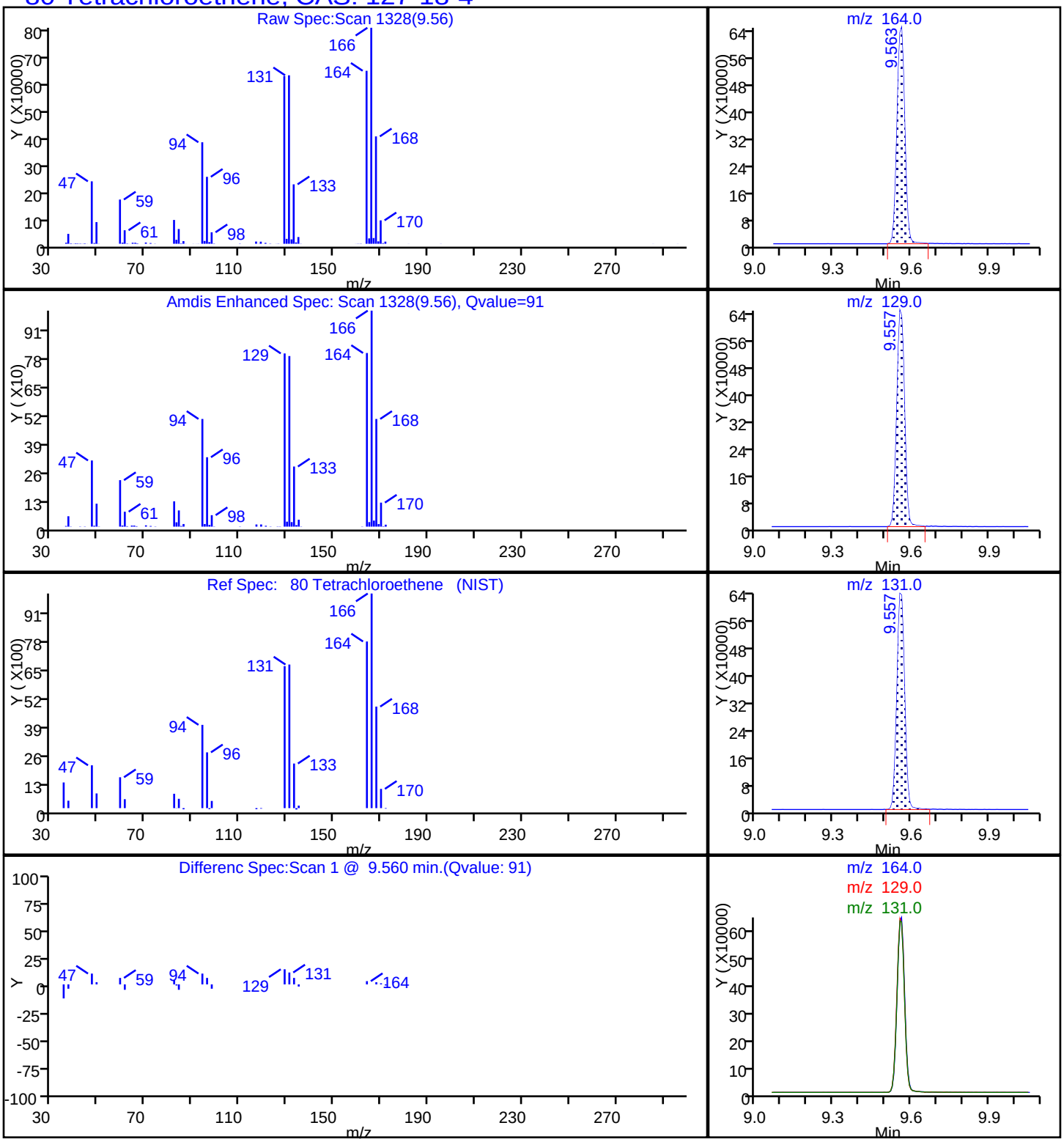


Report Date: 10-Nov-2017 08:09:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D17.D				
Injection Date:	09-Nov-2017 17:31:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-9	Lab Sample ID:	180-71952-9		
Client ID:	HD-MPE-1-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-1-0/1-0 DL | Lab Sample ID: 180-71952-9 DL

Matrix: Water | Lab File ID: 51110D20.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 16:16

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U ^c	50	45
75-01-4	Vinyl chloride	50	U	50	44
74-83-9	Bromomethane	50	U ^c	50	44
75-00-3	Chloroethane	50	U ^c	50	45
75-35-4	1,1-Dichloroethene	50	U	50	28
67-64-1	Acetone	250	U	250	170
75-15-0	Carbon disulfide	50	U ^c	50	44
75-09-2	Methylene Chloride	50	U	50	18
156-60-5	trans-1,2-Dichloroethene	50	U	50	34
1634-04-4	Methyl tert-butyl ether	50	U	50	30
75-34-3	1,1-Dichloroethane	50	U	50	31
156-59-2	cis-1,2-Dichloroethene	50	U	50	35
74-97-5	Bromochloromethane	50	U	50	31
78-93-3	2-Butanone (MEK)	1600		250	130
67-66-3	Chloroform	50	U	50	30
71-55-6	1,1,1-Trichloroethane	50	U	50	30
56-23-5	Carbon tetrachloride	50	U	50	44
71-43-2	Benzene	50	U	50	30
107-06-2	1,2-Dichloroethane	50	U	50	29
79-01-6	Trichloroethene	110		50	34
78-87-5	1,2-Dichloropropane	50	U	50	33
75-27-4	Bromodichloromethane	50	U	50	32
10061-01-5	cis-1,3-Dichloropropene	50	U	50	30
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	150
108-88-3	Toluene	50	U	50	23
10061-02-6	trans-1,3-Dichloropropene	50	U	50	29
79-00-5	1,1,2-Trichloroethane	50	U	50	23
127-18-4	Tetrachloroethene	100		50	23
591-78-6	2-Hexanone	250	U	250	160
124-48-1	Dibromochloromethane	50	U	50	42
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	25
108-90-7	Chlorobenzene	50	U	50	25
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	29
100-41-4	Ethylbenzene	50	U	50	25
1330-20-7	Xylenes, Total	100	U	100	45
100-42-5	Styrene	50	U	50	24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-1-0/1-0 DL | Lab Sample ID: 180-71952-9 DL

Matrix: Water | Lab File ID: 51110D20.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 16:16

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*50*	*U*	*50*	*49*
79-34-5	*1,1,2,2-Tetrachloroethane*	*50*	*U*	*50*	*30*
107-13-1	*Acrylonitrile*	*1000*	*U*	*1000*	*390*
123-91-1	*1,4-Dioxane*	*10000*	*U*	*10000*	*680*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	81		73-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D20.D
Lims ID: 180-71952-B-9
Client ID: HD-MPE-1-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 16:16:30 ALS Bottle#: 4 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-0019249-020
Misc. Info.: 180-71974-J-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 17:09:00 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 16:50:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.365	-0.004	0	209669	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.339	0.002	99	507292	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.428	0.002	86	119540	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.769	0.003	97	159635	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.615	0.002	93	120476	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.986	0.002	0	149993	50.4	
$ 7 Toluene-d8 (Surr)	98	8.983	8.981	0.002	94	385574	40.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.608	0.002	84	166166	48.4	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.376				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43	3.540	3.526	0.014	64	3625	2.73	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.237				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43	6.027	6.025	0.002	99	297105	157.3	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83	6.441	6.439	0.002	55	4774	0.9716	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.724	7.728	-0.004	96	35125	11.3	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.555	9.558	-0.003	94	23215	10.2	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

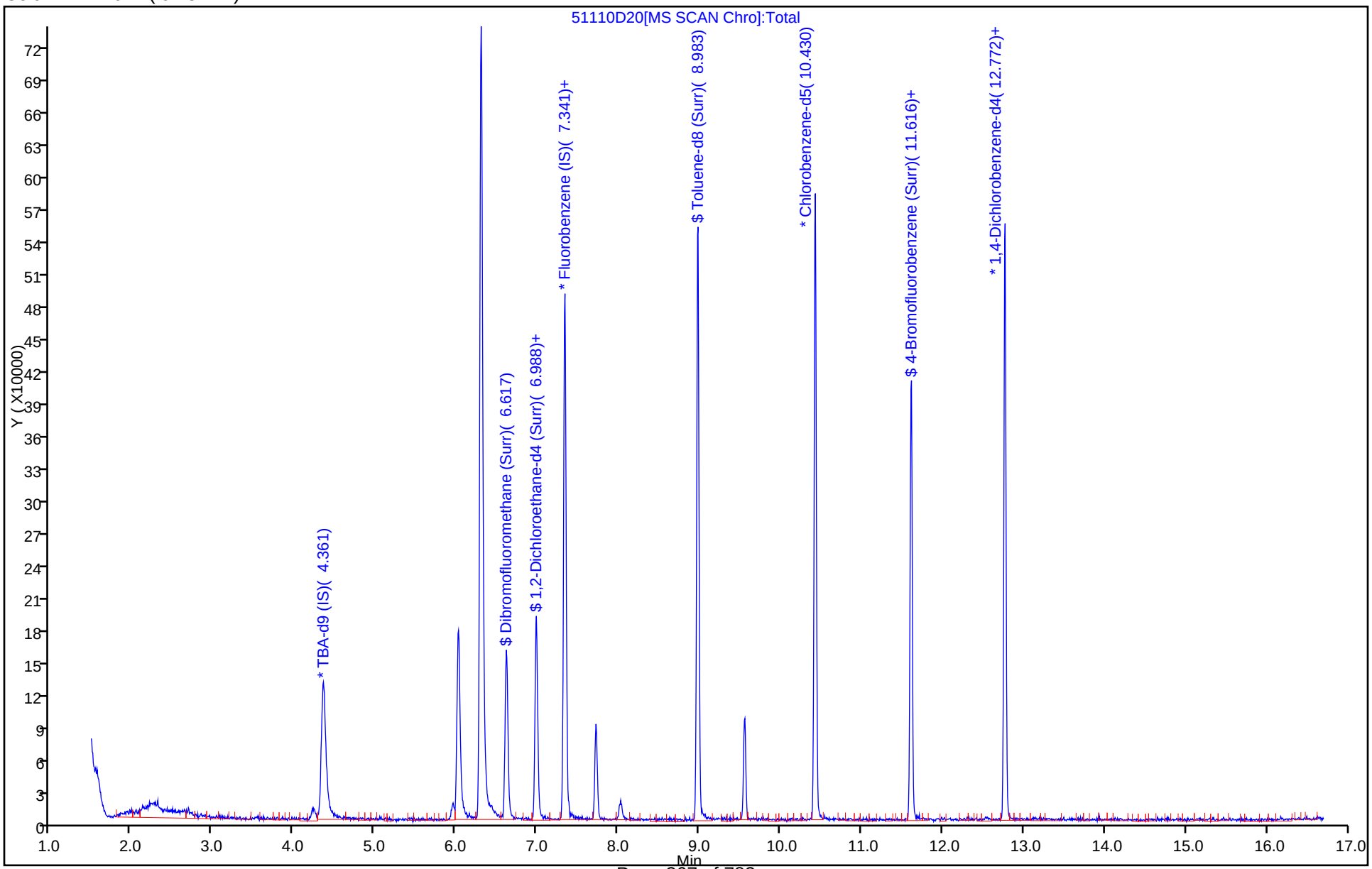
Report Date: 10-Nov-2017 17:11:53 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D20.D

Injection Date:	10-Nov-2017 16:16:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-B-9	Lab Sample ID:	180-71952-9	Worklist Smp#:	20
Client ID:	HD-MPE-1-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D20.D
Lims ID: 180-71952-B-9
Client ID: HD-MPE-1-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 16:16:30 ALS Bottle#: 4 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-0019249-020
Misc. Info.: 180-71974-J-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 17:09:00 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 16:50:49

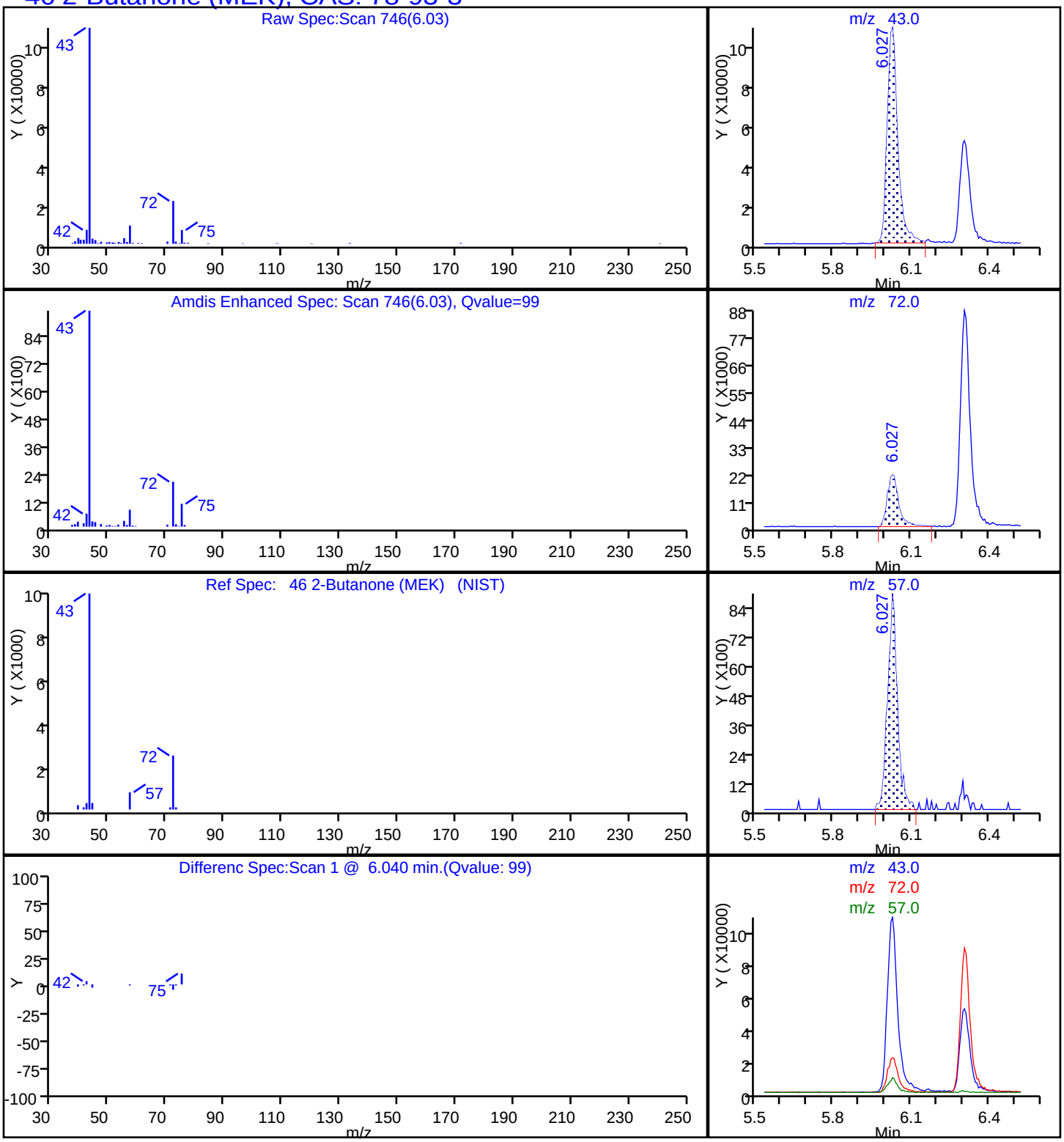
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.4	98.72
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.4	100.77
$ 7 Toluene-d8 (Surr)	50.0	40.5	81.05
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.4	96.72

Report Date: 10-Nov-2017 17:11:53 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D20.D		
Injection Date:	10-Nov-2017 16:16:30	Instrument ID:	CHHP5
Lims ID:	180-71952-B-9	Lab Sample ID:	180-71952-9
Client ID:	HD-MPE-1-0/1-0		
Operator ID:	034635	ALS Bottle#:	4 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

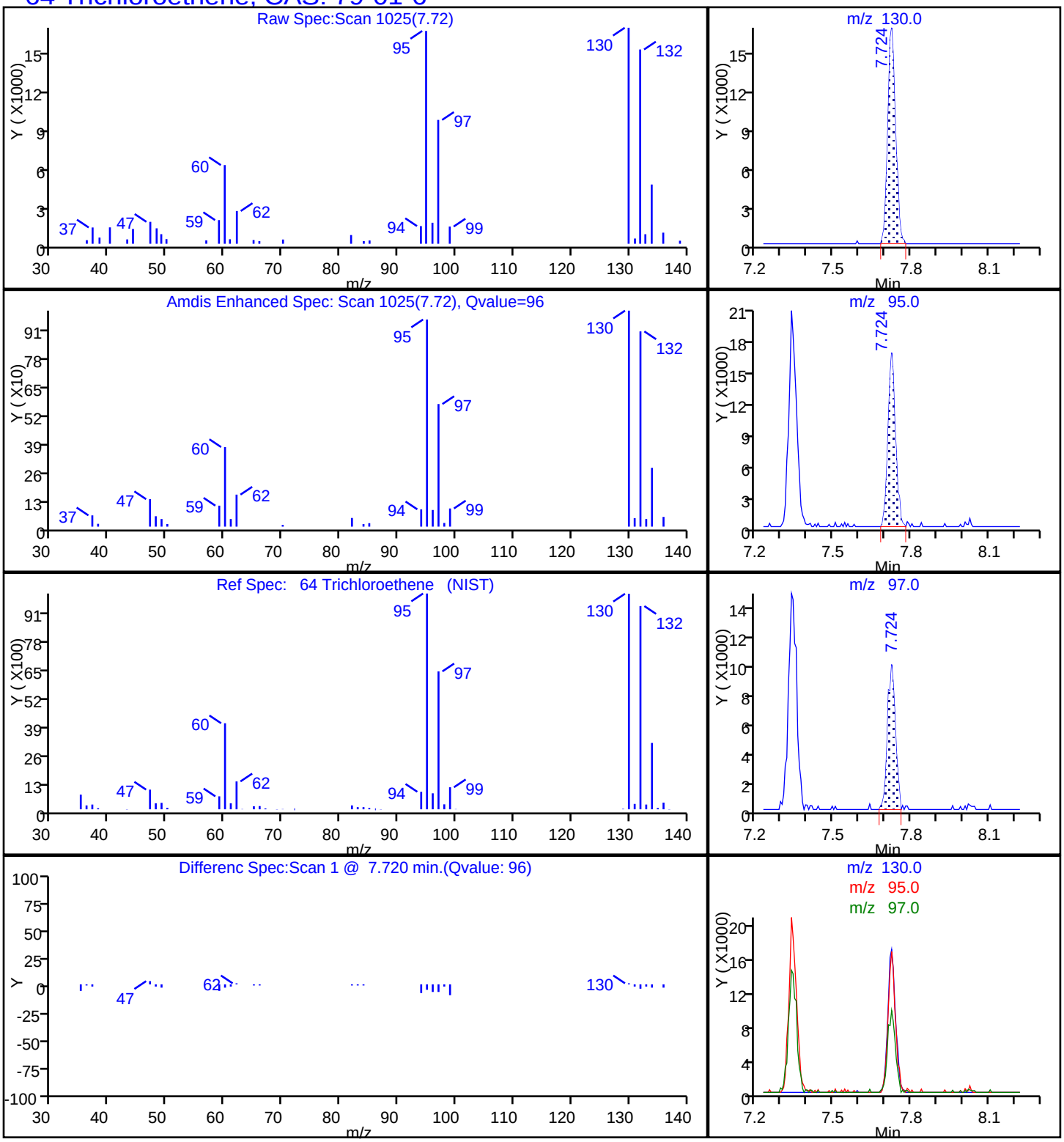


Report Date: 10-Nov-2017 17:11:53 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D20.D				
Injection Date:	10-Nov-2017 16:16:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-9	Lab Sample ID:	180-71952-9		
Client ID:	HD-MPE-1-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



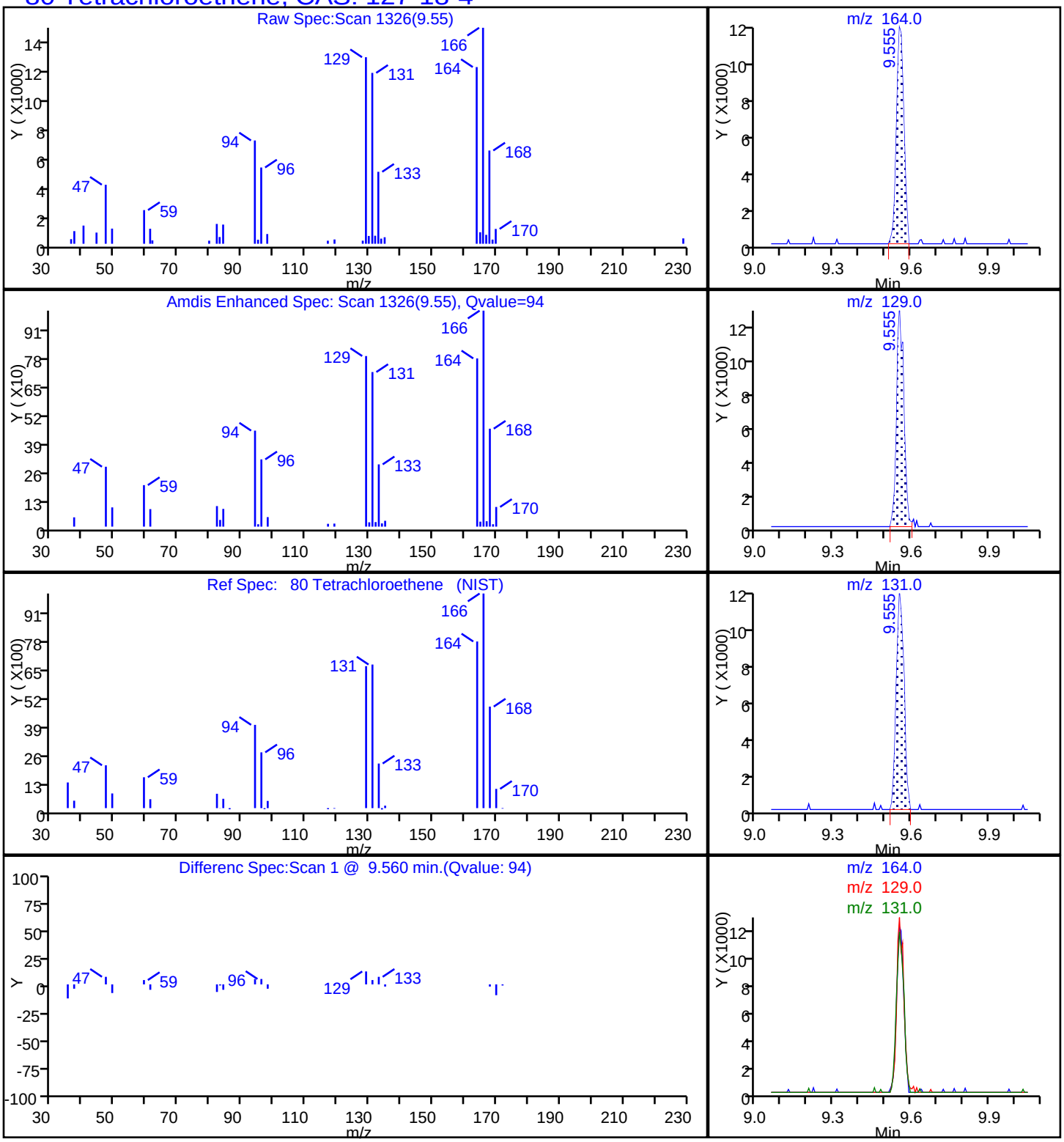
Report Date: 10-Nov-2017 17:11:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D20.D

Injection Date:	10-Nov-2017 16:16:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-9	Lab Sample ID:	180-71952-9		
Client ID:	HD-MPE-1-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-183-0/1-0 | Lab Sample ID: 180-71952-10

Matrix: Water | Lab File ID: 51110D12.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 13:05

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.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U ^c	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 ^c	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	0.98	J	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	14		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.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-183-0/1-0 | Lab Sample ID: 180-71952-10

Matrix: Water | Lab File ID: 51110D12.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 13:05

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.: 228566 | 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)	109		65-121
2037-26-5	Toluene-d8 (Surr)	84		73-120
460-00-4	4-Bromofluorobenzene (Surr)	80		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D12.D
Lims ID: 180-71952-B-10
Client ID: HD-MW-183-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 13:05:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-012
Misc. Info.: 180-71952-B-10
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 13:58:23 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 13:27:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.364	0.000	0	213740	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.338	0.005	99	495018	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.427	0.006	87	124161	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.768	0.000	95	158068	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.620	6.615	0.005	91	118064	49.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.986	0.005	0	158218	54.5	
$ 7 Toluene-d8 (Surr)	98	8.979	8.981	-0.002	94	413765	41.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.608	0.005	83	143070	40.1	
12 Chloromethane	50		1.896				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.376				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.422				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.237				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.651				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.287				ND	
52 Chloroform	83	6.431	6.439	-0.008	46	4163	0.8683	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.721	7.728	-0.008	93	14916	4.92	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.557	9.558	-0.001	96	170504	72.2	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

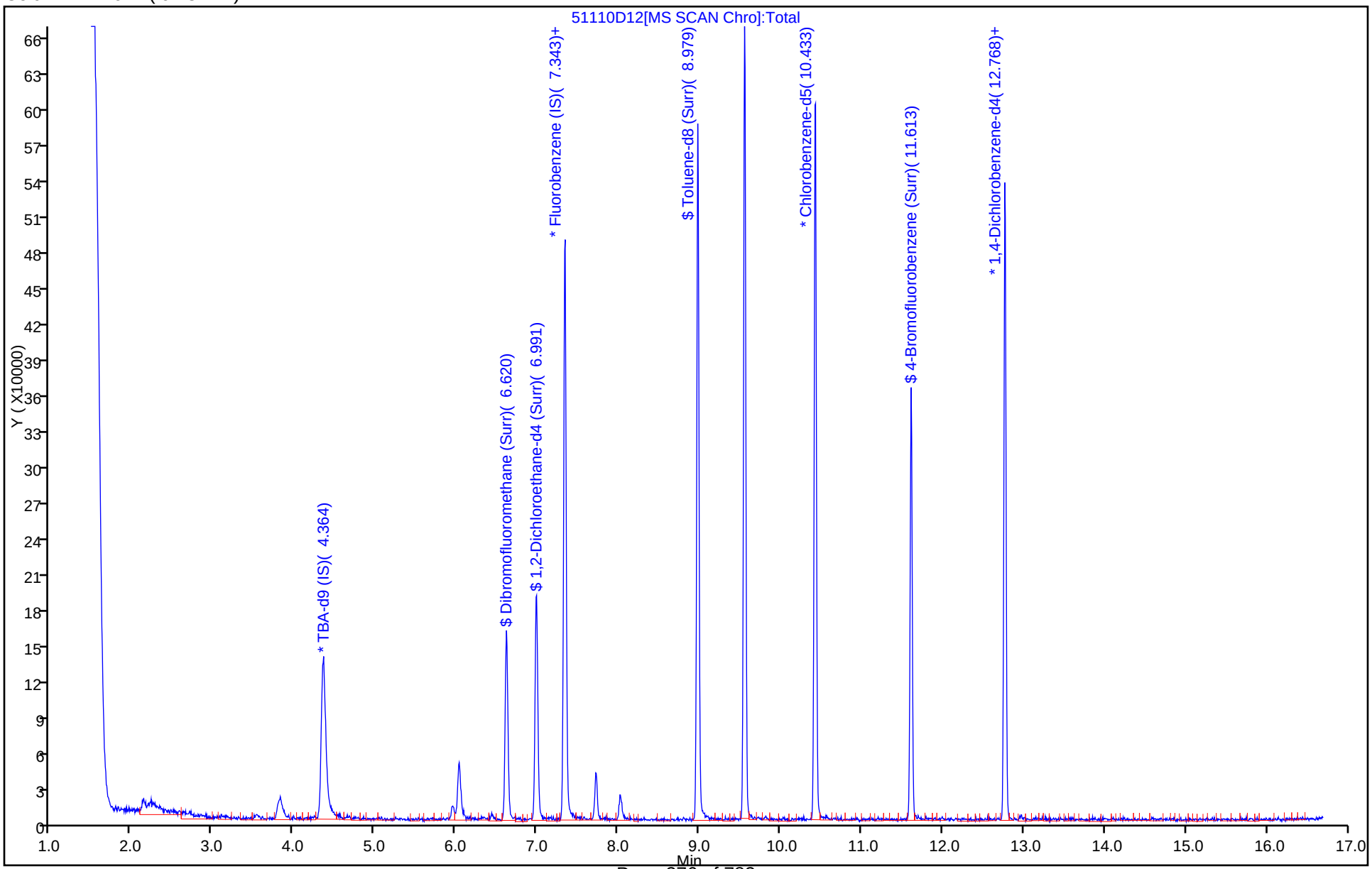
Report Date: 10-Nov-2017 13:58:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D12.D

Injection Date:	10-Nov-2017 13:05:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-B-10	Lab Sample ID:	180-71952-10	Worklist Smp#:	12
Client ID:	HD-MW-183-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D12.D
Lims ID: 180-71952-B-10
Client ID: HD-MW-183-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 13:05:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-012
Misc. Info.: 180-71952-B-10
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 13:58:23 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 13:27:15

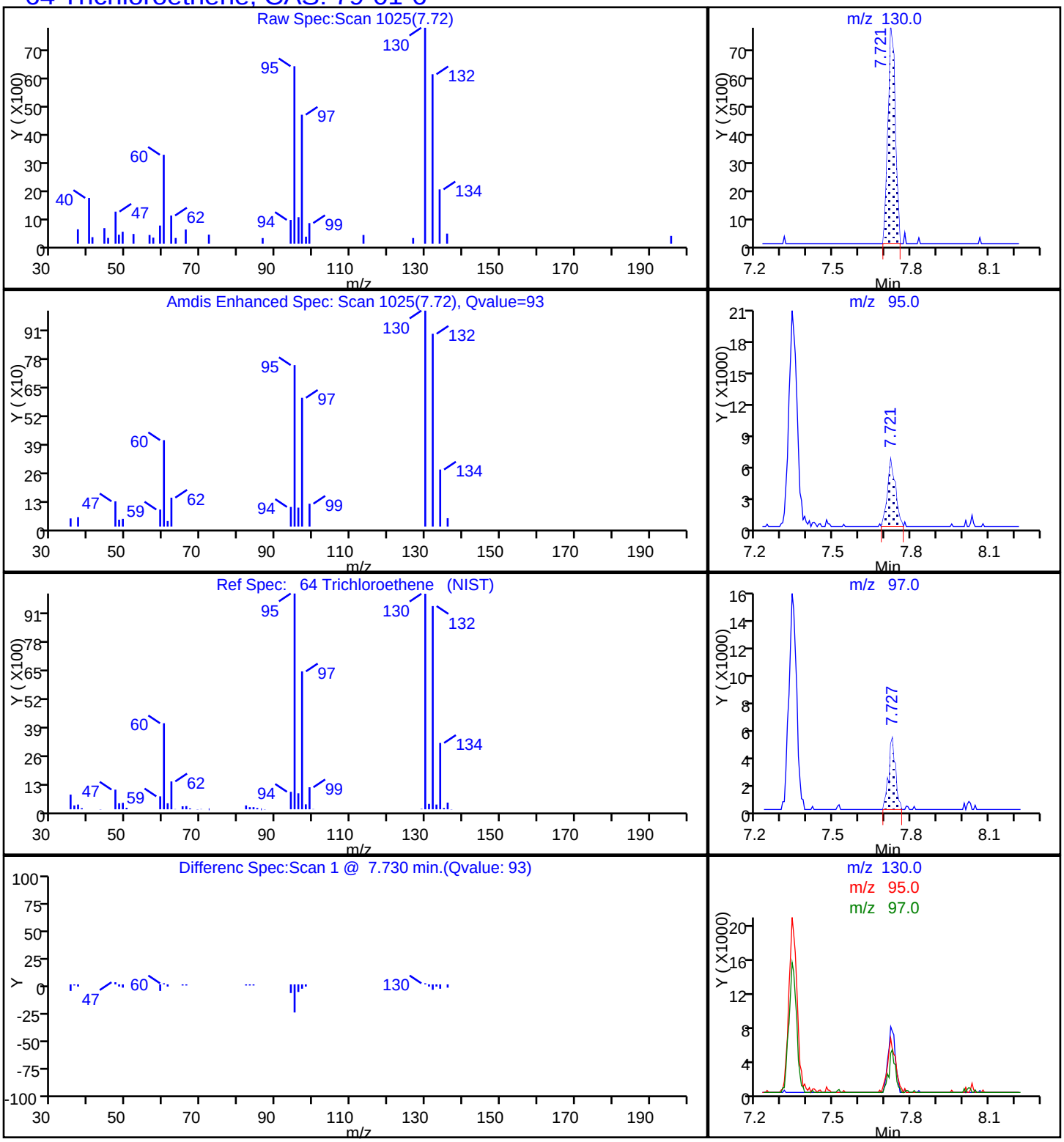
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.6	99.14
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.5	108.93
$ 7 Toluene-d8 (Surr)	50.0	41.9	83.74
$ 8 4-Bromofluorobenzene (Surr)	50.0	40.1	80.18

Report Date: 10-Nov-2017 13:58:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D12.D				
Injection Date:	10-Nov-2017 13:05:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-10	Lab Sample ID:	180-71952-10		
Client ID:	HD-MW-183-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



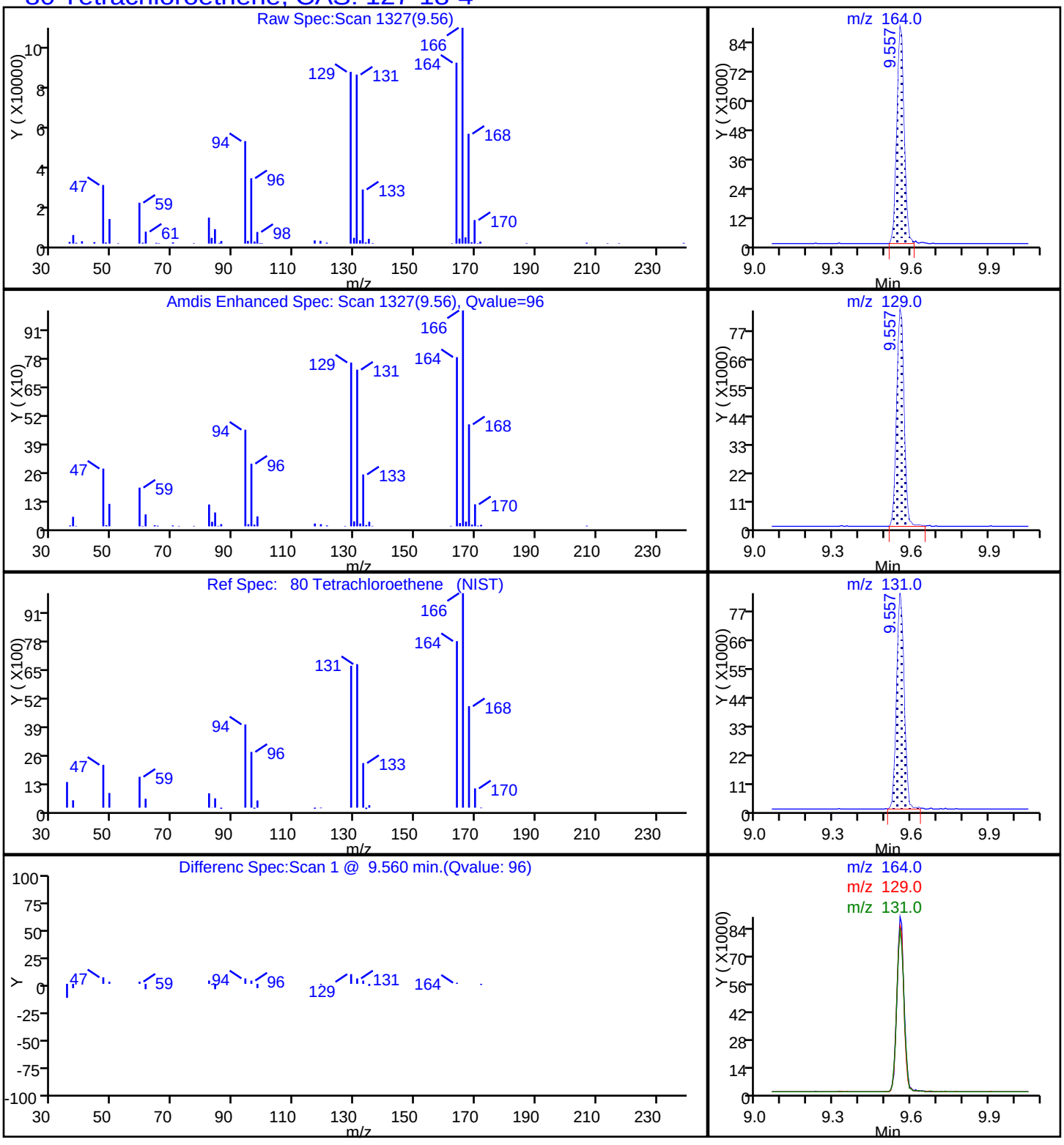
Report Date: 10-Nov-2017 13:58:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D12.D

Injection Date:	10-Nov-2017 13:05:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-10	Lab Sample ID:	180-71952-10		
Client ID:	HD-MW-183-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC7-0/1-2 | Lab Sample ID: 180-71952-11

Matrix: Water | Lab File ID: 51108D19.D

Analysis Method: 8260C | Date Collected: 10/30/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 04:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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 ^c	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 ^c	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 ^c	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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC7-0/1-2 | Lab Sample ID: 180-71952-11

Matrix: Water | Lab File ID: 51108D19.D

Analysis Method: 8260C | Date Collected: 10/30/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 04:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228418 | 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)	118		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	79	X	80-120
1868-53-7	Dibromofluoromethane (Surr)	109		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D19.D
Lims ID: 180-71952-A-11
Client ID: HD-QC7-0/1-2
Sample Type: Client
Inject. Date: 09-Nov-2017 04:53:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-019
Misc. Info.: 180-71952-A-11
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 09:30:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.360	4.373	-0.013	0	194227	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.341	0.000	98	451519	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.430	0.005	87	112579	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	97	144299	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.622	6.617	0.005	92	118330	54.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.982	0.005	0	156659	59.1	
$ 7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	95	398898	44.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.610	-0.001	84	127189	39.3	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.342				ND	
16 Chloroethane	64		2.433				ND	
22 1,1-Dichloroethene	96		3.418				ND	
24 Acetone	43	3.539	3.528	0.011	83	12302	10.4	
26 Carbon disulfide	76		3.716				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.610				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.273				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.452	6.434	0.018	1	1822	0.4166	M
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130		7.724				ND	
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.043				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.559	9.554	0.005	79	1965	0.9179	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

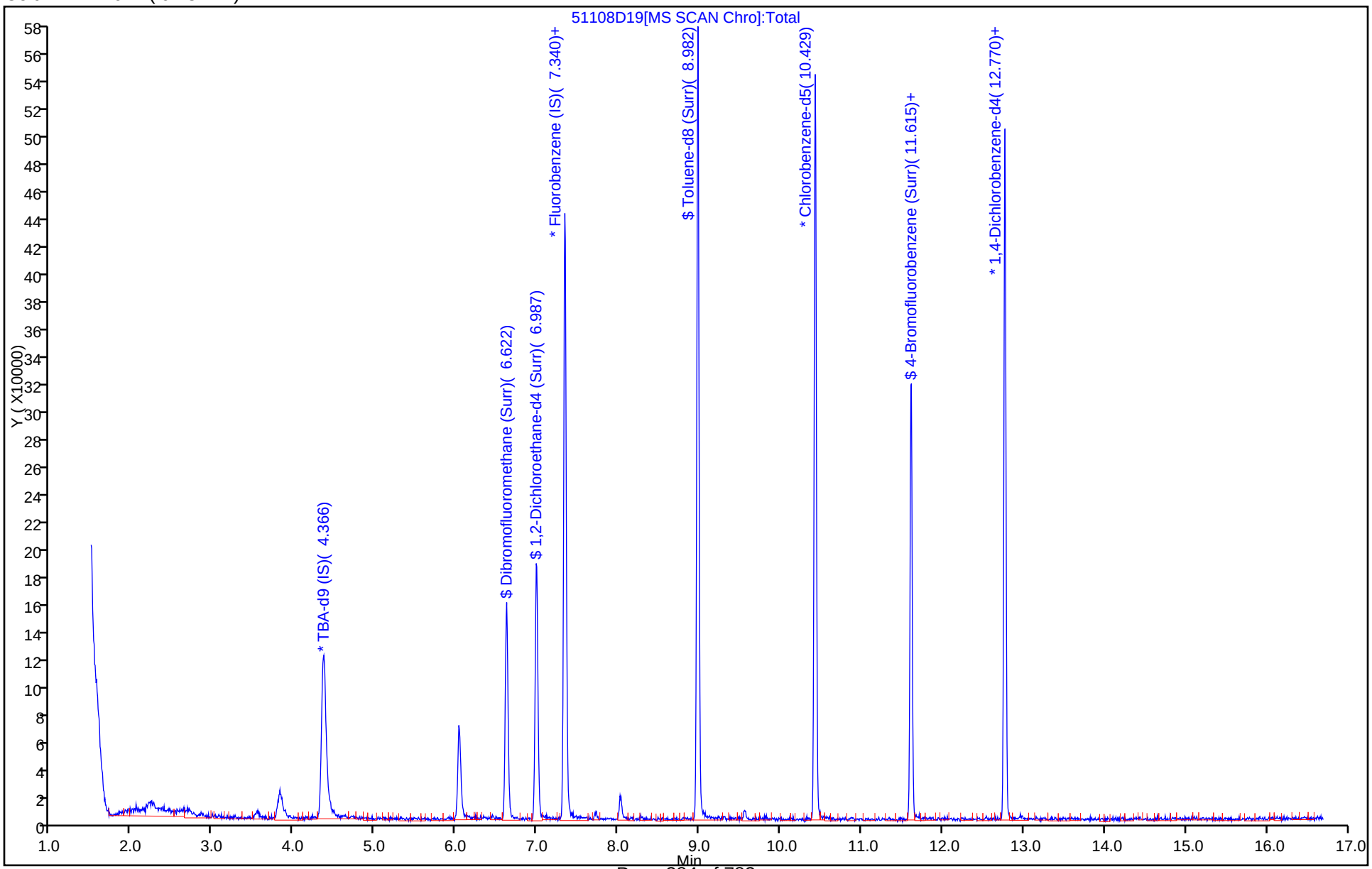
Report Date: 09-Nov-2017 09:46:22 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D19.D

Injection Date:	09-Nov-2017 04:53:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-11	Lab Sample ID:	180-71952-11	Worklist Smp#:	19
Client ID:	HD-QC7-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D19.D				
Lims ID:	180-71952-A-11				
Client ID:	HD-QC7-0/1-2				
Sample Type:	Client				
Inject. Date:	09-Nov-2017 04:53:30	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019227-019				
Misc. Info.:	180-71952-A-11				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 09:44:05	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				

First Level Reviewer: journetp Date: 09-Nov-2017 09:30:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	54.5	108.94
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	59.1	118.25
$ 7 Toluene-d8 (Surr)	50.0	44.5	89.04
$ 8 4-Bromofluorobenzene (Surr)	50.0	39.3	78.61

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

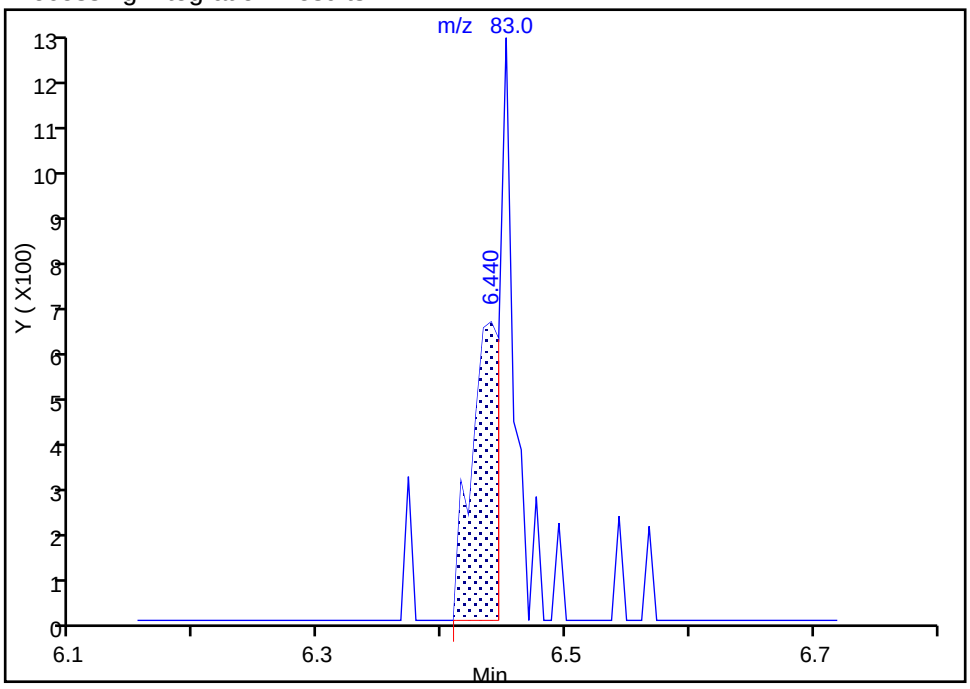
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D19.D				
Injection Date:	09-Nov-2017 04:53:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-11	Lab Sample ID:	180-71952-11		
Client ID:	HD-QC7-0/1-2				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

Signal: 1

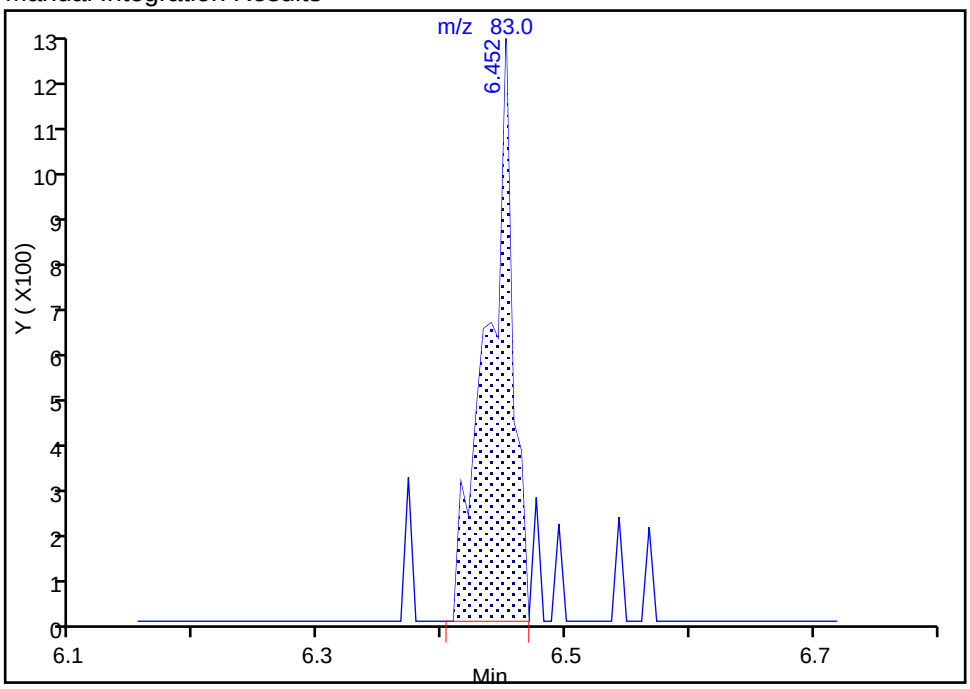
Processing Integration Results

RT: 6.44
Area: 1059
Amount: 0.242152
Amount Units: ng



Manual Integration Results

RT: 6.45
Area: 1822
Amount: 0.416621
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 09:30:14

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-3-0/1-0 | Lab Sample ID: 180-71952-12

Matrix: Water | Lab File ID: 51109D08.D

Analysis Method: 8260C | Date Collected: 10/31/2017 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 13:55

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U * ^c F1	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 ^c	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	1.3		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	9.7		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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-3-0/1-0 | Lab Sample ID: 180-71952-12

Matrix: Water | Lab File ID: 51109D08.D

Analysis Method: 8260C | Date Collected: 10/31/2017 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 13:55

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	116		65-121
2037-26-5	Toluene-d8 (Surr)	90		73-120
460-00-4	4-Bromofluorobenzene (Surr)	82		80-120
1868-53-7	Dibromofluoromethane (Surr)	108		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D08.D
Lims ID: 180-71952-A-12
Client ID: HD-MPE-3-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 13:55:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-008
Misc. Info.: 180-71952-A-12
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 14:15:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.357	4.367	-0.010	0	223764	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.335	0.009	98	494802	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.430	0.002	87	123270	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	96	159968	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.625	6.617	0.008	93	128250	53.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.990	6.982	0.008	0	168087	57.9	
$ 7 Toluene-d8 (Surr)	98	8.979	8.976	0.003	94	439431	44.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.610	0.002	84	144772	40.9	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.019				ND	
15 Bromomethane	94		2.354				ND	
16 Chloroethane	64		2.445				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.542	3.540	0.002	75	9590	7.41	
26 Carbon disulfide	76		3.710				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.616				ND	
34 trans-1,2-Dichloroethene	96		4.647				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.021				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.449	6.441	0.008	16	2850	0.5947	
53 1,1,1-Trichloroethane	97		6.599				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.067				ND	
64 Trichloroethene	130	7.720	7.724	-0.004	98	20200	6.67	
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.563	9.560	0.003	96	113524	48.4	
82 2-Hexanone	43		9.700				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

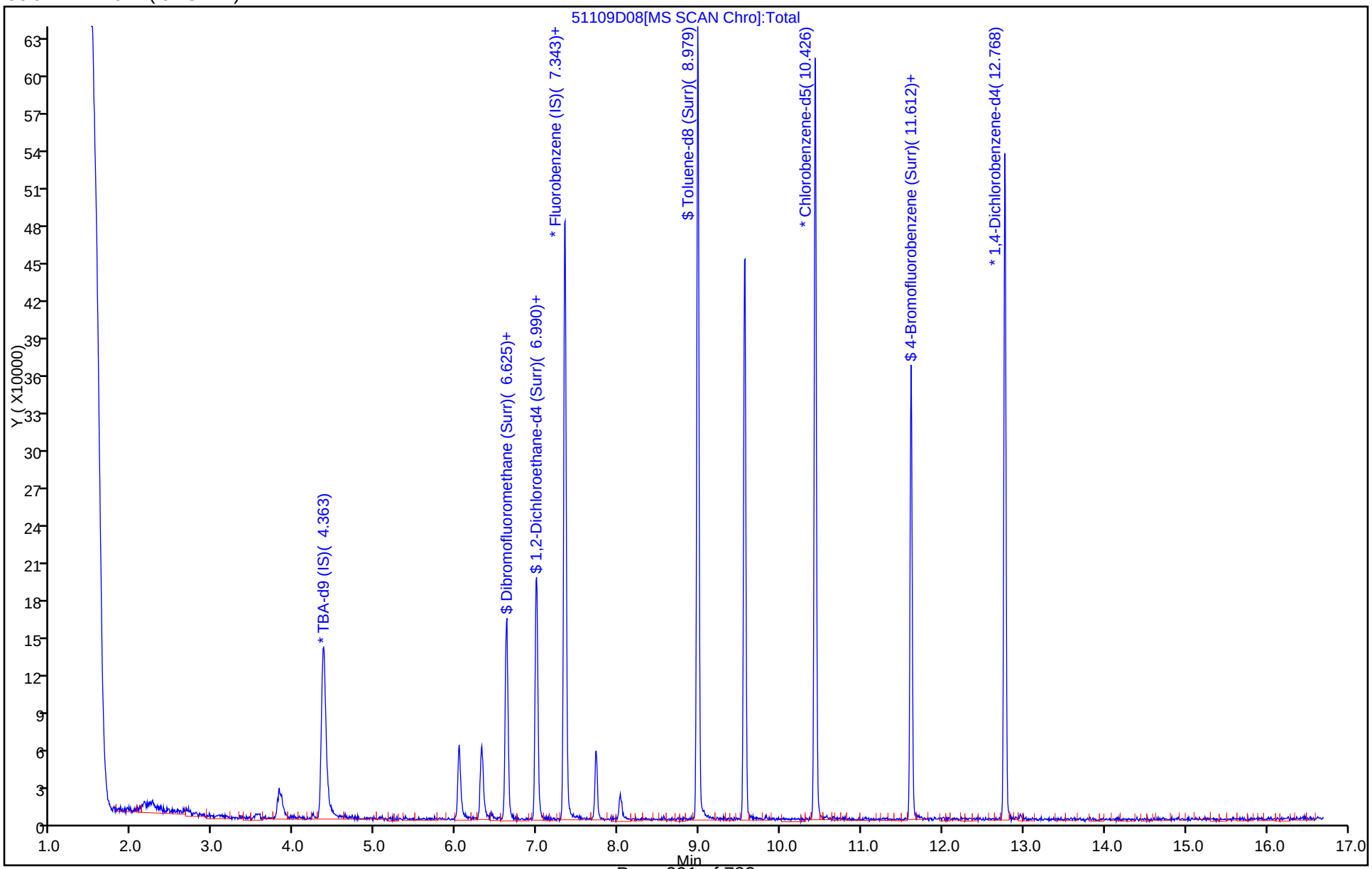
Report Date: 09-Nov-2017 17:33:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D08.D

Injection Date:	09-Nov-2017 13:55:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-12	Lab Sample ID:	180-71952-12	Worklist Smp#:	8
Client ID:	HD-MPE-3-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D08.D				
Lims ID:	180-71952-A-12				
Client ID:	HD-MPE-3-0/1-0				
Sample Type:	Client				
Inject. Date:	09-Nov-2017 13:55:30	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019236-008				
Misc. Info.:	180-71952-A-12				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 17:32:24	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: journetp		Date:	09-Nov-2017 14:15:44		

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.9	107.74
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	57.9	115.78
$ 7 Toluene-d8 (Surr)	50.0	44.8	89.58
$ 8 4-Bromofluorobenzene (Surr)	50.0	40.9	81.72

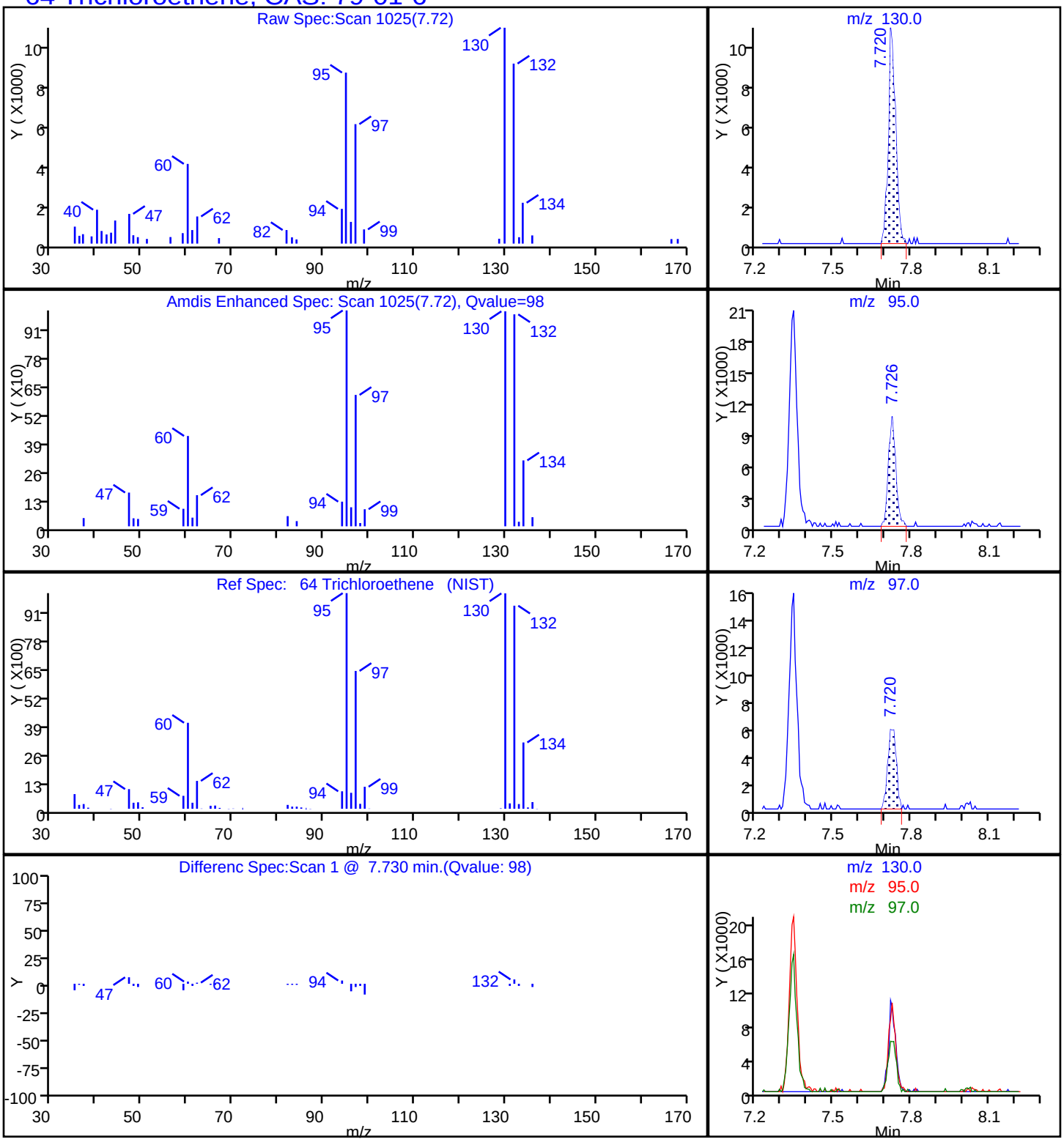
Report Date: 09-Nov-2017 17:33:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D08.D

Injection Date:	09-Nov-2017 13:55:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-12	Lab Sample ID:	180-71952-12		
Client ID:	HD-MPE-3-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



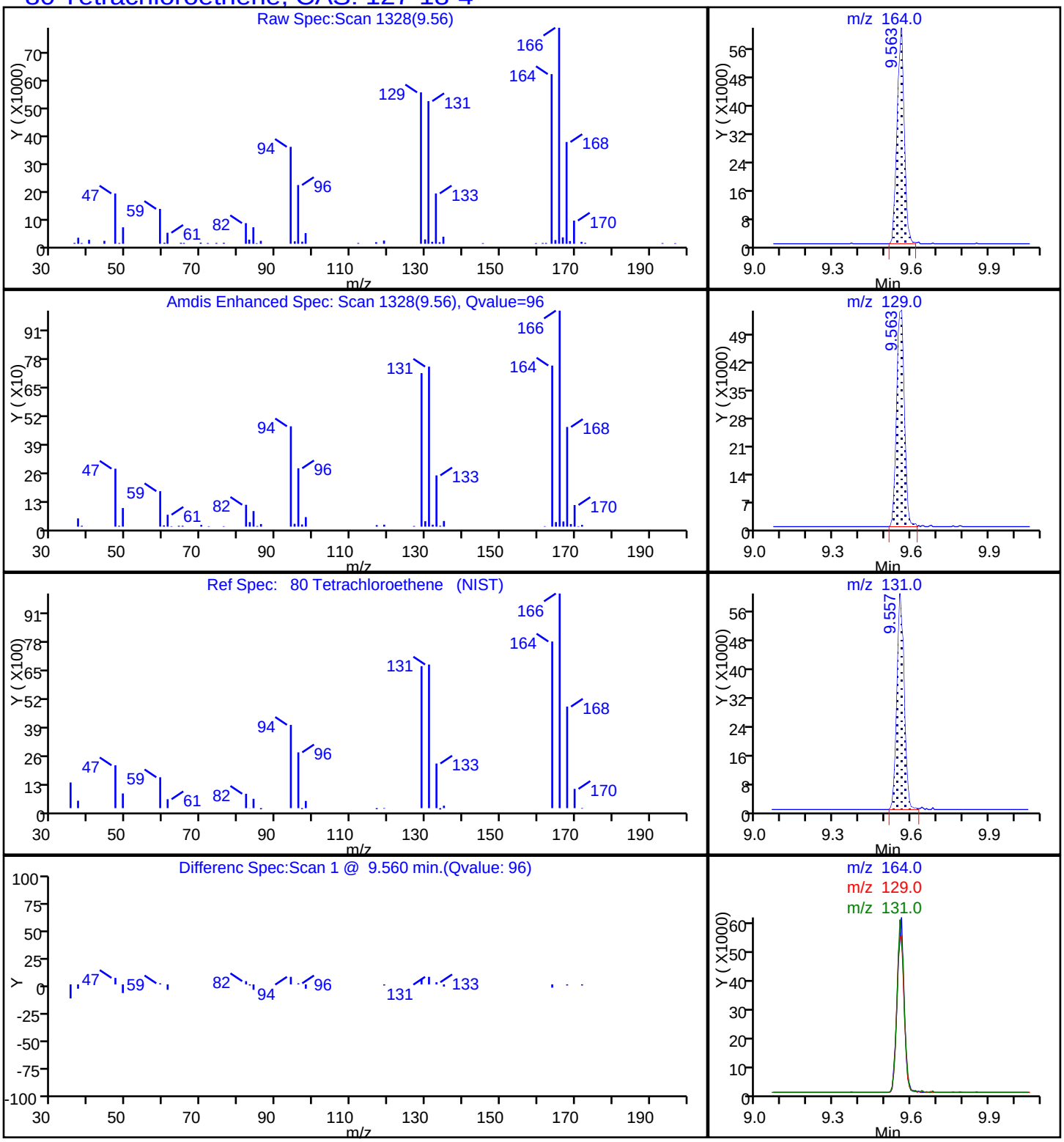
Report Date: 09-Nov-2017 17:33:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D08.D

Injection Date:	09-Nov-2017 13:55:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-12	Lab Sample ID:	180-71952-12		
Client ID:	HD-MPE-3-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC4-0/1-1 | Lab Sample ID: 180-71952-13

Matrix: Water | Lab File ID: 51111D16.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 11:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U ^c	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)	3.6	J ^c	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	1.3		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	9.5		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.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC4-0/1-1 | Lab Sample ID: 180-71952-13

Matrix: Water | Lab File ID: 51111D16.D

Analysis Method: 8260C | Date Collected: 10/31/2017 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 11:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228645 | 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 ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		65-121
2037-26-5	Toluene-d8 (Surr)	81		73-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D
Lims ID: 180-71952-A-13
Client ID: HD-QC4-0/1-1
Sample Type: Client
Inject. Date: 11-Nov-2017 11:42:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019261-016
Misc. Info.: 180-71952-A-13
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 12-Nov-2017 14:51:40 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 12-Nov-2017 14:45:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.366	4.349	0.017	0	217740	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.341	-0.001	98	471595	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.430	-0.001	86	118321	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.765	0.006	97	156408	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.623	6.616	0.007	93	120913	53.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.987	0.007	0	153744	55.6	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	94	380613	40.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.615	0.000	83	155983	45.9	
12 Chloromethane	50		1.885				ND	
13 Vinyl chloride	62		2.013				ND	
15 Bromomethane	94		2.335				ND	
16 Chloroethane	64		2.432				ND	
22 1,1-Dichloroethene	96		3.418				ND	
24 Acetone	43		3.539				ND	
26 Carbon disulfide	76		3.703				ND	
31 Methylene Chloride	84		4.226				ND	
33 Acrylonitrile	53		4.616				ND	
34 trans-1,2-Dichloroethene	96		4.634				ND	
35 Methyl tert-butyl ether	73		4.658				ND	
37 1,1-Dichloroethane	63		5.266				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43	6.033	6.027	0.006	48	31591	18.0	
49 Chlorobromomethane	128		6.288				ND	
52 Chloroform	83	6.446	6.440	0.006	33	2772	0.6069	M
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.717	7.723	-0.006	97	18158	6.29	
67 1,2-Dichloropropane	63		7.991				ND	
70 1,4-Dioxane	88		8.076				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.715				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.298				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.560	9.560	0.000	94	106348	47.3	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.967				ND	
87 Chlorobenzene	112	10.460	10.460	0.000	81	3301	0.4298	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

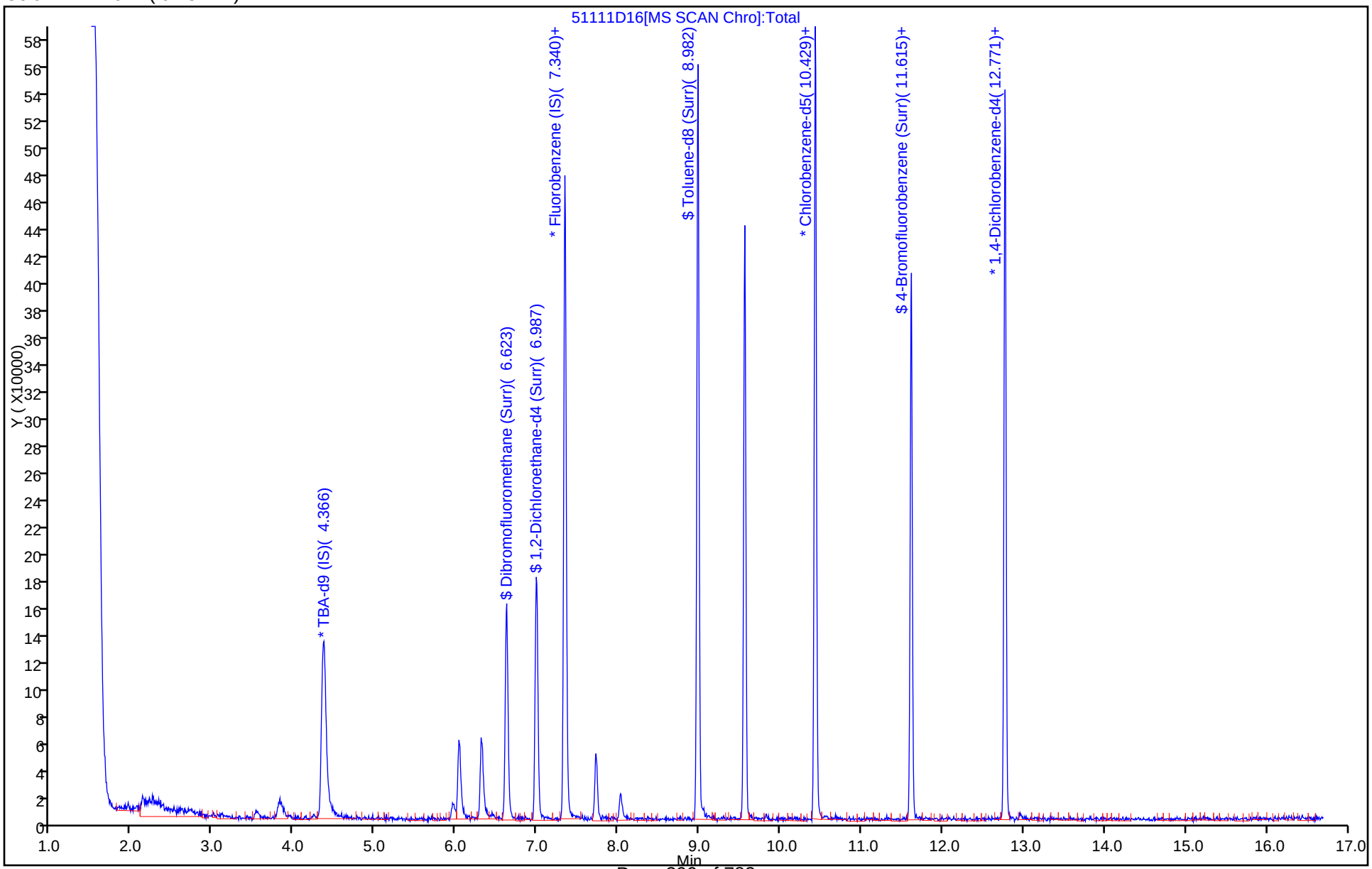
Report Date: 12-Nov-2017 14:52:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D

Injection Date:	11-Nov-2017 11:42:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-13	Lab Sample ID:	180-71952-13	Worklist Smp#:	16
Client ID:	HD-QC4-0/1-1				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D				
Lims ID:	180-71952-A-13				
Client ID:	HD-QC4-0/1-1				
Sample Type:	Client				
Inject. Date:	11-Nov-2017 11:42:30	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019261-016				
Misc. Info.:	180-71952-A-13				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	12-Nov-2017 14:51:40	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

First Level Reviewer: bungardf Date: 12-Nov-2017 14:45:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.3	106.57
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.6	111.11
$ 7 Toluene-d8 (Surr)	50.0	40.4	80.84
$ 8 4-Bromofluorobenzene (Surr)	50.0	45.9	91.73

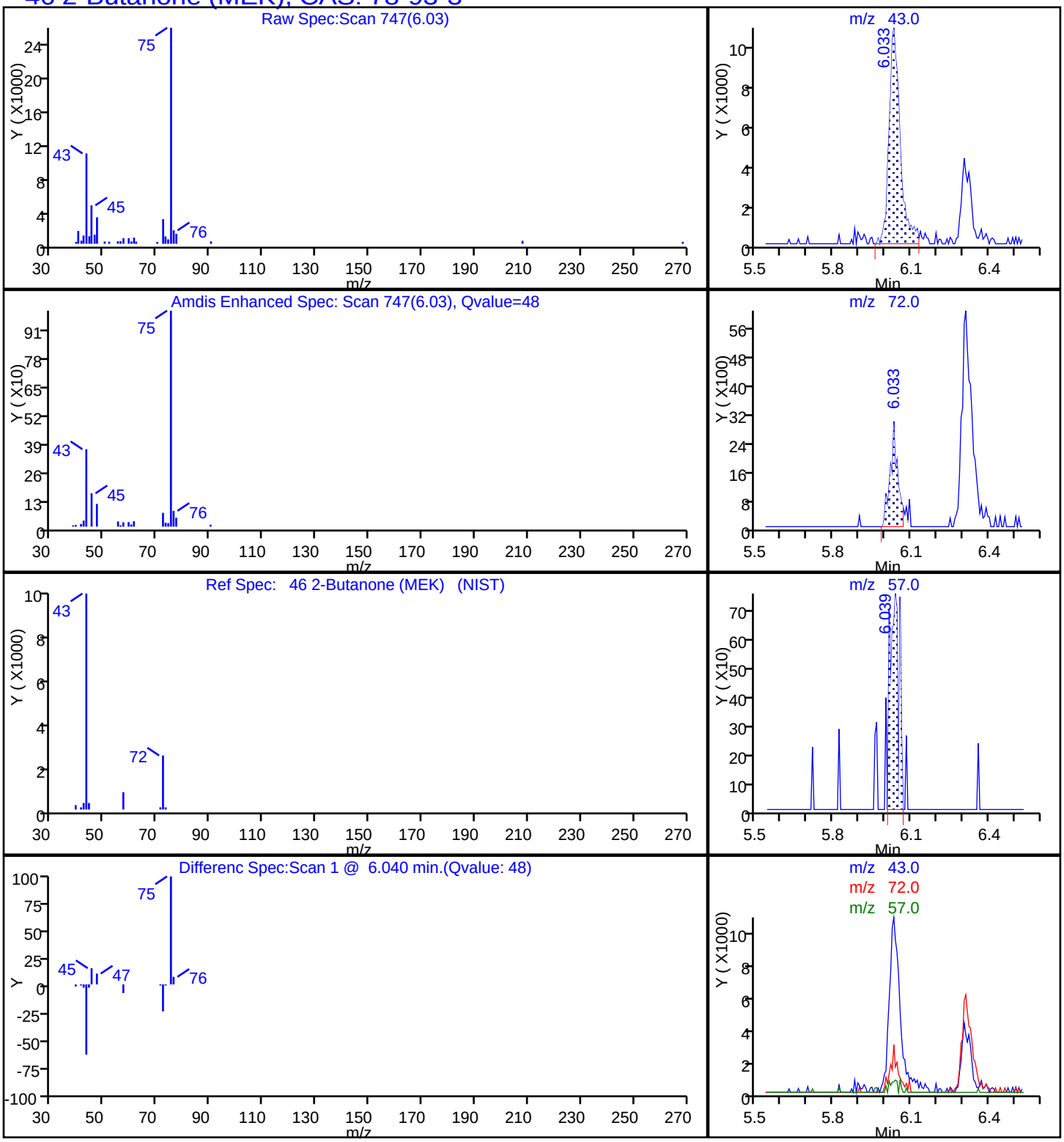
Report Date: 12-Nov-2017 14:52:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D

Injection Date:	11-Nov-2017 11:42:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-13	Lab Sample ID:	180-71952-13		
Client ID:	HD-QC4-0/1-1				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



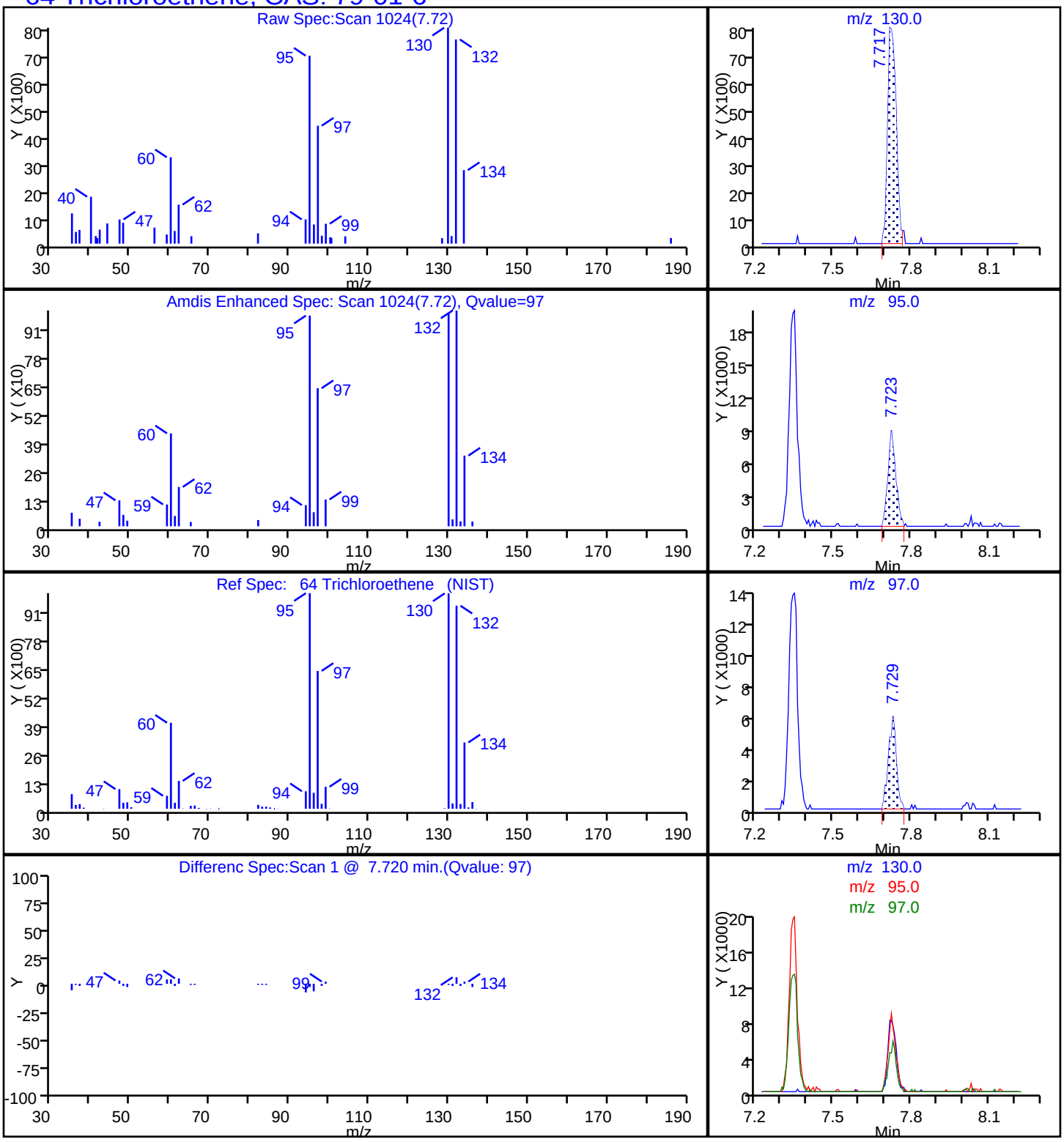
Report Date: 12-Nov-2017 14:52:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D

Injection Date:	11-Nov-2017 11:42:30	Instrument ID:	CHHP5
Lims ID:	180-71952-A-13	Lab Sample ID:	180-71952-13
Client ID:	HD-QC4-0/1-1		
Operator ID:	034635	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



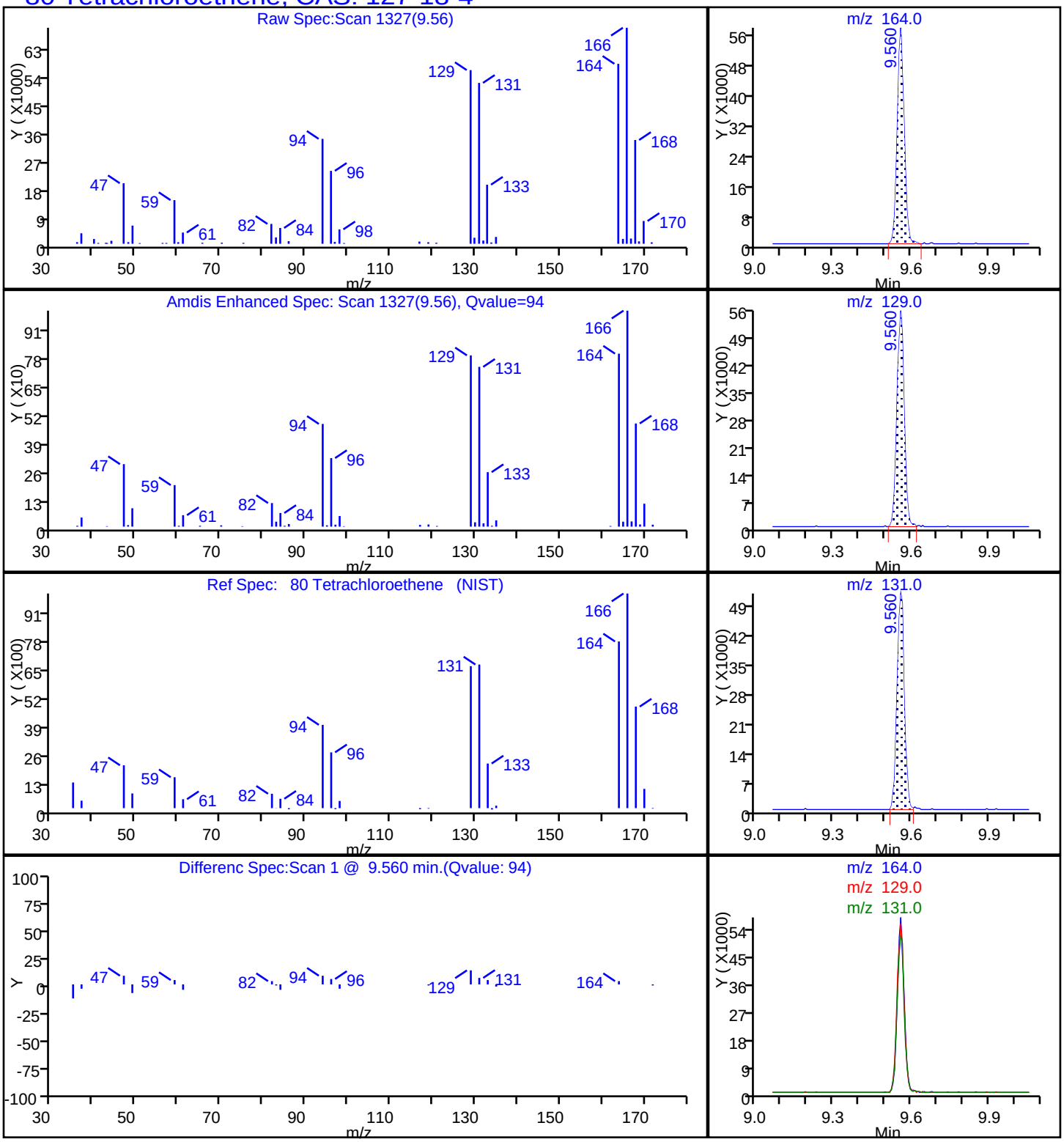
Report Date: 12-Nov-2017 14:52:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D

Injection Date:	11-Nov-2017 11:42:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-13	Lab Sample ID:	180-71952-13		
Client ID:	HD-QC4-0/1-1				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

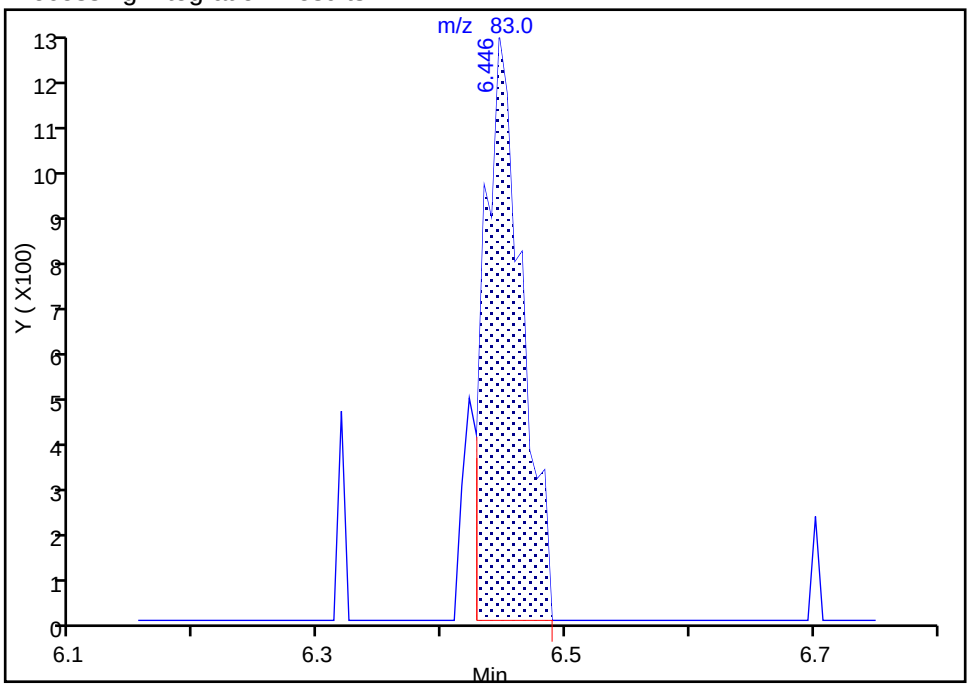
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D16.D				
Injection Date:	11-Nov-2017 11:42:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-13	Lab Sample ID:	180-71952-13		
Client ID:	HD-QC4-0/1-1				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

Signal: 1

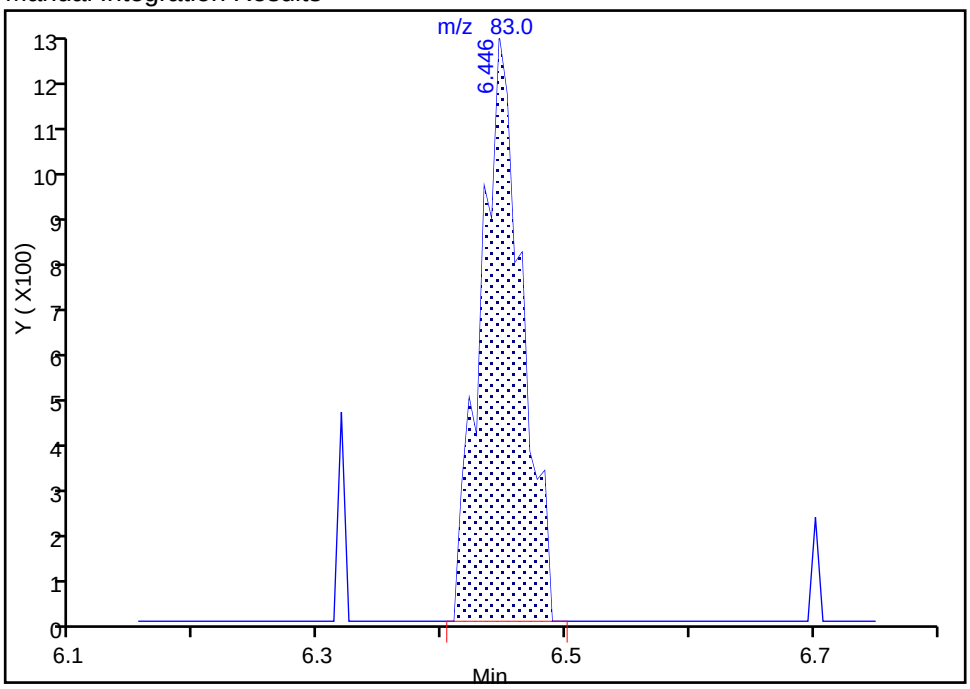
Processing Integration Results

RT: 6.45
Area: 2504
Amount: 0.548193
Amount Units: ng



Manual Integration Results

RT: 6.45
Area: 2772
Amount: 0.606866
Amount Units: ng



Reviewer: bungardf, 12-Nov-2017 14:45:05

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC4-0/1-3 | Lab Sample ID: 180-71952-14

Matrix: Water | Lab File ID: 51109D09.D

Analysis Method: 8260C | Date Collected: 10/31/2017 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 14:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U * ^c	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 ^c	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	0.60	J	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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC4-0/1-3 | Lab Sample ID: 180-71952-14

Matrix: Water | Lab File ID: 51109D09.D

Analysis Method: 8260C | Date Collected: 10/31/2017 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 14:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	118		65-121
2037-26-5	Toluene-d8 (Surr)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	84		80-120
1868-53-7	Dibromofluoromethane (Surr)	110		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D09.D
Lims ID: 180-71952-A-14
Client ID: HD-QC4-0/1-3
Sample Type: Client
Inject. Date: 09-Nov-2017 14:19:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-009
Misc. Info.: 180-71952-A-14
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:28:49

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.364	4.367	-0.003	0	205594	1000.0	
*	2 Fluorobenzene (IS)	96	7.344	7.335	0.010	98	435041	50.0	
*	3 Chlorobenzene-d5	119	10.427	10.430	-0.003	87	106456	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	97	144529	50.0	
$	5 Dibromofluoromethane (Surr	113	6.614	6.617	-0.003	91	114785	54.8	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.982	0.009	0	150055	58.8	
$	7 Toluene-d8 (Surr)	98	8.980	8.976	0.004	94	390665	46.1	
$	8 4-Bromofluorobenzene (Surr	95	11.613	11.610	0.003	84	128027	41.8	
	12 Chloromethane	50		1.886				ND	
	13 Vinyl chloride	62		2.019				ND	
	15 Bromomethane	94		2.354				ND	
	16 Chloroethane	64		2.445				ND	
	22 1,1-Dichloroethene	96		3.424				ND	
	24 Acetone	43	3.543	3.540	0.003	92	13833	12.2	
	26 Carbon disulfide	76		3.710				ND	
	31 Methylene Chloride	84		4.227				ND	
	33 Acrylonitrile	53		4.616				ND	
	34 trans-1,2-Dichloroethene	96		4.647				ND	
	35 Methyl tert-butyl ether	73		4.659				ND	
	37 1,1-Dichloroethane	63		5.267				ND	
	45 cis-1,2-Dichloroethene	96		6.009				ND	
	46 2-Butanone (MEK)	43		6.021				ND	
	49 Chlorobromomethane	128		6.295				ND	
	52 Chloroform	83		6.441				ND	
	53 1,1,1-Trichloroethane	97		6.599				ND	
	56 Carbon tetrachloride	117		6.769				ND	
	58 Benzene	78	7.004	6.994	0.010	42	6175	0.5838	
	59 1,2-Dichloroethane	62		7.067				ND	
	64 Trichloroethene	130		7.724				ND	
	67 1,2-Dichloropropane	63		7.991				ND	
	70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91	9.047	9.049	-0.002	96	32078	3.02	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164		9.560				ND	
82 2-Hexanone	43		9.700				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106	10.695	10.558	0.137	91	3785	0.9812	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106	11.060	11.068	-0.008	94	1742	0.3878	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106				0		0.3878	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

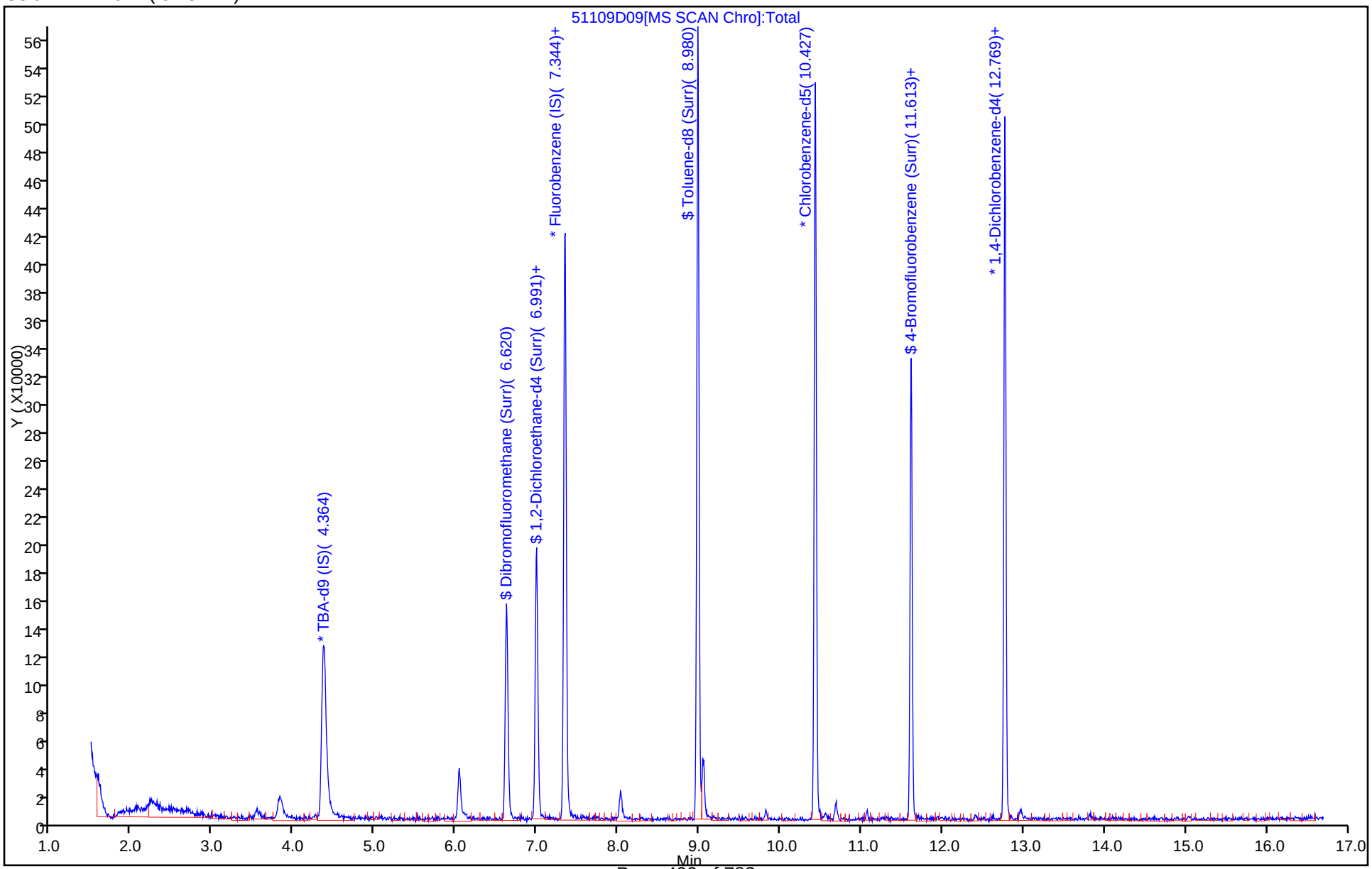
Report Date: 09-Nov-2017 17:33:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D09.D

Injection Date:	09-Nov-2017 14:19:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-14	Lab Sample ID:	180-71952-14	Worklist Smp#:	9
Client ID:	HD-QC4-0/1-3				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D09.D
Lims ID: 180-71952-A-14
Client ID: HD-QC4-0/1-3
Sample Type: Client
Inject. Date: 09-Nov-2017 14:19:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-009
Misc. Info.: 180-71952-A-14
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:28:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	54.8	109.67
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.8	117.55
$ 7 Toluene-d8 (Surr)	50.0	46.1	92.22
$ 8 4-Bromofluorobenzene (Surr)	50.0	41.8	83.68

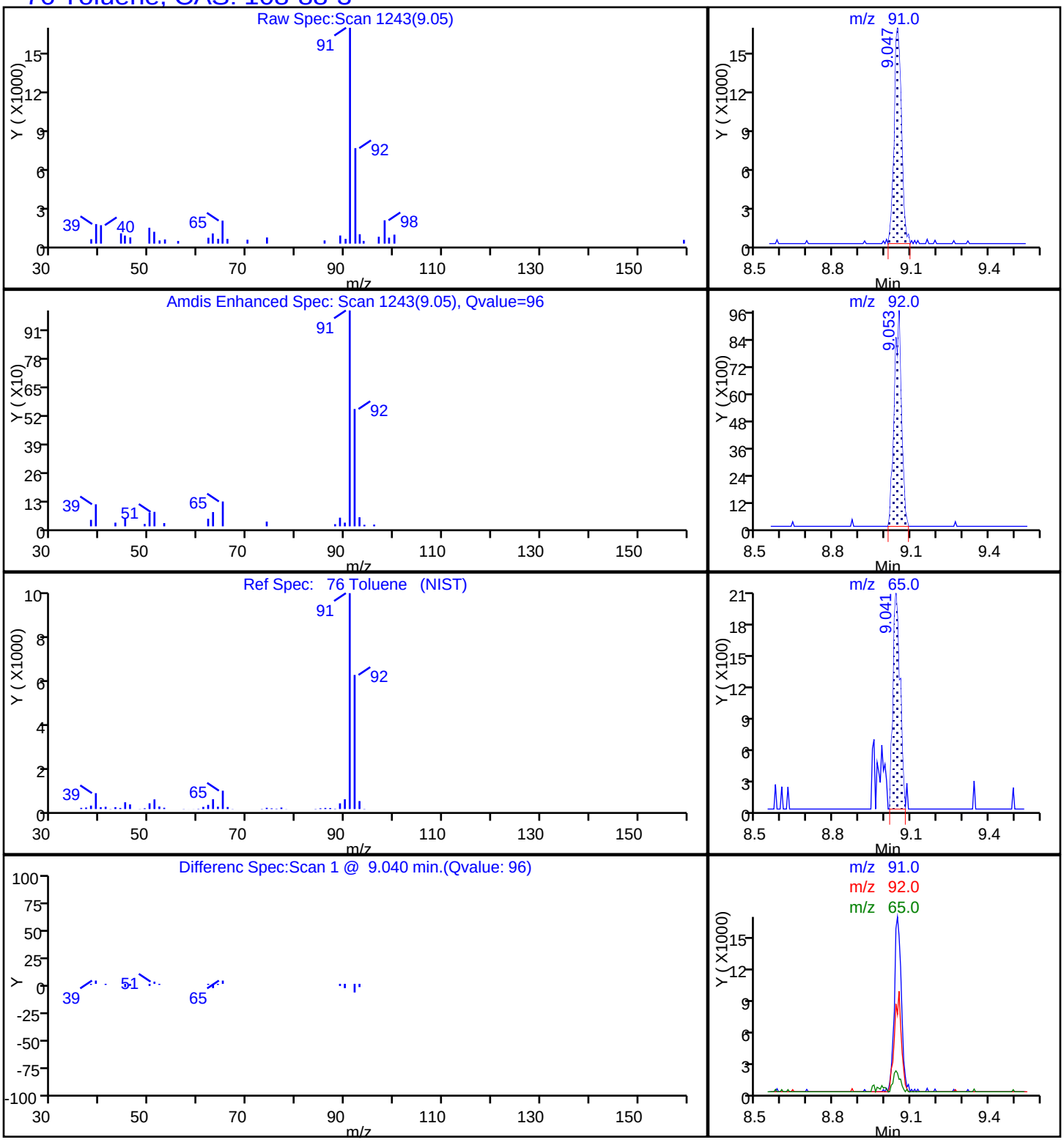
Report Date: 09-Nov-2017 17:33:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D09.D

Injection Date:	09-Nov-2017 14:19:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-14	Lab Sample ID:	180-71952-14		
Client ID:	HD-QC4-0/1-3				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

76 Toluene, CAS: 108-88-3



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC4-0/1-4 | Lab Sample ID: 180-71952-15

Matrix: Water | Lab File ID: 7110914.D

Analysis Method: 8260C | Date Collected: 10/31/2017 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 14:29

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.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.90
75-01-4	Vinyl chloride	1.0	U ^c	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	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	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 ^c	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.: 180-71952-1

SDG No.:

Client Sample ID: HD-QC4-0/1-4 | Lab Sample ID: 180-71952-15

Matrix: Water | Lab File ID: 7110914.D

Analysis Method: 8260C | Date Collected: 10/31/2017 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 14:29

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.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U ^c	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 ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83	^c	65-121
2037-26-5	Toluene-d8 (Surr)	107		73-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110914.D
Lims ID: 180-71952-C-15
Client ID: HD-QC4-0/1-4
Sample Type: Client
Inject. Date: 09-Nov-2017 14:29:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-71952-C-15
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:18:06 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 16:09:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.251	4.251	0.000	98	177392	1000.0	
* 2 Fluorobenzene (IS)	96	7.269	7.263	0.006	98	218709	50.0	
* 3 Chlorobenzene-d5	119	10.365	10.365	0.000	90	48245	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.707	12.707	0.000	97	70068	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.545	6.539	0.006	93	47211	43.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.916	6.910	0.006	92	86854	41.3	
$ 7 Toluene-d8 (Surr)	98	8.911	8.911	0.000	94	194859	53.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.545	11.545	0.000	87	76135	48.7	
12 Chloromethane	50		1.793				ND	
13 Vinyl chloride	62		1.921				ND	
15 Bromomethane	94		2.280				ND	
16 Chloroethane	64		2.414				ND	
22 1,1-Dichloroethene	96		3.345				ND	
24 Acetone	43	3.430	3.436	-0.006	29	5142	5.11	
26 Carbon disulfide	76		3.625				ND	
31 Methylene Chloride	84		4.123				ND	
33 Acrylonitrile	53		4.507				ND	
34 trans-1,2-Dichloroethene	96		4.555				ND	
35 Methyl tert-butyl ether	73		4.561				ND	
37 1,1-Dichloroethane	63		5.182				ND	
45 cis-1,2-Dichloroethene	96		5.930				ND	
46 2-Butanone (MEK)	43		5.936				ND	
49 Chlorobromomethane	128		6.210				ND	
52 Chloroform	83		6.362				ND	
53 1,1,1-Trichloroethane	97		6.514				ND	
56 Carbon tetrachloride	117		6.691				ND	
58 Benzene	78		6.922				ND	
59 1,2-Dichloroethane	62		6.995				ND	
64 Trichloroethene	130		7.646				ND	
67 1,2-Dichloropropane	63		7.926				ND	
70 1,4-Dioxane	88		8.011				ND	
71 Dichlorobromomethane	83		8.205				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 cis-1,3-Dichloropropene	75		8.650				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.802				ND	
76 Toluene	91	8.978	8.978	0.000	98	14422	0.7743	
77 trans-1,3-Dichloropropene	75		9.227				ND	
79 1,1,2-Trichloroethane	97		9.422				ND	
80 Tetrachloroethene	164		9.495				ND	
82 2-Hexanone	43		9.635				ND	
84 Chlorodibromomethane	129		9.787				ND	
85 Ethylene Dibromide	107		9.909				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.481				ND	
90 Ethylbenzene	106		10.493				ND	
91 m-Xylene & p-Xylene	106		10.621				ND	
92 o-Xylene	106	11.010	11.004	0.006	92	737	0.3682	
93 Styrene	104		11.022				ND	
94 Bromoform	173		11.211				ND	
99 1,1,2,2-Tetrachloroethane	83		11.685				ND	
S 133 Xylenes, Total	106				0		0.3682	

Reagents:

VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent

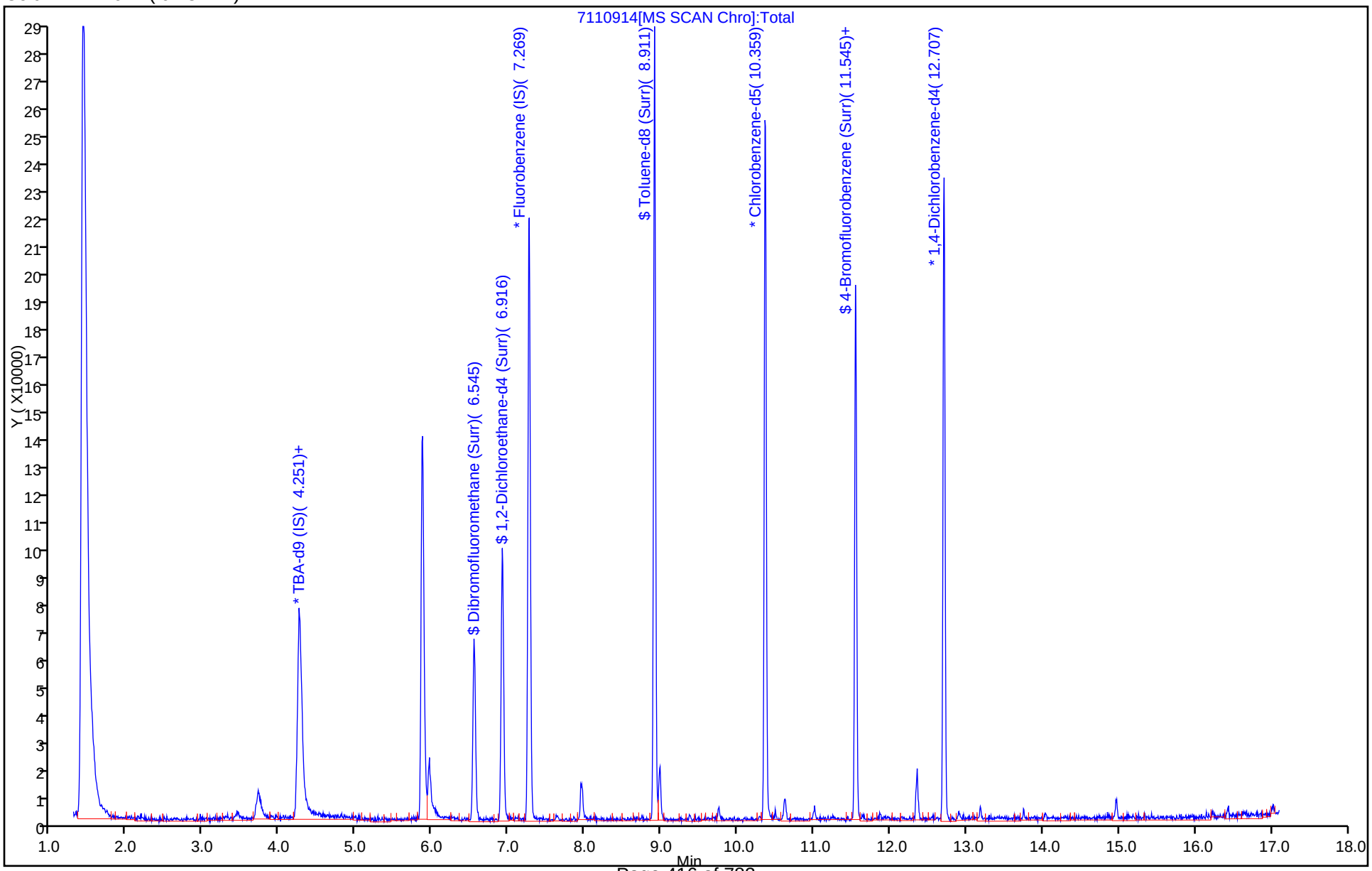
Report Date: 09-Nov-2017 17:18:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110914.D

Injection Date:	09-Nov-2017 14:29:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-71952-C-15	Lab Sample ID:	180-71952-15	Worklist Smp#:	14
Client ID:	HD-QC4-0/1-4				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110914.D
Lims ID: 180-71952-C-15
Client ID: HD-QC4-0/1-4
Sample Type: Client
Inject. Date: 09-Nov-2017 14:29:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-71952-C-15
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:18:06 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 16:09:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	43.6	87.25
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	41.3	82.52
$ 7 Toluene-d8 (Surr)	50.0	53.3	106.63
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.7	97.43

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-184D-0/1-0 | Lab Sample ID: 180-71952-16

Matrix: Water | Lab File ID: 51109D25.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 21:29

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c *	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 ^c	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	1.9		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*	*57*	*E*	*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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-184D-0/1-0 | Lab Sample ID: 180-71952-16

Matrix: Water | Lab File ID: 51109D25.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 21:29

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	121		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	79	X	80-120
1868-53-7	Dibromofluoromethane (Surr)	116		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D25.D
Lims ID: 180-71952-C-16
Client ID: HD-MW-184D-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 21:29:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-025
Misc. Info.: 180-71952-C-16
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 07:45:17 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 07:45:17

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.364	4.367	-0.003	0	190015	1000.0	
*	2 Fluorobenzene (IS)	96	7.338	7.335	0.004	98	434916	50.0	
*	3 Chlorobenzene-d5	119	10.428	10.430	-0.002	87	110166	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	97	141173	50.0	
$	5 Dibromofluoromethane (Surr	113	6.621	6.617	0.004	92	121068	57.9	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.982	0.004	0	154151	60.4	
$	7 Toluene-d8 (Surr)	98	8.980	8.976	0.004	94	382355	43.6	
$	8 4-Bromofluorobenzene (Surr	95	11.613	11.610	0.003	83	125655	39.7	
	12 Chloromethane	50		1.886				ND	
	13 Vinyl chloride	62		2.019				ND	
	15 Bromomethane	94		2.354				ND	
	16 Chloroethane	64		2.445				ND	
	22 1,1-Dichloroethene	96		3.424				ND	
	24 Acetone	43	3.544	3.540	0.004	74	9227	8.11	
	26 Carbon disulfide	76		3.710				ND	
	31 Methylene Chloride	84		4.227				ND	
	33 Acrylonitrile	53		4.616				ND	
	34 trans-1,2-Dichloroethene	96		4.647				ND	
	35 Methyl tert-butyl ether	73		4.659				ND	
	37 1,1-Dichloroethane	63		5.267				ND	
	45 cis-1,2-Dichloroethene	96		6.009				ND	
	46 2-Butanone (MEK)	43		6.021				ND	
	49 Chlorobromomethane	128		6.295				ND	
	52 Chloroform	83	6.438	6.441	-0.003	92	11127	2.64	
	53 1,1,1-Trichloroethane	97		6.599				ND	
	56 Carbon tetrachloride	117		6.769				ND	
	58 Benzene	78		6.994				ND	
	59 1,2-Dichloroethane	62		7.067				ND	
	64 Trichloroethene	130	7.721	7.724	-0.003	98	25028	9.40	
	67 1,2-Dichloropropane	63		7.991				ND	
	70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.558	9.560	-0.002	93	592964	283.0	E
82 2-Hexanone	43		9.700				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.968				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

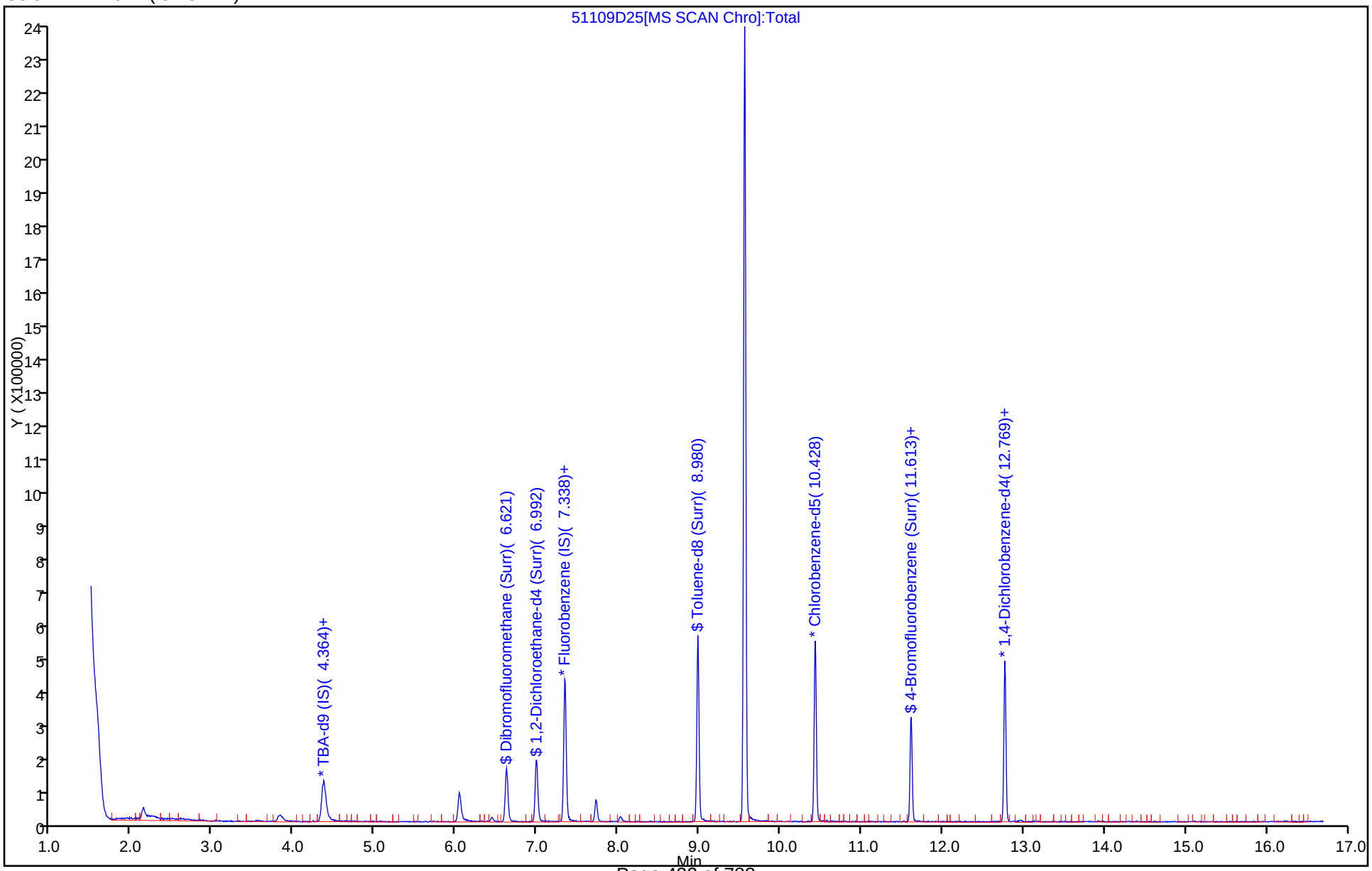
Report Date: 10-Nov-2017 08:09:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D25.D

Injection Date:	09-Nov-2017 21:29:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-C-16	Lab Sample ID:	180-71952-16	Worklist Smp#:	25
Client ID:	HD-MW-184D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D25.D
Lims ID: 180-71952-C-16
Client ID: HD-MW-184D-0/1-0
Sample Type: Client
Inject. Date: 09-Nov-2017 21:29:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-025
Misc. Info.: 180-71952-C-16
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 07:45:17 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 07:45:17

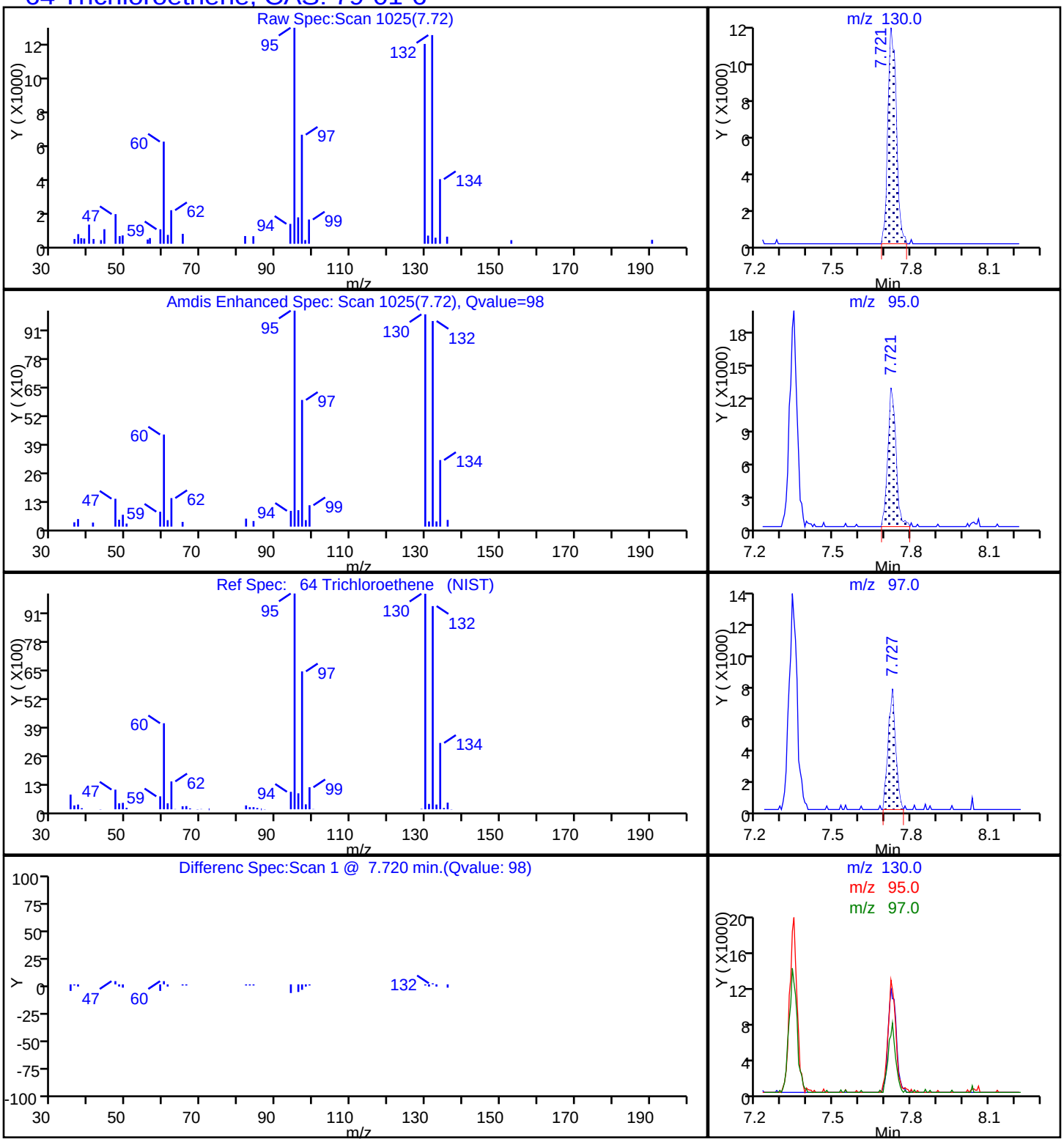
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	57.9	115.71
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	60.4	120.80
$ 7 Toluene-d8 (Surr)	50.0	43.6	87.22
$ 8 4-Bromofluorobenzene (Surr)	50.0	39.7	79.36

Report Date: 10-Nov-2017 08:09:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D25.D				
Injection Date:	09-Nov-2017 21:29:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-16	Lab Sample ID:	180-71952-16		
Client ID:	HD-MW-184D-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

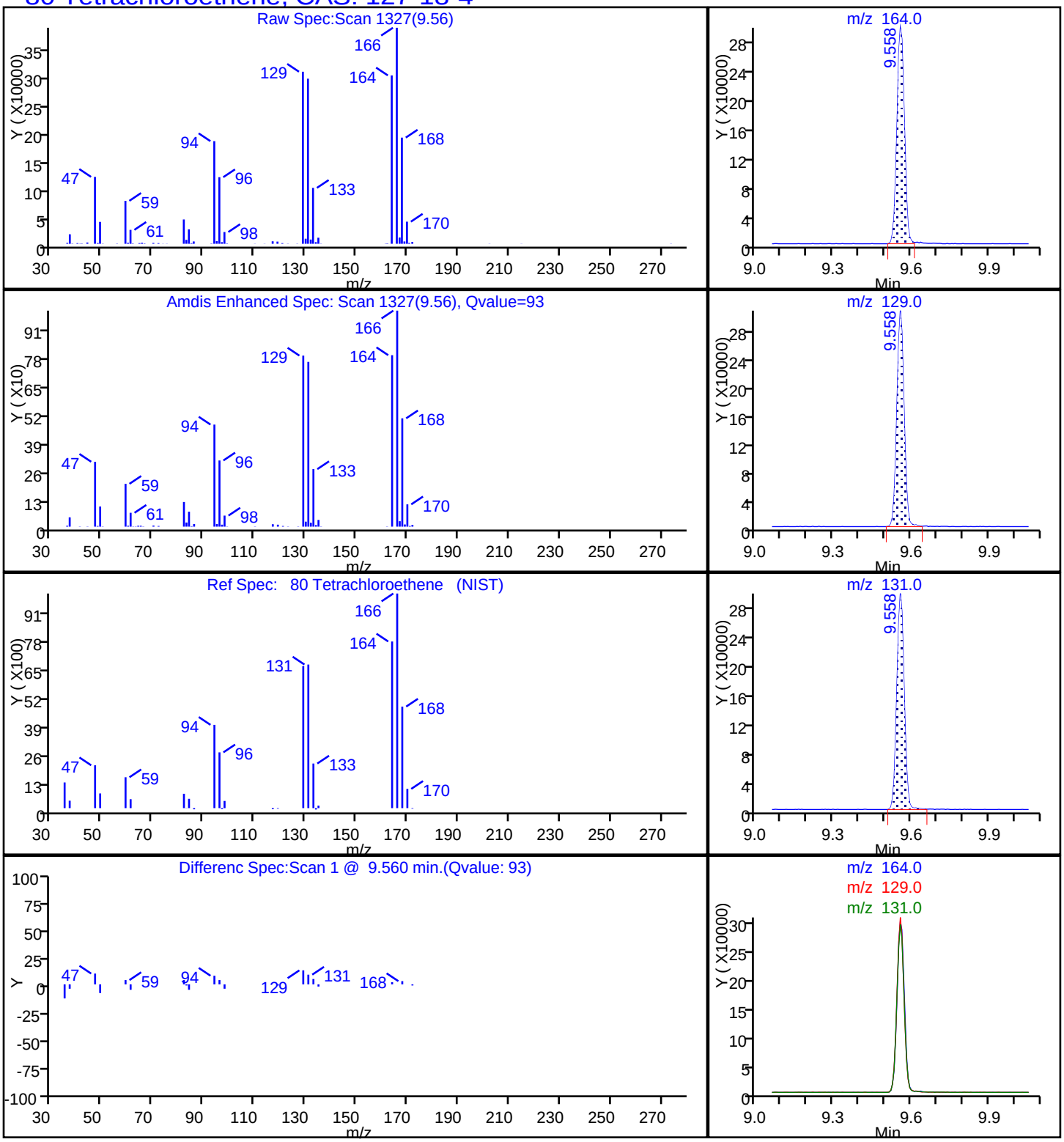


Report Date: 10-Nov-2017 08:09:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D25.D				
Injection Date:	09-Nov-2017 21:29:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-C-16	Lab Sample ID:	180-71952-16		
Client ID:	HD-MW-184D-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-184D-0/1-0 DL | Lab Sample ID: 180-71952-16 DL

Matrix: Water | Lab File ID: 51110D21.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 16:40

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.5	U ^c	2.5	2.2
75-01-4	Vinyl chloride	2.5	U	2.5	2.2
74-83-9	Bromomethane	2.5	U ^c	2.5	2.2
75-00-3	Chloroethane	2.5	U ^c	2.5	2.2
75-35-4	1,1-Dichloroethene	2.5	U	2.5	1.4
67-64-1	Acetone	13	U	13	8.6
75-15-0	Carbon disulfide	2.5	U ^c	2.5	2.2
75-09-2	Methylene Chloride	2.5	U	2.5	0.90
156-60-5	trans-1,2-Dichloroethene	2.5	U	2.5	1.7
1634-04-4	Methyl tert-butyl ether	2.5	U	2.5	1.5
75-34-3	1,1-Dichloroethane	2.5	U	2.5	1.6
156-59-2	cis-1,2-Dichloroethene	2.5	U	2.5	1.8
74-97-5	Bromochloromethane	2.5	U	2.5	1.6
78-93-3	2-Butanone (MEK)	13	U	13	6.5
67-66-3	Chloroform	2.5	U	2.5	1.5
71-55-6	1,1,1-Trichloroethane	2.5	U	2.5	1.5
56-23-5	Carbon tetrachloride	2.5	U	2.5	2.2
71-43-2	Benzene	2.5	U	2.5	1.5
107-06-2	1,2-Dichloroethane	2.5	U	2.5	1.4
79-01-6	Trichloroethene	1.8	J	2.5	1.7
78-87-5	1,2-Dichloropropane	2.5	U	2.5	1.6
75-27-4	Bromodichloromethane	2.5	U	2.5	1.6
10061-01-5	cis-1,3-Dichloropropene	2.5	U	2.5	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	13	7.7
108-88-3	Toluene	2.5	U	2.5	1.1
10061-02-6	trans-1,3-Dichloropropene	2.5	U	2.5	1.5
79-00-5	1,1,2-Trichloroethane	2.5	U	2.5	1.1
127-18-4	Tetrachloroethene	57		2.5	1.2
591-78-6	2-Hexanone	13	U	13	8.2
124-48-1	Dibromochloromethane	2.5	U	2.5	2.1
106-93-4	1,2-Dibromoethane (EDB)	2.5	U	2.5	1.3
108-90-7	Chlorobenzene	2.5	U	2.5	1.3
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	2.5	1.4
100-41-4	Ethylbenzene	2.5	U	2.5	1.3
1330-20-7	Xylenes, Total	5.0	U	5.0	2.2
100-42-5	Styrene	2.5	U	2.5	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MW-184D-0/1-0 DL | Lab Sample ID: 180-71952-16 DL

Matrix: Water | Lab File ID: 51110D21.D

Analysis Method: 8260C | Date Collected: 10/31/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 16:40

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*2.5*	*U*	*2.5*	*2.4*
79-34-5	*1,1,2,2-Tetrachloroethane*	*2.5*	*U*	*2.5*	*1.5*
107-13-1	*Acrylonitrile*	*50*	*U*	*50*	*20*
123-91-1	*1,4-Dioxane*	*500*	*U*	*500*	*34*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	79		73-120
460-00-4	4-Bromofluorobenzene (Surr)	86		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D21.D
Lims ID: 180-71952-B-16
Client ID: HD-MW-184D-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 16:40:30 ALS Bottle#: 5 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 2.5000
Sample Info: 180-0019249-021
Misc. Info.: 180-71952-B-16 ,2.5x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 17:26:00 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 17:26:52

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.358	4.365	-0.007	0	218415	1000.0	
*	2 Fluorobenzene (IS)	96	7.338	7.339	-0.001	98	489317	50.0	
*	3 Chlorobenzene-d5	119	10.427	10.428	-0.001	87	118906	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.768	12.769	-0.001	96	160499	50.0	
$	5 Dibromofluoromethane (Surr	113	6.620	6.615	0.005	93	119636	50.8	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.986	-0.001	0	145625	50.7	
$	7 Toluene-d8 (Surr)	98	8.980	8.981	-0.001	94	374266	39.5	
$	8 4-Bromofluorobenzene (Surr	95	11.613	11.608	0.005	83	147135	43.0	
	12 Chloromethane	50		1.896				ND	
	13 Vinyl chloride	62		2.017				ND	
	15 Bromomethane	94		2.376				ND	
	16 Chloroethane	64		2.461				ND	
	22 1,1-Dichloroethene	96		3.422				ND	
	24 Acetone	43	3.561	3.526	0.035	70	4217	3.30	
	26 Carbon disulfide	76		3.714				ND	
	31 Methylene Chloride	84		4.237				ND	
	33 Acrylonitrile	53		4.608				ND	
	34 trans-1,2-Dichloroethene	96		4.651				ND	
	35 Methyl tert-butyl ether	73		4.657				ND	
	37 1,1-Dichloroethane	63		5.271				ND	
	45 cis-1,2-Dichloroethene	96		6.013				ND	
	46 2-Butanone (MEK)	43		6.025				ND	
	49 Chlorobromomethane	128		6.287				ND	
	52 Chloroform	83	6.432	6.439	-0.007	94	7551	1.59	
	53 1,1,1-Trichloroethane	97		6.591				ND	
	56 Carbon tetrachloride	117		6.767				ND	
	58 Benzene	78		6.998				ND	
	59 1,2-Dichloroethane	62		7.071				ND	
	64 Trichloroethene	130	7.727	7.728	-0.001	92	10811	3.61	
	67 1,2-Dichloropropane	63		7.995				ND	
	70 1,4-Dioxane	88		8.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.297				ND	
79 1,1,2-Trichloroethane	97		9.485				ND	
80 Tetrachloroethene	164	9.557	9.558	-0.001	93	257556	113.9	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.972				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.550				ND	
90 Ethylbenzene	106		10.556				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.073				ND	
93 Styrene	104		11.091				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.748				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

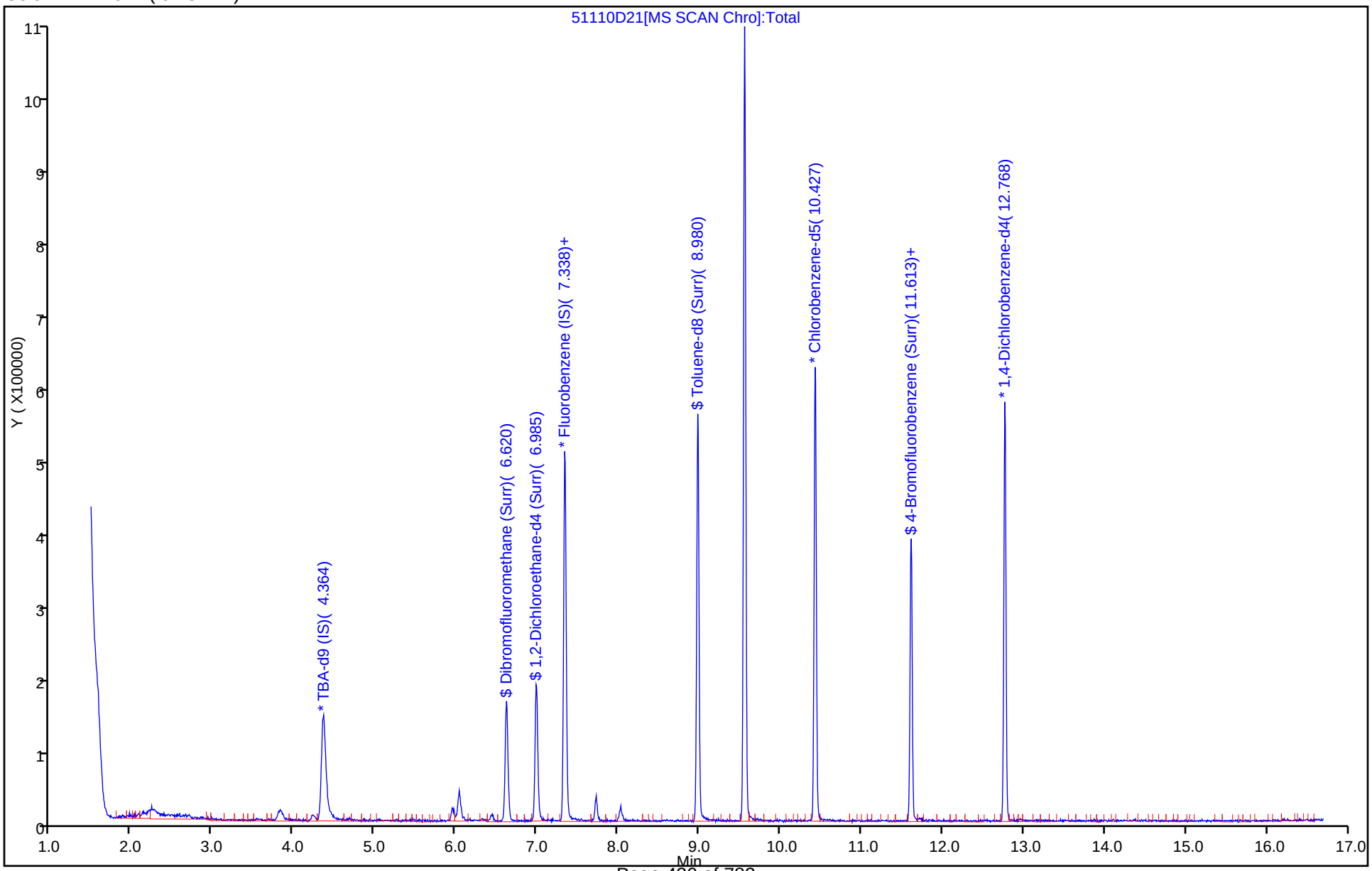
Report Date: 10-Nov-2017 17:27:20 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D21.D

Injection Date:	10-Nov-2017 16:40:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-B-16	Lab Sample ID:	180-71952-16	Worklist Smp#:	21
Client ID:	HD-MW-184D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.5000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D21.D
Lims ID: 180-71952-B-16
Client ID: HD-MW-184D-0/1-0
Sample Type: Client
Inject. Date: 10-Nov-2017 16:40:30 ALS Bottle#: 5 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 2.5000
Sample Info: 180-0019249-021
Misc. Info.: 180-71952-B-16 ,2.5x
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Nov-2017 17:26:00 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: journetp Date: 10-Nov-2017 17:26:52

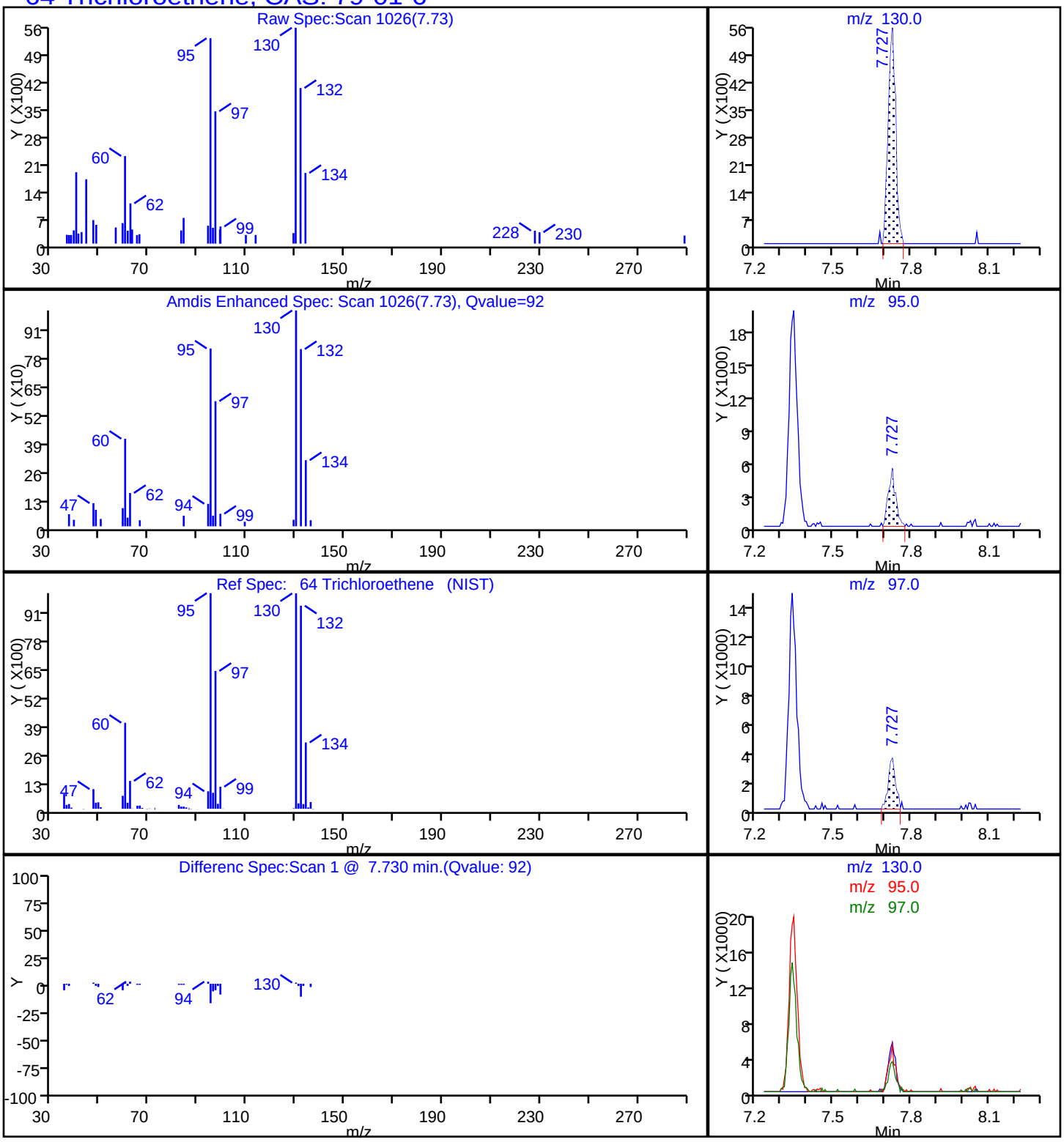
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	50.8	101.63
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.7	101.43
$ 7 Toluene-d8 (Surr)	50.0	39.5	79.10
$ 8 4-Bromofluorobenzene (Surr)	50.0	43.0	86.10

Report Date: 10-Nov-2017 17:27:20 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D21.D				
Injection Date:	10-Nov-2017 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-16	Lab Sample ID:	180-71952-16		
Client ID:	HD-MW-184D-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



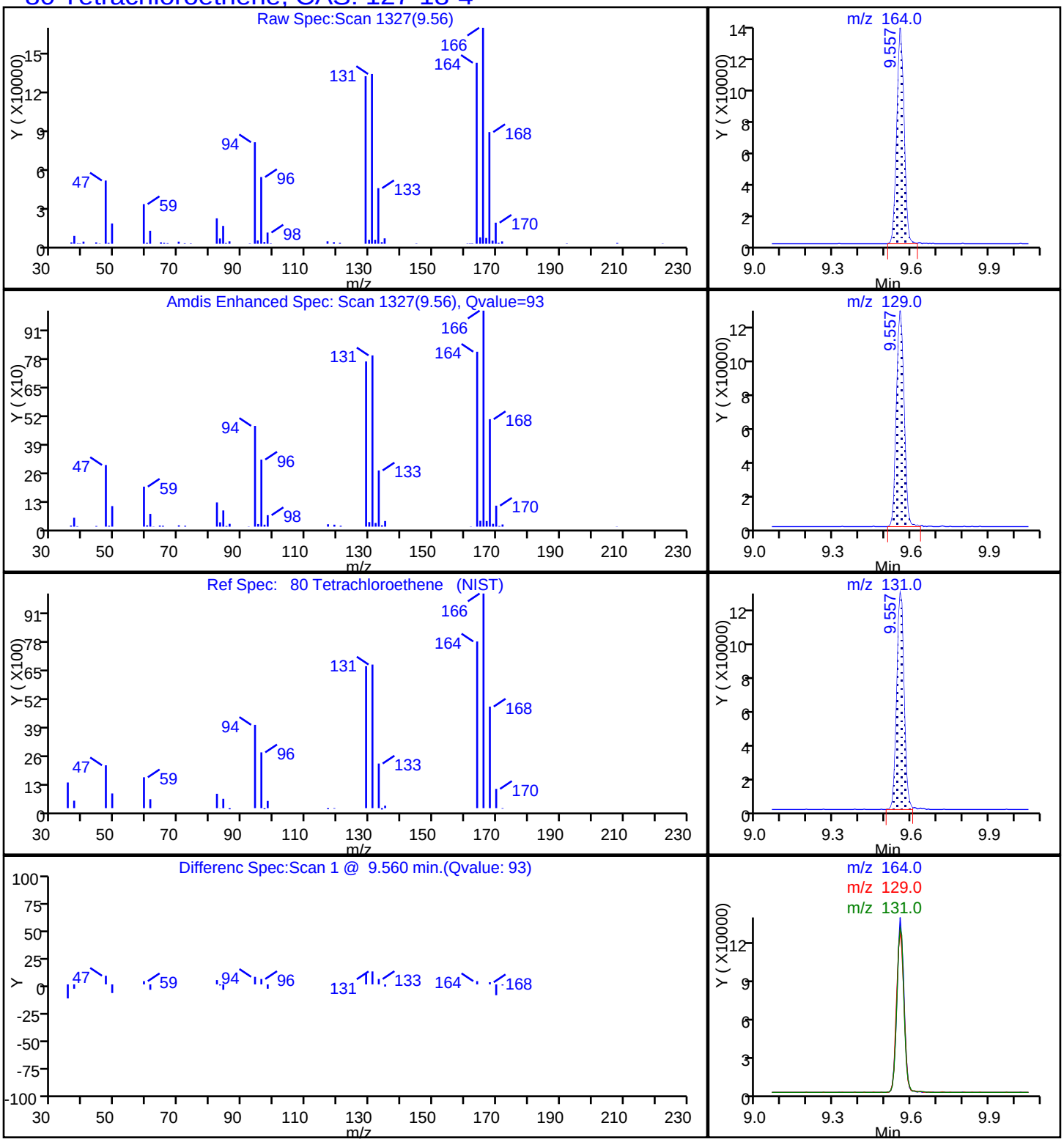
Report Date: 10-Nov-2017 17:27:20 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D21.D

Injection Date:	10-Nov-2017 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-B-16	Lab Sample ID:	180-71952-16		
Client ID:	HD-MW-184D-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.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	0.3199 0.2630	0.2998 0.2481	0.2623 0.2360	0.2668	0.2713	Ave		0.2709			0.1000	10.0		20.0			
Chloromethane	0.5339 0.4231	0.4749 0.3901	0.4294 0.4063	0.4064	0.3994	Ave		0.4329			0.1000	11.2		20.0			
Vinyl chloride	0.3765 0.3484	0.3684 0.3223	0.3458 0.3349	0.3335	0.3366	Ave		0.3458			0.1000	5.3		20.0			
1,3-Butadiene	1.1481 0.2943	0.4022 0.2571	0.3212 0.2848	0.3203	0.3123	Lin2	4.4543	0.2516			0.0100				0.9940		0.9900
Bromomethane	0.3406 0.1762	0.2260 0.1546	0.2007 +++++	0.1888	0.1946	Lin2	0.8402	0.1764			0.0500				0.9930		0.9900
Chloroethane	0.3550 0.1960	0.2458 0.1882	0.2070 0.1750	0.2006	0.1880	Lin2	0.8604	0.1874			0.0500				0.9950		0.9900
Trichlorofluoromethane	0.3439 0.3722	0.3730 0.3434	0.3694 0.3079	0.2877	0.3301	Ave		0.3410			0.1000	9.2		20.0			
Ethyl ether	0.3423 0.3452	0.3621 0.3312	0.3148 +++++	0.3184	0.2816	Ave		0.3279			0.0100	8.0		20.0			
Acrolein	0.0829 0.1252	0.1083 0.1156	0.0948 +++++	0.1045	0.1002	Ave		0.1045			0.0100	13.2		20.0			
1,1-Dichloroethene	0.3303 0.3241	0.3161 0.3180	0.2633 0.2587	0.2644	0.2656	Ave		0.2926			0.1000	10.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2013 0.2811	0.2506 0.2531	0.1991 0.2259	0.2482	0.2756	Ave		0.2418			0.1000	12.7		20.0			
Acetone	0.1502 0.2014	0.2734 0.1791	0.2794 0.1664	0.2182	0.2327	Qua	-0.832	0.2768	-0.000222		0.0500				0.9940		0.9900
Iodomethane	0.4235 0.4696	0.4264 0.4504	0.4431 0.4074	0.4064	0.4394	Ave		0.4333			0.0100	5.0		20.0			
Carbon disulfide	0.8149 0.8297	0.9161 0.8014	0.8217 0.7057	0.7875	0.7932	Ave		0.8088			0.1000	7.2		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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	0.2674 0.2459	0.2482 0.2521	0.2335 0.2294	0.2363	0.2311	Ave		0.2430			0.0100	5.3		20.0			
Methyl acetate	0.3574 0.3967	0.3868 0.4084	0.3831 0.3758	0.3517	0.3810	Ave		0.3801			0.1000	4.9		20.0			
Methylene Chloride	0.4086 0.3645	0.3541 0.3302	0.3495 0.3370	0.3082	0.3412	Ave		0.3492			0.1000	8.4		20.0			
tert-Butyl alcohol	1.2627 1.1711	1.2607 1.0667	1.2602 1.4216	1.1226	1.4152	Ave		1.2476			0.0100	10.2		20.0			
Acrylonitrile	0.1650 0.1859	0.1818 0.1700	0.1809 0.1747	0.1672	0.1781	Ave		0.1755			0.0100	4.3		20.0			
trans-1,2-Dichloroethene	0.4184 0.3463	0.3732 0.3084	0.3407 0.3166	0.3201	0.3338	Ave		0.3447			0.1000	10.5		20.0			
Methyl tert-butyl ether	1.0210 1.0868	1.1000 0.9915	1.0279 1.0229	0.9741	1.0517	Ave		1.0345			0.1000	4.2		20.0			
Hexane	0.7850 0.6099	0.6373 0.5236	0.5869 0.5421	0.5725	0.5884	Ave		0.6057			0.0100	13.3		20.0			
1,1-Dichloroethane	0.7190 0.6721	0.6657 0.6612	0.6329 0.6194	0.6025	0.6387	Ave		0.6514			0.2000	5.6		20.0			
Vinyl acetate	1.1098 0.9976	0.9568 0.9558	0.9133 0.9096	0.8775	0.8833	Ave		0.9505			0.0100	8.0		20.0			
2,2-Dichloropropane	0.0831 0.0896	0.1033 0.0829	0.0939 0.0757	0.0843	0.0850	Ave		0.0872			0.0100	9.6		20.0			
cis-1,2-Dichloroethene	0.4111 0.4015	0.3956 0.3809	0.3781 0.3751	0.3527	0.3749	Ave		0.3837			0.1000	4.8		20.0			
2-Butanone (MEK)	0.3335 0.3082	0.3892 0.2838	0.3832 0.2898	0.3056	0.3128	Ave		0.3258			0.0500	12.3		20.0			
Chlorobromomethane	0.1984 0.1762	0.1752 0.1694	0.1575 0.1641	0.1560	0.1579	Ave		0.1693			0.0100	8.3		20.0			
Tetrahydrofuran	0.2575 0.1715	0.1851 0.1646	0.1720 0.1593	0.1491	0.1639	Lin2	0.9851	0.1595			0.0100				0.9970		0.9900
Chloroform	0.7032 0.5810	0.5892 0.5622	0.5593 0.5467	0.5219	0.5584	Ave		0.5777			0.2000	9.5		20.0			
1,1,1-Trichloroethane	0.5697 0.4711	0.5215 0.4342	0.4617 0.4180	0.4264	0.4434	Ave		0.4683			0.1000	11.2		20.0			
Cyclohexane	0.7676 0.7103	0.6962 0.6793	0.7164 0.6507	0.6544	0.7027	Ave		0.6972			0.1000	5.4		20.0			
Carbon tetrachloride	0.5294 0.4090	0.4138 0.3904	0.4041 0.3690	0.3791	0.3979	Ave		0.4116			0.1000	12.1		20.0			
1,1-Dichloropropene	0.5825 0.4986	0.5252 0.4741	0.4777 0.4463	0.4533	0.4801	Ave		0.4922			0.0100	9.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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								
Isobutyl alcohol	0.0171 0.0183	0.0174 0.0171	0.0189 0.0165	0.0158	0.0175	Ave		0.0173			0.0100	5.6		20.0			
Benzene	1.6631 1.4390	1.5231 1.3858	1.4309 1.3143	1.3399	1.4060	Ave		1.4378			0.5000	7.7		20.0			
1,2-Dichloroethane	0.5247 0.4906	0.4855 0.4806	0.4505 0.4623	0.4307	0.4602	Ave		0.4731			0.1000	6.1		20.0			
n-Heptane	0.7069 0.5509	0.6041 0.5078	0.5263 0.4811	0.5165	0.5237	Ave		0.5522			0.0100	13.1		20.0			
Trichloroethene	0.3778 0.3653	0.3716 0.3449	0.3469 0.3351	0.3246	0.3495	Ave		0.3520			0.2000	5.2		20.0			
Methylcyclohexane	0.7275 0.6000	0.6392 0.5613	0.5846 0.5347	0.5626	0.5798	Ave		0.5987			0.1000	10.1		20.0			
1,2-Dichloropropane	0.4765 0.4004	0.4023 0.3975	0.3837 0.3837	0.3651	0.3888	Ave		0.3997			0.1000	8.3		20.0			
Dibromomethane	0.2531 0.2068	0.2082 0.2043	0.1974 0.1991	0.1836	0.1978	Ave		0.2063			0.0100	9.9		20.0			
1,4-Dioxane	0.0031 0.0040	0.0035 0.0040	0.0042 0.0038	0.0033	0.0039	Ave		0.0037		*	0.0100	10.4		20.0			
Dichlorobromomethane	0.4955 0.4516	0.4551 0.4423	0.4196 0.4177	0.4023	0.4154	Ave		0.4374			0.2000	6.9		20.0			
2-Chloroethyl vinyl ether	0.2660 0.2815	0.2789 0.2738	0.2757 0.2564	0.2501	0.2686	Ave		0.2689			0.0100	4.1		20.0			
cis-1,3-Dichloropropene	0.6488 0.6086	0.5805 0.5908	0.5708 0.5642	0.5405	0.5731	Ave		0.5847			0.2000	5.6		20.0			
4-Methyl-2-pentanone (MIBK)	2.4558 2.1071	2.4778 1.9046	2.4271 1.8398	2.1286	2.0777	Ave		2.1773			0.1000	11.5		20.0			
Toluene	7.3026 5.5445	6.5909 4.9431	6.1686 4.7522	5.6784	5.6514	Ave		5.8290			0.4000	14.4		20.0			
trans-1,3-Dichloropropene	2.3305 1.9502	2.0996 1.7965	2.0604 1.7476	1.8833	1.9320	Ave		1.9750			0.1000	9.4		20.0			
Ethyl methacrylate	2.4071 2.0664	2.2720 1.8833	2.2251 1.8377	2.0383	2.0575	Ave		2.0984			0.0100	9.2		20.0			
1,1,2-Trichloroethane	1.4077 1.1566	1.2736 1.0555	1.2268 1.0313	1.1158	1.1529	Ave		1.1775			0.1000	10.4		20.0			
Tetrachloroethene	1.2740 1.0928	1.2174 0.9795	1.1964 0.9543	1.1115	1.0919	Ave		1.1147			0.2000	10.0		20.0			
1,3-Dichloropropane	2.3403 2.0434	2.1972 1.8935	2.1730 1.8781	1.9972	2.0815	Ave		2.0755			0.0100	7.6		20.0			
2-Hexanone	1.7578 1.6139	2.0527 1.4084	2.1198 1.4320	1.7503	1.6920	Ave		1.7284			0.1000	14.9		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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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								
Chlorodibromomethane	1.3730 1.1411	1.1788 1.0456	1.1624 1.0356	1.0909	1.1040	Ave		1.1414			0.1000	9.4		20.0			
1,2-Dibromoethane	1.4318 1.1267	1.2552 1.0486	1.2115 1.0395	1.0825	1.1373	Ave		1.1666			0.1000	11.2		20.0			
3-Chlorobenzotrifluoride	2.2850 2.0264	1.9284 1.8654	2.0680 1.7526	1.9964	2.0315	Ave		1.9942			0.0100	7.9		20.0			
Chlorobenzene	4.5344 3.5864	4.0390 3.2619	3.9030 3.1817	3.5698	3.5746	Ave		3.7064			0.5000	11.9		20.0			
4-Chlorobenzotrifluoride	2.1870 1.9268	1.8567 1.7683	2.0112 1.6689	1.8983	1.9288	Ave		1.9058			0.0100	8.1		20.0			
1,1,1,2-Tetrachloroethane	1.4530 1.2426	1.3644 1.1374	1.2928 1.1227	1.2293	1.2374	Ave		1.2600			0.0100	8.7		20.0			
Ethylbenzene	2.4460 1.9988	2.2844 1.7778	2.1402 1.7581	1.9780	1.9756	Ave		2.0449			0.1000	11.6		20.0			
m-Xylene & p-Xylene	2.8416 2.4689	2.7882 2.2350	2.6228 2.2152	2.4302	2.4516	Ave		2.5067			0.1000	9.2		20.0			
o-Xylene	2.9758 2.3892	2.7268 2.1471	2.6092 2.1248	2.3740	2.3806	Ave		2.4659			0.3000	11.8		20.0			
Styrene	5.1502 4.0537	4.5968 3.6854	4.4042 3.6046	4.0041	4.0665	Ave		4.1957			0.3000	12.1		20.0			
Bromoform	0.9137 0.8120	0.8794 0.7544	0.8496 0.7358	0.7575	0.7859	Ave		0.8110			0.1000	7.9		20.0			
2-Chlorobenzotrifluoride	2.2731 2.0122	2.0142 1.8184	2.1312 1.7634	1.9507	2.0083	Ave		1.9964			0.0100	8.1		20.0			
Isopropylbenzene	7.5309 5.7370	6.7921 5.1136	6.4126 4.9650	5.9295	5.9119	Ave		6.0491			0.1000	14.1		20.0			
1,1,2,2-Tetrachloroethane	1.7904 1.5508	1.7612 1.4525	1.7754 1.4079	1.4840	1.6093	Ave		1.6039			0.3000	9.6		20.0			
Bromobenzene	1.1871 1.0370	1.0774 1.0268	1.0602 0.9720	0.9857	1.0297	Ave		1.0470			0.0100	6.3		20.0			
trans-1,4-Dichloro-2-butene	0.4791 0.4218	0.4184 0.4140	0.3948 0.3865	0.3919	0.4105	Ave		0.4146			0.0100	7.0		20.0			
1,2,3-Trichloropropane	0.4961 0.3592	0.3625 0.3546	0.3613 0.3402	0.3503	0.3634	Lin2	0.7406	0.3459			0.0100				0.9990		0.9900
N-Propylbenzene	1.4987 1.1938	1.2959 1.1525	1.2109 1.1012	1.1592	1.1887	Ave		1.2251			0.0100	10.1		20.0			
2-Chlorotoluene	1.2394 1.0187	1.1046 0.9971	1.0145 0.9347	0.9686	0.9937	Ave		1.0339			0.0100	9.3		20.0			
3-Chlorotoluene	1.3182 1.1030	1.0961 1.0915	1.1052 1.0134	1.0455	1.1344	Ave		1.1134			0.0100	8.2		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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	4.3224 3.3609	3.8549 3.2632	3.5089 3.0428	3.3101	3.4291	Ave		3.5116			0.0100	11.4		20.0			
4-Chlorotoluene	1.2392 1.0946	1.1154 1.0496	1.0789 0.9974	1.0063	1.0297	Ave		1.0764			0.0100	7.2		20.0			
tert-Butylbenzene	3.9099 2.9167	3.2971 2.7996	3.0049 2.6126	2.8637	2.9496	Ave		3.0443			0.0100	13.1		20.0			
1,2,4-Trimethylbenzene	4.1588 3.4251	3.8782 3.3156	3.5916 3.1572	3.4230	3.5131	Ave		3.5578			0.0100	9.0		20.0			
3,4-Dichlorobenzotrifluoride	1.2210 1.0725	1.0292 1.0646	1.0277 0.9722	1.0422	1.0931	Ave		1.0653			0.0100	6.8		20.0			
sec-Butylbenzene	5.1843 3.9631	4.5180 3.7590	4.1605 3.5239	3.9708	4.0398	Ave		4.1399			0.0100	12.3		20.0			
1,3-Dichlorobenzene	2.2219 1.9195	2.0321 1.8789	1.9198 1.7872	1.8388	1.9058	Ave		1.9380			0.6000	7.0		20.0			
4-Isopropyltoluene	4.3477 3.4245	3.9082 3.2755	3.5910 3.0606	3.3943	3.5123	Ave		3.5643			0.0100	11.2		20.0			
1,4-Dichlorobenzene	2.4647 1.9410	2.0770 1.9276	1.9341 1.8210	1.8496	1.9407	Ave		1.9945			0.5000	10.3		20.0			
2,4-Dichlorobenzotrifluoride	1.1709 1.0021	0.9745 1.0124	0.9646 0.9384	0.9242	0.9808	Ave		0.9960			0.0100	7.7		20.0			
2,5-Dichlorobenzotrifluoride	1.1908 1.1134	1.0529 1.1140	1.1150 1.0288	1.1002	1.1669	Ave		1.1103			0.0100	4.8		20.0			
n-Butylbenzene	3.7433 2.9558	3.3120 2.8136	3.0832 2.6450	2.8947	2.9889	Ave		3.0546			0.0100	11.1		20.0			
1,2-Dichlorobenzene	2.1091 1.7777	1.8880 1.7602	1.8346 1.6965	1.6810	1.8187	Ave		1.8207			0.4000	7.4		20.0			
1,2-Dibromo-3-Chloropropane	0.4443 0.2406	0.2896 0.2431	0.2508 0.2272	0.2204	0.2445	Lin2	1.0832	0.2297			0.0500				0.9970		0.9900
2,4- & 2,5- & 2,6- Dichlorotoluene	1.5315 1.2852	1.3266 1.2695	1.3666 1.2213	1.2547	1.3495	Ave		1.3256			0.0100	7.3		20.0			
2,3- & 3,4- Dichlorotoluene	1.6014 1.3728	1.4000 1.3470	1.4444 1.3238	1.2829	1.4149	Ave		1.3984			0.0100	6.9		20.0			
1,2,4-Trichlorobenzene	1.1876 1.0187	1.0450 1.0129	1.0547 1.0276	0.9306	1.0052	Ave		1.0353			0.2000	7.0		20.0			
Hexachlorobutadiene	0.5652 0.4450	0.4858 0.4183	0.4605 0.4239	0.4191	0.4429	Ave		0.4576			0.0100	10.7		20.0			
Naphthalene	3.5330 3.1945	3.3450 3.1455	3.5436 3.1415	2.9913	3.2803	Ave		3.2718			0.0100	5.9		20.0			
1,2,3-Trichlorobenzene	1.0464 0.9499	0.9770 0.9420	1.0045 0.9807	0.8498	0.9396	Ave		0.9612			0.0100	6.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	0.6574 0.5725	0.5797 0.5705	0.6475 0.5934	0.5310	0.6050	Ave		0.5946			0.0100	7.0		20.0			
2,3,6-Trichlorotoluene	0.6386 0.5150	0.5565 0.5187	0.5746 0.5306	0.4758	0.5243	Ave		0.5418			0.0100	9.0		20.0			
Dibromofluoromethane (Surr)	0.2634 0.2710	0.2611 0.2606	0.2576 0.2538	0.2314	0.2465	Ave		0.2557				4.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4074 0.3671	0.3594 0.3508	0.3527 0.3374	0.3161	0.3288	Ave		0.3525				7.9		20.0			
Toluene-d8 (Surr)	4.6005 3.9268	4.3324 3.5047	4.4344 3.4690	3.9285	3.8139	Ave		4.0013				10.5		20.0			
4-Bromofluorobenzene (Surr)	1.6759 1.6165	1.7074 1.4632	1.7129 1.4631	1.5340	1.5309	Ave		1.5880				6.5		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
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.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	11360 288265	48819 320286	90064 383674	146171	190995	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	18956 463847	77319 503528	147443 660580	222659	281148	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	13367 381880	59985 416057	118745 544552	182711	236967	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Lin2	40764 322594	65480 331808	110274 463060	175484	219867	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	12095 193127	36804 199546	68918 +++++	103436	137007	5.00 175	25.0 200	50.0 +++++	75.0	100
Chloroethane	FB	Lin2	12605 214850	40020 242959	71071 284483	109878	132369	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	12211 407996	60735 443285	126846 500610	157636	232367	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	12154 378438	58960 427535	108085 +++++	174419	198208	5.00 175	25.0 200	50.0 +++++	75.0	100
Acrolein	FB	Ave	58864 176433	88139 186572	97603 +++++	133597	141135	100 225	125 250	150 +++++	175	200
1,1-Dichloroethene	FB	Ave	11729 355274	51467 410531	90421 420571	144859	186952	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7147 308123	40795 326722	68361 367239	135965	194019	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Qua	26673 441614	89042 462297	191862 540944	239078	327588	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	15037 514836	69421 581438	152131 662319	222629	309287	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	28932 909550	149164 1034498	282135 1147403	431464	558362	5.00 175	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	9494 269538	40410 325365	80183 373044	129444	162702	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	25380 869695	125959 1054265	263099 1222074	385350	536456	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Ave	14508 399535	57651 426256	120006 547979	168850	240190	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd9	Ave	10951 504751	59104 469244	167444 800812	223746	279075	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	58589 2037753	296073 2193876	621223 2839818	916220	1254097	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	14857 379604	60758 398038	116991 514686	175351	235005	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	36251 1191395	179109 1279855	352917 1662995	533673	740346	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	27872 668602	103760 675938	201514 881434	313674	414201	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	25529 736757	108391 853476	217303 1006985	330111	449645	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	39405 1093622	155793 1233778	313586 1478910	480729	621774	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	2952 98205	16827 106967	32248 123055	46205	59858	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	14596 440120	64409 491702	129830 609918	193227	263920	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	59203 675747	126726 732742	263149 942332	334832	440384	25.0 350	50.0 400	100 500	150	200
Chlorobromomethane	FB	Ave	7043 193171	28527 218627	54076 266776	85492	111165	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Lin2	18282 375950	60280 424882	118128 517849	163375	230737	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	24968 636895	95932 725704	192042 888887	285922	393090	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20227 516491	84914 560443	158536 679603	233627	312138	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	27256 778625	113357 876870	245975 1057958	358503	494683	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	18796 448401	67382 503927	138765 600003	207671	280114	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	20683 546560	85510 612031	164019 725621	248344	338006	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	15152 500943	71001 553306	162229 670610	215962	308653	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	59050 1577529	247989 1788795	491290 2136842	734073	989799	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	18629 537767	79055 620368	154690 751563	235973	323970	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	25099 603889	98365 655443	180722 782163	282966	368639	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	13413 400484	60499 445239	119100 544845	177850	246005	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25831 657704	104066 724486	200723 869390	308209	408182	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16918 438885	65502 513159	131736 623779	200014	273710	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	8987 226707	33894 263730	67786 323707	100567	139250	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2229 88641	11481 104236	28838 125075	35832	54731	100 3500	500 4000	1000 5000	1500	2000
Dichlorobromomethane	FB	Ave	17592 495018	74099 570917	144075 679054	220386	292391	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18887 617167	90813 706913	189337 833749	274054	378146	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	23035 667160	94517 762600	195974 917359	296141	403451	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	108520 1277910	201052 1449023	408149 1715061	585317	771359	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	64538 1681283	267398 1880344	518665 2215068	780737	1049056	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	20596 591362	85181 683392	173242 814568	258935	358629	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	21273 626604	92176 716406	187087 856567	280255	381934	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	12441 350713	51670 401520	103149 480707	153411	214004	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	11259 331372	49391 372604	100597 444805	152819	202692	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	20683 619625	89143 720290	182710 875399	274592	386392	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	77674 978798	166556 1071544	356470 1334896	481301	628179	25.0 350	50.0 400	100 500	150	200
Chlorodibromomethane	CBNZ d5	Ave	12134 346026	47826 397752	97738 482702	149990	204939	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane	CBNZ d5	Ave	12654 341661	50923 398884	101860 484529	148835	211108	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	20194 614470	78236 709603	173880 816927	274484	377102	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	40074 1087528	163865 1240825	328169 1483014	490822	663544	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	19328 584269	75328 672658	169101 777912	260997	358041	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12841 376787	55355 432680	108701 523309	169025	229696	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	21617 606102	92680 676281	179947 819458	271964	366730	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25113 748663	113117 850193	220525 1032506	334134	455089	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	26299 724488	110628 816773	219383 990376	326410	441909	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	45516 1229204	186493 1401938	370310 1680161	550534	754852	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	8075 246235	35678 286980	71432 342951	104149	145882	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	20089 610154	81717 691733	179192 821958	268204	372804	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	66556 1739655	275560 1945195	539180 2314258	815253	1097412	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	15823 470241	71451 552518	149279 656224	204042	298732	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	14390 437254	62935 504414	132180 616854	192570	266448	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	5807 177867	24438 203354	49225 245313	76568	106219	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Lin2	6014 151444	21177 174213	45049 215879	68430	94031	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	18166 503370	75699 566124	150964 698892	226484	307590	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	15023 429562	64522 489826	126477 593228	189243	257123	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	15979 465106	64028 536156	137789 643177	204267	293533	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	52394 1417182	225181 1602983	437477 1931146	646696	887312	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	15021 461546	65156 515598	134516 633000	196596	266448	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	47394 1229844	192596 1375238	374641 1658088	559488	763225	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50411 1444257	226542 1628727	447784 2003753	668751	909030	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	14800 452248	60123 522959	128125 617023	203613	282839	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	62841 1671080	263915 1846550	518713 2236454	775789	1045329	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	26933 809393	118704 922963	239355 1134229	359242	493151	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	52701 1443989	228298 1609019	447713 1942455	663144	908837	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	29876 818434	121326 946901	241133 1155724	361359	502172	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	14193 422533	56924 497310	120263 595571	180562	253790	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	14434 469476	61504 547248	139012 652964	214948	301944	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	45375 1246354	193470 1382118	384393 1678668	565547	773393	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	25566 749586	110285 864638	228728 1076711	328411	470610	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin2	5385 101450	16918 119400	31264 144187	43060	63264	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	55694 1625773	232473 1870903	511161 2325266	735393	1047544	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	38823 1157680	163558 1323377	360161 1680279	501273	732216	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	14395 429547	61041 497586	131499 652178	181806	260096	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	6851 187630	28379 205503	57408 269040	81879	114595	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	42825 1347013	195394 1545157	441802 1993798	584418	848811	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	12684 400531	57072 462732	125237 622398	166025	243122	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	7969 241394	33861 280260	80722 376576	103751	156547	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	7741 217169	32510 254778	71633 336770	92963	135667	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9352 297108	42506 336435	88453 412655	126785	173538	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	14465 402465	58513 452860	121114 548631	173185	231495	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	40658 1190748	175766 1333199	372845 1616941	540141	707972	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	14811 490170	69269 556606	144024 681987	210916	284175	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.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	18.1 -8.4	10.7 -12.9	-3.2	-1.5	0.1	-2.9	50 30	30 30	30	30	30	30
Chloromethane	23.3 -9.9	9.7 -6.2	-0.8	-6.1	-7.8	-2.3	50 30	30 30	30	30	30	30
Vinyl chloride	8.9 -6.8	6.5 -3.1	0.0	-3.6	-2.7	0.7	50 30	30 30	30	30	30	30
1,3-Butadiene	2.2 -6.7	-11.0 6.1	-7.7	3.7	6.4	6.9	50 30	30 30	30	30	30	30
Bromomethane	-2.1 -14.7	9.1 +++++	4.3	0.7	5.6	-2.8	50 30	30	30	30	30	30
Chloroethane	-2.4 -1.9	12.8 -8.5	1.3	0.9	-4.2	2.0	50 30	30 30	30	30	30	30
Trichlorofluoromethane	0.9 0.7	9.4 -9.7	8.4	-15.6	-3.2	9.2	50 30	30 30	30	30	30	30
Ethyl ether	4.4 1.0	10.4 +++++	-4.0	-2.9	-14.1	5.3	50 30	30	30	30	30	30
Acrolein	-20.7 10.7	3.6 +++++	-9.3	0.0	-4.1	19.8	50 30	30	30	30	30	30
1,1-Dichloroethene	12.9 8.7	8.0 -11.6	-10.0	-9.6	-9.2	10.8	50 30	30 30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	-16.8 4.7	3.6 -6.6	-17.7	2.6	14.0	16.2	50 30	30 30	30	30	30	30
Acetone	-32.8 -6.7	9.6 4.0	14.4	-9.3	2.3	3.8	50 30	30 30	30	30	30	30
Iodomethane	-2.3 4.0	-1.6 -6.0	2.3	-6.2	1.4	8.4	50 30	30 30	30	30	30	30
Carbon disulfide	0.8 -0.9	13.3 -12.7	1.6	-2.6	-1.9	2.6	50 30	30 30	30	30	30	30
Allyl chloride	10.0 3.7	2.1 -5.6	-3.9	-2.8	-4.9	1.2	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	-6.0 7.4	1.8 -1.1	0.8	-7.5	0.2	4.4	50 30	30 30	30	30	30	30
Methylene Chloride	17.0 -5.4	1.4 -3.5	0.1	-11.7	-2.3	4.4	50 30	30 30	30	30	30	30
tert-Butyl alcohol	1.2 -14.5	1.1 13.9	1.0	-10.0	13.4	-6.1	50 30	30 30	30	30	30	30
Acrylonitrile	-6.0 -3.1	3.6 -0.5	3.1	-4.7	1.5	5.9	50 30	30 30	30	30	30	30
trans-1,2-Dichloroethene	21.4 -10.5	8.3 -8.2	-1.1	-7.1	-3.1	0.5	50 30	30 30	30	30	30	30
Methyl tert-butyl ether	-1.3 -4.2	6.3 -1.1	-0.6	-5.8	1.7	5.1	50 30	30 30	30	30	30	30
Hexane	29.6 -13.5	5.2 -10.5	-3.1	-5.5	-2.9	0.7	50 30	30 30	30	30	30	30
1,1-Dichloroethane	10.4 1.5	2.2 -4.9	-2.8	-7.5	-1.9	3.2	50 30	30 30	30	30	30	30
Vinyl acetate	16.8 0.6	0.7 -4.3	-3.9	-7.7	-7.1	5.0	50 30	30 30	30	30	30	30
2,2-Dichloropropane	-4.7 -5.0	18.5 -13.2	7.7	-3.3	-2.5	2.7	50 30	30 30	30	30	30	30
cis-1,2-Dichloroethene	7.1 -0.7	3.1 -2.2	-1.5	-8.1	-2.3	4.6	50 30	30 30	30	30	30	30
2-Butanone (MEK)	2.4 -12.9	19.5 -11.0	17.6	-6.2	-4.0	-5.4	50 30	30 30	30	30	30	30
Chlorobromomethane	17.1 0.0	3.5 -3.1	-7.0	-7.8	-6.7	4.1	50 30	30 30	30	30	30	30
Tetrahydrofuran	-0.4 1.6	3.7 -1.4	1.7	-10.6	-0.3	5.7	50 30	30 30	30	30	30	30
Chloroform	21.7 -2.7	2.0 -5.4	-3.2	-9.7	-3.3	0.6	50 30	30 30	30	30	30	30
1,1,1-Trichloroethane	21.7 -7.3	11.4 -10.7	-1.4	-8.9	-5.3	0.6	50 30	30 30	30	30	30	30
Cyclohexane	10.1 -2.6	-0.1 -6.7	2.8	-6.1	0.8	1.9	50 30	30 30	30	30	30	30
Carbon tetrachloride	28.6 -5.2	0.5 -10.3	-1.8	-7.9	-3.3	-0.6	50 30	30 30	30	30	30	30
1,1-Dichloropropene	18.3 -3.7	6.7 -9.3	-3.0	-7.9	-2.5	1.3	50 30	30 30	30	30	30	30
Isobutyl alcohol	-1.5 -1.1	0.7 -4.8	9.1	-9.0	1.2	5.5	50 30	30 30	30	30	30	30
Benzene	15.7 -3.6	5.9 -8.6	-0.5	-6.8	-2.2	0.1	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	10.9 1.6	2.6 -2.3	-4.8	-9.0	-2.7	3.7	50 30	30 30	30	30	30	30
n-Heptane	28.0 -8.0	9.4 -12.9	-4.7	-6.5	-5.2	-0.2	50 30	30 30	30	30	30	30
Trichloroethene	7.3 -2.0	5.6 -4.8	-1.4	-7.8	-0.7	3.8	50 30	30 30	30	30	30	30
Methylcyclohexane	21.5 -6.3	6.8 -10.7	-2.4	-6.0	-3.2	0.2	50 30	30 30	30	30	30	30
1,2-Dichloropropane	19.2 -0.5	0.6 -4.0	-4.0	-8.7	-2.7	0.2	50 30	30 30	30	30	30	30
Dibromomethane	22.7 -1.0	0.9 -3.5	-4.3	-11.0	-4.1	0.3	50 30	30 30	30	30	30	30
1,4-Dioxane	-16.2 7.9	-5.8 2.7	12.2	-12.6	3.8	8.0	50 30	30 30	30	30	30	30
Dichlorobromomethane	13.3 1.1	4.0 -4.5	-4.1	-8.0	-5.0	3.2	50 30	30 30	30	30	30	30
2-Chloroethyl vinyl ether	-1.1 1.8	3.7 -4.6	2.5	-7.0	-0.1	4.7	50 30	30 30	30	30	30	30
cis-1,3-Dichloropropene	11.0 1.0	-0.7 -3.5	-2.4	-7.5	-2.0	4.1	50 30	30 30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	12.8 -12.5	13.8 -15.5	11.5	-2.2	-4.6	-3.2	50 30	30 30	30	30	30	30
Toluene	25.3 -15.2	13.1 -18.5	5.8	-2.6	-3.0	-4.9	50 30	30 30	30	30	30	30
trans-1,3-Dichloropropene	18.0 -9.0	6.3 -11.5	4.3	-4.6	-2.2	-1.3	50 30	30 30	30	30	30	30
Ethyl methacrylate	14.7 -10.3	8.3 -12.4	6.0	-2.9	-1.9	-1.5	50 30	30 30	30	30	30	30
1,1,2-Trichloroethane	19.5 -10.4	8.2 -12.4	4.2	-5.2	-2.1	-1.8	50 30	30 30	30	30	30	30
Tetrachloroethene	14.3 -12.1	9.2 -14.4	7.3	-0.3	-2.0	-2.0	50 30	30 30	30	30	30	30
1,3-Dichloropropane	12.8 -8.8	5.9 -9.5	4.7	-3.8	0.3	-1.5	50 30	30 30	30	30	30	30
2-Hexanone	1.7 -18.5	18.8 -17.1	22.6	1.3	-2.1	-6.6	50 30	30 30	30	30	30	30
Chlorodibromomethane	20.3 -8.4	3.3 -9.3	1.8	-4.4	-3.3	0.0	50 30	30 30	30	30	30	30
1,2-Dibromoethane	22.7 -10.1	7.6 -10.9	3.8	-7.2	-2.5	-3.4	50 30	30 30	30	30	30	30
3-Chlorobenzotrifluoride	14.6 -6.5	-3.3 -12.1	3.7	0.1	1.9	1.6	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	22.3 -12.0	9.0 -14.2	5.3	-3.7	-3.6	-3.2	50 30	30 30	30	30	30	30
4-Chlorobenzotrifluoride	14.8 -7.2	-2.6 -12.4	5.5	-0.4	1.2	1.1	50 30	30 30	30	30	30	30
1,1,1,2-Tetrachloroethane	15.3 -9.7	8.3 -10.9	2.6	-2.4	-1.8	-1.4	50 30	30 30	30	30	30	30
Ethylbenzene	19.6 -13.1	11.7 -14.0	4.7	-3.3	-3.4	-2.3	50 30	30 30	30	30	30	30
m-Xylene & p-Xylene	13.4 -10.8	11.2 -11.6	4.6	-3.1	-2.2	-1.5	50 30	30 30	30	30	30	30
o-Xylene	20.7 -12.9	10.6 -13.8	5.8	-3.7	-3.5	-3.1	50 30	30 30	30	30	30	30
Styrene	22.7 -12.2	9.6 -14.1	5.0	-4.6	-3.1	-3.4	50 30	30 30	30	30	30	30
Bromoform	12.7 -7.0	8.4 -9.3	4.8	-6.6	-3.1	0.1	50 30	30 30	30	30	30	30
2-Chlorobenzotrifluoride	13.9 -8.9	0.9 -11.7	6.7	-2.3	0.6	0.8	50 30	30 30	30	30	30	30
Isopropylbenzene	24.5 -15.5	12.3 -17.9	6.0	-2.0	-2.3	-5.2	50 30	30 30	30	30	30	30
1,1,2,2-Tetrachloroethane	11.6 -9.4	9.8 -12.2	10.7	-7.5	0.3	-3.3	50 30	30 30	30	30	30	30
Bromobenzene	13.4 -1.9	2.9 -7.2	1.3	-5.9	-1.6	-1.0	50 30	30 30	30	30	30	30
trans-1,4-Dichloro-2-butene	15.5 -0.2	0.9 -6.8	-4.8	-5.5	-1.0	1.7	50 30	30 30	30	30	30	30
1,2,3-Trichloropropane	0.6 1.5	-3.7 -2.5	0.2	-1.6	2.9	2.6	50 30	30 30	30	30	30	30
N-Propylbenzene	22.3 -5.9	5.8 -10.1	-1.2	-5.4	-3.0	-2.6	50 30	30 30	30	30	30	30
2-Chlorotoluene	19.9 -3.6	6.8 -9.6	-1.9	-6.3	-3.9	-1.5	50 30	30 30	30	30	30	30
3-Chlorotoluene	18.4 -2.0	-1.6 -9.0	-0.7	-6.1	1.9	-0.9	50 30	30 30	30	30	30	30
1,3,5-Trimethylbenzene	23.1 -7.1	9.8 -13.3	-0.1	-5.7	-2.3	-4.3	50 30	30 30	30	30	30	30
4-Chlorotoluene	15.1 -2.5	3.6 -7.3	0.2	-6.5	-4.3	1.7	50 30	30 30	30	30	30	30
tert-Butylbenzene	28.4 -8.0	8.3 -14.2	-1.3	-5.9	-3.1	-4.2	50 30	30 30	30	30	30	30
1,2,4-Trimethylbenzene	16.9 -6.8	9.0 -11.3	0.9	-3.8	-1.3	-3.7	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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	14.6 -0.1	-3.4 -8.7	-3.5	-2.2	2.6	0.7	50 30	30 30	30	30	30	30
sec-Butylbenzene	25.2 -9.2	9.1 -14.9	0.5	-4.1	-2.4	-4.3	50 30	30 30	30	30	30	30
1,3-Dichlorobenzene	14.6 -3.1	4.9 -7.8	-0.9	-5.1	-1.7	-1.0	50 30	30 30	30	30	30	30
4-Isopropyltoluene	22.0 -8.1	9.7 -14.1	0.8	-4.8	-1.5	-3.9	50 30	30 30	30	30	30	30
1,4-Dichlorobenzene	23.6 -3.4	4.1 -8.7	-3.0	-7.3	-2.7	-2.7	50 30	30 30	30	30	30	30
2,4-Dichlorobenzotrifluoride	17.6 1.6	-2.2 -5.8	-3.1	-7.2	-1.5	0.6	50 30	30 30	30	30	30	30
2,5-Dichlorobenzotrifluoride	7.3 0.3	-5.2 -7.3	0.4	-0.9	5.1	0.3	50 30	30 30	30	30	30	30
n-Butylbenzene	22.5 -7.9	8.4 -13.4	0.9	-5.2	-2.2	-3.2	50 30	30 30	30	30	30	30
1,2-Dichlorobenzene	15.8 -3.3	3.7 -6.8	0.8	-7.7	-0.1	-2.4	50 30	30 30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-0.9 3.5	7.2 -3.0	-0.3	-10.3	1.7	2.1	50 30	30 30	30	30	30	30
2,4- & 2,5- & 2,6- Dichlorotoluene	15.5 -4.2	0.1 -7.9	3.1	-5.4	1.8	-3.0	50 30	30 30	30	30	30	30
2,3- & 3,4- Dichlorotoluene	14.5 -3.7	0.1 -5.3	3.3	-8.3	1.2	-1.8	50 30	30 30	30	30	30	30
1,2,4-Trichlorobenzene	14.7 -2.2	0.9 -0.7	1.9	-10.1	-2.9	-1.6	50 30	30 30	30	30	30	30
Hexachlorobutadiene	23.5 -8.6	6.2 -7.4	0.6	-8.4	-3.2	-2.8	50 30	30 30	30	30	30	30
Naphthalene	8.0 -3.9	2.2 -4.0	8.3	-8.6	0.3	-2.4	50 30	30 30	30	30	30	30
1,2,3-Trichlorobenzene	8.9 -2.0	1.6 2.0	4.5	-11.6	-2.3	-1.2	50 30	30 30	30	30	30	30
2,4,5-Trichlorotoluene	10.6 -4.1	-2.5 -0.2	8.9	-10.7	1.7	-3.7	50 30	30 30	30	30	30	30
2,3,6-Trichlorotoluene	17.9 -4.3	2.7 -2.1	6.1	-12.2	-3.2	-4.9	50 30	30 30	30	30	30	30
Dibromofluoromethane (Surr)	3.0 1.9	2.1 -0.7	0.8	-9.5	-3.6	6.0	50 30	30 30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	15.6 -0.5	2.0 -4.3	0.1	-10.3	-6.7	4.2	50 30	30 30	30	30	30	30
Toluene-d8 (Surr)	15.0 -12.4	8.3 -13.3	10.8	-1.8	-4.7	-1.9	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.: 180-71952-1 Analy Batch No.: 213537

SDG No.:

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

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

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)	5.5 -7.9	7.5 -7.9	7.9	-3.4	-3.6	1.8	50 30	30 30	30	30	30	30

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 08-Jun-2017 06:03:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-002
Misc. Info.: IC VSTD1
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:51:55 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 07:26:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.342	4.335	0.007	0	173448	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.335	0.000	98	355058	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.438	10.431	0.007	88	88377	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.780	12.779	0.001	96	121215	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.611	6.613	-0.002	91	9352	5.00	5.15	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	7.110	-0.128	0	14465	5.00	5.78	
$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	93	40658	5.00	5.75	
$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.618	0.000	87	14811	5.00	5.28	
11 Dichlorodifluoromethane	85	1.629	1.619	0.010	74	11360	5.00	5.91	
12 Chloromethane	50	1.824	1.826	-0.002	63	18956	5.00	6.17	M
13 Vinyl chloride	62	1.933	1.947	-0.014	75	13367	5.00	5.44	
14 Butadiene	39	1.970	1.972	-0.002	61	40764	5.00	5.11	M
15 Bromomethane	94	2.347	2.318	0.029	40	12095	5.00	4.89	
16 Chloroethane	64	2.450	2.446	0.004	62	12605	5.00	4.88	
18 Trichlorofluoromethane	101	2.724	2.720	0.004	75	12211	5.00	5.04	
17 Dichlorofluoromethane	67	2.718	2.726	-0.008	84	36251	5.00	4.98	
20 Ethyl ether	59	3.119	3.109	0.010	91	12154	5.00	5.22	
21 Acrolein	56	3.296	3.304	-0.008	100	58864	100.0	79.3	
22 1,1-Dichloroethene	96	3.399	3.413	-0.014	73	11729	5.00	5.65	
23 1,1,2-Trichloro-1,2,2-trif	101	3.478	3.462	0.016	40	7147	5.00	4.16	
24 Acetone	43	3.509	3.511	-0.002	96	26673	25.0	16.8	
25 Iodomethane	142	3.612	3.602	0.010	94	15037	5.00	4.89	
26 Carbon disulfide	76	3.691	3.693	-0.002	96	28932	5.00	5.04	
28 3-Chloro-1-propene	76	3.995	3.991	0.004	92	9494	5.00	5.50	
30 Methyl acetate	43	4.020	4.022	-0.002	97	25380	10.0	9.40	
31 Methylene Chloride	84	4.220	4.216	0.004	81	14508	5.00	5.85	
32 2-Methyl-2-propanol	59	4.470	4.478	-0.008	55	10951	50.0	50.6	
33 Acrylonitrile	53	4.604	4.594	0.010	100	58589	50.0	47.0	
34 trans-1,2-Dichloroethene	96	4.622	4.630	-0.008	97	14857	5.00	6.07	
35 Methyl tert-butyl ether	73	4.640	4.648	-0.008	96	36251	5.00	4.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.042	5.044	-0.002	92	27872	5.00	6.48	
37 1,1-Dichloroethane	63	5.255	5.257	-0.002	96	25529	5.00	5.52	
38 Vinyl acetate	43	5.309	5.311	-0.002	97	39405	5.00	5.84	
44 2,2-Dichloropropane	97	5.997	5.999	-0.002	45	2952	5.00	4.77	
45 cis-1,2-Dichloroethene	96	5.997	6.005	-0.008	85	14596	5.00	5.36	
46 2-Butanone (MEK)	43	6.015	6.023	-0.008	99	59203	25.0	25.6	
49 Chlorobromomethane	128	6.289	6.279	0.010	93	7043	5.00	5.86	
51 Tetrahydrofuran	42	6.313	6.303	0.010	69	18282	10.0	9.96	
52 Chloroform	83	6.435	6.431	0.004	95	24968	5.00	6.09	
53 1,1,1-Trichloroethane	97	6.587	6.589	-0.002	97	20227	5.00	6.08	
54 Cyclohexane	56	6.660	6.656	0.004	91	27256	5.00	5.51	
56 Carbon tetrachloride	117	6.751	6.759	-0.008	92	18796	5.00	6.43	
55 1,1-Dichloropropene	75	6.769	6.777	-0.008	92	20683	5.00	5.92	
57 Isobutyl alcohol	41	6.976	6.978	-0.002	57	15152	125.0	123.1	
58 Benzene	78	6.988	6.990	-0.002	97	59050	5.00	5.78	
59 1,2-Dichloroethane	62	7.068	7.069	-0.001	96	18629	5.00	5.54	
62 n-Heptane	43	7.347	7.349	-0.002	44	25099	5.00	6.40	
64 Trichloroethene	130	7.718	7.720	-0.002	96	13413	5.00	5.37	
66 Methylcyclohexane	83	7.956	7.958	-0.002	92	25831	5.00	6.08	
67 1,2-Dichloropropane	63	7.992	7.994	-0.002	90	16918	5.00	5.96	
68 Dibromomethane	93	8.077	8.079	-0.002	88	8987	5.00	6.13	
70 1,4-Dioxane	88	8.096	8.085	0.011	45	2229	100.0	83.8	
71 Dichlorobromomethane	83	8.278	8.274	0.004	97	17592	5.00	5.66	
73 2-Chloroethyl vinyl ether	63	8.582	8.578	0.004	93	18887	10.0	9.89	
74 cis-1,3-Dichloropropene	75	8.716	8.718	-0.002	89	23035	5.00	5.55	
75 4-Methyl-2-pentanone (MIBK	43	8.874	8.876	-0.002	98	108520	25.0	28.2	
76 Toluene	91	9.051	9.047	0.004	96	64538	5.00	6.26	
77 trans-1,3-Dichloropropene	75	9.300	9.296	0.004	96	20596	5.00	5.90	
78 Ethyl methacrylate	69	9.361	9.357	0.004	96	21273	5.00	5.74	
79 1,1,2-Trichloroethane	97	9.495	9.491	0.004	84	12441	5.00	5.98	
80 Tetrachloroethene	164	9.568	9.564	0.004	93	11259	5.00	5.71	
81 1,3-Dichloropropane	76	9.653	9.649	0.004	98	20683	5.00	5.64	
82 2-Hexanone	43	9.708	9.710	-0.002	98	77674	25.0	25.4	
84 Chlorodibromomethane	129	9.860	9.862	-0.002	89	12134	5.00	6.01	
85 Ethylene Dibromide	107	9.975	9.977	-0.002	92	12654	5.00	6.14	
86 3-Chlorobenzotrifluoride	180	10.432	10.434	-0.002	56	20194	5.00	5.73	
87 Chlorobenzene	112	10.462	10.464	-0.002	94	40074	5.00	6.12	
88 4-Chlorobenzotrifluoride	180	10.523	10.525	-0.002	94	19328	5.00	5.74	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.555	-0.002	41	12841	5.00	5.77	
90 Ethylbenzene	106	10.566	10.561	0.005	99	21617	5.00	5.98	
91 m-Xylene & p-Xylene	106	10.693	10.695	-0.002	0	25113	5.00	5.67	
92 o-Xylene	106	11.077	11.072	0.004	97	26299	5.00	6.03	
93 Styrene	104	11.095	11.097	-0.002	97	45516	5.00	6.14	
94 Bromoform	173	11.277	11.279	-0.002	80	8075	5.00	5.63	
96 2-Chlorobenzotrifluoride	180	11.350	11.346	0.004	95	20089	5.00	5.69	
97 Isopropylbenzene	105	11.442	11.443	-0.001	95	66556	5.00	6.22	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.754	-0.002	78	15823	5.00	5.58	
100 Bromobenzene	156	11.758	11.754	0.004	97	14390	5.00	5.67	
102 trans-1,4-Dichloro-2-buten	53	11.788	11.790	-0.002	71	5807	5.00	5.78	
101 1,2,3-Trichloropropane	110	11.819	11.809	0.011	81	6014	5.00	5.03	
103 N-Propylbenzene	120	11.861	11.863	-0.002	99	18166	5.00	6.12	
104 2-Chlorotoluene	126	11.946	11.948	-0.002	96	15023	5.00	5.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.007	12.009	-0.002	96	15979	5.00	5.92	
106 1,3,5-Trimethylbenzene	105	12.038	12.040	-0.002	94	52394	5.00	6.15	
107 4-Chlorotoluene	126	12.068	12.070	-0.002	97	15021	5.00	5.76	
108 tert-Butylbenzene	119	12.354	12.356	-0.002	94	47394	5.00	6.42	
110 1,2,4-Trimethylbenzene	105	12.415	12.417	-0.002	96	50411	5.00	5.84	
111 1,2-dichloro-4-(trifluorom	214	12.464	12.459	0.005	96	14800	5.00	5.73	
112 sec-Butylbenzene	105	12.579	12.581	-0.002	94	62841	5.00	6.26	
113 1,3-Dichlorobenzene	146	12.695	12.697	-0.002	97	26933	5.00	5.73	
114 4-Isopropyltoluene	119	12.737	12.733	0.004	95	52701	5.00	6.10	
115 1,4-Dichlorobenzene	146	12.804	12.800	0.004	95	29876	5.00	6.18	
116 2,4-Dichloro-1-(triflourom	214	12.829	12.831	-0.002	93	14193	5.00	5.88	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.873	-0.008	0	14434	5.00	5.36	
120 n-Butylbenzene	91	13.145	13.147	-0.002	97	45375	5.00	6.13	
121 1,2-Dichlorobenzene	146	13.157	13.159	-0.002	96	25566	5.00	5.79	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.956	-0.008	53	5385	5.00	4.95	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.100	14.090	0.010	0	55694	15.0	17.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.514	14.510	0.004	0	38823	10.0	11.5	
126 1,2,4-Trichlorobenzene	180	14.775	14.771	0.004	92	14395	5.00	5.74	
127 Hexachlorobutadiene	225	14.921	14.917	0.004	91	6851	5.00	6.18	
128 Naphthalene	128	15.043	15.039	0.004	98	42825	5.00	5.40	
129 1,2,3-Trichlorobenzene	180	15.268	15.270	-0.002	93	12684	5.00	5.44	
131 2,4,5-Trichlorotoluene	159	16.041	16.037	0.004	0	7969	5.00	5.53	
130 2,3,6-Trichlorotoluene	159	16.132	16.134	-0.002	92	7741	5.00	5.89	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.4	
S 133 Xylenes, Total	106				0		10.0	11.7	
S 135 1,3-Dichloropropene, Total	1				0		10.0	11.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	0.20	Units: uL
voaWAcro1stRe_00014	Amount Added:	4.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	0.20	Units: uL
voaWKetmix1st_00003	Amount Added:	0.80	Units: uL
voaW2clev1stR_00008	Amount Added:	0.20	Units: uL
voaWVA1stRest_00015	Amount Added:	0.20	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	0.20	Units: uL

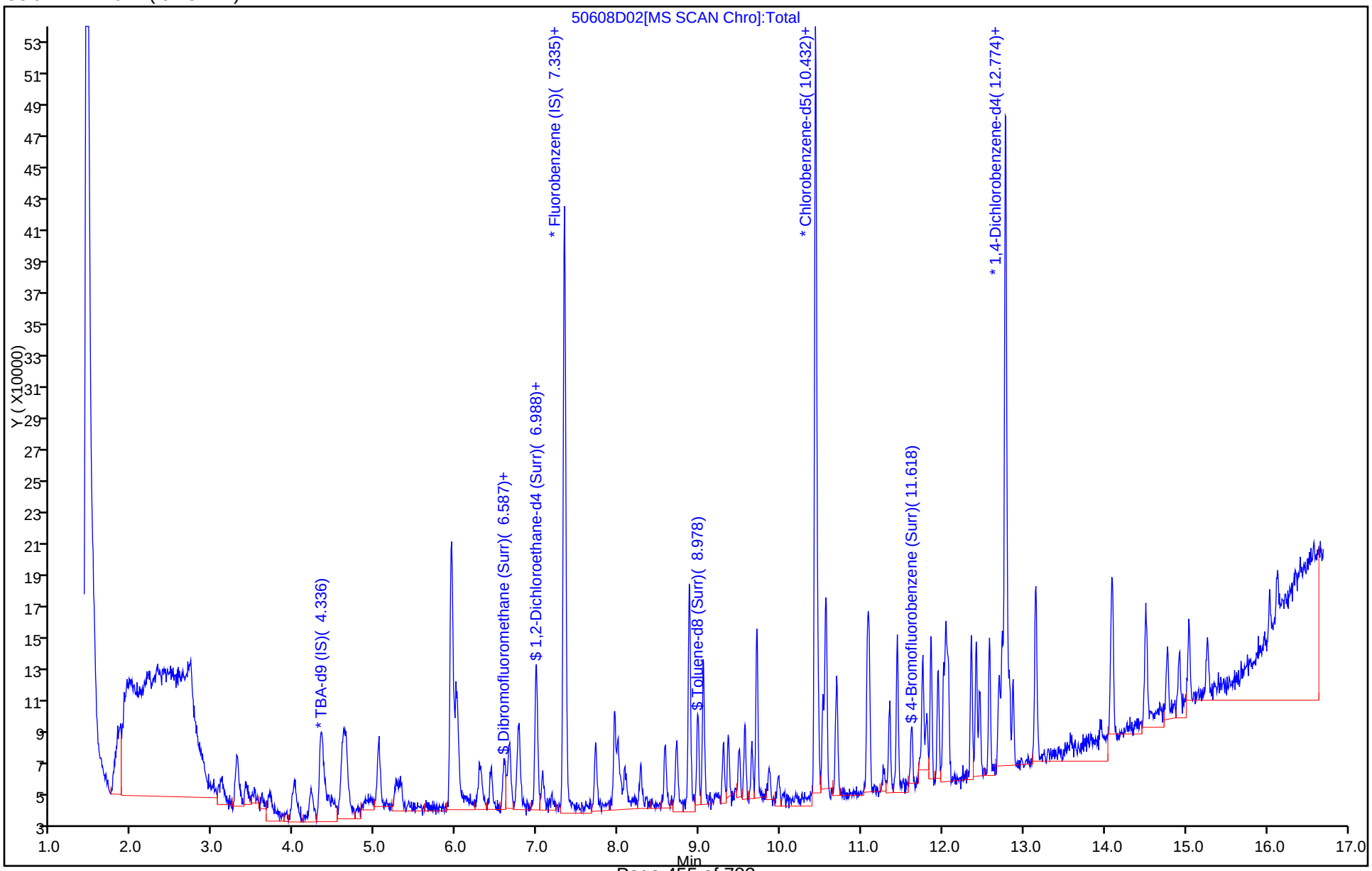
Report Date: 09-Jun-2017 03:51:56 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D

Injection Date:	08-Jun-2017 06:03:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD1			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

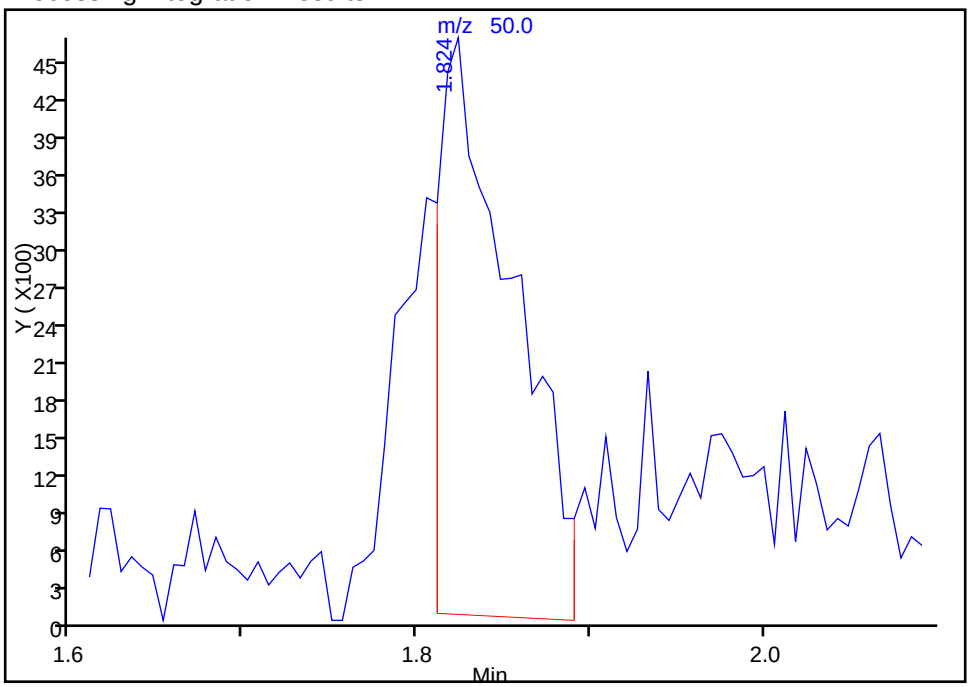
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D				
Injection Date:	08-Jun-2017 06:03:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

Signal: 1

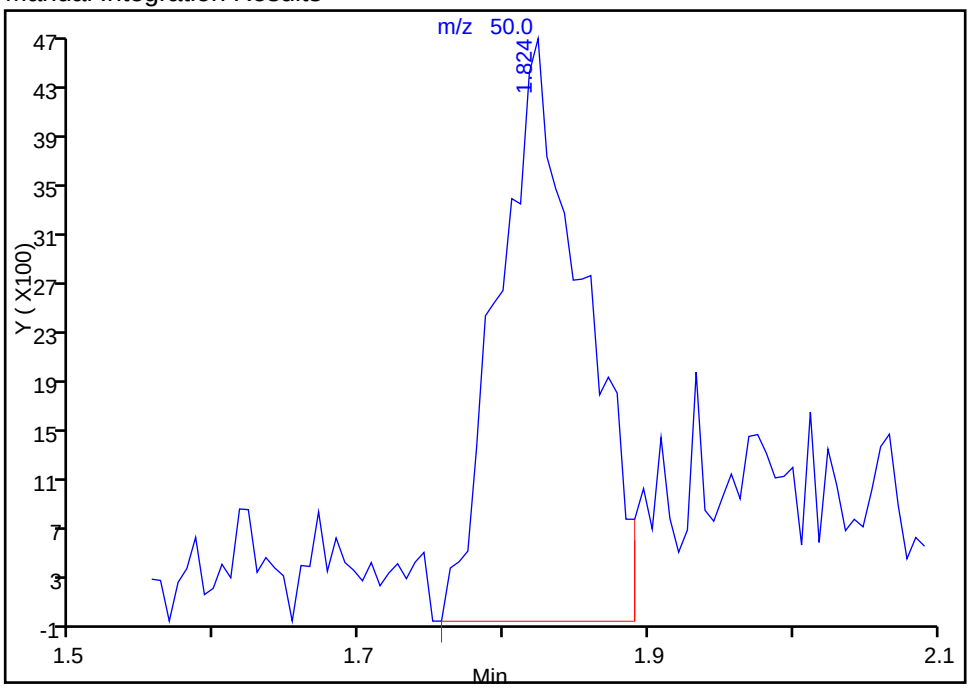
Processing Integration Results

RT: 1.82
Area: 13764
Amount: 3.714099
Amount Units: ng



Manual Integration Results

RT: 1.82
Area: 18956
Amount: 6.165870
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 07:42:27

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

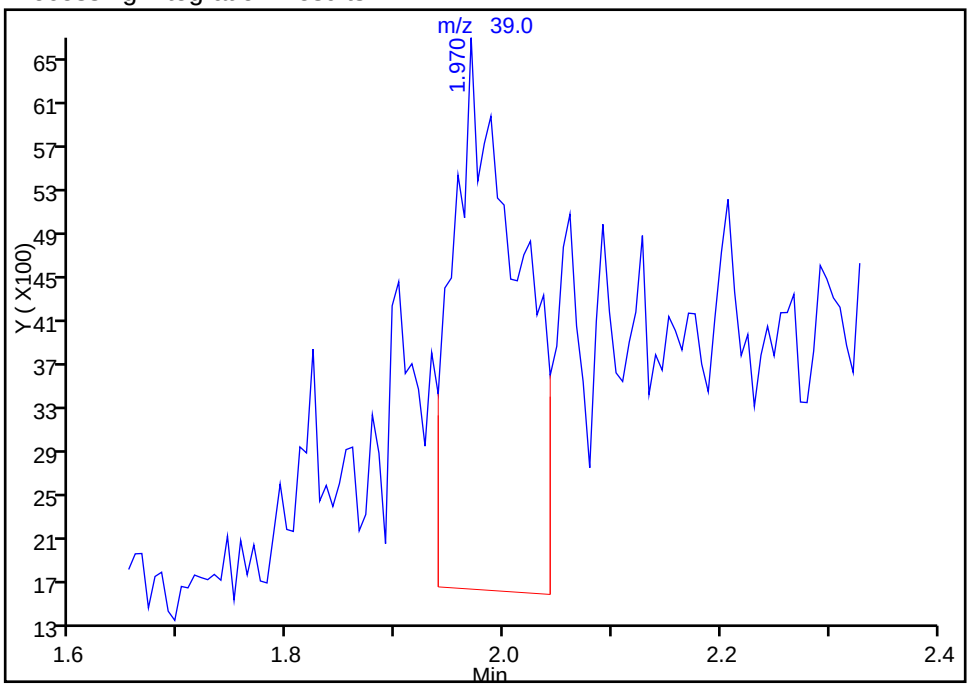
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D				
Injection Date:	08-Jun-2017 06:03:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

Signal: 1

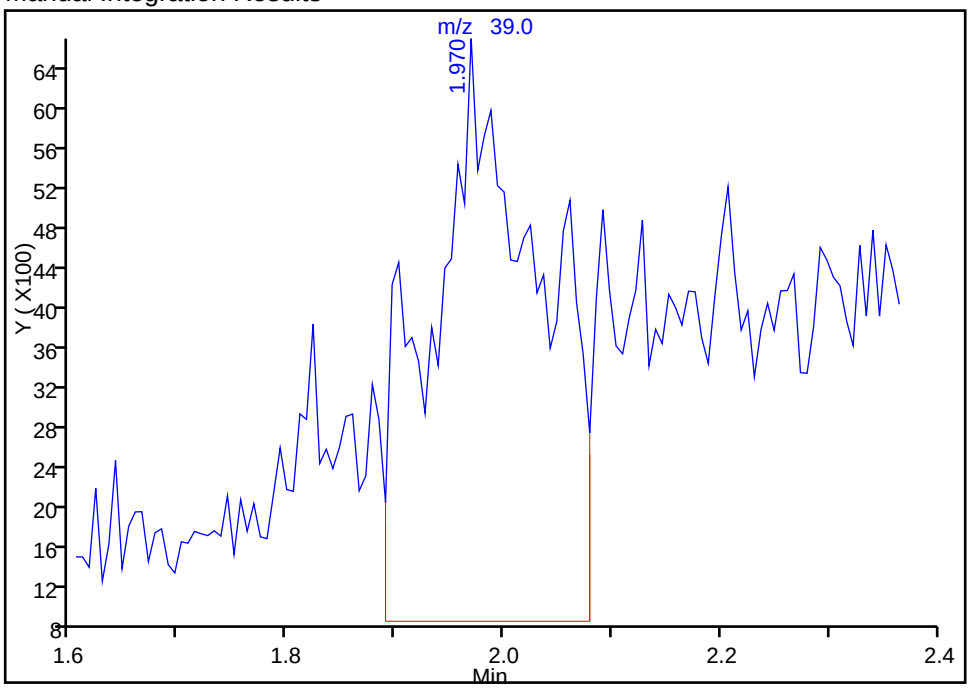
Processing Integration Results

RT: 1.97
Area: 21198
Amount: 7.293688
Amount Units: ng



Manual Integration Results

RT: 1.97
Area: 40764
Amount: 5.112320
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 08:14:10

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 08-Jun-2017 06:27:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-003
Misc. Info.: IC VSTD5
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:51:58 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 07:50:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.340	4.335	0.005	0	187522	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.335	-0.002	98	325638	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.431	0.004	88	81141	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.779	-0.002	95	116829	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.615	6.613	0.002	94	42506	25.0	25.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	7.110	-0.124	0	58513	25.0	25.5	
$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	93	175766	25.0	27.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.618	-0.003	87	69269	25.0	26.9	
11 Dichlorodifluoromethane	85	1.614	1.619	-0.005	96	48819	25.0	27.7	
12 Chloromethane	50	1.827	1.826	0.001	99	77319	25.0	27.4	
13 Vinyl chloride	62	1.955	1.947	0.008	70	59985	25.0	26.6	
14 Butadiene	39	1.985	1.972	0.013	97	65480	25.0	22.3	M
15 Bromomethane	94	2.314	2.318	-0.004	81	36804	25.0	27.3	
16 Chloroethane	64	2.454	2.446	0.008	87	40020	25.0	28.2	
18 Trichlorofluoromethane	101	2.728	2.720	0.008	96	60735	25.0	27.4	
17 Dichlorofluoromethane	67	2.728	2.726	0.002	61	91376	25.0	24.6	
20 Ethyl ether	59	3.111	3.109	0.002	96	58960	25.0	27.6	
21 Acrolein	56	3.293	3.304	-0.011	99	88139	125.0	129.5	
22 1,1-Dichloroethene	96	3.409	3.413	-0.004	95	51467	25.0	27.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.470	3.462	0.008	89	40795	25.0	25.9	
24 Acetone	43	3.518	3.511	0.007	100	89042	50.0	54.8	
25 Iodomethane	142	3.610	3.602	0.008	100	69421	25.0	24.6	
26 Carbon disulfide	76	3.695	3.693	0.002	100	149164	25.0	28.3	
28 3-Chloro-1-propene	76	3.993	3.991	0.002	91	40410	25.0	25.5	
30 Methyl acetate	43	4.017	4.022	-0.005	99	125959	50.0	50.9	
31 Methylene Chloride	84	4.212	4.216	-0.004	98	57651	25.0	25.4	
32 2-Methyl-2-propanol	59	4.480	4.478	0.002	98	59104	250.0	252.6	
33 Acrylonitrile	53	4.595	4.594	0.001	97	296073	250.0	259.1	
34 trans-1,2-Dichloroethene	96	4.632	4.630	0.002	72	60758	25.0	27.1	
35 Methyl tert-butyl ether	73	4.644	4.648	-0.004	95	179109	25.0	26.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.045	5.044	0.001	96	103760	25.0	26.3	
37 1,1-Dichloroethane	63	5.264	5.257	0.007	96	108391	25.0	25.5	
38 Vinyl acetate	43	5.313	5.311	0.002	97	155793	25.0	25.2	
44 2,2-Dichloropropane	97	6.000	5.999	0.001	56	16827	25.0	29.6	
45 cis-1,2-Dichloroethene	96	6.000	6.005	-0.005	84	64409	25.0	25.8	
46 2-Butanone (MEK)	43	6.013	6.023	-0.010	99	126726	50.0	59.7	
49 Chlorobromomethane	128	6.292	6.279	0.013	93	28527	25.0	25.9	
51 Tetrahydrofuran	42	6.311	6.303	0.008	92	60280	50.0	51.9	
52 Chloroform	83	6.432	6.431	0.001	95	95932	25.0	25.5	
53 1,1,1-Trichloroethane	97	6.591	6.589	0.002	97	84914	25.0	27.8	
54 Cyclohexane	56	6.657	6.656	0.001	95	113357	25.0	25.0	
56 Carbon tetrachloride	117	6.761	6.759	0.002	96	67382	25.0	25.1	
55 1,1-Dichloropropene	75	6.779	6.777	0.002	93	85510	25.0	26.7	
57 Isobutyl alcohol	41	6.980	6.978	0.002	62	71001	625.0	629.1	
58 Benzene	78	6.992	6.990	0.002	97	247989	25.0	26.5	
59 1,2-Dichloroethane	62	7.071	7.069	0.002	96	79055	25.0	25.7	
62 n-Heptane	43	7.351	7.349	0.002	96	98365	25.0	27.4	
64 Trichloroethene	130	7.722	7.720	0.002	97	60499	25.0	26.4	
66 Methylcyclohexane	83	7.953	7.958	-0.005	93	104066	25.0	26.7	
67 1,2-Dichloropropane	63	7.996	7.994	0.002	93	65502	25.0	25.2	
68 Dibromomethane	93	8.087	8.079	0.008	96	33894	25.0	25.2	
70 1,4-Dioxane	88	8.087	8.085	0.002	36	11481	500.0	470.9	
71 Dichlorobromomethane	83	8.276	8.274	0.002	97	74099	25.0	26.0	
73 2-Chloroethyl vinyl ether	63	8.580	8.578	0.002	92	90813	50.0	51.9	
74 cis-1,3-Dichloropropene	75	8.720	8.718	0.002	91	94517	25.0	24.8	
75 4-Methyl-2-pentanone (MIBK	43	8.878	8.876	0.002	98	201052	50.0	56.9	
76 Toluene	91	9.048	9.047	0.001	98	267398	25.0	28.3	
77 trans-1,3-Dichloropropene	75	9.298	9.296	0.002	97	85181	25.0	26.6	
78 Ethyl methacrylate	69	9.359	9.357	0.001	93	92176	25.0	27.1	
79 1,1,2-Trichloroethane	97	9.492	9.491	0.001	92	51670	25.0	27.0	
80 Tetrachloroethene	164	9.559	9.564	-0.005	98	49391	25.0	27.3	
81 1,3-Dichloropropane	76	9.651	9.649	0.002	96	89143	25.0	26.5	
82 2-Hexanone	43	9.705	9.710	-0.005	98	166556	50.0	59.4	
84 Chlorodibromomethane	129	9.863	9.862	0.001	90	47826	25.0	25.8	
85 Ethylene Dibromide	107	9.973	9.977	-0.004	96	50923	25.0	26.9	
86 3-Chlorobenzotrifluoride	180	10.435	10.434	0.001	89	78236	25.0	24.2	
87 Chlorobenzene	112	10.460	10.464	-0.004	93	163865	25.0	27.2	
88 4-Chlorobenzotrifluoride	180	10.520	10.525	-0.005	95	75328	25.0	24.4	
89 1,1,1,2-Tetrachloroethane	131	10.557	10.555	0.002	94	55355	25.0	27.1	
90 Ethylbenzene	106	10.563	10.561	0.002	98	92680	25.0	27.9	
91 m-Xylene & p-Xylene	106	10.697	10.695	0.002	0	113117	25.0	27.8	
92 o-Xylene	106	11.074	11.072	0.002	98	110628	25.0	27.6	
93 Styrene	104	11.098	11.097	0.001	96	186493	25.0	27.4	
94 Bromoform	173	11.275	11.279	-0.004	96	35678	25.0	27.1	
96 2-Chlorobenzotrifluoride	180	11.348	11.346	0.002	98	81717	25.0	25.2	
97 Isopropylbenzene	105	11.439	11.443	-0.004	96	275560	25.0	28.1	
100 Bromobenzene	156	11.755	11.754	0.001	96	62935	25.0	25.7	
99 1,1,2,2-Tetrachloroethane	83	11.755	11.754	0.001	80	71451	25.0	27.5	
102 trans-1,4-Dichloro-2-buten	53	11.798	11.790	0.008	85	24438	25.0	25.2	
101 1,2,3-Trichloropropane	110	11.816	11.809	0.008	86	21177	25.0	24.1	
103 N-Propylbenzene	120	11.859	11.863	-0.004	99	75699	25.0	26.4	
104 2-Chlorotoluene	126	11.944	11.948	-0.004	96	64522	25.0	26.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.011	12.009	0.002	96	64028	25.0	24.6	
106 1,3,5-Trimethylbenzene	105	12.041	12.040	0.001	96	225181	25.0	27.4	
107 4-Chlorotoluene	126	12.072	12.070	0.002	98	65156	25.0	25.9	
108 tert-Butylbenzene	119	12.358	12.356	0.002	94	192596	25.0	27.1	
110 1,2,4-Trimethylbenzene	105	12.412	12.417	-0.005	98	226542	25.0	27.3	
111 1,2-dichloro-4-(trifluorom	214	12.461	12.459	0.002	98	60123	25.0	24.2	
112 sec-Butylbenzene	105	12.577	12.581	-0.004	94	263915	25.0	27.3	
113 1,3-Dichlorobenzene	146	12.698	12.697	0.001	99	118704	25.0	26.2	
114 4-Isopropyltoluene	119	12.735	12.733	0.002	97	228298	25.0	27.4	
115 1,4-Dichlorobenzene	146	12.802	12.800	0.002	96	121326	25.0	26.0	
116 2,4-Dichloro-1-(triflourom	214	12.832	12.831	0.001	96	56924	25.0	24.5	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.873	-0.004	0	61504	25.0	23.7	
120 n-Butylbenzene	91	13.142	13.147	-0.005	98	193470	25.0	27.1	
121 1,2-Dichlorobenzene	146	13.155	13.159	-0.004	97	110285	25.0	25.9	
122 1,2-Dibromo-3-Chloropropan	75	13.945	13.956	-0.011	82	16918	25.0	26.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.090	0.001	0	232473	75.0	75.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.511	14.510	0.001	0	163558	50.0	50.1	
126 1,2,4-Trichlorobenzene	180	14.773	14.771	0.002	95	61041	25.0	25.2	
127 Hexachlorobutadiene	225	14.919	14.917	0.002	94	28379	25.0	26.5	
128 Naphthalene	128	15.040	15.039	0.001	97	195394	25.0	25.6	
129 1,2,3-Trichlorobenzene	180	15.266	15.270	-0.004	94	57072	25.0	25.4	
131 2,4,5-Trichlorotoluene	159	16.038	16.037	0.001	0	33861	25.0	24.4	
130 2,3,6-Trichlorotoluene	159	16.129	16.134	-0.005	97	32510	25.0	25.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		50.0	55.5	
S 134 1,2-Dichloroethene, Total	96				0		50.0	52.8	
S 135 1,3-Dichloropropene, Total	1				0		50.0	51.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	1.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	5.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	1.00	Units: uL
voaWKetmix1st_00003	Amount Added:	1.00	Units: uL
voaW2clev1stR_00008	Amount Added:	1.00	Units: uL
voaWVA1stRest_00015	Amount Added:	1.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	1.00	Units: uL

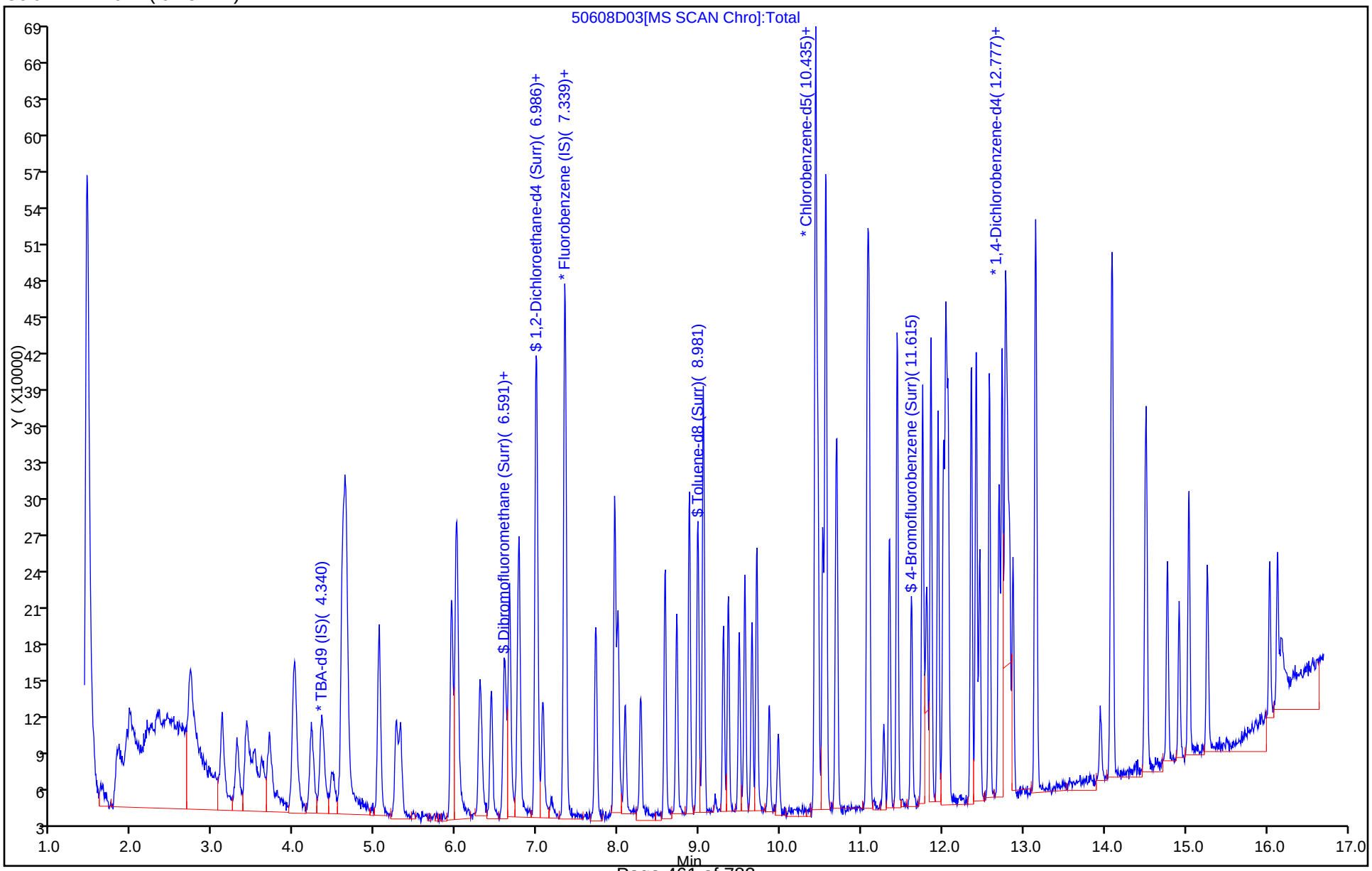
Report Date: 09-Jun-2017 03:51:59 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D

Injection Date:	08-Jun-2017 06:27:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD5			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

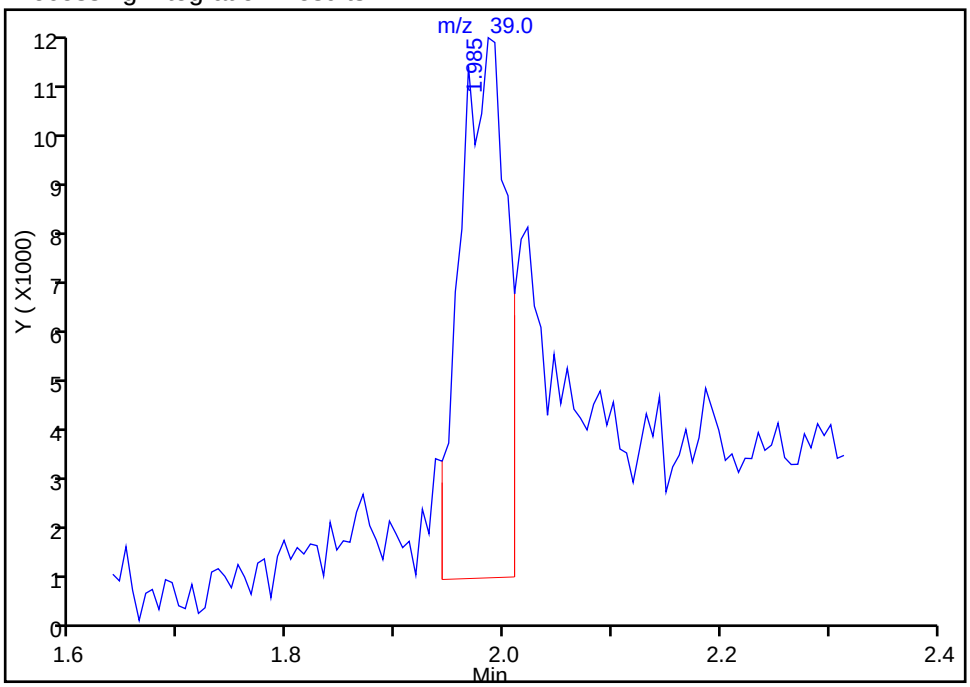
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D				
Injection Date:	08-Jun-2017 06:27:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

Signal: 1

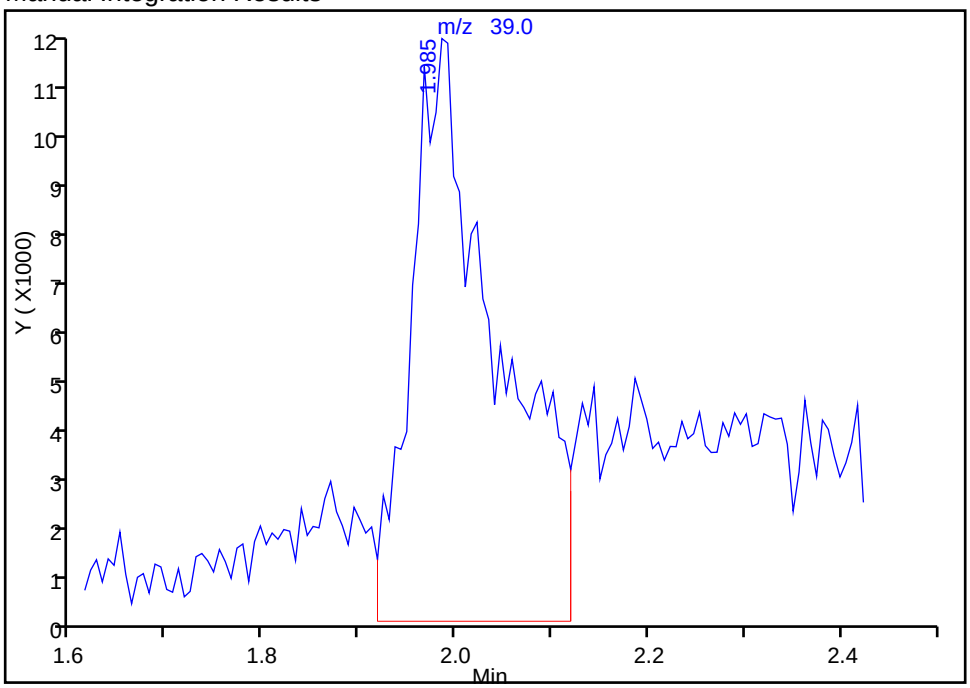
Processing Integration Results

RT: 1.99
Area: 28410
Amount: 9.122879
Amount Units: ng



Manual Integration Results

RT: 1.99
Area: 65480
Amount: 22.258941
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 08:14:49

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 08-Jun-2017 06:50:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-004
Misc. Info.: ICIS VSTD10
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:59:21 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 07:40:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.344	4.344	0.000	0	265733	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.337	0.000	95	343353	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.434	0.000	86	84081	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.776	12.776	0.000	71	124675	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.613	6.613	0.000	68	88453	50.0	50.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.978	6.978	0.000	0	121114	50.0	50.0	
$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	83	372845	50.0	55.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.614	0.000	85	144024	50.0	53.9	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	98	90064	50.0	48.4	
12 Chloromethane	50	1.826	1.826	0.000	100	147443	50.0	49.6	
13 Vinyl chloride	62	1.947	1.947	0.000	98	118745	50.0	50.0	
14 Butadiene	39	1.972	1.972	0.000	96	110274	50.0	46.1	M
15 Bromomethane	94	2.318	2.318	0.000	90	68918	50.0	52.1	
16 Chloroethane	64	2.446	2.446	0.000	97	71071	50.0	50.6	
18 Trichlorofluoromethane	101	2.720	2.720	0.000	95	126846	50.0	54.2	
17 Dichlorofluoromethane	67	2.726	2.726	0.000	78	190543	50.0	54.8	
20 Ethyl ether	59	3.109	3.109	0.000	91	108085	50.0	48.0	
21 Acrolein	56	3.304	3.304	0.000	91	97603	150.0	136.0	
22 1,1-Dichloroethene	96	3.413	3.413	0.000	87	90421	50.0	45.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.462	3.462	0.000	84	68361	50.0	41.2	
24 Acetone	43	3.511	3.511	0.000	95	191862	100.0	114.4	
25 Iodomethane	142	3.602	3.602	0.000	97	152131	50.0	51.1	
26 Carbon disulfide	76	3.693	3.693	0.000	99	282135	50.0	50.8	
28 3-Chloro-1-propene	76	3.991	3.991	0.000	88	80183	50.0	48.1	
30 Methyl acetate	43	4.022	4.022	0.000	99	263099	100.0	100.8	
31 Methylene Chloride	84	4.216	4.216	0.000	92	120006	50.0	50.0	
32 2-Methyl-2-propanol	59	4.478	4.478	0.000	94	167444	500.0	505.1	
33 Acrylonitrile	53	4.594	4.594	0.000	98	621223	500.0	515.6	
34 trans-1,2-Dichloroethene	96	4.630	4.630	0.000	70	116991	50.0	49.4	
35 Methyl tert-butyl ether	73	4.648	4.648	0.000	91	352917	50.0	49.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.044	5.044	0.000	93	201514	50.0	48.4	
37 1,1-Dichloroethane	63	5.257	5.257	0.000	96	217303	50.0	48.6	
38 Vinyl acetate	43	5.311	5.311	0.000	97	313586	50.0	48.0	
44 2,2-Dichloropropane	97	5.999	5.999	0.000	50	32248	50.0	53.8	
45 cis-1,2-Dichloroethene	96	6.005	6.005	0.000	71	129830	50.0	49.3	
46 2-Butanone (MEK)	43	6.023	6.023	0.000	91	263149	100.0	117.6	
49 Chlorobromomethane	128	6.279	6.279	0.000	90	54076	50.0	46.5	
51 Tetrahydrofuran	42	6.303	6.303	0.000	93	118128	100.0	101.7	
52 Chloroform	83	6.431	6.431	0.000	82	192042	50.0	48.4	
53 1,1,1-Trichloroethane	97	6.589	6.589	0.000	98	158536	50.0	49.3	
54 Cyclohexane	56	6.656	6.656	0.000	93	245975	50.0	51.4	
56 Carbon tetrachloride	117	6.759	6.759	0.000	78	138765	50.0	49.1	
55 1,1-Dichloropropene	75	6.777	6.777	0.000	90	164019	50.0	48.5	
57 Isobutyl alcohol	41	6.978	6.978	0.000	74	162229	1250.0	1363.2	
58 Benzene	78	6.990	6.990	0.000	96	491290	50.0	49.8	
59 1,2-Dichloroethane	62	7.069	7.069	0.000	72	154690	50.0	47.6	
62 n-Heptane	43	7.349	7.349	0.000	94	180722	50.0	47.7	
64 Trichloroethene	130	7.720	7.720	0.000	92	119100	50.0	49.3	
66 Methylcyclohexane	83	7.958	7.958	0.000	96	200723	50.0	48.8	
67 1,2-Dichloropropane	63	7.994	7.994	0.000	91	131736	50.0	48.0	
68 Dibromomethane	93	8.079	8.079	0.000	89	67786	50.0	47.9	
70 1,4-Dioxane	88	8.085	8.085	0.000	40	28838	1000.0	1121.8	
71 Dichlorobromomethane	83	8.274	8.274	0.000	88	144075	50.0	48.0	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	92	189337	100.0	102.5	
74 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	90	195974	50.0	48.8	
75 4-Methyl-2-pentanone (MIBK	43	8.876	8.876	0.000	98	408149	100.0	111.5	
76 Toluene	91	9.047	9.047	0.000	88	518665	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	93	173242	50.0	52.2	
78 Ethyl methacrylate	69	9.357	9.357	0.000	75	187087	50.0	53.0	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	87	103149	50.0	52.1	
80 Tetrachloroethene	164	9.564	9.564	0.000	84	100597	50.0	53.7	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	96	182710	50.0	52.3	
82 2-Hexanone	43	9.710	9.710	0.000	82	356470	100.0	122.6	
84 Chlorodibromomethane	129	9.862	9.862	0.000	85	97738	50.0	50.9	
85 Ethylene Dibromide	107	9.977	9.977	0.000	96	101860	50.0	51.9	
86 3-Chlorobenzotrifluoride	180	10.434	10.434	0.000	89	173880	50.0	51.9	
87 Chlorobenzene	112	10.464	10.464	0.000	92	328169	50.0	52.7	
88 4-Chlorobenzotrifluoride	180	10.525	10.525	0.000	79	169101	50.0	52.8	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.555	0.000	39	108701	50.0	51.3	
90 Ethylbenzene	106	10.561	10.561	0.000	99	179947	50.0	52.3	
91 m-Xylene & p-Xylene	106	10.695	10.695	0.000	0	220525	50.0	52.3	
92 o-Xylene	106	11.072	11.072	0.000	96	219383	50.0	52.9	
93 Styrene	104	11.097	11.097	0.000	93	370310	50.0	52.5	
94 Bromoform	173	11.279	11.279	0.000	92	71432	50.0	52.4	
96 2-Chlorobenzotrifluoride	180	11.346	11.346	0.000	93	179192	50.0	53.4	
97 Isopropylbenzene	105	11.443	11.443	0.000	96	539180	50.0	53.0	
100 Bromobenzene	156	11.754	11.754	0.000	96	132180	50.0	50.6	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.754	0.000	71	149279	50.0	55.3	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.790	0.000	46	49225	50.0	47.6	
101 1,2,3-Trichloropropane	110	11.809	11.809	0.000	33	45049	50.0	50.1	
103 N-Propylbenzene	120	11.863	11.863	0.000	99	150964	50.0	49.4	
104 2-Chlorotoluene	126	11.948	11.948	0.000	96	126477	50.0	49.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.009	12.009	0.000	97	137789	50.0	49.6	
106 1,3,5-Trimethylbenzene	105	12.040	12.040	0.000	95	437477	50.0	50.0	
107 4-Chlorotoluene	126	12.070	12.070	0.000	82	134516	50.0	50.1	
108 tert-Butylbenzene	119	12.356	12.356	0.000	92	374641	50.0	49.4	
110 1,2,4-Trimethylbenzene	105	12.417	12.417	0.000	98	447784	50.0	50.5	
111 1,2-dichloro-4-(trifluorom	214	12.459	12.459	0.000	75	128125	50.0	48.2	
112 sec-Butylbenzene	105	12.581	12.581	0.000	94	518713	50.0	50.2	
113 1,3-Dichlorobenzene	146	12.697	12.697	0.000	97	239355	50.0	49.5	
114 4-Isopropyltoluene	119	12.733	12.733	0.000	89	447713	50.0	50.4	
115 1,4-Dichlorobenzene	146	12.800	12.800	0.000	92	241133	50.0	48.5	
116 2,4-Dichloro-1-(triflourom	214	12.831	12.831	0.000	96	120263	50.0	48.4	
118 2,5-Dichlorobenzotrifluori	214	12.873	12.873	0.000	0	139012	50.0	50.2	
120 n-Butylbenzene	91	13.147	13.147	0.000	95	384393	50.0	50.5	
121 1,2-Dichlorobenzene	146	13.159	13.159	0.000	95	228728	50.0	50.4	
122 1,2-Dibromo-3-Chloropropan	75	13.956	13.956	0.000	76	31264	50.0	49.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.090	14.090	0.000	0	511161	150.0	154.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.510	0.000	0	360161	100.0	103.3	
126 1,2,4-Trichlorobenzene	180	14.771	14.771	0.000	93	131499	50.0	50.9	
127 Hexachlorobutadiene	225	14.917	14.917	0.000	92	57408	50.0	50.3	
128 Naphthalene	128	15.039	15.039	0.000	97	441802	50.0	54.2	
129 1,2,3-Trichlorobenzene	180	15.270	15.270	0.000	94	125237	50.0	52.3	
131 2,4,5-Trichlorotoluene	159	16.037	16.037	0.000	0	80722	50.0	54.4	
130 2,3,6-Trichlorotoluene	159	16.134	16.134	0.000	95	71633	50.0	53.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	101.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	2.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	6.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	2.00	Units: uL
voaW2clev1stR_00008	Amount Added:	2.00	Units: uL
voaWVA1stRest_00015	Amount Added:	2.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	2.00	Units: uL

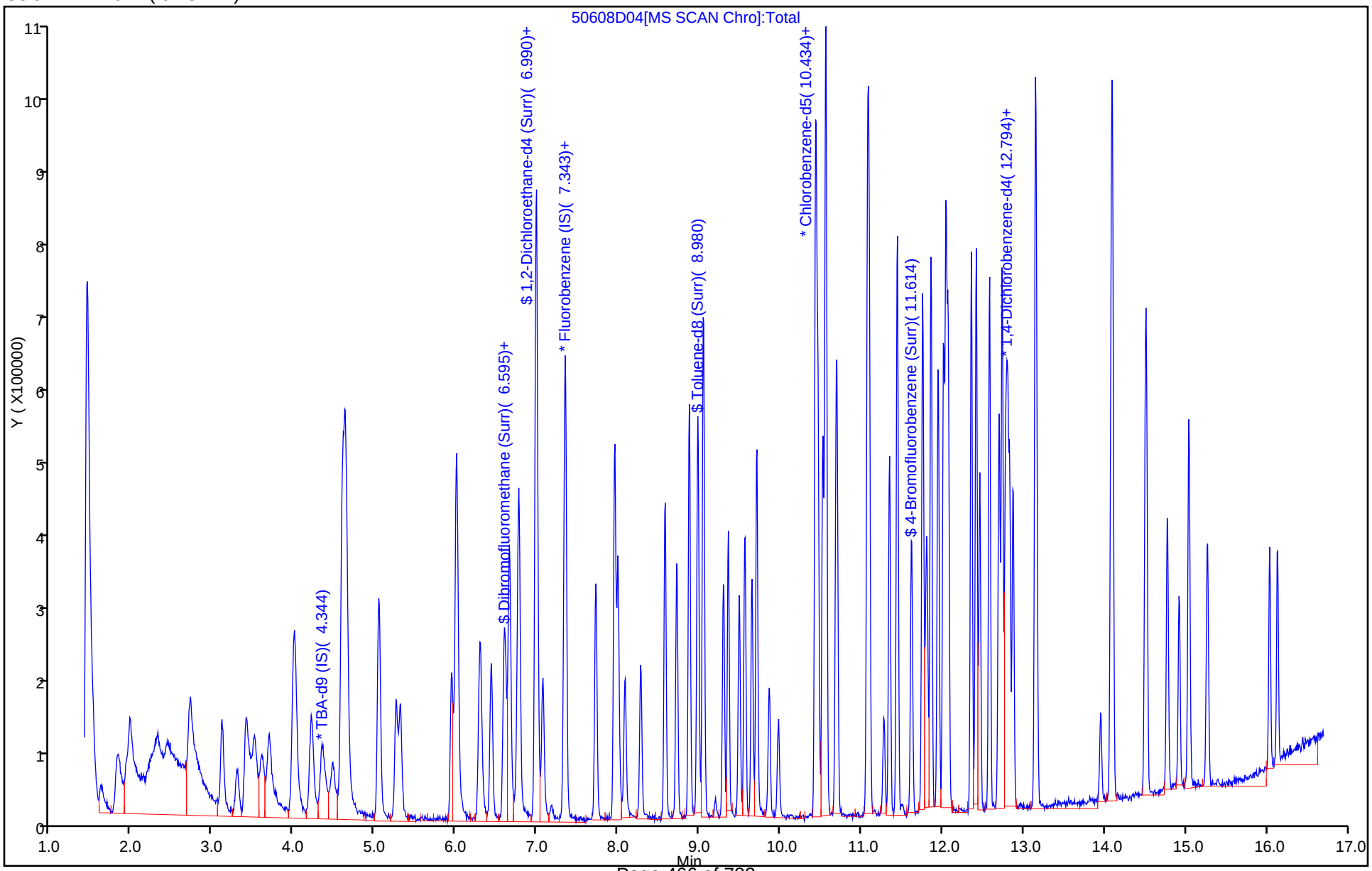
Report Date: 09-Jun-2017 03:59:22 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D

Injection Date:	08-Jun-2017 06:50:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	ICIS VSTD10			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

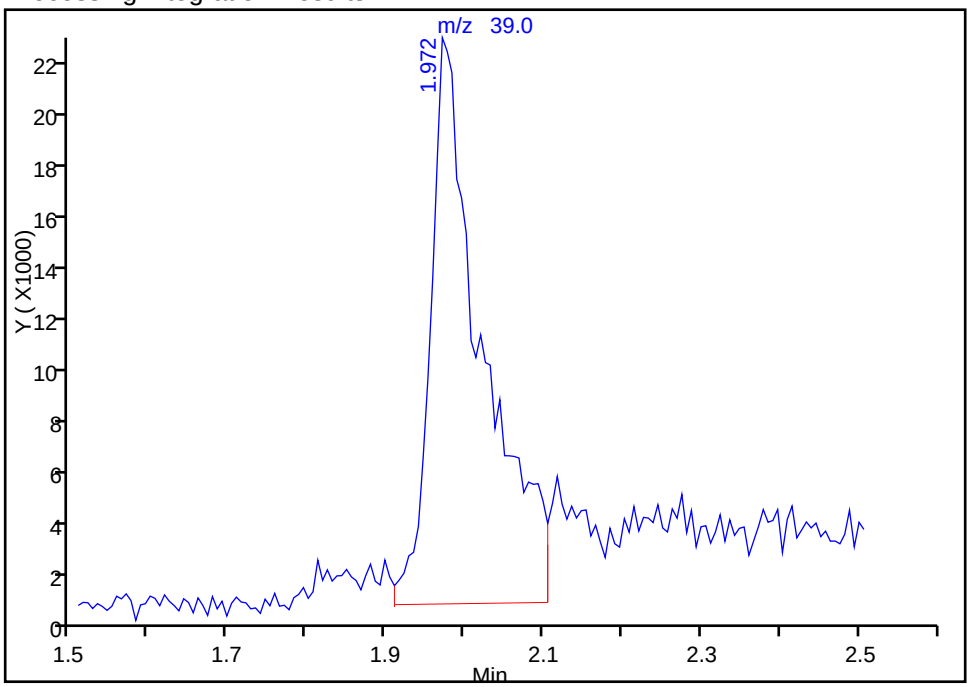
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D				
Injection Date:	08-Jun-2017 06:50:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

Signal: 1

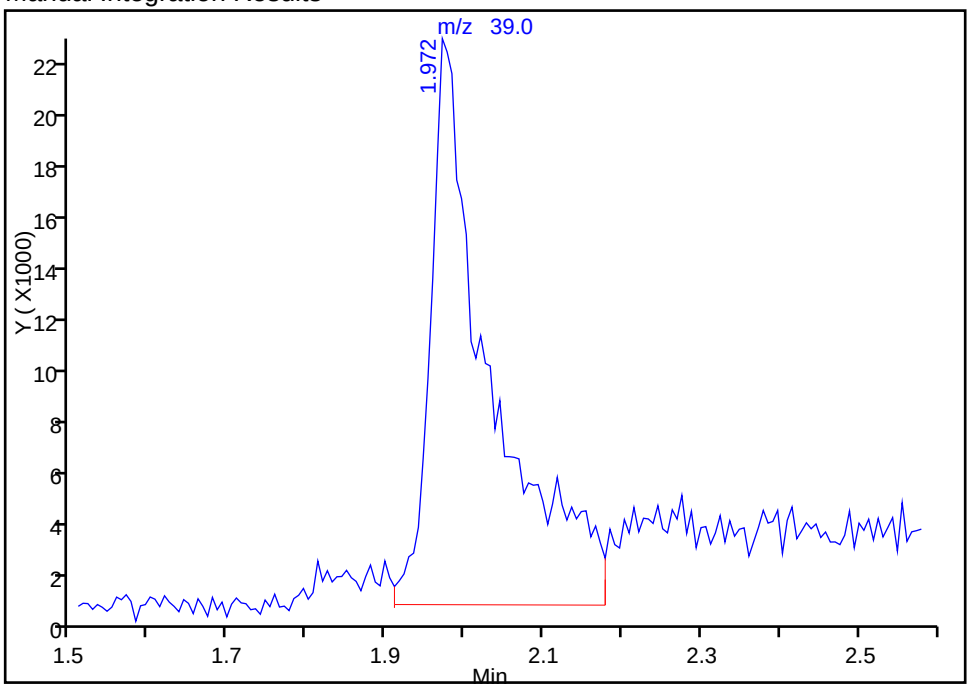
Processing Integration Results

RT: 1.97
Area: 96074
Amount: 27.615453
Amount Units: ng



Manual Integration Results

RT: 1.97
Area: 110274
Amount: 46.125869
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 08:15:47

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 08-Jun-2017 07:24:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-005
Misc. Info.: IC VSTD15
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:52:03 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 07:51:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.343	4.343	0.000	0	265751	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.336	0.000	98	365244	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	89	91661	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.781	12.781	0.000	93	130248	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.612	6.612	0.000	93	126785	75.0	67.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.983	0.000	0	173185	75.0	67.3	
$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	94	540141	75.0	73.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	88	210916	75.0	72.5	
11 Dichlorodifluoromethane	85	1.630	1.630	0.000	98	146171	75.0	73.9	
12 Chloromethane	50	1.831	1.831	0.000	98	222659	75.0	70.4	
13 Vinyl chloride	62	1.940	1.940	0.000	98	182711	75.0	72.3	
14 Butadiene	39	1.977	1.977	0.000	93	175484	75.0	77.8	M
15 Bromomethane	94	2.311	2.311	0.000	90	103436	75.0	75.5	
16 Chloroethane	64	2.451	2.451	0.000	98	109878	75.0	75.7	
18 Trichlorofluoromethane	101	2.719	2.719	0.000	95	157636	75.0	63.3	
17 Dichlorofluoromethane	67	2.725	2.725	0.000	95	273916	75.0	76.3	
20 Ethyl ether	59	3.108	3.108	0.000	95	174419	75.0	72.8	
21 Acrolein	56	3.297	3.297	0.000	99	133597	175.0	175.0	
22 1,1-Dichloroethene	96	3.400	3.400	0.000	95	144859	75.0	67.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.455	3.455	0.000	92	135965	75.0	77.0	
24 Acetone	43	3.510	3.510	0.000	99	239078	150.0	136.0	
25 Iodomethane	142	3.601	3.601	0.000	97	222629	75.0	70.3	
26 Carbon disulfide	76	3.686	3.686	0.000	100	431464	75.0	73.0	
28 3-Chloro-1-propene	76	3.990	3.990	0.000	90	129444	75.0	72.9	
30 Methyl acetate	43	4.015	4.015	0.000	99	385350	150.0	138.8	
31 Methylene Chloride	84	4.209	4.209	0.000	99	168850	75.0	66.2	
32 2-Methyl-2-propanol	59	4.471	4.471	0.000	98	223746	750.0	674.8	
33 Acrylonitrile	53	4.593	4.593	0.000	99	916220	750.0	714.8	
34 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	94	175351	75.0	69.6	
35 Methyl tert-butyl ether	73	4.635	4.635	0.000	99	533673	75.0	70.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.043	5.043	0.000	95	313674	75.0	70.9	
37 1,1-Dichloroethane	63	5.256	5.256	0.000	97	330111	75.0	69.4	
38 Vinyl acetate	43	5.310	5.310	0.000	97	480729	75.0	69.2	
44 2,2-Dichloropropane	97	5.992	5.992	0.000	93	46205	75.0	72.5	
45 cis-1,2-Dichloroethene	96	6.004	6.004	0.000	84	193227	75.0	68.9	
46 2-Butanone (MEK)	43	6.010	6.010	0.000	99	334832	150.0	140.7	
49 Chlorobromomethane	128	6.284	6.284	0.000	94	85492	75.0	69.1	
51 Tetrahydrofuran	42	6.296	6.296	0.000	92	163375	150.0	134.0	
52 Chloroform	83	6.430	6.430	0.000	95	285922	75.0	67.7	
53 1,1,1-Trichloroethane	97	6.594	6.594	0.000	98	233627	75.0	68.3	
54 Cyclohexane	56	6.655	6.655	0.000	95	358503	75.0	70.4	
56 Carbon tetrachloride	117	6.758	6.758	0.000	97	207671	75.0	69.1	
55 1,1-Dichloropropene	75	6.776	6.776	0.000	92	248344	75.0	69.1	
57 Isobutyl alcohol	41	6.977	6.977	0.000	96	215962	1875.0	1705.9	
58 Benzene	78	6.989	6.989	0.000	97	734073	75.0	69.9	
59 1,2-Dichloroethane	62	7.068	7.068	0.000	97	235973	75.0	68.3	
62 n-Heptane	43	7.348	7.348	0.000	96	282966	75.0	70.2	
64 Trichloroethene	130	7.719	7.719	0.000	97	177850	75.0	69.2	
66 Methylcyclohexane	83	7.957	7.957	0.000	95	308209	75.0	70.5	
67 1,2-Dichloropropane	63	7.993	7.993	0.000	96	200014	75.0	68.5	
68 Dibromomethane	93	8.078	8.078	0.000	93	100567	75.0	66.7	
70 1,4-Dioxane	88	8.084	8.084	0.000	41	35832	1500.0	1310.3	
71 Dichlorobromomethane	83	8.273	8.273	0.000	98	220386	75.0	69.0	
73 2-Chloroethyl vinyl ether	63	8.577	8.577	0.000	92	274054	150.0	139.5	
74 cis-1,3-Dichloropropene	75	8.717	8.717	0.000	92	296141	75.0	69.3	
75 4-Methyl-2-pentanone (MIBK	43	8.875	8.875	0.000	98	585317	150.0	146.6	
76 Toluene	91	9.052	9.052	0.000	99	780737	75.0	73.1	
77 trans-1,3-Dichloropropene	75	9.295	9.295	0.000	98	258935	75.0	71.5	
78 Ethyl methacrylate	69	9.356	9.356	0.000	92	280255	75.0	72.9	
79 1,1,2-Trichloroethane	97	9.496	9.496	0.000	92	153411	75.0	71.1	
80 Tetrachloroethene	164	9.563	9.563	0.000	98	152819	75.0	74.8	
81 1,3-Dichloropropane	76	9.648	9.648	0.000	97	274592	75.0	72.2	
82 2-Hexanone	43	9.709	9.709	0.000	98	481301	150.0	151.9	
84 Chlorodibromomethane	129	9.861	9.861	0.000	90	149990	75.0	71.7	
85 Ethylene Dibromide	107	9.976	9.976	0.000	100	148835	75.0	69.6	
86 3-Chlorobenzotrifluoride	180	10.439	10.439	0.000	92	274484	75.0	75.1	
87 Chlorobenzene	112	10.463	10.463	0.000	93	490822	75.0	72.2	
88 4-Chlorobenzotrifluoride	180	10.524	10.524	0.000	95	260997	75.0	74.7	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.554	0.000	94	169025	75.0	73.2	
90 Ethylbenzene	106	10.560	10.560	0.000	99	271964	75.0	72.5	
91 m-Xylene & p-Xylene	106	10.694	10.694	0.000	0	334134	75.0	72.7	
92 o-Xylene	106	11.071	11.071	0.000	97	326410	75.0	72.2	
93 Styrene	104	11.096	11.096	0.000	95	550534	75.0	71.6	
94 Bromoform	173	11.278	11.278	0.000	97	104149	75.0	70.0	
96 2-Chlorobenzotrifluoride	180	11.345	11.345	0.000	97	268204	75.0	73.3	
97 Isopropylbenzene	105	11.442	11.442	0.000	97	815253	75.0	73.5	
100 Bromobenzene	156	11.753	11.753	0.000	96	192570	75.0	70.6	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.753	0.000	91	204042	75.0	69.4	
102 trans-1,4-Dichloro-2-buten	53	11.795	11.795	0.000	87	76568	75.0	70.9	
101 1,2,3-Trichloropropane	110	11.814	11.814	0.000	86	68430	75.0	73.8	
103 N-Propylbenzene	120	11.856	11.856	0.000	99	226484	75.0	71.0	
104 2-Chlorotoluene	126	11.947	11.947	0.000	96	189243	75.0	70.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	98	204267	75.0	70.4	
106 1,3,5-Trimethylbenzene	105	12.045	12.045	0.000	95	646696	75.0	70.7	
107 4-Chlorotoluene	126	12.069	12.069	0.000	97	196596	75.0	70.1	
108 tert-Butylbenzene	119	12.355	12.355	0.000	94	559488	75.0	70.6	
110 1,2,4-Trimethylbenzene	105	12.416	12.416	0.000	97	668751	75.0	72.2	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	98	203613	75.0	73.4	
112 sec-Butylbenzene	105	12.580	12.580	0.000	95	775789	75.0	71.9	
113 1,3-Dichlorobenzene	146	12.696	12.696	0.000	98	359242	75.0	71.2	
114 4-Isopropyltoluene	119	12.738	12.738	0.000	97	663144	75.0	71.4	
115 1,4-Dichlorobenzene	146	12.799	12.799	0.000	95	361359	75.0	69.6	
116 2,4-Dichloro-1-(triflourom	214	12.830	12.830	0.000	97	180562	75.0	69.6	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.872	0.000	0	214948	75.0	74.3	
120 n-Butylbenzene	91	13.146	13.146	0.000	97	565547	75.0	71.1	
121 1,2-Dichlorobenzene	146	13.158	13.158	0.000	96	328411	75.0	69.2	
122 1,2-Dibromo-3-Chloropropan	75	13.955	13.955	0.000	85	43060	75.0	67.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.095	14.095	0.000	0	735393	225.0	213.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.515	14.515	0.000	0	501273	150.0	137.6	
126 1,2,4-Trichlorobenzene	180	14.776	14.776	0.000	95	181806	75.0	67.4	
127 Hexachlorobutadiene	225	14.922	14.922	0.000	95	81879	75.0	68.7	
128 Naphthalene	128	15.038	15.038	0.000	98	584418	75.0	68.6	
129 1,2,3-Trichlorobenzene	180	15.269	15.269	0.000	94	166025	75.0	66.3	
131 2,4,5-Trichlorotoluene	159	16.036	16.036	0.000	0	103751	75.0	67.0	
130 2,3,6-Trichlorotoluene	159	16.133	16.133	0.000	96	92963	75.0	65.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		150.0	144.9	
S 134 1,2-Dichloroethene, Total	96				0		150.0	138.6	
S 135 1,3-Dichloropropene, Total	1				0		150.0	140.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	3.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	7.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	3.00	Units: uL
voaWKetmix1st_00003	Amount Added:	3.00	Units: uL
voaW2clev1stR_00008	Amount Added:	3.00	Units: uL
voaWVA1stRest_00015	Amount Added:	3.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	3.00	Units: uL

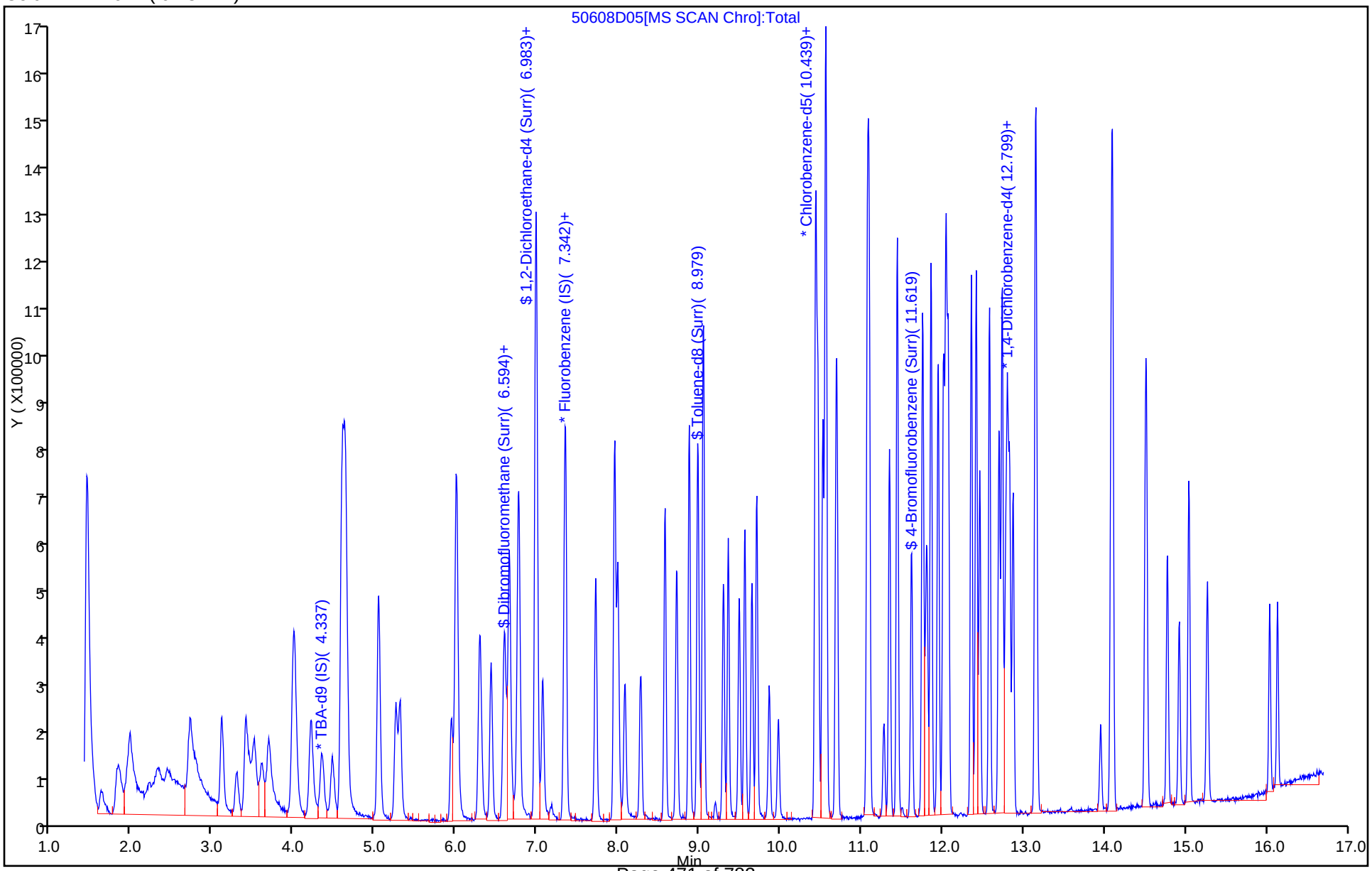
Report Date: 09-Jun-2017 03:52:05 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D

Injection Date:	08-Jun-2017 07:24:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD15			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

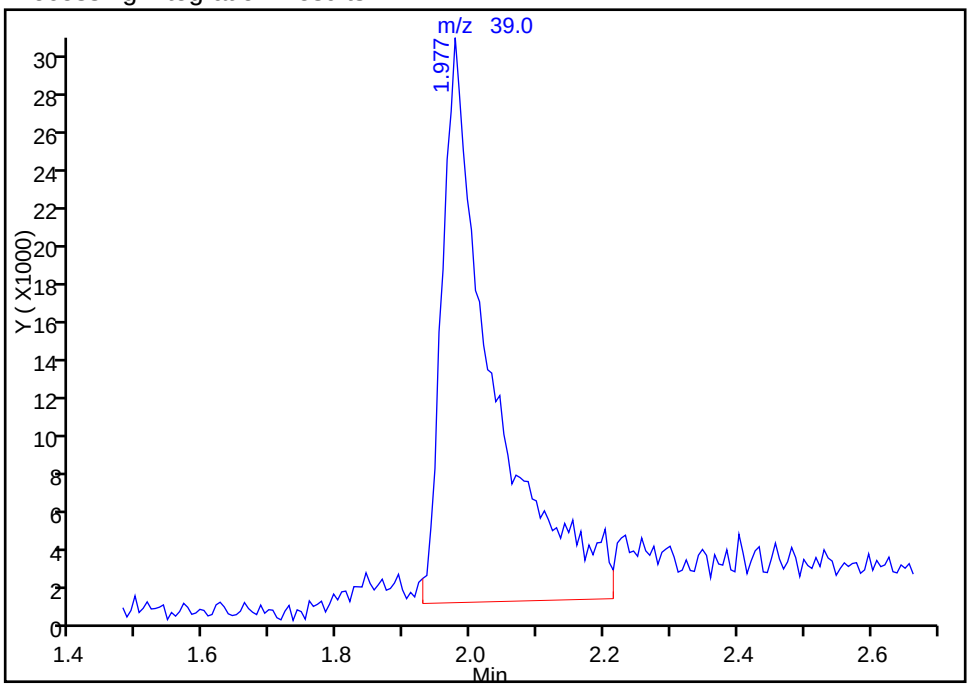
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D				
Injection Date:	08-Jun-2017 07:24:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

Signal: 1

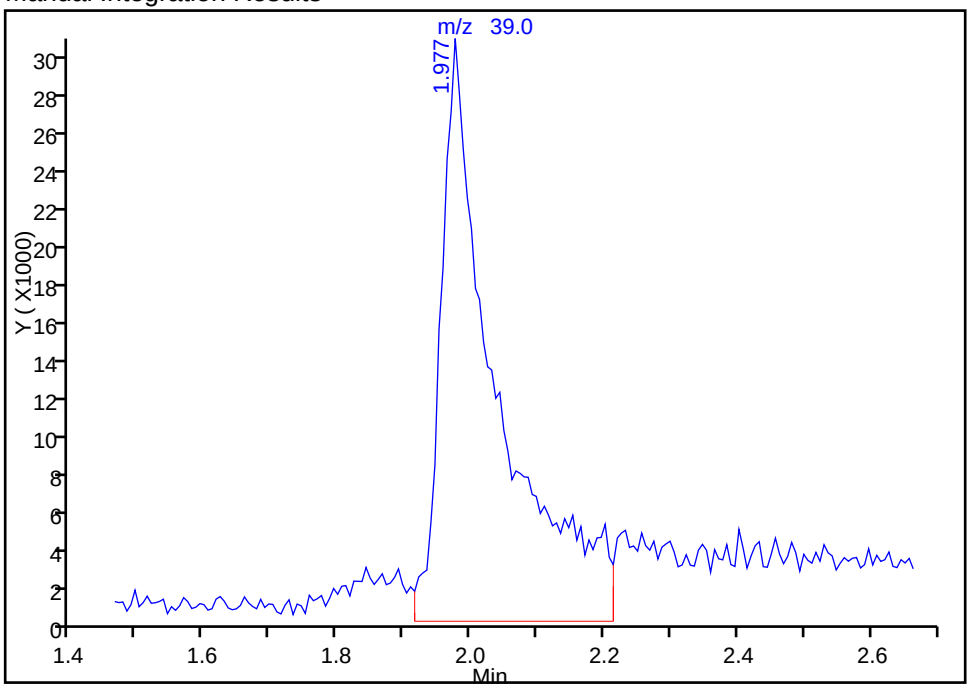
Processing Integration Results

RT: 1.98
Area: 150869
Amount: 40.354776
Amount Units: ng



Manual Integration Results

RT: 1.98
Area: 175484
Amount: 77.784364
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 08:16:23

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 08-Jun-2017 07:48:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-006
Misc. Info.: IC VSTD20
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:52:07 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 08:13:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.343	0.011	0	197193	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	98	351980	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.433	0.004	69	92814	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.781	-0.008	92	129379	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.611	6.612	-0.001	94	173538	100.0	96.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.983	-0.001	0	231495	100.0	93.3	
$ 7 Toluene-d8 (Surr)	98	8.983	8.979	0.004	93	707972	100.0	95.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.613	0.005	88	284175	100.0	96.4	
11 Dichlorodifluoromethane	85	1.616	1.630	-0.014	99	190995	100.0	100.1	
12 Chloromethane	50	1.829	1.831	-0.002	100	281148	100.0	92.2	
13 Vinyl chloride	62	1.945	1.940	0.005	97	236967	100.0	97.3	
14 Butadiene	39	1.981	1.977	0.004	93	219867	100.0	106.4	M
15 Bromomethane	94	2.310	2.311	-0.001	92	137007	100.0	105.6	
16 Chloroethane	64	2.432	2.451	-0.019	99	132369	100.0	95.8	
18 Trichlorofluoromethane	101	2.724	2.719	0.005	90	232367	100.0	96.8	
17 Dichlorofluoromethane	67	2.718	2.725	-0.007	93	325877	100.0	95.7	
20 Ethyl ether	59	3.119	3.108	0.011	94	198208	100.0	85.9	
21 Acrolein	56	3.302	3.297	0.005	99	141135	200.0	191.9	
22 1,1-Dichloroethene	96	3.411	3.400	0.011	96	186952	100.0	90.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.460	3.455	0.005	91	194019	100.0	114.0	
24 Acetone	43	3.514	3.510	0.004	99	327588	200.0	204.6	
25 Iodomethane	142	3.606	3.601	0.005	97	309287	100.0	101.4	
26 Carbon disulfide	76	3.691	3.686	0.005	100	558362	100.0	98.1	
28 3-Chloro-1-propene	76	3.983	3.990	-0.007	90	162702	100.0	95.1	
30 Methyl acetate	43	4.019	4.015	0.004	99	536456	200.0	200.5	
31 Methylene Chloride	84	4.208	4.209	-0.001	98	240190	100.0	97.7	
32 2-Methyl-2-propanol	59	4.482	4.471	0.011	98	279075	1000.0	1134.3	
33 Acrylonitrile	53	4.597	4.593	0.005	99	1254097	1000.0	1015.3	
34 trans-1,2-Dichloroethene	96	4.634	4.623	0.011	96	235005	100.0	96.9	
35 Methyl tert-butyl ether	73	4.646	4.635	0.011	99	740346	100.0	101.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.047	5.043	0.004	95	414201	100.0	97.1	
37 1,1-Dichloroethane	63	5.260	5.256	0.004	96	449645	100.0	98.1	
38 Vinyl acetate	43	5.309	5.310	-0.001	97	621774	100.0	92.9	
44 2,2-Dichloropropane	97	5.997	5.992	0.004	59	59858	100.0	97.5	
45 cis-1,2-Dichloroethene	96	6.003	6.004	-0.001	83	263920	100.0	97.7	
46 2-Butanone (MEK)	43	6.015	6.010	0.005	99	440384	200.0	192.0	
49 Chlorobromomethane	128	6.289	6.284	0.004	93	111165	100.0	93.3	
51 Tetrahydrofuran	42	6.301	6.296	0.005	91	230737	200.0	199.3	
52 Chloroform	83	6.428	6.430	-0.002	96	393090	100.0	96.7	
53 1,1,1-Trichloroethane	97	6.587	6.594	-0.007	97	312138	100.0	94.7	
54 Cyclohexane	56	6.660	6.655	0.005	94	494683	100.0	100.8	
56 Carbon tetrachloride	117	6.757	6.758	-0.001	96	280114	100.0	96.7	
55 1,1-Dichloropropene	75	6.775	6.776	-0.001	92	338006	100.0	97.5	
57 Isobutyl alcohol	41	6.976	6.977	-0.001	95	308653	2500.0	2530.0	
58 Benzene	78	6.988	6.989	-0.001	98	989799	100.0	97.8	
59 1,2-Dichloroethane	62	7.067	7.068	-0.001	96	323970	100.0	97.3	
62 n-Heptane	43	7.353	7.348	0.005	96	368639	100.0	94.8	
64 Trichloroethene	130	7.724	7.719	0.005	97	246005	100.0	99.3	
66 Methylcyclohexane	83	7.955	7.957	-0.002	95	408182	100.0	96.8	
67 1,2-Dichloropropane	63	7.992	7.993	-0.001	97	273710	100.0	97.3	
68 Dibromomethane	93	8.083	8.078	0.005	95	139250	100.0	95.9	
70 1,4-Dioxane	88	8.077	8.084	-0.007	40	54731	2000.0	2076.8	
71 Dichlorobromomethane	83	8.278	8.273	0.005	98	292391	100.0	95.0	
73 2-Chloroethyl vinyl ether	63	8.576	8.577	-0.001	92	378146	200.0	199.8	
74 cis-1,3-Dichloropropene	75	8.722	8.717	0.005	92	403451	100.0	98.0	
75 4-Methyl-2-pentanone (MIBK	43	8.874	8.875	-0.001	98	771359	200.0	190.8	
76 Toluene	91	9.050	9.052	-0.002	98	1049056	100.0	97.0	
77 trans-1,3-Dichloropropene	75	9.294	9.295	-0.001	98	358629	100.0	97.8	
78 Ethyl methacrylate	69	9.355	9.356	-0.001	93	381934	100.0	98.1	
79 1,1,2-Trichloroethane	97	9.488	9.496	-0.008	92	214004	100.0	97.9	
80 Tetrachloroethene	164	9.561	9.563	-0.002	98	202692	100.0	98.0	
81 1,3-Dichloropropane	76	9.647	9.648	-0.001	97	386392	100.0	100.3	
82 2-Hexanone	43	9.707	9.709	-0.002	98	628179	200.0	195.8	
84 Chlorodibromomethane	129	9.860	9.861	-0.001	92	204939	100.0	96.7	
85 Ethylene Dibromide	107	9.975	9.976	-0.001	99	211108	100.0	97.5	
86 3-Chlorobenzotrifluoride	180	10.437	10.439	-0.002	93	377102	100.0	101.9	
87 Chlorobenzene	112	10.462	10.463	-0.001	93	663544	100.0	96.4	
88 4-Chlorobenzotrifluoride	180	10.523	10.524	-0.001	96	358041	100.0	101.2	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.554	-0.001	93	229696	100.0	98.2	
90 Ethylbenzene	106	10.559	10.560	-0.001	99	366730	100.0	96.6	
91 m-Xylene & p-Xylene	106	10.693	10.694	-0.001	0	455089	100.0	97.8	
92 o-Xylene	106	11.076	11.071	0.005	97	441909	100.0	96.5	
93 Styrene	104	11.094	11.096	-0.002	95	754852	100.0	96.9	
94 Bromoform	173	11.277	11.278	-0.001	97	145882	100.0	96.9	
96 2-Chlorobenzotrifluoride	180	11.344	11.345	-0.001	98	372804	100.0	100.6	
97 Isopropylbenzene	105	11.441	11.442	-0.001	97	1097412	100.0	97.7	
99 1,1,2,2-Tetrachloroethane	83	11.758	11.753	0.005	80	298732	100.0	100.3	
100 Bromobenzene	156	11.758	11.753	0.005	94	266448	100.0	98.4	
102 trans-1,4-Dichloro-2-buten	53	11.794	11.795	-0.001	85	106219	100.0	99.0	
101 1,2,3-Trichloropropane	110	11.812	11.814	-0.002	86	94031	100.0	102.9	
103 N-Propylbenzene	120	11.861	11.856	0.005	99	307590	100.0	97.0	
104 2-Chlorotoluene	126	11.946	11.947	-0.001	96	257123	100.0	96.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.013	12.008	0.005	96	293533	100.0	101.9	
106 1,3,5-Trimethylbenzene	105	12.043	12.045	-0.002	94	887312	100.0	97.7	
107 4-Chlorotoluene	126	12.068	12.069	-0.001	98	266448	100.0	95.7	
108 tert-Butylbenzene	119	12.354	12.355	-0.001	94	763225	100.0	96.9	
110 1,2,4-Trimethylbenzene	105	12.415	12.416	-0.001	97	909030	100.0	98.7	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.458	-0.001	98	282839	100.0	102.6	
112 sec-Butylbenzene	105	12.579	12.580	-0.001	95	1045329	100.0	97.6	
113 1,3-Dichlorobenzene	146	12.700	12.696	0.004	98	493151	100.0	98.3	
114 4-Isopropyltoluene	119	12.737	12.738	-0.001	96	908837	100.0	98.5	
115 1,4-Dichlorobenzene	146	12.798	12.799	-0.001	95	502172	100.0	97.3	
116 2,4-Dichloro-1-(triflourom	214	12.828	12.830	-0.002	97	253790	100.0	98.5	
118 2,5-Dichlorobenzotrifluori	214	12.871	12.872	-0.001	0	301944	100.0	105.1	
120 n-Butylbenzene	91	13.145	13.146	-0.001	97	773393	100.0	97.8	
121 1,2-Dichlorobenzene	146	13.157	13.158	-0.001	97	470610	100.0	99.9	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.955	-0.007	84	63264	100.0	101.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.094	14.095	-0.001	0	1047544	300.0	305.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.513	14.515	-0.002	0	732216	200.0	202.4	
126 1,2,4-Trichlorobenzene	180	14.775	14.776	-0.001	94	260096	100.0	97.1	
127 Hexachlorobutadiene	225	14.921	14.922	-0.001	95	114595	100.0	96.8	
128 Naphthalene	128	15.043	15.038	0.005	98	848811	100.0	100.3	
129 1,2,3-Trichlorobenzene	180	15.268	15.269	-0.001	94	243122	100.0	97.7	
131 2,4,5-Trichlorotoluene	159	16.034	16.036	-0.001	0	156547	100.0	101.7	
130 2,3,6-Trichlorotoluene	159	16.132	16.133	-0.001	96	135667	100.0	96.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		200.0	194.6	
S 133 Xylenes, Total	106				0		200.0	194.3	
S 135 1,3-Dichloropropene, Total	1				0		200.0	195.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	4.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	8.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	4.00	Units: uL
voaWKetmix1st_00003	Amount Added:	4.00	Units: uL
voaW2clev1stR_00008	Amount Added:	4.00	Units: uL
voaWVA1stRest_00015	Amount Added:	4.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	4.00	Units: uL

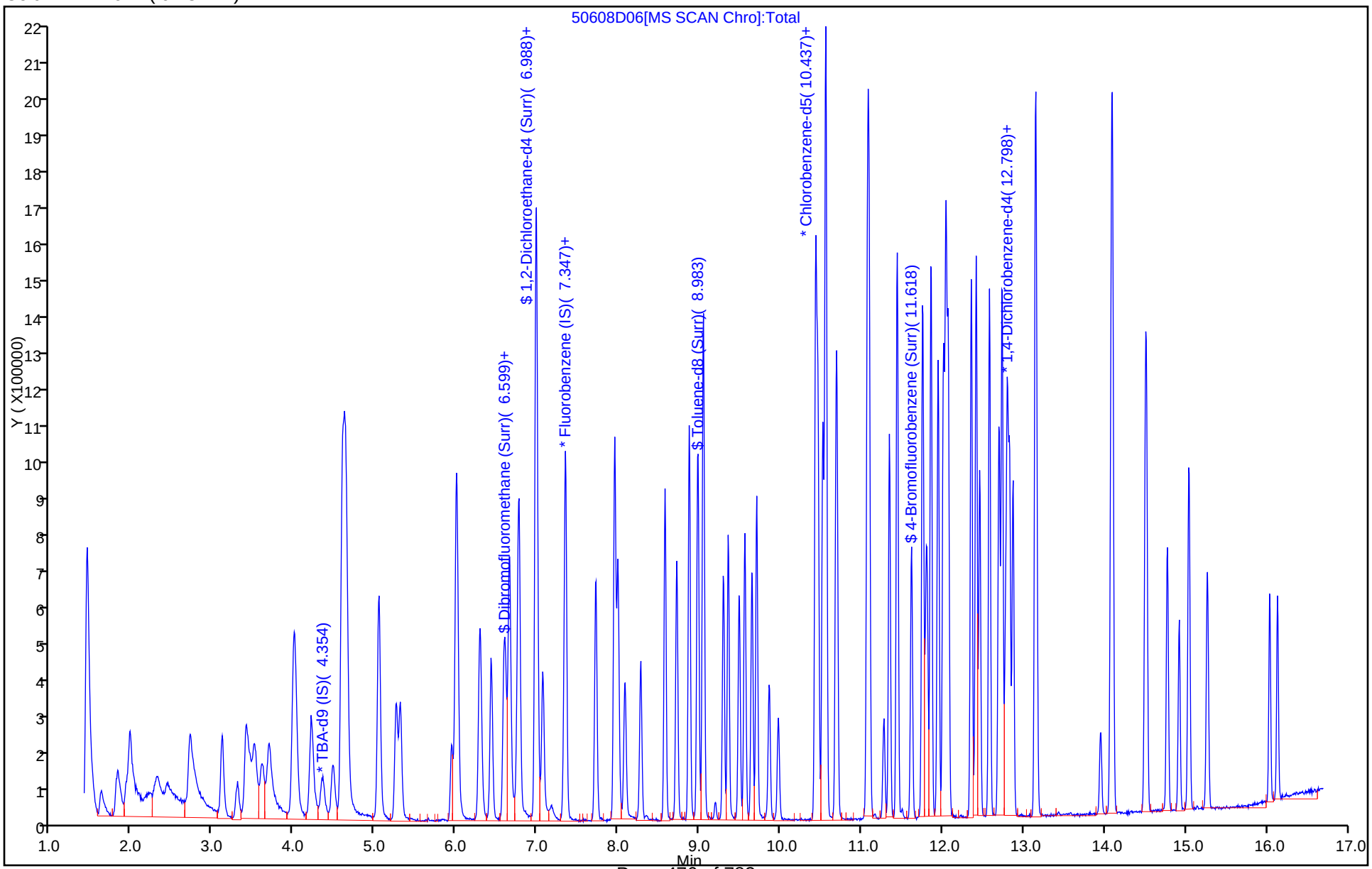
Report Date: 09-Jun-2017 03:52:08 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D

Injection Date:	08-Jun-2017 07:48:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD20			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

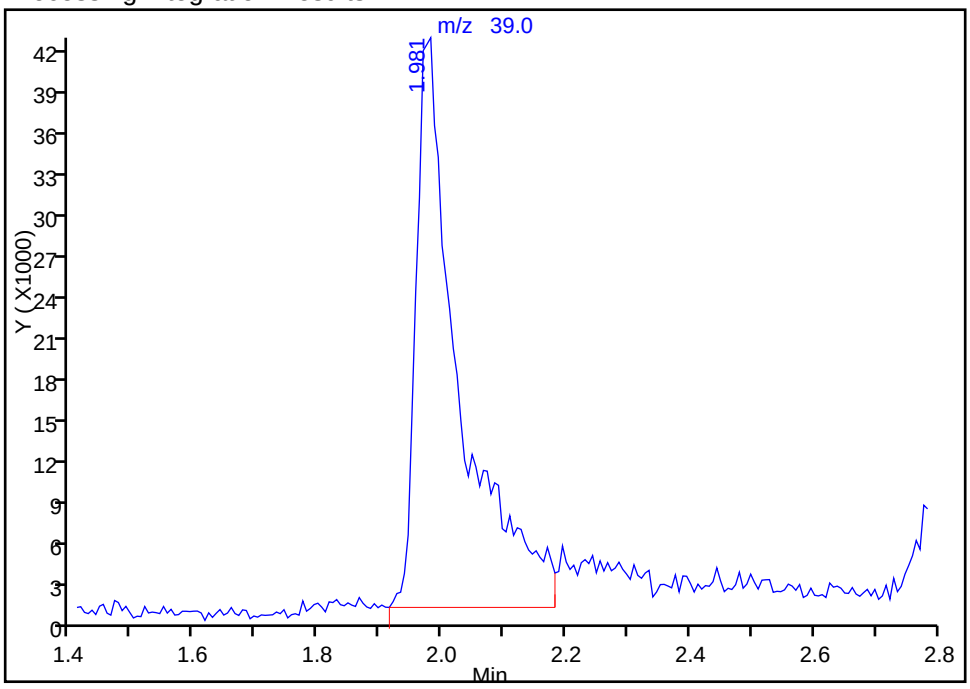
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D				
Injection Date:	08-Jun-2017 07:48:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

Signal: 1

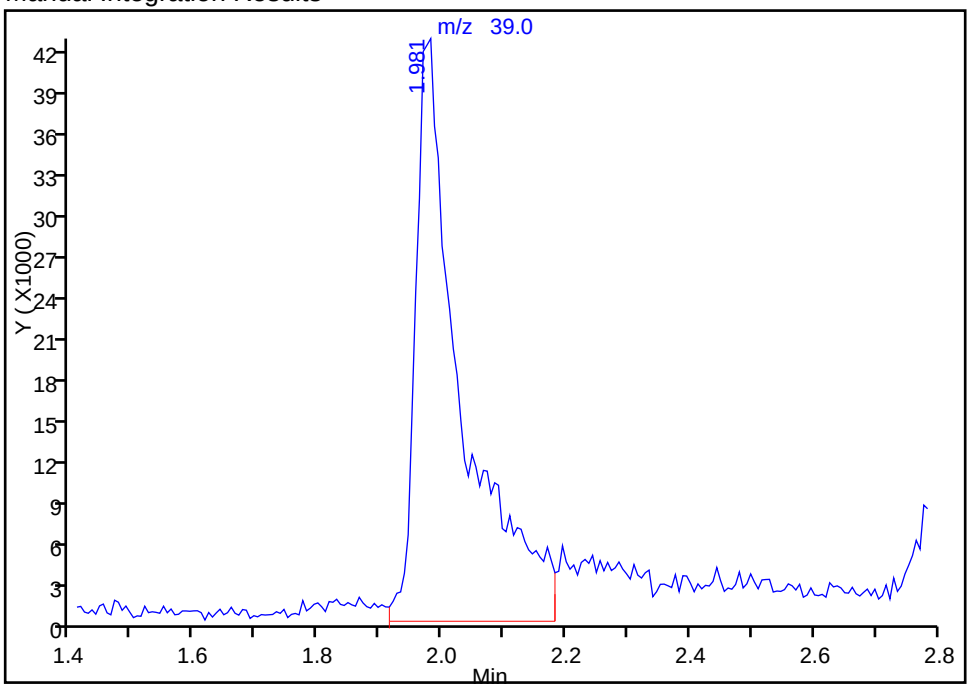
Processing Integration Results

RT: 1.98
Area: 202883
Amount: 55.701377
Amount Units: ng



Manual Integration Results

RT: 1.98
Area: 219867
Amount: 106.4441
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 08:17:04

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 08-Jun-2017 08:11:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-007
Misc. Info.: IC VSTD35
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:52:09 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 08:57:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.343	0.020	0	246279	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	98	313213	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	88	86638	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.776	12.781	-0.005	94	120475	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.614	6.612	0.002	94	297108	175.0	185.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.983	-0.004	0	402465	175.0	182.3	
$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	93	1190748	175.0	171.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.620	11.613	0.007	91	490170	175.0	178.1	
11 Dichlorodifluoromethane	85	1.619	1.630	-0.011	98	288265	175.0	169.9	
12 Chloromethane	50	1.826	1.831	-0.005	100	463847	175.0	171.0	
13 Vinyl chloride	62	1.942	1.940	0.002	98	381880	175.0	176.3	
14 Butadiene	39	1.978	1.977	0.001	93	322594	175.0	187.0	
15 Bromomethane	94	2.270	2.311	-0.041	91	193127	175.0	170.0	M
16 Chloroethane	64	2.428	2.451	-0.023	99	214850	175.0	178.4	
18 Trichlorofluoromethane	101	2.708	2.719	-0.011	89	407996	175.0	191.0	
17 Dichlorofluoromethane	67	2.714	2.725	-0.011	94	526510	175.0	178.8	
20 Ethyl ether	59	3.110	3.108	0.002	95	378438	175.0	184.2	
21 Acrolein	56	3.292	3.297	-0.005	99	176433	225.0	269.5	
22 1,1-Dichloroethene	96	3.402	3.400	0.002	95	355274	175.0	193.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.463	3.455	0.008	92	308123	175.0	203.4	
24 Acetone	43	3.511	3.510	0.001	99	441614	350.0	363.4	
25 Iodomethane	142	3.602	3.601	0.001	97	514836	175.0	189.7	
26 Carbon disulfide	76	3.682	3.686	-0.004	100	909550	175.0	179.5	
28 3-Chloro-1-propene	76	3.986	3.990	-0.004	88	269538	175.0	177.1	
30 Methyl acetate	43	4.016	4.015	0.001	99	869695	350.0	365.2	
31 Methylene Chloride	84	4.211	4.209	0.002	99	399535	175.0	182.7	
32 2-Methyl-2-propanol	59	4.497	4.471	0.026	98	504751	1750.0	1642.7	
33 Acrylonitrile	53	4.594	4.593	0.002	99	2037753	1750.0	1854.0	
34 trans-1,2-Dichloroethene	96	4.625	4.623	0.001	96	379604	175.0	175.8	
35 Methyl tert-butyl ether	73	4.643	4.635	0.008	99	1191395	175.0	183.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.038	5.043	-0.005	95	668602	175.0	176.2	
37 1,1-Dichloroethane	63	5.257	5.256	0.001	96	736757	175.0	180.5	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1093622	175.0	183.7	
44 2,2-Dichloropropane	97	5.993	5.992	0.001	92	98205	175.0	179.7	
45 cis-1,2-Dichloroethene	96	5.999	6.004	-0.005	84	440120	175.0	183.1	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	675747	350.0	331.1	
49 Chlorobromomethane	128	6.285	6.284	0.001	93	193171	175.0	182.1	
51 Tetrahydrofuran	42	6.304	6.296	0.008	94	375950	350.0	370.1	
52 Chloroform	83	6.431	6.430	0.001	96	636895	175.0	176.0	
53 1,1,1-Trichloroethane	97	6.589	6.594	-0.005	98	516491	175.0	176.1	
54 Cyclohexane	56	6.656	6.655	0.001	94	778625	175.0	178.3	
56 Carbon tetrachloride	117	6.760	6.758	0.002	96	448401	175.0	173.9	
55 1,1-Dichloropropene	75	6.772	6.776	-0.004	93	546560	175.0	177.3	
57 Isobutyl alcohol	41	6.979	6.977	0.002	96	500943	4375.0	4614.4	
58 Benzene	78	6.991	6.989	0.002	98	1577529	175.0	175.2	
59 1,2-Dichloroethane	62	7.064	7.068	-0.004	97	537767	175.0	181.4	
62 n-Heptane	43	7.350	7.348	0.002	96	603889	175.0	174.6	
64 Trichloroethene	130	7.721	7.719	0.002	98	400484	175.0	181.6	
66 Methylcyclohexane	83	7.952	7.957	-0.005	96	657704	175.0	175.4	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	438885	175.0	175.3	
68 Dibromomethane	93	8.080	8.078	0.002	94	226707	175.0	175.4	
70 1,4-Dioxane	88	8.080	8.084	-0.004	40	88641	3500.0	3779.9	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	495018	175.0	180.7	
73 2-Chloroethyl vinyl ether	63	8.579	8.577	0.002	93	617167	350.0	366.4	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	667160	175.0	182.2	
75 4-Methyl-2-pentanone (MIBK	43	8.877	8.875	0.002	97	1277910	350.0	338.7	
76 Toluene	91	9.047	9.052	-0.005	98	1681283	175.0	166.5	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	591362	175.0	172.8	
78 Ethyl methacrylate	69	9.357	9.356	0.001	93	626604	175.0	172.3	
79 1,1,2-Trichloroethane	97	9.491	9.496	-0.005	92	350713	175.0	171.9	
80 Tetrachloroethene	164	9.558	9.563	-0.005	98	331372	175.0	171.6	
81 1,3-Dichloropropane	76	9.649	9.648	0.001	97	619625	175.0	172.3	
82 2-Hexanone	43	9.704	9.709	-0.005	98	978798	350.0	326.8	
84 Chlorodibromomethane	129	9.862	9.861	0.001	91	346026	175.0	175.0	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	341661	175.0	169.0	
86 3-Chlorobenzotrifluoride	180	10.434	10.439	-0.005	94	614470	175.0	177.8	
87 Chlorobenzene	112	10.465	10.463	0.002	94	1087528	175.0	169.3	
88 4-Chlorobenzotrifluoride	180	10.525	10.524	0.001	96	584269	175.0	176.9	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	95	376787	175.0	172.6	
90 Ethylbenzene	106	10.562	10.560	0.002	98	606102	175.0	171.1	
91 m-Xylene & p-Xylene	106	10.696	10.694	0.002	0	748663	175.0	172.4	
92 o-Xylene	106	11.073	11.071	0.002	97	724488	175.0	169.6	
93 Styrene	104	11.097	11.096	0.001	95	1229204	175.0	169.1	
94 Bromoform	173	11.280	11.278	0.002	98	246235	175.0	175.2	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	98	610154	175.0	176.4	
97 Isopropylbenzene	105	11.444	11.442	0.002	97	1739655	175.0	166.0	
100 Bromobenzene	156	11.754	11.753	0.001	96	437254	175.0	173.3	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	79	470241	175.0	169.2	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	88	177867	175.0	178.0	
101 1,2,3-Trichloropropane	110	11.809	11.814	-0.005	88	151444	175.0	179.6	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	503370	175.0	170.5	
104 2-Chlorotoluene	126	11.949	11.947	0.002	96	429562	175.0	172.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	95	465106	175.0	173.4	
106 1,3,5-Trimethylbenzene	105	12.040	12.045	-0.005	94	1417182	175.0	167.5	
107 4-Chlorotoluene	126	12.071	12.069	0.002	97	461546	175.0	178.0	
108 tert-Butylbenzene	119	12.357	12.355	0.002	94	1229844	175.0	167.7	
110 1,2,4-Trimethylbenzene	105	12.417	12.416	0.001	97	1444257	175.0	168.5	
111 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	99	452248	175.0	176.2	
112 sec-Butylbenzene	105	12.582	12.580	0.002	95	1671080	175.0	167.5	
113 1,3-Dichlorobenzene	146	12.697	12.696	0.001	97	809393	175.0	173.3	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1443989	175.0	168.1	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	94	818434	175.0	170.3	
116 2,4-Dichloro-1-(triflourom	214	12.831	12.830	0.001	96	422533	175.0	176.1	
118 2,5-Dichlorobenzotrifluori	214	12.874	12.872	0.002	0	469476	175.0	175.5	
120 n-Butylbenzene	91	13.147	13.146	0.001	97	1246354	175.0	169.3	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	96	749586	175.0	170.9	
122 1,2-Dibromo-3-Chloropropan	75	13.950	13.955	-0.005	83	101450	175.0	178.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.090	14.095	-0.005	0	1625773	525.0	509.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.515	-0.005	0	1157680	350.0	343.6	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	429547	175.0	172.2	
127 Hexachlorobutadiene	225	14.918	14.922	-0.004	95	187630	175.0	170.2	
128 Naphthalene	128	15.039	15.038	0.001	98	1347013	175.0	170.9	
129 1,2,3-Trichlorobenzene	180	15.264	15.269	-0.005	95	400531	175.0	172.9	
131 2,4,5-Trichlorotoluene	159	16.037	16.036	0.002	0	241394	175.0	168.5	
130 2,3,6-Trichlorotoluene	159	16.134	16.133	0.001	96	217169	175.0	166.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	341.9	
S 134 1,2-Dichloroethene, Total	96				0		350.0	358.9	
S 135 1,3-Dichloropropene, Total	1				0		350.0	355.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	7.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	9.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	7.00	Units: uL
voaWKetmix1st_00003	Amount Added:	7.00	Units: uL
voaW2clev1stR_00008	Amount Added:	7.00	Units: uL
voaWVA1stRest_00015	Amount Added:	7.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	7.00	Units: uL

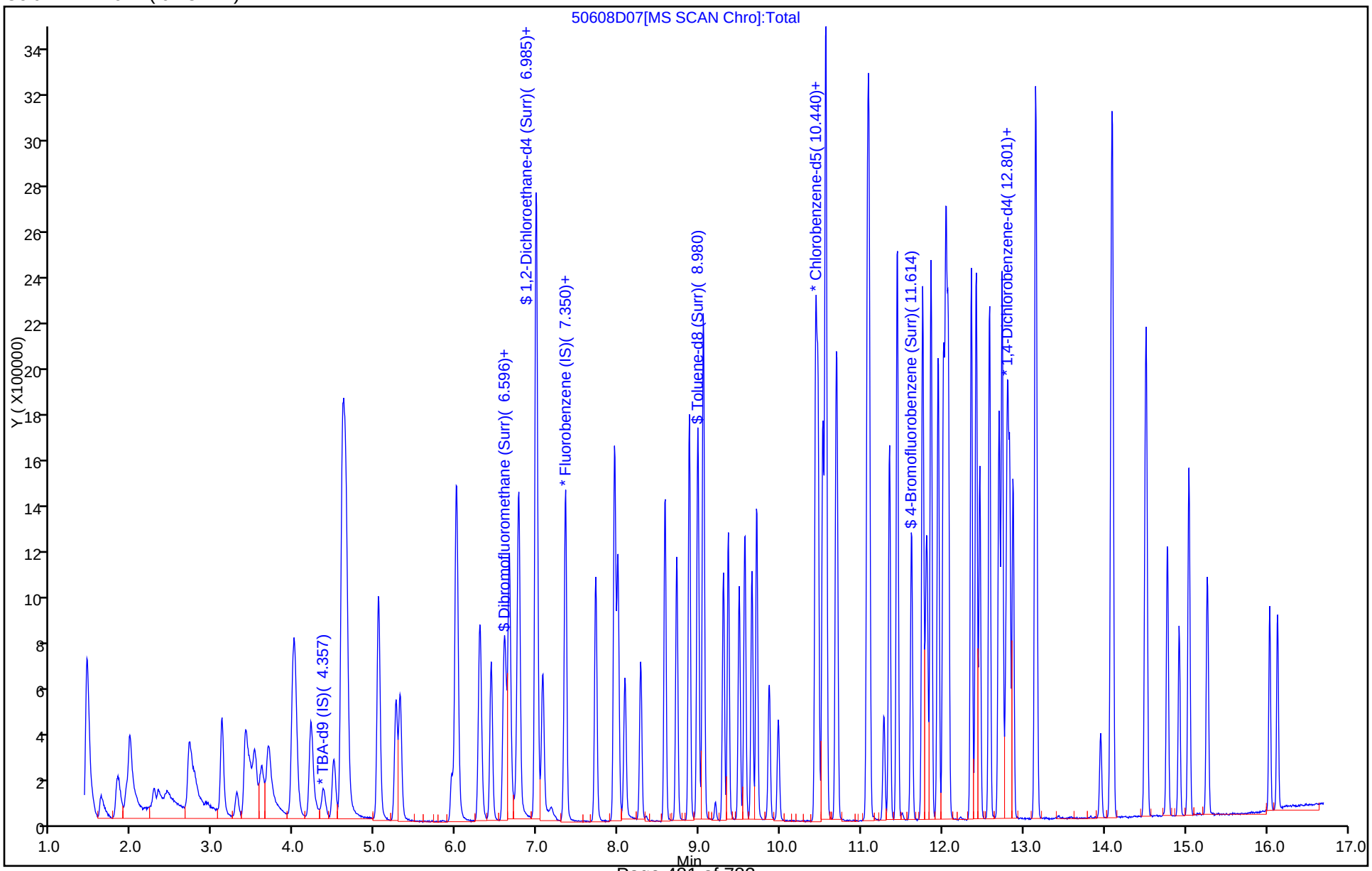
Report Date: 09-Jun-2017 03:52:10 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D

Injection Date:	08-Jun-2017 08:11:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD35			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

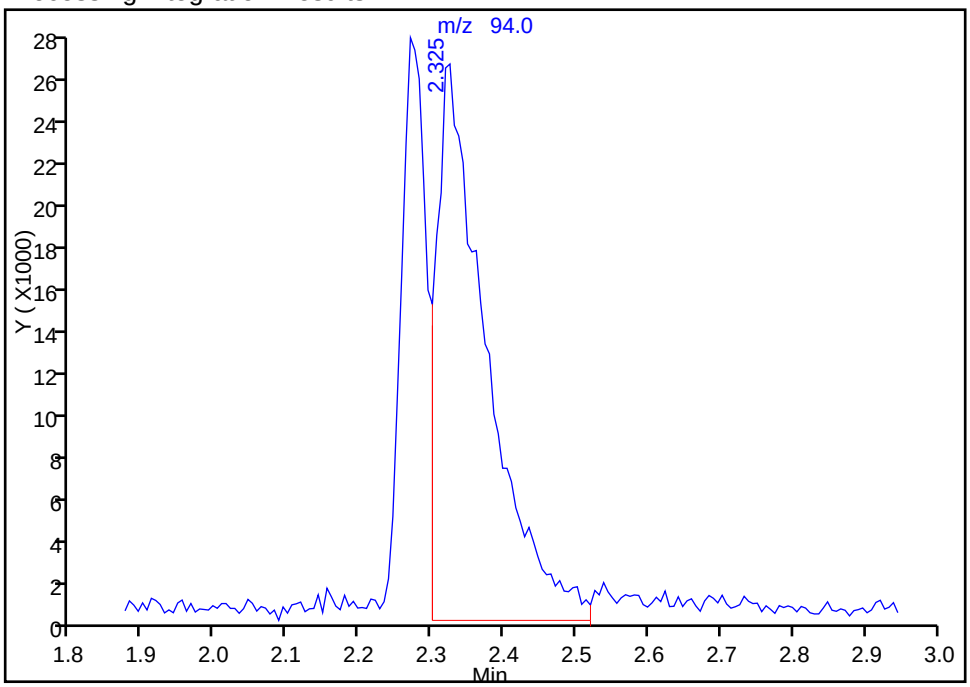
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D				
Injection Date:	08-Jun-2017 08:11:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD35				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

Signal: 1

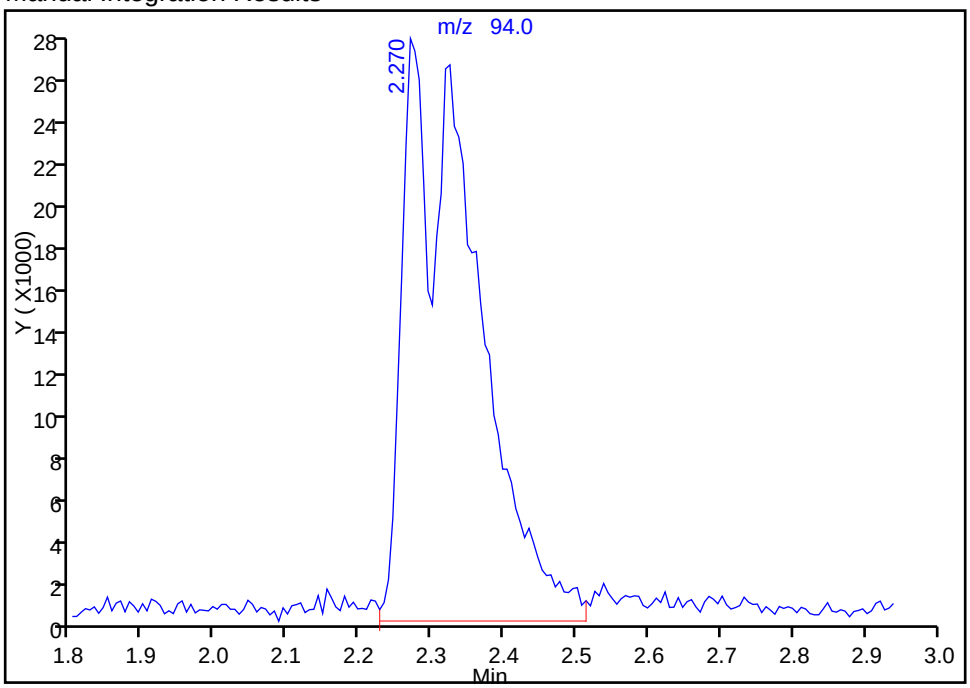
Processing Integration Results

RT: 2.32
Area: 129320
Amount: 105.6042
Amount Units: ng



Manual Integration Results

RT: 2.27
Area: 193127
Amount: 170.0468
Amount Units: ng



Reviewer: bungardf, 08-Jun-2017 08:55:59

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D08.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 08-Jun-2017 08:35:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-008
Misc. Info.: IC VSTD40
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:52:11 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 08:58:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.343	0.020	0	219952	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	98	322706	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	53	95100	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.781	-0.005	91	122807	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.608	6.612	-0.004	94	336435	200.0	203.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.983	0.002	0	452860	200.0	199.1	
$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	93	1333199	200.0	175.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.613	0.002	89	556606	200.0	184.3	
11 Dichlorodifluoromethane	85	1.626	1.630	-0.004	99	320286	200.0	183.2	
12 Chloromethane	50	1.826	1.831	-0.005	100	503528	200.0	180.2	
13 Vinyl chloride	62	1.942	1.940	0.002	98	416057	200.0	186.4	
14 Butadiene	39	1.972	1.977	-0.005	93	331808	200.0	186.6	
15 Bromomethane	94	2.313	2.311	0.002	90	199546	200.0	170.5	
16 Chloroethane	64	2.441	2.451	-0.010	99	242959	200.0	196.3	
18 Trichlorofluoromethane	101	2.714	2.719	-0.005	88	443285	200.0	201.4	
17 Dichlorofluoromethane	67	2.714	2.725	-0.011	94	619199	200.0	205.0	
20 Ethyl ether	59	3.110	3.108	0.002	96	427535	200.0	202.0	
21 Acrolein	56	3.292	3.297	-0.005	98	186572	250.0	276.6	
22 1,1-Dichloroethene	96	3.408	3.400	0.008	96	410531	200.0	217.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.451	3.455	-0.004	91	326722	200.0	209.3	
24 Acetone	43	3.511	3.510	0.001	99	462297	400.0	373.4	
25 Iodomethane	142	3.603	3.601	0.002	98	581438	200.0	207.9	
26 Carbon disulfide	76	3.688	3.686	0.002	100	1034498	200.0	198.2	
28 3-Chloro-1-propene	76	3.992	3.990	0.002	90	325365	200.0	207.5	
30 Methyl acetate	43	4.016	4.015	0.001	99	1054265	400.0	429.7	
31 Methylene Chloride	84	4.211	4.209	0.002	98	426256	200.0	189.1	
32 2-Methyl-2-propanol	59	4.485	4.471	0.014	98	469244	2000.0	1710.0	
33 Acrylonitrile	53	4.594	4.593	0.002	99	2193876	2000.0	1937.3	
34 trans-1,2-Dichloroethene	96	4.625	4.623	0.002	96	398038	200.0	178.9	
35 Methyl tert-butyl ether	73	4.643	4.635	0.008	99	1279855	200.0	191.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.038	5.043	-0.005	95	675938	200.0	172.9	
37 1,1-Dichloroethane	63	5.257	5.256	0.001	96	853476	200.0	203.0	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1233778	200.0	201.1	
44 2,2-Dichloropropane	97	6.000	5.992	0.008	93	106967	200.0	190.0	
45 cis-1,2-Dichloroethene	96	6.000	6.004	-0.004	84	491702	200.0	198.5	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	732742	400.0	348.5	
49 Chlorobromomethane	128	6.285	6.284	0.001	94	218627	200.0	200.0	
51 Tetrahydrofuran	42	6.298	6.296	0.002	91	424882	400.0	406.5	
52 Chloroform	83	6.431	6.430	0.001	95	725704	200.0	194.6	
53 1,1,1-Trichloroethane	97	6.584	6.594	-0.010	98	560443	200.0	185.4	
54 Cyclohexane	56	6.657	6.655	0.002	94	876870	200.0	194.9	
56 Carbon tetrachloride	117	6.760	6.758	0.002	96	503927	200.0	189.7	
55 1,1-Dichloropropene	75	6.772	6.776	-0.004	93	612031	200.0	192.6	
57 Isobutyl alcohol	41	6.979	6.977	0.002	93	553306	5000.0	4946.8	
58 Benzene	78	6.991	6.989	0.002	99	1788795	200.0	192.8	
59 1,2-Dichloroethane	62	7.070	7.068	0.002	96	620368	200.0	203.2	
62 n-Heptane	43	7.350	7.348	0.002	95	655443	200.0	183.9	
64 Trichloroethene	130	7.721	7.719	0.002	97	445239	200.0	196.0	
66 Methylcyclohexane	83	7.952	7.957	-0.005	96	724486	200.0	187.5	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	513159	200.0	198.9	
68 Dibromomethane	93	8.080	8.078	0.002	95	263730	200.0	198.1	
70 1,4-Dioxane	88	8.080	8.084	-0.004	40	104236	4000.0	4314.1	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	570917	200.0	202.2	
73 2-Chloroethyl vinyl ether	63	8.579	8.577	0.002	93	706913	400.0	407.4	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	762600	200.0	202.1	
75 4-Methyl-2-pentanone (MIBK	43	8.877	8.875	0.002	97	1449023	400.0	349.9	
76 Toluene	91	9.047	9.052	-0.005	97	1880344	200.0	169.6	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	683392	200.0	181.9	
78 Ethyl methacrylate	69	9.358	9.356	0.002	93	716406	200.0	179.5	
79 1,1,2-Trichloroethane	97	9.491	9.496	-0.005	92	401520	200.0	179.3	
80 Tetrachloroethene	164	9.558	9.563	-0.005	98	372604	200.0	175.7	
81 1,3-Dichloropropane	76	9.650	9.648	0.002	97	720290	200.0	182.5	
82 2-Hexanone	43	9.704	9.709	-0.005	97	1071544	400.0	326.0	
84 Chlorodibromomethane	129	9.863	9.861	0.002	91	397752	200.0	183.2	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	398884	200.0	179.8	
86 3-Chlorobenzotrifluoride	180	10.434	10.439	-0.005	91	709603	200.0	187.1	
87 Chlorobenzene	112	10.465	10.463	0.002	96	1240825	200.0	176.0	
88 4-Chlorobenzotrifluoride	180	10.526	10.524	0.002	96	672658	200.0	185.6	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	96	432680	200.0	180.6	
90 Ethylbenzene	106	10.562	10.560	0.002	99	676281	200.0	173.9	
91 m-Xylene & p-Xylene	106	10.696	10.694	0.002	0	850193	200.0	178.3	
92 o-Xylene	106	11.073	11.071	0.002	97	816773	200.0	174.1	
93 Styrene	104	11.097	11.096	0.001	95	1401938	200.0	175.7	
94 Bromoform	173	11.274	11.278	-0.004	97	286980	200.0	186.0	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	96	691733	200.0	182.2	
97 Isopropylbenzene	105	11.444	11.442	0.002	97	1945195	200.0	169.1	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	94	552518	200.0	181.1	
100 Bromobenzene	156	11.754	11.753	0.001	96	504414	200.0	196.2	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	86	203354	200.0	199.7	
101 1,2,3-Trichloropropane	110	11.809	11.814	-0.005	85	174213	200.0	202.9	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	566124	200.0	188.1	
104 2-Chlorotoluene	126	11.949	11.947	0.002	97	489826	200.0	192.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	95	536156	200.0	196.1	
106 1,3,5-Trimethylbenzene	105	12.040	12.045	-0.005	95	1602983	200.0	185.9	
107 4-Chlorotoluene	126	12.071	12.069	0.002	97	515598	200.0	195.0	
108 tert-Butylbenzene	119	12.357	12.355	0.002	94	1375238	200.0	183.9	
110 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	97	1628727	200.0	186.4	
111 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	99	522959	200.0	199.9	
112 sec-Butylbenzene	105	12.582	12.580	0.002	95	1846550	200.0	181.6	
113 1,3-Dichlorobenzene	146	12.697	12.696	0.001	97	922963	200.0	193.9	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1609019	200.0	183.8	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	94	946901	200.0	193.3	
116 2,4-Dichloro-1-(triflourom	214	12.831	12.830	0.001	96	497310	200.0	203.3	
118 2,5-Dichlorobenzotrifluori	214	12.868	12.872	-0.004	0	547248	200.0	200.7	
120 n-Butylbenzene	91	13.142	13.146	-0.004	97	1382118	200.0	184.2	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	97	864638	200.0	193.3	
122 1,2-Dibromo-3-Chloropropan	75	13.951	13.955	-0.004	84	119400	200.0	206.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.095	-0.004	0	1870903	600.0	574.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.515	-0.005	0	1323377	400.0	385.3	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	497586	200.0	195.7	
127 Hexachlorobutadiene	225	14.924	14.922	0.002	97	205503	200.0	182.8	
128 Naphthalene	128	15.040	15.038	0.002	98	1545157	200.0	192.3	
129 1,2,3-Trichlorobenzene	180	15.265	15.269	-0.004	95	462732	200.0	196.0	
131 2,4,5-Trichlorotoluene	159	16.037	16.036	0.002	0	280260	200.0	191.9	
130 2,3,6-Trichlorotoluene	159	16.135	16.133	0.002	97	254778	200.0	191.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	377.5	
S 133 Xylenes, Total	106				0		400.0	352.5	
S 135 1,3-Dichloropropene, Total	1				0		400.0	384.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00255	Amount Added:	8.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	10.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	8.00	Units: uL
voaWKetmix1st_00003	Amount Added:	8.00	Units: uL
voaW2clev1stR_00008	Amount Added:	8.00	Units: uL
voaWVA1stRest_00015	Amount Added:	8.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	8.00	Units: uL

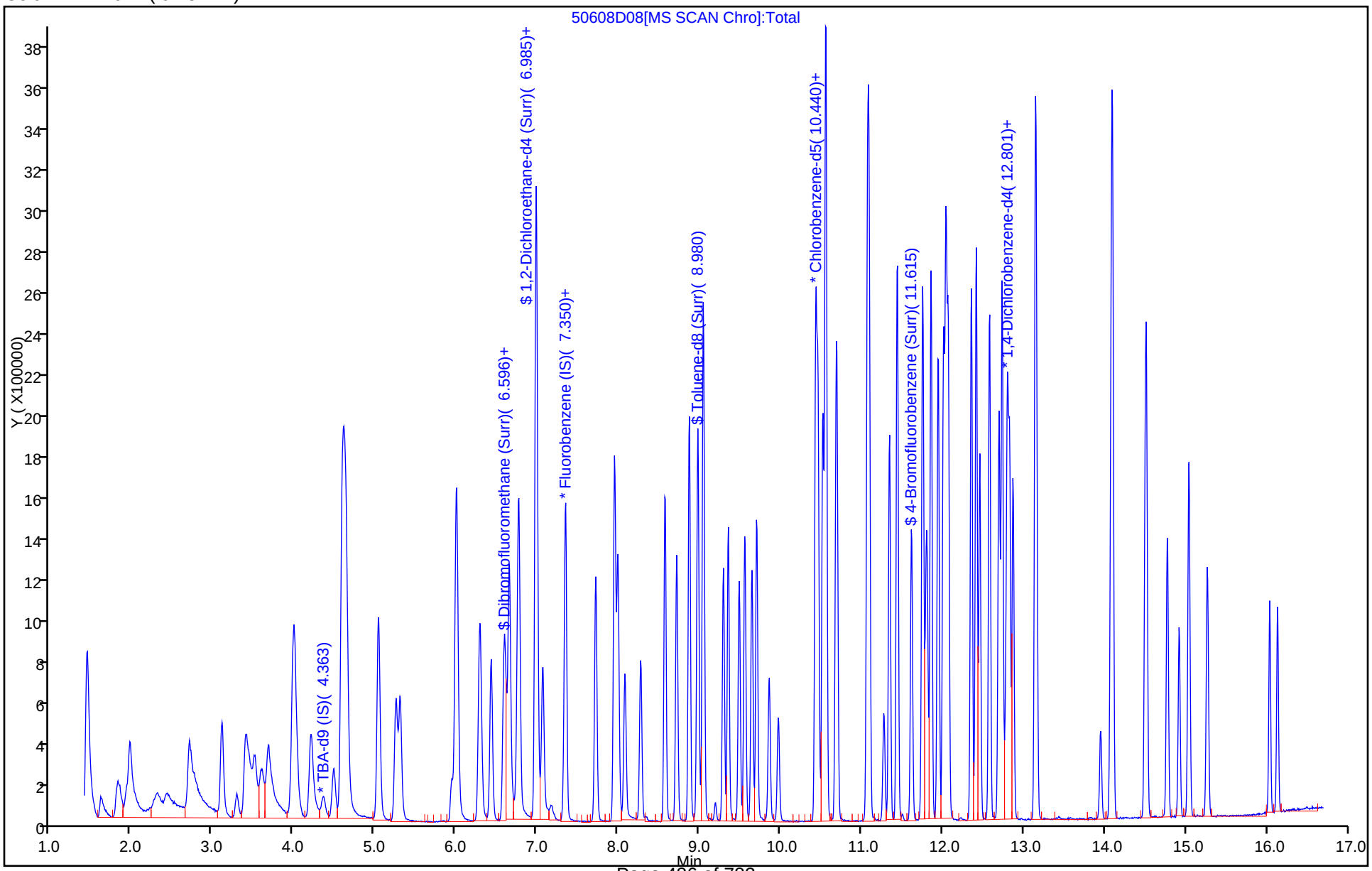
Report Date: 09-Jun-2017 03:52:12 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D08.D

Injection Date:	08-Jun-2017 08:35:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD40			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 08-Jun-2017 08:59:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-009
Misc. Info.: IC VSTD50
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:52:14 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 09-Jun-2017 03:09:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.376	4.343	0.033	0	225322	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	99	325167	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.433	0.002	61	93222	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.781	-0.004	93	126931	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.608	6.612	-0.004	94	412655	250.0	248.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.983	-0.004	0	548631	250.0	239.3	
$ 7 Toluene-d8 (Surr)	98	8.981	8.979	0.002	93	1616941	250.0	216.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.613	0.002	88	681987	250.0	230.3	
11 Dichlorodifluoromethane	85	1.620	1.630	-0.010	98	383674	250.0	217.8	
12 Chloromethane	50	1.821	1.831	-0.010	99	660580	250.0	234.6	
13 Vinyl chloride	62	1.936	1.940	-0.004	97	544552	250.0	242.1	
14 Butadiene	39	1.979	1.977	0.002	93	463060	250.0	265.3	
15 Bromomethane	94	2.289	2.311	-0.022	90	228806	250.0	194.7	
16 Chloroethane	64	2.423	2.451	-0.028	99	284483	250.0	228.8	
18 Trichlorofluoromethane	101	2.709	2.719	-0.010	88	500610	250.0	225.8	
17 Dichlorofluoromethane	67	2.709	2.725	-0.016	93	684695	250.0	225.6	
20 Ethyl ether	59	3.110	3.108	0.002	94	425913	250.0	199.7	
21 Acrolein	56	3.293	3.297	-0.004	99	163186	275.0	240.1	
22 1,1-Dichloroethene	96	3.402	3.400	0.002	97	420571	250.0	221.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.445	3.455	-0.010	94	367239	250.0	233.5	M
24 Acetone	43	3.518	3.510	0.008	100	540944	500.0	519.9	
25 Iodomethane	142	3.597	3.601	-0.004	98	662319	250.0	235.1	
26 Carbon disulfide	76	3.688	3.686	0.002	99	1147403	250.0	218.1	
28 3-Chloro-1-propene	76	3.986	3.990	-0.004	90	373044	250.0	236.1	
30 Methyl acetate	43	4.017	4.015	0.002	99	1222074	500.0	494.4	
31 Methylene Chloride	84	4.211	4.209	0.002	99	547979	250.0	241.3	
32 2-Methyl-2-propanol	59	4.497	4.471	0.026	98	800812	2500.0	2848.7	
33 Acrylonitrile	53	4.595	4.593	0.003	98	2839818	2500.0	2488.7	
34 trans-1,2-Dichloroethene	96	4.619	4.623	-0.004	97	514686	250.0	229.6	
35 Methyl tert-butyl ether	73	4.649	4.635	0.014	99	1662995	250.0	247.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.039	5.043	-0.004	95	881434	250.0	223.8	
37 1,1-Dichloroethane	63	5.252	5.256	-0.004	96	1006985	250.0	237.7	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1478910	250.0	239.3	
44 2,2-Dichloropropane	97	6.000	5.992	0.008	90	123055	250.0	216.9	
45 cis-1,2-Dichloroethene	96	6.000	6.004	-0.004	84	609918	250.0	244.4	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	942332	500.0	444.8	
49 Chlorobromomethane	128	6.286	6.284	0.002	93	266776	250.0	242.2	
51 Tetrahydrofuran	42	6.304	6.296	0.008	91	517849	500.0	493.0	
52 Chloroform	83	6.432	6.430	0.002	95	888887	250.0	236.6	
53 1,1,1-Trichloroethane	97	6.590	6.594	-0.004	98	679603	250.0	223.2	
54 Cyclohexane	56	6.657	6.655	0.002	94	1057958	250.0	233.3	
56 Carbon tetrachloride	117	6.754	6.758	-0.004	95	600003	250.0	224.2	
55 1,1-Dichloropropene	75	6.773	6.776	-0.004	92	725621	250.0	226.7	
57 Isobutyl alcohol	41	6.985	6.977	0.008	98	670610	6250.0	5950.2	
58 Benzene	78	6.992	6.989	0.003	97	2136842	250.0	228.5	
59 1,2-Dichloroethane	62	7.071	7.068	0.003	96	751563	250.0	244.3	
62 n-Heptane	43	7.350	7.348	0.002	95	782163	250.0	217.8	
64 Trichloroethene	130	7.722	7.719	0.003	98	544845	250.0	238.0	
66 Methylcyclohexane	83	7.953	7.957	-0.004	95	869390	250.0	223.3	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	623779	250.0	239.9	
68 Dibromomethane	93	8.080	8.078	0.002	94	323707	250.0	241.3	
70 1,4-Dioxane	88	8.080	8.084	-0.004	98	125075	5000.0	5137.5	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	679054	250.0	238.7	
73 2-Chloroethyl vinyl ether	63	8.573	8.577	-0.004	93	833749	500.0	476.8	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	917359	250.0	241.3	
75 4-Methyl-2-pentanone (MIBK	43	8.877	8.875	0.002	97	1715061	500.0	422.5	
76 Toluene	91	9.048	9.052	-0.004	97	2215068	250.0	203.8	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	814568	250.0	221.2	
78 Ethyl methacrylate	69	9.358	9.356	0.002	93	856567	250.0	218.9	
79 1,1,2-Trichloroethane	97	9.492	9.496	-0.004	92	480707	250.0	219.0	
80 Tetrachloroethene	164	9.559	9.563	-0.004	97	444805	250.0	214.0	
81 1,3-Dichloropropane	76	9.650	9.648	0.002	97	875399	250.0	226.2	
82 2-Hexanone	43	9.705	9.709	-0.004	97	1334896	500.0	414.3	
84 Chlorodibromomethane	129	9.863	9.861	0.002	91	482702	250.0	226.8	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	484529	250.0	222.8	
86 3-Chlorobenzotrifluoride	180	10.435	10.439	-0.004	93	816927	250.0	219.7	
87 Chlorobenzene	112	10.459	10.463	-0.004	92	1483014	250.0	214.6	
88 4-Chlorobenzotrifluoride	180	10.520	10.524	-0.004	95	777912	250.0	218.9	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	95	523309	250.0	222.8	
90 Ethylbenzene	106	10.563	10.560	0.003	98	819458	250.0	214.9	
91 m-Xylene & p-Xylene	106	10.690	10.694	-0.004	0	1032506	250.0	220.9	
92 o-Xylene	106	11.074	11.071	0.003	95	990376	250.0	215.4	
93 Styrene	104	11.098	11.096	0.002	95	1680161	250.0	214.8	
94 Bromoform	173	11.274	11.278	-0.004	97	342951	250.0	226.8	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	97	821958	250.0	220.8	
97 Isopropylbenzene	105	11.439	11.442	-0.003	97	2314258	250.0	205.2	
100 Bromobenzene	156	11.755	11.753	0.002	95	616854	250.0	232.1	
99 1,1,2,2-Tetrachloroethane	83	11.755	11.753	0.002	80	656224	250.0	219.4	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	84	245313	250.0	233.1	
101 1,2,3-Trichloropropane	110	11.810	11.814	-0.004	86	215879	250.0	243.7	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	698892	250.0	224.7	
104 2-Chlorotoluene	126	11.943	11.947	-0.004	96	593228	250.0	226.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	97	643177	250.0	227.5	
106 1,3,5-Trimethylbenzene	105	12.041	12.045	-0.004	97	1931146	250.0	216.6	
107 4-Chlorotoluene	126	12.071	12.069	0.002	96	633000	250.0	231.7	
108 tert-Butylbenzene	119	12.357	12.355	0.002	93	1658088	250.0	214.6	
110 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	97	2003753	250.0	221.9	
111 1,2-dichloro-4-(trifluorom	214	12.461	12.458	0.003	99	617023	250.0	228.2	
112 sec-Butylbenzene	105	12.576	12.580	-0.004	95	2236454	250.0	212.8	
113 1,3-Dichlorobenzene	146	12.698	12.696	0.002	97	1134229	250.0	230.5	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1942455	250.0	214.7	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	93	1155724	250.0	228.3	
116 2,4-Dichloro-1-(triflourom	214	12.826	12.830	-0.004	96	595571	250.0	235.6	
118 2,5-Dichlorobenzotrifluori	214	12.868	12.872	-0.004	0	652964	250.0	231.7	
120 n-Butylbenzene	91	13.142	13.146	-0.004	97	1678668	250.0	216.5	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	96	1076711	250.0	232.9	
122 1,2-Dibromo-3-Chloropropan	75	13.951	13.955	-0.004	85	144187	250.0	242.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.095	-0.004	0	2325266	750.0	691.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.511	14.515	-0.004	0	1680279	500.0	473.3	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	652178	250.0	248.1	
127 Hexachlorobutadiene	225	14.918	14.922	-0.004	97	269040	250.0	231.6	
128 Naphthalene	128	15.040	15.038	0.002	98	1993798	250.0	240.0	
129 1,2,3-Trichlorobenzene	180	15.265	15.269	-0.004	95	622398	250.0	255.1	
131 2,4,5-Trichlorotoluene	159	16.038	16.036	0.003	0	376576	250.0	249.5	
130 2,3,6-Trichlorotoluene	159	16.135	16.133	0.002	96	336770	250.0	244.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	436.3	
S 134 1,2-Dichloroethene, Total	96				0		500.0	474.0	
S 135 1,3-Dichloropropene, Total	1				0		500.0	462.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added:	10.00	Units: uL
voaWAcro1stRe_00014	Amount Added:	11.00	Units: uL
voaWEEmix1stR_00007	Amount Added:	10.00	Units: uL
voaWKetmix1st_00003	Amount Added:	10.00	Units: uL
voaW2clev1stR_00008	Amount Added:	10.00	Units: uL
voaWVA1stRest_00015	Amount Added:	10.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
VOA8260SURR_00069	Amount Added:	10.00	Units: uL

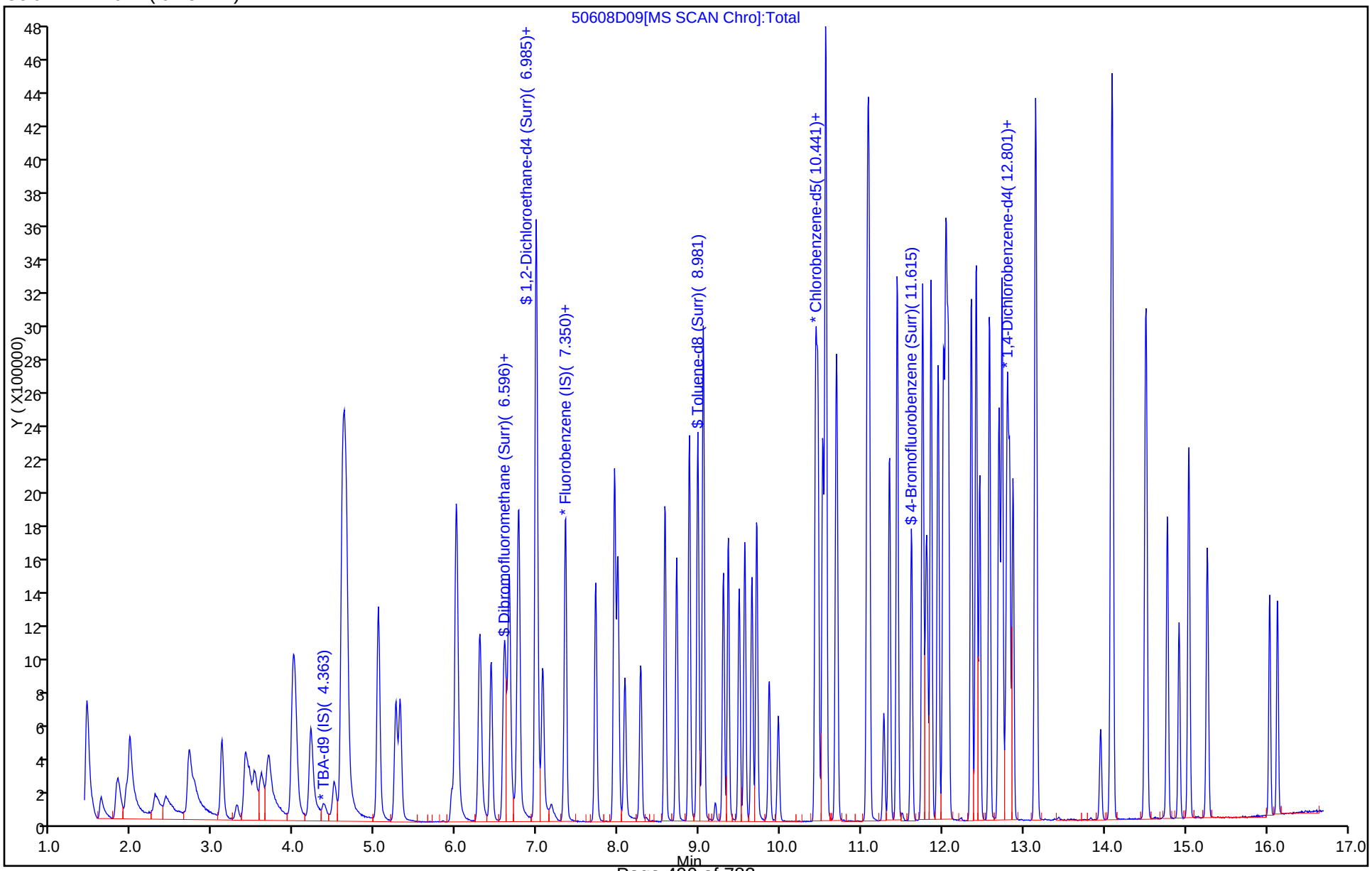
Report Date: 09-Jun-2017 03:52:15 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D

Injection Date:	08-Jun-2017 08:59:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD50			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

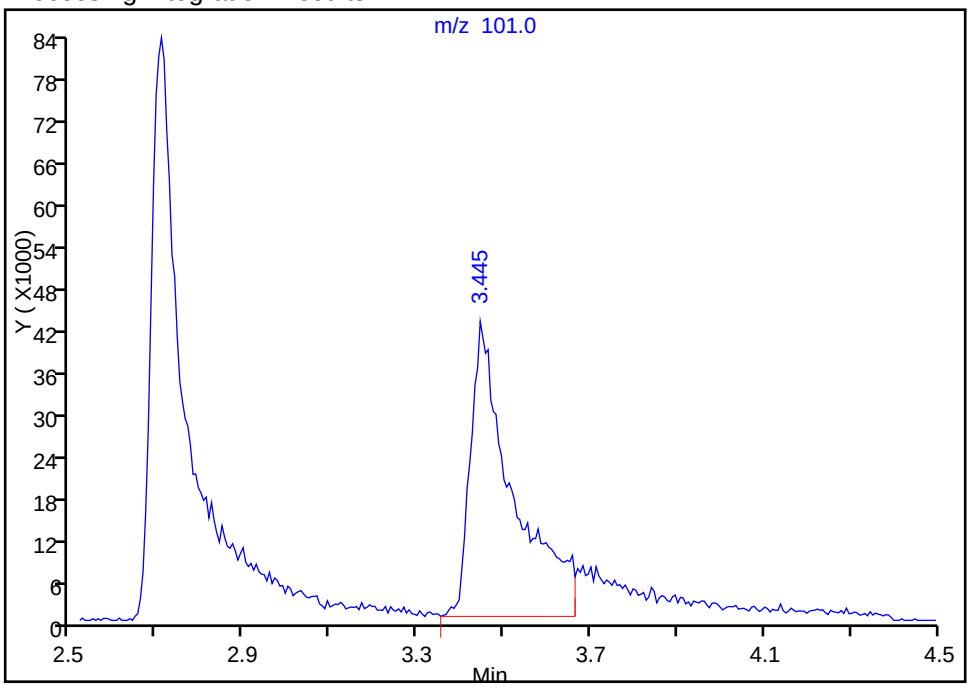
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D				
Injection Date:	08-Jun-2017 08:59:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD50				
Client ID:					
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

Signal: 1

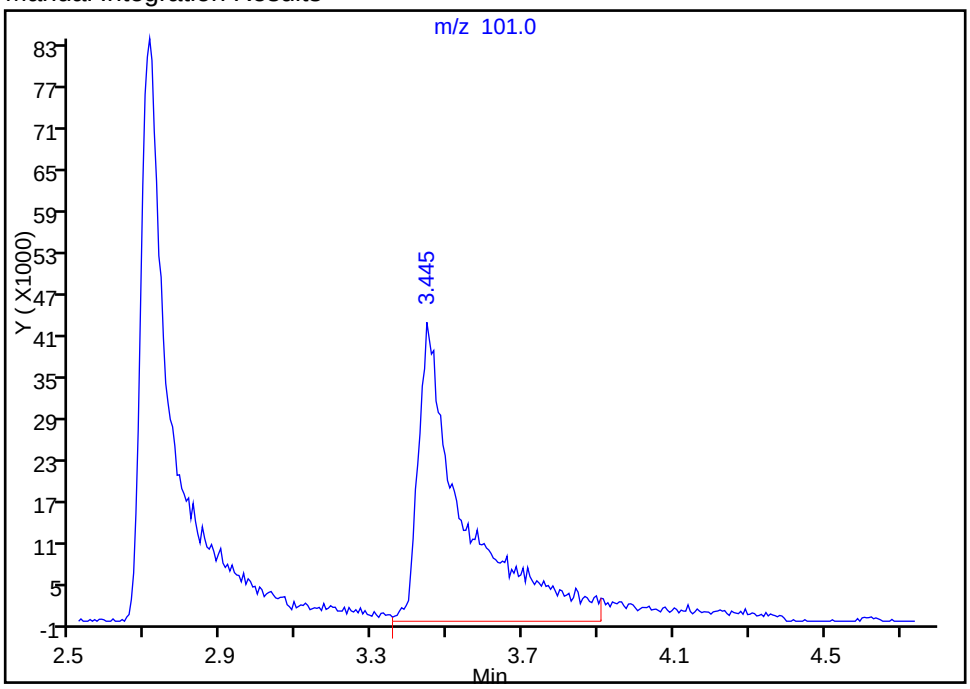
Processing Integration Results

RT: 3.44
Area: 286736
Amount: 183.8990
Amount Units: ng



Manual Integration Results

RT: 3.44
Area: 367239
Amount: 233.4906
Amount Units: ng



Reviewer: bungardf, 09-Jun-2017 03:08:59

Audit Action: Manually Integrated Audit Reason: Poor chromatography

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.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	0.3099 0.3034	0.3143 0.2538	0.2964 0.2820	0.2910	0.2753	Ave		0.2907			0.1000	6.9		20.0			
Chloromethane	0.3638 0.2790	0.2935 0.2586	0.2871 0.2672	0.2979	0.2905	Ave		0.2922			0.1000	10.9		20.0			
Vinyl chloride	0.3612 0.2960	0.3073 0.2570	0.3014 0.2855	0.2838	0.2802	Ave		0.2965			0.1000	10.2		20.0			
1,3-Butadiene	0.3317 0.2714	0.2771 0.2281	0.2660 0.2684	0.2619	0.2505	Ave		0.2694			0.0100	10.9		20.0			
Bromomethane	0.1274 0.1338	0.1569 0.1290	0.1507 0.1244	0.1438	0.1556	Ave		0.1402			0.0500	9.4		20.0			
Chloroethane	0.1972 0.1593	0.1757 0.1437	0.1605 0.1363	0.1653	0.1659	Ave		0.1630			0.0500	11.5		20.0			
Trichlorofluoromethane	0.4130 0.3605	0.3896 0.3164	0.3801 0.3348	0.3631	0.3573	Ave		0.3643			0.1000	8.4		20.0			
Ethyl ether	0.2690 0.2226	0.2473 0.2272	0.2344 0.2016	0.2419	0.2520	Ave		0.2370			0.0100	8.6		20.0			
Acrolein	0.0588 0.0564	0.0546 0.0639	0.0629 0.0550	0.0633	0.0629	Ave		0.0597			0.0100	6.7		20.0			
1,1-Dichloroethene	0.2633 0.2529	0.2525 0.2180	0.2438 0.2452	0.2449	0.2377	Ave		0.2448			0.1000	5.4		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3346 0.2678	0.2745 0.2382	0.2615 0.2547	0.2644	0.2534	Ave		0.2686			0.1000	10.7		20.0			
Acetone	0.1396 0.1048	0.1447 0.1163	0.1388 0.1038	0.1460	0.1519	Ave		0.1308			0.0500	14.8		20.0			
Iodomethane	0.4213 0.3803	0.3860 0.3716	0.3712 0.3619	0.3906	0.3928	Ave		0.3845			0.0100	4.8		20.0			
Carbon disulfide	0.5698 +++++	0.4896 0.5397	0.4946 0.6108	0.5168	0.5392	Ave		0.5372			0.1000	8.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	0.1501 0.1710	0.1485 0.1632	0.1541 0.1645	0.1561	0.1579	Ave		0.1582			0.0100	4.8		20.0			
Methyl acetate	0.2888 0.2364	0.2463 0.2614	0.2631 0.2382	0.2688	0.2686	Ave		0.2589			0.1000	6.8		20.0			
Methylene Chloride	0.4748 0.2821	0.3152 0.2910	0.3044 0.2676	0.3112	0.3108	Lin2	0.9532	0.2841			0.1000				0.9980		0.9900
tert-Butyl alcohol	1.3346 1.2872	1.1570 1.0277	1.1638 1.2343	1.1314	1.1253	Ave		1.1826			0.0100	8.3		20.0			
Acrylonitrile	0.1353 0.1106	0.1251 0.1245	0.1313 0.1150	0.1320	0.1333	Ave		0.1259			0.0100	7.1		20.0			
trans-1,2-Dichloroethene	0.3167 0.2789	0.2730 0.2547	0.2727 0.2653	0.2850	0.2851	Ave		0.2789			0.1000	6.6		20.0			
Methyl tert-butyl ether	0.7081 0.7482	0.7314 0.7800	0.7230 0.7142	0.7872	0.7909	Ave		0.7479			0.1000	4.5		20.0			
Hexane	0.4597 0.3561	0.3588 0.3156	0.3449 0.3625	0.3424	0.3242	Ave		0.3580			0.0100	12.4		20.0			
1,1-Dichloroethane	0.5228 0.4797	0.4979 0.4638	0.4852 0.4528	0.4864	0.4910	Ave		0.4850			0.2000	4.4		20.0			
Vinyl acetate	0.5018 0.5003	0.4274 0.5345	0.4556 0.5012	0.5130	0.5116	Ave		0.4932			0.0100	7.0		20.0			
2,2-Dichloropropane	0.0696 0.0640	0.0591 0.0559	0.0577 0.0619	0.0627	0.0632	Ave		0.0617			0.0100	6.9		20.0			
cis-1,2-Dichloroethene	0.3297 0.3143	0.3194 0.3060	0.3200 0.2963	0.3326	0.3338	Ave		0.3190			0.1000	4.1		20.0			
2-Butanone (MEK)	0.1854 0.1607	0.1969 0.1772	0.1989 0.1584	0.2064	0.2051	Ave		0.1861			0.0500	10.2		20.0			
Bromochloromethane	0.1517 0.1366	0.1414 0.1398	0.1402 0.1299	0.1453	0.1494	Ave		0.1418			0.0100	4.9		20.0			
Tetrahydrofuran	0.1371 0.0928	0.0982 0.1088	0.1088 0.1003	0.1130	0.1079	Ave		0.1084			0.0100	12.4		20.0			
Chloroform	0.5466 0.4636	0.4996 0.4621	0.4713 0.4342	0.4992	0.4977	Ave		0.4843			0.2000	7.0		20.0			
1,1,1-Trichloroethane	0.3786 0.3800	0.3677 0.3465	0.3637 0.3610	0.3661	0.3690	Ave		0.3666			0.1000	2.9		20.0			
Cyclohexane	0.4979 0.4744	0.4616 0.4108	0.4435 0.4590	0.4424	0.4292	Ave		0.4524			0.1000	6.0		20.0			
Carbon tetrachloride	0.3181 0.3198	0.2990 0.2880	0.3018 0.3038	0.3054	0.3047	Ave		0.3051			0.1000	3.3		20.0			
1,1-Dichloropropene	0.4064 0.4059	0.4083 0.3679	0.3990 0.3876	0.4006	0.3928	Ave		0.3961			0.0100	3.4		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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								
Isobutyl alcohol	0.0097 0.0085	0.0091 0.0105	0.0102 0.0094	0.0111	0.0112	Ave		0.0099		*	0.0100	9.6		20.0			
Benzene	1.3787 1.1520	1.2628 1.1081	1.2398 1.0692	1.2590	1.2563	Ave		1.2157			0.5000	8.2		20.0			
1,2-Dichloroethane	0.3884 0.3320	0.3554 0.3421	0.3528 0.3189	0.3753	0.3703	Ave		0.3544			0.1000	6.5		20.0			
n-Heptane	0.3037 0.2967	0.3011 0.2552	0.2860 0.3036	0.2755	0.2684	Ave		0.2863			0.0100	6.4		20.0			
Trichloroethene	0.3229 0.3036	0.3087 0.2884	0.3052 0.2920	0.3101	0.3167	Ave		0.3059			0.2000	3.8		20.0			
Methylcyclohexane	0.4727 0.4875	0.4672 0.4232	0.4697 0.4715	0.4601	0.4491	Ave		0.4626			0.1000	4.2		20.0			
1,2-Dichloropropane	0.3012 0.2794	0.2779 0.2782	0.2782 0.2612	0.2913	0.2975	Ave		0.2831			0.1000	4.6		20.0			
1,4-Dioxane	0.0022 0.0027	0.0028 0.0030	0.0031 0.0031	0.0030	0.0032	Ave		0.0029		*	0.0100	11.4		20.0			
Dibromomethane	0.1595 0.1606	0.1708 0.1667	0.1638 0.1549	0.1734	0.1774	Ave		0.1659			0.0100	4.6		20.0			
Bromodichloromethane	0.3001 0.3336	0.3125 0.3351	0.3169 0.3110	0.3438	0.3519	Ave		0.3256			0.2000	5.6		20.0			
2-Chloroethyl vinyl ether	0.1669 0.2025	0.1917 0.2176	0.2032 0.2031	0.2200	0.2248	Ave		0.2037			0.0100	9.1		20.0			
cis-1,3-Dichloropropene	0.3596 0.4128	0.3596 0.4158	0.3786 0.3959	0.4116	0.4298	Ave		0.3955			0.2000	6.8		20.0			
4-Methyl-2-pentanone (MIBK)	1.3560 1.1652	1.2491 1.2232	1.3592 1.1532	1.3610	1.3926	Ave		1.2824			0.1000	7.5		20.0			
Toluene	6.1005 4.5990	5.6903 4.2081	5.2159 4.0277	5.0185	5.0243	Ave		4.9855			0.4000	14.1		20.0			
trans-1,3-Dichloropropene	1.2257 1.4397	1.2796 1.4086	1.2851 1.3247	1.3956	1.4937	Ave		1.3566			0.1000	6.8		20.0			
Ethyl methacrylate	1.3604 1.6673	1.5623 1.6591	1.6724 1.5738	1.7698	1.8222	Ave		1.6359			0.0100	8.7		20.0			
1,1,2-Trichloroethane	1.2522 0.9633	1.0992 0.9427	1.0403 0.8887	1.0530	1.0694	Ave		1.0386			0.1000	10.8		20.0			
Tetrachloroethene	1.1481 0.9182	1.0929 0.8058	0.9505 0.8459	0.9238	0.9211	Ave		0.9508			0.2000	12.2		20.0			
1,3-Dichloropropane	2.2370 1.7852	2.0694 1.7532	1.9307 1.6348	1.9958	1.9532	Ave		1.9199			0.0100	10.0		20.0			
2-Hexanone	0.9818 0.8998	0.9941 0.9190	1.0485 0.8780	1.0518	1.0958	Ave		0.9836			0.1000	8.1		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	0.7989 0.9016	0.8620 0.8947	0.8650 0.8322	0.9093	0.9598	Ave		0.8779			0.1000	5.7		20.0			
1,2-Dibromoethane (EDB)	1.1425 1.0146	1.0956 1.0059	1.0726 0.9575	1.1227	1.1100	Ave		1.0652			0.1000	6.1		20.0			
3-Chlorobenzotrifluoride	2.1508 1.6103	1.7646 1.4397	1.6777 1.5967	1.7670	1.7382	Ave		1.7181			0.0100	12.0		20.0			
Chlorobenzene	4.0368 3.0317	3.5186 2.8231	3.2468 2.6869	3.3119	3.3091	Ave		3.2456			0.5000	13.0		20.0			
4-Chlorobenzotrifluoride	1.8614 1.5230	1.6468 1.3432	1.5641 1.5178	1.6419	1.5859	Ave		1.5855			0.0100	9.3		20.0			
1,1,1,2-Tetrachloroethane	1.0682 1.0211	1.0658 0.9781	1.0366 0.9303	1.0666	1.0896	Ave		1.0321			0.0100	5.2		20.0			
Ethylbenzene	1.9199 1.7723	1.9530 1.6113	1.8804 1.6150	1.8616	1.8815	Ave		1.8119			0.1000	7.3		20.0			
m-Xylene & p-Xylene	2.1686 2.2054	2.4439 2.0173	2.3106 1.9980	2.2675	2.3006	Ave		2.2140			0.1000	6.8		20.0			
o-Xylene	2.1421 2.0826	2.2379 1.9206	2.1746 1.8793	2.2085	2.2321	Ave		2.1097			0.3000	6.6		20.0			
Styrene	3.6332 3.4371	3.9143 3.2595	3.7554 3.0478	3.7413	3.7778	Ave		3.5708			0.3000	8.3		20.0			
Bromoform	0.5105 0.5727	0.4852 0.5813	0.5106 0.5484	0.5622	0.5938	Ave		0.5456			0.1000	7.2		20.0			
2-Chlorobenzotrifluoride	1.7885 1.5489	1.7322 1.4506	1.6281 1.5406	1.7502	1.7146	Ave		1.6442			0.0100	7.4		20.0			
Isopropylbenzene	5.5110 4.9386	5.7732 4.4163	5.4683 4.3345	5.4199	5.3367	Ave		5.1498			0.1000	10.3		20.0			
Bromobenzene	0.9987 0.9743	0.9872 0.9390	0.9377 0.9146	0.9980	1.0140	Ave		0.9704			0.0100	3.7		20.0			
1,1,2,2-Tetrachloroethane	1.7609 1.4046	1.6228 1.4415	1.5952 1.3351	1.5862	1.5551	Ave		1.5377			0.3000	8.9		20.0			
trans-1,4-Dichloro-2-butene	0.2598 0.2949	0.2743 0.2979	0.2825 0.3083	0.3195	0.3037	Ave		0.2926			0.0100	6.6		20.0			
1,2,3-Trichloropropane	0.4104 0.3768	0.3859 0.3949	0.4160 0.3815	0.4181	0.4204	Ave		0.4005			0.0100	4.4		20.0			
N-Propylbenzene	1.0871 1.1604	1.1279 1.0214	1.1341 1.0987	1.1152	1.1268	Ave		1.1089			0.0100	3.8		20.0			
2-Chlorotoluene	0.9007 0.9835	0.9855 0.9238	0.9604 0.9321	0.9790	1.0033	Ave		0.9585			0.0100	3.7		20.0			
3-Chlorotoluene	1.0064 1.0049	1.0309 0.9798	1.0614 1.0388	1.1086	1.1105	Ave		1.0427			0.0100	4.6		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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	3.0303 3.1789	3.4364 2.8871	3.3130 2.9071	3.3121	3.3198	Ave		3.1731			0.0100	6.6		20.0			
4-Chlorotoluene	1.0553 1.0614	1.0524 0.9741	1.0341 0.9970	1.0305	1.0761	Ave		1.0351			0.0100	3.3		20.0			
tert-Butylbenzene	2.5746 2.7227	2.8017 2.3880	2.7530 2.5138	2.7587	2.7116	Ave		2.6530			0.0100	5.5		20.0			
1,2,4-Trimethylbenzene	3.1254 3.2212	3.4166 2.9826	3.3711 2.9395	3.3815	3.3664	Ave		3.2255			0.0100	5.9		20.0			
3,4-Dichlorobenzotrifluoride	0.9400 0.7764	0.7679 0.7160	0.7941 0.8232	0.8410	0.8065	Ave		0.8081			0.0100	8.1		20.0			
sec-Butylbenzene	3.7533 3.7112	3.9865 3.2645	3.8932 3.4225	3.8001	3.7790	Ave		3.7013			0.0100	6.5		20.0			
1,3-Dichlorobenzene	1.8909 1.6927	1.7949 1.6042	1.7488 1.5884	1.7678	1.7840	Ave		1.7340			0.6000	5.8		20.0			
4-Isopropyltoluene	2.9547 3.1220	3.2883 2.7812	3.2665 2.8873	3.2019	3.1605	Ave		3.0828			0.0100	6.0		20.0			
1,4-Dichlorobenzene	1.9782 1.7336	1.8319 1.6481	1.8074 1.6177	1.8136	1.8124	Ave		1.7804			0.5000	6.4		20.0			
2,4-Dichlorobenzotrifluoride	0.7762 0.7410	0.7684 0.6560	0.7174 0.7931	0.7890	0.7781	Ave		0.7524			0.0100	6.2		20.0			
2,5-Dichlorobenzotrifluoride	0.8709 0.7991	0.7991 0.7661	0.8033 0.8193	0.8304	0.8133	Ave		0.8127			0.0100	3.7		20.0			
n-Butylbenzene	2.4429 2.5807	2.6260 2.2815	2.6042 2.4382	2.5661	2.5760	Ave		2.5144			0.0100	4.7		20.0			
1,2-Dichlorobenzene	1.8724 1.5966	1.7261 1.5319	1.6636 1.4748	1.6744	1.6818	Ave		1.6527			0.4000	7.4		20.0			
1,2-Dibromo-3-Chloropropane	0.1676 0.1857	0.1676 0.2001	0.1774 0.1873	0.1829	0.1992	Ave		0.1835			0.0500	6.8		20.0			
2,4- & 2,5- & 2,6- Dichlorotoluene	0.9836 1.0182	1.0277 0.9802	1.0819 1.0447	1.1339	1.1166	Ave		1.0483			0.0100	5.5		20.0			
2,3- & 3,4- Dichlorotoluene	0.9469 1.0658	1.0253 1.0486	1.0886 1.1261	1.1868	1.1843	Ave		1.0841			0.0100	7.5		20.0			
1,2,4-Trichlorobenzene	0.7563 0.7556	0.7184 0.7286	0.7717 0.7766	0.7671	0.7765	Ave		0.7563			0.2000	2.9		20.0			
Hexachlorobutadiene	0.2941 0.2697	0.2848 0.2377	0.2809 0.2898	0.2829	0.2739	Ave		0.2767			0.0100	6.4		20.0			
Naphthalene	2.0979 2.6004	2.2731 2.6494	2.6660 2.6327	2.8062	2.8819	Ave		2.5759			0.0100	10.2		20.0			
1,2,3-Trichlorobenzene	0.7106 0.6701	0.6788 0.6564	0.6707 0.7130	0.7070	0.7206	Ave		0.6909			0.0100	3.5		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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	0.3224 0.3475	0.2818 0.3346	0.3064 +++++	0.3498	0.3564	Ave		0.3284			0.0100	8.2		20.0			
2,3,6-Trichlorotoluene	0.2545 0.3128	0.2731 0.3131	0.3085 +++++	0.3418	0.3347	Ave		0.3055			0.0100	10.3		20.0			
Dibromofluoromethane (Surr)	0.2565 0.2365	0.2433 0.2326	0.2366 0.2242	0.2475	0.2474	Ave		0.2406				4.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3401 0.2693	0.3050 0.2801	0.2948 0.2619	0.3004	0.2957	Ave		0.2934				8.3		20.0			
Toluene-d8 (Surr)	5.1161 3.6702	4.5030 3.3148	4.0781 3.3147	3.9154	3.9228	Ave		3.9794				15.2		20.0			
4-Bromofluorobenzene (Surr)	1.6317 1.3781	1.5302 1.3139	1.4390 1.2793	1.4518	1.4735	Ave		1.4372				8.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.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	16788 647803	84559 569791	159957 857078	226899	286388	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	19706 595751	78965 580608	154943 811941	232300	302276	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	19568 632153	82670 577090	162634 867536	221295	291558	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	17968 579584	74553 512032	143576 815610	204212	260580	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	6901 285707	42224 289712	81346 377950	112119	161865	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	10685 340168	47273 322589	86601 414342	128899	172552	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	22371 769762	104824 710415	205127 1017488	283194	371684	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	14571 475422	66542 510033	126496 612640	188662	262150	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	63695 154738	73476 179414	101829 183852	115103	130923	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	14263 540044	67928 489503	131576 745282	190985	247279	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	18126 571742	73846 534815	141127 774058	206212	263603	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	37823 447756	77890 522287	149782 630881	227784	316026	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	22822 811997	103869 834240	200342 1099819	304618	408622	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	30868 +++++	131730 1211678	266935 1856339	403056	561008	5.00 +++++	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	8133 365237	39946 366340	83167 500032	121734	164305	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	31286 1009713	132543 1173609	283974 1447736	419273	558912	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Lin2	25720 602402	84822 653341	164284 813282	242665	323324	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd9	Ave	16447 524619	64738 519054	139891 568135	204334	283777	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	73302 2362587	336508 2794353	708552 3495451	1029651	1387354	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	17158 595572	73445 571864	147191 806194	222245	296608	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	38357 1597553	196780 1751345	390184 2170401	613933	822838	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	24902 760411	96542 708650	186124 1101558	266987	337300	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	28319 1024340	133976 1041269	261874 1376176	379320	510811	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	27185 1068205	115000 1200052	245879 1523056	400099	532250	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	3769 136605	15889 125406	31118 188250	48893	65750	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	17858 671208	85931 687049	172690 900432	259385	347303	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	50216 686266	105960 795793	214731 962704	321867	426755	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	8216 291754	38047 313977	75687 394763	113290	155416	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	14858 396477	52866 488432	117485 609910	176266	224432	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	29608 989929	134431 1037446	254354 1319564	389323	517765	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20508 811476	98927 777880	196286 1097196	285488	383868	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	26974 1012965	124196 922281	239333 1394833	345041	446560	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	17231 682784	80446 646700	162849 923177	238173	317033	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	22014 866715	109851 825970	215336 1178056	312373	408627	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	13122 452876	61305 587752	136973 715201	216532	290317	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	74686 2459963	339765 2487856	669098 3249284	981851	1307056	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	21038 708898	95627 767974	190422 969148	292683	385206	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16453 633483	81002 573064	154370 922592	214813	279216	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	17490 648262	83072 647404	164695 887332	241861	329499	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25605 1041060	125697 950167	253511 1432791	358781	467268	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16316 596512	74777 624637	150135 793667	227133	309491	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2333 115916	15162 135844	33209 187034	46920	65688	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	8641 342853	45949 374289	88395 470836	135198	184529	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	16257 712434	84070 752352	171049 945026	268080	366097	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18086 864836	103158 977190	219328 1234429	343066	467677	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	19479 881560	96744 933591	204344 1203144	320956	447138	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	79892 1265241	154465 1476808	361112 1863520	542662	738839	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	71883 2496911	351840 2540251	692901 3254284	1000479	1332783	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	14443 781619	79122 850338	170710 1070347	278226	396221	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	16030 905216	96602 1001550	222171 1271580	352819	483364	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	14755 523017	67966 569083	138196 718069	209928	283688	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	13528 498519	67579 486427	126273 683462	184171	244346	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	26359 969241	127957 1058308	256477 1320887	397870	518120	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	57842 977068	122936 1109580	278579 1418811	419354	581383	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	9414 489506	53302 540065	114911 672369	181267	254603	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	13462 550826	67745 607203	142489 773664	223815	294438	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	25343 874266	109109 869071	222871 1290067	352260	461082	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	47566 1645967	217561 1704167	431311 2170926	660247	877804	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	21933 826850	101825 810848	207774 1226371	327327	420704	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12587 554351	65901 590452	137710 751692	212641	289044	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	22622 962208	120759 972676	249792 1304914	371119	499116	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25553 1197380	151114 1217768	306948 1614353	452043	610286	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	25240 1130677	138375 1159372	288885 1518391	440285	592117	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	42810 1866053	242031 1967591	498873 2462559	745860	1002147	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	6015 310948	30000 350923	67829 443094	112077	157509	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	21074 840920	107103 875687	216286 1244752	348911	454842	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	64937 2681266	356966 2665903	726432 3502176	1080505	1415676	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	16032 659984	83376 711710	163748 889999	261052	348475	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	20749 762601	100341 870164	211912 1078742	316221	412534	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4170 199800	23168 225821	49334 299994	83561	104361	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	6588 255265	32588 299299	72643 371250	109372	144469	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	17451 786064	95261 774184	198029 1069171	291693	387234	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	14458 666236	83234 700158	167713 907016	256066	344800	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	16155 680717	87067 742625	185343 1010916	289960	381649	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	48645 2153457	290219 2188229	578518 2828999	866332	1140888	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	16940 719035	88877 738280	180584 970169	269544	369832	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	41329 1844417	236619 1809964	480729 2446270	721573	931884	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50171 2182090	288545 2260604	588662 2860516	884487	1156912	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	15090 525922	64854 542681	138659 801099	219982	277157	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	60251 2514051	336681 2474312	679839 3330508	993968	1298722	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	30355 1146674	151590 1215884	305374 1545747	462404	613101	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	47431 2114911	277710 2107989	570403 2809716	837492	1086140	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	31756 1174377	154714 1249173	315614 1574222	474362	622850	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	12460 501975	64892 497225	125268 771761	206368	267418	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	13980 541324	67486 580659	140272 797256	217211	279514	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	39215 1748217	221777 1729209	454742 2372703	671190	885288	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	30057 1081541	145778 1161072	290492 1435184	437966	577962	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2690 125814	14158 151695	30986 182290	47827	68470	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	47367 2069215	260387 2228710	566788 3049908	889724	1151252	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	30402 1443949	173187 1589536	380181 2191624	620870	814032	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	12140 511830	60672 552245	134753 755690	200638	266863	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	4721 182711	24054 180140	49048 282046	73984	94134	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	33677 1761559	191971 2008065	465533 2561966	733996	990398	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	11407 453926	57325 497473	117120 693791	184932	247660	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	5175 235417	23799 253594	53498 +++++	91488	122498	5.00 175	25.0 200	50.0 +++++	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	4086 211883	23065 237299	53869 +++++	89402	115009	5.00 175	25.0 200	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	13893 505019	65453 522323	127700 681339	193042	257355	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	18421 575099	82071 628942	159071 795993	234269	307676	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	60283 1992609	278432 2000995	541748 2678162	780569	1040595	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	19227 748217	94618 793129	191158 1033645	289432	390879	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.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	6.6 -12.7	8.1 -3.0	1.9	0.1	-5.3	4.3	50 30	30 30	30	30	30	30
Chloromethane	24.5 -11.5	0.4 -8.6	-1.7	1.9	-0.6	-4.5	50 30	30 30	30	30	30	30
Vinyl chloride	21.8 -13.3	3.6 -3.7	1.6	-4.3	-5.5	-0.2	50 30	30 30	30	30	30	30
1,3-Butadiene	23.1 -15.3	2.9 -0.4	-1.2	-2.8	-7.0	0.8	50 30	30 30	30	30	30	30
Bromomethane	-9.1 -8.0	11.9 -11.3	7.5	2.5	11.0	-4.6	50 30	30 30	30	30	30	30
Chloroethane	21.0 -11.8	7.8 -16.3	-1.5	1.4	1.8	-2.3	50 30	30 30	30	30	30	30
Trichlorofluoromethane	13.3 -13.2	6.9 -8.1	4.3	-0.3	-1.9	-1.1	50 30	30 30	30	30	30	30
Ethyl ether	13.5 -4.1	4.4 -14.9	-1.1	2.1	6.3	-6.1	50 30	30 30	30	30	30	30
Acrolein	-1.6 7.0	-8.5 -7.9	5.3	5.9	5.4	-5.6	50 30	30 30	30	30	30	30
1,1-Dichloroethene	7.6 -10.9	3.1 0.2	-0.4	0.0	-2.9	3.3	50 30	30 30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	24.6 -11.3	2.2 -5.2	-2.7	-1.6	-5.7	-0.3	50 30	30 30	30	30	30	30
Acetone	6.8 -11.0	10.7 -20.6	6.1	11.7	16.2	-19.8	50 30	30 30	30	30	30	30
Iodomethane	9.6 -3.4	0.4 -5.9	-3.4	1.6	2.2	-1.1	50 30	30 30	30	30	30	30
Carbon disulfide	6.1 0.5	-8.9 13.7	-7.9	-3.8	0.4	+++++	50 30	30 30	30	30	30	
Allyl chloride	-5.1 3.1	-6.1 4.0	-2.6	-1.3	-0.2	8.1	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	11.5 0.9	-4.9 -8.0	1.6	3.8	3.7	-8.7	50 30	30 30	30	30	30	30
Methylene Chloride	0.0 0.7	-2.5 -7.2	0.4	5.0	6.0	-2.6	50 30	30 30	30	30	30	30
tert-Butyl alcohol	12.8 -13.1	-2.2 4.4	-1.6	-4.3	-4.9	8.8	50 30	30 30	30	30	30	30
Acrylonitrile	7.5 -1.1	-0.7 -8.6	4.3	4.9	5.9	-12.1	50 30	30 30	30	30	30	30
trans-1,2-Dichloroethene	13.6 -8.7	-2.1 -4.9	-2.2	2.2	2.2	0.0	50 30	30 30	30	30	30	30
Methyl tert-butyl ether	-5.3 4.3	-2.2 -4.5	-3.3	5.3	5.8	0.0	50 30	30 30	30	30	30	30
Hexane	28.4 -11.8	0.2 1.2	-3.7	-4.4	-9.4	-0.5	50 30	30 30	30	30	30	30
1,1-Dichloroethane	7.8 -4.4	2.7 -6.6	0.1	0.3	1.2	-1.1	50 30	30 30	30	30	30	30
Vinyl acetate	1.8 8.4	-13.3 1.6	-7.6	4.0	3.7	1.4	50 30	30 30	30	30	30	30
2,2-Dichloropropane	12.7 -9.5	-4.4 0.3	-6.6	1.5	2.4	3.6	50 30	30 30	30	30	30	30
cis-1,2-Dichloroethene	3.3 -4.1	0.1 -7.1	0.3	4.3	4.6	-1.5	50 30	30 30	30	30	30	30
2-Butanone (MEK)	-0.4 -4.8	5.8 -14.9	6.9	10.9	10.2	-13.7	50 30	30 30	30	30	30	30
Bromochloromethane	7.0 -1.4	-0.3 -8.4	-1.1	2.5	5.4	-3.6	50 30	30 30	30	30	30	30
Tetrahydrofuran	26.5 0.4	-9.4 -7.4	0.4	4.3	-0.5	-14.3	50 30	30 30	30	30	30	30
Chloroform	12.9 -4.6	3.2 -10.3	-2.7	3.1	2.8	-4.3	50 30	30 30	30	30	30	30
1,1,1-Trichloroethane	3.3 -5.5	0.3 -1.5	-0.8	-0.1	0.7	3.7	50 30	30 30	30	30	30	30
Cyclohexane	10.1 -9.2	2.0 1.5	-2.0	-2.2	-5.1	4.9	50 30	30 30	30	30	30	30
Carbon tetrachloride	4.3 -5.6	-2.0 -0.4	-1.1	0.1	-0.1	4.8	50 30	30 30	30	30	30	30
1,1-Dichloropropene	2.6 -7.1	3.1 -2.1	0.7	1.1	-0.8	2.5	50 30	30 30	30	30	30	30
Isobutyl alcohol	-2.6 5.2	-8.4 -5.4	2.0	11.6	12.2	-14.7	50 30	30 30	30	30	30	30
Benzene	13.4 -8.9	3.9 -12.1	2.0	3.6	3.3	-5.2	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	9.6 -3.5	0.3 -10.0	-0.4	5.9	4.5	-6.3	50 30	30 30	30	30	30	30
n-Heptane	6.1 -10.8	5.2 6.0	-0.1	-3.8	-6.2	3.6	50 30	30 30	30	30	30	30
Trichloroethene	5.5 -5.8	0.9 -4.6	-0.3	1.4	3.5	-0.8	50 30	30 30	30	30	30	30
Methylcyclohexane	2.2 -8.5	1.0 1.9	1.5	-0.6	-2.9	5.4	50 30	30 30	30	30	30	30
1,2-Dichloropropane	6.4 -1.7	-1.8 -7.7	-1.7	2.9	5.1	-1.3	50 30	30 30	30	30	30	30
1,4-Dioxane	-25.2 5.1	-2.1 6.9	6.9	4.5	9.7	-5.7	50 30	30 30	30	30	30	30
Dibromomethane	-3.8 0.5	3.0 -6.6	-1.3	4.5	6.9	-3.2	50 30	30 30	30	30	30	30
Bromodichloromethane	-7.8 2.9	-4.0 -4.5	-2.7	5.6	8.1	2.5	50 30	30 30	30	30	30	30
2-Chloroethyl vinyl ether	-18.1 6.8	-5.9 -0.3	-0.3	8.0	10.3	-0.6	50 30	30 30	30	30	30	30
cis-1,3-Dichloropropene	-9.1 5.1	-9.1 0.1	-4.3	4.1	8.7	4.4	50 30	30 30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	5.7 -4.6	-2.6 -10.1	6.0	6.1	8.6	-9.1	50 30	30 30	30	30	30	30
Toluene	22.4 -15.6	14.1 -19.2	4.6	0.7	0.8	-7.8	50 30	30 30	30	30	30	30
trans-1,3-Dichloropropene	-9.6 3.8	-5.7 -2.3	-5.3	2.9	10.1	6.1	50 30	30 30	30	30	30	30
Ethyl methacrylate	-16.8 1.4	-4.5 -3.8	2.2	8.2	11.4	1.9	50 30	30 30	30	30	30	30
1,1,2-Trichloroethane	20.6 -9.2	5.8 -14.4	0.2	1.4	3.0	-7.2	50 30	30 30	30	30	30	30
Tetrachloroethene	20.7 -15.3	14.9 -11.0	0.0	-2.8	-3.1	-3.4	50 30	30 30	30	30	30	30
1,3-Dichloropropane	16.5 -8.7	7.8 -14.8	0.6	4.0	1.7	-7.0	50 30	30 30	30	30	30	30
2-Hexanone	-0.2 -6.6	1.1 -10.7	6.6	6.9	11.4	-8.5	50 30	30 30	30	30	30	30
Dibromochloromethane	-9.0 1.9	-1.8 -5.2	-1.5	3.6	9.3	2.7	50 30	30 30	30	30	30	30
1,2-Dibromoethane (EDB)	7.3 -5.6	2.9 -10.1	0.7	5.4	4.2	-4.8	50 30	30 30	30	30	30	30
3-Chlorobenzotrifluoride	25.2 -16.2	2.7 -7.1	-2.4	2.8	1.2	-6.3	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	24.4 -13.0	8.4 -17.2	0.0	2.0	2.0	-6.6	50 30	30 30	30	30	30	30
4-Chlorobenzotrifluoride	17.4 -15.3	3.9 -4.3	-1.4	3.6	0.0	-3.9	50 30	30 30	30	30	30	30
1,1,1,2-Tetrachloroethane	3.5 -5.2	3.3 -9.9	0.4	3.4	5.6	-1.1	50 30	30 30	30	30	30	30
Ethylbenzene	6.0 -11.1	7.8 -10.9	3.8	2.7	3.8	-2.2	50 30	30 30	30	30	30	30
m-Xylene & p-Xylene	-2.1 -8.9	10.4 -9.8	4.4	2.4	3.9	-0.4	50 30	30 30	30	30	30	30
o-Xylene	1.5 -9.0	6.1 -10.9	3.1	4.7	5.8	-1.3	50 30	30 30	30	30	30	30
Styrene	1.7 -8.7	9.6 -14.6	5.2	4.8	5.8	-3.7	50 30	30 30	30	30	30	30
Bromoform	-6.4 6.6	-11.1 0.5	-6.4	3.0	8.8	5.0	50 30	30 30	30	30	30	30
2-Chlorobenzotrifluoride	8.8 -11.8	5.3 -6.3	-1.0	6.4	4.3	-5.8	50 30	30 30	30	30	30	30
Isopropylbenzene	7.0 -14.2	12.1 -15.8	6.2	5.2	3.6	-4.1	50 30	30 30	30	30	30	30
Bromobenzene	2.9 -3.2	1.7 -5.8	-3.4	2.8	4.5	0.4	50 30	30 30	30	30	30	30
1,1,2,2-Tetrachloroethane	14.5 -6.3	5.5 -13.2	3.7	3.2	1.1	-8.7	50 30	30 30	30	30	30	30
trans-1,4-Dichloro-2-butene	-11.2 1.8	-6.3 5.4	-3.4	9.2	3.8	0.8	50 30	30 30	30	30	30	30
1,2,3-Trichloropropane	2.5 -1.4	-3.7 -4.7	3.9	4.4	5.0	-5.9	50 30	30 30	30	30	30	30
N-Propylbenzene	-2.0 -7.9	1.7 -0.9	2.3	0.6	1.6	4.6	50 30	30 30	30	30	30	30
2-Chlorotoluene	-6.0 -3.6	2.8 -2.8	0.2	2.1	4.7	2.6	50 30	30 30	30	30	30	30
3-Chlorotoluene	-3.5 -6.0	-1.1 -0.4	1.8	6.3	6.5	-3.6	50 30	30 30	30	30	30	30
1,3,5-Trimethylbenzene	-4.5 -9.0	8.3 -8.4	4.4	4.4	4.6	0.2	50 30	30 30	30	30	30	30
4-Chlorotoluene	1.9 -5.9	1.7 -3.7	-0.1	-0.4	4.0	2.5	50 30	30 30	30	30	30	30
tert-Butylbenzene	-3.0 -10.0	5.6 -5.2	3.8	4.0	2.2	2.6	50 30	30 30	30	30	30	30
1,2,4-Trimethylbenzene	-3.1 -7.5	5.9 -8.9	4.5	4.8	4.4	-0.1	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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	16.3 -11.4	-5.0 1.9	-1.7	4.1	-0.2	-3.9	50 30	30 30	30	30	30	30
sec-Butylbenzene	1.4 -11.8	7.7 -7.5	5.2	2.7	2.1	0.3	50 30	30 30	30	30	30	30
1,3-Dichlorobenzene	9.1 -7.5	3.5 -8.4	0.9	2.0	2.9	-2.4	50 30	30 30	30	30	30	30
4-Isopropyltoluene	-4.2 -9.8	6.7 -6.3	6.0	3.9	2.5	1.3	50 30	30 30	30	30	30	30
1,4-Dichlorobenzene	11.1 -7.4	2.9 -9.1	1.5	1.9	1.8	-2.6	50 30	30 30	30	30	30	30
2,4-Dichlorobenzotrifluoride	3.2 -12.8	2.1 5.4	-4.7	4.9	3.4	-1.5	50 30	30 30	30	30	30	30
2,5-Dichlorobenzotrifluoride	7.2 -5.7	-1.7 0.8	-1.2	2.2	0.1	-1.7	50 30	30 30	30	30	30	30
n-Butylbenzene	-2.8 -9.3	4.4 -3.0	3.6	2.1	2.4	2.6	50 30	30 30	30	30	30	30
1,2-Dichlorobenzene	13.3 -7.3	4.4 -10.8	0.7	1.3	1.8	-3.4	50 30	30 30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-8.7 9.1	-8.6 2.1	-3.3	-0.3	8.6	1.2	50 30	30 30	30	30	30	30
2,4- & 2,5- & 2,6- Dichlorotoluene	-6.2 -6.5	-2.0 -0.3	3.2	8.2	6.5	-2.9	50 30	30 30	30	30	30	30
2,3- & 3,4- Dichlorotoluene	-12.6 -3.3	-5.4 3.9	0.4	9.5	9.3	-1.7	50 30	30 30	30	30	30	30
1,2,4-Trichlorobenzene	0.0 -3.7	-5.0 2.7	2.0	1.4	2.7	-0.1	50 30	30 30	30	30	30	30
Hexachlorobutadiene	6.3 -14.1	2.9 4.7	1.5	2.2	-1.0	-2.5	50 30	30 30	30	30	30	30
Naphthalene	-18.6 2.9	-11.8 2.2	3.5	8.9	11.9	1.0	50 30	30 30	30	30	30	30
1,2,3-Trichlorobenzene	2.9 -5.0	-1.8 3.2	-2.9	2.3	4.3	-3.0	50 30	30 30	30	30	30	30
2,4,5-Trichlorotoluene	-1.8 1.9	-14.2 +++++	-6.7	6.5	8.5	5.8	50 30	30	30	30	30	30
2,3,6-Trichlorotoluene	-16.7 2.5	-10.6 +++++	1.0	11.9	9.5	2.4	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	6.6 -3.3	1.1 -6.8	-1.6	2.9	2.8	-1.7	50 30	30 30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	15.9 -4.5	4.0 -10.7	0.5	2.4	0.8	-8.2	50 30	30 30	30	30	30	30
Toluene-d8 (Surr)	28.6 -16.7	13.2 -16.7	2.5	-1.6	-1.4	-7.8	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.: 180-71952-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

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)	13.5 -8.6	6.5 -11.0	0.1	1.0	2.5	-4.1	50 30	30 30	30	30	30	30

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Jul-2017 00:51:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-002
Misc. Info.: IC VSTD1
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:45 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 03:08:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.323	-0.006	0	246479	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	99	541701	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	117831	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	96	160528	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	90	13893	5.00	5.33	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.951	6.945	0.006	0	18421	5.00	5.79	
$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	60283	5.00	6.43	
$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	87	19227	5.00	5.68	
11 Dichlorodifluoromethane	85	1.665	1.646	0.018	68	16788	5.00	5.33	
12 Chloromethane	50	1.804	1.804	0.000	97	19706	5.00	6.22	
13 Vinyl chloride	62	1.932	1.944	-0.012	95	19568	5.00	6.09	
14 Butadiene	39	1.963	1.969	-0.005	95	17968	5.00	6.16	
15 Bromomethane	94	2.273	2.254	0.019	90	6901	5.00	4.54	
16 Chloroethane	64	2.419	2.419	0.000	89	10685	5.00	6.05	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	26531	5.00	5.94	
18 Trichlorofluoromethane	101	2.760	2.741	0.019	45	22371	5.00	5.67	M
20 Ethyl ether	59	3.076	3.076	0.000	88	14571	5.00	5.67	
21 Acrolein	56	3.252	3.252	0.000	99	63695	100.0	98.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	77	14263	5.00	5.38	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	74	18126	5.00	6.23	
24 Acetone	43	3.483	3.477	0.006	99	37823	25.0	26.7	
25 Iodomethane	142	3.569	3.562	0.007	95	22822	5.00	5.48	
26 Carbon disulfide	76	3.654	3.648	0.006	98	30868	5.00	5.30	
28 3-Chloro-1-propene	76	3.940	3.946	-0.006	90	8133	5.00	4.75	
30 Methyl acetate	43	3.970	3.976	-0.006	95	31286	10.0	11.2	
31 Methylene Chloride	84	4.177	4.165	0.012	84	25720	5.00	5.00	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	92	16447	50.0	56.4	
33 Acrylonitrile	53	4.554	4.554	0.000	98	73302	50.0	53.7	
34 trans-1,2-Dichloroethene	96	4.591	4.584	0.007	74	17158	5.00	5.68	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	84	38357	5.00	4.73	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	89	24902	5.00	6.42	
37 1,1-Dichloroethane	63	5.211	5.217	-0.006	96	28319	5.00	5.39	
38 Vinyl acetate	43	5.272	5.272	0.000	97	27185	5.00	5.09	
44 2,2-Dichloropropane	97	5.947	5.959	-0.012	46	3769	5.00	5.63	
45 cis-1,2-Dichloroethene	96	5.953	5.965	-0.012	79	17858	5.00	5.17	
46 2-Butanone (MEK)	43	5.984	5.978	0.006	98	50216	25.0	24.9	
49 Chlorobromomethane	128	6.245	6.245	0.000	93	8216	5.00	5.35	
51 Tetrahydrofuran	42	6.264	6.263	0.001	93	14858	10.0	12.7	
52 Chloroform	83	6.391	6.391	0.000	91	29608	5.00	5.64	
53 1,1,1-Trichloroethane	97	6.556	6.549	0.007	97	20508	5.00	5.16	
54 Cyclohexane	56	6.616	6.622	-0.006	87	26974	5.00	5.50	
56 Carbon tetrachloride	117	6.726	6.726	0.000	88	17231	5.00	5.21	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	96	22014	5.00	5.13	
57 Isobutyl alcohol	41	6.951	6.945	0.006	43	13122	125.0	121.7	
58 Benzene	78	6.951	6.951	0.000	96	74686	5.00	5.67	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	21038	5.00	5.48	
62 n-Heptane	43	7.316	7.316	0.000	56	16453	5.00	5.30	
64 Trichloroethene	130	7.681	7.687	-0.006	95	17490	5.00	5.28	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	25605	5.00	5.11	
67 1,2-Dichloropropane	63	7.955	7.961	-0.006	93	16316	5.00	5.32	
68 Dibromomethane	93	8.046	8.046	0.000	90	8641	5.00	4.81	
70 1,4-Dioxane	88	8.040	8.052	-0.012	5	2333	100.0	74.8	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	16257	5.00	4.61	
73 2-Chloroethyl vinyl ether	63	8.551	8.545	0.006	92	18086	10.0	8.19	
74 cis-1,3-Dichloropropene	75	8.691	8.685	0.006	95	19479	5.00	4.55	
75 4-Methyl-2-pentanone (MIBK	43	8.843	8.843	0.000	96	79892	25.0	26.4	
76 Toluene	91	9.019	9.019	0.000	98	71883	5.00	6.12	
77 trans-1,3-Dichloropropene	75	9.263	9.269	-0.006	92	14443	5.00	4.52	
78 Ethyl methacrylate	69	9.330	9.330	0.000	90	16030	5.00	4.16	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	89	14755	5.00	6.03	
80 Tetrachloroethene	164	9.530	9.530	0.000	95	13528	5.00	6.04	
81 1,3-Dichloropropane	76	9.616	9.615	0.001	90	26359	5.00	5.83	
82 2-Hexanone	43	9.683	9.682	0.000	98	57842	25.0	25.0	
84 Chlorodibromomethane	129	9.835	9.834	0.001	92	9414	5.00	4.55	
85 Ethylene Dibromide	107	9.944	9.944	0.000	98	13462	5.00	5.36	
86 3-Chlorobenzotrifluoride	180	10.413	10.412	0.001	90	25343	5.00	6.26	
87 Chlorobenzene	112	10.437	10.437	0.000	94	47566	5.00	6.22	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	21933	5.00	5.87	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	88	12587	5.00	5.18	
90 Ethylbenzene	106	10.534	10.534	0.000	98	22622	5.00	5.30	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	25553	5.00	4.90	
92 o-Xylene	106	11.051	11.051	0.000	95	25240	5.00	5.08	
93 Styrene	104	11.076	11.069	0.007	93	42810	5.00	5.09	
94 Bromoform	173	11.252	11.252	0.000	92	6015	5.00	4.68	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	96	21074	5.00	5.44	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	64937	5.00	5.35	
100 Bromobenzene	156	11.739	11.739	0.000	93	16032	5.00	5.15	
99 1,1,2,2-Tetrachloroethane	83	11.739	11.745	-0.006	77	20749	5.00	5.73	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.775	0.012	75	4170	5.00	4.44	
101 1,2,3-Trichloropropane	110	11.800	11.793	0.007	85	6588	5.00	5.12	
103 N-Propylbenzene	120	11.842	11.842	0.000	99	17451	5.00	4.90	
104 2-Chlorotoluene	126	11.927	11.927	0.000	96	14458	5.00	4.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	16155	5.00	4.83	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	95	48645	5.00	4.78	
107 4-Chlorotoluene	126	12.061	12.055	0.006	96	16940	5.00	5.10	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	41329	5.00	4.85	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	50171	5.00	4.84	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.456	0.001	95	15090	5.00	5.82	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	60251	5.00	5.07	
113 1,3-Dichlorobenzene	146	12.694	12.688	0.006	96	30355	5.00	5.45	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	47431	5.00	4.79	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	31756	5.00	5.56	
116 2,4-Dichloro-1-(triflourom	214	12.840	12.828	0.012	94	12460	5.00	5.16	
118 2,5-Dichlorobenzotrifluori	214	12.882	12.870	0.012	0	13980	5.00	5.36	
120 n-Butylbenzene	91	13.156	13.150	0.006	96	39215	5.00	4.86	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	85	30057	5.00	5.66	
122 1,2-Dibromo-3-Chloropropan	75	13.977	13.971	0.006	81	2690	5.00	4.57	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.130	14.117	0.013	0	47367	15.0	14.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.561	14.555	0.006	0	30402	10.0	8.74	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	92	12140	5.00	5.00	
127 Hexachlorobutadiene	225	15.012	14.993	0.019	91	4721	5.00	5.31	
128 Naphthalene	128	15.127	15.103	0.024	96	33677	5.00	4.07	
129 1,2,3-Trichlorobenzene	180	15.371	15.346	0.025	95	11407	5.00	5.14	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	5175	5.00	4.91	
130 2,3,6-Trichlorotoluene	159	16.338	16.307	0.031	88	4086	5.00	4.17	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.97	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.8	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.06	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	0.20	Units: uL
VOA8260VOAPRI_00263	Amount Added:	0.20	Units: uL
voaWAcro1stRe_00016	Amount Added:	4.00	Units: uL
voaWVA1stRest_00017	Amount Added:	0.20	Units: uL
voaWEEmix1stR_00009	Amount Added:	0.20	Units: uL
voaW2clev1stR_00013	Amount Added:	0.20	Units: uL
voaWKetmix1st_00004	Amount Added:	0.80	Units: uL

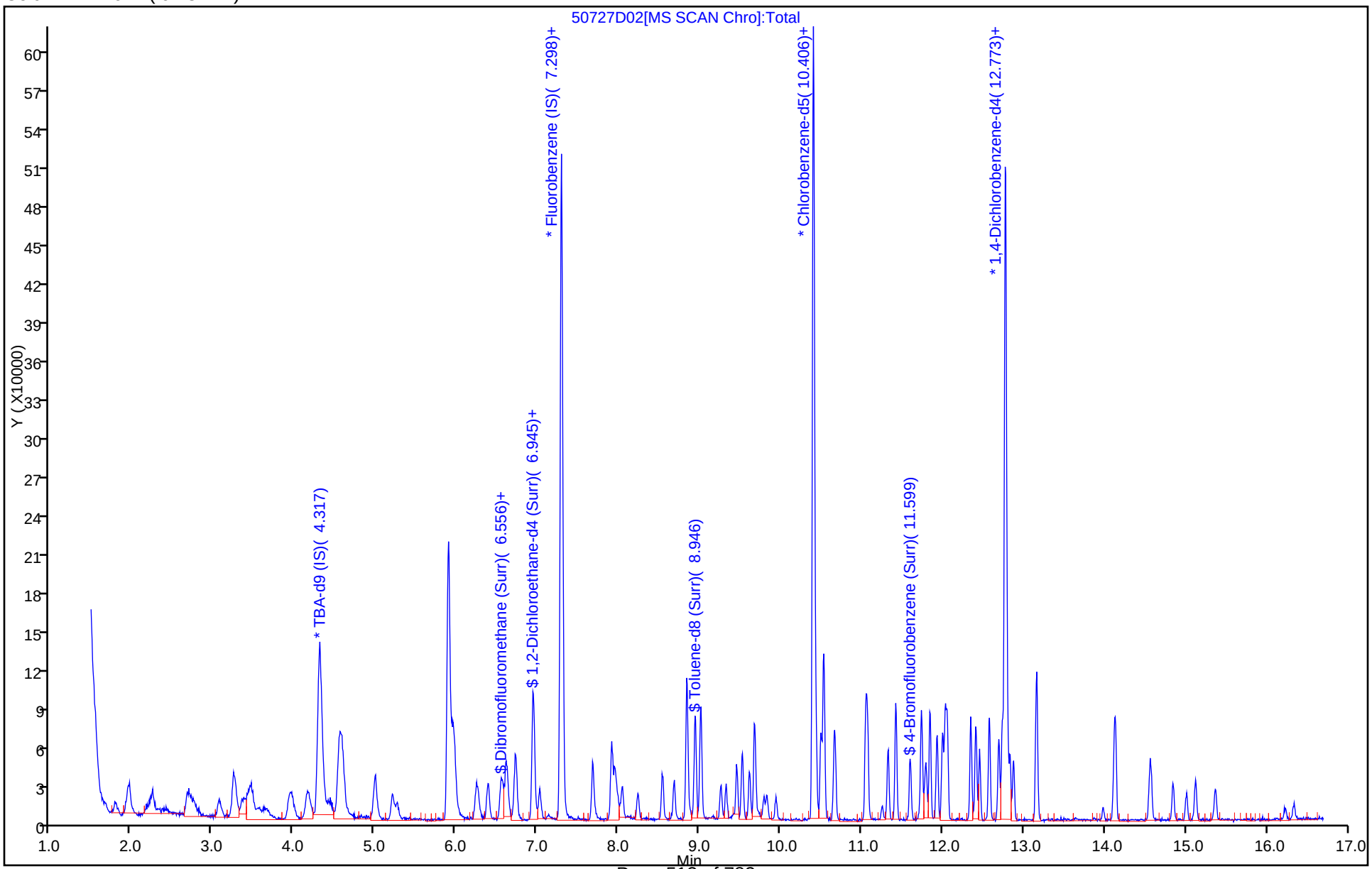
Report Date: 28-Jul-2017 01:04:45 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D

Injection Date:	27-Jul-2017 00:51:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD1			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

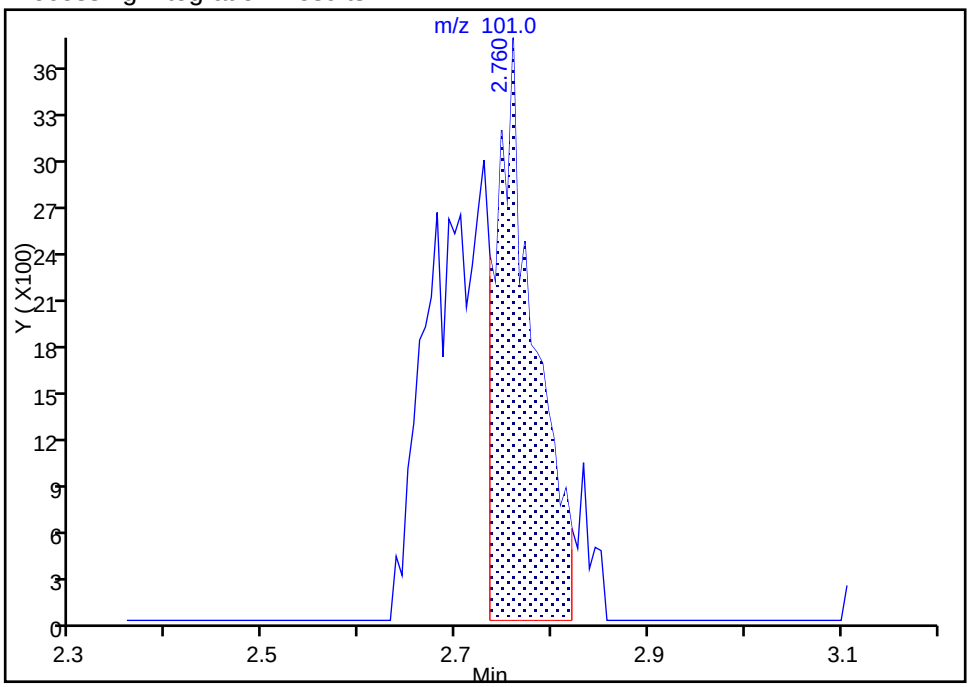
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D				
Injection Date:	27-Jul-2017 00:51:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

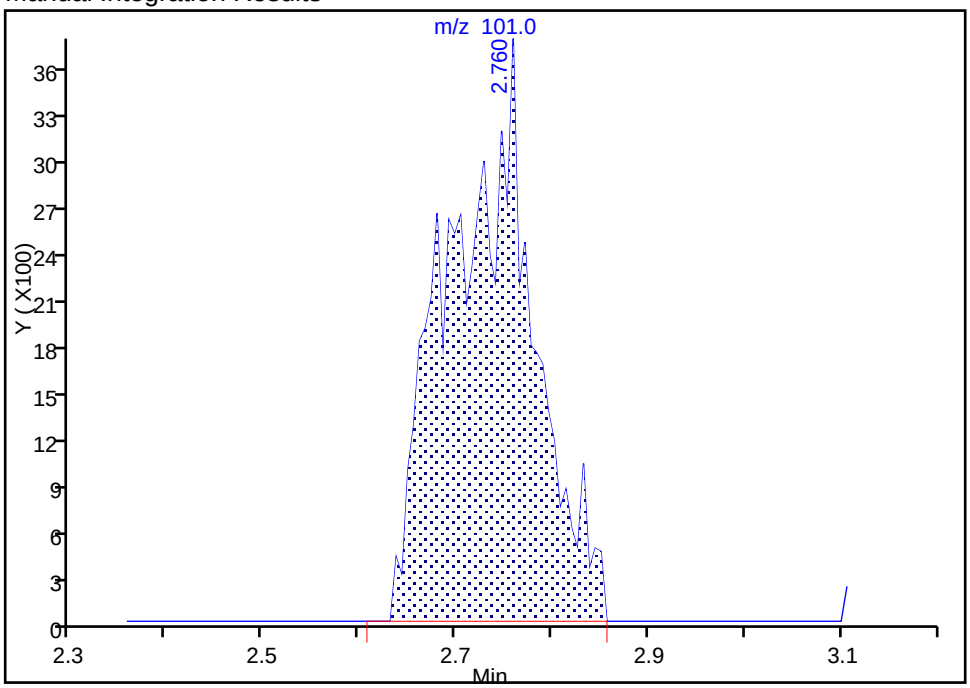
Processing Integration Results

RT: 2.76
Area: 10302
Amount: 3.465076
Amount Units: ng



Manual Integration Results

RT: 2.76
Area: 22371
Amount: 5.667373
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:06:53

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Jul-2017 01:15:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-003
Misc. Info.: IC VSTD5
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:47 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 03:14:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.319	4.323	-0.004	0	223811	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	98	538128	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	85	123664	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.773	0.002	94	168910	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.576	6.574	0.002	94	65453	25.0	25.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.947	6.945	0.002	0	82071	25.0	26.0	
$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	278432	25.0	28.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.600	11.599	0.001	87	94618	25.0	26.6	
11 Dichlorodifluoromethane	85	1.648	1.646	0.002	100	84559	25.0	27.0	
12 Chloromethane	50	1.794	1.804	-0.010	99	78965	25.0	25.1	
13 Vinyl chloride	62	1.946	1.944	0.002	98	82670	25.0	25.9	
14 Butadiene	39	1.964	1.969	-0.004	92	74553	25.0	25.7	
15 Bromomethane	94	2.262	2.254	0.008	91	42224	25.0	28.0	
16 Chloroethane	64	2.421	2.419	0.001	98	47273	25.0	26.9	
17 Dichlorofluoromethane	67	2.700	2.699	0.001	97	119855	25.0	27.0	
18 Trichlorofluoromethane	101	2.749	2.741	0.008	94	104824	25.0	26.7	M
20 Ethyl ether	59	3.084	3.076	0.008	87	66542	25.0	26.1	
21 Acrolein	56	3.266	3.252	0.014	98	73476	125.0	114.3	
22 1,1-Dichloroethene	96	3.376	3.368	0.008	96	67928	25.0	25.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.436	3.441	-0.005	93	73846	25.0	25.5	
24 Acetone	43	3.479	3.477	0.002	96	77890	50.0	55.3	
25 Iodomethane	142	3.570	3.562	0.008	98	103869	25.0	25.1	
26 Carbon disulfide	76	3.649	3.648	0.001	99	131730	25.0	22.8	
28 3-Chloro-1-propene	76	3.954	3.946	0.008	92	39946	25.0	23.5	
30 Methyl acetate	43	3.978	3.976	0.002	97	132543	50.0	47.6	
31 Methylene Chloride	84	4.166	4.165	0.001	88	84822	25.0	24.4	
32 2-Methyl-2-propanol	59	4.446	4.451	-0.005	92	64738	250.0	244.6	
33 Acrylonitrile	53	4.562	4.554	0.008	100	336508	250.0	248.3	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	98	73445	25.0	24.5	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	96	196780	25.0	24.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.006	4.998	0.008	92	96542	25.0	25.1	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	133976	25.0	25.7	
38 Vinyl acetate	43	5.268	5.272	-0.004	97	115000	25.0	21.7	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	57	15889	25.0	23.9	
45 cis-1,2-Dichloroethene	96	5.961	5.965	-0.004	81	85931	25.0	25.0	
46 2-Butanone (MEK)	43	5.985	5.978	0.007	93	105960	50.0	52.9	
49 Chlorobromomethane	128	6.253	6.245	0.008	94	38047	25.0	24.9	
51 Tetrahydrofuran	42	6.271	6.263	0.008	86	52866	50.0	45.3	
52 Chloroform	83	6.393	6.391	0.002	93	134431	25.0	25.8	
53 1,1,1-Trichloroethane	97	6.557	6.549	0.008	98	98927	25.0	25.1	
54 Cyclohexane	56	6.618	6.622	-0.004	89	124196	25.0	25.5	
56 Carbon tetrachloride	117	6.722	6.726	-0.004	95	80446	25.0	24.5	
55 1,1-Dichloropropene	75	6.746	6.738	0.008	98	109851	25.0	25.8	
57 Isobutyl alcohol	41	6.947	6.945	0.002	82	61305	625.0	572.5	
58 Benzene	78	6.953	6.951	0.002	97	339765	25.0	26.0	
59 1,2-Dichloroethane	62	7.032	7.030	0.002	97	95627	25.0	25.1	
62 n-Heptane	43	7.318	7.316	0.002	90	81002	25.0	26.3	
64 Trichloroethene	130	7.689	7.687	0.002	98	83072	25.0	25.2	
66 Methylcyclohexane	83	7.920	7.918	0.002	86	125697	25.0	25.2	
67 1,2-Dichloropropane	63	7.963	7.961	0.002	94	74777	25.0	24.5	
68 Dibromomethane	93	8.048	8.046	0.002	95	45949	25.0	25.7	
70 1,4-Dioxane	88	8.048	8.052	-0.004	38	15162	500.0	489.4	M
71 Dichlorobromomethane	83	8.242	8.241	0.001	98	84070	25.0	24.0	
73 2-Chloroethyl vinyl ether	63	8.547	8.545	0.002	95	103158	50.0	47.0	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	96744	25.0	22.7	
75 4-Methyl-2-pentanone (MIBK	43	8.845	8.843	0.002	95	154465	50.0	48.7	
76 Toluene	91	9.015	9.019	-0.004	98	351840	25.0	28.5	
77 trans-1,3-Dichloropropene	75	9.270	9.269	0.001	92	79122	25.0	23.6	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	96602	25.0	23.9	
79 1,1,2-Trichloroethane	97	9.465	9.457	0.008	90	67966	25.0	26.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	67579	25.0	28.7	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	127957	25.0	26.9	
82 2-Hexanone	43	9.678	9.682	-0.004	95	122936	50.0	50.5	
84 Chlorodibromomethane	129	9.836	9.834	0.002	89	53302	25.0	24.5	
85 Ethylene Dibromide	107	9.946	9.944	0.002	100	67745	25.0	25.7	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	95	109109	25.0	25.7	
87 Chlorobenzene	112	10.432	10.437	-0.005	95	217561	25.0	27.1	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	95	101825	25.0	26.0	
89 1,1,1,2-Tetrachloroethane	131	10.530	10.528	0.002	92	65901	25.0	25.8	
90 Ethylbenzene	106	10.536	10.534	0.002	98	120759	25.0	26.9	
91 m-Xylene & p-Xylene	106	10.670	10.668	0.002	0	151114	25.0	27.6	
92 o-Xylene	106	11.053	11.051	0.002	96	138375	25.0	26.5	
93 Styrene	104	11.071	11.069	0.002	95	242031	25.0	27.4	
94 Bromoform	173	11.254	11.252	0.002	97	30000	25.0	22.2	
96 2-Chlorobenzotrifluoride	180	11.327	11.325	0.002	97	107103	25.0	26.3	
97 Isopropylbenzene	105	11.424	11.422	0.002	96	356966	25.0	28.0	
100 Bromobenzene	156	11.734	11.739	-0.005	95	83376	25.0	25.4	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	94	100341	25.0	26.4	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	77	23168	25.0	23.4	
101 1,2,3-Trichloropropane	110	11.789	11.793	-0.004	86	32588	25.0	24.1	
103 N-Propylbenzene	120	11.838	11.842	-0.004	99	95261	25.0	25.4	
104 2-Chlorotoluene	126	11.929	11.927	0.002	96	83234	25.0	25.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	87067	25.0	24.7	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	95	290219	25.0	27.1	
107 4-Chlorotoluene	126	12.057	12.055	0.002	96	88877	25.0	25.4	
108 tert-Butylbenzene	119	12.349	12.347	0.002	93	236619	25.0	26.4	
110 1,2,4-Trimethylbenzene	105	12.410	12.408	0.002	97	288545	25.0	26.5	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	96	64854	25.0	23.8	
112 sec-Butylbenzene	105	12.574	12.572	0.002	94	336681	25.0	26.9	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	151590	25.0	25.9	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	97	277710	25.0	26.7	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	154714	25.0	25.7	
116 2,4-Dichloro-1-(triflourom	214	12.829	12.828	0.001	96	64892	25.0	25.5	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	67486	25.0	24.6	
120 n-Butylbenzene	91	13.152	13.150	0.002	98	221777	25.0	26.1	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	98	145778	25.0	26.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	83	14158	25.0	22.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	260387	75.0	73.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.557	14.555	0.002	0	173187	50.0	47.3	
126 1,2,4-Trichlorobenzene	180	14.837	14.829	0.008	94	60672	25.0	23.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	24054	25.0	25.7	
128 Naphthalene	128	15.111	15.103	0.008	97	191971	25.0	22.1	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	95	57325	25.0	24.6	
131 2,4,5-Trichlorotoluene	159	16.200	16.198	0.002	0	23799	25.0	21.5	
130 2,3,6-Trichlorotoluene	159	16.309	16.307	0.002	95	23065	25.0	22.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		50.0	49.5	
S 133 Xylenes, Total	106				0		50.0	54.1	
S 135 1,3-Dichloropropene, Total	1				0		50.0	46.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00263	Amount Added:	1.00	Units: uL
voaW2clev1stR_00013	Amount Added:	1.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	5.00	Units: uL
voaWVA1stRest_00017	Amount Added:	1.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	1.00	Units: uL
VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	1.00	Units: uL
voaWKetmix1st_00004	Amount Added:	1.00	Units: uL

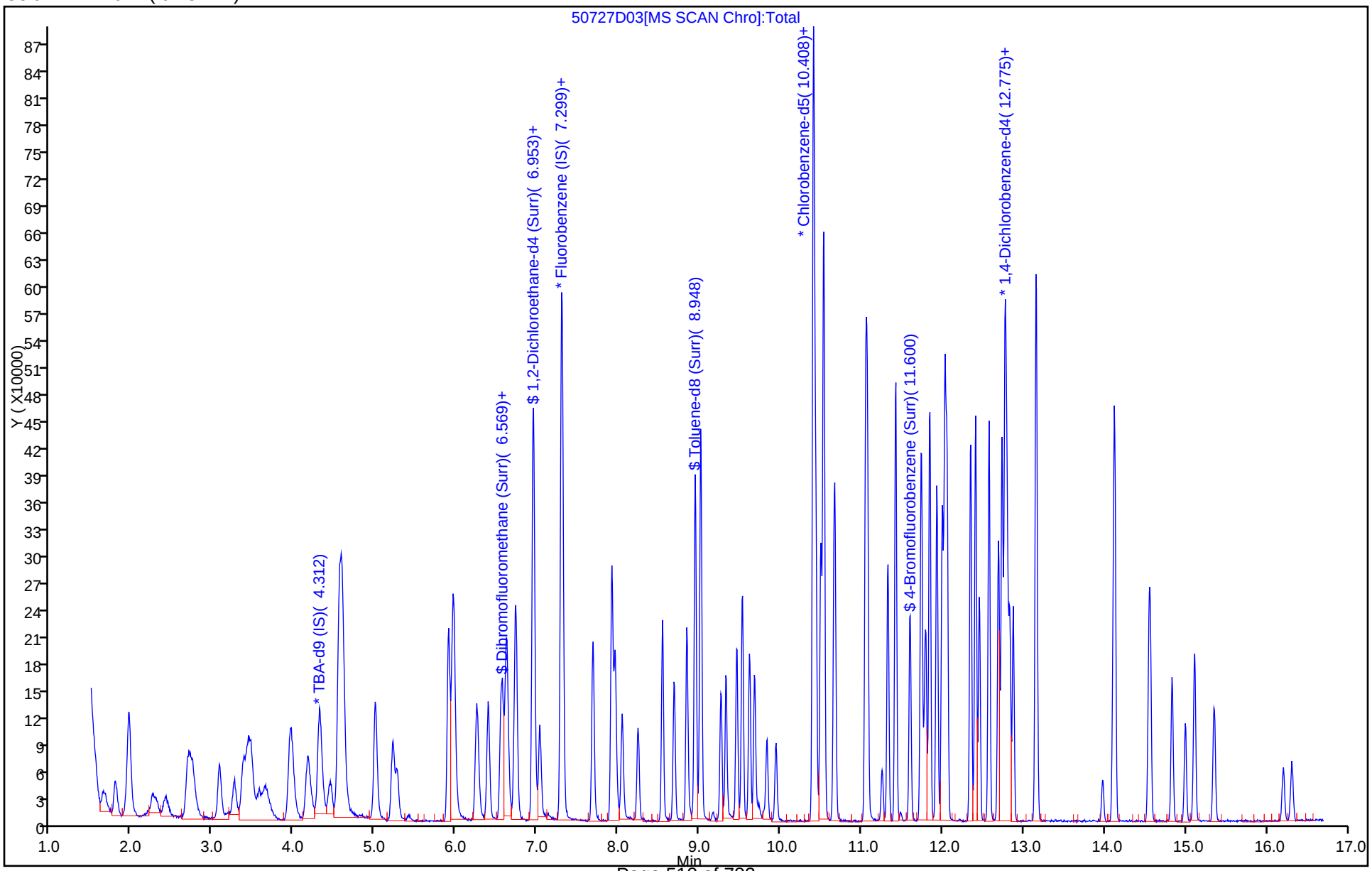
Report Date: 28-Jul-2017 01:04:48 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D

Injection Date:	27-Jul-2017 01:15:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD5			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

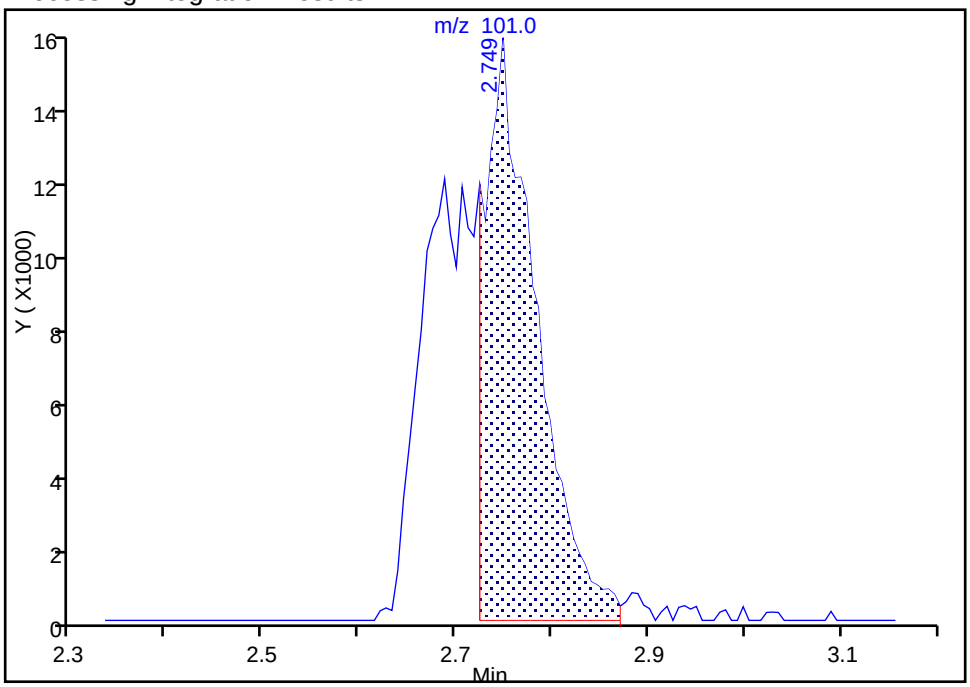
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D				
Injection Date:	27-Jul-2017 01:15:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

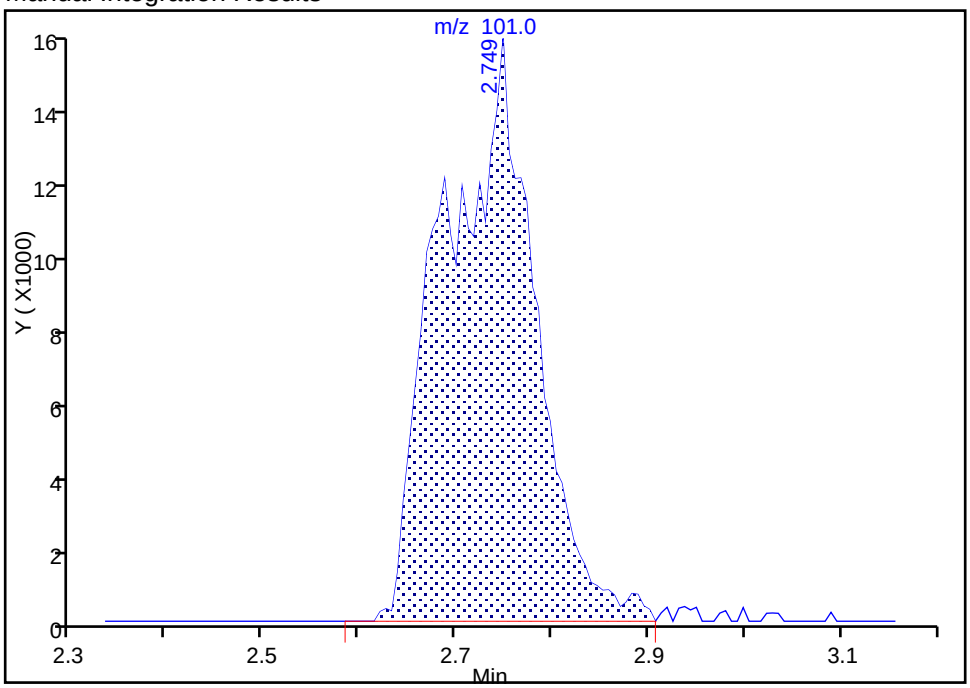
Processing Integration Results

RT: 2.75
Area: 59636
Amount: 17.371088
Amount Units: ng



Manual Integration Results

RT: 2.75
Area: 104824
Amount: 26.731985
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:13:52

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

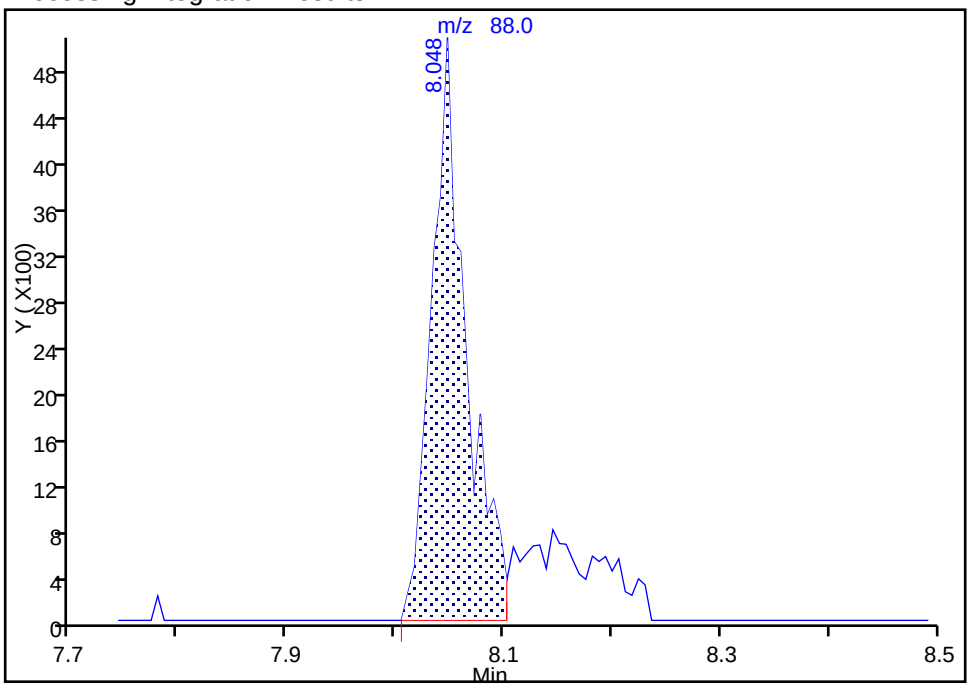
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

Signal: 1

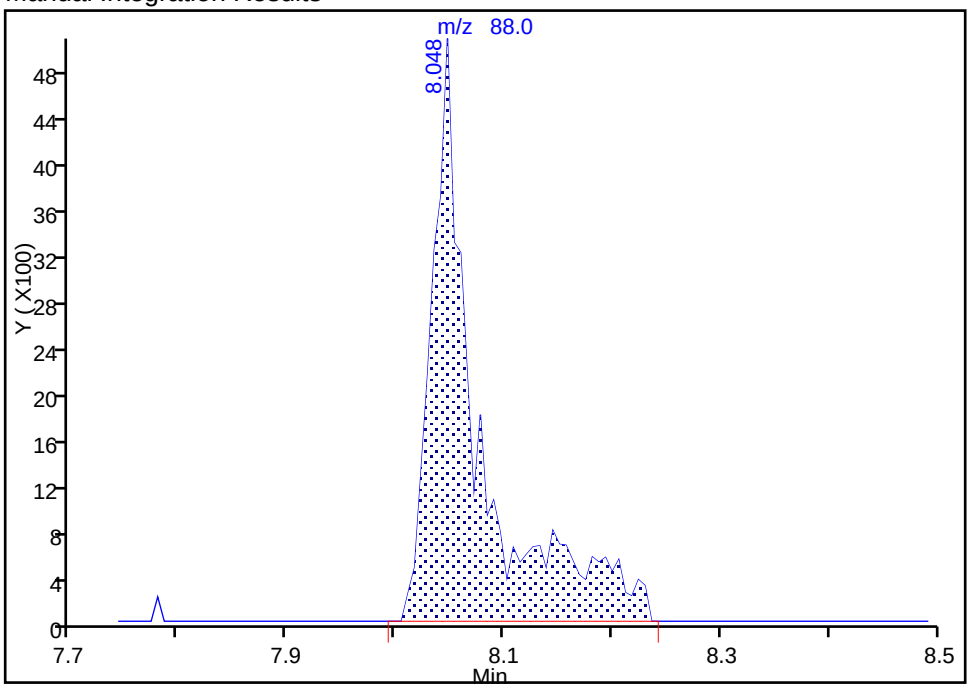
Processing Integration Results

RT: 8.05
Area: 11273
Amount: 403.3803
Amount Units: ng



Manual Integration Results

RT: 8.05
Area: 15162
Amount: 489.3788
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:14:22
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 27-Jul-2017 01:39:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-004
Misc. Info.: ICIS VSTD10
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:50 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 03:16:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.328	0.000	0	240414	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.297	0.000	99	539679	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.405	0.000	86	132843	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.772	0.000	94	174621	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.573	6.573	0.000	94	127700	50.0	49.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.944	0.000	0	159071	50.0	50.2	
$ 7 Toluene-d8 (Surr)	98	8.951	8.951	0.000	92	541748	50.0	51.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.598	0.000	87	191158	50.0	50.1	
11 Dichlorodifluoromethane	85	1.663	1.663	0.000	99	159957	50.0	51.0	
12 Chloromethane	50	1.797	1.797	0.000	99	154943	50.0	49.1	
13 Vinyl chloride	62	1.955	1.955	0.000	98	162634	50.0	50.8	
14 Butadiene	39	1.968	1.968	0.000	94	143576	50.0	49.4	
15 Bromomethane	94	2.272	2.272	0.000	89	81346	50.0	53.8	
16 Chloroethane	64	2.424	2.424	0.000	98	86601	50.0	49.2	
17 Dichlorofluoromethane	67	2.710	2.710	0.000	96	224450	50.0	50.4	
18 Trichlorofluoromethane	101	2.746	2.746	0.000	97	205127	50.0	52.2	M
20 Ethyl ether	59	3.087	3.087	0.000	89	126496	50.0	49.4	
21 Acrolein	56	3.269	3.269	0.000	99	101829	150.0	158.0	
22 1,1-Dichloroethene	96	3.373	3.373	0.000	83	131576	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.440	0.000	91	141127	50.0	48.7	
24 Acetone	43	3.482	3.482	0.000	100	149782	100.0	106.1	
25 Iodomethane	142	3.580	3.580	0.000	99	200342	50.0	48.3	
26 Carbon disulfide	76	3.659	3.659	0.000	98	266935	50.0	46.0	
28 3-Chloro-1-propene	76	3.951	3.951	0.000	92	83167	50.0	48.7	
30 Methyl acetate	43	3.975	3.975	0.000	97	283974	100.0	101.6	
31 Methylene Chloride	84	4.170	4.170	0.000	90	164284	50.0	50.2	
32 2-Methyl-2-propanol	59	4.450	4.450	0.000	93	139891	500.0	492.0	
33 Acrylonitrile	53	4.559	4.559	0.000	99	708552	500.0	521.4	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	147191	50.0	48.9	
35 Methyl tert-butyl ether	73	4.608	4.608	0.000	96	390184	50.0	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	5.003	0.000	93	186124	50.0	48.2	
37 1,1-Dichloroethane	63	5.222	5.222	0.000	96	261874	50.0	50.0	
38 Vinyl acetate	43	5.271	5.271	0.000	97	245879	50.0	46.2	
44 2,2-Dichloropropane	97	5.958	5.958	0.000	72	31118	50.0	46.7	
45 cis-1,2-Dichloroethene	96	5.971	5.971	0.000	79	172690	50.0	50.2	
46 2-Butanone (MEK)	43	5.977	5.977	0.000	98	214731	100.0	106.9	
49 Chlorobromomethane	128	6.250	6.250	0.000	95	75687	50.0	49.5	
51 Tetrahydrofuran	42	6.269	6.269	0.000	89	117485	100.0	100.4	
52 Chloroform	83	6.396	6.396	0.000	92	254354	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.555	6.555	0.000	98	196286	50.0	49.6	
54 Cyclohexane	56	6.621	6.621	0.000	89	239333	50.0	49.0	
56 Carbon tetrachloride	117	6.719	6.719	0.000	97	162849	50.0	49.5	
55 1,1-Dichloropropene	75	6.743	6.743	0.000	97	215336	50.0	50.4	
57 Isobutyl alcohol	41	6.950	6.950	0.000	84	136973	1250.0	1275.5	
58 Benzene	78	6.950	6.950	0.000	97	669098	50.0	51.0	
59 1,2-Dichloroethane	62	7.035	7.035	0.000	97	190422	50.0	49.8	
62 n-Heptane	43	7.315	7.315	0.000	86	154370	50.0	50.0	
64 Trichloroethene	130	7.692	7.692	0.000	98	164695	50.0	49.9	
66 Methylcyclohexane	83	7.917	7.917	0.000	86	253511	50.0	50.8	
67 1,2-Dichloropropane	63	7.960	7.960	0.000	94	150135	50.0	49.1	
68 Dibromomethane	93	8.045	8.045	0.000	95	88395	50.0	49.4	
70 1,4-Dioxane	88	8.051	8.051	0.000	40	33209	1000.0	1068.8	M
71 Dichlorobromomethane	83	8.246	8.246	0.000	99	171049	50.0	48.7	
73 2-Chloroethyl vinyl ether	63	8.544	8.544	0.000	92	219328	100.0	99.7	
74 cis-1,3-Dichloropropene	75	8.690	8.690	0.000	95	204344	50.0	47.9	
75 4-Methyl-2-pentanone (MIBK	43	8.848	8.848	0.000	96	361112	100.0	106.0	
76 Toluene	91	9.018	9.018	0.000	99	692901	50.0	52.3	
77 trans-1,3-Dichloropropene	75	9.268	9.268	0.000	93	170710	50.0	47.4	
78 Ethyl methacrylate	69	9.329	9.329	0.000	88	222171	50.0	51.1	
79 1,1,2-Trichloroethane	97	9.456	9.456	0.000	90	138196	50.0	50.1	
80 Tetrachloroethene	164	9.535	9.535	0.000	97	126273	50.0	50.0	
81 1,3-Dichloropropane	76	9.621	9.621	0.000	89	256477	50.0	50.3	
82 2-Hexanone	43	9.681	9.681	0.000	94	278579	100.0	106.6	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	114911	50.0	49.3	
85 Ethylene Dibromide	107	9.943	9.943	0.000	98	142489	50.0	50.3	
86 3-Chlorobenzotrifluoride	180	10.411	10.411	0.000	93	222871	50.0	48.8	
87 Chlorobenzene	112	10.436	10.436	0.000	95	431311	50.0	50.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.497	0.000	96	207774	50.0	49.3	
89 1,1,1,2-Tetrachloroethane	131	10.533	10.533	0.000	94	137710	50.0	50.2	
90 Ethylbenzene	106	10.533	10.533	0.000	98	249792	50.0	51.9	
91 m-Xylene & p-Xylene	106	10.667	10.667	0.000	0	306948	50.0	52.2	
92 o-Xylene	106	11.050	11.050	0.000	96	288885	50.0	51.5	
93 Styrene	104	11.068	11.068	0.000	95	498873	50.0	52.6	
94 Bromoform	173	11.257	11.257	0.000	96	67829	50.0	46.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.324	0.000	97	216286	50.0	49.5	
97 Isopropylbenzene	105	11.421	11.421	0.000	95	726432	50.0	53.1	
100 Bromobenzene	156	11.738	11.738	0.000	94	163748	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.738	0.000	95	211912	50.0	51.9	
102 trans-1,4-Dichloro-2-buten	53	11.780	11.780	0.000	83	49334	50.0	48.3	
101 1,2,3-Trichloropropane	110	11.792	11.792	0.000	85	72643	50.0	51.9	
103 N-Propylbenzene	120	11.841	11.841	0.000	98	198029	50.0	51.1	
104 2-Chlorotoluene	126	11.926	11.926	0.000	97	167713	50.0	50.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.999	0.000	96	185343	50.0	50.9	
106 1,3,5-Trimethylbenzene	105	12.030	12.030	0.000	94	578518	50.0	52.2	
107 4-Chlorotoluene	126	12.054	12.054	0.000	96	180584	50.0	50.0	
108 tert-Butylbenzene	119	12.346	12.346	0.000	93	480729	50.0	51.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	588662	50.0	52.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	138659	50.0	49.1	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	679839	50.0	52.6	
113 1,3-Dichlorobenzene	146	12.687	12.687	0.000	97	305374	50.0	50.4	
114 4-Isopropyltoluene	119	12.735	12.735	0.000	97	570403	50.0	53.0	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	95	315614	50.0	50.8	
116 2,4-Dichloro-1-(triflourom	214	12.827	12.827	0.000	95	125268	50.0	47.7	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.875	0.000	0	140272	50.0	49.4	
120 n-Butylbenzene	91	13.149	13.149	0.000	98	454742	50.0	51.8	
121 1,2-Dichlorobenzene	146	13.161	13.161	0.000	98	290492	50.0	50.3	
122 1,2-Dibromo-3-Chloropropan	75	13.976	13.976	0.000	85	30986	50.0	48.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.122	14.122	0.000	0	566788	150.0	154.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.554	14.554	0.000	0	380181	100.0	100.4	
126 1,2,4-Trichlorobenzene	180	14.834	14.834	0.000	93	134753	50.0	51.0	
127 Hexachlorobutadiene	225	14.992	14.992	0.000	97	49048	50.0	50.8	
128 Naphthalene	128	15.108	15.108	0.000	97	465533	50.0	51.7	
129 1,2,3-Trichlorobenzene	180	15.351	15.351	0.000	95	117120	50.0	48.5	
131 2,4,5-Trichlorotoluene	159	16.203	16.203	0.000	0	53498	50.0	46.6	
130 2,3,6-Trichlorotoluene	159	16.312	16.312	0.000	97	53869	50.0	50.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	2.00	Units: uL
voaW2clev1stR_00013	Amount Added:	2.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	6.00	Units: uL
voaWVA1stRest_00017	Amount Added:	2.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	2.00	Units: uL
voaWKetmix1st_00004	Amount Added:	2.00	Units: uL

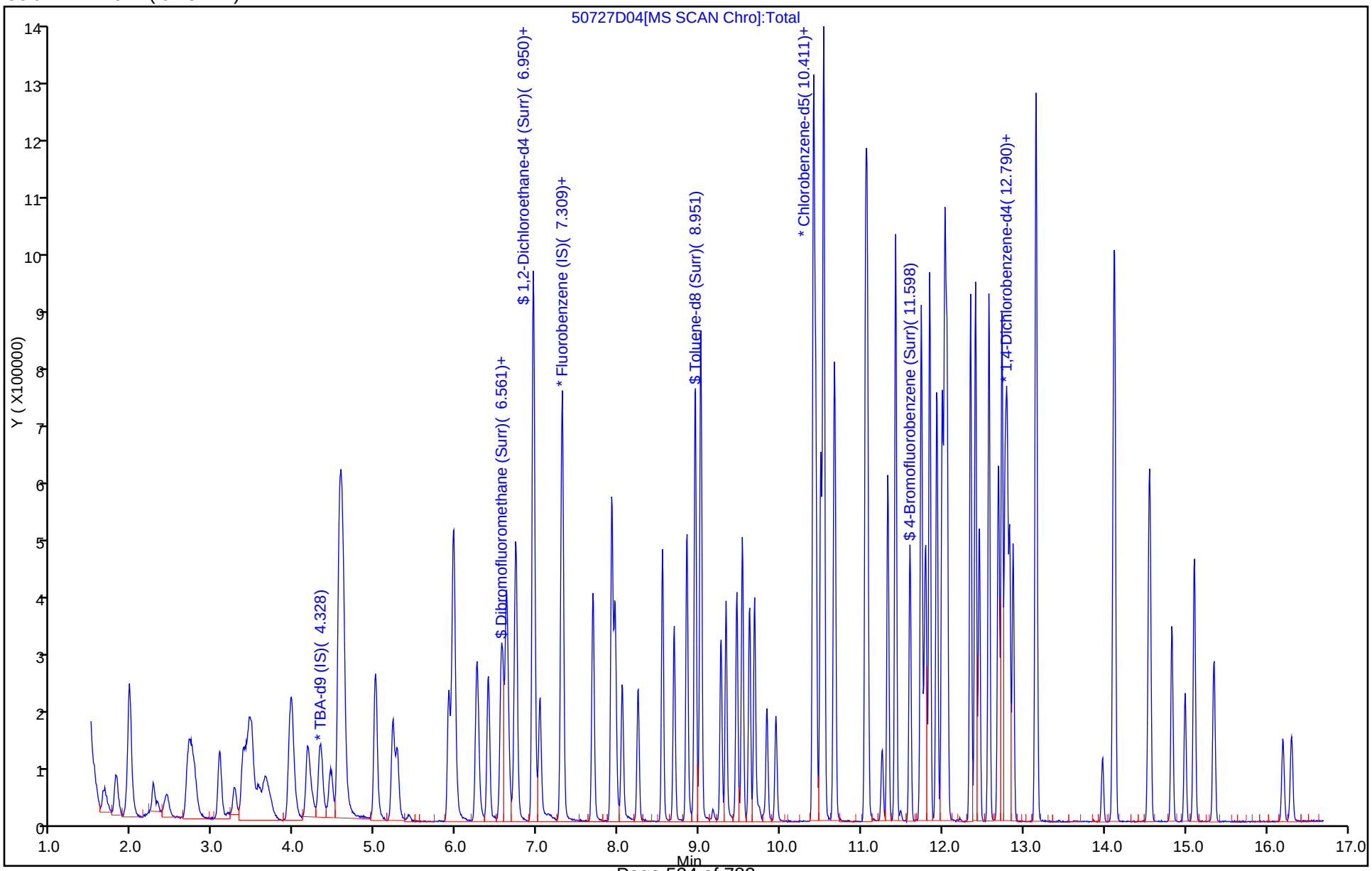
Report Date: 28-Jul-2017 01:04:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D

Injection Date:	27-Jul-2017 01:39:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	ICIS VSTD10			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

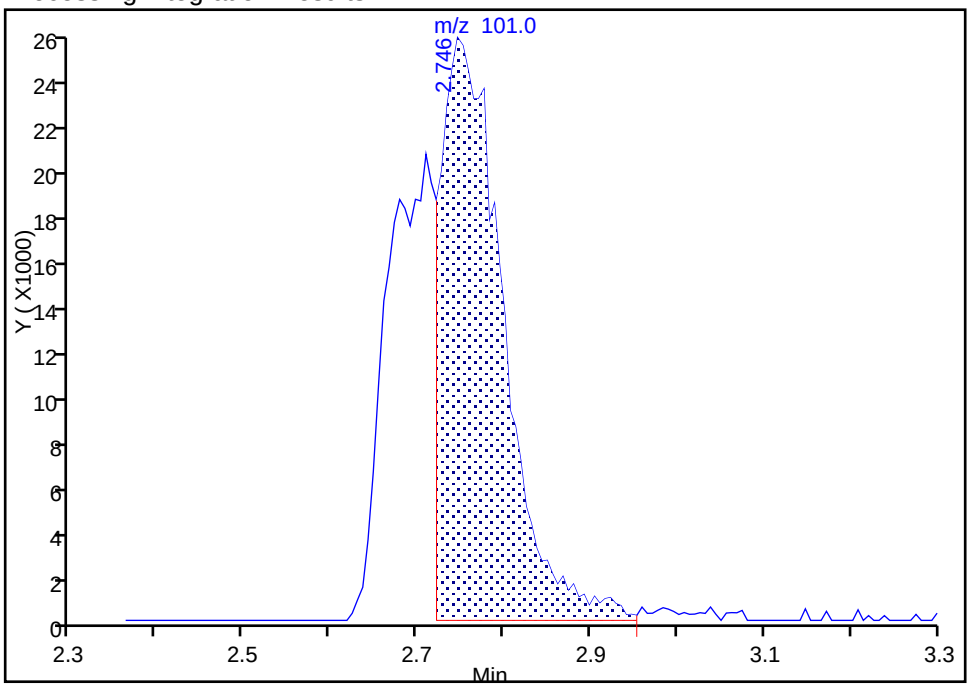
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D				
Injection Date:	27-Jul-2017 01:39:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

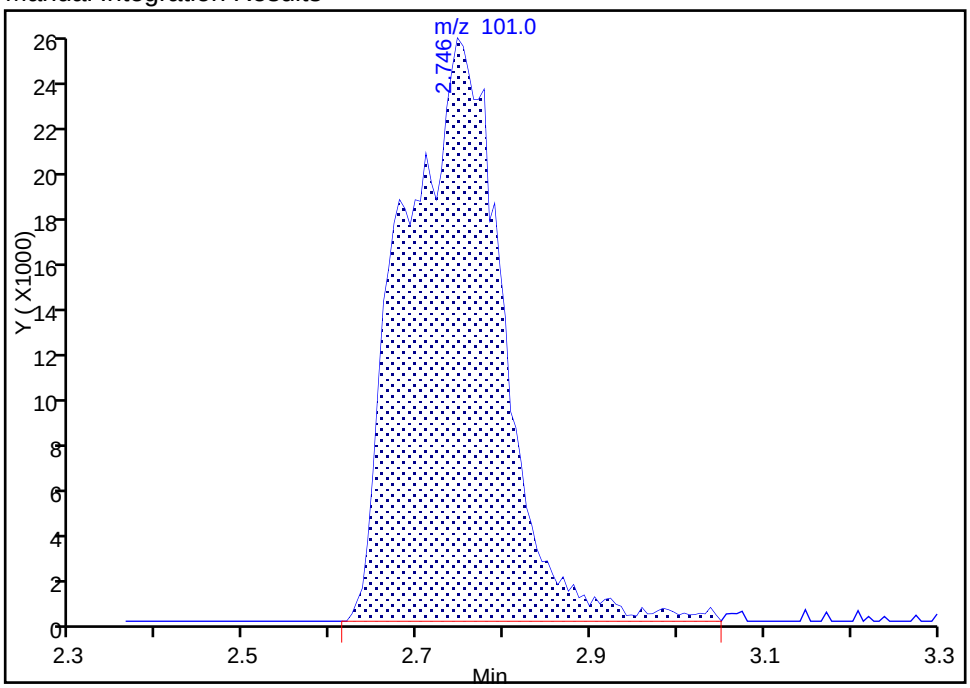
Processing Integration Results

RT: 2.75
Area: 129465
Amount: 34.020484
Amount Units: ng



Manual Integration Results

RT: 2.75
Area: 205127
Amount: 52.160696
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:15:11

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

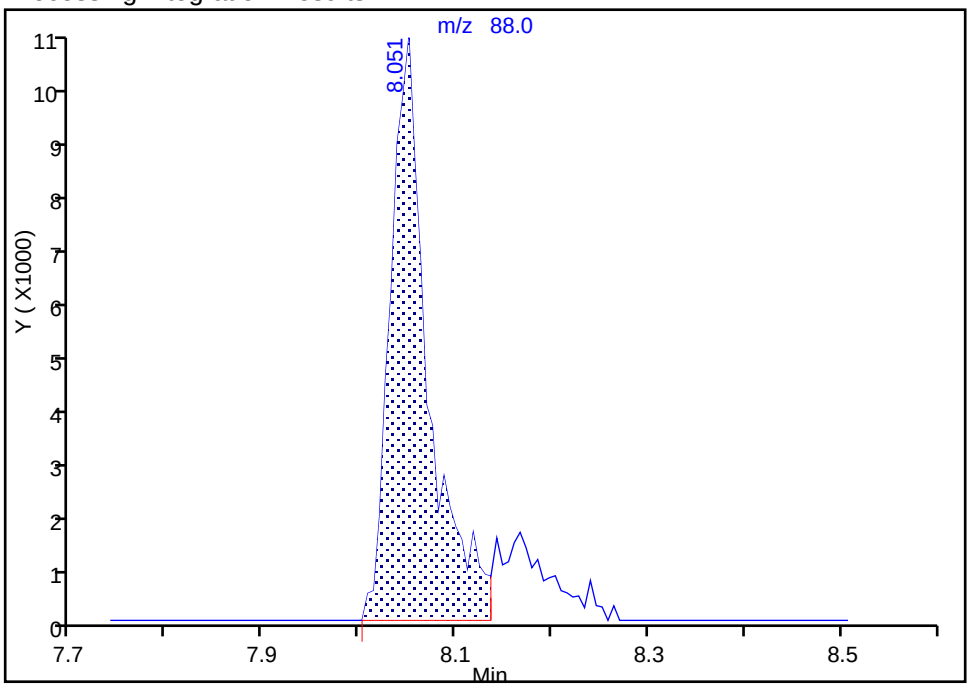
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D				
Injection Date:	27-Jul-2017 01:39:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

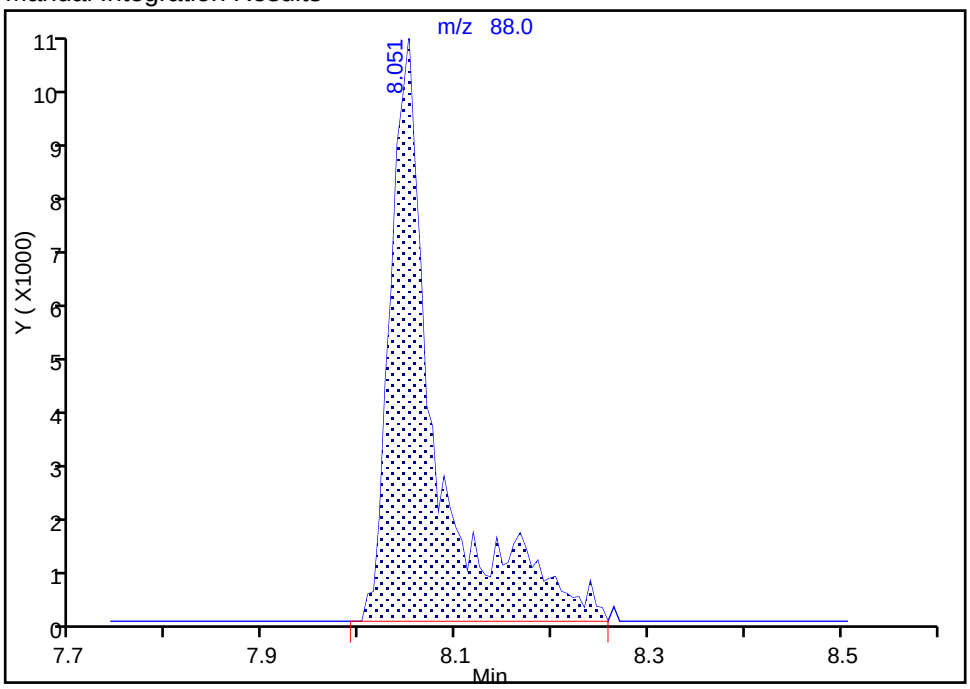
Processing Integration Results

RT: 8.05
Area: 27736
Amount: 937.4398
Amount Units: ng



Manual Integration Results

RT: 8.05
Area: 33209
Amount: 1068.7953
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:15:41

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Jul-2017 02:02:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-005
Misc. Info.: IC VSTD15
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:55 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 03:16:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.323	4.323	0.000	0	240814	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	98	519897	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	84	132905	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	91	174376	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	93	193042	75.0	77.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.945	6.945	0.000	0	234269	75.0	76.8	
$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	780569	75.0	73.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	88	289432	75.0	75.8	
11 Dichlorodifluoromethane	85	1.646	1.646	0.000	98	226899	75.0	75.1	
12 Chloromethane	50	1.804	1.804	0.000	99	232300	75.0	76.5	
13 Vinyl chloride	62	1.944	1.944	0.000	98	221295	75.0	71.8	
14 Butadiene	39	1.969	1.969	0.000	96	204212	75.0	72.9	
15 Bromomethane	94	2.254	2.254	0.000	90	112119	75.0	76.9	
16 Chloroethane	64	2.419	2.419	0.000	99	128899	75.0	76.1	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	327021	75.0	76.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	94	283194	75.0	74.8	
20 Ethyl ether	59	3.076	3.076	0.000	87	188662	75.0	76.6	
21 Acrolein	56	3.252	3.252	0.000	99	115103	175.0	185.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	97	190985	75.0	75.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	92	206212	75.0	73.8	
24 Acetone	43	3.477	3.477	0.000	100	227784	150.0	167.5	
25 Iodomethane	142	3.562	3.562	0.000	96	304618	75.0	76.2	
26 Carbon disulfide	76	3.648	3.648	0.000	98	403056	75.0	72.2	
28 3-Chloro-1-propene	76	3.946	3.946	0.000	92	121734	75.0	74.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	419273	150.0	155.7	
31 Methylene Chloride	84	4.165	4.165	0.000	87	242665	75.0	78.8	
32 2-Methyl-2-propanol	59	4.451	4.451	0.000	95	204334	750.0	717.5	
33 Acrylonitrile	53	4.554	4.554	0.000	98	1029651	750.0	786.5	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	222245	75.0	76.6	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	95	613933	75.0	78.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.998	4.998	0.000	93	266987	75.0	71.7	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	379320	75.0	75.2	
38 Vinyl acetate	43	5.272	5.272	0.000	97	400099	75.0	78.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	93	48893	75.0	76.2	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	259385	75.0	78.2	
46 2-Butanone (MEK)	43	5.978	5.978	0.000	98	321867	150.0	166.3	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	113290	75.0	76.8	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	176266	150.0	156.4	
52 Chloroform	83	6.391	6.391	0.000	93	389323	75.0	77.3	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	285488	75.0	74.9	
54 Cyclohexane	56	6.622	6.622	0.000	88	345041	75.0	73.4	
56 Carbon tetrachloride	117	6.726	6.726	0.000	97	238173	75.0	75.1	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	98	312373	75.0	75.9	
57 Isobutyl alcohol	41	6.945	6.945	0.000	61	216532	1875.0	2093.1	
58 Benzene	78	6.951	6.951	0.000	97	981851	75.0	77.7	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	98	292683	75.0	79.4	
62 n-Heptane	43	7.316	7.316	0.000	88	214813	75.0	72.2	
64 Trichloroethene	130	7.687	7.687	0.000	98	241861	75.0	76.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	358781	75.0	74.6	
67 1,2-Dichloropropane	63	7.961	7.961	0.000	96	227133	75.0	77.2	
68 Dibromomethane	93	8.046	8.046	0.000	95	135198	75.0	78.4	
70 1,4-Dioxane	88	8.052	8.052	0.000	38	46920	1500.0	1567.5	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	268080	75.0	79.2	
73 2-Chloroethyl vinyl ether	63	8.545	8.545	0.000	92	343066	150.0	162.0	
74 cis-1,3-Dichloropropene	75	8.685	8.685	0.000	96	320956	75.0	78.1	
75 4-Methyl-2-pentanone (MIBK	43	8.843	8.843	0.000	95	542662	150.0	159.2	
76 Toluene	91	9.019	9.019	0.000	99	1000479	75.0	75.5	
77 trans-1,3-Dichloropropene	75	9.269	9.269	0.000	93	278226	75.0	77.2	
78 Ethyl methacrylate	69	9.330	9.330	0.000	87	352819	75.0	81.1	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	209928	75.0	76.0	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	184171	75.0	72.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	88	397870	75.0	78.0	
82 2-Hexanone	43	9.682	9.682	0.000	93	419354	150.0	160.4	
84 Chlorodibromomethane	129	9.834	9.834	0.000	91	181267	75.0	77.7	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	223815	75.0	79.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	352260	75.0	77.1	
87 Chlorobenzene	112	10.437	10.437	0.000	94	660247	75.0	76.5	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	327327	75.0	77.7	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	92	212641	75.0	77.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	371119	75.0	77.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	452043	75.0	76.8	
92 o-Xylene	106	11.051	11.051	0.000	95	440285	75.0	78.5	
93 Styrene	104	11.069	11.069	0.000	94	745860	75.0	78.6	
94 Bromoform	173	11.252	11.252	0.000	96	112077	75.0	77.3	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	348911	75.0	79.8	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	1080505	75.0	78.9	
100 Bromobenzene	156	11.739	11.739	0.000	95	261052	75.0	77.1	
99 1,1,2,2-Tetrachloroethane	83	11.745	11.745	0.000	95	316221	75.0	77.4	
102 trans-1,4-Dichloro-2-buten	53	11.775	11.775	0.000	82	83561	75.0	81.9	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	109372	75.0	78.3	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	291693	75.0	75.4	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	256066	75.0	76.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	97	289960	75.0	79.7	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	94	866332	75.0	78.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	269544	75.0	74.7	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	721573	75.0	78.0	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	884487	75.0	78.6	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	219982	75.0	78.1	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	993968	75.0	77.0	
113 1,3-Dichlorobenzene	146	12.688	12.688	0.000	97	462404	75.0	76.5	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	96	837492	75.0	77.9	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	96	474362	75.0	76.4	
116 2,4-Dichloro-1-(triflourom	214	12.828	12.828	0.000	94	206368	75.0	78.6	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	217211	75.0	76.6	
120 n-Butylbenzene	91	13.150	13.150	0.000	98	671190	75.0	76.5	
121 1,2-Dichlorobenzene	146	13.156	13.156	0.000	98	437966	75.0	76.0	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	83	47827	75.0	74.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	889724	225.0	243.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	620870	150.0	164.2	
126 1,2,4-Trichlorobenzene	180	14.829	14.829	0.000	94	200638	75.0	76.1	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	73984	75.0	76.7	
128 Naphthalene	128	15.103	15.103	0.000	97	733996	75.0	81.7	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	184932	75.0	76.8	
131 2,4,5-Trichlorotoluene	159	16.198	16.198	0.000	0	91488	75.0	79.9	
130 2,3,6-Trichlorotoluene	159	16.307	16.307	0.000	98	89402	75.0	83.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		150.0	154.8	
S 133 Xylenes, Total	106				0		150.0	155.3	
S 135 1,3-Dichloropropene, Total	1				0		150.0	155.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	3.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	3.00	Units: uL
voaW2clev1stR_00013	Amount Added:	3.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	7.00	Units: uL
voaWVA1stRest_00017	Amount Added:	3.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	3.00	Units: uL
voaWKetmix1st_00004	Amount Added:	3.00	Units: uL

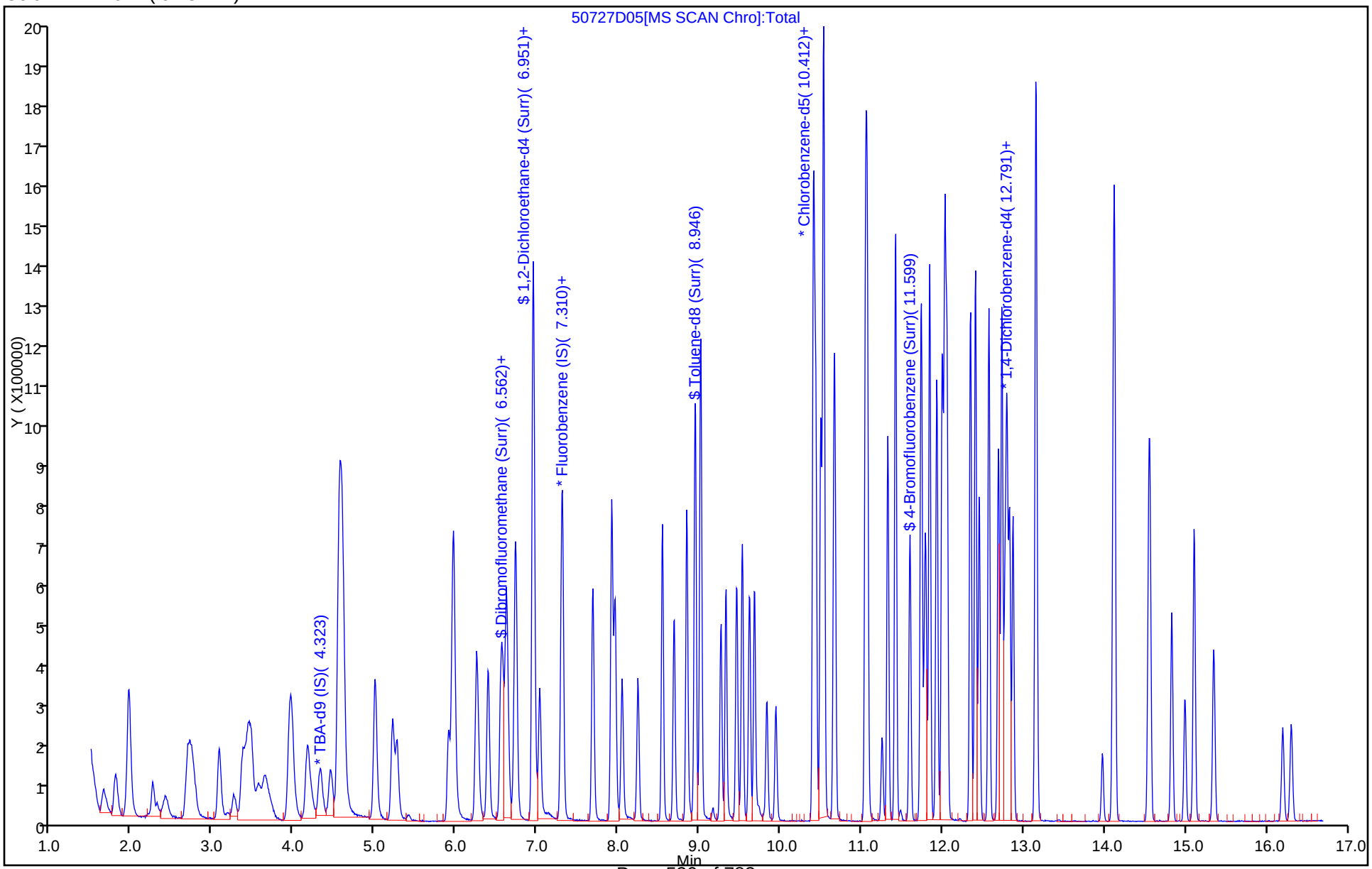
Report Date: 28-Jul-2017 01:04:56 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D

Injection Date:	27-Jul-2017 02:02:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD15			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Jul-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-006
Misc. Info.: IC VSTD20
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:58 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 03:06:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.316	4.323	-0.007	0	252187	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	520193	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	132635	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	95	171832	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	93	257355	100.0	102.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	307676	100.0	100.8	
$ 7 Toluene-d8 (Surr)	98	8.945	8.946	-0.001	92	1040595	100.0	98.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	390879	100.0	102.5	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	286388	100.0	94.7	
12 Chloromethane	50	1.797	1.804	-0.007	99	302276	100.0	99.4	
13 Vinyl chloride	62	1.949	1.944	0.005	98	291558	100.0	94.5	
14 Butadiene	39	1.962	1.969	-0.006	92	260580	100.0	93.0	
15 Bromomethane	94	2.260	2.254	0.006	90	161865	100.0	111.0	
16 Chloroethane	64	2.412	2.419	-0.007	99	172552	100.0	101.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	97	436022	100.0	101.7	
18 Trichlorofluoromethane	101	2.734	2.741	-0.007	96	371684	100.0	98.1	
20 Ethyl ether	59	3.081	3.076	0.005	89	262150	100.0	106.3	
21 Acrolein	56	3.264	3.252	0.012	99	130923	200.0	210.7	
22 1,1-Dichloroethene	96	3.373	3.368	0.005	98	247279	100.0	97.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.446	3.441	0.005	93	263603	100.0	94.3	
24 Acetone	43	3.476	3.477	-0.001	100	316026	200.0	232.3	
25 Iodomethane	142	3.562	3.562	0.000	98	408622	100.0	102.2	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	561008	100.0	100.4	
28 3-Chloro-1-propene	76	3.951	3.946	0.005	92	164305	100.0	99.8	
30 Methyl acetate	43	3.969	3.976	-0.007	97	558912	200.0	207.5	
31 Methylene Chloride	84	4.164	4.165	-0.001	93	323324	100.0	106.0	
32 2-Methyl-2-propanol	59	4.444	4.451	-0.007	94	283777	1000.0	951.5	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	1387354	1000.0	1059.2	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	98	296608	100.0	102.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	822838	100.0	105.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	4.998	0.005	92	337300	100.0	90.6	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	510811	100.0	101.2	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	532250	100.0	103.7	
44 2,2-Dichloropropane	97	5.959	5.959	-0.001	57	65750	100.0	102.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	347303	100.0	104.6	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	426755	200.0	220.4	
49 Chlorobromomethane	128	6.251	6.245	0.005	94	155416	100.0	105.4	
51 Tetrahydrofuran	42	6.263	6.263	0.000	86	224432	200.0	199.0	
52 Chloroform	83	6.390	6.391	-0.001	92	517765	100.0	102.8	
53 1,1,1-Trichloroethane	97	6.555	6.549	0.006	98	383868	100.0	100.7	
54 Cyclohexane	56	6.622	6.622	0.000	89	446560	100.0	94.9	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	96	317033	100.0	99.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	98	408627	100.0	99.2	
58 Benzene	78	6.956	6.951	0.005	97	1307056	100.0	103.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	91	290317	2500.0	2804.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	385206	100.0	104.5	
62 n-Heptane	43	7.315	7.316	-0.001	89	279216	100.0	93.8	
64 Trichloroethene	130	7.686	7.687	-0.001	98	329499	100.0	103.5	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	467268	100.0	97.1	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	96	309491	100.0	105.1	
68 Dibromomethane	93	8.051	8.046	0.005	96	184529	100.0	106.9	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	65688	2000.0	2193.3	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	99	366097	100.0	108.1	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	467677	200.0	220.7	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	447138	100.0	108.7	
75 4-Methyl-2-pentanone (MIBK	43	8.842	8.843	-0.001	95	738839	200.0	217.2	
76 Toluene	91	9.018	9.019	-0.001	99	1332783	100.0	100.8	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	92	396221	100.0	110.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	483364	100.0	111.4	
79 1,1,2-Trichloroethane	97	9.456	9.457	-0.001	90	283688	100.0	103.0	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	244346	100.0	96.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	89	518120	100.0	101.7	
82 2-Hexanone	43	9.676	9.682	-0.006	94	581383	200.0	222.8	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	254603	100.0	109.3	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	294438	100.0	104.2	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	94	461082	100.0	101.2	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	877804	100.0	102.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	420704	100.0	100.0	
90 Ethylbenzene	106	10.533	10.534	-0.001	98	499116	100.0	103.8	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	92	289044	100.0	105.6	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	610286	100.0	103.9	
92 o-Xylene	106	11.050	11.051	-0.001	95	592117	100.0	105.8	
93 Styrene	104	11.075	11.069	0.006	94	1002147	100.0	105.8	
94 Bromoform	173	11.251	11.252	-0.001	97	157509	100.0	108.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	97	454842	100.0	104.3	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	1415676	100.0	103.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	412534	100.0	101.1	
100 Bromobenzene	156	11.738	11.739	-0.001	95	348475	100.0	104.5	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	82	104361	100.0	103.8	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	144469	100.0	105.0	
103 N-Propylbenzene	120	11.841	11.842	-0.001	98	387234	100.0	101.6	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	344800	100.0	104.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.994	0.005	96	381649	100.0	106.5	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	1140888	100.0	104.6	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	369832	100.0	104.0	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	931884	100.0	102.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	1156912	100.0	104.4	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	277157	100.0	99.8	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	1298722	100.0	102.1	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	97	613101	100.0	102.9	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	1086140	100.0	102.5	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	94	622850	100.0	101.8	
116 2,4-Dichloro-1-(triflourom	214	12.827	12.828	-0.001	96	267418	100.0	103.4	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.870	-0.001	0	279514	100.0	100.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	97	885288	100.0	102.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	97	577962	100.0	101.8	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	85	68470	100.0	108.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	1151252	300.0	319.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	814032	200.0	218.5	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	266863	100.0	102.7	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	97	94134	100.0	99.0	
128 Naphthalene	128	15.102	15.103	-0.001	97	990398	100.0	111.9	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	97	247660	100.0	104.3	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	122498	100.0	108.5	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	96	115009	100.0	109.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	209.7	
S 134 1,2-Dichloroethene, Total	96				0		200.0	206.9	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

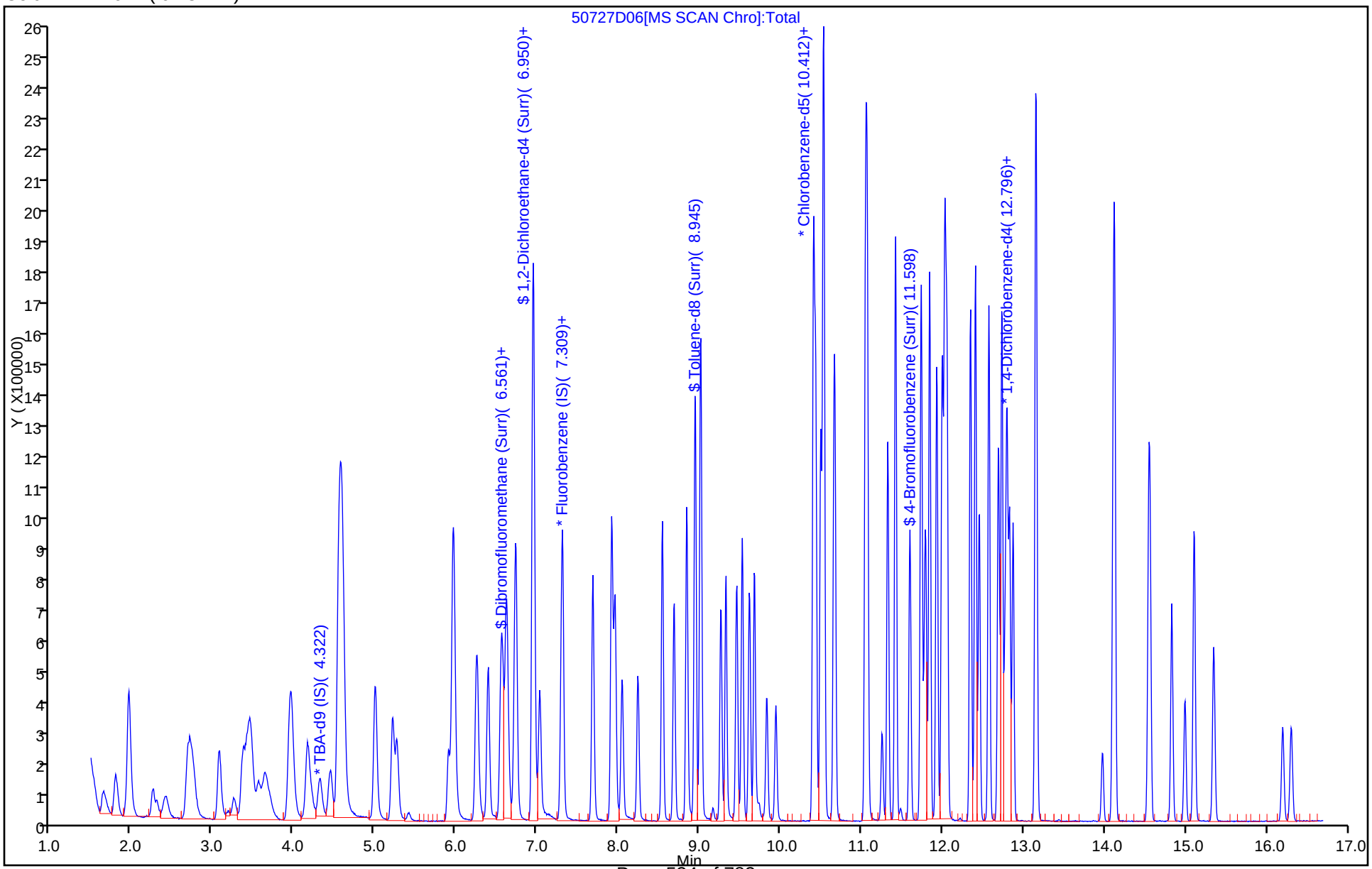
VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	4.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	4.00	Units: uL
voaW2clev1stR_00013	Amount Added:	4.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	8.00	Units: uL
voaWVA1stRest_00017	Amount Added:	4.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	4.00	Units: uL
voaWKetmix1st_00004	Amount Added:	4.00	Units: uL

Report Date: 28-Jul-2017 01:04:59 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D				
Injection Date:	27-Jul-2017 02:26:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD20			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Jul-2017 03:13:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-008
Misc. Info.: IC VSTD40
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:02 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 03:34:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.337	4.323	0.013	0	252542	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	99	561296	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	56	150914	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.773	-0.005	90	189484	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.575	6.574	0.001	94	522323	200.0	193.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.946	6.945	0.001	0	628942	200.0	190.9	
$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	2000995	200.0	166.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.594	11.599	-0.005	92	793129	200.0	182.8	
11 Dichlorodifluoromethane	85	1.654	1.646	0.008	99	569791	200.0	174.6	
12 Chloromethane	50	1.812	1.804	0.008	99	580608	200.0	177.0	
13 Vinyl chloride	62	1.958	1.944	0.014	97	577090	200.0	173.4	
14 Butadiene	39	1.970	1.969	0.002	94	512032	200.0	169.3	
15 Bromomethane	94	2.268	2.254	0.014	91	289712	200.0	184.1	
16 Chloroethane	64	2.426	2.419	0.007	99	322589	200.0	176.3	
17 Dichlorofluoromethane	67	2.706	2.699	0.007	97	819020	200.0	177.0	
18 Trichlorofluoromethane	101	2.761	2.741	0.020	97	710415	200.0	173.7	
20 Ethyl ether	59	3.077	3.076	0.001	88	510033	200.0	191.7	
21 Acrolein	56	3.260	3.252	0.008	100	179414	250.0	267.6	
22 1,1-Dichloroethene	96	3.369	3.368	0.001	96	489503	200.0	178.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.442	3.441	0.001	93	534815	200.0	177.3	
24 Acetone	43	3.485	3.477	0.008	100	522287	400.0	355.8	
25 Iodomethane	142	3.576	3.562	0.014	98	834240	200.0	193.3	
26 Carbon disulfide	76	3.649	3.648	0.001	99	1211678	200.0	200.9	
28 3-Chloro-1-propene	76	3.947	3.946	0.001	92	366340	200.0	206.3	
30 Methyl acetate	43	3.978	3.976	0.002	97	1173609	400.0	403.7	
31 Methylene Chloride	84	4.166	4.165	0.001	88	653341	200.0	201.5	
32 2-Methyl-2-propanol	59	4.464	4.451	0.013	93	519054	2000.0	1737.9	
33 Acrylonitrile	53	4.562	4.554	0.008	99	2794353	2000.0	1977.2	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	97	571864	200.0	182.6	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	95	1751345	200.0	208.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.000	4.998	0.002	92	708650	200.0	176.3	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	1041269	200.0	191.3	
38 Vinyl acetate	43	5.273	5.272	0.001	97	1200052	200.0	216.8	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	88	125406	200.0	180.9	
45 cis-1,2-Dichloroethene	96	5.967	5.965	0.002	80	687049	200.0	191.8	
46 2-Butanone (MEK)	43	5.979	5.978	0.001	98	795793	400.0	380.9	
49 Chlorobromomethane	128	6.247	6.245	0.002	94	313977	200.0	197.3	
51 Tetrahydrofuran	42	6.265	6.263	0.002	86	488432	400.0	401.4	
52 Chloroform	83	6.393	6.391	0.002	93	1037446	200.0	190.8	
53 1,1,1-Trichloroethane	97	6.551	6.549	0.002	98	777880	200.0	189.0	
54 Cyclohexane	56	6.618	6.622	-0.004	90	922281	200.0	181.6	
56 Carbon tetrachloride	117	6.721	6.726	-0.005	97	646700	200.0	188.8	
55 1,1-Dichloropropene	75	6.739	6.738	0.001	97	825970	200.0	185.8	
57 Isobutyl alcohol	41	6.946	6.945	0.001	51	587752	5000.0	5262.5	
58 Benzene	78	6.952	6.951	0.001	97	2487856	200.0	182.3	
59 1,2-Dichloroethane	62	7.031	7.030	0.001	97	767974	200.0	193.0	
62 n-Heptane	43	7.311	7.316	-0.005	87	573064	200.0	178.3	
64 Trichloroethene	130	7.682	7.687	-0.005	98	647404	200.0	188.5	
66 Methylcyclohexane	83	7.920	7.918	0.002	87	950167	200.0	183.0	
67 1,2-Dichloropropane	63	7.962	7.961	0.001	96	624637	200.0	196.5	
68 Dibromomethane	93	8.047	8.046	0.001	95	374289	200.0	201.0	
70 1,4-Dioxane	88	8.041	8.052	-0.011	39	135844	4000.0	4203.6	
71 Dichlorobromomethane	83	8.242	8.241	0.001	99	752352	200.0	205.8	
73 2-Chloroethyl vinyl ether	63	8.546	8.545	0.001	93	977190	400.0	427.3	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	933591	200.0	210.3	
75 4-Methyl-2-pentanone (MIBK	43	8.844	8.843	0.001	95	1476808	400.0	381.5	
76 Toluene	91	9.015	9.019	-0.004	98	2540251	200.0	168.8	
77 trans-1,3-Dichloropropene	75	9.264	9.269	-0.005	92	850338	200.0	207.7	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	1001550	200.0	202.8	
79 1,1,2-Trichloroethane	97	9.459	9.457	0.002	91	569083	200.0	181.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	486427	200.0	169.5	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	1058308	200.0	182.6	
82 2-Hexanone	43	9.678	9.682	-0.004	93	1109580	400.0	373.7	
84 Chlorodibromomethane	129	9.830	9.834	-0.004	89	540065	200.0	203.8	
85 Ethylene Dibromide	107	9.945	9.944	0.001	98	607203	200.0	188.9	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	93	869071	200.0	167.6	
87 Chlorobenzene	112	10.432	10.437	-0.005	93	1704167	200.0	174.0	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	96	810848	200.0	169.4	
89 1,1,1,2-Tetrachloroethane	131	10.529	10.528	0.001	94	590452	200.0	189.5	
90 Ethylbenzene	106	10.536	10.534	0.002	98	972676	200.0	177.9	
91 m-Xylene & p-Xylene	106	10.669	10.668	0.001	0	1217768	200.0	182.2	
92 o-Xylene	106	11.053	11.051	0.002	95	1159372	200.0	182.1	
93 Styrene	104	11.071	11.069	0.002	94	1967591	200.0	182.6	
94 Bromoform	173	11.253	11.252	0.001	96	350923	200.0	213.1	
96 2-Chlorobenzotrifluoride	180	11.326	11.325	0.001	96	875687	200.0	176.5	
97 Isopropylbenzene	105	11.418	11.422	-0.004	96	2665903	200.0	171.5	
100 Bromobenzene	156	11.734	11.739	-0.005	95	711710	200.0	193.5	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	93	870164	200.0	187.5	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	85	225821	200.0	203.6	
101 1,2,3-Trichloropropane	110	11.795	11.793	0.002	85	299299	200.0	197.2	
103 N-Propylbenzene	120	11.844	11.842	0.002	97	774184	200.0	184.2	
104 2-Chlorotoluene	126	11.929	11.927	0.002	97	700158	200.0	192.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	742625	200.0	187.9	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	94	2188229	200.0	182.0	
107 4-Chlorotoluene	126	12.056	12.055	0.001	95	738280	200.0	188.2	
108 tert-Butylbenzene	119	12.342	12.347	-0.005	93	1809964	200.0	180.0	
110 1,2,4-Trimethylbenzene	105	12.403	12.408	-0.005	97	2260604	200.0	184.9	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	97	542681	200.0	177.2	
112 sec-Butylbenzene	105	12.574	12.572	0.002	95	2474312	200.0	176.4	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	1215884	200.0	185.0	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	96	2107989	200.0	180.4	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	1249173	200.0	185.1	
116 2,4-Dichloro-1-(triflourom	214	12.829	12.828	0.001	95	497225	200.0	174.4	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	580659	200.0	188.5	
120 n-Butylbenzene	91	13.151	13.150	0.001	96	1729209	200.0	181.5	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	97	1161072	200.0	185.4	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	85	151695	200.0	218.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	2228710	600.0	561.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.551	14.555	-0.004	0	1589536	400.0	386.9	
126 1,2,4-Trichlorobenzene	180	14.830	14.829	0.001	94	552245	200.0	192.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	180140	200.0	171.8	
128 Naphthalene	128	15.104	15.103	0.001	97	2008065	200.0	205.7	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	96	497473	200.0	190.0	
131 2,4,5-Trichlorotoluene	159	16.199	16.198	0.001	0	253594	200.0	203.8	
130 2,3,6-Trichlorotoluene	159	16.303	16.307	-0.004	97	237299	200.0	205.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	374.5	
S 133 Xylenes, Total	106				0		400.0	364.3	
S 135 1,3-Dichloropropene, Total	1				0		400.0	418.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	8.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	8.00	Units: uL
voaW2clev1stR_00013	Amount Added:	8.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	10.00	Units: uL
voaWVA1stRest_00017	Amount Added:	8.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	8.00	Units: uL
voaWKetmix1st_00004	Amount Added:	8.00	Units: uL

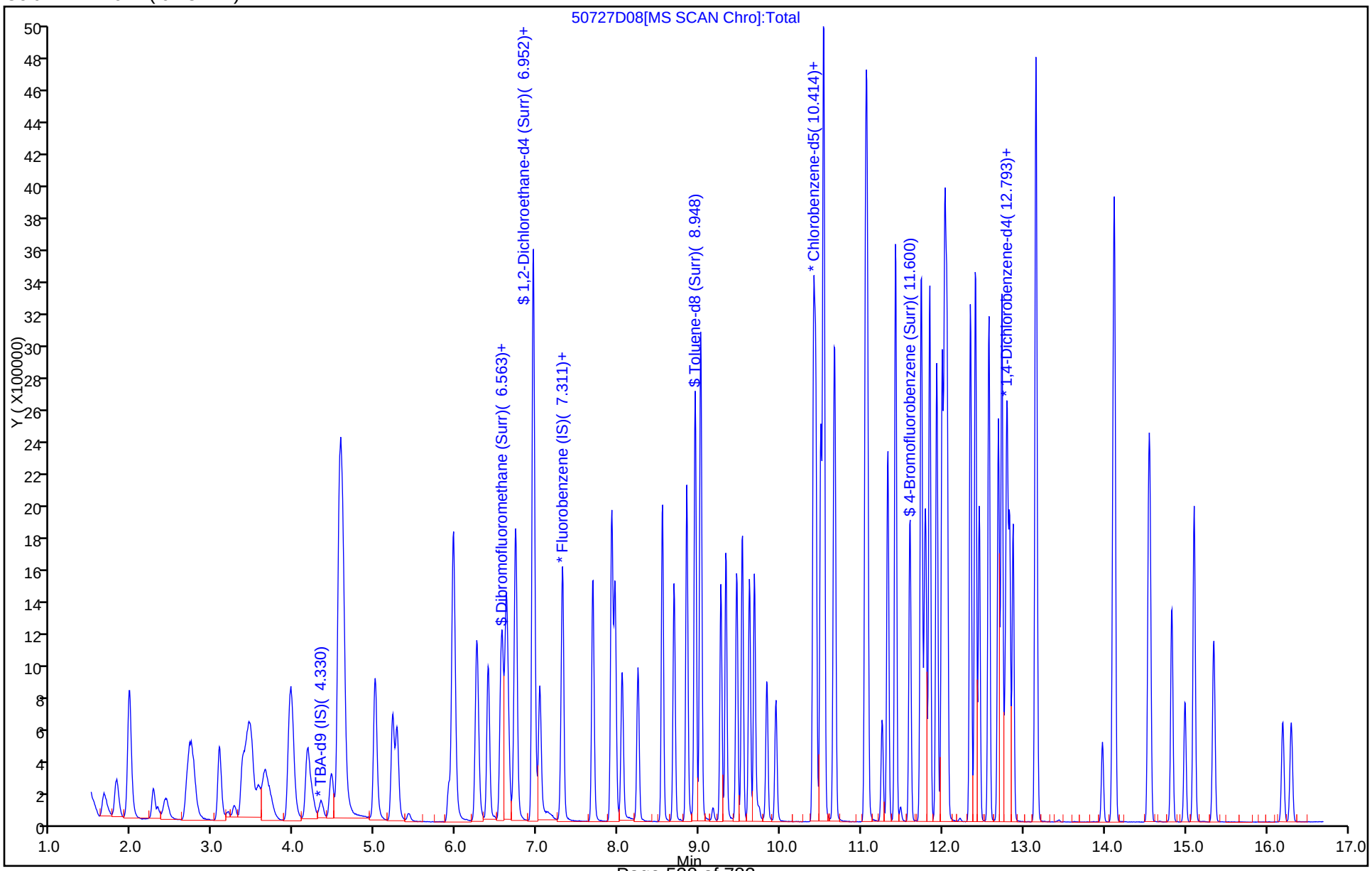
Report Date: 28-Jul-2017 01:05:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D

Injection Date:	27-Jul-2017 03:13:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD40			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Jul-2017 04:00:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-010
Misc. Info.: IC VSTD35
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:06 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 04:42:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.323	0.005	0	232894	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.296	7.298	-0.002	94	610088	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.406	-0.001	86	155120	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.773	-0.002	90	193547	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.572	6.574	-0.002	94	505019	175.0	172.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.943	6.945	-0.002	0	575099	175.0	160.6	
$ 7 Toluene-d8 (Surr)	98	8.951	8.946	0.005	92	1992609	175.0	161.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.597	11.599	-0.002	87	748217	175.0	167.8	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	647803	175.0	182.6	
12 Chloromethane	50	1.809	1.804	0.005	99	595751	175.0	167.1	
13 Vinyl chloride	62	1.961	1.944	0.017	98	632153	175.0	174.7	
14 Butadiene	39	1.967	1.969	-0.001	93	579584	175.0	176.3	
15 Bromomethane	94	2.265	2.254	0.011	91	285707	175.0	167.0	
16 Chloroethane	64	2.417	2.419	-0.002	99	340168	175.0	171.1	
17 Dichlorofluoromethane	67	2.703	2.699	0.004	97	845136	175.0	168.0	
18 Trichlorofluoromethane	101	2.746	2.741	0.005	96	769762	175.0	173.1	
20 Ethyl ether	59	3.074	3.076	-0.002	88	475422	175.0	164.4	
21 Acrolein	56	3.269	3.252	0.017	99	154738	225.0	212.3	
22 1,1-Dichloroethene	96	3.372	3.368	0.004	96	540044	175.0	180.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.452	3.441	0.011	92	571742	175.0	174.4	
24 Acetone	43	3.482	3.477	0.005	99	447756	350.0	280.6	
25 Iodomethane	142	3.561	3.562	-0.001	96	811997	175.0	173.1	
26 Carbon disulfide	76	3.646	3.648	-0.002	99	1310811	175.0	200.0	
28 3-Chloro-1-propene	76	3.944	3.946	-0.002	93	365237	175.0	189.2	
30 Methyl acetate	43	3.975	3.976	-0.001	97	1009713	350.0	319.6	
31 Methylene Chloride	84	4.163	4.165	-0.002	89	602402	175.0	170.4	
32 2-Methyl-2-propanol	59	4.455	4.451	0.004	93	524619	1750.0	1904.7	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	2362587	1750.0	1538.0	
34 trans-1,2-Dichloroethene	96	4.577	4.584	-0.007	98	595572	175.0	175.0	
35 Methyl tert-butyl ether	73	4.601	4.603	-0.002	96	1597553	175.0	175.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.997	4.998	-0.001	91	760411	175.0	174.1	
37 1,1-Dichloroethane	63	5.216	5.217	-0.001	96	1024340	175.0	173.1	
38 Vinyl acetate	43	5.270	5.272	-0.002	97	1068205	175.0	177.5	
44 2,2-Dichloropropane	97	5.958	5.959	-0.001	91	136605	175.0	181.3	
45 cis-1,2-Dichloroethene	96	5.964	5.965	-0.001	79	671208	175.0	172.4	
46 2-Butanone (MEK)	43	5.982	5.978	0.004	100	686266	350.0	302.2	
49 Chlorobromomethane	128	6.250	6.245	0.005	95	291754	175.0	168.6	
51 Tetrahydrofuran	42	6.262	6.263	-0.001	87	396477	350.0	299.8	
52 Chloroform	83	6.396	6.391	0.005	92	989929	175.0	167.5	
53 1,1,1-Trichloroethane	97	6.554	6.549	0.005	98	811476	175.0	181.4	
54 Cyclohexane	56	6.621	6.622	-0.001	90	1012965	175.0	183.5	
56 Carbon tetrachloride	117	6.718	6.726	-0.008	97	682784	175.0	183.4	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	97	866715	175.0	179.4	
57 Isobutyl alcohol	41	6.950	6.945	0.005	91	452876	4375.0	3730.6	
58 Benzene	78	6.956	6.951	0.005	97	2459963	175.0	165.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	708898	175.0	163.9	
62 n-Heptane	43	7.315	7.316	-0.001	88	633483	175.0	181.4	
64 Trichloroethene	130	7.686	7.687	-0.001	98	648262	175.0	173.7	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	1041060	175.0	184.4	
67 1,2-Dichloropropane	63	7.959	7.961	-0.002	95	596512	175.0	172.7	
68 Dibromomethane	93	8.045	8.046	-0.001	96	342853	175.0	169.4	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	115916	3500.0	3300.1	
71 Dichlorobromomethane	83	8.239	8.241	-0.002	100	712434	175.0	179.3	
73 2-Chloroethyl vinyl ether	63	8.543	8.545	-0.002	92	864836	350.0	347.9	
74 cis-1,3-Dichloropropene	75	8.689	8.685	0.004	96	881560	175.0	182.7	
75 4-Methyl-2-pentanone (MIBK	43	8.841	8.843	-0.002	95	1265241	350.0	318.0	
76 Toluene	91	9.018	9.019	-0.001	98	2496911	175.0	161.4	
77 trans-1,3-Dichloropropene	75	9.267	9.269	-0.002	93	781619	175.0	185.7	
78 Ethyl methacrylate	69	9.328	9.330	-0.002	88	905216	175.0	178.4	
79 1,1,2-Trichloroethane	97	9.462	9.457	0.005	90	523017	175.0	162.3	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	498519	175.0	169.0	
81 1,3-Dichloropropane	76	9.620	9.615	0.005	89	969241	175.0	162.7	
82 2-Hexanone	43	9.681	9.682	-0.001	94	977068	350.0	320.2	
84 Chlorodibromomethane	129	9.833	9.834	-0.001	90	489506	175.0	179.7	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	550826	175.0	166.7	
86 3-Chlorobenzotrifluoride	180	10.411	10.412	-0.001	93	874266	175.0	164.0	
87 Chlorobenzene	112	10.435	10.437	-0.002	94	1645967	175.0	163.5	
88 4-Chlorobenzotrifluoride	180	10.496	10.498	-0.002	95	826850	175.0	168.1	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	93	554351	175.0	173.1	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	962208	175.0	171.2	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1197380	175.0	174.3	
92 o-Xylene	106	11.050	11.051	-0.001	95	1130677	175.0	172.8	
93 Styrene	104	11.068	11.069	-0.001	94	1866053	175.0	168.4	
94 Bromoform	173	11.257	11.252	0.005	97	310948	175.0	183.7	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	96	840920	175.0	164.9	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	2681266	175.0	167.8	
100 Bromobenzene	156	11.737	11.739	-0.002	95	659984	175.0	175.7	
99 1,1,2,2-Tetrachloroethane	83	11.737	11.745	-0.008	94	762601	175.0	159.9	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	86	199800	175.0	176.4	
101 1,2,3-Trichloropropane	110	11.792	11.793	-0.001	85	255265	175.0	164.7	
103 N-Propylbenzene	120	11.841	11.842	-0.001	97	786064	175.0	183.1	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	666236	175.0	179.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.993	11.994	-0.001	96	680717	175.0	168.7	
106 1,3,5-Trimethylbenzene	105	12.029	12.031	-0.002	94	2153457	175.0	175.3	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	95	719035	175.0	179.5	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	1844417	175.0	179.6	
110 1,2,4-Trimethylbenzene	105	12.406	12.408	-0.002	97	2182090	175.0	174.8	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.456	-0.001	97	525922	175.0	168.1	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	2514051	175.0	175.5	
113 1,3-Dichlorobenzene	146	12.692	12.688	0.004	96	1146674	175.0	170.8	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	2114911	175.0	177.2	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	95	1174377	175.0	170.4	
116 2,4-Dichloro-1-(triflourom	214	12.826	12.828	-0.002	96	501975	175.0	172.4	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.870	0.005	0	541324	175.0	172.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	96	1748217	175.0	179.6	
121 1,2-Dichlorobenzene	146	13.161	13.156	0.005	97	1081541	175.0	169.1	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	86	125814	175.0	177.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	2069215	525.0	509.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	1443949	350.0	344.1	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	511830	175.0	174.8	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	98	182711	175.0	170.6	
128 Naphthalene	128	15.101	15.103	-0.002	97	1761559	175.0	176.7	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	96	453926	175.0	169.7	
131 2,4,5-Trichlorotoluene	159	16.196	16.198	-0.002	0	235417	175.0	185.2	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	97	211883	175.0	179.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	347.1	
S 134 1,2-Dichloroethene, Total	96				0		350.0	347.4	
S 135 1,3-Dichloropropene, Total	1				0		350.0	368.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	7.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	9.00	Units: uL
voaWVA1stRest_00017	Amount Added:	7.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	7.00	Units: uL
voaW2clev1stR_00013	Amount Added:	7.00	Units: uL
voaWKetmix1st_00004	Amount Added:	7.00	Units: uL
VOA8260SURR_00071	Amount Added:	7.00	Units: uL

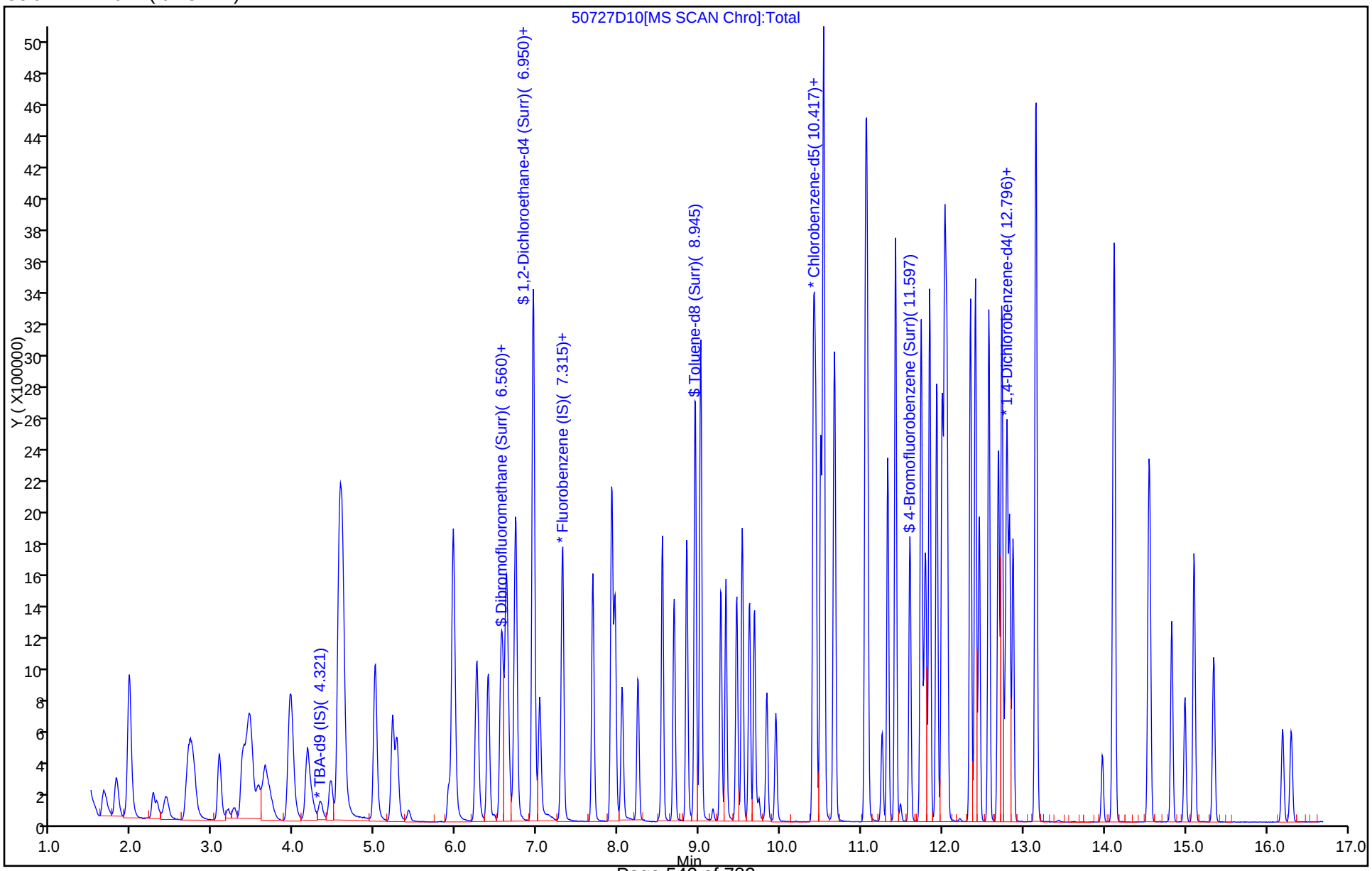
Report Date: 28-Jul-2017 01:05:07 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D

Injection Date:	27-Jul-2017 04:00:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD35			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Jul-2017 04:24:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-011
Misc. Info.: IC VSTD50
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 05:09:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.341	4.323	0.018	0	184114	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	99	607808	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	161595	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	89	194624	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	94	681339	250.0	233.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	795993	250.0	223.2	
$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	2678162	250.0	208.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	1033645	250.0	222.5	
11 Dichlorodifluoromethane	85	1.652	1.646	0.006	99	857078	250.0	242.5	
12 Chloromethane	50	1.804	1.804	0.000	99	811941	250.0	228.6	
13 Vinyl chloride	62	1.956	1.944	0.012	98	867536	250.0	240.7	
14 Butadiene	39	1.968	1.969	0.000	94	815610	250.0	249.1	
15 Bromomethane	94	2.266	2.254	0.012	90	377950	250.0	221.8	
16 Chloroethane	64	2.406	2.419	-0.013	99	414342	250.0	209.1	
17 Dichlorofluoromethane	67	2.698	2.699	-0.001	97	1057272	250.0	211.0	
18 Trichlorofluoromethane	101	2.728	2.741	-0.013	97	1017488	250.0	229.7	
20 Ethyl ether	59	3.069	3.076	-0.007	88	612640	250.0	212.6	
21 Acrolein	56	3.264	3.252	0.012	98	183852	275.0	253.2	
22 1,1-Dichloroethene	96	3.367	3.368	-0.001	97	745282	250.0	250.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.441	-0.013	92	774058	250.0	237.0	
24 Acetone	43	3.483	3.477	0.006	100	630881	500.0	396.9	
25 Iodomethane	142	3.580	3.562	0.018	97	1099819	250.0	235.3	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	1856339	250.0	284.2	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	93	500032	250.0	260.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	1447736	500.0	459.9	
31 Methylene Chloride	84	4.164	4.165	-0.001	88	813282	250.0	232.1	
32 2-Methyl-2-propanol	59	4.468	4.451	0.017	94	568135	2500.0	2609.2	
33 Acrylonitrile	53	4.553	4.554	-0.001	98	3495451	2500.0	2284.0	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	98	806194	250.0	237.8	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	96	2170401	250.0	238.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.998	-0.007	92	1101558	250.0	253.1	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	1376176	250.0	233.4	
38 Vinyl acetate	43	5.271	5.272	-0.001	97	1523056	250.0	254.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	91	188250	250.0	250.8	
45 cis-1,2-Dichloroethene	96	5.959	5.965	-0.006	79	900432	250.0	232.2	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	962704	500.0	425.5	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	394763	250.0	229.0	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	609910	500.0	462.9	
52 Chloroform	83	6.391	6.391	0.000	92	1319564	250.0	224.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	1097196	250.0	246.2	
54 Cyclohexane	56	6.616	6.622	-0.006	90	1394833	250.0	253.7	
56 Carbon tetrachloride	117	6.719	6.726	-0.007	97	923177	250.0	248.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	96	1178056	250.0	244.7	
57 Isobutyl alcohol	41	6.950	6.945	0.005	68	715201	6250.0	5913.6	
58 Benzene	78	6.950	6.951	-0.001	97	3249284	250.0	219.9	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	969148	250.0	225.0	
62 n-Heptane	43	7.309	7.316	-0.007	89	922592	250.0	265.1	
64 Trichloroethene	130	7.686	7.687	-0.001	98	887332	250.0	238.6	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	1432791	250.0	254.8	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	95	793667	250.0	230.6	
68 Dibromomethane	93	8.045	8.046	-0.001	97	470836	250.0	233.5	
70 1,4-Dioxane	88	8.039	8.052	-0.013	38	187034	5000.0	5344.8	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	945026	250.0	238.8	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	1234429	500.0	498.5	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	1203144	250.0	250.3	
75 4-Methyl-2-pentanone (MIBK	43	8.842	8.843	-0.001	94	1863520	500.0	449.6	
76 Toluene	91	9.019	9.019	0.000	97	3254284	250.0	202.0	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	93	1070347	250.0	244.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	88	1271580	250.0	240.5	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	718069	250.0	213.9	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	683462	250.0	222.4	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	89	1320887	250.0	212.9	
82 2-Hexanone	43	9.676	9.682	-0.006	93	1418811	500.0	446.3	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	672369	250.0	237.0	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	773664	250.0	224.7	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	1290067	250.0	232.3	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	2170926	250.0	207.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	1226371	250.0	239.3	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	94	751692	250.0	225.4	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	1304914	250.0	222.8	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1614353	250.0	225.6	
92 o-Xylene	106	11.051	11.051	0.000	95	1518391	250.0	222.7	
93 Styrene	104	11.069	11.069	0.000	94	2462559	250.0	213.4	
94 Bromoform	173	11.257	11.252	0.005	98	443094	250.0	251.3	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	95	1244752	250.0	234.2	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	3502176	250.0	210.4	
100 Bromobenzene	156	11.738	11.739	-0.001	95	889999	250.0	235.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	1078742	250.0	217.1	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	84	299994	250.0	263.4	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	84	371250	250.0	238.1	
103 N-Propylbenzene	120	11.841	11.842	-0.001	96	1069171	250.0	247.7	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	907016	250.0	243.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	1010916	250.0	249.1	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	95	2828999	250.0	229.0	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	970169	250.0	240.8	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	92	2446270	250.0	236.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	2860516	250.0	227.8	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	96	801099	250.0	254.7	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	95	3330508	250.0	231.2	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	96	1545747	250.0	229.0	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	95	2809716	250.0	234.1	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	1574222	250.0	227.2	
116 2,4-Dichloro-1-(triflourom	214	12.827	12.828	-0.001	94	771761	250.0	263.5	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	797256	250.0	252.0	
120 n-Butylbenzene	91	13.149	13.150	-0.001	95	2372703	250.0	242.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	96	1435184	250.0	223.1	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	86	182290	250.0	255.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	3049908	750.0	747.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	2191624	500.0	519.4	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	755690	250.0	256.7	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	282046	250.0	261.8	
128 Naphthalene	128	15.102	15.103	-0.001	98	2561966	250.0	255.5	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	693791	250.0	258.0	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	452516	250.0	354.0	
130 2,3,6-Trichlorotoluene	159	16.301	16.307	-0.006	98	417201	250.0	350.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		500.0	470.0	
S 133 Xylenes, Total	106				0		500.0	448.3	
S 135 1,3-Dichloropropene, Total	1				0		500.0	494.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

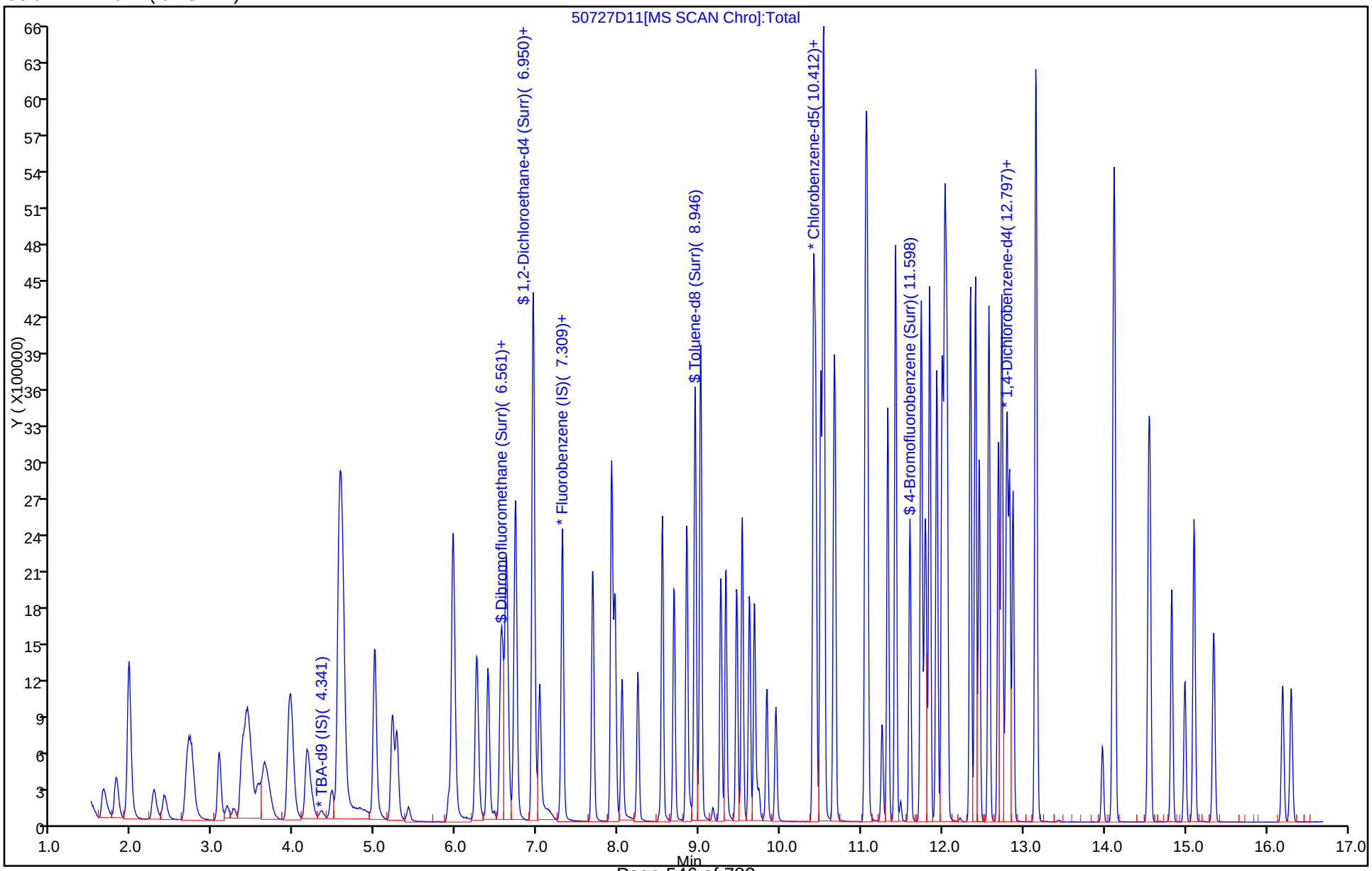
VOA8260VOAPRI_00263	Amount Added:	10.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	11.00	Units: uL
voaWVA1stRest_00017	Amount Added:	10.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	10.00	Units: uL
voaW2clev1stR_00013	Amount Added:	10.00	Units: uL
voaWKetmix1st_00004	Amount Added:	10.00	Units: uL
VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	10.00	Units: uL

Report Date: 28-Jul-2017 01:05:09 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Injection Date:	27-Jul-2017 04:24:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD50			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-212441/3	70526N03.D
Level 2	IC 180-212441/4	70526N04.D
Level 3	ICIS 180-212441/5	70526N05.D
Level 4	IC 180-212441/6	70526N06.D
Level 5	IC 180-212441/7	70526N07.D
Level 6	IC 180-212441/8	70526N08.D
Level 7	IC 180-212441/9	70526N09.D
Level 8	IC 180-212441/10	70526N10.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	0.3587 0.3705	0.4335 0.3829	0.3548 0.4398	0.3719	0.3636	Ave		0.3845			0.1000	8.7		20.0			
Chloromethane	0.5030 0.5665	0.5923 0.5536	0.4796 0.5889	0.4979	0.5161	Ave		0.5372			0.1000	8.1		20.0			
Vinyl chloride	0.4169 0.4339	0.5006 0.4353	0.3760 0.4592	0.4282	0.4073	Ave		0.4322			0.1000	8.5		20.0			
1,3-Butadiene	0.2962 0.3173	0.3928 0.2392	0.3026 0.2891	0.2863	0.3107	Ave		0.3043			0.0100	14.1		20.0			
Bromomethane	0.2658 0.1670	0.2127 0.1511	0.1397 0.1503	0.1519	0.1555	Qua	0.2830	0.1601	-0.000037		0.0500				0.9940		0.9900
Chloroethane	0.1166 0.1568	0.1528 0.1837	0.1193 0.1623	0.1262	0.1437	Ave		0.1452			0.0500	16.1		20.0			
Trichlorofluoromethane	0.2553 0.4342	0.4066 0.4932	0.3406 0.4777	0.3653	0.3803	Qua	-0.779	0.3484	0.0005766		0.1000				0.9950		0.9900
Ethyl ether	0.3113 0.4160	0.4077 0.4328	0.2925 0.3832	0.3347	0.3586	Ave		0.3671			0.0100	14.0		20.0			
1,1-Dichloroethene	0.2640 0.3236	0.3750 0.3354	0.2835 0.3071	0.2875	0.2877	Ave		0.3080			0.1000	11.5		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2501 0.2461	0.2967 0.2519	0.2260 0.2425	0.2137	0.2194	Ave		0.2433			0.1000	10.7		20.0			
Acetone	0.2290 0.2642	0.2483 0.2851	0.1460 0.2303	0.2124	0.2245	Ave		0.2300			0.0500	18.0		20.0			
Iodomethane	0.2680 0.3109	0.2819 0.3076	0.2576 0.3293	0.2992	0.2851	Ave		0.2924			0.0100	8.1		20.0			
Carbon disulfide	0.7794 0.6934	0.7955 0.7635	0.6832 0.7624	0.7586	0.7001	Ave		0.7420			0.1000	5.8		20.0			
Allyl chloride	0.1409 0.1698	0.1813 0.1724	0.1641 0.1747	0.1792	0.1602	Ave		0.1678			0.0100	7.7		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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								
Methyl acetate	0.4242 0.4254	0.4772 0.4239	0.3515 0.4317	0.4539	0.4457	Ave		0.4292			0.1000	8.5		20.0			
Methylene Chloride	0.4991 0.3140	0.3403 0.3011	0.2818 0.3100	0.3156	0.2992	Lin2	1.0133	0.2949			0.1000				0.9970		0.9900
tert-Butyl alcohol	1.5922 1.2193	1.3188 1.1671	1.0167 1.2886	1.1919	1.1832	Ave		1.2472			0.0100	13.3		20.0			
Acrylonitrile	0.2245 0.1734	0.2009 0.1709	0.1371 0.1784	0.1874	0.1917	Ave		0.1830			0.0100	13.8		20.0			
trans-1,2-Dichloroethene	0.2917 0.2246	0.3044 0.2306	0.2272 0.2295	0.2590	0.2281	Ave		0.2494			0.1000	12.9		20.0			
Methyl tert-butyl ether	1.1630 1.0601	1.2170 1.0109	0.9618 1.0330	1.0403	1.0650	Ave		1.0689			0.1000	7.7		20.0			
Hexane	0.3710 0.3185	0.3836 0.3407	0.3597 0.3639	0.3443	0.3143	Ave		0.3495			0.0100	7.0		20.0			
1,1-Dichloroethane	0.6821 0.6503	0.7321 0.6499	0.5818 0.6644	0.6288	0.6198	Ave		0.6511			0.2000	6.9		20.0			
2,2-Dichloropropane	0.0481 0.0629	0.0667 0.0634	0.0626 0.0690	0.0650	0.0610	Ave		0.0623			0.0100	10.1		20.0			
cis-1,2-Dichloroethene	0.3795 0.3145	0.3510 0.3139	0.2948 0.3322	0.3075	0.3108	Ave		0.3255			0.1000	8.5		20.0			
2-Butanone (MEK)	0.3268 0.3217	0.3347 0.3377	0.2166 0.3081	0.2856	0.3294	Ave		0.3076			0.0500	13.1		20.0			
Bromochloromethane	0.1681 0.1659	0.1791 0.1578	0.1491 0.1748	0.1459	0.1613	Ave		0.1627			0.0100	7.1		20.0			
Tetrahydrofuran	0.2288 0.1866	0.2024 0.1815	0.1404 0.2069	0.1768	0.1992	Ave		0.1903			0.0100	13.7		20.0			
Chloroform	0.6869 0.6134	0.7210 0.6269	0.5606 0.6681	0.5776	0.5996	Ave		0.6318			0.2000	8.8		20.0			
1,1,1-Trichloroethane	0.4693 0.4055	0.4845 0.4192	0.3835 0.4589	0.3977	0.3985	Ave		0.4271			0.1000	8.9		20.0			
Cyclohexane	0.5081 0.4222	0.5240 0.4447	0.4526 0.4891	0.4291	0.4196	Ave		0.4612			0.1000	8.8		20.0			
Carbon tetrachloride	0.2602 0.2980	0.3319 0.3173	0.2735 0.3257	0.2927	0.2942	Ave		0.2992			0.1000	8.3		20.0			
1,1-Dichloropropene	0.4844 0.3880	0.4840 0.4047	0.3851 0.4080	0.3970	0.3936	Ave		0.4181			0.0100	9.9		20.0			
Isobutyl alcohol	0.0260 0.0183	0.0201 0.0196	0.0137 0.0207	0.0191	0.0205	Lin1	0.2877	0.0193			0.0100				0.9900		0.9900
Benzene	1.7818 1.0597	1.4269 1.0345	1.1186 1.0547	1.0411	1.0622	Lin2	3.8043	1.0557			0.5000				0.9910		0.9900

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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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								
n-Heptane	0.4305 0.5965	0.6207 0.6269	0.4675 0.6780	0.5799	0.6290	Ave		0.5786			0.0100	14.8		20.0			
1,2-Dichloroethane	0.6436 0.6043	0.6973 0.5971	0.5453 0.6132	0.5616	0.5876	Ave		0.6063			0.1000	7.9		20.0			
Trichloroethene	0.3327 0.3036	0.3517 0.3049	0.2772 0.3201	0.2804	0.2895	Ave		0.3075			0.2000	8.5		20.0			
Methylcyclohexane	0.4437 0.3329	0.3855 0.3529	0.3732 0.4008	0.3315	0.3445	Ave		0.3707			0.1000	10.4		20.0			
1,2-Dichloropropane	0.3276 0.3220	0.3970 0.3138	0.2908 0.3369	0.3012	0.3238	Ave		0.3266			0.1000	9.8		20.0			
1,4-Dioxane	0.0033 0.0031	0.0034 0.0033	0.0025 0.0039	0.0028	0.0031	Ave		0.0032		*	0.0100	12.5		20.0			
Dibromomethane	0.2095 0.2090	0.2191 0.1999	0.1758 0.2203	0.1779	0.2025	Ave		0.2018			0.0100	8.4		20.0			
Bromodichloromethane	0.4222 0.4887	0.4589 0.4895	0.3866 0.5272	0.4163	0.4472	Ave		0.4546			0.2000	10.1		20.0			
cis-1,3-Dichloropropene	0.5241 0.5709	0.5321 0.5700	0.4681 0.6422	0.5051	0.5474	Ave		0.5450			0.2000	9.5		20.0			
4-Methyl-2-pentanone (MIBK)	2.4588 2.4961	2.6366 2.1815	1.7391 2.3022	2.2494	2.4822	Ave		2.3182			0.1000	12.0		20.0			
Toluene	6.3570 4.3334	5.2555 3.6912	4.0892 4.2871	4.2617	4.0488	Lin2	11.770	4.1020			0.4000				0.9920		0.9900
trans-1,3-Dichloropropene	1.9030 2.3687	2.0387 1.9734	1.7097 2.3042	1.9413	1.9675	Ave		2.0258			0.1000	10.6		20.0			
Ethyl methacrylate	2.7753 2.3634	2.4689 1.9556	1.8239 2.2123	2.0692	2.1319	Ave		2.2250			0.0100	13.7		20.0			
1,1,2-Trichloroethane	1.3946 1.2189	1.3030 1.0269	0.9847 1.1661	1.0635	1.0981	Ave		1.1570			0.1000	12.2		20.0			
Tetrachloroethene	1.1115 0.8298	1.0149 0.7811	0.8223 0.8484	0.8105	0.7295	Ave		0.8685			0.2000	14.7		20.0			
1,3-Dichloropropane	2.9033 2.3262	2.5678 2.0157	1.8805 2.1774	2.0460	2.0425	Ave		2.2449			0.0100	15.2		20.0			
2-Hexanone	1.9170 1.8203	1.9671 1.6288	1.2082 1.6405	1.5829	1.7080	Ave		1.6841			0.1000	14.1		20.0			
Dibromochloromethane	1.1302 1.2320	1.0427 1.0820	0.9076 1.2436	0.9865	0.9886	Ave		1.0766			0.1000	11.1		20.0			
1,2-Dibromoethane (EDB)	1.5430 1.4520	1.4451 1.2181	1.0684 1.4330	1.2244	1.2744	Ave		1.3323			0.1000	12.0		20.0			
Chlorobenzene	3.4174 3.1521	3.3209 2.8050	2.6307 3.5686	2.9821	2.7854	Ave		3.0828			0.5000	10.9		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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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								
1,1,1,2-Tetrachloroethane	0.9202 1.1021	1.0157 0.9418	0.8554 1.0947	0.9746	0.9454	Ave		0.9812			0.0100	8.7		20.0			
Ethylbenzene	1.8741 1.4926	1.7405 1.3484	1.3981 1.5760	1.5890	1.3860	Ave		1.5506			0.1000	11.9		20.0			
m-Xylene & p-Xylene	2.6942 1.9403	2.1708 1.7432	1.8415 2.0797	1.8805	1.6987	Lin2	4.3130	1.8454			0.1000				0.9930		0.9900
o-Xylene	2.5141 2.0722	2.4088 1.8257	1.8549 2.1595	1.9396	1.8187	Ave		2.0742			0.3000	13.0		20.0			
Styrene	4.0933 3.2821	3.9205 2.8452	3.1076 3.2821	3.1632	3.0621	Ave		3.3445			0.3000	13.0		20.0			
Bromoform	0.6412 0.8619	0.6740 0.7777	0.5370 0.9286	0.6388	0.7256	Ave		0.7231			0.1000	17.8		20.0			
Isopropylbenzene	6.6687 4.8690	5.9486 4.4638	4.6906 4.6834	4.7875	4.4911	Lin2	10.574	4.6814			0.1000				0.9930		0.9900
Bromobenzene	1.2123 1.0669	1.1100 1.0348	0.8727 1.1864	0.9346	0.9826	Ave		1.0500			0.0100	11.3		20.0			
1,1,2,2-Tetrachloroethane	2.1334 1.6799	1.8010 1.4555	1.2774 1.8179	1.4730	1.5640	Ave		1.6503			0.3000	16.2		20.0			
trans-1,4-Dichloro-2-butene	0.4121 0.5190	0.4940 0.4801	0.3333 0.5694	0.4040	0.4640	Ave		0.4595			0.0100	16.1		20.0			
1,2,3-Trichloropropane	0.5831 0.4496	0.4947 0.4436	0.3452 0.4858	0.4147	0.4351	Ave		0.4565			0.0100	15.1		20.0			
N-Propylbenzene	0.9102 0.8218	0.9849 0.8020	0.7977 0.9163	0.7888	0.7279	Ave		0.8437			0.0100	10.1		20.0			
2-Chlorotoluene	0.8289 0.7969	0.9182 0.7955	0.7148 0.8895	0.7442	0.7357	Ave		0.8030			0.0100	9.1		20.0			
1,3,5-Trimethylbenzene	3.2151 2.7831	3.3388 2.7620	2.9148 3.0921	2.8163	2.6407	Ave		2.9454			0.0100	8.3		20.0			
4-Chlorotoluene	0.9083 0.7893	0.9710 0.7625	0.7378 0.8554	0.7379	0.7528	Ave		0.8144			0.0100	10.8		20.0			
tert-Butylbenzene	2.6743 2.2327	2.4235 2.2638	2.1718 2.5671	2.1886	2.1011	Ave		2.3279			0.0100	8.8		20.0			
1,2,4-Trimethylbenzene	3.5367 2.9793	3.4299 2.9117	2.8071 3.0946	2.9197	2.7956	Ave		3.0593			0.0100	9.1		20.0			
sec-Butylbenzene	3.3958 2.7739	3.3437 2.9933	2.9961 3.2369	2.8532	2.7230	Ave		3.0395			0.0100	8.5		20.0			
1,3-Dichlorobenzene	1.7908 1.5351	1.7770 1.5180	1.3935 1.6421	1.4662	1.4531	Ave		1.5720			0.6000	9.5		20.0			
4-Isopropyltoluene	2.8280 2.1897	2.7391 2.3083	2.2478 2.4695	2.2669	2.1558	Ave		2.4006			0.0100	10.6		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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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								
1,4-Dichlorobenzene	1.7355 1.4755	1.5754 1.4750	1.3233 1.8112	1.4197	1.3819	Ave		1.5247			0.5000	11.2		20.0			
n-Butylbenzene	2.3824 1.9718	2.0791 2.2035	1.9686 2.2526	2.0576	1.9600	Ave		2.1095			0.0100	7.4		20.0			
1,2-Dichlorobenzene	1.7476 1.4672	1.5353 1.4324	1.2701 1.5503	1.4204	1.4032	Ave		1.4783			0.4000	9.4		20.0			
1,2-Dibromo-3-Chloropropane	0.1996 0.2626	0.1870 0.2756	0.1488 0.3188	0.2096	0.2221	Qua	0.3798	0.1379	0.0007071		0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.7708 0.5949	0.4939 0.6775	0.5435 0.7024	0.5902	0.6049	Ave		0.6223			0.2000	14.4		20.0			
Hexachlorobutadiene	0.4462 0.2410	0.2453 +++++	0.2275 +++++	0.2779	0.2381	Qua	0.4830	0.2466	-0.000048		0.0100				0.9930		0.9900
Naphthalene	2.2050 1.5068	1.1467 1.7922	1.1750 +++++	1.3698	1.5021	Qua	4.8488	0.9910	0.0035264		0.0100				0.9910		0.9900
1,2,3-Trichlorobenzene	0.6760 0.3497	0.3095 +++++	0.3264 +++++	0.3682	0.3874	Lin1	1.2393	0.3432			0.0100				0.9890	*	0.9900
Dibromofluoromethane (Surr)	0.2570 0.2444	0.2380 0.2549	0.2282 0.2576	0.2438	0.2554	Ave		0.2474				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.5284 0.4823	0.5124 0.4789	0.4282 0.4450	0.4733	0.5011	Ave		0.4812				6.9		20.0			
Toluene-d8 (Surr)	4.6856 3.6381	3.9380 3.2778	3.4686 3.8543	3.8941	3.5452	Ave		3.7877				11.3		20.0			
4-Bromofluorobenzene (Surr)	2.6688 1.6371	1.6758 1.5956	1.4182 1.5689	1.6066	1.5513	Lin2	5.7112	1.5025							0.9950		0.9900

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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-212441/3	70526N03.D
Level 2	IC 180-212441/4	70526N04.D
Level 3	ICIS 180-212441/5	70526N05.D
Level 4	IC 180-212441/6	70526N06.D
Level 5	IC 180-212441/7	70526N07.D
Level 6	IC 180-212441/8	70526N08.D
Level 7	IC 180-212441/9	70526N09.D
Level 8	IC 180-212441/10	70526N10.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	5069 137470	30882 155318	56679 216519	68910	81498	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	7109 210196	42194 224586	76626 289915	92241	115683	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	5891 160997	35662 176578	60070 226065	79328	91297	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	4186 117737	27978 97018	48344 142328	53045	69651	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Qua	3757 61977	15149 61279	22325 74005	28151	34863	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	1648 58181	10887 74530	19054 79902	23385	32202	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Qua	3608 161105	28963 200072	54419 235168	67687	85236	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	4400 154352	29045 175588	46723 188630	62014	80386	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethene	FB	Ave	3731 120080	26715 136045	45294 151207	53268	64477	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	3535 91330	21136 102172	36097 119369	39597	49182	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	16184 196065	35375 231306	46638 226780	78710	100632	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	3787 115375	20079 124772	41160 162111	55439	63893	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	11015 257287	56667 309717	109151 375325	140541	156914	5.00 175	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	1991 63012	12914 69940	26221 86000	33209	35900	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	11990 315650	67981 343928	112322 425089	168208	199788	10.0 350	50.0 400	100 500	150	200

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
Methylene Chloride	FB	Lin2	7053 116526	24241 122145	45012 152616	58472	67059	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd9	Ave	11963 210984	41395 269056	68534 362259	122140	150271	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	31722 643571	143075 693116	219093 878317	347239	429643	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	4122 83342	21684 93546	36304 112994	47991	51127	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	16435 393346	86694 410106	153649 508534	192739	238706	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	5243 118172	27325 138197	57464 179145	63785	70452	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	9640 241286	52152 263642	92939 327111	116494	138920	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	680 23338	4752 25715	9995 33974	12042	13674	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	5363 116703	25005 127360	47103 163545	56967	69654	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	23091 238738	47684 274021	69207 303365	105832	147644	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	2375 61559	12756 64013	23824 86045	27030	36156	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	6467 138476	28840 147259	44867 203719	65508	89279	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	9707 227600	51361 254314	89557 328912	107010	134396	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	6632 150444	34510 170047	61273 225944	73676	89330	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	7181 156665	37329 180420	72300 240769	79494	94053	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	3677 110583	23639 128735	43695 160338	54236	65945	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	6846 143974	34477 164195	61516 200850	73559	88223	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Lin1	9186 169660	35813 198821	54858 254669	88250	114829	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Lin2	25181 393187	101644 419667	178694 519223	192886	238075	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	6084 221336	44217 254314	74693 333807	107438	140980	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	9096 224220	49673 242220	87120 301887	104059	131718	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
Trichloroethene	FB	Ave	4702 112644	25051 123693	44280 157592	51955	64879	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	6271 123537	27463 143178	59623 197301	61423	77226	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	4629 119473	28279 127304	46463 165852	55808	72576	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	938 22889	4776 26810	8066 38240	10541	14046	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	2961 77532	15607 81114	28091 108447	32961	45388	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	5967 181348	32688 198595	61761 259548	77135	100245	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	7407 211834	37902 231221	74788 316151	93581	122705	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	38690 438844	93562 490495	146116 604880	198555	294883	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Lin2	20006 380931	93248 414985	171779 563195	188087	240501	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	5989 208220	36172 221853	71820 302697	85680	116869	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	8734 207753	43805 219854	76619 290626	91323	126635	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	4389 107153	23120 115443	41365 153191	46935	65225	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	3498 72941	18008 87816	34542 111456	35769	43333	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	9137 204490	45560 226616	78997 286043	90297	121326	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	30165 320031	69806 366229	101508 431038	139722	202909	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	3557 108301	18500 121642	38127 163369	43539	58722	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	4856 127642	25640 136944	44880 188259	54037	75700	5.00 175	25.0 200	50.0 250	75.0	100
Chlorobenzene	CBNZ d5	Ave	10755 277085	58922 315354	110511 468810	131615	165455	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	2896 96885	18022 105885	35932 143809	43013	56158	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	5898 131211	30881 151598	58733 207041	70129	82329	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Lin2	8479 170565	38517 195979	77358 273207	82997	100905	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
o-Xylene	CBNZ d5	Ave	7912 182159	42740 205247	77919 283689	85604	108029	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	12882 288517	69561 319865	130546 431172	139607	181891	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	2018 75765	11958 87434	22558 121988	28192	43101	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Lin2	20987 428018	105546 501841	197042 615261	211295	266769	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	5678 122150	26678 141257	49787 191384	53955	74774	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	6714 147671	31956 163634	53661 238819	65012	92899	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1930 59414	11874 65545	19014 91845	23325	35308	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	2731 51470	11891 60557	19694 78358	23942	33107	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	4263 94092	23672 109486	45510 147810	45540	55392	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	3882 91234	22070 108596	40783 143489	42962	55987	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	15058 318634	80247 377047	166298 498791	162587	200949	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	4254 90363	23337 104084	42095 137981	42599	57288	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	12525 255613	58250 309031	123907 414092	126350	159889	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	16564 341101	82437 397488	160152 499192	168557	212736	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	15904 317584	80365 408616	170932 522151	164718	207217	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	8387 175752	42711 207221	79502 264891	84645	110575	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	13245 250701	65835 315106	128241 398348	130868	164053	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	8128 168927	37865 201354	75498 292158	81962	105161	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	11158 225754	49971 300798	112313 363366	118785	149155	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	8185 167983	36902 195534	72463 250083	81999	106782	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Qua	935 30069	4494 37626	8491 51422	12102	16903	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trichlorobenzene	DCBd 4	Ave	3610 68109	11872 92484	31007 113308	34070	46031	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Qua	2090 27593	5896 +++++	12982 +++++	16041	18120	5.00 175	25.0 +++++	50.0 +++++	75.0	100
Naphthalene	DCBd 4	Qua	10327 172510	27560 244655	67034 +++++	79079	114310	5.00 175	25.0 200	50.0 +++++	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Lin1	3166 40042	7438 +++++	18623 +++++	21259	29478	5.00 175	25.0 +++++	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	3632 90698	16952 103405	36454 126830	45171	57245	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7467 178959	36501 194286	68408 219098	87697	112329	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	14746 319810	69872 368509	145707 506344	171864	210583	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBNZ d5	Lin2	8399 143913	29734 179388	59576 206111	70905	92146	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-212441/3	70526N03.D
Level 2	IC 180-212441/4	70526N04.D
Level 3	ICIS 180-212441/5	70526N05.D
Level 4	IC 180-212441/6	70526N06.D
Level 5	IC 180-212441/7	70526N07.D
Level 6	IC 180-212441/8	70526N08.D
Level 7	IC 180-212441/9	70526N09.D
Level 8	IC 180-212441/10	70526N10.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	-6.7 -0.4	12.8 14.4	-7.7	-3.3	-5.4	-3.6	50 30	30 30	30	30	30	30
Chloromethane	-6.4 3.0	10.3 9.6	-10.7	-7.3	-3.9	5.4	50 30	30 30	30	30	30	30
Vinyl chloride	-3.5 0.7	15.8 6.3	-13.0	-0.9	-5.8	0.4	50 30	30 30	30	30	30	30
1,3-Butadiene	-2.7 -21.4	29.1 -5.0	-0.5	-5.9	2.1	4.3	50 30	30 30	30	30	30	30
Bromomethane	30.9 -2.2	26.7 -1.2	-15.5	-6.0	-2.5	8.0	50 30	30 30	30	30	30	30
Chloroethane	-19.7 26.5	5.3 11.8	-17.8	-13.1	-1.0	8.0	50 30	30 30	30	30	30	30
Trichlorofluoromethane	16.9 5.7	19.7 -1.9	-5.2	-3.7	-3.9	-1.9	50 30	30 30	30	30	30	30
Ethyl ether	-15.2 17.9	11.1 4.4	-20.3	-8.8	-2.3	13.3	50 30	30 30	30	30	30	30
1,1-Dichloroethene	-14.3 8.9	21.8 -0.3	-7.9	-6.6	-6.6	5.1	50 30	30 30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8 3.5	22.0 -0.3	-7.1	-12.2	-9.8	1.2	50 30	30 30	30	30	30	30
Acetone	-0.4 24.0	8.0 0.1	-36.5 *	-7.6	-2.4	14.9	50 30	30 30	30	30	30	30
Iodomethane	-8.4 5.2	-3.6 12.6	-11.9	2.3	-2.5	6.3	50 30	30 30	30	30	30	30
Carbon disulfide	5.0 2.9	7.2 2.7	-7.9	2.2	-5.7	-6.5	50 30	30 30	30	30	30	30
Allyl chloride	-16.1 2.7	8.0 4.1	-2.2	6.8	-4.6	1.2	50 30	30 30	30	30	30	30
Methyl acetate	-1.2 -1.2	11.2 0.6	-18.1	5.8	3.8	-0.9	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
Methylene Chloride	0.5 0.4	1.7 3.8	-11.3	2.4	-2.0	4.5	50 30	30 30	30	30	30	30
tert-Butyl alcohol	27.7 -6.4	5.7 3.3	-18.5	-4.4	-5.1	-2.2	50 30	30 30	30	30	30	30
Acrylonitrile	22.6 -6.7	9.7 -2.5	-25.1	2.4	4.7	-5.2	50 30	30 30	30	30	30	30
trans-1,2-Dichloroethene	17.0 -7.5	22.1 -8.0	-8.9	3.9	-8.5	-9.9	50 30	30 30	30	30	30	30
Methyl tert-butyl ether	8.8 -5.4	13.9 -3.4	-10.0	-2.7	-0.4	-0.8	50 30	30 30	30	30	30	30
Hexane	6.2 -2.5	9.8 4.1	2.9	-1.5	-10.1	-8.9	50 30	30 30	30	30	30	30
1,1-Dichloroethane	4.8 -0.2	12.4 2.0	-10.7	-3.4	-4.8	-0.1	50 30	30 30	30	30	30	30
2,2-Dichloropropane	-22.8 1.7	7.0 10.7	0.4	4.3	-2.1	0.9	50 30	30 30	30	30	30	30
cis-1,2-Dichloroethene	16.6 -3.6	7.8 2.0	-9.4	-5.5	-4.5	-3.4	50 30	30 30	30	30	30	30
2-Butanone (MEK)	6.2 9.8	8.8 0.2	-29.6	-7.1	7.1	4.6	50 30	30 30	30	30	30	30
Bromochloromethane	3.3 -3.0	10.0 7.4	-8.4	-10.4	-0.9	1.9	50 30	30 30	30	30	30	30
Tetrahydrofuran	20.2 -4.6	6.4 8.7	-26.2	-7.1	4.6	-2.0	50 30	30 30	30	30	30	30
Chloroform	8.7 -0.8	14.1 5.8	-11.3	-8.6	-5.1	-2.9	50 30	30 30	30	30	30	30
1,1,1-Trichloroethane	9.9 -1.9	13.4 7.4	-10.2	-6.9	-6.7	-5.1	50 30	30 30	30	30	30	30
Cyclohexane	10.2 -3.6	13.6 6.0	-1.9	-7.0	-9.0	-8.4	50 30	30 30	30	30	30	30
Carbon tetrachloride	-13.0 6.1	10.9 8.9	-8.6	-2.2	-1.7	-0.4	50 30	30 30	30	30	30	30
1,1-Dichloropropene	15.9 -3.2	15.8 -2.4	-7.9	-5.0	-5.9	-7.2	50 30	30 30	30	30	30	30
Isobutyl alcohol	22.7 1.2	1.7 6.9	-30.1 *	-2.2	5.5	-5.7	50 30	30 30	30	30	30	30
Benzene	-3.3 -3.8	20.8 -1.5	-1.3	-6.2	-3.0	-1.7	50 30	30 30	30	30	30	30
n-Heptane	-25.6 8.3	7.3 17.2	-19.2	0.2	8.7	3.1	50 30	30 30	30	30	30	30
1,2-Dichloroethane	6.2 -1.5	15.0 1.1	-10.1	-7.4	-3.1	-0.3	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
Trichloroethene	8.2 -0.8	14.4 4.1	-9.9	-8.8	-5.9	-1.3	50 30	30 30	30	30	30	30
Methylcyclohexane	19.7 -4.8	4.0 8.1	0.7	-10.6	-7.0	-10.2	50 30	30 30	30	30	30	30
1,2-Dichloropropane	0.3 -3.9	21.5 3.1	-11.0	-7.8	-0.9	-1.4	50 30	30 30	30	30	30	30
1,4-Dioxane	4.3 3.9	5.4 22.1	-20.6	-10.6	-1.5	-3.0	50 30	30 30	30	30	30	30
Dibromomethane	3.8 -0.9	8.6 9.2	-12.8	-11.8	0.4	3.6	50 30	30 30	30	30	30	30
Bromodichloromethane	-7.1 7.7	0.9 16.0	-15.0	-8.4	-1.6	7.5	50 30	30 30	30	30	30	30
cis-1,3-Dichloropropene	-3.8 4.6	-2.4 17.8	-14.1	-7.3	0.4	4.8	50 30	30 30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	6.1 -5.9	13.7 -0.7	-25.0	-3.0	7.1	7.7	50 30	30 30	30	30	30	30
Toluene	-2.4 -11.4	16.6 3.4	-6.1	0.1	-4.2	4.0	50 30	30 30	30	30	30	30
trans-1,3-Dichloropropene	-6.1 -2.6	0.6 13.7	-15.6	-4.2	-2.9	16.9	50 30	30 30	30	30	30	30
Ethyl methacrylate	24.7 -12.1	11.0 -0.6	-18.0	-7.0	-4.2	6.2	50 30	30 30	30	30	30	30
1,1,2-Trichloroethane	20.5 -11.2	12.6 0.8	-14.9	-8.1	-5.1	5.4	50 30	30 30	30	30	30	30
Tetrachloroethene	28.0 -10.1	16.9 -2.3	-5.3	-6.7	-16.0	-4.5	50 30	30 30	30	30	30	30
1,3-Dichloropropane	29.3 -10.2	14.4 -3.0	-16.2	-8.9	-9.0	3.6	50 30	30 30	30	30	30	30
2-Hexanone	13.8 -3.3	16.8 -2.6	-28.3	-6.0	1.4	8.1	50 30	30 30	30	30	30	30
Dibromochloromethane	5.0 0.5	-3.2 15.5	-15.7	-8.4	-8.2	14.4	50 30	30 30	30	30	30	30
1,2-Dibromoethane (EDB)	15.8 -8.6	8.5 7.6	-19.8	-8.1	-4.3	9.0	50 30	30 30	30	30	30	30
Chlorobenzene	10.9 -9.0	7.7 15.8	-14.7	-3.3	-9.6	2.2	50 30	30 30	30	30	30	30
1,1,1,2-Tetrachloroethane	-6.2 -4.0	3.5 11.6	-12.8	-0.7	-3.7	12.3	50 30	30 30	30	30	30	30
Ethylbenzene	20.9 -13.0	12.2 1.6	-9.8	2.5	-10.6	-3.7	50 30	30 30	30	30	30	30
m-Xylene & p-Xylene	-0.7 -6.7	8.3 11.8	-4.9	-1.2	-10.3	3.8	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
o-Xylene	21.2 -12.0	16.1 4.1	-10.6	-6.5	-12.3	-0.1	50 30	30 30	30	30	30	30
Styrene	22.4 -14.9	17.2 -1.9	-7.1	-5.4	-8.4	-1.9	50 30	30 30	30	30	30	30
Bromoform	-11.3 7.6	-6.8 28.4	-25.7	-11.7	0.3	19.2	50 30	30 30	30	30	30	30
Isopropylbenzene	-2.7 -5.8	18.0 -0.9	-4.3	-0.7	-6.3	2.7	50 30	30 30	30	30	30	30
Bromobenzene	15.5 -1.5	5.7 13.0	-16.9	-11.0	-6.4	1.6	50 30	30 30	30	30	30	30
1,1,2,2-Tetrachloroethane	29.3 -11.8	9.1 10.2	-22.6	-10.7	-5.2	1.8	50 30	30 30	30	30	30	30
trans-1,4-Dichloro-2-butene	-10.3 4.5	7.5 23.9	-27.5	-12.1	1.0	12.9	50 30	30 30	30	30	30	30
1,2,3-Trichloropropane	27.7 -2.8	8.4 6.4	-24.4	-9.1	-4.7	-1.5	50 30	30 30	30	30	30	30
N-Propylbenzene	7.9 -4.9	16.7 8.6	-5.5	-6.5	-13.7	-2.6	50 30	30 30	30	30	30	30
2-Chlorotoluene	3.2 -0.9	14.4 10.8	-11.0	-7.3	-8.4	-0.8	50 30	30 30	30	30	30	30
1,3,5-Trimethylbenzene	9.2 -6.2	13.4 5.0	-1.0	-4.4	-10.3	-5.5	50 30	30 30	30	30	30	30
4-Chlorotoluene	11.5 -6.4	19.2 5.0	-9.4	-9.4	-7.6	-3.1	50 30	30 30	30	30	30	30
tert-Butylbenzene	14.9 -2.8	4.1 10.3	-6.7	-6.0	-9.7	-4.1	50 30	30 30	30	30	30	30
1,2,4-Trimethylbenzene	15.6 -4.8	12.1 1.2	-8.2	-4.6	-8.6	-2.6	50 30	30 30	30	30	30	30
sec-Butylbenzene	11.7 -1.5	10.0 6.5	-1.4	-6.1	-10.4	-8.7	50 30	30 30	30	30	30	30
1,3-Dichlorobenzene	13.9 -3.4	13.0 4.5	-11.4	-6.7	-7.6	-2.3	50 30	30 30	30	30	30	30
4-Isopropyltoluene	17.8 -3.8	14.1 2.9	-6.4	-5.6	-10.2	-8.8	50 30	30 30	30	30	30	30
1,4-Dichlorobenzene	13.8 -3.3	3.3 18.8	-13.2	-6.9	-9.4	-3.2	50 30	30 30	30	30	30	30
n-Butylbenzene	12.9 4.5	-1.4 6.8	-6.7	-2.5	-7.1	-6.5	50 30	30 30	30	30	30	30
1,2-Dichlorobenzene	18.2 -3.1	3.9 4.9	-14.1	-3.9	-5.1	-0.7	50 30	30 30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-12.3 -1.3	9.2 0.5	-15.8	5.5	3.4	-0.3	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.: 180-71952-1 Analy Batch No.: 212441

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/26/2017 14:37 Calibration End Date: 05/26/2017 18:04 Calibration ID: 34724

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
1,2,4-Trichlorobenzene	23.9 8.9	-20.6 12.9	-12.7	-5.2	-2.8	-4.4	50 30	30 30	30	30	30	30
Hexachlorobutadiene	42.0 +++++	-7.9 +++++	-10.9	11.9	-3.6	0.0	50	30	30	30	30	30
Naphthalene	22.0 3.0	-10.9 +++++	-6.7	3.3	6.4	-5.9	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	24.8 +++++	-24.3 +++++	-12.1	2.5	9.3	-0.1	50	30	30	30	30	30
Dibromofluoromethane (Surr)	3.9 3.0	-3.8 4.1	-7.8	-1.5	3.2	-1.2	50 30	30 30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	9.8 -0.5	6.5 -7.5	-11.0	-1.6	4.1	0.2	50 30	30 30	30	30	30	30
Toluene-d8 (Surr)	23.7 -13.5	4.0 1.8	-8.4	2.8	-6.4	-4.0	50 30	30 30	30	30	30	30
4-Bromofluorobenzene (Surr)	1.6 4.3	-3.7 2.9	-13.2	1.9	-0.6	6.8	50 30	30 30	30	30	30	30

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N03.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 26-May-2017 14:37:30 ALS Bottle#: 8 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016937-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:43:49 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 26-May-2017 15:05:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.268	0.000	98	150272	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.267	7.267	0.000	96	141321	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	93	31471	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.706	12.706	0.000	97	46835	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.550	6.550	0.000	89	3632	5.00	5.19	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.921	6.921	0.000	46	7467	5.00	5.49	
$ 7 Toluene-d8 (Surr)	98	8.916	8.916	0.000	96	14746	5.00	6.19	
$ 8 4-Bromofluorobenzene (Surr	95	11.544	11.544	0.000	86	8399	5.00	5.08	
11 Dichlorodifluoromethane	85	1.592	1.592	0.000	1	5069	5.00	4.66	
12 Chloromethane	50	1.792	1.792	0.000	95	7109	5.00	4.68	
13 Vinyl chloride	62	1.920	1.920	0.000	94	5891	5.00	4.82	
14 Butadiene	39	1.944	1.944	0.000	93	4186	5.00	4.87	
15 Bromomethane	94	2.291	2.291	0.000	6	3757	5.00	6.54	
16 Chloroethane	64	2.407	2.407	0.000	1	1648	5.00	4.02	
17 Dichlorofluoromethane	67	2.668	2.668	0.000	43	5307	5.00	4.44	
18 Trichlorofluoromethane	101	2.687	2.687	0.000	18	3608	5.00	5.84	
20 Ethyl ether	59	3.052	3.052	0.000	94	4400	5.00	4.24	
22 1,1-Dichloroethene	96	3.380	3.380	0.000	51	3731	5.00	4.29	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.429	0.000	39	3535	5.00	5.14	
24 Acetone	43	3.435	3.435	0.000	98	16184	25.0	24.9	
25 Iodomethane	142	3.550	3.550	0.000	16	3787	5.00	4.58	
26 Carbon disulfide	76	3.654	3.654	0.000	62	11015	5.00	5.25	
28 3-Chloro-1-propene	76	3.915	3.915	0.000	78	1991	5.00	4.20	
30 Methyl acetate	43	3.940	3.940	0.000	95	11990	10.0	9.88	
31 Methylene Chloride	84	4.177	4.177	0.000	95	7053	5.00	5.03	
32 2-Methyl-2-propanol	59	4.396	4.396	0.000	95	11963	50.0	63.8	
33 Acrylonitrile	53	4.518	4.518	0.000	99	31722	50.0	61.3	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	81	4122	5.00	5.85	
35 Methyl tert-butyl ether	73	4.579	4.579	0.000	96	16435	5.00	5.44	
36 Hexane	57	4.974	4.974	0.000	96	5243	5.00	5.31	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.181	5.181	0.000	27	9640	5.00	5.24	
44 2,2-Dichloropropane	97	5.935	5.923	0.012	51	680	5.00	3.86	M
45 cis-1,2-Dichloroethene	96	5.929	5.929	0.000	60	5363	5.00	5.83	
46 2-Butanone (MEK)	43	5.947	5.947	0.000	98	23091	25.0	26.6	
49 Chlorobromomethane	128	6.221	6.221	0.000	91	2375	5.00	5.16	
51 Tetrahydrofuran	42	6.239	6.239	0.000	78	6467	10.0	12.0	
52 Chloroform	83	6.361	6.361	0.000	94	9707	5.00	5.44	
53 1,1,1-Trichloroethane	97	6.519	6.519	0.000	82	6632	5.00	5.49	
54 Cyclohexane	56	6.592	6.592	0.000	88	7181	5.00	5.51	
56 Carbon tetrachloride	117	6.702	6.702	0.000	63	3677	5.00	4.35	
55 1,1-Dichloropropene	75	6.708	6.708	0.000	87	6846	5.00	5.79	
57 Isobutyl alcohol	41	6.921	6.921	0.000	92	9186	125.0	153.3	
58 Benzene	78	6.927	6.927	0.000	96	25181	5.00	4.84	
59 1,2-Dichloroethane	62	6.994	6.994	0.000	96	9096	5.00	5.31	
62 n-Heptane	43	7.103	7.103	0.000	67	6084	5.00	3.72	
64 Trichloroethene	130	7.657	7.657	0.000	93	4702	5.00	5.41	
66 Methylcyclohexane	83	7.894	7.894	0.000	89	6271	5.00	5.99	
67 1,2-Dichloropropane	63	7.924	7.924	0.000	73	4629	5.00	5.01	
68 Dibromomethane	93	8.010	8.010	0.000	92	2961	5.00	5.19	
70 1,4-Dioxane	88	8.022	8.022	0.000	49	938	100.0	104.3	
71 Dichlorobromomethane	83	8.210	8.210	0.000	95	5967	5.00	4.64	
74 cis-1,3-Dichloropropene	75	8.642	8.642	0.000	45	7407	5.00	4.81	
75 4-Methyl-2-pentanone (MIBK	43	8.800	8.800	0.000	97	38690	25.0	26.5	
76 Toluene	91	8.977	8.977	0.000	94	20006	5.00	4.88	
77 trans-1,3-Dichloropropene	75	9.232	9.232	0.000	95	5989	5.00	4.70	
78 Ethyl methacrylate	69	9.287	9.287	0.000	92	8734	5.00	6.24	
79 1,1,2-Trichloroethane	97	9.415	9.415	0.000	91	4389	5.00	6.03	
80 Tetrachloroethene	164	9.494	9.494	0.000	91	3498	5.00	6.40	
81 1,3-Dichloropropane	76	9.585	9.585	0.000	95	9137	5.00	6.47	
82 2-Hexanone	43	9.634	9.634	0.000	97	30165	25.0	28.5	
84 Chlorodibromomethane	129	9.792	9.792	0.000	88	3557	5.00	5.25	
85 Ethylene Dibromide	107	9.902	9.902	0.000	95	4856	5.00	5.79	
87 Chlorobenzene	112	10.394	10.394	0.000	89	10755	5.00	5.54	
90 Ethylbenzene	106	10.486	10.486	0.000	98	5898	5.00	6.04	
89 1,1,1,2-Tetrachloroethane	131	10.486	10.486	0.000	41	2896	5.00	4.69	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	96	8479	5.00	4.96	
92 o-Xylene	106	11.003	11.003	0.000	97	7912	5.00	6.06	
93 Styrene	104	11.021	11.021	0.000	87	12882	5.00	6.12	
94 Bromoform	173	11.203	11.203	0.000	55	2018	5.00	4.43	
97 Isopropylbenzene	105	11.368	11.368	0.000	95	20987	5.00	4.86	
99 1,1,2,2-Tetrachloroethane	83	11.690	11.690	0.000	95	6714	5.00	6.46	
100 Bromobenzene	156	11.690	11.690	0.000	94	5678	5.00	5.77	
102 trans-1,4-Dichloro-2-buten	53	11.721	11.721	0.000	60	1930	5.00	4.48	
101 1,2,3-Trichloropropane	110	11.739	11.739	0.000	88	2731	5.00	6.39	
103 N-Propylbenzene	120	11.787	11.787	0.000	98	4263	5.00	5.39	
104 2-Chlorotoluene	126	11.873	11.873	0.000	94	3882	5.00	5.16	
106 1,3,5-Trimethylbenzene	105	11.970	11.970	0.000	92	15058	5.00	5.46	
107 4-Chlorotoluene	126	12.000	12.000	0.000	98	4254	5.00	5.58	
108 tert-Butylbenzene	119	12.286	12.286	0.000	90	12525	5.00	5.74	
110 1,2,4-Trimethylbenzene	105	12.341	12.341	0.000	96	16564	5.00	5.78	
112 sec-Butylbenzene	105	12.505	12.505	0.000	96	15904	5.00	5.59	
113 1,3-Dichlorobenzene	146	12.627	12.627	0.000	97	8387	5.00	5.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.663	12.663	0.000	96	13245	5.00	5.89	
115 1,4-Dichlorobenzene	146	12.724	12.724	0.000	92	8128	5.00	5.69	
120 n-Butylbenzene	91	13.065	13.065	0.000	97	11158	5.00	5.65	
121 1,2-Dichlorobenzene	146	13.089	13.089	0.000	93	8185	5.00	5.91	
122 1,2-Dibromo-3-Chloropropan	157	13.886	13.886	0.000	60	935	5.00	4.38	
126 1,2,4-Trichlorobenzene	180	14.695	14.695	0.000	87	3610	5.00	6.19	
127 Hexachlorobutadiene	225	14.841	14.841	0.000	82	2090	5.00	7.10	
128 Naphthalene	128	14.969	14.969	0.000	97	10327	5.00	6.10	
129 1,2,3-Trichlorobenzene	180	15.188	15.188	0.000	92	3166	5.00	6.24	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.7	
S 133 Xylenes, Total	106				0		10.0	11.0	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.51	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00069	Amount Added:	0.20	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	0.80	Units: uL
VOA8260VOAPRI_00253	Amount Added:	0.20	Units: uL

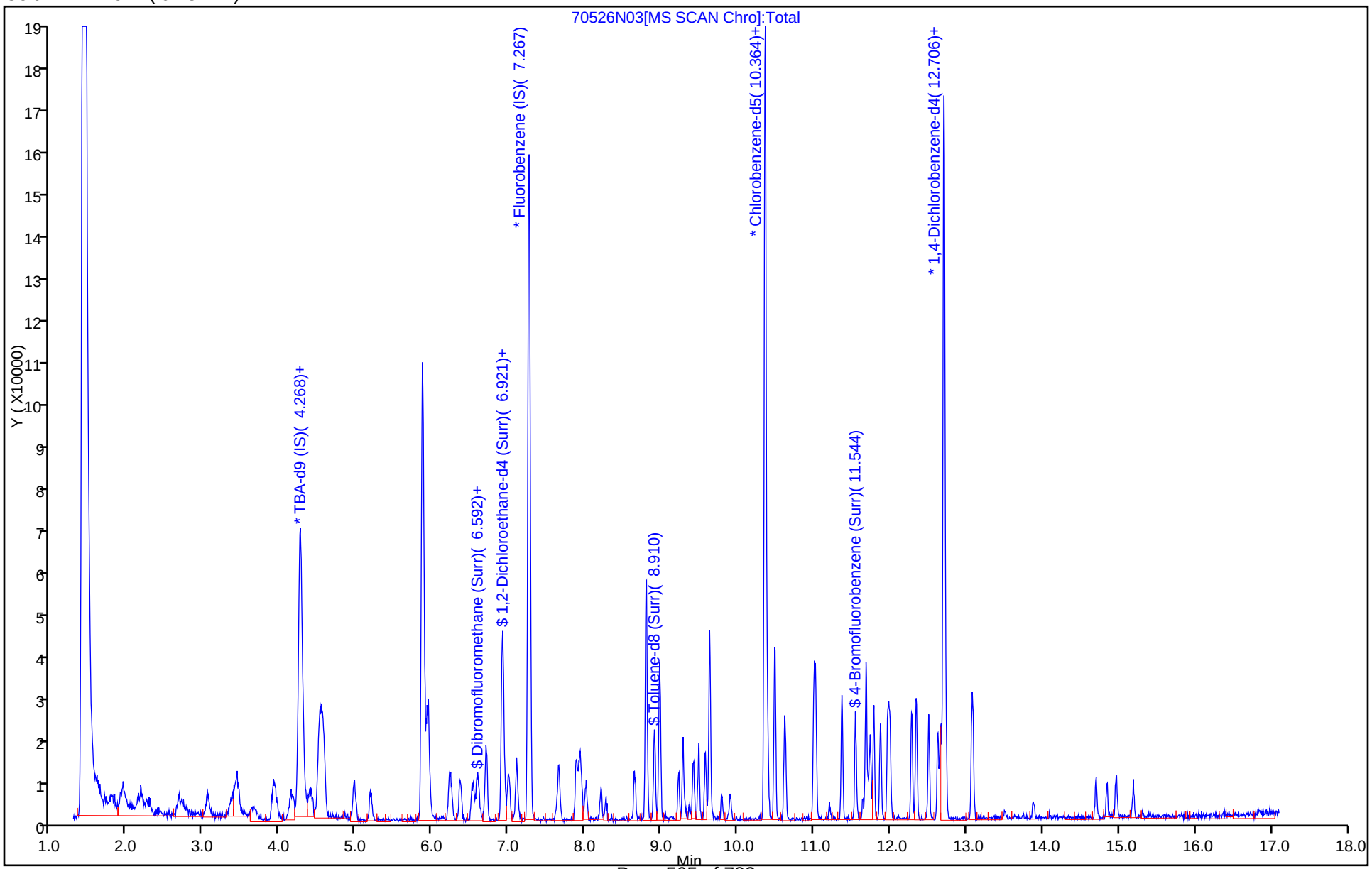
Report Date: 27-May-2017 10:43:49 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N03.D

Injection Date:	26-May-2017 14:37:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

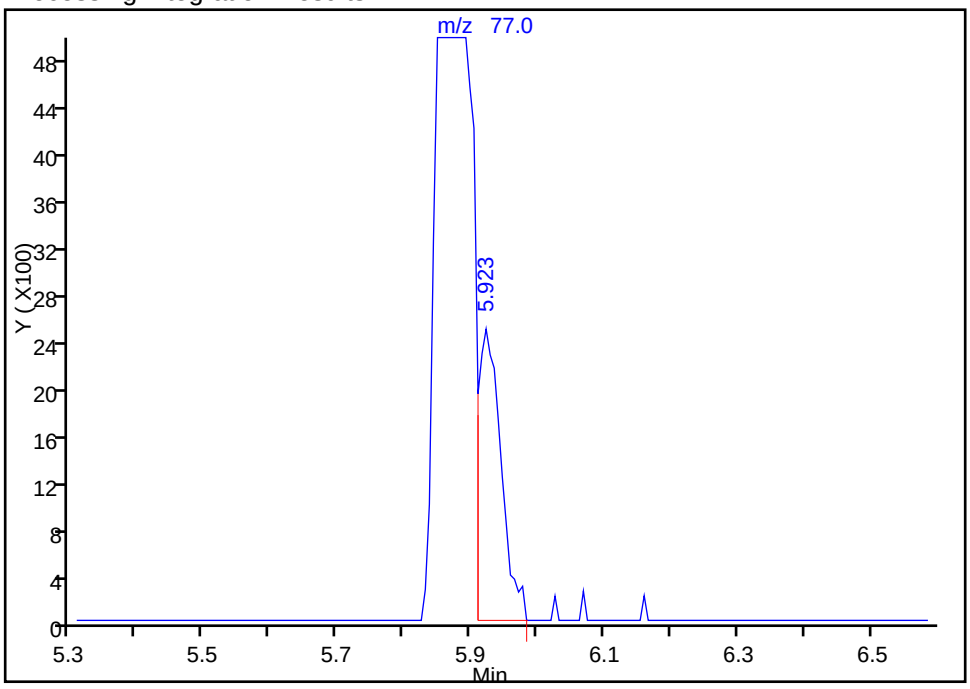
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N03.D				
Injection Date:	26-May-2017 14:37:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

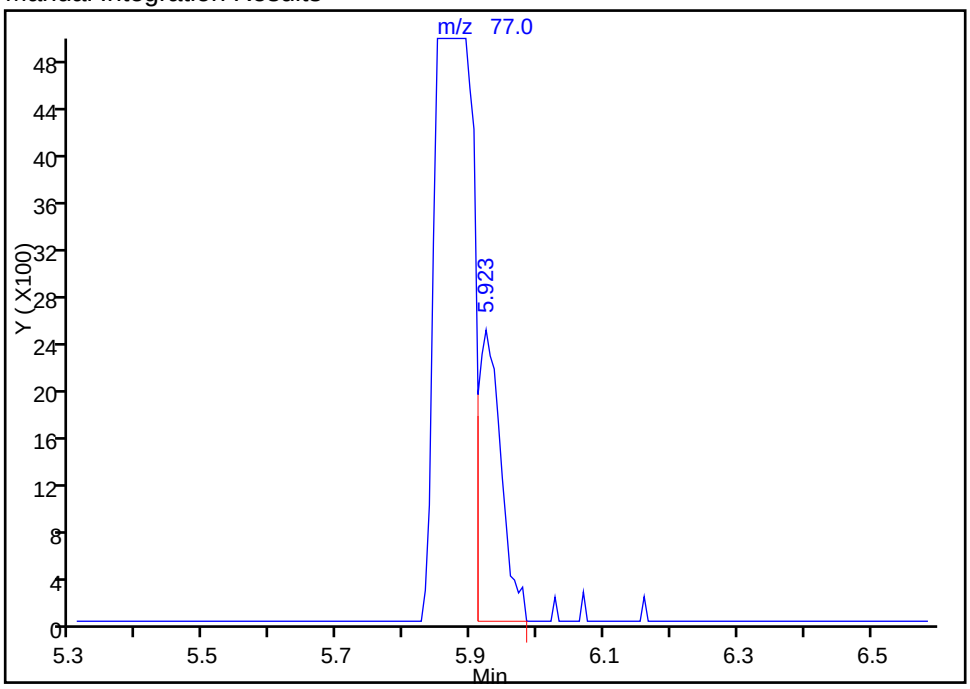
Processing Integration Results

RT: 5.92
Area: 5894
Amount: 5.000000
Amount Units: ng



Manual Integration Results

RT: 5.92
Area: 5894
Amount: 3.859507
Amount Units: ng



Reviewer: journetp, 26-May-2017 15:00:34

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

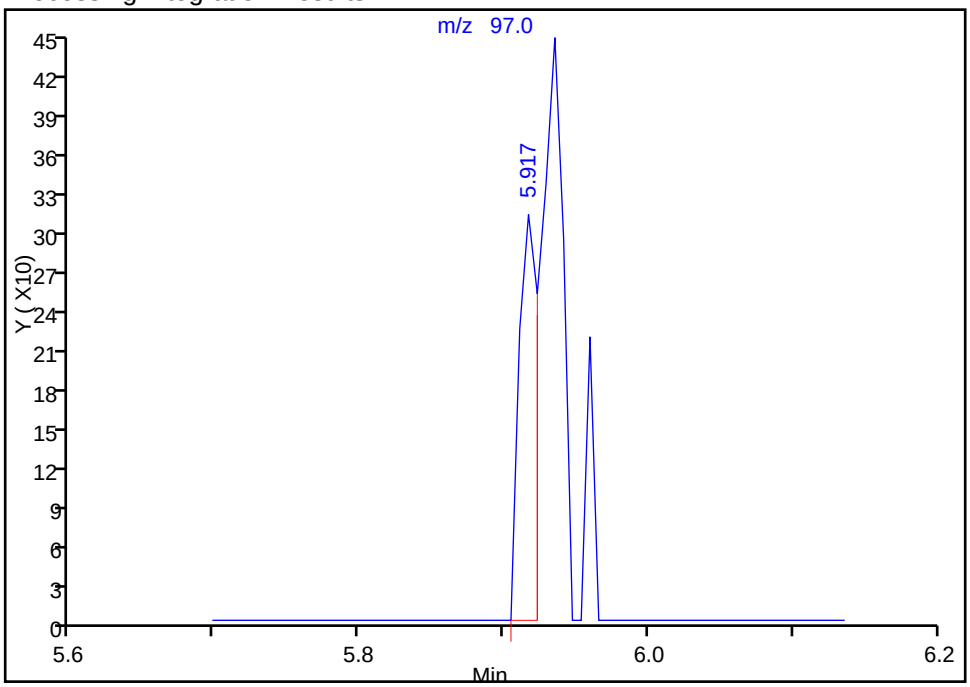
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N03.D
Injection Date: 26-May-2017 14:37:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

Signal: 2

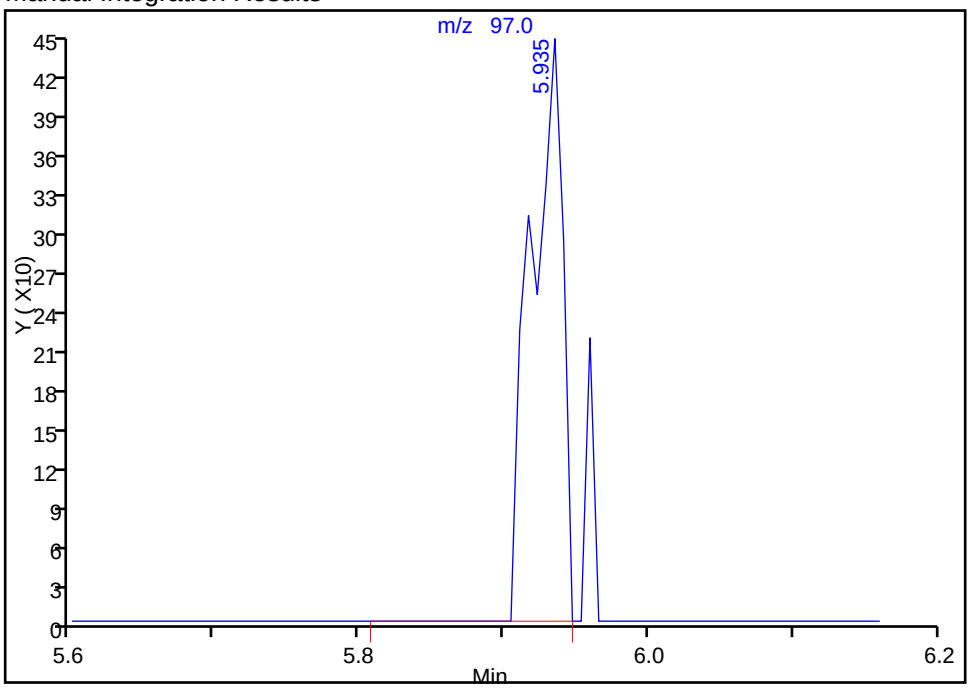
Processing Integration Results

RT: 5.92
Area: 287
Amount: 5.000000
Amount Units: ng



Manual Integration Results

RT: 5.94
Area: 680
Amount: 3.859507
Amount Units: ng



Reviewer: journetp, 26-May-2017 15:00:52
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N04.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 26-May-2017 15:06:30 ALS Bottle#: 9 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016937-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:43:50 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 26-May-2017 15:29:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.282	4.268	0.014	98	125556	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.269	7.267	0.002	96	142466	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.360	10.364	-0.004	94	35486	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.702	12.706	-0.004	96	48070	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.545	6.550	-0.005	91	16952	25.0	24.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.916	6.921	-0.005	71	36501	25.0	26.6	
$ 7 Toluene-d8 (Surr)	98	8.912	8.916	-0.004	96	69872	25.0	26.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.546	11.544	0.002	83	29734	25.0	24.1	
11 Dichlorodifluoromethane	85	1.605	1.592	0.013	98	30882	25.0	28.2	
12 Chloromethane	50	1.800	1.792	0.008	99	42194	25.0	27.6	
13 Vinyl chloride	62	1.922	1.920	0.002	98	35662	25.0	29.0	
14 Butadiene	39	1.964	1.944	0.020	91	27978	25.0	32.3	
15 Bromomethane	94	2.275	2.291	-0.016	93	15149	25.0	31.7	
16 Chloroethane	64	2.408	2.407	0.001	93	10887	25.0	26.3	
17 Dichlorofluoromethane	67	2.682	2.668	0.014	95	33913	25.0	28.2	
18 Trichlorofluoromethane	101	2.688	2.687	0.001	96	28963	25.0	29.9	
20 Ethyl ether	59	3.059	3.052	0.007	96	29045	25.0	27.8	
22 1,1-Dichloroethene	96	3.364	3.380	-0.016	92	26715	25.0	30.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.430	3.429	0.001	92	21136	25.0	30.5	
24 Acetone	43	3.437	3.435	0.002	96	35375	50.0	54.0	
25 Iodomethane	142	3.546	3.550	-0.004	96	20079	25.0	24.1	
26 Carbon disulfide	76	3.662	3.654	0.008	100	56667	25.0	26.8	
28 3-Chloro-1-propene	76	3.917	3.915	0.002	87	12914	25.0	27.0	
30 Methyl acetate	43	3.954	3.940	0.014	99	67981	50.0	55.6	
31 Methylene Chloride	84	4.167	4.177	-0.010	98	24241	25.0	25.4	
32 2-Methyl-2-propanol	59	4.398	4.396	0.002	99	41395	250.0	264.3	
33 Acrylonitrile	53	4.525	4.518	0.007	98	143075	250.0	274.3	
34 trans-1,2-Dichloroethene	96	4.562	4.566	-0.004	95	21684	25.0	30.5	
35 Methyl tert-butyl ether	73	4.580	4.579	0.001	99	86694	25.0	28.5	
36 Hexane	57	4.988	4.974	0.014	92	27325	25.0	27.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.201	5.181	0.020	96	52152	25.0	28.1	
44 2,2-Dichloropropane	97	5.931	5.923	0.008	53	4752	25.0	26.8	
45 cis-1,2-Dichloroethene	96	5.937	5.929	0.008	88	25005	25.0	27.0	
46 2-Butanone (MEK)	43	5.949	5.947	0.002	88	47684	50.0	54.4	
49 Chlorobromomethane	128	6.223	6.221	0.002	94	12756	25.0	27.5	
51 Tetrahydrofuran	42	6.241	6.239	0.002	90	28840	50.0	53.2	
52 Chloroform	83	6.363	6.361	0.002	95	51361	25.0	28.5	
53 1,1,1-Trichloroethane	97	6.521	6.519	0.002	97	34510	25.0	28.4	
54 Cyclohexane	56	6.594	6.592	0.002	96	37329	25.0	28.4	
56 Carbon tetrachloride	117	6.697	6.702	-0.005	71	23639	25.0	27.7	
55 1,1-Dichloropropene	75	6.716	6.708	0.008	88	34477	25.0	28.9	
57 Isobutyl alcohol	41	6.916	6.921	-0.005	84	35813	625.0	635.7	
58 Benzene	78	6.928	6.927	0.001	95	101644	25.0	30.2	
59 1,2-Dichloroethane	62	7.008	6.994	0.014	97	49673	25.0	28.8	
62 n-Heptane	43	6.916	7.103	-0.187	64	44217	25.0	26.8	
64 Trichloroethene	130	7.658	7.657	0.001	95	25051	25.0	28.6	
66 Methylcyclohexane	83	7.890	7.894	-0.004	94	27463	25.0	26.0	
67 1,2-Dichloropropane	63	7.926	7.924	0.002	93	28279	25.0	30.4	
68 Dibromomethane	93	8.017	8.010	0.007	93	15607	25.0	27.1	
70 1,4-Dioxane	88	8.017	8.022	-0.005	44	4776	500.0	527.0	
71 Dichlorobromomethane	83	8.212	8.210	0.002	98	32688	25.0	25.2	
74 cis-1,3-Dichloropropene	75	8.656	8.642	0.014	90	37902	25.0	24.4	
75 4-Methyl-2-pentanone (MIBK	43	8.802	8.800	0.002	98	93562	50.0	56.9	
76 Toluene	91	8.979	8.977	0.002	97	93248	25.0	29.2	
77 trans-1,3-Dichloropropene	75	9.228	9.232	-0.004	98	36172	25.0	25.2	
78 Ethyl methacrylate	69	9.289	9.287	0.002	92	43805	25.0	27.7	
79 1,1,2-Trichloroethane	97	9.423	9.415	0.008	93	23120	25.0	28.2	
80 Tetrachloroethene	164	9.496	9.494	0.002	91	18008	25.0	29.2	
81 1,3-Dichloropropane	76	9.581	9.585	-0.004	98	45560	25.0	28.6	
82 2-Hexanone	43	9.636	9.634	0.002	97	69806	50.0	58.4	
84 Chlorodibromomethane	129	9.788	9.792	-0.004	93	18500	25.0	24.2	
85 Ethylene Dibromide	107	9.909	9.902	0.007	94	25640	25.0	27.1	
87 Chlorobenzene	112	10.396	10.394	0.002	89	58922	25.0	26.9	
89 1,1,1,2-Tetrachloroethane	131	10.481	10.486	-0.005	87	18022	25.0	25.9	
90 Ethylbenzene	106	10.493	10.486	0.007	99	30881	25.0	28.1	
91 m-Xylene & p-Xylene	106	10.621	10.619	0.002	97	38517	25.0	27.1	
92 o-Xylene	106	11.004	11.003	0.001	99	42740	25.0	29.0	
93 Styrene	104	11.023	11.021	0.002	93	69561	25.0	29.3	
94 Bromoform	173	11.211	11.203	0.008	95	11958	25.0	23.3	
97 Isopropylbenzene	105	11.369	11.368	0.001	97	105546	25.0	29.5	
100 Bromobenzene	156	11.686	11.690	-0.004	97	26678	25.0	26.4	
99 1,1,2,2-Tetrachloroethane	83	11.686	11.690	-0.004	80	31956	25.0	27.3	
102 trans-1,4-Dichloro-2-buten	53	11.722	11.721	0.001	78	11874	25.0	26.9	
101 1,2,3-Trichloropropane	110	11.740	11.739	0.001	87	11891	25.0	27.1	
103 N-Propylbenzene	120	11.783	11.787	-0.004	99	23672	25.0	29.2	
104 2-Chlorotoluene	126	11.874	11.873	0.001	93	22070	25.0	28.6	
106 1,3,5-Trimethylbenzene	105	11.972	11.970	0.002	93	80247	25.0	28.3	
107 4-Chlorotoluene	126	12.002	12.000	0.002	99	23337	25.0	29.8	
108 tert-Butylbenzene	119	12.282	12.286	-0.004	92	58250	25.0	26.0	
110 1,2,4-Trimethylbenzene	105	12.343	12.341	0.002	97	82437	25.0	28.0	
112 sec-Butylbenzene	105	12.507	12.505	0.002	96	80365	25.0	27.5	
113 1,3-Dichlorobenzene	146	12.629	12.627	0.002	95	42711	25.0	28.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.665	12.663	0.002	97	65835	25.0	28.5	
115 1,4-Dichlorobenzene	146	12.732	12.724	0.008	90	37865	25.0	25.8	
120 n-Butylbenzene	91	13.073	13.065	0.008	98	49971	25.0	24.6	
121 1,2-Dichlorobenzene	146	13.091	13.089	0.002	91	36902	25.0	26.0	
122 1,2-Dibromo-3-Chloropropan	157	13.876	13.886	-0.010	74	4494	25.0	27.3	
126 1,2,4-Trichlorobenzene	180	14.697	14.695	0.002	91	11872	25.0	19.8	
127 Hexachlorobutadiene	225	14.843	14.841	0.002	93	5896	25.0	23.0	
128 Naphthalene	128	14.965	14.969	-0.004	98	27560	25.0	22.3	
129 1,2,3-Trichlorobenzene	180	15.190	15.188	0.002	86	7438	25.0	18.9	
S 133 Xylenes, Total	106				0		50.0	56.1	
S 134 1,2-Dichloroethene, Total	96				0		50.0	57.5	
S 135 1,3-Dichloropropene, Total	1				0		50.0	49.6	

Reagents:

VOA8260SURR_00069	Amount Added:	1.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	1.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	1.00	Units: uL

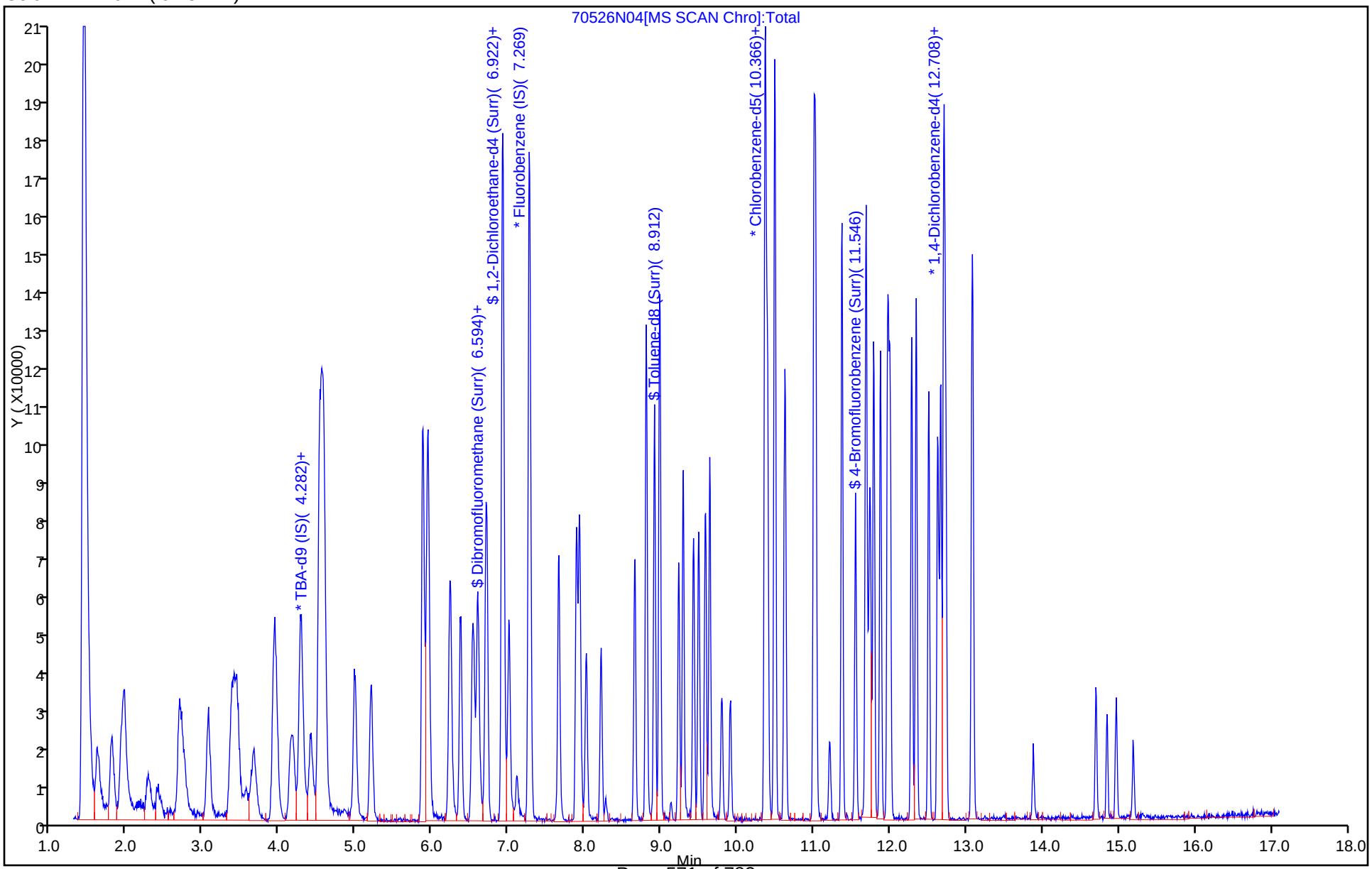
Report Date: 27-May-2017 10:43:51 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N04.D

Injection Date:	26-May-2017 15:06:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N05.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 26-May-2017 15:36:30 ALS Bottle#: 10 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 180-0016937-005
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Oct-2017 14:09:46 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: journetp Date: 09-Oct-2017 14:09:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.263	0.000	98	134820	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.268	0.000	96	159755	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.358	10.358	0.000	93	42008	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.707	12.707	0.000	96	57052	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.550	6.550	0.000	93	36454	50.0	46.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.915	6.915	0.000	67	68408	50.0	44.5	
$ 7 Toluene-d8 (Surr)	98	8.911	8.911	0.000	95	145707	50.0	45.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.545	11.545	0.000	84	59576	50.0	43.4	
11 Dichlorodifluoromethane	85	1.610	1.610	0.000	99	56679	50.0	46.1	
12 Chloromethane	50	1.793	1.793	0.000	99	76626	50.0	44.6	
13 Vinyl chloride	62	1.921	1.921	0.000	98	60070	50.0	43.5	
14 Butadiene	39	1.957	1.957	0.000	97	48344	50.0	49.7	
15 Bromomethane	94	2.280	2.280	0.000	94	22325	50.0	42.3	
16 Chloroethane	64	2.401	2.401	0.000	98	19054	50.0	41.1	
17 Dichlorofluoromethane	67	2.681	2.681	0.000	93	59173	50.0	43.8	
18 Trichlorofluoromethane	101	2.693	2.693	0.000	96	54419	50.0	47.4	
20 Ethyl ether	59	3.058	3.058	0.000	97	46723	50.0	39.8	
22 1,1-Dichloroethene	96	3.381	3.381	0.000	91	45294	50.0	46.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	91	36097	50.0	46.4	
24 Acetone	43	3.442	3.442	0.000	97	46638	100.0	63.5	
25 Iodomethane	142	3.563	3.563	0.000	96	41160	50.0	44.0	
26 Carbon disulfide	76	3.654	3.654	0.000	99	109151	50.0	46.0	
28 3-Chloro-1-propene	76	3.916	3.916	0.000	89	26221	50.0	48.9	
30 Methyl acetate	43	3.940	3.940	0.000	98	112322	100.0	81.9	
31 Methylene Chloride	84	4.153	4.153	0.000	95	45012	50.0	44.3	
32 2-Methyl-2-propanol	59	4.403	4.403	0.000	98	68534	500.0	407.6	
33 Acrylonitrile	53	4.518	4.518	0.000	98	219093	500.0	374.6	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	62	36304	50.0	45.6	
35 Methyl tert-butyl ether	73	4.567	4.567	0.000	98	153649	50.0	45.0	
36 Hexane	57	4.981	4.981	0.000	96	57464	50.0	51.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.194	5.194	0.000	97	92939	50.0	44.7	
44 2,2-Dichloropropane	97	5.930	5.930	0.000	53	9995	50.0	50.2	
45 cis-1,2-Dichloroethene	96	5.936	5.936	0.000	88	47103	50.0	45.3	
46 2-Butanone (MEK)	43	5.948	5.948	0.000	85	69207	100.0	70.4	
49 Chlorobromomethane	128	6.222	6.222	0.000	94	23824	50.0	45.8	
51 Tetrahydrofuran	42	6.234	6.234	0.000	89	44867	100.0	73.8	
52 Chloroform	83	6.368	6.368	0.000	96	89557	50.0	44.4	
53 1,1,1-Trichloroethane	97	6.520	6.520	0.000	98	61273	50.0	44.9	
54 Cyclohexane	56	6.593	6.593	0.000	96	72300	50.0	49.1	
56 Carbon tetrachloride	117	6.690	6.690	0.000	95	43695	50.0	45.7	
55 1,1-Dichloropropene	75	6.708	6.708	0.000	90	61516	50.0	46.0	
57 Isobutyl alcohol	41	6.909	6.909	0.000	93	54858	1250.0	873.9	
62 n-Heptane	43	6.915	6.915	0.000	70	74693	50.0	40.4	
58 Benzene	78	6.921	6.921	0.000	98	178694	50.0	49.4	
59 1,2-Dichloroethane	62	7.000	7.000	0.000	98	87120	50.0	45.0	
64 Trichloroethene	130	7.651	7.651	0.000	95	44280	50.0	45.1	
66 Methylcyclohexane	83	7.889	7.889	0.000	97	59623	50.0	50.3	
67 1,2-Dichloropropane	63	7.925	7.925	0.000	93	46463	50.0	44.5	
70 1,4-Dioxane	88	8.004	8.004	0.000	41	8066	1000.0	793.7	
68 Dibromomethane	93	8.016	8.016	0.000	94	28091	50.0	43.6	
71 Dichlorobromomethane	83	8.211	8.211	0.000	97	61761	50.0	42.5	
74 cis-1,3-Dichloropropene	75	8.655	8.655	0.000	89	74788	50.0	42.9	
75 4-Methyl-2-pentanone (MIBK	43	8.801	8.801	0.000	98	146116	100.0	75.0	
76 Toluene	91	8.978	8.978	0.000	97	171779	50.0	47.0	
77 trans-1,3-Dichloropropene	75	9.227	9.227	0.000	99	71820	50.0	42.2	
78 Ethyl methacrylate	69	9.288	9.288	0.000	94	76619	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.428	9.428	0.000	96	41365	50.0	42.6	
80 Tetrachloroethene	164	9.489	9.489	0.000	95	34542	50.0	47.3	
81 1,3-Dichloropropane	76	9.580	9.580	0.000	98	78997	50.0	41.9	
82 2-Hexanone	43	9.635	9.635	0.000	97	101508	100.0	71.7	
84 Chlorodibromomethane	129	9.793	9.793	0.000	90	38127	50.0	42.1	
85 Ethylene Dibromide	107	9.902	9.902	0.000	98	44880	50.0	40.1	
87 Chlorobenzene	112	10.395	10.395	0.000	89	110511	50.0	42.7	
89 1,1,1,2-Tetrachloroethane	131	10.480	10.480	0.000	88	35932	50.0	43.6	
90 Ethylbenzene	106	10.492	10.492	0.000	99	58733	50.0	45.1	
91 m-Xylene & p-Xylene	106	10.620	10.620	0.000	98	77358	50.0	47.6	
92 o-Xylene	106	11.003	11.003	0.000	97	77919	50.0	44.7	
93 Styrene	104	11.022	11.022	0.000	93	130546	50.0	46.5	
94 Bromoform	173	11.216	11.216	0.000	93	22558	50.0	37.1	
97 Isopropylbenzene	105	11.368	11.368	0.000	97	197042	50.0	47.8	
100 Bromobenzene	156	11.685	11.685	0.000	97	49787	50.0	41.6	
99 1,1,2,2-Tetrachloroethane	83	11.685	11.685	0.000	77	53661	50.0	38.7	
102 trans-1,4-Dichloro-2-buten	53	11.727	11.727	0.000	69	19014	50.0	36.3	
101 1,2,3-Trichloropropane	110	11.739	11.739	0.000	88	19694	50.0	37.8	
103 N-Propylbenzene	120	11.782	11.782	0.000	99	45510	50.0	47.3	
104 2-Chlorotoluene	126	11.873	11.873	0.000	93	40783	50.0	44.5	
106 1,3,5-Trimethylbenzene	105	11.971	11.971	0.000	92	166298	50.0	49.5	
107 4-Chlorotoluene	126	11.995	11.995	0.000	99	42095	50.0	45.3	
108 tert-Butylbenzene	119	12.281	12.281	0.000	93	123907	50.0	46.6	
110 1,2,4-Trimethylbenzene	105	12.342	12.342	0.000	98	160152	50.0	45.9	
112 sec-Butylbenzene	105	12.506	12.506	0.000	96	170932	50.0	49.3	
113 1,3-Dichlorobenzene	146	12.628	12.628	0.000	95	79502	50.0	44.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.664	12.664	0.000	96	128241	50.0	46.8	
115 1,4-Dichlorobenzene	146	12.731	12.731	0.000	91	75498	50.0	43.4	
120 n-Butylbenzene	91	13.072	13.072	0.000	98	112313	50.0	46.7	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	91	72463	50.0	43.0	
122 1,2-Dibromo-3-Chloropropan	157	13.875	13.875	0.000	76	8491	50.0	42.1	
126 1,2,4-Trichlorobenzene	180	14.696	14.696	0.000	93	31007	50.0	43.7	
127 Hexachlorobutadiene	225	14.848	14.848	0.000	94	12982	50.0	44.6	
128 Naphthalene	128	14.964	14.964	0.000	99	67034	50.0	46.6	
129 1,2,3-Trichlorobenzene	180	15.195	15.195	0.000	93	18623	50.0	43.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.8	
S 133 Xylenes, Total	106				0		100.0	92.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.1	

Reagents:

VOA8260SURR_00069	Amount Added:	2.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	2.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	2.00	Units: uL

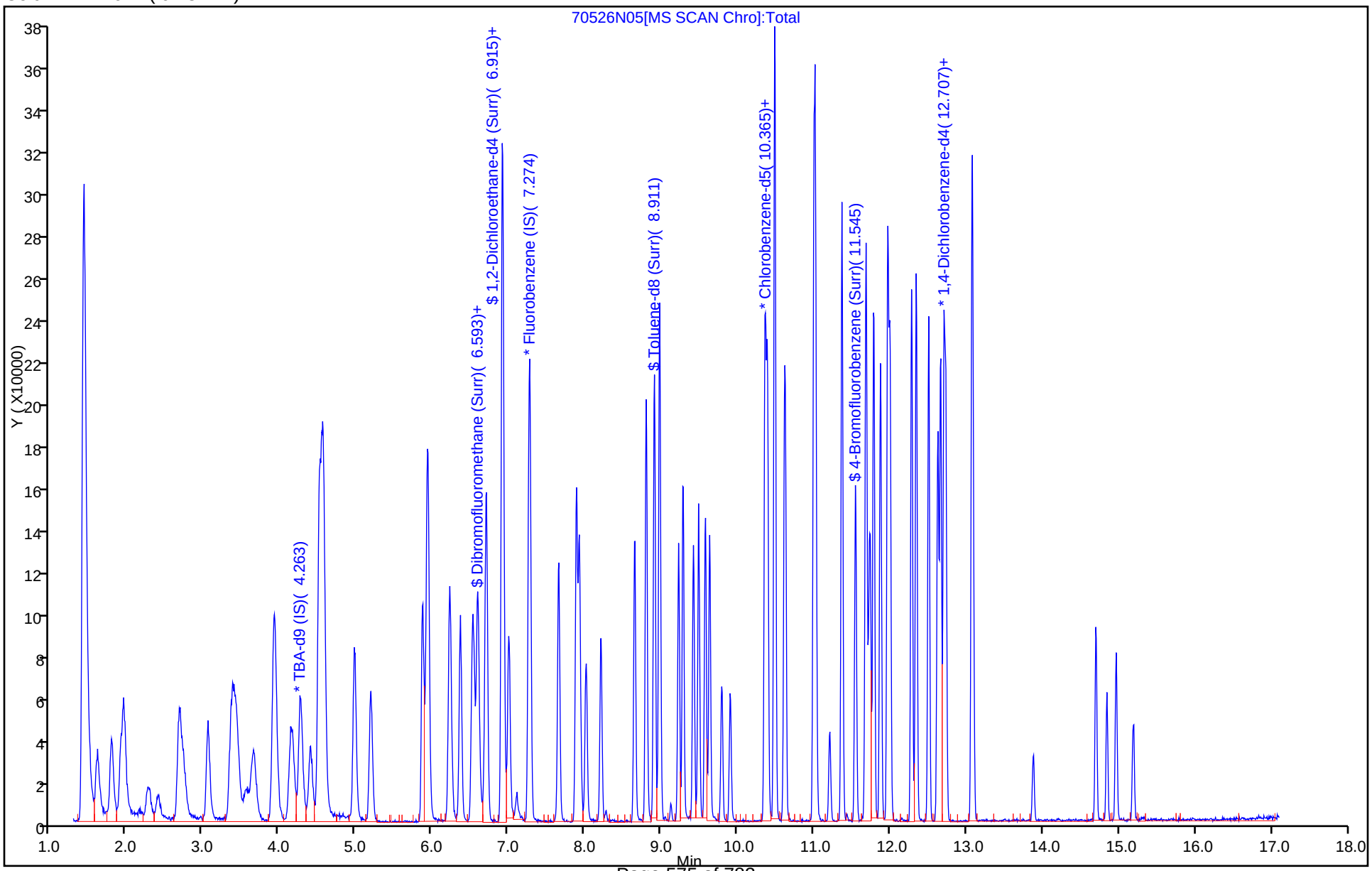
Report Date: 09-Oct-2017 14:09:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N05.D

Injection Date:	26-May-2017 15:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ICIS			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N06.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 26-May-2017 16:06:30 ALS Bottle#: 11 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016937-006
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:43:54 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 26-May-2017 17:06:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.275	0.000	97	136639	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.268	0.000	96	123516	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	93	29423	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.706	12.706	0.000	94	38487	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.550	6.550	0.000	93	45171	75.0	73.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.915	6.915	0.000	62	87697	75.0	73.8	
$ 7 Toluene-d8 (Surr)	98	8.910	8.910	0.000	95	171864	75.0	77.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.544	11.544	0.000	86	70905	75.0	76.4	
11 Dichlorodifluoromethane	85	1.610	1.610	0.000	99	68910	75.0	72.6	
12 Chloromethane	50	1.799	1.799	0.000	99	92241	75.0	69.5	
13 Vinyl chloride	62	1.920	1.920	0.000	97	79328	75.0	74.3	
14 Butadiene	39	1.969	1.969	0.000	96	53045	75.0	70.6	
15 Bromomethane	94	2.279	2.279	0.000	92	28151	75.0	70.5	
16 Chloroethane	64	2.407	2.407	0.000	98	23385	75.0	65.2	
17 Dichlorofluoromethane	67	2.687	2.687	0.000	97	72136	75.0	69.1	
18 Trichlorofluoromethane	101	2.693	2.693	0.000	94	67687	75.0	72.2	
20 Ethyl ether	59	3.052	3.052	0.000	98	62014	75.0	68.4	
22 1,1-Dichloroethene	96	3.380	3.380	0.000	90	53268	75.0	70.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	95	39597	75.0	65.9	
24 Acetone	43	3.459	3.459	0.000	99	78710	150.0	138.5	
25 Iodomethane	142	3.569	3.569	0.000	99	55439	75.0	76.7	
26 Carbon disulfide	76	3.672	3.672	0.000	100	140541	75.0	76.7	
28 3-Chloro-1-propene	76	3.928	3.928	0.000	87	33209	75.0	80.1	
30 Methyl acetate	43	3.940	3.940	0.000	99	168208	150.0	158.7	
31 Methylene Chloride	84	4.141	4.141	0.000	96	58472	75.0	76.8	
32 2-Methyl-2-propanol	59	4.396	4.396	0.000	97	122140	750.0	716.7	
33 Acrylonitrile	53	4.518	4.518	0.000	98	347239	750.0	768.0	
34 trans-1,2-Dichloroethene	96	4.567	4.567	0.000	70	47991	75.0	77.9	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	100	192739	75.0	73.0	
36 Hexane	57	4.986	4.986	0.000	93	63785	75.0	73.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.199	0.000	97	116494	75.0	72.4	
44 2,2-Dichloropropane	97	5.929	5.935	-0.006	55	12042	75.0	78.2	
45 cis-1,2-Dichloroethene	96	5.942	5.942	0.000	86	56967	75.0	70.8	
46 2-Butanone (MEK)	43	5.948	5.948	0.000	92	105832	150.0	139.3	
49 Chlorobromomethane	128	6.227	6.227	0.000	90	27030	75.0	67.2	
51 Tetrahydrofuran	42	6.240	6.240	0.000	91	65508	150.0	139.3	
52 Chloroform	83	6.373	6.373	0.000	95	107010	75.0	68.6	
53 1,1,1-Trichloroethane	97	6.519	6.519	0.000	97	73676	75.0	69.8	
54 Cyclohexane	56	6.599	6.599	0.000	96	79494	75.0	69.8	
56 Carbon tetrachloride	117	6.696	6.696	0.000	94	54236	75.0	73.4	
55 1,1-Dichloropropene	75	6.708	6.708	0.000	87	73559	75.0	71.2	
57 Isobutyl alcohol	41	6.909	6.909	0.000	91	88250	1875.0	1834.3	
58 Benzene	78	6.921	6.921	0.000	96	192886	75.0	70.4	
59 1,2-Dichloroethane	62	7.006	7.006	0.000	98	104059	75.0	69.5	
62 n-Heptane	43	6.915	6.915	0.000	69	107438	75.0	75.2	
64 Trichloroethene	130	7.657	7.657	0.000	94	51955	75.0	68.4	
66 Methylcyclohexane	83	7.888	7.888	0.000	95	61423	75.0	67.1	
67 1,2-Dichloropropane	63	7.925	7.925	0.000	94	55808	75.0	69.2	
68 Dibromomethane	93	8.016	8.016	0.000	92	32961	75.0	66.1	
70 1,4-Dioxane	88	8.010	8.010	0.000	46	10541	1500.0	1341.5	
71 Dichlorobromomethane	83	8.211	8.211	0.000	98	77135	75.0	68.7	
74 cis-1,3-Dichloropropene	75	8.655	8.655	0.000	89	93581	75.0	69.5	
75 4-Methyl-2-pentanone (MIBK	43	8.801	8.801	0.000	98	198555	150.0	145.5	
76 Toluene	91	8.977	8.977	0.000	97	188087	75.0	75.1	
77 trans-1,3-Dichloropropene	75	9.227	9.227	0.000	99	85680	75.0	71.9	
78 Ethyl methacrylate	69	9.287	9.287	0.000	93	91323	75.0	69.7	
79 1,1,2-Trichloroethane	97	9.421	9.421	0.000	95	46935	75.0	68.9	
80 Tetrachloroethene	164	9.494	9.494	0.000	94	35769	75.0	70.0	
81 1,3-Dichloropropane	76	9.579	9.579	0.000	98	90297	75.0	68.4	
82 2-Hexanone	43	9.634	9.634	0.000	97	139722	150.0	141.0	
84 Chlorodibromomethane	129	9.798	9.798	0.000	90	43539	75.0	68.7	
85 Ethylene Dibromide	107	9.908	9.908	0.000	99	54037	75.0	68.9	
87 Chlorobenzene	112	10.395	10.395	0.000	87	131615	75.0	72.6	
89 1,1,1,2-Tetrachloroethane	131	10.486	10.486	0.000	87	43013	75.0	74.5	
90 Ethylbenzene	106	10.492	10.492	0.000	99	70129	75.0	76.9	
91 m-Xylene & p-Xylene	106	10.620	10.620	0.000	98	82997	75.0	74.1	
92 o-Xylene	106	11.003	11.003	0.000	98	85604	75.0	70.1	
93 Styrene	104	11.021	11.021	0.000	94	139607	75.0	70.9	
94 Bromoform	173	11.210	11.210	0.000	96	28192	75.0	66.3	
97 Isopropylbenzene	105	11.368	11.368	0.000	97	211295	75.0	74.4	
100 Bromobenzene	156	11.684	11.684	0.000	98	53955	75.0	66.8	
99 1,1,2,2-Tetrachloroethane	83	11.690	11.690	0.000	94	65012	75.0	66.9	
102 trans-1,4-Dichloro-2-buten	53	11.721	11.721	0.000	77	23325	75.0	65.9	
101 1,2,3-Trichloropropane	110	11.739	11.739	0.000	88	23942	75.0	68.1	
103 N-Propylbenzene	120	11.788	11.788	0.000	99	45540	75.0	70.1	
104 2-Chlorotoluene	126	11.879	11.879	0.000	93	42962	75.0	69.5	
106 1,3,5-Trimethylbenzene	105	11.970	11.970	0.000	92	162587	75.0	71.7	
107 4-Chlorotoluene	126	11.995	11.995	0.000	99	42599	75.0	68.0	
108 tert-Butylbenzene	119	12.280	12.280	0.000	92	126350	75.0	70.5	
110 1,2,4-Trimethylbenzene	105	12.341	12.341	0.000	97	168557	75.0	71.6	
112 sec-Butylbenzene	105	12.506	12.506	0.000	96	164718	75.0	70.4	
113 1,3-Dichlorobenzene	146	12.627	12.627	0.000	95	84645	75.0	70.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.664	12.664	0.000	96	130868	75.0	70.8	
115 1,4-Dichlorobenzene	146	12.731	12.731	0.000	90	81962	75.0	69.8	
120 n-Butylbenzene	91	13.071	13.071	0.000	98	118785	75.0	73.2	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	93	81999	75.0	72.1	
122 1,2-Dibromo-3-Chloropropan	157	13.880	13.880	0.000	74	12102	75.0	79.1	
126 1,2,4-Trichlorobenzene	180	14.702	14.702	0.000	91	34070	75.0	71.1	
127 Hexachlorobutadiene	225	14.842	14.842	0.000	95	16041	75.0	83.9	
128 Naphthalene	128	14.963	14.963	0.000	98	79079	75.0	77.4	
129 1,2,3-Trichlorobenzene	180	15.188	15.188	0.000	95	21259	75.0	76.9	
S 133 Xylenes, Total	106				0		150.0	144.2	
S 134 1,2-Dichloroethene, Total	96				0		150.0	148.7	
S 135 1,3-Dichloropropene, Total	1				0		150.0	141.4	

Reagents:

VOA8260SURR_00069	Amount Added:	3.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	3.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	3.00	Units: uL

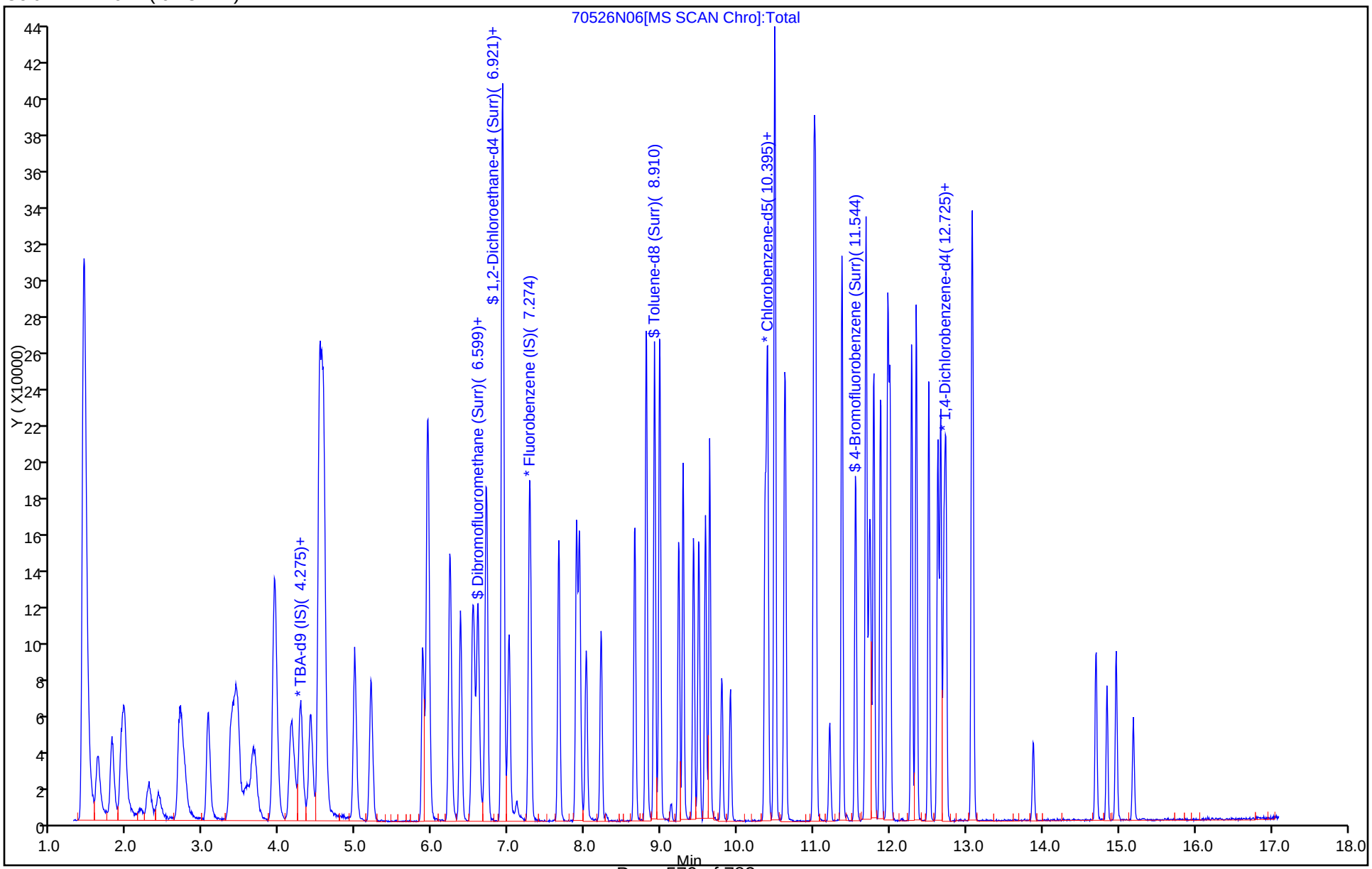
Report Date: 27-May-2017 10:43:55 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N06.D

Injection Date:	26-May-2017 16:06:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N07.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 26-May-2017 16:36:30 ALS Bottle#: 12 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016937-007
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Oct-2017 14:11:26 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: journetp Date: 09-Oct-2017 14:11:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.263	0.000	97	127006	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.268	0.000	97	112072	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.358	0.006	91	29700	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.706	12.707	-0.001	94	38049	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.544	6.550	-0.006	93	57245	100.0	103.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.921	6.915	0.006	61	112329	100.0	104.1	
$ 7 Toluene-d8 (Surr)	98	8.910	8.911	-0.001	94	210583	100.0	93.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.545	11.545	0.000	85	92146	100.0	99.4	
11 Dichlorodifluoromethane	85	1.610	1.610	0.000	98	81498	100.0	94.6	
12 Chloromethane	50	1.793	1.793	0.000	99	115683	100.0	96.1	
13 Vinyl chloride	62	1.920	1.921	-0.001	98	91297	100.0	94.2	
14 Butadiene	39	1.963	1.957	0.006	98	69651	100.0	102.1	
15 Bromomethane	94	2.279	2.280	-0.001	92	34863	100.0	97.5	
16 Chloroethane	64	2.395	2.401	-0.006	98	32202	100.0	99.0	
17 Dichlorofluoromethane	67	2.681	2.681	0.000	93	87004	100.0	91.9	
18 Trichlorofluoromethane	101	2.693	2.693	0.000	89	85236	100.0	96.1	
20 Ethyl ether	59	3.064	3.058	0.006	97	80386	100.0	97.7	
22 1,1-Dichloroethene	96	3.374	3.381	-0.007	90	64477	100.0	93.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.435	3.423	0.012	93	49182	100.0	90.2	
24 Acetone	43	3.447	3.442	0.005	97	100632	200.0	195.2	
25 Iodomethane	142	3.557	3.563	-0.006	99	63893	100.0	97.5	
26 Carbon disulfide	76	3.660	3.654	0.006	100	156914	100.0	94.3	
28 3-Chloro-1-propene	76	3.928	3.916	0.012	86	35900	100.0	95.4	
30 Methyl acetate	43	3.946	3.940	0.006	99	199788	200.0	207.7	
31 Methylene Chloride	84	4.165	4.153	0.012	98	67059	100.0	98.0	
32 2-Methyl-2-propanol	59	4.403	4.403	0.000	98	150271	1000.0	948.7	
33 Acrylonitrile	53	4.524	4.518	0.006	98	429643	1000.0	1047.2	
34 trans-1,2-Dichloroethene	96	4.567	4.561	0.006	54	51127	100.0	91.5	
35 Methyl tert-butyl ether	73	4.573	4.567	0.006	99	238706	100.0	99.6	
36 Hexane	57	4.980	4.981	-0.001	94	70452	100.0	89.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.193	5.194	-0.001	97	138920	100.0	95.2	
44 2,2-Dichloropropane	97	5.936	5.930	0.006	61	13674	100.0	97.9	
45 cis-1,2-Dichloroethene	96	5.936	5.936	0.000	87	69654	100.0	95.5	
46 2-Butanone (MEK)	43	5.954	5.948	0.006	98	147644	200.0	214.2	
49 Chlorobromomethane	128	6.221	6.222	-0.001	92	36156	100.0	99.1	
51 Tetrahydrofuran	42	6.234	6.234	0.000	89	89279	200.0	209.3	
52 Chloroform	83	6.367	6.368	-0.001	95	134396	100.0	94.9	
53 1,1,1-Trichloroethane	97	6.526	6.520	0.006	97	89330	100.0	93.3	
54 Cyclohexane	56	6.593	6.593	0.000	95	94053	100.0	91.0	
56 Carbon tetrachloride	117	6.702	6.690	0.012	95	65945	100.0	98.3	
55 1,1-Dichloropropene	75	6.714	6.708	0.006	89	88223	100.0	94.1	
57 Isobutyl alcohol	41	6.915	6.909	0.006	92	114829	2500.0	2637.0	
62 n-Heptane	43	6.915	6.915	0.000	69	140980	100.0	108.7	
58 Benzene	78	6.927	6.921	0.006	96	238075	100.0	97.0	
59 1,2-Dichloroethane	62	7.006	7.000	0.006	98	131718	100.0	96.9	
64 Trichloroethene	130	7.657	7.651	0.006	94	64879	100.0	94.1	
66 Methylcyclohexane	83	7.888	7.889	-0.001	96	77226	100.0	93.0	
67 1,2-Dichloropropane	63	7.925	7.925	0.000	93	72576	100.0	99.1	
70 1,4-Dioxane	88	8.010	8.004	0.006	44	14046	2000.0	1970.1	
68 Dibromomethane	93	8.016	8.016	0.000	91	45388	100.0	100.4	
71 Dichlorobromomethane	83	8.211	8.211	0.000	98	100245	100.0	98.4	
74 cis-1,3-Dichloropropene	75	8.649	8.655	-0.006	89	122705	100.0	100.4	
75 4-Methyl-2-pentanone (MIBK	43	8.801	8.801	0.000	98	294883	200.0	214.1	
76 Toluene	91	8.983	8.978	0.005	97	240501	100.0	95.8	
77 trans-1,3-Dichloropropene	75	9.233	9.227	0.006	99	116869	100.0	97.1	
78 Ethyl methacrylate	69	9.288	9.288	0.000	92	126635	100.0	95.8	
79 1,1,2-Trichloroethane	97	9.421	9.428	-0.007	95	65225	100.0	94.9	
80 Tetrachloroethene	164	9.494	9.489	0.005	93	43333	100.0	84.0	
81 1,3-Dichloropropane	76	9.580	9.580	0.000	98	121326	100.0	91.0	
82 2-Hexanone	43	9.634	9.635	-0.001	98	202909	200.0	202.8	
84 Chlorodibromomethane	129	9.799	9.793	0.006	90	58722	100.0	91.8	
85 Ethylene Dibromide	107	9.902	9.902	0.000	99	75700	100.0	95.7	
87 Chlorobenzene	112	10.395	10.395	0.000	88	165455	100.0	90.4	
89 1,1,1,2-Tetrachloroethane	131	10.486	10.480	0.006	89	56158	100.0	96.3	
90 Ethylbenzene	106	10.486	10.492	-0.006	99	82329	100.0	89.4	
91 m-Xylene & p-Xylene	106	10.626	10.620	0.006	97	100905	100.0	89.7	
92 o-Xylene	106	11.003	11.003	0.000	99	108029	100.0	87.7	
93 Styrene	104	11.021	11.022	-0.001	94	181891	100.0	91.6	
94 Bromoform	173	11.210	11.216	-0.006	96	43101	100.0	100.3	
97 Isopropylbenzene	105	11.368	11.368	0.000	98	266769	100.0	93.7	
99 1,1,2,2-Tetrachloroethane	83	11.691	11.685	0.006	97	92899	100.0	94.8	
100 Bromobenzene	156	11.691	11.685	0.006	97	74774	100.0	93.6	
102 trans-1,4-Dichloro-2-buten	53	11.727	11.727	0.000	82	35308	100.0	101.0	
101 1,2,3-Trichloropropane	110	11.739	11.739	0.000	87	33107	100.0	95.3	
103 N-Propylbenzene	120	11.788	11.782	0.006	99	55392	100.0	86.3	
104 2-Chlorotoluene	126	11.873	11.873	0.000	94	55987	100.0	91.6	
106 1,3,5-Trimethylbenzene	105	11.970	11.971	-0.001	92	200949	100.0	89.7	
107 4-Chlorotoluene	126	12.001	11.995	0.006	99	57288	100.0	92.4	
108 tert-Butylbenzene	119	12.281	12.281	0.000	92	159889	100.0	90.3	
110 1,2,4-Trimethylbenzene	105	12.341	12.342	-0.001	98	212736	100.0	91.4	
112 sec-Butylbenzene	105	12.506	12.506	0.000	96	207217	100.0	89.6	
113 1,3-Dichlorobenzene	146	12.627	12.628	-0.001	95	110575	100.0	92.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.664	12.664	0.000	97	164053	100.0	89.8	
115 1,4-Dichlorobenzene	146	12.731	12.731	0.000	89	105161	100.0	90.6	
120 n-Butylbenzene	91	13.071	13.072	-0.001	97	149155	100.0	92.9	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	92	106782	100.0	94.9	
122 1,2-Dibromo-3-Chloropropan	157	13.881	13.875	0.006	73	16903	100.0	103.4	
126 1,2,4-Trichlorobenzene	180	14.696	14.696	0.000	93	46031	100.0	97.2	
127 Hexachlorobutadiene	225	14.848	14.848	0.000	93	18120	100.0	96.4	
128 Naphthalene	128	14.963	14.964	-0.001	98	114310	100.0	106.4	
129 1,2,3-Trichlorobenzene	180	15.189	15.195	-0.006	95	29478	100.0	109.3	
S 134 1,2-Dichloroethene, Total	96				0		200.0	186.9	
S 133 Xylenes, Total	106				0		200.0	177.4	
S 135 1,3-Dichloropropene, Total	1				0		200.0	197.6	

Reagents:

VOA8260SURR_00069	Amount Added:	4.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	4.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	4.00	Units: uL

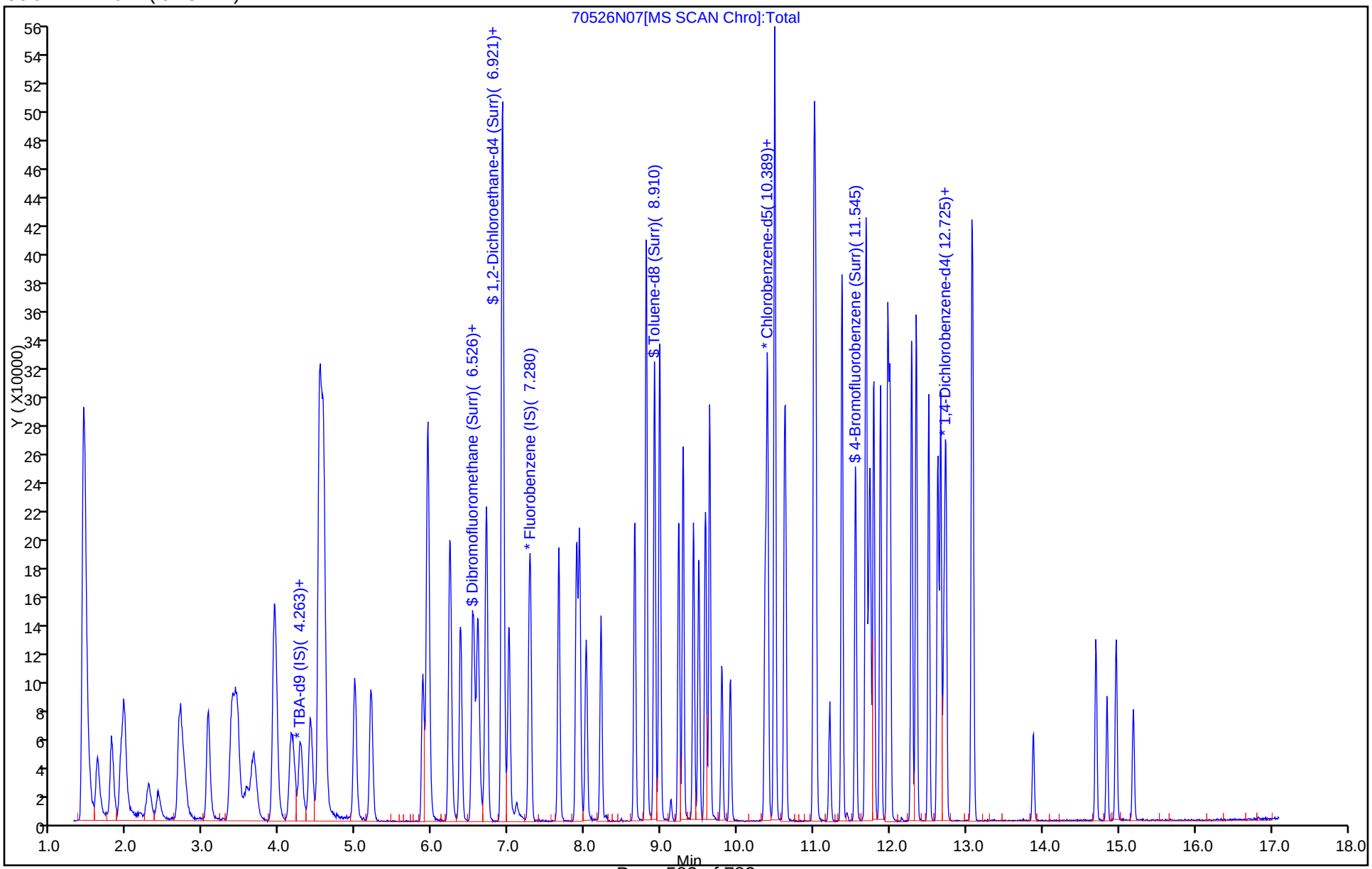
Report Date: 09-Oct-2017 14:11:27 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N07.D

Injection Date:	26-May-2017 16:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N08.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 26-May-2017 17:05:30 ALS Bottle#: 13 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016937-008
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:43:58 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 26-May-2017 17:28:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.275	0.003	97	98876	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.268	0.003	97	106013	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.364	0.003	91	25116	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.703	12.706	-0.003	94	32711	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.547	6.550	-0.003	93	90698	175.0	172.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.912	6.915	-0.003	89	178959	175.0	175.4	
$ 7 Toluene-d8 (Surr)	98	8.913	8.910	0.003	95	319810	175.0	168.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.547	11.544	0.003	85	143913	175.0	186.9	
11 Dichlorodifluoromethane	85	1.607	1.610	-0.003	99	137470	175.0	168.6	
12 Chloromethane	50	1.796	1.799	-0.003	99	210196	175.0	184.5	
13 Vinyl chloride	62	1.917	1.920	-0.003	98	160997	175.0	175.7	
14 Butadiene	39	1.960	1.969	-0.009	94	117737	175.0	182.5	
15 Bromomethane	94	2.270	2.279	-0.009	93	61977	175.0	189.0	
16 Chloroethane	64	2.404	2.407	-0.003	99	58181	175.0	189.0	
17 Dichlorofluoromethane	67	2.684	2.687	-0.003	93	164714	175.0	183.8	
18 Trichlorofluoromethane	101	2.696	2.693	0.003	97	161105	175.0	171.6	
20 Ethyl ether	59	3.061	3.052	0.009	97	154352	175.0	198.3	
22 1,1-Dichloroethene	96	3.377	3.380	-0.003	92	120080	175.0	183.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.423	-0.009	93	91330	175.0	177.0	
24 Acetone	43	3.438	3.459	-0.021	98	196065	350.0	402.1	
25 Iodomethane	142	3.578	3.569	0.009	98	115375	175.0	186.1	
26 Carbon disulfide	76	3.657	3.672	-0.015	100	257287	175.0	163.5	
28 3-Chloro-1-propene	76	3.925	3.928	-0.003	86	63012	175.0	177.1	
30 Methyl acetate	43	3.949	3.940	0.009	99	315650	350.0	346.9	
31 Methylene Chloride	84	4.156	4.141	0.015	97	116526	175.0	182.9	
32 2-Methyl-2-propanol	59	4.405	4.396	0.009	98	210984	1750.0	1710.9	
33 Acrylonitrile	53	4.521	4.518	0.003	97	643571	1750.0	1658.3	
34 trans-1,2-Dichloroethene	96	4.570	4.567	0.003	91	83342	175.0	157.6	
35 Methyl tert-butyl ether	73	4.582	4.573	0.009	99	393346	175.0	173.6	
36 Hexane	57	4.983	4.986	-0.003	94	118172	175.0	159.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.196	5.199	-0.003	96	241286	175.0	174.8	
44 2,2-Dichloropropane	97	5.926	5.935	-0.009	82	23338	175.0	176.6	
45 cis-1,2-Dichloroethene	96	5.938	5.942	-0.004	87	116703	175.0	169.1	
46 2-Butanone (MEK)	43	5.951	5.948	0.003	98	238738	350.0	366.1	
49 Chlorobromomethane	128	6.224	6.227	-0.003	92	61559	175.0	178.4	
51 Tetrahydrofuran	42	6.237	6.240	-0.004	91	138476	350.0	343.2	
52 Chloroform	83	6.370	6.373	-0.003	95	227600	175.0	169.9	
53 1,1,1-Trichloroethane	97	6.529	6.519	0.009	96	150444	175.0	166.1	
54 Cyclohexane	56	6.602	6.599	0.003	96	156665	175.0	160.2	
56 Carbon tetrachloride	117	6.699	6.696	0.003	95	110583	175.0	174.3	
55 1,1-Dichloropropene	75	6.711	6.708	0.003	90	143974	175.0	162.4	
57 Isobutyl alcohol	41	6.912	6.909	0.003	97	169660	4375.0	4127.2	
62 n-Heptane	43	6.912	6.915	-0.003	72	221336	175.0	180.4	
58 Benzene	78	6.924	6.921	0.003	96	393187	175.0	172.1	
59 1,2-Dichloroethane	62	7.003	7.006	-0.003	98	224220	175.0	174.4	
64 Trichloroethene	130	7.654	7.657	-0.003	95	112644	175.0	172.8	
66 Methylcyclohexane	83	7.891	7.888	0.003	97	123537	175.0	157.2	
67 1,2-Dichloropropane	63	7.928	7.925	0.003	92	119473	175.0	172.5	
70 1,4-Dioxane	88	8.013	8.010	0.003	40	22889	3500.0	3394.0	
68 Dibromomethane	93	8.019	8.016	0.003	94	77532	175.0	181.2	
71 Dichlorobromomethane	83	8.208	8.211	-0.003	98	181348	175.0	188.1	
74 cis-1,3-Dichloropropene	75	8.652	8.655	-0.003	89	211834	175.0	183.3	
75 4-Methyl-2-pentanone (MIBK	43	8.804	8.801	0.003	97	438844	350.0	376.9	
76 Toluene	91	8.980	8.977	0.003	97	380931	175.0	182.0	
77 trans-1,3-Dichloropropene	75	9.230	9.227	0.003	98	208220	175.0	204.6	
78 Ethyl methacrylate	69	9.284	9.287	-0.003	93	207753	175.0	185.9	
79 1,1,2-Trichloroethane	97	9.424	9.421	0.003	96	107153	175.0	184.4	
80 Tetrachloroethene	164	9.491	9.494	-0.003	94	72941	175.0	167.2	
81 1,3-Dichloropropane	76	9.576	9.579	-0.003	98	204490	175.0	181.3	
82 2-Hexanone	43	9.637	9.634	0.003	98	320031	350.0	378.3	
84 Chlorodibromomethane	129	9.795	9.798	-0.003	90	108301	175.0	200.3	
85 Ethylene Dibromide	107	9.905	9.908	-0.003	99	127642	175.0	190.7	
87 Chlorobenzene	112	10.392	10.395	-0.003	87	277085	175.0	178.9	
89 1,1,1,2-Tetrachloroethane	131	10.483	10.486	-0.003	88	96885	175.0	196.6	
90 Ethylbenzene	106	10.489	10.492	-0.003	99	131211	175.0	168.5	
91 m-Xylene & p-Xylene	106	10.617	10.620	-0.003	98	170565	175.0	181.7	
92 o-Xylene	106	11.000	11.003	-0.003	98	182159	175.0	174.8	
93 Styrene	104	11.024	11.021	0.003	93	288517	175.0	171.7	
94 Bromoform	173	11.207	11.210	-0.003	96	75765	175.0	208.6	
97 Isopropylbenzene	105	11.365	11.368	-0.003	98	428018	175.0	179.8	
100 Bromobenzene	156	11.687	11.684	0.003	97	122150	175.0	177.8	
99 1,1,2,2-Tetrachloroethane	83	11.687	11.690	-0.003	95	147671	175.0	178.1	
102 trans-1,4-Dichloro-2-buten	53	11.724	11.721	0.003	72	59414	175.0	197.6	
101 1,2,3-Trichloropropane	110	11.742	11.739	0.003	88	51470	175.0	172.4	
103 N-Propylbenzene	120	11.785	11.788	-0.003	98	94092	175.0	170.5	
104 2-Chlorotoluene	126	11.876	11.879	-0.003	94	91234	175.0	173.7	
106 1,3,5-Trimethylbenzene	105	11.967	11.970	-0.003	92	318634	175.0	165.4	
107 4-Chlorotoluene	126	11.998	11.995	0.003	100	90363	175.0	169.6	
108 tert-Butylbenzene	119	12.283	12.280	0.003	92	255613	175.0	167.8	
110 1,2,4-Trimethylbenzene	105	12.344	12.341	0.003	98	341101	175.0	170.4	
112 sec-Butylbenzene	105	12.509	12.506	0.003	96	317584	175.0	159.7	
113 1,3-Dichlorobenzene	146	12.630	12.627	0.003	95	175752	175.0	170.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.661	12.664	-0.003	96	250701	175.0	159.6	
115 1,4-Dichlorobenzene	146	12.728	12.731	-0.003	89	168927	175.0	169.4	
120 n-Butylbenzene	91	13.068	13.071	-0.003	97	225754	175.0	163.6	
121 1,2-Dichlorobenzene	146	13.086	13.084	0.002	93	167983	175.0	173.7	
122 1,2-Dibromo-3-Chloropropan	157	13.877	13.880	-0.003	77	30069	175.0	174.5	
126 1,2,4-Trichlorobenzene	180	14.699	14.702	-0.003	94	68109	175.0	167.3	
127 Hexachlorobutadiene	225	14.845	14.842	0.003	95	27593	175.0	175.0	
128 Naphthalene	128	14.960	14.963	-0.003	98	172510	175.0	164.7	
129 1,2,3-Trichlorobenzene	180	15.185	15.188	-0.003	94	40042	175.0	174.7	
S 133 Xylenes, Total	106				0		350.0	356.5	
S 134 1,2-Dichloroethene, Total	96				0		350.0	326.7	
S 135 1,3-Dichloropropene, Total	1				0		350.0	387.9	

Reagents:

VOA8260SURR_00069	Amount Added:	7.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	7.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	7.00	Units: uL

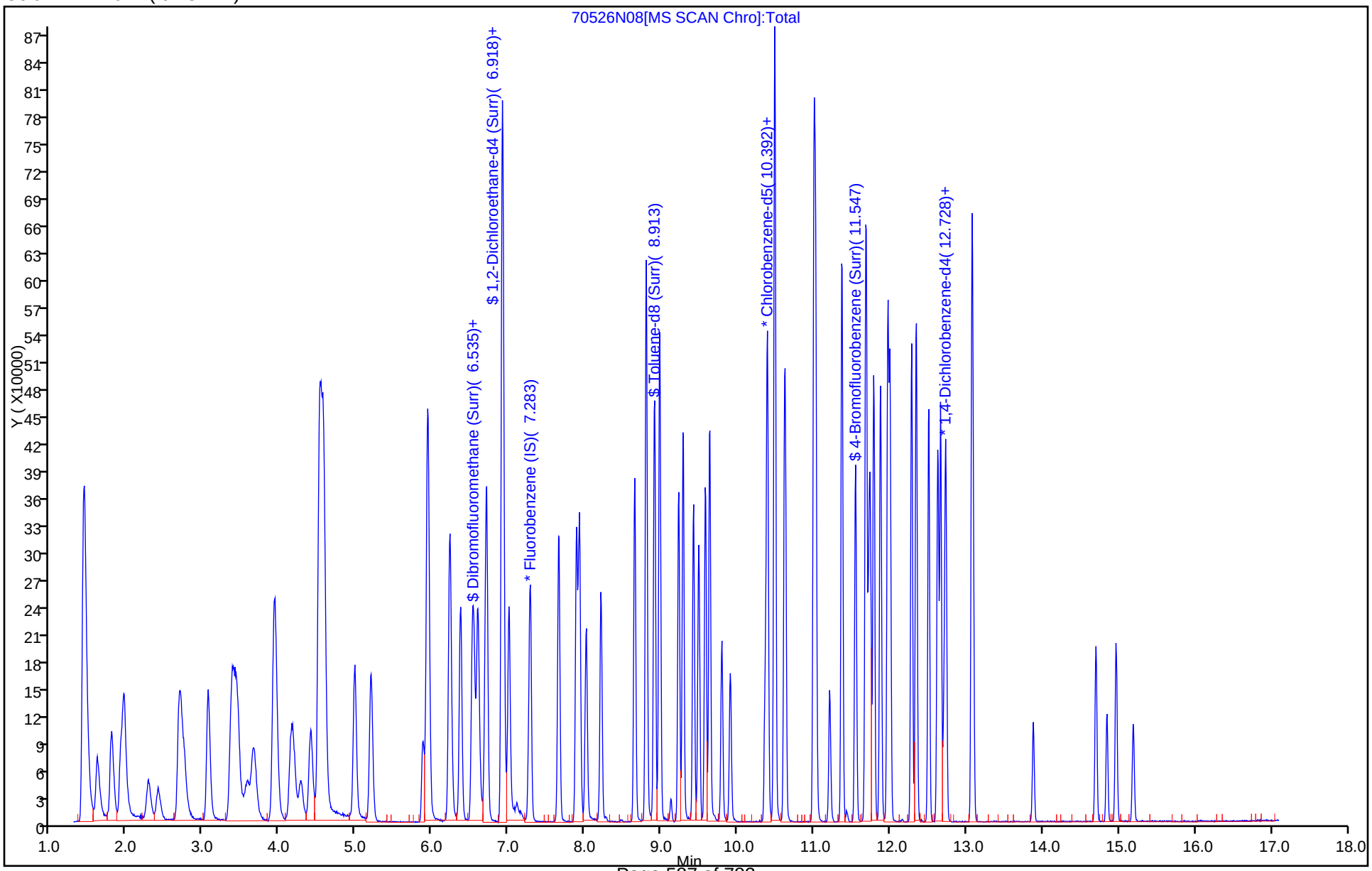
Report Date: 27-May-2017 10:43:59 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N08.D

Injection Date:	26-May-2017 17:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N09.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 26-May-2017 17:34:30 ALS Bottle#: 14 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016937-009
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:44:00 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 27-May-2017 09:50:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.267	4.275	-0.008	97	115264	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.267	7.268	-0.001	97	101418	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.369	10.364	0.005	91	28106	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.705	12.706	-0.001	96	34128	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.549	6.550	-0.001	93	103405	200.0	206.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.920	6.915	0.005	61	194286	200.0	199.0	
$ 7 Toluene-d8 (Surr)	98	8.915	8.910	0.005	95	368509	200.0	173.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.543	11.544	-0.001	93	179388	200.0	208.6	
11 Dichlorodifluoromethane	85	1.609	1.610	-0.001	99	155318	200.0	199.2	
12 Chloromethane	50	1.791	1.799	-0.008	99	224586	200.0	206.1	
13 Vinyl chloride	62	1.919	1.920	-0.001	98	176578	200.0	201.4	
14 Butadiene	39	1.962	1.969	-0.007	97	97018	200.0	157.2	
15 Bromomethane	94	2.284	2.279	0.005	92	61279	200.0	195.7	
16 Chloroethane	64	2.412	2.407	0.005	98	74530	200.0	253.1	
17 Dichlorofluoromethane	67	2.680	2.687	-0.007	95	198650	200.0	231.8	
18 Trichlorofluoromethane	101	2.698	2.693	0.005	87	200072	200.0	211.4	
20 Ethyl ether	59	3.057	3.052	0.005	96	175588	200.0	235.8	
22 1,1-Dichloroethene	96	3.385	3.380	0.005	93	136045	200.0	217.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.423	-0.007	81	102172	200.0	207.0	
24 Acetone	43	3.446	3.459	-0.013	97	231306	400.0	495.9	
25 Iodomethane	142	3.574	3.569	0.005	100	124772	200.0	210.3	
26 Carbon disulfide	76	3.665	3.672	-0.007	99	309717	200.0	205.8	
28 3-Chloro-1-propene	76	3.927	3.928	-0.001	87	69940	200.0	205.5	
30 Methyl acetate	43	3.945	3.940	0.005	99	343928	400.0	395.1	
31 Methylene Chloride	84	4.164	4.141	0.023	97	122145	200.0	200.8	
32 2-Methyl-2-propanol	59	4.401	4.396	0.005	98	269056	2000.0	1871.6	
33 Acrylonitrile	53	4.523	4.518	0.005	98	693116	2000.0	1866.9	
34 trans-1,2-Dichloroethene	96	4.566	4.567	-0.001	89	93546	200.0	184.9	
35 Methyl tert-butyl ether	73	4.578	4.573	0.005	99	410106	200.0	189.2	
36 Hexane	57	4.985	4.986	-0.001	95	138197	200.0	194.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.198	5.199	-0.001	97	263642	200.0	199.6	
44 2,2-Dichloropropane	97	5.940	5.935	0.005	62	25715	200.0	203.4	
45 cis-1,2-Dichloroethene	96	5.946	5.942	0.004	88	127360	200.0	192.9	
46 2-Butanone (MEK)	43	5.946	5.948	-0.002	98	274021	400.0	439.2	
49 Chlorobromomethane	128	6.220	6.227	-0.007	92	64013	200.0	193.9	
51 Tetrahydrofuran	42	6.238	6.240	-0.002	90	147259	400.0	381.5	
52 Chloroform	83	6.372	6.373	-0.001	95	254314	200.0	198.5	
53 1,1,1-Trichloroethane	97	6.524	6.519	0.005	97	170047	200.0	196.3	
54 Cyclohexane	56	6.597	6.599	-0.002	95	180420	200.0	192.9	
56 Carbon tetrachloride	117	6.701	6.696	0.005	95	128735	200.0	212.1	
55 1,1-Dichloropropene	75	6.713	6.708	0.005	90	164195	200.0	193.6	
57 Isobutyl alcohol	41	6.914	6.909	0.005	94	198821	5000.0	5059.1	
62 n-Heptane	43	6.914	6.915	-0.001	70	254314	200.0	216.7	
58 Benzene	78	6.926	6.921	0.005	94	419667	200.0	192.4	
59 1,2-Dichloroethane	62	7.005	7.006	-0.001	98	242220	200.0	197.0	
64 Trichloroethene	130	7.662	7.657	0.005	95	123693	200.0	198.3	
66 Methylcyclohexane	83	7.893	7.888	0.005	96	143178	200.0	190.4	
67 1,2-Dichloropropane	63	7.930	7.925	0.005	93	127304	200.0	192.1	
70 1,4-Dioxane	88	8.009	8.010	-0.001	43	26810	4000.0	4155.5	
68 Dibromomethane	93	8.015	8.016	-0.001	95	81114	200.0	198.2	
71 Dichlorobromomethane	83	8.210	8.211	-0.001	98	198595	200.0	215.4	
74 cis-1,3-Dichloropropene	75	8.654	8.655	-0.001	89	231221	200.0	209.2	
75 4-Methyl-2-pentanone (MIBK	43	8.806	8.801	0.005	97	490495	400.0	376.4	
76 Toluene	91	8.982	8.977	0.005	97	414985	200.0	177.1	
77 trans-1,3-Dichloropropene	75	9.232	9.227	0.005	99	221853	200.0	194.8	
78 Ethyl methacrylate	69	9.286	9.287	-0.001	93	219854	200.0	175.8	
79 1,1,2-Trichloroethane	97	9.420	9.421	-0.001	95	115443	200.0	177.5	
80 Tetrachloroethene	164	9.493	9.494	-0.001	93	87816	200.0	179.9	
81 1,3-Dichloropropane	76	9.578	9.579	-0.001	99	226616	200.0	179.6	
82 2-Hexanone	43	9.633	9.634	-0.001	98	366229	400.0	386.9	
84 Chlorodibromomethane	129	9.797	9.798	-0.001	91	121642	200.0	201.0	
85 Ethylene Dibromide	107	9.907	9.908	-0.001	98	136944	200.0	182.9	
87 Chlorobenzene	112	10.393	10.395	-0.002	88	315354	200.0	182.0	
89 1,1,1,2-Tetrachloroethane	131	10.485	10.486	-0.001	88	105885	200.0	192.0	
90 Ethylbenzene	106	10.491	10.492	-0.001	99	151598	200.0	173.9	
91 m-Xylene & p-Xylene	106	10.619	10.620	-0.001	98	195979	200.0	186.6	
92 o-Xylene	106	11.002	11.003	-0.001	98	205247	200.0	176.0	
93 Styrene	104	11.026	11.021	0.005	93	319865	200.0	170.1	
94 Bromoform	173	11.209	11.210	-0.001	96	87434	200.0	215.1	
97 Isopropylbenzene	105	11.373	11.368	0.005	98	501841	200.0	188.4	
100 Bromobenzene	156	11.683	11.684	-0.001	98	141257	200.0	197.1	
99 1,1,2,2-Tetrachloroethane	83	11.689	11.690	-0.001	94	163634	200.0	176.4	
102 trans-1,4-Dichloro-2-buten	53	11.720	11.721	-0.001	81	65545	200.0	209.0	
101 1,2,3-Trichloropropane	110	11.738	11.739	-0.001	87	60557	200.0	194.4	
103 N-Propylbenzene	120	11.787	11.788	-0.001	98	109486	200.0	190.1	
104 2-Chlorotoluene	126	11.878	11.879	-0.001	94	108596	200.0	198.1	
106 1,3,5-Trimethylbenzene	105	11.969	11.970	-0.001	94	377047	200.0	187.5	
107 4-Chlorotoluene	126	12.000	11.995	0.005	100	104084	200.0	187.3	
108 tert-Butylbenzene	119	12.279	12.280	-0.001	92	309031	200.0	194.5	
110 1,2,4-Trimethylbenzene	105	12.346	12.341	0.005	99	397488	200.0	190.4	
112 sec-Butylbenzene	105	12.504	12.506	-0.002	96	408616	200.0	197.0	
113 1,3-Dichlorobenzene	146	12.626	12.627	-0.001	94	207221	200.0	193.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.663	12.664	-0.001	96	315106	200.0	192.3	
115 1,4-Dichlorobenzene	146	12.736	12.731	0.005	88	201354	200.0	193.5	
120 n-Butylbenzene	91	13.070	13.071	-0.001	97	300798	200.0	208.9	
121 1,2-Dichlorobenzene	146	13.088	13.084	0.004	92	195534	200.0	193.8	
122 1,2-Dibromo-3-Chloropropan	157	13.879	13.880	-0.001	76	37626	200.0	197.3	
126 1,2,4-Trichlorobenzene	180	14.694	14.702	-0.008	94	92484	200.0	217.7	
127 Hexachlorobutadiene	225	14.847	14.842	0.005	96	39382	200.0	243.5	
128 Naphthalene	128	14.962	14.963	-0.001	98	244655	200.0	205.9	
129 1,2,3-Trichlorobenzene	180	15.187	15.188	-0.001	95	64486	200.0	271.7	
S 134 1,2-Dichloroethene, Total	96				0		400.0	377.8	
S 133 Xylenes, Total	106				0		400.0	362.6	
S 135 1,3-Dichloropropene, Total	1				0		400.0	404.0	

Reagents:

VOA8260SURR_00069	Amount Added:	8.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	8.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	8.00	Units: uL

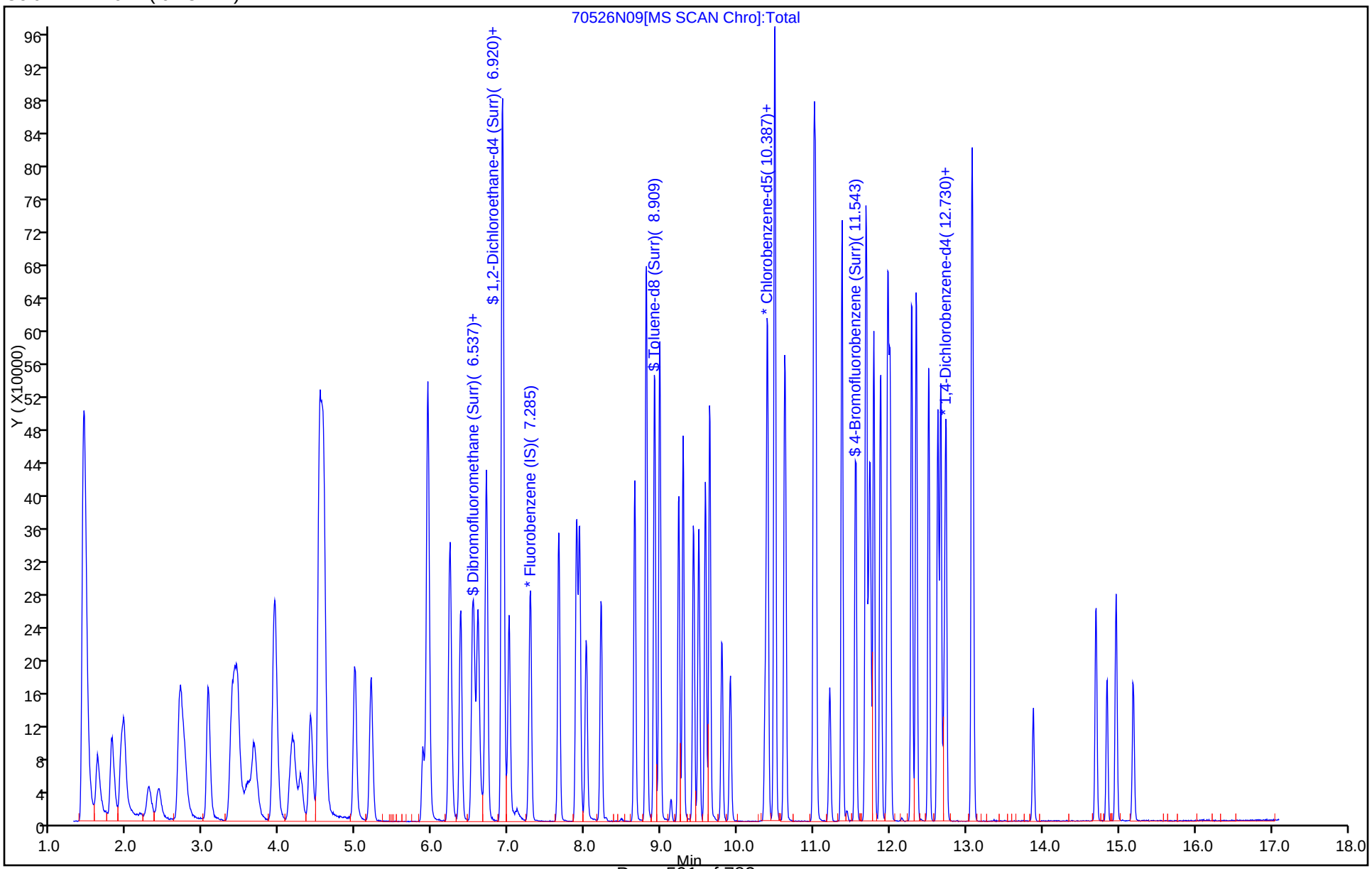
Report Date: 27-May-2017 10:44:01 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N09.D

Injection Date:	26-May-2017 17:34:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 26-May-2017 18:04:30 ALS Bottle#: 15 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0016927-010
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:44:03 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 27-May-2017 09:49:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.275	-0.001	98	112449	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.268	0.005	98	98462	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.364	-0.001	92	26274	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.705	12.706	-0.001	94	32262	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.549	6.550	-0.001	93	126830	250.0	260.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.920	6.915	0.005	94	219098	250.0	231.2	
$ 7 Toluene-d8 (Surr)	98	8.915	8.910	0.005	94	506344	250.0	254.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.550	11.544	0.006	85	206111	250.0	257.2	
11 Dichlorodifluoromethane	85	1.615	1.610	0.005	99	216519	250.0	286.0	
12 Chloromethane	50	1.804	1.799	0.005	100	289915	250.0	274.0	
13 Vinyl chloride	62	1.926	1.920	0.006	98	226065	250.0	265.6	
14 Butadiene	39	1.956	1.969	-0.013	95	142328	250.0	237.5	
15 Bromomethane	94	2.278	2.279	-0.001	92	74005	250.0	246.9	
16 Chloroethane	64	2.412	2.407	0.005	99	79902	250.0	279.5	
17 Dichlorofluoromethane	67	2.686	2.687	-0.001	94	220214	250.0	264.6	
18 Trichlorofluoromethane	101	2.698	2.693	0.005	89	235168	250.0	245.4	
20 Ethyl ether	59	3.063	3.052	0.011	97	188630	250.0	260.9	
22 1,1-Dichloroethene	96	3.386	3.380	0.006	93	151207	250.0	249.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.422	3.423	-0.001	72	119369	250.0	249.1	
24 Acetone	43	3.446	3.459	-0.013	97	226780	500.0	500.7	
25 Iodomethane	142	3.580	3.569	0.011	99	162111	250.0	281.5	
26 Carbon disulfide	76	3.659	3.672	-0.013	100	375325	250.0	256.9	
28 3-Chloro-1-propene	76	3.933	3.928	0.005	86	86000	250.0	260.2	
30 Methyl acetate	43	3.939	3.940	-0.001	99	425089	500.0	503.0	
31 Methylene Chloride	84	4.158	4.141	0.017	97	152616	250.0	259.4	
32 2-Methyl-2-propanol	59	4.414	4.396	0.018	98	362259	2500.0	2583.0	
33 Acrylonitrile	53	4.523	4.518	0.005	97	878317	2500.0	2436.8	
34 trans-1,2-Dichloroethene	96	4.566	4.567	-0.001	63	112994	250.0	230.1	
35 Methyl tert-butyl ether	73	4.584	4.573	0.011	99	508534	250.0	241.6	
36 Hexane	57	4.979	4.986	-0.007	94	179145	250.0	260.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.192	5.199	-0.007	96	327111	250.0	255.1	
44 2,2-Dichloropropane	97	5.935	5.935	0.000	93	33974	250.0	276.8	
45 cis-1,2-Dichloroethene	96	5.941	5.942	-0.001	89	163545	250.0	255.1	
46 2-Butanone (MEK)	43	5.953	5.948	0.005	98	303365	500.0	500.9	
49 Chlorobromomethane	128	6.220	6.227	-0.007	92	86045	250.0	268.5	
51 Tetrahydrofuran	42	6.239	6.240	-0.001	89	203719	500.0	543.5	
52 Chloroform	83	6.366	6.373	-0.007	95	328912	250.0	264.4	
53 1,1,1-Trichloroethane	97	6.525	6.519	0.006	97	225944	250.0	268.6	
54 Cyclohexane	56	6.598	6.599	-0.001	96	240769	250.0	265.1	
56 Carbon tetrachloride	117	6.701	6.696	0.005	96	160338	250.0	272.1	
55 1,1-Dichloropropene	75	6.713	6.708	0.005	89	200850	250.0	243.9	
57 Isobutyl alcohol	41	6.914	6.909	0.005	94	254669	6250.0	6679.4	
62 n-Heptane	43	6.914	6.915	-0.001	71	333807	250.0	292.9	
58 Benzene	78	6.926	6.921	0.005	97	519223	250.0	246.2	
59 1,2-Dichloroethane	62	7.005	7.006	-0.001	98	301887	250.0	252.9	
64 Trichloroethene	130	7.656	7.657	-0.001	95	157592	250.0	260.2	
66 Methylcyclohexane	83	7.893	7.888	0.005	96	197301	250.0	270.3	
67 1,2-Dichloropropane	63	7.930	7.925	0.005	93	165852	250.0	257.8	
70 1,4-Dioxane	88	8.009	8.010	-0.001	49	38240	5000.0	6105.0	
68 Dibromomethane	93	8.015	8.016	-0.001	94	108447	250.0	273.0	
71 Dichlorobromomethane	83	8.210	8.211	-0.001	98	259548	250.0	289.9	
74 cis-1,3-Dichloropropene	75	8.654	8.655	-0.001	90	316151	250.0	294.6	
75 4-Methyl-2-pentanone (MIBK	43	8.806	8.801	0.005	96	604880	500.0	496.5	
76 Toluene	91	8.982	8.977	0.005	97	563195	250.0	258.4	
77 trans-1,3-Dichloropropene	75	9.226	9.227	-0.001	98	302697	250.0	284.4	
78 Ethyl methacrylate	69	9.287	9.287	0.000	93	290626	250.0	248.6	
79 1,1,2-Trichloroethane	97	9.420	9.421	-0.001	95	153191	250.0	252.0	
80 Tetrachloroethene	164	9.493	9.494	-0.001	94	111456	250.0	244.2	
81 1,3-Dichloropropane	76	9.579	9.579	0.000	99	286043	250.0	242.5	
82 2-Hexanone	43	9.633	9.634	-0.001	98	431038	500.0	487.1	
84 Chlorodibromomethane	129	9.798	9.798	0.000	90	163369	250.0	288.8	
85 Ethylene Dibromide	107	9.907	9.908	-0.001	99	188259	250.0	268.9	
87 Chlorobenzene	112	10.394	10.395	-0.001	89	468810	250.0	289.4	
89 1,1,1,2-Tetrachloroethane	131	10.485	10.486	-0.001	89	143809	250.0	278.9	
90 Ethylbenzene	106	10.491	10.492	-0.001	98	207041	250.0	254.1	
91 m-Xylene & p-Xylene	106	10.619	10.620	-0.001	98	273207	250.0	279.4	
92 o-Xylene	106	11.002	11.003	-0.001	97	283689	250.0	260.3	
93 Styrene	104	11.026	11.021	0.005	93	431172	250.0	245.3	
94 Bromoform	173	11.209	11.210	-0.001	96	121988	250.0	321.0	
97 Isopropylbenzene	105	11.367	11.368	-0.001	98	615261	250.0	247.8	
100 Bromobenzene	156	11.683	11.684	-0.001	97	191384	250.0	282.5	
99 1,1,2,2-Tetrachloroethane	83	11.689	11.690	-0.001	96	238819	250.0	275.4	
102 trans-1,4-Dichloro-2-buten	53	11.720	11.721	-0.001	87	91845	250.0	309.8	
101 1,2,3-Trichloropropane	110	11.744	11.739	0.005	89	78358	250.0	266.0	
103 N-Propylbenzene	120	11.787	11.788	-0.001	98	147810	250.0	271.5	
104 2-Chlorotoluene	126	11.878	11.879	-0.001	94	143489	250.0	276.9	
106 1,3,5-Trimethylbenzene	105	11.969	11.970	-0.001	93	498791	250.0	262.5	
107 4-Chlorotoluene	126	12.000	11.995	0.005	100	137981	250.0	262.6	
108 tert-Butylbenzene	119	12.280	12.280	0.000	93	414092	250.0	275.7	
110 1,2,4-Trimethylbenzene	105	12.340	12.341	-0.001	99	499192	250.0	252.9	
112 sec-Butylbenzene	105	12.505	12.506	-0.001	96	522151	250.0	266.2	
113 1,3-Dichlorobenzene	146	12.626	12.627	-0.001	94	264891	250.0	261.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.663	12.664	-0.001	96	398348	250.0	257.2	
115 1,4-Dichlorobenzene	146	12.730	12.731	-0.001	91	292158	250.0	297.0	
120 n-Butylbenzene	91	13.070	13.071	-0.001	96	363366	250.0	267.0	
121 1,2-Dichlorobenzene	146	13.089	13.084	0.005	93	250083	250.0	262.2	
122 1,2-Dibromo-3-Chloropropan	157	13.880	13.880	0.000	77	51422	250.0	251.3	
126 1,2,4-Trichlorobenzene	180	14.701	14.702	-0.001	94	113308	250.0	282.2	
127 Hexachlorobutadiene	225	14.847	14.842	0.005	95	49775	250.0	332.2	
128 Naphthalene	128	14.962	14.963	-0.001	98	329868	250.0	263.6	
129 1,2,3-Trichlorobenzene	180	15.187	15.188	-0.001	94	70577	250.0	315.1	
S 133 Xylenes, Total	106				0		500.0	539.7	
S 134 1,2-Dichloroethene, Total	96				0		500.0	485.2	
S 135 1,3-Dichloropropene, Total	1				0		500.0	578.9	

Reagents:

VOA8260SURR_00069	Amount Added:	10.00	Units: uL
VOA8260VOAPRI_00253	Amount Added:	10.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL
voaWKetmix1st_00003	Amount Added:	10.00	Units: uL

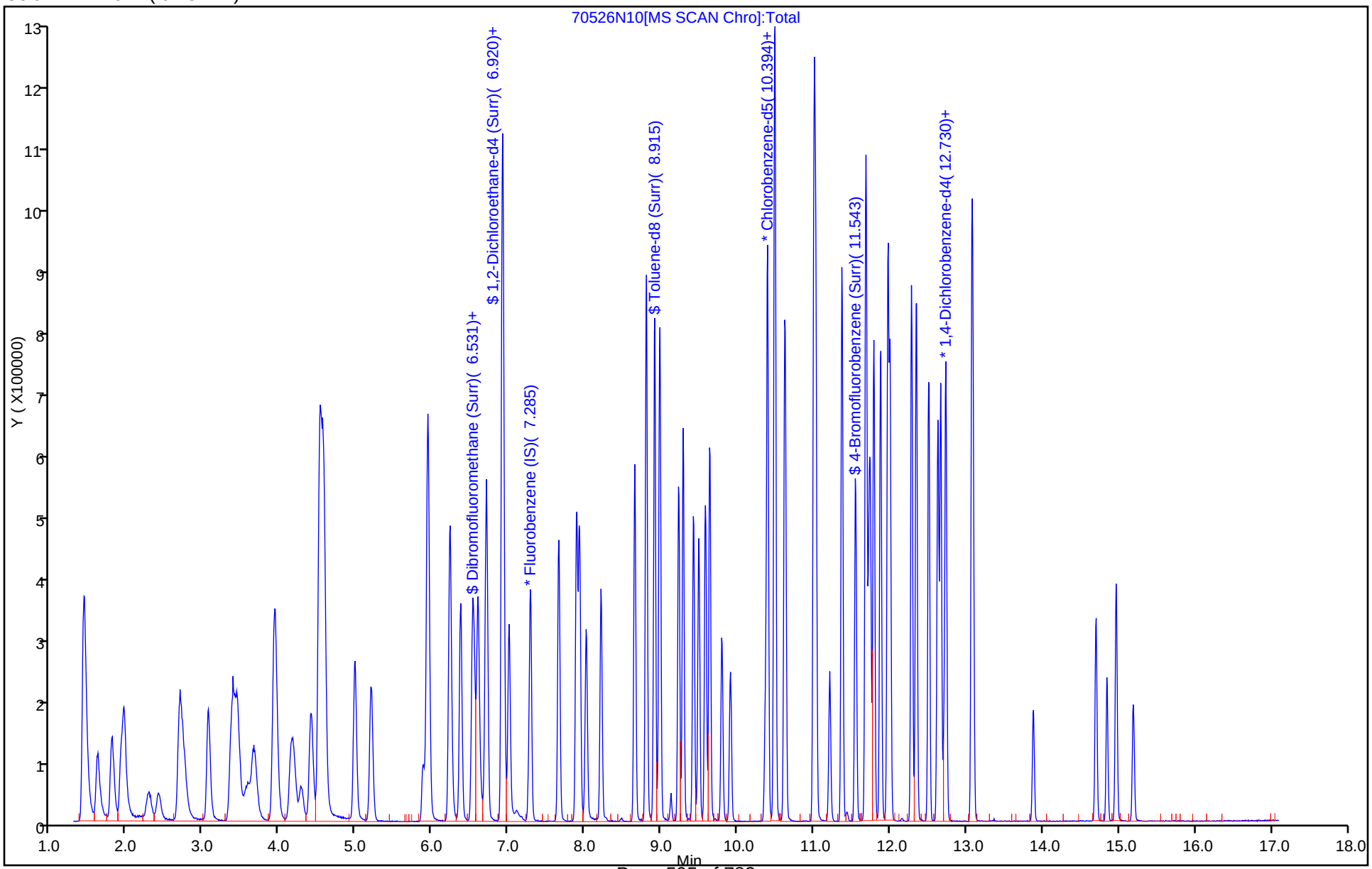
Report Date: 27-May-2017 10:44:03 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Injection Date:	26-May-2017 18:04:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP7	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.: 180-71952-1

SDG No.:

Lab Sample ID: ICV 180-213537/21 Calibration Date: 06/08/2017 13:42

Instrument ID: CHHP5 Calib Start Date: 06/08/2017 10:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/08/2017 12:55

Lab File ID: 50608D21.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
Isopropyl alcohol	Lin1		0.0182	0.0100	93.1	100	-6.9	30.0
Acetonitrile	Ave	0.0630	0.0652	0.0100	103	100	3.5	30.0
Isopropyl ether	Ave	1.397	1.405	0.0100	10.1	10.0	0.6	30.0
Chloroprene	Ave	0.5573	0.4808	0.0100	8.63	10.0	-13.7	30.0
Tert-butyl ethyl ether	Ave	1.197	1.166	0.0100	9.74	10.0	-2.6	30.0
Ethyl acetate	Ave	0.4851	0.4802	0.0100	19.8	20.0	-1.0	30.0
Propionitrile	Ave	0.0666	0.0723	0.0100	108	100	8.5	30.0
Methacrylonitrile	Ave	0.2860	0.2908	0.0100	102	100	1.7	30.0
Isooctane	Lin2		0.4595	0.0100	7.00	10.0	-30.0	30.0
Tert-amyl methyl ether	Ave	1.106	1.116	0.0100	10.1	10.0	0.9	30.0
n-Butanol	Ave	0.0121	0.0116	0.0100	239	250	-4.3	30.0
Ethyl acrylate	Ave	2.526	2.328	0.0100	9.21	10.0	-7.9	30.0
Methyl methacrylate	Ave	0.3011	0.2890	0.0100	19.2	20.0	-4.0	30.0
n-Butyl acetate	Ave	3.317	3.044	0.0100	9.17	10.0	-8.3	30.0
Cyclohexanone	Ave	0.1077	0.0632	0.0100	117	200	-41.3*	30.0
1,2,3-Trimethylbenzene	Ave	3.357	3.392	0.0100	10.1	10.0	1.1	30.0
Benzyl chloride	Ave	1.985	1.701	0.0100	8.57	10.0	-14.3	30.0
1,3,5-Trichlorobenzene	Ave	1.035	0.9910	0.0100	9.57	10.0	-4.3	30.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D21.D
Lims ID: ICV Appix
Client ID:
Sample Type: ICV
Inject. Date: 08-Jun-2017 13:42:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017092-021
Misc. Info.: ICV APPIX
Operator ID: 034635 Instrument ID: CHHP5
Sublist:

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Jun-2017 03:52:30 Calib Date: 08-Jun-2017 12:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bungardf Date: 09-Jun-2017 03:51:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.337	4.335	0.002	0	184072	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.335	0.001	98	340635	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.431	0.001	88	86815	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.780	12.779	0.001	97	123546	50.0	50.0	
27 Isopropyl alcohol	45	3.795	3.794	0.001	99	62058	500.0	465.5	M
29 Acetonitrile	41	3.953	3.952	0.001	100	221956	500.0	517.5	
41 Isopropyl ether	45	5.353	5.351	0.001	94	478581	50.0	50.3	
39 2-Chloro-1,3-butadiene	53	5.359	5.357	0.002	58	163779	50.0	43.1	
42 Tert-butyl ethyl ether	59	5.827	5.826	0.001	98	397307	50.0	48.7	
47 Propionitrile	54	6.089	6.087	0.002	67	246198	500.0	542.3	
48 Ethyl acetate	43	6.089	6.087	0.002	99	327175	100.0	99.0	
50 Methacrylonitrile	41	6.265	6.264	0.001	96	990717	500.0	508.5	
151 Isooctane	57	7.147	7.146	0.001	95	156520	50.0	35.0	
61 Tert-amyl methyl ether	73	7.165	7.170	-0.005	96	380135	50.0	50.5	
63 n-Butanol	56	7.682	7.681	0.001	92	98542	1250.0	1196.3	
65 Ethyl acrylate	55	7.847	7.840	0.007	99	202091	50.0	46.1	
69 Methyl methacrylate	69	8.078	8.077	0.001	96	196886	100.0	96.0	
83 n-Butyl acetate	43	9.830	9.829	0.001	98	264228	50.0	45.9	
98 Cyclohexanone	55	11.533	11.538	-0.005	95	109653	1000.0	586.5	
117 1,2,3-Trimethylbenzene	105	12.829	12.828	0.001	98	419120	50.0	50.5	
119 Benzyl chloride	91	12.914	12.913	0.001	99	210114	50.0	42.8	
124 1,3,5-Trichlorobenzene	180	14.137	14.136	0.001	96	122430	50.0	47.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

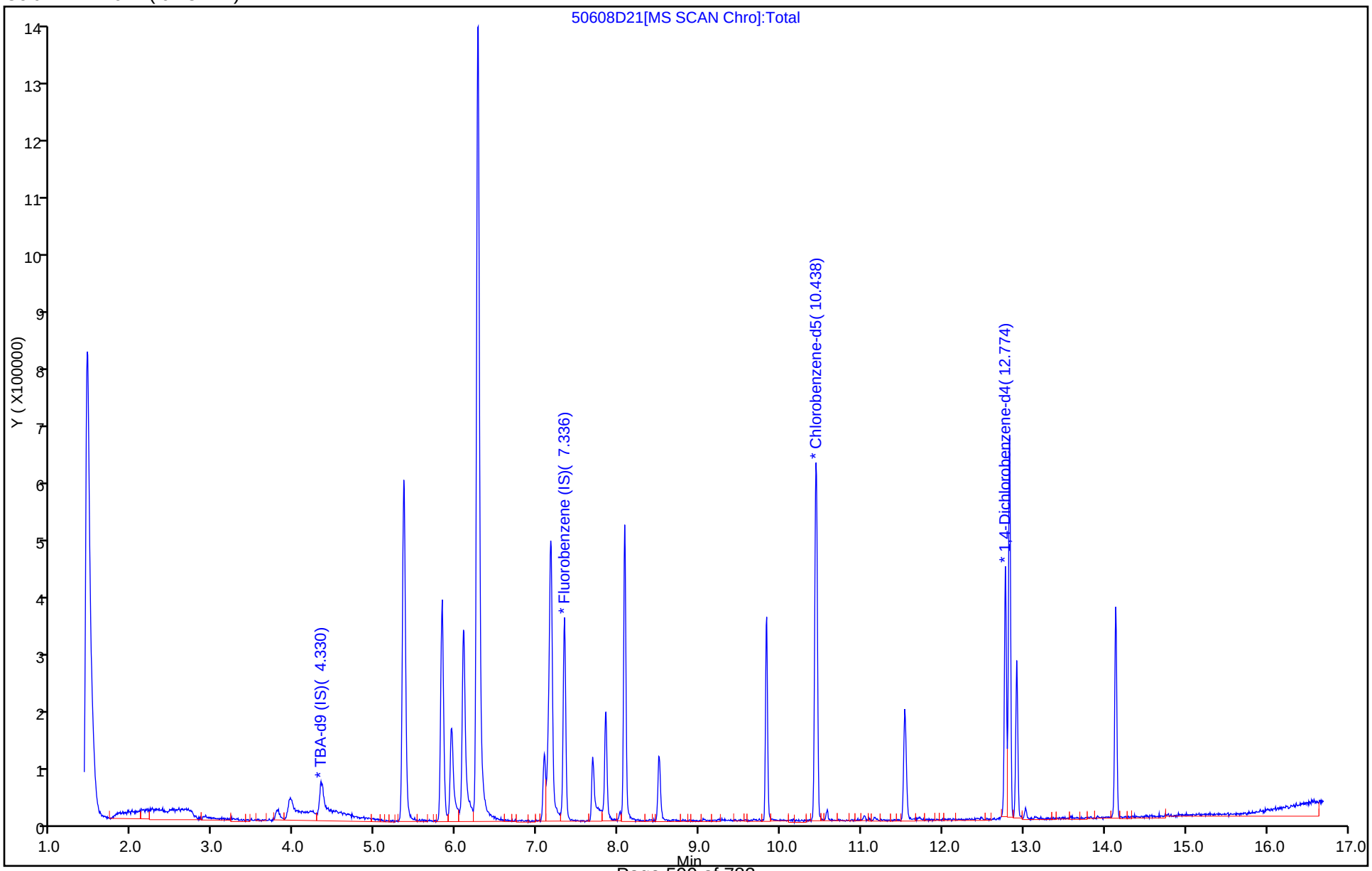
voaWlist2 2nd_00008	Amount Added:	2.00	Units: uL
VOA8260INT_00070	Amount Added:	2.00	Units: uL

Report Date: 09-Jun-2017 03:52:33 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D21.D				
Injection Date:	08-Jun-2017 13:42:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	ICV Appix			Worklist Smp#:	21
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

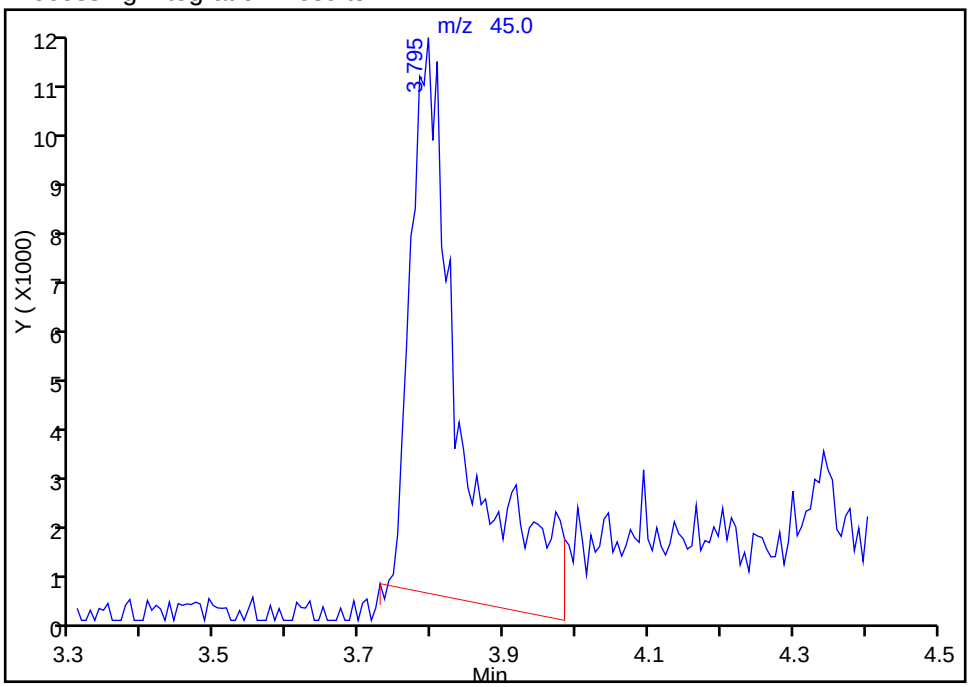
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D21.D				
Injection Date:	08-Jun-2017 13:42:30	Instrument ID:	CHHP5		
Lims ID:	ICV Appix				
Client ID:					
Operator ID:	034635	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

27 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

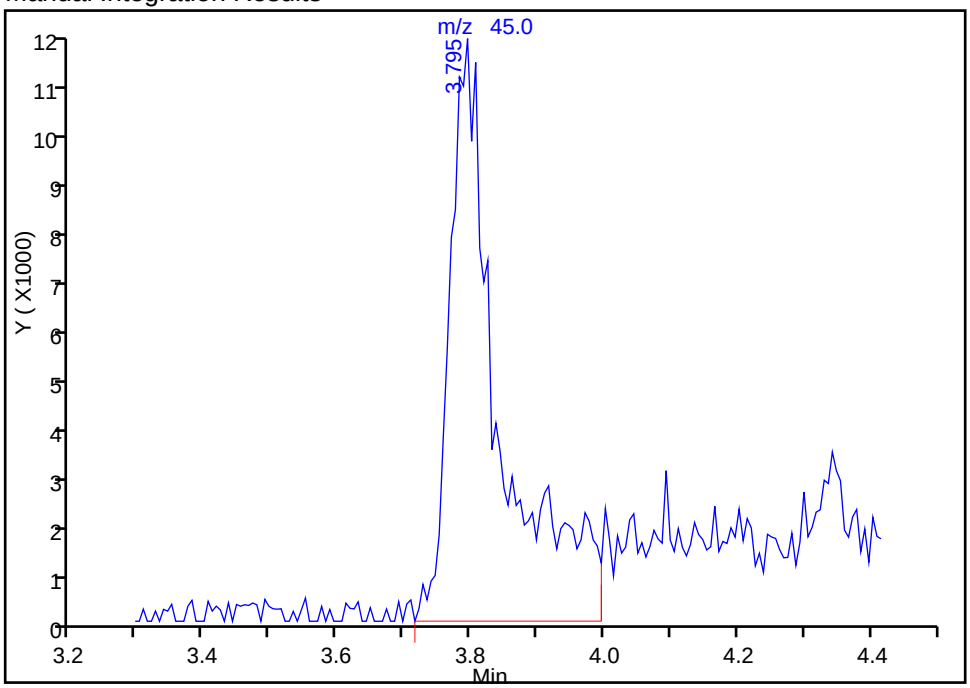
Processing Integration Results

RT: 3.80
Area: 55118
Amount: 438.6262
Amount Units: ng



Manual Integration Results

RT: 3.80
Area: 62058
Amount: 465.5188
Amount Units: ng



Reviewer: bungardf, 09-Jun-2017 03:50:46

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 50727D12.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	0.2907	0.2809	0.1000	9.66	10.0	-3.4	30.0
Chloromethane	Ave	0.2922	0.3027	0.1000	10.4	10.0	3.6	30.0
Vinyl chloride	Ave	0.2965	0.3065	0.1000	10.3	10.0	3.3	30.0
1,3-Butadiene	Ave	0.2694	0.2831	0.0100	10.5	10.0	5.1	30.0
Bromomethane	Ave	0.1402	0.1608	0.0500	11.5	10.0	14.7	30.0
Chloroethane	Ave	0.1630	0.1820	0.0500	11.2	10.0	11.6	30.0
Trichlorofluoromethane	Ave	0.3643	0.3577	0.1000	9.82	10.0	-1.8	30.0
Ethyl ether	Ave	0.2370	0.2357	0.0100	9.95	10.0	-0.5	30.0
Acrolein	Ave	0.0597	0.0654	0.0100	32.9	30.0	9.6	30.0
1,1-Dichloroethene	Ave	0.2448	0.2409	0.1000	9.84	10.0	-1.6	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2607	0.1000	9.70	10.0	-3.0	30.0
Acetone	Ave	0.1308	0.1347	0.0500	20.6	20.0	3.0	30.0
Iodomethane	Ave	0.3845	0.3883	0.0100	10.1	10.0	1.0	30.0
Carbon disulfide	Ave	0.5372	0.6133	0.1000	11.4	10.0	14.2	30.0
Allyl chloride	Ave	0.1582	0.1602	0.0100	10.1	10.0	1.2	30.0
Methyl acetate	Ave	0.2589	0.2689	0.1000	20.8	20.0	3.9	30.0
Methylene Chloride	Lin2		0.3063	0.1000	10.1	10.0	1.1	30.0
tert-Butyl alcohol	Ave	1.183	1.166	0.0100	98.6	100	-1.4	30.0
Acrylonitrile	Ave	0.1259	0.1353	0.0100	107	100	7.4	30.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2857	0.1000	10.2	10.0	2.4	30.0
Methyl tert-butyl ether	Ave	0.7479	0.7713	0.1000	10.3	10.0	3.1	30.0
Hexane	Ave	0.3580	0.3468	0.0100	9.69	10.0	-3.1	30.0
1,1-Dichloroethane	Ave	0.4850	0.4829	0.2000	9.96	10.0	-0.4	30.0
Vinyl acetate	Ave	0.4932	0.4943	0.0100	10.0	10.0	0.2	30.0
2,2-Dichloropropane	Ave	0.0617	0.0634	0.0100	10.3	10.0	2.7	30.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3224	0.1000	10.1	10.0	1.1	30.0
2-Butanone (MEK)	Ave	0.1861	0.1911	0.0500	20.5	20.0	2.7	30.0
Bromochloromethane	Ave	0.1418	0.1460	0.0100	10.3	10.0	2.9	30.0
Tetrahydrofuran	Ave	0.1084	0.1087	0.0100	20.1	20.0	0.3	30.0
Chloroform	Ave	0.4843	0.4755	0.2000	9.82	10.0	-1.8	30.0
1,1,1-Trichloroethane	Ave	0.3666	0.3550	0.1000	9.69	10.0	-3.1	30.0
Cyclohexane	Ave	0.4524	0.4637	0.1000	10.3	10.0	2.5	30.0
Carbon tetrachloride	Ave	0.3051	0.2952	0.1000	9.68	10.0	-3.2	30.0
1,1-Dichloropropene	Ave	0.3961	0.3983	0.0100	10.1	10.0	0.6	30.0
Isobutyl alcohol	Ave	0.0099	0.0110	0.0100	276	250	10.5	30.0
Benzene	Ave	1.216	1.247	0.5000	10.3	10.0	2.5	30.0
1,2-Dichloroethane	Ave	0.3544	0.3374	0.1000	9.52	10.0	-4.8	30.0
n-Heptane	Ave	0.2863	0.2915	0.0100	10.2	10.0	1.8	30.0
Trichloroethene	Ave	0.3059	0.3115	0.2000	10.2	10.0	1.8	30.0
Methylcyclohexane	Ave	0.4626	0.4634	0.1000	10.0	10.0	0.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 50727D12.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	0.2831	0.2786	0.1000	9.84	10.0	-1.6	30.0
1,4-Dioxane	Ave	0.0029	0.0039*	0.0100	273	200	36.5*	30.0
Dibromomethane	Ave	0.1659	0.1706	0.0100	10.3	10.0	2.8	30.0
Bromodichloromethane	Ave	0.3256	0.3222	0.2000	9.89	10.0	-1.1	30.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.2060	0.0100	20.2	20.0	1.1	30.0
cis-1,3-Dichloropropene	Ave	0.3955	0.4032	0.2000	10.2	10.0	2.0	30.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.431	0.1000	22.3	20.0	11.6	30.0
Toluene	Ave	4.986	5.301	0.4000	10.6	10.0	6.3	30.0
trans-1,3-Dichloropropene	Ave	1.357	1.447	0.1000	10.7	10.0	6.7	30.0
Ethyl methacrylate	Ave	1.636	1.767	0.0100	10.8	10.0	8.0	30.0
1,1,2-Trichloroethane	Ave	1.039	1.083	0.1000	10.4	10.0	4.3	30.0
Tetrachloroethene	Ave	0.9508	0.9658	0.2000	10.2	10.0	1.6	30.0
1,3-Dichloropropane	Ave	1.920	1.986	0.0100	10.3	10.0	3.4	30.0
2-Hexanone	Ave	0.9836	1.087	0.1000	22.1	20.0	10.5	30.0
Dibromochloromethane	Ave	0.8779	0.9020	0.1000	10.3	10.0	2.7	30.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.107	0.1000	10.4	10.0	4.0	30.0
3-Chlorobenzotrifluoride	Ave	1.718	1.530	0.0100	8.91	10.0	-10.9	30.0
Chlorobenzene	Ave	3.246	3.396	0.5000	10.5	10.0	4.6	30.0
4-Chlorobenzotrifluoride	Ave	1.586	1.438	0.0100	9.07	10.0	-9.3	30.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.042	0.0100	10.1	10.0	1.0	30.0
Ethylbenzene	Ave	1.812	1.923	0.1000	10.6	10.0	6.1	30.0
m-Xylene & p-Xylene	Ave	2.214	2.327	0.1000	10.5	10.0	5.1	30.0
o-Xylene	Ave	2.110	2.264	0.3000	10.7	10.0	7.3	30.0
Styrene	Ave	3.571	3.839	0.3000	10.7	10.0	7.5	30.0
Bromoform	Ave	0.5456	0.5467	0.1000	10.0	10.0	0.2	30.0
2-Chlorobenzotrifluoride	Ave	1.644	1.561	0.0100	9.49	10.0	-5.1	30.0
Isopropylbenzene	Ave	5.150	5.633	0.1000	10.9	10.0	9.4	30.0
Bromobenzene	Ave	0.9704	1.028	0.0100	10.6	10.0	5.9	30.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.643	0.3000	10.7	10.0	6.9	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3062	0.0100	10.5	10.0	4.6	30.0
1,2,3-Trichloropropane	Ave	0.4005	0.4174	0.0100	10.4	10.0	4.2	30.0
N-Propylbenzene	Ave	1.109	1.140	0.0100	10.3	10.0	2.8	30.0
2-Chlorotoluene	Ave	0.9585	0.9846	0.0100	10.3	10.0	2.7	30.0
3-Chlorotoluene	Ave	1.043	1.029	0.0100	9.87	10.0	-1.3	30.0
1,3,5-Trimethylbenzene	Ave	3.173	3.384	0.0100	10.7	10.0	6.7	30.0
4-Chlorotoluene	Ave	1.035	1.051	0.0100	10.2	10.0	1.6	30.0
tert-Butylbenzene	Ave	2.653	2.825	0.0100	10.6	10.0	6.5	30.0
1,2,4-Trimethylbenzene	Ave	3.226	3.440	0.0100	10.7	10.0	6.6	30.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7645	0.0100	9.46	10.0	-5.4	30.0
sec-Butylbenzene	Ave	3.701	3.952	0.0100	10.7	10.0	6.8	30.0
1,3-Dichlorobenzene	Ave	1.734	1.823	0.6000	10.5	10.0	5.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 50727D12.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	3.083	3.344	0.0100	10.8	10.0	8.5	30.0
1,4-Dichlorobenzene	Ave	1.780	1.855	0.5000	10.4	10.0	4.2	30.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7245	0.0100	9.63	10.0	-3.7	30.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.7622	0.0100	9.38	10.0	-6.2	30.0
n-Butylbenzene	Ave	2.514	2.754	0.0100	11.0	10.0	9.5	30.0
1,2-Dichlorobenzene	Ave	1.653	1.681	0.4000	10.2	10.0	1.7	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1926	0.0500	10.5	10.0	5.0	30.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.153	0.0100	33.0	30.0	10.0	30.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.253	0.0100	23.1	20.0	15.5	30.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.8934	0.2000	11.8	10.0	18.1	30.0
Hexachlorobutadiene	Ave	0.2767	0.3458	0.0100	12.5	10.0	25.0	30.0
Naphthalene	Ave	2.576	3.238	0.0100	12.6	10.0	25.7	30.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.8533	0.0100	12.4	10.0	23.5	30.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.4854	0.0100	14.8	10.0	47.8*	30.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.4727	0.0100	15.5	10.0	54.7*	30.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2305		9.58	10.0	-4.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2720		9.27	10.0	-7.3	30.0
Toluene-d8 (Surr)	Ave	3.979	4.006		10.1	10.0	0.7	30.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.483		10.3	10.0	3.2	30.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D12.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 27-Jul-2017 05:03:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-012
Misc. Info.: ICV
Operator ID: 034635 Instrument ID: CHHP5
Sublist:

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 05:29:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.323	-0.013	0	309556	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	616746	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	146808	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.779	12.773	0.006	95	194967	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	92	142161	50.0	47.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	167744	50.0	46.3	
$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	588062	50.0	50.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	86	217745	50.0	51.6	
11 Dichlorodifluoromethane	85	1.658	1.646	0.012	98	173225	50.0	48.3	
12 Chloromethane	50	1.798	1.804	-0.006	99	186658	50.0	51.8	
13 Vinyl chloride	62	1.950	1.944	0.006	97	189015	50.0	51.7	
14 Butadiene	39	1.962	1.969	-0.006	95	174612	50.0	52.6	
15 Bromomethane	94	2.285	2.254	0.031	90	99140	50.0	57.3	
16 Chloroethane	64	2.437	2.419	0.018	98	112216	50.0	55.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	98	265813	50.0	52.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	98	220607	50.0	49.1	
20 Ethyl ether	59	3.075	3.076	-0.001	89	145366	50.0	49.7	
21 Acrolein	56	3.264	3.252	0.012	96	121056	150.0	164.3	
22 1,1-Dichloroethene	96	3.380	3.368	0.012	97	148564	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.459	3.441	0.018	93	160786	50.0	48.5	
24 Acetone	43	3.483	3.477	0.006	100	166171	100.0	103.0	
25 Iodomethane	142	3.574	3.562	0.012	96	239509	50.0	50.5	
26 Carbon disulfide	76	3.653	3.648	0.005	98	378238	50.0	57.1	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	92	98775	50.0	50.6	
30 Methyl acetate	43	3.970	3.976	-0.006	96	331711	100.0	103.9	
31 Methylene Chloride	84	4.170	4.165	0.005	87	188888	50.0	50.5	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	94	180509	500.0	493.1	
33 Acrylonitrile	53	4.554	4.554	0.000	99	834262	500.0	537.2	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	97	176224	50.0	51.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	475667	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	94	213877	50.0	48.4	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	297817	50.0	49.8	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	304875	50.0	50.1	
44 2,2-Dichloropropane	97	5.965	5.959	0.006	72	39126	50.0	51.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	198830	50.0	50.5	
46 2-Butanone (MEK)	43	5.977	5.978	-0.001	98	235673	100.0	102.7	
49 Chlorobromomethane	128	6.251	6.245	0.006	96	90022	50.0	51.5	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	134047	100.0	100.3	
52 Chloroform	83	6.391	6.391	0.000	92	293244	50.0	49.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	218969	50.0	48.4	
54 Cyclohexane	56	6.616	6.622	-0.006	90	285972	50.0	51.3	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	78	182071	50.0	48.4	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	97	245628	50.0	50.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	54	169537	1250.0	1381.5	
58 Benzene	78	6.951	6.951	0.000	97	768845	50.0	51.3	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	208088	50.0	47.6	
62 n-Heptane	43	7.316	7.316	0.000	87	179790	50.0	50.9	
64 Trichloroethene	130	7.687	7.687	0.000	98	192140	50.0	50.9	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	285824	50.0	50.1	
67 1,2-Dichloropropane	63	7.954	7.961	-0.007	94	171825	50.0	49.2	
68 Dibromomethane	93	8.046	8.046	0.000	97	105219	50.0	51.4	
70 1,4-Dioxane	88	8.046	8.052	-0.006	43	48464	1000.0	1364.9	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	198702	50.0	49.5	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	254051	100.0	101.1	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	97	248692	50.0	51.0	
75 4-Methyl-2-pentanone (MIBK	43	8.843	8.843	0.000	95	420246	100.0	111.6	
76 Toluene	91	9.019	9.019	0.000	99	778258	50.0	53.2	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	94	212503	50.0	53.4	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	259430	50.0	54.0	
79 1,1,2-Trichloroethane	97	9.463	9.457	0.006	90	158965	50.0	52.1	
80 Tetrachloroethene	164	9.530	9.530	0.000	98	141786	50.0	50.8	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	88	291510	50.0	51.7	
82 2-Hexanone	43	9.676	9.682	-0.006	95	319182	100.0	110.5	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	132419	50.0	51.4	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	162562	50.0	52.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	224643	50.0	44.5	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	498591	50.0	52.3	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	95	211115	50.0	45.3	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	93	153003	50.0	50.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	282349	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	341607	50.0	52.5	
92 o-Xylene	106	11.051	11.051	0.000	95	332342	50.0	53.7	
93 Styrene	104	11.075	11.069	0.006	94	563532	50.0	53.7	
94 Bromoform	173	11.258	11.252	0.006	96	80252	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	229108	50.0	47.5	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	826910	50.0	54.7	
100 Bromobenzene	156	11.738	11.739	-0.001	94	200399	50.0	53.0	
99 1,1,2,2-Tetrachloroethane	83	11.744	11.745	-0.001	93	241229	50.0	53.4	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	83	59701	50.0	52.3	
101 1,2,3-Trichloropropane	110	11.799	11.793	0.006	85	81373	50.0	52.1	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	222347	50.0	51.4	
104 2-Chlorotoluene	126	11.933	11.927	0.006	97	191963	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.000	11.994	0.006	96	200650	50.0	49.4	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	659799	50.0	53.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	204976	50.0	50.8	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	550715	50.0	53.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	670609	50.0	53.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	98	149049	50.0	47.3	
112 sec-Butylbenzene	105	12.578	12.572	0.006	94	770511	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.693	12.688	0.005	97	355343	50.0	52.6	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	651895	50.0	54.2	
115 1,4-Dichlorobenzene	146	12.803	12.797	0.006	96	361638	50.0	52.1	
116 2,4-Dichloro-1-(triflourom	214	12.833	12.828	0.005	96	141250	50.0	48.1	
118 2,5-Dichlorobenzotrifluori	214	12.876	12.870	0.006	0	148594	50.0	46.9	
120 n-Butylbenzene	91	13.156	13.150	0.006	97	536973	50.0	54.8	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	96	327689	50.0	50.8	
122 1,2-Dibromo-3-Chloropropan	75	13.983	13.971	0.012	81	37554	50.0	52.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.129	14.117	0.012	0	674227	150.0	164.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.567	14.555	0.012	0	488395	100.0	115.5	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	95	174187	50.0	59.1	
127 Hexachlorobutadiene	225	15.011	14.993	0.018	98	67422	50.0	62.5	
128 Naphthalene	128	15.127	15.103	0.024	97	631232	50.0	62.8	
129 1,2,3-Trichlorobenzene	180	15.370	15.346	0.024	95	166357	50.0	61.8	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	94632	50.0	73.9	
130 2,3,6-Trichlorotoluene	159	16.343	16.307	0.036	96	92162	50.0	77.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	101.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	104.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWKet2ndRes_00021	Amount Added:	2.00	Units: uL	
voaWAcro2ndRe_00012	Amount Added:	6.00	Units: uL	
voaWva2ndRete_00003	Amount Added:	2.00	Units: uL	
voaWee2ndRest_00014	Amount Added:	2.00	Units: uL	
voaW2cleve2nd_00013	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00255	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

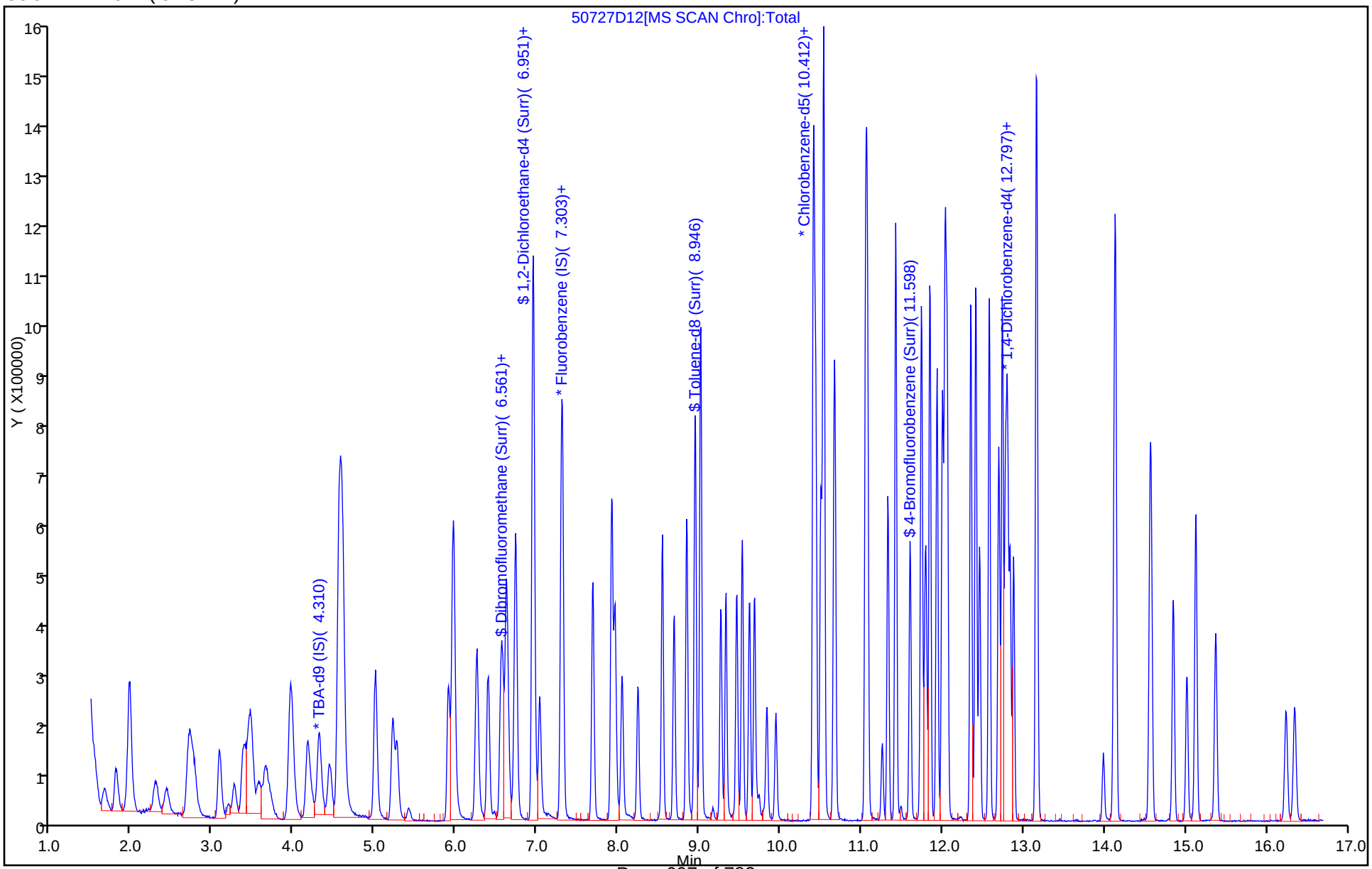
Report Date: 28-Jul-2017 01:05:11 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D12.D

Injection Date:	27-Jul-2017 05:03:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	ICV			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228418/2 Calibration Date: 11/08/2017 20:39

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51108D02.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	0.2907	0.3215	0.1000	11.1	10.0	10.6	20.0
Chloromethane	Ave	0.2922	0.3462	0.1000	11.8	10.0	18.5	20.0
Vinyl chloride	Ave	0.2965	0.2896	0.1000	9.77	10.0	-2.3	20.0
1,3-Butadiene	Ave	0.2694	0.3360	0.0100	12.5	10.0	24.7*	20.0
Bromomethane	Ave	0.1402	0.1146	0.0500	8.17	10.0	-18.3	20.0
Chloroethane	Ave	0.1630	0.1781	0.0500	10.9	10.0	9.3	20.0
Trichlorofluoromethane	Ave	0.3643	0.3685	0.1000	10.1	10.0	1.1	20.0
Ethyl ether	Ave	0.2370	0.2870	0.0100	12.1	10.0	21.1*	20.0
Acrolein	Ave	0.0597	0.0564	0.0100	28.4	30.0	-5.5	20.0
1,1-Dichloroethene	Ave	0.2448	0.2058	0.1000	8.41	10.0	-15.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2372	0.1000	8.83	10.0	-11.7	20.0
Acetone	Ave	0.1308	0.2051	0.0500	31.4	20.0	56.9*	20.0
Iodomethane	Ave	0.3845	0.3335	0.0100	8.68	10.0	-13.2	20.0
Carbon disulfide	Ave	0.5372	0.4567	0.1000	8.50	10.0	-15.0	20.0
Allyl chloride	Ave	0.1582	0.1215	0.0100	7.68	10.0	-23.2*	20.0
Methyl acetate	Ave	0.2589	0.3394	0.1000	26.2	20.0	31.1*	20.0
Methylene Chloride	Lin2		0.2812	0.1000	9.23	10.0	-7.7	20.0
tert-Butyl alcohol	Ave	1.183	1.314	0.0100	111	100	11.1	20.0
Acrylonitrile	Ave	0.1259	0.1622	0.0100	129	100	28.8*	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2317	0.1000	8.30	10.0	-17.0	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7425	0.1000	9.93	10.0	-0.7	20.0
Hexane	Ave	0.3580	0.3073	0.0100	8.58	10.0	-14.2	20.0
1,1-Dichloroethane	Ave	0.4850	0.4349	0.2000	8.97	10.0	-10.3	20.0
Vinyl acetate	Ave	0.4932	0.6414	0.0100	13.0	10.0	30.1*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0642	0.0100	10.4	10.0	4.0	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2669	0.1000	8.37	10.0	-16.3	20.0
2-Butanone (MEK)	Ave	0.1861	0.2299	0.0500	24.7	20.0	23.5*	20.0
Bromochloromethane	Ave	0.1418	0.1355	0.0100	9.56	10.0	-4.4	20.0
Tetrahydrofuran	Ave	0.1084	0.1163	0.0100	21.5	20.0	7.3	20.0
Chloroform	Ave	0.4843	0.4090	0.2000	8.45	10.0	-15.5	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3044	0.1000	8.30	10.0	-17.0	20.0
Cyclohexane	Ave	0.4524	0.3839	0.1000	8.49	10.0	-15.1	20.0
Carbon tetrachloride	Ave	0.3051	0.2565	0.1000	8.41	10.0	-15.9	20.0
1,1-Dichloropropene	Ave	0.3961	0.2985	0.0100	7.54	10.0	-24.6*	20.0
Isobutyl alcohol	Ave	0.0099	0.0120	0.0100	302	250	20.6*	20.0
Benzene	Ave	1.216	1.014	0.5000	8.34	10.0	-16.6	20.0
1,2-Dichloroethane	Ave	0.3544	0.3707	0.1000	10.5	10.0	4.6	20.0
n-Heptane	Ave	0.2863	0.2832	0.0100	9.89	10.0	-1.1	20.0
Trichloroethene	Ave	0.3059	0.2205	0.2000	7.21	10.0	-27.9*	20.0
Methylcyclohexane	Ave	0.4626	0.3151	0.1000	6.81	10.0	-31.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228418/2 Calibration Date: 11/08/2017 20:39

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51108D02.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	0.2831	0.2495	0.1000	8.81	10.0	-11.9	20.0
1,4-Dioxane	Ave	0.0029	0.0030*	0.0100	205	200	2.7	20.0
Dibromomethane	Ave	0.1659	0.1638	0.0100	9.88	10.0	-1.2	20.0
Bromodichloromethane	Ave	0.3256	0.2750	0.2000	8.45	10.0	-15.5	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.2004	0.0100	19.7	20.0	-1.6	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3262	0.2000	8.25	10.0	-17.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.332	0.1000	20.8	20.0	3.9	20.0
Toluene	Ave	4.986	4.472	0.4000	8.97	10.0	-10.3	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.317	0.1000	9.71	10.0	-2.9	20.0
Ethyl methacrylate	Ave	1.636	1.312	0.0100	8.02	10.0	-19.8	20.0
1,1,2-Trichloroethane	Ave	1.039	1.071	0.1000	10.3	10.0	3.1	20.0
Tetrachloroethene	Ave	0.9508	0.7267	0.2000	7.64	10.0	-23.6*	20.0
1,3-Dichloropropane	Ave	1.920	1.829	0.0100	9.53	10.0	-4.7	20.0
2-Hexanone	Ave	0.9836	1.091	0.1000	22.2	20.0	10.9	20.0
Dibromochloromethane	Ave	0.8779	0.8276	0.1000	9.43	10.0	-5.7	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.027	0.1000	9.64	10.0	-3.6	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.670	0.0100	9.72	10.0	-2.8	20.0
Chlorobenzene	Ave	3.246	2.746	0.5000	8.46	10.0	-15.4	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.621	0.0100	10.2	10.0	2.2	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	0.9480	0.0100	9.19	10.0	-8.1	20.0
Ethylbenzene	Ave	1.812	1.424	0.1000	7.86	10.0	-21.4*	20.0
m-Xylene & p-Xylene	Ave	2.214	1.786	0.1000	8.07	10.0	-19.3	20.0
o-Xylene	Ave	2.110	1.723	0.3000	8.17	10.0	-18.3	20.0
Styrene	Ave	3.571	2.987	0.3000	8.37	10.0	-16.3	20.0
Bromoform	Ave	0.5456	0.4661	0.1000	8.54	10.0	-14.6	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.626	0.0100	9.89	10.0	-1.1	20.0
Isopropylbenzene	Ave	5.150	3.941	0.1000	7.65	10.0	-23.5*	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.557	0.3000	10.1	10.0	1.3	20.0
Bromobenzene	Ave	0.9704	0.7875	0.0100	8.12	10.0	-18.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3754	0.0100	12.8	10.0	28.3*	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3752	0.0100	9.37	10.0	-6.3	20.0
N-Propylbenzene	Ave	1.109	0.8293	0.0100	7.48	10.0	-25.2*	20.0
2-Chlorotoluene	Ave	0.9585	0.7601	0.0100	7.93	10.0	-20.7*	20.0
3-Chlorotoluene	Ave	1.043	1.071	0.0100	10.3	10.0	2.7	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.585	0.0100	8.15	10.0	-18.5	20.0
4-Chlorotoluene	Ave	1.035	0.8330	0.0100	8.05	10.0	-19.5	20.0
tert-Butylbenzene	Ave	2.653	1.873	0.0100	7.06	10.0	-29.4*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.592	0.0100	8.04	10.0	-19.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.6699	0.0100	8.29	10.0	-17.1	20.0
sec-Butylbenzene	Ave	3.701	2.685	0.0100	7.25	10.0	-27.5*	20.0
1,3-Dichlorobenzene	Ave	1.734	1.471	0.6000	8.49	10.0	-15.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228418/2 Calibration Date: 11/08/2017 20:39

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51108D02.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	3.083	2.307	0.0100	7.48	10.0	-25.2*	20.0
1,4-Dichlorobenzene	Ave	1.780	1.526	0.5000	8.57	10.0	-14.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6364	0.0100	8.46	10.0	-15.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.6858	0.0100	8.44	10.0	-15.6	20.0
n-Butylbenzene	Ave	2.514	1.834	0.0100	7.29	10.0	-27.1*	20.0
1,2-Dichlorobenzene	Ave	1.653	1.491	0.4000	9.02	10.0	-9.8	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1763	0.0500	9.61	10.0	-3.9	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.067	0.0100	30.5	30.0	1.8	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.099	0.0100	20.3	20.0	1.4	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.6131	0.2000	8.11	10.0	-18.9	20.0
Hexachlorobutadiene	Ave	0.2767	0.2137	0.0100	7.72	10.0	-22.8*	20.0
Naphthalene	Ave	2.576	2.054	0.0100	7.98	10.0	-20.2*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.5408	0.0100	7.83	10.0	-21.7*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2459	0.0100	7.49	10.0	-25.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.2309	0.0100	7.56	10.0	-24.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2312		9.61	10.0	-3.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3101		10.6	10.0	5.7	20.0
Toluene-d8 (Surr)	Ave	3.979	4.140		10.4	10.0	4.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.433		9.97	10.0	-0.3	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D02.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Nov-2017 20:39:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub29

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:47:32 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: bungardf Date: 08-Nov-2017 21:05:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.373	4.373	0.000	0	231749	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.341	0.000	97	517958	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	87	115625	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	95	160818	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.617	0.000	93	119762	50.0	48.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.982	0.000	0	160626	50.0	52.8	
$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	94	478667	50.0	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	83	165734	50.0	49.9	
11 Dichlorodifluoromethane	85	1.685	1.685	0.000	99	166506	50.0	55.3	
12 Chloromethane	50	1.886	1.886	0.000	99	179337	50.0	59.2	
13 Vinyl chloride	62	2.013	2.013	0.000	76	150008	50.0	48.8	
14 Butadiene	39	2.019	2.019	0.000	96	174052	50.0	62.4	
15 Bromomethane	94	2.342	2.342	0.000	86	59345	50.0	40.9	
16 Chloroethane	64	2.433	2.433	0.000	99	92250	50.0	54.6	
18 Trichlorofluoromethane	101	2.737	2.737	0.000	90	190852	50.0	50.6	M
17 Dichlorofluoromethane	67	2.755	2.755	0.000	98	225115	50.0	52.7	
20 Ethyl ether	59	3.126	3.126	0.000	95	148648	50.0	60.5	
21 Acrolein	56	3.309	3.309	0.000	99	87704	150.0	141.8	
22 1,1-Dichloroethene	96	3.418	3.418	0.000	96	106609	50.0	42.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.503	3.503	0.000	95	122882	50.0	44.2	
24 Acetone	43	3.528	3.528	0.000	99	212455	100.0	156.9	
25 Iodomethane	142	3.613	3.613	0.000	98	172758	50.0	43.4	
26 Carbon disulfide	76	3.716	3.716	0.000	99	236558	50.0	42.5	
28 3-Chloro-1-propene	76	4.008	4.008	0.000	90	62934	50.0	38.4	
30 Methyl acetate	43	4.026	4.026	0.000	99	351547	100.0	131.1	
31 Methylene Chloride	84	4.227	4.227	0.000	98	145643	50.0	46.1	
32 2-Methyl-2-propanol	59	4.494	4.494	0.000	97	152248	500.0	555.5	
33 Acrylonitrile	53	4.610	4.610	0.000	99	840222	500.0	644.2	
34 trans-1,2-Dichloroethene	96	4.634	4.634	0.000	95	119985	50.0	41.5	
35 Methyl tert-butyl ether	73	4.659	4.659	0.000	97	384581	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.060	5.060	0.000	95	159189	50.0	42.9	
37 1,1-Dichloroethane	63	5.273	5.273	0.000	96	225259	50.0	44.8	
38 Vinyl acetate	43	5.321	5.321	0.000	97	332224	50.0	65.0	
45 cis-1,2-Dichloroethene	96	6.009	6.009	0.000	83	138227	50.0	41.8	
44 2,2-Dichloropropane	97	6.009	6.009	0.000	61	33256	50.0	52.0	
46 2-Butanone (MEK)	43	6.021	6.021	0.000	100	238156	100.0	123.5	
49 Chlorobromomethane	128	6.295	6.295	0.000	96	70179	50.0	47.8	
51 Tetrahydrofuran	42	6.307	6.307	0.000	88	120488	100.0	107.3	
52 Chloroform	83	6.434	6.434	0.000	95	211854	50.0	42.2	
53 1,1,1-Trichloroethane	97	6.592	6.592	0.000	98	157643	50.0	41.5	
54 Cyclohexane	56	6.659	6.659	0.000	95	198847	50.0	42.4	
56 Carbon tetrachloride	117	6.769	6.769	0.000	96	132877	50.0	42.0	
55 1,1-Dichloropropene	75	6.781	6.781	0.000	92	154595	50.0	37.7	
57 Isobutyl alcohol	41	6.982	6.982	0.000	83	155421	1250.0	1508.0	
58 Benzene	78	6.994	6.994	0.000	97	525108	50.0	41.7	
59 1,2-Dichloroethane	62	7.073	7.073	0.000	97	192004	50.0	52.3	
62 n-Heptane	43	7.353	7.353	0.000	93	146697	50.0	49.5	
64 Trichloroethene	130	7.724	7.724	0.000	98	114191	50.0	36.0	
66 Methylcyclohexane	83	7.961	7.961	0.000	94	163212	50.0	34.1	
67 1,2-Dichloropropane	63	7.991	7.991	0.000	95	129226	50.0	44.1	
68 Dibromomethane	93	8.082	8.082	0.000	94	84850	50.0	49.4	
70 1,4-Dioxane	88	8.082	8.082	0.000	49	30618	1000.0	1026.7	
71 Dichlorobromomethane	83	8.277	8.277	0.000	98	142461	50.0	42.2	
73 2-Chloroethyl vinyl ether	63	8.575	8.575	0.000	92	207604	100.0	98.4	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	92	168934	50.0	41.2	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.873	0.000	99	308110	100.0	103.9	
76 Toluene	91	9.043	9.043	0.000	97	517098	50.0	44.9	
77 trans-1,3-Dichloropropene	75	9.293	9.293	0.000	98	152301	50.0	48.5	
78 Ethyl methacrylate	69	9.353	9.353	0.000	94	151663	50.0	40.1	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	91	123795	50.0	51.5	
80 Tetrachloroethene	164	9.554	9.554	0.000	94	84028	50.0	38.2	
81 1,3-Dichloropropane	76	9.645	9.645	0.000	98	211452	50.0	47.6	
82 2-Hexanone	43	9.706	9.706	0.000	99	252199	100.0	110.9	
84 Chlorodibromomethane	129	9.858	9.858	0.000	92	95692	50.0	47.1	
85 Ethylene Dibromide	107	9.968	9.968	0.000	97	118745	50.0	48.2	
86 3-Chlorobenzotrifluoride	180	10.430	10.430	0.000	88	193040	50.0	48.6	
87 Chlorobenzene	112	10.460	10.460	0.000	94	317504	50.0	42.3	
88 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	96	187377	50.0	51.1	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.551	0.000	93	109611	50.0	45.9	
90 Ethylbenzene	106	10.558	10.558	0.000	99	164596	50.0	39.3	M
91 m-Xylene & p-Xylene	106	10.685	10.685	0.000	0	206528	50.0	40.3	
92 o-Xylene	106	11.068	11.068	0.000	96	199196	50.0	40.8	
93 Styrene	104	11.087	11.087	0.000	96	345388	50.0	41.8	
94 Bromoform	173	11.275	11.275	0.000	95	53894	50.0	42.7	
96 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	94	188047	50.0	49.5	
97 Isopropylbenzene	105	11.439	11.439	0.000	96	455632	50.0	38.3	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.749	0.000	88	180022	50.0	50.6	
100 Bromobenzene	156	11.749	11.749	0.000	96	126650	50.0	40.6	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.786	0.000	81	60370	50.0	64.1	
101 1,2,3-Trichloropropane	110	11.804	11.804	0.000	87	60344	50.0	46.8	
103 N-Propylbenzene	120	11.853	11.853	0.000	99	133369	50.0	37.4	
104 2-Chlorotoluene	126	11.938	11.938	0.000	96	122242	50.0	39.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.005	12.005	0.000	97	172185	50.0	51.3	
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	95	415662	50.0	40.7	
107 4-Chlorotoluene	126	12.066	12.066	0.000	97	133965	50.0	40.2	
108 tert-Butylbenzene	119	12.352	12.352	0.000	94	301259	50.0	35.3	
110 1,2,4-Trimethylbenzene	105	12.412	12.412	0.000	97	416855	50.0	40.2	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	93	107739	50.0	41.4	
112 sec-Butylbenzene	105	12.570	12.570	0.000	95	431730	50.0	36.3	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	98	236638	50.0	42.4	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	97	371060	50.0	37.4	
115 1,4-Dichlorobenzene	146	12.795	12.795	0.000	96	245356	50.0	42.8	
116 2,4-Dichloro-1-(triflourom	214	12.820	12.820	0.000	92	102342	50.0	42.3	
118 2,5-Dichlorobenzotrifluori	214	12.862	12.862	0.000	0	110293	50.0	42.2	
120 n-Butylbenzene	91	13.136	13.136	0.000	97	294877	50.0	36.5	
121 1,2-Dichlorobenzene	146	13.154	13.154	0.000	97	239743	50.0	45.1	
122 1,2-Dibromo-3-Chloropropan	75	13.939	13.939	0.000	77	28353	50.0	48.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.085	0.000	0	514693	150.0	152.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.504	14.504	0.000	0	353454	100.0	101.4	
126 1,2,4-Trichlorobenzene	180	14.766	14.766	0.000	94	98599	50.0	40.5	
127 Hexachlorobutadiene	225	14.912	14.912	0.000	93	34364	50.0	38.6	
128 Naphthalene	128	15.027	15.027	0.000	97	330390	50.0	39.9	M
129 1,2,3-Trichlorobenzene	180	15.258	15.258	0.000	95	86966	50.0	39.1	
131 2,4,5-Trichlorotoluene	159	16.025	16.025	0.000	0	39547	50.0	37.4	
130 2,3,6-Trichlorotoluene	159	16.122	16.122	0.000	95	37125	50.0	37.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	83.4	
S 133 Xylenes, Total	106				0		100.0	81.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00014	Amount Added:	2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

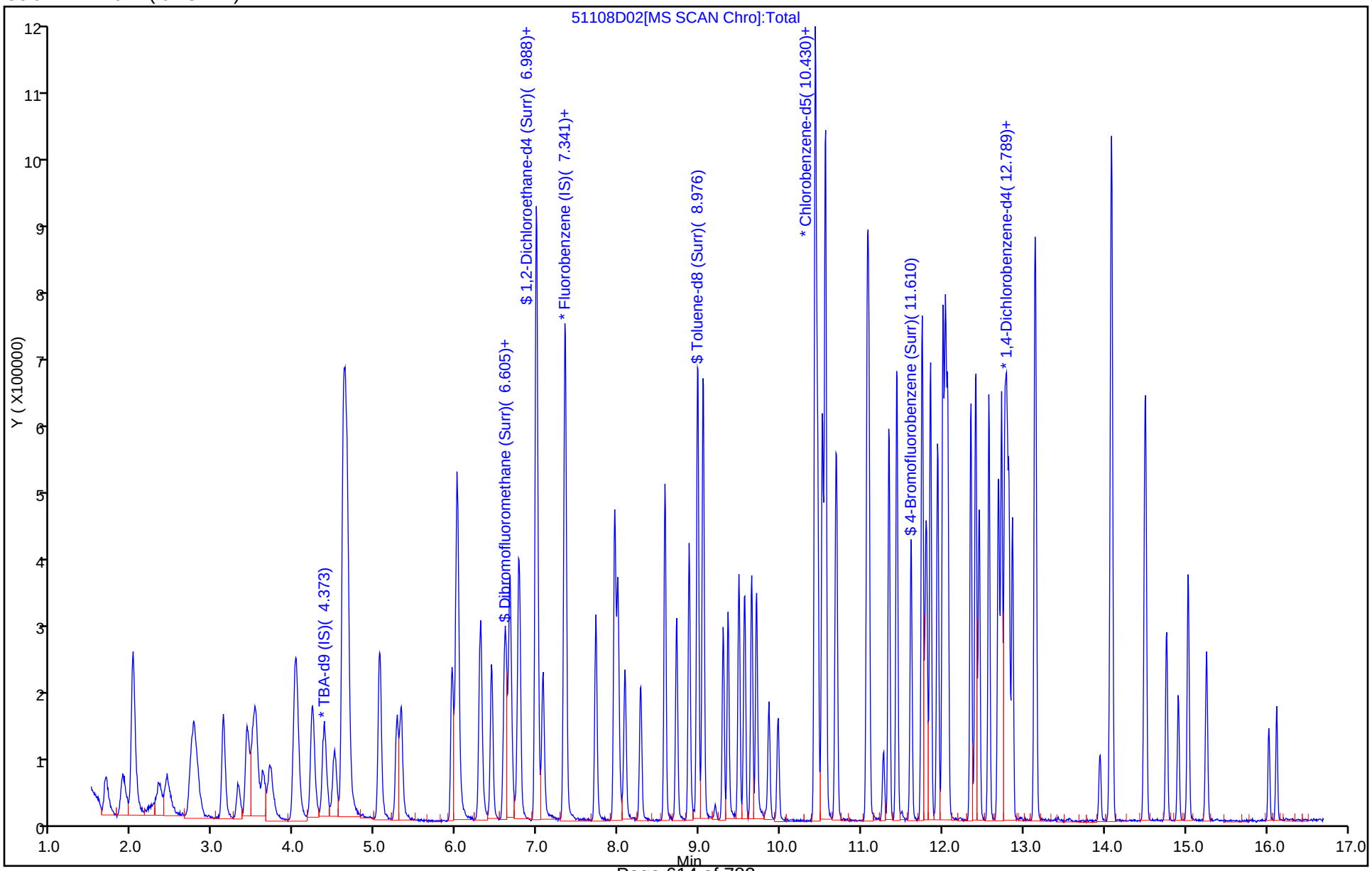
Report Date: 09-Nov-2017 09:47:33 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D02.D

Injection Date:	08-Nov-2017 20:39:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

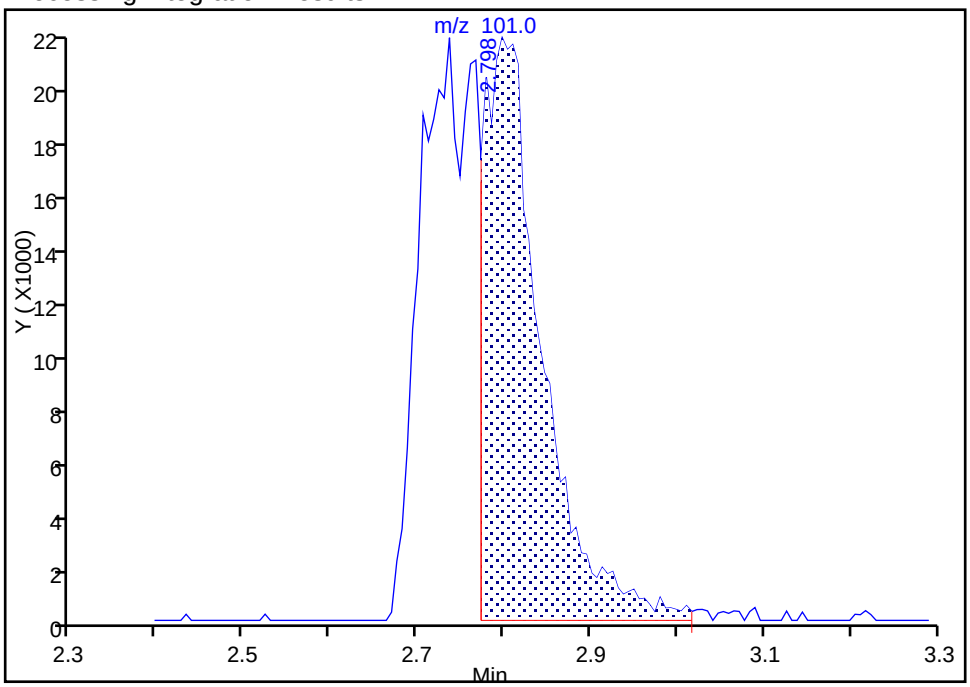
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D02.D				
Injection Date:	08-Nov-2017 20:39:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

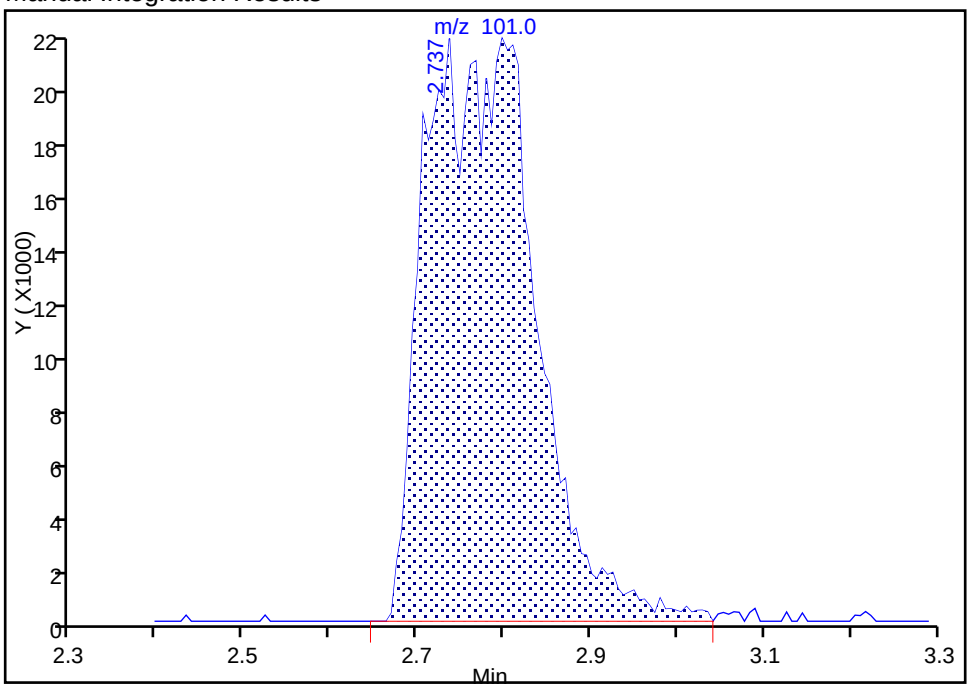
Processing Integration Results

RT: 2.80
Area: 100939
Amount: 26.743640
Amount Units: ng



Manual Integration Results

RT: 2.74
Area: 190852
Amount: 50.565958
Amount Units: ng



Reviewer: bungardf, 08-Nov-2017 20:58:22

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

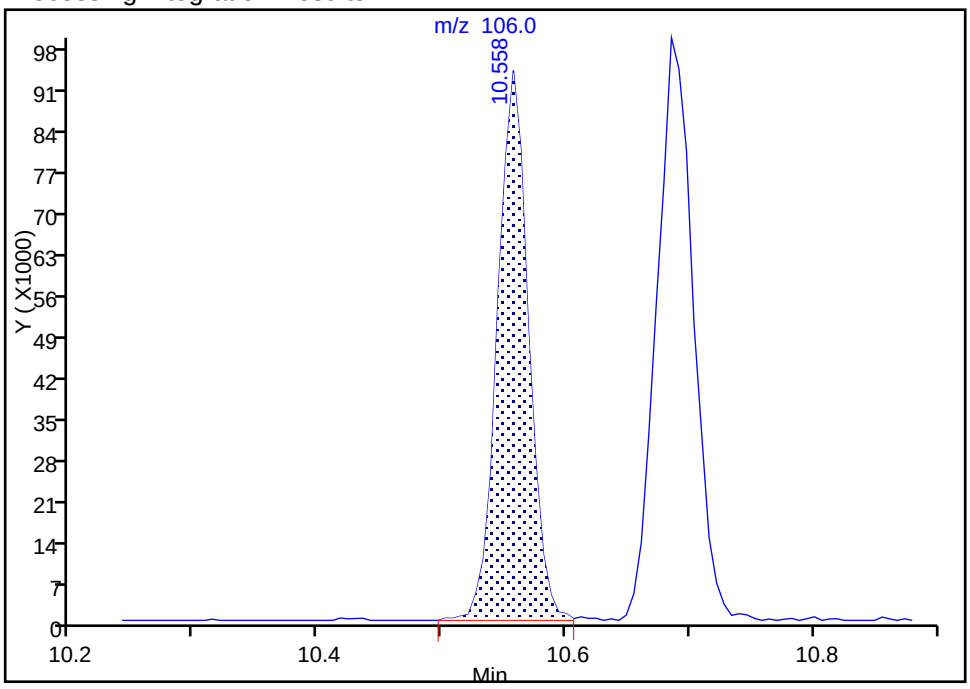
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D02.D				
Injection Date:	08-Nov-2017 20:39:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

90 Ethylbenzene, CAS: 100-41-4

Signal: 1

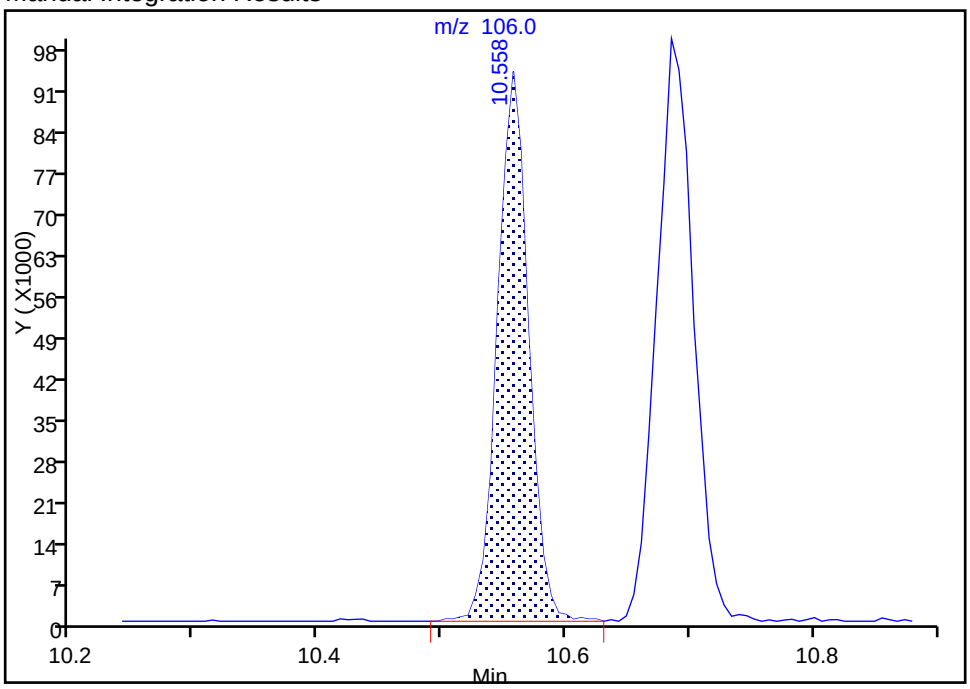
Processing Integration Results

RT: 10.56
Area: 164101
Amount: 39.165308
Amount Units: ng



Manual Integration Results

RT: 10.56
Area: 164596
Amount: 39.283448
Amount Units: ng



Reviewer: bungardf, 08-Nov-2017 21:04:28

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

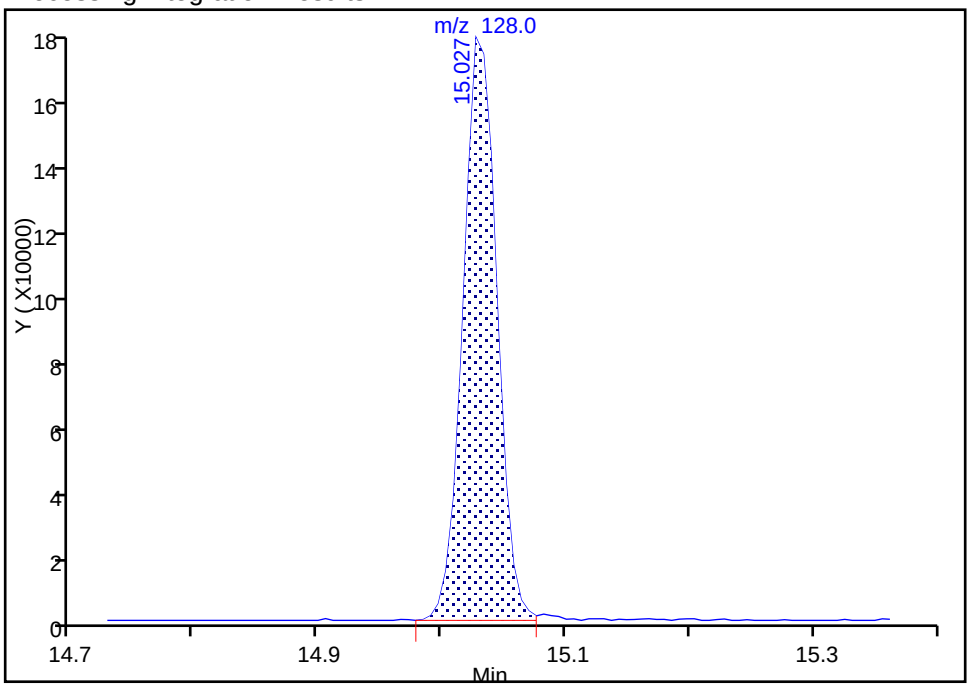
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D02.D				
Injection Date:	08-Nov-2017 20:39:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

128 Naphthalene, CAS: 91-20-3

Signal: 1

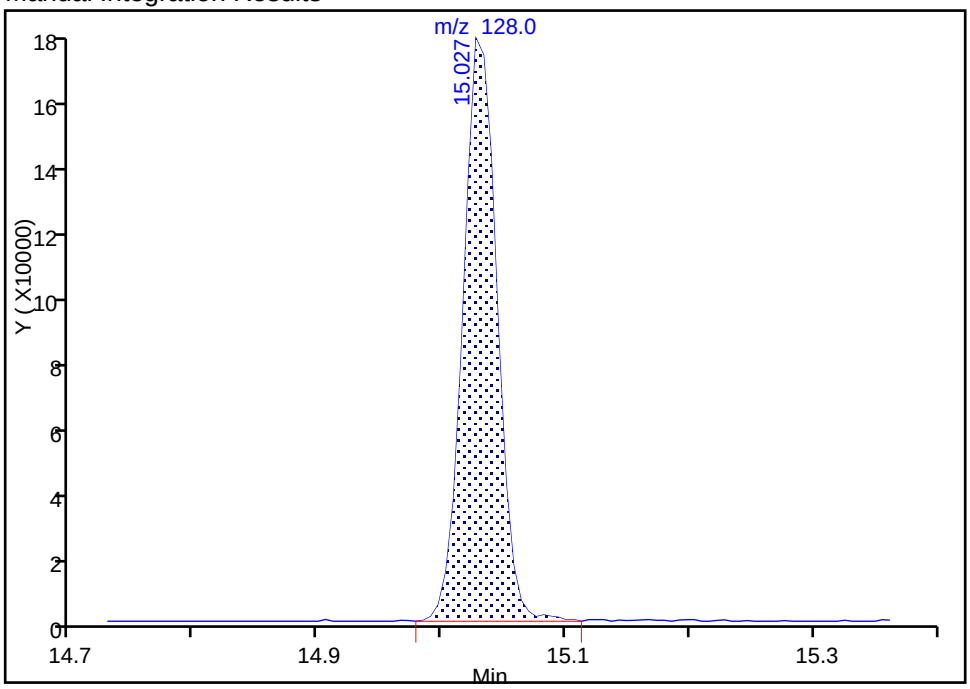
Processing Integration Results

RT: 15.03
Area: 328492
Amount: 39.648316
Amount Units: ng



Manual Integration Results

RT: 15.03
Area: 330390
Amount: 39.877401
Amount Units: ng



Reviewer: bungardf, 08-Nov-2017 21:04:44

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228475/3 Calibration Date: 11/09/2017 11:45

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51109D03.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	0.2907	0.3672	0.1000	12.6	10.0	26.3*	20.0
Chloromethane	Ave	0.2922	0.3935	0.1000	13.5	10.0	34.7*	20.0
1,3-Butadiene	Ave	0.2694	0.3592	0.0100	13.3	10.0	33.3*	20.0
Vinyl chloride	Ave	0.2965	0.3308	0.1000	11.2	10.0	11.6	20.0
Bromomethane	Ave	0.1402	0.1583	0.0500	11.3	10.0	12.9	20.0
Chloroethane	Ave	0.1630	0.2104	0.0500	12.9	10.0	29.1*	20.0
Trichlorofluoromethane	Ave	0.3643	0.2758	0.1000	7.57	10.0	-24.3*	20.0
Ethyl ether	Ave	0.2370	0.2993	0.0100	12.6	10.0	26.3*	20.0
Acrolein	Ave	0.0597	0.0585	0.0100	29.4	30.0	-2.1	20.0
1,1-Dichloroethene	Ave	0.2448	0.2508	0.1000	10.2	10.0	2.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2808	0.1000	10.5	10.0	4.5	20.0
Acetone	Ave	0.1308	0.1115	0.0500	17.1	20.0	-14.7	20.0
Iodomethane	Ave	0.3845	0.3708	0.0100	9.65	10.0	-3.5	20.0
Carbon disulfide	Ave	0.5372	0.5795	0.1000	10.8	10.0	7.9	20.0
Allyl chloride	Ave	0.1582	0.1400	0.0100	8.85	10.0	-11.5	20.0
Methyl acetate	Ave	0.2589	0.3046	0.1000	23.5	20.0	17.6	20.0
Methylene Chloride	Lin2		0.2930	0.1000	9.64	10.0	-3.6	20.0
tert-Butyl alcohol	Ave	1.183	1.288	0.0100	109	100	8.9	20.0
Acrylonitrile	Ave	0.1259	0.1448	0.0100	115	100	15.0	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2816	0.1000	10.1	10.0	1.0	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7052	0.1000	9.43	10.0	-5.7	20.0
Hexane	Ave	0.3580	0.3843	0.0100	10.7	10.0	7.3	20.0
1,1-Dichloroethane	Ave	0.4850	0.4940	0.2000	10.2	10.0	1.9	20.0
Vinyl acetate	Ave	0.4932	0.5367	0.0100	10.9	10.0	8.8	20.0
2,2-Dichloropropane	Ave	0.0617	0.0721	0.0100	11.7	10.0	16.8	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2963	0.1000	9.29	10.0	-7.1	20.0
2-Butanone (MEK)	Ave	0.1861	0.1723	0.0500	18.5	20.0	-7.5	20.0
Bromochloromethane	Ave	0.1418	0.1312	0.0100	9.25	10.0	-7.5	20.0
Tetrahydrofuran	Ave	0.1084	0.1024	0.0100	18.9	20.0	-5.5	20.0
Chloroform	Ave	0.4843	0.4635	0.2000	9.57	10.0	-4.3	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3604	0.1000	9.83	10.0	-1.7	20.0
Cyclohexane	Ave	0.4524	0.4859	0.1000	10.7	10.0	7.4	20.0
Carbon tetrachloride	Ave	0.3051	0.3030	0.1000	9.93	10.0	-0.7	20.0
1,1-Dichloropropene	Ave	0.3961	0.3438	0.0100	8.68	10.0	-13.2	20.0
Isobutyl alcohol	Ave	0.0099	0.0111	0.0100	279	250	11.5	20.0
Benzene	Ave	1.216	1.125	0.5000	9.26	10.0	-7.4	20.0
1,2-Dichloroethane	Ave	0.3544	0.3719	0.1000	10.5	10.0	4.9	20.0
n-Heptane	Ave	0.2863	0.3282	0.0100	11.5	10.0	14.7	20.0
Trichloroethene	Ave	0.3059	0.2505	0.2000	8.19	10.0	-18.1	20.0
Methylcyclohexane	Ave	0.4626	0.3681	0.1000	7.96	10.0	-20.4*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228475/3 Calibration Date: 11/09/2017 11:45

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51109D03.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	0.2831	0.2887	0.1000	10.2	10.0	2.0	20.0
1,4-Dioxane	Ave	0.0029	0.0024*	0.0100	168	200	-16.0	20.0
Dibromomethane	Ave	0.1659	0.1532	0.0100	9.23	10.0	-7.7	20.0
Bromodichloromethane	Ave	0.3256	0.2961	0.2000	9.09	10.0	-9.1	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.2397	0.0100	23.5	20.0	17.7	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3518	0.2000	8.90	10.0	-11.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.350	0.1000	21.0	20.0	5.2	20.0
Toluene	Ave	4.986	5.473	0.4000	11.0	10.0	9.8	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.406	0.1000	10.4	10.0	3.6	20.0
Ethyl methacrylate	Ave	1.636	1.342	0.0100	8.20	10.0	-18.0	20.0
1,1,2-Trichloroethane	Ave	1.039	1.210	0.1000	11.6	10.0	16.5	20.0
Tetrachloroethene	Ave	0.9508	0.9634	0.2000	10.1	10.0	1.3	20.0
1,3-Dichloropropane	Ave	1.920	1.921	0.0100	10.0	10.0	0.0	20.0
2-Hexanone	Ave	0.9836	0.9315	0.1000	18.9	20.0	-5.3	20.0
Dibromochloromethane	Ave	0.8779	0.9616	0.1000	11.0	10.0	9.5	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.076	0.1000	10.1	10.0	1.0	20.0
Chlorobenzene	Ave	3.246	3.190	0.5000	9.83	10.0	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.082	0.0100	10.5	10.0	4.9	20.0
Ethylbenzene	Ave	1.812	1.741	0.1000	9.61	10.0	-3.9	20.0
m-Xylene & p-Xylene	Ave	2.214	2.171	0.1000	9.80	10.0	-2.0	20.0
o-Xylene	Ave	2.110	2.049	0.3000	9.71	10.0	-2.9	20.0
Styrene	Ave	3.571	3.534	0.3000	9.90	10.0	-1.0	20.0
Bromoform	Ave	0.5456	0.5166	0.1000	9.47	10.0	-5.3	20.0
Isopropylbenzene	Ave	5.150	4.924	0.1000	9.56	10.0	-4.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.595	0.3000	10.4	10.0	3.8	20.0
Bromobenzene	Ave	0.9704	0.8079	0.0100	8.33	10.0	-16.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3199	0.0100	10.9	10.0	9.3	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3643	0.0100	9.10	10.0	-9.0	20.0
N-Propylbenzene	Ave	1.109	0.996	0.0100	8.99	10.0	-10.1	20.0
2-Chlorotoluene	Ave	0.9585	0.7933	0.0100	8.28	10.0	-17.2	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.684	0.0100	8.46	10.0	-15.4	20.0
4-Chlorotoluene	Ave	1.035	0.9081	0.0100	8.77	10.0	-12.3	20.0
tert-Butylbenzene	Ave	2.653	2.074	0.0100	7.82	10.0	-21.8*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.765	0.0100	8.57	10.0	-14.3	20.0
sec-Butylbenzene	Ave	3.701	3.137	0.0100	8.48	10.0	-15.2	20.0
1,3-Dichlorobenzene	Ave	1.734	1.577	0.6000	9.09	10.0	-9.1	20.0
4-Isopropyltoluene	Ave	3.083	2.623	0.0100	8.51	10.0	-14.9	20.0
1,4-Dichlorobenzene	Ave	1.780	1.672	0.5000	9.39	10.0	-6.1	20.0
n-Butylbenzene	Ave	2.514	1.963	0.0100	7.81	10.0	-21.9*	20.0
1,2-Dichlorobenzene	Ave	1.653	1.587	0.4000	9.61	10.0	-3.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1473	0.0500	8.03	10.0	-19.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228475/3 Calibration Date: 11/09/2017 11:45

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51109D03.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
1,2,4-Trichlorobenzene	Ave	0.7563	0.4710	0.2000	6.23	10.0	-37.7*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2122	0.0100	7.67	10.0	-23.3*	20.0
Naphthalene	Ave	2.576	1.490	0.0100	5.78	10.0	-42.2*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4802	0.0100	6.95	10.0	-30.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2259		9.39	10.0	-6.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2936		10.0	10.0	0.0	20.0
Toluene-d8 (Surr)	Ave	3.979	4.568		11.5	10.0	14.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.478		10.3	10.0	2.8	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D03.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Nov-2017 11:45:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-003
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub100

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:33:38 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 12:19:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.367	4.367	0.000	0	181126	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.335	0.000	99	443850	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	87	90700	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	94	141671	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.617	0.000	91	100253	50.0	46.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.982	0.000	0	130314	50.0	50.0	
$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	414334	50.0	57.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	84	134014	50.0	51.4	
11 Dichlorodifluoromethane	85	1.679	1.679	0.000	99	163000	50.0	63.2	
12 Chloromethane	50	1.886	1.886	0.000	99	174668	50.0	67.3	
13 Vinyl chloride	62	2.019	2.019	0.000	67	146830	50.0	55.8	
14 Butadiene	39	2.019	2.019	0.000	94	159425	50.0	66.7	
15 Bromomethane	94	2.354	2.354	0.000	78	70239	50.0	56.4	
16 Chloroethane	64	2.445	2.445	0.000	98	93391	50.0	64.5	
17 Dichlorofluoromethane	67	2.767	2.767	0.000	98	225063	50.0	61.5	
18 Trichlorofluoromethane	101	2.804	2.804	0.000	35	122400	50.0	37.8	
20 Ethyl ether	59	3.120	3.120	0.000	97	132855	50.0	63.1	
21 Acrolein	56	3.315	3.315	0.000	99	77859	150.0	146.9	
22 1,1-Dichloroethene	96	3.424	3.424	0.000	97	111301	50.0	51.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.515	3.515	0.000	90	124652	50.0	52.3	
24 Acetone	43	3.540	3.540	0.000	100	98954	100.0	85.3	
25 Iodomethane	142	3.625	3.625	0.000	95	164594	50.0	48.2	
26 Carbon disulfide	76	3.710	3.710	0.000	99	257217	50.0	53.9	
28 3-Chloro-1-propene	76	4.008	4.008	0.000	90	62146	50.0	44.3	
30 Methyl acetate	43	4.026	4.026	0.000	99	270361	100.0	117.6	
31 Methylene Chloride	84	4.227	4.227	0.000	97	130030	50.0	48.2	
32 2-Methyl-2-propanol	59	4.495	4.495	0.000	92	116604	500.0	544.4	
33 Acrylonitrile	53	4.616	4.616	0.000	100	642741	500.0	575.1	
34 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	94	125001	50.0	50.5	
35 Methyl tert-butyl ether	73	4.659	4.659	0.000	96	313000	50.0	47.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.060	5.060	0.000	93	170565	50.0	53.7	
37 1,1-Dichloroethane	63	5.267	5.267	0.000	97	219281	50.0	50.9	
38 Vinyl acetate	43	5.322	5.322	0.000	97	238191	50.0	54.4	
44 2,2-Dichloropropane	97	6.009	6.009	0.000	64	32019	50.0	58.4	
45 cis-1,2-Dichloroethene	96	6.009	6.009	0.000	84	131512	50.0	46.4	
46 2-Butanone (MEK)	43	6.021	6.021	0.000	91	152909	100.0	92.5	
49 Chlorobromomethane	128	6.295	6.295	0.000	96	58237	50.0	46.3	
51 Tetrahydrofuran	42	6.301	6.301	0.000	91	90914	100.0	94.5	
52 Chloroform	83	6.441	6.441	0.000	94	205707	50.0	47.8	
53 1,1,1-Trichloroethane	97	6.599	6.599	0.000	98	159978	50.0	49.2	
54 Cyclohexane	56	6.659	6.659	0.000	94	215685	50.0	53.7	
56 Carbon tetrachloride	117	6.769	6.769	0.000	96	134501	50.0	49.7	
55 1,1-Dichloropropene	75	6.781	6.781	0.000	92	152615	50.0	43.4	
57 Isobutyl alcohol	41	6.976	6.976	0.000	90	123054	1250.0	1393.3	
58 Benzene	78	6.994	6.994	0.000	97	499508	50.0	46.3	
59 1,2-Dichloroethane	62	7.067	7.067	0.000	97	165047	50.0	52.5	
62 n-Heptane	43	7.353	7.353	0.000	88	145680	50.0	57.3	
64 Trichloroethene	130	7.724	7.724	0.000	96	111179	50.0	40.9	
66 Methylcyclohexane	83	7.961	7.961	0.000	95	163362	50.0	39.8	
67 1,2-Dichloropropane	63	7.991	7.991	0.000	95	128156	50.0	51.0	
70 1,4-Dioxane	88	8.070	8.070	0.000	50	21468	1000.0	840.1	
68 Dibromomethane	93	8.083	8.083	0.000	95	67979	50.0	46.2	
71 Dichlorobromomethane	83	8.277	8.277	0.000	98	131414	50.0	45.5	
73 2-Chloroethyl vinyl ether	63	8.575	8.575	0.000	93	212806	100.0	117.7	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	92	156132	50.0	44.5	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.873	0.000	99	244825	100.0	105.2	
76 Toluene	91	9.049	9.049	0.000	98	496375	50.0	54.9	
77 trans-1,3-Dichloropropene	75	9.293	9.293	0.000	97	127499	50.0	51.8	
78 Ethyl methacrylate	69	9.354	9.354	0.000	92	121744	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	90	109746	50.0	58.2	
80 Tetrachloroethene	164	9.560	9.560	0.000	93	87377	50.0	50.7	
81 1,3-Dichloropropane	76	9.645	9.645	0.000	97	174262	50.0	50.0	
82 2-Hexanone	43	9.700	9.700	0.000	99	168975	100.0	94.7	
84 Chlorodibromomethane	129	9.858	9.858	0.000	90	87215	50.0	54.8	
85 Ethylene Dibromide	107	9.968	9.968	0.000	99	97612	50.0	50.5	
87 Chlorobenzene	112	10.454	10.454	0.000	93	289308	50.0	49.1	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.552	0.000	93	98175	50.0	52.4	
90 Ethylbenzene	106	10.558	10.558	0.000	98	157891	50.0	48.0	
91 m-Xylene & p-Xylene	106	10.691	10.691	0.000	0	196885	50.0	49.0	
92 o-Xylene	106	11.068	11.068	0.000	97	185836	50.0	48.6	
93 Styrene	104	11.093	11.093	0.000	96	320504	50.0	49.5	
94 Bromoform	173	11.269	11.269	0.000	93	46854	50.0	47.3	
97 Isopropylbenzene	105	11.439	11.439	0.000	96	446582	50.0	47.8	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.750	0.000	86	144710	50.0	51.9	
100 Bromobenzene	156	11.750	11.750	0.000	94	114459	50.0	41.6	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.786	0.000	81	45314	50.0	54.7	
101 1,2,3-Trichloropropane	110	11.804	11.804	0.000	88	51613	50.0	45.5	
103 N-Propylbenzene	120	11.853	11.853	0.000	98	141160	50.0	44.9	
104 2-Chlorotoluene	126	11.944	11.944	0.000	96	112385	50.0	41.4	
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	94	380307	50.0	42.3	
107 4-Chlorotoluene	126	12.066	12.066	0.000	97	128656	50.0	43.9	
108 tert-Butylbenzene	119	12.352	12.352	0.000	95	293885	50.0	39.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
110 1,2,4-Trimethylbenzene	105	12.406	12.406	0.000	97	391786	50.0	42.9	
112 sec-Butylbenzene	105	12.571	12.571	0.000	95	444403	50.0	42.4	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	98	223394	50.0	45.5	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	97	371666	50.0	42.5	
115 1,4-Dichlorobenzene	146	12.789	12.789	0.000	94	236924	50.0	47.0	
120 n-Butylbenzene	91	13.136	13.136	0.000	98	278109	50.0	39.0	
121 1,2-Dichlorobenzene	146	13.148	13.148	0.000	96	224891	50.0	48.0	
122 1,2-Dibromo-3-Chloropropan	75	13.945	13.945	0.000	75	20864	50.0	40.1	
126 1,2,4-Trichlorobenzene	180	14.766	14.766	0.000	93	66720	50.0	31.1	
127 Hexachlorobutadiene	225	14.906	14.906	0.000	92	30058	50.0	38.3	
128 Naphthalene	128	15.033	15.033	0.000	97	211066	50.0	28.9	
129 1,2,3-Trichlorobenzene	180	15.258	15.258	0.000	95	68031	50.0	34.8	
S 133 Xylenes, Total	106				0		100.0	97.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	96.3	

Reagents:

voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

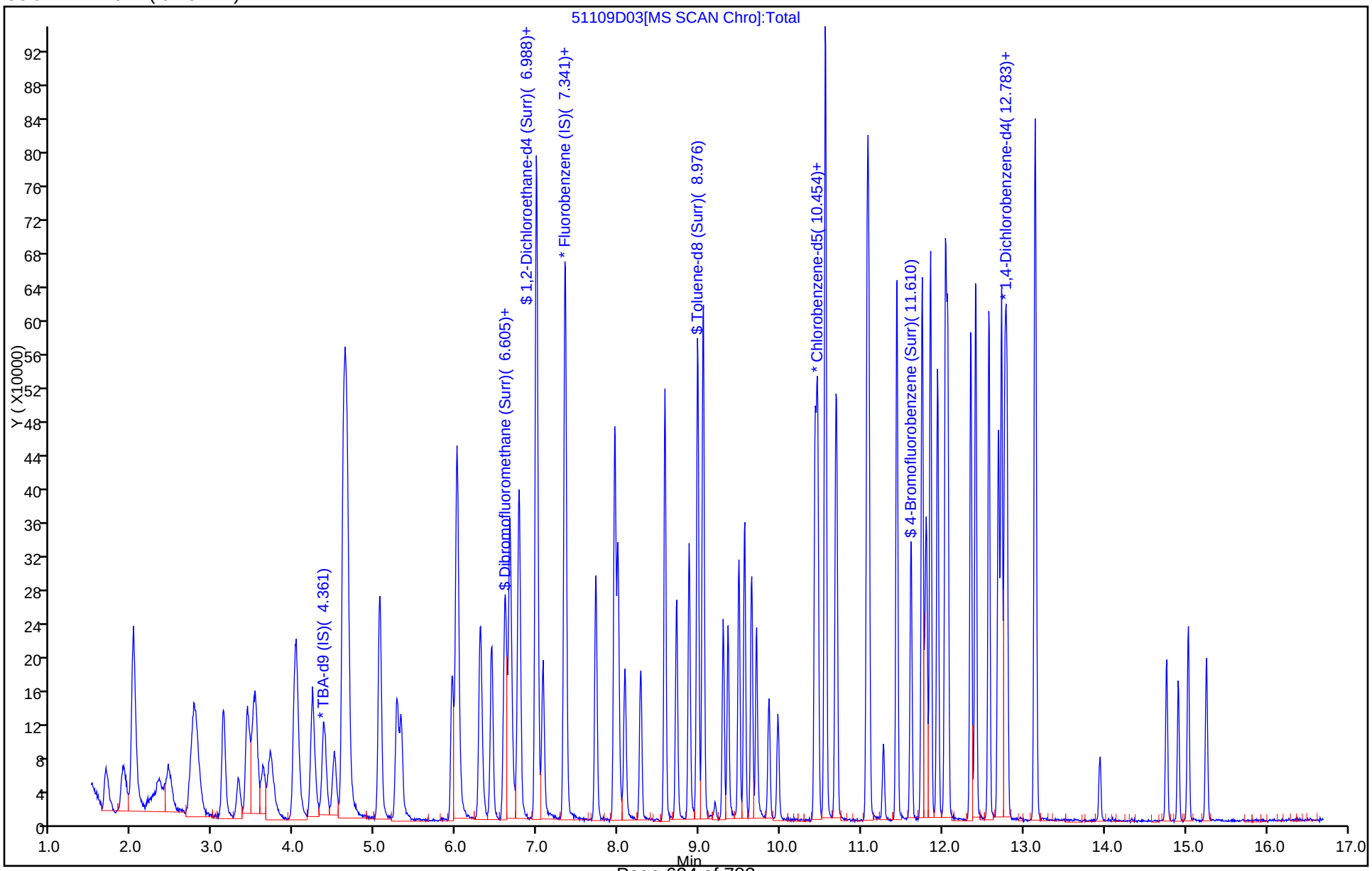
Report Date: 09-Nov-2017 17:33:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D03.D

Injection Date:	09-Nov-2017 11:45:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228566/3 Calibration Date: 11/10/2017 08:27

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51110D03.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	0.2907	0.3697	0.1000	12.7	10.0	27.2*	20.0
Chloromethane	Ave	0.2922	0.4009	0.1000	13.7	10.0	37.2*	20.0
1,3-Butadiene	Ave	0.2694	0.3989	0.0100	14.8	10.0	48.1*	20.0
Vinyl chloride	Ave	0.2965	0.3389	0.1000	11.4	10.0	14.3	20.0
Bromomethane	Ave	0.1402	0.2162	0.0500	15.4	10.0	54.2*	20.0
Chloroethane	Ave	0.1630	0.2333	0.0500	14.3	10.0	43.1*	20.0
Trichlorofluoromethane	Ave	0.3643	0.4849	0.1000	13.3	10.0	33.1*	20.0
Ethyl ether	Ave	0.2370	0.2725	0.0100	11.5	10.0	15.0	20.0
Acrolein	Ave	0.0597	0.0609	0.0100	30.6	30.0	1.9	20.0
1,1-Dichloroethene	Ave	0.2448	0.2534	0.1000	10.4	10.0	3.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2882	0.1000	10.7	10.0	7.3	20.0
Acetone	Ave	0.1308	0.1557	0.0500	23.8	20.0	19.1	20.0
Iodomethane	Ave	0.3845	0.3692	0.0100	9.60	10.0	-4.0	20.0
Carbon disulfide	Ave	0.5372	0.6485	0.1000	12.1	10.0	20.7*	20.0
Allyl chloride	Ave	0.1582	0.1459	0.0100	9.22	10.0	-7.8	20.0
Methyl acetate	Ave	0.2589	0.2635	0.1000	20.4	20.0	1.8	20.0
Methylene Chloride	Lin2		0.2841	0.1000	9.33	10.0	-6.7	20.0
tert-Butyl alcohol	Ave	1.183	1.237	0.0100	105	100	4.6	20.0
Acrylonitrile	Ave	0.1259	0.1377	0.0100	109	100	9.4	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2846	0.1000	10.2	10.0	2.0	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6624	0.1000	8.86	10.0	-11.4	20.0
Hexane	Ave	0.3580	0.3456	0.0100	9.65	10.0	-3.5	20.0
1,1-Dichloroethane	Ave	0.4850	0.4913	0.2000	10.1	10.0	1.3	20.0
Vinyl acetate	Ave	0.4932	0.5236	0.0100	10.6	10.0	6.2	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3071	0.1000	9.63	10.0	-3.7	20.0
2,2-Dichloropropane	Ave	0.0617	0.0757	0.0100	12.3	10.0	22.6*	20.0
2-Butanone (MEK)	Ave	0.1861	0.1832	0.0500	19.7	20.0	-1.6	20.0
Bromochloromethane	Ave	0.1418	0.1287	0.0100	9.07	10.0	-9.3	20.0
Tetrahydrofuran	Ave	0.1084	0.1525	0.0100	28.1	20.0	40.7*	20.0
Chloroform	Ave	0.4843	0.4445	0.2000	9.18	10.0	-8.2	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3672	0.1000	10.0	10.0	0.2	20.0
Cyclohexane	Ave	0.4524	0.4796	0.1000	10.6	10.0	6.0	20.0
Carbon tetrachloride	Ave	0.3051	0.3128	0.1000	10.3	10.0	2.5	20.0
1,1-Dichloropropene	Ave	0.3961	0.3570	0.0100	9.01	10.0	-9.9	20.0
Isobutyl alcohol	Ave	0.0099	0.0099*	0.0100	247	250	-1.0	20.0
Benzene	Ave	1.216	1.137	0.5000	9.35	10.0	-6.5	20.0
1,2-Dichloroethane	Ave	0.3544	0.3613	0.1000	10.2	10.0	2.0	20.0
n-Heptane	Ave	0.2863	0.3232	0.0100	11.3	10.0	12.9	20.0
Trichloroethene	Ave	0.3059	0.2752	0.2000	9.00	10.0	-10.0	20.0
Methylcyclohexane	Ave	0.4626	0.3851	0.1000	8.32	10.0	-16.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228566/3 Calibration Date: 11/10/2017 08:27

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51110D03.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	0.2831	0.2790	0.1000	9.86	10.0	-1.4	20.0
1,4-Dioxane	Ave	0.0029	0.0028*	0.0100	195	200	-2.7	20.0
Dibromomethane	Ave	0.1659	0.1559	0.0100	9.40	10.0	-6.0	20.0
Bromodichloromethane	Ave	0.3256	0.2992	0.2000	9.19	10.0	-8.1	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1441	0.0100	14.2	20.0	-29.2*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3545	0.2000	8.96	10.0	-10.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.265	0.1000	19.7	20.0	-1.4	20.0
Toluene	Ave	4.986	5.063	0.4000	10.2	10.0	1.6	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.287	0.1000	9.49	10.0	-5.1	20.0
Ethyl methacrylate	Ave	1.636	1.209	0.0100	7.39	10.0	-26.1*	20.0
1,1,2-Trichloroethane	Ave	1.039	1.038	0.1000	10.0	10.0	-0.0	20.0
Tetrachloroethene	Ave	0.9508	0.8656	0.2000	9.10	10.0	-9.0	20.0
1,3-Dichloropropane	Ave	1.920	1.733	0.0100	9.03	10.0	-9.7	20.0
2-Hexanone	Ave	0.9836	0.9503	0.1000	19.3	20.0	-3.4	20.0
Dibromochloromethane	Ave	0.8779	0.9131	0.1000	10.4	10.0	4.0	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.001	0.1000	9.40	10.0	-6.0	20.0
Chlorobenzene	Ave	3.246	3.217	0.5000	9.91	10.0	-0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.034	0.0100	10.0	10.0	0.2	20.0
Ethylbenzene	Ave	1.812	1.706	0.1000	9.41	10.0	-5.9	20.0
m-Xylene & p-Xylene	Ave	2.214	2.029	0.1000	9.16	10.0	-8.4	20.0
o-Xylene	Ave	2.110	1.843	0.3000	8.73	10.0	-12.7	20.0
Styrene	Ave	3.571	3.227	0.3000	9.04	10.0	-9.6	20.0
Bromoform	Ave	0.5456	0.4835	0.1000	8.86	10.0	-11.4	20.0
Isopropylbenzene	Ave	5.150	4.419	0.1000	8.58	10.0	-14.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.486	0.3000	9.66	10.0	-3.4	20.0
Bromobenzene	Ave	0.9704	0.8176	0.0100	8.43	10.0	-15.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3668	0.0100	12.5	10.0	25.3*	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3595	0.0100	8.98	10.0	-10.2	20.0
N-Propylbenzene	Ave	1.109	0.9783	0.0100	8.82	10.0	-11.8	20.0
2-Chlorotoluene	Ave	0.9585	0.8211	0.0100	8.57	10.0	-14.3	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.705	0.0100	8.52	10.0	-14.8	20.0
4-Chlorotoluene	Ave	1.035	0.8966	0.0100	8.66	10.0	-13.4	20.0
tert-Butylbenzene	Ave	2.653	2.075	0.0100	7.82	10.0	-21.8*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.801	0.0100	8.68	10.0	-13.2	20.0
sec-Butylbenzene	Ave	3.701	3.095	0.0100	8.36	10.0	-16.4	20.0
1,3-Dichlorobenzene	Ave	1.734	1.550	0.6000	8.94	10.0	-10.6	20.0
4-Isopropyltoluene	Ave	3.083	2.618	0.0100	8.49	10.0	-15.1	20.0
1,4-Dichlorobenzene	Ave	1.780	1.649	0.5000	9.26	10.0	-7.4	20.0
n-Butylbenzene	Ave	2.514	2.076	0.0100	8.26	10.0	-17.4	20.0
1,2-Dichlorobenzene	Ave	1.653	1.526	0.4000	9.23	10.0	-7.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1503	0.0500	8.19	10.0	-18.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228566/3 Calibration Date: 11/10/2017 08:27

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51110D03.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
1,2,4-Trichlorobenzene	Ave	0.7563	0.4269	0.2000	5.64	10.0	-43.6*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2087	0.0100	7.54	10.0	-24.6*	20.0
Naphthalene	Ave	2.576	1.287	0.0100	5.00	10.0	-50.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4366	0.0100	6.32	10.0	-36.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2158		8.97	10.0	-10.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2859		9.74	10.0	-2.6	20.0
Toluene-d8 (Surr)	Ave	3.979	3.903		9.81	10.0	-1.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.391		9.68	10.0	-3.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D03.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 10-Nov-2017 08:27:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-003
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub100

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 13-Nov-2017 12:28:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 10-Nov-2017 08:52:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.365	0.000	0	180969	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.339	0.000	97	459979	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.428	10.428	0.000	87	98122	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.769	0.000	92	135695	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	93	99281	50.0	44.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	131523	50.0	48.7	
$ 7 Toluene-d8 (Surr)	98	8.981	8.981	0.000	93	382952	50.0	49.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.608	0.000	84	136536	50.0	48.4	
11 Dichlorodifluoromethane	85	1.683	1.683	0.000	98	170050	50.0	63.6	
12 Chloromethane	50	1.896	1.896	0.000	99	184412	50.0	68.6	
14 Butadiene	39	2.011	2.011	0.000	97	183484	50.0	74.0	
13 Vinyl chloride	62	2.017	2.017	0.000	96	155901	50.0	57.1	
15 Bromomethane	94	2.376	2.376	0.000	88	99435	50.0	77.1	
16 Chloroethane	64	2.461	2.461	0.000	99	107308	50.0	71.6	
17 Dichlorofluoromethane	67	2.765	2.765	0.000	97	265236	50.0	69.9	
18 Trichlorofluoromethane	101	2.796	2.796	0.000	96	223060	50.0	66.5	
20 Ethyl ether	59	3.130	3.130	0.000	93	125330	50.0	57.5	
21 Acrolein	56	3.313	3.313	0.000	99	83994	150.0	152.9	
22 1,1-Dichloroethene	96	3.422	3.422	0.000	98	116549	50.0	51.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.513	3.513	0.000	94	132549	50.0	53.6	
24 Acetone	43	3.526	3.526	0.000	99	143240	100.0	119.1	
25 Iodomethane	142	3.623	3.623	0.000	97	169806	50.0	48.0	
26 Carbon disulfide	76	3.714	3.714	0.000	99	298290	50.0	60.4	
28 3-Chloro-1-propene	76	4.012	4.012	0.000	91	67110	50.0	46.1	
30 Methyl acetate	43	4.043	4.043	0.000	99	242400	100.0	101.8	
31 Methylene Chloride	84	4.237	4.237	0.000	98	130686	50.0	46.6	
32 2-Methyl-2-propanol	59	4.499	4.499	0.000	91	111972	500.0	523.2	
33 Acrylonitrile	53	4.608	4.608	0.000	99	633286	500.0	546.8	
34 trans-1,2-Dichloroethene	96	4.651	4.651	0.000	94	130904	50.0	51.0	
35 Methyl tert-butyl ether	73	4.657	4.657	0.000	95	304701	50.0	44.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.058	5.058	0.000	93	158980	50.0	48.3	
37 1,1-Dichloroethane	63	5.271	5.271	0.000	97	225975	50.0	50.7	
38 Vinyl acetate	43	5.368	5.368	0.000	55	240822	50.0	53.1	
45 cis-1,2-Dichloroethene	96	6.013	6.013	0.000	83	141272	50.0	48.1	
44 2,2-Dichloropropane	97	6.019	6.019	0.000	68	34813	50.0	61.3	
46 2-Butanone (MEK)	43	6.025	6.025	0.000	99	168551	100.0	98.4	
49 Chlorobromomethane	128	6.287	6.287	0.000	95	59188	50.0	45.4	
51 Tetrahydrofuran	42	6.305	6.305	0.000	74	140249	100.0	140.7	
52 Chloroform	83	6.439	6.439	0.000	94	204476	50.0	45.9	
53 1,1,1-Trichloroethane	97	6.591	6.591	0.000	98	168915	50.0	50.1	
54 Cyclohexane	56	6.670	6.670	0.000	95	220589	50.0	53.0	
56 Carbon tetrachloride	117	6.767	6.767	0.000	95	143863	50.0	51.3	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	93	164216	50.0	45.1	
57 Isobutyl alcohol	41	6.980	6.980	0.000	85	113238	1250.0	1237.2	
58 Benzene	78	6.998	6.998	0.000	97	522790	50.0	46.7	
59 1,2-Dichloroethane	62	7.071	7.071	0.000	97	166202	50.0	51.0	
62 n-Heptane	43	7.357	7.357	0.000	94	148673	50.0	56.5	
64 Trichloroethene	130	7.728	7.728	0.000	97	126585	50.0	45.0	
66 Methylcyclohexane	83	7.959	7.959	0.000	92	177143	50.0	41.6	
67 1,2-Dichloropropane	63	7.995	7.995	0.000	95	128334	50.0	49.3	
70 1,4-Dioxane	88	8.074	8.074	0.000	33	25768	1000.0	973.0	
68 Dibromomethane	93	8.087	8.087	0.000	92	71687	50.0	47.0	
71 Dichlorobromomethane	83	8.275	8.275	0.000	98	137646	50.0	46.0	
73 2-Chloroethyl vinyl ether	63	8.573	8.573	0.000	92	132600	100.0	70.8	
74 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	93	163077	50.0	44.8	
75 4-Methyl-2-pentanone (MIBK	43	8.871	8.871	0.000	98	248187	100.0	98.6	
76 Toluene	91	9.047	9.047	0.000	98	496809	50.0	50.8	
77 trans-1,3-Dichloropropene	75	9.297	9.297	0.000	98	126285	50.0	47.4	
78 Ethyl methacrylate	69	9.358	9.358	0.000	93	118620	50.0	36.9	M
79 1,1,2-Trichloroethane	97	9.485	9.485	0.000	93	101873	50.0	50.0	
80 Tetrachloroethene	164	9.558	9.558	0.000	95	84938	50.0	45.5	
81 1,3-Dichloropropane	76	9.650	9.650	0.000	97	170035	50.0	45.1	
82 2-Hexanone	43	9.704	9.704	0.000	99	186481	100.0	96.6	
84 Chlorodibromomethane	129	9.856	9.856	0.000	92	89592	50.0	52.0	
85 Ethylene Dibromide	107	9.972	9.972	0.000	98	98241	50.0	47.0	
87 Chlorobenzene	112	10.458	10.458	0.000	93	315654	50.0	49.6	
89 1,1,1,2-Tetrachloroethane	131	10.550	10.550	0.000	95	101431	50.0	50.1	
90 Ethylbenzene	106	10.556	10.556	0.000	99	167382	50.0	47.1	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	199092	50.0	45.8	
92 o-Xylene	106	11.073	11.073	0.000	96	180818	50.0	43.7	
93 Styrene	104	11.091	11.091	0.000	96	316618	50.0	45.2	
94 Bromoform	173	11.273	11.273	0.000	94	47441	50.0	44.3	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	433567	50.0	42.9	
99 1,1,2,2-Tetrachloroethane	83	11.748	11.748	0.000	85	145761	50.0	48.3	
100 Bromobenzene	156	11.748	11.748	0.000	95	110947	50.0	42.1	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.790	0.000	80	49767	50.0	62.7	
101 1,2,3-Trichloropropane	110	11.802	11.802	0.000	86	48778	50.0	44.9	
103 N-Propylbenzene	120	11.851	11.851	0.000	99	132747	50.0	44.1	
104 2-Chlorotoluene	126	11.942	11.942	0.000	97	111416	50.0	42.8	
106 1,3,5-Trimethylbenzene	105	12.033	12.033	0.000	95	367036	50.0	42.6	
107 4-Chlorotoluene	126	12.064	12.064	0.000	98	121669	50.0	43.3	
108 tert-Butylbenzene	119	12.350	12.350	0.000	95	281544	50.0	39.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	98	380073	50.0	43.4	
112 sec-Butylbenzene	105	12.575	12.575	0.000	94	419986	50.0	41.8	
113 1,3-Dichlorobenzene	146	12.690	12.690	0.000	98	210307	50.0	44.7	
114 4-Isopropyltoluene	119	12.727	12.727	0.000	97	355289	50.0	42.5	
115 1,4-Dichlorobenzene	146	12.794	12.794	0.000	94	223815	50.0	46.3	
120 n-Butylbenzene	91	13.140	13.140	0.000	97	281760	50.0	41.3	
121 1,2-Dichlorobenzene	146	13.152	13.152	0.000	96	207091	50.0	46.2	
122 1,2-Dibromo-3-Chloropropan	75	13.943	13.943	0.000	78	20390	50.0	40.9	
126 1,2,4-Trichlorobenzene	180	14.764	14.764	0.000	93	57933	50.0	28.2	
127 Hexachlorobutadiene	225	14.910	14.910	0.000	91	28313	50.0	37.7	
128 Naphthalene	128	15.031	15.031	0.000	97	174689	50.0	25.0	
129 1,2,3-Trichlorobenzene	180	15.256	15.256	0.000	94	59242	50.0	31.6	
S 133 Xylenes, Total	106				0		100.0	89.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

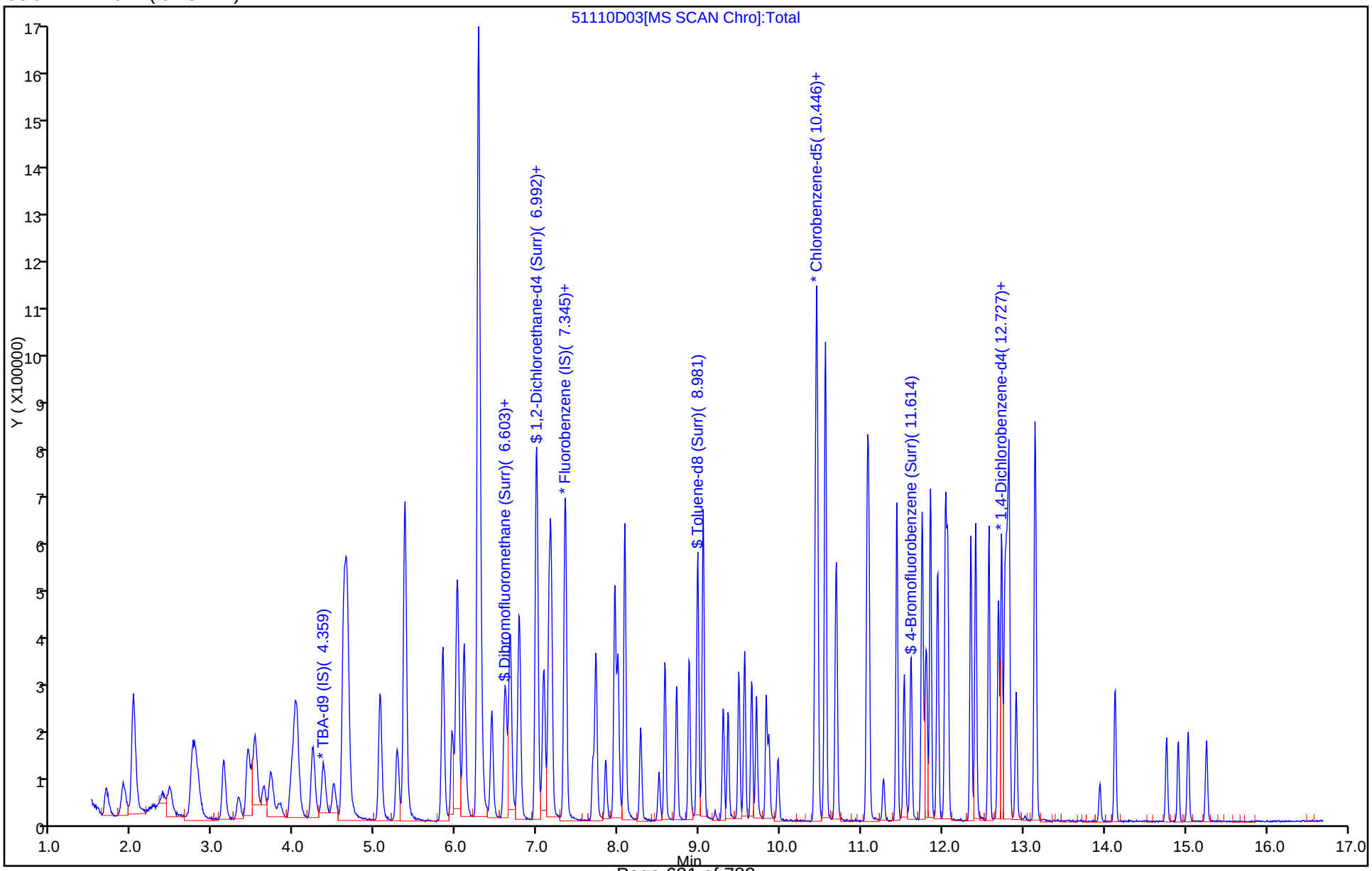
Report Date: 13-Nov-2017 12:28:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D03.D

Injection Date:	10-Nov-2017 08:27:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

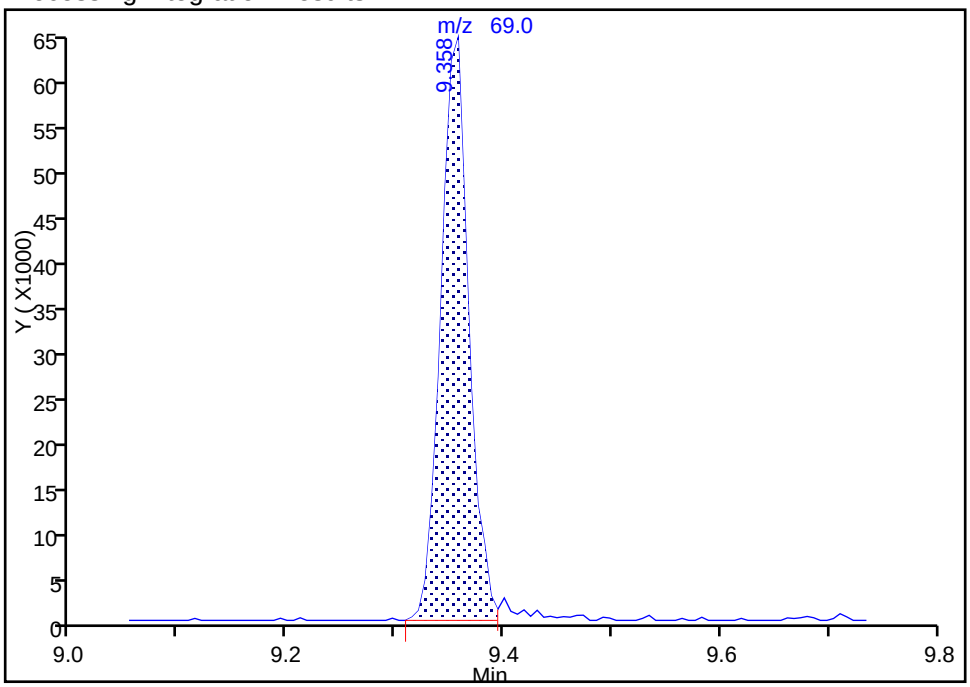
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D03.D
Injection Date: 10-Nov-2017 08:27:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

78 Ethyl methacrylate, CAS: 97-63-2

Signal: 1

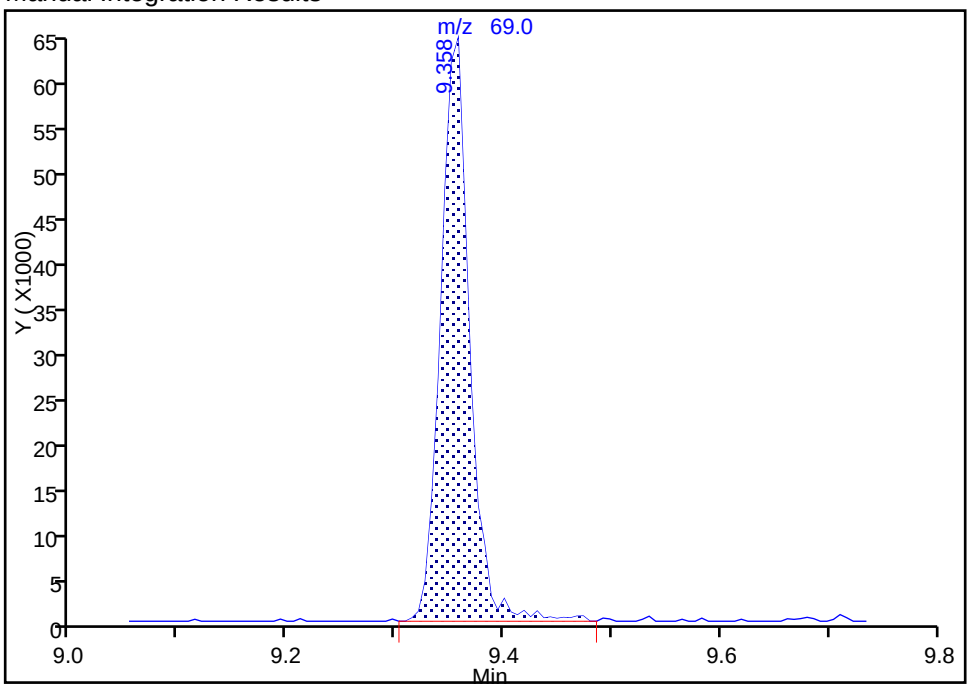
Processing Integration Results

RT: 9.36
Area: 115030
Amount: 35.830479
Amount Units: ng



Manual Integration Results

RT: 9.36
Area: 118620
Amount: 36.948721
Amount Units: ng



Reviewer: journetp, 10-Nov-2017 09:12:54
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228645/2 Calibration Date: 11/11/2017 05:19

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51111D02.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	0.2907	0.3584	0.1000	12.3	10.0	23.3*	20.0
Chloromethane	Ave	0.2922	0.3912	0.1000	13.4	10.0	33.9*	20.0
1,3-Butadiene	Ave	0.2694	0.3826	0.0100	14.2	10.0	42.0*	20.0
Vinyl chloride	Ave	0.2965	0.3380	0.1000	11.4	10.0	14.0	20.0
Bromomethane	Ave	0.1402	0.0929	0.0500	6.63	10.0	-33.7*	20.0
Chloroethane	Ave	0.1630	0.2079	0.0500	12.8	10.0	27.6*	20.0
Trichlorofluoromethane	Ave	0.3643	0.4026	0.1000	11.1	10.0	10.5	20.0
Ethyl ether	Ave	0.2370	0.3076	0.0100	13.0	10.0	29.8*	20.0
Acrolein	Ave	0.0597	0.0519	0.0100	26.0	30.0	-13.2	20.0
1,1-Dichloroethene	Ave	0.2448	0.2528	0.1000	10.3	10.0	3.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2781	0.1000	10.4	10.0	3.5	20.0
Acetone	Ave	0.1308	0.1939	0.0500	29.7	20.0	48.3*	20.0
Iodomethane	Ave	0.3845	0.3986	0.0100	10.4	10.0	3.7	20.0
Carbon disulfide	Ave	0.5372	0.5601	0.1000	10.4	10.0	4.3	20.0
Allyl chloride	Ave	0.1582	0.1527	0.0100	9.65	10.0	-3.5	20.0
Methyl acetate	Ave	0.2589	0.3130	0.1000	24.2	20.0	20.9*	20.0
Methylene Chloride	Lin2		0.3056	0.1000	10.1	10.0	0.8	20.0
tert-Butyl alcohol	Ave	1.183	1.328	0.0100	112	100	12.3	20.0
Acrylonitrile	Ave	0.1259	0.1507	0.0100	120	100	19.7	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2876	0.1000	10.3	10.0	3.1	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7420	0.1000	9.92	10.0	-0.8	20.0
Hexane	Ave	0.3580	0.3764	0.0100	10.5	10.0	5.1	20.0
1,1-Dichloroethane	Ave	0.4850	0.4984	0.2000	10.3	10.0	2.8	20.0
Vinyl acetate	Ave	0.4932	0.5887	0.0100	11.9	10.0	19.4	20.0
2,2-Dichloropropane	Ave	0.0617	0.0776	0.0100	12.6	10.0	25.7*	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3121	0.1000	9.78	10.0	-2.2	20.0
2-Butanone (MEK)	Ave	0.1861	0.2290	0.0500	24.6	20.0	23.0*	20.0
Bromochloromethane	Ave	0.1418	0.1419	0.0100	10.0	10.0	0.1	20.0
Tetrahydrofuran	Ave	0.1084	0.1046	0.0100	19.3	20.0	-3.5	20.0
Chloroform	Ave	0.4843	0.4659	0.2000	9.62	10.0	-3.8	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3554	0.1000	9.70	10.0	-3.0	20.0
Cyclohexane	Ave	0.4524	0.4697	0.1000	10.4	10.0	3.8	20.0
Carbon tetrachloride	Ave	0.3051	0.3033	0.1000	9.94	10.0	-0.6	20.0
1,1-Dichloropropene	Ave	0.3961	0.3462	0.0100	8.74	10.0	-12.6	20.0
Isobutyl alcohol	Ave	0.0099	0.0105	0.0100	264	250	5.6	20.0
Benzene	Ave	1.216	1.176	0.5000	9.67	10.0	-3.3	20.0
1,2-Dichloroethane	Ave	0.3544	0.3749	0.1000	10.6	10.0	5.8	20.0
n-Heptane	Ave	0.2863	0.3143	0.0100	11.0	10.0	9.8	20.0
Trichloroethene	Ave	0.3059	0.2682	0.2000	8.77	10.0	-12.3	20.0
Methylcyclohexane	Ave	0.4626	0.3860	0.1000	8.34	10.0	-16.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228645/2 Calibration Date: 11/11/2017 05:19

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51111D02.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	0.2831	0.2760	0.1000	9.75	10.0	-2.5	20.0
1,4-Dioxane	Ave	0.0029	0.0023*	0.0100	159	200	-20.6*	20.0
Dibromomethane	Ave	0.1659	0.1615	0.0100	9.74	10.0	-2.6	20.0
Bromodichloromethane	Ave	0.3256	0.2926	0.2000	8.99	10.0	-10.1	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.2012	0.0100	19.7	20.0	-1.3	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3487	0.2000	8.82	10.0	-11.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.246	0.1000	19.4	20.0	-2.8	20.0
Toluene	Ave	4.986	5.194	0.4000	10.4	10.0	4.2	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.365	0.1000	10.1	10.0	0.7	20.0
Ethyl methacrylate	Ave	1.636	1.216	0.0100	7.43	10.0	-25.7*	20.0
1,1,2-Trichloroethane	Ave	1.039	1.091	0.1000	10.5	10.0	5.0	20.0
Tetrachloroethene	Ave	0.9508	0.8636	0.2000	9.08	10.0	-9.2	20.0
1,3-Dichloropropane	Ave	1.920	1.796	0.0100	9.35	10.0	-6.5	20.0
2-Hexanone	Ave	0.9836	1.029	0.1000	20.9	20.0	4.6	20.0
Dibromochloromethane	Ave	0.8779	0.8948	0.1000	10.2	10.0	1.9	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.025	0.1000	9.63	10.0	-3.7	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.738	0.0100	10.1	10.0	1.1	20.0
Chlorobenzene	Ave	3.246	3.183	0.5000	9.81	10.0	-1.9	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.706	0.0100	10.8	10.0	7.6	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.093	0.0100	10.6	10.0	5.9	20.0
Ethylbenzene	Ave	1.812	1.771	0.1000	9.78	10.0	-2.2	20.0
m-Xylene & p-Xylene	Ave	2.214	2.107	0.1000	9.51	10.0	-4.9	20.0
o-Xylene	Ave	2.110	1.973	0.3000	9.35	10.0	-6.5	20.0
Styrene	Ave	3.571	3.443	0.3000	9.64	10.0	-3.6	20.0
Bromoform	Ave	0.5456	0.4790	0.1000	8.78	10.0	-12.2	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.732	0.0100	10.5	10.0	5.3	20.0
Isopropylbenzene	Ave	5.150	4.810	0.1000	9.34	10.0	-6.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.475	0.3000	9.60	10.0	-4.0	20.0
Bromobenzene	Ave	0.9704	0.8341	0.0100	8.59	10.0	-14.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3419	0.0100	11.7	10.0	16.8	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3260	0.0100	8.14	10.0	-18.6	20.0
N-Propylbenzene	Ave	1.109	0.9774	0.0100	8.81	10.0	-11.9	20.0
2-Chlorotoluene	Ave	0.9585	0.8457	0.0100	8.82	10.0	-11.8	20.0
3-Chlorotoluene	Ave	1.043	1.110	0.0100	10.7	10.0	6.5	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.910	0.0100	9.17	10.0	-8.3	20.0
4-Chlorotoluene	Ave	1.035	0.9486	0.0100	9.16	10.0	-8.4	20.0
tert-Butylbenzene	Ave	2.653	2.123	0.0100	8.00	10.0	-20.0	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.875	0.0100	8.91	10.0	-10.9	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.6842	0.0100	8.47	10.0	-15.3	20.0
sec-Butylbenzene	Ave	3.701	3.069	0.0100	8.29	10.0	-17.1	20.0
1,3-Dichlorobenzene	Ave	1.734	1.584	0.6000	9.13	10.0	-8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228645/2 Calibration Date: 11/11/2017 05:19

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51111D02.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	3.083	2.628	0.0100	8.52	10.0	-14.8	20.0
1,4-Dichlorobenzene	Ave	1.780	1.691	0.5000	9.50	10.0	-5.0	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6484	0.0100	8.62	10.0	-13.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.6935	0.0100	8.53	10.0	-14.7	20.0
n-Butylbenzene	Ave	2.514	2.093	0.0100	8.33	10.0	-16.7	20.0
1,2-Dichlorobenzene	Ave	1.653	1.594	0.4000	9.64	10.0	-3.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1477	0.0500	8.05	10.0	-19.5	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.010	0.0100	28.9	30.0	-3.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.011	0.0100	18.7	20.0	-6.7	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5531	0.2000	7.31	10.0	-26.9*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2014	0.0100	7.28	10.0	-27.2*	20.0
Naphthalene	Ave	2.576	1.692	0.0100	6.57	10.0	-34.3*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4806	0.0100	6.96	10.0	-30.4*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.1725	0.0100	5.25	10.0	-47.5*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.1748	0.0100	5.72	10.0	-42.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2448		10.2	10.0	1.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3111		10.6	10.0	6.0	20.0
Toluene-d8 (Surr)	Ave	3.979	4.376		11.0	10.0	10.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.482		10.3	10.0	3.1	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D02.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Nov-2017 05:19:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019261-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub29

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 12-Nov-2017 14:51:34 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 11-Nov-2017 05:39:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.385	4.385	0.000	0	232304	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.334	0.000	97	568447	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.429	0.000	86	124373	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	96	181322	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.616	0.000	92	139151	50.0	50.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.987	0.000	0	176861	50.0	53.0	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	93	544212	50.0	55.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.615	0.000	83	184349	50.0	51.6	
11 Dichlorodifluoromethane	85	1.678	1.678	0.000	99	203711	50.0	61.6	
12 Chloromethane	50	1.885	1.885	0.000	99	222395	50.0	66.9	
13 Vinyl chloride	62	2.013	2.013	0.000	67	192105	50.0	57.0	
14 Butadiene	39	2.013	2.013	0.000	94	217463	50.0	71.0	
15 Bromomethane	94	2.335	2.335	0.000	90	52815	50.0	33.1	
16 Chloroethane	64	2.432	2.432	0.000	98	118196	50.0	63.8	
17 Dichlorofluoromethane	67	2.755	2.755	0.000	98	264702	50.0	56.5	
18 Trichlorofluoromethane	101	2.803	2.803	0.000	82	228863	50.0	55.3	
20 Ethyl ether	59	3.126	3.126	0.000	95	174854	50.0	64.9	
21 Acrolein	56	3.302	3.302	0.000	98	88422	150.0	130.2	
22 1,1-Dichloroethene	96	3.418	3.418	0.000	98	143683	50.0	51.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.503	3.503	0.000	92	158073	50.0	51.8	
24 Acetone	43	3.539	3.539	0.000	100	220409	100.0	148.3	
25 Iodomethane	142	3.618	3.618	0.000	98	226569	50.0	51.8	
26 Carbon disulfide	76	3.703	3.703	0.000	100	318407	50.0	52.1	
28 3-Chloro-1-propene	76	4.014	4.014	0.000	91	86779	50.0	48.3	
30 Methyl acetate	43	4.032	4.032	0.000	99	355880	100.0	120.9	
31 Methylene Chloride	84	4.226	4.226	0.000	97	173713	50.0	50.4	
32 2-Methyl-2-propanol	59	4.512	4.512	0.000	91	154298	500.0	561.6	
33 Acrylonitrile	53	4.616	4.616	0.000	100	856402	500.0	598.3	
34 trans-1,2-Dichloroethene	96	4.634	4.634	0.000	98	163502	50.0	51.6	
35 Methyl tert-butyl ether	73	4.658	4.658	0.000	97	421768	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.054	5.054	0.000	95	213959	50.0	52.6	
37 1,1-Dichloroethane	63	5.266	5.266	0.000	96	283284	50.0	51.4	
38 Vinyl acetate	43	5.321	5.321	0.000	97	334668	50.0	59.7	
45 cis-1,2-Dichloroethene	96	6.008	6.008	0.000	82	177397	50.0	48.9	
44 2,2-Dichloropropane	97	6.008	6.008	0.000	63	44122	50.0	62.9	
46 2-Butanone (MEK)	43	6.027	6.027	0.000	99	260342	100.0	123.0	
49 Chlorobromomethane	128	6.288	6.288	0.000	96	80680	50.0	50.0	
51 Tetrahydrofuran	42	6.312	6.312	0.000	93	118925	100.0	96.5	
52 Chloroform	83	6.440	6.440	0.000	93	264858	50.0	48.1	
53 1,1,1-Trichloroethane	97	6.592	6.592	0.000	99	202040	50.0	48.5	
54 Cyclohexane	56	6.665	6.665	0.000	96	267022	50.0	51.9	
56 Carbon tetrachloride	117	6.762	6.762	0.000	97	172392	50.0	49.7	
55 1,1-Dichloropropene	75	6.781	6.781	0.000	93	196809	50.0	43.7	
57 Isobutyl alcohol	41	6.987	6.987	0.000	85	149316	1250.0	1320.1	
58 Benzene	78	6.993	6.993	0.000	97	668531	50.0	48.4	
59 1,2-Dichloroethane	62	7.073	7.073	0.000	96	213089	50.0	52.9	
62 n-Heptane	43	7.352	7.352	0.000	91	178644	50.0	54.9	
64 Trichloroethene	130	7.723	7.723	0.000	98	152476	50.0	43.8	
66 Methylcyclohexane	83	7.954	7.954	0.000	96	219440	50.0	41.7	
67 1,2-Dichloropropane	63	7.991	7.991	0.000	94	156904	50.0	48.8	
70 1,4-Dioxane	88	8.076	8.076	0.000	45	25978	1000.0	793.8	
68 Dibromomethane	93	8.082	8.082	0.000	95	91816	50.0	48.7	
71 Dichlorobromomethane	83	8.277	8.277	0.000	99	166318	50.0	44.9	
73 2-Chloroethyl vinyl ether	63	8.575	8.575	0.000	92	228684	100.0	98.7	
74 cis-1,3-Dichloropropene	75	8.715	8.715	0.000	93	198195	50.0	44.1	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.873	0.000	99	309963	100.0	97.2	
76 Toluene	91	9.049	9.049	0.000	98	646040	50.0	52.1	
77 trans-1,3-Dichloropropene	75	9.298	9.298	0.000	97	169825	50.0	50.3	
78 Ethyl methacrylate	69	9.353	9.353	0.000	94	151182	50.0	37.2	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	93	135691	50.0	52.5	
80 Tetrachloroethene	164	9.560	9.560	0.000	91	107405	50.0	45.4	
81 1,3-Dichloropropane	76	9.645	9.645	0.000	98	223340	50.0	46.8	
82 2-Hexanone	43	9.706	9.706	0.000	99	255996	100.0	104.6	
84 Chlorodibromomethane	129	9.858	9.858	0.000	91	111284	50.0	51.0	
85 Ethylene Dibromide	107	9.967	9.967	0.000	97	127539	50.0	48.1	
86 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	86	216101	50.0	50.6	
87 Chlorobenzene	112	10.460	10.460	0.000	94	395931	50.0	49.0	
88 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	96	212219	50.0	53.8	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.551	0.000	92	135960	50.0	53.0	
90 Ethylbenzene	106	10.557	10.557	0.000	98	220311	50.0	48.9	
91 m-Xylene & p-Xylene	106	10.685	10.685	0.000	0	261994	50.0	47.6	
92 o-Xylene	106	11.068	11.068	0.000	96	245399	50.0	46.8	
93 Styrene	104	11.092	11.092	0.000	96	428214	50.0	48.2	
94 Bromoform	173	11.275	11.275	0.000	94	59576	50.0	43.9	
96 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	94	215404	50.0	52.7	
97 Isopropylbenzene	105	11.439	11.439	0.000	96	598285	50.0	46.7	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.749	0.000	82	183503	50.0	48.0	
100 Bromobenzene	156	11.749	11.749	0.000	97	151237	50.0	43.0	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.786	0.000	87	61991	50.0	58.4	
101 1,2,3-Trichloropropane	110	11.804	11.804	0.000	87	59113	50.0	40.7	
103 N-Propylbenzene	120	11.852	11.852	0.000	99	177230	50.0	44.1	
104 2-Chlorotoluene	126	11.944	11.944	0.000	96	153342	50.0	44.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.005	12.005	0.000	97	201351	50.0	53.3	
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	94	527733	50.0	45.9	
107 4-Chlorotoluene	126	12.065	12.065	0.000	97	172005	50.0	45.8	
108 tert-Butylbenzene	119	12.351	12.351	0.000	94	384912	50.0	40.0	
110 1,2,4-Trimethylbenzene	105	12.406	12.406	0.000	97	521291	50.0	44.6	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	94	124062	50.0	42.3	
112 sec-Butylbenzene	105	12.576	12.576	0.000	94	556462	50.0	41.5	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	98	287205	50.0	45.7	
114 4-Isopropyltoluene	119	12.728	12.728	0.000	97	476474	50.0	42.6	
115 1,4-Dichlorobenzene	146	12.795	12.795	0.000	95	306546	50.0	47.5	
116 2,4-Dichloro-1-(triflourom	214	12.819	12.819	0.000	92	117569	50.0	43.1	
118 2,5-Dichlorobenzotrifluori	214	12.862	12.862	0.000	0	125743	50.0	42.7	
120 n-Butylbenzene	91	13.142	13.142	0.000	98	379581	50.0	41.6	
121 1,2-Dichlorobenzene	146	13.154	13.154	0.000	96	289013	50.0	48.2	
122 1,2-Dibromo-3-Chloropropan	75	13.938	13.938	0.000	77	26789	50.0	40.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.084	14.084	0.000	0	549199	150.0	144.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.504	14.504	0.000	0	366662	100.0	93.3	
126 1,2,4-Trichlorobenzene	180	14.765	14.765	0.000	93	100297	50.0	36.6	
127 Hexachlorobutadiene	225	14.911	14.911	0.000	92	36509	50.0	36.4	
128 Naphthalene	128	15.033	15.033	0.000	97	306724	50.0	32.8	
129 1,2,3-Trichlorobenzene	180	15.258	15.258	0.000	96	87144	50.0	34.8	
131 2,4,5-Trichlorotoluene	159	16.024	16.024	0.000	0	31286	50.0	26.3	
130 2,3,6-Trichlorotoluene	159	16.122	16.122	0.000	94	31696	50.0	28.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	94.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00017	Amount Added:	2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

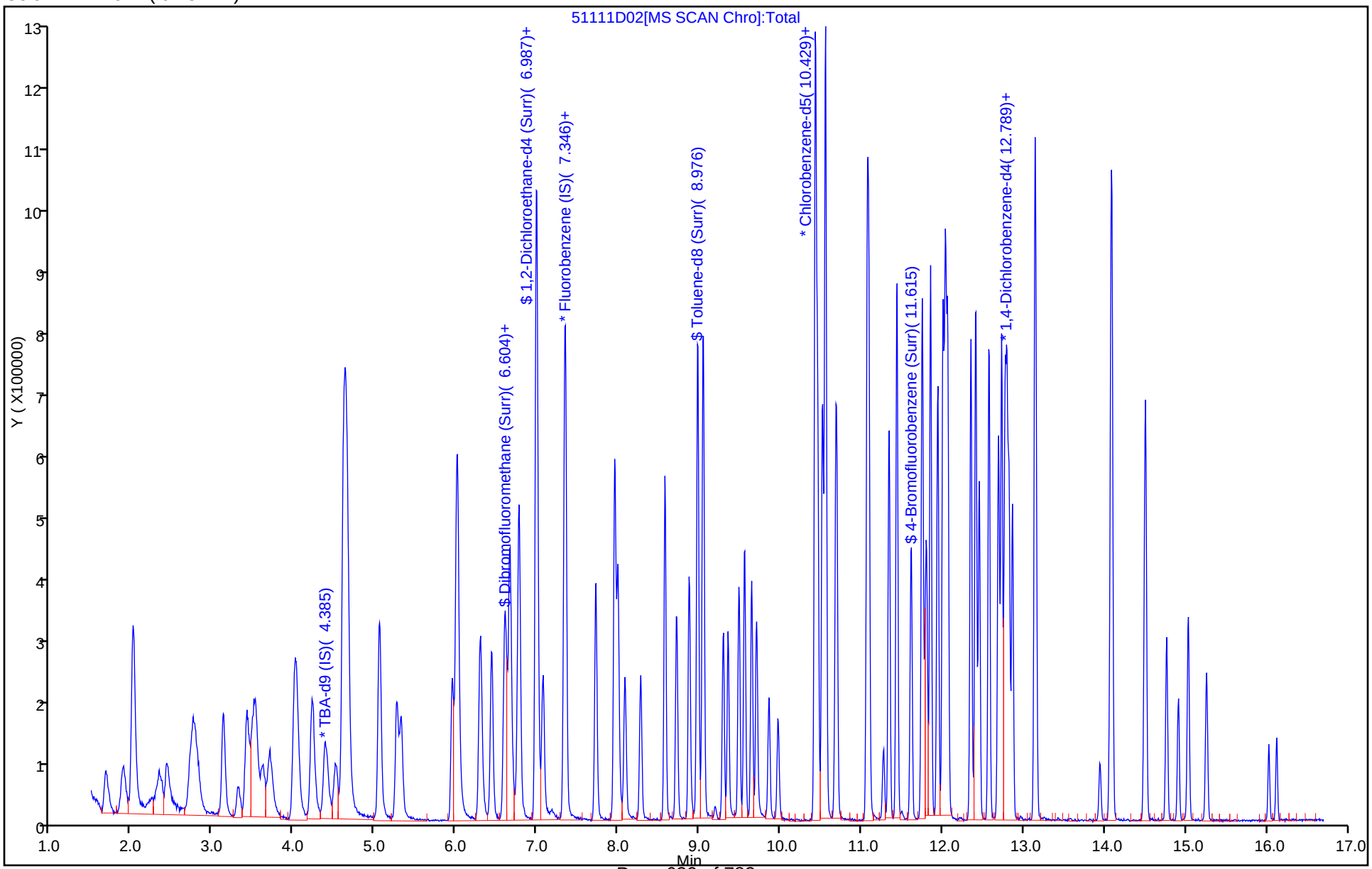
Report Date: 12-Nov-2017 14:51:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D02.D

Injection Date:	11-Nov-2017 05:19:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228533/2 Calibration Date: 11/09/2017 08:58

Instrument ID: CHHP7 Calib Start Date: 05/26/2017 14:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/26/2017 18:04

Lab File ID: 711090n3.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	0.3845	0.4038	0.1000	10.5	10.0	5.0	20.0
Chloromethane	Ave	0.5372	0.3832	0.1000	7.13	10.0	-28.7*	20.0
Vinyl chloride	Ave	0.4322	0.2793	0.1000	6.46	10.0	-35.4*	20.0
1,3-Butadiene	Ave	0.3043	0.3076	0.0100	10.1	10.0	1.1	20.0
Bromomethane	Qua		0.1320	0.0500	7.96	10.0	-20.4*	20.0
Chloroethane	Ave	0.1452	0.1433	0.0500	9.87	10.0	-1.3	20.0
Trichlorofluoromethane	Qua		0.3938	0.1000	10.8	10.0	7.9	20.0
Ethyl ether	Ave	0.3671	0.2389	0.0100	6.51	10.0	-34.9*	20.0
1,1-Dichloroethene	Ave	0.3080	0.2804	0.1000	9.10	10.0	-9.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2433	0.2499	0.1000	10.3	10.0	2.7	20.0
Acetone	Ave	0.2300	0.1623	0.0500	14.1	20.0	-29.5*	20.0
Iodomethane	Ave	0.2924	0.3932	0.0100	13.4	10.0	34.4*	20.0
Carbon disulfide	Ave	0.7420	0.7927	0.1000	10.7	10.0	6.8	20.0
Allyl chloride	Ave	0.1678	0.1734	0.0100	10.3	10.0	3.3	20.0
Methyl acetate	Ave	0.4292	0.4397	0.1000	20.5	20.0	2.5	20.0
Methylene Chloride	Lin2		0.3192	0.1000	10.1	10.0	1.4	20.0
tert-Butyl alcohol	Ave	1.247	1.335	0.0100	107	100	7.0	20.0
Acrylonitrile	Ave	0.1830	0.2050	0.0100	112	100	12.0	20.0
trans-1,2-Dichloroethene	Ave	0.2494	0.2443	0.1000	9.80	10.0	-2.0	20.0
Methyl tert-butyl ether	Ave	1.069	0.9934	0.1000	9.29	10.0	-7.1	20.0
Hexane	Ave	0.3495	0.3710	0.0100	10.6	10.0	6.2	20.0
1,1-Dichloroethane	Ave	0.6511	0.5521	0.2000	8.48	10.0	-15.2	20.0
2,2-Dichloropropane	Ave	0.0623	0.0557	0.0100	8.93	10.0	-10.7	20.0
cis-1,2-Dichloroethene	Ave	0.3255	0.3018	0.1000	9.27	10.0	-7.3	20.0
2-Butanone (MEK)	Ave	0.3076	0.3186	0.0500	20.7	20.0	3.6	20.0
Bromochloromethane	Ave	0.1627	0.1525	0.0100	9.37	10.0	-6.3	20.0
Tetrahydrofuran	Ave	0.1903	0.1881	0.0100	19.8	20.0	-1.2	20.0
Chloroform	Ave	0.6318	0.5430	0.2000	8.59	10.0	-14.1	20.0
1,1,1-Trichloroethane	Ave	0.4271	0.4056	0.1000	9.50	10.0	-5.0	20.0
Cyclohexane	Ave	0.4612	0.4863	0.1000	10.5	10.0	5.5	20.0
Carbon tetrachloride	Ave	0.2992	0.3106	0.1000	10.4	10.0	3.8	20.0
1,1-Dichloropropene	Ave	0.4181	0.3757	0.0100	8.98	10.0	-10.2	20.0
Isobutyl alcohol	Lin1		0.0166	0.0100	212	250	-15.4	20.0
n-Heptane	Ave	0.5786	0.5582	0.0100	9.65	10.0	-3.5	20.0
Benzene	Lin2		1.238	0.5000	11.0	10.0	10.0	20.0
1,2-Dichloroethane	Ave	0.6063	0.4850	0.1000	8.00	10.0	-20.0	20.0
Trichloroethene	Ave	0.3075	0.3074	0.2000	10.0	10.0	-0.0	20.0
Methylcyclohexane	Ave	0.3707	0.3783	0.1000	10.2	10.0	2.1	20.0
1,2-Dichloropropane	Ave	0.3266	0.3351	0.1000	10.3	10.0	2.6	20.0
1,4-Dioxane	Ave	0.0032	0.0024*	0.0100	153	200	-23.6*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228533/2 Calibration Date: 11/09/2017 08:58

Instrument ID: CHHP7 Calib Start Date: 05/26/2017 14:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/26/2017 18:04

Lab File ID: 711090n3.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromomethane	Ave	0.2018	0.1882	0.0100	9.33	10.0	-6.7	20.0
Bromodichloromethane	Ave	0.4546	0.4161	0.2000	9.15	10.0	-8.5	20.0
cis-1,3-Dichloropropene	Ave	0.5450	0.5369	0.2000	9.85	10.0	-1.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	2.318	2.890	0.1000	24.9	20.0	24.7*	20.0
Toluene	Lin2		5.341	0.4000	12.4	10.0	24.5*	20.0
trans-1,3-Dichloropropene	Ave	2.026	2.007	0.1000	9.91	10.0	-0.9	20.0
Ethyl methacrylate	Ave	2.225	2.421	0.0100	10.9	10.0	8.8	20.0
1,1,2-Trichloroethane	Ave	1.157	1.264	0.1000	10.9	10.0	9.2	20.0
Tetrachloroethene	Ave	0.8685	0.8756	0.2000	10.1	10.0	0.8	20.0
1,3-Dichloropropane	Ave	2.245	2.348	0.0100	10.5	10.0	4.6	20.0
2-Hexanone	Ave	1.684	1.950	0.1000	23.2	20.0	15.8	20.0
Dibromochloromethane	Ave	1.077	1.224	0.1000	11.4	10.0	13.7	20.0
1,2-Dibromoethane (EDB)	Ave	1.332	1.373	0.1000	10.3	10.0	3.0	20.0
Chlorobenzene	Ave	3.083	3.583	0.5000	11.6	10.0	16.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9812	1.114	0.0100	11.3	10.0	13.5	20.0
Ethylbenzene	Ave	1.551	1.638	0.1000	10.6	10.0	5.6	20.0
m-Xylene & p-Xylene	Lin2		2.009	0.1000	10.4	10.0	4.2	20.0
o-Xylene	Ave	2.074	2.138	0.3000	10.3	10.0	3.1	20.0
Styrene	Ave	3.345	3.614	0.3000	10.8	10.0	8.1	20.0
Bromoform	Ave	0.7231	0.9525	0.1000	13.2	10.0	31.7*	20.0
Isopropylbenzene	Lin2		5.098	0.1000	10.4	10.0	4.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.650	1.831	0.3000	11.1	10.0	11.0	20.0
Bromobenzene	Ave	1.050	0.9710	0.0100	9.25	10.0	-7.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4595	0.5033	0.0100	11.0	10.0	9.5	20.0
1,2,3-Trichloropropane	Ave	0.4565	0.4605	0.0100	10.1	10.0	0.9	20.0
N-Propylbenzene	Ave	0.8437	0.8712	0.0100	10.3	10.0	3.3	20.0
2-Chlorotoluene	Ave	0.8030	0.7576	0.0100	9.43	10.0	-5.7	20.0
1,3,5-Trimethylbenzene	Ave	2.945	2.879	0.0100	9.77	10.0	-2.3	20.0
4-Chlorotoluene	Ave	0.8144	0.7961	0.0100	9.78	10.0	-2.2	20.0
tert-Butylbenzene	Ave	2.328	2.297	0.0100	9.87	10.0	-1.3	20.0
1,2,4-Trimethylbenzene	Ave	3.059	3.143	0.0100	10.3	10.0	2.7	20.0
sec-Butylbenzene	Ave	3.039	3.064	0.0100	10.1	10.0	0.8	20.0
1,3-Dichlorobenzene	Ave	1.572	1.507	0.6000	9.59	10.0	-4.1	20.0
4-Isopropyltoluene	Ave	2.401	2.541	0.0100	10.6	10.0	5.9	20.0
1,4-Dichlorobenzene	Ave	1.525	1.445	0.5000	9.48	10.0	-5.2	20.0
n-Butylbenzene	Ave	2.109	2.173	0.0100	10.3	10.0	3.0	20.0
1,2-Dichlorobenzene	Ave	1.478	1.468	0.4000	9.93	10.0	-0.7	20.0
1,2-Dibromo-3-Chloropropane	Qua		0.2019	0.0500	11.0	10.0	9.9	20.0
1,2,4-Trichlorobenzene	Ave	0.6223	0.5764	0.2000	9.26	10.0	-7.4	20.0
Hexachlorobutadiene	Qua		0.3051	0.0100	12.1	10.0	21.2*	20.0
Naphthalene	Qua		1.758	0.0100	13.5	10.0	35.1*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Lab Sample ID: CCVIS 180-228533/2 Calibration Date: 11/09/2017 08:58

Instrument ID: CHHP7 Calib Start Date: 05/26/2017 14:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/26/2017 18:04

Lab File ID: 711090n3.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
1,2,3-Trichlorobenzene	Lin1		0.3157	0.0100	8.48	10.0	-15.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2474	0.2258		9.13	10.0	-8.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4812	0.3827		7.95	10.0	-20.5*	20.0
Toluene-d8 (Surr)	Ave	3.788	3.774		9.97	10.0	-0.3	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.551		9.56	10.0	-4.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n3.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Nov-2017 08:58:30 ALS Bottle#: 3 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub13

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 15:51:20 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:51:12

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.251	4.251	0.000	98	90540	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.263	7.263	0.000	97	124890	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.365	10.365	0.000	88	29539	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.707	12.707	0.000	95	40796	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.539	6.539	0.000	92	28201	50.0	45.6	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.910	6.910	0.000	57	47801	50.0	39.8	
$	7 Toluene-d8 (Surr)	98	8.911	8.911	0.000	94	111494	50.0	49.8	
$	8 4-Bromofluorobenzene (Surr	95	11.545	11.545	0.000	86	45823	50.0	47.8	
	11 Dichlorodifluoromethane	85	1.617	1.617	0.000	99	50432	50.0	52.5	
	12 Chloromethane	50	1.793	1.793	0.000	99	47852	50.0	35.7	
	13 Vinyl chloride	62	1.921	1.921	0.000	90	34879	50.0	32.3	
	14 Butadiene	39	1.970	1.970	0.000	98	38421	50.0	50.6	
	15 Bromomethane	94	2.280	2.280	0.000	88	16491	50.0	39.8	
	16 Chloroethane	64	2.414	2.414	0.000	97	17901	50.0	49.4	
	17 Dichlorofluoromethane	67	2.682	2.682	0.000	96	47763	50.0	45.3	
	18 Trichlorofluoromethane	101	2.694	2.694	0.000	62	49178	50.0	53.9	
	20 Ethyl ether	59	3.041	3.041	0.000	96	29831	50.0	32.5	
	22 1,1-Dichloroethene	96	3.345	3.345	0.000	93	35017	50.0	45.5	
	23 1,1,2-Trichloro-1,2,2-trif	101	3.430	3.430	0.000	88	31205	50.0	51.3	
	24 Acetone	43	3.436	3.436	0.000	99	40526	100.0	70.5	
	25 Iodomethane	142	3.533	3.533	0.000	100	49104	50.0	67.2	
	26 Carbon disulfide	76	3.625	3.625	0.000	100	99000	50.0	53.4	
	28 3-Chloro-1-propene	76	3.917	3.917	0.000	89	21660	50.0	51.7	
	30 Methyl acetate	43	3.923	3.923	0.000	99	109839	100.0	102.5	
	31 Methylene Chloride	84	4.123	4.123	0.000	97	39861	50.0	50.7	
	32 2-Methyl-2-propanol	59	4.373	4.373	0.000	97	60415	500.0	535.0	
	33 Acrylonitrile	53	4.507	4.507	0.000	100	256042	500.0	560.0	
	34 trans-1,2-Dichloroethene	96	4.555	4.555	0.000	93	30512	50.0	49.0	
	35 Methyl tert-butyl ether	73	4.561	4.561	0.000	99	124066	50.0	46.5	
	36 Hexane	57	4.975	4.975	0.000	95	46335	50.0	53.1	
	37 1,1-Dichloroethane	63	5.182	5.182	0.000	97	68953	50.0	42.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 cis-1,2-Dichloroethene	96	5.930	5.930	0.000	84	37694	50.0	46.4	
44 2,2-Dichloropropane	97	5.930	5.930	0.000	68	6952	50.0	44.6	
46 2-Butanone (MEK)	43	5.936	5.936	0.000	99	79574	100.0	103.6	
49 Chlorobromomethane	128	6.210	6.210	0.000	92	19050	50.0	46.9	
51 Tetrahydrofuran	42	6.228	6.228	0.000	91	46972	100.0	98.8	
52 Chloroform	83	6.362	6.362	0.000	96	67813	50.0	43.0	
53 1,1,1-Trichloroethane	97	6.514	6.514	0.000	97	50653	50.0	47.5	
54 Cyclohexane	56	6.587	6.587	0.000	95	60737	50.0	52.7	
56 Carbon tetrachloride	117	6.691	6.691	0.000	94	38795	50.0	51.9	
55 1,1-Dichloropropene	75	6.709	6.709	0.000	92	46916	50.0	44.9	
57 Isobutyl alcohol	41	6.904	6.904	0.000	89	51749	1250.0	1057.6	
62 n-Heptane	43	6.904	6.904	0.000	67	69710	50.0	48.2	
58 Benzene	78	6.922	6.922	0.000	97	154556	50.0	55.0	
59 1,2-Dichloroethane	62	6.995	6.995	0.000	98	60572	50.0	40.0	
64 Trichloroethene	130	7.646	7.646	0.000	96	38390	50.0	50.0	
66 Methylcyclohexane	83	7.889	7.889	0.000	96	47250	50.0	51.0	
67 1,2-Dichloropropane	63	7.926	7.926	0.000	95	41849	50.0	51.3	
70 1,4-Dioxane	88	8.011	8.011	0.000	39	6070	1000.0	764.0	
68 Dibromomethane	93	8.011	8.011	0.000	94	23502	50.0	46.6	
71 Dichlorobromomethane	83	8.205	8.205	0.000	99	51971	50.0	45.8	
74 cis-1,3-Dichloropropene	75	8.650	8.650	0.000	91	67056	50.0	49.3	
75 4-Methyl-2-pentanone (MIBK	43	8.802	8.802	0.000	98	170742	100.0	124.7	
76 Toluene	91	8.978	8.978	0.000	98	157760	50.0	62.2	
77 trans-1,3-Dichloropropene	75	9.227	9.227	0.000	95	59283	50.0	49.5	
78 Ethyl methacrylate	69	9.282	9.282	0.000	91	71505	50.0	54.4	
79 1,1,2-Trichloroethane	97	9.422	9.422	0.000	93	37327	50.0	54.6	
80 Tetrachloroethene	164	9.495	9.495	0.000	97	25864	50.0	50.4	
81 1,3-Dichloropropane	76	9.580	9.580	0.000	96	69344	50.0	52.3	
82 2-Hexanone	43	9.635	9.635	0.000	97	115203	100.0	115.8	
84 Chlorodibromomethane	129	9.787	9.787	0.000	93	36157	50.0	56.8	
85 Ethylene Dibromide	107	9.909	9.909	0.000	99	40549	50.0	51.5	
87 Chlorobenzene	112	10.389	10.389	0.000	91	105841	50.0	58.1	
89 1,1,1,2-Tetrachloroethane	131	10.481	10.481	0.000	90	32893	50.0	56.7	
90 Ethylbenzene	106	10.493	10.493	0.000	99	48375	50.0	52.8	
91 m-Xylene & p-Xylene	106	10.621	10.621	0.000	99	59343	50.0	52.1	
92 o-Xylene	106	11.004	11.004	0.000	97	63148	50.0	51.5	
93 Styrene	104	11.022	11.022	0.000	94	106747	50.0	54.0	
94 Bromoform	173	11.211	11.211	0.000	94	28137	50.0	65.9	
97 Isopropylbenzene	105	11.369	11.369	0.000	96	150591	50.0	52.2	
100 Bromobenzene	156	11.685	11.685	0.000	97	39611	50.0	46.2	
99 1,1,2,2-Tetrachloroethane	83	11.685	11.685	0.000	96	54092	50.0	55.5	
102 trans-1,4-Dichloro-2-buten	53	11.722	11.722	0.000	78	20533	50.0	54.8	
101 1,2,3-Trichloropropane	110	11.740	11.740	0.000	85	18785	50.0	50.4	
103 N-Propylbenzene	120	11.789	11.789	0.000	99	35543	50.0	51.6	
104 2-Chlorotoluene	126	11.874	11.874	0.000	95	30906	50.0	47.2	
106 1,3,5-Trimethylbenzene	105	11.971	11.971	0.000	93	117433	50.0	48.9	
107 4-Chlorotoluene	126	12.002	12.002	0.000	98	32476	50.0	48.9	
108 tert-Butylbenzene	119	12.281	12.281	0.000	93	93688	50.0	49.3	
110 1,2,4-Trimethylbenzene	105	12.342	12.342	0.000	98	128233	50.0	51.4	
112 sec-Butylbenzene	105	12.506	12.506	0.000	95	124982	50.0	50.4	
113 1,3-Dichlorobenzene	146	12.628	12.628	0.000	96	61490	50.0	47.9	
114 4-Isopropyltoluene	119	12.665	12.665	0.000	96	103671	50.0	52.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
115 1,4-Dichlorobenzene	146	12.732	12.732	0.000	90	58936	50.0	47.4	
120 n-Butylbenzene	91	13.072	13.072	0.000	98	88635	50.0	51.5	
121 1,2-Dichlorobenzene	146	13.090	13.090	0.000	94	59890	50.0	49.7	
122 1,2-Dibromo-3-Chloropropan	157	13.881	13.881	0.000	76	8236	50.0	54.9	
126 1,2,4-Trichlorobenzene	180	14.703	14.703	0.000	94	23513	50.0	46.3	
127 Hexachlorobutadiene	225	14.849	14.849	0.000	93	12445	50.0	60.6	
128 Naphthalene	128	14.964	14.964	0.000	98	71719	50.0	67.6	
129 1,2,3-Trichlorobenzene	180	15.195	15.195	0.000	93	12880	50.0	42.4	
S 133 Xylenes, Total	106				0		100.0	103.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	98.8	

Reagents:

voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL		
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent	

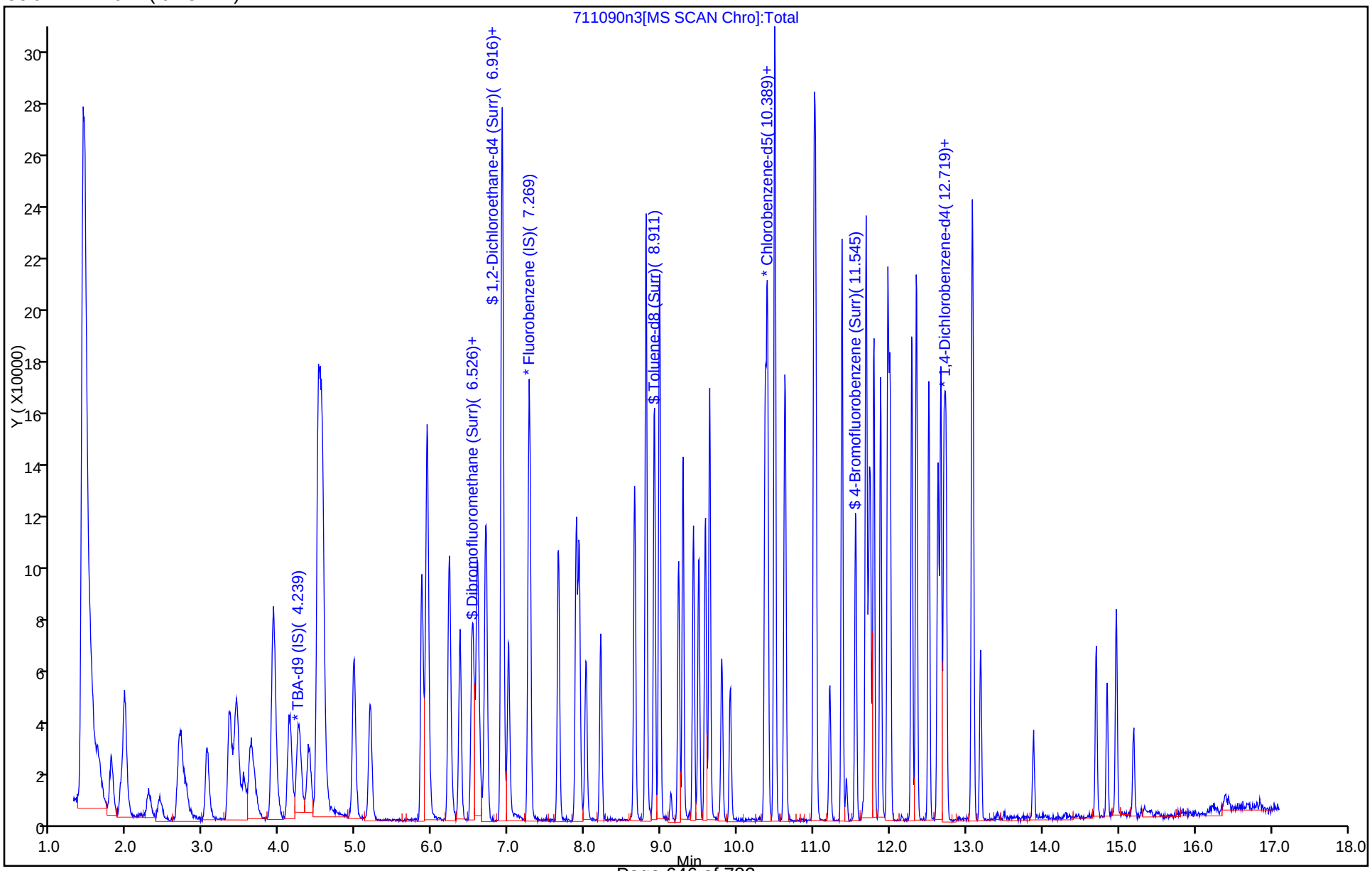
Report Date: 09-Nov-2017 15:51:21 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n3.D

Injection Date:	09-Nov-2017 08:58:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	08-Jun-2017 05:32:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0017092-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Jun-2017 03:51:53	Calib Date:	08-Jun-2017 12:55:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				
First Level Reviewer: bungardf		Date:	08-Jun-2017 06:34:26		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.403	8.403	0.000	0	57707	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

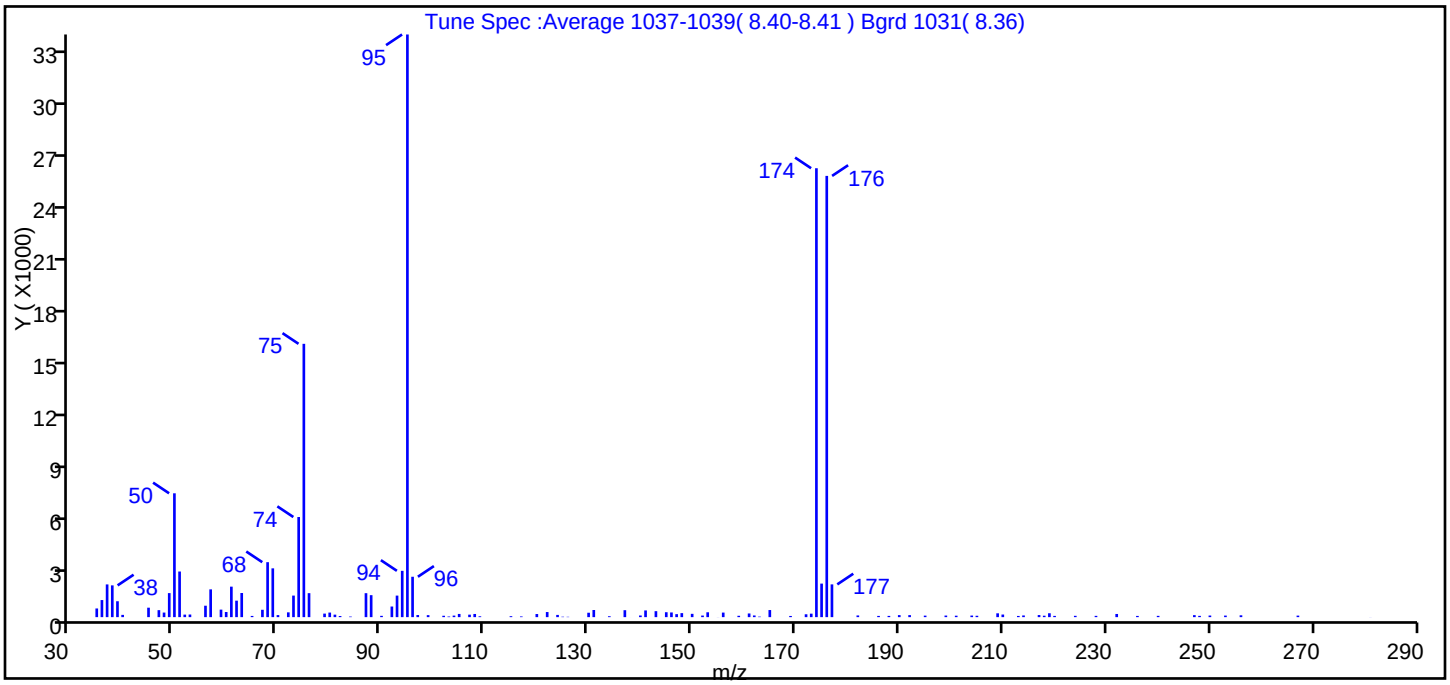
VOABFB25_00088 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D
Injection Date: 08-Jun-2017 05:32:30 Instrument ID: CHHP5
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_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.3
75	30 to 60% of m/z 95	46.9
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	77.0
175	5 to 9% of m/z 174	5.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	75.7 (98.3)
177	5 to 9% of m/z 176	5.6 (7.4)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 08-Jun-2017 05:32:30
Spectrum: Tune Spec :Average 1037-1039(8.40-8.41) Bgrd 1031(8.36)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 120

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	498	76.00	1377	126.00	20	182.00	97
36.00	981	79.00	203	130.00	253	186.00	71
37.00	1879	80.00	262	131.00	410	188.00	72
38.00	1824	81.00	143	134.00	52	190.00	116
39.00	913	82.00	63	137.00	399	192.00	116
40.00	130	84.00	33	138.00	1	195.00	87
45.00	543	87.00	1376	140.00	94	199.00	91
47.00	401	88.00	1262	141.00	385	201.00	83
48.00	263	90.00	75	143.00	343	204.00	91
49.00	1380	92.00	610	145.00	283	205.00	79
50.00	7111	93.00	1237	146.00	269	209.00	220
51.00	2620	94.00	2659	147.00	172	210.00	150
52.00	145	95.00	33456	148.00	231	213.00	69
53.00	151	96.00	2319	150.00	190	214.00	97
56.00	656	97.00	121	152.00	91	217.00	120
57.00	1595	99.00	115	153.00	279	218.00	82
59.00	432	102.00	79	155.00	4	219.00	224
60.00	295	103.00	36	156.00	262	220.00	72
61.00	1751	104.00	89	159.00	78	224.00	76
62.00	946	105.00	184	161.00	211	228.00	74
63.00	1386	107.00	143	162.00	96	232.00	182
65.00	70	108.00	182	163.00	30	236.00	70
67.00	423	109.00	48	165.00	408	240.00	74
68.00	3156	115.00	55	169.00	68	247.00	115
69.00	2802	116.00	1	172.00	165	248.00	74
70.00	118	117.00	40	173.00	200	250.00	92
72.00	275	120.00	179	174.00	25776	253.00	90
73.00	1238	122.00	293	175.00	1926	256.00	106
74.00	5749	124.00	128	176.00	25336	267.00	88
75.00	15694	125.00	25	177.00	1881	281.00	4

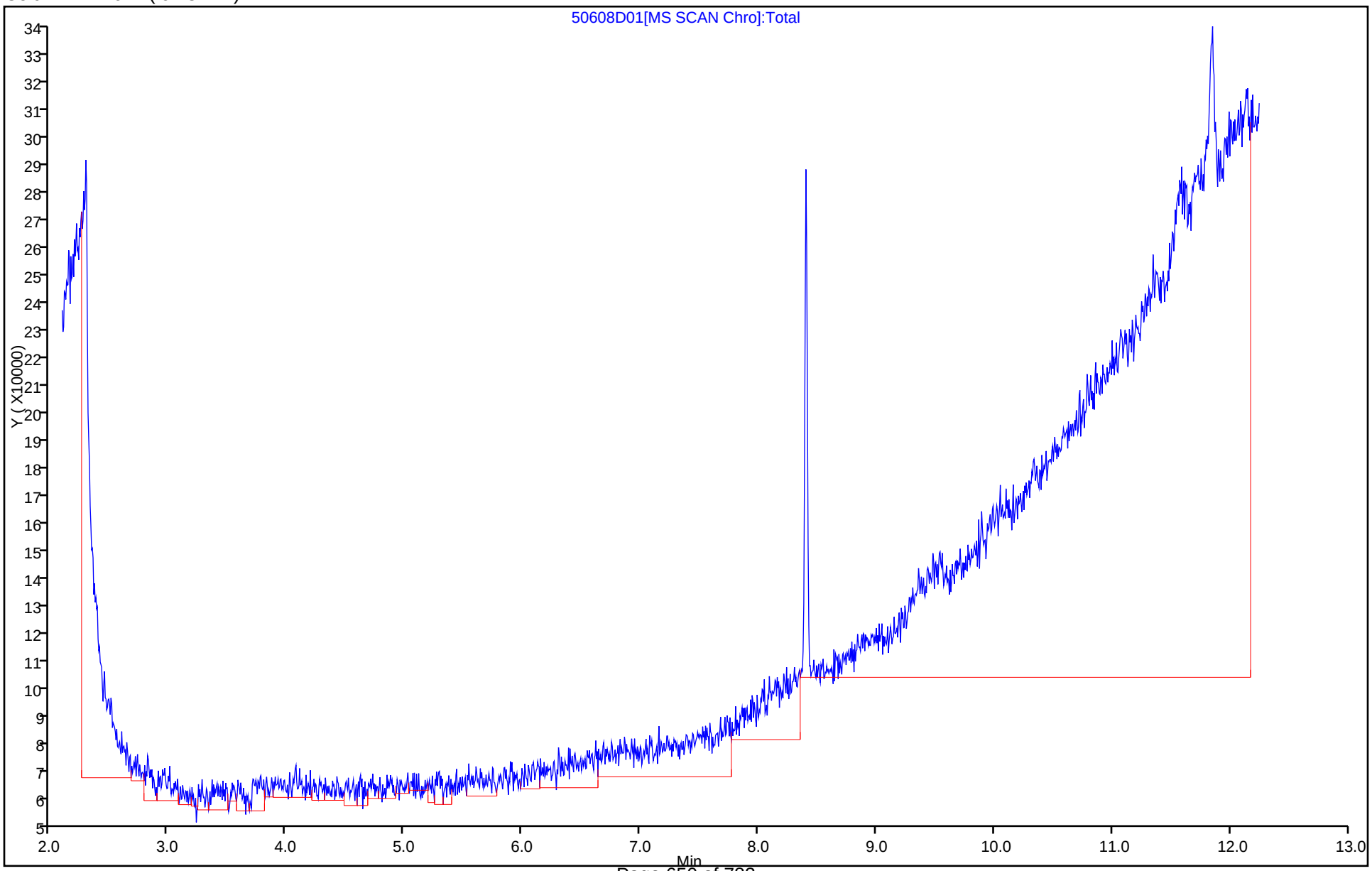
Report Date: 09-Jun-2017 03:51:54 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D

Injection Date:	08-Jun-2017 05:32:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Jul-2017 00:22:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0017756-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	28-Jul-2017 01:04:43	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				
First Level Reviewer: bungardf		Date:	27-Jul-2017 05:09:11		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.334	8.334	0.000	0	79656	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

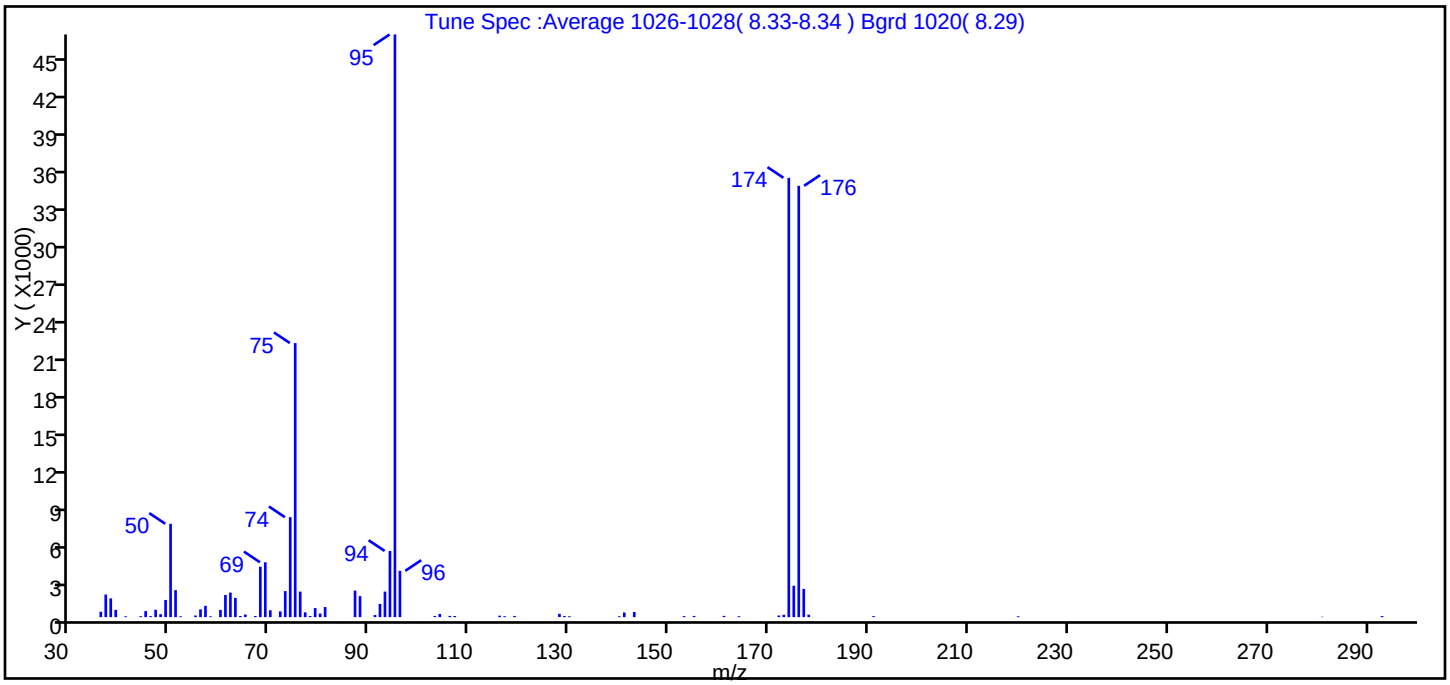
VOABFB25_00090 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D
Injection Date: 27-Jul-2017 00:22:30 Instrument ID: CHHP5
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_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.0
75	30 to 60% of m/z 95	47.0
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	75.4
175	5 to 9% of m/z 174	5.4 (7.2)
176	Greater than 95% but less than 101% of m/z 174	74.0 (98.2)
177	5 to 9% of m/z 176	4.8 (6.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 27-Jul-2017 00:22:30
Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1020(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	433	61.00	1769	87.00	2123	141.00	374
37.00	1806	62.00	1963	88.00	1682	143.00	408
38.00	1500	63.00	1542	91.00	169	153.00	84
39.00	582	64.00	92	92.00	1061	155.00	97
41.00	70	65.00	209	93.00	2045	161.00	102
44.00	76	67.00	88	94.00	5297	164.00	73
45.00	487	68.00	4038	95.00	46600	172.00	132
46.00	79	69.00	4388	96.00	3703	173.00	191
47.00	590	70.00	551	103.00	90	174.00	35136
48.00	235	72.00	459	104.00	258	175.00	2515
49.00	1375	73.00	2085	106.00	102	176.00	34496
50.00	7469	74.00	7996	107.00	90	177.00	2259
51.00	2160	75.00	21920	116.00	116	178.00	192
52.00	70	76.00	2042	117.00	73	191.00	80
55.00	130	77.00	386	119.00	97	220.00	71
56.00	624	78.00	89	128.00	269	281.00	30
57.00	904	79.00	726	129.00	86	293.00	87
58.00	67	80.00	290	130.00	72		
60.00	579	81.00	809	140.00	72		

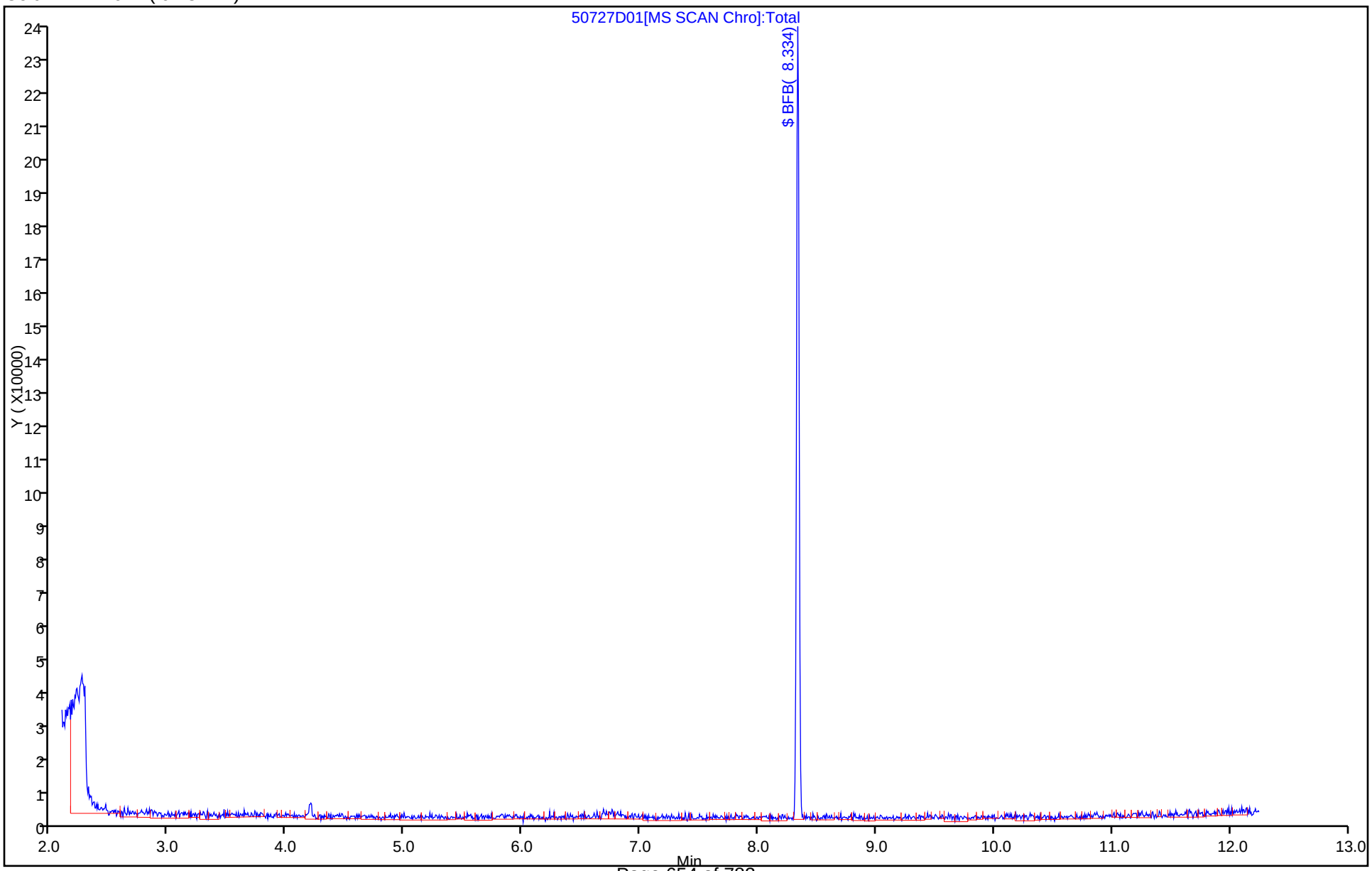
Report Date: 28-Jul-2017 01:04:43 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D

Injection Date:	27-Jul-2017 00:22:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 08-Nov-2017 20:06:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-001
Misc. Info.: BFB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:47:37 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: bungardf Date: 08-Nov-2017 20:26:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.339	8.339	0.000	0	114341	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

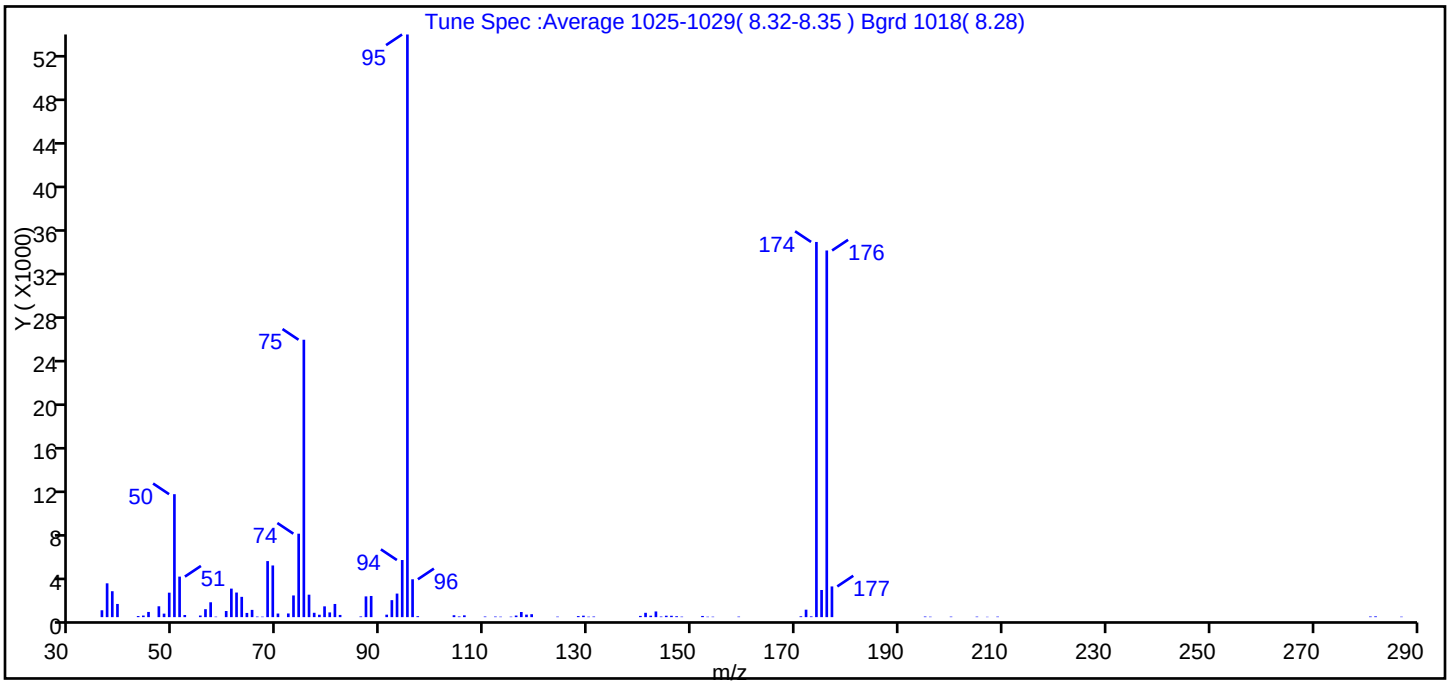
VOABFB25_00094 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D01.D
Injection Date: 08-Nov-2017 20:06:30 Instrument ID: CHHP5
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_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.1
75	30 to 60% of m/z 95	47.6
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.1 (0.2)
174	50 to 120% of m/z 95	64.4
175	5 to 9% of m/z 174	4.7 (7.2)
176	Greater than 95% but less than 101% of m/z 174	62.9 (97.7)
177	5 to 9% of m/z 176	5.3 (8.4)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 08-Nov-2017 20:06:30
Spectrum: Tune Spec :Average 1025-1029(8.32-8.35) Bgrd 1018(8.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 94

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	633	67.00	44	97.00	87	147.00	86
37.00	3110	68.00	5155	104.00	176	148.00	46
38.00	2384	69.00	4753	105.00	64	152.00	109
39.00	1213	70.00	332	106.00	166	153.00	40
43.00	100	72.00	339	110.00	57	154.00	42
44.00	146	73.00	1995	112.00	55	159.00	49
45.00	478	74.00	7675	113.00	43	171.00	80
47.00	999	75.00	25512	115.00	45	172.00	687
48.00	323	76.00	2066	116.00	146	173.00	70
49.00	2250	77.00	400	117.00	473	174.00	34504
50.00	11308	78.00	221	118.00	231	175.00	2497
51.00	3728	79.00	993	119.00	272	176.00	33720
52.00	196	80.00	435	124.00	47	177.00	2824
55.00	147	81.00	1212	128.00	96	195.00	56
56.00	731	82.00	203	129.00	135	196.00	40
57.00	1368	86.00	64	130.00	43	200.00	47
58.00	45	87.00	1908	131.00	57	205.00	48
60.00	564	88.00	1947	140.00	113	207.00	31
61.00	2624	91.00	228	141.00	399	209.00	48
62.00	2262	92.00	1563	142.00	131	281.00	59
63.00	1866	93.00	2167	143.00	524	282.00	71
64.00	387	94.00	5252	144.00	57	287.00	42
65.00	668	95.00	53584	145.00	131		
66.00	52	96.00	3483	146.00	126		

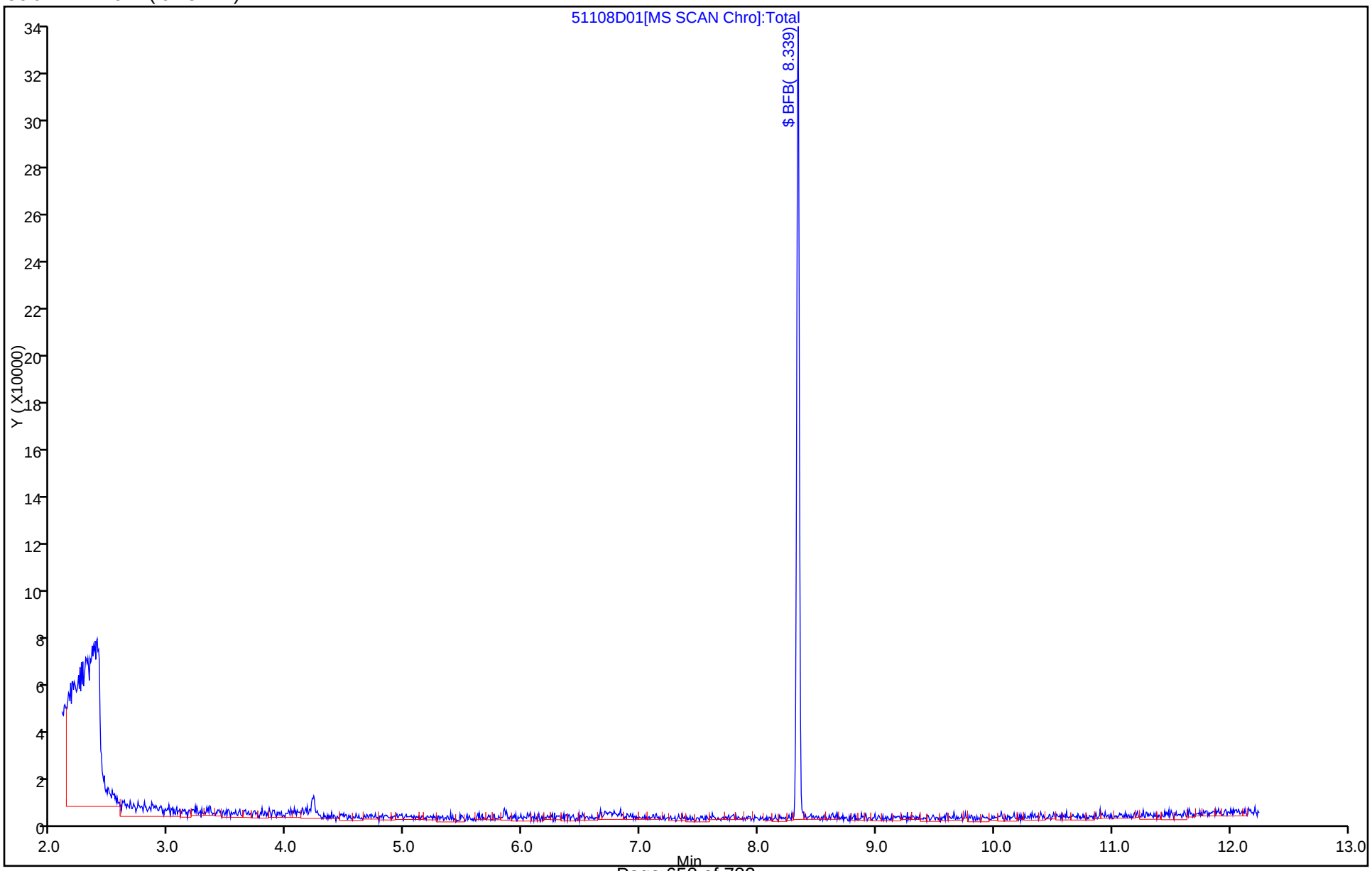
Report Date: 09-Nov-2017 09:47:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D01.D

Injection Date:	08-Nov-2017 20:06:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	09-Nov-2017 09:40:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019236-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 17:33:41	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.344	8.344	0.000	0	203156	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

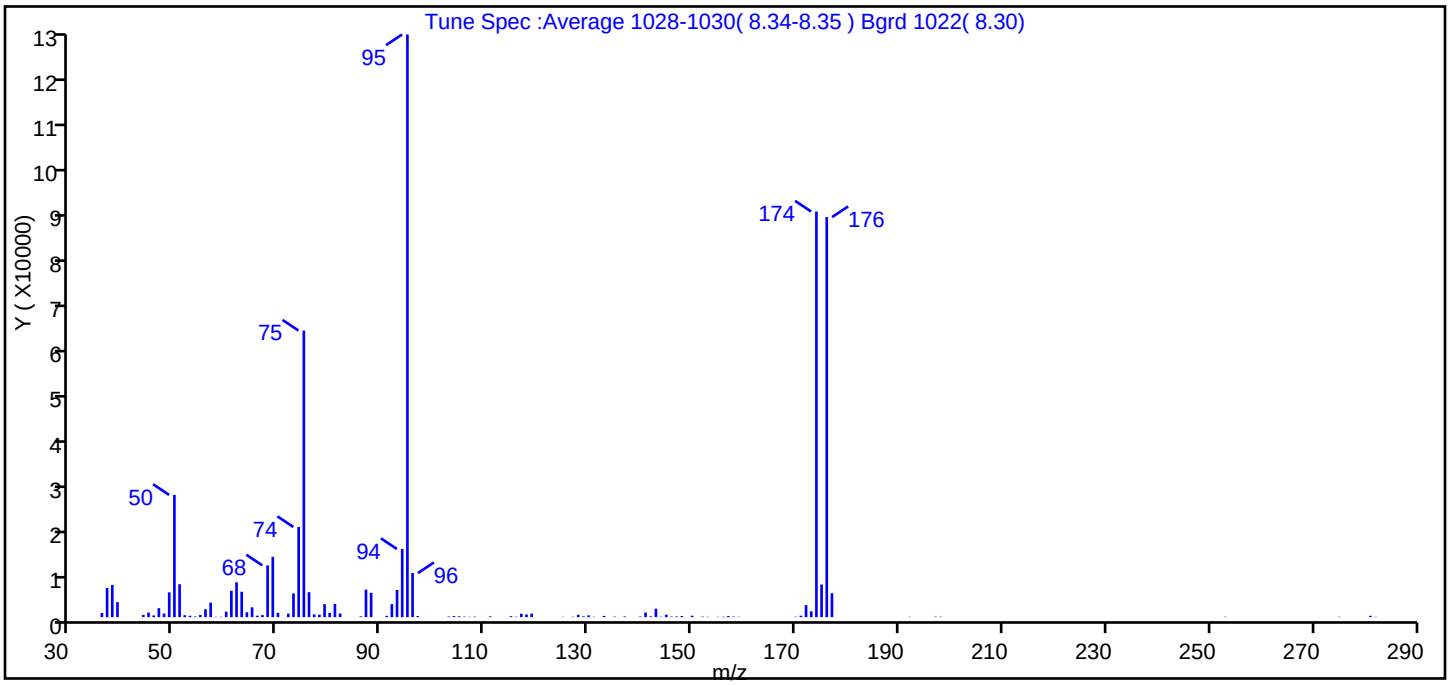
VOABFB25_00094 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D01.D				
Injection Date:	09-Nov-2017 09:40:30	Instrument ID:	CHHP5		
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_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.0
75	30 to 60% of m/z 95	49.2
96	5 to 9% of m/z 95	7.6
173	Less than 2% of m/z 174	1.0 (1.4)
174	50 to 120% of m/z 95	69.6
175	5 to 9% of m/z 174	5.6 (8.1)
176	Greater than 95% but less than 101% of m/z 174	68.7 (98.6)
177	5 to 9% of m/z 176	4.1 (6.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 09-Nov-2017 09:40:30
Spectrum: Tune Spec :Average 1028-1030(8.34-8.35) Bgrd 1022(8.30)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	856	66.00	301	104.00	210	147.00	141
37.00	6063	67.00	424	105.00	176	148.00	237
38.00	6677	68.00	10735	106.00	108	150.00	292
39.00	3114	69.00	12508	107.00	71	152.00	103
40.00	15	70.00	900	108.00	96	153.00	70
44.00	446	72.00	732	111.00	160	155.00	63
45.00	942	73.00	4919	115.00	200	156.00	88
46.00	345	74.00	18696	116.00	80	157.00	223
47.00	1867	75.00	59416	117.00	713	158.00	111
48.00	745	76.00	5189	118.00	550	159.00	72
49.00	5139	77.00	568	119.00	737	170.00	81
50.00	25344	78.00	504	125.00	68	171.00	298
51.00	6829	79.00	2680	127.00	76	172.00	2488
52.00	405	80.00	875	128.00	480	173.00	1206
53.00	286	81.00	2742	129.00	162	174.00	84104
54.00	131	82.00	745	130.00	376	175.00	6772
55.00	449	86.00	164	131.00	73	176.00	82944
56.00	1638	87.00	5710	133.00	259	177.00	4956
57.00	3012	88.00	5039	135.00	112	192.00	68
58.00	69	91.00	271	137.00	149	197.00	101
59.00	76	92.00	2702	140.00	116	198.00	86
60.00	1135	93.00	5646	141.00	951	253.00	80
61.00	5462	94.00	14132	142.00	158	275.00	80
62.00	7222	95.00	120808	143.00	1748	281.00	286
63.00	5262	96.00	9130	144.00	85	282.00	68
64.00	1011	97.00	230	145.00	525		
65.00	2043	103.00	125	146.00	114		

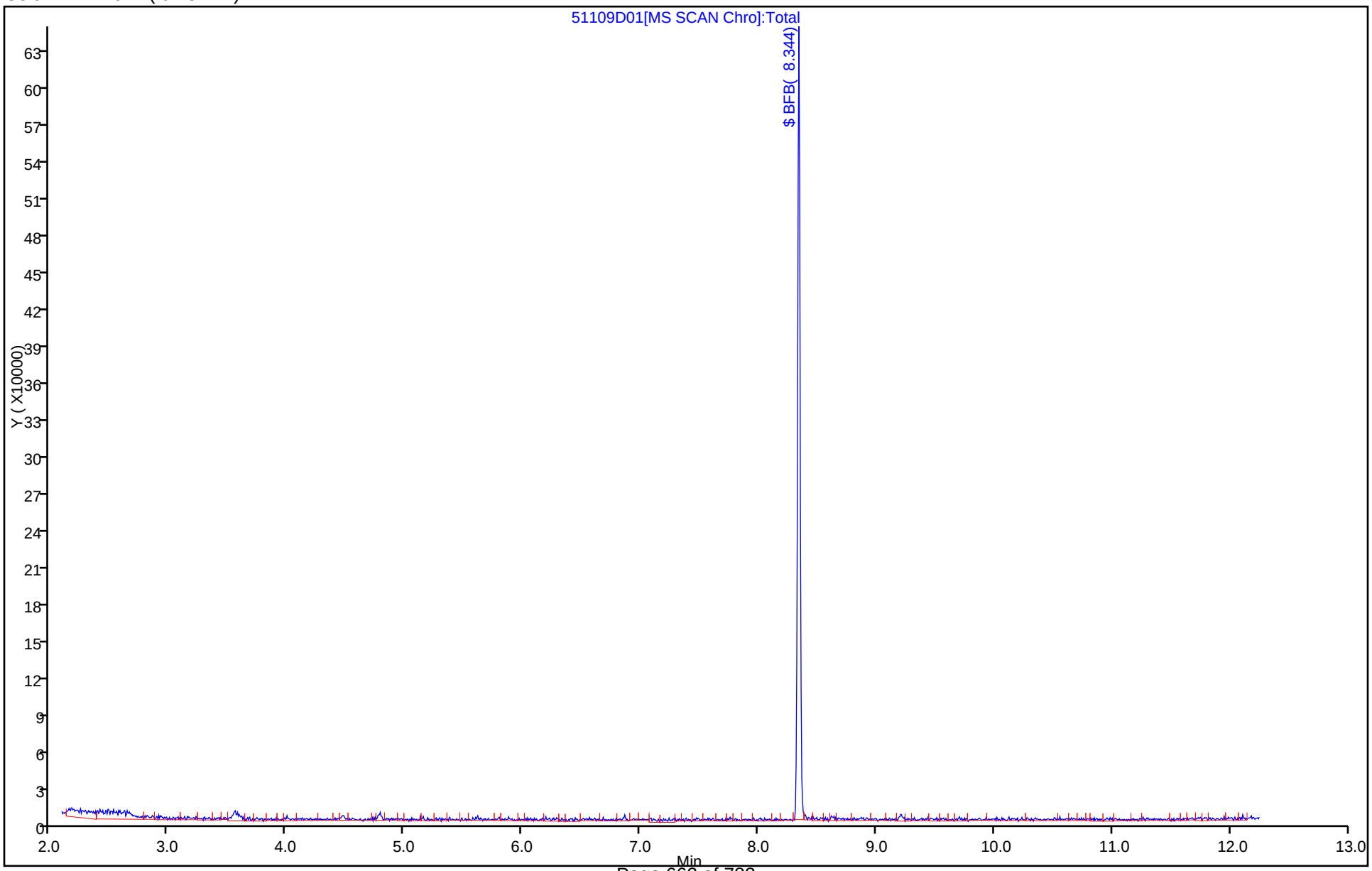
Report Date: 09-Nov-2017 17:33:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D01.D

Injection Date:	09-Nov-2017 09:40:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	10-Nov-2017 06:43:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019249-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	13-Nov-2017 12:28:04	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.347	8.347	0.000	0	176588	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

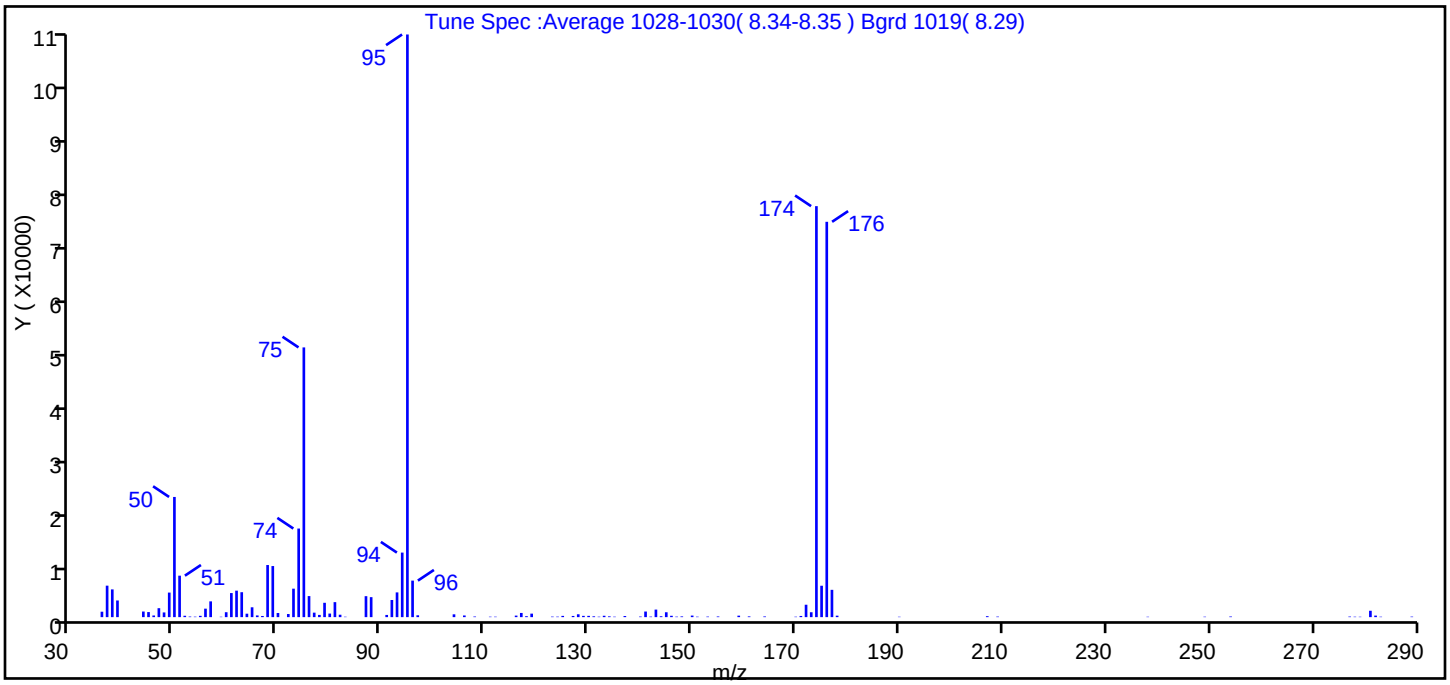
VOABFB25_00095 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D01.D
Injection Date: 10-Nov-2017 06:43:30 Instrument ID: CHHP5
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_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	46.3
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.8 (1.2)
174	50 to 120% of m/z 95	70.5
175	5 to 9% of m/z 174	5.4 (7.6)
176	Greater than 95% but less than 101% of m/z 174	67.9 (96.2)
177	5 to 9% of m/z 176	4.7 (6.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 10-Nov-2017 06:43:30
Spectrum: Tune Spec :Average 1028-1030(8.34-8.35) Bgrd 1019(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	940	69.00	8828	116.00	267	153.00	93
37.00	5439	70.00	717	117.00	724	155.00	116
38.00	4794	72.00	539	118.00	162	159.00	256
39.00	2880	73.00	4920	119.00	607	161.00	128
44.00	970	74.00	15309	123.00	92	164.00	119
45.00	875	75.00	46608	124.00	86	170.00	76
46.00	285	76.00	3639	125.00	217	171.00	205
47.00	1547	77.00	775	127.00	205	172.00	2144
48.00	814	78.00	386	128.00	495	173.00	846
49.00	4244	79.00	2479	129.00	220	174.00	71016
50.00	20768	80.00	618	130.00	223	175.00	5426
51.00	7166	81.00	2593	131.00	141	176.00	68312
52.00	239	82.00	418	132.00	79	177.00	4720
53.00	103	83.00	70	133.00	237	178.00	255
54.00	81	87.00	3624	134.00	136	190.00	68
55.00	226	88.00	3454	135.00	79	207.00	164
56.00	1466	91.00	381	137.00	192	209.00	95
57.00	2726	92.00	2963	140.00	102	238.00	67
59.00	69	93.00	4276	141.00	969	249.00	75
60.00	853	94.00	11155	142.00	93	254.00	110
61.00	4162	95.00	100680	143.00	1305	277.00	100
62.00	4575	96.00	6312	144.00	154	278.00	76
63.00	4309	97.00	320	145.00	847	279.00	68
64.00	595	104.00	488	146.00	235	281.00	1102
65.00	1703	106.00	289	147.00	86	282.00	267
66.00	294	108.00	106	148.00	125	283.00	75
67.00	200	111.00	79	150.00	272	289.00	90
68.00	9006	112.00	77	151.00	80		

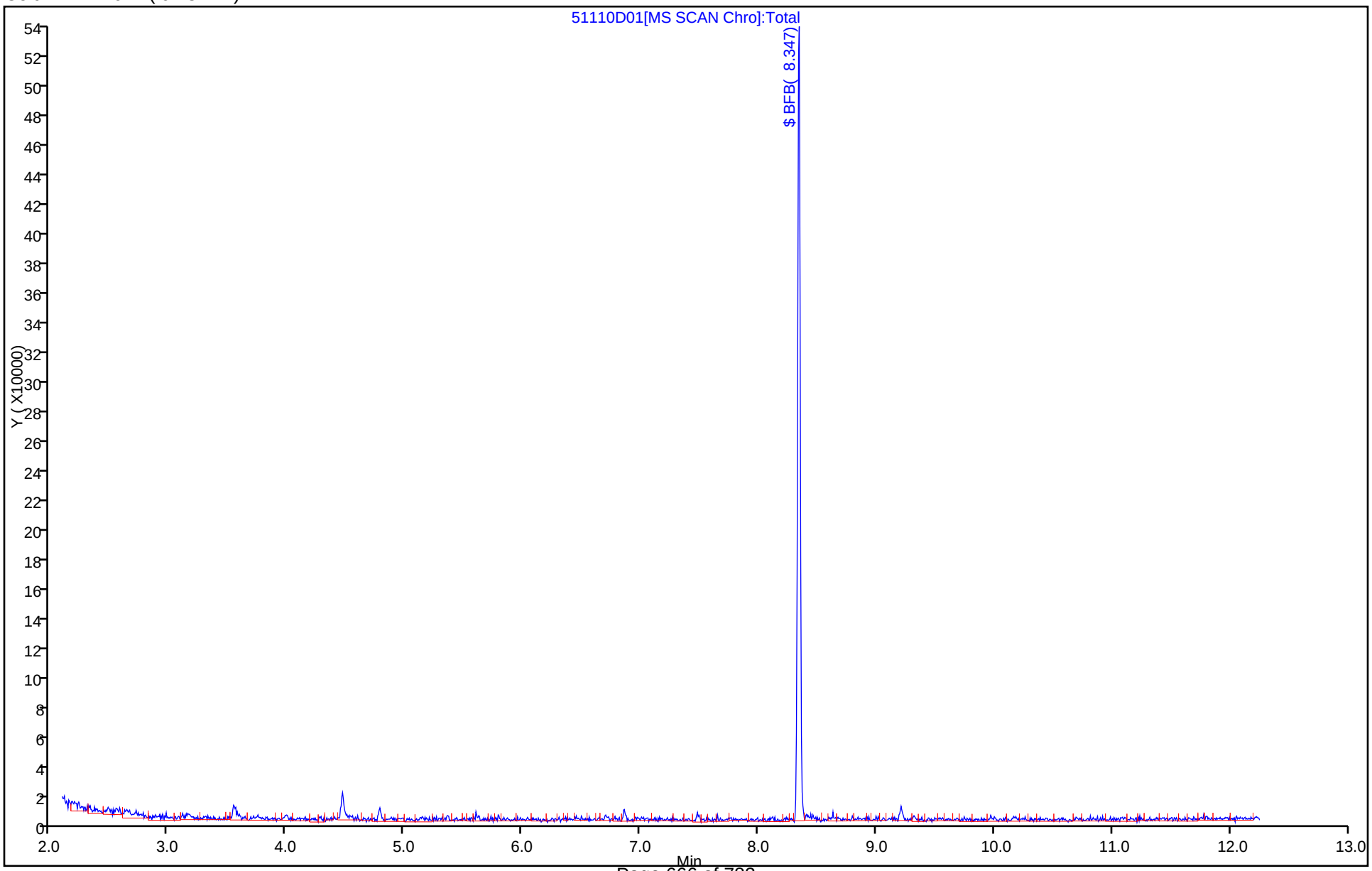
Report Date: 13-Nov-2017 12:28:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D01.D

Injection Date:	10-Nov-2017 06:43:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	11-Nov-2017 04:07:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019261-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	12-Nov-2017 14:51:31	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				
First Level Reviewer: bungardf		Date:	11-Nov-2017 04:51:47		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.333	8.333	0.000	0	66342	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

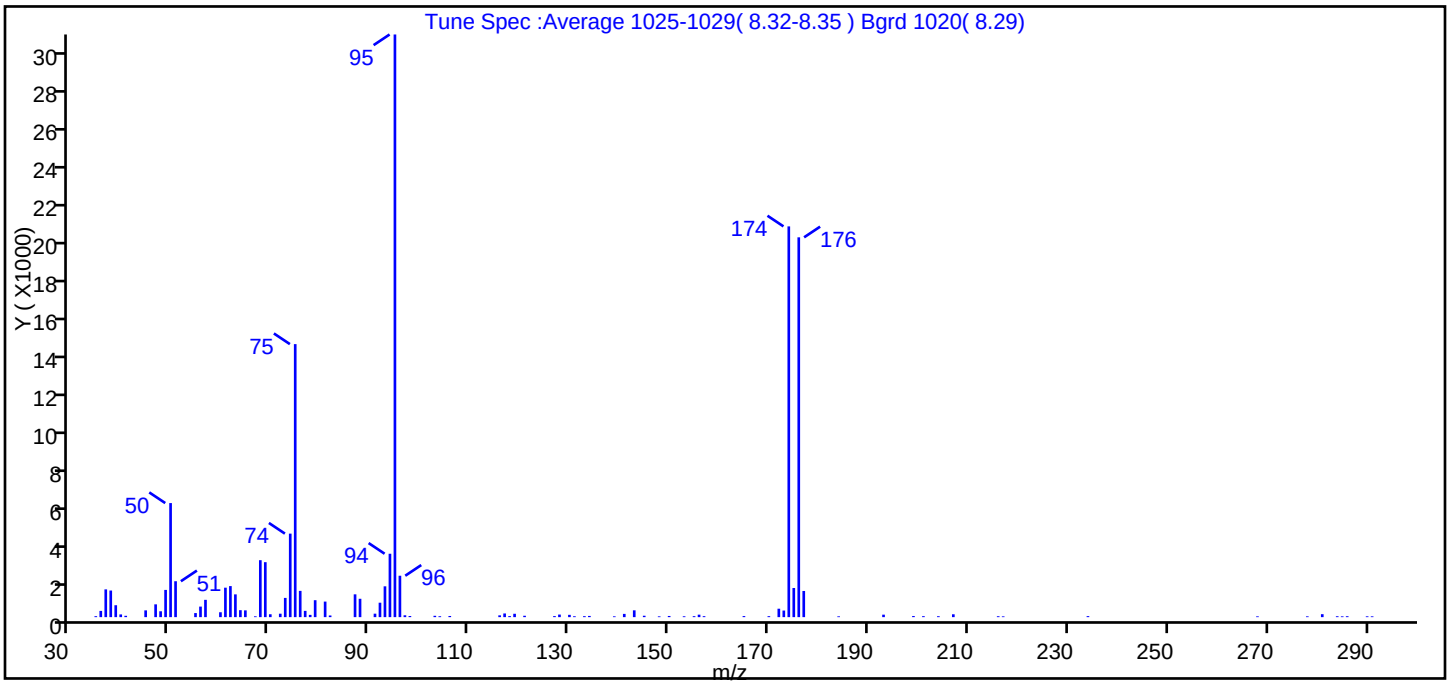
VOABFB25_00095 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D01.D
Injection Date: 11-Nov-2017 04:07:30 Instrument ID: CHHP5
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_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.6
75	30 to 60% of m/z 95	46.9
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	1.1 (1.7)
174	50 to 120% of m/z 95	67.1
175	5 to 9% of m/z 174	5.0 (7.5)
176	Greater than 95% but less than 101% of m/z 174	65.2 (97.2)
177	5 to 9% of m/z 176	4.5 (6.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 11-Nov-2017 04:07:30
Spectrum: Tune Spec :Average 1025-1029(8.32-8.35) Bgrd 1020(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 95

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	50	69.00	2855	106.00	60	172.00	438
36.00	324	70.00	150	116.00	93	173.00	343
37.00	1442	72.00	179	117.00	191	174.00	20296
38.00	1382	73.00	999	118.00	54	175.00	1514
39.00	619	74.00	4338	119.00	175	176.00	19728
40.00	141	75.00	14181	121.00	72	177.00	1359
41.00	70	76.00	1364	127.00	54	184.00	41
45.00	352	77.00	326	128.00	134	193.00	129
47.00	665	78.00	118	130.00	120	199.00	57
48.00	305	79.00	880	131.00	46	201.00	50
49.00	1414	81.00	808	133.00	50	204.00	48
50.00	5925	82.00	86	134.00	63	207.00	149
51.00	1865	87.00	1185	139.00	42	216.00	47
55.00	212	88.00	954	141.00	169	217.00	40
56.00	548	91.00	180	143.00	354	234.00	53
57.00	899	92.00	750	145.00	73	268.00	41
60.00	254	93.00	1601	148.00	41	278.00	42
61.00	1530	94.00	3293	150.00	61	281.00	154
62.00	1613	95.00	30264	153.00	44	284.00	47
63.00	1183	96.00	2151	155.00	50	285.00	41
64.00	362	97.00	97	156.00	129	286.00	48
65.00	352	98.00	58	157.00	50	290.00	43
67.00	43	103.00	70	165.00	55	291.00	42
68.00	2958	104.00	47	170.00	50		

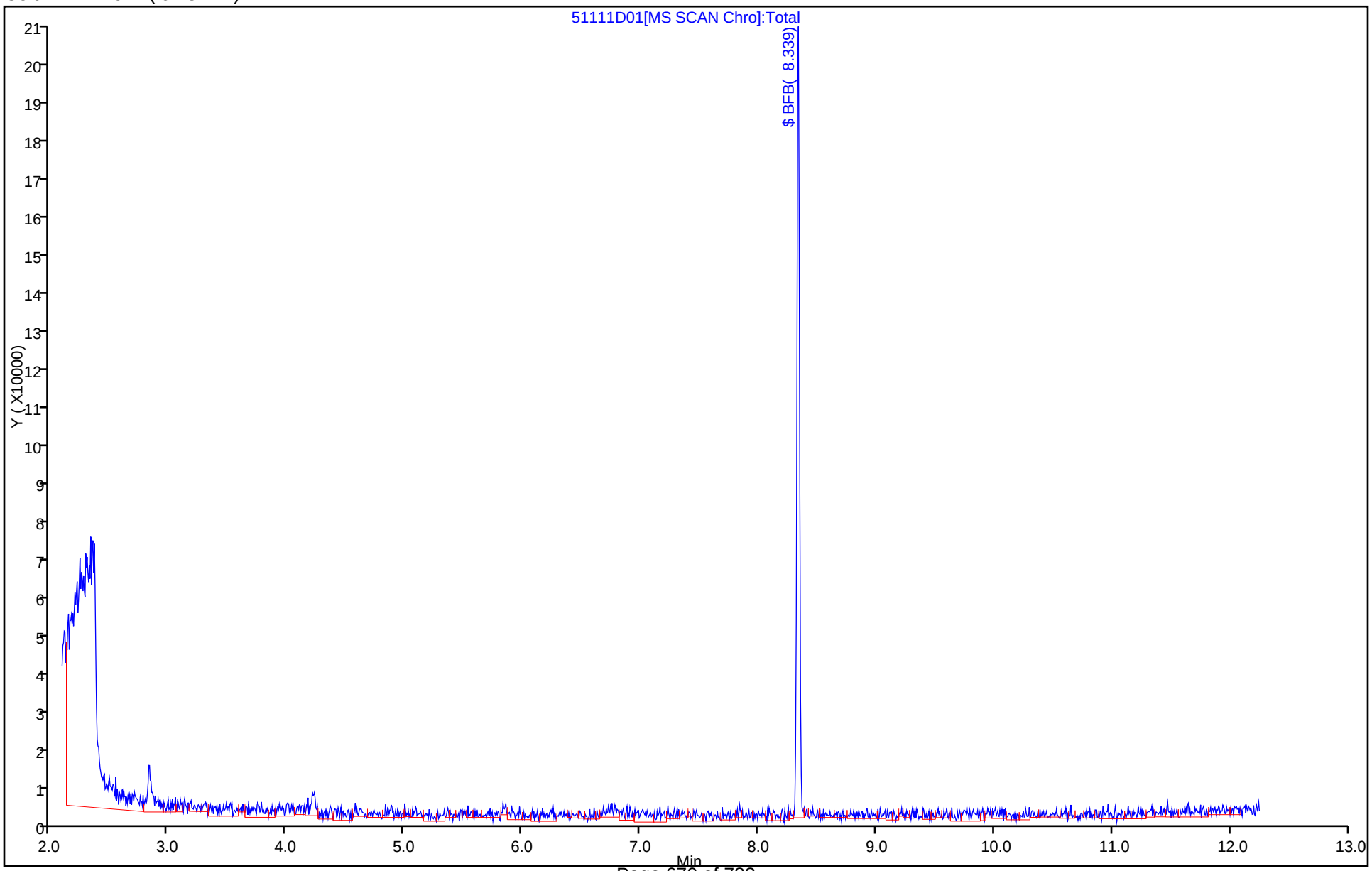
Report Date: 12-Nov-2017 14:51:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D01.D

Injection Date:	11-Nov-2017 04:07:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 26-May-2017 13:55:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2017 10:43:47 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.543	11.543	0.000	0	380415	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

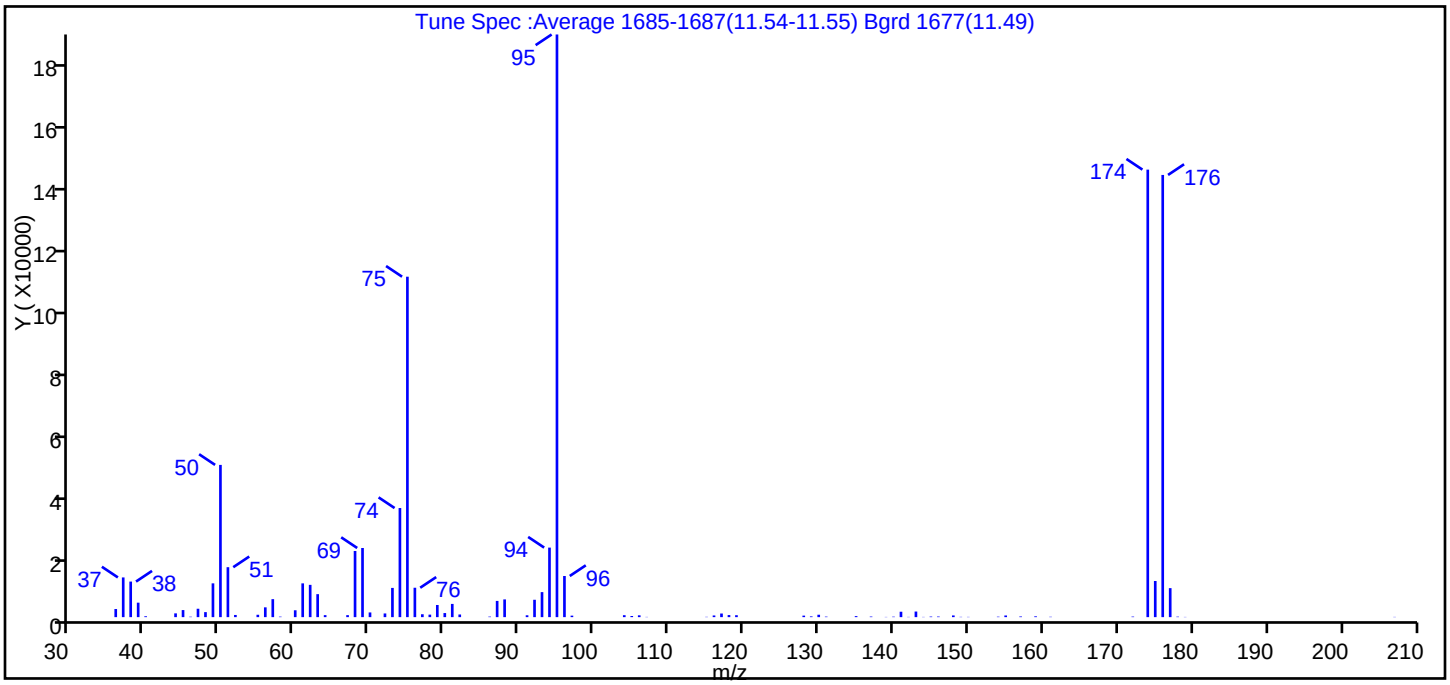
VOABFB50_00091 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N01.D
Injection Date: 26-May-2017 13:55:30 Instrument ID: CHHP7
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_CHHP7 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	26.1
75	30 to 60% of m/z 95	58.4
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	76.8
175	5 to 9% of m/z 174	6.2 (8.1)
176	Greater than 95% but less than 101% of m/z 174	75.9 (98.8)
177	5 to 9% of m/z 176	5.0 (6.6)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N01.D\MSVOA_LL_CHHP7.rslt\spec
Injection Date: 26-May-2017 13:55:30
Spectrum: Tune Spec :Average 1685-1687(11.54-11.55) Bgrd 1677(11.49)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2642	64.00	652	94.00	22656	142.00	79
37.00	12938	67.00	653	95.00	189824	143.00	1826
38.00	11589	68.00	21552	96.00	13405	144.00	74
39.00	4713	69.00	22528	97.00	489	145.00	189
40.00	286	70.00	1533	104.00	636	146.00	196
44.00	1231	72.00	1203	105.00	369	148.00	554
45.00	2303	73.00	9522	106.00	592	149.00	92
46.00	142	74.00	35544	107.00	74	150.00	83
47.00	2735	75.00	110912	115.00	99	154.00	151
48.00	1636	76.00	9578	116.00	546	155.00	541
49.00	11008	77.00	945	117.00	1182	157.00	218
50.00	49600	78.00	820	118.00	676	159.00	264
51.00	16273	79.00	3959	119.00	629	161.00	118
52.00	709	80.00	1332	128.00	494	172.00	180
55.00	776	81.00	4310	129.00	242	174.00	145792
56.00	3192	82.00	867	130.00	784	175.00	11773
57.00	5861	86.00	174	131.00	172	176.00	144064
58.00	163	87.00	5283	135.00	334	177.00	9450
60.00	2238	88.00	5778	137.00	191	178.00	159
61.00	11003	91.00	608	139.00	71	179.00	69
62.00	10519	92.00	5660	140.00	152	207.00	77
63.00	7487	93.00	8153	141.00	1765		

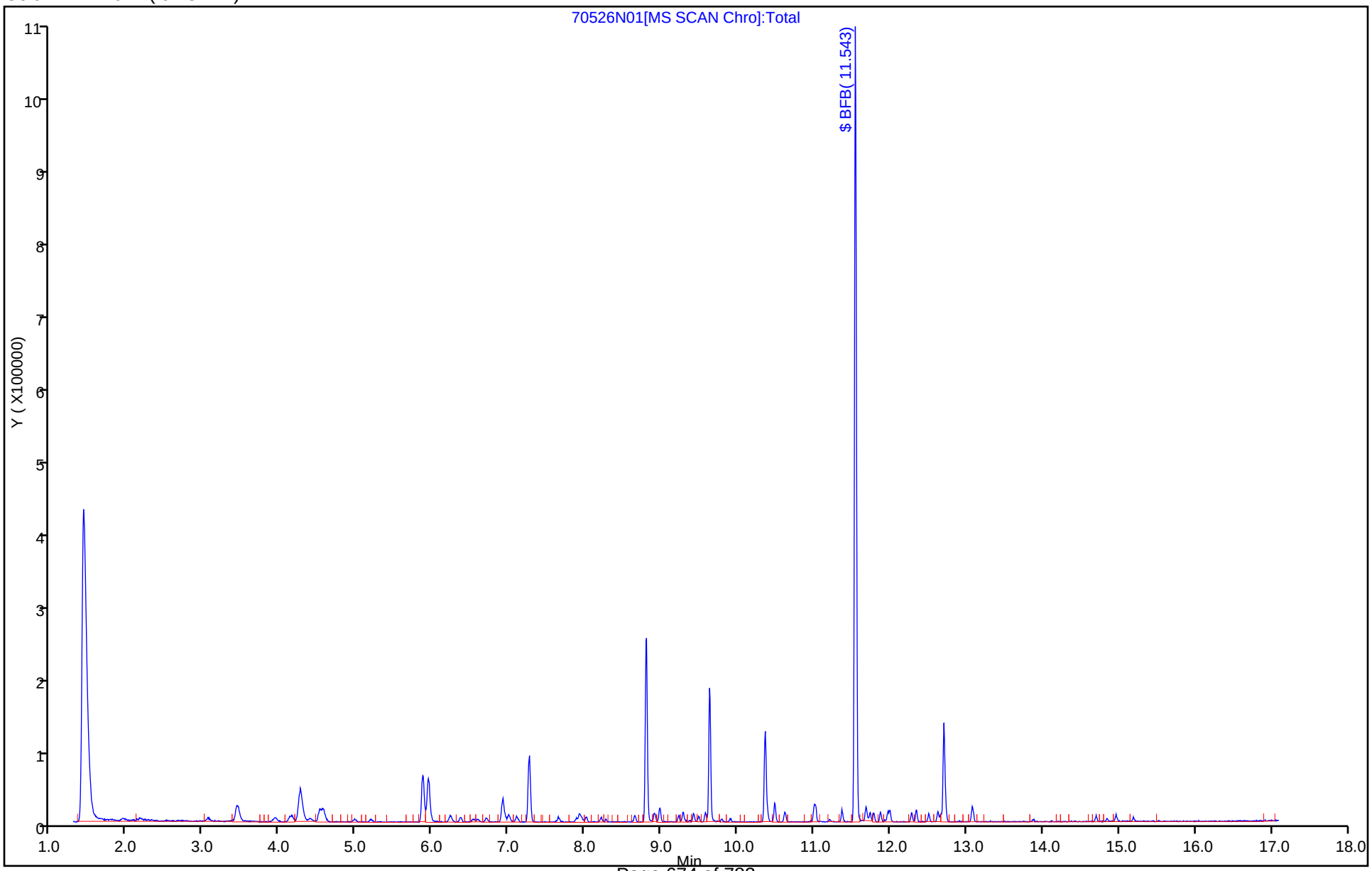
Report Date: 27-May-2017 10:43:48 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N01.D

Injection Date:	26-May-2017 13:55:30	Instrument ID:	CHHP7	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_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n1.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 09-Nov-2017 07:17:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 15:46:02 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.549	11.549	0.000	0	177458	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

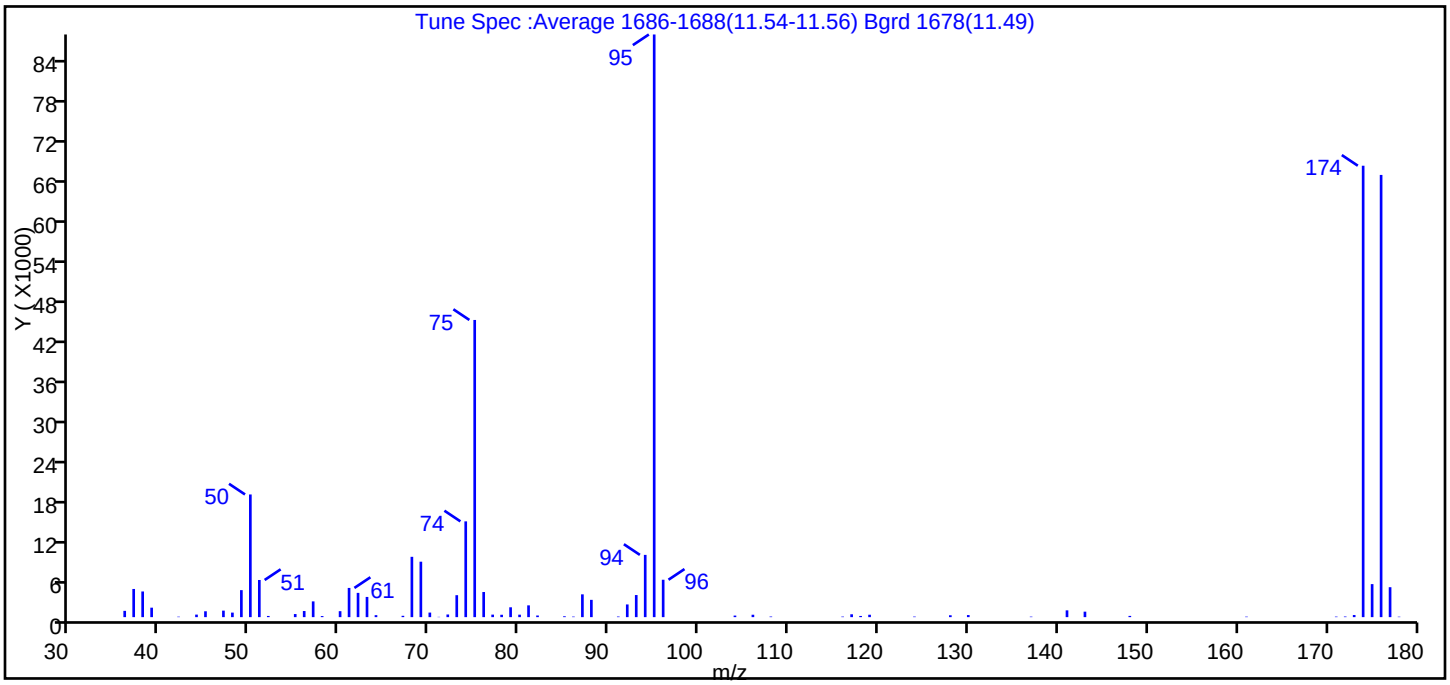
VOABFB25_00094 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n1.D				
Injection Date:	09-Nov-2017 07:17:30	Instrument ID:	CHHP7		
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_CHHP7	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.1
75	30 to 60% of m/z 95	51.0
96	5 to 9% of m/z 95	6.4
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	77.5
175	5 to 9% of m/z 174	5.7 (7.3)
176	Greater than 95% but less than 101% of m/z 174	75.9 (98.0)
177	5 to 9% of m/z 176	5.1 (6.8)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n1.D\MSVOA_LL_CHHP7.rslt\spect
Injection Date: 09-Nov-2017 07:17:30
Spectrum: Tune Spec :Average 1686-1688(11.54-11.56) Bgrd 1678(11.49)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 71

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	945	61.00	4392	81.00	1772	119.00	363
37.00	4237	62.00	3648	82.00	246	124.00	83
38.00	3860	63.00	3039	85.00	130	128.00	281
39.00	1425	64.00	298	86.00	82	130.00	312
42.00	69	67.00	201	87.00	3429	137.00	76
44.00	382	68.00	9071	88.00	2601	141.00	1021
45.00	882	69.00	8338	91.00	91	143.00	824
47.00	980	70.00	687	92.00	1910	148.00	187
48.00	683	71.00	42	93.00	3323	161.00	75
49.00	4061	72.00	399	94.00	9362	171.00	81
50.00	18448	73.00	3302	95.00	87616	172.00	93
51.00	5587	74.00	14403	96.00	5624	173.00	318
52.00	178	75.00	44688	104.00	235	174.00	67880
55.00	466	76.00	3778	106.00	363	175.00	4967
56.00	920	77.00	381	108.00	92	176.00	66496
57.00	2370	78.00	358	116.00	83	177.00	4503
58.00	161	79.00	1482	117.00	432	178.00	67
60.00	898	80.00	372	118.00	179		

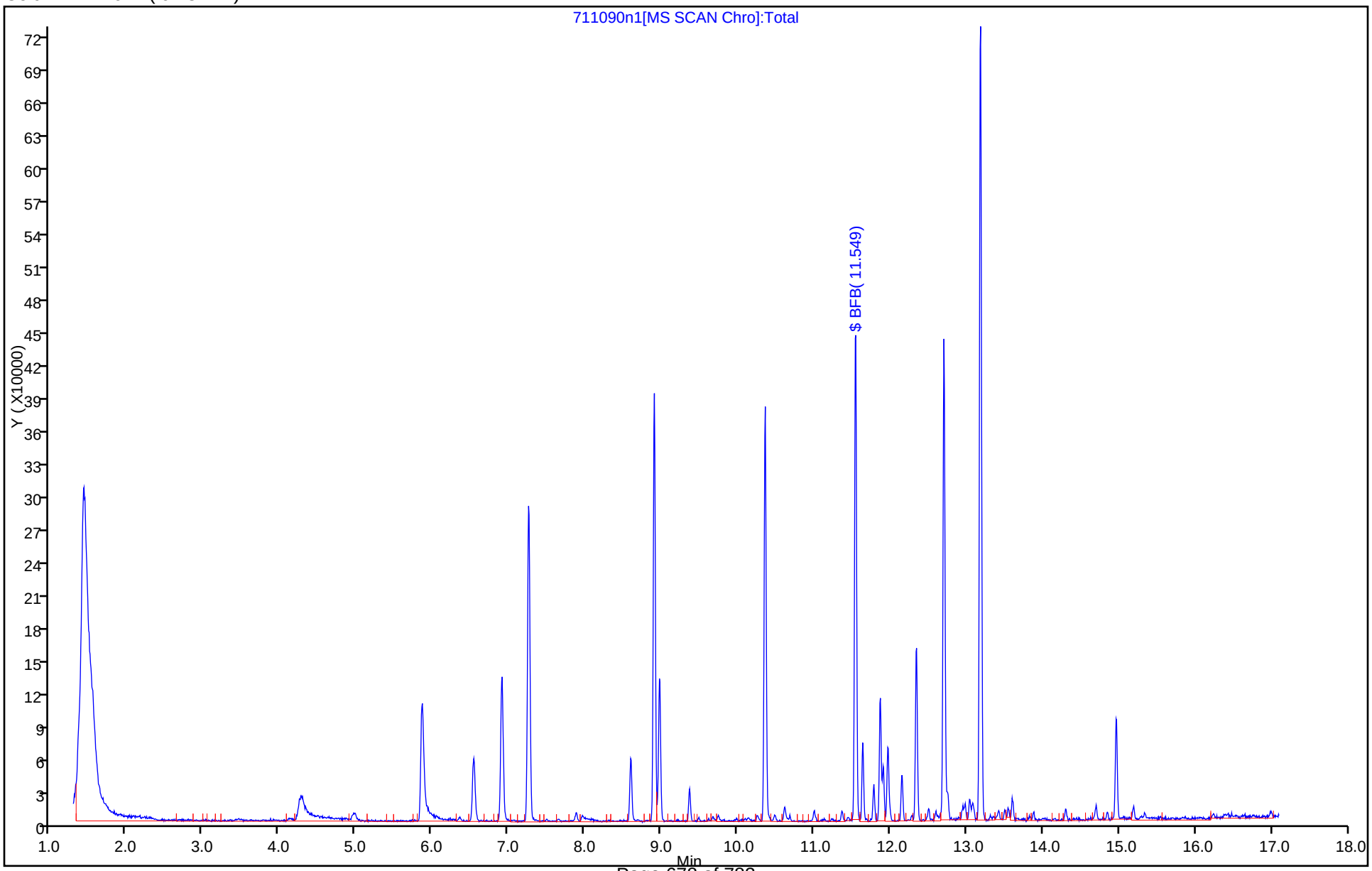
Report Date: 09-Nov-2017 15:46:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n1.D

Injection Date:	09-Nov-2017 07:17:30	Instrument ID:	CHHP7	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_CHHP7	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.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228418/5

Matrix: Water | Lab File ID: 51108D05.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/08/2017 23:01

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.: 228418 | 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.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228418/5

Matrix: Water | Lab File ID: 51108D05.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/08/2017 23:01

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.: 228418 | 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)	109		65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D05.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Nov-2017 23:01:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-005
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: bungardf Date: 08-Nov-2017 23:25:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.360	4.373	-0.013	0	255496	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.341	0.000	98	542451	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.430	-0.001	87	126783	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	97	175009	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.622	6.617	0.005	92	129710	50.0	49.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.982	0.005	0	173404	50.0	54.5	
$ 7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	95	479666	50.0	47.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.610	-0.001	82	170030	50.0	46.7	
11 Dichlorodifluoromethane	85		1.685					ND	
12 Chloromethane	50		1.886					ND	
13 Vinyl chloride	62		2.013					ND	
14 Butadiene	39		2.019					ND	
15 Bromomethane	94		2.342					ND	
16 Chloroethane	64		2.433					ND	
18 Trichlorofluoromethane	101		2.737					ND	
17 Dichlorofluoromethane	67		2.755					ND	
19 Ethanol	45	2.760	2.821	-0.061	1	647			NC
20 Ethyl ether	59		3.126					ND	
21 Acrolein	56		3.309					ND	
22 1,1-Dichloroethene	96		3.418					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.503					ND	
24 Acetone	43		3.528					ND	
25 Iodomethane	142		3.613					ND	
26 Carbon disulfide	76		3.716					ND	
27 Isopropyl alcohol	45		3.816					ND	
29 Acetonitrile	41		3.981					ND	
28 3-Chloro-1-propene	76		4.008					ND	
30 Methyl acetate	43		4.026					ND	
31 Methylene Chloride	84		4.227					ND	
32 2-Methyl-2-propanol	59		4.494					ND	
33 Acrylonitrile	53		4.610					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		4.634					ND	
35 Methyl tert-butyl ether	73		4.659					ND	
36 Hexane	57		5.060					ND	
37 1,1-Dichloroethane	63		5.273					ND	
38 Vinyl acetate	43		5.321					ND	
39 2-Chloro-1,3-butadiene	53		5.367					ND	
41 Isopropyl ether	45		5.367					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.835					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.009					ND	
44 2,2-Dichloropropane	97		6.009					ND	
46 2-Butanone (MEK)	43		6.021					ND	
48 Ethyl acetate	43		6.097					ND	
47 Propionitrile	54		6.103					ND	
50 Methacrylonitrile	41		6.273					ND	
49 Chlorobromomethane	128		6.295					ND	
51 Tetrahydrofuran	42		6.307					ND	
52 Chloroform	83		6.434					ND	M
53 1,1,1-Trichloroethane	97		6.592					ND	
54 Cyclohexane	56		6.659					ND	
56 Carbon tetrachloride	117		6.769					ND	
55 1,1-Dichloropropene	75		6.781					ND	
57 Isobutyl alcohol	41		6.982					ND	
58 Benzene	78		6.994					ND	
59 1,2-Dichloroethane	62		7.073					ND	
151 Isooctane	57		7.149					ND	
61 Tert-amyl methyl ether	73		7.173					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.353					ND	
63 n-Butanol	56		7.684					ND	
64 Trichloroethene	130		7.724					ND	
65 Ethyl acrylate	55		7.848					ND	
66 Methylcyclohexane	83		7.961					ND	
67 1,2-Dichloropropane	63		7.991					ND	
68 Dibromomethane	93		8.082					ND	
70 1,4-Dioxane	88		8.082					ND	
69 Methyl methacrylate	69		8.086					ND	
71 Dichlorobromomethane	83		8.277					ND	
73 2-Chloroethyl vinyl ether	63		8.575					ND	
74 cis-1,3-Dichloropropene	75		8.721					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873					ND	
76 Toluene	91		9.043					ND	
77 trans-1,3-Dichloropropene	75		9.293					ND	
78 Ethyl methacrylate	69		9.353					ND	
79 1,1,2-Trichloroethane	97		9.487					ND	
80 Tetrachloroethene	164		9.554					ND	
81 1,3-Dichloropropane	76		9.645					ND	
82 2-Hexanone	43		9.706					ND	
83 n-Butyl acetate	43		9.825					ND	
84 Chlorodibromomethane	129		9.858					ND	
85 Ethylene Dibromide	107		9.968					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.430					ND	
87 Chlorobenzene	112		10.460					ND	
88 4-Chlorobenzotrifluoride	180		10.521					ND	
89 1,1,1,2-Tetrachloroethane	131		10.551					ND	
90 Ethylbenzene	106		10.558					ND	
91 m-Xylene & p-Xylene	106		10.685					ND	
92 o-Xylene	106		11.068					ND	
93 Styrene	104		11.087					ND	
94 Bromoform	173		11.275					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.342					ND	
97 Isopropylbenzene	105		11.439					ND	
98 Cyclohexanone	55		11.528					ND	
99 1,1,2,2-Tetrachloroethane	83		11.749					ND	
100 Bromobenzene	156		11.749					ND	
102 trans-1,4-Dichloro-2-buten	53		11.786					ND	
101 1,2,3-Trichloropropane	110		11.804					ND	
103 N-Propylbenzene	120		11.853					ND	
104 2-Chlorotoluene	126		11.938					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.035					ND	
107 4-Chlorotoluene	126		12.066					ND	
108 tert-Butylbenzene	119		12.352					ND	
110 1,2,4-Trimethylbenzene	105		12.412					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.570					ND	
113 1,3-Dichlorobenzene	146		12.692					ND	
114 4-Isopropyltoluene	119		12.729					ND	
115 1,4-Dichlorobenzene	146		12.795					ND	
116 2,4-Dichloro-1-(triflourom	214		12.820					ND	
117 1,2,3-Trimethylbenzene	105		12.823					ND	
118 2,5-Dichlorobenzotrifluori	214		12.862					ND	
119 Benzyl chloride	91		12.908					ND	
120 n-Butylbenzene	91		13.136					ND	
121 1,2-Dichlorobenzene	146		13.154					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.939					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.504					ND	
126 1,2,4-Trichlorobenzene	180		14.766					ND	
127 Hexachlorobutadiene	225		14.912					ND	
128 Naphthalene	128		15.027					ND	
129 1,2,3-Trichlorobenzene	180		15.258					ND	
131 2,4,5-Trichlorotoluene	159		16.025					ND	
130 2,3,6-Trichlorotoluene	159		16.122					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

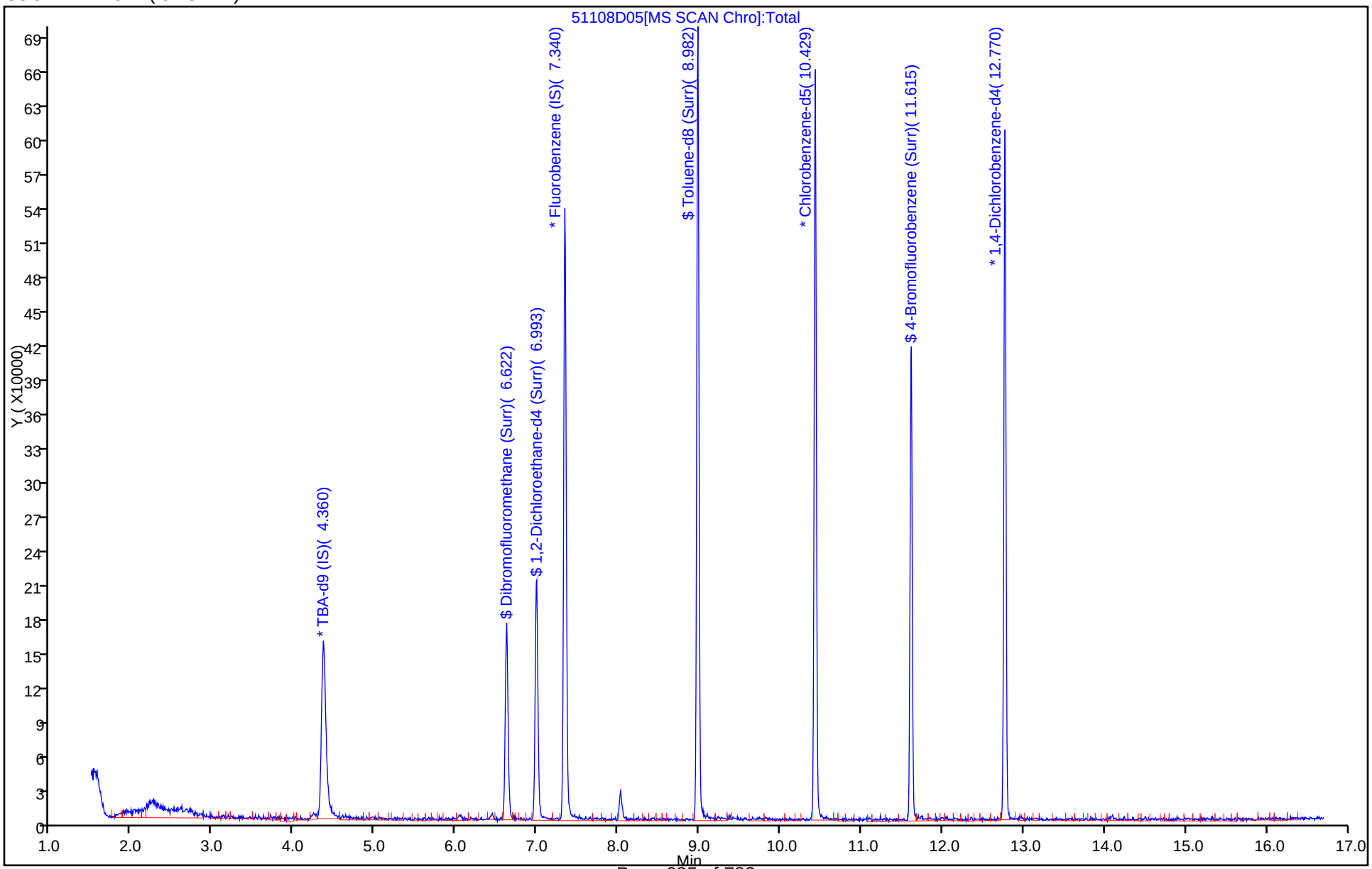
Report Date: 09-Nov-2017 09:47:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D05.D

Injection Date:	08-Nov-2017 23:01:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D05.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Nov-2017 23:01:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-005
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: bungardf Date: 08-Nov-2017 23:25:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.7	99.39
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.5	108.95
$ 7 Toluene-d8 (Surr)	50.0	47.5	95.07
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.7	93.31

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228475/6

Matrix: Water | Lab File ID: 51109D06.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 13:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | 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.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228475/6

Matrix: Water | Lab File ID: 51109D06.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 13:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | 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)	119		65-121
2037-26-5	Toluene-d8 (Surr)	90		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	110		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D06.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 09-Nov-2017 13:06:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-006
Misc. Info.: mb
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 13:51:53

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.360	4.367	-0.007	0	234356	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.340	7.335	0.006	98	491250	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.430	10.430	0.000	87	124894	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	97	162356	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.617	6.617	0.000	91	130175	50.0	55.1	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.982	0.006	0	171226	50.0	59.4	
$	7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	94	448980	50.0	45.2	
$	8 4-Bromofluorobenzene (Surr	95	11.615	11.610	0.005	85	149878	50.0	41.7	
	11 Dichlorodifluoromethane	85		1.679					ND	
	12 Chloromethane	50		1.886					ND	
	13 Vinyl chloride	62		2.019					ND	
	14 Butadiene	39		2.019					ND	
	15 Bromomethane	94		2.354					ND	
	16 Chloroethane	64		2.445					ND	
	17 Dichlorofluoromethane	67		2.767					ND	
	18 Trichlorofluoromethane	101		2.804					ND	
	19 Ethanol	45		2.821					ND	
	20 Ethyl ether	59		3.120					ND	
	21 Acrolein	56		3.315					ND	
	22 1,1-Dichloroethene	96		3.424					ND	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.515					ND	
	24 Acetone	43		3.540					ND	
	25 Iodomethane	142		3.625					ND	
	26 Carbon disulfide	76		3.710					ND	
	27 Isopropyl alcohol	45		3.816					ND	
	29 Acetonitrile	41		3.981					ND	
	28 3-Chloro-1-propene	76		4.008					ND	
	30 Methyl acetate	43		4.026					ND	
	31 Methylene Chloride	84		4.227					ND	
	32 2-Methyl-2-propanol	59		4.495					ND	
	33 Acrylonitrile	53		4.616					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		4.647					ND	
35 Methyl tert-butyl ether	73		4.659					ND	
36 Hexane	57		5.060					ND	
37 1,1-Dichloroethane	63		5.267					ND	
38 Vinyl acetate	43		5.322					ND	
41 Isopropyl ether	45		5.367					ND	
39 2-Chloro-1,3-butadiene	53		5.367					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.835					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.009					ND	
45 cis-1,2-Dichloroethene	96		6.009					ND	
46 2-Butanone (MEK)	43		6.021					ND	
48 Ethyl acetate	43		6.097					ND	
47 Propionitrile	54		6.103					ND	
50 Methacrylonitrile	41		6.273					ND	
49 Chlorobromomethane	128		6.295					ND	
51 Tetrahydrofuran	42		6.301					ND	
52 Chloroform	83		6.441					ND	
53 1,1,1-Trichloroethane	97		6.599					ND	
54 Cyclohexane	56		6.659					ND	
56 Carbon tetrachloride	117		6.769					ND	
55 1,1-Dichloropropene	75		6.781					ND	
57 Isobutyl alcohol	41		6.976					ND	
58 Benzene	78		6.994					ND	
59 1,2-Dichloroethane	62		7.067					ND	
151 Isooctane	57		7.149					ND	
61 Tert-amyl methyl ether	73		7.173					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.353					ND	
63 n-Butanol	56		7.684					ND	
64 Trichloroethene	130		7.724					ND	
65 Ethyl acrylate	55		7.848					ND	
66 Methylcyclohexane	83		7.961					ND	
67 1,2-Dichloropropane	63		7.991					ND	
70 1,4-Dioxane	88		8.070					ND	
68 Dibromomethane	93		8.083					ND	
69 Methyl methacrylate	69		8.086					ND	
71 Dichlorobromomethane	83		8.277					ND	
73 2-Chloroethyl vinyl ether	63		8.575					ND	
74 cis-1,3-Dichloropropene	75		8.721					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873					ND	
76 Toluene	91		9.049					ND	
77 trans-1,3-Dichloropropene	75		9.293					ND	
78 Ethyl methacrylate	69		9.354					ND	
79 1,1,2-Trichloroethane	97		9.487					ND	
80 Tetrachloroethene	164		9.560					ND	
81 1,3-Dichloropropane	76		9.645					ND	
82 2-Hexanone	43		9.700					ND	
83 n-Butyl acetate	43		9.825					ND	
84 Chlorodibromomethane	129		9.858					ND	
85 Ethylene Dibromide	107		9.968					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.430					ND	
87 Chlorobenzene	112		10.454					ND	
88 4-Chlorobenzotrifluoride	180		10.521					ND	
89 1,1,1,2-Tetrachloroethane	131		10.552					ND	
90 Ethylbenzene	106		10.558					ND	
91 m-Xylene & p-Xylene	106		10.691					ND	
92 o-Xylene	106		11.068					ND	
93 Styrene	104		11.093					ND	
94 Bromoform	173		11.269					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.342					ND	
97 Isopropylbenzene	105		11.439					ND	
98 Cyclohexanone	55		11.528					ND	
99 1,1,2,2-Tetrachloroethane	83		11.750					ND	
100 Bromobenzene	156		11.750					ND	
102 trans-1,4-Dichloro-2-buten	53		11.786					ND	
101 1,2,3-Trichloropropane	110		11.804					ND	
103 N-Propylbenzene	120		11.853					ND	
104 2-Chlorotoluene	126		11.944					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.035					ND	
107 4-Chlorotoluene	126		12.066					ND	
108 tert-Butylbenzene	119		12.352					ND	
110 1,2,4-Trimethylbenzene	105		12.406					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.571					ND	
113 1,3-Dichlorobenzene	146		12.692					ND	
114 4-Isopropyltoluene	119		12.729					ND	
115 1,4-Dichlorobenzene	146		12.789					ND	
116 2,4-Dichloro-1-(triflourom	214		12.820					ND	
117 1,2,3-Trimethylbenzene	105		12.823					ND	
118 2,5-Dichlorobenzotrifluori	214		12.862					ND	
119 Benzyl chloride	91		12.908					ND	
120 n-Butylbenzene	91		13.136					ND	
121 1,2-Dichlorobenzene	146		13.148					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.945					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.504					ND	
126 1,2,4-Trichlorobenzene	180		14.766					ND	
127 Hexachlorobutadiene	225		14.906					ND	
128 Naphthalene	128		15.033					ND	
129 1,2,3-Trichlorobenzene	180		15.258					ND	
131 2,4,5-Trichlorotoluene	159		16.025					ND	
130 2,3,6-Trichlorotoluene	159		16.122					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

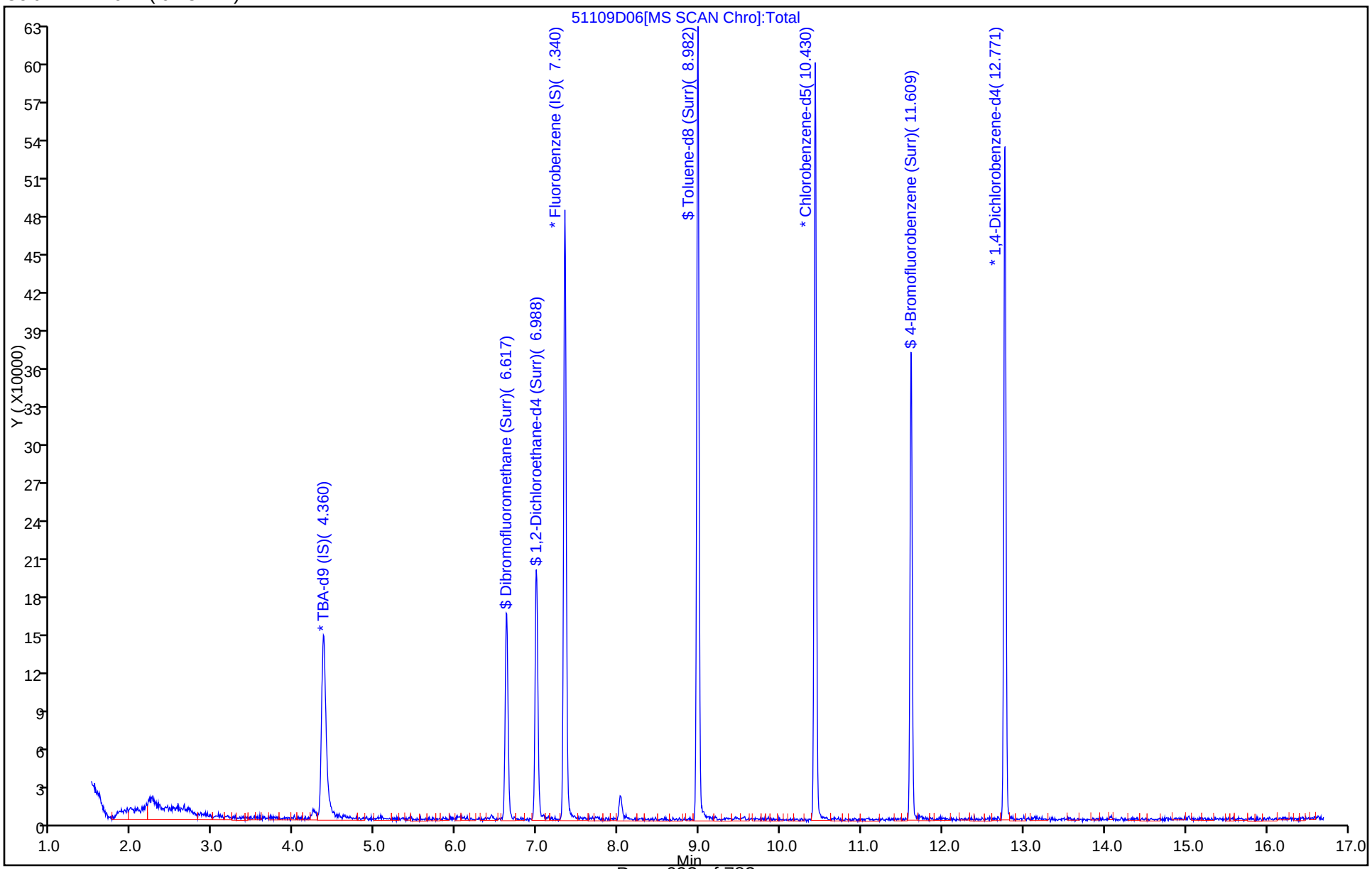
Report Date: 09-Nov-2017 17:33:27 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D06.D

Injection Date:	09-Nov-2017 13:06:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D06.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 09-Nov-2017 13:06:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-006
Misc. Info.: mb
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 13:51:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	55.1	110.15
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	59.4	118.79
$ 7 Toluene-d8 (Surr)	50.0	45.2	90.34
$ 8 4-Bromofluorobenzene (Surr)	50.0	41.7	83.50

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228533/8

Matrix: Water | Lab File ID: 711090n8.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 11:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | 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.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228533/8

Matrix: Water | Lab File ID: 711090n8.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 11:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | 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)	87		65-121
2037-26-5	Toluene-d8 (Surr)	113		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n8.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 09-Nov-2017 11:36:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 15:46:02 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:44:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.244	4.251	-0.007	99	164920	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.267	7.263	0.004	98	186269	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.365	-0.001	90	40347	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.706	12.707	-0.001	97	58263	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.537	6.539	-0.002	92	41850	50.0	45.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.914	6.910	0.004	91	77571	50.0	43.3	
$ 7 Toluene-d8 (Surr)	98	8.910	8.911	-0.001	93	172299	50.0	56.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.544	11.545	-0.001	87	64395	50.0	49.3	
11 Dichlorodifluoromethane	85		1.617					ND	
12 Chloromethane	50		1.793					ND	
13 Vinyl chloride	62		1.921					ND	
14 Butadiene	39		1.970					ND	
15 Bromomethane	94		2.280					ND	
16 Chloroethane	64		2.414					ND	
17 Dichlorofluoromethane	67		2.682					ND	
18 Trichlorofluoromethane	101		2.694					ND	
20 Ethyl ether	59		3.041					ND	
22 1,1-Dichloroethene	96		3.345					ND	
19 Ethanol	45		3.345					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.430					ND	
24 Acetone	43		3.436					ND	
25 Iodomethane	142		3.533					ND	
21 Acrolein	56		3.554					ND	
26 Carbon disulfide	76		3.625					ND	
28 3-Chloro-1-propene	76		3.917					ND	
30 Methyl acetate	43		3.923					ND	
31 Methylene Chloride	84		4.123					ND	
27 Isopropyl alcohol	45		4.270					ND	
29 Acetonitrile	40		4.276					ND	
32 2-Methyl-2-propanol	59		4.373					ND	
33 Acrylonitrile	53		4.507					ND	
34 trans-1,2-Dichloroethene	96		4.555					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Methyl tert-butyl ether	73		4.561					ND	
36 Hexane	57		4.975					ND	
37 1,1-Dichloroethane	63		5.182					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
40 Isopropyl ether TIC	45		5.492					ND	
38 Vinyl acetate	43		5.507					ND	
41 Isopropyl ether	45		5.602					ND	
45 cis-1,2-Dichloroethene	96		5.930					ND	
44 2,2-Dichloropropane	97		5.930					ND	
46 2-Butanone (MEK)	43		5.936					ND	
42 Tert-butyl ethyl ether	59		5.959					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.114					ND	
49 Chlorobromomethane	128		6.210					ND	
51 Tetrahydrofuran	42		6.228					ND	
48 Ethyl acetate	43		6.338					ND	
52 Chloroform	83		6.362					ND	
50 Methacrylonitrile	41		6.403					ND	
53 1,1,1-Trichloroethane	97		6.514					ND	
54 Cyclohexane	56		6.587					ND	
56 Carbon tetrachloride	117		6.691					ND	
55 1,1-Dichloropropene	75		6.709					ND	
57 Isobutyl alcohol	41		6.904					ND	
62 n-Heptane	43		6.904					ND	
58 Benzene	78		6.922					ND	
59 1,2-Dichloroethane	62		6.995					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
61 Tert-amyl methyl ether	73		7.512					ND	
64 Trichloroethene	130		7.646					ND	
63 n-Butanol	56		7.677					ND	
66 Methylcyclohexane	83		7.889					ND	
65 Ethyl acrylate	55		7.890					ND	
67 1,2-Dichloropropane	63		7.926					ND	
70 1,4-Dioxane	88		8.011					ND	
68 Dibromomethane	93		8.011					ND	
69 Methyl methacrylate	69		8.181					ND	
71 Dichlorobromomethane	83		8.205					ND	
74 cis-1,3-Dichloropropene	75		8.650					ND	
73 2-Chloroethyl vinyl ether	63		8.765					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.802					ND	
76 Toluene	91		8.978					ND	
77 trans-1,3-Dichloropropene	75		9.227					ND	
78 Ethyl methacrylate	69		9.282					ND	
79 1,1,2-Trichloroethane	97		9.422					ND	
80 Tetrachloroethene	164		9.495					ND	
81 1,3-Dichloropropane	76		9.580					ND	
82 2-Hexanone	43		9.635					ND	
83 n-Butyl acetate	43		9.757					ND	
84 Chlorodibromomethane	129		9.787					ND	
85 Ethylene Dibromide	107		9.909					ND	
87 Chlorobenzene	112		10.389					ND	
89 1,1,1,2-Tetrachloroethane	131		10.481					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
90 Ethylbenzene	106		10.493					ND	
88 4-Chlorobenzotrifluoride	180		10.525					ND	
86 3-Chlorobenzotrifluoride	180		10.525					ND	
91 m-Xylene & p-Xylene	106		10.621					ND	
92 o-Xylene	106		11.004					ND	
93 Styrene	104		11.022					ND	
94 Bromoform	173		11.211					ND	
97 Isopropylbenzene	105		11.369					ND	
96 2-Chlorobenzotrifluoride	180		11.371					ND	
98 Cyclohexanone	55		11.423					ND	
95 Cyclohexanol	57		11.631					ND	
100 Bromobenzene	156		11.685					ND	
99 1,1,2,2-Tetrachloroethane	83		11.685					ND	
102 trans-1,4-Dichloro-2-buten	53		11.722					ND	
101 1,2,3-Trichloropropane	110		11.740					ND	
103 N-Propylbenzene	120		11.789					ND	
104 2-Chlorotoluene	126		11.874					ND	
106 1,3,5-Trimethylbenzene	105		11.971					ND	
107 4-Chlorotoluene	126		12.002					ND	
105 3-Chlorotoluene	126		12.002					ND	
108 tert-Butylbenzene	119		12.281					ND	
110 1,2,4-Trimethylbenzene	105		12.342					ND	
111 1,2-dichloro-4-(trifluorom	214		12.490					ND	
112 sec-Butylbenzene	105		12.506					ND	
113 1,3-Dichlorobenzene	146		12.628					ND	
117 1,2,3-Trimethylbenzene	105		12.659					ND	
114 4-Isopropyltoluene	119		12.665					ND	
115 1,4-Dichlorobenzene	146		12.732					ND	
119 Benzyl chloride	91		12.891					ND	
116 2,4-Dichloro-1-(triflourom	214		12.904					ND	
118 2,5-Dichlorobenzotrifluori	214		12.904					ND	
120 n-Butylbenzene	91		13.072					ND	
121 1,2-Dichlorobenzene	146		13.090					ND	
122 1,2-Dibromo-3-Chloropropan	157		13.881					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.143					ND	
124 1,3,5-Trichlorobenzene	180		14.380					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.557					ND	
126 1,2,4-Trichlorobenzene	180		14.703					ND	
127 Hexachlorobutadiene	225		14.849					ND	
128 Naphthalene	128	14.963	14.964	-0.001	97	7500		1.59	
129 1,2,3-Trichlorobenzene	180		15.195					ND	
130 2,3,6-Trichlorotoluene	159		15.980					ND	
131 2,4,5-Trichlorotoluene	159		16.333					ND	
150 1,2 Epoxybutane TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
149 Formaldehyde TIC	1		0.000					ND	
147 Isooctane	57		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 148 Total BTEX	1		0.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent

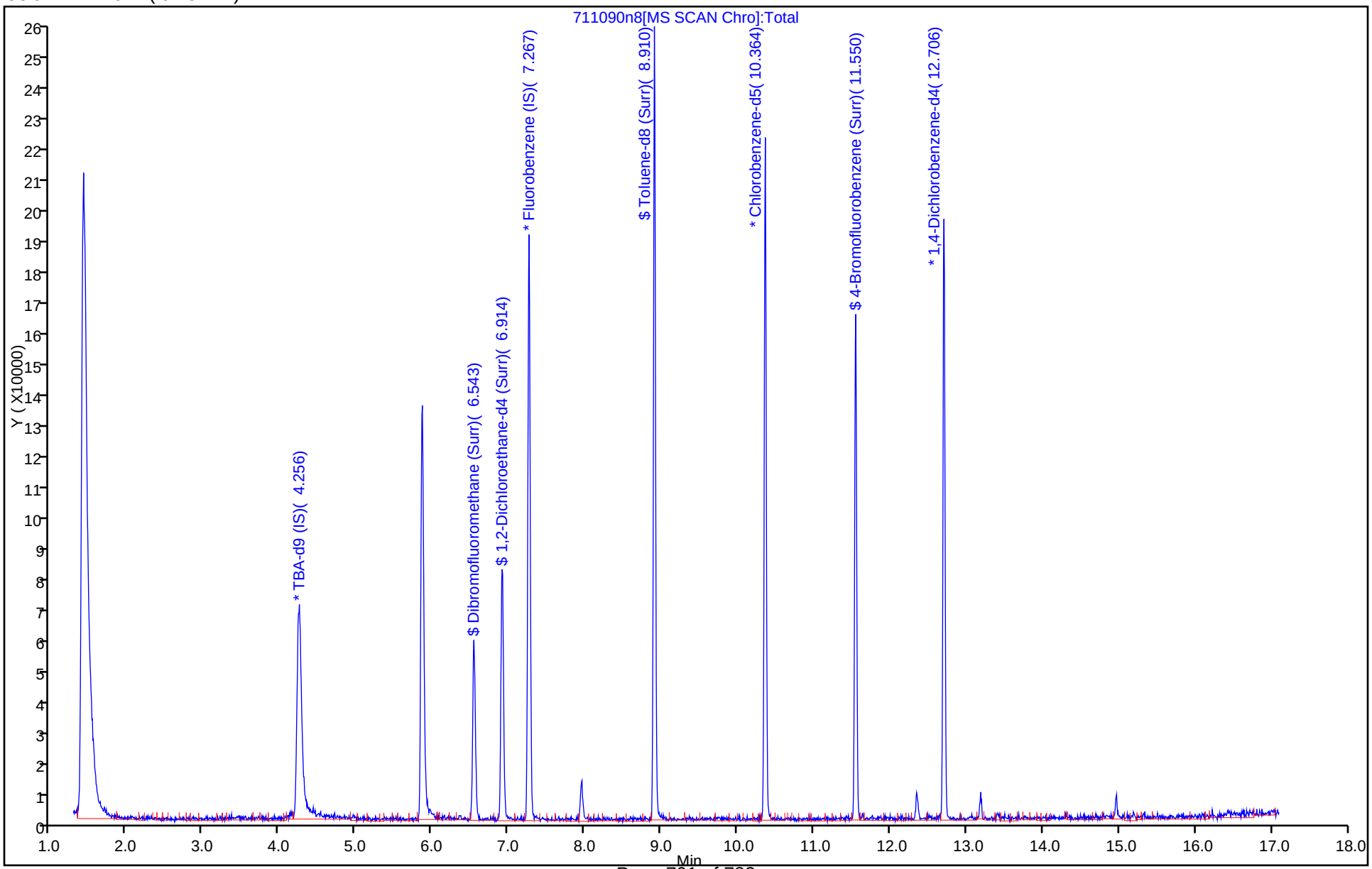
Report Date: 09-Nov-2017 15:46:09 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n8.D

Injection Date:	09-Nov-2017 11:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\711090n8.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 09-Nov-2017 11:36:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 15:46:02 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:44:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	45.4	90.81
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	43.3	86.54
$ 7 Toluene-d8 (Surr)	50.0	56.4	112.74
$ 8 4-Bromofluorobenzene (Surr)	50.0	49.3	98.62

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228566/8

Matrix: Water | Lab File ID: 51110D08.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 11:27

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.: 228566 | 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.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228566/8

Matrix: Water | Lab File ID: 51110D08.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 11:27

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.: 228566 | 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)	104		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D08.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 10-Nov-2017 11:27:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-008
Misc. Info.: mb
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 13-Nov-2017 12:28:08 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 10-Nov-2017 12:46:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.367	4.364	0.003	0	262677	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.338	0.003	98	561951	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.427	0.003	86	133341	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.768	0.003	97	176267	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.615	0.002	92	131979	50.0	48.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.986	0.008	0	171808	50.0	52.1	
$ 7 Toluene-d8 (Surr)	98	8.983	8.981	0.002	94	453540	50.0	42.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.608	0.002	82	172624	50.0	45.0	
11 Dichlorodifluoromethane	85		1.683					ND	
12 Chloromethane	50		1.896					ND	
14 Butadiene	39		2.011					ND	
13 Vinyl chloride	62		2.017					ND	
15 Bromomethane	94		2.376					ND	
16 Chloroethane	64		2.461					ND	
17 Dichlorofluoromethane	67		2.765					ND	
18 Trichlorofluoromethane	101		2.796					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.130					ND	
21 Acrolein	56		3.313					ND	
22 1,1-Dichloroethene	96		3.422					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.513					ND	
24 Acetone	43		3.526					ND	
25 Iodomethane	142		3.623					ND	
26 Carbon disulfide	76		3.714					ND	
27 Isopropyl alcohol	45		3.811					ND	
29 Acetonitrile	41		3.969					ND	
28 3-Chloro-1-propene	76		4.012					ND	
30 Methyl acetate	43		4.043					ND	
31 Methylene Chloride	84		4.237					ND	
32 2-Methyl-2-propanol	59		4.499					ND	
33 Acrylonitrile	53		4.608					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		4.651					ND	
35 Methyl tert-butyl ether	73		4.657					ND	
36 Hexane	57		5.058					ND	
37 1,1-Dichloroethane	63		5.271					ND	
41 Isopropyl ether	45		5.367					ND	
39 2-Chloro-1,3-butadiene	53		5.367					ND	
38 Vinyl acetate	43		5.368					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.836					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.013					ND	
44 2,2-Dichloropropane	97		6.019					ND	
46 2-Butanone (MEK)	43		6.025					ND	
48 Ethyl acetate	43		6.097					ND	
47 Propionitrile	54		6.097					ND	
50 Methacrylonitrile	41		6.273					ND	
49 Chlorobromomethane	128		6.287					ND	
51 Tetrahydrofuran	42		6.305					ND	
52 Chloroform	83		6.439					ND	
53 1,1,1-Trichloroethane	97		6.591					ND	
54 Cyclohexane	56		6.670					ND	
56 Carbon tetrachloride	117		6.767					ND	
55 1,1-Dichloropropene	75		6.779					ND	
57 Isobutyl alcohol	41		6.980					ND	
58 Benzene	78		6.998					ND	
59 1,2-Dichloroethane	62		7.071					ND	
151 Isooctane	57		7.149					ND	
61 Tert-amyl methyl ether	73		7.174					ND	
62 n-Heptane	43		7.357					ND	
63 n-Butanol	56		7.684					ND	
64 Trichloroethene	130		7.728					ND	
65 Ethyl acrylate	55		7.842					ND	
66 Methylcyclohexane	83		7.959					ND	
67 1,2-Dichloropropane	63		7.995					ND	
70 1,4-Dioxane	88		8.074					ND	
69 Methyl methacrylate	69		8.080					ND	
68 Dibromomethane	93		8.087					ND	
71 Dichlorobromomethane	83		8.275					ND	
73 2-Chloroethyl vinyl ether	63		8.573					ND	
74 cis-1,3-Dichloropropene	75		8.719					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.871					ND	
76 Toluene	91		9.047					ND	
77 trans-1,3-Dichloropropene	75		9.297					ND	
78 Ethyl methacrylate	69		9.358					ND	
79 1,1,2-Trichloroethane	97		9.485					ND	
80 Tetrachloroethene	164		9.558					ND	
81 1,3-Dichloropropane	76		9.650					ND	
82 2-Hexanone	43		9.704					ND	
83 n-Butyl acetate	43		9.825					ND	
84 Chlorodibromomethane	129		9.856					ND	
85 Ethylene Dibromide	107		9.972					ND	
86 3-Chlorobenzotrifluoride	180		10.430					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.458					ND	
88 4-Chlorobenzotrifluoride	180		10.521					ND	
89 1,1,1,2-Tetrachloroethane	131		10.550					ND	
90 Ethylbenzene	106		10.556					ND	
91 m-Xylene & p-Xylene	106		10.689					ND	
92 o-Xylene	106		11.073					ND	
93 Styrene	104		11.091					ND	
94 Bromoform	173		11.273					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.342					ND	
97 Isopropylbenzene	105		11.437					ND	
98 Cyclohexanone	55		11.528					ND	
99 1,1,2,2-Tetrachloroethane	83		11.748					ND	
100 Bromobenzene	156		11.748					ND	
102 trans-1,4-Dichloro-2-buten	53		11.790					ND	
101 1,2,3-Trichloropropane	110		11.802					ND	
103 N-Propylbenzene	120		11.851					ND	
104 2-Chlorotoluene	126		11.942					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.033					ND	
107 4-Chlorotoluene	126		12.064					ND	
108 tert-Butylbenzene	119		12.350					ND	
110 1,2,4-Trimethylbenzene	105		12.410					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.575					ND	
113 1,3-Dichlorobenzene	146		12.690					ND	
114 4-Isopropyltoluene	119		12.727					ND	
115 1,4-Dichlorobenzene	146		12.794					ND	
116 2,4-Dichloro-1-(triflourom	214		12.820					ND	
117 1,2,3-Trimethylbenzene	105		12.823					ND	
118 2,5-Dichlorobenzotrifluori	214		12.862					ND	
119 Benzyl chloride	91		12.908					ND	
120 n-Butylbenzene	91		13.140					ND	
121 1,2-Dichlorobenzene	146		13.152					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.943					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180		14.124					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.504					ND	
126 1,2,4-Trichlorobenzene	180		14.764					ND	
127 Hexachlorobutadiene	225		14.910					ND	
128 Naphthalene	128		15.031					ND	
129 1,2,3-Trichlorobenzene	180		15.256					ND	
131 2,4,5-Trichlorotoluene	159		16.025					ND	
130 2,3,6-Trichlorotoluene	159		16.122					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
155 1-Chloro-1-fluoroethane TI	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 60 Tert-amyl methyl ether (TI	73		7.262					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 156 2-ethoxy-2-methyl butane T	59		0.000					ND	
T 157 Ethanol TIC	45		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

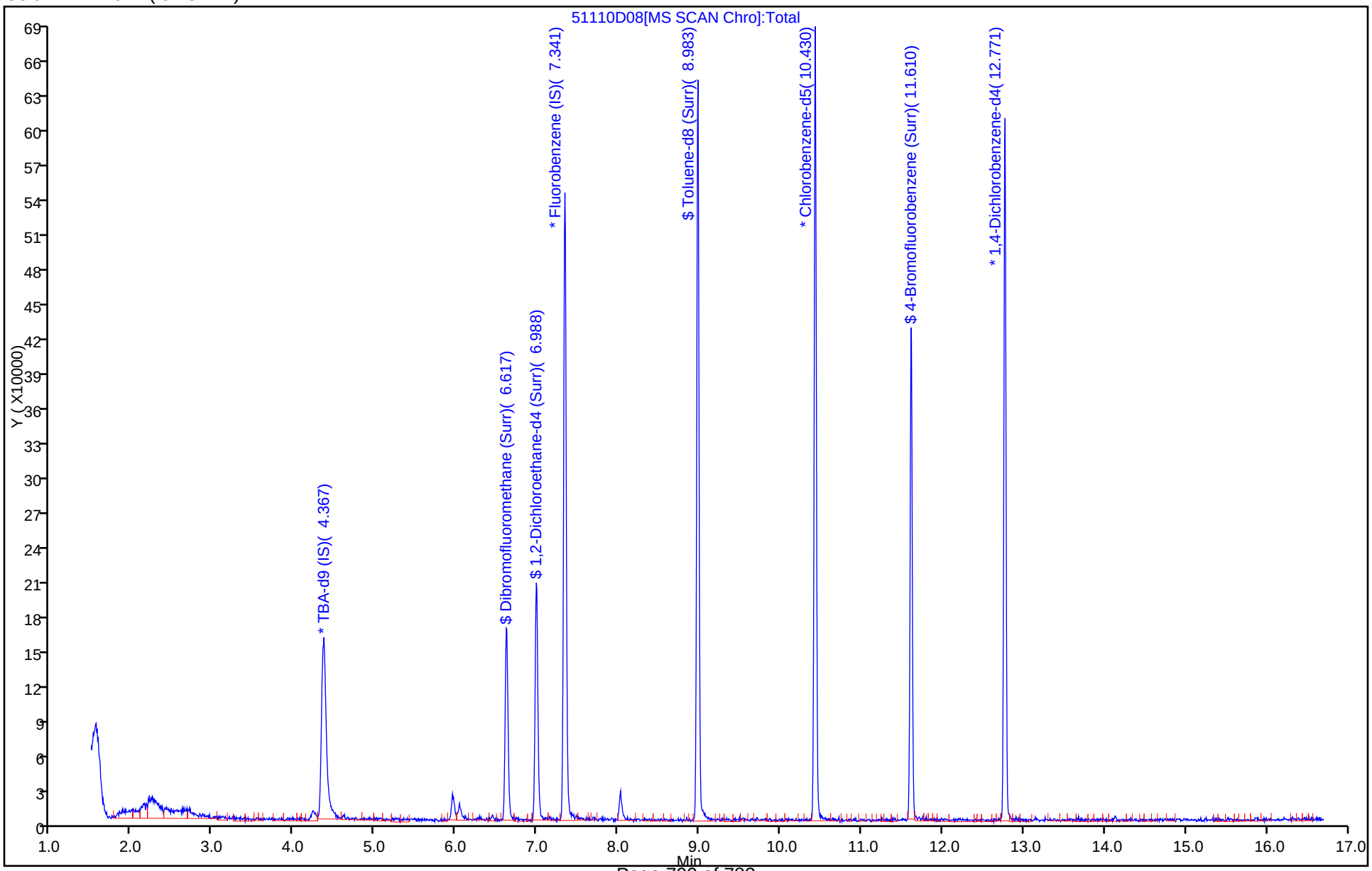
Report Date: 13-Nov-2017 12:28:09 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D08.D

Injection Date:	10-Nov-2017 11:27:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D08.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 10-Nov-2017 11:27:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-008
Misc. Info.: mb
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 13-Nov-2017 12:28:08 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 10-Nov-2017 12:46:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	48.8	97.62
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	52.1	104.20
$ 7 Toluene-d8 (Surr)	50.0	42.7	85.47
$ 8 4-Bromofluorobenzene (Surr)	50.0	45.0	90.08

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228645/6

Matrix: Water | Lab File ID: 51111D06.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 07:35

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.: 228645 | 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.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-228645/6

Matrix: Water | Lab File ID: 51111D06.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 07:35

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.: 228645 | 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)	112		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	85		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 11-Nov-2017 07:35:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019261-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 12-Nov-2017 14:51:40 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 11-Nov-2017 07:56:11

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.360	4.349	0.011	0	244036	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.340	7.341	-0.001	98	517243	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.435	10.430	0.005	87	128325	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.771	12.765	0.006	97	164524	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.622	6.616	0.006	92	130058	50.0	52.3	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.987	0.000	0	170126	50.0	56.0	
$	7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	94	439884	50.0	43.1	
$	8 4-Bromofluorobenzene (Surr	95	11.615	11.615	0.000	84	156733	50.0	42.5	
	11 Dichlorodifluoromethane	85		1.678					ND	
	12 Chloromethane	50		1.885					ND	
	13 Vinyl chloride	62		2.013					ND	
	14 Butadiene	39		2.013					ND	
	15 Bromomethane	94		2.335					ND	
	16 Chloroethane	64		2.432					ND	
	17 Dichlorofluoromethane	67		2.755					ND	
	18 Trichlorofluoromethane	101		2.803					ND	
	19 Ethanol	45	2.657	2.821	-0.164	1	2004			NC
	20 Ethyl ether	59		3.126					ND	
	21 Acrolein	56		3.302					ND	
	22 1,1-Dichloroethene	96		3.418					ND	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.503					ND	
	24 Acetone	43		3.539					ND	
	25 Iodomethane	142		3.618					ND	
	26 Carbon disulfide	76		3.703					ND	
	27 Isopropyl alcohol	45		3.808					ND	
	29 Acetonitrile	41		3.978					ND	
	28 3-Chloro-1-propene	76		4.014					ND	
	30 Methyl acetate	43		4.032					ND	
	31 Methylene Chloride	84		4.226					ND	
	32 2-Methyl-2-propanol	59		4.512					ND	
	33 Acrylonitrile	53		4.616					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		4.634					ND	
35 Methyl tert-butyl ether	73		4.658					ND	
36 Hexane	57		5.054					ND	
37 1,1-Dichloroethane	63		5.266					ND	
38 Vinyl acetate	43		5.321					ND	
39 2-Chloro-1,3-butadiene	53		5.364					ND	
41 Isopropyl ether	45		5.364					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.833					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.008					ND	
44 2,2-Dichloropropane	97		6.008					ND	
46 2-Butanone (MEK)	43		6.027					ND	
48 Ethyl acetate	43		6.094					ND	
47 Propionitrile	54		6.094					ND	
50 Methacrylonitrile	41		6.271					ND	
49 Chlorobromomethane	128		6.288					ND	
51 Tetrahydrofuran	42		6.312					ND	
52 Chloroform	83	6.434	6.440	-0.006	25	3324		0.6635	
53 1,1,1-Trichloroethane	97		6.592					ND	
54 Cyclohexane	56		6.665					ND	
56 Carbon tetrachloride	117		6.762					ND	
55 1,1-Dichloropropene	75		6.781					ND	
57 Isobutyl alcohol	41		6.987					ND	
58 Benzene	78		6.993					ND	
59 1,2-Dichloroethane	62		7.073					ND	
151 Isooctane	57		7.146					ND	
61 Tert-amyl methyl ether	73		7.171					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.352					ND	
63 n-Butanol	56		7.688					ND	
64 Trichloroethene	130		7.723					ND	
65 Ethyl acrylate	55		7.846					ND	
66 Methylcyclohexane	83		7.954					ND	
67 1,2-Dichloropropane	63		7.991					ND	
70 1,4-Dioxane	88		8.076					ND	
69 Methyl methacrylate	69		8.077					ND	
68 Dibromomethane	93		8.082					ND	
71 Dichlorobromomethane	83		8.277					ND	
73 2-Chloroethyl vinyl ether	63		8.575					ND	
74 cis-1,3-Dichloropropene	75		8.715					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873					ND	
76 Toluene	91		9.049					ND	
77 trans-1,3-Dichloropropene	75		9.298					ND	
78 Ethyl methacrylate	69		9.353					ND	
79 1,1,2-Trichloroethane	97		9.487					ND	
80 Tetrachloroethene	164		9.560					ND	
81 1,3-Dichloropropane	76		9.645					ND	
82 2-Hexanone	43		9.706					ND	
83 n-Butyl acetate	43		9.828					ND	
84 Chlorodibromomethane	129		9.858					ND	
85 Ethylene Dibromide	107		9.967					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.429					ND	
87 Chlorobenzene	112		10.460					ND	
88 4-Chlorobenzotrifluoride	180		10.521					ND	
89 1,1,1,2-Tetrachloroethane	131		10.551					ND	
90 Ethylbenzene	106		10.557					ND	
91 m-Xylene & p-Xylene	106		10.685					ND	
92 o-Xylene	106		11.068					ND	
93 Styrene	104		11.092					ND	
94 Bromoform	173		11.275					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.342					ND	
97 Isopropylbenzene	105		11.439					ND	
98 Cyclohexanone	55		11.525					ND	
99 1,1,2,2-Tetrachloroethane	83		11.749					ND	
100 Bromobenzene	156		11.749					ND	
102 trans-1,4-Dichloro-2-buten	53		11.786					ND	
101 1,2,3-Trichloropropane	110		11.804					ND	
103 N-Propylbenzene	120		11.852					ND	
104 2-Chlorotoluene	126		11.944					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.035					ND	
107 4-Chlorotoluene	126		12.065					ND	
108 tert-Butylbenzene	119		12.351					ND	
110 1,2,4-Trimethylbenzene	105		12.406					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.576					ND	
113 1,3-Dichlorobenzene	146		12.692					ND	
114 4-Isopropyltoluene	119		12.728					ND	
115 1,4-Dichlorobenzene	146	12.789	12.795	-0.006	1	776		0.1325	
116 2,4-Dichloro-1-(triflourom	214		12.819					ND	
117 1,2,3-Trimethylbenzene	105		12.820					ND	
118 2,5-Dichlorobenzotrifluori	214		12.862					ND	
119 Benzyl chloride	91		12.911					ND	
120 n-Butylbenzene	91		13.142					ND	
121 1,2-Dichlorobenzene	146		13.154					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.938					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.084					ND	
124 1,3,5-Trichlorobenzene	180		14.128					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.504					ND	
126 1,2,4-Trichlorobenzene	180		14.765					ND	
127 Hexachlorobutadiene	225		14.911					ND	
128 Naphthalene	128		15.033					ND	
129 1,2,3-Trichlorobenzene	180		15.258					ND	
131 2,4,5-Trichlorotoluene	159		16.024					ND	
130 2,3,6-Trichlorotoluene	159		16.122					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

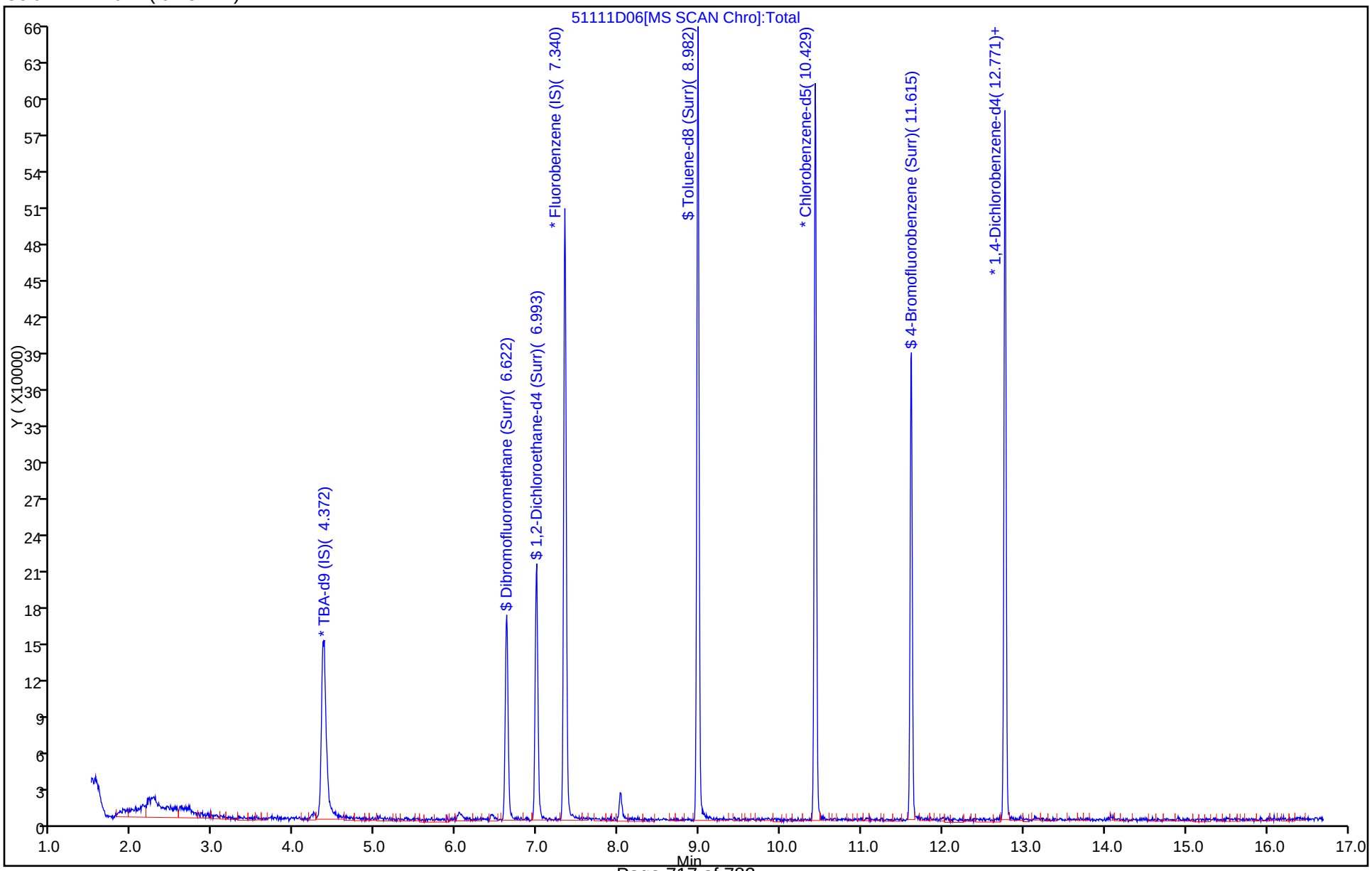
Report Date: 12-Nov-2017 14:51:49 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D06.D

Injection Date:	11-Nov-2017 07:35:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 11-Nov-2017 07:35:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019261-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 12-Nov-2017 14:51:40 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 11-Nov-2017 07:56:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	52.3	104.52
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.0	112.10
$ 7 Toluene-d8 (Surr)	50.0	43.1	86.14
$ 8 4-Bromofluorobenzene (Surr)	50.0	42.5	84.98

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228418/3

Matrix: Water | Lab File ID: 51108D03.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/08/2017 22:05

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.: 228418 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13.2		1.0	0.90
75-01-4	Vinyl chloride	11.5		1.0	0.88
74-83-9	Bromomethane	13.9		1.0	0.89
75-00-3	Chloroethane	13.7		1.0	0.90
75-35-4	1,1-Dichloroethene	10.3		1.0	0.55
67-64-1	Acetone	28.0		5.0	3.4
75-15-0	Carbon disulfide	11.4		1.0	0.88
75-09-2	Methylene Chloride	9.99		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.94		1.0	0.67
1634-04-4	Methyl tert-butyl ether	10.6		1.0	0.59
75-34-3	1,1-Dichloroethane	10.5		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.79		1.0	0.71
74-97-5	Bromochloromethane	9.85		1.0	0.63
78-93-3	2-Butanone (MEK)	21.9		5.0	2.6
67-66-3	Chloroform	9.87		1.0	0.60
71-55-6	1,1,1-Trichloroethane	10.3		1.0	0.60
56-23-5	Carbon tetrachloride	10.4		1.0	0.88
71-43-2	Benzene	9.53		1.0	0.60
107-06-2	1,2-Dichloroethane	11.3		1.0	0.57
79-01-6	Trichloroethene	8.64		1.0	0.69
78-87-5	1,2-Dichloropropane	10.3		1.0	0.66
75-27-4	Bromodichloromethane	9.73		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	9.31		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	16.0		5.0	3.1
108-88-3	Toluene	10.2		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.5		1.0	0.58
79-00-5	1,1,2-Trichloroethane	10.6		1.0	0.45
127-18-4	Tetrachloroethene	8.80		1.0	0.47
591-78-6	2-Hexanone	17.8		5.0	3.3
124-48-1	Dibromochloromethane	10.2		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	9.77		1.0	0.50
108-90-7	Chlorobenzene	9.70		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.57
100-41-4	Ethylbenzene	9.39		1.0	0.51
1330-20-7	Xylenes, Total	18.5		2.0	0.89
100-42-5	Styrene	9.42		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228418/3

Matrix: Water | Lab File ID: 51108D03.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/08/2017 22:05

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.: 228418 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.10		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.98		1.0	0.60
107-13-1	Acrylonitrile	126		20	7.8
123-91-1	1,4-Dioxane	196	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		65-121
2037-26-5	Toluene-d8 (Surr)	113		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Nov-2017 22:05:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-003
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: bungardf Date: 08-Nov-2017 22:27:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.366	4.373	-0.007	0	243460	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.341	-0.001	97	509260	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.430	-0.001	86	115546	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	94	155402	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.617	-0.001	93	127592	50.0	52.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.982	-0.001	0	168425	50.0	56.4	
$ 7 Toluene-d8 (Surr)	98	8.981	8.976	0.005	94	520695	50.0	56.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.610	0.005	83	172447	50.0	51.9	
11 Dichlorodifluoromethane	85	1.684	1.685	-0.001	99	189409	50.0	64.0	
12 Chloromethane	50	1.891	1.886	0.004	99	197092	50.0	66.2	
13 Vinyl chloride	62	2.012	2.013	-0.001	68	173340	50.0	57.4	
14 Butadiene	39	2.018	2.019	-0.001	94	205008	50.0	74.7	
15 Bromomethane	94	2.395	2.342	0.053	93	99311	50.0	69.5	
16 Chloroethane	64	2.462	2.433	0.029	100	113739	50.0	68.5	
18 Trichlorofluoromethane	101	2.803	2.737	0.066	77	224945	50.0	60.6	M
17 Dichlorofluoromethane	67	2.760	2.755	0.005	97	257881	50.0	61.4	
20 Ethyl ether	59	3.137	3.126	0.011	93	154003	50.0	63.8	
21 Acrolein	56	3.314	3.309	0.005	99	75137	150.0	123.5	
22 1,1-Dichloroethene	96	3.423	3.418	0.005	96	128483	50.0	51.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.508	3.503	0.005	94	144233	50.0	52.7	
24 Acetone	43	3.532	3.528	0.004	100	186567	100.0	140.1	
25 Iodomethane	142	3.618	3.613	0.005	97	202616	50.0	51.7	
26 Carbon disulfide	76	3.715	3.716	-0.001	100	312120	50.0	57.0	
28 3-Chloro-1-propene	76	4.019	4.008	0.011	91	80809	50.0	50.2	
30 Methyl acetate	43	4.043	4.026	0.017	99	331321	100.0	125.6	
31 Methylene Chloride	84	4.238	4.227	0.011	98	154305	50.0	50.0	
32 2-Methyl-2-propanol	59	4.493	4.494	-0.001	92	152951	500.0	531.2	
33 Acrylonitrile	53	4.615	4.610	0.005	100	805690	500.0	628.3	
34 trans-1,2-Dichloroethene	96	4.645	4.634	0.011	97	141161	50.0	49.7	
35 Methyl tert-butyl ether	73	4.664	4.659	0.005	97	405016	50.0	53.2	
36 Hexane	57	5.065	5.060	0.005	96	202129	50.0	55.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.272	5.273	-0.001	96	260161	50.0	52.7	
38 Vinyl acetate	43	5.320	5.321	-0.001	97	344839	50.0	68.7	
45 cis-1,2-Dichloroethene	96	6.014	6.009	0.005	84	159078	50.0	49.0	
44 2,2-Dichloropropane	97	6.001	6.009	-0.008	68	39027	50.0	62.1	
46 2-Butanone (MEK)	43	6.020	6.021	-0.001	98	207516	100.0	109.5	
49 Chlorobromomethane	128	6.293	6.295	-0.001	95	71097	50.0	49.2	
51 Tetrahydrofuran	42	6.306	6.307	-0.001	89	119467	100.0	108.2	
52 Chloroform	83	6.439	6.434	0.005	94	243444	50.0	49.4	
53 1,1,1-Trichloroethane	97	6.597	6.592	0.005	98	191560	50.0	51.3	
54 Cyclohexane	56	6.658	6.659	-0.001	95	254359	50.0	55.2	
56 Carbon tetrachloride	117	6.768	6.769	-0.001	96	162123	50.0	52.2	
55 1,1-Dichloropropene	75	6.780	6.781	-0.001	92	185253	50.0	45.9	
57 Isobutyl alcohol	41	6.981	6.982	-0.001	93	149899	1250.0	1479.3	
58 Benzene	78	6.999	6.994	0.005	97	589941	50.0	47.6	
59 1,2-Dichloroethane	62	7.072	7.073	-0.001	97	204049	50.0	56.5	
62 n-Heptane	43	7.358	7.353	0.005	94	174076	50.0	59.7	
64 Trichloroethene	130	7.729	7.724	0.005	98	134678	50.0	43.2	
66 Methylcyclohexane	83	7.960	7.961	-0.001	97	197267	50.0	41.9	
67 1,2-Dichloropropane	63	7.996	7.991	0.005	95	149018	50.0	51.7	
68 Dibromomethane	93	8.081	8.082	-0.001	94	87517	50.0	51.8	
70 1,4-Dioxane	88	8.081	8.082	-0.001	47	28722	1000.0	979.6	
71 Dichlorobromomethane	83	8.276	8.277	-0.001	97	161313	50.0	48.6	
73 2-Chloroethyl vinyl ether	63	8.574	8.575	-0.001	92	199117	100.0	96.0	
74 cis-1,3-Dichloropropene	75	8.720	8.721	-0.001	93	187425	50.0	46.5	
75 4-Methyl-2-pentanone (MIBK	43	8.872	8.873	-0.001	99	237449	100.0	80.1	
76 Toluene	91	9.048	9.043	0.005	98	589819	50.0	51.2	
77 trans-1,3-Dichloropropene	75	9.291	9.293	-0.002	97	165253	50.0	52.7	
78 Ethyl methacrylate	69	9.352	9.353	-0.001	92	162110	50.0	42.9	
79 1,1,2-Trichloroethane	97	9.486	9.487	-0.001	90	126764	50.0	52.8	
80 Tetrachloroethene	164	9.553	9.554	-0.001	94	96640	50.0	44.0	
81 1,3-Dichloropropane	76	9.644	9.645	-0.001	98	214588	50.0	48.4	
82 2-Hexanone	43	9.705	9.706	-0.001	99	201829	100.0	88.8	
84 Chlorodibromomethane	129	9.857	9.858	-0.001	92	103734	50.0	51.1	
85 Ethylene Dibromide	107	9.973	9.968	0.005	99	120273	50.0	48.9	
86 3-Chlorobenzotrifluoride	180	10.435	10.430	0.005	87	189749	50.0	47.8	
87 Chlorobenzene	112	10.459	10.460	-0.001	94	363886	50.0	48.5	
88 4-Chlorobenzotrifluoride	180	10.520	10.521	-0.001	96	181764	50.0	49.6	
89 1,1,1,2-Tetrachloroethane	131	10.550	10.551	-0.001	94	121758	50.0	51.1	
90 Ethylbenzene	106	10.556	10.558	-0.002	99	196641	50.0	47.0	
91 m-Xylene & p-Xylene	106	10.684	10.685	-0.001	0	236368	50.0	46.2	
92 o-Xylene	106	11.067	11.068	-0.001	96	224961	50.0	46.1	
93 Styrene	104	11.092	11.087	0.005	95	388697	50.0	47.1	
94 Bromoform	173	11.274	11.275	-0.001	95	57386	50.0	45.5	
96 2-Chlorobenzotrifluoride	180	11.341	11.342	-0.001	95	185689	50.0	48.9	
97 Isopropylbenzene	105	11.438	11.439	-0.001	96	541419	50.0	45.5	
99 1,1,2,2-Tetrachloroethane	83	11.748	11.749	-0.001	86	177384	50.0	49.9	
100 Bromobenzene	156	11.748	11.749	-0.001	98	135632	50.0	45.0	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.786	0.005	80	59871	50.0	65.8	
101 1,2,3-Trichloropropane	110	11.803	11.804	-0.001	86	61081	50.0	49.1	
103 N-Propylbenzene	120	11.852	11.853	-0.001	99	159546	50.0	46.3	
104 2-Chlorotoluene	126	11.943	11.938	0.005	96	133421	50.0	44.8	
105 3-Chlorotoluene	126	12.004	12.005	-0.001	97	164724	50.0	50.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.034	12.035	-0.001	95	460279	50.0	46.7	
107 4-Chlorotoluene	126	12.065	12.066	-0.001	98	151573	50.0	47.1	
108 tert-Butylbenzene	119	12.350	12.352	-0.002	95	346392	50.0	42.0	
110 1,2,4-Trimethylbenzene	105	12.411	12.412	-0.001	97	467605	50.0	46.6	
111 1,2-dichloro-4-(trifluorom	214	12.454	12.455	-0.001	94	102909	50.0	41.0	
112 sec-Butylbenzene	105	12.575	12.570	0.005	94	510422	50.0	44.4	
113 1,3-Dichlorobenzene	146	12.691	12.692	-0.001	98	255730	50.0	47.5	
114 4-Isopropyltoluene	119	12.727	12.729	-0.002	97	424903	50.0	44.3	
115 1,4-Dichlorobenzene	146	12.794	12.795	-0.001	96	260512	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.825	12.820	0.005	91	99844	50.0	42.7	
118 2,5-Dichlorobenzotrifluori	214	12.861	12.862	-0.001	0	103947	50.0	41.2	
120 n-Butylbenzene	91	13.135	13.136	-0.001	98	335984	50.0	43.0	
121 1,2-Dichlorobenzene	146	13.153	13.154	-0.001	96	244567	50.0	47.6	
122 1,2-Dibromo-3-Chloropropan	75	13.938	13.939	-0.001	77	23431	50.0	41.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.084	14.085	-0.001	0	463096	150.0	142.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.503	14.504	-0.001	0	311370	100.0	92.4	
126 1,2,4-Trichlorobenzene	180	14.765	14.766	-0.001	95	89031	50.0	37.9	
127 Hexachlorobutadiene	225	14.911	14.912	-0.001	95	35580	50.0	41.4	
128 Naphthalene	128	15.032	15.027	0.005	97	297482	50.0	37.2	
129 1,2,3-Trichlorobenzene	180	15.257	15.258	-0.001	95	79144	50.0	36.9	
131 2,4,5-Trichlorotoluene	159	16.024	16.025	-0.001	0	30889	50.0	30.3	
130 2,3,6-Trichlorotoluene	159	16.121	16.122	-0.001	97	32211	50.0	33.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.6	
S 133 Xylenes, Total	106				0		100.0	92.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	99.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00014	Amount Added:	2.00	Units: uL		
voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL		
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL		
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL		
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent	

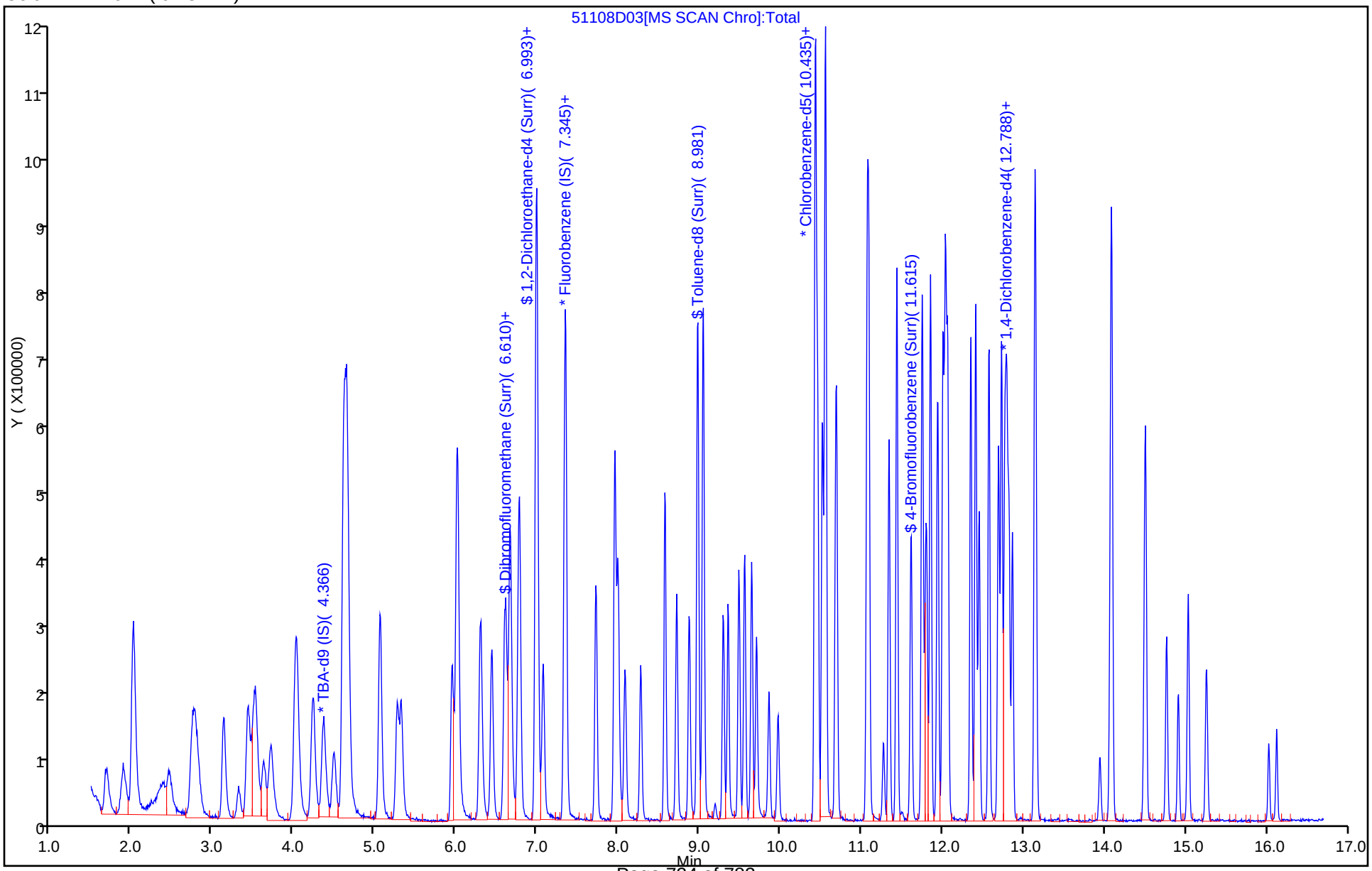
Report Date: 09-Nov-2017 09:47:28 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D03.D

Injection Date:	08-Nov-2017 22:05:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	LCS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\51108D03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Nov-2017 22:05:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019227-003
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171108-19227.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 09:44:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: bungardf Date: 08-Nov-2017 22:27:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	52.1	104.14
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.4	112.71
$ 7 Toluene-d8 (Surr)	50.0	56.6	113.24
$ 8 4-Bromofluorobenzene (Surr)	50.0	51.9	103.84

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228475/4

Matrix: Water | Lab File ID: 51109D04.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 12:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	16.7		1.0	0.90
75-01-4	Vinyl chloride	10.3		1.0	0.88
74-83-9	Bromomethane	12.1		1.0	0.89
75-00-3	Chloroethane	12.2		1.0	0.90
75-35-4	1,1-Dichloroethene	10.0		1.0	0.55
67-64-1	Acetone	19.2		5.0	3.4
75-15-0	Carbon disulfide	10.5		1.0	0.88
75-09-2	Methylene Chloride	10.5		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.91		1.0	0.67
1634-04-4	Methyl tert-butyl ether	10.2		1.0	0.59
75-34-3	1,1-Dichloroethane	10.1		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.41		1.0	0.71
74-97-5	Bromochloromethane	9.77		1.0	0.63
78-93-3	2-Butanone (MEK)	18.9		5.0	2.6
67-66-3	Chloroform	9.49		1.0	0.60
71-55-6	1,1,1-Trichloroethane	9.50		1.0	0.60
56-23-5	Carbon tetrachloride	9.70		1.0	0.88
71-43-2	Benzene	9.31		1.0	0.60
107-06-2	1,2-Dichloroethane	11.1		1.0	0.57
79-01-6	Trichloroethene	8.42		1.0	0.69
78-87-5	1,2-Dichloropropane	10.1		1.0	0.66
75-27-4	Bromodichloromethane	9.44		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	9.73		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	22.3		5.0	3.1
108-88-3	Toluene	10.6		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.9		1.0	0.58
79-00-5	1,1,2-Trichloroethane	11.7		1.0	0.45
127-18-4	Tetrachloroethene	9.41		1.0	0.47
591-78-6	2-Hexanone	19.0		5.0	3.3
124-48-1	Dibromochloromethane	11.3		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.50
108-90-7	Chlorobenzene	9.68		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.57
100-41-4	Ethylbenzene	9.07		1.0	0.51
1330-20-7	Xylenes, Total	18.0		2.0	0.89
100-42-5	Styrene	9.65		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228475/4

Matrix: Water | Lab File ID: 51109D04.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 12:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.45		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	10.6		1.0	0.60
107-13-1	Acrylonitrile	127		20	7.8
123-91-1	1,4-Dioxane	160	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		65-121
2037-26-5	Toluene-d8 (Surr)	109		73-120
460-00-4	4-Bromofluorobenzene (Surr)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D04.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 09-Nov-2017 12:19:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-004
Misc. Info.: lcs
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:55:16 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:53:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.378	4.367	0.011	0	192812	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.335	0.006	97	418563	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.430	-0.001	86	89751	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	93	137819	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.617	-0.001	92	100302	50.0	49.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.982	0.005	0	132197	50.0	53.8	
$ 7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	94	387726	50.0	54.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.610	-0.001	84	131769	50.0	51.1	
11 Dichlorodifluoromethane	85	1.684	1.679	0.005	98	134142	50.0	55.1	
12 Chloromethane	50	1.891	1.886	0.005	99	203718	50.0	83.3	
13 Vinyl chloride	62	2.018	2.019	-0.001	65	128429	50.0	51.7	
14 Butadiene	39	2.025	2.019	0.006	96	144105	50.0	63.9	
15 Bromomethane	94	2.408	2.354	0.054	83	71079	50.0	60.6	M
16 Chloroethane	64	2.462	2.445	0.017	100	83029	50.0	60.9	
17 Dichlorofluoromethane	67	2.766	2.767	-0.001	97	209688	50.0	60.8	
18 Trichlorofluoromethane	101	2.803	2.804	-0.001	46	118635	50.0	38.9	
20 Ethyl ether	59	3.131	3.120	0.011	96	128091	50.0	64.6	
21 Acrolein	56	3.308	3.315	-0.007	99	84608	150.0	169.2	
22 1,1-Dichloroethene	96	3.423	3.424	-0.001	97	102794	50.0	50.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.514	3.515	-0.001	95	110844	50.0	49.3	
24 Acetone	43	3.527	3.540	-0.013	100	105042	100.0	96.0	
25 Iodomethane	142	3.624	3.625	-0.001	99	157771	50.0	49.0	
26 Carbon disulfide	76	3.715	3.710	0.005	99	236287	50.0	52.5	
28 3-Chloro-1-propene	76	4.007	4.008	-0.001	90	62655	50.0	47.3	
30 Methyl acetate	43	4.044	4.026	0.018	99	269445	100.0	124.3	
31 Methylene Chloride	84	4.232	4.227	0.005	97	133004	50.0	52.6	
32 2-Methyl-2-propanol	59	4.500	4.495	0.005	91	115456	500.0	506.3	
33 Acrylonitrile	53	4.615	4.616	-0.001	100	668600	500.0	634.4	
34 trans-1,2-Dichloroethene	96	4.652	4.647	0.005	98	115724	50.0	49.6	
35 Methyl tert-butyl ether	73	4.664	4.659	0.005	96	320430	50.0	51.2	
36 Hexane	57	5.065	5.060	0.005	92	155368	50.0	51.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.272	5.267	0.005	96	205776	50.0	50.7	
38 Vinyl acetate	43	5.321	5.322	-0.001	97	250398	50.0	60.7	
44 2,2-Dichloropropane	97	6.008	6.009	-0.001	63	30395	50.0	58.8	
45 cis-1,2-Dichloroethene	96	6.014	6.009	0.005	84	125608	50.0	47.0	
46 2-Butanone (MEK)	43	6.026	6.021	0.005	99	146926	100.0	94.3	
49 Chlorobromomethane	128	6.294	6.295	-0.001	94	57966	50.0	48.8	
51 Tetrahydrofuran	42	6.312	6.301	0.011	92	92352	100.0	101.8	
52 Chloroform	83	6.440	6.441	-0.001	94	192414	50.0	47.5	
53 1,1,1-Trichloroethane	97	6.598	6.599	-0.001	96	145804	50.0	47.5	
54 Cyclohexane	56	6.671	6.659	0.012	94	192320	50.0	50.8	
56 Carbon tetrachloride	117	6.768	6.769	-0.001	88	123868	50.0	48.5	
55 1,1-Dichloropropene	75	6.780	6.781	-0.001	92	140806	50.0	42.5	
57 Isobutyl alcohol	41	6.981	6.976	0.005	88	126831	1250.0	1522.8	
58 Benzene	78	6.999	6.994	0.005	98	473843	50.0	46.6	
59 1,2-Dichloroethane	62	7.072	7.067	0.005	96	164260	50.0	55.4	
62 n-Heptane	43	7.352	7.353	-0.001	92	133253	50.0	55.6	
64 Trichloroethene	130	7.723	7.724	-0.001	97	107852	50.0	42.1	
66 Methylcyclohexane	83	7.954	7.961	-0.007	94	146207	50.0	37.8	
67 1,2-Dichloropropane	63	7.990	7.991	-0.001	94	119791	50.0	50.5	
70 1,4-Dioxane	88	8.082	8.070	0.012	45	19298	1000.0	800.8	
68 Dibromomethane	93	8.082	8.083	-0.001	95	69104	50.0	49.8	
71 Dichlorobromomethane	83	8.276	8.277	-0.001	98	128631	50.0	47.2	
73 2-Chloroethyl vinyl ether	63	8.580	8.575	0.005	92	202437	100.0	118.7	
74 cis-1,3-Dichloropropene	75	8.720	8.721	-0.001	93	161123	50.0	48.7	
75 4-Methyl-2-pentanone (MIBK	43	8.872	8.873	-0.001	99	256721	100.0	111.5	
76 Toluene	91	9.048	9.049	-0.001	98	473873	50.0	53.0	
77 trans-1,3-Dichloropropene	75	9.298	9.293	0.005	98	132381	50.0	54.4	
78 Ethyl methacrylate	69	9.353	9.354	-0.001	91	128565	50.0	43.8	
79 1,1,2-Trichloroethane	97	9.486	9.487	-0.001	91	109067	50.0	58.5	
80 Tetrachloroethene	164	9.559	9.560	-0.001	94	80296	50.0	47.0	
81 1,3-Dichloropropane	76	9.644	9.645	-0.001	97	175320	50.0	50.9	
82 2-Hexanone	43	9.705	9.700	0.005	98	168011	100.0	95.2	
84 Chlorodibromomethane	129	9.857	9.858	-0.001	90	89357	50.0	56.7	
85 Ethylene Dibromide	107	9.973	9.968	0.005	100	97799	50.0	51.2	
87 Chlorobenzene	112	10.459	10.454	0.005	94	282099	50.0	48.4	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.552	-0.001	92	94733	50.0	51.1	
90 Ethylbenzene	106	10.557	10.558	-0.001	99	147538	50.0	45.4	
91 m-Xylene & p-Xylene	106	10.690	10.691	-0.001	0	181118	50.0	45.6	
92 o-Xylene	106	11.067	11.068	-0.001	96	168912	50.0	44.6	
93 Styrene	104	11.092	11.093	-0.001	96	309368	50.0	48.3	
94 Bromoform	173	11.268	11.269	-0.001	92	46253	50.0	47.2	
97 Isopropylbenzene	105	11.438	11.439	-0.001	96	409917	50.0	44.3	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.750	-0.001	87	146789	50.0	53.2	
100 Bromobenzene	156	11.749	11.750	-0.001	97	109398	50.0	40.9	
102 trans-1,4-Dichloro-2-buten	53	11.785	11.786	-0.001	70	48013	50.0	59.5	
101 1,2,3-Trichloropropane	110	11.803	11.804	-0.001	86	47791	50.0	43.3	
103 N-Propylbenzene	120	11.852	11.853	-0.001	99	127453	50.0	41.7	
104 2-Chlorotoluene	126	11.943	11.944	-0.001	97	107276	50.0	40.6	
106 1,3,5-Trimethylbenzene	105	12.034	12.035	-0.001	95	351730	50.0	40.2	
107 4-Chlorotoluene	126	12.065	12.066	-0.001	97	120112	50.0	42.1	
108 tert-Butylbenzene	119	12.351	12.352	-0.001	95	266317	50.0	36.4	
110 1,2,4-Trimethylbenzene	105	12.405	12.406	-0.001	97	367602	50.0	41.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.576	12.571	0.005	94	391822	50.0	38.4	
113 1,3-Dichlorobenzene	146	12.691	12.692	-0.001	97	204162	50.0	42.7	
114 4-Isopropyltoluene	119	12.728	12.729	-0.001	96	328881	50.0	38.7	
115 1,4-Dichlorobenzene	146	12.795	12.789	0.006	93	216688	50.0	44.2	
120 n-Butylbenzene	91	13.135	13.136	-0.001	98	250856	50.0	36.2	
121 1,2-Dichlorobenzene	146	13.147	13.148	-0.001	96	202006	50.0	44.3	
122 1,2-Dibromo-3-Chloropropan	75	13.944	13.945	-0.001	74	19270	50.0	38.1	
126 1,2,4-Trichlorobenzene	180	14.765	14.766	-0.001	94	57801	50.0	27.7	
127 Hexachlorobutadiene	225	14.911	14.906	0.005	91	25030	50.0	32.8	
128 Naphthalene	128	15.033	15.033	-0.001	97	187409	50.0	26.4	
129 1,2,3-Trichlorobenzene	180	15.258	15.258	0.000	93	60376	50.0	31.7	
S 133 Xylenes, Total	106				0		100.0	90.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	103.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

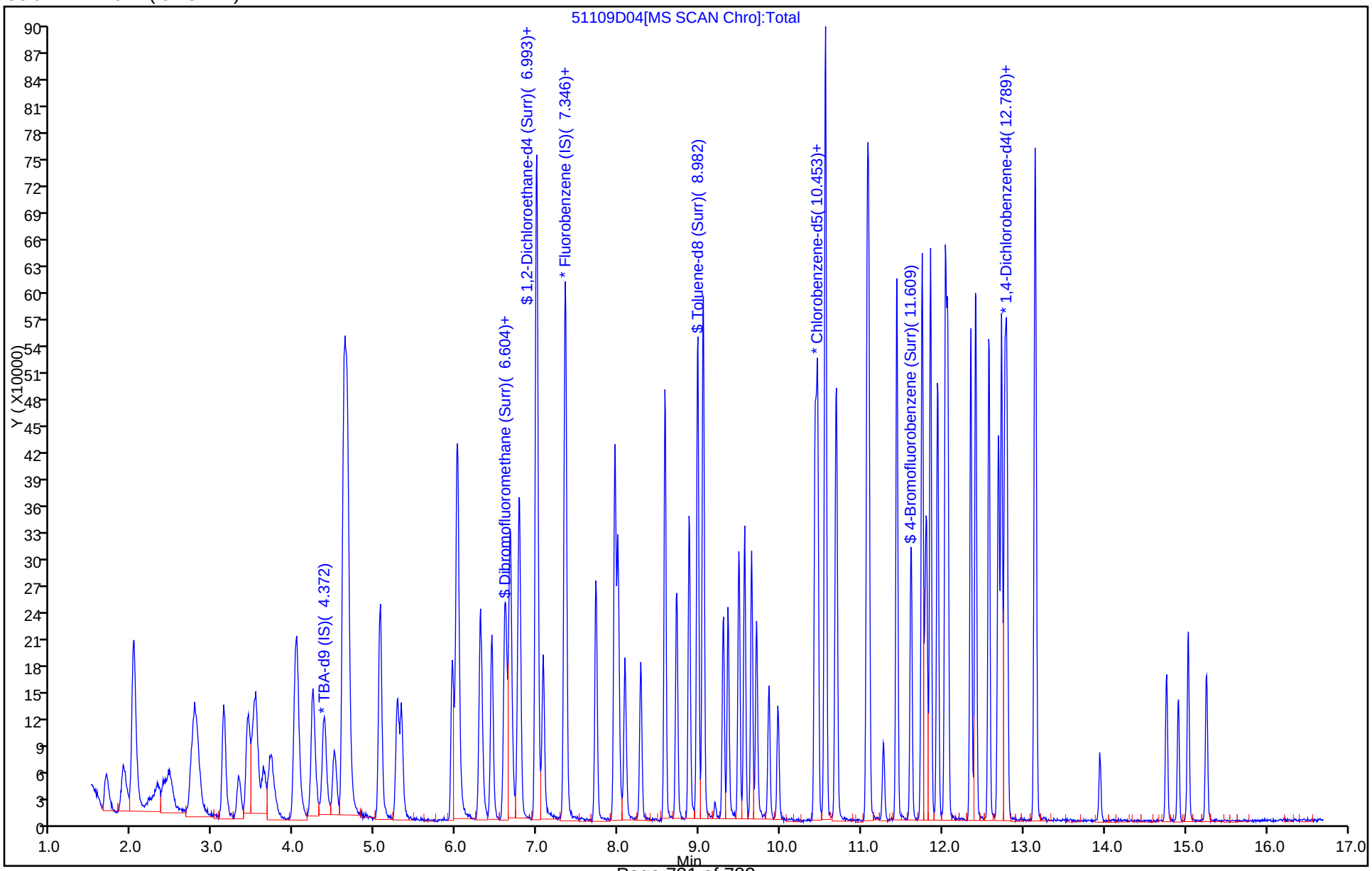
Report Date: 09-Nov-2017 17:55:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D04.D

Injection Date:	09-Nov-2017 12:19:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D04.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 09-Nov-2017 12:19:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-004
Misc. Info.: lcs
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:55:16 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 17:53:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.8	99.61
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.8	107.64
$ 7 Toluene-d8 (Surr)	50.0	54.3	108.56
$ 8 4-Bromofluorobenzene (Surr)	50.0	51.1	102.15

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

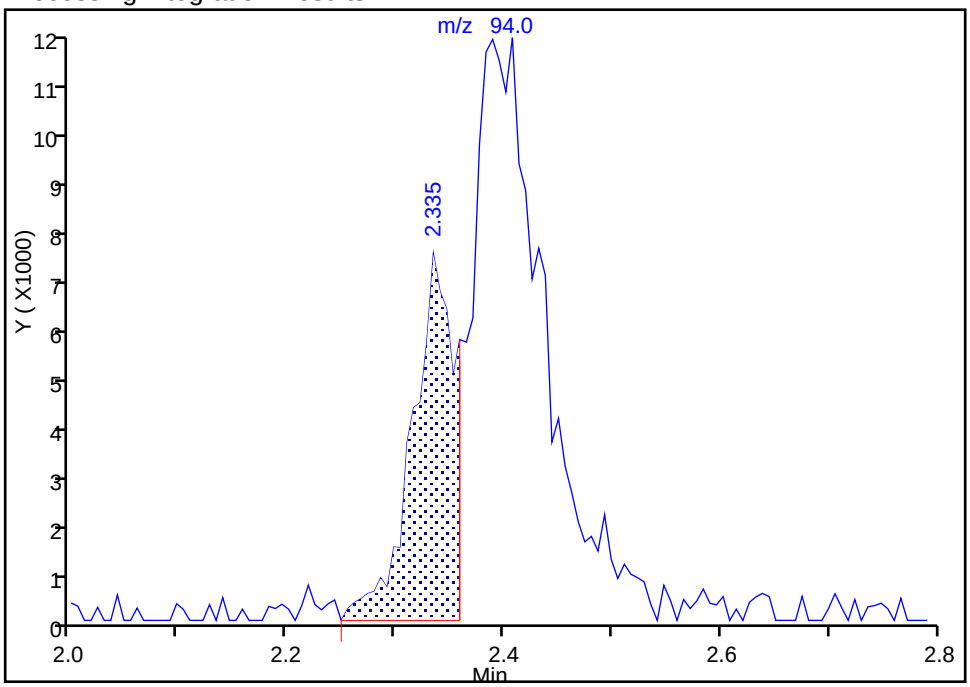
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D04.D
Injection Date: 09-Nov-2017 12:19:30 Instrument ID: CHHP5
Lims ID: lcs
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

15 Bromomethane, CAS: 74-83-9

Signal: 1

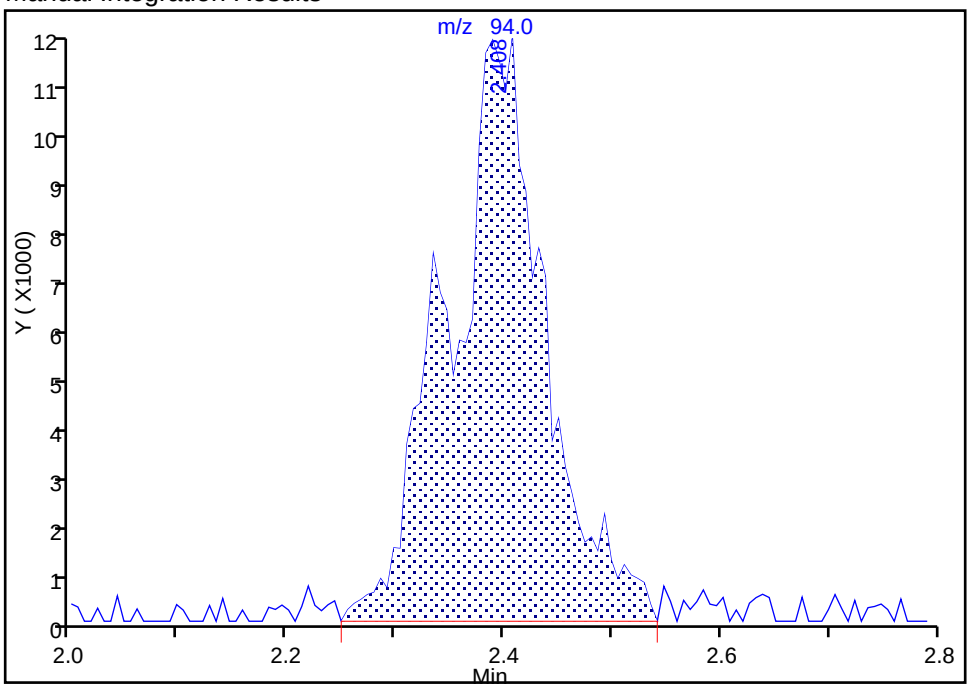
Processing Integration Results

RT: 2.33
Area: 19565
Amount: 16.670054
Amount Units: ng



Manual Integration Results

RT: 2.41
Area: 71079
Amount: 60.561756
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 17:53:36
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228533/4

Matrix: Water | Lab File ID: 7110904.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 09:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.53		1.0	0.90
75-01-4	Vinyl chloride	6.63		1.0	0.88
74-83-9	Bromomethane	7.80		1.0	0.89
75-00-3	Chloroethane	9.19		1.0	0.90
75-35-4	1,1-Dichloroethene	6.67		1.0	0.55
67-64-1	Acetone	16.7		5.0	3.4
75-15-0	Carbon disulfide	10.2		1.0	0.88
75-09-2	Methylene Chloride	11.1		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.70		1.0	0.59
75-34-3	1,1-Dichloroethane	8.98		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.89		1.0	0.71
74-97-5	Bromochloromethane	9.52		1.0	0.63
78-93-3	2-Butanone (MEK)	23.5		5.0	2.6
67-66-3	Chloroform	8.98		1.0	0.60
71-55-6	1,1,1-Trichloroethane	9.28		1.0	0.60
56-23-5	Carbon tetrachloride	10.4		1.0	0.88
71-43-2	Benzene	11.3		1.0	0.60
107-06-2	1,2-Dichloroethane	8.53		1.0	0.57
79-01-6	Trichloroethene	10.3		1.0	0.69
78-87-5	1,2-Dichloropropane	10.6		1.0	0.66
75-27-4	Bromodichloromethane	9.48		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	10.1		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	25.2		5.0	3.1
108-88-3	Toluene	12.4		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.58
79-00-5	1,1,2-Trichloroethane	11.4		1.0	0.45
127-18-4	Tetrachloroethene	9.48		1.0	0.47
591-78-6	2-Hexanone	24.2		5.0	3.3
124-48-1	Dibromochloromethane	11.3		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	11.1		1.0	0.50
108-90-7	Chlorobenzene	11.6		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.7		1.0	0.57
100-41-4	Ethylbenzene	10.4		1.0	0.51
1330-20-7	Xylenes, Total	20.5		2.0	0.89
100-42-5	Styrene	11.1		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228533/4

Matrix: Water | Lab File ID: 7110904.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 09:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228533 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	12.7		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	11.7		1.0	0.60
107-13-1	Acrylonitrile	120		20	7.8
123-91-1	1,4-Dioxane	229		200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110904.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 09-Nov-2017 09:42:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: 034635 Instrument ID: CHHP7

Method: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 16:09:44 Calib Date: 26-May-2017 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 16:10:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.255	4.251	0.004	97	105721	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.266	7.263	0.003	97	119931	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.365	-0.002	89	28985	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.711	12.707	0.004	95	39802	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.542	6.539	0.003	92	27873	50.0	47.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.914	6.910	0.004	47	48123	50.0	41.7	
$ 7 Toluene-d8 (Surr)	98	8.909	8.911	-0.002	94	104732	50.0	47.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.549	11.545	0.004	86	44308	50.0	47.1	
11 Dichlorodifluoromethane	85	1.627	1.617	0.010	99	49623	50.0	53.8	
12 Chloromethane	50	1.785	1.793	-0.008	100	48546	50.0	37.7	
13 Vinyl chloride	62	1.931	1.921	0.010	98	34345	50.0	33.1	
14 Butadiene	39	1.962	1.970	-0.008	98	36478	50.0	50.0	
15 Bromomethane	94	2.278	2.280	-0.002	89	15527	50.0	39.0	
16 Chloroethane	64	2.424	2.414	0.010	94	15998	50.0	45.9	
17 Dichlorofluoromethane	67	2.686	2.682	0.004	97	44988	50.0	44.4	
18 Trichlorofluoromethane	101	2.716	2.694	0.022	72	43093	50.0	49.7	
20 Ethyl ether	59	3.044	3.041	0.003	94	26752	50.0	30.4	
22 1,1-Dichloroethene	96	3.336	3.345	-0.009	88	24640	50.0	33.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.430	-0.002	61	25929	50.0	44.4	
24 Acetone	43	3.434	3.436	-0.002	97	46160	100.0	83.7	
25 Iodomethane	142	3.531	3.533	-0.002	96	47956	50.0	68.4	
26 Carbon disulfide	76	3.635	3.625	0.010	100	90561	50.0	50.9	
28 3-Chloro-1-propene	76	3.908	3.917	-0.009	79	21832	50.0	54.2	
30 Methyl acetate	43	3.920	3.923	-0.003	98	111278	100.0	108.1	
31 Methylene Chloride	84	4.115	4.123	-0.008	98	41612	50.0	55.4	
32 2-Methyl-2-propanol	59	4.389	4.373	0.016	97	69434	500.0	526.6	
33 Acrylonitrile	53	4.504	4.507	-0.003	100	263496	500.0	600.2	
34 trans-1,2-Dichloroethene	96	4.541	4.555	-0.014	97	30807	50.0	51.5	
35 Methyl tert-butyl ether	73	4.559	4.561	-0.002	98	124319	50.0	48.5	
36 Hexane	57	4.967	4.975	-0.008	94	43253	50.0	51.6	
37 1,1-Dichloroethane	63	5.180	5.182	-0.002	96	70162	50.0	44.9	
45 cis-1,2-Dichloroethene	96	5.934	5.930	0.004	80	38596	50.0	49.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 2,2-Dichloropropane	97	5.934	5.930	0.004	47	6622	50.0	44.3	
46 2-Butanone (MEK)	43	5.940	5.936	0.004	98	86738	100.0	117.6	
49 Chlorobromomethane	128	6.220	6.210	0.010	94	18579	50.0	47.6	
51 Tetrahydrofuran	42	6.232	6.228	0.004	92	51677	100.0	113.2	
52 Chloroform	83	6.360	6.362	-0.002	94	68032	50.0	44.9	
53 1,1,1-Trichloroethane	97	6.518	6.514	0.004	98	47523	50.0	46.4	
54 Cyclohexane	56	6.591	6.587	0.004	94	58241	50.0	52.6	
56 Carbon tetrachloride	117	6.682	6.691	-0.009	94	37490	50.0	52.2	
55 1,1-Dichloropropene	75	6.707	6.709	-0.002	94	45641	50.0	45.5	
57 Isobutyl alcohol	41	6.907	6.904	0.003	92	58972	1250.0	1257.8	
62 n-Heptane	43	6.907	6.904	0.003	70	77483	50.0	55.8	
58 Benzene	78	6.920	6.922	-0.002	98	152308	50.0	56.5	
59 1,2-Dichloroethane	62	6.999	6.995	0.004	97	62014	50.0	42.6	
64 Trichloroethene	130	7.656	7.646	0.010	94	38044	50.0	51.6	
66 Methylcyclohexane	83	7.887	7.889	-0.002	96	43943	50.0	49.4	
67 1,2-Dichloropropane	63	7.923	7.926	-0.003	94	41471	50.0	52.9	
70 1,4-Dioxane	88	8.009	8.011	-0.002	44	8723	1000.0	1143.3	
68 Dibromomethane	93	8.015	8.011	0.004	94	23746	50.0	49.1	
71 Dichlorobromomethane	83	8.209	8.205	0.004	98	51675	50.0	47.4	
74 cis-1,3-Dichloropropene	75	8.647	8.650	-0.003	93	66066	50.0	50.5	
75 4-Methyl-2-pentanone (MIBK	43	8.799	8.802	-0.003	98	169510	100.0	126.1	
76 Toluene	91	8.976	8.978	-0.002	97	154757	50.0	62.2	
77 trans-1,3-Dichloropropene	75	9.225	9.227	-0.002	96	58761	50.0	50.0	
78 Ethyl methacrylate	69	9.286	9.282	0.004	92	69322	50.0	53.7	
79 1,1,2-Trichloroethane	97	9.420	9.422	-0.002	95	38330	50.0	57.1	
80 Tetrachloroethene	164	9.493	9.495	-0.002	93	23874	50.0	47.4	
81 1,3-Dichloropropane	76	9.578	9.580	-0.002	97	66737	50.0	51.3	
82 2-Hexanone	43	9.633	9.635	-0.002	98	118121	100.0	121.0	
84 Chlorodibromomethane	129	9.791	9.787	0.004	92	35171	50.0	56.4	
85 Ethylene Dibromide	107	9.901	9.909	-0.009	96	42831	50.0	55.5	
87 Chlorobenzene	112	10.393	10.389	0.004	91	103775	50.0	58.1	
89 1,1,1,2-Tetrachloroethane	131	10.485	10.481	0.004	91	30340	50.0	53.3	
90 Ethylbenzene	106	10.491	10.493	-0.002	99	46659	50.0	51.9	
91 m-Xylene & p-Xylene	106	10.624	10.621	0.003	98	56963	50.0	50.9	
92 o-Xylene	106	11.002	11.004	-0.002	97	62013	50.0	51.6	
93 Styrene	104	11.026	11.022	0.004	94	107346	50.0	55.4	
94 Bromoform	173	11.208	11.211	-0.003	95	26672	50.0	63.6	
97 Isopropylbenzene	105	11.373	11.369	0.004	97	143587	50.0	50.7	
100 Bromobenzene	156	11.689	11.685	0.004	97	39754	50.0	47.6	
99 1,1,2,2-Tetrachloroethane	83	11.683	11.685	-0.002	95	55774	50.0	58.3	
102 trans-1,4-Dichloro-2-buten	53	11.726	11.722	0.004	82	19805	50.0	54.1	
101 1,2,3-Trichloropropane	110	11.744	11.740	0.004	86	19074	50.0	52.5	
103 N-Propylbenzene	120	11.786	11.789	-0.003	99	31614	50.0	47.1	
104 2-Chlorotoluene	126	11.878	11.874	0.004	94	30828	50.0	48.2	
106 1,3,5-Trimethylbenzene	105	11.969	11.971	-0.002	92	113175	50.0	48.3	
107 4-Chlorotoluene	126	11.999	12.002	-0.003	98	32309	50.0	49.8	
108 tert-Butylbenzene	119	12.285	12.281	0.004	93	88832	50.0	47.9	
110 1,2,4-Trimethylbenzene	105	12.346	12.342	0.004	98	124491	50.0	51.1	
112 sec-Butylbenzene	105	12.510	12.506	0.004	95	119015	50.0	49.2	
113 1,3-Dichlorobenzene	146	12.632	12.628	0.004	96	60193	50.0	48.1	
114 4-Isopropyltoluene	119	12.662	12.665	-0.003	97	98764	50.0	51.7	
115 1,4-Dichlorobenzene	146	12.735	12.732	0.003	92	60057	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
120 n-Butylbenzene	91	13.070	13.072	-0.002	97	81708	50.0	48.7	
121 1,2-Dichlorobenzene	146	13.088	13.090	-0.002	93	59005	50.0	50.1	
122 1,2-Dibromo-3-Chloropropan	157	13.879	13.881	-0.002	77	9830	50.0	65.1	
126 1,2,4-Trichlorobenzene	180	14.706	14.703	0.003	93	29593	50.0	59.7	
127 Hexachlorobutadiene	225	14.846	14.849	-0.003	95	11895	50.0	59.3	
128 Naphthalene	128	14.968	14.964	0.004	94	94910	50.0	87.9	
129 1,2,3-Trichlorobenzene	180	15.193	15.195	-0.002	96	21214	50.0	74.0	
S 133 Xylenes, Total	106				0		100.0	102.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	100.6	

Reagents:

voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent

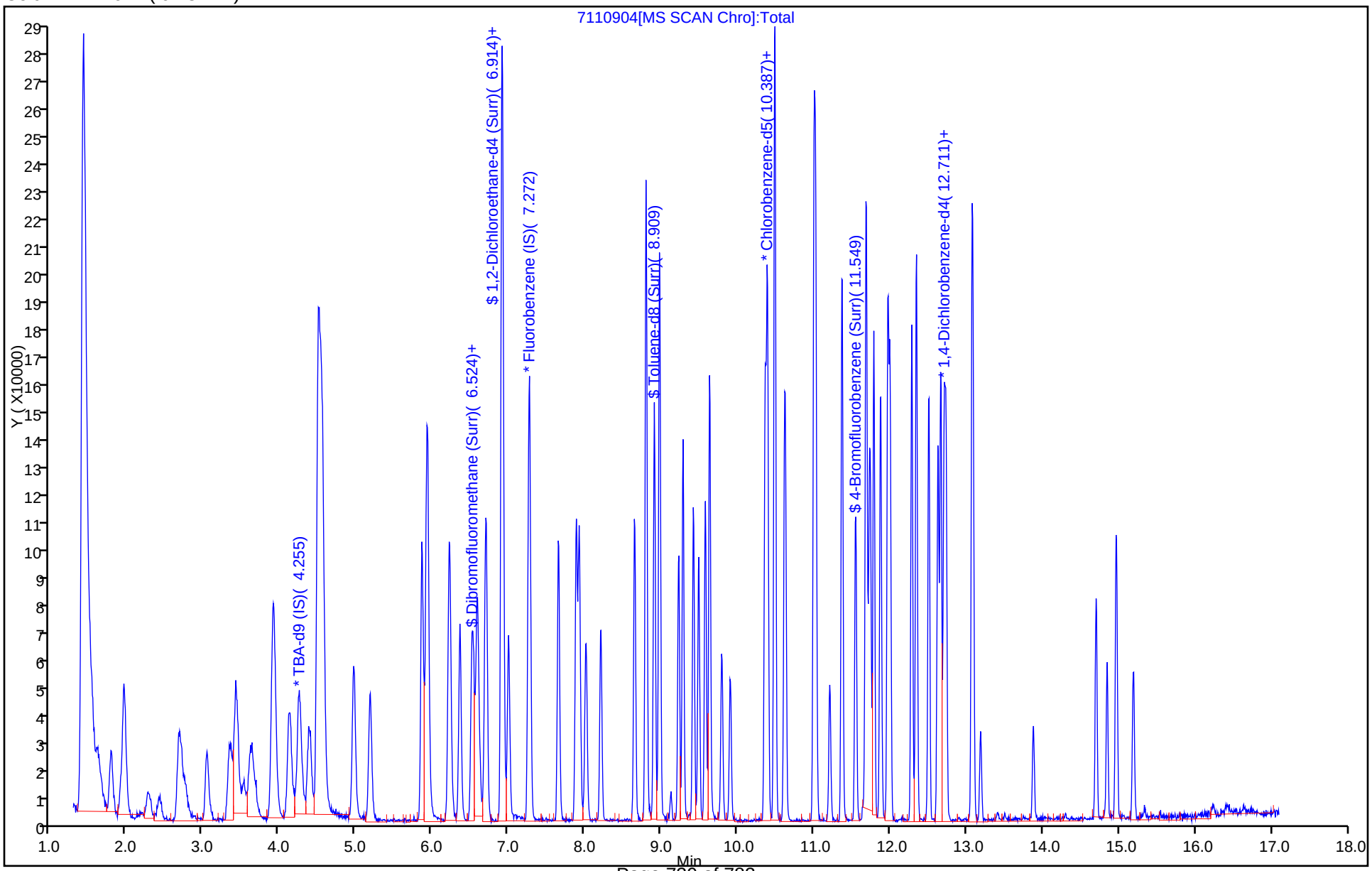
Report Date: 09-Nov-2017 16:10:07 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110904.D

Injection Date:	09-Nov-2017 09:42:30	Instrument ID:	CHHP7	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_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\7110904.D				
Lims ID:	lcs				
Client ID:					
Sample Type:	LCS				
Inject. Date:	09-Nov-2017 09:42:30	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	lcs				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP7\20171109-19243.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 16:09:44	Calib Date:	26-May-2017 18:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP7\20170526-16937.b\70526N10.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				

First Level Reviewer: journetp Date: 09-Nov-2017 16:10:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	47.0	93.93
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	41.7	83.38
$ 7 Toluene-d8 (Surr)	50.0	47.7	95.40
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.1	94.14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228566/5

Matrix: Water | Lab File ID: 51110D05.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 09:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.5		1.0	0.90
75-01-4	Vinyl chloride	10.7		1.0	0.88
74-83-9	Bromomethane	13.7		1.0	0.89
75-00-3	Chloroethane	12.7		1.0	0.90
75-35-4	1,1-Dichloroethene	9.32		1.0	0.55
67-64-1	Acetone	19.0		5.0	3.4
75-15-0	Carbon disulfide	10.5		1.0	0.88
75-09-2	Methylene Chloride	9.39		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.36		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.27		1.0	0.59
75-34-3	1,1-Dichloroethane	9.47		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	8.89		1.0	0.71
74-97-5	Bromochloromethane	9.03		1.0	0.63
78-93-3	2-Butanone (MEK)	19.3		5.0	2.6
67-66-3	Chloroform	8.88		1.0	0.60
71-55-6	1,1,1-Trichloroethane	9.19		1.0	0.60
56-23-5	Carbon tetrachloride	9.18		1.0	0.88
71-43-2	Benzene	9.01		1.0	0.60
107-06-2	1,2-Dichloroethane	10.2		1.0	0.57
79-01-6	Trichloroethene	8.50		1.0	0.69
78-87-5	1,2-Dichloropropane	10.1		1.0	0.66
75-27-4	Bromodichloromethane	8.95		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.85		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	22.9		5.0	3.1
108-88-3	Toluene	10.1		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.4		1.0	0.58
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.45
127-18-4	Tetrachloroethene	9.11		1.0	0.47
591-78-6	2-Hexanone	19.8		5.0	3.3
124-48-1	Dibromochloromethane	10.9		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	9.96		1.0	0.50
108-90-7	Chlorobenzene	10.0		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.3		1.0	0.57
100-41-4	Ethylbenzene	9.50		1.0	0.51
1330-20-7	Xylenes, Total	18.2		2.0	0.89
100-42-5	Styrene	9.36		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228566/5

Matrix: Water | Lab File ID: 51110D05.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 09:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228566 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.33		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.60
107-13-1	Acrylonitrile	112		20	7.8
123-91-1	1,4-Dioxane	175	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		65-121
2037-26-5	Toluene-d8 (Surr)	99		73-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D05.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 10-Nov-2017 09:30:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-005
Misc. Info.: lcs
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 13-Nov-2017 12:28:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 10-Nov-2017 09:58:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.365	-0.004	0	190976	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.339	-0.004	98	453012	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.428	0.002	87	97389	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.769	-0.003	93	141218	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.615	0.002	92	99041	50.0	45.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.986	-0.004	0	129435	50.0	48.7	
$ 7 Toluene-d8 (Surr)	98	8.977	8.981	-0.004	93	384578	50.0	49.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.608	0.002	84	140737	50.0	50.3	
11 Dichlorodifluoromethane	85	1.692	1.683	0.009	99	149673	50.0	56.8	
12 Chloromethane	50	1.898	1.896	0.002	99	164858	50.0	62.3	
14 Butadiene	39	2.014	2.011	0.003	93	155786	50.0	63.8	
13 Vinyl chloride	62	2.026	2.017	0.009	70	143074	50.0	53.3	
15 Bromomethane	94	2.385	2.376	0.009	90	86800	50.0	68.3	
16 Chloroethane	64	2.464	2.461	0.003	99	94062	50.0	63.7	
17 Dichlorofluoromethane	67	2.774	2.765	0.009	97	242430	50.0	64.9	
18 Trichlorofluoromethane	101	2.780	2.796	-0.016	61	199331	50.0	60.4	
20 Ethyl ether	59	3.133	3.130	0.003	96	133251	50.0	62.1	
21 Acrolein	56	3.327	3.313	0.014	98	88310	150.0	163.2	
22 1,1-Dichloroethene	96	3.437	3.422	0.015	98	103383	50.0	46.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.528	3.513	0.015	93	119612	50.0	49.1	
24 Acetone	43	3.528	3.526	0.002	99	112387	100.0	94.9	
25 Iodomethane	142	3.619	3.623	-0.004	97	153191	50.0	44.0	
26 Carbon disulfide	76	3.723	3.714	0.009	99	255799	50.0	52.6	
28 3-Chloro-1-propene	76	4.027	4.012	0.015	92	58550	50.0	40.9	
30 Methyl acetate	43	4.051	4.043	0.008	99	257051	100.0	109.6	
31 Methylene Chloride	84	4.246	4.237	0.009	96	129519	50.0	47.0	
32 2-Methyl-2-propanol	59	4.489	4.499	-0.010	92	116904	500.0	517.6	
33 Acrylonitrile	53	4.617	4.608	0.009	100	637191	500.0	558.6	
34 trans-1,2-Dichloroethene	96	4.653	4.651	0.002	97	118292	50.0	46.8	
35 Methyl tert-butyl ether	73	4.659	4.657	0.002	96	314057	50.0	46.3	
36 Hexane	57	5.067	5.058	0.009	93	152302	50.0	47.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.273	5.271	0.002	97	208100	50.0	47.4	
38 Vinyl acetate	43	5.371	5.368	0.003	56	246708	50.0	55.2	
45 cis-1,2-Dichloroethene	96	6.015	6.013	0.002	83	128502	50.0	44.5	
44 2,2-Dichloropropane	97	6.009	6.019	-0.010	65	30068	50.0	53.7	
46 2-Butanone (MEK)	43	6.021	6.025	-0.004	90	162331	100.0	96.3	
49 Chlorobromomethane	128	6.295	6.287	0.008	94	57972	50.0	45.1	
51 Tetrahydrofuran	42	6.307	6.305	0.002	81	152494	100.0	155.3	
52 Chloroform	83	6.435	6.439	-0.004	94	194924	50.0	44.4	
53 1,1,1-Trichloroethane	97	6.599	6.591	0.008	98	152640	50.0	46.0	
54 Cyclohexane	56	6.660	6.670	-0.010	95	209151	50.0	51.0	
56 Carbon tetrachloride	117	6.769	6.767	0.002	96	126815	50.0	45.9	
55 1,1-Dichloropropene	75	6.782	6.779	0.003	92	146523	50.0	40.8	
57 Isobutyl alcohol	41	6.982	6.980	0.002	90	118301	1250.0	1312.4	
58 Benzene	78	7.001	6.998	0.002	97	496303	50.0	45.1	
59 1,2-Dichloroethane	62	7.073	7.071	0.002	96	164230	50.0	51.1	
62 n-Heptane	43	7.353	7.357	-0.004	93	142163	50.0	54.8	
64 Trichloroethene	130	7.724	7.728	-0.004	99	117758	50.0	42.5	
66 Methylcyclohexane	83	7.955	7.959	-0.004	94	164967	50.0	39.4	
67 1,2-Dichloropropane	63	7.992	7.995	-0.003	95	130031	50.0	50.7	
70 1,4-Dioxane	88	8.083	8.074	0.009	31	22772	1000.0	873.1	
68 Dibromomethane	93	8.083	8.087	-0.004	37	72457	50.0	48.2	
71 Dichlorobromomethane	83	8.278	8.275	0.003	97	132043	50.0	44.8	
73 2-Chloroethyl vinyl ether	63	8.576	8.573	0.003	92	159420	100.0	86.4	
74 cis-1,3-Dichloropropene	75	8.722	8.719	0.003	93	158468	50.0	44.2	
75 4-Methyl-2-pentanone (MIBK	43	8.874	8.871	0.003	99	285802	100.0	114.4	
76 Toluene	91	9.050	9.047	0.003	98	491327	50.0	50.6	
77 trans-1,3-Dichloropropene	75	9.293	9.297	-0.004	96	137697	50.0	52.1	
78 Ethyl methacrylate	69	9.354	9.358	-0.004	93	128909	50.0	40.5	
79 1,1,2-Trichloroethane	97	9.488	9.485	0.003	92	110121	50.0	54.4	
80 Tetrachloroethene	164	9.561	9.558	0.003	96	84344	50.0	45.5	
81 1,3-Dichloropropane	76	9.646	9.650	-0.004	96	187142	50.0	50.0	
82 2-Hexanone	43	9.707	9.704	0.003	99	189862	100.0	99.1	
84 Chlorodibromomethane	129	9.859	9.856	0.003	93	93525	50.0	54.7	
85 Ethylene Dibromide	107	9.968	9.972	-0.004	99	103277	50.0	49.8	
87 Chlorobenzene	112	10.461	10.458	0.003	93	316016	50.0	50.0	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.550	0.002	91	103035	50.0	51.3	
90 Ethylbenzene	106	10.558	10.556	0.002	99	167555	50.0	47.5	
91 m-Xylene & p-Xylene	106	10.692	10.689	0.003	0	201741	50.0	46.8	
92 o-Xylene	106	11.069	11.073	-0.004	96	181679	50.0	44.2	
93 Styrene	104	11.093	11.091	0.002	96	325498	50.0	46.8	
94 Bromoform	173	11.270	11.273	-0.003	94	49583	50.0	46.7	
97 Isopropylbenzene	105	11.434	11.437	-0.003	96	433965	50.0	43.3	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.748	0.002	87	155158	50.0	51.8	
100 Bromobenzene	156	11.750	11.748	0.002	95	115997	50.0	42.3	
102 trans-1,4-Dichloro-2-buten	53	11.780	11.790	-0.010	77	50868	50.0	61.6	
101 1,2,3-Trichloropropane	110	11.805	11.802	0.003	87	53689	50.0	47.5	
103 N-Propylbenzene	120	11.853	11.851	0.002	99	130764	50.0	41.7	
104 2-Chlorotoluene	126	11.945	11.942	0.003	97	112652	50.0	41.6	
106 1,3,5-Trimethylbenzene	105	12.036	12.033	0.003	94	363780	50.0	40.6	
107 4-Chlorotoluene	126	12.060	12.064	-0.004	97	121076	50.0	41.4	
108 tert-Butylbenzene	119	12.352	12.350	0.002	95	276032	50.0	36.8	
110 1,2,4-Trimethylbenzene	105	12.407	12.410	-0.003	97	373851	50.0	41.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.571	12.575	-0.004	95	414879	50.0	39.7	
113 1,3-Dichlorobenzene	146	12.693	12.690	0.003	97	215758	50.0	44.1	
114 4-Isopropyltoluene	119	12.729	12.727	0.002	97	354061	50.0	40.7	
115 1,4-Dichlorobenzene	146	12.796	12.794	0.002	95	227851	50.0	45.3	
120 n-Butylbenzene	91	13.137	13.140	-0.003	98	272929	50.0	38.4	
121 1,2-Dichlorobenzene	146	13.149	13.152	-0.003	97	214276	50.0	45.9	
122 1,2-Dibromo-3-Chloropropan	75	13.945	13.943	0.002	77	23129	50.0	44.6	
126 1,2,4-Trichlorobenzene	180	14.760	14.764	-0.004	94	59053	50.0	27.6	
127 Hexachlorobutadiene	225	14.906	14.910	-0.004	90	24586	50.0	31.5	
128 Naphthalene	128	15.028	15.031	-0.003	97	183660	50.0	25.2	M
129 1,2,3-Trichlorobenzene	180	15.259	15.256	0.003	95	58965	50.0	30.2	
S 133 Xylenes, Total	106				0		100.0	91.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	91.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	96.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

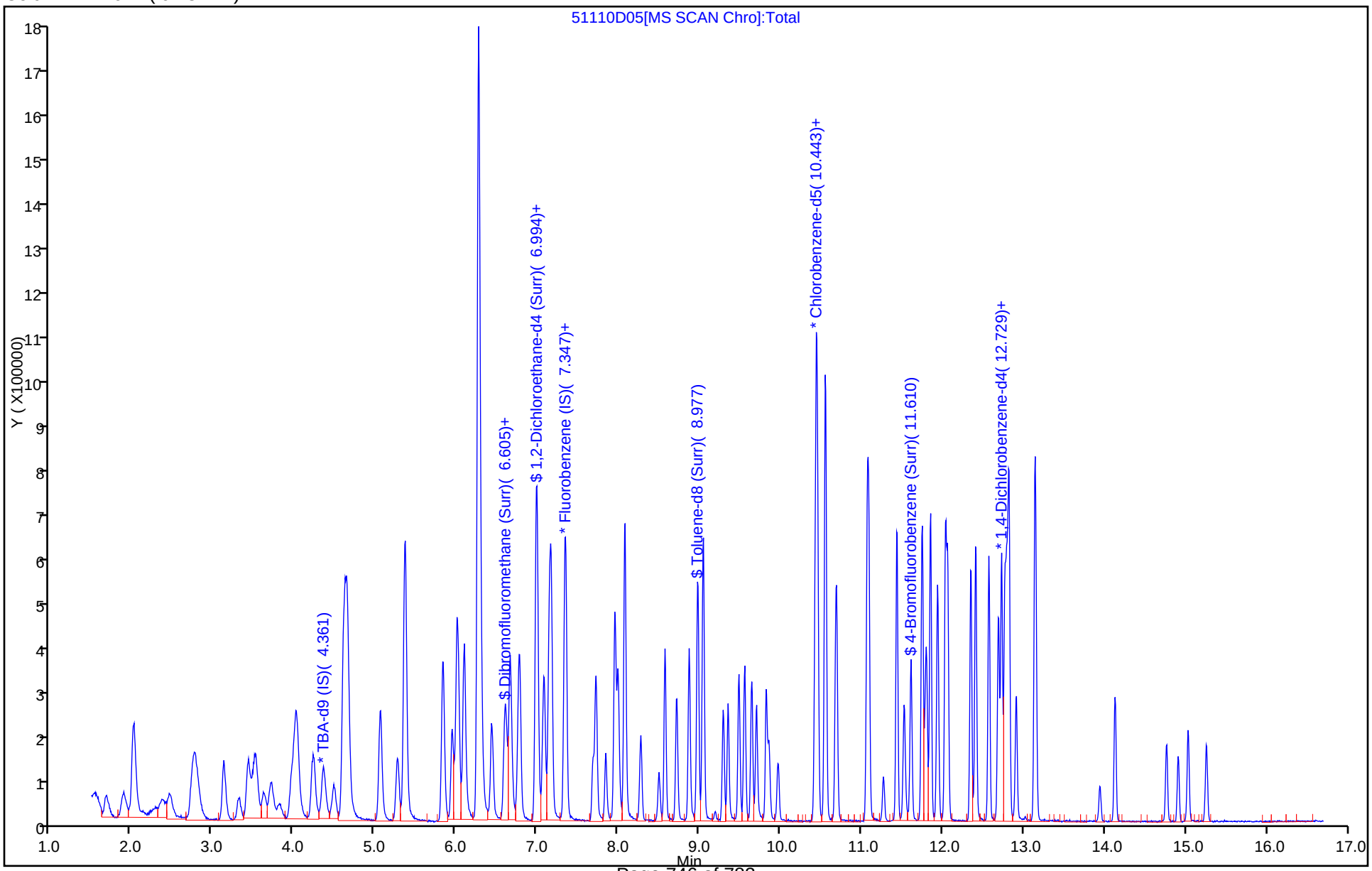
Report Date: 13-Nov-2017 12:28:07 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D05.D

Injection Date:	10-Nov-2017 09:30:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\51110D05.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 10-Nov-2017 09:30:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019249-005
Misc. Info.: lcs
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171110-19249.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 13-Nov-2017 12:28:05 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 10-Nov-2017 09:58:09

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	45.4	90.88
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.7	97.38
$ 7 Toluene-d8 (Surr)	50.0	49.6	99.23
$ 8 4-Bromofluorobenzene (Surr)	50.0	50.3	100.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228645/4

Matrix: Water | Lab File ID: 51111D04.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 06:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13.0		1.0	0.90
75-01-4	Vinyl chloride	10.5		1.0	0.88
74-83-9	Bromomethane	5.49		1.0	0.89
75-00-3	Chloroethane	12.5		1.0	0.90
75-35-4	1,1-Dichloroethene	9.33		1.0	0.55
67-64-1	Acetone	24.7		5.0	3.4
75-15-0	Carbon disulfide	10.4		1.0	0.88
75-09-2	Methylene Chloride	8.79		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.03		1.0	0.67
1634-04-4	Methyl tert-butyl ether	8.66		1.0	0.59
75-34-3	1,1-Dichloroethane	9.24		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	8.69		1.0	0.71
74-97-5	Bromochloromethane	8.48		1.0	0.63
78-93-3	2-Butanone (MEK)	19.9		5.0	2.6
67-66-3	Chloroform	8.50		1.0	0.60
71-55-6	1,1,1-Trichloroethane	9.23		1.0	0.60
56-23-5	Carbon tetrachloride	9.58		1.0	0.88
71-43-2	Benzene	8.76		1.0	0.60
107-06-2	1,2-Dichloroethane	9.38		1.0	0.57
79-01-6	Trichloroethene	7.79		1.0	0.69
78-87-5	1,2-Dichloropropane	8.73		1.0	0.66
75-27-4	Bromodichloromethane	8.32		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	7.83		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	13.2		5.0	3.1
108-88-3	Toluene	9.56		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.24		1.0	0.58
79-00-5	1,1,2-Trichloroethane	9.21		1.0	0.45
127-18-4	Tetrachloroethene	8.64		1.0	0.47
591-78-6	2-Hexanone	17.4		5.0	3.3
124-48-1	Dibromochloromethane	8.97		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.73		1.0	0.50
108-90-7	Chlorobenzene	9.06		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	9.48		1.0	0.57
100-41-4	Ethylbenzene	8.83		1.0	0.51
1330-20-7	Xylenes, Total	17.1		2.0	0.89
100-42-5	Styrene	8.73		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-228645/4

Matrix: Water | Lab File ID: 51111D04.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 06:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.88		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	8.82		1.0	0.60
107-13-1	Acrylonitrile	104		20	7.8
123-91-1	1,4-Dioxane	164	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	106		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Nov-2017 06:37:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019261-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 12-Nov-2017 14:51:40 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 11-Nov-2017 07:09:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.381	4.349	0.032	0	242650	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.341	-0.004	98	607240	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.430	0.002	86	134587	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.765	0.003	96	186168	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.613	6.616	-0.003	93	136883	50.0	46.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.987	-0.003	0	176810	50.0	49.6	
$ 7 Toluene-d8 (Surr)	98	8.979	8.982	-0.003	94	567281	50.0	53.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.615	-0.003	84	194277	50.0	50.2	
11 Dichlorodifluoromethane	85	1.687	1.678	0.009	98	212984	50.0	60.3	
12 Chloromethane	50	1.888	1.885	0.003	99	230128	50.0	64.8	
13 Vinyl chloride	62	2.022	2.013	0.009	70	189397	50.0	52.6	
14 Butadiene	39	2.016	2.013	0.003	93	226652	50.0	69.3	
15 Bromomethane	94	2.344	2.335	0.009	91	46753	50.0	27.5	
16 Chloroethane	64	2.442	2.432	0.010	99	123679	50.0	62.5	
17 Dichlorofluoromethane	67	2.764	2.755	0.009	97	274382	50.0	54.8	
18 Trichlorofluoromethane	101	2.794	2.803	-0.009	91	253261	50.0	57.2	M
20 Ethyl ether	59	3.129	3.126	0.003	95	156873	50.0	54.5	
21 Acrolein	56	3.317	3.302	0.015	98	73562	150.0	101.4	
22 1,1-Dichloroethene	96	3.421	3.418	0.003	98	138726	50.0	46.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.506	3.503	0.003	85	162187	50.0	49.7	
24 Acetone	43	3.530	3.539	-0.009	99	196260	100.0	123.6	
25 Iodomethane	142	3.621	3.618	0.003	98	217198	50.0	46.5	
26 Carbon disulfide	76	3.706	3.703	0.003	100	339823	50.0	52.1	
28 3-Chloro-1-propene	76	4.011	4.014	-0.003	91	85039	50.0	44.3	
30 Methyl acetate	43	4.047	4.032	0.015	99	327010	100.0	104.0	
31 Methylene Chloride	84	4.229	4.226	0.003	97	163242	50.0	44.0	
32 2-Methyl-2-propanol	59	4.509	4.512	-0.003	92	142171	500.0	495.4	
33 Acrylonitrile	53	4.619	4.616	0.003	99	792964	500.0	518.6	
34 trans-1,2-Dichloroethene	96	4.643	4.634	0.009	97	152986	50.0	45.2	
35 Methyl tert-butyl ether	73	4.661	4.658	0.003	98	393248	50.0	43.3	
36 Hexane	57	5.050	5.054	-0.004	95	217449	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.275	5.266	0.009	96	272241	50.0	46.2	
38 Vinyl acetate	43	5.318	5.321	-0.003	97	340073	50.0	56.8	
45 cis-1,2-Dichloroethene	96	6.011	6.008	0.003	82	168267	50.0	43.4	
44 2,2-Dichloropropane	97	6.005	6.008	-0.003	65	41486	50.0	55.3	
46 2-Butanone (MEK)	43	6.030	6.027	0.003	100	225210	100.0	99.6	
49 Chlorobromomethane	128	6.291	6.288	0.003	95	72999	50.0	42.4	
51 Tetrahydrofuran	42	6.309	6.312	-0.003	92	113864	100.0	86.5	
52 Chloroform	83	6.443	6.440	0.003	94	250109	50.0	42.5	
53 1,1,1-Trichloroethane	97	6.595	6.592	0.003	98	205404	50.0	46.1	
54 Cyclohexane	56	6.668	6.665	0.003	94	278826	50.0	50.8	
56 Carbon tetrachloride	117	6.765	6.762	0.003	96	177484	50.0	47.9	
55 1,1-Dichloropropene	75	6.778	6.781	-0.003	93	194878	50.0	40.5	
57 Isobutyl alcohol	41	6.984	6.987	-0.003	90	152585	1250.0	1262.8	
58 Benzene	78	6.996	6.993	0.003	98	646900	50.0	43.8	
59 1,2-Dichloroethane	62	7.076	7.073	0.003	96	201858	50.0	46.9	
62 n-Heptane	43	7.349	7.352	-0.003	91	188892	50.0	54.3	
64 Trichloroethene	130	7.726	7.723	0.003	98	144783	50.0	39.0	
66 Methylcyclohexane	83	7.957	7.954	0.003	95	219007	50.0	39.0	
67 1,2-Dichloropropane	63	7.994	7.991	0.003	94	150159	50.0	43.7	
70 1,4-Dioxane	88	8.079	8.076	0.003	46	28598	1000.0	818.0	
68 Dibromomethane	93	8.085	8.082	0.003	94	86886	50.0	43.1	
71 Dichlorobromomethane	83	8.274	8.277	-0.003	98	164498	50.0	41.6	
73 2-Chloroethyl vinyl ether	63	8.578	8.575	0.003	92	206515	100.0	83.5	
74 cis-1,3-Dichloropropene	75	8.717	8.715	0.003	93	188100	50.0	39.2	
75 4-Methyl-2-pentanone (MIBK	43	8.870	8.873	-0.003	98	227256	100.0	65.8	
76 Toluene	91	9.046	9.049	-0.003	98	641448	50.0	47.8	
77 trans-1,3-Dichloropropene	75	9.295	9.298	-0.003	96	168725	50.0	46.2	
78 Ethyl methacrylate	69	9.356	9.353	0.003	92	158474	50.0	36.0	
79 1,1,2-Trichloroethane	97	9.490	9.487	0.003	91	128774	50.0	46.1	
80 Tetrachloroethene	164	9.563	9.560	0.003	95	110604	50.0	43.2	
81 1,3-Dichloropropane	76	9.648	9.645	0.003	96	220230	50.0	42.6	
82 2-Hexanone	43	9.703	9.706	-0.003	99	230823	100.0	87.2	
84 Chlorodibromomethane	129	9.861	9.858	0.003	91	105937	50.0	44.8	
85 Ethylene Dibromide	107	9.970	9.967	0.003	96	125126	50.0	43.6	
86 3-Chlorobenzotrifluoride	180	10.432	10.429	0.003	86	224766	50.0	48.6	
87 Chlorobenzene	112	10.457	10.460	-0.003	95	395867	50.0	45.3	
88 4-Chlorobenzotrifluoride	180	10.518	10.521	-0.003	97	219740	50.0	51.5	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.551	0.003	95	131659	50.0	47.4	
90 Ethylbenzene	106	10.560	10.557	0.003	98	215284	50.0	44.1	
91 m-Xylene & p-Xylene	106	10.688	10.685	0.003	0	258060	50.0	43.3	
92 o-Xylene	106	11.071	11.068	0.003	96	240435	50.0	42.3	
93 Styrene	104	11.089	11.092	-0.003	95	419764	50.0	43.7	
94 Bromoform	173	11.272	11.275	-0.003	94	57837	50.0	39.4	
96 2-Chlorobenzotrifluoride	180	11.339	11.342	-0.003	94	223463	50.0	50.5	
97 Isopropylbenzene	105	11.436	11.439	-0.003	96	596699	50.0	43.0	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.749	0.003	83	182554	50.0	44.1	
100 Bromobenzene	156	11.752	11.749	0.003	95	145168	50.0	40.2	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.786	0.003	79	61088	50.0	56.1	
101 1,2,3-Trichloropropane	110	11.807	11.804	0.003	87	60577	50.0	40.6	
103 N-Propylbenzene	120	11.855	11.852	0.003	98	177327	50.0	42.9	
104 2-Chlorotoluene	126	11.941	11.944	-0.003	96	147513	50.0	41.3	
105 3-Chlorotoluene	126	12.007	12.005	0.003	97	197669	50.0	50.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.038	12.035	0.003	94	512716	50.0	43.4	
107 4-Chlorotoluene	126	12.062	12.065	-0.003	98	168008	50.0	43.6	
108 tert-Butylbenzene	119	12.348	12.351	-0.003	94	384369	50.0	38.9	
110 1,2,4-Trimethylbenzene	105	12.409	12.406	0.003	97	504065	50.0	42.0	
111 1,2-dichloro-4-(trifluorom	214	12.451	12.455	-0.004	94	132314	50.0	44.0	
112 sec-Butylbenzene	105	12.573	12.576	-0.003	94	575813	50.0	41.8	
113 1,3-Dichlorobenzene	146	12.689	12.692	-0.003	98	273903	50.0	42.4	
114 4-Isopropyltoluene	119	12.731	12.728	0.003	97	467576	50.0	40.7	
115 1,4-Dichlorobenzene	146	12.798	12.795	0.003	96	295113	50.0	44.5	
116 2,4-Dichloro-1-(triflourom	214	12.822	12.819	0.003	92	118013	50.0	42.1	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.862	0.003	0	132644	50.0	43.8	
120 n-Butylbenzene	91	13.139	13.142	-0.003	98	367473	50.0	39.3	
121 1,2-Dichlorobenzene	146	13.151	13.154	-0.003	96	269744	50.0	43.8	
122 1,2-Dibromo-3-Chloropropan	75	13.935	13.938	-0.003	74	25969	50.0	38.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.081	14.084	-0.003	0	545973	150.0	139.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.507	14.504	0.003	0	365667	100.0	90.6	
126 1,2,4-Trichlorobenzene	180	14.762	14.765	-0.003	93	99309	50.0	35.3	
127 Hexachlorobutadiene	225	14.908	14.911	-0.003	90	36586	50.0	35.5	
128 Naphthalene	128	15.030	15.033	-0.003	98	290803	50.0	30.3	
129 1,2,3-Trichlorobenzene	180	15.261	15.258	0.003	95	82413	50.0	32.0	
131 2,4,5-Trichlorotoluene	159	16.027	16.024	0.003	0	32623	50.0	26.7	
130 2,3,6-Trichlorotoluene	159	16.118	16.122	-0.004	95	34349	50.0	30.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	85.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	88.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

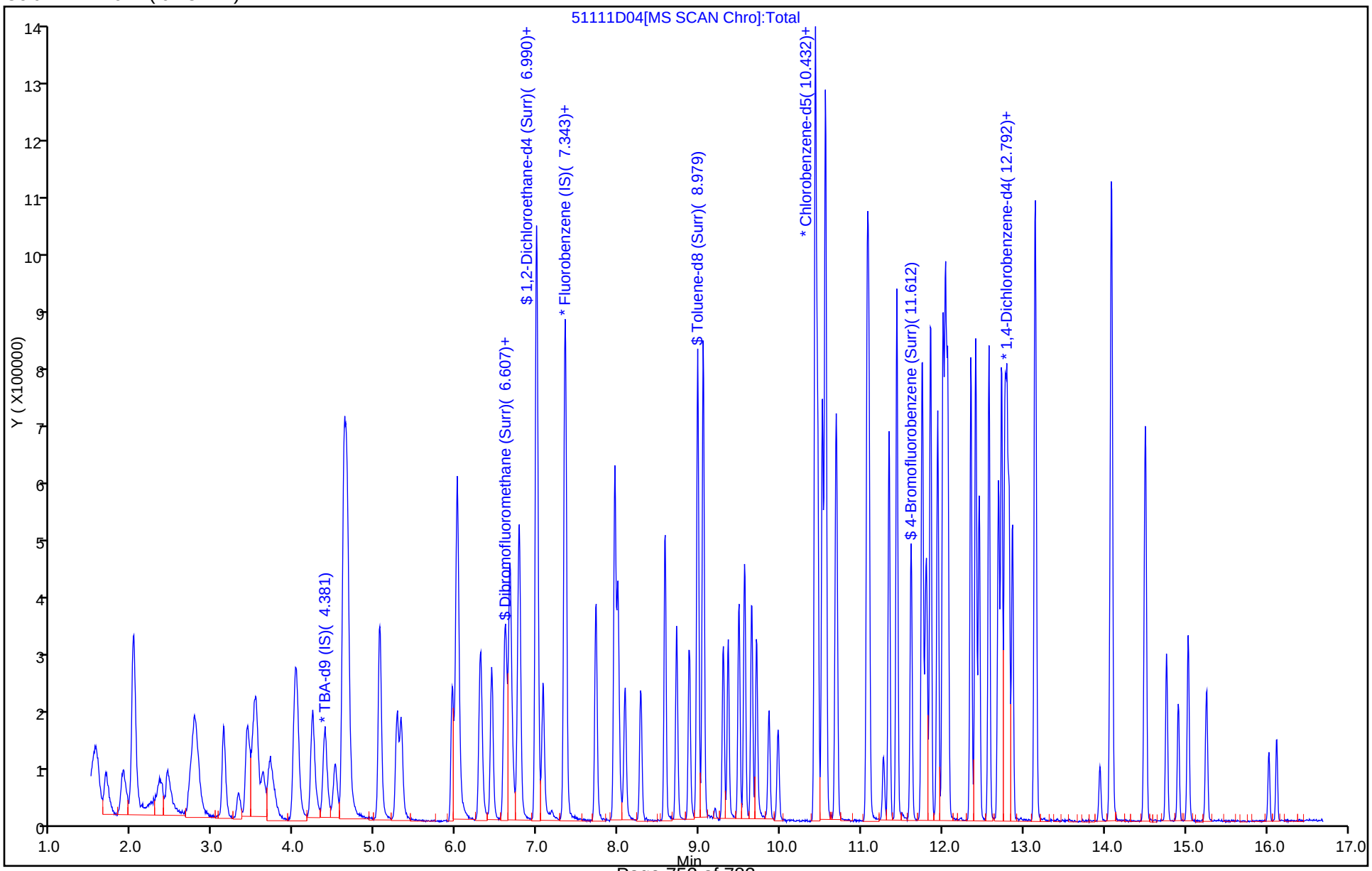
voaWEEmix1stR_00017	Amount Added:	2.00	Units: uL		
voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL		
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL		
voaW2clev1stR_00025	Amount Added:	2.00	Units: uL		
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent	

Report Date: 12-Nov-2017 14:51:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D04.D				
Injection Date:	11-Nov-2017 06:37:30	Instrument ID:	CHHP5	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_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\51111D04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Nov-2017 06:37:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019261-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171111-19261.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 12-Nov-2017 14:51:40 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bungardf Date: 11-Nov-2017 07:09:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.8	93.70
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.6	99.23
$ 7 Toluene-d8 (Surr)	50.0	53.0	105.92
$ 8 4-Bromofluorobenzene (Surr)	50.0	50.2	100.44

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-3-0/1-0 MS | Lab Sample ID: 180-71952-12 MS

Matrix: Water | Lab File ID: 51109D10.D

Analysis Method: 8260C | Date Collected: 10/31/2017 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 14:43

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13.8		1.0	0.90
75-01-4	Vinyl chloride	10.9		1.0	0.88
74-83-9	Bromomethane	11.0		1.0	0.89
75-00-3	Chloroethane	12.6		1.0	0.90
75-35-4	1,1-Dichloroethene	10.2		1.0	0.55
67-64-1	Acetone	16.3		5.0	3.4
75-15-0	Carbon disulfide	10.7		1.0	0.88
75-09-2	Methylene Chloride	8.83		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.85		1.0	0.67
1634-04-4	Methyl tert-butyl ether	7.85		1.0	0.59
75-34-3	1,1-Dichloroethane	9.32		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	8.48		1.0	0.71
74-97-5	Bromochloromethane	8.43		1.0	0.63
78-93-3	2-Butanone (MEK)	20.1		5.0	2.6
67-66-3	Chloroform	8.68		1.0	0.60
71-55-6	1,1,1-Trichloroethane	9.29		1.0	0.60
56-23-5	Carbon tetrachloride	9.72		1.0	0.88
71-43-2	Benzene	8.68		1.0	0.60
107-06-2	1,2-Dichloroethane	8.88		1.0	0.57
79-01-6	Trichloroethene	9.11		1.0	0.69
78-87-5	1,2-Dichloropropane	9.17		1.0	0.66
75-27-4	Bromodichloromethane	8.25		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	7.36		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	19.1		5.0	3.1
108-88-3	Toluene	10.5		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.39		1.0	0.58
79-00-5	1,1,2-Trichloroethane	10.2		1.0	0.45
127-18-4	Tetrachloroethene	20.5		1.0	0.47
591-78-6	2-Hexanone	17.4		5.0	3.3
124-48-1	Dibromochloromethane	9.92		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.82		1.0	0.50
108-90-7	Chlorobenzene	9.57		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	9.87		1.0	0.57
100-41-4	Ethylbenzene	9.38		1.0	0.51
1330-20-7	Xylenes, Total	18.6		2.0	0.89
100-42-5	Styrene	9.22		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-3-0/1-0 MS | Lab Sample ID: 180-71952-12 MS

Matrix: Water | Lab File ID: 51109D10.D

Analysis Method: 8260C | Date Collected: 10/31/2017 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 14:43

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.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.31		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.04		1.0	0.60
107-13-1	Acrylonitrile	91.3		20	7.8
123-91-1	1,4-Dioxane	124	J	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)	113		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D10.D
Lims ID: 180-71952-A-12 MS
Client ID: HD-MPE-3-0/1-0
Sample Type: MS
Inject. Date: 09-Nov-2017 14:43:30 ALS Bottle#: 7 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-010
Misc. Info.: 180-71952-A-12 MS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:55:16 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:30:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.385	4.367	0.018	0	191852	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.335	0.006	97	553318	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	86	108881	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	93	170131	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.617	6.617	0.000	93	121014	50.0	45.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.982	0.005	0	150905	50.0	46.5	
$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	488200	50.0	56.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.610	-0.001	83	154704	50.0	49.4	
12 Chloromethane	50	1.910	1.886	0.024	44	222674	50.0	68.9	M
13 Vinyl chloride	62	2.019	2.019	0.000	66	179024	50.0	54.6	
15 Bromomethane	94	2.408	2.354	0.054	92	85368	50.0	55.0	M
16 Chloroethane	64	2.451	2.445	0.006	99	113446	50.0	62.9	
22 1,1-Dichloroethene	96	3.424	3.424	0.000	98	138444	50.0	51.1	
24 Acetone	43	3.539	3.540	-0.001	100	117641	100.0	81.3	
26 Carbon disulfide	76	3.710	3.710	0.000	100	317155	50.0	53.3	
31 Methylene Chloride	84	4.233	4.227	0.006	98	149355	50.0	44.1	
33 Acrylonitrile	53	4.610	4.616	-0.006	100	636279	500.0	456.7	
34 trans-1,2-Dichloroethene	96	4.652	4.647	0.005	98	152021	50.0	49.2	
35 Methyl tert-butyl ether	73	4.658	4.659	-0.001	96	324908	50.0	39.3	
37 1,1-Dichloroethane	63	5.279	5.267	0.012	96	250158	50.0	46.6	
45 cis-1,2-Dichloroethene	96	6.014	6.009	0.005	83	149689	50.0	42.4	
46 2-Butanone (MEK)	43	6.027	6.021	0.006	99	206637	100.0	100.3	
49 Chlorobromomethane	128	6.294	6.295	-0.001	95	66121	50.0	42.1	
52 Chloroform	83	6.440	6.441	-0.001	94	232665	50.0	43.4	
53 1,1,1-Trichloroethane	97	6.592	6.599	-0.007	97	188397	50.0	46.4	
56 Carbon tetrachloride	117	6.769	6.769	0.000	96	164003	50.0	48.6	
58 Benzene	78	6.994	6.994	0.000	99	583817	50.0	43.4	
59 1,2-Dichloroethane	62	7.073	7.067	0.006	96	174201	50.0	44.4	
64 Trichloroethene	130	7.729	7.724	0.005	98	154239	50.0	45.6	
67 1,2-Dichloropropane	63	7.997	7.991	0.006	96	143707	50.0	45.9	
70 1,4-Dioxane	88	8.076	8.070	0.006	44	19793	1000.0	621.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.277	8.277	0.000	98	148668	50.0	41.3	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	92	161136	50.0	36.8	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.873	0.000	99	266474	100.0	95.4	
76 Toluene	91	9.049	9.049	0.000	98	571760	50.0	52.7	
77 trans-1,3-Dichloropropene	75	9.292	9.293	-0.001	97	138648	50.0	46.9	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	92	114933	50.0	50.8	
80 Tetrachloroethene	164	9.560	9.560	0.000	95	212692	50.0	102.7	
82 2-Hexanone	43	9.706	9.700	0.006	99	186490	100.0	87.1	
84 Chlorodibromomethane	129	9.852	9.858	-0.006	91	94823	50.0	49.6	
85 Ethylene Dibromide	107	9.973	9.968	0.005	99	102335	50.0	44.1	
87 Chlorobenzene	112	10.454	10.454	0.000	94	338104	50.0	47.8	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.552	-0.001	94	110938	50.0	49.4	
90 Ethylbenzene	106	10.557	10.558	-0.001	99	185065	50.0	46.9	
91 m-Xylene & p-Xylene	106	10.691	10.691	0.000	0	231299		48.0	
92 o-Xylene	106	11.068	11.068	0.000	96	206769		45.0	
93 Styrene	104	11.086	11.093	-0.007	95	358471	50.0	46.1	
94 Bromoform	173	11.269	11.269	0.000	94	49360	50.0	41.5	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.750	-0.001	82	151377	50.0	45.2	
S 133 Xylenes, Total	106				0		100.0	93.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaW2clev1stR_00025	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL	
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL	
voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL	
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent

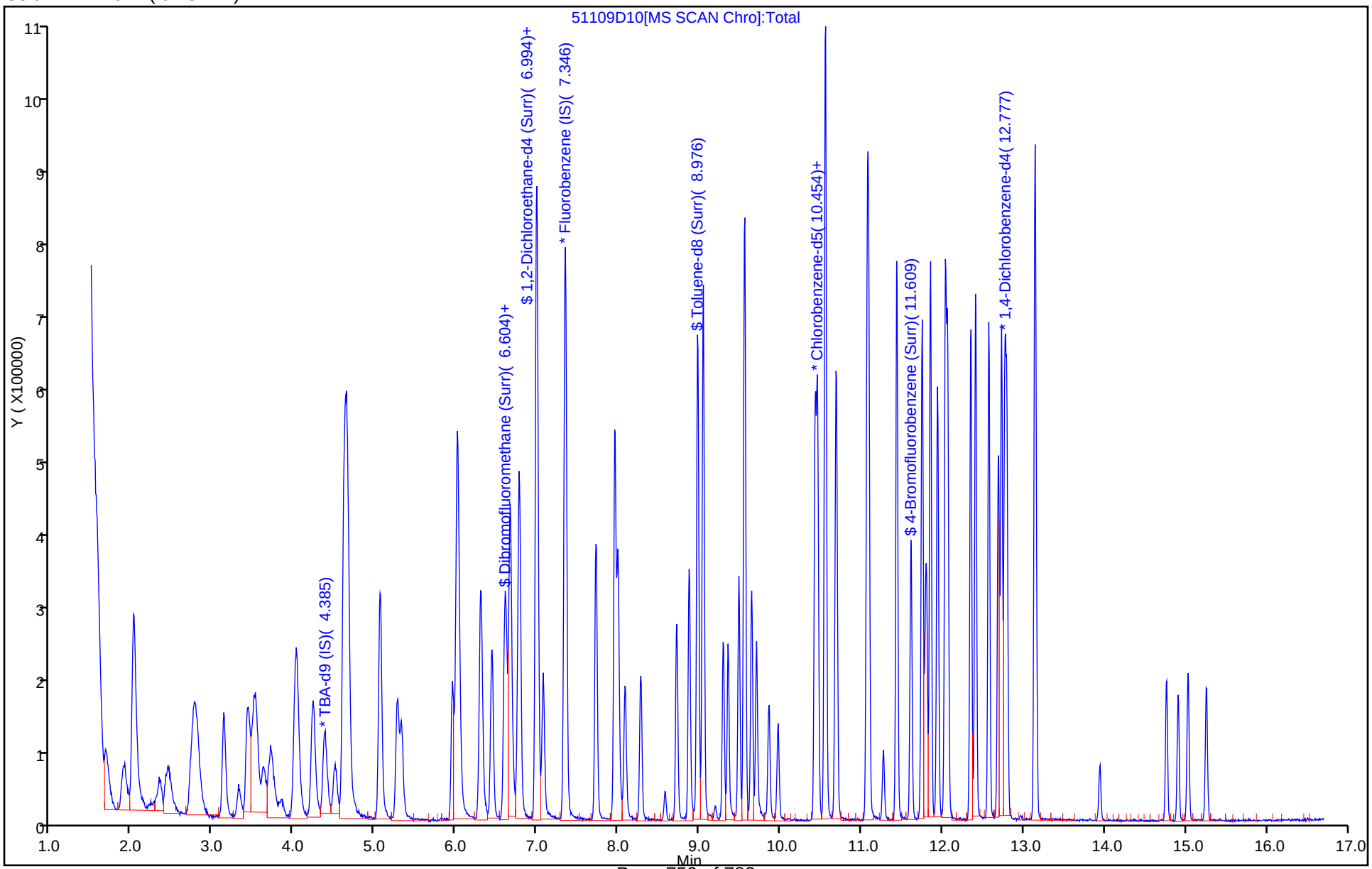
Report Date: 09-Nov-2017 17:55:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D10.D

Injection Date:	09-Nov-2017 14:43:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-12 MS			Worklist Smp#:	10
Client ID:	HD-MPE-3-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D10.D				
Lims ID:	180-71952-A-12 MS				
Client ID:	HD-MPE-3-0/1-0				
Sample Type:	MS				
Inject. Date:	09-Nov-2017 14:43:30	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0019236-010				
Misc. Info.:	180-71952-A-12 MS				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	09-Nov-2017 17:55:16	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				

First Level Reviewer: journetp Date: 09-Nov-2017 15:30:02

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	45.5	90.91
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.5	92.95
$ 7 Toluene-d8 (Surr)	50.0	56.3	112.68
$ 8 4-Bromofluorobenzene (Surr)	50.0	49.4	98.86

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

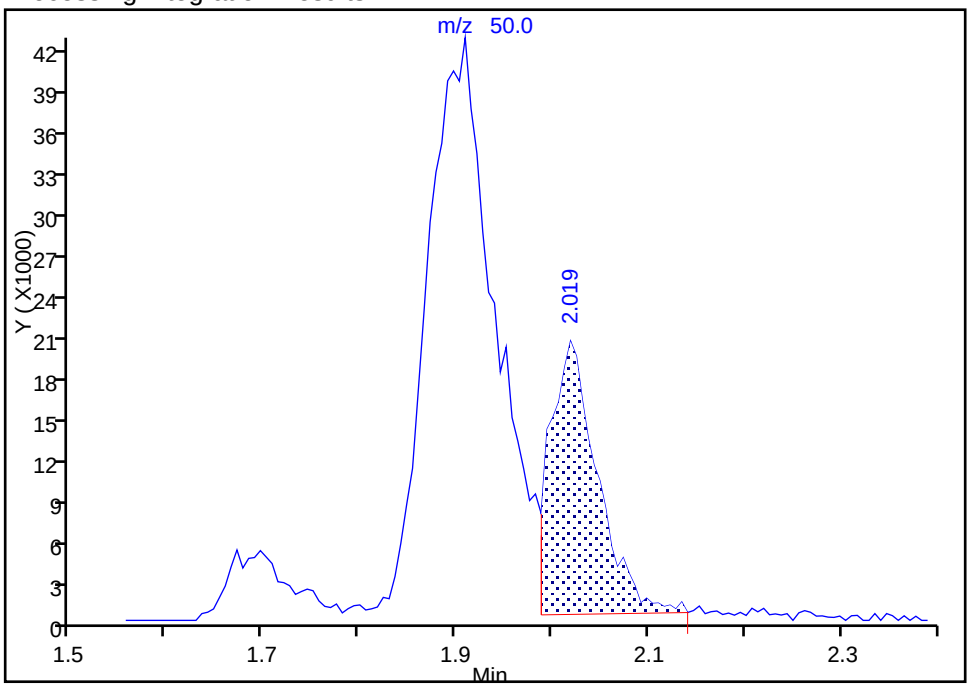
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D10.D				
Injection Date:	09-Nov-2017 14:43:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-12 MS				
Client ID:	HD-MPE-3-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

Signal: 1

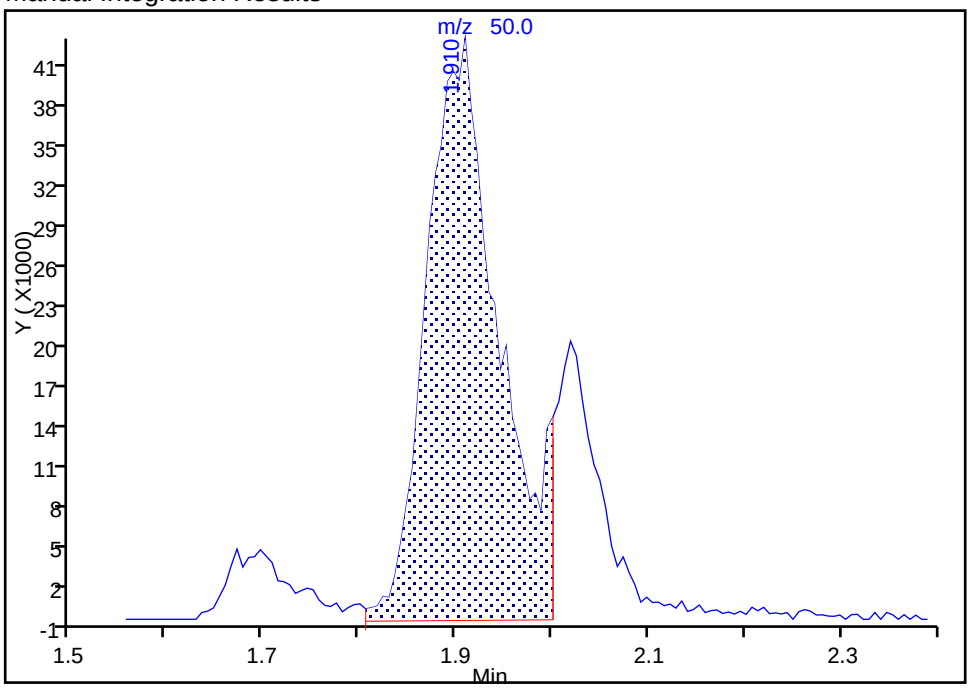
Processing Integration Results

RT: 2.02
Area: 67931
Amount: 21.008313
Amount Units: ng



Manual Integration Results

RT: 1.91
Area: 222674
Amount: 68.864069
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 17:54:37

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

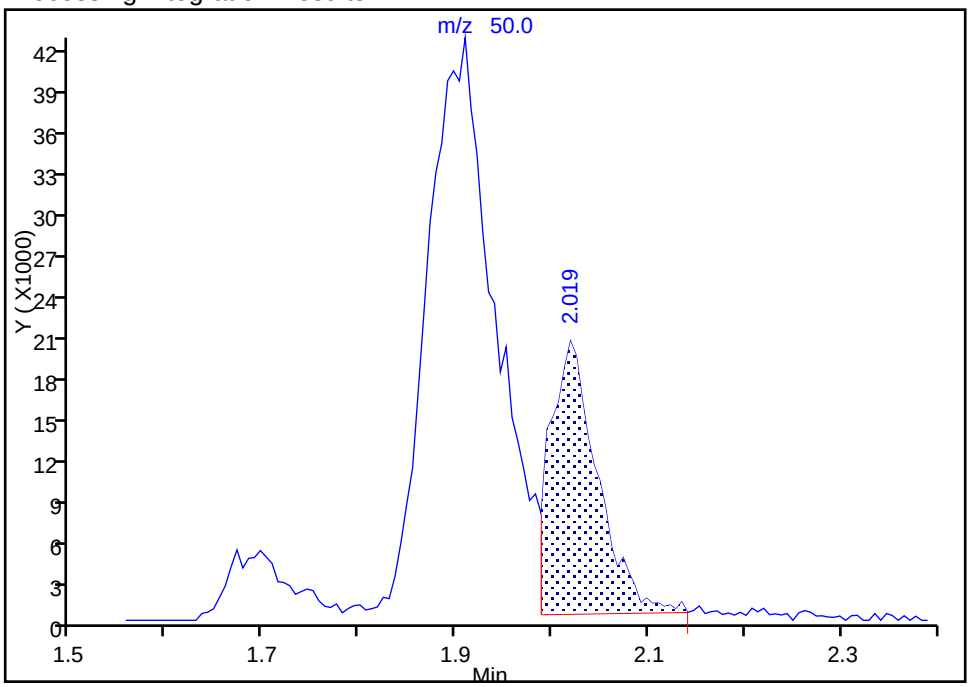
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D10.D				
Injection Date:	09-Nov-2017 14:43:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-12 MS				
Client ID:	HD-MPE-3-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

Signal: 1

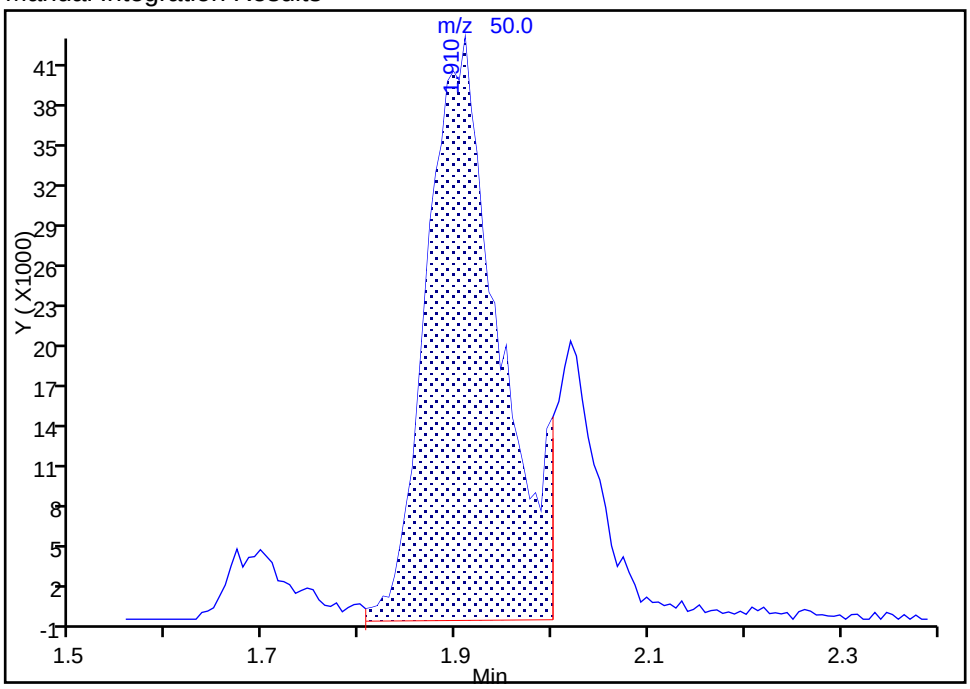
Processing Integration Results

RT: 2.02
Area: 67931
Amount: 21.008313
Amount Units: ng



Manual Integration Results

RT: 1.91
Area: 222674
Amount: 68.864069
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 17:55:00
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

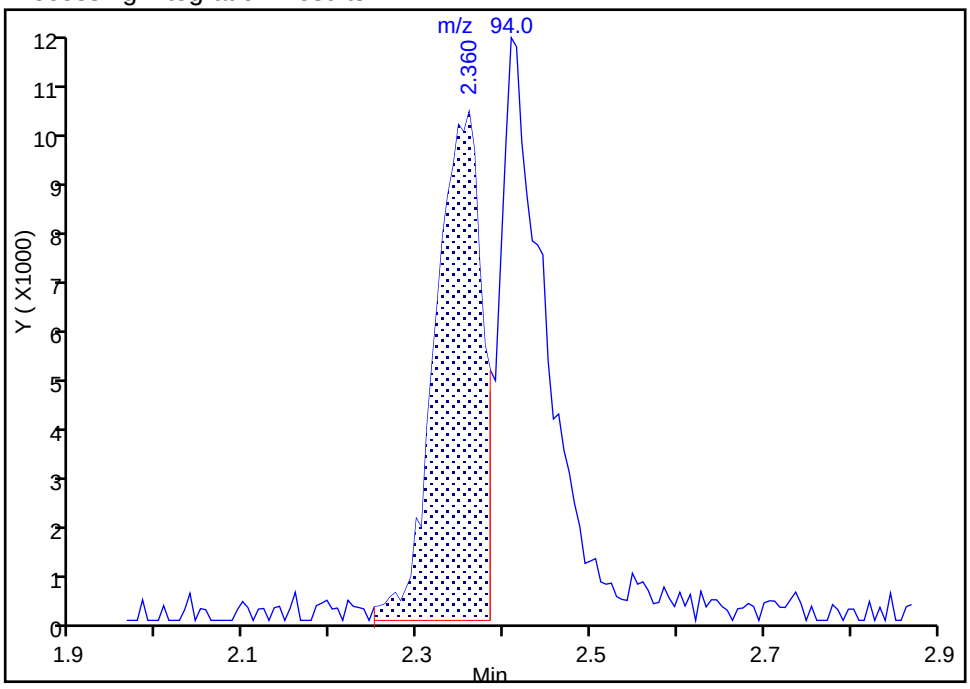
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D10.D				
Injection Date:	09-Nov-2017 14:43:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-12 MS				
Client ID:	HD-MPE-3-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

Signal: 1

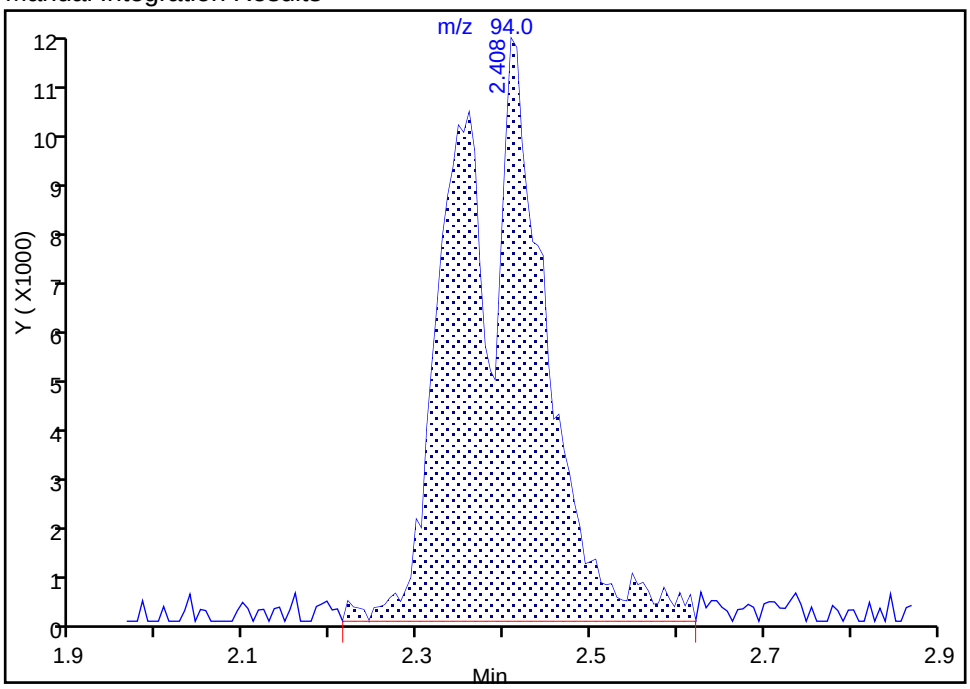
Processing Integration Results

RT: 2.36
Area: 39219
Amount: 25.277825
Amount Units: ng



Manual Integration Results

RT: 2.41
Area: 85368
Amount: 55.022244
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 15:29:56

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-3-0/1-0 MSD | Lab Sample ID: 180-71952-12 MSD

Matrix: Water | Lab File ID: 51109D11.D

Analysis Method: 8260C | Date Collected: 10/31/2017 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.8		1.0	0.90
75-01-4	Vinyl chloride	9.60		1.0	0.88
74-83-9	Bromomethane	10.1		1.0	0.89
75-00-3	Chloroethane	11.1		1.0	0.90
75-35-4	1,1-Dichloroethene	9.35		1.0	0.55
67-64-1	Acetone	16.9		5.0	3.4
75-15-0	Carbon disulfide	9.45		1.0	0.88
75-09-2	Methylene Chloride	8.53		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	8.98		1.0	0.67
1634-04-4	Methyl tert-butyl ether	8.15		1.0	0.59
75-34-3	1,1-Dichloroethane	9.00		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	8.21		1.0	0.71
74-97-5	Bromochloromethane	8.51		1.0	0.63
78-93-3	2-Butanone (MEK)	20.8		5.0	2.6
67-66-3	Chloroform	8.30		1.0	0.60
71-55-6	1,1,1-Trichloroethane	8.60		1.0	0.60
56-23-5	Carbon tetrachloride	8.85		1.0	0.88
71-43-2	Benzene	8.20		1.0	0.60
107-06-2	1,2-Dichloroethane	8.84		1.0	0.57
79-01-6	Trichloroethene	8.79		1.0	0.69
78-87-5	1,2-Dichloropropane	8.60		1.0	0.66
75-27-4	Bromodichloromethane	7.85		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	7.28		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	19.0		5.0	3.1
108-88-3	Toluene	9.67		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.25		1.0	0.58
79-00-5	1,1,2-Trichloroethane	10.0		1.0	0.45
127-18-4	Tetrachloroethene	18.8		1.0	0.47
591-78-6	2-Hexanone	17.8		5.0	3.3
124-48-1	Dibromochloromethane	9.32		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.90		1.0	0.50
108-90-7	Chlorobenzene	9.03		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	9.26		1.0	0.57
100-41-4	Ethylbenzene	8.49		1.0	0.51
1330-20-7	Xylenes, Total	17.6		2.0	0.89
100-42-5	Styrene	8.87		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71952-1

SDG No.:

Client Sample ID: HD-MPE-3-0/1-0 MSD | Lab Sample ID: 180-71952-12 MSD

Matrix: Water | Lab File ID: 51109D11.D

Analysis Method: 8260C | Date Collected: 10/31/2017 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 11/09/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 228475 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.83		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	8.39		1.0	0.60
107-13-1	Acrylonitrile	94.9		20	7.8
123-91-1	1,4-Dioxane	135	J	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)	113		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D11.D
Lims ID: 180-71952-A-12 MSD
Client ID: HD-MPE-3-0/1-0
Sample Type: MSD
Inject. Date: 09-Nov-2017 15:06:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-011
Misc. Info.: 180-71952-A-12 MSD
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:29:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.382	4.367	0.015	0	214800	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.335	0.004	97	577133	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.430	0.003	86	117622	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	95	174148	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.620	6.617	0.003	92	127171	50.0	45.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.982	0.003	0	158788	50.0	46.9	
$ 7 Toluene-d8 (Surr)	98	8.980	8.976	0.004	94	527134	50.0	56.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.610	-0.003	84	176109	50.0	52.1	
12 Chloromethane	50	1.901	1.886	0.015	99	199238	50.0	59.1	
13 Vinyl chloride	62	2.016	2.019	-0.003	63	164358	50.0	48.0	
15 Bromomethane	94	2.406	2.354	0.052	91	81397	50.0	50.3	M
16 Chloroethane	64	2.454	2.445	0.009	99	104655	50.0	55.6	
22 1,1-Dichloroethene	96	3.427	3.424	0.003	97	132130	50.0	46.8	
24 Acetone	43	3.537	3.540	-0.003	100	127271	100.0	84.3	
26 Carbon disulfide	76	3.707	3.710	-0.003	99	292887	50.0	47.2	
31 Methylene Chloride	84	4.224	4.227	-0.003	99	150929	50.0	42.7	
33 Acrylonitrile	53	4.619	4.616	0.003	100	689505	500.0	474.5	
34 trans-1,2-Dichloroethene	96	4.650	4.647	0.003	97	144532	50.0	44.9	
35 Methyl tert-butyl ether	73	4.662	4.659	0.003	96	351819	50.0	40.8	
37 1,1-Dichloroethane	63	5.276	5.267	0.009	97	251879	50.0	45.0	
45 cis-1,2-Dichloroethene	96	6.012	6.009	0.003	84	151202	50.0	41.1	
46 2-Butanone (MEK)	43	6.030	6.021	0.009	92	223654	100.0	104.1	
49 Chlorobromomethane	128	6.292	6.295	-0.003	96	69623	50.0	42.5	
52 Chloroform	83	6.438	6.441	-0.003	94	232091	50.0	41.5	
53 1,1,1-Trichloroethane	97	6.596	6.599	-0.003	98	182016	50.0	43.0	
56 Carbon tetrachloride	117	6.766	6.769	-0.003	96	155899	50.0	44.3	
58 Benzene	78	6.997	6.994	0.003	98	575217	50.0	41.0	
59 1,2-Dichloroethane	62	7.076	7.067	0.009	97	180788	50.0	44.2	
64 Trichloroethene	130	7.721	7.724	-0.003	98	155163	50.0	43.9	
67 1,2-Dichloropropane	63	8.000	7.991	0.009	95	140575	50.0	43.0	
70 1,4-Dioxane	88	8.080	8.070	0.010	44	22375	1000.0	673.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.274	8.277	-0.003	98	147451	50.0	39.2	
74 cis-1,3-Dichloropropene	75	8.718	8.721	-0.003	92	166177	50.0	36.4	
75 4-Methyl-2-pentanone (MIBK	43	8.876	8.873	0.003	99	286336	100.0	94.9	
76 Toluene	91	9.046	9.049	-0.003	98	567063	50.0	48.4	
77 trans-1,3-Dichloropropene	75	9.296	9.293	0.003	96	147555	50.0	46.2	
79 1,1,2-Trichloroethane	97	9.490	9.487	0.003	91	122651	50.0	50.2	
80 Tetrachloroethene	164	9.557	9.560	-0.003	94	209915	50.0	93.8	
82 2-Hexanone	43	9.703	9.700	0.003	99	205384	100.0	88.8	
84 Chlorodibromomethane	129	9.855	9.858	-0.003	91	96250	50.0	46.6	
85 Ethylene Dibromide	107	9.971	9.968	0.003	97	111449	50.0	44.5	
87 Chlorobenzene	112	10.457	10.454	0.003	93	344647	50.0	45.1	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.552	0.003	95	112405	50.0	46.3	
90 Ethylbenzene	106	10.561	10.558	0.003	99	180936	50.0	42.5	
91 m-Xylene & p-Xylene	106	10.688	10.691	-0.003	0	238096		45.7	
92 o-Xylene	106	11.072	11.068	0.004	97	210918		42.5	
93 Styrene	104	11.090	11.093	-0.003	95	372647	50.0	44.4	
94 Bromoform	173	11.266	11.269	-0.003	92	50238	50.0	39.1	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.750	-0.003	83	151797	50.0	42.0	
S 133 Xylenes, Total	106				0		100.0	88.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaW2clev1stR_00025	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00271	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00023	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00022	Amount Added:	6.00	Units: uL		
voaWKet2ndRes_00022	Amount Added:	2.00	Units: uL		
VOA8260INT_00075	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00074	Amount Added:	2.00	Units: uL	Run Reagent	

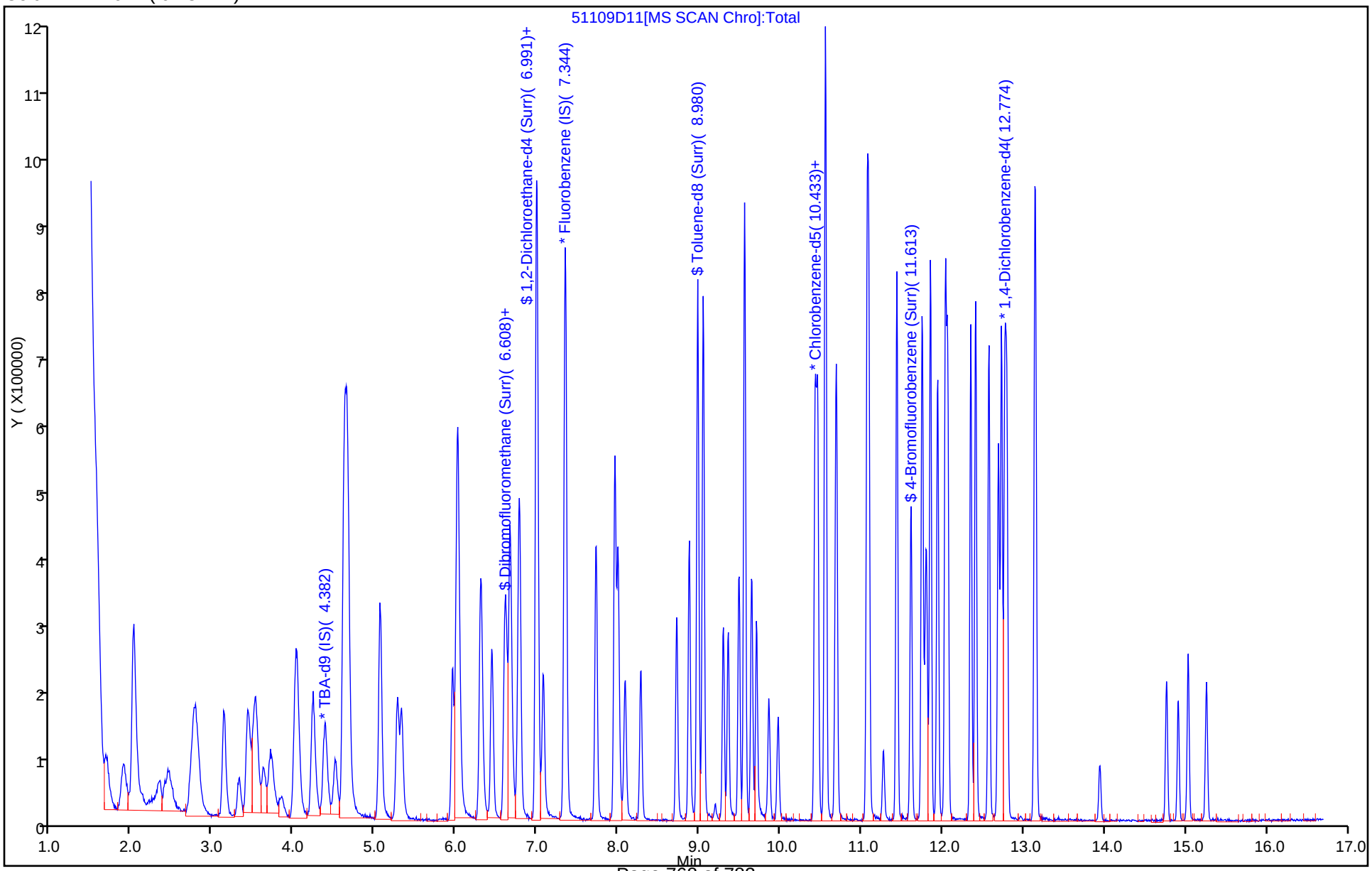
Report Date: 09-Nov-2017 17:33:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D11.D

Injection Date:	09-Nov-2017 15:06:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-71952-A-12 MSD			Worklist Smp#:	11
Client ID:	HD-MPE-3-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D11.D
Lims ID: 180-71952-A-12 MSD
Client ID: HD-MPE-3-0/1-0
Sample Type: MSD
Inject. Date: 09-Nov-2017 15:06:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0019236-011
Misc. Info.: 180-71952-A-12 MSD
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Nov-2017 17:32:24 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: journetp Date: 09-Nov-2017 15:29:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	45.8	91.59
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.9	93.77
$ 7 Toluene-d8 (Surr)	50.0	56.3	112.62
$ 8 4-Bromofluorobenzene (Surr)	50.0	52.1	104.18

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

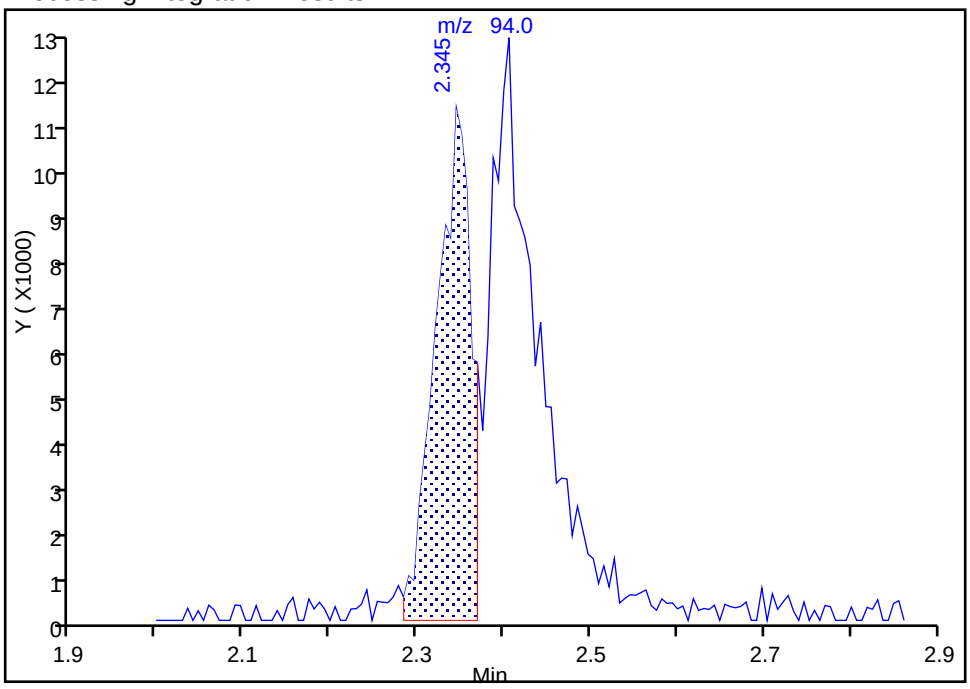
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171109-19236.b\51109D11.D				
Injection Date:	09-Nov-2017 15:06:30	Instrument ID:	CHHP5		
Lims ID:	180-71952-A-12 MSD				
Client ID:	HD-MPE-3-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

Signal: 1

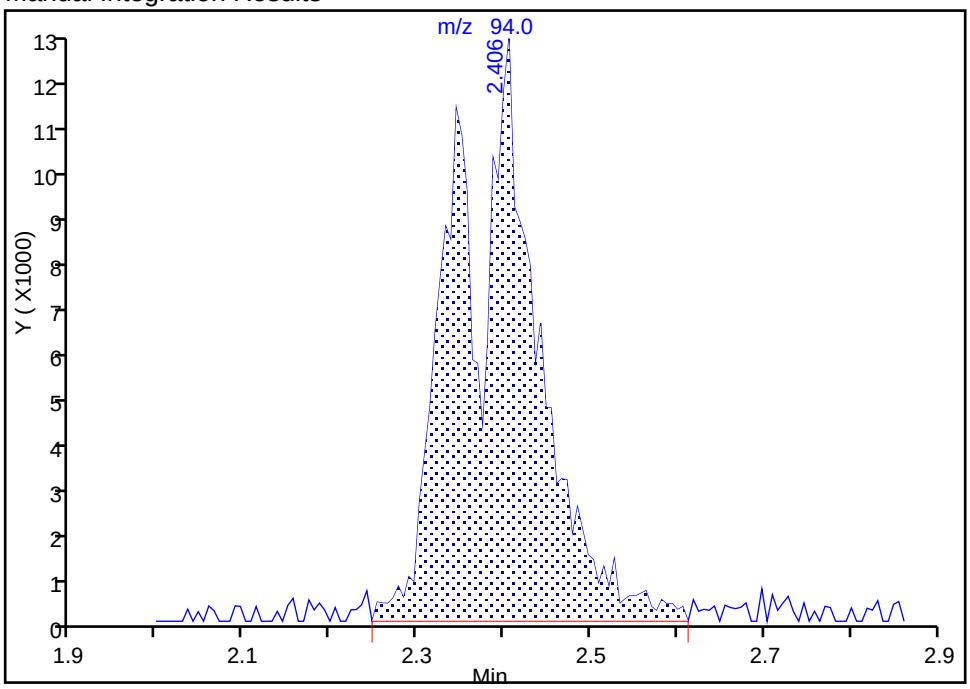
Processing Integration Results

RT: 2.34
Area: 31092
Amount: 19.212803
Amount Units: ng



Manual Integration Results

RT: 2.41
Area: 81397
Amount: 50.297973
Amount Units: ng



Reviewer: journetp, 09-Nov-2017 15:29:23

Audit Action: Manually Integrated Audit Reason: Poor chromatography

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP7 Start Date: 05/26/2017 13:55

Analysis Batch Number: 212441 End Date: 05/27/2017 10:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-212441/1		05/26/2017 13:55	1	70526N01.D	DB-624 0.18(mm)
IC 180-212441/3		05/26/2017 14:37	1	70526N03.D	DB-624 0.18(mm)
IC 180-212441/4		05/26/2017 15:06	1	70526N04.D	DB-624 0.18(mm)
ICIS 180-212441/5		05/26/2017 15:36	1	70526N05.D	DB-624 0.18(mm)
IC 180-212441/6		05/26/2017 16:06	1	70526N06.D	DB-624 0.18(mm)
IC 180-212441/7		05/26/2017 16:36	1	70526N07.D	DB-624 0.18(mm)
IC 180-212441/8		05/26/2017 17:05	1	70526N08.D	DB-624 0.18(mm)
IC 180-212441/9		05/26/2017 17:34	1	70526N09.D	DB-624 0.18(mm)
IC 180-212441/10		05/26/2017 18:04	1	70526N10.D	DB-624 0.18(mm)
ZZZZZ		05/26/2017 20:01	1		DB-624 0.18(mm)
ICV 180-212441/14		05/27/2017 10:39	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Start Date: 06/08/2017 05:32

Analysis Batch Number: 213537 End Date: 06/08/2017 13:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-213537/1		06/08/2017 05:32	1	50608D01.D	DB-624 0.18(mm)
IC 180-213537/2		06/08/2017 06:03	1	50608D02.D	DB-624 0.18(mm)
IC 180-213537/3		06/08/2017 06:27	1	50608D03.D	DB-624 0.18(mm)
ICIS 180-213537/4		06/08/2017 06:50	1	50608D04.D	DB-624 0.18(mm)
IC 180-213537/5		06/08/2017 07:24	1	50608D05.D	DB-624 0.18(mm)
IC 180-213537/6		06/08/2017 07:48	1	50608D06.D	DB-624 0.18(mm)
IC 180-213537/7		06/08/2017 08:11	1	50608D07.D	DB-624 0.18(mm)
IC 180-213537/8		06/08/2017 08:35	1	50608D08.D	DB-624 0.18(mm)
IC 180-213537/9		06/08/2017 08:59	1	50608D09.D	DB-624 0.18(mm)
ICV 180-213537/11		06/08/2017 09:46	1		DB-624 0.18(mm)
IC 180-213537/12		06/08/2017 10:10	1		DB-624 0.18(mm)
IC 180-213537/13		06/08/2017 10:33	1		DB-624 0.18(mm)
IC 180-213537/14		06/08/2017 10:57	1		DB-624 0.18(mm)
IC 180-213537/15		06/08/2017 11:20	1		DB-624 0.18(mm)
IC 180-213537/16		06/08/2017 11:44	1		DB-624 0.18(mm)
IC 180-213537/17		06/08/2017 12:08	1		DB-624 0.18(mm)
IC 180-213537/18		06/08/2017 12:31	1		DB-624 0.18(mm)
IC 180-213537/19		06/08/2017 12:55	1		DB-624 0.18(mm)
ICV 180-213537/21		06/08/2017 13:42	1	50608D21.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Start Date: 07/27/2017 00:22

Analysis Batch Number: 218218 End Date: 07/27/2017 05:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-218218/1		07/27/2017 00:22	1	50727D01.D	DB-624 0.18(mm)
IC 180-218218/2		07/27/2017 00:51	1	50727D02.D	DB-624 0.18(mm)
IC 180-218218/3		07/27/2017 01:15	1	50727D03.D	DB-624 0.18(mm)
ICIS 180-218218/4		07/27/2017 01:39	1	50727D04.D	DB-624 0.18(mm)
ZZZZZ		07/27/2017 01:39	1		DB-624 0.18(mm)
IC 180-218218/5		07/27/2017 02:02	1	50727D05.D	DB-624 0.18(mm)
IC 180-218218/6		07/27/2017 02:26	1	50727D06.D	DB-624 0.18(mm)
IC 180-218218/8		07/27/2017 03:13	1	50727D08.D	DB-624 0.18(mm)
IC 180-218218/10		07/27/2017 04:00	1	50727D10.D	DB-624 0.18(mm)
IC 180-218218/11		07/27/2017 04:24	1	50727D11.D	DB-624 0.18(mm)
ICV 180-218218/12		07/27/2017 05:03	1	50727D12.D	DB-624 0.18(mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18(mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Start Date: 11/08/2017 20:06

Analysis Batch Number: 228418 End Date: 11/09/2017 08:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228418/1		11/08/2017 20:06	1	51108D01.D	DB-624 0.18(mm)
CCVIS 180-228418/2		11/08/2017 20:39	1	51108D02.D	DB-624 0.18(mm)
ZZZZZ		11/08/2017 20:39	1		DB-624 0.18(mm)
LCS 180-228418/3		11/08/2017 22:05	1	51108D03.D	DB-624 0.18(mm)
ZZZZZ		11/08/2017 22:38	1		DB-624 0.18(mm)
MB 180-228418/5		11/08/2017 23:01	1	51108D05.D	DB-624 0.18(mm)
ZZZZZ		11/08/2017 23:38	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 00:04	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 00:51	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 01:16	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 01:39	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 02:30	25		DB-624 0.18(mm)
180-71952-2		11/09/2017 03:18	1	51108D15.D	DB-624 0.18(mm)
180-71952-4		11/09/2017 03:42	1	51108D16.D	DB-624 0.18(mm)
180-71952-5		11/09/2017 04:06	1	51108D17.D	DB-624 0.18(mm)
180-71952-11		11/09/2017 04:53	1	51108D19.D	DB-624 0.18(mm)
180-71952-1		11/09/2017 05:17	1	51108D20.D	DB-624 0.18(mm)
180-71952-3		11/09/2017 05:41	1	51108D21.D	DB-624 0.18(mm)
180-71952-6		11/09/2017 06:05	1	51108D22.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 06:29	5		DB-624 0.18(mm)
ZZZZZ		11/09/2017 07:40	500		DB-624 0.18(mm)
ZZZZZ		11/09/2017 08:03	2000		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Start Date: 11/09/2017 09:40

Analysis Batch Number: 228475 End Date: 11/09/2017 21:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228475/1		11/09/2017 09:40	1	51109D01.D	DB-624 0.18(mm)
CCVIS 180-228475/3		11/09/2017 11:45	1	51109D03.D	DB-624 0.18(mm)
LCS 180-228475/4		11/09/2017 12:19	1	51109D04.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 12:42	1		DB-624 0.18(mm)
MB 180-228475/6		11/09/2017 13:06	1	51109D06.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 13:31	1		DB-624 0.18(mm)
180-71952-12		11/09/2017 13:55	1	51109D08.D	DB-624 0.18(mm)
180-71952-14		11/09/2017 14:19	1	51109D09.D	DB-624 0.18(mm)
180-71952-12 MS		11/09/2017 14:43	1	51109D10.D	DB-624 0.18(mm)
180-71952-12 MSD		11/09/2017 15:06	1	51109D11.D	DB-624 0.18(mm)
180-71952-7		11/09/2017 15:55	1	51109D13.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 16:19	1		DB-624 0.18(mm)
180-71952-8		11/09/2017 16:43	1	51109D15.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 17:07	1		DB-624 0.18(mm)
180-71952-9		11/09/2017 17:31	1	51109D17.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 18:18	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 18:43	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 19:31	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 19:55	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 20:42	1		DB-624 0.18(mm)
ZZZZZ		11/09/2017 21:05	1		DB-624 0.18(mm)
180-71952-16		11/09/2017 21:29	1	51109D25.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP7 Start Date: 11/09/2017 07:17

Analysis Batch Number: 228533 End Date: 11/09/2017 17:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228533/1		11/09/2017 07:17	1	711090n1.D	DB-624 0.18(mm)
CCVIS 180-228533/2		11/09/2017 08:58	1	711090n3.D	DB-624 0.18(mm)
LCS 180-228533/4		11/09/2017 09:42	1	7110904.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 10:10	1		DB-624 0.18(mm)
MB 180-228533/8		11/09/2017 11:36	1	711090n8.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 13:31	5		DB-624 0.18(mm)
ZZZZZ		11/09/2017 14:00	1		DB-624 0.18(mm)
180-71952-15		11/09/2017 14:29	1	7110914.D	DB-624 0.18(mm)
ZZZZZ		11/09/2017 15:39	1		DB-624 0.18(mm)
180-71952-2 DL		11/09/2017 16:36	30	7110918.D	DB-624 0.18(mm)
180-71952-4 DL		11/09/2017 17:05	20	7110919.D	DB-624 0.18(mm)
180-71952-5 DL		11/09/2017 17:34	10	7110920.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Start Date: 11/10/2017 06:43

Analysis Batch Number: 228566 End Date: 11/10/2017 18:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228566/1		11/10/2017 06:43	1	51110D01.D	DB-624 0.18(mm)
CCVIS 180-228566/3		11/10/2017 08:27	1	51110D03.D	DB-624 0.18(mm)
LCS 180-228566/5		11/10/2017 09:30	1	51110D05.D	DB-624 0.18(mm)
CCV 180-228566/6		11/10/2017 10:40	1	51110F06.D	DB-624 0.18(mm)
ZZZZZ		11/10/2017 11:04	1		DB-624 0.18(mm)
MB 180-228566/8		11/10/2017 11:27	1	51110D08.D	DB-624 0.18(mm)
ZZZZZ		11/10/2017 11:51	1		DB-624 0.18(mm)
ZZZZZ		11/10/2017 12:15	1		DB-624 0.18(mm)
ZZZZZ		11/10/2017 12:38	1		DB-624 0.18(mm)
180-71952-10		11/10/2017 13:05	1	51110D12.D	DB-624 0.18(mm)
180-71952-6 DL		11/10/2017 14:17	5	51110D15.D	DB-624 0.18(mm)
180-71952-7 DL		11/10/2017 14:41	25	51110D16.D	DB-624 0.18(mm)
ZZZZZ		11/10/2017 15:05	1		DB-624 0.18(mm)
ZZZZZ		11/10/2017 15:28	1		DB-624 0.18(mm)
180-71952-1 DL		11/10/2017 15:52	40	51110D19.D	DB-624 0.18(mm)
180-71952-9 DL		11/10/2017 16:16	50	51110D20.D	DB-624 0.18(mm)
180-71952-16 DL		11/10/2017 16:40	2.5	51110D21.D	DB-624 0.18(mm)
180-71952-8 DL		11/10/2017 17:04	2.5	51110D22.D	DB-624 0.18(mm)
180-71952-3 DL		11/10/2017 17:28	20	51110D23.D	DB-624 0.18(mm)
ZZZZZ		11/10/2017 17:51	1		DB-624 0.18(mm)
ZZZZZ		11/10/2017 18:15	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71952-1

SDG No.:

Instrument ID: CHHP5 Start Date: 11/11/2017 04:07

Analysis Batch Number: 228645 End Date: 11/11/2017 14:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228645/1		11/11/2017 04:07	1	51111D01.D	DB-624 0.18(mm)
CCVIS 180-228645/2		11/11/2017 05:19	1	51111D02.D	DB-624 0.18(mm)
ZZZZZ		11/11/2017 05:19	1		DB-624 0.18(mm)
CCV 180-228645/3		11/11/2017 05:58	1		DB-624 0.18(mm)
LCS 180-228645/4		11/11/2017 06:37	1	51111D04.D	DB-624 0.18(mm)
ZZZZZ		11/11/2017 07:12	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 07:12	1		DB-624 0.18(mm)
MB 180-228645/6		11/11/2017 07:35	1	51111D06.D	DB-624 0.18(mm)
ZZZZZ		11/11/2017 08:08	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 08:32	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 09:21	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 09:44	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 10:32	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 10:55	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 11:19	1		DB-624 0.18(mm)
180-71952-13		11/11/2017 11:42	1	51111D16.D	DB-624 0.18(mm)
ZZZZZ		11/11/2017 12:07	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 12:31	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 12:55	1		DB-624 0.18(mm)
ZZZZZ		11/11/2017 14:06	1		DB-624 0.18(mm)

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

450-KOP

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Christopher D. O'neil	Site Contact: Kaitlin B. Franssen	DateSubmitted: 10/31/17	COC No: TAP2017 10310
Groundwater Sciences Corporation	Tel/Fax: 717-901-8176 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	of 2 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No. 10012.32.0002
Harrisburg, PA 17110	Calendar (C) or Work Days (W)			
(717) 901-8180 Phone	TAT if different from Below: Standard			Container No. 1
(717) 657-1611 FAX	■ 2 weeks			SDG No.
Project Name: 2017 Comprehensive Event	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Select List Total Metals by ICP MS (SW846 6020/SW846 7470A)	Select List Dissolved Metals by ICP MS (SW846 6020/SW846 7470A)	1,4-Dioxane (SW846 8270D LL)	Total Cyanide (SW-846 9014)	Free Cyanide (EPA OIA-1677)	Sample Specific Notes:
HD-MW-180-0/1-0	10/31/17	0842	Gw	W	3	3						
HD-MW-178D-0/1-0	10/31/17	1310	"	"	3	3						
HD-MW-179-0/1-0	10/31/17	0835			3	3						
HD-MPE-2-0/1-0	10/30/17	1545			3	3						
HD-MW-178S-0/1-0	10/30/17	1220			3	3						
HD-MW-181S-0/1-0	10/31/17	0835			3	3						
HD-MW-177-0/1-0	10/31/17	0950			3	3						
HD-MW-1A-0/1-0	10/31/17	1115			3	3						
HD-MPE-1-0/1-0	10/31/17	1000			3	3						
HD-MW-183-0/1-0	10/31/17	1015	↓		3	3						
HD-QC7-0/1-2	10/30/17	1200	trip blank		2	2						
HD-MPE-3-0/1-0	10/31/17	1215	Gw		3	3						
HD-MPE-3-0/1-0MS	10/31/17	1215	Gw		3	3						
HD-MPE-3-0/1-0MSD	10/31/17	1215	Gw		3	3						
HD-QC4-0/1-1	10/31/17	0800	Gw	↓	3	3						
Number of Containers						3	1	1	2	1	1	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Unpreserved 7=Zinc Acetate & NaOH						2	1	1	4	5	1	
Field Filter						N	N	Y	N	N	N	

180-71952 Chain of Custody

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables**

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 10/31/17 1430	Received by:	Company:	Date/Time: 10/31/17 1430
Relinquished by:	Company: TAPCP	Date/Time: 10/31/17 1615	Received by:	Company: TAPCP	Date/Time: 11/1/17 0900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2470

Chain of Custody Record

196502

450-KOP

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TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210 (0713)

Client Contact	Project Manager: Chris O'neil	Site Contact: Kristin Henry	Date: 10/31/17	COC No: TAP 2017 103102
Company Name: Groundwater Sciences Corp	Tel/Fax:	Lab Contact: Corrie Lambdin	Carrier: FedEx	2 of 2 COCs
Address: 2601 market place STE 310	Analysis Turnaround Time			Sampler: KBF
City/State/Zip: Harrisburg / PA / 17110	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below ____			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: Holley - Davidson	☐ 1 week			
Site: SPBA - Comprehensive 2017	☐ 2 days			Job / SDG No.:
P O # 10012.32.00002	☐ 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)	VOCs 8260C																Sample Specific Notes:
HP-QC4-0/1-3	10/31/17	1340	Equipment	W	3	N	N	3																
HP-QC4-0/1-4	10/31/17	1350	Field Blank	W	3	N	N	3																
HP-MW-184D-0/1-0	10/31/17	1035	GW	W	3	N	Y	3																
								2																

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

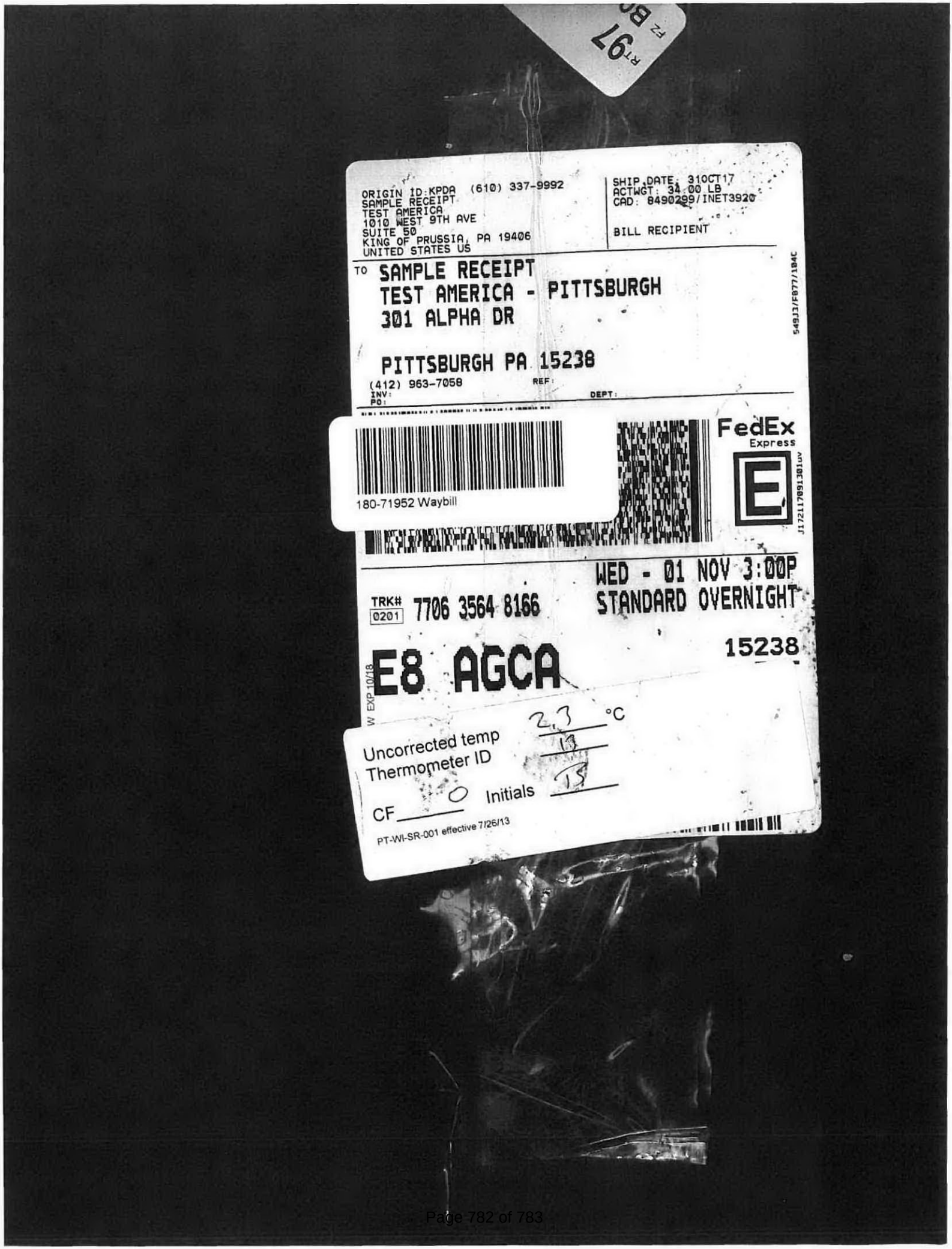
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ 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:
	GSC	10/31/17 1430		FB	10/31/17 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAMP	10/31/17 1615		TAPT	11/1/17 0900
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:


ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1010 WEST 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US
SHIP DATE: 31OCT17
ACTWGT: 34.00 LB
CAD: 8490299/INET3920
BILL RECIPIENT
TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
REF:
INV:
PO:
DEPT:
549J3/E877/184C
180-71952 Waybill
FedEx
Express
J172117091301uv
WED - 01 NOV 3:00P
STANDARD OVERNIGHT
TRK# 0201 7706 3564 8166
15238
E8 AGCA
W EXP 10/18
Uncorrected temp 2.3 °C
Thermometer ID 17
CF 0 Initials TS
PT-WI-SR-001 effective 7/26/13

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-71952-1

Login Number: 71952
List Number: 1
Creator: Neri, Tom

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	