TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-42391-1

Job Description: Harley Davidson

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

Attention: Allan Miller

Approved for release.
Carrie L Gamber
Senior Project Manager
4/8/2015 11:24 AM

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04/08/2015

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Qualifiers

GC/MS VOA

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

HPLC/IC

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

Metals

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

General Chemistry

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

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-42391-1

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

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

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

RECEIPT
The samples were received on 03/26/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

VOLATILES
Several samples were diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

The Tetrachloroethane result of the lesser dilution was reported with a "NQ" as the result due to high concentration in this sample. A further dilution was performed to bring on scale of calibration. HD-MW-75S-0/1-0 (180-42391-9).

Surrogate recovery for the following sample(s) was outside control limits: HD-MW-95-0/1-0 (180-42391-12). Re-analysis was performed with concurring results. Both sets of data have been reported.

The laboratory control sample (LCS) for batch 137512 recovered outside control limits for the following analyte: Acetone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

METALS
Calcium was detected in method blank MB 180-137092/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

ALKALINITY
Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-137060/2 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

IC
Samples HD-CW-15A-0/1-0 (4) and HD-MW-37D-0/1-0 (10) required dilution prior to analysis for chloride. The reporting limits have been adjusted accordingly.

Chloride and Nitrate as N were detected in method blank MB 180-136678/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Client Sample ID: HD-QC3-0/1-2 — Lab Sample ID: 180-42391-1

No Detections.

Client Sample ID: HD-CW-9-0/1-0 — Lab Sample ID: 180-42391-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	4.4	J	5.0	1.5	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	68		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	15		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	48		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	110		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	4.0	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	190	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	30		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	95000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	18000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	91000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-13-0/1-0 — Lab Sample ID: 180-42391-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	5.0		2.5	0.74	ug/L	2.5		8260C	Total/NA
trans-1,2-Dichloroethene	0.84	J	2.5	0.42	ug/L	2.5		8260C	Total/NA
cis-1,2-Dichloroethene	160	E	2.5	0.59	ug/L	2.5		8260C	Total/NA
1,1,1-Trichloroethane	9.3		2.5	0.72	ug/L	2.5		8260C	Total/NA
Trichloroethene	69		2.5	0.36	ug/L	2.5		8260C	Total/NA
Tetrachloroethene	74		2.5	0.37	ug/L	2.5		8260C	Total/NA
cis-1,2-Dichloroethene - DL	350		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane - DL	17	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene - DL	160		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene - DL	100		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	3.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	160	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	36		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	130000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	15000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	56000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-15A-0/1-0 — Lab Sample ID: 180-42391-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3900		1000	300	ug/L	1000		8260C	Total/NA
cis-1,2-Dichloroethene	16000		1000	240	ug/L	1000		8260C	Total/NA
1,1,1-Trichloroethane	17000		1000	290	ug/L	1000		8260C	Total/NA
Carbon tetrachloride	2300		1000	140	ug/L	1000		8260C	Total/NA
Trichloroethene	7400		1000	140	ug/L	1000		8260C	Total/NA
Tetrachloroethene	1000		1000	150	ug/L	1000		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-CW-15A-0/1-0 (Continued)

Lab Sample ID: 180-42391-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	4.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	300	B	10	2.0	mg/L	10		300.0	Total/NA
Sulfate	140		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	190000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	15000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	22000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	94000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-17-0/1-0

Lab Sample ID: 180-42391-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	8.1		5.0	1.5	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	80		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	19		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	66		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	48		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	2.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	100	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	36		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	5600		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	39000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-20-0/1-0

Lab Sample ID: 180-42391-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	26		25	7.4	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	160		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	110		25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	530		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	NQ		25	3.7	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene - DL	150		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane - DL	67		50	14	ug/L	50		8260C	Total/NA
Trichloroethene - DL	390		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	780		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	3.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	29		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	91000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	7600		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	71000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Client Sample ID: HD-MW-100D-0/1-0 — Lab Sample ID: 180-42391-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.2		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	5.5		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.8		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	94000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	4800		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	58000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-147A-0/1-0 — Lab Sample ID: 180-42391-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.4		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	1.9		1.0	0.14	ug/L	1		8260C	Total/NA
Nitrate as N	3.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	160	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	97000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	6000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	75000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-75S-0/1-0 — Lab Sample ID: 180-42391-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	50		50	15	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	110		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	240		50	14	ug/L	50		8260C	Total/NA
Carbon tetrachloride	32	J	50	6.8	ug/L	50		8260C	Total/NA
Trichloroethene	1600		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	NQ		50	7.4	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene - DL	230	J	500	120	ug/L	500		8260C	Total/NA
1,1,1-Trichloroethane - DL	390	J	500	140	ug/L	500		8260C	Total/NA
Trichloroethene - DL	2900		500	72	ug/L	500		8260C	Total/NA
Tetrachloroethene - DL	14000		500	74	ug/L	500		8260C	Total/NA
Nitrate as N	2.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	86000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	6000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	63000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Client Sample ID: HD-MW-37D-0/1-0 — Lab Sample ID: 180-42391-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	6.4	J	10	3.0	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	4.2	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	65		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	64		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	180		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	610	E	10	1.5	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	66		40	9.5	ug/L	40		8260C	Total/NA
1,1,1-Trichloroethane - DL	66		40	11	ug/L	40		8260C	Total/NA
Trichloroethene - DL	200		40	5.7	ug/L	40		8260C	Total/NA
Tetrachloroethene - DL	510		40	5.9	ug/L	40		8260C	Total/NA
Nitrate as N	2.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	220	B	5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	41		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	87000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	7800		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	110000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-37S-0/1-0 — Lab Sample ID: 180-42391-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3	J	4.0	1.2	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	42		4.0	0.95	ug/L	4		8260C	Total/NA
1,1,1-Trichloroethane	15		4.0	1.1	ug/L	4		8260C	Total/NA
Trichloroethene	33		4.0	0.57	ug/L	4		8260C	Total/NA
Tetrachloroethene	180	E	4.0	0.59	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene - DL	2.9		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane - DL	0.48	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene - DL	1.2		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene - DL	5.6		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	30		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	83000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	24000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	64000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-95-0/1-0 — Lab Sample ID: 180-42391-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.4		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.99	J	1.0	0.14	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - RA	1.6		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene - RA	1.1		1.0	0.14	ug/L	1		8260C	Total/NA
Nitrate as N	0.79	B	0.10	0.0062	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-95-0/1-0 (Continued)

Lab Sample ID: 180-42391-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	51	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	38		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	3000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	7800		100	1.2	ug/L	1		6020A	Total/NA
Sodium	26000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-7-0/1-0

Lab Sample ID: 180-42391-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	16		10	3.0	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	190		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	36		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	190		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	130		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	3.5	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	35000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	61000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-QC3-0/1-2
Date Collected: 03/25/15 12:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/02/15 15:23	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/02/15 15:23	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/02/15 15:23	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 15:23	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/02/15 15:23	1
Acetone	5.0	U	5.0	2.5	ug/L			04/02/15 15:23	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/02/15 15:23	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/02/15 15:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/02/15 15:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/02/15 15:23	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/02/15 15:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/02/15 15:23	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/02/15 15:23	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/02/15 15:23	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/02/15 15:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/02/15 15:23	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/02/15 15:23	1
Benzene	1.0	U	1.0	0.11	ug/L			04/02/15 15:23	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 15:23	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/02/15 15:23	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/02/15 15:23	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/02/15 15:23	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/02/15 15:23	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/02/15 15:23	1
Toluene	1.0	U	1.0	0.15	ug/L			04/02/15 15:23	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/02/15 15:23	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 15:23	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/02/15 15:23	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/02/15 15:23	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/02/15 15:23	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/02/15 15:23	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/02/15 15:23	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/02/15 15:23	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/02/15 15:23	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/02/15 15:23	1
Styrene	1.0	U	1.0	0.097	ug/L			04/02/15 15:23	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/02/15 15:23	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 15:23	1
Acrylonitrile	20	U	20	0.55	ug/L			04/02/15 15:23	1
1,4-Dioxane	200	U	200	34	ug/L			04/02/15 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 135*		*04/02/15 15:23*	*1*
Toluene-d8 (Surr)	*99*		*71 - 118*		*04/02/15 15:23*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*04/02/15 15:23*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/02/15 15:23*	*1*

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

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 03/25/15 06:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			04/06/15 12:54	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			04/06/15 12:54	5
Bromomethane	5.0	U	5.0	1.6	ug/L			04/06/15 12:54	5
Chloroethane	5.0	U	5.0	1.1	ug/L			04/06/15 12:54	5
1,1-Dichloroethene	**4.4**	**J**	5.0	1.5	ug/L			04/06/15 12:54	5
Acetone	25	U	25	13	ug/L			04/06/15 12:54	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			04/06/15 12:54	5
Methylene Chloride	5.0	U	5.0	0.63	ug/L			04/06/15 12:54	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			04/06/15 12:54	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			04/06/15 12:54	5
1,1-Dichloroethane	5.0	U	5.0	0.58	ug/L			04/06/15 12:54	5
cis-1,2-Dichloroethene	**68**		5.0	1.2	ug/L			04/06/15 12:54	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			04/06/15 12:54	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			04/06/15 12:54	5
Chloroform	5.0	U	5.0	0.85	ug/L			04/06/15 12:54	5
1,1,1-Trichloroethane	**15**		5.0	1.4	ug/L			04/06/15 12:54	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			04/06/15 12:54	5
Benzene	5.0	U	5.0	0.53	ug/L			04/06/15 12:54	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/06/15 12:54	5
Trichloroethene	**48**		5.0	0.72	ug/L			04/06/15 12:54	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			04/06/15 12:54	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			04/06/15 12:54	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			04/06/15 12:54	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			04/06/15 12:54	5
Toluene	5.0	U	5.0	0.75	ug/L			04/06/15 12:54	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			04/06/15 12:54	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			04/06/15 12:54	5
Tetrachloroethene	**110**		5.0	0.74	ug/L			04/06/15 12:54	5
2-Hexanone	25	U	25	0.80	ug/L			04/06/15 12:54	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			04/06/15 12:54	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			04/06/15 12:54	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			04/06/15 12:54	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			04/06/15 12:54	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			04/06/15 12:54	5
Xylenes, Total	15	U	15	2.4	ug/L			04/06/15 12:54	5
Styrene	5.0	U	5.0	0.48	ug/L			04/06/15 12:54	5
Bromoform	5.0	U	5.0	0.96	ug/L			04/06/15 12:54	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			04/06/15 12:54	5
Acrylonitrile	100	U	100	2.7	ug/L			04/06/15 12:54	5
1,4-Dioxane	1000	U	1000	170	ug/L			04/06/15 12:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*		*04/06/15 12:54*	*5*
Toluene-d8 (Surr)	*110*		*71 - 118*		*04/06/15 12:54*	*5*
4-Bromofluorobenzene (Surr)	*109*		*70 - 118*		*04/06/15 12:54*	*5*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/06/15 12:54*	*5*

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

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 03/25/15 06:15
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.5	U	2.5	0.71	ug/L			04/04/15 18:59	2.5
Vinyl chloride	2.5	U	2.5	0.57	ug/L			04/04/15 18:59	2.5
Bromomethane	2.5	U	2.5	0.78	ug/L			04/04/15 18:59	2.5
Chloroethane	2.5	U	2.5	0.54	ug/L			04/04/15 18:59	2.5
1,1-Dichloroethene	**5.0**		2.5	0.74	ug/L			04/04/15 18:59	2.5
Acetone	13	U *	13	6.3	ug/L			04/04/15 18:59	2.5
Carbon disulfide	2.5	U	2.5	0.53	ug/L			04/04/15 18:59	2.5
Methylene Chloride	2.5	U	2.5	0.31	ug/L			04/04/15 18:59	2.5
trans-1,2-Dichloroethene	**0.84**	**J**	2.5	0.42	ug/L			04/04/15 18:59	2.5
Methyl tert-butyl ether	2.5	U	2.5	0.46	ug/L			04/04/15 18:59	2.5
1,1-Dichloroethane	2.5	U	2.5	0.29	ug/L			04/04/15 18:59	2.5
cis-1,2-Dichloroethene	**160**	**E**	2.5	0.59	ug/L			04/04/15 18:59	2.5
Bromochloromethane	2.5	U	2.5	0.45	ug/L			04/04/15 18:59	2.5
2-Butanone (MEK)	13	U	13	1.4	ug/L			04/04/15 18:59	2.5
Chloroform	2.5	U	2.5	0.43	ug/L			04/04/15 18:59	2.5
1,1,1-Trichloroethane	**9.3**		2.5	0.72	ug/L			04/04/15 18:59	2.5
Carbon tetrachloride	2.5	U	2.5	0.34	ug/L			04/04/15 18:59	2.5
Benzene	2.5	U	2.5	0.26	ug/L			04/04/15 18:59	2.5
1,2-Dichloroethane	2.5	U	2.5	0.53	ug/L			04/04/15 18:59	2.5
Trichloroethene	**69**		2.5	0.36	ug/L			04/04/15 18:59	2.5
1,2-Dichloropropane	2.5	U	2.5	0.24	ug/L			04/04/15 18:59	2.5
Bromodichloromethane	2.5	U	2.5	0.33	ug/L			04/04/15 18:59	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	0.47	ug/L			04/04/15 18:59	2.5
4-Methyl-2-pentanone (MIBK)	13	U	13	1.3	ug/L			04/04/15 18:59	2.5
Toluene	2.5	U	2.5	0.38	ug/L			04/04/15 18:59	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	0.37	ug/L			04/04/15 18:59	2.5
1,1,2-Trichloroethane	2.5	U	2.5	0.50	ug/L			04/04/15 18:59	2.5
Tetrachloroethene	**74**		2.5	0.37	ug/L			04/04/15 18:59	2.5
2-Hexanone	13	U	13	0.40	ug/L			04/04/15 18:59	2.5
Dibromochloromethane	2.5	U	2.5	0.34	ug/L			04/04/15 18:59	2.5
1,2-Dibromoethane (EDB)	2.5	U	2.5	0.45	ug/L			04/04/15 18:59	2.5
Chlorobenzene	2.5	U	2.5	0.34	ug/L			04/04/15 18:59	2.5
1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.69	ug/L			04/04/15 18:59	2.5
Ethylbenzene	2.5	U	2.5	0.57	ug/L			04/04/15 18:59	2.5
Xylenes, Total	7.5	U	7.5	1.2	ug/L			04/04/15 18:59	2.5
Styrene	2.5	U	2.5	0.24	ug/L			04/04/15 18:59	2.5
Bromoform	2.5	U	2.5	0.48	ug/L			04/04/15 18:59	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.50	ug/L			04/04/15 18:59	2.5
Acrylonitrile	50	U	50	1.4	ug/L			04/04/15 18:59	2.5
1,4-Dioxane	500	U	500	86	ug/L			04/04/15 18:59	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*04/04/15 18:59*	*2.5*
Toluene-d8 (Surr)	*113*		*71 - 118*		*04/04/15 18:59*	*2.5*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*04/04/15 18:59*	*2.5*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/04/15 18:59*	*2.5*

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

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 03/25/15 05:55
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1000	U	1000	280	ug/L			04/02/15 14:01	1000
Vinyl chloride	1000	U	1000	230	ug/L			04/02/15 14:01	1000
Bromomethane	1000	U	1000	310	ug/L			04/02/15 14:01	1000
Chloroethane	1000	U	1000	210	ug/L			04/02/15 14:01	1000
1,1-Dichloroethene	**3900**		1000	300	ug/L			04/02/15 14:01	1000
Acetone	5000	U	5000	2500	ug/L			04/02/15 14:01	1000
Carbon disulfide	1000	U	1000	210	ug/L			04/02/15 14:01	1000
Methylene Chloride	1000	U	1000	130	ug/L			04/02/15 14:01	1000
trans-1,2-Dichloroethene	1000	U	1000	170	ug/L			04/02/15 14:01	1000
Methyl tert-butyl ether	1000	U	1000	180	ug/L			04/02/15 14:01	1000
1,1-Dichloroethane	1000	U	1000	120	ug/L			04/02/15 14:01	1000
cis-1,2-Dichloroethene	**16000**		1000	240	ug/L			04/02/15 14:01	1000
Bromochloromethane	1000	U	1000	180	ug/L			04/02/15 14:01	1000
2-Butanone (MEK)	5000	U	5000	550	ug/L			04/02/15 14:01	1000
Chloroform	1000	U	1000	170	ug/L			04/02/15 14:01	1000
1,1,1-Trichloroethane	**17000**		1000	290	ug/L			04/02/15 14:01	1000
Carbon tetrachloride	**2300**		1000	140	ug/L			04/02/15 14:01	1000
Benzene	1000	U	1000	110	ug/L			04/02/15 14:01	1000
1,2-Dichloroethane	1000	U	1000	210	ug/L			04/02/15 14:01	1000
Trichloroethene	**7400**		1000	140	ug/L			04/02/15 14:01	1000
1,2-Dichloropropane	1000	U	1000	95	ug/L			04/02/15 14:01	1000
Bromodichloromethane	1000	U	1000	130	ug/L			04/02/15 14:01	1000
cis-1,3-Dichloropropene	1000	U	1000	190	ug/L			04/02/15 14:01	1000
4-Methyl-2-pentanone (MIBK)	5000	U	5000	530	ug/L			04/02/15 14:01	1000
Toluene	1000	U	1000	150	ug/L			04/02/15 14:01	1000
trans-1,3-Dichloropropene	1000	U	1000	150	ug/L			04/02/15 14:01	1000
1,1,2-Trichloroethane	1000	U	1000	200	ug/L			04/02/15 14:01	1000
Tetrachloroethene	**1000**		1000	150	ug/L			04/02/15 14:01	1000
2-Hexanone	5000	U	5000	160	ug/L			04/02/15 14:01	1000
Dibromochloromethane	1000	U	1000	140	ug/L			04/02/15 14:01	1000
1,2-Dibromoethane (EDB)	1000	U	1000	180	ug/L			04/02/15 14:01	1000
Chlorobenzene	1000	U	1000	140	ug/L			04/02/15 14:01	1000
1,1,1,2-Tetrachloroethane	1000	U	1000	280	ug/L			04/02/15 14:01	1000
Ethylbenzene	1000	U	1000	230	ug/L			04/02/15 14:01	1000
Xylenes, Total	3000	U	3000	490	ug/L			04/02/15 14:01	1000
Styrene	1000	U	1000	97	ug/L			04/02/15 14:01	1000
Bromoform	1000	U	1000	190	ug/L			04/02/15 14:01	1000
1,1,2,2-Tetrachloroethane	1000	U	1000	200	ug/L			04/02/15 14:01	1000
Acrylonitrile	20000	U	20000	550	ug/L			04/02/15 14:01	1000
1,4-Dioxane	200000	U	200000	34000	ug/L			04/02/15 14:01	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*		*04/02/15 14:01*	*1000*
Toluene-d8 (Surr)	*111*		*71 - 118*		*04/02/15 14:01*	*1000*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*04/02/15 14:01*	*1000*
Dibromofluoromethane (Surr)	*116*		*70 - 128*		*04/02/15 14:01*	*1000*

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

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 03/25/15 06:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			04/02/15 14:28	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			04/02/15 14:28	5
Bromomethane	5.0	U	5.0	1.6	ug/L			04/02/15 14:28	5
Chloroethane	5.0	U	5.0	1.1	ug/L			04/02/15 14:28	5
1,1-Dichloroethene	**8.1**		5.0	1.5	ug/L			04/02/15 14:28	5
Acetone	25	U	25	13	ug/L			04/02/15 14:28	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			04/02/15 14:28	5
Methylene Chloride	5.0	U	5.0	0.63	ug/L			04/02/15 14:28	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			04/02/15 14:28	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			04/02/15 14:28	5
1,1-Dichloroethane	5.0	U	5.0	0.58	ug/L			04/02/15 14:28	5
cis-1,2-Dichloroethene	**80**		5.0	1.2	ug/L			04/02/15 14:28	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			04/02/15 14:28	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			04/02/15 14:28	5
Chloroform	5.0	U	5.0	0.85	ug/L			04/02/15 14:28	5
1,1,1-Trichloroethane	**19**		5.0	1.4	ug/L			04/02/15 14:28	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			04/02/15 14:28	5
Benzene	5.0	U	5.0	0.53	ug/L			04/02/15 14:28	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/02/15 14:28	5
Trichloroethene	**66**		5.0	0.72	ug/L			04/02/15 14:28	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			04/02/15 14:28	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			04/02/15 14:28	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			04/02/15 14:28	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			04/02/15 14:28	5
Toluene	5.0	U	5.0	0.75	ug/L			04/02/15 14:28	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			04/02/15 14:28	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			04/02/15 14:28	5
Tetrachloroethene	**48**		5.0	0.74	ug/L			04/02/15 14:28	5
2-Hexanone	25	U	25	0.80	ug/L			04/02/15 14:28	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			04/02/15 14:28	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			04/02/15 14:28	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			04/02/15 14:28	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			04/02/15 14:28	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			04/02/15 14:28	5
Xylenes, Total	15	U	15	2.4	ug/L			04/02/15 14:28	5
Styrene	5.0	U	5.0	0.48	ug/L			04/02/15 14:28	5
Bromoform	5.0	U	5.0	0.96	ug/L			04/02/15 14:28	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			04/02/15 14:28	5
Acrylonitrile	100	U	100	2.7	ug/L			04/02/15 14:28	5
1,4-Dioxane	1000	U	1000	170	ug/L			04/02/15 14:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 135*		*04/02/15 14:28*	*5*
Toluene-d8 (Surr)	*116*		*71 - 118*		*04/02/15 14:28*	*5*
4-Bromofluorobenzene (Surr)	*111*		*70 - 118*		*04/02/15 14:28*	*5*
Dibromofluoromethane (Surr)	*120*		*70 - 128*		*04/02/15 14:28*	*5*

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

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 03/25/15 06:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			04/03/15 13:22	25
Vinyl chloride	25	U	25	5.7	ug/L			04/03/15 13:22	25
Bromomethane	25	U	25	7.8	ug/L			04/03/15 13:22	25
Chloroethane	25	U	25	5.4	ug/L			04/03/15 13:22	25
1,1-Dichloroethene	**26**		25	7.4	ug/L			04/03/15 13:22	25
Acetone	130	U	130	63	ug/L			04/03/15 13:22	25
Carbon disulfide	25	U	25	5.3	ug/L			04/03/15 13:22	25
Methylene Chloride	25	U	25	3.1	ug/L			04/03/15 13:22	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			04/03/15 13:22	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			04/03/15 13:22	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			04/03/15 13:22	25
cis-1,2-Dichloroethene	**160**		25	5.9	ug/L			04/03/15 13:22	25
Bromochloromethane	25	U	25	4.5	ug/L			04/03/15 13:22	25
2-Butanone (MEK)	130	U	130	14	ug/L			04/03/15 13:22	25
Chloroform	25	U	25	4.3	ug/L			04/03/15 13:22	25
1,1,1-Trichloroethane	**110**		25	7.2	ug/L			04/03/15 13:22	25
Carbon tetrachloride	25	U	25	3.4	ug/L			04/03/15 13:22	25
Benzene	25	U	25	2.6	ug/L			04/03/15 13:22	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			04/03/15 13:22	25
Trichloroethene	**530**		25	3.6	ug/L			04/03/15 13:22	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			04/03/15 13:22	25
Bromodichloromethane	25	U	25	3.3	ug/L			04/03/15 13:22	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			04/03/15 13:22	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			04/03/15 13:22	25
Toluene	25	U	25	3.8	ug/L			04/03/15 13:22	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			04/03/15 13:22	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			04/03/15 13:22	25
Tetrachloroethene	**NQ**		25	3.7	ug/L			04/03/15 13:22	25
2-Hexanone	130	U	130	4.0	ug/L			04/03/15 13:22	25
Dibromochloromethane	25	U	25	3.4	ug/L			04/03/15 13:22	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			04/03/15 13:22	25
Chlorobenzene	25	U	25	3.4	ug/L			04/03/15 13:22	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			04/03/15 13:22	25
Ethylbenzene	25	U	25	5.7	ug/L			04/03/15 13:22	25
Xylenes, Total	75	U	75	12	ug/L			04/03/15 13:22	25
Styrene	25	U	25	2.4	ug/L			04/03/15 13:22	25
Bromoform	25	U	25	4.8	ug/L			04/03/15 13:22	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			04/03/15 13:22	25
Acrylonitrile	500	U	500	14	ug/L			04/03/15 13:22	25
1,4-Dioxane	5000	U	5000	860	ug/L			04/03/15 13:22	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*64 - 135*		*04/03/15 13:22*	*25*
Toluene-d8 (Surr)	*112*		*71 - 118*		*04/03/15 13:22*	*25*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*		*04/03/15 13:22*	*25*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*04/03/15 13:22*	*25*

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

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 03/25/15 09:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/04/15 22:36	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/04/15 22:36	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/04/15 22:36	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 22:36	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/04/15 22:36	1
Acetone	5.0	U *	5.0	2.5	ug/L			04/04/15 22:36	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/04/15 22:36	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/04/15 22:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/04/15 22:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/04/15 22:36	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/04/15 22:36	1
cis-1,2-Dichloroethene	**4.2**		1.0	0.24	ug/L			04/04/15 22:36	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/04/15 22:36	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/04/15 22:36	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/04/15 22:36	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/04/15 22:36	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/04/15 22:36	1
Benzene	1.0	U	1.0	0.11	ug/L			04/04/15 22:36	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 22:36	1
Trichloroethene	**5.5**		1.0	0.14	ug/L			04/04/15 22:36	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/04/15 22:36	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/04/15 22:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/04/15 22:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/04/15 22:36	1
Toluene	1.0	U	1.0	0.15	ug/L			04/04/15 22:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/04/15 22:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 22:36	1
Tetrachloroethene	**2.8**		1.0	0.15	ug/L			04/04/15 22:36	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/04/15 22:36	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/04/15 22:36	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/04/15 22:36	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/04/15 22:36	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/04/15 22:36	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/04/15 22:36	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/04/15 22:36	1
Styrene	1.0	U	1.0	0.097	ug/L			04/04/15 22:36	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/04/15 22:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 22:36	1
Acrylonitrile	20	U	20	0.55	ug/L			04/04/15 22:36	1
1,4-Dioxane	200	U	200	34	ug/L			04/04/15 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*04/04/15 22:36*	*1*
Toluene-d8 (Surr)	*112*		*71 - 118*		*04/04/15 22:36*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*		*04/04/15 22:36*	*1*
Dibromofluoromethane (Surr)	*119*		*70 - 128*		*04/04/15 22:36*	*1*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 03/25/15 10:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/02/15 18:07	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/02/15 18:07	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/02/15 18:07	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 18:07	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/02/15 18:07	1
Acetone	5.0	U	5.0	2.5	ug/L			04/02/15 18:07	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/02/15 18:07	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/02/15 18:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/02/15 18:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/02/15 18:07	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/02/15 18:07	1
cis-1,2-Dichloroethene	**2.4**		1.0	0.24	ug/L			04/02/15 18:07	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/02/15 18:07	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/02/15 18:07	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/02/15 18:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/02/15 18:07	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/02/15 18:07	1
Benzene	1.0	U	1.0	0.11	ug/L			04/02/15 18:07	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 18:07	1
Trichloroethene	**1.9**		1.0	0.14	ug/L			04/02/15 18:07	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/02/15 18:07	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/02/15 18:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/02/15 18:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/02/15 18:07	1
Toluene	1.0	U	1.0	0.15	ug/L			04/02/15 18:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/02/15 18:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 18:07	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/02/15 18:07	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/02/15 18:07	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/02/15 18:07	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/02/15 18:07	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/02/15 18:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/02/15 18:07	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/02/15 18:07	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/02/15 18:07	1
Styrene	1.0	U	1.0	0.097	ug/L			04/02/15 18:07	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/02/15 18:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 18:07	1
Acrylonitrile	20	U	20	0.55	ug/L			04/02/15 18:07	1
1,4-Dioxane	200	U	200	34	ug/L			04/02/15 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*64 - 135*		*04/02/15 18:07*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*04/02/15 18:07*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*		*04/02/15 18:07*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 128*		*04/02/15 18:07*	*1*

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

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 03/25/15 14:37
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			04/02/15 19:28	50
Vinyl chloride	50	U	50	11	ug/L			04/02/15 19:28	50
Bromomethane	50	U	50	16	ug/L			04/02/15 19:28	50
Chloroethane	50	U	50	11	ug/L			04/02/15 19:28	50
1,1-Dichloroethene	**50**		50	15	ug/L			04/02/15 19:28	50
Acetone	250	U	250	130	ug/L			04/02/15 19:28	50
Carbon disulfide	50	U	50	11	ug/L			04/02/15 19:28	50
Methylene Chloride	50	U	50	6.3	ug/L			04/02/15 19:28	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			04/02/15 19:28	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			04/02/15 19:28	50
1,1-Dichloroethane	50	U	50	5.8	ug/L			04/02/15 19:28	50
cis-1,2-Dichloroethene	**110**		50	12	ug/L			04/02/15 19:28	50
Bromochloromethane	50	U	50	9.0	ug/L			04/02/15 19:28	50
2-Butanone (MEK)	250	U	250	27	ug/L			04/02/15 19:28	50
Chloroform	50	U	50	8.5	ug/L			04/02/15 19:28	50
1,1,1-Trichloroethane	**240**		50	14	ug/L			04/02/15 19:28	50
Carbon tetrachloride	**32**	**J**	50	6.8	ug/L			04/02/15 19:28	50
Benzene	50	U	50	5.3	ug/L			04/02/15 19:28	50
1,2-Dichloroethane	50	U	50	11	ug/L			04/02/15 19:28	50
Trichloroethene	**1600**		50	7.2	ug/L			04/02/15 19:28	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			04/02/15 19:28	50
Bromodichloromethane	50	U	50	6.5	ug/L			04/02/15 19:28	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			04/02/15 19:28	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			04/02/15 19:28	50
Toluene	50	U	50	7.5	ug/L			04/02/15 19:28	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			04/02/15 19:28	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			04/02/15 19:28	50
Tetrachloroethene	**NQ**		50	7.4	ug/L			04/02/15 19:28	50
2-Hexanone	250	U	250	8.0	ug/L			04/02/15 19:28	50
Dibromochloromethane	50	U	50	6.8	ug/L			04/02/15 19:28	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			04/02/15 19:28	50
Chlorobenzene	50	U	50	6.8	ug/L			04/02/15 19:28	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			04/02/15 19:28	50
Ethylbenzene	50	U	50	11	ug/L			04/02/15 19:28	50
Xylenes, Total	150	U	150	24	ug/L			04/02/15 19:28	50
Styrene	50	U	50	4.8	ug/L			04/02/15 19:28	50
Bromoform	50	U	50	9.6	ug/L			04/02/15 19:28	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			04/02/15 19:28	50
Acrylonitrile	1000	U	1000	27	ug/L			04/02/15 19:28	50
1,4-Dioxane	10000	U	10000	1700	ug/L			04/02/15 19:28	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*		*04/02/15 19:28*	*50*
Toluene-d8 (Surr)	*117*		*71 - 118*		*04/02/15 19:28*	*50*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*04/02/15 19:28*	*50*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*04/02/15 19:28*	*50*

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

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 03/25/15 13:02
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			04/03/15 17:26	10
Vinyl chloride	10	U	10	2.3	ug/L			04/03/15 17:26	10
Bromomethane	10	U	10	3.1	ug/L			04/03/15 17:26	10
Chloroethane	10	U	10	2.1	ug/L			04/03/15 17:26	10
1,1-Dichloroethene	**6.4**	**J**	10	3.0	ug/L			04/03/15 17:26	10
Acetone	50	U	50	25	ug/L			04/03/15 17:26	10
Carbon disulfide	10	U	10	2.1	ug/L			04/03/15 17:26	10
Methylene Chloride	10	U	10	1.3	ug/L			04/03/15 17:26	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			04/03/15 17:26	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			04/03/15 17:26	10
1,1-Dichloroethane	**4.2**	**J**	10	1.2	ug/L			04/03/15 17:26	10
cis-1,2-Dichloroethene	**65**		10	2.4	ug/L			04/03/15 17:26	10
Bromochloromethane	10	U	10	1.8	ug/L			04/03/15 17:26	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			04/03/15 17:26	10
Chloroform	10	U	10	1.7	ug/L			04/03/15 17:26	10
1,1,1-Trichloroethane	**64**		10	2.9	ug/L			04/03/15 17:26	10
Carbon tetrachloride	10	U	10	1.4	ug/L			04/03/15 17:26	10
Benzene	10	U	10	1.1	ug/L			04/03/15 17:26	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			04/03/15 17:26	10
Trichloroethene	**180**		10	1.4	ug/L			04/03/15 17:26	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			04/03/15 17:26	10
Bromodichloromethane	10	U	10	1.3	ug/L			04/03/15 17:26	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			04/03/15 17:26	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			04/03/15 17:26	10
Toluene	10	U	10	1.5	ug/L			04/03/15 17:26	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			04/03/15 17:26	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			04/03/15 17:26	10
Tetrachloroethene	**610**	**E**	10	1.5	ug/L			04/03/15 17:26	10
2-Hexanone	50	U	50	1.6	ug/L			04/03/15 17:26	10
Dibromochloromethane	10	U	10	1.4	ug/L			04/03/15 17:26	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			04/03/15 17:26	10
Chlorobenzene	10	U	10	1.4	ug/L			04/03/15 17:26	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			04/03/15 17:26	10
Ethylbenzene	10	U	10	2.3	ug/L			04/03/15 17:26	10
Xylenes, Total	30	U	30	4.9	ug/L			04/03/15 17:26	10
Styrene	10	U	10	0.97	ug/L			04/03/15 17:26	10
Bromoform	10	U	10	1.9	ug/L			04/03/15 17:26	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			04/03/15 17:26	10
Acrylonitrile	200	U	200	5.5	ug/L			04/03/15 17:26	10
1,4-Dioxane	2000	U	2000	340	ug/L			04/03/15 17:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*64 - 135*		*04/03/15 17:26*	*10*
Toluene-d8 (Surr)	*114*		*71 - 118*		*04/03/15 17:26*	*10*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*		*04/03/15 17:26*	*10*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*04/03/15 17:26*	*10*

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

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 03/25/15 11:12
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	4.0	U	4.0	1.1	ug/L			04/03/15 17:53	4
Vinyl chloride	4.0	U	4.0	0.91	ug/L			04/03/15 17:53	4
Bromomethane	4.0	U	4.0	1.3	ug/L			04/03/15 17:53	4
Chloroethane	4.0	U	4.0	0.86	ug/L			04/03/15 17:53	4
1,1-Dichloroethene	**1.3**	**J**	4.0	1.2	ug/L			04/03/15 17:53	4
Acetone	20	U	20	10	ug/L			04/03/15 17:53	4
Carbon disulfide	4.0	U	4.0	0.85	ug/L			04/03/15 17:53	4
Methylene Chloride	4.0	U	4.0	0.50	ug/L			04/03/15 17:53	4
trans-1,2-Dichloroethene	4.0	U	4.0	0.68	ug/L			04/03/15 17:53	4
Methyl tert-butyl ether	4.0	U	4.0	0.73	ug/L			04/03/15 17:53	4
1,1-Dichloroethane	4.0	U	4.0	0.47	ug/L			04/03/15 17:53	4
cis-1,2-Dichloroethene	**42**		4.0	0.95	ug/L			04/03/15 17:53	4
Bromochloromethane	4.0	U	4.0	0.72	ug/L			04/03/15 17:53	4
2-Butanone (MEK)	20	U	20	2.2	ug/L			04/03/15 17:53	4
Chloroform	4.0	U	4.0	0.68	ug/L			04/03/15 17:53	4
1,1,1-Trichloroethane	**15**		4.0	1.1	ug/L			04/03/15 17:53	4
Carbon tetrachloride	4.0	U	4.0	0.55	ug/L			04/03/15 17:53	4
Benzene	4.0	U	4.0	0.42	ug/L			04/03/15 17:53	4
1,2-Dichloroethane	4.0	U	4.0	0.85	ug/L			04/03/15 17:53	4
Trichloroethene	**33**		4.0	0.57	ug/L			04/03/15 17:53	4
1,2-Dichloropropane	4.0	U	4.0	0.38	ug/L			04/03/15 17:53	4
Bromodichloromethane	4.0	U	4.0	0.52	ug/L			04/03/15 17:53	4
cis-1,3-Dichloropropene	4.0	U	4.0	0.75	ug/L			04/03/15 17:53	4
4-Methyl-2-pentanone (MIBK)	20	U	20	2.1	ug/L			04/03/15 17:53	4
Toluene	4.0	U	4.0	0.60	ug/L			04/03/15 17:53	4
trans-1,3-Dichloropropene	4.0	U	4.0	0.59	ug/L			04/03/15 17:53	4
1,1,2-Trichloroethane	4.0	U	4.0	0.81	ug/L			04/03/15 17:53	4
Tetrachloroethene	**180**	**E**	4.0	0.59	ug/L			04/03/15 17:53	4
2-Hexanone	20	U	20	0.64	ug/L			04/03/15 17:53	4
Dibromochloromethane	4.0	U	4.0	0.55	ug/L			04/03/15 17:53	4
1,2-Dibromoethane (EDB)	4.0	U	4.0	0.72	ug/L			04/03/15 17:53	4
Chlorobenzene	4.0	U	4.0	0.54	ug/L			04/03/15 17:53	4
1,1,1,2-Tetrachloroethane	4.0	U	4.0	1.1	ug/L			04/03/15 17:53	4
Ethylbenzene	4.0	U	4.0	0.91	ug/L			04/03/15 17:53	4
Xylenes, Total	12	U	12	2.0	ug/L			04/03/15 17:53	4
Styrene	4.0	U	4.0	0.39	ug/L			04/03/15 17:53	4
Bromoform	4.0	U	4.0	0.77	ug/L			04/03/15 17:53	4
1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.80	ug/L			04/03/15 17:53	4
Acrylonitrile	80	U	80	2.2	ug/L			04/03/15 17:53	4
1,4-Dioxane	800	U	800	140	ug/L			04/03/15 17:53	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*64 - 135*		*04/03/15 17:53*	*4*
Toluene-d8 (Surr)	*112*		*71 - 118*		*04/03/15 17:53*	*4*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*04/03/15 17:53*	*4*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*04/03/15 17:53*	*4*

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

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 03/25/15 15:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 16:05	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 16:05	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 16:05	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 16:05	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/03/15 16:05	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 16:05	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 16:05	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 16:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 16:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 16:05	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 16:05	1
cis-1,2-Dichloroethene	**1.4**		1.0	0.24	ug/L			04/03/15 16:05	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 16:05	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 16:05	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 16:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/03/15 16:05	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 16:05	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 16:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 16:05	1
Trichloroethene	**0.99**	**J**	1.0	0.14	ug/L			04/03/15 16:05	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 16:05	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 16:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 16:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 16:05	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 16:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 16:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 16:05	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/03/15 16:05	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 16:05	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 16:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 16:05	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 16:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 16:05	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 16:05	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 16:05	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 16:05	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 16:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 16:05	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 16:05	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*54*	*X*	*64 - 135*		*04/03/15 16:05*	*1*
Toluene-d8 (Surr)	*118*		*71 - 118*		*04/03/15 16:05*	*1*
4-Bromofluorobenzene (Surr)	*77*		*70 - 118*		*04/03/15 16:05*	*1*
Dibromofluoromethane (Surr)	*81*		*70 - 128*		*04/03/15 16:05*	*1*

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

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 03/25/15 14:30
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			04/03/15 16:32	10
Vinyl chloride	10	U	10	2.3	ug/L			04/03/15 16:32	10
Bromomethane	10	U	10	3.1	ug/L			04/03/15 16:32	10
Chloroethane	10	U	10	2.1	ug/L			04/03/15 16:32	10
1,1-Dichloroethene	**16**		10	3.0	ug/L			04/03/15 16:32	10
Acetone	50	U	50	25	ug/L			04/03/15 16:32	10
Carbon disulfide	10	U	10	2.1	ug/L			04/03/15 16:32	10
Methylene Chloride	10	U	10	1.3	ug/L			04/03/15 16:32	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			04/03/15 16:32	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			04/03/15 16:32	10
1,1-Dichloroethane	10	U	10	1.2	ug/L			04/03/15 16:32	10
cis-1,2-Dichloroethene	**190**		10	2.4	ug/L			04/03/15 16:32	10
Bromochloromethane	10	U	10	1.8	ug/L			04/03/15 16:32	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			04/03/15 16:32	10
Chloroform	10	U	10	1.7	ug/L			04/03/15 16:32	10
1,1,1-Trichloroethane	**36**		10	2.9	ug/L			04/03/15 16:32	10
Carbon tetrachloride	10	U	10	1.4	ug/L			04/03/15 16:32	10
Benzene	10	U	10	1.1	ug/L			04/03/15 16:32	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			04/03/15 16:32	10
Trichloroethene	**190**		10	1.4	ug/L			04/03/15 16:32	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			04/03/15 16:32	10
Bromodichloromethane	10	U	10	1.3	ug/L			04/03/15 16:32	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			04/03/15 16:32	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			04/03/15 16:32	10
Toluene	10	U	10	1.5	ug/L			04/03/15 16:32	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			04/03/15 16:32	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			04/03/15 16:32	10
Tetrachloroethene	**130**		10	1.5	ug/L			04/03/15 16:32	10
2-Hexanone	50	U	50	1.6	ug/L			04/03/15 16:32	10
Dibromochloromethane	10	U	10	1.4	ug/L			04/03/15 16:32	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			04/03/15 16:32	10
Chlorobenzene	10	U	10	1.4	ug/L			04/03/15 16:32	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			04/03/15 16:32	10
Ethylbenzene	10	U	10	2.3	ug/L			04/03/15 16:32	10
Xylenes, Total	30	U	30	4.9	ug/L			04/03/15 16:32	10
Styrene	10	U	10	0.97	ug/L			04/03/15 16:32	10
Bromoform	10	U	10	1.9	ug/L			04/03/15 16:32	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			04/03/15 16:32	10
Acrylonitrile	200	U	200	5.5	ug/L			04/03/15 16:32	10
1,4-Dioxane	2000	U	2000	340	ug/L			04/03/15 16:32	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*64 - 135*		*04/03/15 16:32*	*10*
Toluene-d8 (Surr)	*111*		*71 - 118*		*04/03/15 16:32*	*10*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*04/03/15 16:32*	*10*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*04/03/15 16:32*	*10*

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

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 03/25/15 06:15
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			04/02/15 13:33	25
Vinyl chloride	25	U	25	5.7	ug/L			04/02/15 13:33	25
Bromomethane	25	U	25	7.8	ug/L			04/02/15 13:33	25
Chloroethane	25	U	25	5.4	ug/L			04/02/15 13:33	25
1,1-Dichloroethene	25	U	25	7.4	ug/L			04/02/15 13:33	25
Acetone	130	U	130	63	ug/L			04/02/15 13:33	25
Carbon disulfide	25	U	25	5.3	ug/L			04/02/15 13:33	25
Methylene Chloride	25	U	25	3.1	ug/L			04/02/15 13:33	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			04/02/15 13:33	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			04/02/15 13:33	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			04/02/15 13:33	25
cis-1,2-Dichloroethene	**350**		25	5.9	ug/L			04/02/15 13:33	25
Bromochloromethane	25	U	25	4.5	ug/L			04/02/15 13:33	25
2-Butanone (MEK)	130	U	130	14	ug/L			04/02/15 13:33	25
Chloroform	25	U	25	4.3	ug/L			04/02/15 13:33	25
1,1,1-Trichloroethane	**17**	**J**	25	7.2	ug/L			04/02/15 13:33	25
Carbon tetrachloride	25	U	25	3.4	ug/L			04/02/15 13:33	25
Benzene	25	U	25	2.6	ug/L			04/02/15 13:33	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			04/02/15 13:33	25
Trichloroethene	**160**		25	3.6	ug/L			04/02/15 13:33	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			04/02/15 13:33	25
Bromodichloromethane	25	U	25	3.3	ug/L			04/02/15 13:33	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			04/02/15 13:33	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			04/02/15 13:33	25
Toluene	25	U	25	3.8	ug/L			04/02/15 13:33	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			04/02/15 13:33	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			04/02/15 13:33	25
Tetrachloroethene	**100**		25	3.7	ug/L			04/02/15 13:33	25
2-Hexanone	130	U	130	4.0	ug/L			04/02/15 13:33	25
Dibromochloromethane	25	U	25	3.4	ug/L			04/02/15 13:33	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			04/02/15 13:33	25
Chlorobenzene	25	U	25	3.4	ug/L			04/02/15 13:33	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			04/02/15 13:33	25
Ethylbenzene	25	U	25	5.7	ug/L			04/02/15 13:33	25
Xylenes, Total	75	U	75	12	ug/L			04/02/15 13:33	25
Styrene	25	U	25	2.4	ug/L			04/02/15 13:33	25
Bromoform	25	U	25	4.8	ug/L			04/02/15 13:33	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			04/02/15 13:33	25
Acrylonitrile	500	U	500	14	ug/L			04/02/15 13:33	25
1,4-Dioxane	5000	U	5000	860	ug/L			04/02/15 13:33	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*		*04/02/15 13:33*	*25*
Toluene-d8 (Surr)	*118*		*71 - 118*		*04/02/15 13:33*	*25*
4-Bromofluorobenzene (Surr)	*110*		*70 - 118*		*04/02/15 13:33*	*25*
Dibromofluoromethane (Surr)	*118*		*70 - 128*		*04/02/15 13:33*	*25*

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

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 03/25/15 06:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			04/04/15 21:14	50
Vinyl chloride	50	U	50	11	ug/L			04/04/15 21:14	50
Bromomethane	50	U	50	16	ug/L			04/04/15 21:14	50
Chloroethane	50	U	50	11	ug/L			04/04/15 21:14	50
1,1-Dichloroethene	50	U	50	15	ug/L			04/04/15 21:14	50
Acetone	250	U *	250	130	ug/L			04/04/15 21:14	50
Carbon disulfide	50	U	50	11	ug/L			04/04/15 21:14	50
Methylene Chloride	50	U	50	6.3	ug/L			04/04/15 21:14	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			04/04/15 21:14	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			04/04/15 21:14	50
1,1-Dichloroethane	50	U	50	5.8	ug/L			04/04/15 21:14	50
cis-1,2-Dichloroethene	**150**		50	12	ug/L			04/04/15 21:14	50
Bromochloromethane	50	U	50	9.0	ug/L			04/04/15 21:14	50
2-Butanone (MEK)	250	U	250	27	ug/L			04/04/15 21:14	50
Chloroform	50	U	50	8.5	ug/L			04/04/15 21:14	50
1,1,1-Trichloroethane	**67**		50	14	ug/L			04/04/15 21:14	50
Carbon tetrachloride	50	U	50	6.8	ug/L			04/04/15 21:14	50
Benzene	50	U	50	5.3	ug/L			04/04/15 21:14	50
1,2-Dichloroethane	50	U	50	11	ug/L			04/04/15 21:14	50
Trichloroethene	**390**		50	7.2	ug/L			04/04/15 21:14	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			04/04/15 21:14	50
Bromodichloromethane	50	U	50	6.5	ug/L			04/04/15 21:14	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			04/04/15 21:14	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			04/04/15 21:14	50
Toluene	50	U	50	7.5	ug/L			04/04/15 21:14	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			04/04/15 21:14	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			04/04/15 21:14	50
Tetrachloroethene	**780**		50	7.4	ug/L			04/04/15 21:14	50
2-Hexanone	250	U	250	8.0	ug/L			04/04/15 21:14	50
Dibromochloromethane	50	U	50	6.8	ug/L			04/04/15 21:14	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			04/04/15 21:14	50
Chlorobenzene	50	U	50	6.8	ug/L			04/04/15 21:14	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			04/04/15 21:14	50
Ethylbenzene	50	U	50	11	ug/L			04/04/15 21:14	50
Xylenes, Total	150	U	150	24	ug/L			04/04/15 21:14	50
Styrene	50	U	50	4.8	ug/L			04/04/15 21:14	50
Bromoform	50	U	50	9.6	ug/L			04/04/15 21:14	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			04/04/15 21:14	50
Acrylonitrile	1000	U	1000	27	ug/L			04/04/15 21:14	50
1,4-Dioxane	10000	U	10000	1700	ug/L			04/04/15 21:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*		*04/04/15 21:14*	*50*
Toluene-d8 (Surr)	*114*		*71 - 118*		*04/04/15 21:14*	*50*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*		*04/04/15 21:14*	*50*
Dibromofluoromethane (Surr)	*108*		*70 - 128*		*04/04/15 21:14*	*50*

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

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 03/25/15 14:37
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	500	U	500	140	ug/L			04/06/15 11:48	500
Vinyl chloride	500	U	500	110	ug/L			04/06/15 11:48	500
Bromomethane	500	U	500	160	ug/L			04/06/15 11:48	500
Chloroethane	500	U	500	110	ug/L			04/06/15 11:48	500
1,1-Dichloroethene	500	U	500	150	ug/L			04/06/15 11:48	500
Acetone	2500	U	2500	1300	ug/L			04/06/15 11:48	500
Carbon disulfide	500	U	500	110	ug/L			04/06/15 11:48	500
Methylene Chloride	500	U	500	63	ug/L			04/06/15 11:48	500
trans-1,2-Dichloroethene	500	U	500	85	ug/L			04/06/15 11:48	500
Methyl tert-butyl ether	500	U	500	92	ug/L			04/06/15 11:48	500
1,1-Dichloroethane	500	U	500	58	ug/L			04/06/15 11:48	500
cis-1,2-Dichloroethene	**230**	**J**	500	120	ug/L			04/06/15 11:48	500
Bromochloromethane	500	U	500	90	ug/L			04/06/15 11:48	500
2-Butanone (MEK)	2500	U	2500	270	ug/L			04/06/15 11:48	500
Chloroform	500	U	500	85	ug/L			04/06/15 11:48	500
1,1,1-Trichloroethane	**390**	**J**	500	140	ug/L			04/06/15 11:48	500
Carbon tetrachloride	500	U	500	68	ug/L			04/06/15 11:48	500
Benzene	500	U	500	53	ug/L			04/06/15 11:48	500
1,2-Dichloroethane	500	U	500	110	ug/L			04/06/15 11:48	500
Trichloroethene	**2900**		500	72	ug/L			04/06/15 11:48	500
1,2-Dichloropropane	500	U	500	47	ug/L			04/06/15 11:48	500
Bromodichloromethane	500	U	500	65	ug/L			04/06/15 11:48	500
cis-1,3-Dichloropropene	500	U	500	93	ug/L			04/06/15 11:48	500
4-Methyl-2-pentanone (MIBK)	2500	U	2500	260	ug/L			04/06/15 11:48	500
Toluene	500	U	500	75	ug/L			04/06/15 11:48	500
trans-1,3-Dichloropropene	500	U	500	74	ug/L			04/06/15 11:48	500
1,1,2-Trichloroethane	500	U	500	100	ug/L			04/06/15 11:48	500
Tetrachloroethene	**14000**		500	74	ug/L			04/06/15 11:48	500
2-Hexanone	2500	U	2500	80	ug/L			04/06/15 11:48	500
Dibromochloromethane	500	U	500	68	ug/L			04/06/15 11:48	500
1,2-Dibromoethane (EDB)	500	U	500	90	ug/L			04/06/15 11:48	500
Chlorobenzene	500	U	500	68	ug/L			04/06/15 11:48	500
1,1,1,2-Tetrachloroethane	500	U	500	140	ug/L			04/06/15 11:48	500
Ethylbenzene	500	U	500	110	ug/L			04/06/15 11:48	500
Xylenes, Total	1500	U	1500	240	ug/L			04/06/15 11:48	500
Styrene	500	U	500	48	ug/L			04/06/15 11:48	500
Bromoform	500	U	500	96	ug/L			04/06/15 11:48	500
1,1,2,2-Tetrachloroethane	500	U	500	100	ug/L			04/06/15 11:48	500
Acrylonitrile	10000	U	10000	270	ug/L			04/06/15 11:48	500
1,4-Dioxane	100000	U	100000	17000	ug/L			04/06/15 11:48	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 135*		*04/06/15 11:48*	*500*
Toluene-d8 (Surr)	*106*		*71 - 118*		*04/06/15 11:48*	*500*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*04/06/15 11:48*	*500*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*04/06/15 11:48*	*500*

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

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 03/25/15 13:02
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	40	U	40	11	ug/L			04/04/15 23:30	40
Vinyl chloride	40	U	40	9.1	ug/L			04/04/15 23:30	40
Bromomethane	40	U	40	13	ug/L			04/04/15 23:30	40
Chloroethane	40	U	40	8.6	ug/L			04/04/15 23:30	40
1,1-Dichloroethene	40	U	40	12	ug/L			04/04/15 23:30	40
Acetone	200	U *	200	100	ug/L			04/04/15 23:30	40
Carbon disulfide	40	U	40	8.5	ug/L			04/04/15 23:30	40
Methylene Chloride	40	U	40	5.0	ug/L			04/04/15 23:30	40
trans-1,2-Dichloroethene	40	U	40	6.8	ug/L			04/04/15 23:30	40
Methyl tert-butyl ether	40	U	40	7.3	ug/L			04/04/15 23:30	40
1,1-Dichloroethane	40	U	40	4.7	ug/L			04/04/15 23:30	40
cis-1,2-Dichloroethene	**66**		40	9.5	ug/L			04/04/15 23:30	40
Bromochloromethane	40	U	40	7.2	ug/L			04/04/15 23:30	40
2-Butanone (MEK)	200	U	200	22	ug/L			04/04/15 23:30	40
Chloroform	40	U	40	6.8	ug/L			04/04/15 23:30	40
1,1,1-Trichloroethane	**66**		40	11	ug/L			04/04/15 23:30	40
Carbon tetrachloride	40	U	40	5.5	ug/L			04/04/15 23:30	40
Benzene	40	U	40	4.2	ug/L			04/04/15 23:30	40
1,2-Dichloroethane	40	U	40	8.5	ug/L			04/04/15 23:30	40
Trichloroethene	**200**		40	5.7	ug/L			04/04/15 23:30	40
1,2-Dichloropropane	40	U	40	3.8	ug/L			04/04/15 23:30	40
Bromodichloromethane	40	U	40	5.2	ug/L			04/04/15 23:30	40
cis-1,3-Dichloropropene	40	U	40	7.5	ug/L			04/04/15 23:30	40
4-Methyl-2-pentanone (MIBK)	200	U	200	21	ug/L			04/04/15 23:30	40
Toluene	40	U	40	6.0	ug/L			04/04/15 23:30	40
trans-1,3-Dichloropropene	40	U	40	5.9	ug/L			04/04/15 23:30	40
1,1,2-Trichloroethane	40	U	40	8.1	ug/L			04/04/15 23:30	40
Tetrachloroethene	**510**		40	5.9	ug/L			04/04/15 23:30	40
2-Hexanone	200	U	200	6.4	ug/L			04/04/15 23:30	40
Dibromochloromethane	40	U	40	5.5	ug/L			04/04/15 23:30	40
1,2-Dibromoethane (EDB)	40	U	40	7.2	ug/L			04/04/15 23:30	40
Chlorobenzene	40	U	40	5.4	ug/L			04/04/15 23:30	40
1,1,1,2-Tetrachloroethane	40	U	40	11	ug/L			04/04/15 23:30	40
Ethylbenzene	40	U	40	9.1	ug/L			04/04/15 23:30	40
Xylenes, Total	120	U	120	20	ug/L			04/04/15 23:30	40
Styrene	40	U	40	3.9	ug/L			04/04/15 23:30	40
Bromoform	40	U	40	7.7	ug/L			04/04/15 23:30	40
1,1,2,2-Tetrachloroethane	40	U	40	8.0	ug/L			04/04/15 23:30	40
Acrylonitrile	800	U	800	22	ug/L			04/04/15 23:30	40
1,4-Dioxane	8000	U	8000	1400	ug/L			04/04/15 23:30	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*04/04/15 23:30*	*40*
Toluene-d8 (Surr)	*112*		*71 - 118*		*04/04/15 23:30*	*40*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*04/04/15 23:30*	*40*
Dibromofluoromethane (Surr)	*126*		*70 - 128*		*04/04/15 23:30*	*40*

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

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 03/25/15 11:12
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/06/15 12:15	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/06/15 12:15	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/06/15 12:15	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/06/15 12:15	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/06/15 12:15	1
Acetone	5.0	U	5.0	2.5	ug/L			04/06/15 12:15	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/06/15 12:15	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/06/15 12:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/06/15 12:15	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/06/15 12:15	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/06/15 12:15	1
cis-1,2-Dichloroethene	**2.9**		1.0	0.24	ug/L			04/06/15 12:15	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/06/15 12:15	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/06/15 12:15	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/06/15 12:15	1
1,1,1-Trichloroethane	**0.48**	**J**	1.0	0.29	ug/L			04/06/15 12:15	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/06/15 12:15	1
Benzene	1.0	U	1.0	0.11	ug/L			04/06/15 12:15	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/06/15 12:15	1
Trichloroethene	**1.2**		1.0	0.14	ug/L			04/06/15 12:15	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/06/15 12:15	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/06/15 12:15	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/06/15 12:15	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/06/15 12:15	1
Toluene	1.0	U	1.0	0.15	ug/L			04/06/15 12:15	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/06/15 12:15	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/06/15 12:15	1
Tetrachloroethene	**5.6**		1.0	0.15	ug/L			04/06/15 12:15	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/06/15 12:15	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/06/15 12:15	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/06/15 12:15	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/06/15 12:15	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/06/15 12:15	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/06/15 12:15	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/06/15 12:15	1
Styrene	1.0	U	1.0	0.097	ug/L			04/06/15 12:15	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/06/15 12:15	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/06/15 12:15	1
Acrylonitrile	20	U	20	0.55	ug/L			04/06/15 12:15	1
1,4-Dioxane	200	U	200	34	ug/L			04/06/15 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 135*		*04/06/15 12:15*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*04/06/15 12:15*	*1*
4-Bromofluorobenzene (Surr)	*113*		*70 - 118*		*04/06/15 12:15*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/06/15 12:15*	*1*

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

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 03/25/15 15:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 16:59	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 16:59	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 16:59	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 16:59	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/03/15 16:59	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 16:59	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 16:59	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 16:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 16:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 16:59	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 16:59	1
cis-1,2-Dichloroethene	**1.6**		1.0	0.24	ug/L			04/03/15 16:59	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 16:59	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 16:59	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 16:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/03/15 16:59	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 16:59	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 16:59	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 16:59	1
Trichloroethene	**1.1**		1.0	0.14	ug/L			04/03/15 16:59	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 16:59	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 16:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 16:59	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 16:59	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 16:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 16:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 16:59	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/03/15 16:59	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 16:59	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 16:59	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 16:59	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 16:59	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 16:59	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 16:59	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 16:59	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 16:59	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 16:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 16:59	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 16:59	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*63*	*X*	*64 - 135*		*04/03/15 16:59*	*1*
Toluene-d8 (Surr)	*118*		*71 - 118*		*04/03/15 16:59*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*04/03/15 16:59*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 128*		*04/03/15 16:59*	*1*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 03/25/15 06:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.0	B	0.10	0.0062	mg/L			03/26/15 14:04	1
Chloride	190	B	1.0	0.20	mg/L			03/26/15 14:04	1
Sulfate	30		1.0	0.21	mg/L			03/26/15 14:04	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 03/25/15 06:15
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.9	B	0.10	0.0062	mg/L			03/26/15 17:10	1
Chloride	160	B	1.0	0.20	mg/L			03/26/15 17:10	1
Sulfate	36		1.0	0.21	mg/L			03/26/15 17:10	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 03/25/15 05:55
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.9	B	0.10	0.0062	mg/L			03/26/15 18:42	1
Chloride	300	B	10	2.0	mg/L			03/26/15 18:57	10
Sulfate	140		1.0	0.21	mg/L			03/26/15 18:42	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 03/25/15 06:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1	B	0.10	0.0062	mg/L			03/26/15 17:25	1
Chloride	100	B	1.0	0.20	mg/L			03/26/15 17:25	1
Sulfate	36		1.0	0.21	mg/L			03/26/15 17:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 03/25/15 06:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.4	B	0.10	0.0062	mg/L			03/26/15 18:26	1
Chloride	170	B	1.0	0.20	mg/L			03/26/15 18:26	1
Sulfate	29		1.0	0.21	mg/L			03/26/15 18:26	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 03/25/15 09:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8	B	0.10	0.0062	mg/L			03/26/15 17:40	1
Chloride	130	B	1.0	0.20	mg/L			03/26/15 17:40	1
Sulfate	35		1.0	0.21	mg/L			03/26/15 17:40	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 03/25/15 10:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.9	B	0.10	0.0062	mg/L			03/26/15 18:11	1
Chloride	160	B	1.0	0.20	mg/L			03/26/15 18:11	1
Sulfate	34		1.0	0.21	mg/L			03/26/15 18:11	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 03/25/15 14:37
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3	B	0.10	0.0062	mg/L			03/26/15 19:12	1
Chloride	140	B	1.0	0.20	mg/L			03/26/15 19:12	1
Sulfate	35		1.0	0.21	mg/L			03/26/15 19:12	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 03/25/15 13:02
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4	B	0.10	0.0062	mg/L			03/26/15 21:00	1
Chloride	220	B	5.0	0.98	mg/L			03/26/15 21:15	5
Sulfate	41		1.0	0.21	mg/L			03/26/15 21:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 03/25/15 11:12
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4	B	0.10	0.0062	mg/L			03/26/15 17:56	1
Chloride	130	B	1.0	0.20	mg/L			03/26/15 17:56	1
Sulfate	30		1.0	0.21	mg/L			03/26/15 17:56	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 03/25/15 15:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.79	B	0.10	0.0062	mg/L			03/26/15 20:14	1
Chloride	51	B	1.0	0.20	mg/L			03/26/15 20:14	1
Sulfate	38		1.0	0.21	mg/L			03/26/15 20:14	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 03/25/15 14:30
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.5	B	0.10	0.0062	mg/L			03/26/15 19:28	1
Chloride	120	B	1.0	0.20	mg/L			03/26/15 19:28	1
Sulfate	35		1.0	0.21	mg/L			03/26/15 19:28	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 03/25/15 06:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	95000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 18:39	1
Potassium	18000		100	5.8	ug/L		03/31/15 11:18	04/02/15 18:39	1
Magnesium	21000		100	1.2	ug/L		03/31/15 11:18	04/02/15 18:39	1
Sodium	91000		100	3.8	ug/L		03/31/15 11:18	04/02/15 18:39	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 03/25/15 06:15
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 18:43	1
Potassium	15000		100	5.8	ug/L		03/31/15 11:18	04/02/15 18:43	1
Magnesium	19000		100	1.2	ug/L		03/31/15 11:18	04/02/15 18:43	1
Sodium	56000		100	3.8	ug/L		03/31/15 11:18	04/02/15 18:43	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 03/25/15 05:55
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 18:47	1
Potassium	15000		100	5.8	ug/L		03/31/15 11:18	04/02/15 18:47	1
Magnesium	22000		100	1.2	ug/L		03/31/15 11:18	04/02/15 18:47	1
Sodium	94000		100	3.8	ug/L		03/31/15 11:18	04/02/15 18:47	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 03/25/15 06:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 18:52	1
Potassium	5600		100	5.8	ug/L		03/31/15 11:18	04/02/15 18:52	1
Magnesium	11000		100	1.2	ug/L		03/31/15 11:18	04/02/15 18:52	1
Sodium	39000		100	3.8	ug/L		03/31/15 11:18	04/02/15 18:52	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 03/25/15 06:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	91000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:08	1
Potassium	7600		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:08	1
Magnesium	19000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:08	1
Sodium	71000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:08	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 03/25/15 09:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	94000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:12	1
Potassium	4800		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:12	1
Magnesium	18000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:12	1
Sodium	58000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:12	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 03/25/15 10:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	97000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:16	1
Potassium	6000		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:16	1
Magnesium	19000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:16	1
Sodium	75000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:16	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 03/25/15 14:37
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	86000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:20	1
Potassium	6000		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:20	1
Magnesium	18000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:20	1
Sodium	63000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:20	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 03/25/15 13:02
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	87000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:25	1
Potassium	7800		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:25	1
Magnesium	20000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:25	1
Sodium	110000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 03/25/15 11:12
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	83000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:29	1
Potassium	24000		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:29	1
Magnesium	21000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:29	1
Sodium	64000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 03/25/15 15:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:33	1
Potassium	3000		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:33	1
Magnesium	7800		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:33	1
Sodium	26000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 03/25/15 14:30
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	100	2.8	ug/L		03/31/15 11:18	04/02/15 19:38	1
Potassium	35000		100	5.8	ug/L		03/31/15 11:18	04/02/15 19:38	1
Magnesium	11000		100	1.2	ug/L		03/31/15 11:18	04/02/15 19:38	1
Sodium	61000		100	3.8	ug/L		03/31/15 11:18	04/02/15 19:38	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 03/25/15 06:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**210**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 03/25/15 06:15
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**280**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 03/25/15 05:55
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**270**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 03/25/15 06:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**230**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 03/25/15 06:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 03/25/15 09:00
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 03/25/15 10:10
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**210**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 03/25/15 14:37
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 03/25/15 13:02
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**210**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 03/25/15 11:12
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 03/25/15 15:20
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**280**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

General Chemistry

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 03/25/15 14:30
Date Received: 03/26/15 09:10

Lab Sample ID: 180-42391-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**230**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

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

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL	MDL	Units	Method
Chloride	1.0	0.20	mg/L	300.0
Nitrate as N	0.10	0.0062	mg/L	300.0
Sulfate	1.0	0.21	mg/L	300.0

Method: 6020A - Metals (ICP/MS)

Analyte	RL	MDL	Units	Method
Calcium	100	2.8	ug/L	6020A

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	RL	MDL	Units	Method
Magnesium	100	1.2	ug/L	6020A
Potassium	100	5.8	ug/L	6020A
Sodium	100	3.8	ug/L	6020A

General Chemistry

Analyte	RL	MDL	Units	Method
Bicarbonate Alkalinity as CaCO3	5.0	0.41	mg/L	SM 2320B
Carbonate Alkalinity as CaCO3	5.0	0.41	mg/L	SM 2320B
Total Alkalinity as CaCO3 to pH 4.5	5.0	0.41	mg/L	SM 2320B

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(64-135)	(71-118)	(70-118)	(70-128)
180-42391-1	HD-QC3-0/1-2	89	99	94	105
180-42391-2	HD-CW-9-0/1-0	93	110	109	105
180-42391-3 - DL	HD-CW-13-0/1-0	104	118	110	118
180-42391-3	HD-CW-13-0/1-0	95	113	102	105
180-42391-4	HD-CW-15A-0/1-0	105	111	105	116
180-42391-5	HD-CW-17-0/1-0	96	116	111	120
180-42391-6	HD-CW-20-0/1-0	85	112	97	101
180-42391-6 - DL	HD-CW-20-0/1-0	93	114	99	108
180-42391-7	HD-MW-100D-0/1-0	97	112	108	119
180-42391-8	HD-MW-147A-0/1-0	90	108	96	109
180-42391-9	HD-MW-75S-0/1-0	93	117	105	115
180-42391-9 - DL	HD-MW-75S-0/1-0	87	106	101	107
180-42391-10	HD-MW-37D-0/1-0	85	114	99	101
180-42391-10 - DL	HD-MW-37D-0/1-0	108	112	106	126
180-42391-11	HD-MW-37S-0/1-0	85	112	102	102
180-42391-11 - DL	HD-MW-37S-0/1-0	87	107	113	105
180-42391-12	HD-MW-95-0/1-0	54 X	118	77	81
180-42391-12 - RA	HD-MW-95-0/1-0	63 X	118	86	90
180-42391-13	HD-MW-7-0/1-0	88	111	93	101
LCS 180-137438/12	Lab Control Sample	90	103	103	101
LCS 180-137512/8	Lab Control Sample	96	103	104	101
LCS 180-137564/13	Lab Control Sample	88	107	95	97
LCSD 180-137512/9	Lab Control Sample Dup	98	109	102	105
MB 180-137305/6	Method Blank	100	114	102	116
MB 180-137438/6	Method Blank	104	117	106	119
MB 180-137512/6	Method Blank	89	108	103	114
MB 180-137564/6	Method Blank	91	114	103	112

Surrogate Legend

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

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

Lab Sample ID: MB 180-137305/6
Matrix: Water
Analysis Batch: 137305

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/02/15 12:11	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/02/15 12:11	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/02/15 12:11	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 12:11	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/02/15 12:11	1
Acetone	5.0	U	5.0	2.5	ug/L			04/02/15 12:11	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/02/15 12:11	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/02/15 12:11	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/02/15 12:11	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/02/15 12:11	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/02/15 12:11	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/02/15 12:11	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/02/15 12:11	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/02/15 12:11	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/02/15 12:11	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/02/15 12:11	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/02/15 12:11	1
Benzene	1.0	U	1.0	0.11	ug/L			04/02/15 12:11	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 12:11	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/02/15 12:11	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/02/15 12:11	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/02/15 12:11	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/02/15 12:11	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/02/15 12:11	1
Toluene	1.0	U	1.0	0.15	ug/L			04/02/15 12:11	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/02/15 12:11	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 12:11	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/02/15 12:11	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/02/15 12:11	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/02/15 12:11	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/02/15 12:11	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/02/15 12:11	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/02/15 12:11	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/02/15 12:11	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/02/15 12:11	1
Styrene	1.0	U	1.0	0.097	ug/L			04/02/15 12:11	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/02/15 12:11	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 12:11	1
Acrylonitrile	20	U	20	0.55	ug/L			04/02/15 12:11	1
1,4-Dioxane	200	U	200	34	ug/L			04/02/15 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*04/02/15 12:11*	*1*
Toluene-d8 (Surr)	*114*		*71 - 118*		*04/02/15 12:11*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*04/02/15 12:11*	*1*
Dibromofluoromethane (Surr)	*116*		*70 - 128*		*04/02/15 12:11*	*1*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

Lab Sample ID: MB 180-137438/6
Matrix: Water
Analysis Batch: 137438

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 11:46	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 11:46	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 11:46	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 11:46	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/03/15 11:46	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 11:46	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 11:46	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 11:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 11:46	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 11:46	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 11:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/03/15 11:46	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 11:46	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 11:46	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 11:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/03/15 11:46	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 11:46	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 11:46	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 11:46	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/03/15 11:46	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 11:46	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 11:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 11:46	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 11:46	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 11:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 11:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 11:46	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/03/15 11:46	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 11:46	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 11:46	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 11:46	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 11:46	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 11:46	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 11:46	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 11:46	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 11:46	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 11:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 11:46	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 11:46	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 11:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*		*04/03/15 11:46*	*1*
Toluene-d8 (Surr)	*117*		*71 - 118*		*04/03/15 11:46*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*04/03/15 11:46*	*1*
Dibromofluoromethane (Surr)	*119*		*70 - 128*		*04/03/15 11:46*	*1*

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

Lab Sample ID: LCS 180-137438/12
Matrix: Water
Analysis Batch: 137438

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.36		ug/L		94	50 - 139
Vinyl chloride	10.0	9.59		ug/L		96	53 - 138
Bromomethane	10.0	11.9		ug/L		119	33 - 150
Chloroethane	10.0	10.8		ug/L		108	36 - 142
1,1-Dichloroethene	10.0	10.3		ug/L		103	65 - 136
Acetone	20.0	12.9		ug/L		65	22 - 150
Carbon disulfide	10.0	10.4		ug/L		104	54 - 132
Methylene Chloride	10.0	10.9		ug/L		109	63 - 129
trans-1,2-Dichloroethene	10.0	9.81		ug/L		98	73 - 126
Methyl tert-butyl ether	10.0	10.1		ug/L		101	64 - 123
1,1-Dichloroethane	10.0	10.2		ug/L		102	73 - 126
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	70 - 120
Bromochloromethane	10.0	9.71		ug/L		97	70 - 127
2-Butanone (MEK)	20.0	14.4		ug/L		72	39 - 138
Chloroform	10.0	10.4		ug/L		104	72 - 127
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	63 - 133
Carbon tetrachloride	10.0	10.6		ug/L		106	55 - 150
Benzene	10.0	9.58		ug/L		96	80 - 120
1,2-Dichloroethane	10.0	9.10		ug/L		91	68 - 132
Trichloroethene	10.0	9.30		ug/L		93	73 - 120
1,2-Dichloropropane	10.0	9.48		ug/L		95	76 - 124
Bromodichloromethane	10.0	9.81		ug/L		98	66 - 130
cis-1,3-Dichloropropene	10.0	9.37		ug/L		94	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.4		ug/L		82	45 - 145
Toluene	10.0	8.88		ug/L		89	80 - 123
trans-1,3-Dichloropropene	10.0	9.17		ug/L		92	65 - 125
1,1,2-Trichloroethane	10.0	9.20		ug/L		92	77 - 127
Tetrachloroethene	10.0	8.89		ug/L		89	70 - 135
2-Hexanone	20.0	15.8		ug/L		79	25 - 132
Dibromochloromethane	10.0	9.31		ug/L		93	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.09		ug/L		91	74 - 123
Chlorobenzene	10.0	9.73		ug/L		97	80 - 120
1,1,1,2-Tetrachloroethane	10.0	8.90		ug/L		89	63 - 140
Ethylbenzene	10.0	8.72		ug/L		87	72 - 126
Xylenes, Total	20.0	17.3		ug/L		87	76 - 128
Styrene	10.0	9.69		ug/L		97	71 - 127
Bromoform	10.0	9.43		ug/L		94	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.2		ug/L		102	62 - 125
1,4-Dioxane	200	169	J	ug/L		84	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*
Dibromofluoromethane (Surr)	*101*		*70 - 128*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

Lab Sample ID: MB 180-137512/6
Matrix: Water
Analysis Batch: 137512

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/04/15 15:41	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/04/15 15:41	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/04/15 15:41	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 15:41	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/04/15 15:41	1
Acetone	5.0	U	5.0	2.5	ug/L			04/04/15 15:41	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/04/15 15:41	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/04/15 15:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/04/15 15:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/04/15 15:41	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/04/15 15:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/04/15 15:41	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/04/15 15:41	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/04/15 15:41	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/04/15 15:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/04/15 15:41	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/04/15 15:41	1
Benzene	1.0	U	1.0	0.11	ug/L			04/04/15 15:41	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 15:41	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/04/15 15:41	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/04/15 15:41	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/04/15 15:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/04/15 15:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/04/15 15:41	1
Toluene	1.0	U	1.0	0.15	ug/L			04/04/15 15:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/04/15 15:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 15:41	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/04/15 15:41	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/04/15 15:41	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/04/15 15:41	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/04/15 15:41	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/04/15 15:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/04/15 15:41	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/04/15 15:41	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/04/15 15:41	1
Styrene	1.0	U	1.0	0.097	ug/L			04/04/15 15:41	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/04/15 15:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 15:41	1
Acrylonitrile	20	U	20	0.55	ug/L			04/04/15 15:41	1
1,4-Dioxane	200	U	200	34	ug/L			04/04/15 15:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 135*		*04/04/15 15:41*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*04/04/15 15:41*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*04/04/15 15:41*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 128*		*04/04/15 15:41*	*1*

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

Lab Sample ID: LCS 180-137512/8
Matrix: Water
Analysis Batch: 137512

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	7.81		ug/L		78	50 - 139
Vinyl chloride	10.0	8.15		ug/L		81	53 - 138
Bromomethane	10.0	11.9		ug/L		119	33 - 150
Chloroethane	10.0	9.96		ug/L		100	36 - 142
1,1-Dichloroethene	10.0	10.4		ug/L		104	65 - 136
Acetone	20.0	32.8	*	ug/L		164	22 - 150
Carbon disulfide	10.0	11.1		ug/L		111	54 - 132
Methylene Chloride	10.0	11.3		ug/L		113	63 - 129
trans-1,2-Dichloroethene	10.0	9.54		ug/L		95	73 - 126
Methyl tert-butyl ether	10.0	11.7		ug/L		117	64 - 123
1,1-Dichloroethane	10.0	10.3		ug/L		103	73 - 126
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	70 - 120
Bromochloromethane	10.0	10.4		ug/L		104	70 - 127
2-Butanone (MEK)	20.0	21.7		ug/L		109	39 - 138
Chloroform	10.0	10.4		ug/L		104	72 - 127
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	63 - 133
Carbon tetrachloride	10.0	9.88		ug/L		99	55 - 150
Benzene	10.0	10.1		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	9.76		ug/L		98	68 - 132
Trichloroethene	10.0	8.78		ug/L		88	73 - 120
1,2-Dichloropropane	10.0	9.51		ug/L		95	76 - 124
Bromodichloromethane	10.0	9.88		ug/L		99	66 - 130
cis-1,3-Dichloropropene	10.0	9.20		ug/L		92	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.2		ug/L		96	45 - 145
Toluene	10.0	8.87		ug/L		89	80 - 123
trans-1,3-Dichloropropene	10.0	8.58		ug/L		86	65 - 125
1,1,2-Trichloroethane	10.0	9.68		ug/L		97	77 - 127
Tetrachloroethene	10.0	7.43		ug/L		74	70 - 135
2-Hexanone	20.0	24.3		ug/L		121	25 - 132
Dibromochloromethane	10.0	9.69		ug/L		97	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.0		ug/L		100	74 - 123
Chlorobenzene	10.0	9.61		ug/L		96	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.47		ug/L		95	63 - 140
Ethylbenzene	10.0	8.13		ug/L		81	72 - 126
Xylenes, Total	20.0	16.7		ug/L		84	76 - 128
Styrene	10.0	9.95		ug/L		99	71 - 127
Bromoform	10.0	10.2		ug/L		102	46 - 150
1,1,2,2-Tetrachloroethane	10.0	11.1		ug/L		111	62 - 125
1,4-Dioxane	200	197	J	ug/L		98	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*104*		*70 - 118*
Dibromofluoromethane (Surr)	*101*		*70 - 128*

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

Lab Sample ID: LCSD 180-137512/9
Matrix: Water
Analysis Batch: 137512

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane			10.0	8.38		ug/L		84	50 - 139	7	35
Vinyl chloride			10.0	8.38		ug/L		84	53 - 138	3	35
Bromomethane			10.0	11.6		ug/L		116	33 - 150	3	35
Chloroethane			10.0	9.68		ug/L		97	36 - 142	3	35
1,1-Dichloroethene			10.0	11.0		ug/L		110	65 - 136	5	35
Acetone			20.0	27.9		ug/L		140	22 - 150	16	35
Carbon disulfide			10.0	11.2		ug/L		112	54 - 132	1	35
Methylene Chloride			10.0	11.8		ug/L		118	63 - 129	4	35
trans-1,2-Dichloroethene			10.0	10.1		ug/L		101	73 - 126	6	35
Methyl tert-butyl ether			10.0	11.2		ug/L		112	64 - 123	4	35
1,1-Dichloroethane			10.0	11.1		ug/L		111	73 - 126	7	35
cis-1,2-Dichloroethene			10.0	10.7		ug/L		107	70 - 120	5	35
Bromochloromethane			10.0	10.9		ug/L		109	70 - 127	4	35
2-Butanone (MEK)			20.0	20.8		ug/L		104	39 - 138	4	35
Chloroform			10.0	10.5		ug/L		105	72 - 127	1	35
1,1,1-Trichloroethane			10.0	10.7		ug/L		107	63 - 133	5	35
Carbon tetrachloride			10.0	10.3		ug/L		103	55 - 150	4	35
Benzene			10.0	10.7		ug/L		107	80 - 120	6	32
1,2-Dichloroethane			10.0	9.70		ug/L		97	68 - 132	1	32
Trichloroethene			10.0	9.67		ug/L		97	73 - 120	10	35
1,2-Dichloropropane			10.0	9.74		ug/L		97	76 - 124	2	34
Bromodichloromethane			10.0	10.3		ug/L		103	66 - 130	4	35
cis-1,3-Dichloropropene			10.0	9.96		ug/L		100	66 - 120	8	35
4-Methyl-2-pentanone (MIBK)			20.0	20.1		ug/L		100	45 - 145	4	35
Toluene			10.0	9.79		ug/L		98	80 - 123	10	35
trans-1,3-Dichloropropene			10.0	9.43		ug/L		94	65 - 125	9	35
1,1,2-Trichloroethane			10.0	10.1		ug/L		101	77 - 127	4	35
Tetrachloroethene			10.0	8.14		ug/L		81	70 - 135	9	35
2-Hexanone			20.0	25.7		ug/L		128	25 - 132	6	35
Dibromochloromethane			10.0	9.92		ug/L		99	60 - 140	2	35
1,2-Dibromoethane (EDB)			10.0	9.93		ug/L		99	74 - 123	1	35
Chlorobenzene			10.0	9.97		ug/L		100	80 - 120	4	29
1,1,1,2-Tetrachloroethane			10.0	9.65		ug/L		97	63 - 140	2	34
Ethylbenzene			10.0	8.61		ug/L		86	72 - 126	6	33
Xylenes, Total			20.0	17.4		ug/L		87	76 - 128	4	32
Styrene			10.0	10.0		ug/L		100	71 - 127	1	34
Bromoform			10.0	9.81		ug/L		98	46 - 150	4	35
1,1,2,2-Tetrachloroethane			10.0	10.6		ug/L		106	62 - 125	4	35
1,4-Dioxane			200	201		ug/L		101	10 - 160	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*
Toluene-d8 (Surr)	*109*		*71 - 118*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*
Dibromofluoromethane (Surr)	*105*		*70 - 128*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

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

Lab Sample ID: MB 180-137564/6
Matrix: Water
Analysis Batch: 137564

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/06/15 11:09	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/06/15 11:09	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/06/15 11:09	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/06/15 11:09	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/06/15 11:09	1
Acetone	5.0	U	5.0	2.5	ug/L			04/06/15 11:09	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/06/15 11:09	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/06/15 11:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/06/15 11:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/06/15 11:09	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/06/15 11:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/06/15 11:09	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/06/15 11:09	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/06/15 11:09	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/06/15 11:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/06/15 11:09	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/06/15 11:09	1
Benzene	1.0	U	1.0	0.11	ug/L			04/06/15 11:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/06/15 11:09	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/06/15 11:09	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/06/15 11:09	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/06/15 11:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/06/15 11:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/06/15 11:09	1
Toluene	1.0	U	1.0	0.15	ug/L			04/06/15 11:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/06/15 11:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/06/15 11:09	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/06/15 11:09	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/06/15 11:09	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/06/15 11:09	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/06/15 11:09	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/06/15 11:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/06/15 11:09	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/06/15 11:09	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/06/15 11:09	1
Styrene	1.0	U	1.0	0.097	ug/L			04/06/15 11:09	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/06/15 11:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/06/15 11:09	1
Acrylonitrile	20	U	20	0.55	ug/L			04/06/15 11:09	1
1,4-Dioxane	200	U	200	34	ug/L			04/06/15 11:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 135*		*04/06/15 11:09*	*1*
Toluene-d8 (Surr)	*114*		*71 - 118*		*04/06/15 11:09*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*04/06/15 11:09*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*04/06/15 11:09*	*1*

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

Lab Sample ID: LCS 180-137564/13
Matrix: Water
Analysis Batch: 137564

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	8.50		ug/L		85	50 - 139
Vinyl chloride	10.0	7.89		ug/L		79	53 - 138
Bromomethane	10.0	11.6		ug/L		116	33 - 150
Chloroethane	10.0	9.76		ug/L		98	36 - 142
1,1-Dichloroethene	10.0	10.4		ug/L		104	65 - 136
Acetone	10.0	5.10		ug/L		51	22 - 150
Carbon disulfide	10.0	9.55		ug/L		95	54 - 132
Methylene Chloride	10.0	9.25		ug/L		92	63 - 129
trans-1,2-Dichloroethene	10.0	9.30		ug/L		93	73 - 126
Methyl tert-butyl ether	10.0	10.2		ug/L		102	64 - 123
1,1-Dichloroethane	10.0	9.48		ug/L		95	73 - 126
cis-1,2-Dichloroethene	10.0	9.68		ug/L		97	70 - 120
Bromochloromethane	10.0	9.14		ug/L		91	70 - 127
2-Butanone (MEK)	10.0	6.55		ug/L		66	39 - 138
Chloroform	10.0	9.32		ug/L		93	72 - 127
1,1,1-Trichloroethane	10.0	9.82		ug/L		98	63 - 133
Carbon tetrachloride	10.0	10.1		ug/L		101	55 - 150
Benzene	10.0	8.92		ug/L		89	80 - 120
1,2-Dichloroethane	10.0	8.87		ug/L		89	68 - 132
Trichloroethene	10.0	8.88		ug/L		89	73 - 120
1,2-Dichloropropane	10.0	8.87		ug/L		89	76 - 124
Bromodichloromethane	10.0	9.32		ug/L		93	66 - 130
cis-1,3-Dichloropropene	10.0	8.93		ug/L		89	66 - 120
4-Methyl-2-pentanone (MIBK)	10.0	8.82		ug/L		88	45 - 145
Toluene	10.0	9.32		ug/L		93	80 - 123
trans-1,3-Dichloropropene	10.0	9.63		ug/L		96	65 - 125
1,1,2-Trichloroethane	10.0	9.08		ug/L		91	77 - 127
Tetrachloroethene	10.0	8.12		ug/L		81	70 - 135
2-Hexanone	10.0	8.49		ug/L		85	25 - 132
Dibromochloromethane	10.0	9.40		ug/L		94	60 - 140
1,2-Dibromoethane (EDB)	10.0	8.99		ug/L		90	74 - 123
Chlorobenzene	10.0	9.63		ug/L		96	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.12		ug/L		91	63 - 140
Ethylbenzene	10.0	8.70		ug/L		87	72 - 126
Xylenes, Total	20.0	16.8		ug/L		84	76 - 128
Styrene	10.0	9.66		ug/L		97	71 - 127
Bromoform	10.0	9.32		ug/L		93	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.80		ug/L		98	62 - 125
1,4-Dioxane	200	85.3	J	ug/L		43	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*64 - 135*
Toluene-d8 (Surr)	*107*		*71 - 118*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*
Dibromofluoromethane (Surr)	*97*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-136678/6
Matrix: Water
Analysis Batch: 136678

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0306	J	0.10	0.0062	mg/L			03/26/15 12:02	1
Chloride	0.367	J	1.0	0.20	mg/L			03/26/15 12:02	1
Sulfate	1.0	U	1.0	0.21	mg/L			03/26/15 12:02	1

Lab Sample ID: LCS 180-136678/5
Matrix: Water
Analysis Batch: 136678

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.51		mg/L		100	90 - 110
Chloride	50.0	47.8		mg/L		96	90 - 110
Sulfate	50.0	48.1		mg/L		96	90 - 110

Lab Sample ID: 180-42391-12 MS
Matrix: Water
Analysis Batch: 136678

Client Sample ID: HD-MW-95-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.79	B	1.25	2.05		mg/L		101	80 - 120
Chloride	51	B	25.0	76.3		mg/L		100	80 - 120
Sulfate	38		25.0	62.3		mg/L		98	80 - 120

Lab Sample ID: 180-42391-12 MSD
Matrix: Water
Analysis Batch: 136678

Client Sample ID: HD-MW-95-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.79	B	1.25	2.05		mg/L		101	80 - 120	0	20
Chloride	51	B	25.0	76.0		mg/L		99	80 - 120	0	20
Sulfate	38		25.0	62.1		mg/L		97	80 - 120	0	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 180-137092/1-A
Matrix: Water
Analysis Batch: 137424

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 137092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	4.19	J	100	2.8	ug/L		03/31/15 11:18	04/02/15 17:44	1
Potassium	100	U	100	5.8	ug/L		03/31/15 11:18	04/02/15 17:44	1
Magnesium	100	U	100	1.2	ug/L		03/31/15 11:18	04/02/15 17:44	1
Sodium	100	U	100	3.8	ug/L		03/31/15 11:18	04/02/15 17:44	1

Lab Sample ID: LCS 180-137092/2-A
Matrix: Water
Analysis Batch: 137424

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 137092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	49900		ug/L		100	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-137092/2-A
Matrix: Water
Analysis Batch: 137424

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 137092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	50000	49100		ug/L		98	80 - 120
Magnesium	50000	43000		ug/L		86	80 - 120
Sodium	50000	46700		ug/L		93	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-137060/2
Matrix: Water
Analysis Batch: 137060

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	4.12	J	5.0	0.41	mg/L			03/31/15 09:34	1
Bicarbonate Alkalinity as CaCO3	4.12	J	5.0	0.41	mg/L			03/31/15 09:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/31/15 09:34	1

Lab Sample ID: LCS 180-137060/1
Matrix: Water
Analysis Batch: 137060

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	251		mg/L		101	80 - 120

Lab Sample ID: 180-42391-2 DU
Matrix: Water
Analysis Batch: 137060

Client Sample ID: HD-CW-9-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	210	B	210		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	210	B	210		mg/L		1	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

Lab Sample ID: 180-42391-13 DU
Matrix: Water
Analysis Batch: 137060

Client Sample ID: HD-MW-7-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	230	B	231		mg/L		0	20
Bicarbonate Alkalinity as CaCO3	230	B	231		mg/L		0	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

GC/MS VOA

Analysis Batch: 137305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-1	HD-QC3-0/1-2	Total/NA	Water	8260C	
180-42391-3 - DL	HD-CW-13-0/1-0	Total/NA	Water	8260C	
180-42391-4	HD-CW-15A-0/1-0	Total/NA	Water	8260C	
180-42391-5	HD-CW-17-0/1-0	Total/NA	Water	8260C	
180-42391-8	HD-MW-147A-0/1-0	Total/NA	Water	8260C	
180-42391-9	HD-MW-75S-0/1-0	Total/NA	Water	8260C	
MB 180-137305/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 137438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-6	HD-CW-20-0/1-0	Total/NA	Water	8260C	
180-42391-10	HD-MW-37D-0/1-0	Total/NA	Water	8260C	
180-42391-11	HD-MW-37S-0/1-0	Total/NA	Water	8260C	
180-42391-12	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-42391-12 - RA	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-42391-13	HD-MW-7-0/1-0	Total/NA	Water	8260C	
LCS 180-137438/12	Lab Control Sample	Total/NA	Water	8260C	
MB 180-137438/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 137512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-3	HD-CW-13-0/1-0	Total/NA	Water	8260C	
180-42391-6 - DL	HD-CW-20-0/1-0	Total/NA	Water	8260C	
180-42391-7	HD-MW-100D-0/1-0	Total/NA	Water	8260C	
180-42391-10 - DL	HD-MW-37D-0/1-0	Total/NA	Water	8260C	
LCS 180-137512/8	Lab Control Sample	Total/NA	Water	8260C	
LCSD 180-137512/9	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 180-137512/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 137564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-2	HD-CW-9-0/1-0	Total/NA	Water	8260C	
180-42391-9 - DL	HD-MW-75S-0/1-0	Total/NA	Water	8260C	
180-42391-11 - DL	HD-MW-37S-0/1-0	Total/NA	Water	8260C	
LCS 180-137564/13	Lab Control Sample	Total/NA	Water	8260C	
MB 180-137564/6	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 136678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-2	HD-CW-9-0/1-0	Total/NA	Water	300.0	
180-42391-3	HD-CW-13-0/1-0	Total/NA	Water	300.0	
180-42391-4	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-42391-4	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-42391-5	HD-CW-17-0/1-0	Total/NA	Water	300.0	
180-42391-6	HD-CW-20-0/1-0	Total/NA	Water	300.0	
180-42391-7	HD-MW-100D-0/1-0	Total/NA	Water	300.0	
180-42391-8	HD-MW-147A-0/1-0	Total/NA	Water	300.0	
180-42391-9	HD-MW-75S-0/1-0	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 136678 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-10	HD-MW-37D-0/1-0	Total/NA	Water	300.0	
180-42391-10	HD-MW-37D-0/1-0	Total/NA	Water	300.0	
180-42391-11	HD-MW-37S-0/1-0	Total/NA	Water	300.0	
180-42391-12	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-42391-12 MS	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-42391-12 MSD	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-42391-13	HD-MW-7-0/1-0	Total/NA	Water	300.0	
LCS 180-136678/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-136678/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 137092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-2	HD-CW-9-0/1-0	Total/NA	Water	3005A	
180-42391-3	HD-CW-13-0/1-0	Total/NA	Water	3005A	
180-42391-4	HD-CW-15A-0/1-0	Total/NA	Water	3005A	
180-42391-5	HD-CW-17-0/1-0	Total/NA	Water	3005A	
180-42391-6	HD-CW-20-0/1-0	Total/NA	Water	3005A	
180-42391-7	HD-MW-100D-0/1-0	Total/NA	Water	3005A	
180-42391-8	HD-MW-147A-0/1-0	Total/NA	Water	3005A	
180-42391-9	HD-MW-75S-0/1-0	Total/NA	Water	3005A	
180-42391-10	HD-MW-37D-0/1-0	Total/NA	Water	3005A	
180-42391-11	HD-MW-37S-0/1-0	Total/NA	Water	3005A	
180-42391-12	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-42391-13	HD-MW-7-0/1-0	Total/NA	Water	3005A	
LCS 180-137092/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-137092/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 137424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-2	HD-CW-9-0/1-0	Total/NA	Water	6020A	137092
180-42391-3	HD-CW-13-0/1-0	Total/NA	Water	6020A	137092
180-42391-4	HD-CW-15A-0/1-0	Total/NA	Water	6020A	137092
180-42391-5	HD-CW-17-0/1-0	Total/NA	Water	6020A	137092
180-42391-6	HD-CW-20-0/1-0	Total/NA	Water	6020A	137092
180-42391-7	HD-MW-100D-0/1-0	Total/NA	Water	6020A	137092
180-42391-8	HD-MW-147A-0/1-0	Total/NA	Water	6020A	137092
180-42391-9	HD-MW-75S-0/1-0	Total/NA	Water	6020A	137092
180-42391-10	HD-MW-37D-0/1-0	Total/NA	Water	6020A	137092
180-42391-11	HD-MW-37S-0/1-0	Total/NA	Water	6020A	137092
180-42391-12	HD-MW-95-0/1-0	Total/NA	Water	6020A	137092
180-42391-13	HD-MW-7-0/1-0	Total/NA	Water	6020A	137092
CRI 180-137424/7	DL		Water	6020A	
CRI 180-137424/80	DL		Water	6020A	
ICSA 180-137424/8	ICS		Water	6020A	
ICSAB 180-137424/9	ICS		Water	6020A	
LCS 180-137092/2-A	Lab Control Sample	Total Recoverable	Water	6020A	137092
MB 180-137092/1-A	Method Blank	Total Recoverable	Water	6020A	137092

General Chemistry

Analysis Batch: 137060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42391-2	HD-CW-9-0/1-0	Total/NA	Water	SM 2320B	
180-42391-2 DU	HD-CW-9-0/1-0	Total/NA	Water	SM 2320B	
180-42391-3	HD-CW-13-0/1-0	Total/NA	Water	SM 2320B	
180-42391-4	HD-CW-15A-0/1-0	Total/NA	Water	SM 2320B	
180-42391-5	HD-CW-17-0/1-0	Total/NA	Water	SM 2320B	
180-42391-6	HD-CW-20-0/1-0	Total/NA	Water	SM 2320B	
180-42391-7	HD-MW-100D-0/1-0	Total/NA	Water	SM 2320B	
180-42391-8	HD-MW-147A-0/1-0	Total/NA	Water	SM 2320B	
180-42391-9	HD-MW-75S-0/1-0	Total/NA	Water	SM 2320B	
180-42391-10	HD-MW-37D-0/1-0	Total/NA	Water	SM 2320B	
180-42391-11	HD-MW-37S-0/1-0	Total/NA	Water	SM 2320B	
180-42391-12	HD-MW-95-0/1-0	Total/NA	Water	SM 2320B	
180-42391-13	HD-MW-7-0/1-0	Total/NA	Water	SM 2320B	
180-42391-13 DU	HD-MW-7-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-137060/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-137060/2	Method Blank	Total/NA	Water	SM 2320B	

Client Sample ID: HD-QC3-0/1-2

Lab Sample ID: 180-42391-1

Date Collected: 03/25/15 12:00

Matrix: Water

Date Received: 03/26/15 09:10

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	20 mL	20 mL	137305	04/02/15 15:23	PJJ	TAL PIT
	Instrument ID: CHHP7									

Client Sample ID: HD-CW-9-0/1-0

Lab Sample ID: 180-42391-2

Date Collected: 03/25/15 06:00

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	20 mL	20 mL	137564	04/06/15 12:54	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 14:04	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 18:39	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-13-0/1-0

Lab Sample ID: 180-42391-3

Date Collected: 03/25/15 06:15

Matrix: Water

Date Received: 03/26/15 09:10

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	25	20 mL	20 mL	137305	04/02/15 13:33	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C		2.5	20 mL	20 mL	137512	04/04/15 18:59	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 17:10	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 18:43	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-15A-0/1-0

Lab Sample ID: 180-42391-4

Date Collected: 03/25/15 05:55

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1000	20 mL	20 mL	137305	04/02/15 14:01	PJJ	TAL PIT
	Instrument ID: CHHP7									

Client Sample ID: HD-CW-15A-0/1-0

Lab Sample ID: 180-42391-4

Date Collected: 03/25/15 05:55

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 18:42	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		10	1 mL		136678	03/26/15 18:57	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 18:47	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-17-0/1-0

Lab Sample ID: 180-42391-5

Date Collected: 03/25/15 06:20

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	20 mL	20 mL	137305	04/02/15 14:28	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 17:25	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 18:52	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-20-0/1-0

Lab Sample ID: 180-42391-6

Date Collected: 03/25/15 06:10

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	20 mL	20 mL	137438	04/03/15 13:22	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	50	20 mL	20 mL	137512	04/04/15 21:14	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 18:26	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:08	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-100D-0/1-0

Lab Sample ID: 180-42391-7

Date Collected: 03/25/15 09:00

Matrix: Water

Date Received: 03/26/15 09:10

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	20 mL	20 mL	137512	04/04/15 22:36	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 17:40	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:12	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-147A-0/1-0

Lab Sample ID: 180-42391-8

Date Collected: 03/25/15 10:10

Matrix: Water

Date Received: 03/26/15 09:10

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	20 mL	20 mL	137305	04/02/15 18:07	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 18:11	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:16	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-75S-0/1-0

Lab Sample ID: 180-42391-9

Date Collected: 03/25/15 14:37

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	20 mL	20 mL	137305	04/02/15 19:28	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	500	20 mL	20 mL	137564	04/06/15 11:48	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 19:12	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:20	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-37D-0/1-0

Lab Sample ID: 180-42391-10

Date Collected: 03/25/15 13:02

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	20 mL	20 mL	137438	04/03/15 17:26	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	40	20 mL	20 mL	137512	04/04/15 23:30	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 21:00	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL		136678	03/26/15 21:15	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:25	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-37S-0/1-0

Lab Sample ID: 180-42391-11

Date Collected: 03/25/15 11:12

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	20 mL	20 mL	137438	04/03/15 17:53	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	1	20 mL	20 mL	137564	04/06/15 12:15	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 17:56	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:29	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-95-0/1-0

Lab Sample ID: 180-42391-12

Date Collected: 03/25/15 15:20

Matrix: Water

Date Received: 03/26/15 09:10

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	20 mL	20 mL	137438	04/03/15 16:05	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	RA	1	20 mL	20 mL	137438	04/03/15 16:59	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 20:14	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT

Client Sample ID: HD-MW-95-0/1-0

Lab Sample ID: 180-42391-12

Date Collected: 03/25/15 15:20

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:33	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-7-0/1-0

Lab Sample ID: 180-42391-13

Date Collected: 03/25/15 14:30

Matrix: Water

Date Received: 03/26/15 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	20 mL	20 mL	137438	04/03/15 16:32	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		136678	03/26/15 19:28	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137092	03/31/15 11:18	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137424	04/02/15 19:38	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137060	03/31/15 09:34	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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: Prep

AB1 = Ashwin Baikadi

Batch Type: Analysis

CLL = Cheryl Loheyde

CNF = Caitlin Ferguson

MJH = Matthew Hartman

PJJ = Patrick Journet

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-15 *

* Certification renewal pending - certification considered valid.

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42391-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT
300.0	Anions, Ion Chromatography	MCAWW	TAL PIT
6020A	Metals (ICP/MS)	SW846	TAL PIT
SM 2320B	Alkalinity	SM	TAL PIT

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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: 180-42391-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-42391-1	HD-QC3-0/1-2	Water	03/25/15 12:00	03/26/15 09:10
180-42391-2	HD-CW-9-0/1-0	Water	03/25/15 06:00	03/26/15 09:10
180-42391-3	HD-CW-13-0/1-0	Water	03/25/15 06:15	03/26/15 09:10
180-42391-4	HD-CW-15A-0/1-0	Water	03/25/15 05:55	03/26/15 09:10
180-42391-5	HD-CW-17-0/1-0	Water	03/25/15 06:20	03/26/15 09:10
180-42391-6	HD-CW-20-0/1-0	Water	03/25/15 06:10	03/26/15 09:10
180-42391-7	HD-MW-100D-0/1-0	Water	03/25/15 09:00	03/26/15 09:10
180-42391-8	HD-MW-147A-0/1-0	Water	03/25/15 10:10	03/26/15 09:10
180-42391-9	HD-MW-75S-0/1-0	Water	03/25/15 14:37	03/26/15 09:10
180-42391-10	HD-MW-37D-0/1-0	Water	03/25/15 13:02	03/26/15 09:10
180-42391-11	HD-MW-37S-0/1-0	Water	03/25/15 11:12	03/26/15 09:10
180-42391-12	HD-MW-95-0/1-0	Water	03/25/15 15:20	03/26/15 09:10
180-42391-13	HD-MW-7-0/1-0	Water	03/25/15 14:30	03/26/15 09:10

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/3 Client Sample ID:

Date Analyzed: 03/30/15 10:57 Lab File ID: 7033003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.93	Poor chromatography	journetp	03/30/15 11:35
Chloromethane	2.09	Poor chromatography	journetp	03/30/15 11:35
Vinyl chloride	2.17	Poor chromatography	journetp	03/30/15 11:35
Bromomethane	2.50	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloroethene	3.46	Poor chromatography	journetp	03/30/15 11:35
1,1,2-Trichloro-1,2,2-trifluoroethane	3.64	Poor chromatography	journetp	03/30/15 11:35
Acetone	3.87	Poor chromatography	journetp	03/30/15 11:35
Allyl chloride	4.06	Poor chromatography	journetp	03/30/15 11:35
Methylene Chloride	4.32	Poor chromatography	journetp	03/30/15 11:35
Methyl acetate	4.36	Poor chromatography	journetp	03/30/15 11:35
Acrylonitrile	4.87	Poor chromatography	journetp	03/30/15 11:35
Methyl tert-butyl ether	4.90	Poor chromatography	journetp	03/30/15 11:35
Hexane	5.12	Poor chromatography	journetp	03/30/15 11:35
Vinyl acetate	5.12	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloroethane	5.33	Poor chromatography	journetp	03/30/15 11:35
2,2-Dichloropropane	6.08	Poor chromatography	journetp	03/30/15 11:35
Chloroform	6.50	Poor chromatography	journetp	03/30/15 11:35
1,1,1-Trichloroethane	6.67	Poor chromatography	journetp	03/30/15 11:35
Cyclohexane	6.72	Poor chromatography	journetp	03/30/15 11:35
Tetrahydrofuran	6.73	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloropropene	6.86	Poor chromatography	journetp	03/30/15 11:35
1,2-Dichloroethane	7.13	Poor chromatography	journetp	03/30/15 11:35
Isobutyl alcohol	7.21	Poor chromatography	journetp	03/30/15 11:35
n-Heptane	7.39	Poor chromatography	journetp	03/30/15 11:35
Trichloroethene	7.80	Poor chromatography	journetp	03/30/15 11:35
Dibromomethane	8.15	Poor chromatography	journetp	03/30/15 11:35
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 11:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/4 Client Sample ID:

Date Analyzed: 03/30/15 11:28 Lab File ID: 7033004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.20	Poor chromatography	journetp	03/30/15 12:11
Carbon disulfide	3.75	Poor chromatography	journetp	03/30/15 12:11
Acetone	3.87	Poor chromatography	journetp	03/30/15 12:11
Allyl chloride	4.11	Poor chromatography	journetp	03/30/15 12:11
tert-Butyl alcohol	4.73	Poor chromatography	journetp	03/30/15 12:11
Acrylonitrile	4.82	Poor chromatography	journetp	03/30/15 12:11
Chloroform	6.51	Poor chromatography	journetp	03/30/15 12:11
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 12:11

Lab Sample ID: ICIS 180-136928/5 Client Sample ID:

Date Analyzed: 03/30/15 11:55 Lab File ID: 7033005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.76	Poor chromatography	journetp	03/30/15 12:42
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 15:32

Lab Sample ID: IC 180-136928/6 Client Sample ID:

Date Analyzed: 03/30/15 12:23 Lab File ID: 7033006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.73	Poor chromatography	journetp	03/30/15 13:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/7 Client Sample ID:

Date Analyzed: 03/30/15 13:05 Lab File ID: 7033007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.76	Poor chromatography	journetp	03/30/15 13:53
tert-Butyl alcohol	4.74	Poor chromatography	journetp	03/30/15 16:20
1,2,4-Trichlorobenzene	14.80	Poor chromatography	journetp	03/30/15 16:20

Lab Sample ID: IC 180-136928/8 Client Sample ID:

Date Analyzed: 03/30/15 13:32 Lab File ID: 7033008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.73	Poor chromatography	journetp	03/30/15 14:17
tert-Butyl alcohol	4.74	Poor chromatography	journetp	03/30/15 14:17

Lab Sample ID: IC 180-136928/10 Client Sample ID:

Date Analyzed: 03/30/15 14:36 Lab File ID: 7033010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.75	Poor chromatography	journetp	03/30/15 15:30
Allyl chloride	4.08	Poor chromatography	journetp	03/30/15 15:30
Acrylonitrile	4.84	Poor chromatography	journetp	03/30/15 15:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137305

Lab Sample ID: CCVIS 180-137305/3 Client Sample ID:

Date Analyzed: 04/02/15 10:16 Lab File ID: 7040203.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.46	Poor chromatography	journetp	04/02/15 11:07
1,1,2-Trichloro-1,2,2-trifluoroethane	3.64	Poor chromatography	journetp	04/02/15 11:07
tert-Butyl alcohol	4.96	Poor chromatography	journetp	04/02/15 11:07
Vinyl acetate	5.12	Poor chromatography	journetp	04/02/15 11:07
2-Butanone (MEK)	6.20	Poor chromatography	journetp	04/02/15 11:07
1,4-Dioxane	8.20	Poor chromatography	journetp	04/02/15 11:07

Lab Sample ID: 180-42391-3 DL Client Sample ID: HD-CW-13-0/1-0 DL

Date Analyzed: 04/02/15 13:33 Lab File ID: 7040209.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,1-Trichloroethane	6.72	Poor chromatography	journetp	04/03/15 09:41

Lab Sample ID: 180-42391-4 Client Sample ID: HD-CW-15A-0/1-0

Date Analyzed: 04/02/15 14:01 Lab File ID: 7040210.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.61	Poor chromatography	journetp	04/03/15 09:43
cis-1,2-Dichloroethene	6.12	Poor chromatography	journetp	04/03/15 09:43
Carbon tetrachloride	6.70	Poor chromatography	journetp	04/03/15 09:43

Lab Sample ID: 180-42391-5 Client Sample ID: HD-CW-17-0/1-0

Date Analyzed: 04/02/15 14:28 Lab File ID: 7040211.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.65	Poor chromatography	journetp	04/03/15 09:44

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137305

Lab Sample ID: 180-42391-8 Client Sample ID: HD-MW-147A-0/1-0

Date Analyzed: 04/02/15 18:07 Lab File ID: 7040218.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.11	Poor chromatography	journetp	04/03/15 09:56

Lab Sample ID: 180-42391-9 Client Sample ID: HD-MW-75S-0/1-0

Date Analyzed: 04/02/15 19:28 Lab File ID: 7040221.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.65	Poor chromatography	journetp	04/03/15 10:23
Carbon tetrachloride	6.71	Poor chromatography	journetp	04/03/15 10:23

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137438

Lab Sample ID: CCVIS 180-137438/3 Client Sample ID:

Date Analyzed: 04/03/15 10:07 Lab File ID: 7040302.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl ether	3.32	Poor chromatography	journetp	04/03/15 10:53
Acetone	3.80	Poor chromatography	journetp	04/03/15 10:53
Carbon disulfide	3.83	Poor chromatography	journetp	04/03/15 10:53
Acrylonitrile	4.82	Poor chromatography	journetp	04/03/15 10:53
1,4-Dioxane	8.19	Poor chromatography	journetp	04/03/15 10:53

Lab Sample ID: MB 180-137438/6 Client Sample ID:

Date Analyzed: 04/03/15 11:46 Lab File ID: 7040306.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene-d5	10.47	Poor chromatography	journetp	04/03/15 12:57

Lab Sample ID: 180-42391-6 Client Sample ID: HD-CW-20-0/1-0

Date Analyzed: 04/03/15 13:22 Lab File ID: 7040309.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.64	Poor chromatography	journetp	04/03/15 14:32

Lab Sample ID: LCS 180-137438/12 Client Sample ID:

Date Analyzed: 04/03/15 14:44 Lab File ID: 7040312.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.84	Poor chromatography	journetp	04/03/15 15:42
1,4-Dioxane	8.19	Poor chromatography	journetp	04/03/15 15:42

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137438

Lab Sample ID: 180-42391-12 Client Sample ID: HD-MW-95-0/1-0

Date Analyzed: 04/03/15 16:05 Lab File ID: 7040315.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.11	Poor chromatography	journetp	04/04/15 11:38
1,2-Dichloroethane-d4 (Surr)	7.07	Poor chromatography	journetp	04/03/15 16:38
Trichloroethene	7.82	Poor chromatography	journetp	04/04/15 11:38
Chlorobenzene-d5	10.47	Poor chromatography	journetp	04/03/15 16:38
4-Bromofluorobenzene (Surr)	11.64	Poor chromatography	journetp	04/03/15 16:38

Lab Sample ID: 180-42391-12 RA Client Sample ID: HD-MW-95-0/1-0 RA

Date Analyzed: 04/03/15 16:59 Lab File ID: 7040317.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.13	Poor chromatography	journetp	04/04/15 11:39
1,2-Dichloroethane-d4 (Surr)	7.06	Poor chromatography	journetp	04/04/15 12:59
Trichloroethene	7.81	Poor chromatography	journetp	04/04/15 11:39

Lab Sample ID: 180-42391-10 Client Sample ID: HD-MW-37D-0/1-0

Date Analyzed: 04/03/15 17:26 Lab File ID: 7040318.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.69	Poor chromatography	journetp	04/04/15 11:41
1,1-Dichloroethane	5.40	Poor chromatography	journetp	04/04/15 11:41
cis-1,2-Dichloroethene	6.14	Poor chromatography	journetp	04/04/15 11:41

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137438

Lab Sample ID: 180-42391-11 Client Sample ID: HD-MW-37S-0/1-0

Date Analyzed: 04/03/15 17:53 Lab File ID: 7040319.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.68	Poor chromatography	journetp	04/04/15 11:43
cis-1,2-Dichloroethene	6.13	Poor chromatography	journetp	04/04/15 11:43

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137512

Lab Sample ID: CCVIS 180-137512/3 Client Sample ID:

Date Analyzed: 04/04/15 14:19 Lab File ID: 7040403.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl ether	3.31	Poor chromatography	journetp	04/04/15 15:22
Acrolein	3.48	Poor chromatography	journetp	04/04/15 15:22
1,1-Dichloroethene	3.52	Poor chromatography	journetp	04/04/15 15:22
Acetone	3.83	Poor chromatography	journetp	04/04/15 15:22
Carbon disulfide	3.83	Poor chromatography	journetp	04/04/15 15:22
Acrylonitrile	4.80	Poor chromatography	journetp	04/04/15 15:22
Vinyl acetate	5.15	Poor chromatography	journetp	04/04/15 15:22
2-Butanone (MEK)	6.19	Poor chromatography	journetp	04/04/15 15:22
1,4-Dioxane	8.18	Poor chromatography	journetp	04/04/15 15:22

Lab Sample ID: LCS 180-137512/8 Client Sample ID:

Date Analyzed: 04/04/15 16:44 Lab File ID: 7040408.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.84	Poor chromatography	journetp	04/06/15 08:47
Acrylonitrile	4.81	Poor chromatography	journetp	04/06/15 08:47

Lab Sample ID: LCSD 180-137512/9 Client Sample ID:

Date Analyzed: 04/04/15 17:11 Lab File ID: 7040409.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.02	Poor chromatography	journetp	04/06/15 08:52
Carbon disulfide	3.84	Poor chromatography	journetp	04/06/15 08:48

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137512

Lab Sample ID: 180-42391-3 Client Sample ID: HD-CW-13-0/1-0

Date Analyzed: 04/04/15 18:59 Lab File ID: 7040413.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.65	Poor chromatography	journetp	04/06/15 08:53
trans-1,2-Dichloroethene	4.84	Poor chromatography	journetp	04/06/15 08:53

Lab Sample ID: 180-42391-6 DL Client Sample ID: HD-CW-20-0/1-0 DL

Date Analyzed: 04/04/15 21:14 Lab File ID: 7040418.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.10	Poor chromatography	journetp	04/06/15 09:02
1,1,1-Trichloroethane	6.69	Poor chromatography	journetp	04/06/15 09:02

Lab Sample ID: 180-42391-7 Client Sample ID: HD-MW-100D-0/1-0

Date Analyzed: 04/04/15 22:36 Lab File ID: 7040421.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,1-Trichloroethane	6.70	Poor chromatography	journetp	04/06/15 09:05

Lab Sample ID: 180-42391-10 DL Client Sample ID: HD-MW-37D-0/1-0 DL

Date Analyzed: 04/04/15 23:30 Lab File ID: 7040423.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.12	Poor chromatography	journetp	04/06/15 09:07
1,1,1-Trichloroethane	6.68	Poor chromatography	journetp	04/06/15 09:07
Trichloroethene	7.81	Poor chromatography	journetp	04/06/15 09:07

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137564

Lab Sample ID: CCVIS 180-137564/3 Client Sample ID:

Date Analyzed: 04/06/15 09:40 Lab File ID: 7040603.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.01	Poor chromatography	journetp	04/06/15 10:42
Methylene Chloride	4.32	Poor chromatography	journetp	04/06/15 10:42

Lab Sample ID: 180-42391-9 DL Client Sample ID: HD-MW-75S-0/1-0 DL

Date Analyzed: 04/06/15 11:48 Lab File ID: 7040607.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.12	Poor chromatography	journetp	04/06/15 12:19
1,1,1-Trichloroethane	6.69	Poor chromatography	journetp	04/06/15 12:19

Lab Sample ID: 180-42391-11 DL Client Sample ID: HD-MW-37S-0/1-0 DL

Date Analyzed: 04/06/15 12:15 Lab File ID: 7040608.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.11	Poor chromatography	journetp	04/06/15 12:50
1,1,1-Trichloroethane	6.70	Poor chromatography	journetp	04/06/15 12:50

Lab Sample ID: 180-42391-2 Client Sample ID: HD-CW-9-0/1-0

Date Analyzed: 04/06/15 12:54 Lab File ID: 7040609.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.69	Poor chromatography	journetp	04/06/15 13:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 137564

Lab Sample ID: LCS 180-137564/13 Client Sample ID:

Date Analyzed: 04/06/15 14:45 Lab File ID: 7040613.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.78	Poor chromatography	journetp	04/06/15 15:21
Carbon disulfide	3.89	Poor chromatography	journetp	04/06/15 15:21
Methyl tert-butyl ether	4.84	Poor chromatography	journetp	04/06/15 15:21

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHIC2100A Analysis Batch Number: 135876

Lab Sample ID: IC 180-135876/2 Client Sample ID:

Date Analyzed: 03/18/15 11:27 Lab File ID: A-ICS2100 A 03-18-2015-2.d GC Column: AS-18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.01	Baseline	hartmanm	03/18/15 13:48
Chloride	4.03	Baseline	hartmanm	03/18/15 18:15
Nitrite as N	4.69	Baseline	hartmanm	03/18/15 18:15
Sulfate	5.56	Baseline	hartmanm	03/18/15 18:15
Bromide	6.23	Baseline	hartmanm	03/18/15 18:15
Nitrate as N	7.22	Baseline	hartmanm	03/18/15 18:15

Lab Sample ID: IC 180-135876/3 Client Sample ID:

Date Analyzed: 03/18/15 11:43 Lab File ID: A-ICS2100 A 03-18-2015-3.d GC Column: AS-18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.99	Split Peak	hartmanm	03/18/15 13:51

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01200	03/26/15	03/25/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00006	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
icicv_01230	03/26/15	03/25/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00160	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00206	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00206	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00200	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00206	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL
							Nitrate as N	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL
.ICSTDL6_00206	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL4_00135	03/18/15	03/17/15	DI Water, Lot na	5 mL	ICSTDL7_00135	0.5 mL	Bromide	2 ug/mL
							Chloride	10 ug/mL
							Fluoride	0.5 ug/mL
							Nitrate as N	0.5 ug/mL
							Orthophosphate as P	0.5 ug/mL
							Sulfate	10 ug/mL
							Nitrite as N	0.5 ug/mL
.ICSTDL7_00135	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL5_00136	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00135	1 mL	Bromide	4 ug/mL
							Chloride	20 ug/mL
							Fluoride	1 ug/mL
							Nitrate as N	1 ug/mL
							Orthophosphate as P	1 ug/mL
							Sulfate	20 ug/mL
							Nitrite as N	1 ug/mL
.ICSTDL7_00135	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00201	03/18/15	03/04/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00132	03/18/15	03/04/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL8_00102	03/19/15	03/04/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.6 mL	Bromide	30 ug/mL
							Chloride	150 ug/mL
							Fluoride	7.5 ug/mL
							Nitrate as N	7.5 ug/mL
							Orthophosphate as P	7.5 ug/mL
							Sulfate	150 ug/mL
					ICPRIMARYSTDB_00008	0.6 mL	Nitrite as N	7.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00107	03/19/15	03/04/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
MCCV1X_00073	04/19/15	02/19/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00005	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00063	04/30/15	03/31/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00004	1 mL	Calcium	0.1 ppm
							Magnesium	0.1 ppm
							Potassium	0.1 ppm
							Sodium	0.1 ppm
.MMSCRI-1B_00004	10/01/15	Inorganic Ventures, Lot H2-MEB549023			(Purchased Reagent)		Calcium	25 ppm
							Magnesium	25 ppm
							Potassium	25 ppm
							Sodium	25 ppm
MICSABX_00068	04/12/15	03/12/15	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Ag	0.02 ppm
							As	0.02 ppm
							Cd	0.02 ppm
							Co	0.02 ppm
							Cr	0.02 ppm
							Cu	0.02 ppm
							Mn	0.0225 ppm
							Ni	0.02 ppm

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zn	0.025 ppm
					MMSICSAB-1_00007	0.2 mL	Ba	0.02 ppm
							Be	0.02 ppm
							Pb	0.02 ppm
							Sr	0.025 ppm
							Tl	0.02 ppm
							V	0.02 ppm
					MMSICSAB-2_00006	0.2 mL	B	0.05 ppm
							Sb	0.02 ppm
							Se	0.05 ppm
							Si	0.5 ppm
							Sn	0.1 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151			(Purchased Reagent)		Ag	2 ppm
							As	2 ppm
							Cd	2 ppm
							Co	2 ppm
							Cr	2 ppm
							Cu	2 ppm
							Mn	2.25 ppm
							Ni	2 ppm
							Zn	2.5 ppm
.MMSICSAB-1_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524028			(Purchased Reagent)		Ba	10 ppm
							Be	10 ppm
							Pb	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm
							V	10 ppm
.MMSICSAB-2_00006	05/01/15	Inorganic Ventures, Lot G2-MEB467043			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm
							Se	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00064	04/12/15	03/12/15	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ti	2 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
MICVX_00030	04/05/15	03/05/15	2% Nitric Acid, Lot 25106	250 mg/L	MICPMSICV_00018	10 mg/L	Calcium	40 mg/L
							Magnesium	40 mg/L
							Potassium	40 mg/L
							Sodium	40 mg/L
.MICPMSICV_00018	11/30/15	SPEX CertiPrep, Lot 7-230WL			(Purchased Reagent)		Calcium	1000 ppm
							Magnesium	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
MSTD2X_00042	04/19/15	02/19/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MTAPITTICPMS_00020	07/01/15	INORGANIC VENTURES, Lot H2-MEB532047			(Purchased Reagent)		Ag	5 ug/mL
							Al	200 ug/mL
							As	4 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Be	5 ug/mL
							Cd	5 ug/mL
							Co	50 ug/mL
							Cr	20 ug/mL
							Cu	25 ug/mL
							Fe	100 ug/mL
							Mn	50 ug/mL
							Ni	50 ug/mL
							Pb	2 ug/mL
							Se	1 ug/mL
							Sr	100 ug/mL
							Tl	5 ug/mL
							V	50 ug/mL
							Zn	50 ug/mL
MTAPITTMSA_00023	12/01/15	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSC_00029	12/01/15	Inorganic Ventures, Lot H2-MEB532046			(Purchased Reagent)		Mo	100 ug/mL
							Sb	50 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
VOA8260INT_00030	04/10/15	03/10/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00091	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00091	07/31/19	Restek, Lot A0104742			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00017	06/27/15	06/27/14	Methanol, Lot 62345	100 mL	VOA8260SURRES_00046	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_00046	02/01/18	Restek, Lot A093505			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00108	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00090	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00107	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00090	11/30/15		Restek, Lot A0108226		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00107	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00011	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00011	02/01/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00108	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00092	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00106	1.25 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

REAGENT TRACEABILITY SUMMARY

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SDG No.:

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

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00092	09/30/16		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00106	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00038	0.16 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00014	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

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	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							o-Xylene	200 ug/mL
							sec-Butylbenzene	200 ug/mL
							Styrene	200 ug/mL
							tert-Butylbenzene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Tetrahydrofuran	400 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							trans-1,4-Dichloro-2-butene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260KET1ST_00038	01/31/18		Restek, Lot A0108151		(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_00014	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00108	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260VOAPRI_00106	1.25 mL	Xylenes, Total	50 ug/mL
.VOA8260VOAPRI_00106	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00014	1 mL	Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00014	02/28/16		Restek, Lot A093581		(Purchased Reagent)		Xylenes, Total	4000 ug/mL
VOAACRPRI_00003	03/31/15	03/03/15	Methanol, Lot 85233	100 mL	VOAACRORES_00064	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00064	03/31/15		Restek, Lot A0107338		(Purchased Reagent)		Acrolein	20000 ug/mL
VOAVAPRI_00005	04/13/15	03/13/15	Methanol, Lot 85233	50 mL	VOA8260VARES_00050	0.25 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00050	07/31/15		Restek, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
voaWKet2 Rest_00002	04/16/15	03/16/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00042	0.1 mL	2-Butanone (MEK)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00042	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKetpri Re_00004	04/30/15	03/30/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00039	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_00039	01/31/18		Restek, Lot A0108151		(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
WALK125PPMCCV_00082	09/19/15	03/19/15	DI Water, Lot SUPERQ	1000 mL	WNa2CO3P_00007	0.125 g	Total Alkalinity as CaCO3 to pH 4.5	125 mg/L
.WNa2CO3P_00007	07/09/18		Fisher Scientific, Lot 138124		(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g
WALK250PPMPi_00091	09/19/15	03/19/15	DI Water, Lot Super Q	1000 mL	WNa2CO3P_00007	0.25 g	Total Alkalinity as CaCO3 to pH 4.5	250 mg/L
.WNa2CO3P_00007	07/09/18		Fisher Scientific, Lot 138124		(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g

Reagent

ICPRIMARYSTA_00006

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

Product Description:

Name:	IC Spike
Part Number:	**SM-606-005 Solution A**
Lot Number:	**1427624**
Matrix:	H_2O
Purity:	99.1+%

Certified Values:

Component	Certified Value (µg/mL)	NIST SRM ID	NIST SRM Lot #
Bromide	500 ± 5	3184	020701
Chloride	2500 ± 25	3182	060925
Fluoride	125.00 ± 1.25	3183	050721
NO_3 as N	125.00 ± 1.25	3185	050517
PO_4 as P	125.00 ± 1.25	3186	090723
Sulfate	2500 ± 25	3181	080603

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via ion chromatography (IC) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

Preparation Information:

Custom standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by IC for conformity prior to use. The matrix is 18 megohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**
The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided.

Preparation Date:	**October 3, 2014**
Shipped Date:	**October 8, 2014**
Expiration Date:	**October 8, 2015**
Certificate Issue Date:	**October 8, 2014**

Quality Information:

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Angel Sellers,
Quality Manager

Reagent

ICPRIMARYSTDB_00008

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

Product Description:

Name:	IC Spike	Source Material:	Sodium Nitrite
Part Number:	**SM-606-005 Solution B**	Material Purity:	100%
Lot Number:	**1427626**	Matrix:	H_2O

Certified Value:

NO_2 as N 125.00 µg/mL ± 1.25 µg/mL

The Certified value is based on gravimetric preparation and verified against a second source or independent lot via ion chromatography (IC) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

Preparation Information:

The highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by analytical methods for conformity prior to use. This standard was prepared using methods developed at NIST for the preparation of SRM Spectrometric Standard Solutions. The matrix is 18 megohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards:**
The Calibration Standard is traceable to a second source or independent lot.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided.

Preparation Date:	October 3, 2014
Shipped Date:	October 8, 2014
Expiration Date:	October 8, 2015
Certificate Issue Date:	October 8, 2014

Quality Information:

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Angel Sellers,
Quality Manager

Reagent

ICSECONDSTD1_00005

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 • USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution

Catalog Number: TA-17

Lot Number: J2-MEB568059

Matrix: H2O

Value / Analyte(s): 500 mg/L ea: Chloride, Sulfate,
100 mg/L ea: Bromide,
25 mg/L ea: Fluoride, Nitrate_as_N, oPhosphate_as_P

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide	100.0 ± 0.6 mg/L	Chloride	500.1 ± 2.9 mg/L		
Fluoride	25.01 ± 0.13 mg/L	Nitrate as N	25.00 ± 0.14 mg/L		
o-Phosphate as P	25.00 ± 0.12 mg/L	Sulfate	500.1 ± 2.6 mg/L		

Certified Density: 0.999 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bromide	IC Assay	3184	020701
Bromide	Volhard	999b	999b
Chloride	IC Assay	194	392607
Chloride	Volhard	999b	999b
Fluoride	Calculated		See Sec. 4.2
Fluoride	IC Assay	3183	050721
Nitrate_as_N	IC Assay	3185	050517
oPhosphate_as_P	IC Assay	3186	090723
Sulfate	Calculated		See Sec. 4.2
Sulfate	IC Assay	3181	080603

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$ ($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = 2 [$\Sigma(s_i)^2$]$^{1/2}$ 2 = the coverage factor.

[$\Sigma(s_i)^2$]$^{1/2}$ = The square root of the sum of the squares of the most common errors (where's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 18, 2015

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date EXPIRES: 1 MAR 2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Christy Shortridge
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0A_00005

INORGANIC VENTURES™

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Christiansburg, VA 24073 USA
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CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

2.0 **DESCRIPTION OF CRM** **Stock Solution**

Catalog No.: 6020ICS-0A

Lot Number: **G2-MEB476152MCA**

Matrix: 1.4% HNO3(v/v)

10,000 µg/mL ea:
Chloride,

2,000 µg/mL ea:
C,

1,000 µg/mL ea:
Al, Ca, Fe, K, Mg, Na, P, S,

20 µg/mL ea:
Mo, Ti

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	1,002 ± 6 µg/mL	Calcium, Ca	1,002 ± 6 µg/mL	Carbon, C	2,004 ± 13 µg/mL
Chloride, Chloride	10,020.0 ± 50.0 µg/mL	Iron, Fe	1,002 ± 7 µg/mL	Magnesium, Mg	1,002 ± 4 µg/mL
Molybdenum, Mo	20.04 ± 0.14 µg/mL	Phosphorus, P	1,002 ± 7 µg/mL	Potassium, K	1,002 ± 4 µg/mL
Sodium, Na	1,002 ± 7 µg/mL	Sulfur, S	1,002 ± 5 µg/mL	Titanium, Ti	20.04 ± 0.13 µg/mL

Certified Density: 1.034 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.
- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
C	Gravimetric		See Sec. 4.2
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Chloride	Acidimetric	84L	84L
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84k	84k
Ti	ICP Assay	3162a	060808

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL

Custom-Grade solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Al		M	Dy	< 0.000100	O	Li	0.002000	M	Pr	< 0.000100	M	Te	< 0.012007
M	Sb	< 0.000600	M	Er	< 0.000100	M	Lu	< 0.000100	M	Re	< 0.000100	M	Tb	< 0.000100
O	As	< 0.020000	M	Eu	< 0.000100	s	Mg		M	Rh	< 0.000100	M	Tl	< 0.000100
O	Ba	< 0.000200	M	Gd	< 0.000100	O	Mn	0.003000	M	Rb	< 0.020012	M	Th	< 0.000100
O	Be	< 0.000090	M	Ga	< 0.001001	O	Hg	< 0.005000	M	Ru	< 0.000100	M	Tm	< 0.000100
M	Bi	< 0.005003	O	Ge	< 0.015000	s	Mo		M	Sm	< 0.000100	M	Sn	< 0.003002
O	B	< 0.005000	M	Au	< 0.001001	M	Nd	< 0.000100	O	Sc	< 0.000700	s	Ti	
O	Cd	0.003400	M	Hf	< 0.002001	O	Ni	< 0.002000	M	Se	< 0.050029	O	W	< 0.007000
s	Ca		M	Ho	< 0.000100	M	Nb	< 0.002001	n	Si		M	U	< 0.000100
M	Ce	< 0.000500	M	In	< 0.001001	n	Os		M	Ag	< 0.001001	O	V	< 0.004000
M	Cs	< 0.001001	M	Ir	< 0.000100	M	Pd	< 0.003002	s	Na		M	Yb	< 0.000100
O	Cr	< 0.010000	s	Fe		s	P		O	Sr	0.005000	M	Y	< 0.000100
M	Co	< 0.001001	M	La	< 0.000200	M	Pt	< 0.000100	s	S		M	Zn	0.016610
O	Cu	< 0.020000	M	Pb	0.002001	s	K		M	Ta	< 0.001001	M	Zr	< 0.004002

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: July 12, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Zachary Saunders

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Allyson Guilliams

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

Reagent

M6020ICS-0B_00006

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CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

2 µg/mL ea:
Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	2.000 ± 0.013 µg/mL	Cadmium, Cd	2.000 ± 0.013 µg/mL	Chromium+3, Cr3	2.000 ± 0.013 µg/mL
Cobalt, Co	2.000 ± 0.013 µg/mL	Copper, Cu	2.000 ± 0.013 µg/mL	Manganese, Mn	2.000 ± 0.013 µg/mL
Nickel, NI	2.000 ± 0.013 µg/mL	Silver, Ag	2.000 ± 0.013 µg/mL	Zinc, Zn	2.000 ± 0.013 µg/mL

Certified Density: 1.012 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked dally using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MCALSPECAREV_00005

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CERTIFICATE OF ANALYSIS

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fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-CAL-SPECA-REV

Lot Number: **H2-MEB524026**

Matrix: 3% HNO3(v/v)

2,500 µg/mL ea:
Ca, K, Mg, Na,

1,250 µg/mL ea:
Fe,

25 µg/mL ea:
Al, Mn,

5 µg/mL ea:
Ag, As, Ba, Be, Cd, Co, Cr3, Cu, Ni,
Pb, Se, Sr, Tl, V, Zn

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	24.99 ± 0.18 µg/mL	Arsenic, As	4.998 ± 0.032 µg/mL	Barium, Ba	5.000 ± 0.032 µg/mL
Beryllium, Be	5.000 ± 0.028 µg/mL	Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2,500 ± 11 µg/mL
Chromium+3, Cr3	5.000 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.032 µg/mL	Copper, Cu	4.999 ± 0.032 µg/mL
Iron, Fe	1,250 ± 6 µg/mL	Lead, Pb	4.998 ± 0.025 µg/mL	Magnesium, Mg	2,500 ± 16 µg/mL
Manganese, Mn	24.99 ± 0.17 µg/mL	Nickel, Ni	5.003 ± 0.028 µg/mL	Potassium, K	2,500 ± 11 µg/mL
Selenium, Se	5.002 ± 0.028 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL	Sodium, Na	2,499 ± 11 µg/mL
Strontium, Sr	5.000 ± 0.032 µg/mL	Thallium, Tl	5.000 ± 0.032 µg/mL	Vanadium, V	5.000 ± 0.032 µg/mL
Zinc, Zn	5.004 ± 0.032 µg/mL				

Certified Density: 1.051 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$ ($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2 [\Sigma(s_i)^2]^{1/2}$ 2 = the coverage factor.

$[\Sigma(s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Brenda Francis
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MICPMSICV_00018

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: ZCAL-60-250 **Lot No.** 7-230WL

Description: Custom Claritas Standard

Matrix: 5% HNO_3 / Tr. Tart. Acid / Tr. HF

This **CLARITAS PPT®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Uncertainty	SRM	Analyte	Labeled	Uncertainty	SRM
Ca	1000 µg/mL	±5 µg/mL	3109a*	Co	2 µg/mL	±0.01 µg/mL	3113*
K	1000 µg/mL	±5 µg/mL	3141a*	Cr	2 µg/mL	±0.01 µg/mL	3112a*
Mg	1000 µg/mL	±5 µg/mL	3131a*	Cu	2 µg/mL	±0.01 µg/mL	3114*
Na	1000 µg/mL	±5 µg/mL	3152a*	Mo	2 µg/mL	±0.01 µg/mL	3134*
Fe	500 µg/mL	±3 µg/mL	3126a*	Ni	2 µg/mL	±0.01 µg/mL	3136*
Si	100 µg/mL	±0.5 µg/mL	3150*	Pb	2 µg/mL	±0.01 µg/mL	3128*
Al	10 µg/mL	±0.05 µg/mL	3101a*	Sb	2 µg/mL	±0.01 µg/mL	3102a*
Mn	10 µg/mL	±0.05 µg/mL	3132*	Se	2 µg/mL	±0.01 µg/mL	3149*
Ag	2 µg/mL	±0.01 µg/mL	3151*	Sn	2 µg/mL	±0.01 µg/mL	3161a*
As	2 µg/mL	±0.01 µg/mL	3103a*	Sr	2 µg/mL	±0.01 µg/mL	3153a*
B	2 µg/mL	±0.01 µg/mL	3107*	Ti	2 µg/mL	±0.01 µg/mL	3162a*
Ba	2 µg/mL	±0.01 µg/mL	3104a*	Tl	2 µg/mL	±0.01 µg/mL	3158*
Be	2 µg/mL	±0.01 µg/mL	3105a*	V	2 µg/mL	±0.01 µg/mL	3165*
Cd	2 µg/mL	±0.01 µg/mL	3108*	Zn	2 µg/mL	±0.01 µg/mL	3168a*

* - indicates NIST SRM † - Indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# ALL 8

Trace Metallic Impurities in the Actual Solution via ICP-MS Analysis:

Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L
Au	<0.4	Ga	<2	Ir	<0.1	Pd	<1	Sc	30	Tm	5
Bi	<1	Gd	4	La	5	Pr	5	Sm	<4	U	0.08
Ce	6	Ge	<8	Li	<4	Pt	<0.1	Ta	7	W	10
Cs	<0.08	Hf	0.7	Lu	4	Rb	30	Tb	5	Y	5
Dy	4	Hg	<0.6	Nb	5	Re	4	Te	<4	Yb	4
Er	<0.4	Ho	5	Nd	<3	Rh	<0.2	Th	4	Zr	7
Eu	<0.5	In	<0.2	P	<300	Ru	<2				

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the labeled value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability, as well as transpiration loss. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV 2014 Certifying Officer:

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General & Statistical Principals for Certification
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference materials producers
- ISO/REMCO N280

Material Source:
All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where $k = 2$ is the coverage factor at the 95% confidence level
- u_c is obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:
All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Legal Notice:
SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, Inc. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, Inc. be liable for any loss of profits or any incidental, special, or consequential damages.

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Reagent

MMSICSAB-1_00007

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CERTIFICATE OF ANALYSIS

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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-1

Lot Number: **H2-MEB524028**

Matrix: 3% HNO3(v/v)

10 µg/mL ea:

Ba, Be, Pb, Sr, Tl, V

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Barium, Ba	9.99 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL	Lead, Pb	10.01 ± 0.05 µg/mL
Strontium, Sr	10.00 ± 0.06 µg/mL	Thallium, Tl	10.00 ± 0.06 µg/mL	Vanadium, V	9.99 ± 0.06 µg/mL

Certified Density: 1.022 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 **TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4ºC. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

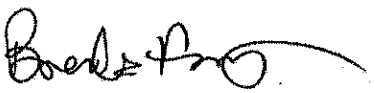
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

Reagent

MMSICSAB-2_00006

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CERTIFICATE OF ANALYSIS

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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

Matrix: 3% HNO3(v/v), tr. HF

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.06 µg/mL	Boron, B	24.98 ± 0.17 µg/mL	Selenium, Se	25.01 ± 0.21 µg/mL
Silicon, Si	249.9 ± 1.6 µg/mL	Tin, Sn	50.04 ± 0.36 µg/mL		

Certified Density: 1.018 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element; Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 08, 2013

Expiration Date: EXPIRES 01 May 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTICPMS_00020

1222800

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Rec'd 6/17/14 RJR

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-ICPMS
Lot Number:	H2-MEB532047
Matrix:	0.7% (v/v) HNO3
Value / Analyte(s):	200 µg/mL ea: Al, Ba, 100 µg/mL ea: B, Fe, Sr, 50 µg/mL ea: Co, Mn, Ni, V, Zn, 25 µg/mL ea: Cu, 20 µg/mL ea: Cr3, 5 µg/mL ea: Ag, Be, Cd, Tl, 4 µg/mL ea: As, 2 µg/mL ea: Pb, 1 µg/mL ea: Se

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.0 µg/mL	Arsenic, As	4.002 ± 0.028 µg/mL	Barium, Ba	200.0 ± 1.0 µg/mL
Beryllium, Be	5.000 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.000 ± 0.024 µg/mL
Chromium+3, Cr3	20.00 ± 0.10 µg/mL	Cobalt, Co	50.02 ± 0.25 µg/mL	Copper, Cu	25.00 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.000 ± 0.010 µg/mL	Manganese, Mn	49.99 ± 0.22 µg/mL
Nickel, Ni	50.02 ± 0.24 µg/mL	Selenium, Se	1.001 ± 0.006 µg/mL	Silver, Ag	5.002 ± 0.032 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.002 ± 0.033 µg/mL	Vanadium, V	50.00 ± 0.24 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

Certified Density: 1.003 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	080531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3168	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirments for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2014

11.2 Expiration Date

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

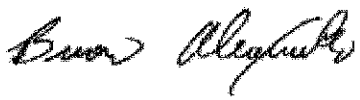
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

rec. 11/13/14 SLB

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-A
Lot Number:	H2-MEB532044
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Ca, K, Mg, Na

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium	5 000 ± 22 µg/mL	Magnesium	5 000 ± 23 µg/mL
Potassium	5 000 ± 22 µg/mL	Sodium	5 000 ± 22 µg/mL

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = $2\ [\ \Sigma(s_i)^2\ ]^{1/2}$ 2 = the coverage factor.

$[\ \Sigma(s_i)^2\ ]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES
01 02 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSC_00029

1407263
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INORGANIC VENTURES™

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fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

rec'd 11/3/14 SLB

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	H2-MEB532046
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Si, 200 µg/mL ea: Sn, 100 µg/mL ea: Mo, Ti, 50 µg/mL ea: Sb

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony	49.98 ± 0.38 µg/mL	Molybdenum	100.0 ± 0.5 µg/mL
Silicon	1 000 ± 7 µg/mL	Tin	200.0 ± 1.4 µg/mL
Titanium	100.0 ± 0.7 µg/mL		

Certified Density: 1.017 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Tl	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean
x_i = individual results
n = number of measurements

Uncertainty (±) = $2\ [\ \Sigma(s_i)^2\ ]^{1/2}$ 2 = the coverage factor.
$[\ \Sigma(s_i)^2\ ]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date EXPIRES 01 DEC 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

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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. : 569722 **Lot No.:** A0108198

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

8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,504.8 µg/mL	+/- 21.9788 µg/mL +/- 32.6918 µg/mL +/- 36.4326 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,509.8 µg/mL	+/- 19.6377 µg/mL +/- 31.2039 µg/mL +/- 35.1185 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,515.3 µg/mL	+/- 22.1368 µg/mL +/- 32.8734 µg/mL +/- 36.6254 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	2,498.0 µg/mL	+/- 23.6713 µg/mL +/- 33.8065 µg/mL +/- 37.4176 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,503.7 µg/mL	+/- 30.8470 µg/mL +/- 39.2011 µg/mL +/- 42.3685 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,507.7 µg/mL	+/- 21.9404 µg/mL +/- 32.6873 µg/mL +/- 36.4370 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.7 µg/mL	+/- 26.0039 µg/mL +/- 35.4965 µg/mL +/- 38.9583 µg/mL	Gravimetric Unstressed Stressed

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

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

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

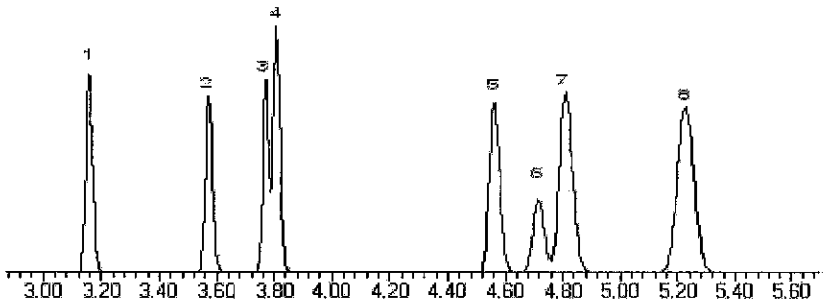
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

Date Mixed: 08-Jan-2015 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722.sec **Lot No.:** A0108226

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

8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)	2,494.8 µg/mL	+/- 23.5521	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 19630)		+/- 33.7009	µg/mL	Unstressed
	Purity 99%		+/- 37.3133	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,505.6 µg/mL	+/- 26.4745	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 35.8743	µg/mL	Unstressed
	Purity 99%		+/- 39.3156	µg/mL	Stressed
3	Vinyl chloride	2,499.8 µg/mL	+/- 25.3054	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 34.9816	µg/mL	Unstressed
	Purity 99%		+/- 38.4872	µg/mL	Stressed
4	1,3-Butadiene	2,505.4 µg/mL	+/- 23.1450	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 33.4914	µg/mL	Unstressed
	Purity 99%		+/- 37.1536	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,495.4 µg/mL	+/- 25.3762	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 35.0038	µg/mL	Unstressed
	Purity 99%		+/- 38.4957	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,499.5 µg/mL	+/- 21.8687	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 32.5806	µg/mL	Unstressed
	Purity 99%		+/- 36.3180	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,511.0 µg/mL	+/- 21.9690	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 32.7299	µg/mL	Unstressed
	Purity 99%		+/- 36.4846	µg/mL	Stressed

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

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

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

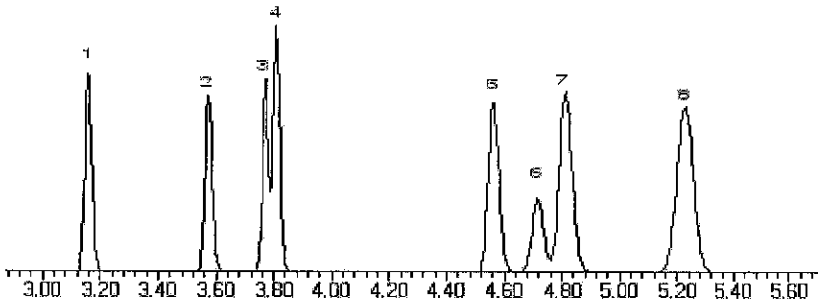
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

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

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

Manufactured under Restek's ISO 9001:2008
Registered Quality System
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Reagent

VOA8260INTRES_00091

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567649 **Lot No.:** A0104742

Description : 8260 Internal Standard

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

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

Expiration Date : July 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 (Lot I201P5) **Purity** 99%	5,003.0 µg/mL	+/- 29.0879 µg/mL +/- 106.1005 µg/mL +/- 106.5713 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene **CAS #** 462-06-6 (Lot 1380033) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
3	1,4-Dioxane-d8 **CAS #** 17647-74-4 (Lot 11C-596) **Purity** 99%	5,009.6 µg/mL	+/- 29.1262 µg/mL +/- 106.2405 µg/mL +/- 106.7119 µg/mL	Gravimetric Unstressed Stressed
4	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-22736) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
5	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00038

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0108151

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBK8325V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00039

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0108151

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBK8325V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET2ND_00042

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00014

RESTEK

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

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

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

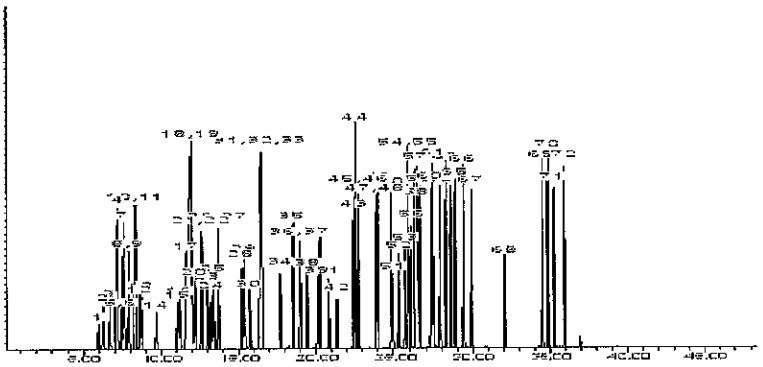
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** B251644995

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

Reagent

VOA8260MEGA2_00011

RESTEK

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641.sec **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC **Purity** 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9.SEC **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

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

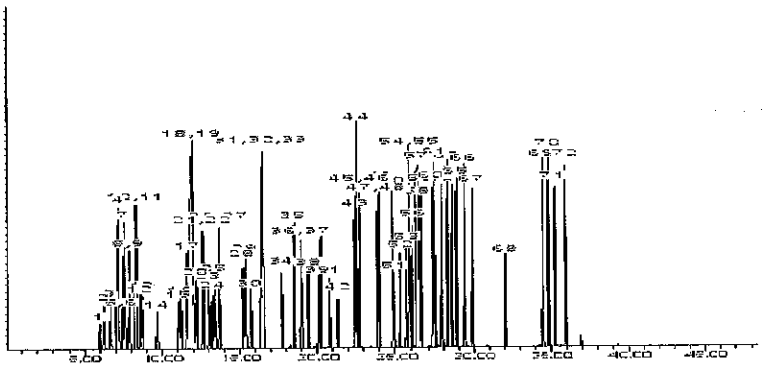
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** 1127510105

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

Reagent

VOA8260SURRES_00046

RESTEK

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

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A093505

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 : February 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Dibromofluoromethane	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 1868-53-7		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 17060-07-0		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
3	Toluene-d8	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 2037-26-5		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 460-00-4		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed

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

Reagent

VOA8260VARES_00050

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00064

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0107338

Description : 8260 List 1/Std #5 Acrolein High

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

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

Expiration Date : March 31, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,759.0 µg/mL	+/- 115.6933	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 140429JLM)		+/- 633.5357	µg/mL	Unstressed
	Purity 99%		+/- 736.4159	µg/mL	Stressed

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

Reagent

WNa2CO3P_00007

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S263**	**Quality Test / Release Date**	**4/8/2014**
Lot Number	**138124**		
Description	**SODIUM CARBONATE, ANHYDROUS, CERTIFIED A.C.S.**		
Country of Origin	**China**	*** Suggested Retest Date**	**Apr-2019**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White granular powder
ASSAY	%	>= 99.5	100.3
CALCIUM	%	<= 0.03	0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
LOSS ON HEATING @ 285 DEG C	%	<= 1.0	0.1
MAGNESIUM	%	<= 0.005	<0.001
PHOSPHATE (PO4)	%	<= 0.001	0.0010
POTASSIUM (K)	%	<= 0.005	0.001
SILICA (SiO2)	%	<= 0.005	0.005
SULFUR COMPOUNDS	%	<= 0.003	<0.0030

Lab Manager Fair Lawn

1243950
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243948
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243949
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243947
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

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.: 180-42391-1

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-QC3-0/1-2	180-42391-1	105	89	99	94
HD-CW-9-0/1-0	180-42391-2	105	93	110	109
HD-CW-13-0/1-0	180-42391-3	105	95	113	102
HD-CW-13-0/1-0 DL	180-42391-3 DL	118	104	118	110
HD-CW-15A-0/1-0	180-42391-4	116	105	111	105
HD-CW-17-0/1-0	180-42391-5	120	96	116	111
HD-CW-20-0/1-0	180-42391-6	101	85	112	97
HD-CW-20-0/1-0 DL	180-42391-6 DL	108	93	114	99
HD-MW-100D-0/1-0	180-42391-7	119	97	112	108
HD-MW-147A-0/1-0	180-42391-8	109	90	108	96
HD-MW-75S-0/1-0	180-42391-9	115	93	117	105
HD-MW-75S-0/1-0 DL	180-42391-9 DL	107	87	106	101
HD-MW-37D-0/1-0	180-42391-10	101	85	114	99
HD-MW-37D-0/1-0 DL	180-42391-10 DL	126	108	112	106
HD-MW-37S-0/1-0	180-42391-11	102	85	112	102
HD-MW-37S-0/1-0 DL	180-42391-11 DL	105	87	107	113
HD-MW-95-0/1-0	180-42391-12	81	54 X	118	77
HD-MW-95-0/1-0 RA	180-42391-12 RA	90	63 X	118	86
HD-MW-7-0/1-0	180-42391-13	101	88	111	93
	MB 180-137305/6	116	100	114	102
	MB 180-137438/6	119	104	117	106
	MB 180-137512/6	114	89	108	103
	MB 180-137564/6	112	91	114	103
	LCS 180-137438/12	101	90	103	103
	LCS 180-137512/8	101	96	103	104
	LCS 180-137564/13	97	88	107	95
	LCSD 180-137512/9	105	98	109	102

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	70-128
DCA = 1,2-Dichloroethane-d4 (Surr)	64-135
TOL = Toluene-d8 (Surr)	71-118
BFB = 4-Bromofluorobenzene (Surr)	70-118

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7040312.D

Lab ID: LCS 180-137438/12 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.36	94	50-139	
Vinyl chloride	10.0	9.59	96	53-138	
Bromomethane	10.0	11.9	119	33-150	
Chloroethane	10.0	10.8	108	36-142	
1,1-Dichloroethene	10.0	10.3	103	65-136	
Acetone	20.0	12.9	65	22-150	
Carbon disulfide	10.0	10.4	104	54-132	
Methylene Chloride	10.0	10.9	109	63-129	
trans-1,2-Dichloroethene	10.0	9.81	98	73-126	
Methyl tert-butyl ether	10.0	10.1	101	64-123	
1,1-Dichloroethane	10.0	10.2	102	73-126	
cis-1,2-Dichloroethene	10.0	10.2	102	70-120	
Bromochloromethane	10.0	9.71	97	70-127	
2-Butanone (MEK)	20.0	14.4	72	39-138	
Chloroform	10.0	10.4	104	72-127	
1,1,1-Trichloroethane	10.0	10.7	107	63-133	
Carbon tetrachloride	10.0	10.6	106	55-150	
Benzene	10.0	9.58	96	80-120	
1,2-Dichloroethane	10.0	9.10	91	68-132	
Trichloroethene	10.0	9.30	93	73-120	
1,2-Dichloropropane	10.0	9.48	95	76-124	
Bromodichloromethane	10.0	9.81	98	66-130	
cis-1,3-Dichloropropene	10.0	9.37	94	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.4	82	45-145	
Toluene	10.0	8.88	89	80-123	
trans-1,3-Dichloropropene	10.0	9.17	92	65-125	
1,1,2-Trichloroethane	10.0	9.20	92	77-127	
Tetrachloroethene	10.0	8.89	89	70-135	
2-Hexanone	20.0	15.8	79	25-132	
Dibromochloromethane	10.0	9.31	93	60-140	
1,2-Dibromoethane (EDB)	10.0	9.09	91	74-123	
Chlorobenzene	10.0	9.73	97	80-120	
1,1,1,2-Tetrachloroethane	10.0	8.90	89	63-140	
Ethylbenzene	10.0	8.72	87	72-126	
Xylenes, Total	20.0	17.3	87	76-128	
Styrene	10.0	9.69	97	71-127	
Bromoform	10.0	9.43	94	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	62-125	
1,4-Dioxane	200	169 J	84	10-160	

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.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7040408.D

Lab ID: LCS 180-137512/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.81	78	50-139	
Vinyl chloride	10.0	8.15	81	53-138	
Bromomethane	10.0	11.9	119	33-150	
Chloroethane	10.0	9.96	100	36-142	
1,1-Dichloroethene	10.0	10.4	104	65-136	
Acetone	20.0	32.8	164	22-150	*
Carbon disulfide	10.0	11.1	111	54-132	
Methylene Chloride	10.0	11.3	113	63-129	
trans-1,2-Dichloroethene	10.0	9.54	95	73-126	
Methyl tert-butyl ether	10.0	11.7	117	64-123	
1,1-Dichloroethane	10.0	10.3	103	73-126	
cis-1,2-Dichloroethene	10.0	10.2	102	70-120	
Bromochloromethane	10.0	10.4	104	70-127	
2-Butanone (MEK)	20.0	21.7	109	39-138	
Chloroform	10.0	10.4	104	72-127	
1,1,1-Trichloroethane	10.0	10.2	102	63-133	
Carbon tetrachloride	10.0	9.88	99	55-150	
Benzene	10.0	10.1	101	80-120	
1,2-Dichloroethane	10.0	9.76	98	68-132	
Trichloroethene	10.0	8.78	88	73-120	
1,2-Dichloropropane	10.0	9.51	95	76-124	
Bromodichloromethane	10.0	9.88	99	66-130	
cis-1,3-Dichloropropene	10.0	9.20	92	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.2	96	45-145	
Toluene	10.0	8.87	89	80-123	
trans-1,3-Dichloropropene	10.0	8.58	86	65-125	
1,1,2-Trichloroethane	10.0	9.68	97	77-127	
Tetrachloroethene	10.0	7.43	74	70-135	
2-Hexanone	20.0	24.3	121	25-132	
Dibromochloromethane	10.0	9.69	97	60-140	
1,2-Dibromoethane (EDB)	10.0	10.0	100	74-123	
Chlorobenzene	10.0	9.61	96	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.47	95	63-140	
Ethylbenzene	10.0	8.13	81	72-126	
Xylenes, Total	20.0	16.7	84	76-128	
Styrene	10.0	9.95	99	71-127	
Bromoform	10.0	10.2	102	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	62-125	
1,4-Dioxane	200	197 J	98	10-160	

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.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7040613.D

Lab ID: LCS 180-137564/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	8.50	85	50-139	
Vinyl chloride	10.0	7.89	79	53-138	
Bromomethane	10.0	11.6	116	33-150	
Chloroethane	10.0	9.76	98	36-142	
1,1-Dichloroethene	10.0	10.4	104	65-136	
Acetone	10.0	5.10	51	22-150	
Carbon disulfide	10.0	9.55	95	54-132	
Methylene Chloride	10.0	9.25	92	63-129	
trans-1,2-Dichloroethene	10.0	9.30	93	73-126	
Methyl tert-butyl ether	10.0	10.2	102	64-123	
1,1-Dichloroethane	10.0	9.48	95	73-126	
cis-1,2-Dichloroethene	10.0	9.68	97	70-120	
Bromochloromethane	10.0	9.14	91	70-127	
2-Butanone (MEK)	10.0	6.55	66	39-138	
Chloroform	10.0	9.32	93	72-127	
1,1,1-Trichloroethane	10.0	9.82	98	63-133	
Carbon tetrachloride	10.0	10.1	101	55-150	
Benzene	10.0	8.92	89	80-120	
1,2-Dichloroethane	10.0	8.87	89	68-132	
Trichloroethene	10.0	8.88	89	73-120	
1,2-Dichloropropane	10.0	8.87	89	76-124	
Bromodichloromethane	10.0	9.32	93	66-130	
cis-1,3-Dichloropropene	10.0	8.93	89	66-120	
4-Methyl-2-pentanone (MIBK)	10.0	8.82	88	45-145	
Toluene	10.0	9.32	93	80-123	
trans-1,3-Dichloropropene	10.0	9.63	96	65-125	
1,1,2-Trichloroethane	10.0	9.08	91	77-127	
Tetrachloroethene	10.0	8.12	81	70-135	
2-Hexanone	10.0	8.49	85	25-132	
Dibromochloromethane	10.0	9.40	94	60-140	
1,2-Dibromoethane (EDB)	10.0	8.99	90	74-123	
Chlorobenzene	10.0	9.63	96	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.12	91	63-140	
Ethylbenzene	10.0	8.70	87	72-126	
Xylenes, Total	20.0	16.8	84	76-128	
Styrene	10.0	9.66	97	71-127	
Bromoform	10.0	9.32	93	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.80	98	62-125	
1,4-Dioxane	200	85.3 J	43	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7040409.D

Lab ID: LCSD 180-137512/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	8.38	84	7	35	50-139	
Vinyl chloride	10.0	8.38	84	3	35	53-138	
Bromomethane	10.0	11.6	116	3	35	33-150	
Chloroethane	10.0	9.68	97	3	35	36-142	
1,1-Dichloroethene	10.0	11.0	110	5	35	65-136	
Acetone	20.0	27.9	140	16	35	22-150	
Carbon disulfide	10.0	11.2	112	1	35	54-132	
Methylene Chloride	10.0	11.8	118	4	35	63-129	
trans-1,2-Dichloroethene	10.0	10.1	101	6	35	73-126	
Methyl tert-butyl ether	10.0	11.2	112	4	35	64-123	
1,1-Dichloroethane	10.0	11.1	111	7	35	73-126	
cis-1,2-Dichloroethene	10.0	10.7	107	5	35	70-120	
Bromochloromethane	10.0	10.9	109	4	35	70-127	
2-Butanone (MEK)	20.0	20.8	104	4	35	39-138	
Chloroform	10.0	10.5	105	1	35	72-127	
1,1,1-Trichloroethane	10.0	10.7	107	5	35	63-133	
Carbon tetrachloride	10.0	10.3	103	4	35	55-150	
Benzene	10.0	10.7	107	6	32	80-120	
1,2-Dichloroethane	10.0	9.70	97	1	32	68-132	
Trichloroethene	10.0	9.67	97	10	35	73-120	
1,2-Dichloropropane	10.0	9.74	97	2	34	76-124	
Bromodichloromethane	10.0	10.3	103	4	35	66-130	
cis-1,3-Dichloropropene	10.0	9.96	100	8	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.1	100	4	35	45-145	
Toluene	10.0	9.79	98	10	35	80-123	
trans-1,3-Dichloropropene	10.0	9.43	94	9	35	65-125	
1,1,2-Trichloroethane	10.0	10.1	101	4	35	77-127	
Tetrachloroethene	10.0	8.14	81	9	35	70-135	
2-Hexanone	20.0	25.7	128	6	35	25-132	
Dibromochloromethane	10.0	9.92	99	2	35	60-140	
1,2-Dibromoethane (EDB)	10.0	9.93	99	1	35	74-123	
Chlorobenzene	10.0	9.97	100	4	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.65	97	2	34	63-140	
Ethylbenzene	10.0	8.61	86	6	33	72-126	
Xylenes, Total	20.0	17.4	87	4	32	76-128	
Styrene	10.0	10.0	100	1	34	71-127	
Bromoform	10.0	9.81	98	4	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.6	106	4	35	62-125	
1,4-Dioxane	200	201	101	2	35	10-160	

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.: 180-42391-1

SDG No.:

Lab File ID: 7040206.D Lab Sample ID: MB 180-137305/6

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

Instrument ID: CHHP7 Date Analyzed: 04/02/2015 12:11

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-CW-13-0/1-0 DL	180-42391-3 DL	7040209.D	04/02/2015 13:33
HD-CW-15A-0/1-0	180-42391-4	7040210.D	04/02/2015 14:01
HD-CW-17-0/1-0	180-42391-5	7040211.D	04/02/2015 14:28
HD-QC3-0/1-2	180-42391-1	7040213.D	04/02/2015 15:23
HD-MW-147A-0/1-0	180-42391-8	7040218.D	04/02/2015 18:07
HD-MW-75S-0/1-0	180-42391-9	7040221.D	04/02/2015 19:28

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040306.D Lab Sample ID: MB 180-137438/6

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

Instrument ID: CHHP7 Date Analyzed: 04/03/2015 11:46

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-CW-20-0/1-0	180-42391-6	7040309.D	04/03/2015 13:22
	LCS 180-137438/12	7040312.D	04/03/2015 14:44
HD-MW-95-0/1-0	180-42391-12	7040315.D	04/03/2015 16:05
HD-MW-7-0/1-0	180-42391-13	7040316.D	04/03/2015 16:32
HD-MW-95-0/1-0 RA	180-42391-12 RA	7040317.D	04/03/2015 16:59
HD-MW-37D-0/1-0	180-42391-10	7040318.D	04/03/2015 17:26
HD-MW-37S-0/1-0	180-42391-11	7040319.D	04/03/2015 17:53

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040406.D Lab Sample ID: MB 180-137512/6

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

Instrument ID: CHHP7 Date Analyzed: 04/04/2015 15:41

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-137512/8	7040408.D	04/04/2015 16:44
	LCSD 180-137512/9	7040409.D	04/04/2015 17:11
HD-CW-13-0/1-0	180-42391-3	7040413.D	04/04/2015 18:59
HD-CW-20-0/1-0 DL	180-42391-6 DL	7040418.D	04/04/2015 21:14
HD-MW-100D-0/1-0	180-42391-7	7040421.D	04/04/2015 22:36
HD-MW-37D-0/1-0 DL	180-42391-10 DL	7040423.D	04/04/2015 23:30

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040606.D Lab Sample ID: MB 180-137564/6

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

Instrument ID: CHHP7 Date Analyzed: 04/06/2015 11:09

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-MW-75S-0/1-0 DL	180-42391-9 DL	7040607.D	04/06/2015 11:48
HD-MW-37S-0/1-0 DL	180-42391-11 DL	7040608.D	04/06/2015 12:15
HD-CW-9-0/1-0	180-42391-2	7040609.D	04/06/2015 12:54
	LCS 180-137564/13	7040613.D	04/06/2015 14:45

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7033001.D BFB Injection Date: 03/30/2015

Instrument ID: CHHP7 BFB Injection Time: 09:32

Analysis Batch No.: 136928

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.4	
75	30.0 - 60.0 % of mass 95	51.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	80.2	
175	5.0 - 9.0 % of mass 174	5.6	(6.9)1
176	95.0 - 101.0 % of mass 174	77.4	(96.5)1
177	5.0 - 9.0 % of mass 176	4.8	(6.2)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 180-136928/3	7033003.D	03/30/2015	10:57
	IC 180-136928/4	7033004.D	03/30/2015	11:28
	ICIS 180-136928/5	7033005.D	03/30/2015	11:55
	IC 180-136928/6	7033006.D	03/30/2015	12:23
	IC 180-136928/7	7033007.D	03/30/2015	13:05
	IC 180-136928/8	7033008.D	03/30/2015	13:32
	IC 180-136928/9	7033009.D	03/30/2015	14:05
	IC 180-136928/10	7033010.D	03/30/2015	14:36

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040201.D BFB Injection Date: 04/02/2015

Instrument ID: CHHP7 BFB Injection Time: 09:04

Analysis Batch No.: 137305

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	55.7	
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	82.6	
175	5.0 - 9.0 % of mass 174	6.4	(7.8)1
176	95.0 - 101.0 % of mass 174	79.7	(96.4)1
177	5.0 - 9.0 % of mass 176	4.5	(5.7)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-137305/3	7040203.D	04/02/2015	10:16
	MB 180-137305/6	7040206.D	04/02/2015	12:11
HD-CW-13-0/1-0 DL	180-42391-3 DL	7040209.D	04/02/2015	13:33
HD-CW-15A-0/1-0	180-42391-4	7040210.D	04/02/2015	14:01
HD-CW-17-0/1-0	180-42391-5	7040211.D	04/02/2015	14:28
HD-QC3-0/1-2	180-42391-1	7040213.D	04/02/2015	15:23
HD-MW-147A-0/1-0	180-42391-8	7040218.D	04/02/2015	18:07
HD-MW-75S-0/1-0	180-42391-9	7040221.D	04/02/2015	19:28

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040301.D BFB Injection Date: 04/03/2015

Instrument ID: CHHP7 BFB Injection Time: 09:28

Analysis Batch No.: 137438

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	50.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	83.7	
175	5.0 - 9.0 % of mass 174	6.5	(7.8)1
176	95.0 - 101.0 % of mass 174	80.6	(96.2)1
177	5.0 - 9.0 % of mass 176	5.9	(7.3)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 180-137438/3	7040302.D	04/03/2015	10:07
	MB 180-137438/6	7040306.D	04/03/2015	11:46
HD-CW-20-0/1-0	180-42391-6	7040309.D	04/03/2015	13:22
	LCS 180-137438/12	7040312.D	04/03/2015	14:44
HD-MW-95-0/1-0	180-42391-12	7040315.D	04/03/2015	16:05
HD-MW-7-0/1-0	180-42391-13	7040316.D	04/03/2015	16:32
HD-MW-95-0/1-0 RA	180-42391-12 RA	7040317.D	04/03/2015	16:59
HD-MW-37D-0/1-0	180-42391-10	7040318.D	04/03/2015	17:26
HD-MW-37S-0/1-0	180-42391-11	7040319.D	04/03/2015	17:53

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040401.D BFB Injection Date: 04/04/2015

Instrument ID: CHHP7 BFB Injection Time: 13:00

Analysis Batch No.: 137512

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	53.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.8)1
174	50.0 - 120.00 % of mass 95	80.4	
175	5.0 - 9.0 % of mass 174	5.9	(7.4)1
176	95.0 - 101.0 % of mass 174	80.8	(100.4)1
177	5.0 - 9.0 % of mass 176	5.4	(6.7)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-137512/3	7040403.D	04/04/2015	14:19
	MB 180-137512/6	7040406.D	04/04/2015	15:41
	LCS 180-137512/8	7040408.D	04/04/2015	16:44
	LCSD 180-137512/9	7040409.D	04/04/2015	17:11
HD-CW-13-0/1-0	180-42391-3	7040413.D	04/04/2015	18:59
HD-CW-20-0/1-0 DL	180-42391-6 DL	7040418.D	04/04/2015	21:14
HD-MW-100D-0/1-0	180-42391-7	7040421.D	04/04/2015	22:36
HD-MW-37D-0/1-0 DL	180-42391-10 DL	7040423.D	04/04/2015	23:30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: 7040601.D BFB Injection Date: 04/06/2015

Instrument ID: CHHP7 BFB Injection Time: 08:19

Analysis Batch No.: 137564

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.3	
75	30.0 - 60.0 % of mass 95	59.9	
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	0.5	(0.6)1
174	50.0 - 120.00 % of mass 95	89.5	
175	5.0 - 9.0 % of mass 174	6.5	(7.3)1
176	95.0 - 101.0 % of mass 174	87.0	(97.2)1
177	5.0 - 9.0 % of mass 176	6.4	(7.3)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 180-137564/3	7040603.D	04/06/2015	09:40
	MB 180-137564/6	7040606.D	04/06/2015	11:09
HD-MW-75S-0/1-0 DL	180-42391-9 DL	7040607.D	04/06/2015	11:48
HD-MW-37S-0/1-0 DL	180-42391-11 DL	7040608.D	04/06/2015	12:15
HD-CW-9-0/1-0	180-42391-2	7040609.D	04/06/2015	12:54
	LCS 180-137564/13	7040613.D	04/06/2015	14:45

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137305/3 Date Analyzed: 04/02/2015 10:16

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

Lab File ID (Standard): 7040203.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		224259	4.84	886487	7.40	280160	10.46
UPPER LIMIT		448518	5.34	1772974	7.90	560320	10.96
LOWER LIMIT		112130	4.34	443244	6.90	140080	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137305/6		216554	4.59	718219	7.42	202019	10.47
180-42391-3 DL	HD-CW-13-0/1-0 DL	206837	4.57	735428	7.42	203636	10.47
180-42391-4	HD-CW-15A-0/1-0	223308	4.61	683836	7.42	203417	10.47
180-42391-5	HD-CW-17-0/1-0	195250	4.61	659016	7.42	182351	10.47
180-42391-1	HD-QC3-0/1-2	203047	4.63	818132	7.42	256943	10.47
180-42391-8	HD-MW-147A-0/1-0	223341	4.59	758078	7.43	222294	10.47
180-42391-9	HD-MW-75S-0/1-0	217044	4.60	694066	7.42	186044	10.48

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137305/3 Date Analyzed: 04/02/2015 10:16

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

Lab File ID (Standard): 7040203.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		371967	12.79				
UPPER LIMIT		743934	13.29				
LOWER LIMIT		185984	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137305/6		271011	12.79				
180-42391-3 DL	HD-CW-13-0/1-0 DL	283578	12.79				
180-42391-4	HD-CW-15A-0/1-0	274877	12.79				
180-42391-5	HD-CW-17-0/1-0	257742	12.79				
180-42391-1	HD-QC3-0/1-2	349873	12.79				
180-42391-8	HD-MW-147A-0/1-0	273631	12.79				
180-42391-9	HD-MW-75S-0/1-0	250986	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137438/3 Date Analyzed: 04/03/2015 10:07

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

Lab File ID (Standard): 7040302.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		208032	4.79	855803	7.40	254591	10.47
UPPER LIMIT		416064	5.29	1711606	7.90	509182	10.97
LOWER LIMIT		104016	4.29	427902	6.90	127296	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137438/6		215384	4.60	689625	7.42	206910	10.47
180-42391-6	HD-CW-20-0/1-0	213336	4.63	845698	7.43	236902	10.47
LCS 180-137438/12		201661	4.74	864973	7.41	278213	10.47
180-42391-12	HD-MW-95-0/1-0	143838	4.60	1057240	7.42	249217	10.47
180-42391-13	HD-MW-7-0/1-0	137587	4.60	909735	7.42	264468	10.48
180-42391-12 RA	HD-MW-95-0/1-0 RA	134820	4.63	742824	7.42	181915	10.48
180-42391-10	HD-MW-37D-0/1-0	105437	4.59	643892	7.42	170452	10.47
180-42391-11	HD-MW-37S-0/1-0	107433	4.59	608600	7.42	165296	10.47

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137438/3 Date Analyzed: 04/03/2015 10:07

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

Lab File ID (Standard): 7040302.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		334075	12.79				
UPPER LIMIT		668150	13.29				
LOWER LIMIT		167038	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137438/6		251065	12.79				
180-42391-6	HD-CW-20-0/1-0	343931	12.79				
LCS 180-137438/12		364439	12.79				
180-42391-12	HD-MW-95-0/1-0	300872	12.79				
180-42391-13	HD-MW-7-0/1-0	374126	12.79				
180-42391-12 RA	HD-MW-95-0/1-0 RA	217159	12.79				
180-42391-10	HD-MW-37D-0/1-0	222322	12.79				
180-42391-11	HD-MW-37S-0/1-0	214137	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137512/3 Date Analyzed: 04/04/2015 14:19

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

Lab File ID (Standard): 7040403.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		185266	4.77	803043	7.40	248246	10.47
UPPER LIMIT		370532	5.27	1606086	7.90	496492	10.97
LOWER LIMIT		92633	4.27	401522	6.90	124123	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137512/6		175848	4.61	768306	7.42	234443	10.47
LCS 180-137512/8		256027	4.74	774174	7.41	231825	10.47
LCSD 180-137512/9		246043	4.74	812560	7.40	241893	10.47
180-42391-3	HD-CW-13-0/1-0	175636	4.59	692869	7.41	182115	10.47
180-42391-6 DL	HD-CW-20-0/1-0 DL	172413	4.58	648052	7.42	187814	10.47
180-42391-7	HD-MW-100D-0/1-0	149621	4.59	537837	7.42	159499	10.48
180-42391-10 DL	HD-MW-37D-0/1-0 DL	155204	4.61	527130	7.42	164929	10.47

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137512/3 Date Analyzed: 04/04/2015 14:19

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

Lab File ID (Standard): 7040403.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		345664	12.79				
UPPER LIMIT		691328	13.29				
LOWER LIMIT		172832	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137512/6		336696	12.79				
LCS 180-137512/8		311866	12.78				
LCSD 180-137512/9		306779	12.79				
180-42391-3	HD-CW-13-0/1-0	258874	12.79				
180-42391-6 DL	HD-CW-20-0/1-0 DL	233528	12.79				
180-42391-7	HD-MW-100D-0/1-0	203103	12.79				
180-42391-10 DL	HD-MW-37D-0/1-0 DL	218207	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137564/3 Date Analyzed: 04/06/2015 09:40

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

Lab File ID (Standard): 7040603.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		211903	4.93	817201	7.40	260238	10.47
UPPER LIMIT		423806	5.43	1634402	7.90	520476	10.97
LOWER LIMIT		105952	4.43	408601	6.90	130119	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137564/6		213900	4.60	908506	7.42	267699	10.47
180-42391-9 DL	HD-MW-75S-0/1-0 DL	221359	4.60	886185	7.41	265063	10.48
180-42391-11 DL	HD-MW-37S-0/1-0 DL	227696	4.60	907028	7.42	275015	10.47
180-42391-2	HD-CW-9-0/1-0	228925	4.58	848307	7.42	247454	10.47
LCS 180-137564/13		133113	4.68	879353	7.40	253552	10.47

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Sample No.: CCVIS 180-137564/3 Date Analyzed: 04/06/2015 09:40

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

Lab File ID (Standard): 7040603.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		344252	12.79				
UPPER LIMIT		688504	13.29				
LOWER LIMIT		172126	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137564/6		372712	12.79				
180-42391-9 DL	HD-MW-75S-0/1-0 DL	372823	12.79				
180-42391-11 DL	HD-MW-37S-0/1-0 DL	385777	12.79				
180-42391-2	HD-CW-9-0/1-0	369494	12.79				
LCS 180-137564/13		344449	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-42391-1

Matrix: Water Lab File ID: 7040213.D

Analysis Method: 8260C Date Collected: 03/25/2015 12:00

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 15:23

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.: 137305 Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-42391-1

Matrix: Water Lab File ID: 7040213.D

Analysis Method: 8260C Date Collected: 03/25/2015 12:00

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 15:23

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.: 137305 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040213.D
Lims ID: 180-42391-A-1 Lab Sample ID: 180-42391-1
Client ID: HD-QC3-0/1-2
Sample Type: Client
Inject. Date: 02-Apr-2015 15:23:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-42391-A-1
Misc. Info.: 180-0006293-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 03-Apr-2015 09:46:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.625	4.837	-0.212	90	203047	4000.0	
* 2 Fluorobenzene (IS)	96	7.417	7.398	0.019	99	818132	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.464	0.007	84	256943	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.788	0.001	95	349873	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.687	6.680	0.007	91	274319	210.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.058	7.045	0.013	94	221892	178.3	
$ 7 Toluene-d8 (Surr)	98	9.042	9.035	0.007	92	756501	198.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.632	0.001	89	322925	188.6	
12 Chloromethane	50		2.033				ND	
13 Vinyl chloride	62		2.185				ND	
15 Bromomethane	94		2.495				ND	
16 Chloroethane	64		2.617				ND	
22 1,1-Dichloroethene	96		3.505				ND	
26 Carbon disulfide	76		3.791				ND	
24 Acetone	43		3.839				ND	
31 Methylene Chloride	84		4.350				ND	
34 trans-1,2-Dichloroethene	96		4.728				ND	
33 Acrylonitrile	53		4.813				ND	
35 Methyl tert-butyl ether	73		4.874				ND	
37 1,1-Dichloroethane	63		5.354				ND	
45 cis-1,2-Dichloroethene	96		6.096				ND	
46 2-Butanone (MEK)	43		6.200				ND	
49 Chlorobromomethane	128		6.382				ND	
52 Chloroform	83		6.492				ND	
53 1,1,1-Trichloroethane	97		6.668				ND	
56 Carbon tetrachloride	117		6.857				ND	
58 Benzene	78		7.094				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130		7.794				ND	
67 1,2-Dichloropropane	63		8.025				ND	
70 1,4-Dioxane	88		8.195				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.317				ND	
74 cis-1,3-Dichloropropene	75		8.767				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.943				ND	
76 Toluene	91		9.102				ND	
77 trans-1,3-Dichloropropene	75		9.327				ND	
79 1,1,2-Trichloroethane	97		9.509				ND	
80 Tetrachloroethene	164		9.649				ND	
82 2-Hexanone	43		9.765				ND	
84 Chlorodibromomethane	129		9.899				ND	
85 Ethylene Dibromide	107		10.008				ND	
87 Chlorobenzene	112		10.495				ND	
89 1,1,1,2-Tetrachloroethane	131		10.574				ND	
90 Ethylbenzene	106		10.604				ND	
91 m-Xylene & p-Xylene	106		10.720				ND	
92 o-Xylene	106		11.115				ND	
93 Styrene	104		11.133				ND	
94 Bromoform	173		11.316				ND	
99 1,1,2,2-Tetrachloroethane	83		11.778				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

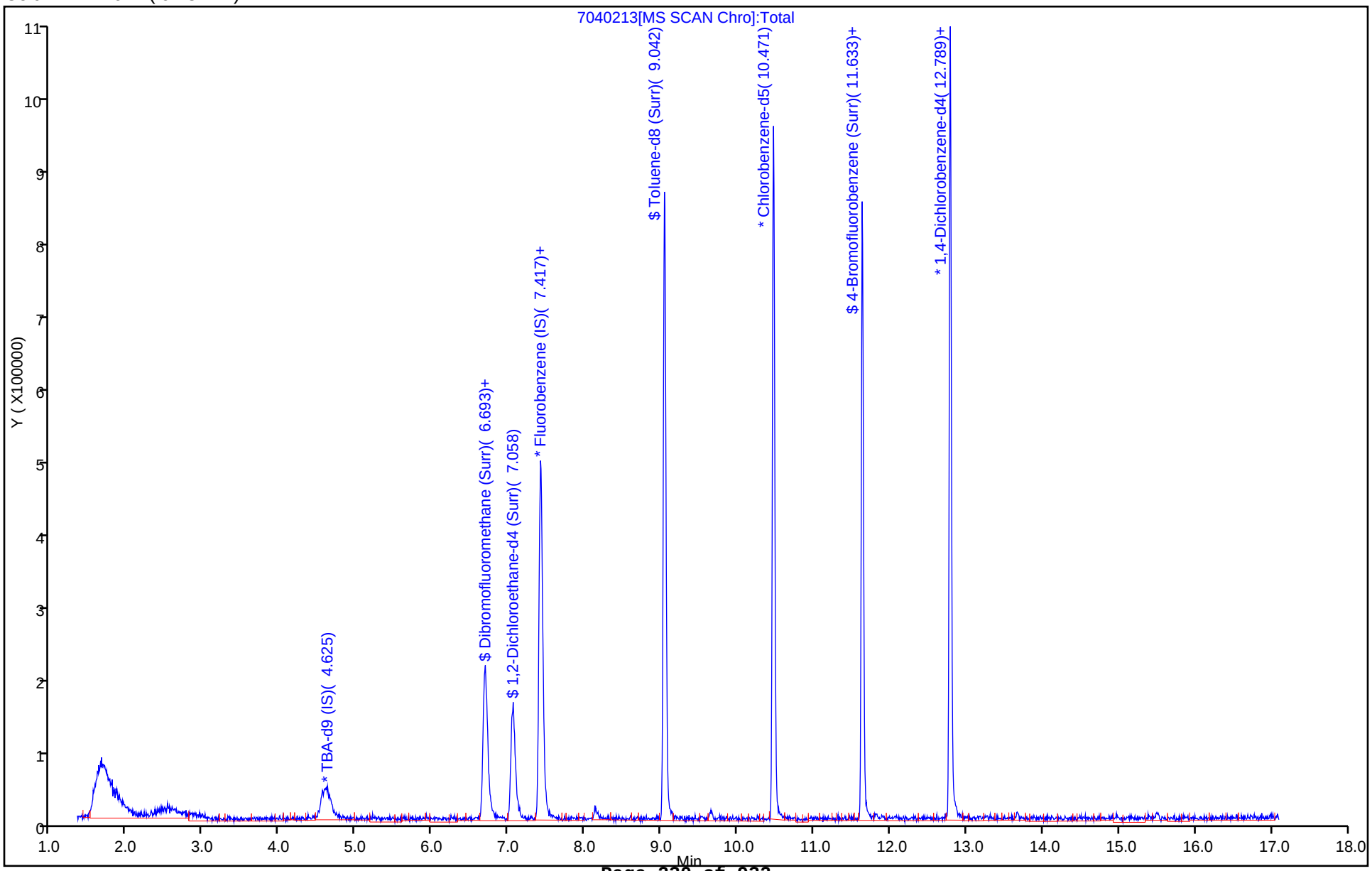
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 10:26:28 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040213.D				
Injection Date:	02-Apr-2015 15:23:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-A-1	Lab Sample ID:	180-42391-1	Worklist Smp#:	13
Client ID:	HD-QC3-0/1-2				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
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.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 | Lab Sample ID: 180-42391-2

Matrix: Water | Lab File ID: 7040609.D

Analysis Method: 8260C | Date Collected: 03/25/2015 06:00

Sample wt/vol: 20(mL) | Date Analyzed: 04/06/2015 12:54

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.: 137564 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.4
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
74-83-9	Bromomethane	5.0	U	5.0	1.6
75-00-3	Chloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	4.4	J	5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.0	U	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	68		5.0	1.2
74-97-5	Bromochloromethane	5.0	U	5.0	0.90
78-93-3	2-Butanone (MEK)	25	U	25	2.7
67-66-3	Chloroform	5.0	U	5.0	0.85
71-55-6	1,1,1-Trichloroethane	15		5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.68
71-43-2	Benzene	5.0	U	5.0	0.53
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.1
79-01-6	Trichloroethene	48		5.0	0.72
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.47
75-27-4	Bromodichloromethane	5.0	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	2.6
108-88-3	Toluene	5.0	U	5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.74
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.0
127-18-4	Tetrachloroethene	110		5.0	0.74
591-78-6	2-Hexanone	25	U	25	0.80
124-48-1	Dibromochloromethane	5.0	U	5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90
108-90-7	Chlorobenzene	5.0	U	5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4
100-41-4	Ethylbenzene	5.0	U	5.0	1.1
1330-20-7	Xylenes, Total	15	U	15	2.4
100-42-5	Styrene	5.0	U	5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-42391-2

Matrix: Water Lab File ID: 7040609.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:00

Sample wt/vol: 20(mL) Date Analyzed: 04/06/2015 12:54

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.: 137564 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	109		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D
Lims ID: 180-42391-D-2 Lab Sample ID: 180-42391-2
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 06-Apr-2015 12:54:30 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 5.0000
Sample Info: 180-42391-D-2
Misc. Info.: 180-0006335-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 15:45:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 13:39:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.582	4.932	-0.350	89	228925	4000.0	
* 2 Fluorobenzene (IS)	96	7.423	7.396	0.027	99	848307	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.468	0.003	84	247454	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.792	-0.004	95	369494	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.672	0.009	89	284332	210.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.052	7.037	0.015	94	241135	186.9	
$ 7 Toluene-d8 (Surr)	98	9.047	9.032	0.015	92	804283	219.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.636	-0.003	89	356182	218.2	
12 Chloromethane	50		2.012				ND	
13 Vinyl chloride	62		2.201				ND	
15 Bromomethane	94		2.487				ND	
16 Chloroethane	64		2.602				ND	
22 1,1-Dichloroethene	96	3.694	3.521	0.173	1	19944	17.5	M
26 Carbon disulfide	76		3.782				ND	
24 Acetone	43		3.843				ND	
31 Methylene Chloride	84		4.318				ND	
34 trans-1,2-Dichloroethene	96	4.831	4.731	0.100	1	1369	0.9687	
33 Acrylonitrile	53		4.810				ND	
35 Methyl tert-butyl ether	73		4.877				ND	
37 1,1-Dichloroethane	63		5.340				ND	
45 cis-1,2-Dichloroethene	96	6.121	6.082	0.039	77	379838	270.8	
46 2-Butanone (MEK)	43		6.191				ND	
49 Chlorobromomethane	128		6.374				ND	
52 Chloroform	83		6.496				ND	
53 1,1,1-Trichloroethane	97	6.705	6.672	0.033	61	123532	58.3	
56 Carbon tetrachloride	117		6.848				ND	
58 Benzene	78		7.086				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.806	7.785	0.021	93	319159	190.7	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.308				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.941				ND	
76 Toluene	91		9.099				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.649	9.647	0.002	90	456151	452.1	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.572				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.320				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00005	Amount Added:	24.00	Units: uL	
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL	
VOAVAPRI_00005	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00004	Amount Added:	8.00	Units: uL	
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

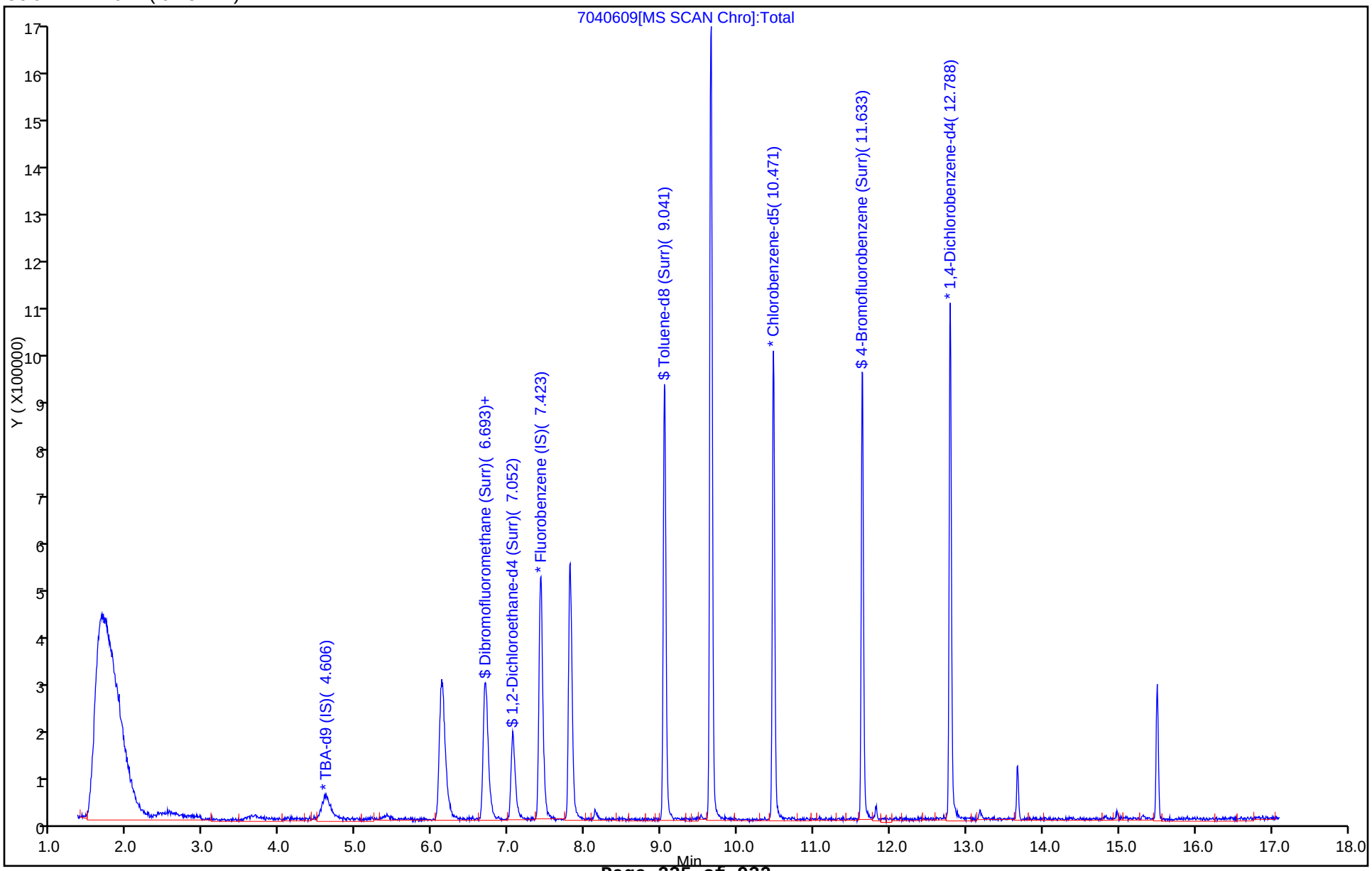
Report Date: 06-Apr-2015 15:45:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D

Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2	Worklist Smp#:	9
Client ID:	HD-CW-9-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

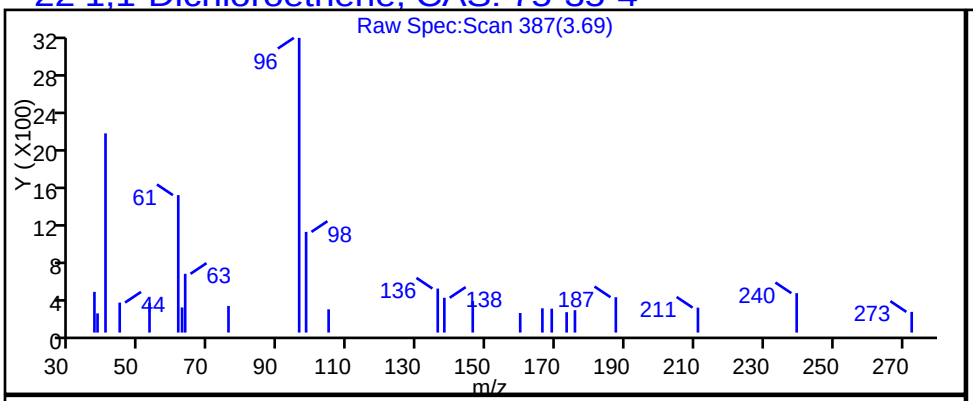


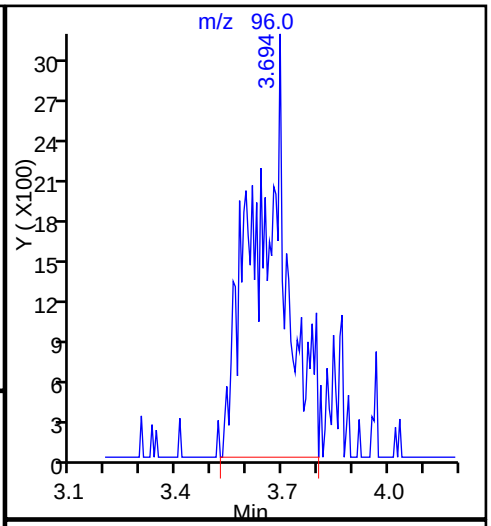
Report Date: 06-Apr-2015 15:45:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

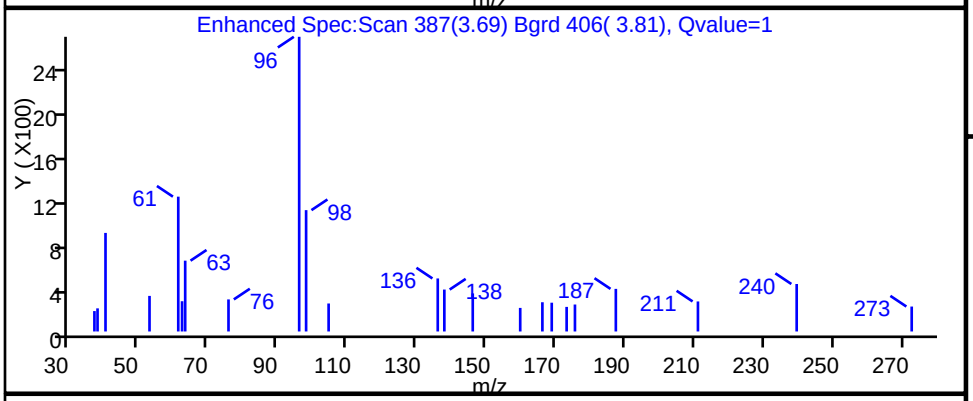
TestAmerica Pittsburgh

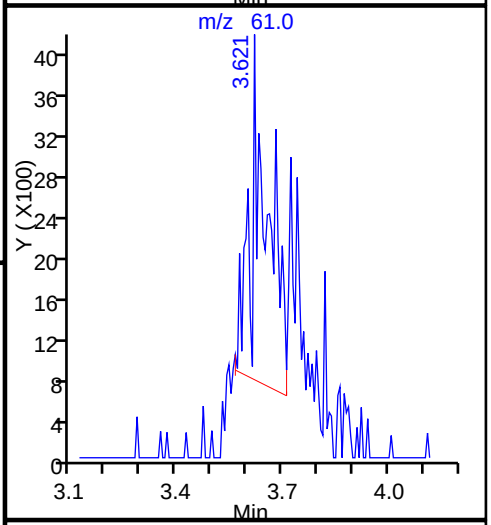
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D				
Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

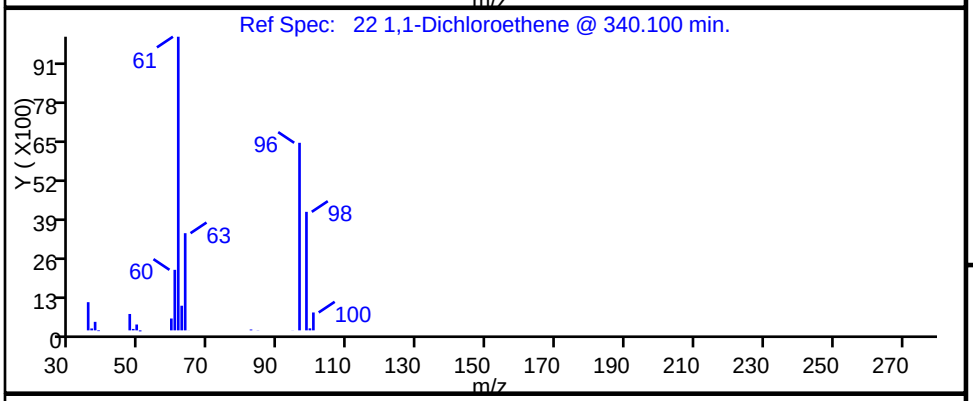
22 1,1-Dichloroethene, CAS: 75-35-4

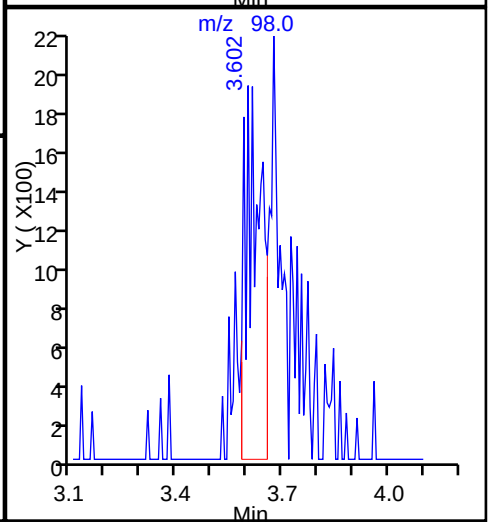


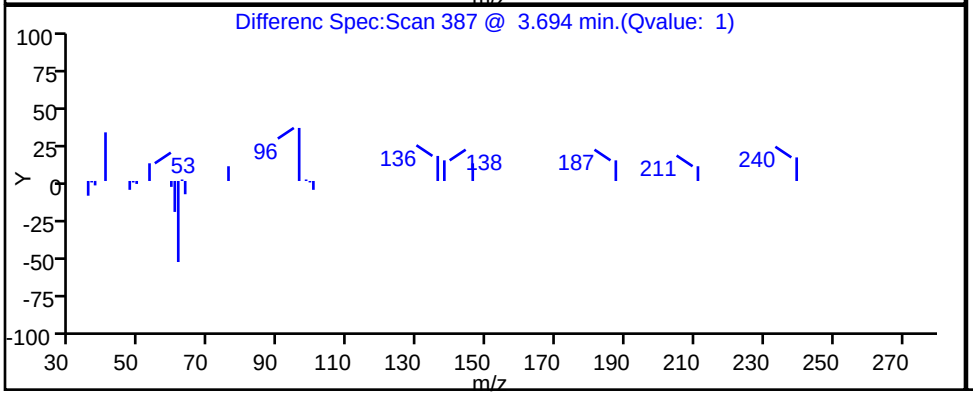










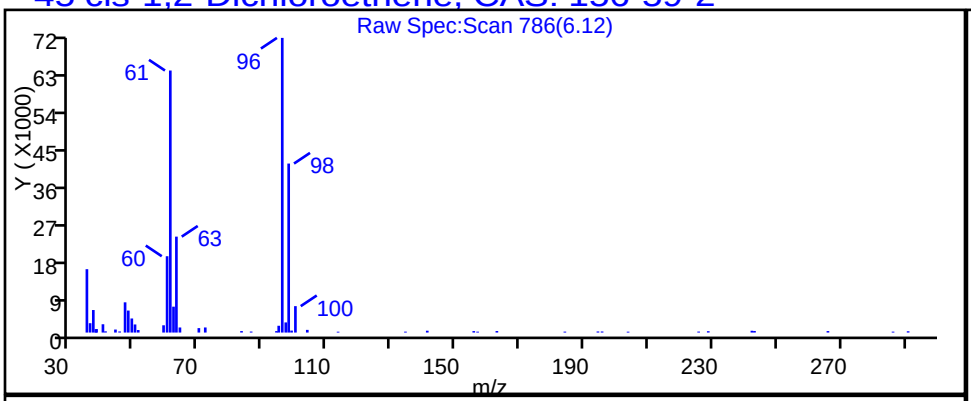


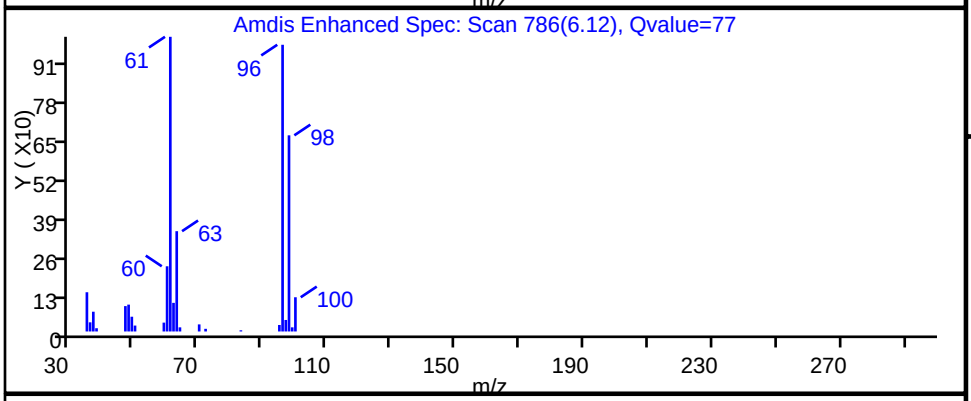
Report Date: 06-Apr-2015 15:45:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

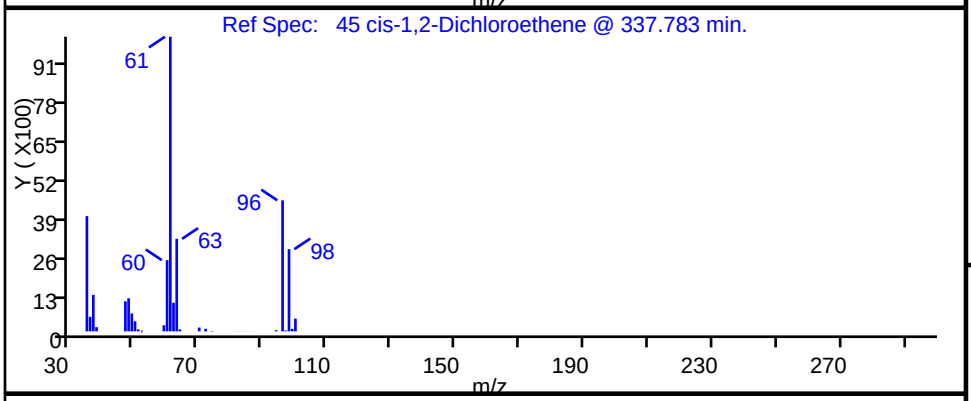
TestAmerica Pittsburgh

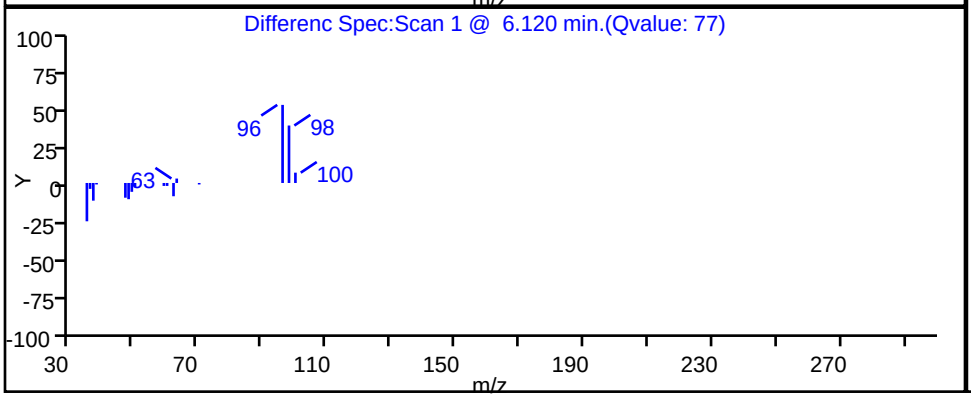
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D				
Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

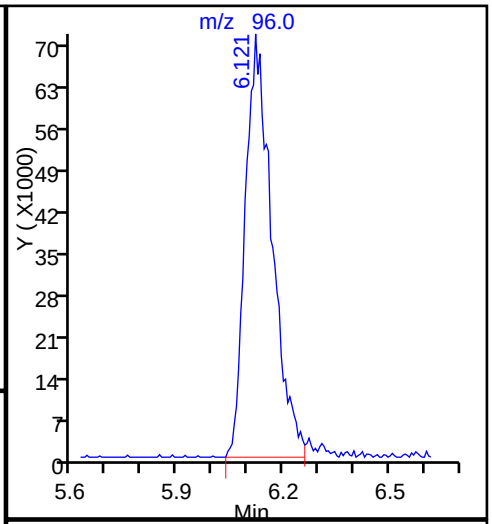
45 cis-1,2-Dichloroethene, CAS: 156-59-2

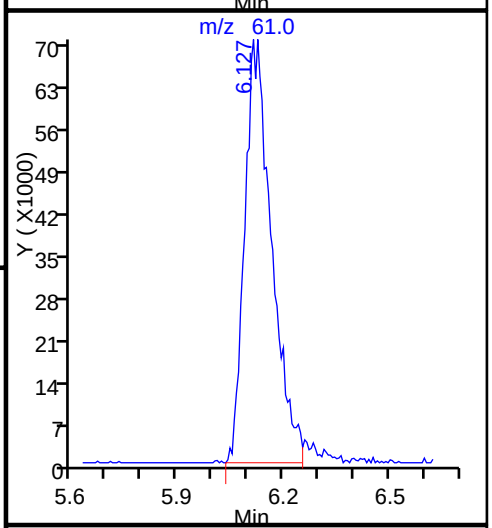


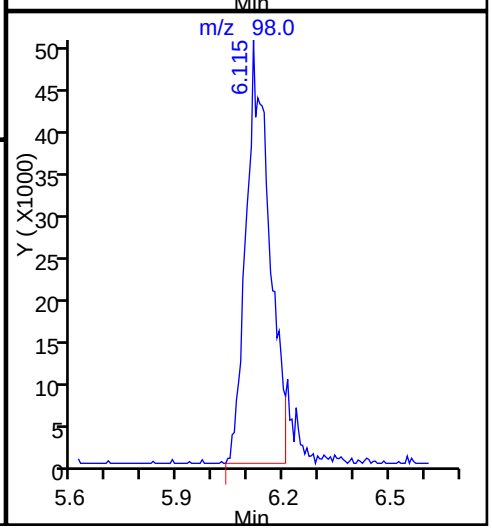










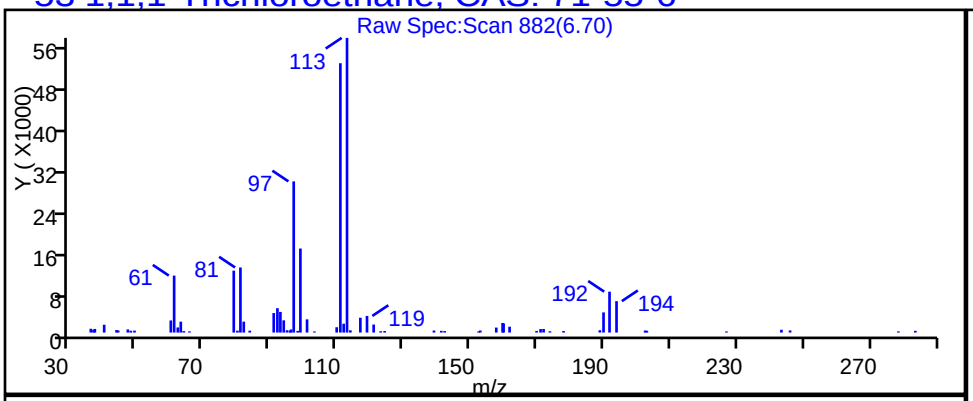


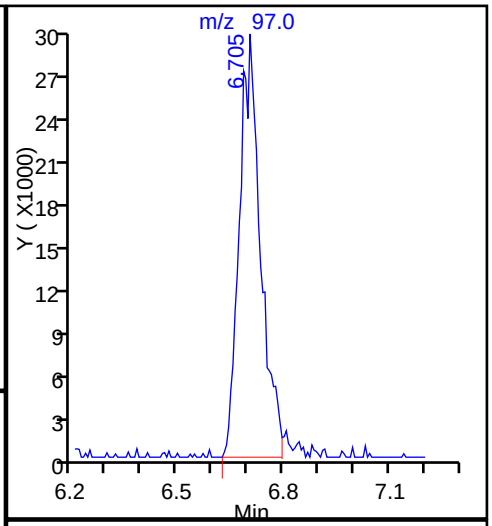
Report Date: 06-Apr-2015 15:45:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

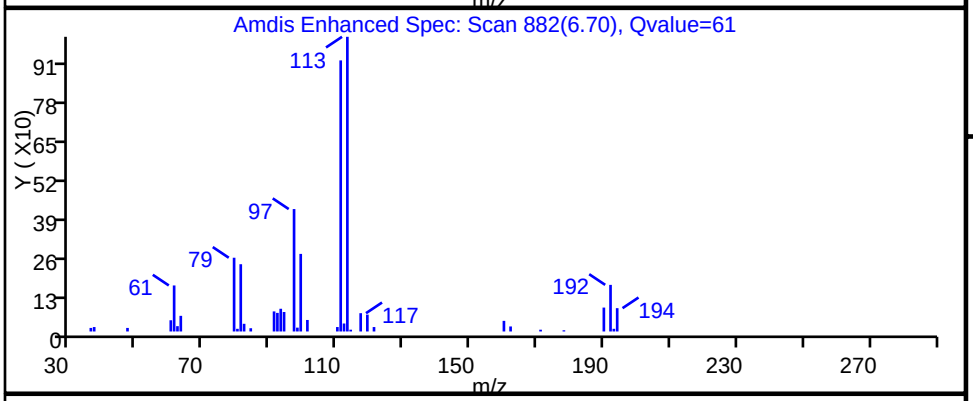
TestAmerica Pittsburgh

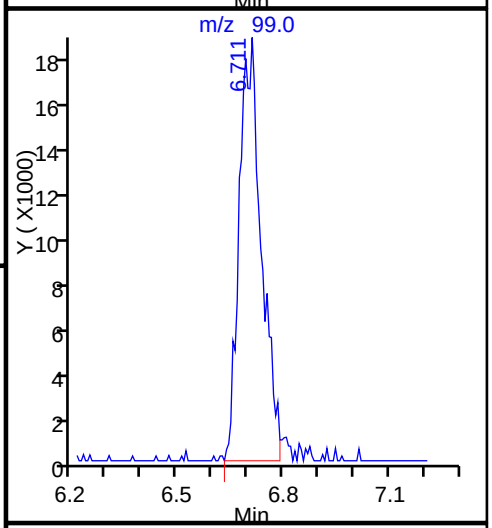
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D				
Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

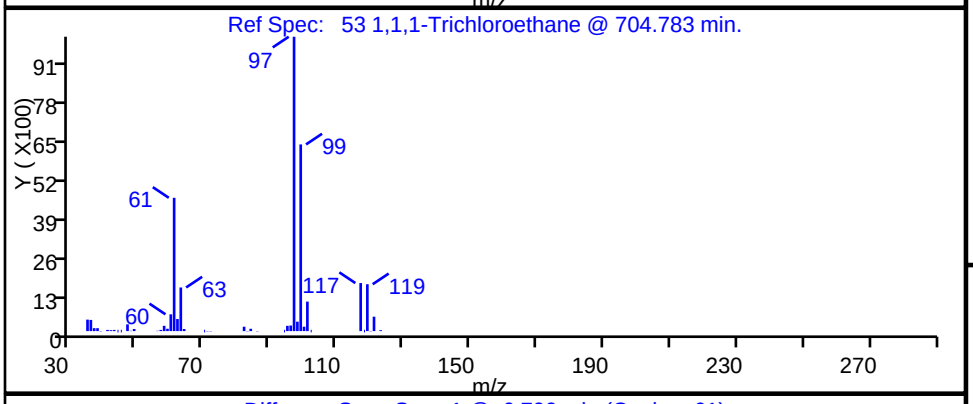
53 1,1,1-Trichloroethane, CAS: 71-55-6

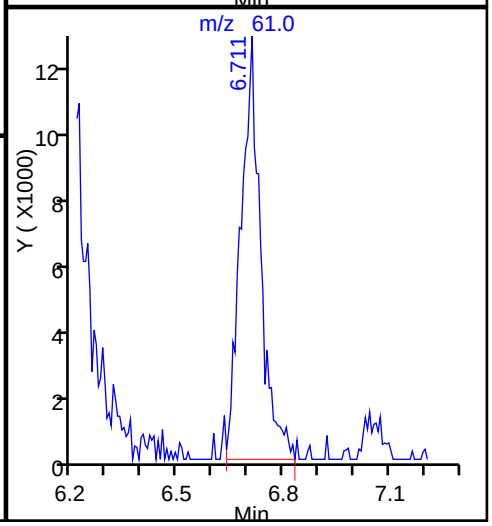


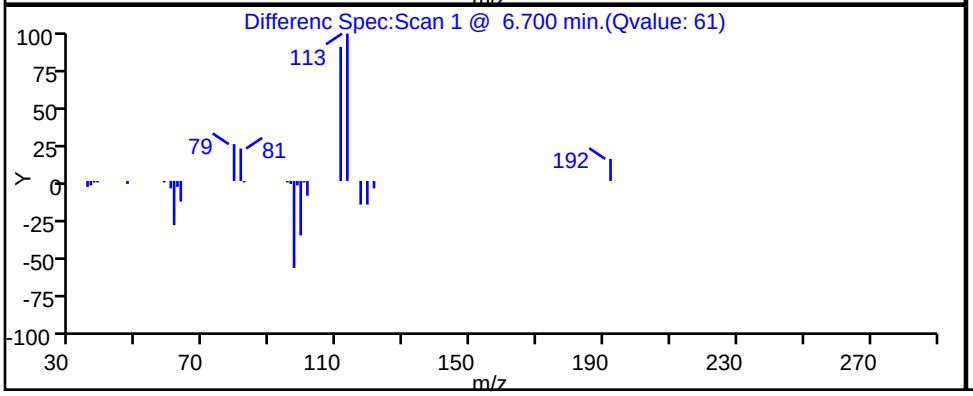










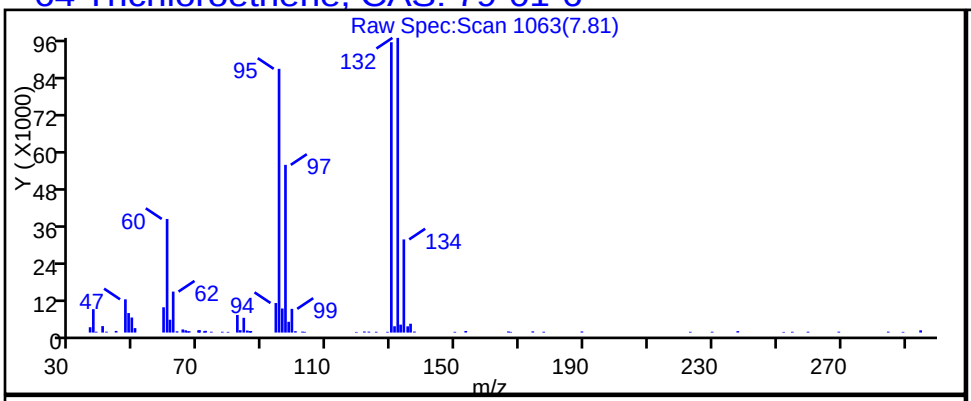


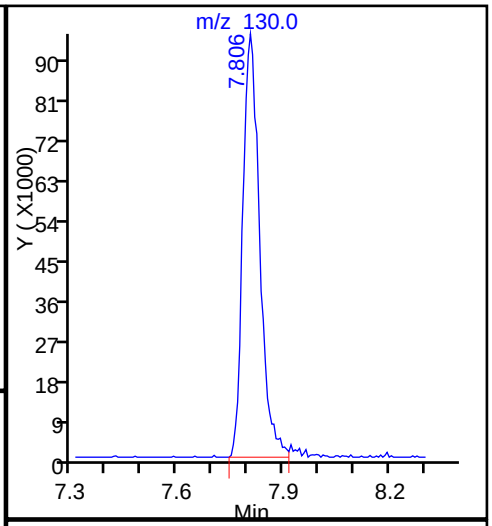
Report Date: 06-Apr-2015 15:45:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

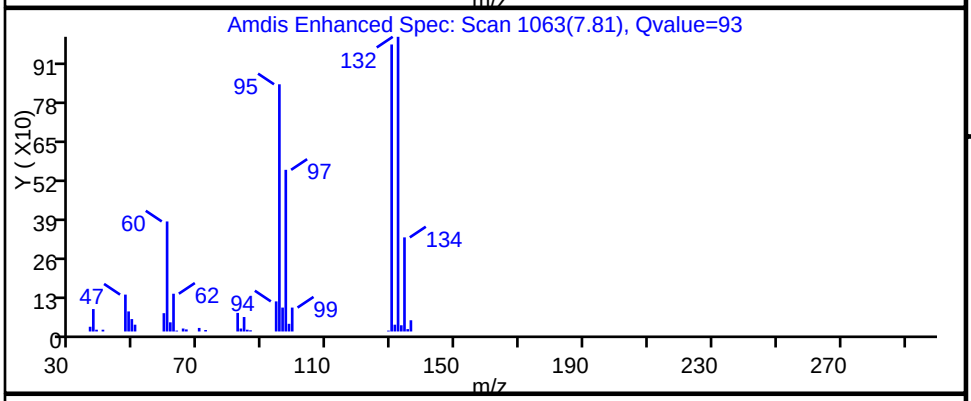
TestAmerica Pittsburgh

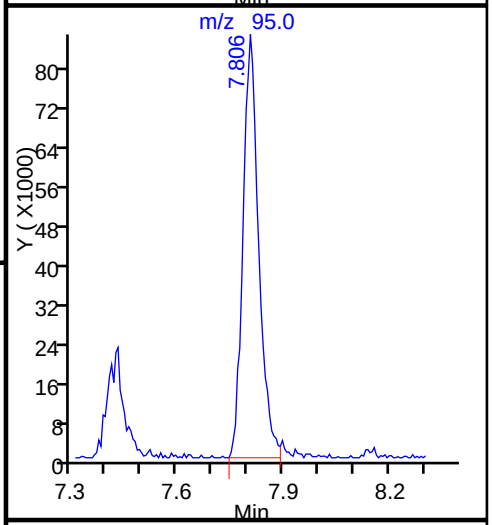
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D				
Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

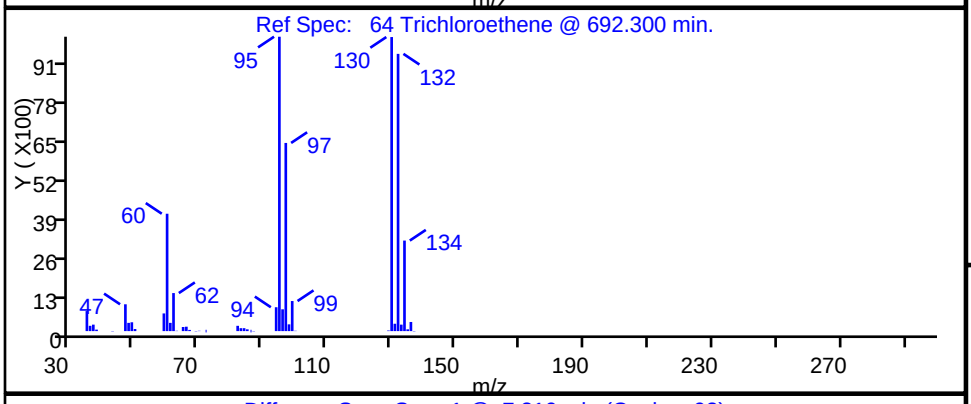
64 Trichloroethene, CAS: 79-01-6

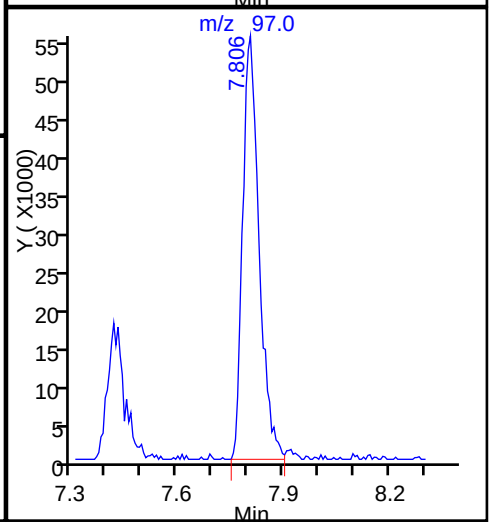


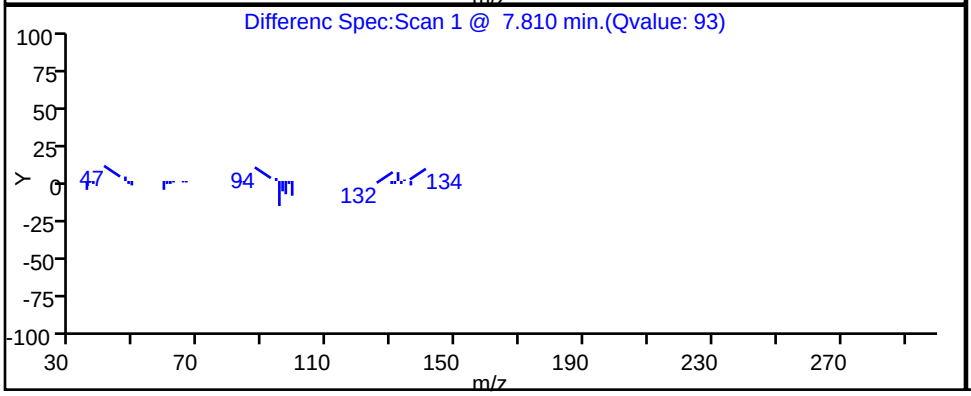










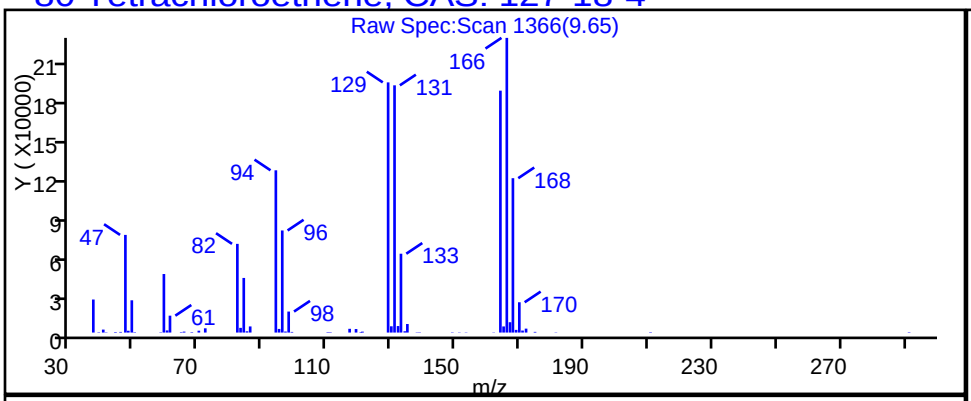


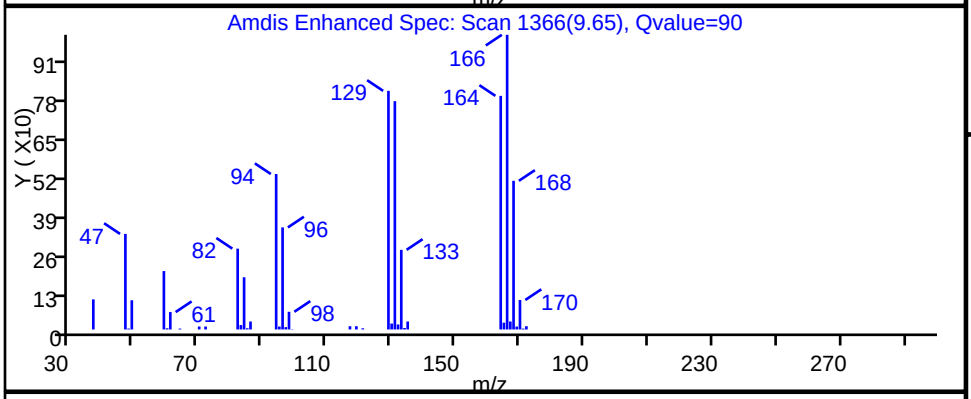
Report Date: 06-Apr-2015 15:45:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

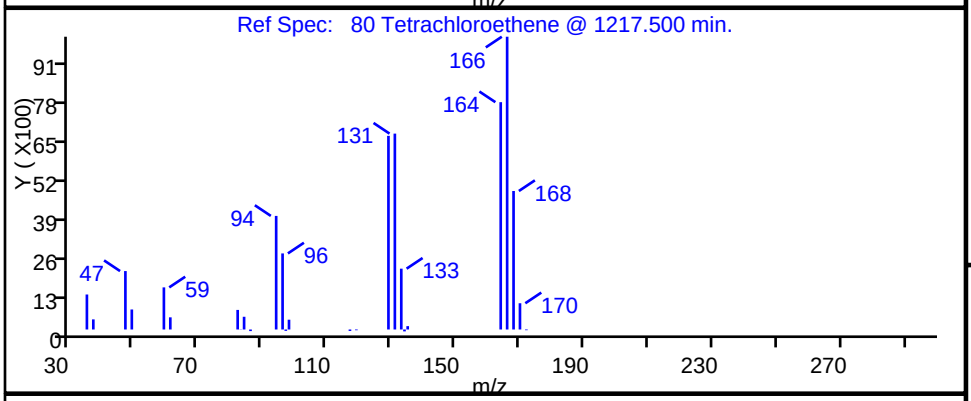
TestAmerica Pittsburgh

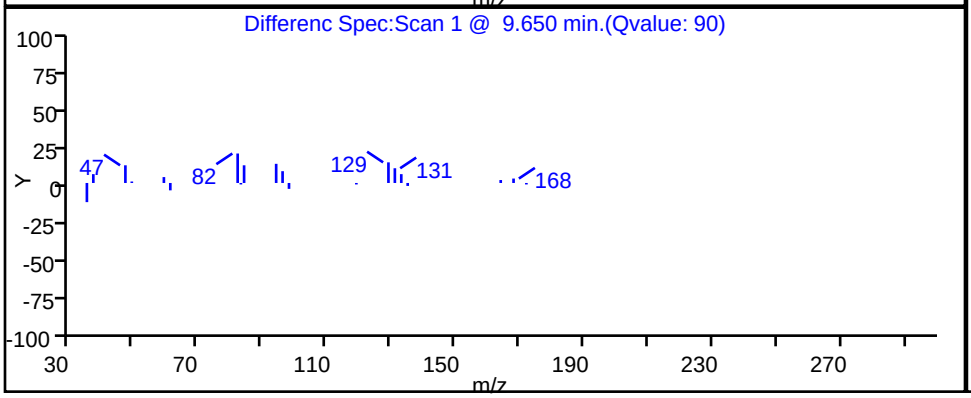
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D		
Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2
Client ID:	HD-CW-9-0/1-0		
Operator ID:	034635	ALS Bottle#:	10 Worklist Smp#: 9
Purge Vol:	20.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

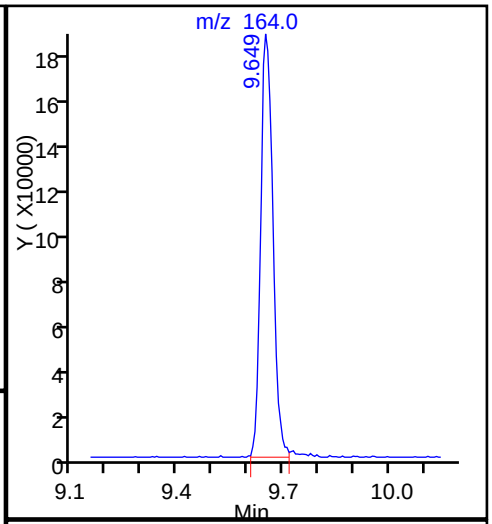
80 Tetrachloroethene, CAS: 127-18-4

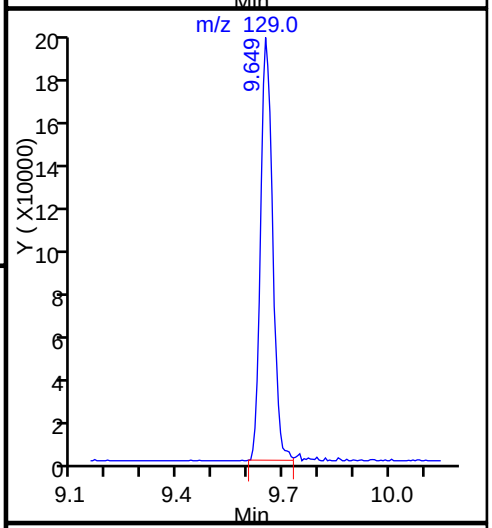


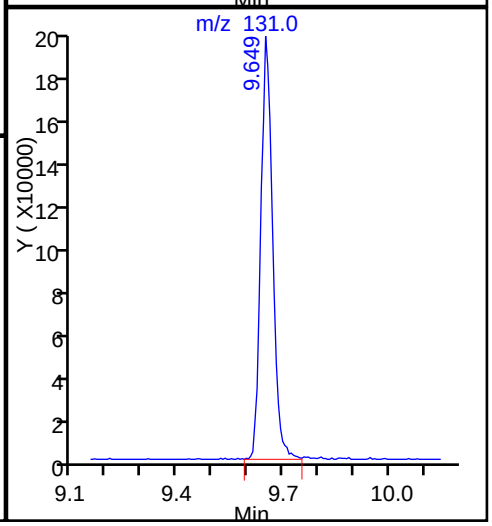












Manual Integration/User Assign Peak Report

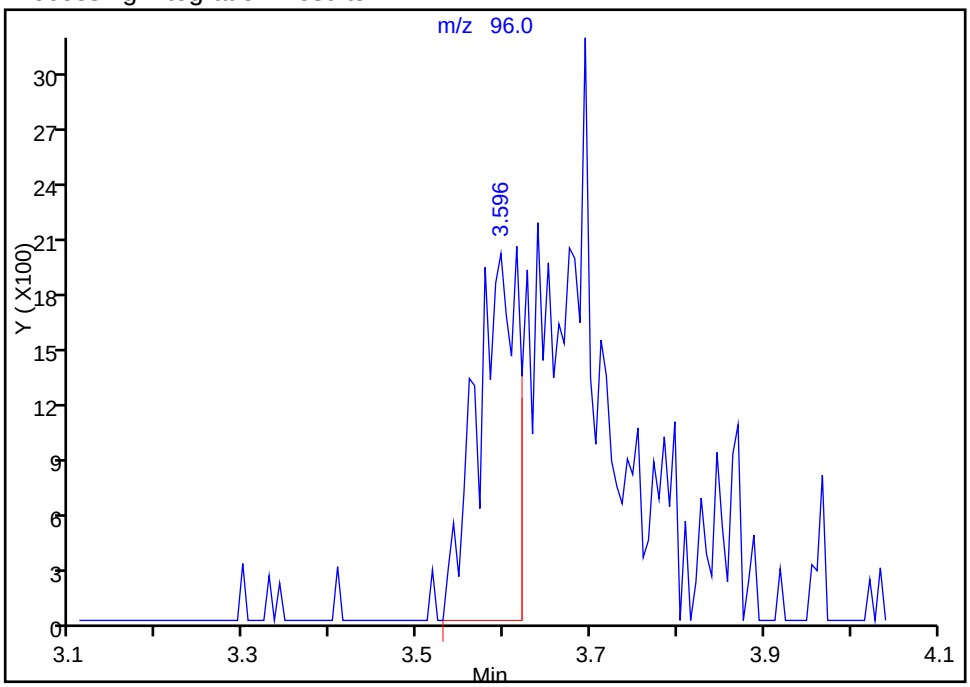
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040609.D				
Injection Date:	06-Apr-2015 12:54:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-2	Lab Sample ID:	180-42391-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

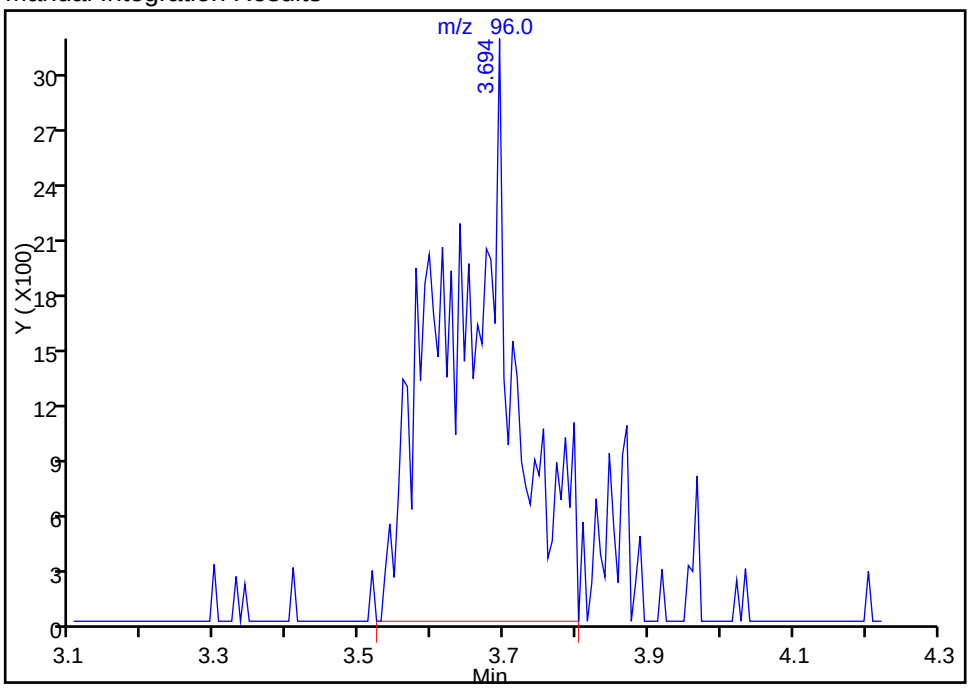
Processing Integration Results

RT: 3.60
Area: 6674
Amount: 5.859604
Amount Units: ng



Manual Integration Results

RT: 3.69
Area: 19944
Amount: 17.510329
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 13:39:46
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 | Lab Sample ID: 180-42391-3

Matrix: Water | Lab File ID: 7040413.D

Analysis Method: 8260C | Date Collected: 03/25/2015 06:15

Sample wt/vol: 20(mL) | Date Analyzed: 04/04/2015 18:59

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.: 137512 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.5	U	2.5	0.71
75-01-4	Vinyl chloride	2.5	U	2.5	0.57
74-83-9	Bromomethane	2.5	U	2.5	0.78
75-00-3	Chloroethane	2.5	U	2.5	0.54
75-35-4	1,1-Dichloroethene	5.0		2.5	0.74
67-64-1	Acetone	13	U *	13	6.3
75-15-0	Carbon disulfide	2.5	U	2.5	0.53
75-09-2	Methylene Chloride	2.5	U	2.5	0.31
156-60-5	trans-1,2-Dichloroethene	0.84	J	2.5	0.42
1634-04-4	Methyl tert-butyl ether	2.5	U	2.5	0.46
75-34-3	1,1-Dichloroethane	2.5	U	2.5	0.29
156-59-2	*cis-1,2-Dichloroethene*	*160*	*E*	*2.5*	*0.59*
74-97-5	Bromochloromethane	2.5	U	2.5	0.45
78-93-3	2-Butanone (MEK)	13	U	13	1.4
67-66-3	Chloroform	2.5	U	2.5	0.43
71-55-6	1,1,1-Trichloroethane	9.3		2.5	0.72
56-23-5	Carbon tetrachloride	2.5	U	2.5	0.34
71-43-2	Benzene	2.5	U	2.5	0.26
107-06-2	1,2-Dichloroethane	2.5	U	2.5	0.53
79-01-6	*Trichloroethene*	*69*		*2.5*	*0.36*
78-87-5	1,2-Dichloropropane	2.5	U	2.5	0.24
75-27-4	Bromodichloromethane	2.5	U	2.5	0.33
10061-01-5	cis-1,3-Dichloropropene	2.5	U	2.5	0.47
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	13	1.3
108-88-3	Toluene	2.5	U	2.5	0.38
10061-02-6	trans-1,3-Dichloropropene	2.5	U	2.5	0.37
79-00-5	1,1,2-Trichloroethane	2.5	U	2.5	0.50
127-18-4	Tetrachloroethene	74		2.5	0.37
591-78-6	2-Hexanone	13	U	13	0.40
124-48-1	Dibromochloromethane	2.5	U	2.5	0.34
106-93-4	1,2-Dibromoethane (EDB)	2.5	U	2.5	0.45
108-90-7	Chlorobenzene	2.5	U	2.5	0.34
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.69
100-41-4	Ethylbenzene	2.5	U	2.5	0.57
1330-20-7	Xylenes, Total	7.5	U	7.5	1.2
100-42-5	Styrene	2.5	U	2.5	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-42391-3

Matrix: Water Lab File ID: 7040413.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:15

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 18:59

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.: 137512 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.5	U	2.5	0.48
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.50
107-13-1	Acrylonitrile	50	U	50	1.4
123-91-1	1,4-Dioxane	500	U	500	86

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-135
2037-26-5	Toluene-d8 (Surr)	113		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D
Lims ID: 180-42391-C-3 Lab Sample ID: 180-42391-3
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 04-Apr-2015 18:59:30 ALS Bottle#: 8 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 2.5000
Sample Info: 180-42391-C-3
Misc. Info.: 180-0006327-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:41:33 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 09:41:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.588	4.765	-0.177	88	175636	4000.0	
* 2 Fluorobenzene (IS)	96	7.410	7.399	0.011	99	692869	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.471	-0.001	84	182115	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.789	-0.001	95	258874	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.693	6.675	0.018	89	233145	210.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.058	7.040	0.018	93	199676	189.5	
$ 7 Toluene-d8 (Surr)	98	9.041	9.036	0.005	92	610477	226.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.005	89	246942	204.7	
12 Chloromethane	50		2.028				ND	
13 Vinyl chloride	62		2.192				ND	
15 Bromomethane	94		2.502				ND	
16 Chloroethane	64		2.605				ND	
22 1,1-Dichloroethene	96	3.651	3.518	0.133	66	36893	39.7	M
26 Carbon disulfide	76		3.828				ND	
24 Acetone	43		3.834				ND	
31 Methylene Chloride	84		4.364				ND	
34 trans-1,2-Dichloroethene	96	4.843	4.753	0.090	1	7737	6.70	M
33 Acrylonitrile	53		4.802				ND	
35 Methyl tert-butyl ether	73		4.856				ND	
37 1,1-Dichloroethane	63		5.355				ND	
45 cis-1,2-Dichloroethene	96	6.115	6.103	0.012	76	1465412	1279.3	E
46 2-Butanone (MEK)	43		6.189				ND	
49 Chlorobromomethane	128		6.377				ND	
52 Chloroform	83		6.499				ND	
53 1,1,1-Trichloroethane	97	6.693	6.681	0.012	68	129150	74.7	
56 Carbon tetrachloride	117		6.858				ND	
58 Benzene	78		7.089				ND	
59 1,2-Dichloroethane	62		7.132				ND	
64 Trichloroethene	130	7.800	7.795	0.005	94	756636	553.5	
67 1,2-Dichloropropane	63		8.032				ND	
70 1,4-Dioxane	88		8.184				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.312				ND	
74 cis-1,3-Dichloropropene	75		8.774				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.938				ND	
76 Toluene	91		9.103				ND	
77 trans-1,3-Dichloropropene	75		9.322				ND	
79 1,1,2-Trichloroethane	97		9.504				ND	
80 Tetrachloroethene	164	9.649	9.644	0.005	92	412975	593.5	
82 2-Hexanone	43		9.760				ND	
84 Chlorodibromomethane	129		9.900				ND	
85 Ethylene Dibromide	107		10.009				ND	
87 Chlorobenzene	112	10.507	10.496	0.011	1	2498	1.08	
89 1,1,1,2-Tetrachloroethane	131		10.575				ND	
90 Ethylbenzene	106		10.605				ND	
91 m-Xylene & p-Xylene	106		10.721				ND	
92 o-Xylene	106		11.116				ND	
93 Styrene	104		11.128				ND	
94 Bromoform	173		11.317				ND	
99 1,1,2,2-Tetrachloroethane	83		11.773				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

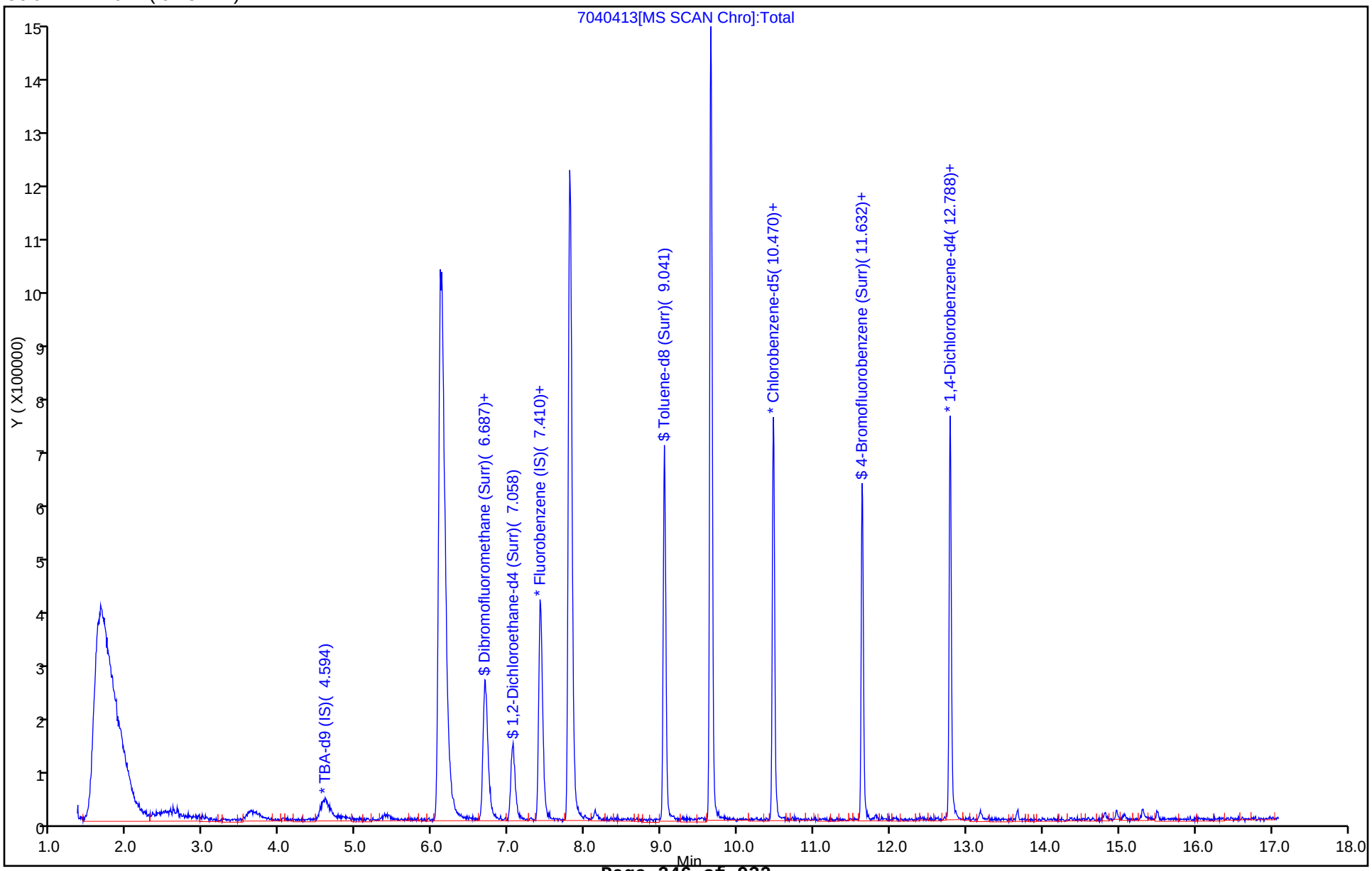
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3	Worklist Smp#:	13
Client ID:	HD-CW-13-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	2.5000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

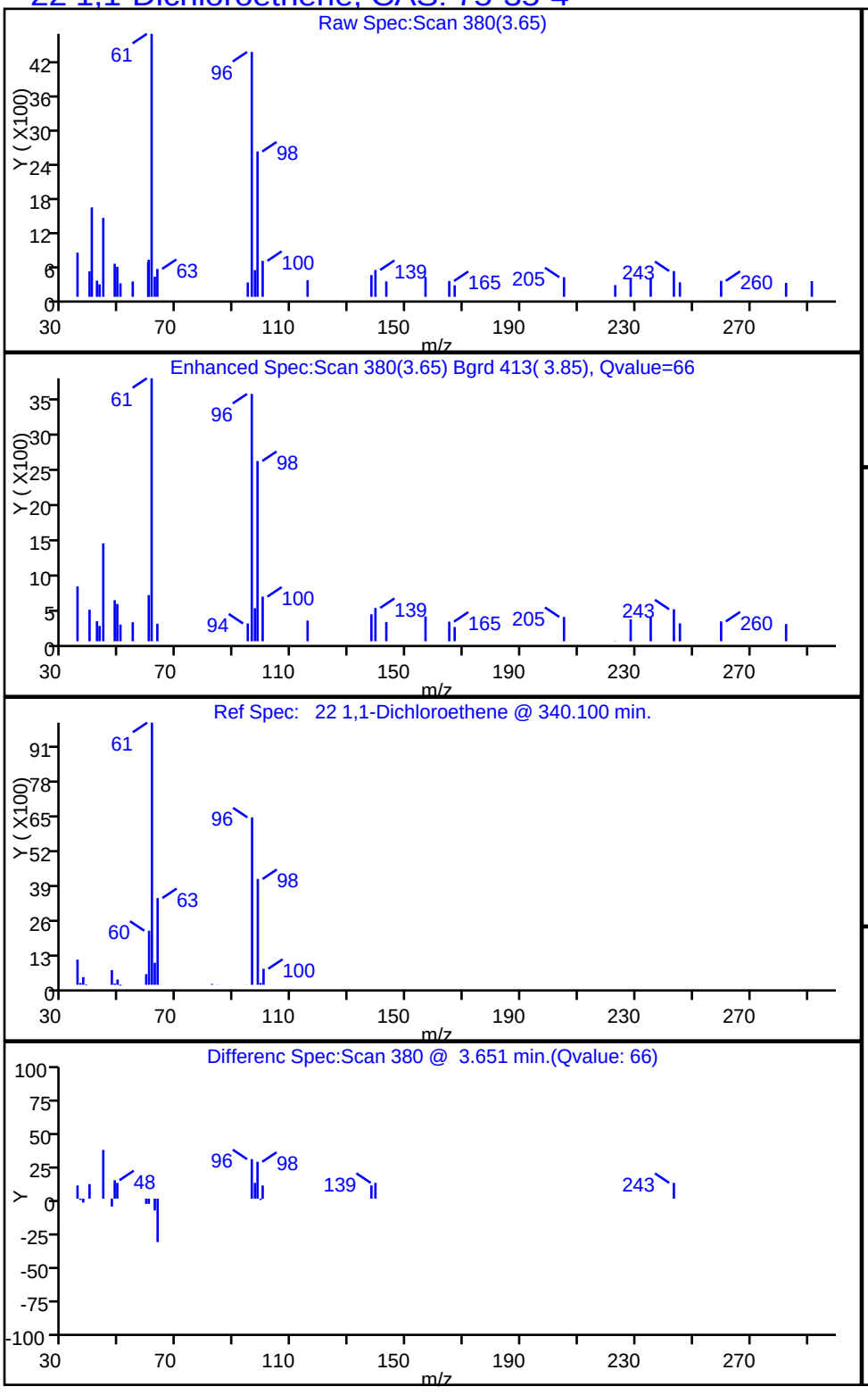


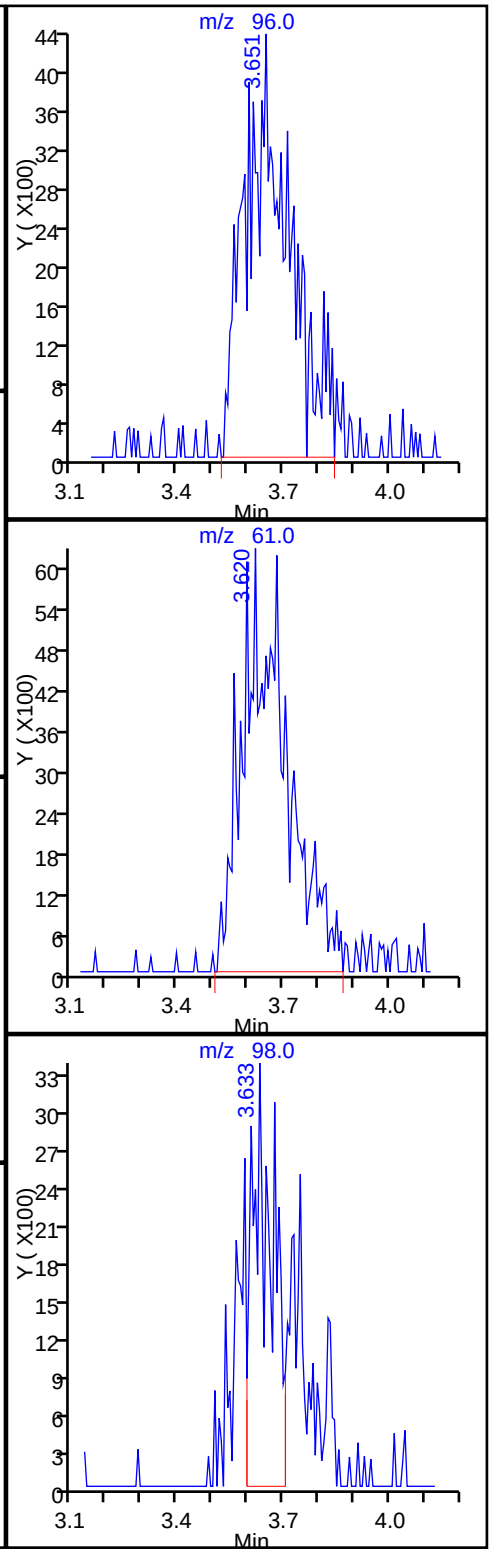
Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



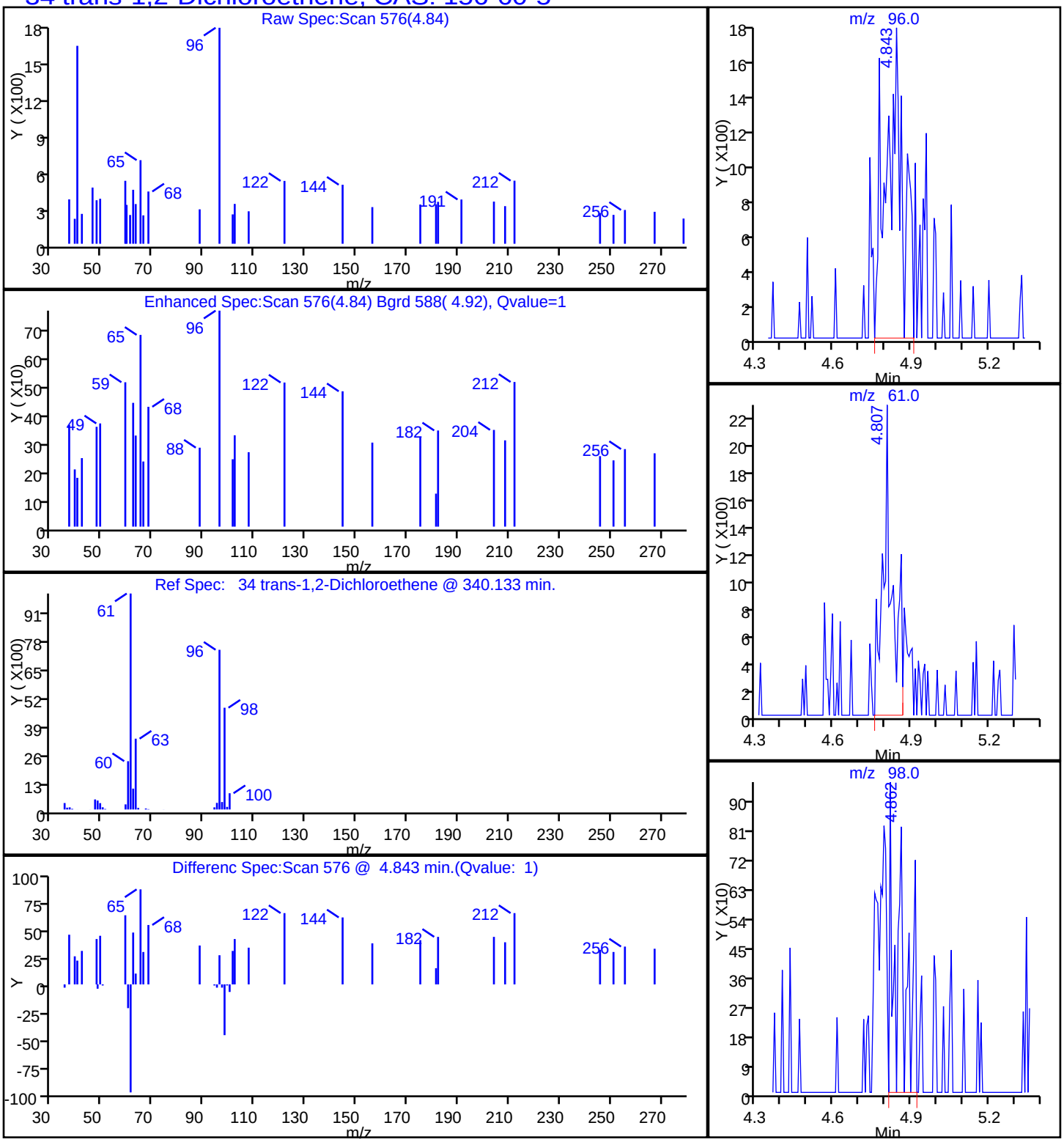


Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

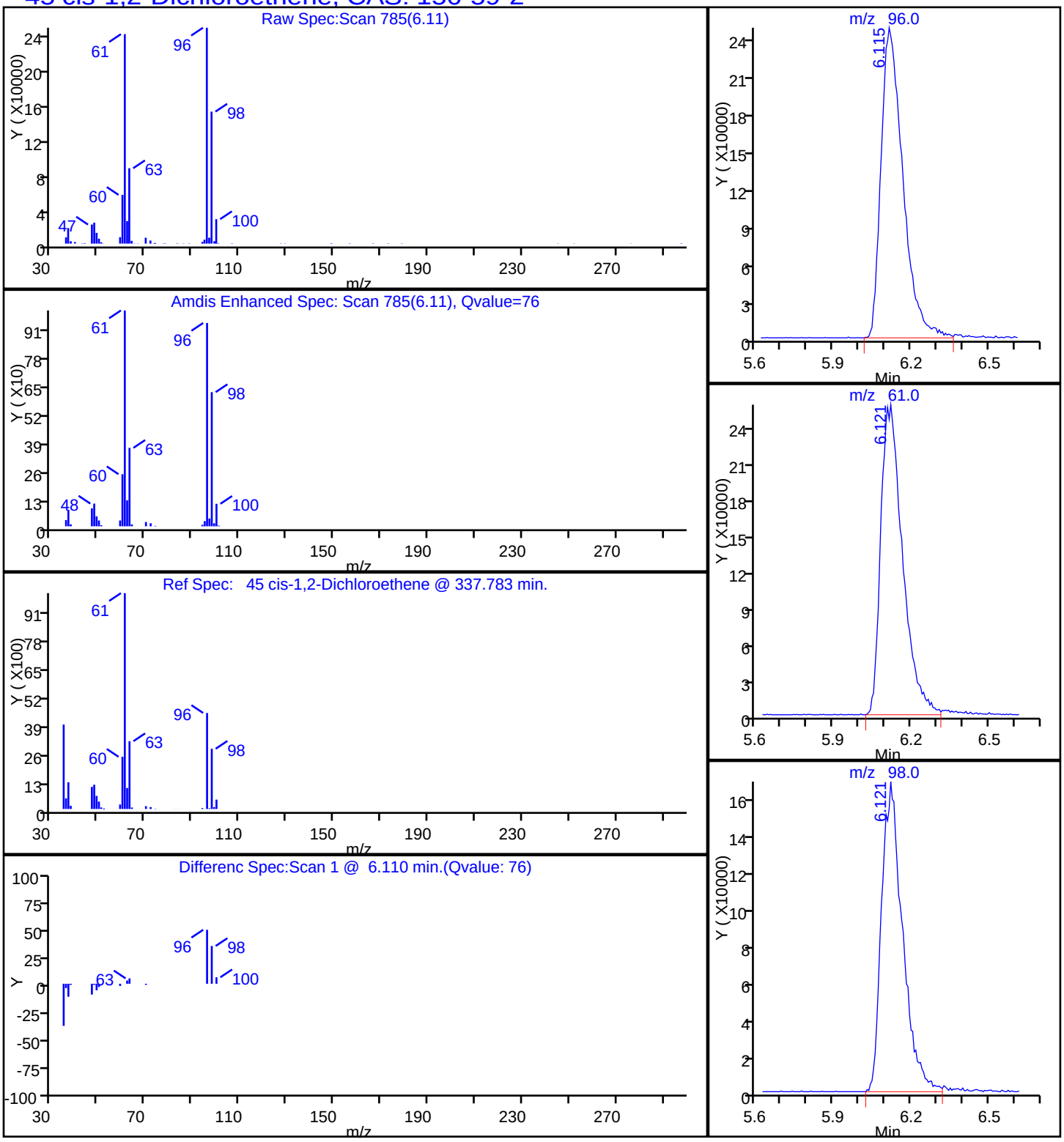


Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

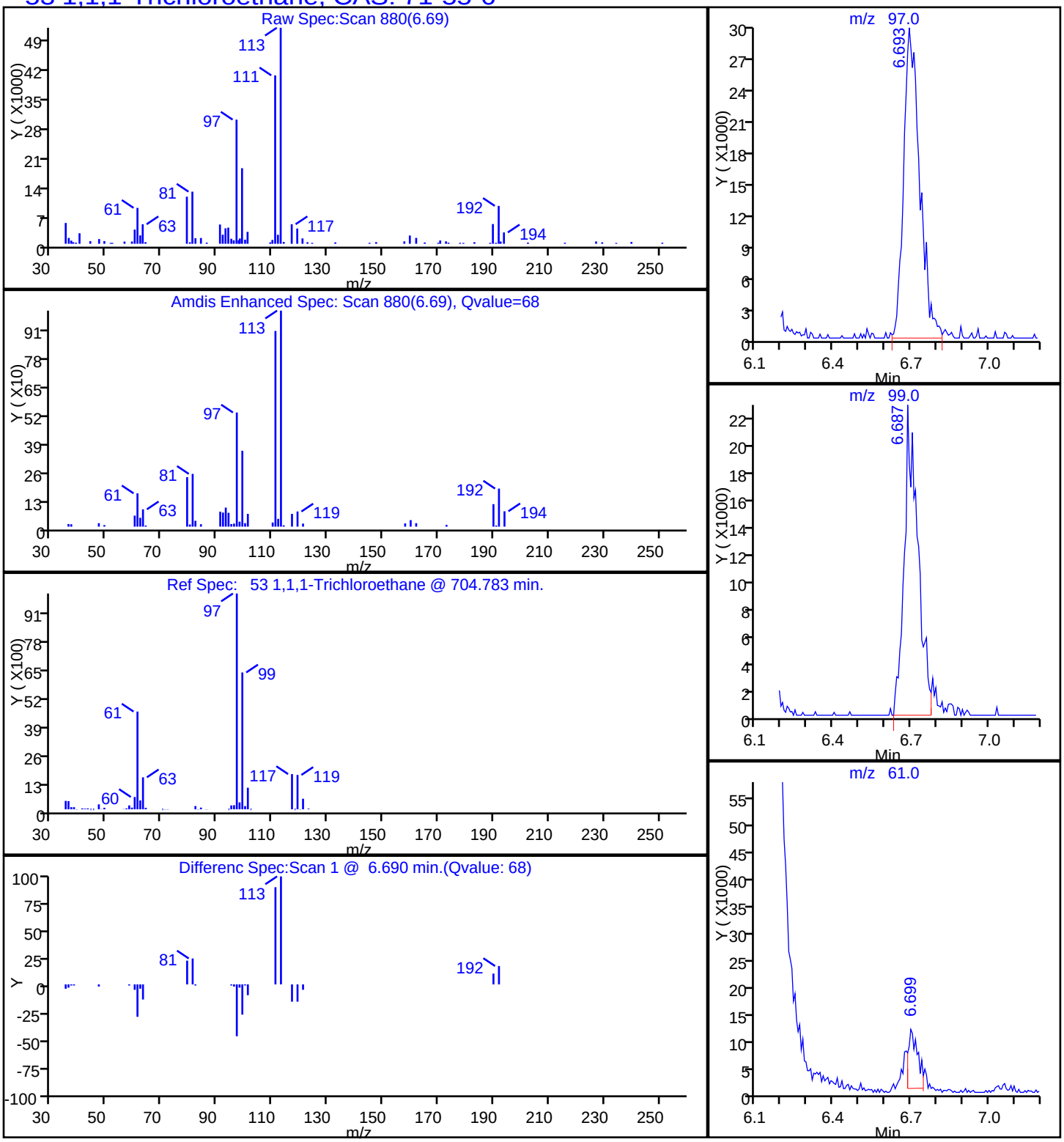


Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

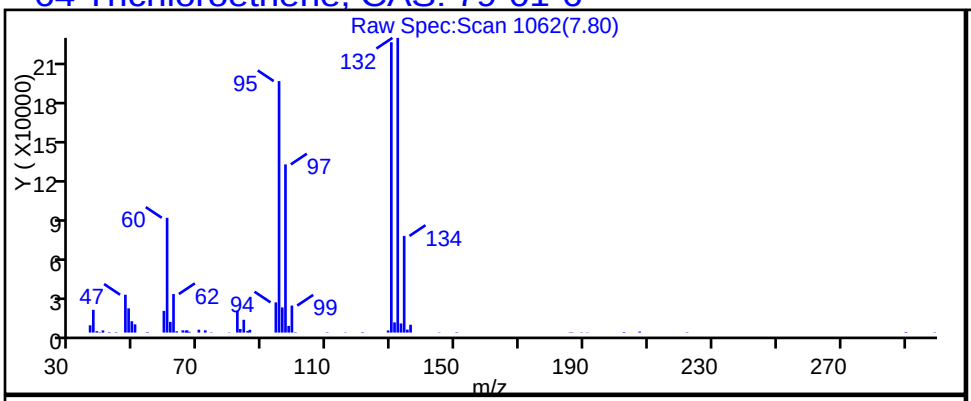


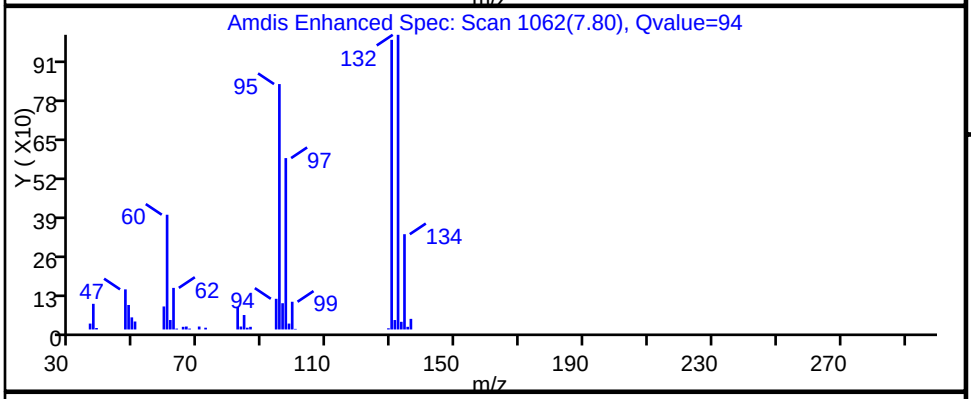
Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

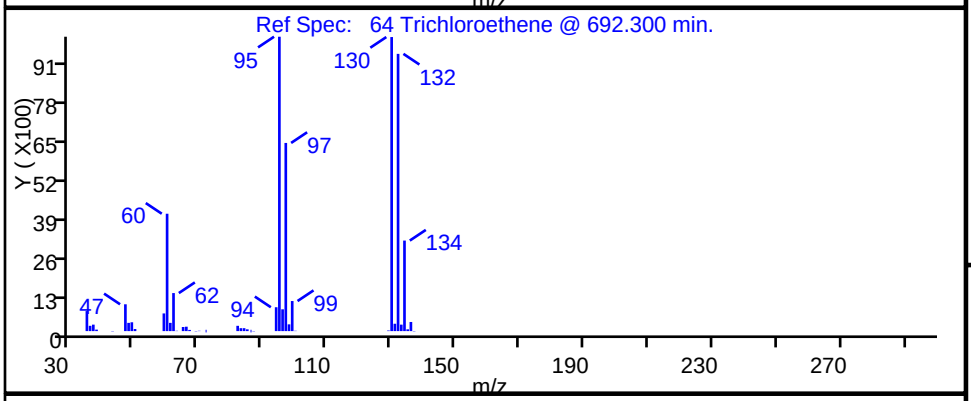
TestAmerica Pittsburgh

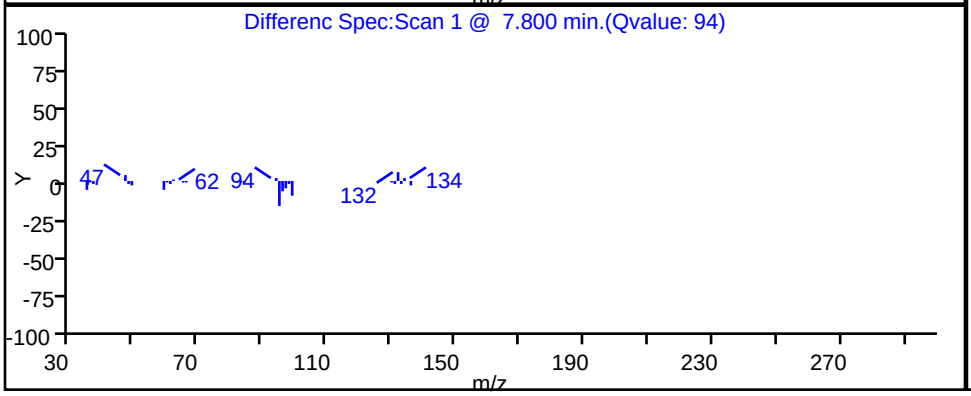
Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

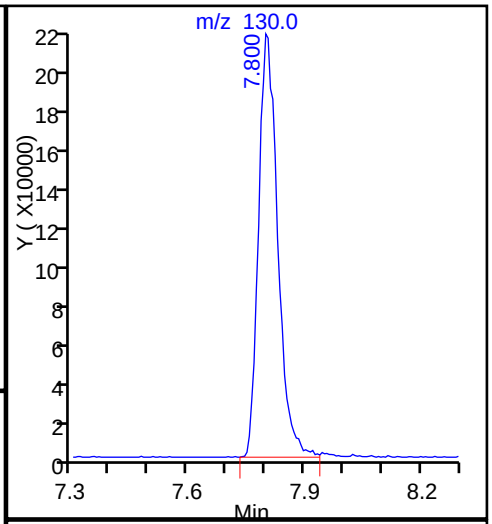
64 Trichloroethene, CAS: 79-01-6

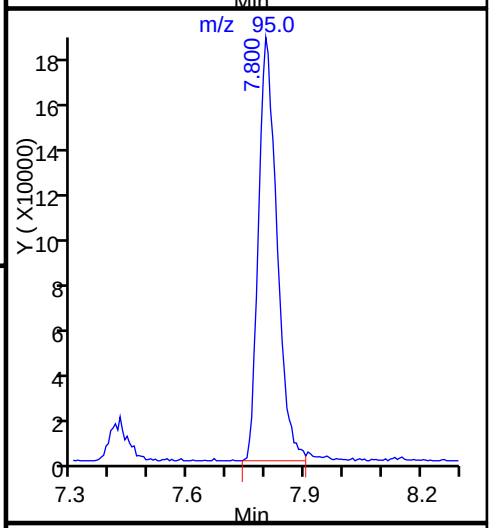


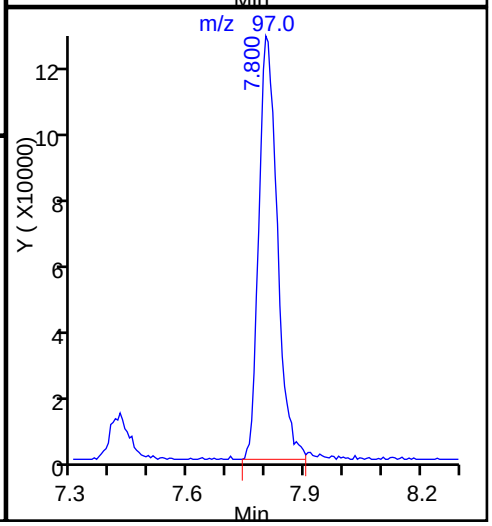












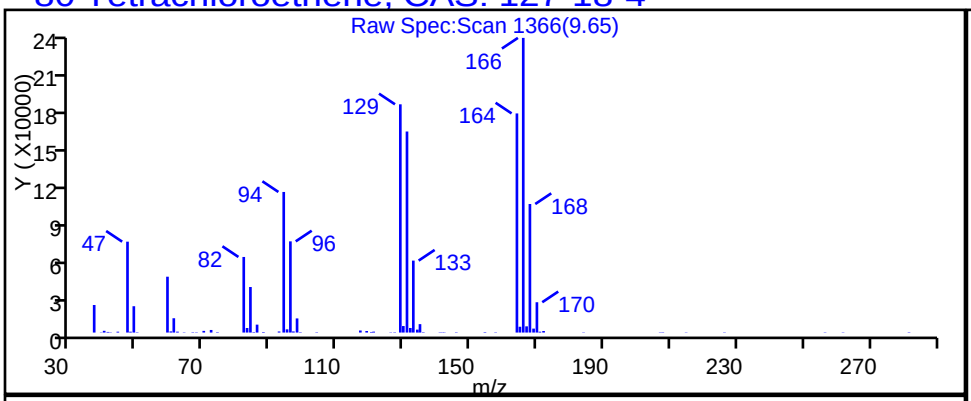
Report Date: 06-Apr-2015 09:41:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

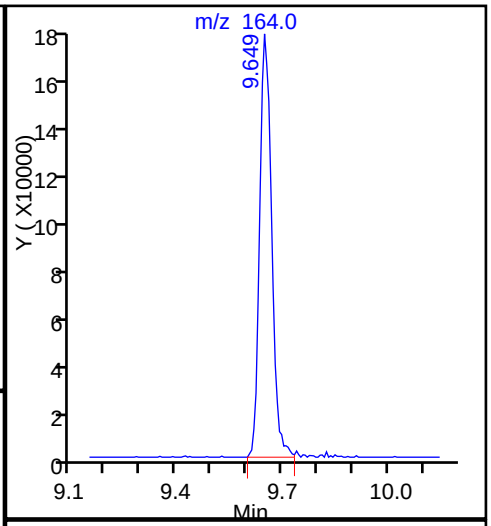
TestAmerica Pittsburgh

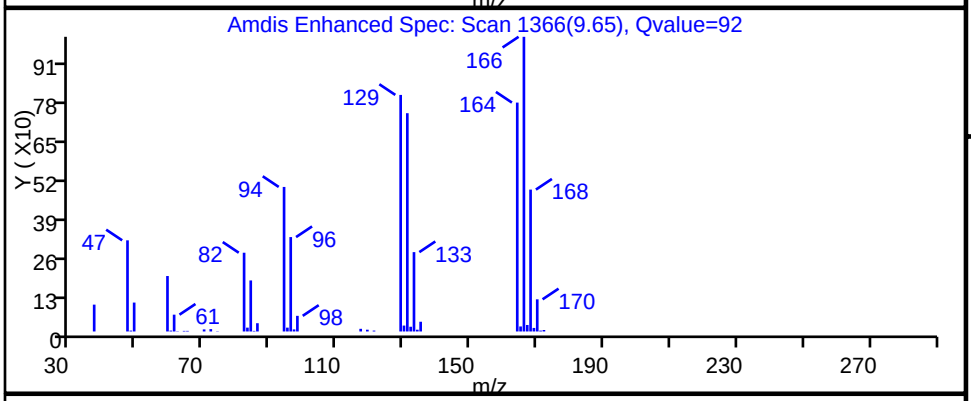
Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D

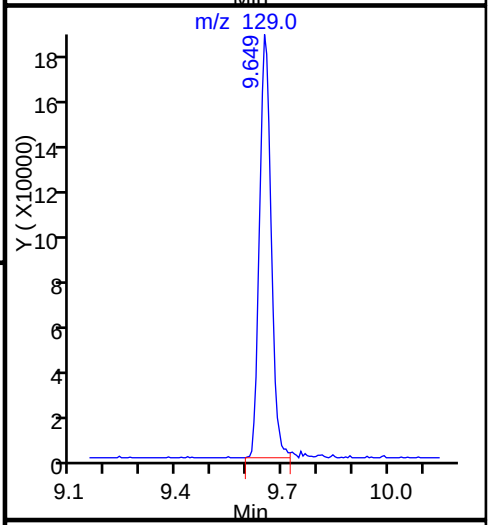
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3
Client ID:	HD-CW-13-0/1-0		
Operator ID:	034635	ALS Bottle#:	8 Worklist Smp#: 13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

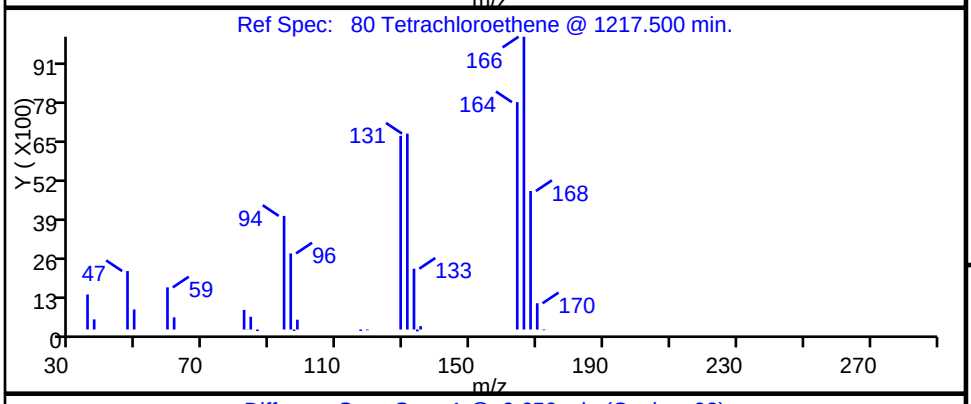
80 Tetrachloroethene, CAS: 127-18-4

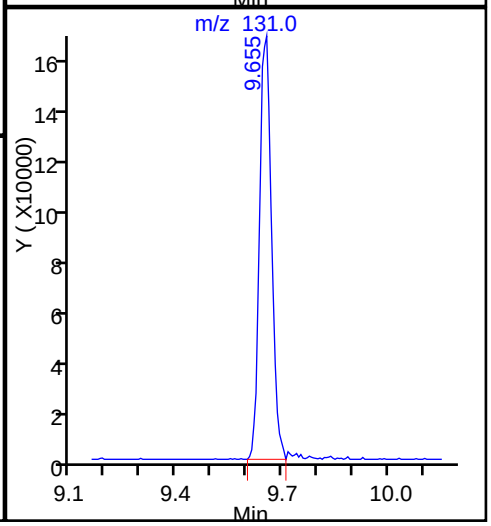


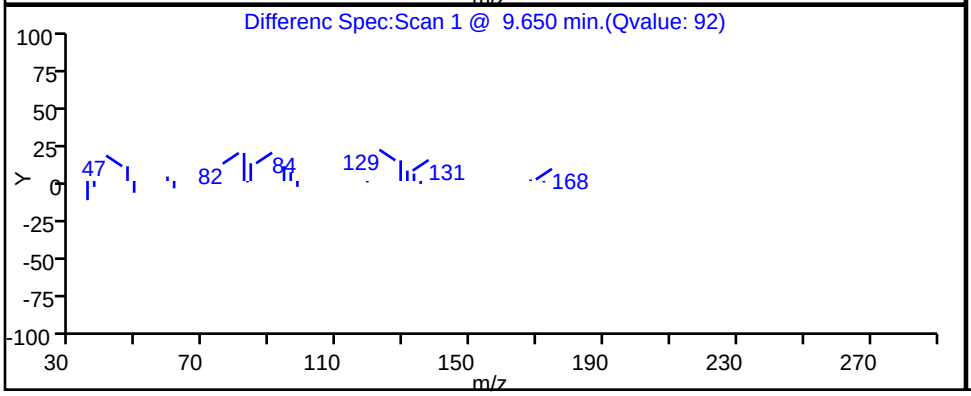












Manual Integration/User Assign Peak Report

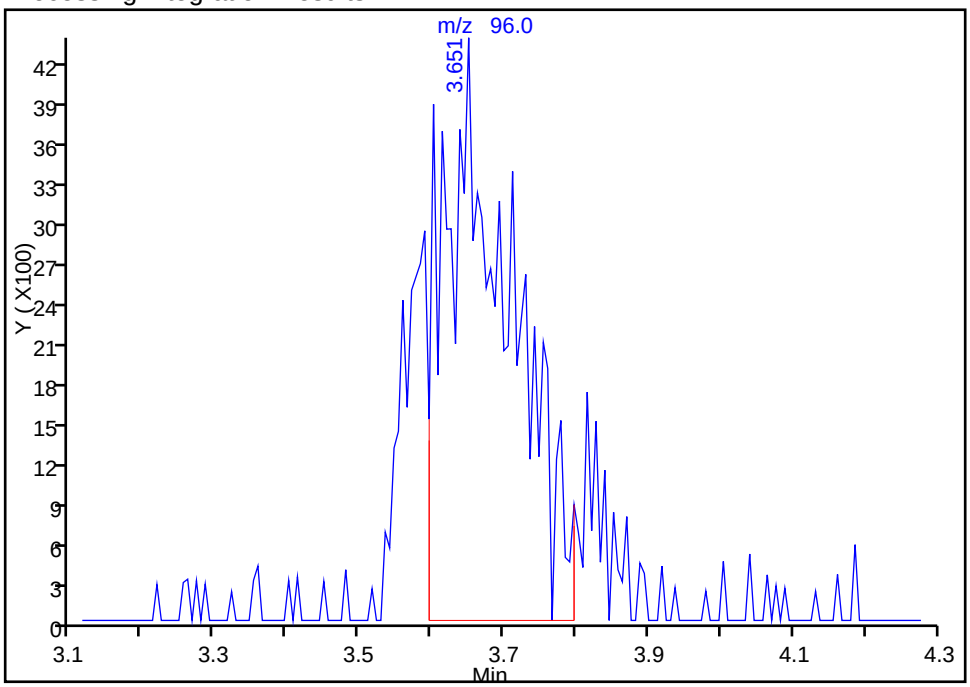
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

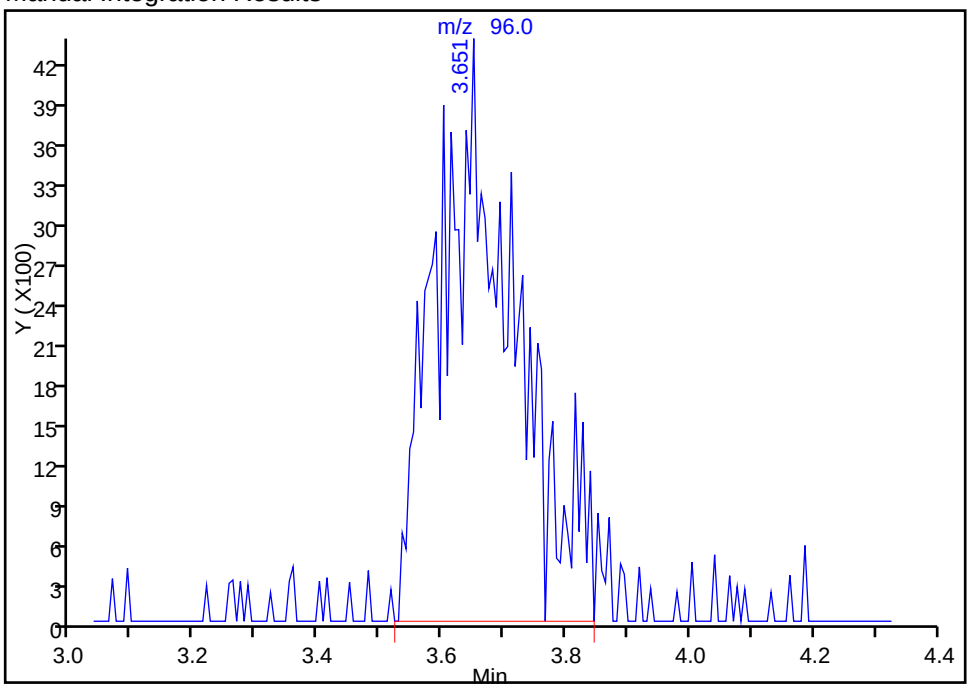
Processing Integration Results

RT: 3.65
Area: 27843
Amount: 29.929536
Amount Units: ng



Manual Integration Results

RT: 3.65
Area: 36893
Amount: 39.657736
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 08:53:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

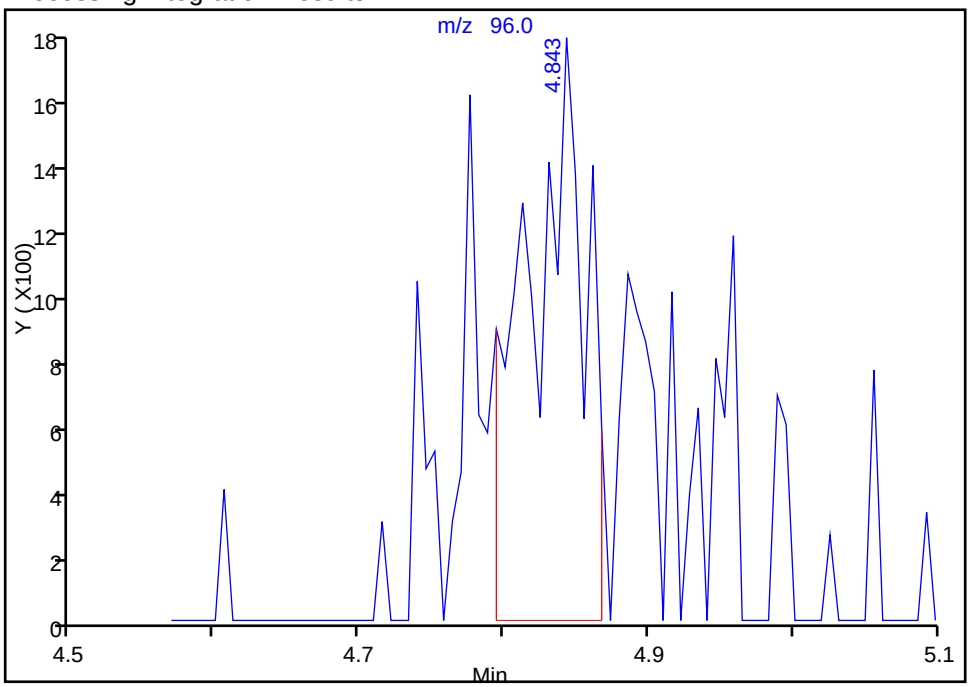
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040413.D				
Injection Date:	04-Apr-2015 18:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

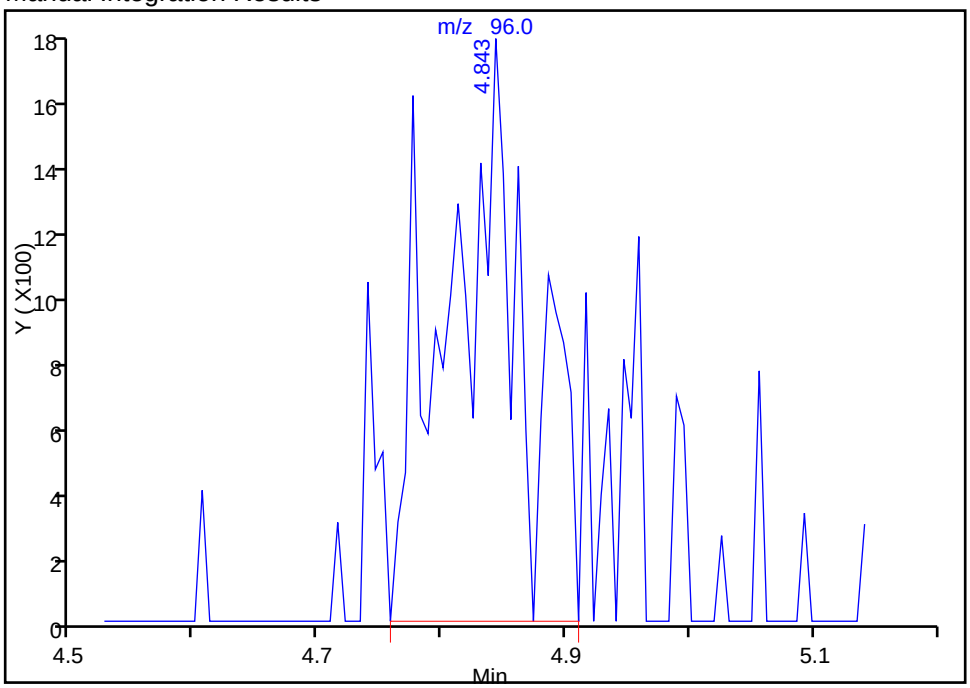
Processing Integration Results

RT: 4.84
Area: 4951
Amount: 4.289361
Amount Units: ng



Manual Integration Results

RT: 4.84
Area: 7737
Amount: 6.703047
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 08:53:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 DL | Lab Sample ID: 180-42391-3 DL

Matrix: Water | Lab File ID: 7040209.D

Analysis Method: 8260C | Date Collected: 03/25/2015 06:15

Sample wt/vol: 20(mL) | Date Analyzed: 04/02/2015 13:33

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.: 137305 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	25	U	25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	25	U	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	25	U	25	2.9
156-59-2	cis-1,2-Dichloroethene	350		25	5.9
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	17	J	25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	Trichloroethene	160		25	3.6
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	100		25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 DL Lab Sample ID: 180-42391-3 DL

Matrix: Water Lab File ID: 7040209.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:15

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 13:33

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.: 137305 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*25*	*U*	*25*	*4.8*
79-34-5	*1,1,2,2-Tetrachloroethane*	*25*	*U*	*25*	*5.0*
107-13-1	*Acrylonitrile*	*500*	*U*	*500*	*14*
123-91-1	*1,4-Dioxane*	*5000*	*U*	*5000*	*860*

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D
Lims ID: 180-42391-E-3 Lab Sample ID: 180-42391-3
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 02-Apr-2015 13:33:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 25.0000
Sample Info: 180-42391-E-3
Misc. Info.: 180-0006293-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 02-Apr-2015 15:19:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.573	4.837	-0.264	89	206837	4000.0	
* 2 Fluorobenzene (IS)	96	7.420	7.398	0.022	99	735428	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.464	0.004	84	203636	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.788	-0.002	95	283578	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.680	0.004	89	277995	237.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.055	7.045	0.010	94	233720	209.0	
$ 7 Toluene-d8 (Surr)	98	9.045	9.035	0.010	92	713543	236.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.632	0.004	88	294271	219.1	
12 Chloromethane	50		2.033				ND	
13 Vinyl chloride	62		2.185				ND	
15 Bromomethane	94		2.495				ND	
16 Chloroethane	64		2.617				ND	
22 1,1-Dichloroethene	96	3.649	3.505	0.144	12	5202	5.27	
26 Carbon disulfide	76		3.791				ND	
24 Acetone	43		3.839				ND	
31 Methylene Chloride	84		4.350				ND	
34 trans-1,2-Dichloroethene	96		4.728				ND	
33 Acrylonitrile	53		4.813				ND	
35 Methyl tert-butyl ether	73		4.874				ND	
37 1,1-Dichloroethane	63		5.354				ND	
45 cis-1,2-Dichloroethene	96	6.112	6.096	0.016	74	336721	277.0	
46 2-Butanone (MEK)	43		6.200				ND	
49 Chlorobromomethane	128		6.382				ND	
52 Chloroform	83		6.492				ND	
53 1,1,1-Trichloroethane	97	6.715	6.668	0.047	39	24321	13.2	M
56 Carbon tetrachloride	117		6.857				ND	
58 Benzene	78		7.094				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.804	7.794	0.010	91	183845	126.7	
67 1,2-Dichloropropane	63		8.025				ND	
70 1,4-Dioxane	88		8.195				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.317				ND	
74 cis-1,3-Dichloropropene	75		8.767				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.943				ND	
76 Toluene	91		9.102				ND	
77 trans-1,3-Dichloropropene	75		9.327				ND	
79 1,1,2-Trichloroethane	97		9.509				ND	
80 Tetrachloroethene	164	9.653	9.649	0.004	92	93886	83.4	
82 2-Hexanone	43		9.765				ND	
84 Chlorodibromomethane	129		9.899				ND	
85 Ethylene Dibromide	107		10.008				ND	
87 Chlorobenzene	112		10.495				ND	
89 1,1,1,2-Tetrachloroethane	131		10.574				ND	
90 Ethylbenzene	106		10.604				ND	
91 m-Xylene & p-Xylene	106		10.720				ND	
92 o-Xylene	106		11.115				ND	
93 Styrene	104		11.133				ND	
94 Bromoform	173		11.316				ND	
99 1,1,2,2-Tetrachloroethane	83		11.778				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

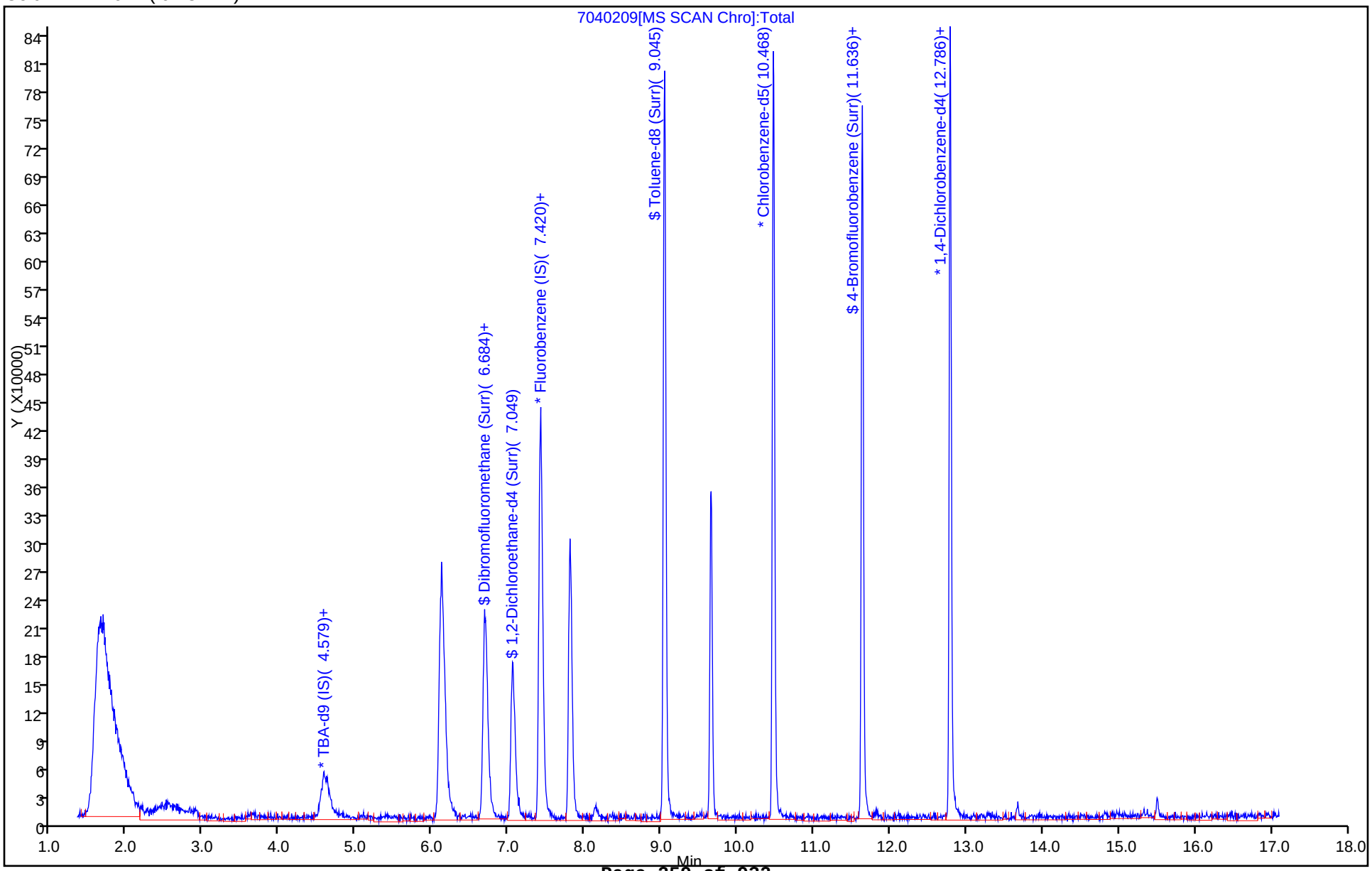
Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D

Injection Date:	02-Apr-2015 13:33:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-E-3	Lab Sample ID:	180-42391-3	Worklist Smp#:	9
Client ID:	HD-CW-13-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

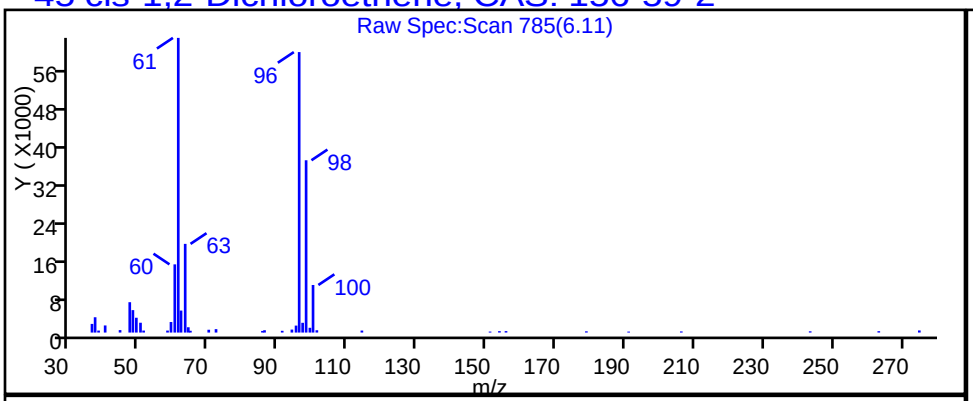


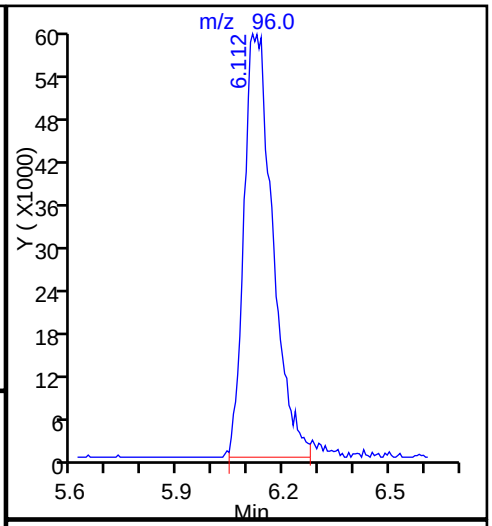
Report Date: 03-Apr-2015 10:26:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

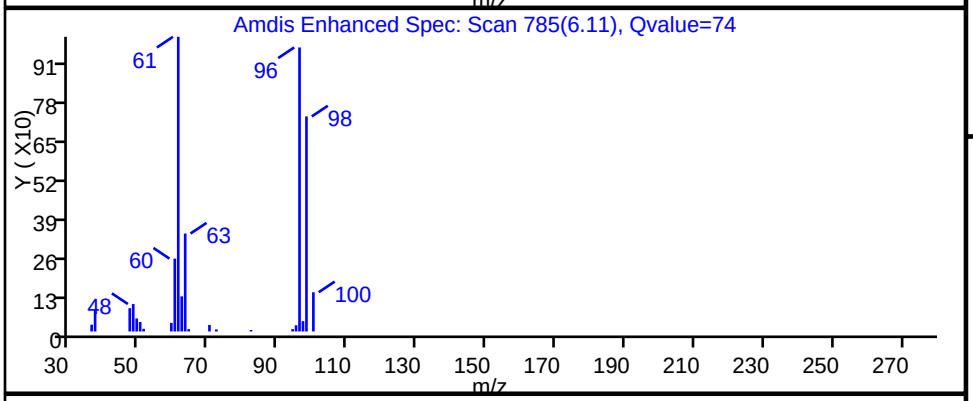
TestAmerica Pittsburgh

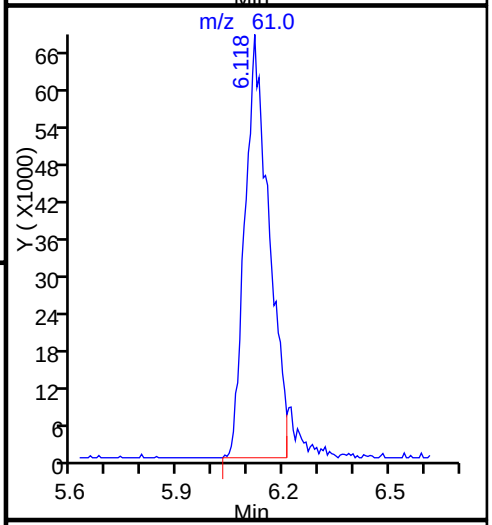
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D				
Injection Date:	02-Apr-2015 13:33:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

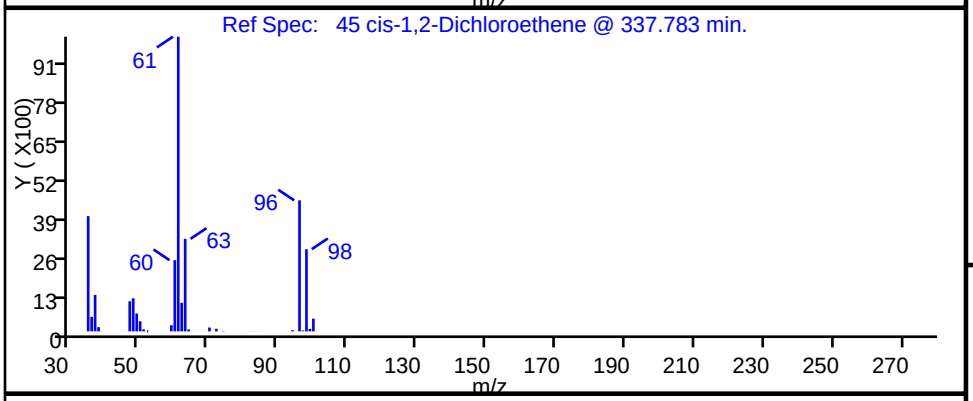
45 cis-1,2-Dichloroethene, CAS: 156-59-2

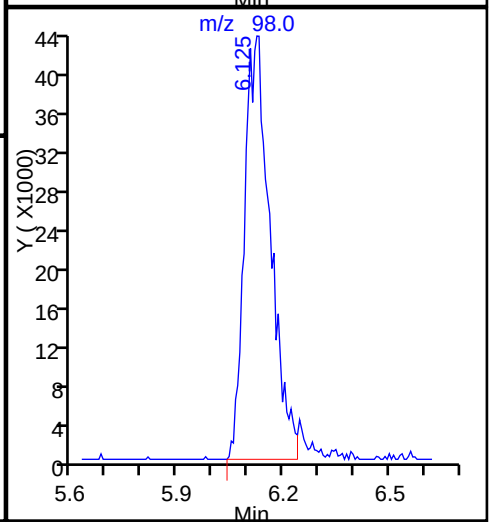


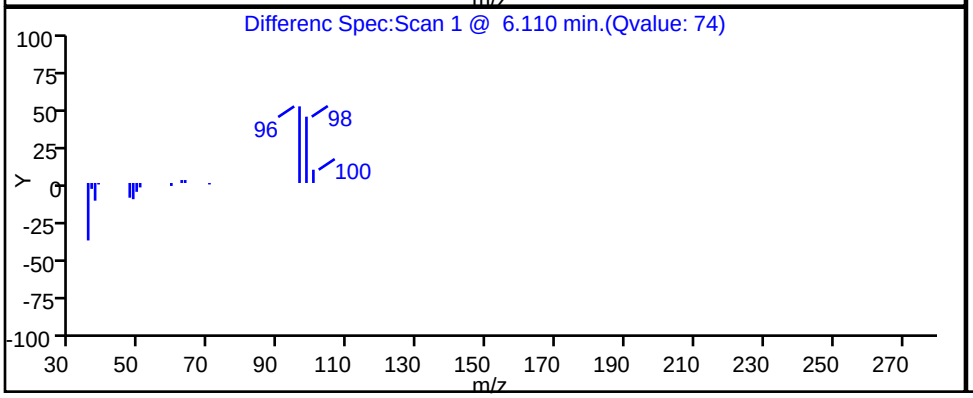










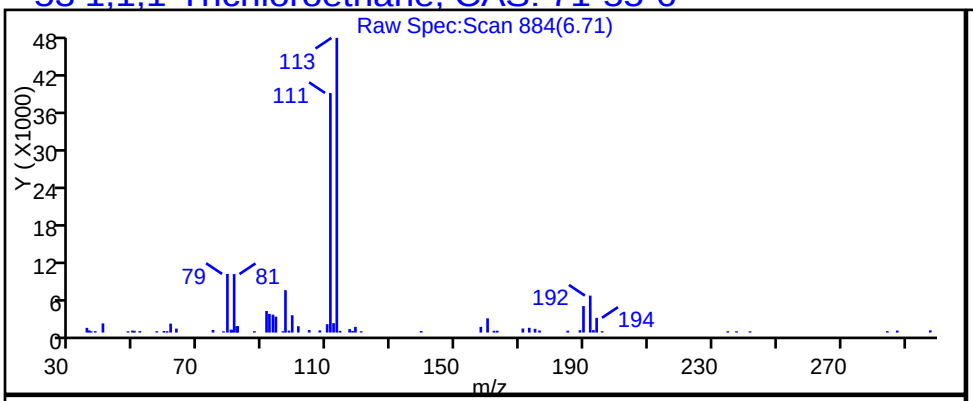


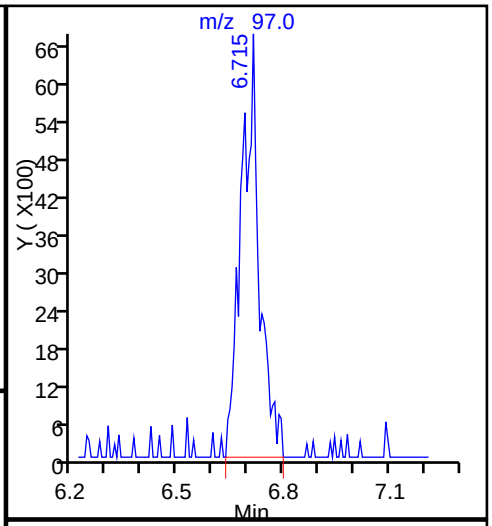
Report Date: 03-Apr-2015 10:26:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

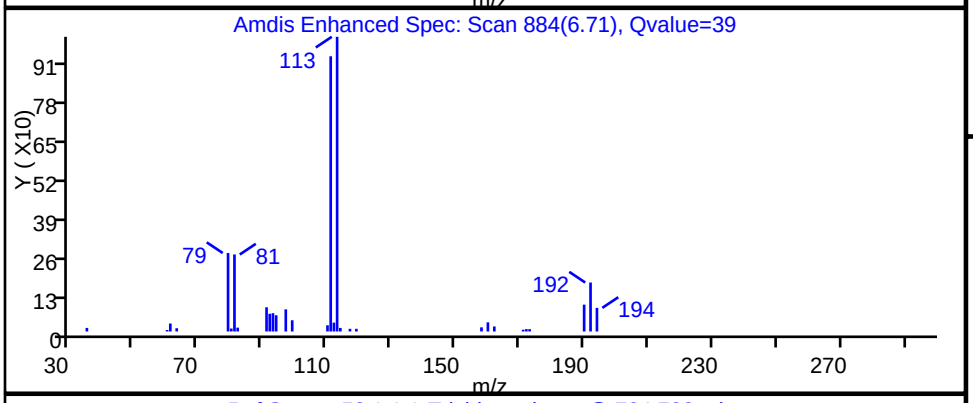
TestAmerica Pittsburgh

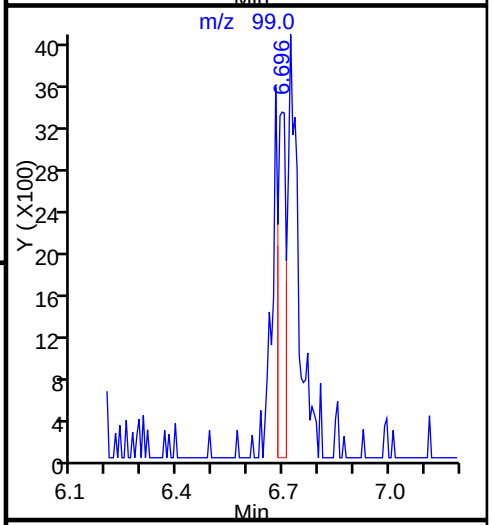
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D				
Injection Date:	02-Apr-2015 13:33:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

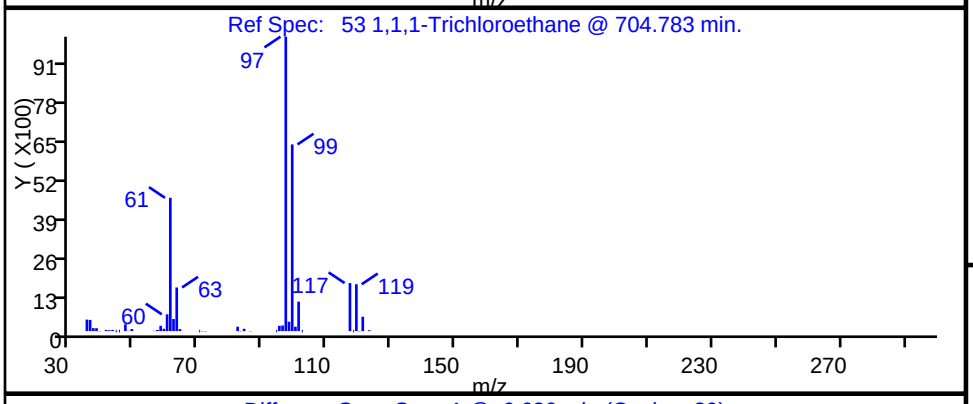
53 1,1,1-Trichloroethane, CAS: 71-55-6

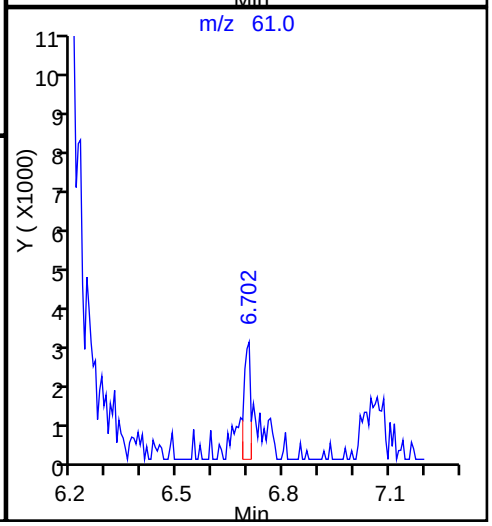


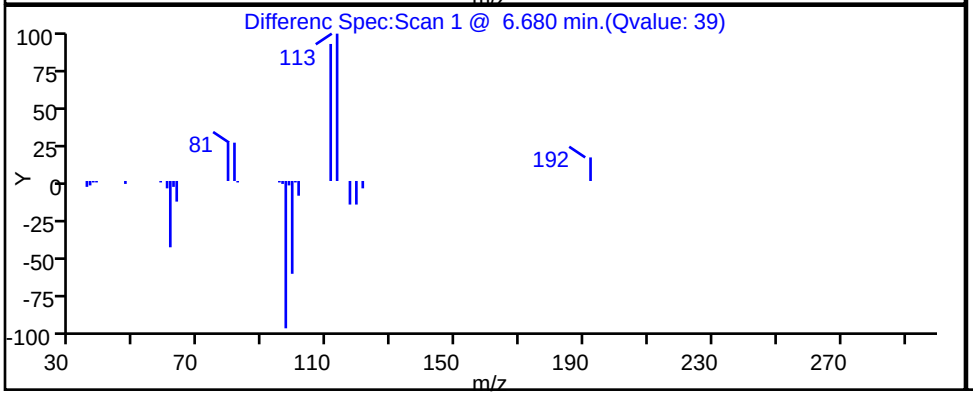










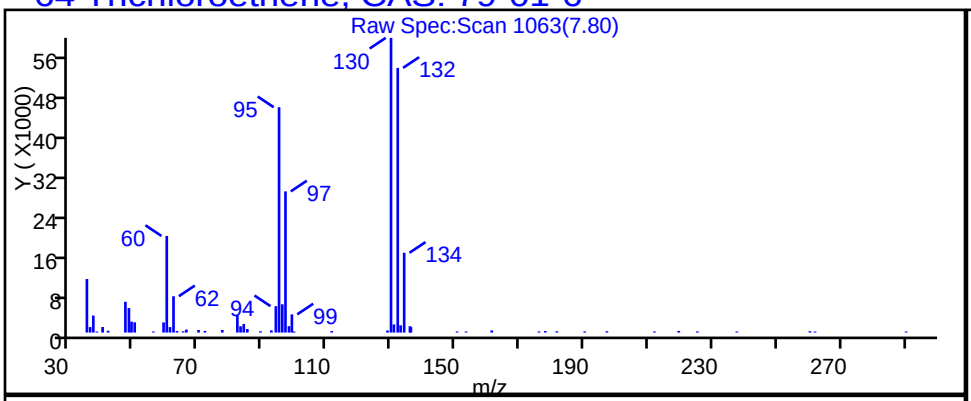


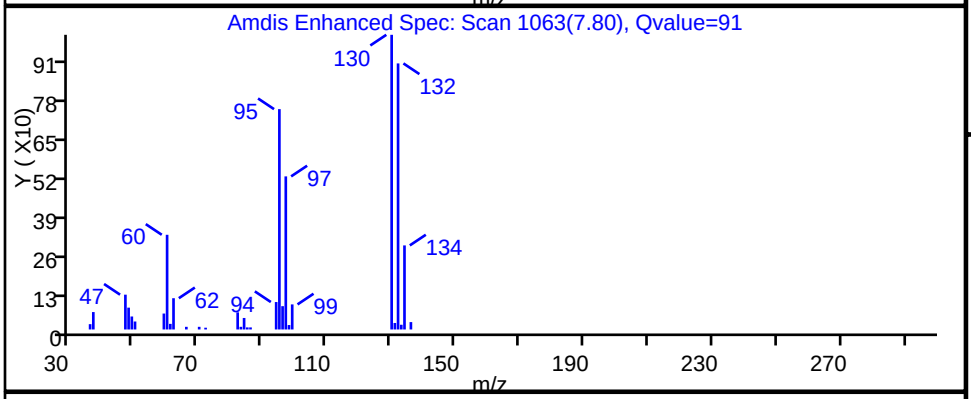
Report Date: 03-Apr-2015 10:26:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

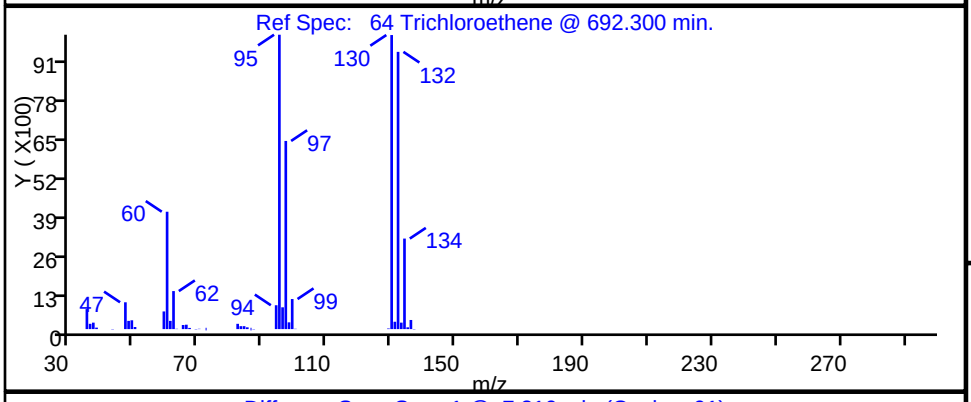
TestAmerica Pittsburgh

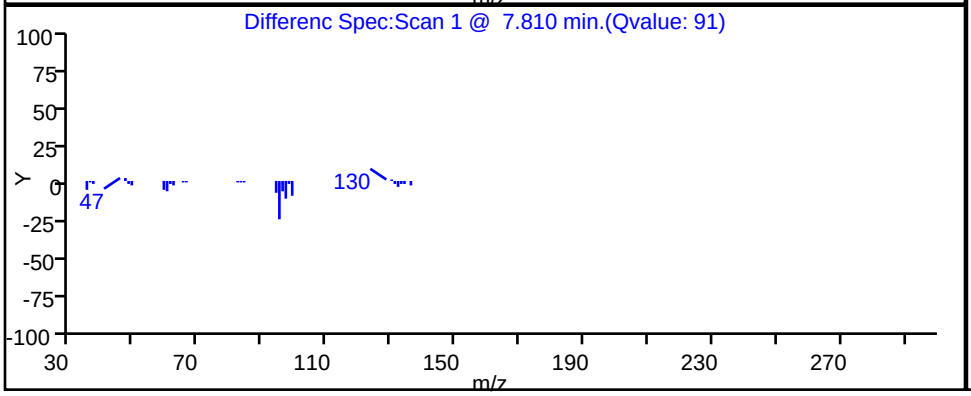
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D				
Injection Date:	02-Apr-2015 13:33:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

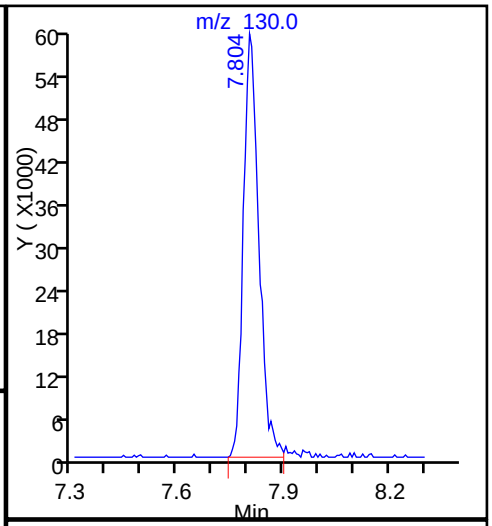
64 Trichloroethene, CAS: 79-01-6

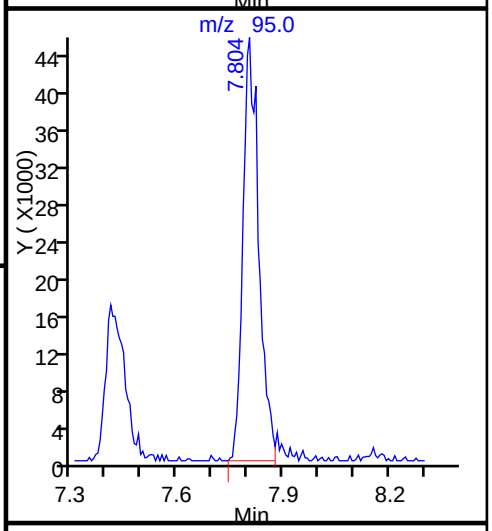


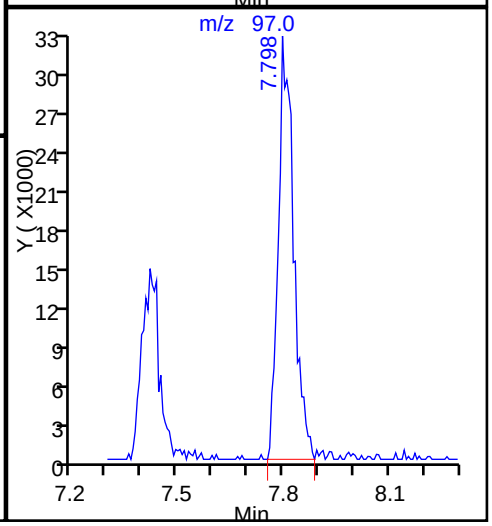












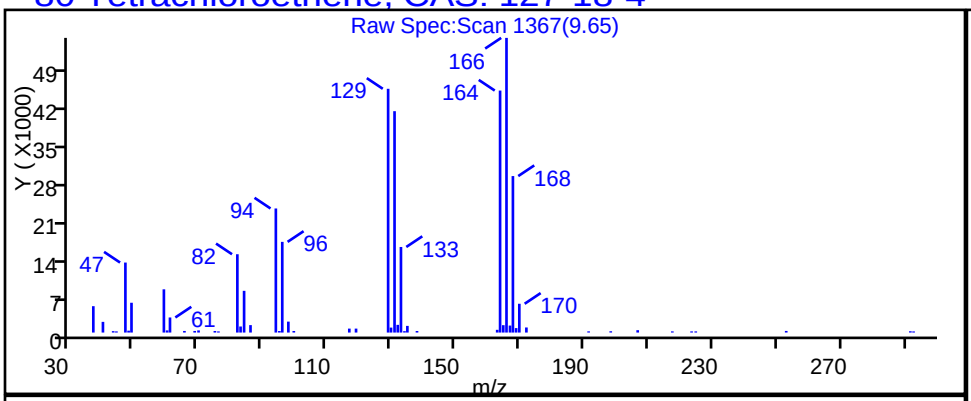
Report Date: 03-Apr-2015 10:26:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

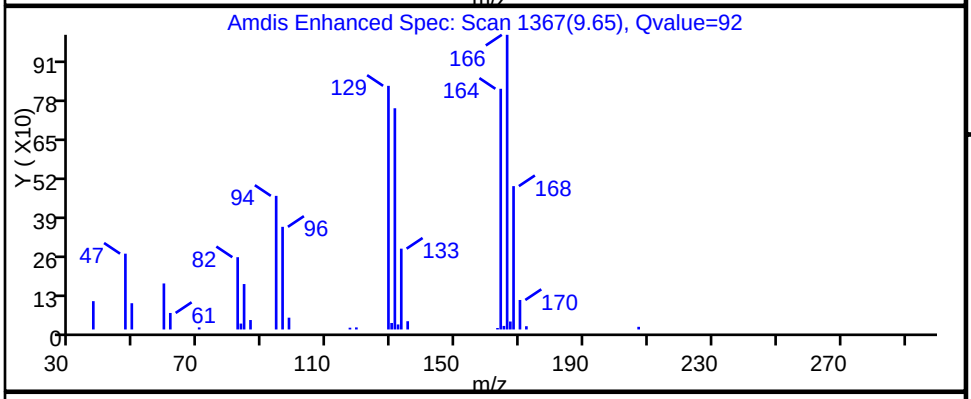
TestAmerica Pittsburgh

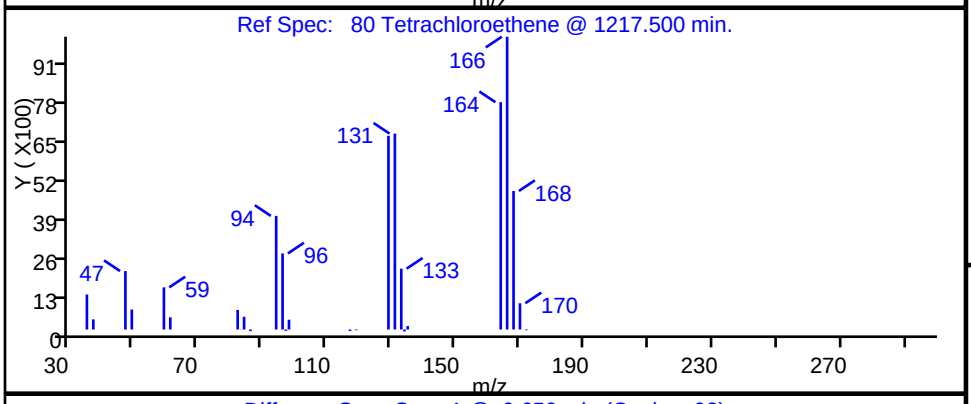
Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D

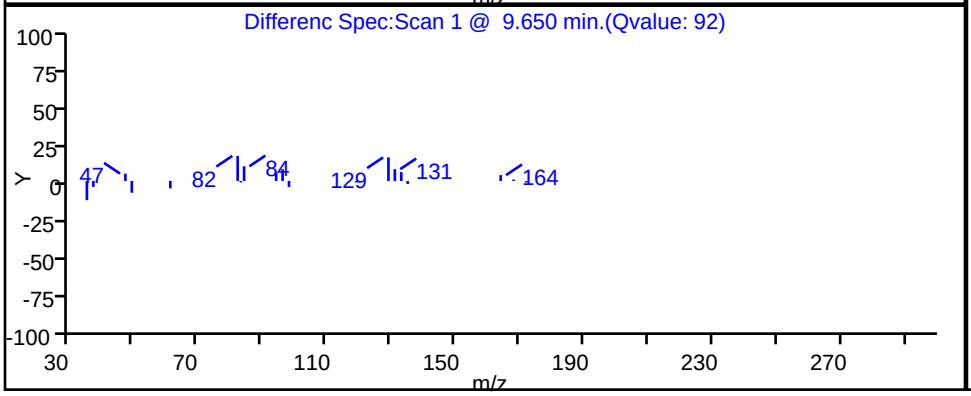
Injection Date:	02-Apr-2015 13:33:30	Instrument ID:	CHHP7
Lims ID:	180-42391-E-3	Lab Sample ID:	180-42391-3
Client ID:	HD-CW-13-0/1-0		
Operator ID:	034635	ALS Bottle#:	8 Worklist Smp#: 9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

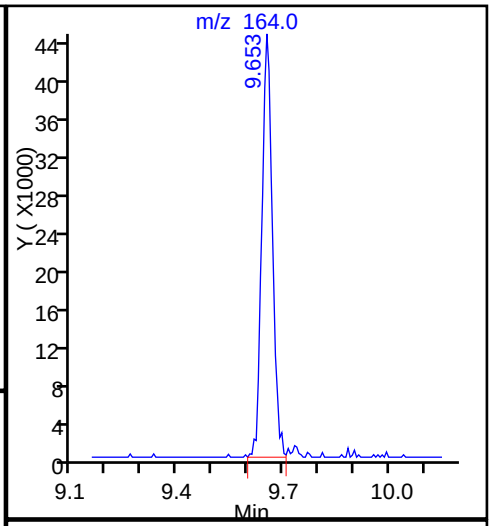
80 Tetrachloroethene, CAS: 127-18-4

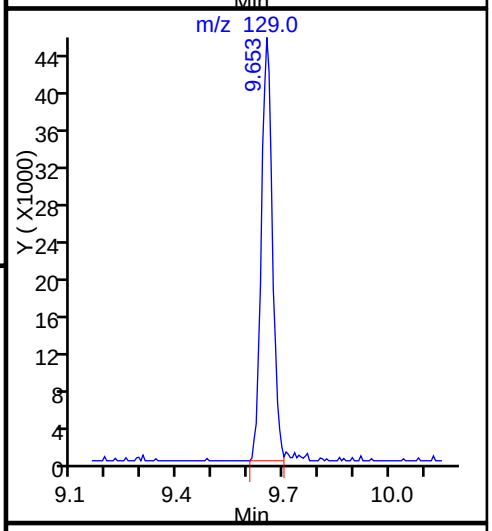


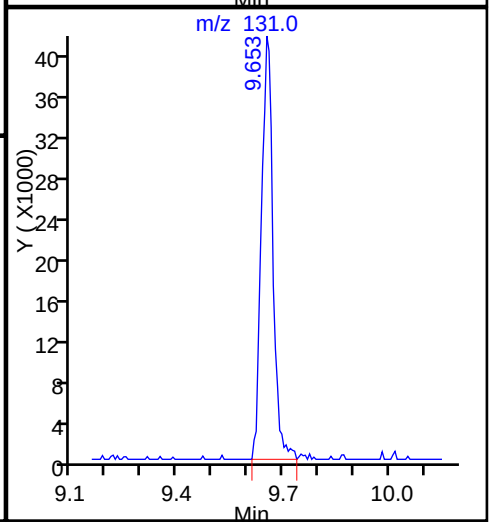












Manual Integration/User Assign Peak Report

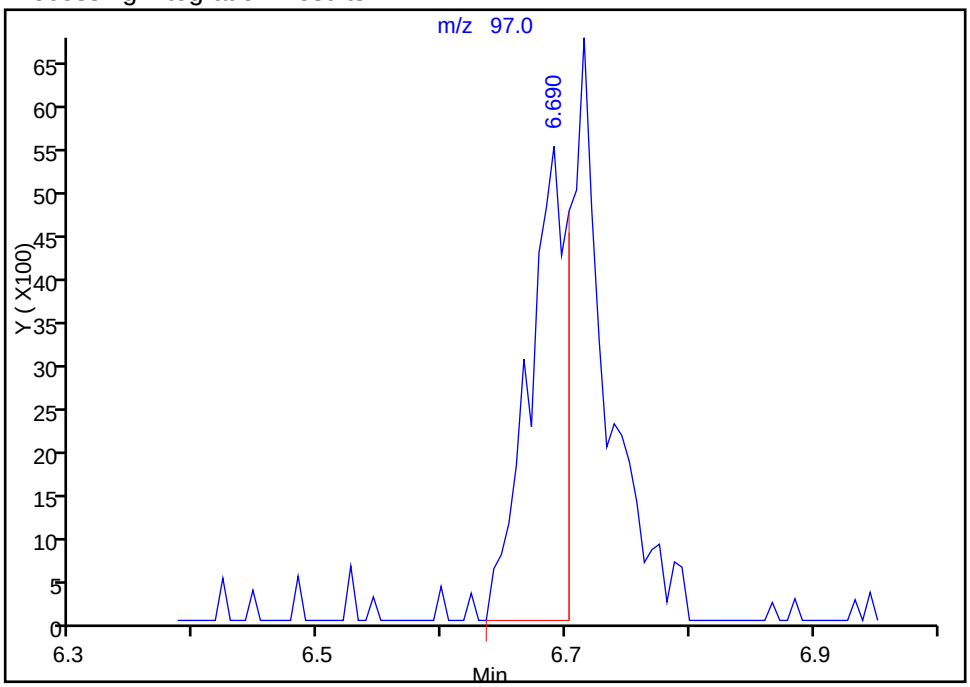
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040209.D				
Injection Date:	02-Apr-2015 13:33:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

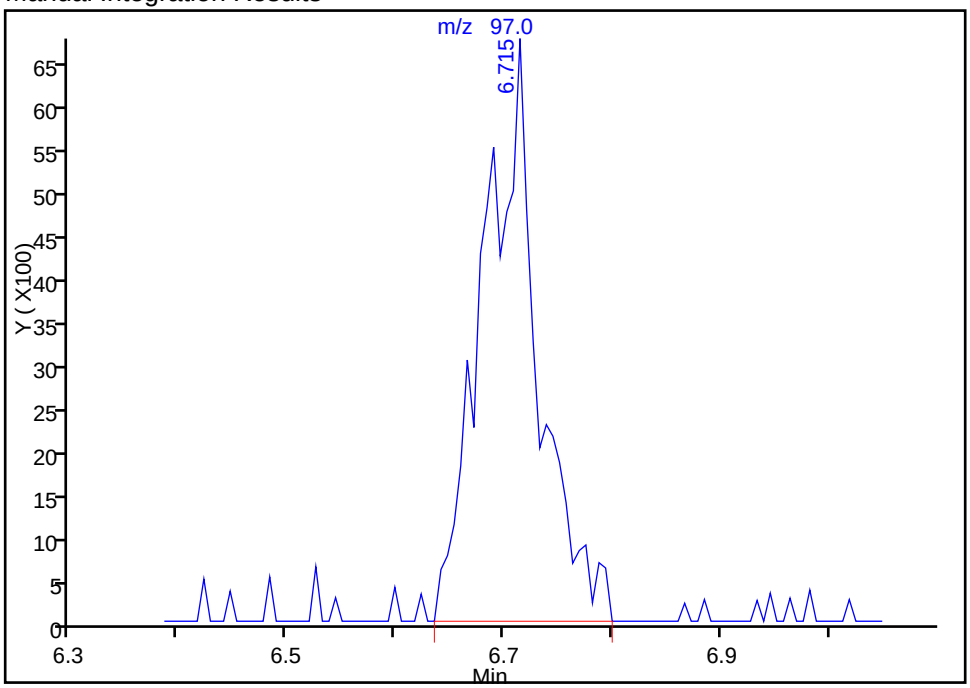
Processing Integration Results

RT: 6.69
Area: 12121
Amount: 6.601098
Amount Units: ng



Manual Integration Results

RT: 6.71
Area: 24321
Amount: 13.245219
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 09:41:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 | Lab Sample ID: 180-42391-4

Matrix: Water | Lab File ID: 7040210.D

Analysis Method: 8260C | Date Collected: 03/25/2015 05:55

Sample wt/vol: 20(mL) | Date Analyzed: 04/02/2015 14:01

Soil Aliquot Vol: | Dilution Factor: 1000

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

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

Analysis Batch No.: 137305 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1000	U	1000	280
75-01-4	Vinyl chloride	1000	U	1000	230
74-83-9	Bromomethane	1000	U	1000	310
75-00-3	Chloroethane	1000	U	1000	210
75-35-4	1,1-Dichloroethene	3900		1000	300
67-64-1	Acetone	5000	U	5000	2500
75-15-0	Carbon disulfide	1000	U	1000	210
75-09-2	Methylene Chloride	1000	U	1000	130
156-60-5	trans-1,2-Dichloroethene	1000	U	1000	170
1634-04-4	Methyl tert-butyl ether	1000	U	1000	180
75-34-3	1,1-Dichloroethane	1000	U	1000	120
156-59-2	cis-1,2-Dichloroethene	16000		1000	240
74-97-5	Bromochloromethane	1000	U	1000	180
78-93-3	2-Butanone (MEK)	5000	U	5000	550
67-66-3	Chloroform	1000	U	1000	170
71-55-6	1,1,1-Trichloroethane	17000		1000	290
56-23-5	Carbon tetrachloride	2300		1000	140
71-43-2	Benzene	1000	U	1000	110
107-06-2	1,2-Dichloroethane	1000	U	1000	210
79-01-6	Trichloroethene	7400		1000	140
78-87-5	1,2-Dichloropropane	1000	U	1000	95
75-27-4	Bromodichloromethane	1000	U	1000	130
10061-01-5	cis-1,3-Dichloropropene	1000	U	1000	190
108-10-1	4-Methyl-2-pentanone (MIBK)	5000	U	5000	530
108-88-3	Toluene	1000	U	1000	150
10061-02-6	trans-1,3-Dichloropropene	1000	U	1000	150
79-00-5	1,1,2-Trichloroethane	1000	U	1000	200
127-18-4	Tetrachloroethene	1000		1000	150
591-78-6	2-Hexanone	5000	U	5000	160
124-48-1	Dibromochloromethane	1000	U	1000	140
106-93-4	1,2-Dibromoethane (EDB)	1000	U	1000	180
108-90-7	Chlorobenzene	1000	U	1000	140
630-20-6	1,1,1,2-Tetrachloroethane	1000	U	1000	280
100-41-4	Ethylbenzene	1000	U	1000	230
1330-20-7	Xylenes, Total	3000	U	3000	490
100-42-5	Styrene	1000	U	1000	97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-42391-4

Matrix: Water Lab File ID: 7040210.D

Analysis Method: 8260C Date Collected: 03/25/2015 05:55

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 14:01

Soil Aliquot Vol: Dilution Factor: 1000

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137305 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1000	U	1000	190
79-34-5	1,1,2,2-Tetrachloroethane	1000	U	1000	200
107-13-1	Acrylonitrile	20000	U	20000	550
123-91-1	1,4-Dioxane	200000	U	200000	34000

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D
Lims ID: 180-42391-D-4 Lab Sample ID: 180-42391-4
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 02-Apr-2015 14:01:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1000.0000
Sample Info: 180-42391-D-4
Misc. Info.: 180-0006293-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 03-Apr-2015 09:43:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.614	4.837	-0.223	92	223308	4000.0	
* 2 Fluorobenzene (IS)	96	7.424	7.398	0.026	99	683836	200.0	
* 3 Chlorobenzene-d5	119	10.472	10.464	0.008	85	203417	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.788	0.002	95	274877	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.688	6.680	0.008	61	252085	231.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.053	7.045	0.008	94	218049	209.7	
$ 7 Toluene-d8 (Surr)	98	9.043	9.035	0.008	92	667707	221.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.634	11.632	0.002	86	282775	210.2	
12 Chloromethane	50		2.033				ND	
13 Vinyl chloride	62		2.185				ND	
15 Bromomethane	94		2.495				ND	
16 Chloroethane	64		2.617				ND	
22 1,1-Dichloroethene	96	3.610	3.505	0.105	56	71130	77.5	M
26 Carbon disulfide	76		3.791				ND	
24 Acetone	43		3.839				ND	
31 Methylene Chloride	84		4.350				ND	
34 trans-1,2-Dichloroethene	96		4.728				ND	
33 Acrylonitrile	53		4.813				ND	
35 Methyl tert-butyl ether	73		4.874				ND	
37 1,1-Dichloroethane	63		5.354				ND	
45 cis-1,2-Dichloroethene	96	6.122	6.096	0.026	74	352789	312.1	M
46 2-Butanone (MEK)	43		6.200				ND	
49 Chlorobromomethane	128		6.382				ND	
52 Chloroform	83		6.492				ND	
53 1,1,1-Trichloroethane	97	6.694	6.668	0.026	97	565668	331.3	
56 Carbon tetrachloride	117	6.700	6.857	-0.157	39	78294	45.5	M
58 Benzene	78		7.094				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.808	7.794	0.014	91	198599	147.2	
67 1,2-Dichloropropane	63		8.025				ND	
70 1,4-Dioxane	88		8.195				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.317				ND	
74 cis-1,3-Dichloropropene	75		8.767				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.943				ND	
76 Toluene	91		9.102				ND	
77 trans-1,3-Dichloropropene	75		9.327				ND	
79 1,1,2-Trichloroethane	97		9.509				ND	
80 Tetrachloroethene	164	9.657	9.649	0.008	92	37192	19.9	
82 2-Hexanone	43		9.765				ND	
84 Chlorodibromomethane	129		9.899				ND	
85 Ethylene Dibromide	107		10.008				ND	
87 Chlorobenzene	112		10.495				ND	
89 1,1,1,2-Tetrachloroethane	131		10.574				ND	
90 Ethylbenzene	106		10.604				ND	
91 m-Xylene & p-Xylene	106		10.720				ND	
92 o-Xylene	106		11.115				ND	
93 Styrene	104		11.133				ND	
94 Bromoform	173		11.316				ND	
99 1,1,2,2-Tetrachloroethane	83		11.778				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

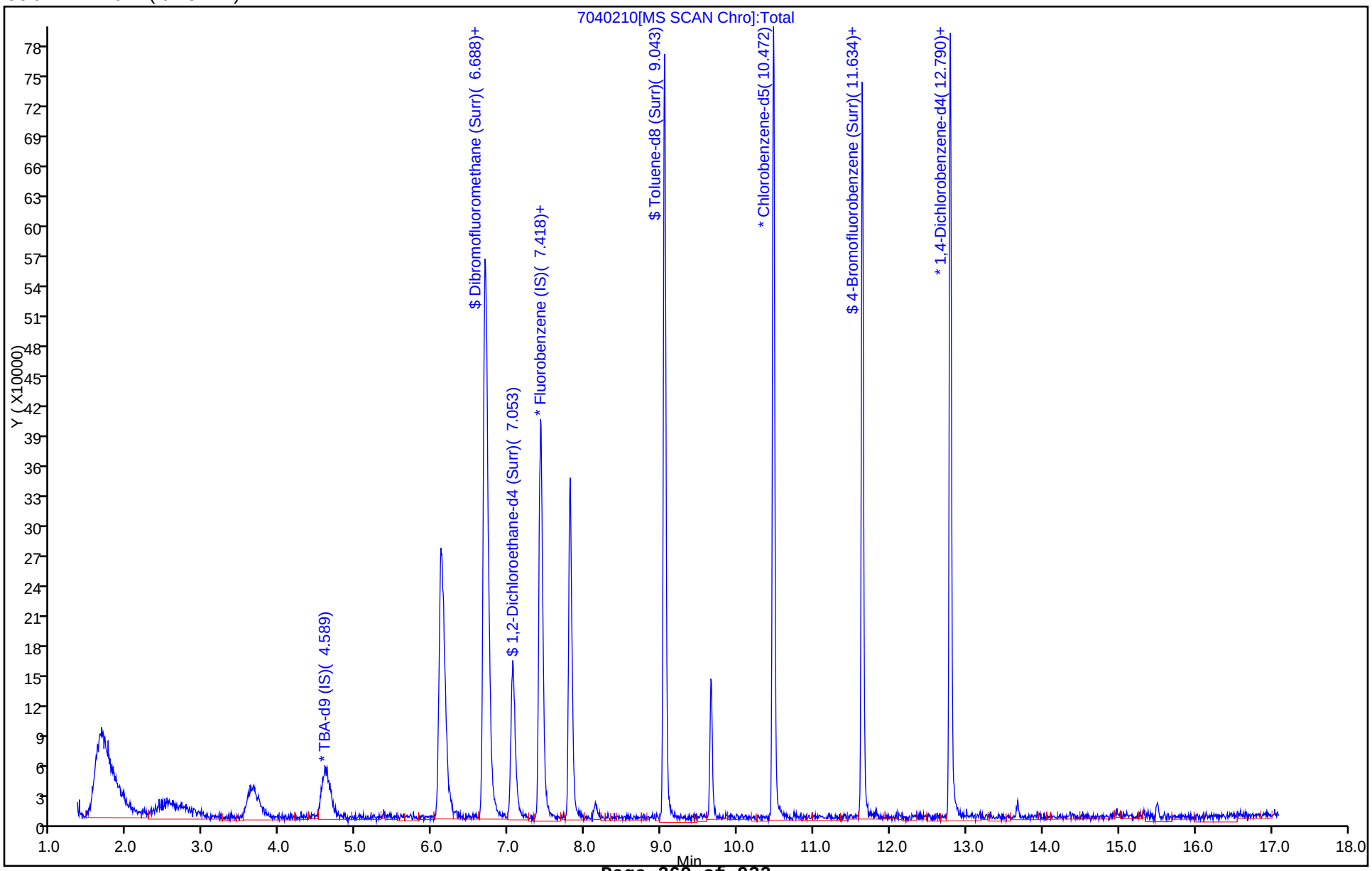
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 10:26:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4	Worklist Smp#:	10
Client ID:	HD-CW-15A-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

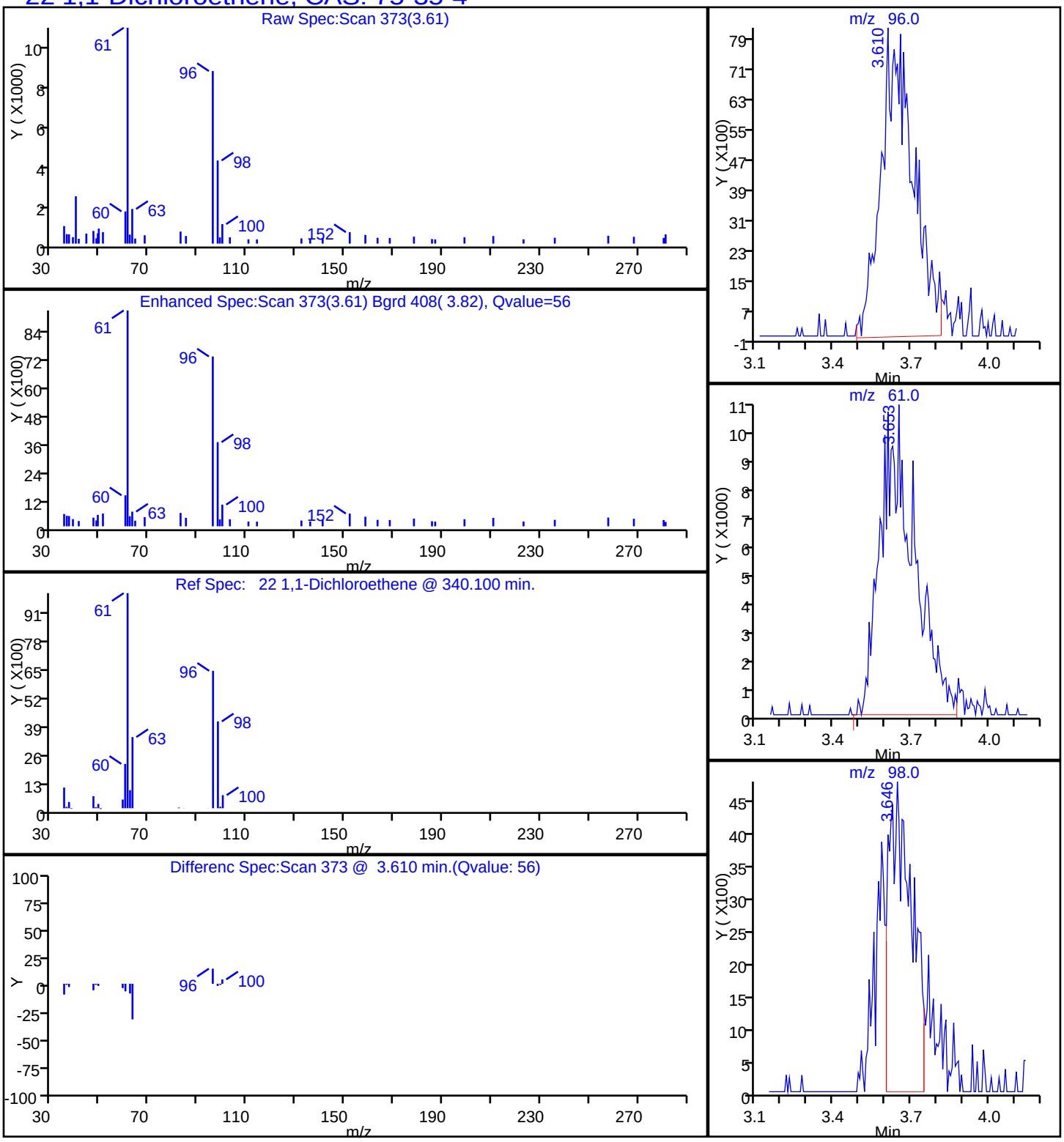


Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

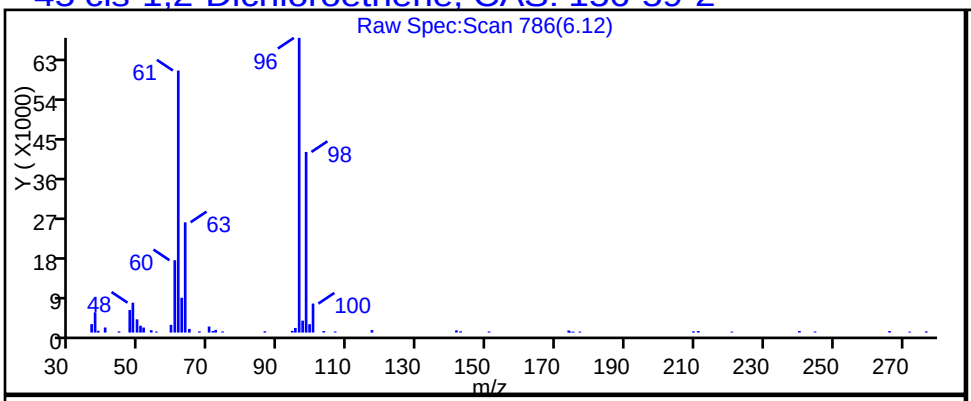


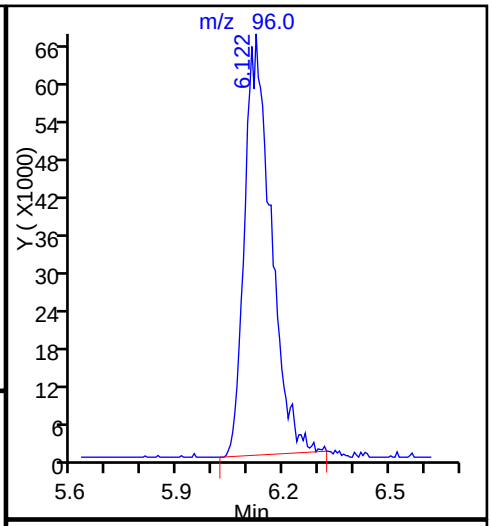
Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

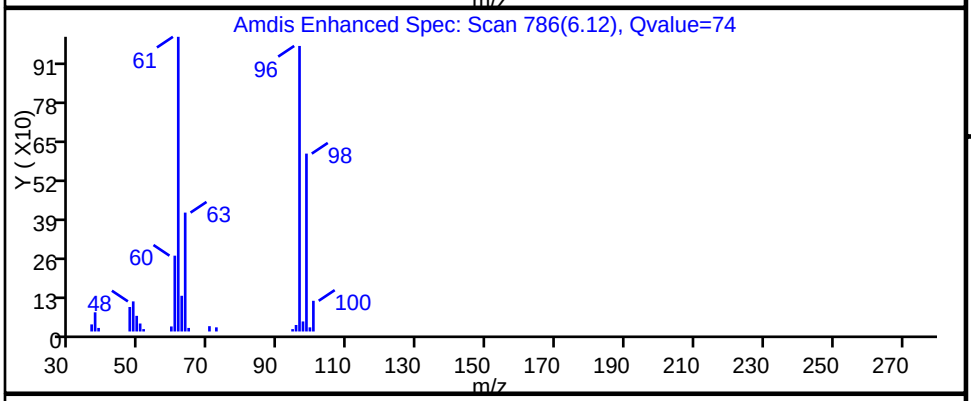
TestAmerica Pittsburgh

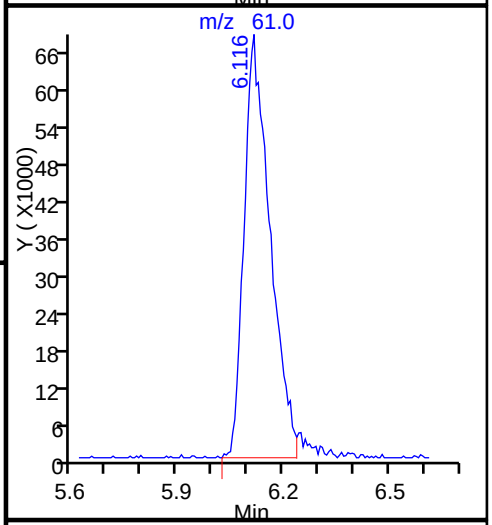
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

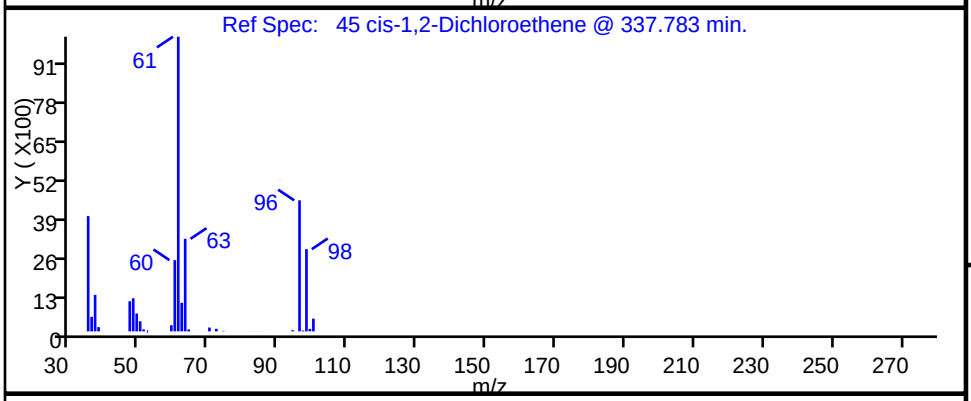
45 cis-1,2-Dichloroethene, CAS: 156-59-2

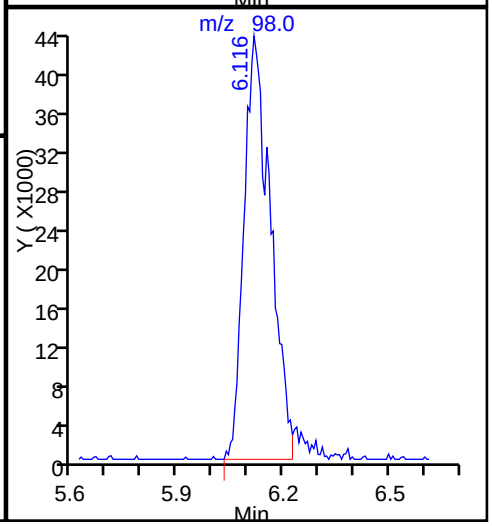


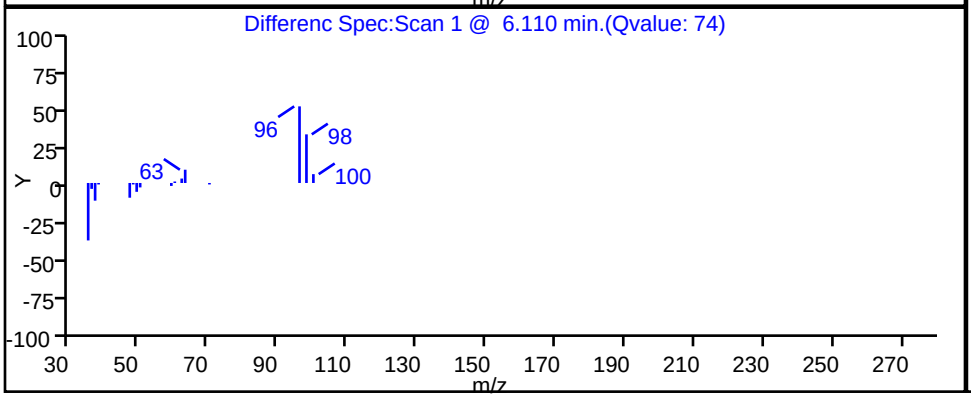










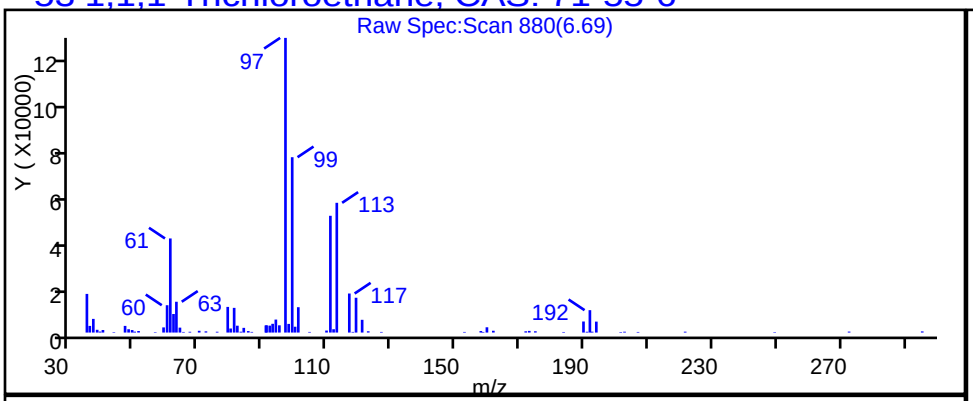


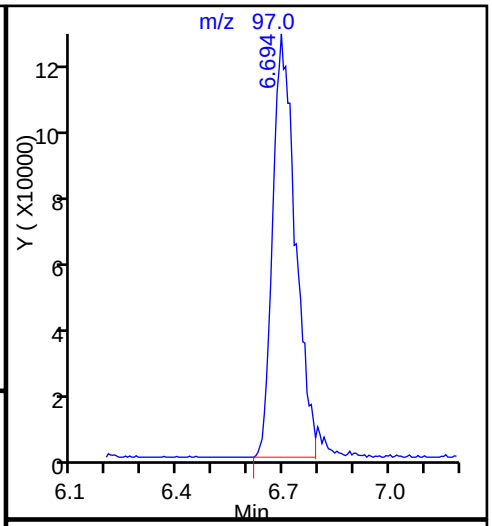
Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

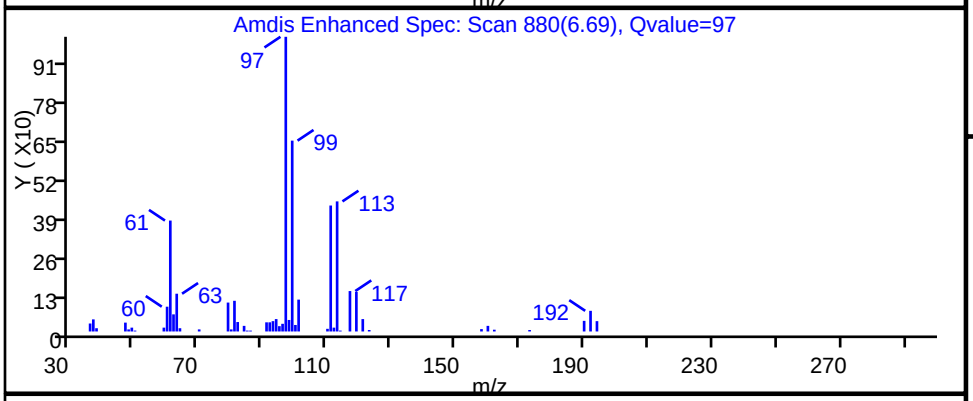
TestAmerica Pittsburgh

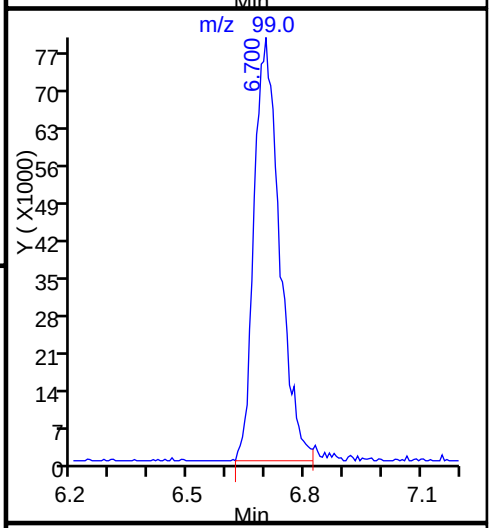
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

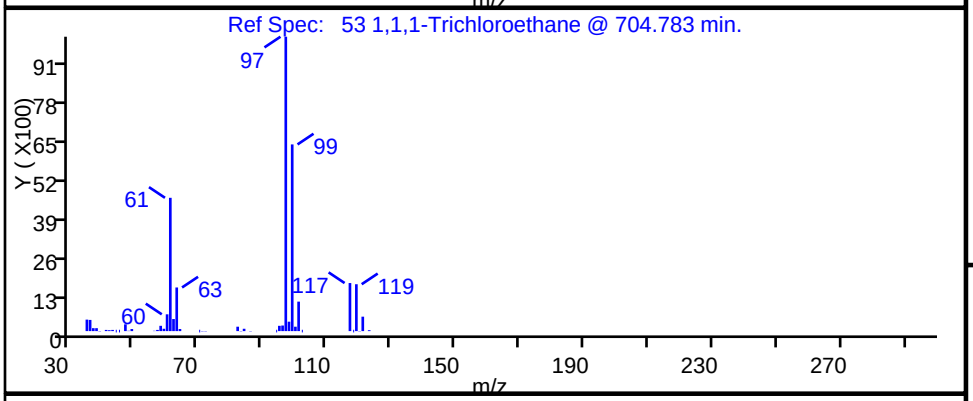
53 1,1,1-Trichloroethane, CAS: 71-55-6

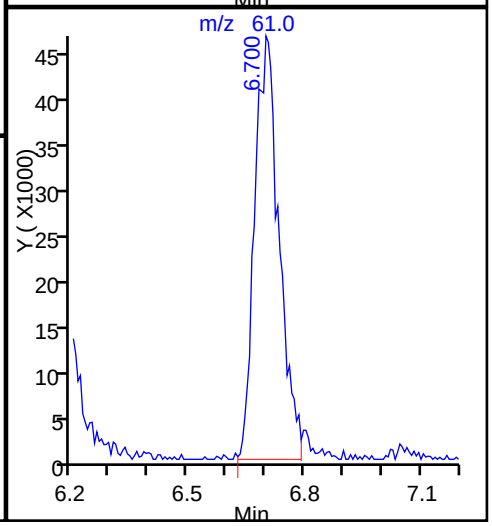


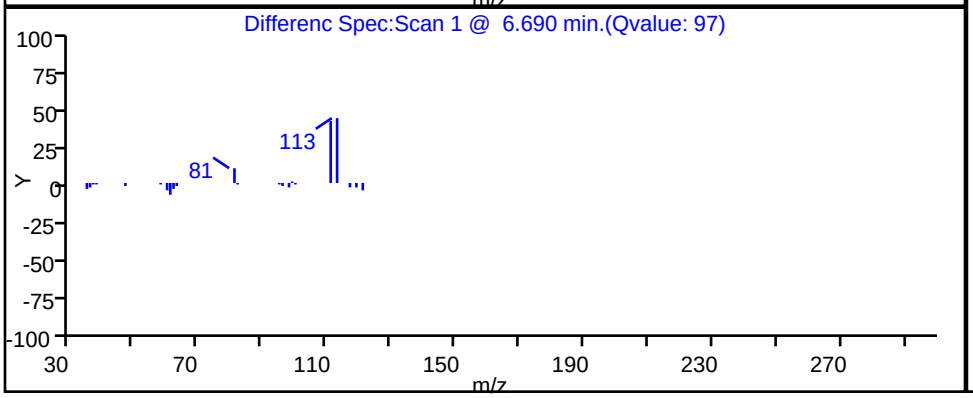










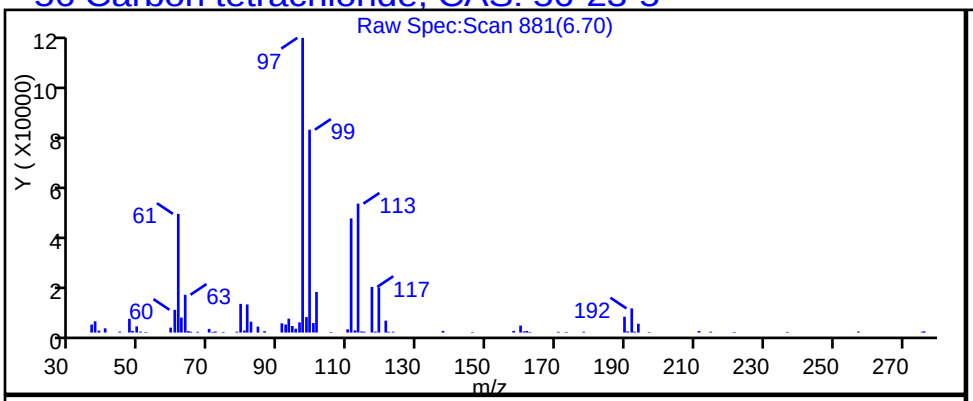


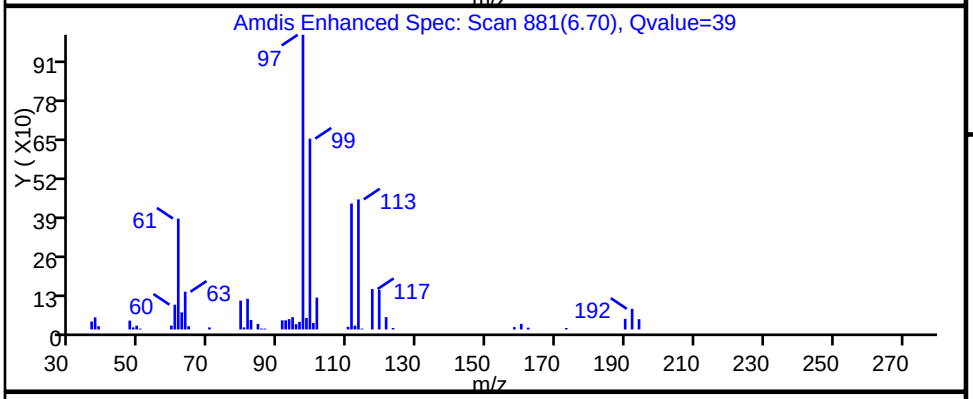
Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

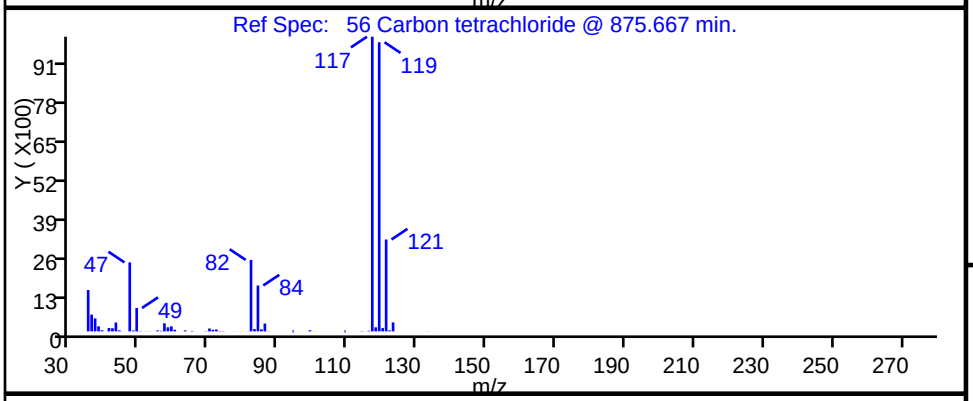
TestAmerica Pittsburgh

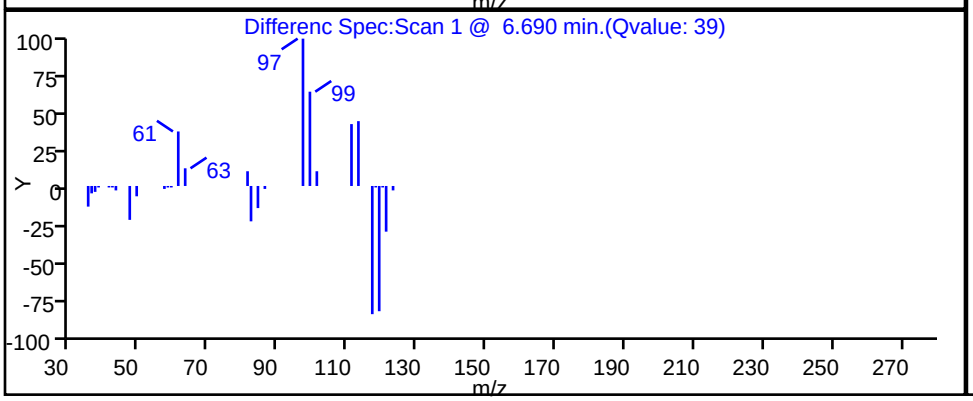
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

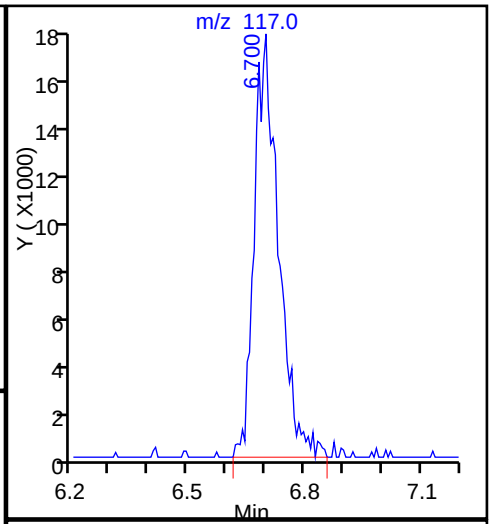
56 Carbon tetrachloride, CAS: 56-23-5

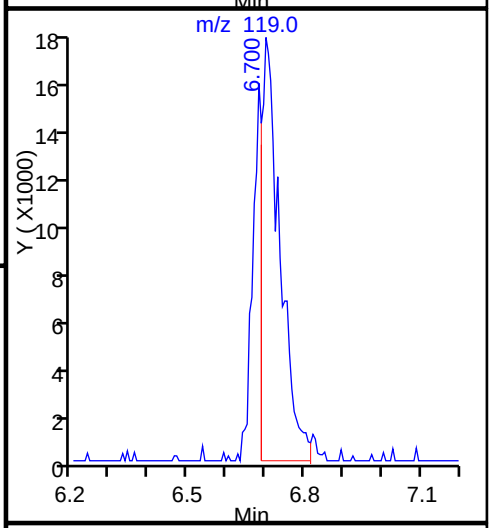


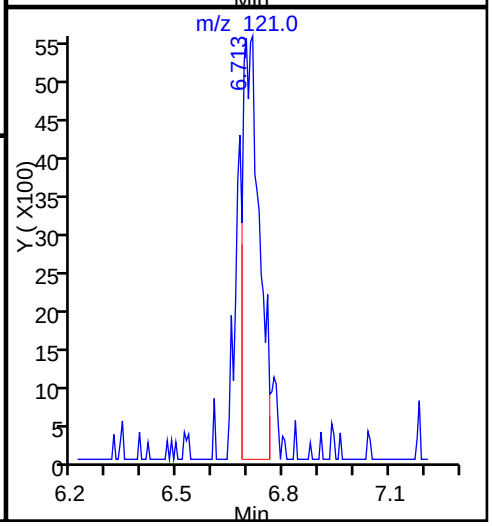










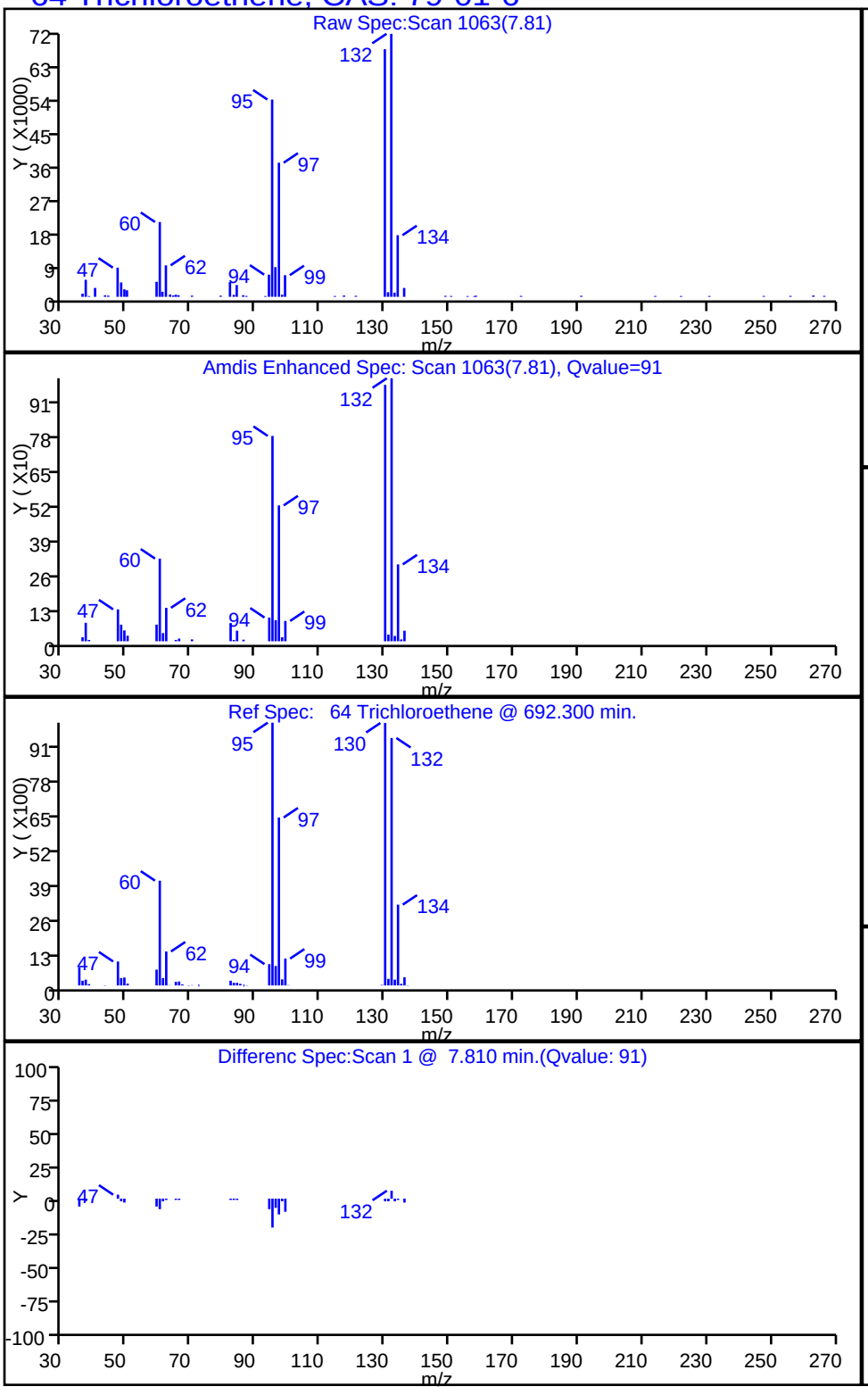


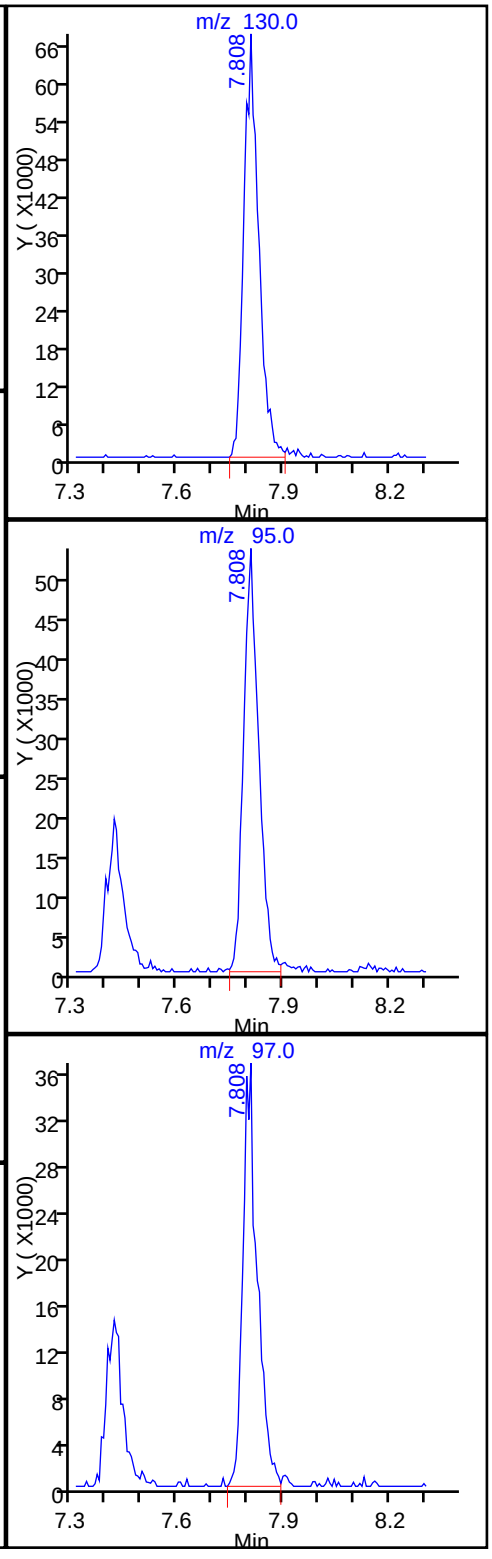
Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



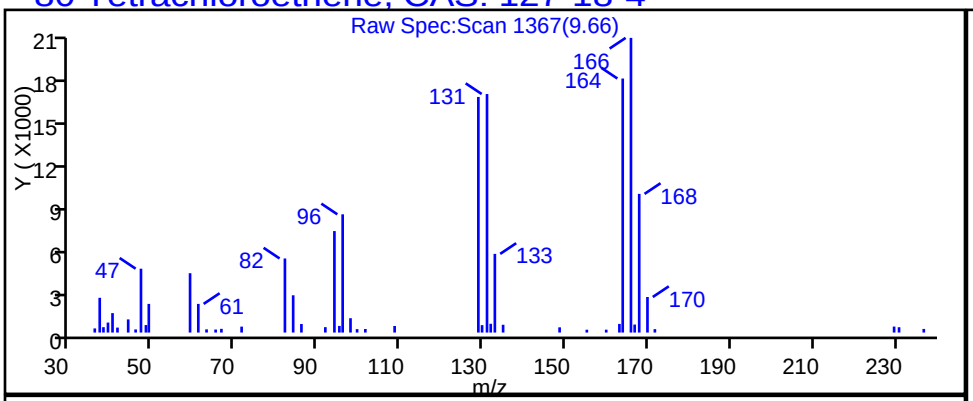


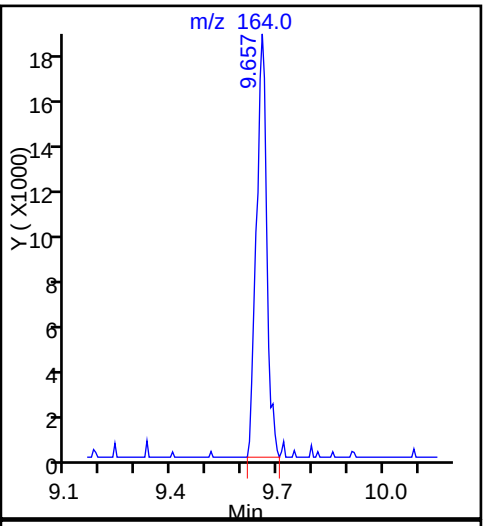
Report Date: 03-Apr-2015 10:26:31 Chrom Revision: 2.2 13-Mar-2015 11:20:44

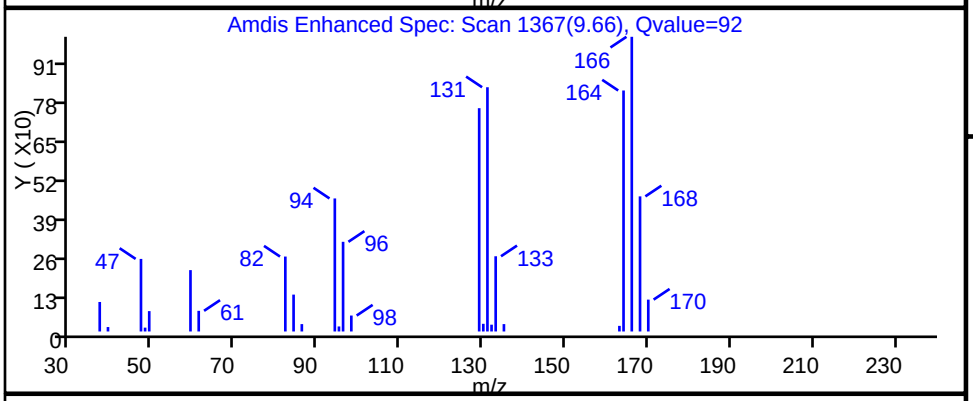
TestAmerica Pittsburgh

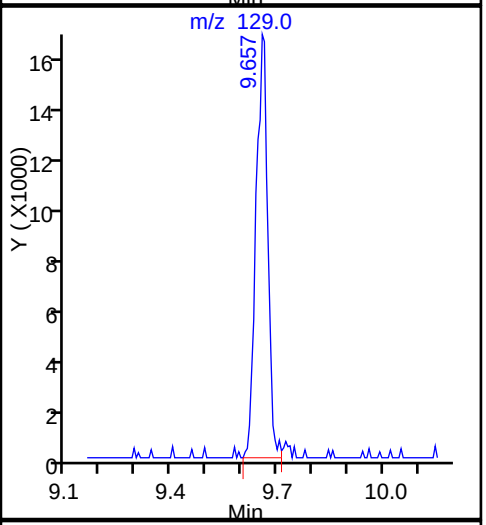
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

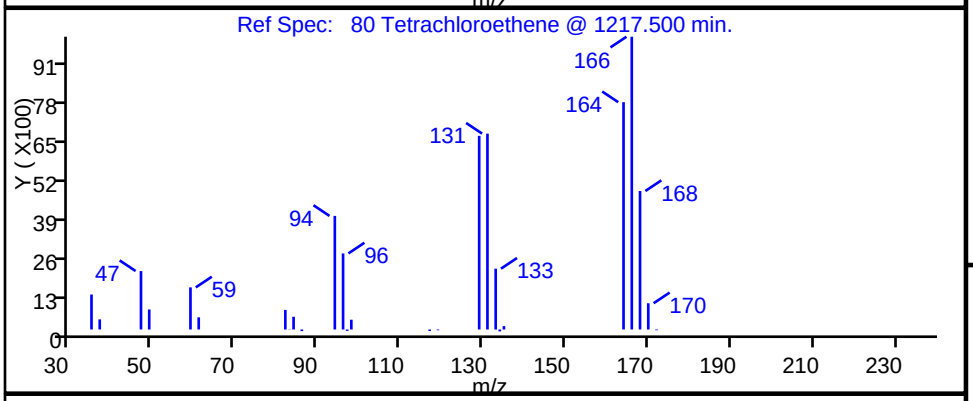
80 Tetrachloroethene, CAS: 127-18-4

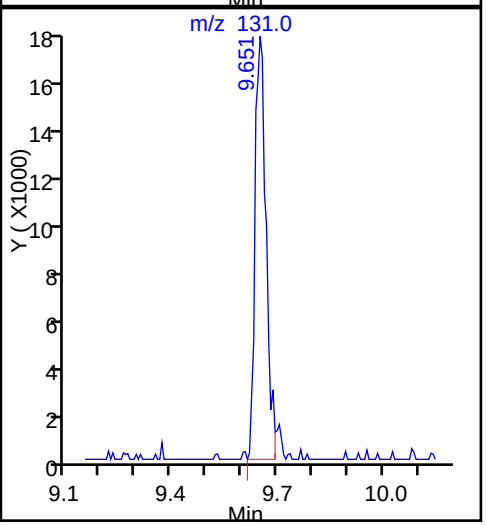


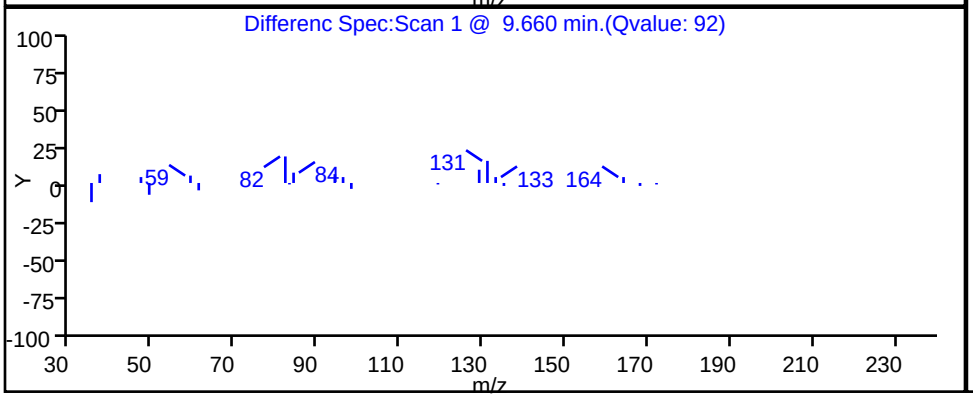












Manual Integration/User Assign Peak Report

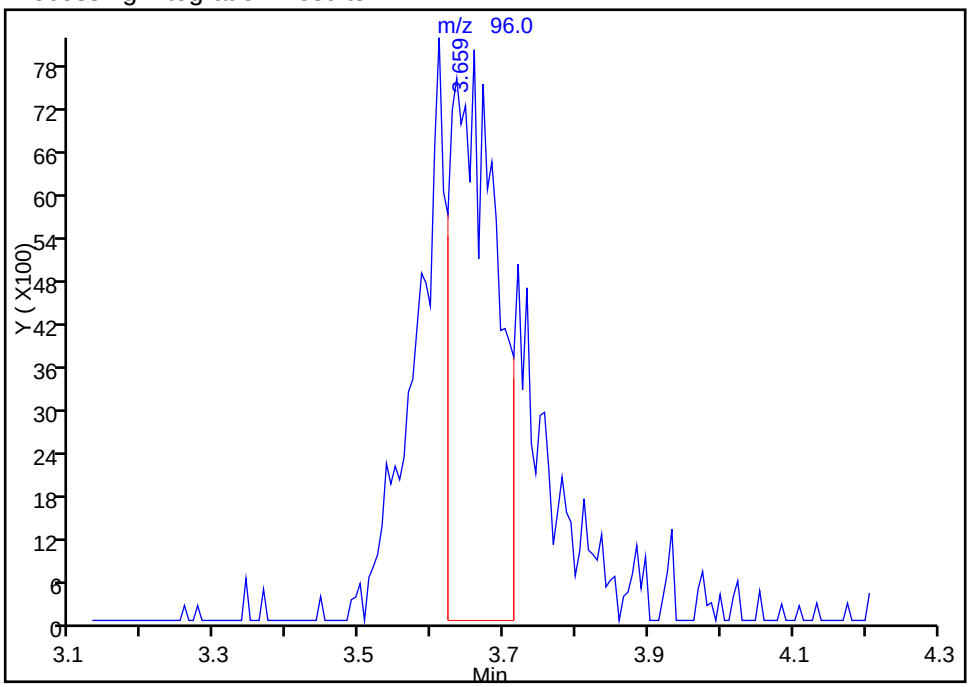
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

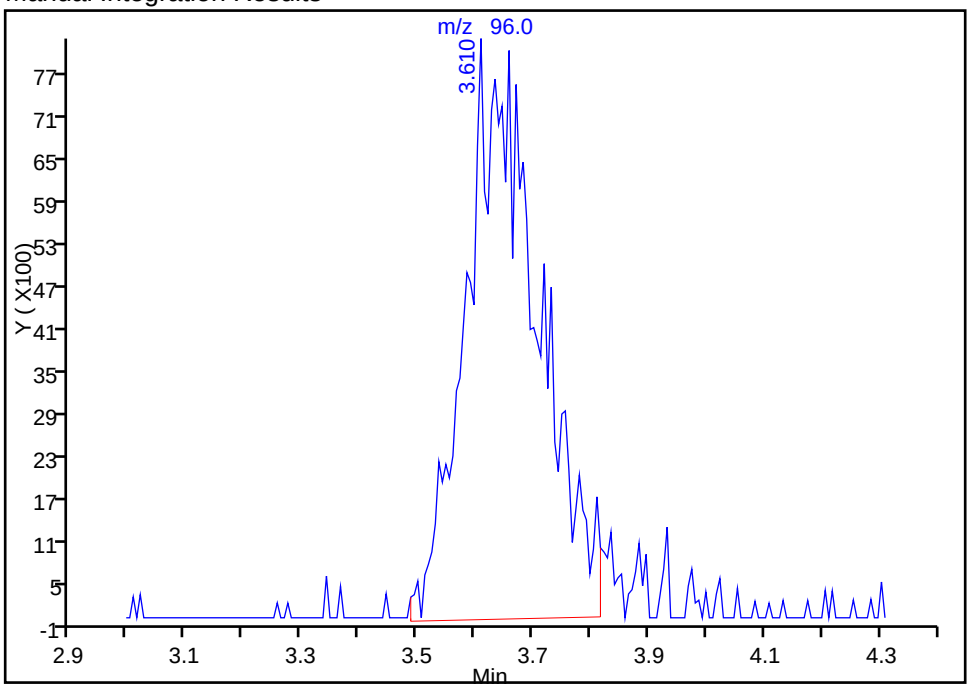
Processing Integration Results

RT: 3.66
Area: 34884
Amount: 37.993508
Amount Units: ng



Manual Integration Results

RT: 3.61
Area: 71130
Amount: 77.470423
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 09:43:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

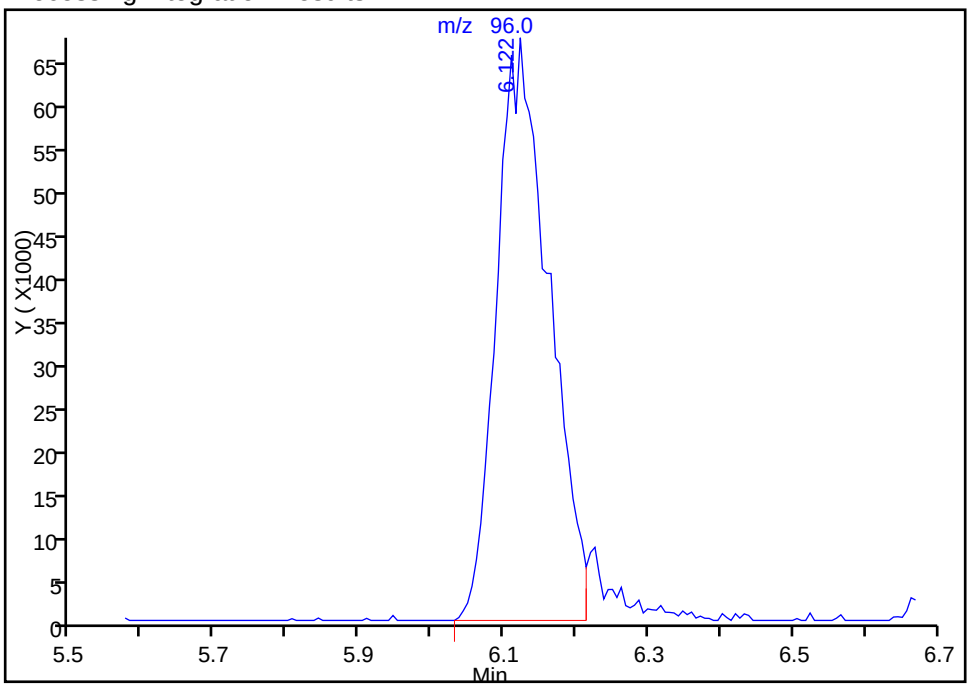
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

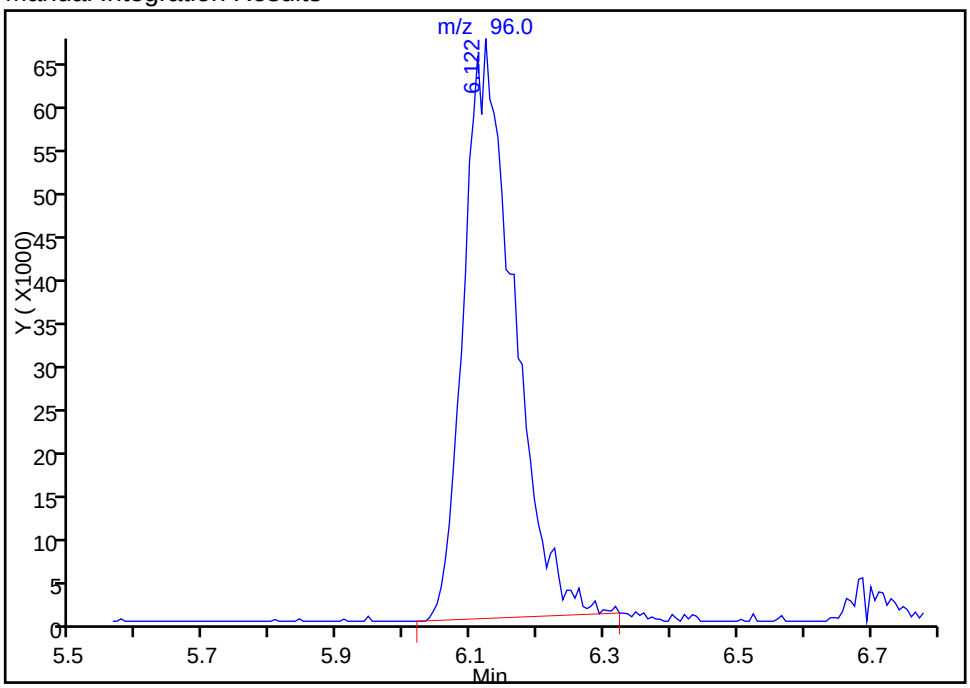
Processing Integration Results

RT: 6.12
Area: 342471
Amount: 302.9356
Amount Units: ng



Manual Integration Results

RT: 6.12
Area: 352789
Amount: 312.0625
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 09:43:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

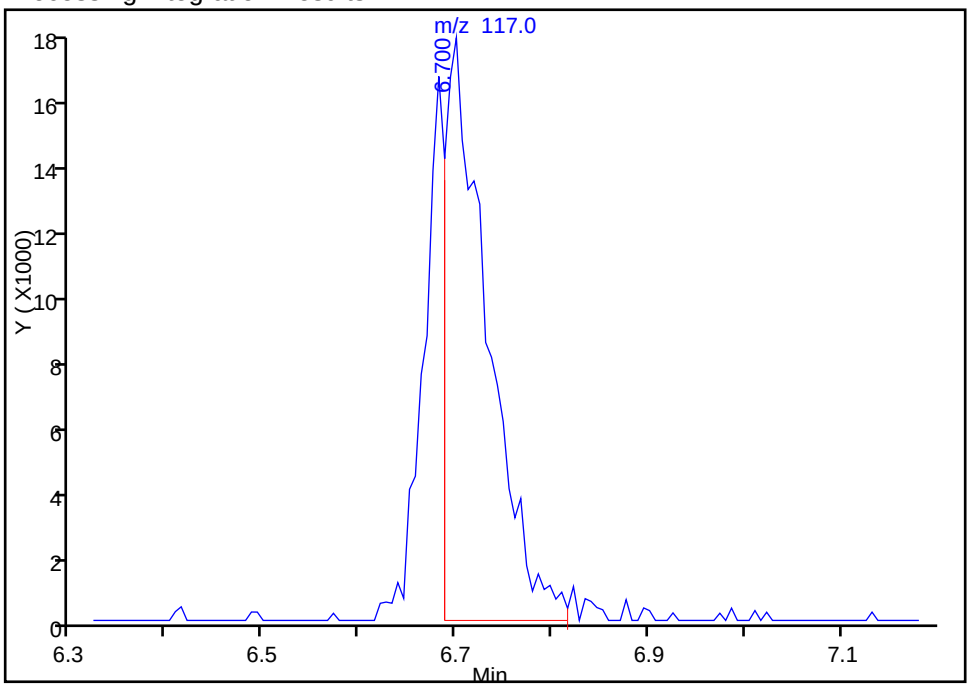
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040210.D				
Injection Date:	02-Apr-2015 14:01:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

56 Carbon tetrachloride, CAS: 56-23-5

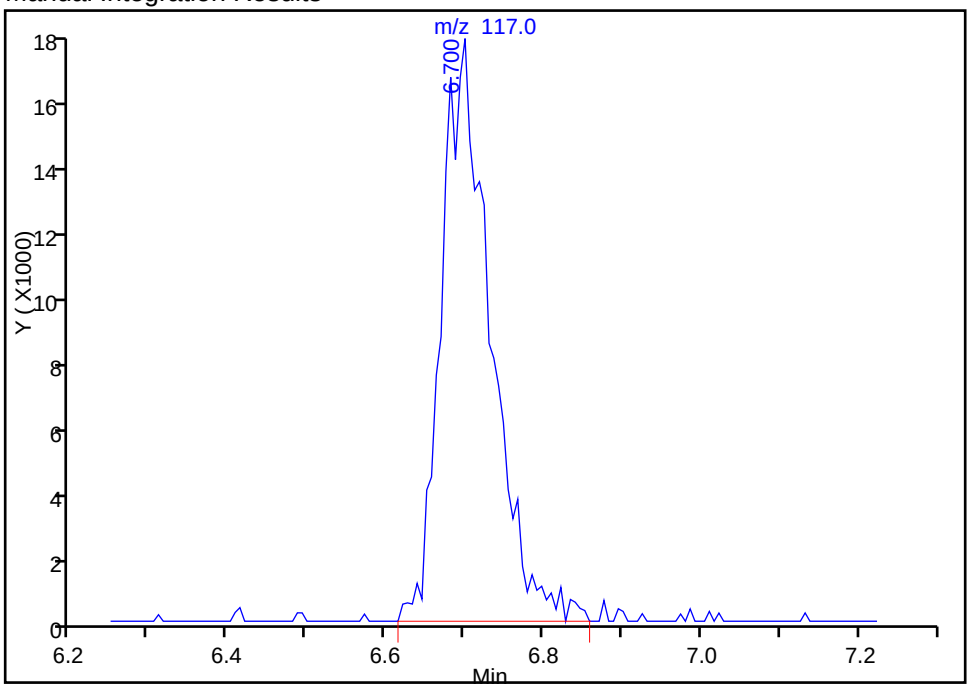
Processing Integration Results

RT: 6.70
Area: 55663
Amount: 32.318097
Amount Units: ng



Manual Integration Results

RT: 6.70
Area: 78294
Amount: 45.457720
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 09:43:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-42391-5

Matrix: Water Lab File ID: 7040211.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:20

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 14:28

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.: 137305 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.4
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
74-83-9	Bromomethane	5.0	U	5.0	1.6
75-00-3	Chloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	8.1		5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.0	U	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	80		5.0	1.2
74-97-5	Bromochloromethane	5.0	U	5.0	0.90
78-93-3	2-Butanone (MEK)	25	U	25	2.7
67-66-3	Chloroform	5.0	U	5.0	0.85
71-55-6	1,1,1-Trichloroethane	19		5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.68
71-43-2	Benzene	5.0	U	5.0	0.53
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.1
79-01-6	Trichloroethene	66		5.0	0.72
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.47
75-27-4	Bromodichloromethane	5.0	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	2.6
108-88-3	Toluene	5.0	U	5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.74
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.0
127-18-4	Tetrachloroethene	48		5.0	0.74
591-78-6	2-Hexanone	25	U	25	0.80
124-48-1	Dibromochloromethane	5.0	U	5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90
108-90-7	Chlorobenzene	5.0	U	5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4
100-41-4	Ethylbenzene	5.0	U	5.0	1.1
1330-20-7	Xylenes, Total	15	U	15	2.4
100-42-5	Styrene	5.0	U	5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-42391-5

Matrix: Water Lab File ID: 7040211.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:20

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 14:28

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.: 137305 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		64-135
2037-26-5	Toluene-d8 (Surr)	116		71-118
460-00-4	4-Bromofluorobenzene (Surr)	111		70-118
1868-53-7	Dibromofluoromethane (Surr)	120		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D
Lims ID: 180-42391-D-5 Lab Sample ID: 180-42391-5
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 02-Apr-2015 14:28:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 5.0000
Sample Info: 180-42391-D-5
Misc. Info.: 180-0006293-011
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 02-Apr-2015 15:19:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.606	4.837	-0.231	82	195250	4000.0	
* 2 Fluorobenzene (IS)	96	7.417	7.398	0.019	99	659016	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.464	0.007	84	182351	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.788	0.000	96	257742	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.693	6.680	0.013	88	251720	239.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.058	7.045	0.013	95	193306	192.9	
$ 7 Toluene-d8 (Surr)	98	9.047	9.035	0.012	93	627998	232.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.632	0.000	89	265780	221.2	
12 Chloromethane	50		2.033				ND	
13 Vinyl chloride	62		2.185				ND	
15 Bromomethane	94		2.495				ND	
16 Chloroethane	64		2.617				ND	
22 1,1-Dichloroethene	96	3.645	3.505	0.140	39	28594	32.3	M
26 Carbon disulfide	76		3.791				ND	
24 Acetone	43		3.839				ND	
31 Methylene Chloride	84		4.350				ND	
34 trans-1,2-Dichloroethene	96		4.728				ND	
33 Acrylonitrile	53		4.813				ND	
35 Methyl tert-butyl ether	73		4.874				ND	
37 1,1-Dichloroethane	63		5.354				ND	
45 cis-1,2-Dichloroethene	96	6.121	6.096	0.025	73	347368	318.8	
46 2-Butanone (MEK)	43		6.200				ND	
49 Chlorobromomethane	128		6.382				ND	
52 Chloroform	83		6.492				ND	
53 1,1,1-Trichloroethane	97	6.705	6.668	0.037	69	126751	77.0	
56 Carbon tetrachloride	117		6.857				ND	
58 Benzene	78		7.094				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.812	7.794	0.018	91	342989	263.8	
67 1,2-Dichloropropane	63		8.025				ND	
70 1,4-Dioxane	88		8.195				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.317				ND	
74 cis-1,3-Dichloropropene	75		8.767				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.943				ND	
76 Toluene	91		9.102				ND	
77 trans-1,3-Dichloropropene	75		9.327				ND	
79 1,1,2-Trichloroethane	97		9.509				ND	
80 Tetrachloroethene	164	9.655	9.649	0.006	91	165801	191.9	
82 2-Hexanone	43		9.765				ND	
84 Chlorodibromomethane	129		9.899				ND	
85 Ethylene Dibromide	107		10.008				ND	
87 Chlorobenzene	112		10.495				ND	
89 1,1,1,2-Tetrachloroethane	131		10.574				ND	
90 Ethylbenzene	106		10.604				ND	
91 m-Xylene & p-Xylene	106		10.720				ND	
92 o-Xylene	106		11.115				ND	
93 Styrene	104		11.133				ND	
94 Bromoform	173		11.316				ND	
99 1,1,2,2-Tetrachloroethane	83		11.778				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

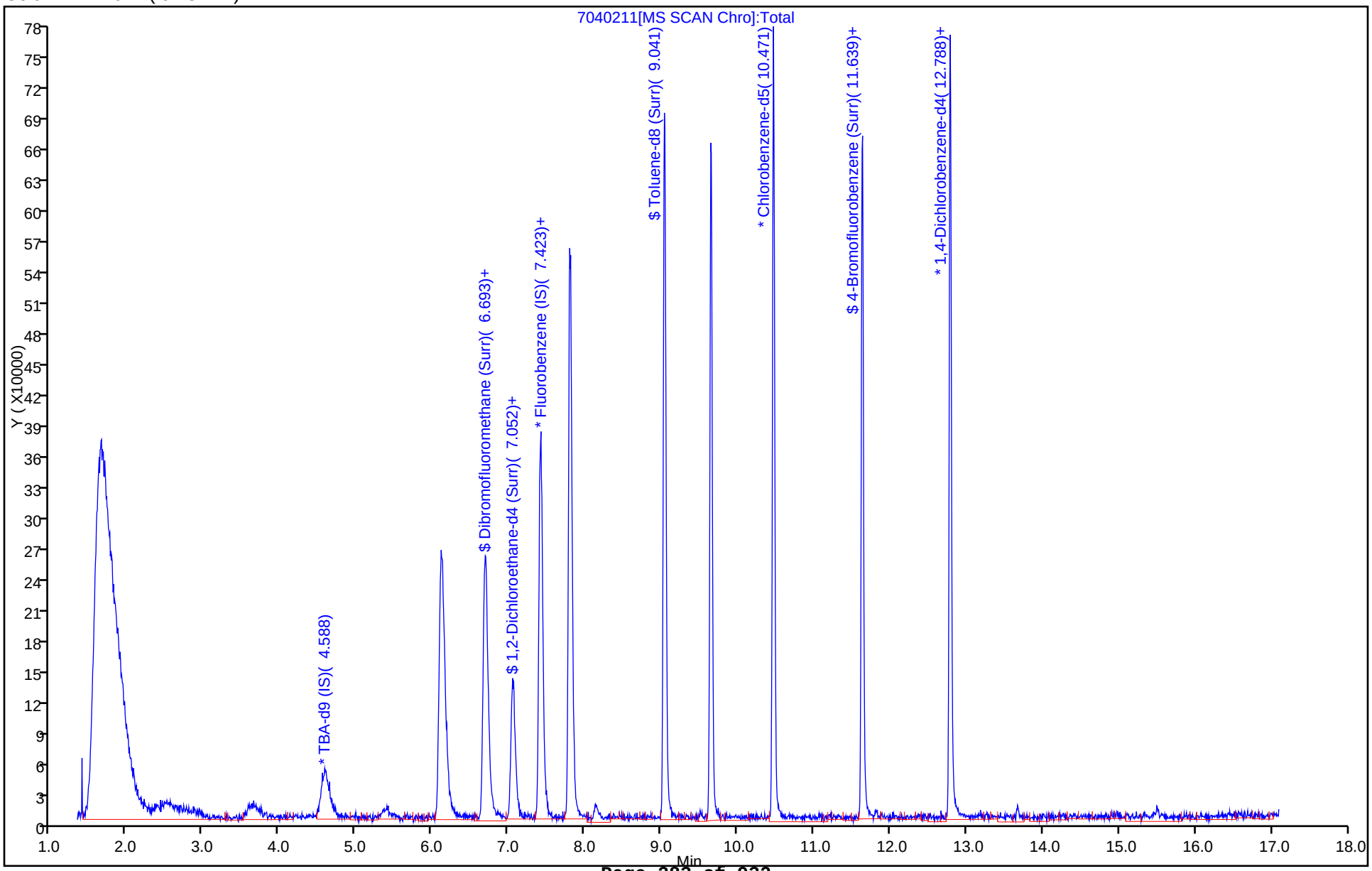
Report Date: 03-Apr-2015 10:26:29 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D

Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5	Worklist Smp#:	11
Client ID:	HD-CW-17-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



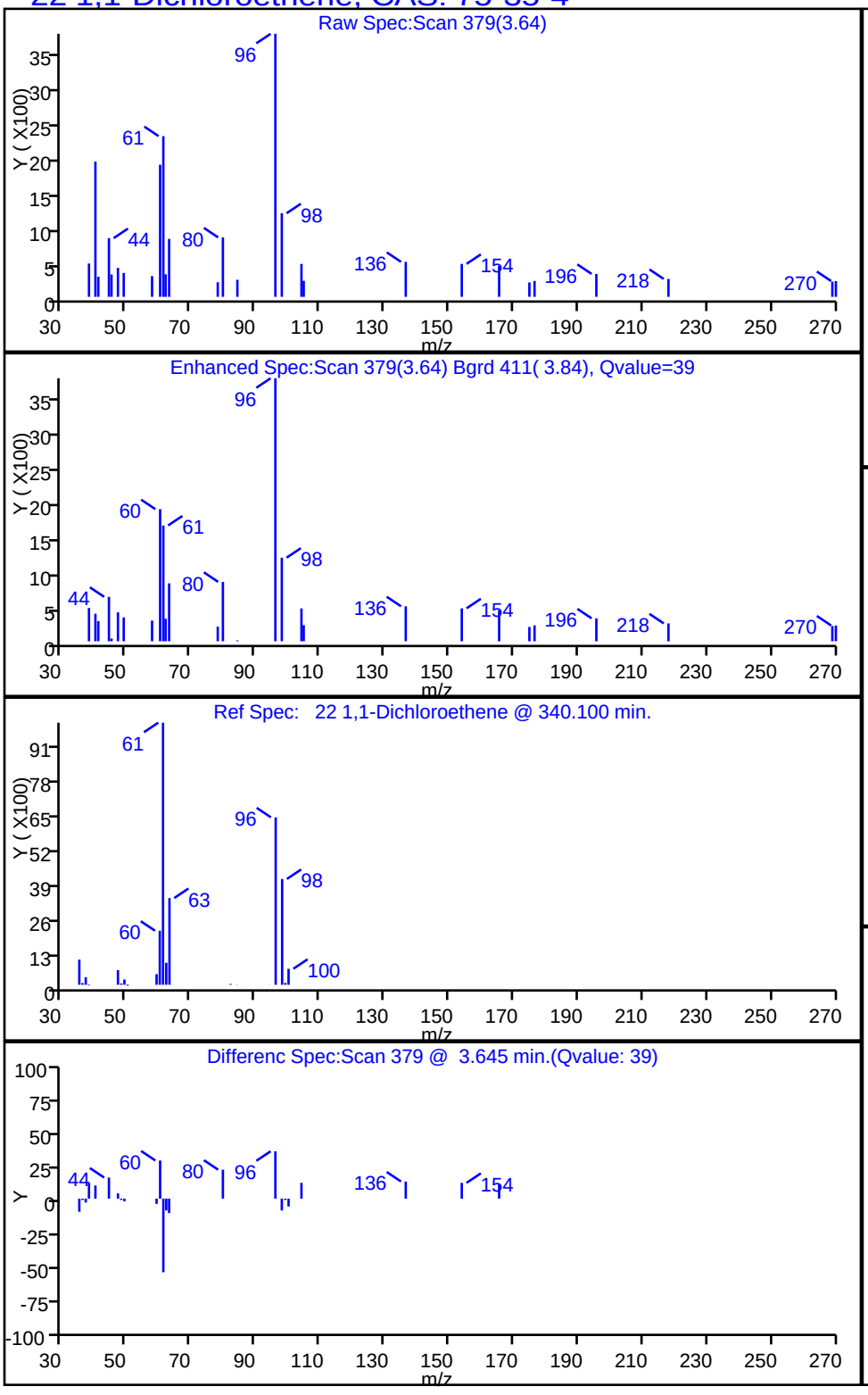
Report Date: 03-Apr-2015 10:26:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

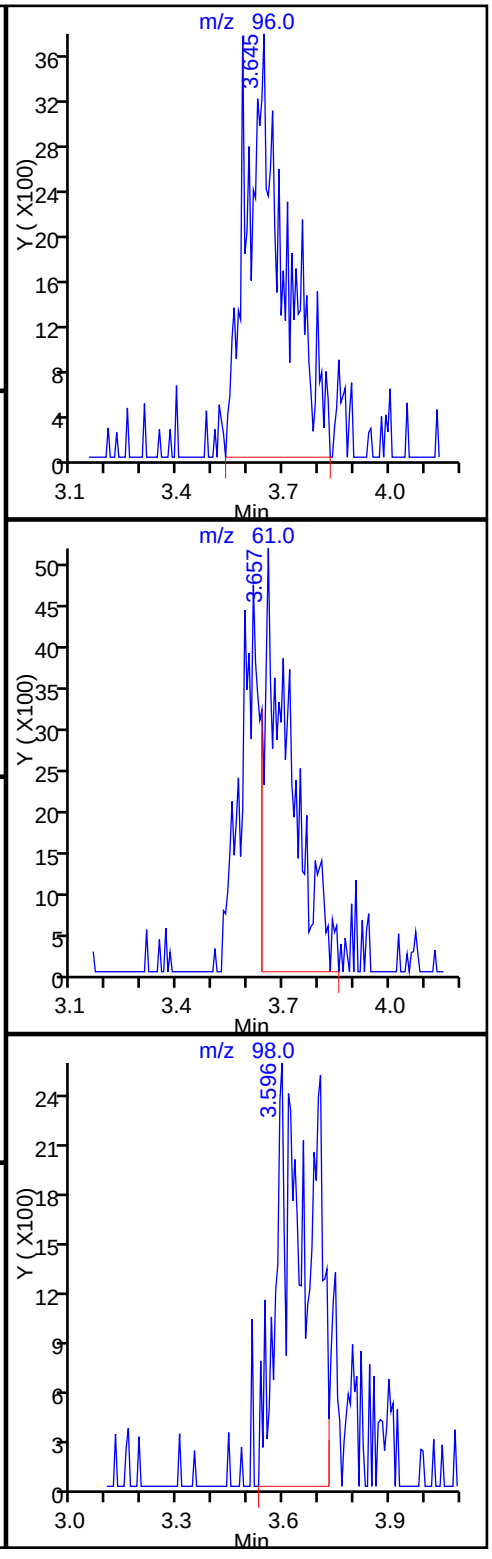
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D

Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



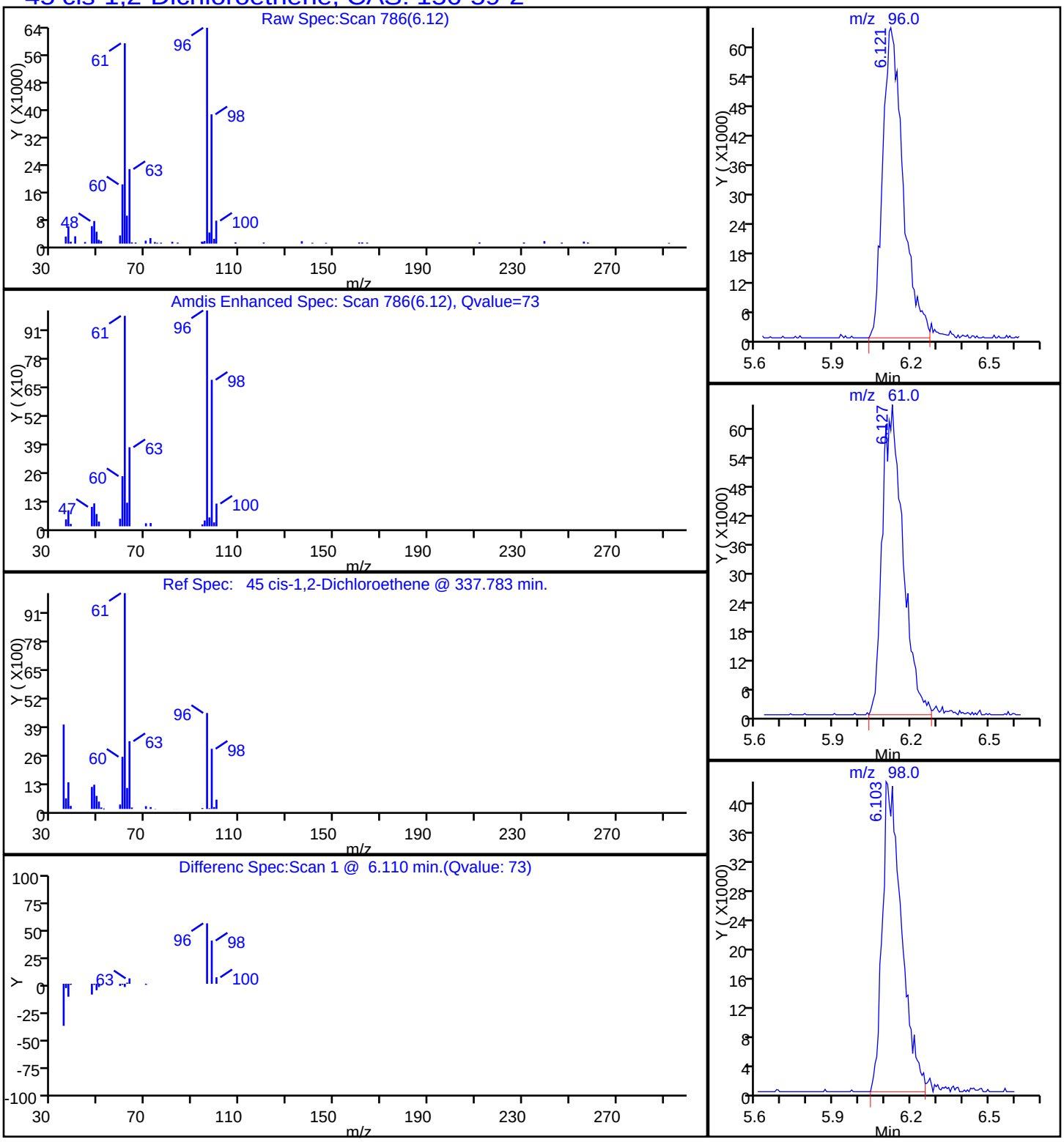


Report Date: 03-Apr-2015 10:26:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D				
Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



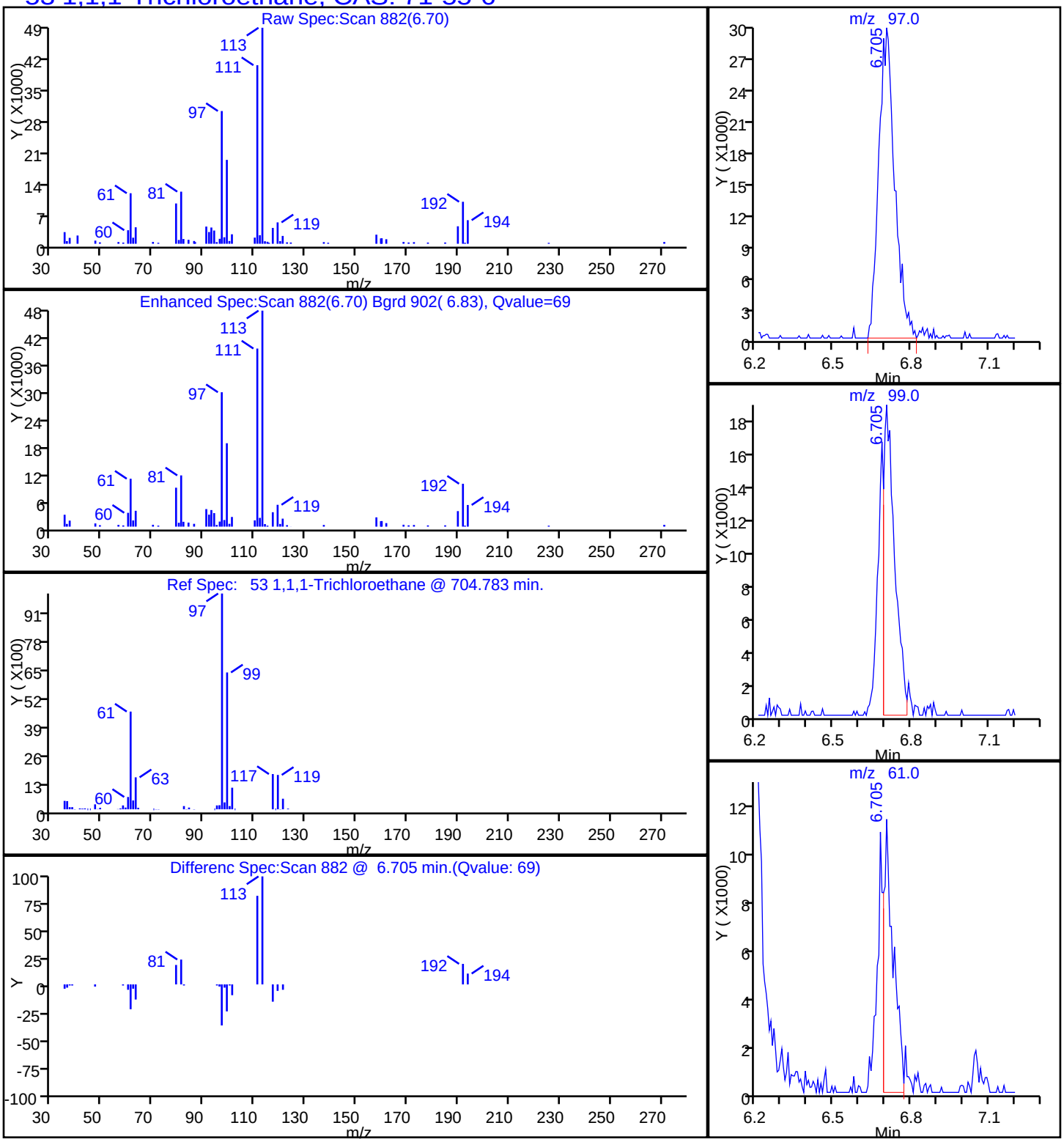
Report Date: 03-Apr-2015 10:26:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D

Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

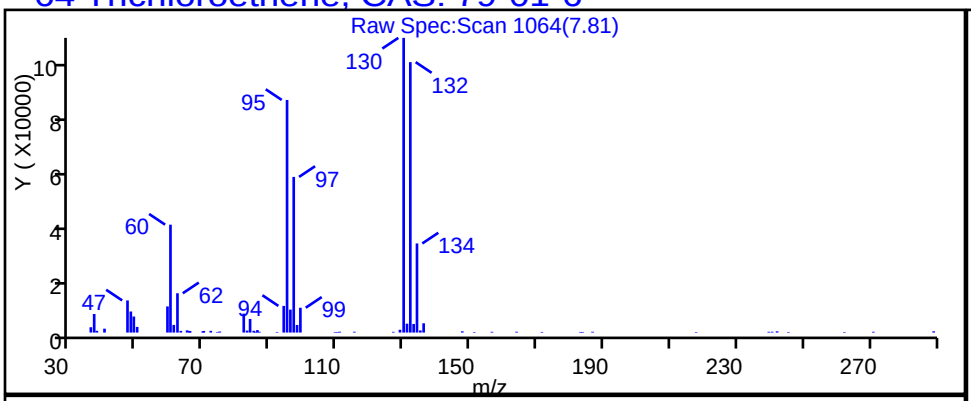


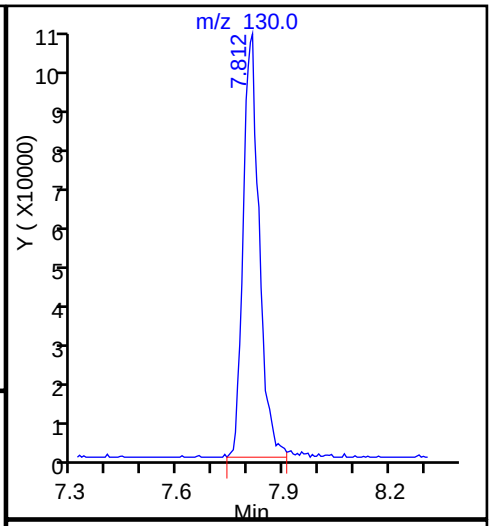
Report Date: 03-Apr-2015 10:26:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

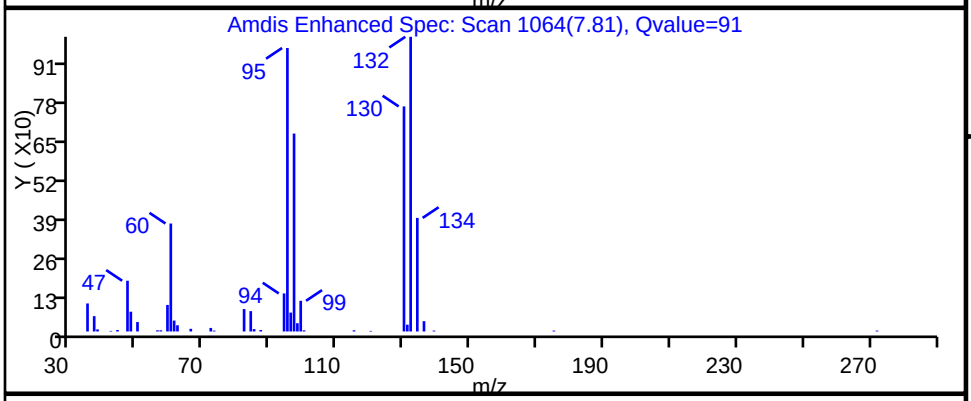
TestAmerica Pittsburgh

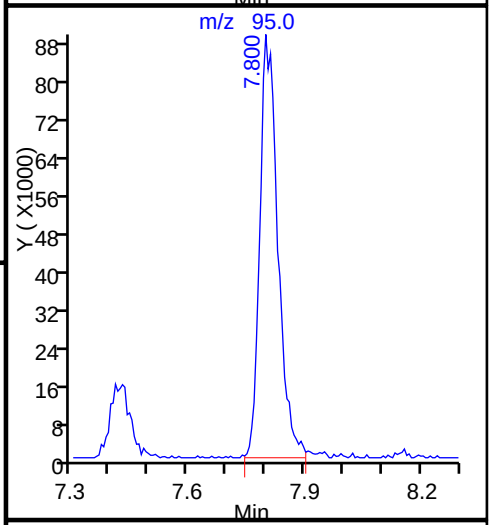
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D				
Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

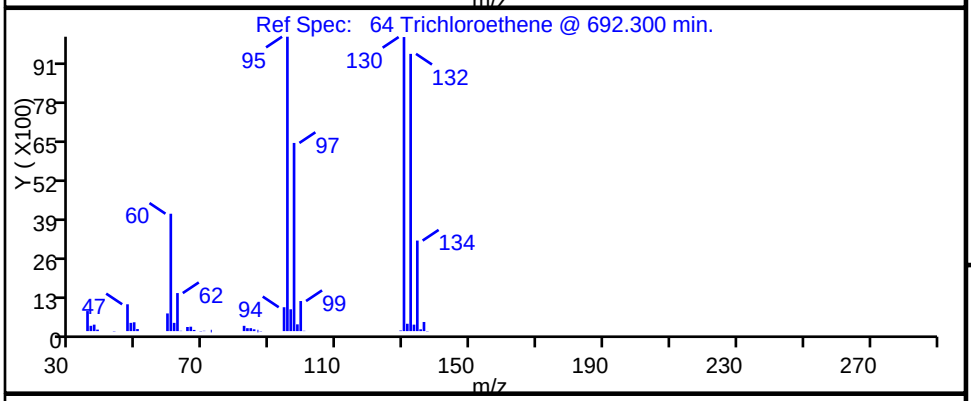
64 Trichloroethene, CAS: 79-01-6

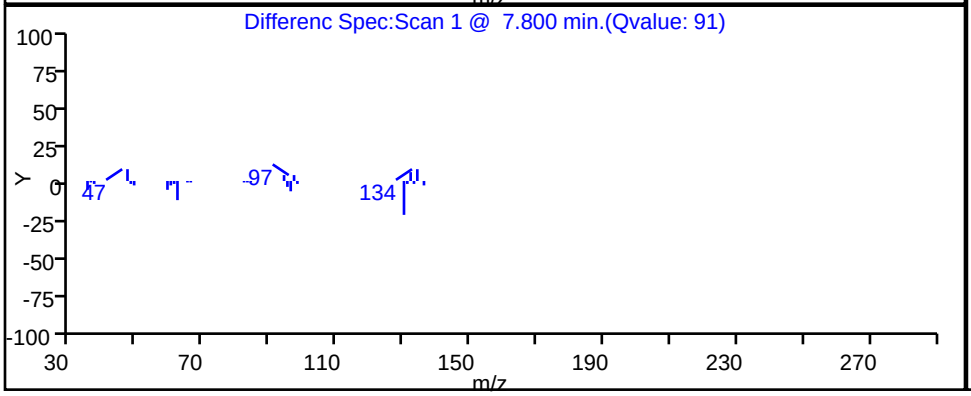


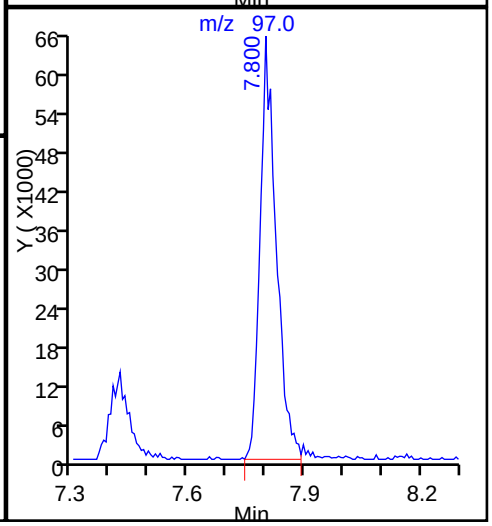












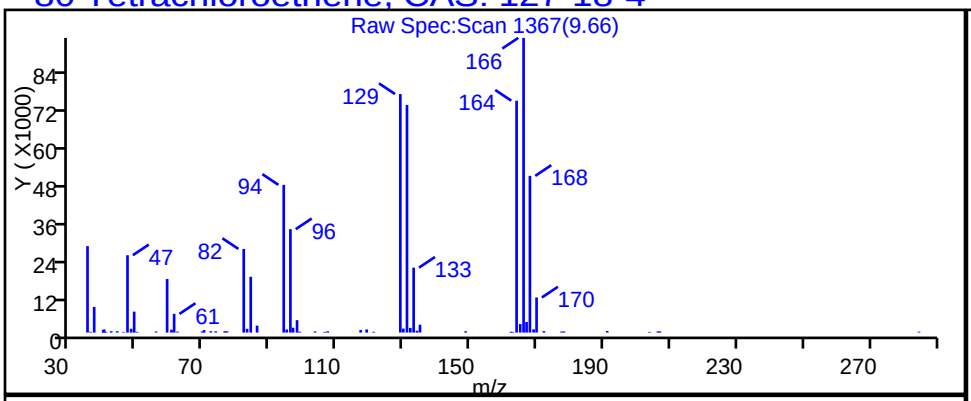
Report Date: 03-Apr-2015 10:26:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

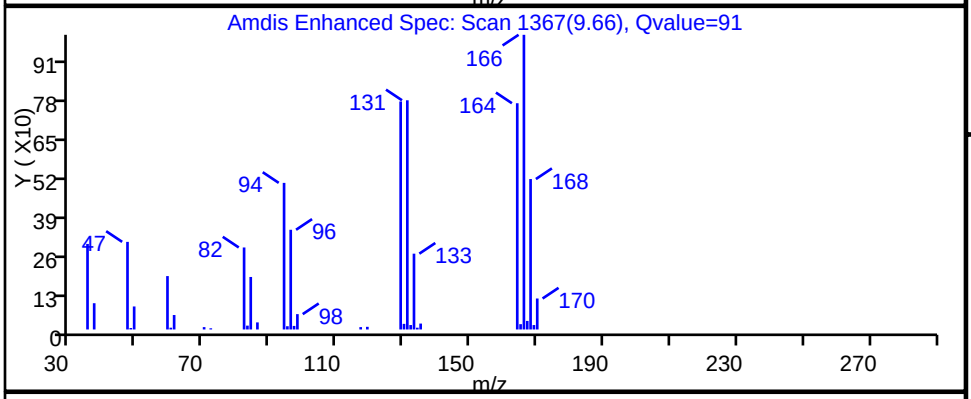
TestAmerica Pittsburgh

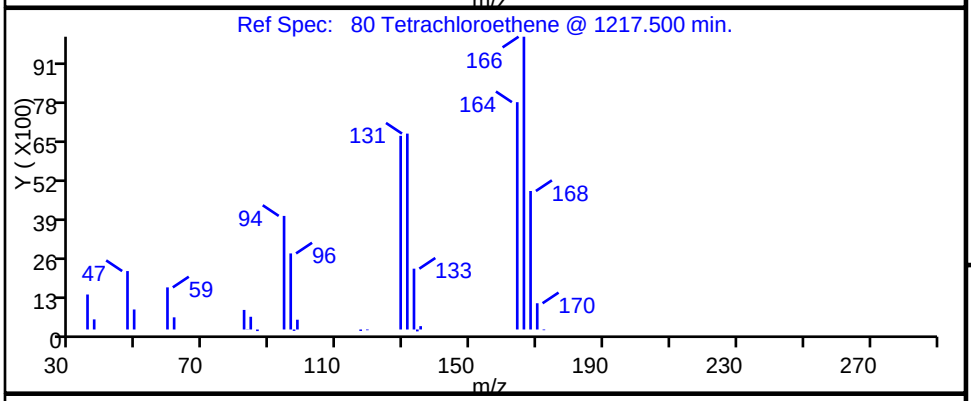
Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D

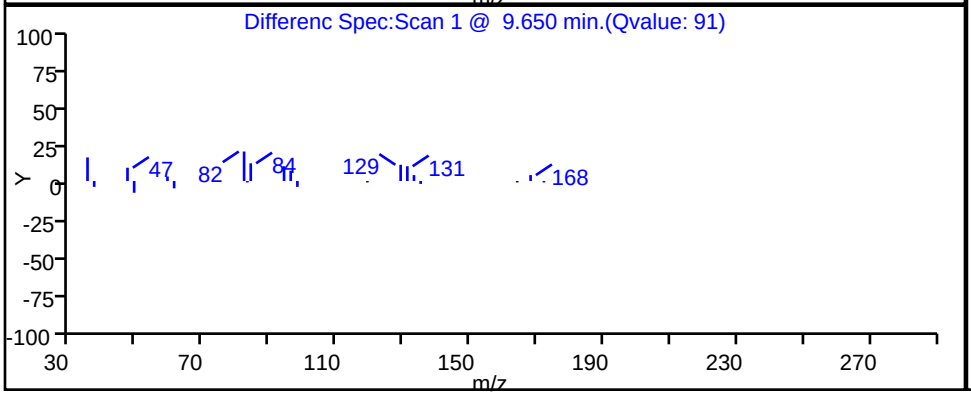
Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5
Client ID:	HD-CW-17-0/1-0		
Operator ID:	034635	ALS Bottle#:	10 Worklist Smp#: 11
Purge Vol:	20.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

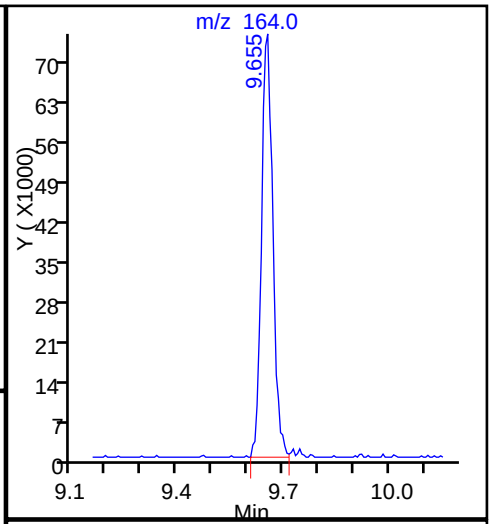
80 Tetrachloroethene, CAS: 127-18-4

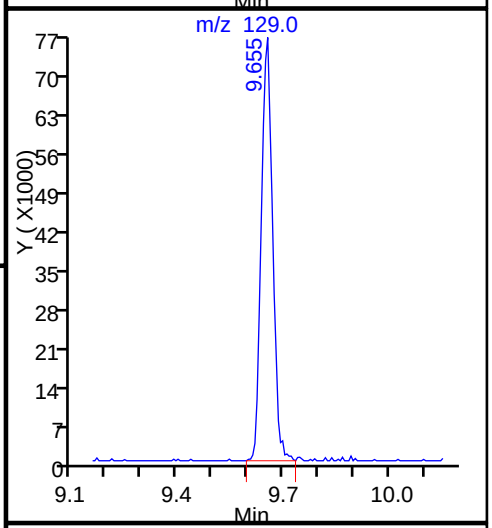


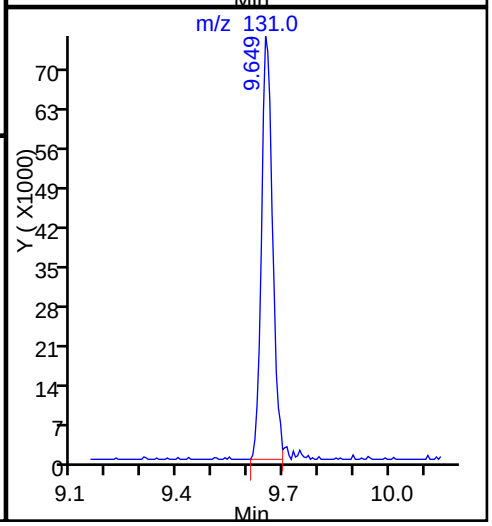












Manual Integration/User Assign Peak Report

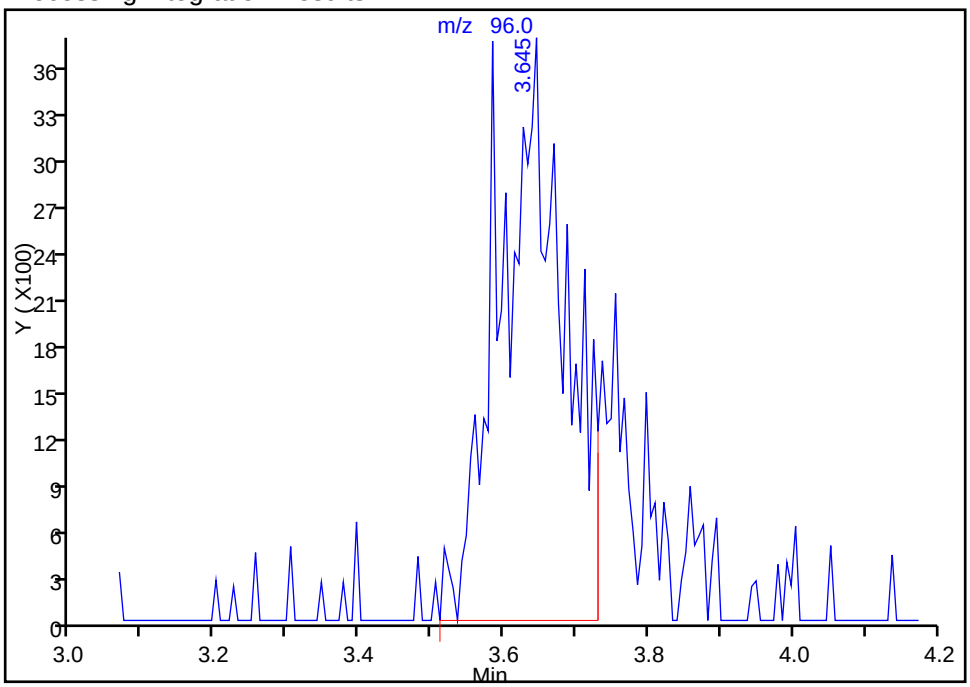
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040211.D				
Injection Date:	02-Apr-2015 14:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-5	Lab Sample ID:	180-42391-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

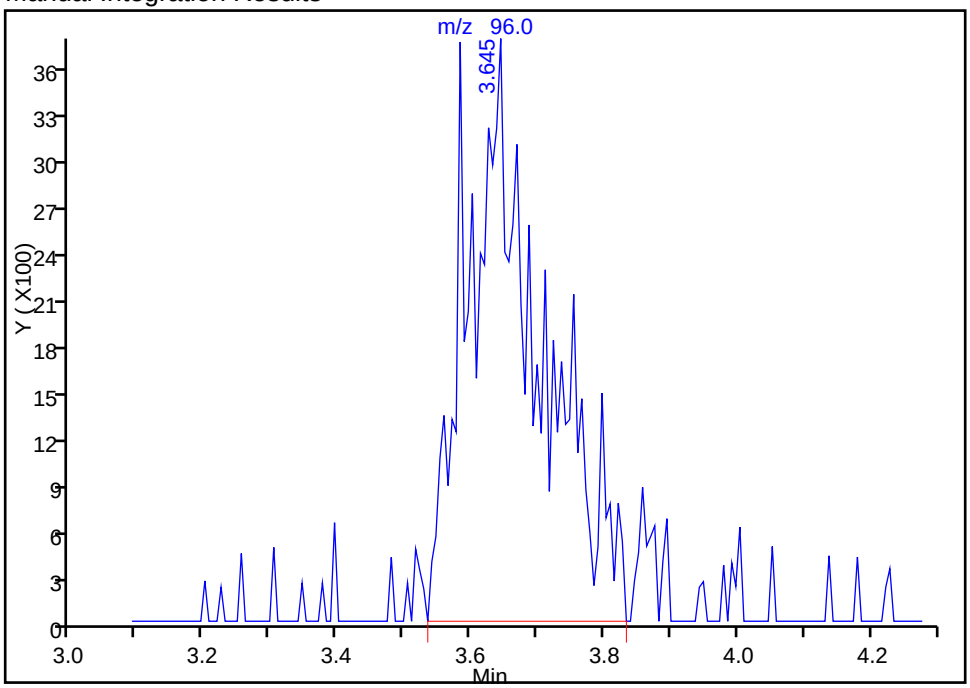
Processing Integration Results

RT: 3.64
Area: 23330
Amount: 26.366584
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 28594
Amount: 32.315735
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 09:44:29
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 | Lab Sample ID: 180-42391-6

Matrix: Water | Lab File ID: 7040309.D

Analysis Method: 8260C | Date Collected: 03/25/2015 06:10

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 13:22

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.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	26		25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	25	U	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	25	U	25	2.9
156-59-2	cis-1,2-Dichloroethene	160		25	5.9
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	110		25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	Trichloroethene	530		25	3.6
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	*Tetrachloroethene*	*NQ*		*25*	*3.7*
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-42391-6

Matrix: Water Lab File ID: 7040309.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:10

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 13:22

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.: 137438 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D
Lims ID: 180-42391-D-6 Lab Sample ID: 180-42391-6
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 13:22:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 25.0000
Sample Info: 180-42391-D-6
Misc. Info.: 180-0006312-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 17:04:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: journetp Date: 03-Apr-2015 13:54:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.628	4.786	-0.158	87	213336	4000.0	
* 2 Fluorobenzene (IS)	96	7.427	7.402	0.025	99	845698	200.0	
* 3 Chlorobenzene-d5	119	10.474	10.468	0.006	84	236902	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.786	0.006	95	343931	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.678	0.006	91	272755	202.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.062	7.043	0.019	96	219805	170.9	
$ 7 Toluene-d8 (Surr)	98	9.045	9.038	0.007	92	789707	224.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	92	306795	194.8	
12 Chloromethane	50		2.000				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.511				ND	
16 Chloroethane	64		2.626				ND	
22 1,1-Dichloroethene	96	3.643	3.527	0.116	2	23651	20.8	M
24 Acetone	43		3.801				ND	
26 Carbon disulfide	76		3.825				ND	
31 Methylene Chloride	84		4.354				ND	
34 trans-1,2-Dichloroethene	96		4.756				ND	
33 Acrylonitrile	53		4.816				ND	
35 Methyl tert-butyl ether	73		4.865				ND	
37 1,1-Dichloroethane	63		5.364				ND	
45 cis-1,2-Dichloroethene	96	6.131	6.112	0.019	73	179629	128.5	
46 2-Butanone (MEK)	43		6.179				ND	
49 Chlorobromomethane	128		6.380				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.703	6.678	0.025	85	186218	88.2	
56 Carbon tetrachloride	117		6.861				ND	
58 Benzene	78		7.098				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.810	7.797	0.013	92	706269	423.3	
67 1,2-Dichloropropane	63		8.035				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt	ng	Flags
71 Dichlorobromomethane	83		8.321				ND		
74 cis-1,3-Dichloropropene	75		8.771				ND		
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND		
76 Toluene	91		9.105				ND		
77 trans-1,3-Dichloropropene	75		9.330				ND		
79 1,1,2-Trichloroethane	97		9.507				ND		
80 Tetrachloroethene	164	9.653	9.647	0.006	89	889477		NQ	E
82 2-Hexanone	43		9.762				ND		
84 Chlorodibromomethane	129		9.896				ND		
85 Ethylene Dibromide	107		10.018				ND		
87 Chlorobenzene	112		10.498				ND		
89 1,1,1,2-Tetrachloroethane	131		10.578				ND		
90 Ethylbenzene	106		10.608				ND		
91 m-Xylene & p-Xylene	106		10.724				ND		
92 o-Xylene	106		11.113				ND		
93 Styrene	104		11.131				ND		
94 Bromoform	173		11.314				ND		
99 1,1,2,2-Tetrachloroethane	83		11.776				ND		
S 133 Xylenes, Total	106		1.000				ND		

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

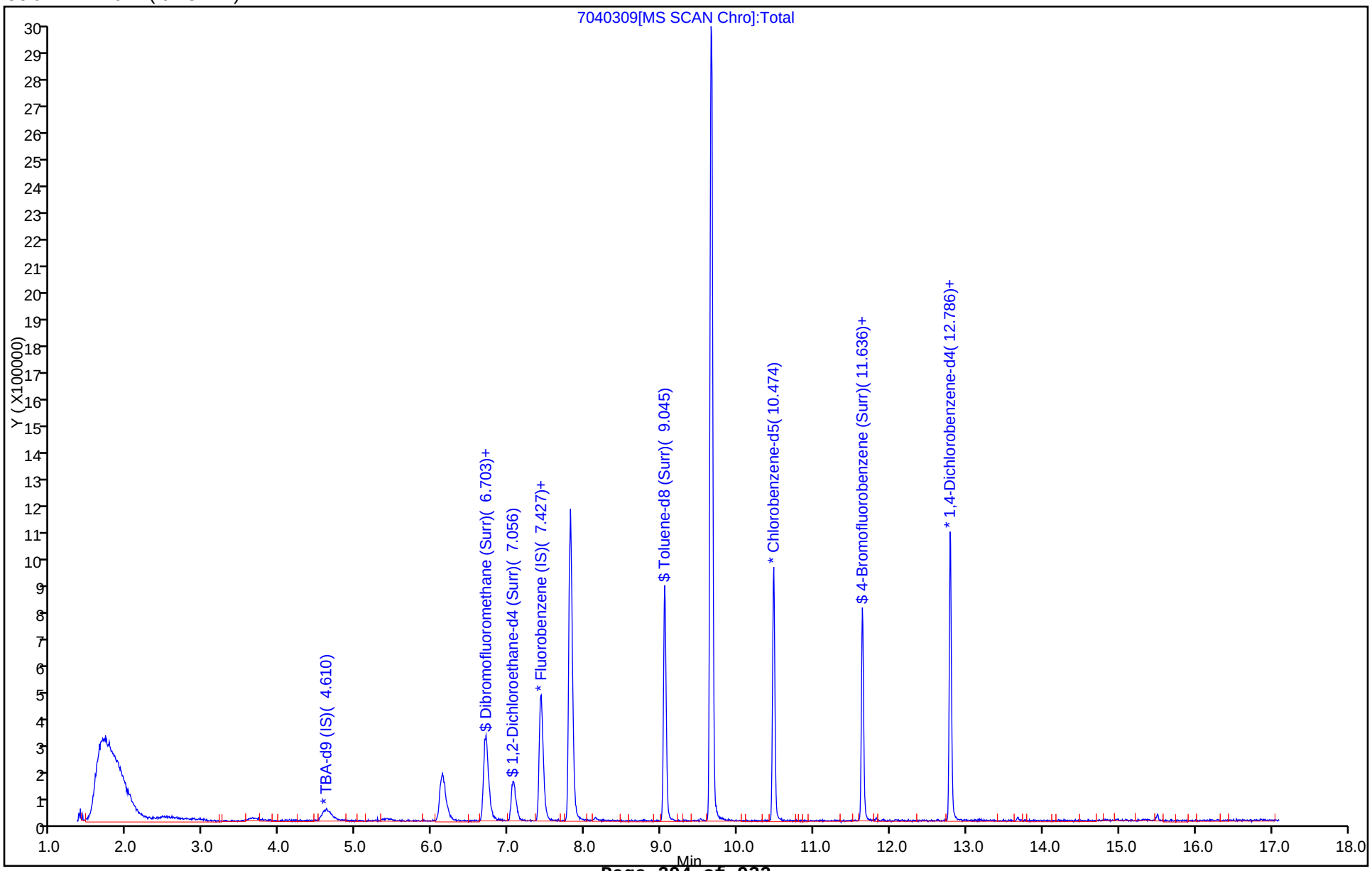
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 17:04:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D				
Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6	Worklist Smp#:	9
Client ID:	HD-CW-20-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



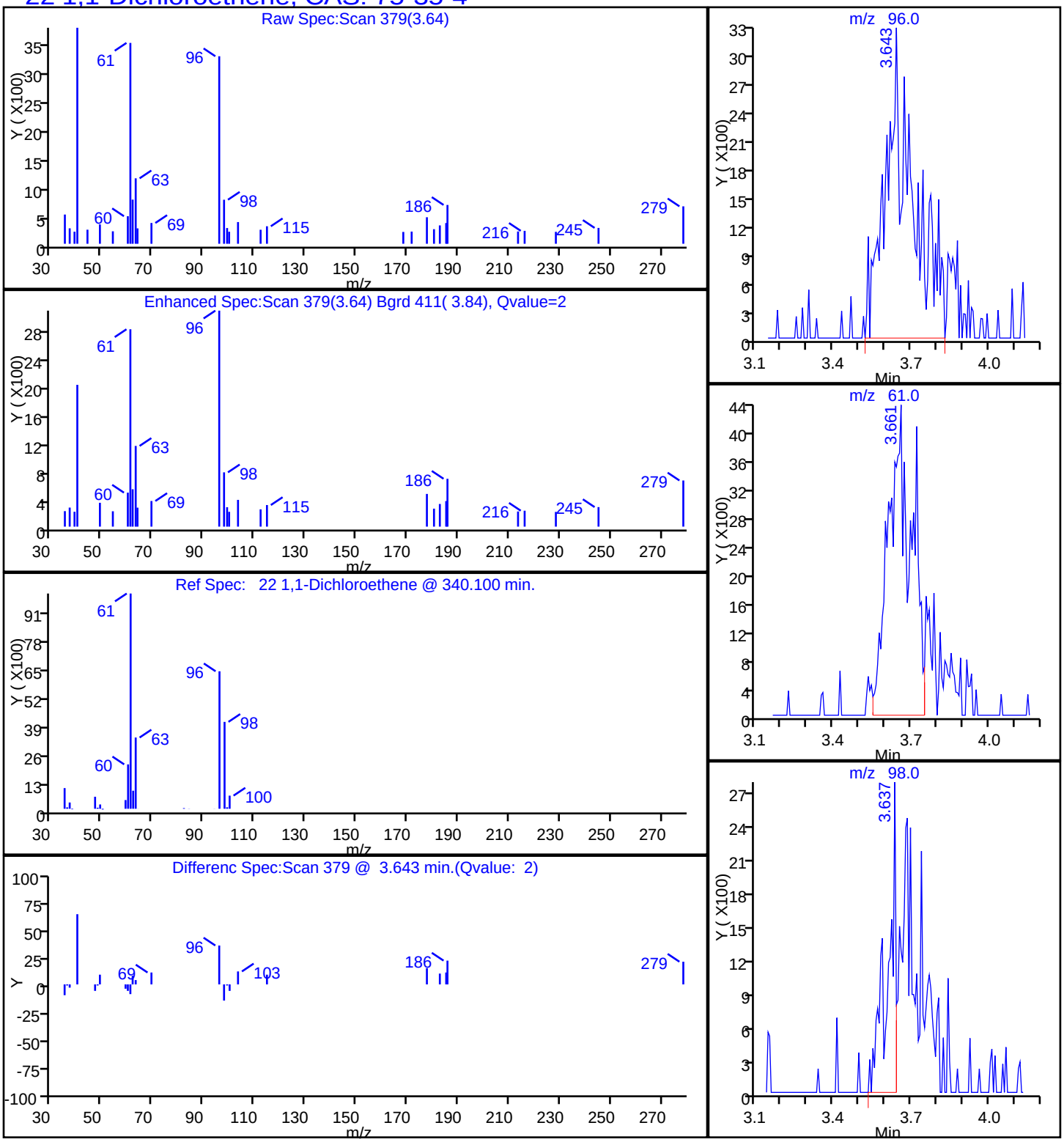
Report Date: 03-Apr-2015 17:04:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D

Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

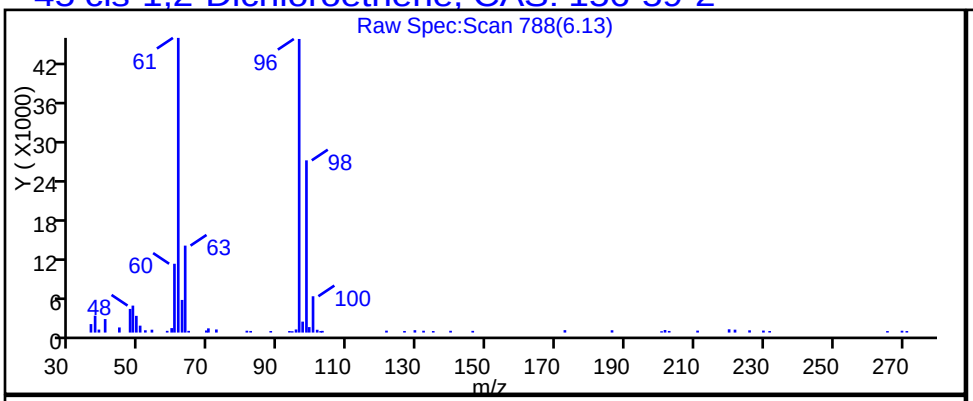


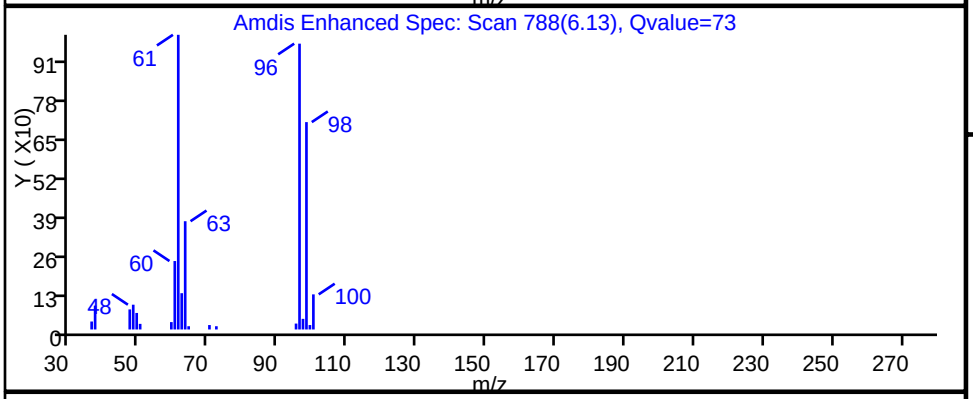
Report Date: 03-Apr-2015 17:04:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

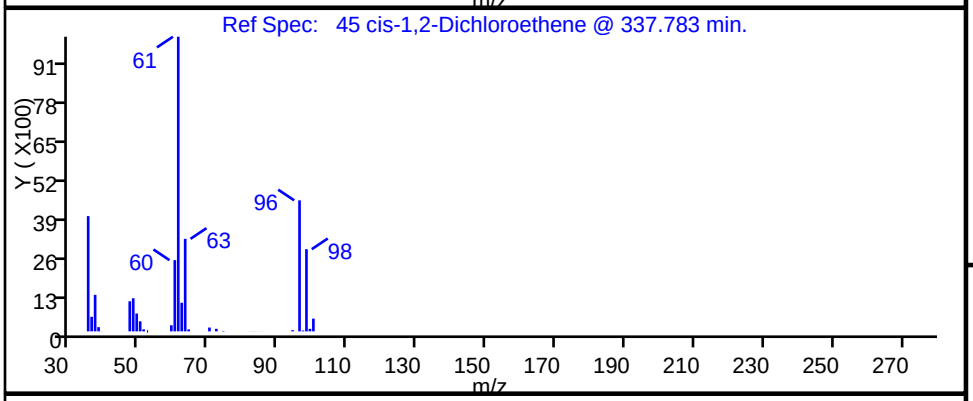
TestAmerica Pittsburgh

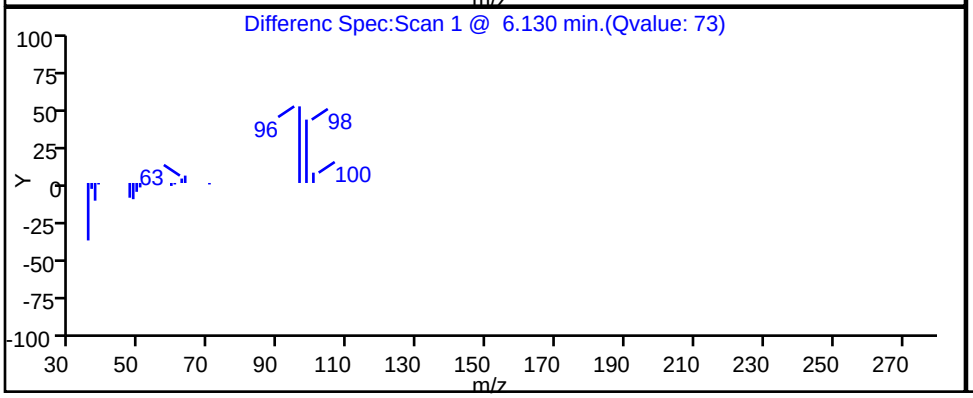
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D				
Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

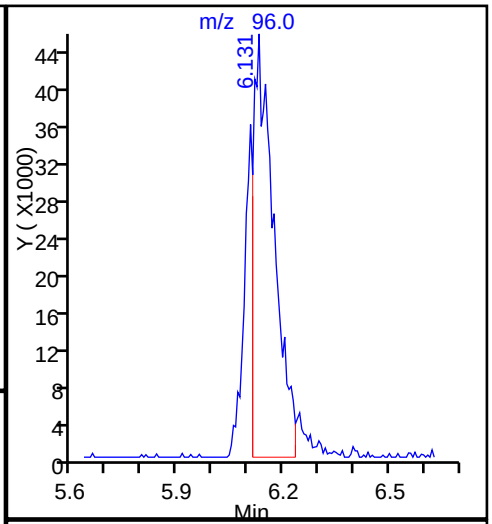
45 cis-1,2-Dichloroethene, CAS: 156-59-2

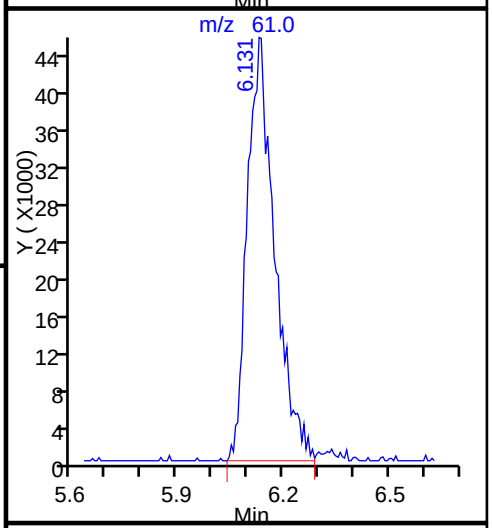


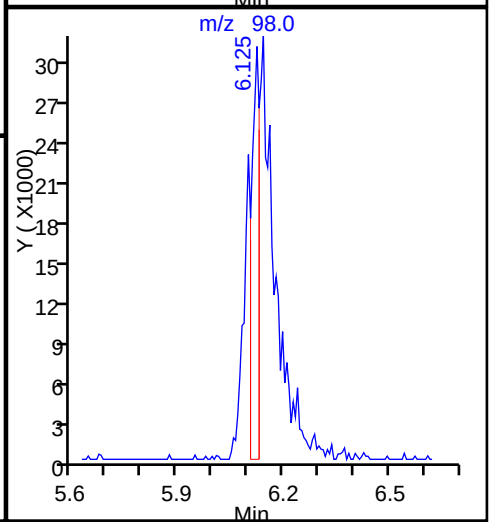










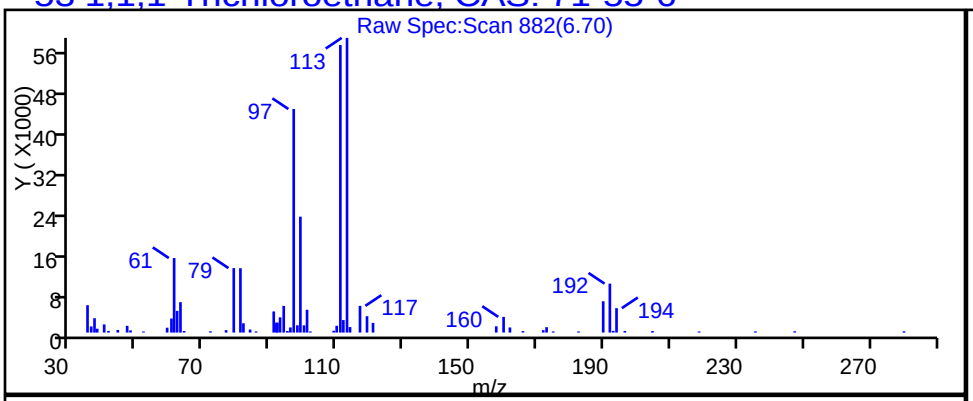


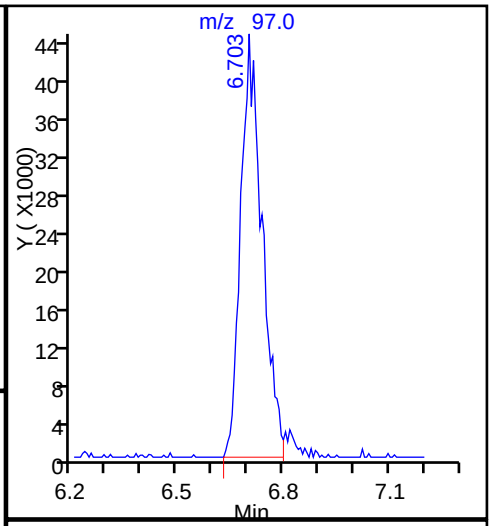
Report Date: 03-Apr-2015 17:04:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

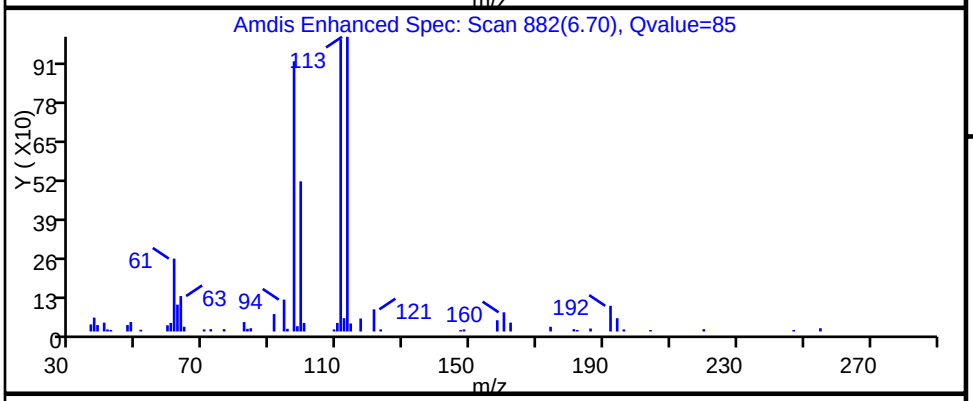
TestAmerica Pittsburgh

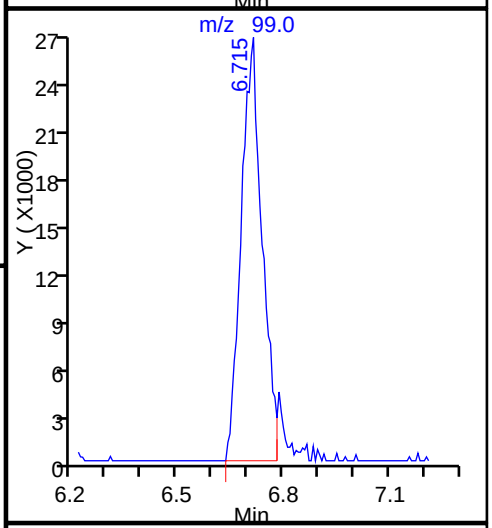
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D				
Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

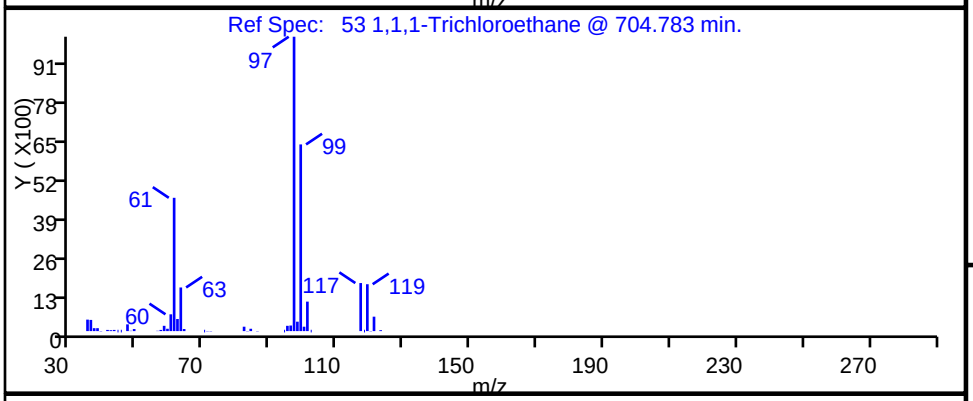
53 1,1,1-Trichloroethane, CAS: 71-55-6

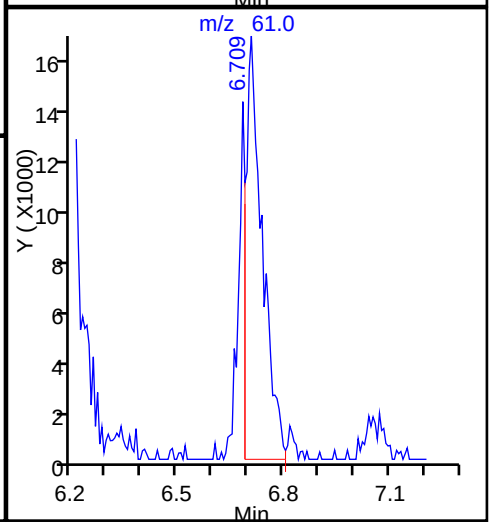


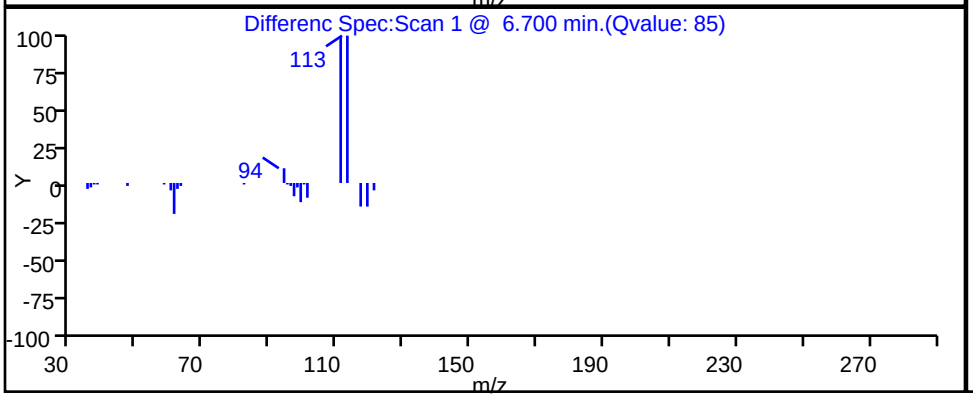












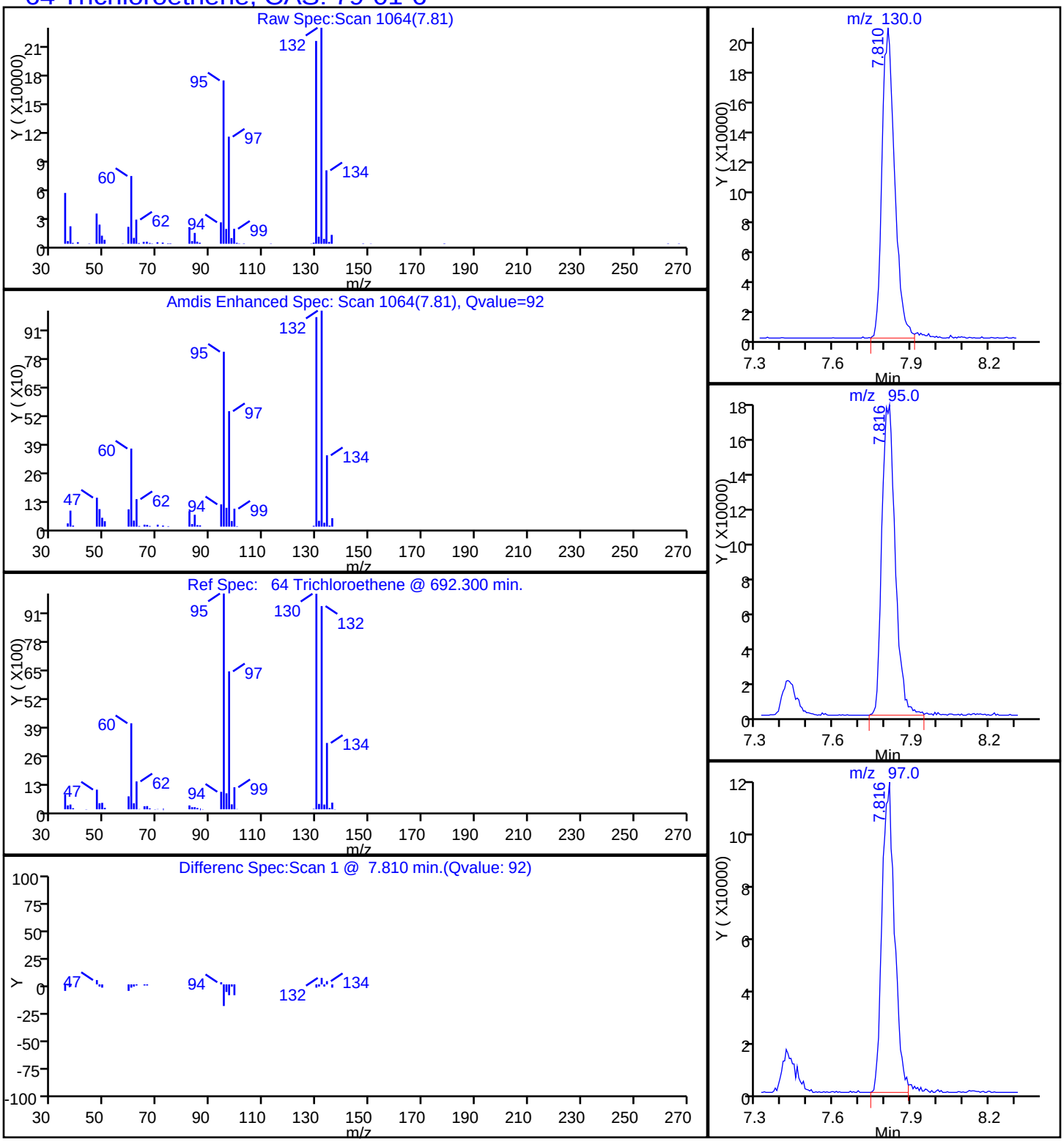
Report Date: 03-Apr-2015 17:04:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D

Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6
Client ID:	HD-CW-20-0/1-0		
Operator ID:	034635	ALS Bottle#:	8 Worklist Smp#: 9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



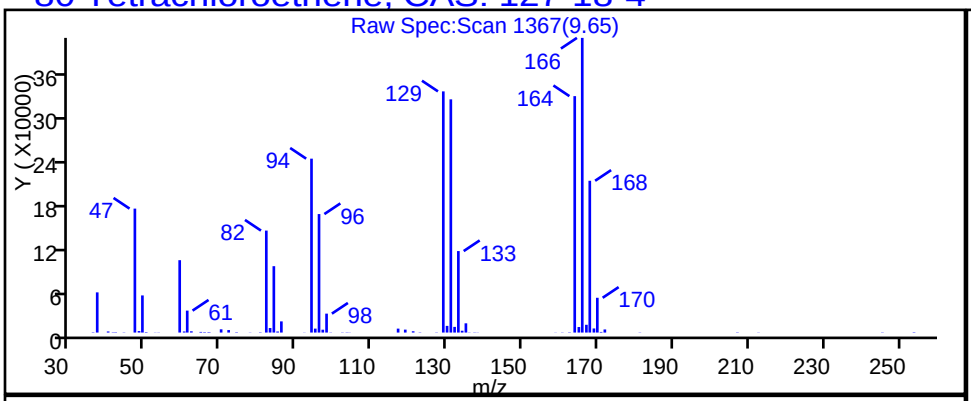
Report Date: 03-Apr-2015 17:04:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

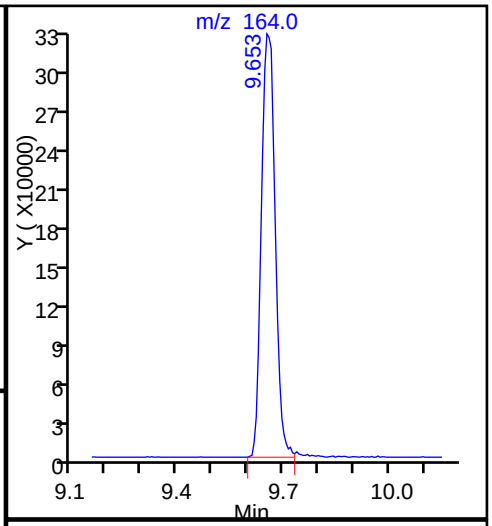
TestAmerica Pittsburgh

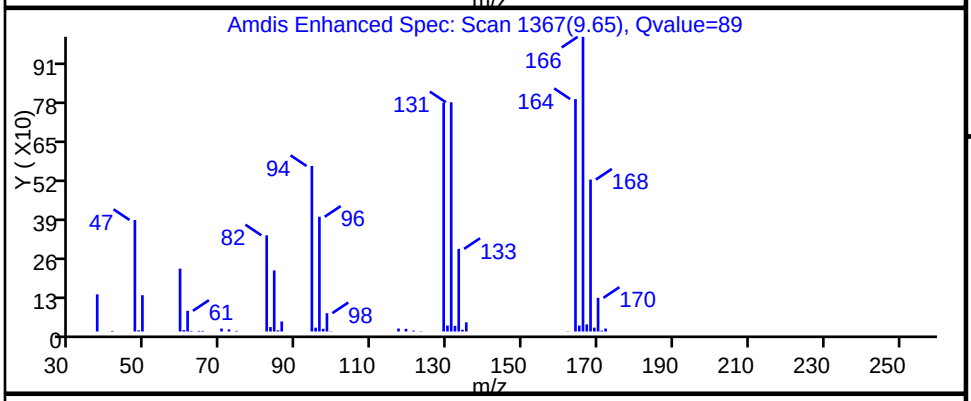
Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D

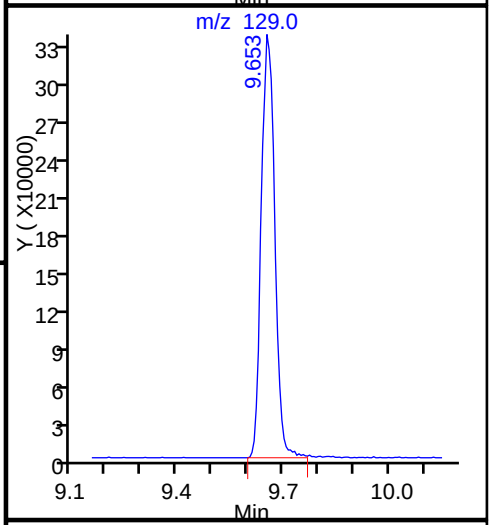
Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6
Client ID:	HD-CW-20-0/1-0		
Operator ID:	034635	ALS Bottle#:	8 Worklist Smp#: 9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

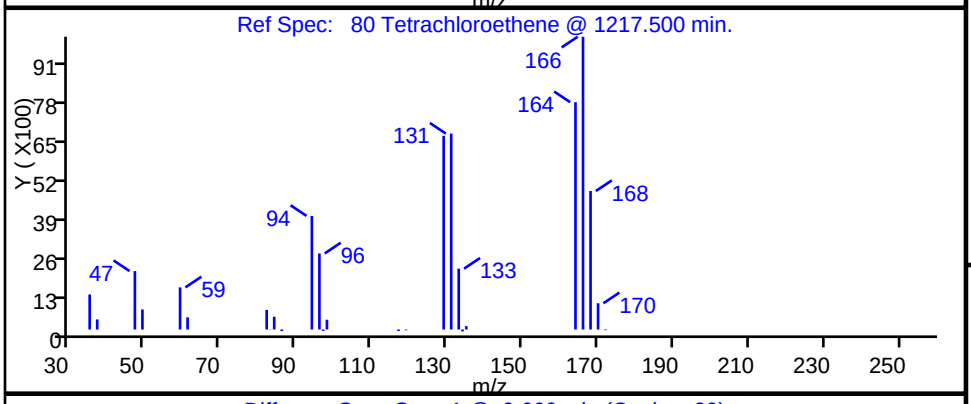
80 Tetrachloroethene, CAS: 127-18-4

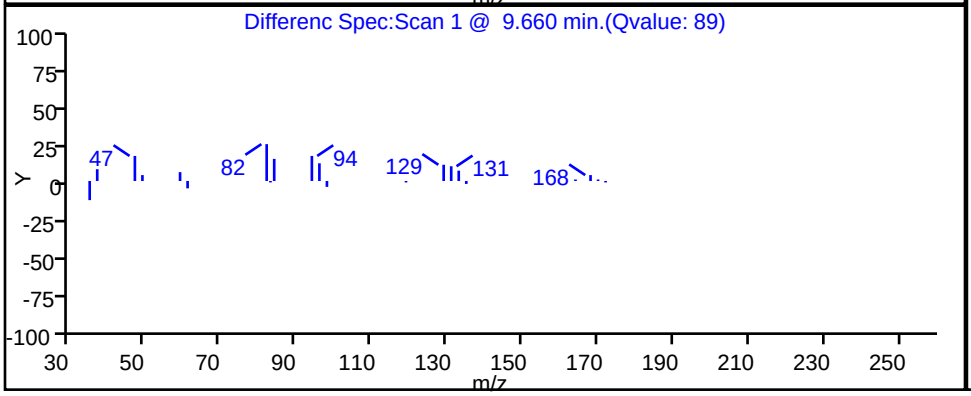


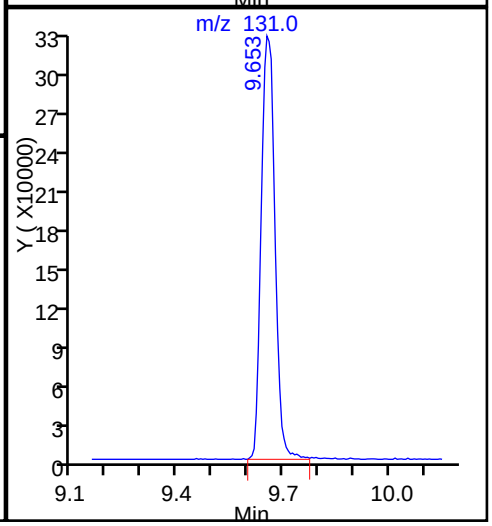












Manual Integration/User Assign Peak Report

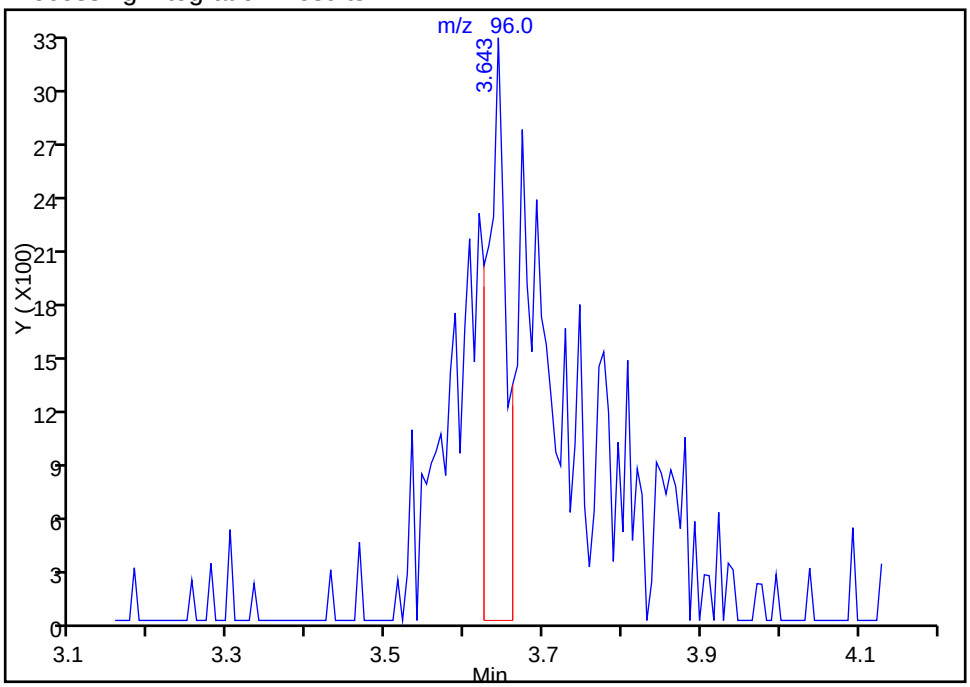
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040309.D				
Injection Date:	03-Apr-2015 13:22:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

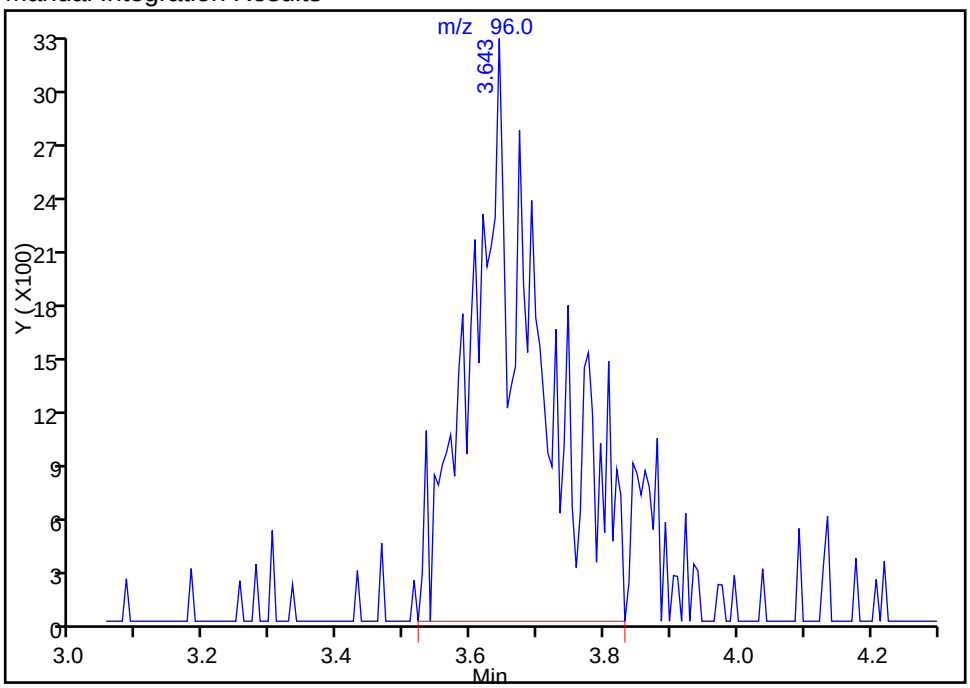
Processing Integration Results

RT: 3.64
Area: 5269
Amount: 4.640320
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 23651
Amount: 20.829042
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 14:32:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 DL | Lab Sample ID: 180-42391-6 DL

Matrix: Water | Lab File ID: 7040418.D

Analysis Method: 8260C | Date Collected: 03/25/2015 06:10

Sample wt/vol: 20(mL) | Date Analyzed: 04/04/2015 21:14

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.: 137512 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	14
75-01-4	Vinyl chloride	50	U	50	11
74-83-9	Bromomethane	50	U	50	16
75-00-3	Chloroethane	50	U	50	11
75-35-4	1,1-Dichloroethene	50	U	50	15
67-64-1	Acetone	250	U *	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	50	U	50	6.3
156-60-5	trans-1,2-Dichloroethene	50	U	50	8.5
1634-04-4	Methyl tert-butyl ether	50	U	50	9.2
75-34-3	1,1-Dichloroethane	50	U	50	5.8
156-59-2	cis-1,2-Dichloroethene	150		50	12
74-97-5	Bromochloromethane	50	U	50	9.0
78-93-3	2-Butanone (MEK)	250	U	250	27
67-66-3	Chloroform	50	U	50	8.5
71-55-6	1,1,1-Trichloroethane	67		50	14
56-23-5	Carbon tetrachloride	50	U	50	6.8
71-43-2	Benzene	50	U	50	5.3
107-06-2	1,2-Dichloroethane	50	U	50	11
79-01-6	Trichloroethene	390		50	7.2
78-87-5	1,2-Dichloropropane	50	U	50	4.7
75-27-4	Bromodichloromethane	50	U	50	6.5
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	26
108-88-3	Toluene	50	U	50	7.5
10061-02-6	trans-1,3-Dichloropropene	50	U	50	7.4
79-00-5	1,1,2-Trichloroethane	50	U	50	10
127-18-4	Tetrachloroethene	780		50	7.4
591-78-6	2-Hexanone	250	U	250	8.0
124-48-1	Dibromochloromethane	50	U	50	6.8
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	9.0
108-90-7	Chlorobenzene	50	U	50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	14
100-41-4	Ethylbenzene	50	U	50	11
1330-20-7	Xylenes, Total	150	U	150	24
100-42-5	Styrene	50	U	50	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 DL Lab Sample ID: 180-42391-6 DL

Matrix: Water Lab File ID: 7040418.D

Analysis Method: 8260C Date Collected: 03/25/2015 06:10

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 21:14

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.: 137512 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*50*	*U*	*50*	*9.6*
79-34-5	*1,1,2,2-Tetrachloroethane*	*50*	*U*	*50*	*10*
107-13-1	*Acrylonitrile*	*1000*	*U*	*1000*	*27*
123-91-1	*1,4-Dioxane*	*10000*	*U*	*10000*	*1700*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D
Lims ID: 180-42391-C-6 Lab Sample ID: 180-42391-6
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 04-Apr-2015 21:14:30 ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 50.0000
Sample Info: 180-42391-C-6
Misc. Info.: 180-0006327-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:10:39 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 09:02:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.583	4.765	-0.182	90	172413	4000.0	
* 2 Fluorobenzene (IS)	96	7.418	7.399	0.019	99	648052	200.0	
* 3 Chlorobenzene-d5	119	10.472	10.471	0.001	85	187814	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	96	233528	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.682	6.675	0.007	87	222432	215.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.047	7.040	0.007	93	183152	185.8	
$ 7 Toluene-d8 (Surr)	98	9.042	9.036	0.006	92	634461	227.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.634	11.633	0.001	89	246728	197.9	
12 Chloromethane	50		2.028				ND	
13 Vinyl chloride	62		2.192				ND	
15 Bromomethane	94		2.502				ND	
16 Chloroethane	64		2.605				ND	
22 1,1-Dichloroethene	96	3.622	3.518	0.104	1	2750	3.16	
26 Carbon disulfide	76		3.828				ND	
24 Acetone	43		3.834				ND	
31 Methylene Chloride	84		4.364				ND	
34 trans-1,2-Dichloroethene	96		4.753				ND	
33 Acrylonitrile	53		4.802				ND	
35 Methyl tert-butyl ether	73		4.856				ND	
37 1,1-Dichloroethane	63		5.355				ND	
45 cis-1,2-Dichloroethene	96	6.104	6.103	0.001	65	66257	61.8	M
46 2-Butanone (MEK)	43		6.189				ND	
49 Chlorobromomethane	128		6.377				ND	
52 Chloroform	83		6.499				ND	
53 1,1,1-Trichloroethane	97	6.694	6.681	0.013	45	43516	26.9	M
56 Carbon tetrachloride	117		6.858				ND	
58 Benzene	78		7.089				ND	
59 1,2-Dichloroethane	62		7.132				ND	
64 Trichloroethene	130	7.795	7.795	0.000	92	198899	155.6	
67 1,2-Dichloropropane	63		8.032				ND	
70 1,4-Dioxane	88		8.184				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.312				ND	
74 cis-1,3-Dichloropropene	75		8.774				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.938				ND	
76 Toluene	91		9.103				ND	
77 trans-1,3-Dichloropropene	75		9.322				ND	
79 1,1,2-Trichloroethane	97		9.504				ND	
80 Tetrachloroethene	164	9.650	9.644	0.006	91	256813	312.6	
82 2-Hexanone	43		9.760				ND	
84 Chlorodibromomethane	129		9.900				ND	
85 Ethylene Dibromide	107		10.009				ND	
87 Chlorobenzene	112		10.496				ND	
89 1,1,1,2-Tetrachloroethane	131		10.575				ND	
90 Ethylbenzene	106		10.605				ND	
91 m-Xylene & p-Xylene	106		10.721				ND	
92 o-Xylene	106		11.116				ND	
93 Styrene	104		11.128				ND	
94 Bromoform	173		11.317				ND	
99 1,1,2,2-Tetrachloroethane	83		11.773				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

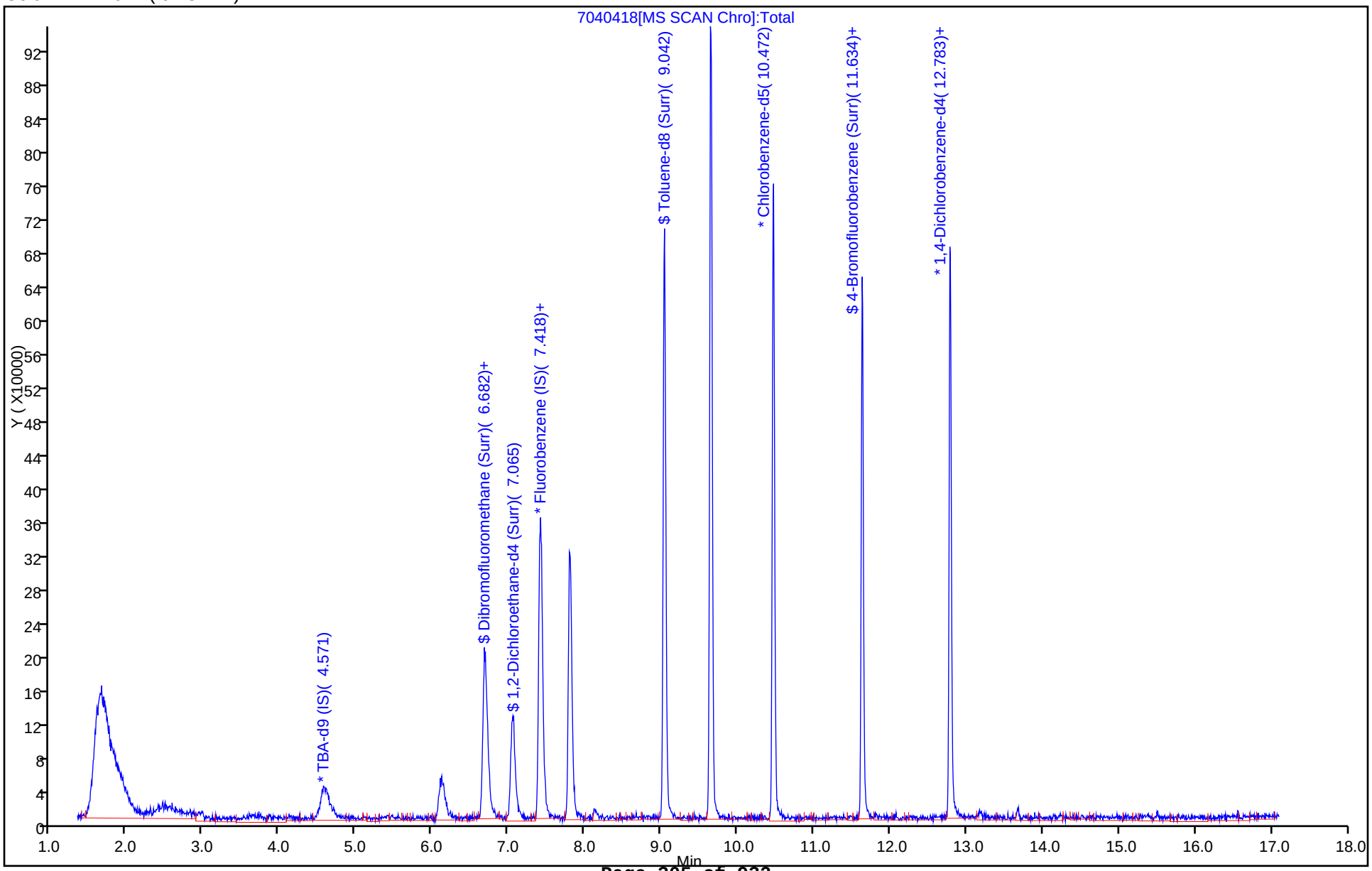
Report Date: 06-Apr-2015 09:10:45 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D

Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6	Worklist Smp#:	18
Client ID:	HD-CW-20-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



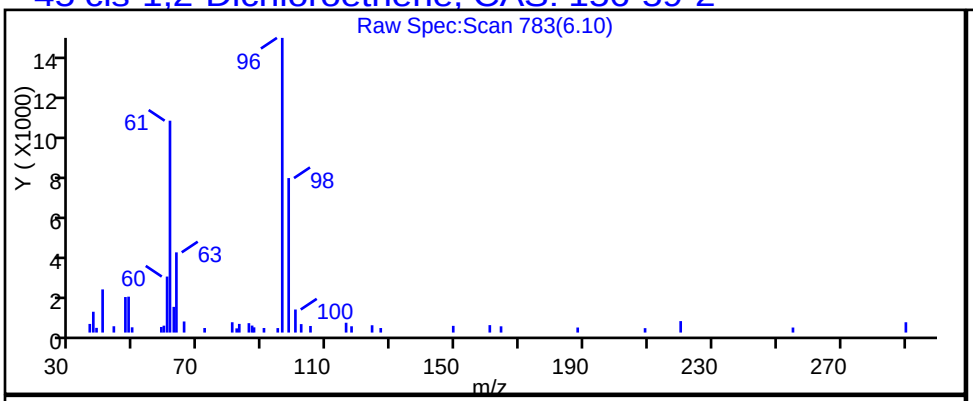
Report Date: 06-Apr-2015 09:10:45 Chrom Revision: 2.2 13-Mar-2015 11:20:44

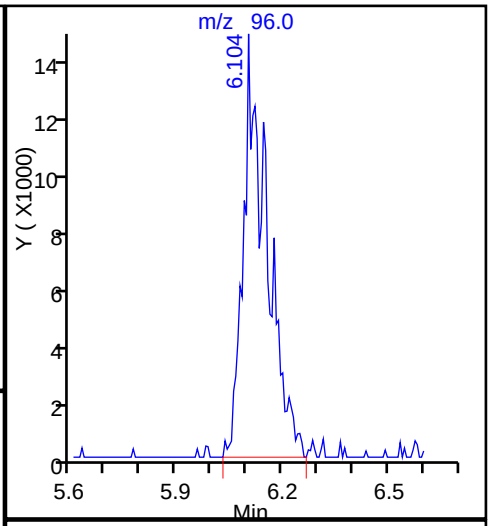
TestAmerica Pittsburgh

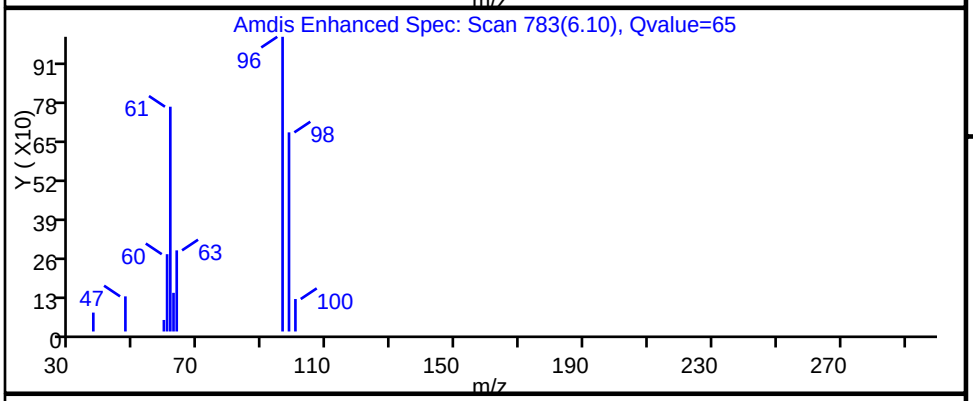
Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D

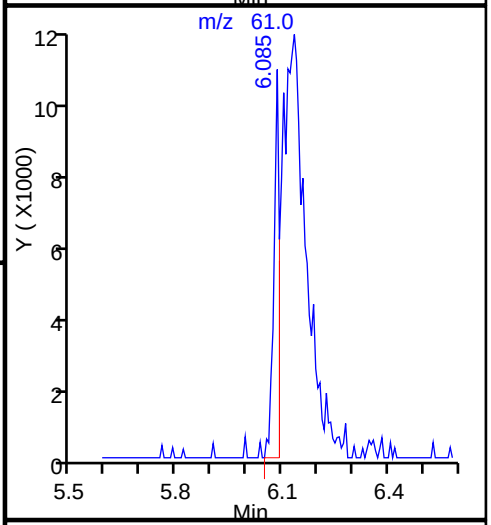
Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

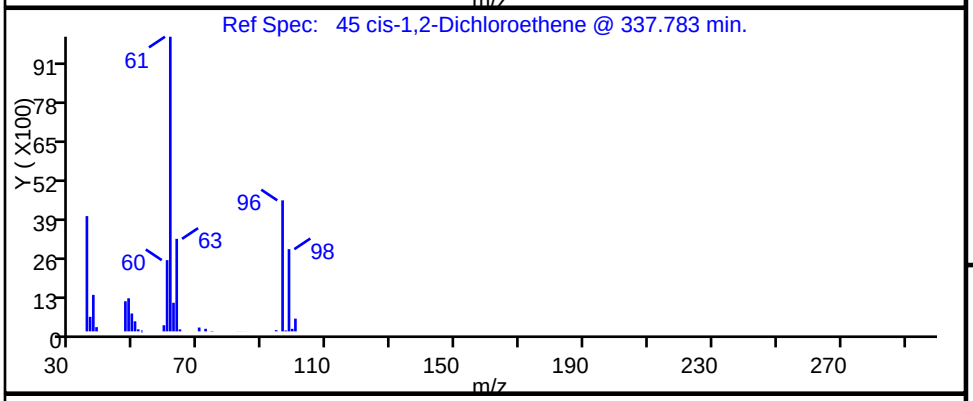
45 cis-1,2-Dichloroethene, CAS: 156-59-2

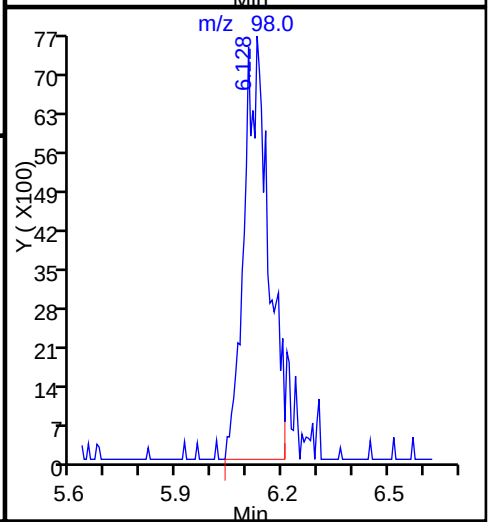


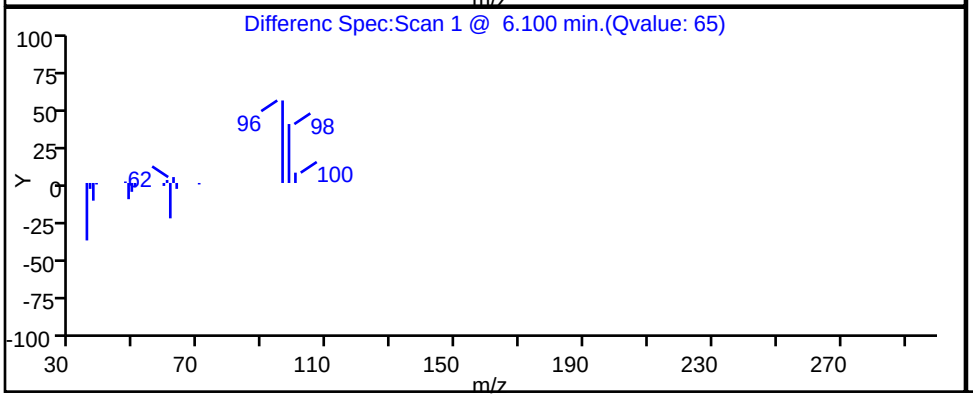










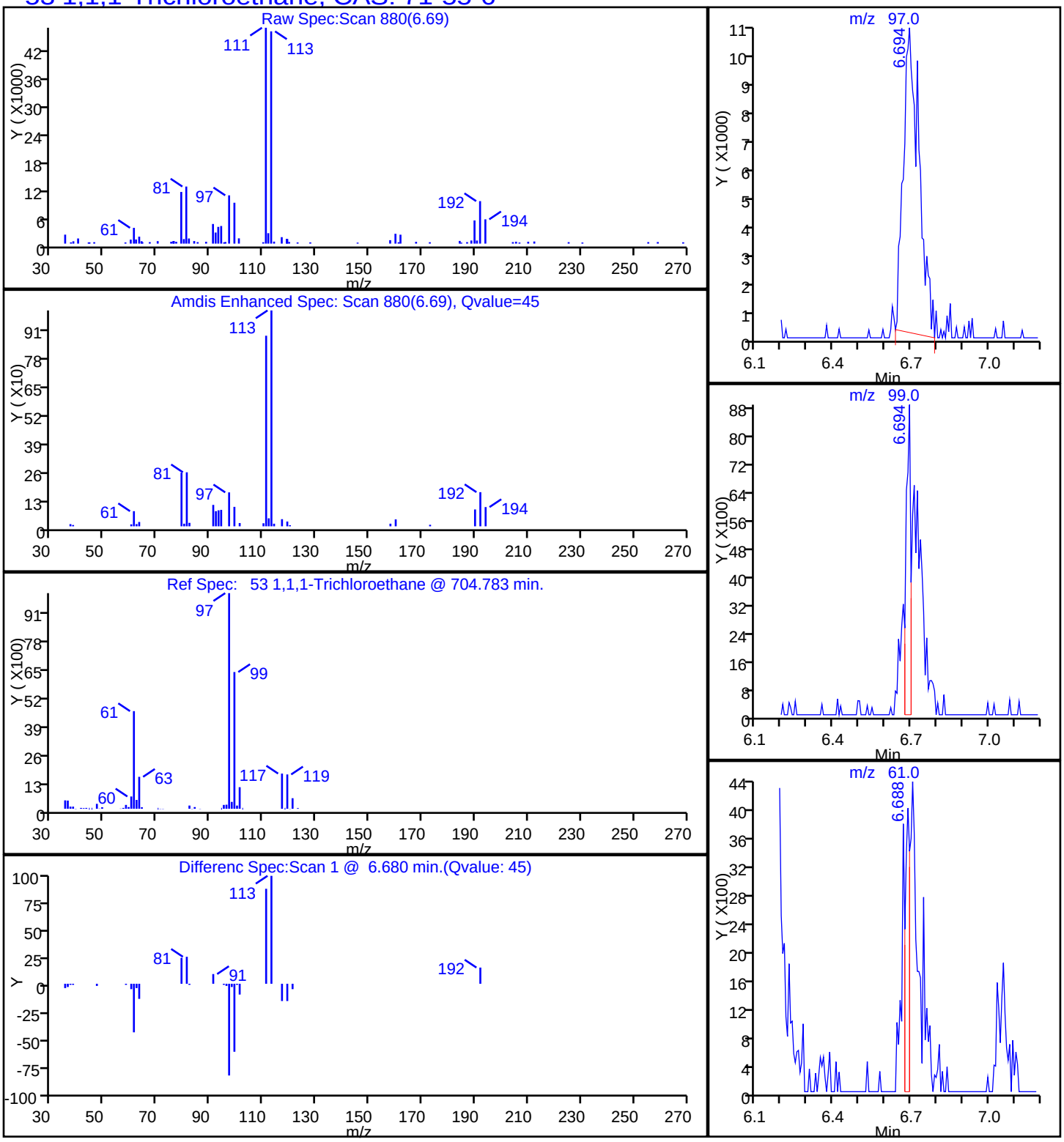


Report Date: 06-Apr-2015 09:10:45 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D				
Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

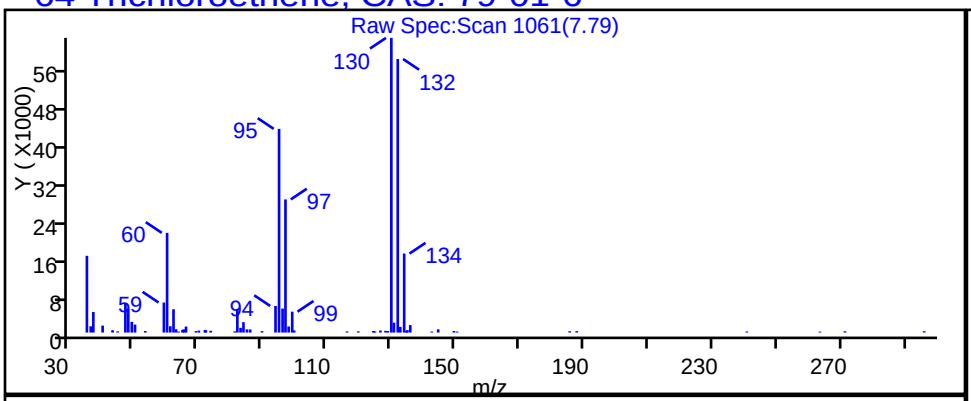


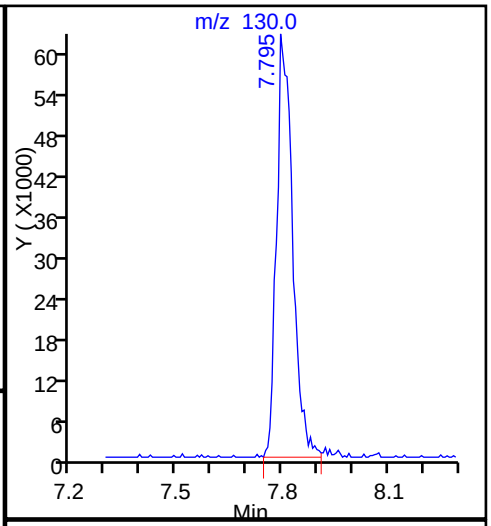
Report Date: 06-Apr-2015 09:10:45 Chrom Revision: 2.2 13-Mar-2015 11:20:44

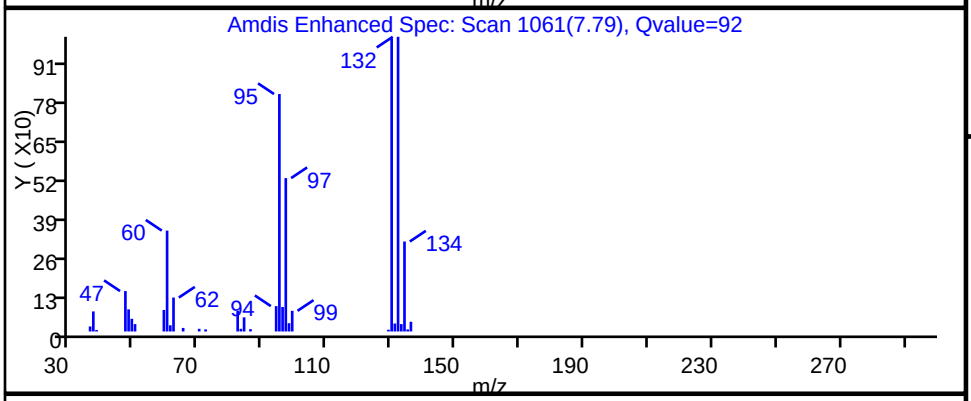
TestAmerica Pittsburgh

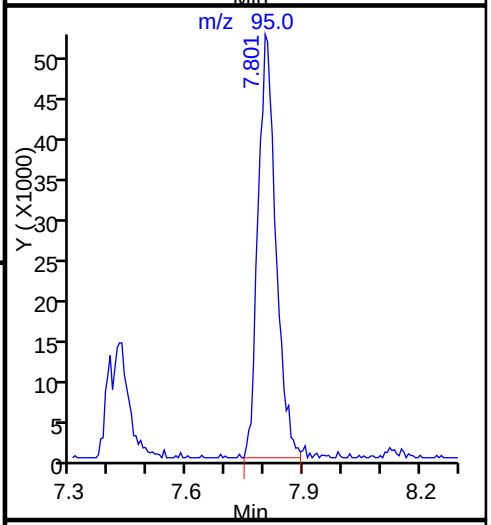
Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D				
Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

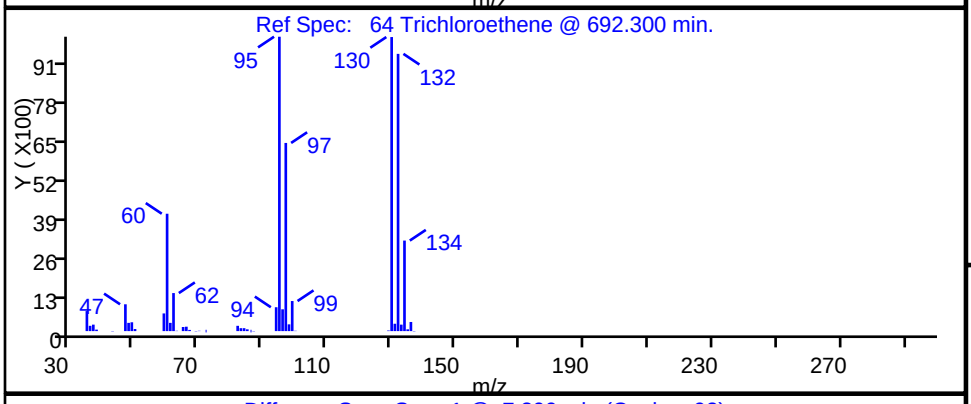
64 Trichloroethene, CAS: 79-01-6

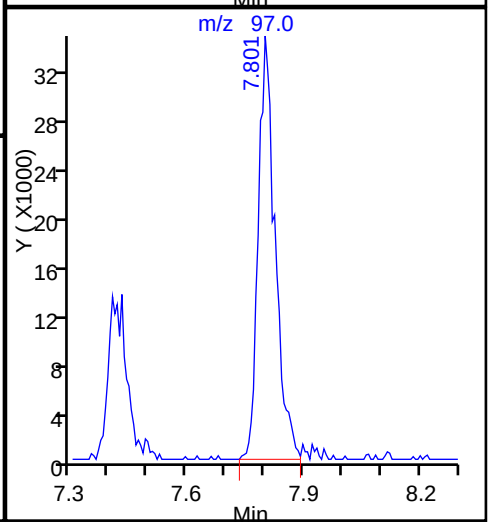


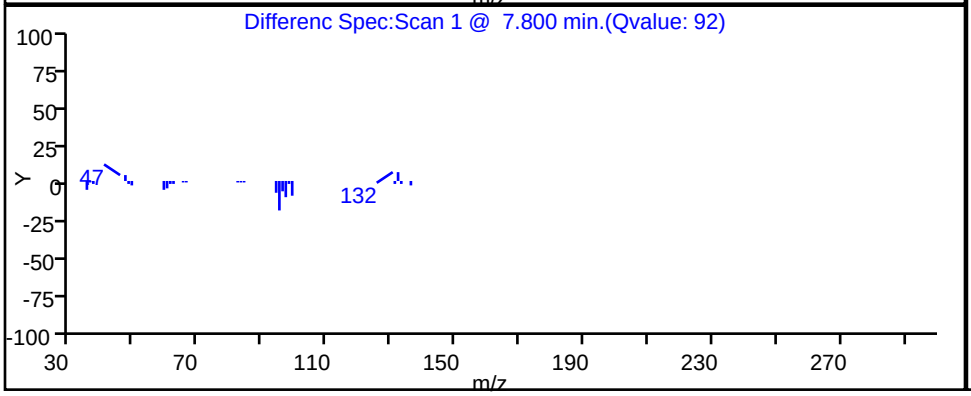












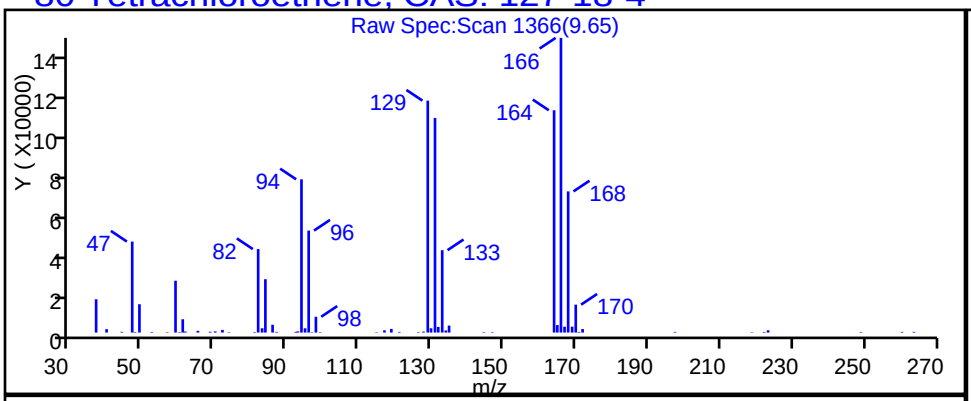
Report Date: 06-Apr-2015 09:10:45 Chrom Revision: 2.2 13-Mar-2015 11:20:44

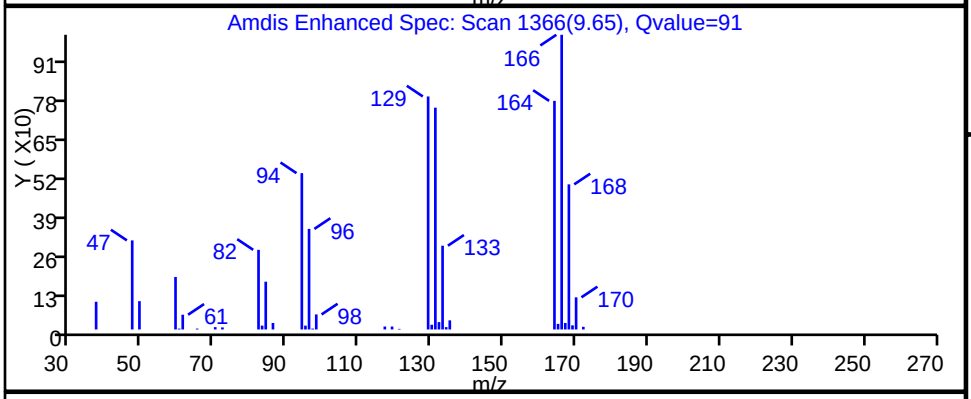
TestAmerica Pittsburgh

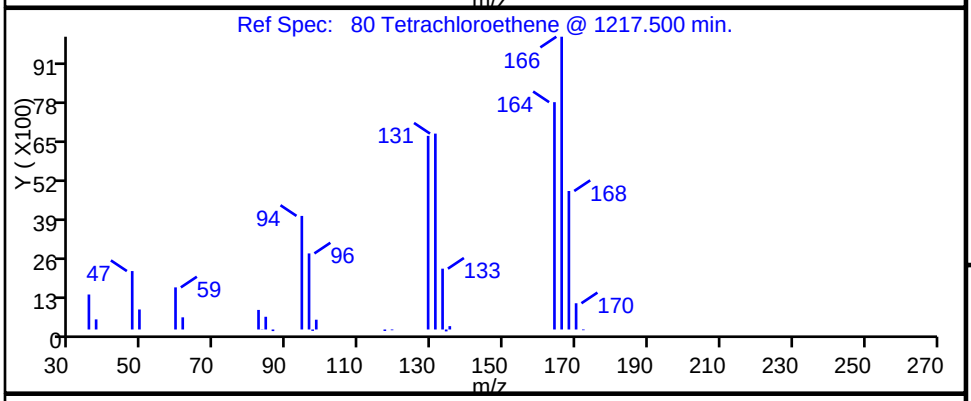
Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D

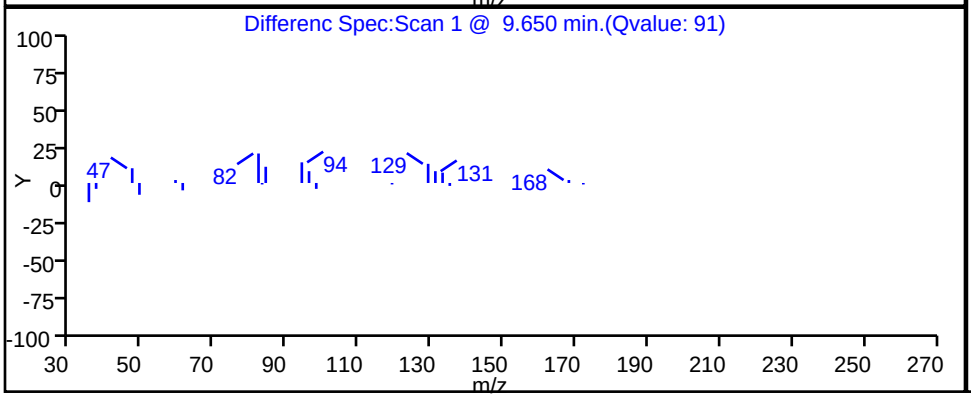
Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6
Client ID:	HD-CW-20-0/1-0		
Operator ID:	034635	ALS Bottle#:	13 Worklist Smp#: 18
Purge Vol:	20.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

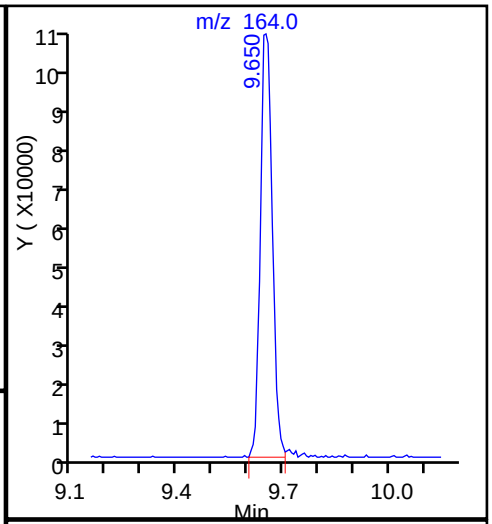
80 Tetrachloroethene, CAS: 127-18-4

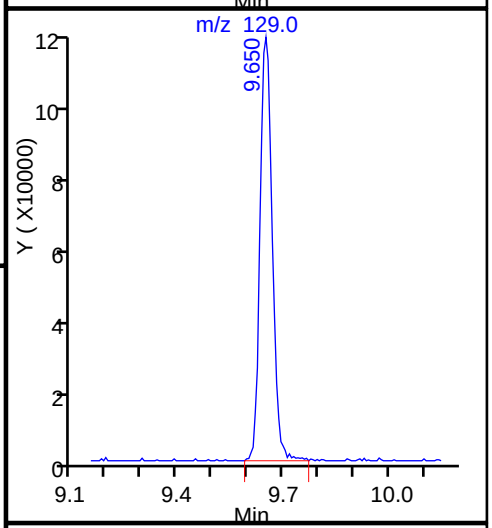


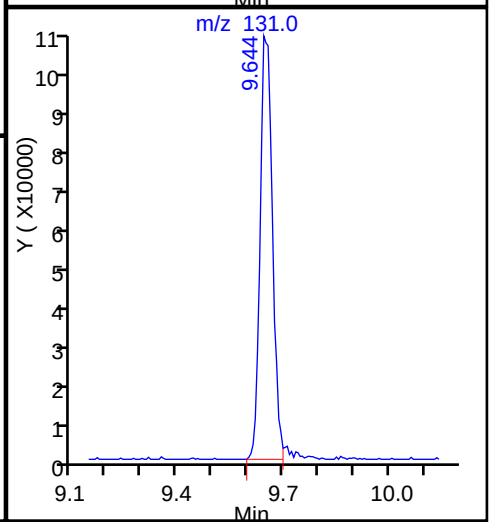












Manual Integration/User Assign Peak Report

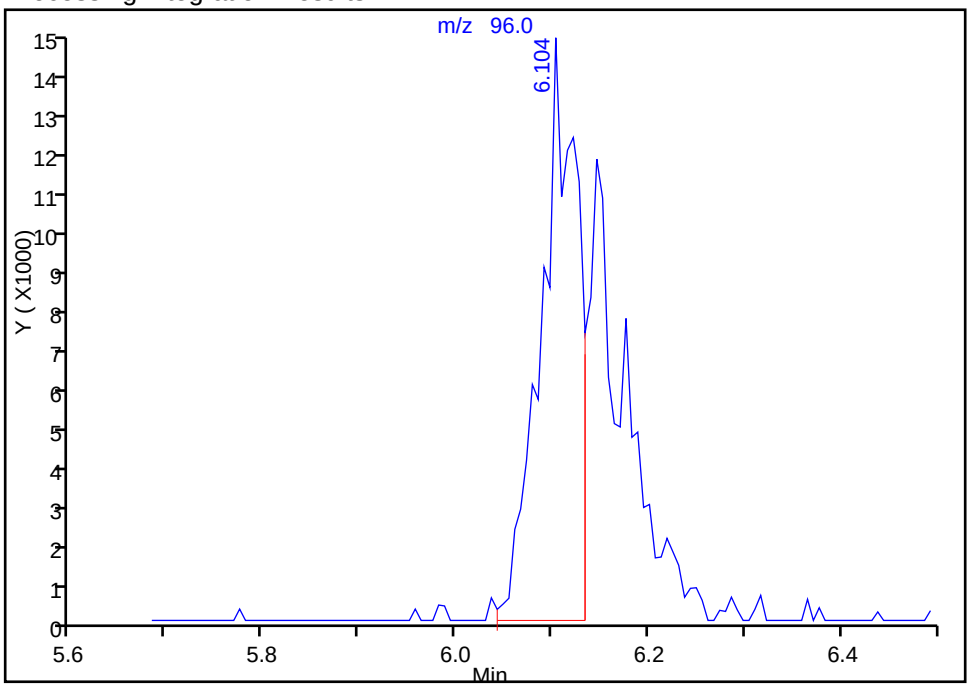
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D				
Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

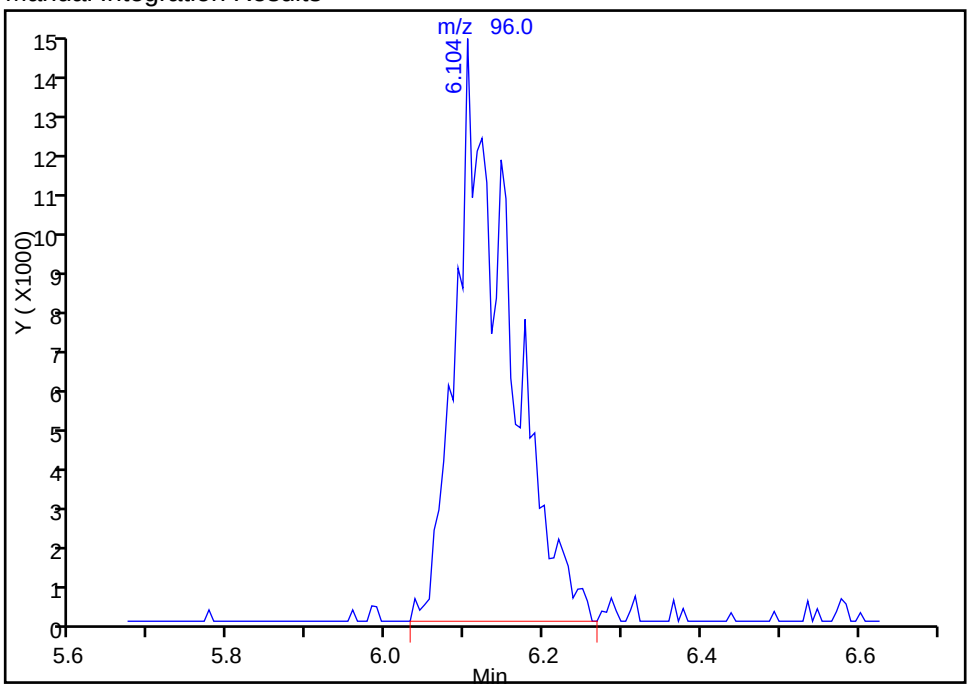
Processing Integration Results

RT: 6.10
Area: 37740
Amount: 35.226581
Amount Units: ng



Manual Integration Results

RT: 6.10
Area: 66257
Amount: 61.844399
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 09:02:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

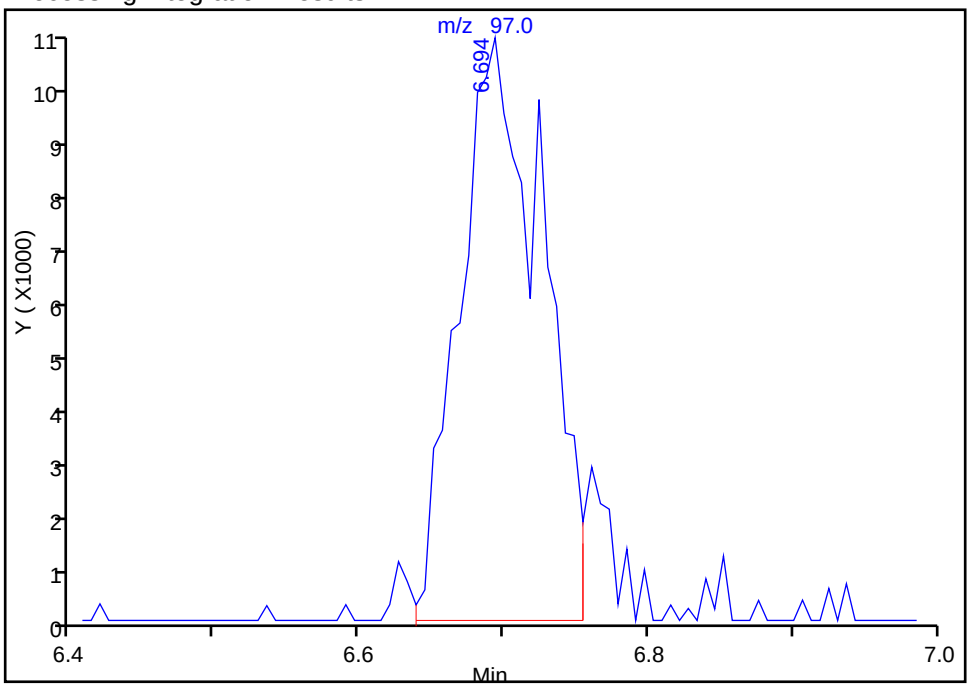
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040418.D				
Injection Date:	04-Apr-2015 21:14:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

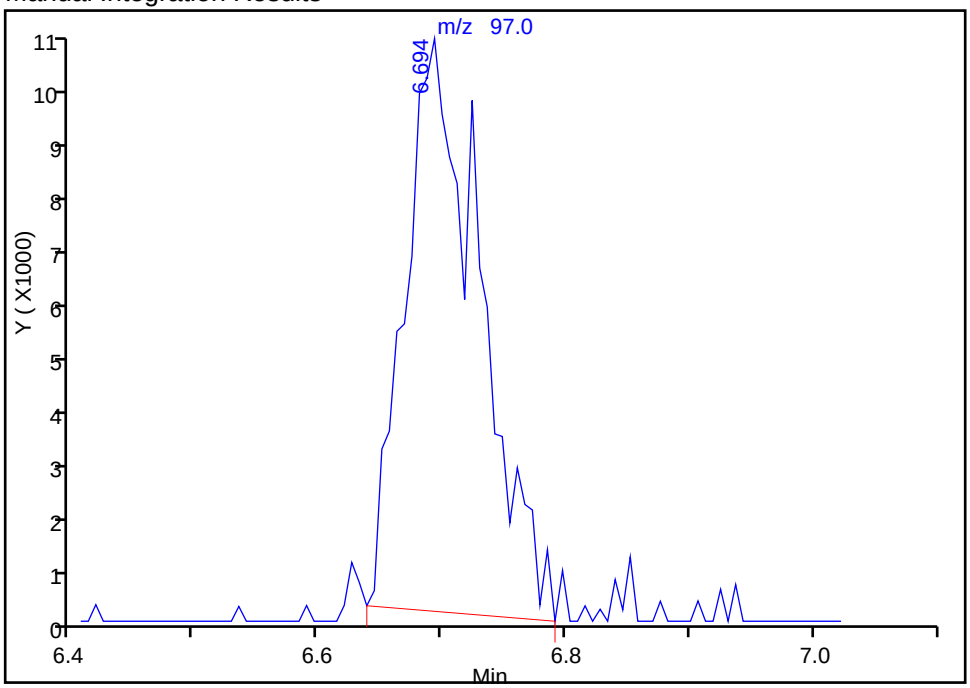
Processing Integration Results

RT: 6.69
Area: 41766
Amount: 25.812550
Amount Units: ng



Manual Integration Results

RT: 6.69
Area: 43516
Amount: 26.894098
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 09:02:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-42391-7

Matrix: Water Lab File ID: 7040421.D

Analysis Method: 8260C Date Collected: 03/25/2015 09:00

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 22:36

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.: 137512 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U *	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	4.2		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	5.5		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	2.8		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-42391-7

Matrix: Water Lab File ID: 7040421.D

Analysis Method: 8260C Date Collected: 03/25/2015 09:00

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 22:36

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.: 137512 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	119		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040421.D
Lims ID: 180-42391-C-7 Lab Sample ID: 180-42391-7
Client ID: HD-MW-100D-0/1-0
Sample Type: Client
Inject. Date: 04-Apr-2015 22:36:30 ALS Bottle#: 16 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-42391-C-7
Misc. Info.: 180-0006327-021
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:10:39 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 09:05:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.587	4.765	-0.178	82	149621	4000.0	
* 2 Fluorobenzene (IS)	96	7.422	7.399	0.023	99	537837	200.0	
* 3 Chlorobenzene-d5	119	10.475	10.471	0.004	84	159499	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.789	-0.002	95	203103	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.698	6.675	0.023	88	203435	237.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.040	0.010	95	159152	194.6	
$ 7 Toluene-d8 (Surr)	98	9.046	9.036	0.010	93	530225	224.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.633	-0.002	88	228149	216.8	
12 Chloromethane	50		2.028				ND	
13 Vinyl chloride	62		2.192				ND	
15 Bromomethane	94		2.502				ND	
16 Chloroethane	64		2.605				ND	
22 1,1-Dichloroethene	96	3.625	3.518	0.107	1	1001	1.39	
26 Carbon disulfide	76		3.828				ND	
24 Acetone	43		3.834				ND	
31 Methylene Chloride	84		4.364				ND	
34 trans-1,2-Dichloroethene	96		4.753				ND	
33 Acrylonitrile	53		4.802				ND	
35 Methyl tert-butyl ether	73		4.856				ND	
37 1,1-Dichloroethane	63		5.355				ND	
45 cis-1,2-Dichloroethene	96	6.132	6.103	0.029	76	75516	84.9	
46 2-Butanone (MEK)	43		6.189				ND	
49 Chlorobromomethane	128		6.377				ND	
52 Chloroform	83		6.499				ND	
53 1,1,1-Trichloroethane	97	6.698	6.681	0.017	36	6272	4.67	M
56 Carbon tetrachloride	117		6.858				ND	
58 Benzene	78		7.089				ND	
59 1,2-Dichloroethane	62		7.132				ND	
64 Trichloroethene	130	7.805	7.795	0.010	92	116627	109.9	
67 1,2-Dichloropropane	63		8.032				ND	
70 1,4-Dioxane	88		8.184				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.312				ND	
74 cis-1,3-Dichloropropene	75		8.774				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.938				ND	
76 Toluene	91		9.103				ND	
77 trans-1,3-Dichloropropene	75		9.322				ND	
79 1,1,2-Trichloroethane	97		9.504				ND	
80 Tetrachloroethene	164	9.654	9.644	0.010	91	54378	55.7	
82 2-Hexanone	43		9.760				ND	
84 Chlorodibromomethane	129		9.900				ND	
85 Ethylene Dibromide	107		10.009				ND	
87 Chlorobenzene	112		10.496				ND	
89 1,1,1,2-Tetrachloroethane	131		10.575				ND	
90 Ethylbenzene	106		10.605				ND	
91 m-Xylene & p-Xylene	106		10.721				ND	
92 o-Xylene	106		11.116				ND	
93 Styrene	104		11.128				ND	
94 Bromoform	173		11.317				ND	
99 1,1,2,2-Tetrachloroethane	83		11.773				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

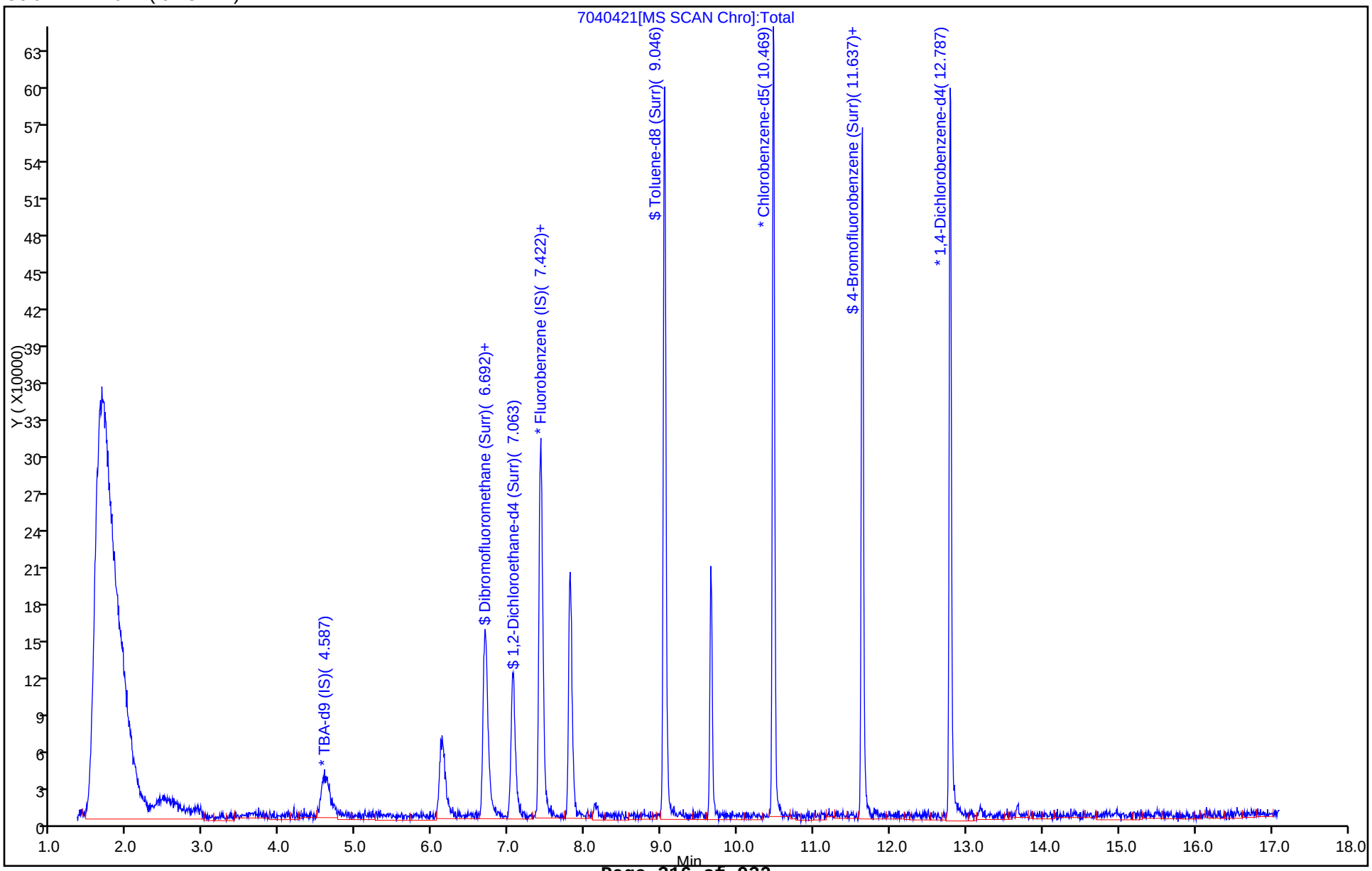
Report Date: 06-Apr-2015 09:10:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040421.D

Injection Date:	04-Apr-2015 22:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-7	Lab Sample ID:	180-42391-7	Worklist Smp#:	21
Client ID:	HD-MW-100D-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

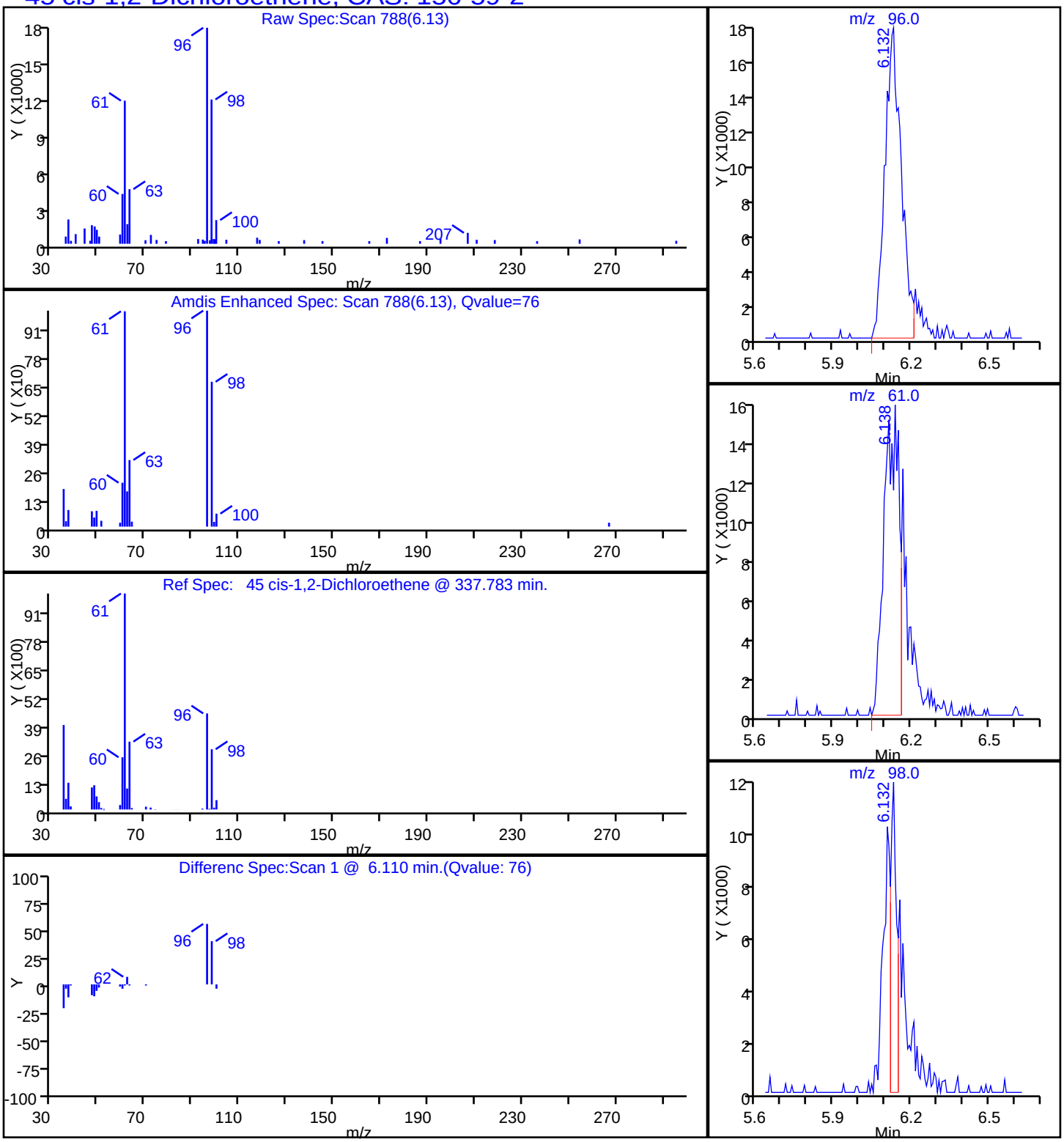


Report Date: 06-Apr-2015 09:10:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040421.D				
Injection Date:	04-Apr-2015 22:36:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-7	Lab Sample ID:	180-42391-7		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

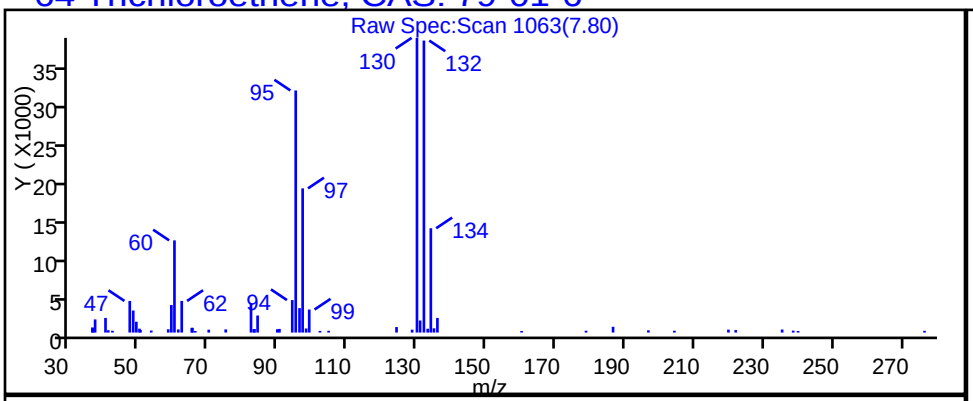


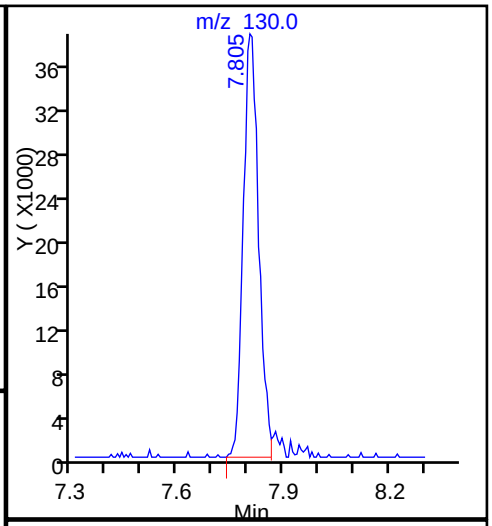
Report Date: 06-Apr-2015 09:10:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

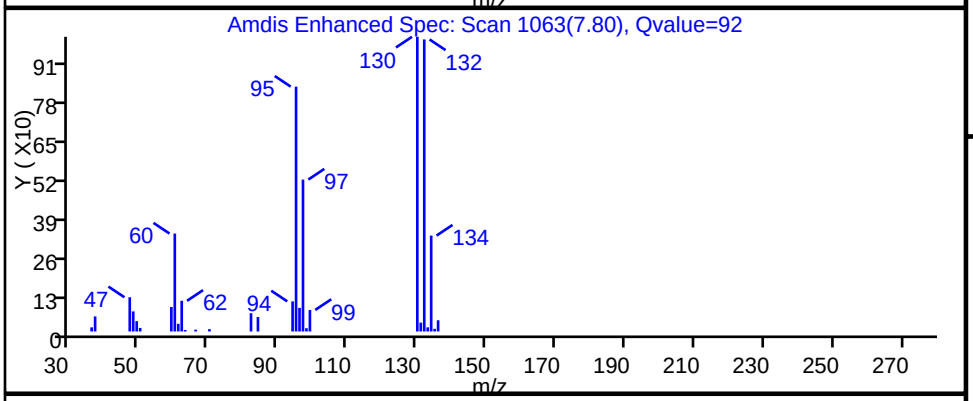
TestAmerica Pittsburgh

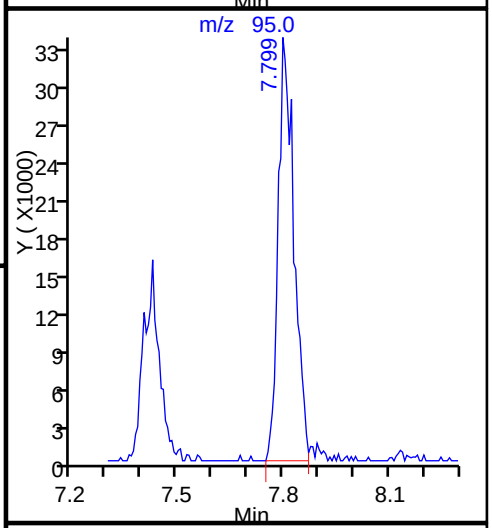
Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040421.D				
Injection Date:	04-Apr-2015 22:36:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-7	Lab Sample ID:	180-42391-7		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

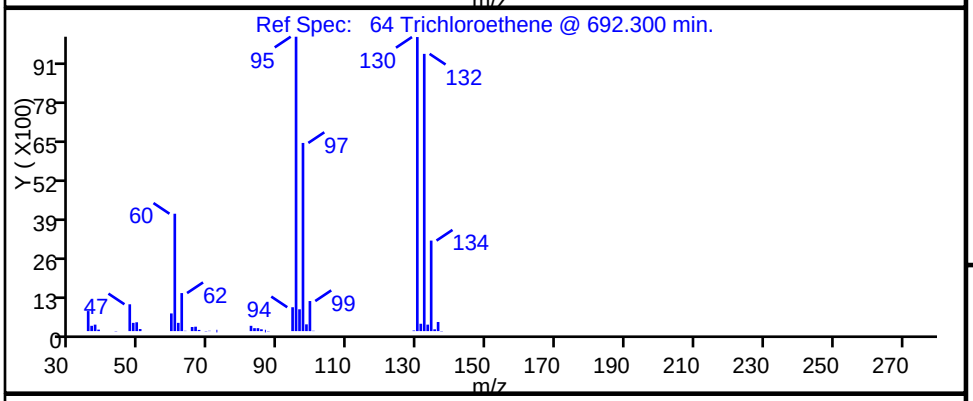
64 Trichloroethene, CAS: 79-01-6

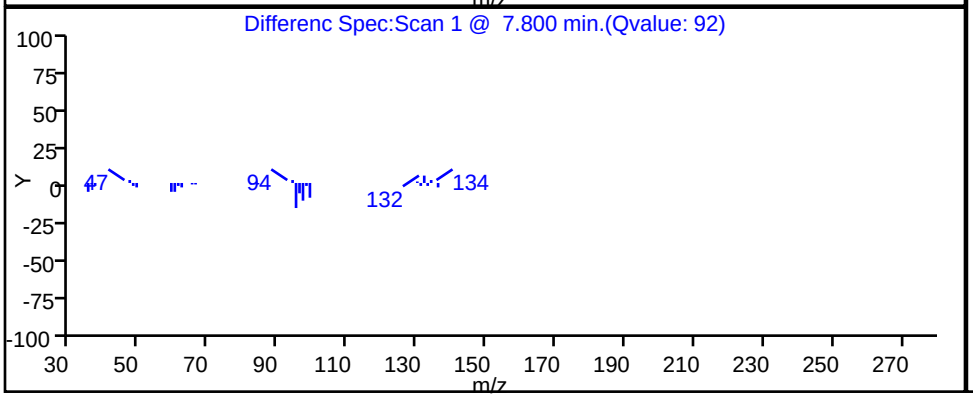


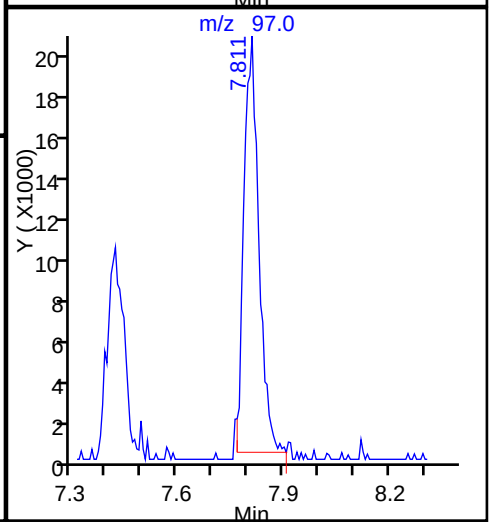












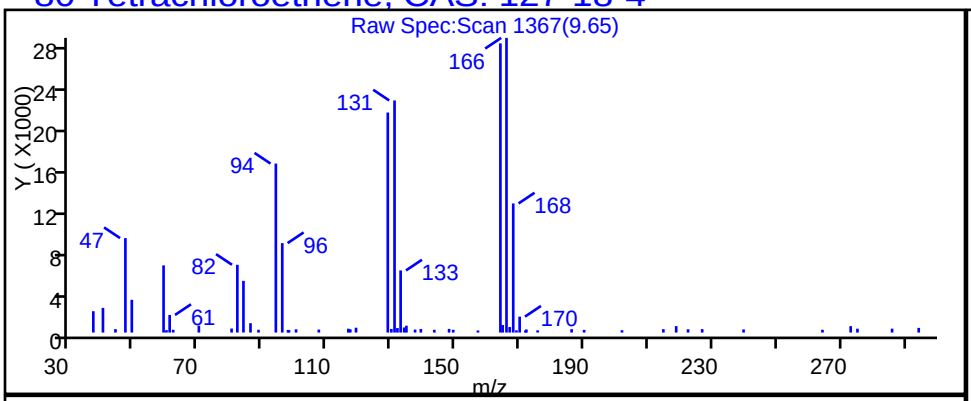
Report Date: 06-Apr-2015 09:10:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

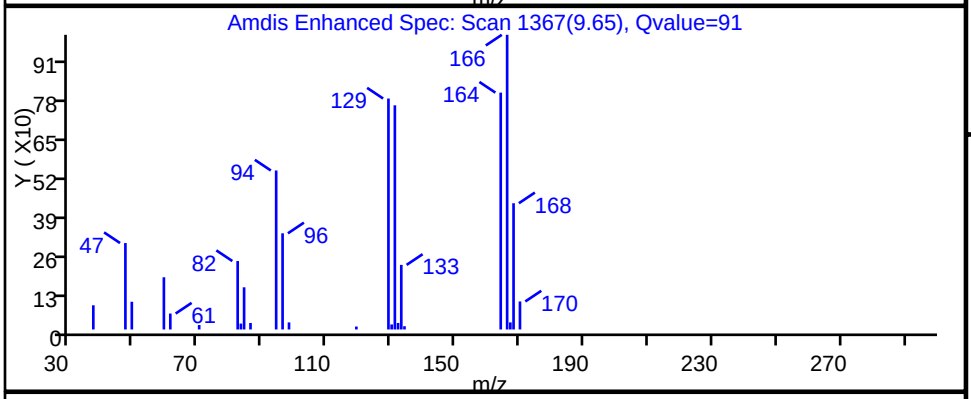
TestAmerica Pittsburgh

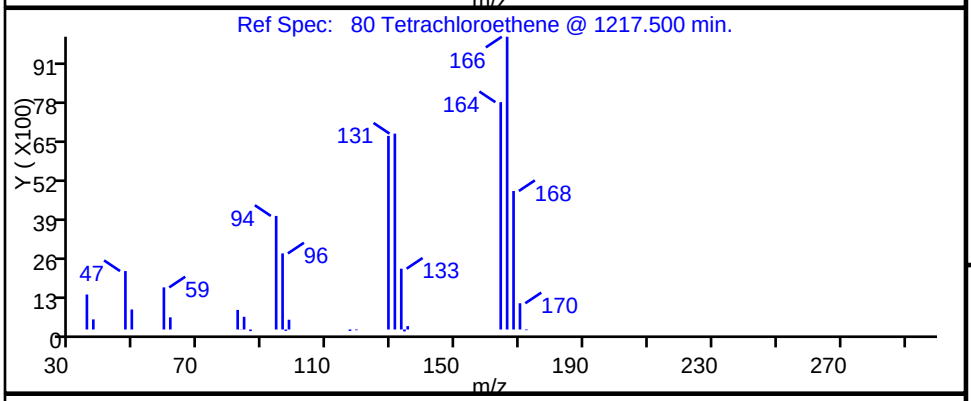
Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040421.D

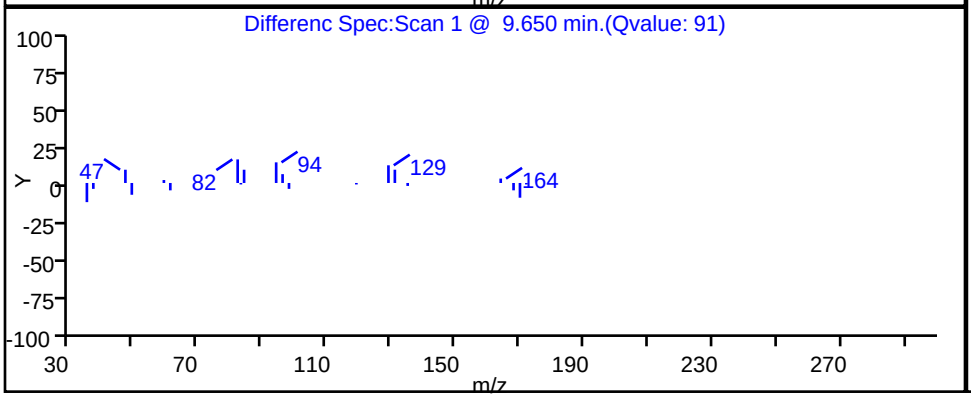
Injection Date:	04-Apr-2015 22:36:30	Instrument ID:	CHHP7
Lims ID:	180-42391-C-7	Lab Sample ID:	180-42391-7
Client ID:	HD-MW-100D-0/1-0		
Operator ID:	034635	ALS Bottle#:	16 Worklist Smp#: 21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

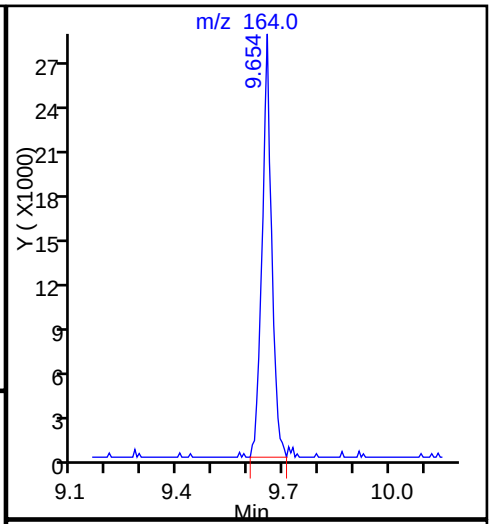
80 Tetrachloroethene, CAS: 127-18-4

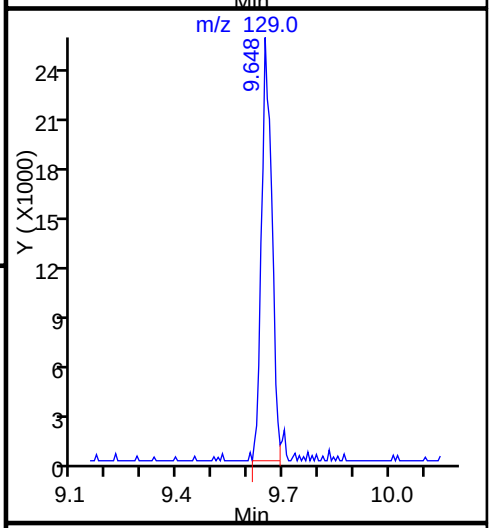


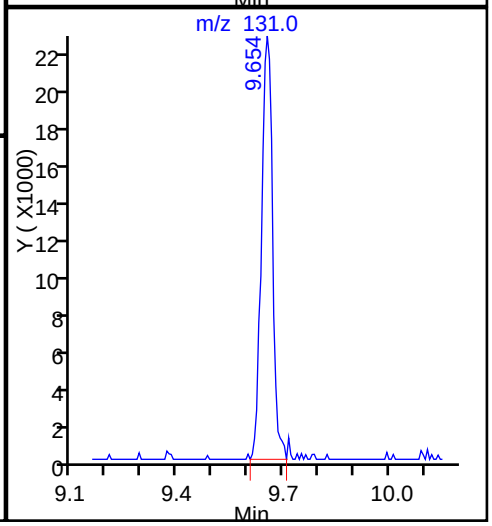












Manual Integration/User Assign Peak Report

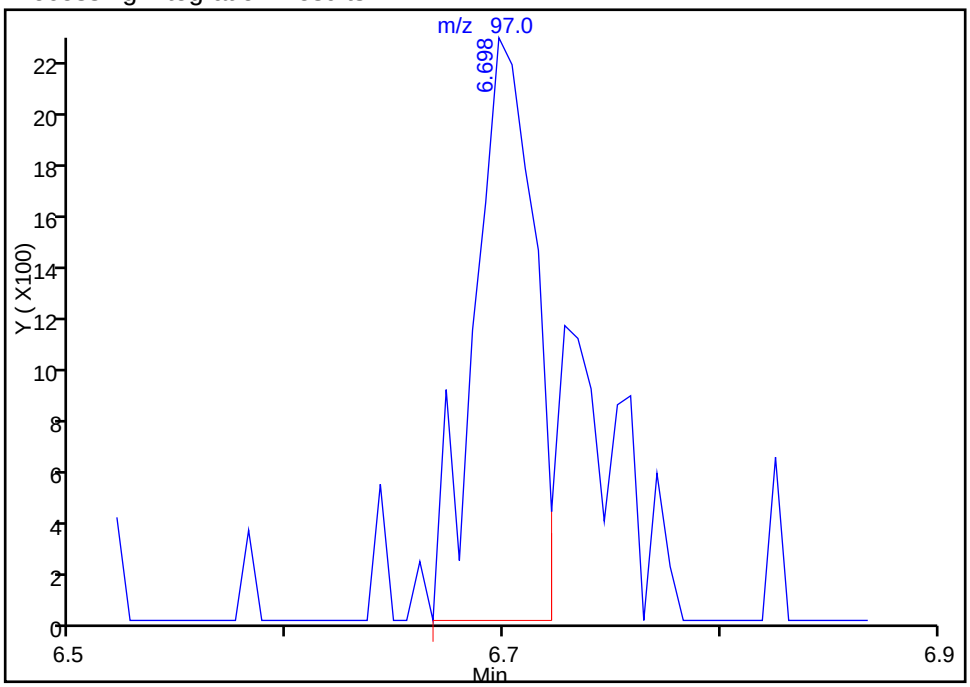
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040421.D				
Injection Date:	04-Apr-2015 22:36:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-7	Lab Sample ID:	180-42391-7		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

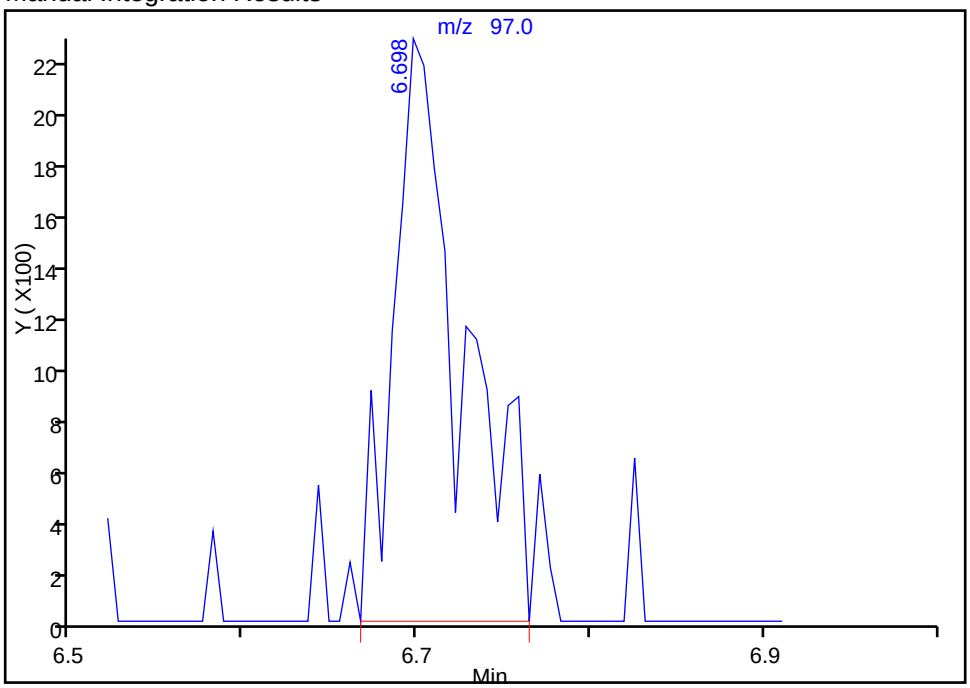
Processing Integration Results

RT: 6.70
Area: 4358
Amount: 3.245297
Amount Units: ng



Manual Integration Results

RT: 6.70
Area: 6272
Amount: 4.670606
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 09:05:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 | Lab Sample ID: 180-42391-8

Matrix: Water | Lab File ID: 7040218.D

Analysis Method: 8260C | Date Collected: 03/25/2015 10:10

Sample wt/vol: 20(mL) | Date Analyzed: 04/02/2015 18:07

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137305 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	2.4		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.9		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-42391-8

Matrix: Water Lab File ID: 7040218.D

Analysis Method: 8260C Date Collected: 03/25/2015 10:10

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 18:07

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137305 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040218.D
Lims ID: 180-42391-D-8 Lab Sample ID: 180-42391-8
Client ID: HD-MW-147A-0/1-0
Sample Type: Client
Inject. Date: 02-Apr-2015 18:07:30 ALS Bottle#: 5 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-42391-D-8
Misc. Info.: 180-0006293-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 03-Apr-2015 09:56:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.585	4.837	-0.252	95	223341	4000.0	
* 2 Fluorobenzene (IS)	96	7.426	7.398	0.028	99	758078	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.464	0.004	84	222294	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.788	0.004	96	273631	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.680	0.004	91	262998	217.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.045	0.004	95	207379	179.9	
$ 7 Toluene-d8 (Surr)	98	9.038	9.035	0.003	91	709867	215.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.632	0.004	90	285086	192.8	
12 Chloromethane	50		2.033				ND	
13 Vinyl chloride	62		2.185				ND	
15 Bromomethane	94		2.495				ND	
16 Chloroethane	64		2.617				ND	
22 1,1-Dichloroethene	96		3.505				ND	
26 Carbon disulfide	76		3.791				ND	
24 Acetone	43		3.839				ND	
31 Methylene Chloride	84		4.350				ND	
34 trans-1,2-Dichloroethene	96		4.728				ND	
33 Acrylonitrile	53		4.813				ND	
35 Methyl tert-butyl ether	73		4.874				ND	
37 1,1-Dichloroethane	63		5.354				ND	
45 cis-1,2-Dichloroethene	96	6.106	6.096	0.010	75	60533	48.3	M
46 2-Butanone (MEK)	43		6.200				ND	
49 Chlorobromomethane	128		6.382				ND	
52 Chloroform	83		6.492				ND	
53 1,1,1-Trichloroethane	97		6.668				ND	
56 Carbon tetrachloride	117		6.857				ND	
58 Benzene	78		7.094				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.803	7.794	0.009	92	57079	38.2	
67 1,2-Dichloropropane	63		8.025				ND	
70 1,4-Dioxane	88		8.195				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.317				ND	
74 cis-1,3-Dichloropropene	75		8.767				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.943				ND	
76 Toluene	91		9.102				ND	
77 trans-1,3-Dichloropropene	75		9.327				ND	
79 1,1,2-Trichloroethane	97		9.509				ND	
80 Tetrachloroethene	164		9.649				ND	
82 2-Hexanone	43		9.765				ND	
84 Chlorodibromomethane	129		9.899				ND	
85 Ethylene Dibromide	107		10.008				ND	
87 Chlorobenzene	112		10.495				ND	
89 1,1,1,2-Tetrachloroethane	131		10.574				ND	
90 Ethylbenzene	106		10.604				ND	
91 m-Xylene & p-Xylene	106		10.720				ND	
92 o-Xylene	106		11.115				ND	
93 Styrene	104		11.133				ND	
94 Bromoform	173		11.316				ND	
99 1,1,2,2-Tetrachloroethane	83		11.778				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

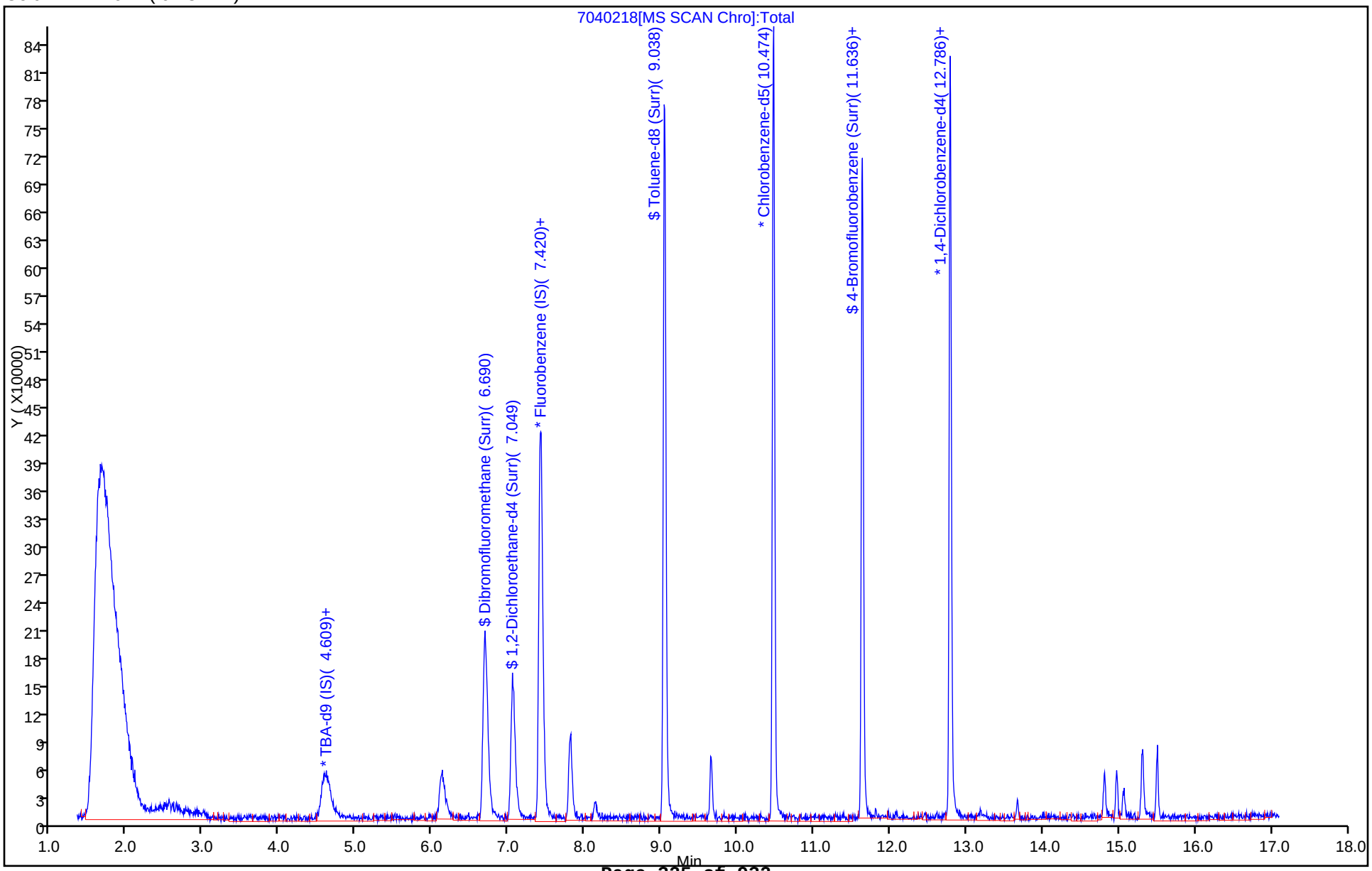
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 10:26:25 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040218.D				
Injection Date:	02-Apr-2015 18:07:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-8	Lab Sample ID:	180-42391-8	Worklist Smp#:	18
Client ID:	HD-MW-147A-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

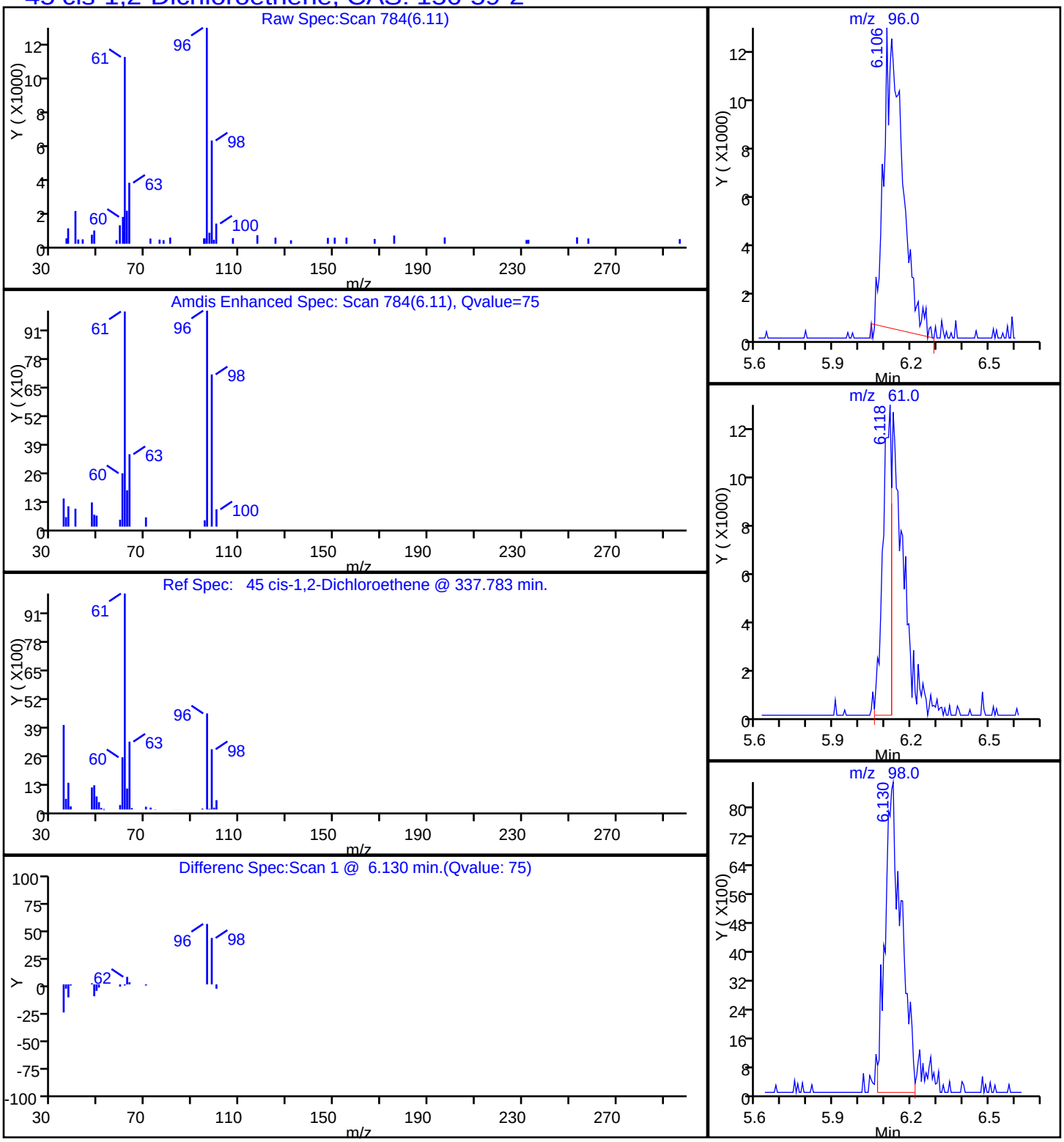


Report Date: 03-Apr-2015 10:26:26 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040218.D				
Injection Date:	02-Apr-2015 18:07:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-8	Lab Sample ID:	180-42391-8		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

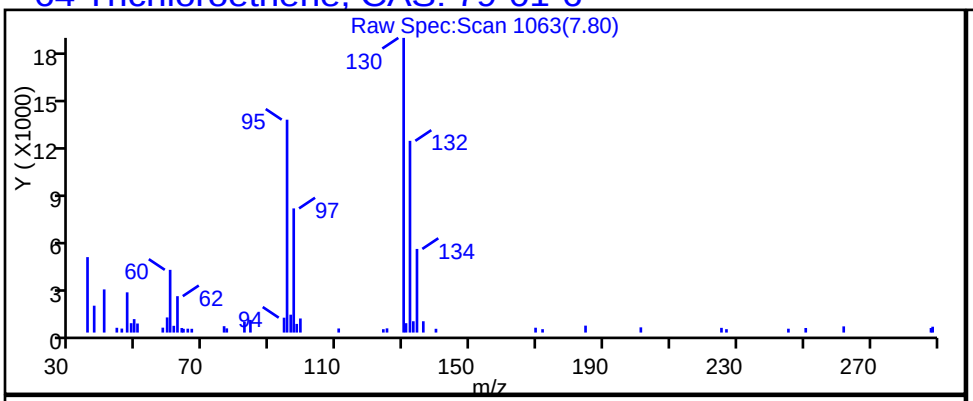


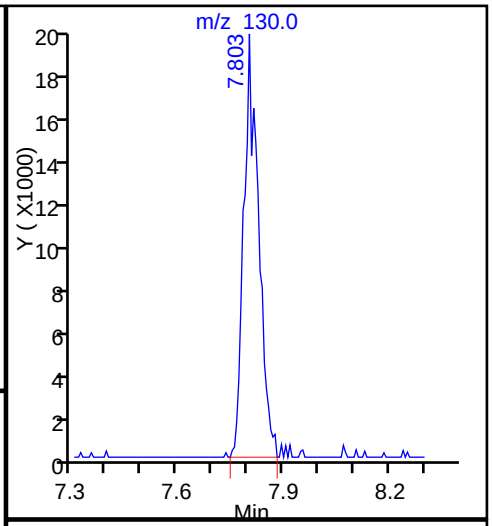
Report Date: 03-Apr-2015 10:26:26 Chrom Revision: 2.2 13-Mar-2015 11:20:44

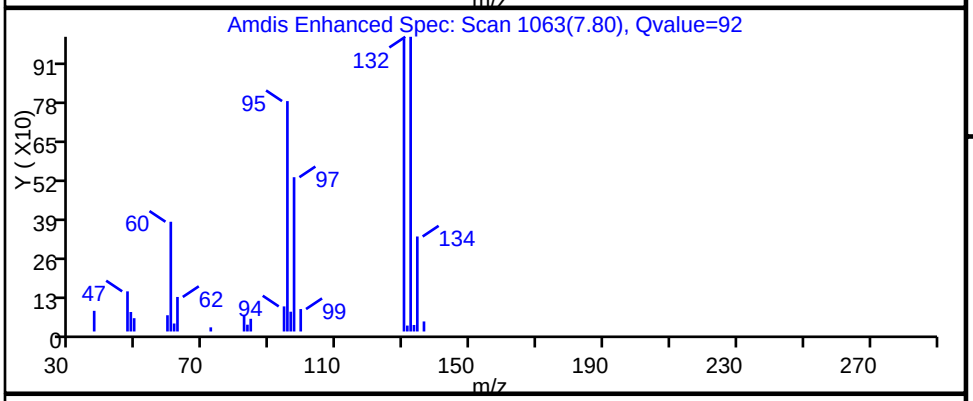
TestAmerica Pittsburgh

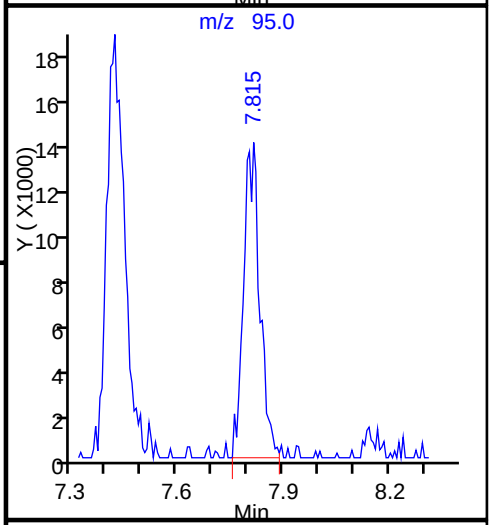
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040218.D				
Injection Date:	02-Apr-2015 18:07:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-8	Lab Sample ID:	180-42391-8		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

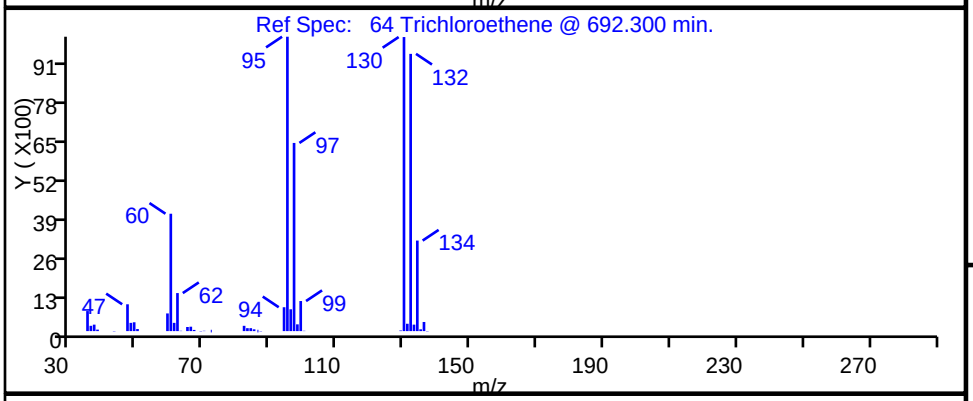
64 Trichloroethene, CAS: 79-01-6

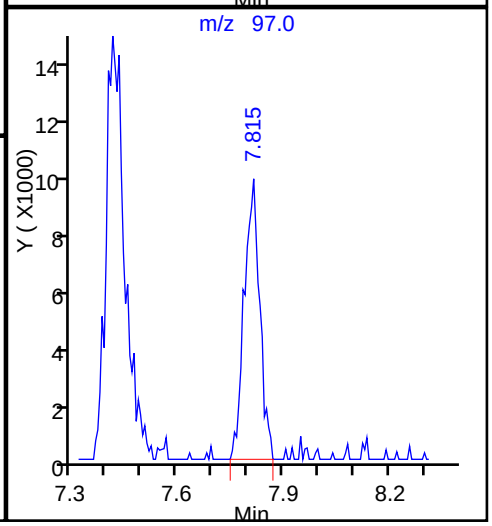


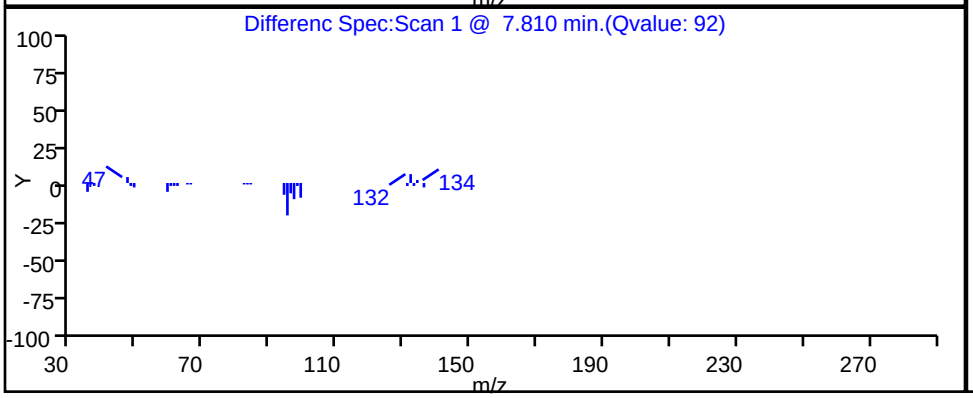












Manual Integration/User Assign Peak Report

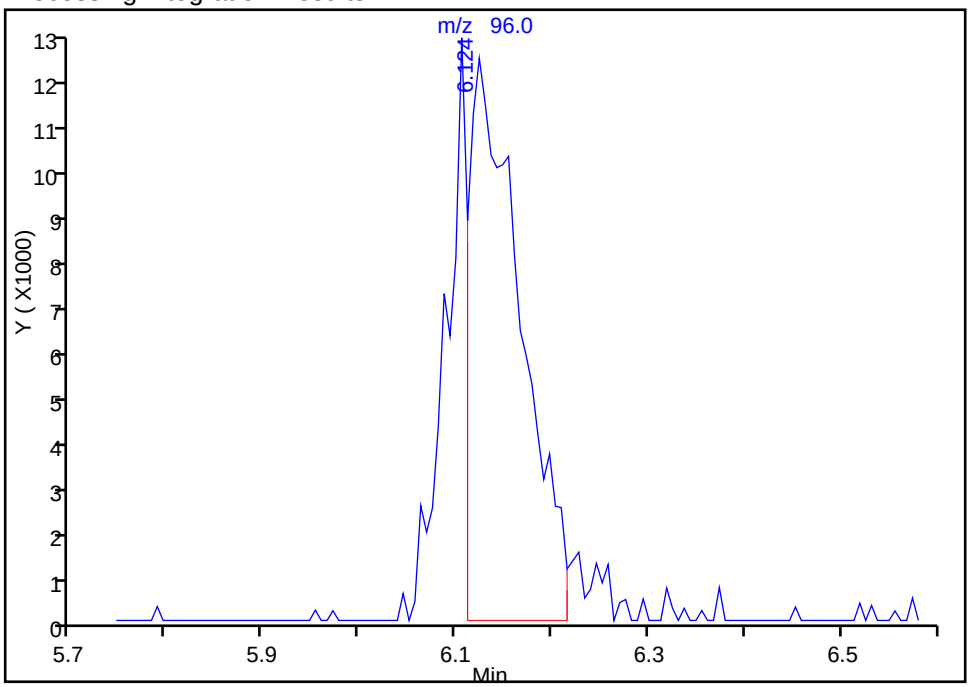
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040218.D				
Injection Date:	02-Apr-2015 18:07:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-8	Lab Sample ID:	180-42391-8		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

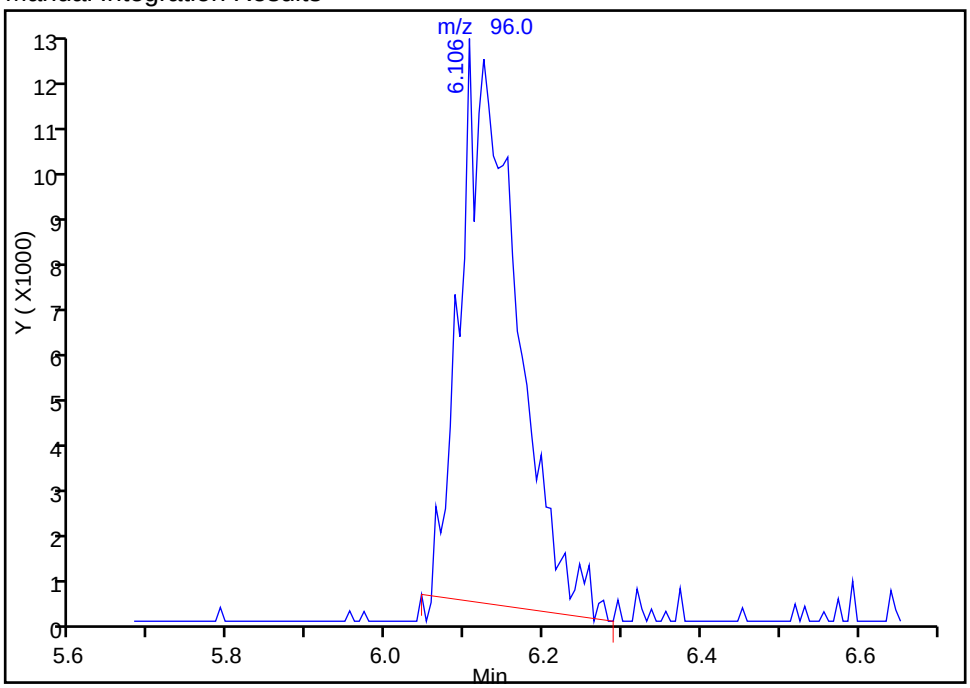
Processing Integration Results

RT: 6.12
Area: 45298
Amount: 36.144614
Amount Units: ng



Manual Integration Results

RT: 6.11
Area: 60533
Amount: 48.301071
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 09:56:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 | Lab Sample ID: 180-42391-9

Matrix: Water | Lab File ID: 7040221.D

Analysis Method: 8260C | Date Collected: 03/25/2015 14:37

Sample wt/vol: 20(mL) | Date Analyzed: 04/02/2015 19:28

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.: 137305 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	14
75-01-4	Vinyl chloride	50	U	50	11
74-83-9	Bromomethane	50	U	50	16
75-00-3	Chloroethane	50	U	50	11
75-35-4	1,1-Dichloroethene	50		50	15
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	50	U	50	6.3
156-60-5	trans-1,2-Dichloroethene	50	U	50	8.5
1634-04-4	Methyl tert-butyl ether	50	U	50	9.2
75-34-3	1,1-Dichloroethane	50	U	50	5.8
156-59-2	cis-1,2-Dichloroethene	110		50	12
74-97-5	Bromochloromethane	50	U	50	9.0
78-93-3	2-Butanone (MEK)	250	U	250	27
67-66-3	Chloroform	50	U	50	8.5
71-55-6	1,1,1-Trichloroethane	240		50	14
56-23-5	Carbon tetrachloride	32	J	50	6.8
71-43-2	Benzene	50	U	50	5.3
107-06-2	1,2-Dichloroethane	50	U	50	11
79-01-6	Trichloroethene	1600		50	7.2
78-87-5	1,2-Dichloropropane	50	U	50	4.7
75-27-4	Bromodichloromethane	50	U	50	6.5
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	26
108-88-3	Toluene	50	U	50	7.5
10061-02-6	trans-1,3-Dichloropropene	50	U	50	7.4
79-00-5	1,1,2-Trichloroethane	50	U	50	10
127-18-4	*Tetrachloroethene*	*NQ*		*50*	*7.4*
591-78-6	2-Hexanone	250	U	250	8.0
124-48-1	Dibromochloromethane	50	U	50	6.8
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	9.0
108-90-7	Chlorobenzene	50	U	50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	14
100-41-4	Ethylbenzene	50	U	50	11
1330-20-7	Xylenes, Total	150	U	150	24
100-42-5	Styrene	50	U	50	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-42391-9

Matrix: Water Lab File ID: 7040221.D

Analysis Method: 8260C Date Collected: 03/25/2015 14:37

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 19:28

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.: 137305 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	50	U	50	9.6
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	10
107-13-1	Acrylonitrile	1000	U	1000	27
123-91-1	1,4-Dioxane	10000	U	10000	1700

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	117		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D
Lims ID: 180-42391-C-9 Lab Sample ID: 180-42391-9
Client ID: HD-MW-75S-0/1-0
Sample Type: Client
Inject. Date: 02-Apr-2015 19:28:30 ALS Bottle#: 8 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 50.0000
Sample Info: 180-42391-C-9
Misc. Info.: 180-0006293-021
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 03-Apr-2015 10:13:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.604	4.837	-0.233	91	217044	4000.0	
* 2 Fluorobenzene (IS)	96	7.421	7.398	0.023	99	694066	200.0	
* 3 Chlorobenzene-d5	119	10.475	10.464	0.011	85	186044	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.788	0.004	95	250986	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.691	6.680	0.011	89	254944	230.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.068	7.045	0.023	94	195340	185.1	
$ 7 Toluene-d8 (Surr)	98	9.045	9.035	0.010	93	646332	234.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.632	0.005	89	257505	209.3	
12 Chloromethane	50		2.033				ND	
13 Vinyl chloride	62		2.185				ND	
15 Bromomethane	94		2.495				ND	
16 Chloroethane	64		2.617				ND	
22 1,1-Dichloroethene	96	3.649	3.505	0.144	32	18645	20.0	M
26 Carbon disulfide	76		3.791				ND	
24 Acetone	43		3.839				ND	
31 Methylene Chloride	84		4.350				ND	
34 trans-1,2-Dichloroethene	96		4.728				ND	
33 Acrylonitrile	53		4.813				ND	
35 Methyl tert-butyl ether	73		4.874				ND	
37 1,1-Dichloroethane	63		5.354				ND	
45 cis-1,2-Dichloroethene	96	6.137	6.096	0.041	75	51428	44.8	
46 2-Butanone (MEK)	43		6.200				ND	
49 Chlorobromomethane	128		6.382				ND	
52 Chloroform	83		6.492				ND	
53 1,1,1-Trichloroethane	97	6.703	6.668	0.035	75	163634	94.4	
56 Carbon tetrachloride	117	6.709	6.857	-0.148	5	22468	12.9	M
58 Benzene	78		7.094				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.804	7.794	0.010	93	888998	649.2	
67 1,2-Dichloropropane	63		8.025				ND	
70 1,4-Dioxane	88		8.195				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt	ng	Flags
71 Dichlorobromomethane	83		8.317				ND		
74 cis-1,3-Dichloropropene	75		8.767				ND		
75 4-Methyl-2-pentanone (MIBK	43		8.943				ND		
76 Toluene	91		9.102				ND		
77 trans-1,3-Dichloropropene	75		9.327				ND		
79 1,1,2-Trichloroethane	97		9.509				ND		
80 Tetrachloroethene	164	9.660	9.649	0.011	84	2244315		NQ	E
82 2-Hexanone	43		9.765				ND		
84 Chlorodibromomethane	129		9.899				ND		
85 Ethylene Dibromide	107		10.008				ND		
87 Chlorobenzene	112		10.495				ND		
89 1,1,1,2-Tetrachloroethane	131		10.574				ND		
90 Ethylbenzene	106		10.604				ND		
91 m-Xylene & p-Xylene	106		10.720				ND		
92 o-Xylene	106		11.115				ND		
93 Styrene	104		11.133				ND		
94 Bromoform	173		11.316				ND		
99 1,1,2,2-Tetrachloroethane	83		11.778				ND		
S 133 Xylenes, Total	106		1.000				ND		

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

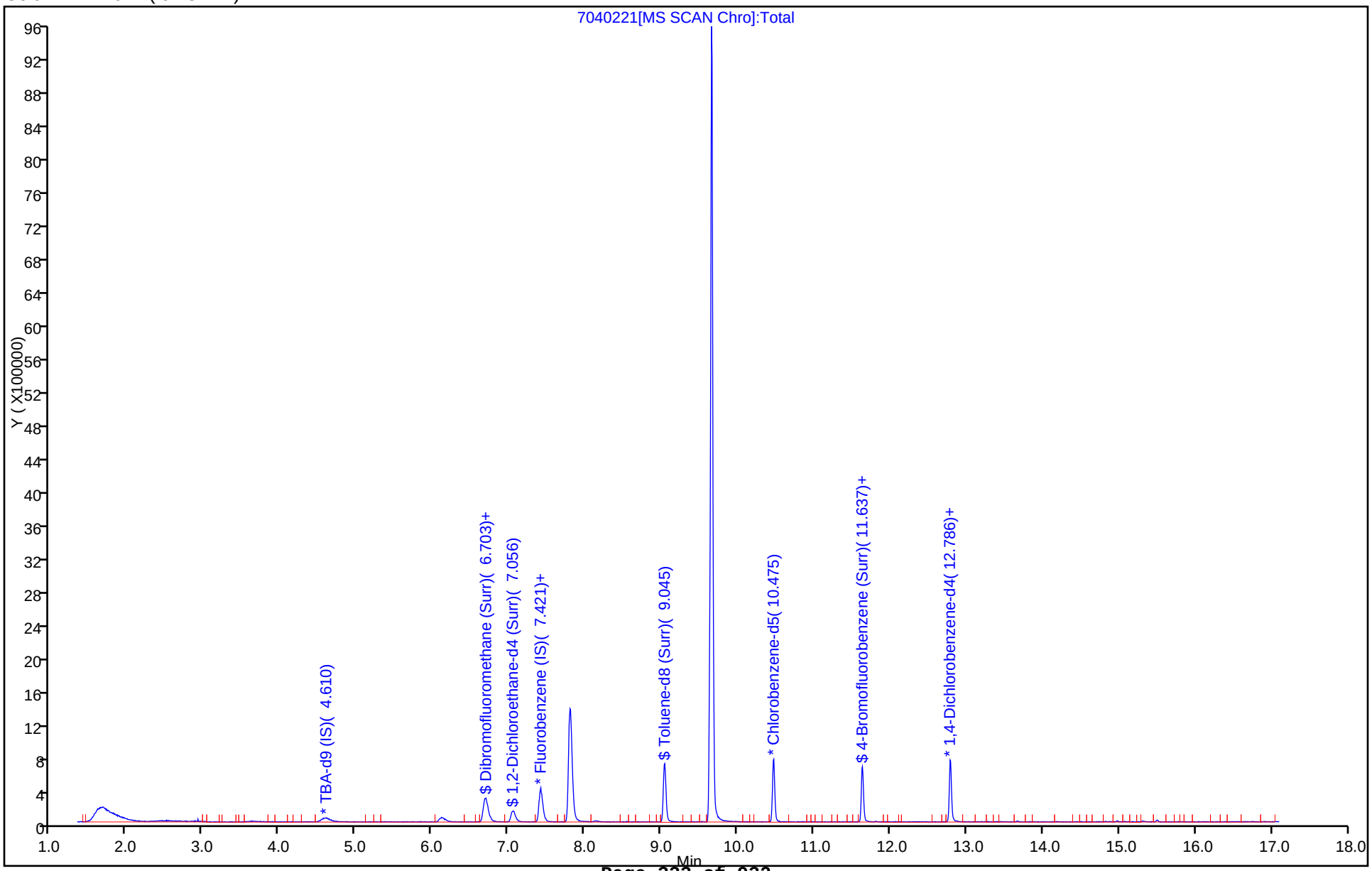
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9	Worklist Smp#:	21
Client ID:	HD-MW-75S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



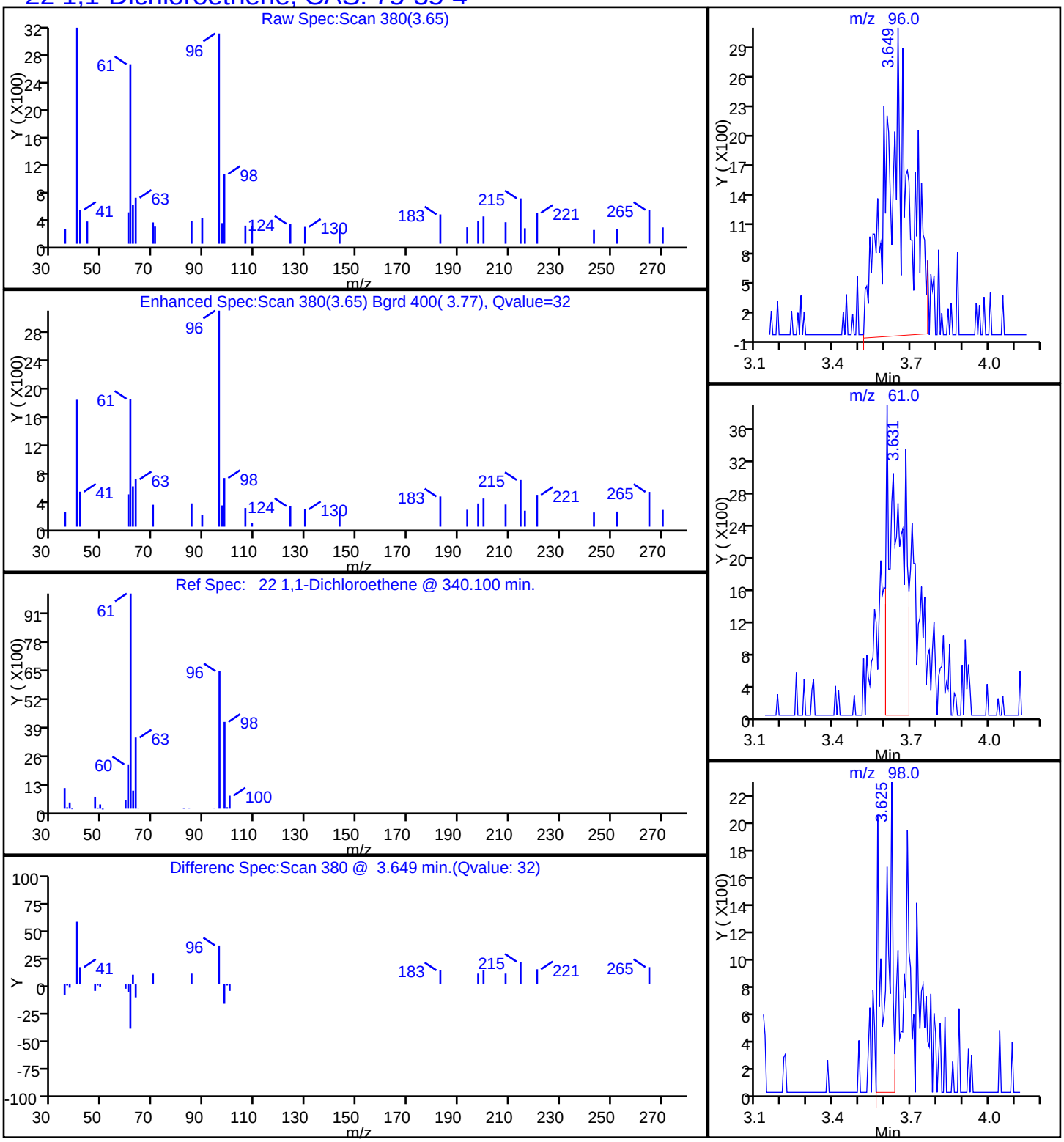
Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D

Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

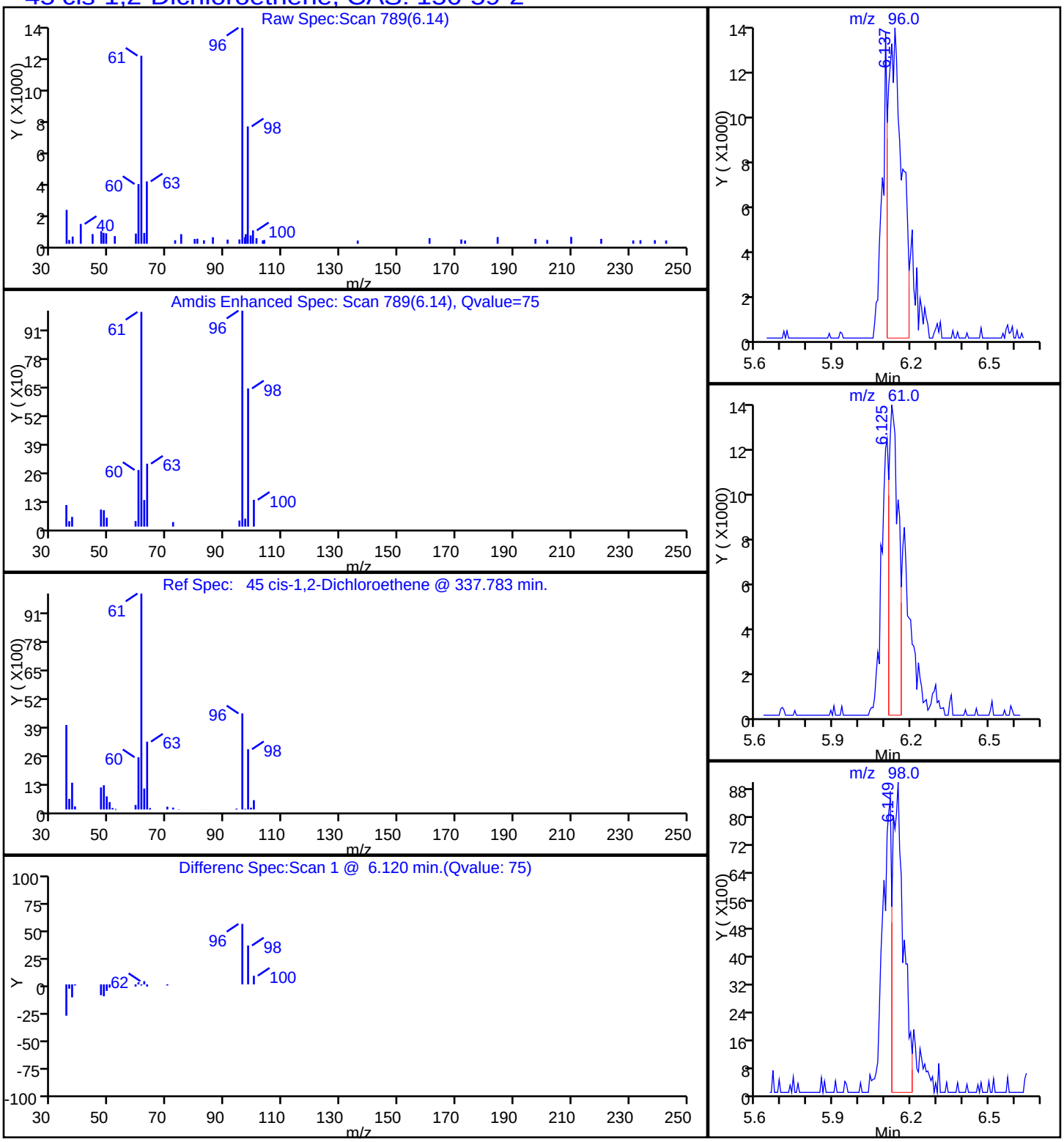


Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

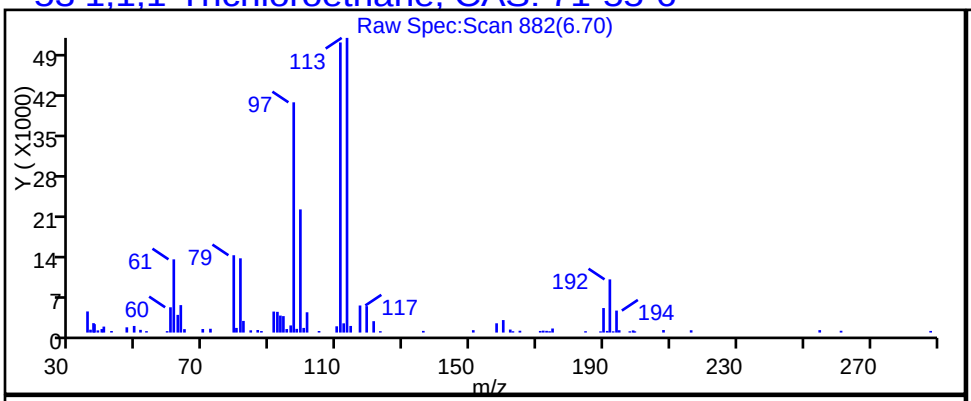


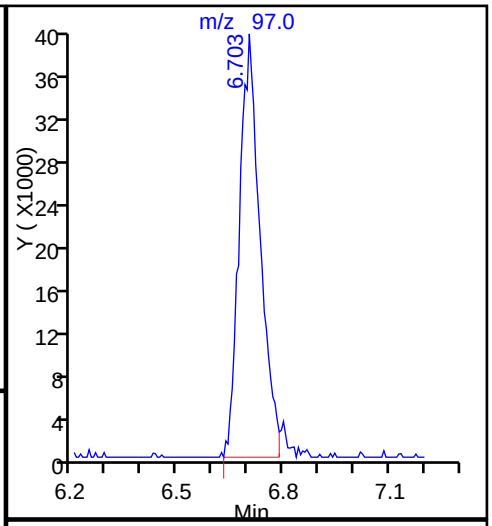
Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

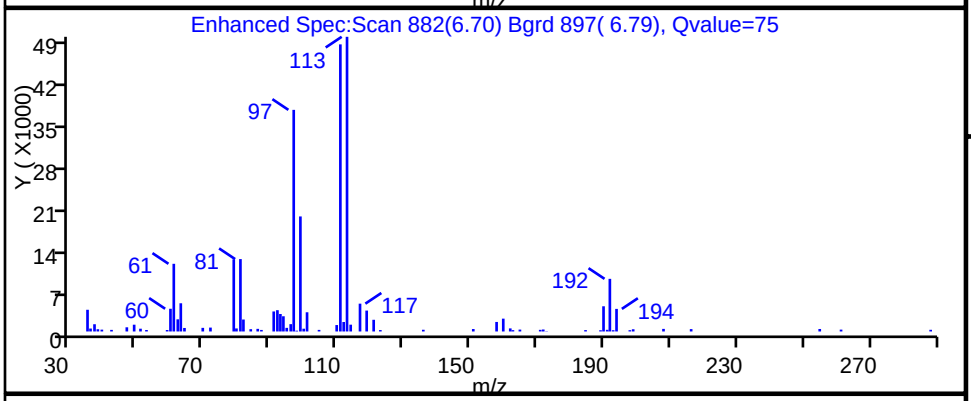
TestAmerica Pittsburgh

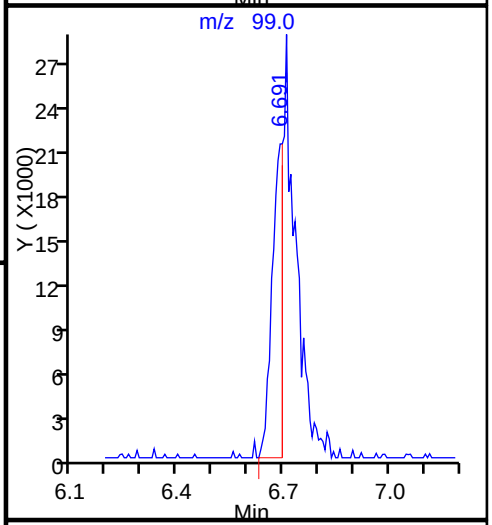
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

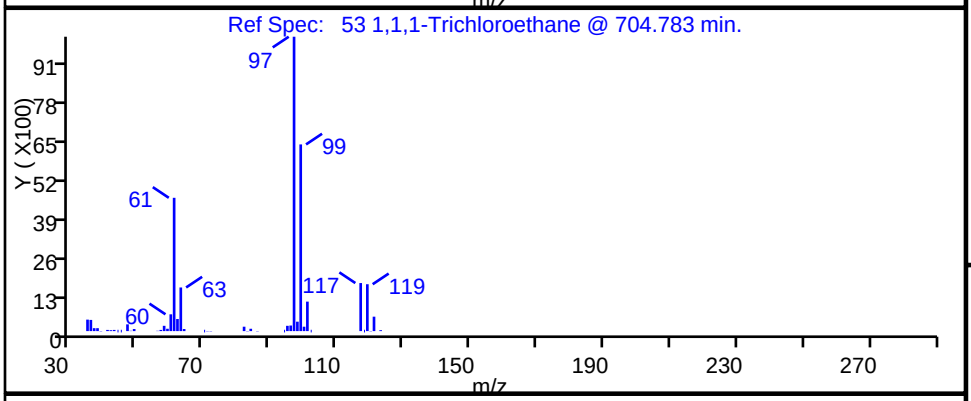
53 1,1,1-Trichloroethane, CAS: 71-55-6

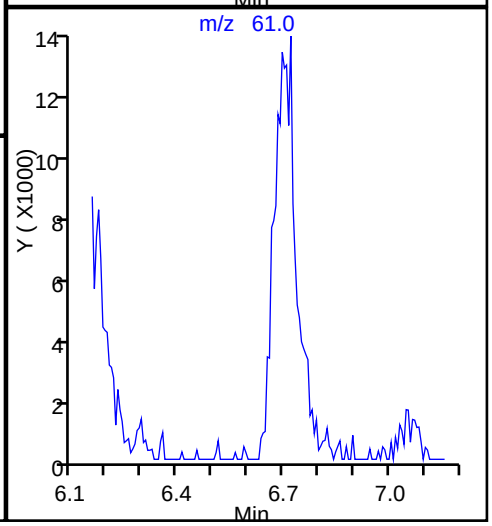


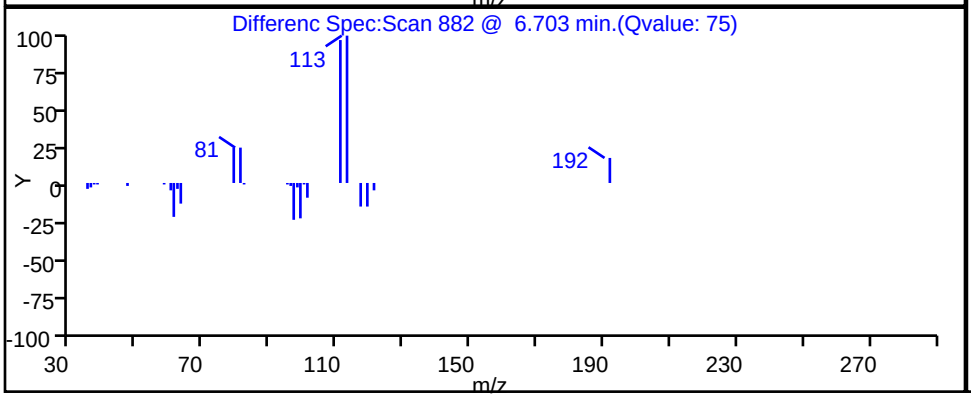










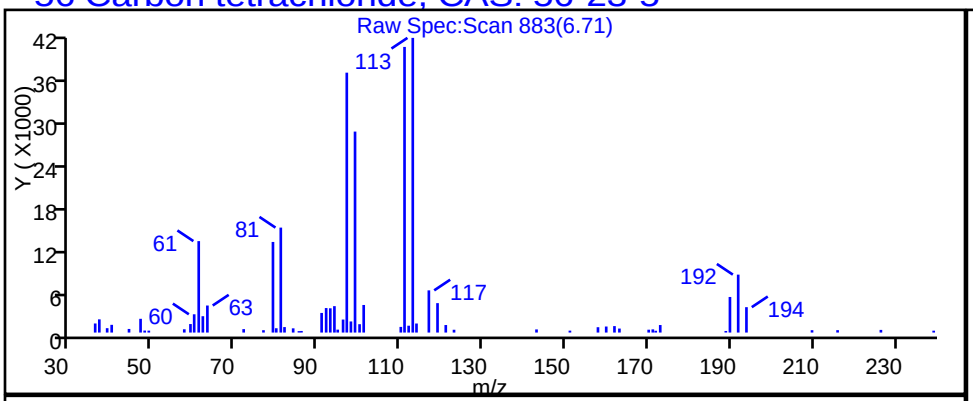


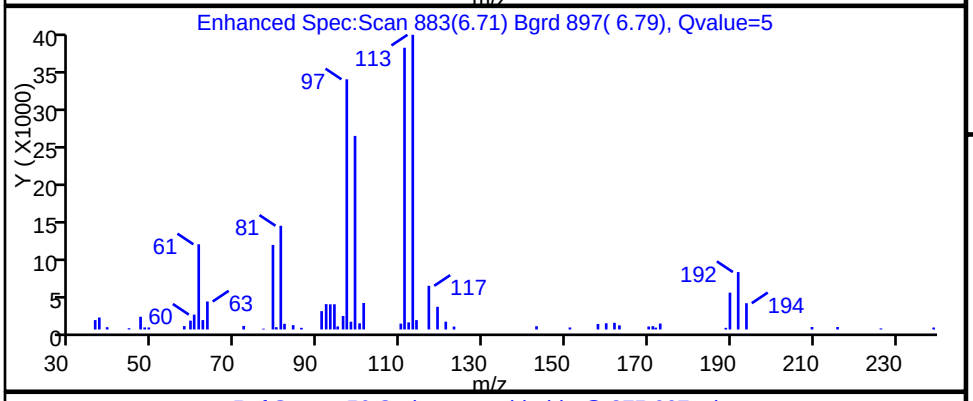
Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

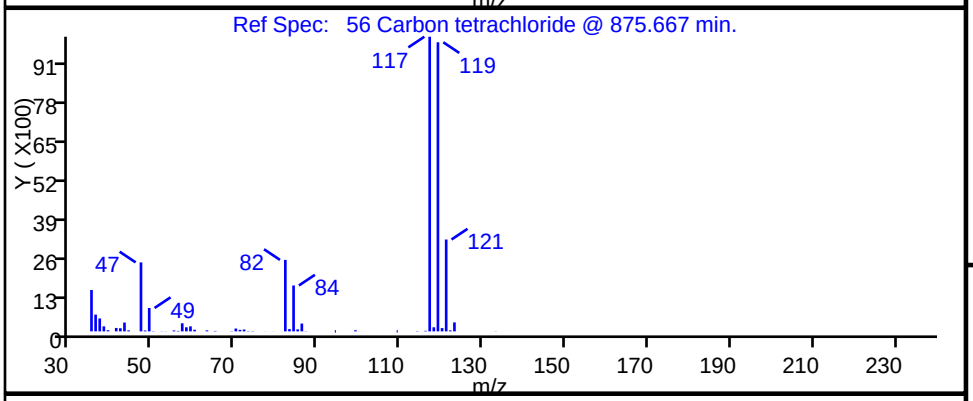
TestAmerica Pittsburgh

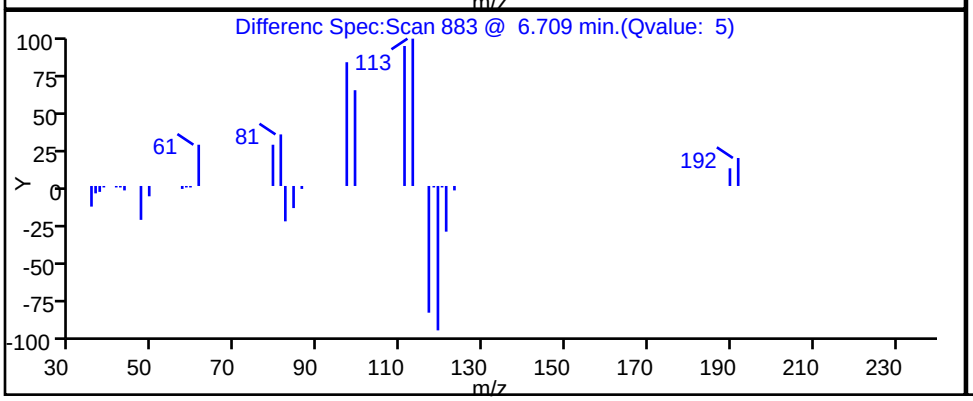
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

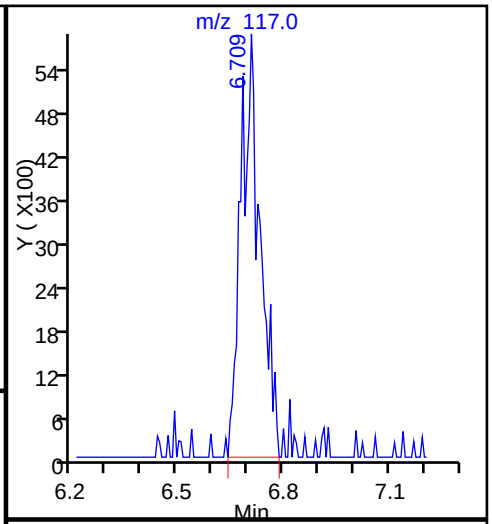
56 Carbon tetrachloride, CAS: 56-23-5

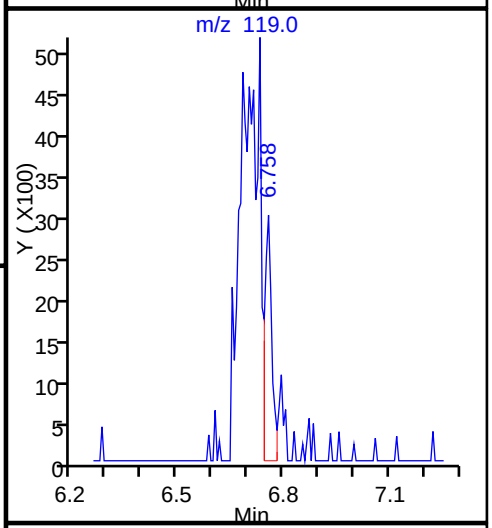


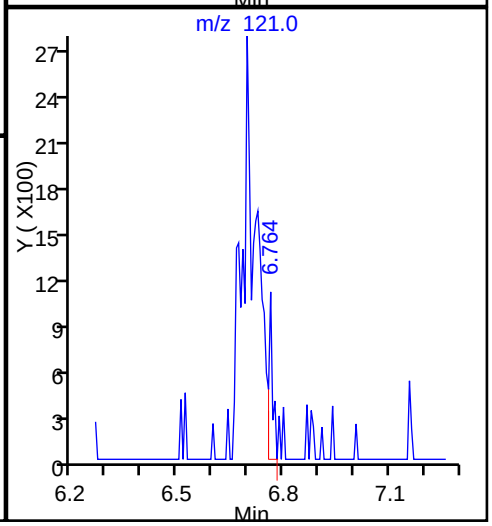










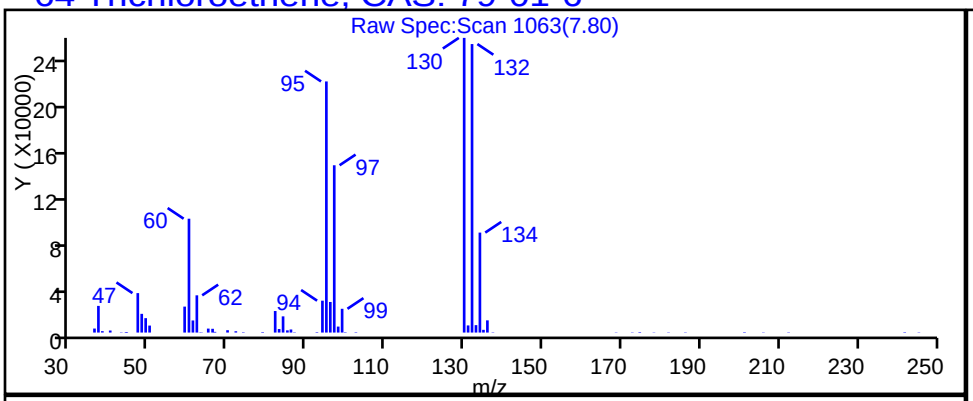


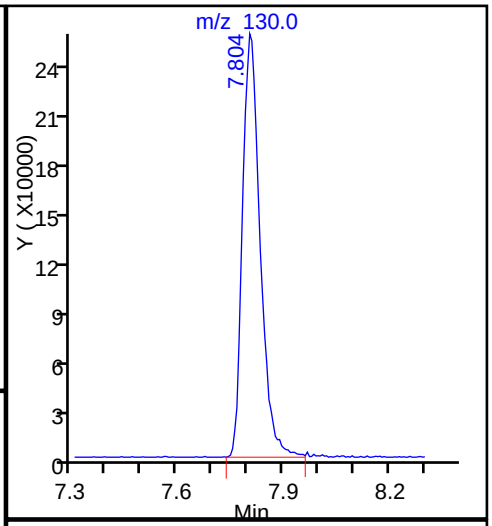
Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

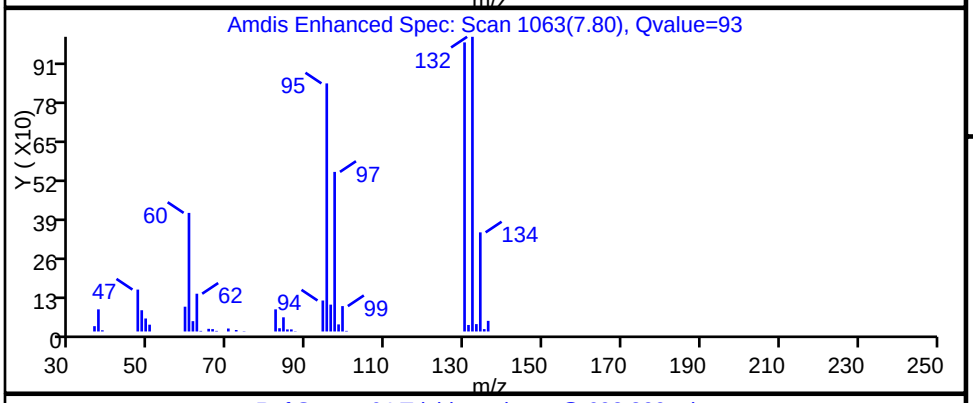
TestAmerica Pittsburgh

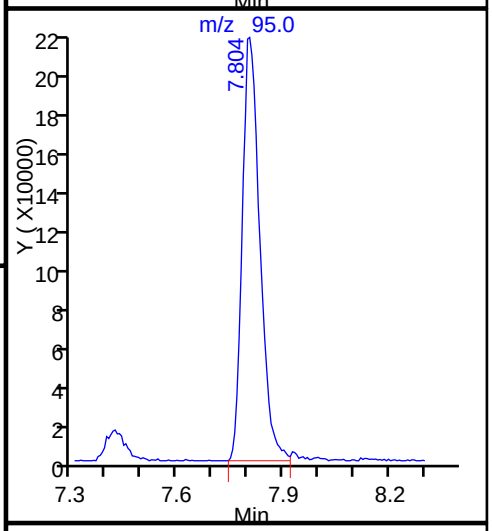
Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

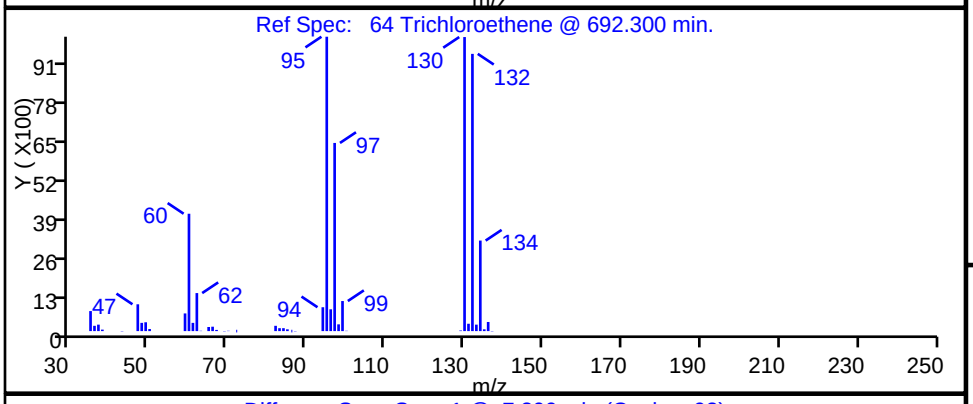
64 Trichloroethene, CAS: 79-01-6

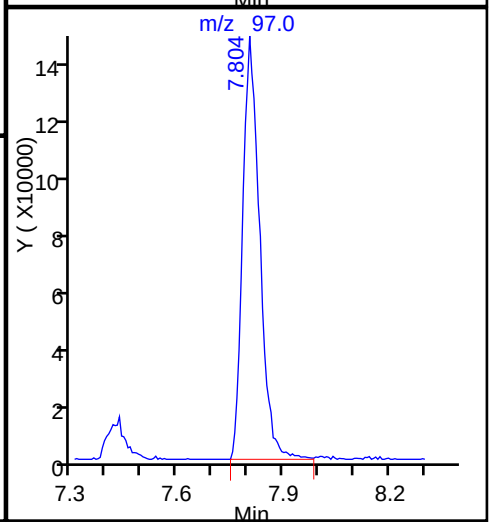


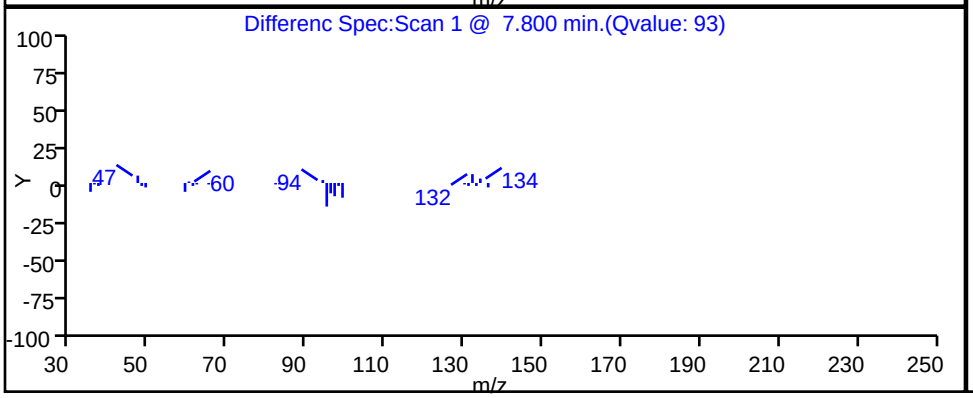










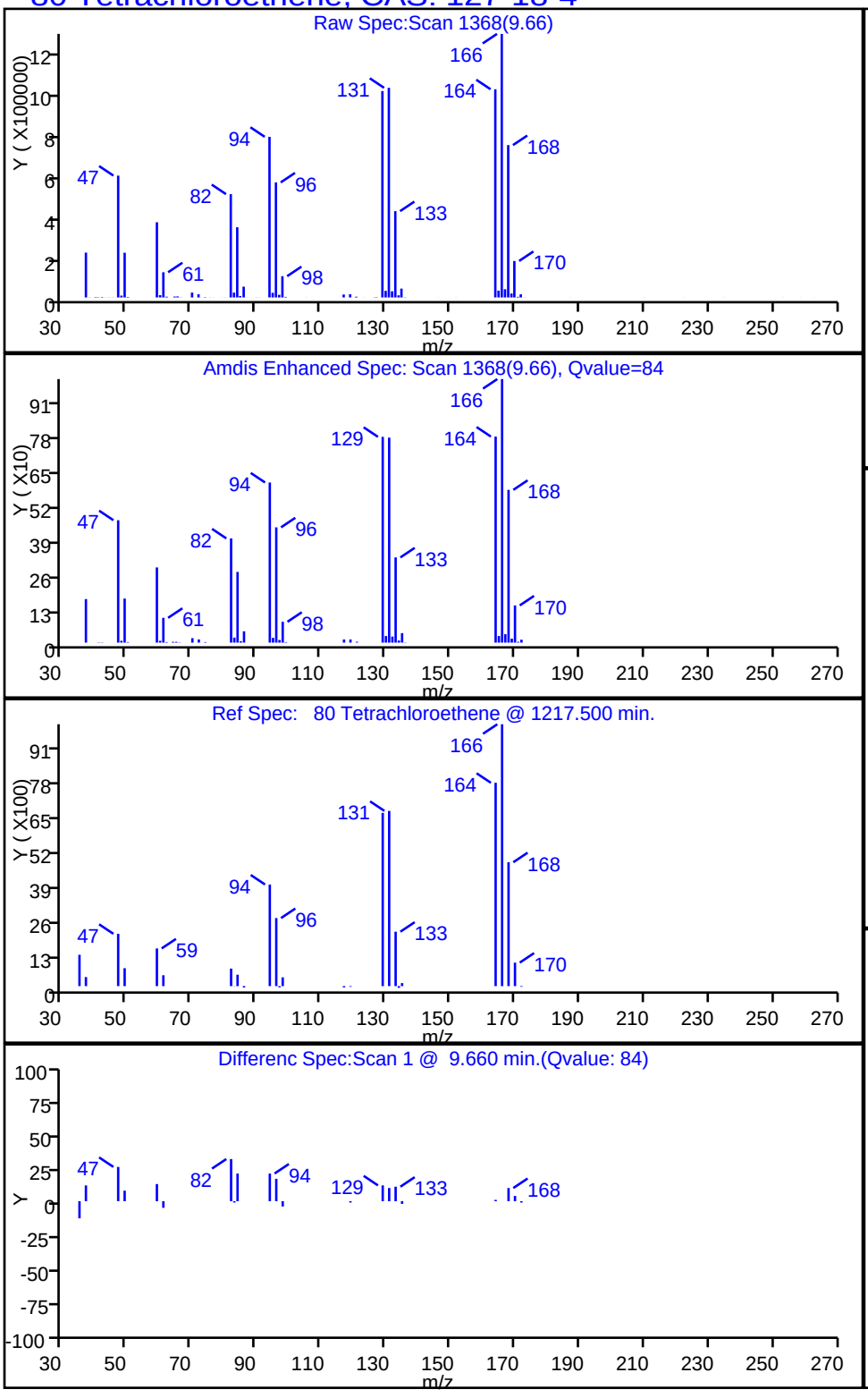


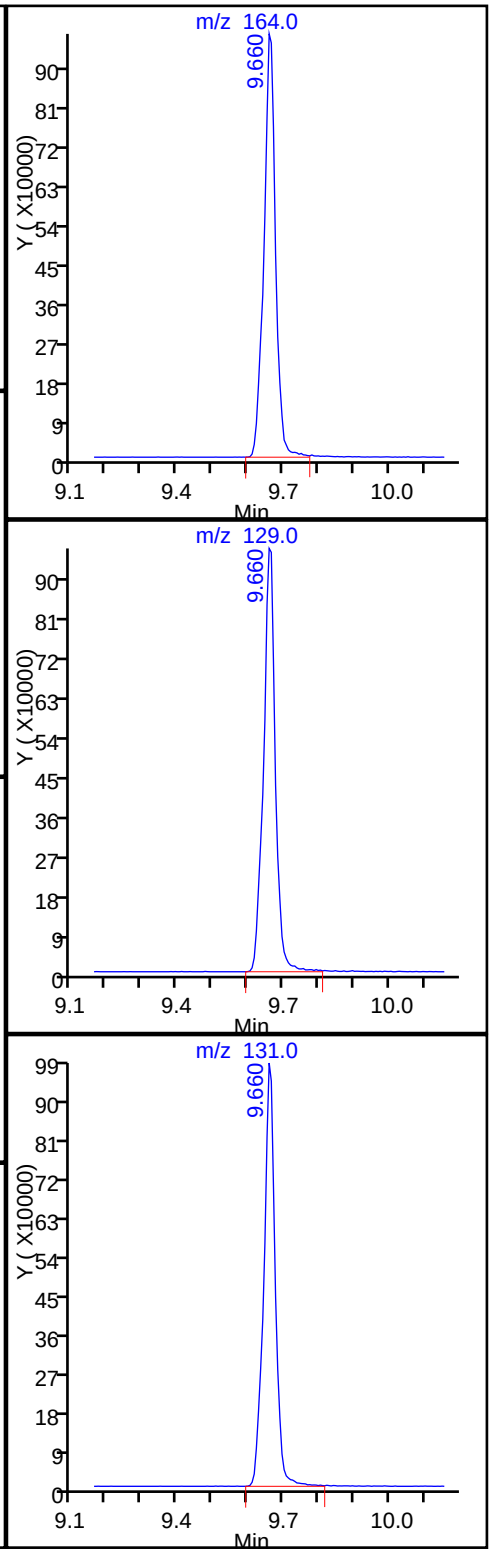
Report Date: 03-Apr-2015 10:26:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

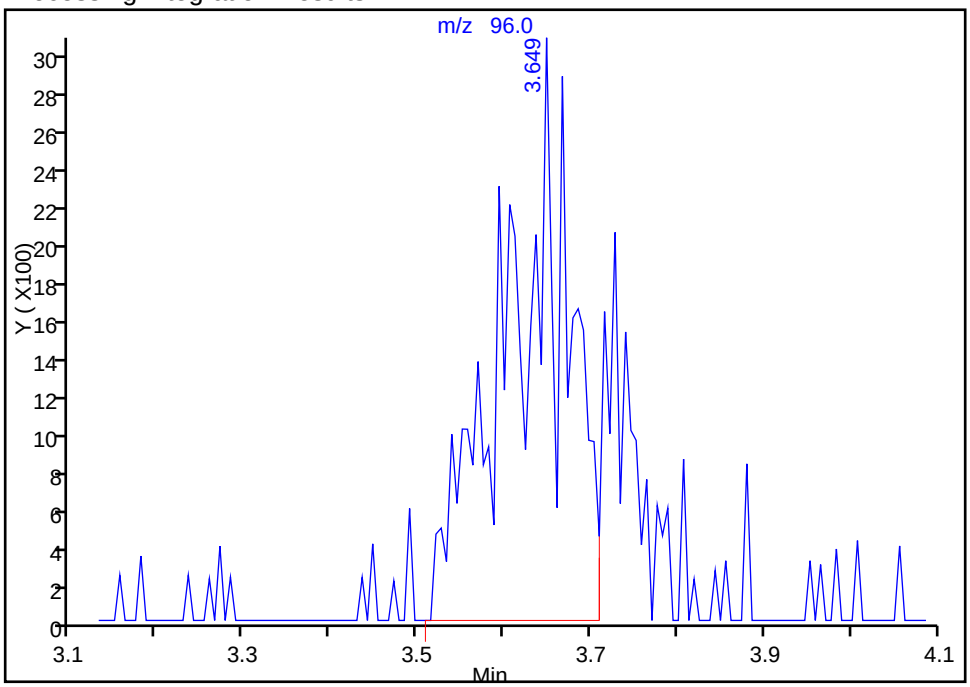
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

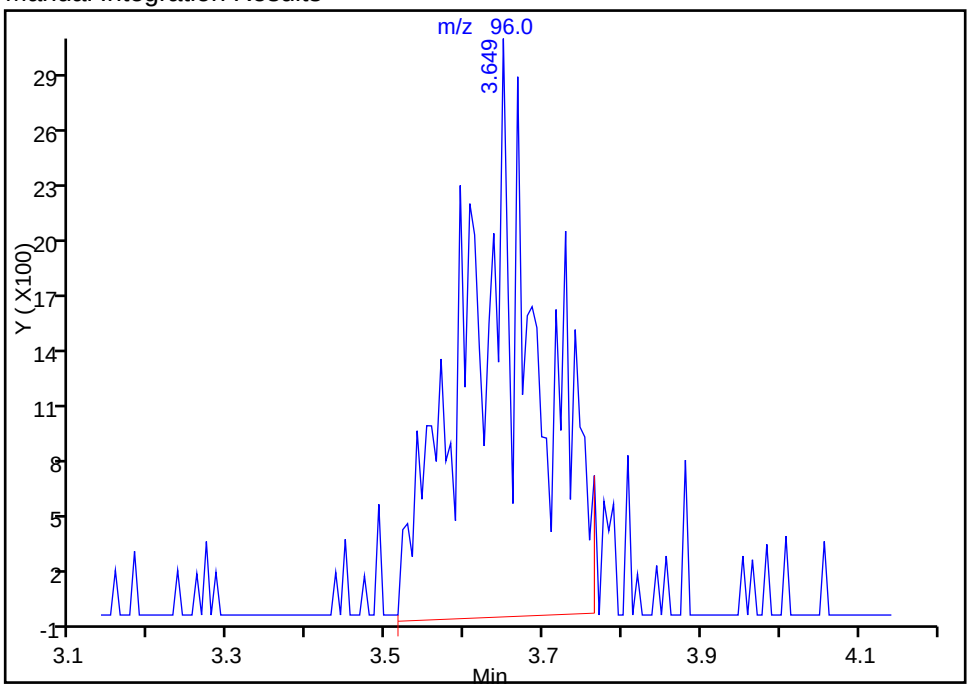
Processing Integration Results

RT: 3.65
Area: 14866
Amount: 15.952488
Amount Units: ng



Manual Integration Results

RT: 3.65
Area: 18645
Amount: 20.007678
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:23:47
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

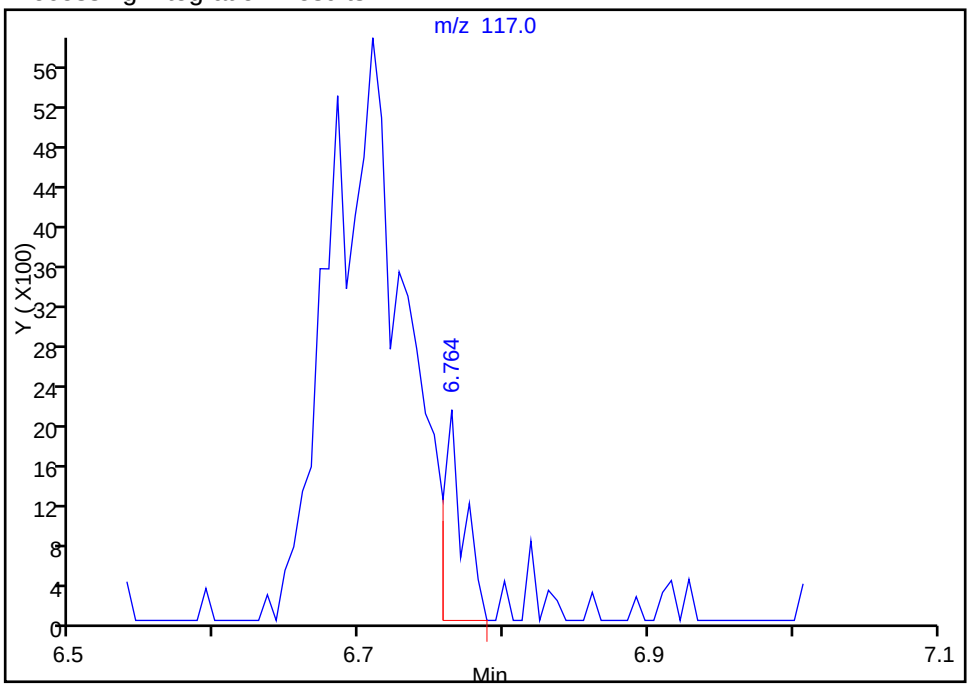
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040221.D				
Injection Date:	02-Apr-2015 19:28:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

56 Carbon tetrachloride, CAS: 56-23-5

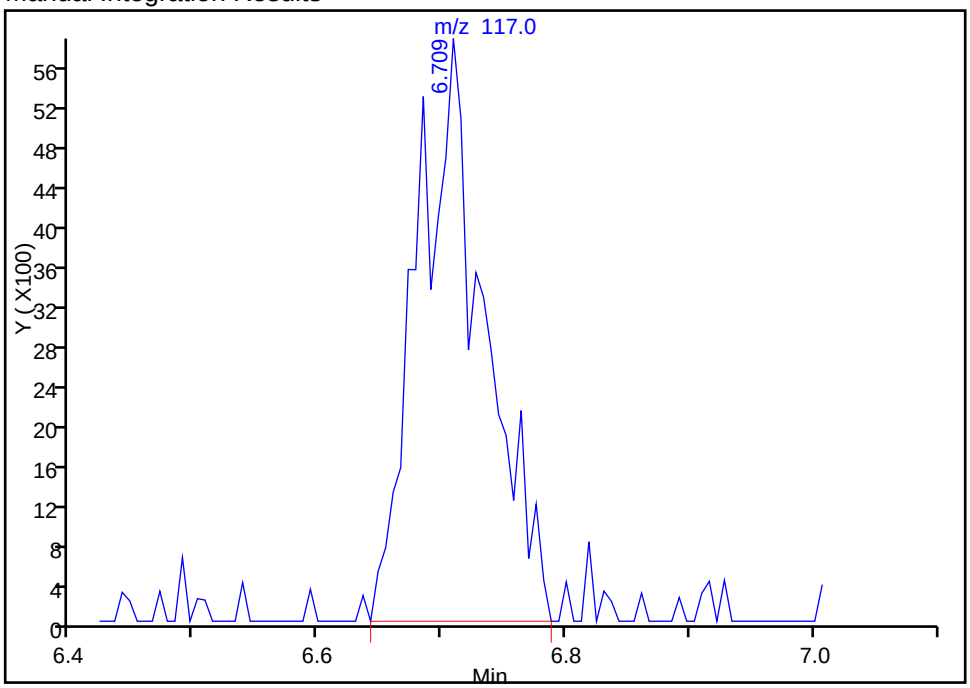
Processing Integration Results

RT: 6.76
Area: 2040
Amount: 1.166972
Amount Units: ng



Manual Integration Results

RT: 6.71
Area: 22468
Amount: 12.852712
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:23:47
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 DL | Lab Sample ID: 180-42391-9 DL

Matrix: Water | Lab File ID: 7040607.D

Analysis Method: 8260C | Date Collected: 03/25/2015 14:37

Sample wt/vol: 20(mL) | Date Analyzed: 04/06/2015 11:48

Soil Aliquot Vol: | Dilution Factor: 500

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

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

Analysis Batch No.: 137564 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	500	U	500	140
75-01-4	Vinyl chloride	500	U	500	110
74-83-9	Bromomethane	500	U	500	160
75-00-3	Chloroethane	500	U	500	110
75-35-4	1,1-Dichloroethene	500	U	500	150
67-64-1	Acetone	2500	U	2500	1300
75-15-0	Carbon disulfide	500	U	500	110
75-09-2	Methylene Chloride	500	U	500	63
156-60-5	trans-1,2-Dichloroethene	500	U	500	85
1634-04-4	Methyl tert-butyl ether	500	U	500	92
75-34-3	1,1-Dichloroethane	500	U	500	58
156-59-2	cis-1,2-Dichloroethene	230	J	500	120
74-97-5	Bromochloromethane	500	U	500	90
78-93-3	2-Butanone (MEK)	2500	U	2500	270
67-66-3	Chloroform	500	U	500	85
71-55-6	1,1,1-Trichloroethane	390	J	500	140
56-23-5	Carbon tetrachloride	500	U	500	68
71-43-2	Benzene	500	U	500	53
107-06-2	1,2-Dichloroethane	500	U	500	110
79-01-6	Trichloroethene	2900		500	72
78-87-5	1,2-Dichloropropane	500	U	500	47
75-27-4	Bromodichloromethane	500	U	500	65
10061-01-5	cis-1,3-Dichloropropene	500	U	500	93
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	U	2500	260
108-88-3	Toluene	500	U	500	75
10061-02-6	trans-1,3-Dichloropropene	500	U	500	74
79-00-5	1,1,2-Trichloroethane	500	U	500	100
127-18-4	Tetrachloroethene	14000		500	74
591-78-6	2-Hexanone	2500	U	2500	80
124-48-1	Dibromochloromethane	500	U	500	68
106-93-4	1,2-Dibromoethane (EDB)	500	U	500	90
108-90-7	Chlorobenzene	500	U	500	68
630-20-6	1,1,1,2-Tetrachloroethane	500	U	500	140
100-41-4	Ethylbenzene	500	U	500	110
1330-20-7	Xylenes, Total	1500	U	1500	240
100-42-5	Styrene	500	U	500	48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 DL Lab Sample ID: 180-42391-9 DL

Matrix: Water Lab File ID: 7040607.D

Analysis Method: 8260C Date Collected: 03/25/2015 14:37

Sample wt/vol: 20(mL) Date Analyzed: 04/06/2015 11:48

Soil Aliquot Vol: Dilution Factor: 500

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137564 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*500*	*U*	*500*	*96*
79-34-5	*1,1,2,2-Tetrachloroethane*	*500*	*U*	*500*	*100*
107-13-1	*Acrylonitrile*	*10000*	*U*	*10000*	*270*
123-91-1	*1,4-Dioxane*	*100000*	*U*	*100000*	*17000*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D
Lims ID: 180-42391-D-9 Lab Sample ID: 180-42391-9
Client ID: HD-MW-75S-0/1-0
Sample Type: Client
Inject. Date: 06-Apr-2015 11:48:30 ALS Bottle#: 8 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 500.0000
Sample Info: 180-42391-D-9
Misc. Info.: 180-0006335-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 15:45:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 12:19:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.604	4.932	-0.328	88	221359	4000.0	
* 2 Fluorobenzene (IS)	96	7.409	7.396	0.013	100	886185	200.0	
* 3 Chlorobenzene-d5	119	10.475	10.468	0.007	85	265063	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.006	96	372823	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.703	6.672	0.031	91	302980	214.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.056	7.037	0.019	94	234451	174.0	
$ 7 Toluene-d8 (Surr)	98	9.045	9.032	0.013	92	834416	212.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	89	356475	202.9	
12 Chloromethane	50		2.012				ND	
13 Vinyl chloride	62		2.201				ND	
15 Bromomethane	94		2.487				ND	
16 Chloroethane	64		2.602				ND	
22 1,1-Dichloroethene	96	3.613	3.521	0.092	1	1396	1.17	
26 Carbon disulfide	76		3.782				ND	
24 Acetone	43		3.843				ND	
31 Methylene Chloride	84		4.318				ND	
34 trans-1,2-Dichloroethene	96		4.731				ND	
33 Acrylonitrile	53		4.810				ND	
35 Methyl tert-butyl ether	73		4.877				ND	
37 1,1-Dichloroethane	63		5.340				ND	
45 cis-1,2-Dichloroethene	96	6.119	6.082	0.037	1	13593	9.28	M
46 2-Butanone (MEK)	43		6.191				ND	
49 Chlorobromomethane	128		6.374				ND	
52 Chloroform	83		6.496				ND	
53 1,1,1-Trichloroethane	97	6.691	6.672	0.019	40	34167	15.4	M
56 Carbon tetrachloride	117		6.848				ND	
58 Benzene	78		7.086				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.804	7.785	0.019	92	199397	114.0	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.308				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.941				ND	
76 Toluene	91		9.099				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.647	9.647	0.000	91	585200	572.3	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.572				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.320				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

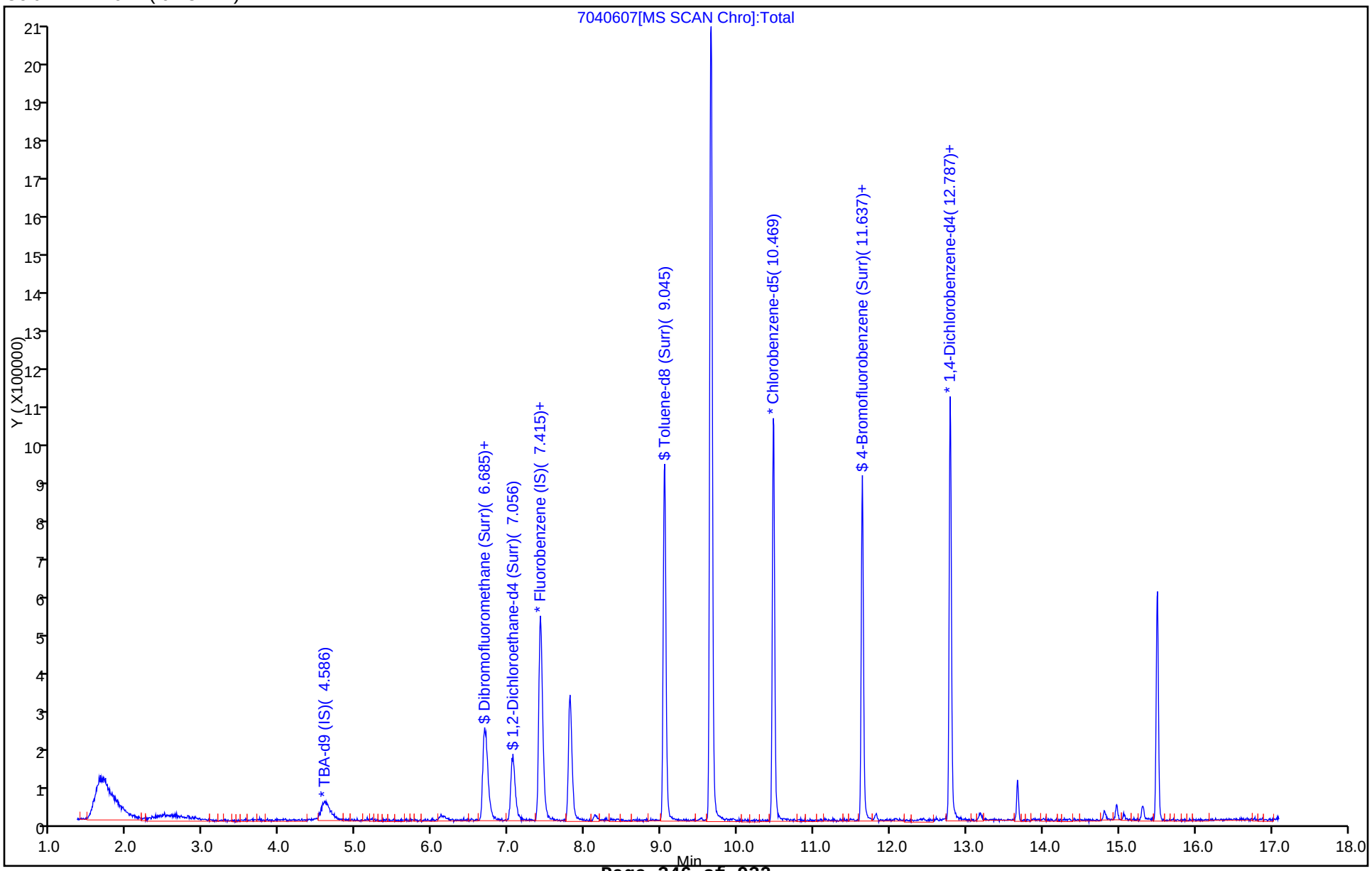
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 06-Apr-2015 15:45:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D				
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9	Worklist Smp#:	7
Client ID:	HD-MW-75S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	500.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

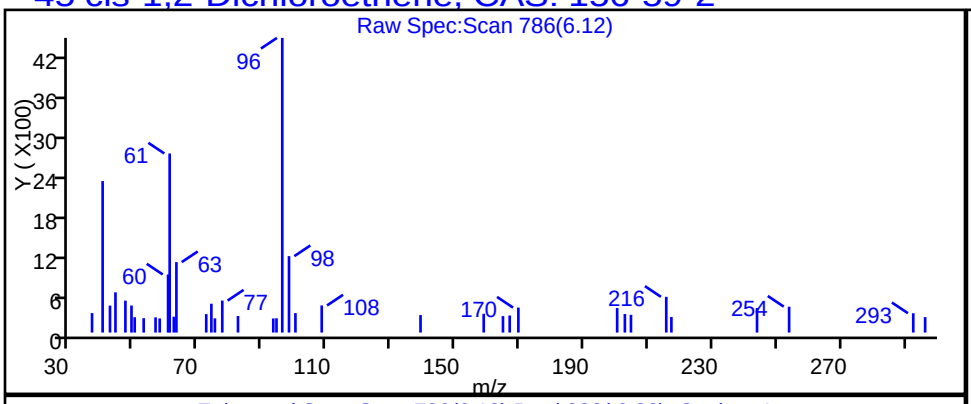


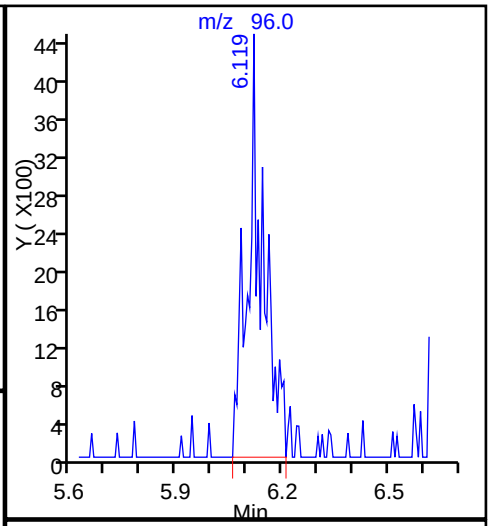
Report Date: 06-Apr-2015 15:45:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

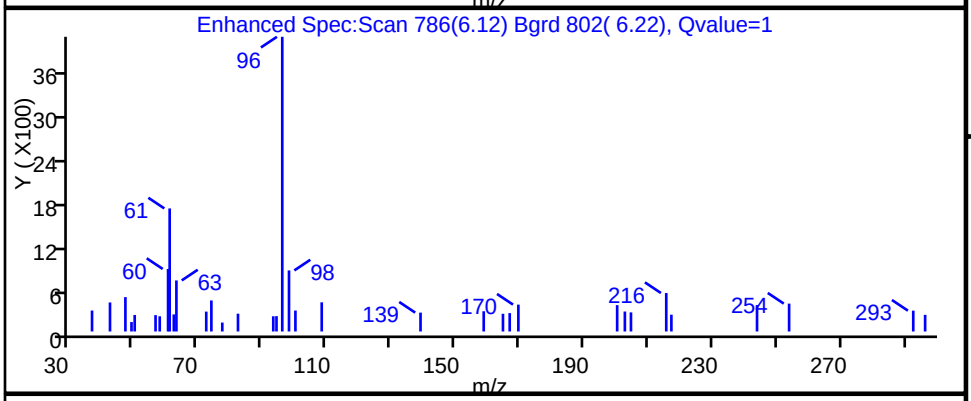
TestAmerica Pittsburgh

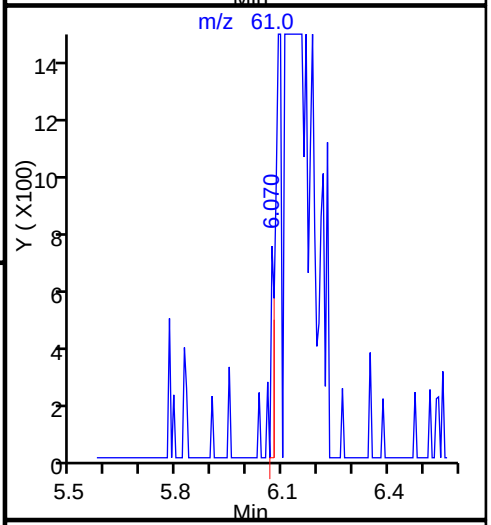
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D				
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

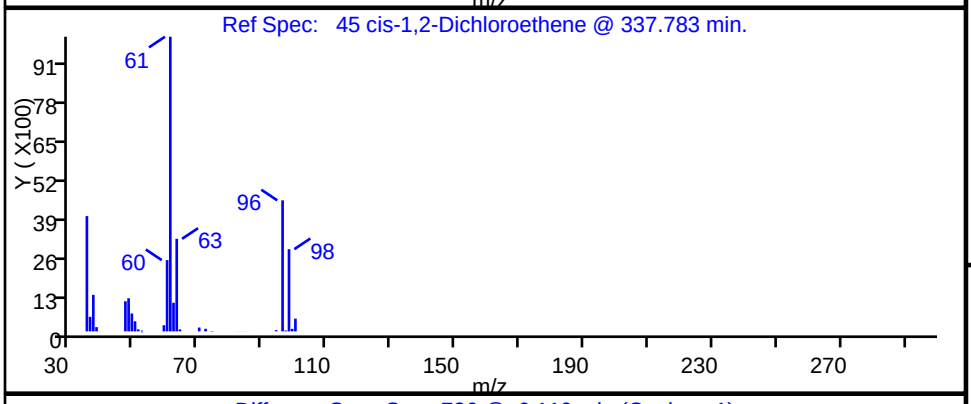
45 cis-1,2-Dichloroethene, CAS: 156-59-2

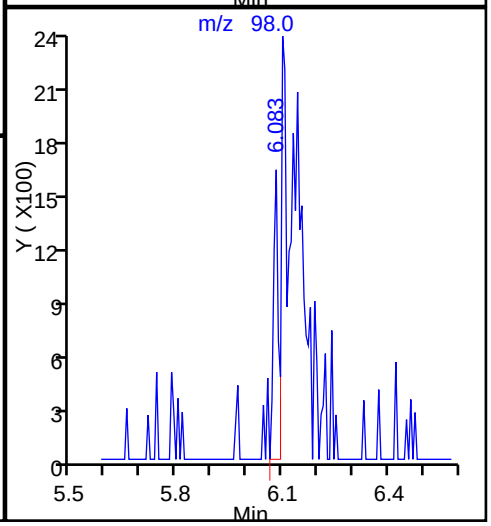


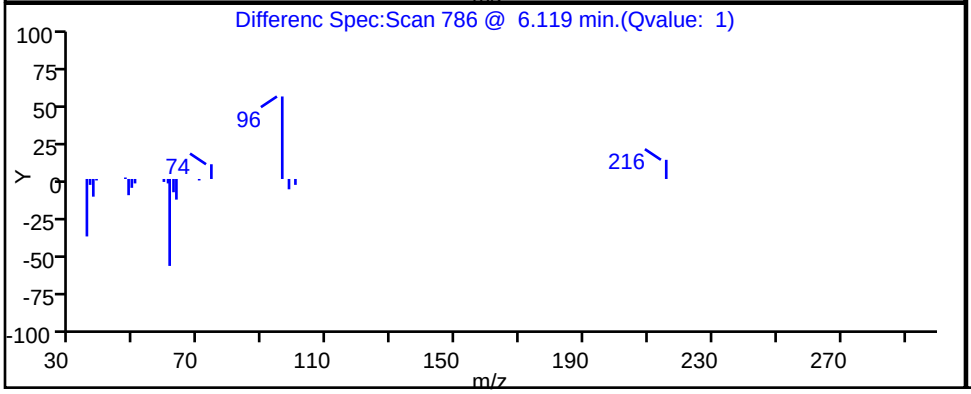










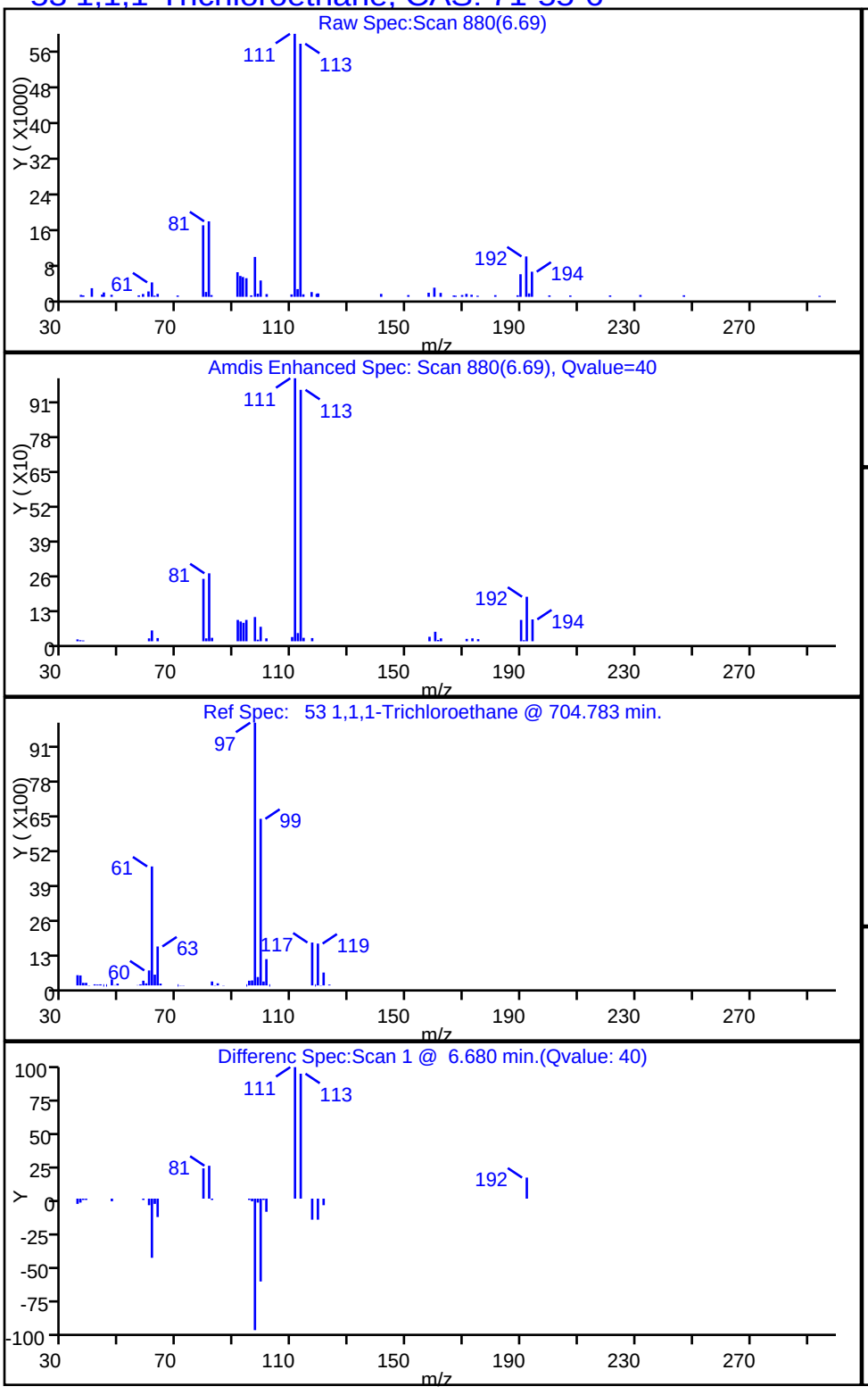


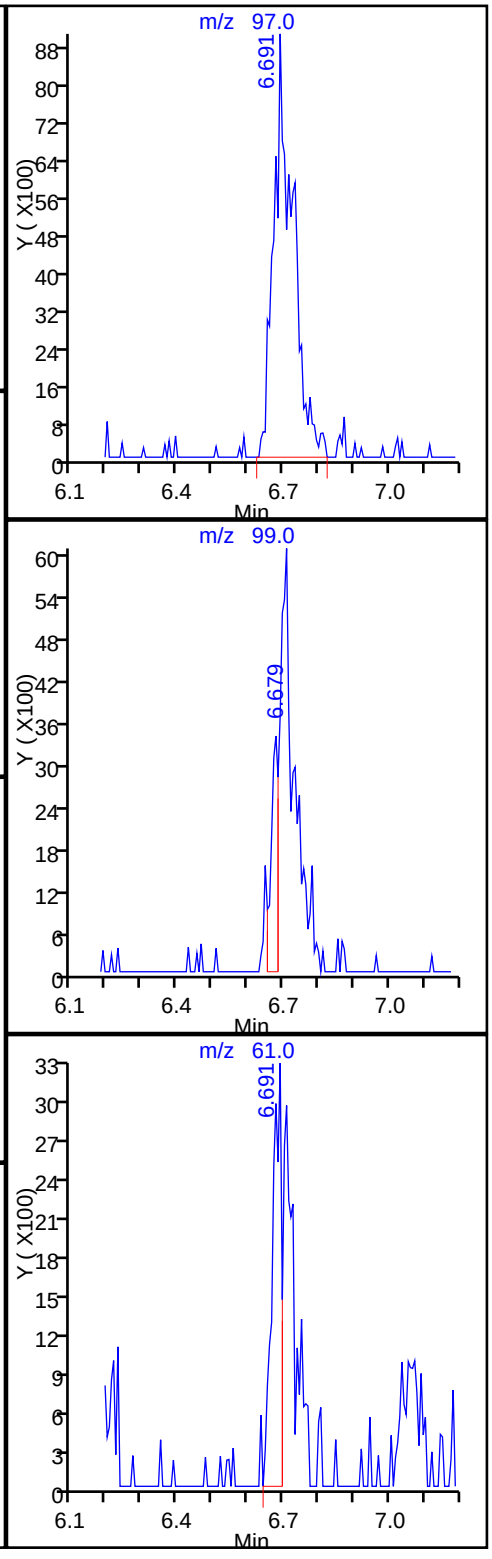
Report Date: 06-Apr-2015 15:45:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D				
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



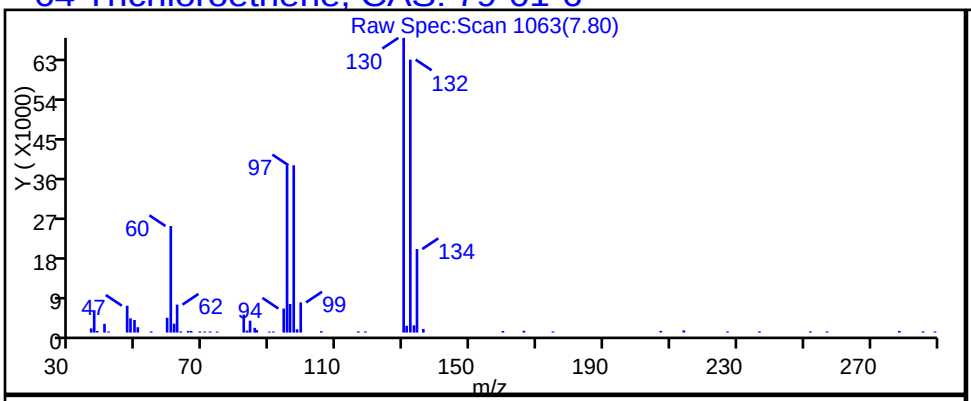


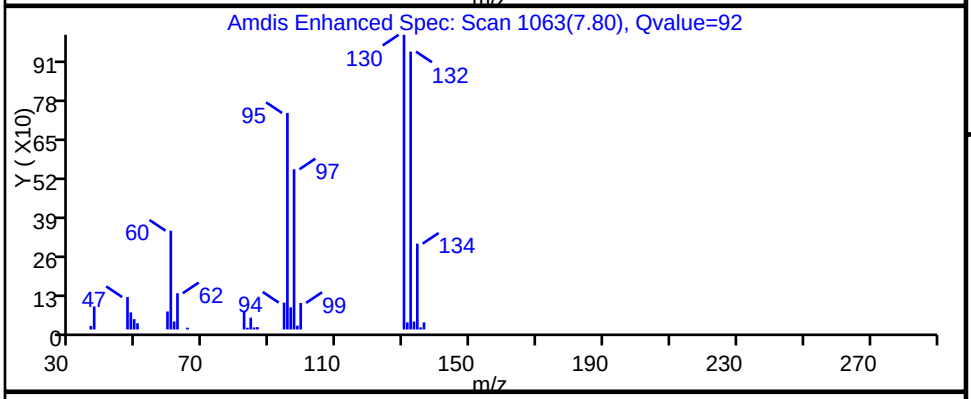
Report Date: 06-Apr-2015 15:45:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

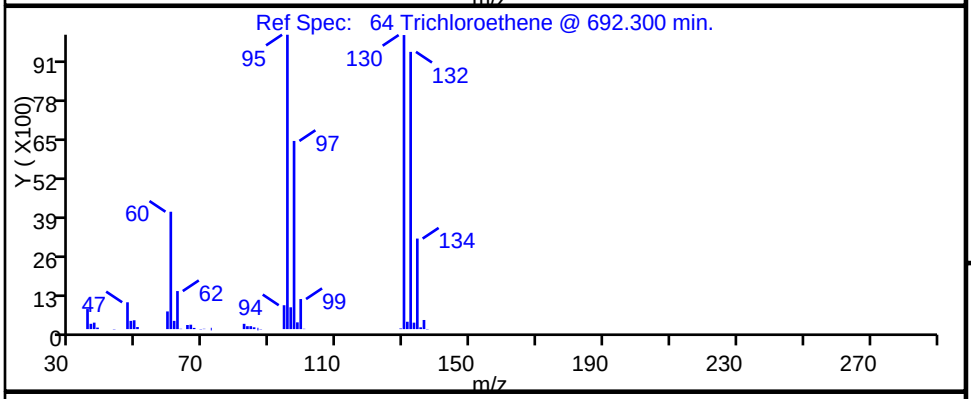
TestAmerica Pittsburgh

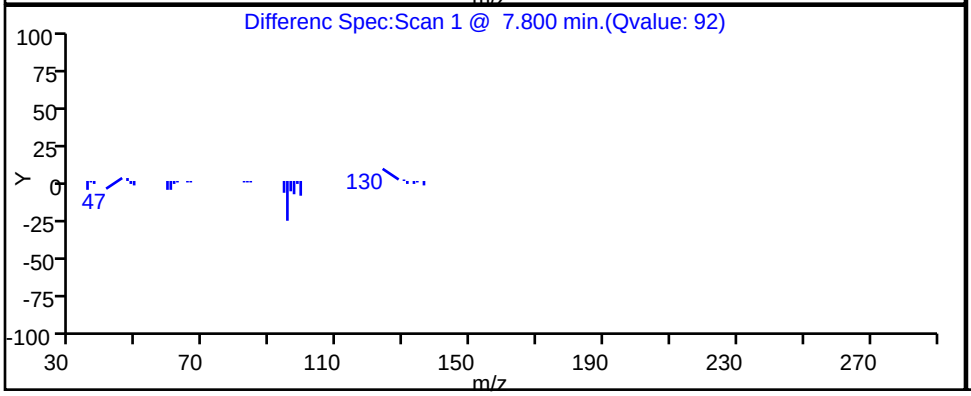
Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D				
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

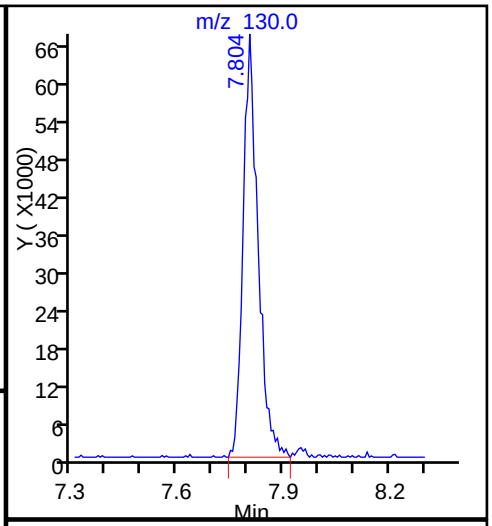
64 Trichloroethene, CAS: 79-01-6

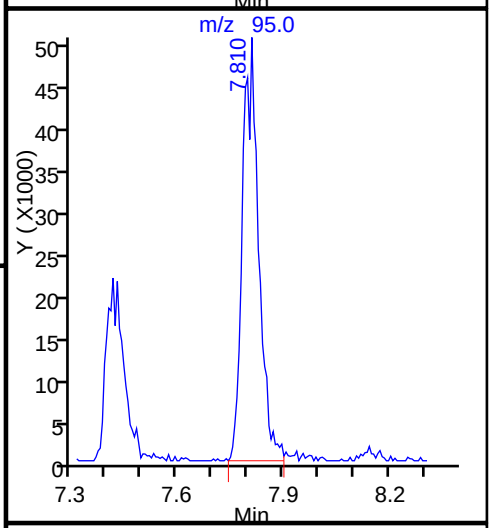


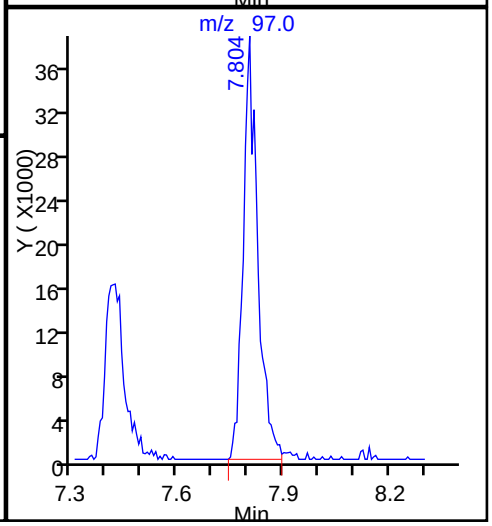












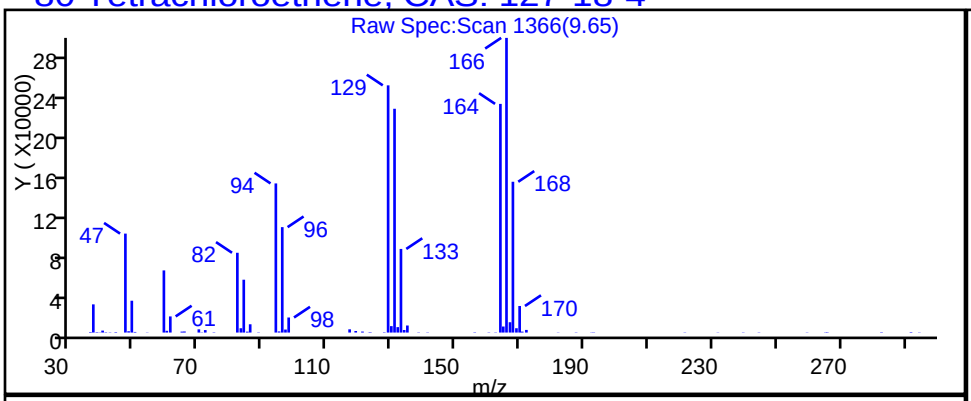
Report Date: 06-Apr-2015 15:45:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

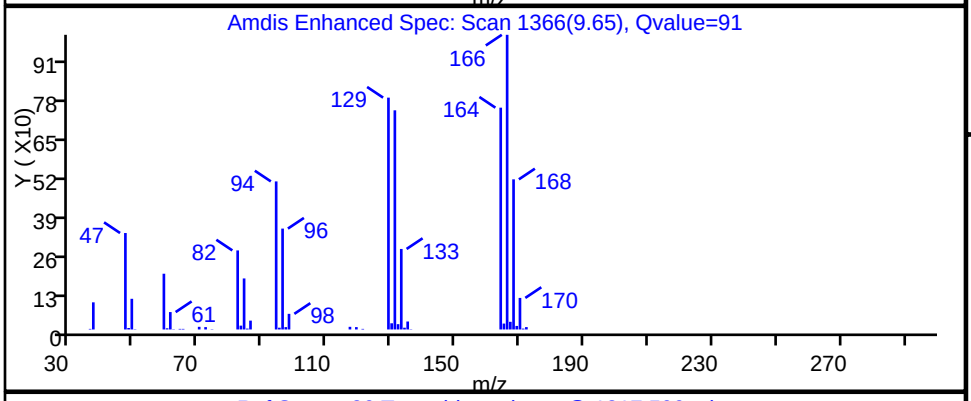
TestAmerica Pittsburgh

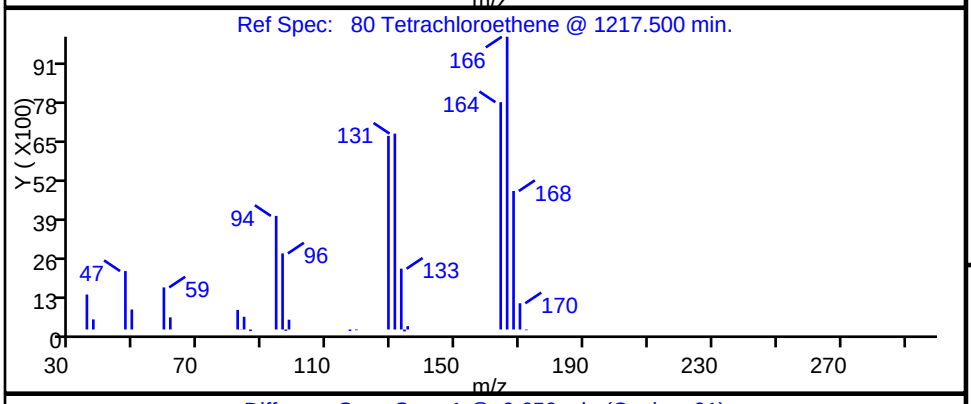
Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D

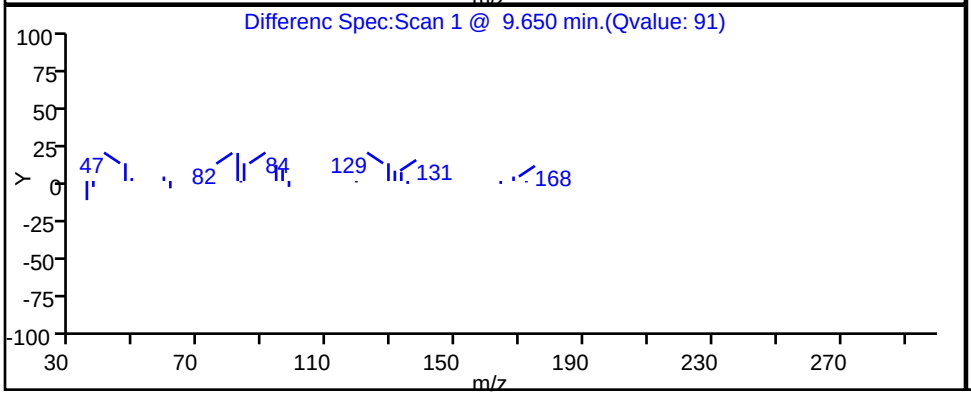
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	034635	ALS Bottle#:	8 Worklist Smp#: 7
Purge Vol:	20.000 mL	Dil. Factor:	500.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

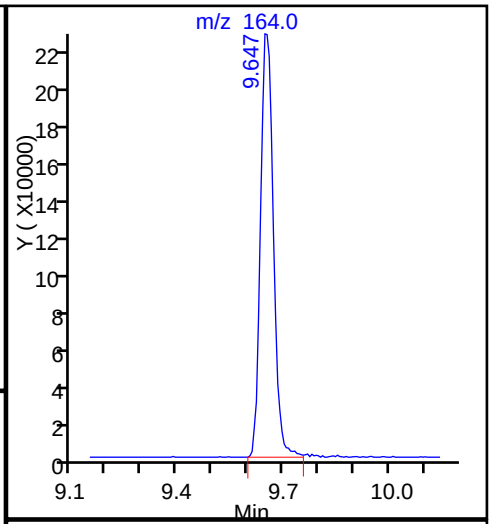
80 Tetrachloroethene, CAS: 127-18-4

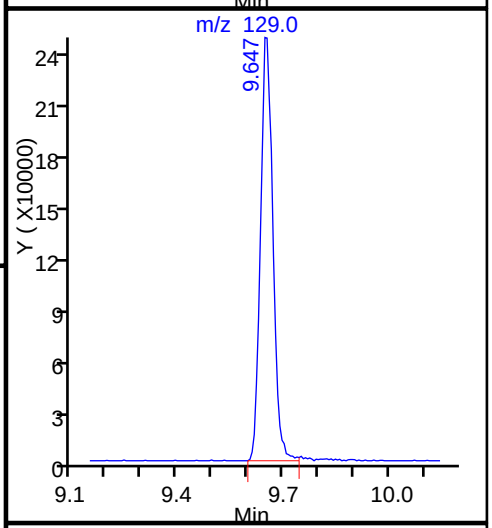


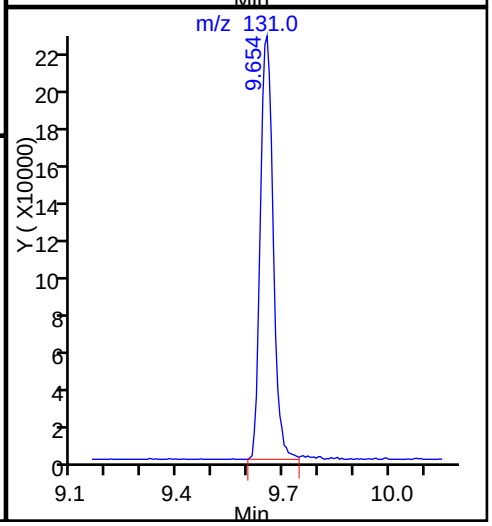












Manual Integration/User Assign Peak Report

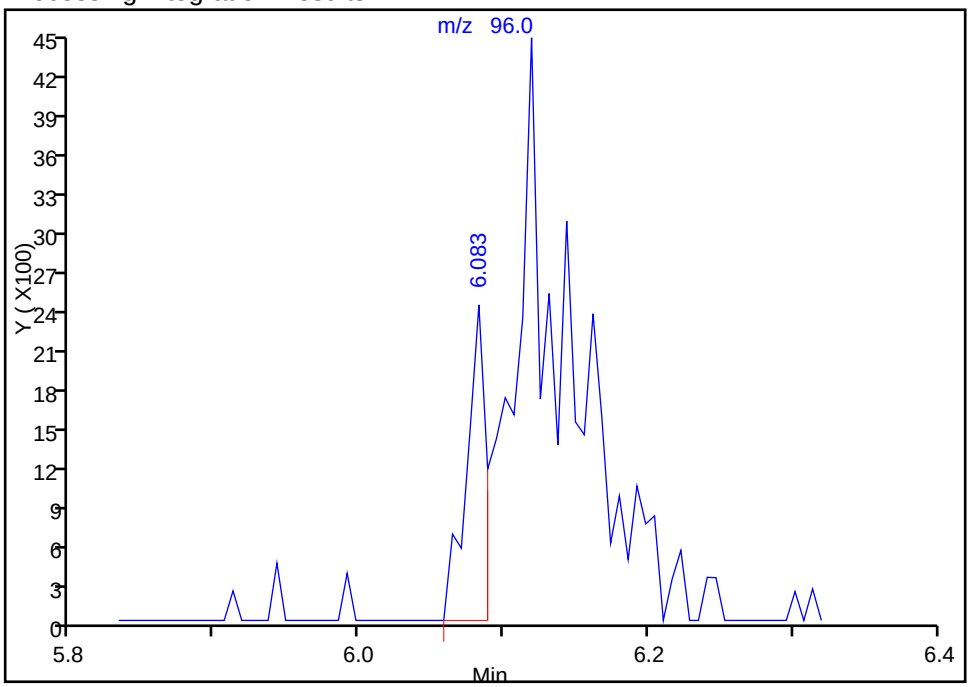
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D				
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

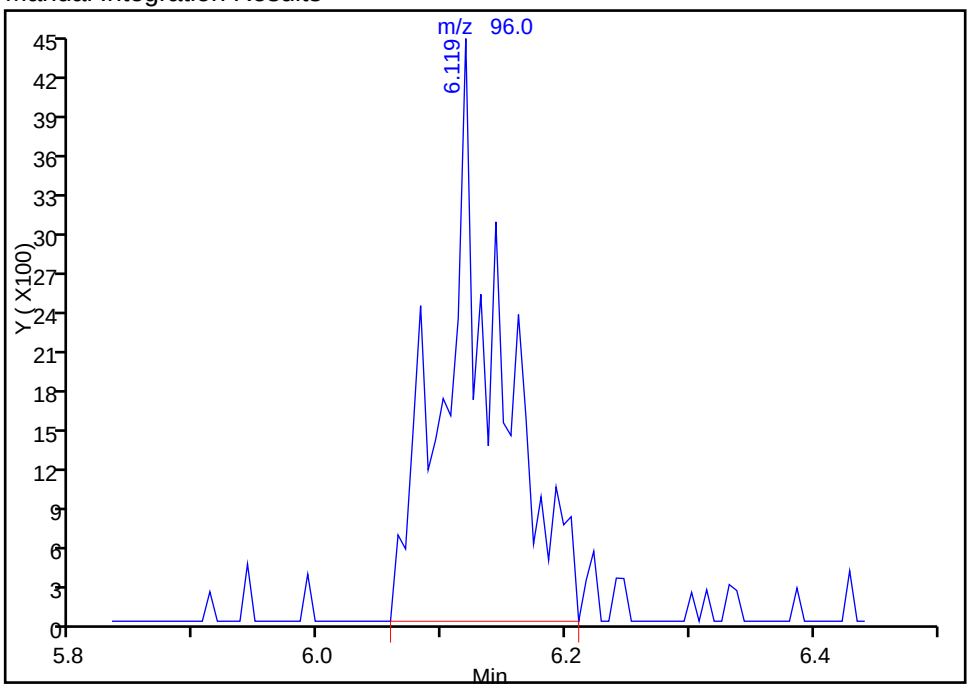
Processing Integration Results

RT: 6.08
Area: 2251
Amount: 1.536489
Amount Units: ng



Manual Integration Results

RT: 6.12
Area: 13593
Amount: 9.278321
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 12:19:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

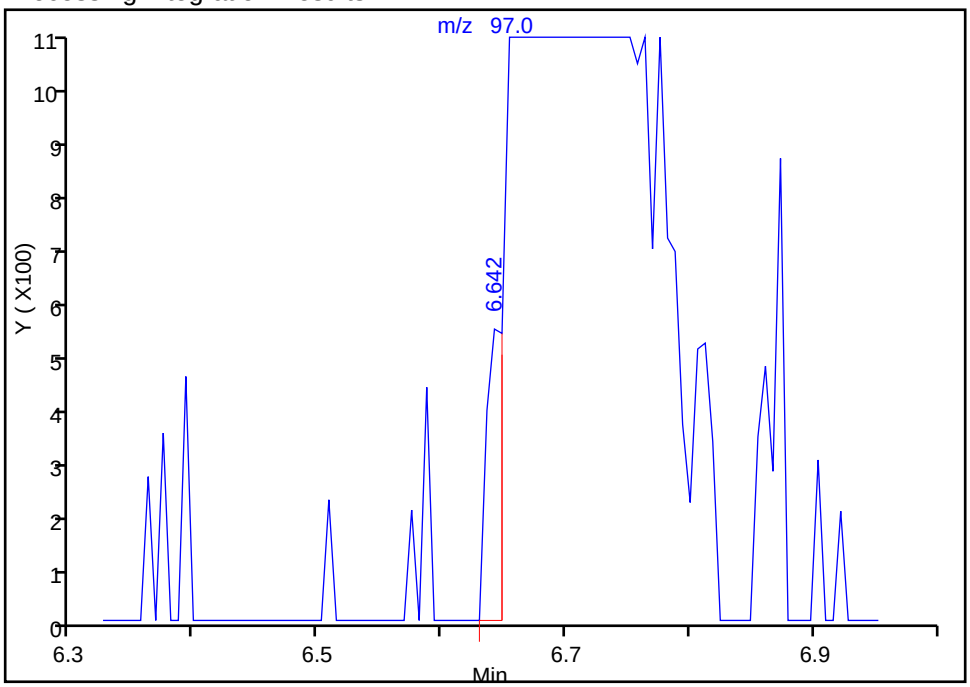
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040607.D				
Injection Date:	06-Apr-2015 11:48:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-9	Lab Sample ID:	180-42391-9		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

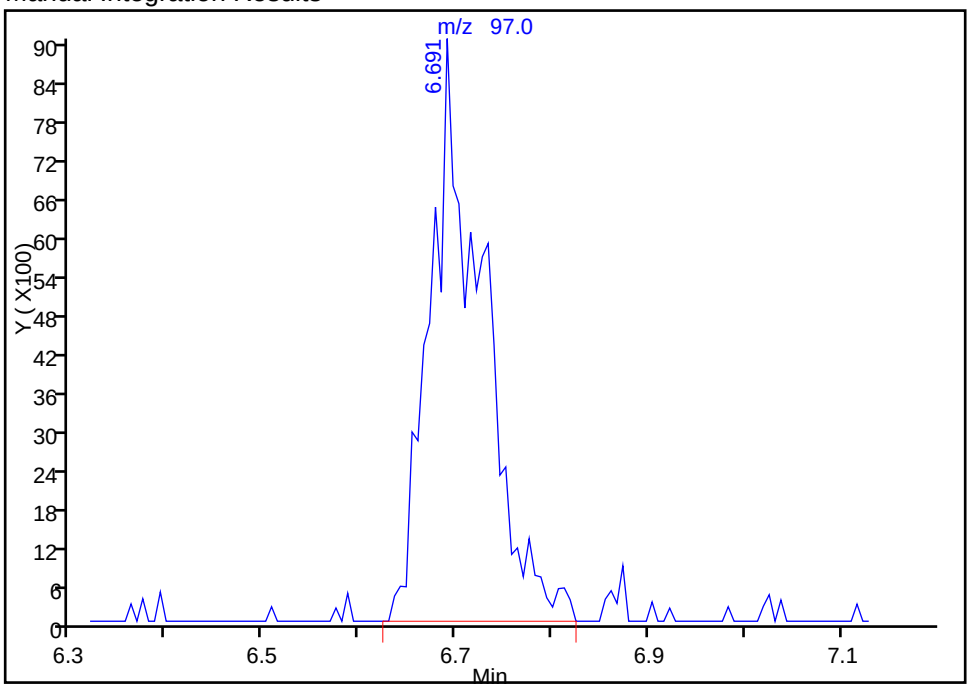
Processing Integration Results

RT: 6.64
Area: 535
Amount: 0.241795
Amount Units: ng



Manual Integration Results

RT: 6.69
Area: 34167
Amount: 15.441886
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 12:19:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 | Lab Sample ID: 180-42391-10

Matrix: Water | Lab File ID: 7040318.D

Analysis Method: 8260C | Date Collected: 03/25/2015 13:02

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 17:26

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.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	6.4	J	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	4.2	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	65		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	64		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	180		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	*Tetrachloroethene*	*610*	*E*	*10*	*1.5*
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-42391-10

Matrix: Water Lab File ID: 7040318.D

Analysis Method: 8260C Date Collected: 03/25/2015 13:02

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 17:26

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.: 137438 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D
Lims ID: 180-42391-E-10 Lab Sample ID: 180-42391-10
Client ID: HD-MW-37D-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 17:26:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 10.0000
Sample Info: 180-42391-E-10
Misc. Info.: 180-0006312-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 12:03:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: journetp Date: 03-Apr-2015 17:58:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.586	4.786	-0.200	84	105437	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.402	0.013	99	643892	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.000	84	170452	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.786	0.006	95	222322	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.697	6.678	0.019	92	206461	201.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.043	0.007	95	167383	170.9	
$ 7 Toluene-d8 (Surr)	98	9.045	9.038	0.007	93	576497	228.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	91	225058	198.9	
12 Chloromethane	50		2.000				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.511				ND	
16 Chloroethane	64		2.626				ND	
22 1,1-Dichloroethene	96	3.692	3.527	0.165	1	11062	12.8	M
24 Acetone	43		3.801				ND	
26 Carbon disulfide	76		3.825				ND	
31 Methylene Chloride	84		4.354				ND	
34 trans-1,2-Dichloroethene	96		4.756				ND	
33 Acrylonitrile	53		4.816				ND	
35 Methyl tert-butyl ether	73		4.865				ND	
37 1,1-Dichloroethane	63	5.401	5.364	0.037	1	13315	8.47	M
45 cis-1,2-Dichloroethene	96	6.143	6.112	0.031	73	139202	130.8	M
46 2-Butanone (MEK)	43		6.179				ND	
49 Chlorobromomethane	128		6.380				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.709	6.678	0.031	88	206702	128.6	
56 Carbon tetrachloride	117		6.861				ND	
58 Benzene	78		7.098				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.810	7.797	0.013	91	450711	354.8	
67 1,2-Dichloropropane	63		8.035				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.330				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.653	9.647	0.006	90	586697	1221.6	E
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.018				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.608				ND	
91 m-Xylene & p-Xylene	106		10.724				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.131				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.776				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

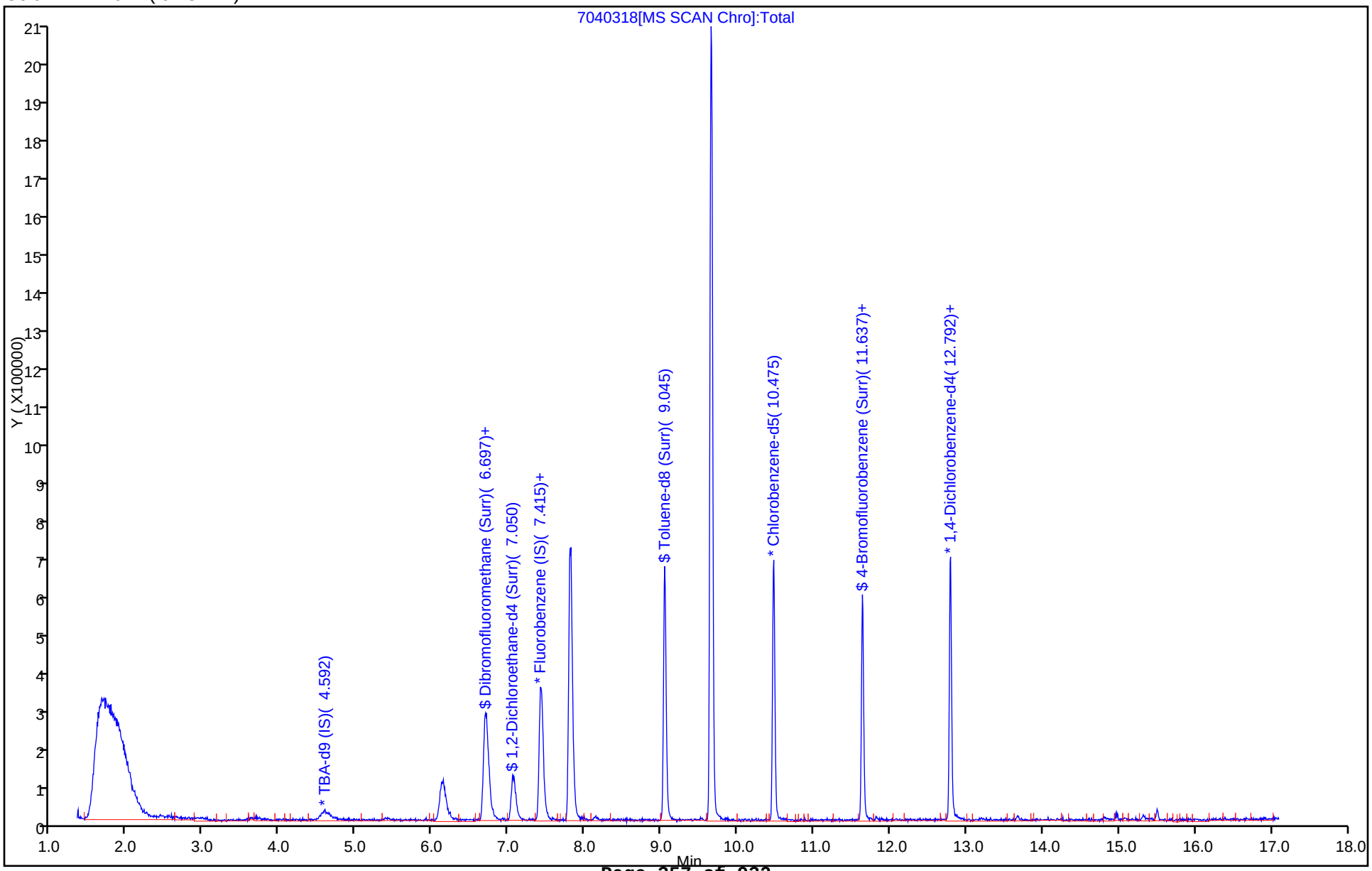
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Apr-2015 12:04:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10	Worklist Smp#:	18
Client ID:	HD-MW-37D-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

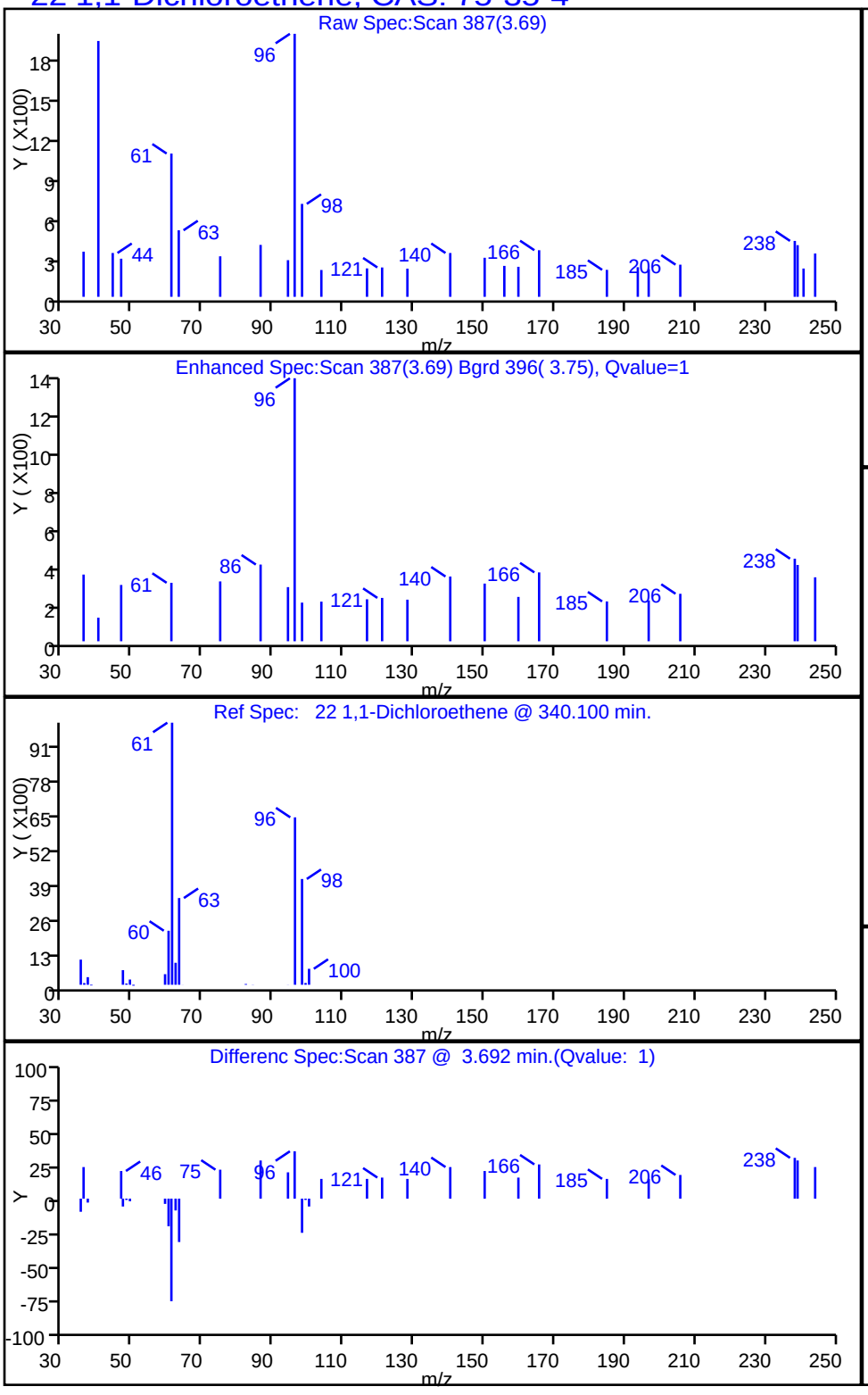


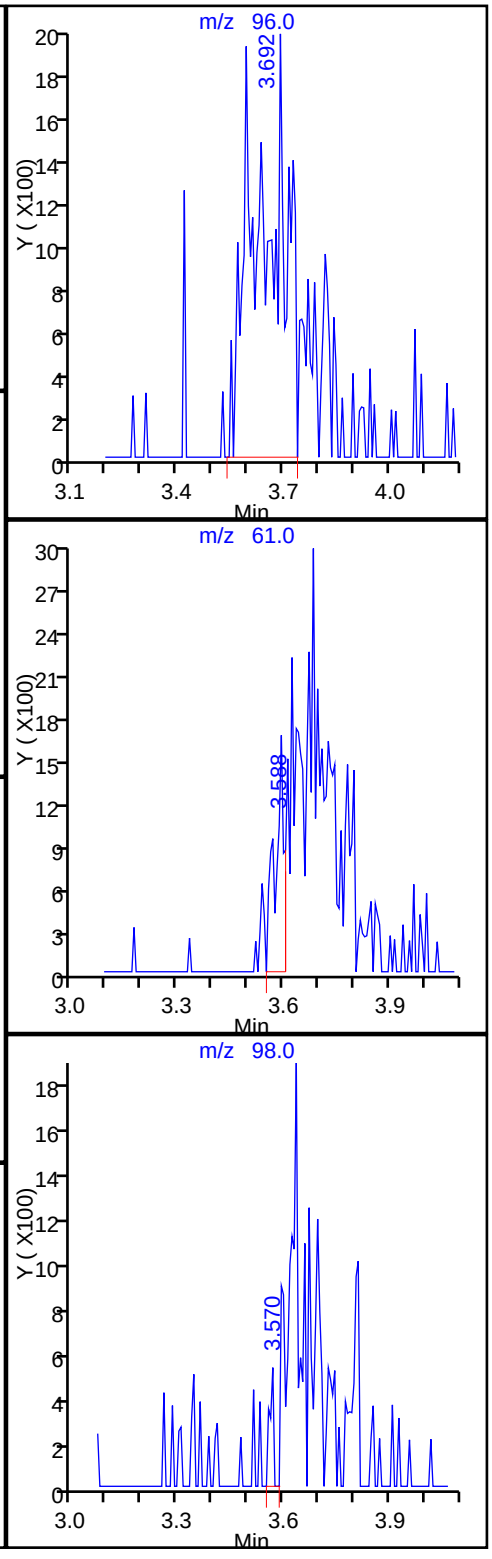
Report Date: 04-Apr-2015 12:04:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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





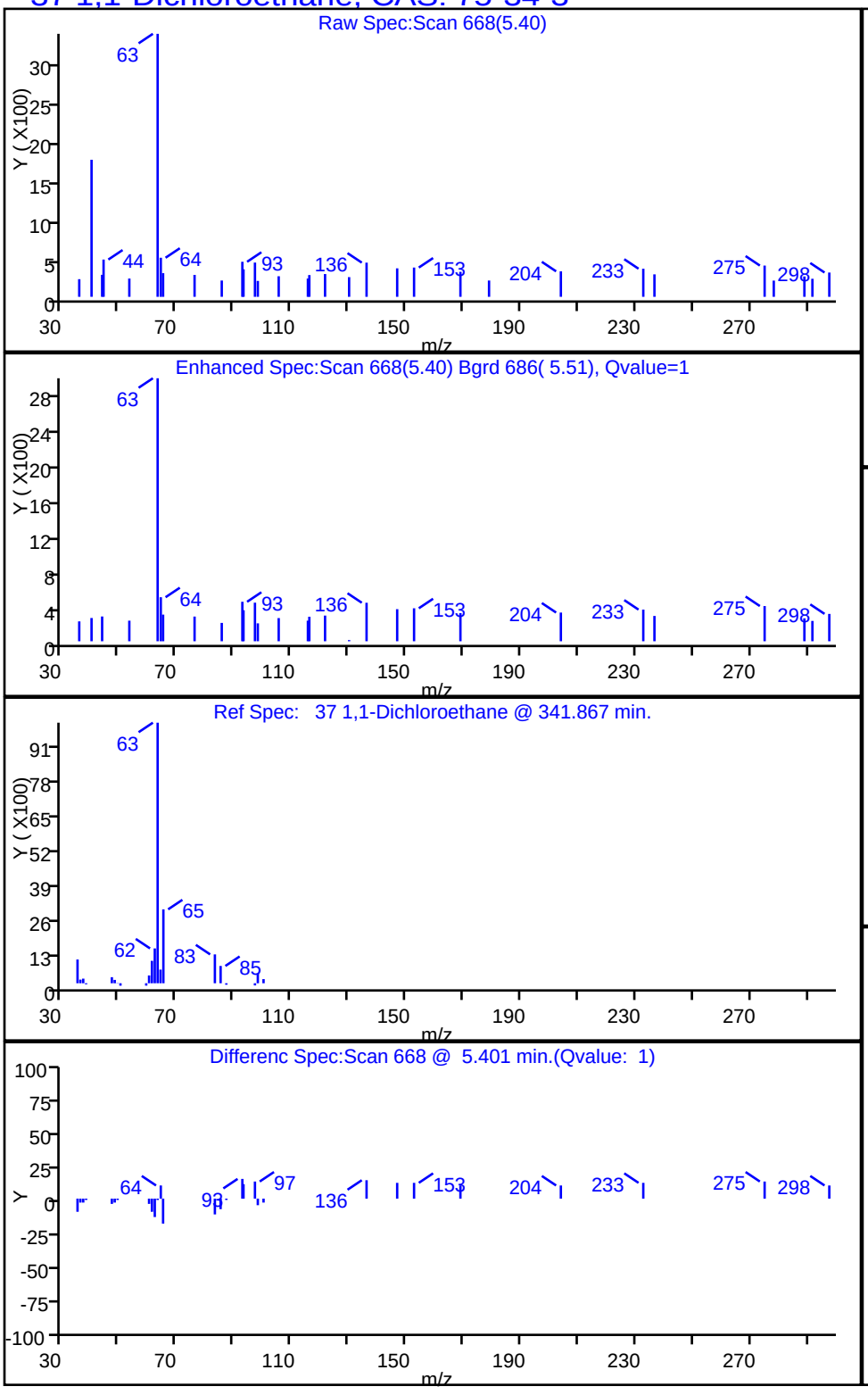
Report Date: 04-Apr-2015 12:04:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

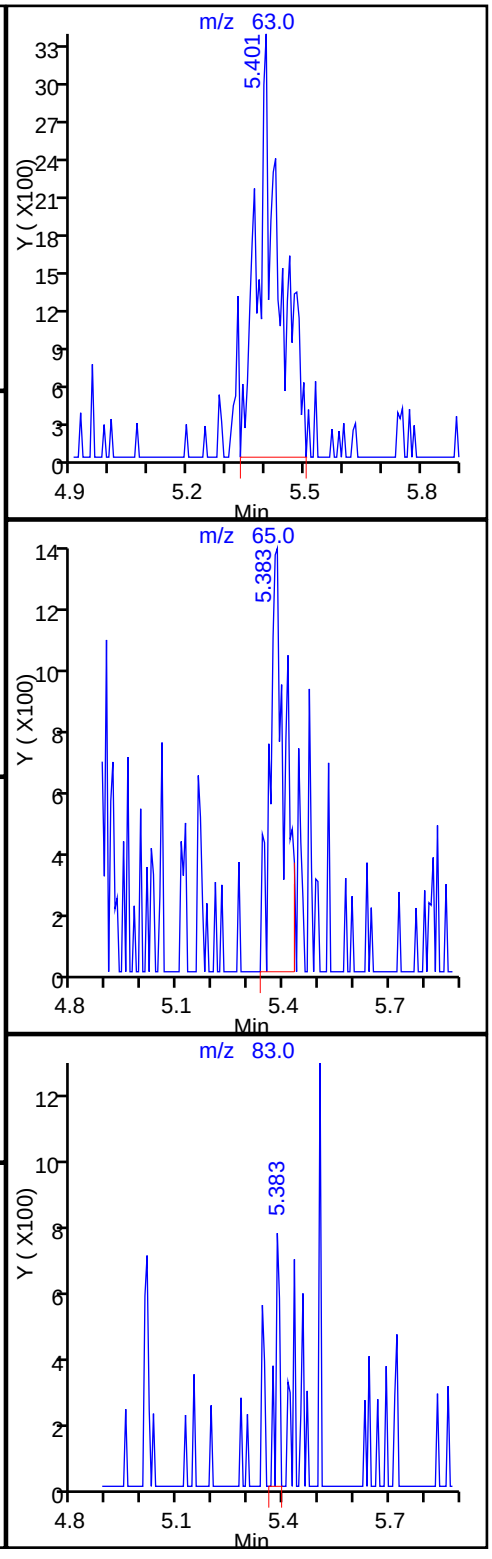
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D

Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



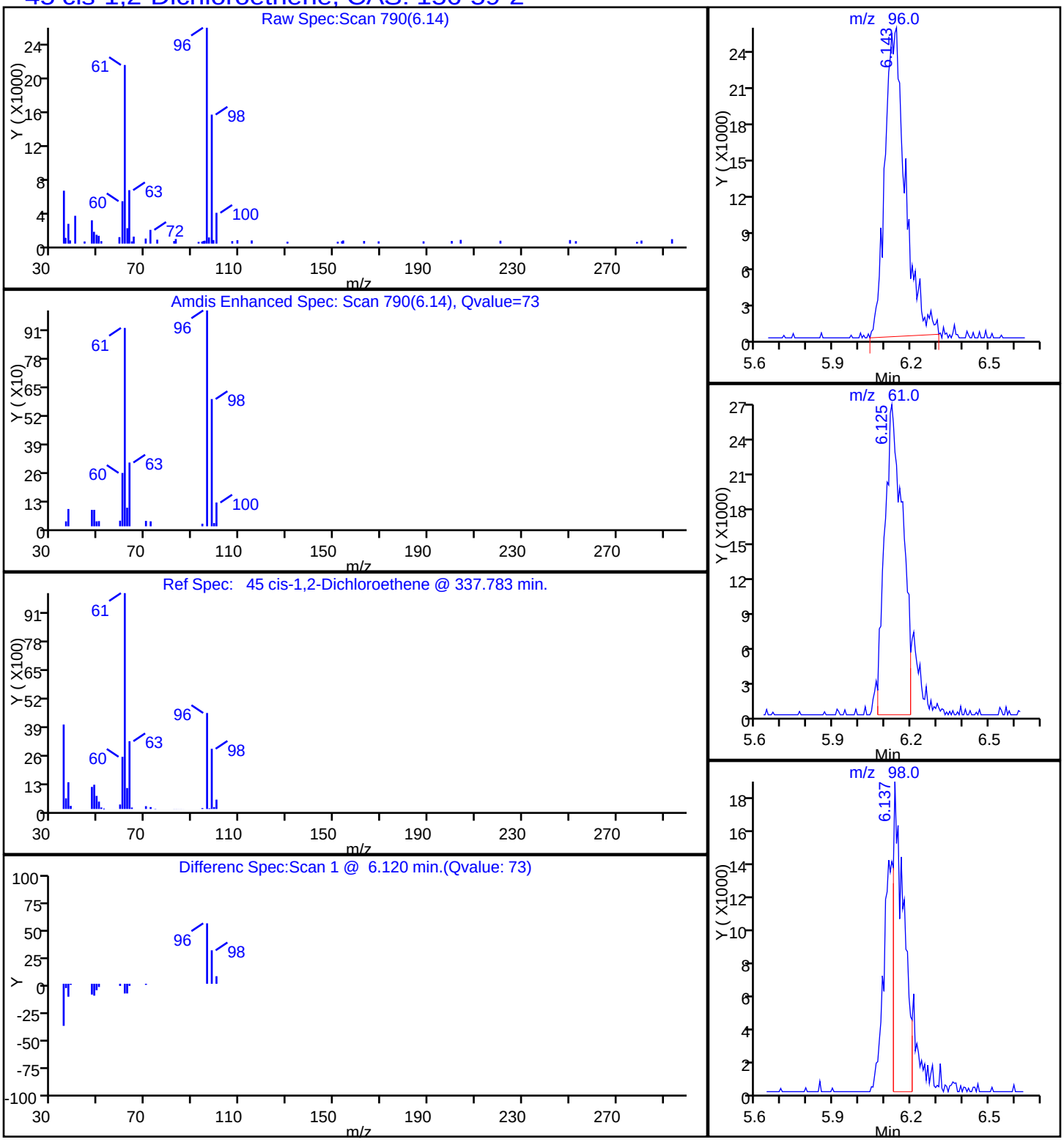


Report Date: 04-Apr-2015 12:04:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

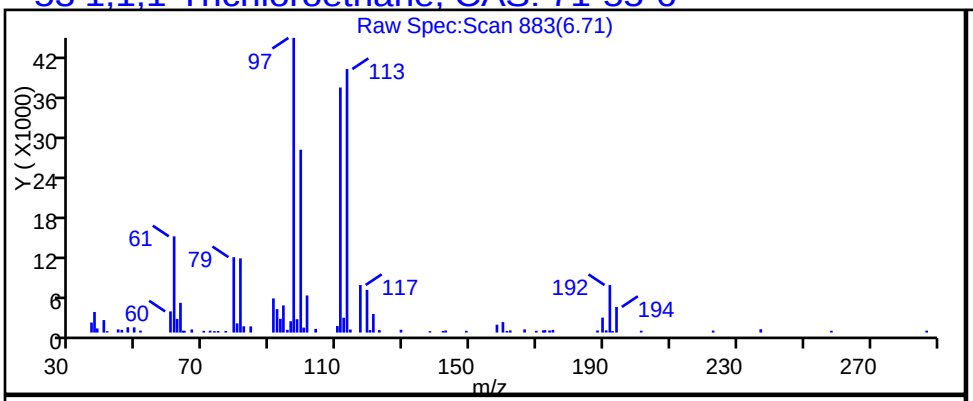


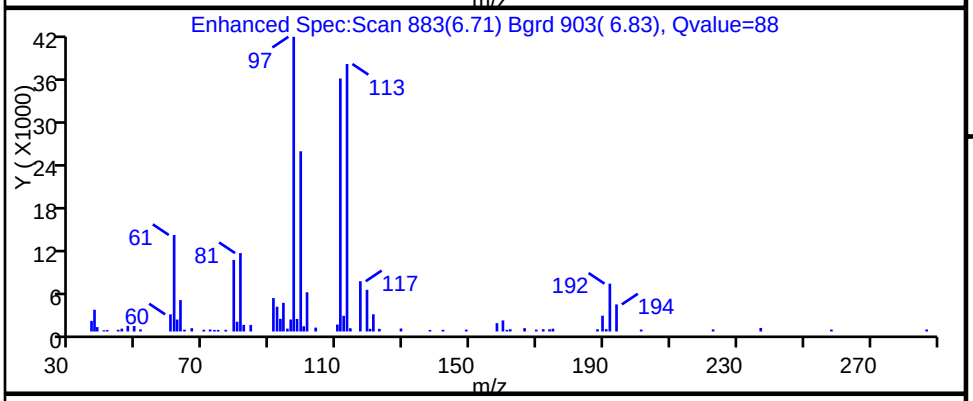
Report Date: 04-Apr-2015 12:04:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

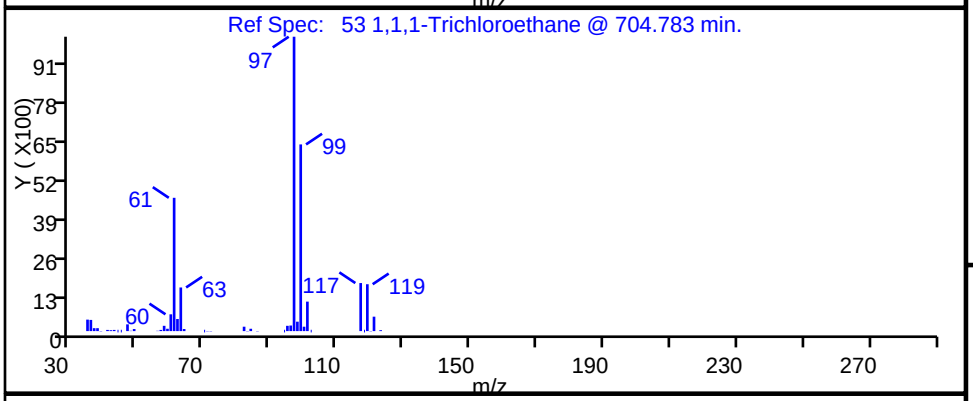
TestAmerica Pittsburgh

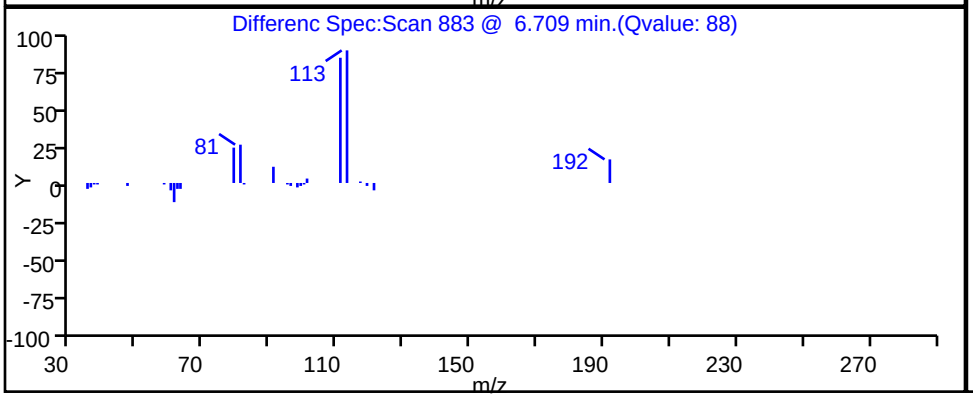
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

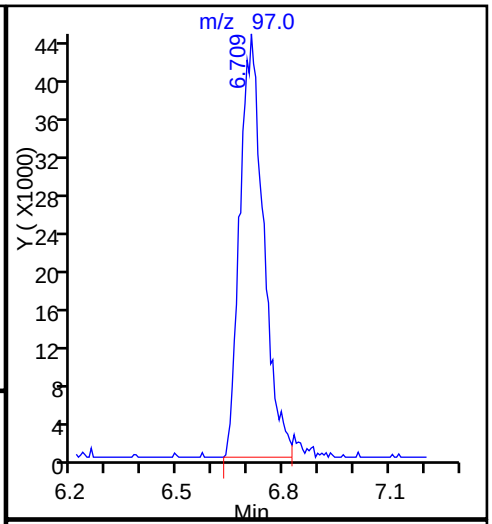
53 1,1,1-Trichloroethane, CAS: 71-55-6

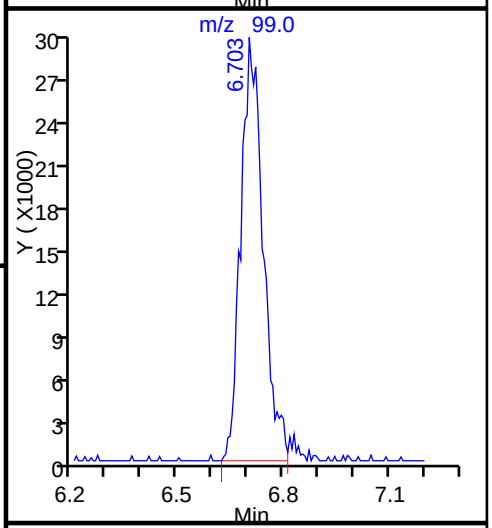


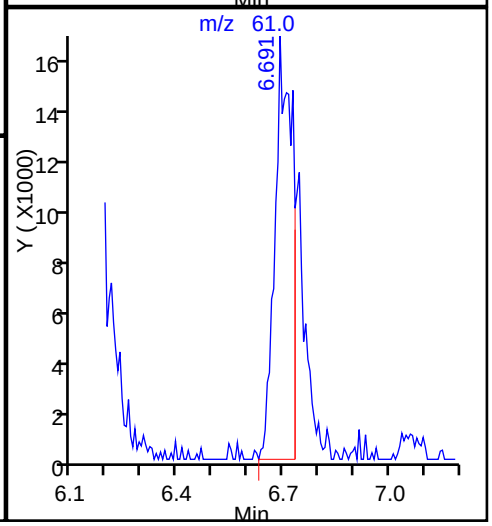












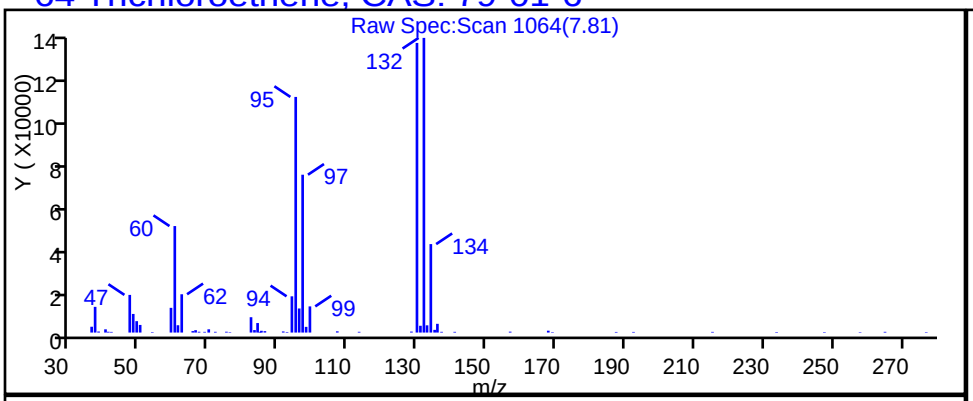
Report Date: 04-Apr-2015 12:04:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

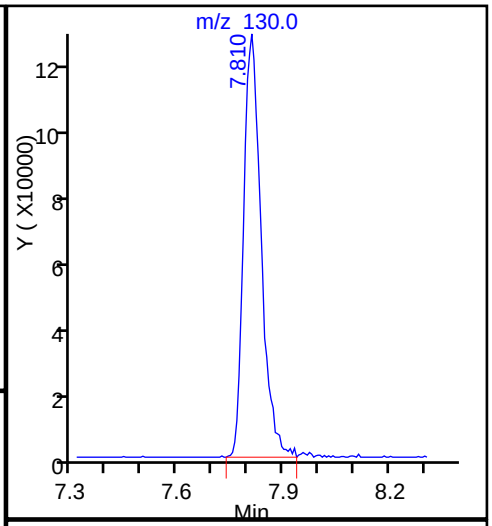
TestAmerica Pittsburgh

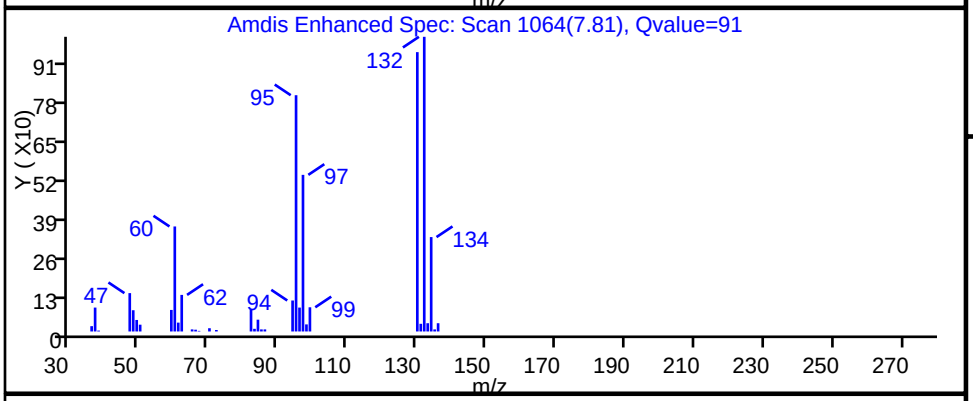
Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D

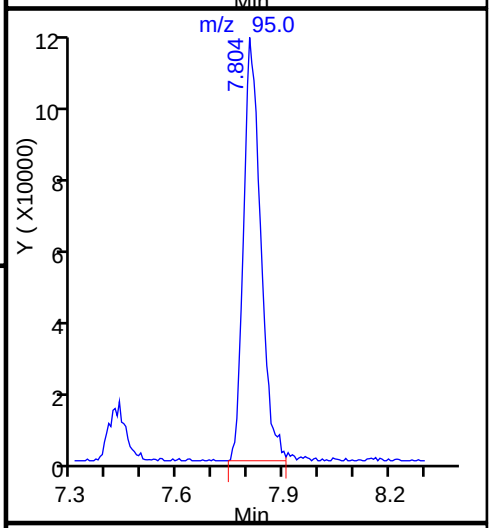
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	034635	ALS Bottle#:	17 Worklist Smp#: 18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

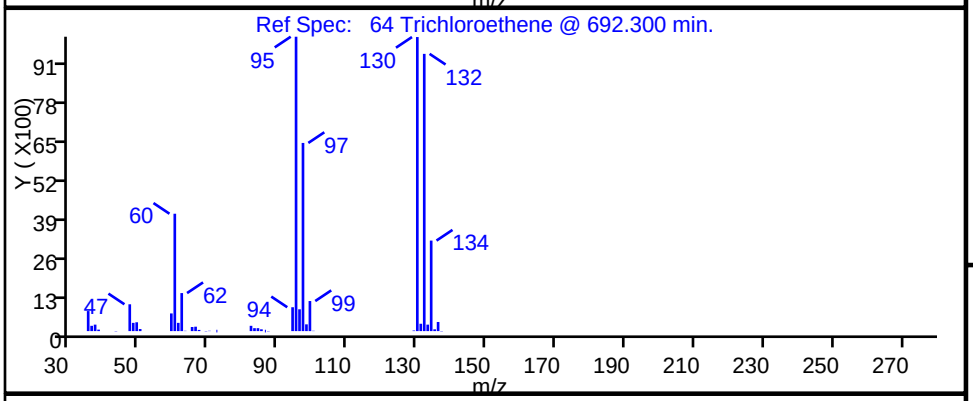
64 Trichloroethene, CAS: 79-01-6

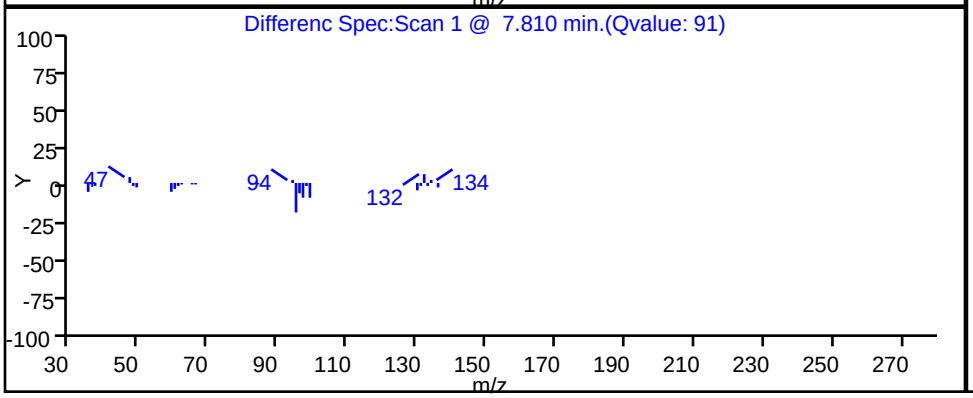


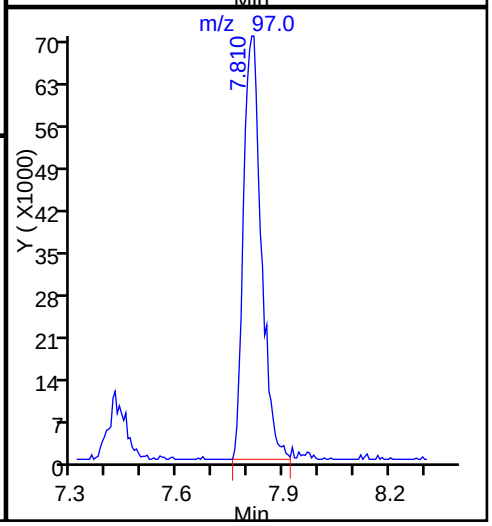












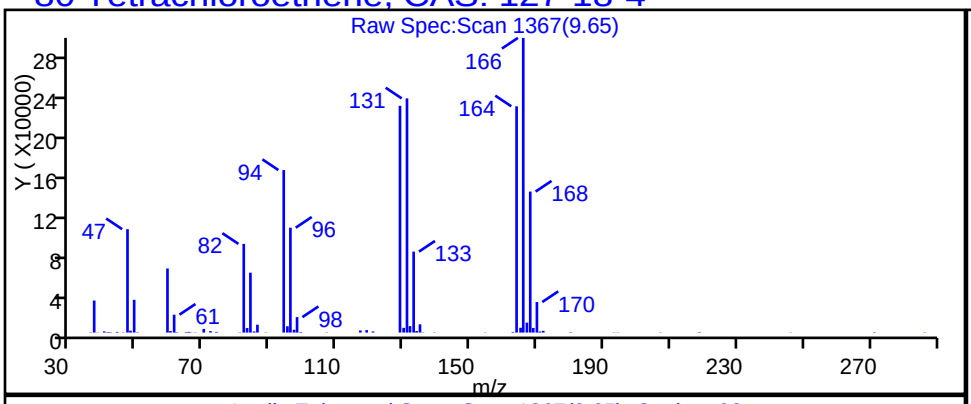
Report Date: 04-Apr-2015 12:04:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

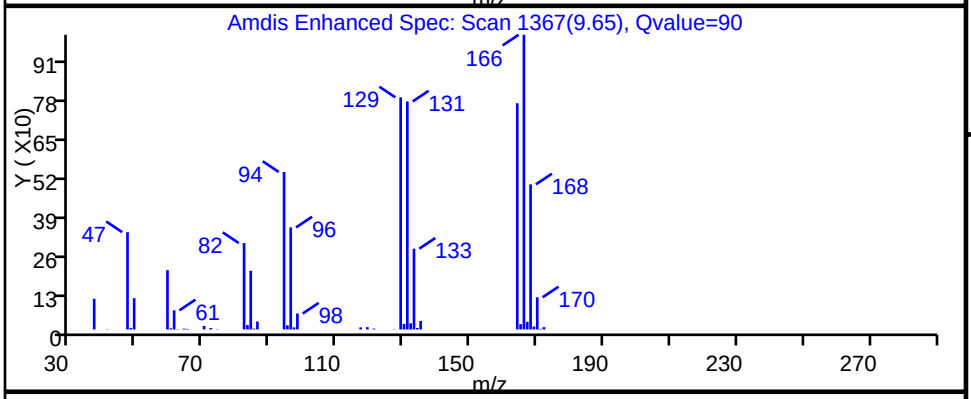
TestAmerica Pittsburgh

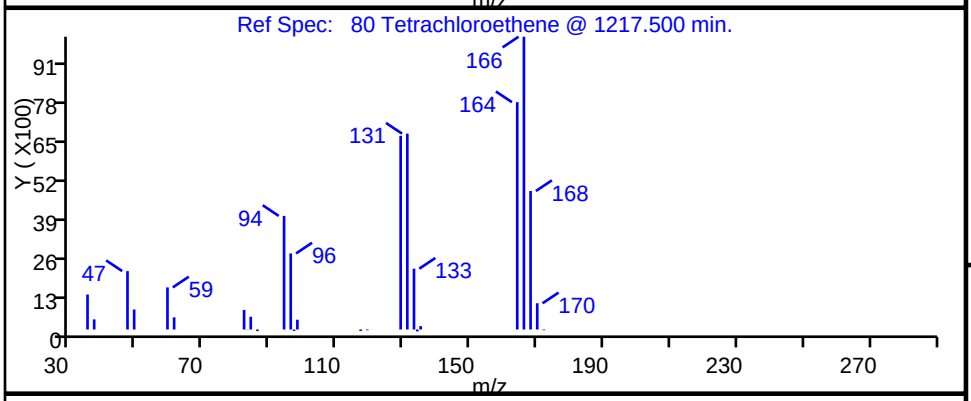
Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D

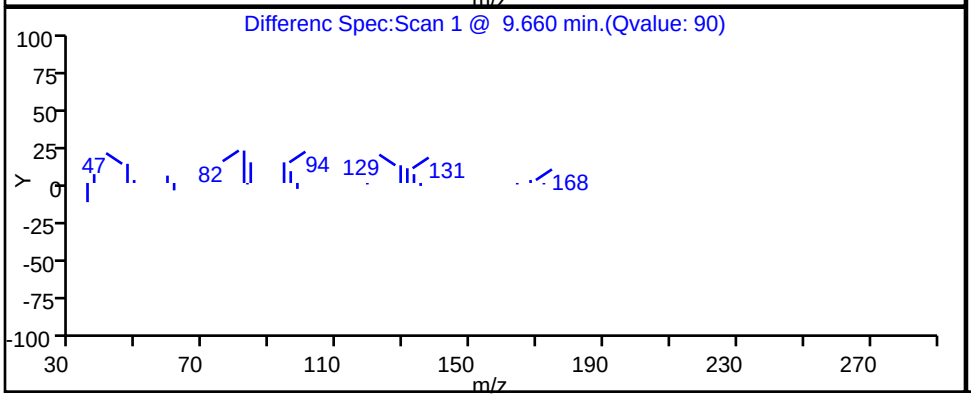
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	034635	ALS Bottle#:	17 Worklist Smp#: 18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

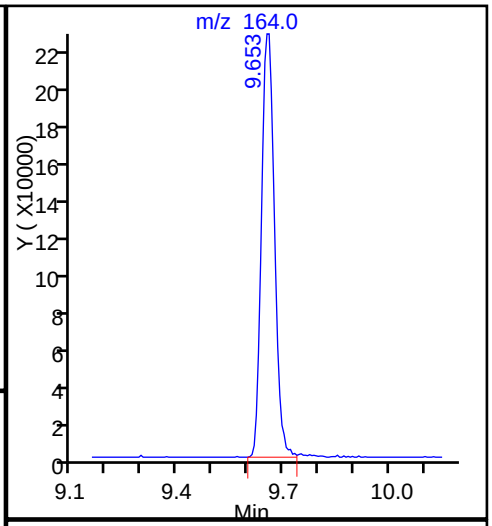
80 Tetrachloroethene, CAS: 127-18-4

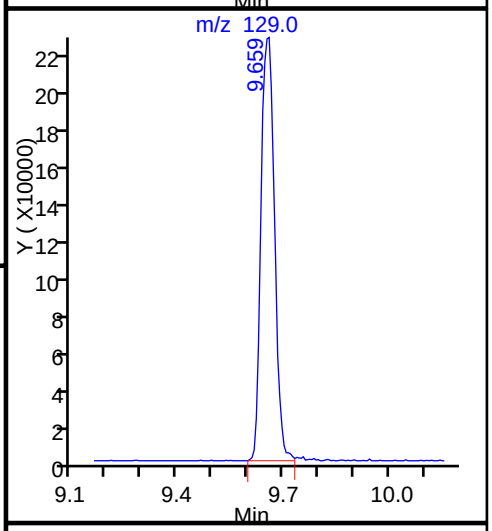


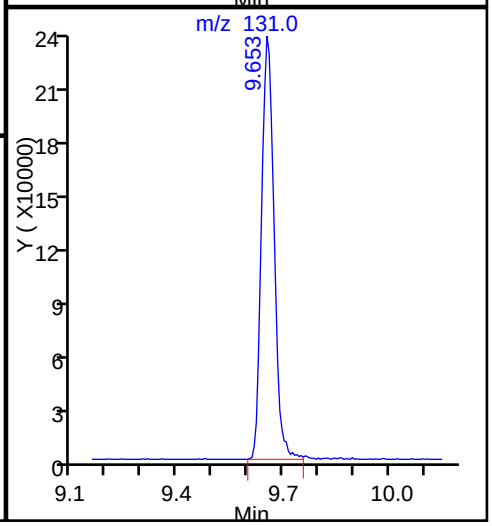












Manual Integration/User Assign Peak Report

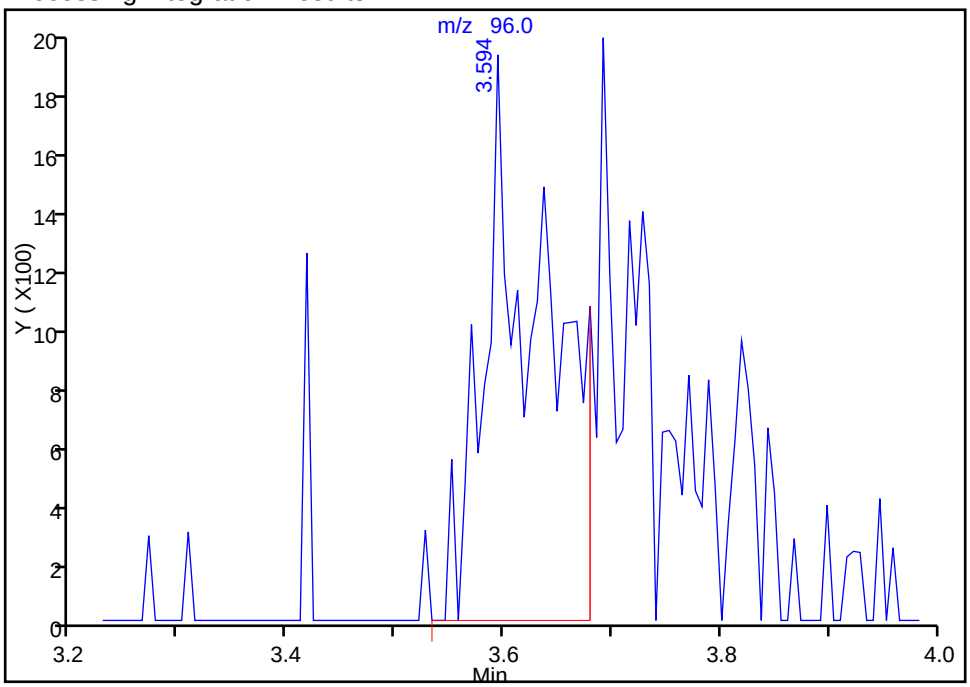
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

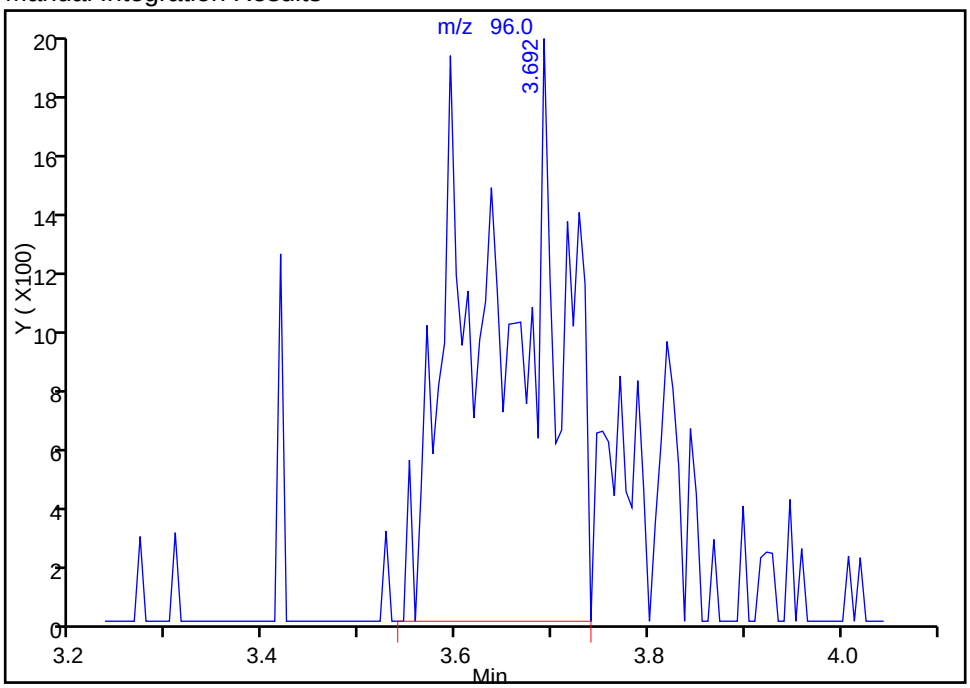
Processing Integration Results

RT: 3.59
Area: 7437
Amount: 8.602404
Amount Units: ng



Manual Integration Results

RT: 3.69
Area: 11062
Amount: 12.795454
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:41:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

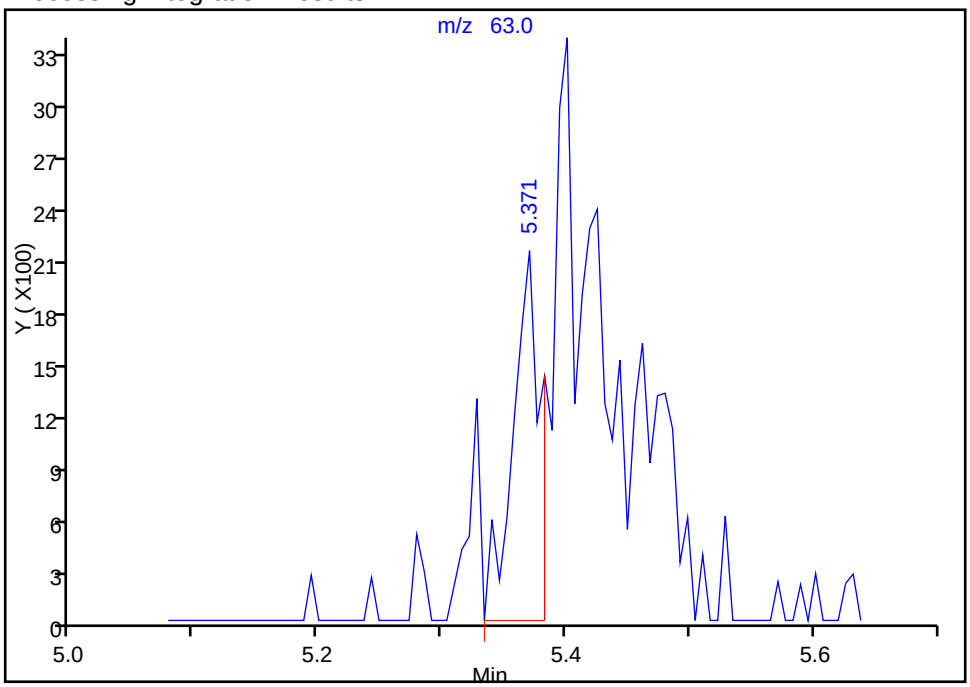
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

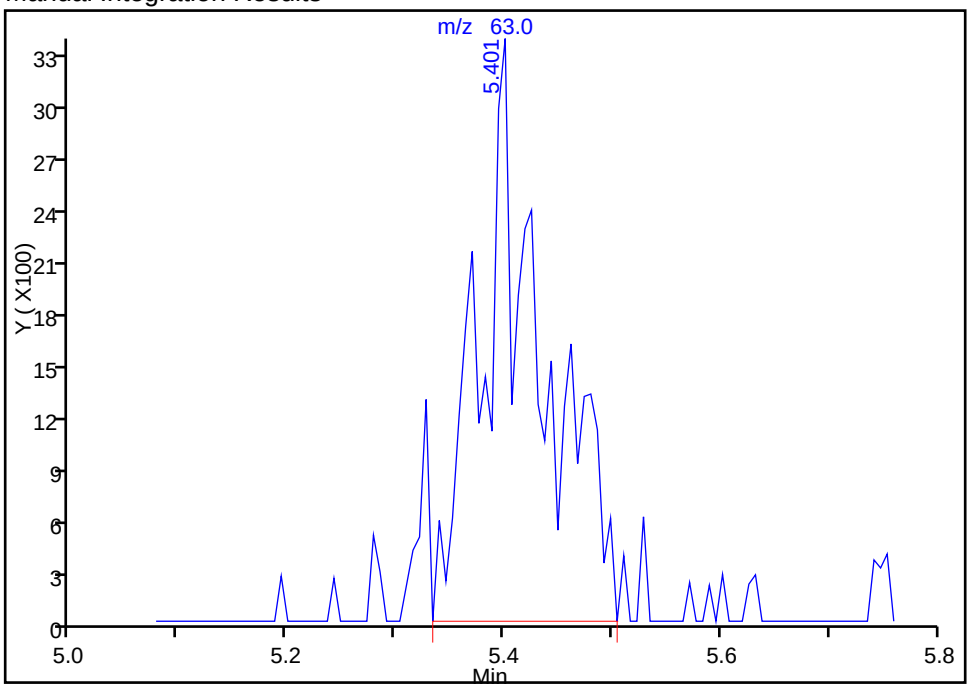
Processing Integration Results

RT: 5.37
Area: 3241
Amount: 2.061567
Amount Units: ng



Manual Integration Results

RT: 5.40
Area: 13315
Amount: 8.469537
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:41:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

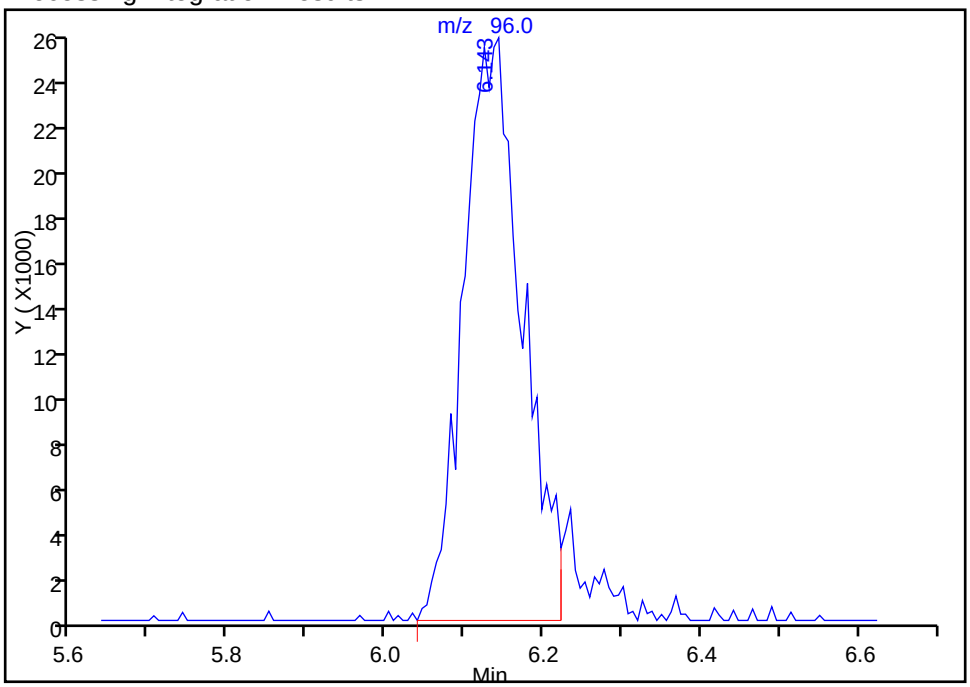
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040318.D				
Injection Date:	03-Apr-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Processing Integration Results

RT: 6.14
Area: 132057
Amount: 124.0586
Amount Units: ng



Manual Integration Results

RT: 6.14
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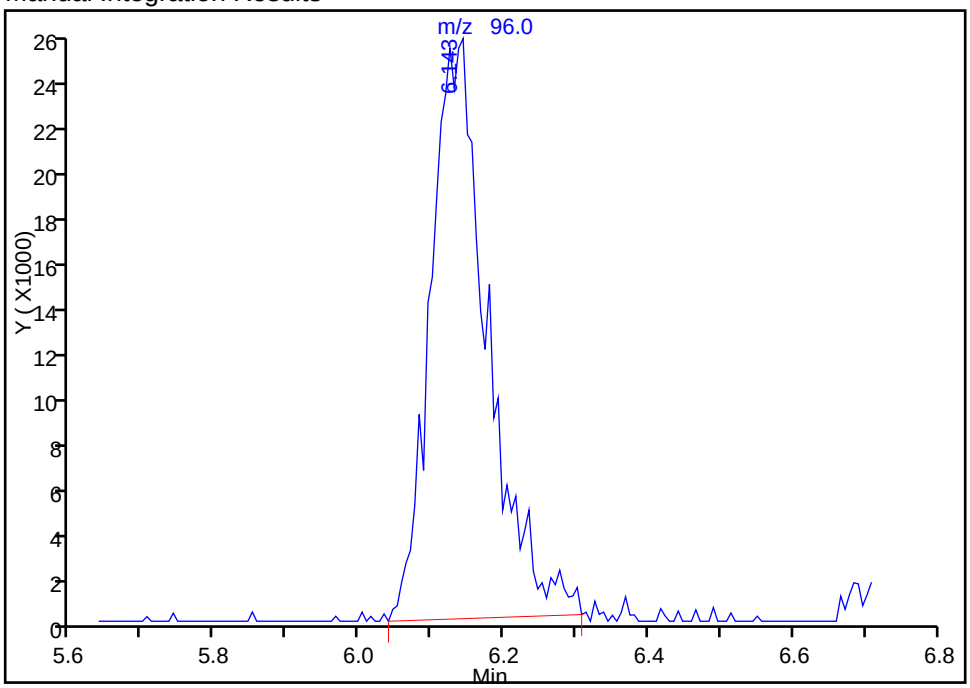
Amount: 130.7708
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:41:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 DL | Lab Sample ID: 180-42391-10 DL

Matrix: Water | Lab File ID: 7040423.D

Analysis Method: 8260C | Date Collected: 03/25/2015 13:02

Sample wt/vol: 20(mL) | Date Analyzed: 04/04/2015 23:30

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.: 137512 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	40	U	40	11
75-01-4	Vinyl chloride	40	U	40	9.1
74-83-9	Bromomethane	40	U	40	13
75-00-3	Chloroethane	40	U	40	8.6
75-35-4	1,1-Dichloroethene	40	U	40	12
67-64-1	Acetone	200	U *	200	100
75-15-0	Carbon disulfide	40	U	40	8.5
75-09-2	Methylene Chloride	40	U	40	5.0
156-60-5	trans-1,2-Dichloroethene	40	U	40	6.8
1634-04-4	Methyl tert-butyl ether	40	U	40	7.3
75-34-3	1,1-Dichloroethane	40	U	40	4.7
156-59-2	cis-1,2-Dichloroethene	66		40	9.5
74-97-5	Bromochloromethane	40	U	40	7.2
78-93-3	2-Butanone (MEK)	200	U	200	22
67-66-3	Chloroform	40	U	40	6.8
71-55-6	1,1,1-Trichloroethane	66		40	11
56-23-5	Carbon tetrachloride	40	U	40	5.5
71-43-2	Benzene	40	U	40	4.2
107-06-2	1,2-Dichloroethane	40	U	40	8.5
79-01-6	Trichloroethene	200		40	5.7
78-87-5	1,2-Dichloropropane	40	U	40	3.8
75-27-4	Bromodichloromethane	40	U	40	5.2
10061-01-5	cis-1,3-Dichloropropene	40	U	40	7.5
108-10-1	4-Methyl-2-pentanone (MIBK)	200	U	200	21
108-88-3	Toluene	40	U	40	6.0
10061-02-6	trans-1,3-Dichloropropene	40	U	40	5.9
79-00-5	1,1,2-Trichloroethane	40	U	40	8.1
127-18-4	Tetrachloroethene	510		40	5.9
591-78-6	2-Hexanone	200	U	200	6.4
124-48-1	Dibromochloromethane	40	U	40	5.5
106-93-4	1,2-Dibromoethane (EDB)	40	U	40	7.2
108-90-7	Chlorobenzene	40	U	40	5.4
630-20-6	1,1,1,2-Tetrachloroethane	40	U	40	11
100-41-4	Ethylbenzene	40	U	40	9.1
1330-20-7	Xylenes, Total	120	U	120	20
100-42-5	Styrene	40	U	40	3.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 DL Lab Sample ID: 180-42391-10 DL

Matrix: Water Lab File ID: 7040423.D

Analysis Method: 8260C Date Collected: 03/25/2015 13:02

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 23:30

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.: 137512 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*40*	*U*	*40*	*7.7*
79-34-5	*1,1,2,2-Tetrachloroethane*	*40*	*U*	*40*	*8.0*
107-13-1	*Acrylonitrile*	*800*	*U*	*800*	*22*
123-91-1	*1,4-Dioxane*	*8000*	*U*	*8000*	*1400*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	126		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D
Lims ID: 180-42391-C-10 Lab Sample ID: 180-42391-10
Client ID: HD-MW-37D-0/1-0
Sample Type: Client
Inject. Date: 04-Apr-2015 23:30:30 ALS Bottle#: 18 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 40.0000
Sample Info: 180-42391-C-10
Misc. Info.: 180-0006327-023
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:10:39 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 09:07:59

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.607	4.765	-0.158	86	155204	4000.0	
*	2 Fluorobenzene (IS)	96	7.417	7.399	0.018	99	527130	200.0	
*	3 Chlorobenzene-d5	119	10.471	10.471	0.000	84	164929	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	95	218207	200.0	
$	5 Dibromofluoromethane (Surr	113	6.687	6.675	0.012	91	211481	251.5	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.052	7.040	0.012	96	172555	215.2	
$	7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	94	550063	224.9	
$	8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	89	231297	212.2	
	12 Chloromethane	50		2.028				ND	
	13 Vinyl chloride	62		2.192				ND	
	15 Bromomethane	94		2.502				ND	
	16 Chloroethane	64		2.605				ND	
	22 1,1-Dichloroethene	96		3.518				ND	
	26 Carbon disulfide	76		3.828				ND	
	24 Acetone	43		3.834				ND	
	31 Methylene Chloride	84		4.364				ND	
	34 trans-1,2-Dichloroethene	96		4.753				ND	
	33 Acrylonitrile	53		4.802				ND	
	35 Methyl tert-butyl ether	73		4.856				ND	
	37 1,1-Dichloroethane	63		5.355				ND	
	45 cis-1,2-Dichloroethene	96	6.115	6.103	0.012	69	28806	33.1	M
	46 2-Butanone (MEK)	43		6.189				ND	
	49 Chlorobromomethane	128		6.377				ND	
	52 Chloroform	83		6.499				ND	
	53 1,1,1-Trichloroethane	97	6.675	6.681	-0.006	1	43306	32.9	M
	56 Carbon tetrachloride	117		6.858				ND	
	58 Benzene	78		7.089				ND	
	59 1,2-Dichloroethane	62		7.132				ND	
	64 Trichloroethene	130	7.807	7.795	0.012	93	101648	97.7	M
	67 1,2-Dichloropropane	63		8.032				ND	
	70 1,4-Dioxane	88		8.184				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.312				ND	
74 cis-1,3-Dichloropropene	75		8.774				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.938				ND	
76 Toluene	91		9.103				ND	
77 trans-1,3-Dichloropropene	75		9.322				ND	
79 1,1,2-Trichloroethane	97		9.504				ND	
80 Tetrachloroethene	164	9.650	9.644	0.006	94	191753	257.3	
82 2-Hexanone	43		9.760				ND	
84 Chlorodibromomethane	129		9.900				ND	
85 Ethylene Dibromide	107		10.009				ND	
87 Chlorobenzene	112		10.496				ND	
89 1,1,1,2-Tetrachloroethane	131		10.575				ND	
90 Ethylbenzene	106		10.605				ND	
91 m-Xylene & p-Xylene	106		10.721				ND	
92 o-Xylene	106		11.116				ND	
93 Styrene	104		11.128				ND	
94 Bromoform	173		11.317				ND	
99 1,1,2,2-Tetrachloroethane	83		11.773				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

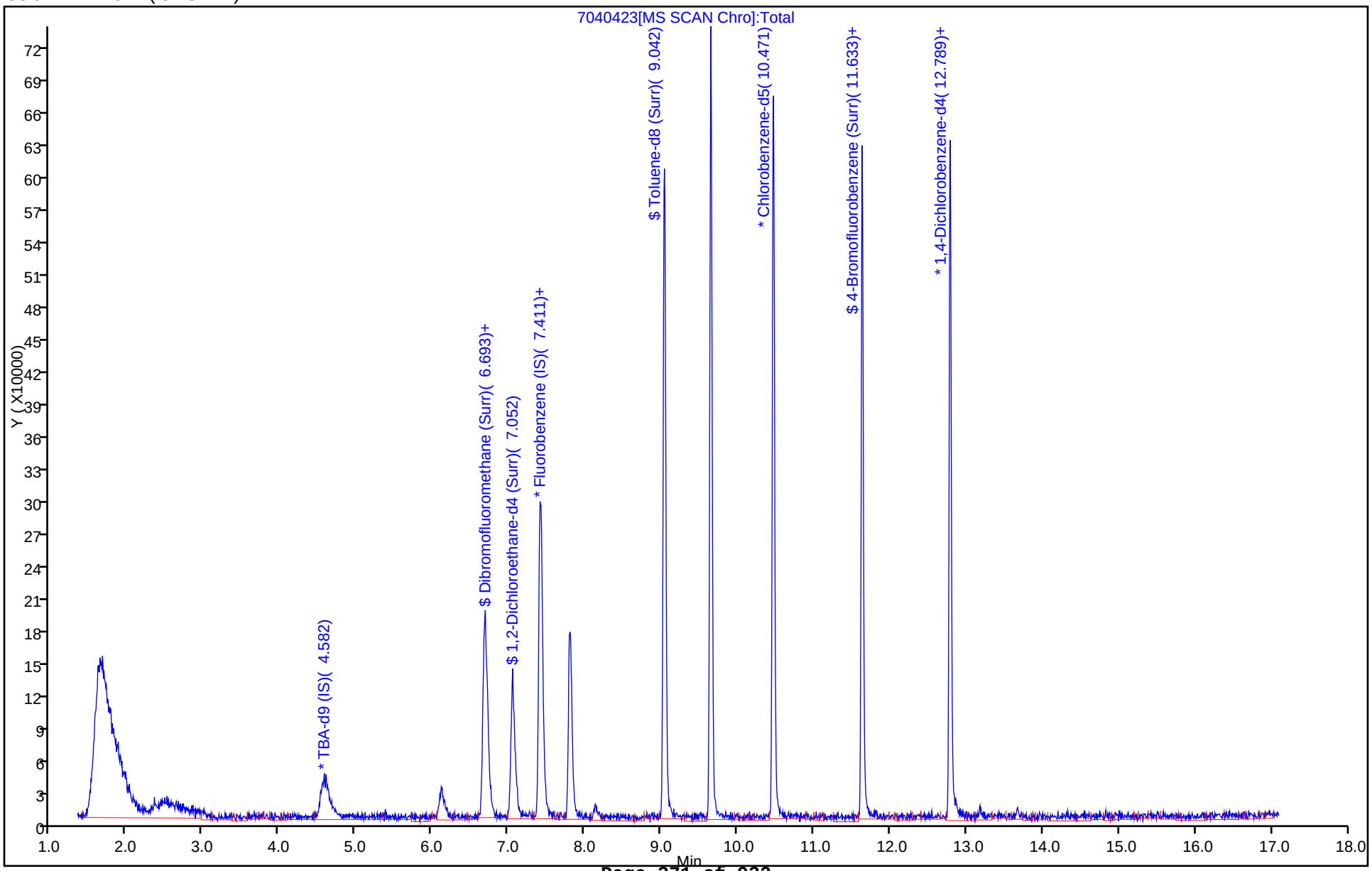
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 06-Apr-2015 09:10:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10	Worklist Smp#:	23
Client ID:	HD-MW-37D-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	40.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

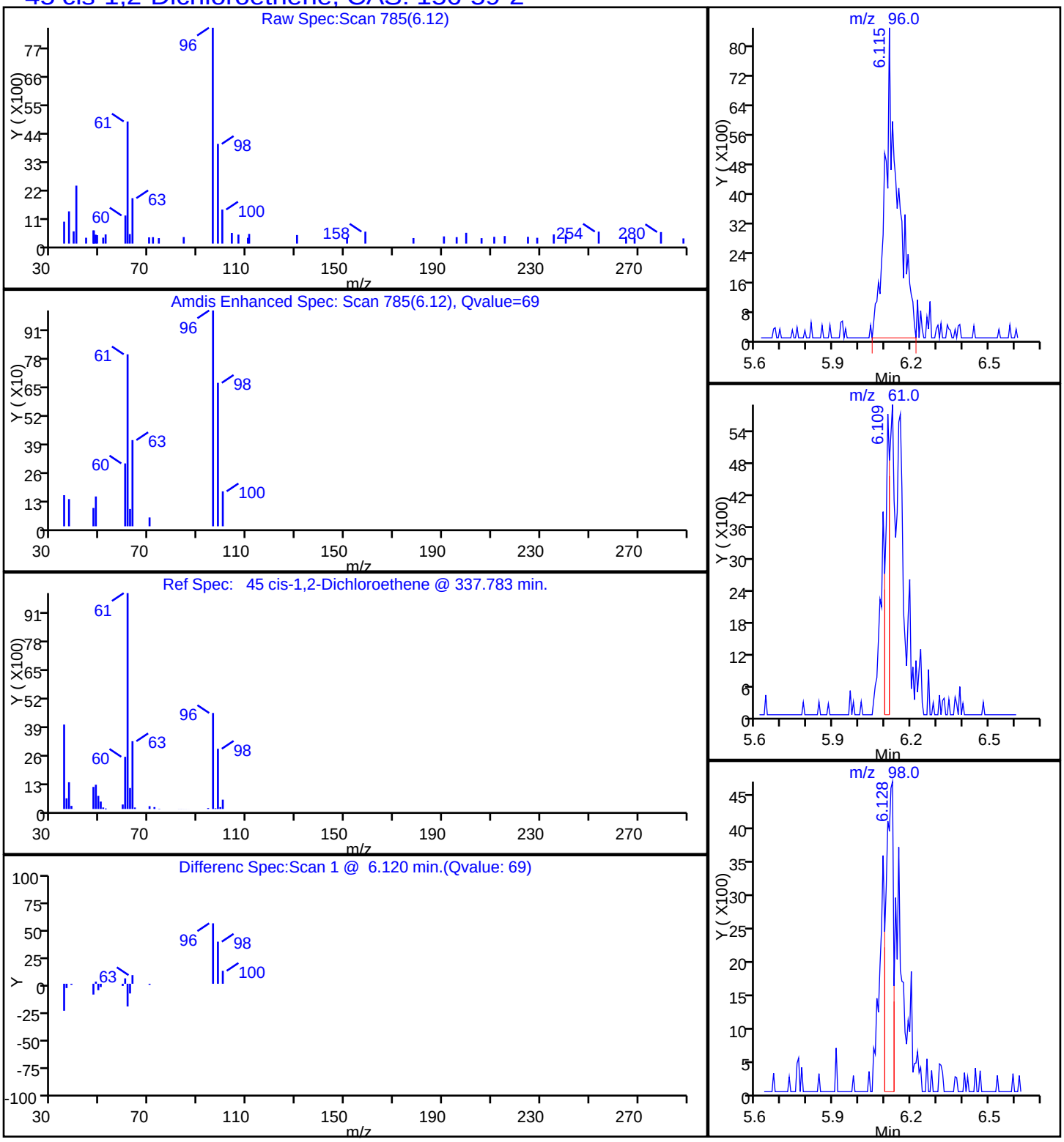


Report Date: 06-Apr-2015 09:10:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

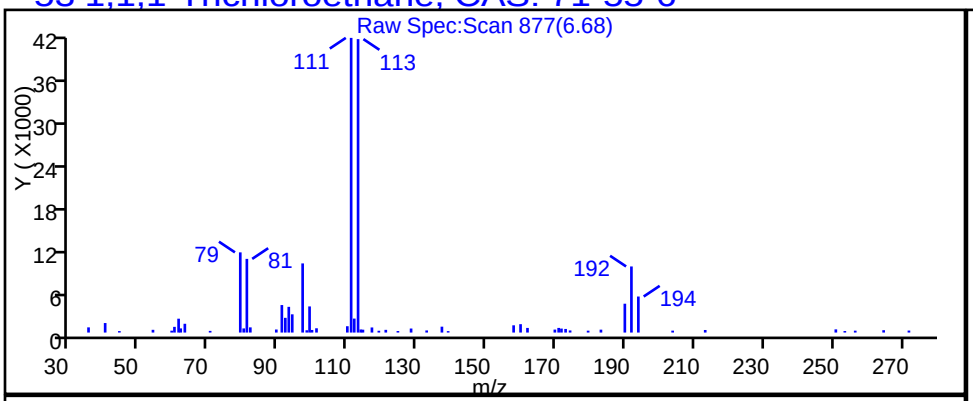


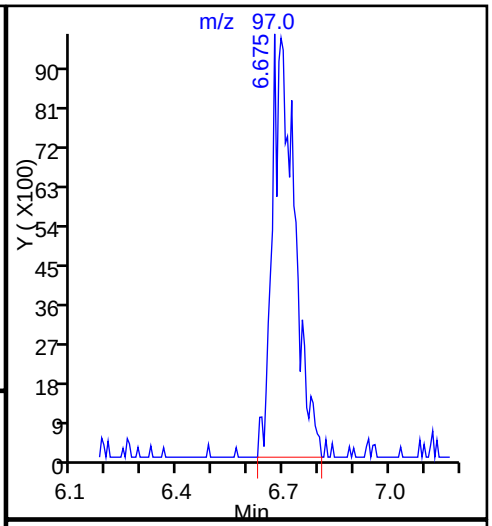
Report Date: 06-Apr-2015 09:10:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

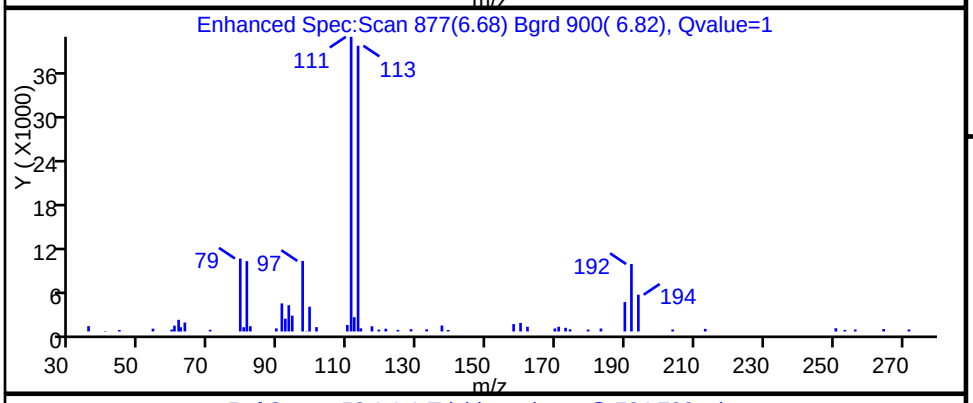
TestAmerica Pittsburgh

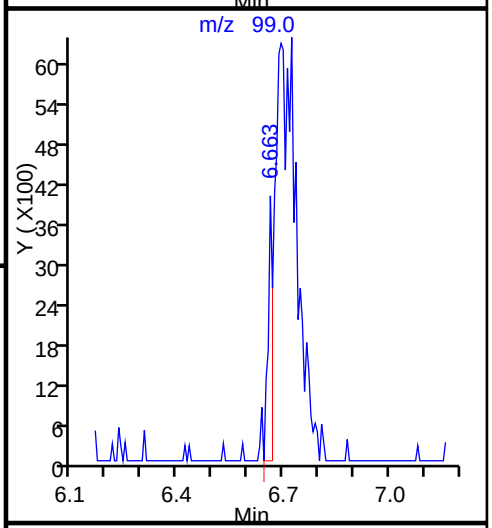
Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

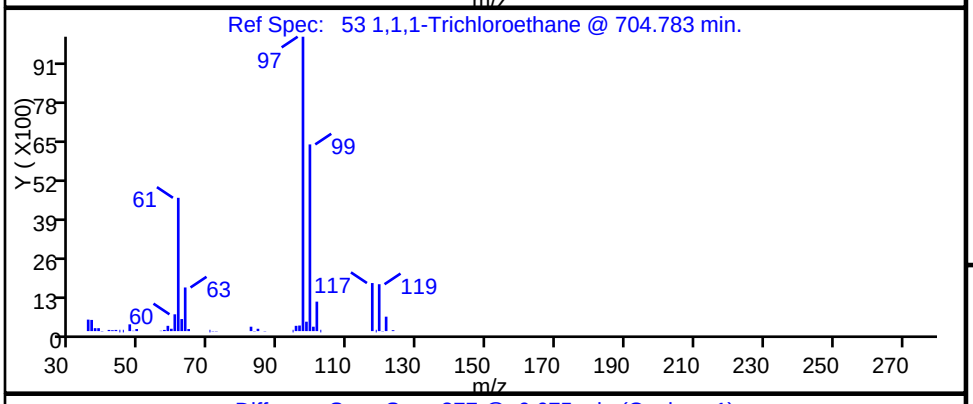
53 1,1,1-Trichloroethane, CAS: 71-55-6

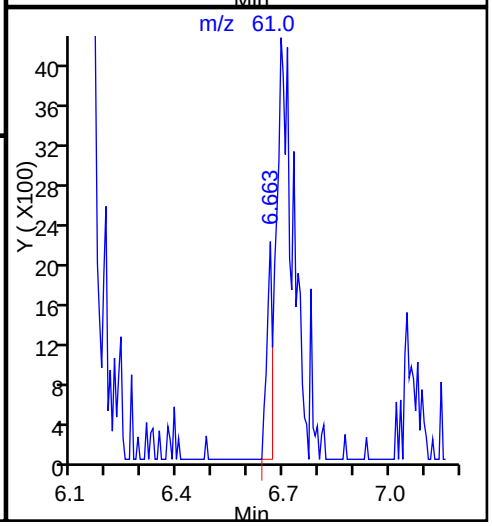


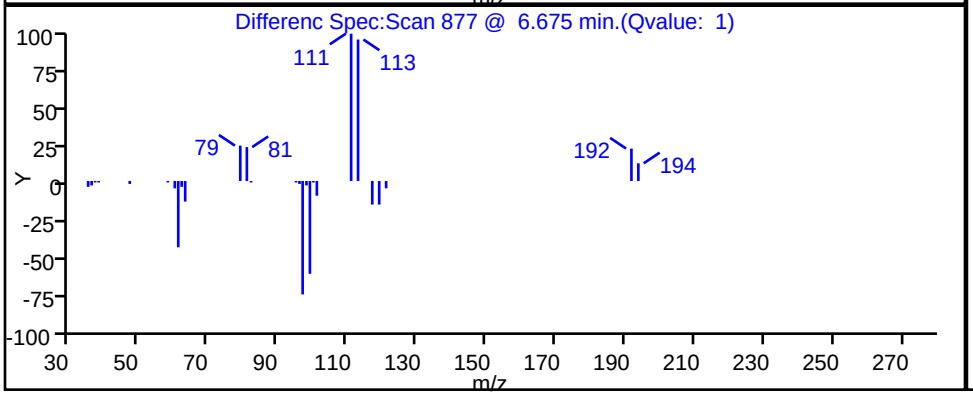










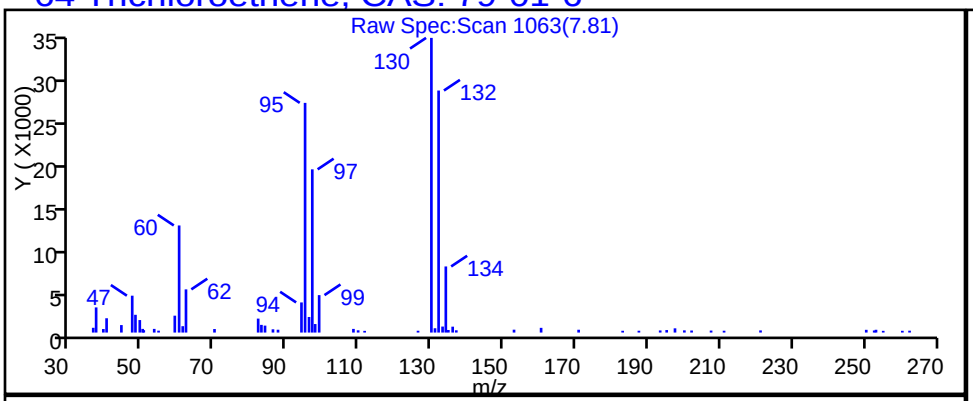


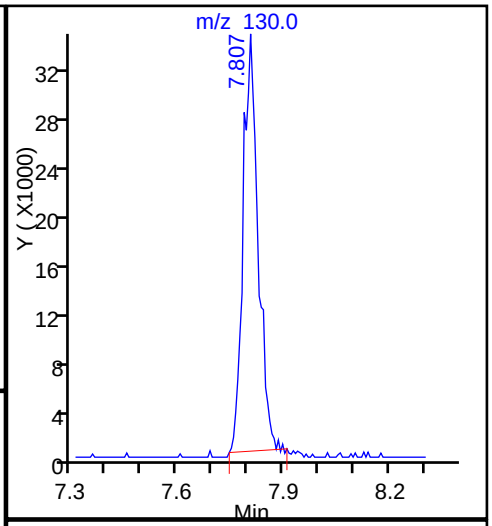
Report Date: 06-Apr-2015 09:10:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

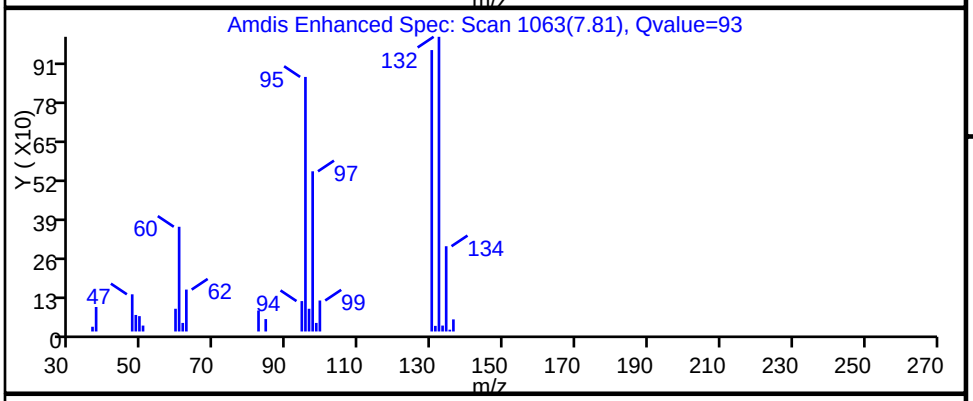
TestAmerica Pittsburgh

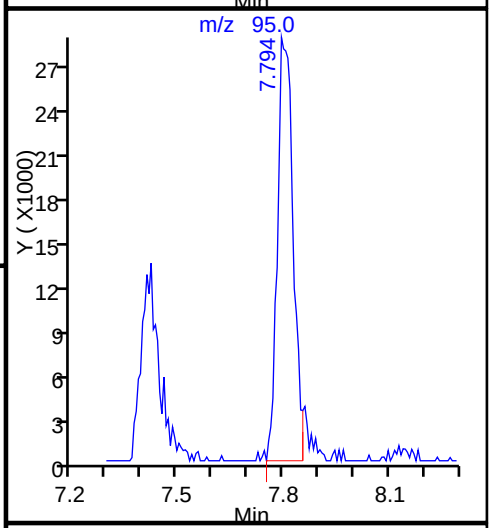
Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

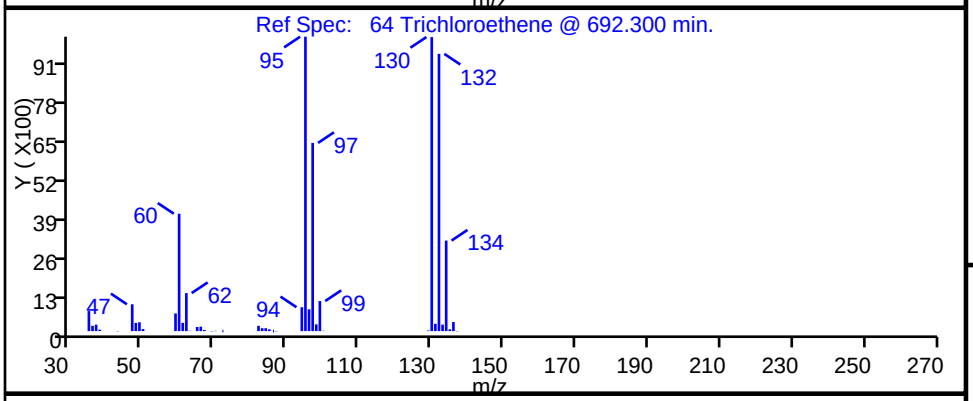
64 Trichloroethene, CAS: 79-01-6

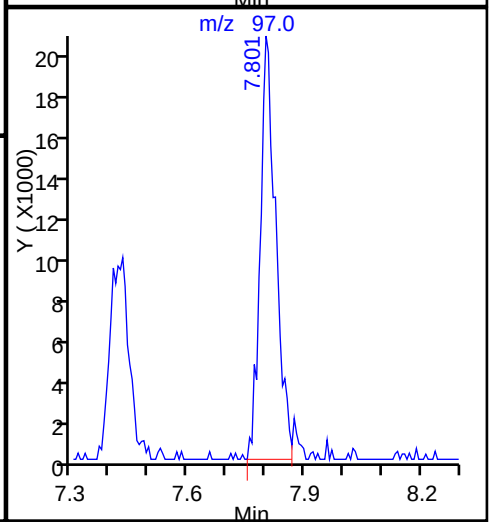


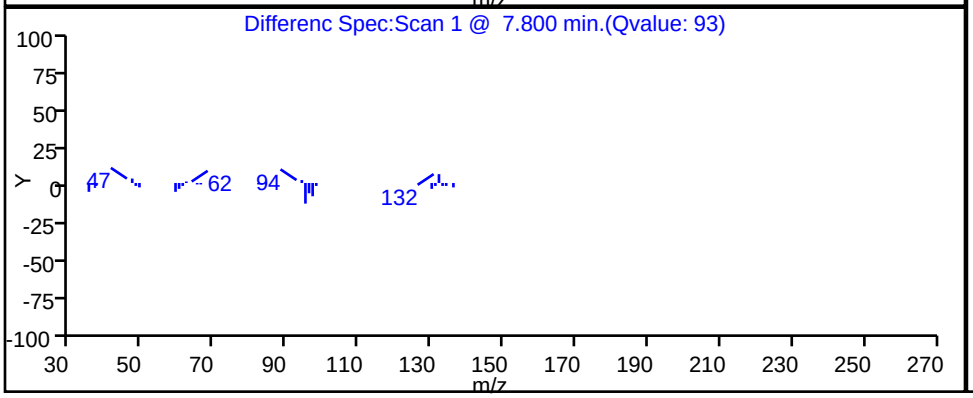










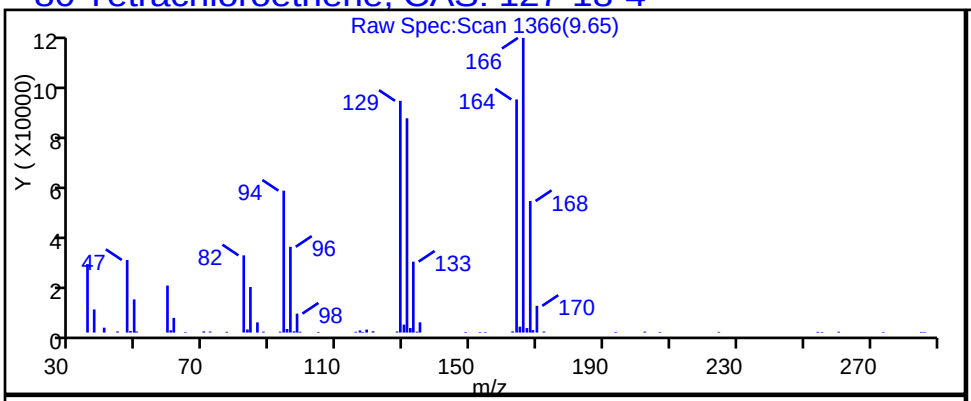


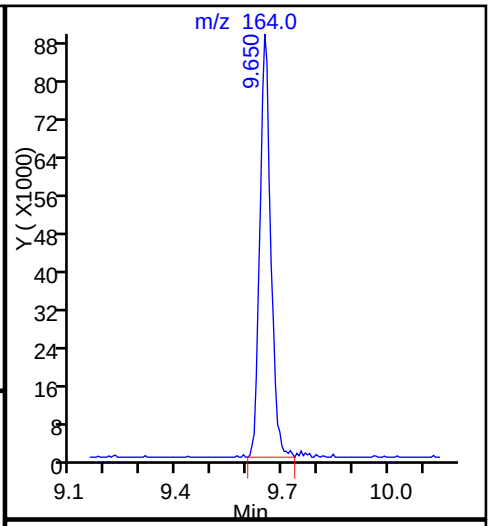
Report Date: 06-Apr-2015 09:10:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

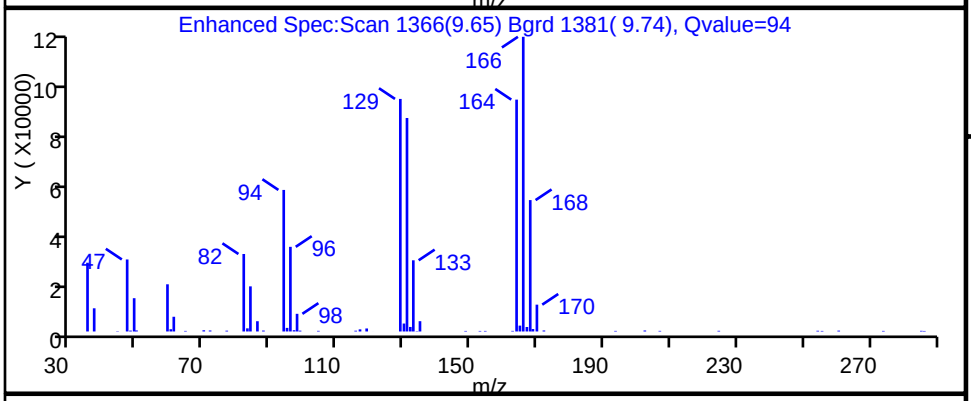
TestAmerica Pittsburgh

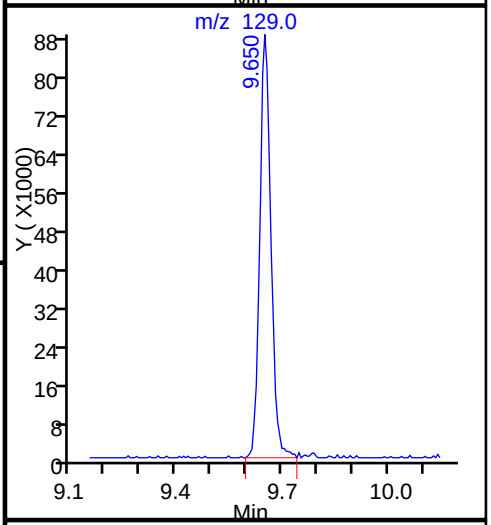
Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

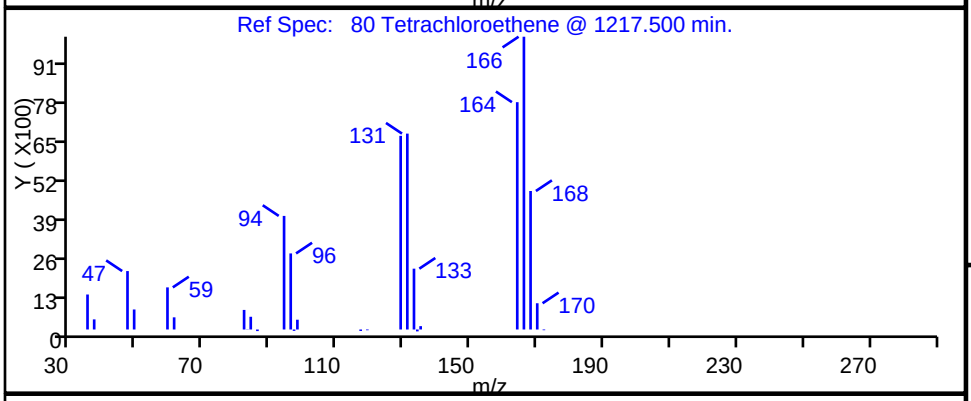
80 Tetrachloroethene, CAS: 127-18-4

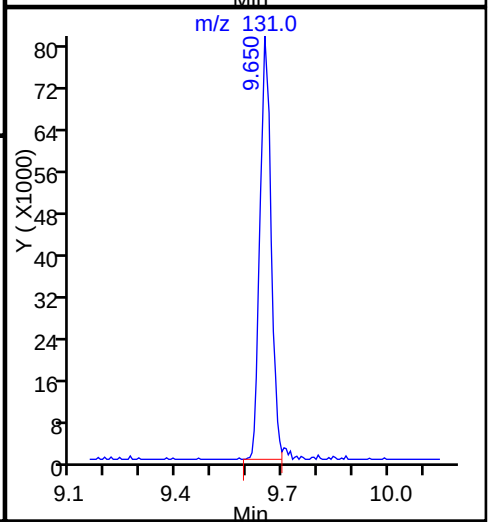


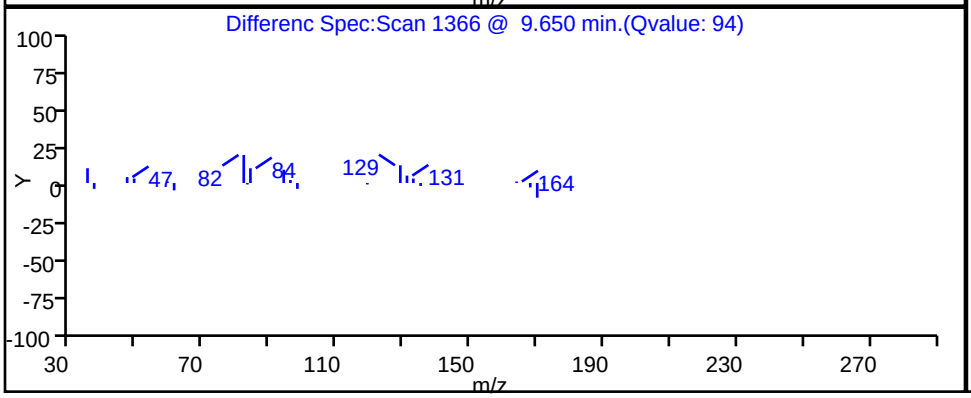












Manual Integration/User Assign Peak Report

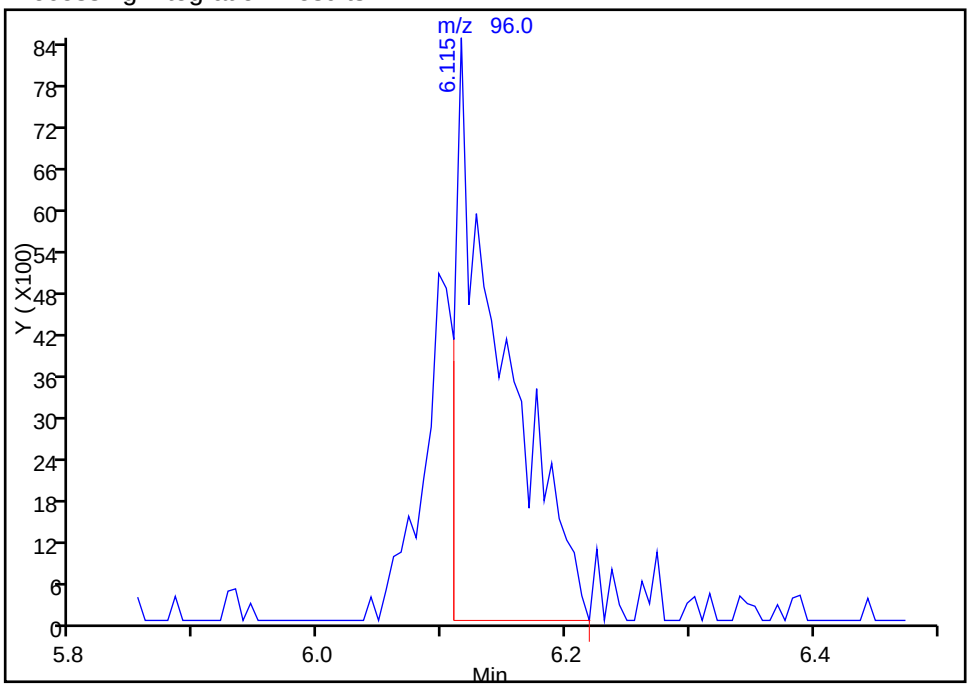
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

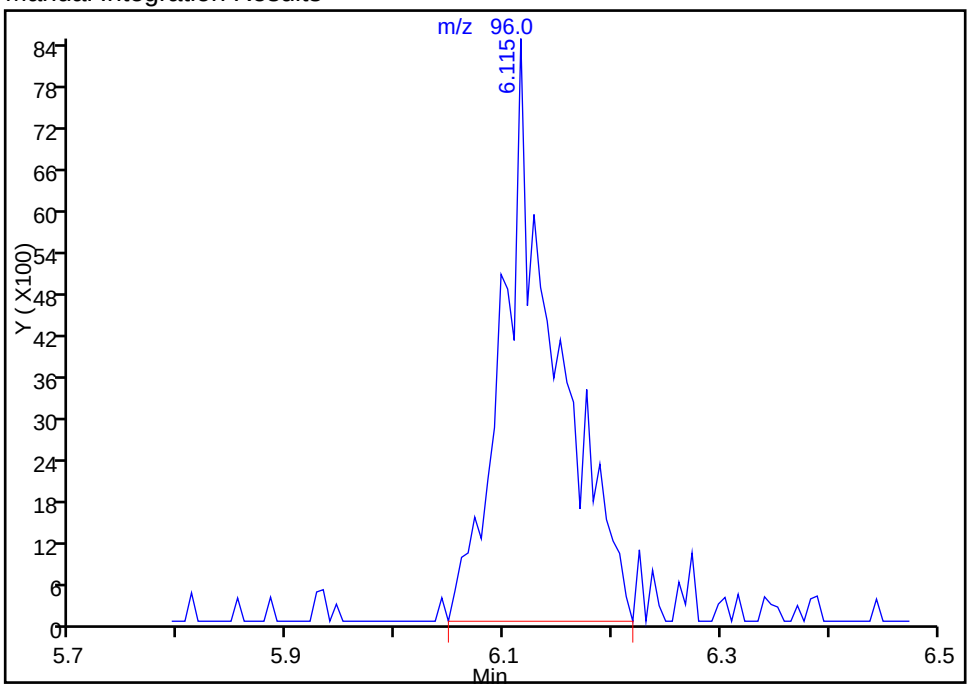
Processing Integration Results

RT: 6.12
Area: 21613
Amount: 24.801376
Amount Units: ng



Manual Integration Results

RT: 6.12
Area: 28806
Amount: 33.055496
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 09:07:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

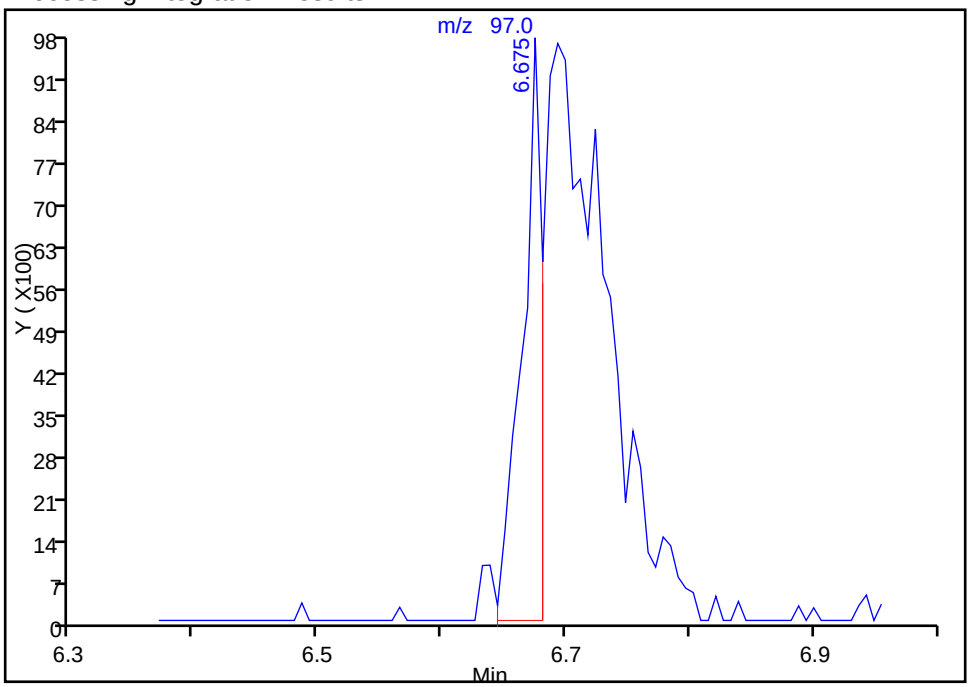
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

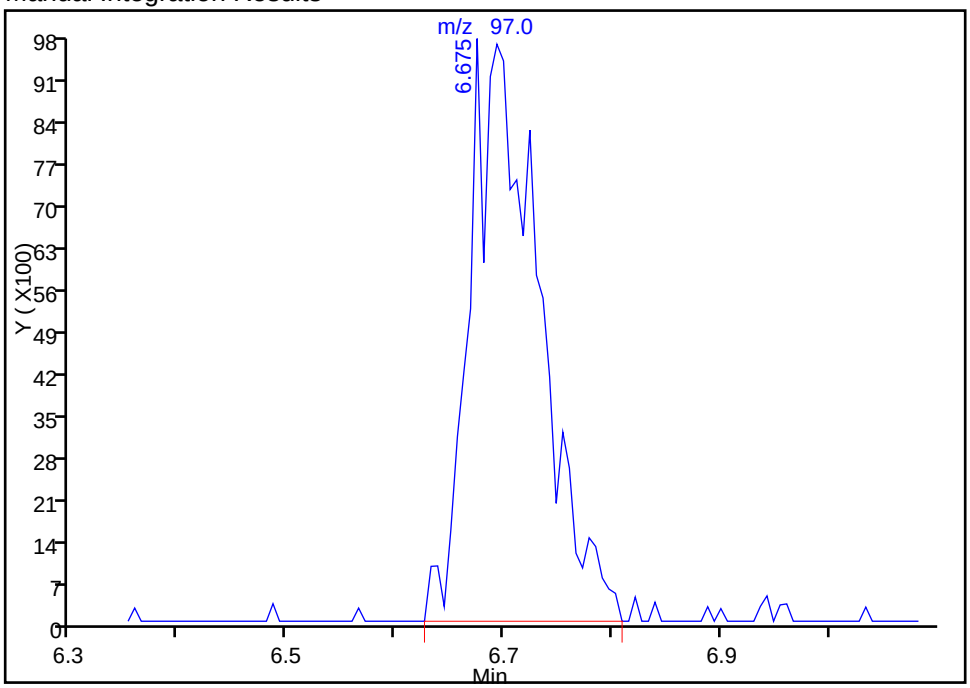
Processing Integration Results

RT: 6.68
Area: 10949
Amount: 8.319067
Amount Units: ng



Manual Integration Results

RT: 6.68
Area: 43306
Amount: 32.903963
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 09:07:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

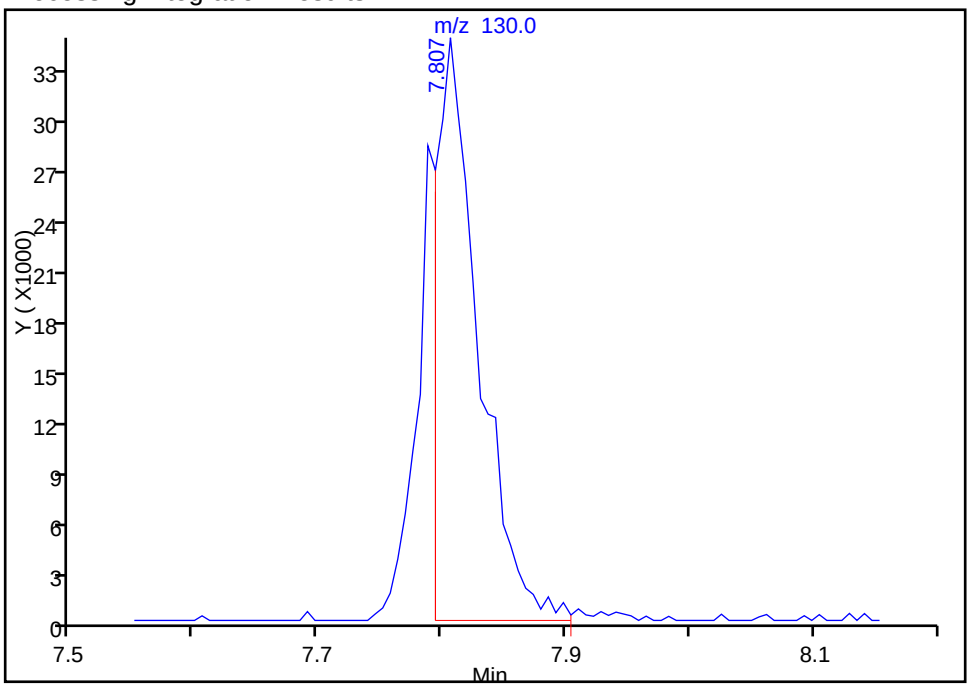
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040423.D				
Injection Date:	04-Apr-2015 23:30:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

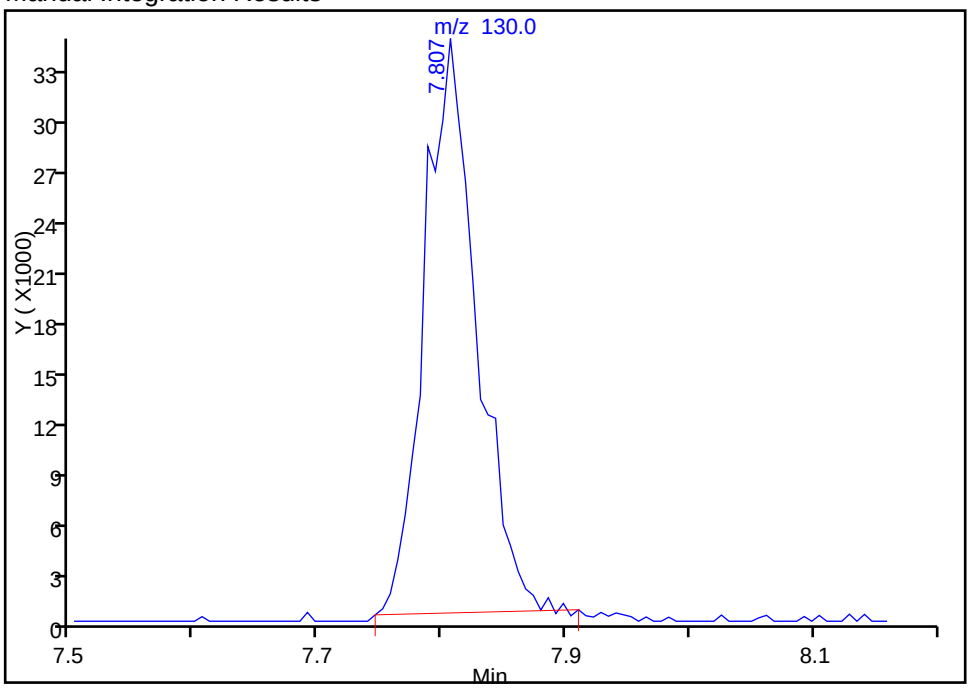
Processing Integration Results

RT: 7.81
Area: 83138
Amount: 79.942678
Amount Units: ng



Manual Integration Results

RT: 7.81
Area: 101648
Amount: 97.741265
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 09:07:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 DL | Lab Sample ID: 180-42391-11 DL

Matrix: Water | Lab File ID: 7040608.D

Analysis Method: 8260C | Date Collected: 03/25/2015 11:12

Sample wt/vol: 20(mL) | Date Analyzed: 04/06/2015 12:15

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137564 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	2.9		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.48	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.2		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	5.6		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 DL Lab Sample ID: 180-42391-11 DL

Matrix: Water Lab File ID: 7040608.D

Analysis Method: 8260C Date Collected: 03/25/2015 11:12

Sample wt/vol: 20(mL) Date Analyzed: 04/06/2015 12:15

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137564 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	113		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040608.D
Lims ID: 180-42391-D-11 Lab Sample ID: 180-42391-11
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 06-Apr-2015 12:15:30 ALS Bottle#: 9 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-42391-D-11
Misc. Info.: 180-0006335-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 15:45:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 12:50:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.598	4.932	-0.334	98	227696	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.396	0.018	98	907028	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	84	275015	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	95	385777	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.691	6.672	0.019	90	304953	210.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.037	0.012	94	238799	173.1	
$ 7 Toluene-d8 (Surr)	98	9.039	9.032	0.007	92	869950	213.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.636	-0.006	89	408020	225.4	
12 Chloromethane	50		2.012				ND	
13 Vinyl chloride	62		2.201				ND	
15 Bromomethane	94		2.487				ND	
16 Chloroethane	64		2.602				ND	
22 1,1-Dichloroethene	96		3.521				ND	
26 Carbon disulfide	76		3.782				ND	
24 Acetone	43		3.843				ND	
31 Methylene Chloride	84		4.318				ND	
34 trans-1,2-Dichloroethene	96		4.731				ND	
33 Acrylonitrile	53		4.810				ND	
35 Methyl tert-butyl ether	73		4.877				ND	
37 1,1-Dichloroethane	63		5.340				ND	
45 cis-1,2-Dichloroethene	96	6.107	6.082	0.025	78	87590	58.4	M
46 2-Butanone (MEK)	43		6.191				ND	
49 Chlorobromomethane	128		6.374				ND	
52 Chloroform	83		6.496				ND	
53 1,1,1-Trichloroethane	97	6.703	6.672	0.031	1	21586	9.53	M
56 Carbon tetrachloride	117		6.848				ND	
58 Benzene	78		7.086				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.810	7.785	0.025	86	44103	24.6	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.308				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.941				ND	
76 Toluene	91		9.099				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.653	9.647	0.006	92	160618	112.3	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.572				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.320				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

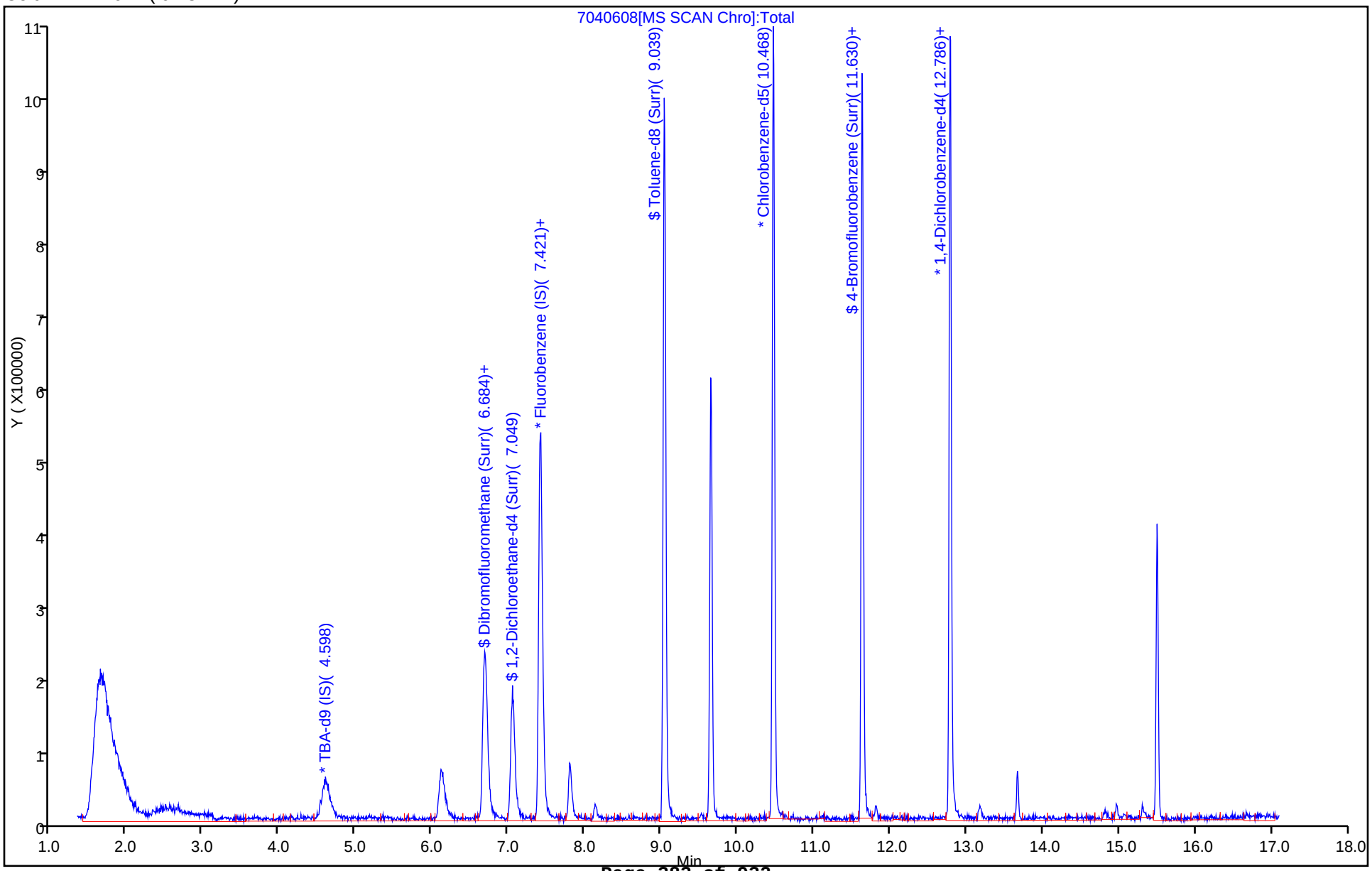
Report Date: 06-Apr-2015 15:45:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040608.D

Injection Date:	06-Apr-2015 12:15:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-11	Lab Sample ID:	180-42391-11	Worklist Smp#:	8
Client ID:	HD-MW-37S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 06-Apr-2015 15:45:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

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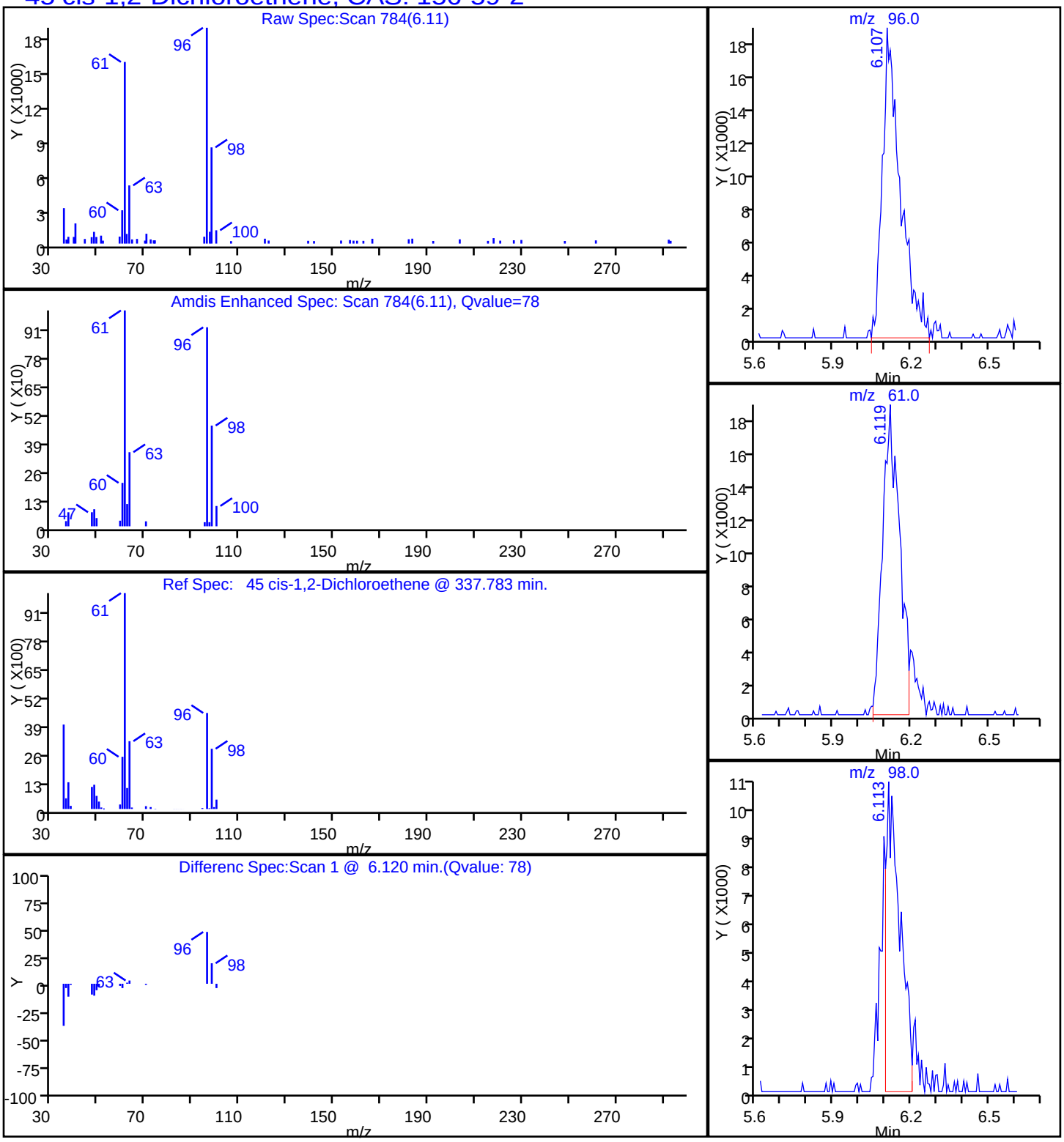
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



Report Date: 06-Apr-2015 15:45:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

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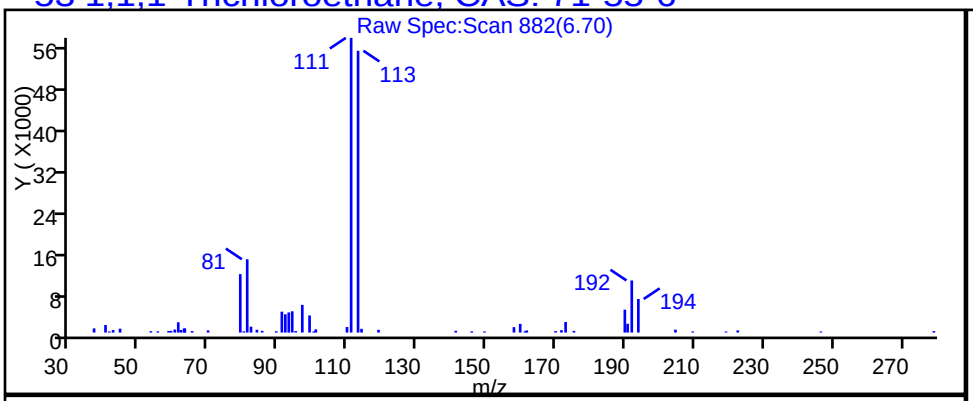
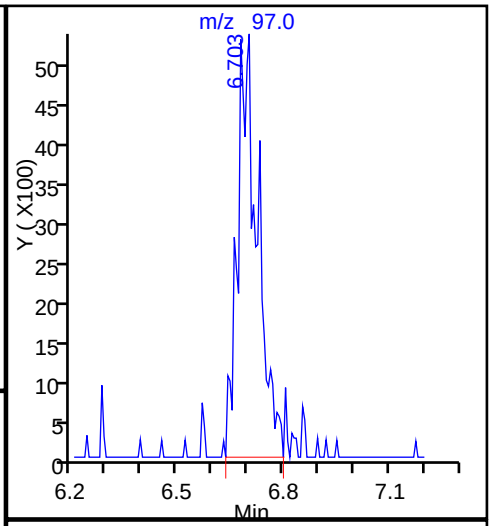
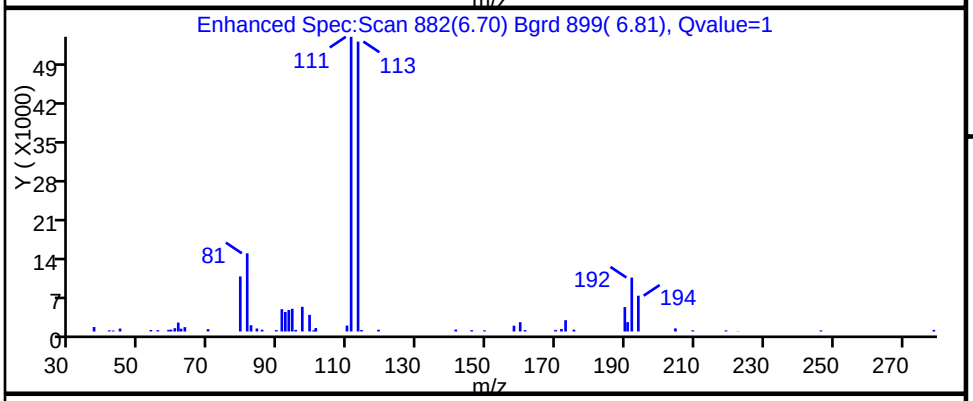
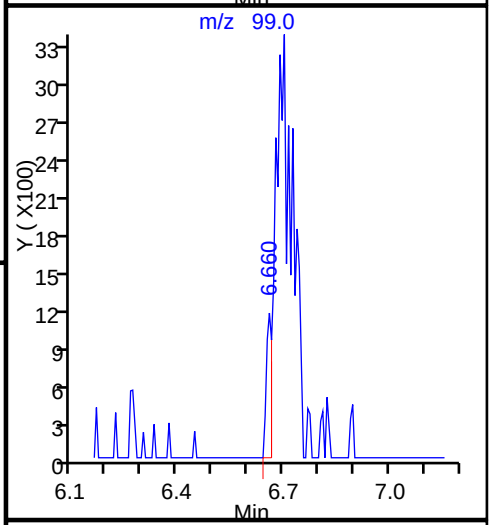
Lims ID:	180-42391-D-11	Lab Sample ID:	180-42391-11		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

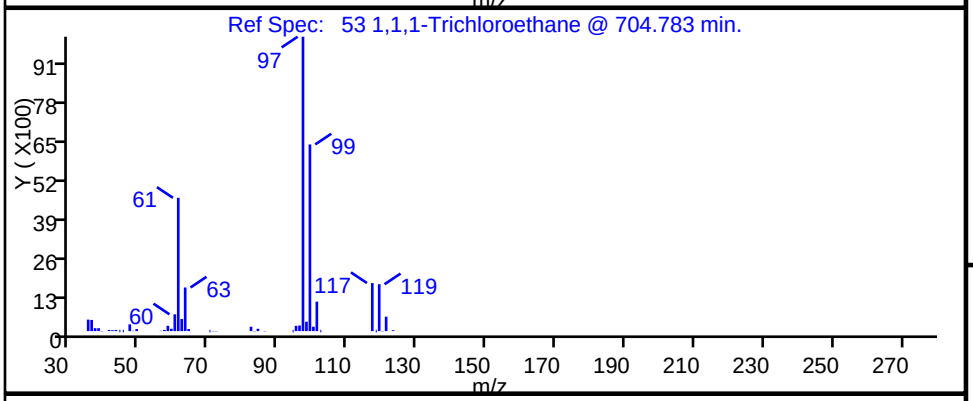
53 1,1,1-Trichloroethane, CAS: 71-55-6

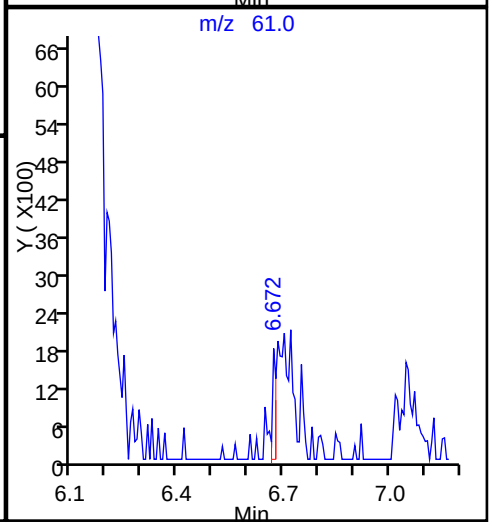


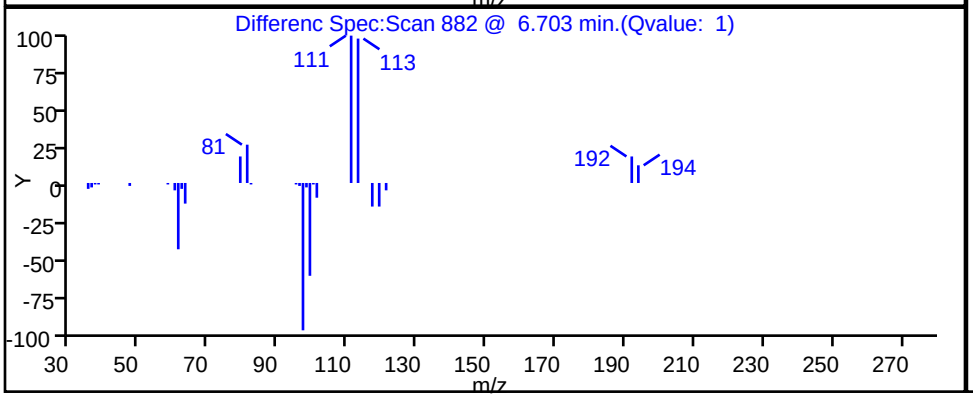












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TestAmerica Pittsburgh

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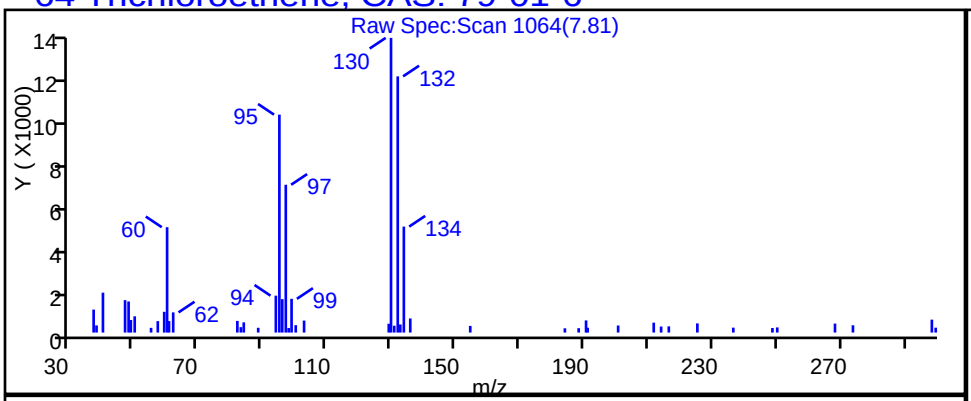
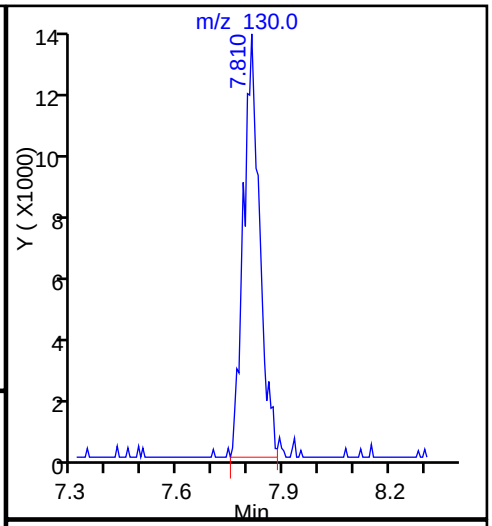
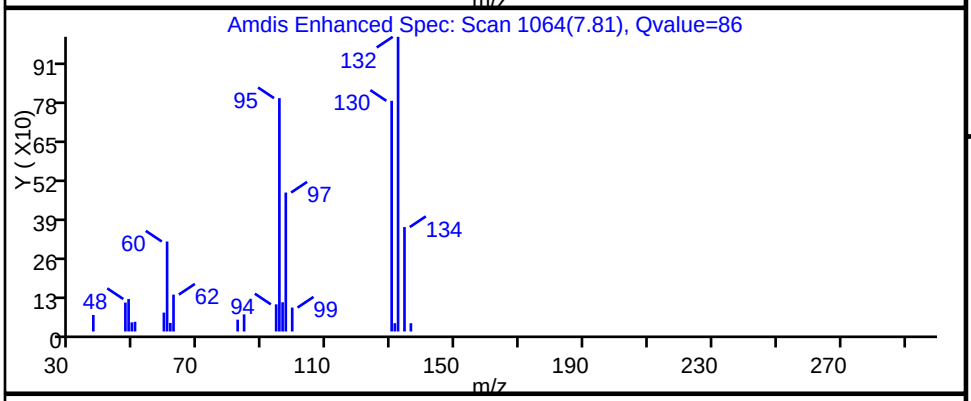
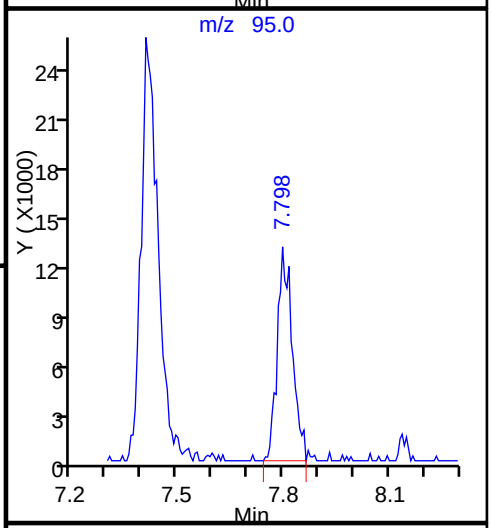
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	034635	ALS Bottle#:	9 Worklist Smp#: 8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

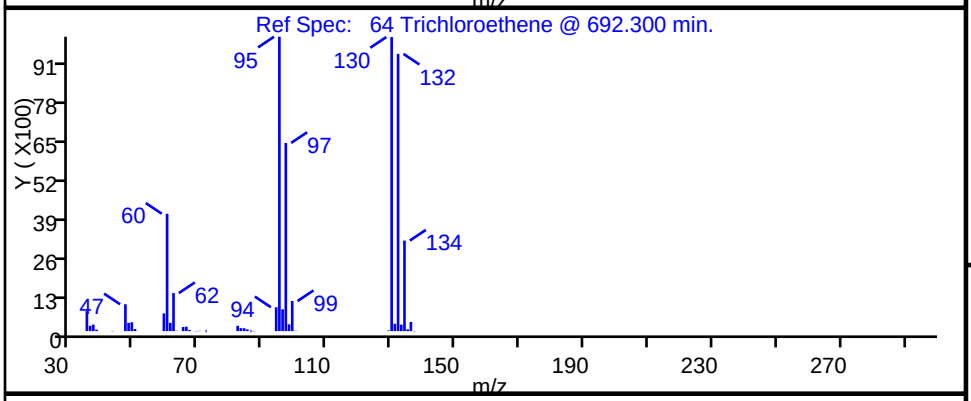
64 Trichloroethene, CAS: 79-01-6

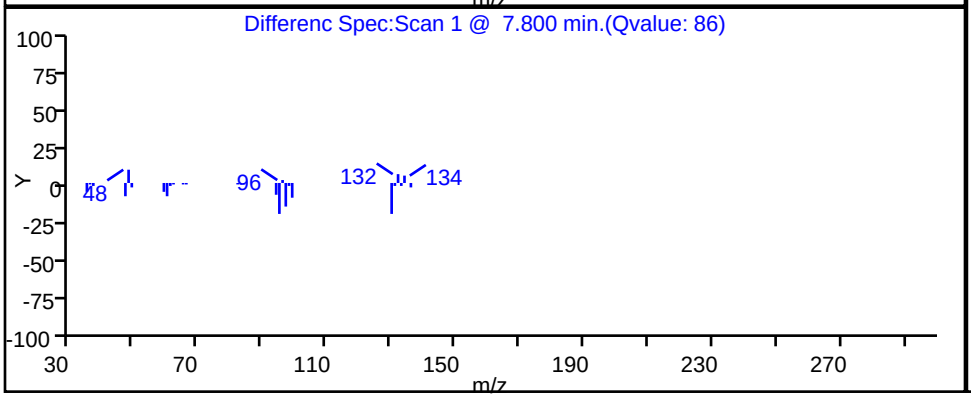


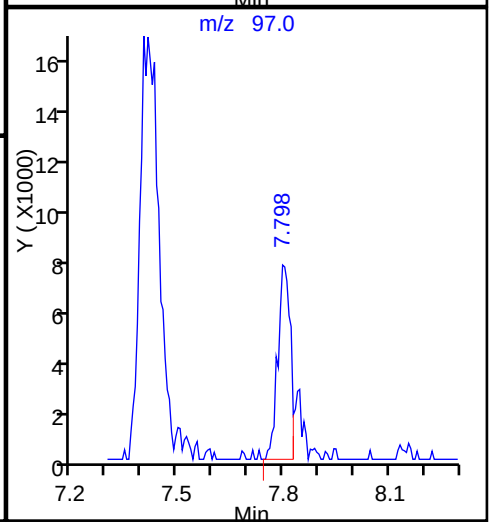












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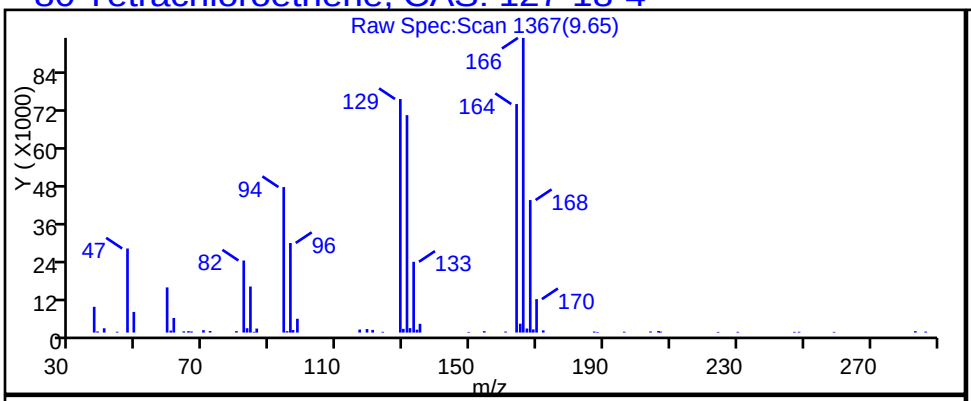
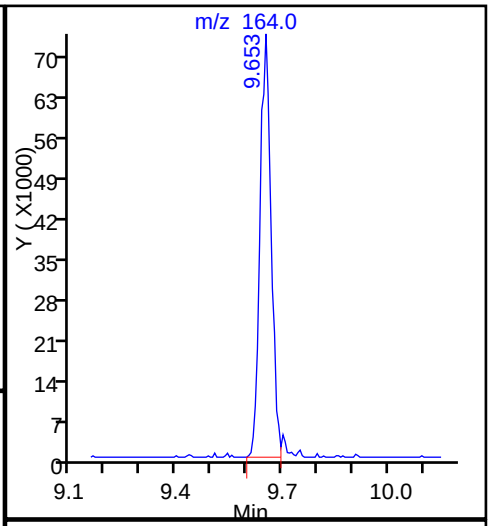
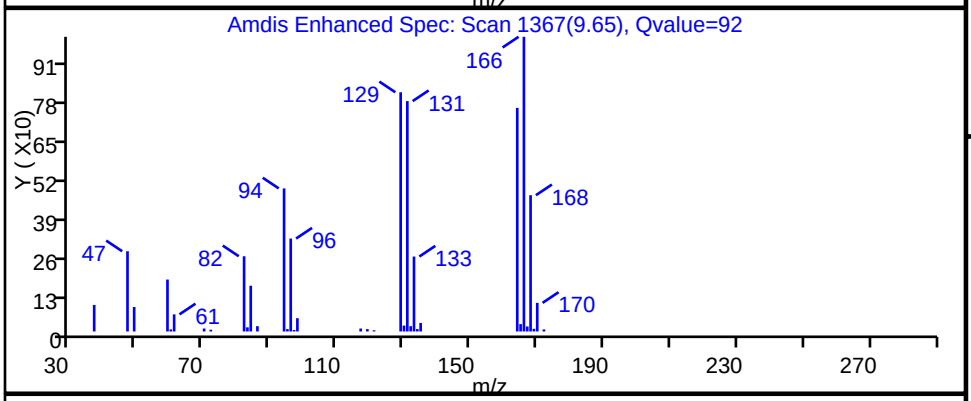
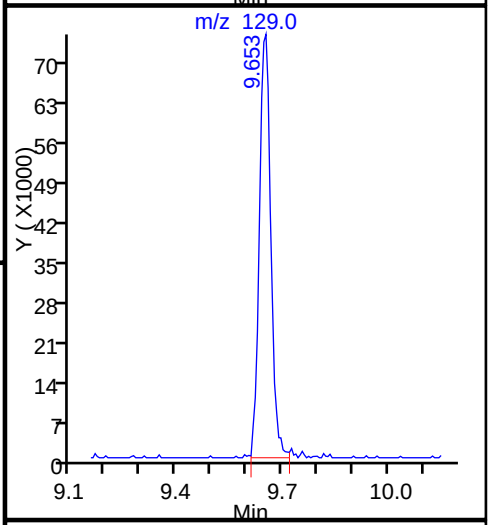
Operator ID:	034635	ALS Bottle#:	9 Worklist Smp#: 8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

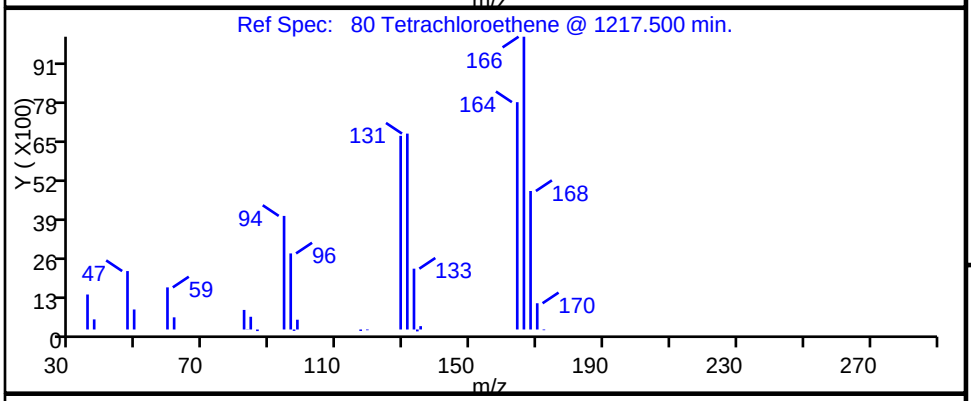
80 Tetrachloroethene, CAS: 127-18-4

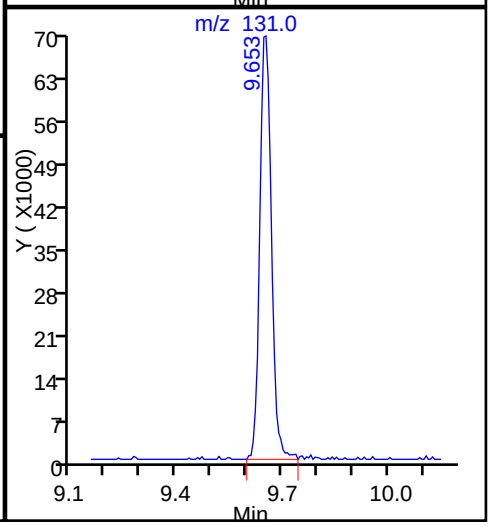


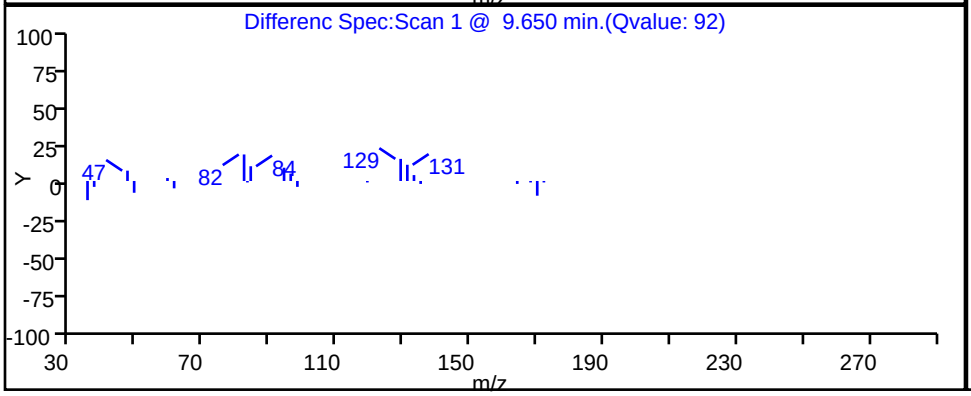












Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

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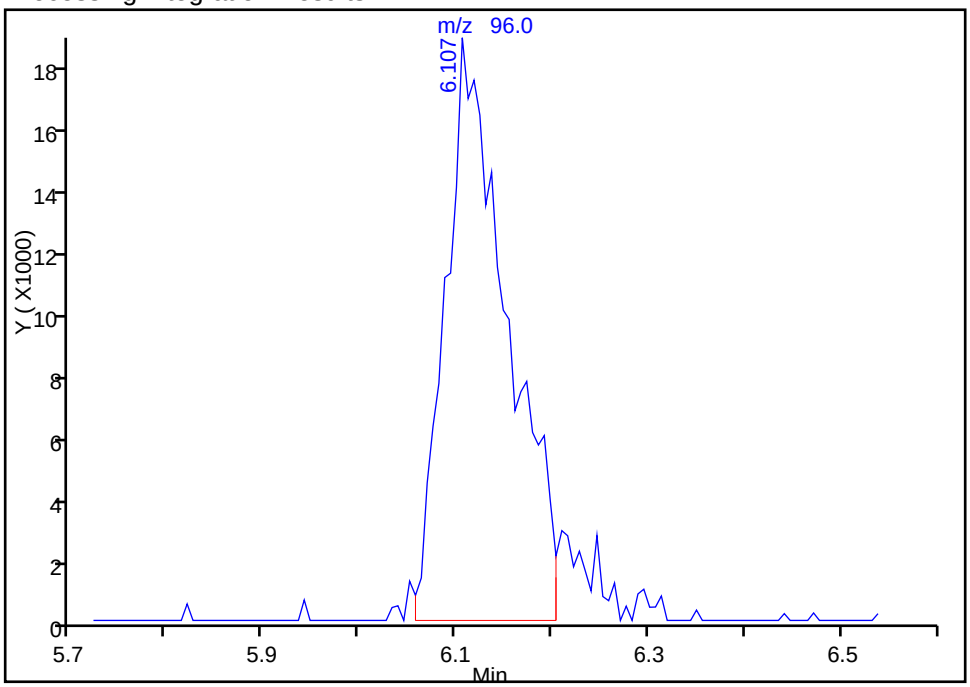
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

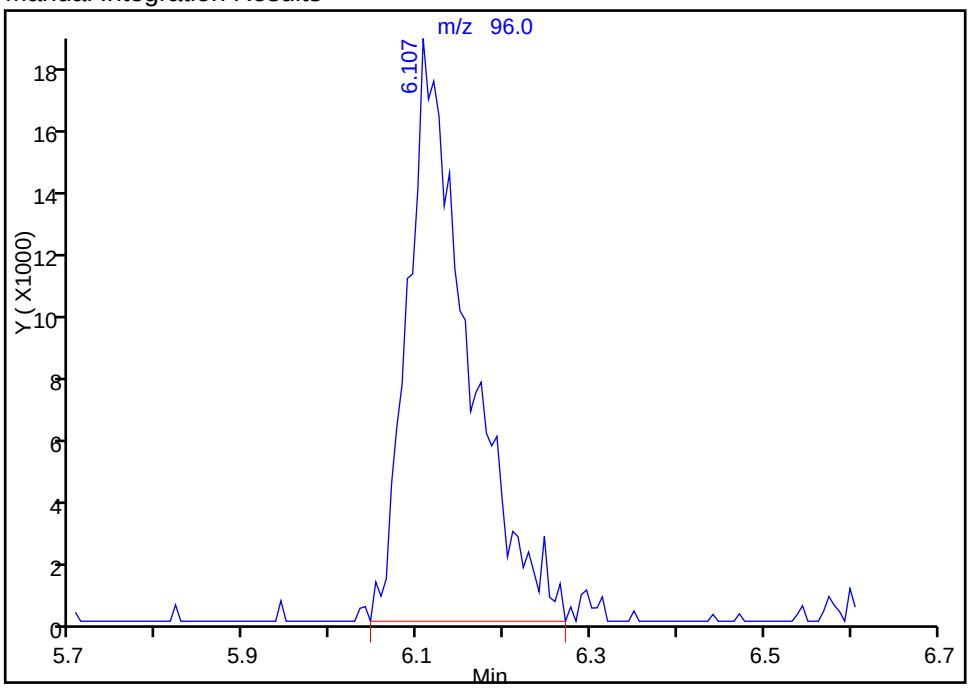
Processing Integration Results

RT: 6.11
Area: 81003
Amount: 54.020533
Amount Units: ng



Manual Integration Results

RT: 6.11
Area: 87590
Amount: 58.413374
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 12:50:46
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

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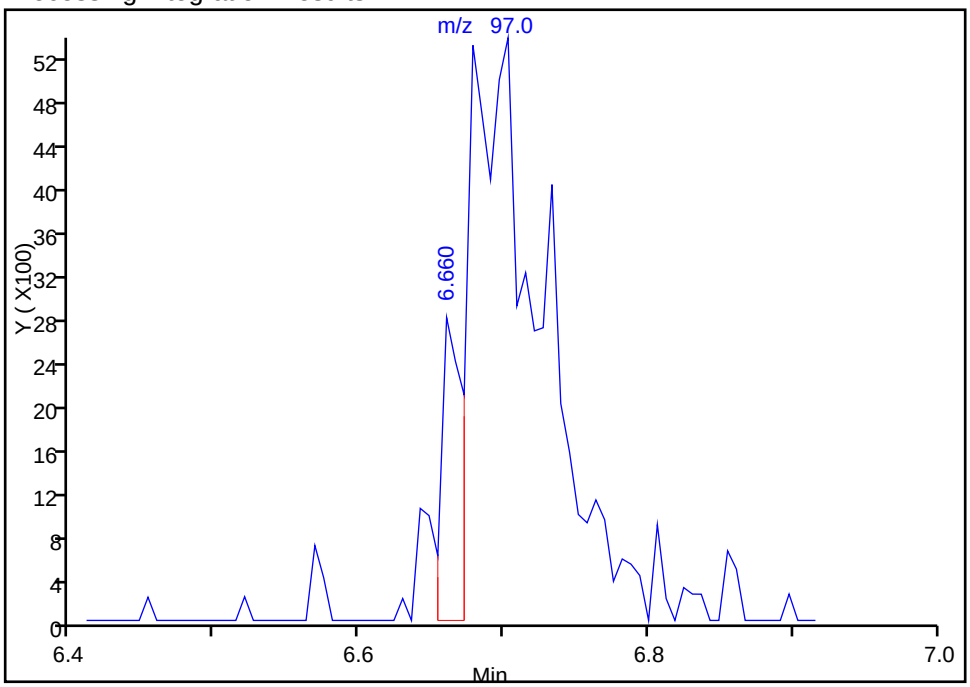
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

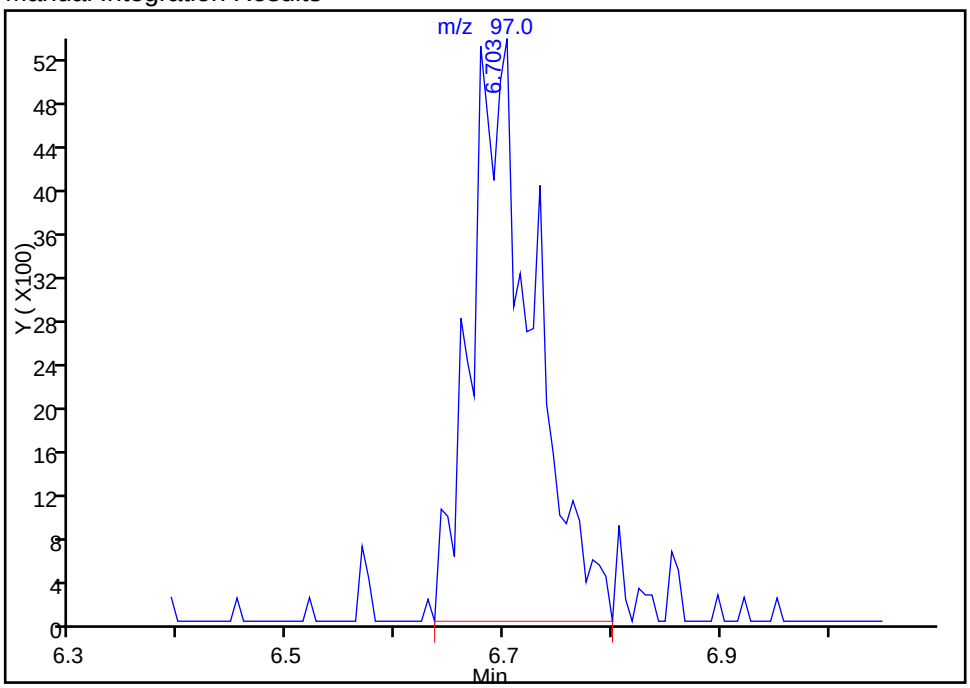
Processing Integration Results

RT: 6.66
Area: 2871
Amount: 1.267741
Amount Units: ng



Manual Integration Results

RT: 6.70
Area: 21586
Amount: 9.531678
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 12:50:46
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 | Lab Sample ID: 180-42391-11

Matrix: Water | Lab File ID: 7040319.D

Analysis Method: 8260C | Date Collected: 03/25/2015 11:12

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 17:53

Soil Aliquot Vol: | Dilution Factor: 4

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

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

Analysis Batch No.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	4.0	U	4.0	1.1
75-01-4	Vinyl chloride	4.0	U	4.0	0.91
74-83-9	Bromomethane	4.0	U	4.0	1.3
75-00-3	Chloroethane	4.0	U	4.0	0.86
75-35-4	1,1-Dichloroethene	1.3	J	4.0	1.2
67-64-1	Acetone	20	U	20	10
75-15-0	Carbon disulfide	4.0	U	4.0	0.85
75-09-2	Methylene Chloride	4.0	U	4.0	0.50
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.68
1634-04-4	Methyl tert-butyl ether	4.0	U	4.0	0.73
75-34-3	1,1-Dichloroethane	4.0	U	4.0	0.47
156-59-2	cis-1,2-Dichloroethene	42		4.0	0.95
74-97-5	Bromochloromethane	4.0	U	4.0	0.72
78-93-3	2-Butanone (MEK)	20	U	20	2.2
67-66-3	Chloroform	4.0	U	4.0	0.68
71-55-6	1,1,1-Trichloroethane	15		4.0	1.1
56-23-5	Carbon tetrachloride	4.0	U	4.0	0.55
71-43-2	Benzene	4.0	U	4.0	0.42
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.85
79-01-6	Trichloroethene	33		4.0	0.57
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.38
75-27-4	Bromodichloromethane	4.0	U	4.0	0.52
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.75
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.1
108-88-3	Toluene	4.0	U	4.0	0.60
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.59
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	0.81
127-18-4	*Tetrachloroethene*	*180*	*E*	*4.0*	*0.59*
591-78-6	2-Hexanone	20	U	20	0.64
124-48-1	Dibromochloromethane	4.0	U	4.0	0.55
106-93-4	1,2-Dibromoethane (EDB)	4.0	U	4.0	0.72
108-90-7	Chlorobenzene	4.0	U	4.0	0.54
630-20-6	1,1,1,2-Tetrachloroethane	4.0	U	4.0	1.1
100-41-4	Ethylbenzene	4.0	U	4.0	0.91
1330-20-7	Xylenes, Total	12	U	12	2.0
100-42-5	Styrene	4.0	U	4.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-42391-11

Matrix: Water Lab File ID: 7040319.D

Analysis Method: 8260C Date Collected: 03/25/2015 11:12

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 17:53

Soil Aliquot Vol: Dilution Factor: 4

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137438 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	4.0	U	4.0	0.77
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.80
107-13-1	Acrylonitrile	80	U	80	2.2
123-91-1	1,4-Dioxane	800	U	800	140

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D
Lims ID: 180-42391-C-11 Lab Sample ID: 180-42391-11
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 17:53:30 ALS Bottle#: 7 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 4.0000
Sample Info: 180-42391-C-11
Misc. Info.: 180-0006312-019
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 12:03:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: journetp Date: 04-Apr-2015 11:43:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.587	4.786	-0.199	92	107433	4000.0	
* 2 Fluorobenzene (IS)	96	7.421	7.402	0.019	99	608600	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.001	85	165296	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.786	0.001	96	214137	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.698	6.678	0.020	90	198148	204.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.043	0.007	96	156857	169.5	
$ 7 Toluene-d8 (Surr)	98	9.046	9.038	0.008	93	547801	223.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	90	223112	203.7	
12 Chloromethane	50		2.000				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.511				ND	
16 Chloroethane	64		2.626				ND	
22 1,1-Dichloroethene	96	3.680	3.527	0.153	1	5297	6.48	M
24 Acetone	43		3.801				ND	
26 Carbon disulfide	76		3.825				ND	
31 Methylene Chloride	84		4.354				ND	
34 trans-1,2-Dichloroethene	96		4.756				ND	
33 Acrylonitrile	53		4.816				ND	
35 Methyl tert-butyl ether	73		4.865				ND	
37 1,1-Dichloroethane	63		5.364				ND	
45 cis-1,2-Dichloroethene	96	6.132	6.112	0.020	74	210008	208.7	M
46 2-Butanone (MEK)	43		6.179				ND	
49 Chlorobromomethane	128		6.380				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.704	6.678	0.026	72	115497	76.0	
56 Carbon tetrachloride	117		6.861				ND	
58 Benzene	78		7.098				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.805	7.797	0.008	93	197282	164.3	
67 1,2-Dichloropropane	63		8.035				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.330				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.654	9.647	0.007	91	498844	917.4	E
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.018				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.608				ND	
91 m-Xylene & p-Xylene	106		10.724				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.131				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.776				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

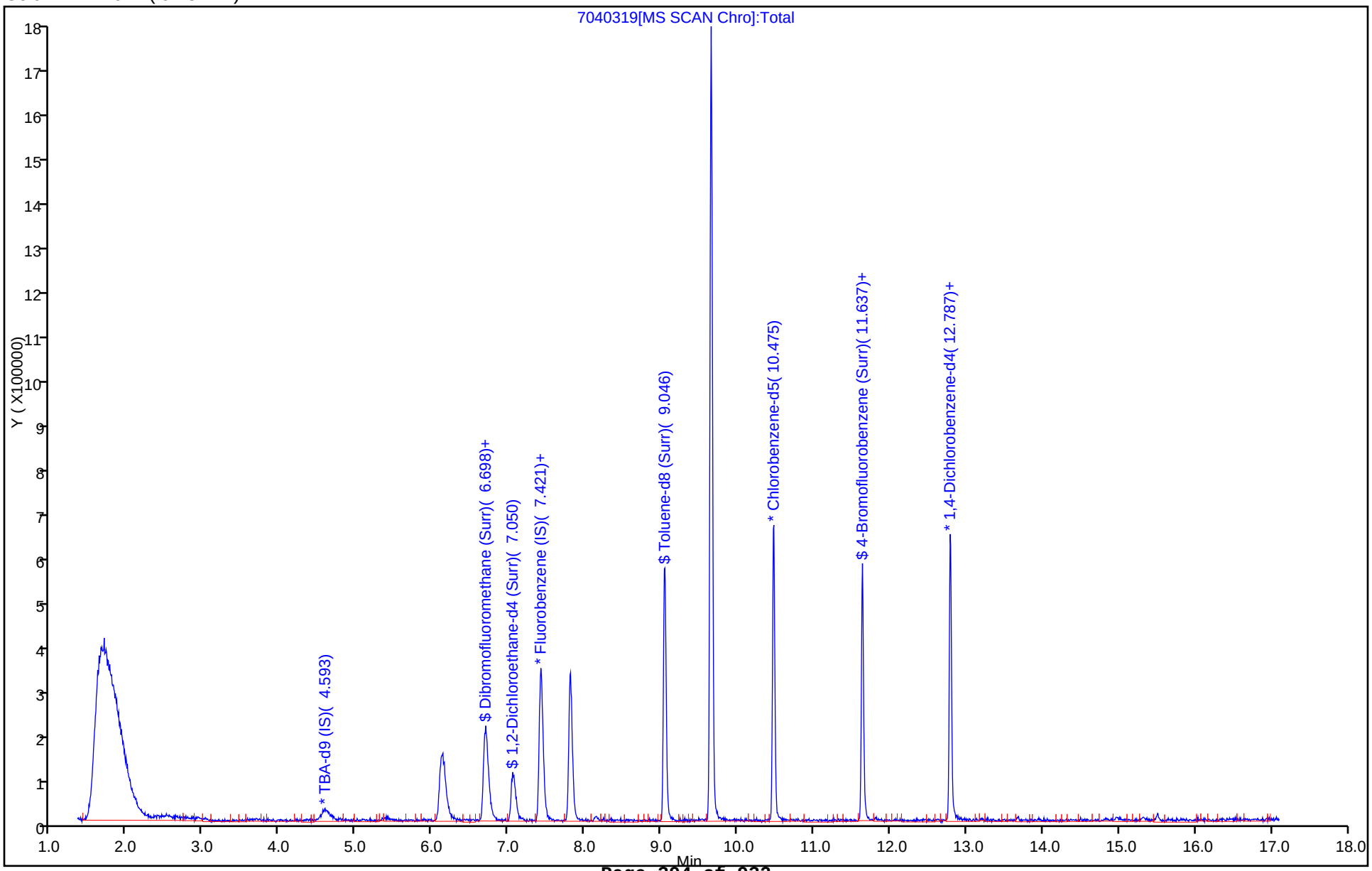
Report Date: 04-Apr-2015 12:04:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D

Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11	Worklist Smp#:	19
Client ID:	HD-MW-37S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	4.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



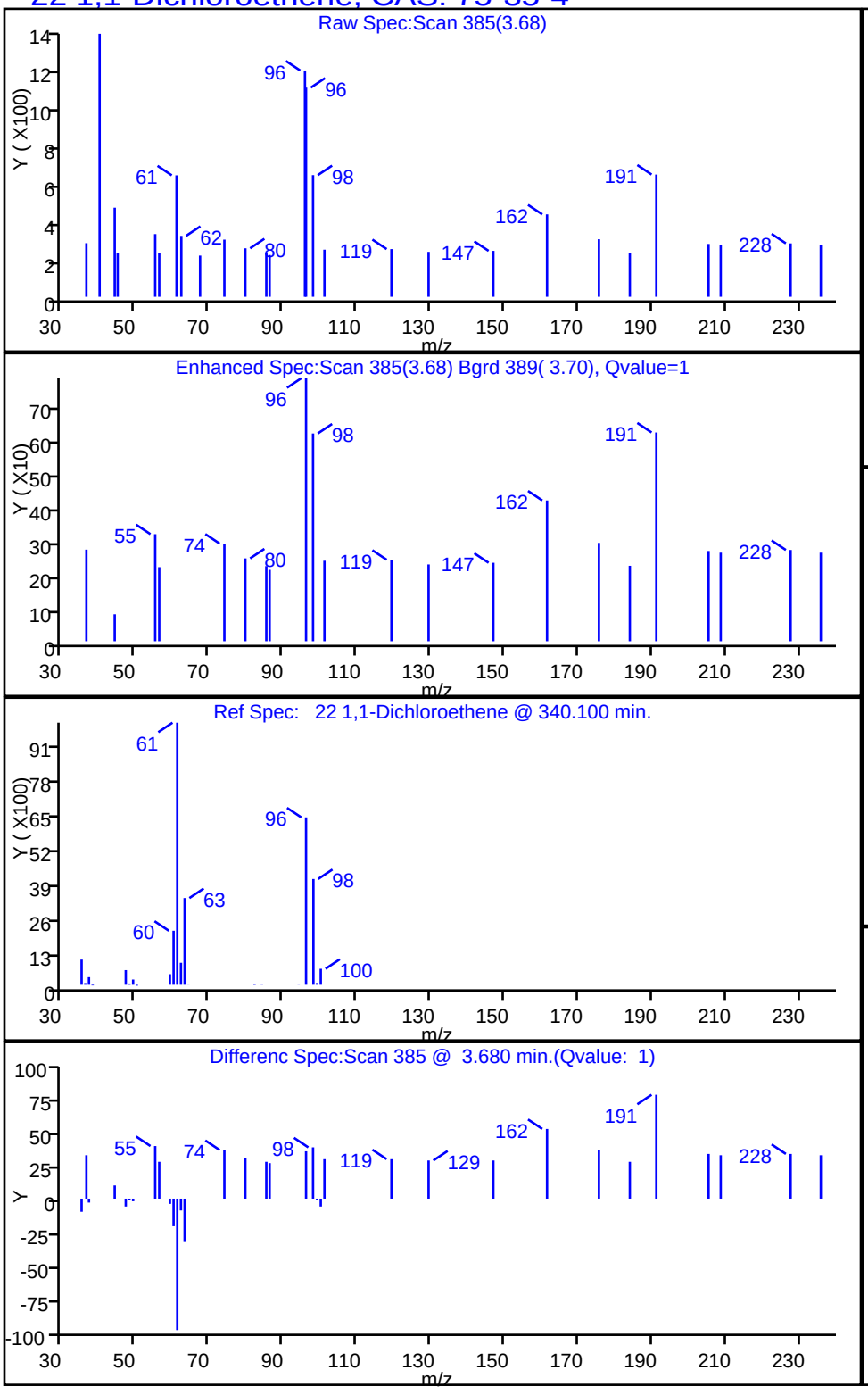
Report Date: 04-Apr-2015 12:04:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

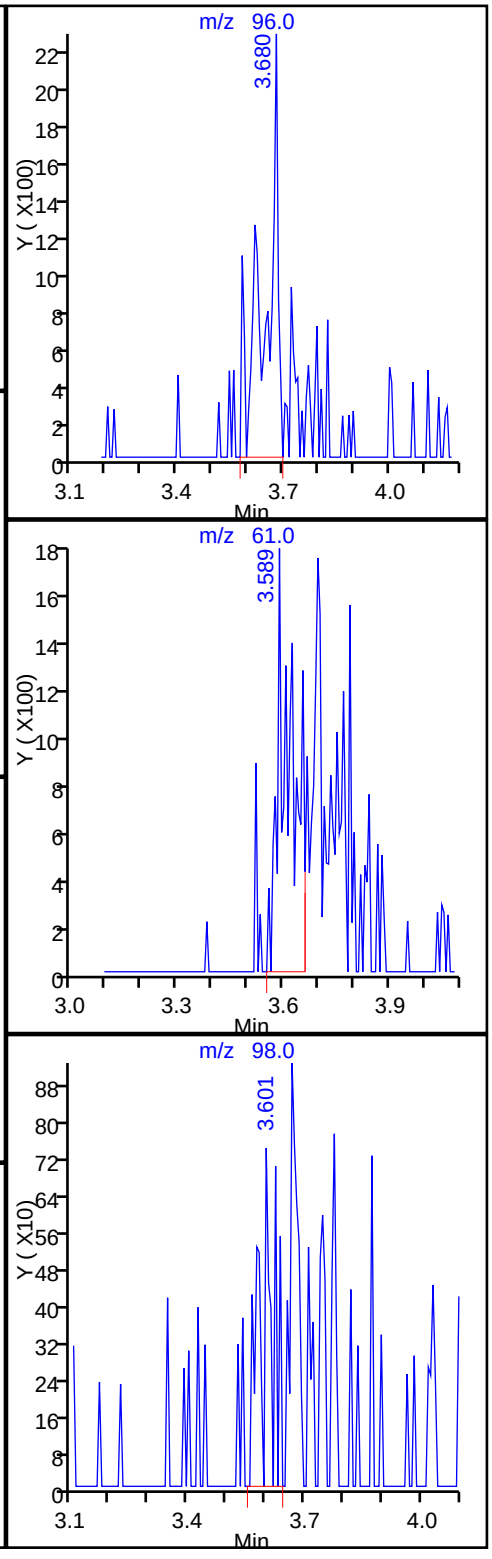
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D

Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	034635	ALS Bottle#:	7 Worklist Smp#: 19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



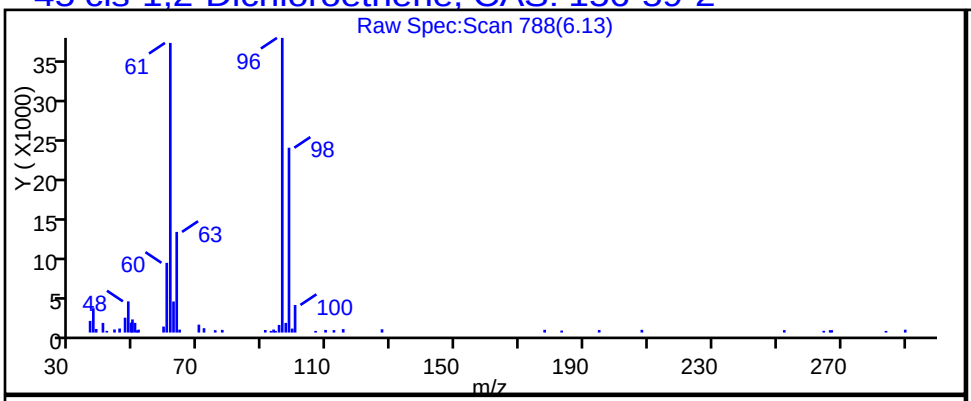


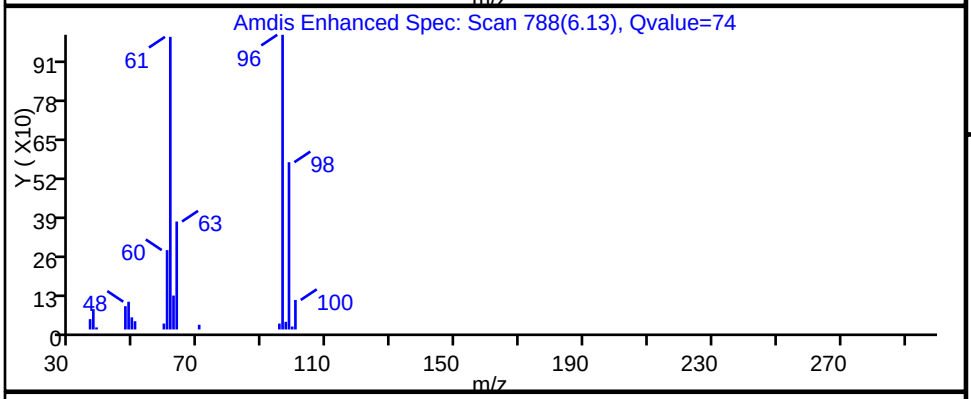
Report Date: 04-Apr-2015 12:04:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

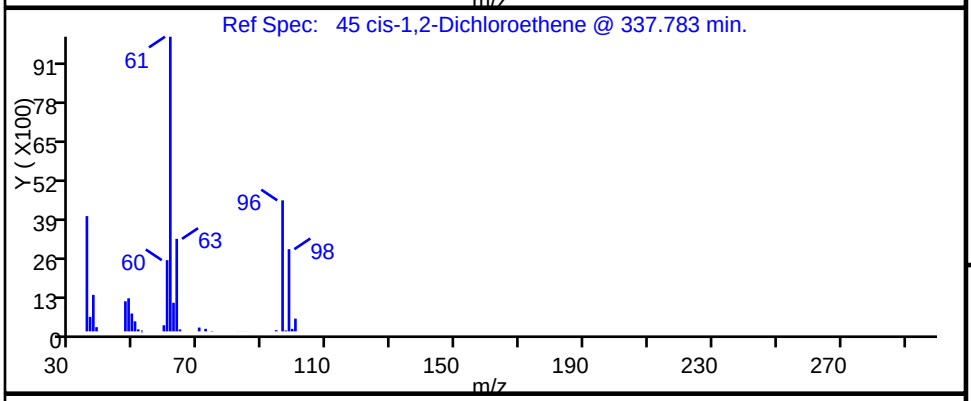
TestAmerica Pittsburgh

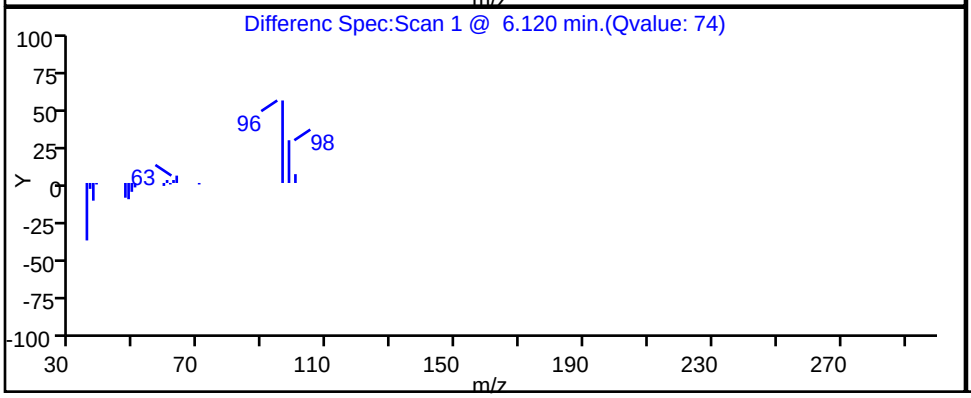
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D				
Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

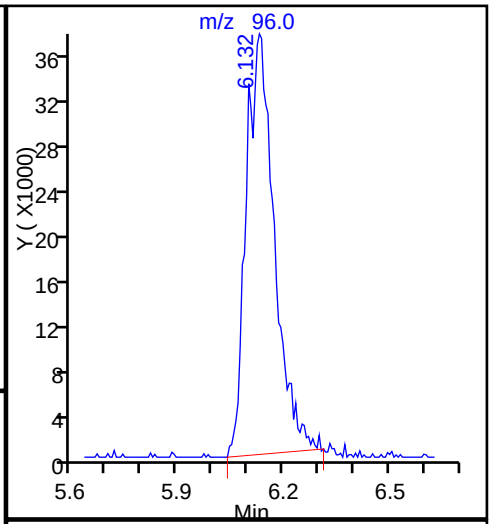
45 cis-1,2-Dichloroethene, CAS: 156-59-2

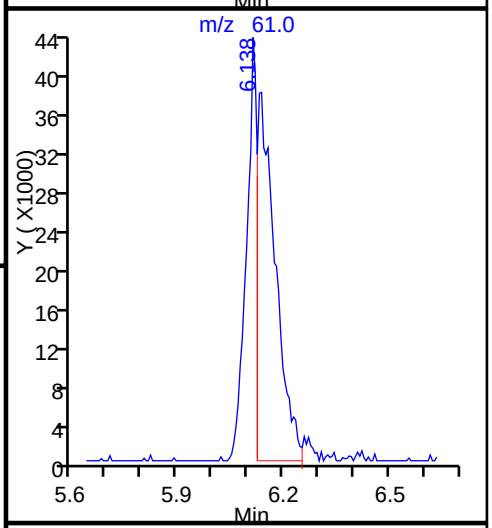


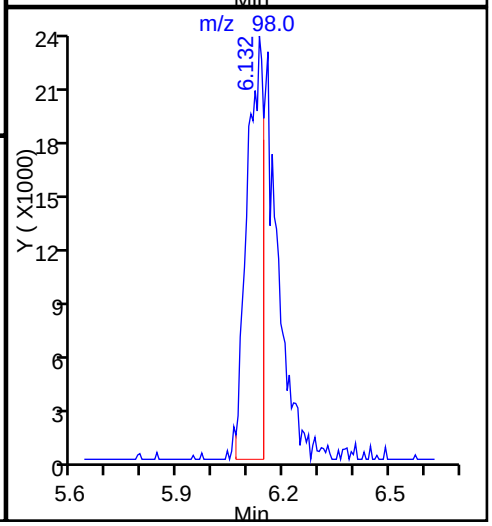










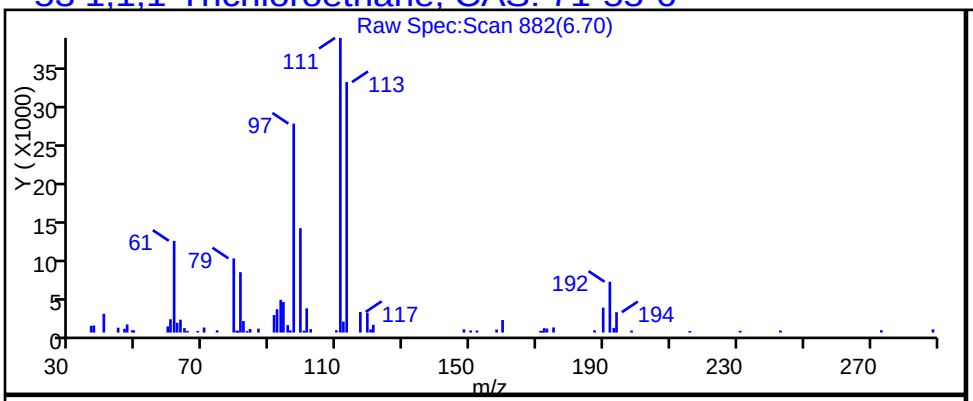


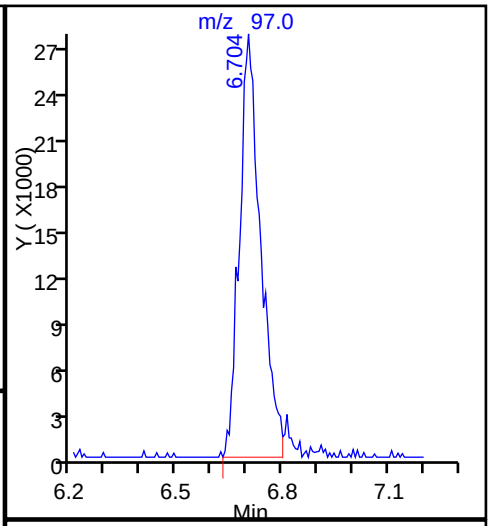
Report Date: 04-Apr-2015 12:04:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

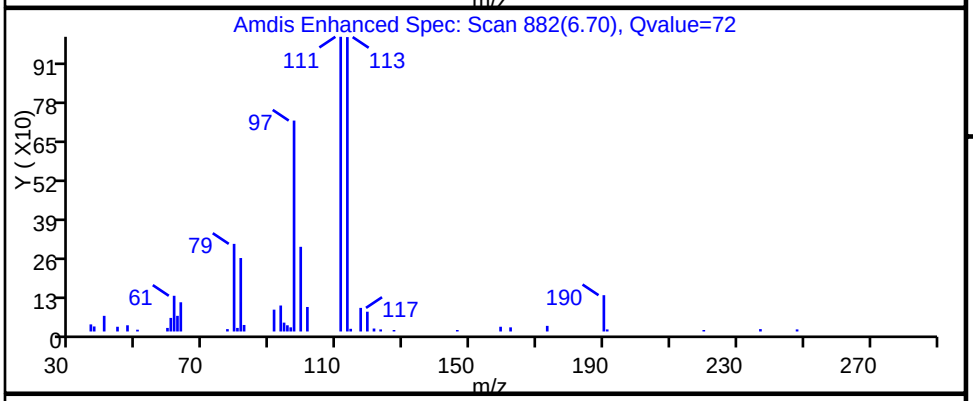
TestAmerica Pittsburgh

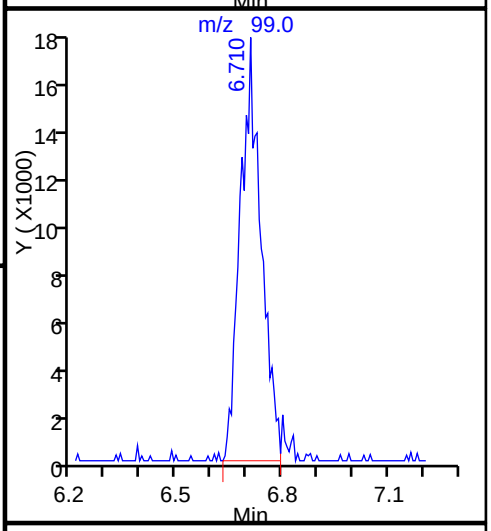
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D				
Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

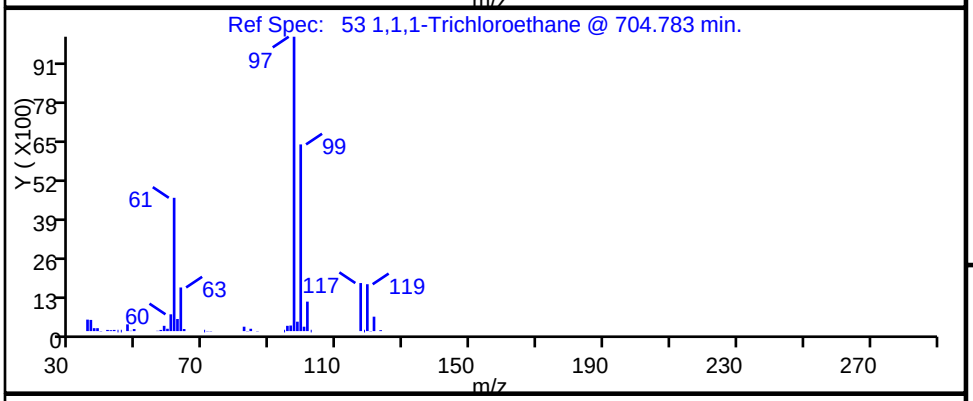
53 1,1,1-Trichloroethane, CAS: 71-55-6

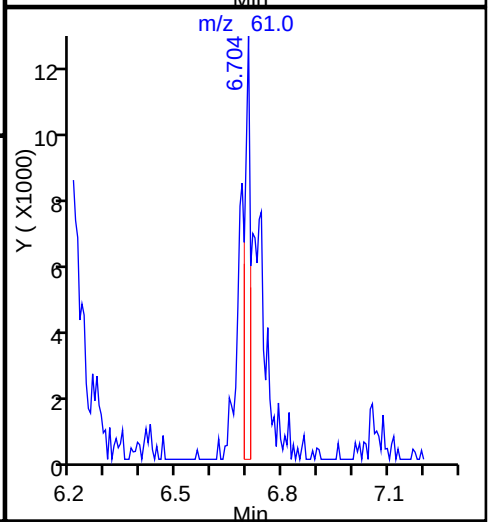


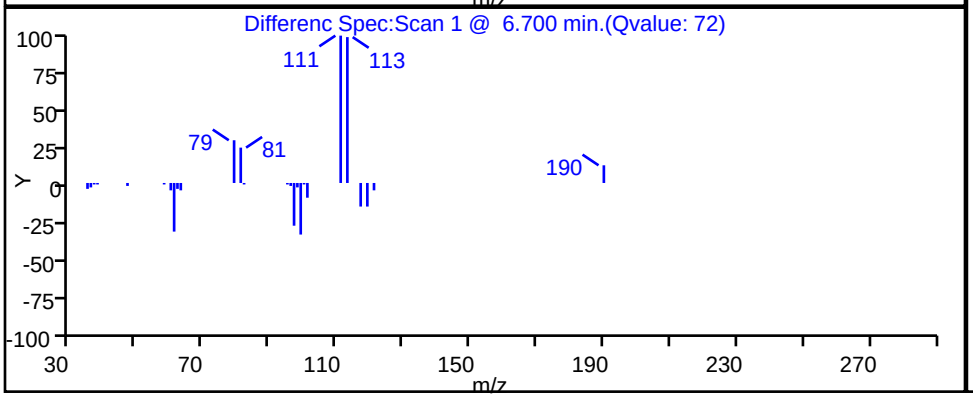










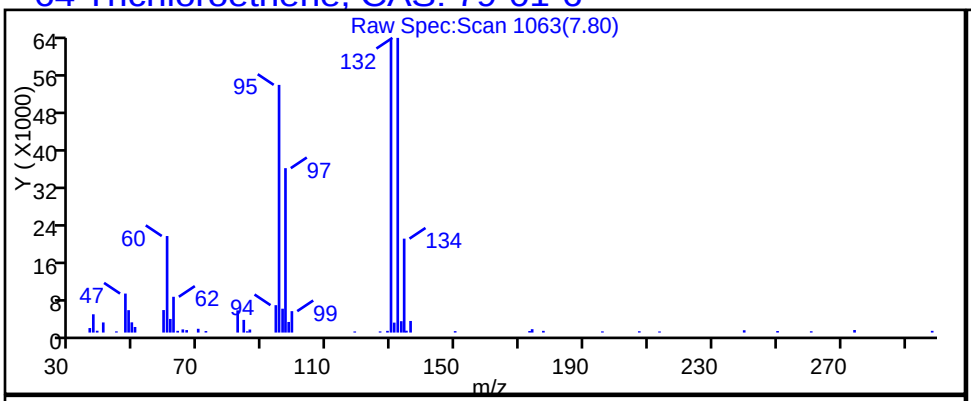


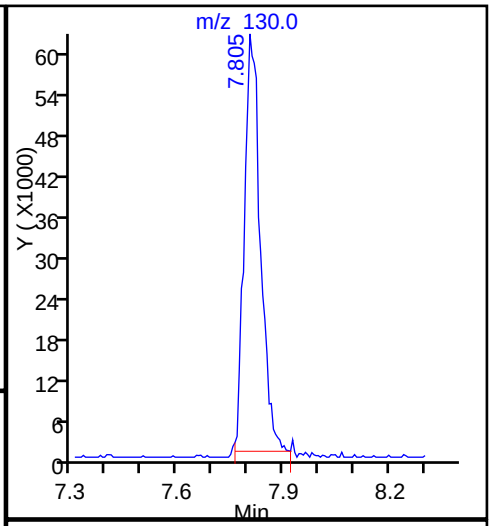
Report Date: 04-Apr-2015 12:04:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

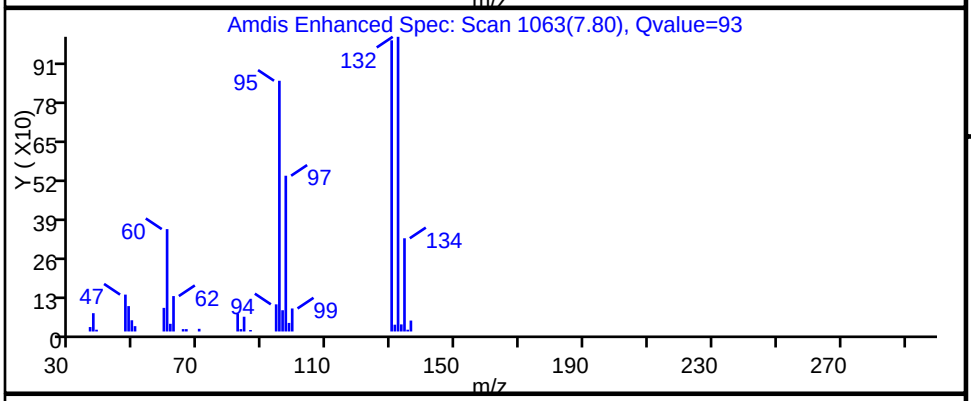
TestAmerica Pittsburgh

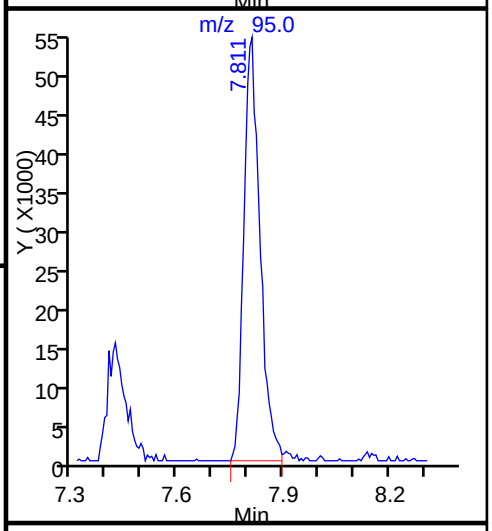
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D		
Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	034635	ALS Bottle#:	7 Worklist Smp#: 19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

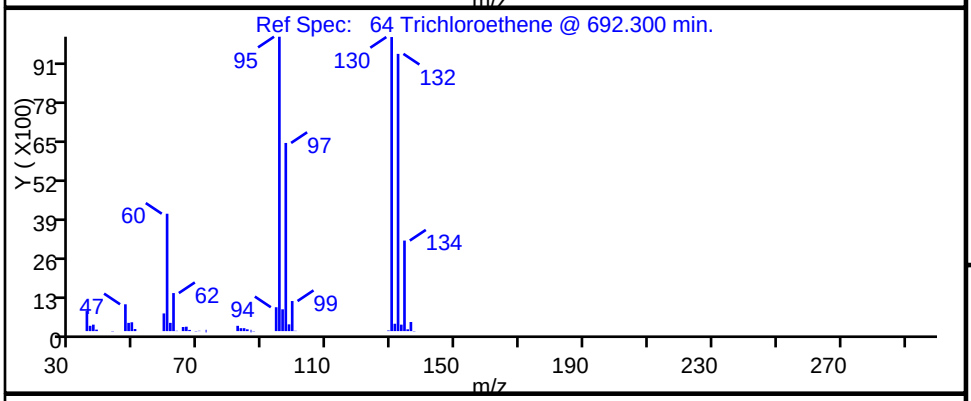
64 Trichloroethene, CAS: 79-01-6

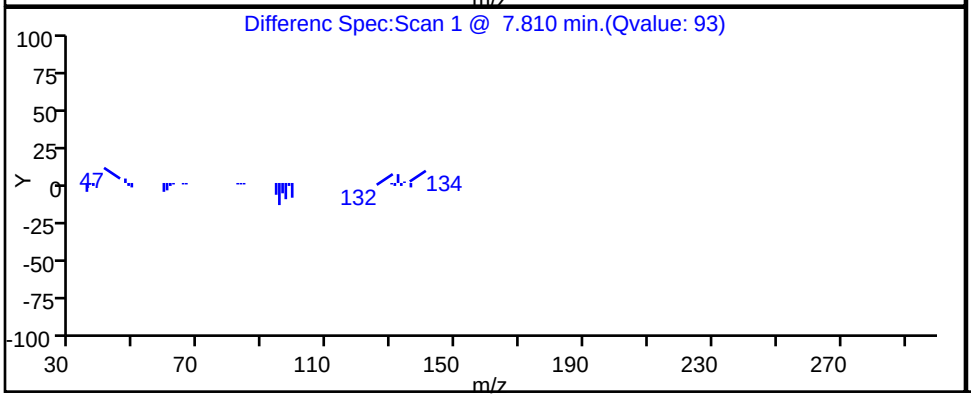


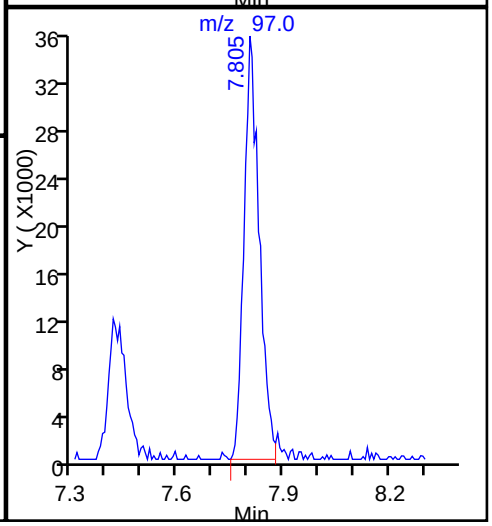










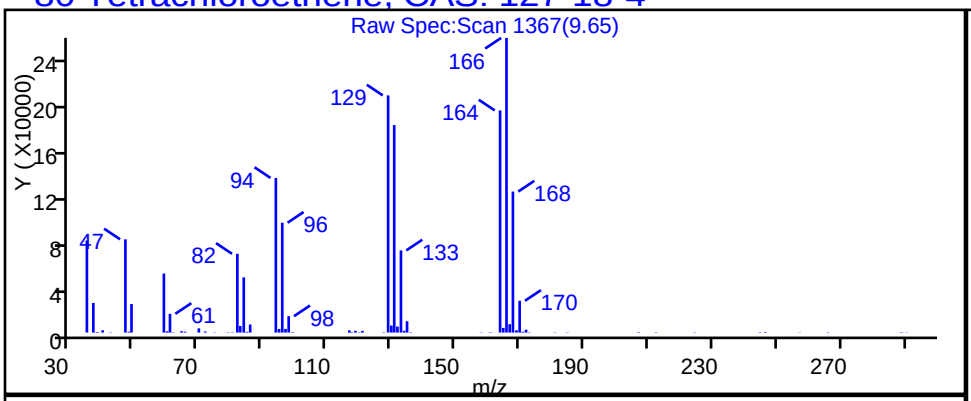


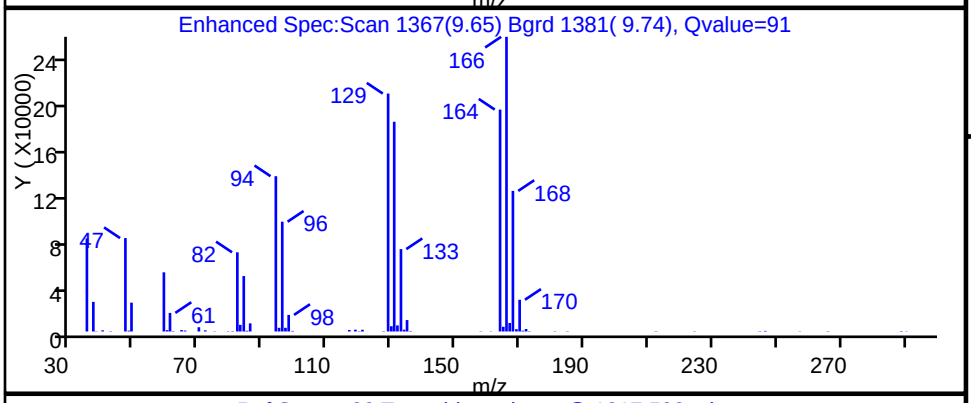
Report Date: 04-Apr-2015 12:04:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

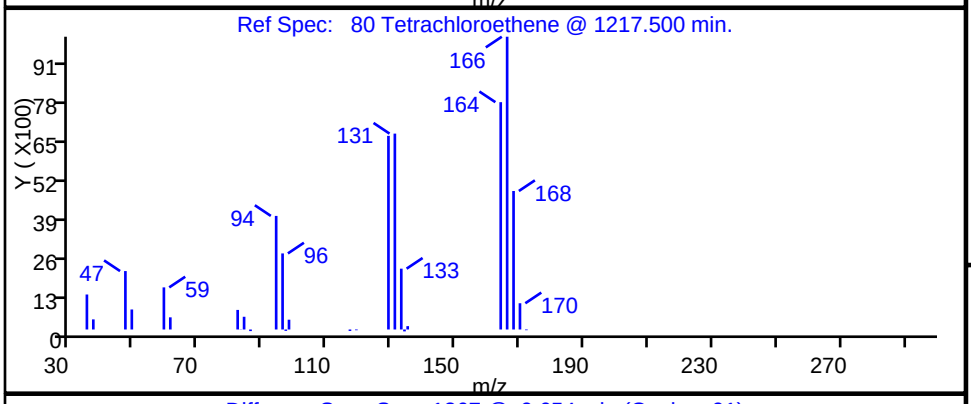
TestAmerica Pittsburgh

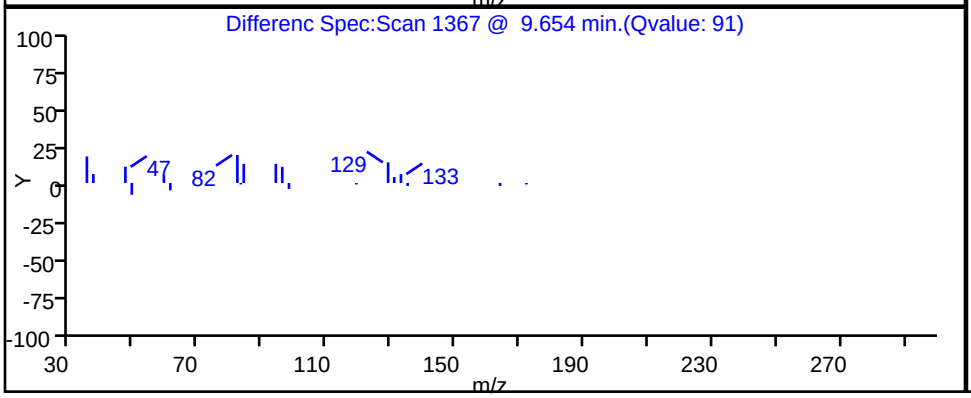
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D				
Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

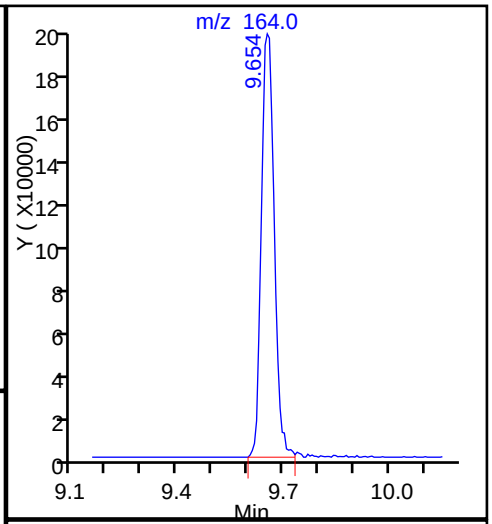
80 Tetrachloroethene, CAS: 127-18-4

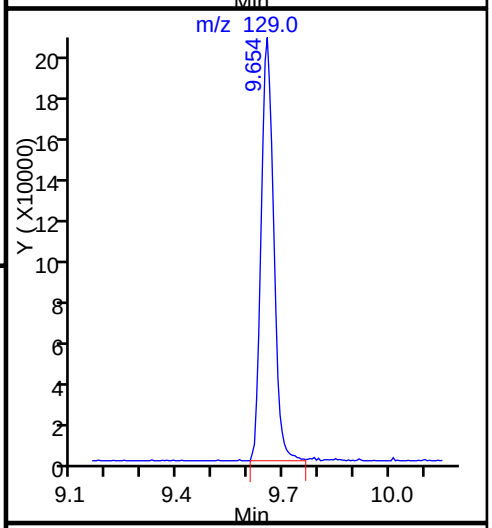


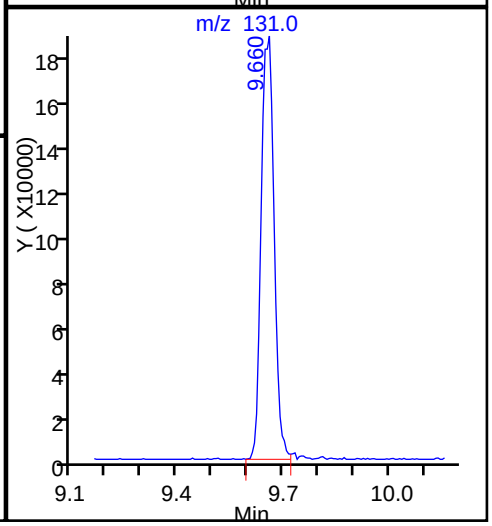












Manual Integration/User Assign Peak Report

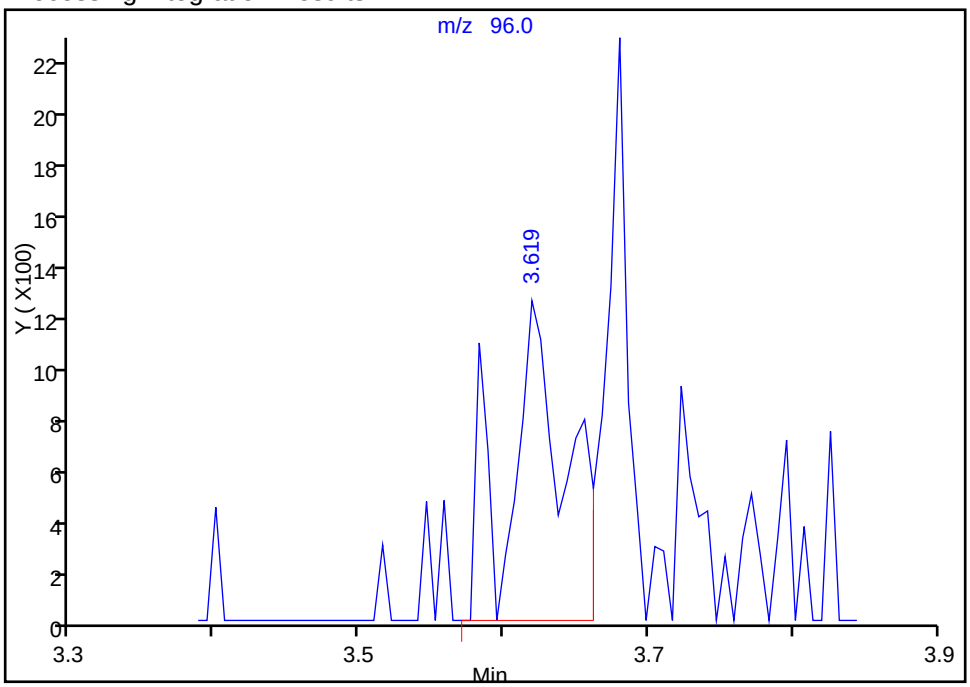
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D				
Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

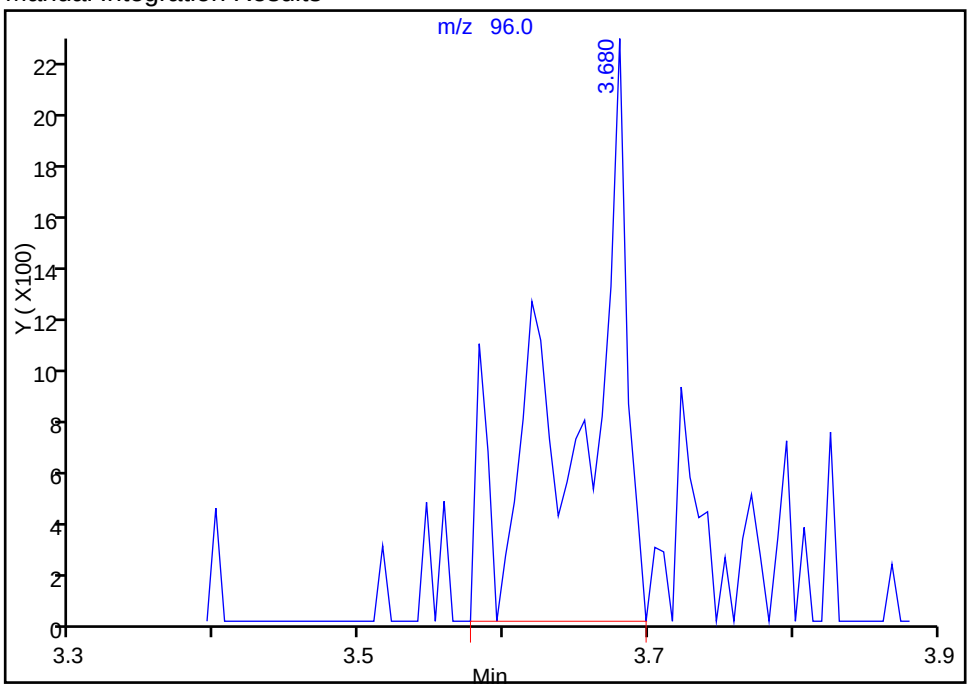
Processing Integration Results

RT: 3.62
Area: 3288
Amount: 4.023787
Amount Units: ng



Manual Integration Results

RT: 3.68
Area: 5297
Amount: 6.482359
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:43:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

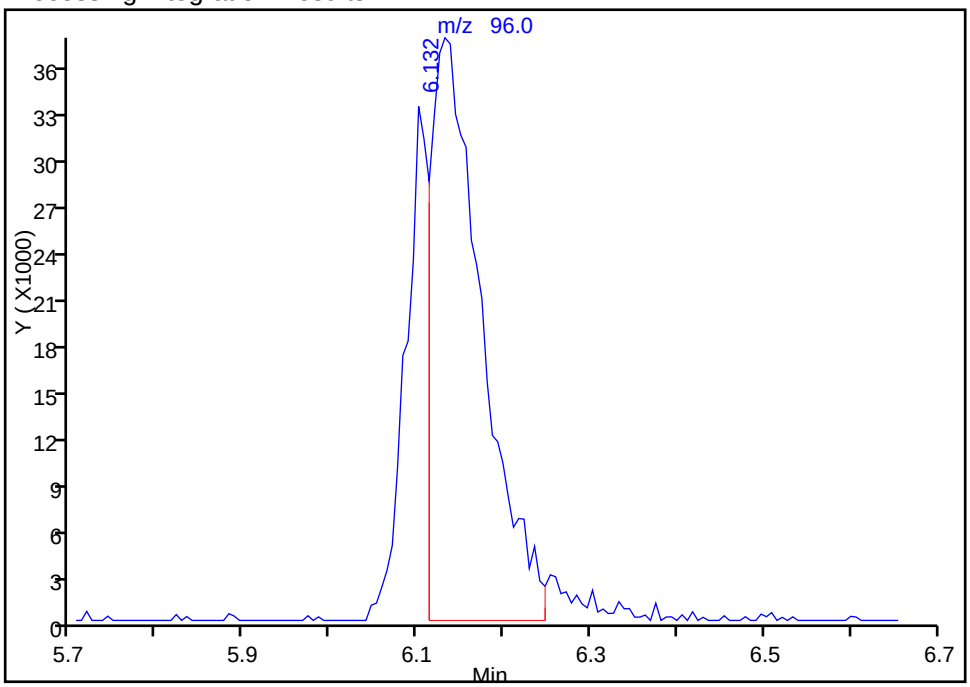
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040319.D				
Injection Date:	03-Apr-2015 17:53:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-11	Lab Sample ID:	180-42391-11		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	4.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

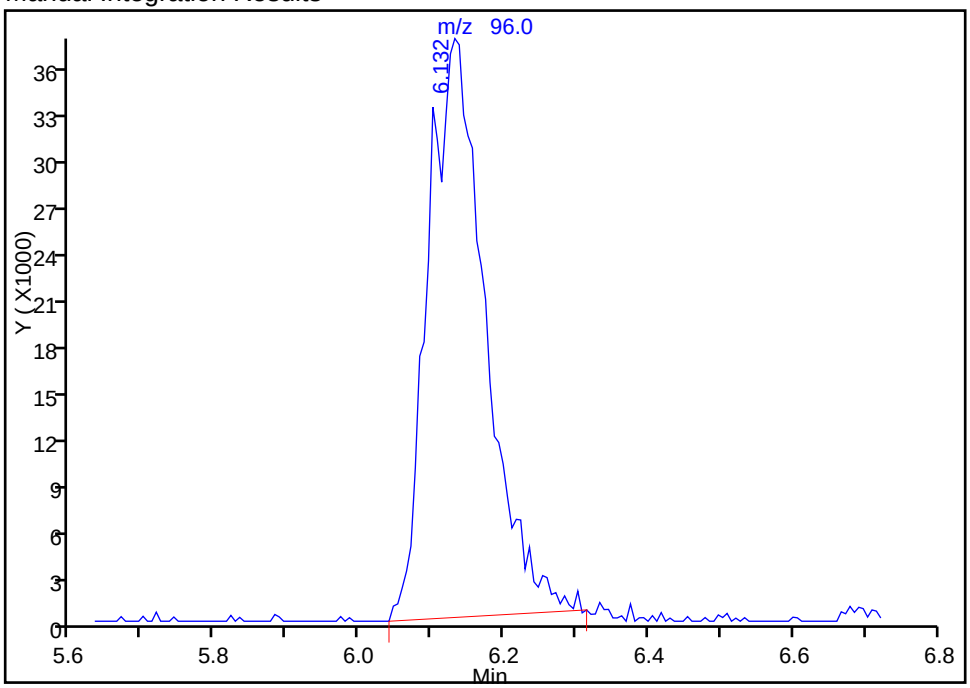
Processing Integration Results

RT: 6.13
Area: 156456
Amount: 155.5030
Amount Units: ng



Manual Integration Results

RT: 6.13
Area: 210008
Amount: 208.7288
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:43:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 | Lab Sample ID: 180-42391-12

Matrix: Water | Lab File ID: 7040315.D

Analysis Method: 8260C | Date Collected: 03/25/2015 15:20

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 16:05

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.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.99	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-42391-12

Matrix: Water Lab File ID: 7040315.D

Analysis Method: 8260C Date Collected: 03/25/2015 15:20

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 16:05

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.: 137438 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	54	X	64-135
2037-26-5	Toluene-d8 (Surr)	118		71-118
460-00-4	4-Bromofluorobenzene (Surr)	77		70-118
1868-53-7	Dibromofluoromethane (Surr)	81		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D
Lims ID: 180-42391-D-12 Lab Sample ID: 180-42391-12
Client ID: HD-MW-95-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 16:05:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-42391-D-12
Misc. Info.: 180-0006312-015
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 12:03:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: journetp Date: 03-Apr-2015 16:38:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.597	4.786	-0.189	92	143838	4000.0	
* 2 Fluorobenzene (IS)	96	7.420	7.402	0.018	99	1057240	200.0	
* 3 Chlorobenzene-d5	119	10.474	10.468	0.006	84	249217	200.0	M
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	95	300872	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.690	6.678	0.012	90	272225	161.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.067	7.043	0.024	93	172091	107.0	M
$ 7 Toluene-d8 (Surr)	98	9.044	9.038	0.006	93	874524	236.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	90	259724	153.9	M
12 Chloromethane	50		2.000				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.511				ND	
16 Chloroethane	64		2.626				ND	
22 1,1-Dichloroethene	96		3.527				ND	
24 Acetone	43		3.801				ND	
26 Carbon disulfide	76		3.825				ND	
31 Methylene Chloride	84		4.354				ND	
34 trans-1,2-Dichloroethene	96		4.756				ND	
33 Acrylonitrile	53		4.816				ND	
35 Methyl tert-butyl ether	73		4.865				ND	
37 1,1-Dichloroethane	63		5.364				ND	
45 cis-1,2-Dichloroethene	96	6.106	6.112	-0.006	1	49747	28.5	M
46 2-Butanone (MEK)	43		6.179				ND	
49 Chlorobromomethane	128		6.380				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	M
56 Carbon tetrachloride	117		6.861				ND	
58 Benzene	78		7.098				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.815	7.797	0.018	94	41178	19.7	M
67 1,2-Dichloropropane	63		8.035				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.330				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164		9.647				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.018				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.608				ND	
91 m-Xylene & p-Xylene	106		10.724				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.131				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.776				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

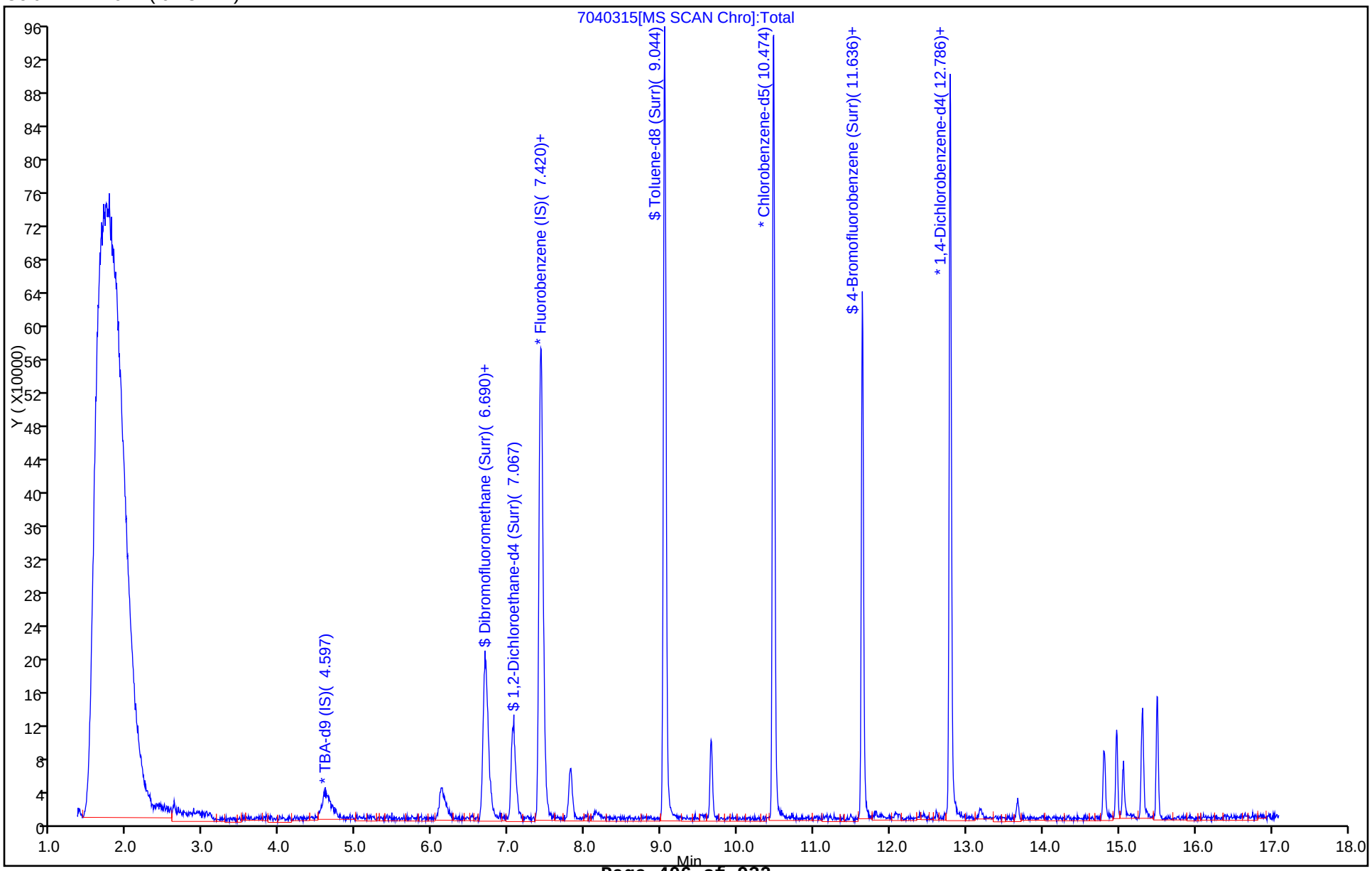
Report Date: 04-Apr-2015 12:04:46 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D

Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12	Worklist Smp#:	15
Client ID:	HD-MW-95-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

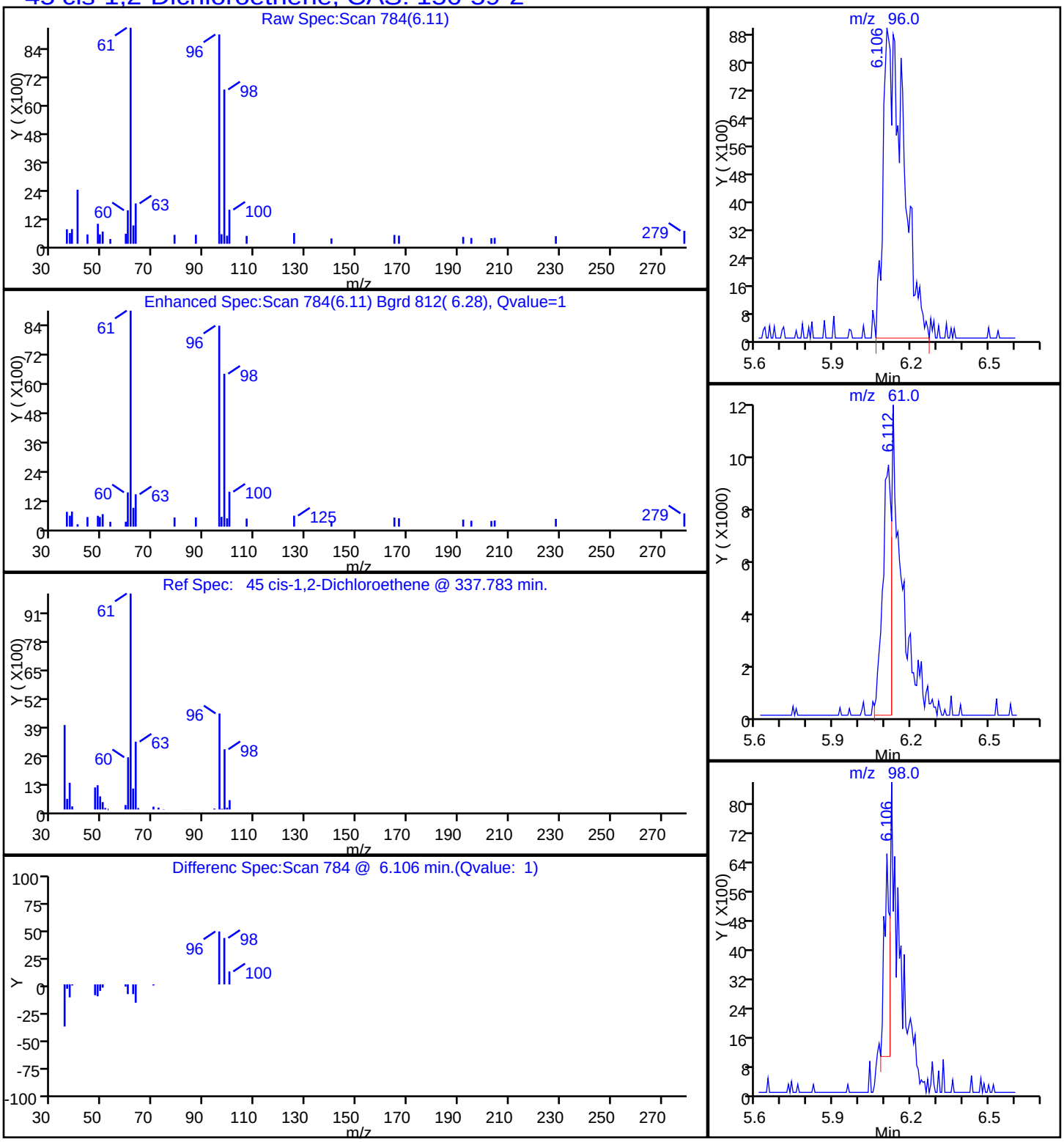


Report Date: 04-Apr-2015 12:04:46 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

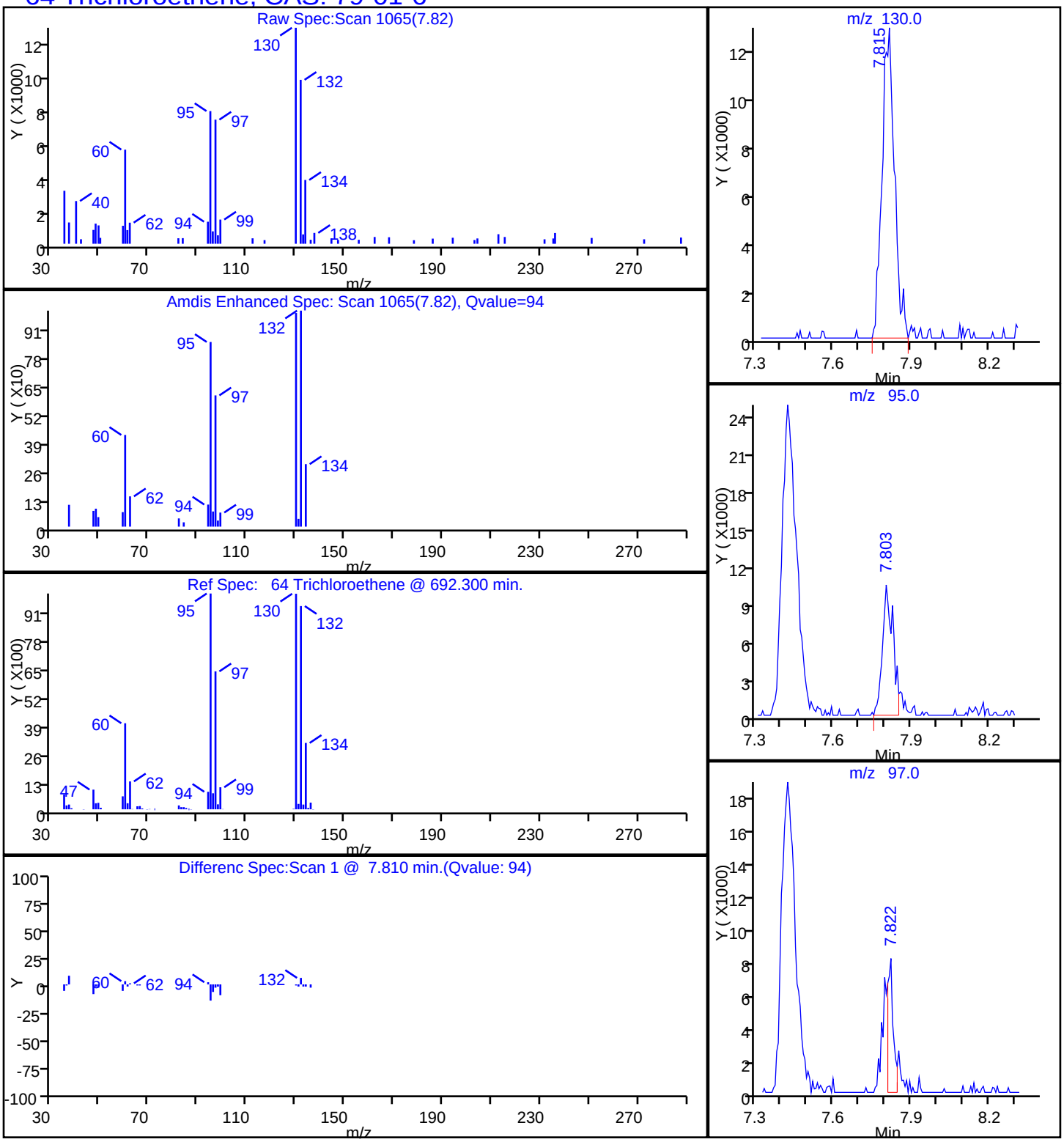


Report Date: 04-Apr-2015 12:04:46 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

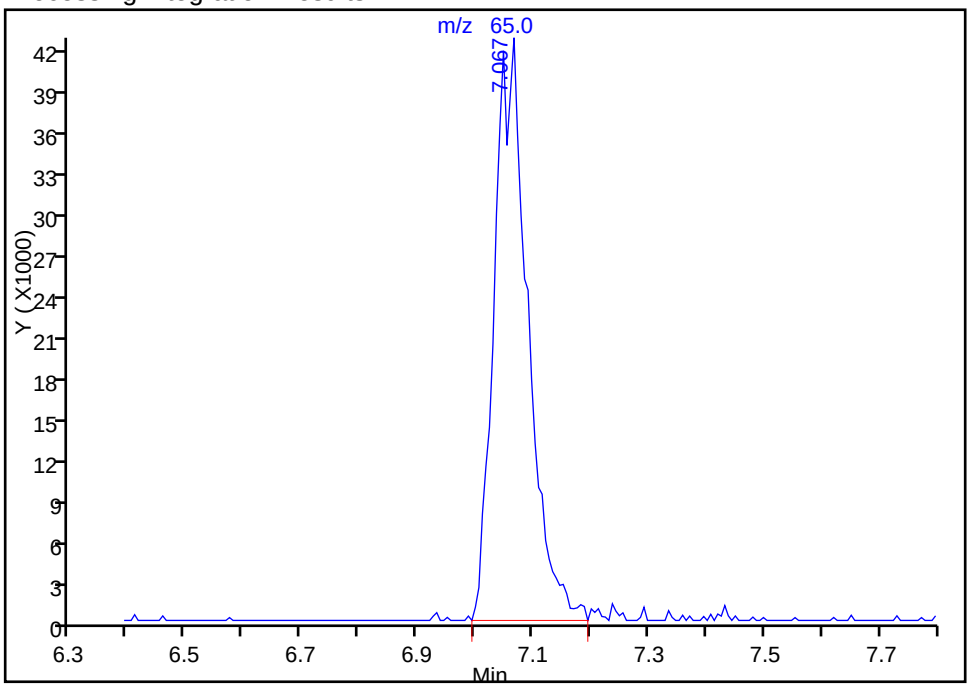
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

$ 6 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

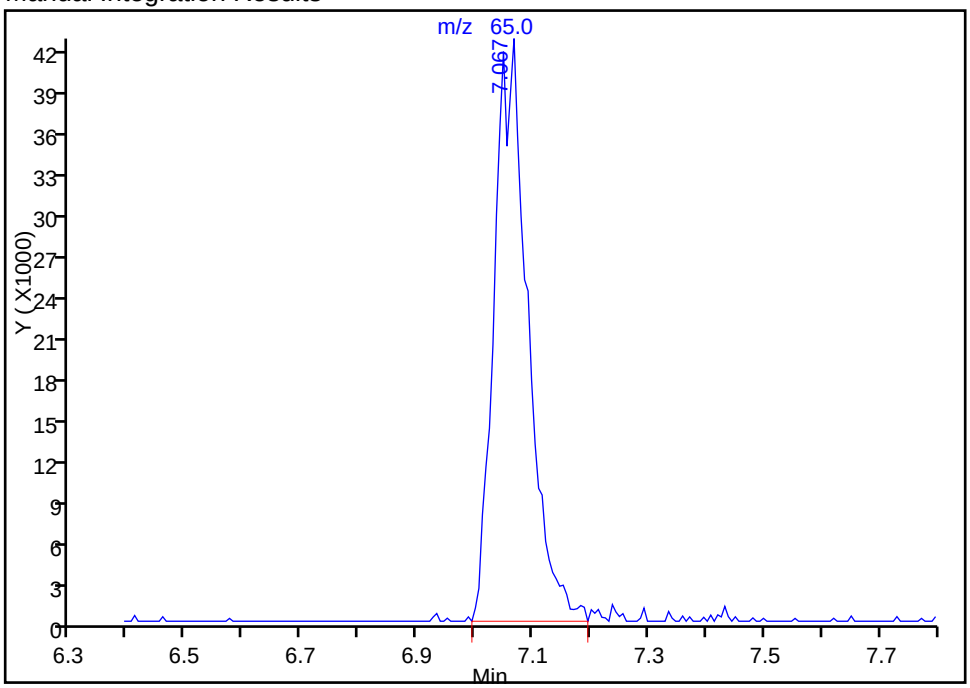
Processing Integration Results

RT: 7.07
Area: 172091
Amount: 107.0323
Amount Units: ng



Manual Integration Results

RT: 7.07
Area: 172091
Amount: 107.0323
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 16:38:50
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

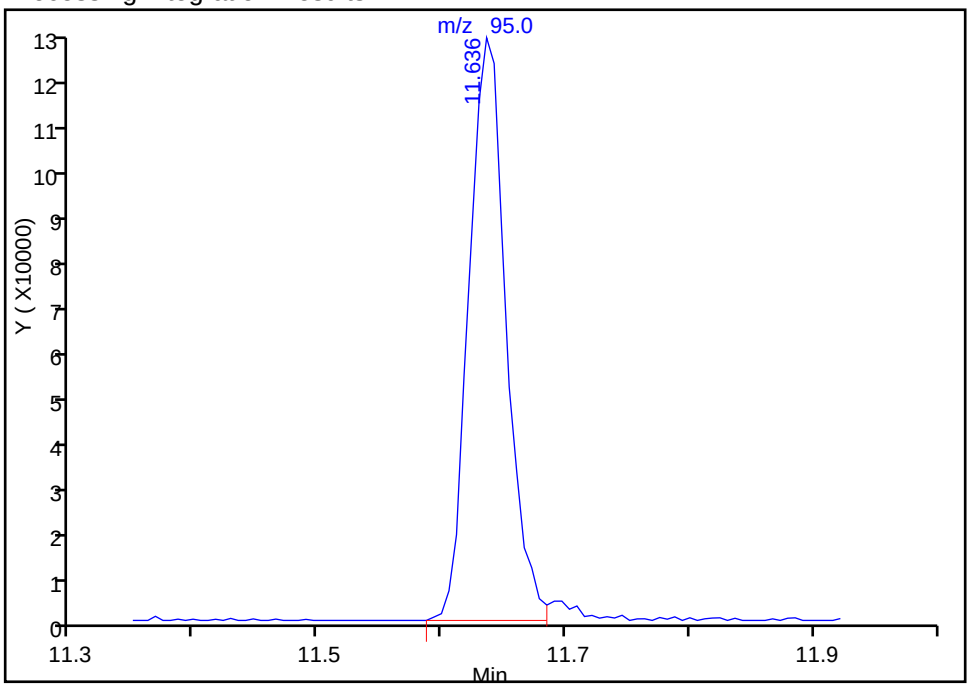
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

$ 8 4-Bromofluorobenzene (Surr), CAS: 460-00-4

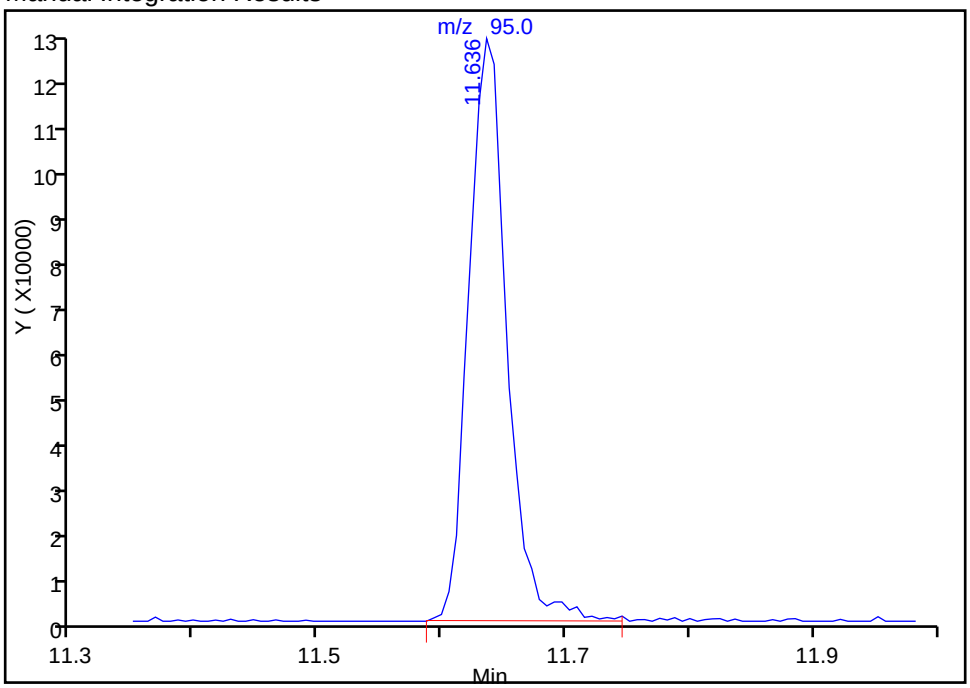
Processing Integration Results

RT: 11.64
Area: 254118
Amount: 151.6098
Amount Units: ng



Manual Integration Results

RT: 11.64
Area: 259724
Amount: 153.8710
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 16:38:50
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

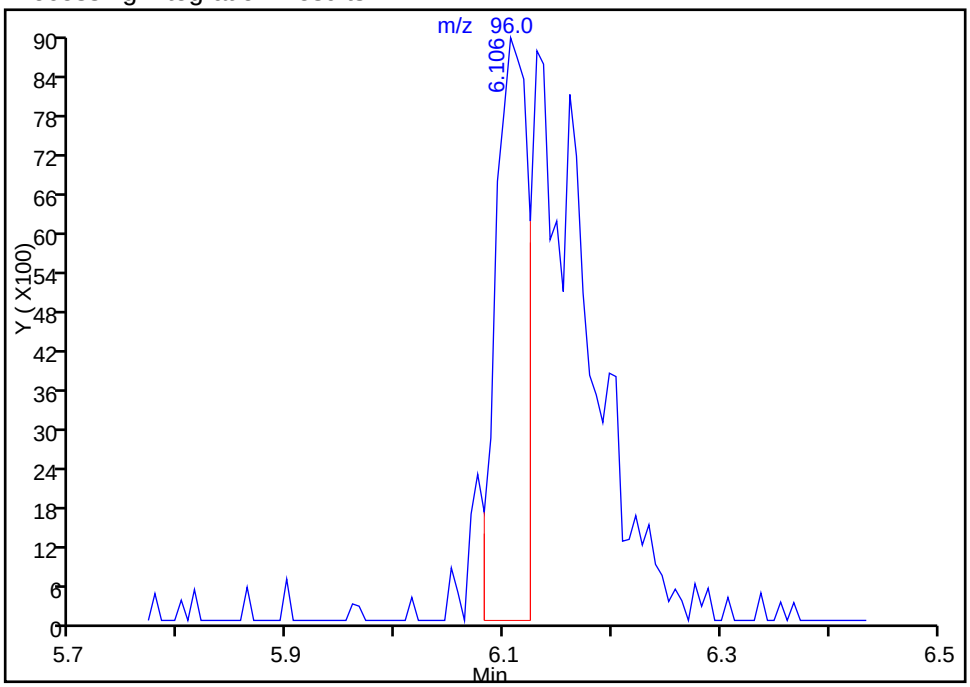
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

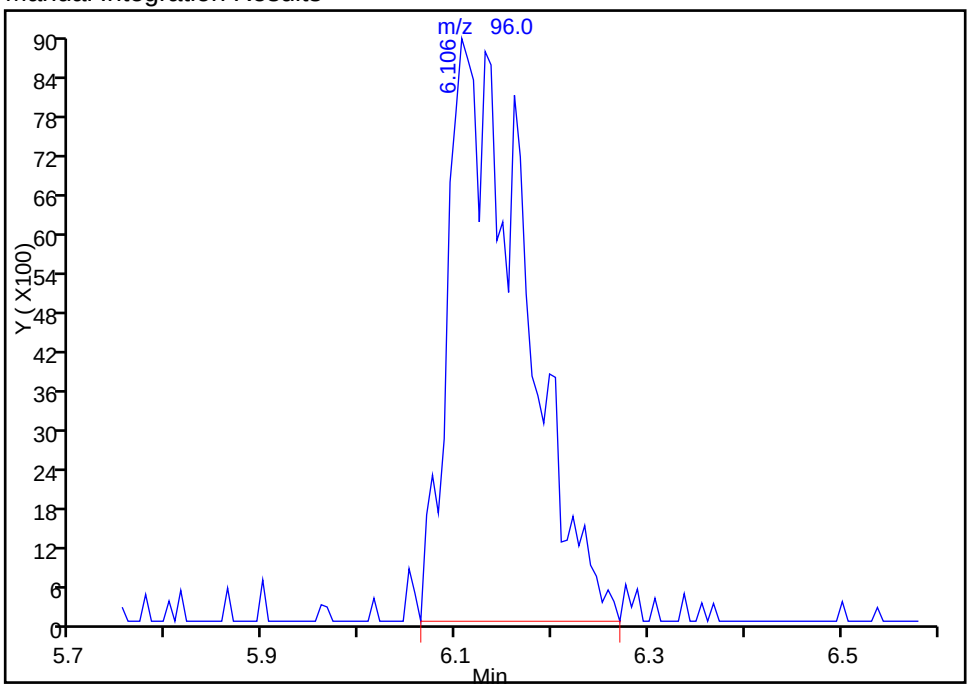
Processing Integration Results

RT: 6.11
Area: 18586
Amount: 10.633857
Amount Units: ng



Manual Integration Results

RT: 6.11
Area: 49747
Amount: 28.462416
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:38:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

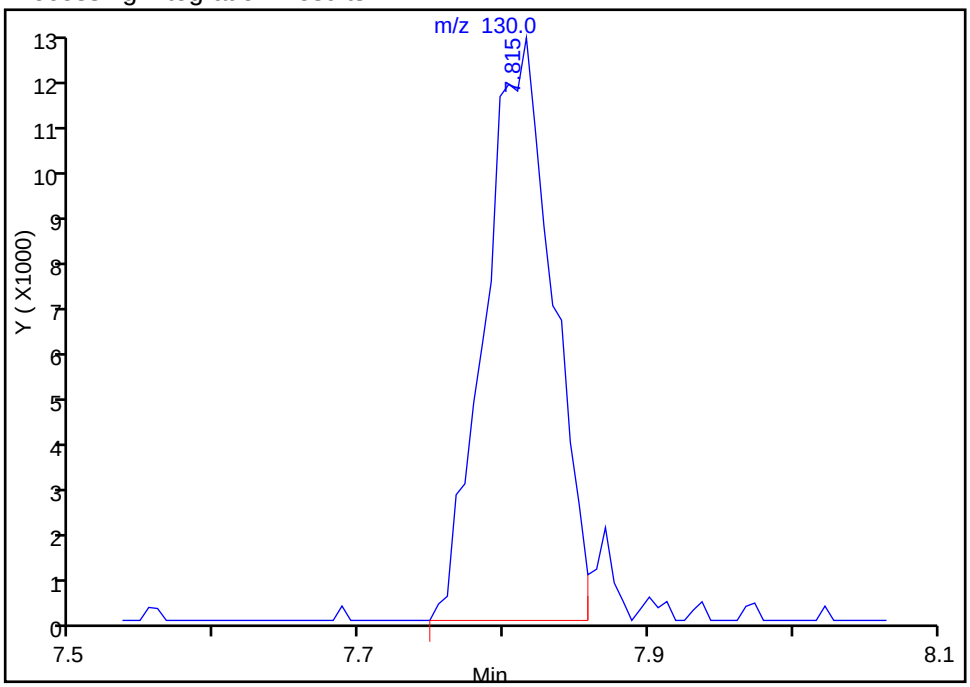
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

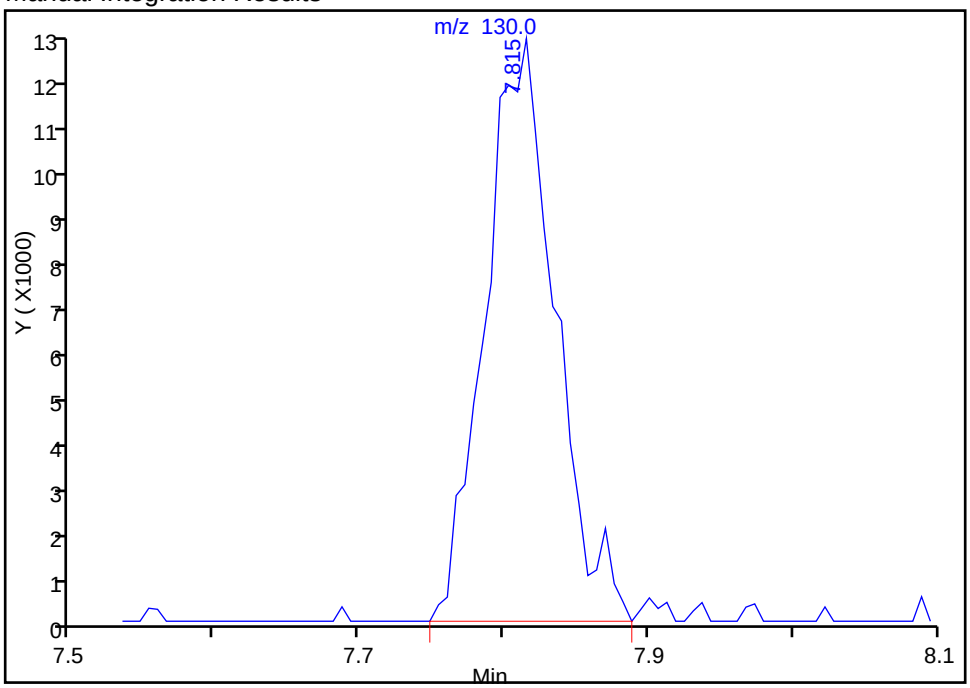
Processing Integration Results

RT: 7.82
Area: 39631
Amount: 19.000205
Amount Units: ng



Manual Integration Results

RT: 7.82
Area: 41178
Amount: 19.741880
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:38:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

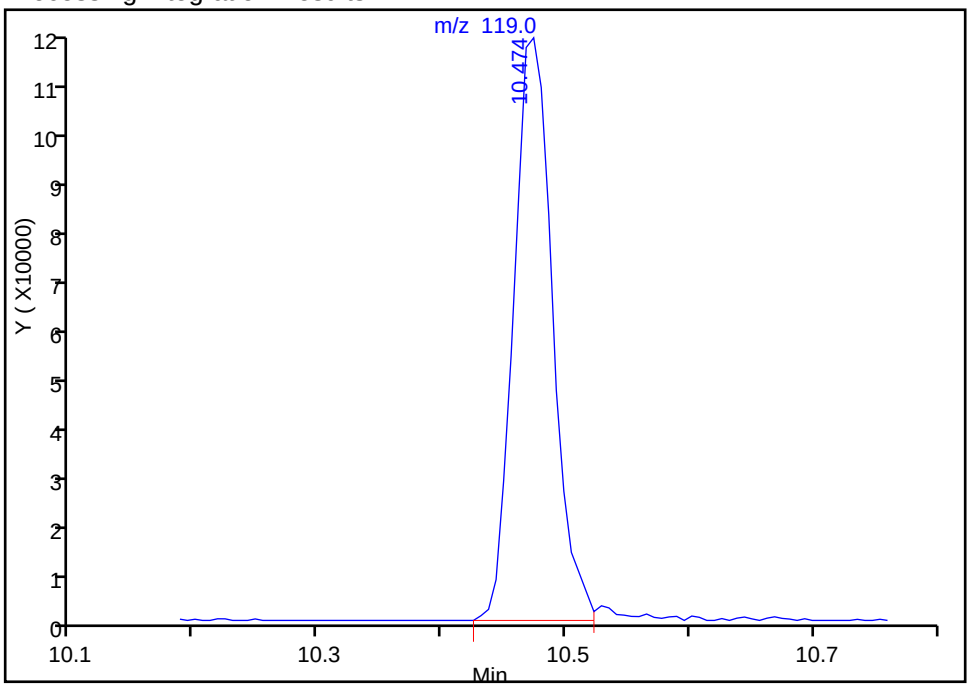
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040315.D				
Injection Date:	03-Apr-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-D-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 3 Chlorobenzene-d5, CAS: 3114-55-4

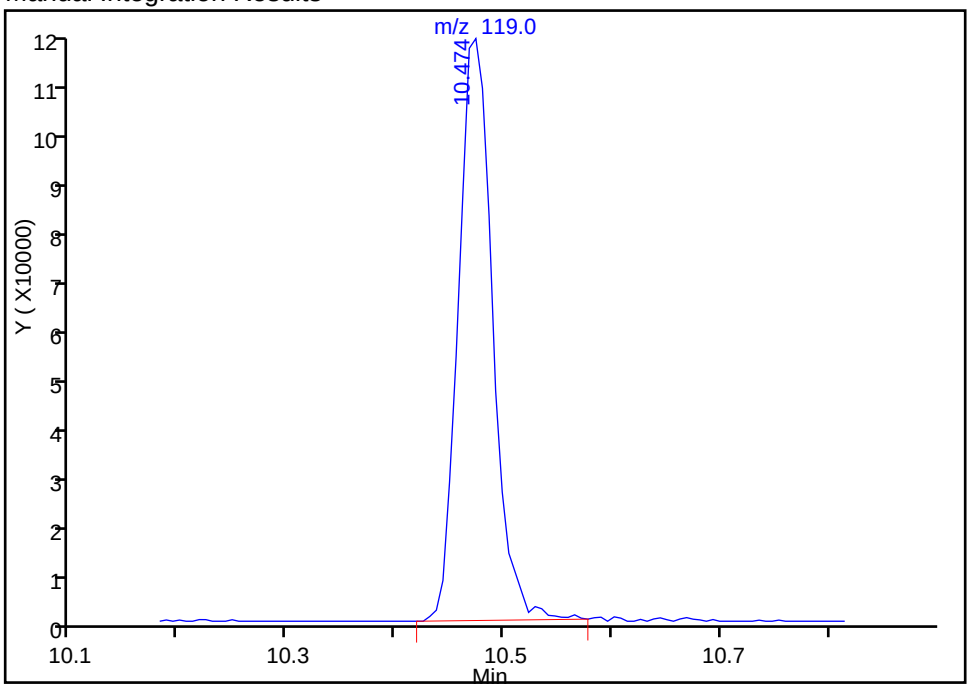
Processing Integration Results

RT: 10.47
Area: 247148
Amount: 200.0000
Amount Units: ng



Manual Integration Results

RT: 10.47
Area: 249217
Amount: 200.0000
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 16:38:50
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 RA | Lab Sample ID: 180-42391-12 RA

Matrix: Water | Lab File ID: 7040317.D

Analysis Method: 8260C | Date Collected: 03/25/2015 15:20

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 16:59

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.6		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.1		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 RA | Lab Sample ID: 180-42391-12 RA

Matrix: Water | Lab File ID: 7040317.D

Analysis Method: 8260C | Date Collected: 03/25/2015 15:20

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 16:59

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137438 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	63	*X*	64-135
2037-26-5	Toluene-d8 (Surr)	118		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D
Lims ID: 180-42391-C-12 Lab Sample ID: 180-42391-12
Client ID: HD-MW-95-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 16:59:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-42391-C-12
Misc. Info.: 180-0006312-017
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 13:18:55 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: journetp Date: 04-Apr-2015 12:21:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.629	4.786	-0.157	88	134820	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.402	0.013	99	742824	200.0	
* 3 Chlorobenzene-d5	119	10.475	10.468	0.007	84	181915	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.793	12.786	0.007	94	217159	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.678	0.001	90	213033	179.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.056	7.043	0.013	92	141347	125.1	M
$ 7 Toluene-d8 (Surr)	98	9.039	9.038	0.001	92	637151	236.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.636	-0.005	89	209142	171.3	
12 Chloromethane	50		2.000				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.511				ND	
16 Chloroethane	64		2.626				ND	
22 1,1-Dichloroethene	96		3.527				ND	
24 Acetone	43		3.801				ND	
26 Carbon disulfide	76		3.825				ND	
31 Methylene Chloride	84		4.354				ND	
34 trans-1,2-Dichloroethene	96		4.756				ND	
33 Acrylonitrile	53		4.816				ND	
35 Methyl tert-butyl ether	73		4.865				ND	
37 1,1-Dichloroethane	63		5.364				ND	
45 cis-1,2-Dichloroethene	96	6.126	6.112	0.014	74	39092	31.8	M
46 2-Butanone (MEK)	43		6.179				ND	
49 Chlorobromomethane	128		6.380				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.861				ND	
58 Benzene	78		7.098				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.805	7.797	0.008	85	31610	21.6	M
67 1,2-Dichloropropane	63		8.035				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.330				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164		9.647				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.018				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.608				ND	
91 m-Xylene & p-Xylene	106		10.724				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.131				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.776				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

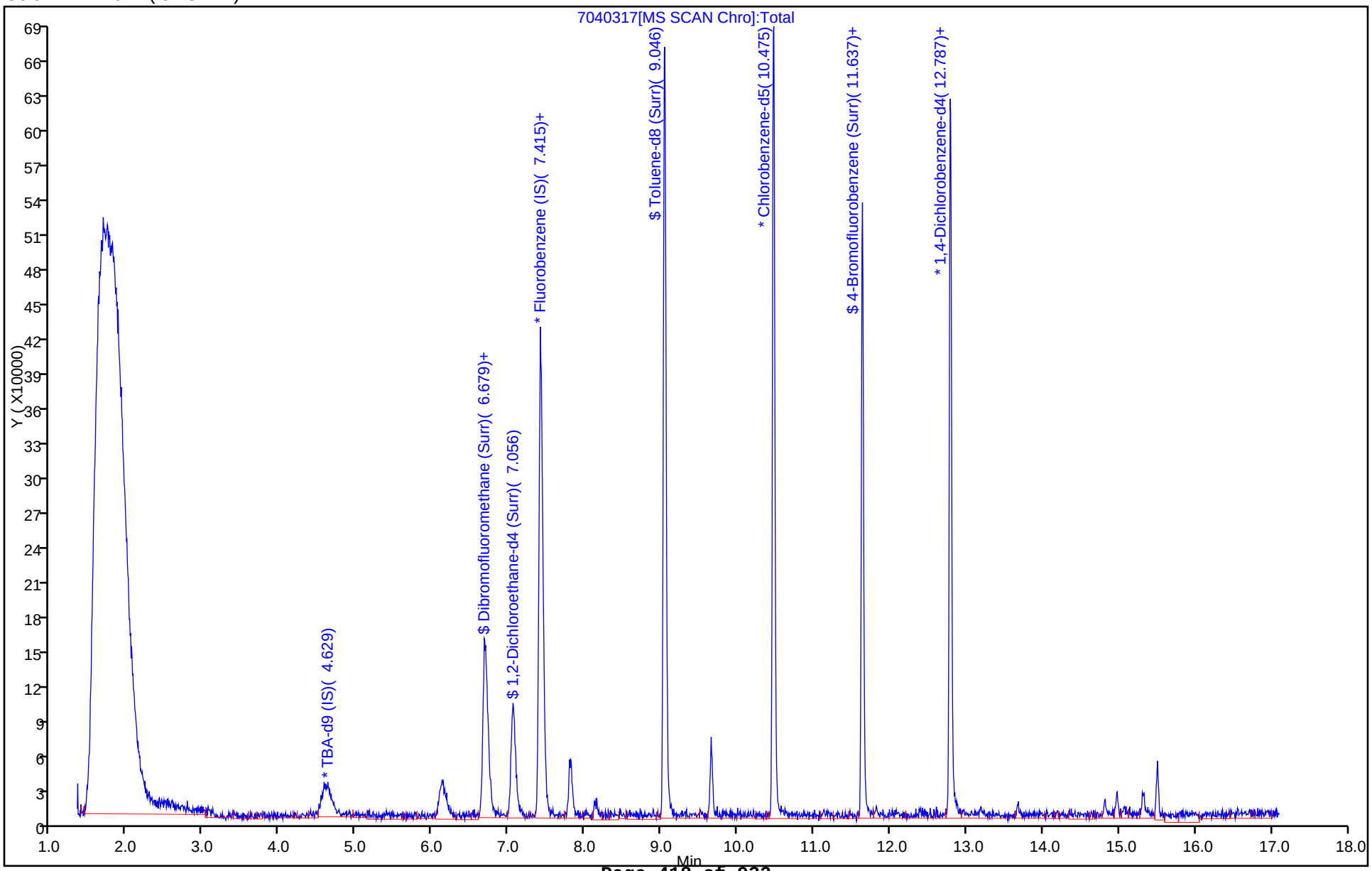
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Apr-2015 13:18:56 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D				
Injection Date:	03-Apr-2015 16:59:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-C-12	Lab Sample ID:	180-42391-12	Worklist Smp#:	17
Client ID:	HD-MW-95-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

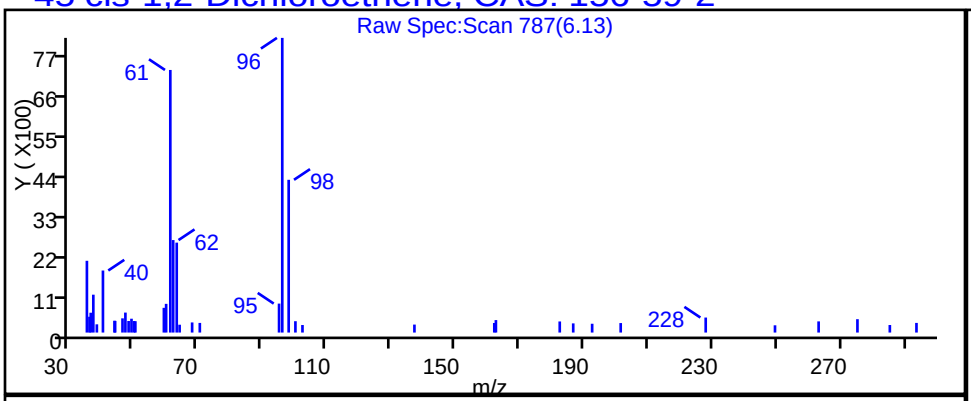


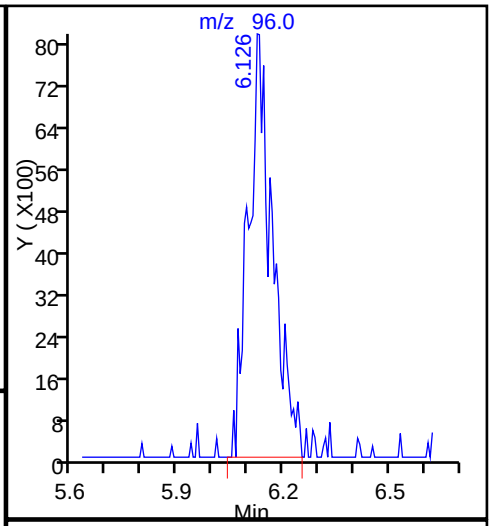
Report Date: 04-Apr-2015 13:18:56 Chrom Revision: 2.2 13-Mar-2015 11:20:44

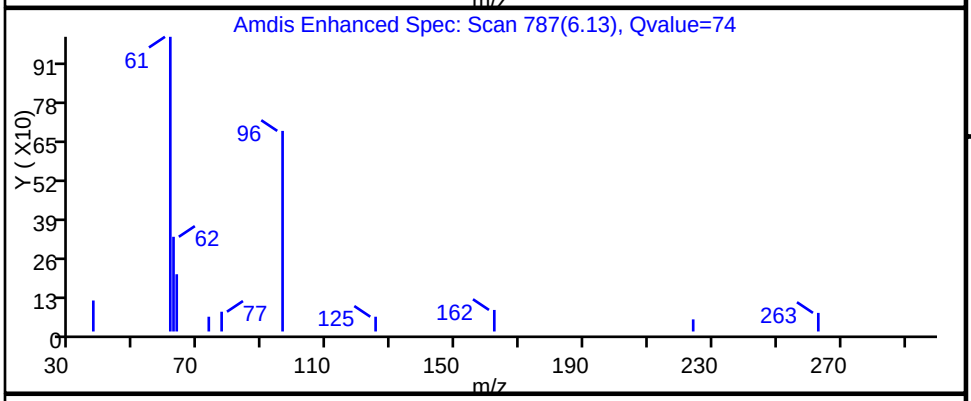
TestAmerica Pittsburgh

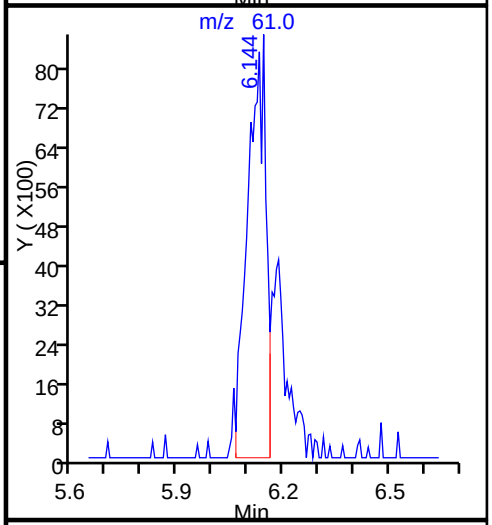
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D				
Injection Date:	03-Apr-2015 16:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

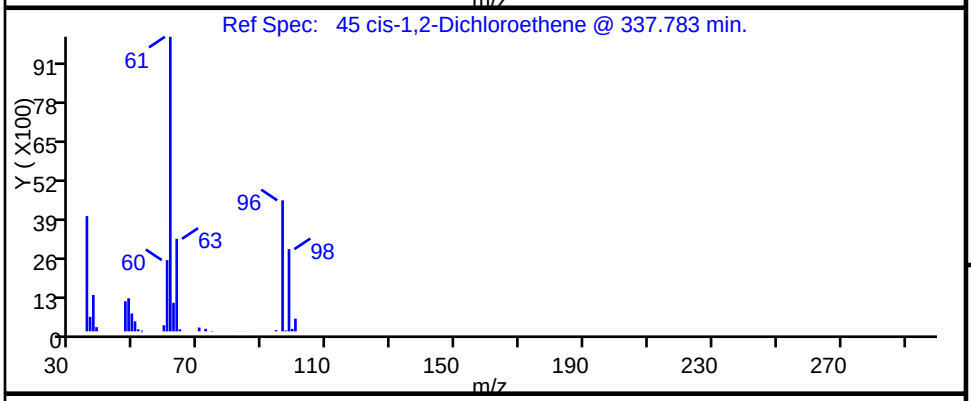
45 cis-1,2-Dichloroethene, CAS: 156-59-2

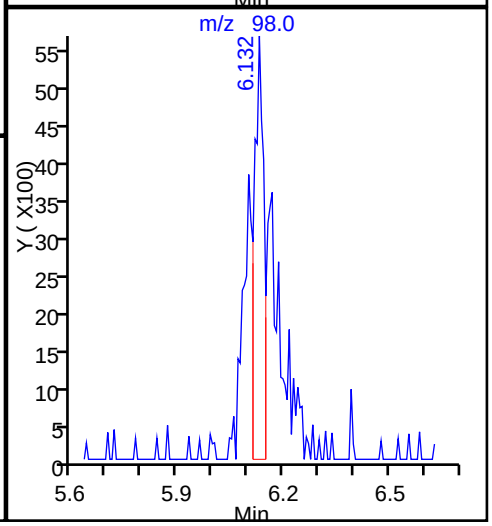


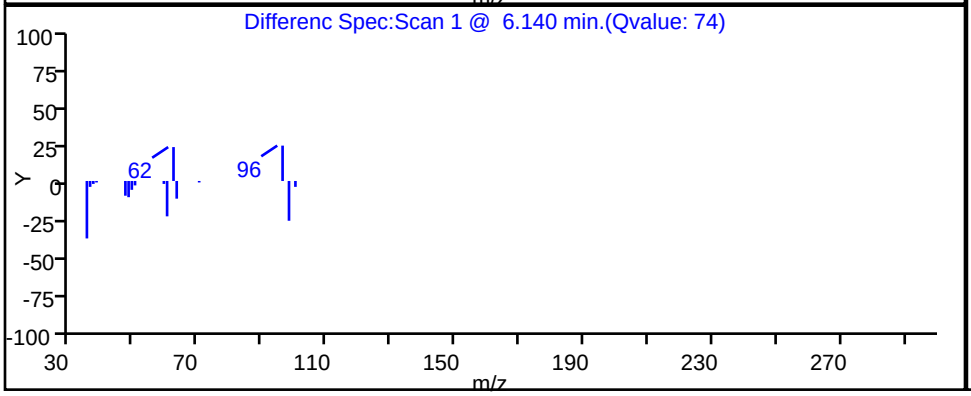










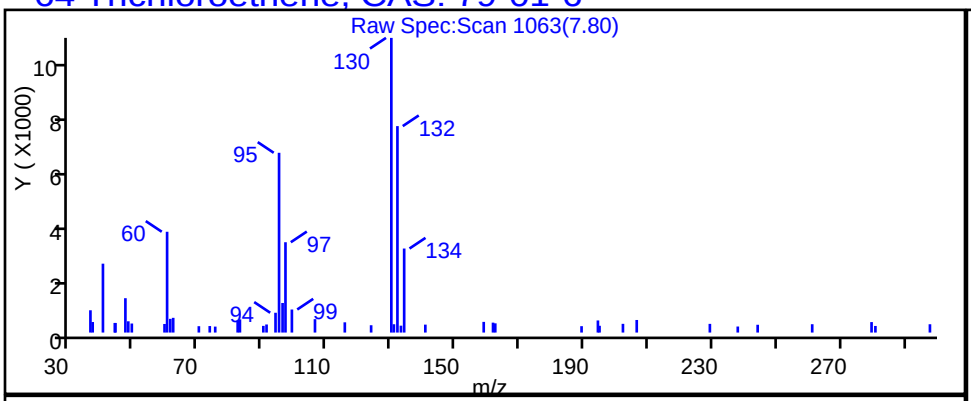


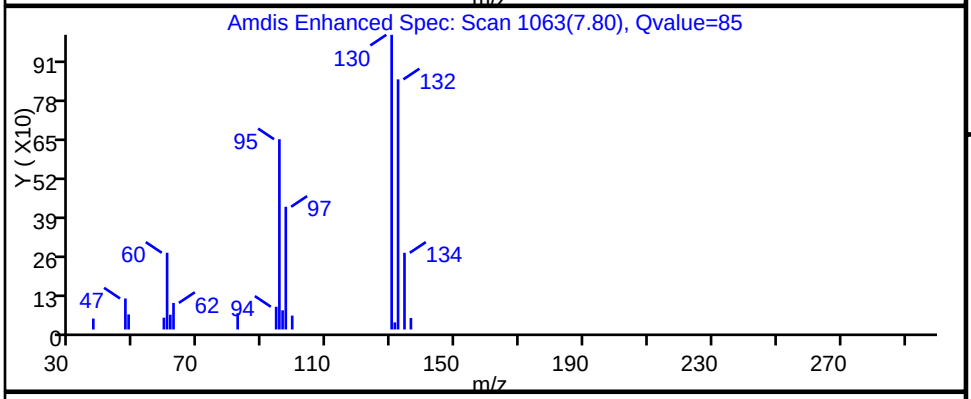
Report Date: 04-Apr-2015 13:18:57 Chrom Revision: 2.2 13-Mar-2015 11:20:44

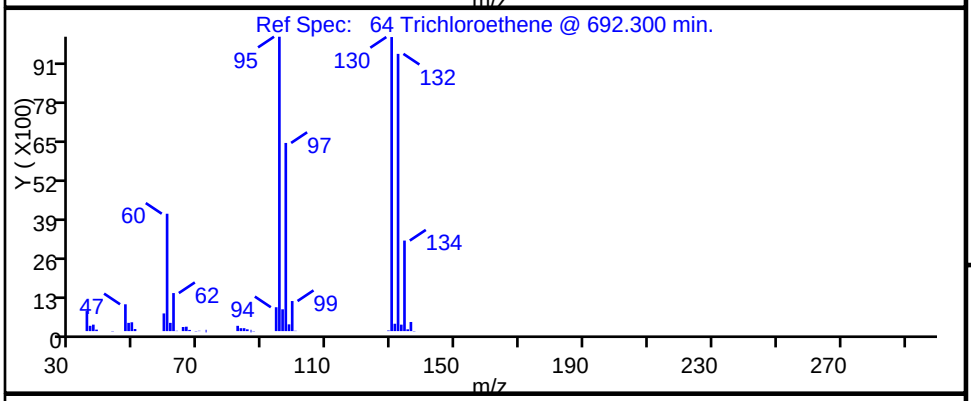
TestAmerica Pittsburgh

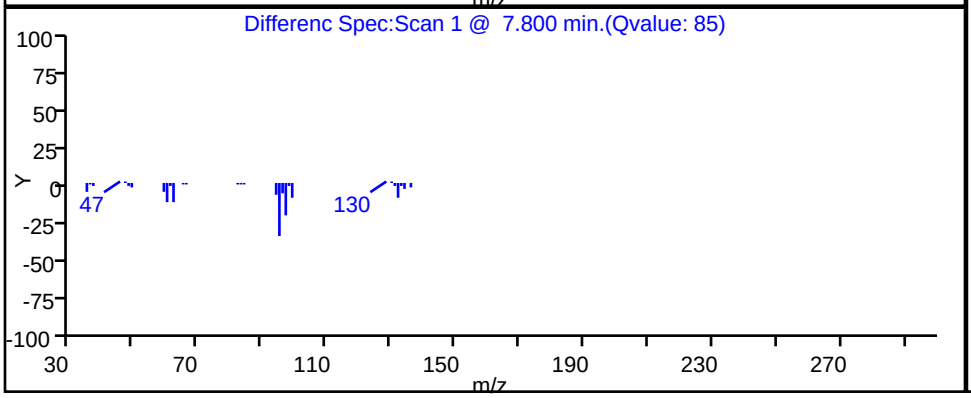
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D				
Injection Date:	03-Apr-2015 16:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

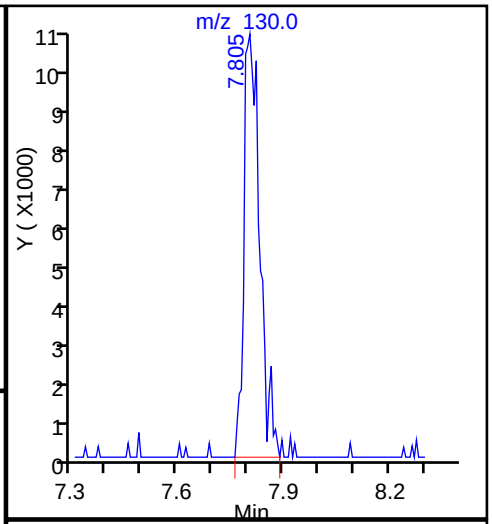
64 Trichloroethene, CAS: 79-01-6

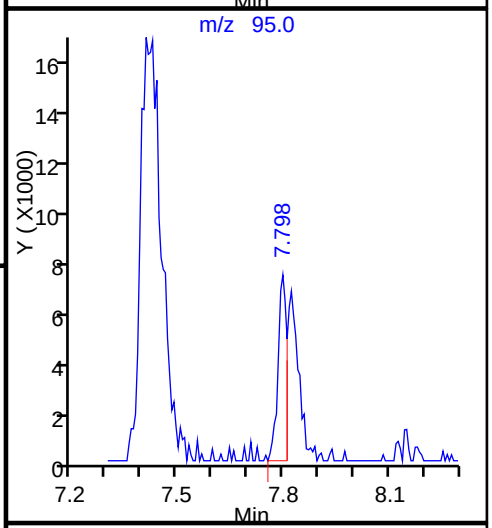


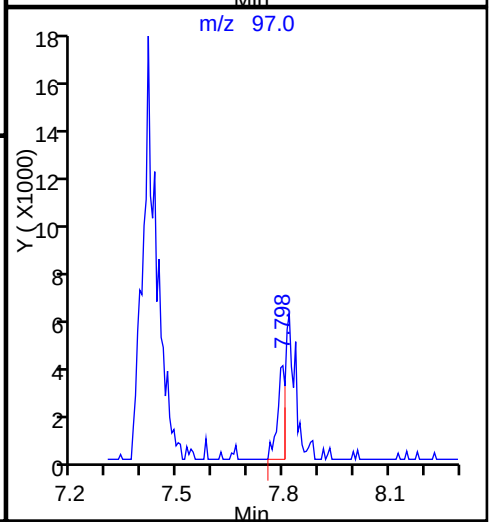












Manual Integration/User Assign Peak Report

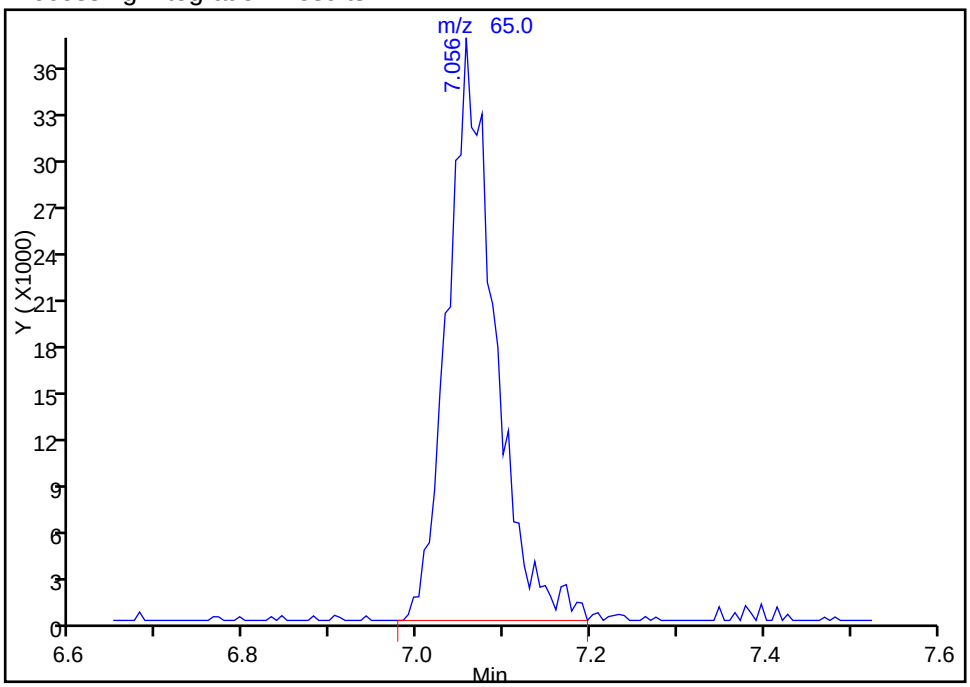
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D				
Injection Date:	03-Apr-2015 16:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

$ 6 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

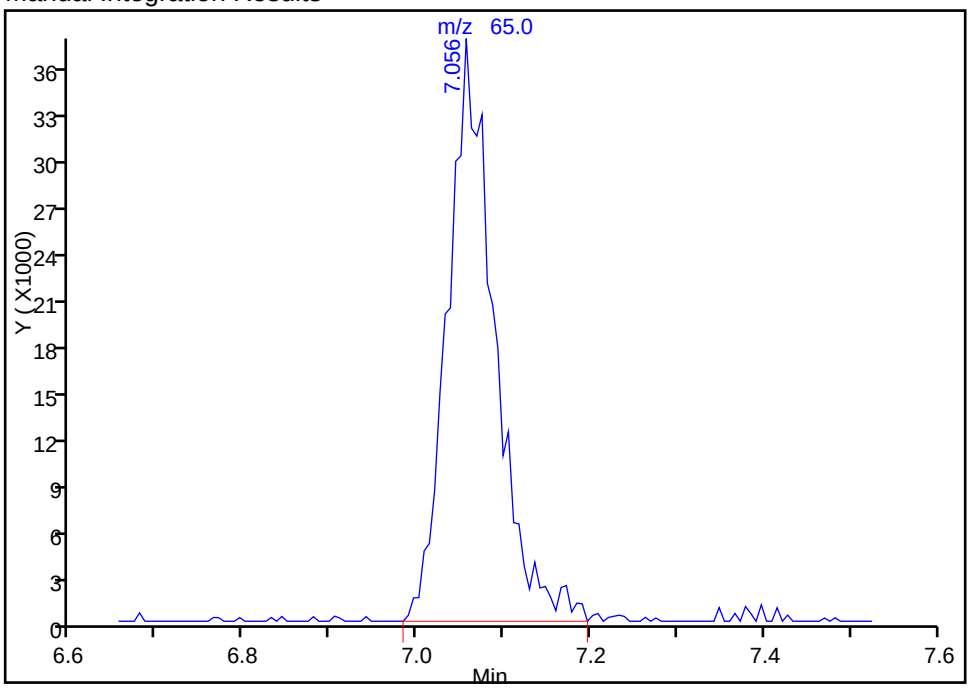
Processing Integration Results

RT: 7.06
Area: 141347
Amount: 125.1213
Amount Units: ng



Manual Integration Results

RT: 7.06
Area: 141347
Amount: 125.1213
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 12:59:24
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

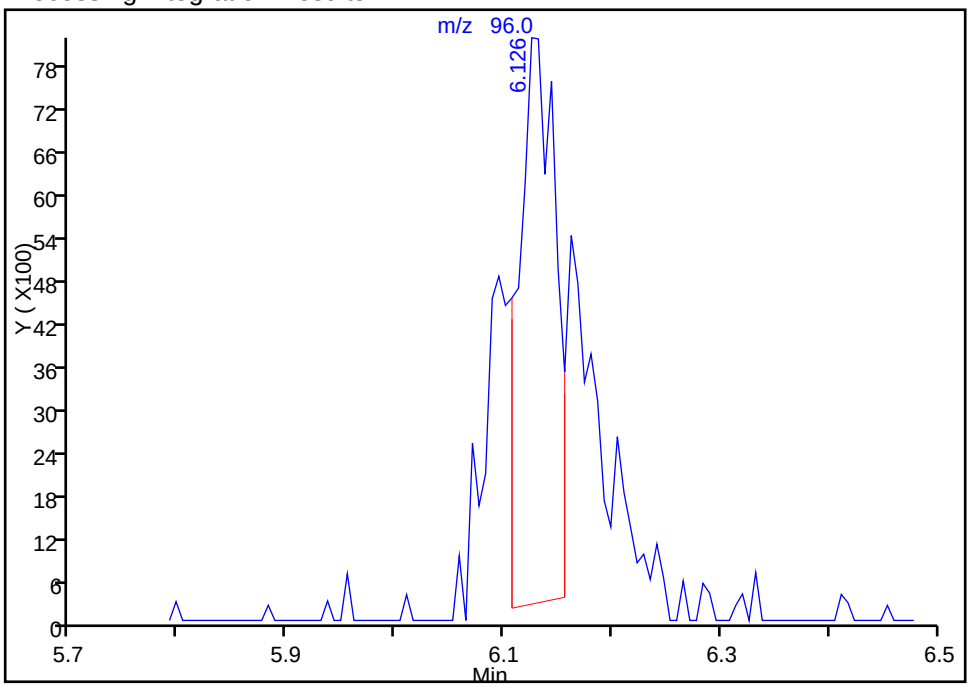
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D				
Injection Date:	03-Apr-2015 16:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

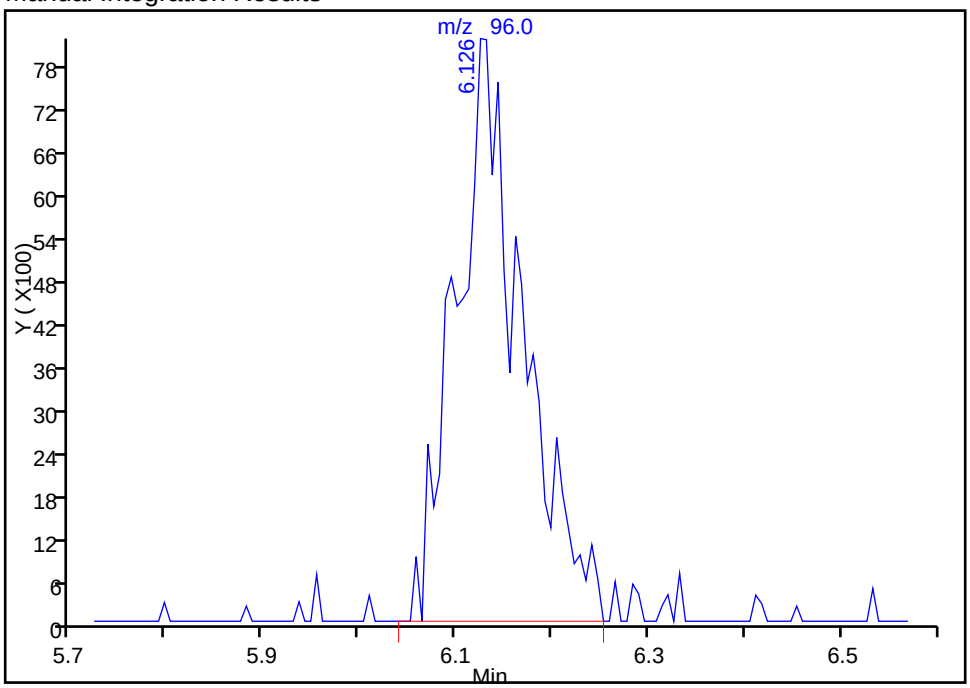
Processing Integration Results

RT: 6.13
Area: 18754
Amount: 15.271667
Amount Units: ng



Manual Integration Results

RT: 6.13
Area: 39092
Amount: 31.833209
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:39:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

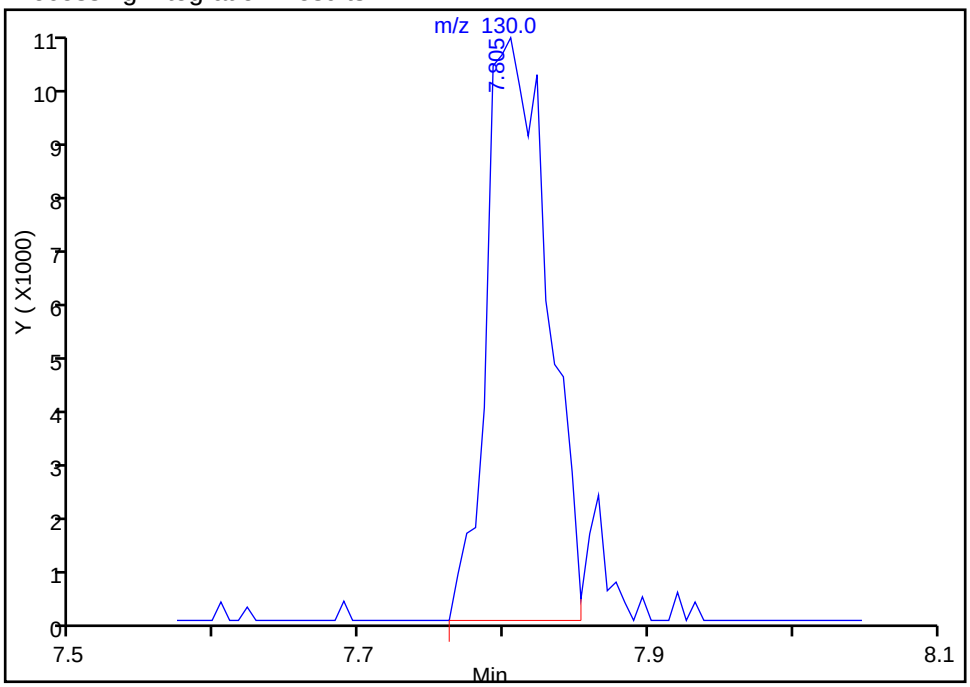
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040317.D				
Injection Date:	03-Apr-2015 16:59:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-C-12	Lab Sample ID:	180-42391-12		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

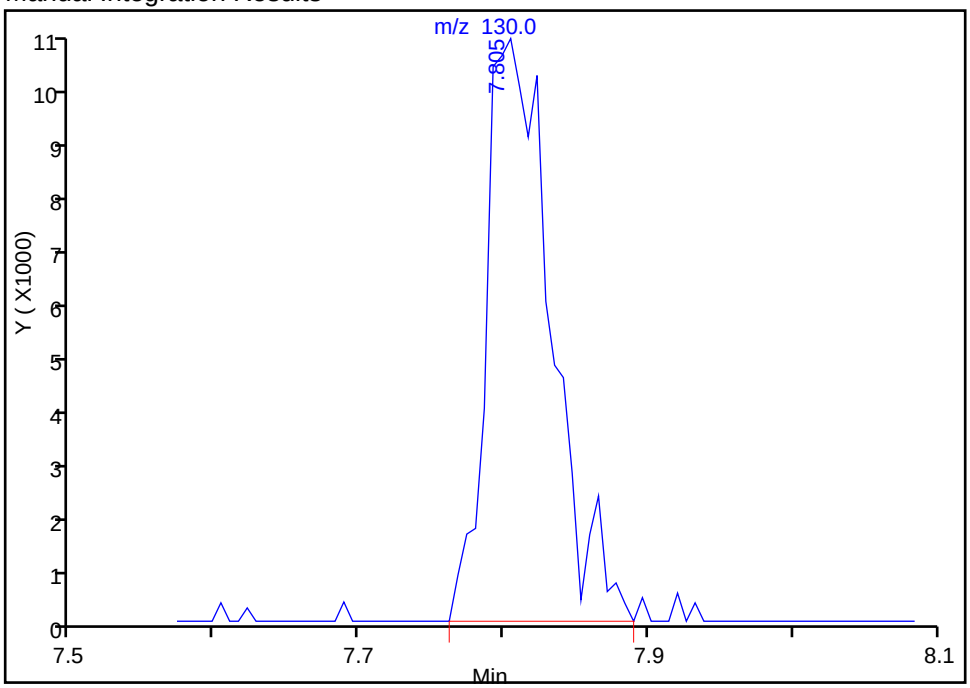
Processing Integration Results

RT: 7.80
Area: 29725
Amount: 20.283028
Amount Units: ng



Manual Integration Results

RT: 7.80
Area: 31610
Amount: 21.569269
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 11:39:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 | Lab Sample ID: 180-42391-13

Matrix: Water | Lab File ID: 7040316.D

Analysis Method: 8260C | Date Collected: 03/25/2015 14:30

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 16:32

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.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	16		10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	10	U	10	1.2
156-59-2	cis-1,2-Dichloroethene	190		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	36		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	190		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	130		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-42391-13

Matrix: Water Lab File ID: 7040316.D

Analysis Method: 8260C Date Collected: 03/25/2015 14:30

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 16:32

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.: 137438 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D
Lims ID: 180-42391-E-13 Lab Sample ID: 180-42391-13
Client ID: HD-MW-7-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 16:32:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 10.0000
Sample Info: 180-42391-E-13
Misc. Info.: 180-0006312-016
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 17:04:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: journetp Date: 03-Apr-2015 17:03:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.599	4.786	-0.187	89	137587	4000.0	
* 2 Fluorobenzene (IS)	96	7.421	7.402	0.019	99	909735	200.0	
* 3 Chlorobenzene-d5	119	10.475	10.468	0.007	84	264468	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.786	0.001	95	374126	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.691	6.678	0.013	91	294054	202.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.063	7.043	0.019	93	244506	176.7	
$ 7 Toluene-d8 (Surr)	98	9.046	9.038	0.008	92	870480	221.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	90	326908	185.3	
12 Chloromethane	50		2.000				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.511				ND	
16 Chloroethane	64		2.626				ND	
22 1,1-Dichloroethene	96	3.631	3.527	0.104	22	39061	32.0	
24 Acetone	43		3.801				ND	
26 Carbon disulfide	76		3.825				ND	
31 Methylene Chloride	84		4.354				ND	
34 trans-1,2-Dichloroethene	96		4.756				ND	
33 Acrylonitrile	53		4.816				ND	
35 Methyl tert-butyl ether	73		4.865				ND	
37 1,1-Dichloroethane	63		5.364				ND	
45 cis-1,2-Dichloroethene	96	6.132	6.112	0.020	74	573654	381.4	
46 2-Butanone (MEK)	43		6.179				ND	
49 Chlorobromomethane	128		6.380				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.716	6.678	0.038	85	162232	71.4	
56 Carbon tetrachloride	117		6.861				ND	
58 Benzene	78		7.098				ND	
59 1,2-Dichloroethane	62		7.122				ND	
64 Trichloroethene	130	7.811	7.797	0.014	92	680589	379.2	
67 1,2-Dichloropropane	63		8.035				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.330				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.654	9.647	0.007	92	311693	261.5	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.018				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.608				ND	
91 m-Xylene & p-Xylene	106		10.724				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.131				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.776				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

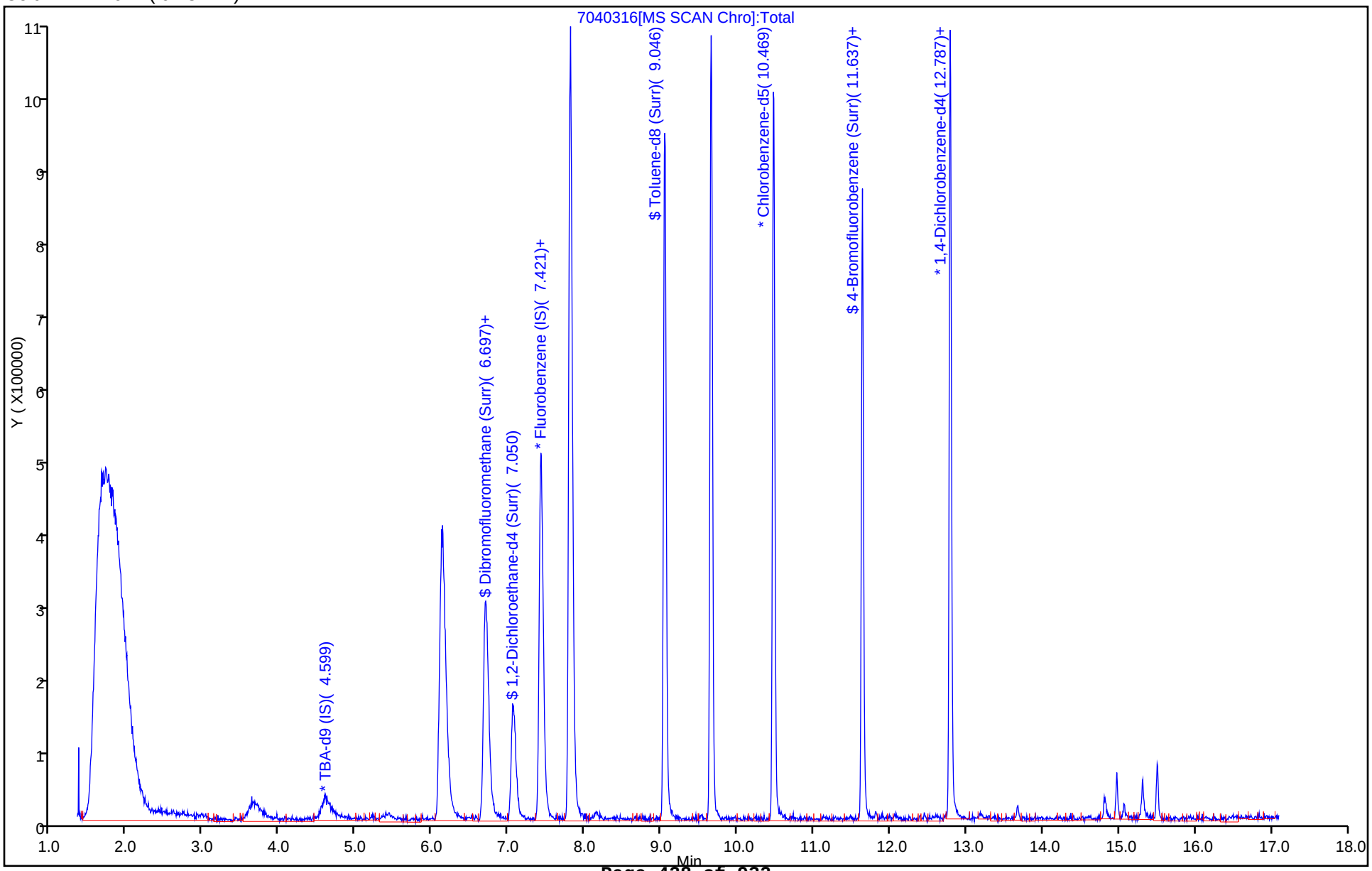
Report Date: 03-Apr-2015 17:04:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D

Injection Date:	03-Apr-2015 16:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-42391-E-13	Lab Sample ID:	180-42391-13	Worklist Smp#:	16
Client ID:	HD-MW-7-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

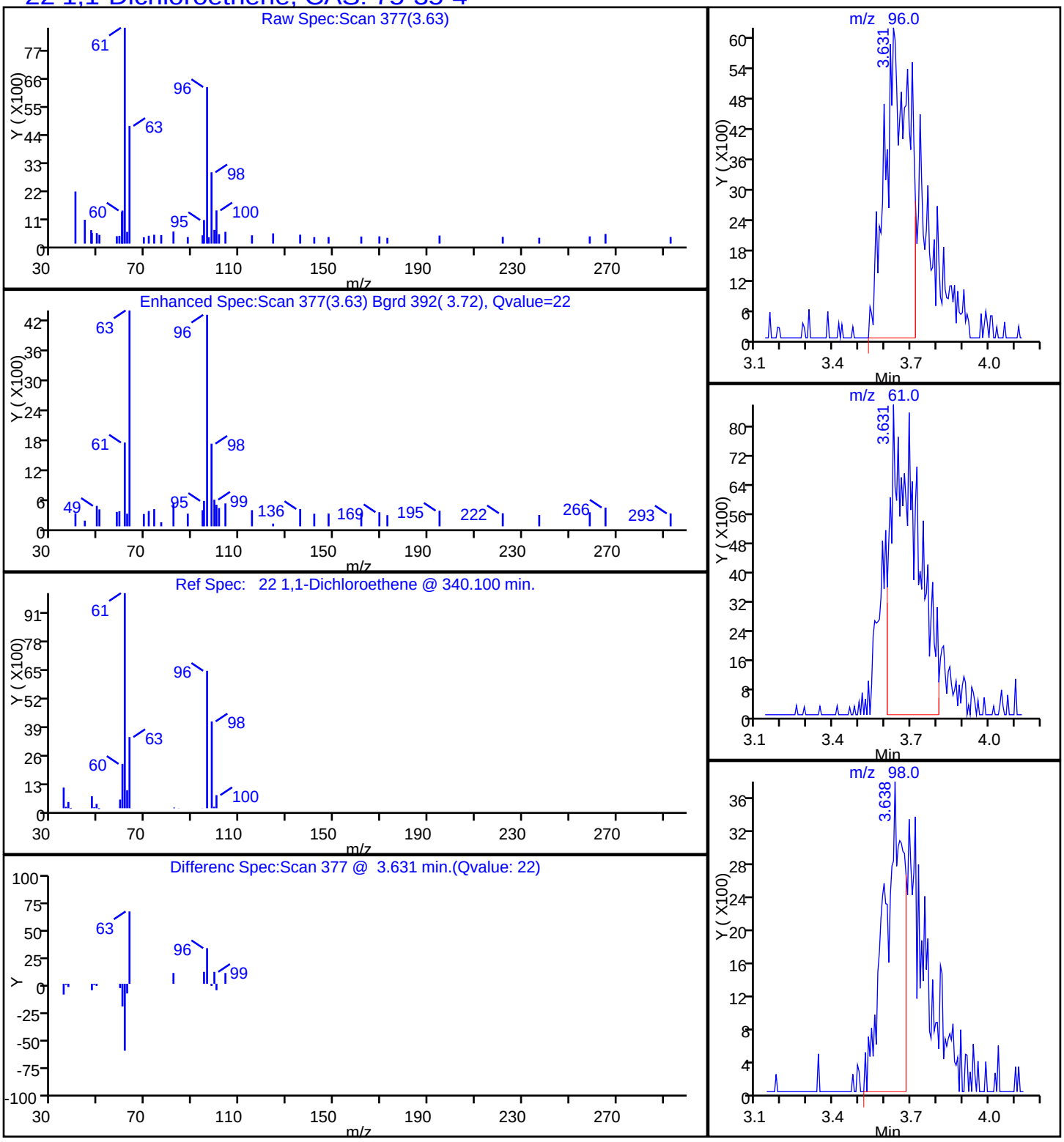


Report Date: 03-Apr-2015 17:04:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D				
Injection Date:	03-Apr-2015 16:32:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-13	Lab Sample ID:	180-42391-13		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

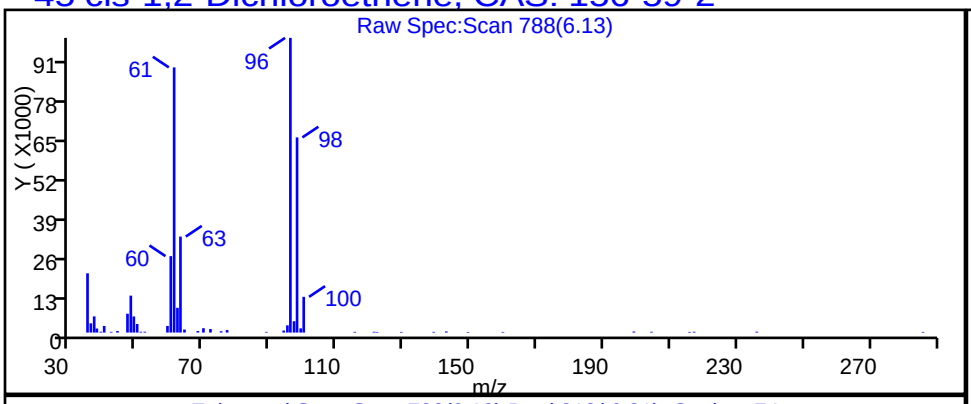


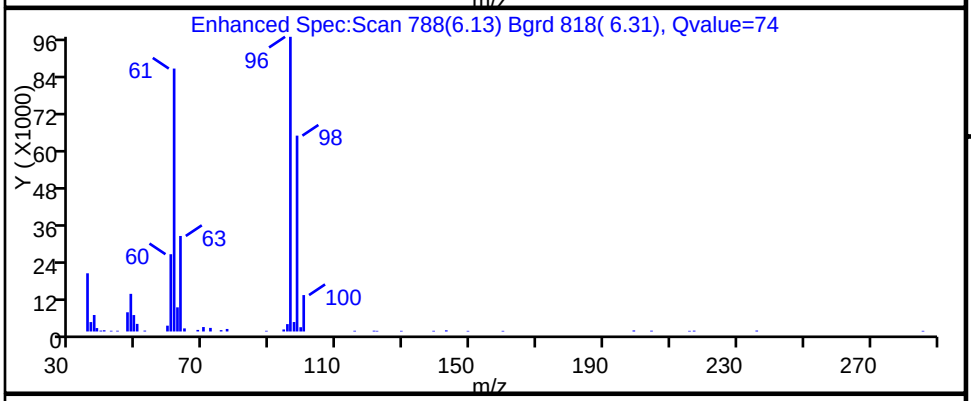
Report Date: 03-Apr-2015 17:04:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

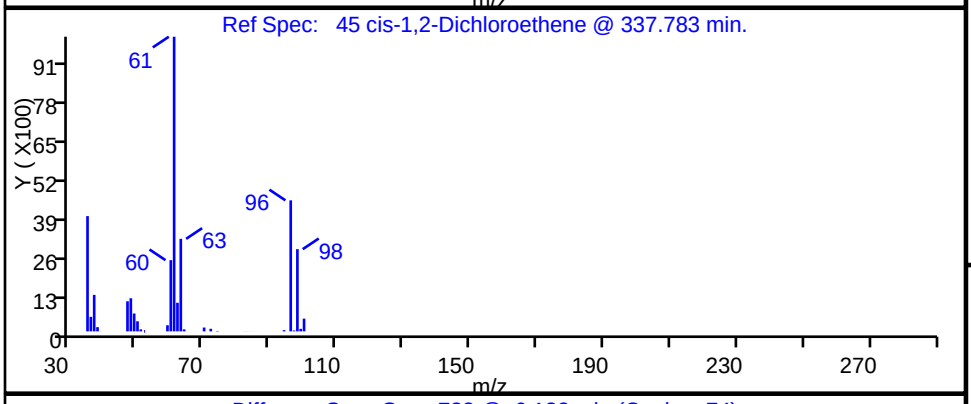
TestAmerica Pittsburgh

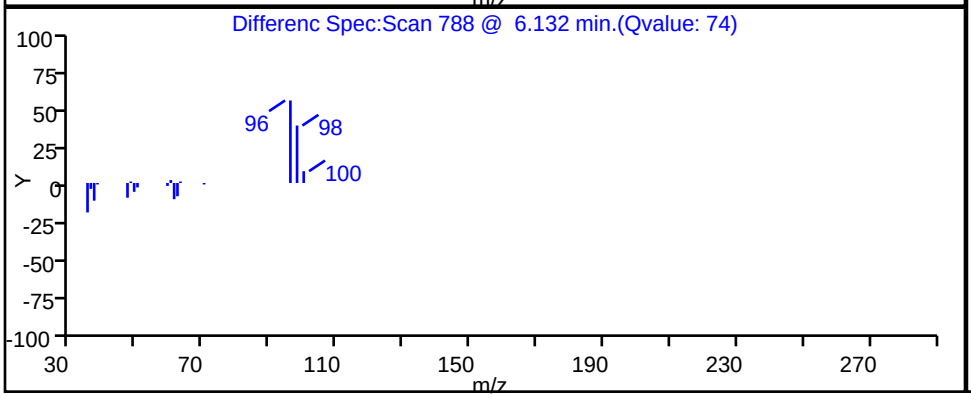
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D				
Injection Date:	03-Apr-2015 16:32:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-13	Lab Sample ID:	180-42391-13		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

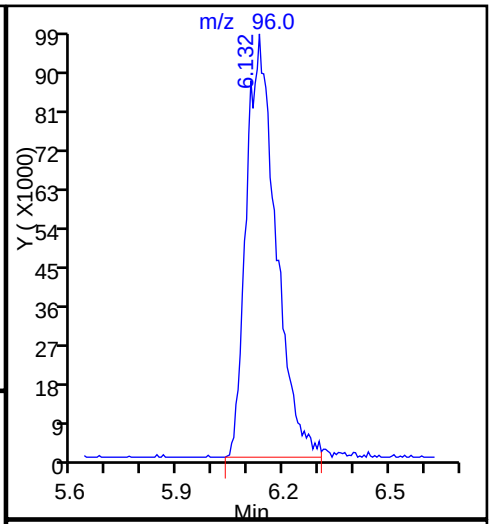
45 cis-1,2-Dichloroethene, CAS: 156-59-2

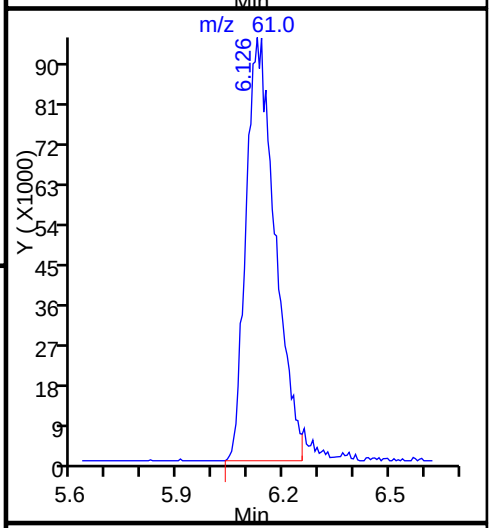


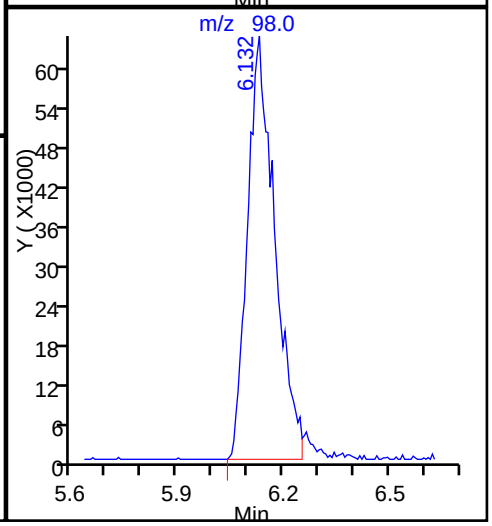












Report Date: 03-Apr-2015 17:04:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D				
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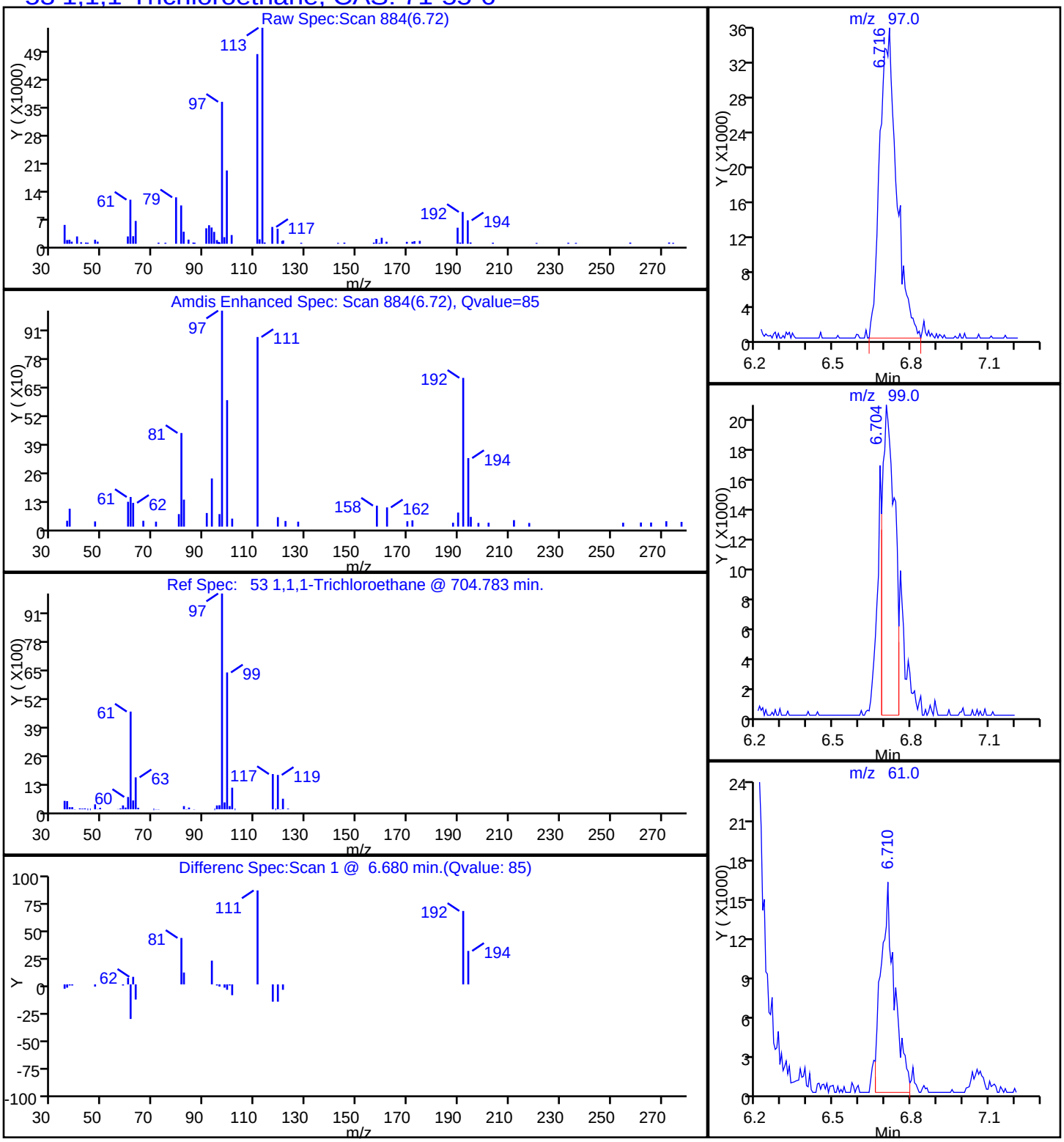
Lims ID:	180-42391-E-13	Lab Sample ID:	180-42391-13		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

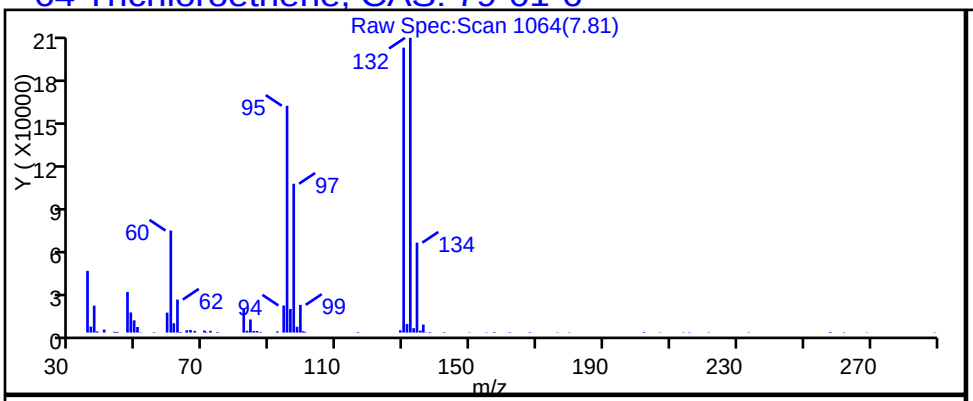


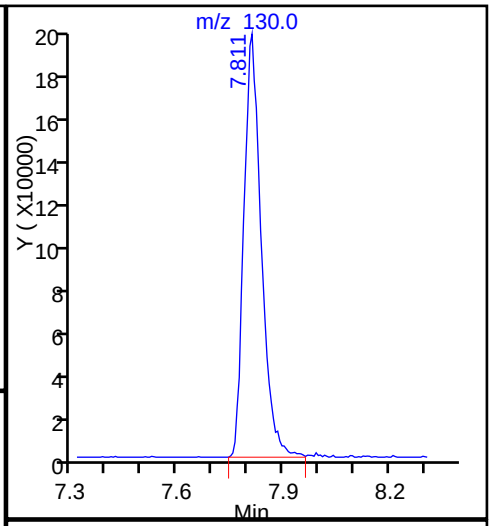
Report Date: 03-Apr-2015 17:04:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

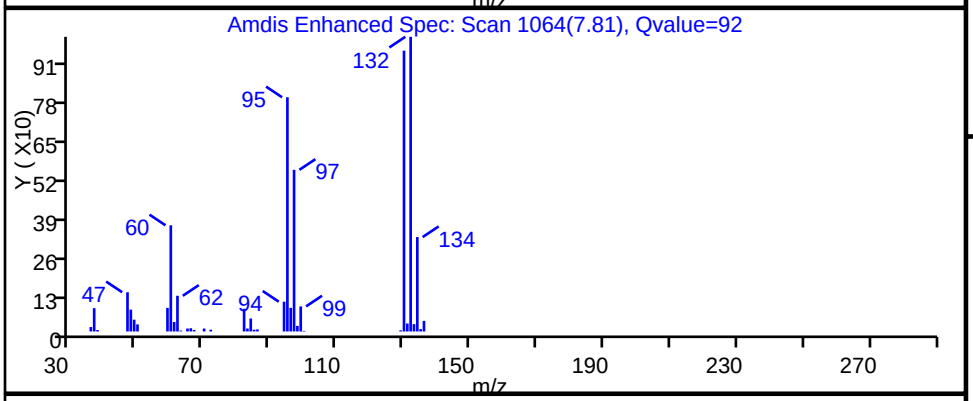
TestAmerica Pittsburgh

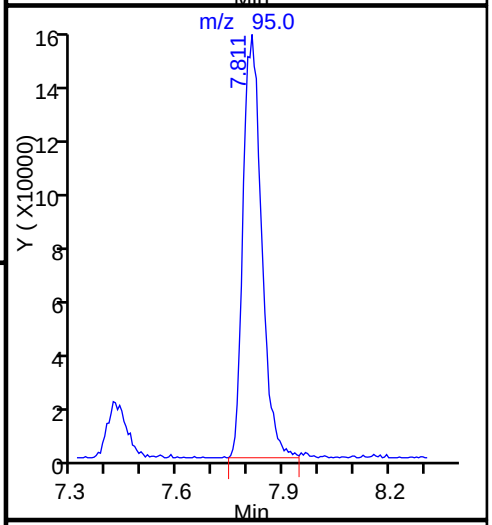
Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D				
Injection Date:	03-Apr-2015 16:32:30	Instrument ID:	CHHP7		
Lims ID:	180-42391-E-13	Lab Sample ID:	180-42391-13		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

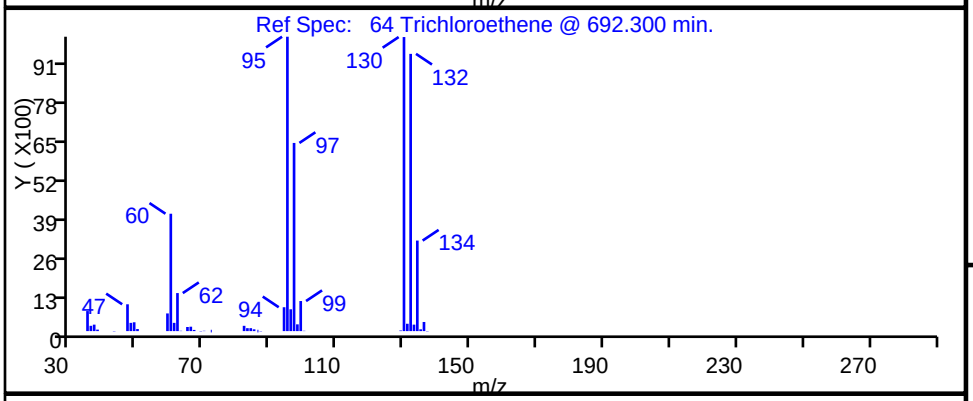
64 Trichloroethene, CAS: 79-01-6

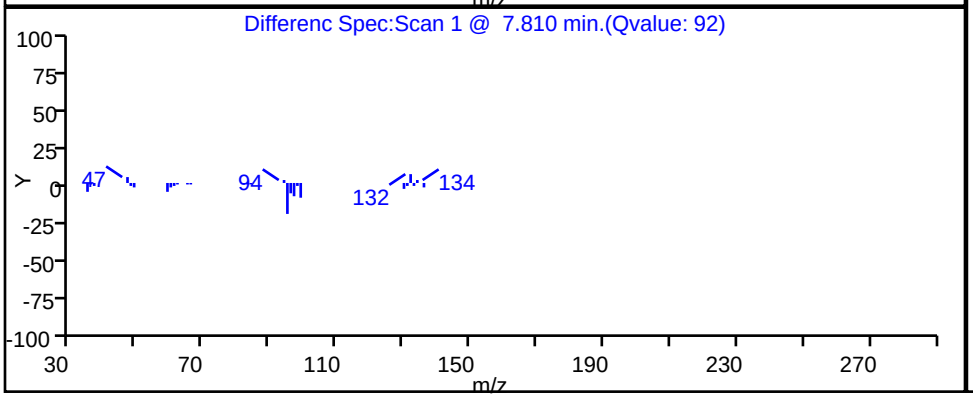


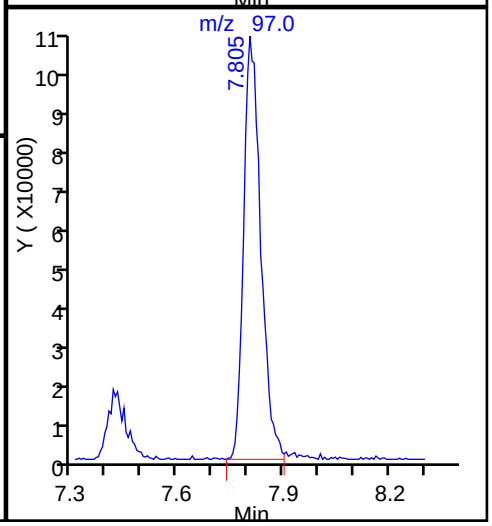












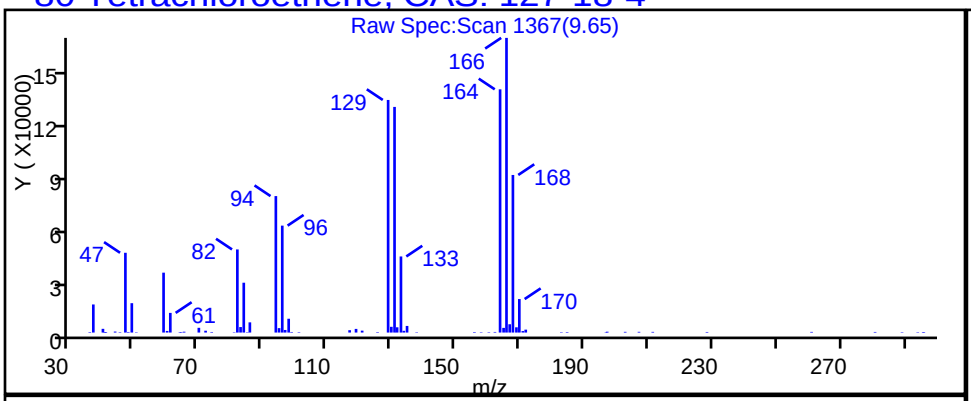
Report Date: 03-Apr-2015 17:04:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

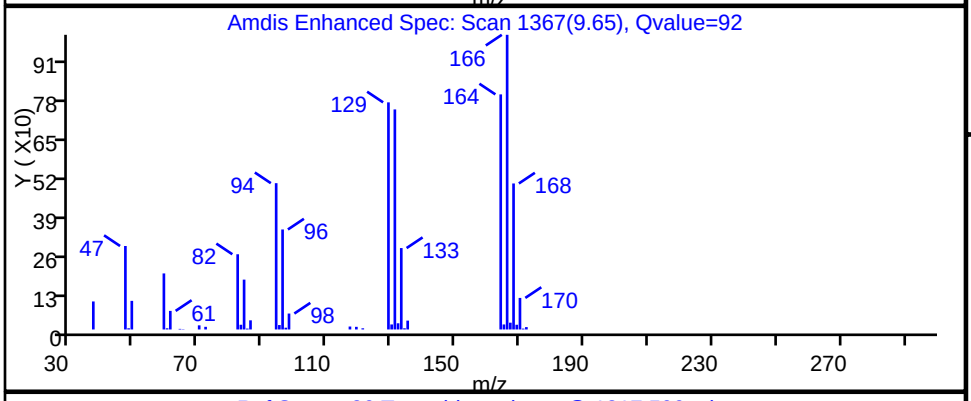
TestAmerica Pittsburgh

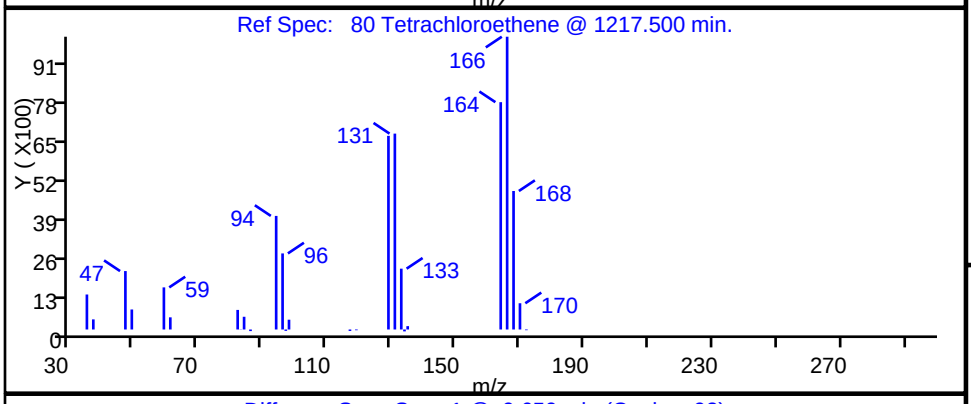
Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040316.D

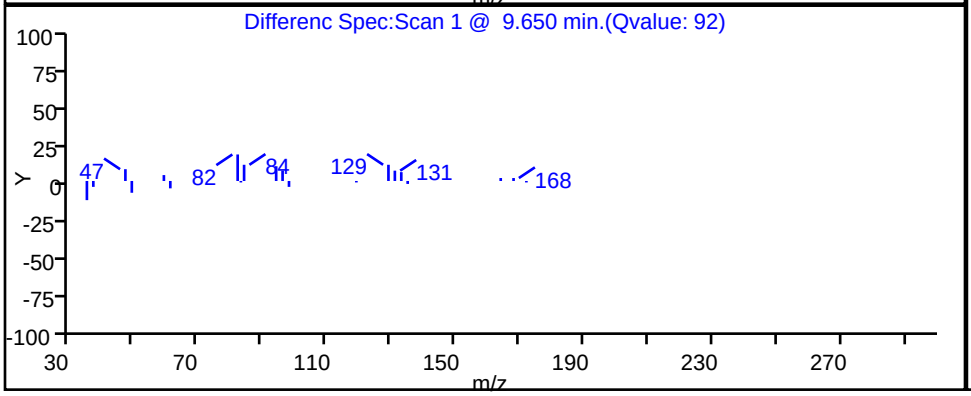
Injection Date:	03-Apr-2015 16:32:30	Instrument ID:	CHHP7
Lims ID:	180-42391-E-13	Lab Sample ID:	180-42391-13
Client ID:	HD-MW-7-0/1-0		
Operator ID:	034635	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	20.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

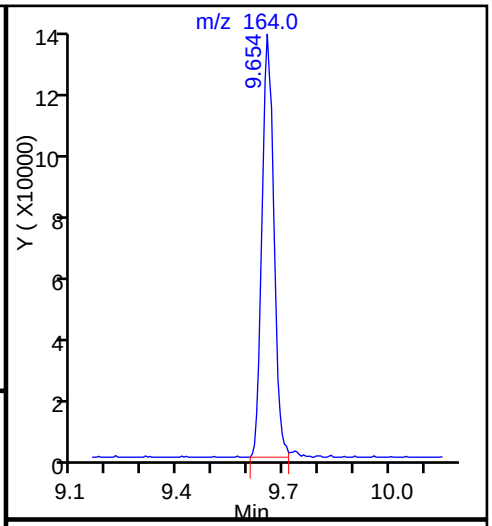
80 Tetrachloroethene, CAS: 127-18-4

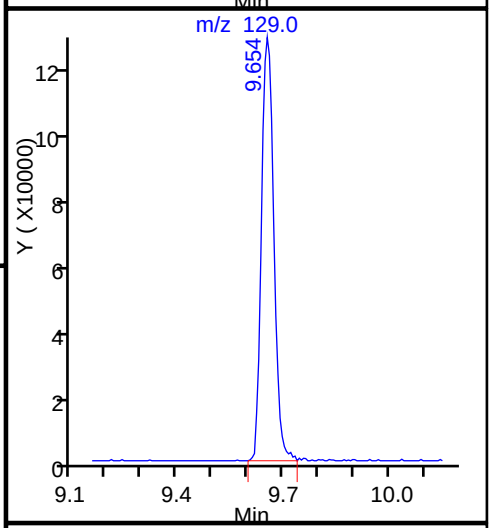


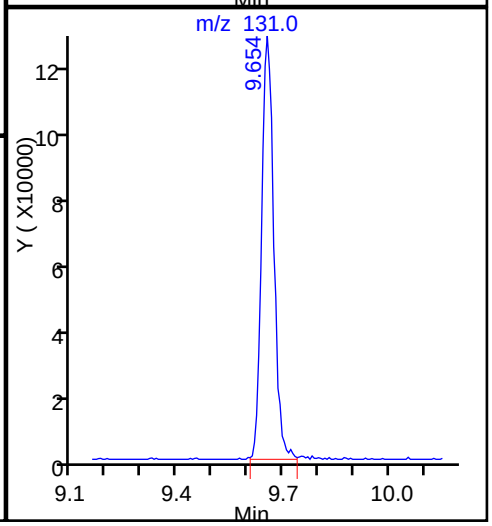












FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.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	0.4049 0.3360	0.3761 0.3806	0.3617 0.3747	0.3587	0.3730	Ave		0.3707			0.1000	5.3		20.0			
Chloromethane	0.4308 0.3754	0.4379 0.3945	0.4020 0.4112	0.3800	0.3991	Ave		0.4039			0.1000	5.5		20.0			
1,3-Butadiene	0.4251 0.2932	0.3417 0.3152	0.3460 0.3224	0.3068	0.3068	Ave		0.3321			0.0100	12.5		20.0			
Vinyl chloride	0.3430 0.2838	0.3404 0.3210	0.3159 0.3182	0.2980	0.2958	Ave		0.3145			0.1000	6.7		20.0			
Bromomethane	0.2266 0.2452	0.2793 0.2522	0.2713 0.2662	0.2427	0.2439	Ave		0.2534			0.0500	6.9		20.0			
Chloroethane	0.2749 0.2395	0.2785 0.2519	0.2559 0.2542	0.2356	0.2394	Ave		0.2537			0.0500	6.3		20.0			
Dichlorofluoromethane	0.7624 0.6398	0.7284 0.6488	0.6941 0.6491	0.6381	0.6400	Ave		0.6751			0.0100	7.1		20.0			
Trichlorofluoromethane	0.7558 0.6595	0.7530 0.7005	0.7468 0.7001	0.6815	0.6845	Ave		0.7102			0.1000	5.2		20.0			
Ethyl ether	0.1832 0.2255	0.2405 0.2425	0.2306 0.2326	0.2160	0.2318	Ave		0.2253			0.0100	8.4		20.0			
Acrolein	0.0140 0.0164	0.0160 0.0160	0.0152 0.0149	0.0165	0.0154	Ave		0.0156			0.0100	5.4		20.0			
1,1-Dichloroethene	0.2532 0.2638	0.2820 0.2718	0.2758 0.2787	0.2533	0.2696	Ave		0.2685			0.1000	4.1		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3623 0.2819	0.3410 0.3053	0.3208 0.3072	0.2935	0.2861	Ave		0.3122			0.1000	8.9		20.0			
Iodomethane	0.6392 0.5330	0.5866 0.5561	0.5852 0.5561	0.4994	0.5379	Ave		0.5617			0.0100	7.5		20.0			
Carbon disulfide	0.8938 0.7034	0.8609 0.9569	0.7989 0.7561	0.7339	0.7484	Ave		0.8065			0.1000	11.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
Acetone	0.0935 0.0524	0.0700 0.0605	0.0664 0.0503	0.0662	0.0561	Lin2	3.9852	0.0533			0.0500				0.9900		0.9900
Allyl chloride	0.2214 0.1874	0.2078 0.1919	0.2013 0.2089	0.1739	0.1919	Ave		0.1981			0.0100	7.5		20.0			
Methylene Chloride	0.3799 0.2640	0.3035 0.2714	0.2901 0.2769	0.2560	0.2639	Ave		0.2882			0.1000	13.9		20.0			
Methyl acetate	0.1722 0.1194	0.1395 0.1300	0.1248 0.1160	0.1357	0.1284	Ave		0.1332			0.1000	13.2		20.0			
trans-1,2-Dichloroethene	0.4144 0.3019	0.3607 0.3130	0.3396 0.3157	0.3071	0.3131	Ave		0.3332			0.1000	11.4		20.0			
tert-Butyl alcohol	0.0387 0.0932	0.1220 +++++	0.0794 +++++	0.0809	0.0812	Qua	17.849	0.0649	0.0000036		0.0100				0.9920		0.9900
Acrylonitrile	0.0594 0.0496	0.0592 0.0518	0.0519 0.0462	0.0554	0.0529	Ave		0.0533			0.0100	8.5		20.0			
Methyl tert-butyl ether	0.7899 0.6103	0.7134 0.6206	0.6523 0.5906	0.6451	0.6306	Ave		0.6566			0.1000	9.9		20.0			
Hexane	0.4307 0.2822	0.3669 0.3594	0.3490 0.3339	0.3327	0.3327	Ave		0.3484			0.0100	12.0		20.0			
Vinyl acetate	0.3325 0.2396	0.2619 0.2566	0.2643 0.2523	0.2426	0.2520	Ave		0.2627			0.0100	11.2		20.0			
1,1-Dichloroethane	0.5036 0.4591	0.5274 0.4830	0.5023 0.4831	0.4692	0.4788	Ave		0.4883			0.2000	4.5		20.0			
2,2-Dichloropropane	0.5029 0.3592	0.4513 0.3672	0.4370 0.3719	0.3889	0.3853	Ave		0.4080			0.0100	12.4		20.0			
cis-1,2-Dichloroethene	0.3895 0.3036	0.3445 0.3133	0.3428 0.3139	0.3115	0.3259	Ave		0.3306			0.1000	8.5		20.0			
2-Butanone (MEK)	0.0916 0.0823	0.0945 0.0951	0.0865 0.0835	0.0972	0.0865	Ave		0.0896			0.0500	6.4		20.0			
Bromochloromethane	0.2408 0.1735	0.1985 0.1795	0.1868 0.1771	0.1814	0.1858	Ave		0.1904			0.0100	11.4		20.0			
Chloroform	0.6919 0.4962	0.6021 0.5075	0.5638 0.4970	0.5223	0.5185	Ave		0.5499			0.2000	12.4		20.0			
1,1,1-Trichloroethane	0.6470 0.4338	0.5649 0.4453	0.5204 0.4470	0.4662	0.4702	Ave		0.4994			0.1000	14.8		20.0			
Tetrahydrofuran	0.0583 0.0434	0.0523 0.0473	0.0512 0.0465	0.0465	0.0468	Ave		0.0490			0.0100	9.5		20.0			
Cyclohexane	0.4837 0.3016	0.3789 0.3248	0.3560 0.3179	0.3259	0.3297	Ave		0.3523			0.1000	16.5		20.0			
Carbon tetrachloride	0.6825 0.4374	0.5598 0.4499	0.5182 0.4533	0.4633	0.4653	Ave		0.5037			0.1000	16.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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-Dichloropropene	0.4749 0.3118	0.4121 0.3254	0.3632 0.3234	0.3425	0.3315	Ave		0.3606			0.0100	15.5		20.0			
Benzene	1.2865 0.8459	1.1208 0.8565	1.0418 0.8374	0.9472	0.9380	Ave		0.9843			0.5000	16.0		20.0			
1,2-Dichloroethane	0.4449 0.2913	0.3598 0.3041	0.3316 0.2882	0.3189	0.3208	Ave		0.3325			0.1000	15.3		20.0			
Isobutyl alcohol	0.0058 0.0078	0.0090 0.0084	0.0087 0.0079	0.0084	0.0083	Ave		0.0080		*	0.0100	12.1		20.0			
n-Heptane	0.3667 0.2726	0.3198 0.3008	0.3140 0.2819	0.2975	0.2874	Ave		0.3051			0.0100	9.7		20.0			
Trichloroethene	0.5030 0.3592	0.4242 0.3643	0.4070 0.3634	0.3655	0.3701	Ave		0.3946			0.2000	12.6		20.0			
Methylcyclohexane	0.6516 0.4077	0.5613 0.4391	0.4963 0.4290	0.4483	0.4477	Ave		0.4851			0.1000	17.0		20.0			
1,2-Dichloropropane	0.2769 0.2046	0.2408 0.2102	0.2226 0.2067	0.2149	0.2169	Ave		0.2242			0.1000	10.8		20.0			
Dibromomethane	0.2155 0.1533	0.1721 0.1630	0.1605 0.1556	0.1580	0.1578	Ave		0.1670			0.0100	12.2		20.0			
1,4-Dioxane	0.0011 0.0017	0.0017 0.0016	0.0016 0.0015	0.0016	0.0017	Ave		0.0016		*	0.0100	14.0		20.0			
Bromodichloromethane	0.5011 0.3791	0.4345 0.3935	0.4389 0.3715	0.4015	0.4055	Ave		0.4157			0.2000	10.1		20.0			
cis-1,3-Dichloropropene	0.5064 0.3991	0.4647 0.4120	0.4361 0.3956	0.4220	0.4141	Ave		0.4312			0.2000	8.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.6767 0.5042	0.6920 0.5327	0.5982 0.4777	0.6068	0.5871	Ave		0.5844			0.1000	13.1		20.0			
Toluene	5.1899 2.5462	4.3323 +++++	3.7458 +++++	3.2001	3.0884	Qua	59.817	3.6113	-0.001653		0.4000				0.9980		0.9900
trans-1,3-Dichloropropene	1.5711 1.0794	1.3970 1.1590	1.3200 1.0988	1.2284	1.2043	Ave		1.2572			0.1000	13.2		20.0			
Ethyl methacrylate	0.9335 0.7520	0.9291 0.8068	0.8555 0.7438	0.8484	0.8213	Ave		0.8363			0.0100	8.5		20.0			
1,1,2-Trichloroethane	0.8855 0.6162	0.8540 0.6499	0.7237 0.6235	0.7000	0.6895	Ave		0.7178			0.1000	14.1		20.0			
Tetrachloroethene	1.3748 0.7298	1.1588 +++++	1.0063 +++++	0.8271	0.8403	Qua	18.605	0.9071	-0.000294		0.2000				0.9960		0.9900
1,3-Dichloropropane	1.4391 0.8728	1.2584 0.9209	1.0879 0.8529	1.0537	1.0026	Ave		1.0610			0.0100	19.0		20.0			
2-Hexanone	0.3670 0.3420	0.4257 0.3868	0.3763 0.3473	0.4008	0.3699	Ave		0.3770			0.1000	7.3		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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	1.6221 1.0342	1.4835 1.0818	1.2614 1.0448	1.1836	1.1607	Ave		1.2340			0.1000	17.3		20.0			
1,2-Dibromoethane (EDB)	1.0152 0.7073	0.9211 0.7388	0.8185 0.7100	0.8157	0.7788	Ave		0.8132			0.1000	13.2		20.0			
Chlorobenzene	3.3646 1.9926	2.9913 2.0244	2.7538 +++++	2.3750	2.3439	Ave		2.5494			0.5000	20.0		20.0			
1,1,1,2-Tetrachloroethane	1.5889 0.9290	1.4050 +++++	1.2815 +++++	1.0970	1.0940	Ave		1.2326			0.0100	19.5		20.0			
Ethylbenzene	1.8336 +++++	1.5625 +++++	1.4260 +++++	1.2323	1.1882	Ave		1.4485			0.1000	18.1		20.0			
m-Xylene & p-Xylene	2.4750 +++++	2.1389 +++++	1.8971 +++++	1.6377	1.6157	Ave		1.9529			0.1000	18.5		20.0			
o-Xylene	2.5079 +++++	2.1474 +++++	1.9091 +++++	1.6305	1.6116	Ave		1.9613			0.3000	19.2		20.0			
Styrene	3.8120 1.9480	3.3063 +++++	2.9124 +++++	2.4325	2.2974	Qua	50.819	2.6911	-0.001179		0.3000				0.9960		0.9900
Bromoform	0.7243 0.6451	0.7592 0.6862	0.7446 0.6361	0.7002	0.6981	Ave		0.6992			0.1000	6.2		20.0			
Isopropylbenzene	7.1951 3.1900	5.9426 +++++	5.0312 +++++	4.2116	4.0042	Qua	92.518	4.8193	-0.002533		0.1000				0.9970		0.9900
1,1,2,2-Tetrachloroethane	0.9848 0.6054	0.9132 0.6322	0.8169 0.5648	0.7841	0.7248	Ave		0.7533			0.3000	19.9		20.0			
Bromobenzene	1.1165 0.7135	0.9786 0.7488	0.9296 0.7475	0.8209	0.8013	Ave		0.8571			0.0100	16.3		20.0			
1,2,3-Trichloropropane	0.2417 0.1693	0.1958 0.1858	0.1909 0.1738	0.1938	0.1843	Ave		0.1919			0.0100	11.5		20.0			
trans-1,4-Dichloro-2-butene	0.1531 0.1100	0.1141 0.1244	0.1095 0.1185	0.1163	0.1158	Ave		0.1202			0.0100	11.7		20.0			
N-Propylbenzene	1.4292 0.8832	1.1494 0.9326	1.1314 0.9537	0.9720	0.9646	Ave		1.0520			0.0100	17.0		20.0			
2-Chlorotoluene	1.2281 0.7964	1.0898 0.8646	1.0225 0.8617	0.8871	0.8904	Ave		0.9551			0.0100	15.2		20.0			
1,3,5-Trimethylbenzene	4.1186 1.8195	3.0572 1.9013	2.7687 +++++	2.3152	2.2282	Qua	67.889	2.3446	-0.000742		0.0100				0.9930		0.9900
4-Chlorotoluene	1.2432 0.7686	1.0657 0.8062	0.9133 0.8390	0.8423	0.8441	Ave		0.9153			0.0100	17.5		20.0			
tert-Butylbenzene	4.2827 +++++	3.4124 +++++	3.0690 +++++	2.5961	2.8531	Lin2	30.327	2.8130			0.0100				0.9920		0.9900
1,2,4-Trimethylbenzene	4.0219 1.9151	3.0757 +++++	2.8098 +++++	2.3617	2.3037	Qua	42.580	2.6673	-0.001167		0.0100				0.9980		0.9900

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
sec-Butylbenzene	5.2909 2.4720	4.0963 2.5660	3.6564 +++++	3.1061	2.9949	Qua	84.993	3.1560	-0.000971		0.0100				0.9940		0.9900
1,3-Dichlorobenzene	2.4747 +++++	1.9570 +++++	1.7890 +++++	1.5759	1.5484	Lin2	17.686	1.6184			0.6000				0.9930		0.9900
4-Isopropyltoluene	4.9789 2.1016	3.7099 +++++	3.2078 +++++	2.7147	2.6092	Qua	59.165	3.0703	-0.001511		0.0100				0.9980		0.9900
1,4-Dichlorobenzene	2.1272 1.3020	1.8048 1.3637	1.6770 1.3380	1.5472	1.5324	Ave		1.5865			0.5000	17.6		20.0			
n-Butylbenzene	4.0854 1.7178	3.0325 +++++	2.6889 +++++	2.2607	2.1557	Qua	45.927	2.5887	-0.001344		0.0100				0.9980		0.9900
1,2-Dichlorobenzene	2.0434 +++++	1.6187 +++++	1.4639 +++++	1.3402	1.3053	Ave		1.5543			0.4000	19.3		20.0			
1,2-Dibromo-3-Chloropropane	0.0507 0.0782	0.0680 0.0870	0.0819 0.0820	0.0731	0.0825	Lin2	-0.637	0.0814			0.0500				0.9960		0.9900
1,2,4-Trichlorobenzene	0.7025 0.4194	0.3528 0.5475	0.4356 0.5373	0.4533	0.4943	Ave		0.4928			0.2000	21.5	*	20.0			
Hexachlorobutadiene	0.4740 0.2409	0.2353 0.3139	0.2616 0.3189	0.2513	0.2667	Ave		0.2953			0.0100	26.6	*	20.0			
Naphthalene	1.5147 0.6355	0.5116 0.8497	0.7105 0.7291	0.7661	0.7400	Ave		0.8071			0.0100	37.5	*	20.0			
1,2,3-Trichlorobenzene	0.7098 0.2525	0.1737 0.3849	0.2343 0.3451	0.3041	0.2934	Ave		0.3372			0.0100	48.7	*	20.0			
Dibromofluoromethane (Surr)	0.3940 0.2872	0.3394 0.3076	0.3277 0.2870	0.3013	0.3080	Ave		0.3190				11.1		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3741 0.2827	0.3162 0.2966	0.2978 0.2767	0.2969	0.2923	Ave		0.3042				10.0		20.0			
Toluene-d8 (Surr)	2.4399	3.9879 2.5256	3.5025 2.4058	2.9863	2.9170	Ave		2.9664				20.0		20.0			
4-Bromofluorobenzene (Surr)	2.1145 1.1414	1.5844 1.1868	1.5023 1.1481	1.2914	1.2834	Lin2	18.461	1.2346							0.9900		0.9900

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.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	41448 1251238	202683 1578981	396029 1958336	547112	769843	20.0 700	100 800	200 1000	300	400
Chloromethane	FB	Ave	44098 1397995	236017 1636714	440108 2148873	579635	823816	20.0 700	100 800	200 1000	300	400
1,3-Butadiene	FB	Ave	43516 1091852	184180 1307567	378863 1684970	467958	633176	20.0 700	100 800	200 1000	300	400
Vinyl chloride	FB	Ave	35111 1056944	183450 1331694	345858 1662883	454519	610532	20.0 700	100 800	200 1000	300	400
Bromomethane	FB	Ave	23195 913392	150507 1046463	297025 1390949	370267	503455	20.0 700	100 800	200 1000	300	400
Chloroethane	FB	Ave	28139 891876	150067 1044851	280211 1328639	359315	494064	20.0 700	100 800	200 1000	300	400
Dichlorofluoromethane	FB	Ave	78053 2383040	392557 2691604	759945 3391987	973235	1320934	20.0 700	100 800	200 1000	300	400
Trichlorofluoromethane	FB	Ave	77379 2456359	405833 2906130	817631 3658414	1039442	1412799	20.0 700	100 800	200 1000	300	400
Ethyl ether	FB	Ave	18758 839764	129633 1005937	252518 1215677	329495	478344	20.0 700	100 800	200 1000	300	400
Acrolein	FB	Ave	28748 78643	43044 83224	49804 85538	58776	63644	400 900	500 1000	600 1100	700	800
1,1-Dichloroethene	FB	Ave	25924 982672	151987 1127478	301988 1456322	386363	556448	20.0 700	100 800	200 1000	300	400
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	37088 1049950	183780 1266754	351192 1605157	447607	590436	20.0 700	100 800	200 1000	300	400
Iodomethane	FB	Ave	65439 1985287	316113 2306954	640777 2906153	761762	1110172	20.0 700	100 800	200 1000	300	400
Carbon disulfide	FB	Ave	91497 2619768	463969 3969960	874756 3951355	1119377	1544647	20.0 700	100 800	200 1000	300	400
Acetone	FB	Lin2	47874 390281	75446 501900	145367 526230	201909	231424	100 1400	200 1600	400 2000	600	800

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Allyl chloride	FB	Ave	22664 698091	111987 796185	220406 1091756	265180	396144	20.0 700	100 800	200 1000	300	400
Methylene Chloride	FB	Ave	38895 983292	163557 1126005	317590 1446969	390467	544613	20.0 700	100 800	200 1000	300	400
Methyl acetate	FB	Ave	88164 2224238	375826 2696602	683140 3030290	1035067	1324779	100 3500	500 4000	1000 5000	1500	2000
trans-1,2-Dichloroethene	FB	Ave	42422 1124535	194386 1298488	371778 1650008	468410	646149	20.0 700	100 800	200 1000	300	400
tert-Butyl alcohol	TBA	Qua	567 53007	9778 +++++	12318 +++++	18904	25255	200 7000	1000 +++++	2000 +++++	3000	4000
Acrylonitrile	FB	Ave	60806 1848860	318922 2150290	568053 2412565	845412	1091986	200 7000	1000 8000	2000 10000	3000	4000
Methyl tert-butyl ether	FB	Ave	80870 2272845	384502 2574759	714150 3086291	984040	1301482	20.0 700	100 800	200 1000	300	400
Hexane	FB	Ave	44092 1051129	197721 1491013	382145 1744973	507536	686716	20.0 700	100 800	200 1000	300	400
Vinyl acetate	FB	Ave	34041 892468	141126 1064694	289383 1318507	370011	520045	20.0 700	100 800	200 1000	300	400
1,1-Dichloroethane	FB	Ave	51559 1709875	284258 2003605	550009 2524474	715666	988166	20.0 700	100 800	200 1000	300	400
2,2-Dichloropropane	FB	Ave	51484 1337687	243195 1523531	478480 1943271	593228	795291	20.0 700	100 800	200 1000	300	400
cis-1,2-Dichloroethene	FB	Ave	39878 1130925	185651 1299902	375290 1640293	475209	672672	20.0 700	100 800	200 1000	300	400
2-Butanone (MEK)	FB	Ave	46886 613084	101832 789394	189308 872275	296627	357127	100 1400	200 1600	400 2000	600	800
Bromochloromethane	FB	Ave	24652 646182	106979 744761	204558 925671	276754	383470	20.0 700	100 800	200 1000	300	400
Chloroform	FB	Ave	70828 1847979	324491 2105517	617343 2597161	796703	1070128	20.0 700	100 800	200 1000	300	400
1,1,1-Trichloroethane	FB	Ave	66238 1615549	304449 1847241	569802 2336141	711168	970491	20.0 700	100 800	200 1000	300	400
Tetrahydrofuran	FB	Ave	11945 323514	56328 392456	112031 486083	141960	193358	40.0 1400	200 1600	400 2000	600	800
Cyclohexane	FB	Ave	49523 1123391	204193 1347518	389741 1661352	497062	680423	20.0 700	100 800	200 1000	300	400
Carbon tetrachloride	FB	Ave	69874 1629157	301680 1866632	567374 2368924	706744	960424	20.0 700	100 800	200 1000	300	400
1,1-Dichloropropene	FB	Ave	48614 1161217	222122 1350014	397710 1689887	522409	684260	20.0 700	100 800	200 1000	300	400
Benzene	FB	Ave	131703 3150535	604063 3553209	1140696 4375955	1444796	1936130	20.0 700	100 800	200 1000	300	400

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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	45545 1085110	193915 1261454	363062 1506238	486348	662167	20.0 700	100 800	200 1000	300	400
Isobutyl alcohol	FB	Ave	14915 725140	120699 875607	238248 1032146	318675	426103	500 17500	2500 20000	5000 25000	7500	10000
n-Heptane	FB	Ave	37541 1015361	172370 1247753	343792 1473278	453730	593146	20.0 700	100 800	200 1000	300	400
Trichloroethene	FB	Ave	51491 1337763	228617 1511187	445574 1899175	557536	763898	20.0 700	100 800	200 1000	300	400
Methylcyclohexane	FB	Ave	66709 1518386	302516 1821723	543409 2242100	683732	924161	20.0 700	100 800	200 1000	300	400
1,2-Dichloropropane	FB	Ave	28343 761874	129781 872134	243750 1079980	327752	447696	20.0 700	100 800	200 1000	300	400
Dibromomethane	FB	Ave	22063 570980	92763 676332	175702 813226	240979	325671	20.0 700	100 800	200 1000	300	400
1,4-Dioxane	FB	Ave	2158 129768	18551 130621	36036 160108	49259	68277	400 14000	2000 16000	4000 20000	6000	8000
Bromodichloromethane	FB	Ave	51297 1412009	234170 1632472	480549 1941561	612413	837049	20.0 700	100 800	200 1000	300	400
cis-1,3-Dichloropropene	FB	Ave	51839 1486494	250427 1709267	477454 2067222	643615	854790	20.0 700	100 800	200 1000	300	400
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	92825 1221845	198312 1421595	367652 1593755	558709	733664	100 1400	200 1600	400 2000	600	800
Toluene	CBZ	Qua	142380 3084889	620797 +++++	1151125 +++++	1473364	1929599	20.0 700	100 +++++	200 +++++	300	400
trans-1,3-Dichloropropene	CBZ	Ave	43102 1307789	200178 1546548	405643 1832921	565545	752421	20.0 700	100 800	200 1000	300	400
Ethyl methacrylate	CBZ	Ave	25609 911071	133131 1076607	262894 1240685	390626	513149	20.0 700	100 800	200 1000	300	400
1,1,2-Trichloroethane	CBZ	Ave	24292 746577	122370 867173	222398 1040134	322268	430806	20.0 700	100 800	200 1000	300	400
Tetrachloroethene	CBZ	Qua	37717 884171	166044 +++++	309255 +++++	380796	524990	20.0 700	100 +++++	200 +++++	300	400
1,3-Dichloropropane	CBZ	Ave	39480 1057404	180327 1228755	334311 1422739	485148	626433	20.0 700	100 800	200 1000	300	400
2-Hexanone	CBZ	Ave	50336 828690	121993 1032279	231264 1158826	369022	462161	100 1400	200 1600	400 2000	600	800
Dibromochloromethane	CBZ	Ave	44500 1253031	212583 1443562	387652 1742790	544921	725170	20.0 700	100 800	200 1000	300	400
1,2-Dibromoethane (EDB)	CBZ	Ave	27850 856980	131988 985791	251542 1184293	375561	486579	20.0 700	100 800	200 1000	300	400
Chlorobenzene	CBZ	Ave	92306 2414200	428641 2701248	846268 +++++	1093489	1464442	20.0 700	100 800	200 +++++	300	400

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
1,1,1,2-Tetrachloroethane	CBZ	Ave	43591 1125563	201326 +++++	393829 +++++	505049	683517	20.0 700	100 +++++	200 +++++	300	400
Ethylbenzene	CBZ	Ave	50304 +++++	223898 +++++	438222 +++++	567348	742350	20.0 +++++	100 +++++	200 +++++	300	400
m-Xylene & p-Xylene	CBZ	Ave	67901 +++++	306490 +++++	582999 +++++	753992	1009451	20.0 +++++	100 +++++	200 +++++	300	400
o-Xylene	CBZ	Ave	68803 +++++	307714 +++++	586685 +++++	750708	1006935	20.0 +++++	100 +++++	200 +++++	300	400
Styrene	CBZ	Qua	104580 2360095	473776 +++++	895002 +++++	1119936	1435413	20.0 700	100 +++++	200 +++++	300	400
Bromoform	CBZ	Ave	19871 781610	108786 915646	228827 1061162	322387	436139	20.0 700	100 800	200 1000	300	400
Isopropylbenzene	CBZ	Qua	197392 3864822	851551 +++++	1546157 +++++	1939042	2501798	20.0 700	100 +++++	200 +++++	300	400
1,1,2,2-Tetrachloroethane	CBZ	Ave	27018 733504	130862 843599	251042 942162	360995	452814	20.0 700	100 800	200 1000	300	400
Bromobenzene	DCB	Ave	45193 1224216	217052 1357100	423173 1650286	548599	719427	20.0 700	100 800	200 1000	300	400
1,2,3-Trichloropropane	DCB	Ave	9783 290435	43419 336681	86903 383754	129479	165438	20.0 700	100 800	200 1000	300	400
trans-1,4-Dichloro-2-butene	DCB	Ave	6196 188752	25315 225524	49829 261594	77709	103928	20.0 700	100 800	200 1000	300	400
N-Propylbenzene	DCB	Ave	57850 1515443	254930 1690335	515043 2105507	649531	866084	20.0 700	100 800	200 1000	300	400
2-Chlorotoluene	DCB	Ave	49710 1366522	241717 1567014	465485 1902501	592801	799439	20.0 700	100 800	200 1000	300	400
1,3,5-Trimethylbenzene	DCB	Qua	166706 3121962	678088 3446156	1260442 +++++	1547120	2000575	20.0 700	100 800	200 +++++	300	400
4-Chlorotoluene	DCB	Ave	50322 1318727	236378 1461135	415760 1852378	562904	757841	20.0 700	100 800	200 1000	300	400
tert-Butylbenzene	DCB	Lin2	173349 +++++	756877 +++++	1397136 +++++	1734851	2561684	20.0 +++++	100 +++++	200 +++++	300	400
1,2,4-Trimethylbenzene	DCB	Qua	162794 3286002	682185 +++++	1279121 +++++	1578246	2068364	20.0 700	100 +++++	200 +++++	300	400
sec-Butylbenzene	DCB	Qua	214158 4241460	908560 4650844	1664550 +++++	2075658	2688983	20.0 700	100 800	200 +++++	300	400
1,3-Dichlorobenzene	DCB	Lin2	100166 +++++	434056 +++++	814415 +++++	1053105	1390255	20.0 +++++	100 +++++	200 +++++	300	400
4-Isopropyltoluene	DCB	Qua	201528 3605948	822865 +++++	1460316 +++++	1814126	2342656	20.0 700	100 +++++	200 +++++	300	400
1,4-Dichlorobenzene	DCB	Ave	86104 2234049	400302 2471728	763456 2953963	1033910	1375837	20.0 700	100 800	200 1000	300	400

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
n-Butylbenzene	DCB	Qua	165362 2947372	672615 +++++	1224106 +++++	1510703	1935500	20.0 700	100 +++++	200 +++++	300	400
1,2-Dichlorobenzene	DCB	Ave	82710 +++++	359029 +++++	666444 +++++	895594	1172011	20.0 +++++	100 +++++	200 +++++	300	400
1,2-Dibromo-3-Chloropropane	DCB	Lin2	2051 134161	15088 157690	37304 181072	48853	74075	20.0 700	100 800	200 1000	300	400
1,2,4-Trichlorobenzene	DCB	Ave	28435 719677	78248 992400	198283 1186297	302905	443796	20.0 700	100 800	200 1000	300	400
Hexachlorobutadiene	DCB	Ave	19184 413354	52188 568860	119072 704150	167959	239421	20.0 700	100 800	200 1000	300	400
Naphthalene	DCB	Ave	61310 1090423	113468 1540124	323445 1609562	511933	664374	20.0 700	100 800	200 1000	300	400
1,2,3-Trichlorobenzene	DCB	Ave	28729 433251	38530 697645	106664 761958	203191	263400	20.0 700	100 800	200 1000	300	400
Dibromofluoromethane (Surr)	FB	Ave	40332 1069500	182892 1276297	358794 1499933	459650	635809	20.0 700	100 800	200 1000	300	400
1,2-Dichloroethane-d4 (Surr)	FB	Ave	38294 1052781	170431 1230322	326104 1446117	452870	603243	20.0 700	100 800	200 1000	300	400
Toluene-d8 (Surr)	CBZ	Ave	 2956031	571452 3370087	1076372 4013224	1374921	1822472	 700	100 800	200 1000	300	400
4-Bromofluorobenzene (Surr)	CBZ	Lin2	58011 1382927	227038 1583659	461682 1915172	594575	801850	20.0 700	100 800	200 1000	300	400

Curve Type Legend:

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 30-Mar-2015 10:57:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:14 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 11:35:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.012	5.024	-0.012	82	293090	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	99	1023741	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	84	274343	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.006	93	404767	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.678	0.001	84	40332	20.0	24.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.037	0.007	66	38294	20.0	24.6	
$ 7 Toluene-d8 (Surr)	98		9.033				ND	ND	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.636	-0.005	92	58011	20.0	19.3	
11 Dichlorodifluoromethane	85	1.934	1.939	-0.005	1	41448	20.0	21.8	M
12 Chloromethane	50	2.086	2.018	0.068	22	44098	20.0	21.3	M
14 Butadiene	39	2.183	2.176	0.007	65	43516	20.0	25.6	
13 Vinyl chloride	62	2.171	2.225	-0.054	27	35111	20.0	21.8	M
15 Bromomethane	94	2.499	2.499	0.000	10	23195	20.0	17.9	M
16 Chloroethane	64	2.615	2.639	-0.024	65	28139	20.0	21.7	
17 Dichlorofluoromethane	67	2.919	2.882	0.037	69	78053	20.0	22.6	
18 Trichlorofluoromethane	101	2.956	2.913	0.043	75	77379	20.0	21.3	
20 Ethyl ether	59	3.357	3.314	0.043	64	18758	20.0	16.3	
22 1,1-Dichloroethene	96	3.461	3.460	0.001	1	25924	20.0	18.9	M
21 Acrolein	56	3.485	3.497	-0.012	72	28748	400.0	361.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.637	3.563	0.074	1	37088	20.0	23.2	M
25 Iodomethane	142	3.710	3.716	-0.006	92	65439	20.0	22.8	
26 Carbon disulfide	76	3.771	3.764	0.007	79	91497	20.0	22.2	
24 Acetone	43	3.874	3.855	0.019	65	47874	100.0	100.6	M
28 3-Chloro-1-propene	76	4.063	4.087	-0.024	54	22664	20.0	22.4	M
31 Methylene Chloride	84	4.318	4.294	0.024	55	38895	20.0	26.4	M
30 Methyl acetate	43	4.355	4.324	0.031	68	88164	100.0	129.3	M
34 trans-1,2-Dichloroethene	96	4.714	4.725	-0.011	55	42422	20.0	24.9	
32 2-Methyl-2-propanol	59	4.708	4.744	-0.036	1	567	200.0	-157.2	
33 Acrylonitrile	53	4.872	4.829	0.043	64	60806	200.0	222.9	M
35 Methyl tert-butyl ether	73	4.896	4.890	0.006	62	80870	20.0	24.1	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.115	5.090	0.025	81	44092	20.0	24.7	M
38 Vinyl acetate	43	5.115	5.115	0.000	76	34041	20.0	25.3	M
37 1,1-Dichloroethane	63	5.328	5.334	-0.006	62	51559	20.0	20.6	M
44 2,2-Dichloropropane	77	6.083	6.076	0.007	84	51484	20.0	24.7	M
45 cis-1,2-Dichloroethene	96	6.101	6.094	0.007	76	39878	20.0	23.6	
46 2-Butanone (MEK)	43	6.222	6.216	0.006	74	46886	100.0	102.2	
49 Chlorobromomethane	128	6.375	6.380	-0.005	74	24652	20.0	25.3	
52 Chloroform	83	6.502	6.496	0.006	92	70828	20.0	25.2	M
53 1,1,1-Trichloroethane	97	6.667	6.660	0.007	94	66238	20.0	25.9	M
51 Tetrahydrofuran	42	6.727	6.709	0.018	46	11945	40.0	47.6	M
54 Cyclohexane	56	6.715	6.709	0.006	86	49523	20.0	27.5	M
56 Carbon tetrachloride	117	6.849	6.849	0.000	95	69874	20.0	27.1	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	50	48614	20.0	26.3	M
58 Benzene	78	7.098	7.086	0.012	95	131703	20.0	26.1	
59 1,2-Dichloroethane	62	7.129	7.122	0.007	84	45545	20.0	26.8	M
62 n-Heptane	43	7.390	7.390	0.000	40	37541	20.0	24.0	M
57 Isobutyl alcohol	41	7.208	7.396	-0.188	56	14915	500.0	362.9	M
64 Trichloroethene	130	7.798	7.785	0.013	88	51491	20.0	25.5	M
66 Methylcyclohexane	83	7.981	7.980	0.001	86	66709	20.0	26.9	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	82	28343	20.0	24.7	
68 Dibromomethane	93	8.151	8.144	0.007	90	22063	20.0	25.8	M
70 1,4-Dioxane	88	8.206	8.205	0.001	2	2158	400.0	269.0	M
71 Dichlorobromomethane	83	8.321	8.315	0.006	96	51297	20.0	24.1	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	89	51839	20.0	23.5	
75 4-Methyl-2-pentanone (MIBK	43	8.948	8.947	0.001	97	92825	100.0	115.8	
76 Toluene	91	9.100	9.099	0.001	97	142380	20.0	12.2	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	95	43102	20.0	25.0	
78 Ethyl methacrylate	69	9.428	9.428	0.000	92	25609	20.0	22.3	
79 1,1,2-Trichloroethane	97	9.514	9.513	0.001	91	24292	20.0	24.7	
80 Tetrachloroethene	164	9.647	9.641	0.006	91	37717	20.0	9.83	
81 1,3-Dichloropropane	76	9.666	9.671	-0.005	92	39480	20.0	27.1	
82 2-Hexanone	43	9.769	9.769	0.000	95	50336	100.0	97.3	
84 Chlorodibromomethane	129	9.897	9.896	0.001	85	44500	20.0	26.3	
85 Ethylene Dibromide	107	10.012	10.006	0.006	95	27850	20.0	25.0	
87 Chlorobenzene	112	10.499	10.499	0.000	97	92306	20.0	26.4	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.578	-0.006	89	43591	20.0	25.8	
90 Ethylbenzene	106	10.603	10.602	0.001	98	50304	20.0	25.3	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	67901	20.0	25.3	
92 o-Xylene	106	11.114	11.113	0.001	95	68803	20.0	25.6	
93 Styrene	104	11.126	11.125	0.001	94	104580	20.0	9.49	
94 Bromoform	173	11.314	11.314	0.000	92	19871	20.0	20.7	
97 Isopropylbenzene	105	11.479	11.478	0.001	96	197392	20.0	10.7	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	59	27018	20.0	26.1	
100 Bromobenzene	156	11.789	11.788	0.001	90	45193	20.0	26.1	
101 1,2,3-Trichloropropane	110	11.813	11.819	-0.006	55	9783	20.0	25.2	
102 trans-1,4-Dichloro-2-buten	53	11.837	11.831	0.006	47	6196	20.0	25.5	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	57850	20.0	27.2	
104 2-Chlorotoluene	126	11.983	11.977	0.006	97	49710	20.0	25.7	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	95	166706	20.0	6.19	
107 4-Chlorotoluene	126	12.087	12.086	0.001	95	50322	20.0	27.2	
108 tert-Butylbenzene	119	12.391	12.391	0.000	91	173349	20.0	19.7	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	95	162794	20.0	14.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.610	12.610	0.000	94	214158	20.0	6.61	
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	96	100166	20.0	19.7	
114 4-Isopropyltoluene	119	12.750	12.756	-0.006	96	201528	20.0	13.2	
115 1,4-Dichlorobenzene	146	12.817	12.816	0.001	94	86104	20.0	26.8	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	165362	20.0	13.9	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	82710	20.0	26.3	
122 1,2-Dibromo-3-Chloropropan	75	13.955	13.972	-0.017	52	2051	20.0	20.3	
126 1,2,4-Trichlorobenzene	180	14.818	14.806	0.012	91	28435	20.0	28.5	
127 Hexachlorobutadiene	225	14.964	14.970	-0.006	84	19184	20.0	32.1	
128 Naphthalene	128	15.056	15.055	0.001	96	61310	20.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.311	15.305	0.006	93	28729	20.0	42.1	
S 134 1,2-Dichloroethene, Total	96				0		40.0	48.4	
S 133 Xylenes, Total	106				0		40.0	50.9	
S 135 1,3-Dichloropropene, Total	1				0		40.0	48.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	0.80	Units: uL
VOAVAPRI_00005	Amount Added:	0.80	Units: uL
VOAACRPRI_00003	Amount Added:	16.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	0.80	Units: uL
voaWKet2 Rest_00002	Amount Added:	3.20	Units: uL

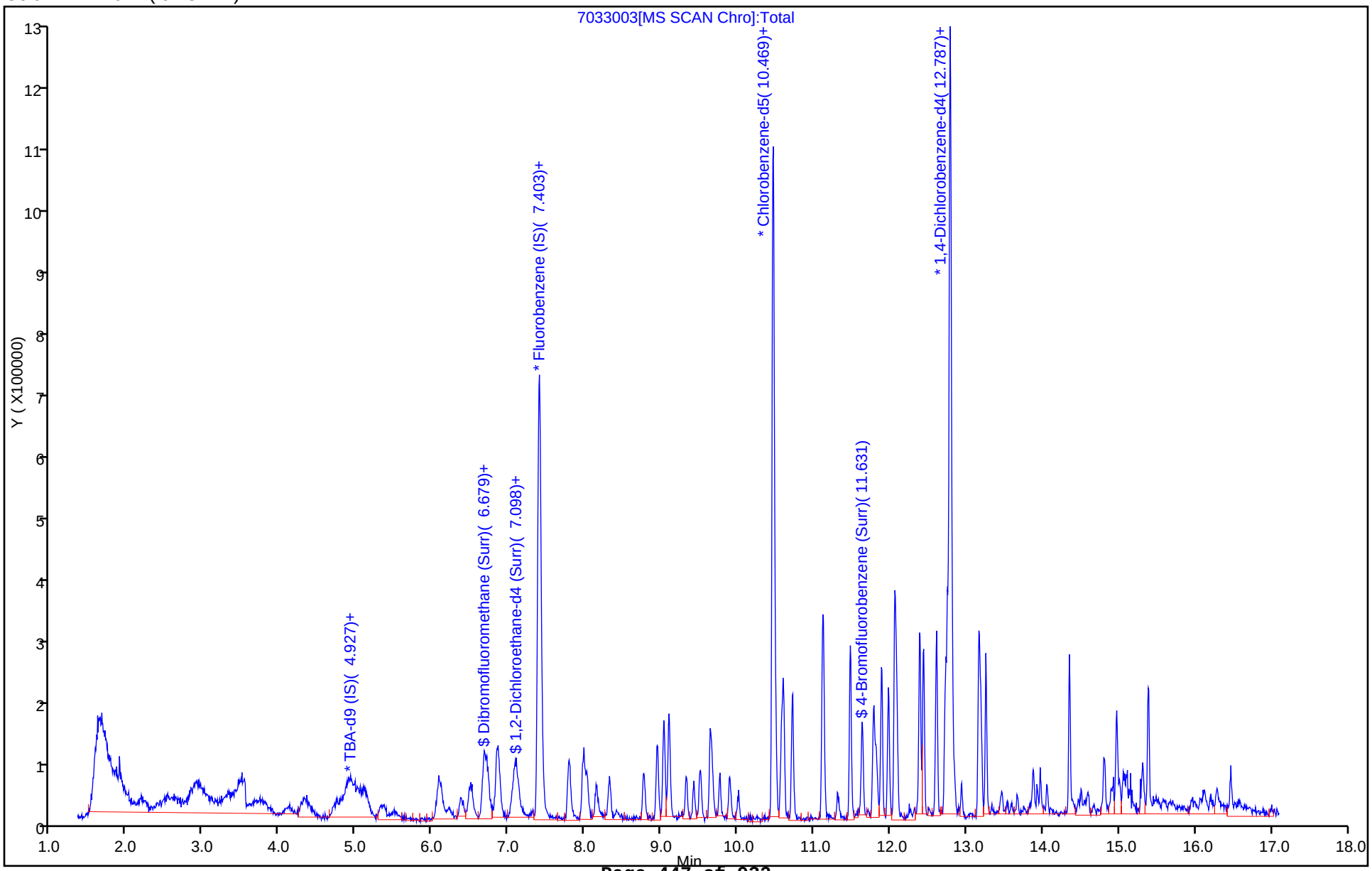
Report Date: 31-Mar-2015 08:54:15 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D

Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

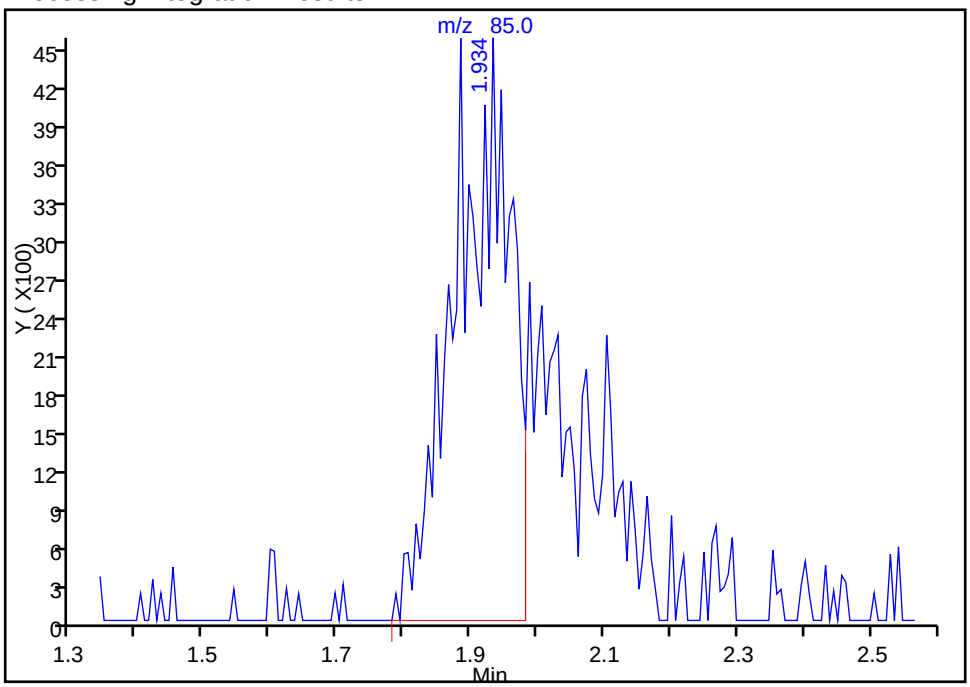
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Dichlorodifluoromethane, CAS: 75-71-8

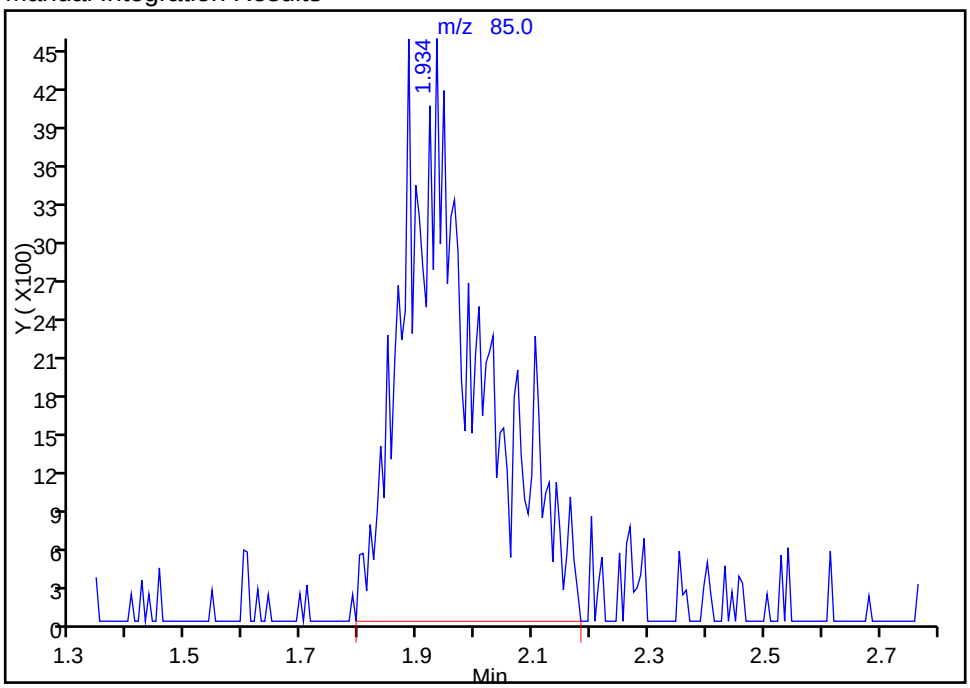
Processing Integration Results

RT: 1.93
Area: 26133
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 1.93
Area: 41448
Amount: 21.843208
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

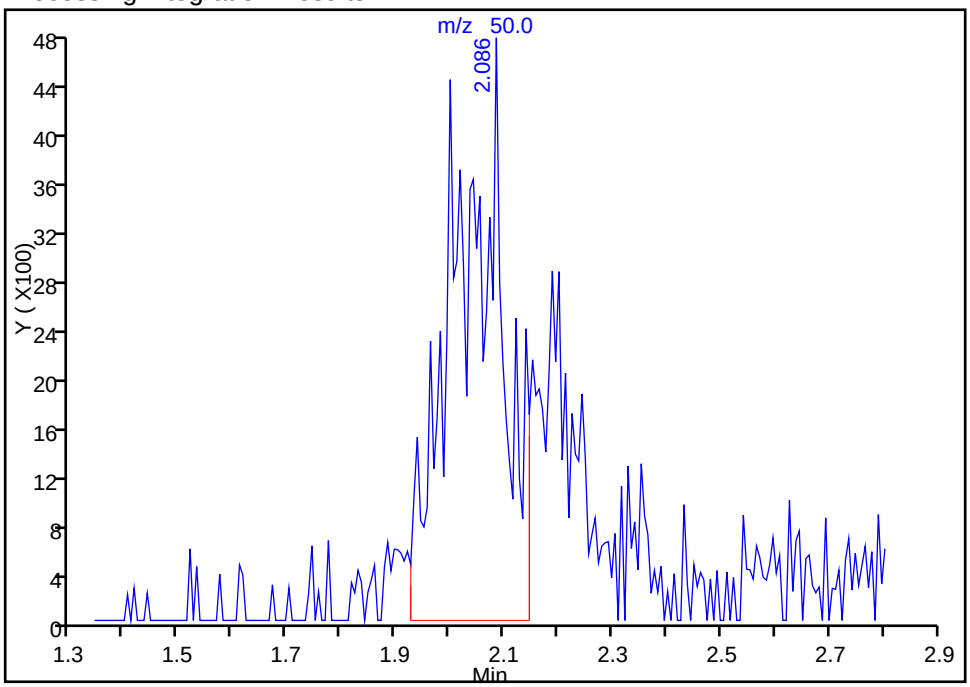
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

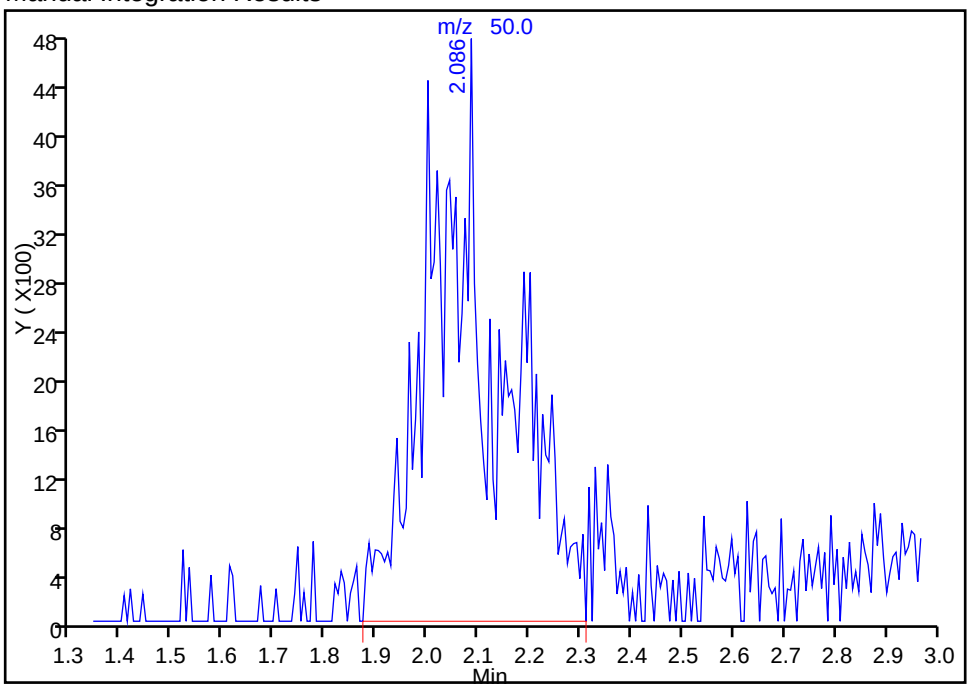
Processing Integration Results

RT: 2.09
Area: 29503
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.09
Area: 44098
Amount: 21.331829
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

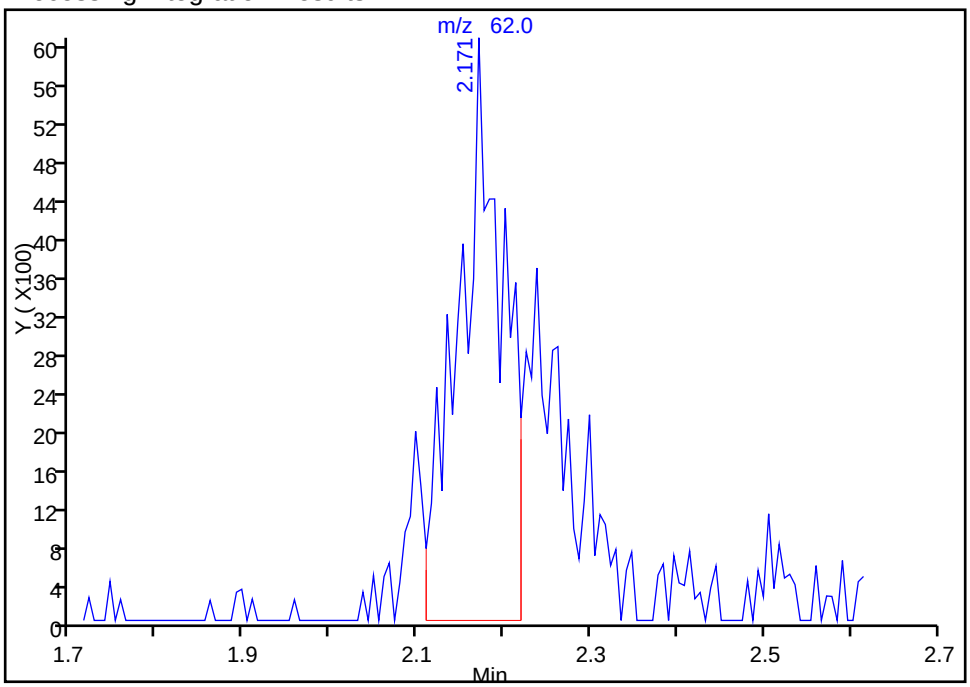
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

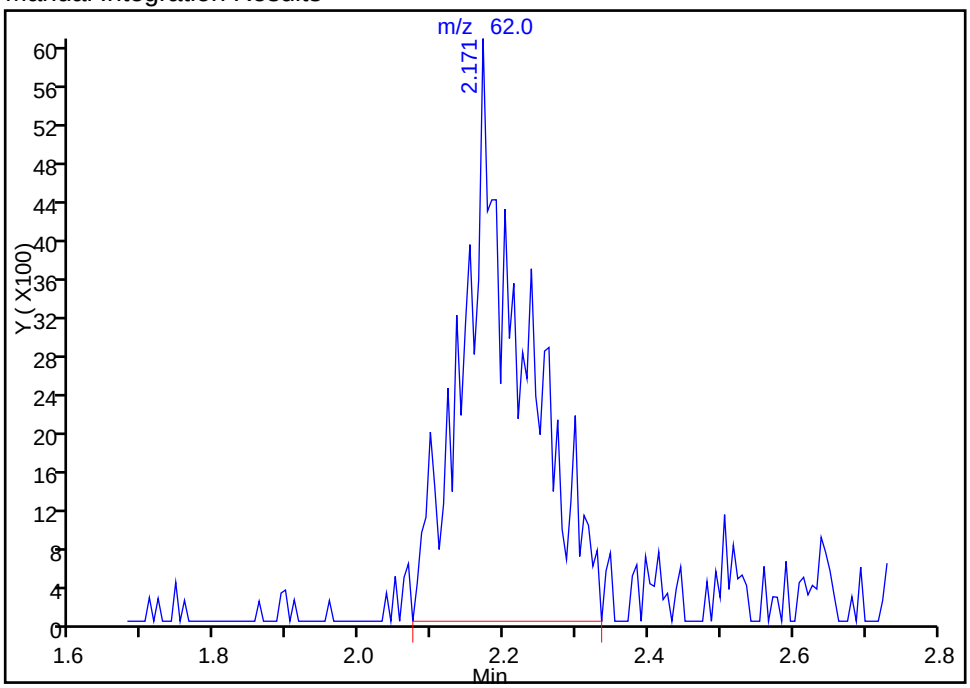
Processing Integration Results

RT: 2.17
Area: 21509
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.17
Area: 35111
Amount: 21.810178
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

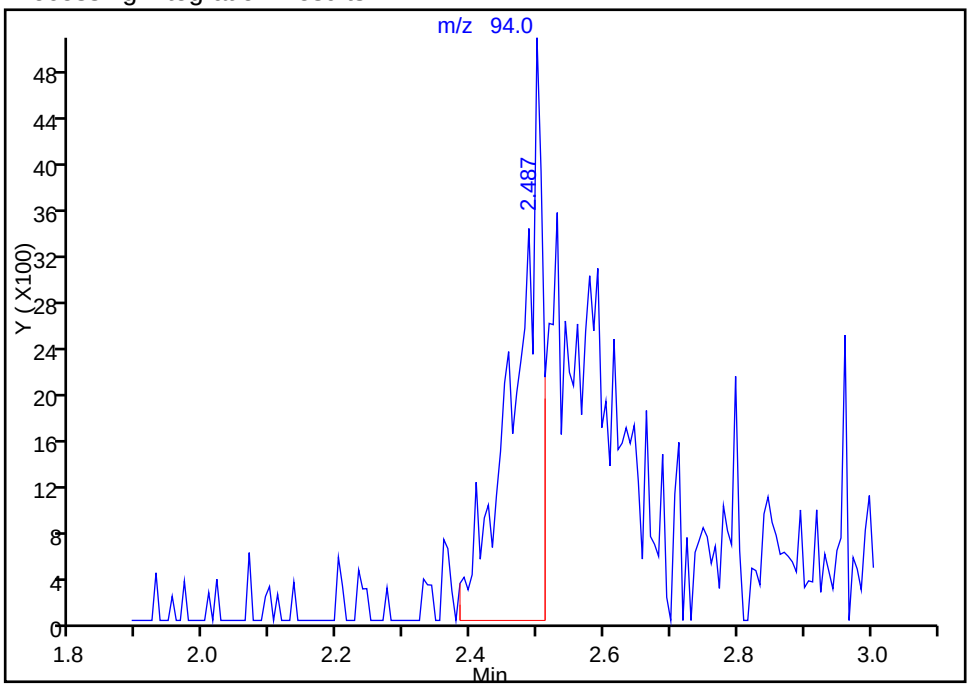
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

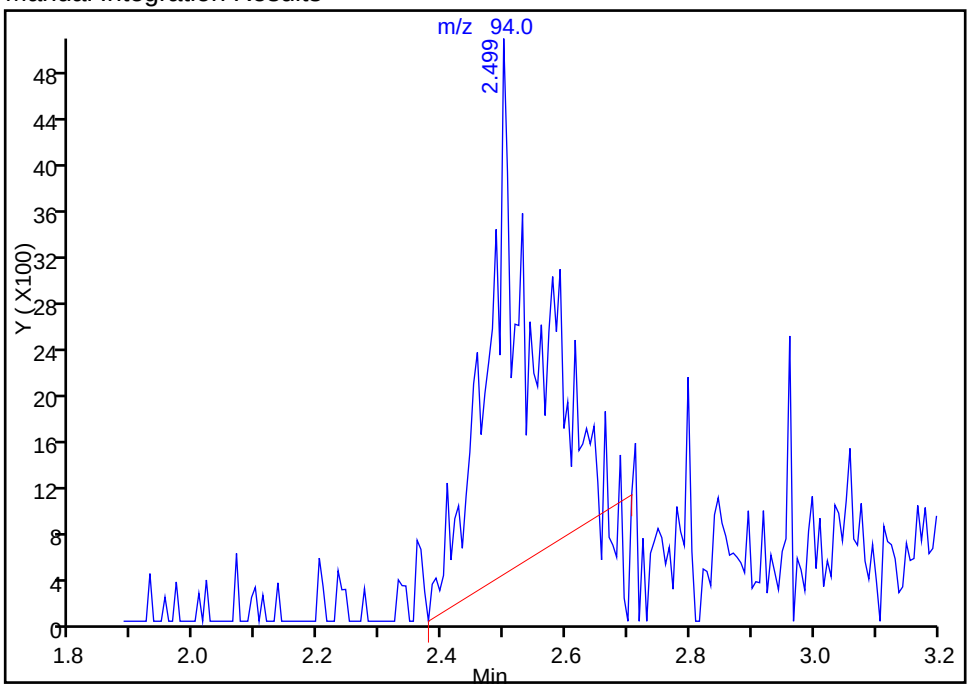
Processing Integration Results

RT: 2.49
Area: 13755
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.50
Area: 23195
Amount: 17.880294
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

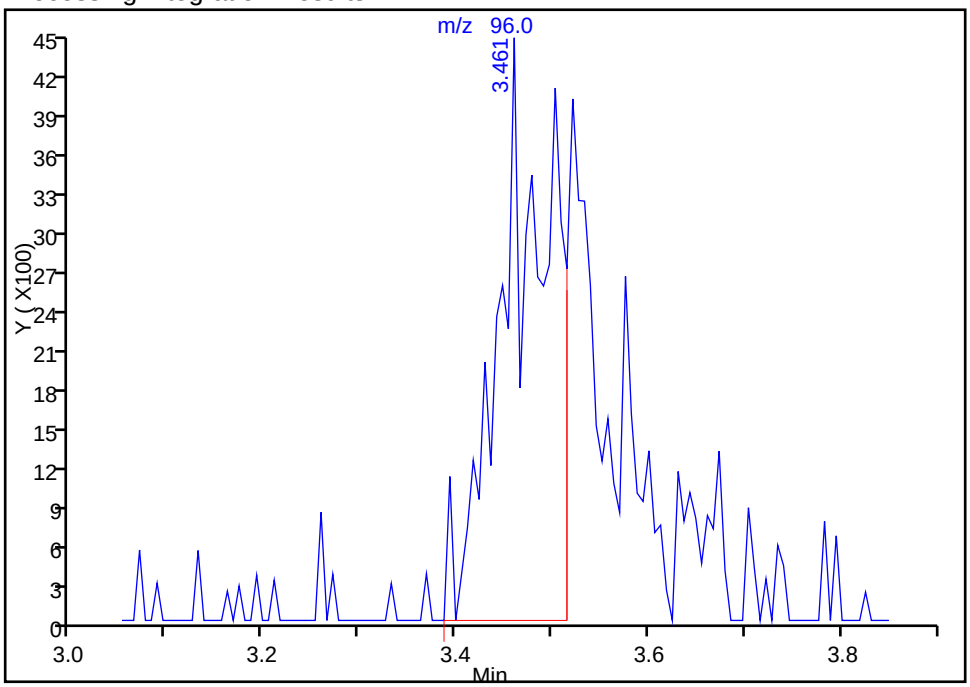
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

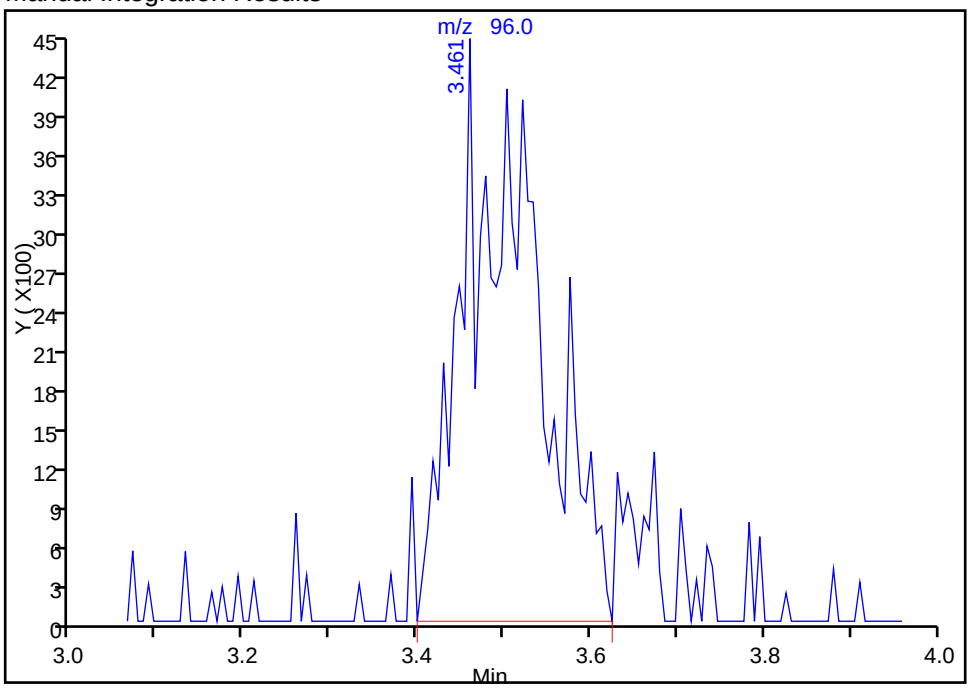
Processing Integration Results

RT: 3.46
Area: 16183
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 3.46
Area: 25924
Amount: 18.860231
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

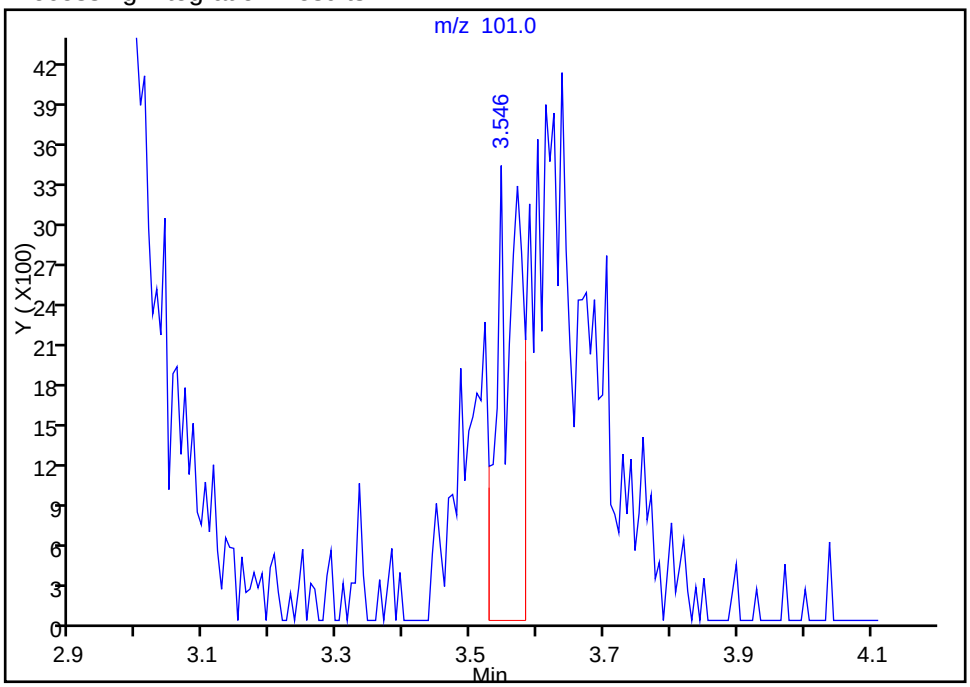
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 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

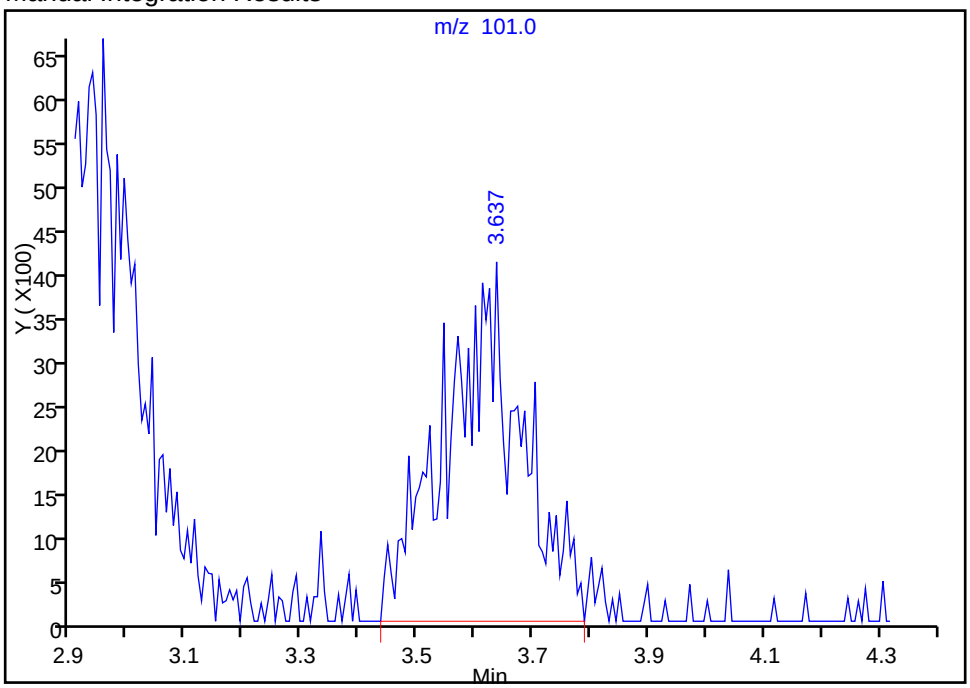
Processing Integration Results

RT: 3.55
Area: 7866
Amount: 0
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 37088
Amount: 23.204719
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

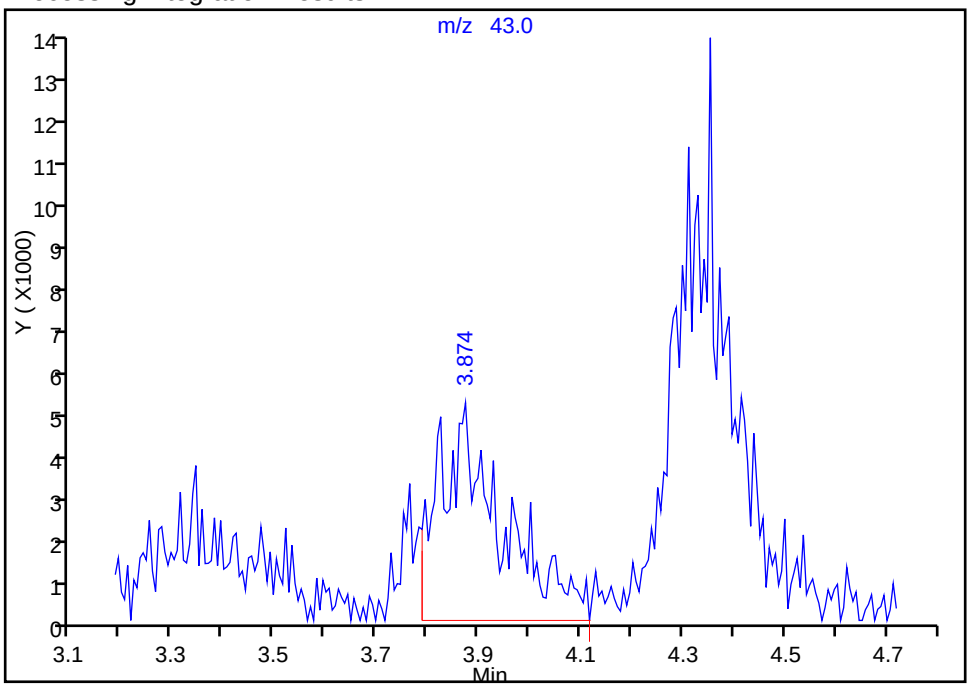
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

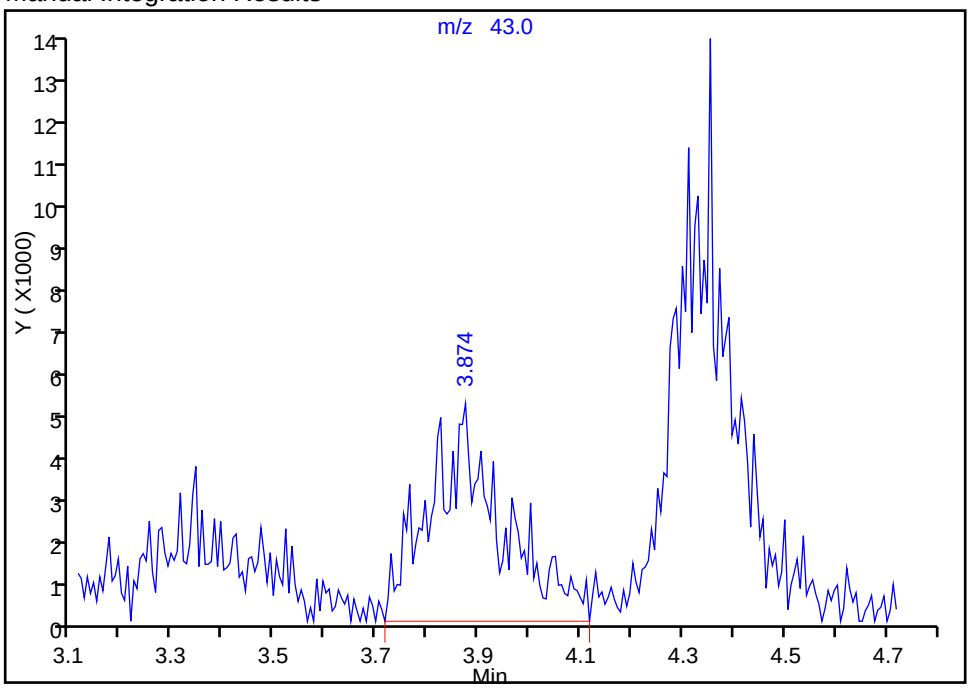
Processing Integration Results

RT: 3.87
Area: 41567
Amount: 100.0000
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 47874
Amount: 100.6346
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

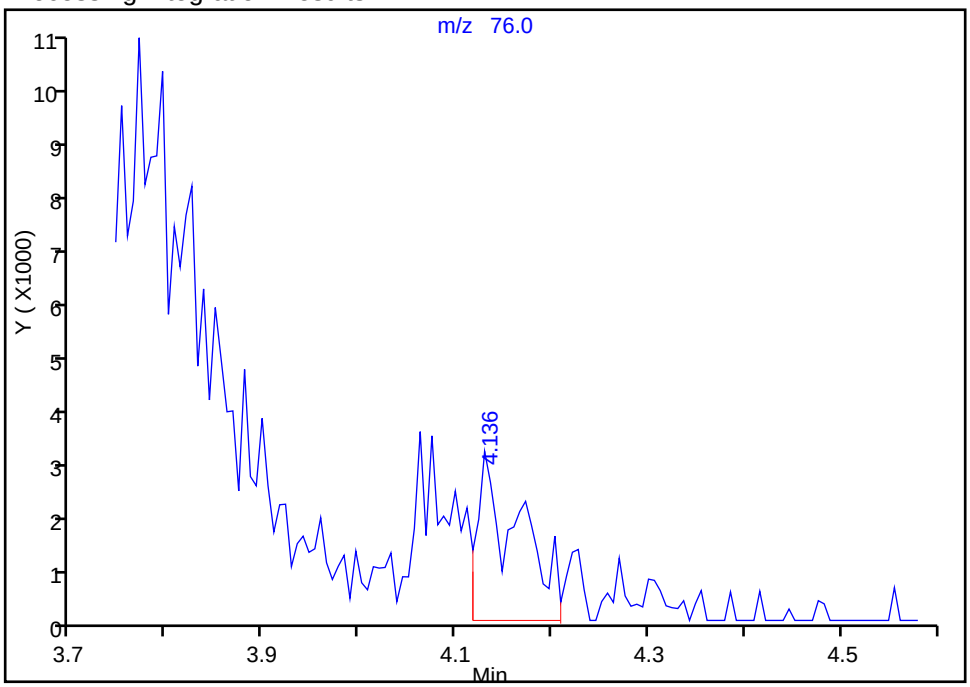
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

28 3-Chloro-1-propene, CAS: 107-05-1

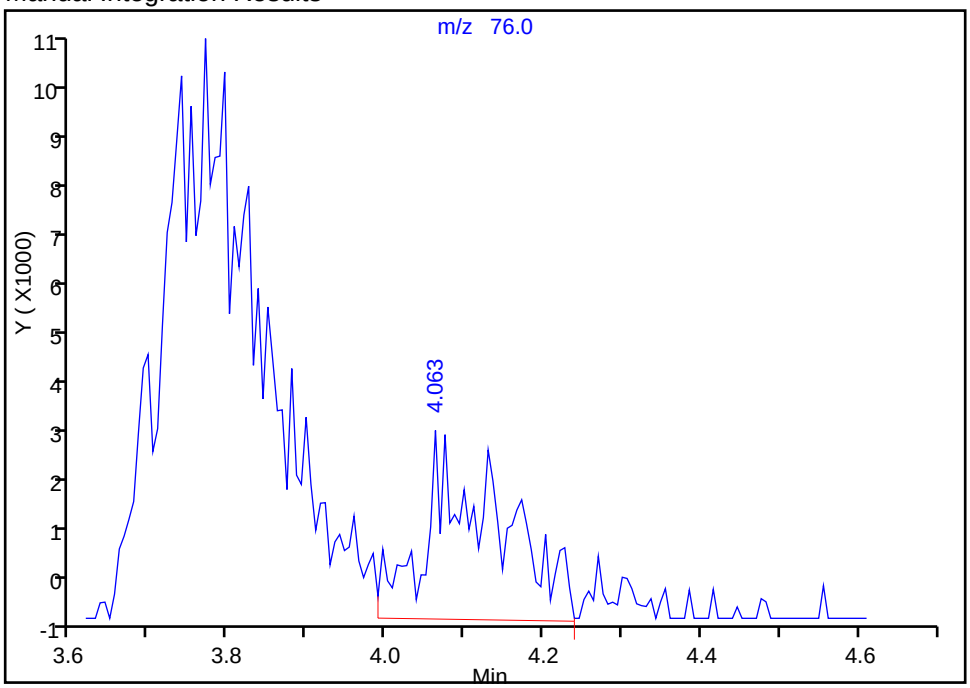
Processing Integration Results

RT: 4.14
Area: 9385
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.06
Area: 22664
Amount: 22.354527
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

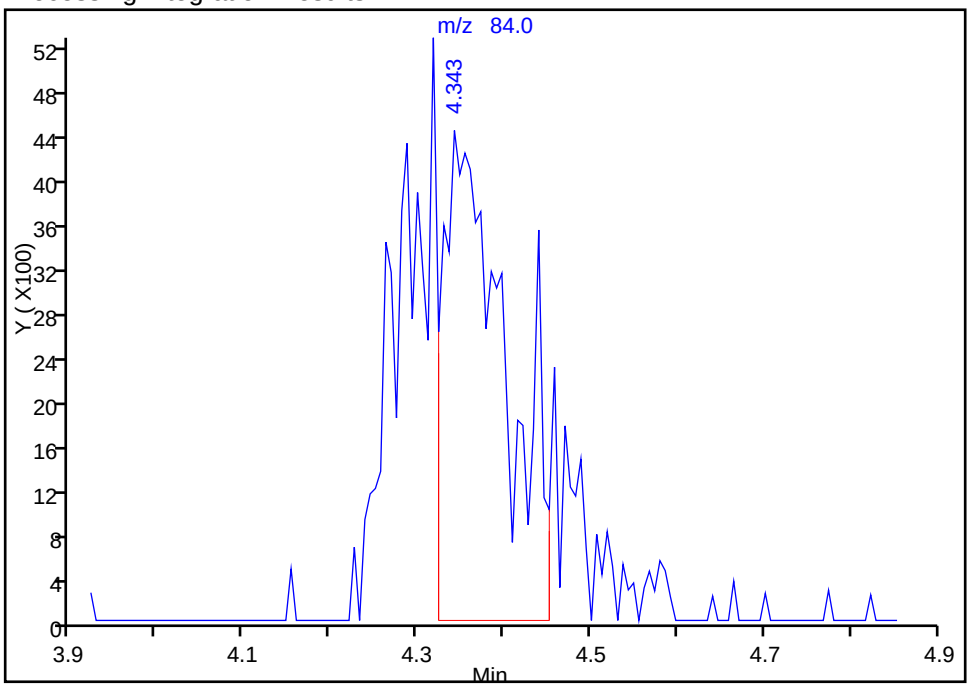
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

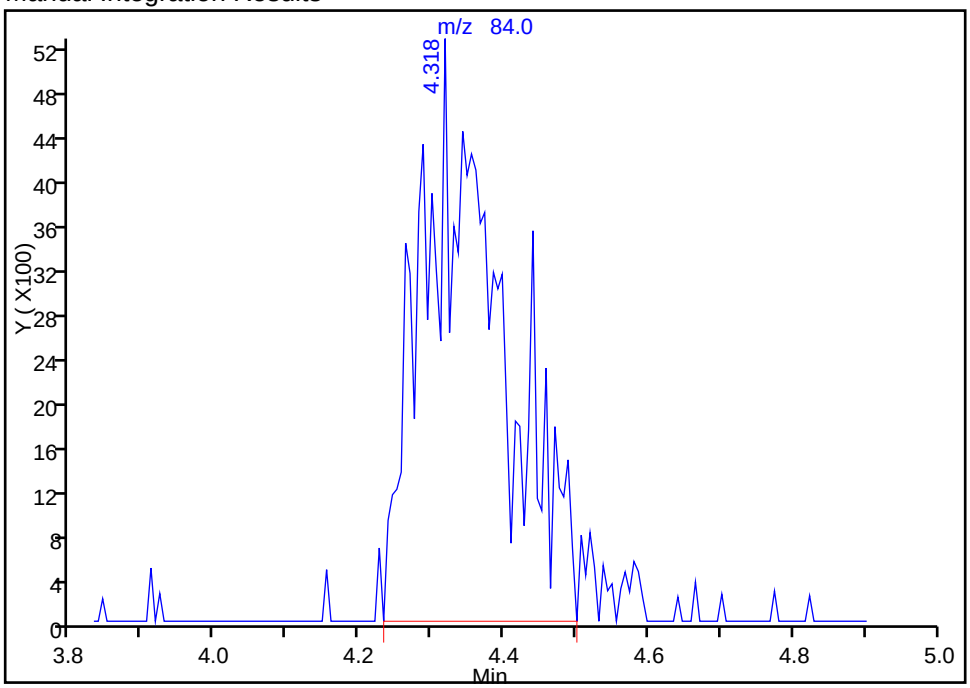
Processing Integration Results

RT: 4.34
Area: 21726
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 38895
Amount: 26.365167
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

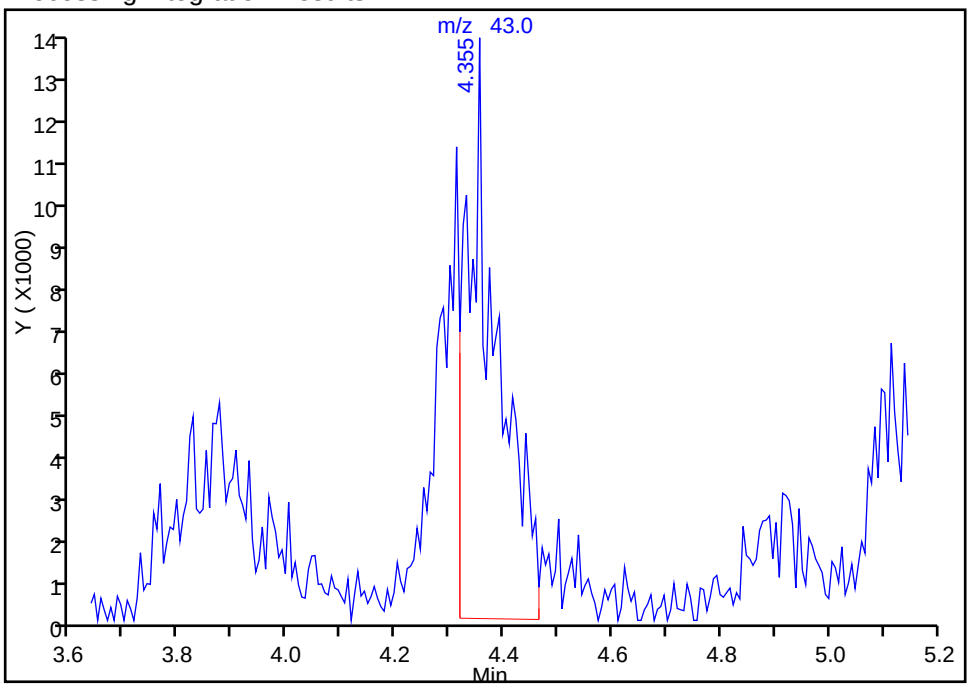
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

30 Methyl acetate, CAS: 79-20-9

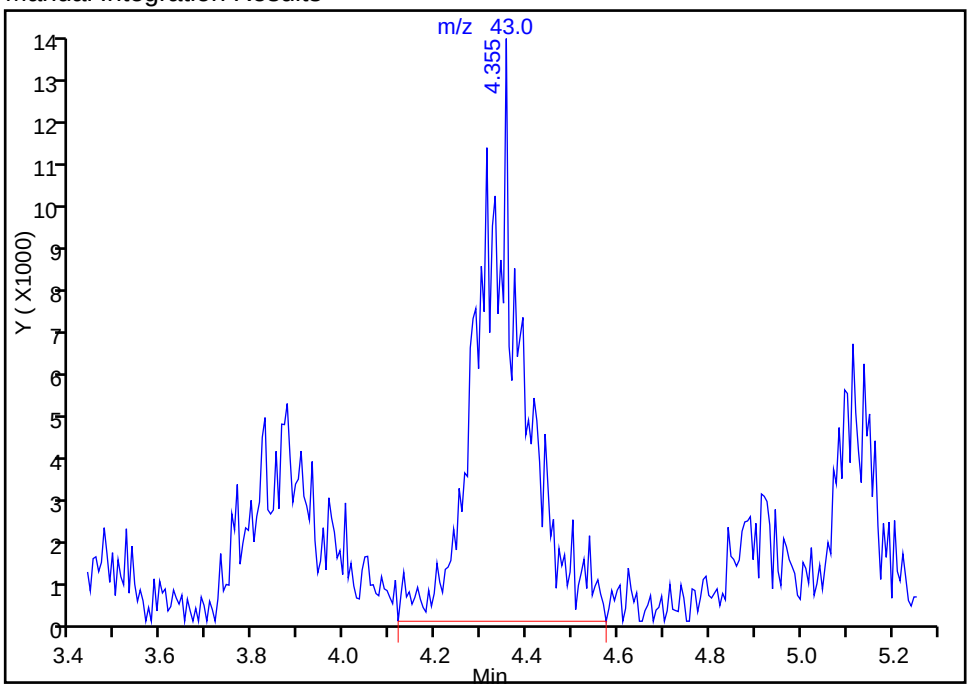
Processing Integration Results

RT: 4.35
Area: 51204
Amount: 100.0000
Amount Units: ng



Manual Integration Results

RT: 4.35
Area: 88164
Amount: 129.2601
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

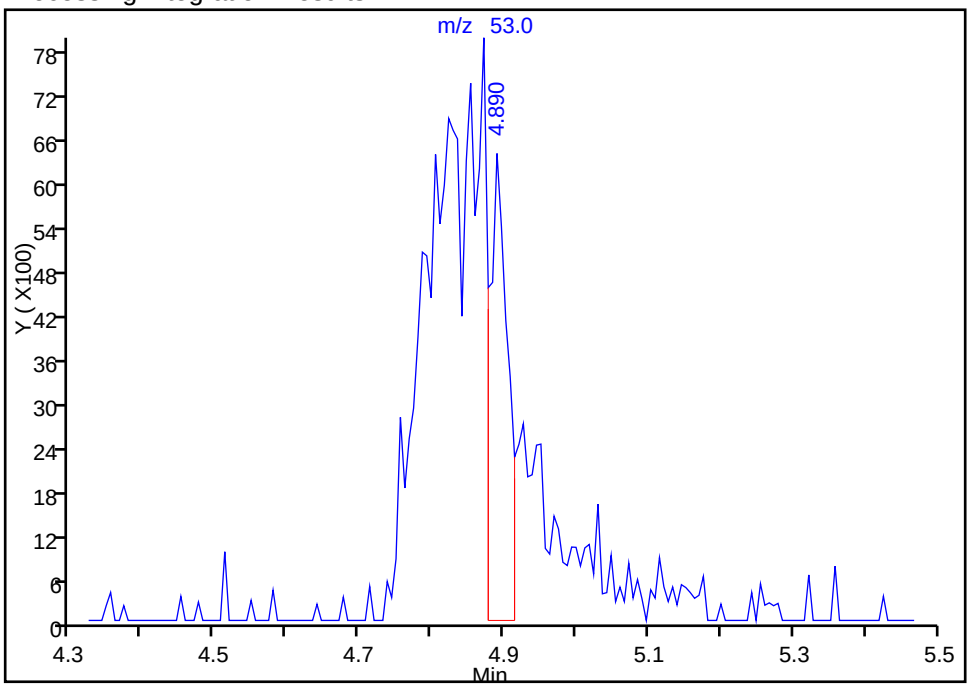
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

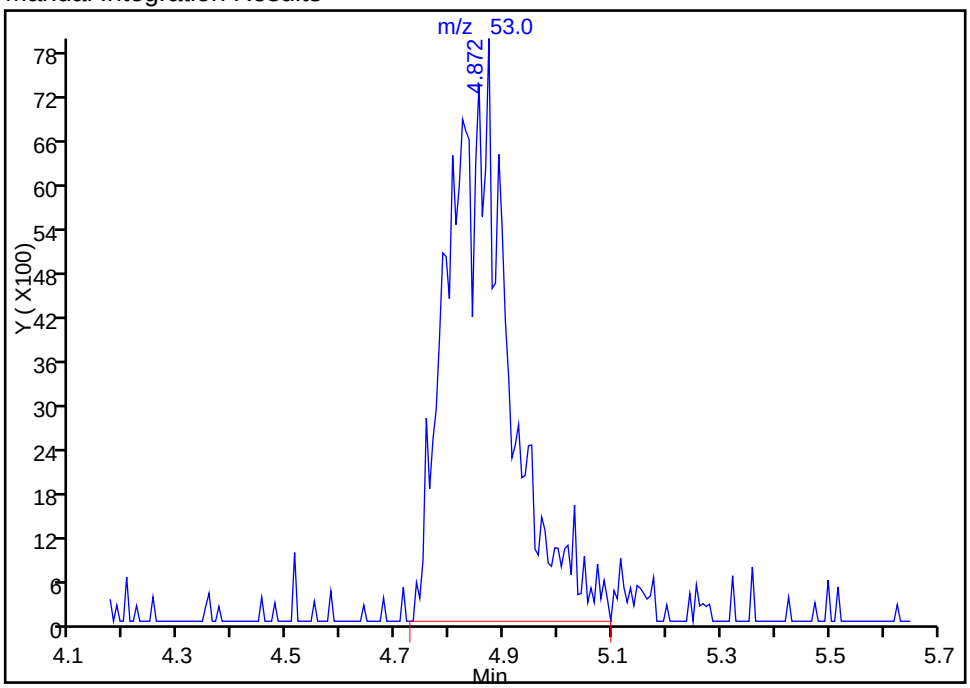
Processing Integration Results

RT: 4.89
Area: 11115
Amount: 0
Amount Units: ng



Manual Integration Results

RT: 4.87
Area: 60806
Amount: 222.8607
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

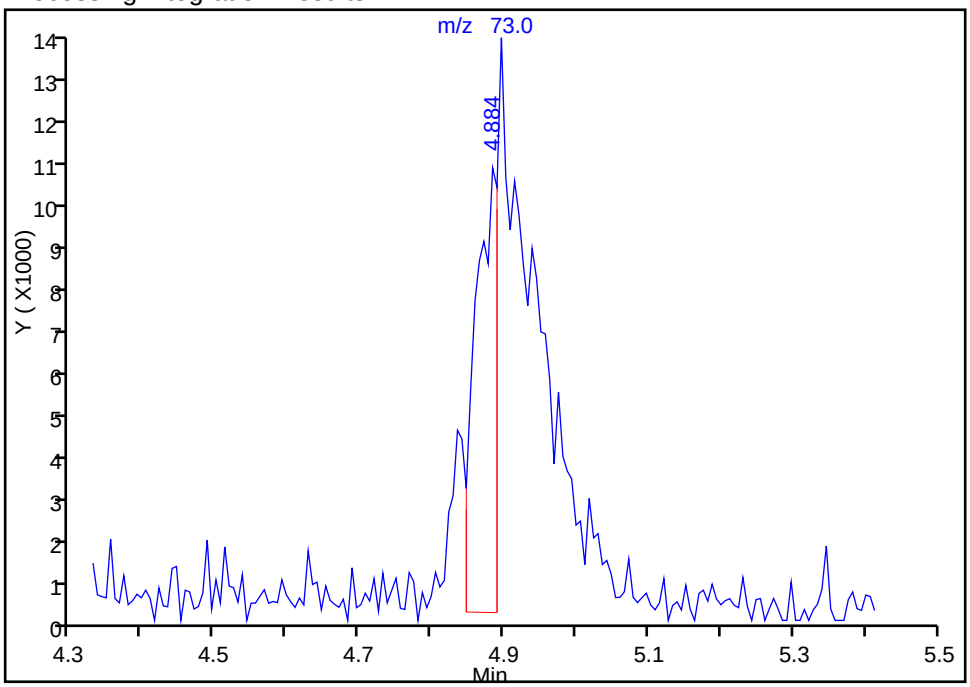
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

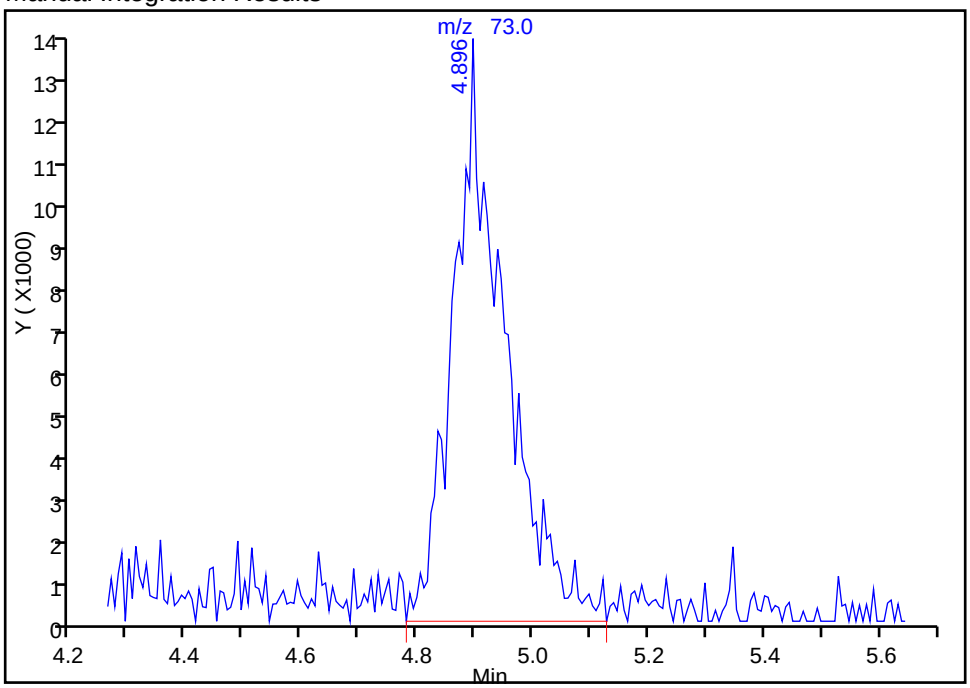
Processing Integration Results

RT: 4.88
Area: 21512
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.90
Area: 80870
Amount: 24.061609
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

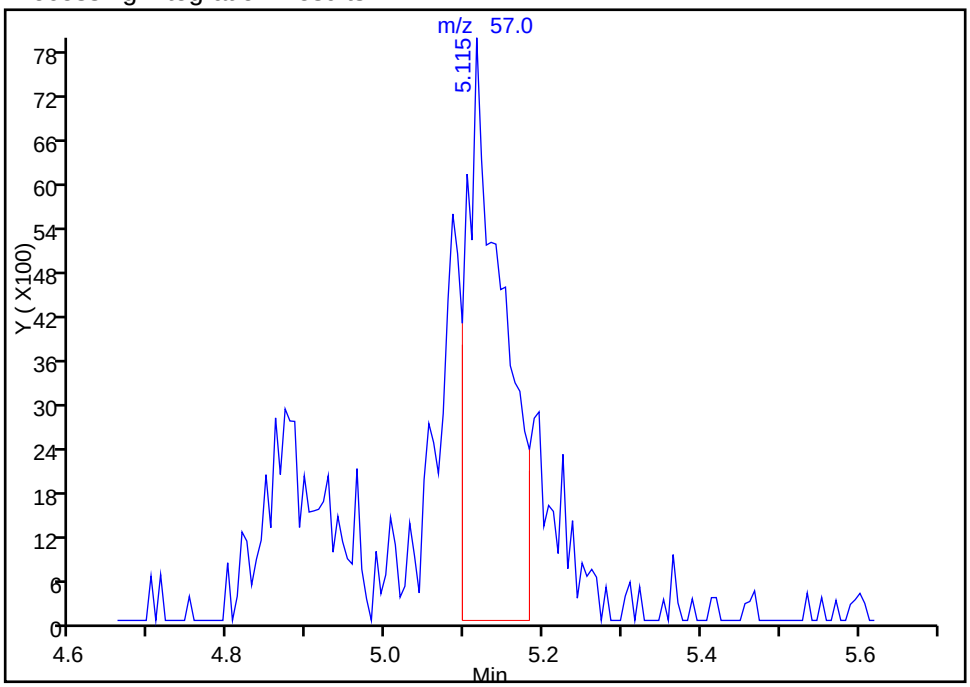
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

36 Hexane, CAS: 110-54-3

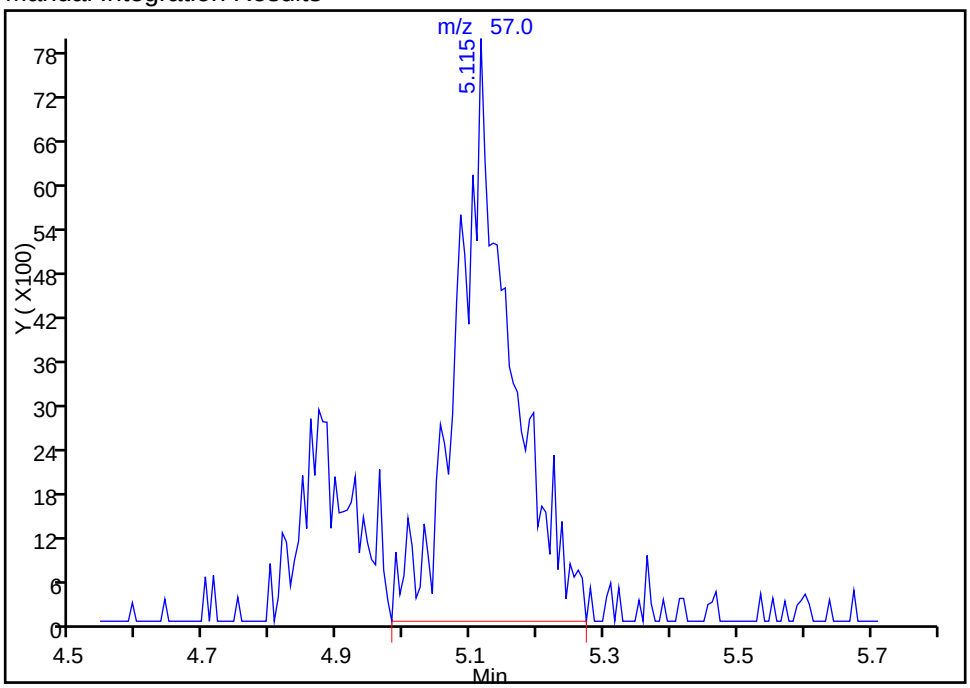
Processing Integration Results

RT: 5.12
Area: 24973
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 44092
Amount: 24.720726
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

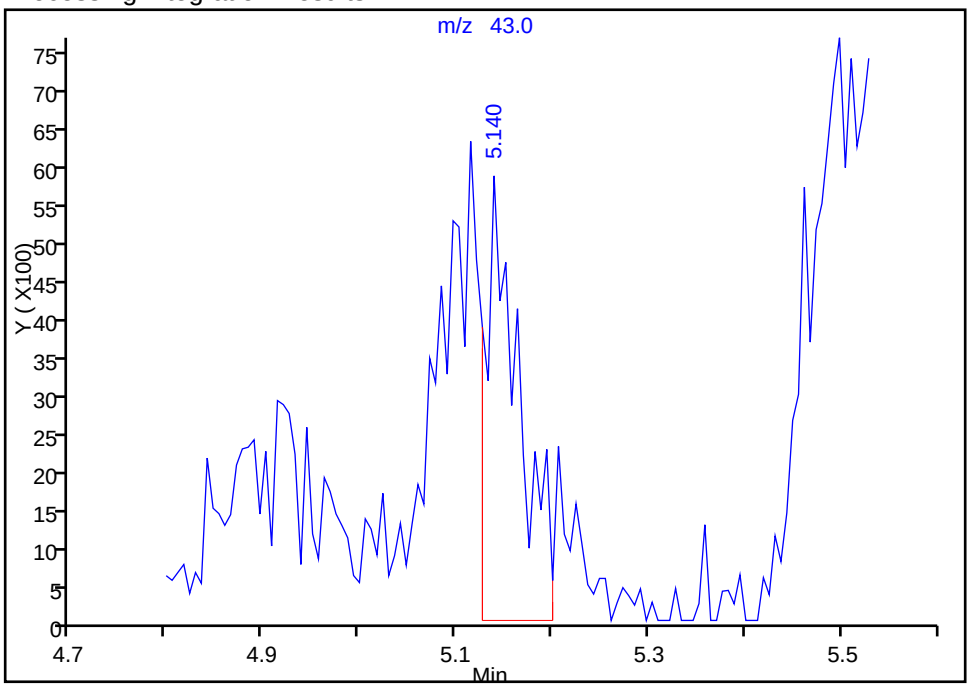
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

38 Vinyl acetate, CAS: 108-05-4

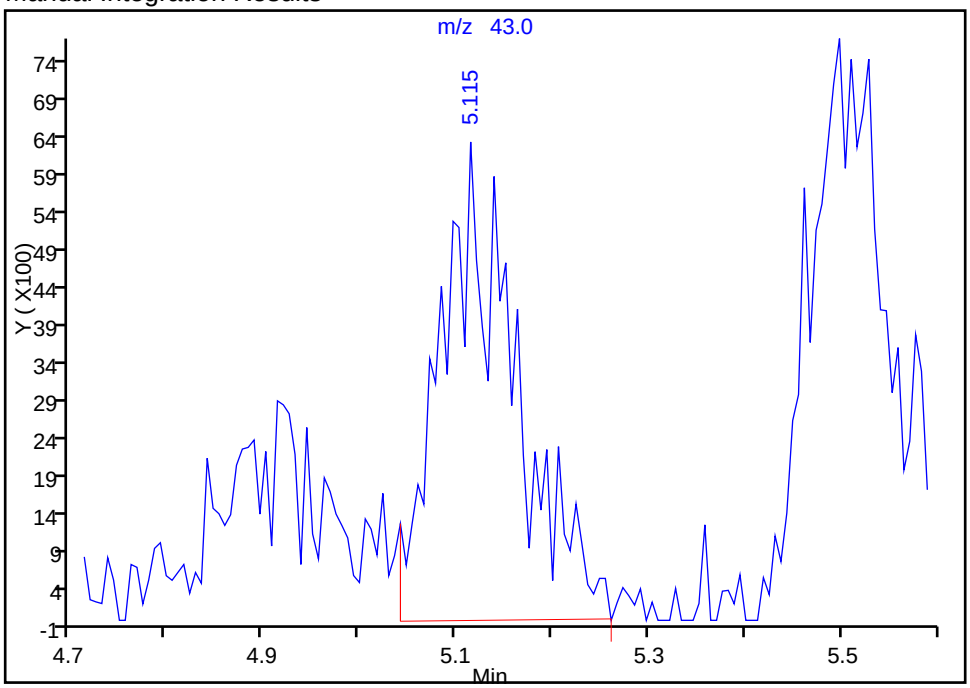
Processing Integration Results

RT: 5.14
Area: 14037
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 34041
Amount: 25.312957
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

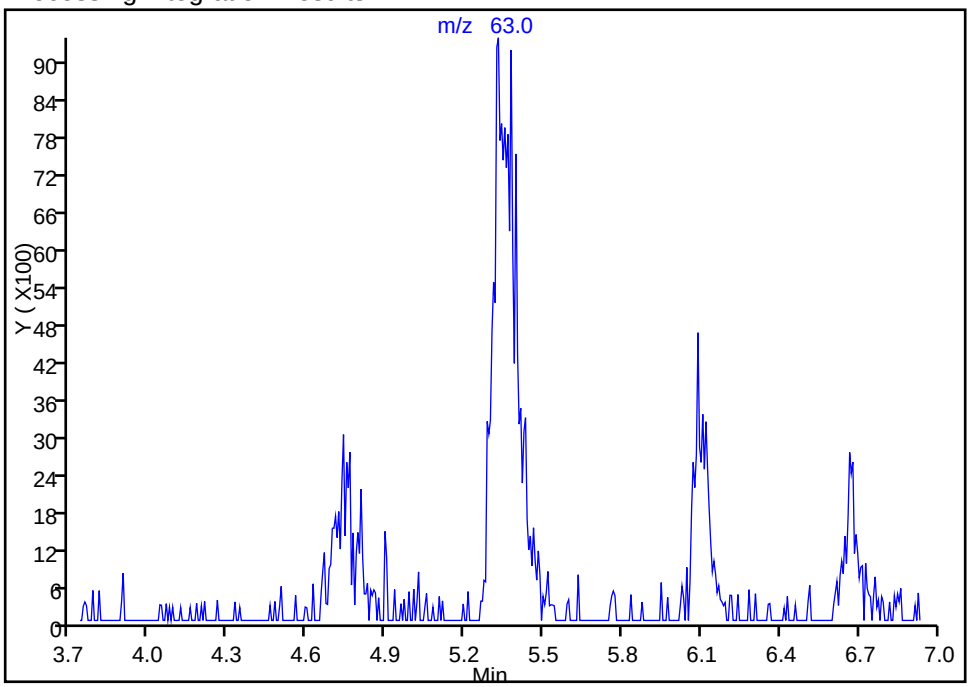
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

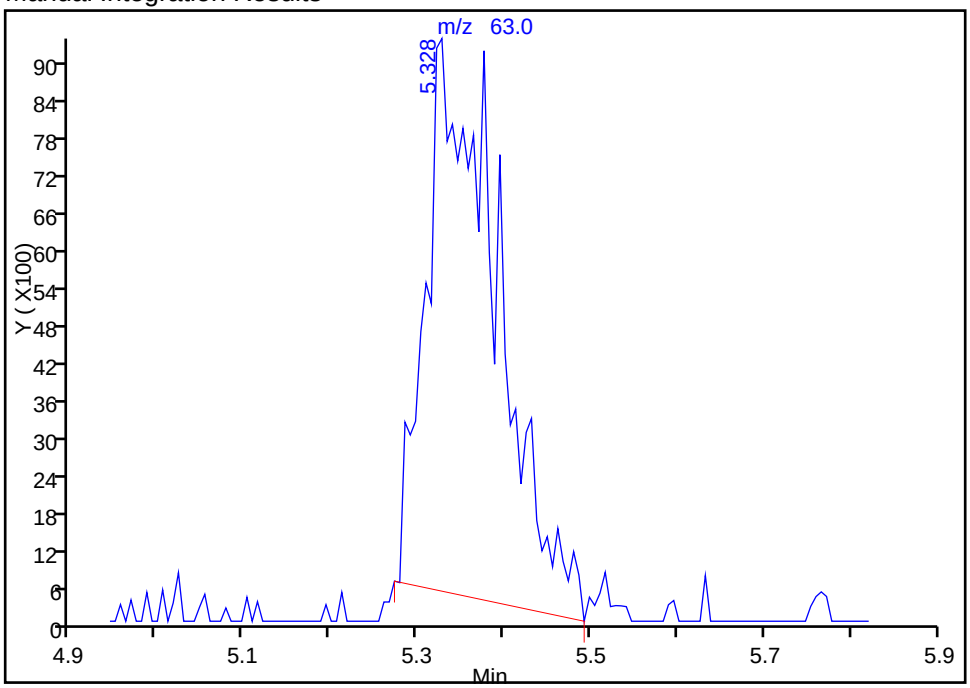
Processing Integration Results

Not Detected
Expected RT: 5.33



Manual Integration Results

RT: 5.33
Area: 51559
Amount: 20.627467
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

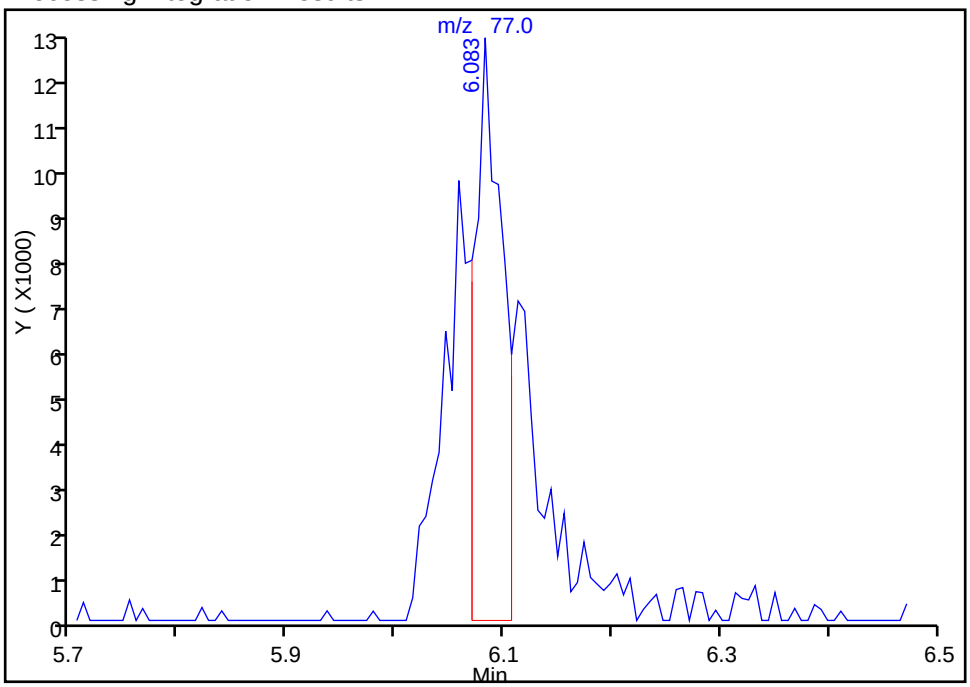
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 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

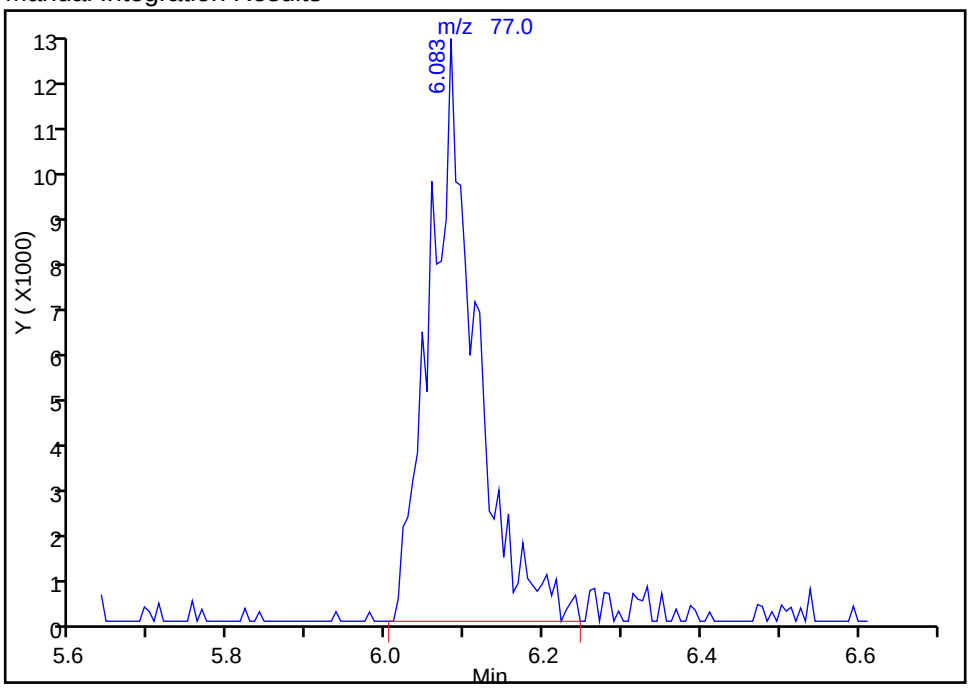
Processing Integration Results

RT: 6.08
Area: 22544
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.08
Area: 51484
Amount: 24.654531
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

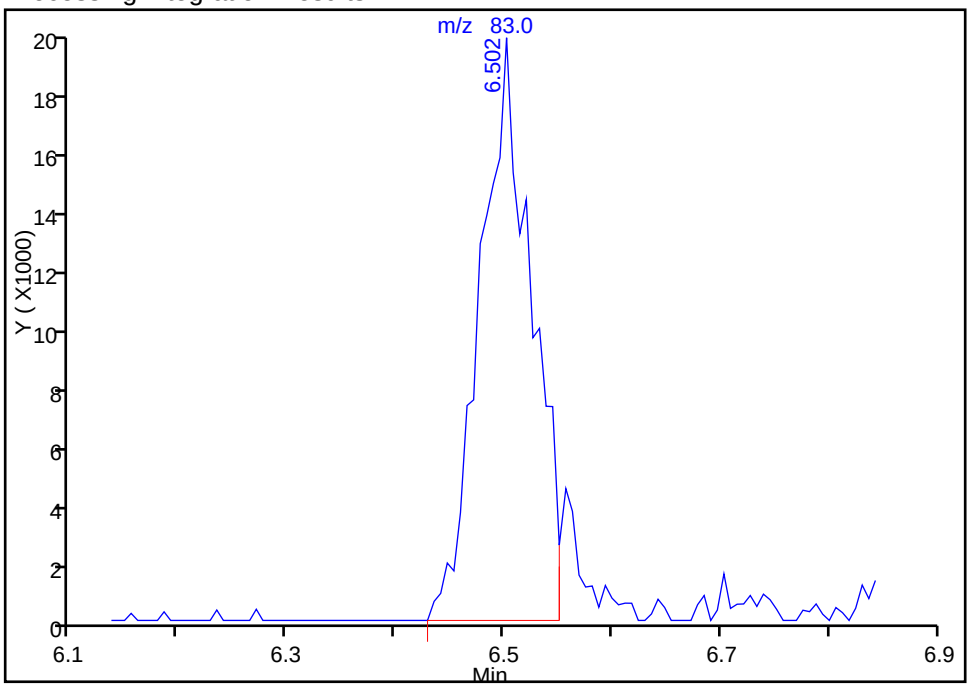
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

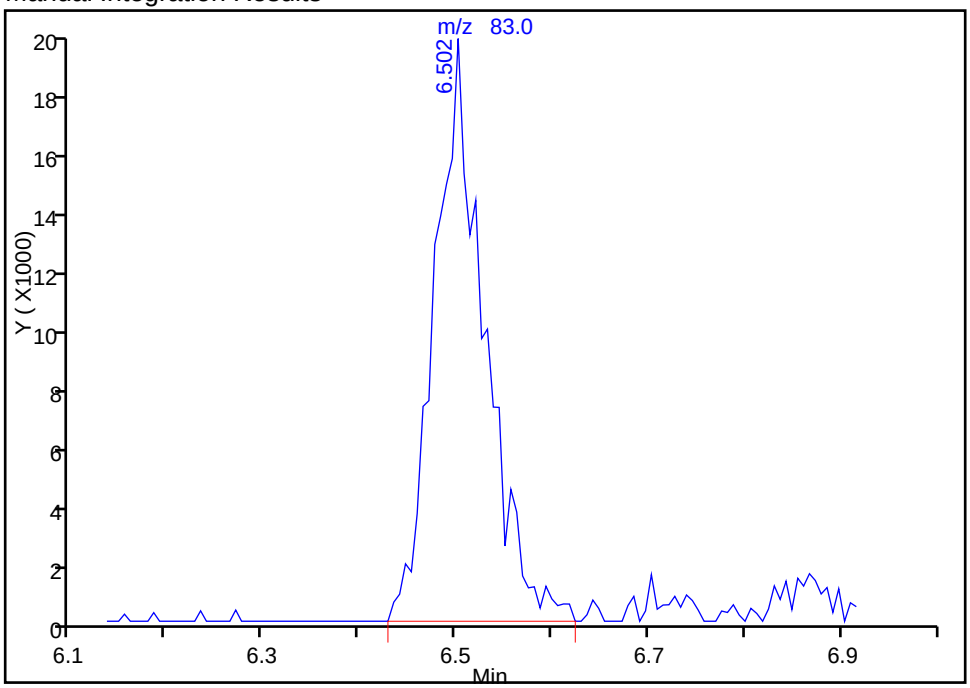
Processing Integration Results

RT: 6.50
Area: 65001
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.50
Area: 70828
Amount: 25.162519
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

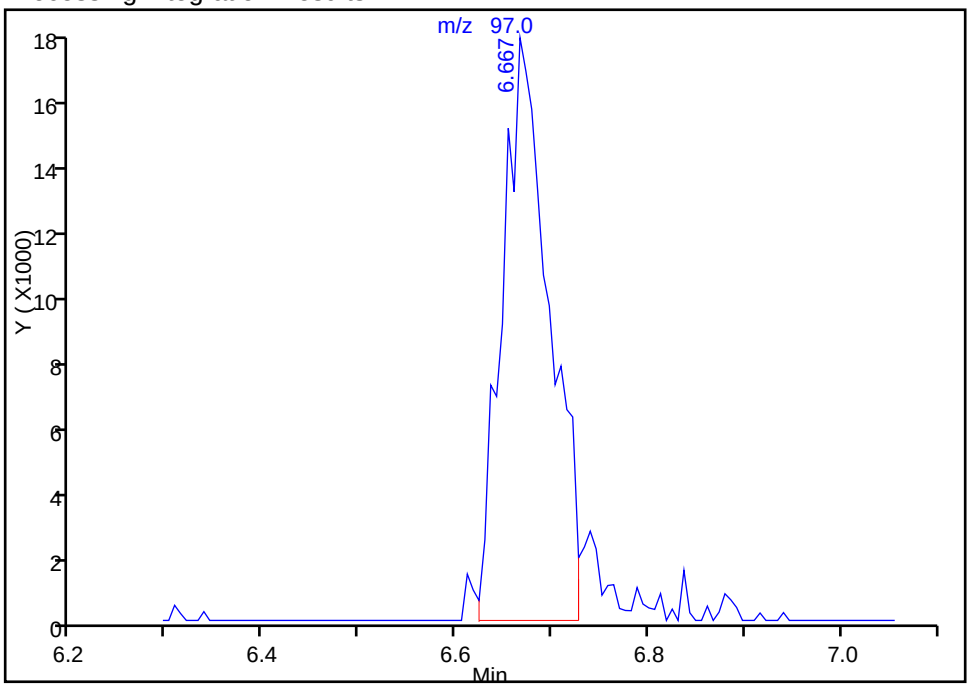
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

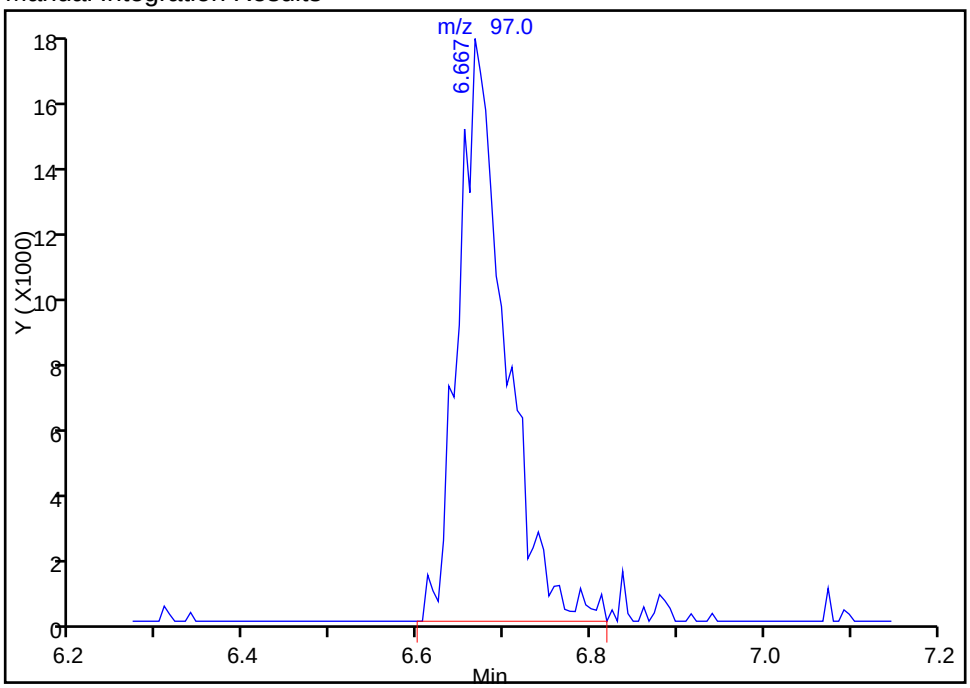
Processing Integration Results

RT: 6.67
Area: 60310
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.67
Area: 66238
Amount: 25.914032
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

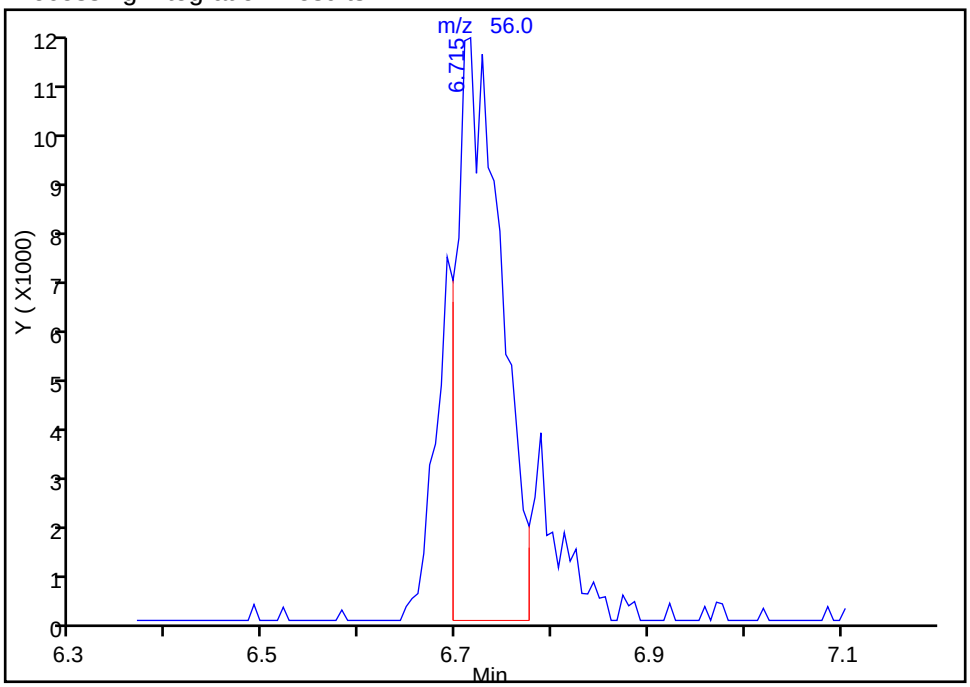
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

54 Cyclohexane, CAS: 110-82-7

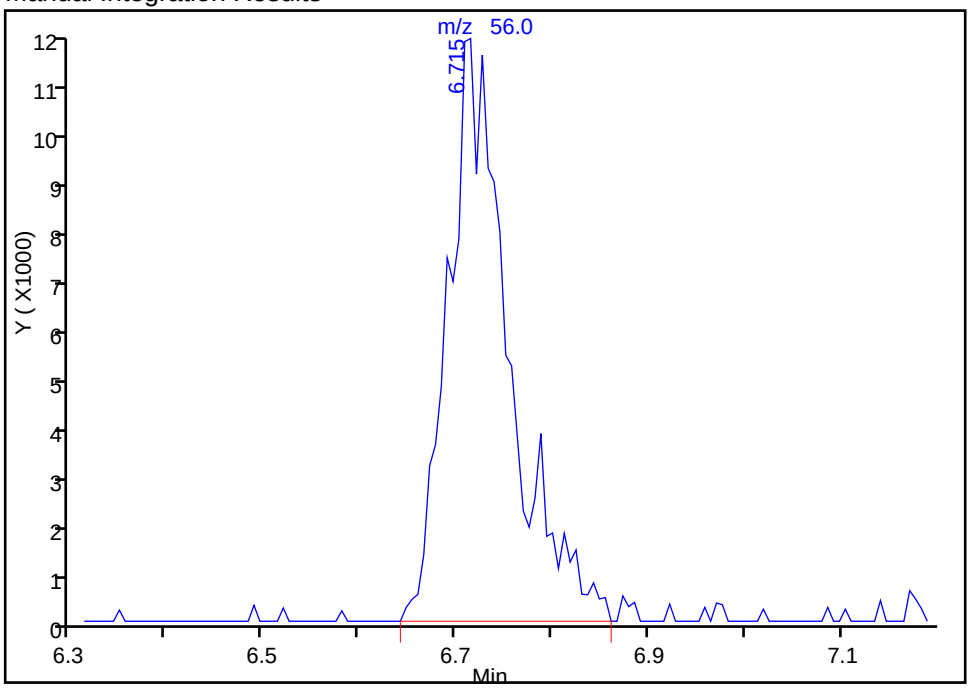
Processing Integration Results

RT: 6.72
Area: 35785
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.72
Area: 49523
Amount: 27.461349
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

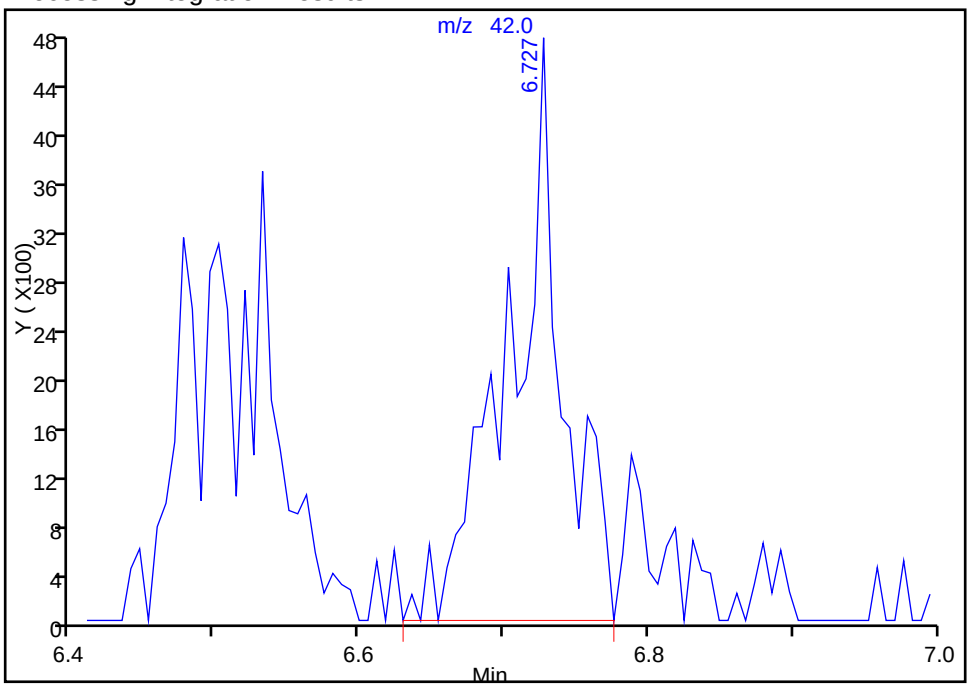
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

51 Tetrahydrofuran, CAS: 109-99-9

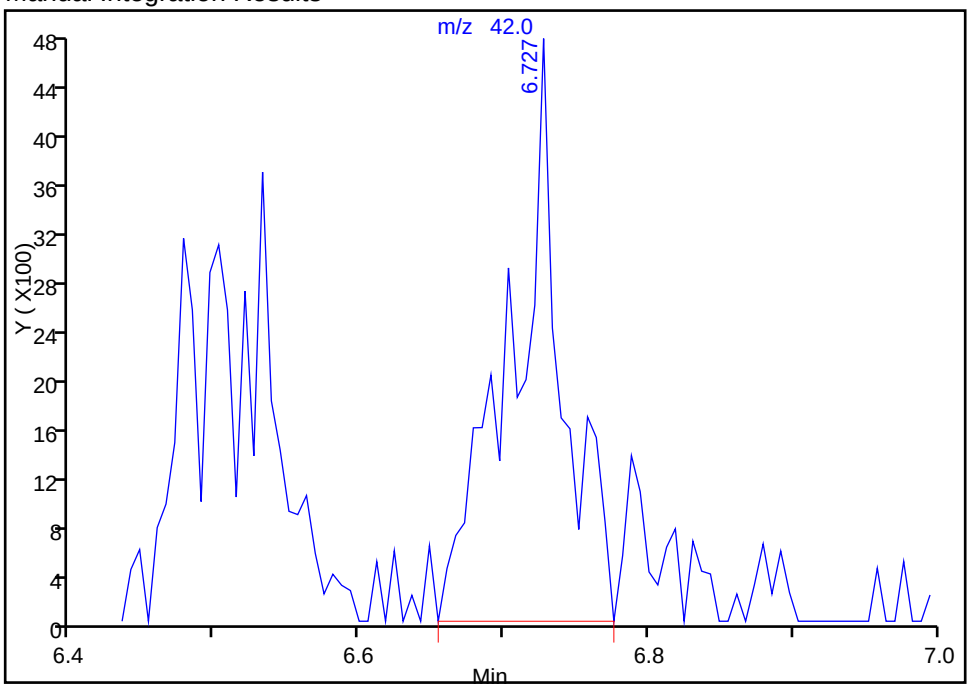
Processing Integration Results

RT: 6.73
Area: 12247
Amount: 40.000000
Amount Units: ng



Manual Integration Results

RT: 6.73
Area: 11945
Amount: 47.579118
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

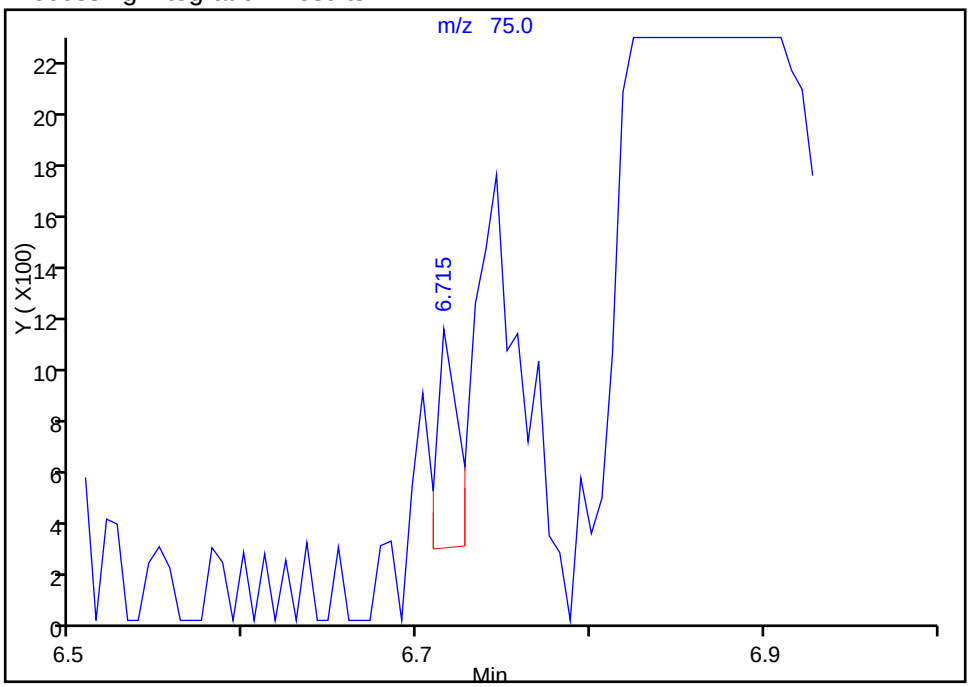
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 1,1-Dichloropropene, CAS: 563-58-6

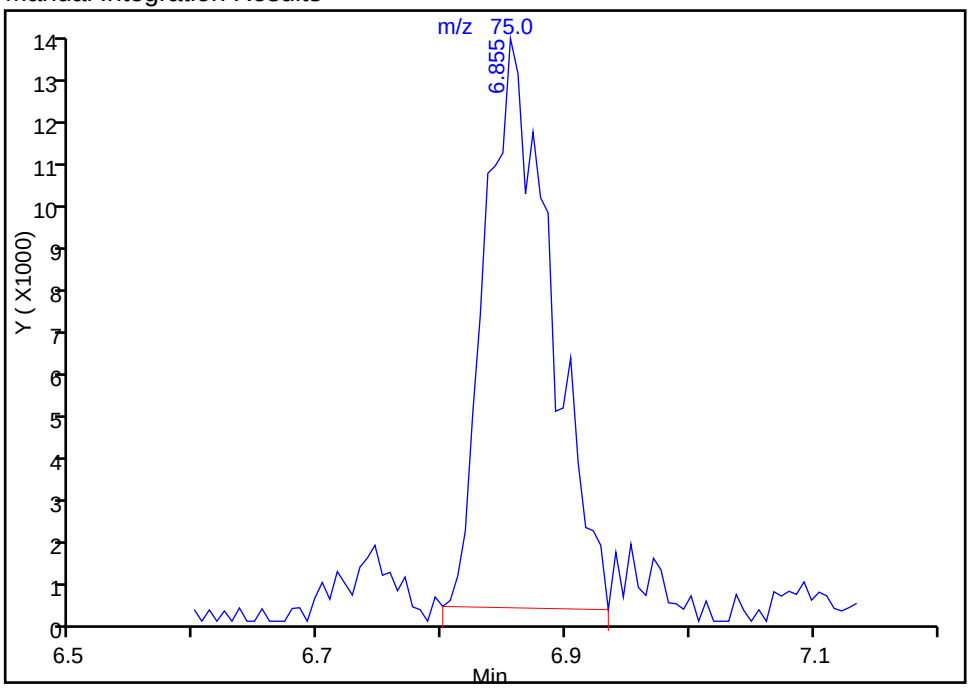
Processing Integration Results

RT: 6.72
Area: 727
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.86
Area: 48614
Amount: 26.337182
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

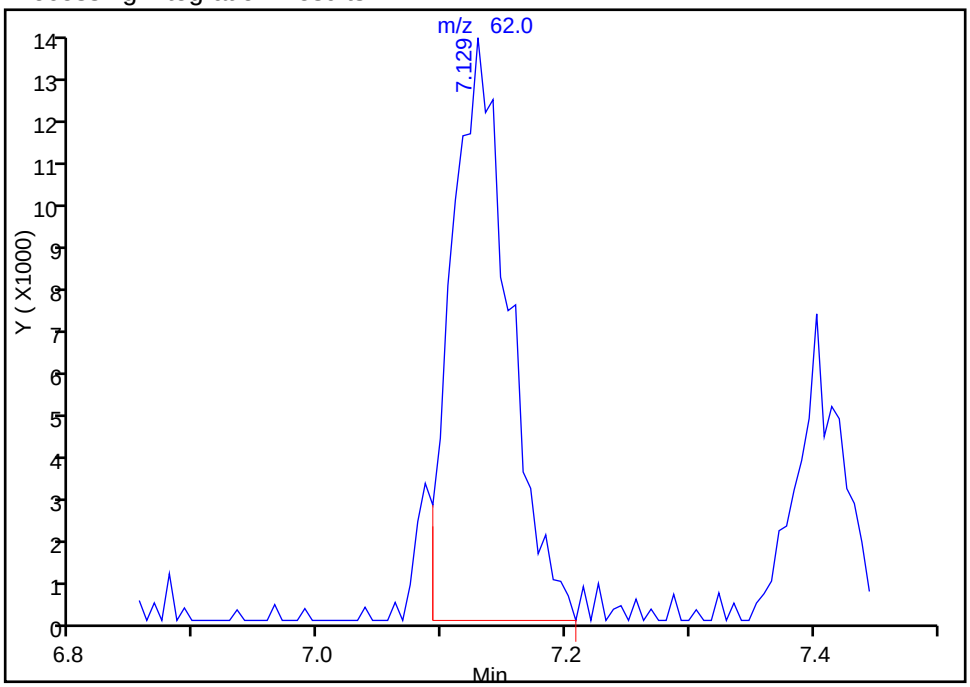
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

59 1,2-Dichloroethane, CAS: 107-06-2

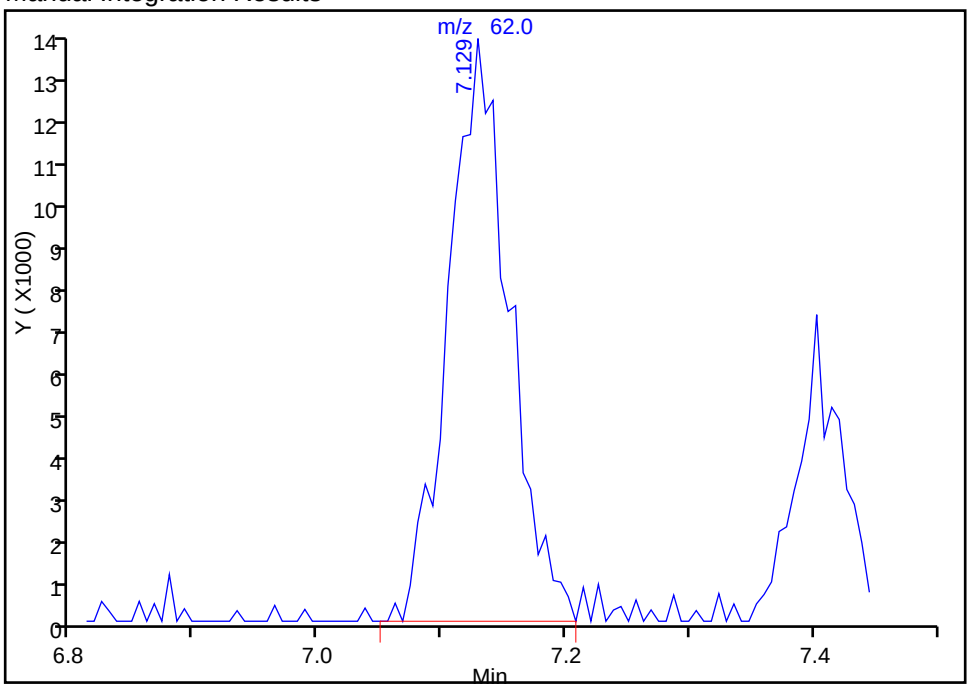
Processing Integration Results

RT: 7.13
Area: 43117
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.13
Area: 45545
Amount: 26.764103
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

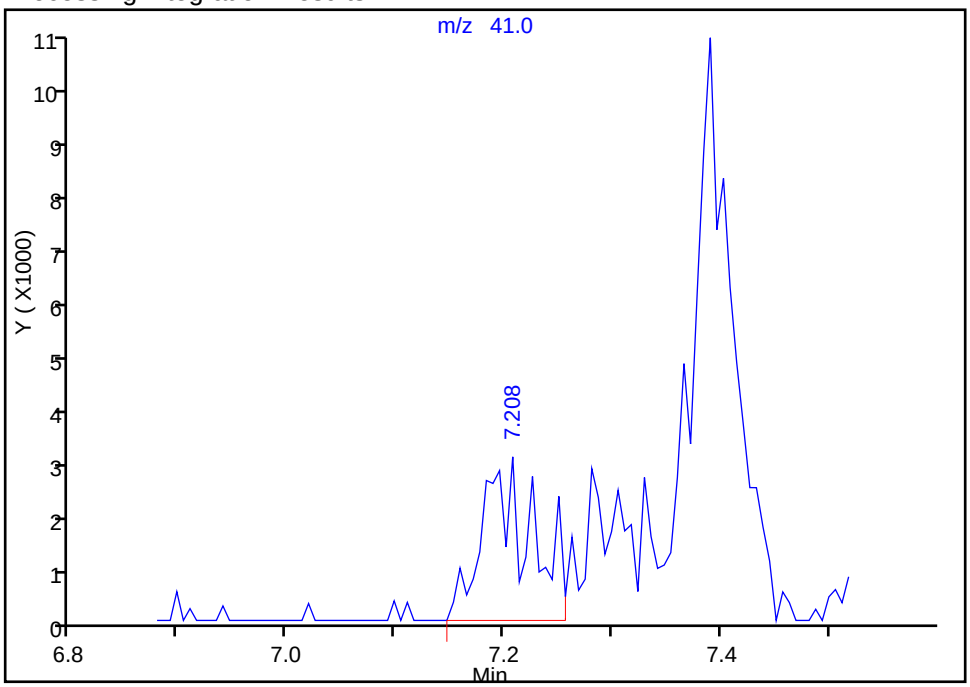
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

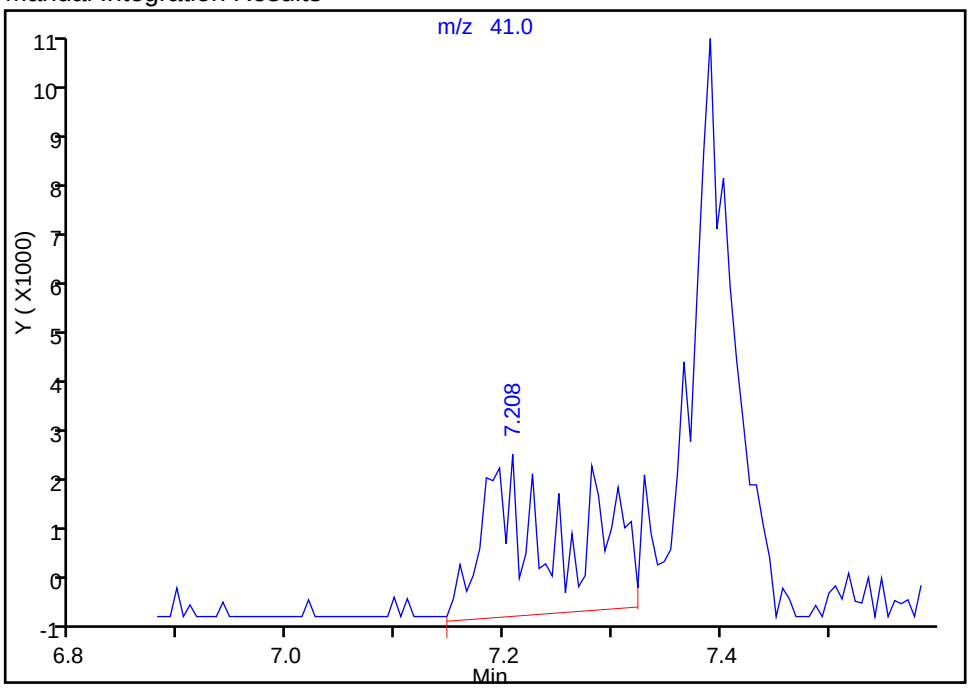
Processing Integration Results

RT: 7.21
Area: 9274
Amount: 500.0000
Amount Units: ng



Manual Integration Results

RT: 7.21
Area: 14915
Amount: 362.8929
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

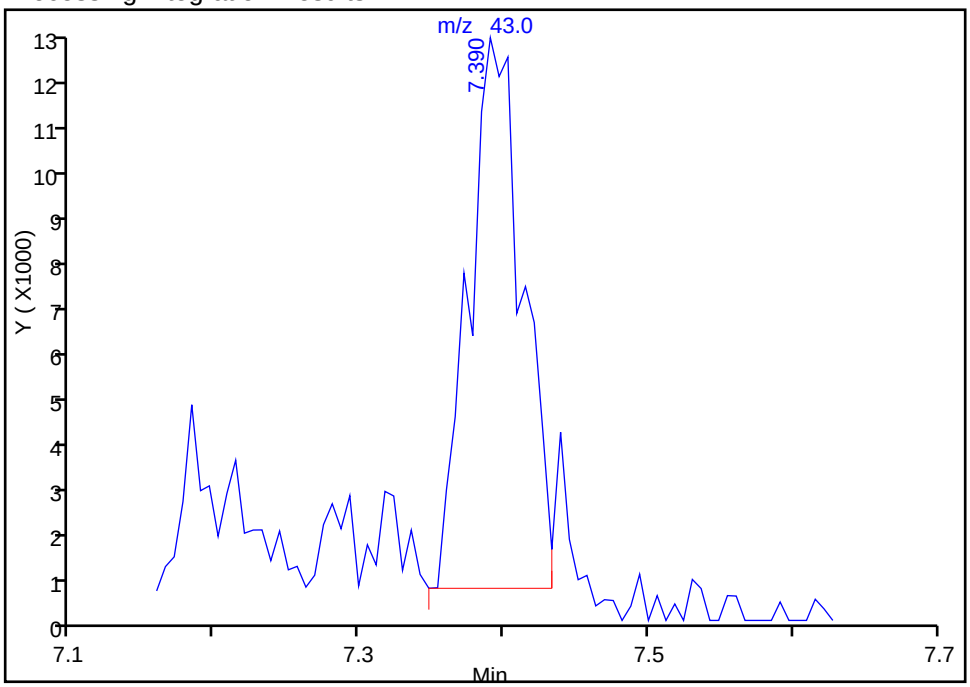
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

62 n-Heptane, CAS: 142-82-5

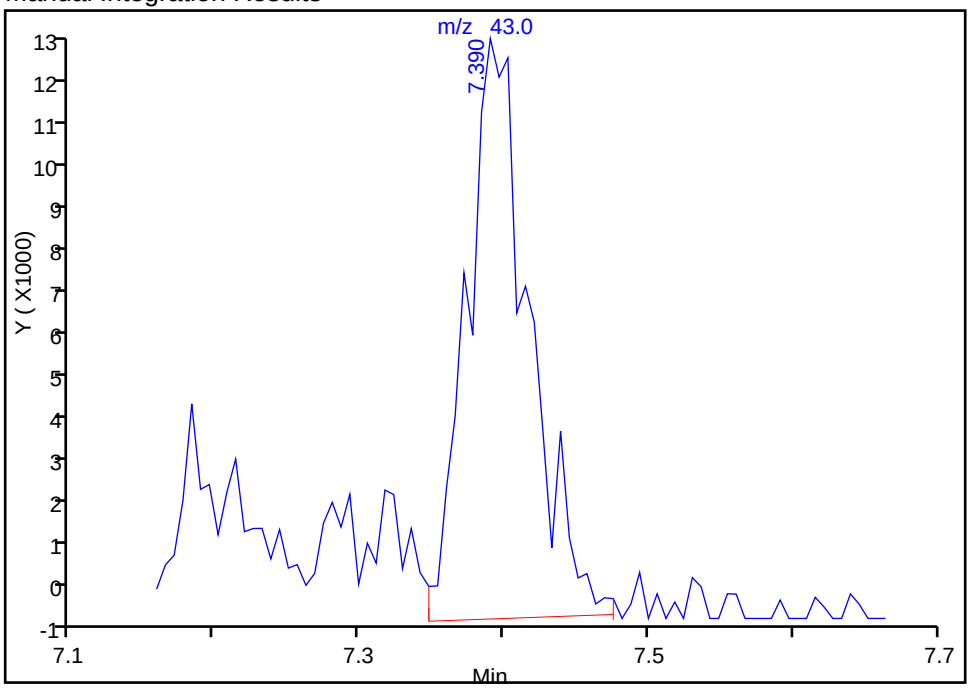
Processing Integration Results

RT: 7.39
Area: 30699
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.39
Area: 37541
Amount: 24.039397
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

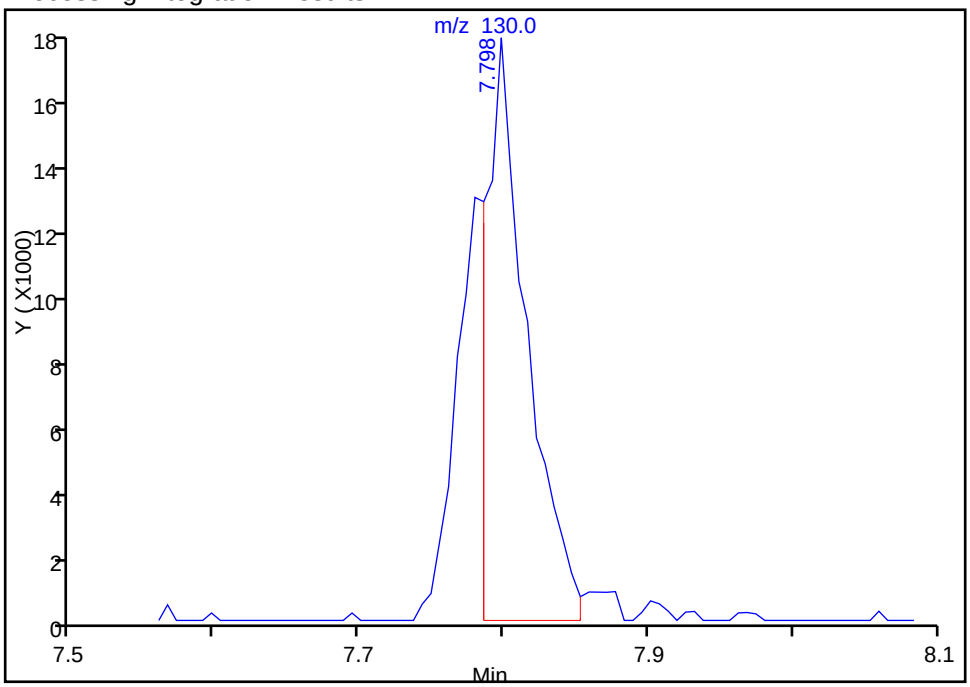
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

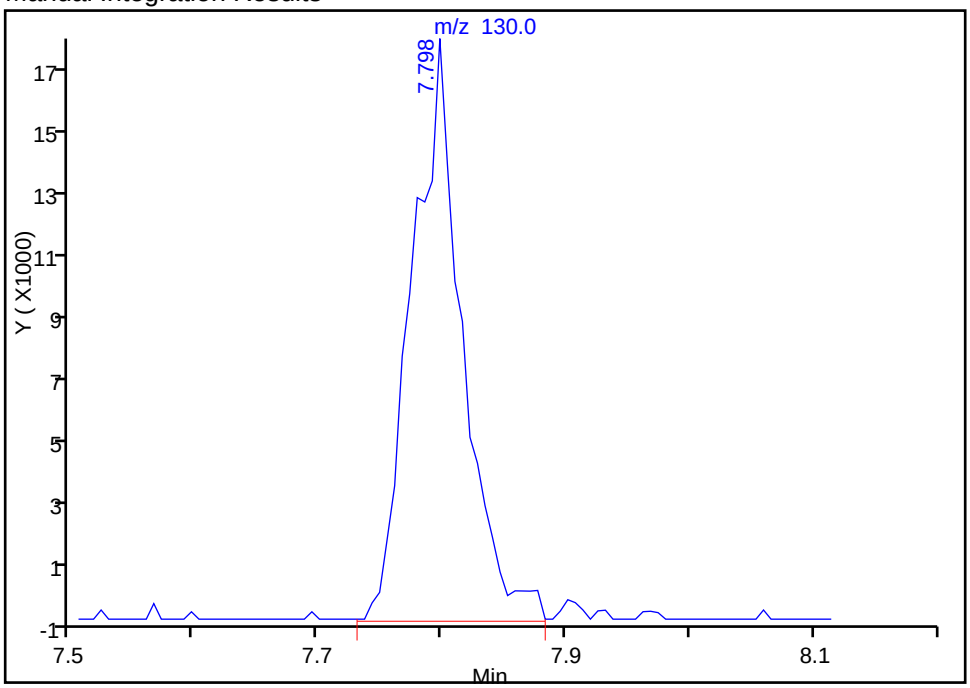
Processing Integration Results

RT: 7.80
Area: 35318
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.80
Area: 51491
Amount: 25.494006
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

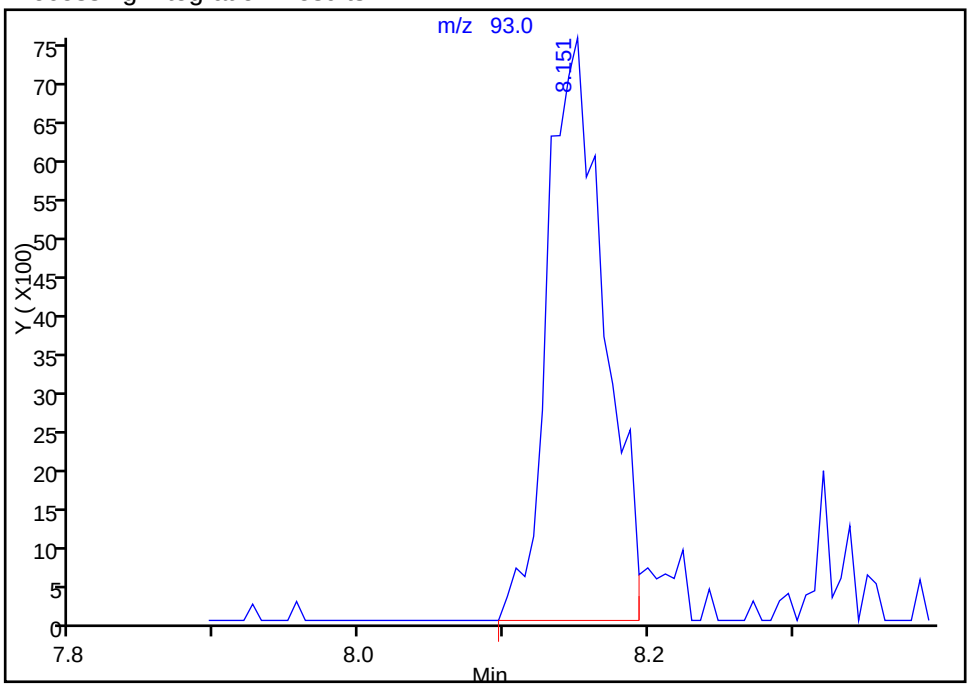
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

68 Dibromomethane, CAS: 74-95-3

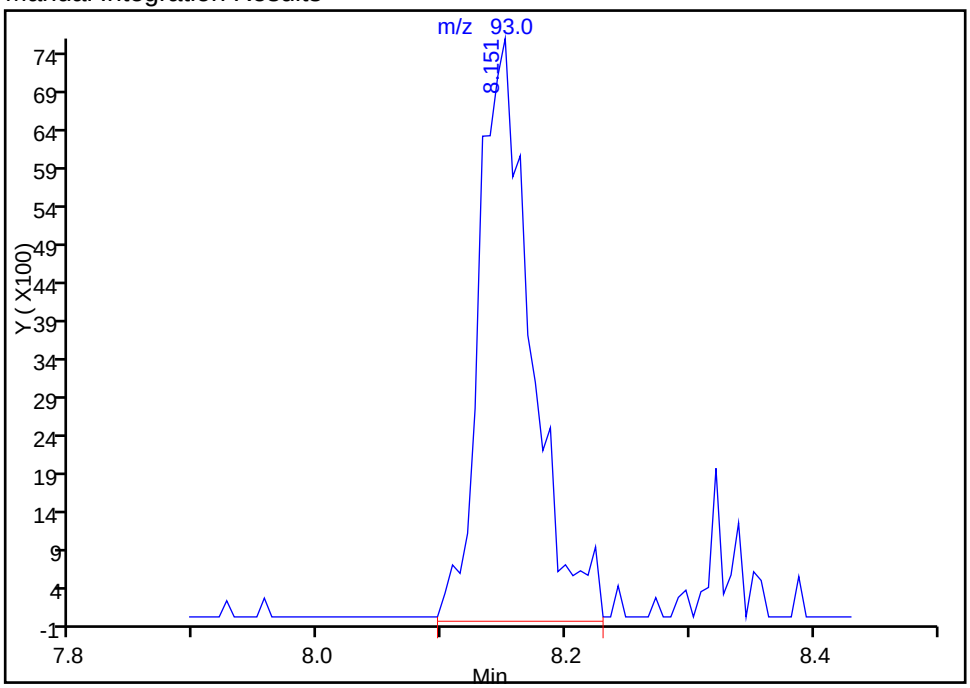
Processing Integration Results

RT: 8.15
Area: 20404
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 8.15
Area: 22063
Amount: 25.813221
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

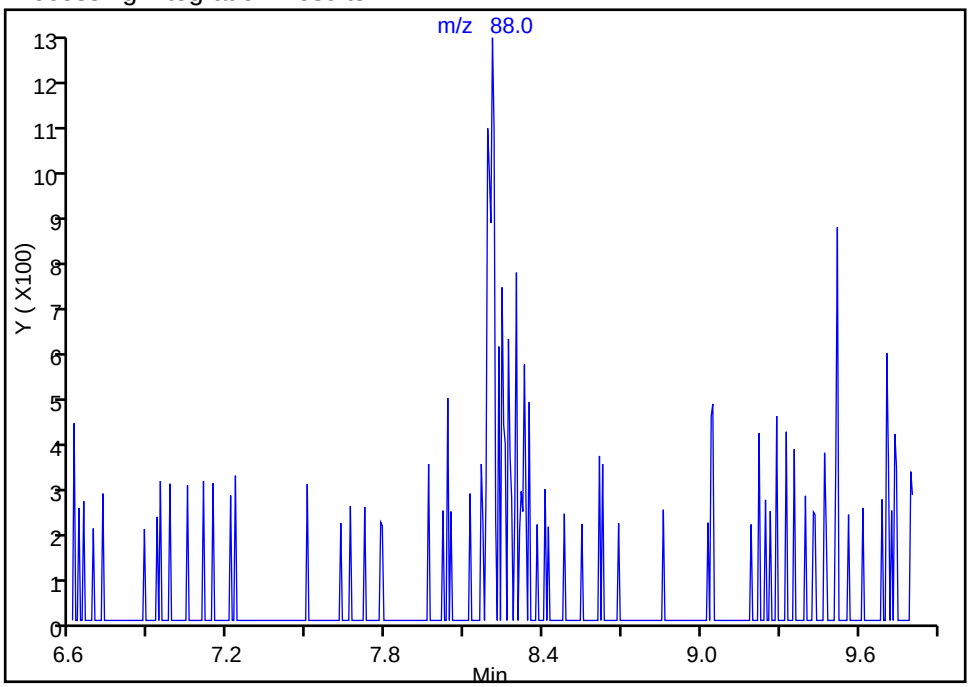
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

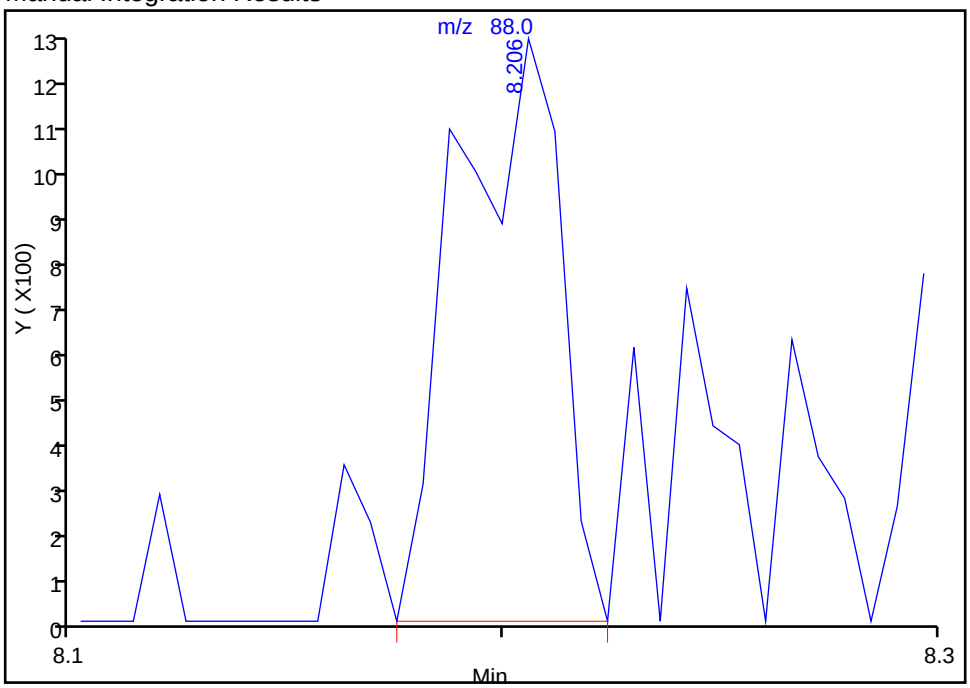
Not Detected
Expected RT: 8.21

Processing Integration Results



Manual Integration Results

RT: 8.21
Area: 2158
Amount: 269.0070
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 30-Mar-2015 11:28:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:17 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 12:11:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.061	5.024	0.037	92	320581	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	99	1077871	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	84	286591	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.005	93	443603	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.678	0.007	79	182892	100.0	106.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.038	7.037	0.001	93	170431	100.0	104.0	
$ 7 Toluene-d8 (Surr)	98	9.034	9.033	0.001	93	571452	100.0	134.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	92	227038	100.0	113.4	
11 Dichlorodifluoromethane	85	1.928	1.939	-0.011	61	202683	100.0	101.5	
12 Chloromethane	50	2.013	2.018	-0.005	86	236017	100.0	108.4	
14 Butadiene	39	2.202	2.176	0.026	90	184180	100.0	102.9	M
13 Vinyl chloride	62	2.202	2.225	-0.023	83	183450	100.0	108.2	
15 Bromomethane	94	2.542	2.499	0.043	86	150507	100.0	110.2	
16 Chloroethane	64	2.628	2.639	-0.011	72	150067	100.0	109.7	
17 Dichlorofluoromethane	67	2.871	2.882	-0.011	93	392557	100.0	107.9	
18 Trichlorofluoromethane	101	2.944	2.913	0.031	90	405833	100.0	106.0	
20 Ethyl ether	59	3.309	3.314	-0.005	80	129633	100.0	106.7	
22 1,1-Dichloroethene	96	3.485	3.460	0.025	93	151987	100.0	105.0	
21 Acrolein	56	3.552	3.497	0.055	44	43044	500.0	513.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.571	3.563	0.008	90	183780	100.0	109.2	
25 Iodomethane	142	3.704	3.716	-0.012	95	316113	100.0	104.4	
26 Carbon disulfide	76	3.753	3.764	-0.011	96	463969	100.0	106.7	M
24 Acetone	43	3.869	3.855	0.014	27	75446	200.0	187.7	M
28 3-Chloro-1-propene	76	4.106	4.087	0.019	1	111987	100.0	104.9	M
31 Methylene Chloride	84	4.301	4.294	0.007	75	163557	100.0	105.3	
30 Methyl acetate	43	4.331	4.324	0.007	99	375826	500.0	523.3	
34 trans-1,2-Dichloroethene	96	4.726	4.725	0.001	94	194386	100.0	108.3	
32 2-Methyl-2-propanol	59	4.732	4.744	-0.012	33	9778	1000.0	1483.1	M
33 Acrylonitrile	53	4.824	4.829	-0.005	50	318922	1000.0	1110.2	M
35 Methyl tert-butyl ether	73	4.909	4.890	0.019	94	384502	100.0	108.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.110	5.090	0.020	93	197721	100.0	105.3	
38 Vinyl acetate	43	5.104	5.115	-0.011	87	141126	100.0	99.7	
37 1,1-Dichloroethane	63	5.335	5.334	0.001	96	284258	100.0	108.0	
44 2,2-Dichloropropane	77	6.083	6.076	0.007	81	243195	100.0	110.6	
45 cis-1,2-Dichloroethene	96	6.095	6.094	0.001	80	185651	100.0	104.2	
46 2-Butanone (MEK)	43	6.229	6.216	0.013	98	101832	200.0	210.8	
49 Chlorobromomethane	128	6.363	6.380	-0.017	82	106979	100.0	104.2	
52 Chloroform	83	6.509	6.496	0.013	1	324491	100.0	109.5	M
53 1,1,1-Trichloroethane	97	6.679	6.660	0.019	95	304449	100.0	113.1	
51 Tetrahydrofuran	42	6.697	6.709	-0.012	45	56328	200.0	213.1	
54 Cyclohexane	56	6.704	6.709	-0.005	72	204193	100.0	107.5	
56 Carbon tetrachloride	117	6.850	6.849	0.001	95	301680	100.0	111.1	
55 1,1-Dichloropropene	75	6.850	6.855	-0.005	88	222122	100.0	114.3	
58 Benzene	78	7.087	7.086	0.001	95	604063	100.0	113.9	
59 1,2-Dichloroethane	62	7.123	7.122	0.001	96	193915	100.0	108.2	
62 n-Heptane	43	7.391	7.390	0.001	84	172370	100.0	104.8	
57 Isobutyl alcohol	41	7.397	7.396	0.001	79	120699	2500.0	2789.2	
64 Trichloroethene	130	7.786	7.785	0.001	93	228617	100.0	107.5	
66 Methylcyclohexane	83	7.981	7.980	0.001	84	302516	100.0	115.7	
67 1,2-Dichloropropane	63	8.024	8.029	-0.005	81	129781	100.0	107.4	
68 Dibromomethane	93	8.145	8.144	0.001	93	92763	100.0	103.1	
70 1,4-Dioxane	88	8.206	8.205	0.001	41	18551	2000.0	2196.4	M
71 Dichlorobromomethane	83	8.322	8.315	0.007	98	234170	100.0	104.5	
74 cis-1,3-Dichloropropene	75	8.766	8.771	-0.005	94	250427	100.0	107.8	
75 4-Methyl-2-pentanone (MIBK	43	8.948	8.947	0.001	96	198312	200.0	236.8	
76 Toluene	91	9.100	9.099	0.001	99	620797	100.0	108.8	
77 trans-1,3-Dichloropropene	75	9.326	9.325	0.001	94	200178	100.0	111.1	
78 Ethyl methacrylate	69	9.429	9.428	0.001	87	133131	100.0	111.1	
79 1,1,2-Trichloroethane	97	9.514	9.513	0.001	89	122370	100.0	119.0	
80 Tetrachloroethene	164	9.642	9.641	0.001	91	166044	100.0	111.2	
81 1,3-Dichloropropane	76	9.672	9.671	0.001	91	180327	100.0	118.6	
82 2-Hexanone	43	9.770	9.769	0.001	96	121993	200.0	225.8	
84 Chlorodibromomethane	129	9.903	9.896	0.007	86	212583	100.0	120.2	
85 Ethylene Dibromide	107	10.007	10.006	0.001	98	131988	100.0	113.3	
87 Chlorobenzene	112	10.500	10.499	0.001	95	428641	100.0	117.3	
89 1,1,1,2-Tetrachloroethane	131	10.579	10.578	0.001	93	201326	100.0	114.0	
90 Ethylbenzene	106	10.609	10.602	0.007	98	223898	100.0	107.9	
91 m-Xylene & p-Xylene	106	10.725	10.718	0.007	98	306490	100.0	109.5	
92 o-Xylene	106	11.114	11.113	0.001	96	307714	100.0	109.5	
93 Styrene	104	11.126	11.125	0.001	92	473776	100.0	109.2	
94 Bromoform	173	11.315	11.314	0.001	94	108786	100.0	108.6	
97 Isopropylbenzene	105	11.479	11.478	0.001	95	851551	100.0	110.5	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	96	130862	100.0	121.2	
100 Bromobenzene	156	11.789	11.788	0.001	86	217052	100.0	114.2	
101 1,2,3-Trichloropropane	110	11.826	11.819	0.007	85	43419	100.0	102.0	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.831	0.001	68	25315	100.0	95.0	
103 N-Propylbenzene	120	11.893	11.892	0.001	97	254930	100.0	109.3	
104 2-Chlorotoluene	126	11.978	11.977	0.001	96	241717	100.0	114.1	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	97	678088	100.0	104.9	
107 4-Chlorotoluene	126	12.087	12.086	0.001	96	236378	100.0	116.4	
108 tert-Butylbenzene	119	12.392	12.391	0.001	91	756877	100.0	110.5	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	96	682185	100.0	104.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.611	12.610	0.001	94	908560	100.0	106.3	
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	97	434056	100.0	110.0	
114 4-Isopropyltoluene	119	12.750	12.756	-0.006	96	822865	100.0	107.2	
115 1,4-Dichlorobenzene	146	12.817	12.816	0.001	95	400302	100.0	113.8	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	672615	100.0	105.1	
121 1,2-Dichlorobenzene	146	13.189	13.188	0.000	96	359029	100.0	104.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.972	0.001	78	15088	100.0	91.4	
126 1,2,4-Trichlorobenzene	180	14.807	14.806	0.001	95	78248	100.0	71.6	
127 Hexachlorobutadiene	225	14.971	14.970	0.001	82	52188	100.0	79.7	
128 Naphthalene	128	15.056	15.055	0.001	95	113468	100.0	63.4	
129 1,2,3-Trichlorobenzene	180	15.306	15.305	0.001	95	38530	100.0	51.5	
S 134 1,2-Dichloroethene, Total	96				0		200.0	212.4	
S 133 Xylenes, Total	106				0		200.0	219.0	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.9	

QC Flag Legend

Review Flags

M - Manually Integrated

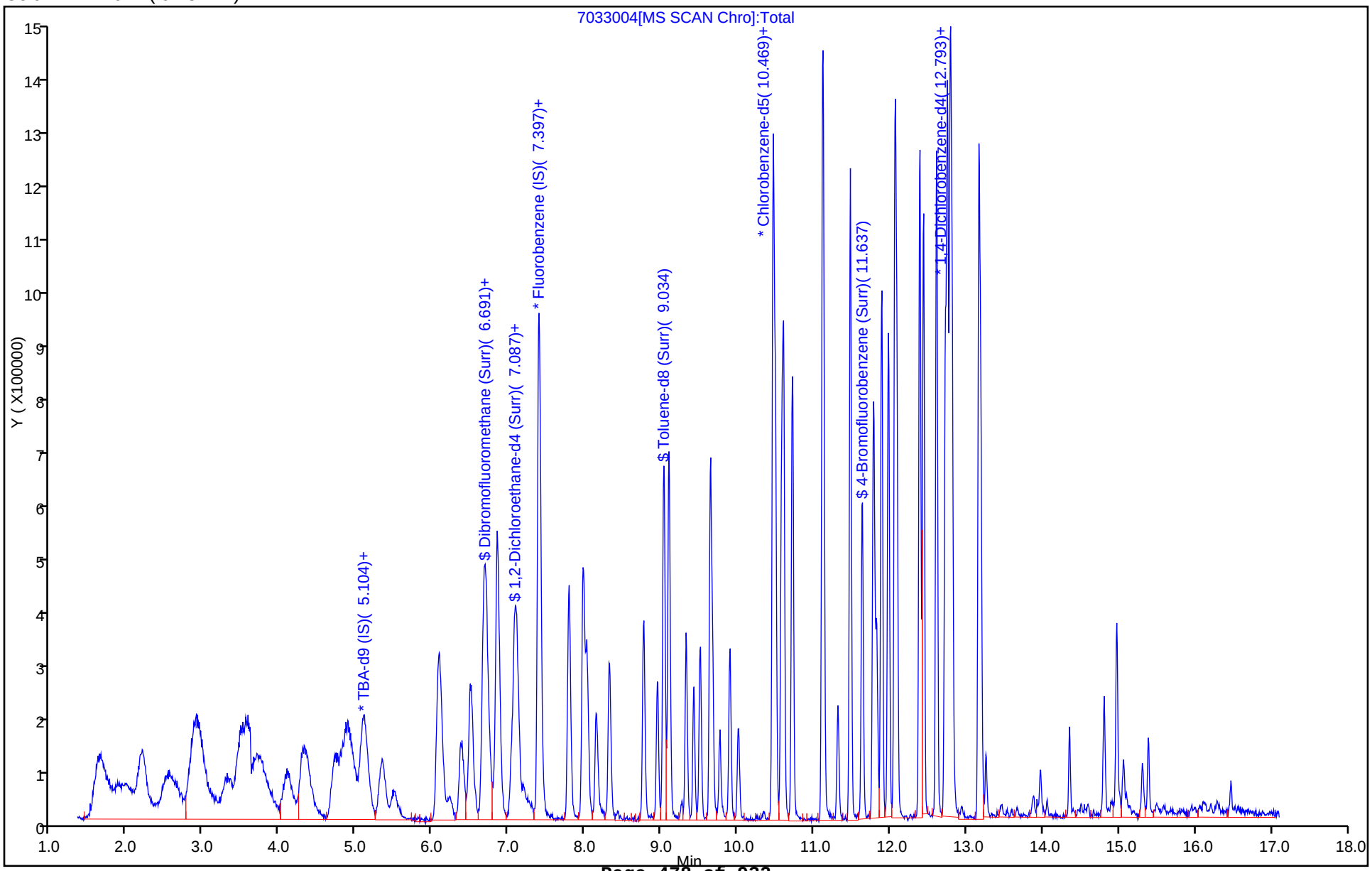
Reagents:

VOA8260SURR_00017	Amount Added:	4.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	4.00	Units: uL
VOAACRPRI_00003	Amount Added:	20.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	4.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	4.00	Units: uL

Report Date: 31-Mar-2015 08:54:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column: DB-624 (0.18 mm)					



Manual Integration/User Assign Peak Report

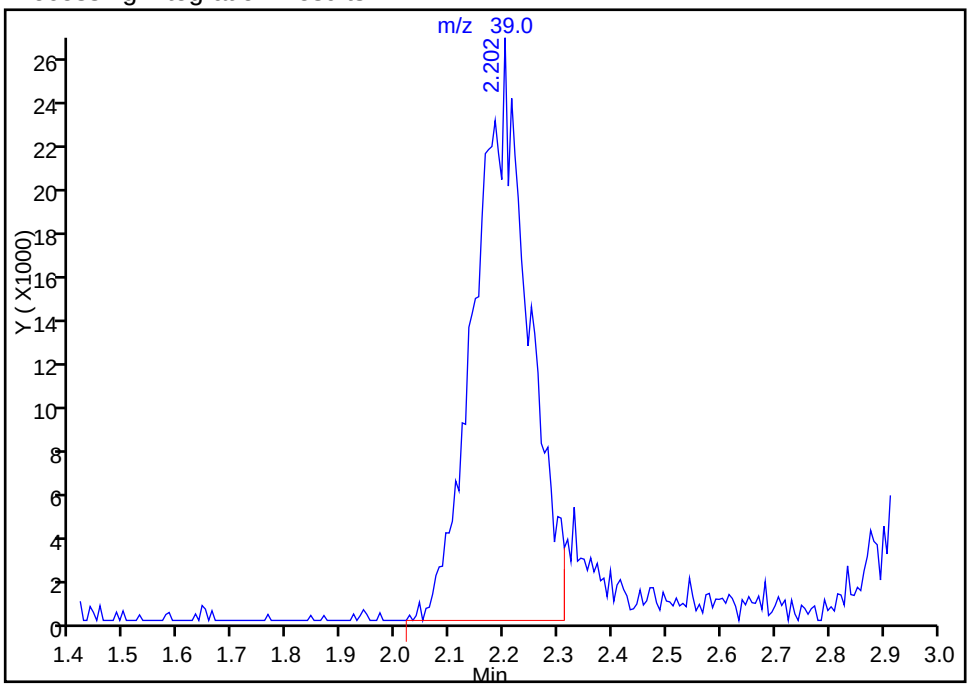
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

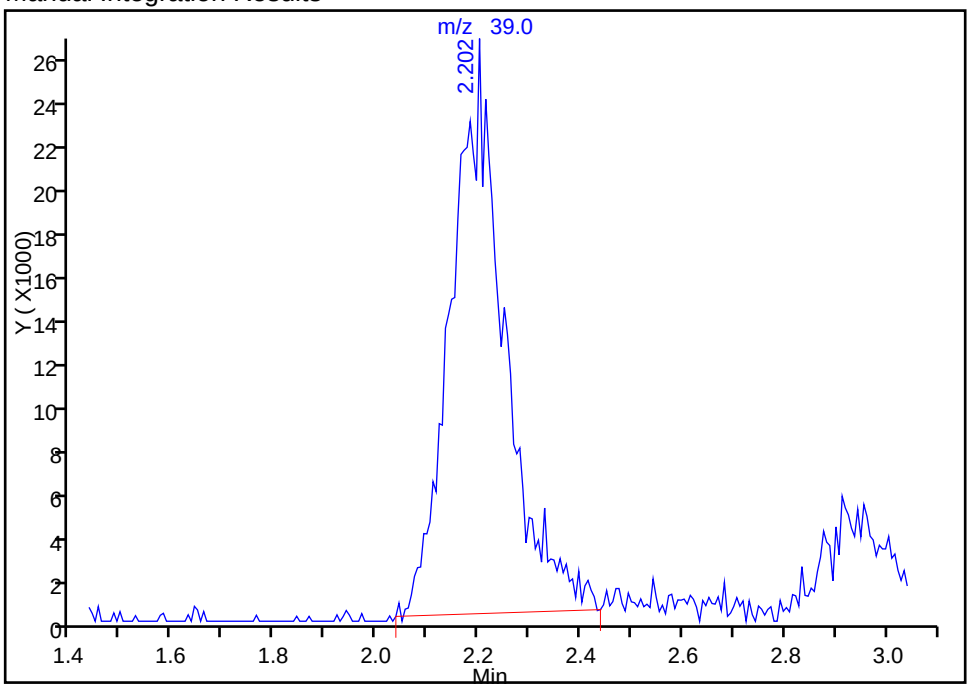
Processing Integration Results

RT: 2.20
Area: 177223
Amount: 87.235904
Amount Units: ng



Manual Integration Results

RT: 2.20
Area: 184180
Amount: 102.8902
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

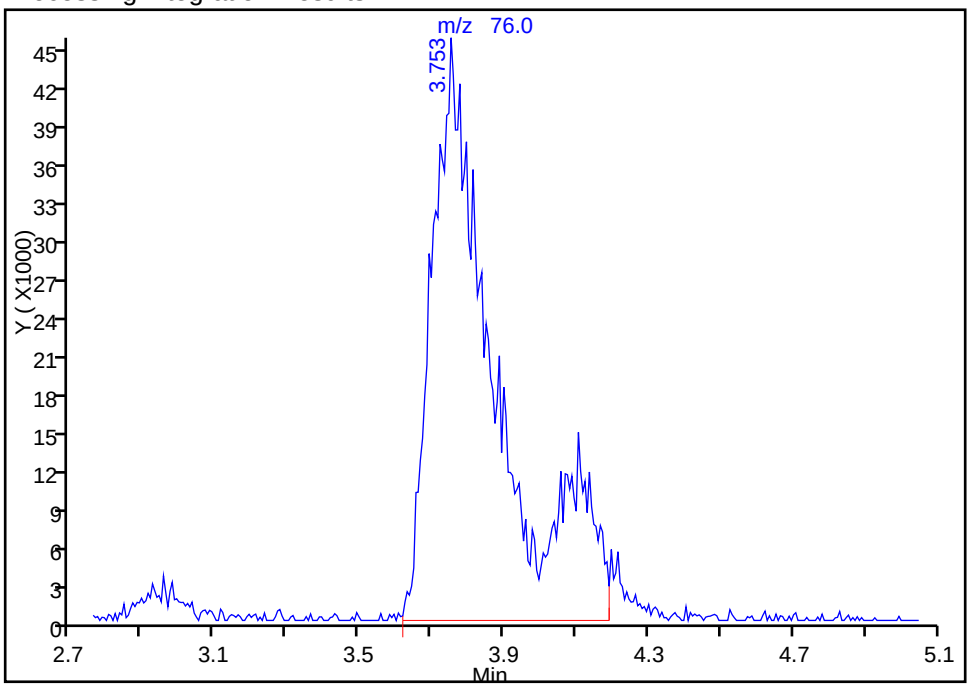
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

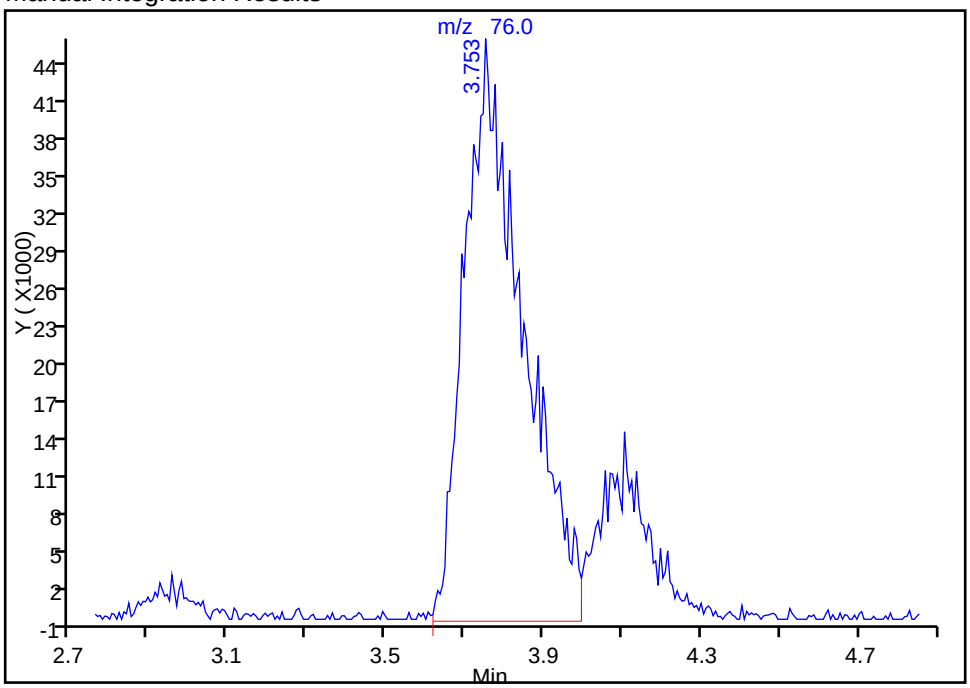
Processing Integration Results

RT: 3.75
Area: 555041
Amount: 107.0768
Amount Units: ng



Manual Integration Results

RT: 3.75
Area: 463969
Amount: 106.7401
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

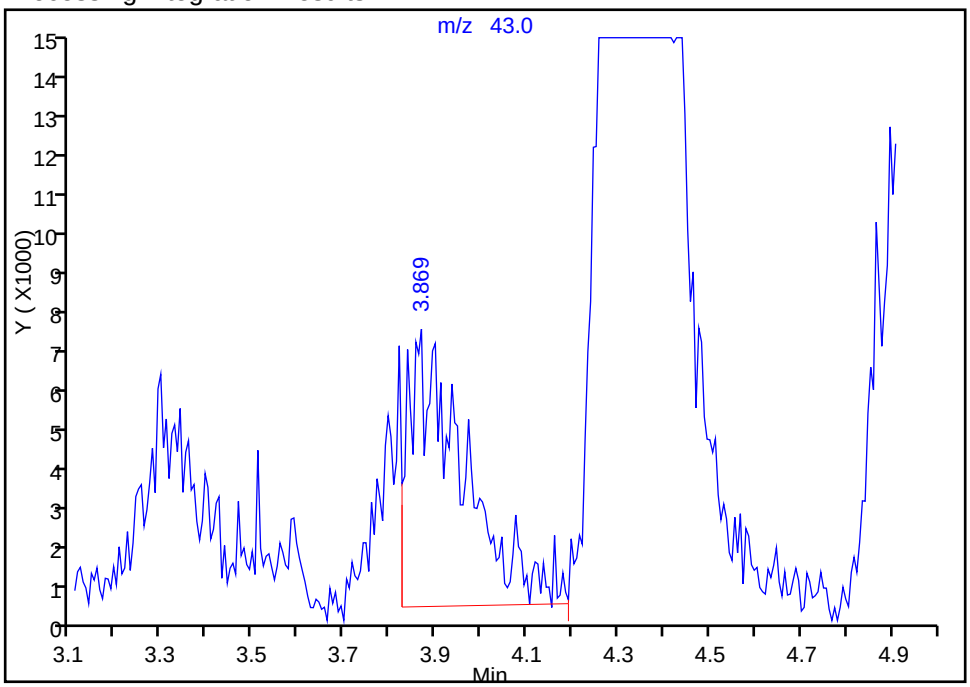
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

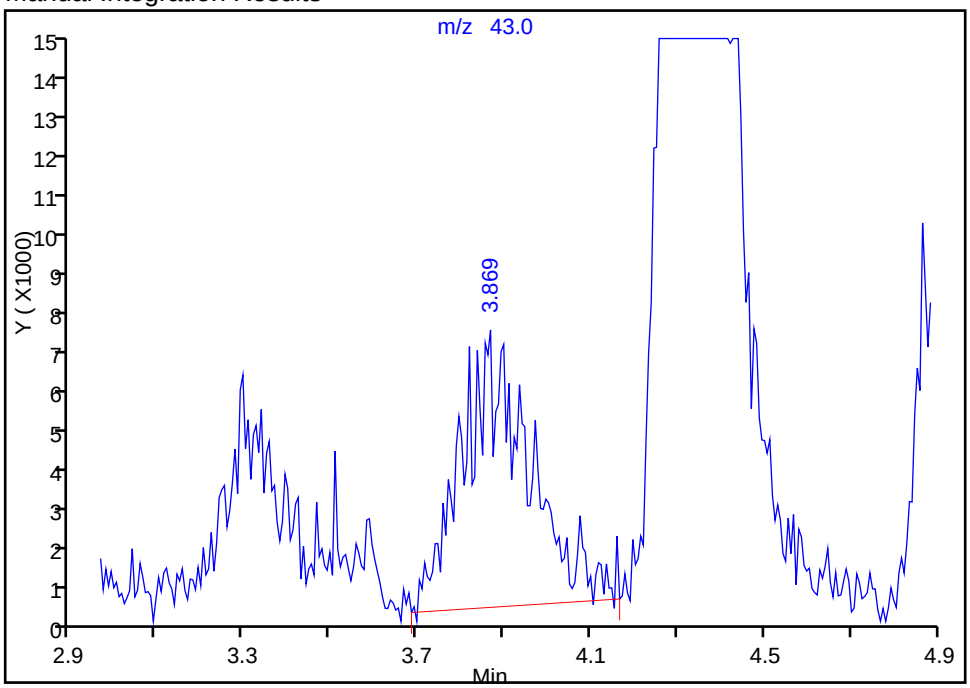
Processing Integration Results

RT: 3.87
Area: 59143
Amount: 147.9003
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 75446
Amount: 187.7476
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

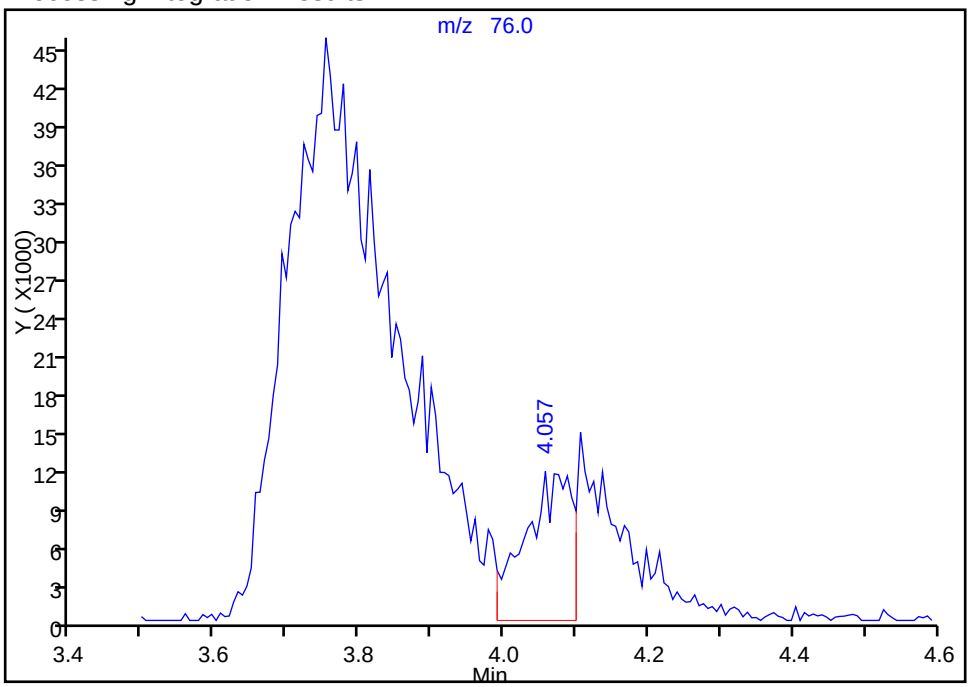
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Injection Date: 30-Mar-2015 11:28:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

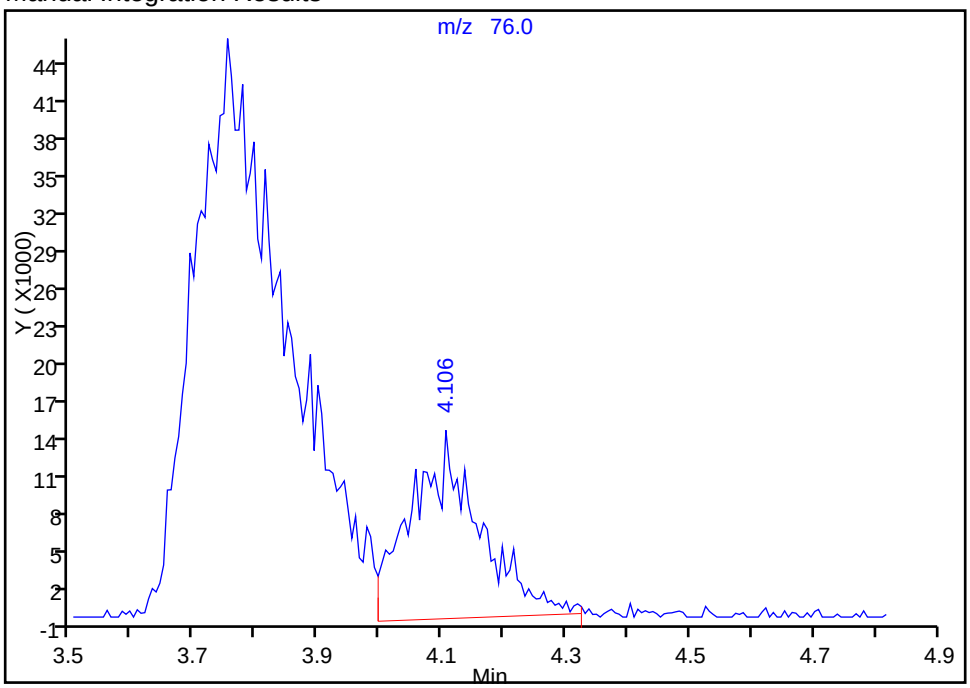
Processing Integration Results

RT: 4.06
Area: 52473
Amount: 61.091566
Amount Units: ng



Manual Integration Results

RT: 4.11
Area: 111987
Amount: 104.9107
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

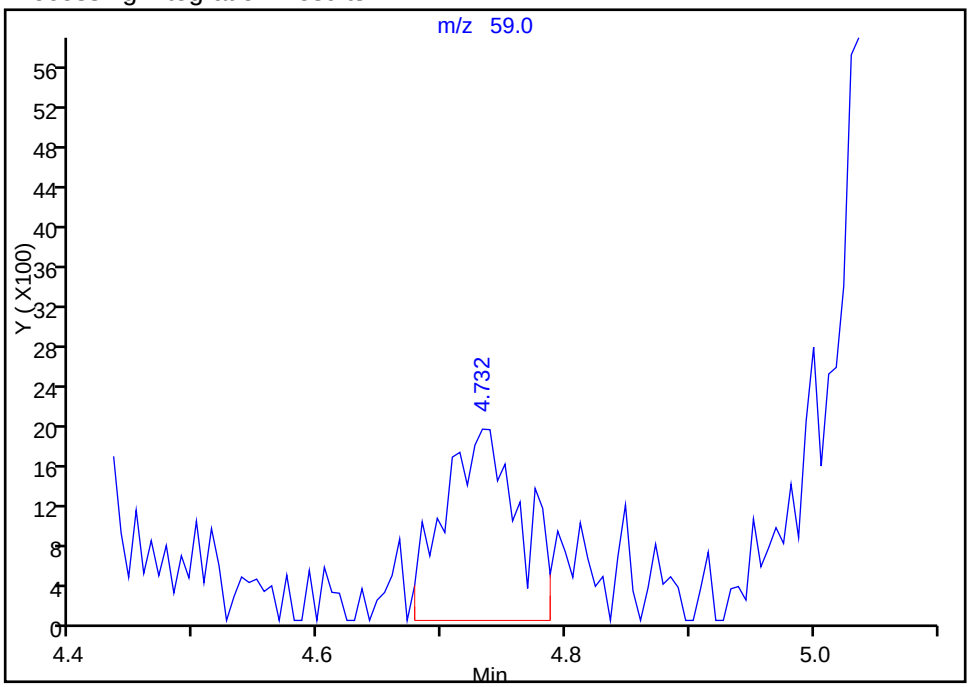
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

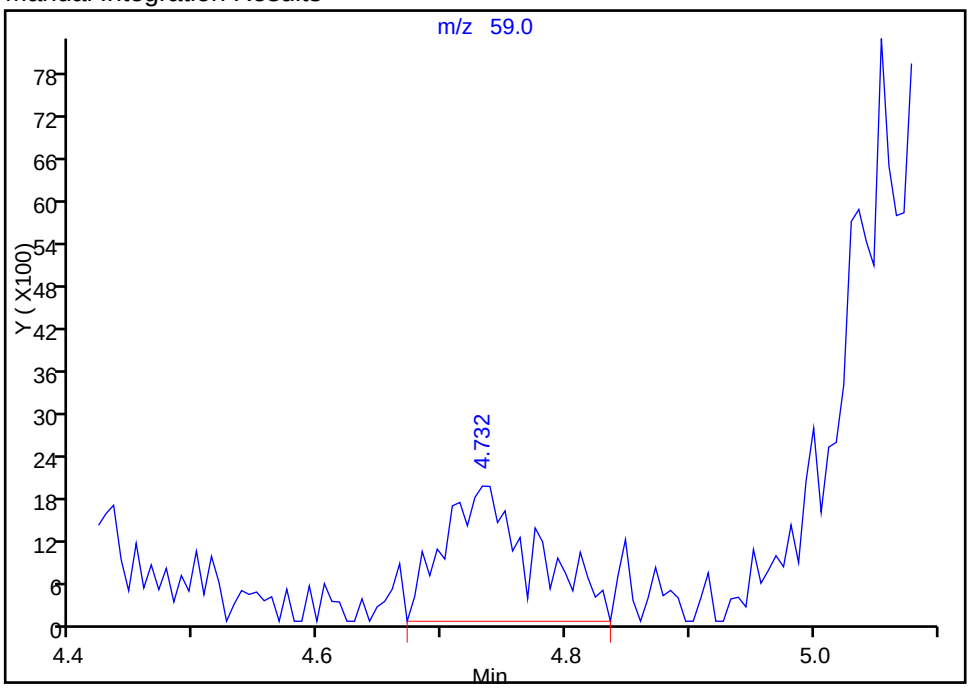
Processing Integration Results

RT: 4.73
Area: 8182
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 9778
Amount: 1483.0651
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

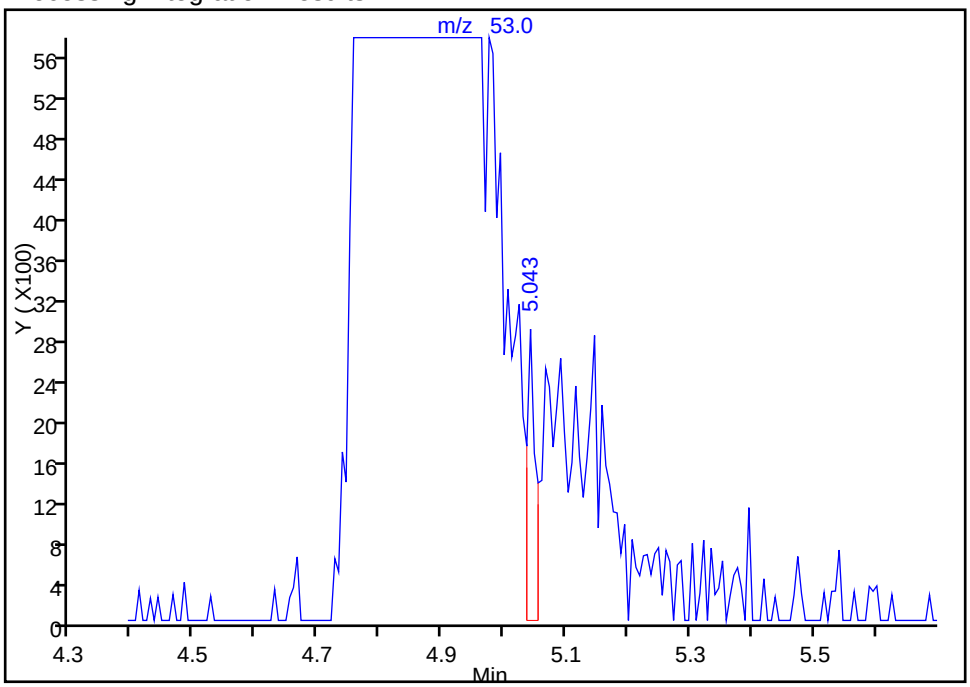
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

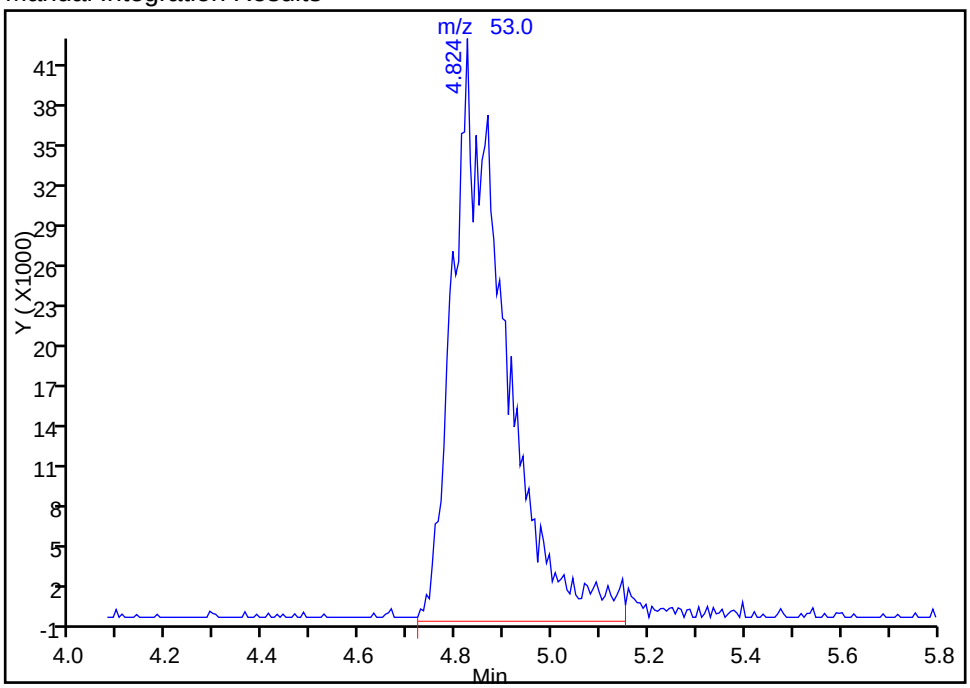
Processing Integration Results

RT: 5.04
Area: 2761
Amount: 17.103044
Amount Units: ng



Manual Integration Results

RT: 4.82
Area: 318922
Amount: 1110.1834
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

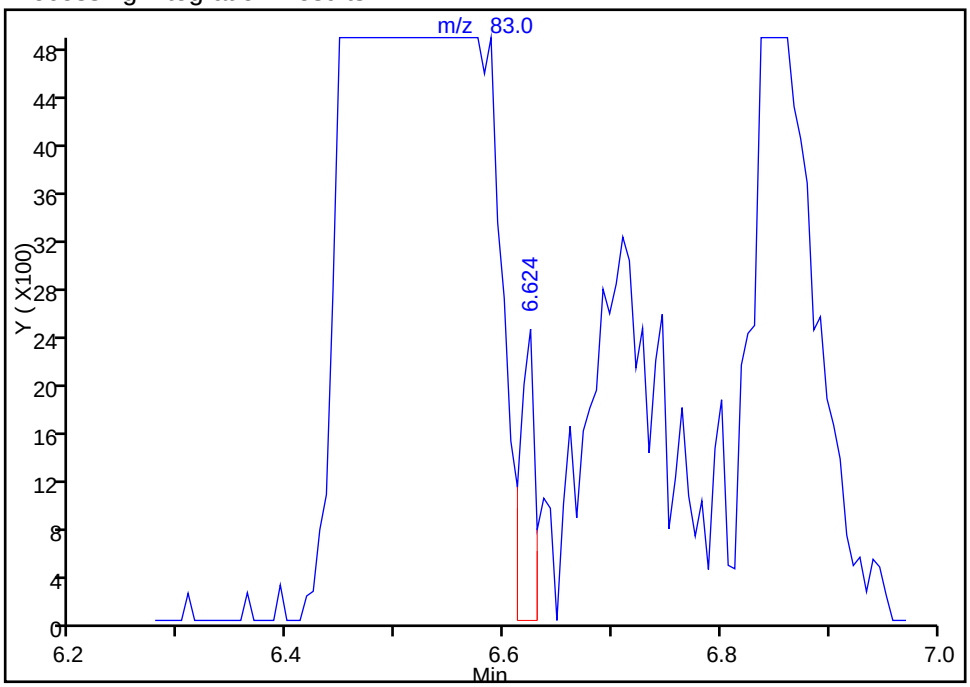
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

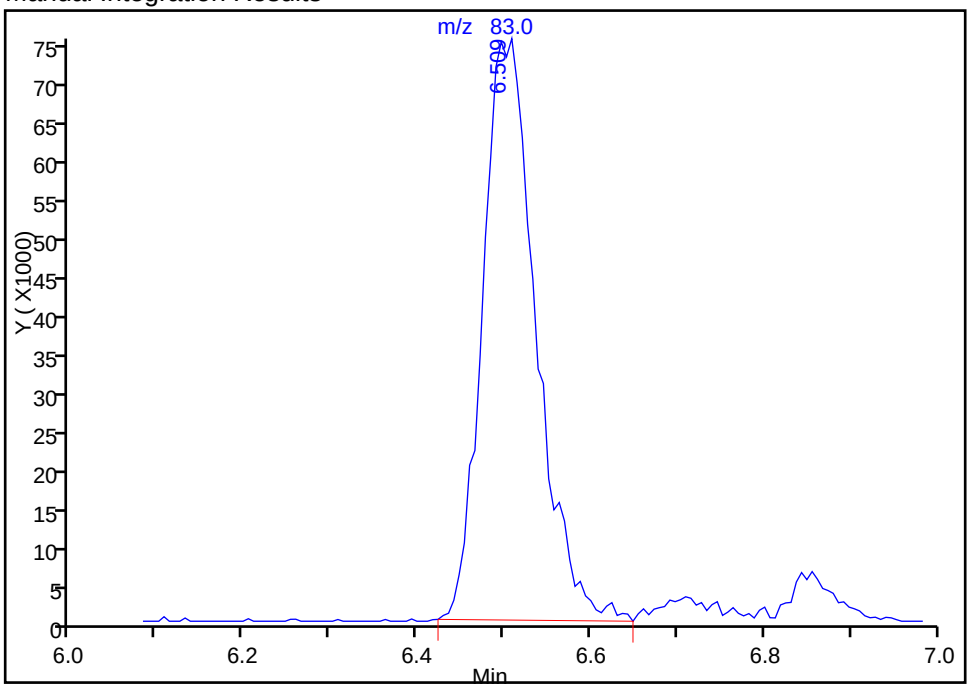
Processing Integration Results

RT: 6.62
Area: 2278
Amount: 1.214470
Amount Units: ng



Manual Integration Results

RT: 6.51
Area: 324491
Amount: 109.4902
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

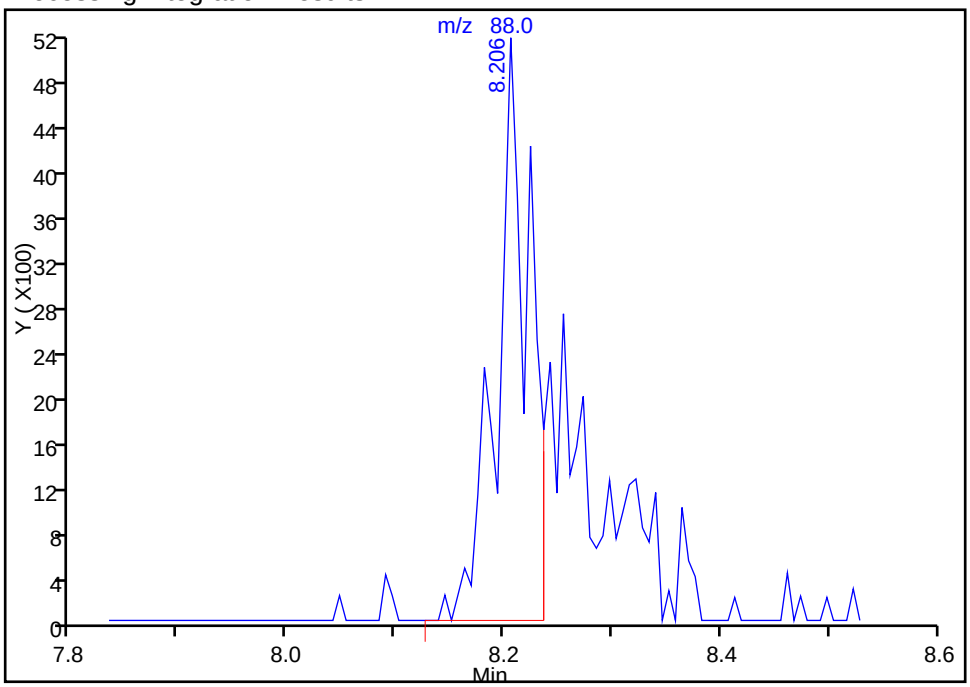
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

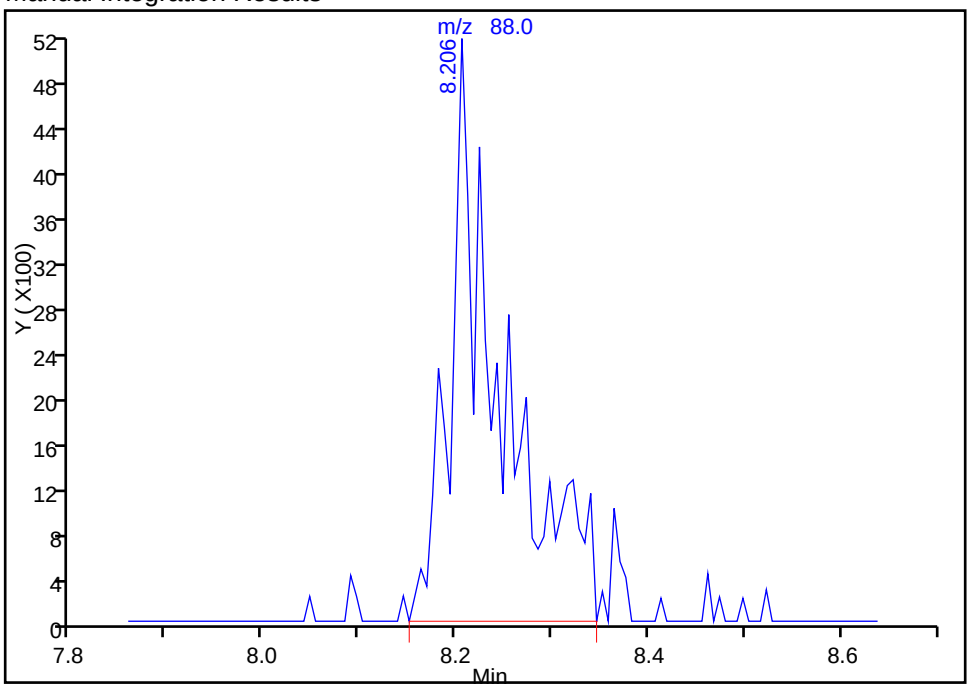
Processing Integration Results

RT: 8.21
Area: 10899
Amount: 1958.5330
Amount Units: ng



Manual Integration Results

RT: 8.21
Area: 18551
Amount: 2196.3559
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 30-Mar-2015 11:55:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 180-0006234-005
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:19 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 12:42:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.024	5.024	0.000	92	310282	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.396	7.396	0.000	95	1094895	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.462	10.462	0.000	86	307311	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	93	455243	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.678	0.000	85	358794	200.0	205.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.037	7.037	0.000	68	326104	200.0	195.8	
$ 7 Toluene-d8 (Surr)	98	9.033	9.033	0.000	91	1076372	200.0	236.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	90	461682	200.0	228.4	
11 Dichlorodifluoromethane	85	1.939	1.939	0.000	58	396029	200.0	195.1	
12 Chloromethane	50	2.018	2.018	0.000	96	440108	200.0	199.1	
14 Butadiene	39	2.176	2.176	0.000	95	378863	200.0	208.4	
13 Vinyl chloride	62	2.225	2.225	0.000	96	345858	200.0	200.9	
15 Bromomethane	94	2.499	2.499	0.000	93	297025	200.0	214.1	
16 Chloroethane	64	2.639	2.639	0.000	58	280211	200.0	201.7	
17 Dichlorofluoromethane	67	2.882	2.882	0.000	95	759945	200.0	205.6	
18 Trichlorofluoromethane	101	2.913	2.913	0.000	85	817631	200.0	210.3	
20 Ethyl ether	59	3.314	3.314	0.000	85	252518	200.0	204.7	
22 1,1-Dichloroethene	96	3.460	3.460	0.000	95	301988	200.0	205.4	
21 Acrolein	56	3.497	3.497	0.000	29	49804	600.0	584.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.563	3.563	0.000	90	351192	200.0	205.4	
25 Iodomethane	142	3.716	3.716	0.000	87	640777	200.0	208.4	
26 Carbon disulfide	76	3.764	3.764	0.000	99	874756	200.0	198.1	M
24 Acetone	43	3.855	3.855	0.000	30	145367	400.0	423.1	
28 3-Chloro-1-propene	76	4.087	4.087	0.000	83	220406	200.0	203.3	
31 Methylene Chloride	84	4.294	4.294	0.000	79	317590	200.0	201.3	
30 Methyl acetate	43	4.324	4.324	0.000	98	683140	1000.0	936.5	
34 trans-1,2-Dichloroethene	96	4.725	4.725	0.000	93	371778	200.0	203.8	
32 2-Methyl-2-propanol	59	4.744	4.744	0.000	34	12318	2000.0	1959.0	
33 Acrylonitrile	53	4.829	4.829	0.000	99	568053	2000.0	1946.7	
35 Methyl tert-butyl ether	73	4.890	4.890	0.000	93	714150	200.0	198.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.090	5.090	0.000	94	382145	200.0	200.3	
38 Vinyl acetate	43	5.115	5.115	0.000	91	289383	200.0	201.2	
37 1,1-Dichloroethane	63	5.334	5.334	0.000	96	550009	200.0	205.7	
44 2,2-Dichloropropane	77	6.076	6.076	0.000	89	478480	200.0	214.2	
45 cis-1,2-Dichloroethene	96	6.094	6.094	0.000	77	375290	200.0	207.3	
46 2-Butanone (MEK)	43	6.216	6.216	0.000	99	189308	400.0	385.7	
49 Chlorobromomethane	128	6.380	6.380	0.000	83	204558	200.0	196.2	
52 Chloroform	83	6.496	6.496	0.000	93	617343	200.0	205.1	
53 1,1,1-Trichloroethane	97	6.660	6.660	0.000	97	569802	200.0	208.4	
51 Tetrahydrofuran	42	6.709	6.709	0.000	44	112031	400.0	417.2	
54 Cyclohexane	56	6.709	6.709	0.000	77	389741	200.0	202.1	
56 Carbon tetrachloride	117	6.849	6.849	0.000	94	567374	200.0	205.7	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	89	397710	200.0	201.5	
58 Benzene	78	7.086	7.086	0.000	95	1140696	200.0	211.7	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	97	363062	200.0	199.5	
62 n-Heptane	43	7.390	7.390	0.000	63	343792	200.0	205.8	
57 Isobutyl alcohol	41	7.396	7.396	0.000	50	238248	5000.0	5420.0	
64 Trichloroethene	130	7.785	7.785	0.000	91	445574	200.0	206.3	
66 Methylcyclohexane	83	7.980	7.980	0.000	87	543409	200.0	204.6	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	82	243750	200.0	198.6	
68 Dibromomethane	93	8.144	8.144	0.000	95	175702	200.0	192.2	
70 1,4-Dioxane	88	8.205	8.205	0.000	88	36036	4000.0	4200.2	M
71 Dichlorobromomethane	83	8.315	8.315	0.000	97	480549	200.0	211.2	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	91	477454	200.0	202.2	
75 4-Methyl-2-pentanone (MIBK	43	8.947	8.947	0.000	97	367652	400.0	409.4	
76 Toluene	91	9.099	9.099	0.000	98	1151125	200.0	211.3	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	94	405643	200.0	210.0	
78 Ethyl methacrylate	69	9.428	9.428	0.000	87	262894	200.0	204.6	
79 1,1,2-Trichloroethane	97	9.513	9.513	0.000	92	222398	200.0	201.6	
80 Tetrachloroethene	164	9.641	9.641	0.000	94	309255	200.0	216.5	
81 1,3-Dichloropropane	76	9.671	9.671	0.000	90	334311	200.0	205.1	
82 2-Hexanone	43	9.769	9.769	0.000	97	231264	400.0	399.3	
84 Chlorodibromomethane	129	9.896	9.896	0.000	89	387652	200.0	204.4	
85 Ethylene Dibromide	107	10.006	10.006	0.000	98	251542	200.0	201.3	
87 Chlorobenzene	112	10.499	10.499	0.000	94	846268	200.0	216.0	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	93	393829	200.0	207.9	
90 Ethylbenzene	106	10.602	10.602	0.000	98	438222	200.0	196.9	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	97	582999	200.0	194.3	
92 o-Xylene	106	11.113	11.113	0.000	95	586685	200.0	194.7	
93 Styrene	104	11.125	11.125	0.000	93	895002	200.0	218.5	
94 Bromoform	173	11.314	11.314	0.000	94	228827	200.0	213.0	
97 Isopropylbenzene	105	11.478	11.478	0.000	95	1546157	200.0	213.6	
99 1,1,2,2-Tetrachloroethane	83	11.776	11.776	0.000	98	251042	200.0	216.9	
100 Bromobenzene	156	11.788	11.788	0.000	86	423173	200.0	216.9	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	83	86903	200.0	199.0	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	70	49829	200.0	182.1	
103 N-Propylbenzene	120	11.892	11.892	0.000	96	515043	200.0	215.1	
104 2-Chlorotoluene	126	11.977	11.977	0.000	95	465485	200.0	214.1	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	97	1260442	200.0	223.0	
107 4-Chlorotoluene	126	12.086	12.086	0.000	96	415760	200.0	199.6	
108 tert-Butylbenzene	119	12.391	12.391	0.000	91	1397136	200.0	207.4	
110 1,2,4-Trimethylbenzene	105	12.439	12.439	0.000	96	1279121	200.0	214.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.610	12.610	0.000	94	1664550	200.0	219.6	
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	97	814415	200.0	210.1	
114 4-Isopropyltoluene	119	12.756	12.756	0.000	95	1460316	200.0	211.8	
115 1,4-Dichlorobenzene	146	12.816	12.816	0.000	94	763456	200.0	211.4	
120 n-Butylbenzene	91	13.163	13.163	0.000	95	1224106	200.0	213.7	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	666444	200.0	188.4	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.972	0.000	88	37304	200.0	209.2	
126 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	95	198283	200.0	176.8	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	88	119072	200.0	177.1	
128 Naphthalene	128	15.055	15.055	0.000	96	323445	200.0	176.1	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	93	106664	200.0	139.0	
S 134 1,2-Dichloroethene, Total	96				0		400.0	411.2	
S 133 Xylenes, Total	106				0		400.0	389.0	
S 135 1,3-Dichloropropene, Total	1				0		400.0	412.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	8.00	Units: uL
VOAACRPRI_00003	Amount Added:	24.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

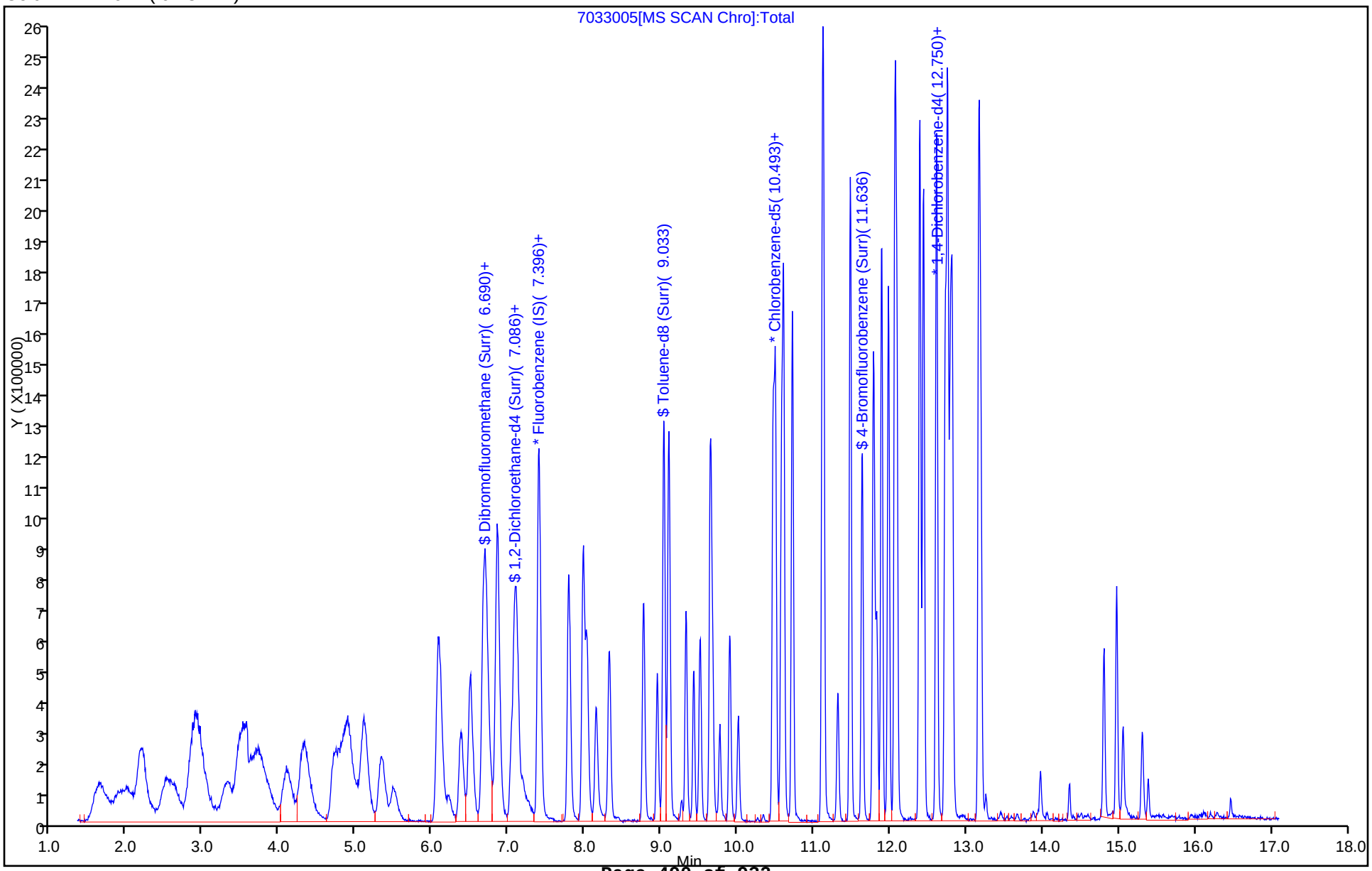
Report Date: 31-Mar-2015 08:54:21 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D

Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	icis			Worklist Smp#:	5
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

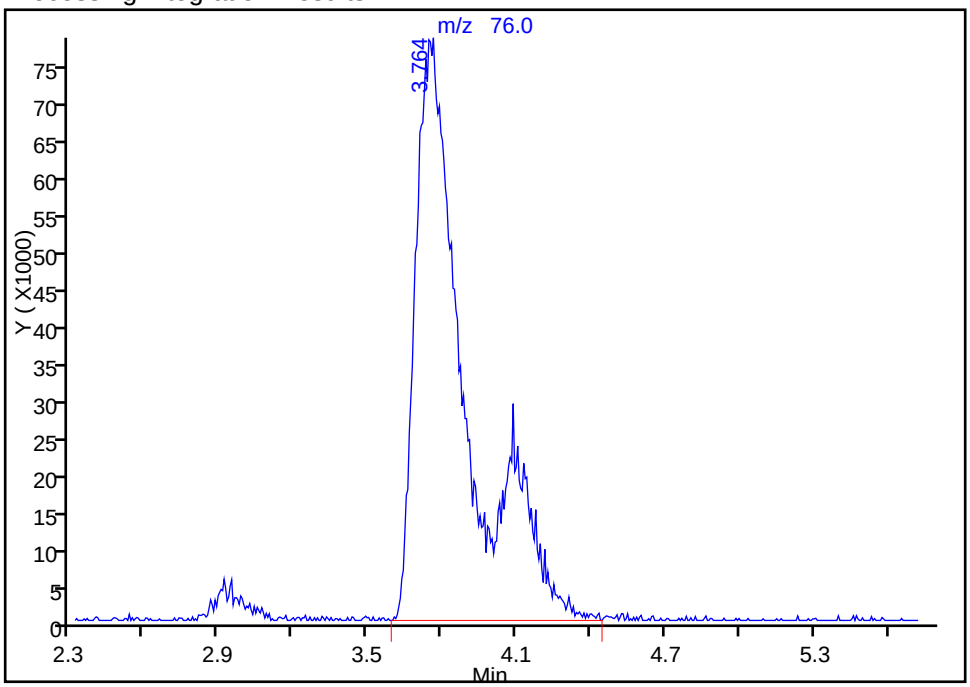
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7		
Lims ID:	icis				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

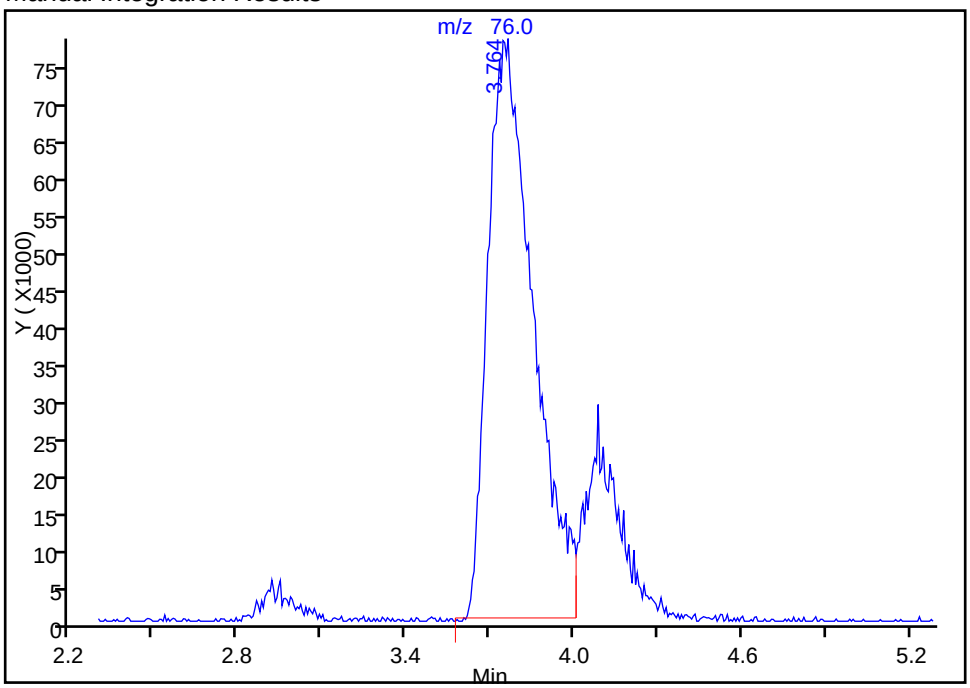
Processing Integration Results

RT: 3.76
Area: 1107648
Amount: 219.4227
Amount Units: ng



Manual Integration Results

RT: 3.76
Area: 874756
Amount: 198.1162
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:42:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

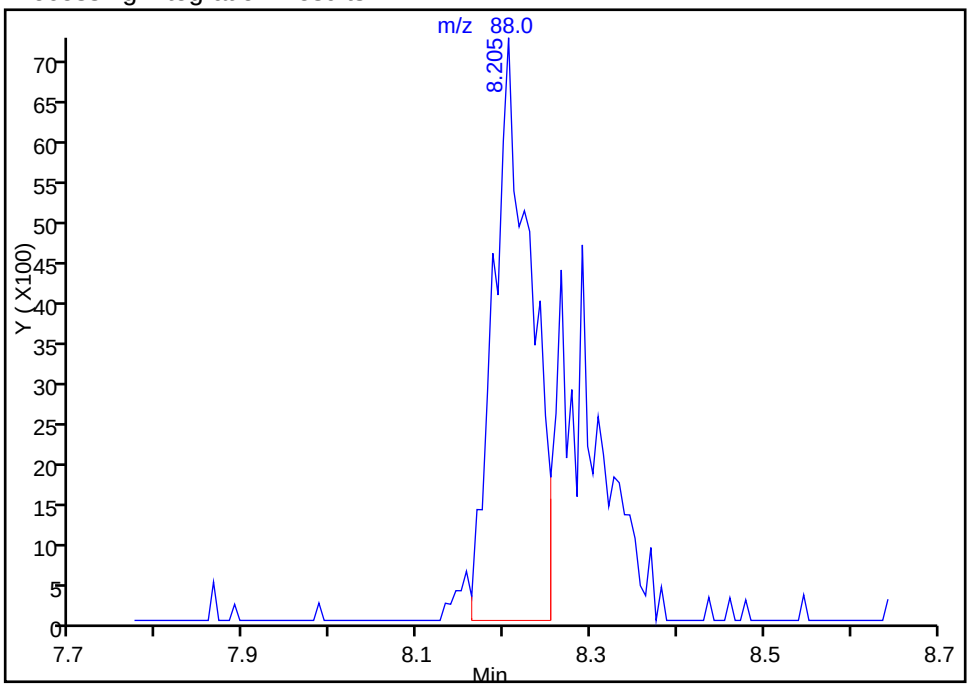
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7		
Lims ID:	icis				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

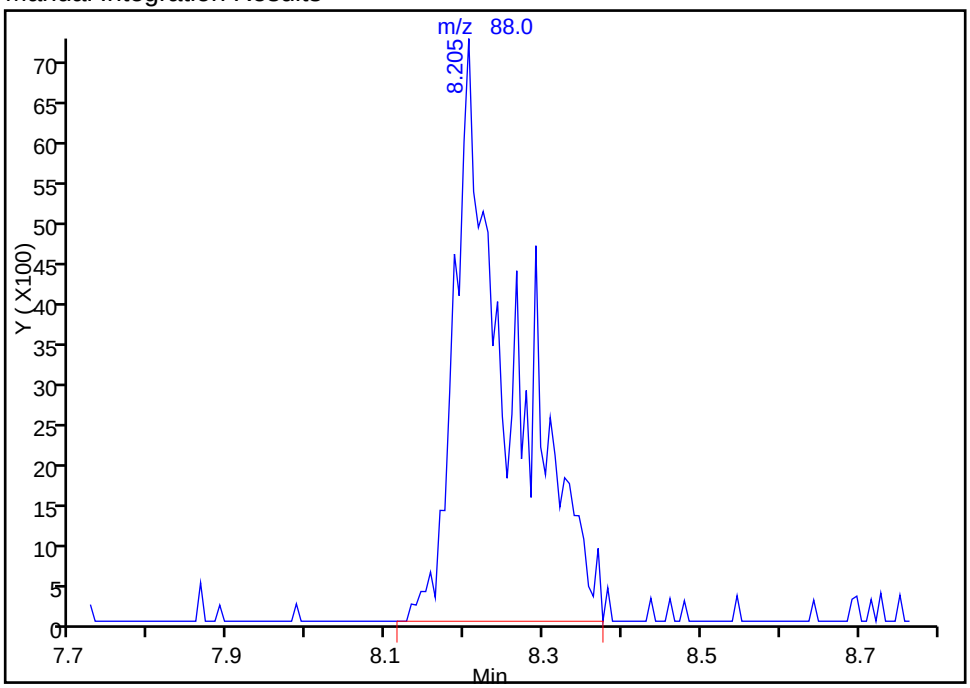
Processing Integration Results

RT: 8.21
Area: 21873
Amount: 2688.0682
Amount Units: ng



Manual Integration Results

RT: 8.21
Area: 36036
Amount: 4200.1644
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:32:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 30-Mar-2015 12:23:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-006
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 09:13:23 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 31-Mar-2015 09:13:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.051	5.051	0.000	88	311643	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	93	1016877	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	306938	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	94	445506	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	91	459650	300.0	283.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.040	0.000	70	452870	300.0	292.8	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	1374921	300.0	302.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	91	594575	300.0	298.8	
11 Dichlorodifluoromethane	85	1.888	1.888	0.000	91	547112	300.0	290.3	
12 Chloromethane	50	2.015	2.015	0.000	87	579635	300.0	282.3	
14 Butadiene	39	2.174	2.174	0.000	96	467958	300.0	277.1	
13 Vinyl chloride	62	2.204	2.204	0.000	79	454519	300.0	284.2	
15 Bromomethane	94	2.496	2.496	0.000	95	370267	300.0	287.4	
16 Chloroethane	64	2.612	2.612	0.000	98	359315	300.0	278.5	
17 Dichlorofluoromethane	67	2.873	2.873	0.000	94	973235	300.0	283.5	
18 Trichlorofluoromethane	101	2.904	2.904	0.000	90	1039442	300.0	287.9	
20 Ethyl ether	59	3.299	3.299	0.000	96	329495	300.0	287.6	
21 Acrolein	56	3.445	3.445	0.000	27	58776	700.0	743.1	
22 1,1-Dichloroethene	96	3.457	3.457	0.000	85	386363	300.0	283.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.579	3.579	0.000	93	447607	300.0	281.9	
25 Iodomethane	142	3.676	3.676	0.000	97	761762	300.0	266.7	
26 Carbon disulfide	76	3.731	3.731	0.000	98	1119377	300.0	273.0	M
24 Acetone	43	3.877	3.877	0.000	71	201909	600.0	669.8	
28 3-Chloro-1-propene	76	4.072	4.072	0.000	85	265180	300.0	263.3	
31 Methylene Chloride	84	4.309	4.309	0.000	66	390467	300.0	266.5	
30 Methyl acetate	43	4.321	4.321	0.000	97	1035067	1500.0	1527.8	
34 trans-1,2-Dichloroethene	96	4.698	4.698	0.000	93	468410	300.0	276.5	
32 2-Methyl-2-propanol	59	4.698	4.698	0.000	32	18904	3000.0	2972.9	
33 Acrylonitrile	53	4.844	4.844	0.000	98	845412	3000.0	3119.4	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	95	984040	300.0	294.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.100	5.100	0.000	92	507536	300.0	286.5	
38 Vinyl acetate	43	5.100	5.100	0.000	64	370011	300.0	277.0	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	97	715666	300.0	288.3	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	88	593228	300.0	286.0	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	77	475209	300.0	282.7	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	100	296627	600.0	650.8	
49 Chlorobromomethane	128	6.377	6.377	0.000	82	276754	300.0	285.8	
52 Chloroform	83	6.493	6.493	0.000	93	796703	300.0	284.9	
53 1,1,1-Trichloroethane	97	6.669	6.669	0.000	97	711168	300.0	280.1	
51 Tetrahydrofuran	42	6.700	6.700	0.000	52	141960	600.0	569.3	
54 Cyclohexane	56	6.712	6.712	0.000	88	497062	300.0	277.5	
56 Carbon tetrachloride	117	6.846	6.846	0.000	95	706744	300.0	275.9	
55 1,1-Dichloropropene	75	6.852	6.852	0.000	88	522409	300.0	284.9	
58 Benzene	78	7.083	7.083	0.000	95	1444796	300.0	288.7	
59 1,2-Dichloroethane	62	7.126	7.126	0.000	95	486348	300.0	287.7	
62 n-Heptane	43	7.387	7.387	0.000	75	453730	300.0	292.5	
57 Isobutyl alcohol	41	7.393	7.393	0.000	60	318675	7500.0	7805.9	
64 Trichloroethene	130	7.789	7.789	0.000	91	557536	300.0	277.9	
66 Methylcyclohexane	83	7.977	7.977	0.000	87	683732	300.0	277.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	79	327752	300.0	287.5	
68 Dibromomethane	93	8.141	8.141	0.000	92	240979	300.0	283.8	
70 1,4-Dioxane	88	8.214	8.214	0.000	78	49259	6000.0	6181.9	
71 Dichlorobromomethane	83	8.318	8.318	0.000	97	612413	300.0	289.7	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	92	643615	300.0	293.5	
75 4-Methyl-2-pentanone (MIBK	43	8.951	8.951	0.000	96	558709	600.0	622.9	
76 Toluene	91	9.103	9.103	0.000	97	1473364	300.0	287.0	
77 trans-1,3-Dichloropropene	75	9.322	9.322	0.000	95	565545	300.0	293.1	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	390626	300.0	304.4	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	91	322268	300.0	292.6	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	380796	300.0	278.1	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	90	485148	300.0	297.9	
82 2-Hexanone	43	9.766	9.766	0.000	97	369022	600.0	637.9	
84 Chlorodibromomethane	129	9.900	9.900	0.000	89	544921	300.0	287.7	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	375561	300.0	300.9	
87 Chlorobenzene	112	10.496	10.496	0.000	94	1093489	300.0	279.5	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	93	505049	300.0	267.0	
90 Ethylbenzene	106	10.605	10.605	0.000	97	567348	300.0	255.2	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	97	753992	300.0	251.6	
92 o-Xylene	106	11.116	11.116	0.000	94	750708	300.0	249.4	
93 Styrene	104	11.128	11.128	0.000	92	1119936	300.0	288.8	
94 Bromoform	173	11.311	11.311	0.000	93	322387	300.0	300.4	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	1939042	300.0	285.9	
99 1,1,2,2-Tetrachloroethane	83	11.773	11.773	0.000	98	360995	300.0	312.3	
100 Bromobenzene	156	11.785	11.785	0.000	86	548599	300.0	287.4	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	86	129479	300.0	302.9	
102 trans-1,4-Dichloro-2-buten	53	11.834	11.834	0.000	72	77709	300.0	290.2	
103 N-Propylbenzene	120	11.889	11.889	0.000	96	649531	300.0	277.2	
104 2-Chlorotoluene	126	11.980	11.980	0.000	95	592801	300.0	278.6	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	97	1547120	300.0	294.8	
107 4-Chlorotoluene	126	12.090	12.090	0.000	95	562904	300.0	276.1	
108 tert-Butylbenzene	119	12.388	12.388	0.000	91	1734851	300.0	266.1	
110 1,2,4-Trimethylbenzene	105	12.442	12.442	0.000	95	1578246	300.0	285.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.613	12.613	0.000	94	2075658	300.0	295.1	
113 1,3-Dichlorobenzene	146	12.722	12.722	0.000	97	1053105	300.0	281.2	
114 4-Isopropyltoluene	119	12.753	12.753	0.000	94	1814126	300.0	286.3	
115 1,4-Dichlorobenzene	146	12.814	12.814	0.000	93	1033910	300.0	292.6	
120 n-Butylbenzene	91	13.160	13.160	0.000	94	1510703	300.0	287.0	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	98	895594	300.0	258.7	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	89	48853	300.0	277.4	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	302905	300.0	275.9	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	88	167959	300.0	255.3	
128 Naphthalene	128	15.052	15.052	0.000	97	511933	300.0	284.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	94	203191	300.0	270.5	
S 134 1,2-Dichloroethene, Total	96				0		600.0	559.2	
S 133 Xylenes, Total	106				0		600.0	501.0	
S 135 1,3-Dichloropropene, Total	1				0		600.0	586.6	

QC Flag Legend

Review Flags

M - Manually Integrated

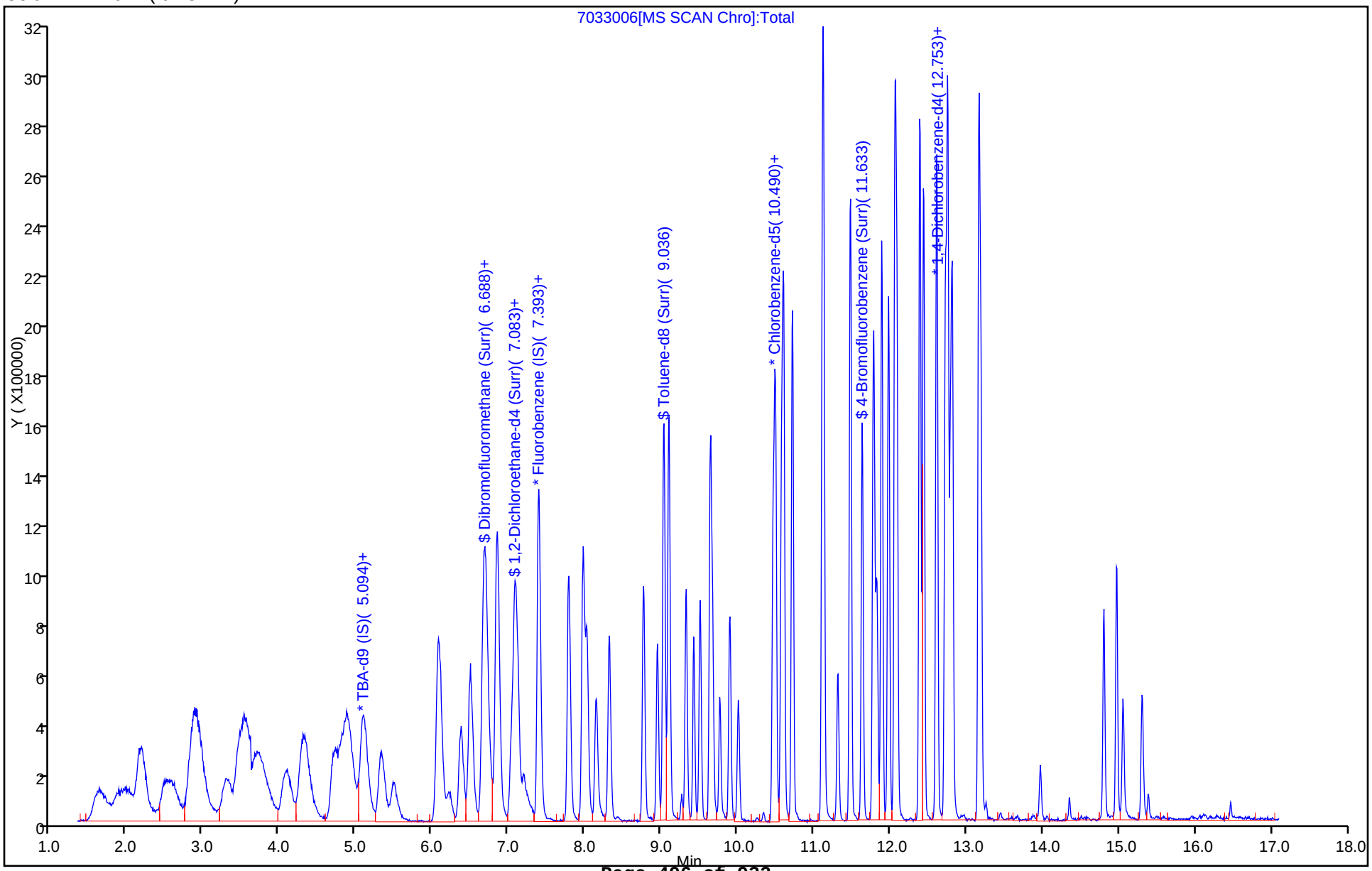
Reagents:

VOA8260SURR_00017	Amount Added:	12.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	12.00	Units: uL
VOAACRPRI_00003	Amount Added:	28.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	12.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	12.00	Units: uL

Report Date: 31-Mar-2015 09:13:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D				
Injection Date:	30-Mar-2015 12:23:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column: DB-624 (0.18 mm)					



Manual Integration/User Assign Peak Report

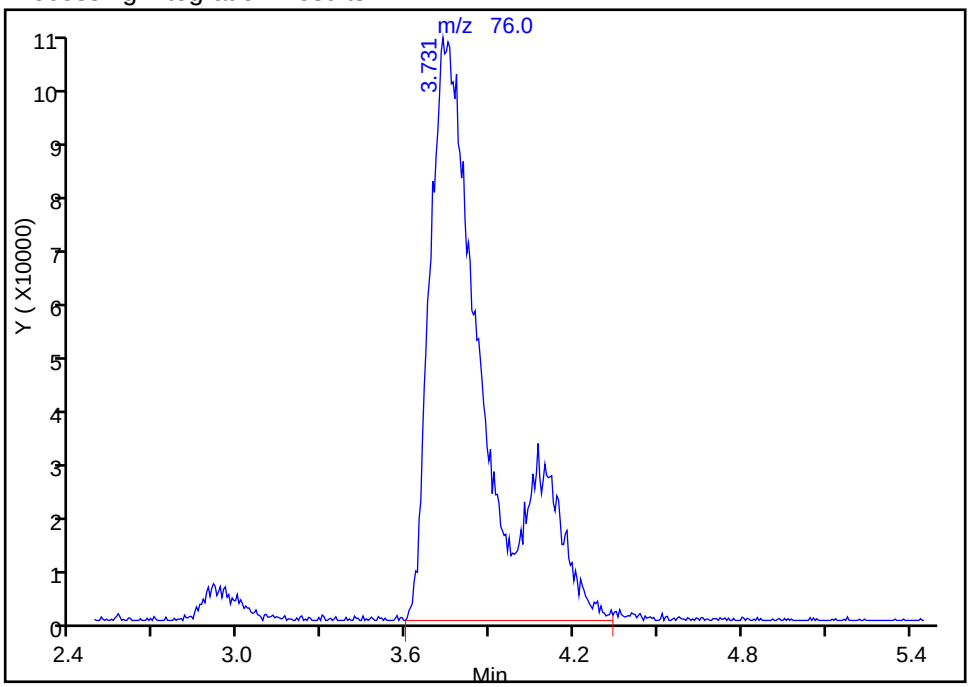
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D				
Injection Date:	30-Mar-2015 12:23:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

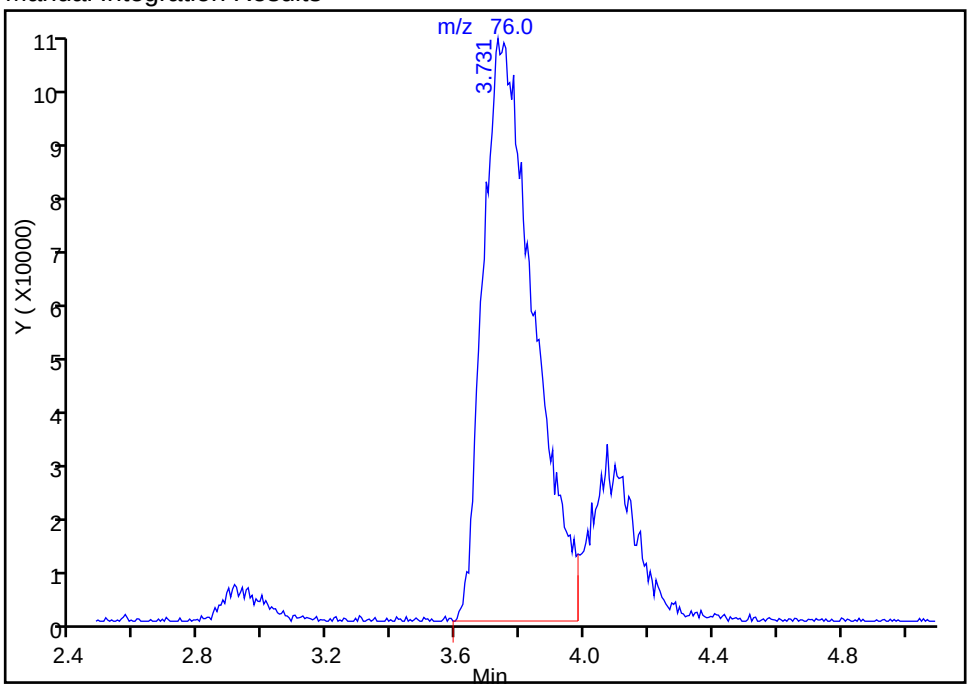
Processing Integration Results

RT: 3.73
Area: 1395013
Amount: 316.4464
Amount Units: ng



Manual Integration Results

RT: 3.73
Area: 1119377
Amount: 272.9691
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 13:12:54
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 30-Mar-2015 13:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-007
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:23 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 13:53:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.045	5.051	-0.006	90	310851	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	92	1032012	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	84	312393	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	448930	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.687	6.675	0.012	89	635809	400.0	386.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	70	603243	400.0	384.4	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	1822472	400.0	393.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	91	801850	400.0	400.9	
11 Dichlorodifluoromethane	85	1.918	1.888	0.030	88	769843	400.0	402.5	
12 Chloromethane	50	2.052	2.015	0.037	87	823816	400.0	395.3	
14 Butadiene	39	2.210	2.174	0.036	95	633176	400.0	369.4	
13 Vinyl chloride	62	2.204	2.204	0.000	97	610532	400.0	376.2	
15 Bromomethane	94	2.545	2.496	0.049	93	503455	400.0	385.0	
16 Chloroethane	64	2.666	2.612	0.054	49	494064	400.0	377.4	
17 Dichlorofluoromethane	67	2.904	2.873	0.031	96	1320934	400.0	379.2	
18 Trichlorofluoromethane	101	2.934	2.904	0.030	87	1412799	400.0	385.5	
20 Ethyl ether	59	3.305	3.299	0.006	90	478344	400.0	411.4	
22 1,1-Dichloroethene	96	3.481	3.457	0.024	97	556448	400.0	401.6	
21 Acrolein	56	3.488	3.445	0.043	45	63644	800.0	792.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.585	3.579	0.006	88	590436	400.0	366.5	
25 Iodomethane	142	3.670	3.676	-0.006	98	1110172	400.0	383.0	
26 Carbon disulfide	76	3.755	3.731	0.024	99	1544647	400.0	371.2	M
24 Acetone	43	3.865	3.877	-0.012	26	231424	800.0	766.1	
28 3-Chloro-1-propene	76	4.090	4.072	0.018	87	396144	400.0	387.6	
31 Methylene Chloride	84	4.309	4.309	0.000	76	544613	400.0	366.2	
30 Methyl acetate	43	4.327	4.321	0.006	97	1324779	2000.0	1926.7	
34 trans-1,2-Dichloroethene	96	4.710	4.698	0.012	90	646149	400.0	375.8	
32 2-Methyl-2-propanol	59	4.735	4.698	0.037	31	25255	4000.0	3891.2	M
33 Acrylonitrile	53	4.832	4.844	-0.012	99	1091986	4000.0	3970.2	
35 Methyl tert-butyl ether	73	4.899	4.905	-0.006	96	1301482	400.0	384.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.118	5.100	0.018	96	686716	400.0	381.9	
38 Vinyl acetate	43	5.112	5.100	0.012	70	520045	400.0	383.6	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	96	988166	400.0	392.2	
44 2,2-Dichloropropane	77	6.079	6.073	0.006	87	795291	400.0	377.8	
45 cis-1,2-Dichloroethene	96	6.097	6.091	0.006	77	672672	400.0	394.3	
46 2-Butanone (MEK)	43	6.219	6.225	-0.006	100	357127	800.0	772.0	
49 Chlorobromomethane	128	6.383	6.377	0.006	80	383470	400.0	390.2	
52 Chloroform	83	6.499	6.493	0.006	93	1070128	400.0	377.1	
53 1,1,1-Trichloroethane	97	6.675	6.669	0.006	96	970491	400.0	376.6	
51 Tetrahydrofuran	42	6.712	6.700	0.012	51	193358	800.0	764.0	
54 Cyclohexane	56	6.718	6.712	0.006	78	680423	400.0	374.3	
56 Carbon tetrachloride	117	6.858	6.846	0.012	94	960424	400.0	369.5	
55 1,1-Dichloropropene	75	6.858	6.852	0.006	88	684260	400.0	367.7	
58 Benzene	78	7.089	7.083	0.006	95	1936130	400.0	381.2	
59 1,2-Dichloroethane	62	7.132	7.126	0.006	97	662167	400.0	386.0	
62 n-Heptane	43	7.399	7.387	0.012	84	593146	400.0	376.8	
57 Isobutyl alcohol	41	7.393	7.393	0.000	74	426103	10000	10284	
64 Trichloroethene	130	7.795	7.789	0.006	91	763898	400.0	375.2	
66 Methylcyclohexane	83	7.983	7.977	0.006	86	924161	400.0	369.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	81	447696	400.0	387.0	
68 Dibromomethane	93	8.154	8.141	0.013	94	325671	400.0	378.0	
70 1,4-Dioxane	88	8.208	8.214	-0.006	85	68277	8000.0	8442.9	
71 Dichlorobromomethane	83	8.324	8.318	0.006	97	837049	400.0	390.2	
74 cis-1,3-Dichloropropene	75	8.774	8.768	0.006	91	854790	400.0	384.1	
75 4-Methyl-2-pentanone (MIBK	43	8.951	8.951	0.000	95	733664	800.0	803.7	
76 Toluene	91	9.103	9.103	0.000	96	1929599	400.0	398.0	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	752421	400.0	383.2	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	513149	400.0	392.8	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	91	430806	400.0	384.3	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	524990	400.0	402.5	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	91	626433	400.0	378.0	
82 2-Hexanone	43	9.772	9.766	0.006	96	462161	800.0	784.9	
84 Chlorodibromomethane	129	9.900	9.900	0.000	88	725170	400.0	376.2	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	486579	400.0	383.1	
87 Chlorobenzene	112	10.502	10.496	0.006	93	1464442	400.0	367.8	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	683517	400.0	355.0	
90 Ethylbenzene	106	10.605	10.605	0.000	97	742350	400.0	328.1	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	95	1009451	400.0	330.9	
92 o-Xylene	106	11.116	11.116	0.000	94	1006935	400.0	328.7	
93 Styrene	104	11.134	11.128	0.006	93	1435413	400.0	388.9	
94 Bromoform	173	11.317	11.311	0.006	95	436139	400.0	399.3	
97 Isopropylbenzene	105	11.481	11.481	0.000	96	2501798	400.0	395.2	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	97	452814	400.0	384.9	
100 Bromobenzene	156	11.785	11.785	0.000	86	719427	400.0	374.0	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	87	165438	400.0	384.1	
102 trans-1,4-Dichloro-2-buten	53	11.834	11.834	0.000	80	103928	400.0	385.2	
103 N-Propylbenzene	120	11.895	11.889	0.006	95	866084	400.0	366.8	
104 2-Chlorotoluene	126	11.980	11.980	0.000	96	799439	400.0	372.9	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	97	2000575	400.0	402.4	
107 4-Chlorotoluene	126	12.090	12.090	0.000	94	757841	400.0	368.9	
108 tert-Butylbenzene	119	12.394	12.388	0.006	91	2561684	400.0	394.9	
110 1,2,4-Trimethylbenzene	105	12.442	12.442	0.000	95	2068364	400.0	399.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.613	12.613	0.000	94	2688983	400.0	402.5	
113 1,3-Dichlorobenzene	146	12.728	12.722	0.006	96	1390255	400.0	371.8	
114 4-Isopropyltoluene	119	12.759	12.753	0.006	94	2342656	400.0	399.0	
115 1,4-Dichlorobenzene	146	12.820	12.814	0.006	92	1375837	400.0	386.3	
120 n-Butylbenzene	91	13.166	13.160	0.006	94	1935500	400.0	397.3	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	97	1172011	400.0	335.9	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	88	74075	400.0	413.4	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	95	443796	400.0	401.2	M
127 Hexachlorobutadiene	225	14.973	14.973	0.000	88	239421	400.0	361.2	
128 Naphthalene	128	15.058	15.052	0.006	96	664374	400.0	366.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	95	263400	400.0	348.0	
S 134 1,2-Dichloroethene, Total	96				0		800.0	770.1	
S 133 Xylenes, Total	106				0		800.0	659.6	
S 135 1,3-Dichloropropene, Total	1				0		800.0	767.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

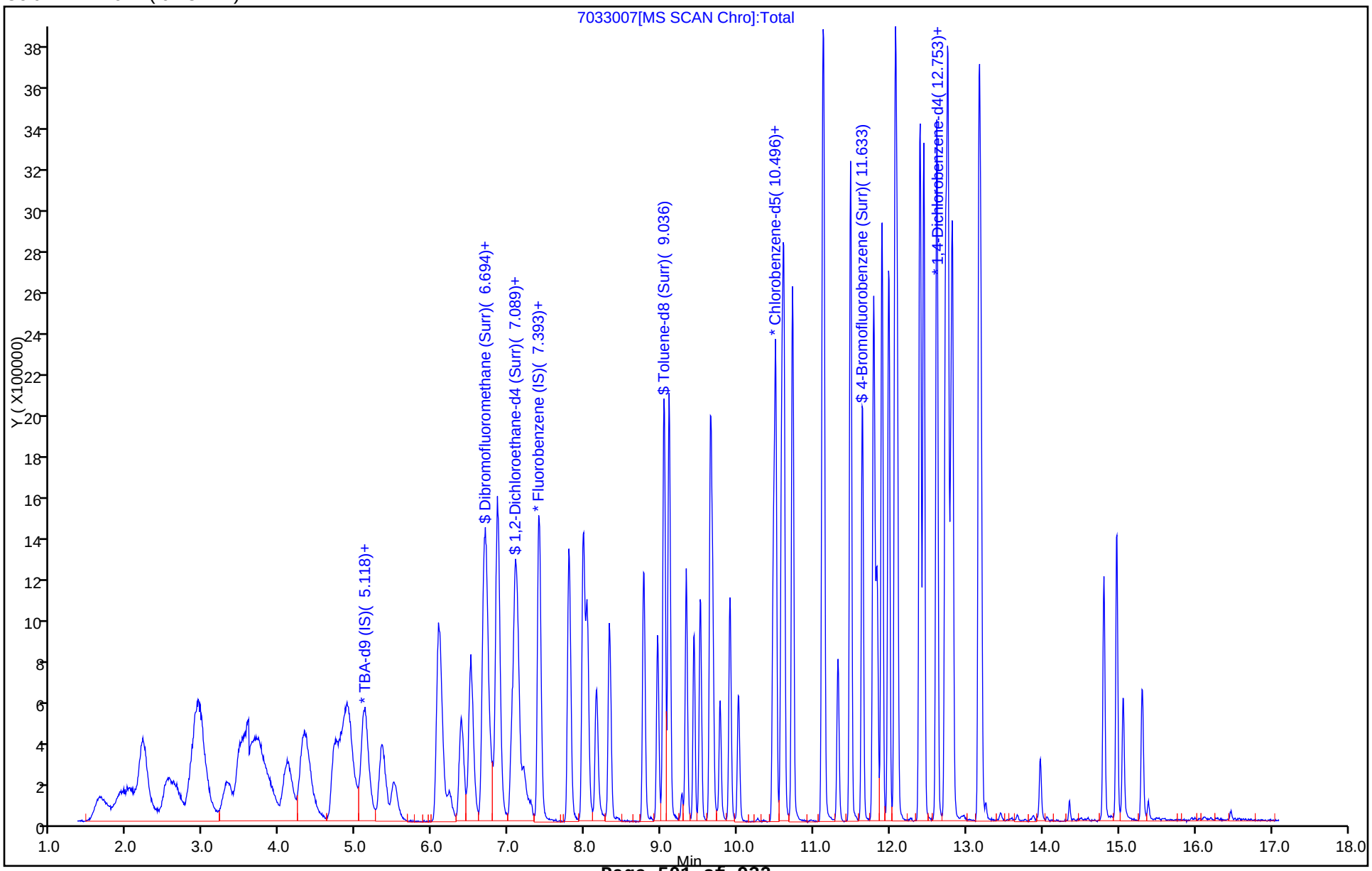
VOA8260SURR_00017	Amount Added:	16.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	16.00	Units: uL
VOAACRPRI_00003	Amount Added:	32.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	16.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	16.00	Units: uL

Report Date: 31-Mar-2015 08:54:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

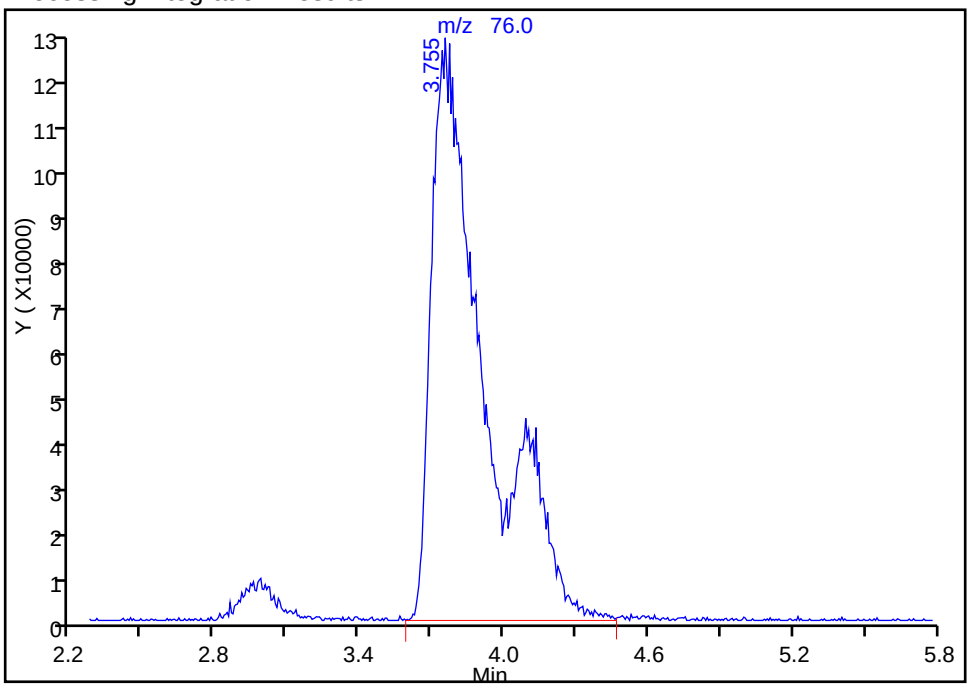
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

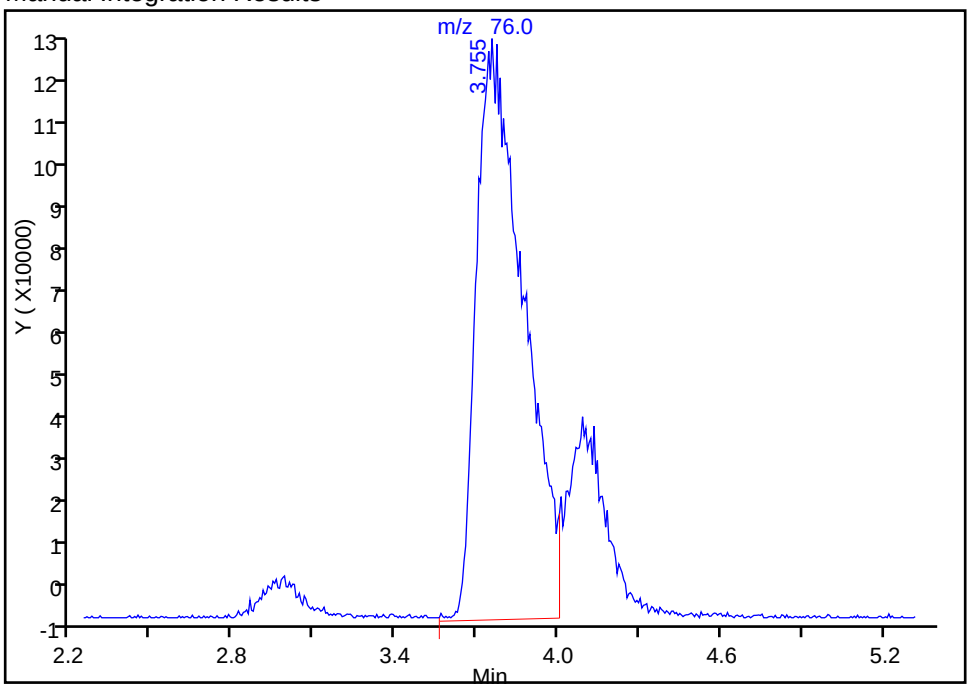
Processing Integration Results

RT: 3.76
Area: 1952405
Amount: 446.8874
Amount Units: ng



Manual Integration Results

RT: 3.76
Area: 1544647
Amount: 371.1505
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 13:53:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

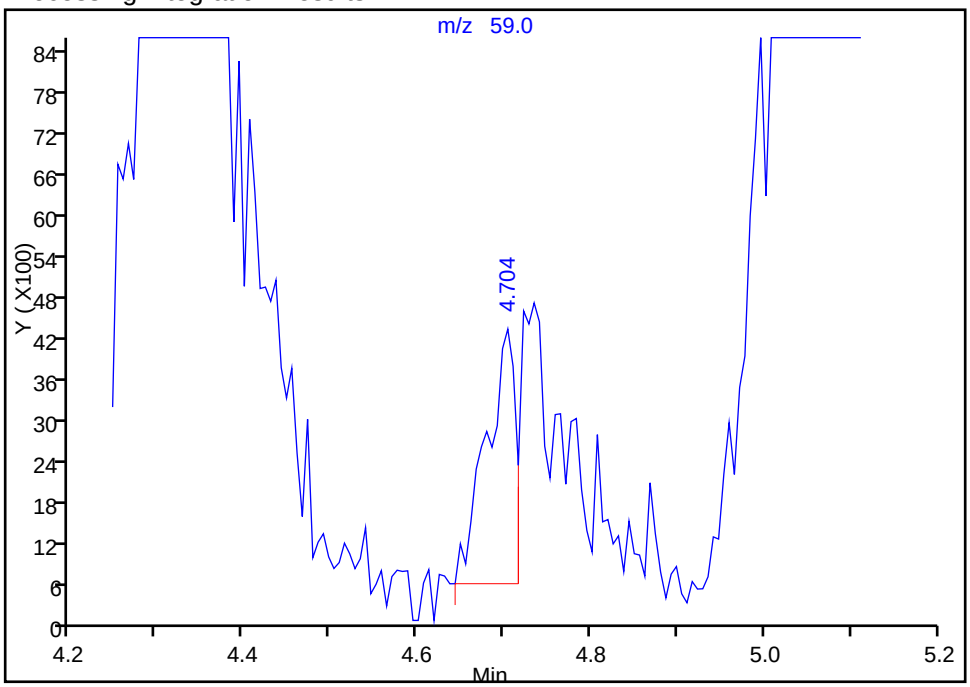
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

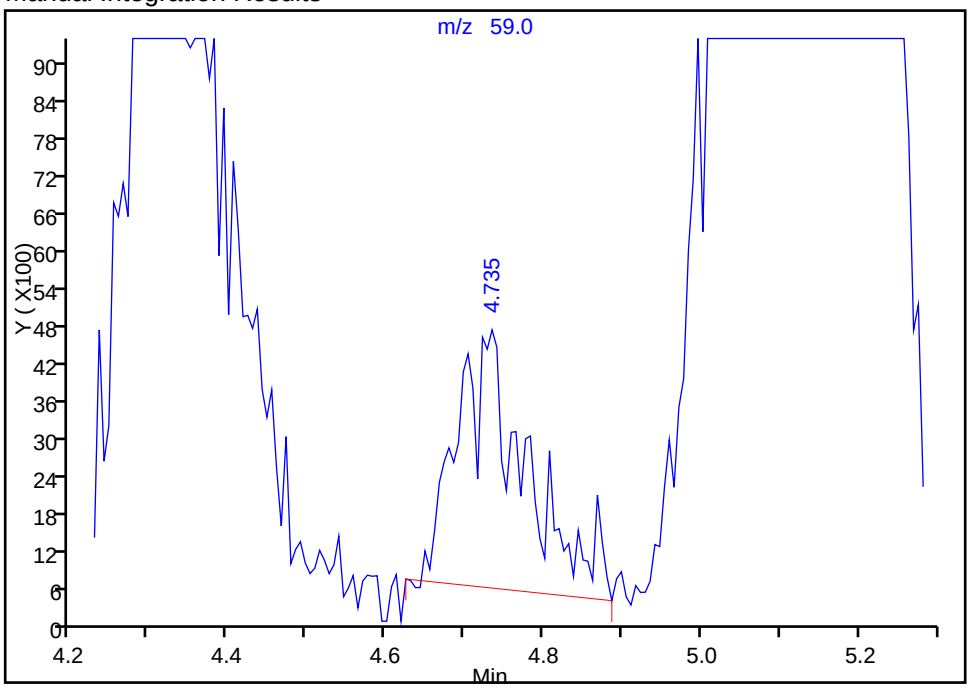
Processing Integration Results

RT: 4.70
Area: 8865
Amount: 1468.1351
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 25255
Amount: 3891.2177
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 16:20:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

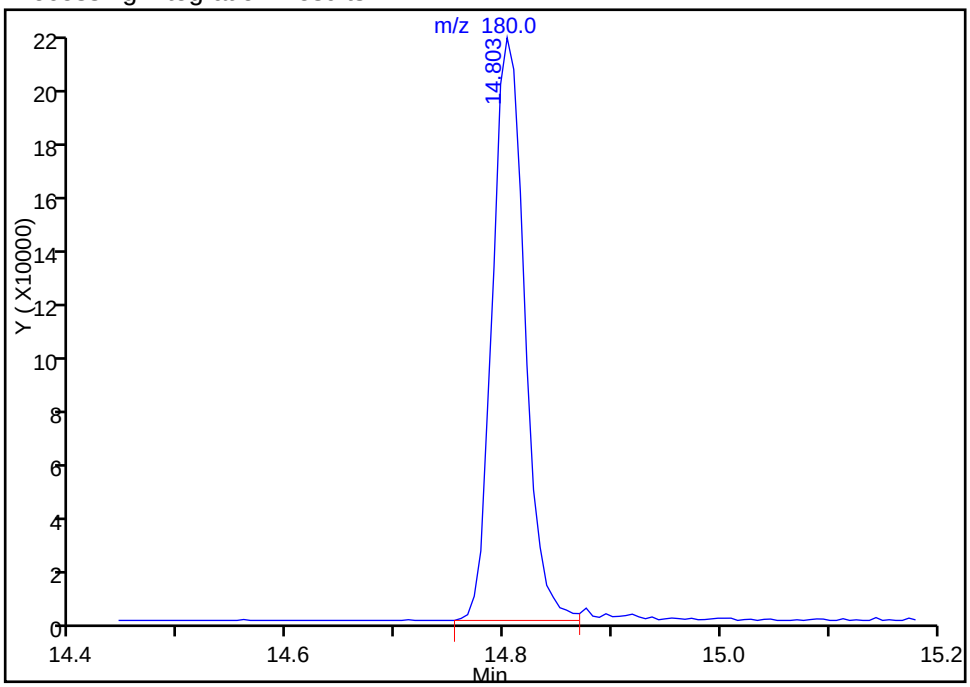
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

126 1,2,4-Trichlorobenzene, CAS: 120-82-1

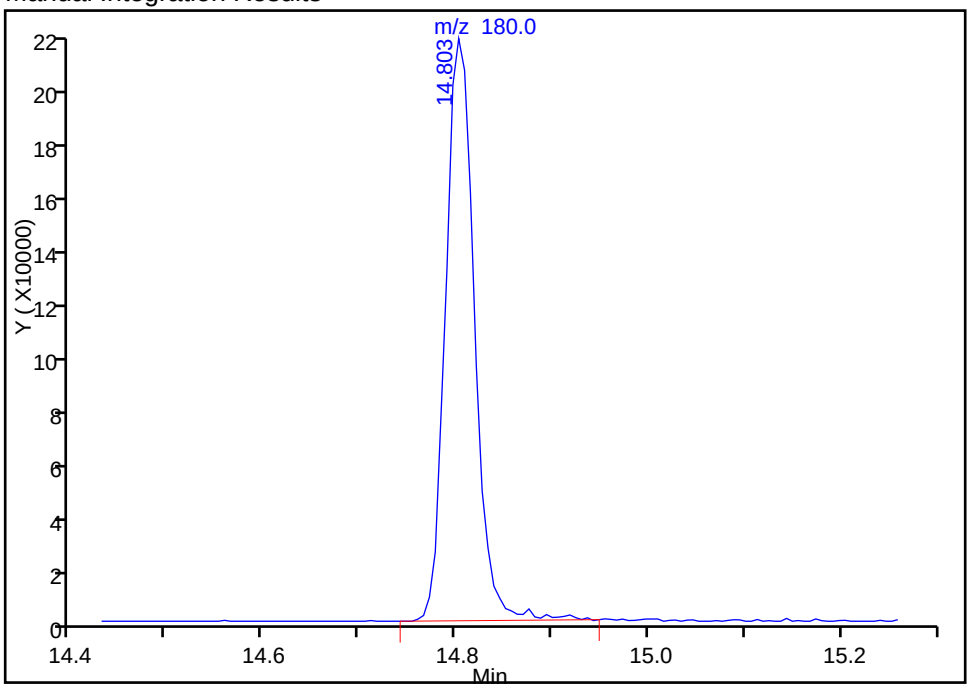
Processing Integration Results

RT: 14.80
Area: 439985
Amount: 424.0170
Amount Units: ng



Manual Integration Results

RT: 14.80
Area: 443796
Amount: 401.1709
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 16:20:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 30-Mar-2015 13:32:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-008
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 09:17:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 14:17:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.045	5.051	-0.006	90	325061	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	94	1064126	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	346158	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	490230	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	89	1069500	700.0	630.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	1052781	700.0	650.5	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	2956031	700.0	575.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.006	91	1382927	700.0	632.2	
11 Dichlorodifluoromethane	85	1.900	1.888	0.012	95	1251238	700.0	634.4	
12 Chloromethane	50	2.046	2.015	0.031	89	1397995	700.0	650.6	
14 Butadiene	39	2.204	2.174	0.030	95	1091852	700.0	617.8	
13 Vinyl chloride	62	2.222	2.204	0.018	90	1056944	700.0	631.6	
15 Bromomethane	94	2.508	2.496	0.012	95	913392	700.0	677.4	
16 Chloroethane	64	2.642	2.612	0.030	92	891876	700.0	660.7	
17 Dichlorofluoromethane	67	2.897	2.873	0.024	93	2383040	700.0	663.5	
18 Trichlorofluoromethane	101	2.958	2.904	0.054	94	2456359	700.0	650.0	
20 Ethyl ether	59	3.293	3.299	-0.006	88	839764	700.0	700.4	
21 Acrolein	56	3.463	3.445	0.018	29	78643	900.0	950.1	
22 1,1-Dichloroethene	96	3.487	3.457	0.030	93	982672	700.0	687.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.603	3.579	0.024	93	1049950	700.0	632.0	
25 Iodomethane	142	3.676	3.676	0.000	98	1985287	700.0	664.3	
26 Carbon disulfide	76	3.731	3.731	0.000	98	2619768	700.0	610.5	M
24 Acetone	43	3.846	3.877	-0.031	30	390281	1400.0	1300.6	
28 3-Chloro-1-propene	76	4.096	4.072	0.024	86	698091	700.0	662.4	
31 Methylene Chloride	84	4.315	4.309	0.006	83	983292	700.0	641.2	
30 Methyl acetate	43	4.321	4.321	0.000	96	2224238	3500.0	3137.3	
34 trans-1,2-Dichloroethene	96	4.716	4.698	0.018	94	1124535	700.0	634.4	
32 2-Methyl-2-propanol	59	4.735	4.698	0.037	1	53007	7000.0	7028.6	M
33 Acrylonitrile	53	4.832	4.844	-0.012	97	1848860	7000.0	6519.1	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	95	2272845	700.0	650.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.106	5.100	0.006	93	1051129	700.0	567.0	
38 Vinyl acetate	43	5.106	5.100	0.006	65	892468	700.0	638.5	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	96	1709875	700.0	658.1	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	92	1337687	700.0	616.3	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	82	1130925	700.0	642.9	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	100	613084	1400.0	1285.4	
49 Chlorobromomethane	128	6.383	6.377	0.006	84	646182	700.0	637.7	
52 Chloroform	83	6.499	6.493	0.006	93	1847979	700.0	631.6	
53 1,1,1-Trichloroethane	97	6.675	6.669	0.006	97	1615549	700.0	608.1	
51 Tetrahydrofuran	42	6.712	6.700	0.012	55	323514	1400.0	1239.7	
54 Cyclohexane	56	6.712	6.712	0.000	88	1123391	700.0	599.3	
56 Carbon tetrachloride	117	6.846	6.846	0.000	94	1629157	700.0	607.9	
55 1,1-Dichloropropene	75	6.852	6.852	0.000	89	1161217	700.0	605.2	
58 Benzene	78	7.089	7.083	0.006	96	3150535	700.0	601.6	
59 1,2-Dichloroethane	62	7.131	7.126	0.005	87	1085110	700.0	613.5	
62 n-Heptane	43	7.393	7.387	0.006	92	1015361	700.0	625.5	
57 Isobutyl alcohol	41	7.393	7.393	0.000	86	725140	17500	16974	
64 Trichloroethene	130	7.795	7.789	0.006	92	1337763	700.0	637.2	
66 Methylcyclohexane	83	7.977	7.977	0.000	85	1518386	700.0	588.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	80	761874	700.0	638.7	
68 Dibromomethane	93	8.147	8.141	0.006	94	570980	700.0	642.7	
70 1,4-Dioxane	88	8.214	8.214	0.000	86	129768	14000	15562	
71 Dichlorobromomethane	83	8.324	8.318	0.006	96	1412009	700.0	638.4	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	91	1486494	700.0	647.9	
75 4-Methyl-2-pentanone (MIBK	43	8.957	8.951	0.006	95	1221845	1400.0	1207.9	
76 Toluene	91	9.109	9.103	0.006	95	3084889	700.0	703.5	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	1307789	700.0	601.0	
78 Ethyl methacrylate	69	9.431	9.425	0.006	88	911071	700.0	629.4	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	92	746577	700.0	601.0	
80 Tetrachloroethene	164	9.650	9.644	0.006	92	884171	700.0	702.4	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	91	1057404	700.0	575.8	
82 2-Hexanone	43	9.772	9.766	0.006	97	828690	1400.0	1270.2	
84 Chlorodibromomethane	129	9.899	9.900	-0.001	88	1253031	700.0	586.7	
85 Ethylene Dibromide	107	10.015	10.009	0.006	98	856980	700.0	608.9	
87 Chlorobenzene	112	10.502	10.496	0.006	91	2414200	700.0	547.1	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	1125563	700.0	527.6	
90 Ethylbenzene	106	10.611	10.605	0.006	96	1229831	700.0	490.5	
91 m-Xylene & p-Xylene	106	10.727	10.721	0.006	93	1715038	700.0	507.4	
92 o-Xylene	106	11.122	11.116	0.006	92	1683040	700.0	495.8	
93 Styrene	104	11.134	11.128	0.006	90	2360095	700.0	706.5	
94 Bromoform	173	11.317	11.311	0.006	93	781610	700.0	645.8	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	3864822	700.0	706.3	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	95	733504	700.0	562.6	
100 Bromobenzene	156	11.791	11.785	0.006	85	1224216	700.0	582.7	
101 1,2,3-Trichloropropane	110	11.828	11.822	0.006	86	290435	700.0	617.4	
102 trans-1,4-Dichloro-2-buten	53	11.840	11.834	0.006	78	188752	700.0	640.6	
103 N-Propylbenzene	120	11.901	11.889	0.012	93	1515443	700.0	587.7	
104 2-Chlorotoluene	126	11.986	11.980	0.006	92	1366522	700.0	583.7	
106 1,3,5-Trimethylbenzene	105	12.071	12.065	0.006	96	3121962	700.0	646.6	
107 4-Chlorotoluene	126	12.096	12.090	0.006	91	1318727	700.0	587.8	
108 tert-Butylbenzene	119	12.394	12.388	0.006	91	3583483	700.0	508.9	
110 1,2,4-Trimethylbenzene	105	12.448	12.442	0.006	94	3286002	700.0	702.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.619	12.613	0.006	94	4241460	700.0	652.2	
113 1,3-Dichlorobenzene	146	12.734	12.722	0.012	94	2242920	700.0	554.5	
114 4-Isopropyltoluene	119	12.759	12.753	0.006	92	3605948	700.0	703.5	
115 1,4-Dichlorobenzene	146	12.820	12.814	0.006	90	2234049	700.0	574.5	
120 n-Butylbenzene	91	13.172	13.160	0.012	93	2947372	700.0	704.4	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	95	1883558	700.0	494.4	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	91	134161	700.0	680.5	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	719677	700.0	595.7	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	90	413354	700.0	571.0	
128 Naphthalene	128	15.052	15.052	0.000	97	1090423	700.0	551.2	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	95	433251	700.0	524.2	
S 134 1,2-Dichloroethene, Total	96				0		1400.0	1277.2	
S 133 Xylenes, Total	106				0		1400.0	1003.2	
S 135 1,3-Dichloropropene, Total	1				0		1400.0	1248.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	28.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	28.00	Units: uL
VOAACRPRI_00003	Amount Added:	36.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	28.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	28.00	Units: uL

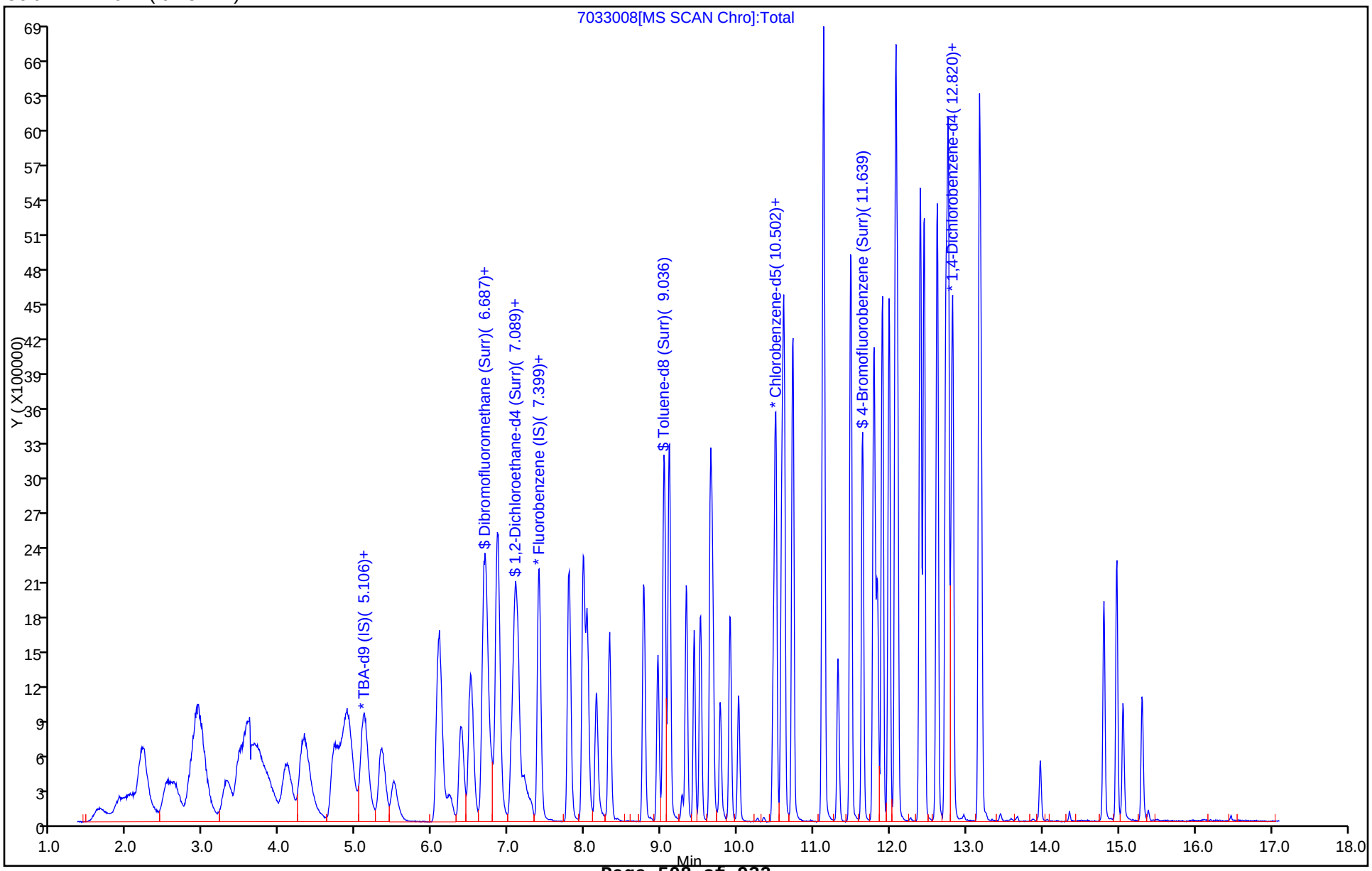
Report Date: 31-Mar-2015 09:17:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D

Injection Date:	30-Mar-2015 13:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 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

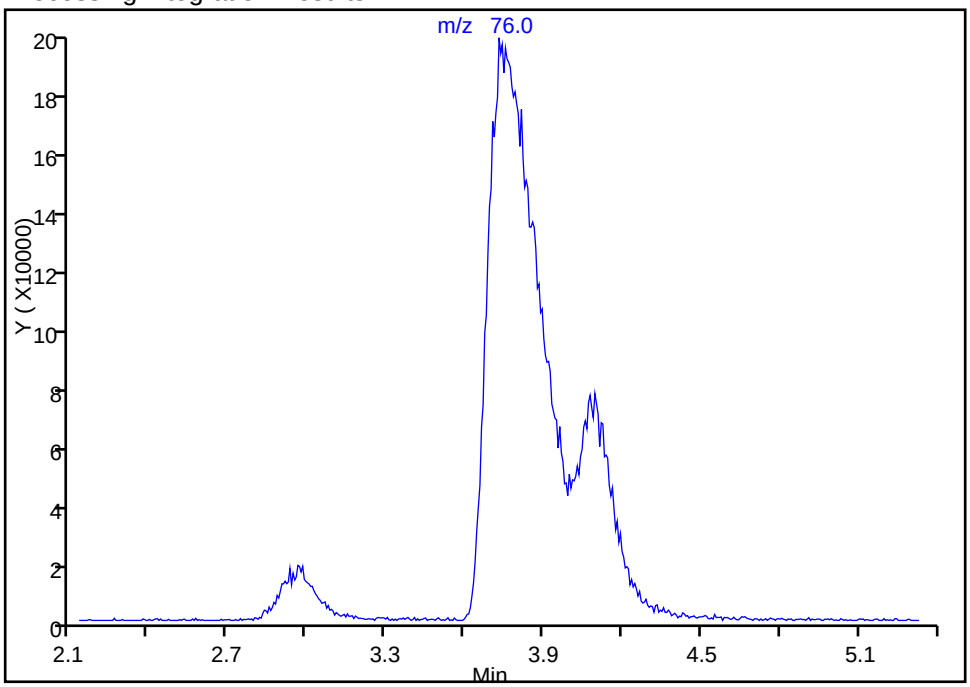
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D				
Injection Date:	30-Mar-2015 13:32:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

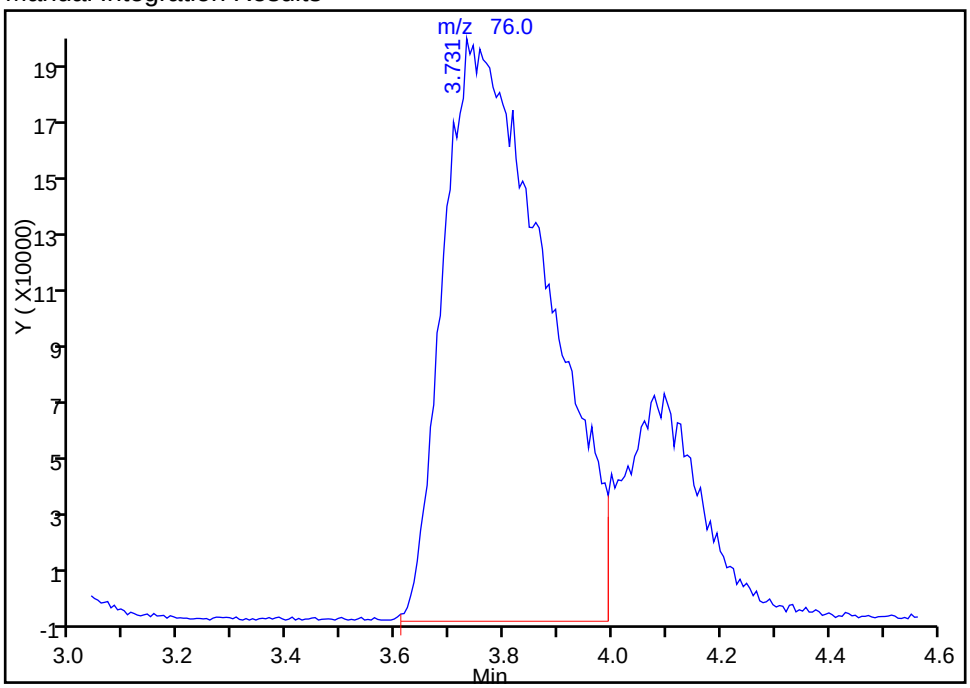
Not Detected
Expected RT: 3.73

Processing Integration Results



Manual Integration Results

RT: 3.73
Area: 2619768
Amount: 610.4854
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 14:17:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

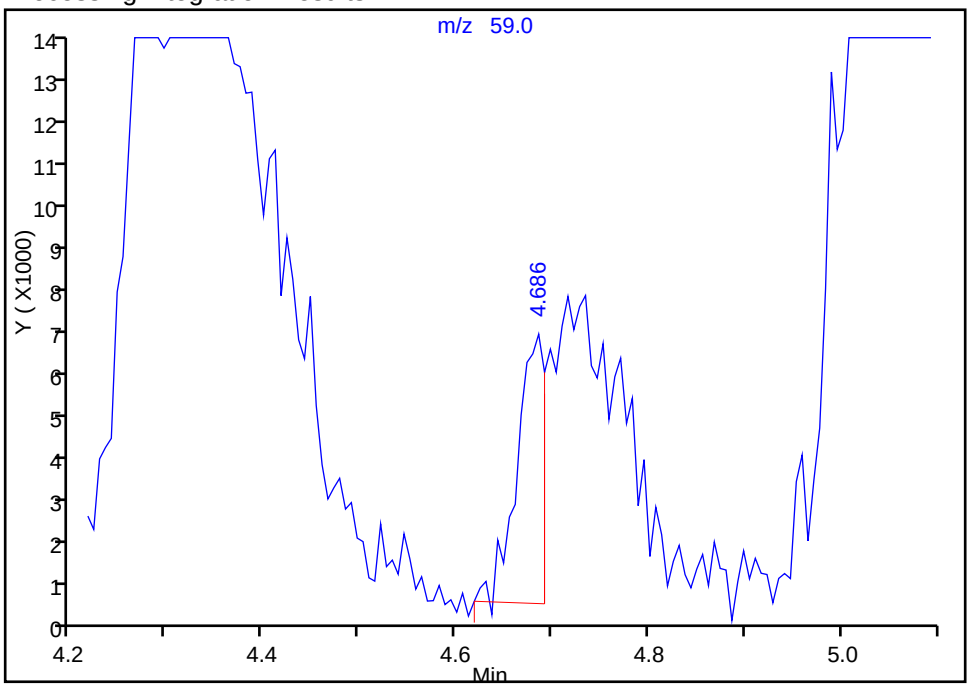
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D
Injection Date: 30-Mar-2015 13:32:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

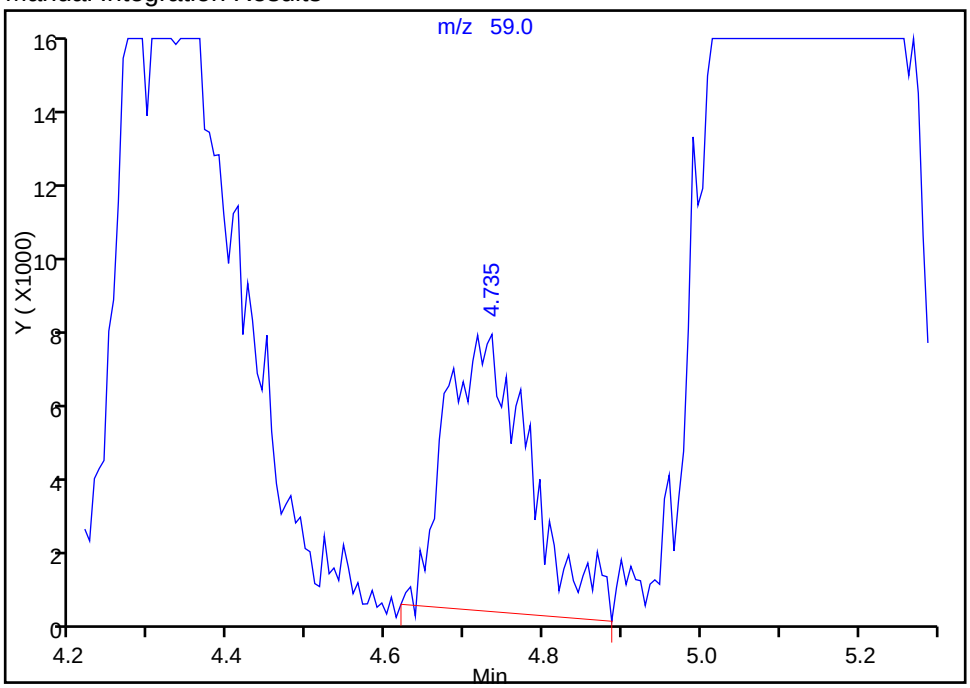
Processing Integration Results

RT: 4.69
Area: 12354
Amount: 2062.6313
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 53007
Amount: 7028.5816
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 14:17:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033009.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 30-Mar-2015 14:05:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-009
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:27 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 15:31:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.057	5.051	0.006	39	296956	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	97	1037142	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	333592	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	453121	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.675	0.006	90	1276297	800.0	771.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	1230322	800.0	780.0	
$ 7 Toluene-d8 (Surr)	98	9.042	9.036	0.006	92	3370087	800.0	681.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.006	91	1583659	800.0	754.1	
11 Dichlorodifluoromethane	85	1.906	1.888	0.018	85	1578981	800.0	821.4	
12 Chloromethane	50	2.070	2.015	0.055	87	1636714	800.0	781.5	
14 Butadiene	39	2.192	2.174	0.018	97	1307567	800.0	759.1	
13 Vinyl chloride	62	2.216	2.204	0.012	67	1331694	800.0	816.5	
15 Bromomethane	94	2.520	2.496	0.024	94	1046463	800.0	796.3	
16 Chloroethane	64	2.630	2.612	0.018	80	1044851	800.0	794.1	
17 Dichlorofluoromethane	67	2.904	2.873	0.031	93	2691604	800.0	768.9	
18 Trichlorofluoromethane	101	2.940	2.904	0.036	90	2906130	800.0	789.1	
20 Ethyl ether	59	3.299	3.299	0.000	91	1005937	800.0	860.8	
21 Acrolein	56	3.475	3.445	0.030	27	83224	1000.0	1031.6	
22 1,1-Dichloroethene	96	3.530	3.457	0.073	96	1127478	800.0	809.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.585	3.579	0.006	93	1266754	800.0	782.3	
25 Iodomethane	142	3.688	3.676	0.012	99	2306954	800.0	792.0	
26 Carbon disulfide	76	3.780	3.731	0.049	100	3969960	800.0	949.2	
24 Acetone	43	3.907	3.877	0.030	40	501900	1600.0	1739.9	
28 3-Chloro-1-propene	76	4.078	4.072	0.006	83	796185	800.0	775.2	
31 Methylene Chloride	84	4.315	4.309	0.006	70	1126005	800.0	753.4	
30 Methyl acetate	43	4.333	4.321	0.012	97	2696602	4000.0	3902.5	
34 trans-1,2-Dichloroethene	96	4.723	4.698	0.025	89	1298488	800.0	751.5	
32 2-Methyl-2-propanol	59	4.723	4.698	0.025	32	42028	8000.0	6265.5	
33 Acrylonitrile	53	4.832	4.844	-0.012	99	2150290	8000.0	7779.2	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	94	2574759	800.0	756.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.106	5.100	0.006	93	1491013	800.0	825.2	
38 Vinyl acetate	43	5.106	5.100	0.006	98	1064694	800.0	781.5	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	97	2003605	800.0	791.2	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	88	1523531	800.0	720.2	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	77	1299902	800.0	758.1	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	99	789394	1600.0	1698.1	
49 Chlorobromomethane	128	6.377	6.377	0.000	81	744761	800.0	754.1	
52 Chloroform	83	6.505	6.493	0.012	93	2105517	800.0	738.3	
53 1,1,1-Trichloroethane	97	6.669	6.669	0.000	96	1847241	800.0	713.4	
51 Tetrahydrofuran	42	6.511	6.700	-0.189	92	392456	1600.0	1543.0	
54 Cyclohexane	56	6.718	6.712	0.006	88	1347518	800.0	737.6	
56 Carbon tetrachloride	117	6.852	6.846	0.006	95	1866632	800.0	714.6	
55 1,1-Dichloropropene	75	6.858	6.852	0.006	88	1350014	800.0	721.9	
58 Benzene	78	7.095	7.083	0.012	97	3553209	800.0	696.1	
59 1,2-Dichloroethane	62	7.132	7.126	0.006	94	1261454	800.0	731.7	
62 n-Heptane	43	7.393	7.387	0.006	87	1247753	800.0	788.7	
57 Isobutyl alcohol	41	7.393	7.393	0.000	84	875607	20000	21029	
64 Trichloroethene	130	7.789	7.789	0.000	91	1511187	800.0	738.5	
66 Methylcyclohexane	83	7.977	7.977	0.000	86	1821723	800.0	724.1	
67 1,2-Dichloropropane	63	8.032	8.026	0.006	79	872134	800.0	750.2	
68 Dibromomethane	93	8.148	8.141	0.007	93	676332	800.0	781.1	
70 1,4-Dioxane	88	8.208	8.214	-0.006	84	130621	16000	16072	
71 Dichlorobromomethane	83	8.324	8.318	0.006	97	1632472	800.0	757.3	
74 cis-1,3-Dichloropropene	75	8.774	8.768	0.006	87	1709267	800.0	764.3	
75 4-Methyl-2-pentanone (MIBK	43	8.957	8.951	0.006	94	1421595	1600.0	1458.4	
76 Toluene	91	9.109	9.103	0.006	94	3491462	800.0	NQ	
77 trans-1,3-Dichloropropene	75	9.334	9.322	0.012	94	1546548	800.0	737.5	
78 Ethyl methacrylate	69	9.431	9.425	0.006	87	1076607	800.0	771.8	
79 1,1,2-Trichloroethane	97	9.516	9.510	0.006	93	867173	800.0	724.3	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	1011053	800.0	924.4	
81 1,3-Dichloropropane	76	9.681	9.674	0.007	92	1228755	800.0	694.3	
82 2-Hexanone	43	9.772	9.766	0.006	95	1032279	1600.0	1641.8	
84 Chlorodibromomethane	129	9.900	9.900	0.000	91	1443562	800.0	701.3	
85 Ethylene Dibromide	107	10.015	10.009	0.006	98	985791	800.0	726.8	
87 Chlorobenzene	112	10.502	10.496	0.006	91	2701248	800.0	635.2	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	1258389	800.0	612.1	
90 Ethylbenzene	106	10.611	10.605	0.006	95	1391048	800.0	575.8	
91 m-Xylene & p-Xylene	106	10.727	10.721	0.006	93	1961344	800.0	602.1	
92 o-Xylene	106	11.122	11.116	0.006	93	1933648	800.0	591.1	
93 Styrene	104	11.134	11.128	0.006	93	2670138	800.0	NQ	
94 Bromoform	173	11.317	11.311	0.006	93	915646	800.0	785.1	
97 Isopropylbenzene	105	11.487	11.481	0.006	95	4316426	800.0	NQ	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	97	843599	800.0	671.4	
100 Bromobenzene	156	11.798	11.785	0.013	85	1357100	800.0	698.9	
101 1,2,3-Trichloropropane	110	11.828	11.822	0.006	86	336681	800.0	774.4	
102 trans-1,4-Dichloro-2-buten	53	11.840	11.834	0.006	79	225524	800.0	828.1	
103 N-Propylbenzene	120	11.901	11.889	0.012	94	1690335	800.0	709.2	
104 2-Chlorotoluene	126	11.992	11.980	0.012	91	1567014	800.0	724.2	
106 1,3,5-Trimethylbenzene	105	12.071	12.065	0.006	95	3446156	800.0	846.6	
107 4-Chlorotoluene	126	12.096	12.090	0.006	91	1461135	800.0	704.6	
108 tert-Butylbenzene	119	12.400	12.388	0.012	91	3999628	800.0	616.8	
110 1,2,4-Trimethylbenzene	105	12.449	12.442	0.007	93	3545216	800.0	1107.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.619	12.613	0.006	94	4650844	800.0	841.1	
113 1,3-Dichlorobenzene	146	12.734	12.722	0.012	93	2457052	800.0	659.2	
114 4-Isopropyltoluene	119	12.765	12.753	0.012	91	3946644	800.0	NQ	
115 1,4-Dichlorobenzene	146	12.826	12.814	0.012	93	2471728	800.0	687.6	
120 n-Butylbenzene	91	13.172	13.160	0.012	91	3283929	800.0	NQ	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	94	2089815	800.0	593.5	
122 1,2-Dibromo-3-Chloropropan	75	13.963	13.969	-0.006	90	157690	800.0	863.2	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	992400	800.0	888.8	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	91	568860	800.0	850.2	
128 Naphthalene	128	15.052	15.052	0.000	97	1540124	800.0	842.2	
129 1,2,3-Trichlorobenzene	180	15.302	15.308	-0.006	96	697645	800.0	913.1	
S 134 1,2-Dichloroethene, Total	96				0		1600.0	1509.7	
S 133 Xylenes, Total	106				0		1600.0	1193.2	
S 135 1,3-Dichloropropene, Total	1				0		1600.0	1501.8	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Reagents:

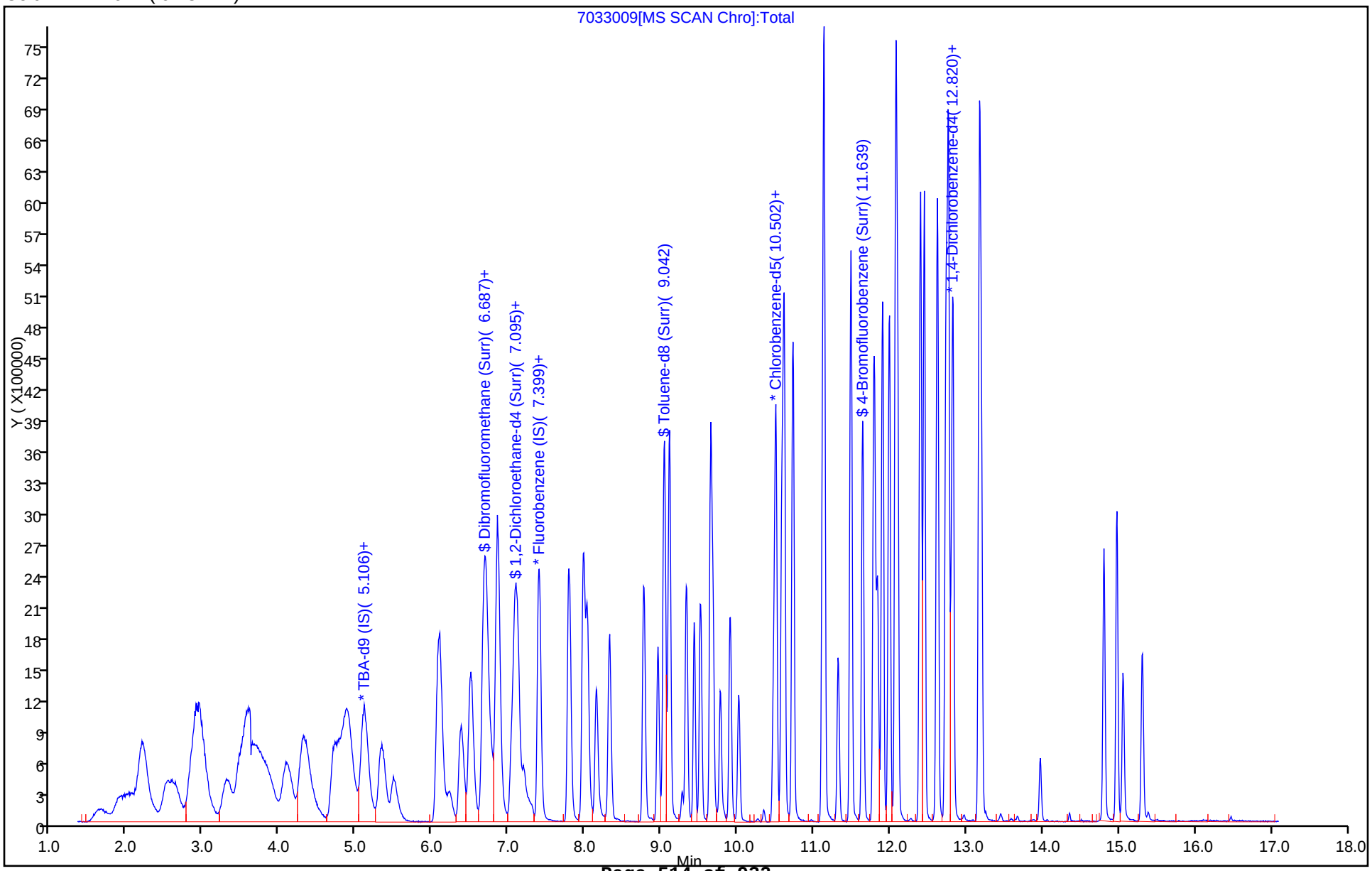
VOA8260SURR_00017	Amount Added:	32.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	32.00	Units: uL
VOAACRPRI_00003	Amount Added:	40.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	32.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	32.00	Units: uL

Report Date: 31-Mar-2015 08:54:28 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033009.D				
Injection Date:	30-Mar-2015 14:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 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: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 30-Mar-2015 14:36:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-010
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:29 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 15:30:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.098	5.051	0.047	29	262357	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.410	7.399	0.011	78	1045154	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.476	10.471	0.005	82	333626	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.800	12.789	0.011	92	441544	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.675	0.011	92	1499933	1000.0	899.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.040	0.011	67	1446117	1000.0	909.8	
$ 7 Toluene-d8 (Surr)	98	9.040	9.036	0.004	92	4013224	1000.0	811.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.644	11.633	0.011	92	1915172	1000.0	915.0	
11 Dichlorodifluoromethane	85	1.904	1.888	0.016	97	1958336	1000.0	1010.9	
12 Chloromethane	50	2.075	2.015	0.060	64	2148873	1000.0	1018.2	
14 Butadiene	39	2.202	2.174	0.028	96	1684970	1000.0	970.8	
13 Vinyl chloride	62	2.239	2.204	0.035	98	1662883	1000.0	1011.8	
15 Bromomethane	94	2.537	2.496	0.041	96	1390949	1000.0	1050.3	
16 Chloroethane	64	2.610	2.612	-0.002	96	1328639	1000.0	1002.1	
17 Dichlorofluoromethane	67	2.890	2.873	0.017	96	3391987	1000.0	961.5	
18 Trichlorofluoromethane	101	2.963	2.904	0.059	92	3658414	1000.0	985.7	
20 Ethyl ether	59	3.310	3.299	0.011	90	1215677	1000.0	1032.3	
21 Acrolein	56	3.480	3.445	0.035	28	85538	1100.0	1052.1	
22 1,1-Dichloroethene	96	3.553	3.457	0.096	91	1456322	1000.0	1037.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.571	3.579	-0.008	94	1605157	1000.0	983.7	
25 Iodomethane	142	3.681	3.676	0.005	90	2906153	1000.0	990.1	
26 Carbon disulfide	76	3.754	3.731	0.023	100	3951355	1000.0	937.5	M
24 Acetone	43	3.875	3.877	-0.002	16	526230	2000.0	1813.3	
28 3-Chloro-1-propene	76	4.082	4.072	0.010	84	1091756	1000.0	1054.8	M
31 Methylene Chloride	84	4.313	4.309	0.004	80	1446969	1000.0	960.7	
30 Methyl acetate	43	4.326	4.321	0.005	99	3030290	5000.0	4351.8	
34 trans-1,2-Dichloroethene	96	4.727	4.698	0.029	96	1650008	1000.0	947.7	
32 2-Methyl-2-propanol	59	4.709	4.698	0.011	32	87352	10000	12101	
33 Acrylonitrile	53	4.843	4.844	-0.001	95	2412565	10000	8661.2	M
35 Methyl tert-butyl ether	73	4.928	4.905	0.023	96	3086291	1000.0	899.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.098	5.100	-0.002	94	1744973	1000.0	958.3	
38 Vinyl acetate	43	5.092	5.100	-0.008	62	1318507	1000.0	960.4	
37 1,1-Dichloroethane	63	5.335	5.337	-0.002	95	2524474	1000.0	989.3	
44 2,2-Dichloropropane	77	6.078	6.073	0.005	89	1943271	1000.0	911.5	
45 cis-1,2-Dichloroethene	96	6.096	6.091	0.005	77	1640293	1000.0	949.3	
46 2-Butanone (MEK)	43	6.242	6.225	0.017	99	872275	2000.0	1862.0	
49 Chlorobromomethane	128	6.382	6.377	0.005	81	925671	1000.0	930.1	
52 Chloroform	83	6.497	6.493	0.004	93	2597161	1000.0	903.8	
53 1,1,1-Trichloroethane	97	6.668	6.669	-0.001	97	2336141	1000.0	895.2	
51 Tetrahydrofuran	42	6.722	6.700	0.022	50	486083	2000.0	1896.5	
54 Cyclohexane	56	6.716	6.712	0.004	90	1661352	1000.0	902.4	
56 Carbon tetrachloride	117	6.856	6.846	0.010	93	2368924	1000.0	899.9	
55 1,1-Dichloropropene	75	6.856	6.852	0.004	88	1689887	1000.0	896.8	
58 Benzene	78	7.094	7.083	0.011	96	4375955	1000.0	850.8	
59 1,2-Dichloroethane	62	7.136	7.126	0.010	97	1506238	1000.0	867.0	
62 n-Heptane	43	7.392	7.387	0.005	84	1473278	1000.0	924.1	
57 Isobutyl alcohol	41	7.392	7.393	-0.001	83	1032146	25000	24598	
64 Trichloroethene	130	7.793	7.789	0.004	90	1899175	1000.0	921.0	
66 Methylcyclohexane	83	7.982	7.977	0.005	85	2242100	1000.0	884.4	
67 1,2-Dichloropropane	63	8.036	8.026	0.010	80	1079980	1000.0	921.8	
68 Dibromomethane	93	8.152	8.141	0.011	93	813226	1000.0	932.0	
70 1,4-Dioxane	88	8.207	8.214	-0.007	82	160108	20000	19549	
71 Dichlorobromomethane	83	8.322	8.318	0.004	96	1941561	1000.0	893.7	
74 cis-1,3-Dichloropropene	75	8.773	8.768	0.005	90	2067222	1000.0	917.3	
75 4-Methyl-2-pentanone (MIBK	43	8.961	8.951	0.010	95	1593755	2000.0	1634.8	
76 Toluene	91	9.107	9.103	0.004	93	4117813	1000.0	NQ	
77 trans-1,3-Dichloropropene	75	9.332	9.322	0.010	94	1832921	1000.0	874.0	
78 Ethyl methacrylate	69	9.436	9.425	0.011	87	1240685	1000.0	889.4	
79 1,1,2-Trichloroethane	97	9.515	9.510	0.005	91	1040134	1000.0	868.7	
80 Tetrachloroethene	164	9.649	9.644	0.005	91	1252526	1000.0	NQ	
81 1,3-Dichloropropane	76	9.679	9.674	0.005	91	1422739	1000.0	803.8	
82 2-Hexanone	43	9.782	9.766	0.016	95	1158826	2000.0	1842.9	
84 Chlorodibromomethane	129	9.904	9.900	0.004	88	1742790	1000.0	846.6	
85 Ethylene Dibromide	107	10.014	10.009	0.005	98	1184293	1000.0	873.1	
87 Chlorobenzene	112	10.506	10.496	0.010	95	3258104	1000.0	766.1	
89 1,1,1,2-Tetrachloroethane	131	10.585	10.581	0.004	92	1561007	1000.0	759.2	
90 Ethylbenzene	106	10.616	10.605	0.011	94	1756448	1000.0	726.9	
91 m-Xylene & p-Xylene	106	10.731	10.721	0.010	91	2370008	1000.0	727.5	
92 o-Xylene	106	11.127	11.116	0.011	89	2438224	1000.0	745.2	
93 Styrene	104	11.139	11.128	0.011	88	3231479	1000.0	NQ	
94 Bromoform	173	11.322	11.311	0.011	93	1061162	1000.0	909.8	
97 Isopropylbenzene	105	11.492	11.481	0.011	95	5133808	1000.0	NQ	
99 1,1,2,2-Tetrachloroethane	83	11.784	11.773	0.011	97	942162	1000.0	749.8	
100 Bromobenzene	156	11.796	11.785	0.011	84	1650286	1000.0	872.2	
101 1,2,3-Trichloropropane	110	11.833	11.822	0.011	86	383754	1000.0	905.8	
102 trans-1,4-Dichloro-2-buten	53	11.845	11.834	0.011	87	261594	1000.0	985.7	
103 N-Propylbenzene	120	11.906	11.889	0.017	91	2105507	1000.0	906.6	
104 2-Chlorotoluene	126	11.991	11.980	0.011	93	1902501	1000.0	902.3	
106 1,3,5-Trimethylbenzene	105	12.076	12.065	0.011	94	4183147	1000.0	1394.8	
107 4-Chlorotoluene	126	12.100	12.090	0.010	92	1852378	1000.0	916.7	
108 tert-Butylbenzene	119	12.404	12.388	0.016	91	4730707	1000.0	751.0	
110 1,2,4-Trimethylbenzene	105	12.453	12.442	0.011	92	4215502	1000.0	NQ	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.623	12.613	0.010	93	5554035	1000.0	1253.2	
113 1,3-Dichlorobenzene	146	12.739	12.722	0.017	93	2939423	1000.0	811.7	
114 4-Isopropyltoluene	119	12.769	12.753	0.016	90	4751587	1000.0	NQ	
115 1,4-Dichlorobenzene	146	12.824	12.814	0.010	92	2953963	1000.0	843.4	
120 n-Butylbenzene	91	13.171	13.160	0.011	88	3968525	1000.0	NQ	
121 1,2-Dichlorobenzene	146	13.195	13.191	0.004	93	2520618	1000.0	734.6	
122 1,2-Dibromo-3-Chloropropan	75	13.968	13.969	-0.001	90	181072	1000.0	1015.8	
126 1,2,4-Trichlorobenzene	180	14.801	14.803	-0.002	96	1186297	1000.0	1090.3	
127 Hexachlorobutadiene	225	14.978	14.973	0.005	89	704150	1000.0	1080.0	
128 Naphthalene	128	15.057	15.052	0.005	97	1609562	1000.0	903.3	
129 1,2,3-Trichlorobenzene	180	15.306	15.308	-0.002	95	761958	1000.0	1023.5	
S 134 1,2-Dichloroethene, Total	96				0		2000.0	1897.0	
S 133 Xylenes, Total	106				0		2000.0	1472.8	
S 135 1,3-Dichloropropene, Total	1				0		2000.0	1791.3	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	40.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	40.00	Units: uL
VOAACRPRI_00003	Amount Added:	44.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	40.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	40.00	Units: uL

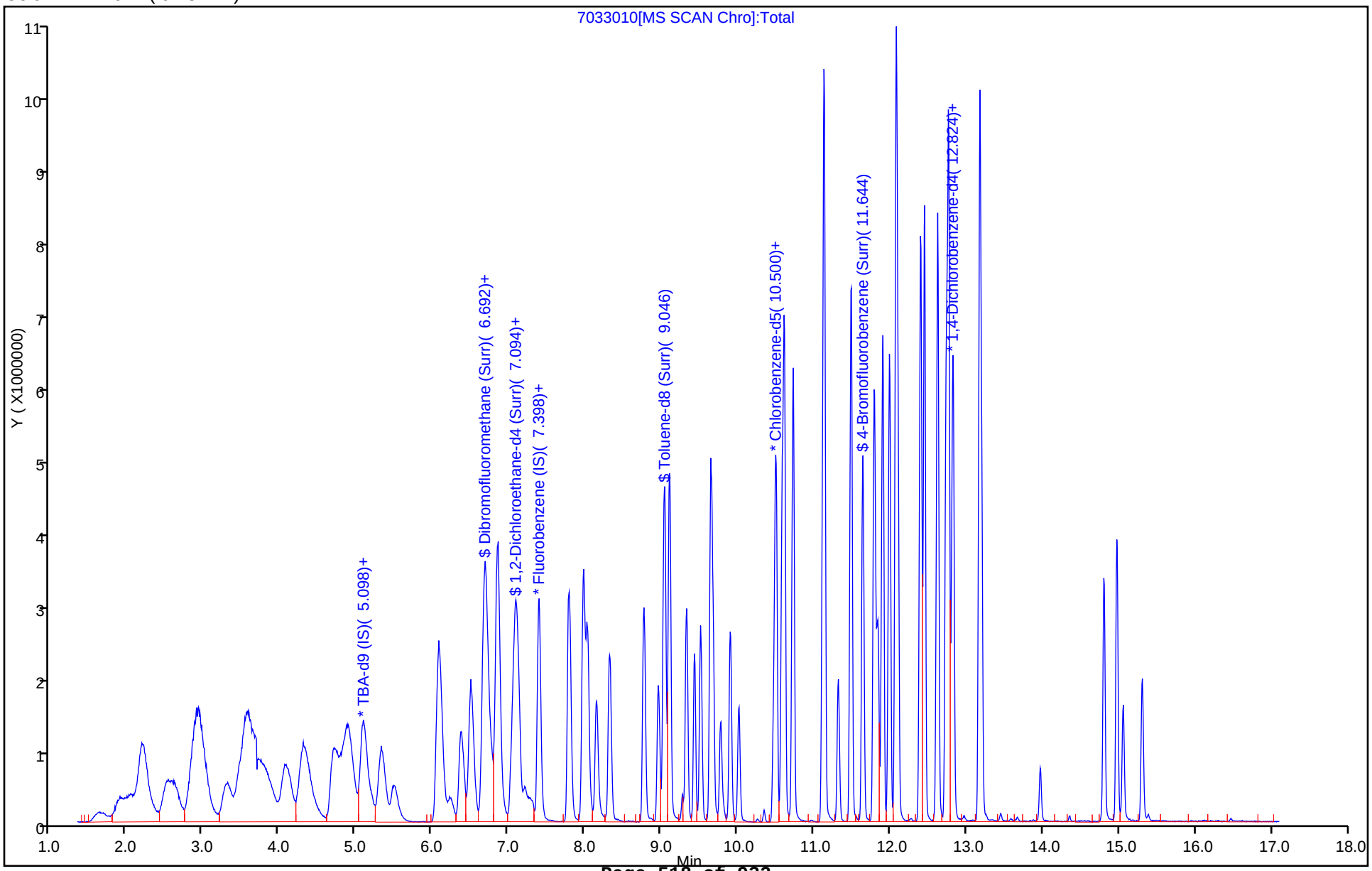
Report Date: 31-Mar-2015 08:54:29 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

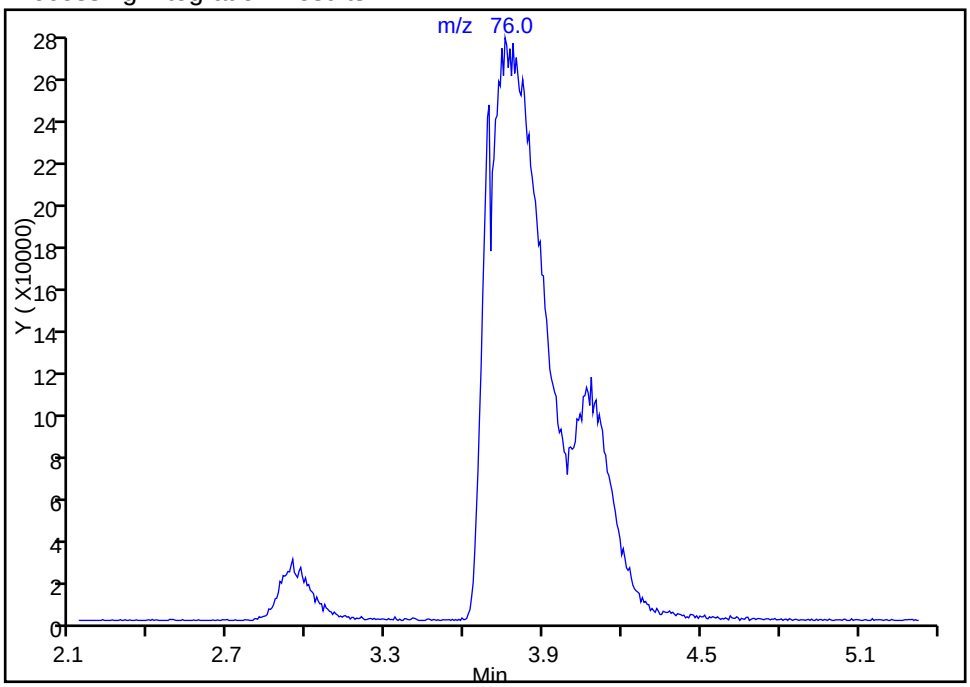
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

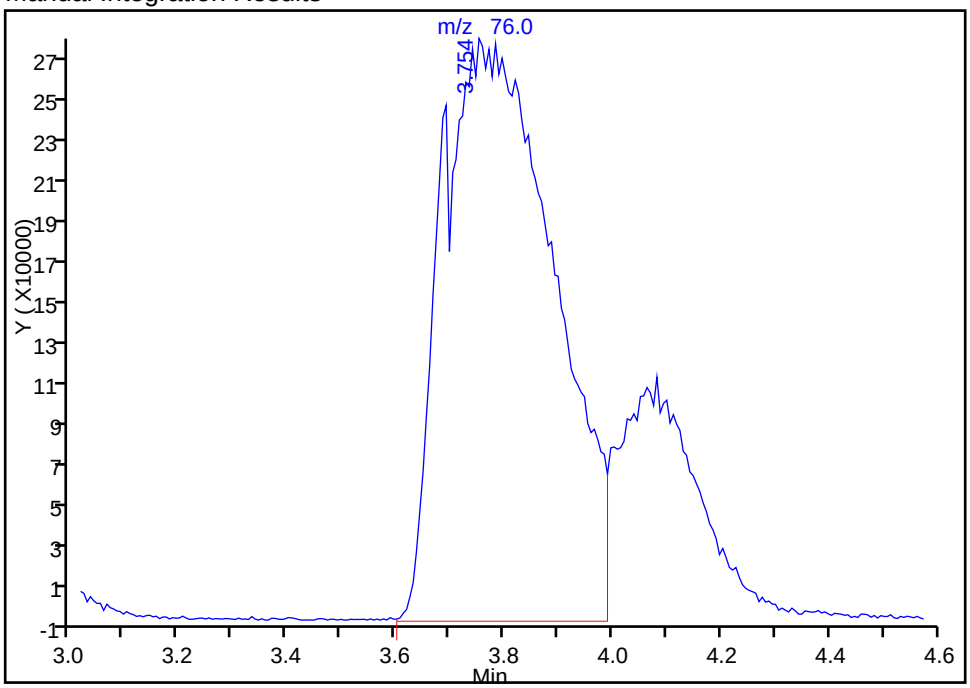
Not Detected
Expected RT: 3.73

Processing Integration Results



Manual Integration Results

RT: 3.75
Area: 3951355
Amount: 937.5001
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

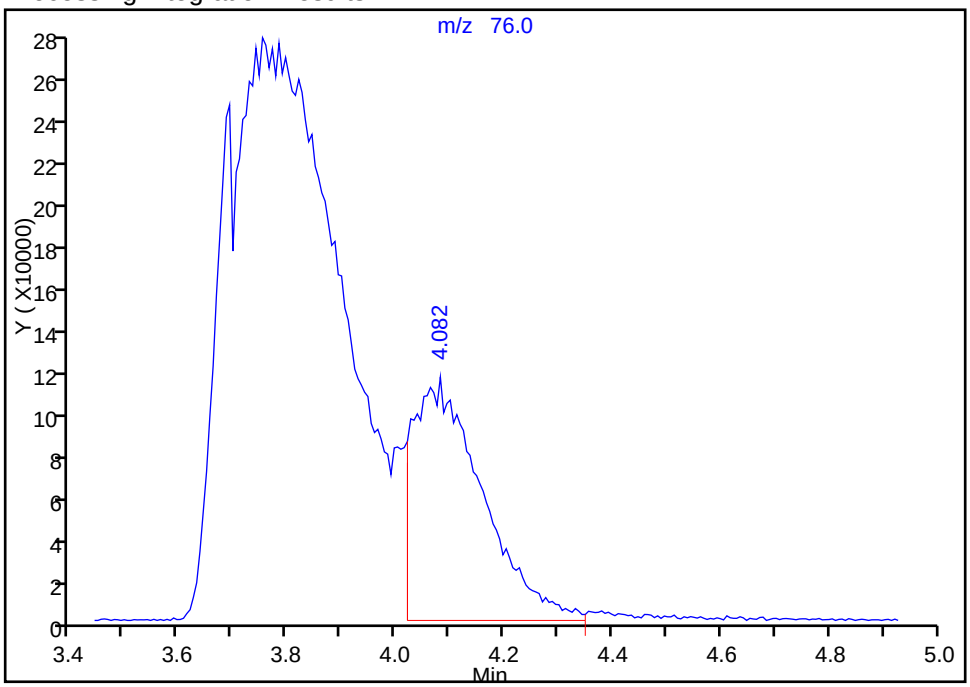
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

28 3-Chloro-1-propene, CAS: 107-05-1

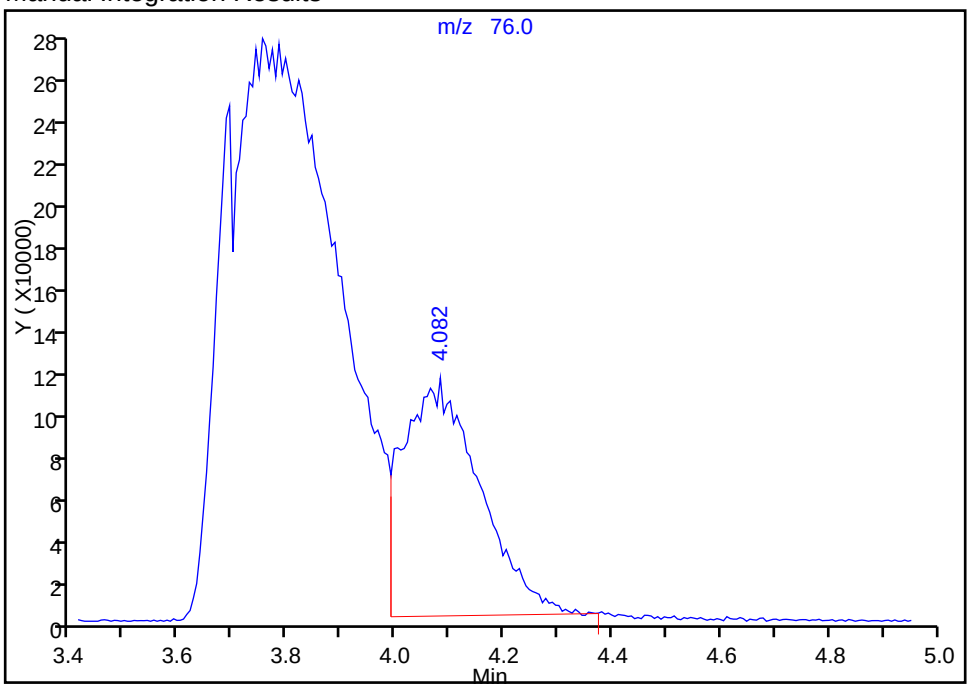
Processing Integration Results

RT: 4.08
Area: 1009836
Amount: 985.3886
Amount Units: ng



Manual Integration Results

RT: 4.08
Area: 1091756
Amount: 1054.7859
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

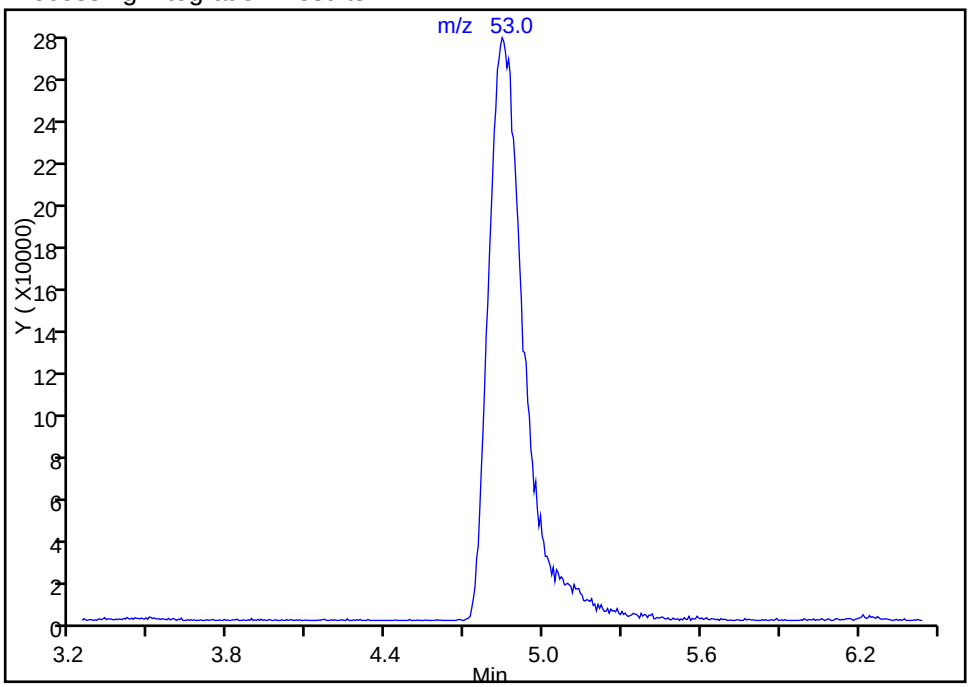
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

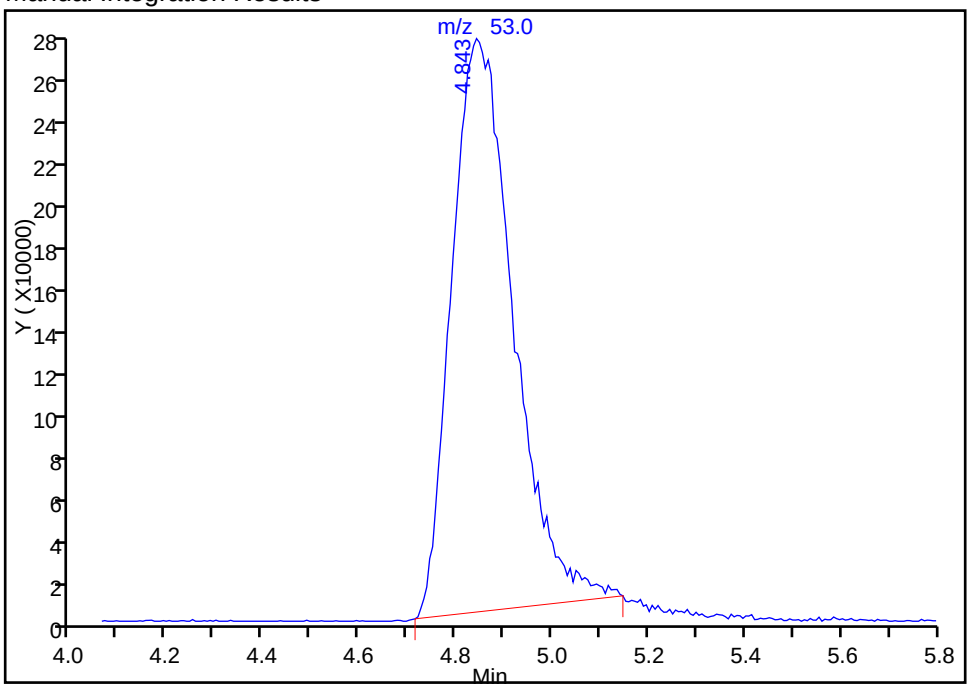
Not Detected
Expected RT: 4.84

Processing Integration Results



Manual Integration Results

RT: 4.84
Area: 2412565
Amount: 8661.1546
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137305/3 Calibration Date: 04/02/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040203.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	0.3707	0.3459	0.1000	9.33	10.0	-6.7	20.0
Chloromethane	Ave	0.4039	0.4009	0.1000	9.93	10.0	-0.7	20.0
Vinyl chloride	Ave	0.3145	0.2893	0.1000	9.20	10.0	-8.0	20.0
Bromomethane	Ave	0.2534	0.3133	0.0500	12.4	10.0	23.6*	20.0
Chloroethane	Ave	0.2537	0.2952	0.0500	11.6	10.0	16.3	20.0
Trichlorofluoromethane	Ave	0.7102	0.8083	0.1000	11.4	10.0	13.8	20.0
Dichlorofluoromethane	Ave	0.6751	0.7866	0.0100	11.7	10.0	16.5	20.0
Ethyl ether	Ave	0.2253	0.2001	0.0100	8.88	10.0	-11.2	20.0
Acrolein	Ave	0.0156	0.0091*	0.0100	17.6	30.0	-41.4*	20.0
1,1-Dichloroethene	Ave	0.2685	0.2686	0.1000	10.0	10.0	0.0	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3122	0.3338	0.1000	10.7	10.0	6.9	20.0
Iodomethane	Ave	0.5617	0.6422	0.0100	11.4	10.0	14.3	20.0
Carbon disulfide	Ave	0.8065	0.9497	0.1000	11.8	10.0	17.8	20.0
Acetone	Lin2		0.0529	0.0500	16.1	20.0	-19.6	20.0
Allyl chloride	Ave	0.1981	0.2053	0.0100	10.4	10.0	3.7	20.0
Methyl acetate	Ave	0.1332	0.1363	0.1000	51.1	50.0	2.3	20.0
Methylene Chloride	Ave	0.2882	0.3205	0.1000	11.1	10.0	11.2	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3691	0.1000	11.1	10.0	10.8	20.0
Acrylonitrile	Ave	0.0533	0.0563	0.0100	106	100	5.6	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7637	0.1000	11.6	10.0	16.3	20.0
tert-Butyl alcohol	Qua		0.9669	0.0100	787	100	686.9*	20.0
Vinyl acetate	Ave	0.2627	0.2168	0.0100	8.25	10.0	-17.5	20.0
Hexane	Ave	0.3484	0.3154	0.0100	9.05	10.0	-9.5	20.0
1,1-Dichloroethane	Ave	0.4883	0.5225	0.2000	10.7	10.0	7.0	20.0
2,2-Dichloropropane	Ave	0.4080	0.4870	0.0100	11.9	10.0	19.4	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3604	0.1000	10.9	10.0	9.0	20.0
2-Butanone (MEK)	Ave	0.0896	0.0689	0.0500	15.4	20.0	-23.2*	20.0
Bromochloromethane	Ave	0.1904	0.1976	0.0100	10.4	10.0	3.8	20.0
Chloroform	Ave	0.5499	0.5810	0.2000	10.6	10.0	5.7	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5515	0.1000	11.0	10.0	10.4	20.0
Tetrahydrofuran	Ave	0.0490	0.0514	0.0100	21.0	20.0	4.8	20.0
Cyclohexane	Ave	0.3523	0.3781	0.1000	10.7	10.0	7.3	20.0
1,1-Dichloropropene	Ave	0.3606	0.3672	0.0100	10.2	10.0	1.8	20.0
Carbon tetrachloride	Ave	0.5037	0.5630	0.1000	11.2	10.0	11.8	20.0
Benzene	Ave	0.9843	1.009	0.5000	10.2	10.0	2.5	20.0
1,2-Dichloroethane	Ave	0.3325	0.3285	0.1000	9.88	10.0	-1.2	20.0
Isobutyl alcohol	Ave	0.0080	0.0078*	0.0100	243	250	-2.8	20.0
n-Heptane	Ave	0.3051	0.2683	0.0100	8.79	10.0	-12.1	20.0
Trichloroethene	Ave	0.3946	0.3840	0.2000	9.73	10.0	-2.7	20.0
Methylcyclohexane	Ave	0.4851	0.5028	0.1000	10.4	10.0	3.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137305/3 Calibration Date: 04/02/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040203.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	0.2242	0.2162	0.1000	9.64	10.0	-3.6	20.0
Dibromomethane	Ave	0.1670	0.1644	0.0100	9.84	10.0	-1.6	20.0
1,4-Dioxane	Ave	0.0016	0.0017*	0.0100	220	200	9.8	20.0
Bromodichloromethane	Ave	0.4157	0.4371	0.2000	10.5	10.0	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4402	0.2000	10.2	10.0	2.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.4979	0.1000	17.0	20.0	-14.8	20.0
Toluene	Qua		3.416	0.4000	9.45	10.0	-5.5	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.218	0.1000	9.69	10.0	-3.1	20.0
Ethyl methacrylate	Ave	0.8363	0.7757	0.0100	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6806	0.1000	9.48	10.0	-5.2	20.0
Tetrachloroethene	Qua		0.8481	0.2000	8.83	10.0	-11.7	20.0
1,3-Dichloropropane	Ave	1.061	1.048	0.0100	9.88	10.0	-1.2	20.0
2-Hexanone	Ave	0.3770	0.3250	0.1000	17.2	20.0	-13.8	20.0
Dibromochloromethane	Ave	1.234	1.197	0.1000	9.70	10.0	-3.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.8045	0.1000	9.89	10.0	-1.1	20.0
Chlorobenzene	Ave	2.549	2.571	0.5000	10.1	10.0	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.154	0.0100	9.36	10.0	-6.4	20.0
Ethylbenzene	Ave	1.449	1.326	0.1000	9.16	10.0	-8.4	20.0
m-Xylene & p-Xylene	Ave	1.953	1.736	0.1000	8.89	10.0	-11.1	20.0
o-Xylene	Ave	1.961	1.745	0.3000	8.90	10.0	-11.0	20.0
Styrene	Qua		2.667	0.3000	9.81	10.0	-1.9	20.0
Bromoform	Ave	0.6992	0.6845	0.1000	9.79	10.0	-2.1	20.0
Isopropylbenzene	Qua		4.717	0.1000	9.85	10.0	-1.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.8044	0.3000	10.7	10.0	6.8	20.0
Bromobenzene	Ave	0.8571	0.9789	0.0100	11.4	10.0	14.2	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.1892	0.0100	9.86	10.0	-1.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1142	0.0100	9.50	10.0	-5.0	20.0
N-Propylbenzene	Ave	1.052	1.163	0.0100	11.1	10.0	10.6	20.0
2-Chlorotoluene	Ave	0.9551	1.061	0.0100	11.1	10.0	11.1	20.0
1,3,5-Trimethylbenzene	Qua		2.862	0.0100	11.6	10.0	16.1	20.0
4-Chlorotoluene	Ave	0.9153	0.9872	0.0100	10.8	10.0	7.9	20.0
tert-Butylbenzene	Lin2	3.243	3.051	0.0100	10.3	10.0	3.1	20.0
1,2,4-Trimethylbenzene	Qua		2.921	0.0100	11.3	10.0	12.6	20.0
sec-Butylbenzene	Qua		3.835	0.0100	11.6	10.0	16.4	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.841	0.6000	10.8	10.0	8.3	20.0
4-Isopropyltoluene	Qua		3.303	0.0100	11.0	10.0	9.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.725	0.5000	10.9	10.0	8.7	20.0
n-Butylbenzene	Qua		2.792	0.0100	11.2	10.0	12.0	20.0
1,2-Dichlorobenzene	Ave	1.554	1.505	0.4000	9.68	10.0	-3.2	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0872	0.0500	11.1	10.0	11.1	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.6244	0.2000	12.7	10.0	26.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137305/3 Calibration Date: 04/02/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040203.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
Hexachlorobutadiene	Ave	0.2953	0.3177	0.0100	10.8	10.0	7.6	20.0
Naphthalene	Ave	0.8071	1.196	0.0100	14.8	10.0	48.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.4183	0.0100	12.4	10.0	24.0*	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3400		10.7	10.0	6.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.3009		9.89	10.0	-1.1	20.0
Toluene-d8 (Surr)	Ave	2.966	3.161		10.7	10.0	6.6	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.403		10.6	10.0	6.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Apr-2015 10:16:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006293-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub8

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:26:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 02-Apr-2015 11:07:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.837	4.837	0.000	64	224259	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.398	7.398	0.000	95	886487	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.464	10.464	0.000	83	280160	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.788	0.000	94	371967	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.680	6.680	0.000	87	301366	200.0	213.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.045	7.045	0.000	94	266774	200.0	197.9	
$ 7 Toluene-d8 (Surr)	98	9.035	9.035	0.000	92	885597	200.0	213.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.632	0.000	90	393171	200.0	212.4	
11 Dichlorodifluoromethane	85	1.935	1.935	0.000	88	306632	200.0	186.6	
12 Chloromethane	50	2.033	2.033	0.000	53	355378	200.0	198.5	
13 Vinyl chloride	62	2.185	2.185	0.000	78	256454	200.0	184.0	
14 Butadiene	39	2.209	2.209	0.000	93	291309	200.0	197.9	
15 Bromomethane	94	2.495	2.495	0.000	93	277752	200.0	247.3	
16 Chloroethane	64	2.617	2.617	0.000	88	261652	200.0	232.7	
18 Trichlorofluoromethane	101	2.884	2.884	0.000	69	716505	200.0	227.6	
17 Dichlorofluoromethane	67	2.890	2.890	0.000	97	697271	200.0	233.0	
20 Ethyl ether	59	3.316	3.316	0.000	93	177382	200.0	177.6	
21 Acrolein	56	3.456	3.456	0.000	29	24250	600.0	351.7	M
22 1,1-Dichloroethene	96	3.505	3.505	0.000	90	238097	200.0	200.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.639	3.639	0.000	85	295926	200.0	213.8	M
25 Iodomethane	142	3.730	3.730	0.000	99	569302	200.0	228.7	
26 Carbon disulfide	76	3.791	3.791	0.000	99	841920	200.0	235.5	
24 Acetone	43	3.839	3.839	0.000	22	93719	400.0	321.7	
28 3-Chloro-1-propene	76	4.101	4.101	0.000	83	182032	200.0	207.3	
30 Methyl acetate	43	4.302	4.302	0.000	96	604120	1000.0	1022.9	
31 Methylene Chloride	84	4.350	4.350	0.000	77	284074	200.0	222.4	
34 trans-1,2-Dichloroethene	96	4.728	4.728	0.000	93	327210	200.0	221.6	
33 Acrylonitrile	53	4.813	4.813	0.000	97	498926	2000.0	2111.7	
35 Methyl tert-butyl ether	73	4.874	4.874	0.000	95	676968	200.0	232.6	
32 2-Methyl-2-propanol	59	4.959	4.959	0.000	91	108414	2000.0	15739	EM

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.117	5.117	0.000	68	192167	200.0	165.0	M
36 Hexane	57	5.123	5.123	0.000	93	279601	200.0	181.0	
37 1,1-Dichloroethane	63	5.354	5.354	0.000	95	463173	200.0	214.0	
44 2,2-Dichloropropane	77	6.090	6.090	0.000	81	431738	200.0	238.8	
45 cis-1,2-Dichloroethene	96	6.096	6.096	0.000	77	319466	200.0	218.0	
46 2-Butanone (MEK)	43	6.200	6.200	0.000	95	122137	400.0	307.4	M
49 Chlorobromomethane	128	6.382	6.382	0.000	82	175165	200.0	207.5	
52 Chloroform	83	6.492	6.492	0.000	93	515079	200.0	211.3	
53 1,1,1-Trichloroethane	97	6.668	6.668	0.000	97	488862	200.0	220.9	
51 Tetrahydrofuran	42	6.717	6.717	0.000	49	91097	400.0	419.0	
54 Cyclohexane	56	6.729	6.729	0.000	90	335150	200.0	214.6	
55 1,1-Dichloropropene	75	6.857	6.857	0.000	85	325477	200.0	203.6	
56 Carbon tetrachloride	117	6.857	6.857	0.000	95	499083	200.0	223.5	
58 Benzene	78	7.094	7.094	0.000	96	894044	200.0	204.9	
59 1,2-Dichloroethane	62	7.124	7.124	0.000	91	291244	200.0	197.6	
62 n-Heptane	43	7.398	7.398	0.000	60	237846	200.0	175.9	
57 Isobutyl alcohol	41	7.398	7.398	0.000	51	172903	5000.0	4858.2	
64 Trichloroethene	130	7.794	7.794	0.000	92	340389	200.0	194.6	
66 Methylcyclohexane	83	7.976	7.976	0.000	88	445685	200.0	207.3	
67 1,2-Dichloropropane	63	8.025	8.025	0.000	80	191615	200.0	192.8	
68 Dibromomethane	93	8.140	8.140	0.000	93	145705	200.0	196.9	
70 1,4-Dioxane	88	8.195	8.195	0.000	60	30498	4000.0	4390.4	M
71 Dichlorobromomethane	83	8.317	8.317	0.000	98	387516	200.0	210.3	
74 cis-1,3-Dichloropropene	75	8.767	8.767	0.000	93	390234	200.0	204.2	
75 4-Methyl-2-pentanone (MIBK	43	8.943	8.943	0.000	96	279008	400.0	340.8	
76 Toluene	91	9.102	9.102	0.000	98	956912	200.0	188.9	
77 trans-1,3-Dichloropropene	75	9.327	9.327	0.000	94	341331	200.0	193.8	
78 Ethyl methacrylate	69	9.424	9.424	0.000	86	217331	200.0	185.5	
79 1,1,2-Trichloroethane	97	9.509	9.509	0.000	93	190676	200.0	189.6	
80 Tetrachloroethene	164	9.649	9.649	0.000	91	237603	200.0	176.6	
81 1,3-Dichloropropane	76	9.673	9.673	0.000	90	293614	200.0	197.5	
82 2-Hexanone	43	9.765	9.765	0.000	98	182113	400.0	344.9	
84 Chlorodibromomethane	129	9.899	9.899	0.000	88	335369	200.0	194.0	
85 Ethylene Dibromide	107	10.008	10.008	0.000	98	225385	200.0	197.9	
87 Chlorobenzene	112	10.495	10.495	0.000	95	720342	200.0	201.7	
89 1,1,1,2-Tetrachloroethane	131	10.574	10.574	0.000	93	323190	200.0	187.2	
90 Ethylbenzene	106	10.604	10.604	0.000	98	371628	200.0	183.2	
91 m-Xylene & p-Xylene	106	10.720	10.720	0.000	99	486446	200.0	177.8	
92 o-Xylene	106	11.115	11.115	0.000	96	488878	200.0	177.9	
93 Styrene	104	11.133	11.133	0.000	93	747230	200.0	196.2	
94 Bromoform	173	11.316	11.316	0.000	93	191770	200.0	195.8	
97 Isopropylbenzene	105	11.480	11.480	0.000	95	1321455	200.0	196.9	
99 1,1,2,2-Tetrachloroethane	83	11.778	11.778	0.000	96	225373	200.0	213.6	
100 Bromobenzene	156	11.790	11.790	0.000	88	364114	200.0	228.4	
101 1,2,3-Trichloropropane	110	11.821	11.821	0.000	84	70376	200.0	197.2	
102 trans-1,4-Dichloro-2-buten	53	11.833	11.833	0.000	75	42489	200.0	190.1	
103 N-Propylbenzene	120	11.888	11.888	0.000	97	432701	200.0	221.2	
104 2-Chlorotoluene	126	11.979	11.979	0.000	96	394554	200.0	222.1	
106 1,3,5-Trimethylbenzene	105	12.064	12.064	0.000	97	1064733	200.0	232.3	
107 4-Chlorotoluene	126	12.089	12.089	0.000	96	367202	200.0	215.7	
108 tert-Butylbenzene	119	12.387	12.387	0.000	91	1134955	200.0	206.2	
110 1,2,4-Trimethylbenzene	105	12.435	12.435	0.000	96	1086394	200.0	225.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.612	12.612	0.000	94	1426582	200.0	232.8	
113 1,3-Dichlorobenzene	146	12.727	12.727	0.000	97	684814	200.0	216.6	
114 4-Isopropyltoluene	119	12.752	12.752	0.000	95	1228701	200.0	219.7	
115 1,4-Dichlorobenzene	146	12.813	12.813	0.000	94	641747	200.0	217.5	
120 n-Butylbenzene	91	13.165	13.165	0.000	96	1038682	200.0	224.1	
121 1,2-Dichlorobenzene	146	13.190	13.190	0.000	96	559641	200.0	193.6	
122 1,2-Dibromo-3-Chloropropan	75	13.968	13.962	0.006	88	32452	200.0	222.3	
126 1,2,4-Trichlorobenzene	180	14.802	14.802	0.000	94	232265	200.0	253.4	
127 Hexachlorobutadiene	225	14.972	14.972	0.000	87	118168	200.0	215.2	
128 Naphthalene	128	15.051	15.051	0.000	96	444743	200.0	296.3	
129 1,2,3-Trichlorobenzene	180	15.301	15.301	0.000	94	155579	200.0	248.1	
S 133 Xylenes, Total	106				0		400.0	355.8	
S 134 1,2-Dichloroethene, Total	96				0		400.0	439.6	
S 135 1,3-Dichloropropene, Total	1				0		400.0	398.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00108	Amount Added:	8.00	Units: uL
VOAACRO2ND_00007	Amount Added:	24.00	Units: uL
voaWVA2nd Res_00006	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260SURR_00017	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

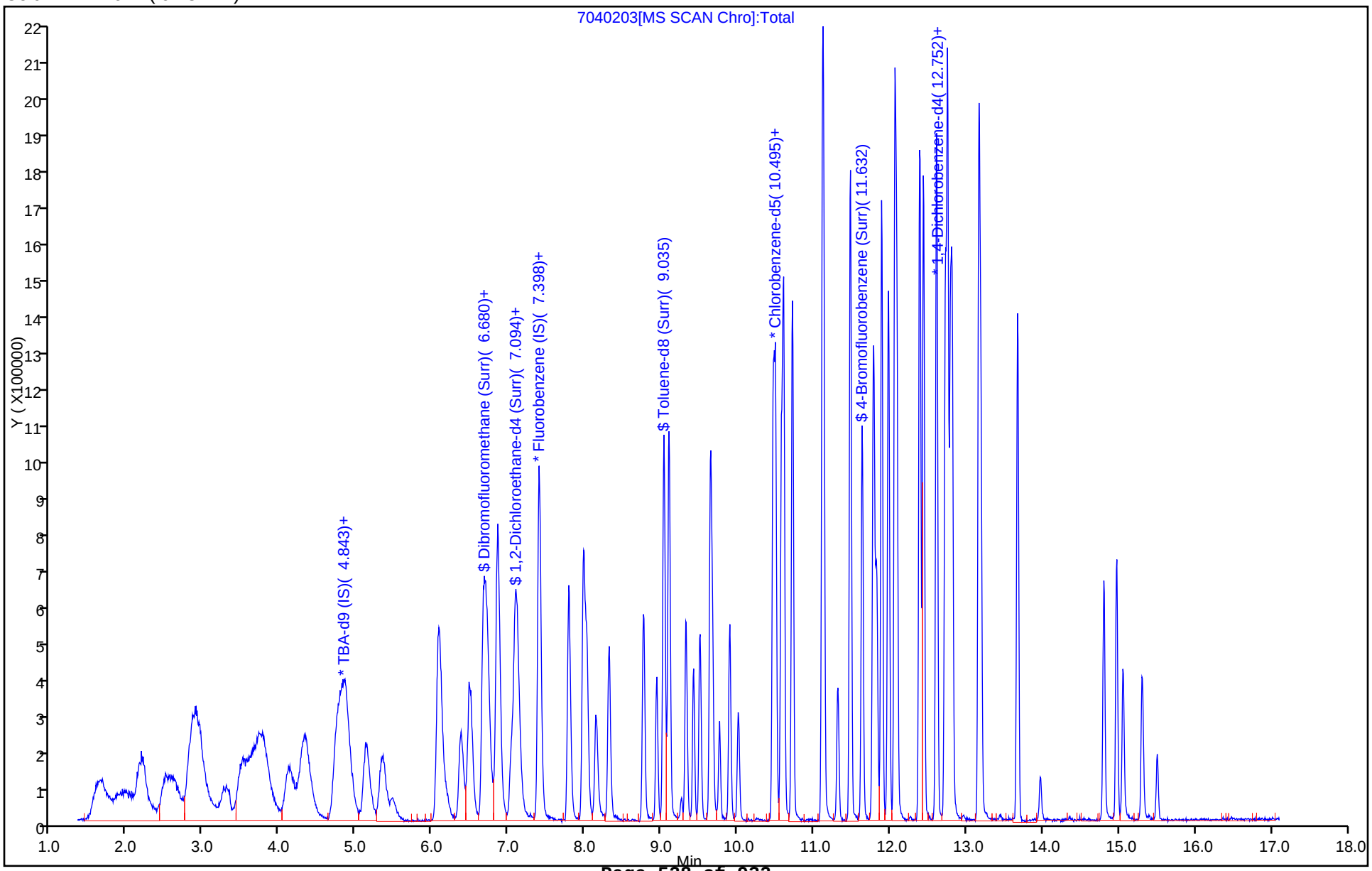
Report Date: 03-Apr-2015 10:26:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D

Injection Date:	02-Apr-2015 10:16:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

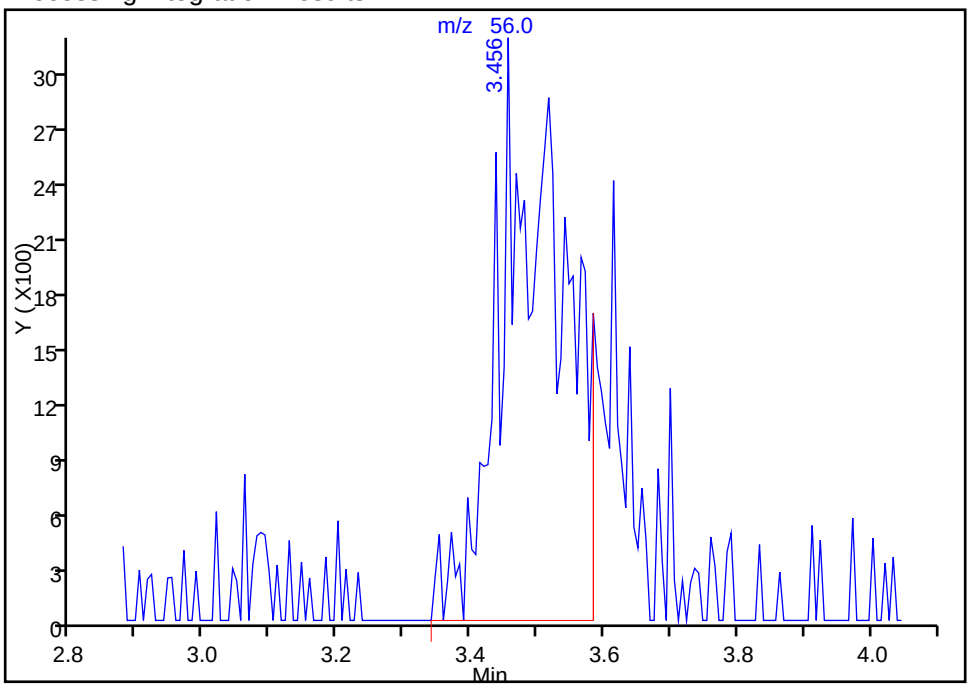
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D				
Injection Date:	02-Apr-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

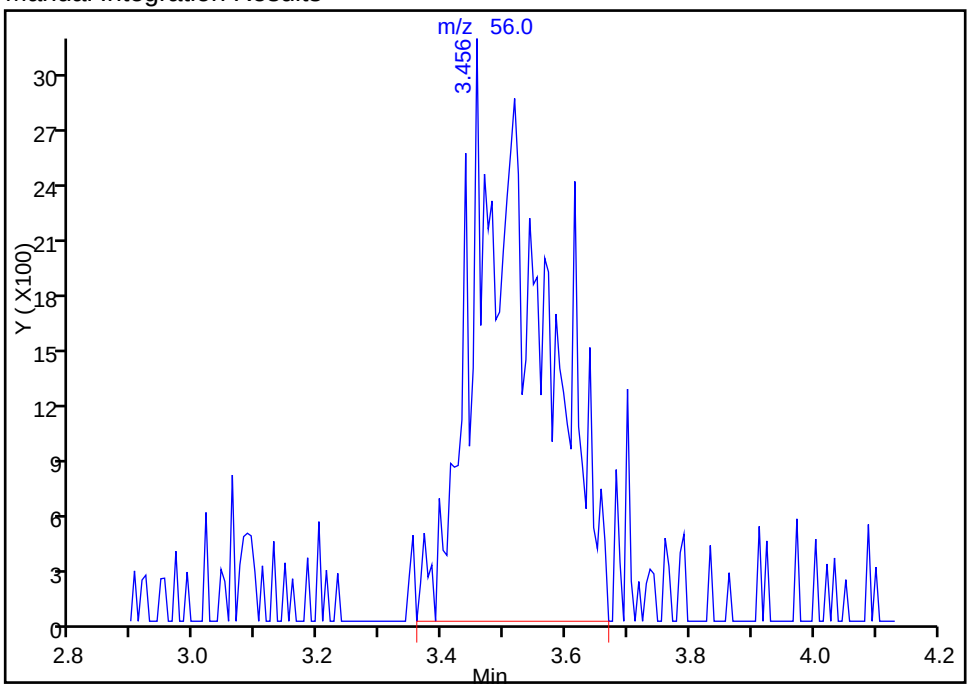
Processing Integration Results

RT: 3.46
Area: 19813
Amount: 287.3192
Amount Units: ng



Manual Integration Results

RT: 3.46
Area: 24250
Amount: 351.6625
Amount Units: ng



Reviewer: journetp, 02-Apr-2015 11:07:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

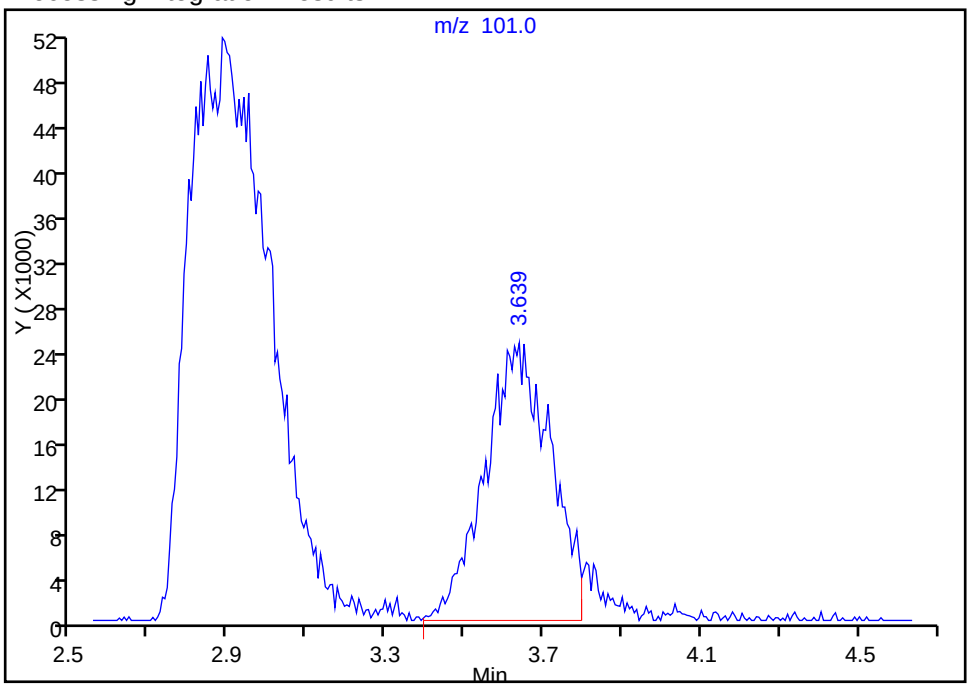
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D				
Injection Date:	02-Apr-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	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

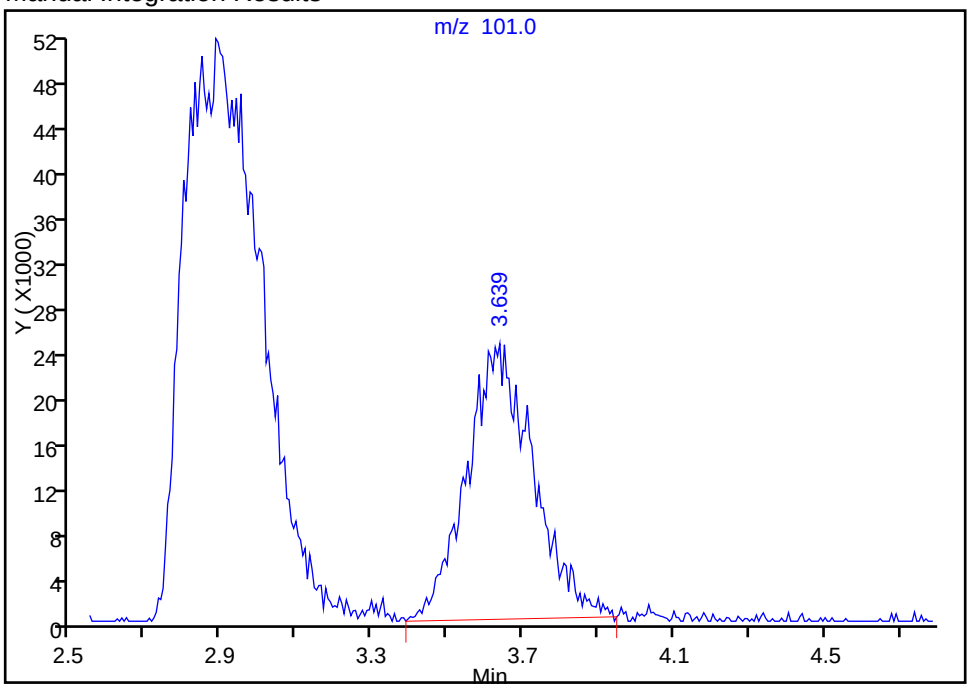
Processing Integration Results

RT: 3.64
Area: 283177
Amount: 204.6061
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 295926
Amount: 213.8178
Amount Units: ng



Reviewer: journetp, 02-Apr-2015 11:07:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

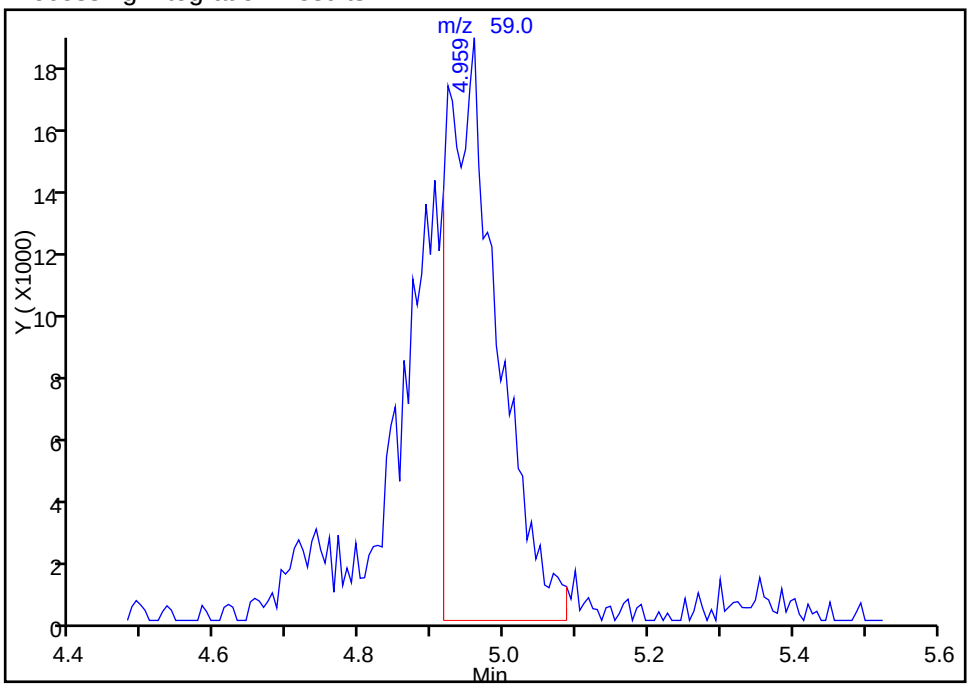
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D
Injection Date: 02-Apr-2015 10:16:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

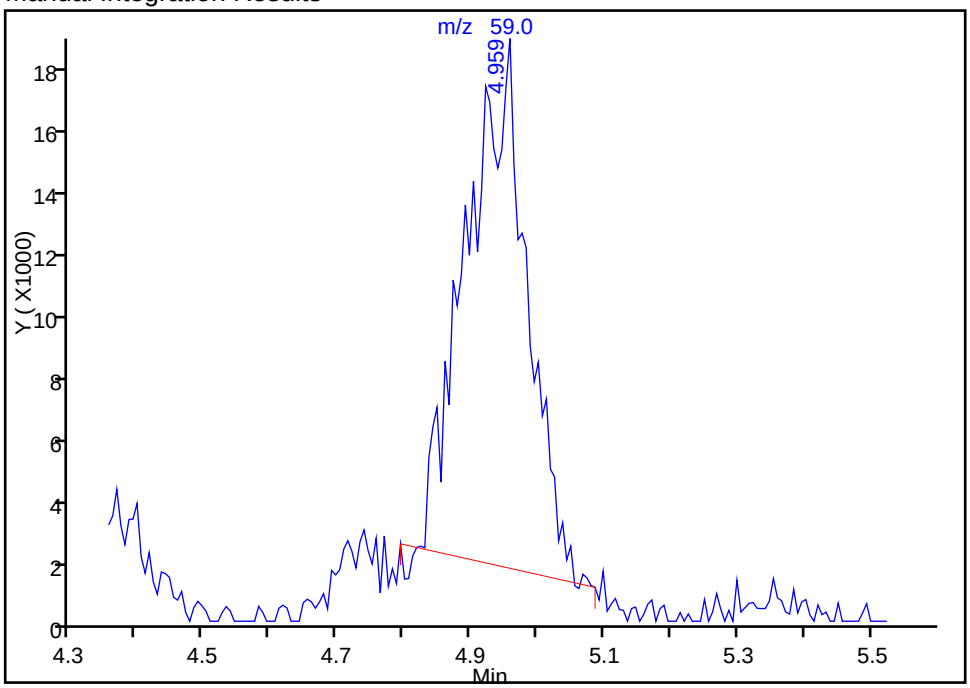
Processing Integration Results

RT: 4.96
Area: 90564
Amount: 18478
Amount Units: ng



Manual Integration Results

RT: 4.96
Area: 108414
Amount: 15739
Amount Units: ng



Reviewer: journetp, 02-Apr-2015 11:07:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

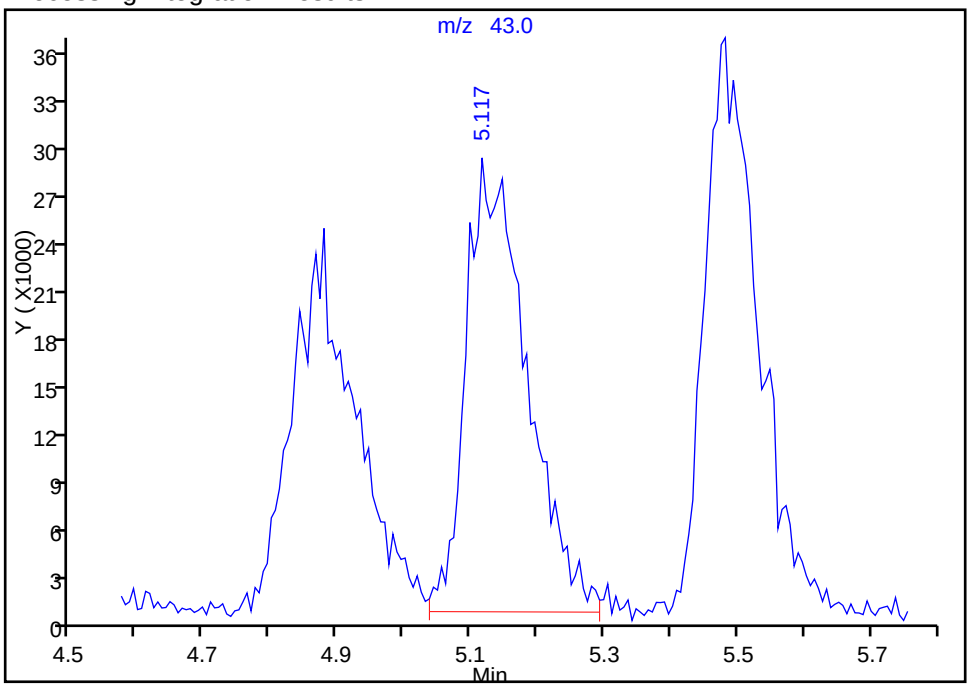
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D				
Injection Date:	02-Apr-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

38 Vinyl acetate, CAS: 108-05-4

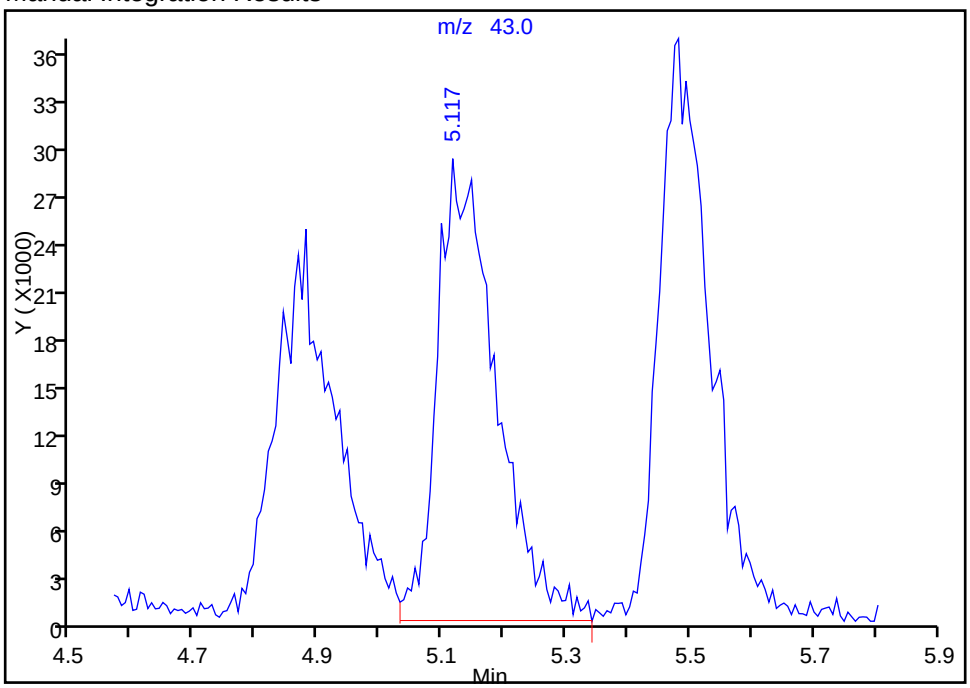
Processing Integration Results

RT: 5.12
Area: 181074
Amount: 155.4943
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 192167
Amount: 165.0202
Amount Units: ng



Reviewer: journetp, 02-Apr-2015 11:07:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

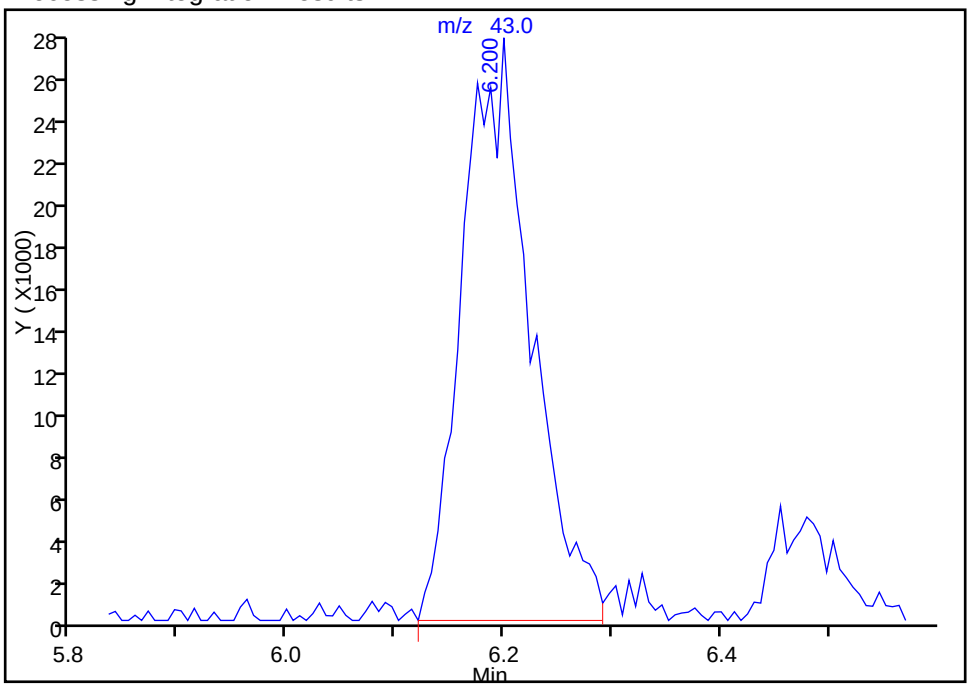
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D				
Injection Date:	02-Apr-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

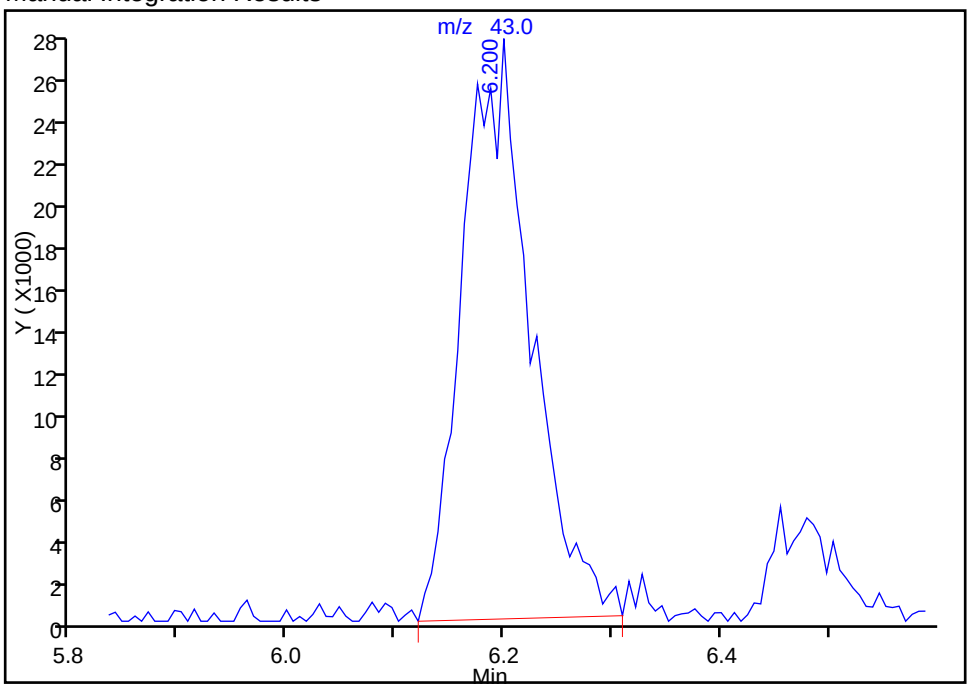
Processing Integration Results

RT: 6.20
Area: 122517
Amount: 308.3322
Amount Units: ng



Manual Integration Results

RT: 6.20
Area: 122137
Amount: 307.3759
Amount Units: ng



Reviewer: journetp, 02-Apr-2015 11:07:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

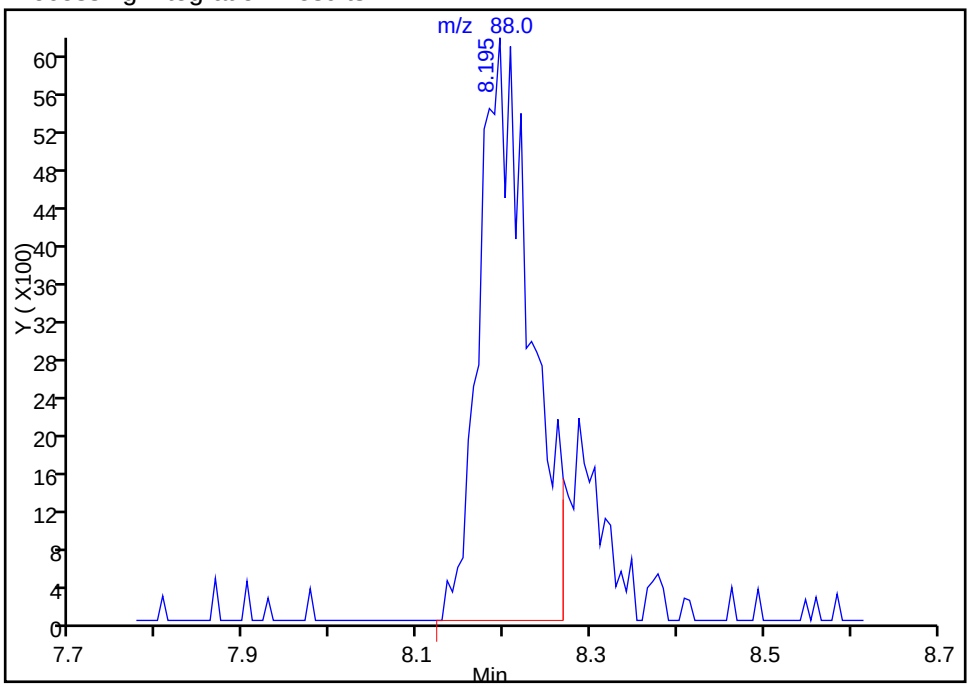
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040203.D				
Injection Date:	02-Apr-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

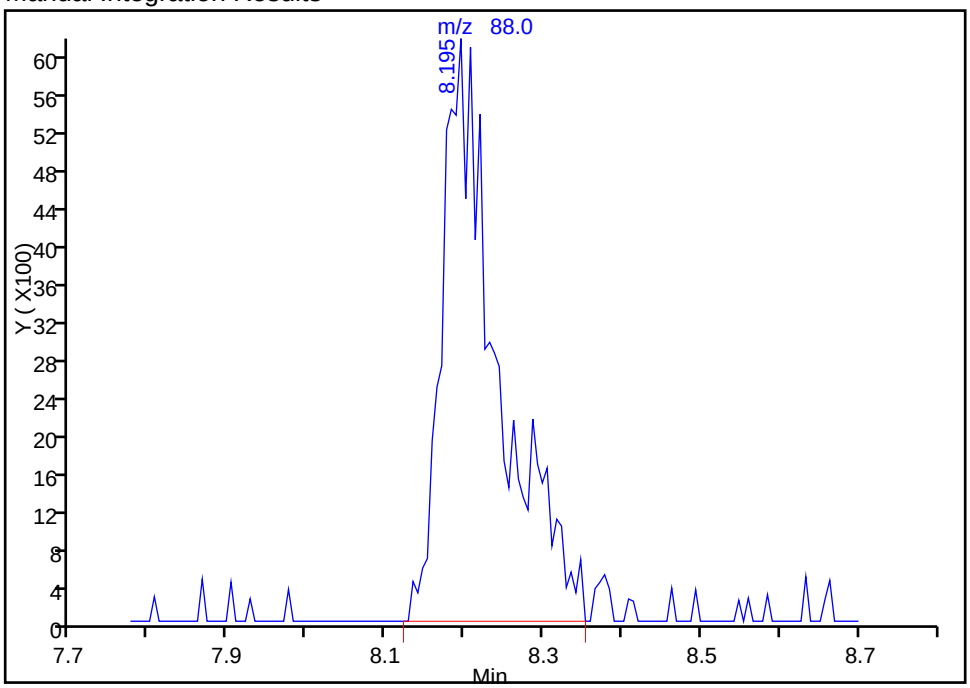
Processing Integration Results

RT: 8.20
Area: 25340
Amount: 3647.8454
Amount Units: ng



Manual Integration Results

RT: 8.20
Area: 30498
Amount: 4390.3705
Amount Units: ng



Reviewer: journetp, 02-Apr-2015 11:07:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137438/3 Calibration Date: 04/03/2015 10:07

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040302.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	0.3707	0.3962	0.1000	10.7	10.0	6.9	20.0
Chloromethane	Ave	0.4039	0.3450	0.1000	8.54	10.0	-14.6	20.0
Vinyl chloride	Ave	0.3145	0.2985	0.1000	9.49	10.0	-5.1	20.0
Bromomethane	Ave	0.2534	0.3304	0.0500	13.0	10.0	30.4*	20.0
Chloroethane	Ave	0.2537	0.2935	0.0500	11.6	10.0	15.7	20.0
Dichlorofluoromethane	Ave	0.6751	0.8098	0.0100	12.0	10.0	20.0	20.0
Trichlorofluoromethane	Ave	0.7102	0.8883	0.1000	12.5	10.0	25.1*	20.0
Ethyl ether	Ave	0.2253	0.1703	0.0100	7.56	10.0	-24.4*	20.0
Acrolein	Ave	0.0156	0.0115	0.0100	22.3	30.0	-25.8*	20.0
1,1-Dichloroethene	Ave	0.2685	0.2921	0.1000	10.9	10.0	8.8	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3122	0.3531	0.1000	11.3	10.0	13.1	20.0
Iodomethane	Ave	0.5617	0.6195	0.0100	11.0	10.0	10.3	20.0
Acetone	Lin2		0.0565	0.0500	17.4	20.0	-12.8	20.0
Carbon disulfide	Ave	0.8065	0.8614	0.1000	10.7	10.0	6.8	20.0
Allyl chloride	Ave	0.1981	0.1952	0.0100	9.85	10.0	-1.5	20.0
Methyl acetate	Ave	0.1332	0.1229	0.1000	46.1	50.0	-7.8	20.0
Methylene Chloride	Ave	0.2882	0.3088	0.1000	10.7	10.0	7.2	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3449	0.1000	10.4	10.0	3.5	20.0
Acrylonitrile	Ave	0.0533	0.0475	0.0100	89.1	100	-10.9	20.0
Methyl tert-butyl ether	Ave	0.6566	0.6464	0.1000	9.84	10.0	-1.6	20.0
tert-Butyl alcohol	Qua		1.052	0.0100	834	100	733.8*	20.0
Vinyl acetate	Ave	0.2627	0.2242	0.0100	8.53	10.0	-14.7	20.0
Hexane	Ave	0.3484	0.3002	0.0100	8.62	10.0	-13.8	20.0
1,1-Dichloroethane	Ave	0.4883	0.5046	0.2000	10.3	10.0	3.3	20.0
2,2-Dichloropropane	Ave	0.4080	0.4409	0.0100	10.8	10.0	8.1	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3335	0.1000	10.1	10.0	0.9	20.0
2-Butanone (MEK)	Ave	0.0896	0.0679	0.0500	15.2	20.0	-24.2*	20.0
Bromochloromethane	Ave	0.1904	0.1759	0.0100	9.24	10.0	-7.6	20.0
Chloroform	Ave	0.5499	0.5769	0.2000	10.5	10.0	4.9	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5197	0.1000	10.4	10.0	4.1	20.0
Tetrahydrofuran	Ave	0.0490	0.0513	0.0100	20.9	20.0	4.7	20.0
Cyclohexane	Ave	0.3523	0.3613	0.1000	10.3	10.0	2.6	20.0
Carbon tetrachloride	Ave	0.5037	0.5215	0.1000	10.4	10.0	3.5	20.0
1,1-Dichloropropene	Ave	0.3606	0.3374	0.0100	9.36	10.0	-6.4	20.0
Benzene	Ave	0.9843	0.9407	0.5000	9.56	10.0	-4.4	20.0
1,2-Dichloroethane	Ave	0.3325	0.2980	0.1000	8.96	10.0	-10.4	20.0
Isobutyl alcohol	Ave	0.0080	0.0079*	0.0100	245	250	-1.8	20.0
n-Heptane	Ave	0.3051	0.2772	0.0100	9.09	10.0	-9.1	20.0
Trichloroethene	Ave	0.3946	0.3842	0.2000	9.74	10.0	-2.6	20.0
Methylcyclohexane	Ave	0.4851	0.5001	0.1000	10.3	10.0	3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137438/3 Calibration Date: 04/03/2015 10:07

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040302.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	0.2242	0.2078	0.1000	9.27	10.0	-7.3	20.0
Dibromomethane	Ave	0.1670	0.1476	0.0100	8.84	10.0	-11.6	20.0
1,4-Dioxane	Ave	0.0016	0.0014*	0.0100	173	200	-13.3	20.0
Bromodichloromethane	Ave	0.4157	0.4164	0.2000	10.0	10.0	0.2	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4094	0.2000	9.49	10.0	-5.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.5060	0.1000	17.3	20.0	-13.4	20.0
Toluene	Qua		3.597	0.4000	10.1	10.0	0.6	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.150	0.1000	9.15	10.0	-8.5	20.0
Ethyl methacrylate	Ave	0.8363	0.7285	0.0100	8.71	10.0	-12.9	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6584	0.1000	9.17	10.0	-8.3	20.0
Tetrachloroethene	Qua		0.8734	0.2000	9.14	10.0	-8.6	20.0
1,3-Dichloropropane	Ave	1.061	0.9619	0.0100	9.07	10.0	-9.3	20.0
2-Hexanone	Ave	0.3770	0.3047	0.1000	16.2	20.0	-19.2	20.0
Dibromochloromethane	Ave	1.234	1.183	0.1000	9.58	10.0	-4.2	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7577	0.1000	9.32	10.0	-6.8	20.0
Chlorobenzene	Ave	2.549	2.567	0.5000	10.1	10.0	0.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.164	0.0100	9.44	10.0	-5.6	20.0
Ethylbenzene	Ave	1.449	1.311	0.1000	9.05	10.0	-9.5	20.0
m-Xylene & p-Xylene	Ave	1.953	1.781	0.1000	9.12	10.0	-8.8	20.0
o-Xylene	Ave	1.961	1.841	0.3000	9.38	10.0	-6.2	20.0
Styrene	Qua		2.842	0.3000	10.6	10.0	6.0	20.0
Bromoform	Ave	0.6992	0.6621	0.1000	9.47	10.0	-5.3	20.0
Isopropylbenzene	Qua		5.028	0.1000	10.7	10.0	6.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.7822	0.3000	10.4	10.0	3.8	20.0
Bromobenzene	Ave	0.8571	0.9553	0.0100	11.1	10.0	11.5	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.1913	0.0100	9.97	10.0	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1173	0.0100	9.76	10.0	-2.4	20.0
N-Propylbenzene	Ave	1.052	1.202	0.0100	11.4	10.0	14.2	20.0
2-Chlorotoluene	Ave	0.9551	1.111	0.0100	11.6	10.0	16.3	20.0
1,3,5-Trimethylbenzene	Qua		3.034	0.0100	12.5	10.0	24.8*	20.0
4-Chlorotoluene	Ave	0.9153	1.026	0.0100	11.2	10.0	12.1	20.0
tert-Butylbenzene	Lin2	3.243	3.187	0.0100	10.8	10.0	7.9	20.0
1,2,4-Trimethylbenzene	Qua		3.016	0.0100	11.7	10.0	17.1	20.0
sec-Butylbenzene	Qua		4.038	0.0100	12.4	10.0	23.9*	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.878	0.6000	11.1	10.0	10.6	20.0
4-Isopropyltoluene	Qua		3.387	0.0100	11.3	10.0	13.3	20.0
1,4-Dichlorobenzene	Ave	1.587	1.694	0.5000	10.7	10.0	6.8	20.0
n-Butylbenzene	Qua		2.827	0.0100	11.4	10.0	13.8	20.0
1,2-Dichlorobenzene	Ave	1.554	1.471	0.4000	9.46	10.0	-5.4	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0625	0.0500	8.07	10.0	-19.3	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.1777*	0.2000	3.61	10.0	-63.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137438/3 Calibration Date: 04/03/2015 10:07

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040302.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
Hexachlorobutadiene	Ave	0.2953	0.1634	0.0100	5.53	10.0	-44.7*	20.0
Naphthalene	Ave	0.8071	0.2125	0.0100	2.63	10.0	-73.7*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.0564	0.0100	1.67	10.0	-83.3*	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3133		9.82	10.0	-1.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2715		8.93	10.0	-10.7	20.0
Toluene-d8 (Surr)	Ave	2.966	3.263		11.0	10.0	10.0	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.394		10.5	10.0	5.4	20.0

Report Date: 03-Apr-2015 17:14:14 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Apr-2015 10:07:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006312-002
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub8

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 17:14:14 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: journetp Date: 03-Apr-2015 10:53:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.786	4.786	0.000	71	208032	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.402	0.000	95	855803	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	84	254591	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	95	334075	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.678	0.000	74	268091	200.0	196.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.043	0.000	62	232346	200.0	178.5	
$ 7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	92	830813	200.0	220.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	91	354879	200.0	210.9	
11 Dichlorodifluoromethane	85	1.963	1.963	0.000	78	339106	200.0	213.8	
12 Chloromethane	50	2.000	2.000	0.000	84	295209	200.0	170.8	
14 Butadiene	39	2.207	2.207	0.000	97	277226	200.0	195.1	
13 Vinyl chloride	62	2.219	2.219	0.000	91	255437	200.0	189.8	
15 Bromomethane	94	2.511	2.511	0.000	96	282717	200.0	260.7	
16 Chloroethane	64	2.626	2.626	0.000	72	251170	200.0	231.4	
17 Dichlorofluoromethane	67	2.888	2.888	0.000	91	693005	200.0	239.9	
18 Trichlorofluoromethane	101	2.906	2.906	0.000	72	760214	200.0	250.2	
20 Ethyl ether	59	3.320	3.320	0.000	81	145752	200.0	151.2	M
21 Acrolein	56	3.478	3.478	0.000	23	29637	600.0	445.2	
22 1,1-Dichloroethene	96	3.527	3.527	0.000	84	250008	200.0	217.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.673	3.673	0.000	89	302198	200.0	226.2	
25 Iodomethane	142	3.758	3.758	0.000	98	530151	200.0	220.6	
24 Acetone	43	3.801	3.801	0.000	25	96667	400.0	348.8	M
26 Carbon disulfide	76	3.825	3.825	0.000	99	737174	200.0	213.6	M
28 3-Chloro-1-propene	76	4.135	4.135	0.000	83	167048	200.0	197.1	
30 Methyl acetate	43	4.318	4.318	0.000	99	525673	1000.0	921.9	
31 Methylene Chloride	84	4.354	4.354	0.000	84	264303	200.0	214.3	
34 trans-1,2-Dichloroethene	96	4.756	4.756	0.000	89	295142	200.0	207.0	
33 Acrylonitrile	53	4.816	4.816	0.000	98	406666	2000.0	1783.0	M
35 Methyl tert-butyl ether	73	4.865	4.865	0.000	98	553169	200.0	196.9	
32 2-Methyl-2-propanol	59	4.902	4.902	0.000	42	109435	2000.0	16676	E

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.145	5.145	0.000	74	191830	200.0	170.6	
36 Hexane	57	5.151	5.151	0.000	94	256921	200.0	172.3	
37 1,1-Dichloroethane	63	5.364	5.364	0.000	95	431832	200.0	206.7	
44 2,2-Dichloropropane	77	6.088	6.088	0.000	87	377286	200.0	216.1	
45 cis-1,2-Dichloroethene	96	6.112	6.112	0.000	76	285440	200.0	201.8	
46 2-Butanone (MEK)	43	6.179	6.179	0.000	97	116281	400.0	303.1	
49 Chlorobromomethane	128	6.380	6.380	0.000	84	150552	200.0	184.8	
52 Chloroform	83	6.502	6.502	0.000	92	493712	200.0	209.8	
53 1,1,1-Trichloroethane	97	6.678	6.678	0.000	96	444795	200.0	208.2	
51 Tetrahydrofuran	42	6.727	6.727	0.000	50	87853	400.0	418.6	
54 Cyclohexane	56	6.733	6.733	0.000	87	309216	200.0	205.1	
56 Carbon tetrachloride	117	6.861	6.861	0.000	93	446291	200.0	207.1	
55 1,1-Dichloropropene	75	6.873	6.873	0.000	82	288747	200.0	187.1	
58 Benzene	78	7.098	7.098	0.000	95	805011	200.0	191.1	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	97	255030	200.0	179.3	
62 n-Heptane	43	7.408	7.408	0.000	60	237220	200.0	181.7	
57 Isobutyl alcohol	41	7.408	7.408	0.000	51	168695	5000.0	4909.9	
64 Trichloroethene	130	7.797	7.797	0.000	93	328796	200.0	194.7	
66 Methylcyclohexane	83	7.986	7.986	0.000	86	427960	200.0	206.2	
67 1,2-Dichloropropane	63	8.035	8.035	0.000	81	177841	200.0	185.4	
68 Dibromomethane	93	8.150	8.150	0.000	94	126308	200.0	176.8	
70 1,4-Dioxane	88	8.187	8.187	0.000	31	23261	4000.0	3468.6	M
71 Dichlorobromomethane	83	8.321	8.321	0.000	97	356393	200.0	200.4	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	92	350386	200.0	189.9	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	96	257664	400.0	346.3	
76 Toluene	91	9.105	9.105	0.000	99	915700	200.0	201.1	
77 trans-1,3-Dichloropropene	75	9.330	9.330	0.000	95	292738	200.0	182.9	
78 Ethyl methacrylate	69	9.422	9.422	0.000	88	185471	200.0	174.2	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	92	167618	200.0	183.4	
80 Tetrachloroethene	164	9.647	9.647	0.000	92	222347	200.0	182.9	
81 1,3-Dichloropropane	76	9.677	9.677	0.000	92	244900	200.0	181.3	
82 2-Hexanone	43	9.762	9.762	0.000	95	155121	400.0	323.3	
84 Chlorodibromomethane	129	9.896	9.896	0.000	89	301060	200.0	191.7	
85 Ethylene Dibromide	107	10.018	10.018	0.000	97	192891	200.0	186.3	
87 Chlorobenzene	112	10.498	10.498	0.000	95	653527	200.0	201.4	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	92	296307	200.0	188.9	
90 Ethylbenzene	106	10.608	10.608	0.000	98	333891	200.0	181.1	
91 m-Xylene & p-Xylene	106	10.724	10.724	0.000	98	453542	200.0	182.4	
92 o-Xylene	106	11.113	11.113	0.000	95	468594	200.0	187.7	
93 Styrene	104	11.131	11.131	0.000	93	723487	200.0	212.0	
94 Bromoform	173	11.314	11.314	0.000	93	168570	200.0	189.4	
97 Isopropylbenzene	105	11.484	11.484	0.000	95	1280100	200.0	213.4	
99 1,1,2,2-Tetrachloroethane	83	11.776	11.776	0.000	96	199137	200.0	207.7	
100 Bromobenzene	156	11.788	11.788	0.000	87	319156	200.0	222.9	
101 1,2,3-Trichloropropane	110	11.825	11.825	0.000	85	63911	200.0	199.4	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	73	39176	200.0	195.1	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	401409	200.0	228.4	
104 2-Chlorotoluene	126	11.983	11.983	0.000	95	371077	200.0	232.6	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	97	1013509	200.0	249.5	
107 4-Chlorotoluene	126	12.092	12.092	0.000	96	342792	200.0	224.2	
108 tert-Butylbenzene	119	12.390	12.390	0.000	91	1064750	200.0	215.8	
110 1,2,4-Trimethylbenzene	105	12.439	12.439	0.000	96	1007648	200.0	234.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.609	12.609	0.000	94	1348936	200.0	247.8	
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	98	627397	200.0	221.2	
114 4-Isopropyltoluene	119	12.755	12.755	0.000	95	1131626	200.0	226.7	
115 1,4-Dichlorobenzene	146	12.810	12.810	0.000	93	566068	200.0	213.6	
120 n-Butylbenzene	91	13.163	13.163	0.000	96	944293	200.0	227.5	
121 1,2-Dichlorobenzene	146	13.187	13.187	0.000	98	491328	200.0	189.2	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.966	0.006	87	20884	200.0	161.5	
126 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	93	59378	200.0	72.1	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	86	54592	200.0	110.7	
128 Naphthalene	128	15.061	15.061	0.000	96	70999	200.0	52.7	
129 1,2,3-Trichlorobenzene	180	15.317	15.317	0.000	88	18826	200.0	33.4	
S 134 1,2-Dichloroethene, Total	96				0		400.0	408.8	
S 133 Xylenes, Total	106				0		400.0	370.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	372.8	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00108	Amount Added:	8.00	Units: uL
VOAACRO2ND_00007	Amount Added:	24.00	Units: uL
voaWVA2nd Res_00006	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260SURR_00017	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

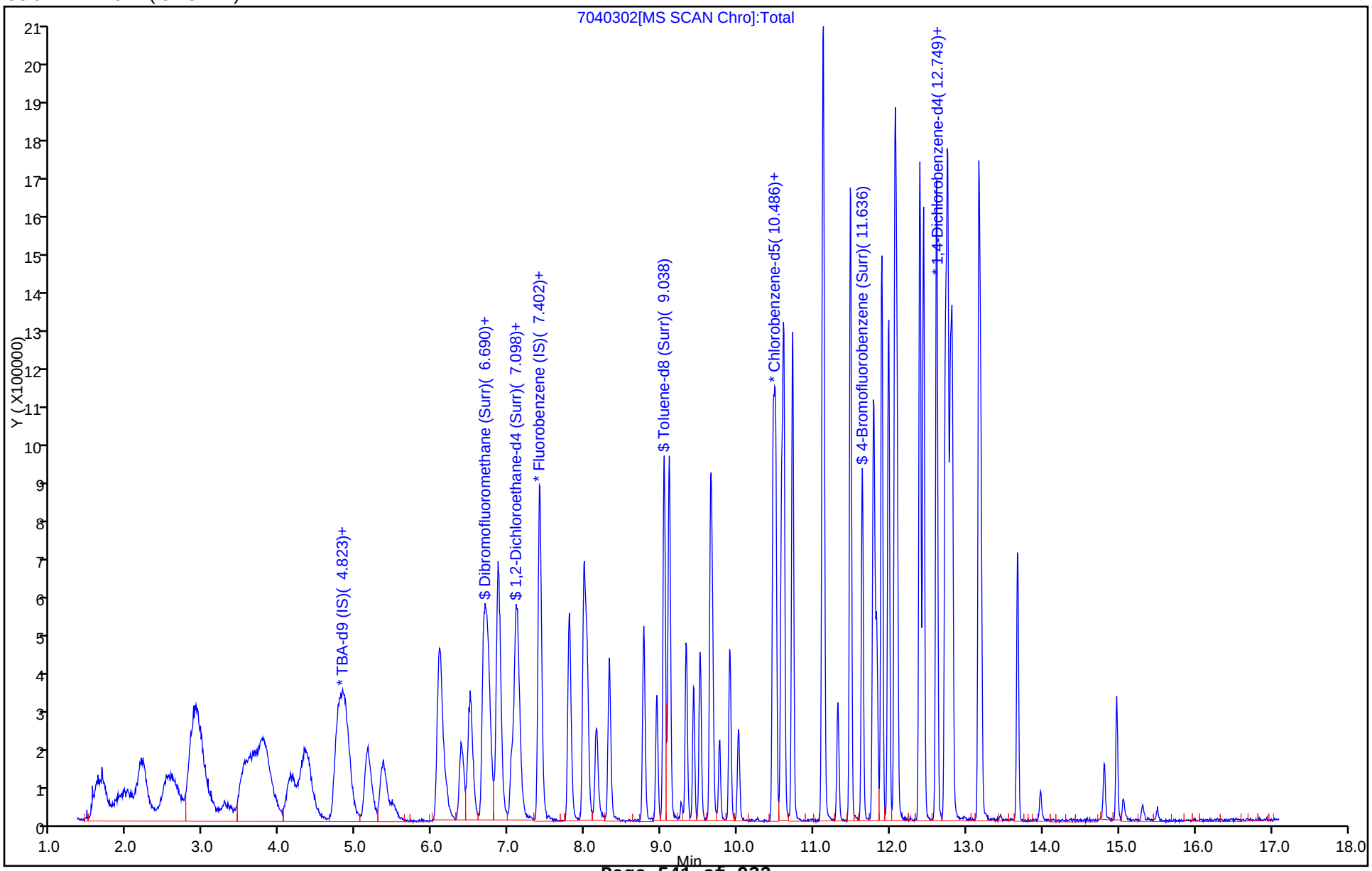
Report Date: 03-Apr-2015 17:14:14 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D

Injection Date:	03-Apr-2015 10:07:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

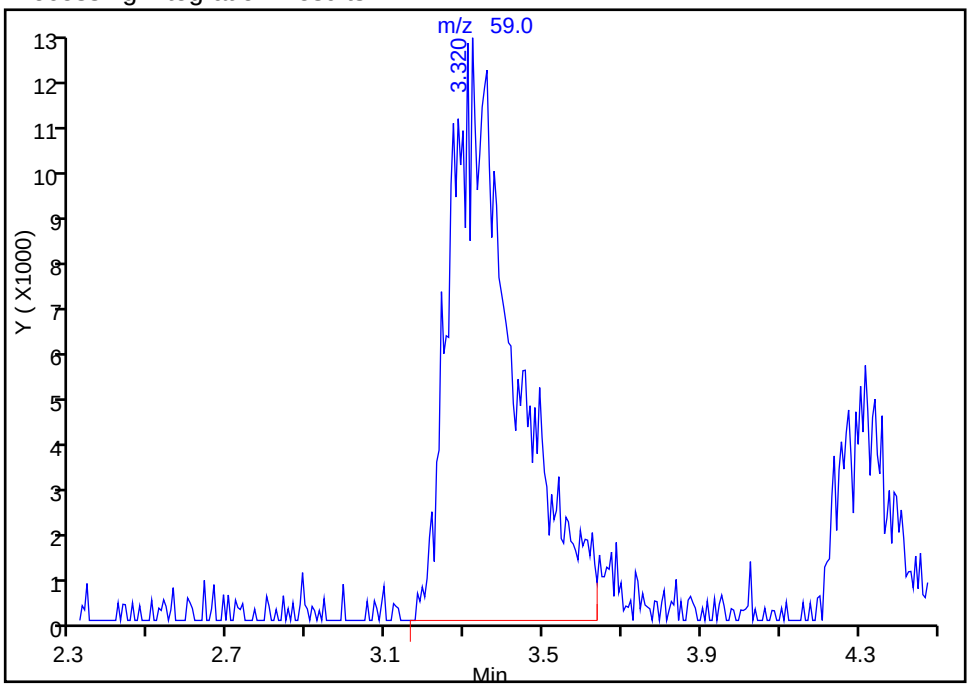
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D				
Injection Date:	03-Apr-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

20 Ethyl ether, CAS: 60-29-7

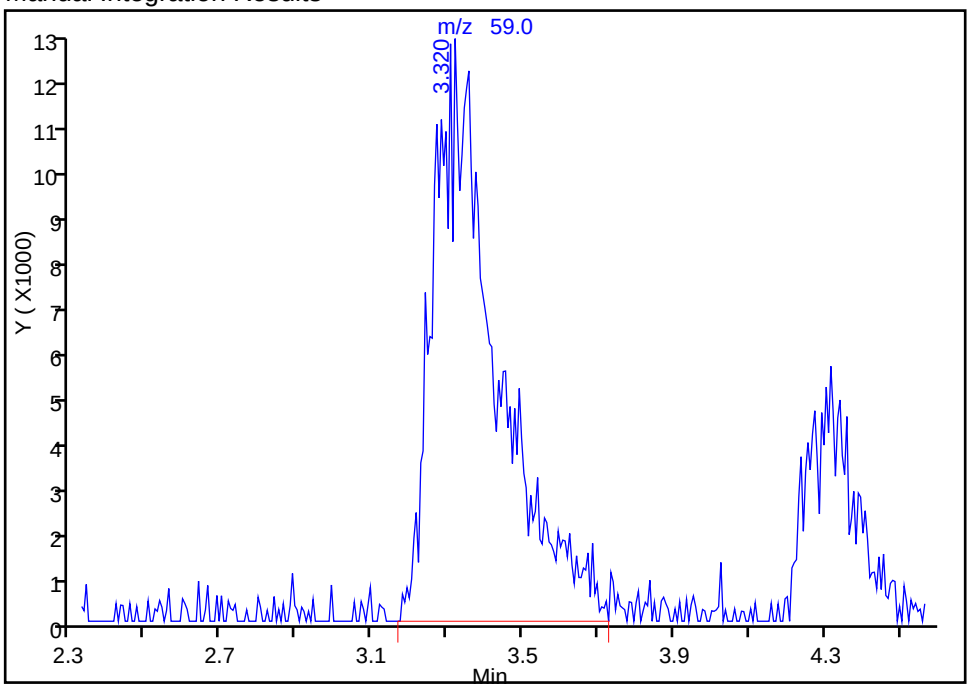
Processing Integration Results

RT: 3.32
Area: 141420
Amount: 146.6632
Amount Units: ng



Manual Integration Results

RT: 3.32
Area: 145752
Amount: 151.1558
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:53:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

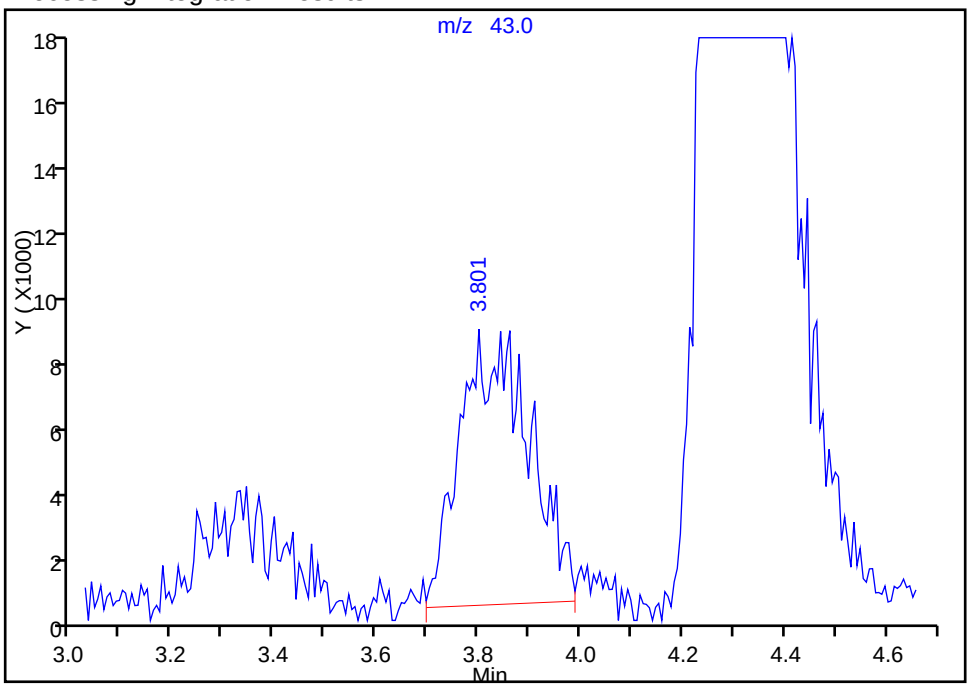
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D				
Injection Date:	03-Apr-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

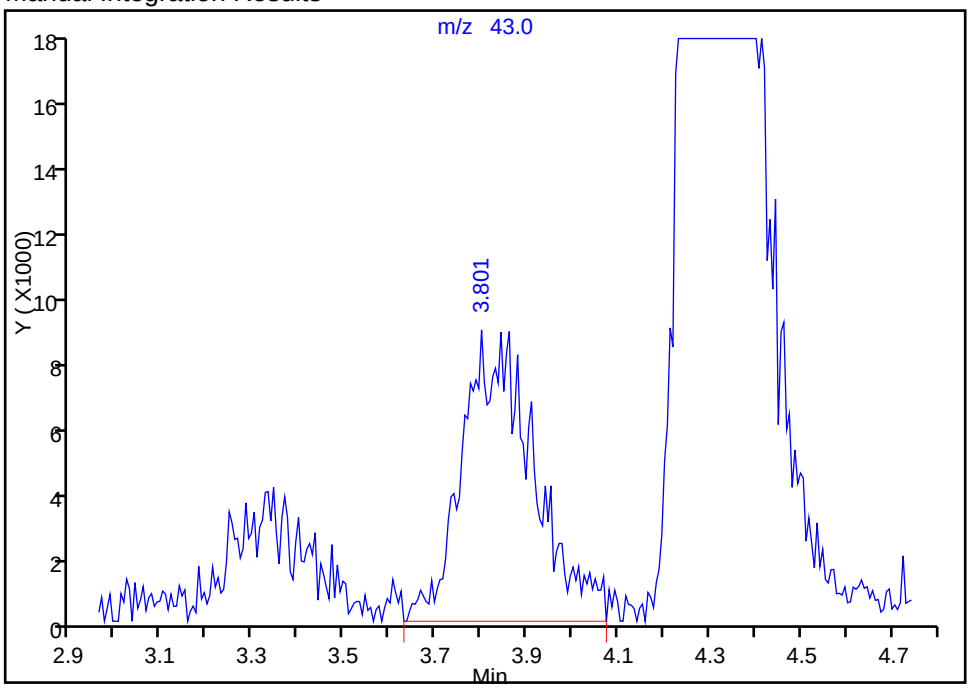
Processing Integration Results

RT: 3.80
Area: 79541
Amount: 273.7960
Amount Units: ng



Manual Integration Results

RT: 3.80
Area: 96667
Amount: 348.8348
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:53:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

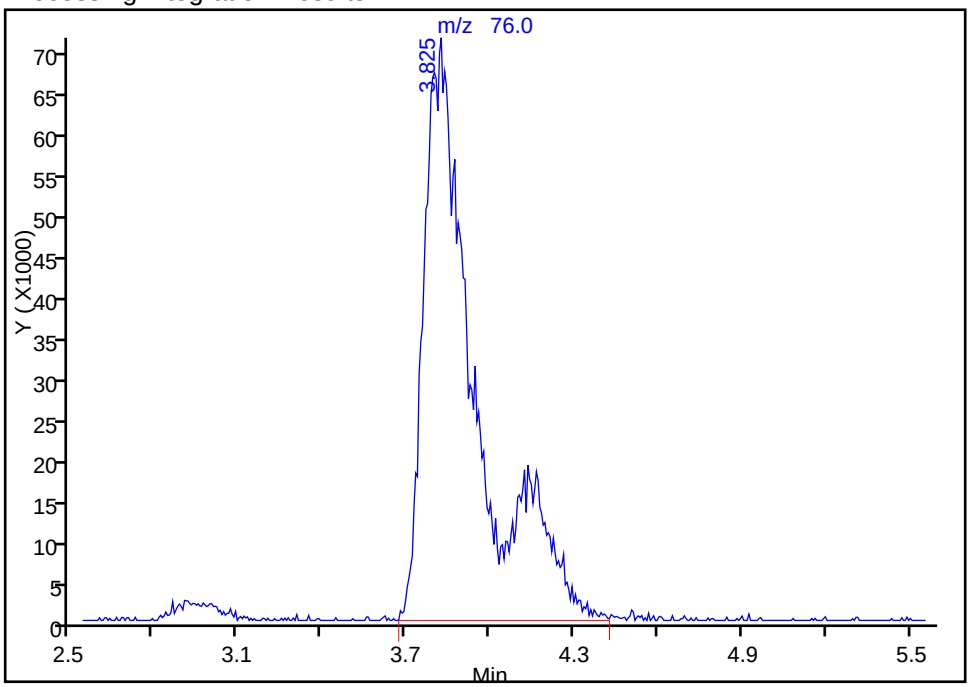
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D				
Injection Date:	03-Apr-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

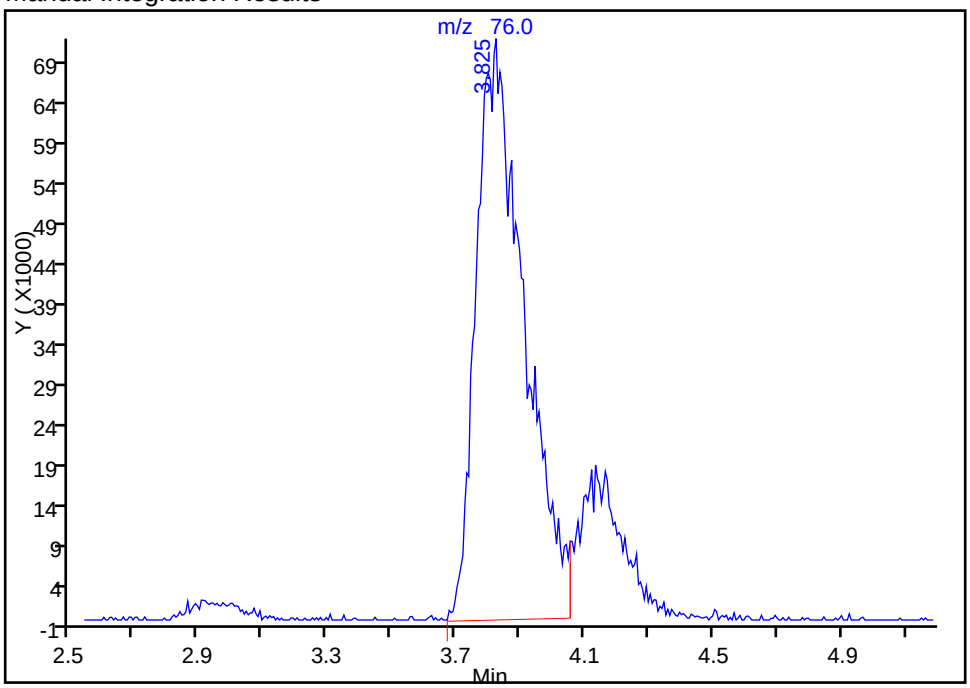
Processing Integration Results

RT: 3.82
Area: 907237
Amount: 262.8769
Amount Units: ng



Manual Integration Results

RT: 3.82
Area: 737174
Amount: 213.6002
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:53:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

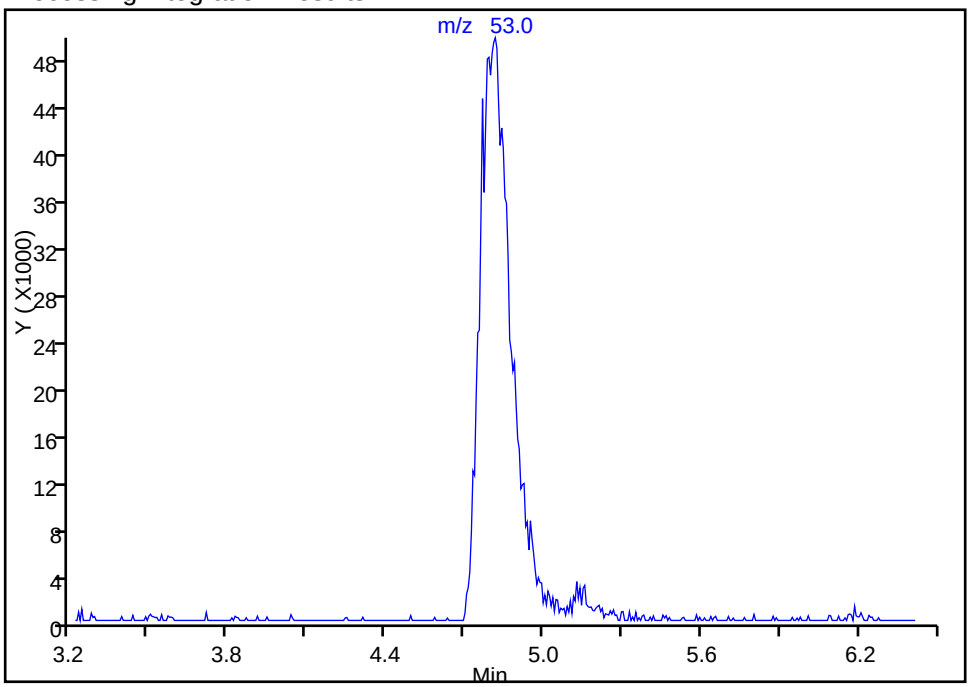
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D				
Injection Date:	03-Apr-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

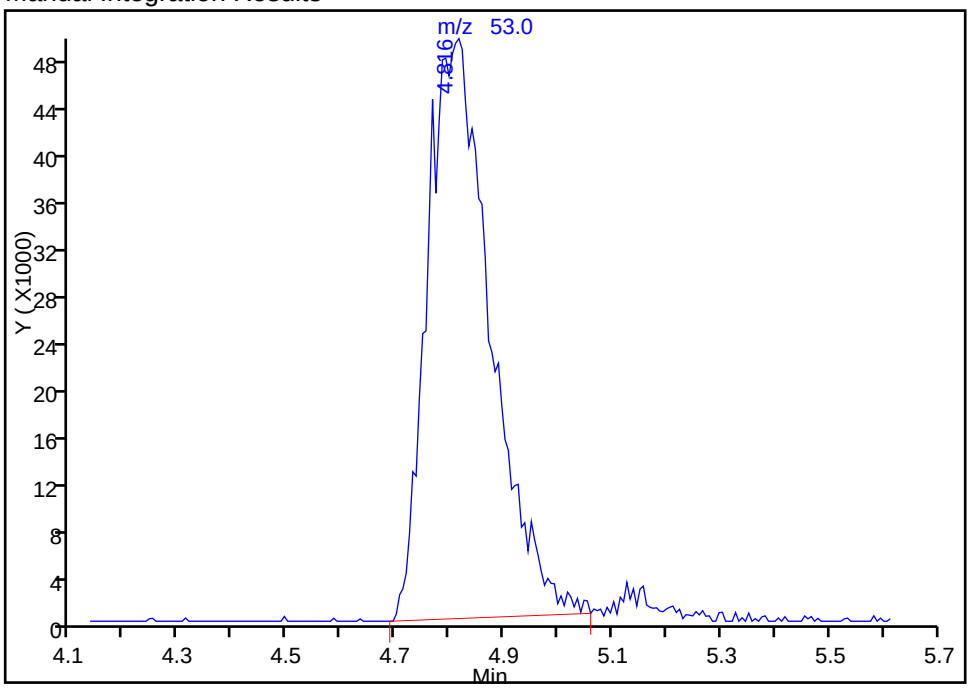
Not Detected
Expected RT: 4.82

Processing Integration Results



Manual Integration Results

RT: 4.82
Area: 406666
Amount: 1782.9580
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:53:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

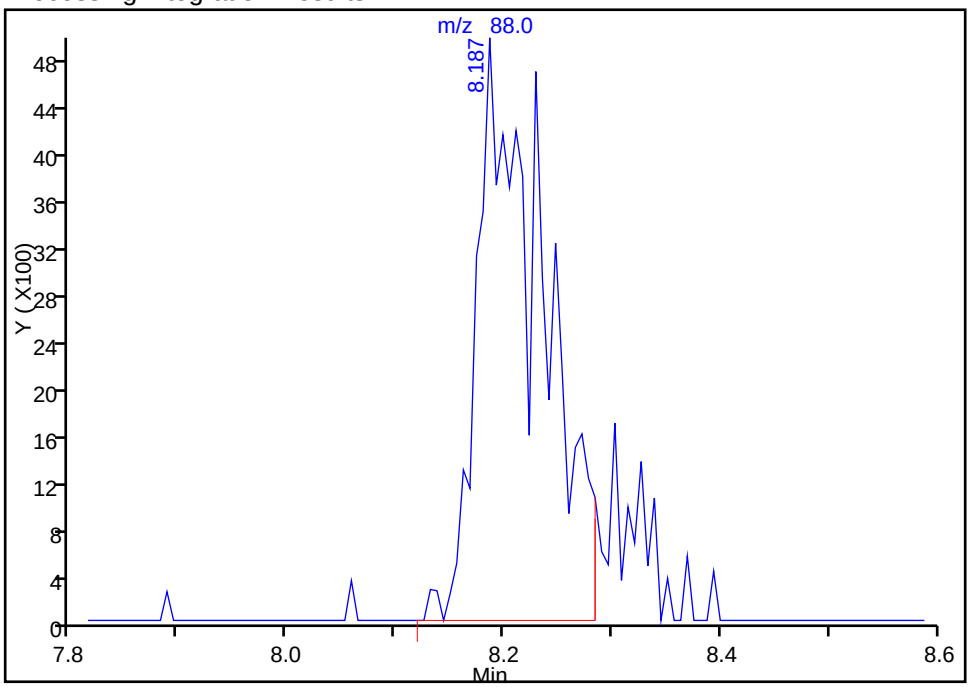
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040302.D				
Injection Date:	03-Apr-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

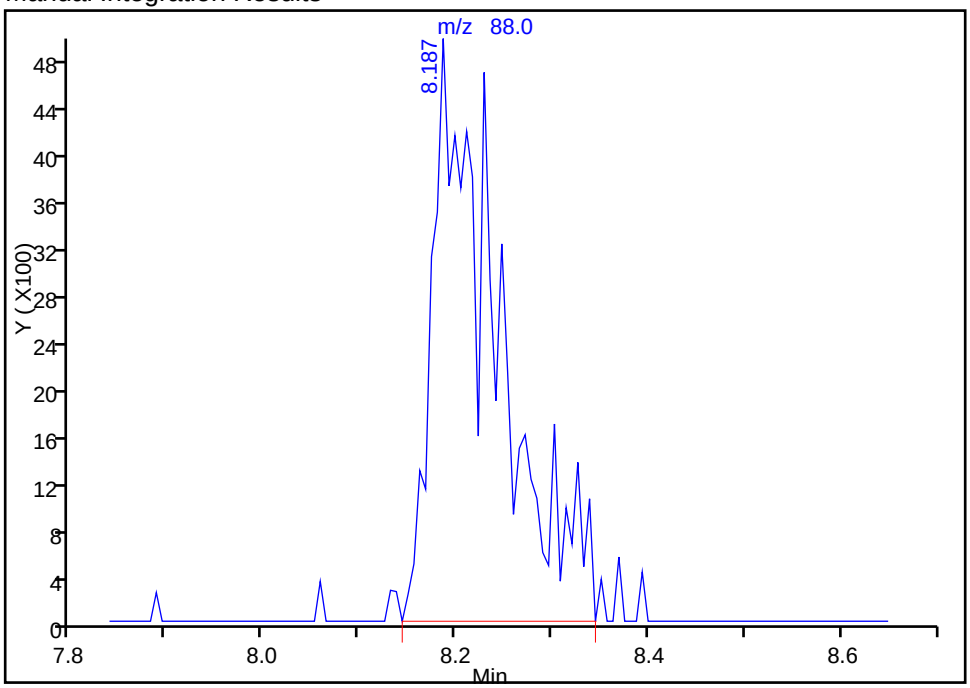
Processing Integration Results

RT: 8.19
Area: 20710
Amount: 3088.2217
Amount Units: ng



Manual Integration Results

RT: 8.19
Area: 23261
Amount: 3468.6203
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 10:53:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137512/3 Calibration Date: 04/04/2015 14:19

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040403.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	0.3707	0.4032	0.1000	10.9	10.0	8.8	20.0
Chloromethane	Ave	0.4039	0.4255	0.1000	10.5	10.0	5.4	20.0
Vinyl chloride	Ave	0.3145	0.3309	0.1000	10.5	10.0	5.2	20.0
Bromomethane	Ave	0.2534	0.3650	0.0500	14.4	10.0	44.0*	20.0
Chloroethane	Ave	0.2537	0.3187	0.0500	12.6	10.0	25.6*	20.0
Dichlorofluoromethane	Ave	0.6751	0.8479	0.0100	12.6	10.0	25.6*	20.0
Trichlorofluoromethane	Ave	0.7102	0.9237	0.1000	13.0	10.0	30.1*	20.0
Ethyl ether	Ave	0.2253	0.1638	0.0100	7.27	10.0	-27.3*	20.0
Acrolein	Ave	0.0156	0.0127	0.0100	24.5	30.0	-18.4	20.0
1,1-Dichloroethene	Ave	0.2685	0.2841	0.1000	10.6	10.0	5.8	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3122	0.3641	0.1000	11.7	10.0	16.6	20.0
Iodomethane	Ave	0.5617	0.6556	0.0100	11.7	10.0	16.7	20.0
Carbon disulfide	Ave	0.8065	0.8765	0.1000	10.9	10.0	8.7	20.0
Acetone	Lin2		0.0558	0.0500	17.2	20.0	-14.0	20.0
Allyl chloride	Ave	0.1981	0.2057	0.0100	10.4	10.0	3.8	20.0
Methyl acetate	Ave	0.1332	0.1186	0.1000	44.5	50.0	-11.0	20.0
Methylene Chloride	Ave	0.2882	0.3197	0.1000	11.1	10.0	10.9	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3483	0.1000	10.5	10.0	4.5	20.0
Acrylonitrile	Ave	0.0533	0.0454	0.0100	85.2	100	-14.8	20.0
Methyl tert-butyl ether	Ave	0.6566	0.6554	0.1000	9.98	10.0	-0.2	20.0
tert-Butyl alcohol	Qua		0.4273	0.0100	435	100	334.6*	20.0
Vinyl acetate	Ave	0.2627	0.2146	0.0100	8.17	10.0	-18.3	20.0
Hexane	Ave	0.3484	0.3212	0.0100	9.22	10.0	-7.8	20.0
1,1-Dichloroethane	Ave	0.4883	0.5211	0.2000	10.7	10.0	6.7	20.0
2,2-Dichloropropane	Ave	0.4080	0.4819	0.0100	11.8	10.0	18.1	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3377	0.1000	10.2	10.0	2.1	20.0
2-Butanone (MEK)	Ave	0.0896	0.0623	0.0500	13.9	20.0	-30.6*	20.0
Bromochloromethane	Ave	0.1904	0.1813	0.0100	9.52	10.0	-4.8	20.0
Chloroform	Ave	0.5499	0.5739	0.2000	10.4	10.0	4.4	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5390	0.1000	10.8	10.0	7.9	20.0
Cyclohexane	Ave	0.3523	0.3592	0.1000	10.2	10.0	1.9	20.0
Tetrahydrofuran	Ave	0.0490	0.0531	0.0100	21.6	20.0	8.2	20.0
Carbon tetrachloride	Ave	0.5037	0.5463	0.1000	10.8	10.0	8.4	20.0
1,1-Dichloropropene	Ave	0.3606	0.3389	0.0100	9.40	10.0	-6.0	20.0
Benzene	Ave	0.9843	0.9480	0.5000	9.63	10.0	-3.7	20.0
1,2-Dichloroethane	Ave	0.3325	0.3080	0.1000	9.26	10.0	-7.4	20.0
Isobutyl alcohol	Ave	0.0080	0.0076*	0.0100	238	250	-4.9	20.0
n-Heptane	Ave	0.3051	0.2697	0.0100	8.84	10.0	-11.6	20.0
Trichloroethene	Ave	0.3946	0.3771	0.2000	9.56	10.0	-4.4	20.0
Methylcyclohexane	Ave	0.4851	0.5152	0.1000	10.6	10.0	6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137512/3 Calibration Date: 04/04/2015 14:19

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040403.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	0.2242	0.2045	0.1000	9.12	10.0	-8.8	20.0
Dibromomethane	Ave	0.1670	0.1516	0.0100	9.08	10.0	-9.2	20.0
1,4-Dioxane	Ave	0.0016	0.0014*	0.0100	183	200	-8.4	20.0
Bromodichloromethane	Ave	0.4157	0.4161	0.2000	10.0	10.0	0.0	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4051	0.2000	9.39	10.0	-6.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.4786	0.1000	16.4	20.0	-18.1	20.0
Toluene	Qua		3.415	0.4000	9.45	10.0	-5.5	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.160	0.1000	9.22	10.0	-7.8	20.0
Ethyl methacrylate	Ave	0.8363	0.7322	0.0100	8.76	10.0	-12.4	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6735	0.1000	9.38	10.0	-6.2	20.0
Tetrachloroethene	Qua		0.8531	0.2000	8.89	10.0	-11.1	20.0
1,3-Dichloropropane	Ave	1.061	0.9558	0.0100	9.01	10.0	-9.9	20.0
2-Hexanone	Ave	0.3770	0.3073	0.1000	16.3	20.0	-18.5	20.0
Dibromochloromethane	Ave	1.234	1.197	0.1000	9.70	10.0	-3.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7562	0.1000	9.30	10.0	-7.0	20.0
Chlorobenzene	Ave	2.549	2.614	0.5000	10.3	10.0	2.5	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.183	0.0100	9.60	10.0	-4.0	20.0
Ethylbenzene	Ave	1.449	1.386	0.1000	9.57	10.0	-4.3	20.0
m-Xylene & p-Xylene	Ave	1.953	1.826	0.1000	9.35	10.0	-6.5	20.0
o-Xylene	Ave	1.961	1.813	0.3000	9.24	10.0	-7.6	20.0
Styrene	Qua		2.886	0.3000	10.8	10.0	8.0	20.0
Bromoform	Ave	0.6992	0.6668	0.1000	9.54	10.0	-4.6	20.0
Isopropylbenzene	Qua		5.035	0.1000	10.7	10.0	6.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.7976	0.3000	10.6	10.0	5.9	20.0
Bromobenzene	Ave	0.8571	0.9560	0.0100	11.2	10.0	11.5	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.1825	0.0100	9.51	10.0	-4.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1073	0.0100	8.92	10.0	-10.8	20.0
N-Propylbenzene	Ave	1.052	1.195	0.0100	11.4	10.0	13.6	20.0
2-Chlorotoluene	Ave	0.9551	1.082	0.0100	11.3	10.0	13.3	20.0
1,3,5-Trimethylbenzene	Qua		2.910	0.0100	11.9	10.0	18.5	20.0
4-Chlorotoluene	Ave	0.9153	0.9870	0.0100	10.8	10.0	7.8	20.0
tert-Butylbenzene	Lin2	3.243	3.054	0.0100	10.3	10.0	3.2	20.0
1,2,4-Trimethylbenzene	Qua		2.954	0.0100	11.4	10.0	14.2	20.0
sec-Butylbenzene	Qua		3.869	0.0100	11.8	10.0	17.6	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.835	0.6000	10.8	10.0	7.9	20.0
4-Isopropyltoluene	Qua		3.328	0.0100	11.1	10.0	10.9	20.0
1,4-Dichlorobenzene	Ave	1.587	1.714	0.5000	10.8	10.0	8.0	20.0
n-Butylbenzene	Qua		2.851	0.0100	11.5	10.0	15.0	20.0
1,2-Dichlorobenzene	Ave	1.554	1.440	0.4000	9.26	10.0	-7.4	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0764	0.0500	9.78	10.0	-2.2	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.5248	0.2000	10.6	10.0	6.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137512/3 Calibration Date: 04/04/2015 14:19

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040403.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
Hexachlorobutadiene	Ave	0.2953	0.2934	0.0100	9.94	10.0	-0.6	20.0
Naphthalene	Ave	0.8071	0.9599	0.0100	11.9	10.0	18.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.3246	0.0100	9.62	10.0	-3.8	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3243		10.2	10.0	1.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2782		9.15	10.0	-8.5	20.0
Toluene-d8 (Surr)	Ave	2.966	3.183		10.7	10.0	7.3	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.425		10.8	10.0	8.0	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Apr-2015 14:19:30 ALS Bottle#: 4 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006327-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub8

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:16:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 04-Apr-2015 15:22:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.765	4.765	0.000	55	185266	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	96	803043	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	84	248246	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	94	345664	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	74	260455	200.0	203.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.040	0.000	94	223385	200.0	182.9	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	790179	200.0	214.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	89	353811	200.0	215.9	
11 Dichlorodifluoromethane	85	1.912	1.912	0.000	62	323781	200.0	217.5	
12 Chloromethane	50	2.028	2.028	0.000	89	341723	200.0	210.7	
14 Butadiene	39	2.186	2.186	0.000	94	274450	200.0	205.8	
13 Vinyl chloride	62	2.192	2.192	0.000	96	265731	200.0	210.4	
15 Bromomethane	94	2.502	2.502	0.000	84	293070	200.0	288.0	
16 Chloroethane	64	2.605	2.605	0.000	93	255928	200.0	251.2	
18 Trichlorofluoromethane	101	2.879	2.879	0.000	80	741779	200.0	260.1	
17 Dichlorofluoromethane	67	2.879	2.879	0.000	91	680863	200.0	251.2	
20 Ethyl ether	59	3.311	3.311	0.000	77	131553	200.0	145.4	M
21 Acrolein	56	3.481	3.481	0.000	26	30598	600.0	489.8	M
22 1,1-Dichloroethene	96	3.518	3.518	0.000	95	228146	200.0	211.6	M
23 1,1,2-Trichloro-1,2,2-trif	101	3.634	3.634	0.000	86	292407	200.0	233.2	
25 Iodomethane	142	3.761	3.761	0.000	97	526508	200.0	233.5	
26 Carbon disulfide	76	3.828	3.828	0.000	100	703845	200.0	217.3	M
24 Acetone	43	3.834	3.834	0.000	30	89679	400.0	344.0	M
28 3-Chloro-1-propene	76	4.126	4.126	0.000	89	165163	200.0	207.7	
30 Methyl acetate	43	4.297	4.297	0.000	98	476238	1000.0	890.1	
31 Methylene Chloride	84	4.364	4.364	0.000	87	256749	200.0	221.9	
34 trans-1,2-Dichloroethene	96	4.753	4.753	0.000	87	279715	200.0	209.1	
33 Acrylonitrile	53	4.802	4.802	0.000	98	364826	2000.0	1704.6	M
35 Methyl tert-butyl ether	73	4.856	4.856	0.000	97	526343	200.0	199.6	
32 2-Methyl-2-propanol	59	4.875	4.875	0.000	40	39585	2000.0	8692.1	E

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.148	5.148	0.000	61	172309	200.0	163.3	M
36 Hexane	57	5.160	5.160	0.000	93	257894	200.0	184.3	
37 1,1-Dichloroethane	63	5.355	5.355	0.000	95	418462	200.0	213.4	
44 2,2-Dichloropropane	77	6.091	6.091	0.000	81	386997	200.0	236.3	
45 cis-1,2-Dichloroethene	96	6.103	6.103	0.000	78	271178	200.0	204.3	
46 2-Butanone (MEK)	43	6.189	6.189	0.000	97	99975	400.0	277.7	M
49 Chlorobromomethane	128	6.377	6.377	0.000	84	145615	200.0	190.4	
52 Chloroform	83	6.499	6.499	0.000	93	460827	200.0	208.7	
53 1,1,1-Trichloroethane	97	6.681	6.681	0.000	97	432825	200.0	215.9	
51 Tetrahydrofuran	42	6.730	6.730	0.000	48	85213	400.0	432.7	
54 Cyclohexane	56	6.730	6.730	0.000	88	288415	200.0	203.9	
56 Carbon tetrachloride	117	6.858	6.858	0.000	96	438659	200.0	216.9	
55 1,1-Dichloropropene	75	6.864	6.864	0.000	82	272120	200.0	187.9	
58 Benzene	78	7.089	7.089	0.000	95	761316	200.0	192.6	
59 1,2-Dichloroethane	62	7.132	7.132	0.000	98	247318	200.0	185.3	
57 Isobutyl alcohol	41	7.399	7.399	0.000	50	153316	5000.0	4755.5	
62 n-Heptane	43	7.405	7.405	0.000	61	216593	200.0	176.8	
64 Trichloroethene	130	7.795	7.795	0.000	94	302846	200.0	191.2	
66 Methylcyclohexane	83	7.989	7.989	0.000	88	413711	200.0	212.4	
67 1,2-Dichloropropane	63	8.032	8.032	0.000	80	164196	200.0	182.4	
68 Dibromomethane	93	8.147	8.147	0.000	96	121764	200.0	181.6	
70 1,4-Dioxane	88	8.184	8.184	0.000	81	23066	4000.0	3665.5	M
71 Dichlorobromomethane	83	8.312	8.312	0.000	97	334108	200.0	200.2	
74 cis-1,3-Dichloropropene	75	8.774	8.774	0.000	91	325317	200.0	187.9	
75 4-Methyl-2-pentanone (MIBK	43	8.938	8.938	0.000	96	237611	400.0	327.6	
76 Toluene	91	9.103	9.103	0.000	99	847787	200.0	188.9	
77 trans-1,3-Dichloropropene	75	9.322	9.322	0.000	96	287847	200.0	184.5	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	181772	200.0	175.1	
79 1,1,2-Trichloroethane	97	9.504	9.504	0.000	91	167195	200.0	187.7	
80 Tetrachloroethene	164	9.644	9.644	0.000	91	211777	200.0	177.8	
81 1,3-Dichloropropane	76	9.668	9.668	0.000	92	237265	200.0	180.2	
82 2-Hexanone	43	9.760	9.760	0.000	97	152552	400.0	326.0	
84 Chlorodibromomethane	129	9.900	9.900	0.000	89	297080	200.0	194.0	
85 Ethylene Dibromide	107	10.009	10.009	0.000	97	187728	200.0	186.0	
87 Chlorobenzene	112	10.496	10.496	0.000	95	649008	200.0	205.1	
89 1,1,1,2-Tetrachloroethane	131	10.575	10.575	0.000	92	293674	200.0	192.0	
90 Ethylbenzene	106	10.605	10.605	0.000	98	344007	200.0	191.3	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	97	453294	200.0	187.0	
92 o-Xylene	106	11.116	11.116	0.000	97	450082	200.0	184.9	
93 Styrene	104	11.128	11.128	0.000	94	716500	200.0	216.1	
94 Bromoform	173	11.317	11.317	0.000	94	165526	200.0	190.7	
97 Isopropylbenzene	105	11.481	11.481	0.000	96	1249918	200.0	213.8	
99 1,1,2,2-Tetrachloroethane	83	11.773	11.773	0.000	98	198009	200.0	211.8	
100 Bromobenzene	156	11.785	11.785	0.000	88	330438	200.0	223.1	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	86	63091	200.0	190.2	
102 trans-1,4-Dichloro-2-buten	53	11.828	11.828	0.000	71	37074	200.0	178.5	
103 N-Propylbenzene	120	11.889	11.889	0.000	96	413094	200.0	227.2	
104 2-Chlorotoluene	126	11.980	11.980	0.000	96	374011	200.0	226.6	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	96	1005869	200.0	237.1	
107 4-Chlorotoluene	126	12.090	12.090	0.000	96	341160	200.0	215.7	
108 tert-Butylbenzene	119	12.388	12.388	0.000	91	1055559	200.0	206.3	
110 1,2,4-Trimethylbenzene	105	12.436	12.436	0.000	96	1020939	200.0	228.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.607	12.607	0.000	94	1337323	200.0	235.3	
113 1,3-Dichlorobenzene	146	12.722	12.722	0.000	98	634124	200.0	215.8	
114 4-Isopropyltoluene	119	12.753	12.753	0.000	96	1150529	200.0	221.8	
115 1,4-Dichlorobenzene	146	12.814	12.814	0.000	95	592529	200.0	216.1	
120 n-Butylbenzene	91	13.160	13.160	0.000	95	985585	200.0	230.0	
121 1,2-Dichlorobenzene	146	13.185	13.185	0.000	98	497656	200.0	185.3	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	90	26419	200.0	195.7	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	94	181411	200.0	213.0	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	86	101422	200.0	198.7	
128 Naphthalene	128	15.058	15.058	0.000	96	331802	200.0	237.9	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	93	112187	200.0	192.5	
S 133 Xylenes, Total	106				0		400.0	371.9	
S 134 1,2-Dichloroethene, Total	96				0		400.0	413.4	
S 135 1,3-Dichloropropene, Total	1				0		400.0	372.3	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00108	Amount Added:	8.00	Units: uL
VOAACRO2ND_00007	Amount Added:	24.00	Units: uL
voaWVA2nd Res_00006	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260SURR_00017	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

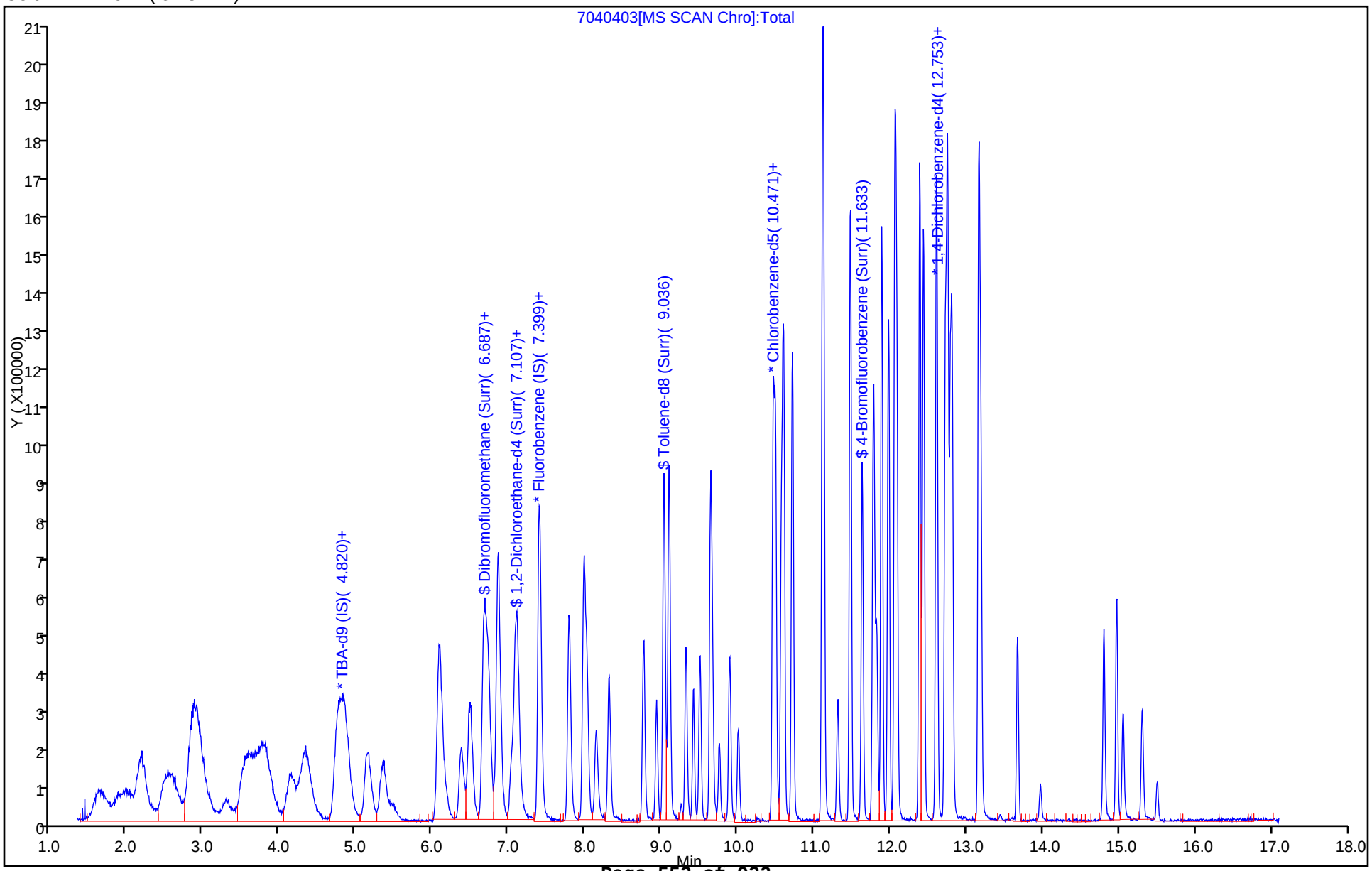
Report Date: 06-Apr-2015 09:16:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D

Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

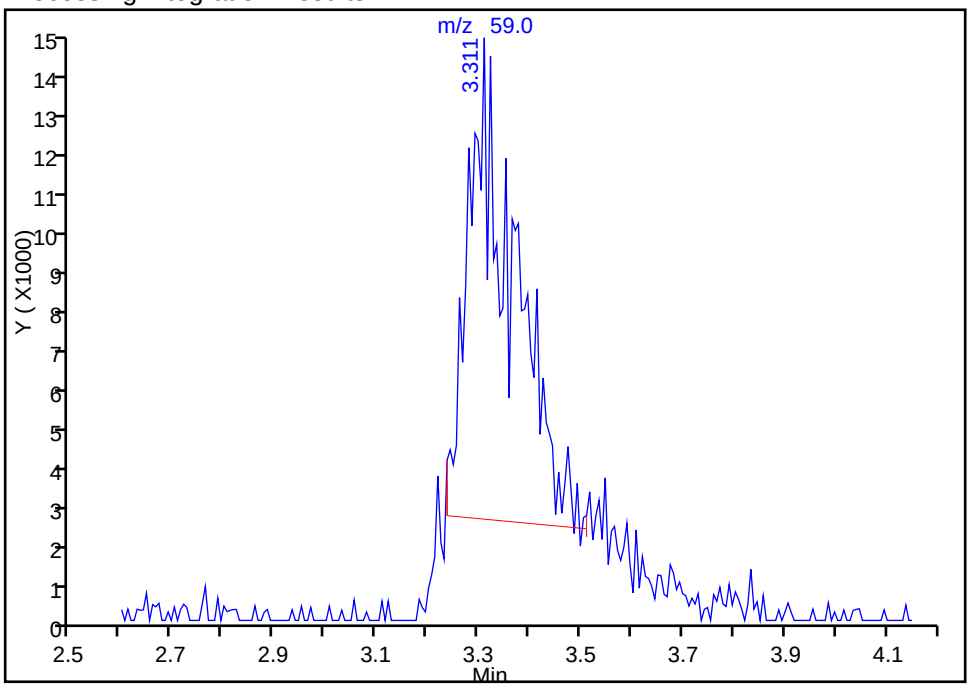
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

20 Ethyl ether, CAS: 60-29-7

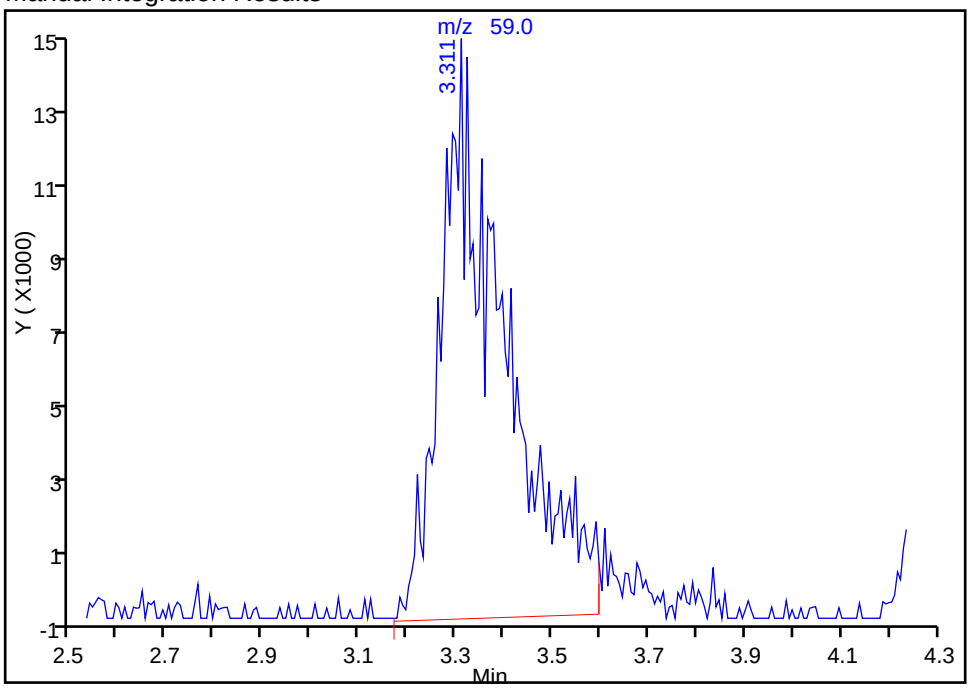
Processing Integration Results

RT: 3.31
Area: 74630
Amount: 82.481931
Amount Units: ng



Manual Integration Results

RT: 3.31
Area: 131553
Amount: 145.3939
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

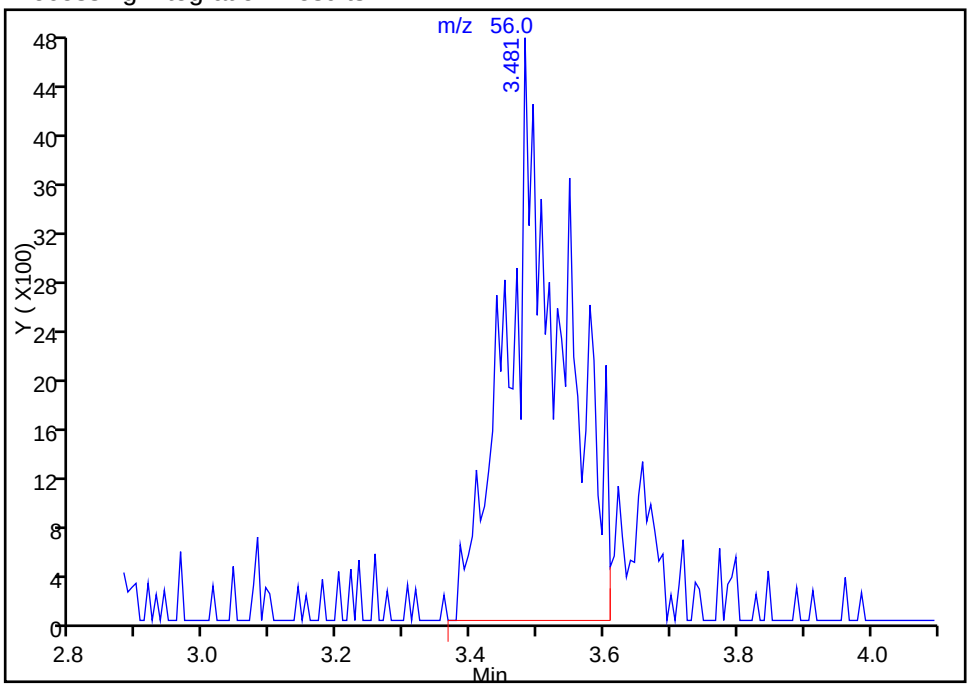
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

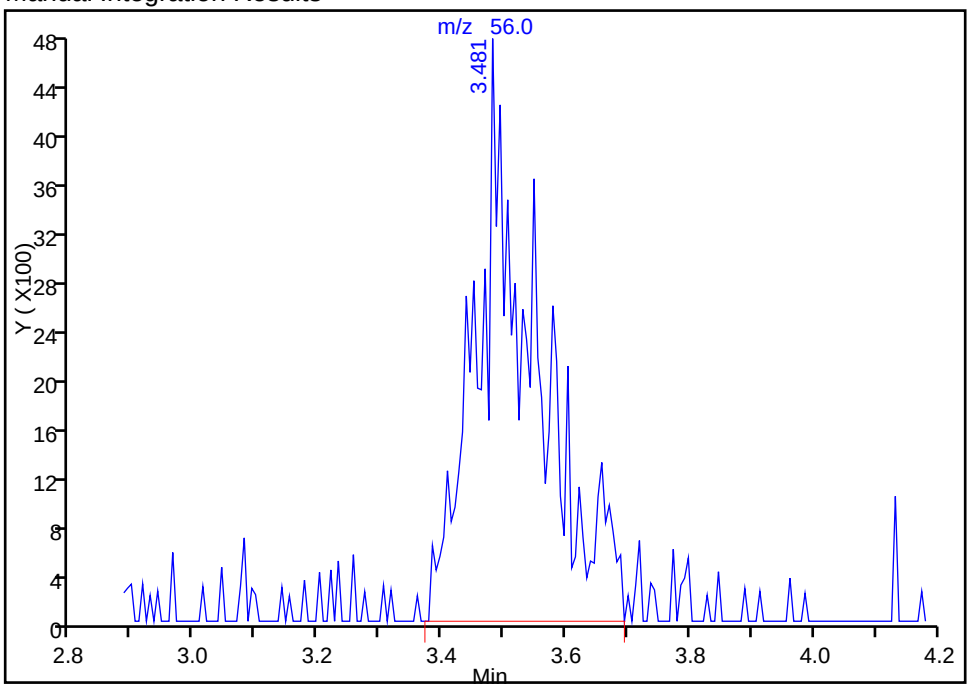
Processing Integration Results

RT: 3.48
Area: 27156
Amount: 434.7241
Amount Units: ng



Manual Integration Results

RT: 3.48
Area: 30598
Amount: 489.8250
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

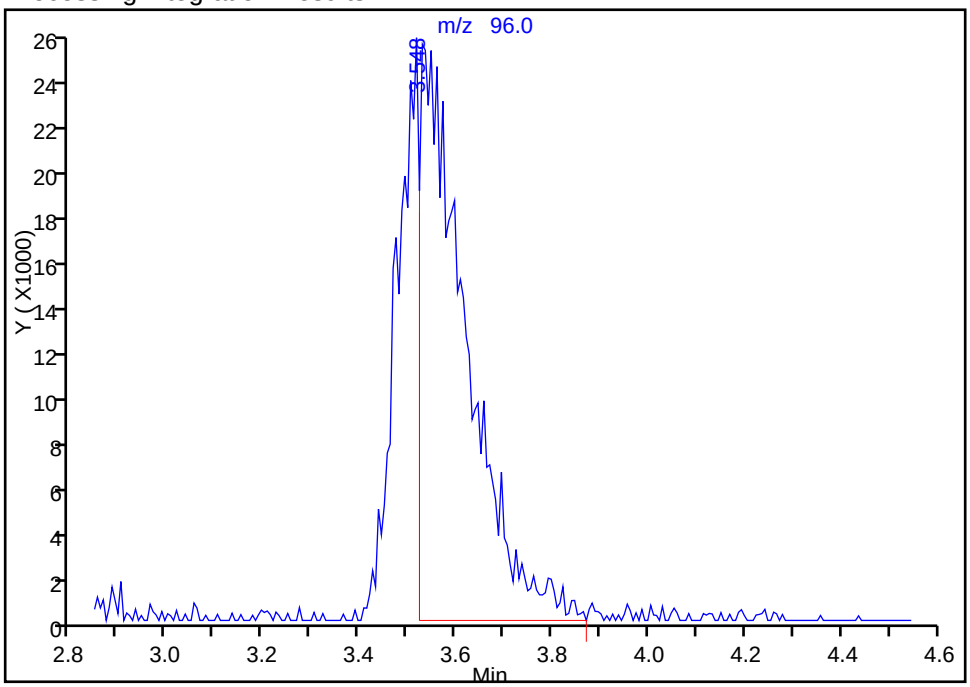
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

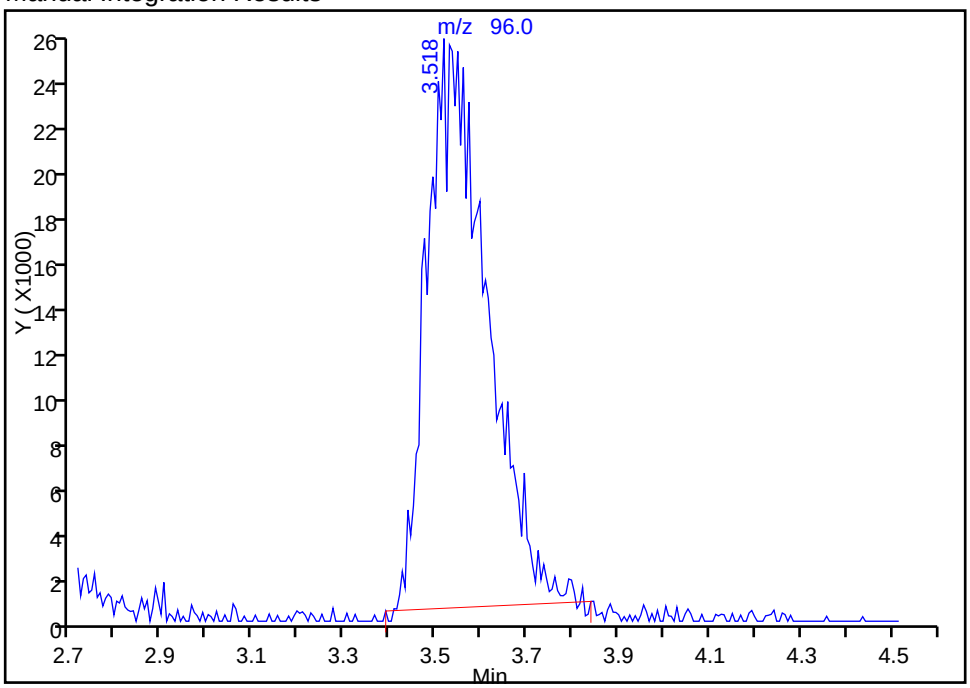
Processing Integration Results

RT: 3.55
Area: 170206
Amount: 157.8597
Amount Units: ng



Manual Integration Results

RT: 3.52
Area: 228146
Amount: 211.5968
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

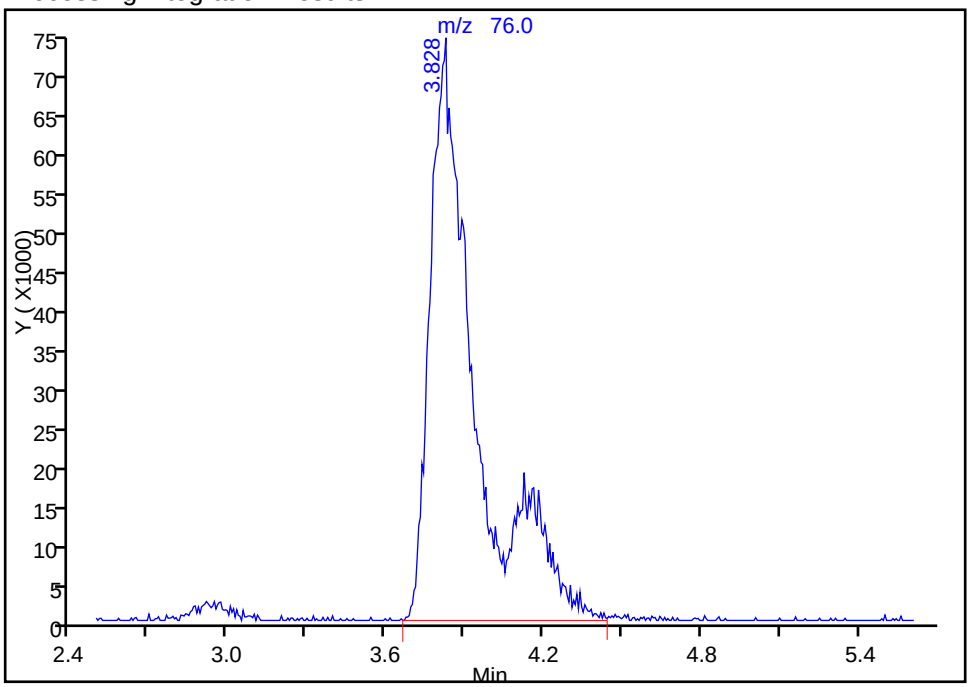
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

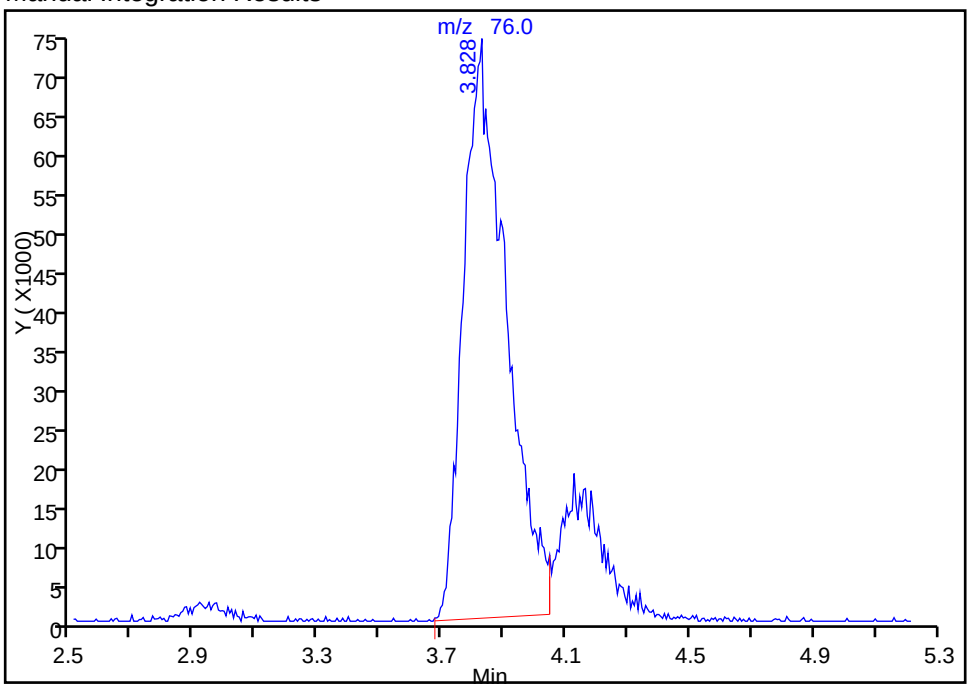
Processing Integration Results

RT: 3.83
Area: 881692
Amount: 272.2599
Amount Units: ng



Manual Integration Results

RT: 3.83
Area: 703845
Amount: 217.3421
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

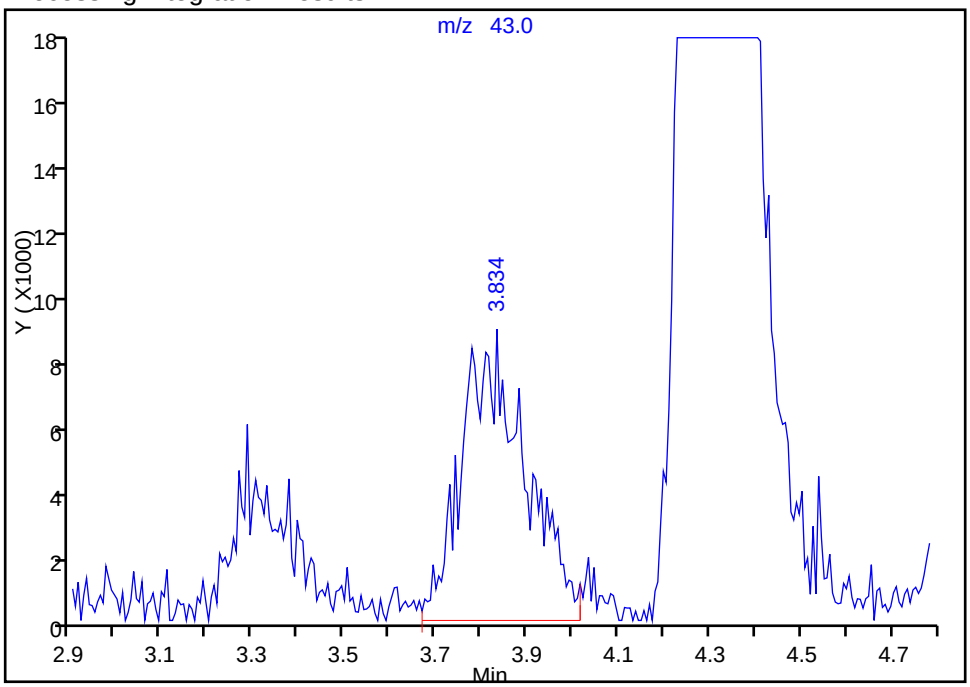
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

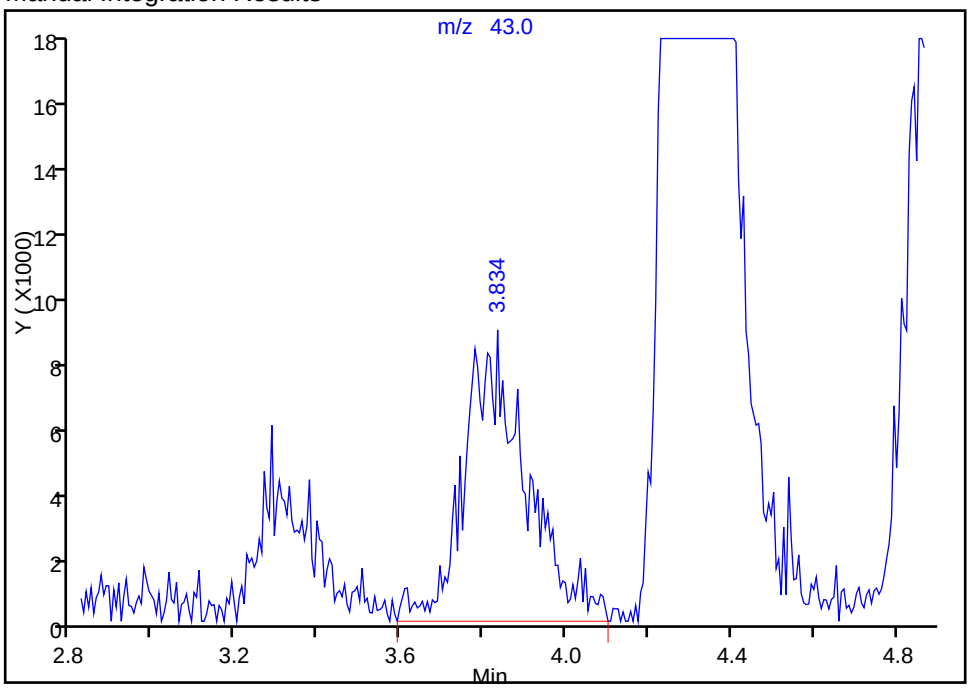
Processing Integration Results

RT: 3.83
Area: 83292
Amount: 314.2085
Amount Units: ng



Manual Integration Results

RT: 3.83
Area: 89679
Amount: 344.0322
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

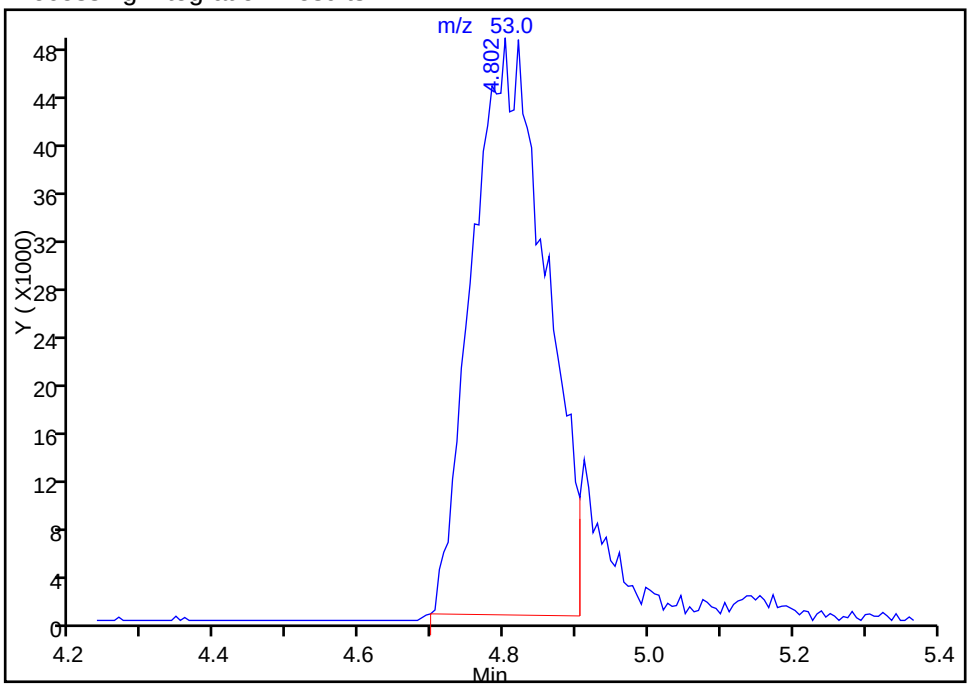
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

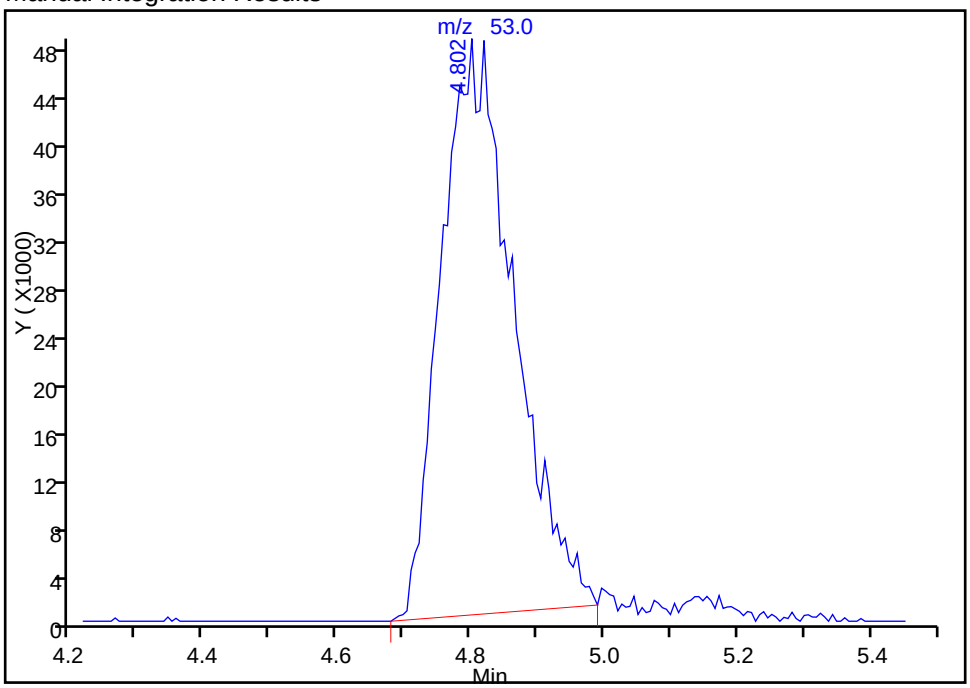
Processing Integration Results

RT: 4.80
Area: 341852
Amount: 1597.2628
Amount Units: ng



Manual Integration Results

RT: 4.80
Area: 364826
Amount: 1704.6061
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

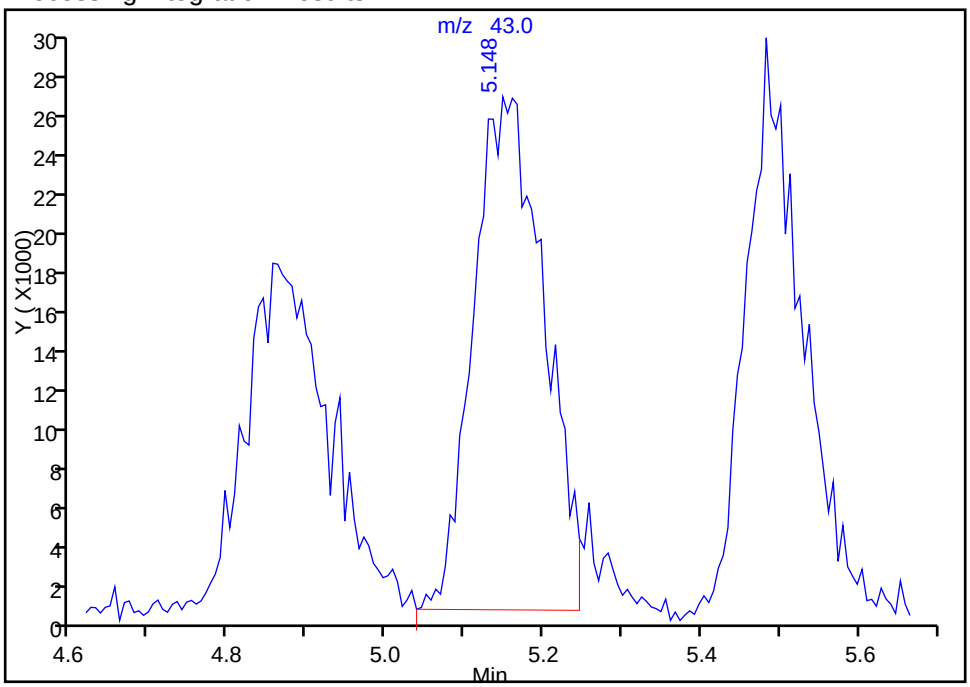
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

38 Vinyl acetate, CAS: 108-05-4

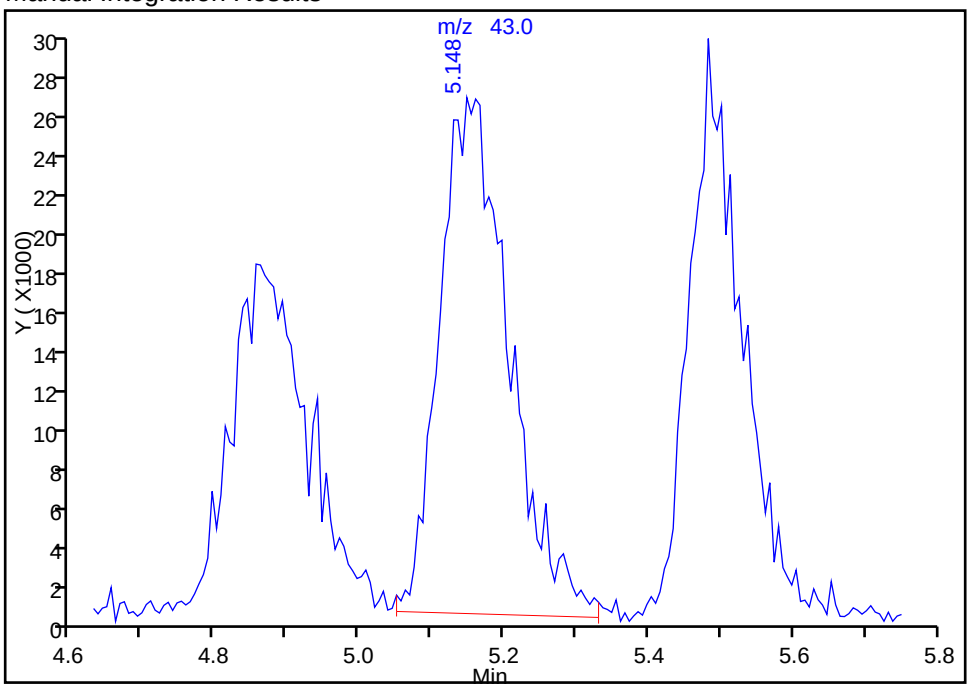
Processing Integration Results

RT: 5.15
Area: 160095
Amount: 151.7643
Amount Units: ng



Manual Integration Results

RT: 5.15
Area: 172309
Amount: 163.3427
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

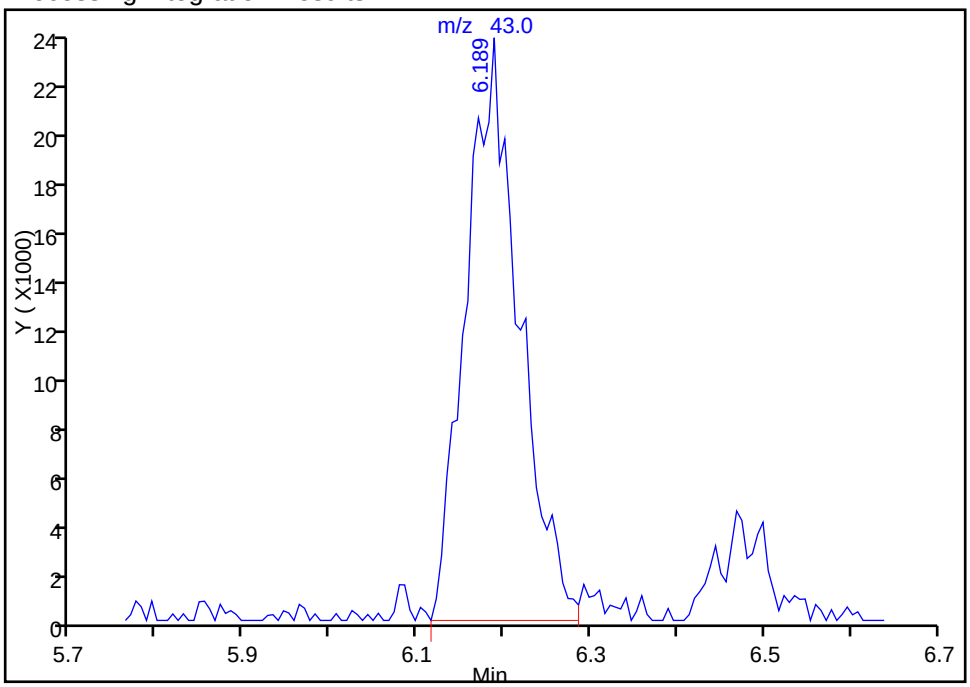
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

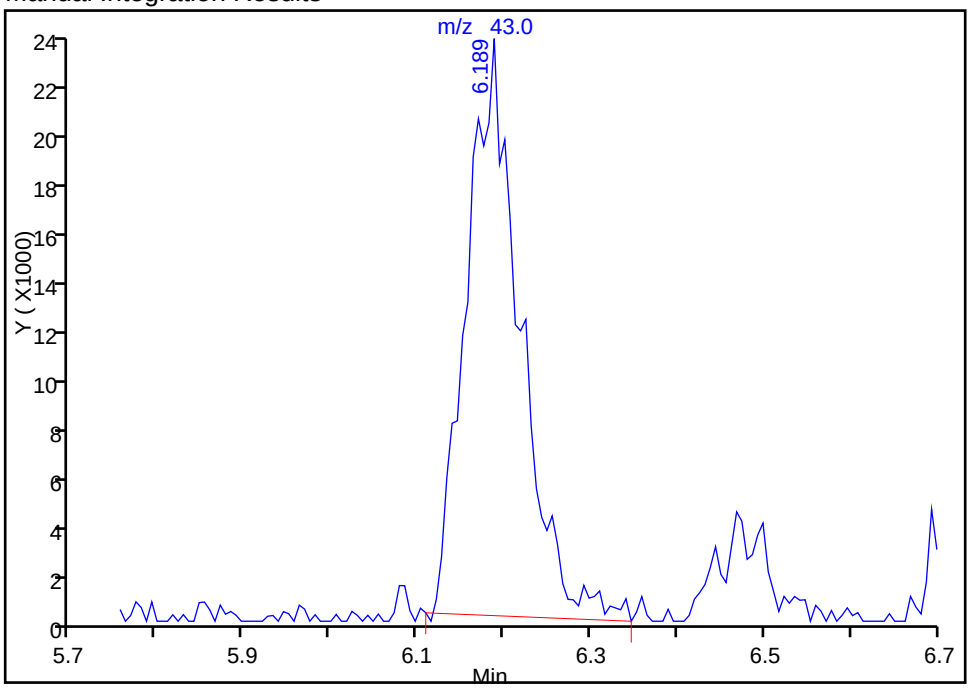
Processing Integration Results

RT: 6.19
Area: 99625
Amount: 276.7735
Amount Units: ng



Manual Integration Results

RT: 6.19
Area: 99975
Amount: 277.7458
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

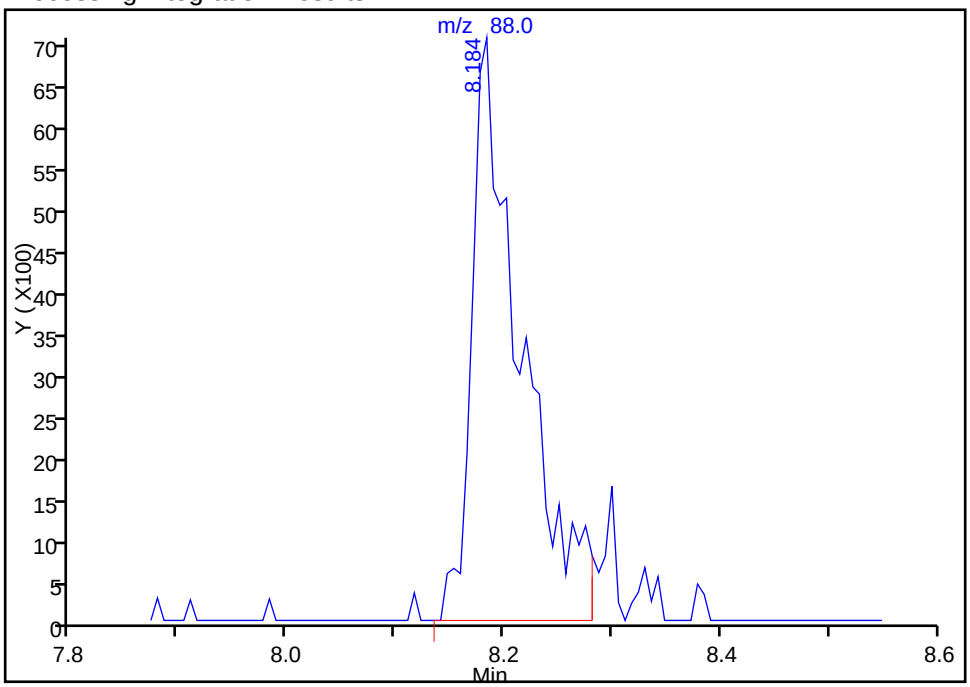
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040403.D				
Injection Date:	04-Apr-2015 14:19:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

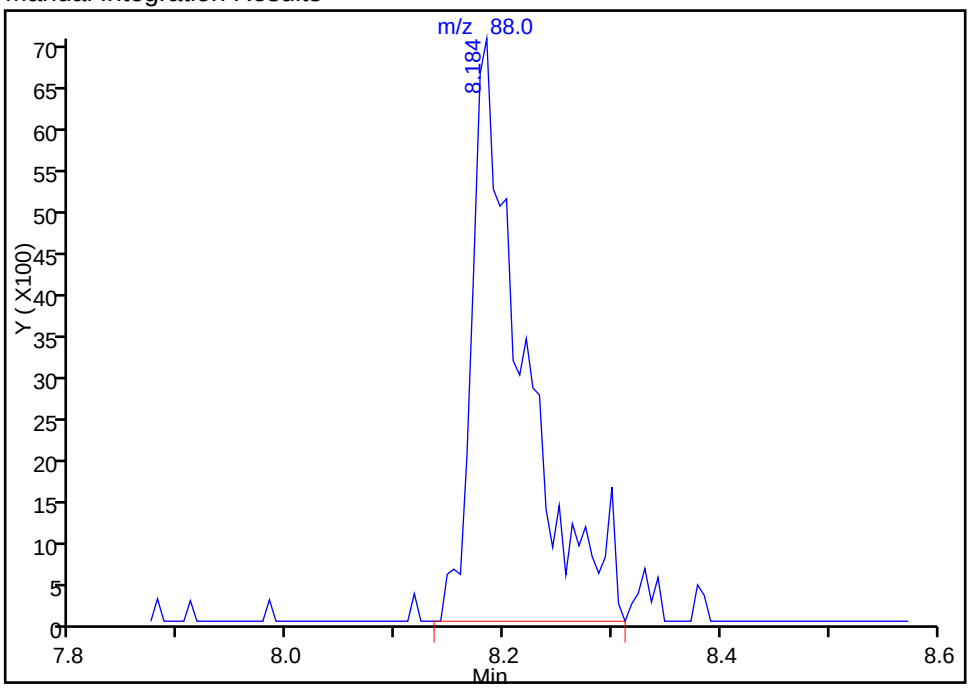
Processing Integration Results

RT: 8.18
Area: 21907
Amount: 3481.3388
Amount Units: ng



Manual Integration Results

RT: 8.18
Area: 23066
Amount: 3665.5206
Amount Units: ng



Reviewer: journetp, 04-Apr-2015 15:22:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137564/3 Calibration Date: 04/06/2015 09:40

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040603.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	0.3707	0.3882	0.1000	10.5	10.0	4.7	20.0
Chloromethane	Ave	0.4039	0.4128	0.1000	10.2	10.0	2.2	20.0
Vinyl chloride	Ave	0.3145	0.3448	0.1000	11.0	10.0	9.6	20.0
Bromomethane	Ave	0.2534	0.3218	0.0500	12.7	10.0	27.0*	20.0
Chloroethane	Ave	0.2537	0.2962	0.0500	11.7	10.0	16.8	20.0
Dichlorofluoromethane	Ave	0.6751	0.7901	0.0100	11.7	10.0	17.0	20.0
Trichlorofluoromethane	Ave	0.7102	0.8930	0.1000	12.6	10.0	25.7*	20.0
Ethyl ether	Ave	0.2253	0.1908	0.0100	8.46	10.0	-15.4	20.0
Acrolein	Ave	0.0156	0.0164	0.0100	31.6	30.0	5.4	20.0
1,1-Dichloroethene	Ave	0.2685	0.2696	0.1000	10.0	10.0	0.4	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3122	0.3538	0.1000	11.3	10.0	13.3	20.0
Iodomethane	Ave	0.5617	0.6251	0.0100	11.1	10.0	11.3	20.0
Carbon disulfide	Ave	0.8065	0.8910	0.1000	11.0	10.0	10.5	20.0
Acetone	Lin2		0.0698	0.0500	22.4	20.0	12.2	20.0
Allyl chloride	Ave	0.1981	0.2056	0.0100	10.4	10.0	3.8	20.0
Methyl acetate	Ave	0.1332	0.1291	0.1000	48.4	50.0	-3.1	20.0
Methylene Chloride	Ave	0.2882	0.3070	0.1000	10.7	10.0	6.5	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3701	0.1000	11.1	10.0	11.1	20.0
Acrylonitrile	Ave	0.0533	0.0523	0.0100	98.0	100	-2.0	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7485	0.1000	11.4	10.0	14.0	20.0
tert-Butyl alcohol	Qua		0.3585	0.0100	379	100	279.0*	20.0
Hexane	Ave	0.3484	0.3377	0.0100	9.69	10.0	-3.1	20.0
Vinyl acetate	Ave	0.2627	0.2352	0.0100	8.95	10.0	-10.5	20.0
1,1-Dichloroethane	Ave	0.4883	0.5330	0.2000	10.9	10.0	9.2	20.0
2,2-Dichloropropane	Ave	0.4080	0.5023	0.0100	12.3	10.0	23.1*	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3659	0.1000	11.1	10.0	10.7	20.0
2-Butanone (MEK)	Ave	0.0896	0.0810	0.0500	18.1	20.0	-9.6	20.0
Bromochloromethane	Ave	0.1904	0.1995	0.0100	10.5	10.0	4.8	20.0
Chloroform	Ave	0.5499	0.5828	0.2000	10.6	10.0	6.0	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5670	0.1000	11.4	10.0	13.5	20.0
Cyclohexane	Ave	0.3523	0.4040	0.1000	11.5	10.0	14.7	20.0
Tetrahydrofuran	Ave	0.0490	0.0548	0.0100	22.3	20.0	11.6	20.0
Carbon tetrachloride	Ave	0.5037	0.5737	0.1000	11.4	10.0	13.9	20.0
1,1-Dichloropropene	Ave	0.3606	0.3817	0.0100	10.6	10.0	5.9	20.0
Benzene	Ave	0.9843	1.000	0.5000	10.2	10.0	1.6	20.0
1,2-Dichloroethane	Ave	0.3325	0.3110	0.1000	9.36	10.0	-6.4	20.0
Isobutyl alcohol	Ave	0.0080	0.0082*	0.0100	255	250	2.1	20.0
n-Heptane	Ave	0.3051	0.2909	0.0100	9.54	10.0	-4.6	20.0
Trichloroethene	Ave	0.3946	0.3837	0.2000	9.72	10.0	-2.8	20.0
Methylcyclohexane	Ave	0.4851	0.5334	0.1000	11.0	10.0	9.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137564/3 Calibration Date: 04/06/2015 09:40

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040603.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	0.2242	0.2090	0.1000	9.32	10.0	-6.8	20.0
Dibromomethane	Ave	0.1670	0.1548	0.0100	9.27	10.0	-7.3	20.0
1,4-Dioxane	Ave	0.0016	0.0012*	0.0100	147	200	-26.4*	20.0
Bromodichloromethane	Ave	0.4157	0.4227	0.2000	10.2	10.0	1.7	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4593	0.2000	10.7	10.0	6.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.5207	0.1000	17.8	20.0	-10.9	20.0
Toluene	Qua		3.420	0.4000	9.46	10.0	-5.4	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.265	0.1000	10.1	10.0	0.6	20.0
Ethyl methacrylate	Ave	0.8363	0.7628	0.0100	9.12	10.0	-8.8	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6947	0.1000	9.68	10.0	-3.2	20.0
Tetrachloroethene	Qua		0.9008	0.2000	9.49	10.0	-5.1	20.0
1,3-Dichloropropane	Ave	1.061	1.019	0.0100	9.61	10.0	-3.9	20.0
2-Hexanone	Ave	0.3770	0.3266	0.1000	17.3	20.0	-13.4	20.0
Dibromochloromethane	Ave	1.234	1.236	0.1000	10.0	10.0	0.1	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7656	0.1000	9.42	10.0	-5.8	20.0
Chlorobenzene	Ave	2.549	2.586	0.5000	10.1	10.0	1.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.168	0.0100	9.47	10.0	-5.3	20.0
Ethylbenzene	Ave	1.449	1.362	0.1000	9.40	10.0	-6.0	20.0
m-Xylene & p-Xylene	Ave	1.953	1.836	0.1000	9.40	10.0	-6.0	20.0
o-Xylene	Ave	1.961	1.797	0.3000	9.16	10.0	-8.4	20.0
Styrene	Qua		2.765	0.3000	10.2	10.0	2.5	20.0
Bromoform	Ave	0.6992	0.6915	0.1000	9.89	10.0	-1.1	20.0
Isopropylbenzene	Qua		4.825	0.1000	10.1	10.0	1.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.7937	0.3000	10.5	10.0	5.4	20.0
Bromobenzene	Ave	0.8571	0.998	0.0100	11.6	10.0	16.4	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2064	0.0100	10.8	10.0	7.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1092	0.0100	9.08	10.0	-9.2	20.0
N-Propylbenzene	Ave	1.052	1.218	0.0100	11.6	10.0	15.7	20.0
2-Chlorotoluene	Ave	0.9551	1.072	0.0100	11.2	10.0	12.2	20.0
1,3,5-Trimethylbenzene	Qua		2.970	0.0100	12.2	10.0	21.5*	20.0
4-Chlorotoluene	Ave	0.9153	1.015	0.0100	11.1	10.0	10.9	20.0
tert-Butylbenzene	Lin2	3.243	3.134	0.0100	10.6	10.0	6.0	20.0
1,2,4-Trimethylbenzene	Qua		2.984	0.0100	11.6	10.0	15.6	20.0
sec-Butylbenzene	Qua		3.962	0.0100	12.1	10.0	21.1*	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.877	0.6000	11.1	10.0	10.5	20.0
4-Isopropyltoluene	Qua		3.418	0.0100	11.5	10.0	14.6	20.0
1,4-Dichlorobenzene	Ave	1.587	1.746	0.5000	11.0	10.0	10.0	20.0
n-Butylbenzene	Qua		2.855	0.0100	11.5	10.0	15.2	20.0
1,2-Dichlorobenzene	Ave	1.554	1.518	0.4000	9.77	10.0	-2.3	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0874	0.0500	11.1	10.0	11.3	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.5636	0.2000	11.4	10.0	14.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCVIS 180-137564/3 Calibration Date: 04/06/2015 09:40

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7040603.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
Hexachlorobutadiene	Ave	0.2953	0.2911	0.0100	9.86	10.0	-1.4	20.0
Naphthalene	Ave	0.8071	1.039	0.0100	12.9	10.0	28.7*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.3508	0.0100	10.4	10.0	4.0	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3258		10.2	10.0	2.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2875		9.45	10.0	-5.5	20.0
Toluene-d8 (Surr)	Ave	2.966	3.131		10.6	10.0	5.5	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.394		10.5	10.0	5.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040603.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 06-Apr-2015 09:40:30 ALS Bottle#: 4 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006335-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub8

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 15:45:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 10:42:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.932	4.932	0.000	88	211903	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.396	7.396	0.000	95	817201	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	83	260238	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	93	344252	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.672	6.672	0.000	72	266270	200.0	204.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.037	7.037	0.000	68	234923	200.0	189.0	
$ 7 Toluene-d8 (Surr)	98	9.032	9.032	0.000	92	814781	200.0	211.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	89	362844	200.0	210.9	
11 Dichlorodifluoromethane	85	1.896	1.896	0.000	58	317198	200.0	209.4	
12 Chloromethane	50	2.012	2.012	0.000	57	337366	200.0	204.4	M
13 Vinyl chloride	62	2.201	2.201	0.000	86	281796	200.0	219.3	
14 Butadiene	39	2.201	2.201	0.000	91	289661	200.0	213.4	
15 Bromomethane	94	2.487	2.487	0.000	91	262984	200.0	254.0	
16 Chloroethane	64	2.602	2.602	0.000	95	242079	200.0	233.5	
17 Dichlorofluoromethane	67	2.870	2.870	0.000	94	645670	200.0	234.1	
18 Trichlorofluoromethane	101	2.876	2.876	0.000	85	729788	200.0	251.5	
20 Ethyl ether	59	3.296	3.296	0.000	85	155883	200.0	169.3	
21 Acrolein	56	3.509	3.509	0.000	29	40185	600.0	632.2	
22 1,1-Dichloroethene	96	3.521	3.521	0.000	93	220335	200.0	200.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.600	3.600	0.000	86	289141	200.0	226.6	
25 Iodomethane	142	3.709	3.709	0.000	96	510864	200.0	222.6	
26 Carbon disulfide	76	3.782	3.782	0.000	100	728118	200.0	220.9	
24 Acetone	43	3.843	3.843	0.000	25	114102	400.0	448.8	
28 3-Chloro-1-propene	76	4.099	4.099	0.000	89	167975	200.0	207.6	
30 Methyl acetate	43	4.312	4.312	0.000	97	527555	1000.0	969.0	
31 Methylene Chloride	84	4.318	4.318	0.000	83	250913	200.0	213.1	M
34 trans-1,2-Dichloroethene	96	4.731	4.731	0.000	93	302419	200.0	222.1	
33 Acrylonitrile	53	4.810	4.810	0.000	97	427087	2000.0	1960.9	
35 Methyl tert-butyl ether	73	4.877	4.877	0.000	95	611647	200.0	228.0	
32 2-Methyl-2-propanol	59	4.938	4.938	0.000	38	37986	2000.0	7579.2	E

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.121	5.121	0.000	94	275972	200.0	193.8	
38 Vinyl acetate	43	5.121	5.121	0.000	72	192227	200.0	179.1	
37 1,1-Dichloroethane	63	5.340	5.340	0.000	84	435598	200.0	218.3	
45 cis-1,2-Dichloroethene	96	6.082	6.082	0.000	80	299024	200.0	221.3	
44 2,2-Dichloropropane	77	6.082	6.082	0.000	83	410515	200.0	246.3	
46 2-Butanone (MEK)	43	6.191	6.191	0.000	96	132381	400.0	361.4	
49 Chlorobromomethane	128	6.374	6.374	0.000	80	163041	200.0	209.5	
52 Chloroform	83	6.496	6.496	0.000	93	476242	200.0	212.0	
53 1,1,1-Trichloroethane	97	6.672	6.672	0.000	96	463366	200.0	227.1	
54 Cyclohexane	56	6.715	6.715	0.000	88	330106	200.0	229.3	
51 Tetrahydrofuran	42	6.733	6.733	0.000	47	89492	400.0	446.6	
56 Carbon tetrachloride	117	6.848	6.848	0.000	96	468788	200.0	227.8	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	85	311943	200.0	211.7	
58 Benzene	78	7.086	7.086	0.000	96	817428	200.0	203.3	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	97	254162	200.0	187.1	
57 Isobutyl alcohol	41	7.390	7.390	0.000	52	167508	5000.0	5105.7	
62 n-Heptane	43	7.396	7.396	0.000	60	237725	200.0	190.7	
64 Trichloroethene	130	7.785	7.785	0.000	93	313522	200.0	194.5	
66 Methylcyclohexane	83	7.980	7.980	0.000	84	435881	200.0	219.9	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	81	170796	200.0	186.5	
68 Dibromomethane	93	8.144	8.144	0.000	93	126485	200.0	185.4	
70 1,4-Dioxane	88	8.187	8.187	0.000	89	18852	4000.0	2944.0	
71 Dichlorobromomethane	83	8.308	8.308	0.000	97	345463	200.0	203.4	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	93	375354	200.0	213.0	
75 4-Methyl-2-pentanone (MIBK	43	8.941	8.941	0.000	97	271027	400.0	356.4	
76 Toluene	91	9.099	9.099	0.000	98	889886	200.0	189.2	
77 trans-1,3-Dichloropropene	75	9.324	9.324	0.000	94	329236	200.0	201.3	
78 Ethyl methacrylate	69	9.422	9.422	0.000	88	198498	200.0	182.4	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	89	180776	200.0	193.6	
80 Tetrachloroethene	164	9.647	9.647	0.000	93	234417	200.0	189.7	
81 1,3-Dichloropropane	76	9.671	9.671	0.000	90	265291	200.0	192.2	
82 2-Hexanone	43	9.762	9.762	0.000	95	169959	400.0	346.5	
84 Chlorodibromomethane	129	9.896	9.896	0.000	87	321542	200.0	200.3	
85 Ethylene Dibromide	107	10.006	10.006	0.000	98	199239	200.0	188.3	
87 Chlorobenzene	112	10.498	10.498	0.000	94	672968	200.0	202.9	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.572	0.000	93	303903	200.0	189.5	
90 Ethylbenzene	106	10.602	10.602	0.000	98	354361	200.0	188.0	
91 m-Xylene & p-Xylene	106	10.717	10.717	0.000	98	477857	200.0	188.1	
92 o-Xylene	106	11.113	11.113	0.000	96	467623	200.0	183.2	
93 Styrene	104	11.125	11.125	0.000	94	719464	200.0	205.0	
94 Bromoform	173	11.320	11.320	0.000	92	179945	200.0	197.8	
97 Isopropylbenzene	105	11.478	11.478	0.000	96	1255664	200.0	202.6	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.770	0.000	96	206551	200.0	210.7	
100 Bromobenzene	156	11.782	11.782	0.000	87	343455	200.0	232.8	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	82	71066	200.0	215.1	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	68	37576	200.0	181.6	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	419139	200.0	231.5	
104 2-Chlorotoluene	126	11.983	11.983	0.000	96	368927	200.0	224.4	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	97	1022405	200.0	243.1	
107 4-Chlorotoluene	126	12.086	12.086	0.000	95	349562	200.0	221.9	
108 tert-Butylbenzene	119	12.390	12.390	0.000	91	1078916	200.0	212.0	
110 1,2,4-Trimethylbenzene	105	12.439	12.439	0.000	95	1027393	200.0	231.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.609	12.609	0.000	94	1363981	200.0	242.2	
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	96	646294	200.0	221.1	
114 4-Isopropyltoluene	119	12.755	12.755	0.000	95	1176787	200.0	229.3	
115 1,4-Dichlorobenzene	146	12.810	12.810	0.000	93	600929	200.0	220.1	
120 n-Butylbenzene	91	13.163	13.163	0.000	96	982950	200.0	230.4	
121 1,2-Dichlorobenzene	146	13.187	13.187	0.000	98	522730	200.0	195.4	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.972	0.000	90	30078	200.0	222.6	
126 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	95	194021	200.0	228.7	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	89	100209	200.0	197.1	
128 Naphthalene	128	15.055	15.055	0.000	97	357581	200.0	257.4	
129 1,2,3-Trichlorobenzene	180	15.311	15.311	0.000	95	120750	200.0	208.0	
S 133 Xylenes, Total	106				0		400.0	371.3	
S 134 1,2-Dichloroethene, Total	96				0		400.0	443.5	
S 135 1,3-Dichloropropene, Total	1				0		400.0	414.3	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00108	Amount Added:	8.00	Units: uL
VOAACRO2ND_00007	Amount Added:	24.00	Units: uL
voaWVA2nd Res_00006	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260SURR_00017	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

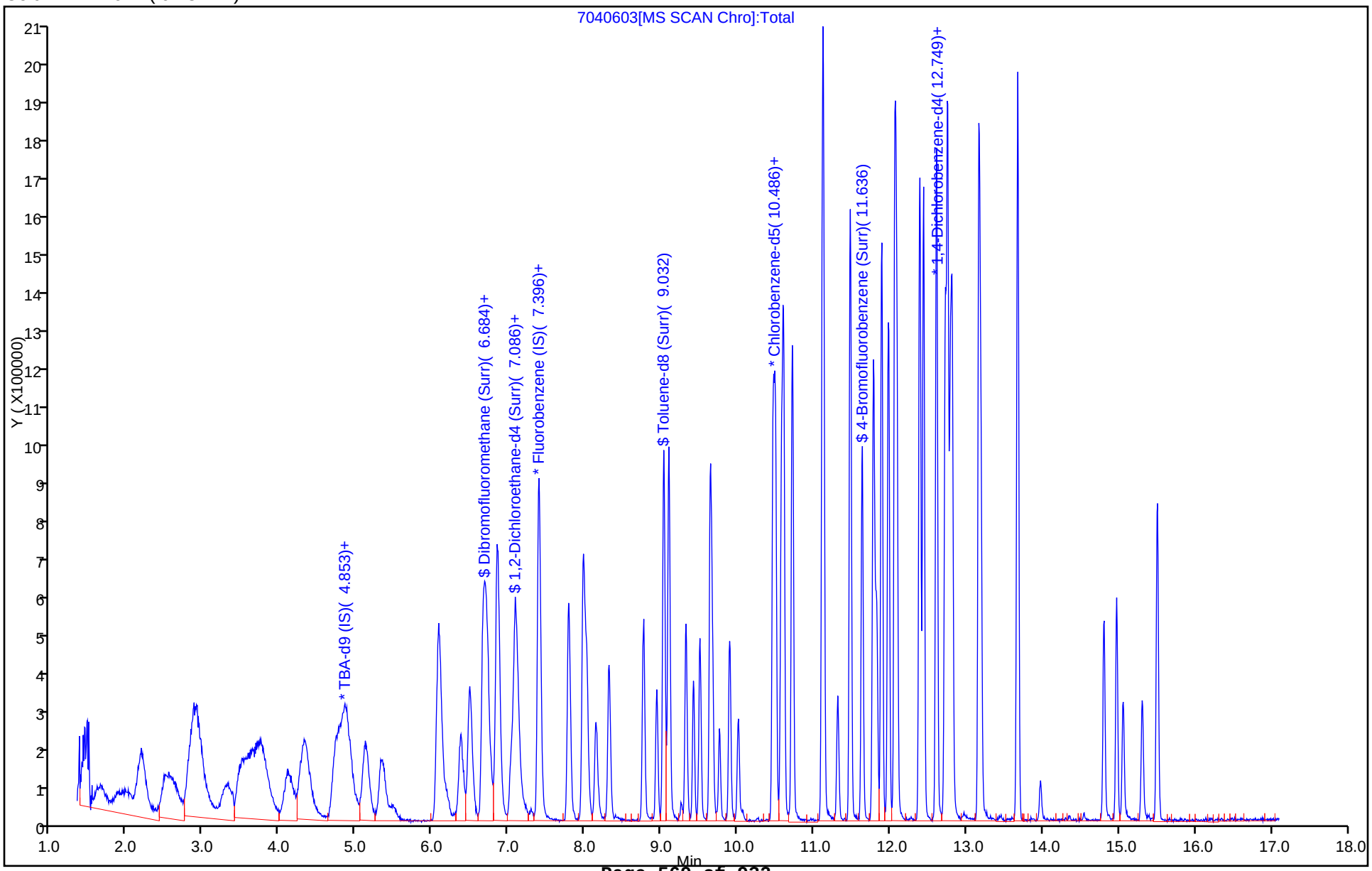
Report Date: 06-Apr-2015 15:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040603.D

Injection Date:	06-Apr-2015 09:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

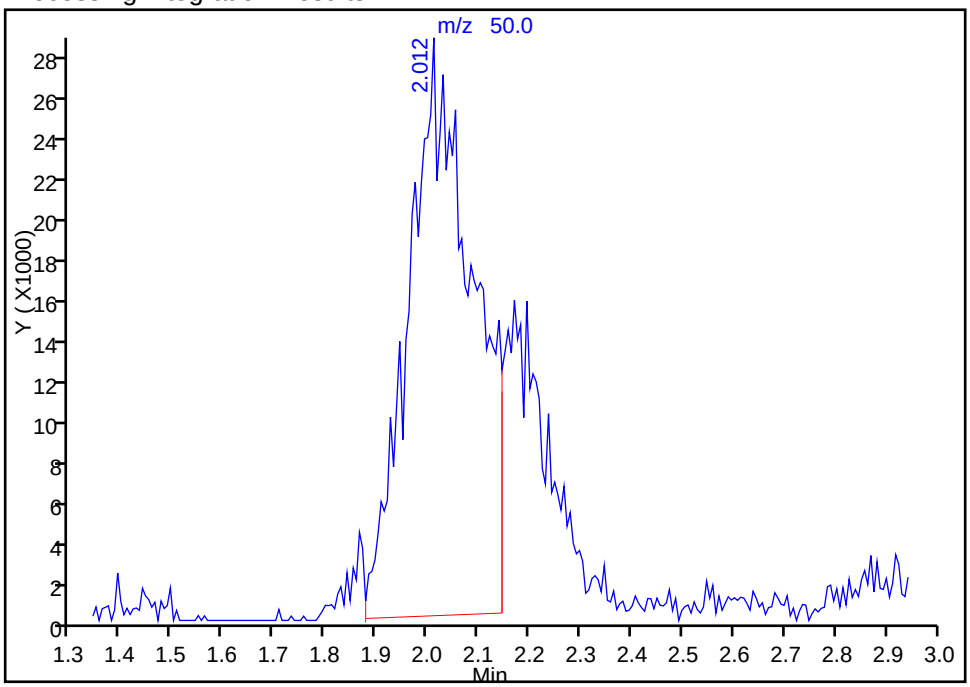
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040603.D				
Injection Date:	06-Apr-2015 09:40:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

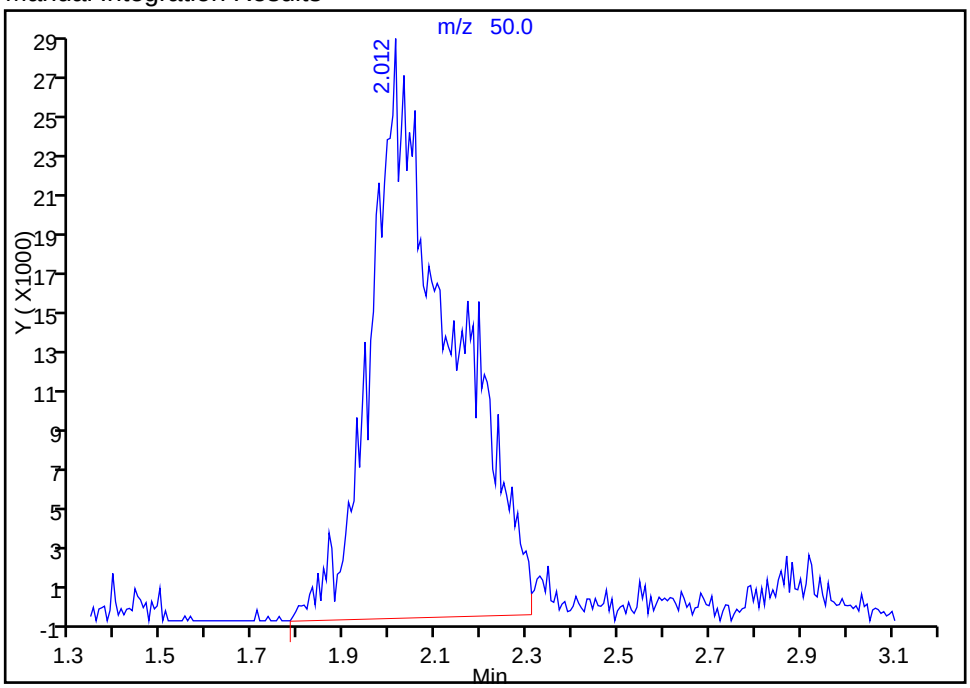
Processing Integration Results

RT: 2.01
Area: 244785
Amount: 148.3390
Amount Units: ng



Manual Integration Results

RT: 2.01
Area: 337366
Amount: 204.4428
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 10:42:09
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

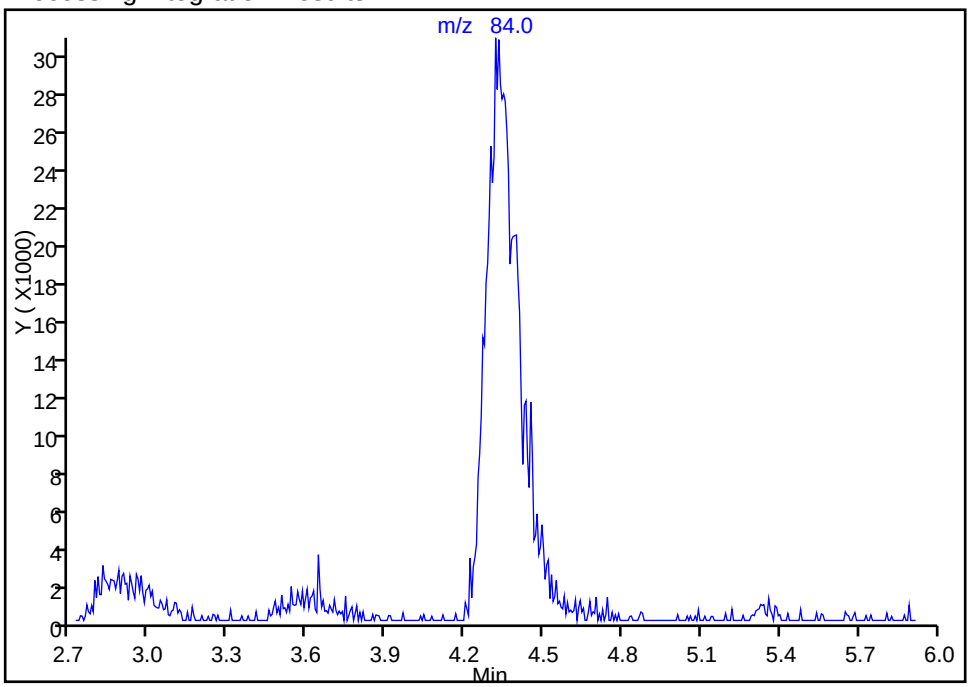
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040603.D				
Injection Date:	06-Apr-2015 09:40:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

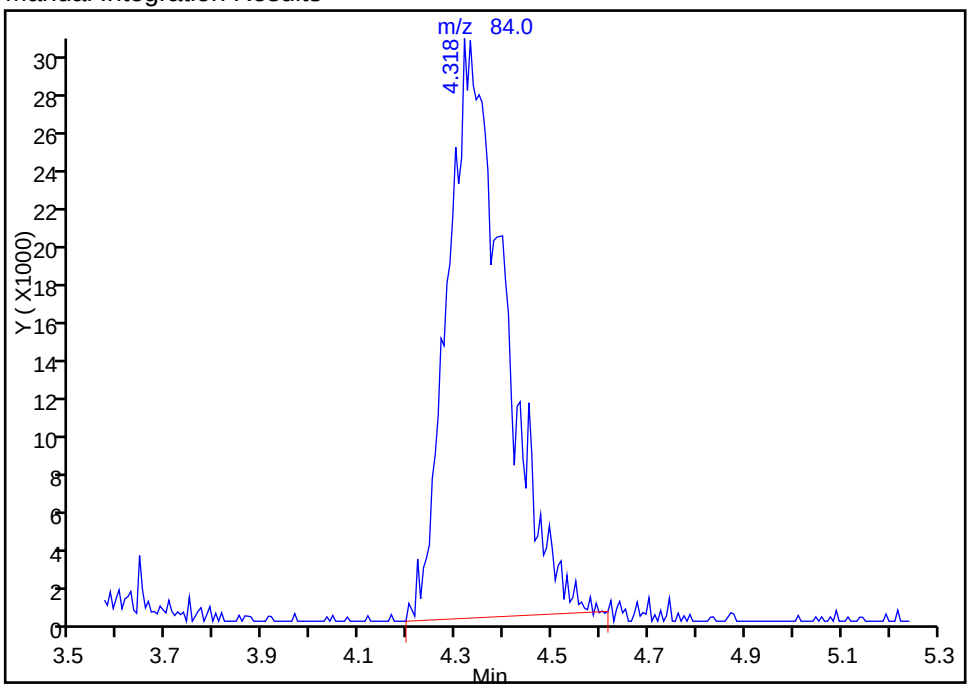
Not Detected
Expected RT: 4.32

Processing Integration Results



Manual Integration Results

RT: 4.32
Area: 250913
Amount: 213.0694
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 10:42:09
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	30-Mar-2015 09:32:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006234-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-Mar-2015 08:54:12	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.637	11.637	0.000	0	289971	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

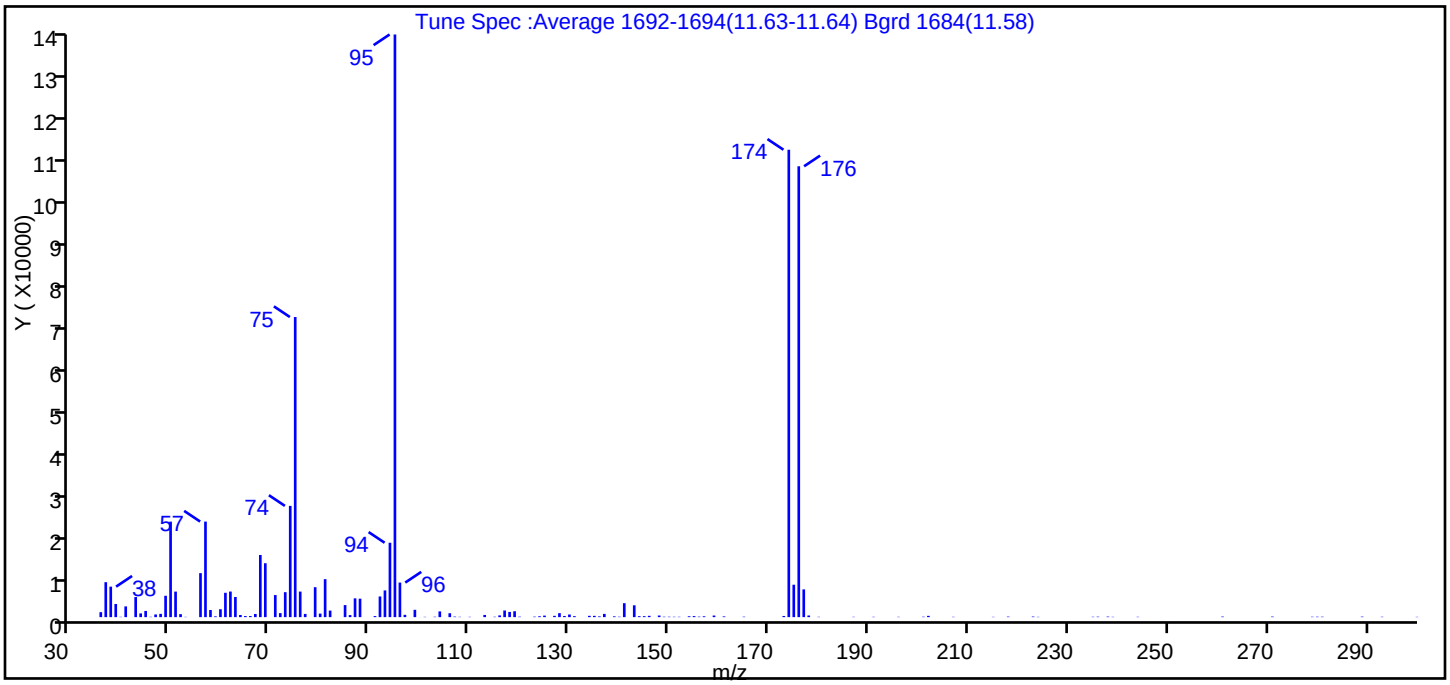
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D
Injection Date: 30-Mar-2015 09:32:30 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	16.4
75	30 to 60% of m/z 95	51.5
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	80.2
175	5 to 9% of m/z 174	5.6 (6.9)
176	Greater than 95% but less than 101% of m/z 174	77.4 (96.5)
177	5 to 9% of m/z 176	4.8 (6.2)

Report Date: 31-Mar-2015 08:54:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 30-Mar-2015 09:32:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1684(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1170	73.00	5848	118.00	1221	165.00	105
37.00	8186	74.00	26056	119.00	1385	173.00	274
38.00	7142	75.00	70280	120.00	109	174.00	109456
39.00	3083	76.00	5984	123.00	114	175.00	7591
40.00	73	77.00	754	124.00	206	176.00	105584
41.00	2517	79.00	7016	125.00	361	177.00	6501
43.00	4710	80.00	834	127.00	306	178.00	384
44.00	876	81.00	8896	128.00	933	180.00	78
45.00	1453	82.00	1533	129.00	273	187.00	76
46.00	79	85.00	2824	130.00	615	191.00	77
47.00	624	86.00	480	131.00	233	196.00	76
48.00	770	87.00	4396	134.00	310	201.00	102
49.00	5005	88.00	4323	135.00	303	202.00	305
50.00	22368	91.00	251	136.00	171	207.00	75
51.00	5983	92.00	4844	137.00	763	215.00	70
52.00	702	93.00	6261	139.00	182	218.00	122
53.00	62	94.00	17424	140.00	99	223.00	137
56.00	10307	95.00	136448	141.00	3269	224.00	69
57.00	22384	96.00	8098	143.00	2771	235.00	86
58.00	1668	97.00	542	144.00	224	236.00	111
59.00	184	99.00	1717	145.00	225	238.00	129
60.00	1857	100.00	12	146.00	313	239.00	76
61.00	5703	101.00	71	148.00	379	244.00	79
62.00	5994	103.00	96	149.00	101	261.00	131
63.00	4718	104.00	1345	150.00	102	271.00	130
64.00	499	106.00	915	151.00	87	279.00	94
65.00	255	107.00	125	152.00	86	280.00	103
66.00	253	108.00	78	154.00	202	281.00	102
67.00	743	110.00	74	155.00	243	289.00	120
68.00	14557	113.00	515	156.00	115	293.00	88
69.00	12624	115.00	90	157.00	197	300.00	69
71.00	5173	116.00	405	159.00	377		
72.00	939	117.00	1555	161.00	170		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1170	73.00	5848	118.00	1221	165.00	105
37.00	8186	74.00	26056	119.00	1385	173.00	274
38.00	7142	75.00	70280	120.00	109	174.00	109456
39.00	3083	76.00	5984	123.00	114	175.00	7591
40.00	73	77.00	754	124.00	206	176.00	105584
41.00	2517	79.00	7016	125.00	361	177.00	6501
43.00	4710	80.00	834	127.00	306	178.00	384
44.00	876	81.00	8896	128.00	933	180.00	78
45.00	1453	82.00	1533	129.00	273	187.00	76
46.00	79	85.00	2824	130.00	615	191.00	77
47.00	624	86.00	480	131.00	233	196.00	76
48.00	770	87.00	4396	134.00	310	201.00	102
49.00	5005	88.00	4323	135.00	303	202.00	305
50.00	22368	91.00	251	136.00	171	207.00	75
51.00	5983	92.00	4844	137.00	763	215.00	70
52.00	702	93.00	6261	139.00	182	218.00	122
53.00	62	94.00	17424	140.00	99	223.00	137
56.00	10307	95.00	136448	141.00	3269	224.00	69
57.00	22384	96.00	8098	143.00	2771	235.00	86
58.00	1668	97.00	542	144.00	224	236.00	111
59.00	184	99.00	1717	145.00	225	238.00	129
60.00	1857	100.00	12	146.00	313	239.00	76
61.00	5703	101.00	71	148.00	379	244.00	79
62.00	5994	103.00	96	149.00	101	261.00	131
63.00	4718	104.00	1345	150.00	102	271.00	130
64.00	499	106.00	915	151.00	87	279.00	94
65.00	255	107.00	125	152.00	86	280.00	103
66.00	253	108.00	78	154.00	202	281.00	102
67.00	743	110.00	74	155.00	243	289.00	120
68.00	14557	113.00	515	156.00	115	293.00	88
69.00	12624	115.00	90	157.00	197	300.00	69
71.00	5173	116.00	405	159.00	377		
72.00	939	117.00	1555	161.00	170		

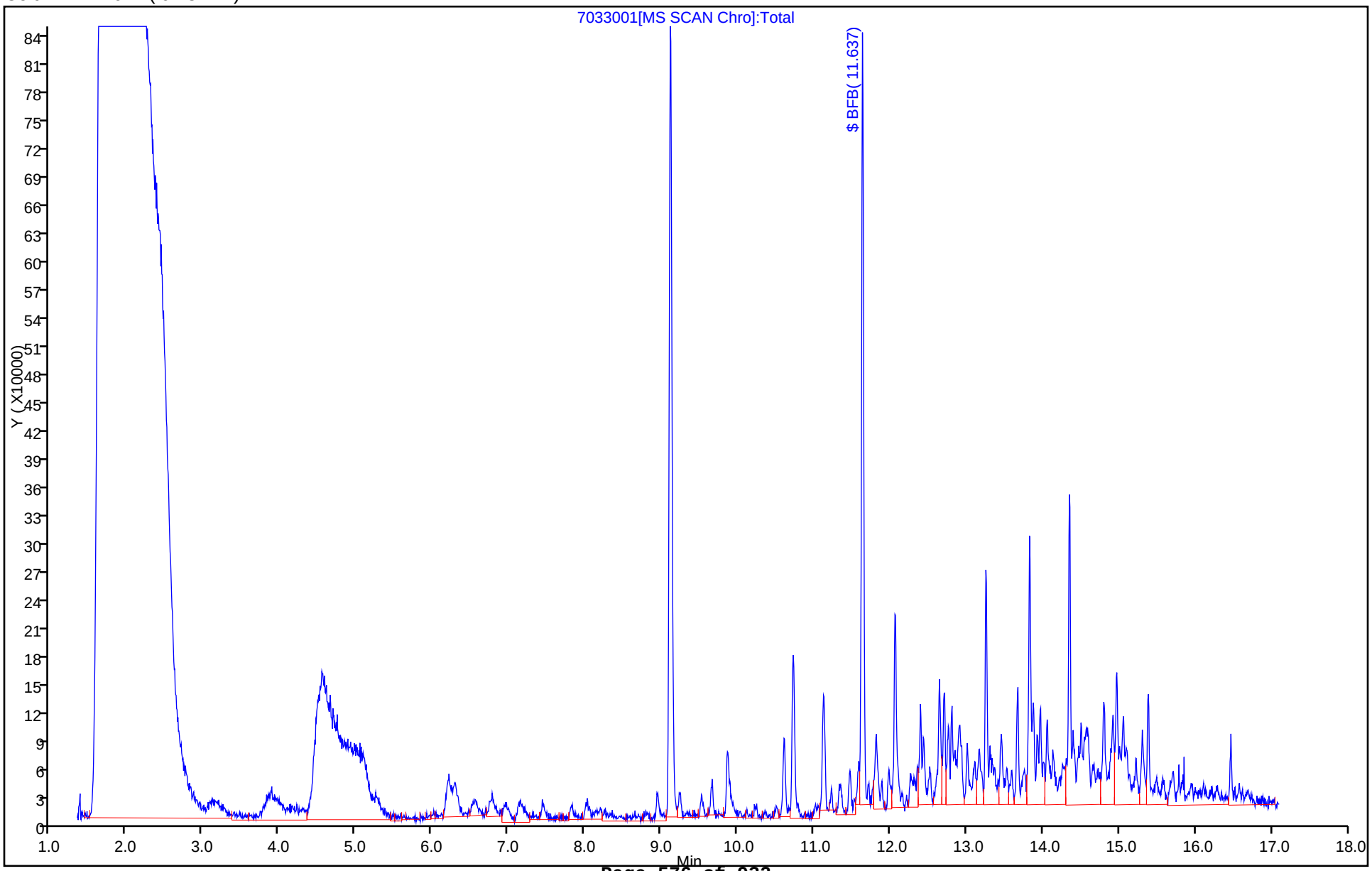
Report Date: 31-Mar-2015 08:54:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D

Injection Date:	30-Mar-2015 09:32:30	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:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040201.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	02-Apr-2015 09:04:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006293-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	03-Apr-2015 10:26:38	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK053				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.636	11.636	0.000	0	237657	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

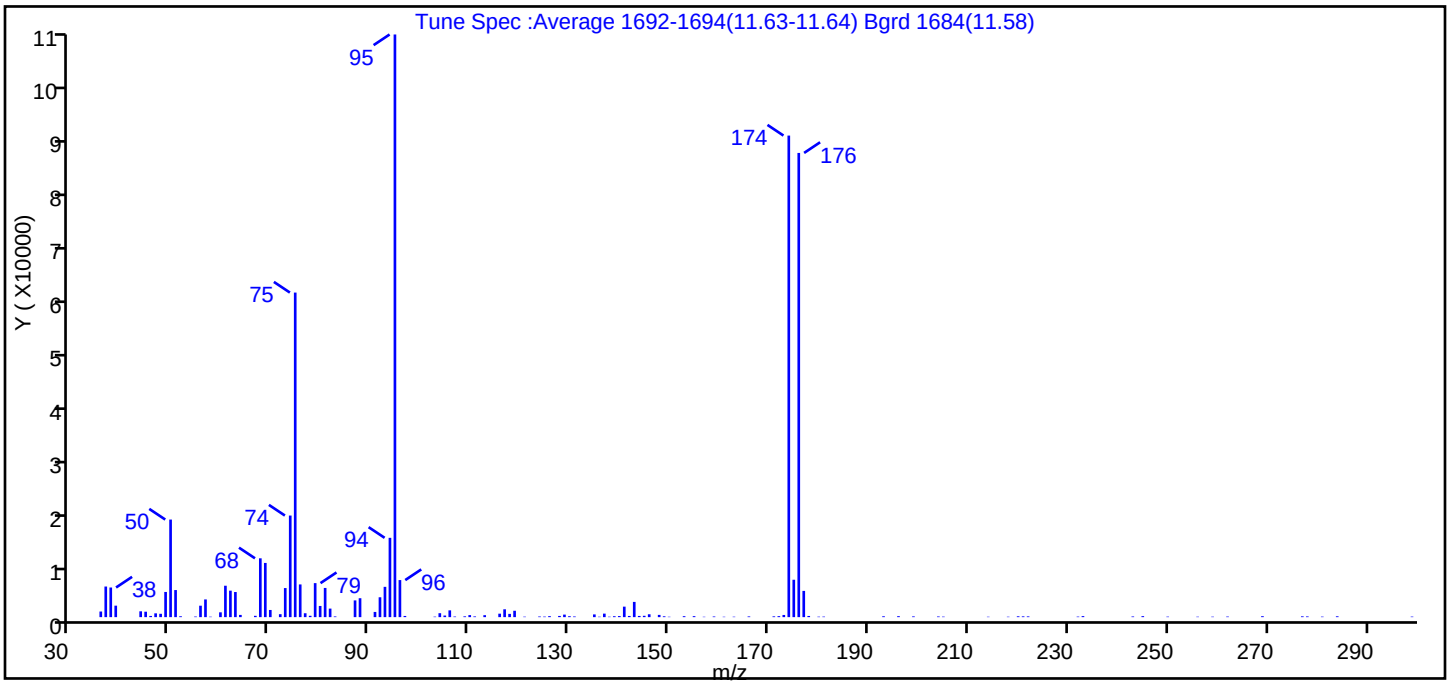
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040201.D
Injection Date: 02-Apr-2015 09:04:30 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	16.7
75	30 to 60% of m/z 95	55.7
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	82.6
175	5 to 9% of m/z 174	6.4 (7.8)
176	Greater than 95% but less than 101% of m/z 174	79.7 (96.4)
177	5 to 9% of m/z 176	4.5 (5.7)

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040201.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 02-Apr-2015 09:04:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1684(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1001	77.00	692	125.00	97	174.00	85664
37.00	5446	78.00	240	126.00	177	175.00	6652
38.00	5273	79.00	6052	128.00	213	176.00	82576
39.00	2042	80.00	1990	129.00	452	177.00	4668
44.00	1038	81.00	5193	130.00	163	178.00	210
45.00	967	82.00	1521	131.00	117	180.00	83
46.00	215	83.00	124	135.00	486	181.00	95
47.00	677	87.00	2977	136.00	75	193.00	151
48.00	595	88.00	3366	137.00	625	196.00	170
49.00	4480	91.00	926	138.00	79	199.00	132
50.00	17360	92.00	3536	139.00	161	204.00	118
51.00	4818	93.00	5391	140.00	191	205.00	90
52.00	154	94.00	14110	141.00	1867	214.00	72
55.00	107	95.00	103648	142.00	211	218.00	76
56.00	2035	96.00	6594	143.00	2710	220.00	149
57.00	3152	97.00	211	144.00	213	221.00	138
58.00	79	103.00	87	145.00	238	222.00	133
60.00	858	104.00	703	146.00	510	232.00	97
61.00	5587	105.00	286	148.00	400	233.00	181
62.00	4709	106.00	1207	149.00	149	243.00	120
63.00	4469	107.00	107	150.00	71	245.00	175
64.00	396	109.00	141	153.00	166	250.00	90
67.00	236	110.00	364	155.00	174	256.00	78
68.00	10464	111.00	128	157.00	68	259.00	84
69.00	9642	113.00	349	159.00	116	262.00	104
70.00	1276	116.00	616	161.00	71	269.00	165
72.00	526	117.00	1396	163.00	78	277.00	142
73.00	5172	118.00	580	166.00	127	278.00	127
74.00	18072	119.00	1135	171.00	139	281.00	91
75.00	57736	121.00	83	172.00	175	284.00	151
76.00	5819	124.00	116	173.00	387	299.00	96

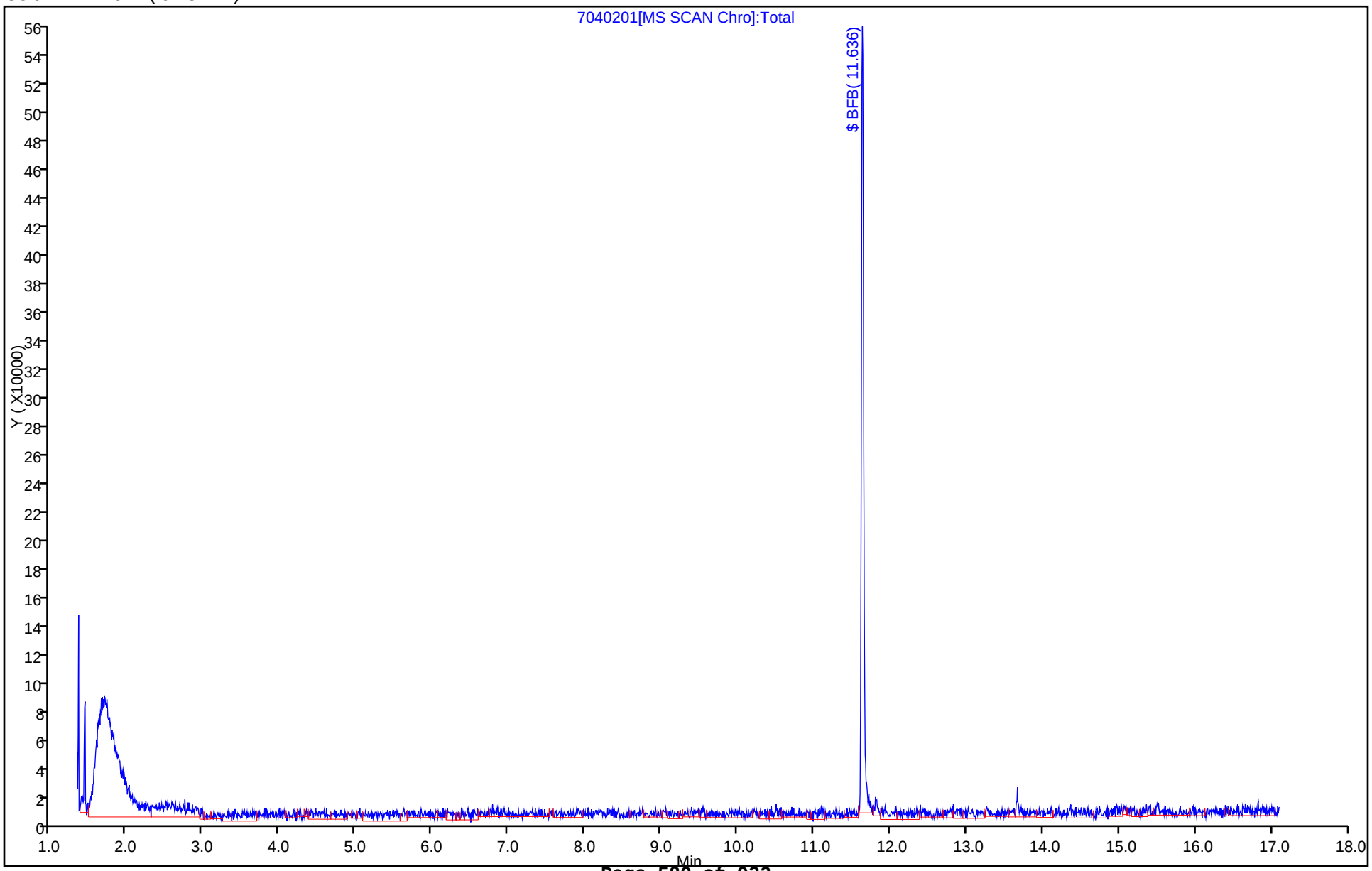
Report Date: 03-Apr-2015 10:26:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040201.D

Injection Date:	02-Apr-2015 09:04:30	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: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040301.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 03-Apr-2015 09:28:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006312-001
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 17:04:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: journetp Date: 03-Apr-2015 10:12:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.636	11.636	0.000	0	420042	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

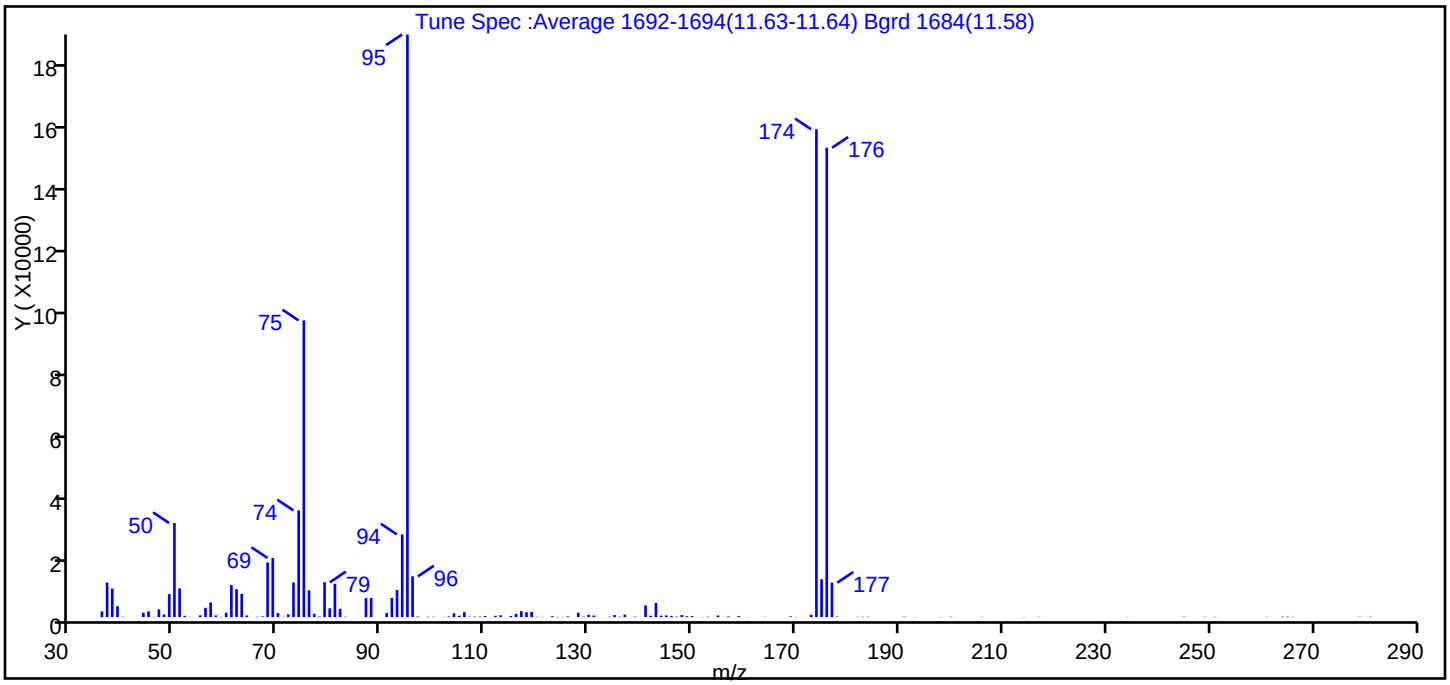
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040301.D
Injection Date: 03-Apr-2015 09:28:30 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	16.1
75	30 to 60% of m/z 95	50.9
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	83.7
175	5 to 9% of m/z 174	6.5 (7.8)
176	Greater than 95% but less than 101% of m/z 174	80.6 (96.2)
177	5 to 9% of m/z 176	5.9 (7.3)

Report Date: 03-Apr-2015 17:04:08 Chrom Revision: 2.2 13-Mar-2015 11:20:44

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040301.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 03-Apr-2015 09:28:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1684(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1820	74.00	33744	116.00	1051	159.00	333
37.00	10915	75.00	93776	117.00	1885	161.00	41
38.00	9033	76.00	8468	118.00	1558	164.00	100
39.00	3459	77.00	1053	119.00	1658	169.00	243
40.00	131	78.00	198	120.00	121	170.00	78
44.00	1380	79.00	11022	121.00	68	173.00	744
45.00	1822	80.00	2795	123.00	294	174.00	154176
46.00	74	81.00	10545	124.00	92	175.00	11973
47.00	2450	82.00	2644	125.00	88	176.00	148352
48.00	826	83.00	132	126.00	250	177.00	10890
49.00	7288	87.00	6009	128.00	1393	178.00	166
50.00	29728	88.00	6063	129.00	160	182.00	100
51.00	9083	91.00	1295	130.00	726	183.00	128
52.00	435	92.00	6077	131.00	505	184.00	126
53.00	84	93.00	8569	134.00	144	191.00	143
55.00	557	94.00	26136	135.00	658	193.00	68
56.00	2952	95.00	184128	136.00	142	198.00	70
57.00	4635	96.00	12889	137.00	801	200.00	125
58.00	550	97.00	212	139.00	167	206.00	85
59.00	104	99.00	141	141.00	3687	214.00	69
60.00	1426	100.00	109	142.00	456	217.00	96
61.00	10139	102.00	75	143.00	4507	234.00	80
62.00	8835	103.00	236	144.00	486	245.00	120
63.00	7378	104.00	1227	145.00	551	249.00	120
64.00	530	105.00	441	146.00	413	251.00	107
66.00	126	106.00	1548	147.00	154	261.00	96
67.00	222	107.00	137	148.00	665	264.00	138
68.00	17296	108.00	181	149.00	301	265.00	170
69.00	18696	109.00	176	150.00	335	266.00	74
70.00	1282	110.00	377	152.00	72	279.00	110
71.00	90	112.00	442	153.00	129	281.00	126
72.00	854	113.00	577	155.00	518		
73.00	10966	115.00	382	157.00	240		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1820	74.00	33744	116.00	1051	159.00	333
37.00	10915	75.00	93776	117.00	1885	161.00	41
38.00	9033	76.00	8468	118.00	1558	164.00	100
39.00	3459	77.00	1053	119.00	1658	169.00	243
40.00	131	78.00	198	120.00	121	170.00	78
44.00	1380	79.00	11022	121.00	68	173.00	744
45.00	1822	80.00	2795	123.00	294	174.00	154176
46.00	74	81.00	10545	124.00	92	175.00	11973
47.00	2450	82.00	2644	125.00	88	176.00	148352
48.00	826	83.00	132	126.00	250	177.00	10890
49.00	7288	87.00	6009	128.00	1393	178.00	166
50.00	29728	88.00	6063	129.00	160	182.00	100
51.00	9083	91.00	1295	130.00	726	183.00	128
52.00	435	92.00	6077	131.00	505	184.00	126
53.00	84	93.00	8569	134.00	144	191.00	143
55.00	557	94.00	26136	135.00	658	193.00	68
56.00	2952	95.00	184128	136.00	142	198.00	70
57.00	4635	96.00	12889	137.00	801	200.00	125
58.00	550	97.00	212	139.00	167	206.00	85
59.00	104	99.00	141	141.00	3687	214.00	69
60.00	1426	100.00	109	142.00	456	217.00	96
61.00	10139	102.00	75	143.00	4507	234.00	80
62.00	8835	103.00	236	144.00	486	245.00	120
63.00	7378	104.00	1227	145.00	551	249.00	120
64.00	530	105.00	441	146.00	413	251.00	107
66.00	126	106.00	1548	147.00	154	261.00	96
67.00	222	107.00	137	148.00	665	264.00	138
68.00	17296	108.00	181	149.00	301	265.00	170
69.00	18696	109.00	176	150.00	335	266.00	74
70.00	1282	110.00	377	152.00	72	279.00	110
71.00	90	112.00	442	153.00	129	281.00	126
72.00	854	113.00	577	155.00	518		
73.00	10966	115.00	382	157.00	240		

Report Date: 03-Apr-2015 17:04:08 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040301.D

Injection Date:	03-Apr-2015 09:28:30	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:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040401.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	04-Apr-2015 13:00:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006327-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	06-Apr-2015 09:15:58	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK002				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.640	11.640	0.000	0	291081	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

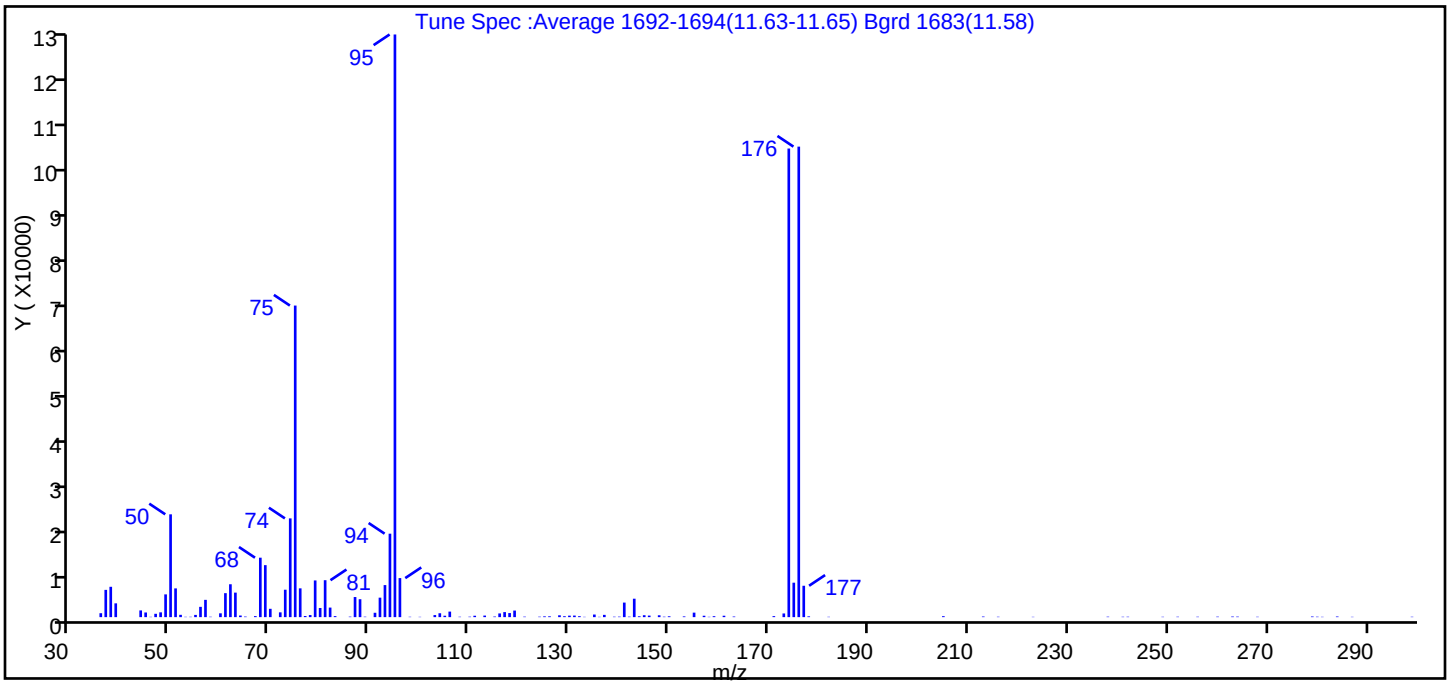
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040401.D
Injection Date: 04-Apr-2015 13:00:30 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	17.6
75	30 to 60% of m/z 95	53.5
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	80.4
175	5 to 9% of m/z 174	5.9 (7.4)
176	Greater than 95% but less than 101% of m/z 174	80.8 (100.4)
177	5 to 9% of m/z 176	5.4 (6.7)

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040401.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 04-Apr-2015 13:00:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.65) Bgrd 1683(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 125

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	868	75.00	68632	118.00	900	163.00	133
37.00	6005	76.00	6343	119.00	1449	171.00	221
38.00	6684	77.00	248	121.00	106	173.00	813
39.00	3040	78.00	455	124.00	102	174.00	103224
44.00	1479	79.00	8084	125.00	169	175.00	7589
45.00	1027	80.00	2016	126.00	183	176.00	103640
46.00	68	81.00	8137	128.00	406	177.00	6913
47.00	738	82.00	2107	129.00	202	178.00	172
48.00	1056	83.00	224	130.00	330	182.00	75
49.00	5013	86.00	111	131.00	346	205.00	205
50.00	22648	87.00	4429	132.00	208	213.00	132
51.00	6332	88.00	3949	133.00	67	216.00	88
52.00	512	89.00	99	135.00	574	223.00	68
53.00	72	91.00	963	136.00	68	238.00	101
54.00	79	92.00	4292	137.00	501	241.00	83
55.00	493	93.00	7061	139.00	96	242.00	92
56.00	2268	94.00	18384	140.00	110	249.00	79
57.00	3809	95.00	128344	141.00	3206	252.00	92
58.00	88	96.00	8601	142.00	108	256.00	90
60.00	845	98.00	81	143.00	4061	260.00	106
61.00	5284	100.00	68	144.00	185	263.00	131
62.00	7245	103.00	456	145.00	422	264.00	115
63.00	5402	104.00	859	146.00	343	268.00	82
64.00	356	105.00	315	148.00	409	279.00	140
65.00	123	106.00	1220	149.00	97	280.00	97
67.00	226	108.00	88	150.00	187	281.00	72
68.00	13096	110.00	100	153.00	159	284.00	141
69.00	11453	111.00	310	155.00	993	287.00	70
70.00	1837	113.00	344	157.00	308	299.00	86
72.00	1057	115.00	132	158.00	70		
73.00	6041	116.00	818	159.00	206		
74.00	21752	117.00	1112	161.00	309		

Report Date: 06-Apr-2015 09:15:59 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040401.D

Injection Date:	04-Apr-2015 13:00:30	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: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040601.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 06-Apr-2015 08:19:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006335-001
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 15:45:35 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 08:51:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.637	11.637	0.000	0	451637	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

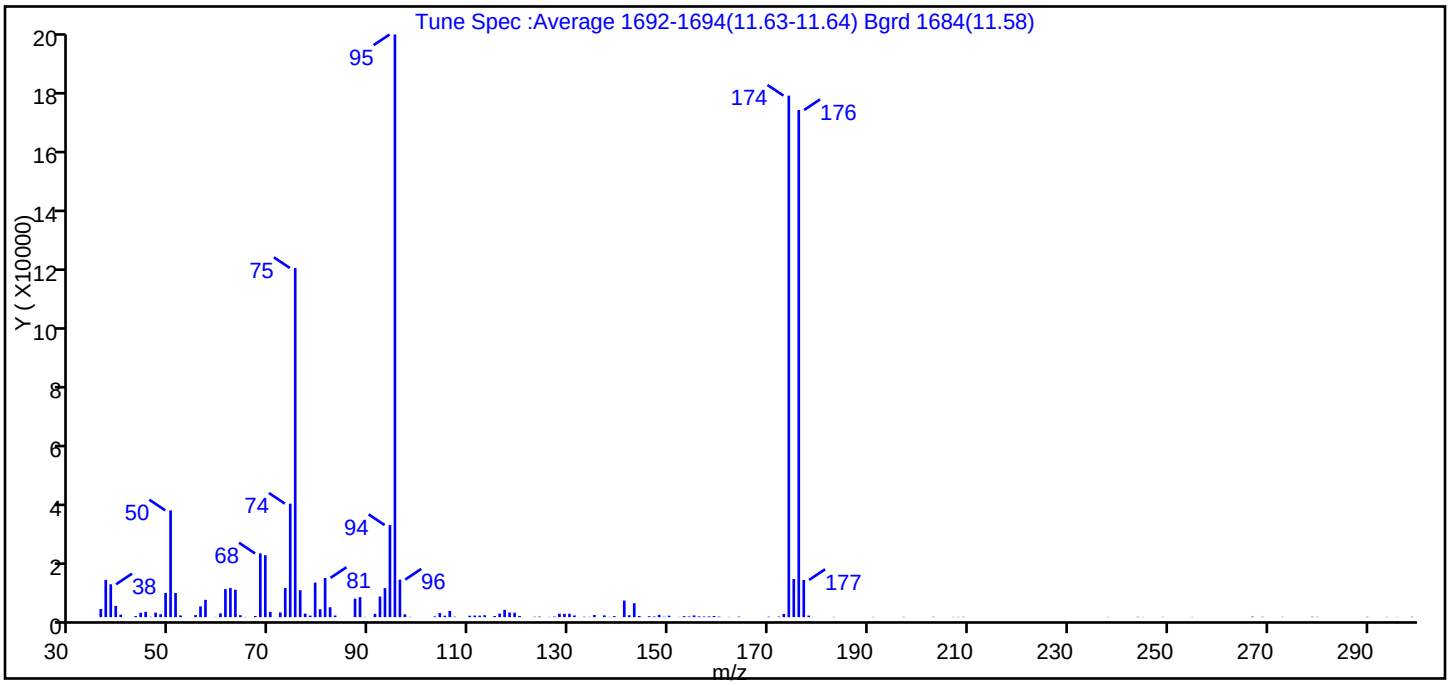
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040601.D
Injection Date: 06-Apr-2015 08:19:30 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	18.3
75	30 to 60% of m/z 95	59.9
96	5 to 9% of m/z 95	6.4
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	89.5
175	5 to 9% of m/z 174	6.5 (7.3)
176	Greater than 95% but less than 101% of m/z 174	87.0 (97.2)
177	5 to 9% of m/z 176	6.4 (7.3)

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040601.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 06-Apr-2015 08:19:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1684(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 131

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2784	76.00	9233	120.00	400	162.00	80
37.00	12762	77.00	1212	123.00	131	164.00	173
38.00	11247	78.00	536	124.00	187	170.00	156
39.00	3860	79.00	11826	126.00	85	172.00	183
40.00	833	80.00	2702	127.00	188	173.00	1071
43.00	376	81.00	13427	128.00	1183	174.00	178496
44.00	1485	82.00	3404	129.00	1133	175.00	13049
45.00	1811	83.00	552	130.00	1156	176.00	173568
46.00	112	87.00	6324	131.00	581	177.00	12731
47.00	1544	88.00	6834	133.00	126	178.00	519
48.00	992	89.00	78	134.00	93	183.00	77
49.00	8303	91.00	1122	135.00	721	191.00	77
50.00	36552	92.00	7057	137.00	610	197.00	89
51.00	8261	93.00	9914	138.00	74	203.00	121
52.00	603	94.00	31520	139.00	350	207.00	71
55.00	702	95.00	199424	141.00	5675	208.00	74
56.00	3680	96.00	12859	142.00	648	209.00	97
57.00	5912	97.00	967	143.00	4777	211.00	4
59.00	75	98.00	85	144.00	405	238.00	74
60.00	1301	103.00	256	146.00	306	244.00	97
61.00	9604	104.00	1406	147.00	231	245.00	69
62.00	9970	105.00	499	148.00	775	249.00	85
63.00	9377	106.00	2140	149.00	133	255.00	73
64.00	665	107.00	157	150.00	499	267.00	184
65.00	71	110.00	483	152.00	76	269.00	123
67.00	406	111.00	547	153.00	338	273.00	91
68.00	21816	112.00	513	154.00	217	279.00	134
69.00	21200	113.00	668	155.00	589	280.00	109
70.00	1809	115.00	397	156.00	250	290.00	107
72.00	1608	116.00	1206	157.00	199	294.00	76
73.00	9968	117.00	2491	158.00	244	296.00	68
74.00	38840	118.00	1585	159.00	386	299.00	122
75.00	119496	119.00	1514	160.00	181		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2784	76.00	9233	120.00	400	162.00	80
37.00	12762	77.00	1212	123.00	131	164.00	173
38.00	11247	78.00	536	124.00	187	170.00	156
39.00	3860	79.00	11826	126.00	85	172.00	183
40.00	833	80.00	2702	127.00	188	173.00	1071
43.00	376	81.00	13427	128.00	1183	174.00	178496
44.00	1485	82.00	3404	129.00	1133	175.00	13049
45.00	1811	83.00	552	130.00	1156	176.00	173568
46.00	112	87.00	6324	131.00	581	177.00	12731
47.00	1544	88.00	6834	133.00	126	178.00	519
48.00	992	89.00	78	134.00	93	183.00	77
49.00	8303	91.00	1122	135.00	721	191.00	77
50.00	36552	92.00	7057	137.00	610	197.00	89
51.00	8261	93.00	9914	138.00	74	203.00	121
52.00	603	94.00	31520	139.00	350	207.00	71
55.00	702	95.00	199424	141.00	5675	208.00	74
56.00	3680	96.00	12859	142.00	648	209.00	97
57.00	5912	97.00	967	143.00	4777	211.00	4
59.00	75	98.00	85	144.00	405	238.00	74
60.00	1301	103.00	256	146.00	306	244.00	97
61.00	9604	104.00	1406	147.00	231	245.00	69
62.00	9970	105.00	499	148.00	775	249.00	85
63.00	9377	106.00	2140	149.00	133	255.00	73
64.00	665	107.00	157	150.00	499	267.00	184
65.00	71	110.00	483	152.00	76	269.00	123
67.00	406	111.00	547	153.00	338	273.00	91
68.00	21816	112.00	513	154.00	217	279.00	134
69.00	21200	113.00	668	155.00	589	280.00	109
70.00	1809	115.00	397	156.00	250	290.00	107
72.00	1608	116.00	1206	157.00	199	294.00	76
73.00	9968	117.00	2491	158.00	244	296.00	68
74.00	38840	118.00	1585	159.00	386	299.00	122
75.00	119496	119.00	1514	160.00	181		

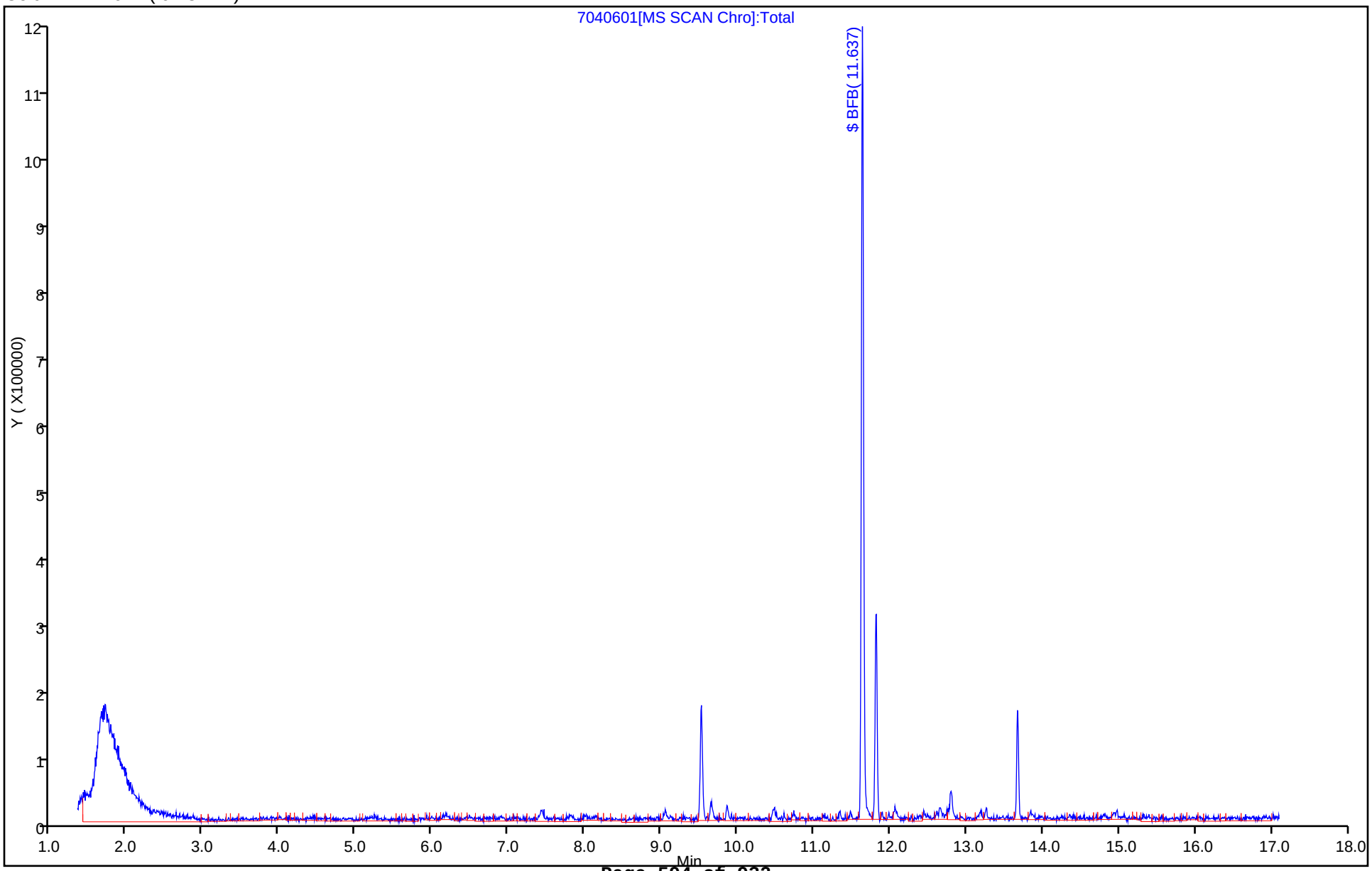
Report Date: 06-Apr-2015 15:45:35 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040601.D

Injection Date:	06-Apr-2015 08:19:30	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.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137305/6

Matrix: Water Lab File ID: 7040206.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 12:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137305 Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137305/6

Matrix: Water Lab File ID: 7040206.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/02/2015 12:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137305 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040206.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 02-Apr-2015 12:11:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0006293-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:54 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: journetp Date: 02-Apr-2015 16:41:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.589	4.837	-0.248	95	216554	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.418	7.398	0.020	99	718219	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.472	10.464	0.008	84	202019	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.788	0.002	95	271011	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.694	6.680	0.014	90	265418	200.0	231.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.059	7.045	0.014	92	217841	200.0	199.4	
$ 7 Toluene-d8 (Surr)	98	9.042	9.035	0.007	92	680578	200.0	227.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.634	11.632	0.002	89	273367	200.0	204.3	
11 Dichlorodifluoromethane	85		1.935					ND	
12 Chloromethane	50		2.033					ND	
13 Vinyl chloride	62		2.185					ND	
14 Butadiene	39		2.209					ND	
15 Bromomethane	94		2.495					ND	
16 Chloroethane	64		2.617					ND	
18 Trichlorofluoromethane	101		2.884					ND	
17 Dichlorofluoromethane	67		2.890					ND	
20 Ethyl ether	59		3.316					ND	
19 Ethanol	45		3.339					ND	
21 Acrolein	56		3.456					ND	
22 1,1-Dichloroethene	96		3.505					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.639					ND	
25 Iodomethane	142		3.730					ND	
26 Carbon disulfide	76		3.791					ND	
24 Acetone	43		3.839					ND	
27 Isopropyl alcohol	45		3.880					ND	
28 3-Chloro-1-propene	76		4.101					ND	
29 Acetonitrile	40		4.178					ND	
30 Methyl acetate	43		4.302					ND	
31 Methylene Chloride	84		4.350					ND	
34 trans-1,2-Dichloroethene	96		4.728					ND	
33 Acrylonitrile	53		4.813					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		4.874					ND	
32 2-Methyl-2-propanol	59		4.959					ND	
38 Vinyl acetate	43		5.117					ND	
36 Hexane	57		5.123					ND	
41 Isopropyl ether	45		5.352					ND	
37 1,1-Dichloroethane	63		5.354					ND	
40 Isopropyl ether TIC	45		5.456					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	77		6.090					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
45 cis-1,2-Dichloroethene	96		6.096					ND	
48 Ethyl acetate	43		6.186					ND	
46 2-Butanone (MEK)	43		6.200					ND	
47 Propionitrile	54		6.283					ND	
50 Methacrylonitrile	41		6.314					ND	
49 Chlorobromomethane	128		6.382					ND	
52 Chloroform	83		6.492					ND	
53 1,1,1-Trichloroethane	97		6.668					ND	
51 Tetrahydrofuran	42		6.717					ND	
54 Cyclohexane	56		6.729					ND	
55 1,1-Dichloropropene	75		6.857					ND	
56 Carbon tetrachloride	117		6.857					ND	
58 Benzene	78		7.094					ND	
59 1,2-Dichloroethane	62		7.124					ND	
60 Tert-amyl methyl ether (TI	73		7.201					ND	
62 n-Heptane	43		7.398					ND	
57 Isobutyl alcohol	41		7.398					ND	
61 Tert-amyl methyl ether	73		7.421					ND	
64 Trichloroethene	130		7.794					ND	
66 Methylcyclohexane	83		7.976					ND	
65 Ethyl acrylate	55		7.993					ND	
69 Methyl methacrylate	69		7.993					ND	
67 1,2-Dichloropropane	63		8.025					ND	
68 Dibromomethane	93		8.140					ND	
63 n-Butanol	56		8.157					ND	
70 1,4-Dioxane	88		8.195					ND	
71 Dichlorobromomethane	83		8.317					ND	
72 2-Nitropropane	41		8.528					ND	
73 2-Chloroethyl vinyl ether	63		8.753					ND	
74 cis-1,3-Dichloropropene	75		8.767					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.943					ND	
76 Toluene	91		9.102					ND	
77 trans-1,3-Dichloropropene	75		9.327					ND	
78 Ethyl methacrylate	69		9.424					ND	
79 1,1,2-Trichloroethane	97		9.509					ND	
80 Tetrachloroethene	164		9.649					ND	
81 1,3-Dichloropropane	76		9.673					ND	
83 n-Butyl acetate	43		9.763					ND	
82 2-Hexanone	43		9.765					ND	
84 Chlorodibromomethane	129		9.899					ND	
85 Ethylene Dibromide	107		10.008					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.495					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.574					ND	
90 Ethylbenzene	106		10.604					ND	
91 m-Xylene & p-Xylene	106		10.720					ND	
92 o-Xylene	106		11.115					ND	
93 Styrene	104		11.133					ND	
94 Bromoform	173		11.316					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57		11.478					ND	
97 Isopropylbenzene	105		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.778					ND	
100 Bromobenzene	156		11.790					ND	
101 1,2,3-Trichloropropane	110		11.821					ND	
102 trans-1,4-Dichloro-2-buten	53		11.833					ND	
98 Cyclohexanone	55		11.868					ND	
103 N-Propylbenzene	120		11.888					ND	
104 2-Chlorotoluene	126		11.979					ND	
106 1,3,5-Trimethylbenzene	105		12.064					ND	
105 3-Chlorotoluene	126	12.115	12.087	0.028	1	356			NC
107 4-Chlorotoluene	126		12.089					ND	
108 tert-Butylbenzene	119		12.387					ND	
109 Pentachloroethane	167		12.415					ND	
110 1,2,4-Trimethylbenzene	105		12.435					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
117 1,2,3-Trimethylbenzene	105	12.437	12.610	-0.173	1	929			NC
112 sec-Butylbenzene	105		12.612					ND	
113 1,3-Dichlorobenzene	146		12.727					ND	
114 4-Isopropyltoluene	119		12.752					ND	
115 1,4-Dichlorobenzene	146		12.813					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91		13.164					ND	
120 n-Butylbenzene	91		13.165					ND	
121 1,2-Dichlorobenzene	146		13.190					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.962					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.228					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.802					ND	
127 Hexachlorobutadiene	225		14.972					ND	
128 Naphthalene	128		15.051					ND	
129 1,2,3-Trichlorobenzene	180		15.301					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142	16.562	16.516	0.046	1	325			NC
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
146 2,5-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

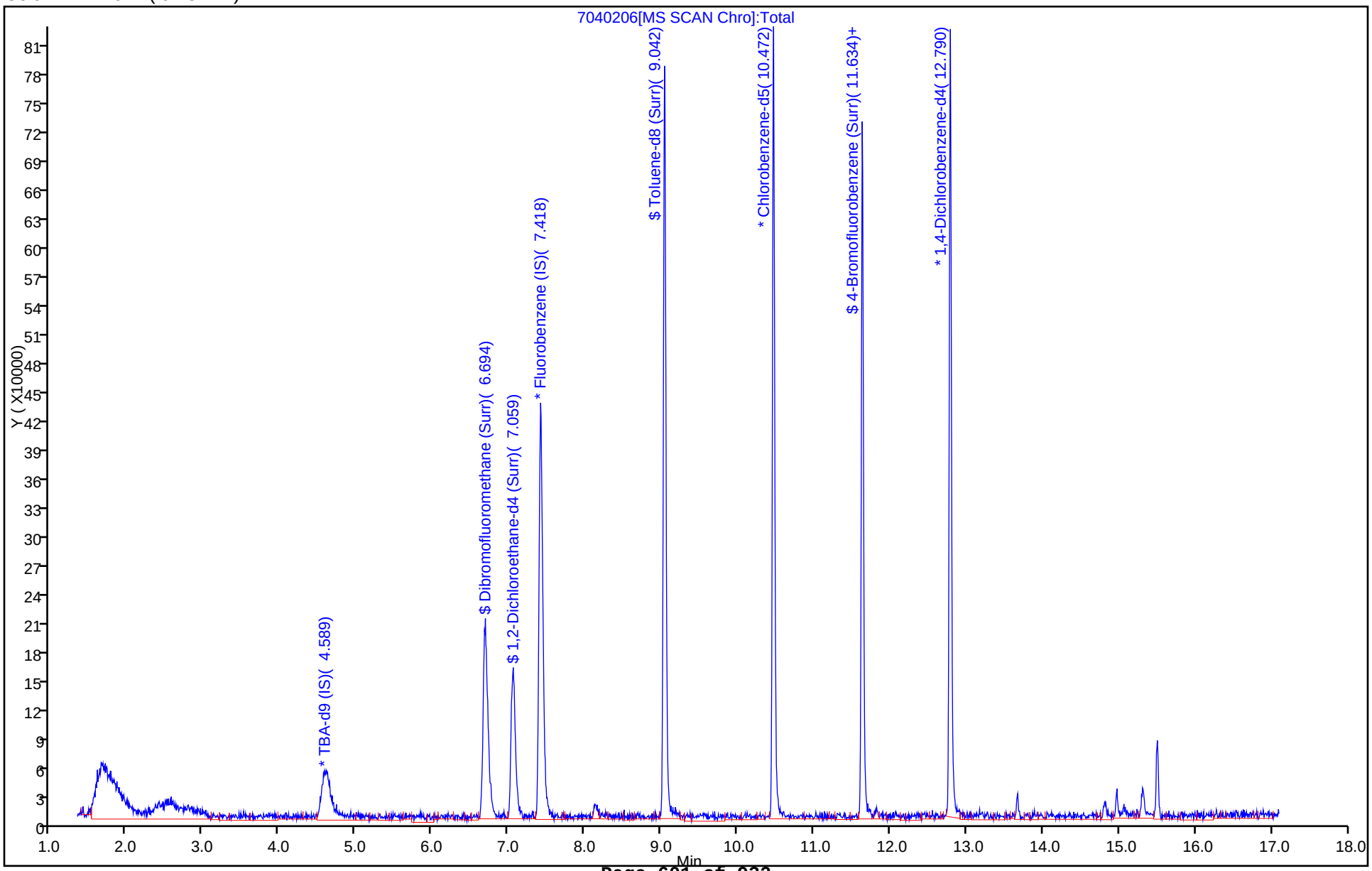
Report Date: 03-Apr-2015 10:26:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150402-6293.b\7040206.D

Injection Date:	02-Apr-2015 12:11:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
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.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137438/6

Matrix: Water Lab File ID: 7040306.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 11:46

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.: 137438 Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137438/6

Matrix: Water Lab File ID: 7040306.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 11:46

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.: 137438 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	117		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	119		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040306.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 03-Apr-2015 11:46:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0006312-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 17:04:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: journetp Date: 03-Apr-2015 12:57:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.598	4.786	-0.188	94	215384	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.420	7.402	0.018	99	689625	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.474	10.468	0.006	84	206910	200.0	200.0	M
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	96	251065	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.696	6.678	0.018	90	262024	200.0	238.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.055	7.043	0.012	95	217744	200.0	207.6	
$ 7 Toluene-d8 (Surr)	98	9.045	9.038	0.007	92	716839	200.0	233.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	88	289210	200.0	211.5	
11 Dichlorodifluoromethane	85		1.963					ND	
12 Chloromethane	50		2.000					ND	
14 Butadiene	39		2.207					ND	
13 Vinyl chloride	62		2.219					ND	
15 Bromomethane	94		2.511					ND	
16 Chloroethane	64		2.626					ND	
17 Dichlorofluoromethane	67		2.888					ND	
18 Trichlorofluoromethane	101		2.906					ND	
19 Ethanol	45		3.320					ND	
20 Ethyl ether	59		3.320					ND	
21 Acrolein	56		3.478					ND	
22 1,1-Dichloroethene	96		3.527					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.673					ND	
25 Iodomethane	142		3.758					ND	
24 Acetone	43		3.801					ND	
26 Carbon disulfide	76		3.825					ND	
27 Isopropyl alcohol	45		3.861					ND	
28 3-Chloro-1-propene	76		4.135					ND	
29 Acetonitrile	40		4.190					ND	
30 Methyl acetate	43		4.318					ND	
31 Methylene Chloride	84		4.354					ND	
34 trans-1,2-Dichloroethene	96		4.756					ND	
33 Acrylonitrile	53		4.816					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		4.865					ND	
32 2-Methyl-2-propanol	59		4.902					ND	
38 Vinyl acetate	43		5.145					ND	
36 Hexane	57		5.151					ND	
37 1,1-Dichloroethane	63		5.364					ND	
41 Isopropyl ether	45		5.437					ND	
40 Isopropyl ether TIC	45		5.456					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	77		6.088					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
45 cis-1,2-Dichloroethene	96		6.112					ND	
46 2-Butanone (MEK)	43		6.179					ND	
48 Ethyl acetate	43		6.179					ND	
47 Propionitrile	54		6.283					ND	
50 Methacrylonitrile	41		6.314					ND	
49 Chlorobromomethane	128		6.380					ND	
52 Chloroform	83		6.502					ND	
53 1,1,1-Trichloroethane	97		6.678					ND	
51 Tetrahydrofuran	42		6.727					ND	
54 Cyclohexane	56		6.733					ND	
56 Carbon tetrachloride	117		6.861					ND	
55 1,1-Dichloropropene	75		6.873					ND	
58 Benzene	78		7.098					ND	
59 1,2-Dichloroethane	62		7.122					ND	
60 Tert-amyl methyl ether (TI	73		7.201					ND	
57 Isobutyl alcohol	41		7.408					ND	
61 Tert-amyl methyl ether	73	7.414	7.408	0.006	37	5456			NC
62 n-Heptane	43		7.408					ND	
64 Trichloroethene	130		7.797					ND	
65 Ethyl acrylate	55		7.986					ND	
69 Methyl methacrylate	69		7.986					ND	
66 Methylcyclohexane	83		7.986					ND	
67 1,2-Dichloropropane	63		8.035					ND	
63 n-Butanol	56	8.114	8.132	-0.018	1	243			NC
68 Dibromomethane	93		8.150					ND	
70 1,4-Dioxane	88		8.187					ND	
71 Dichlorobromomethane	83		8.321					ND	
72 2-Nitropropane	41		8.527					ND	
73 2-Chloroethyl vinyl ether	63	8.753	8.765	-0.012	1	97			NC
74 cis-1,3-Dichloropropene	75		8.771					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935					ND	
76 Toluene	91		9.105					ND	
77 trans-1,3-Dichloropropene	75		9.330					ND	
78 Ethyl methacrylate	69		9.422					ND	
79 1,1,2-Trichloroethane	97		9.507					ND	
80 Tetrachloroethene	164		9.647					ND	
81 1,3-Dichloropropane	76		9.677					ND	
82 2-Hexanone	43		9.762					ND	
83 n-Butyl acetate	43		9.762					ND	
84 Chlorodibromomethane	129		9.896					ND	
85 Ethylene Dibromide	107		10.018					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.498					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.578					ND	
90 Ethylbenzene	106		10.608					ND	
91 m-Xylene & p-Xylene	106		10.724					ND	
92 o-Xylene	106		11.113					ND	
93 Styrene	104		11.131					ND	
94 Bromoform	173		11.314					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
97 Isopropylbenzene	105		11.484					ND	
95 Cyclohexanol	57		11.490					ND	
99 1,1,2,2-Tetrachloroethane	83		11.776					ND	
100 Bromobenzene	156		11.788					ND	
101 1,2,3-Trichloropropane	110		11.825					ND	
102 trans-1,4-Dichloro-2-buten	53		11.831					ND	
98 Cyclohexanone	55		11.885					ND	
103 N-Propylbenzene	120		11.892					ND	
104 2-Chlorotoluene	126		11.983					ND	
106 1,3,5-Trimethylbenzene	105		12.062					ND	
105 3-Chlorotoluene	126	12.184	12.092	0.092	1	78			NC
107 4-Chlorotoluene	126		12.092					ND	
108 tert-Butylbenzene	119		12.390					ND	
109 Pentachloroethane	167	12.336	12.421	-0.085	1	149			NC
110 1,2,4-Trimethylbenzene	105		12.439					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.609					ND	
117 1,2,3-Trimethylbenzene	105	12.439	12.609	-0.170	1	1066			NC
113 1,3-Dichlorobenzene	146		12.725					ND	
114 4-Isopropyltoluene	119		12.755					ND	
115 1,4-Dichlorobenzene	146		12.810					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91	13.133	13.163	-0.030	1	94			NC
120 n-Butylbenzene	91		13.163					ND	
121 1,2-Dichlorobenzene	146		13.187					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.966					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.228					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.806					ND	
127 Hexachlorobutadiene	225		14.970					ND	
128 Naphthalene	128		15.061					ND	
129 1,2,3-Trichlorobenzene	180		15.317					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.516					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

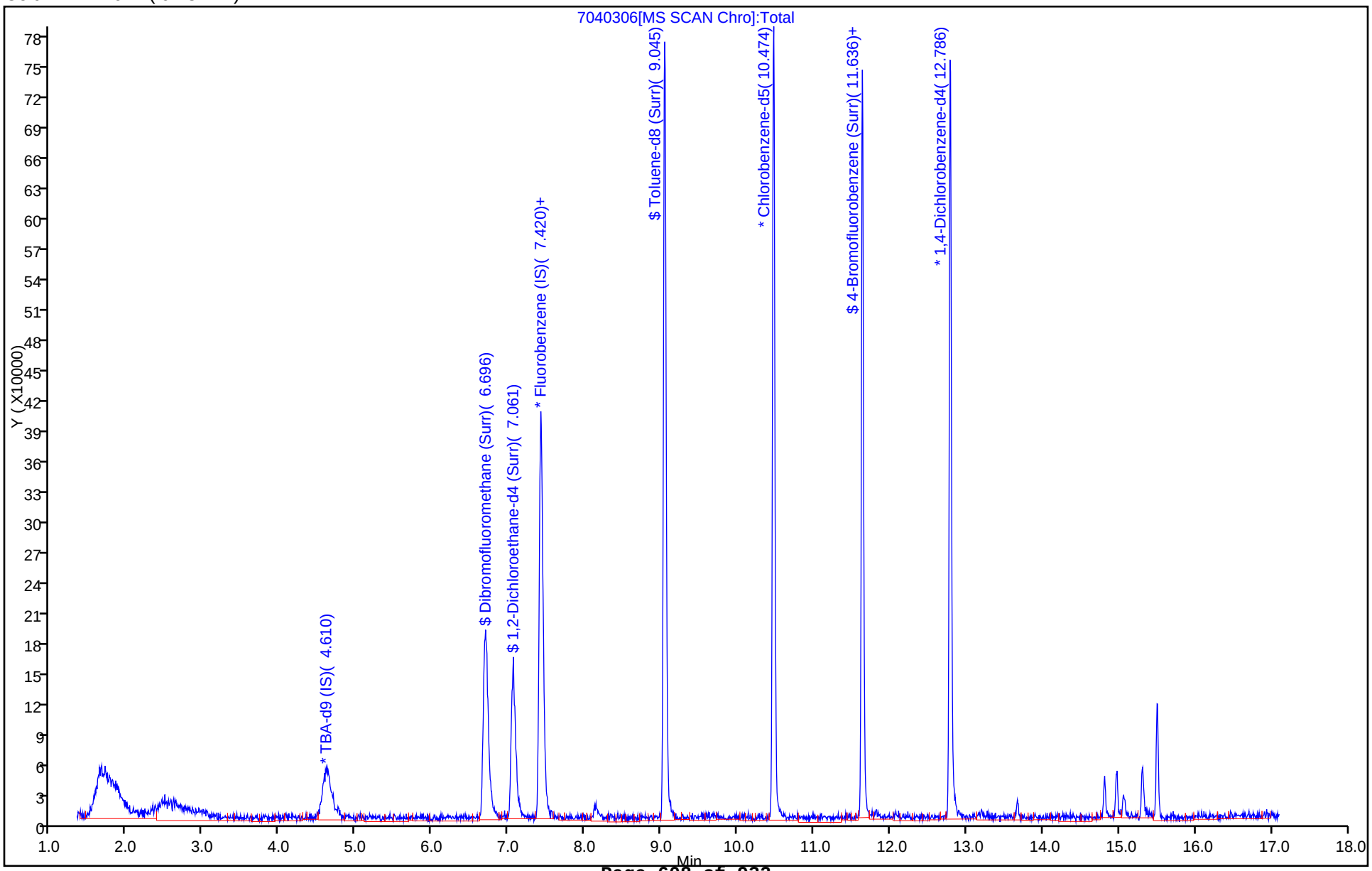
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 17:04:09 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040306.D				
Injection Date:	03-Apr-2015 11:46:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

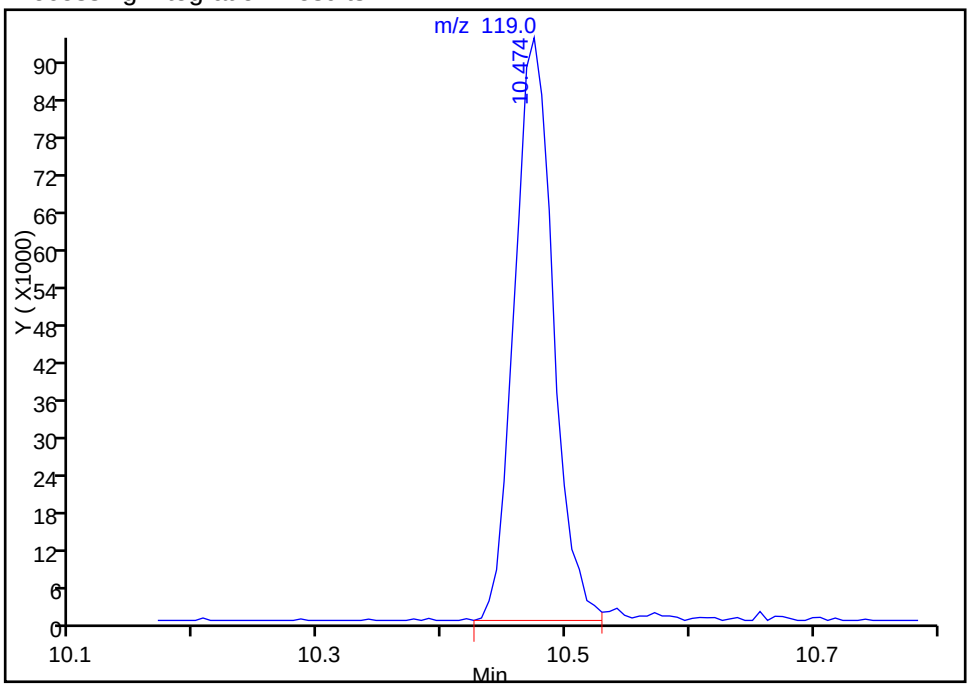
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040306.D				
Injection Date:	03-Apr-2015 11:46:30	Instrument ID:	CHHP7		
Lims ID:	mb				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 3 Chlorobenzene-d5, CAS: 3114-55-4

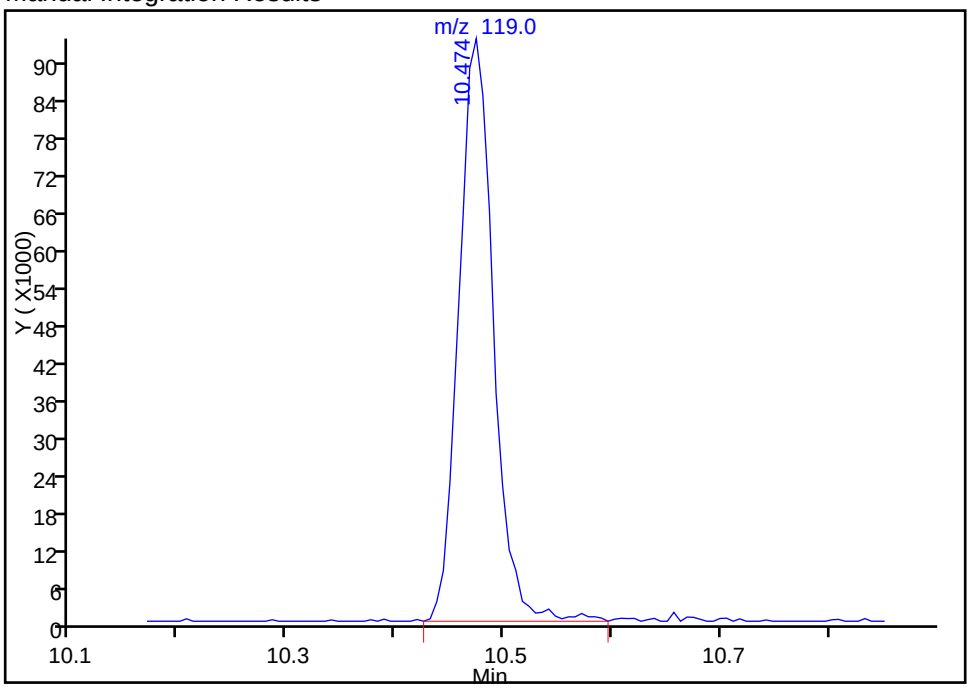
Processing Integration Results

RT: 10.47
Area: 203546
Amount: 200.0000
Amount Units: ng



Manual Integration Results

RT: 10.47
Area: 206910
Amount: 200.0000
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 12:57:22
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137512/6

Matrix: Water Lab File ID: 7040406.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 15:41

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.: 137512 Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137512/6

Matrix: Water Lab File ID: 7040406.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 15:41

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.: 137512 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040406.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 04-Apr-2015 15:41:30 ALS Bottle#: 7 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0006327-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:16:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 09:10:39

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.605	4.765	-0.160	85	175848	4000.0	4000.0	
*	2 Fluorobenzene (IS)	96	7.415	7.399	0.016	99	768306	200.0	200.0	
*	3 Chlorobenzene-d5	119	10.469	10.471	-0.002	84	234443	200.0	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.787	12.789	-0.002	95	336696	200.0	200.0	
$	5 Dibromofluoromethane (Surr	113	6.685	6.675	0.010	88	278476	200.0	227.2	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.040	0.010	95	208779	200.0	178.7	
$	7 Toluene-d8 (Surr)	98	9.045	9.036	0.009	92	749588	200.0	215.6	
$	8 4-Bromofluorobenzene (Surr	95	11.637	11.633	0.004	89	319547	200.0	205.8	
	11 Dichlorodifluoromethane	85		1.912					ND	
	12 Chloromethane	50		2.028					ND	
	14 Butadiene	39		2.186					ND	
	13 Vinyl chloride	62		2.192					ND	
	15 Bromomethane	94		2.502					ND	
	16 Chloroethane	64		2.605					ND	
	18 Trichlorofluoromethane	101		2.879					ND	
	17 Dichlorofluoromethane	67		2.879					ND	
	20 Ethyl ether	59		3.311					ND	
	19 Ethanol	45		3.320					ND	
	21 Acrolein	56		3.481					ND	
	22 1,1-Dichloroethene	96		3.518					ND	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.634					ND	
	25 Iodomethane	142		3.761					ND	
	26 Carbon disulfide	76		3.828					ND	
	24 Acetone	43		3.834					ND	
	27 Isopropyl alcohol	45		3.861					ND	
	28 3-Chloro-1-propene	76		4.126					ND	
	29 Acetonitrile	40		4.190					ND	
	30 Methyl acetate	43		4.297					ND	
	31 Methylene Chloride	84		4.364					ND	
	34 trans-1,2-Dichloroethene	96		4.753					ND	
	33 Acrylonitrile	53		4.802					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		4.856					ND	
32 2-Methyl-2-propanol	59		4.875					ND	
38 Vinyl acetate	43		5.148					ND	
36 Hexane	57		5.160					ND	
37 1,1-Dichloroethane	63		5.355					ND	
41 Isopropyl ether	45		5.437					ND	
40 Isopropyl ether TIC	45		5.456					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	77		6.091					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
45 cis-1,2-Dichloroethene	96		6.103					ND	
48 Ethyl acetate	43		6.179					ND	
46 2-Butanone (MEK)	43		6.189					ND	
47 Propionitrile	54		6.283					ND	
50 Methacrylonitrile	41		6.314					ND	
49 Chlorobromomethane	128		6.377					ND	
52 Chloroform	83		6.499					ND	
53 1,1,1-Trichloroethane	97		6.681					ND	
51 Tetrahydrofuran	42		6.730					ND	
54 Cyclohexane	56		6.730					ND	
56 Carbon tetrachloride	117		6.858					ND	
55 1,1-Dichloropropene	75		6.864					ND	
58 Benzene	78		7.089					ND	
59 1,2-Dichloroethane	62		7.132					ND	
60 Tert-amyl methyl ether (TI	73		7.201					ND	
57 Isobutyl alcohol	41		7.399					ND	
62 n-Heptane	43		7.405					ND	
61 Tert-amyl methyl ether	73	7.409	7.408	0.001	37	9359			NC
64 Trichloroethene	130		7.795					ND	
69 Methyl methacrylate	69		7.986					ND	
65 Ethyl acrylate	55		7.986					ND	
66 Methylcyclohexane	83		7.989					ND	
67 1,2-Dichloropropane	63		8.032					ND	
63 n-Butanol	56		8.132					ND	
68 Dibromomethane	93		8.147					ND	
70 1,4-Dioxane	88		8.184					ND	
71 Dichlorobromomethane	83		8.312					ND	
72 2-Nitropropane	41		8.527					ND	
73 2-Chloroethyl vinyl ether	63	8.577	8.765	-0.188	1	184			NC
74 cis-1,3-Dichloropropene	75		8.774					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.938					ND	
76 Toluene	91		9.103					ND	
77 trans-1,3-Dichloropropene	75		9.322					ND	
78 Ethyl methacrylate	69		9.425					ND	
79 1,1,2-Trichloroethane	97		9.504					ND	
80 Tetrachloroethene	164		9.644					ND	
81 1,3-Dichloropropane	76		9.668					ND	
82 2-Hexanone	43		9.760					ND	
83 n-Butyl acetate	43		9.762					ND	
84 Chlorodibromomethane	129		9.900					ND	
85 Ethylene Dibromide	107		10.009					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.496					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.575					ND	
90 Ethylbenzene	106		10.605					ND	
91 m-Xylene & p-Xylene	106		10.721					ND	
92 o-Xylene	106		11.116					ND	
93 Styrene	104		11.128					ND	
94 Bromoform	173		11.317					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
97 Isopropylbenzene	105		11.481					ND	
95 Cyclohexanol	57	11.485	11.490	-0.005	0	173			NC
99 1,1,2,2-Tetrachloroethane	83		11.773					ND	
100 Bromobenzene	156		11.785					ND	
101 1,2,3-Trichloropropane	110		11.822					ND	
102 trans-1,4-Dichloro-2-buten	53		11.828					ND	
98 Cyclohexanone	55		11.885					ND	
103 N-Propylbenzene	120		11.889					ND	
104 2-Chlorotoluene	126		11.980					ND	
106 1,3,5-Trimethylbenzene	105		12.065					ND	
107 4-Chlorotoluene	126		12.090					ND	
105 3-Chlorotoluene	126	12.093	12.092	0.001	1	363			NC
108 tert-Butylbenzene	119		12.388					ND	
109 Pentachloroethane	167		12.421					ND	
110 1,2,4-Trimethylbenzene	105		12.436					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.607					ND	
117 1,2,3-Trimethylbenzene	105	12.756	12.609	0.147	1	310			NC
113 1,3-Dichlorobenzene	146		12.722					ND	
114 4-Isopropyltoluene	119		12.753					ND	
115 1,4-Dichlorobenzene	146		12.814					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
120 n-Butylbenzene	91		13.160					ND	
119 Benzyl chloride	91		13.163					ND	
121 1,2-Dichlorobenzene	146		13.185					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.969					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.228					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.803					ND	
127 Hexachlorobutadiene	225		14.973					ND	
128 Naphthalene	128		15.058					ND	
129 1,2,3-Trichlorobenzene	180		15.308					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.516					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
147 2,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

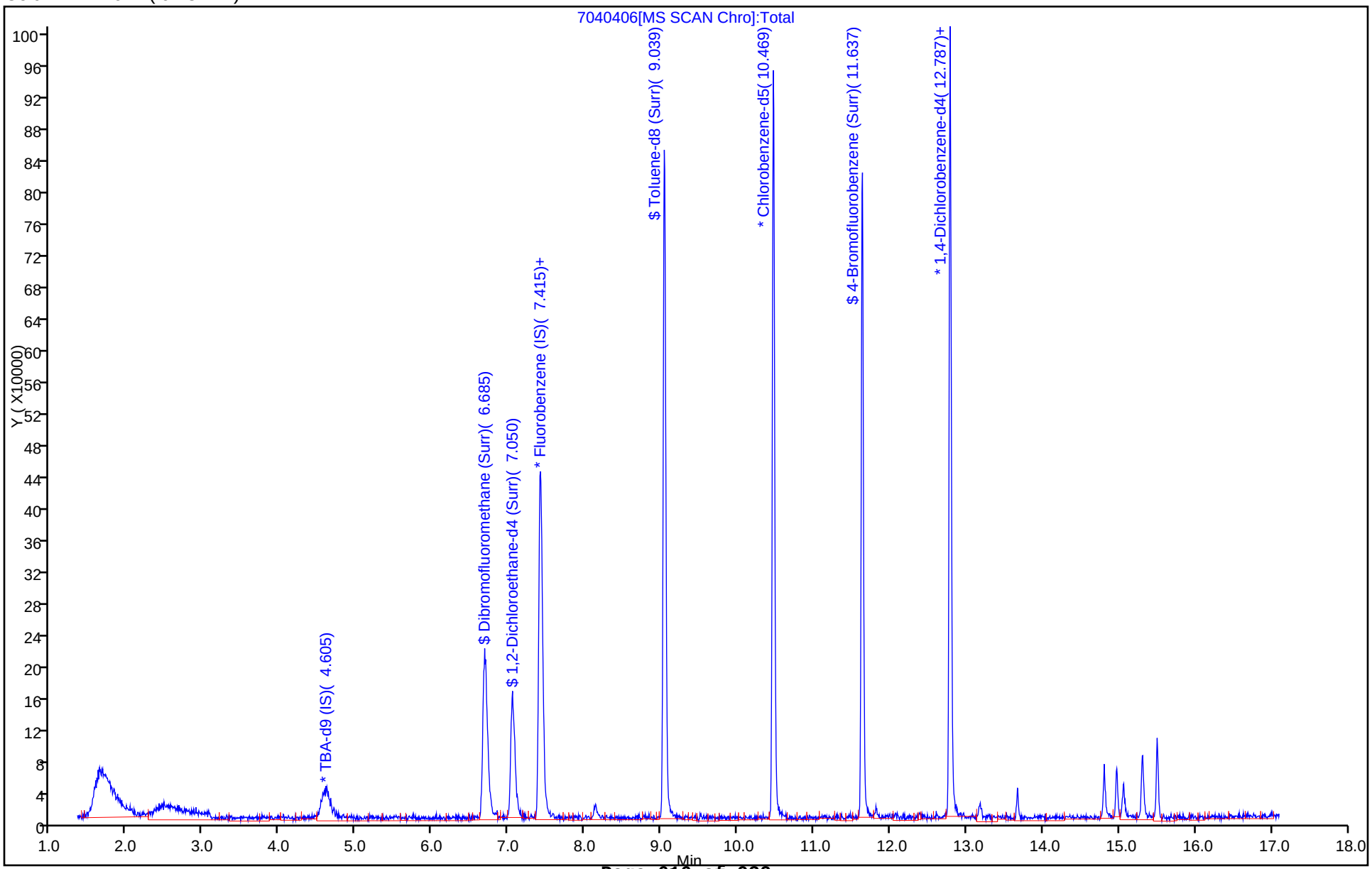
Report Date: 06-Apr-2015 09:16:02 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040406.D

Injection Date:	04-Apr-2015 15:41:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
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.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137564/6

Matrix: Water Lab File ID: 7040606.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/06/2015 11:09

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137564 Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137564/6

Matrix: Water Lab File ID: 7040606.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/06/2015 11:09

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137564 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040606.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 06-Apr-2015 11:09:30 ALS Bottle#: 7 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0006335-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 15:45:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 11:42:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.601	4.932	-0.331	94	213900	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.418	7.396	0.022	99	908506	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.468	0.003	85	267699	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.792	-0.003	95	372712	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.694	6.672	0.022	90	325526	200.0	224.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.037	0.009	93	252290	200.0	182.6	
$ 7 Toluene-d8 (Surr)	98	9.042	9.032	0.010	93	908658	200.0	228.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.636	-0.003	90	366778	200.0	207.0	
11 Dichlorodifluoromethane	85		1.896					ND	
12 Chloromethane	50		2.012					ND	
13 Vinyl chloride	62		2.201					ND	
14 Butadiene	39		2.201					ND	
15 Bromomethane	94		2.487					ND	
16 Chloroethane	64		2.602					ND	
17 Dichlorofluoromethane	67		2.870					ND	
18 Trichlorofluoromethane	101		2.876					ND	
20 Ethyl ether	59		3.296					ND	
19 Ethanol	45		3.320					ND	
21 Acrolein	56		3.509					ND	
22 1,1-Dichloroethene	96		3.521					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.600					ND	
25 Iodomethane	142		3.709					ND	
26 Carbon disulfide	76		3.782					ND	
24 Acetone	43		3.843					ND	
27 Isopropyl alcohol	45		3.861					ND	
28 3-Chloro-1-propene	76		4.099					ND	
29 Acetonitrile	40		4.190					ND	
30 Methyl acetate	43		4.312					ND	
31 Methylene Chloride	84		4.318					ND	
34 trans-1,2-Dichloroethene	96		4.731					ND	
33 Acrylonitrile	53		4.810					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		4.877					ND	
32 2-Methyl-2-propanol	59		4.938					ND	
36 Hexane	57		5.121					ND	
38 Vinyl acetate	43		5.121					ND	
37 1,1-Dichloroethane	63		5.340					ND	
41 Isopropyl ether	45		5.437					ND	
40 Isopropyl ether TIC	45		5.456					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.082					ND	
44 2,2-Dichloropropane	77		6.082					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
48 Ethyl acetate	43		6.179					ND	
46 2-Butanone (MEK)	43		6.191					ND	
47 Propionitrile	54	6.371	6.283	0.088	1	257			NC
50 Methacrylonitrile	41		6.314					ND	
49 Chlorobromomethane	128		6.374					ND	
52 Chloroform	83		6.496					ND	
53 1,1,1-Trichloroethane	97		6.672					ND	
54 Cyclohexane	56		6.715					ND	
51 Tetrahydrofuran	42		6.733					ND	
56 Carbon tetrachloride	117		6.848					ND	
55 1,1-Dichloropropene	75		6.855					ND	
58 Benzene	78		7.086					ND	
59 1,2-Dichloroethane	62		7.122					ND	
60 Tert-amyl methyl ether (TI	73		7.201					ND	
57 Isobutyl alcohol	41		7.390					ND	
62 n-Heptane	43		7.396					ND	
61 Tert-amyl methyl ether	73	7.418	7.408	0.010	1	6852			NC
64 Trichloroethene	130		7.785					ND	
66 Methylcyclohexane	83		7.980					ND	
69 Methyl methacrylate	69		7.986					ND	
65 Ethyl acrylate	55	7.977	7.986	-0.009	1	295			NC
67 1,2-Dichloropropane	63		8.029					ND	
63 n-Butanol	56	8.008	8.132	-0.124	1	198			NC
68 Dibromomethane	93		8.144					ND	
70 1,4-Dioxane	88		8.187					ND	
71 Dichlorobromomethane	83		8.308					ND	
72 2-Nitropropane	41	8.476	8.527	-0.051	1	99			NC
73 2-Chloroethyl vinyl ether	63	8.817	8.765	0.052	1	199			NC
74 cis-1,3-Dichloropropene	75		8.771					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.941					ND	
76 Toluene	91		9.099					ND	
77 trans-1,3-Dichloropropene	75		9.324					ND	
78 Ethyl methacrylate	69		9.422					ND	
79 1,1,2-Trichloroethane	97		9.507					ND	
80 Tetrachloroethene	164		9.647					ND	
81 1,3-Dichloropropane	76		9.671					ND	
83 n-Butyl acetate	43		9.762					ND	
82 2-Hexanone	43		9.762					ND	
84 Chlorodibromomethane	129		9.896					ND	
85 Ethylene Dibromide	107		10.006					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.498					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.572					ND	
90 Ethylbenzene	106		10.602					ND	
91 m-Xylene & p-Xylene	106		10.717					ND	
92 o-Xylene	106		11.113					ND	
93 Styrene	104		11.125					ND	
94 Bromoform	173		11.320					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
97 Isopropylbenzene	105		11.478					ND	
95 Cyclohexanol	57		11.490					ND	
99 1,1,2,2-Tetrachloroethane	83		11.770					ND	
100 Bromobenzene	156		11.782					ND	
101 1,2,3-Trichloropropane	110		11.819					ND	
102 trans-1,4-Dichloro-2-buten	53		11.831					ND	
98 Cyclohexanone	55		11.885					ND	
103 N-Propylbenzene	120		11.892					ND	
104 2-Chlorotoluene	126		11.983					ND	
106 1,3,5-Trimethylbenzene	105		12.062					ND	
107 4-Chlorotoluene	126		12.086					ND	
105 3-Chlorotoluene	126	12.096	12.092	0.004	1	439			NC
108 tert-Butylbenzene	119		12.390					ND	
109 Pentachloroethane	167		12.421					ND	
110 1,2,4-Trimethylbenzene	105		12.439					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
117 1,2,3-Trimethylbenzene	105	12.449	12.609	-0.160	7	2333			NC
112 sec-Butylbenzene	105		12.609					ND	
113 1,3-Dichlorobenzene	146		12.725					ND	
114 4-Isopropyltoluene	119		12.755					ND	
115 1,4-Dichlorobenzene	146		12.810					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91		13.163					ND	
120 n-Butylbenzene	91		13.163					ND	
121 1,2-Dichlorobenzene	146		13.187					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.972					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.228					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.806					ND	
127 Hexachlorobutadiene	225		14.970					ND	
128 Naphthalene	128		15.055					ND	
129 1,2,3-Trichlorobenzene	180		15.311					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142	16.500	16.516	-0.016	1	187			NC
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

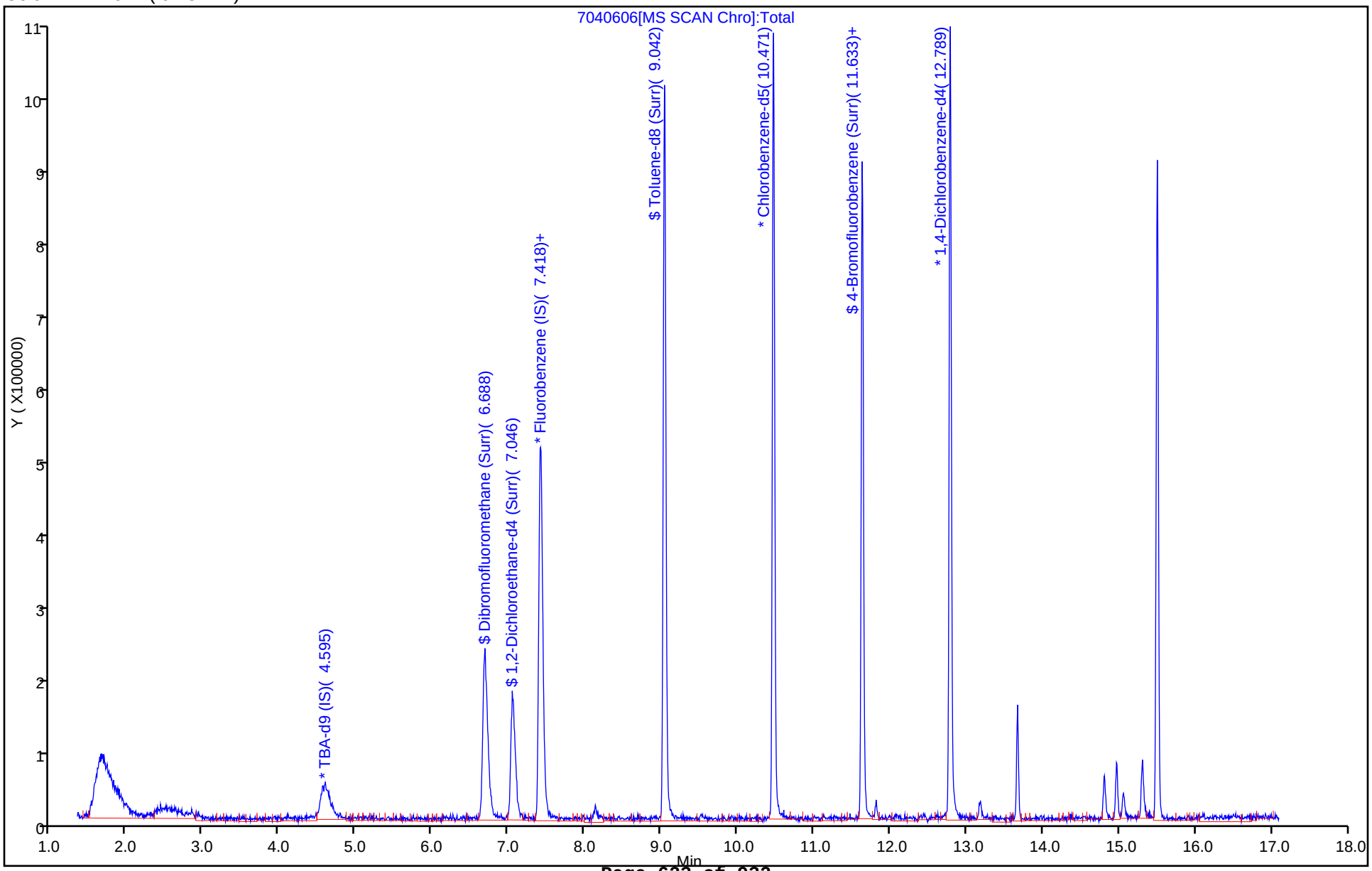
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 06-Apr-2015 15:45:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040606.D				
Injection Date:	06-Apr-2015 11:09:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
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.: 180-42391-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-137438/12

Matrix: Water | Lab File ID: 7040312.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/03/2015 14:44

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137438 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.36		1.0	0.28
75-01-4	Vinyl chloride	9.59		1.0	0.23
74-83-9	Bromomethane	11.9		1.0	0.31
75-00-3	Chloroethane	10.8		1.0	0.21
75-35-4	1,1-Dichloroethene	10.3		1.0	0.30
67-64-1	Acetone	12.9		5.0	2.5
75-15-0	Carbon disulfide	10.4		1.0	0.21
75-09-2	Methylene Chloride	10.9		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.81		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.1		1.0	0.18
75-34-3	1,1-Dichloroethane	10.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.2		1.0	0.24
74-97-5	Bromochloromethane	9.71		1.0	0.18
78-93-3	2-Butanone (MEK)	14.4		5.0	0.55
67-66-3	Chloroform	10.4		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.7		1.0	0.29
56-23-5	Carbon tetrachloride	10.6		1.0	0.14
71-43-2	Benzene	9.58		1.0	0.11
107-06-2	1,2-Dichloroethane	9.10		1.0	0.21
79-01-6	Trichloroethene	9.30		1.0	0.14
78-87-5	1,2-Dichloropropane	9.48		1.0	0.095
75-27-4	Bromodichloromethane	9.81		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.37		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.4		5.0	0.53
108-88-3	Toluene	8.88		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.17		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.20		1.0	0.20
127-18-4	Tetrachloroethene	8.89		1.0	0.15
591-78-6	2-Hexanone	15.8		5.0	0.16
124-48-1	Dibromochloromethane	9.31		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.09		1.0	0.18
108-90-7	Chlorobenzene	9.73		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	8.90		1.0	0.28
100-41-4	Ethylbenzene	8.72		1.0	0.23
1330-20-7	Xylenes, Total	17.3		3.0	0.49
100-42-5	Styrene	9.69		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137438/12

Matrix: Water Lab File ID: 7040312.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/03/2015 14:44

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137438 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.43		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	88.6		20	0.55
123-91-1	1,4-Dioxane	169	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040312.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 03-Apr-2015 14:44:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0006312-012
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 17:04:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: journetp Date: 03-Apr-2015 15:42:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.744	4.786	-0.042	93	201661	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.409	7.402	0.007	95	864973	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.001	84	278213	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.786	0.001	95	364439	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.678	0.001	72	278477	200.0	201.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.043	0.001	65	236330	200.0	179.7	
$ 7 Toluene-d8 (Surr)	98	9.039	9.038	0.001	92	849829	200.0	205.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	91	377879	200.0	205.1	
11 Dichlorodifluoromethane	85	1.940	1.963	-0.023	33	310151	200.0	193.5	
12 Chloromethane	50	2.037	2.000	0.037	42	327110	200.0	187.3	
14 Butadiene	39	2.165	2.207	-0.042	86	274776	200.0	191.3	
13 Vinyl chloride	62	2.195	2.219	-0.024	76	260971	200.0	191.9	
15 Bromomethane	94	2.512	2.511	0.001	94	260614	200.0	237.8	
16 Chloroethane	64	2.603	2.626	-0.023	55	237363	200.0	216.3	
17 Dichlorofluoromethane	67	2.889	2.888	0.001	93	651156	200.0	223.0	
18 Trichlorofluoromethane	101	2.901	2.906	-0.005	92	707180	200.0	230.2	
20 Ethyl ether	59	3.321	3.320	0.001	61	140378	200.0	144.0	M
21 Acrolein	56	3.509	3.478	0.031	4	26683	600.0	396.6	M
22 1,1-Dichloroethene	96	3.521	3.527	-0.006	83	239862	200.0	206.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.661	3.673	-0.012	79	277855	200.0	205.8	
25 Iodomethane	142	3.783	3.758	0.025	98	516314	200.0	212.5	
24 Acetone	43	3.820	3.801	0.019	22	76886	400.0	258.6	
26 Carbon disulfide	76	3.844	3.825	0.019	99	725538	200.0	208.0	M
28 3-Chloro-1-propene	76	4.148	4.135	0.013	68	172223	200.0	201.1	M
30 Methyl acetate	43	4.282	4.318	-0.036	98	528863	1000.0	917.7	
31 Methylene Chloride	84	4.410	4.354	0.056	92	271926	200.0	218.2	
34 trans-1,2-Dichloroethene	96	4.775	4.756	0.019	89	282830	200.0	196.3	
33 Acrylonitrile	53	4.805	4.816	-0.011	95	408526	2000.0	1772.1	
35 Methyl tert-butyl ether	73	4.866	4.865	0.001	98	575649	200.0	202.7	
32 2-Methyl-2-propanol	59	4.872	4.902	-0.030	43	129900	2000.0	19109	EM
38 Vinyl acetate	43	5.164	5.145	0.019	89	173928	200.0	153.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.158	5.151	0.007	92	265336	200.0	176.1	
37 1,1-Dichloroethane	63	5.365	5.364	0.001	96	432624	200.0	204.9	
44 2,2-Dichloropropane	77	6.095	6.088	0.007	82	413204	200.0	234.2	
45 cis-1,2-Dichloroethene	96	6.107	6.112	-0.005	79	291354	200.0	203.7	
46 2-Butanone (MEK)	43	6.180	6.179	0.001	97	111540	400.0	287.7	
49 Chlorobromomethane	128	6.387	6.380	0.007	80	160019	200.0	194.3	
52 Chloroform	83	6.496	6.502	-0.006	96	497000	200.0	209.0	
53 1,1,1-Trichloroethane	97	6.685	6.678	0.007	97	463503	200.0	214.6	
51 Tetrahydrofuran	42	6.727	6.727	0.000	48	87493	400.0	412.5	
54 Cyclohexane	56	6.740	6.733	0.007	90	312024	200.0	204.8	
56 Carbon tetrachloride	117	6.867	6.861	0.006	95	459813	200.0	211.1	
55 1,1-Dichloropropene	75	6.867	6.873	-0.006	83	287834	200.0	184.6	
58 Benzene	78	7.092	7.098	-0.006	97	815450	200.0	191.6	
59 1,2-Dichloroethane	62	7.129	7.122	0.007	97	261739	200.0	182.0	
57 Isobutyl alcohol	41	7.403	7.408	-0.005	52	173847	5000.0	5006.2	
62 n-Heptane	43	7.403	7.408	-0.005	61	246860	200.0	187.1	
64 Trichloroethene	130	7.792	7.797	-0.005	92	317543	200.0	186.1	
66 Methylcyclohexane	83	7.987	7.986	0.001	87	443777	200.0	211.5	
67 1,2-Dichloropropane	63	8.029	8.035	-0.006	79	183862	200.0	189.6	
68 Dibromomethane	93	8.151	8.150	0.001	95	137432	200.0	190.3	
70 1,4-Dioxane	88	8.194	8.187	0.007	67	22860	4000.0	3372.7	M
71 Dichlorobromomethane	83	8.321	8.321	0.000	97	352660	200.0	196.2	
74 cis-1,3-Dichloropropene	75	8.765	8.771	-0.006	93	349667	200.0	187.5	
75 4-Methyl-2-pentanone (MIBK	43	8.942	8.935	0.007	95	266199	400.0	327.4	
76 Toluene	91	9.106	9.105	0.001	98	902682	200.0	177.6	
77 trans-1,3-Dichloropropene	75	9.325	9.330	-0.005	94	320813	200.0	183.4	
78 Ethyl methacrylate	69	9.422	9.422	0.000	88	217659	200.0	187.1	
79 1,1,2-Trichloroethane	97	9.508	9.507	0.001	91	183765	200.0	184.0	
80 Tetrachloroethene	164	9.648	9.647	0.001	94	237228	200.0	177.7	
81 1,3-Dichloropropane	76	9.672	9.677	-0.005	90	272308	200.0	184.5	
82 2-Hexanone	43	9.757	9.762	-0.005	97	165606	400.0	315.8	
84 Chlorodibromomethane	129	9.897	9.896	0.001	89	319644	200.0	186.2	
85 Ethylene Dibromide	107	10.013	10.018	-0.005	98	205706	200.0	181.9	
87 Chlorobenzene	112	10.499	10.498	0.001	96	689815	200.0	194.5	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	92	305290	200.0	178.1	
90 Ethylbenzene	106	10.609	10.608	0.001	98	351435	200.0	174.4	
91 m-Xylene & p-Xylene	106	10.724	10.724	0.000	98	472879	200.0	174.1	
92 o-Xylene	106	11.114	11.113	0.001	95	469613	200.0	172.1	
93 Styrene	104	11.132	11.131	0.001	93	734703	200.0	193.8	
94 Bromoform	173	11.320	11.314	0.006	93	183383	200.0	188.5	
97 Isopropylbenzene	105	11.479	11.484	-0.005	95	1257265	200.0	186.7	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	95	213535	200.0	203.8	
100 Bromobenzene	156	11.789	11.788	0.001	87	355702	200.0	227.8	
101 1,2,3-Trichloropropane	110	11.825	11.825	0.000	85	68939	200.0	197.1	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.831	0.001	76	37985	200.0	173.4	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	410378	200.0	214.1	
104 2-Chlorotoluene	126	11.977	11.983	-0.006	96	379639	200.0	218.1	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	97	1016871	200.0	225.1	
107 4-Chlorotoluene	126	12.087	12.092	-0.005	96	348636	200.0	209.0	
108 tert-Butylbenzene	119	12.391	12.390	0.001	90	1056867	200.0	195.4	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	95	1043292	200.0	219.8	
112 sec-Butylbenzene	105	12.610	12.609	0.001	94	1388841	200.0	231.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	97	651829	200.0	210.1	
114 4-Isopropyltoluene	119	12.756	12.755	0.001	95	1197062	200.0	218.1	
115 1,4-Dichlorobenzene	146	12.817	12.810	0.007	93	603997	200.0	208.9	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	1034219	200.0	228.7	
121 1,2-Dichlorobenzene	146	13.188	13.187	0.001	96	529483	200.0	186.9	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.966	0.007	81	25430	200.0	179.3	
126 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	96	190274	200.0	211.9	
127 Hexachlorobutadiene	225	14.971	14.970	0.001	87	113862	200.0	211.6	
128 Naphthalene	128	15.056	15.061	-0.005	97	329038	200.0	223.7	
129 1,2,3-Trichlorobenzene	180	15.305	15.317	-0.012	96	121460	200.0	197.7	
S 134 1,2-Dichloroethene, Total	96				0		400.0	400.0	
S 133 Xylenes, Total	106				0		400.0	346.2	
S 135 1,3-Dichloropropene, Total	1				0		400.0	370.9	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00005	Amount Added:	24.00	Units: uL	
VOAVAPRI_00005	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00004	Amount Added:	8.00	Units: uL	
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

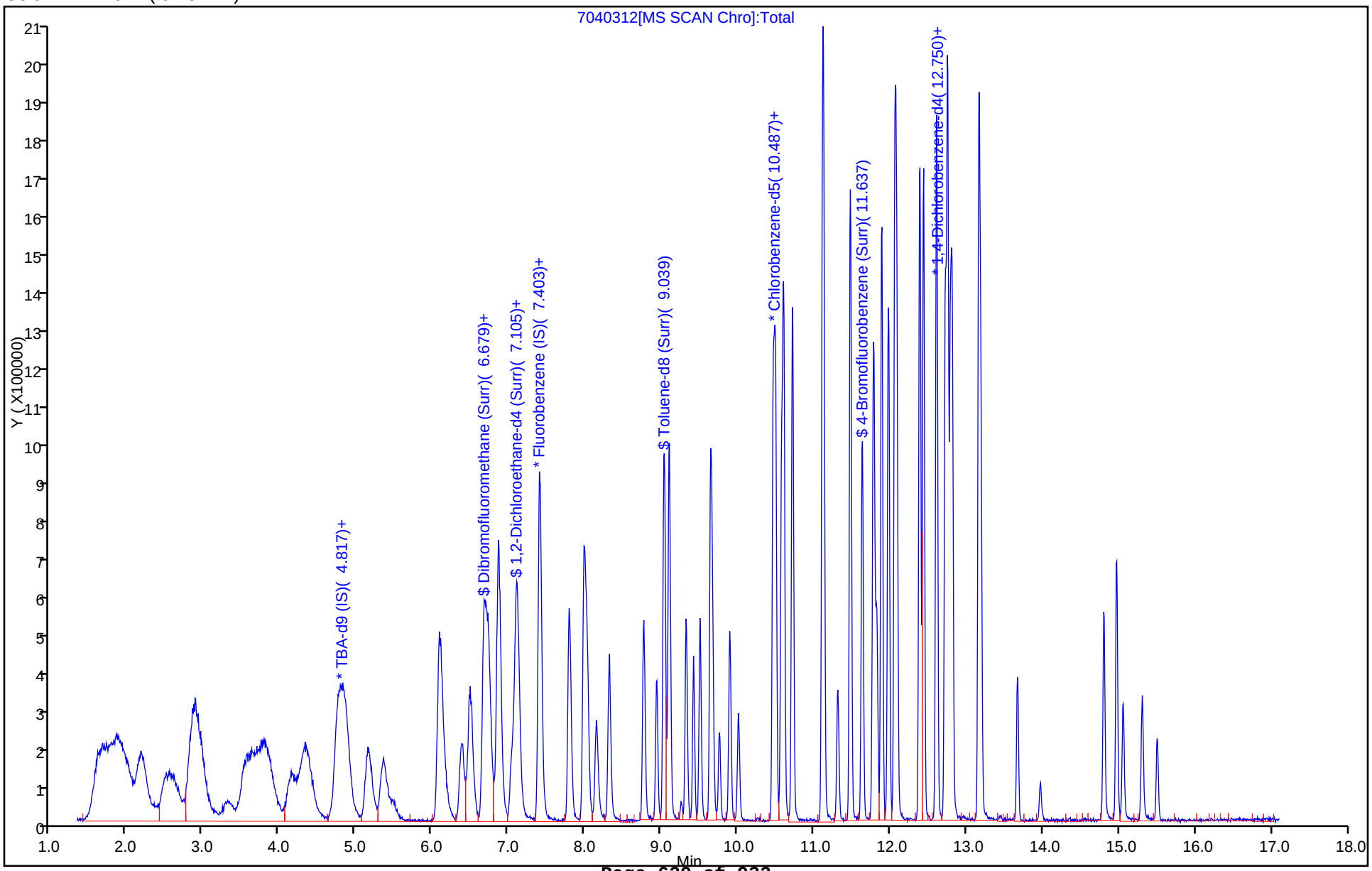
Report Date: 03-Apr-2015 17:04:15 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040312.D

Injection Date:	03-Apr-2015 14:44:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

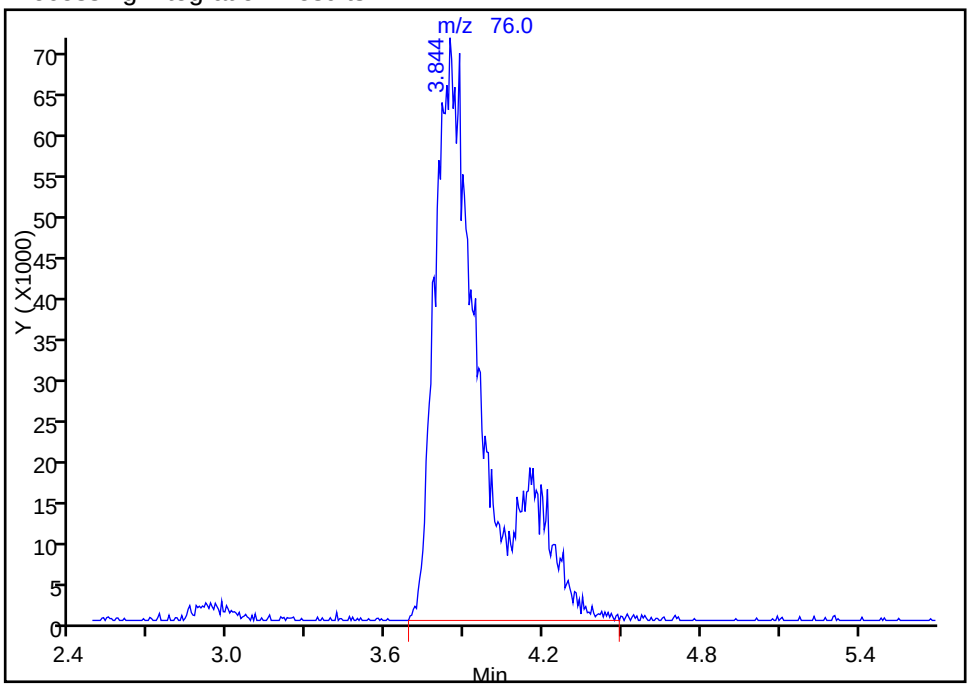
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040312.D				
Injection Date:	03-Apr-2015 14:44:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

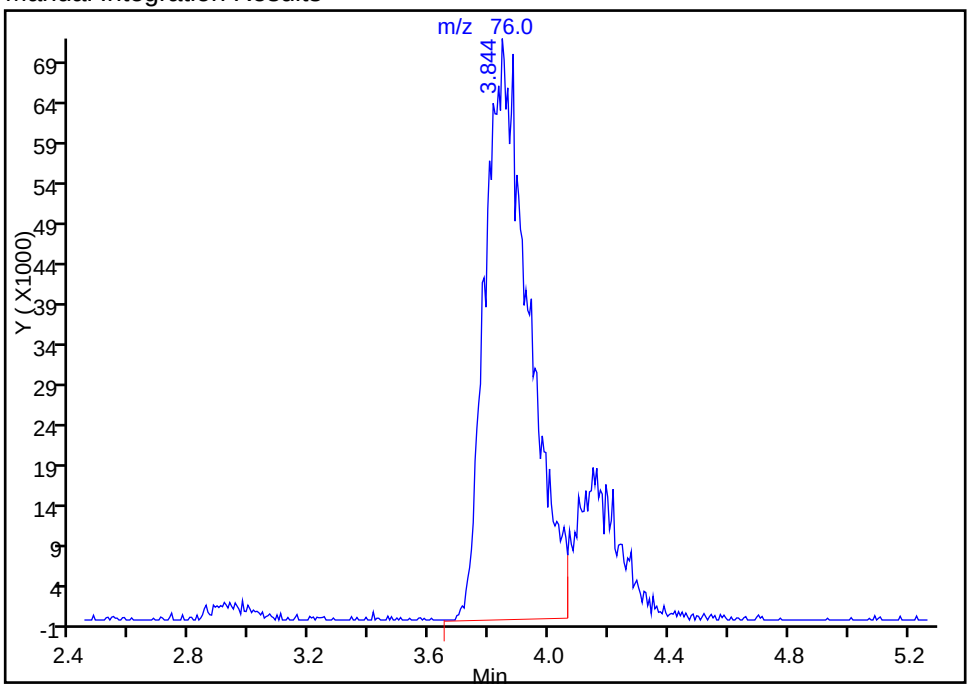
Processing Integration Results

RT: 3.84
Area: 904119
Amount: 259.1962
Amount Units: ng



Manual Integration Results

RT: 3.84
Area: 725538
Amount: 207.9999
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 15:42:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

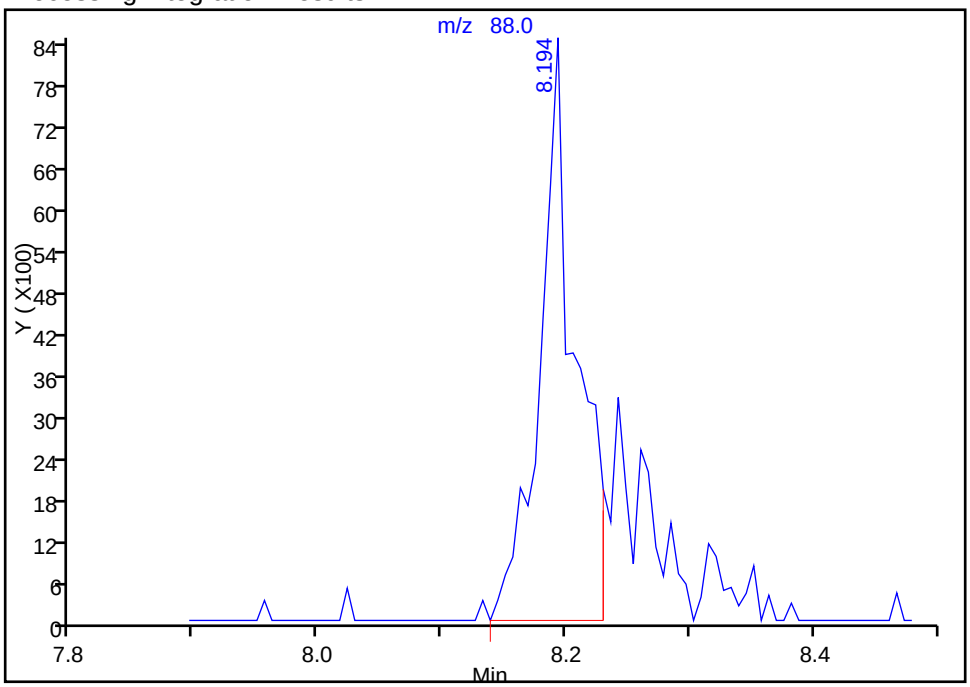
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150403-6312.b\7040312.D				
Injection Date:	03-Apr-2015 14:44:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

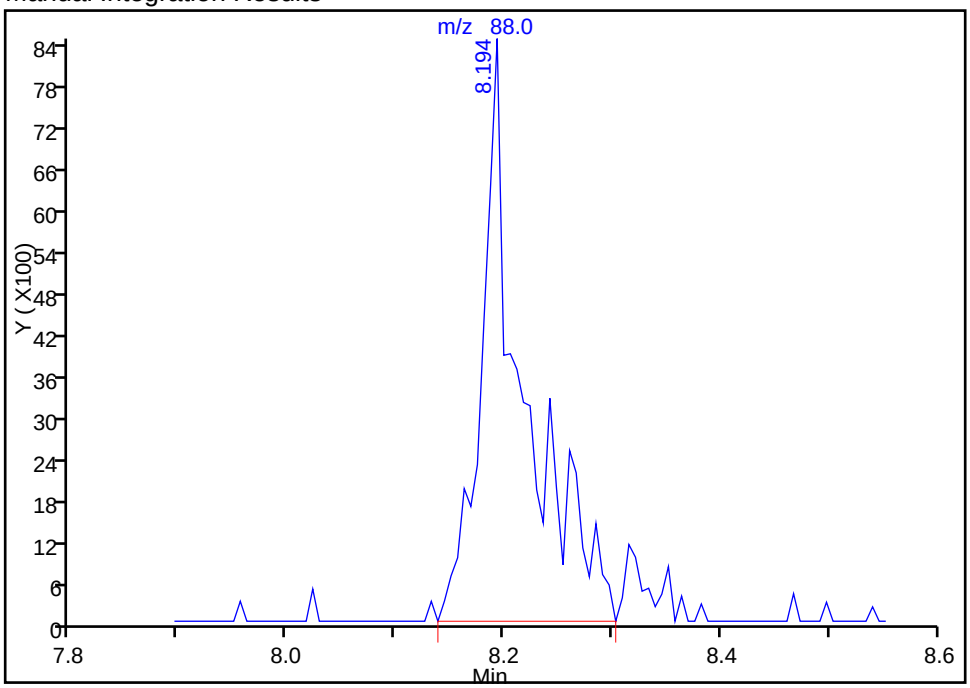
Processing Integration Results

RT: 8.19
Area: 16904
Amount: 2493.9579
Amount Units: ng



Manual Integration Results

RT: 8.19
Area: 22860
Amount: 3372.6856
Amount Units: ng



Reviewer: journetp, 03-Apr-2015 15:42:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-137512/8

Matrix: Water | Lab File ID: 7040408.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/04/2015 16:44

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137512 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.81		1.0	0.28
75-01-4	Vinyl chloride	8.15		1.0	0.23
74-83-9	Bromomethane	11.9		1.0	0.31
75-00-3	Chloroethane	9.96		1.0	0.21
75-35-4	1,1-Dichloroethene	10.4		1.0	0.30
67-64-1	Acetone	32.8		5.0	2.5
75-15-0	Carbon disulfide	11.1		1.0	0.21
75-09-2	Methylene Chloride	11.3		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.54		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.7		1.0	0.18
75-34-3	1,1-Dichloroethane	10.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.2		1.0	0.24
74-97-5	Bromochloromethane	10.4		1.0	0.18
78-93-3	2-Butanone (MEK)	21.7		5.0	0.55
67-66-3	Chloroform	10.4		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.2		1.0	0.29
56-23-5	Carbon tetrachloride	9.88		1.0	0.14
71-43-2	Benzene	10.1		1.0	0.11
107-06-2	1,2-Dichloroethane	9.76		1.0	0.21
79-01-6	Trichloroethene	8.78		1.0	0.14
78-87-5	1,2-Dichloropropane	9.51		1.0	0.095
75-27-4	Bromodichloromethane	9.88		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.20		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2		5.0	0.53
108-88-3	Toluene	8.87		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.58		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.68		1.0	0.20
127-18-4	Tetrachloroethene	7.43		1.0	0.15
591-78-6	2-Hexanone	24.3		5.0	0.16
124-48-1	Dibromochloromethane	9.69		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.0		1.0	0.18
108-90-7	Chlorobenzene	9.61		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.47		1.0	0.28
100-41-4	Ethylbenzene	8.13		1.0	0.23
1330-20-7	Xylenes, Total	16.7		3.0	0.49
100-42-5	Styrene	9.95		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137512/8

Matrix: Water Lab File ID: 7040408.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 16:44

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137512 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.2		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.1		1.0	0.20
107-13-1	Acrylonitrile	101		20	0.55
123-91-1	1,4-Dioxane	197	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040408.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 04-Apr-2015 16:44:30 ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0006327-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:16:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 08:47:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.741	4.765	-0.024	93	256027	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	98	774174	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.465	10.471	-0.006	84	231825	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.783	12.789	-0.006	94	311866	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	74	249623	200.0	202.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	226125	200.0	192.1	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	93	709786	200.0	206.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	89	319985	200.0	208.6	
11 Dichlorodifluoromethane	85	2.009	1.912	0.097	65	172965	200.0	120.5	
12 Chloromethane	50	2.027	2.028	-0.001	94	244097	200.0	156.1	
14 Butadiene	39	2.180	2.186	-0.006	86	195878	200.0	152.4	
13 Vinyl chloride	62	2.198	2.192	0.006	78	198428	200.0	163.0	
15 Bromomethane	94	2.514	2.502	0.012	88	233210	200.0	237.7	
16 Chloroethane	64	2.618	2.605	0.013	90	195565	200.0	199.1	
18 Trichlorofluoromethane	101	2.897	2.879	0.018	73	502388	200.0	182.7	
17 Dichlorofluoromethane	67	2.879	2.879	0.000	93	527526	200.0	201.9	
20 Ethyl ether	59	3.311	3.311	0.000	26	52157	200.0	59.8	
21 Acrolein	56	3.500	3.481	0.019	25	10277	600.0	170.7	M
22 1,1-Dichloroethene	96	3.554	3.518	0.036	91	216685	200.0	208.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.688	3.634	0.054	36	223380	200.0	184.8	M
25 Iodomethane	142	3.786	3.761	0.025	97	511498	200.0	235.3	
26 Carbon disulfide	76	3.840	3.828	0.012	100	693727	200.0	222.2	M
24 Acetone	43	3.792	3.834	-0.042	34	150757	400.0	655.5	
28 3-Chloro-1-propene	76	4.157	4.126	0.031	83	179142	200.0	233.7	
30 Methyl acetate	43	4.303	4.297	0.006	98	528118	1000.0	1023.9	
31 Methylene Chloride	84	4.394	4.364	0.030	93	252812	200.0	226.6	
34 trans-1,2-Dichloroethene	96	4.783	4.753	0.030	93	246120	200.0	190.8	
33 Acrylonitrile	53	4.814	4.802	0.012	95	418224	2000.0	2027.0	M
35 Methyl tert-butyl ether	73	4.868	4.856	0.012	98	595530	200.0	234.3	
32 2-Methyl-2-propanol	59	4.820	4.875	-0.055	56	137215	2000.0	16888	E
38 Vinyl acetate	43	5.148	5.148	0.000	66	94557	200.0	93.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.173	5.160	0.013	91	141533	200.0	104.9	
37 1,1-Dichloroethane	63	5.355	5.355	0.000	97	390900	200.0	206.8	
44 2,2-Dichloropropane	77	6.097	6.091	0.006	80	360160	200.0	228.1	
45 cis-1,2-Dichloroethene	96	6.109	6.103	0.006	80	260115	200.0	203.2	
46 2-Butanone (MEK)	43	6.182	6.189	-0.007	99	150651	400.0	434.1	
49 Chlorobromomethane	128	6.389	6.377	0.012	81	153304	200.0	208.0	
52 Chloroform	83	6.499	6.499	0.000	94	441124	200.0	207.2	
53 1,1,1-Trichloroethane	97	6.681	6.681	0.000	96	392645	200.0	203.1	
51 Tetrahydrofuran	42	6.736	6.730	0.006	47	68102	400.0	358.7	
54 Cyclohexane	56	6.736	6.730	0.006	89	233895	200.0	171.5	
56 Carbon tetrachloride	117	6.870	6.858	0.012	96	385419	200.0	197.7	
55 1,1-Dichloropropene	75	6.864	6.864	0.000	82	236409	200.0	169.4	
58 Benzene	78	7.095	7.089	0.006	96	769766	200.0	202.0	
59 1,2-Dichloroethane	62	7.132	7.132	0.000	97	251097	200.0	195.1	
57 Isobutyl alcohol	41	7.405	7.399	0.006	40	76651	5000.0	2466.2	
62 n-Heptane	43	7.411	7.405	0.006	48	104000	200.0	88.1	
64 Trichloroethene	130	7.789	7.795	-0.006	92	268212	200.0	175.6	
66 Methylcyclohexane	83	7.995	7.989	0.006	86	261772	200.0	139.4	
67 1,2-Dichloropropane	63	8.026	8.032	-0.006	91	164995	200.0	190.1	
68 Dibromomethane	93	8.154	8.147	0.007	92	123453	200.0	191.0	
70 1,4-Dioxane	88	8.178	8.184	-0.006	94	23849	4000.0	3931.3	
71 Dichlorobromomethane	83	8.318	8.312	0.006	98	318123	200.0	197.7	
74 cis-1,3-Dichloropropene	75	8.774	8.774	0.000	93	307098	200.0	184.0	
75 4-Methyl-2-pentanone (MIBK	43	8.938	8.938	0.000	95	259922	400.0	383.7	
76 Toluene	91	9.096	9.103	-0.007	98	751856	200.0	177.5	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	250029	200.0	171.6	
78 Ethyl methacrylate	69	9.419	9.425	-0.006	88	181441	200.0	187.2	
79 1,1,2-Trichloroethane	97	9.510	9.504	0.006	90	161095	200.0	193.6	
80 Tetrachloroethene	164	9.650	9.644	0.006	93	170334	200.0	148.6	
81 1,3-Dichloropropane	76	9.674	9.668	0.006	90	238898	200.0	194.2	
82 2-Hexanone	43	9.760	9.760	0.000	97	211972	400.0	485.1	
84 Chlorodibromomethane	129	9.899	9.900	-0.001	88	277104	200.0	193.7	
85 Ethylene Dibromide	107	10.015	10.009	0.006	97	188679	200.0	200.2	
87 Chlorobenzene	112	10.496	10.496	0.000	95	568094	200.0	192.2	
89 1,1,1,2-Tetrachloroethane	131	10.575	10.575	0.000	92	270548	200.0	189.4	
90 Ethylbenzene	106	10.605	10.605	0.000	98	273139	200.0	162.7	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	98	370258	200.0	163.6	
92 o-Xylene	106	11.110	11.116	-0.006	95	388015	200.0	170.7	
93 Styrene	104	11.128	11.128	0.000	93	625330	200.0	198.9	
94 Bromoform	173	11.317	11.317	0.000	93	165922	200.0	204.7	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	940697	200.0	163.2	
99 1,1,2,2-Tetrachloroethane	83	11.773	11.773	0.000	97	193696	200.0	221.8	
100 Bromobenzene	156	11.791	11.785	0.006	88	287174	200.0	214.9	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	85	64929	200.0	217.0	
102 trans-1,4-Dichloro-2-buten	53	11.828	11.828	0.000	69	33221	200.0	177.2	
103 N-Propylbenzene	120	11.889	11.889	0.000	97	284274	200.0	173.3	
104 2-Chlorotoluene	126	11.980	11.980	0.000	96	295767	200.0	198.6	
106 1,3,5-Trimethylbenzene	105	12.059	12.065	-0.006	96	753285	200.0	188.3	
107 4-Chlorotoluene	126	12.083	12.090	-0.007	95	281860	200.0	197.5	
108 tert-Butylbenzene	119	12.388	12.388	0.000	91	702356	200.0	149.3	
110 1,2,4-Trimethylbenzene	105	12.436	12.436	0.000	96	795960	200.0	191.5	
112 sec-Butylbenzene	105	12.607	12.607	0.000	94	871917	200.0	157.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.722	12.722	0.000	98	502848	200.0	188.3	
114 4-Isopropyltoluene	119	12.753	12.753	0.000	95	775957	200.0	154.6	
115 1,4-Dichlorobenzene	146	12.813	12.814	-0.001	94	490765	200.0	198.4	
120 n-Butylbenzene	91	13.160	13.160	0.000	96	604141	200.0	142.5	
121 1,2-Dichlorobenzene	146	13.191	13.185	0.006	98	437388	200.0	180.5	
122 1,2-Dibromo-3-Chloropropan	75	13.975	13.969	0.006	88	23725	200.0	194.8	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	94	125187	200.0	162.9	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	83	48440	200.0	105.2	
128 Naphthalene	128	15.052	15.058	-0.006	96	296668	200.0	235.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	94	83917	200.0	159.6	
S 133 Xylenes, Total	106				0		400.0	334.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	394.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	355.5	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00005	Amount Added:	24.00	Units: uL	
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL	
VOAVAPRI_00005	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00004	Amount Added:	8.00	Units: uL	
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

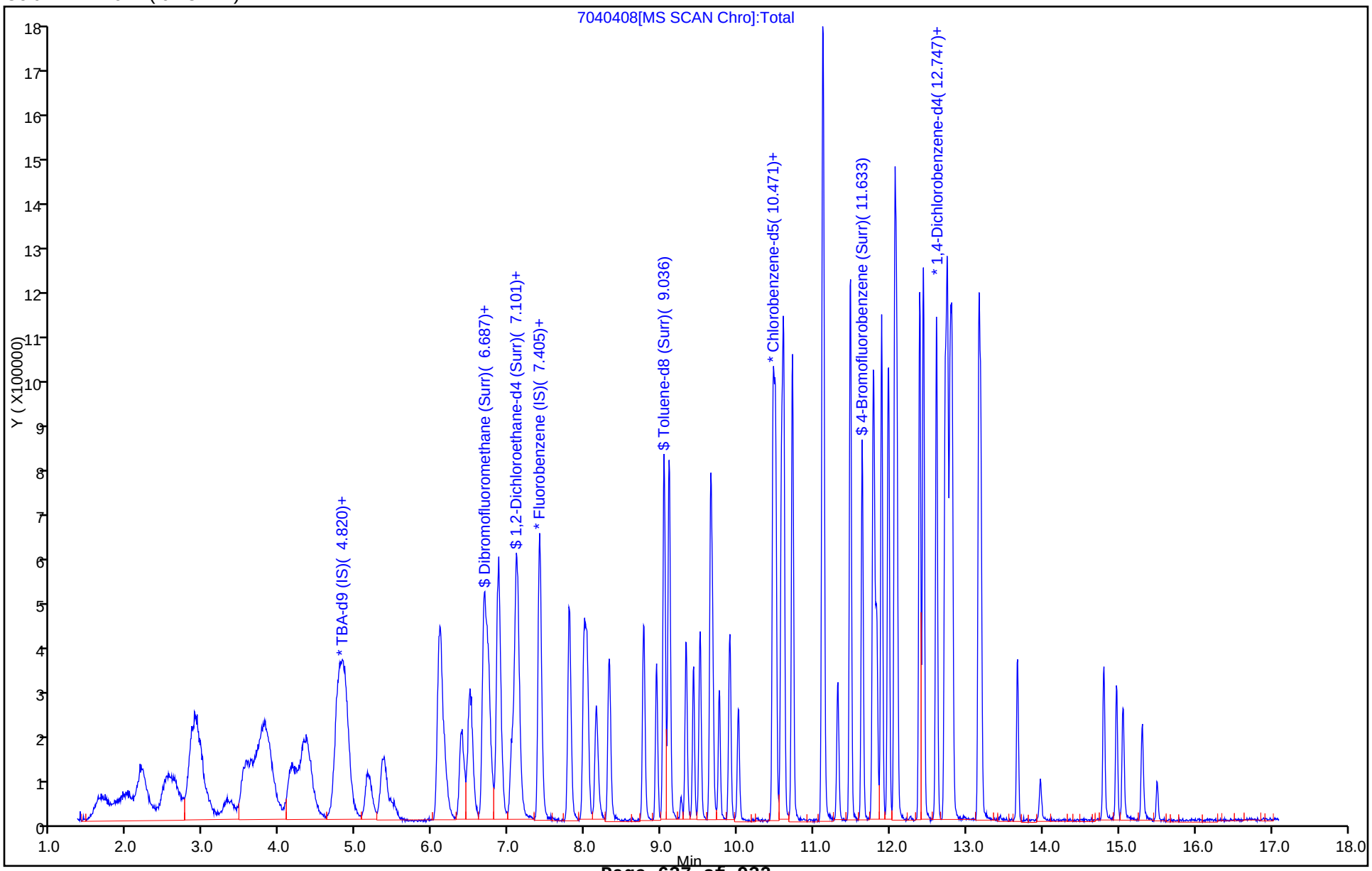
Report Date: 06-Apr-2015 09:16:04 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040408.D

Injection Date:	04-Apr-2015 16:44:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

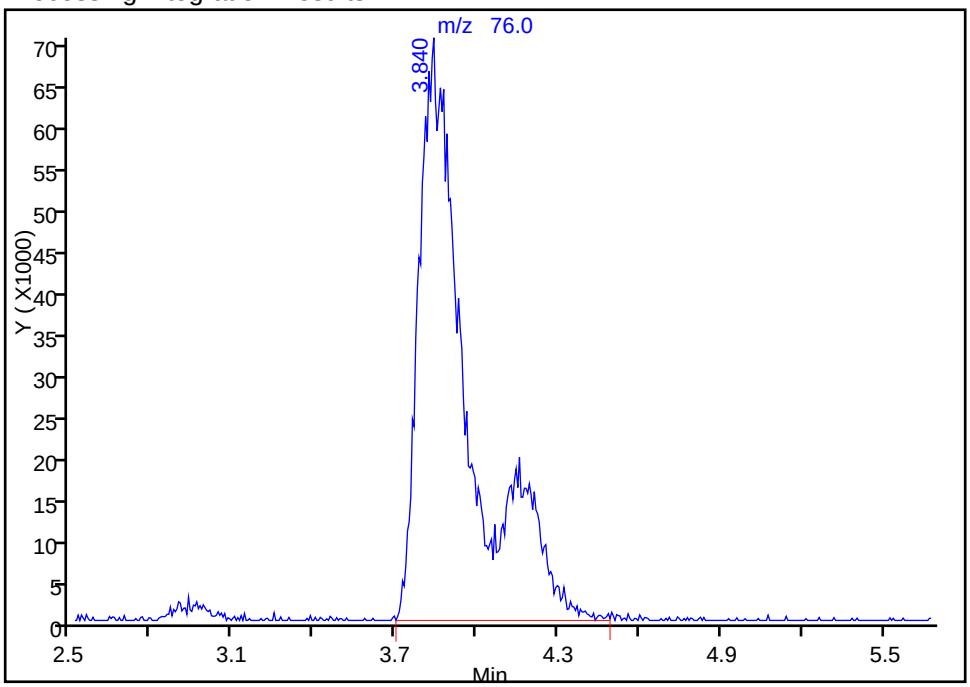
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040408.D				
Injection Date:	04-Apr-2015 16:44:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

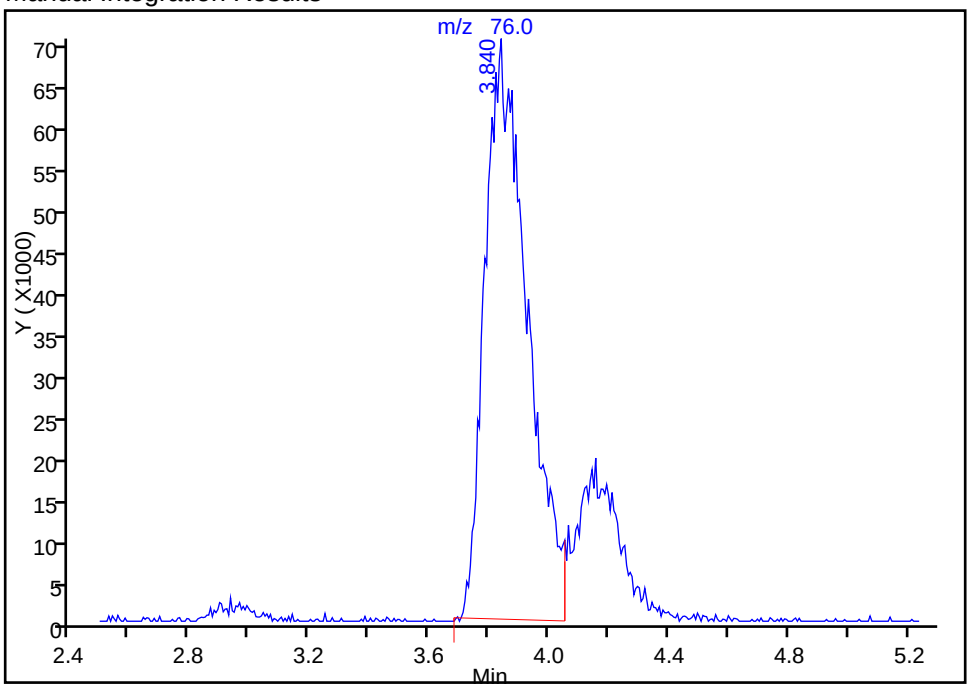
Processing Integration Results

RT: 3.84
Area: 886030
Amount: 283.8020
Amount Units: ng



Manual Integration Results

RT: 3.84
Area: 693727
Amount: 222.2059
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 08:47:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

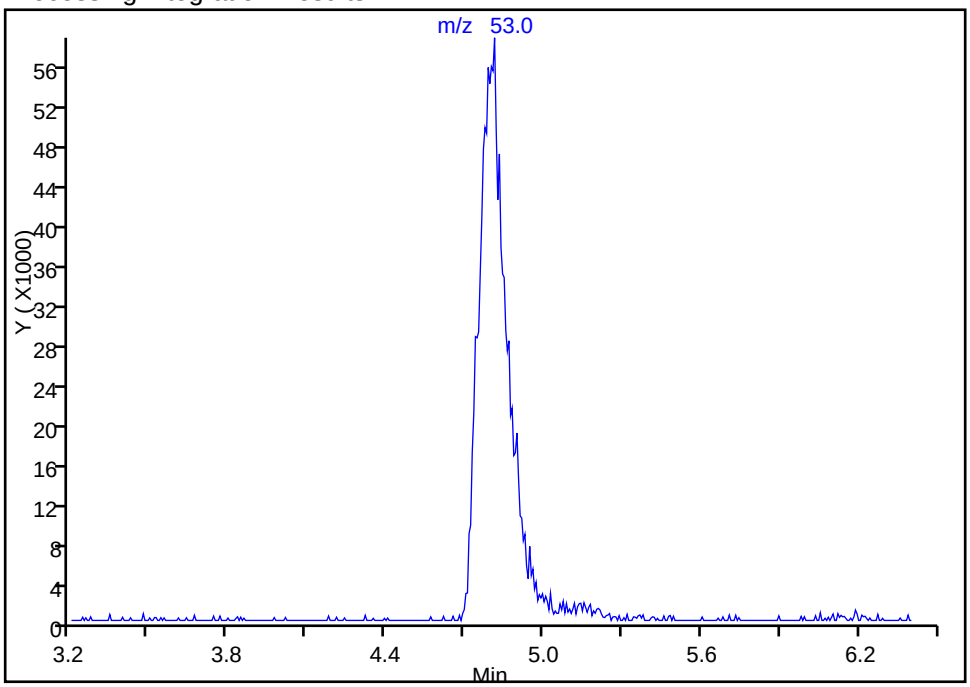
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040408.D				
Injection Date:	04-Apr-2015 16:44:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

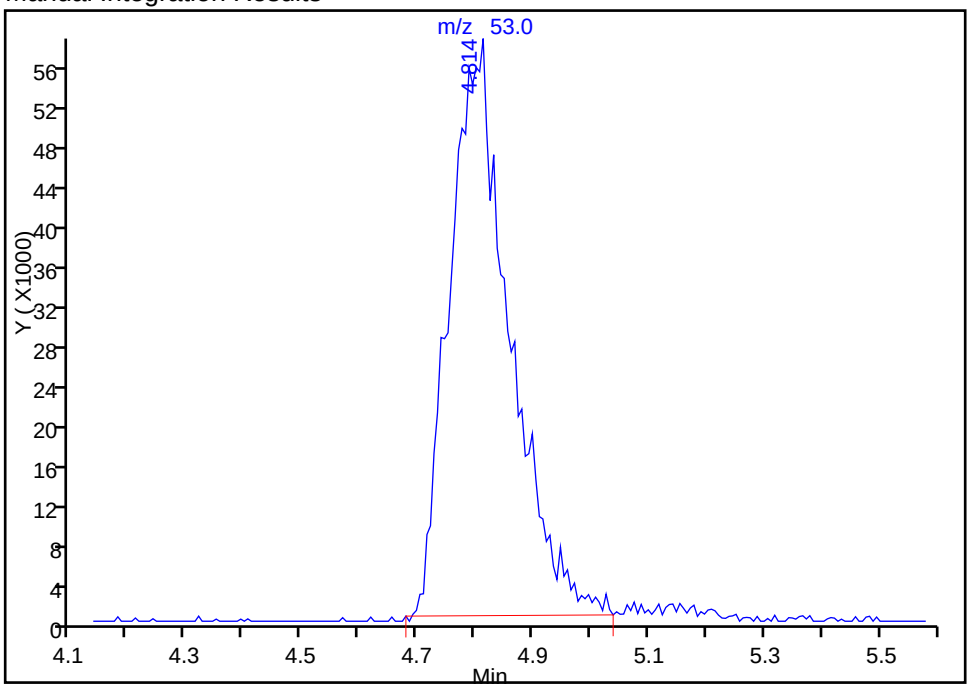
Not Detected
Expected RT: 4.80

Processing Integration Results



Manual Integration Results

RT: 4.81
Area: 418224
Amount: 2026.9705
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 08:47:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-137564/13

Matrix: Water | Lab File ID: 7040613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/06/2015 14:45

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137564 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.50		1.0	0.28
75-01-4	Vinyl chloride	7.89		1.0	0.23
74-83-9	Bromomethane	11.6		1.0	0.31
75-00-3	Chloroethane	9.76		1.0	0.21
75-35-4	1,1-Dichloroethene	10.4		1.0	0.30
67-64-1	Acetone	5.10		5.0	2.5
75-15-0	Carbon disulfide	9.55		1.0	0.21
75-09-2	Methylene Chloride	9.25		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.30		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.2		1.0	0.18
75-34-3	1,1-Dichloroethane	9.48		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.68		1.0	0.24
74-97-5	Bromochloromethane	9.14		1.0	0.18
78-93-3	2-Butanone (MEK)	6.55		5.0	0.55
67-66-3	Chloroform	9.32		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.82		1.0	0.29
56-23-5	Carbon tetrachloride	10.1		1.0	0.14
71-43-2	Benzene	8.92		1.0	0.11
107-06-2	1,2-Dichloroethane	8.87		1.0	0.21
79-01-6	Trichloroethene	8.88		1.0	0.14
78-87-5	1,2-Dichloropropane	8.87		1.0	0.095
75-27-4	Bromodichloromethane	9.32		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.93		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	8.82		5.0	0.53
108-88-3	Toluene	9.32		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.63		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.08		1.0	0.20
127-18-4	Tetrachloroethene	8.12		1.0	0.15
591-78-6	2-Hexanone	8.49		5.0	0.16
124-48-1	Dibromochloromethane	9.40		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	8.99		1.0	0.18
108-90-7	Chlorobenzene	9.63		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.12		1.0	0.28
100-41-4	Ethylbenzene	8.70		1.0	0.23
1330-20-7	Xylenes, Total	16.8		3.0	0.49
100-42-5	Styrene	9.66		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137564/13

Matrix: Water Lab File ID: 7040613.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/06/2015 14:45

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137564 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.32		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.80		1.0	0.20
107-13-1	Acrylonitrile	47.5		20	0.55
123-91-1	1,4-Dioxane	85.3	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040613.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 06-Apr-2015 14:45:30 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0006335-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 07-Apr-2015 09:28:15 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 07-Apr-2015 10:25:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.677	4.932	-0.255	64	133113	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.396	0.006	96	879353	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	83	253552	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.792	-0.006	94	344449	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.672	6.672	0.000	89	273149	200.0	194.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.037	0.012	74	235724	200.0	176.3	
$ 7 Toluene-d8 (Surr)	98	9.039	9.032	0.007	92	801103	200.0	213.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.636	-0.006	91	321201	200.0	190.3	
11 Dichlorodifluoromethane	85	1.970	1.896	0.074	77	255060	200.0	156.5	
12 Chloromethane	50	2.043	2.012	0.031	77	302038	200.0	170.1	
13 Vinyl chloride	62	2.201	2.201	0.000	68	218070	200.0	157.7	
14 Butadiene	39	2.201	2.201	0.000	94	247656	200.0	169.6	
15 Bromomethane	94	2.535	2.487	0.048	82	257406	200.0	231.0	
16 Chloroethane	64	2.645	2.602	0.043	47	217803	200.0	195.2	
17 Dichlorofluoromethane	67	2.900	2.870	0.030	93	509840	200.0	171.8	
18 Trichlorofluoromethane	101	2.900	2.876	0.024	77	619297	200.0	198.3	
20 Ethyl ether	59	3.351	3.296	0.055	79	120942	200.0	122.1	
21 Acrolein	56	3.551	3.509	0.042	54	14232	600.0	208.1	
22 1,1-Dichloroethene	96	3.588	3.521	0.067	88	244710	200.0	207.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.734	3.600	0.134	79	281185	200.0	204.8	
25 Iodomethane	142	3.795	3.709	0.086	99	498899	200.0	202.0	
26 Carbon disulfide	76	3.886	3.782	0.104	99	677268	200.0	191.0	M
24 Acetone	43	3.776	3.843	-0.067	14	41424	200.0	101.9	M
28 3-Chloro-1-propene	76	4.184	4.099	0.085	65	180534	200.0	207.3	M
30 Methyl acetate	43	4.306	4.312	-0.006	95	503188	1000.0	858.9	
31 Methylene Chloride	84	4.397	4.318	0.079	84	234313	200.0	184.9	
34 trans-1,2-Dichloroethene	96	4.780	4.731	0.049	96	272338	200.0	185.9	
33 Acrylonitrile	53	4.805	4.810	-0.005	91	222583	2000.0	949.7	
35 Methyl tert-butyl ether	73	4.841	4.877	-0.036	92	591737	200.0	205.0	M
32 2-Methyl-2-propanol	59	4.805	4.938	-0.133	34	93102	2000.0	20178	EM
38 Vinyl acetate	43	5.182	5.121	0.061	66	175433	200.0	151.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.182	5.121	0.061	94	264222	200.0	172.5	
37 1,1-Dichloroethane	63	5.370	5.340	0.030	96	407140	200.0	189.6	
45 cis-1,2-Dichloroethene	96	6.106	6.082	0.024	87	281510	200.0	193.6	
44 2,2-Dichloropropane	77	6.100	6.082	0.018	81	366528	200.0	204.3	
46 2-Butanone (MEK)	43	6.173	6.191	-0.018	44	51638	200.0	131.0	
49 Chlorobromomethane	128	6.398	6.374	0.024	80	153090	200.0	182.8	
52 Chloroform	83	6.502	6.496	0.006	95	450808	200.0	186.5	
53 1,1,1-Trichloroethane	97	6.684	6.672	0.012	96	431373	200.0	196.5	
54 Cyclohexane	56	6.745	6.715	0.030	89	284130	200.0	183.4	M
51 Tetrahydrofuran	42	6.745	6.733	0.012	53	84610	400.0	392.4	
56 Carbon tetrachloride	117	6.873	6.848	0.025	95	446701	200.0	201.7	
55 1,1-Dichloropropene	75	6.867	6.855	0.013	86	303898	200.0	191.7	
58 Benzene	78	7.104	7.086	0.018	96	771880	200.0	178.4	
59 1,2-Dichloroethane	62	7.135	7.122	0.012	96	259357	200.0	177.4	
57 Isobutyl alcohol	41	7.414	7.390	0.024	51	168153	5000.0	4763.1	
62 n-Heptane	43	7.408	7.396	0.012	59	231842	200.0	172.8	
64 Trichloroethene	130	7.798	7.785	0.013	93	308167	200.0	177.6	
66 Methylcyclohexane	83	7.992	7.980	0.012	87	383124	200.0	179.6	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	76	174830	200.0	177.4	
68 Dibromomethane	93	8.157	8.144	0.013	94	132599	200.0	180.6	
70 1,4-Dioxane	88	8.181	8.187	-0.006	27	11757	4000.0	1706.2	
71 Dichlorobromomethane	83	8.321	8.308	0.013	97	340867	200.0	186.5	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	92	338752	200.0	178.7	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.941	-0.006	95	130674	200.0	176.4	
76 Toluene	91	9.106	9.099	0.007	99	856462	200.0	186.4	
77 trans-1,3-Dichloropropene	75	9.331	9.324	0.007	95	306876	200.0	192.5	
78 Ethyl methacrylate	69	9.422	9.422	0.000	88	194753	200.0	183.7	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	92	165312	200.0	181.7	
80 Tetrachloroethene	164	9.653	9.647	0.006	93	200538	200.0	162.4	
81 1,3-Dichloropropane	76	9.677	9.671	0.006	92	243878	200.0	181.3	
82 2-Hexanone	43	9.763	9.762	0.001	97	81122	200.0	169.8	
84 Chlorodibromomethane	129	9.896	9.896	0.000	89	294231	200.0	188.1	
85 Ethylene Dibromide	107	10.012	10.006	0.006	99	185396	200.0	179.8	
87 Chlorobenzene	112	10.499	10.498	0.001	95	622251	200.0	192.5	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.572	0.006	93	285005	200.0	182.4	
90 Ethylbenzene	106	10.608	10.602	0.006	98	319360	200.0	173.9	
91 m-Xylene & p-Xylene	106	10.718	10.717	0.001	98	422434	200.0	170.6	
92 o-Xylene	106	11.119	11.113	0.006	94	411020	200.0	165.3	
93 Styrene	104	11.131	11.125	0.006	92	667770	200.0	193.2	
94 Bromoform	173	11.314	11.320	-0.006	93	165170	200.0	186.3	
97 Isopropylbenzene	105	11.478	11.478	0.000	96	1156276	200.0	188.8	
99 1,1,2,2-Tetrachloroethane	83	11.776	11.770	0.006	96	187236	200.0	196.1	
100 Bromobenzene	156	11.782	11.782	0.000	87	309700	200.0	209.8	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	86	61722	200.0	186.8	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	83	34848	200.0	168.3	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	372063	200.0	205.4	
104 2-Chlorotoluene	126	11.983	11.983	0.000	97	335330	200.0	203.9	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	96	943998	200.0	220.2	
107 4-Chlorotoluene	126	12.093	12.086	0.007	95	319663	200.0	202.8	
108 tert-Butylbenzene	119	12.385	12.390	-0.005	91	986735	200.0	192.9	
110 1,2,4-Trimethylbenzene	105	12.439	12.439	0.000	96	931535	200.0	205.3	
112 sec-Butylbenzene	105	12.610	12.609	0.001	94	1261102	200.0	220.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	97	602521	200.0	205.2	
114 4-Isopropyltoluene	119	12.756	12.755	0.001	96	1116269	200.0	214.5	
115 1,4-Dichlorobenzene	146	12.816	12.810	0.006	94	546781	200.0	200.1	
120 n-Butylbenzene	91	13.163	13.163	0.000	96	942468	200.0	218.4	
121 1,2-Dichlorobenzene	146	13.188	13.187	0.001	98	479674	200.0	179.2	
122 1,2-Dibromo-3-Chloropropan	75	13.966	13.972	-0.006	78	21515	200.0	161.4	
126 1,2,4-Trichlorobenzene	180	14.800	14.806	-0.006	94	141178	200.0	166.3	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	85	92125	200.0	181.1	
128 Naphthalene	128	15.055	15.055	0.000	97	251845	200.0	181.2	
129 1,2,3-Trichlorobenzene	180	15.305	15.311	-0.006	94	91840	200.0	158.1	
S 134 1,2-Dichloroethene, Total	96				0		400.0	379.6	
S 133 Xylenes, Total	106				0		400.0	335.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	371.2	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOAVAPRI_00005	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL	
VOAACRPRI_00005	Amount Added:	24.00	Units: uL	
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

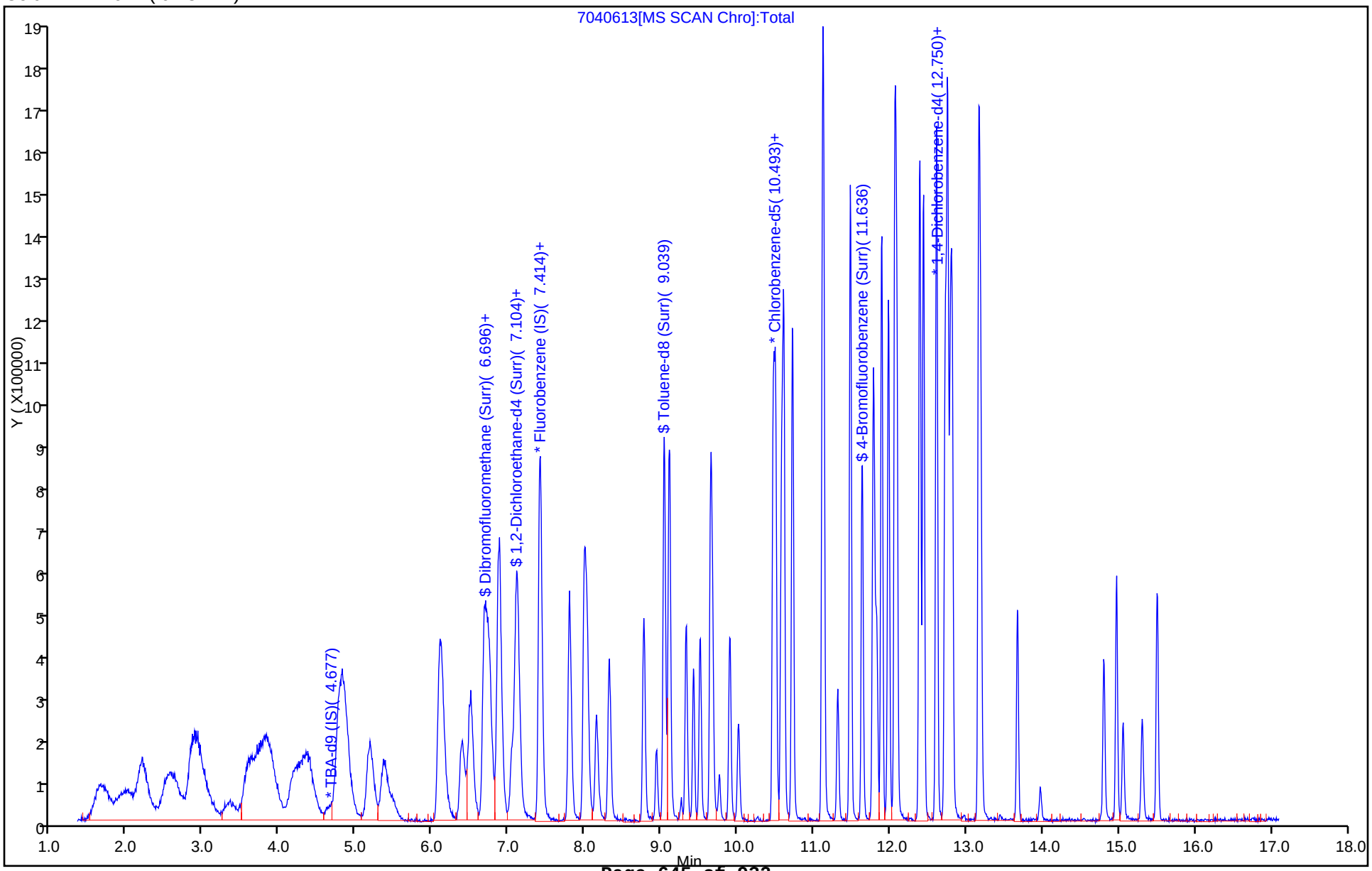
Report Date: 07-Apr-2015 10:25:53 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040613.D

Injection Date:	06-Apr-2015 14:45:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

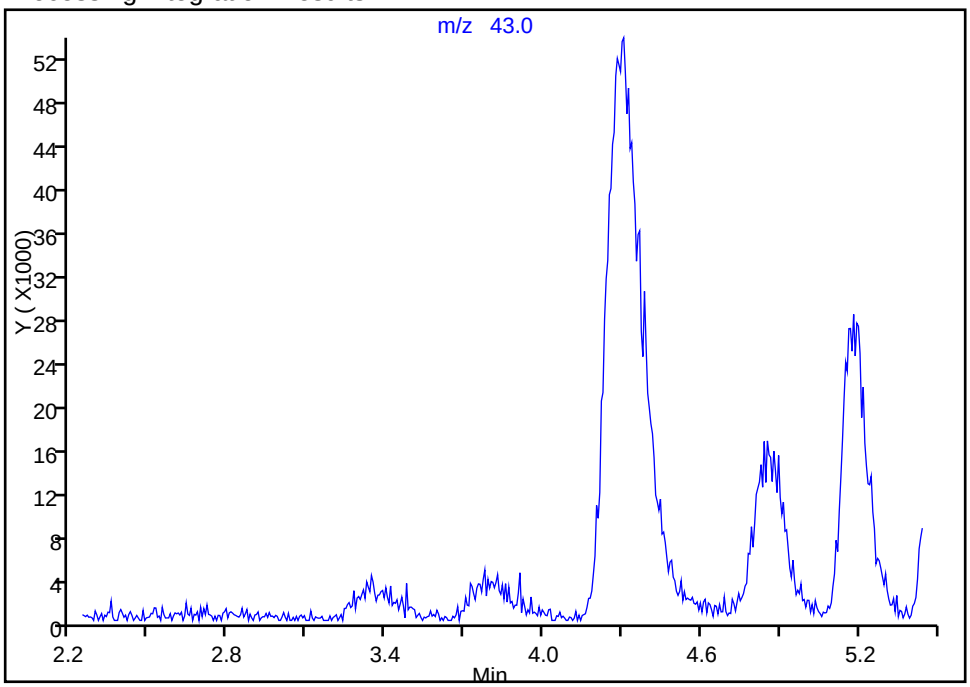
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040613.D				
Injection Date:	06-Apr-2015 14:45:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

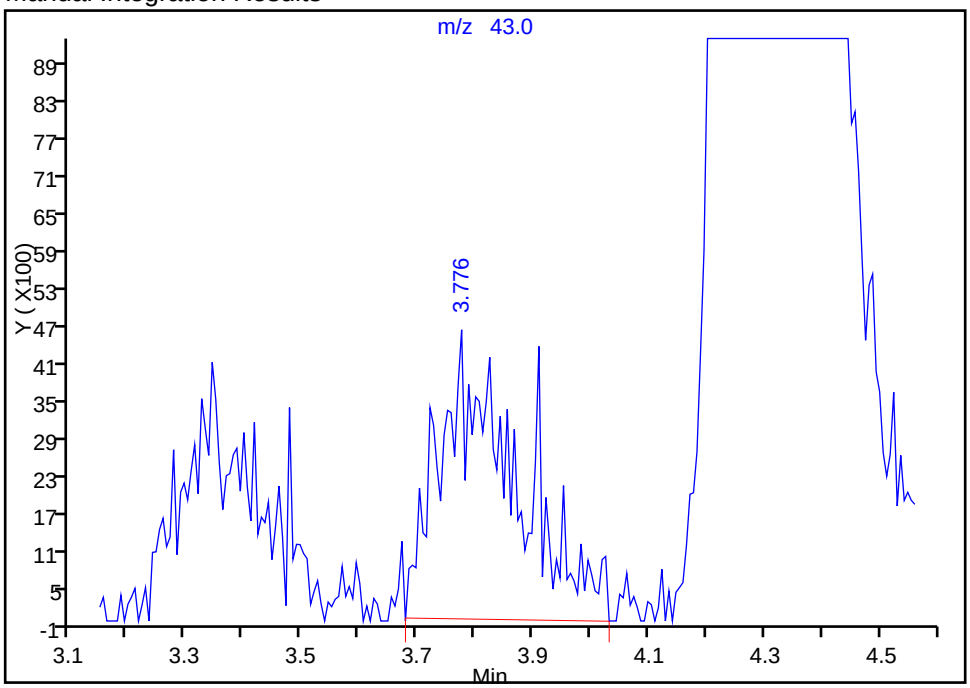
Not Detected
Expected RT: 3.84

Processing Integration Results



Manual Integration Results

RT: 3.78
Area: 41424
Amount: 101.9229
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 15:21:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

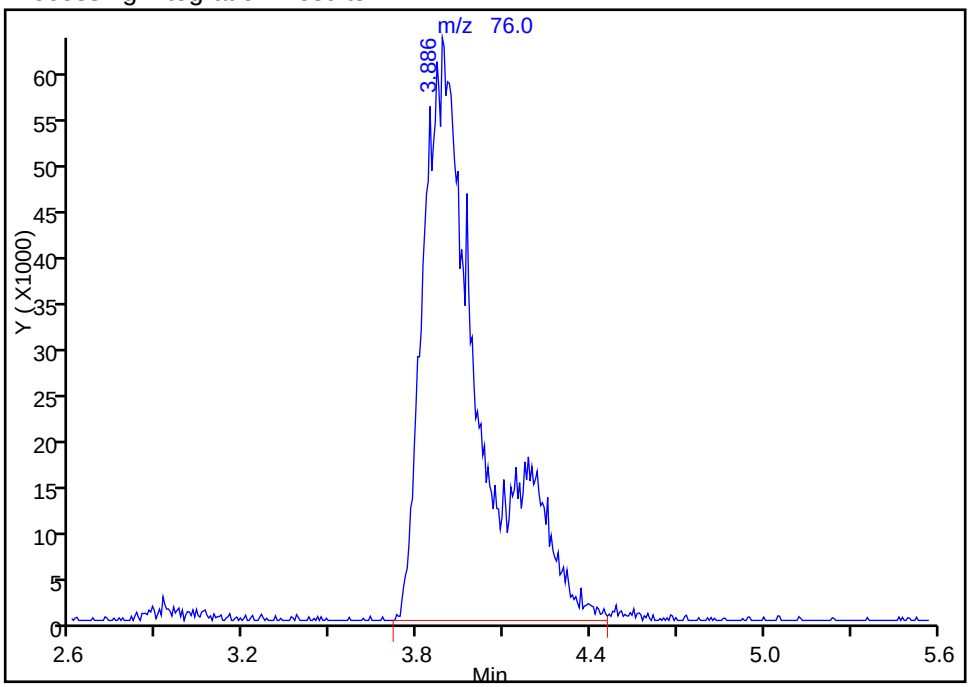
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040613.D				
Injection Date:	06-Apr-2015 14:45:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

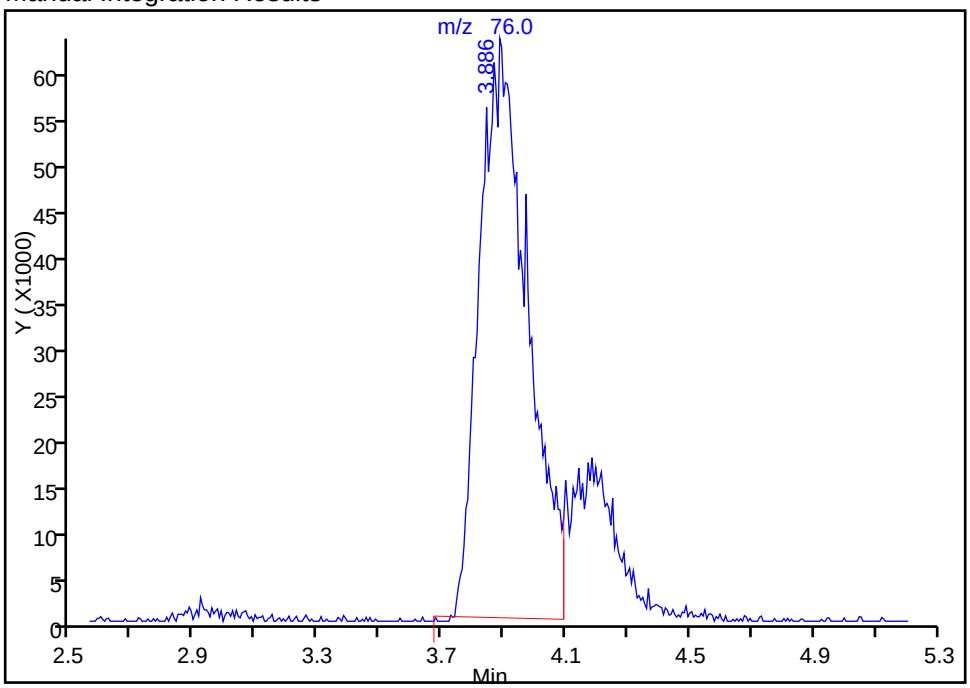
Processing Integration Results

RT: 3.89
Area: 861470
Amount: 242.9307
Amount Units: ng



Manual Integration Results

RT: 3.89
Area: 677268
Amount: 190.9866
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 15:21:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

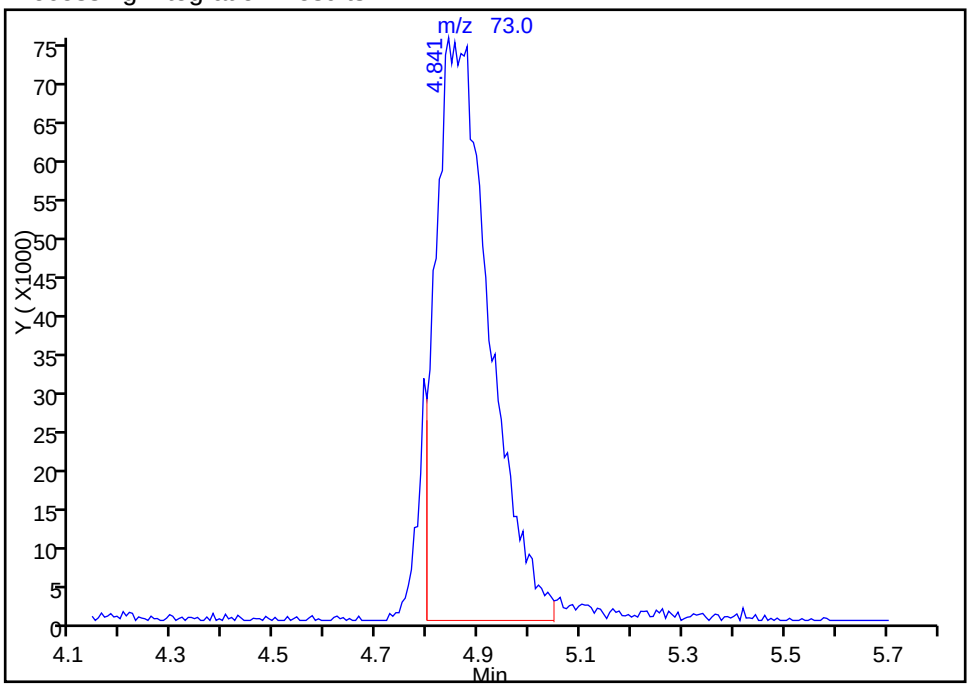
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150406-6335.b\7040613.D				
Injection Date:	06-Apr-2015 14:45:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

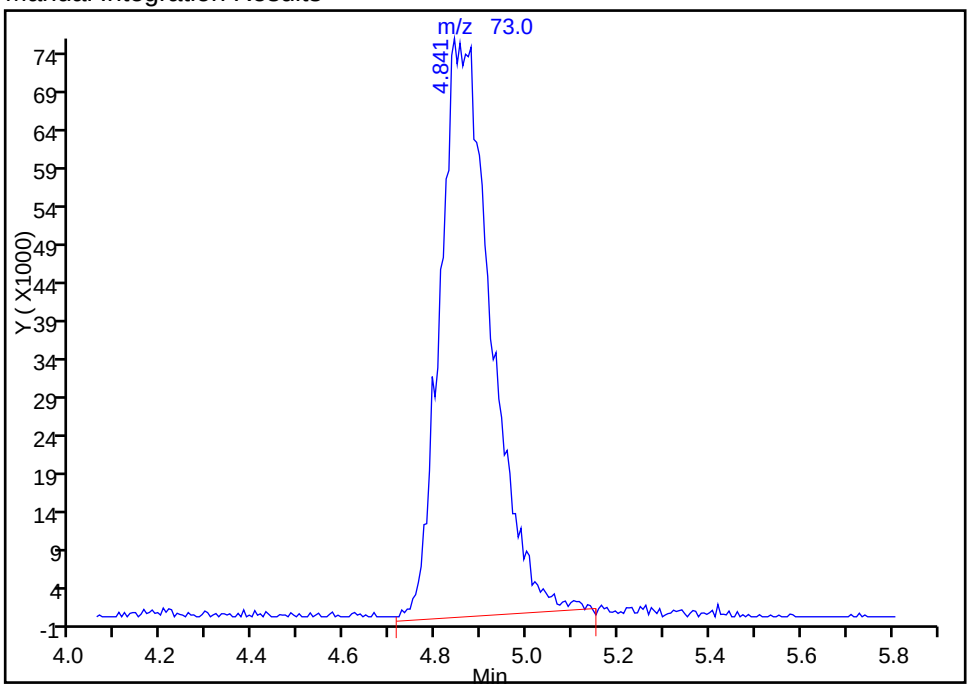
Processing Integration Results

RT: 4.84
Area: 553328
Amount: 191.6667
Amount Units: ng



Manual Integration Results

RT: 4.84
Area: 591737
Amount: 204.9712
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 15:21:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42391-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-137512/9

Matrix: Water | Lab File ID: 7040409.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/04/2015 17:11

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137512 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.38		1.0	0.28
75-01-4	Vinyl chloride	8.38		1.0	0.23
74-83-9	Bromomethane	11.6		1.0	0.31
75-00-3	Chloroethane	9.68		1.0	0.21
75-35-4	1,1-Dichloroethene	11.0		1.0	0.30
67-64-1	Acetone	27.9		5.0	2.5
75-15-0	Carbon disulfide	11.2		1.0	0.21
75-09-2	Methylene Chloride	11.8		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.1		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.2		1.0	0.18
75-34-3	1,1-Dichloroethane	11.1		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.7		1.0	0.24
74-97-5	Bromochloromethane	10.9		1.0	0.18
78-93-3	2-Butanone (MEK)	20.8		5.0	0.55
67-66-3	Chloroform	10.5		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.7		1.0	0.29
56-23-5	Carbon tetrachloride	10.3		1.0	0.14
71-43-2	Benzene	10.7		1.0	0.11
107-06-2	1,2-Dichloroethane	9.70		1.0	0.21
79-01-6	Trichloroethene	9.67		1.0	0.14
78-87-5	1,2-Dichloropropane	9.74		1.0	0.095
75-27-4	Bromodichloromethane	10.3		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.96		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.1		5.0	0.53
108-88-3	Toluene	9.79		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.43		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	8.14		1.0	0.15
591-78-6	2-Hexanone	25.7		5.0	0.16
124-48-1	Dibromochloromethane	9.92		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.93		1.0	0.18
108-90-7	Chlorobenzene	9.97		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.65		1.0	0.28
100-41-4	Ethylbenzene	8.61		1.0	0.23
1330-20-7	Xylenes, Total	17.4		3.0	0.49
100-42-5	Styrene	10.0		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-137512/9

Matrix: Water Lab File ID: 7040409.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/04/2015 17:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137512 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.81		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.6		1.0	0.20
107-13-1	Acrylonitrile	98.9		20	0.55
123-91-1	1,4-Dioxane	201		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

Report Date: 06-Apr-2015 09:16:05 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040409.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 04-Apr-2015 17:11:30 ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Misc. Info.: 180-0006327-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 09:16:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: journetp Date: 06-Apr-2015 08:48:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.739	4.765	-0.026	95	246043	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.399	0.004	97	812560	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.471	-0.002	85	241893	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.789	-0.002	94	306779	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.673	6.675	-0.002	75	273176	200.0	210.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.040	0.004	70	241676	200.0	195.6	
$ 7 Toluene-d8 (Surr)	98	9.034	9.036	-0.002	93	779709	200.0	217.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.633	-0.002	90	327665	200.0	204.5	
11 Dichlorodifluoromethane	85	1.922	1.912	0.010	69	238358	200.0	158.3	
12 Chloromethane	50	2.019	2.028	-0.009	73	275120	200.0	167.7	M
14 Butadiene	39	2.190	2.186	0.004	96	209780	200.0	155.5	
13 Vinyl chloride	62	2.159	2.192	-0.033	78	214137	200.0	167.6	
15 Bromomethane	94	2.512	2.502	0.010	92	238335	200.0	231.5	
16 Chloroethane	64	2.615	2.605	0.010	75	199532	200.0	193.6	
18 Trichlorofluoromethane	101	2.914	2.879	0.035	81	549054	200.0	190.3	
17 Dichlorofluoromethane	67	2.871	2.879	-0.008	92	569775	200.0	207.7	
20 Ethyl ether	59	3.345	3.311	0.034	85	137192	200.0	149.9	
21 Acrolein	56	3.528	3.481	0.047	1	13661	600.0	216.1	M
22 1,1-Dichloroethene	96	3.546	3.518	0.028	92	239385	200.0	219.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.668	3.634	0.034	78	259862	200.0	204.8	
25 Iodomethane	142	3.759	3.761	-0.002	97	531303	200.0	232.8	
26 Carbon disulfide	76	3.838	3.828	0.010	98	736722	200.0	224.8	M
24 Acetone	43	3.832	3.834	-0.002	33	137245	400.0	558.6	
28 3-Chloro-1-propene	76	4.197	4.126	0.071	93	206170	200.0	256.2	
30 Methyl acetate	43	4.307	4.297	0.010	98	556844	1000.0	1028.6	
31 Methylene Chloride	84	4.355	4.364	-0.009	85	276247	200.0	235.9	
34 trans-1,2-Dichloroethene	96	4.751	4.753	-0.002	93	273100	200.0	201.8	
33 Acrylonitrile	53	4.812	4.802	0.010	97	428164	2000.0	1977.1	
35 Methyl tert-butyl ether	73	4.860	4.856	0.004	95	598911	200.0	224.5	
32 2-Methyl-2-propanol	59	4.854	4.875	-0.021	48	128805	2000.0	16621	E
38 Vinyl acetate	43	5.158	5.148	0.010	71	114647	200.0	107.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.158	5.160	-0.002	93	161508	200.0	114.1	M
37 1,1-Dichloroethane	63	5.347	5.355	-0.008	96	440884	200.0	222.2	
44 2,2-Dichloropropane	77	6.095	6.091	0.004	81	401809	200.0	242.4	
45 cis-1,2-Dichloroethene	96	6.120	6.103	0.017	79	286553	200.0	213.3	
46 2-Butanone (MEK)	43	6.174	6.189	-0.015	97	151183	400.0	415.1	
49 Chlorobromomethane	128	6.387	6.377	0.010	80	168002	200.0	217.1	
52 Chloroform	83	6.497	6.499	-0.002	93	467713	200.0	209.3	
53 1,1,1-Trichloroethane	97	6.679	6.681	-0.002	96	435121	200.0	214.5	
51 Tetrahydrofuran	42	6.740	6.730	0.010	46	71750	400.0	360.1	
54 Cyclohexane	56	6.740	6.730	0.010	90	258121	200.0	180.3	
56 Carbon tetrachloride	117	6.856	6.858	-0.002	95	422176	200.0	206.3	
55 1,1-Dichloropropene	75	6.868	6.864	0.004	83	268252	200.0	183.1	
58 Benzene	78	7.099	7.089	0.010	96	855606	200.0	214.0	
59 1,2-Dichloroethane	62	7.129	7.132	-0.003	73	262076	200.0	194.0	
57 Isobutyl alcohol	41	7.403	7.399	0.004	41	86969	5000.0	2666.0	
62 n-Heptane	43	7.415	7.405	0.010	48	118702	200.0	95.8	
64 Trichloroethene	130	7.792	7.795	-0.003	93	309959	200.0	193.4	
66 Methylcyclohexane	83	7.987	7.989	-0.002	88	283287	200.0	143.7	
67 1,2-Dichloropropane	63	8.030	8.032	-0.002	90	177426	200.0	194.8	
68 Dibromomethane	93	8.145	8.147	-0.002	93	133702	200.0	197.1	
70 1,4-Dioxane	88	8.200	8.184	0.016	65	25619	4000.0	4023.5	
71 Dichlorobromomethane	83	8.310	8.312	-0.002	97	347699	200.0	205.9	
74 cis-1,3-Dichloropropene	75	8.772	8.774	-0.002	93	348843	200.0	199.1	
75 4-Methyl-2-pentanone (MIBK	43	8.936	8.938	-0.002	96	283502	400.0	401.1	
76 Toluene	91	9.100	9.103	-0.003	99	850789	200.0	195.8	
77 trans-1,3-Dichloropropene	75	9.326	9.322	0.004	94	286811	200.0	188.6	
78 Ethyl methacrylate	69	9.423	9.425	-0.002	85	199769	200.0	197.5	
79 1,1,2-Trichloroethane	97	9.508	9.504	0.004	91	175319	200.0	202.0	
80 Tetrachloroethene	164	9.648	9.644	0.004	91	191658	200.0	162.8	
81 1,3-Dichloropropane	76	9.672	9.668	0.004	86	276501	200.0	215.5	
82 2-Hexanone	43	9.764	9.760	0.004	96	233962	400.0	513.2	
84 Chlorodibromomethane	129	9.897	9.900	-0.003	88	296077	200.0	198.4	
85 Ethylene Dibromide	107	10.007	10.009	-0.002	95	195228	200.0	198.5	
87 Chlorobenzene	112	10.500	10.496	0.004	93	614650	200.0	199.3	
89 1,1,1,2-Tetrachloroethane	131	10.573	10.575	-0.002	93	287731	200.0	193.0	
90 Ethylbenzene	106	10.603	10.605	-0.002	98	301807	200.0	172.3	
91 m-Xylene & p-Xylene	106	10.719	10.721	-0.002	98	406982	200.0	172.3	
92 o-Xylene	106	11.114	11.116	-0.002	95	414578	200.0	174.8	
93 Styrene	104	11.126	11.128	-0.002	94	657813	200.0	200.9	
94 Bromoform	173	11.315	11.317	-0.002	93	165933	200.0	196.2	
97 Isopropylbenzene	105	11.479	11.481	-0.002	96	1007644	200.0	168.6	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.773	0.004	96	193415	200.0	212.3	
100 Bromobenzene	156	11.783	11.785	-0.002	86	298262	200.0	226.9	
101 1,2,3-Trichloropropane	110	11.820	11.822	-0.002	84	65625	200.0	222.9	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.828	0.004	68	37581	200.0	203.8	
103 N-Propylbenzene	120	11.893	11.889	0.004	97	298690	200.0	185.1	
104 2-Chlorotoluene	126	11.978	11.980	-0.002	96	303885	200.0	207.4	
106 1,3,5-Trimethylbenzene	105	12.063	12.065	-0.002	97	798404	200.0	206.5	
107 4-Chlorotoluene	126	12.087	12.090	-0.003	95	292285	200.0	208.2	
108 tert-Butylbenzene	119	12.392	12.388	0.004	92	894842	200.0	196.6	
110 1,2,4-Trimethylbenzene	105	12.434	12.436	-0.002	95	842569	200.0	209.1	
112 sec-Butylbenzene	105	12.605	12.607	-0.002	94	937953	200.0	176.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.720	12.722	-0.002	98	549154	200.0	210.3	
114 4-Isopropyltoluene	119	12.751	12.753	-0.003	96	816798	200.0	168.1	
115 1,4-Dichlorobenzene	146	12.811	12.814	-0.003	94	498805	200.0	205.0	
120 n-Butylbenzene	91	13.164	13.160	0.004	95	634346	200.0	154.4	
121 1,2-Dichlorobenzene	146	13.189	13.185	0.004	98	458226	200.0	192.2	
122 1,2-Dibromo-3-Chloropropan	75	13.967	13.969	-0.002	85	25647	200.0	213.3	
126 1,2,4-Trichlorobenzene	180	14.801	14.803	-0.002	96	156155	200.0	206.6	
127 Hexachlorobutadiene	225	14.971	14.973	-0.002	86	61270	200.0	135.3	
128 Naphthalene	128	15.056	15.058	-0.002	96	378311	200.0	305.6	
129 1,2,3-Trichlorobenzene	180	15.312	15.308	0.004	93	121126	200.0	234.2	
S 133 Xylenes, Total	106				0		400.0	347.1	
S 134 1,2-Dichloroethene, Total	96				0		400.0	415.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	387.7	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00005	Amount Added:	24.00	Units: uL	
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL	
VOAVAPRI_00005	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00004	Amount Added:	8.00	Units: uL	
VOA8260SURR_00017	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00030	Amount Added:	8.00	Units: uL	Run Reagent

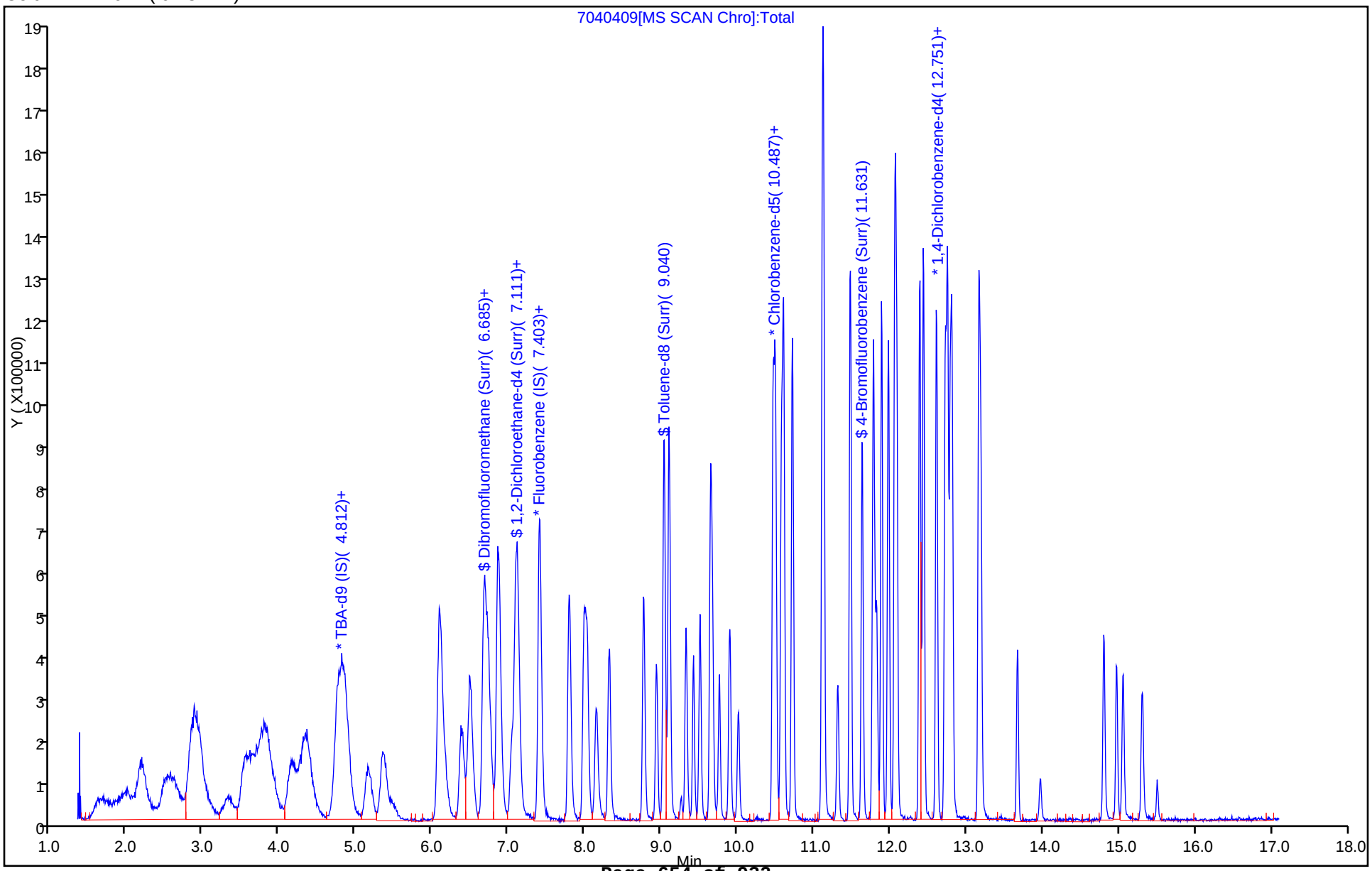
Report Date: 06-Apr-2015 09:16:05 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040409.D

Injection Date:	04-Apr-2015 17:11:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcsd			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

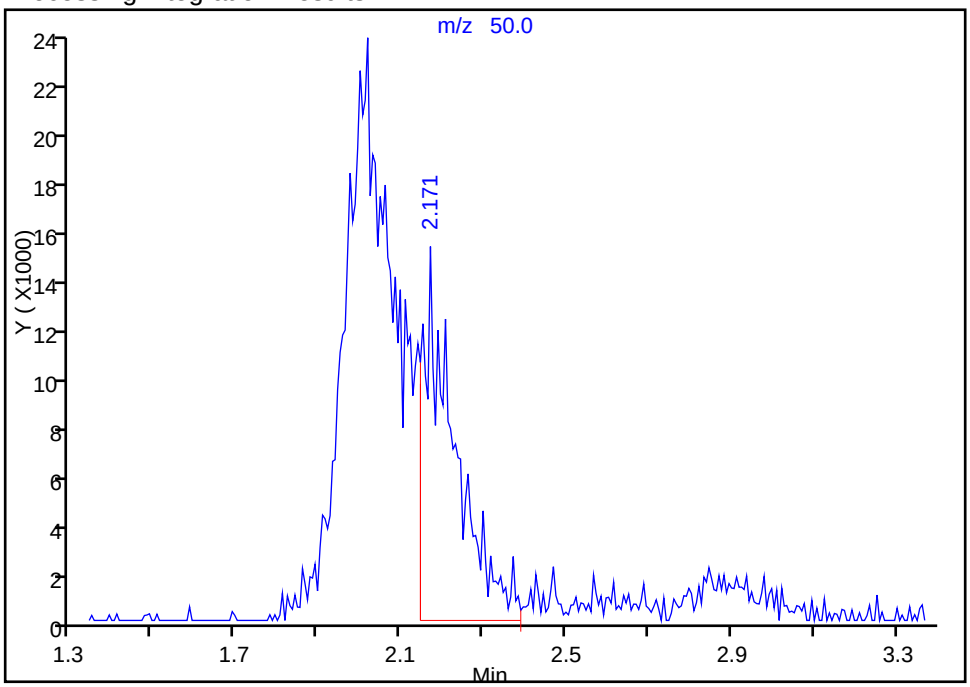
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040409.D				
Injection Date:	04-Apr-2015 17:11:30	Instrument ID:	CHHP7		
Lims ID:	lcsd				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

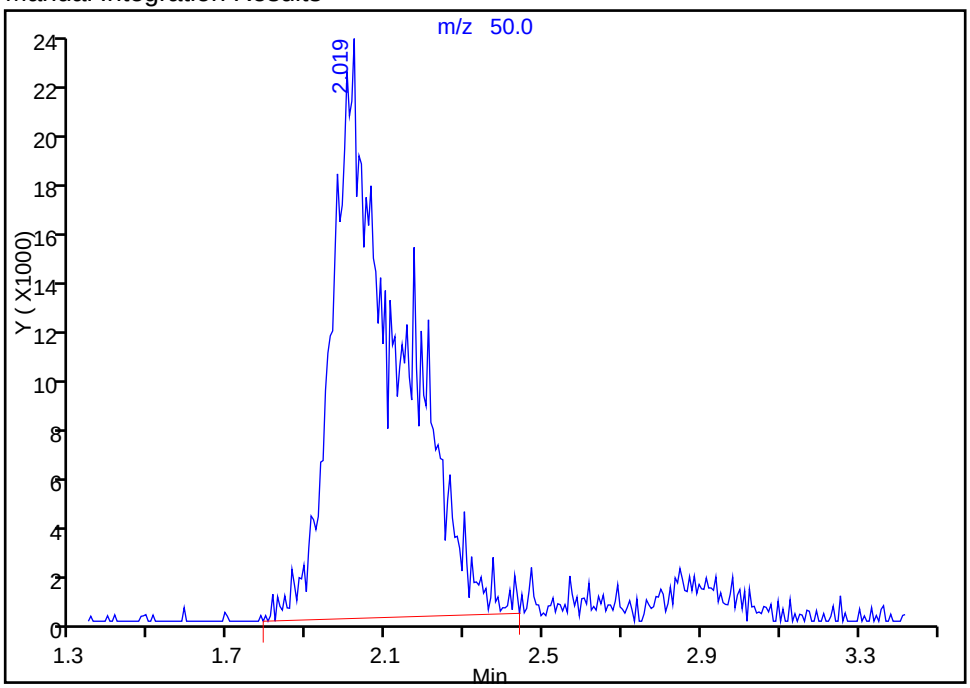
Processing Integration Results

RT: 2.17
Area: 79507
Amount: 48.456186
Amount Units: ng



Manual Integration Results

RT: 2.02
Area: 275120
Amount: 167.6741
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 08:52:23
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

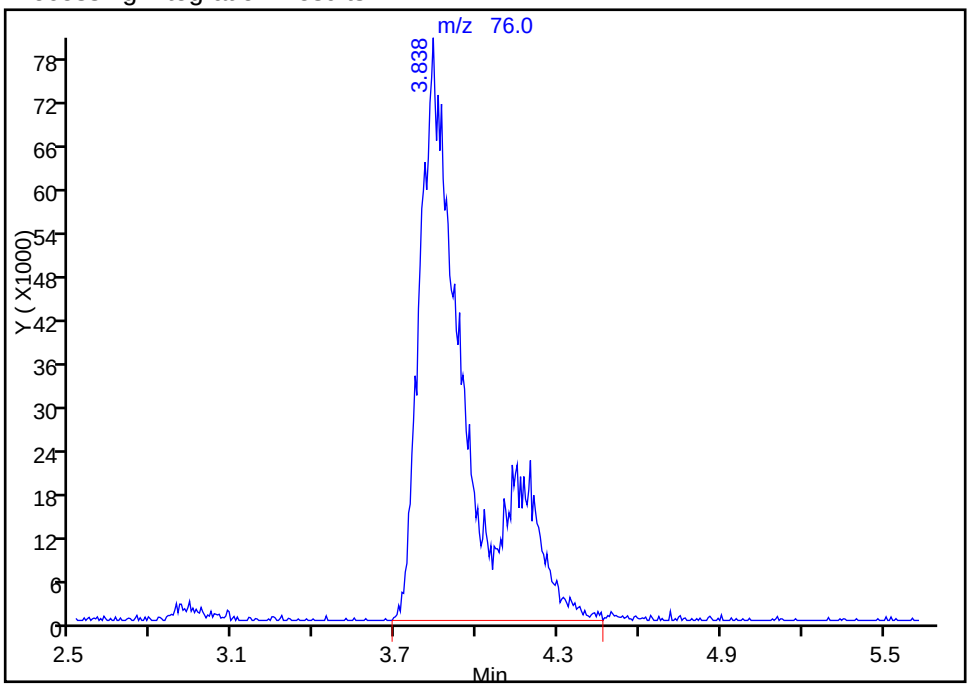
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150404-6327.b\7040409.D				
Injection Date:	04-Apr-2015 17:11:30	Instrument ID:	CHHP7		
Lims ID:	lcsd				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

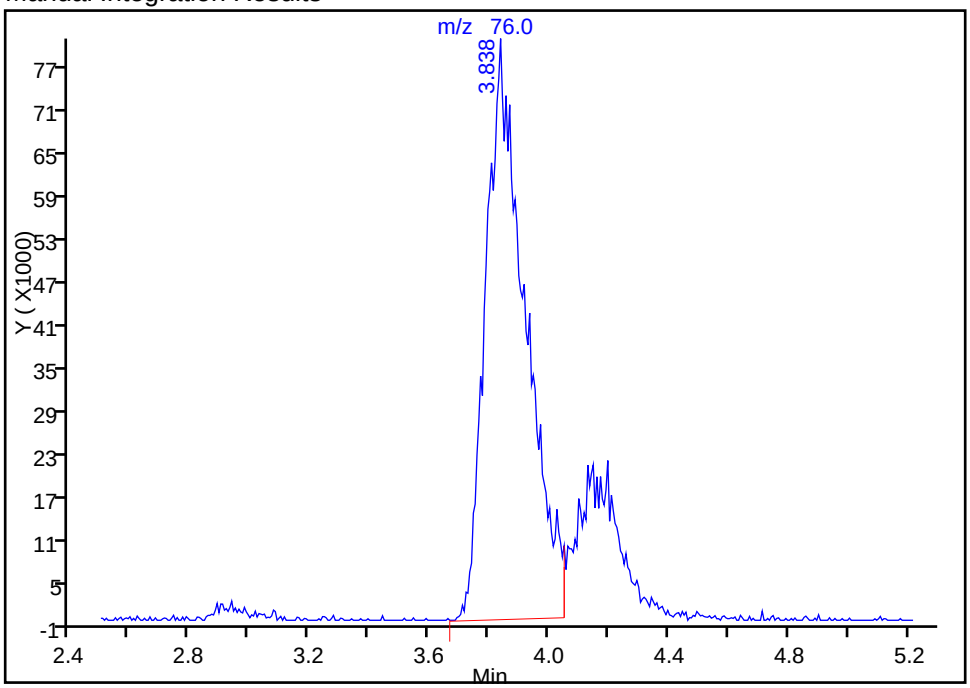
Processing Integration Results

RT: 3.84
Area: 946550
Amount: 288.8642
Amount Units: ng



Manual Integration Results

RT: 3.84
Area: 736722
Amount: 224.8297
Amount Units: ng



Reviewer: journetp, 06-Apr-2015 08:48:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Start Date: 03/30/2015 09:32

Analysis Batch Number: 136928 End Date: 03/30/2015 14:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-136928/1		03/30/2015 09:32	1	7033001.D	DB-624 0.18(mm)
IC 180-136928/3		03/30/2015 10:57	1	7033003.D	DB-624 0.18(mm)
IC 180-136928/4		03/30/2015 11:28	1	7033004.D	DB-624 0.18(mm)
ICIS 180-136928/5		03/30/2015 11:55	1	7033005.D	DB-624 0.18(mm)
IC 180-136928/6		03/30/2015 12:23	1	7033006.D	DB-624 0.18(mm)
IC 180-136928/7		03/30/2015 13:05	1	7033007.D	DB-624 0.18(mm)
IC 180-136928/8		03/30/2015 13:32	1	7033008.D	DB-624 0.18(mm)
IC 180-136928/9		03/30/2015 14:05	1	7033009.D	DB-624 0.18(mm)
IC 180-136928/10		03/30/2015 14:36	1	7033010.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Start Date: 04/02/2015 09:04

Analysis Batch Number: 137305 End Date: 04/02/2015 19:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137305/1		04/02/2015 09:04	1	7040201.D	DB-624 0.18(mm)
CCVIS 180-137305/3		04/02/2015 10:16	1	7040203.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 10:16	1		DB-624 0.18(mm)
MB 180-137305/6		04/02/2015 12:11	1	7040206.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 12:39	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 13:06	12.5		DB-624 0.18(mm)
180-42391-3 DL	HD-CW-13-0/1-0 DL	04/02/2015 13:33	25	7040209.D	DB-624 0.18(mm)
180-42391-4	HD-CW-15A-0/1-0	04/02/2015 14:01	1000	7040210.D	DB-624 0.18(mm)
180-42391-5	HD-CW-17-0/1-0	04/02/2015 14:28	5	7040211.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 14:55	50		DB-624 0.18(mm)
180-42391-1	HD-QC3-0/1-2	04/02/2015 15:23	1	7040213.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 16:17	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 16:45	1		DB-624 0.18(mm)
180-42391-8	HD-MW-147A-0/1-0	04/02/2015 18:07	1	7040218.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 18:34	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 19:01	5		DB-624 0.18(mm)
180-42391-9	HD-MW-75S-0/1-0	04/02/2015 19:28	50	7040221.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Start Date: 04/03/2015 09:28

Analysis Batch Number: 137438 End Date: 04/03/2015 20:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137438/1		04/03/2015 09:28	1	7040301.D	DB-624 0.18(mm)
CCVIS 180-137438/3		04/03/2015 10:07	1	7040302.D	DB-624 0.18(mm)
MB 180-137438/6		04/03/2015 11:46	1	7040306.D	DB-624 0.18(mm)
ZZZZZ		04/03/2015 12:13	1		DB-624 0.18(mm)
ZZZZZ		04/03/2015 12:54	1		DB-624 0.18(mm)
180-42391-6	HD-CW-20-0/1-0	04/03/2015 13:22	25	7040309.D	DB-624 0.18(mm)
ZZZZZ		04/03/2015 14:16	1		DB-624 0.18(mm)
LCS 180-137438/12		04/03/2015 14:44	1	7040312.D	DB-624 0.18(mm)
ZZZZZ		04/03/2015 15:11	1		DB-624 0.18(mm)
180-42391-12	HD-MW-95-0/1-0	04/03/2015 16:05	1	7040315.D	DB-624 0.18(mm)
180-42391-13	HD-MW-7-0/1-0	04/03/2015 16:32	10	7040316.D	DB-624 0.18(mm)
180-42391-12 RA	HD-MW-95-0/1-0 RA	04/03/2015 16:59	1	7040317.D	DB-624 0.18(mm)
180-42391-10	HD-MW-37D-0/1-0	04/03/2015 17:26	10	7040318.D	DB-624 0.18(mm)
180-42391-11	HD-MW-37S-0/1-0	04/03/2015 17:53	4	7040319.D	DB-624 0.18(mm)
ZZZZZ		04/03/2015 18:47	10		DB-624 0.18(mm)
ZZZZZ		04/03/2015 19:14	20		DB-624 0.18(mm)
ZZZZZ		04/03/2015 19:41	100		DB-624 0.18(mm)
ZZZZZ		04/03/2015 20:08	5		DB-624 0.18(mm)
ZZZZZ		04/03/2015 20:35	500		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Start Date: 04/04/2015 13:00

Analysis Batch Number: 137512 End Date: 04/04/2015 23:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137512/1		04/04/2015 13:00	1	7040401.D	DB-624 0.18(mm)
CCVIS 180-137512/3		04/04/2015 14:19	1	7040403.D	DB-624 0.18(mm)
MB 180-137512/6		04/04/2015 15:41	1	7040406.D	DB-624 0.18(mm)
LCS 180-137512/8		04/04/2015 16:44	1	7040408.D	DB-624 0.18(mm)
LCSD 180-137512/9		04/04/2015 17:11	1	7040409.D	DB-624 0.18(mm)
180-42391-3	HD-CW-13-0/1-0	04/04/2015 18:59	2.5	7040413.D	DB-624 0.18(mm)
ZZZZZ		04/04/2015 19:53	5		DB-624 0.18(mm)
ZZZZZ		04/04/2015 20:47	10		DB-624 0.18(mm)
180-42391-6 DL	HD-CW-20-0/1-0 DL	04/04/2015 21:14	50	7040418.D	DB-624 0.18(mm)
180-42391-7	HD-MW-100D-0/1-0	04/04/2015 22:36	1	7040421.D	DB-624 0.18(mm)
180-42391-10 DL	HD-MW-37D-0/1-0 DL	04/04/2015 23:30	40	7040423.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHHP7 Start Date: 04/06/2015 08:19

Analysis Batch Number: 137564 End Date: 04/06/2015 19:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137564/1		04/06/2015 08:19	1	7040601.D	DB-624 0.18(mm)
CCVIS 180-137564/3		04/06/2015 09:40	1	7040603.D	DB-624 0.18(mm)
MB 180-137564/6		04/06/2015 11:09	1	7040606.D	DB-624 0.18(mm)
180-42391-9 DL	HD-MW-75S-0/1-0 DL	04/06/2015 11:48	500	7040607.D	DB-624 0.18(mm)
180-42391-11 DL	HD-MW-37S-0/1-0 DL	04/06/2015 12:15	1	7040608.D	DB-624 0.18(mm)
180-42391-2	HD-CW-9-0/1-0	04/06/2015 12:54	5	7040609.D	DB-624 0.18(mm)
ZZZZZ		04/06/2015 13:21	1		DB-624 0.18(mm)
ZZZZZ		04/06/2015 13:48	50		DB-624 0.18(mm)
ZZZZZ		04/06/2015 14:18	1		DB-624 0.18(mm)
LCS 180-137564/13		04/06/2015 14:45	1	7040613.D	DB-624 0.18(mm)
ZZZZZ		04/06/2015 15:12	1		DB-624 0.18(mm)
ZZZZZ		04/06/2015 16:08	1		DB-624 0.18(mm)
ZZZZZ		04/06/2015 16:35	2.5		DB-624 0.18(mm)
ZZZZZ		04/06/2015 17:29	1		DB-624 0.18(mm)
ZZZZZ		04/06/2015 18:24	100		DB-624 0.18(mm)
ZZZZZ		04/06/2015 18:51	10		DB-624 0.18(mm)
ZZZZZ		04/06/2015 19:45	1		DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 03-26-2015-5.d

Lab ID: LCS 180-136678/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.51	100	90-110	
Chloride	50.0	47.8	96	90-110	
Sulfate	50.0	48.1	96	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 03-26-2015-30.d

Lab ID: 180-42391-12 MS Client ID: HD-MW-95-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	0.79	2.05	101	80-120	
Chloride	25.0	51	76.3	100	80-120	
Sulfate	25.0	38	62.3	98	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 03-26-2015-31.d

Lab ID: 180-42391-12 MSD Client ID: HD-MW-95-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	2.05	101	0	20	80-120	
Chloride	25.0	76.0	99	0	20	80-120	
Sulfate	25.0	62.1	97	0	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: A-ICS2100 A 03-26-2015-6.d Lab Sample ID: MB 180-136678/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 03/26/2015 12:02

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-136678/4	A-ICS2100 A 03-26-2015-4.d	03/26/2015 11:31
	LCS 180-136678/5	A-ICS2100 A 03-26-2015-5.d	03/26/2015 11:46
HD-CW-9-0/1-0	180-42391-2	A-ICS2100 A 03-26-2015-14.d	03/26/2015 14:04
	CCB 180-136678/16	A-ICS2100 A 03-26-2015-16.d	03/26/2015 16:55
HD-CW-13-0/1-0	180-42391-3	A-ICS2100 A 03-26-2015-17.d	03/26/2015 17:10
HD-CW-17-0/1-0	180-42391-5	A-ICS2100 A 03-26-2015-18.d	03/26/2015 17:25
HD-MW-100D-0/1-0	180-42391-7	A-ICS2100 A 03-26-2015-19.d	03/26/2015 17:40
HD-MW-37S-0/1-0	180-42391-11	A-ICS2100 A 03-26-2015-20.d	03/26/2015 17:56
HD-MW-147A-0/1-0	180-42391-8	A-ICS2100 A 03-26-2015-21.d	03/26/2015 18:11
HD-CW-20-0/1-0	180-42391-6	A-ICS2100 A 03-26-2015-22.d	03/26/2015 18:26
HD-CW-15A-0/1-0	180-42391-4	A-ICS2100 A 03-26-2015-23.d	03/26/2015 18:42
HD-CW-15A-0/1-0	180-42391-4	A-ICS2100 A 03-26-2015-24.d	03/26/2015 18:57
HD-MW-75S-0/1-0	180-42391-9	A-ICS2100 A 03-26-2015-25.d	03/26/2015 19:12
HD-MW-7-0/1-0	180-42391-13	A-ICS2100 A 03-26-2015-26.d	03/26/2015 19:28
	CCB 180-136678/28	A-ICS2100 A 03-26-2015-28.d	03/26/2015 19:58

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab File ID: A-ICS2100 A 03-26-2015-6.d Lab Sample ID: MB 180-136678/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 03/26/2015 12:02

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-MW-95-0/1-0	180-42391-12	A-ICS2100 A 03-26-2015-29.d	03/26/2015 20:14
HD-MW-95-0/1-0 MS	180-42391-12 MS	A-ICS2100 A 03-26-2015-30.d	03/26/2015 20:29
HD-MW-95-0/1-0 MSD	180-42391-12 MSD	A-ICS2100 A 03-26-2015-31.d	03/26/2015 20:44
HD-MW-37D-0/1-0	180-42391-10	A-ICS2100 A 03-26-2015-32.d	03/26/2015 21:00
HD-MW-37D-0/1-0	180-42391-10	A-ICS2100 A 03-26-2015-33.d	03/26/2015 21:15
	CCB 180-136678/40	A-ICS2100 A 03-26-2015-40.d	03/26/2015 23:02

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-42391-2

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-14.d

Analysis Method: 300.0 Date Collected: 03/25/2015 06:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 14:04

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.0	B	0.10	0.0062
16887-00-6	Chloride	190	B	1.0	0.20
14808-79-8	Sulfate	30		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-14.d
Lims ID: 180-42391-A-2 Lab Sample ID: 180-42391-2
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 14:04:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-014
Misc. Info.: 14 180-42353-A-3
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:17 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

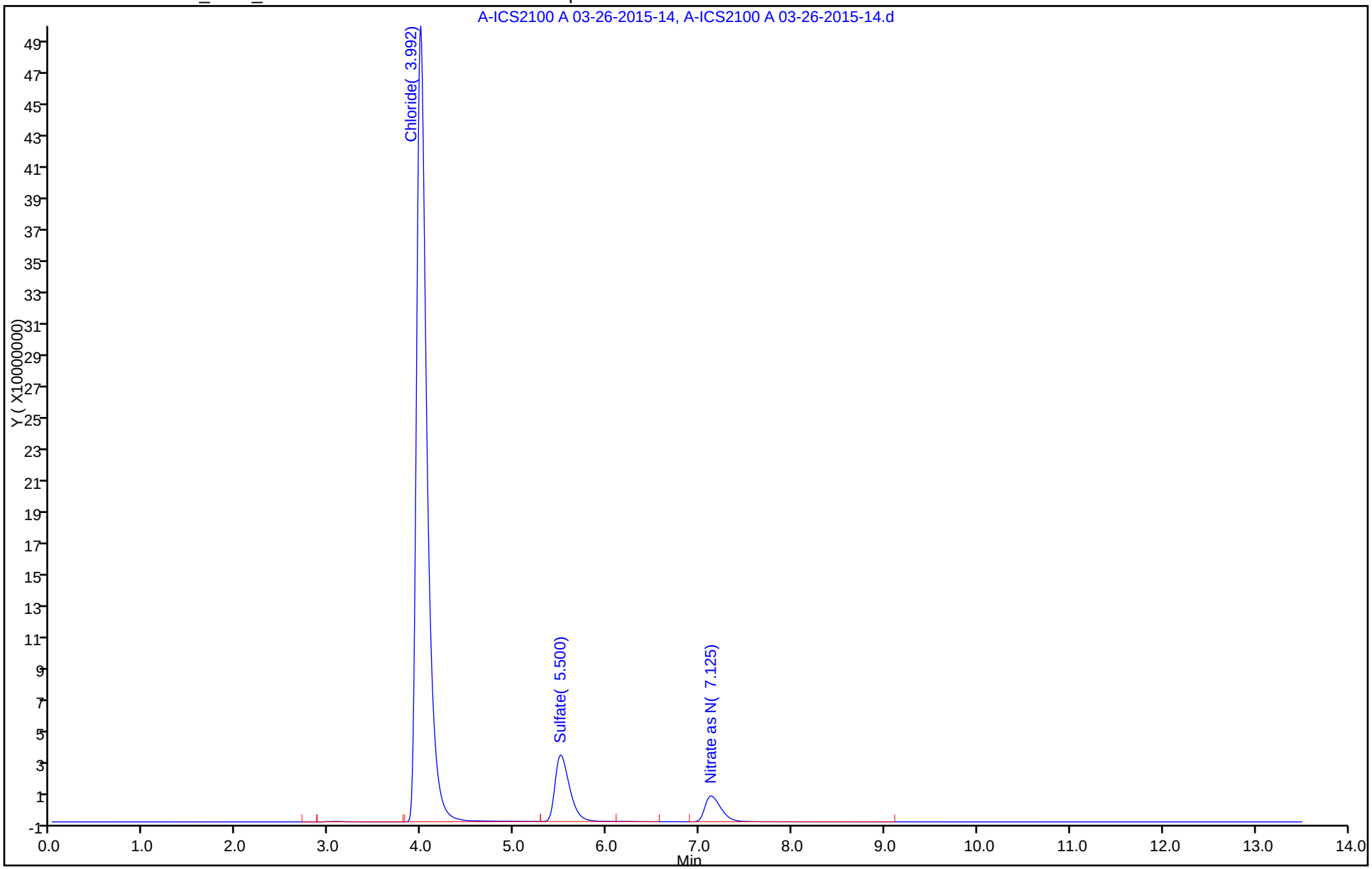
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	3.992	0.000	3905399535	187.7	
3 Sulfate	5.500	5.475	0.025	452647456	30.3	
5 Nitrate as N	7.125	7.142	-0.017	195389253	3.99	

Report Date: 27-Mar-2015 09:30:46 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-14.d				
Injection Date:	26-Mar-2015 14:04:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-2	Lab Sample ID:	180-42391-2	Worklist Smp#:	14
Client ID:	HD-CW-9-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-42391-3

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-17.d

Analysis Method: 300.0 Date Collected: 03/25/2015 06:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 17:10

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.9	B	0.10	0.0062
16887-00-6	Chloride	160	B	1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

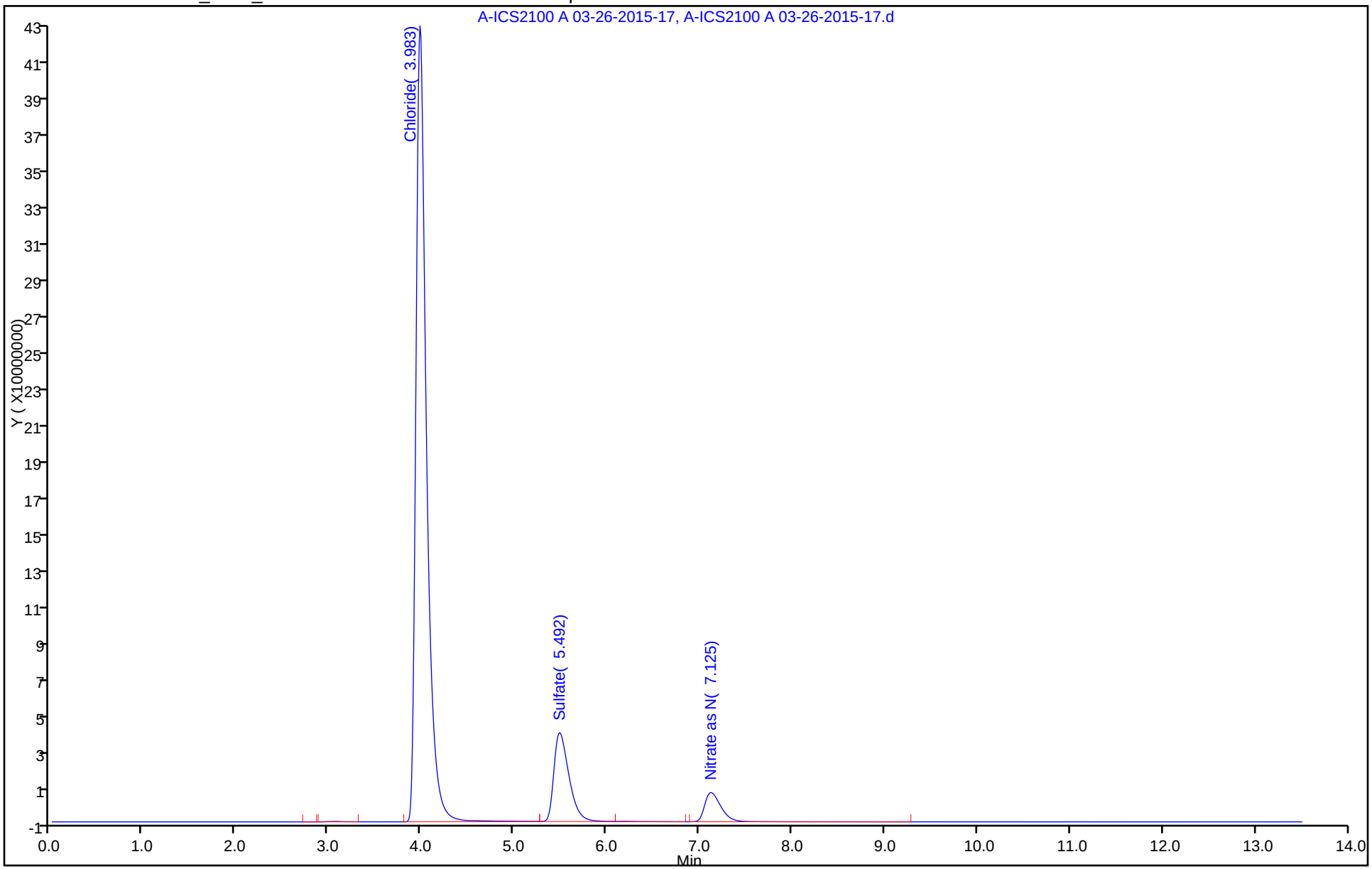
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-17.d				
Lims ID:	180-42391-A-3	Lab Sample ID:	180-42391-3		
Client ID:	HD-CW-13-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Mar-2015 17:10:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006193-017				
Misc. Info.:	17 180-42391-a-3				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	27-Mar-2015 09:30:46	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK035				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.992	-0.009	3370019661	162.0	
3 Sulfate	5.492	5.475	0.017	536218477	35.9	
5 Nitrate as N	7.125	7.142	-0.017	190695704	3.89	

Report Date: 27-Mar-2015 09:30:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-17.d				
Injection Date:	26-Mar-2015 17:10:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-3	Lab Sample ID:	180-42391-3	Worklist Smp#:	17
Client ID:	HD-CW-13-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-42391-4

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-23.d

Analysis Method: 300.0 Date Collected: 03/25/2015 05:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 18:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.9	B	0.10	0.0062
14808-79-8	Sulfate	140		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-23.d				
Lims ID:	180-42391-A-4	Lab Sample ID:	180-42391-4		
Client ID:	HD-CW-15A-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Mar-2015 18:42:00	ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006193-023				
Misc. Info.:	23 180-42391-a-4				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	27-Mar-2015 09:30:46	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK035				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.975	3.992	-0.017	6020778488	289.2	E
3 Sulfate	5.383	5.475	-0.092	2111372933	141.5	
5 Nitrate as N	7.108	7.142	-0.034	241893776	4.93	

QC Flag Legend

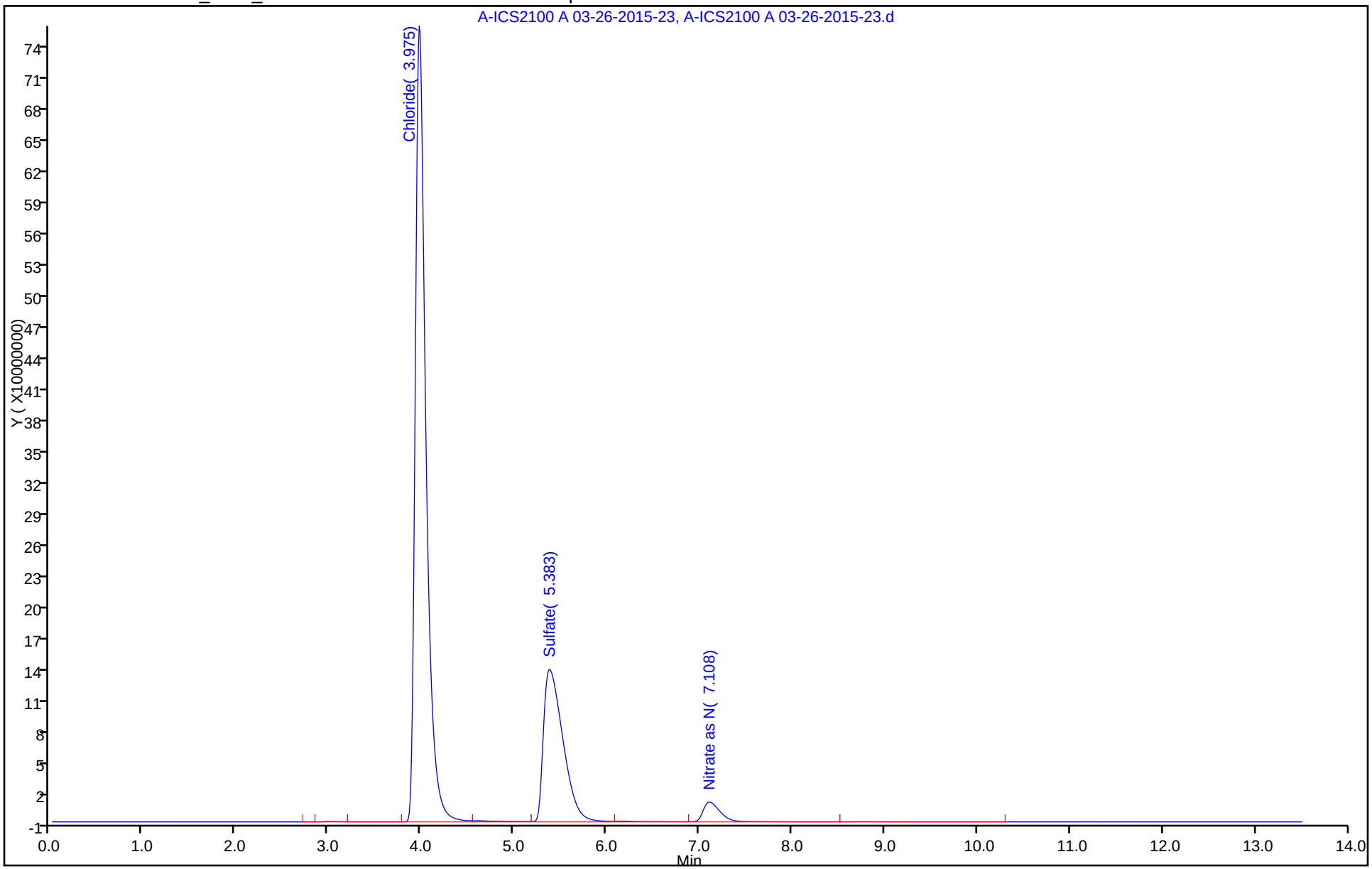
Processing Flags

E - Exceeded Maximum Amount

Report Date: 27-Mar-2015 09:30:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-23.d				
Injection Date:	26-Mar-2015 18:42:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-4	Lab Sample ID:	180-42391-4	Worklist Smp#:	23
Client ID:	HD-CW-15A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-42391-4

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-24.d

Analysis Method: 300.0 Date Collected: 03/25/2015 05:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 18:57

Con. Extract Vol.: Dilution Factor: 10

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	300	B	10	2.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-24.d
Lims ID: 180-42391-A-4 Lab Sample ID: 180-42391-4
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 18:57:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 180-0006193-024
Misc. Info.: 24 180-42391-a-4 10
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

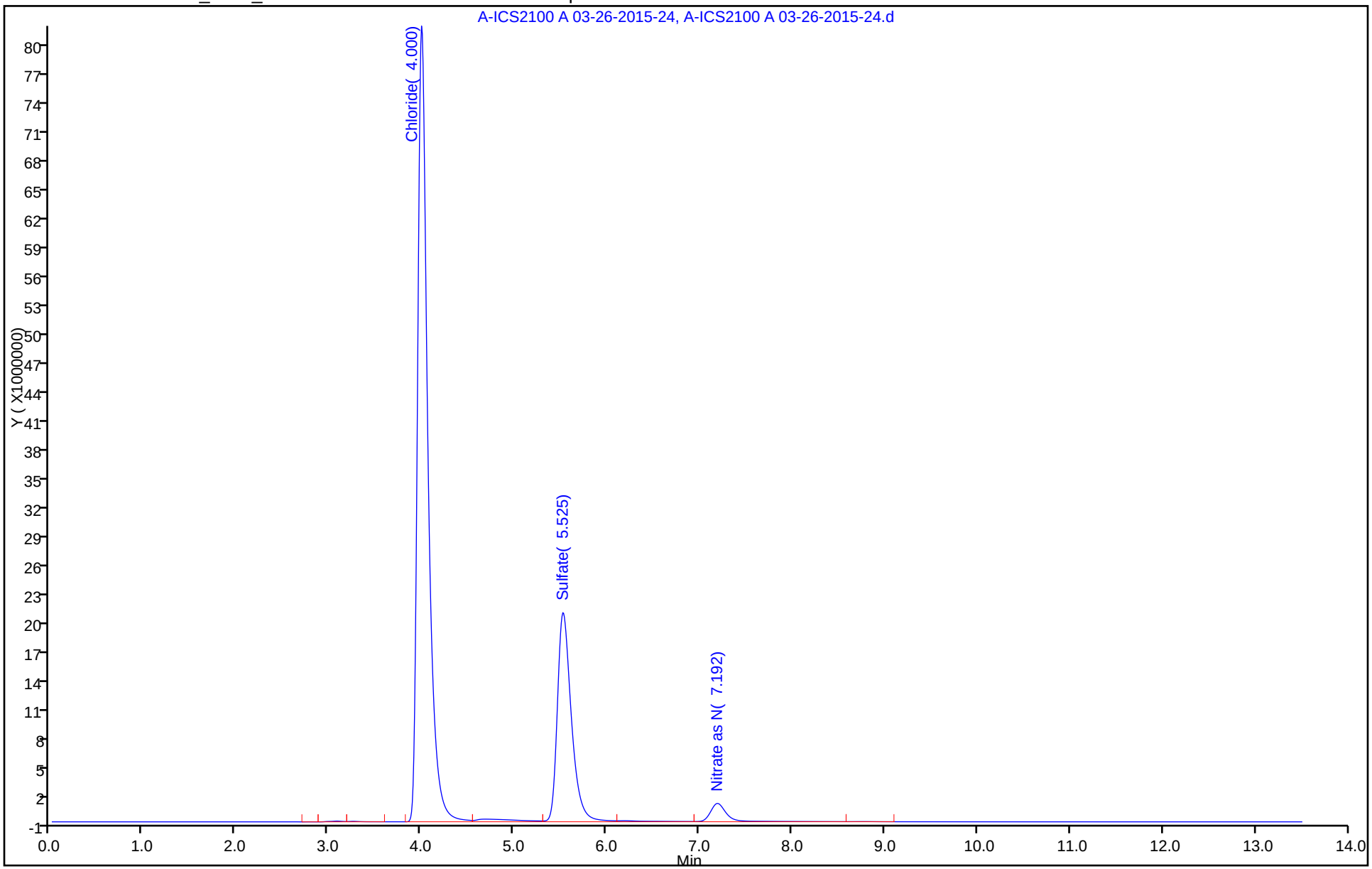
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	3.992	0.008	628046293	30.4	
3 Sulfate	5.525	5.475	0.050	224930041	15.1	
5 Nitrate as N	7.192	7.142	0.050	23470531	0.5038	

Report Date: 27-Mar-2015 09:30:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-24.d				
Injection Date:	26-Mar-2015 18:57:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-4	Lab Sample ID:	180-42391-4	Worklist Smp#:	24
Client ID:	HD-CW-15A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	10.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-42391-5

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-18.d

Analysis Method: 300.0 Date Collected: 03/25/2015 06:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 17:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1	B	0.10	0.0062
16887-00-6	Chloride	100	B	1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-18.d
Lims ID: 180-42391-A-5 Lab Sample ID: 180-42391-5
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 17:25:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-018
Misc. Info.: 18 180-42391-a-5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

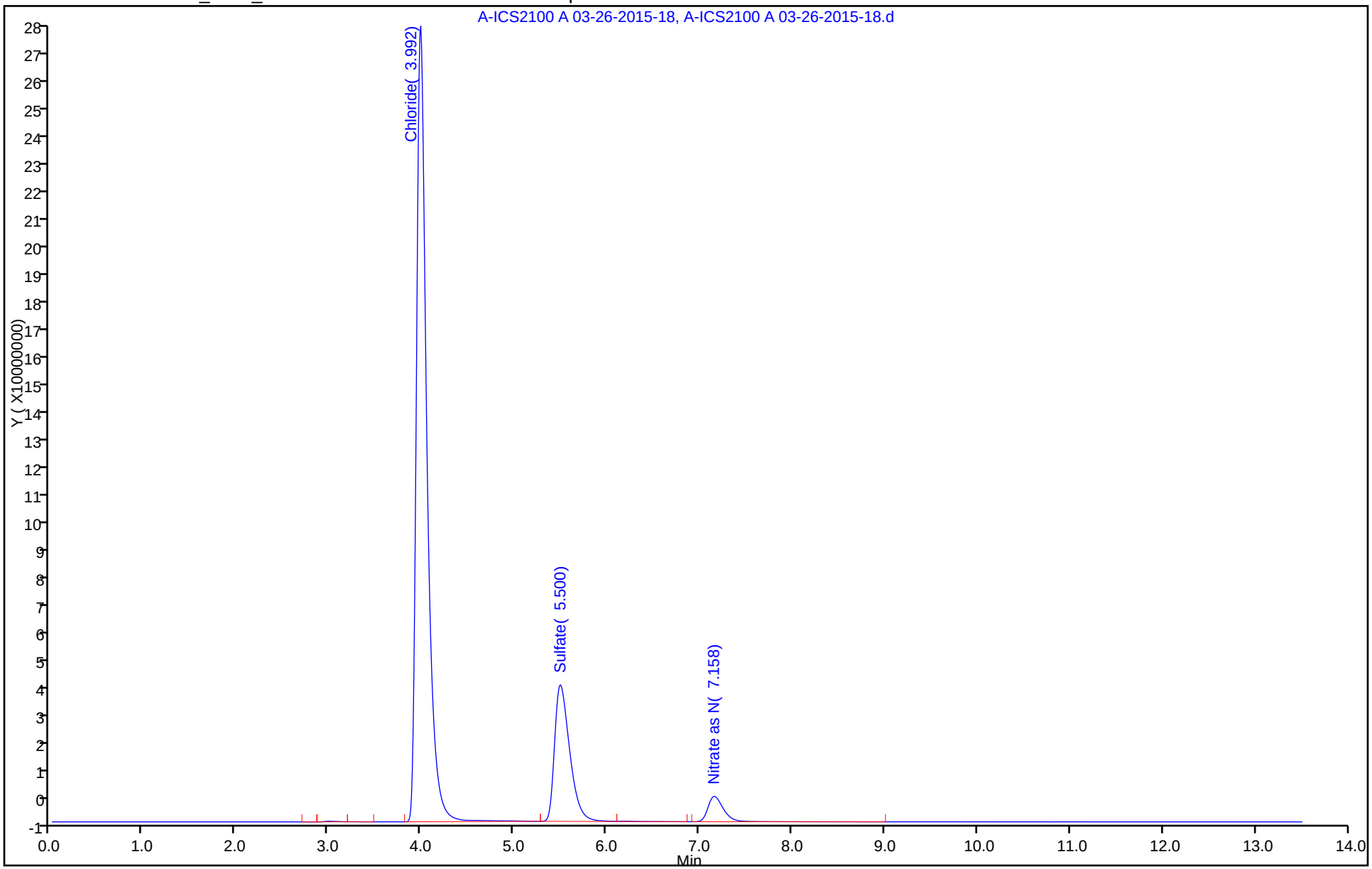
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	3.992	0.000	2145560272	103.2	
3 Sulfate	5.500	5.475	0.025	531159428	35.6	
5 Nitrate as N	7.158	7.142	0.016	100951270	2.07	

Report Date: 27-Mar-2015 09:30:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-18.d				
Injection Date:	26-Mar-2015 17:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-5	Lab Sample ID:	180-42391-5	Worklist Smp#:	18
Client ID:	HD-CW-17-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-42391-6

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-22.d

Analysis Method: 300.0 Date Collected: 03/25/2015 06:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 18:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.4	B	0.10	0.0062
16887-00-6	Chloride	170	B	1.0	0.20
14808-79-8	Sulfate	29		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

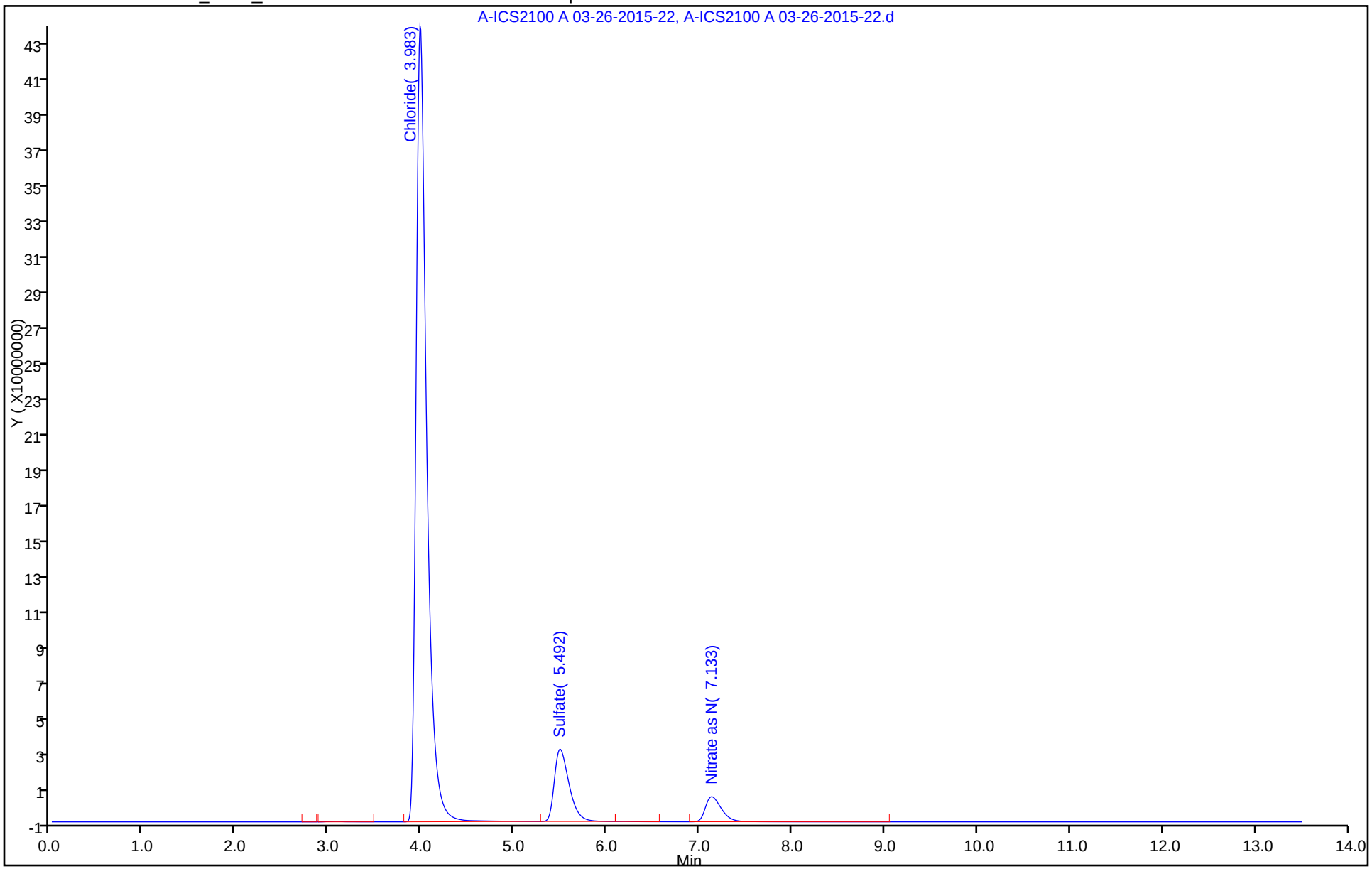
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-22.d				
Lims ID:	180-42391-A-6	Lab Sample ID:	180-42391-6		
Client ID:	HD-CW-20-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Mar-2015 18:26:00	ALS Bottle#:	0	Worklist Smp#:	22
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006193-022				
Misc. Info.:	22 180-42391-a-6				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	27-Mar-2015 09:30:46	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK035				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.992	-0.009	3505723419	168.5	
3 Sulfate	5.492	5.475	0.017	440230952	29.5	
5 Nitrate as N	7.133	7.142	-0.009	167329016	3.42	

Report Date: 27-Mar-2015 09:30:49 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-22.d				
Injection Date:	26-Mar-2015 18:26:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-6	Lab Sample ID:	180-42391-6	Worklist Smp#:	22
Client ID:	HD-CW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-42391-7

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-19.d

Analysis Method: 300.0 Date Collected: 03/25/2015 09:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 17:40

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8	B	0.10	0.0062
16887-00-6	Chloride	130	B	1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

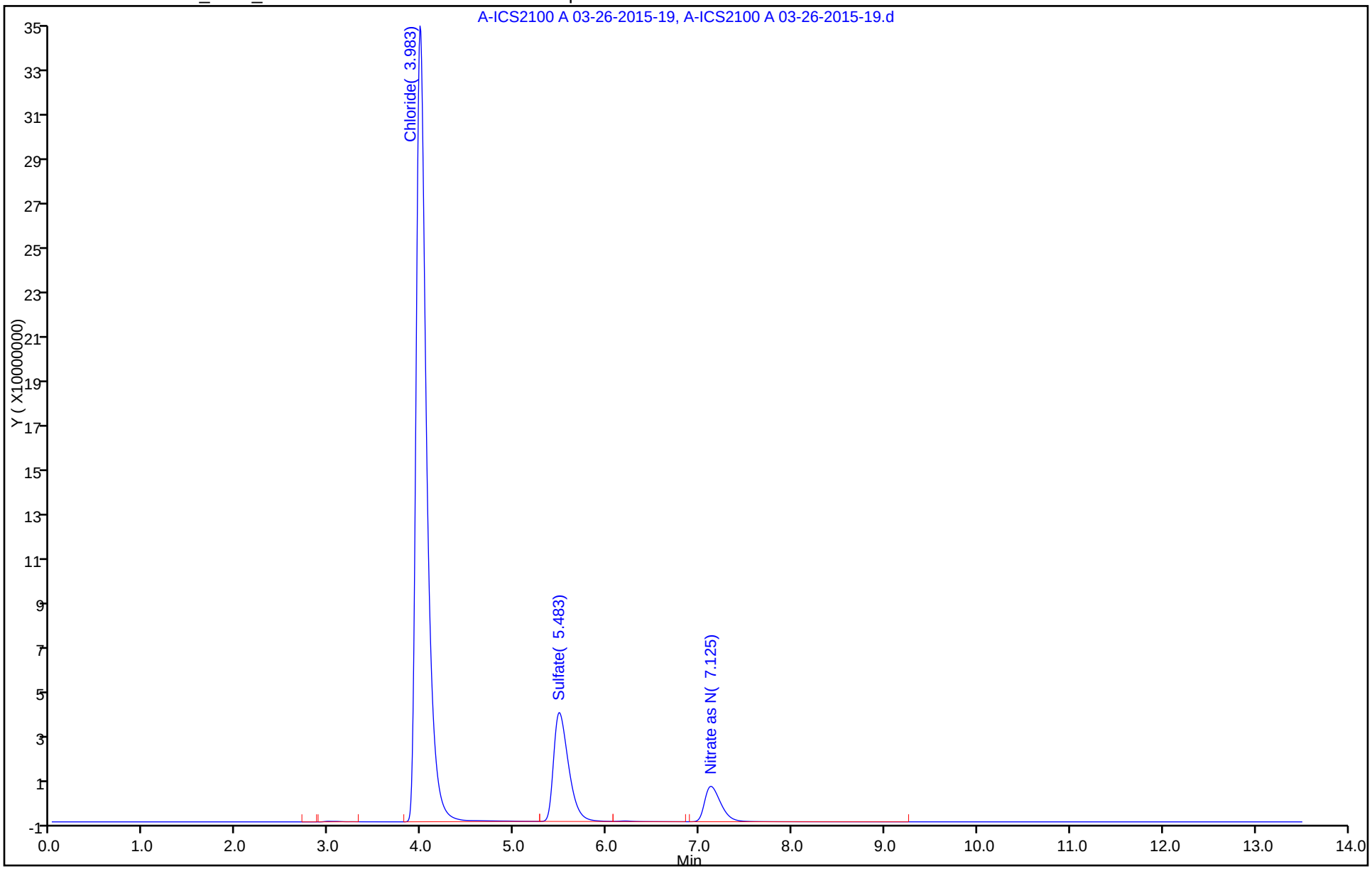
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-19.d				
Lims ID:	180-42391-A-7	Lab Sample ID:	180-42391-7		
Client ID:	HD-MW-100D-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Mar-2015 17:40:00	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006193-019				
Misc. Info.:	19 180-42391-a-7				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	27-Mar-2015 09:30:46	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK035				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.992	-0.009	2694069596	129.6	
3 Sulfate	5.483	5.475	0.008	524161948	35.1	
5 Nitrate as N	7.125	7.142	-0.017	184947758	3.78	

Report Date: 27-Mar-2015 09:30:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-19.d				
Injection Date:	26-Mar-2015 17:40:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-7	Lab Sample ID:	180-42391-7	Worklist Smp#:	19
Client ID:	HD-MW-100D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-42391-8

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-21.d

Analysis Method: 300.0 Date Collected: 03/25/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 18:11

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.9	B	0.10	0.0062
16887-00-6	Chloride	160	B	1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

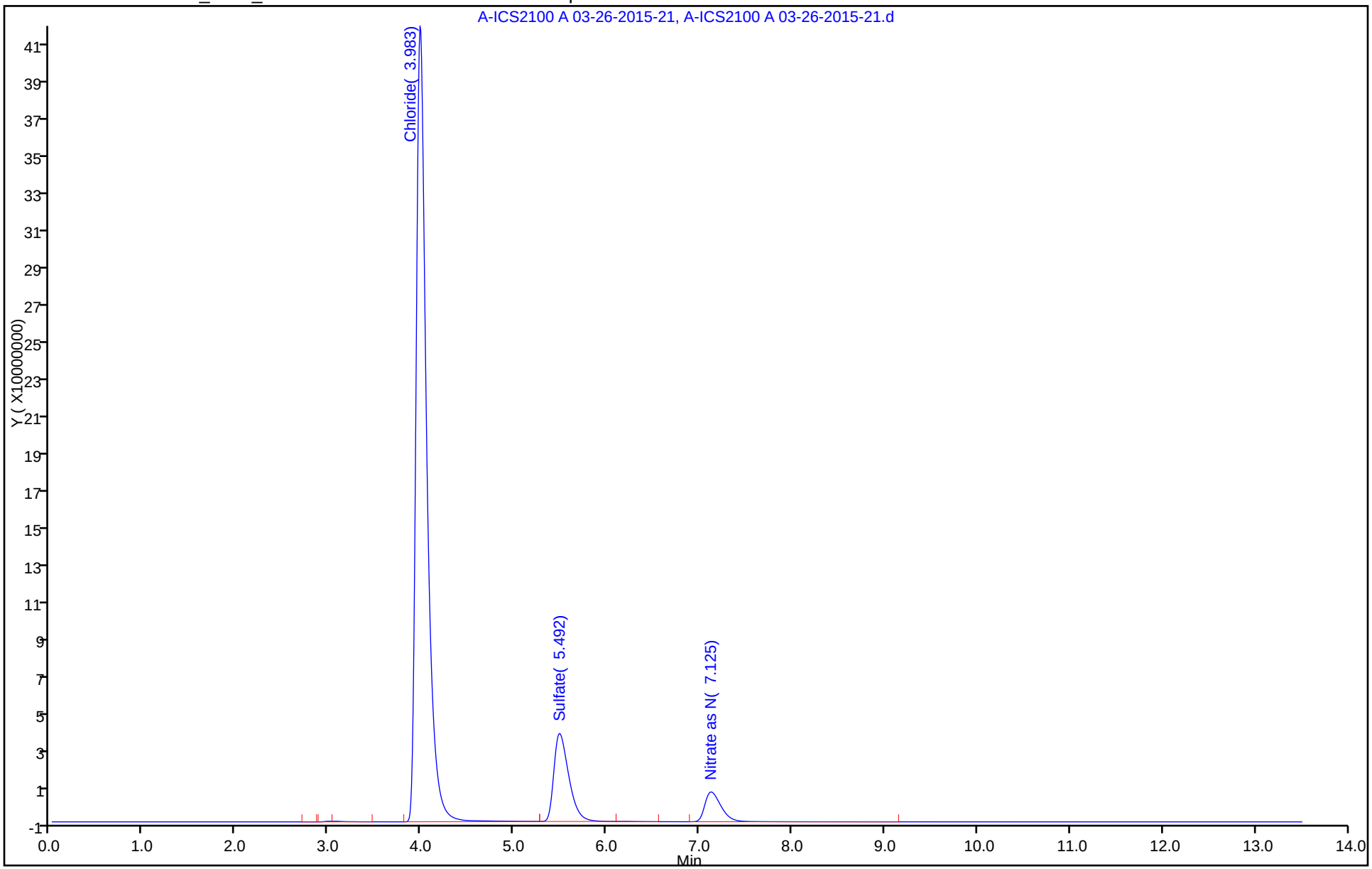
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-21.d				
Lims ID:	180-42391-A-8	Lab Sample ID:	180-42391-8		
Client ID:	HD-MW-147A-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Mar-2015 18:11:00	ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006193-021				
Misc. Info.:	21 180-42391-a-8				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	27-Mar-2015 09:30:46	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK035				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.992	-0.009	3287809985	158.0	
3 Sulfate	5.492	5.475	0.017	511349648	34.3	
5 Nitrate as N	7.125	7.142	-0.017	189319738	3.87	

Report Date: 27-Mar-2015 09:30:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-21.d				
Injection Date:	26-Mar-2015 18:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-8	Lab Sample ID:	180-42391-8	Worklist Smp#:	21
Client ID:	HD-MW-147A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-42391-9

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-25.d

Analysis Method: 300.0 Date Collected: 03/25/2015 14:37

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 19:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3	B	0.10	0.0062
16887-00-6	Chloride	140	B	1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-25.d
Lims ID: 180-42391-A-9 Lab Sample ID: 180-42391-9
Client ID: HD-MW-75S-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 19:12:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-025
Misc. Info.: 25 180-42391-a-9
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

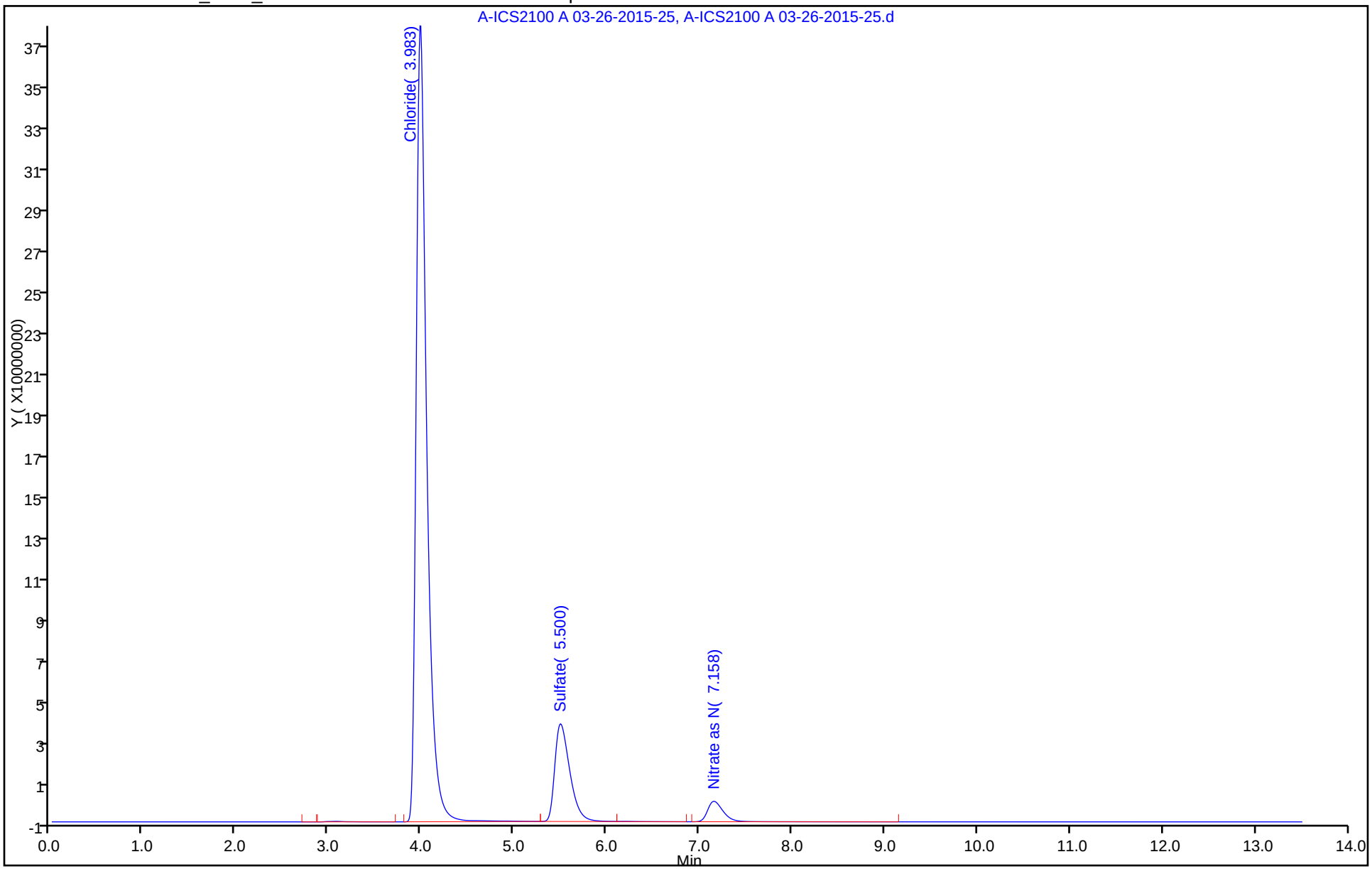
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.992	-0.009	2984997542	143.5	
3 Sulfate	5.500	5.475	0.025	519363617	34.8	
5 Nitrate as N	7.158	7.142	0.016	113105501	2.32	

Report Date: 27-Mar-2015 09:30:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-25.d				
Injection Date:	26-Mar-2015 19:12:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-9	Lab Sample ID:	180-42391-9	Worklist Smp#:	25
Client ID:	HD-MW-75S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-42391-10

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-32.d

Analysis Method: 300.0 Date Collected: 03/25/2015 13:02

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 21:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4	B	0.10	0.0062
14808-79-8	Sulfate	41		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-32.d				
Lims ID:	180-42391-A-10	Lab Sample ID:	180-42391-10		
Client ID:	HD-MW-37D-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Mar-2015 21:00:00	ALS Bottle#:	0	Worklist Smp#:	32
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006193-032				
Misc. Info.:	32 180-42391-a-10				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	27-Mar-2015 09:30:50	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK035				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.000	-0.017	4334796895	208.3	E
3 Sulfate	5.492	5.475	0.017	609210762	40.8	
5 Nitrate as N	7.158	7.142	0.016	114755447	2.35	

QC Flag Legend

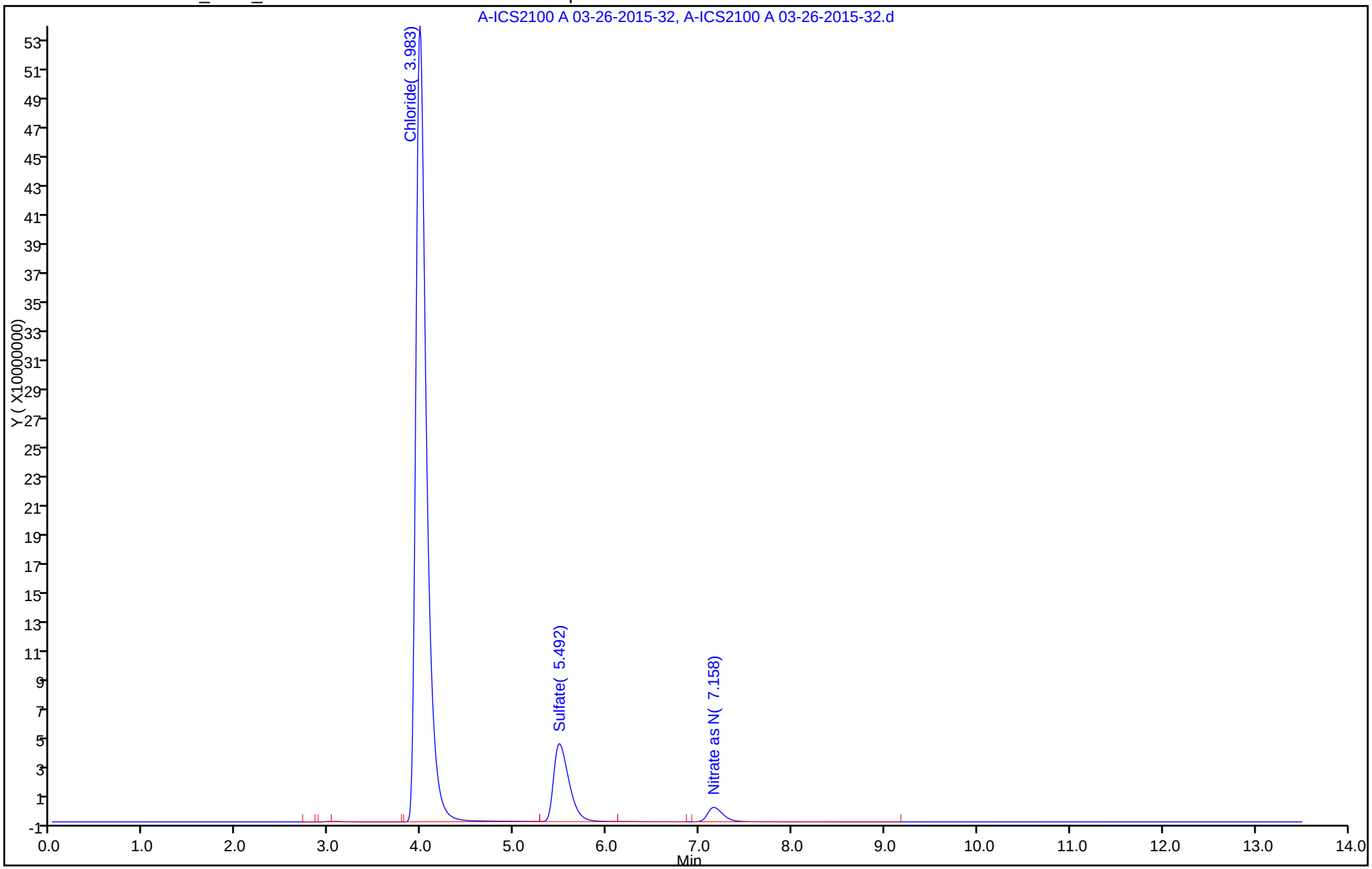
Processing Flags

E - Exceeded Maximum Amount

Report Date: 27-Mar-2015 09:30:52 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-32.d				
Injection Date:	26-Mar-2015 21:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-10	Lab Sample ID:	180-42391-10	Worklist Smp#:	32
Client ID:	HD-MW-37D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-42391-10

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-33.d

Analysis Method: 300.0 Date Collected: 03/25/2015 13:02

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 21:15

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	220	B	5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-33.d
Lims ID: 180-42391-A-10 Lab Sample ID: 180-42391-10
Client ID: HD-MW-37D-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 21:15:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0006193-033
Misc. Info.: 33 180-42391-a-10 5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:50 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

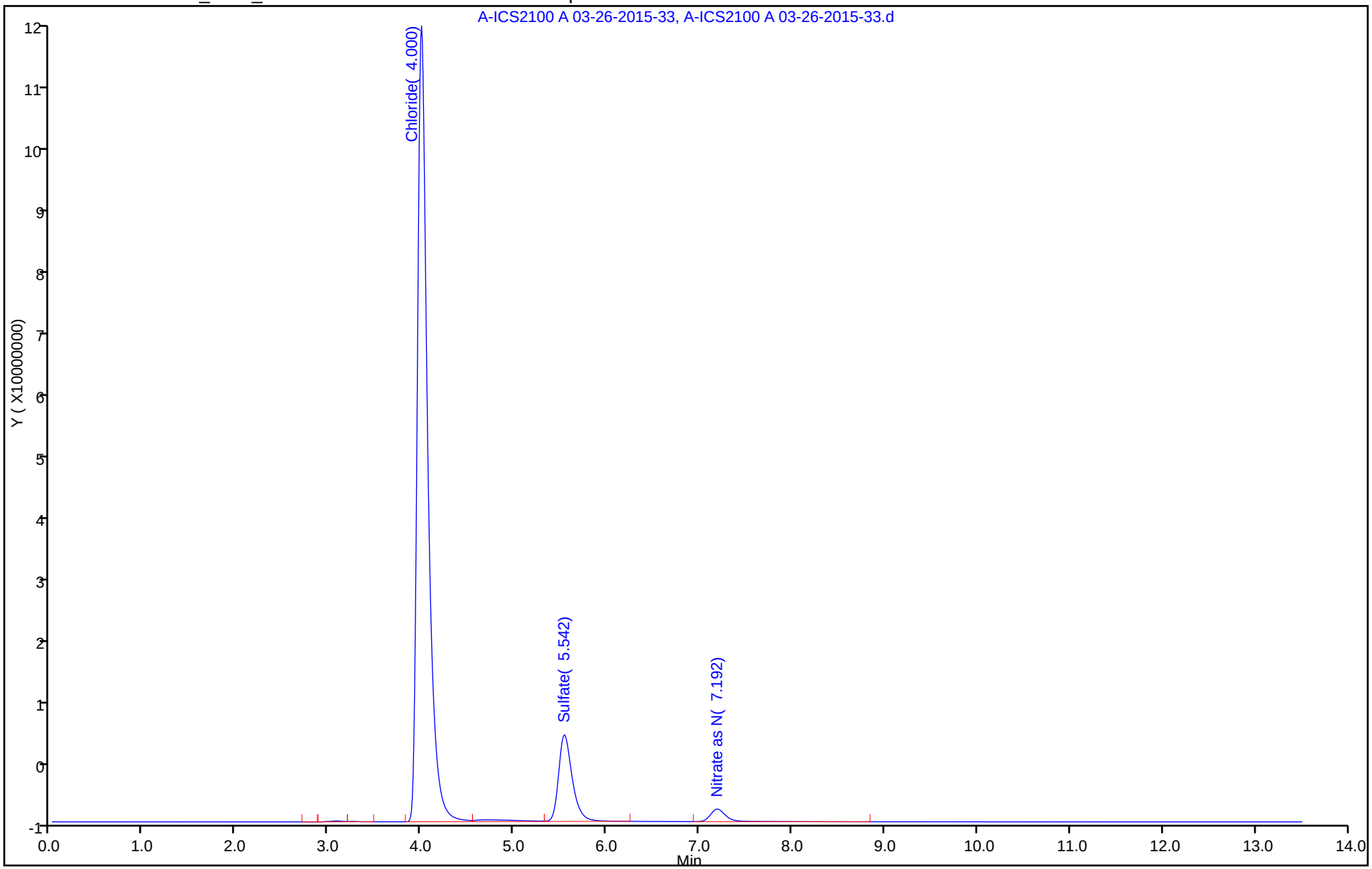
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	893778408	43.2	
3 Sulfate	5.542	5.475	0.067	128288348	8.59	
5 Nitrate as N	7.192	7.142	0.050	21563910	0.4651	

Report Date: 27-Mar-2015 09:30:53 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-33.d				
Injection Date:	26-Mar-2015 21:15:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-10	Lab Sample ID:	180-42391-10	Worklist Smp#:	33
Client ID:	HD-MW-37D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-42391-11

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-20.d

Analysis Method: 300.0 Date Collected: 03/25/2015 11:12

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 17:56

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4	B	0.10	0.0062
16887-00-6	Chloride	130	B	1.0	0.20
14808-79-8	Sulfate	30		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-20.d
Lims ID: 180-42391-A-11 Lab Sample ID: 180-42391-11
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 17:56:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-020
Misc. Info.: 20 180-42391-a-11
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

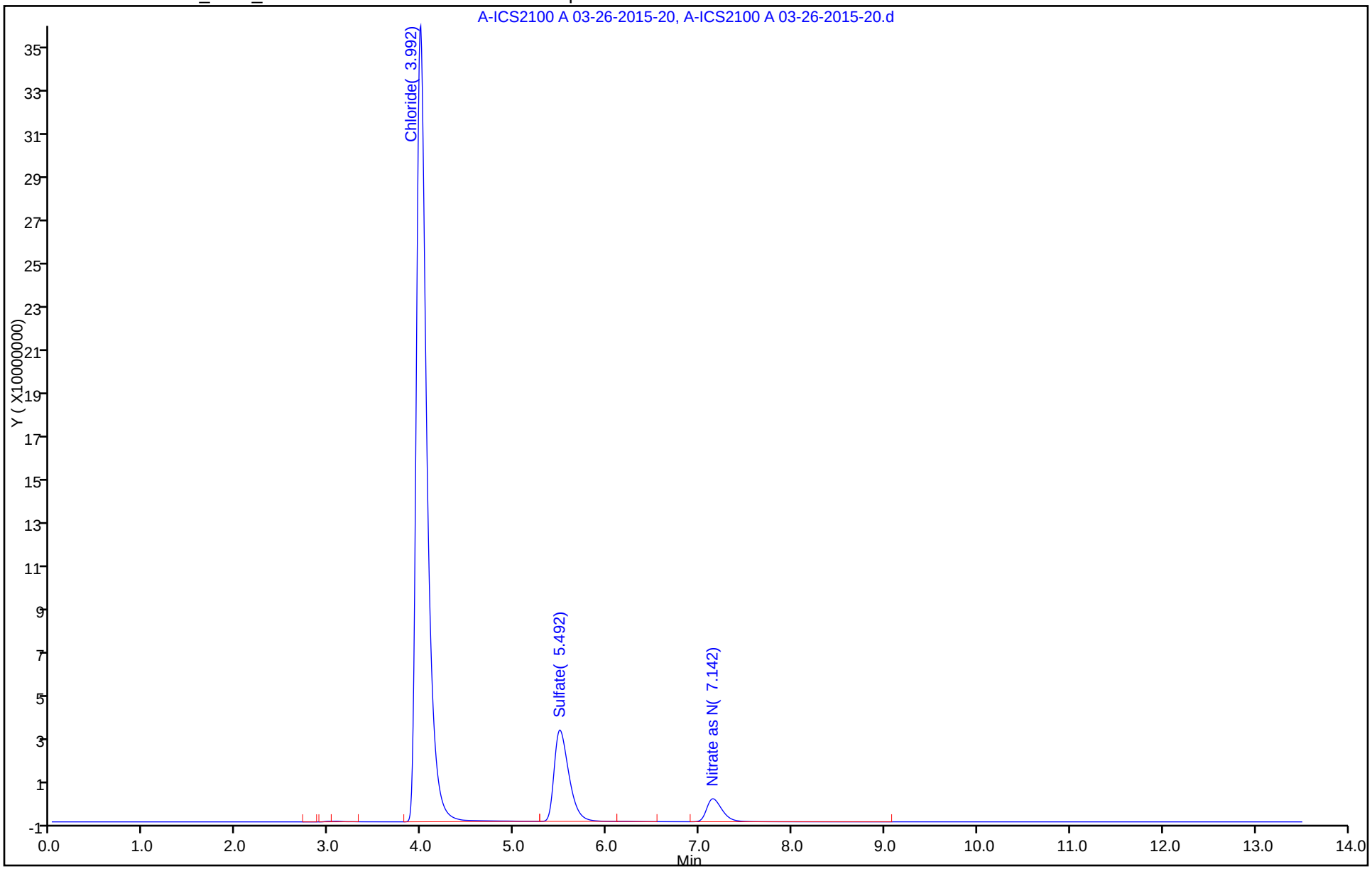
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	3.992	0.000	2780448140	133.7	
3 Sulfate	5.492	5.475	0.017	445470542	29.8	
5 Nitrate as N	7.142	7.142	0.000	119195543	2.44	

Report Date: 27-Mar-2015 09:30:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-20.d				
Injection Date:	26-Mar-2015 17:56:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-11	Lab Sample ID:	180-42391-11	Worklist Smp#:	20
Client ID:	HD-MW-37S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-42391-12

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-29.d

Analysis Method: 300.0 Date Collected: 03/25/2015 15:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 20:14

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.79	B	0.10	0.0062
16887-00-6	Chloride	51	B	1.0	0.20
14808-79-8	Sulfate	38		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-29.d
Lims ID: 180-42391-A-12 Lab Sample ID: 180-42391-12
Client ID: HD-MW-95-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 20:14:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-029
Misc. Info.: 29 180-42391-a-12
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:50 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

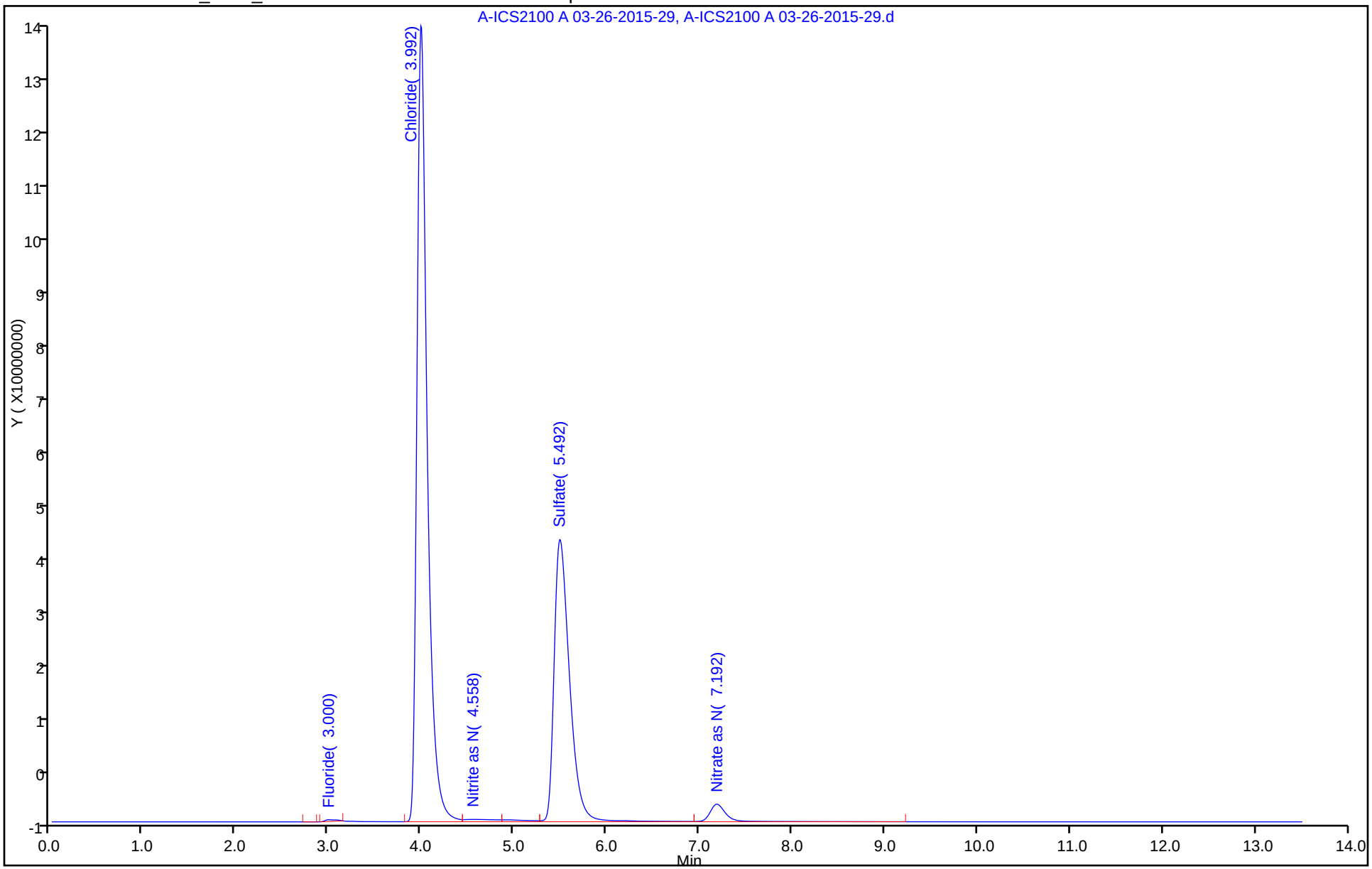
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	2511703	0.0775	
2 Chloride	3.992	4.000	-0.008	1061759763	51.2	
7 Nitrite as N	4.558	4.675	-0.117	9197016	0.1938	
3 Sulfate	5.492	5.475	0.017	564819316	37.8	
4 Bromide		6.192			ND	
5 Nitrate as N	7.192	7.142	0.050	37475047	0.7878	
6 Orthophosphate as P		10.200			ND	

Report Date: 27-Mar-2015 09:30:51 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-29.d				
Injection Date:	26-Mar-2015 20:14:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-12	Lab Sample ID:	180-42391-12	Worklist Smp#:	29
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-42391-13

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-26.d

Analysis Method: 300.0 Date Collected: 03/25/2015 14:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 19:28

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5	B	0.10	0.0062
16887-00-6	Chloride	120	B	1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-26.d
Lims ID: 180-42391-A-13 Lab Sample ID: 180-42391-13
Client ID: HD-MW-7-0/1-0
Sample Type: Client
Inject. Date: 26-Mar-2015 19:28:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-026
Misc. Info.: 26 180-42391-a-13
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

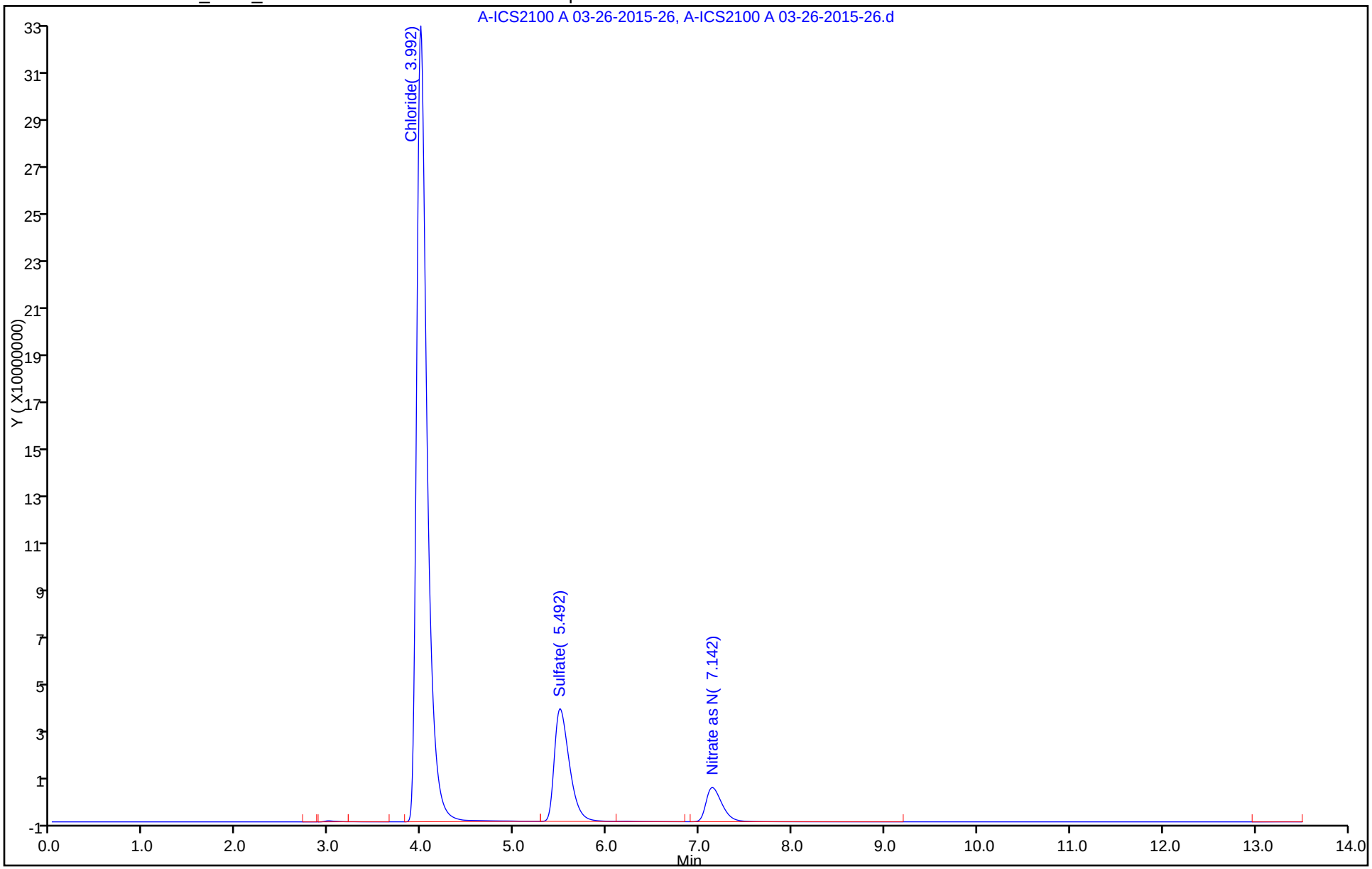
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	3.992	0.000	2577636684	124.0	
3 Sulfate	5.492	5.475	0.017	520430198	34.9	
5 Nitrate as N	7.142	7.142	0.000	169424130	3.46	

Report Date: 27-Mar-2015 09:30:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-26.d				
Injection Date:	26-Mar-2015 19:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-13	Lab Sample ID:	180-42391-13	Worklist Smp#:	26
Client ID:	HD-MW-7-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 135876

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2015 11:27 Calibration End Date: 03/18/2015 13:15 Calibration ID: 22466

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135876/2	A-ICS2100 A 03-18-2015-2.d
Level 2	IC 180-135876/3	A-ICS2100 A 03-18-2015-3.d
Level 3	ICRT 180-135876/4	A-ICS2100 A 03-18-2015-4.d
Level 4	IC 180-135876/5	A-ICS2100 A 03-18-2015-5.d
Level 5	IC 180-135876/6	A-ICS2100 A 03-18-2015-6.d
Level 6	IC 180-135876/7	A-ICS2100 A 03-18-2015-7.d
Level 7	IC 180-135876/8	A-ICS2100 A 03-18-2015-8.d
Level 8	IC 180-135876/9	A-ICS2100 A 03-18-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.008	2.992	3.017	3.017	3.008	3.000	3.000	3.000			2.667 - 3.367	3.005
Chloride	4.025	4.008	4.008	4.017	4.008	4.000	3.992	3.992			3.658 - 4.358	4.006
Nitrite as N	4.692	4.683	4.692	4.692	4.683	4.675	4.667	4.667			4.442 - 4.942	4.681
Sulfate	5.558	5.550	5.550	5.525	5.483	5.425	5.383	5.350			5.200 - 5.900	5.478
Bromide	6.225	6.225	6.233	6.233	6.217	6.192	6.167	6.158			5.883 - 6.583	6.206
Nitrate as N	7.217	7.233	7.225	7.217	7.175	7.125	7.092	7.067			6.975 - 7.475	7.169
Orthophosphate as P	+++++		10.283	10.233	10.150	10.008	9.917	9.825			10.033 - 10.533	10.069

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 135876

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2015 11:27 Calibration End Date: 03/18/2015 13:15 Calibration ID: 22466

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135876/2	A-ICS2100 A 03-18-2015-2.d
Level 2	IC 180-135876/3	A-ICS2100 A 03-18-2015-3.d
Level 3	ICRT 180-135876/4	A-ICS2100 A 03-18-2015-4.d
Level 4	IC 180-135876/5	A-ICS2100 A 03-18-2015-5.d
Level 5	IC 180-135876/6	A-ICS2100 A 03-18-2015-6.d
Level 6	IC 180-135876/7	A-ICS2100 A 03-18-2015-7.d
Level 7	IC 180-135876/8	A-ICS2100 A 03-18-2015-8.d
Level 8	IC 180-135876/9	A-ICS2100 A 03-18-2015-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	16004240 30863838	16267240 33530807	24060914 32036807	28839713 32501482	LinF		32408968.8							0.9990		0.9900
Chloride	14881940 19901089	20047781 21252356	19916375 20661843	20520642 21294820	Lin2	-5924255.0	20840179.2							0.9990		0.9900
Nitrite as N	63542880 41119787	46070376 41105911	45721532 38406569	43482294 39110343	Lin2	1094129.86	41807466.0							0.9990		0.9900
Sulfate	15082609 14386476	14869728 15483002	14612347 14835660	14862208 15411414	Lin2	103384.444	14924946.0							0.9990		0.9900
Bromide	9197380 8636410	8475818 9449189	8696617 9236390	8449051 9671968	LinF		9470258.87							0.9990		0.9900
Nitrate as N	2179760 47995192	36876120 4133386	43393238 51666882	46463120 53600763	Lin2	-1371660.0	49313078.5							0.9930		0.9900
Orthophosphate as P	+++++ 13980382	 17216210	7663188 17125842	10946796 18463603	Lin2	-5441456.9	17709156.5							0.9930		0.9900

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

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1 Analy Batch No.: 135876

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2015 11:27 Calibration End Date: 03/18/2015 13:15 Calibration ID: 22466

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135876/2	A-ICS2100 A 03-18-2015-2.d
Level 2	IC 180-135876/3	A-ICS2100 A 03-18-2015-3.d
Level 3	ICRT 180-135876/4	A-ICS2100 A 03-18-2015-4.d
Level 4	IC 180-135876/5	A-ICS2100 A 03-18-2015-5.d
Level 5	IC 180-135876/6	A-ICS2100 A 03-18-2015-6.d
Level 6	IC 180-135876/7	A-ICS2100 A 03-18-2015-7.d
Level 7	IC 180-135876/8	A-ICS2100 A 03-18-2015-8.d
Level 8	IC 180-135876/9	A-ICS2100 A 03-18-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		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
Fluoride	LinF	800212 167654034	4066810 240276056	12030457 325014820	28839713	77159596	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	14881940 2125235619	100238904 3099276402	199163746 4258964050	410412845	995054428	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3177144 205529554	11517594 288049270	22860766 391103425	43482294	102799468	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Sulfate	Lin2	15082609 1548300187	74348642 2225349056	146123470 3082282736	297244169	719323783	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	LinF	1839476 188983772	8475818 277091709	17393233 386878705	33796204	86364096	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	108988 20666930	9219030 387501618	21696619 536007632	46463120	119987980	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	+++++ 86081052	 128443816	3831594 184636030	10946796	34950954	+++++ 5.00	 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:

Lin2 = Linear 1/conc^2
LinF = Linear forced zero

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Mar-2015 11:27:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:15:51 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:48:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.017	-0.009	800212	0.0500	0.0247	M
2 Chloride	4.025	4.008	0.017	14881940	1.00	1.00	M
7 Nitrite as N	4.692	4.692	0.000	3177144	0.0500	0.0498	M
3 Sulfate	5.558	5.550	0.008	15082609	1.00	1.00	M
4 Bromide	6.225	6.233	-0.008	1839476	0.2000	0.1942	M
5 Nitrate as N	7.217	7.225	-0.008	108988H	0.0500	0.0288	M
6 Orthophosphate as P	10.317	10.283	0.034	21158	0.0500	0.3085	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

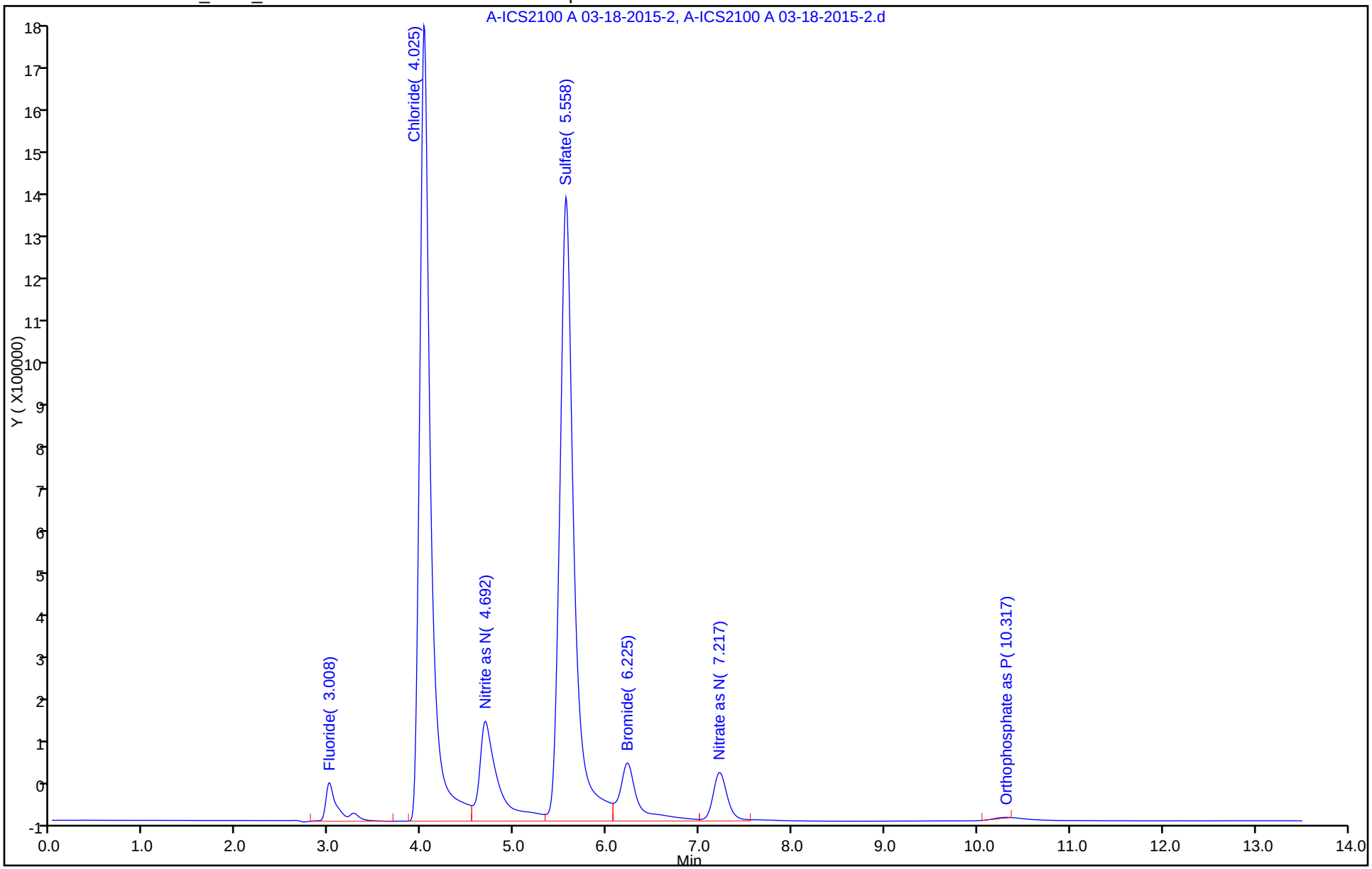
ICSTDL2_00160 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:15:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d

Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Manual Integration/User Assign Peak Report

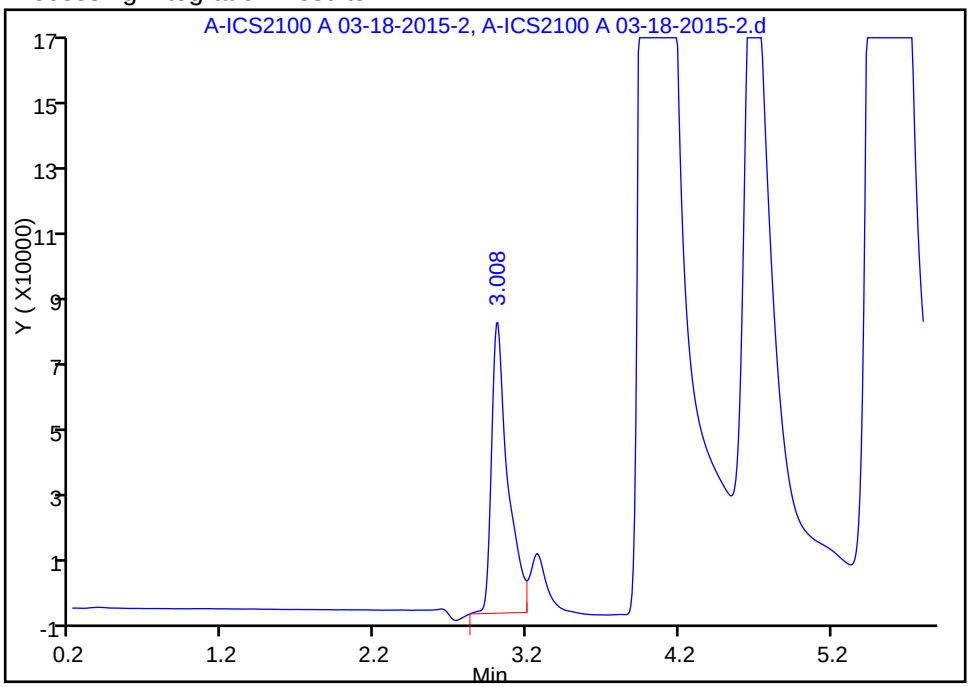
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d
Injection Date: 18-Mar-2015 11:27:00 Instrument ID: CHIC2100A
Lims ID: ic L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 300_9056_CHIC2100A Limit Group: GC Anions ICAL
Column: Detector 0008

1 Fluoride, CAS: 16984-48-8

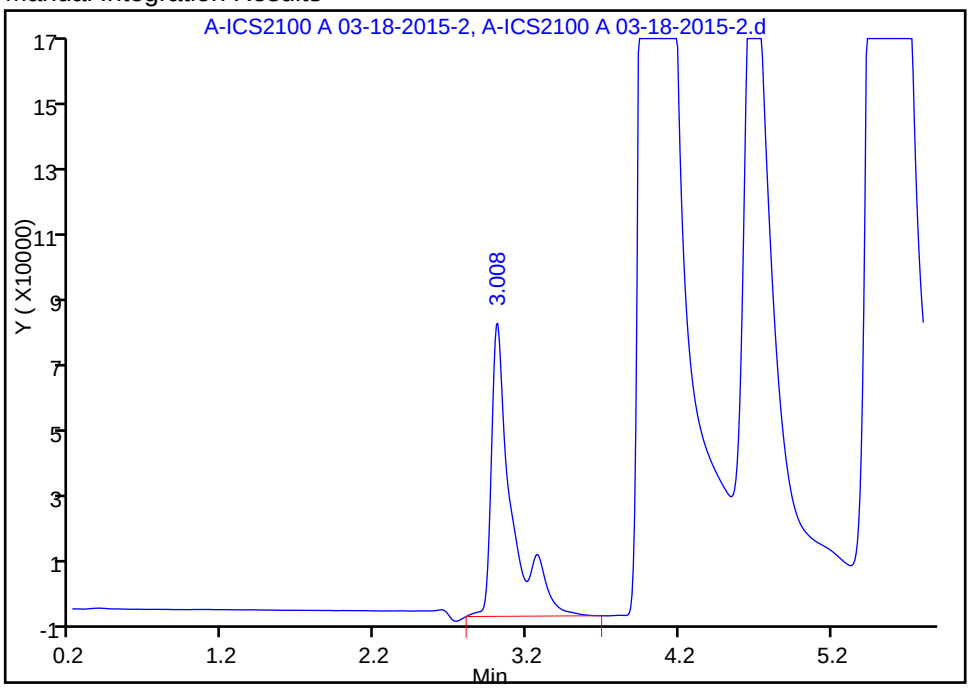
Processing Integration Results

RT: 3.01
Area: 637528
Amount: 0.055286
Amount Units: ug/ml



Manual Integration Results

RT: 3.01
Area: 800212
Amount: 0.024691
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 13:48:30
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

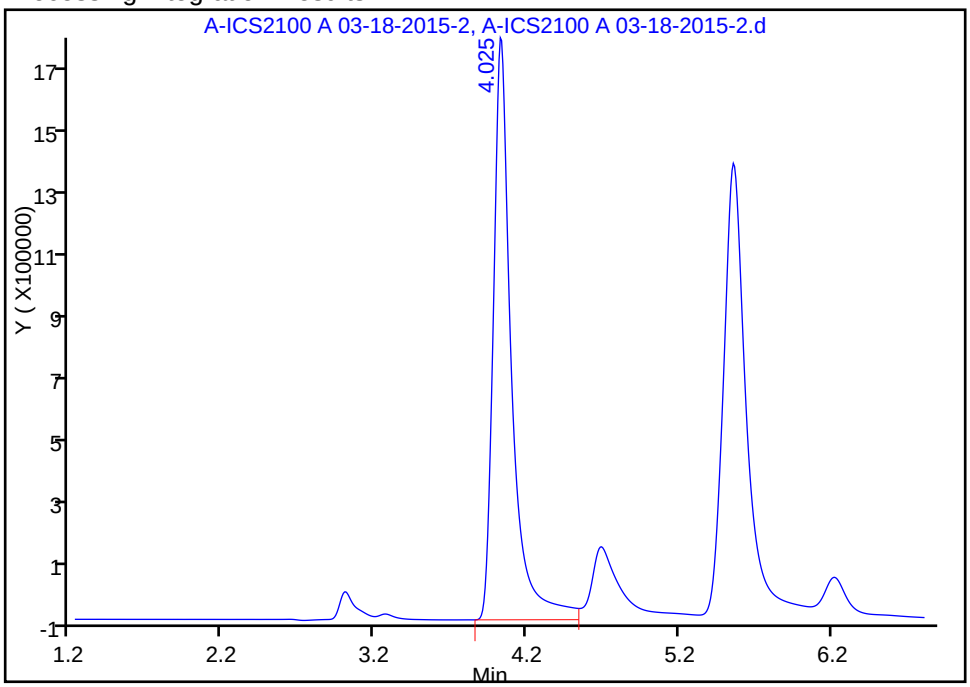
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

2 Chloride, CAS: 16887-00-6

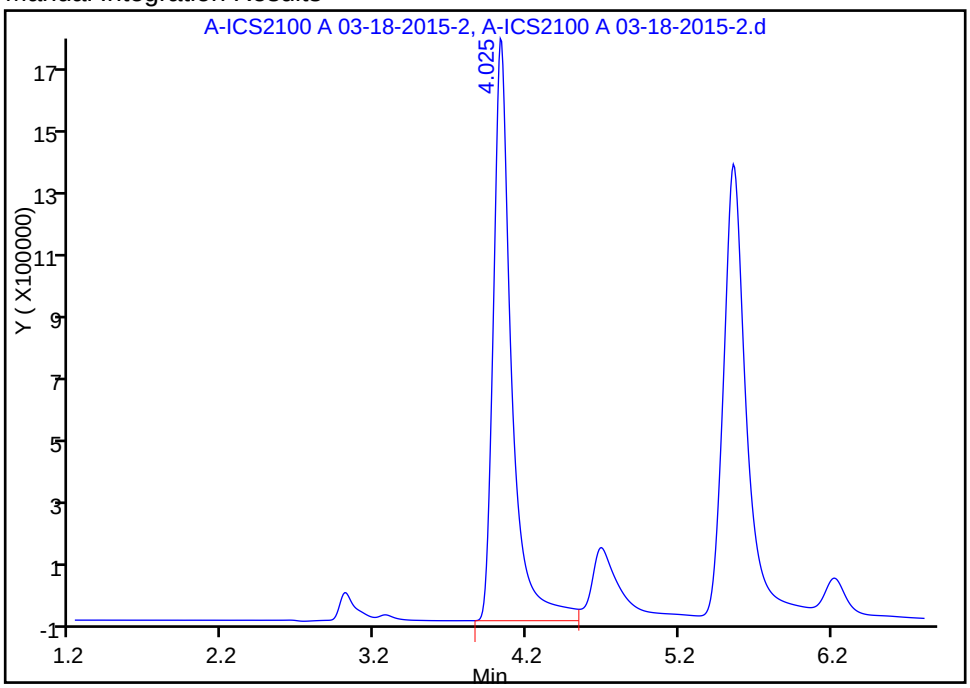
Processing Integration Results

RT: 4.03
Area: 14867118
Amount: 0.998345
Amount Units: ug/ml



Manual Integration Results

RT: 4.03
Area: 14881940
Amount: 0.998369
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

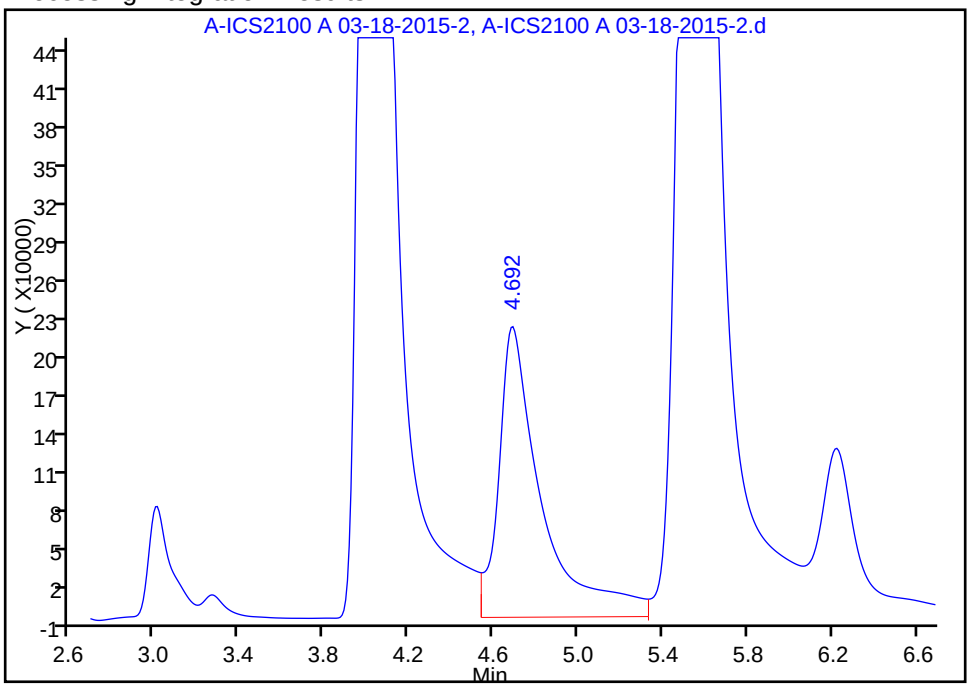
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

7 Nitrite as N, CAS: 14797-65-0

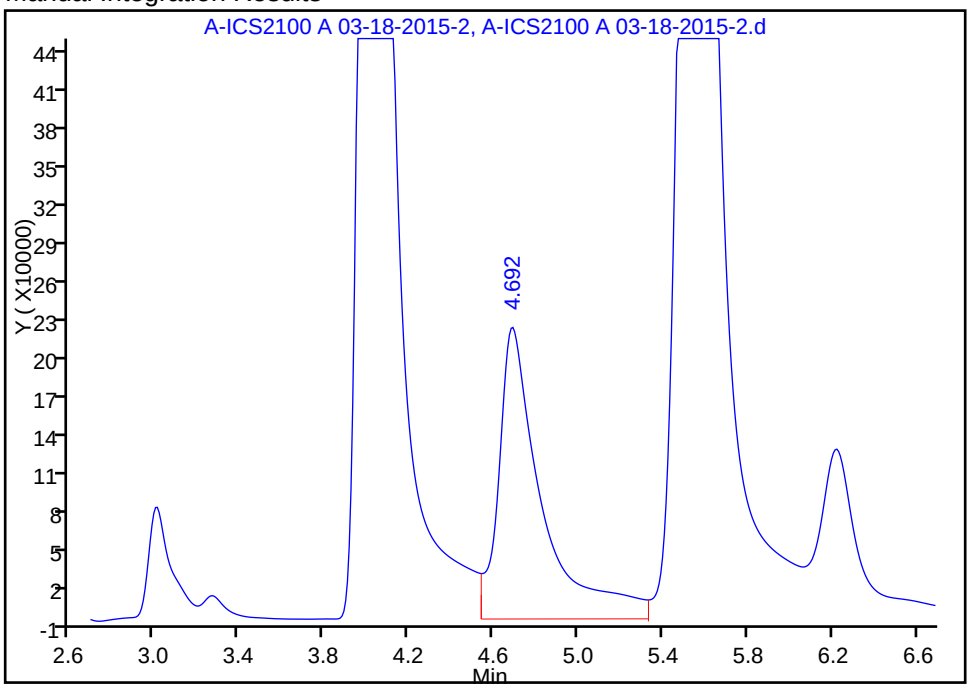
Processing Integration Results

RT: 4.69
Area: 3136128
Amount: 0.049797
Amount Units: ug/ml



Manual Integration Results

RT: 4.69
Area: 3177144
Amount: 0.049824
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

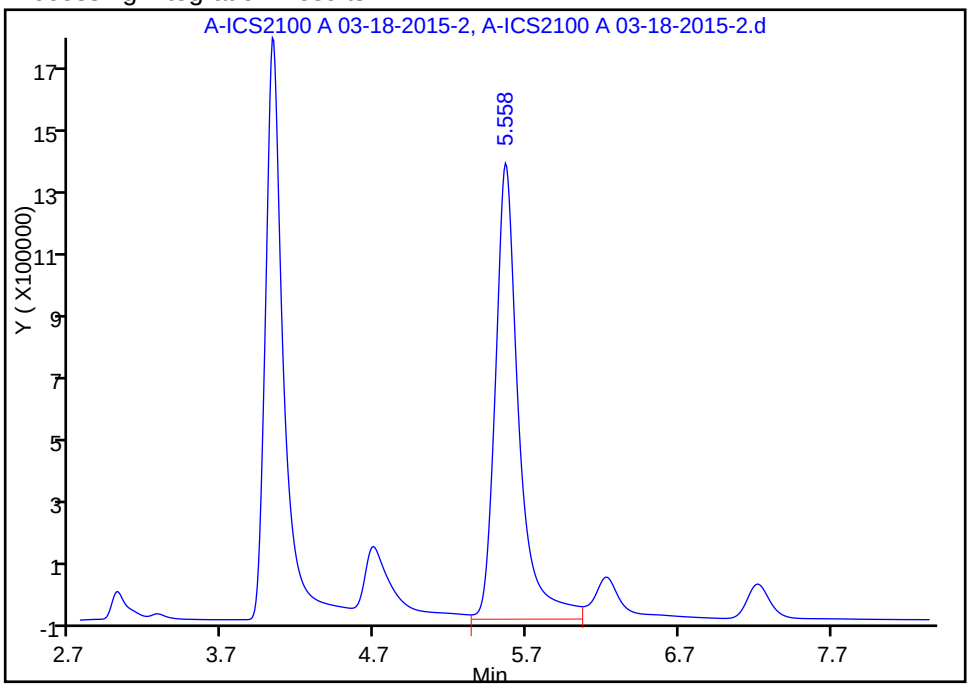
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

3 Sulfate, CAS: 14808-79-8

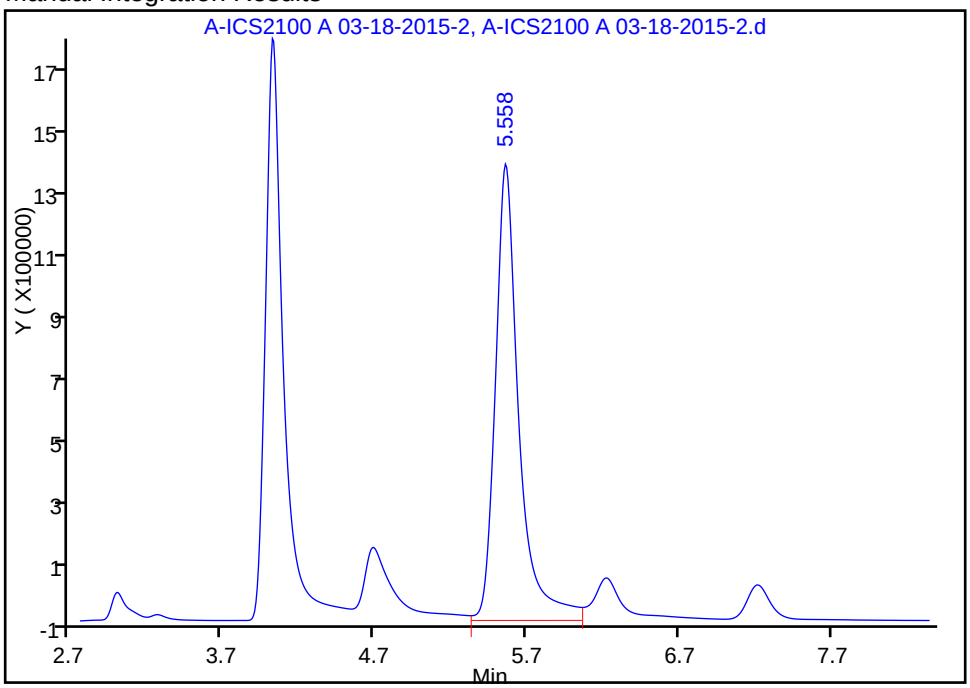
Processing Integration Results

RT: 5.56
Area: 15021977
Amount: 1.003499
Amount Units: ug/ml



Manual Integration Results

RT: 5.56
Area: 15082609
Amount: 1.003637
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

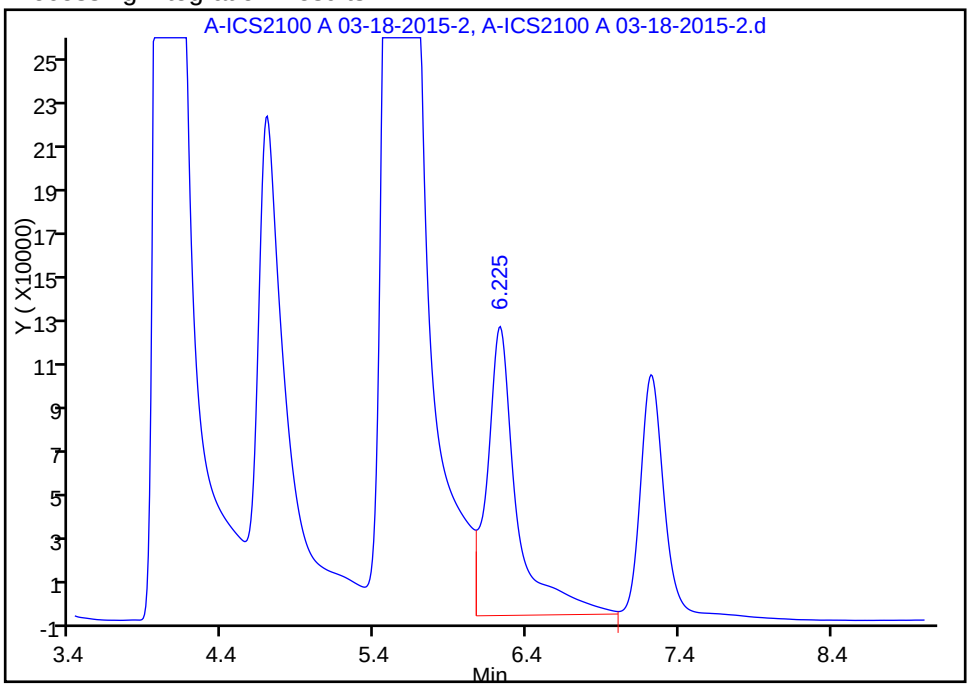
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

4 Bromide, CAS: 24959-67-9

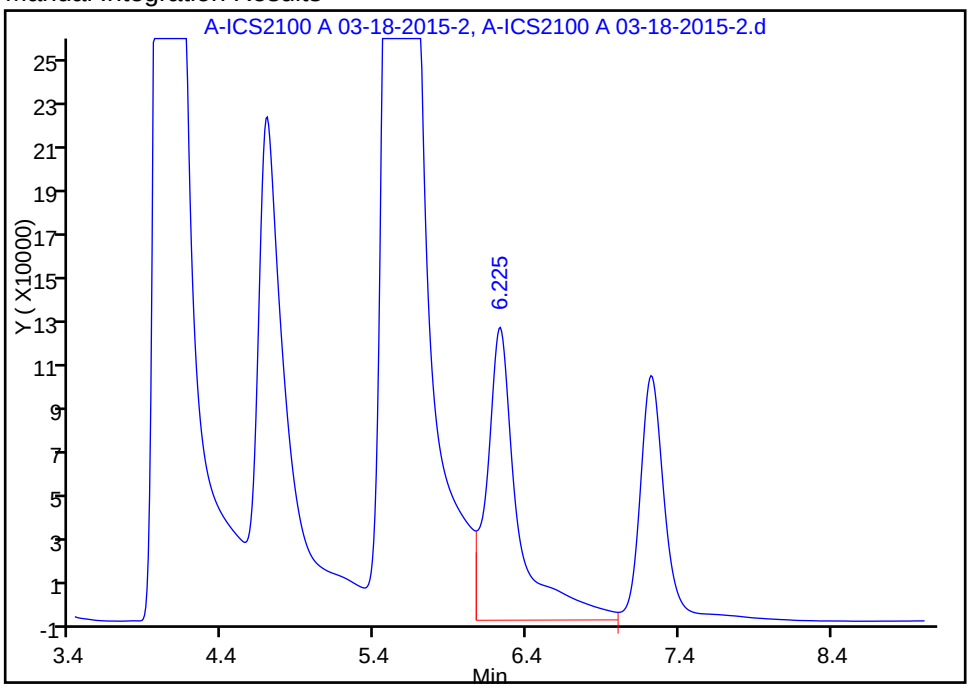
Processing Integration Results

RT: 6.23
Area: 1730864
Amount: 0.182769
Amount Units: ug/ml



Manual Integration Results

RT: 6.23
Area: 1839476
Amount: 0.194237
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

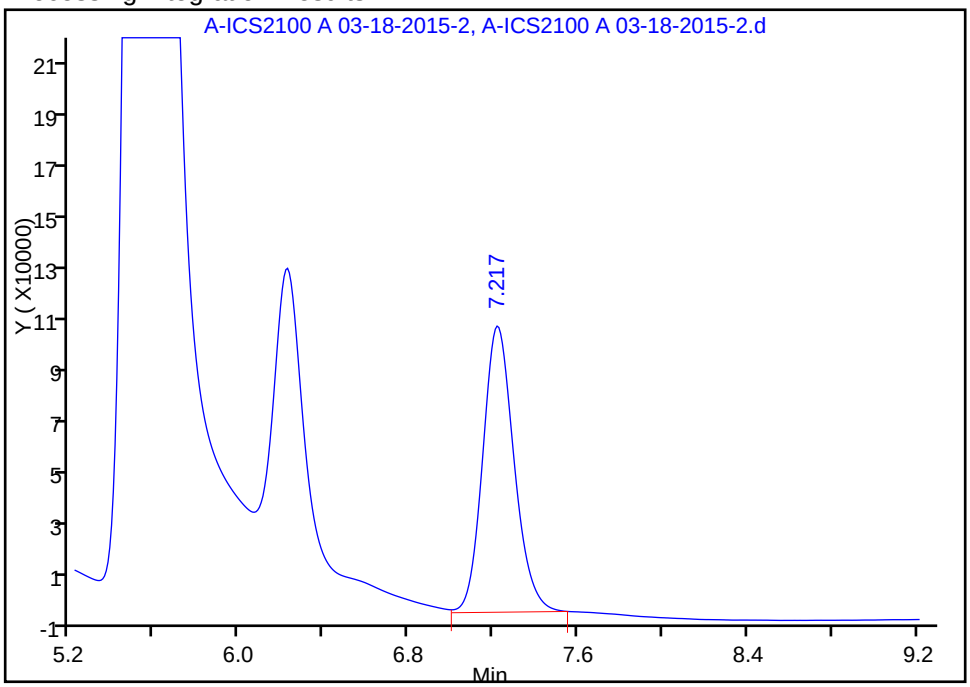
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

5 Nitrate as N, CAS: 14797-55-8

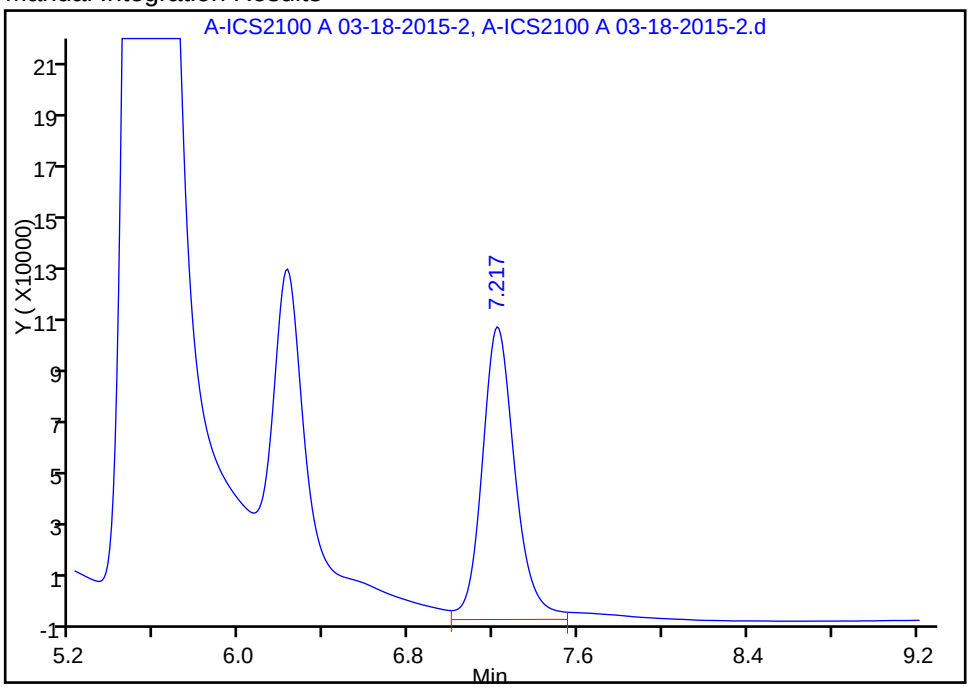
Processing Integration Results

RT: 7.22
Height: 106589
Amount: 0.028142
Amount Units: ug/ml



Manual Integration Results

RT: 7.22
Height: 108988
Amount: 0.028776
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Mar-2015 11:43:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 15:00:56 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:44:27

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.017	-0.025	4066810	0.2500	0.1255	M
2 Chloride	4.008	4.008	0.000	100238904	5.00	5.09	
7 Nitrite as N	4.683	4.692	-0.009	11517594	0.2500	0.2547	
3 Sulfate	5.550	5.550	0.000	74348642	5.00	4.98	
4 Bromide	6.225	6.233	-0.008	8475818	1.00	0.8950	
5 Nitrate as N	7.233	7.225	0.008	9219030	0.2500	0.2161	
6 Orthophosphate as P	10.292	10.283	0.009	1266213	0.2500	0.3788	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

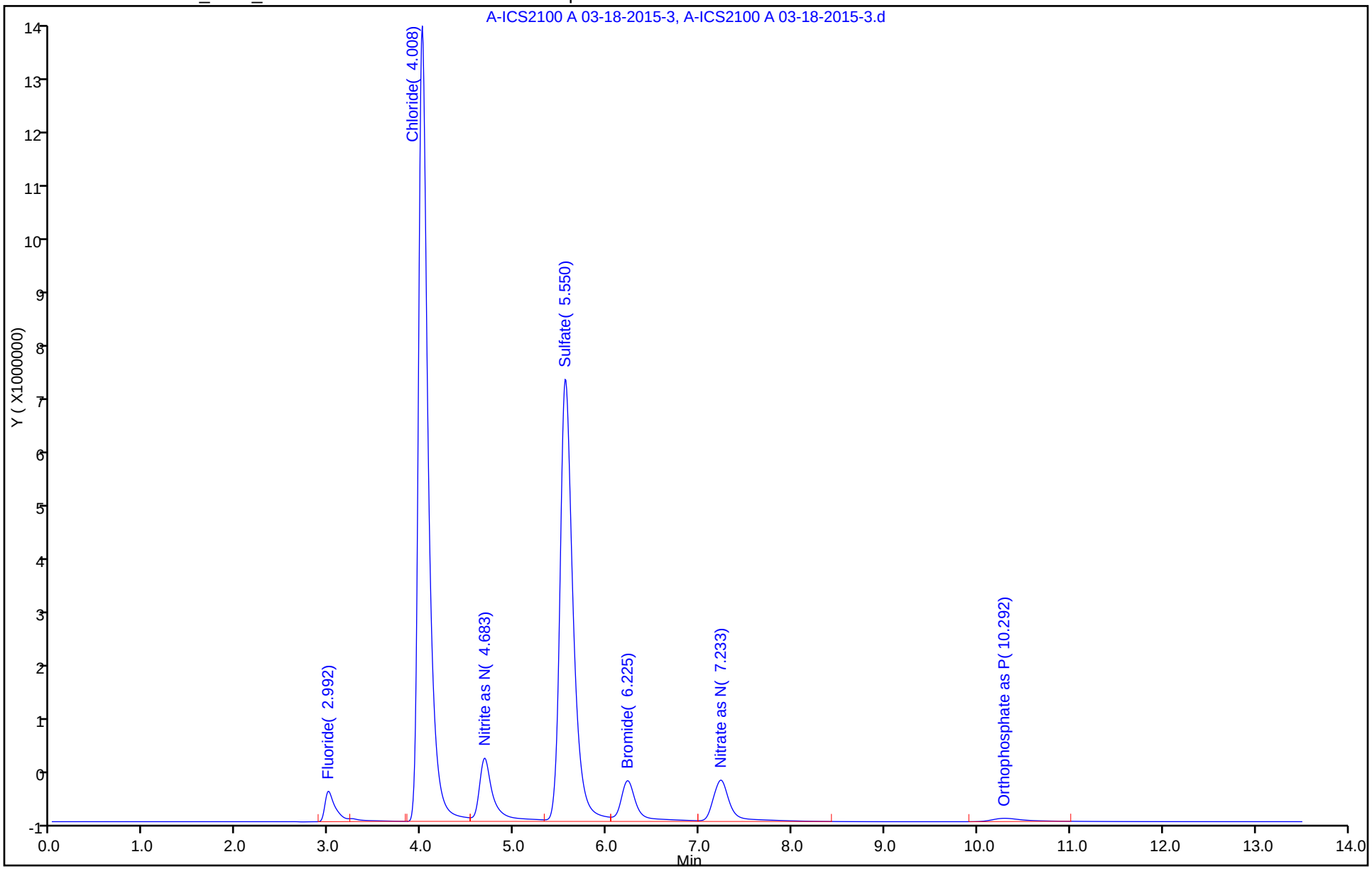
ICSTDL3_00200 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 15:00:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-3.d

Injection Date:	18-Mar-2015 11:43:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Manual Integration/User Assign Peak Report

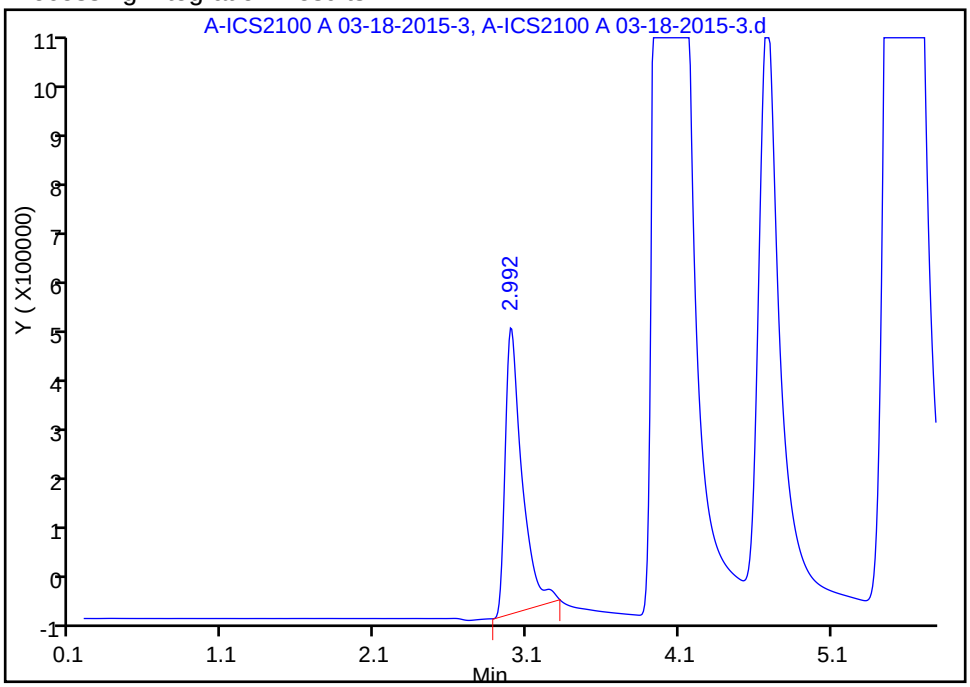
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-3.d				
Injection Date:	18-Mar-2015 11:43:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

1 Fluoride, CAS: 16984-48-8

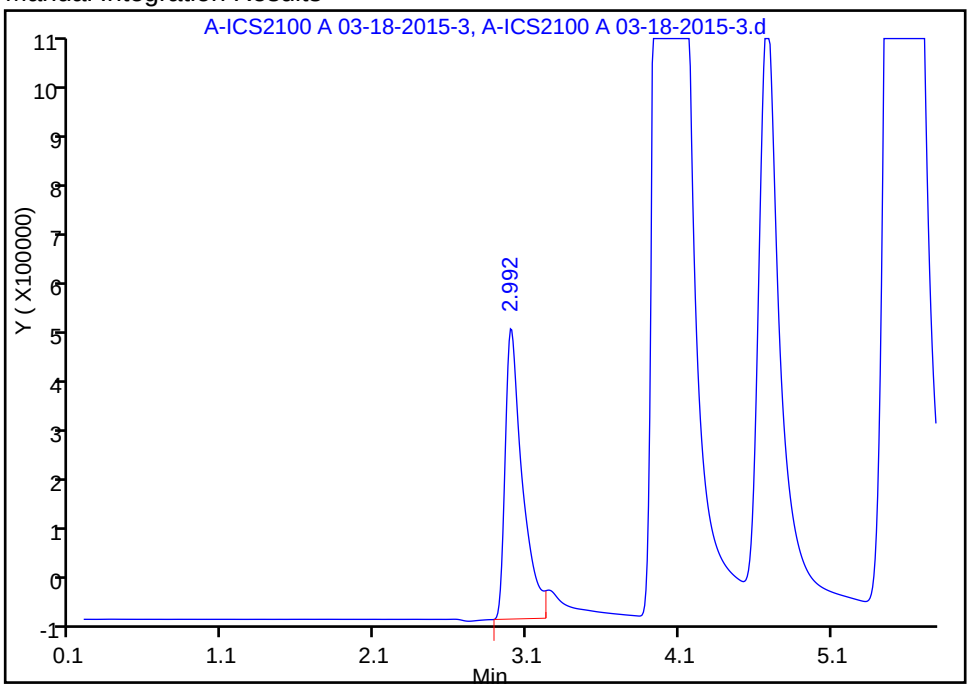
Processing Integration Results

RT: 2.99
Area: 3912395
Amount: 0.156660
Amount Units: ug/ml



Manual Integration Results

RT: 2.99
Area: 4066810
Amount: 0.125484
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 13:51:41
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 18-Mar-2015 11:58:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:07:27 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 12:45:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.017	3.017	0.000	12030457	0.5000	0.3712	
2 Chloride	4.008	4.008	0.000	199163746	10.0	9.84	
7 Nitrite as N	4.692	4.692	0.000	22860766	0.5000	0.5209	
3 Sulfate	5.550	5.550	0.000	146123470	10.0	9.79	
4 Bromide	6.233	6.233	0.000	17393233	2.00	1.84	
5 Nitrate as N	7.225	7.225	0.000	21696619	0.5000	0.4120	
6 Orthophosphate as P	10.283	10.283	0.000	3831594	0.5000	0.5236	

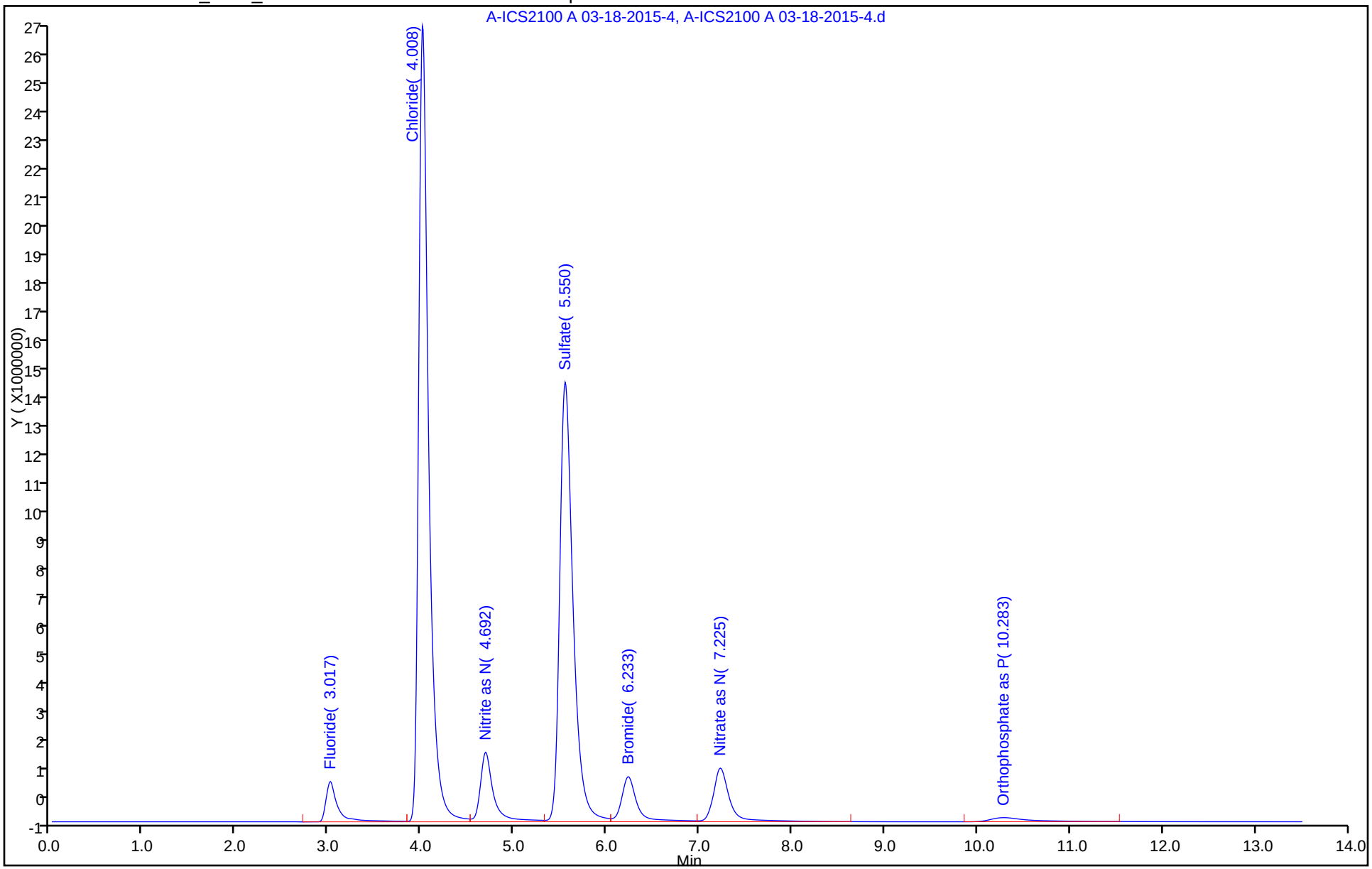
Reagents:

ICSTDL4_00135 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:07:28 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-4.d				
Injection Date:	18-Mar-2015 11:58:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Mar-2015 12:13:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:08:48 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 18:08:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.017	3.017	0.000	28839713	1.00	0.8899	
2 Chloride	4.017	4.008	0.009	410412845	20.0	20.0	
7 Nitrite as N	4.692	4.692	0.000	43482294	1.00	1.01	
3 Sulfate	5.525	5.550	-0.025	297244169	20.0	19.9	
4 Bromide	6.233	6.233	0.000	33796204	4.00	3.57	
5 Nitrate as N	7.217	7.225	-0.008	46463120	1.00	0.8822	
6 Orthophosphate as P	10.233	10.283	-0.050	10946796	1.00	0.9254	

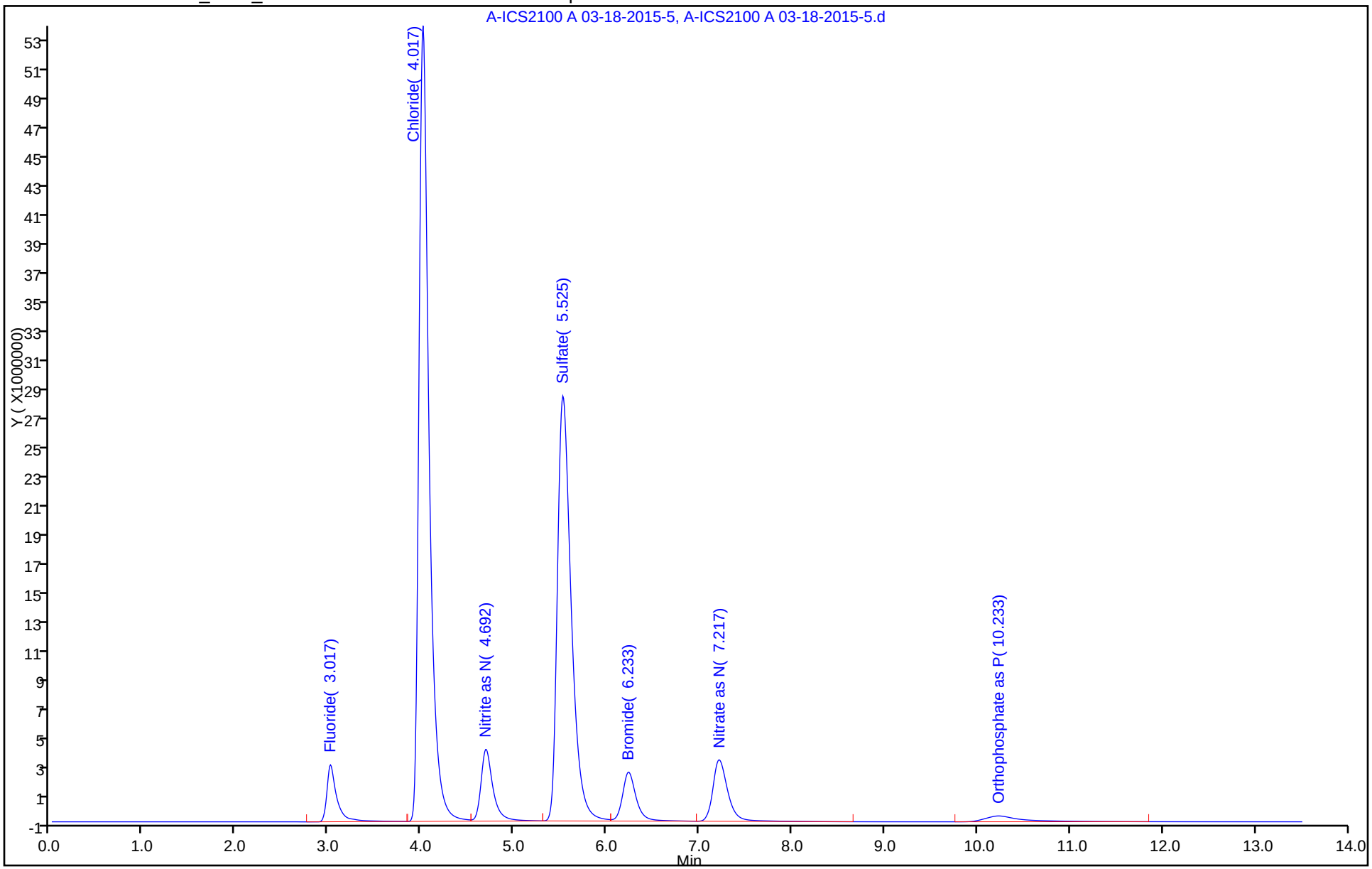
Reagents:

ICSTDL5_00136 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:08:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-5.d				
Injection Date:	18-Mar-2015 12:13:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 18-Mar-2015 18:20:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Mar-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006053-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:20:14 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 18:18:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.017	-0.009	77159596	2.50	2.38	
2 Chloride	4.008	4.008	0.000	995054428	50.0	48.0	
7 Nitrite as N	4.683	4.692	-0.009	102799468	2.50	2.43	
3 Sulfate	5.483	5.550	-0.067	719323783	50.0	48.2	
4 Bromide	6.217	6.233	-0.016	86364096	10.0	9.12	
5 Nitrate as N	7.175	7.225	-0.050	119987980	2.50	2.46	
6 Orthophosphate as P	10.150	10.283	-0.133	34950954	2.50	2.28	

Reagents:

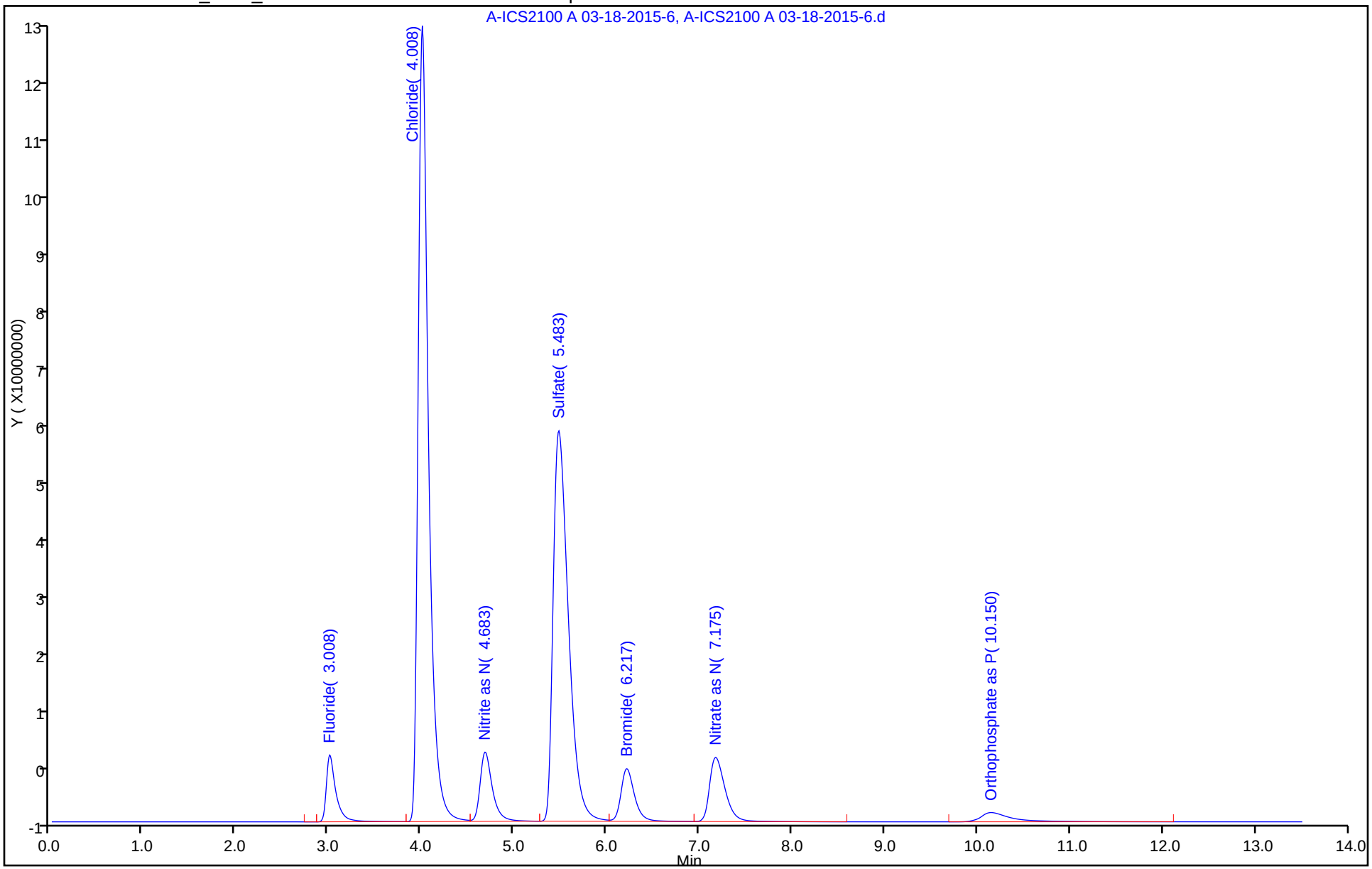
ICSTDL6_00201 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:20:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-6.d

Injection Date:	18-Mar-2015 12:29:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 18-Mar-2015 18:17:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Mar-2015 12:44:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-007
Misc. Info.: 7 IC L7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:17:31 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 18:17:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.017	-0.017	167654034	5.00	5.17	
2 Chloride	4.000	4.008	-0.008	2125235619	100.0	102.3	
7 Nitrite as N	4.675	4.692	-0.017	205529554	5.00	4.89	
3 Sulfate	5.425	5.550	-0.125	1548300187	100.0	103.7	
4 Bromide	6.192	6.233	-0.041	188983772	20.0	20.0	
5 Nitrate as N	7.125	7.225	-0.100	20666930H	5.00	5.46	
6 Orthophosphate as P	10.008	10.283	-0.275	86081052	5.00	5.17	

Reagents:

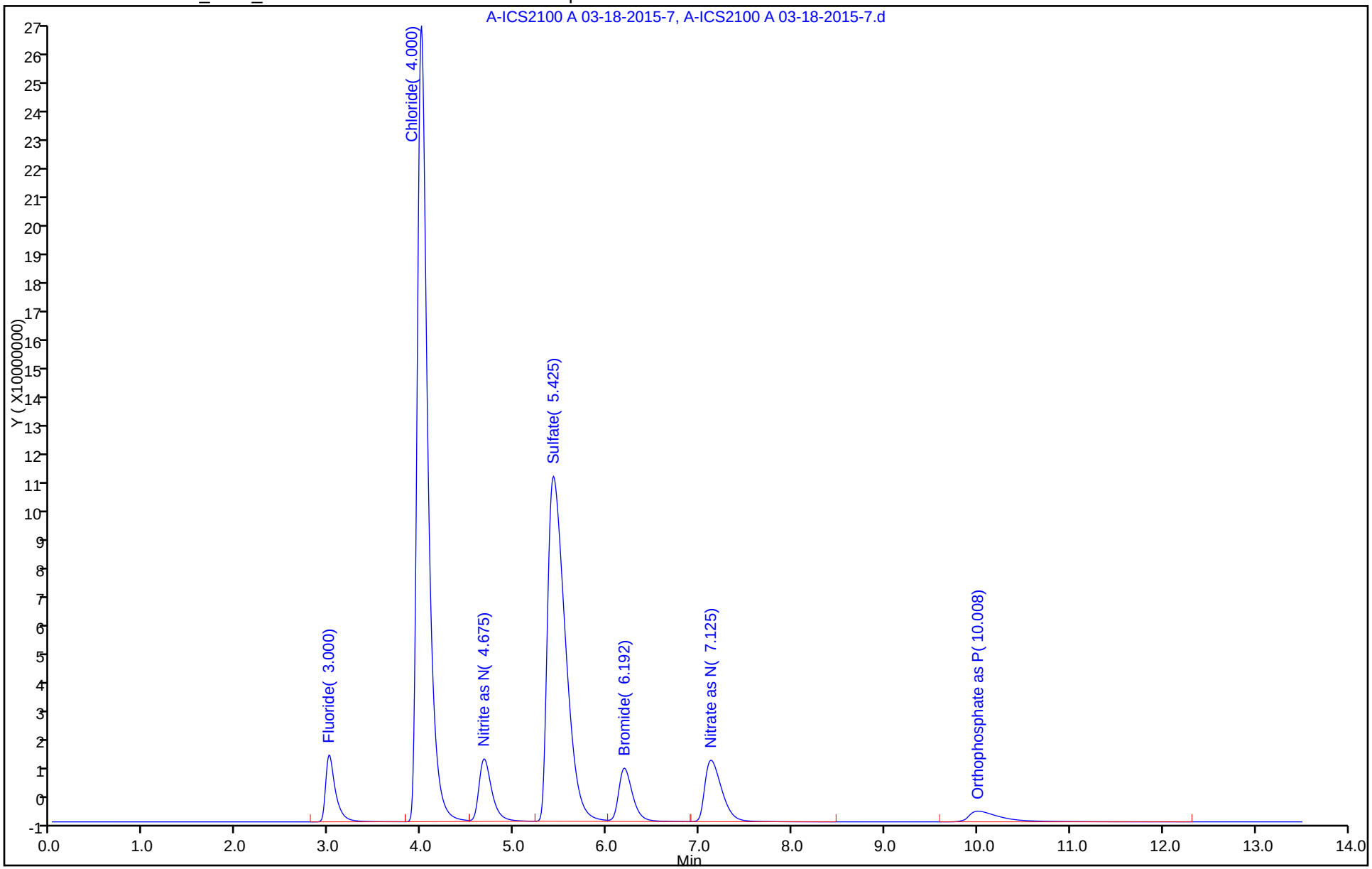
ICSTDL7_00132 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:17:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-7.d

Injection Date:	18-Mar-2015 12:44:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Mar-2015 12:59:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 15:00:54 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:17:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	240276056	7.50	7.41	
2 Chloride	3.992	4.000	-0.008	3099276402	150.0	149.0	
7 Nitrite as N	4.667	4.675	-0.008	288049270	7.50	7.03	
3 Sulfate	5.383	5.483	-0.100	2225349056	150.0	149.1	
4 Bromide	6.167	6.208	-0.041	277091709	30.0	29.3	
5 Nitrate as N	7.092	7.167	-0.075	387501618	7.50	7.87	
6 Orthophosphate as P	9.917	10.150	-0.233	128443816	7.50	7.56	

Reagents:

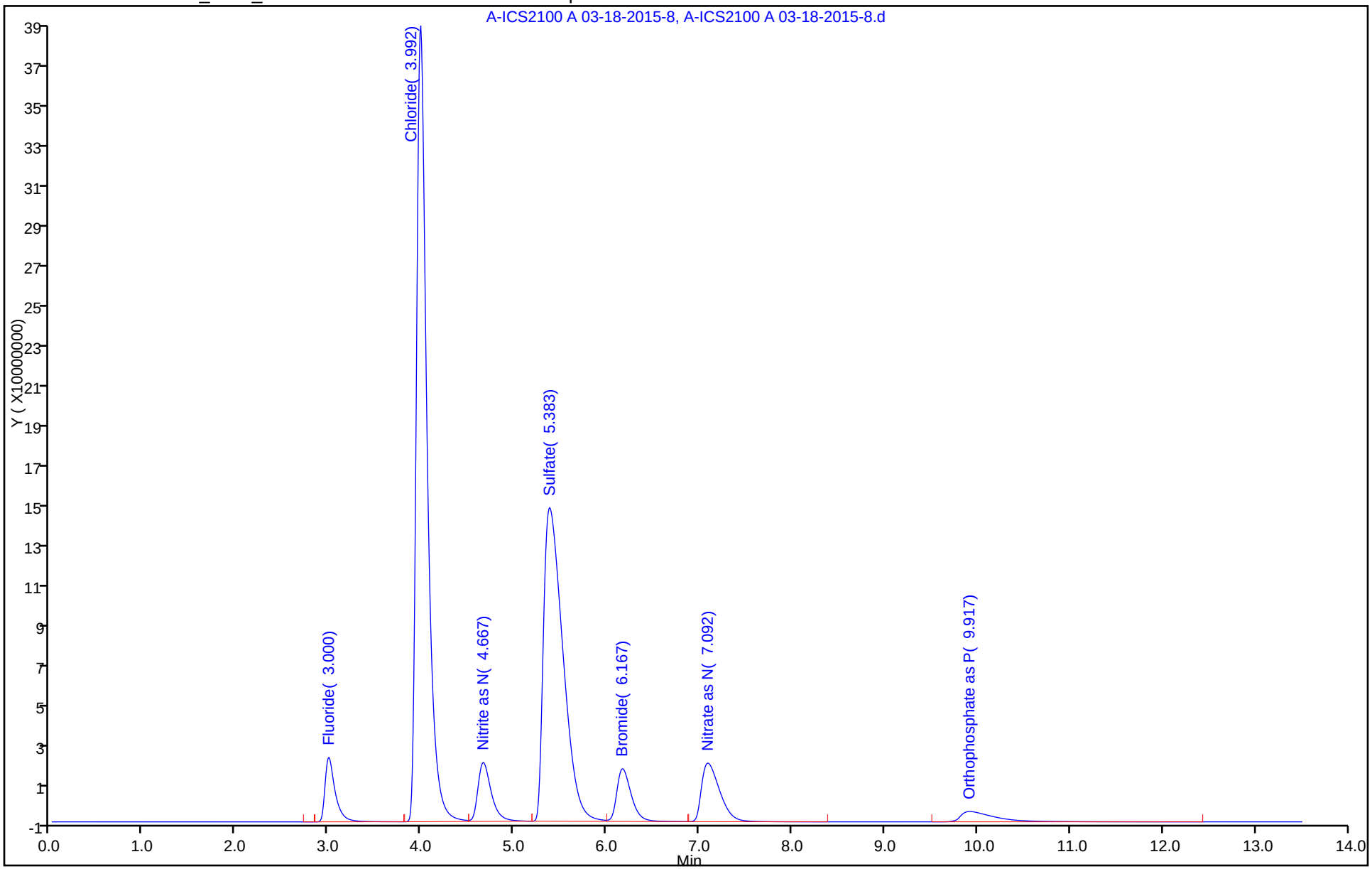
ICSTDL8_00102 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-8.d

Injection Date:	18-Mar-2015 12:59:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 18-Mar-2015 13:15:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 15:00:54 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:41:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	325014820	10.0	10.0	
2 Chloride	3.992	4.000	-0.008	4258964050	200.0	204.6	
7 Nitrite as N	4.667	4.675	-0.008	391103425	10.0	9.55	
3 Sulfate	5.350	5.483	-0.133	3082282736	200.0	206.5	
4 Bromide	6.158	6.208	-0.050	386878705	40.0	40.9	
5 Nitrate as N	7.067	7.167	-0.100	536007632	10.0	10.9	
6 Orthophosphate as P	9.825	10.150	-0.325	184636030	10.0	10.7	

Reagents:

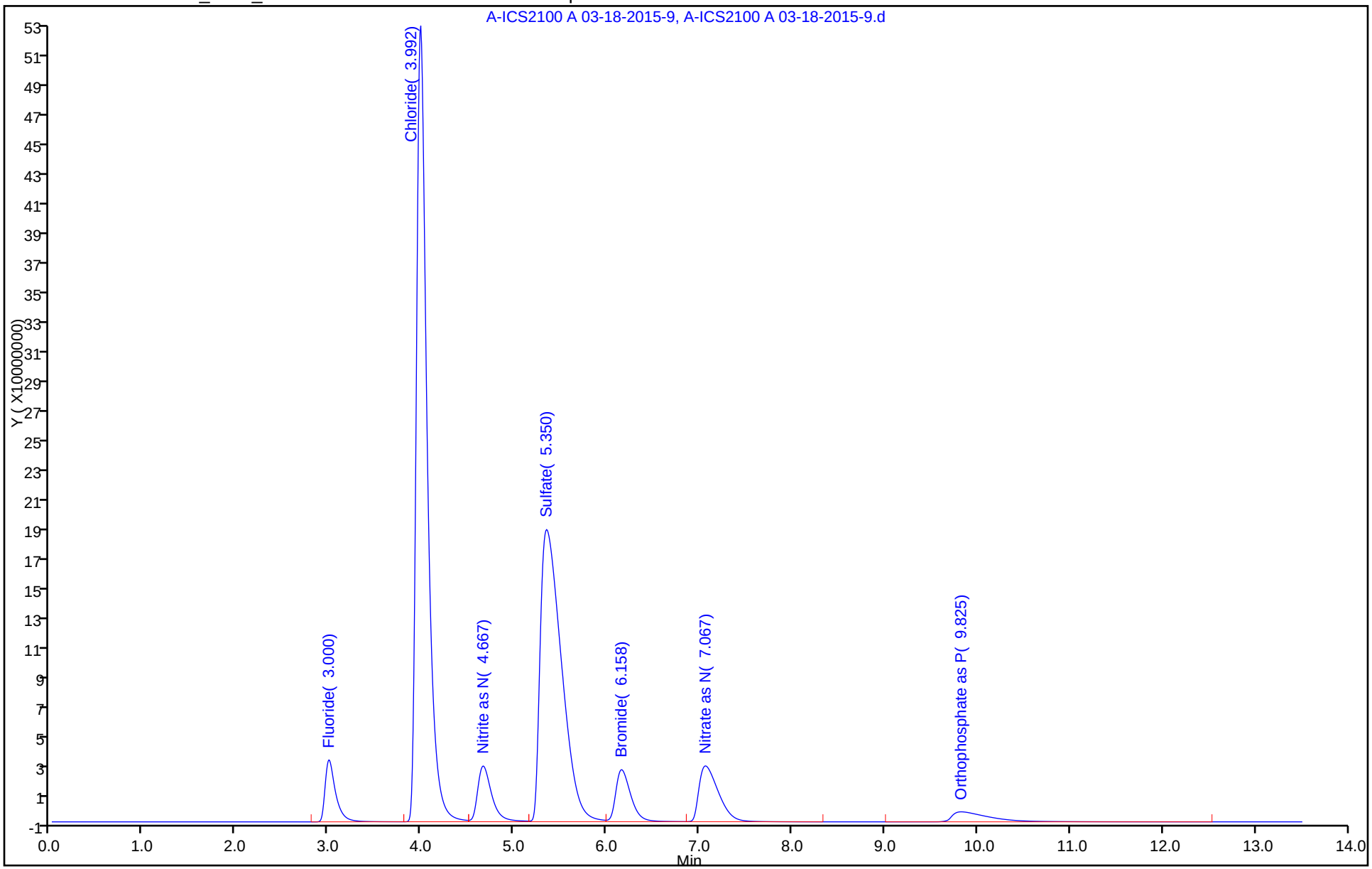
ICSTDL9_00107 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Injection Date:	18-Mar-2015 13:15:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: ICV 180-136678/2 Calibration Date: 03/26/2015 11:00

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		35121213		3.25	3.00	8.4	10.0
Chloride	Lin2		21276006		61.5	60.0	2.6	10.0
Nitrite as N	Lin2		44879780		3.20	3.00	6.5	10.0
Sulfate	Lin2		15658797		62.9	60.0	4.9	10.0
Bromide	LinF		9453036		12.0	12.0	-0.2	10.0
Nitrate as N	Lin2		51885193		3.18	3.00	6.1	10.0
Orthophosphate as P	Lin2		16386362		3.08	3.00	2.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: ICV 180-136678/2 Calibration Date: 03/26/2015 11:00

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	3.99	3.64	4.34
Nitrite as N	4.67	4.43	4.93
Sulfate	5.47	5.13	5.83
Bromide	6.19	5.84	6.54
Nitrate as N	7.13	6.89	7.39
Orthophosphate as P	10.16	9.92	10.42

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 26-Mar-2015 11:00:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:21:41 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	105363639	3.00	3.25	
2 Chloride	3.992	3.992	0.000	1276560353	60.0	61.5	
7 Nitrite as N	4.667	4.675	-0.008	134693196	3.00	3.20	
3 Sulfate	5.467	5.475	-0.008	939527805	60.0	62.9	
4 Bromide	6.192	6.192	0.000	113436430	12.0	12.0	
5 Nitrate as N	7.133	7.142	-0.009	155655579	3.00	3.18	
6 Orthophosphate as P	10.158	10.167	-0.009	49159086	3.00	3.08	

Reagents:

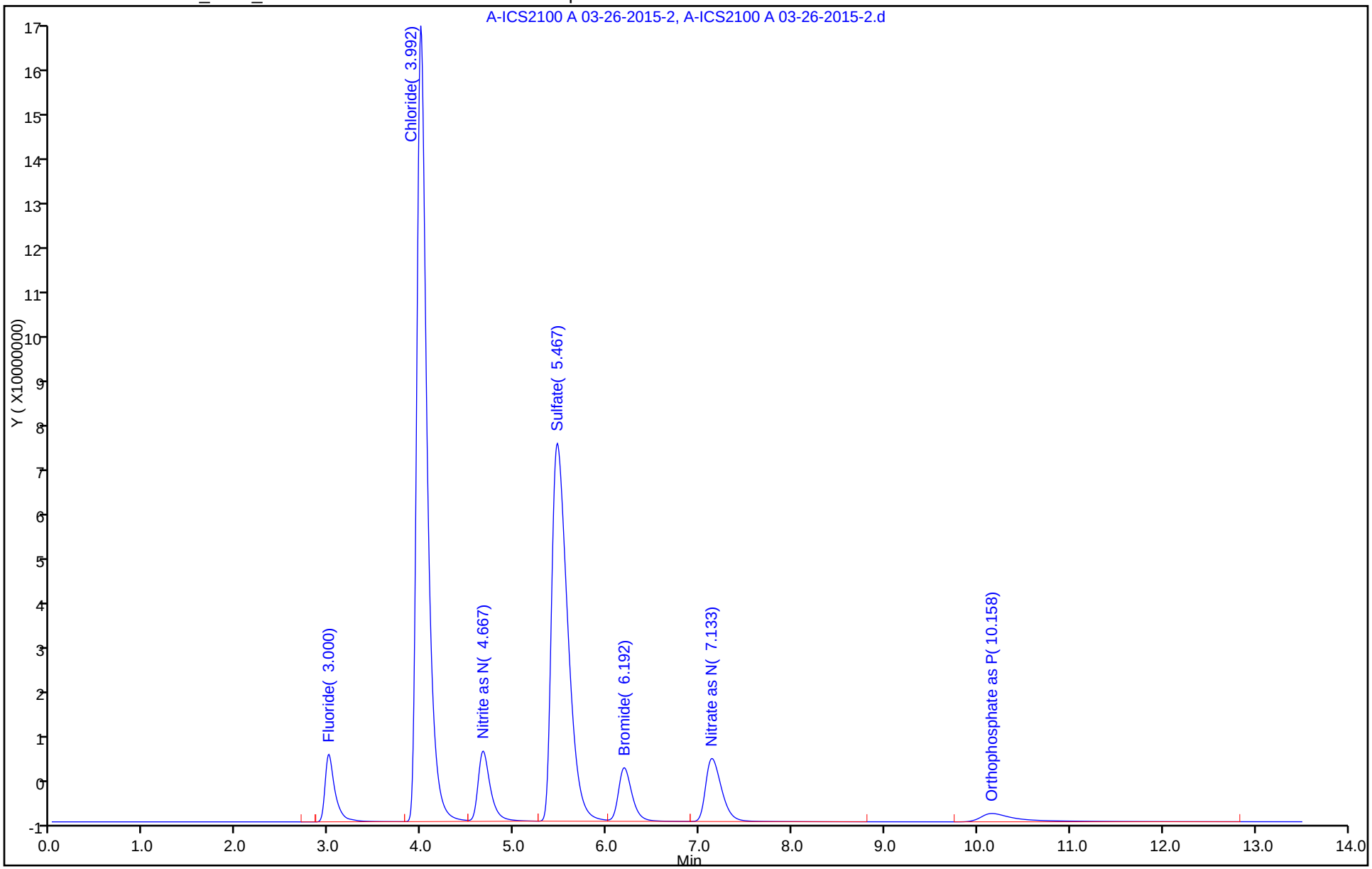
icicv_01230 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 09:21:42 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-2.d

Injection Date:	26-Mar-2015 11:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/3 Calibration Date: 03/26/2015 11:16

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		34653283		2.67	2.50	6.9	10.0
Chloride	Lin2		21401620		51.6	50.0	3.3	10.0
Nitrite as N	Lin2		45982343		2.72	2.50	8.9	10.0
Sulfate	Lin2		15607106		52.3	50.0	4.6	10.0
Bromide	LinF		9417103		9.94	10.0	-0.6	10.0
Nitrate as N	Lin2		52942675		2.71	2.50	8.5	10.0
Orthophosphate as P	Lin2		16339660		2.61	2.50	4.6	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/3 Calibration Date: 03/26/2015 11:16

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	3.99	3.64	4.34
Nitrite as N	4.68	4.43	4.93
Sulfate	5.48	5.13	5.83
Bromide	6.19	5.84	6.54
Nitrate as N	7.14	6.89	7.39
Orthophosphate as P	10.17	9.92	10.42

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Mar-2015 11:16:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:21:41 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	86633208	2.50	2.67	
2 Chloride	3.992	3.992	0.000	1070081024	50.0	51.6	
7 Nitrite as N	4.675	4.675	0.000	114955857	2.50	2.72	
3 Sulfate	5.475	5.475	0.000	780355286	50.0	52.3	
4 Bromide	6.192	6.192	0.000	94171028	10.0	9.94	
5 Nitrate as N	7.142	7.142	0.000	132356687	2.50	2.71	
6 Orthophosphate as P	10.167	10.167	0.000	40849150	2.50	2.61	

Reagents:

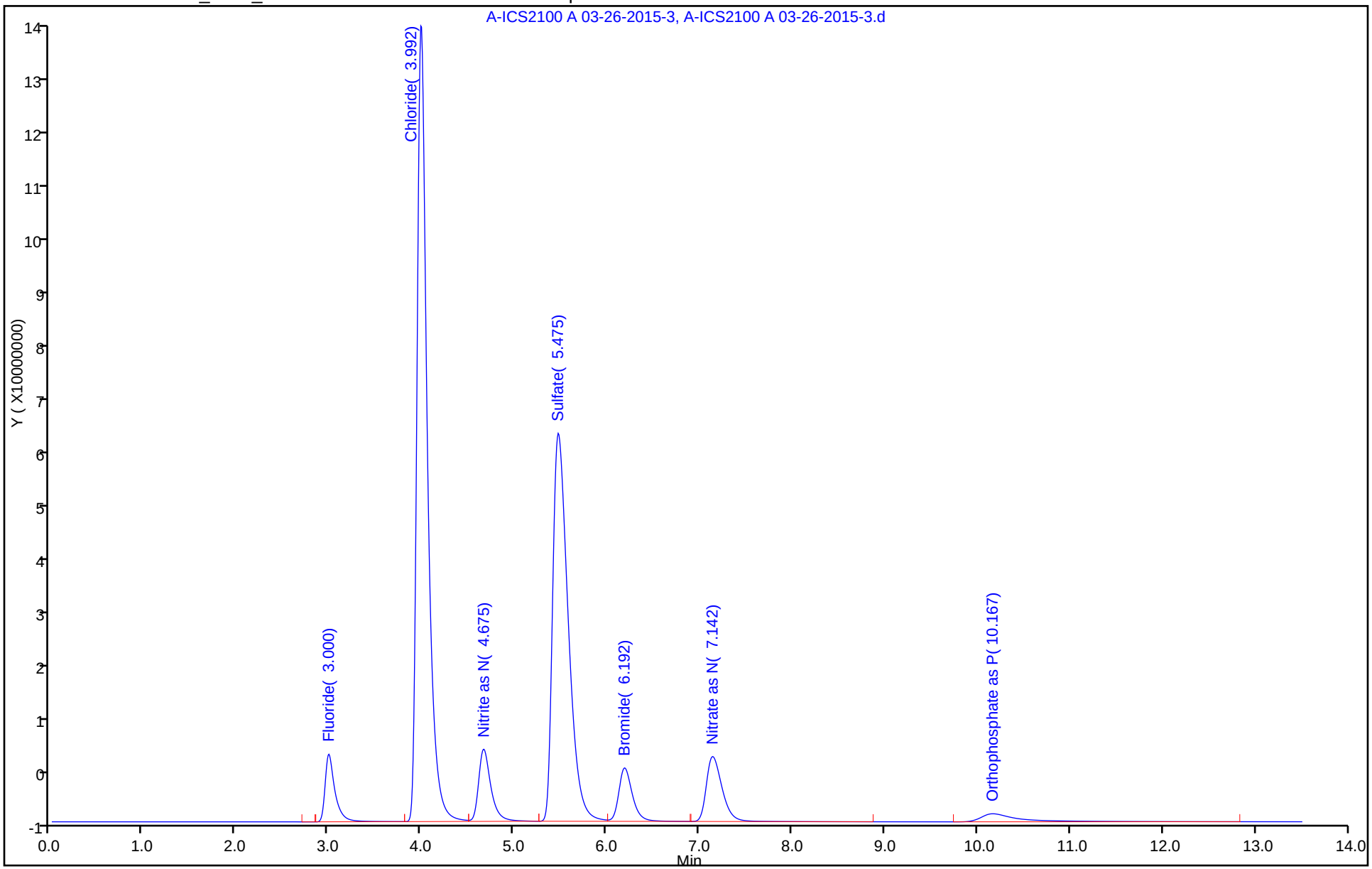
icccv_01200 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 09:21:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-3.d

Injection Date:	26-Mar-2015 11:16:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/15 Calibration Date: 03/26/2015 16:35

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		33558486		2.59	2.50	3.5	10.0
Chloride	Lin2		20765772		50.1	50.0	0.2	10.0
Nitrite as N	Lin2		44482496		2.63	2.50	5.4	10.0
Sulfate	Lin2		14981021		50.2	50.0	0.4	10.0
Bromide	LinF		9133928		9.64	10.0	-3.6	10.0
Nitrate as N	Lin2		51475873		2.64	2.50	5.5	10.0
Orthophosphate as P	Lin2		15547180		2.50	2.50	0.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/15 Calibration Date: 03/26/2015 16:35

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	3.99	3.64	4.34
Nitrite as N	4.67	4.42	4.92
Sulfate	5.48	5.13	5.83
Bromide	6.19	5.84	6.54
Nitrate as N	7.14	6.89	7.39
Orthophosphate as P	10.18	9.93	10.43

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Mar-2015 16:35:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	83896216	2.50	2.59	
2 Chloride	3.992	3.992	0.000	1038288575	50.0	50.1	
7 Nitrite as N	4.667	4.667	0.000	111206240	2.50	2.63	
3 Sulfate	5.475	5.475	0.000	749051042	50.0	50.2	
4 Bromide	6.192	6.192	0.000	91339281	10.0	9.64	
5 Nitrate as N	7.142	7.142	0.000	128689683	2.50	2.64	
6 Orthophosphate as P	10.183	10.183	0.000	38867951	2.50	2.50	

Reagents:

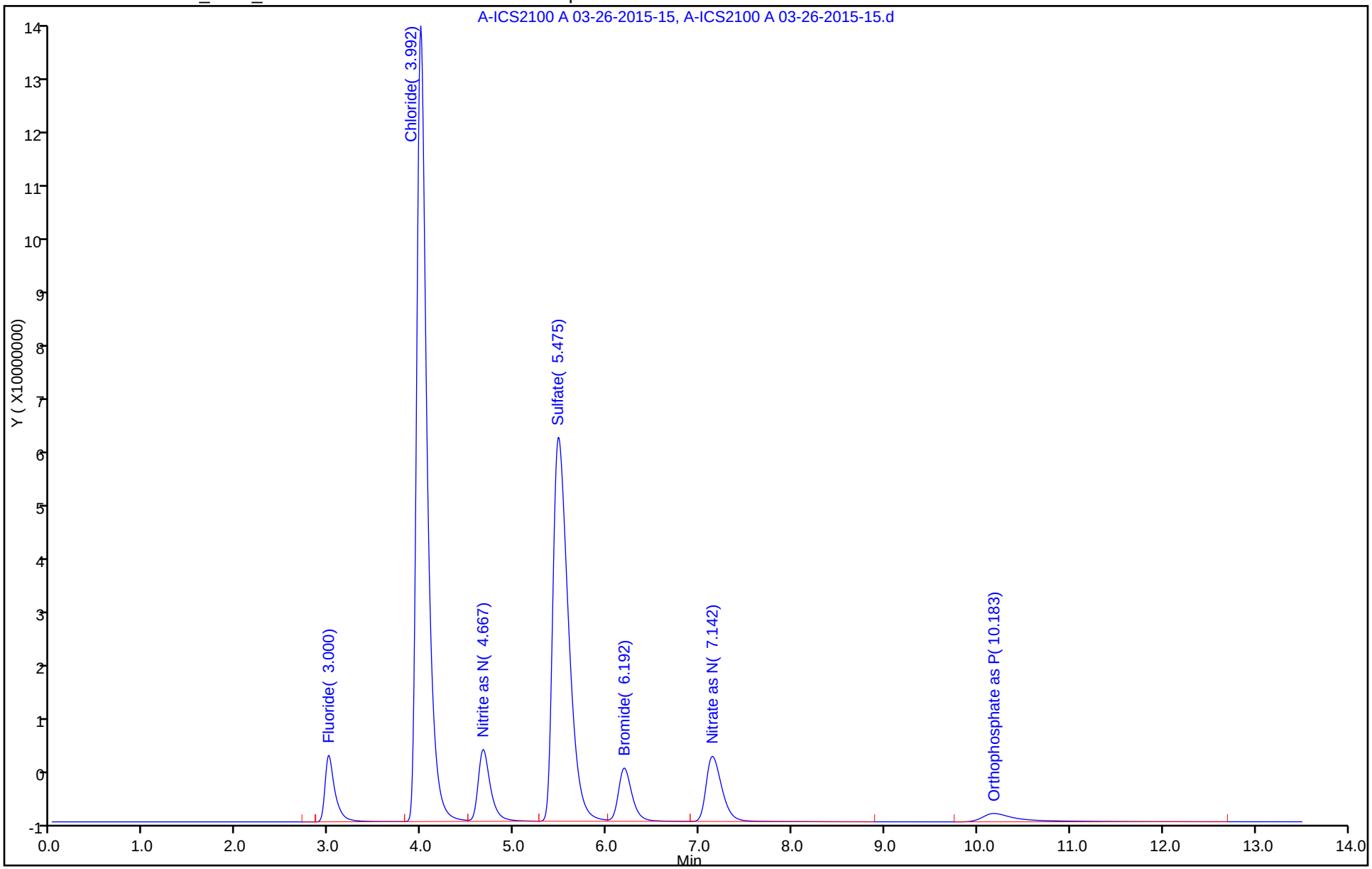
icccv_01200 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 09:30:46 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-15.d

Injection Date:	26-Mar-2015 16:35:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/27 Calibration Date: 03/26/2015 19:43

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		34791905		2.68	2.50	7.4	10.0
Chloride	Lin2		21736754		52.4	50.0	4.9	10.0
Nitrite as N	Lin2		46002597		2.72	2.50	9.0	10.0
Sulfate	Lin2		15742354		52.7	50.0	5.5	10.0
Bromide	LinF		9537881		10.1	10.0	0.7	10.0
Nitrate as N	Lin2		53578202		2.74	2.50	9.8	10.0
Orthophosphate as P	Lin2		14783760		2.39	2.50	-4.2	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/27 Calibration Date: 03/26/2015 19:43

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.00	3.65	4.35
Nitrite as N	4.68	4.43	4.93
Sulfate	5.48	5.13	5.83
Bromide	6.19	5.84	6.54
Nitrate as N	7.14	6.89	7.39
Orthophosphate as P	10.20	9.95	10.45

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Mar-2015 19:43:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:50 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	86979763	2.50	2.68	
2 Chloride	4.000	4.000	0.000	1086837710	50.0	52.4	
7 Nitrite as N	4.675	4.675	0.000	115006493	2.50	2.72	
3 Sulfate	5.475	5.475	0.000	787117688	50.0	52.7	
4 Bromide	6.192	6.192	0.000	95378814	10.0	10.1	
5 Nitrate as N	7.142	7.142	0.000	133945504	2.50	2.74	
6 Orthophosphate as P	10.200	10.200	0.000	36959401	2.50	2.39	

Reagents:

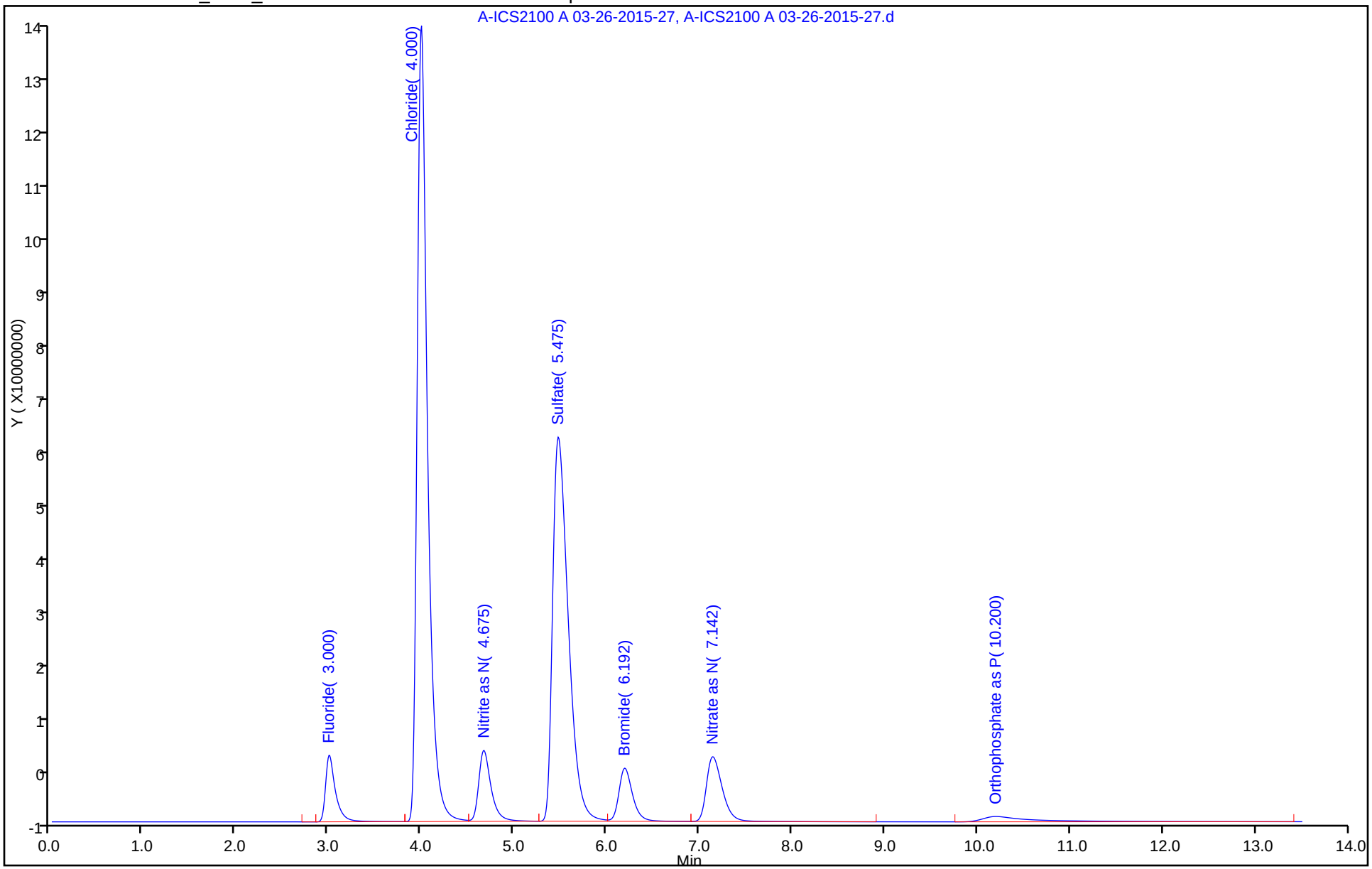
icccv_01200 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 09:30:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-27.d

Injection Date:	26-Mar-2015 19:43:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/39 Calibration Date: 03/26/2015 22:47

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-39.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		34513406		2.66	2.50	6.5	10.0
Chloride	Lin2		21529489		51.9	50.0	3.9	10.0
Nitrite as N	Lin2		45636240		2.70	2.50	8.1	10.0
Sulfate	Lin2		15648415		52.4	50.0	4.8	10.0
Bromide	LinF		9461197		9.99	10.0	-0.1	10.0
Nitrate as N	Lin2		53176646		2.72	2.50	8.9	10.0
Orthophosphate as P	Lin2		14459949		2.35	2.50	-6.1	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: CCV 180-136678/39 Calibration Date: 03/26/2015 22:47

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-26-2015-39.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.00	3.65	4.35
Nitrite as N	4.68	4.43	4.93
Sulfate	5.48	5.13	5.83
Bromide	6.19	5.84	6.54
Nitrate as N	7.14	6.89	7.39
Orthophosphate as P	10.25	10.00	10.50

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-39.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Mar-2015 22:47:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-039
Misc. Info.: 39 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:55 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	86283516	2.50	2.66	
2 Chloride	4.000	4.000	0.000	1076474430	50.0	51.9	
7 Nitrite as N	4.675	4.675	0.000	114090600	2.50	2.70	
3 Sulfate	5.483	5.483	0.000	782420753	50.0	52.4	
4 Bromide	6.192	6.192	0.000	94611971	10.0	10.0	
5 Nitrate as N	7.142	7.142	0.000	132941614	2.50	2.72	
6 Orthophosphate as P	10.250	10.250	0.000	36149873	2.50	2.35	

Reagents:

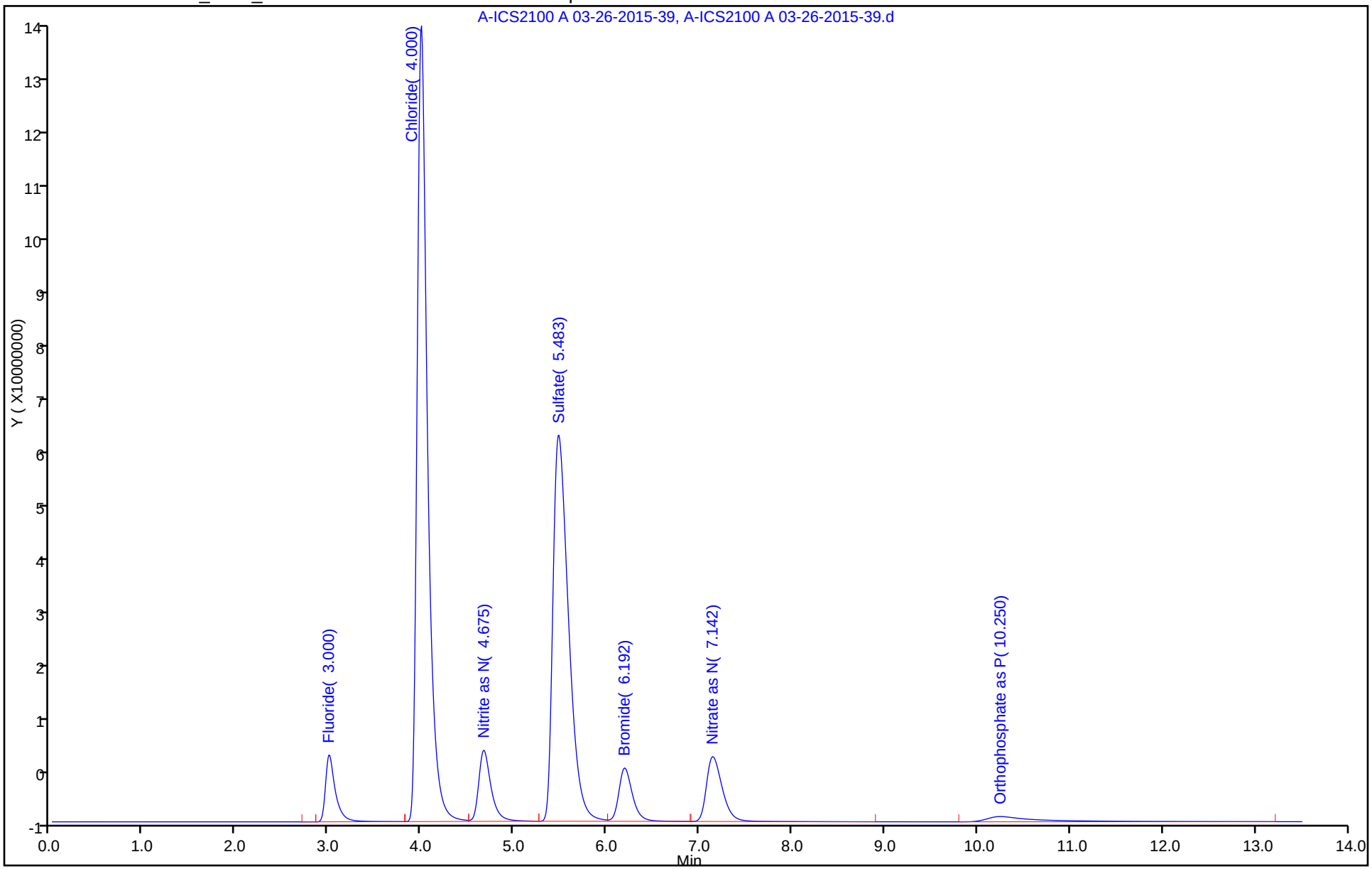
icccv_01200 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 09:30:55 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-39.d

Injection Date:	26-Mar-2015 22:47:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	39
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-136678/6

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 12:02

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0306	J	0.10	0.0062
16887-00-6	Chloride	0.367	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 26-Mar-2015 12:02:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:21:36 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

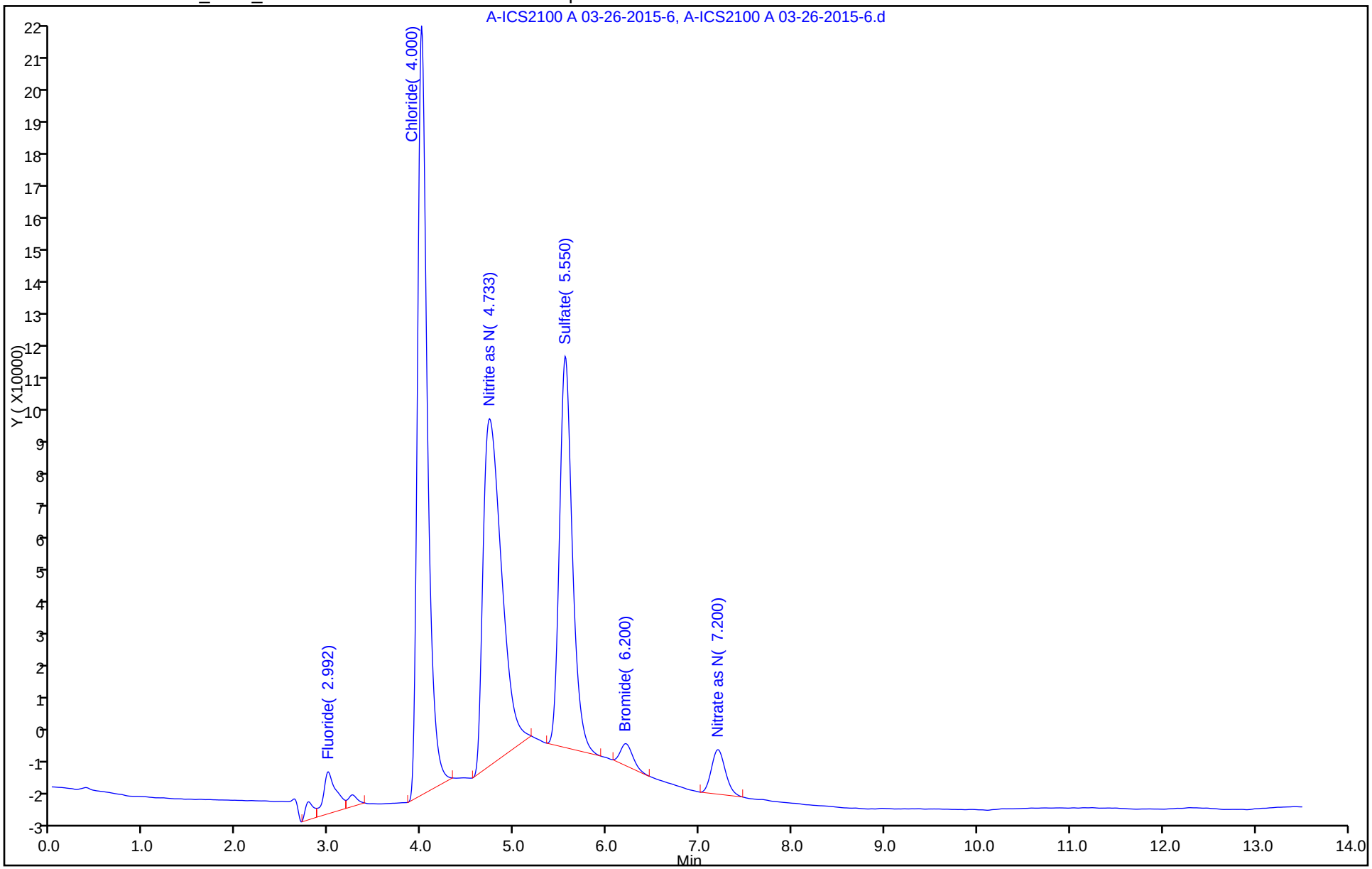
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	120010		0.003703	
2 Chloride	4.000	3.992	0.008	1714009		0.3665	
7 Nitrite as N	4.733	4.667	0.066	1449102		0.008491	
3 Sulfate	5.550	5.475	0.075	1134794		0.0691	
4 Bromide	6.200	6.192	0.008	62047		0.006552	
5 Nitrate as N	7.200	7.142	0.058	139656		0.0306	
6 Orthophosphate as P		10.183				ND	

Report Date: 27-Mar-2015 09:21:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-6.d

Injection Date:	26-Mar-2015 12:02:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136678/4

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 11:31

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0308	J	0.10	0.0062
16887-00-6	Chloride	0.374	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Mar-2015 11:31:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:21:36 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

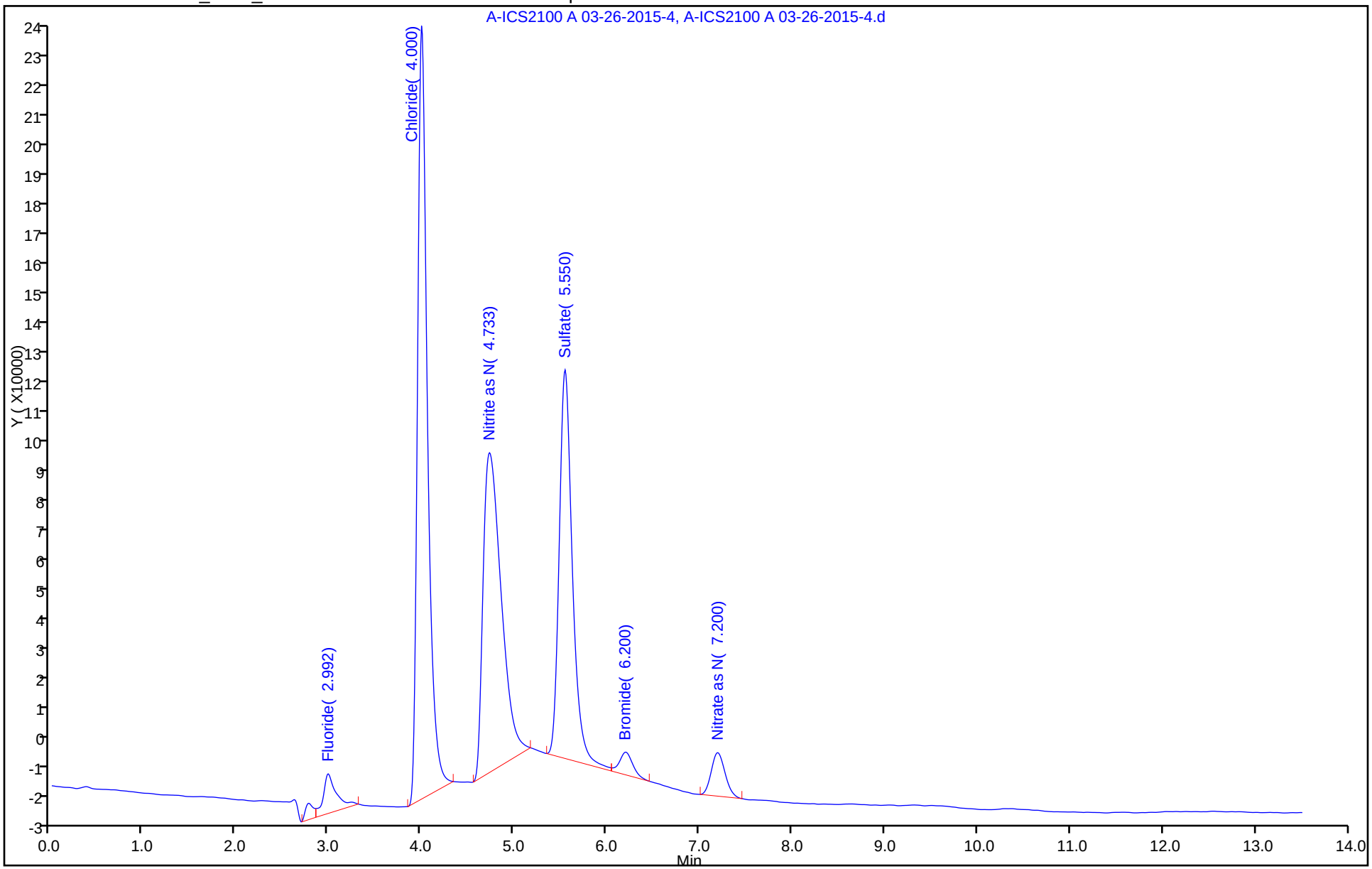
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	126693		0.003909	
2 Chloride	4.000	3.992	0.008	1869059		0.3740	
7 Nitrite as N	4.733	4.667	0.066	1409672		0.007548	
3 Sulfate	5.550	5.475	0.075	1242404		0.0763	
4 Bromide	6.200	6.192	0.008	73682		0.007780	
5 Nitrate as N	7.200	7.142	0.058	145714		0.0308	
6 Orthophosphate as P		10.183				ND	

Report Date: 27-Mar-2015 09:21:41 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-4.d

Injection Date:	26-Mar-2015 11:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136678/16

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 16:55

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0319	J	0.10	0.0062
16887-00-6	Chloride	0.368	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Mar-2015 16:55:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:46 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

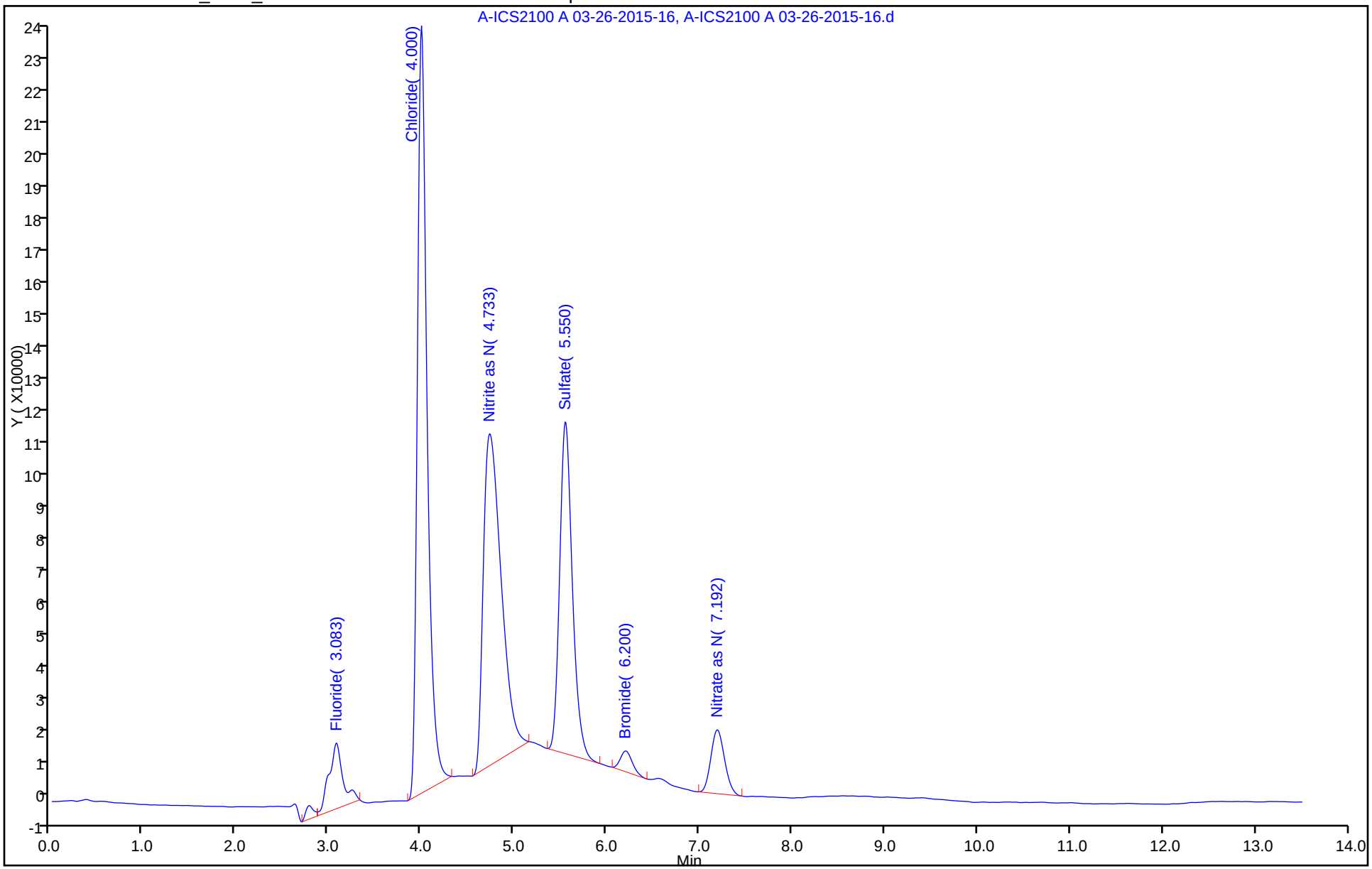
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.000	0.083	215147		0.006639	
2 Chloride	4.000	3.992	0.008	1744571		0.3680	
7 Nitrite as N	4.733	4.667	0.066	1381791		0.006881	
3 Sulfate	5.550	5.475	0.075	979716		0.0587	
4 Bromide	6.200	6.192	0.008	58018		0.006126	
5 Nitrate as N	7.192	7.142	0.050	203838		0.0319	
6 Orthophosphate as P		10.183				ND	

Report Date: 27-Mar-2015 09:30:47 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-16.d				
Injection Date:	26-Mar-2015 16:55:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136678/28

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 19:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0315	J	0.10	0.0062
16887-00-6	Chloride	0.459	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Mar-2015 19:58:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:50 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

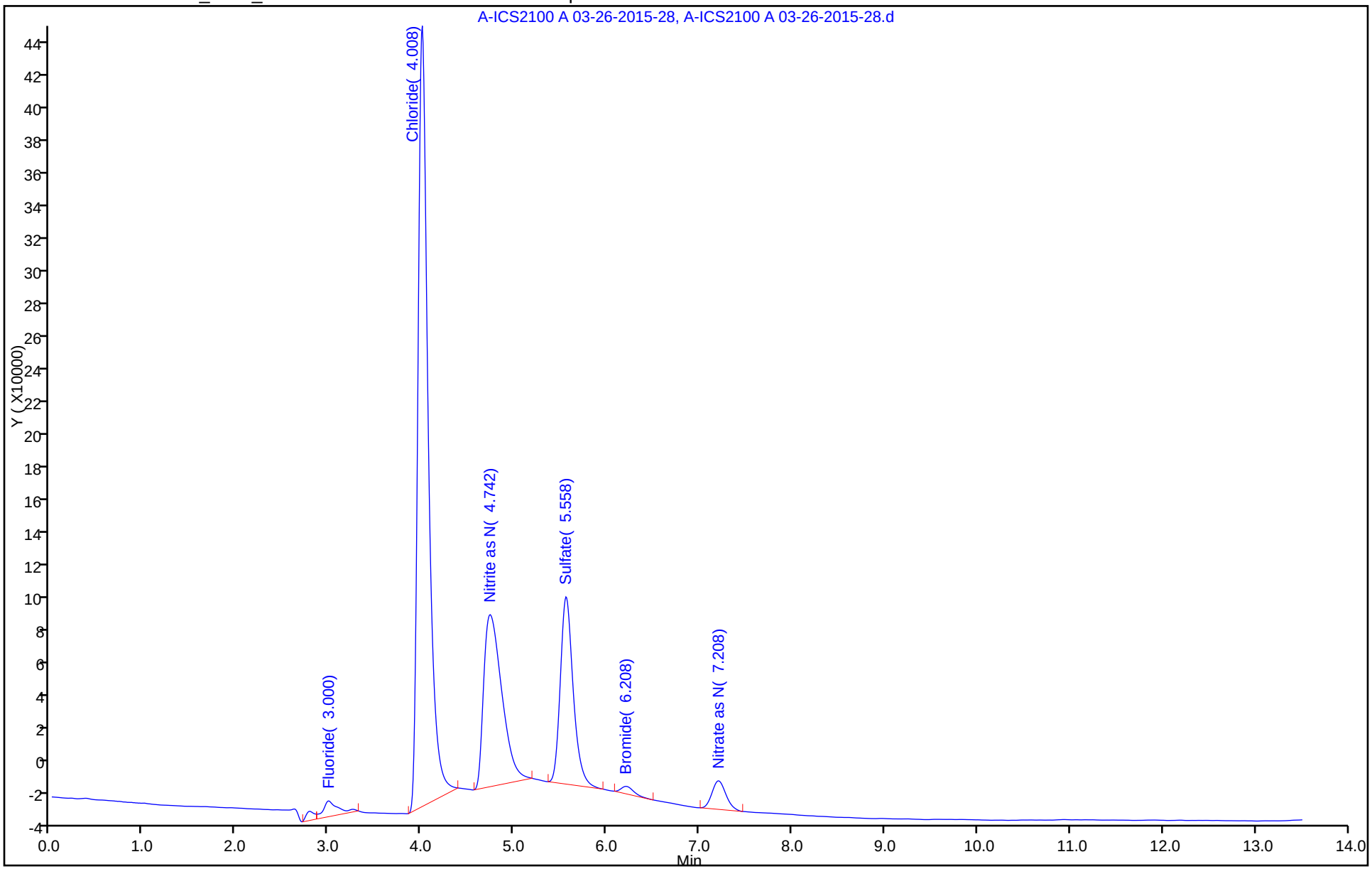
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	105325		0.003250	
2 Chloride	4.008	4.000	0.008	3638555		0.4589	
7 Nitrite as N	4.742	4.675	0.067	1416205		0.007704	
3 Sulfate	5.558	5.475	0.083	1093998		0.0664	
4 Bromide	6.208	6.192	0.016	43331		0.004575	
5 Nitrate as N	7.208	7.142	0.066	180745		0.0315	
6 Orthophosphate as P		10.200				ND	

Report Date: 27-Mar-2015 09:30:51 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-28.d

Injection Date:	26-Mar-2015 19:58:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136678/40

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-40.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 23:02

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0311	J	0.10	0.0062
16887-00-6	Chloride	0.442	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-40.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 26-Mar-2015 23:02:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-040
Misc. Info.: 40 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:55 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

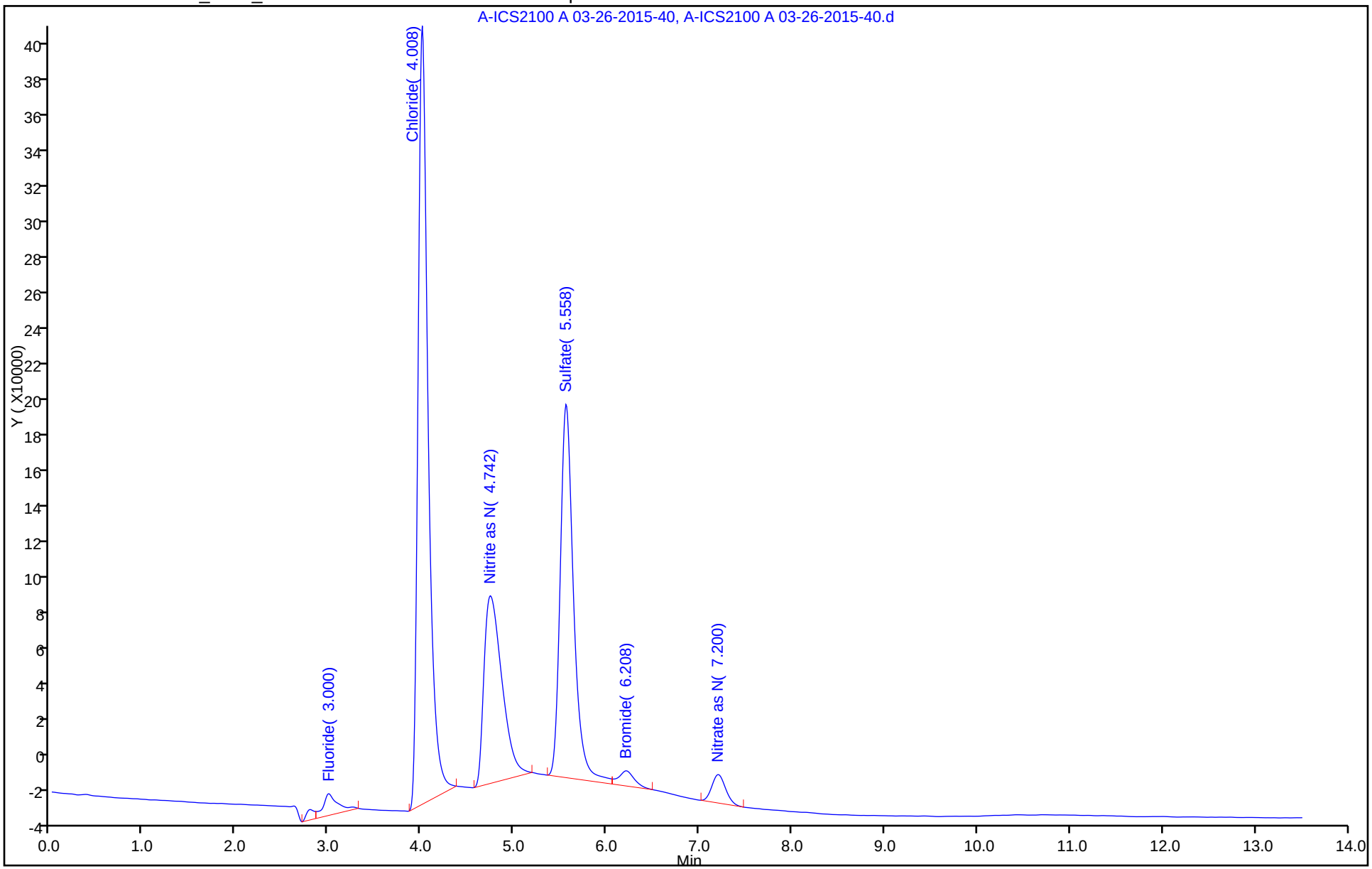
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	132539		0.004090	
2 Chloride	4.008	4.000	0.008	3285377		0.4419	
7 Nitrite as N	4.742	4.675	0.067	1402035		0.007365	
3 Sulfate	5.558	5.483	0.075	2070155		0.1318	
4 Bromide	6.208	6.192	0.016	98314		0.0104	
5 Nitrate as N	7.200	7.142	0.058	162218		0.0311	
6 Orthophosphate as P		10.250				ND	

Report Date: 27-Mar-2015 09:30:55 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-40.d

Injection Date:	26-Mar-2015 23:02:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-136678/5

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 11:46

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.51		0.10	0.0062
16887-00-6	Chloride	47.8		1.0	0.20
14808-79-8	Sulfate	48.1		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 26-Mar-2015 11:46:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:21:36 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	79746384	2.50	2.46	
2 Chloride	3.992	3.992	0.000	990667437	50.0	47.8	
7 Nitrite as N	4.667	4.667	0.000	107229881	2.50	2.54	
3 Sulfate	5.475	5.475	0.000	717251621	50.0	48.1	
4 Bromide	6.192	6.192	0.000	87017575	10.0	9.19	
5 Nitrate as N	7.133	7.142	-0.009	122238936	2.50	2.51	
6 Orthophosphate as P	10.175	10.183	-0.008	36893417	2.50	2.39	

Reagents:

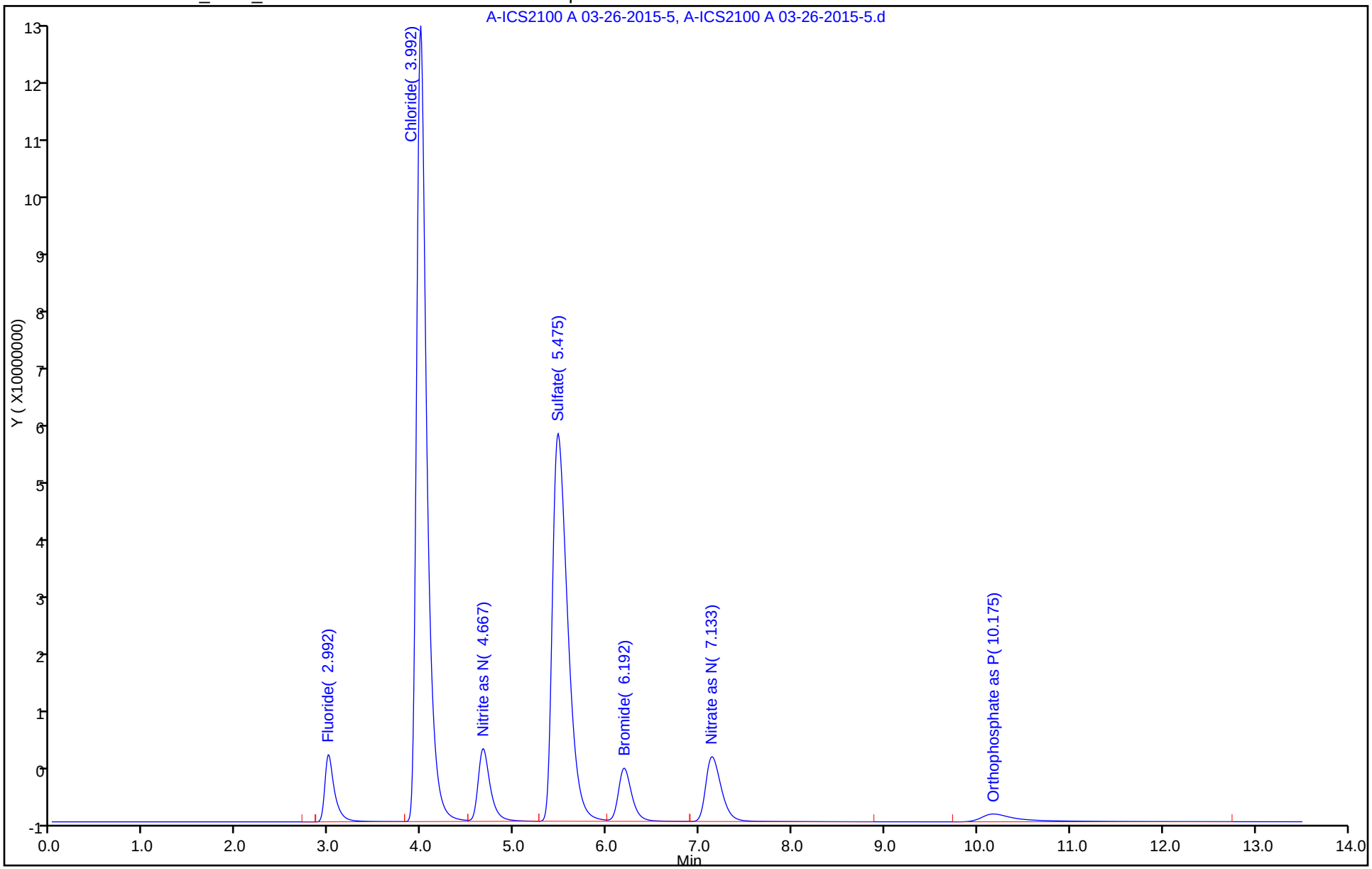
icccv_01200 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 09:21:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-5.d

Injection Date:	26-Mar-2015 11:46:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS Lab Sample ID: 180-42391-12 MS

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-30.d

Analysis Method: 300.0 Date Collected: 03/25/2015 15:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 20:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.05		0.10	0.0062
16887-00-6	Chloride	76.3		1.0	0.20
14808-79-8	Sulfate	62.3		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-30.d
Lims ID: 180-42391-A-12 MS
Client ID:
Sample Type: MS
Inject. Date: 26-Mar-2015 20:29:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-030
Misc. Info.: 30 180-42391-a-12 ms
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:50 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	47393956	1.25	1.46	
2 Chloride	3.992	4.000	-0.008	1585102896	25.0	76.3	
7 Nitrite as N		4.675				ND	
3 Sulfate	5.450	5.475	-0.025	930043457	25.0	62.3	
4 Bromide	6.200	6.192	0.008	46057505	5.00	4.86	
5 Nitrate as N	7.150	7.142	0.008	99805983	1.25	2.05	
6 Orthophosphate as P		10.200			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

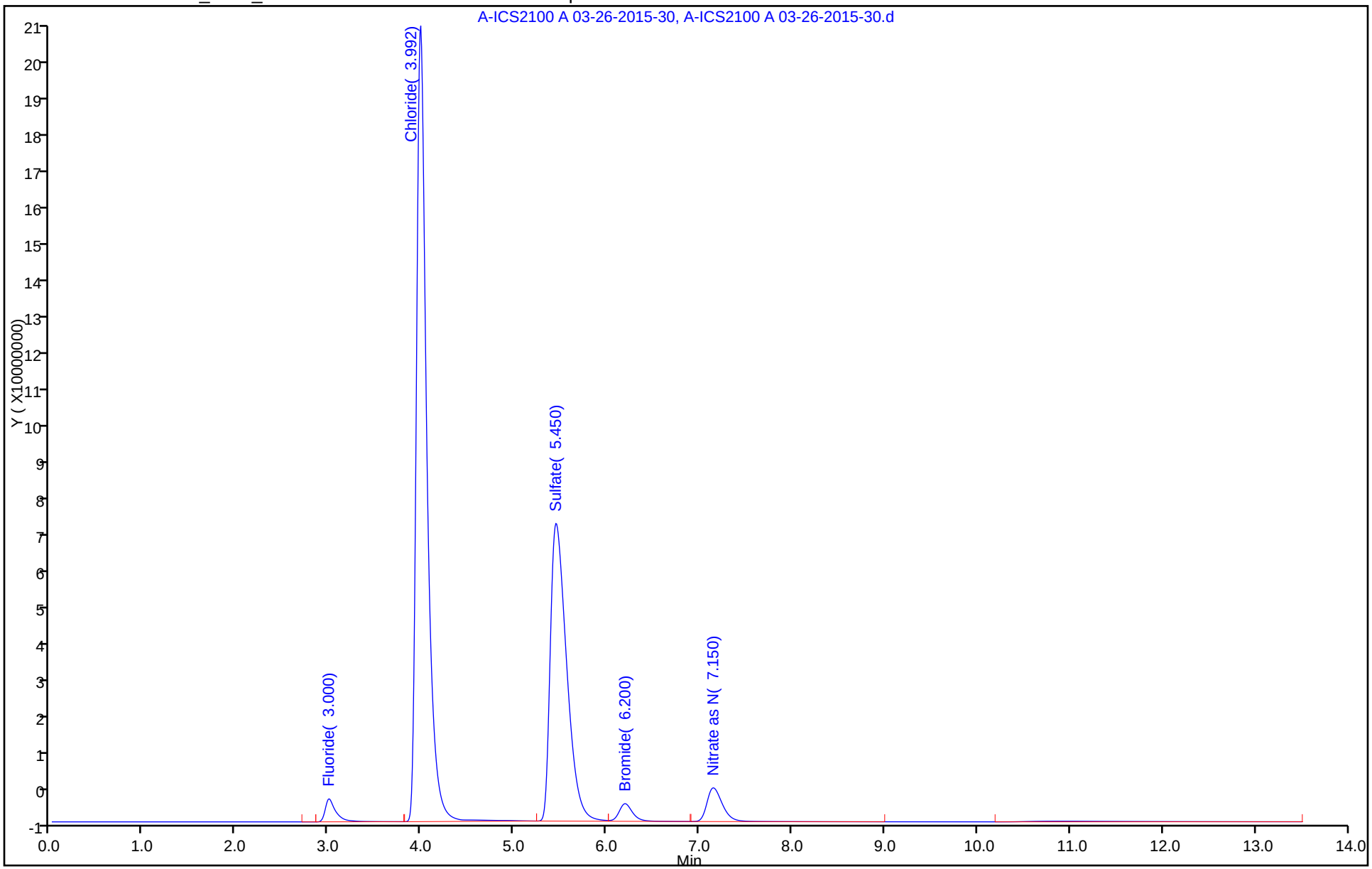
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 27-Mar-2015 09:30:52 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-30.d

Injection Date:	26-Mar-2015 20:29:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-12 MS			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD Lab Sample ID: 180-42391-12 MSD

Matrix: Water Lab File ID: A-ICS2100 A 03-26-2015-31.d

Analysis Method: 300.0 Date Collected: 03/25/2015 15:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/26/2015 20:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136678 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.05		0.10	0.0062
16887-00-6	Chloride	76.0		1.0	0.20
14808-79-8	Sulfate	62.1		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-31.d
Lims ID: 180-42391-A-12 MSD
Client ID:
Sample Type: MSD
Inject. Date: 26-Mar-2015 20:44:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006193-031
Misc. Info.: 31 180-42391-a-12 msd
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 09:30:50 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	45472815	1.25	1.40	
2 Chloride	3.992	4.000	-0.008	1578958777	25.0	76.0	
7 Nitrite as N		4.675				ND	
3 Sulfate	5.458	5.475	-0.017	927359289	25.0	62.1	
4 Bromide	6.200	6.192	0.008	45804774	5.00	4.84	
5 Nitrate as N	7.158	7.142	0.016	99502524	1.25	2.05	
6 Orthophosphate as P		10.200			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

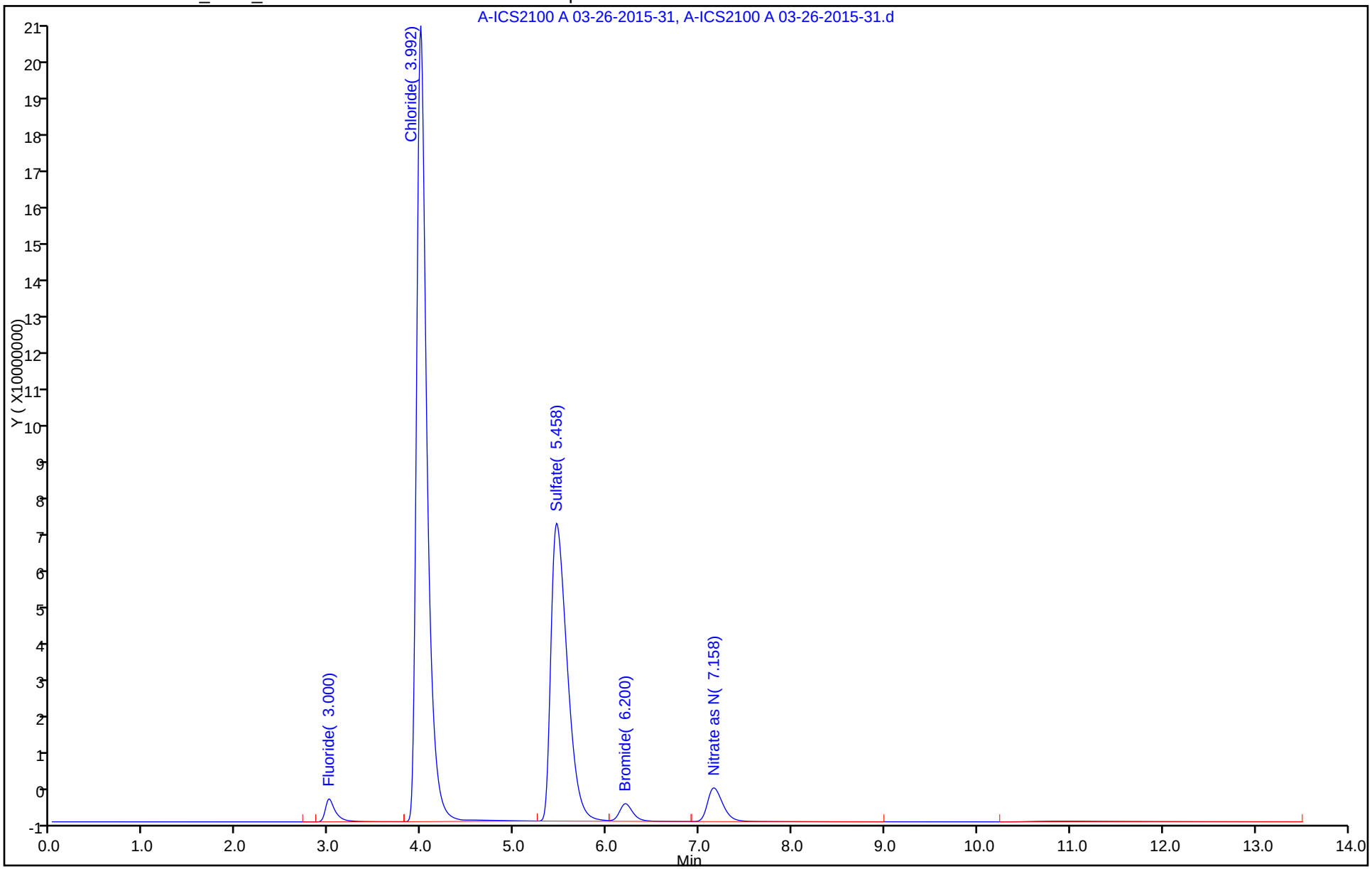
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 27-Mar-2015 09:30:52 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150326-6193.b\A-ICS2100 A 03-26-2015-31.d

Injection Date:	26-Mar-2015 20:44:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42391-A-12 MSD			Worklist Smp#:	31
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/18/2015 11:12

Analysis Batch Number: 135876 End Date: 03/19/2015 03:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/18/2015 11:12	1		AS-18
IC 180-135876/2		03/18/2015 11:27	1	A-ICS2100 A 03-18-2015-2.d	AS-18
IC 180-135876/3		03/18/2015 11:43	1	A-ICS2100 A 03-18-2015-3.d	AS-18
ICRT 180-135876/4		03/18/2015 11:58	1	A-ICS2100 A 03-18-2015-4.d	AS-18
IC 180-135876/5		03/18/2015 12:13	1	A-ICS2100 A 03-18-2015-5.d	AS-18
IC 180-135876/6		03/18/2015 12:29	1	A-ICS2100 A 03-18-2015-6.d	AS-18
IC 180-135876/7		03/18/2015 12:44	1	A-ICS2100 A 03-18-2015-7.d	AS-18
IC 180-135876/8		03/18/2015 12:59	1	A-ICS2100 A 03-18-2015-8.d	AS-18
IC 180-135876/9		03/18/2015 13:15	1	A-ICS2100 A 03-18-2015-9.d	AS-18
ZZZZZ		03/18/2015 13:30	1		AS-18
ZZZZZ		03/18/2015 13:45	1		AS-18
ZZZZZ		03/18/2015 14:01	1		AS-18
ICV 180-135876/13		03/18/2015 14:16	1		AS-18
CCV 180-135876/14		03/18/2015 14:31	1		AS-18
CCB 180-135876/15		03/18/2015 14:46	1		AS-18
ZZZZZ		03/18/2015 15:02	1		AS-18
ZZZZZ		03/18/2015 15:17	1		AS-18
ZZZZZ		03/18/2015 15:32	100		AS-18
ZZZZZ		03/18/2015 15:48	1		AS-18
ZZZZZ		03/18/2015 16:03	5		AS-18
ZZZZZ		03/18/2015 16:18	1		AS-18
ZZZZZ		03/18/2015 16:34	5		AS-18
ZZZZZ		03/18/2015 16:49	1		AS-18
ZZZZZ		03/18/2015 17:04	10		AS-18
ZZZZZ		03/18/2015 17:20	1000		AS-18
CCV 180-135876/26		03/18/2015 18:20	1		AS-18
CCB 180-135876/27		03/18/2015 18:46	1		AS-18
ZZZZZ		03/18/2015 19:01	1		AS-18
ZZZZZ		03/18/2015 19:17	1		AS-18
ZZZZZ		03/18/2015 19:32	1		AS-18
ZZZZZ		03/18/2015 19:47	10		AS-18
ZZZZZ		03/18/2015 20:03	10		AS-18
ZZZZZ		03/18/2015 20:18	10		AS-18
ZZZZZ		03/18/2015 20:33	5		AS-18
ZZZZZ		03/18/2015 20:49	50		AS-18
ZZZZZ		03/18/2015 21:04	5		AS-18
ZZZZZ		03/18/2015 21:19	50		AS-18
CCV 180-135876/38		03/18/2015 21:35	1		AS-18
CCB 180-135876/39		03/18/2015 21:50	1		AS-18
ZZZZZ		03/18/2015 22:05	1		AS-18
ZZZZZ		03/18/2015 22:21	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/18/2015 11:12

Analysis Batch Number: 135876 End Date: 03/19/2015 03:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/18/2015 22:36	100		AS-18
ZZZZZ		03/18/2015 22:51	1000		AS-18
ZZZZZ		03/18/2015 23:06	5		AS-18
ZZZZZ		03/18/2015 23:22	5		AS-18
ZZZZZ		03/18/2015 23:37	5		AS-18
ZZZZZ		03/18/2015 23:52	50		AS-18
ZZZZZ		03/19/2015 00:08	50		AS-18
ZZZZZ		03/19/2015 00:23	50		AS-18
CCV 180-135876/50		03/19/2015 00:38	1		AS-18
CCB 180-135876/51		03/19/2015 00:54	1		AS-18
ZZZZZ		03/19/2015 01:09	1		AS-18
ZZZZZ		03/19/2015 01:24	5		AS-18
ZZZZZ		03/19/2015 01:39	5		AS-18
ZZZZZ		03/19/2015 01:55	5		AS-18
ZZZZZ		03/19/2015 02:10	50		AS-18
ZZZZZ		03/19/2015 02:25	50		AS-18
ZZZZZ		03/19/2015 02:41	50		AS-18
ZZZZZ		03/19/2015 02:56	1		AS-18
ZZZZZ		03/19/2015 03:11	1		AS-18
CCV 180-135876/61		03/19/2015 03:27	1		AS-18
CCB 180-135876/62		03/19/2015 03:42	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/26/2015 10:45

Analysis Batch Number: 136678 End Date: 03/27/2015 08:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/26/2015 10:45	1		AS-18
ICV 180-136678/2		03/26/2015 11:00	1	A-ICS2100 A 03-26-2015-2.d	AS-18
CCV 180-136678/3		03/26/2015 11:16	1	A-ICS2100 A 03-26-2015-3.d	AS-18
CCB 180-136678/4		03/26/2015 11:31	1	A-ICS2100 A 03-26-2015-4.d	AS-18
LCS 180-136678/5		03/26/2015 11:46	1	A-ICS2100 A 03-26-2015-5.d	AS-18
MB 180-136678/6		03/26/2015 12:02	1	A-ICS2100 A 03-26-2015-6.d	AS-18
ZZZZZ		03/26/2015 12:17	1		AS-18
ZZZZZ		03/26/2015 12:32	1		AS-18
ZZZZZ		03/26/2015 12:48	1		AS-18
ZZZZZ		03/26/2015 13:03	1		AS-18
ZZZZZ		03/26/2015 13:18	1		AS-18
ZZZZZ		03/26/2015 13:34	1		AS-18
ZZZZZ		03/26/2015 13:49	1		AS-18
180-42391-2	HD-CW-9-0/1-0	03/26/2015 14:04	1	A-ICS2100 A 03-26-2015-14.d	AS-18
CCV 180-136678/15		03/26/2015 16:35	1	A-ICS2100 A 03-26-2015-15.d	AS-18
CCB 180-136678/16		03/26/2015 16:55	1	A-ICS2100 A 03-26-2015-16.d	AS-18
180-42391-3	HD-CW-13-0/1-0	03/26/2015 17:10	1	A-ICS2100 A 03-26-2015-17.d	AS-18
180-42391-5	HD-CW-17-0/1-0	03/26/2015 17:25	1	A-ICS2100 A 03-26-2015-18.d	AS-18
180-42391-7	HD-MW-100D-0/1-0	03/26/2015 17:40	1	A-ICS2100 A 03-26-2015-19.d	AS-18
180-42391-11	HD-MW-37S-0/1-0	03/26/2015 17:56	1	A-ICS2100 A 03-26-2015-20.d	AS-18
180-42391-8	HD-MW-147A-0/1-0	03/26/2015 18:11	1	A-ICS2100 A 03-26-2015-21.d	AS-18
180-42391-6	HD-CW-20-0/1-0	03/26/2015 18:26	1	A-ICS2100 A 03-26-2015-22.d	AS-18
180-42391-4	HD-CW-15A-0/1-0	03/26/2015 18:42	1	A-ICS2100 A 03-26-2015-23.d	AS-18
180-42391-4	HD-CW-15A-0/1-0	03/26/2015 18:57	10	A-ICS2100 A 03-26-2015-24.d	AS-18
180-42391-9	HD-MW-75S-0/1-0	03/26/2015 19:12	1	A-ICS2100 A 03-26-2015-25.d	AS-18
180-42391-13	HD-MW-7-0/1-0	03/26/2015 19:28	1	A-ICS2100 A 03-26-2015-26.d	AS-18
CCV 180-136678/27		03/26/2015 19:43	1	A-ICS2100 A 03-26-2015-27.d	AS-18
CCB 180-136678/28		03/26/2015 19:58	1	A-ICS2100 A 03-26-2015-28.d	AS-18
180-42391-12	HD-MW-95-0/1-0	03/26/2015 20:14	1	A-ICS2100 A 03-26-2015-29.d	AS-18
180-42391-12 MS	HD-MW-95-0/1-0 MS	03/26/2015 20:29	1	A-ICS2100 A 03-26-2015-30.d	AS-18
180-42391-12 MSD	HD-MW-95-0/1-0 MSD	03/26/2015 20:44	1	A-ICS2100 A 03-26-2015-31.d	AS-18
180-42391-10	HD-MW-37D-0/1-0	03/26/2015 21:00	1	A-ICS2100 A 03-26-2015-32.d	AS-18
180-42391-10	HD-MW-37D-0/1-0	03/26/2015 21:15	5	A-ICS2100 A 03-26-2015-33.d	AS-18
ZZZZZ		03/26/2015 21:30	1		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/26/2015 10:45

Analysis Batch Number: 136678 End Date: 03/27/2015 08:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/26/2015 21:46	1		AS-18
ZZZZZ		03/26/2015 22:01	1		AS-18
ZZZZZ		03/26/2015 22:16	1		AS-18
ZZZZZ		03/26/2015 22:31	25		AS-18
CCV 180-136678/39		03/26/2015 22:47	1	A-ICS2100 A 03-26-2015-39.d	AS-18
CCB 180-136678/40		03/26/2015 23:02	1	A-ICS2100 A 03-26-2015-40.d	AS-18
ZZZZZ		03/26/2015 23:17	100		AS-18
ZZZZZ		03/26/2015 23:33	1000		AS-18
ZZZZZ		03/26/2015 23:48	100		AS-18
ZZZZZ		03/27/2015 00:03	1000		AS-18
ZZZZZ		03/27/2015 00:19	1		AS-18
ZZZZZ		03/27/2015 00:34	1		AS-18
ZZZZZ		03/27/2015 00:49	1		AS-18
ZZZZZ		03/27/2015 01:05	1		AS-18
ZZZZZ		03/27/2015 01:20	1		AS-18
ZZZZZ		03/27/2015 01:35	5		AS-18
CCV 180-136678/51		03/27/2015 01:50	1		AS-18
CCB 180-136678/52		03/27/2015 02:06	1		AS-18
ZZZZZ		03/27/2015 02:21	1		AS-18
ZZZZZ		03/27/2015 02:36	1		AS-18
ZZZZZ		03/27/2015 02:52	1		AS-18
ZZZZZ		03/27/2015 03:07	1		AS-18
ZZZZZ		03/27/2015 03:22	1		AS-18
ZZZZZ		03/27/2015 03:38	5		AS-18
ZZZZZ		03/27/2015 03:53	1		AS-18
ZZZZZ		03/27/2015 04:08	5		AS-18
ZZZZZ		03/27/2015 04:24	1		AS-18
ZZZZZ		03/27/2015 04:39	5		AS-18
CCV 180-136678/63		03/27/2015 04:54	1		AS-18
CCB 180-136678/64		03/27/2015 05:09	1		AS-18
ZZZZZ		03/27/2015 05:25	1		AS-18
ZZZZZ		03/27/2015 05:40	1		AS-18
ZZZZZ		03/27/2015 05:55	1		AS-18
ZZZZZ		03/27/2015 06:11	1		AS-18
ZZZZZ		03/27/2015 06:26	1		AS-18
ZZZZZ		03/27/2015 06:41	5		AS-18
ZZZZZ		03/27/2015 06:57	1		AS-18
ZZZZZ		03/27/2015 07:12	10		AS-18
ZZZZZ		03/27/2015 07:27	1		AS-18
ZZZZZ		03/27/2015 07:42	10		AS-18
CCV 180-136678/75		03/27/2015 07:58	1		AS-18
CCB 180-136678/76		03/27/2015 08:13	1		AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-42391-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-CW-9-0/1-0	180-42391-2
HD-CW-13-0/1-0	180-42391-3
HD-CW-15A-0/1-0	180-42391-4
HD-CW-17-0/1-0	180-42391-5
HD-CW-20-0/1-0	180-42391-6
HD-MW-100D-0/1-0	180-42391-7
HD-MW-147A-0/1-0	180-42391-8
HD-MW-75S-0/1-0	180-42391-9
HD-MW-37D-0/1-0	180-42391-10
HD-MW-37S-0/1-0	180-42391-11
HD-MW-95-0/1-0	180-42391-12
HD-MW-7-0/1-0	180-42391-13

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-42391-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:00

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	95000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	18000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	91000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-42391-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:15

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	130000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	15000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	19000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	56000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-42391-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 05:55

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	190000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	15000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	22000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	94000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-42391-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:20

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5600	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	39000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-42391-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:10

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	91000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7600	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	19000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	71000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-42391-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 09:00

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	94000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4800	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	58000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-42391-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 10:10

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	97000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	19000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	75000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-42391-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 14:37

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	86000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	63000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-42391-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 13:02

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	87000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7800	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	20000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	110000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-42391-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 11:12

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	83000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	24000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	64000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-42391-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 15:20

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	7800	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	26000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-42391-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 14:30

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	35000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	61000	100	3.8	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

ICV Source: MICVX_00030 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	ICV 180-137424/5 04/02/2015 13:52				CCV 180-137424/10 04/02/2015 14:20				CCV 180-137424/46 04/02/2015 17:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	39000		40000	98	49300		50000	99	50900		50000	102
Magnesium	37100		40000	93	47800		50000	96	47300		50000	95
Potassium	38600		40000	97	50400		50000	101	50500		50000	101
Sodium	38200		40000	96	50000		50000	100	49100		50000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

ICV Source: MICVX_00030 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	CCV 180-137424/58 04/02/2015 18:01				CCV 180-137424/70 04/02/2015 18:56				CCV 180-137424/81 04/02/2015 19:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	51000		50000	102	51400		50000	103	51000		50000	102
Magnesium	47600		50000	95	48100		50000	96	47800		50000	96
Potassium	50800		50000	102	51600		50000	103	51600		50000	103
Sodium	49100		50000	98	50000		50000	100	49100		50000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-137424/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00063

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	110		110	70-130
Potassium	100	123		123	70-130
Magnesium	100	99.6	J	100	70-130
Sodium	100	124		124	70-130

Lab Sample ID: CRI 180-137424/80 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00063

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	127		127	70-130
Potassium	100	93.9	J	94	70-130
Magnesium	100	102		102	70-130
Sodium	100	104		104	70-130

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-137424/6 04/02/2015 14:00		CCB1 180-137424/11 04/02/2015 14:28		CCB4 180-137424/47 04/02/2015 17:11		CCB5 180-137424/59 04/02/2015 18:09	
		Found	C	Found	C	Found	C	Found	C
Calcium	100	100	U	3.00	J	10.1	J	14.8	J
Magnesium	100	100	U	4.64	J	7.78	J	8.74	J
Potassium	100	25.0	J	39.4	J	100	U	100	U
Sodium	100	22.3	J	49.7	J	14.1	J	15.5	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB6 180-137424/71 04/02/2015 19:03		CCB7 180-137424/82 04/02/2015 20:01					
		Found	C	Found	C	Found	C	Found	C
Calcium	100	18.0	J	23.4	J				
Magnesium	100	10.1	J	11.9	J				
Potassium	100	100	U	100	U				
Sodium	100	18.1	J	18.9	J				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-137092/1-A

Instrument Code: X Batch No.: 137424

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	4.19	J		6020A
7440-09-7	Potassium	100	U		6020A
7439-95-4	Magnesium	100	U		6020A
7440-23-5	Sodium	100	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: ICSA 180-137424/8 Instrument ID: X

Lab File ID: X50402A.xml ICS Source: MICSAX_00064

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**100500**	**101**
Magnesium	**100000**	**95120**	**95**
Potassium	**100000**	**99160**	**99**
Sodium	**100000**	**98950**	**99**
Aluminum	*100000*	*94410*	*94*
Antimony		*-0.693*	
Arsenic		*-0.198*	
Barium		*0.210*	
Beryllium		*0.203*	
Boron		*0.0010*	
Cadmium		*2.33*	
Chromium		*0.523*	
Cobalt		*0.147*	
Copper		*2.88*	
Iron	*100000*	*97090*	*97*
Lead		*0.279*	
Manganese		*0.979*	
Molybdenum	*2000*	*2252*	*113*
Nickel		*0.0380*	
Selenium		*0.685*	
Silicon		*24.6*	
Silver		*0.0050*	
Strontium		*0.745*	
Thallium		*0.0210*	
Tin		*-2.11*	
Titanium	*2000*	*2147*	*107*
Vanadium		*-0.389*	
Zinc		*6.12*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Lab Sample ID: ICSAB 180-137424/9 Instrument ID: X

Lab File ID: X50402A.xml ICS Source: MICSABX_00068

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**100000**	**99227**	**99**
Magnesium	**100000**	**92637**	**93**
Potassium	**100000**	**97483**	**97**
Sodium	**100000**	**97777**	**98**
Aluminum	*100000*	*92247*	*92*
Antimony	*20.0*	*18.6*	*93*
Arsenic	*20.0*	*20.6*	*103*
Barium	*20.0*	*18.6*	*93*
Beryllium	*20.0*	*19.1*	*96*
Boron	*50.0*	*47.2*	*94*
Cadmium	*20.0*	*21.0*	*105*
Chromium	*20.0*	*18.8*	*94*
Cobalt	*20.0*	*18.7*	*93*
Copper	*20.0*	*21.0*	*105*
Iron	*100000*	*95617*	*96*
Lead	*20.0*	*19.6*	*98*
Manganese	*22.5*	*19.4*	*86*
Molybdenum	*2000*	*2263*	*113*
Nickel	*20.0*	*18.3*	*92*
Selenium	*50.0*	*52.4*	*105*
Silicon	*500*	*488*	*98*
Silver	*20.0*	*17.9*	*90*
Strontium	*25.0*	*20.5*	*82*
Thallium	*20.0*	*19.0*	*95*
Tin	*100*	*94.8*	*95*
Titanium	*2000*	*2084*	*104*
Vanadium	*20.0*	*17.9*	*89*
Zinc	*25.0*	*21.9*	*87*

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

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-137092/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	49900		100	80	120		6020A
Potassium	50000	49100		98	80	120		6020A
Magnesium	50000	43000		86	80	120		6020A
Sodium	50000	46700		93	80	120		6020A

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

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-42391-1

SDG Number:

Matrix: Water Instrument ID: X

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	44	100	2.8374
Magnesium	26	100	1.1665
Potassium	39	100	5.823
Sodium	23	100	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-42391-1

SDG Number:

Matrix: Water Instrument ID: X

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	44	100	2.8374
Magnesium	26	100	1.1665
Potassium	39	100	5.823
Sodium	23	100	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-42391-1

SDG No.:

Instrument ID: X Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		1500000	6020A
Potassium		450000	6020A
Magnesium		1500000	6020A
Sodium		450000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-137092/1-A	03/31/2015 11:18	137092		50	50
LCS 180-137092/2-A	03/31/2015 11:18	137092		50	50
180-42391-2	03/31/2015 11:18	137092		50	50
180-42391-3	03/31/2015 11:18	137092		50	50
180-42391-4	03/31/2015 11:18	137092		50	50
180-42391-5	03/31/2015 11:18	137092		50	50
180-42391-6	03/31/2015 11:18	137092		50	50
180-42391-7	03/31/2015 11:18	137092		50	50
180-42391-8	03/31/2015 11:18	137092		50	50
180-42391-9	03/31/2015 11:18	137092		50	50
180-42391-10	03/31/2015 11:18	137092		50	50
180-42391-11	03/31/2015 11:18	137092		50	50
180-42391-12	03/31/2015 11:18	137092		50	50
180-42391-13	03/31/2015 11:18	137092		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 04/02/2015 13:13 End Date: 04/02/2015 20:01

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-137424/1			13:13																										
STD1 180-137424/2 IC	1		13:40	X	X	X	X																						
STD2 180-137424/3 IC	1		13:44	X	X	X	X																						
STD3 180-137424/4 IC	1		13:48	X	X	X	X																						
ICV 180-137424/5	1		13:52	X	X	X	X																						
ICB 180-137424/6	1		14:00	X	X	X	X																						
CRI 180-137424/7	1		14:04	X	X	X	X																						
ICSA 180-137424/8	1		14:08	X	X	X	X																						
ICSAB 180-137424/9	1		14:13	X	X	X	X																						
CCV 180-137424/10	1		14:20	X	X	X	X																						
CCB1 180-137424/11	1		14:28	X	X	X	X																						
ZZZZZZ			14:32																										
ZZZZZZ			14:36																										
ZZZZZZ			14:41																										
ZZZZZZ			14:45																										
ZZZZZZ			14:49																										
ZZZZZZ			14:53																										
ZZZZZZ			14:58																										
ZZZZZZ			15:02																										
ZZZZZZ			15:06																										
ZZZZZZ			15:10																										
CCV 180-137424/22			15:15																										
CCB2 180-137424/23			15:22																										
ZZZZZZ			15:26																										
ZZZZZZ			15:31																										
ZZZZZZ			15:35																										
ZZZZZZ			15:39																										
ZZZZZZ			15:44																										
ZZZZZZ			15:48																										
ZZZZZZ			15:52																										
ZZZZZZ			15:56																										
ZZZZZZ			16:01																										
ZZZZZZ			16:05																										
CCV 180-137424/34			16:09																										
CCB3 180-137424/35			16:17																										
ZZZZZZ			16:21																										
ZZZZZZ			16:25																										
ZZZZZZ			16:30																										
ZZZZZZ			16:34																										
ZZZZZZ			16:38																										
ZZZZZZ			16:42																										
ZZZZZZ			16:47																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 04/02/2015 13:13 End Date: 04/02/2015 20:01

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			16:51																										
ZZZZZZ			16:55																										
ZZZZZZ			16:59																										
CCV 180-137424/46	1		17:04	X	X	X	X																						
CCB4 180-137424/47	1		17:11	X	X	X	X																						
ZZZZZZ			17:15																										
ZZZZZZ			17:20																										
ZZZZZZ			17:24																										
ZZZZZZ			17:28																										
ZZZZZZ			17:32																										
ZZZZZZ			17:37																										
MB 180-137092/1-A	1	R	17:44	X	X	X	X																						
LCS 180-137092/2-A	1	R	17:49	X	X	X	X																						
ZZZZZZ			17:53																										
ZZZZZZ			17:57																										
CCV 180-137424/58	1		18:01	X	X	X	X																						
CCB5 180-137424/59	1		18:09	X	X	X	X																						
ZZZZZZ			18:13																										
ZZZZZZ			18:17																										
ZZZZZZ			18:22																										
ZZZZZZ			18:26																										
ZZZZZZ			18:30																										
ZZZZZZ			18:35																										
180-42391-2	1	T	18:39	X	X	X	X																						
180-42391-3	1	T	18:43	X	X	X	X																						
180-42391-4	1	T	18:47	X	X	X	X																						
180-42391-5	1	T	18:52	X	X	X	X																						
CCV 180-137424/70	1		18:56	X	X	X	X																						
CCB6 180-137424/71	1		19:03	X	X	X	X																						
180-42391-6	1	T	19:08	X	X	X	X																						
180-42391-7	1	T	19:12	X	X	X	X																						
180-42391-8	1	T	19:16	X	X	X	X																						
180-42391-9	1	T	19:20	X	X	X	X																						
180-42391-10	1	T	19:25	X	X	X	X																						
180-42391-11	1	T	19:29	X	X	X	X																						
180-42391-12	1	T	19:33	X	X	X	X																						
180-42391-13	1	T	19:38	X	X	X	X																						
CRI 180-137424/80	1		19:49	X	X	X	X																						
CCV 180-137424/81	1		19:54	X	X	X	X																						
CCB7 180-137424/82	1		20:01	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 04/02/2015 13:13 End Date: 04/02/2015 20:01

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					

Prep Types:
R = Total Recoverable
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 04/02/2015 End Date: 04/02/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Y-89	Q	Element Rh-103	Q	Element In	Q
STD1 180-137424/2 IC	13:40	100		100		100		100		100	
STD2 180-137424/3 IC	13:44	89		90		89		86		86	
STD3 180-137424/4 IC	13:48	93		92		92		91		92	
ICV 180-137424/5	13:52	91		95		97		95		98	
ICB 180-137424/6	14:00	97		102		102		101		102	
CRI 180-137424/7	14:04	98		105		110		110		97	
ICSA 180-137424/8	14:08	77		85		90		88		90	
ICSAB 180-137424/9	14:13	76		86		85		88		92	
CCV 180-137424/10	14:20	86		99		104		101		105	
CCB1 180-137424/11	14:28	96		109		113		111		115	
CCV 180-137424/46	17:04	74		75		81		88		82	
CCB4 180-137424/47	17:11	81		79		84		90		87	
MB 180-137092/1-A	17:44	79		77		83		90		87	
LCS 180-137092/2-A	17:49	73		72		80		85		81	
CCV 180-137424/58	18:01	72		72		78		86		81	
CCB5 180-137424/59	18:09	79		76		79		86		82	
180-42391-2	18:39	72		72		82		86		84	
180-42391-3	18:43	71		70		74		77		75	
180-42391-4	18:47			71		78		81		79	
180-42391-5	18:52	72		71		80		84		82	
CCV 180-137424/70	18:56			71		77		84		79	
CCB6 180-137424/71	19:03	75		72		76		85		79	
180-42391-6	19:08					77		81		79	
180-42391-7	19:12	70				79		83		81	
180-42391-8	19:16	71				73		76		74	
180-42391-9	19:20	70		71		79		82		80	
180-42391-10	19:25	70		72		81		84		81	
180-42391-11	19:29			71		79		83		81	
180-42391-12	19:33					74		76		75	
180-42391-13	19:38			70		79		83		82	
CRI 180-137424/80	19:49	75		72		74		82			
CCV 180-137424/81	19:54	71		71		77		83		79	
CCB7 180-137424/82	20:01	75		74		79		88		81	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 04/02/2015 End Date: 04/02/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-137424/2 IC	13:40	100		100		100					
STD2 180-137424/3 IC	13:44	91		91		86					
STD3 180-137424/4 IC	13:48	94		94		93					
ICV 180-137424/5	13:52	101		101		101					
ICB 180-137424/6	14:00	102		102		103					
CRI 180-137424/7	14:04	103		113		116					
ICSA 180-137424/8	14:08	97		99		98					
ICSAB 180-137424/9	14:13	97		99		94					
CCV 180-137424/10	14:20	109		110		108					
CCB1 180-137424/11	14:28	113		114		117					
CCV 180-137424/46	17:04	91		93		92					
CCB4 180-137424/47	17:11	93		94		102					
MB 180-137092/1-A	17:44	93		95		101					
LCS 180-137092/2-A	17:49	93		95		91					
CCV 180-137424/58	18:01	89		92		94					
CCB5 180-137424/59	18:09	88		89		97					
180-42391-2	18:39	93		95		93					
180-42391-3	18:43	82		84		81					
180-42391-4	18:47	88		90		87					
180-42391-5	18:52	91		93		93					
CCV 180-137424/70	18:56	89		91		93					
CCB6 180-137424/71	19:03	85		87		96					
180-42391-6	19:08	89		91		91					
180-42391-7	19:12	91		93		92					
180-42391-8	19:16	82		84		79					
180-42391-9	19:20	88		90		89					
180-42391-10	19:25	91		93		92					
180-42391-11	19:29	90		92		91					
180-42391-12	19:33	82		84		83					
180-42391-13	19:38	90		92		93					
CRI 180-137424/80	19:49	75		84		91					
CCV 180-137424/81	19:54	87		90		98					
CCB7 180-137424/82	20:01	88		90		101					

Dilution Corrected Concentrations

STD1 1501659 4/2/2015 1:40:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:11	100.134%	-0.099	-0.326	0.063	0.000	-0.304	0.062	-0.053
2	13:41:38	99.202%	0.109	0.413	0.004	0.000	0.778	0.233	-0.098
3	13:42:05	100.664%	-0.010	-0.087	-0.067	0.000	-0.474	-0.295	0.151
x		100.000%	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000
σ		0.741%	0.104	0.377	0.065	0.000	0.679	0.269	0.133
%RSD		0.741	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:11	-0.062	0.390	0.000	0.035	-3.685	-0.484	99.382%	-0.054
2	13:41:38	0.020	0.307	0.000	-1.369	4.910	0.684	100.299%	-0.081
3	13:42:05	0.042	-0.697	0.000	1.334	-1.225	-0.201	100.319%	0.135
x		0.000	0.000	0.000	-0.000	-0.000	-0.000	100.000%	-0.000
σ		0.055	0.605	0.000	1.352	4.427	0.609	0.536%	0.118
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.536	0.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:11	-0.018	0.016	0.004	1.542	-1.156	-0.000	-0.013	-0.053
2	13:41:38	-0.042	-0.012	-0.003	-0.671	1.012	0.004	0.034	0.057
3	13:42:05	0.060	-0.005	-0.001	-0.871	0.144	-0.004	-0.021	-0.004
x		0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	0.000
σ		0.054	0.015	0.003	1.339	1.091	0.004	0.030	0.055
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:11	-0.066	0.052	-0.012	-0.008	0.270	0.082	0.000	-0.000
2	13:41:38	0.055	-0.028	-0.052	0.015	-0.160	-0.171	0.000	0.002
3	13:42:05	0.010	-0.024	0.064	-0.007	-0.110	0.088	0.000	-0.002
x		0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000
σ		0.061	0.045	0.059	0.013	0.235	0.148	0.000	0.002
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:11	99.679%	0.026	0.010	99.875%	0.011	-0.001	0.006	-0.035
2	13:41:38	99.841%	0.025	-0.001	100.120%	-0.008	-0.014	0.003	-0.011
3	13:42:05	100.479%	-0.050	-0.008	100.005%	-0.003	0.014	-0.009	0.047
x		100.000%	-0.000	-0.000	100.000%	0.000	-0.000	-0.000	0.000
σ		0.423%	0.044	0.009	0.123%	0.010	0.014	0.008	0.042
%RSD		0.423	0.000	0.000	0.123	0.000	0.000	0.000	0.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:11	98.538%	-0.060	-0.035	-0.056	0.004	-0.023	99.456%	99.201%
2	13:41:38	101.109%	-0.215	0.013	-0.012	-0.005	0.011	100.615%	100.563%
3	13:42:05	100.353%	0.275	0.022	0.068	0.001	0.012	99.928%	100.236%
x		100.000%	0.000	0.000	0.000	-0.000	0.000	100.000%	100.000%
σ		1.322%	0.251	0.031	0.063	0.005	0.020	0.583%	0.711%
%RSD		1.322	0.000	0.000	0.000	0.000	0.000	0.583	0.711
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:41:11	0.000	0.001	-0.010	-0.005	-0.004	100.745%		
2	13:41:38	0.000	-0.002	0.007	-0.001	0.002	101.443%		
3	13:42:05	-0.001	0.001	0.003	0.007	0.002	97.812%		
x		0.000	-0.000	-0.000	-0.000	0.000	100.000%		
σ		0.001	0.002	0.009	0.006	0.003	1.927%		
%RSD		0.000	0.000	0.000	0.000	0.000	1.927		

STD2 1487947 4/2/2015 1:44:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:44	87.845%	201.100	0.728	1.365	0.000	99920.000	100200.000	99740.000
2	13:45:11	89.606%	197.500	1.716	0.609	0.000	99720.000	99940.000	99810.000
3	13:45:37	89.465%	201.400	0.934	1.017	0.000	100400.000	99910.000	100400.000
x		88.972%	200.000	1.126	0.997	0.000	100000.000	100000.000	100000.000
σ		0.979%	2.185	0.521	0.378	0.000	323.600	130.500	384.800
%RSD		1.100	1.092	46.290	37.940	0.000	0.324	0.131	0.385
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:44	996.600	5.047	0.000	98890.000	98600.000	98660.000	89.293%	-0.094
2	13:45:11	998.000	4.627	0.000	100800.000	101800.000	101600.000	89.640%	-0.024
3	13:45:37	1005.000	5.006	0.000	100300.000	99600.000	99700.000	90.409%	0.040
x		1000.000	4.894	0.000	100000.000	100000.000	100000.000	89.781%	-0.026
σ		4.698	0.231	0.000	987.600	1638.000	1518.000	0.571%	0.067
%RSD		0.470	4.729	0.000	0.988	1.638	1.518	0.636	255.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:44	198.500	199.100	999.200	49720.000	49660.000	199.500	199.800	199.300
2	13:45:11	199.500	200.500	1003.000	50350.000	50160.000	200.700	200.600	200.700
3	13:45:37	202.100	200.400	998.200	49930.000	50170.000	199.800	199.600	200.100
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		1.852	0.791	2.278	323.100	290.400	0.594	0.512	0.709
%RSD		0.926	0.395	0.228	0.646	0.581	0.297	0.256	0.354
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:44	199.200	198.500	198.700	198.600	199.700	199.200	0.000	198.800
2	13:45:11	199.000	199.700	198.600	200.900	200.000	201.300	0.000	199.200
3	13:45:37	201.800	201.800	202.700	200.500	200.300	199.500	0.000	202.100
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		1.557	1.658	2.309	1.217	0.306	1.158	0.000	1.793
%RSD		0.778	0.829	1.154	0.608	0.153	0.579	0.000	0.897
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:44	87.438%	-0.005	-0.096	84.923%	200.600	200.200	199.200	199.300
2	13:45:11	88.500%	-0.125	0.038	85.591%	200.800	201.700	201.300	204.800
3	13:45:37	89.575%	-0.010	-0.022	86.375%	198.500	198.100	199.500	195.900
x		88.504%	-0.046	-0.027	85.630%	200.000	200.000	200.000	200.000
σ		1.069%	0.068	0.067	0.727%	1.266	1.781	1.142	4.479
%RSD		1.207	145.900	250.800	0.849	0.633	0.890	0.571	2.239
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:44	84.965%	-1.124	-0.167	-0.175	198.600	199.500	89.852%	90.229%
2	13:45:11	85.404%	-0.963	-0.153	-0.144	200.700	200.700	92.396%	91.231%
3	13:45:37	87.444%	-0.753	-0.167	-0.134	200.700	199.900	90.264%	92.641%
x		85.938%	-0.947	-0.163	-0.151	200.000	200.000	90.837%	91.367%
σ		1.323%	0.186	0.008	0.022	1.219	0.603	1.365%	1.212%
%RSD		1.539	19.670	4.989	14.320	0.610	0.301	1.503	1.326
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:44:44	194.500	194.400	193.500	194.600	193.500	87.656%		
2	13:45:11	203.000	202.700	204.700	201.900	204.900	84.177%		
3	13:45:37	202.400	203.000	201.800	203.500	201.700	84.749%		
x		200.000	200.000	200.000	200.000	200.000	85.527%		
σ		4.736	4.868	5.849	4.768	5.880	1.866%		
%RSD		2.368	2.434	2.924	2.384	2.940	2.182		

STD3 1487948 4/2/2015 1:48:33 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:59	92.831%	0.263	195.300	198.100	0.000	107.800	70.250	74.980
2	13:49:25	93.025%	0.077	203.300	201.400	0.000	110.500	77.330	74.320
3	13:49:52	93.320%	0.091	201.400	200.500	0.000	108.200	75.660	74.560
x		93.059%	0.144	200.000	200.000	0.000	108.800	74.410	74.620
σ		0.246%	0.103	4.219	1.691	0.000	1.425	3.701	0.338
%RSD		0.265	71.850	2.110	0.845	0.000	1.309	4.974	0.453
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:59	8.233	9929.000	0.000	103.900	114.300	168.100	91.736%	195.200
2	13:49:25	8.313	10060.000	0.000	98.170	97.690	166.800	91.735%	204.200
3	13:49:52	8.061	10010.000	0.000	90.460	96.800	167.700	93.231%	200.500
x		8.203	10000.000	0.000	97.530	102.900	167.500	92.234%	200.000
σ		0.129	65.910	0.000	6.767	9.851	0.697	0.863%	4.533
%RSD		1.571	0.659	0.000	6.939	9.571	0.416	0.936	2.266
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:59	0.200	0.195	1.008	81.240	83.650	0.207	0.208	0.421
2	13:49:25	0.093	0.219	1.013	70.190	64.330	0.130	0.146	0.274
3	13:49:52	0.056	0.212	1.021	62.580	54.700	0.165	0.129	0.437
x		0.116	0.209	1.014	71.340	67.560	0.167	0.161	0.377
σ		0.075	0.013	0.007	9.381	14.740	0.039	0.042	0.090
%RSD		64.390	6.070	0.643	13.150	21.820	23.140	26.010	23.840
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:59	0.368	0.948	0.939	0.037	1.018	0.282	0.000	0.312
2	13:49:25	0.435	1.046	1.008	0.069	0.249	-0.533	0.000	0.295
3	13:49:52	0.349	0.981	0.862	0.104	-0.333	0.475	0.000	0.342
x		0.384	0.991	0.937	0.070	0.311	0.075	0.000	0.316
σ		0.045	0.050	0.073	0.033	0.677	0.535	0.000	0.024
%RSD		11.800	5.041	7.805	47.360	217.600	716.800	0.000	7.617
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:59	90.170%	195.000	194.100	90.095%	0.424	0.387	0.363	4.395
2	13:49:25	91.763%	203.200	201.600	90.866%	0.435	0.422	0.403	-0.650
3	13:49:52	92.653%	201.700	204.200	92.015%	0.391	0.420	0.376	-0.479
x		91.529%	200.000	200.000	90.992%	0.417	0.410	0.381	1.089
σ		1.258%	4.364	5.245	0.966%	0.023	0.019	0.020	2.864
%RSD		1.374	2.182	2.623	1.061	5.435	4.720	5.222	263.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:59	89.492%	199.500	198.100	199.500	0.154	0.500	93.345%	91.504%
2	13:49:25	93.772%	199.400	200.100	198.700	0.352	0.498	93.369%	95.279%
3	13:49:52	94.022%	201.000	201.700	201.800	0.264	0.461	94.807%	95.406%
x		92.429%	200.000	200.000	200.000	0.256	0.486	93.840%	94.063%
σ		2.546%	0.905	1.802	1.597	0.099	0.022	0.838%	2.217%
%RSD		2.755	0.453	0.901	0.799	38.720	4.447	0.893	2.357
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:48:59	0.194	0.186	0.215	0.203	0.213	91.969%		
2	13:49:25	0.168	0.159	0.201	0.165	0.196	93.572%		
3	13:49:52	0.192	0.159	0.215	0.203	0.207	92.546%		
x		0.184	0.168	0.210	0.190	0.205	92.696%		
σ		0.014	0.016	0.008	0.022	0.008	0.812%		
%RSD		7.780	9.516	3.764	11.640	4.107	0.876		

ICV 1495536 4/2/2015 1:52:48 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:14	90.033%	76.870	85.030	85.160	0.000	38010.000	36970.000	36800.000
2	13:53:41	92.229%	77.440	77.880	85.070	0.000	38360.000	37490.000	37340.000
3	13:54:07	92.010%	77.270	85.020	83.440	0.000	38240.000	37410.000	37300.000
x		91.424%	96.495%	103.301%	105.696%	0.000	95.506%	93.227%	92.862%
σ		1.210%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.323	0.378	4.993	1.143	0.000	0.462	0.749	0.809
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:14	368.100	4377.000	0.000	38030.000	37100.000	38190.000	93.224%	77.570
2	13:53:41	376.000	4500.000	0.000	39060.000	38620.000	39460.000	95.285%	78.650
3	13:54:07	374.700	4533.000	0.000	38770.000	37900.000	39390.000	96.197%	78.990
x		93.230%	111.749%	0.000	96.549%	94.687%	97.535%	94.902%	98.001%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.523%	n/a
%RSD		1.144	1.835	0.000	1.375	2.008	1.828	1.605	0.948
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:14	74.580	76.520	384.200	18480.000	19330.000	73.810	75.100	74.810
2	13:53:41	75.950	77.430	395.500	19020.000	19790.000	75.180	77.260	76.970
3	13:54:07	78.120	77.430	396.500	19050.000	20110.000	75.670	77.770	76.480
x		95.269%	96.406%	98.018%	94.251%	98.719%	93.608%	95.887%	95.109%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.341	0.680	1.745	1.681	1.990	1.287	1.845	1.484
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:14	74.820	75.300	73.790	74.170	75.660	76.920	0.000	72.990
2	13:53:41	76.320	74.470	76.010	78.010	76.750	77.450	0.000	76.080
3	13:54:07	76.870	76.090	77.240	75.630	78.530	78.300	0.000	75.640
x		95.004%	94.109%	94.601%	94.922%	96.226%	96.949%	0.000	93.634%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.397	1.074	2.313	2.556	1.880	0.894	0.000	2.232
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:14	94.808%	76.910	78.390	91.723%	75.250	75.690	74.380	72.920
2	13:53:41	97.094%	79.190	79.030	95.902%	76.780	76.770	77.750	75.430
3	13:54:07	99.346%	81.890	81.190	97.162%	76.060	76.050	77.650	73.990
x		97.083%	99.163%	99.419%	94.929%	95.040%	95.213%	95.739%	92.637%
σ		2.269%	n/a	n/a	2.847%	n/a	n/a	n/a	n/a
%RSD		2.337	3.138	1.844	2.999	1.007	0.724	2.504	1.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:14	95.545%	74.740	76.430	75.660	74.840	74.150	98.751%	97.841%
2	13:53:41	96.669%	79.360	77.080	78.480	77.770	77.010	101.337%	101.453%
3	13:54:07	100.927%	77.040	76.960	77.330	76.770	75.770	102.229%	104.828%
x		97.714%	96.308%	96.030%	96.446%	95.578%	94.554%	100.772%	101.374%
σ		2.839%	n/a	n/a	n/a	n/a	n/a	1.807%	3.494%
%RSD		2.905	2.995	0.451	1.835	1.949	1.890	1.793	3.447
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:53:14	74.790	75.810	74.040	72.120	72.730	100.264%		
2	13:53:41	80.060	80.460	79.480	76.620	77.560	99.448%		
3	13:54:07	77.920	79.440	78.060	76.640	76.520	103.165%		
x		96.989%	98.212%	96.488%	93.908%	94.508%	100.959%		
σ		n/a	n/a	n/a	n/a	n/a	1.954%		
%RSD		3.419	3.109	3.652	3.469	3.362	1.935		

ICB 4/2/2015 2:00:19 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	96.671%	0.126	-0.295	-0.453	0.000	21.930	0.291	0.782
2	14:01:12	96.244%	-0.047	-0.280	-0.505	0.000	22.210	-0.020	0.721
3	14:01:39	97.154%	-0.148	-0.044	-0.680	0.000	22.880	0.552	0.531
x		96.690%	-0.023	-0.206	-0.546	0.000	22.340	0.274	0.678
σ		0.455%	0.139	0.141	0.119	0.000	0.486	0.286	0.131
%RSD		0.471	608.700	68.140	21.740	0.000	2.176	104.300	19.320

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	-0.746	-0.236	0.000	25.970	19.420	0.788	101.280%	-0.768
2	14:01:12	-0.691	-0.089	0.000	26.520	1.011	-0.945	101.826%	-0.754
3	14:01:39	-0.815	-1.691	0.000	22.500	4.034	0.534	101.733%	-0.688
x		-0.751	-0.672	0.000	25.000	8.154	0.126	101.613%	-0.737
σ		0.062	0.886	0.000	2.183	9.870	0.936	0.292%	0.042
%RSD		8.263	131.800	0.000	8.734	121.100	745.100	0.287	5.761

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	0.011	0.055	0.036	2.620	4.523	0.007	-0.002	0.031
2	14:01:12	-0.034	-0.048	-0.015	1.577	3.409	0.004	-0.040	-0.040
3	14:01:39	0.061	0.005	-0.001	1.572	1.228	0.004	-0.056	0.107
x		0.013	0.004	0.007	1.923	3.053	0.005	-0.033	0.033
σ		0.048	0.052	0.026	0.604	1.676	0.002	0.028	0.073
%RSD		377.800	1247.000	376.000	31.390	54.880	35.290	84.660	225.100

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	-0.154	0.091	-0.017	0.004	0.738	-0.049	0.000	0.003
2	14:01:12	-0.093	0.060	0.020	-0.409	-0.144	-0.685	0.000	0.004
3	14:01:39	0.046	0.014	-0.092	-0.123	0.289	-0.262	0.000	-0.001
x		-0.067	0.055	-0.030	-0.176	0.294	-0.332	0.000	0.002
σ		0.103	0.039	0.057	0.211	0.441	0.323	0.000	0.003
%RSD		153.400	70.870	192.800	120.200	149.900	97.390	0.000	158.800

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	99.400%	-0.128	-0.128	99.446%	-0.063	-0.051	-0.055	-0.070
2	14:01:12	101.641%	-0.141	-0.156	101.545%	-0.055	-0.052	-0.028	0.014
3	14:01:39	103.949%	-0.088	-0.146	102.830%	-0.081	-0.055	0.025	-0.004
x		101.664%	-0.119	-0.144	101.274%	-0.067	-0.053	-0.020	-0.020
σ		2.275%	0.028	0.014	1.709%	0.013	0.002	0.041	0.044
%RSD		2.237	23.290	9.769	1.687	20.090	4.146	208.600	218.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	99.506%	-2.330	-0.760	-0.790	-0.029	-0.006	99.907%	99.876%
2	14:01:12	102.468%	-2.374	-0.767	-0.788	-0.064	0.004	101.914%	101.931%
3	14:01:39	103.721%	-2.285	-0.776	-0.769	-0.021	0.036	103.878%	104.712%
x		101.898%	-2.330	-0.768	-0.782	-0.038	0.012	101.900%	102.173%
σ		2.164%	0.045	0.008	0.011	0.023	0.022	1.986%	2.427%
%RSD		2.124	1.911	1.053	1.415	60.370	190.900	1.949	2.375

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:46	0.013	0.005	-0.021	-0.009	-0.012	101.786%
2	14:01:12	0.008	0.002	-0.009	-0.029	-0.009	102.209%
3	14:01:39	-0.003	-0.002	-0.019	-0.014	-0.007	103.738%
x		0.006	0.002	-0.016	-0.017	-0.009	102.577%
σ		0.008	0.004	0.007	0.010	0.003	1.027%
%RSD		129.400	234.500	41.470	60.600	27.390	1.001

CRI 1519288 4/2/2015 2:04:37 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:05:03	96.540%	0.829	3.591	4.532	0.000	123.500	100.800	100.700
2	14:05:30	98.259%	0.819	5.771	4.123	0.000	123.300	101.800	97.490
3	14:05:56	98.690%	0.938	4.755	4.463	0.000	123.900	102.000	100.500
x		97.830%	86.181%	94.113%	87.448%	0.000	154.464%	101.527%	99.576%
σ		1.138%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.163	7.670	23.170	5.010	0.000	0.256	0.617	1.816
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:05:03	30.470	479.300	0.000	118.300	141.200	107.300	103.723%	4.383
2	14:05:30	31.490	476.900	0.000	123.700	117.200	114.100	104.765%	4.341
3	14:05:56	31.270	479.300	0.000	127.200	109.700	107.100	104.905%	4.887
x		103.579%	95.695%	0.000	123.097%	122.716%	109.507%	104.464%	90.745%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.646%	n/a
%RSD		1.726	0.290	0.000	3.655	13.430	3.636	0.618	6.691
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:05:03	1.071	2.034	5.027	53.370	55.860	0.547	1.071	1.922
2	14:05:30	1.110	2.039	5.271	54.400	55.810	0.542	0.904	2.225
3	14:05:56	0.949	1.999	5.206	54.440	54.880	0.533	0.995	2.199
x		104.351%	101.188%	103.356%	108.138%	111.031%	108.179%	98.976%	105.772%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		8.027	1.081	2.439	1.114	0.996	1.256	8.456	7.948
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:05:03	1.894	5.607	5.858	0.866	5.039	4.545	0.000	4.869
2	14:05:30	2.188	5.797	5.563	0.923	6.356	4.492	0.000	4.901
3	14:05:56	1.939	5.246	6.155	0.776	5.133	3.365	0.000	4.975
x		100.345%	111.007%	117.174%	85.513%	110.185%	82.678%	0.000	98.300%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		7.897	5.044	5.048	8.668	13.330	16.120	0.000	1.103
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:05:03	107.841%	4.641	4.574	109.057%	0.899	0.971	0.971	1.141
2	14:05:30	109.998%	4.651	4.837	109.983%	0.990	1.021	1.145	1.029
3	14:05:56	111.584%	4.674	4.742	110.546%	1.017	1.016	1.203	1.092
x		109.808%	93.106%	94.349%	109.862%	96.848%	100.252%	110.615%	108.729%
σ		1.879%	n/a	n/a	0.752%	n/a	n/a	n/a	n/a
%RSD		1.711	0.367	2.826	0.684	6.404	2.715	10.940	5.172
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:05:03	96.267%	3.734	1.447	1.403	11.150	10.960	101.102%	111.303%
2	14:05:30	97.897%	3.956	1.394	1.447	11.670	11.300	103.167%	113.380%
3	14:05:56	97.742%	4.197	1.535	1.356	11.170	11.710	105.243%	114.330%
x		97.302%	79.249%	72.921%	70.103%	113.307%	113.240%	103.171%	113.004%
σ		0.900%	n/a	n/a	n/a	n/a	n/a	2.071%	1.548%
%RSD		0.925	5.837	4.881	3.226	2.559	3.347	2.007	1.370
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:05:03	1.048	1.023	0.929	0.880	0.911	116.499%		
2	14:05:30	1.026	0.995	0.999	1.023	1.023	117.149%		
3	14:05:56	1.018	0.994	1.053	0.999	1.038	115.417%		
x		103.071%	100.389%	99.369%	96.725%	99.072%	116.355%		
σ		n/a	n/a	n/a	n/a	n/a	0.875%		
%RSD		1.538	1.625	6.266	7.932	7.031	0.752		

ICSA 1501693 4/2/2015 2:08:57 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:09:24	76.434%	0.249	1.556	-0.148	0.000	98360.000	94660.000	94040.000
2	14:09:51	76.486%	0.168	0.068	0.392	0.000	99360.000	96120.000	95880.000
3	14:10:17	77.980%	0.193	0.215	-0.242	0.000	99140.000	95600.000	95460.000
x		76.967%	0.203	0.613	0.001	0.000	98950.000	95460.000	95120.000
σ		0.878%	0.042	0.820	0.343	0.000	524.300	739.600	963.600
%RSD		1.140	20.570	133.800	64080.000	0.000	0.530	0.775	1.013
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:09:24	92340.000	24.570	0.000	97920.000	96080.000	98120.000	84.436%	2104.000
2	14:09:51	95310.000	24.310	0.000	99110.000	99410.000	101200.000	85.271%	2155.000
3	14:10:17	95570.000	25.030	0.000	100500.000	100900.000	102100.000	85.113%	2183.000
x		94410.000	24.640	0.000	99160.000	98790.000	100500.000	84.940%	2147.000
σ		1794.000	0.368	0.000	1269.000	2463.000	2102.000	0.444%	39.810
%RSD		1.900	1.492	0.000	1.279	2.493	2.092	0.522	1.854
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:09:24	-0.194	0.482	0.938	95270.000	96270.000	0.142	0.089	1.965
2	14:09:51	-0.458	0.585	0.968	97800.000	98930.000	0.159	0.043	1.940
3	14:10:17	-0.517	0.503	1.030	98220.000	98760.000	0.141	-0.019	2.109
x		-0.389	0.523	0.979	97090.000	97990.000	0.147	0.038	2.004
σ		0.172	0.054	0.047	1598.000	1488.000	0.010	0.054	0.091
%RSD		44.200	10.400	4.775	1.646	1.518	6.901	143.900	4.548
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:09:24	2.967	6.023	4.919	0.028	0.252	-0.047	0.000	0.767
2	14:09:51	2.733	6.564	4.855	-0.447	0.536	-0.402	0.000	0.750
3	14:10:17	2.934	5.780	4.930	-0.174	1.269	-0.092	0.000	0.717
x		2.878	6.122	4.901	-0.198	0.685	-0.180	0.000	0.745
σ		0.127	0.401	0.041	0.238	0.525	0.193	0.000	0.025
%RSD		4.396	6.552	0.832	120.500	76.590	107.000	0.000	3.417
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:09:24	90.332%	2106.000	2213.000	86.289%	0.018	-0.015	2.172	0.515
2	14:09:51	90.609%	2130.000	2205.000	93.486%	-0.006	0.009	2.377	0.331
3	14:10:17	89.867%	2224.000	2338.000	85.260%	0.002	0.014	2.442	5.455
x		90.269%	2153.000	2252.000	88.345%	0.005	0.003	2.331	2.100
σ		0.375%	62.450	74.580	4.482%	0.012	0.015	0.141	2.906
%RSD		0.415	2.900	3.311	5.074	255.300	511.700	6.052	138.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:09:24	91.320%	-2.150	-0.695	-0.705	0.111	0.206	96.663%	99.272%
2	14:09:51	91.014%	-2.115	-0.720	-0.658	0.123	0.225	96.618%	99.562%
3	14:10:17	88.916%	-2.049	-0.662	-0.655	0.150	0.200	96.496%	97.289%
x		90.417%	-2.105	-0.693	-0.672	0.128	0.210	96.592%	98.708%
σ		1.309%	0.051	0.029	0.028	0.020	0.013	0.086%	1.237%
%RSD		1.447	2.436	4.189	4.182	15.700	6.192	0.089	1.253
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:09:24	0.021	0.024	0.255	0.233	0.267	104.729%		
2	14:09:51	0.034	0.020	0.273	0.269	0.278	98.237%		
3	14:10:17	0.027	0.017	0.281	0.283	0.291	90.200%		
x		0.027	0.021	0.270	0.261	0.279	97.722%		
σ		0.007	0.003	0.014	0.026	0.012	7.278%		
%RSD		24.100	16.310	5.079	9.808	4.403	7.448		

ICSAB 1501694 4/2/2015 2:13:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:44	75.213%	19.110	47.850	49.230	0.000	97740.000	92780.000	91990.000
2	14:14:11	75.817%	19.240	44.020	47.210	0.000	97870.000	93500.000	93180.000
3	14:14:37	76.217%	19.090	47.960	45.250	0.000	97720.000	92630.000	92740.000
x		75.749%	95.726%	93.221%	94.457%	0.000	97.777%	92.969%	92.638%
σ		0.505%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.667	0.436	4.811	4.218	0.000	0.087	0.499	0.648
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:44	91110.000	489.900	0.000	96750.000	95410.000	97600.000	85.458%	2039.000
2	14:14:11	92940.000	491.500	0.000	98120.000	98120.000	98880.000	85.607%	2117.000
3	14:14:37	92690.000	482.900	0.000	97580.000	98130.000	101200.000	86.577%	2097.000
x		92.248%	97.618%	0.000	97.481%	97.219%	99.210%	85.881%	104.218%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.607%	n/a
%RSD		1.074	0.927	0.000	0.709	1.610	1.813	0.707	1.932
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:44	17.620	18.390	18.900	93580.000	95140.000	18.230	18.040	19.630
2	14:14:11	18.060	18.930	19.560	96600.000	98010.000	18.970	18.610	20.270
3	14:14:37	17.960	19.060	19.790	96670.000	98130.000	18.800	18.360	20.060
x		89.394%	93.968%	97.076%	95.614%	97.093%	93.327%	91.674%	99.947%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.293	1.898	2.387	1.847	1.741	2.076	1.569	1.627
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:44	20.590	21.660	20.500	21.710	50.170	53.890	0.000	19.890
2	14:14:11	20.770	22.260	21.260	20.360	53.970	51.320	0.000	20.860
3	14:14:37	21.620	21.650	20.950	19.630	53.000	52.280	0.000	20.780
x		104.956%	87.424%	83.620%	102.834%	104.760%	104.994%	0.000	102.567%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.614	1.612	1.838	5.119	3.765	2.481	0.000	2.618
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:44	83.595%	2123.000	2221.000	84.326%	18.090	17.960	20.600	18.270
2	14:14:11	84.966%	2162.000	2189.000	94.115%	17.190	17.240	20.490	17.980
3	14:14:37	86.003%	2255.000	2379.000	86.157%	18.420	17.940	21.930	18.470
x		84.855%	109.017%	113.152%	88.199%	89.506%	88.560%	105.032%	91.195%
σ		1.208%	n/a	n/a	5.204%	n/a	n/a	n/a	n/a
%RSD		1.423	3.114	4.494	5.900	3.538	2.332	3.823	1.330
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:44	90.291%	91.680	18.310	18.050	18.940	18.490	95.574%	96.527%
2	14:14:11	92.258%	96.150	18.560	18.880	19.260	18.790	96.343%	98.712%
3	14:14:37	93.056%	96.440	18.950	18.780	18.860	18.620	99.229%	101.601%
x		91.868%	94.758%	93.039%	92.838%	95.096%	93.151%	97.049%	98.947%
σ		1.423%	n/a	n/a	n/a	n/a	n/a	1.927%	2.545%
%RSD		1.549	2.814	1.722	2.449	1.114	0.811	1.985	2.572
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:13:44	18.160	18.200	19.000	19.300	18.910	93.760%		
2	14:14:11	19.340	19.140	20.030	20.220	19.930	92.622%		
3	14:14:37	19.370	19.600	19.990	20.400	19.880	94.737%		
x		94.778%	94.898%	98.379%	99.850%	97.865%	93.706%		
σ		n/a	n/a	n/a	n/a	n/a	1.058%		
%RSD		3.624	3.767	2.966	2.957	2.957	1.130		

CCV 1487954 4/2/2015 2:20:46 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:12	87.036%	95.830	98.210	97.430	0.000	48580.000	46720.000	46240.000
2	14:21:39	84.869%	102.500	101.000	101.000	0.000	50690.000	48700.000	48530.000
3	14:22:06	85.846%	104.400	101.400	103.500	0.000	50810.000	49000.000	48610.000
x		85.917%	100.888%	100.196%	100.636%	0.000	100.054%	96.279%	95.583%
σ		1.085%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.263	4.444	1.737	3.040	0.000	2.500	2.571	2.815
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:12	482.900	4881.000	0.000	49690.000	47620.000	48350.000	98.558%	99.090
2	14:21:39	501.100	5020.000	0.000	50390.000	49300.000	50010.000	98.953%	102.500
3	14:22:06	502.600	5010.000	0.000	51000.000	49530.000	49550.000	99.520%	99.460
x		99.110%	99.413%	0.000	100.719%	97.635%	98.611%	99.010%	100.351%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.483%	n/a
%RSD		2.212	1.562	0.000	1.308	2.134	1.739	0.488	1.863
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:12	94.350	93.160	495.600	23360.000	24930.000	92.670	93.810	92.570
2	14:21:39	98.190	97.990	516.300	24120.000	26120.000	94.750	95.880	97.190
3	14:22:06	98.000	97.450	515.800	24560.000	26120.000	95.520	97.320	97.020
x		96.848%	96.200%	101.847%	96.052%	102.880%	94.316%	95.669%	95.594%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.239	2.747	2.324	2.524	2.668	1.563	1.847	2.742
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:12	93.120	95.490	95.620	96.430	98.280	96.100	0.000	95.950
2	14:21:39	97.490	99.120	100.800	98.920	99.420	100.900	0.000	100.000
3	14:22:06	97.670	98.520	99.460	98.480	103.900	100.400	0.000	100.200
x		96.094%	97.712%	98.624%	97.941%	100.538%	99.123%	0.000	98.721%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.686	1.989	2.718	1.358	2.963	2.652	0.000	2.435
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:12	103.886%	97.660	98.320	100.424%	98.950	98.090	97.510	94.840
2	14:21:39	104.479%	103.000	104.100	100.756%	99.310	99.570	100.300	95.160
3	14:22:06	104.096%	105.000	106.900	100.670%	101.000	100.000	100.900	97.630
x		104.154%	101.882%	103.091%	100.617%	99.758%	99.221%	99.574%	95.875%
σ		0.300%	n/a	n/a	0.172%	n/a	n/a	n/a	n/a
%RSD		0.288	3.727	4.224	0.171	1.101	1.008	1.820	1.595
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:12	103.273%	95.690	96.750	97.820	96.390	95.220	108.487%	108.830%
2	14:21:39	106.582%	96.420	98.780	97.830	98.660	98.780	108.351%	111.565%
3	14:22:06	104.277%	99.840	100.900	101.100	98.900	99.840	108.708%	109.837%
x		104.711%	97.316%	98.797%	98.926%	97.983%	97.946%	108.515%	110.078%
σ		1.696%	n/a	n/a	n/a	n/a	n/a	0.180%	1.383%
%RSD		1.620	2.279	2.079	1.925	1.413	2.470	0.166	1.257
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:21:12	96.620	98.100	96.410	96.910	95.840	110.016%		
2	14:21:39	99.190	100.500	98.430	101.000	98.580	109.970%		
3	14:22:06	103.200	103.800	104.100	104.900	103.900	104.458%		
x		99.672%	100.799%	99.662%	100.945%	99.429%	108.148%		
σ		n/a	n/a	n/a	n/a	n/a	3.196%		
%RSD		3.331	2.835	4.025	3.972	4.106	2.955		

CCB1 4/2/2015 2:28:12 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	95.483%	-0.029	-0.546	-0.584	0.000	49.750	5.246	5.664
2	14:29:06	96.775%	0.090	-0.867	-0.748	0.000	48.620	3.948	4.253
3	14:29:32	95.743%	-0.063	-0.015	-1.125	0.000	50.620	4.161	4.010
x		96.000%	-0.001	-0.476	-0.819	0.000	49.660	4.451	4.643
σ		0.684%	0.080	0.430	0.277	0.000	1.004	0.696	0.893
%RSD		0.712	10510.000	90.410	33.850	0.000	2.022	15.640	19.240

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	0.254	-0.911	0.000	41.350	4.637	2.190	107.757%	-0.592
2	14:29:06	0.077	-3.719	0.000	35.360	-1.944	2.408	109.251%	-0.616
3	14:29:32	0.192	-3.186	0.000	41.380	-4.537	4.413	108.926%	-0.584
x		0.175	-2.605	0.000	39.360	-0.615	3.004	108.645%	-0.597
σ		0.090	1.491	0.000	3.466	4.729	1.225	0.786%	0.016
%RSD		51.490	57.230	0.000	8.804	769.300	40.780	0.723	2.743

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	0.041	0.055	0.090	9.655	3.199	-0.001	-0.048	-0.086
2	14:29:06	-0.039	0.023	0.059	8.955	5.353	0.005	-0.038	-0.105
3	14:29:32	0.002	0.001	0.062	7.767	3.112	0.014	-0.022	-0.013
x		0.001	0.026	0.070	8.792	3.888	0.006	-0.036	-0.068
σ		0.040	0.027	0.017	0.954	1.269	0.008	0.013	0.049
%RSD		2980.000	102.300	24.580	10.850	32.640	130.600	35.500	71.650

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	-0.270	0.002	0.049	-0.228	-0.071	-0.755	0.000	0.019
2	14:29:06	-0.072	-0.010	0.017	-0.397	-0.215	-0.629	0.000	0.027
3	14:29:32	-0.006	0.105	0.011	-0.279	-0.259	-1.043	0.000	0.020
x		-0.116	0.032	0.026	-0.301	-0.182	-0.809	0.000	0.022
σ		0.137	0.063	0.020	0.086	0.098	0.213	0.000	0.004
%RSD		118.200	195.300	78.860	28.680	54.160	26.270	0.000	20.250

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	110.648%	0.160	0.216	109.369%	-0.085	-0.082	-0.029	-0.066
2	14:29:06	113.053%	0.228	0.281	111.556%	-0.071	-0.081	-0.016	-0.041
3	14:29:32	116.249%	0.214	0.214	113.158%	-0.068	-0.100	-0.021	-0.062
x		113.317%	0.201	0.237	111.361%	-0.075	-0.088	-0.022	-0.056
σ		2.810%	0.036	0.038	1.902%	0.009	0.011	0.006	0.013
%RSD		2.480	18.010	15.900	1.708	12.340	12.210	29.390	23.990

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	112.561%	-2.689	-0.789	-0.807	-0.057	-0.007	110.124%	111.012%
2	14:29:06	115.278%	-2.722	-0.785	-0.800	-0.006	-0.008	114.054%	114.713%
3	14:29:32	117.093%	-2.555	-0.817	-0.812	-0.009	0.011	115.999%	116.110%
x		114.977%	-2.655	-0.797	-0.806	-0.024	-0.001	113.392%	113.945%
σ		2.281%	0.088	0.018	0.006	0.028	0.011	2.993%	2.634%
%RSD		1.984	3.332	2.238	0.786	117.400	846.000	2.640	2.312

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:39	0.005	0.005	-0.012	-0.013	-0.005	116.437%
2	14:29:06	0.000	0.001	-0.011	-0.003	-0.001	117.231%
3	14:29:32	0.009	0.007	-0.017	-0.011	0.000	116.517%
x		0.005	0.004	-0.013	-0.009	-0.002	116.728%
σ		0.005	0.003	0.003	0.005	0.003	0.437%
%RSD		95.210	64.020	24.430	57.680	144.700	0.375

MB 180-137094/1-A 4/2/2015 2:32:33 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:59	97.428%	-0.010	-0.713	-0.858	0.000	46.100	1.954	2.552
2	14:33:26	97.621%	0.020	-0.989	-0.921	0.000	46.320	3.477	2.503
3	14:33:52	98.745%	-0.097	-0.412	-1.151	0.000	45.690	2.467	1.999
x		97.932%	-0.029	-0.704	-0.976	0.000	46.040	2.632	2.351
σ		0.711%	0.061	0.289	0.154	0.000	0.316	0.775	0.306
%RSD		0.726	209.200	40.970	15.770	0.000	0.687	29.430	13.010
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:59	0.230	-2.308	0.000	36.910	8.566	4.619	110.302%	-0.666
2	14:33:26	0.301	-2.221	0.000	38.510	2.546	3.676	111.074%	-0.565
3	14:33:52	0.314	-1.970	0.000	34.370	18.050	4.671	112.469%	-0.440
x		0.282	-2.166	0.000	36.600	9.721	4.322	111.282%	-0.557
σ		0.045	0.175	0.000	2.086	7.816	0.560	1.098%	0.114
%RSD		16.040	8.090	0.000	5.699	80.410	12.950	0.987	20.380
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:59	0.005	0.009	0.048	3.637	0.574	0.005	-0.019	-0.089
2	14:33:26	0.059	0.024	0.066	3.209	-0.456	-0.002	-0.089	-0.062
3	14:33:52	0.016	-0.008	0.012	1.456	1.459	-0.001	-0.062	-0.093
x		0.027	0.008	0.042	2.767	0.526	0.001	-0.056	-0.081
σ		0.029	0.016	0.027	1.156	0.958	0.004	0.035	0.017
%RSD		107.700	194.800	65.040	41.760	182.200	427.600	61.950	21.090
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:59	-0.169	0.164	0.108	-0.308	0.644	-0.728	0.000	0.005
2	14:33:26	-0.114	0.122	0.070	-0.272	0.482	-1.151	0.000	0.013
3	14:33:52	-0.078	0.056	0.040	-0.296	0.653	-0.685	0.000	0.008
x		-0.120	0.114	0.072	-0.292	0.593	-0.854	0.000	0.008
σ		0.046	0.054	0.034	0.018	0.096	0.258	0.000	0.004
%RSD		38.190	47.550	46.970	6.253	16.250	30.160	0.000	47.870
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:59	114.785%	0.018	-0.018	113.234%	-0.070	-0.076	-0.039	0.006
2	14:33:26	117.651%	0.078	0.048	115.308%	-0.074	-0.074	-0.036	-0.060
3	14:33:52	119.582%	0.086	0.101	115.882%	-0.059	-0.069	-0.046	-0.034
x		117.340%	0.061	0.044	114.808%	-0.068	-0.073	-0.040	-0.029
σ		2.414%	0.037	0.060	1.393%	0.007	0.003	0.005	0.033
%RSD		2.057	60.720	137.400	1.213	10.970	4.631	11.720	114.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:59	115.219%	-2.623	-0.815	-0.832	-0.013	0.019	117.045%	116.463%
2	14:33:26	116.813%	-2.515	-0.822	-0.839	-0.020	0.025	118.683%	118.247%
3	14:33:52	120.182%	-2.583	-0.806	-0.844	-0.036	-0.009	119.420%	118.914%
x		117.405%	-2.573	-0.815	-0.838	-0.023	0.012	118.383%	117.875%
σ		2.534%	0.055	0.008	0.006	0.012	0.018	1.216%	1.267%
%RSD		2.158	2.121	0.985	0.720	52.030	155.600	1.027	1.075
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:32:59	0.003	-0.004	0.037	0.034	0.044	118.948%		
2	14:33:26	-0.001	0.001	0.059	0.028	0.053	117.948%		
3	14:33:52	0.007	-0.003	0.045	0.015	0.038	119.972%		
x		0.003	-0.002	0.047	0.026	0.045	118.956%		
σ		0.004	0.002	0.011	0.010	0.007	1.012%		
%RSD		126.400	110.600	23.900	38.690	16.660	0.851		

LCS 180-137094/2-A 4/2/2015 2:36:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:14	93.154%	41.880	866.500	853.500	0.000	43250.000	39770.000	39930.000
2	14:37:40	94.743%	41.090	861.800	849.600	0.000	43400.000	40100.000	40420.000
3	14:38:07	94.596%	42.970	902.100	865.900	0.000	44370.000	40690.000	41110.000
x		94.164%	41.980	876.800	856.400	0.000	43670.000	40190.000	40490.000
σ		0.878%	0.943	22.060	8.489	0.000	611.900	467.000	597.300
%RSD		0.933	2.246	2.515	0.991	0.000	1.401	1.162	1.475
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:14	1704.000	8484.000	0.000	46290.000	45700.000	47860.000	85.366%	954.800
2	14:37:40	1745.000	8545.000	0.000	46400.000	46700.000	48910.000	89.168%	958.800
3	14:38:07	1786.000	8694.000	0.000	46630.000	47030.000	49010.000	89.851%	972.800
x		1745.000	8574.000	0.000	46440.000	46470.000	48590.000	88.128%	962.100
σ		41.090	107.900	0.000	173.900	692.700	635.600	2.417%	9.466
%RSD		2.355	1.258	0.000	0.375	1.491	1.308	2.742	0.984
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:14	483.700	185.900	467.600	993.300	1035.000	451.900	445.400	223.800
2	14:37:40	484.200	186.600	474.000	941.200	1058.000	458.000	451.100	227.900
3	14:38:07	494.800	189.300	482.700	955.500	1067.000	454.400	446.100	225.300
x		487.600	187.300	474.700	963.400	1053.000	454.700	447.500	225.600
σ		6.286	1.790	7.565	26.930	16.160	3.041	3.127	2.091
%RSD		1.289	0.956	1.593	2.796	1.534	0.669	0.699	0.927
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:14	225.200	451.300	451.000	34.510	10.340	9.374	0.000	894.700
2	14:37:40	230.600	460.900	463.300	35.880	9.665	8.837	0.000	925.800
3	14:38:07	228.500	455.600	463.000	39.530	9.566	9.384	0.000	927.100
x		228.100	455.900	459.100	36.640	9.857	9.199	0.000	915.900
σ		2.705	4.830	6.994	2.595	0.422	0.313	0.000	18.350
%RSD		1.186	1.059	1.523	7.083	4.276	3.403	0.000	2.004
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:14	89.953%	970.400	993.700	86.309%	46.080	45.280	47.290	46.760
2	14:37:40	92.413%	1003.000	1031.000	87.841%	46.030	45.770	48.110	38.210
3	14:38:07	94.945%	1005.000	1033.000	89.202%	45.480	45.710	48.540	39.060
x		92.437%	992.600	1019.000	87.784%	45.860	45.590	47.980	41.350
σ		2.496%	19.220	22.270	1.448%	0.333	0.267	0.638	4.711
%RSD		2.700	1.937	2.185	1.649	0.727	0.586	1.329	11.390
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:14	87.756%	1936.000	485.500	478.700	1802.000	1857.000	94.473%	94.870%
2	14:37:40	91.207%	1968.000	493.600	486.500	1842.000	1899.000	94.442%	96.174%
3	14:38:07	93.469%	1942.000	491.000	483.600	1848.000	1894.000	94.602%	97.673%
x		90.811%	1949.000	490.100	483.000	1831.000	1883.000	94.506%	96.239%
σ		2.877%	16.840	4.116	3.952	24.650	22.380	0.085%	1.403%
%RSD		3.168	0.864	0.840	0.818	1.347	1.188	0.090	1.458
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:37:14	46.910	46.800	19.580	19.700	19.510	85.557%		
2	14:37:40	48.640	48.450	20.000	20.070	19.760	85.781%		
3	14:38:07	47.760	47.980	19.670	19.970	19.440	87.891%		
x		47.770	47.740	19.750	19.920	19.570	86.410%		
σ		0.868	0.850	0.220	0.189	0.167	1.288%		
%RSD		1.817	1.781	1.115	0.949	0.855	1.491		

LCSD 180-137094/3-A 4/2/2015 2:41:03 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:29	95.432%	42.670	872.400	850.200	0.000	43750.000	39850.000	40210.000
2	14:41:56	95.424%	42.860	898.600	874.200	0.000	44290.000	40500.000	41050.000
3	14:42:22	96.367%	43.880	893.900	866.200	0.000	44090.000	40380.000	40940.000
x		95.741%	43.140	888.300	863.500	0.000	44040.000	40240.000	40730.000
σ		0.542%	0.650	13.960	12.180	0.000	272.300	348.500	458.600
%RSD		0.566	1.506	1.572	1.410	0.000	0.618	0.866	1.126
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:29	1730.000	8555.000	0.000	47130.000	47200.000	49000.000	89.858%	955.300
2	14:41:56	1790.000	8600.000	0.000	47700.000	47940.000	49500.000	92.947%	978.600
3	14:42:22	1798.000	8603.000	0.000	46150.000	45970.000	47550.000	95.928%	954.000
x		1773.000	8586.000	0.000	46990.000	47040.000	48690.000	92.911%	962.700
σ		37.280	26.880	0.000	780.200	996.900	1013.000	3.036%	13.870
%RSD		2.103	0.313	0.000	1.660	2.119	2.080	3.267	1.441
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:29	494.200	187.800	471.800	932.600	1027.000	450.400	440.100	222.500
2	14:41:56	500.300	189.400	478.700	939.700	1169.000	454.900	443.800	224.600
3	14:42:22	490.200	188.900	476.600	923.600	1057.000	447.400	437.200	220.200
x		494.900	188.700	475.700	932.000	1084.000	450.900	440.400	222.400
σ		5.111	0.800	3.528	8.086	74.580	3.763	3.302	2.176
%RSD		1.033	0.424	0.742	0.868	6.879	0.835	0.750	0.978
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:29	224.200	453.400	454.800	37.620	8.694	8.735	0.000	916.600
2	14:41:56	224.700	457.200	458.900	37.940	9.006	9.081	0.000	939.600
3	14:42:22	224.000	454.800	461.000	36.320	9.599	9.488	0.000	944.800
x		224.300	455.100	458.200	37.300	9.100	9.101	0.000	933.700
σ		0.377	1.949	3.156	0.856	0.460	0.377	0.000	15.000
%RSD		0.168	0.428	0.689	2.294	5.049	4.143	0.000	1.606
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:29	96.998%	982.200	1015.000	93.292%	45.420	45.340	47.620	37.280
2	14:41:56	100.772%	1015.000	1039.000	95.525%	45.880	45.660	47.220	39.440
3	14:42:22	102.314%	1025.000	1056.000	97.004%	45.630	44.990	48.960	38.510
x		100.028%	1007.000	1037.000	95.274%	45.640	45.330	47.940	38.410
σ		2.735%	22.290	20.590	1.869%	0.231	0.335	0.912	1.081
%RSD		2.734	2.213	1.986	1.961	0.507	0.739	1.901	2.814
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:29	95.085%	1942.000	488.800	482.600	1845.000	1884.000	100.712%	101.592%
2	14:41:56	99.084%	1977.000	499.300	493.700	1864.000	1952.000	102.242%	105.508%
3	14:42:22	103.324%	1927.000	486.100	482.400	1864.000	1903.000	105.703%	107.802%
x		99.164%	1949.000	491.400	486.200	1858.000	1913.000	102.886%	104.967%
σ		4.120%	25.730	6.980	6.470	10.860	35.020	2.557%	3.140%
%RSD		4.155	1.320	1.420	1.331	0.585	1.830	2.486	2.992
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:41:29	47.090	47.780	19.940	20.000	19.890	92.049%		
2	14:41:56	48.900	49.340	20.570	20.700	20.380	94.272%		
3	14:42:22	47.800	48.240	19.740	20.010	19.720	98.605%		
x		47.930	48.450	20.080	20.240	20.000	94.976%		
σ		0.914	0.803	0.435	0.396	0.343	3.334%		
%RSD		1.907	1.658	2.164	1.958	1.715	3.510		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	90.815%	0.945	117.000	112.100	0.000	32910.000	33940.000	34230.000
2	14:46:11	89.416%	1.070	120.800	112.900	0.000	34010.000	35120.000	35580.000
3	14:46:38	89.561%	1.602	118.500	113.800	0.000	34700.000	36100.000	36350.000
x		89.931%	1.206	118.800	112.900	0.000	33870.000	35060.000	35390.000
σ		0.769%	0.349	1.915	0.865	0.000	903.300	1083.000	1071.000
%RSD		0.855	28.910	1.612	0.766	0.000	2.667	3.090	3.027

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	3117.000	5650.000	0.000	18140.000	160600.000	162700.000	92.442%	1.900
2	14:46:11	3235.000	5845.000	0.000	18450.000	166100.000	165300.000	94.421%	1.695
3	14:46:38	3327.000	5909.000	0.000	18960.000	167700.000	167700.000	94.218%	1.613
x		3226.000	5801.000	0.000	18520.000	164800.000	165200.000	93.694%	1.736
σ		105.500	134.900	0.000	414.000	3737.000	2484.000	1.089%	0.148
%RSD		3.270	2.325	0.000	2.236	2.268	1.503	1.162	8.522

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	4.126	8.020	2216.000	179.600	657.500	54.680	102.400	5.310
2	14:46:11	10.260	8.358	2253.000	182.800	661.200	56.220	105.500	5.713
3	14:46:38	14.390	8.492	2289.000	187.800	652.000	56.730	106.300	5.860
x		9.594	8.290	2253.000	183.400	656.900	55.880	104.700	5.628
σ		5.165	0.244	36.630	4.137	4.637	1.064	2.076	0.285
%RSD		53.840	2.937	1.626	2.255	0.706	1.904	1.982	5.062

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	6.228	161.400	160.700	1.745	0.453	0.864	0.000	1882.000
2	14:46:11	6.374	162.900	162.400	5.565	0.700	0.731	0.000	1903.000
3	14:46:38	6.615	164.800	163.600	1.487	1.404	0.322	0.000	1944.000
x		6.405	163.000	162.200	2.932	0.852	0.639	0.000	1909.000
σ		0.196	1.688	1.418	2.284	0.493	0.282	0.000	31.400
%RSD		3.056	1.035	0.874	77.880	57.870	44.180	0.000	1.644

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	115.093%	4.138	4.339	95.242%	-0.045	-0.030	1.210	1.127
2	14:46:11	118.082%	3.515	3.450	96.276%	-0.056	-0.048	1.143	0.938
3	14:46:38	118.070%	2.838	2.862	97.435%	-0.041	-0.048	1.141	1.022
x		117.082%	3.497	3.550	96.318%	-0.047	-0.042	1.165	1.029
σ		1.722%	0.650	0.743	1.097%	0.008	0.010	0.039	0.095
%RSD		1.471	18.590	20.940	1.139	16.740	23.670	3.370	9.217

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	98.864%	2.415	-0.508	-0.376	30.870	31.370	106.251%	107.593%
2	14:46:11	100.540%	1.537	-0.467	-0.397	32.980	32.160	108.277%	109.060%
3	14:46:38	101.144%	1.019	-0.489	-0.310	32.330	31.680	107.862%	109.520%
x		100.182%	1.657	-0.488	-0.361	32.060	31.740	107.464%	108.724%
σ		1.182%	0.706	0.020	0.046	1.078	0.397	1.070%	1.006%
%RSD		1.179	42.610	4.199	12.630	3.363	1.249	0.996	0.925

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:45	0.503	0.511	0.386	0.347	0.373	99.379%
2	14:46:11	0.425	0.445	0.401	0.341	0.367	99.695%
3	14:46:38	0.402	0.382	0.378	0.351	0.360	104.055%
x		0.443	0.446	0.388	0.346	0.366	101.043%
σ		0.053	0.064	0.011	0.005	0.006	2.613%
%RSD		12.010	14.460	2.900	1.506	1.732	2.586

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:59	81.916%	2.715	157.800	157.800	0.000	51920.000	41500.000	42020.000
2	14:50:26	82.908%	2.139	163.000	162.900	0.000	52420.000	42390.000	42740.000
3	14:50:52	82.518%	2.259	164.800	163.400	0.000	52130.000	42430.000	42840.000
x		82.447%	2.371	161.800	161.400	0.000	52160.000	42110.000	42530.000
σ		0.500%	0.304	3.644	3.073	0.000	253.600	527.700	448.200
%RSD		0.606	12.820	2.252	1.904	0.000	0.486	1.253	1.054
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:59	4839.000	7748.000	0.000	20410.000	181700.000	182700.000	86.801%	1.370
2	14:50:26	4951.000	7836.000	0.000	21260.000	190000.000	190400.000	86.240%	0.657
3	14:50:52	4971.000	7824.000	0.000	21100.000	186800.000	186200.000	87.857%	1.300
x		4920.000	7803.000	0.000	20920.000	186200.000	186400.000	86.966%	1.109
σ		71.280	47.700	0.000	450.700	4231.000	3827.000	0.821%	0.393
%RSD		1.449	0.611	0.000	2.154	2.273	2.053	0.944	35.430
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:59	8.665	7.274	1602.000	125.400	662.900	68.510	125.400	13.660
2	14:50:26	6.988	7.245	1648.000	130.400	679.600	71.450	128.500	13.800
3	14:50:52	3.869	7.006	1623.000	126.400	654.800	71.660	129.300	13.760
x		6.508	7.175	1624.000	127.400	665.800	70.540	127.700	13.740
σ		2.434	0.147	22.760	2.619	12.650	1.758	2.026	0.074
%RSD		37.400	2.048	1.401	2.056	1.899	2.493	1.586	0.541
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:59	13.950	169.400	167.800	1.209	-1.046	-1.352	0.000	1781.000
2	14:50:26	15.090	173.600	173.200	2.281	-1.128	-2.457	0.000	1826.000
3	14:50:52	14.990	171.900	173.000	-0.206	-1.002	-2.206	0.000	1818.000
x		14.680	171.700	171.300	1.095	-1.058	-2.005	0.000	1808.000
σ		0.630	2.141	3.069	1.248	0.064	0.579	0.000	24.040
%RSD		4.294	1.248	1.791	113.900	6.039	28.880	0.000	1.330
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:59	115.254%	0.143	0.355	90.797%	-0.081	-0.069	1.008	0.909
2	14:50:26	117.032%	0.270	0.373	85.117%	-0.040	-0.064	0.984	0.951
3	14:50:52	118.323%	0.196	0.300	93.764%	-0.044	-0.063	0.918	0.904
x		116.870%	0.203	0.343	89.893%	-0.055	-0.065	0.970	0.921
σ		1.541%	0.064	0.038	4.394%	0.023	0.003	0.047	0.026
%RSD		1.318	31.470	11.070	4.888	41.210	5.016	4.828	2.788
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:59	88.083%	-1.582	-0.702	-0.592	9.496	9.524	93.863%	95.355%
2	14:50:26	87.973%	-1.438	-0.715	-0.576	9.356	9.462	95.467%	96.677%
3	14:50:52	90.150%	-1.461	-0.712	-0.590	9.538	9.067	94.713%	97.624%
x		88.735%	-1.494	-0.710	-0.586	9.463	9.351	94.681%	96.552%
σ		1.226%	0.077	0.007	0.009	0.095	0.248	0.802%	1.140%
%RSD		1.382	5.179	0.953	1.456	1.003	2.654	0.847	1.181
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:49:59	0.967	0.923	0.792	0.702	0.730	85.548%		
2	14:50:26	0.963	0.939	0.819	0.801	0.810	83.638%		
3	14:50:52	0.922	0.980	0.769	0.750	0.771	85.679%		
x		0.951	0.948	0.793	0.751	0.770	84.955%		
σ		0.025	0.029	0.025	0.049	0.040	1.143%		
%RSD		2.632	3.102	3.198	6.568	5.181	1.345		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:17	82.100%	0.586	165.600	165.000	0.000	56010.000	43160.000	43330.000
2	14:54:43	82.721%	0.838	163.400	165.700	0.000	56310.000	43710.000	43840.000
3	14:55:10	82.147%	0.697	166.300	161.900	0.000	56420.000	44110.000	44010.000
x		82.322%	0.707	165.100	164.200	0.000	56250.000	43660.000	43730.000
σ		0.346%	0.126	1.528	2.035	0.000	209.400	477.600	355.200
%RSD		0.420	17.840	0.925	1.239	0.000	0.372	1.094	0.812
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:17	861.800	7266.000	0.000	13370.000	170800.000	172900.000	85.206%	1.194
2	14:54:43	877.100	7320.000	0.000	13570.000	176000.000	178700.000	86.330%	0.740
3	14:55:10	878.200	7272.000	0.000	13640.000	177900.000	179100.000	86.568%	0.867
x		872.300	7286.000	0.000	13520.000	174900.000	176900.000	86.035%	0.934
σ		9.142	29.450	0.000	140.400	3679.000	3501.000	0.728%	0.235
%RSD		1.048	0.404	0.000	1.038	2.104	1.979	0.846	25.140
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:17	3.615	7.784	1740.000	435.900	947.000	36.620	97.830	1.406
2	14:54:43	6.567	8.071	1776.000	449.400	955.300	37.510	98.910	1.448
3	14:55:10	10.700	8.033	1787.000	450.300	955.100	37.450	98.900	1.492
x		6.960	7.963	1768.000	445.200	952.500	37.190	98.550	1.449
σ		3.557	0.156	24.330	8.053	4.748	0.498	0.616	0.043
%RSD		51.110	1.961	1.376	1.809	0.499	1.339	0.625	2.975
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:17	2.268	119.600	119.300	0.172	-0.813	-0.562	0.000	2429.000
2	14:54:43	2.300	120.500	121.200	3.673	-1.987	-0.504	0.000	2462.000
3	14:55:10	2.228	121.200	123.100	3.373	-1.179	-1.373	0.000	2435.000
x		2.265	120.400	121.200	2.406	-1.326	-0.813	0.000	2442.000
σ		0.036	0.825	1.897	1.940	0.601	0.486	0.000	17.500
%RSD		1.610	0.685	1.565	80.640	45.310	59.800	0.000	0.716
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:17	101.487%	0.094	0.197	86.454%	-0.060	-0.076	0.505	0.560
2	14:54:43	104.483%	0.133	0.226	88.112%	-0.065	-0.087	0.478	0.497
3	14:55:10	107.072%	0.150	0.220	90.134%	-0.076	-0.071	0.470	0.515
x		104.347%	0.126	0.214	88.233%	-0.067	-0.078	0.485	0.524
σ		2.795%	0.029	0.015	1.843%	0.009	0.008	0.018	0.032
%RSD		2.679	23.120	7.061	2.089	12.760	10.500	3.759	6.197
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:17	91.754%	-2.250	-0.698	-0.656	21.080	22.310	94.408%	96.992%
2	14:54:43	93.715%	-2.077	-0.709	-0.608	22.810	22.650	98.115%	100.013%
3	14:55:10	95.602%	-2.143	-0.684	-0.543	22.290	22.420	102.041%	103.289%
x		93.690%	-2.157	-0.697	-0.602	22.060	22.460	98.188%	100.098%
σ		1.924%	0.087	0.013	0.056	0.886	0.171	3.817%	3.150%
%RSD		2.054	4.051	1.806	9.363	4.018	0.762	3.887	3.147
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:54:17	0.232	0.218	0.060	0.049	0.073	90.881%		
2	14:54:43	0.228	0.224	0.082	0.081	0.083	93.155%		
3	14:55:10	0.217	0.202	0.080	0.074	0.075	96.201%		
x		0.225	0.215	0.074	0.068	0.077	93.412%		
σ		0.008	0.012	0.012	0.017	0.005	2.669%		
%RSD		3.454	5.450	16.480	24.750	6.806	2.857		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:58:31	76.382%	1.705	161.400	156.900	0.000	57310.000	45700.000	45690.000
2	14:58:58	77.607%	1.587	165.600	159.600	0.000	57270.000	46050.000	46650.000
3	14:59:25	77.041%	1.322	170.600	156.200	0.000	57460.000	46280.000	46540.000
x		77.010%	1.538	165.900	157.600	0.000	57350.000	46010.000	46290.000
σ		0.613%	0.196	4.610	1.787	0.000	101.300	292.300	524.100
%RSD		0.796	12.740	2.779	1.134	0.000	0.177	0.635	1.132
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:58:31	3554.000	8891.000	0.000	16050.000	193300.000	194700.000	81.976%	1.278
2	14:58:58	3628.000	9008.000	0.000	16170.000	198400.000	200100.000	83.935%	1.575
3	14:59:25	3616.000	8996.000	0.000	16200.000	198400.000	199300.000	83.995%	1.082
x		3599.000	8965.000	0.000	16140.000	196700.000	198100.000	83.302%	1.312
σ		39.840	64.140	0.000	82.060	2937.000	2895.000	1.149%	0.248
%RSD		1.107	0.715	0.000	0.509	1.493	1.462	1.379	18.940
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:58:31	6.403	11.290	2277.000	1959.000	2460.000	66.990	118.900	9.892
2	14:58:58	10.160	10.740	2308.000	1992.000	2513.000	68.730	118.400	9.905
3	14:59:25	10.120	10.400	2316.000	2009.000	2520.000	68.310	121.500	9.595
x		8.894	10.810	2301.000	1987.000	2498.000	68.010	119.600	9.797
σ		2.157	0.449	20.420	25.440	32.620	0.908	1.640	0.175
%RSD		24.260	4.157	0.888	1.280	1.306	1.334	1.371	1.789
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:58:31	10.620	177.000	178.200	3.593	-0.496	-1.043	0.000	2580.000
2	14:58:58	10.770	181.400	182.500	1.575	-1.353	-1.713	0.000	2639.000
3	14:59:25	11.120	182.300	183.900	7.288	-1.008	-1.394	0.000	2649.000
x		10.840	180.200	181.500	4.152	-0.952	-1.384	0.000	2623.000
σ		0.257	2.800	2.973	2.897	0.431	0.335	0.000	37.310
%RSD		2.367	1.554	1.638	69.780	45.260	24.230	0.000	1.423
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:58:31	108.929%	-0.038	-0.002	87.973%	-0.075	-0.083	0.535	0.544
2	14:58:58	111.430%	0.004	-0.005	88.068%	-0.079	-0.083	0.526	-0.605
3	14:59:25	111.146%	-0.025	0.032	89.222%	-0.062	-0.070	0.488	0.520
x		110.502%	-0.020	0.008	88.421%	-0.072	-0.078	0.516	0.153
σ		1.370%	0.022	0.021	0.695%	0.009	0.008	0.025	0.657
%RSD		1.239	110.500	251.300	0.786	12.090	9.629	4.925	430.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:58:31	91.563%	-2.283	-0.745	-0.604	9.188	9.491	100.678%	101.896%
2	14:58:58	91.495%	-2.018	-0.732	-0.552	9.876	9.930	101.891%	103.398%
3	14:59:25	93.156%	-2.156	-0.722	-0.571	10.080	9.835	99.173%	103.924%
x		92.071%	-2.153	-0.733	-0.576	9.716	9.752	100.581%	103.073%
σ		0.940%	0.133	0.012	0.026	0.469	0.231	1.362%	1.053%
%RSD		1.021	6.154	1.584	4.591	4.826	2.370	1.354	1.021
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:58:31	0.728	0.697	0.251	0.242	0.233	93.658%		
2	14:58:58	0.720	0.732	0.213	0.232	0.238	94.601%		
3	14:59:25	0.693	0.715	0.226	0.244	0.237	96.173%		
x		0.714	0.714	0.230	0.239	0.236	94.811%		
σ		0.018	0.018	0.020	0.006	0.003	1.271%		
%RSD		2.557	2.486	8.490	2.625	1.215	1.341		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:47	84.208%	-0.065	11.820	13.550	0.000	185.900	14.150	13.460
2	15:03:13	84.250%	0.046	12.120	12.820	0.000	186.200	14.410	13.590
3	15:03:40	85.536%	0.054	13.230	13.200	0.000	182.000	10.860	12.970
x		84.665%	0.012	12.390	13.190	0.000	184.700	13.140	13.340
σ		0.755%	0.066	0.744	0.364	0.000	2.358	1.981	0.327
%RSD		0.892	574.000	6.007	2.758	0.000	1.277	15.080	2.449
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:47	1.484	174.800	0.000	12.260	67.200	78.050	79.490%	0.813
2	15:03:13	1.311	179.400	0.000	8.600	53.380	79.890	79.801%	0.740
3	15:03:40	1.247	177.800	0.000	7.706	71.340	83.740	80.388%	0.769
x		1.347	177.300	0.000	9.523	63.970	80.560	79.893%	0.774
σ		0.123	2.376	0.000	2.414	9.402	2.904	0.456%	0.037
%RSD		9.111	1.340	0.000	25.350	14.700	3.605	0.571	4.723
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:47	7.661	7.837	1.581	17.260	9.565	0.035	0.240	1.158
2	15:03:13	6.937	7.312	1.519	14.420	9.504	0.035	0.337	1.228
3	15:03:40	0.163	7.271	1.469	12.960	5.258	0.043	0.135	1.394
x		4.920	7.473	1.523	14.880	8.109	0.038	0.237	1.260
σ		4.136	0.316	0.056	2.188	2.469	0.004	0.101	0.121
%RSD		84.060	4.224	3.657	14.710	30.450	11.520	42.540	9.608
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:47	1.119	2.404	2.125	-0.885	-0.425	-0.642	0.000	0.722
2	15:03:13	1.201	2.312	2.196	3.201	-0.793	-0.363	0.000	0.693
3	15:03:40	1.284	2.333	2.343	2.242	-0.167	-1.073	0.000	0.607
x		1.201	2.350	2.221	1.520	-0.462	-0.693	0.000	0.674
σ		0.083	0.048	0.112	2.137	0.315	0.358	0.000	0.060
%RSD		6.869	2.037	5.020	140.600	68.230	51.660	0.000	8.922
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:47	82.732%	-0.149	0.022	91.975%	-0.073	-0.069	0.021	-0.092
2	15:03:13	85.247%	-0.119	0.021	91.607%	-0.085	-0.078	-0.016	-0.081
3	15:03:40	84.328%	-0.144	0.157	91.742%	-0.074	-0.084	0.038	0.004
x		84.102%	-0.137	0.067	91.775%	-0.077	-0.077	0.014	-0.056
σ		1.272%	0.016	0.079	0.186%	0.007	0.007	0.028	0.053
%RSD		1.513	11.680	117.600	0.203	8.668	9.553	193.500	93.660
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:47	87.476%	-1.941	-0.791	-0.802	0.216	0.192	90.663%	91.710%
2	15:03:13	85.703%	-1.772	-0.781	-0.776	0.229	0.231	89.723%	90.773%
3	15:03:40	85.342%	-1.893	-0.758	-0.782	0.362	0.228	89.539%	91.120%
x		86.174%	-1.868	-0.777	-0.787	0.269	0.217	89.975%	91.201%
σ		1.142%	0.087	0.017	0.014	0.081	0.022	0.603%	0.473%
%RSD		1.326	4.658	2.154	1.764	30.150	9.917	0.670	0.519
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:02:47	0.023	0.019	0.019	0.001	0.015	91.039%		
2	15:03:13	0.020	0.007	0.029	0.008	0.024	86.701%		
3	15:03:40	0.022	0.009	0.015	0.011	0.013	87.289%		
x		0.022	0.012	0.021	0.007	0.017	88.343%		
σ		0.001	0.006	0.007	0.005	0.006	2.353%		
%RSD		6.229	54.560	32.550	77.760	32.750	2.664		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:05	78.534%	-0.261	2.021	2.340	0.000	42.880	3.352	3.205
2	15:07:31	78.230%	0.017	2.485	2.104	0.000	42.840	3.069	2.919
3	15:07:58	79.367%	-0.129	2.398	2.022	0.000	45.690	2.216	2.945
x		78.710%	-0.124	2.301	2.156	0.000	43.800	2.879	3.023
σ		0.589%	0.139	0.247	0.165	0.000	1.638	0.591	0.158
%RSD		0.748	111.900	10.720	7.659	0.000	3.739	20.530	5.230
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:05	0.236	35.040	0.000	-6.977	31.340	23.590	77.780%	-0.474
2	15:07:31	0.125	36.010	0.000	-5.027	39.930	26.800	78.717%	-0.482
3	15:07:58	0.191	35.580	0.000	-5.742	5.209	21.850	78.543%	-0.248
x		0.184	35.540	0.000	-5.915	25.490	24.080	78.346%	-0.401
σ		0.056	0.489	0.000	0.986	18.080	2.512	0.498%	0.133
%RSD		30.280	1.375	0.000	16.670	70.930	10.430	0.636	33.070
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:05	-0.149	1.878	0.206	3.644	-0.889	0.019	0.004	0.261
2	15:07:31	1.242	1.965	0.203	3.543	-3.723	0.015	-0.031	0.340
3	15:07:58	0.710	1.892	0.255	3.016	-2.682	0.021	-0.019	0.297
x		0.601	1.912	0.221	3.401	-2.431	0.018	-0.015	0.299
σ		0.702	0.047	0.029	0.337	1.433	0.003	0.018	0.040
%RSD		116.700	2.442	13.280	9.918	58.960	17.140	118.000	13.280
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:05	0.232	5.211	5.299	1.973	-1.582	-1.279	0.000	0.148
2	15:07:31	0.192	5.536	5.415	0.376	-0.418	-0.334	0.000	0.108
3	15:07:58	0.253	5.535	5.676	-1.925	-0.361	-0.031	0.000	0.124
x		0.226	5.427	5.463	0.141	-0.787	-0.548	0.000	0.127
σ		0.031	0.187	0.193	1.960	0.689	0.651	0.000	0.020
%RSD		13.630	3.448	3.532	1387.000	87.550	118.900	0.000	15.910
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:05	82.725%	-0.273	-0.250	92.109%	-0.079	-0.093	0.033	-0.049
2	15:07:31	84.569%	-0.241	-0.214	87.889%	-0.094	-0.075	-0.003	-0.011
3	15:07:58	85.946%	-0.198	-0.198	89.013%	-0.081	-0.094	-0.009	1.182
x		84.413%	-0.237	-0.221	89.670%	-0.085	-0.087	0.007	0.374
σ		1.617%	0.038	0.027	2.185%	0.008	0.011	0.023	0.700
%RSD		1.915	15.990	12.080	2.437	9.257	12.070	306.500	187.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:05	85.100%	-2.613	-0.842	-0.880	-0.028	0.066	89.642%	92.122%
2	15:07:31	88.732%	-2.678	-0.844	-0.876	-0.005	0.057	92.391%	94.884%
3	15:07:58	89.383%	-2.697	-0.857	-0.883	0.002	0.040	95.720%	95.944%
x		87.738%	-2.663	-0.848	-0.880	-0.011	0.054	92.584%	94.317%
σ		2.308%	0.044	0.008	0.004	0.016	0.013	3.044%	1.973%
%RSD		2.631	1.665	0.970	0.431	149.400	23.600	3.287	2.092
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:07:05	0.011	0.003	0.032	0.044	0.043	93.305%		
2	15:07:31	0.011	0.002	0.019	0.041	0.036	95.280%		
3	15:07:58	0.002	0.000	0.038	0.018	0.032	96.753%		
x		0.008	0.002	0.030	0.034	0.037	95.113%		
σ		0.005	0.001	0.010	0.014	0.005	1.730%		
%RSD		63.580	76.150	33.840	41.590	14.210	1.819		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:23	79.616%	-0.171	19.960	20.210	0.000	163800.000	85.830	85.130
2	15:11:49	78.904%	0.147	20.510	20.940	0.000	169300.000	86.890	85.620
3	15:12:15	79.187%	-0.013	20.730	20.650	0.000	169200.000	88.560	87.690
x		79.236%	-0.012	20.400	20.600	0.000	167400.000	87.090	86.150
σ		0.358%	0.159	0.395	0.365	0.000	3112.000	1.376	1.360
%RSD		0.452	1282.000	1.937	1.771	0.000	1.859	1.579	1.578
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:23	4.444	104.400	0.000	385.700	12050.000	11750.000	82.377%	-0.210
2	15:11:49	4.568	108.900	0.000	398.700	12800.000	12340.000	82.027%	-0.430
3	15:12:15	4.671	106.100	0.000	401.800	12820.000	12310.000	82.801%	-0.577
x		4.561	106.500	0.000	395.400	12550.000	12130.000	82.402%	-0.406
σ		0.114	2.290	0.000	8.561	439.600	329.900	0.388%	0.185
%RSD		2.491	2.150	0.000	2.165	3.502	2.719	0.471	45.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:23	1.612	0.395	1.023	6.175	41.340	0.054	1.604	1.157
2	15:11:49	1.814	0.445	0.946	6.244	50.760	0.050	1.775	1.147
3	15:12:15	1.582	0.332	0.986	6.313	44.640	0.046	1.808	1.307
x		1.669	0.391	0.985	6.244	45.580	0.050	1.729	1.204
σ		0.126	0.057	0.039	0.069	4.780	0.004	0.110	0.090
%RSD		7.533	14.480	3.925	1.103	10.490	8.031	6.341	7.464
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:23	0.796	12.070	12.170	-0.451	-0.342	-0.348	0.000	14.430
2	15:11:49	0.924	12.550	12.290	-0.170	-0.598	-0.185	0.000	15.180
3	15:12:15	0.839	12.530	12.340	0.823	-1.111	-0.662	0.000	15.080
x		0.853	12.380	12.270	0.067	-0.684	-0.399	0.000	14.900
σ		0.065	0.272	0.082	0.669	0.392	0.243	0.000	0.406
%RSD		7.654	2.194	0.671	992.000	57.300	60.850	0.000	2.726
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:23	88.014%	0.664	0.644	87.659%	-0.064	-0.082	-0.012	-0.004
2	15:11:49	89.137%	0.860	0.668	88.407%	-0.070	-0.065	-0.001	-0.063
3	15:12:15	89.833%	0.767	0.766	89.198%	-0.074	-0.087	0.020	-0.005
x		88.995%	0.763	0.693	88.422%	-0.069	-0.078	0.002	-0.024
σ		0.918%	0.098	0.065	0.770%	0.005	0.011	0.016	0.034
%RSD		1.031	12.840	9.368	0.871	7.275	14.600	721.900	143.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:23	88.273%	-2.764	-0.826	-0.828	2.891	2.666	97.803%	98.998%
2	15:11:49	92.193%	-2.708	-0.821	-0.828	2.771	2.826	98.225%	100.494%
3	15:12:15	94.152%	-2.784	-0.819	-0.846	2.913	2.849	100.429%	102.184%
x		91.540%	-2.752	-0.822	-0.834	2.858	2.781	98.819%	100.559%
σ		2.993%	0.039	0.004	0.010	0.076	0.100	1.410%	1.594%
%RSD		3.270	1.425	0.447	1.223	2.673	3.586	1.427	1.585
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:11:23	0.007	0.009	0.038	0.062	0.061	98.859%		
2	15:11:49	0.002	0.004	0.044	0.059	0.048	100.289%		
3	15:12:15	0.016	0.001	0.012	0.050	0.047	100.729%		
x		0.008	0.005	0.031	0.057	0.052	99.959%		
σ		0.007	0.004	0.017	0.006	0.008	0.978%		
%RSD		85.320	83.600	53.770	11.320	14.780	0.978		

CCV 1487954 4/2/2015 3:15:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	75.977%	101.300	101.000	101.900	0.000	48530.000	46850.000	46470.000
2	15:16:06	77.067%	95.700	92.200	101.300	0.000	48700.000	47340.000	47160.000
3	15:16:33	77.337%	100.500	96.630	101.400	0.000	49100.000	48170.000	47820.000
x		76.794%	99.146%	96.612%	101.537%	0.000	97.553%	94.909%	94.303%
σ		0.720%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.938	3.040	4.561	0.334	0.000	0.600	1.410	1.437

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	472.000	5293.000	0.000	49730.000	47650.000	49430.000	78.513%	97.980
2	15:16:06	484.100	5354.000	0.000	49120.000	49180.000	51150.000	79.018%	99.420
3	15:16:33	493.100	5449.000	0.000	50150.000	50100.000	51740.000	78.369%	106.400
x		96.605%	107.303%	0.000	99.333%	97.951%	101.543%	78.633%	101.272%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.340%	n/a
%RSD		2.190	1.465	0.000	1.038	2.525	2.367	0.433	4.450

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	96.750	95.980	498.200	24080.000	25240.000	95.630	95.200	95.910
2	15:16:06	99.830	98.840	516.400	24580.000	26030.000	97.210	98.320	98.340
3	15:16:33	99.420	99.280	520.400	25130.000	26400.000	97.810	99.100	100.000
x		98.668%	98.034%	102.328%	98.389%	103.565%	96.885%	97.538%	98.090%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.697	1.825	2.317	2.125	2.298	1.160	2.114	2.103

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	95.980	97.700	98.920	94.530	100.700	99.460	0.000	94.760
2	15:16:06	98.630	99.770	99.820	96.610	97.500	100.800	0.000	100.000
3	15:16:33	98.460	101.400	100.900	97.290	100.000	97.210	0.000	98.000
x		97.690%	99.634%	99.886%	96.143%	99.389%	99.144%	0.000	97.601%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.519	1.881	0.995	1.499	1.680	1.810	0.000	2.732

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	82.707%	90.060	88.500	90.200%	92.890	94.830	94.650	95.700
2	15:16:06	82.003%	97.490	96.050	88.644%	92.320	93.770	97.630	95.110
3	15:16:33	81.163%	98.260	97.210	87.004%	93.420	95.150	98.560	97.920
x		81.958%	95.269%	93.919%	88.616%	92.877%	94.585%	96.948%	96.242%
σ		0.773%	n/a	n/a	1.599%	n/a	n/a	n/a	n/a
%RSD		0.943	4.754	5.032	1.804	0.592	0.762	2.108	1.538

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	82.857%	97.450	98.250	98.820	94.600	96.620	91.319%	92.952%
2	15:16:06	85.080%	95.470	99.840	99.940	97.600	96.360	90.283%	93.124%
3	15:16:33	81.555%	100.300	101.100	100.700	99.530	98.380	88.445%	90.682%
x		83.164%	97.725%	99.741%	99.829%	97.247%	97.121%	90.016%	92.253%
σ		1.782%	n/a	n/a	n/a	n/a	n/a	1.456%	1.363%
%RSD		2.143	2.463	1.454	0.964	2.554	1.134	1.617	1.477

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:40	96.960	98.290	97.060	96.930	96.080	94.745%
2	15:16:06	98.280	99.320	98.480	99.960	98.340	94.264%
3	15:16:33	101.300	101.700	102.300	103.000	102.300	87.145%
x		98.849%	99.753%	99.288%	99.949%	98.894%	92.051%
σ		n/a	n/a	n/a	n/a	n/a	4.256%
%RSD		2.254	1.727	2.742	3.017	3.164	4.623

CCB2 4/2/2015 3:22:40 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:06	82.324%	-0.111	0.324	-0.720	0.000	45.300	6.261	5.623
2	15:23:33	82.852%	-0.077	-0.765	-1.009	0.000	43.180	5.487	4.898
3	15:23:59	83.274%	0.032	-1.098	-0.901	0.000	45.380	4.931	5.139
x		82.817%	-0.052	-0.513	-0.876	0.000	44.620	5.559	5.220
σ		0.476%	0.075	0.744	0.146	0.000	1.248	0.668	0.369
%RSD		0.575	143.200	145.000	16.660	0.000	2.797	12.020	7.066
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:06	0.542	-3.207	0.000	4.328	-0.868	7.631	83.612%	-0.443
2	15:23:33	0.467	-4.732	0.000	1.224	-11.950	6.935	83.829%	-0.545
3	15:23:59	0.500	-4.104	0.000	9.292	22.400	10.240	83.969%	-0.506
x		0.503	-4.014	0.000	4.948	3.195	8.269	83.803%	-0.498
σ		0.038	0.767	0.000	4.070	17.530	1.742	0.180%	0.051
%RSD		7.488	19.100	0.000	82.250	548.800	21.070	0.215	10.290
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:06	-0.017	-0.011	0.089	0.248	6.305	0.028	0.122	-0.042
2	15:23:33	0.027	-0.022	0.087	-0.113	6.827	0.012	-0.071	-0.022
3	15:23:59	0.031	0.056	0.091	-0.926	6.081	0.025	-0.032	-0.119
x		0.014	0.008	0.089	-0.264	6.404	0.021	0.007	-0.061
σ		0.026	0.042	0.002	0.601	0.383	0.008	0.102	0.051
%RSD		192.100	528.900	2.660	227.800	5.975	38.980	1560.000	83.340
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:06	-0.042	0.062	0.107	-0.486	-0.019	-0.781	0.000	0.035
2	15:23:33	-0.020	0.059	0.095	-0.351	-0.030	-0.925	0.000	0.032
3	15:23:59	-0.144	0.090	0.063	-0.259	1.028	-0.178	0.000	0.043
x		-0.069	0.071	0.088	-0.365	0.326	-0.628	0.000	0.037
σ		0.066	0.017	0.023	0.114	0.608	0.397	0.000	0.006
%RSD		96.450	24.230	25.930	31.290	186.300	63.170	0.000	16.470
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:06	89.262%	-0.061	-0.032	92.116%	-0.064	-0.095	-0.008	-0.894
2	15:23:33	90.416%	-0.015	-0.084	93.528%	-0.068	-0.090	0.032	-0.040
3	15:23:59	90.967%	-0.088	-0.062	95.047%	-0.049	-0.073	0.031	0.000
x		90.215%	-0.055	-0.059	93.563%	-0.060	-0.086	0.018	-0.311
σ		0.870%	0.037	0.026	1.466%	0.010	0.012	0.023	0.505
%RSD		0.964	67.390	43.540	1.567	16.220	13.830	122.500	162.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:06	92.132%	-2.738	-0.798	-0.800	-0.008	0.022	96.914%	98.598%
2	15:23:33	93.739%	-2.674	-0.789	-0.823	-0.000	0.017	98.488%	100.300%
3	15:23:59	93.114%	-2.668	-0.792	-0.816	-0.050	0.010	100.298%	101.735%
x		92.995%	-2.693	-0.793	-0.813	-0.020	0.016	98.566%	100.211%
σ		0.810%	0.039	0.005	0.012	0.027	0.006	1.693%	1.570%
%RSD		0.871	1.440	0.597	1.455	137.400	37.140	1.718	1.567
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:23:06	0.011	0.005	0.006	-0.009	-0.000	105.779%		
2	15:23:33	0.019	0.004	0.003	-0.012	0.006	104.927%		
3	15:23:59	0.016	0.010	-0.017	-0.005	-0.002	104.879%		
x		0.015	0.006	-0.003	-0.009	0.001	105.195%		
σ		0.004	0.003	0.012	0.003	0.004	0.506%		
%RSD		25.830	48.940	470.200	36.300	297.100	0.481		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:23	85.334%	-0.238	-0.445	-0.710	0.000	34.030	1.794	2.085
2	15:27:50	82.783%	-0.207	0.305	-0.680	0.000	34.680	1.797	1.458
3	15:28:17	83.876%	-0.139	-0.595	-0.797	0.000	33.960	1.458	0.778
x		83.998%	-0.195	-0.245	-0.729	0.000	34.230	1.683	1.440
σ		1.280%	0.051	0.482	0.061	0.000	0.398	0.195	0.654
%RSD		1.524	26.000	196.800	8.315	0.000	1.164	11.580	45.390
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:23	-0.056	-3.948	0.000	-0.412	20.830	5.717	83.620%	-0.662
2	15:27:50	0.011	-3.972	0.000	1.863	-2.145	2.765	82.841%	-0.719
3	15:28:17	-0.073	-4.303	0.000	-1.526	-6.624	-0.429	83.955%	-0.705
x		-0.039	-4.074	0.000	-0.025	4.019	2.685	83.472%	-0.695
σ		0.044	0.199	0.000	1.727	14.730	3.073	0.572%	0.029
%RSD		112.700	4.875	0.000	6892.000	366.400	114.500	0.685	4.217
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:23	-0.134	-0.010	0.085	-6.498	1.791	0.019	-0.029	-0.037
2	15:27:50	0.103	-0.014	0.037	-6.358	2.011	0.011	-0.030	-0.054
3	15:28:17	0.099	-0.015	0.017	-8.243	-1.708	0.017	-0.016	-0.068
x		0.023	-0.013	0.046	-7.033	0.698	0.016	-0.025	-0.053
σ		0.136	0.003	0.035	1.050	2.087	0.004	0.008	0.016
%RSD		590.800	22.980	74.690	14.930	298.800	27.810	32.000	29.820
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:23	-0.031	0.019	0.129	-0.377	-0.919	-0.424	0.000	0.084
2	15:27:50	-0.195	0.081	-0.060	-0.273	-0.795	-0.908	0.000	0.031
3	15:28:17	-0.145	0.043	-0.153	-0.332	-0.094	-1.315	0.000	0.024
x		-0.124	0.047	-0.028	-0.327	-0.603	-0.882	0.000	0.046
σ		0.084	0.031	0.144	0.052	0.445	0.446	0.000	0.033
%RSD		67.650	66.010	512.400	15.870	73.830	50.560	0.000	70.710
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:23	88.974%	-0.155	-0.204	93.072%	-0.071	-0.094	-0.017	-0.013
2	15:27:50	91.787%	-0.215	-0.227	93.909%	-0.078	-0.080	0.030	-0.014
3	15:28:17	92.497%	-0.134	-0.226	94.622%	-0.103	-0.088	-0.016	0.005
x		91.086%	-0.168	-0.219	93.868%	-0.084	-0.087	-0.001	-0.007
σ		1.863%	0.042	0.013	0.776%	0.016	0.007	0.027	0.010
%RSD		2.046	25.070	5.934	0.827	19.600	8.451	3959.000	140.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:23	91.325%	-2.720	-0.836	-0.876	-0.001	-0.018	96.256%	98.468%
2	15:27:50	94.511%	-2.710	-0.847	-0.841	-0.047	-0.031	101.820%	101.461%
3	15:28:17	95.220%	-2.765	-0.826	-0.861	-0.058	-0.016	101.289%	101.276%
x		93.685%	-2.732	-0.836	-0.859	-0.035	-0.022	99.788%	100.402%
σ		2.074%	0.030	0.011	0.017	0.030	0.008	3.071%	1.677%
%RSD		2.214	1.082	1.282	2.033	85.840	36.890	3.077	1.670
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:27:23	0.011	-0.001	0.013	0.012	0.019	107.367%		
2	15:27:50	0.007	0.001	0.008	0.008	0.021	107.969%		
3	15:28:17	0.012	-0.002	0.010	0.009	0.022	106.449%		
x		0.010	-0.001	0.011	0.010	0.020	107.262%		
σ		0.003	0.001	0.002	0.002	0.002	0.765%		
%RSD		29.410	159.200	20.570	18.780	7.843	0.713		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	77.932%	43.870	892.000	871.200	0.000	43740.000	39950.000	40030.000
2	15:32:08	78.904%	44.210	925.100	884.100	0.000	44540.000	40830.000	41340.000
3	15:32:34	78.858%	44.880	931.600	916.700	0.000	45010.000	41150.000	41600.000
x		78.565%	44.320	916.300	890.700	0.000	44430.000	40640.000	40990.000
σ		0.548%	0.515	21.260	23.450	0.000	644.700	621.100	840.300
%RSD		0.698	1.162	2.320	2.632	0.000	1.451	1.528	2.050

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	1699.000	8469.000	0.000	46110.000	45480.000	46440.000	72.729%	941.300
2	15:32:08	1769.000	8644.000	0.000	47100.000	47370.000	48250.000	75.229%	953.200
3	15:32:34	1780.000	8693.000	0.000	47610.000	47660.000	48340.000	77.004%	963.700
x		1749.000	8602.000	0.000	46940.000	46840.000	47680.000	74.987%	952.700
σ		44.050	117.700	0.000	762.700	1182.000	1072.000	2.148%	11.180
%RSD		2.518	1.368	0.000	1.625	2.525	2.249	2.865	1.174

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	475.300	184.600	469.200	966.500	1050.000	448.400	436.900	220.800
2	15:32:08	488.700	189.600	483.900	996.500	1079.000	462.300	451.000	229.200
3	15:32:34	491.700	191.200	485.800	1016.000	1058.000	463.300	451.600	228.400
x		485.200	188.500	479.700	993.200	1062.000	458.000	446.500	226.200
σ		8.748	3.420	9.071	25.140	15.100	8.332	8.321	4.644
%RSD		1.803	1.814	1.891	2.531	1.421	1.819	1.864	2.054

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	224.800	465.000	465.100	38.530	8.947	9.255	0.000	929.800
2	15:32:08	232.800	476.400	480.500	36.550	8.596	7.957	0.000	958.300
3	15:32:34	231.800	472.500	481.500	37.480	9.308	9.638	0.000	957.100
x		229.800	471.300	475.700	37.520	8.950	8.950	0.000	948.400
σ		4.354	5.797	9.188	0.988	0.356	0.881	0.000	16.120
%RSD		1.895	1.230	1.931	2.633	3.976	9.844	0.000	1.699

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	77.729%	943.700	953.900	80.388%	43.480	44.410	47.370	35.940
2	15:32:08	80.298%	985.900	986.700	83.437%	44.380	44.740	48.620	39.410
3	15:32:34	82.070%	988.600	999.700	85.572%	44.460	45.000	49.640	39.470
x		80.033%	972.700	980.100	83.132%	44.110	44.720	48.540	38.280
σ		2.183%	25.190	23.600	2.605%	0.544	0.291	1.138	2.022
%RSD		2.727	2.589	2.408	3.134	1.233	0.651	2.344	5.283

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	78.756%	2070.000	484.400	479.600	1805.000	1827.000	86.326%	88.176%
2	15:32:08	79.553%	2060.000	514.600	499.300	1884.000	1917.000	88.672%	90.017%
3	15:32:34	80.749%	2075.000	513.900	503.500	1887.000	1937.000	90.479%	91.807%
x		79.686%	2068.000	504.300	494.100	1859.000	1894.000	88.492%	90.000%
σ		1.003%	7.391	17.220	12.750	46.460	58.710	2.082%	1.816%
%RSD		1.259	0.357	3.414	2.580	2.500	3.100	2.353	2.017

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:31:41	46.990	47.770	20.020	20.360	20.000	81.800%
2	15:32:08	49.320	49.400	20.260	20.810	20.370	83.910%
3	15:32:34	50.320	49.800	20.920	21.020	20.920	83.616%
x		48.880	48.990	20.400	20.730	20.430	83.109%
σ		1.708	1.076	0.464	0.336	0.464	1.143%
%RSD		3.493	2.196	2.272	1.621	2.273	1.375

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:59	79.740%	0.006	16.900	17.030	0.000	45290.000	11080.000	11230.000
2	15:36:25	82.411%	-0.128	18.580	16.920	0.000	45040.000	11110.000	11340.000
3	15:36:52	82.359%	-0.109	15.900	16.450	0.000	45480.000	11240.000	11430.000
x		81.503%	-0.077	17.130	16.800	0.000	45270.000	11140.000	11330.000
σ		1.527%	0.073	1.354	0.307	0.000	219.200	89.790	99.530
%RSD		1.874	94.680	7.907	1.829	0.000	0.484	0.806	0.878
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:59	270.500	2037.000	0.000	4258.000	42830.000	44160.000	76.689%	6.345
2	15:36:25	273.400	2042.000	0.000	4317.000	44090.000	44990.000	78.860%	6.117
3	15:36:52	259.600	2051.000	0.000	4320.000	44190.000	45160.000	79.224%	6.100
x		267.800	2043.000	0.000	4298.000	43700.000	44770.000	78.258%	6.187
σ		7.259	6.890	0.000	34.950	761.400	533.200	1.371%	0.137
%RSD		2.710	0.337	0.000	0.813	1.742	1.191	1.751	2.211
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:59	5.424	6.469	53.290	438.700	557.400	0.505	0.872	2.468
2	15:36:25	6.536	6.143	53.470	441.400	562.800	0.501	0.669	2.584
3	15:36:52	4.171	6.314	54.940	451.400	566.700	0.490	0.596	2.606
x		5.377	6.309	53.900	443.800	562.300	0.498	0.712	2.553
σ		1.183	0.163	0.903	6.714	4.675	0.008	0.143	0.074
%RSD		22.010	2.588	1.675	1.513	0.831	1.621	20.110	2.915
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:59	2.457	7.806	7.680	1.899	-0.305	-0.305	0.000	119.700
2	15:36:25	2.503	7.752	7.636	2.276	-0.633	-0.734	0.000	121.000
3	15:36:52	2.303	7.298	7.454	2.106	-0.543	-0.944	0.000	120.900
x		2.421	7.619	7.590	2.093	-0.494	-0.661	0.000	120.600
σ		0.105	0.279	0.120	0.189	0.169	0.325	0.000	0.726
%RSD		4.326	3.664	1.576	9.020	34.240	49.210	0.000	0.602
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:59	85.233%	4.735	4.328	90.478%	-0.079	-0.104	0.045	-0.078
2	15:36:25	87.533%	3.659	3.914	85.006%	-0.077	-0.083	0.019	-0.012
3	15:36:52	89.312%	2.982	3.157	86.651%	-0.092	-0.068	0.111	0.039
x		87.359%	3.792	3.799	87.378%	-0.083	-0.085	0.058	-0.017
σ		2.045%	0.884	0.594	2.807%	0.008	0.018	0.048	0.059
%RSD		2.341	23.310	15.630	3.213	9.868	21.240	81.930	351.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:59	88.454%	1.057	-0.622	-0.650	38.870	38.080	94.597%	96.125%
2	15:36:25	88.513%	0.056	-0.632	-0.628	39.420	39.390	97.312%	97.877%
3	15:36:52	91.018%	-0.635	-0.645	-0.657	39.320	39.430	97.942%	99.689%
x		89.328%	0.159	-0.633	-0.645	39.210	38.960	96.617%	97.897%
σ		1.464%	0.851	0.011	0.015	0.290	0.769	1.778%	1.782%
%RSD		1.639	534.700	1.808	2.313	0.741	1.973	1.840	1.820
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:35:59	0.211	0.218	1.278	1.161	1.209	92.546%		
2	15:36:25	0.113	0.120	1.271	1.131	1.212	93.175%		
3	15:36:52	0.095	0.080	1.306	1.235	1.227	94.990%		
x		0.140	0.139	1.285	1.176	1.216	93.570%		
σ		0.063	0.071	0.019	0.054	0.009	1.269%		
%RSD		44.750	51.160	1.447	4.556	0.766	1.356		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:14	81.515%	0.221	15.460	14.660	0.000	58590.000	9828.000	9919.000
2	15:40:41	81.586%	0.029	16.280	15.200	0.000	59570.000	10220.000	10270.000
3	15:41:07	82.413%	0.022	15.660	15.330	0.000	59730.000	10250.000	10380.000
x		81.838%	0.091	15.800	15.060	0.000	59290.000	10100.000	10190.000
σ		0.499%	0.113	0.426	0.356	0.000	618.000	234.200	240.000
%RSD		0.610	124.300	2.693	2.364	0.000	1.042	2.320	2.355
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:14	13.430	1102.000	0.000	2851.000	50720.000	52130.000	78.438%	1.089
2	15:40:41	14.980	1127.000	0.000	2864.000	52620.000	54840.000	79.628%	0.845
3	15:41:07	14.890	1122.000	0.000	2892.000	52450.000	54550.000	79.586%	1.095
x		14.430	1117.000	0.000	2869.000	51930.000	53840.000	79.217%	1.010
σ		0.869	13.290	0.000	21.150	1050.000	1492.000	0.675%	0.143
%RSD		6.022	1.190	0.000	0.737	2.022	2.771	0.852	14.130
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:14	7.503	6.115	15.170	54.120	223.100	0.174	0.418	2.161
2	15:40:41	6.642	5.968	15.490	55.030	226.800	0.194	0.298	2.164
3	15:41:07	6.233	5.792	15.200	55.640	224.500	0.205	0.327	2.234
x		6.793	5.958	15.290	54.930	224.800	0.191	0.347	2.186
σ		0.648	0.162	0.178	0.763	1.875	0.016	0.063	0.041
%RSD		9.546	2.718	1.164	1.390	0.834	8.338	18.030	1.894
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:14	2.029	10.120	10.620	4.060	-1.403	-0.668	0.000	160.800
2	15:40:41	2.130	10.980	11.090	0.855	-0.044	0.205	0.000	163.700
3	15:41:07	2.126	10.510	10.650	3.887	-0.247	-0.940	0.000	164.200
x		2.095	10.540	10.790	2.934	-0.565	-0.468	0.000	162.900
σ		0.057	0.427	0.264	1.803	0.733	0.598	0.000	1.816
%RSD		2.713	4.054	2.443	61.450	129.800	127.900	0.000	1.115
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:14	86.299%	0.376	0.687	86.349%	-0.077	-0.081	-0.025	-0.079
2	15:40:41	89.117%	0.575	0.721	88.653%	-0.080	-0.081	0.010	0.011
3	15:41:07	90.881%	0.512	0.618	88.556%	-0.085	-0.082	0.018	-0.061
x		88.766%	0.488	0.676	87.852%	-0.081	-0.081	0.001	-0.043
σ		2.311%	0.102	0.052	1.303%	0.004	0.000	0.023	0.048
%RSD		2.604	20.860	7.753	1.483	5.304	0.258	2283.000	111.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:14	87.404%	-2.096	-0.629	-0.643	43.710	44.110	94.762%	98.528%
2	15:40:41	90.328%	-1.956	-0.661	-0.652	44.200	43.940	99.162%	100.981%
3	15:41:07	91.356%	-2.045	-0.652	-0.667	45.280	45.230	100.286%	102.990%
x		89.696%	-2.032	-0.647	-0.654	44.390	44.430	98.070%	100.833%
σ		2.050%	0.071	0.016	0.012	0.804	0.702	2.920%	2.234%
%RSD		2.286	3.508	2.505	1.842	1.812	1.581	2.977	2.216
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:40:14	0.041	0.031	0.256	0.254	0.259	94.254%		
2	15:40:41	0.033	0.021	0.224	0.212	0.232	97.694%		
3	15:41:07	0.038	0.028	0.252	0.225	0.239	98.398%		
x		0.038	0.027	0.244	0.230	0.243	96.782%		
σ		0.004	0.005	0.017	0.021	0.014	2.217%		
%RSD		10.670	18.270	7.138	9.337	5.695	2.291		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:29	79.164%	0.111	14.750	15.220	0.000	41650.000	8207.000	8346.000
2	15:44:55	80.740%	-0.078	13.280	16.020	0.000	41610.000	8294.000	8472.000
3	15:45:22	79.380%	-0.148	15.310	15.740	0.000	42040.000	8450.000	8619.000
x		79.761%	-0.038	14.450	15.660	0.000	41770.000	8317.000	8479.000
σ		0.854%	0.134	1.047	0.409	0.000	235.400	123.100	136.800
%RSD		1.071	349.200	7.250	2.614	0.000	0.564	1.479	1.613
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:29	327.900	2119.000	0.000	4272.000	38000.000	37580.000	74.726%	6.403
2	15:44:55	312.700	2114.000	0.000	4286.000	38590.000	38450.000	76.087%	6.511
3	15:45:22	347.700	2182.000	0.000	4338.000	38360.000	38750.000	76.886%	6.579
x		329.400	2138.000	0.000	4299.000	38320.000	38260.000	75.900%	6.498
σ		17.540	37.440	0.000	34.880	301.600	604.800	1.092%	0.089
%RSD		5.325	1.751	0.000	0.812	0.787	1.581	1.439	1.373
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:29	1.089	6.272	51.510	502.000	612.300	0.500	0.790	2.805
2	15:44:55	4.056	6.332	53.160	520.300	627.700	0.544	0.912	2.935
3	15:45:22	5.563	6.523	52.860	513.900	630.600	0.471	0.829	2.911
x		3.569	6.375	52.510	512.100	623.500	0.505	0.844	2.883
σ		2.276	0.131	0.878	9.279	9.864	0.037	0.062	0.069
%RSD		63.770	2.051	1.671	1.812	1.582	7.367	7.377	2.400
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:29	2.891	9.151	8.862	4.952	-1.314	-0.057	0.000	108.300
2	15:44:55	2.612	9.507	9.348	0.552	-1.012	0.578	0.000	112.100
3	15:45:22	2.461	9.133	9.024	-0.183	-0.707	0.243	0.000	113.100
x		2.655	9.264	9.078	1.774	-1.011	0.255	0.000	111.200
σ		0.218	0.211	0.247	2.777	0.304	0.318	0.000	2.538
%RSD		8.217	2.280	2.724	156.600	30.050	124.800	0.000	2.282
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:29	79.044%	0.702	0.902	83.096%	-0.092	-0.083	0.096	0.024
2	15:44:55	79.627%	0.727	0.861	83.681%	-0.063	-0.082	-0.013	0.054
3	15:45:22	81.411%	0.956	0.885	84.968%	-0.078	-0.099	-0.005	0.022
x		80.027%	0.795	0.883	83.915%	-0.078	-0.088	0.026	0.033
σ		1.233%	0.140	0.021	0.958%	0.015	0.010	0.061	0.018
%RSD		1.541	17.600	2.361	1.141	18.700	10.830	231.700	54.540
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:29	78.622%	-2.368	-0.740	-0.734	37.340	39.490	86.435%	86.936%
2	15:44:55	80.104%	-2.263	-0.700	-0.718	39.710	39.210	88.016%	88.713%
3	15:45:22	82.397%	-2.236	-0.693	-0.686	39.200	39.810	88.120%	90.075%
x		80.374%	-2.289	-0.711	-0.713	38.750	39.500	87.524%	88.575%
σ		1.902%	0.070	0.026	0.024	1.246	0.297	0.944%	1.574%
%RSD		2.366	3.050	3.608	3.391	3.215	0.753	1.079	1.777
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:44:29	0.020	0.016	1.167	1.112	1.120	79.531%		
2	15:44:55	0.020	0.016	1.161	1.123	1.139	81.602%		
3	15:45:22	0.035	0.018	1.142	1.034	1.078	83.730%		
x		0.025	0.017	1.157	1.090	1.112	81.621%		
σ		0.009	0.001	0.013	0.049	0.031	2.099%		
%RSD		35.580	6.382	1.159	4.473	2.826	2.572		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:44	80.043%	-0.092	44.280	42.220	0.000	55460.000	11680.000	11890.000
2	15:49:11	80.798%	0.017	41.420	43.450	0.000	56440.000	12150.000	12350.000
3	15:49:37	80.598%	-0.213	44.970	43.050	0.000	56460.000	12160.000	12320.000
x		80.480%	-0.096	43.560	42.910	0.000	56120.000	12000.000	12190.000
σ		0.391%	0.115	1.880	0.628	0.000	570.500	273.200	255.500
%RSD		0.486	119.600	4.317	1.463	0.000	1.017	2.277	2.097
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:44	271.200	2771.000	0.000	7853.000	55870.000	58600.000	75.673%	6.406
2	15:49:11	277.800	2816.000	0.000	7860.000	57530.000	58630.000	77.933%	5.397
3	15:49:37	282.100	2829.000	0.000	7911.000	56390.000	57810.000	78.826%	17.160
x		277.000	2805.000	0.000	7874.000	56600.000	58350.000	77.477%	9.653
σ		5.447	30.370	0.000	31.520	850.200	470.000	1.625%	6.517
%RSD		1.966	1.083	0.000	0.400	1.502	0.805	2.097	67.520
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:44	1.828	6.241	46.460	495.800	668.900	0.590	0.944	5.121
2	15:49:11	9.601	6.496	47.750	507.900	677.000	0.537	0.757	4.975
3	15:49:37	5.213	6.363	47.760	530.100	665.700	0.585	1.006	5.213
x		5.547	6.367	47.320	511.200	670.500	0.571	0.902	5.103
σ		3.897	0.128	0.749	17.400	5.860	0.029	0.130	0.120
%RSD		70.250	2.006	1.583	3.403	0.874	5.068	14.370	2.348
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:44	4.963	16.090	15.710	-0.276	0.244	-0.883	0.000	130.600
2	15:49:11	5.218	15.720	15.600	0.701	-0.363	-0.667	0.000	135.500
3	15:49:37	5.253	16.200	16.830	3.439	-0.262	-0.564	0.000	138.100
x		5.145	16.000	16.050	1.288	-0.127	-0.705	0.000	134.700
σ		0.158	0.253	0.681	1.926	0.325	0.163	0.000	3.812
%RSD		3.076	1.579	4.247	149.500	256.400	23.100	0.000	2.829
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:44	83.116%	11.190	11.410	86.351%	-0.067	-0.079	0.012	0.017
2	15:49:11	85.095%	11.280	11.580	88.827%	-0.066	-0.072	0.157	0.032
3	15:49:37	85.341%	11.810	11.490	91.354%	-0.066	-0.055	0.048	0.007
x		84.517%	11.430	11.490	88.844%	-0.066	-0.069	0.072	0.019
σ		1.220%	0.336	0.082	2.502%	0.001	0.012	0.075	0.012
%RSD		1.443	2.941	0.711	2.816	0.866	17.550	104.100	67.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:44	84.687%	-2.444	-0.680	-0.626	36.170	36.870	90.558%	91.828%
2	15:49:11	88.364%	-2.485	-0.639	-0.660	38.000	36.820	93.127%	94.818%
3	15:49:37	88.914%	-2.303	-0.616	-0.619	37.670	37.980	93.853%	97.328%
x		87.322%	-2.411	-0.645	-0.635	37.280	37.220	92.513%	94.658%
σ		2.298%	0.095	0.032	0.022	0.973	0.656	1.732%	2.753%
%RSD		2.632	3.956	5.010	3.430	2.610	1.763	1.872	2.909
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:48:44	0.021	0.011	1.884	1.685	1.803	88.264%		
2	15:49:11	0.028	0.012	1.818	1.827	1.825	91.543%		
3	15:49:37	0.012	0.010	1.944	1.843	1.878	92.603%		
x		0.020	0.011	1.882	1.785	1.835	90.803%		
σ		0.008	0.001	0.063	0.087	0.039	2.262%		
%RSD		40.700	10.090	3.343	4.875	2.102	2.491		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:59	79.960%	0.005	35.090	33.480	0.000	53740.000	13440.000	13580.000
2	15:53:25	79.394%	-0.207	35.730	37.420	0.000	54800.000	13890.000	14110.000
3	15:53:52	80.076%	0.158	36.030	36.890	0.000	54630.000	13850.000	14150.000
x		79.810%	-0.015	35.620	35.930	0.000	54390.000	13720.000	13950.000
σ		0.365%	0.183	0.479	2.141	0.000	565.600	248.000	321.600
%RSD		0.457	1251.000	1.345	5.960	0.000	1.040	1.807	2.306
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:59	17.270	3388.000	0.000	8232.000	79460.000	81600.000	76.412%	2.217
2	15:53:25	18.310	3586.000	0.000	8290.000	82250.000	83540.000	77.432%	1.699
3	15:53:52	19.900	3603.000	0.000	8381.000	81170.000	82850.000	78.510%	1.553
x		18.490	3525.000	0.000	8301.000	80960.000	82670.000	77.452%	1.823
σ		1.323	119.700	0.000	75.270	1406.000	983.800	1.049%	0.349
%RSD		7.154	3.396	0.000	0.907	1.737	1.190	1.355	19.140
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:59	3.536	12.270	22.140	34.340	303.800	0.314	0.955	1.335
2	15:53:25	2.757	12.600	23.100	35.140	305.700	0.315	1.033	1.291
3	15:53:52	6.632	12.580	22.810	34.880	292.400	0.342	0.981	1.383
x		4.309	12.480	22.680	34.790	300.600	0.323	0.989	1.336
σ		2.050	0.188	0.491	0.405	7.226	0.016	0.040	0.046
%RSD		47.580	1.503	2.164	1.165	2.404	4.854	4.014	3.436
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:59	1.245	6.455	6.231	1.064	-0.447	-0.841	0.000	196.000
2	15:53:25	1.245	6.885	6.896	3.675	-1.105	-0.877	0.000	203.500
3	15:53:52	1.524	6.975	6.939	-1.198	-1.424	0.964	0.000	203.400
x		1.338	6.772	6.689	1.180	-0.992	-0.251	0.000	201.000
σ		0.161	0.278	0.397	2.439	0.498	1.053	0.000	4.330
%RSD		12.020	4.106	5.940	206.600	50.230	419.200	0.000	2.154
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:59	83.692%	0.467	0.495	89.778%	-0.084	-0.104	0.440	0.386
2	15:53:25	84.991%	0.507	0.597	83.308%	-0.083	-0.083	0.418	0.396
3	15:53:52	86.680%	0.554	0.590	85.258%	-0.065	-0.100	0.476	0.395
x		85.121%	0.509	0.561	86.115%	-0.077	-0.096	0.445	0.392
σ		1.499%	0.044	0.057	3.319%	0.011	0.011	0.029	0.005
%RSD		1.761	8.560	10.100	3.854	13.920	11.840	6.554	1.355
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:59	84.119%	-2.416	-0.712	-0.739	54.670	55.870	94.313%	95.409%
2	15:53:25	87.777%	-2.502	-0.735	-0.736	57.860	57.210	94.466%	97.488%
3	15:53:52	88.230%	-2.277	-0.705	-0.745	57.510	57.630	94.304%	99.004%
x		86.708%	-2.398	-0.717	-0.740	56.680	56.910	94.361%	97.300%
σ		2.254%	0.114	0.016	0.005	1.749	0.921	0.091%	1.805%
%RSD		2.600	4.733	2.209	0.625	3.086	1.618	0.096	1.855
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:52:59	0.024	0.006	0.087	0.074	0.104	90.143%		
2	15:53:25	0.021	0.016	0.081	0.123	0.104	94.248%		
3	15:53:52	0.013	0.012	0.144	0.086	0.111	93.480%		
x		0.019	0.011	0.104	0.094	0.107	92.624%		
σ		0.006	0.005	0.035	0.025	0.004	2.182%		
%RSD		29.380	44.440	33.270	26.770	3.649	2.356		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:13	80.131%	-0.287	9.983	9.826	0.000	39550.000	16600.000	16870.000
2	15:57:40	80.220%	0.022	9.840	8.903	0.000	40380.000	17120.000	17440.000
3	15:58:06	81.847%	-0.067	8.603	9.166	0.000	40280.000	17030.000	17640.000
x		80.732%	-0.111	9.475	9.298	0.000	40070.000	16920.000	17320.000
σ		0.966%	0.159	0.759	0.475	0.000	453.000	281.900	398.600
%RSD		1.197	143.900	8.010	5.112	0.000	1.130	1.666	2.302
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:13	24.960	2161.000	0.000	2139.000	81620.000	73270.000	75.907%	1.650
2	15:57:40	26.190	2213.000	0.000	2214.000	73750.000	74890.000	76.808%	1.706
3	15:58:06	25.730	2216.000	0.000	2189.000	74660.000	75610.000	77.424%	1.016
x		25.630	2197.000	0.000	2181.000	76680.000	74590.000	76.713%	1.457
σ		0.624	31.450	0.000	38.190	4307.000	1199.000	0.763%	0.383
%RSD		2.436	1.432	0.000	1.751	5.617	1.608	0.995	26.290
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:13	2.165	7.304	4.485	33.350	280.100	0.139	-0.060	1.598
2	15:57:40	6.046	7.648	4.547	34.770	271.000	0.163	-0.017	1.519
3	15:58:06	6.188	7.581	4.508	35.750	266.800	0.185	-0.272	1.826
x		4.800	7.511	4.513	34.620	272.600	0.162	-0.117	1.648
σ		2.283	0.182	0.032	1.207	6.794	0.023	0.137	0.160
%RSD		47.560	2.429	0.699	3.487	2.492	14.000	117.400	9.704
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:13	1.538	2.802	2.609	2.475	-1.758	-0.933	0.000	114.500
2	15:57:40	1.550	2.699	2.790	4.221	-1.857	0.238	0.000	118.400
3	15:58:06	1.664	3.203	2.867	2.377	-0.806	0.148	0.000	119.600
x		1.584	2.901	2.755	3.024	-1.474	-0.182	0.000	117.500
σ		0.070	0.266	0.133	1.037	0.581	0.652	0.000	2.663
%RSD		4.392	9.169	4.811	34.310	39.400	357.800	0.000	2.266
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:13	81.377%	0.000	0.041	85.117%	-0.094	-0.088	0.058	-0.054
2	15:57:40	80.873%	0.060	0.131	84.650%	-0.088	-0.104	-0.016	0.014
3	15:58:06	81.081%	0.042	0.128	84.831%	-0.098	-0.116	0.007	-0.039
x		81.110%	0.034	0.100	84.866%	-0.093	-0.103	0.016	-0.026
σ		0.253%	0.031	0.051	0.236%	0.005	0.014	0.038	0.036
%RSD		0.312	89.300	51.450	0.278	5.302	13.260	230.700	135.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:13	81.608%	-2.618	-0.804	-0.783	32.090	31.980	87.960%	89.841%
2	15:57:40	82.975%	-2.574	-0.815	-0.823	31.760	32.230	87.928%	89.982%
3	15:58:06	81.035%	-2.424	-0.755	-0.775	32.360	33.030	88.281%	89.270%
x		81.873%	-2.539	-0.791	-0.794	32.070	32.420	88.056%	89.697%
σ		0.997%	0.101	0.032	0.026	0.299	0.548	0.195%	0.377%
%RSD		1.218	3.988	4.044	3.254	0.933	1.690	0.221	0.420
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:57:13	0.012	0.004	0.093	0.105	0.115	85.987%		
2	15:57:40	0.004	0.006	0.114	0.084	0.101	84.892%		
3	15:58:06	0.012	0.003	0.130	0.111	0.113	82.869%		
x		0.010	0.004	0.112	0.100	0.109	84.583%		
σ		0.005	0.002	0.019	0.014	0.008	1.581%		
%RSD		49.550	44.020	16.580	13.810	7.044	1.870		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	78.273%	0.036	97.830	95.270	0.000	81650.000	11800.000	12020.000
2	16:01:55	76.116%	-0.005	101.800	102.200	0.000	85980.000	12570.000	12820.000
3	16:02:22	79.271%	0.127	103.900	94.730	0.000	83860.000	12350.000	12630.000
x		77.886%	0.053	101.200	97.410	0.000	83830.000	12240.000	12490.000
σ		1.613%	0.067	3.076	4.180	0.000	2169.000	399.500	420.300
%RSD		2.071	128.000	3.040	4.291	0.000	2.587	3.264	3.365

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	8.864	3418.000	0.000	15440.000	64000.000	65860.000	78.960%	1.928
2	16:01:55	9.746	3644.000	0.000	16430.000	69570.000	70100.000	76.239%	1.811
3	16:02:22	9.370	3578.000	0.000	16280.000	69440.000	70500.000	77.549%	1.482
x		9.327	3546.000	0.000	16050.000	67670.000	68820.000	77.583%	1.740
σ		0.443	116.300	0.000	535.200	3178.000	2573.000	1.361%	0.231
%RSD		4.744	3.279	0.000	3.335	4.697	3.738	1.754	13.260

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	1.420	5.892	25.390	65.090	291.600	0.457	0.914	3.577
2	16:01:55	4.092	6.171	26.800	70.580	298.100	0.485	1.453	3.843
3	16:02:22	-0.012	6.150	27.110	70.770	287.200	0.414	0.933	3.773
x		1.833	6.071	26.430	68.810	292.300	0.452	1.100	3.731
σ		2.083	0.155	0.914	3.227	5.447	0.036	0.306	0.138
%RSD		113.600	2.558	3.458	4.690	1.863	7.921	27.850	3.703

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	3.429	26.740	26.830	2.211	-0.288	0.049	0.000	167.300
2	16:01:55	3.804	28.330	28.160	4.454	-0.062	-0.058	0.000	174.400
3	16:02:22	3.630	27.910	28.810	0.848	0.243	-0.620	0.000	173.000
x		3.621	27.660	27.940	2.504	-0.035	-0.210	0.000	171.500
σ		0.188	0.825	1.012	1.821	0.266	0.360	0.000	3.753
%RSD		5.180	2.981	3.624	72.710	752.800	171.600	0.000	2.188

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	80.282%	31.350	31.160	83.868%	-0.064	-0.072	0.018	-0.007
2	16:01:55	82.708%	32.130	32.150	87.008%	-0.073	-0.054	0.081	-0.020
3	16:02:22	83.416%	32.770	33.190	86.953%	-0.076	-0.078	0.023	0.004
x		82.135%	32.090	32.160	85.943%	-0.071	-0.068	0.041	-0.008
σ		1.644%	0.711	1.015	1.797%	0.006	0.013	0.035	0.012
%RSD		2.001	2.215	3.157	2.091	8.961	18.560	86.670	156.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	80.768%	-2.407	-0.534	-0.521	31.580	31.240	87.903%	89.408%
2	16:01:55	82.226%	-2.432	-0.447	-0.512	31.750	31.750	91.231%	91.783%
3	16:02:22	84.183%	-2.193	-0.468	-0.521	31.460	31.800	92.363%	92.913%
x		82.392%	-2.344	-0.483	-0.518	31.600	31.600	90.499%	91.368%
σ		1.713%	0.131	0.045	0.005	0.148	0.307	2.318%	1.789%
%RSD		2.080	5.601	9.402	1.001	0.467	0.972	2.562	1.958

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:29	0.008	0.001	1.069	1.036	1.018	83.441%
2	16:01:55	0.017	-0.001	1.156	1.076	1.070	85.725%
3	16:02:22	0.011	-0.002	1.155	1.014	1.054	87.066%
x		0.012	-0.001	1.127	1.042	1.047	85.410%
σ		0.004	0.002	0.050	0.031	0.027	1.833%
%RSD		36.720	194.300	4.442	3.019	2.549	2.146

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:46	73.617%	0.123	16.810	19.220	0.000	42080.000	10990.000	11090.000
2	16:06:13	74.195%	0.388	22.430	18.860	0.000	42320.000	11120.000	11270.000
3	16:06:40	74.706%	0.422	19.300	17.680	0.000	42500.000	11200.000	11370.000
x		74.172%	0.311	19.510	18.590	0.000	42300.000	11100.000	11240.000
σ		0.545%	0.164	2.814	0.807	0.000	211.900	103.300	142.400
%RSD		0.735	52.550	14.420	4.341	0.000	0.501	0.930	1.266
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:46	4947.000	6842.000	0.000	5341.000	52040.000	54520.000	72.506%	71.760
2	16:06:13	4996.000	6885.000	0.000	5443.000	52720.000	55190.000	74.121%	72.360
3	16:06:40	5030.000	6861.000	0.000	5426.000	52610.000	55790.000	74.713%	73.200
x		4991.000	6863.000	0.000	5403.000	52460.000	55170.000	73.780%	72.440
σ		41.770	21.460	0.000	54.750	366.100	637.000	1.142%	0.720
%RSD		0.837	0.313	0.000	1.013	0.698	1.155	1.548	0.993
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:46	16.030	15.310	728.300	8908.000	8861.000	8.277	9.826	25.310
2	16:06:13	14.910	15.250	730.800	8976.000	8996.000	8.577	9.654	25.980
3	16:06:40	15.610	14.790	740.800	8943.000	9040.000	8.480	9.502	25.130
x		15.520	15.120	733.300	8942.000	8966.000	8.444	9.661	25.470
σ		0.567	0.285	6.591	33.680	93.260	0.153	0.162	0.447
%RSD		3.654	1.883	0.899	0.377	1.040	1.813	1.680	1.756
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:46	25.150	99.390	101.300	6.049	-1.217	-1.080	0.000	126.400
2	16:06:13	25.840	100.700	100.900	2.464	-1.375	-0.665	0.000	127.300
3	16:06:40	25.550	101.700	103.800	1.033	-1.758	-1.521	0.000	125.500
x		25.510	100.600	102.000	3.182	-1.450	-1.089	0.000	126.400
σ		0.345	1.148	1.584	2.584	0.278	0.428	0.000	0.909
%RSD		1.351	1.141	1.552	81.200	19.180	39.290	0.000	0.719
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:46	87.317%	0.617	0.732	86.415%	-0.076	-0.066	1.786	1.773
2	16:06:13	90.368%	0.534	0.697	89.347%	-0.064	-0.059	1.819	2.001
3	16:06:40	91.125%	0.444	0.657	89.407%	-0.053	-0.055	1.821	1.736
x		89.603%	0.532	0.695	88.390%	-0.064	-0.060	1.809	1.837
σ		2.016%	0.087	0.038	1.710%	0.012	0.006	0.020	0.144
%RSD		2.250	16.320	5.399	1.935	18.220	9.287	1.096	7.818
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:46	82.733%	-1.814	-0.450	-0.490	113.000	115.200	93.624%	95.699%
2	16:06:13	84.453%	-1.874	-0.431	-0.395	115.600	116.600	95.689%	97.968%
3	16:06:40	86.825%	-1.823	-0.482	-0.495	116.500	116.800	96.157%	98.259%
x		84.670%	-1.837	-0.455	-0.460	115.000	116.200	95.156%	97.309%
σ		2.054%	0.033	0.026	0.056	1.817	0.902	1.347%	1.402%
%RSD		2.426	1.778	5.645	12.220	1.580	0.777	1.416	1.441
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:05:46	0.073	0.072	50.480	47.210	48.180	89.727%		
2	16:06:13	0.084	0.082	50.360	46.310	48.060	93.472%		
3	16:06:40	0.059	0.074	48.850	45.860	46.810	96.740%		
x		0.072	0.076	49.900	46.460	47.680	93.313%		
σ		0.012	0.006	0.906	0.688	0.760	3.509%		
%RSD		17.340	7.264	1.815	1.480	1.594	3.761		

CCV 1487954 4/2/2015 4:09:35 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:02	75.671%	96.770	96.540	99.950	0.000	47570.000	46030.000	45700.000
2	16:10:29	74.935%	103.600	99.490	103.500	0.000	49500.000	48240.000	47890.000
3	16:10:56	77.229%	98.930	102.600	99.740	0.000	48790.000	47930.000	47720.000
x		75.945%	99.763%	99.545%	101.053%	0.000	97.245%	94.800%	94.207%
σ		1.171%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.542	3.490	3.045	2.071	0.000	2.005	2.526	2.591
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:02	465.200	5178.000	0.000	49170.000	47890.000	49530.000	74.899%	100.700
2	16:10:29	487.000	5387.000	0.000	50880.000	49330.000	51390.000	74.487%	102.500
3	16:10:56	485.400	5334.000	0.000	49630.000	48260.000	51890.000	74.914%	104.300
x		95.841%	106.000%	0.000	99.786%	96.986%	101.874%	74.767%	102.476%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.242%	n/a
%RSD		2.537	2.052	0.000	1.765	1.549	2.437	0.324	1.745
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:02	95.750	96.310	497.200	24070.000	25100.000	95.400	95.960	95.450
2	16:10:29	100.700	100.600	521.300	25260.000	26170.000	97.790	99.420	100.000
3	16:10:56	100.900	100.800	525.100	25160.000	26460.000	98.090	98.990	99.370
x		99.130%	99.235%	102.912%	99.331%	103.646%	97.095%	98.125%	98.281%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.956	2.554	2.940	2.671	2.762	1.518	1.923	2.520
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:02	96.200	98.140	97.670	94.700	93.440	99.160	0.000	95.460
2	16:10:29	98.910	101.800	102.100	100.400	96.750	100.400	0.000	98.730
3	16:10:56	101.300	103.100	100.300	97.930	100.200	101.000	0.000	99.080
x		98.795%	101.012%	100.012%	97.675%	96.788%	100.193%	0.000	97.756%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.570	2.531	2.230	2.921	3.476	0.934	0.000	2.045
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:02	78.914%	91.090	88.660	85.649%	93.190	94.580	94.710	94.390
2	16:10:29	78.136%	98.320	95.730	84.936%	94.970	97.390	99.710	98.180
3	16:10:56	78.058%	98.410	99.110	82.306%	93.490	93.730	97.660	96.440
x		78.369%	95.943%	94.502%	84.297%	93.879%	95.234%	97.360%	96.336%
σ		0.474%	n/a	n/a	1.761%	n/a	n/a	n/a	n/a
%RSD		0.605	4.380	5.644	2.089	1.015	2.009	2.587	1.972
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:02	80.521%	96.620	97.560	98.340	94.770	94.620	87.526%	89.365%
2	16:10:29	78.262%	101.600	101.600	102.200	98.480	99.720	86.336%	87.715%
3	16:10:56	80.575%	97.490	99.170	98.040	95.830	96.030	86.844%	87.506%
x		79.786%	98.557%	99.431%	99.531%	96.361%	96.791%	86.902%	88.196%
σ		1.320%	n/a	n/a	n/a	n/a	n/a	0.597%	1.018%
%RSD		1.654	2.670	2.022	2.332	1.985	2.720	0.687	1.155
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:10:02	101.100	102.200	99.850	100.800	99.800	88.849%		
2	16:10:29	105.300	104.600	105.400	105.400	105.200	85.018%		
3	16:10:56	100.700	103.700	102.900	103.500	102.600	84.737%		
x		102.376%	103.488%	102.693%	103.230%	102.512%	86.201%		
σ		n/a	n/a	n/a	n/a	n/a	2.297%		
%RSD		2.443	1.166	2.684	2.249	2.612	2.665		

CCB3 4/2/2015 4:17:07 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:33	80.659%	-0.234	0.101	-0.796	0.000	16.920	5.576	6.832
2	16:18:00	80.440%	0.056	-0.768	-1.105	0.000	17.470	6.498	6.090
3	16:18:26	82.804%	-0.076	-1.074	-1.352	0.000	16.290	6.685	5.371
x		81.301%	-0.085	-0.580	-1.084	0.000	16.890	6.253	6.098
σ		1.306%	0.145	0.610	0.278	0.000	0.593	0.594	0.730
%RSD		1.606	171.100	105.000	25.670	0.000	3.507	9.495	11.980
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:33	0.581	-3.412	0.000	-2.545	-0.446	8.408	80.708%	-0.561
2	16:18:00	0.616	-4.275	0.000	0.585	19.180	4.415	81.836%	-0.509
3	16:18:26	0.555	-4.712	0.000	-7.368	15.110	11.400	82.074%	-0.572
x		0.584	-4.133	0.000	-3.109	11.280	8.074	81.539%	-0.547
σ		0.031	0.661	0.000	4.006	10.360	3.503	0.730%	0.034
%RSD		5.246	16.010	0.000	128.800	91.820	43.390	0.895	6.175
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:33	0.441	0.072	0.103	1.316	8.412	0.010	0.054	-0.018
2	16:18:00	0.057	0.082	0.115	0.016	4.000	0.012	0.066	0.027
3	16:18:26	0.022	0.134	0.094	-0.660	9.525	0.026	0.022	0.056
x		0.174	0.096	0.104	0.224	7.312	0.016	0.048	0.022
σ		0.232	0.033	0.010	1.004	2.922	0.009	0.023	0.037
%RSD		133.800	34.390	9.988	448.400	39.960	53.880	47.930	171.300
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:33	0.034	0.139	0.079	-0.228	-1.198	-0.777	0.000	0.056
2	16:18:00	-0.163	0.050	-0.020	0.119	-0.486	-0.520	0.000	0.043
3	16:18:26	-0.140	0.204	-0.024	-0.474	-0.808	-1.206	0.000	0.051
x		-0.090	0.131	0.012	-0.195	-0.831	-0.834	0.000	0.050
σ		0.108	0.077	0.058	0.298	0.356	0.347	0.000	0.007
%RSD		120.300	58.670	505.200	153.300	42.900	41.580	0.000	13.200
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:33	85.416%	-0.048	-0.107	89.994%	-0.099	-0.110	0.001	-0.013
2	16:18:00	87.294%	-0.085	-0.095	91.091%	-0.094	-0.077	0.047	0.008
3	16:18:26	88.761%	-0.117	-0.071	92.686%	-0.103	-0.100	0.000	-0.031
x		87.157%	-0.083	-0.091	91.257%	-0.099	-0.096	0.016	-0.012
σ		1.677%	0.034	0.018	1.354%	0.004	0.017	0.027	0.019
%RSD		1.924	41.290	19.910	1.483	4.282	17.520	166.500	159.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:33	89.005%	-2.835	-0.813	-0.795	-0.058	0.034	91.954%	94.434%
2	16:18:00	90.042%	-2.720	-0.800	-0.825	0.033	0.048	97.852%	97.858%
3	16:18:26	93.316%	-2.730	-0.808	-0.842	-0.065	0.046	97.368%	99.873%
x		90.788%	-2.762	-0.807	-0.821	-0.030	0.042	95.725%	97.388%
σ		2.250%	0.064	0.006	0.024	0.055	0.008	3.274%	2.749%
%RSD		2.478	2.303	0.800	2.903	182.400	17.960	3.421	2.823
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:17:33	0.013	0.006	-0.008	-0.010	0.002	104.081%		
2	16:18:00	0.014	0.006	-0.002	-0.009	0.008	103.334%		
3	16:18:26	0.010	0.006	0.008	-0.011	0.005	106.515%		
x		0.013	0.006	-0.001	-0.010	0.005	104.644%		
σ		0.002	0.000	0.008	0.001	0.003	1.663%		
%RSD		17.010	4.356	1327.000	8.953	62.930	1.590		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:21:53	74.502%	-0.094	44.140	47.160	0.000	77250.000	18600.000	18880.000
2	16:22:20	77.318%	0.026	47.880	46.830	0.000	77840.000	19020.000	19450.000
3	16:22:46	77.301%	0.025	46.400	45.130	0.000	78410.000	19070.000	19680.000
x		76.374%	-0.014	46.140	46.370	0.000	77840.000	18900.000	19340.000
σ		1.621%	0.069	1.882	1.091	0.000	578.400	261.800	409.100
%RSD		2.122	494.300	4.079	2.353	0.000	0.743	1.385	2.116
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:21:53	23.050	4143.000	0.000	6160.000	92190.000	94710.000	73.033%	2.007
2	16:22:20	22.860	4179.000	0.000	6115.000	93550.000	97000.000	75.370%	1.687
3	16:22:46	23.140	4261.000	0.000	6203.000	94240.000	97190.000	77.100%	1.710
x		23.020	4194.000	0.000	6159.000	93330.000	96300.000	75.168%	1.801
σ		0.140	60.740	0.000	44.110	1044.000	1379.000	2.041%	0.179
%RSD		0.607	1.448	0.000	0.716	1.118	1.432	2.715	9.924
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:21:53	1.321	10.030	19.470	43.250	356.300	0.231	0.184	1.551
2	16:22:20	4.810	10.570	19.950	43.530	361.500	0.239	0.038	1.576
3	16:22:46	5.598	10.790	20.340	44.450	357.800	0.203	0.146	1.754
x		3.910	10.460	19.920	43.740	358.500	0.224	0.123	1.627
σ		2.276	0.390	0.438	0.625	2.674	0.019	0.076	0.111
%RSD		58.220	3.732	2.198	1.430	0.746	8.420	61.890	6.807
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:21:53	1.246	4.242	4.693	3.052	-1.263	-0.589	0.000	202.000
2	16:22:20	1.602	4.551	4.367	3.133	0.186	-0.326	0.000	208.200
3	16:22:46	1.605	4.473	4.647	-0.601	0.327	-0.192	0.000	210.700
x		1.485	4.422	4.569	1.861	-0.250	-0.369	0.000	207.000
σ		0.206	0.161	0.176	2.133	0.880	0.202	0.000	4.454
%RSD		13.900	3.643	3.857	114.600	352.200	54.720	0.000	2.152
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:21:53	81.375%	9.629	9.749	85.325%	-0.077	-0.072	0.148	0.083
2	16:22:20	84.624%	10.160	9.807	88.761%	-0.073	-0.098	0.137	0.120
3	16:22:46	85.945%	10.180	9.805	90.790%	-0.084	-0.077	0.111	0.144
x		83.981%	9.988	9.787	88.292%	-0.078	-0.082	0.132	0.116
σ		2.352%	0.311	0.033	2.762%	0.006	0.014	0.019	0.030
%RSD		2.800	3.114	0.341	3.128	7.509	16.760	14.530	26.280
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:21:53	82.860%	-2.290	-0.646	-0.664	45.140	45.820	91.642%	93.560%
2	16:22:20	86.432%	-2.428	-0.652	-0.714	46.080	46.060	95.444%	96.888%
3	16:22:46	88.950%	-2.345	-0.689	-0.714	46.340	46.010	95.634%	98.691%
x		86.081%	-2.354	-0.662	-0.698	45.850	45.960	94.240%	96.380%
σ		3.060%	0.069	0.023	0.029	0.630	0.126	2.252%	2.603%
%RSD		3.555	2.945	3.501	4.144	1.373	0.274	2.389	2.700
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:21:53	0.018	0.008	0.171	0.175	0.174	89.680%		
2	16:22:20	0.024	0.006	0.161	0.189	0.187	93.422%		
3	16:22:46	0.011	0.006	0.205	0.198	0.205	94.746%		
x		0.018	0.007	0.179	0.187	0.189	92.616%		
σ		0.007	0.001	0.023	0.012	0.016	2.628%		
%RSD		37.690	14.830	12.830	6.362	8.389	2.837		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	78.666%	-0.083	18.230	12.790	0.000	41110.000	7870.000	8003.000
2	16:26:38	79.130%	-0.047	13.500	14.430	0.000	41880.000	8102.000	8239.000
3	16:27:06	79.577%	-0.012	11.710	13.410	0.000	41840.000	8165.000	8250.000
x		79.124%	-0.047	14.480	13.540	0.000	41610.000	8046.000	8164.000
σ		0.455%	0.035	3.370	0.831	0.000	431.400	155.600	139.800
%RSD		0.575	74.590	23.270	6.137	0.000	1.037	1.934	1.712

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	159.100	1865.000	0.000	3967.000	35620.000	35650.000	74.577%	3.251
2	16:26:38	162.200	1861.000	0.000	4107.000	36930.000	36910.000	75.763%	2.758
3	16:27:06	164.600	1853.000	0.000	4069.000	37320.000	36770.000	77.065%	5.875
x		162.000	1860.000	0.000	4048.000	36620.000	36440.000	75.802%	3.961
σ		2.724	6.197	0.000	72.230	891.000	691.600	1.245%	1.675
%RSD		1.682	0.333	0.000	1.784	2.433	1.898	1.642	42.290

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	1.711	5.912	41.940	272.300	389.400	0.325	0.413	2.361
2	16:26:38	0.204	6.118	42.480	277.300	392.800	0.347	0.552	2.641
3	16:27:06	6.118	6.191	42.680	277.000	386.900	0.401	0.610	2.789
x		2.678	6.074	42.370	275.500	389.700	0.358	0.525	2.597
σ		3.073	0.145	0.385	2.806	2.957	0.039	0.101	0.218
%RSD		114.800	2.382	0.910	1.019	0.759	10.900	19.260	8.379

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	2.277	16.450	16.400	-2.433	-0.640	0.246	0.000	107.300
2	16:26:38	2.710	15.990	16.980	3.594	-0.743	-0.015	0.000	107.000
3	16:27:06	2.873	17.670	16.800	4.603	-1.064	0.249	0.000	110.300
x		2.620	16.700	16.730	1.922	-0.816	0.160	0.000	108.200
σ		0.308	0.865	0.300	3.805	0.222	0.152	0.000	1.819
%RSD		11.750	5.178	1.797	198.000	27.160	94.970	0.000	1.681

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	76.092%	0.561	0.700	79.761%	-0.093	-0.083	0.062	0.045
2	16:26:38	79.530%	0.545	0.612	83.847%	-0.094	-0.093	0.079	-0.005
3	16:27:06	80.139%	0.710	0.648	85.240%	-0.076	-0.093	0.087	0.022
x		78.587%	0.605	0.653	82.949%	-0.088	-0.090	0.076	0.021
σ		2.182%	0.091	0.044	2.848%	0.010	0.006	0.013	0.025
%RSD		2.777	14.970	6.799	3.433	11.950	6.508	16.660	119.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	78.056%	-2.381	-0.705	-0.721	36.150	35.060	84.419%	84.902%
2	16:26:38	78.972%	-2.514	-0.727	-0.718	35.970	36.820	86.688%	86.984%
3	16:27:06	82.608%	-2.471	-0.701	-0.708	36.160	36.490	86.162%	88.845%
x		79.878%	-2.455	-0.711	-0.715	36.090	36.120	85.756%	86.910%
σ		2.407%	0.068	0.014	0.007	0.106	0.937	1.188%	1.973%
%RSD		3.014	2.766	1.977	0.947	0.295	2.594	1.385	2.270

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:11	0.016	0.009	0.479	0.502	0.477	79.831%
2	16:26:38	0.009	-0.003	0.495	0.471	0.498	79.609%
3	16:27:06	0.007	0.014	0.515	0.478	0.481	83.179%
x		0.010	0.007	0.496	0.484	0.485	80.873%
σ		0.005	0.008	0.018	0.016	0.011	2.000%
%RSD		46.780	124.100	3.647	3.386	2.338	2.473

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:31	78.583%	-0.142	42.370	42.550	0.000	66990.000	18400.000	18620.000
2	16:30:57	76.846%	0.009	48.730	44.870	0.000	69550.000	19240.000	19820.000
3	16:31:24	77.667%	-0.078	44.360	45.280	0.000	69720.000	19440.000	19960.000
x		77.699%	-0.070	45.150	44.240	0.000	68750.000	19020.000	19470.000
σ		0.869%	0.076	3.255	1.472	0.000	1529.000	552.500	737.200
%RSD		1.118	108.000	7.210	3.327	0.000	2.224	2.904	3.787
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:31	515.100	4669.000	0.000	6018.000	91170.000	94690.000	75.951%	9.844
2	16:30:57	553.200	4870.000	0.000	6163.000	95470.000	98290.000	77.126%	13.140
3	16:31:24	550.400	4894.000	0.000	6198.000	96720.000	98870.000	77.370%	10.470
x		539.600	4811.000	0.000	6126.000	94450.000	97280.000	76.816%	11.150
σ		21.260	123.500	0.000	95.790	2910.000	2265.000	0.759%	1.752
%RSD		3.941	2.566	0.000	1.564	3.081	2.329	0.988	15.710
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:31	5.691	9.848	40.160	923.200	1178.000	0.780	0.619	3.799
2	16:30:57	4.393	10.280	41.940	983.400	1210.000	0.729	0.917	3.822
3	16:31:24	4.007	10.630	42.060	1001.000	1222.000	0.736	0.684	3.944
x		4.697	10.250	41.390	969.300	1203.000	0.748	0.740	3.855
σ		0.882	0.393	1.064	40.890	22.930	0.027	0.157	0.078
%RSD		18.780	3.829	2.570	4.219	1.906	3.657	21.170	2.021
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:31	3.591	11.640	11.270	4.785	-0.794	0.418	0.000	205.100
2	16:30:57	3.914	12.190	11.110	0.104	-0.976	0.206	0.000	209.000
3	16:31:24	4.147	12.210	11.960	3.003	-0.446	-0.553	0.000	210.300
x		3.884	12.010	11.450	2.630	-0.739	0.024	0.000	208.100
σ		0.279	0.328	0.455	2.363	0.270	0.510	0.000	2.728
%RSD		7.181	2.733	3.977	89.820	36.490	2146.000	0.000	1.311
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:31	82.619%	6.051	6.403	86.532%	-0.084	-0.087	0.038	0.078
2	16:30:57	85.289%	6.353	6.284	89.113%	-0.053	-0.091	0.187	0.015
3	16:31:24	86.695%	6.343	6.288	91.518%	-0.064	-0.078	0.013	0.090
x		84.868%	6.249	6.325	89.054%	-0.067	-0.085	0.079	0.061
σ		2.071%	0.172	0.067	2.494%	0.016	0.006	0.094	0.040
%RSD		2.440	2.744	1.067	2.800	23.320	7.480	118.600	65.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:31	83.777%	-2.514	-0.743	-0.746	51.610	50.970	90.510%	93.906%
2	16:30:57	85.889%	-2.521	-0.727	-0.734	53.050	52.840	95.189%	96.632%
3	16:31:24	86.360%	-2.370	-0.720	-0.752	52.540	53.200	96.434%	97.988%
x		85.342%	-2.468	-0.730	-0.744	52.400	52.340	94.044%	96.175%
σ		1.375%	0.085	0.012	0.009	0.730	1.196	3.124%	2.079%
%RSD		1.612	3.450	1.591	1.226	1.394	2.285	3.321	2.162
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:30:31	0.025	0.017	3.699	3.604	3.626	89.688%		
2	16:30:57	0.020	0.015	3.983	3.598	3.748	91.191%		
3	16:31:24	0.030	0.014	3.998	3.675	3.771	92.150%		
x		0.025	0.015	3.893	3.626	3.715	91.010%		
σ		0.005	0.002	0.169	0.042	0.078	1.241%		
%RSD		19.960	10.390	4.333	1.168	2.106	1.363		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:49	79.942%	-0.132	14.290	14.590	0.000	59970.000	10090.000	10200.000
2	16:35:16	80.780%	-0.118	17.470	14.790	0.000	61230.000	10360.000	10560.000
3	16:35:42	79.761%	-0.229	14.480	14.630	0.000	61160.000	10420.000	10610.000
x		80.161%	-0.160	15.420	14.670	0.000	60790.000	10290.000	10460.000
σ		0.544%	0.061	1.786	0.106	0.000	710.800	179.200	225.900
%RSD		0.678	37.940	11.590	0.720	0.000	1.169	1.742	2.161
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:49	36.070	1205.000	0.000	2867.000	50620.000	53820.000	77.494%	1.119
2	16:35:16	36.660	1230.000	0.000	2892.000	52360.000	55030.000	78.498%	1.088
3	16:35:42	38.130	1227.000	0.000	2923.000	53140.000	55330.000	80.008%	1.316
x		36.950	1221.000	0.000	2894.000	52040.000	54730.000	78.667%	1.174
σ		1.063	13.310	0.000	27.900	1290.000	801.200	1.265%	0.123
%RSD		2.877	1.091	0.000	0.964	2.479	1.464	1.609	10.510
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:49	4.988	5.885	17.250	88.420	262.000	0.184	0.510	2.094
2	16:35:16	6.377	5.936	17.560	89.690	266.600	0.198	0.528	2.123
3	16:35:42	2.893	6.013	17.220	88.290	263.400	0.235	0.526	2.000
x		4.752	5.945	17.350	88.800	264.000	0.206	0.521	2.073
σ		1.754	0.065	0.188	0.775	2.384	0.026	0.010	0.064
%RSD		36.900	1.087	1.086	0.873	0.903	12.870	1.901	3.096
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:49	1.993	11.810	11.830	0.013	-1.196	-1.130	0.000	162.100
2	16:35:16	1.875	12.090	12.180	2.905	-1.361	-0.850	0.000	168.200
3	16:35:42	2.000	12.080	12.510	1.873	-1.226	-0.656	0.000	168.400
x		1.956	11.990	12.170	1.597	-1.261	-0.878	0.000	166.300
σ		0.070	0.161	0.337	1.466	0.088	0.238	0.000	3.598
%RSD		3.589	1.341	2.769	91.790	6.953	27.120	0.000	2.164
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:49	83.489%	0.008	0.137	89.810%	-0.089	-0.086	0.009	-0.019
2	16:35:16	85.478%	0.100	0.128	85.926%	-0.080	-0.095	0.023	0.028
3	16:35:42	87.453%	0.063	0.169	87.510%	-0.072	-0.083	0.030	0.015
x		85.473%	0.057	0.145	87.748%	-0.080	-0.088	0.021	0.008
σ		1.982%	0.046	0.022	1.953%	0.009	0.006	0.011	0.024
%RSD		2.319	81.350	14.980	2.226	10.740	7.279	53.410	296.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:49	86.302%	-2.620	-0.711	-0.704	43.560	43.930	94.134%	95.989%
2	16:35:16	88.284%	-2.577	-0.692	-0.723	45.290	45.960	94.398%	98.376%
3	16:35:42	89.685%	-2.707	-0.721	-0.697	45.520	45.140	96.263%	99.794%
x		88.090%	-2.635	-0.708	-0.708	44.790	45.010	94.931%	98.053%
σ		1.700%	0.066	0.015	0.014	1.067	1.019	1.160%	1.923%
%RSD		1.930	2.501	2.055	1.923	2.382	2.264	1.222	1.961
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:34:49	0.008	0.002	0.302	0.298	0.297	92.589%		
2	16:35:16	0.002	-0.002	0.311	0.308	0.300	94.669%		
3	16:35:42	0.001	0.005	0.323	0.295	0.303	96.119%		
x		0.004	0.002	0.312	0.300	0.300	94.459%		
σ		0.004	0.003	0.011	0.007	0.003	1.774%		
%RSD		105.500	184.200	3.410	2.188	0.929	1.878		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:06	77.050%	0.047	16.040	15.680	0.000	57490.000	13160.000	13390.000
2	16:39:33	78.053%	0.117	17.910	14.610	0.000	58220.000	13500.000	13670.000
3	16:39:59	79.990%	-0.017	16.850	14.560	0.000	57930.000	13450.000	13650.000
x		78.364%	0.049	16.930	14.950	0.000	57880.000	13370.000	13570.000
σ		1.495%	0.067	0.939	0.635	0.000	364.800	182.900	154.800
%RSD		1.908	137.100	5.546	4.246	0.000	0.630	1.368	1.141
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:06	156.200	2354.000	0.000	3621.000	58330.000	59890.000	78.157%	3.908
2	16:39:33	162.100	2411.000	0.000	3627.000	59160.000	61230.000	79.285%	3.476
3	16:39:59	160.300	2390.000	0.000	3674.000	60810.000	61690.000	80.115%	3.447
x		159.500	2385.000	0.000	3641.000	59430.000	60940.000	79.186%	3.610
σ		2.991	28.960	0.000	29.200	1265.000	937.000	0.983%	0.259
%RSD		1.875	1.214	0.000	0.802	2.129	1.538	1.241	7.159
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:06	5.010	6.045	38.290	278.400	475.900	0.344	0.566	2.724
2	16:39:33	2.863	6.177	39.220	285.100	472.500	0.363	0.454	2.544
3	16:39:59	-0.724	6.278	39.130	287.600	479.800	0.348	0.569	2.833
x		2.383	6.167	38.880	283.700	476.100	0.352	0.530	2.700
σ		2.897	0.117	0.513	4.728	3.649	0.010	0.066	0.146
%RSD		121.500	1.893	1.320	1.666	0.767	2.838	12.370	5.416
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:06	2.543	6.018	5.360	5.474	-0.981	0.221	0.000	130.300
2	16:39:33	2.558	6.229	6.440	1.089	0.071	0.947	0.000	133.500
3	16:39:59	2.356	6.452	6.176	5.269	0.030	-0.929	0.000	134.000
x		2.486	6.233	5.992	3.944	-0.293	0.080	0.000	132.600
σ		0.113	0.217	0.563	2.474	0.596	0.946	0.000	1.989
%RSD		4.532	3.482	9.399	62.740	203.200	1189.000	0.000	1.500
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:06	77.809%	0.489	0.537	81.430%	-0.088	-0.106	0.016	0.010
2	16:39:33	79.675%	0.383	0.374	82.827%	-0.073	-0.097	0.049	0.010
3	16:39:59	80.976%	0.396	0.574	83.783%	-0.079	-0.095	-0.045	-0.049
x		79.487%	0.423	0.495	82.680%	-0.080	-0.099	0.007	-0.010
σ		1.592%	0.058	0.106	1.183%	0.007	0.006	0.048	0.034
%RSD		2.002	13.660	21.470	1.431	8.859	6.141	712.700	349.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:06	79.131%	-2.452	-0.740	-0.744	38.040	38.070	85.620%	86.631%
2	16:39:33	81.345%	-2.282	-0.726	-0.738	38.560	38.660	86.367%	87.387%
3	16:39:59	81.846%	-2.234	-0.721	-0.732	38.960	40.030	87.322%	89.354%
x		80.774%	-2.322	-0.729	-0.738	38.520	38.920	86.436%	87.791%
σ		1.445%	0.114	0.010	0.006	0.460	1.007	0.853%	1.405%
%RSD		1.788	4.926	1.349	0.801	1.195	2.588	0.987	1.601
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:39:06	0.019	0.007	0.785	0.675	0.718	81.251%		
2	16:39:33	0.014	0.010	0.733	0.617	0.687	81.864%		
3	16:39:59	0.002	0.005	0.697	0.657	0.703	82.386%		
x		0.012	0.007	0.739	0.650	0.702	81.834%		
σ		0.009	0.003	0.044	0.029	0.016	0.568%		
%RSD		76.090	35.870	6.004	4.515	2.220	0.694		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	76.446%	0.013	31.710	31.010	0.000	59770.000	14620.000	14840.000
2	16:43:47	77.651%	0.102	33.270	29.800	0.000	60560.000	14980.000	15240.000
3	16:44:14	77.449%	-0.216	30.270	30.330	0.000	60890.000	15010.000	15470.000
x		77.182%	-0.033	31.750	30.380	0.000	60400.000	14870.000	15180.000
σ		0.645%	0.164	1.499	0.606	0.000	574.700	213.800	318.700
%RSD		0.836	491.500	4.722	1.995	0.000	0.952	1.438	2.099

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	135.700	3090.000	0.000	5623.000	66870.000	68670.000	75.213%	2.937
2	16:43:47	138.900	3123.000	0.000	5666.000	67920.000	69990.000	77.176%	3.802
3	16:44:14	139.700	3137.000	0.000	5789.000	69020.000	69870.000	77.554%	2.811
x		138.100	3117.000	0.000	5692.000	67940.000	69510.000	76.648%	3.183
σ		2.103	24.410	0.000	86.050	1080.000	731.300	1.257%	0.539
%RSD		1.523	0.783	0.000	1.512	1.590	1.052	1.640	16.940

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	-0.237	7.476	49.330	242.600	462.500	0.503	0.810	2.964
2	16:43:47	5.899	7.439	50.510	250.700	466.700	0.518	0.695	3.149
3	16:44:14	6.060	7.495	50.680	253.700	463.000	0.495	0.745	3.135
x		3.907	7.470	50.170	249.000	464.100	0.506	0.750	3.083
σ		3.590	0.028	0.735	5.734	2.267	0.011	0.058	0.103
%RSD		91.870	0.377	1.465	2.303	0.488	2.254	7.730	3.353

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	3.155	6.654	6.810	0.349	-0.986	0.363	0.000	149.900
2	16:43:47	2.827	6.934	7.282	3.260	-1.396	0.423	0.000	151.200
3	16:44:14	3.230	6.740	7.240	0.729	-1.102	-0.406	0.000	153.500
x		3.071	6.776	7.110	1.446	-1.161	0.127	0.000	151.600
σ		0.214	0.143	0.261	1.582	0.212	0.462	0.000	1.816
%RSD		6.967	2.116	3.676	109.400	18.230	364.800	0.000	1.198

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	81.329%	5.614	5.618	84.975%	-0.088	-0.086	0.105	0.028
2	16:43:47	84.071%	5.935	5.766	87.537%	-0.084	-0.075	0.060	0.035
3	16:44:14	84.889%	5.770	5.737	89.291%	-0.089	-0.097	0.081	-0.035
x		83.430%	5.773	5.707	87.267%	-0.087	-0.086	0.082	0.009
σ		1.864%	0.161	0.079	2.171%	0.003	0.011	0.023	0.038
%RSD		2.235	2.786	1.379	2.487	3.052	12.990	27.720	423.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	83.947%	-2.545	-0.699	-0.748	40.360	39.270	89.645%	91.512%
2	16:43:47	85.923%	-2.534	-0.728	-0.722	41.060	40.140	92.052%	93.882%
3	16:44:14	87.020%	-2.664	-0.749	-0.692	41.060	40.630	92.727%	94.960%
x		85.630%	-2.581	-0.725	-0.721	40.830	40.010	91.475%	93.451%
σ		1.557%	0.072	0.025	0.028	0.404	0.686	1.620%	1.764%
%RSD		1.818	2.798	3.439	3.891	0.989	1.715	1.771	1.888

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:21	0.016	0.002	0.545	0.446	0.511	87.589%
2	16:43:47	0.010	0.008	0.497	0.490	0.511	90.282%
3	16:44:14	0.022	0.007	0.511	0.472	0.496	91.058%
x		0.016	0.006	0.518	0.469	0.506	89.643%
σ		0.006	0.003	0.025	0.022	0.009	1.821%
%RSD		37.850	55.370	4.779	4.720	1.725	2.031

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	78.289%	-0.143	37.120	33.420	0.000	51620.000	13280.000	13410.000
2	16:48:03	78.846%	-0.126	33.860	35.940	0.000	52840.000	13750.000	13890.000
3	16:48:30	78.690%	-0.105	34.640	32.640	0.000	52800.000	13780.000	14150.000
x		78.608%	-0.125	35.210	34.000	0.000	52420.000	13600.000	13820.000
σ		0.287%	0.019	1.700	1.726	0.000	693.900	280.500	377.700
%RSD		0.365	15.100	4.829	5.077	0.000	1.324	2.062	2.733

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	84.980	2472.000	0.000	6258.000	60380.000	61580.000	79.938%	3.239
2	16:48:03	86.590	2500.000	0.000	6359.000	62260.000	64100.000	79.608%	2.628
3	16:48:30	91.680	2566.000	0.000	6525.000	63010.000	65740.000	78.807%	2.809
x		87.750	2513.000	0.000	6381.000	61880.000	63810.000	79.451%	2.892
σ		3.496	47.890	0.000	134.700	1354.000	2096.000	0.581%	0.314
%RSD		3.984	1.906	0.000	2.112	2.189	3.285	0.732	10.840

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	9.706	6.602	25.270	156.200	371.900	0.391	0.541	2.271
2	16:48:03	4.058	6.812	26.260	162.100	368.100	0.389	0.375	2.698
3	16:48:30	7.148	6.854	26.260	166.600	369.000	0.432	0.690	2.792
x		6.971	6.756	25.930	161.600	369.700	0.404	0.535	2.587
σ		2.828	0.135	0.572	5.200	1.969	0.024	0.158	0.278
%RSD		40.570	2.002	2.207	3.218	0.533	6.047	29.460	10.730

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	2.563	11.190	11.280	0.285	-0.983	-0.776	0.000	129.000
2	16:48:03	2.333	11.960	10.760	2.826	-0.912	-0.184	0.000	132.900
3	16:48:30	2.304	11.470	11.660	5.435	-1.005	-0.566	0.000	134.300
x		2.400	11.540	11.230	2.849	-0.967	-0.508	0.000	132.100
σ		0.142	0.392	0.449	2.575	0.049	0.300	0.000	2.748
%RSD		5.919	3.393	4.002	90.400	5.071	59.000	0.000	2.080

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	84.911%	8.892	8.691	89.217%	-0.095	-0.087	-0.030	0.016
2	16:48:03	84.991%	9.182	9.415	84.929%	-0.086	-0.099	0.058	0.049
3	16:48:30	86.978%	9.541	9.534	86.221%	-0.061	-0.079	0.070	-0.045
x		85.627%	9.205	9.213	86.789%	-0.081	-0.088	0.033	0.006
σ		1.171%	0.325	0.456	2.200%	0.017	0.010	0.054	0.048
%RSD		1.367	3.532	4.954	2.534	21.480	11.380	166.200	740.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	85.543%	-2.408	-0.670	-0.721	33.880	33.700	95.061%	96.363%
2	16:48:03	88.241%	-2.399	-0.687	-0.685	33.660	34.400	97.885%	98.197%
3	16:48:30	89.870%	-2.401	-0.686	-0.707	34.270	33.970	97.416%	100.400%
x		87.885%	-2.402	-0.681	-0.704	33.940	34.030	96.787%	98.320%
σ		2.185%	0.005	0.010	0.018	0.309	0.352	1.514%	2.021%
%RSD		2.486	0.196	1.397	2.564	0.912	1.035	1.564	2.056

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:37	0.020	0.010	0.675	0.664	0.651	92.879%
2	16:48:03	0.018	0.012	0.657	0.668	0.656	95.338%
3	16:48:30	0.025	0.010	0.690	0.632	0.671	96.328%
x		0.021	0.010	0.674	0.655	0.660	94.848%
σ		0.003	0.001	0.016	0.020	0.011	1.776%
%RSD		15.150	9.990	2.438	2.998	1.619	1.873

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	69.770%	1.112	24.820	21.350	0.000	40060.000	19780.000	20200.000
2	16:52:18	71.738%	0.810	24.380	20.830	0.000	40650.000	20380.000	20930.000
3	16:52:45	72.569%	0.880	22.640	20.420	0.000	40960.000	20570.000	21020.000
x		71.359%	0.934	23.950	20.870	0.000	40560.000	20240.000	20720.000
σ		1.437%	0.158	1.156	0.465	0.000	453.900	408.900	448.700
%RSD		2.014	16.930	4.827	2.227	0.000	1.119	2.020	2.166

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	16050.000	17820.000	0.000	6078.000	66090.000	67920.000	74.339%	198.600
2	16:52:18	16610.000	18270.000	0.000	6349.000	69990.000	71830.000	73.403%	206.100
3	16:52:45	16740.000	18470.000	0.000	6335.000	70980.000	71740.000	73.262%	210.200
x		16470.000	18190.000	0.000	6254.000	69020.000	70500.000	73.668%	205.000
σ		364.600	333.200	0.000	152.400	2586.000	2230.000	0.585%	5.861
%RSD		2.214	1.832	0.000	2.437	3.747	3.163	0.795	2.859

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	35.730	32.830	1683.000	27380.000	28180.000	23.820	25.740	74.300
2	16:52:18	35.960	33.980	1757.000	28430.000	29390.000	24.430	27.590	75.110
3	16:52:45	39.140	34.720	1784.000	29240.000	30240.000	24.430	27.800	76.870
x		36.940	33.840	1741.000	28350.000	29270.000	24.230	27.040	75.420
σ		1.905	0.952	52.470	931.700	1036.000	0.354	1.131	1.312
%RSD		5.156	2.812	3.013	3.286	3.541	1.460	4.182	1.740

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	73.550	338.400	342.600	6.965	-1.068	-1.066	0.000	128.800
2	16:52:18	74.930	351.800	348.800	7.097	-2.348	-1.399	0.000	128.400
3	16:52:45	76.860	349.200	352.300	5.042	-0.674	-0.268	0.000	130.900
x		75.110	346.400	347.900	6.368	-1.363	-0.911	0.000	129.400
σ		1.661	7.081	4.893	1.150	0.875	0.581	0.000	1.365
%RSD		2.211	2.044	1.406	18.060	64.200	63.790	0.000	1.055

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	94.821%	1.820	1.923	82.434%	0.153	0.134	2.810	2.823
2	16:52:18	97.535%	1.861	1.929	83.229%	0.119	0.122	2.697	2.874
3	16:52:45	95.933%	1.749	2.014	81.293%	0.173	0.121	2.630	2.882
x		96.096%	1.810	1.955	82.319%	0.148	0.126	2.712	2.860
σ		1.364%	0.057	0.051	0.973%	0.027	0.007	0.091	0.032
%RSD		1.420	3.139	2.620	1.182	18.200	5.628	3.343	1.129

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	79.997%	1.082	-0.025	-0.040	255.800	253.000	90.634%	93.082%
2	16:52:18	81.239%	1.036	-0.059	0.016	255.900	255.000	90.912%	92.810%
3	16:52:45	80.043%	1.112	-0.042	-0.123	255.000	259.100	90.031%	91.381%
x		80.427%	1.077	-0.042	-0.049	255.600	255.700	90.526%	92.425%
σ		0.704%	0.038	0.017	0.070	0.458	3.110	0.450%	0.914%
%RSD		0.875	3.514	40.770	143.300	0.179	1.216	0.497	0.989

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:51:51	0.233	0.207	225.000	207.900	217.300	87.745%
2	16:52:18	0.213	0.204	226.600	210.500	218.400	88.011%
3	16:52:45	0.182	0.225	226.100	211.000	218.200	85.427%
x		0.209	0.212	225.900	209.800	218.000	87.061%
σ		0.026	0.012	0.813	1.657	0.591	1.421%
%RSD		12.250	5.479	0.360	0.790	0.271	1.633

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	72.311%	0.158	49.010	41.920	0.000	51850.000	17530.000	17860.000
2	16:56:33	76.093%	-0.045	40.220	42.740	0.000	51740.000	17750.000	18260.000
3	16:56:59	75.508%	-0.123	48.110	42.460	0.000	52480.000	17920.000	18390.000
x		74.637%	-0.003	45.780	42.370	0.000	52020.000	17730.000	18170.000
σ		2.036%	0.145	4.835	0.419	0.000	400.800	197.000	275.300
%RSD		2.728	4343.000	10.560	0.989	0.000	0.770	1.111	1.515

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	1.742	4510.000	0.000	4509.000	87110.000	89770.000	72.673%	0.655
2	16:56:33	1.471	4530.000	0.000	4551.000	89860.000	92800.000	74.740%	1.293
3	16:56:59	2.108	4620.000	0.000	4602.000	90520.000	93180.000	76.394%	0.890
x		1.773	4554.000	0.000	4554.000	89170.000	91920.000	74.602%	0.946
σ		0.320	58.560	0.000	46.400	1806.000	1872.000	1.865%	0.323
%RSD		18.030	1.286	0.000	1.019	2.026	2.036	2.499	34.110

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	1.472	9.281	2.125	20.610	315.100	0.181	0.033	1.244
2	16:56:33	4.014	9.370	2.135	10.680	304.400	0.182	-0.182	1.278
3	16:56:59	3.771	9.865	2.151	8.057	296.200	0.152	-0.134	1.242
x		3.086	9.505	2.137	13.120	305.200	0.172	-0.094	1.255
σ		1.403	0.315	0.013	6.623	9.498	0.017	0.113	0.021
%RSD		45.470	3.310	0.613	50.490	3.112	9.872	119.800	1.636

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	1.274	1.662	1.671	1.350	-0.853	0.455	0.000	195.200
2	16:56:33	1.261	1.948	1.709	5.742	-0.276	0.215	0.000	202.200
3	16:56:59	1.149	1.564	1.752	-1.947	-0.533	-0.352	0.000	201.000
x		1.228	1.725	1.711	1.715	-0.554	0.106	0.000	199.500
σ		0.068	0.200	0.040	3.857	0.289	0.414	0.000	3.747
%RSD		5.565	11.570	2.364	224.900	52.170	390.600	0.000	1.879

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	75.976%	3.830	3.481	79.497%	-0.077	-0.109	0.029	-0.076
2	16:56:33	80.026%	3.609	3.756	82.783%	-0.105	-0.109	-0.008	-0.078
3	16:56:59	82.253%	3.902	3.857	85.636%	-0.081	-0.104	-0.027	0.007
x		79.418%	3.780	3.698	82.639%	-0.088	-0.107	-0.002	-0.049
σ		3.182%	0.153	0.195	3.072%	0.015	0.003	0.028	0.048
%RSD		4.007	4.040	5.267	3.717	17.120	2.881	1468.000	98.210

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	78.530%	-2.631	-0.800	-0.804	40.940	40.930	85.908%	86.976%
2	16:56:33	81.458%	-2.643	-0.782	-0.814	42.200	42.540	88.061%	89.518%
3	16:56:59	83.260%	-2.785	-0.798	-0.794	43.020	42.750	90.769%	91.567%
x		81.083%	-2.686	-0.793	-0.804	42.050	42.070	88.246%	89.354%
σ		2.387%	0.086	0.010	0.010	1.044	0.994	2.436%	2.300%
%RSD		2.944	3.184	1.264	1.267	2.483	2.363	2.760	2.574

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:06	0.019	0.008	0.049	0.044	0.054	81.835%
2	16:56:33	0.011	0.004	0.055	0.058	0.050	84.132%
3	16:56:59	0.024	0.004	0.053	0.050	0.049	86.075%
x		0.018	0.005	0.052	0.050	0.051	84.014%
σ		0.007	0.002	0.003	0.007	0.003	2.123%
%RSD		37.060	45.180	6.245	14.120	5.219	2.527

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:21	75.349%	0.001	37.490	31.880	0.000	36740.000	13490.000	13780.000
2	17:00:48	76.127%	-0.108	33.920	32.340	0.000	37420.000	13960.000	14260.000
3	17:01:15	78.172%	-0.240	31.940	32.780	0.000	36670.000	13770.000	14150.000
x		76.549%	-0.116	34.450	32.330	0.000	36940.000	13740.000	14060.000
σ		1.458%	0.121	2.814	0.448	0.000	415.800	241.400	249.700
%RSD		1.905	104.700	8.167	1.386	0.000	1.126	1.757	1.776
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:21	12.110	5392.000	0.000	3818.000	102800.000	105600.000	76.292%	1.000
2	17:00:48	12.250	5522.000	0.000	3829.000	103200.000	106700.000	77.550%	0.900
3	17:01:15	12.530	5467.000	0.000	3875.000	104700.000	107000.000	79.032%	1.555
x		12.290	5460.000	0.000	3841.000	103600.000	106400.000	77.625%	1.151
σ		0.212	65.220	0.000	30.330	1004.000	713.000	1.371%	0.353
%RSD		1.728	1.195	0.000	0.790	0.969	0.670	1.767	30.680
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:21	1.929	8.977	7.095	47.050	391.500	0.192	0.114	1.534
2	17:00:48	4.174	9.154	7.461	47.420	379.300	0.205	-0.055	1.355
3	17:01:15	-1.040	9.253	7.446	45.780	371.700	0.199	-0.043	1.438
x		1.688	9.128	7.334	46.750	380.800	0.199	0.005	1.442
σ		2.616	0.140	0.207	0.861	9.990	0.007	0.094	0.090
%RSD		155.000	1.529	2.819	1.842	2.623	3.449	1749.000	6.216
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:21	1.526	10.920	12.060	-0.151	-0.433	-0.684	0.000	197.100
2	17:00:48	1.171	11.230	11.240	1.232	-0.707	0.041	0.000	203.500
3	17:01:15	1.658	11.020	11.740	1.192	0.453	-0.208	0.000	205.000
x		1.452	11.060	11.680	0.758	-0.229	-0.284	0.000	201.800
σ		0.252	0.158	0.416	0.787	0.606	0.368	0.000	4.198
%RSD		17.360	1.432	3.564	103.900	264.400	129.900	0.000	2.080
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:21	84.652%	1.653	1.589	90.375%	-0.083	-0.093	-0.034	-0.012
2	17:00:48	86.421%	1.798	1.810	85.900%	-0.094	-0.096	-0.012	-0.049
3	17:01:15	87.857%	1.790	1.557	94.139%	-0.104	-0.108	0.012	-0.020
x		86.310%	1.747	1.652	90.138%	-0.094	-0.099	-0.011	-0.027
σ		1.605%	0.081	0.138	4.124%	0.010	0.008	0.023	0.019
%RSD		1.860	4.641	8.325	4.576	11.200	8.340	202.000	72.130
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:21	84.513%	-2.609	-0.810	-0.829	40.930	42.280	95.037%	96.948%
2	17:00:48	88.945%	-2.575	-0.835	-0.827	42.110	42.320	94.803%	100.234%
3	17:01:15	90.429%	-2.724	-0.801	-0.818	41.750	42.120	97.197%	101.462%
x		87.962%	-2.636	-0.815	-0.825	41.600	42.240	95.679%	99.548%
σ		3.078%	0.078	0.018	0.006	0.609	0.103	1.320%	2.334%
%RSD		3.499	2.958	2.156	0.713	1.463	0.243	1.379	2.344
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:00:21	0.004	0.009	0.085	0.042	0.074	92.065%		
2	17:00:48	0.010	0.004	0.067	0.068	0.067	96.388%		
3	17:01:15	0.012	0.006	0.063	0.066	0.068	100.148%		
x		0.008	0.006	0.071	0.059	0.070	96.200%		
σ		0.004	0.002	0.012	0.014	0.004	4.045%		
%RSD		47.860	34.610	16.230	24.110	5.356	4.204		

CCV 1487954 4/2/2015 5:04:10 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:37	73.955%	98.810	101.800	100.400	0.000	48460.000	46930.000	46470.000
2	17:05:03	73.177%	100.300	109.900	98.870	0.000	49450.000	48350.000	47880.000
3	17:05:30	74.371%	101.900	98.390	102.400	0.000	49470.000	48300.000	47650.000
x		73.834%	100.316%	103.366%	100.532%	0.000	98.252%	95.718%	94.671%
σ		0.606%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.821	1.526	5.713	1.749	0.000	1.176	1.689	1.597
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:37	471.400	5267.000	0.000	49950.000	48030.000	49780.000	74.317%	98.580
2	17:05:03	486.900	5376.000	0.000	50910.000	49160.000	51150.000	75.245%	102.100
3	17:05:30	486.400	5354.000	0.000	50650.000	49930.000	51670.000	74.692%	103.100
x		96.314%	106.646%	0.000	101.012%	98.080%	101.730%	74.752%	101.244%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.467%	n/a
%RSD		1.829	1.077	0.000	0.980	1.947	1.917	0.624	2.334
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:37	97.590	96.410	500.800	24320.000	25110.000	94.970	95.530	96.630
2	17:05:03	99.370	100.400	510.800	24920.000	25770.000	96.860	98.560	98.030
3	17:05:30	100.200	101.500	521.100	25300.000	26110.000	97.420	99.860	98.970
x		99.053%	99.448%	102.181%	99.381%	102.643%	96.415%	97.982%	97.876%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.345	2.706	1.987	1.985	1.985	1.332	2.266	1.200
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:37	95.040	97.670	97.250	94.570	98.370	98.260	0.000	95.290
2	17:05:03	100.300	101.200	100.700	97.040	95.780	97.870	0.000	97.530
3	17:05:30	98.240	102.200	103.000	97.300	99.020	98.990	0.000	98.420
x		97.857%	100.360%	100.316%	96.304%	97.724%	98.370%	0.000	97.081%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.701	2.372	2.878	1.569	1.750	0.577	0.000	1.662
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:37	80.197%	89.720	90.290	87.046%	93.440	93.020	94.670	95.200
2	17:05:03	80.909%	98.640	95.350	88.332%	93.860	94.020	97.760	97.190
3	17:05:30	80.962%	97.760	97.010	88.309%	94.520	95.010	98.060	97.140
x		80.689%	95.373%	94.214%	87.896%	93.939%	94.015%	96.827%	96.512%
σ		0.427%	n/a	n/a	0.736%	n/a	n/a	n/a	n/a
%RSD		0.529	5.155	3.715	0.837	0.583	1.062	1.937	1.174
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:37	81.447%	95.650	98.610	97.860	94.740	94.830	90.202%	91.571%
2	17:05:03	83.017%	98.970	99.800	100.900	98.230	99.400	90.854%	92.465%
3	17:05:30	82.555%	98.300	100.000	100.400	98.030	100.100	91.388%	93.571%
x		82.340%	97.637%	99.485%	99.702%	97.001%	98.101%	90.815%	92.536%
σ		0.807%	n/a	n/a	n/a	n/a	n/a	0.594%	1.002%
%RSD		0.980	1.797	0.768	1.621	2.024	2.904	0.654	1.082
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:04:37	99.840	100.900	99.060	100.600	99.530	91.820%		
2	17:05:03	102.100	103.000	102.400	103.700	102.500	92.574%		
3	17:05:30	102.900	104.900	104.900	105.000	104.500	91.235%		
x		101.640%	102.943%	102.121%	103.081%	102.171%	91.876%		
σ		n/a	n/a	n/a	n/a	n/a	0.671%		
%RSD		1.585	1.949	2.857	2.193	2.429	0.730		

CCB4 4/2/2015 5:11:34 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	80.794%	-0.061	-1.095	-0.888	0.000	14.550	8.399	8.737
2	17:12:26	80.877%	-0.196	-1.319	-1.320	0.000	13.920	7.077	7.840
3	17:12:53	80.862%	-0.157	-1.319	-1.392	0.000	13.730	6.045	6.758
x		80.845%	-0.138	-1.244	-1.200	0.000	14.070	7.174	7.778
σ		0.044%	0.070	0.129	0.272	0.000	0.433	1.180	0.991
%RSD		0.054	50.550	10.390	22.700	0.000	3.075	16.450	12.740

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	0.750	-4.162	0.000	-5.303	-2.705	11.840	78.685%	-0.481
2	17:12:26	0.756	-4.553	0.000	-2.860	2.557	8.401	79.320%	-0.530
3	17:12:53	0.691	-4.742	0.000	-7.054	17.640	9.977	79.572%	-0.615
x		0.732	-4.485	0.000	-5.072	5.831	10.070	79.192%	-0.542
σ		0.036	0.296	0.000	2.106	10.560	1.720	0.457%	0.068
%RSD		4.913	6.597	0.000	41.530	181.100	17.080	0.577	12.550

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	0.104	0.124	0.118	2.437	7.669	0.048	-0.027	0.027
2	17:12:26	0.186	0.159	0.147	0.742	9.627	0.016	-0.070	0.016
3	17:12:53	0.231	0.107	0.108	0.172	8.381	0.043	-0.016	0.056
x		0.174	0.130	0.124	1.117	8.559	0.036	-0.038	0.033
σ		0.065	0.027	0.020	1.179	0.991	0.017	0.028	0.021
%RSD		37.120	20.510	16.260	105.500	11.580	49.000	75.610	63.080

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	-0.096	0.063	-0.014	-0.344	-0.307	-0.673	0.000	0.075
2	17:12:26	0.007	0.115	-0.086	-0.418	0.673	-0.281	0.000	0.040
3	17:12:53	-0.169	0.068	0.117	-0.540	-0.874	-0.095	0.000	0.048
x		-0.086	0.082	0.006	-0.434	-0.169	-0.350	0.000	0.054
σ		0.089	0.029	0.103	0.099	0.783	0.295	0.000	0.019
%RSD		103.000	35.240	1823.000	22.820	462.000	84.400	0.000	34.020

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	81.743%	-0.042	-0.113	92.189%	-0.085	-0.101	0.013	0.099
2	17:12:26	85.511%	-0.057	-0.108	88.208%	-0.088	-0.074	-0.031	0.064
3	17:12:53	85.550%	-0.117	-0.093	89.857%	-0.088	-0.071	-0.032	0.021
x		84.268%	-0.072	-0.105	90.085%	-0.087	-0.082	-0.017	0.061
σ		2.186%	0.040	0.011	2.000%	0.002	0.017	0.026	0.039
%RSD		2.595	55.580	10.160	2.220	1.882	20.350	155.900	63.530

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	85.444%	-2.808	-0.786	-0.825	0.038	0.045	89.224%	92.197%
2	17:12:26	87.908%	-2.827	-0.788	-0.812	0.064	0.040	93.636%	94.560%
3	17:12:53	88.331%	-2.713	-0.801	-0.802	-0.054	0.022	95.957%	96.347%
x		87.228%	-2.783	-0.792	-0.813	0.016	0.036	92.939%	94.368%
σ		1.559%	0.061	0.008	0.012	0.062	0.012	3.420%	2.082%
%RSD		1.788	2.207	1.061	1.417	388.000	34.570	3.680	2.206

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:00	0.017	0.013	0.006	-0.005	0.010	101.704%
2	17:12:26	0.014	0.007	0.001	-0.004	0.009	100.479%
3	17:12:53	0.011	0.014	0.017	-0.015	0.008	102.261%
x		0.014	0.011	0.008	-0.008	0.009	101.482%
σ		0.003	0.004	0.009	0.006	0.001	0.912%
%RSD		21.460	34.640	106.600	79.090	11.570	0.899

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:17	70.458%	-0.041	5.486	5.809	0.000	7290.000	2594.000	2590.000
2	17:16:44	69.667%	0.100	6.102	5.629	0.000	7534.000	2713.000	2666.000
3	17:17:11	70.867%	-0.306	5.311	5.551	0.000	7471.000	2684.000	2660.000
x		70.331%	-0.083	5.633	5.663	0.000	7432.000	2664.000	2639.000
σ		0.610%	0.206	0.416	0.133	0.000	126.800	62.440	42.740
%RSD		0.868	249.700	7.381	2.340	0.000	1.706	2.344	1.620
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:17	2.756	969.500	0.000	717.900	19740.000	19310.000	70.971%	0.015
2	17:16:44	2.827	1003.000	0.000	740.700	20480.000	19790.000	70.167%	-0.233
3	17:17:11	2.377	988.800	0.000	741.900	20140.000	19960.000	70.931%	-0.431
x		2.653	987.000	0.000	733.500	20120.000	19690.000	70.690%	-0.216
σ		0.242	16.720	0.000	13.510	368.900	341.200	0.453%	0.223
%RSD		9.127	1.694	0.000	1.842	1.834	1.733	0.641	103.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:17	0.697	1.399	1.343	2.816	79.960	0.050	-0.083	0.194
2	17:16:44	1.740	1.543	1.456	3.522	74.930	0.035	-0.034	0.295
3	17:17:11	0.834	1.437	1.469	4.388	77.830	0.057	-0.029	0.248
x		1.090	1.460	1.423	3.575	77.570	0.047	-0.049	0.245
σ		0.567	0.075	0.069	0.787	2.528	0.011	0.030	0.051
%RSD		51.990	5.111	4.868	22.010	3.259	22.950	61.420	20.600
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:17	0.447	2.415	2.376	-0.052	-1.015	-1.092	0.000	37.420
2	17:16:44	0.354	2.764	2.773	-1.658	-0.435	-0.727	0.000	38.840
3	17:17:11	0.188	3.016	2.529	0.446	-0.554	-0.091	0.000	39.060
x		0.330	2.732	2.559	-0.421	-0.668	-0.637	0.000	38.440
σ		0.131	0.302	0.201	1.100	0.306	0.507	0.000	0.888
%RSD		39.840	11.040	7.837	261.000	45.880	79.590	0.000	2.311
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:17	78.608%	-0.005	0.097	86.207%	-0.085	-0.082	0.011	-0.049
2	17:16:44	79.237%	0.116	0.112	87.706%	-0.102	-0.093	0.014	-0.018
3	17:17:11	80.194%	0.213	0.144	90.135%	-0.067	-0.090	-0.009	0.060
x		79.346%	0.108	0.117	88.016%	-0.084	-0.088	0.005	-0.002
σ		0.799%	0.110	0.024	1.982%	0.018	0.005	0.012	0.056
%RSD		1.007	101.600	20.420	2.252	20.850	5.982	239.400	2398.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:17	81.732%	-2.709	-0.814	-0.836	8.267	8.155	92.362%	93.572%
2	17:16:44	82.854%	-2.731	-0.818	-0.831	7.983	8.639	92.060%	94.331%
3	17:17:11	83.936%	-2.720	-0.822	-0.821	8.701	8.638	93.238%	95.537%
x		82.840%	-2.720	-0.818	-0.830	8.317	8.478	92.553%	94.480%
σ		1.102%	0.011	0.004	0.008	0.362	0.279	0.612%	0.991%
%RSD		1.330	0.406	0.485	0.914	4.352	3.295	0.661	1.049
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:16:17	0.004	-0.000	0.055	0.043	0.054	99.767%		
2	17:16:44	0.001	-0.002	0.060	0.067	0.063	97.972%		
3	17:17:11	0.010	-0.001	0.073	0.044	0.064	97.910%		
x		0.005	-0.001	0.063	0.051	0.061	98.550%		
σ		0.005	0.001	0.010	0.014	0.006	1.055%		
%RSD		90.710	80.510	15.170	26.740	9.199	1.070		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	70.076%	46.790	1004.000	981.600	0.000	83690.000	55850.000	55950.000
2	17:21:02	72.672%	48.070	1009.000	977.700	0.000	83930.000	56360.000	56700.000
3	17:21:28	73.599%	46.600	983.700	982.300	0.000	83980.000	56810.000	57550.000
x		72.116%	47.150	999.000	980.500	0.000	83870.000	56340.000	56730.000
σ		1.826%	0.802	13.460	2.503	0.000	153.000	476.000	800.900
%RSD		2.532	1.700	1.348	0.255	0.000	0.182	0.845	1.412

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	1832.000	14170.000	0.000	52660.000	148500.000	154700.000	70.693%	983.800
2	17:21:02	1870.000	14140.000	0.000	53080.000	153400.000	156700.000	72.204%	1010.000
3	17:21:28	1896.000	14350.000	0.000	53400.000	156600.000	159000.000	72.190%	1026.000
x		1866.000	14220.000	0.000	53050.000	152800.000	156800.000	71.696%	1007.000
σ		32.180	111.200	0.000	370.700	4108.000	2131.000	0.868%	21.400
%RSD		1.725	0.782	0.000	0.699	2.687	1.359	1.211	2.126

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	493.700	195.600	493.200	1047.000	1443.000	464.700	453.200	228.400
2	17:21:02	509.300	200.700	507.300	1079.000	1473.000	477.300	466.700	236.400
3	17:21:28	524.900	204.500	510.600	1105.000	1501.000	480.300	469.200	236.900
x		509.300	200.300	503.700	1077.000	1472.000	474.100	463.000	233.900
σ		15.590	4.458	9.253	29.230	28.770	8.243	8.632	4.793
%RSD		3.062	2.226	1.837	2.713	1.954	1.739	1.864	2.049

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	229.800	472.900	476.700	38.030	7.126	9.739	0.000	1176.000
2	17:21:02	235.100	488.600	489.100	41.980	9.502	10.390	0.000	1197.000
3	17:21:28	239.100	489.600	494.300	37.160	10.840	9.182	0.000	1203.000
x		234.600	483.700	486.700	39.060	9.157	9.771	0.000	1192.000
σ		4.668	9.365	9.031	2.567	1.882	0.605	0.000	14.330
%RSD		1.990	1.936	1.856	6.572	20.550	6.194	0.000	1.202

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	76.477%	989.000	1023.000	77.071%	46.280	46.640	49.880	39.340
2	17:21:02	77.282%	1031.000	1049.000	78.558%	45.970	47.010	50.010	40.560
3	17:21:28	78.268%	1042.000	1060.000	79.011%	46.620	47.240	51.180	39.740
x		77.343%	1020.000	1044.000	78.213%	46.290	46.970	50.360	39.880
σ		0.897%	27.840	19.090	1.015%	0.327	0.301	0.718	0.622
%RSD		1.160	2.728	1.829	1.297	0.706	0.640	1.425	1.559

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	74.849%	2122.000	518.900	509.100	1927.000	1973.000	86.430%	87.101%
2	17:21:02	75.823%	2176.000	543.100	521.300	1991.000	2039.000	86.308%	87.340%
3	17:21:28	76.419%	2195.000	543.400	518.400	2005.000	2054.000	86.218%	86.938%
x		75.697%	2164.000	535.200	516.300	1975.000	2022.000	86.319%	87.126%
σ		0.792%	37.710	14.050	6.359	41.510	43.210	0.106%	0.202%
%RSD		1.047	1.742	2.625	1.232	2.102	2.137	0.123	0.232

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:35	49.470	50.070	20.800	21.110	20.750	80.524%
2	17:21:02	50.500	50.720	20.920	21.170	21.100	81.577%
3	17:21:28	51.700	51.090	21.240	21.520	21.130	81.017%
x		50.560	50.630	20.990	21.270	20.990	81.039%
σ		1.116	0.520	0.226	0.222	0.214	0.527%
%RSD		2.207	1.027	1.075	1.046	1.019	0.650

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	70.947%	47.290	985.000	978.900	0.000	83370.000	55340.000	55260.000
2	17:25:17	72.649%	47.550	1015.000	966.200	0.000	83290.000	55470.000	56210.000
3	17:25:44	74.036%	44.990	1004.000	968.900	0.000	83800.000	56030.000	56560.000
x		72.544%	46.610	1001.000	971.300	0.000	83480.000	55620.000	56010.000
σ		1.547%	1.409	15.210	6.677	0.000	273.300	367.200	671.900
%RSD		2.133	3.024	1.519	0.687	0.000	0.327	0.660	1.200

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	1794.000	14110.000	0.000	52960.000	149400.000	153900.000	70.466%	989.100
2	17:25:17	1842.000	14080.000	0.000	52300.000	150300.000	154200.000	73.519%	997.200
3	17:25:44	1871.000	14150.000	0.000	53060.000	153700.000	159500.000	73.673%	998.200
x		1836.000	14120.000	0.000	52770.000	151200.000	155900.000	72.553%	994.900
σ		38.820	36.490	0.000	416.600	2267.000	3170.000	1.809%	4.996
%RSD		2.115	0.259	0.000	0.789	1.500	2.034	2.493	0.502

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	488.800	195.100	486.400	1050.000	1476.000	460.500	450.800	227.400
2	17:25:17	500.800	197.600	499.800	1075.000	1463.000	465.500	456.700	228.600
3	17:25:44	508.400	199.800	507.900	1089.000	1481.000	472.000	459.100	231.400
x		499.300	197.500	498.000	1071.000	1474.000	466.000	455.600	229.100
σ		9.883	2.341	10.850	19.620	9.277	5.744	4.295	2.056
%RSD		1.979	1.185	2.179	1.831	0.630	1.233	0.943	0.897

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	230.700	468.400	473.300	40.760	9.219	9.726	0.000	1171.000
2	17:25:17	233.000	486.300	484.700	40.130	8.590	9.832	0.000	1219.000
3	17:25:44	230.900	483.900	486.800	39.900	8.171	10.360	0.000	1197.000
x		231.500	479.500	481.600	40.260	8.660	9.974	0.000	1195.000
σ		1.295	9.728	7.245	0.447	0.528	0.341	0.000	24.100
%RSD		0.559	2.028	1.504	1.109	6.094	3.418	0.000	2.016

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	75.935%	990.500	1014.000	78.356%	45.890	46.190	50.000	38.490
2	17:25:17	77.557%	1035.000	1047.000	80.740%	45.360	45.310	49.080	37.580
3	17:25:44	80.320%	1026.000	1060.000	82.886%	45.700	46.190	49.750	39.550
x		77.937%	1017.000	1041.000	80.661%	45.650	45.890	49.610	38.540
σ		2.217%	23.590	23.840	2.266%	0.268	0.508	0.475	0.986
%RSD		2.845	2.318	2.291	2.809	0.586	1.106	0.958	2.557

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	73.290%	2157.000	515.000	511.700	1914.000	1981.000	85.301%	86.335%
2	17:25:17	80.944%	2091.000	506.400	493.500	1943.000	1964.000	88.429%	90.546%
3	17:25:44	79.495%	2178.000	534.300	523.100	2000.000	2042.000	91.172%	91.687%
x		77.909%	2142.000	518.500	509.400	1953.000	1996.000	88.301%	89.523%
σ		4.066%	45.890	14.280	14.900	43.620	41.030	2.938%	2.819%
%RSD		5.219	2.142	2.753	2.924	2.234	2.056	3.327	3.149

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:50	49.820	49.760	20.830	20.800	20.710	80.078%
2	17:25:17	49.310	50.240	20.200	20.730	20.350	86.200%
3	17:25:44	49.420	50.450	20.550	20.850	20.530	87.692%
x		49.520	50.150	20.530	20.790	20.530	84.657%
σ		0.267	0.355	0.315	0.061	0.180	4.035%
%RSD		0.538	0.708	1.536	0.292	0.877	4.767

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:07	70.830%	46.330	995.900	973.100	0.000	83170.000	55620.000	55970.000
2	17:29:34	72.742%	47.830	1007.000	976.300	0.000	83390.000	56280.000	57030.000
3	17:30:01	73.240%	47.660	987.100	985.600	0.000	84750.000	57130.000	57630.000
x		72.271%	47.270	996.700	978.300	0.000	83770.000	56340.000	56880.000
σ		1.272%	0.822	9.989	6.512	0.000	855.400	754.200	837.700
%RSD		1.760	1.739	1.002	0.666	0.000	1.021	1.339	1.473
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:07	1771.000	14400.000	0.000	54080.000	147600.000	153900.000	71.413%	1057.000
2	17:29:34	1829.000	14450.000	0.000	54030.000	150200.000	156900.000	74.449%	1069.000
3	17:30:01	1859.000	14710.000	0.000	55280.000	154300.000	158800.000	73.856%	1090.000
x		1819.000	14520.000	0.000	54460.000	150700.000	156600.000	73.239%	1072.000
σ		44.650	166.600	0.000	709.700	3349.000	2467.000	1.609%	16.800
%RSD		2.454	1.147	0.000	1.303	2.222	1.576	2.197	1.567
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:07	497.300	193.700	485.000	1043.000	1452.000	454.600	439.900	224.100
2	17:29:34	506.400	195.700	496.000	1067.000	1467.000	461.400	452.700	228.700
3	17:30:01	514.500	201.800	508.200	1110.000	1489.000	471.000	462.200	232.300
x		506.100	197.100	496.400	1073.000	1469.000	462.300	451.600	228.400
σ		8.640	4.199	11.580	33.820	18.280	8.210	11.210	4.135
%RSD		1.707	2.131	2.333	3.152	1.244	1.776	2.482	1.811
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:07	227.500	470.000	474.900	34.160	8.101	9.250	0.000	1163.000
2	17:29:34	228.700	475.900	479.600	38.080	9.196	9.419	0.000	1201.000
3	17:30:01	233.500	486.000	493.100	37.610	9.171	9.619	0.000	1205.000
x		229.900	477.300	482.500	36.620	8.823	9.429	0.000	1190.000
σ		3.137	8.101	9.425	2.141	0.626	0.185	0.000	23.370
%RSD		1.365	1.697	1.953	5.848	7.090	1.959	0.000	1.964
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:07	81.496%	1066.000	1088.000	84.005%	43.300	43.010	49.090	38.640
2	17:29:34	82.633%	1113.000	1141.000	85.254%	43.740	43.540	49.550	40.100
3	17:30:01	83.292%	1121.000	1142.000	86.565%	44.760	45.280	50.660	40.900
x		82.474%	1100.000	1124.000	85.275%	43.930	43.940	49.770	39.880
σ		0.909%	29.830	31.190	1.280%	0.746	1.186	0.805	1.144
%RSD		1.102	2.713	2.776	1.501	1.698	2.699	1.617	2.869
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:07	80.823%	2231.000	543.900	541.600	1902.000	1951.000	93.829%	94.058%
2	17:29:34	83.298%	2251.000	560.000	548.100	1971.000	2024.000	94.511%	96.356%
3	17:30:01	81.511%	2359.000	564.700	570.000	2031.000	2111.000	93.507%	95.674%
x		81.877%	2281.000	556.200	553.200	1968.000	2029.000	93.949%	95.363%
σ		1.278%	68.870	10.890	14.860	64.250	80.210	0.513%	1.180%
%RSD		1.560	3.020	1.959	2.687	3.265	3.954	0.546	1.237
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:29:07	49.170	50.150	20.120	20.710	20.270	89.873%		
2	17:29:34	50.700	51.740	20.560	20.820	20.480	92.175%		
3	17:30:01	52.550	52.950	21.510	21.330	21.350	89.608%		
x		50.800	51.610	20.730	20.950	20.700	90.552%		
σ		1.692	1.401	0.711	0.330	0.572	1.412%		
%RSD		3.331	2.715	3.430	1.574	2.761	1.559		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:26	73.301%	-0.064	29.180	29.680	0.000	23790.000	12360.000	12560.000
2	17:33:52	74.315%	-0.030	26.600	29.460	0.000	24080.000	12610.000	12950.000
3	17:34:19	73.899%	-0.090	29.550	27.770	0.000	24050.000	12610.000	12940.000
x		73.838%	-0.061	28.440	28.970	0.000	23970.000	12530.000	12820.000
σ		0.510%	0.030	1.605	1.046	0.000	160.000	142.800	222.500
%RSD		0.691	49.710	5.643	3.611	0.000	0.667	1.140	1.736
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:26	7.156	4958.000	0.000	3012.000	85910.000	88560.000	71.973%	1.590
2	17:33:52	7.309	5047.000	0.000	3088.000	89040.000	91470.000	72.610%	1.634
3	17:34:19	7.235	5055.000	0.000	3048.000	88450.000	91570.000	74.130%	1.262
x		7.233	5020.000	0.000	3049.000	87800.000	90530.000	72.904%	1.495
σ		0.077	53.790	0.000	38.480	1667.000	1705.000	1.108%	0.203
%RSD		1.060	1.071	0.000	1.262	1.898	1.884	1.520	13.580
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:26	3.997	7.599	5.703	15.080	297.600	0.256	-0.173	1.395
2	17:33:52	-0.742	6.973	5.829	13.230	306.100	0.184	-0.040	1.541
3	17:34:19	6.311	7.282	5.799	11.730	290.600	0.225	-0.079	1.525
x		3.189	7.285	5.777	13.350	298.100	0.222	-0.097	1.487
σ		3.595	0.313	0.066	1.677	7.785	0.036	0.069	0.080
%RSD		112.700	4.299	1.137	12.560	2.612	16.380	70.480	5.385
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:26	1.422	4.271	4.269	3.770	-1.184	-0.804	0.000	181.800
2	17:33:52	1.386	4.544	4.291	5.381	-0.864	-0.980	0.000	189.500
3	17:34:19	1.467	4.453	4.334	1.044	-1.179	-0.035	0.000	188.200
x		1.425	4.423	4.298	3.398	-1.075	-0.606	0.000	186.500
σ		0.040	0.139	0.033	2.192	0.183	0.503	0.000	4.109
%RSD		2.840	3.146	0.767	64.510	17.050	82.900	0.000	2.203
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:26	81.706%	5.282	5.324	86.139%	-0.108	-0.095	-0.042	-0.033
2	17:33:52	82.769%	4.519	4.346	88.089%	-0.111	-0.097	0.007	-0.042
3	17:34:19	84.542%	3.586	3.795	89.489%	-0.103	-0.081	0.038	-0.018
x		83.006%	4.462	4.488	87.906%	-0.107	-0.091	0.001	-0.031
σ		1.433%	0.850	0.775	1.682%	0.004	0.009	0.040	0.012
%RSD		1.726	19.040	17.260	1.914	3.560	9.527	3820.000	39.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:26	83.071%	1.564	0.708	0.872	24.950	25.130	91.445%	94.381%
2	17:33:52	84.290%	0.533	0.348	0.343	24.950	25.850	95.923%	96.508%
3	17:34:19	86.191%	-0.414	0.123	0.107	25.290	25.170	97.094%	97.363%
x		84.518%	0.561	0.393	0.441	25.060	25.380	94.821%	96.084%
σ		1.572%	0.989	0.295	0.392	0.198	0.402	2.982%	1.535%
%RSD		1.860	176.300	75.050	88.950	0.792	1.585	3.144	1.598
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:33:26	0.104	0.087	0.159	0.163	0.155	91.862%		
2	17:33:52	0.079	0.065	0.144	0.127	0.147	92.791%		
3	17:34:19	0.055	0.058	0.134	0.131	0.141	97.063%		
x		0.079	0.070	0.146	0.140	0.148	93.905%		
σ		0.025	0.015	0.013	0.020	0.007	2.774%		
%RSD		31.290	21.210	8.638	13.980	4.568	2.954		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:43	72.619%	-0.123	48.500	46.810	0.000	67090.000	17520.000	17670.000
2	17:38:10	72.790%	-0.209	50.780	46.390	0.000	69490.000	18210.000	18730.000
3	17:38:37	73.888%	-0.153	50.970	42.900	0.000	68420.000	18050.000	18540.000
x		73.099%	-0.162	50.080	45.370	0.000	68330.000	17930.000	18310.000
σ		0.689%	0.044	1.378	2.148	0.000	1207.000	360.800	565.700
%RSD		0.942	27.170	2.751	4.734	0.000	1.766	2.012	3.090
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:43	154.900	4282.000	0.000	5518.000	89250.000	91930.000	72.014%	4.769
2	17:38:10	159.600	4416.000	0.000	5646.000	93310.000	96040.000	72.362%	4.504
3	17:38:37	159.100	4367.000	0.000	5584.000	92270.000	95960.000	74.152%	5.020
x		157.900	4355.000	0.000	5583.000	91610.000	94640.000	72.843%	4.765
σ		2.584	67.970	0.000	63.860	2110.000	2347.000	1.147%	0.258
%RSD		1.637	1.561	0.000	1.144	2.303	2.480	1.575	5.416
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:43	2.428	11.430	22.840	758.700	1018.000	0.603	0.710	5.771
2	17:38:10	4.875	11.490	23.620	790.600	1033.000	0.651	0.667	5.977
3	17:38:37	7.905	11.500	23.180	783.100	1024.000	0.651	0.926	5.710
x		5.069	11.470	23.210	777.500	1025.000	0.635	0.768	5.820
σ		2.744	0.035	0.391	16.670	7.558	0.028	0.139	0.140
%RSD		54.120	0.309	1.683	2.144	0.737	4.398	18.070	2.401
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:43	5.888	5.592	6.194	-0.690	-0.434	1.119	0.000	201.600
2	17:38:10	6.132	6.658	6.120	3.968	-1.074	0.762	0.000	203.200
3	17:38:37	5.630	5.879	6.237	0.468	-1.306	-0.688	0.000	206.000
x		5.883	6.043	6.184	1.249	-0.938	0.398	0.000	203.600
σ		0.251	0.552	0.059	2.425	0.452	0.957	0.000	2.201
%RSD		4.264	9.132	0.957	194.200	48.170	240.600	0.000	1.081
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:43	75.673%	7.307	7.467	79.061%	0.677	0.589	0.008	-0.057
2	17:38:10	77.789%	8.093	7.767	79.432%	0.672	0.740	0.045	-0.005
3	17:38:37	79.116%	7.894	8.191	80.335%	0.698	0.698	0.006	-0.055
x		77.526%	7.764	7.808	79.609%	0.682	0.676	0.019	-0.039
σ		1.737%	0.409	0.364	0.656%	0.013	0.078	0.022	0.030
%RSD		2.240	5.265	4.659	0.823	1.977	11.500	114.100	75.540
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:43	78.510%	-2.013	-0.571	-0.618	41.960	40.010	83.593%	86.216%
2	17:38:10	79.031%	-2.123	-0.608	-0.613	41.950	41.510	85.510%	87.956%
3	17:38:37	79.574%	-2.084	-0.596	-0.610	42.250	42.700	86.357%	87.784%
x		79.038%	-2.073	-0.592	-0.614	42.050	41.410	85.153%	87.319%
σ		0.532%	0.056	0.018	0.004	0.172	1.347	1.416%	0.959%
%RSD		0.673	2.686	3.122	0.685	0.410	3.254	1.663	1.098
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:37:43	0.039	0.031	0.320	0.374	0.346	84.765%		
2	17:38:10	0.042	0.032	0.363	0.347	0.346	83.796%		
3	17:38:37	0.031	0.021	0.399	0.332	0.372	83.482%		
x		0.037	0.028	0.361	0.351	0.355	84.014%		
σ		0.006	0.006	0.039	0.021	0.015	0.669%		
%RSD		15.760	21.600	10.910	6.064	4.270	0.796		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:15	78.211%	-0.021	0.249	-0.047	0.000	-1.341	0.062	-0.097
2	17:45:42	78.705%	-0.203	0.446	-0.502	0.000	-1.517	-0.386	-0.144
3	17:46:08	79.251%	-0.206	-0.364	-0.564	0.000	-1.378	-0.221	-0.022
x		78.722%	-0.143	0.110	-0.371	0.000	-1.412	-0.182	-0.088
σ		0.521%	0.106	0.422	0.282	0.000	0.093	0.226	0.062
%RSD		0.661	73.620	383.700	76.180	0.000	6.574	124.400	70.400
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:15	-0.011	-5.752	0.000	-15.470	-1.245	4.400	76.963%	-0.574
2	17:45:42	-0.005	-4.997	0.000	-17.630	-5.373	6.500	77.171%	-0.814
3	17:46:08	-0.052	-5.995	0.000	-18.590	-11.420	1.679	77.345%	-0.513
x		-0.022	-5.581	0.000	-17.230	-6.013	4.193	77.160%	-0.634
σ		0.026	0.521	0.000	1.595	5.118	2.417	0.191%	0.159
%RSD		114.000	9.330	0.000	9.259	85.120	57.650	0.248	25.090
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:15	0.620	0.341	0.006	3.055	1.523	0.018	-0.060	0.043
2	17:45:42	-0.182	0.243	-0.018	1.733	2.814	-0.003	0.005	0.118
3	17:46:08	0.416	0.250	0.006	1.647	1.999	0.009	-0.108	-0.002
x		0.285	0.278	-0.002	2.145	2.112	0.008	-0.054	0.053
σ		0.417	0.055	0.014	0.789	0.653	0.011	0.057	0.060
%RSD		146.600	19.710	690.600	36.800	30.930	134.600	104.400	113.500
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:15	-0.151	0.108	0.090	-0.317	-1.574	-1.424	0.000	0.008
2	17:45:42	-0.049	-0.039	0.092	0.219	-1.139	-0.671	0.000	0.004
3	17:46:08	-0.090	-0.015	0.070	0.081	-0.491	-0.335	0.000	0.009
x		-0.097	0.018	0.084	-0.006	-1.068	-0.810	0.000	0.007
σ		0.052	0.079	0.012	0.278	0.545	0.557	0.000	0.003
%RSD		53.290	439.200	14.510	4934.000	51.040	68.810	0.000	38.280
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:15	80.896%	-0.182	-0.231	92.976%	-0.105	-0.108	-0.026	-0.036
2	17:45:42	83.831%	-0.165	-0.190	87.697%	-0.105	-0.104	-0.011	-0.008
3	17:46:08	83.469%	-0.170	-0.166	88.962%	-0.099	-0.101	0.023	0.018
x		82.732%	-0.172	-0.196	89.878%	-0.103	-0.104	-0.005	-0.008
σ		1.600%	0.008	0.033	2.756%	0.004	0.003	0.025	0.027
%RSD		1.934	4.873	17.040	3.066	3.552	3.175	536.600	324.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:15	85.172%	-2.802	-0.844	-0.860	-0.023	-0.033	90.628%	93.304%
2	17:45:42	86.882%	-2.685	-0.849	-0.870	-0.022	0.018	93.817%	94.292%
3	17:46:08	87.341%	-2.600	-0.858	-0.843	-0.081	-0.019	93.716%	95.769%
x		86.465%	-2.695	-0.850	-0.858	-0.042	-0.011	92.720%	94.455%
σ		1.144%	0.102	0.007	0.014	0.034	0.026	1.813%	1.240%
%RSD		1.323	3.770	0.868	1.617	79.990	229.100	1.955	1.313
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:45:15	0.012	0.003	0.007	0.003	0.014	100.756%		
2	17:45:42	0.014	0.005	0.000	-0.003	0.015	101.418%		
3	17:46:08	0.010	0.010	0.008	0.011	0.018	101.410%		
x		0.012	0.006	0.005	0.003	0.016	101.195%		
σ		0.002	0.004	0.004	0.007	0.002	0.380%		
%RSD		16.980	65.480	86.180	209.500	11.410	0.375		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	72.002%	48.390	967.800	936.300	0.000	46250.000	42180.000	42320.000
2	17:49:55	73.645%	47.280	954.400	941.600	0.000	46410.000	42800.000	43200.000
3	17:50:22	72.587%	48.810	967.200	943.900	0.000	47310.000	43420.000	43580.000
x		72.744%	48.160	963.100	940.600	0.000	46660.000	42800.000	43030.000
σ		0.833%	0.792	7.588	3.885	0.000	574.200	621.100	646.800
%RSD		1.145	1.645	0.788	0.413	0.000	1.231	1.451	1.503

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	1757.000	9004.000	0.000	48710.000	47320.000	48840.000	70.892%	965.300
2	17:49:55	1811.000	9032.000	0.000	49140.000	49220.000	49890.000	72.028%	1001.000
3	17:50:22	1827.000	9126.000	0.000	49340.000	48440.000	50890.000	73.412%	1021.000
x		1798.000	9054.000	0.000	49060.000	48330.000	49880.000	72.110%	995.500
σ		36.730	64.120	0.000	319.000	956.700	1024.000	1.262%	28.010
%RSD		2.042	0.708	0.000	0.650	1.980	2.052	1.750	2.813

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	488.000	191.100	480.500	987.400	1082.000	460.300	448.200	227.400
2	17:49:55	510.200	196.500	491.800	1016.000	1101.000	471.300	458.500	233.500
3	17:50:22	508.400	198.500	494.000	1024.000	1083.000	471.900	460.200	229.600
x		502.200	195.400	488.700	1009.000	1089.000	467.800	455.600	230.200
σ		12.320	3.797	7.250	19.290	10.890	6.534	6.511	3.064
%RSD		2.453	1.943	1.483	1.911	1.000	1.397	1.429	1.331

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	231.700	470.800	473.000	36.480	8.252	8.209	0.000	984.400
2	17:49:55	233.800	479.400	488.700	38.220	8.356	9.800	0.000	995.100
3	17:50:22	233.000	488.700	483.100	40.490	8.565	9.294	0.000	1008.000
x		232.800	479.600	481.600	38.400	8.391	9.101	0.000	995.700
σ		1.037	8.934	7.928	2.010	0.159	0.813	0.000	11.610
%RSD		0.446	1.863	1.646	5.234	1.897	8.936	0.000	1.166

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	78.327%	987.300	1005.000	82.761%	45.210	45.510	49.060	37.960
2	17:49:55	80.466%	1017.000	1022.000	85.919%	45.900	46.670	50.160	40.500
3	17:50:22	81.478%	1027.000	1043.000	87.177%	45.780	46.330	49.870	40.670
x		80.090%	1010.000	1023.000	85.286%	45.630	46.170	49.700	39.710
σ		1.609%	20.450	18.920	2.275%	0.367	0.594	0.573	1.518
%RSD		2.009	2.024	1.849	2.668	0.805	1.286	1.153	3.824

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	79.808%	2065.000	512.700	498.800	1875.000	1929.000	91.065%	92.095%
2	17:49:55	80.477%	2130.000	533.900	512.900	1945.000	1999.000	92.514%	96.561%
3	17:50:22	83.149%	2132.000	517.400	518.000	1942.000	1986.000	93.841%	96.552%
x		81.145%	2109.000	521.300	509.900	1921.000	1972.000	92.473%	95.069%
σ		1.767%	38.020	11.100	9.953	39.240	37.480	1.388%	2.576%
%RSD		2.178	1.803	2.129	1.952	2.043	1.901	1.501	2.709

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:30	47.860	48.650	20.090	20.290	20.160	89.500%
2	17:49:55	50.300	50.960	21.090	20.960	20.850	90.974%
3	17:50:22	50.480	51.070	20.900	21.010	20.910	92.619%
x		49.550	50.230	20.700	20.760	20.640	91.031%
σ		1.465	1.369	0.531	0.404	0.413	1.561%
%RSD		2.956	2.725	2.565	1.948	2.001	1.714

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	71.972%	0.077	47.910	45.840	0.000	47330.000	17420.000	17920.000
2	17:54:12	72.042%	-0.226	48.230	47.100	0.000	49090.000	18090.000	18680.000
3	17:54:38	72.870%	-0.231	46.420	46.160	0.000	48500.000	18030.000	18740.000
x		72.295%	-0.126	47.520	46.370	0.000	48310.000	17850.000	18450.000
σ		0.499%	0.176	0.968	0.658	0.000	895.700	368.900	458.000
%RSD		0.690	139.100	2.036	1.419	0.000	1.854	2.067	2.483

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	3.328	4714.000	0.000	4263.000	86830.000	90260.000	70.796%	1.008
2	17:54:12	3.636	4858.000	0.000	4332.000	90300.000	94100.000	70.824%	1.335
3	17:54:38	3.277	4863.000	0.000	4390.000	90800.000	93290.000	71.718%	1.119
x		3.414	4812.000	0.000	4328.000	89310.000	92550.000	71.113%	1.154
σ		0.194	84.450	0.000	63.210	2163.000	2022.000	0.525%	0.166
%RSD		5.687	1.755	0.000	1.460	2.422	2.185	0.738	14.390

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	1.930	7.422	36.360	15.700	305.100	0.483	0.217	1.411
2	17:54:12	0.603	7.615	38.150	15.630	303.700	0.474	0.525	1.402
3	17:54:38	0.731	7.398	38.260	15.040	307.100	0.457	0.279	1.533
x		1.088	7.478	37.590	15.460	305.300	0.471	0.340	1.449
σ		0.732	0.119	1.066	0.361	1.683	0.013	0.163	0.073
%RSD		67.280	1.591	2.835	2.333	0.551	2.802	47.760	5.066

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	1.642	2.899	2.873	5.557	-1.140	-0.503	0.000	200.400
2	17:54:12	1.338	2.941	3.291	-1.591	-0.733	-0.962	0.000	201.000
3	17:54:38	1.650	2.933	3.148	2.007	-0.198	-0.915	0.000	205.900
x		1.543	2.924	3.104	1.991	-0.690	-0.794	0.000	202.500
σ		0.178	0.022	0.213	3.574	0.472	0.253	0.000	3.036
%RSD		11.520	0.767	6.845	179.500	68.390	31.830	0.000	1.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	75.137%	6.145	5.804	79.557%	-0.064	-0.081	0.053	0.049
2	17:54:12	76.584%	4.831	5.183	78.334%	-0.074	-0.095	0.044	-0.019
3	17:54:38	76.792%	4.333	4.144	79.861%	-0.070	-0.081	0.085	0.059
x		76.171%	5.103	5.044	79.251%	-0.069	-0.086	0.061	0.030
σ		0.902%	0.937	0.839	0.808%	0.005	0.008	0.022	0.043
%RSD		1.184	18.350	16.630	1.020	6.986	9.517	35.400	143.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	77.123%	1.118	-0.657	-0.683	38.600	39.340	84.114%	87.167%
2	17:54:12	76.089%	0.052	-0.680	-0.671	38.320	38.650	85.248%	86.267%
3	17:54:38	77.377%	-0.779	-0.697	-0.694	38.980	39.890	83.435%	86.046%
x		76.863%	0.131	-0.678	-0.682	38.630	39.290	84.266%	86.493%
σ		0.682%	0.951	0.020	0.012	0.331	0.621	0.916%	0.594%
%RSD		0.887	728.800	3.006	1.688	0.856	1.581	1.087	0.687

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:45	0.293	0.245	0.079	0.111	0.108	84.637%
2	17:54:12	0.187	0.159	0.129	0.106	0.126	80.522%
3	17:54:38	0.118	0.133	0.101	0.093	0.097	80.241%
x		0.199	0.179	0.103	0.104	0.110	81.800%
σ		0.089	0.059	0.025	0.009	0.014	2.461%
%RSD		44.410	32.750	24.580	9.174	13.090	3.009

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:00	72.689%	-0.038	8.586	10.140	0.000	9599.000	3308.000	3328.000
2	17:58:26	71.293%	0.039	7.953	8.745	0.000	9917.000	3468.000	3488.000
3	17:58:53	72.834%	-0.167	10.260	9.703	0.000	9817.000	3433.000	3448.000
x		72.272%	-0.055	8.934	9.529	0.000	9778.000	3403.000	3421.000
σ		0.851%	0.104	1.194	0.713	0.000	162.500	84.070	83.080
%RSD		1.177	187.600	13.360	7.485	0.000	1.662	2.471	2.428
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:00	1.060	877.800	0.000	810.600	16800.000	16520.000	72.284%	-0.350
2	17:58:26	1.220	908.700	0.000	836.800	17760.000	16950.000	72.178%	-0.511
3	17:58:53	1.288	901.100	0.000	832.500	17530.000	17380.000	71.899%	-0.440
x		1.190	895.900	0.000	826.600	17360.000	16950.000	72.121%	-0.433
σ		0.117	16.110	0.000	14.060	498.700	427.700	0.199%	0.081
%RSD		9.835	1.798	0.000	1.701	2.872	2.524	0.276	18.680
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:00	1.843	2.275	7.118	7.191	61.140	0.039	0.101	0.467
2	17:58:26	2.887	2.233	7.518	7.063	60.170	0.065	-0.016	0.327
3	17:58:53	0.687	2.436	7.550	6.890	60.770	0.067	-0.013	0.417
x		1.805	2.315	7.396	7.048	60.690	0.057	0.024	0.404
σ		1.100	0.107	0.241	0.151	0.486	0.015	0.067	0.071
%RSD		60.950	4.613	3.256	2.142	0.800	27.070	281.000	17.600
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:00	0.390	0.838	0.684	0.406	-1.025	-1.186	0.000	38.220
2	17:58:26	0.411	0.549	0.675	-0.453	-1.371	-0.513	0.000	39.240
3	17:58:53	0.248	0.629	0.595	-0.120	-1.421	0.230	0.000	39.800
x		0.350	0.672	0.651	-0.056	-1.272	-0.490	0.000	39.090
σ		0.088	0.149	0.049	0.433	0.216	0.708	0.000	0.798
%RSD		25.300	22.160	7.476	778.400	16.980	144.600	0.000	2.041
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:00	74.612%	0.493	0.401	82.821%	-0.096	-0.100	-0.042	-0.016
2	17:58:26	77.158%	0.394	0.536	85.125%	-0.092	-0.091	-0.018	-0.007
3	17:58:53	78.128%	0.456	0.454	86.537%	-0.099	-0.101	-0.026	-0.085
x		76.633%	0.448	0.464	84.828%	-0.096	-0.098	-0.029	-0.036
σ		1.816%	0.050	0.068	1.876%	0.003	0.005	0.012	0.043
%RSD		2.370	11.200	14.750	2.212	3.401	5.490	43.020	118.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:00	77.636%	-2.515	-0.824	-0.835	7.802	7.543	83.601%	86.110%
2	17:58:26	79.461%	-2.487	-0.860	-0.855	7.547	7.837	86.901%	89.140%
3	17:58:53	82.247%	-2.544	-0.840	-0.852	7.791	7.376	89.059%	90.702%
x		79.781%	-2.515	-0.842	-0.847	7.713	7.585	86.520%	88.651%
σ		2.322%	0.028	0.018	0.011	0.144	0.234	2.748%	2.335%
%RSD		2.910	1.129	2.169	1.319	1.869	3.080	3.177	2.634
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:58:00	0.028	0.025	0.031	0.025	0.038	87.961%		
2	17:58:26	0.038	0.023	0.043	0.025	0.038	90.765%		
3	17:58:53	0.029	0.020	0.028	0.020	0.032	94.209%		
x		0.031	0.022	0.034	0.023	0.036	90.978%		
σ		0.006	0.003	0.008	0.003	0.004	3.129%		
%RSD		17.650	11.580	22.380	11.310	9.929	3.440		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	71.804%	97.680	105.400	100.200	0.000	48450.000	46650.000	46550.000
2	18:02:42	71.388%	103.800	101.100	103.600	0.000	49630.000	48530.000	48080.000
3	18:03:08	72.173%	98.170	93.140	101.300	0.000	49290.000	48250.000	48070.000
x		71.788%	99.877%	99.876%	101.721%	0.000	98.243%	95.620%	95.138%
σ		0.393%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.547	3.394	6.233	1.684	0.000	1.237	2.122	1.853

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	466.400	5222.000	0.000	50290.000	47990.000	49740.000	72.637%	99.390
2	18:02:42	484.600	5362.000	0.000	50980.000	50100.000	51740.000	71.736%	104.300
3	18:03:08	483.200	5337.000	0.000	51140.000	49700.000	51390.000	72.283%	105.100
x		95.616%	106.139%	0.000	101.608%	98.531%	101.912%	72.219%	102.939%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.454%	n/a
%RSD		2.118	1.406	0.000	0.892	2.274	2.088	0.629	3.010

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	97.910	96.460	497.300	24300.000	24910.000	95.060	94.700	95.210
2	18:02:42	102.400	100.900	520.100	25560.000	26230.000	97.710	98.790	99.480
3	18:03:08	99.740	100.100	522.000	25630.000	26240.000	98.910	100.900	100.600
x		100.008%	99.133%	102.626%	100.646%	103.171%	97.229%	98.115%	98.418%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.237	2.368	2.678	2.971	2.974	2.027	3.198	2.877

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	96.870	96.370	97.930	94.680	98.510	98.640	0.000	96.390
2	18:02:42	99.950	100.900	100.500	98.420	95.370	98.650	0.000	98.950
3	18:03:08	98.790	101.300	100.100	96.360	96.500	97.940	0.000	99.650
x		98.538%	99.513%	99.523%	96.484%	96.796%	98.408%	0.000	98.328%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.577	2.740	1.400	1.940	1.644	0.411	0.000	1.743

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	77.662%	93.130	91.750	84.369%	93.190	94.140	95.080	94.870
2	18:02:42	78.577%	98.150	95.920	85.754%	94.490	95.330	98.120	97.880
3	18:03:08	78.196%	100.500	98.020	86.290%	92.800	95.270	97.640	97.050
x		78.145%	97.265%	95.231%	85.471%	93.492%	94.913%	96.946%	96.600%
σ		0.460%	n/a	n/a	0.991%	n/a	n/a	n/a	n/a
%RSD		0.588	3.872	3.353	1.160	0.947	0.707	1.683	1.611

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	79.192%	96.890	98.130	98.450	94.980	95.830	88.034%	90.316%
2	18:02:42	81.045%	98.670	99.660	100.100	98.690	97.530	89.158%	92.355%
3	18:03:08	81.721%	99.020	100.000	100.600	97.070	97.680	90.427%	92.775%
x		80.653%	98.191%	99.273%	99.700%	96.914%	97.011%	89.206%	91.815%
σ		1.309%	n/a	n/a	n/a	n/a	n/a	1.197%	1.315%
%RSD		1.623	1.165	1.011	1.111	1.918	1.059	1.342	1.433

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:14	99.420	99.790	98.000	99.170	97.870	93.545%
2	18:02:42	100.900	101.500	100.600	102.500	101.100	93.911%
3	18:03:08	101.200	102.800	103.000	103.300	102.900	93.510%
x		100.502%	101.362%	100.531%	101.655%	100.639%	93.655%
σ		n/a	n/a	n/a	n/a	n/a	0.222%
%RSD		0.949	1.484	2.462	2.161	2.549	0.237

CCB5 4/2/2015 6:09:14 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:41	79.737%	-0.169	0.616	-0.426	0.000	15.500	8.189	9.234
2	18:10:07	79.430%	-0.285	-0.589	-0.370	0.000	15.230	9.310	8.489
3	18:10:34	78.405%	-0.181	-0.544	-0.614	0.000	15.860	9.011	8.499
x		79.191%	-0.211	-0.172	-0.470	0.000	15.530	8.836	8.741
σ		0.698%	0.064	0.683	0.128	0.000	0.316	0.581	0.427
%RSD		0.881	30.070	396.100	27.190	0.000	2.035	6.571	4.887
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:41	0.689	-4.050	0.000	-2.675	7.010	13.580	76.498%	-0.418
2	18:10:07	0.902	-4.947	0.000	-2.599	1.175	17.310	76.369%	-0.263
3	18:10:34	0.924	-4.451	0.000	-0.206	21.410	13.400	76.104%	-0.457
x		0.838	-4.483	0.000	-1.827	9.866	14.760	76.324%	-0.379
σ		0.130	0.449	0.000	1.404	10.420	2.206	0.201%	0.102
%RSD		15.490	10.020	0.000	76.840	105.600	14.950	0.263	26.980
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:41	0.339	0.110	0.140	2.246	7.118	0.036	-0.052	0.030
2	18:10:07	-0.132	0.115	0.159	1.563	7.741	0.034	0.019	0.051
3	18:10:34	0.188	0.011	0.195	1.045	4.032	0.021	-0.011	0.032
x		0.131	0.078	0.165	1.618	6.297	0.030	-0.015	0.038
σ		0.241	0.059	0.028	0.603	1.986	0.008	0.036	0.011
%RSD		183.100	74.800	17.010	37.260	31.540	26.630	242.800	29.780
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:41	-0.058	0.155	-0.027	0.100	-0.605	-0.883	0.000	0.055
2	18:10:07	-0.023	0.058	0.075	-0.676	-0.075	-0.869	0.000	0.073
3	18:10:34	0.078	0.025	0.339	-0.434	0.348	-0.486	0.000	0.066
x		-0.001	0.079	0.129	-0.337	-0.111	-0.746	0.000	0.065
σ		0.070	0.067	0.189	0.397	0.477	0.226	0.000	0.009
%RSD		5819.000	85.000	146.100	117.900	430.600	30.230	0.000	13.910
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:41	79.949%	0.056	-0.078	85.814%	-0.094	-0.093	0.039	0.065
2	18:10:07	79.679%	0.050	-0.016	89.116%	-0.073	-0.096	-0.027	-0.020
3	18:10:34	78.482%	0.018	-0.004	82.966%	-0.076	-0.086	0.008	-0.022
x		79.370%	0.042	-0.033	85.965%	-0.081	-0.092	0.007	0.007
σ		0.781%	0.020	0.040	3.078%	0.011	0.005	0.033	0.050
%RSD		0.984	48.840	121.300	3.580	13.830	5.516	507.200	665.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:41	83.386%	-2.699	-0.768	-0.814	0.011	0.037	89.402%	90.382%
2	18:10:07	82.707%	-2.636	-0.749	-0.804	-0.073	0.084	87.738%	89.605%
3	18:10:34	81.073%	-2.693	-0.791	-0.807	-0.020	0.069	86.404%	88.229%
x		82.389%	-2.676	-0.769	-0.808	-0.028	0.063	87.848%	89.405%
σ		1.189%	0.035	0.021	0.005	0.042	0.024	1.502%	1.091%
%RSD		1.443	1.291	2.750	0.630	152.900	38.100	1.710	1.220
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:09:41	0.021	0.017	-0.006	-0.002	0.005	101.270%		
2	18:10:07	0.028	0.025	0.012	-0.014	0.011	97.099%		
3	18:10:34	0.025	0.022	0.003	0.001	0.007	93.725%		
x		0.025	0.021	0.003	-0.005	0.008	97.365%		
σ		0.004	0.004	0.009	0.008	0.003	3.780%		
%RSD		15.120	18.970	277.200	150.600	35.580	3.882		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	65.952%	46.620	1002.000	985.400	0.000	93610.000	58220.000	58800.000
2	18:14:25	68.180%	46.490	1013.000	971.300	0.000	94310.000	58990.000	59550.000
3	18:14:52	70.564%	44.870	968.500	953.100	0.000	93630.000	58880.000	59400.000
x		68.232%	45.990	994.600	969.900	0.000	93850.000	58700.000	59250.000
σ		2.306%	0.977	23.270	16.160	0.000	397.600	415.000	397.900
%RSD		3.380	2.124	2.339	1.666	0.000	0.424	0.707	0.672

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	1731.000	13560.000	0.000	51610.000	132800.000	138100.000	66.651%	951.000
2	18:14:25	1769.000	13510.000	0.000	51830.000	135300.000	140800.000	69.694%	961.700
3	18:14:52	1779.000	13530.000	0.000	52570.000	138000.000	141700.000	70.495%	972.700
x		1760.000	13540.000	0.000	52000.000	135400.000	140200.000	68.947%	961.800
σ		25.160	26.600	0.000	499.000	2609.000	1886.000	2.028%	10.840
%RSD		1.430	0.197	0.000	0.960	1.927	1.345	2.941	1.127

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	472.800	185.800	501.800	959.700	1321.000	443.900	436.000	220.800
2	18:14:25	485.900	190.000	517.200	986.300	1362.000	451.000	438.900	222.100
3	18:14:52	491.900	193.000	518.900	988.800	1358.000	457.800	442.500	225.200
x		483.500	189.600	512.600	978.300	1347.000	450.900	439.100	222.700
σ		9.723	3.615	9.418	16.140	22.870	6.931	3.224	2.255
%RSD		2.011	1.906	1.837	1.650	1.698	1.537	0.734	1.012

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	221.900	448.200	455.400	35.760	9.293	8.927	0.000	1159.000
2	18:14:25	224.000	459.400	460.400	34.570	7.281	9.749	0.000	1164.000
3	18:14:52	227.100	457.500	467.600	38.900	9.642	9.357	0.000	1190.000
x		224.300	455.000	461.100	36.410	8.739	9.344	0.000	1171.000
σ		2.629	5.993	6.130	2.236	1.275	0.411	0.000	16.750
%RSD		1.172	1.317	1.329	6.143	14.590	4.403	0.000	1.431

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	71.055%	966.800	972.500	73.367%	44.590	44.450	46.890	35.110
2	18:14:25	75.516%	997.300	1009.000	76.914%	44.260	44.870	47.130	39.080
3	18:14:52	77.092%	998.600	1017.000	79.845%	43.660	44.920	49.490	37.910
x		74.554%	987.600	999.700	76.709%	44.170	44.750	47.830	37.370
σ		3.131%	18.010	23.870	3.244%	0.470	0.256	1.435	2.040
%RSD		4.200	1.824	2.387	4.229	1.063	0.573	3.000	5.460

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	71.382%	2112.000	491.300	490.500	1846.000	1876.000	80.406%	82.849%
2	18:14:25	74.737%	2088.000	500.400	498.200	1896.000	1930.000	84.705%	86.562%
3	18:14:52	76.638%	2124.000	508.300	503.000	1915.000	1967.000	86.752%	89.698%
x		74.252%	2108.000	500.000	497.200	1886.000	1924.000	83.954%	86.369%
σ		2.662%	18.400	8.476	6.270	35.610	46.020	3.239%	3.428%
%RSD		3.584	0.873	1.695	1.261	1.889	2.391	3.858	3.970

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:58	46.350	46.360	19.740	19.730	19.530	78.565%
2	18:14:25	47.600	48.730	20.160	20.340	20.130	82.261%
3	18:14:52	49.100	49.350	20.080	20.660	20.130	84.748%
x		47.680	48.150	20.000	20.240	19.930	81.858%
σ		1.376	1.579	0.222	0.474	0.343	3.111%
%RSD		2.885	3.279	1.108	2.342	1.722	3.800

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:16	71.471%	47.990	992.800	977.800	0.000	94730.000	58880.000	59090.000
2	18:18:43	71.143%	47.540	1015.000	992.700	0.000	95960.000	60110.000	60830.000
3	18:19:09	71.117%	49.880	1017.000	997.700	0.000	96100.000	60510.000	61120.000
x		71.244%	48.470	1008.000	989.400	0.000	95600.000	59830.000	60350.000
σ		0.197%	1.244	13.290	10.360	0.000	749.000	846.200	1100.000
%RSD		0.277	2.566	1.318	1.047	0.000	0.784	1.414	1.823
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:16	1778.000	13580.000	0.000	53530.000	136800.000	142900.000	71.279%	982.500
2	18:18:43	1837.000	13780.000	0.000	53720.000	139400.000	145000.000	73.006%	1005.000
3	18:19:09	1842.000	13920.000	0.000	53520.000	140500.000	145800.000	73.900%	1007.000
x		1819.000	13760.000	0.000	53590.000	138900.000	144600.000	72.728%	998.100
σ		35.640	170.600	0.000	112.700	1901.000	1510.000	1.332%	13.490
%RSD		1.959	1.240	0.000	0.210	1.368	1.044	1.832	1.352
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:16	497.300	192.600	522.200	1178.000	1542.000	455.500	442.600	224.000
2	18:18:43	501.500	196.600	530.800	1183.000	1562.000	460.400	451.700	227.400
3	18:19:09	496.300	196.200	526.100	1180.000	1574.000	462.700	450.700	226.700
x		498.400	195.100	526.400	1180.000	1559.000	459.500	448.300	226.000
σ		2.762	2.214	4.284	2.790	15.830	3.693	4.994	1.784
%RSD		0.554	1.135	0.814	0.236	1.015	0.804	1.114	0.790
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:16	225.000	461.200	466.200	36.260	9.848	9.054	0.000	1194.000
2	18:18:43	230.700	474.200	478.700	36.300	7.632	8.563	0.000	1220.000
3	18:19:09	230.100	471.600	480.400	41.630	8.238	8.657	0.000	1226.000
x		228.600	469.000	475.100	38.060	8.572	8.758	0.000	1213.000
σ		3.156	6.891	7.751	3.088	1.145	0.261	0.000	16.960
%RSD		1.381	1.469	1.632	8.113	13.360	2.979	0.000	1.398
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:16	79.928%	1005.000	1017.000	83.431%	45.490	45.710	49.100	39.210
2	18:18:43	82.124%	1029.000	1041.000	85.962%	45.790	45.820	50.630	40.250
3	18:19:09	83.082%	1031.000	1049.000	86.674%	45.680	45.980	48.840	39.330
x		81.711%	1022.000	1036.000	85.356%	45.650	45.840	49.520	39.600
σ		1.617%	14.730	16.920	1.704%	0.153	0.135	0.969	0.570
%RSD		1.979	1.442	1.634	1.997	0.334	0.294	1.957	1.439
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:16	80.481%	2136.000	514.700	512.000	1946.000	1964.000	92.172%	94.085%
2	18:18:43	81.171%	2186.000	519.800	516.200	1966.000	2031.000	94.403%	95.450%
3	18:19:09	82.104%	2162.000	538.100	514.700	1981.000	2039.000	95.087%	96.790%
x		81.252%	2161.000	524.200	514.300	1965.000	2011.000	93.887%	95.441%
σ		0.815%	25.050	12.310	2.143	17.500	41.300	1.524%	1.353%
%RSD		1.002	1.159	2.348	0.417	0.891	2.053	1.624	1.417
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:18:16	49.340	50.210	20.950	21.110	20.620	89.340%		
2	18:18:43	50.620	50.990	20.660	21.000	20.860	91.232%		
3	18:19:09	50.600	51.130	20.840	20.750	20.560	92.533%		
x		50.190	50.780	20.820	20.950	20.680	91.035%		
σ		0.731	0.492	0.147	0.182	0.156	1.605%		
%RSD		1.457	0.969	0.705	0.870	0.752	1.764		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:33	70.182%	47.520	1030.000	1003.000	0.000	94140.000	60410.000	60720.000
2	18:23:00	70.067%	47.650	1012.000	1027.000	0.000	95760.000	61340.000	61730.000
3	18:23:25	70.859%	48.960	1030.000	993.100	0.000	94600.000	60770.000	61630.000
x		70.369%	48.040	1024.000	1008.000	0.000	94830.000	60840.000	61360.000
σ		0.428%	0.796	10.530	17.380	0.000	833.400	470.700	553.300
%RSD		0.608	1.657	1.029	1.725	0.000	0.879	0.774	0.902
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:33	1801.000	13830.000	0.000	54700.000	135000.000	139200.000	69.423%	1012.000
2	18:23:00	1857.000	14040.000	0.000	55610.000	136600.000	143800.000	70.779%	1030.000
3	18:23:25	1857.000	13910.000	0.000	56080.000	141000.000	146400.000	71.397%	1037.000
x		1838.000	13920.000	0.000	55460.000	137500.000	143100.000	70.533%	1026.000
σ		32.390	106.200	0.000	701.900	3100.000	3605.000	1.009%	13.140
%RSD		1.762	0.763	0.000	1.266	2.254	2.519	1.431	1.280
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:33	507.800	196.000	530.000	1024.000	1414.000	469.400	456.600	229.100
2	18:23:00	516.000	200.000	543.300	1054.000	1424.000	476.500	466.600	232.400
3	18:23:25	521.500	201.300	540.800	1062.000	1426.000	479.200	464.400	235.900
x		515.100	199.100	538.000	1047.000	1421.000	475.000	462.500	232.500
σ		6.906	2.764	7.030	20.240	6.344	5.050	5.290	3.386
%RSD		1.341	1.388	1.307	1.934	0.446	1.063	1.144	1.456
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:33	234.600	472.100	476.800	38.080	9.017	9.047	0.000	1222.000
2	18:23:00	236.000	471.500	487.600	37.130	8.703	9.889	0.000	1208.000
3	18:23:25	238.400	478.900	485.100	38.400	8.994	8.705	0.000	1232.000
x		236.300	474.200	483.100	37.870	8.905	9.214	0.000	1220.000
σ		1.946	4.124	5.640	0.663	0.175	0.609	0.000	12.140
%RSD		0.824	0.870	1.167	1.752	1.963	6.613	0.000	0.995
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:33	76.408%	1048.000	1053.000	80.922%	44.320	44.600	49.960	37.390
2	18:23:00	79.369%	1060.000	1078.000	83.378%	44.420	44.350	51.000	40.020
3	18:23:25	80.142%	1072.000	1084.000	84.616%	44.670	44.500	50.300	40.640
x		78.640%	1060.000	1072.000	82.972%	44.470	44.480	50.420	39.350
σ		1.971%	12.470	16.490	1.880%	0.180	0.126	0.533	1.725
%RSD		2.507	1.177	1.538	2.266	0.404	0.283	1.058	4.385
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:33	77.851%	2222.000	521.000	519.900	1965.000	2015.000	89.568%	91.451%
2	18:23:00	79.623%	2223.000	538.000	531.200	1994.000	2051.000	92.519%	93.475%
3	18:23:25	80.229%	2232.000	542.400	538.600	2011.000	2075.000	94.333%	95.772%
x		79.234%	2226.000	533.800	529.900	1990.000	2047.000	92.140%	93.566%
σ		1.235%	5.059	11.320	9.415	23.610	30.090	2.405%	2.162%
%RSD		1.559	0.227	2.121	1.777	1.187	1.470	2.610	2.311
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:22:33	50.820	51.450	20.750	21.020	20.750	87.222%		
2	18:23:00	50.920	51.450	20.890	21.210	20.930	89.950%		
3	18:23:25	51.570	52.480	21.140	21.430	21.340	90.239%		
x		51.100	51.800	20.930	21.220	21.010	89.137%		
σ		0.411	0.596	0.200	0.206	0.304	1.665%		
%RSD		0.803	1.151	0.957	0.968	1.446	1.868		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	71.921%	-0.159	45.860	48.640	0.000	52720.000	17650.000	18140.000
2	18:27:18	69.107%	-0.097	51.240	48.680	0.000	54540.000	18470.000	18940.000
3	18:27:45	71.885%	-0.290	50.410	48.630	0.000	54070.000	18260.000	18800.000
x		70.971%	-0.182	49.170	48.650	0.000	53770.000	18130.000	18630.000
σ		1.614%	0.098	2.898	0.027	0.000	947.200	422.100	426.700
%RSD		2.275	54.050	5.895	0.056	0.000	1.761	2.329	2.290

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	4.145	4582.000	0.000	4658.000	90010.000	93880.000	69.238%	1.250
2	18:27:18	4.376	4738.000	0.000	4732.000	91610.000	95070.000	70.910%	1.382
3	18:27:45	4.310	4687.000	0.000	4759.000	92430.000	96020.000	70.964%	0.863
x		4.277	4669.000	0.000	4716.000	91350.000	94990.000	70.370%	1.165
σ		0.119	79.570	0.000	52.140	1232.000	1076.000	0.981%	0.270
%RSD		2.777	1.704	0.000	1.106	1.349	1.132	1.394	23.180

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	3.074	10.250	2.274	9.885	311.500	0.208	0.071	0.976
2	18:27:18	3.731	10.250	2.310	8.601	309.900	0.191	-0.015	1.122
3	18:27:45	2.611	10.250	2.285	8.107	305.600	0.250	0.087	1.110
x		3.138	10.250	2.290	8.864	309.000	0.216	0.048	1.069
σ		0.563	0.004	0.018	0.918	3.066	0.031	0.055	0.081
%RSD		17.940	0.036	0.794	10.360	0.992	14.130	114.400	7.572

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	0.973	2.832	2.429	5.787	-1.056	-1.062	0.000	199.000
2	18:27:18	1.007	2.763	3.168	0.743	-1.280	0.165	0.000	208.400
3	18:27:45	1.067	2.706	3.107	1.475	-0.399	-0.493	0.000	207.400
x		1.016	2.767	2.901	2.669	-0.912	-0.463	0.000	204.900
σ		0.047	0.063	0.410	2.725	0.458	0.614	0.000	5.175
%RSD		4.665	2.282	14.130	102.100	50.240	132.600	0.000	2.525

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	73.794%	8.096	7.926	76.075%	-0.077	-0.090	0.030	-0.075
2	18:27:18	74.225%	7.044	7.233	77.014%	-0.090	-0.093	0.017	0.002
3	18:27:45	75.013%	6.472	6.590	78.322%	-0.078	-0.092	0.004	0.005
x		74.344%	7.204	7.250	77.137%	-0.082	-0.091	0.017	-0.023
σ		0.618%	0.824	0.668	1.128%	0.007	0.002	0.013	0.045
%RSD		0.831	11.440	9.211	1.463	8.293	2.042	76.100	199.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	75.115%	0.772	0.369	0.331	42.460	42.040	82.013%	83.515%
2	18:27:18	76.092%	-0.009	-0.078	-0.062	44.070	43.340	83.400%	85.166%
3	18:27:45	77.071%	-0.712	-0.192	-0.188	42.870	43.860	83.905%	84.656%
x		76.093%	0.017	0.033	0.027	43.130	43.080	83.106%	84.446%
σ		0.978%	0.742	0.296	0.270	0.838	0.934	0.980%	0.845%
%RSD		1.286	4349.000	894.300	991.500	1.942	2.167	1.179	1.001

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:51	0.092	0.096	0.058	0.040	0.064	80.848%
2	18:27:18	0.085	0.074	0.046	0.057	0.058	81.358%
3	18:27:45	0.079	0.065	0.051	0.046	0.054	81.912%
x		0.086	0.079	0.052	0.048	0.059	81.373%
σ		0.007	0.016	0.006	0.009	0.005	0.532%
%RSD		7.771	20.500	11.600	18.080	8.909	0.654

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	70.091%	0.007	51.100	47.480	0.000	93220.000	16390.000	16710.000
2	18:31:36	71.058%	-0.155	53.610	45.450	0.000	94850.000	17010.000	17350.000
3	18:32:02	70.490%	0.022	43.710	47.100	0.000	93370.000	16760.000	17140.000
x		70.546%	-0.042	49.470	46.680	0.000	93810.000	16720.000	17070.000
σ		0.486%	0.098	5.146	1.081	0.000	898.600	309.200	329.000
%RSD		0.688	232.400	10.400	2.315	0.000	0.958	1.849	1.928

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	15.040	4191.000	0.000	9783.000	66580.000	68330.000	70.242%	1.165
2	18:31:36	15.270	4263.000	0.000	9912.000	69360.000	70990.000	70.606%	1.081
3	18:32:02	14.900	4161.000	0.000	9502.000	65700.000	68010.000	75.706%	0.757
x		15.070	4205.000	0.000	9732.000	67220.000	69110.000	72.185%	1.001
σ		0.188	52.610	0.000	209.600	1912.000	1637.000	3.055%	0.216
%RSD		1.248	1.251	0.000	2.153	2.845	2.368	4.232	21.540

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	-0.806	8.979	0.588	8.400	228.400	0.256	0.277	1.157
2	18:31:36	5.306	9.025	0.632	8.835	232.800	0.272	0.278	1.363
3	18:32:02	1.832	8.471	0.576	5.102	211.300	0.252	0.283	1.335
x		2.111	8.825	0.599	7.446	224.100	0.260	0.279	1.285
σ		3.066	0.307	0.030	2.041	11.360	0.011	0.003	0.111
%RSD		145.300	3.478	4.985	27.420	5.067	4.151	1.229	8.673

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	1.087	3.194	3.403	2.602	-0.384	0.479	0.000	144.600
2	18:31:36	1.239	3.253	2.893	1.075	-0.130	0.427	0.000	147.600
3	18:32:02	1.093	3.096	3.463	3.138	-0.774	-0.666	0.000	150.100
x		1.140	3.181	3.253	2.271	-0.429	0.080	0.000	147.400
σ		0.086	0.079	0.313	1.070	0.324	0.647	0.000	2.753
%RSD		7.559	2.491	9.624	47.120	75.540	806.500	0.000	1.867

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	76.748%	0.958	1.080	79.571%	-0.093	-0.115	-0.014	0.038
2	18:31:36	78.423%	1.172	1.038	81.335%	-0.096	-0.113	0.021	-0.033
3	18:32:02	80.040%	0.979	1.086	83.054%	-0.113	-0.094	0.034	-0.008
x		78.403%	1.036	1.068	81.320%	-0.100	-0.107	0.014	-0.001
σ		1.646%	0.118	0.026	1.742%	0.011	0.011	0.025	0.036
%RSD		2.100	11.410	2.442	2.142	10.520	10.670	182.700	4113.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	78.147%	-2.101	-0.203	-0.226	40.530	40.440	85.442%	87.444%
2	18:31:36	79.625%	-2.080	-0.250	-0.224	41.750	41.220	87.698%	89.506%
3	18:32:02	81.184%	-2.285	-0.221	-0.281	42.320	42.590	89.625%	92.076%
x		79.652%	-2.155	-0.225	-0.243	41.530	41.420	87.588%	89.675%
σ		1.518%	0.113	0.024	0.032	0.915	1.086	2.093%	2.321%
%RSD		1.906	5.243	10.510	13.210	2.203	2.621	2.390	2.588

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:09	0.025	0.021	0.049	0.045	0.056	84.926%
2	18:31:36	0.026	0.021	0.089	0.047	0.063	87.555%
3	18:32:02	0.032	0.028	0.077	0.048	0.071	89.453%
x		0.028	0.023	0.072	0.047	0.063	87.311%
σ		0.004	0.004	0.021	0.002	0.008	2.274%
%RSD		13.590	15.520	29.020	3.378	12.260	2.604

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:26	69.722%	0.250	56.420	54.150	0.000	41950.000	13810.000	13910.000
2	18:35:53	71.103%	-0.308	55.390	53.870	0.000	43840.000	14570.000	14910.000
3	18:36:19	72.158%	-0.162	55.520	55.120	0.000	43600.000	14550.000	14900.000
x		70.994%	-0.073	55.780	54.380	0.000	43130.000	14310.000	14570.000
σ		1.221%	0.289	0.560	0.657	0.000	1029.000	435.900	572.600
%RSD		1.720	395.700	1.005	1.209	0.000	2.385	3.046	3.929
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:26	11.350	3834.000	0.000	5140.000	64790.000	67670.000	74.549%	1.258
2	18:35:53	11.950	4025.000	0.000	5517.000	71880.000	74200.000	71.083%	1.089
3	18:36:19	12.440	4026.000	0.000	5472.000	71540.000	74480.000	71.871%	1.733
x		11.910	3962.000	0.000	5377.000	69410.000	72120.000	72.501%	1.360
σ		0.544	110.300	0.000	205.800	3998.000	3851.000	1.817%	0.334
%RSD		4.571	2.784	0.000	3.827	5.760	5.340	2.506	24.570
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:26	4.727	5.315	190.700	33.190	258.200	0.469	0.576	1.556
2	18:35:53	1.664	5.823	207.200	38.220	283.200	0.512	0.643	1.708
3	18:36:19	1.884	5.798	208.800	37.930	273.300	0.521	0.622	1.860
x		2.758	5.645	202.200	36.450	271.600	0.501	0.613	1.708
σ		1.708	0.286	10.020	2.824	12.590	0.028	0.034	0.152
%RSD		61.940	5.073	4.952	7.746	4.635	5.631	5.568	8.893
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:26	1.620	5.464	5.539	4.757	0.070	-0.781	0.000	175.900
2	18:35:53	1.651	5.535	5.825	0.485	-0.807	-1.011	0.000	180.400
3	18:36:19	1.610	5.614	5.897	0.330	-0.780	-0.003	0.000	180.500
x		1.627	5.538	5.754	1.857	-0.506	-0.599	0.000	178.900
σ		0.022	0.075	0.190	2.512	0.499	0.528	0.000	2.633
%RSD		1.321	1.359	3.295	135.300	98.720	88.220	0.000	1.472
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:26	77.770%	0.274	0.250	82.686%	-0.102	-0.103	0.020	0.031
2	18:35:53	78.836%	0.319	0.263	83.477%	-0.113	-0.099	0.013	0.014
3	18:36:19	81.063%	0.315	0.267	84.840%	-0.102	-0.095	-0.010	-0.042
x		79.223%	0.302	0.260	83.668%	-0.105	-0.099	0.008	0.001
σ		1.680%	0.025	0.009	1.090%	0.006	0.004	0.016	0.038
%RSD		2.121	8.297	3.364	1.302	5.924	3.832	204.100	3424.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:26	80.023%	-2.336	-0.548	-0.527	36.660	36.210	89.091%	90.993%
2	18:35:53	80.832%	-2.312	-0.590	-0.631	37.200	38.090	90.205%	92.875%
3	18:36:19	82.203%	-2.387	-0.568	-0.490	37.480	38.560	91.532%	93.746%
x		81.019%	-2.345	-0.569	-0.549	37.110	37.620	90.276%	92.538%
σ		1.102%	0.039	0.021	0.073	0.419	1.246	1.222%	1.407%
%RSD		1.361	1.648	3.694	13.320	1.130	3.311	1.353	1.521
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:35:26	0.036	0.035	0.167	0.151	0.175	90.159%		
2	18:35:53	0.051	0.025	0.202	0.166	0.190	91.204%		
3	18:36:19	0.034	0.030	0.171	0.168	0.186	91.466%		
x		0.041	0.030	0.180	0.162	0.184	90.943%		
σ		0.009	0.005	0.019	0.009	0.007	0.692%		
%RSD		23.110	15.720	10.590	5.528	4.041	0.760		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	71.610%	-0.310	47.400	46.010	0.000	90060.000	22000.000	20770.000
2	18:40:11	71.939%	0.033	46.710	46.600	0.000	90800.000	22700.000	21280.000
3	18:40:38	71.674%	-0.160	50.730	44.370	0.000	91270.000	22800.000	21440.000
x		71.741%	-0.146	48.280	45.660	0.000	90710.000	22500.000	21160.000
σ		0.174%	0.172	2.150	1.152	0.000	610.000	437.900	352.800
%RSD		0.243	117.800	4.453	2.523	0.000	0.672	1.946	1.667

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	6.921	3366.000	0.000	18270.000	90180.000	93790.000	70.977%	0.928
2	18:40:11	7.866	3429.000	0.000	18510.000	92400.000	95700.000	72.426%	1.137
3	18:40:38	8.530	3423.000	0.000	18490.000	91660.000	96620.000	73.397%	1.401
x		7.772	3406.000	0.000	18420.000	91410.000	95370.000	72.267%	1.155
σ		0.809	34.900	0.000	133.400	1132.000	1443.000	1.218%	0.237
%RSD		10.410	1.024	0.000	0.724	1.239	1.514	1.685	20.510

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	3.184	10.940	2.534	16.840	320.200	0.189	-0.027	2.720
2	18:40:11	2.625	11.170	2.434	16.250	322.100	0.215	0.003	2.848
3	18:40:38	1.504	11.410	2.519	16.820	316.400	0.210	-0.188	2.774
x		2.438	11.180	2.496	16.640	319.600	0.204	-0.071	2.781
σ		0.856	0.236	0.054	0.335	2.922	0.014	0.103	0.064
%RSD		35.100	2.112	2.152	2.011	0.914	6.742	145.800	2.308

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	2.717	8.692	8.768	1.796	-0.995	0.376	0.000	193.000
2	18:40:11	2.665	8.640	9.271	5.232	0.068	-0.134	0.000	198.400
3	18:40:38	2.801	9.045	9.537	1.586	-0.128	-0.724	0.000	201.300
x		2.728	8.792	9.192	2.871	-0.352	-0.161	0.000	197.600
σ		0.069	0.220	0.391	2.047	0.566	0.550	0.000	4.212
%RSD		2.514	2.503	4.251	71.300	160.900	342.700	0.000	2.132

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	79.510%	0.392	0.318	84.068%	-0.094	-0.101	-0.004	0.001
2	18:40:11	81.790%	0.353	0.335	86.322%	-0.083	-0.099	0.018	-0.077
3	18:40:38	83.253%	0.323	0.366	88.096%	-0.092	-0.094	-0.020	-0.022
x		81.518%	0.356	0.340	86.162%	-0.089	-0.098	-0.002	-0.032
σ		1.886%	0.034	0.024	2.019%	0.006	0.004	0.019	0.040
%RSD		2.314	9.654	7.180	2.343	6.450	3.723	1031.000	123.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	81.698%	-2.449	-0.614	-0.603	73.000	72.840	90.835%	92.821%
2	18:40:11	83.960%	-2.566	-0.594	-0.617	75.550	73.140	93.299%	95.619%
3	18:40:38	85.895%	-2.573	-0.607	-0.607	73.870	74.230	95.385%	97.632%
x		83.851%	-2.529	-0.605	-0.609	74.140	73.400	93.173%	95.357%
σ		2.101%	0.070	0.010	0.007	1.297	0.732	2.277%	2.416%
%RSD		2.505	2.772	1.669	1.123	1.749	0.997	2.444	2.534

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:44	0.013	0.014	0.187	0.157	0.186	91.279%
2	18:40:11	0.016	0.011	0.177	0.211	0.189	93.444%
3	18:40:38	0.024	0.017	0.206	0.192	0.194	95.254%
x		0.018	0.014	0.190	0.187	0.190	93.326%
σ		0.006	0.003	0.015	0.027	0.004	1.990%
%RSD		33.170	20.110	7.836	14.510	2.080	2.133

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	70.413%	-0.172	47.550	47.550	0.000	55580.000	18060.000	18490.000
2	18:44:28	70.283%	-0.039	52.500	51.650	0.000	56920.000	18730.000	19360.000
3	18:44:54	70.658%	-0.218	53.250	49.840	0.000	56920.000	18990.000	19420.000
x		70.451%	-0.143	51.100	49.680	0.000	56470.000	18590.000	19090.000
σ		0.190%	0.093	3.096	2.055	0.000	773.000	476.700	524.500
%RSD		0.270	65.190	6.058	4.136	0.000	1.369	2.564	2.747

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	1.100	4879.000	0.000	14740.000	117100.000	121500.000	69.486%	0.884
2	18:44:28	1.317	5036.000	0.000	15030.000	121800.000	127700.000	69.821%	1.254
3	18:44:54	1.215	5080.000	0.000	15000.000	123000.000	127600.000	70.985%	1.353
x		1.211	4998.000	0.000	14920.000	120600.000	125600.000	70.097%	1.164
σ		0.109	105.700	0.000	160.800	3137.000	3566.000	0.787%	0.247
%RSD		8.962	2.114	0.000	1.077	2.600	2.839	1.123	21.250

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	-1.193	17.200	94.470	10.590	412.100	0.361	2.694	1.887
2	18:44:28	2.781	17.680	97.390	9.830	416.500	0.413	2.752	1.666
3	18:44:54	1.717	17.640	97.610	9.040	416.200	0.394	2.987	1.710
x		1.102	17.510	96.490	9.819	414.900	0.389	2.811	1.754
σ		2.057	0.264	1.750	0.773	2.453	0.026	0.155	0.117
%RSD		186.700	1.509	1.814	7.869	0.591	6.799	5.519	6.683

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	1.996	10.390	10.860	2.727	-0.672	-0.070	0.000	312.200
2	18:44:28	1.820	11.030	11.490	3.457	-0.222	0.592	0.000	321.100
3	18:44:54	1.990	11.460	11.330	3.664	-0.582	0.025	0.000	323.900
x		1.936	10.960	11.220	3.283	-0.492	0.182	0.000	319.100
σ		0.100	0.537	0.329	0.492	0.238	0.358	0.000	6.077
%RSD		5.183	4.897	2.933	14.990	48.410	196.200	0.000	1.904

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	72.161%	0.000	0.030	75.562%	-0.101	-0.082	-0.007	0.046
2	18:44:28	74.064%	0.028	0.045	76.174%	-0.088	-0.074	0.081	-0.076
3	18:44:54	76.554%	0.081	0.071	77.876%	-0.098	-0.085	0.011	-0.021
x		74.260%	0.036	0.049	76.537%	-0.096	-0.081	0.028	-0.017
σ		2.203%	0.041	0.021	1.199%	0.007	0.006	0.046	0.061
%RSD		2.967	112.400	42.750	1.567	7.364	7.242	163.200	358.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	73.050%	-2.429	-0.738	-0.776	68.370	67.890	81.523%	83.141%
2	18:44:28	75.478%	-2.374	-0.772	-0.764	68.870	68.160	83.287%	84.332%
3	18:44:54	76.172%	-2.466	-0.737	-0.726	70.730	70.250	82.216%	85.085%
x		74.900%	-2.423	-0.749	-0.755	69.320	68.770	82.342%	84.186%
σ		1.639%	0.046	0.020	0.026	1.241	1.290	0.889%	0.980%
%RSD		2.189	1.911	2.654	3.428	1.790	1.876	1.079	1.165

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:01	0.029	0.028	0.437	0.398	0.413	77.925%
2	18:44:28	0.036	0.024	0.454	0.420	0.425	79.678%
3	18:44:54	0.036	0.020	0.392	0.353	0.378	84.072%
x		0.034	0.024	0.428	0.390	0.405	80.558%
σ		0.004	0.004	0.032	0.034	0.024	3.167%
%RSD		12.260	15.890	7.438	8.739	6.005	3.931

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	66.013%	0.069	50.130	42.420	0.000	94910.000	23220.000	21890.000
2	18:48:45	67.997%	-0.043	45.250	42.350	0.000	93560.000	22940.000	21640.000
3	18:49:12	68.435%	-0.047	41.450	41.280	0.000	93580.000	22940.000	21550.000
x		67.482%	-0.007	45.610	42.020	0.000	94020.000	23030.000	21690.000
σ		1.291%	0.066	4.350	0.639	0.000	775.800	163.300	174.700
%RSD		1.913	933.100	9.538	1.520	0.000	0.825	0.709	0.805

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	1.178	5245.000	0.000	14920.000	182600.000	188200.000	69.423%	1.433
2	18:48:45	0.956	5181.000	0.000	15040.000	181000.000	185800.000	70.666%	1.479
3	18:49:12	0.986	5152.000	0.000	15120.000	182800.000	187600.000	71.482%	1.448
x		1.040	5193.000	0.000	15030.000	182200.000	187200.000	70.524%	1.453
σ		0.120	47.560	0.000	96.590	966.600	1286.000	1.037%	0.023
%RSD		11.570	0.916	0.000	0.643	0.531	0.687	1.470	1.615

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	3.762	5.852	321.400	27.640	618.100	10.430	11.340	19.320
2	18:48:45	4.119	5.670	320.200	26.320	610.400	10.350	12.150	19.640
3	18:49:12	4.162	5.695	320.000	25.100	604.500	10.340	11.720	19.550
x		4.014	5.739	320.500	26.350	611.000	10.380	11.730	19.500
σ		0.220	0.099	0.755	1.273	6.862	0.049	0.405	0.164
%RSD		5.475	1.719	0.236	4.831	1.123	0.469	3.454	0.842

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	19.670	37.630	37.180	4.461	-0.518	0.568	0.000	358.800
2	18:48:45	20.150	36.280	38.040	1.879	-0.663	-0.894	0.000	361.200
3	18:49:12	20.480	36.550	37.000	3.143	-0.390	1.062	0.000	366.400
x		20.100	36.820	37.410	3.161	-0.524	0.245	0.000	362.100
σ		0.408	0.715	0.555	1.291	0.137	1.018	0.000	3.865
%RSD		2.029	1.941	1.484	40.850	26.100	414.700	0.000	1.067

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	75.638%	0.017	-0.033	78.663%	-0.074	-0.072	0.099	0.052
2	18:48:45	78.508%	-0.034	-0.049	81.771%	-0.051	-0.070	0.078	0.131
3	18:49:12	79.715%	-0.033	-0.036	83.685%	-0.040	-0.055	0.125	0.063
x		77.954%	-0.017	-0.039	81.373%	-0.055	-0.066	0.101	0.082
σ		2.094%	0.029	0.009	2.535%	0.017	0.009	0.023	0.043
%RSD		2.687	173.500	21.780	3.115	31.720	13.980	23.220	52.070

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	76.289%	-2.495	-0.802	-0.763	97.740	96.980	86.301%	87.182%
2	18:48:45	80.301%	-2.673	-0.799	-0.770	98.490	96.430	86.940%	91.198%
3	18:49:12	79.850%	-2.593	-0.776	-0.760	98.900	99.850	89.310%	91.819%
x		78.814%	-2.587	-0.792	-0.764	98.380	97.750	87.517%	90.067%
σ		2.198%	0.089	0.014	0.005	0.584	1.836	1.585%	2.517%
%RSD		2.788	3.444	1.773	0.709	0.593	1.879	1.811	2.795

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:19	0.049	0.043	1.149	1.056	1.102	84.679%
2	18:48:45	0.045	0.032	1.148	1.059	1.092	88.010%
3	18:49:12	0.044	0.040	1.283	1.084	1.119	88.537%
x		0.046	0.038	1.193	1.067	1.104	87.076%
σ		0.003	0.006	0.078	0.015	0.014	2.092%
%RSD		5.510	15.340	6.495	1.422	1.239	2.402

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	72.731%	0.006	50.630	46.120	0.000	38810.000	10950.000	11120.000
2	18:53:01	71.891%	-0.268	51.000	45.860	0.000	39230.000	11130.000	11380.000
3	18:53:27	70.340%	-0.129	51.490	48.820	0.000	39970.000	11300.000	11550.000
x		71.654%	-0.130	51.040	46.930	0.000	39340.000	11130.000	11350.000
σ		1.213%	0.137	0.430	1.638	0.000	586.500	175.000	215.200
%RSD		1.693	105.200	0.843	3.490	0.000	1.491	1.572	1.895

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	1.574	4614.000	0.000	5566.000	102000.000	108600.000	70.143%	1.048
2	18:53:01	1.375	4675.000	0.000	5649.000	103600.000	107400.000	71.111%	0.666
3	18:53:27	1.316	4732.000	0.000	5659.000	103400.000	107300.000	72.511%	1.067
x		1.422	4674.000	0.000	5624.000	103000.000	107800.000	71.255%	0.927
σ		0.135	59.300	0.000	51.140	885.100	738.300	1.190%	0.226
%RSD		9.508	1.269	0.000	0.909	0.859	0.685	1.671	24.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	3.640	15.760	4.683	6.347	352.300	0.279	5.217	2.514
2	18:53:01	3.469	15.790	4.799	6.490	349.500	0.307	4.949	2.565
3	18:53:27	3.169	15.680	4.482	5.193	337.500	0.329	4.858	2.633
x		3.426	15.750	4.654	6.010	346.400	0.305	5.008	2.571
σ		0.238	0.056	0.161	0.711	7.845	0.025	0.186	0.060
%RSD		6.954	0.356	3.451	11.830	2.265	8.237	3.719	2.322

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	2.472	16.520	16.860	0.886	-0.568	-0.008	0.000	187.900
2	18:53:01	2.594	16.380	15.970	2.612	-0.390	-0.711	0.000	187.900
3	18:53:27	2.657	16.080	15.590	0.611	-0.841	-0.280	0.000	190.200
x		2.574	16.330	16.140	1.370	-0.600	-0.333	0.000	188.700
σ		0.094	0.225	0.652	1.085	0.228	0.355	0.000	1.295
%RSD		3.647	1.379	4.042	79.190	37.940	106.500	0.000	0.686

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	78.410%	0.636	0.654	82.308%	-0.073	-0.099	0.061	-0.065
2	18:53:01	79.859%	0.774	0.621	84.379%	-0.090	-0.099	0.035	0.015
3	18:53:27	81.210%	0.565	0.661	86.561%	-0.098	-0.099	0.050	-0.101
x		79.826%	0.658	0.646	84.416%	-0.087	-0.099	0.049	-0.050
σ		1.400%	0.106	0.022	2.127%	0.013	0.000	0.013	0.060
%RSD		1.754	16.160	3.336	2.520	14.630	0.331	26.450	118.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	80.825%	-2.631	-0.809	-0.796	40.300	39.800	90.391%	91.815%
2	18:53:01	83.257%	-2.533	-0.811	-0.800	40.150	40.170	91.689%	93.685%
3	18:53:27	82.867%	-2.493	-0.810	-0.809	41.300	40.170	90.849%	94.597%
x		82.316%	-2.552	-0.810	-0.802	40.580	40.050	90.976%	93.366%
σ		1.306%	0.071	0.001	0.007	0.625	0.216	0.658%	1.418%
%RSD		1.587	2.791	0.103	0.846	1.539	0.539	0.724	1.519

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:34	0.016	0.019	0.587	0.626	0.588	91.459%
2	18:53:01	0.004	0.014	0.585	0.602	0.577	93.760%
3	18:53:27	0.039	0.010	0.578	0.514	0.562	94.428%
x		0.019	0.014	0.583	0.580	0.576	93.216%
σ		0.018	0.004	0.005	0.059	0.013	1.558%
%RSD		91.710	28.660	0.777	10.110	2.226	1.671

CCV 1487954 4/2/2015 6:56:23 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	69.732%	100.100	99.930	101.000	0.000	49530.000	48190.000	47630.000
2	18:57:16	69.005%	100.600	110.200	104.100	0.000	50060.000	48580.000	48190.000
3	18:57:43	68.520%	101.800	103.600	103.100	0.000	50290.000	49010.000	48490.000
x		69.086%	100.822%	104.576%	102.725%	0.000	99.918%	97.194%	96.210%
σ		0.610%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.883	0.846	4.976	1.573	0.000	0.781	0.847	0.905

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	477.800	5284.000	0.000	51230.000	49610.000	50960.000	70.846%	101.300
2	18:57:16	484.600	5341.000	0.000	51670.000	50450.000	51640.000	70.873%	105.400
3	18:57:43	489.500	5370.000	0.000	51840.000	50590.000	51640.000	70.274%	103.000
x		96.798%	106.628%	0.000	103.158%	100.435%	102.828%	70.664%	103.246%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.338%	n/a
%RSD		1.219	0.818	0.000	0.613	1.051	0.764	0.479	1.996

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	98.650	98.410	507.000	25130.000	25630.000	96.580	97.610	98.740
2	18:57:16	101.100	100.800	518.000	25570.000	26170.000	97.440	97.890	100.000
3	18:57:43	101.600	101.300	522.700	25810.000	26380.000	97.930	100.400	100.200
x		100.449%	100.167%	103.184%	102.029%	104.243%	97.315%	98.626%	99.664%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.568	1.543	1.567	1.356	1.473	0.701	1.539	0.811

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	97.920	99.150	98.250	96.680	98.450	97.600	0.000	97.400
2	18:57:16	99.400	99.980	101.200	100.200	100.100	102.200	0.000	98.230
3	18:57:43	99.420	102.200	102.000	99.710	97.090	98.080	0.000	100.300
x		98.914%	100.456%	100.481%	98.863%	98.541%	99.284%	0.000	98.640%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.872	1.588	1.956	1.924	1.525	2.532	0.000	1.510

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	76.466%	95.150	93.120	83.525%	94.230	95.290	96.620	97.450
2	18:57:16	77.691%	99.550	97.100	84.425%	94.920	96.530	100.200	98.500
3	18:57:43	77.596%	100.900	99.620	85.351%	95.230	96.200	99.790	100.600
x		77.251%	98.517%	96.615%	84.434%	94.792%	96.008%	98.879%	98.845%
σ		0.682%	n/a	n/a	0.913%	n/a	n/a	n/a	n/a
%RSD		0.882	3.029	3.394	1.081	0.539	0.669	1.989	1.607

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	78.762%	98.540	98.590	100.300	96.430	96.940	87.644%	89.482%
2	18:57:16	79.297%	100.800	102.300	101.400	97.900	97.870	89.150%	91.204%
3	18:57:43	79.902%	101.200	103.300	101.200	99.560	98.260	90.448%	92.951%
x		79.320%	100.180%	101.379%	100.977%	97.964%	97.691%	89.081%	91.212%
σ		0.570%	n/a	n/a	n/a	n/a	n/a	1.404%	1.735%
%RSD		0.719	1.437	2.439	0.587	1.598	0.693	1.576	1.902

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:50	100.300	101.900	101.500	102.200	101.300	91.910%
2	18:57:16	100.800	103.000	102.300	103.700	102.900	93.510%
3	18:57:43	105.000	105.400	105.100	106.000	105.000	92.072%
x		102.046%	103.441%	102.978%	103.984%	103.087%	92.497%
σ		n/a	n/a	n/a	n/a	n/a	0.881%
%RSD		2.498	1.723	1.833	1.849	1.806	0.952

CCB6 4/2/2015 7:03:49 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:16	74.104%	-0.069	-0.559	-0.497	0.000	17.670	11.790	10.760
2	19:04:42	75.600%	-0.142	-0.629	0.001	0.000	18.450	9.669	10.110
3	19:05:09	73.842%	-0.110	0.163	-0.053	0.000	18.030	10.220	9.443
x		74.516%	-0.107	-0.342	-0.183	0.000	18.050	10.560	10.100
σ		0.948%	0.036	0.438	0.274	0.000	0.394	1.101	0.657
%RSD		1.272	34.020	128.200	149.600	0.000	2.182	10.430	6.506
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:16	0.833	-4.510	0.000	-1.602	28.900	18.090	71.709%	-0.529
2	19:04:42	0.928	-5.283	0.000	-3.910	53.460	19.180	72.182%	-0.441
3	19:05:09	0.772	-5.722	0.000	-6.092	42.030	16.800	72.911%	-0.449
x		0.844	-5.172	0.000	-3.868	41.460	18.020	72.267%	-0.473
σ		0.079	0.614	0.000	2.245	12.290	1.192	0.606%	0.049
%RSD		9.298	11.860	0.000	58.050	29.640	6.611	0.838	10.260
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:16	0.624	0.155	0.174	2.518	11.080	0.040	-0.041	0.093
2	19:04:42	0.378	0.160	0.167	1.589	8.732	0.027	-0.011	0.033
3	19:05:09	0.086	0.126	0.170	0.284	8.432	0.023	-0.014	0.157
x		0.363	0.147	0.171	1.464	9.414	0.030	-0.022	0.094
σ		0.269	0.018	0.004	1.122	1.449	0.009	0.017	0.062
%RSD		74.210	12.340	2.090	76.670	15.390	29.520	75.700	65.650
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:16	0.128	0.210	0.112	-0.671	-1.088	-0.427	0.000	0.072
2	19:04:42	0.011	0.182	0.074	-0.122	0.178	-0.246	0.000	0.071
3	19:05:09	0.071	0.135	0.215	-0.324	-1.534	-0.595	0.000	0.074
x		0.070	0.176	0.134	-0.372	-0.815	-0.423	0.000	0.072
σ		0.059	0.038	0.073	0.278	0.888	0.174	0.000	0.001
%RSD		83.900	21.530	54.360	74.600	109.000	41.240	0.000	2.060
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:16	73.986%	-0.115	-0.111	81.927%	-0.077	-0.101	-0.014	0.067
2	19:04:42	75.648%	-0.102	-0.087	84.626%	-0.068	-0.089	0.048	0.022
3	19:05:09	77.083%	-0.014	-0.094	87.021%	-0.081	-0.090	-0.051	-0.025
x		75.573%	-0.077	-0.097	84.525%	-0.075	-0.094	-0.006	0.021
σ		1.550%	0.055	0.013	2.548%	0.006	0.007	0.050	0.046
%RSD		2.051	70.940	13.070	3.015	8.516	7.256	871.000	215.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:16	77.265%	-2.709	-0.750	-0.834	-0.039	0.088	83.327%	84.939%
2	19:04:42	78.106%	-2.565	-0.797	-0.781	0.037	0.111	84.677%	85.830%
3	19:05:09	80.404%	-2.652	-0.801	-0.814	-0.027	0.041	87.482%	88.616%
x		78.592%	-2.642	-0.783	-0.810	-0.010	0.080	85.162%	86.462%
σ		1.625%	0.073	0.028	0.027	0.041	0.036	2.120%	1.918%
%RSD		2.067	2.759	3.596	3.300	424.000	44.720	2.489	2.219
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:04:16	0.031	0.017	0.003	0.027	0.017	95.378%		
2	19:04:42	0.015	0.016	0.017	-0.008	0.009	96.087%		
3	19:05:09	0.014	0.023	0.008	-0.003	0.012	95.992%		
x		0.020	0.019	0.009	0.005	0.013	95.819%		
σ		0.009	0.003	0.007	0.019	0.004	0.385%		
%RSD		46.230	18.170	72.960	366.500	31.680	0.402		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:33	65.784%	0.026	35.570	39.670	0.000	70570.000	18510.000	18690.000
2	19:08:59	68.130%	0.116	40.620	37.180	0.000	70970.000	18920.000	19270.000
3	19:09:26	69.784%	-0.012	36.510	37.380	0.000	71820.000	19170.000	19650.000
x		67.900%	0.043	37.570	38.080	0.000	71120.000	18870.000	19200.000
σ		2.010%	0.066	2.689	1.383	0.000	635.200	333.400	483.400
%RSD		2.960	151.300	7.157	3.632	0.000	0.893	1.767	2.518
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:33	1.986	3877.000	0.000	7547.000	86350.000	89250.000	66.580%	1.715
2	19:08:59	2.188	3945.000	0.000	7568.000	88850.000	91280.000	69.211%	1.536
3	19:09:26	2.147	4018.000	0.000	7675.000	89800.000	93370.000	69.193%	1.316
x		2.107	3947.000	0.000	7597.000	88330.000	91300.000	68.328%	1.522
σ		0.107	70.290	0.000	68.420	1783.000	2060.000	1.514%	0.200
%RSD		5.083	1.781	0.000	0.901	2.018	2.257	2.216	13.130
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:33	2.530	13.160	3.330	2.205	294.300	0.223	6.489	30.780
2	19:08:59	3.687	14.040	3.463	3.507	296.600	0.185	6.786	31.570
3	19:09:26	4.003	14.630	3.621	4.329	290.000	0.196	6.943	31.650
x		3.406	13.940	3.471	3.347	293.600	0.202	6.740	31.330
σ		0.776	0.742	0.146	1.071	3.334	0.020	0.230	0.483
%RSD		22.770	5.317	4.200	32.000	1.135	9.736	3.418	1.542
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:33	31.300	137.900	137.100	0.044	-1.070	-0.460	0.000	215.200
2	19:08:59	32.740	138.200	140.600	-2.592	-1.180	0.717	0.000	227.600
3	19:09:26	31.880	140.700	143.500	1.817	-0.891	-0.069	0.000	226.400
x		31.970	138.900	140.400	-0.244	-1.047	0.063	0.000	223.100
σ		0.728	1.546	3.204	2.219	0.146	0.600	0.000	6.843
%RSD		2.277	1.112	2.282	909.600	13.910	958.900	0.000	3.068
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:33	75.078%	0.554	0.521	79.267%	-0.085	-0.086	0.044	-0.032
2	19:08:59	76.407%	0.504	0.577	81.298%	-0.073	-0.078	0.015	0.060
3	19:09:26	79.174%	0.636	0.528	82.882%	-0.054	-0.078	0.087	-0.002
x		76.886%	0.565	0.542	81.149%	-0.071	-0.081	0.049	0.009
σ		2.090%	0.066	0.031	1.812%	0.016	0.005	0.036	0.047
%RSD		2.718	11.750	5.691	2.233	22.530	5.682	74.580	539.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:33	75.912%	-2.126	-0.629	-0.659	56.280	54.920	87.817%	89.643%
2	19:08:59	80.191%	-2.311	-0.649	-0.673	56.550	56.920	88.788%	91.365%
3	19:09:26	80.646%	-2.314	-0.696	-0.669	56.860	57.990	90.296%	92.990%
x		78.916%	-2.250	-0.658	-0.667	56.560	56.610	88.967%	91.333%
σ		2.612%	0.108	0.035	0.007	0.292	1.561	1.249%	1.674%
%RSD		3.310	4.785	5.278	1.113	0.516	2.758	1.404	1.833
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:08:33	0.020	0.017	3.072	2.951	2.997	89.059%		
2	19:08:59	0.013	0.012	3.088	2.926	3.023	91.346%		
3	19:09:26	0.009	0.003	3.273	2.904	3.053	91.993%		
x		0.014	0.011	3.144	2.927	3.024	90.799%		
σ		0.006	0.007	0.112	0.023	0.028	1.541%		
%RSD		39.030	66.250	3.560	0.802	0.922	1.697		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	68.284%	-0.089	47.400	43.820	0.000	58270.000	17620.000	17870.000
2	19:13:15	70.651%	-0.041	45.910	43.140	0.000	58090.000	17660.000	18080.000
3	19:13:41	70.298%	-0.105	44.090	44.760	0.000	58480.000	17990.000	18420.000
x		69.744%	-0.078	45.800	43.910	0.000	58280.000	17760.000	18120.000
σ		1.277%	0.033	1.661	0.814	0.000	195.100	204.700	276.300
%RSD		1.831	42.300	3.626	1.854	0.000	0.335	1.153	1.525

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	6.393	4362.000	0.000	4740.000	88430.000	92990.000	68.534%	0.857
2	19:13:15	7.639	4412.000	0.000	4762.000	90540.000	94650.000	69.275%	1.577
3	19:13:41	6.836	4356.000	0.000	4806.000	91470.000	95580.000	69.926%	1.456
x		6.956	4377.000	0.000	4769.000	90140.000	94410.000	69.245%	1.297
σ		0.632	30.490	0.000	33.460	1558.000	1309.000	0.697%	0.385
%RSD		9.079	0.697	0.000	0.702	1.728	1.386	1.006	29.730

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	3.966	9.289	24.290	24.280	326.700	0.559	0.186	1.469
2	19:13:15	-1.419	9.484	25.470	26.040	322.800	0.535	0.371	1.623
3	19:13:41	3.055	9.572	25.670	26.060	328.200	0.533	0.397	1.656
x		1.867	9.448	25.150	25.460	325.900	0.542	0.318	1.582
σ		2.882	0.145	0.747	1.021	2.781	0.014	0.115	0.100
%RSD		154.300	1.531	2.969	4.011	0.853	2.636	36.230	6.300

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	1.440	3.602	3.781	2.446	-1.008	0.623	0.000	194.000
2	19:13:15	1.291	3.983	3.965	3.754	-0.912	0.893	0.000	199.500
3	19:13:41	1.306	4.256	4.082	3.213	-1.065	0.322	0.000	202.700
x		1.346	3.947	3.942	3.138	-0.995	0.613	0.000	198.700
σ		0.082	0.328	0.151	0.658	0.078	0.285	0.000	4.411
%RSD		6.092	8.321	3.837	20.960	7.808	46.580	0.000	2.220

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	77.020%	3.896	4.072	81.191%	-0.102	-0.108	0.028	-0.044
2	19:13:15	79.473%	4.258	4.326	82.882%	-0.088	-0.110	0.013	0.039
3	19:13:41	80.527%	4.486	4.220	84.203%	-0.089	-0.097	0.006	0.074
x		79.007%	4.213	4.206	82.758%	-0.093	-0.105	0.016	0.023
σ		1.800%	0.298	0.128	1.510%	0.008	0.007	0.011	0.061
%RSD		2.278	7.067	3.038	1.824	8.572	6.429	71.130	264.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	78.621%	-2.624	-0.661	-0.659	42.200	41.180	88.068%	90.560%
2	19:13:15	81.065%	-2.636	-0.640	-0.706	41.640	41.810	90.866%	93.127%
3	19:13:41	82.098%	-2.706	-0.681	-0.651	42.430	42.140	93.497%	94.479%
x		80.595%	-2.655	-0.661	-0.672	42.090	41.710	90.810%	92.722%
σ		1.786%	0.044	0.021	0.030	0.408	0.487	2.715%	1.991%
%RSD		2.215	1.661	3.141	4.408	0.970	1.168	2.990	2.147

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:48	0.013	0.016	0.115	0.151	0.122	90.484%
2	19:13:15	0.020	0.013	0.115	0.122	0.125	92.495%
3	19:13:41	0.010	0.017	0.096	0.106	0.107	94.045%
x		0.014	0.015	0.109	0.126	0.118	92.341%
σ		0.005	0.002	0.011	0.023	0.009	1.786%
%RSD		37.180	12.880	10.010	18.080	7.990	1.934

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:03	70.753%	-0.085	46.720	49.620	0.000	74220.000	18180.000	18600.000
2	19:17:30	70.157%	0.029	50.390	44.910	0.000	76340.000	18730.000	19340.000
3	19:17:57	71.291%	-0.003	48.160	46.620	0.000	75720.000	18790.000	19160.000
x		70.734%	-0.020	48.420	47.050	0.000	75430.000	18560.000	19030.000
σ		0.567%	0.059	1.846	2.381	0.000	1089.000	337.400	385.800
%RSD		0.802	298.300	3.813	5.060	0.000	1.444	1.817	2.027
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:03	2.178	4137.000	0.000	5982.000	91750.000	95330.000	67.650%	1.209
2	19:17:30	2.319	4307.000	0.000	6074.000	95520.000	98050.000	69.100%	1.352
3	19:17:57	2.432	4272.000	0.000	6009.000	95250.000	98300.000	70.200%	1.193
x		2.310	4239.000	0.000	6022.000	94170.000	97230.000	68.983%	1.251
σ		0.127	90.090	0.000	47.320	2103.000	1645.000	1.279%	0.087
%RSD		5.516	2.125	0.000	0.786	2.233	1.692	1.854	6.991
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:03	3.578	11.500	0.883	68.490	377.500	0.157	0.165	1.584
2	19:17:30	-0.914	11.590	0.901	70.360	377.300	0.203	-0.079	1.651
3	19:17:57	-0.562	11.700	0.989	68.300	370.500	0.193	-0.085	1.720
x		0.701	11.600	0.924	69.050	375.100	0.184	0.000	1.651
σ		2.498	0.103	0.056	1.142	3.973	0.024	0.143	0.068
%RSD		356.500	0.889	6.105	1.654	1.059	13.190	255600.000	4.110
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:03	1.295	14.340	14.580	1.943	0.657	0.416	0.000	200.900
2	19:17:30	1.467	14.500	14.990	1.584	-0.601	0.543	0.000	208.900
3	19:17:57	1.387	13.890	14.810	1.834	-0.588	0.447	0.000	207.600
x		1.383	14.240	14.790	1.787	-0.178	0.469	0.000	205.800
σ		0.086	0.315	0.202	0.184	0.723	0.066	0.000	4.319
%RSD		6.219	2.210	1.364	10.270	407.000	14.160	0.000	2.099
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:03	71.344%	8.386	8.434	74.532%	-0.109	-0.077	0.083	-0.012
2	19:17:30	72.992%	8.989	8.968	76.107%	-0.110	-0.114	-0.003	0.021
3	19:17:57	74.667%	8.839	8.735	76.812%	-0.082	-0.107	0.047	-0.016
x		73.001%	8.738	8.712	75.817%	-0.100	-0.099	0.042	-0.002
σ		1.662%	0.314	0.268	1.167%	0.016	0.020	0.043	0.020
%RSD		2.276	3.594	3.071	1.539	15.600	19.750	102.100	816.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:03	72.126%	-2.599	-0.732	-0.791	41.340	42.040	80.155%	82.864%
2	19:17:30	74.601%	-2.682	-0.766	-0.730	42.520	43.630	81.274%	83.820%
3	19:17:57	75.068%	-2.661	-0.734	-0.771	42.530	43.440	83.167%	83.954%
x		73.932%	-2.647	-0.744	-0.764	42.130	43.040	81.532%	83.546%
σ		1.581%	0.043	0.019	0.031	0.684	0.868	1.522%	0.594%
%RSD		2.138	1.621	2.603	4.022	1.623	2.016	1.867	0.711
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:17:03	0.017	0.020	0.053	0.049	0.053	77.014%		
2	19:17:30	0.036	0.018	0.048	0.070	0.058	80.899%		
3	19:17:57	0.029	0.021	0.054	0.037	0.061	78.474%		
x		0.027	0.020	0.052	0.052	0.057	78.796%		
σ		0.010	0.002	0.003	0.017	0.004	1.962%		
%RSD		35.610	9.238	6.204	32.070	6.289	2.490		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:21:21	70.426%	-0.128	48.050	49.000	0.000	61790.000	17450.000	17880.000
2	19:21:48	69.676%	-0.057	46.810	48.410	0.000	63110.000	18250.000	18580.000
3	19:22:14	69.881%	-0.125	52.480	49.950	0.000	62680.000	18210.000	18710.000
x		69.994%	-0.103	49.110	49.120	0.000	62520.000	17970.000	18390.000
σ		0.388%	0.040	2.984	0.777	0.000	673.600	454.600	445.500
%RSD		0.554	39.150	6.076	1.583	0.000	1.077	2.530	2.423
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:21:21	137.300	4342.000	0.000	5984.000	81850.000	85360.000	69.402%	4.044
2	19:21:48	144.200	4335.000	0.000	6028.000	82800.000	86870.000	70.794%	4.599
3	19:22:14	148.500	4459.000	0.000	6021.000	82960.000	87150.000	72.029%	3.853
x		143.300	4379.000	0.000	6011.000	82540.000	86460.000	70.742%	4.165
σ		5.618	69.300	0.000	23.550	596.800	964.900	1.314%	0.388
%RSD		3.921	1.583	0.000	0.392	0.723	1.116	1.858	9.304
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:21:21	4.459	7.517	36.540	440.300	684.300	0.730	1.177	1.816
2	19:21:48	2.516	7.598	37.450	456.100	710.200	0.620	1.124	1.994
3	19:22:14	3.602	7.629	37.210	455.800	703.800	0.664	1.146	1.793
x		3.526	7.581	37.070	450.700	699.400	0.671	1.149	1.868
σ		0.974	0.058	0.470	9.036	13.500	0.056	0.027	0.110
%RSD		27.620	0.763	1.267	2.005	1.930	8.274	2.314	5.881
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:21:21	1.730	18.110	18.240	2.992	-0.495	-0.426	0.000	196.000
2	19:21:48	1.763	18.360	18.500	1.145	-0.707	-0.489	0.000	206.700
3	19:22:14	1.866	18.300	18.430	1.785	-1.495	-0.843	0.000	206.600
x		1.787	18.260	18.390	1.974	-0.899	-0.586	0.000	203.100
σ		0.071	0.128	0.135	0.938	0.527	0.225	0.000	6.124
%RSD		3.960	0.699	0.736	47.520	58.670	38.320	0.000	3.015
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:21:21	77.020%	0.159	0.239	78.725%	-0.096	-0.082	-0.023	-0.011
2	19:21:48	78.546%	0.397	0.303	82.180%	-0.070	-0.109	0.064	-0.088
3	19:22:14	80.054%	0.283	0.300	83.750%	-0.074	-0.095	0.060	0.008
x		78.540%	0.280	0.281	81.551%	-0.080	-0.095	0.034	-0.031
σ		1.517%	0.119	0.036	2.571%	0.014	0.013	0.049	0.051
%RSD		1.931	42.690	12.930	3.152	17.880	14.170	146.600	166.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:21:21	76.537%	-2.409	-0.697	-0.704	37.630	36.970	85.784%	87.138%
2	19:21:48	82.523%	-2.663	-0.711	-0.739	37.470	37.050	87.863%	90.446%
3	19:22:14	80.907%	-2.528	-0.701	-0.682	37.950	37.880	91.000%	92.398%
x		79.989%	-2.533	-0.703	-0.708	37.680	37.300	88.216%	89.994%
σ		3.097%	0.127	0.007	0.029	0.245	0.504	2.626%	2.659%
%RSD		3.871	5.015	1.050	4.061	0.651	1.351	2.977	2.955
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:21:21	0.019	0.014	0.464	0.438	0.449	85.548%		
2	19:21:48	0.019	0.014	0.505	0.448	0.466	90.305%		
3	19:22:14	0.010	0.016	0.483	0.497	0.470	90.649%		
x		0.016	0.015	0.484	0.461	0.462	88.834%		
σ		0.005	0.001	0.021	0.032	0.011	2.851%		
%RSD		33.500	9.272	4.249	6.867	2.438	3.209		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:36	71.068%	-0.176	49.260	45.520	0.000	108400.000	19460.000	19780.000
2	19:26:02	70.150%	0.115	47.140	44.290	0.000	109400.000	19520.000	20060.000
3	19:26:29	70.044%	-0.061	46.070	47.010	0.000	110600.000	19720.000	20120.000
x		70.420%	-0.041	47.490	45.610	0.000	109500.000	19570.000	19990.000
σ		0.563%	0.147	1.625	1.363	0.000	1064.000	134.500	182.600
%RSD		0.799	361.400	3.423	2.988	0.000	0.972	0.688	0.913
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:36	557.200	3925.000	0.000	7776.000	82590.000	86460.000	70.636%	11.060
2	19:26:02	560.300	3877.000	0.000	7742.000	83720.000	86210.000	72.274%	12.300
3	19:26:29	530.100	3951.000	0.000	7770.000	83290.000	87340.000	72.488%	12.330
x		549.200	3918.000	0.000	7763.000	83200.000	86670.000	71.799%	11.890
σ		16.610	37.710	0.000	18.370	570.600	593.900	1.013%	0.723
%RSD		3.025	0.962	0.000	0.237	0.686	0.685	1.411	6.082
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:36	2.769	11.470	53.440	1397.000	1602.000	1.092	3.396	2.763
2	19:26:02	4.399	11.610	54.010	1388.000	1606.000	1.110	3.149	2.413
3	19:26:29	5.288	12.050	53.930	1384.000	1589.000	1.146	3.508	2.539
x		4.152	11.710	53.800	1390.000	1599.000	1.116	3.351	2.572
σ		1.277	0.302	0.307	6.328	8.930	0.027	0.184	0.177
%RSD		30.760	2.580	0.571	0.455	0.558	2.434	5.477	6.896
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:36	2.659	11.640	11.280	5.436	-1.903	-0.741	0.000	176.700
2	19:26:02	2.523	11.010	11.510	2.575	-0.463	-0.409	0.000	176.000
3	19:26:29	2.435	11.200	11.460	2.040	-0.575	-0.341	0.000	179.800
x		2.539	11.280	11.420	3.350	-0.981	-0.497	0.000	177.500
σ		0.113	0.327	0.119	1.826	0.801	0.214	0.000	2.014
%RSD		4.450	2.894	1.043	54.500	81.720	43.000	0.000	1.135
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:36	79.249%	1.594	1.685	82.067%	-0.082	-0.082	0.069	0.010
2	19:26:02	81.660%	1.783	1.654	84.769%	-0.081	-0.078	0.058	-0.054
3	19:26:29	81.617%	1.464	1.576	84.795%	-0.077	-0.071	-0.006	-0.041
x		80.842%	1.614	1.639	83.877%	-0.080	-0.077	0.040	-0.028
σ		1.380%	0.161	0.056	1.567%	0.003	0.006	0.040	0.034
%RSD		1.707	9.941	3.413	1.868	3.428	7.384	99.430	118.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:36	79.522%	-2.613	-0.337	-0.321	59.090	59.520	89.724%	92.232%
2	19:26:02	81.500%	-2.709	-0.392	-0.461	60.780	60.510	90.673%	93.363%
3	19:26:29	83.061%	-2.648	-0.324	-0.359	59.000	59.460	92.499%	94.473%
x		81.361%	-2.657	-0.351	-0.380	59.620	59.830	90.965%	93.356%
σ		1.773%	0.048	0.036	0.073	1.004	0.591	1.410%	1.120%
%RSD		2.179	1.823	10.320	19.110	1.685	0.987	1.550	1.200
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:25:36	0.029	0.012	0.969	0.916	0.977	89.746%		
2	19:26:02	0.019	0.022	1.023	0.907	0.994	91.057%		
3	19:26:29	0.020	0.013	0.999	0.934	0.957	94.068%		
x		0.022	0.015	0.997	0.919	0.976	91.624%		
σ		0.006	0.005	0.027	0.014	0.019	2.216%		
%RSD		25.220	35.100	2.716	1.477	1.905	2.419		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:53	68.147%	-0.135	43.890	40.750	0.000	63930.000	20600.000	20970.000
2	19:30:20	68.930%	0.151	39.260	37.580	0.000	64330.000	20620.000	21120.000
3	19:30:46	69.726%	0.009	45.370	38.870	0.000	64380.000	20830.000	21260.000
x		68.934%	0.009	42.840	39.070	0.000	64210.000	20680.000	21120.000
σ		0.790%	0.143	3.186	1.592	0.000	249.300	130.500	148.400
%RSD		1.145	1651.000	7.437	4.076	0.000	0.388	0.631	0.703
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:53	460.000	3764.000	0.000	23330.000	77650.000	80980.000	70.281%	6.368
2	19:30:20	473.900	3816.000	0.000	23780.000	80170.000	83770.000	71.196%	8.975
3	19:30:46	474.600	3833.000	0.000	23770.000	81760.000	84050.000	71.067%	7.407
x		469.500	3804.000	0.000	23630.000	79860.000	82930.000	70.848%	7.583
σ		8.220	35.720	0.000	256.500	2074.000	1695.000	0.495%	1.312
%RSD		1.751	0.939	0.000	1.086	2.597	2.044	0.699	17.310
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:53	1.244	10.010	24.020	738.800	976.300	0.553	1.315	2.186
2	19:30:20	6.790	10.360	24.660	751.100	989.700	0.608	1.303	2.148
3	19:30:46	3.494	10.440	25.130	779.500	980.700	0.595	1.321	2.344
x		3.843	10.270	24.610	756.500	982.200	0.586	1.313	2.226
σ		2.789	0.231	0.558	20.890	6.837	0.029	0.009	0.104
%RSD		72.580	2.252	2.267	2.762	0.696	4.971	0.680	4.662
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:53	2.300	35.250	36.230	2.355	-0.636	-0.460	0.000	148.100
2	19:30:20	2.205	34.680	36.600	3.761	-2.085	-0.649	0.000	148.200
3	19:30:46	1.996	35.930	36.510	0.225	-0.759	-0.717	0.000	152.300
x		2.167	35.290	36.450	2.114	-1.160	-0.609	0.000	149.600
σ		0.156	0.630	0.193	1.781	0.803	0.133	0.000	2.379
%RSD		7.180	1.785	0.529	84.240	69.260	21.860	0.000	1.591
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:53	78.244%	0.149	0.171	84.353%	-0.096	-0.107	0.061	-0.031
2	19:30:20	80.412%	0.122	0.196	83.567%	-0.092	-0.097	-0.020	0.017
3	19:30:46	79.263%	0.218	0.196	82.095%	-0.095	-0.099	-0.002	-0.032
x		79.306%	0.163	0.188	83.339%	-0.094	-0.101	0.013	-0.015
σ		1.085%	0.050	0.014	1.146%	0.002	0.005	0.042	0.028
%RSD		1.368	30.460	7.606	1.375	1.977	5.319	319.600	184.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:53	79.868%	-2.547	-0.686	-0.591	53.870	53.130	90.487%	91.889%
2	19:30:20	82.289%	-2.523	-0.693	-0.647	52.400	53.000	89.891%	92.213%
3	19:30:46	80.386%	-2.530	-0.607	-0.652	53.610	53.120	89.593%	91.325%
x		80.848%	-2.533	-0.662	-0.630	53.290	53.080	89.990%	91.809%
σ		1.275%	0.013	0.048	0.034	0.789	0.072	0.455%	0.450%
%RSD		1.577	0.500	7.242	5.400	1.481	0.136	0.506	0.490
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:29:53	0.018	0.008	1.046	0.930	0.975	90.114%		
2	19:30:20	0.003	0.010	1.086	0.932	1.011	92.164%		
3	19:30:46	0.021	0.012	1.062	0.879	0.942	90.281%		
x		0.014	0.010	1.065	0.914	0.976	90.853%		
σ		0.009	0.002	0.020	0.030	0.035	1.139%		
%RSD		67.370	20.610	1.905	3.274	3.556	1.253		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:09	67.172%	0.059	67.280	64.570	0.000	25750.000	7525.000	7620.000
2	19:34:35	69.259%	-0.141	63.550	68.260	0.000	25910.000	7668.000	7792.000
3	19:35:02	69.780%	0.077	65.580	66.720	0.000	26060.000	7751.000	7898.000
x		68.737%	-0.002	65.470	66.510	0.000	25900.000	7648.000	7770.000
σ		1.380%	0.121	1.866	1.854	0.000	154.500	114.100	140.000
%RSD		2.008	7323.000	2.851	2.788	0.000	0.596	1.492	1.802
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:09	356.800	4958.000	0.000	2966.000	98010.000	103400.000	67.100%	7.824
2	19:34:35	405.200	4998.000	0.000	3028.000	103900.000	107100.000	68.372%	9.217
3	19:35:02	412.600	5058.000	0.000	3013.000	103500.000	109300.000	68.786%	8.257
x		391.500	5005.000	0.000	3002.000	101800.000	106600.000	68.086%	8.433
σ		30.300	50.340	0.000	32.090	3297.000	2968.000	0.879%	0.713
%RSD		7.740	1.006	0.000	1.069	3.238	2.784	1.291	8.455
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:09	0.857	6.945	374.000	1316.000	1555.000	1.349	2.255	2.159
2	19:34:35	3.191	7.082	389.400	1364.000	1906.000	1.349	1.979	2.114
3	19:35:02	4.545	7.005	396.100	1381.000	1655.000	1.367	1.916	2.141
x		2.864	7.010	386.500	1354.000	1705.000	1.355	2.050	2.138
σ		1.866	0.069	11.320	33.580	181.100	0.010	0.181	0.023
%RSD		65.140	0.978	2.929	2.480	10.620	0.763	8.807	1.055
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:09	2.332	32.000	31.850	-0.602	-1.203	-1.555	0.000	164.100
2	19:34:35	2.232	32.750	31.970	5.254	-1.137	-1.007	0.000	171.800
3	19:35:02	2.034	32.250	33.150	3.383	0.599	-0.250	0.000	175.200
x		2.199	32.330	32.320	2.678	-0.580	-0.937	0.000	170.400
σ		0.152	0.380	0.717	2.991	1.022	0.655	0.000	5.672
%RSD		6.893	1.176	2.218	111.700	176.100	69.920	0.000	3.329
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:09	73.193%	0.145	0.089	74.585%	-0.086	-0.104	0.079	-0.026
2	19:34:35	74.166%	0.026	0.116	76.779%	-0.093	-0.099	0.026	0.011
3	19:35:02	75.009%	0.182	0.155	76.966%	-0.090	-0.099	0.122	0.012
x		74.123%	0.118	0.120	76.110%	-0.090	-0.101	0.076	-0.001
σ		0.909%	0.081	0.034	1.324%	0.003	0.003	0.048	0.022
%RSD		1.226	69.120	27.930	1.739	3.902	2.861	63.440	2078.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:09	74.012%	-2.646	-0.802	-0.796	38.800	38.630	80.677%	82.147%
2	19:34:35	73.952%	-2.750	-0.800	-0.791	40.260	40.680	82.305%	83.880%
3	19:35:02	77.056%	-2.747	-0.793	-0.785	40.350	40.340	82.691%	86.339%
x		75.006%	-2.714	-0.798	-0.791	39.800	39.880	81.891%	84.122%
σ		1.775%	0.059	0.005	0.005	0.871	1.099	1.069%	2.107%
%RSD		2.366	2.186	0.612	0.667	2.187	2.755	1.305	2.504
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:34:09	0.021	0.009	1.176	1.004	1.075	80.394%		
2	19:34:35	0.017	0.011	1.125	1.037	1.083	80.252%		
3	19:35:02	0.014	0.008	1.052	0.990	1.012	88.316%		
x		0.017	0.009	1.118	1.010	1.057	82.987%		
σ		0.003	0.002	0.062	0.024	0.039	4.616%		
%RSD		18.340	17.590	5.565	2.386	3.687	5.562		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:29	66.292%	-0.260	66.950	67.610	0.000	60750.000	11040.000	11170.000
2	19:38:55	67.845%	-0.155	68.360	66.000	0.000	60530.000	11000.000	11160.000
3	19:39:22	67.357%	0.008	63.480	65.530	0.000	60920.000	11090.000	11280.000
x		67.164%	-0.136	66.270	66.380	0.000	60740.000	11040.000	11200.000
σ		0.794%	0.136	2.509	1.088	0.000	194.700	42.460	63.710
%RSD		1.182	99.830	3.786	1.640	0.000	0.321	0.385	0.569
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:29	148.000	2703.000	0.000	34520.000	96910.000	101300.000	69.525%	4.657
2	19:38:55	152.600	2700.000	0.000	34330.000	97540.000	103200.000	70.453%	4.692
3	19:39:22	152.200	2705.000	0.000	35010.000	98770.000	103000.000	70.639%	4.984
x		150.900	2703.000	0.000	34620.000	97740.000	102500.000	70.206%	4.778
σ		2.516	2.187	0.000	352.700	946.800	1019.000	0.597%	0.179
%RSD		1.667	0.081	0.000	1.019	0.969	0.994	0.850	3.753
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:29	0.537	70.710	6.182	223.900	547.300	0.780	1.914	4.312
2	19:38:55	3.610	70.160	6.370	221.300	543.900	0.713	1.951	4.259
3	19:39:22	2.972	71.010	6.330	223.300	535.000	0.746	1.727	4.189
x		2.373	70.630	6.294	222.900	542.000	0.746	1.864	4.253
σ		1.622	0.434	0.099	1.345	6.332	0.033	0.120	0.061
%RSD		68.350	0.614	1.576	0.604	1.168	4.444	6.421	1.443
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:29	4.326	8.011	8.030	-1.635	-0.266	-0.827	0.000	264.400
2	19:38:55	4.122	8.185	8.352	0.320	-1.197	-0.286	0.000	264.500
3	19:39:22	3.960	8.001	8.551	4.835	-0.969	-1.333	0.000	265.400
x		4.136	8.066	8.311	1.173	-0.810	-0.816	0.000	264.800
σ		0.183	0.103	0.263	3.318	0.485	0.524	0.000	0.526
%RSD		4.432	1.278	3.168	282.800	59.910	64.210	0.000	0.199
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:29	76.979%	8.502	8.308	81.090%	-0.090	-0.098	-0.001	0.013
2	19:38:55	80.007%	8.051	8.492	82.953%	-0.088	-0.107	0.021	0.024
3	19:39:22	79.830%	8.187	8.729	83.900%	-0.085	-0.088	0.017	0.009
x		78.939%	8.247	8.510	82.648%	-0.088	-0.097	0.013	0.015
σ		1.699%	0.231	0.211	1.429%	0.003	0.009	0.012	0.008
%RSD		2.153	2.801	2.479	1.730	3.358	9.557	92.060	51.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:29	80.010%	-2.778	-0.751	-0.724	58.460	58.250	86.427%	89.803%
2	19:38:55	83.080%	-2.690	-0.719	-0.752	58.330	56.390	91.517%	92.275%
3	19:39:22	81.496%	-2.586	-0.720	-0.763	59.380	58.570	91.050%	93.236%
x		81.528%	-2.685	-0.730	-0.747	58.720	57.740	89.665%	91.771%
σ		1.535%	0.096	0.018	0.020	0.571	1.178	2.813%	1.771%
%RSD		1.883	3.583	2.496	2.677	0.972	2.040	3.138	1.930
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:38:29	0.030	0.026	1.040	0.934	0.984	89.728%		
2	19:38:55	0.029	0.020	1.038	0.979	0.989	92.798%		
3	19:39:22	0.016	0.022	1.000	0.980	0.983	95.066%		
x		0.025	0.023	1.026	0.964	0.985	92.531%		
σ		0.008	0.003	0.022	0.026	0.004	2.679%		
%RSD		30.840	12.650	2.172	2.735	0.369	2.895		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	74.049%	0.645	4.336	4.562	0.000	104.200	102.700	102.800
2	19:50:44	75.597%	1.238	4.759	4.585	0.000	102.100	99.310	101.500
3	19:51:11	73.900%	1.108	7.206	4.277	0.000	105.800	102.200	102.800
x		74.516%	99.703%	108.674%	89.492%	0.000	130.007%	101.409%	102.357%
σ		0.940%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.261	31.260	28.520	3.828	0.000	1.781	1.816	0.723

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	31.490	476.900	0.000	94.920	144.500	128.100	71.311%	4.810
2	19:50:44	31.130	477.000	0.000	95.150	133.000	124.300	71.538%	4.768
3	19:51:11	32.080	479.500	0.000	91.570	138.100	129.200	72.083%	4.602
x		105.221%	95.559%	0.000	93.879%	138.517%	127.211%	71.644%	94.536%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.397%	n/a
%RSD		1.515	0.313	0.000	2.138	4.144	2.004	0.554	2.327

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	1.110	2.447	5.331	58.430	61.290	0.556	0.830	2.163
2	19:50:44	1.068	2.314	5.525	59.860	58.550	0.627	1.185	2.326
3	19:51:11	1.272	2.391	5.450	58.570	64.360	0.640	0.851	2.320
x		114.998%	119.207%	108.706%	117.904%	122.804%	121.502%	95.506%	113.481%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		9.359	2.815	1.801	1.340	4.735	7.453	20.850	4.070

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	2.286	6.074	5.461	1.540	2.954	4.910	0.000	4.942
2	19:50:44	2.482	5.833	5.971	0.614	4.229	3.797	0.000	5.056
3	19:51:11	2.195	5.999	5.947	0.763	4.615	4.392	0.000	5.167
x		116.048%	119.371%	115.860%	97.255%	78.657%	87.331%	0.000	101.097%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		6.304	2.070	4.969	51.140	22.110	12.760	0.000	2.224

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	73.242%	4.343	4.296	80.601%	0.830	0.934	1.150	1.197
2	19:50:44	73.382%	4.510	4.465	82.158%	0.847	0.891	1.102	1.131
3	19:51:11	75.493%	4.413	4.403	84.591%	0.962	0.908	1.066	1.185
x		74.039%	88.440%	87.756%	82.450%	87.966%	91.093%	110.608%	117.119%
σ		1.261%	n/a	n/a	2.011%	n/a	n/a	n/a	n/a
%RSD		1.704	1.901	1.954	2.439	8.206	2.424	3.779	3.028

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	64.436%	3.800	1.451	1.427	11.450	11.400	74.680%	82.843%
2	19:50:44	66.948%	3.825	1.456	1.350	11.500	11.640	74.582%	83.477%
3	19:51:11	68.049%	3.344	1.336	1.469	11.170	11.630	76.300%	85.681%
x		66.478%	73.128%	70.695%	70.774%	113.727%	115.574%	75.187%	84.000%
σ		1.852%	n/a	n/a	n/a	n/a	n/a	0.965%	1.490%
%RSD		2.786	7.397	4.801	4.281	1.568	1.163	1.283	1.773

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:18	0.977	0.926	0.973	0.927	0.967	88.477%
2	19:50:44	0.974	0.972	1.033	0.969	0.992	91.179%
3	19:51:11	0.960	0.944	1.030	1.016	0.997	93.055%
x		97.025%	94.741%	101.230%	97.068%	98.550%	90.904%
σ		n/a	n/a	n/a	n/a	n/a	2.301%
%RSD		0.958	2.419	3.354	4.602	1.636	2.532

CCV 1487954 4/2/2015 7:54:09 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	71.093%	100.100	105.600	98.070	0.000	48650.000	47680.000	47070.000
2	19:55:02	71.019%	97.980	108.900	97.450	0.000	49550.000	48480.000	48150.000
3	19:55:29	71.205%	96.720	102.900	102.500	0.000	49210.000	48390.000	48110.000
x		71.105%	98.253%	105.796%	99.351%	0.000	98.264%	96.369%	95.553%
σ		0.094%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.132	1.719	2.817	2.785	0.000	0.925	0.909	1.285

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	471.400	5265.000	0.000	50800.000	48410.000	49460.000	70.652%	99.810
2	19:55:02	483.500	5353.000	0.000	52060.000	49450.000	51790.000	70.234%	104.700
3	19:55:29	485.500	5299.000	0.000	51820.000	50070.000	51680.000	70.965%	105.800
x		96.024%	106.113%	0.000	103.122%	98.617%	101.955%	70.617%	103.452%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.367%	n/a
%RSD		1.590	0.834	0.000	1.299	1.703	2.580	0.519	3.098

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	97.610	97.110	501.600	24820.000	25250.000	94.740	96.540	97.810
2	19:55:02	101.900	100.500	518.000	25860.000	26280.000	98.940	99.920	100.300
3	19:55:29	100.400	100.300	520.200	25800.000	26300.000	98.430	99.170	98.630
x		99.968%	99.305%	102.657%	101.978%	103.774%	97.371%	98.543%	98.904%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.188	1.915	1.986	2.278	2.303	2.351	1.800	1.268

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	96.140	97.210	96.450	94.740	99.020	97.990	0.000	96.790
2	19:55:02	100.500	101.500	102.000	99.730	98.190	101.800	0.000	99.880
3	19:55:29	99.660	100.200	102.500	96.300	95.090	98.260	0.000	99.200
x		98.757%	99.622%	100.319%	96.922%	97.434%	99.335%	0.000	98.623%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.328	2.203	3.347	2.633	2.123	2.119	0.000	1.647

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	76.285%	92.760	90.680	82.178%	93.210	93.650	94.100	94.240
2	19:55:02	76.165%	98.970	97.180	83.129%	95.280	95.280	99.420	99.140
3	19:55:29	77.337%	101.300	98.410	83.867%	94.800	95.730	98.250	97.890
x		76.596%	97.673%	95.423%	83.058%	94.433%	94.886%	97.257%	97.091%
σ		0.645%	n/a	n/a	0.847%	n/a	n/a	n/a	n/a
%RSD		0.842	4.515	4.349	1.019	1.147	1.150	2.874	2.624

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	78.887%	95.270	97.770	97.410	94.370	93.650	86.158%	88.689%
2	19:55:02	78.187%	98.950	100.600	101.400	99.380	98.570	87.211%	89.720%
3	19:55:29	79.011%	100.500	100.400	101.700	98.710	98.460	87.916%	90.401%
x		78.695%	98.246%	99.580%	100.197%	97.489%	96.891%	87.095%	89.603%
σ		0.444%	n/a	n/a	n/a	n/a	n/a	0.885%	0.862%
%RSD		0.565	2.741	1.572	2.410	2.790	2.899	1.016	0.962

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:35	91.330	92.310	89.210	91.820	89.610	99.896%
2	19:55:02	95.550	96.380	96.200	96.560	95.740	97.755%
3	19:55:29	97.660	98.050	97.670	98.430	97.980	97.129%
x		94.850%	95.583%	94.357%	95.603%	94.445%	98.260%
σ		n/a	n/a	n/a	n/a	n/a	1.451%
%RSD		3.398	3.090	4.791	3.562	4.591	1.476

CCB7 4/2/2015 8:01:35 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

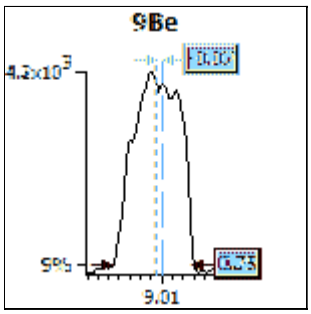
Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:02	75.350%	-0.080	0.188	-0.691	0.000	18.470	13.540	12.460
2	20:02:28	75.990%	-0.145	-0.188	-0.600	0.000	18.390	11.540	11.650
3	20:02:55	74.248%	-0.176	0.019	-0.948	0.000	19.830	11.660	11.490
x		75.196%	-0.134	0.006	-0.746	0.000	18.900	12.250	11.870
σ		0.881%	0.049	0.188	0.180	0.000	0.809	1.122	0.523
%RSD		1.172	36.620	3054.000	24.140	0.000	4.282	9.158	4.406
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:02	0.930	-3.287	0.000	0.321	29.470	26.420	74.539%	-0.420
2	20:02:28	0.941	-5.342	0.000	2.397	55.610	18.930	73.443%	-0.523
3	20:02:55	0.902	-3.974	0.000	-0.588	18.520	24.830	73.398%	-0.636
x		0.924	-4.201	0.000	0.710	34.530	23.390	73.793%	-0.526
σ		0.020	1.046	0.000	1.530	19.060	3.950	0.646%	0.108
%RSD		2.186	24.910	0.000	215.500	55.190	16.880	0.875	20.440
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:02	0.184	0.086	0.166	2.121	8.759	0.056	-0.067	0.104
2	20:02:28	0.044	0.100	0.205	1.749	13.290	0.053	-0.045	0.162
3	20:02:55	0.255	0.156	0.176	0.945	9.787	0.035	-0.029	0.027
x		0.161	0.114	0.182	1.605	10.610	0.048	-0.047	0.098
σ		0.107	0.037	0.020	0.601	2.378	0.012	0.019	0.068
%RSD		66.630	32.620	11.150	37.450	22.400	24.070	40.030	69.180
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:02	0.041	0.147	0.129	-0.755	-0.698	-1.524	0.000	0.062
2	20:02:28	0.027	0.202	0.186	-0.140	-1.295	-1.141	0.000	0.100
3	20:02:55	0.041	0.061	-0.002	0.263	-0.907	-0.013	0.000	0.073
x		0.036	0.136	0.105	-0.211	-0.967	-0.893	0.000	0.078
σ		0.008	0.071	0.096	0.513	0.303	0.786	0.000	0.020
%RSD		21.960	51.870	92.050	243.300	31.370	87.950	0.000	25.020
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:02	79.265%	-0.098	-0.095	89.440%	-0.084	-0.094	-0.037	0.048
2	20:02:28	79.211%	-0.077	-0.132	88.604%	-0.100	-0.093	-0.032	-0.008
3	20:02:55	77.730%	-0.119	-0.109	86.663%	-0.093	-0.096	0.054	-0.053
x		78.735%	-0.098	-0.112	88.236%	-0.092	-0.094	-0.005	-0.004
σ		0.871%	0.021	0.018	1.424%	0.008	0.002	0.051	0.051
%RSD		1.107	21.610	16.530	1.614	8.612	1.986	1034.000	1221.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:02	81.531%	-2.701	-0.808	-0.818	-0.030	0.041	89.925%	91.455%
2	20:02:28	81.952%	-2.799	-0.812	-0.808	0.032	0.024	88.889%	90.070%
3	20:02:55	80.239%	-2.642	-0.803	-0.800	0.006	0.106	86.380%	88.350%
x		81.241%	-2.714	-0.808	-0.809	0.002	0.057	88.398%	89.958%
σ		0.892%	0.079	0.005	0.009	0.031	0.043	1.823%	1.556%
%RSD		1.098	2.918	0.571	1.084	1282.000	75.070	2.062	1.729
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:02:02	0.017	0.021	0.006	0.005	0.016	103.538%		
2	20:02:28	0.016	0.020	0.003	-0.011	0.002	100.899%		
3	20:02:55	0.017	0.011	0.015	-0.010	0.013	97.881%		
x		0.017	0.017	0.008	-0.005	0.011	100.773%		
σ		0.001	0.006	0.006	0.009	0.007	2.831%		
%RSD		3.242	32.330	81.510	175.700	69.510	2.809		

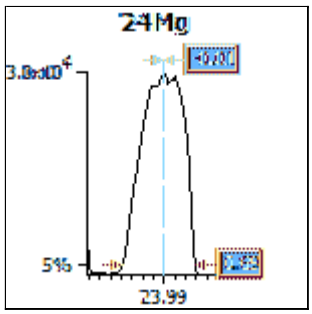
Performance Report

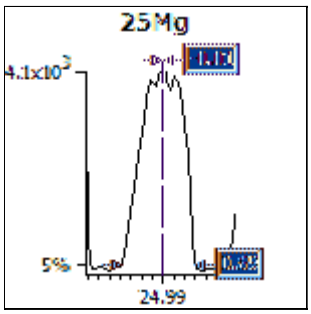
Sample details
Sample name : ITUNE
Acquired at : 4/2/2015 1:13:24 PM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

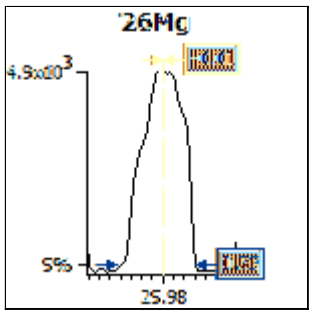
Mass Calibration verification

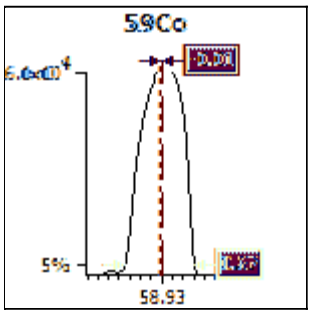
Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

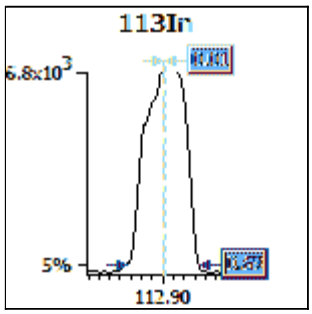


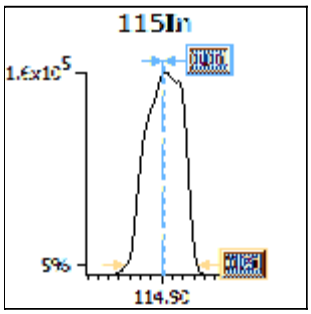


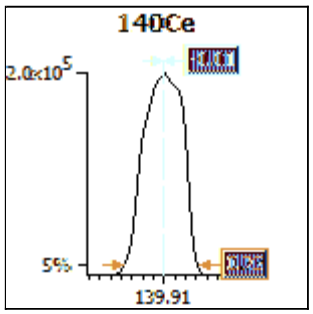


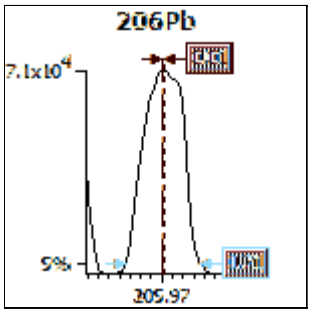


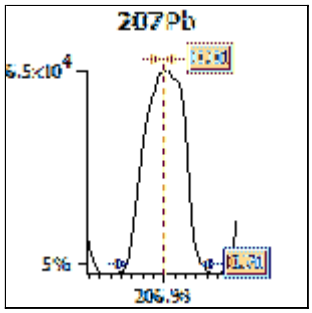


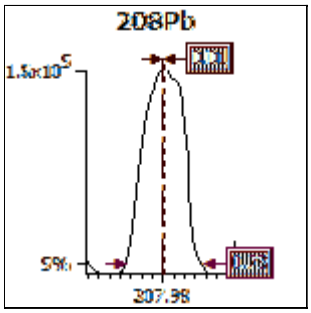












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.75	-0.07
24Mg	0.90	0.40	0.10	0.69	-0.01
25Mg	0.90	0.40	0.10	0.69	-0.01
26Mg	0.90	0.40	0.10	0.73	-0.01
59Co	0.90	0.40	0.10	0.67	-0.01
113In	0.90	0.40	0.10	0.69	0.01
115In	0.90	0.40	0.10	0.71	0.01
140Ce	0.90	0.40	0.10	0.73	-0.01
206Pb	0.90	0.40	0.10	0.71	0.01
207Pb	0.90	0.40	0.10	0.71	0.01
208Pb	0.90	0.40	0.10	0.73	0.01

Sample details
Sample name : ITUNE
Acquired at : 4/2/2015 1:13:24 PM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-184
Lens 1	-3.2
Focus	23.1
D1	-27.5
Pole Bias	0.0
Hexapole Bias	-3.4
Nebuliser	0.84
Sampling Depth	200

Minor	
Lens 2	-32.9
Lens 3	-179.6
Forward power	1400
Horizontal	49
Vertical	500
D2	-121
DA	-80.0
Cool	14.0
Auxiliary	0.80

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT1	0.00
CCT2	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	-	>100	>500	>150	>150	>500	>500	>10000
1	1:14:10 PM	90	3887	30492	4202	4893	66863	7051	162381
2	1:15:22 PM	90	3902	30600	4173	4924	67151	7055	161899
3	1:16:34 PM	91	4000	30822	4230	5021	67073	7096	161676
4	1:17:47 PM	86	4034	31038	4193	4813	66929	6988	158874
5	1:18:59 PM	84	3993	31077	4254	4959	66589	6892	158592
x		88	3963	30806	4211	4922	66921	7016	160684
σ		2.86	64.68	259.32	31.67	77.47	217.98	79.60	1801.95
%RSD		3.249	1.632	0.842	0.752	1.574	0.326	1.135	1.121

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	5.0%	-	5.0%	5.0%	5.0%	-
	Countrate	>10000	-	>1000	>1000	>5000	-
1	1:14:10 PM	204861	3781	71714	64982	153471	88
2	1:15:22 PM	203075	3784	70460	64169	152715	84
3	1:16:34 PM	202462	3709	70015	63442	151712	84
4	1:17:47 PM	199883	3668	69434	63189	150541	86
5	1:18:59 PM	199371	3735	68503	62262	148665	85
x		201931	3735	70025	63609	151421	85
σ		2287.08	49.15	1194.41	1026.59	1892.85	1.71
%RSD		1.133	1.316	1.706	1.614	1.250	2.006

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	1:14:10 PM	0
2	1:15:22 PM	0
3	1:16:34 PM	0
4	1:17:47 PM	0
5	1:18:59 PM	0
x		0.0185
σ		0.00
%RSD		0.9709

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Batch Number: 137092 Batch Start Date: 03/31/15 12:05 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 03/31/15 16:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-137092/1		3005A, 6020A		50 mL	50 mL				
LCS 180-137092/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-42391-B-2	HD-CW-9-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-3	HD-CW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-4	HD-CW-15A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-5	HD-CW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-6	HD-CW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-7	HD-MW-100D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-8	HD-MW-147A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-9	HD-MW-75S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-10	HD-MW-37D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-11	HD-MW-37S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-12	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42391-B-13	HD-MW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Batch Number: 137092 Batch Start Date: 03/31/15 12:05 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 03/31/15 16:05

Batch Notes	
Batch Comment	Metals A5
First End time	16:05
Lot # of hydrochloric acid	2.5 ml 1513884
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#1
Oven, Bath or Block Temperature 1	95
Oven, Bath or Block Temperature 2	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	12:05
ID number of the thermometer	IP1-14 CF=0.0 C4
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	95 Celsius
Uncorrected Temperature 2	95 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-42391-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-CW-9-0/1-0	180-42391-2
HD-CW-13-0/1-0	180-42391-3
HD-CW-15A-0/1-0	180-42391-4
HD-CW-17-0/1-0	180-42391-5
HD-CW-20-0/1-0	180-42391-6
HD-MW-100D-0/1-0	180-42391-7
HD-MW-147A-0/1-0	180-42391-8
HD-MW-75S-0/1-0	180-42391-9
HD-MW-37D-0/1-0	180-42391-10
HD-MW-37S-0/1-0	180-42391-11
HD-MW-95-0/1-0	180-42391-12
HD-MW-7-0/1-0	180-42391-13

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-42391-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:00

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-42391-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:15

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	280	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	280	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-42391-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 05:55

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	270	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	270	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-42391-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:20

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-42391-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 06:10

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-42391-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 09:00

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-42391-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 10:10

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-42391-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 14:37

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-42391-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 13:02

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-42391-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 11:12

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	250	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	250	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-42391-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 15:20

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	280	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	280	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-42391-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG ID.:

Matrix: Water Date Sampled: 03/25/2015 14:30

Reporting Basis: WET Date Received: 03/26/2015 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Analyst: CLL Batch Start Date: 03/31/2015

Reporting Units: mg/L Analytical Batch No.: 137060

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	09:34	Total Alkalinity as CaCO3 to pH 4.5	134	125	107	80-120		WALK125PPMCCV_00082
14	CCB	09:34	Total Alkalinity as CaCO3 to pH 4.5	2.06				J	
			Bicarbonate Alkalinity as CaCO3	2.06				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
24	CCV	09:34	Total Alkalinity as CaCO3 to pH 4.5	134	125	107	80-120		WALK125PPMCCV_00082
25	CCB	09:34	Total Alkalinity as CaCO3 to pH 4.5	2.06				J	
			Bicarbonate Alkalinity as CaCO3	2.06				J	
			Carbonate Alkalinity as CaCO3	5.0				U	

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 137060 Date: 03/31/2015 09:34							
SM 2320B	MB 180-137060/2	Total Alkalinity as CaCO3 to pH 4.5	4.12	J	mg/L	5.0	1
SM 2320B	MB 180-137060/2	Bicarbonate Alkalinity as CaCO3	4.12	J	mg/L	5.0	1
SM 2320B	MB 180-137060/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1

FORM III-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 137060 Date: 03/31/2015 09:34								
SM 2320B	HD-CW-9-0/1-0	180-42391-2	Total Alkalinity as CaCO3 to pH 4.5	210	mg/L			
SM 2320B	HD-CW-9-0/1-0	180-42391-2 DU	Total Alkalinity as CaCO3 to pH 4.5	210	mg/L	1	20	
SM 2320B	HD-CW-9-0/1-0	180-42391-2	Bicarbonate Alkalinity as CaCO3	210	mg/L			
SM 2320B	HD-CW-9-0/1-0	180-42391-2 DU	Bicarbonate Alkalinity as CaCO3	210	mg/L	1	20	
SM 2320B	HD-CW-9-0/1-0	180-42391-2	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-CW-9-0/1-0	180-42391-2 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 137060 Date: 03/31/2015 09:34								
SM 2320B	HD-MW-7-0/1-0	180-42391-13	Total Alkalinity as CaCO3 to pH 4.5	230	mg/L			
SM 2320B	HD-MW-7-0/1-0	180-42391-13 DU	Total Alkalinity as CaCO3 to pH 4.5	231	mg/L	0	20	
SM 2320B	HD-MW-7-0/1-0	180-42391-13	Bicarbonate Alkalinity as CaCO3	230	mg/L			
SM 2320B	HD-MW-7-0/1-0	180-42391-13 DU	Bicarbonate Alkalinity as CaCO3	231	mg/L	0	20	
SM 2320B	HD-MW-7-0/1-0	180-42391-13	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-7-0/1-0	180-42391-13 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 137060	Date: 03/31/2015 09:34										
						LCS Source: WALK250PPMPi_00091					
SM 2320B	LCS 180-137060/1	Total Alkalinity as CaCO3 to pH 4.5	251		mg/L	250	101	80-120			

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-42391-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B MDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-42391-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B XMDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh   Job No.: 180-42391-1

SDG No.:

Instrument ID: NOEQUIP   Analysis Method: SM 2320B

Start Date: 03/31/2015 09:34   End Date: 03/31/2015 09:34

Lab Sample Id	D/F	Type	Time	Analytes: Alk	BALKCC	CarAlk
LCS 180-137060/1	1	T	09:34	X		
MB 180-137060/2	1	T	09:34	X	X	X
180-42391-2	1	T	09:34	X	X	X
180-42391-2 DU	1	T	09:34	X	X	X
180-42391-3	1	T	09:34	X	X	X
180-42391-4	1	T	09:34	X	X	X
180-42391-5	1	T	09:34	X	X	X
180-42391-6	1	T	09:34	X	X	X
180-42391-7	1	T	09:34	X	X	X
180-42391-8	1	T	09:34	X	X	X
180-42391-9	1	T	09:34	X	X	X
180-42391-10	1	T	09:34	X	X	X
CCV 180-137060/13	1		09:34	X		
CCB 180-137060/14	1		09:34	X	X	X
180-42391-11	1	T	09:34	X	X	X
180-42391-12	1	T	09:34	X	X	X
180-42391-13	1	T	09:34	X	X	X
180-42391-13 DU	1	T	09:34	X	X	X
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
CCV 180-137060/24	1		09:34	X		
CCB 180-137060/25	1		09:34	X	X	X
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			
CCV 180-137060/35			09:34			
CCB 180-137060/36			09:34			
ZZZZZZ			09:34			
ZZZZZZ			09:34			

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 03/31/2015 09:34 End Date: 03/31/2015 09:34

Lab Sample Id	D/F	Type	Time	Analytes																										
				Alk	BALKCC	CarAlk																								
ZZZZZZ			09:34																											
ZZZZZZ			09:34																											
ZZZZZZ			09:34																											
CCV 180-137060/42			09:34																											
CCB 180-137060/43			09:34																											
ZZZZZZ			09:34																											
ZZZZZZ			09:34																											

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-012

Tilt# 033115 ALKA

Analyst: CLahuse **Date:** 3-31-15
Reviewed By: SeDRC **Date:** ~~04-03-15~~
pH Meter ID: ~~Accumet XL~~ SW #94102132 **AD Batch:** 137060 ~~137061~~ Cw 3-31-15
pH 4 Start: 4.03 **pH 4 End:** 4.06

Job Number(s): 42391 – 42421 – 42508

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)(N)(50{,}000)}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

CO_3^{2} = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	CO_3^{2}	HCO_3
P = 0	0	0	T
P < ½T	0	2P	T-2P
P = ½T	0	2P	0
P > ½T	2P-T	2(T-P)	0
P = T	T	0	0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-012

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
	10.91									
LCS CW 3-31-15	~~10.91~~	50	6.3	12.2	.0206	251.32				
MB	5.69		0	0.2		4.12				
180-42391-2	~~7.17~~ CW 3-31-15		0	10.3		212.18				
2X	7.14		0	10.2		210.12				
3	7.15		0	13.7		282.22				
4	7.09		0	12.9		265.74				
5	7.16		0	11.2		230.72				
6	7.36		0	10.6		218.36				
7	7.30		0	10.5		216.3				
8	7.21		0	10.3		212.18				
9	7.41		0	10.5		216.3				
10	7.25		0	10.1		208.06				
CCV	10.81		3.4	6.5		133.9				
CCB	5.79		0	0.1		2.06				
180-42391-11	7.38		0	12.1		249.26				
12	7.25		0	13.4		276.04				
13	7.21		0	11.2		230.72				
13X	7.23		0	11.2		230.72				
180-42421-1	4.91		0	1.6		32.96				
2	7.93		0	9.5		195.7				
3	7.06		0	7.7		158.62				
4	5.96		0	1.3		26.78				
5	5.63		0	1.4		28.84				
CCV	10.79		3.3	6.5		133.9				
CCB	5.83		0	0.1		2.06				
180-42508-1	5.43	↓	0	1.0	↓	22.66	20.6			

CW 3-31-15

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-012

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^2	HCO_3
180-42508-2	5.84	50	0	1.1	.0206	22.66				
2X	5.79		0	1.1		22.66				
3	5.81		0	1.0		20.6				
LCS	10.89		6.4	12.2		251.32				
MB	5.79		0	0.2		4.12				
180-42421-6	~~4.99~~					QU 3-31 15				
7	4.49		0	0		ND				
8	4.13		0	0		ND				
CCV	10.77		3.4	6.5		133.9				
CCB	5.54		0	0.2		4.12				
180-42421-9	6.75		0	13.4		276.04				
9X	6.69		0	13.1		269.86				
10	7.82		0	20.7		426.42				
11	5.92		0	10.4		214.24				
12	6.77		0	23.7		488.22				
CCV	10.69		3.3	6.5		133.9				
CCB	5.82		0	0.2		4.12				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Batch Number: 137060 Batch Start Date: 03/31/15 09:34 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-137060/1		SM 2320B		50 mL	10.91 SU	0 mL	6.3 mL	6.3 mL	0 mL
MB 180-137060/2		SM 2320B		50 mL	5.69 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-2	HD-CW-9-0/1-0	SM 2320B	T	50 mL	7.17 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-2 DU	HD-CW-9-0/1-0	SM 2320B	T	50 mL	7.14 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-3	HD-CW-13-0/1-0	SM 2320B	T	50 mL	7.15 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-4	HD-CW-15A-0/1-0	SM 2320B	T	50 mL	7.09 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-5	HD-CW-17-0/1-0	SM 2320B	T	50 mL	7.16 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-6	HD-CW-20-0/1-0	SM 2320B	T	50 mL	7.36 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-7	HD-MW-100D-0/1-0	SM 2320B	T	50 mL	7.30 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-8	HD-MW-147A-0/1-0	SM 2320B	T	50 mL	7.21 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-9	HD-MW-75S-0/1-0	SM 2320B	T	50 mL	7.41 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-10	HD-MW-37D-0/1-0	SM 2320B	T	50 mL	7.25 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-137060/13		SM 2320B		50 mL	10.81 SU	0 mL	3.4 mL	3.4 mL	0 mL
CCB 180-137060/14		SM 2320B		50 mL	5.79 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-11	HD-MW-37S-0/1-0	SM 2320B	T	50 mL	7.38 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-12	HD-MW-95-0/1-0	SM 2320B	T	50 mL	7.25 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-13	HD-MW-7-0/1-0	SM 2320B	T	50 mL	7.21 SU	0 mL	0 mL	0 mL	0 mL
180-42391-A-13 DU	HD-MW-7-0/1-0	SM 2320B	T	50 mL	7.23 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-137060/24		SM 2320B		50 mL	10.79 SU	0 mL	3.3 mL	3.3 mL	0 mL
CCB 180-137060/25		SM 2320B		50 mL	5.83 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-137060/1		SM 2320B		5.9 mL	5.9 mL	Case 4	243.08 mg/L	8.2400000000000 1 mg/L	0 mg/L
MB 180-137060/2		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	4.12 mg/L
180-42391-A-2	HD-CW-9-0/1-0	SM 2320B	T	10.3 mL	10.3 mL	Case 1	0 mg/L	0 mg/L	212.18 mg/L
180-42391-A-2 DU	HD-CW-9-0/1-0	SM 2320B	T	10.2 mL	10.2 mL	Case 1	0 mg/L	0 mg/L	210.12 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Batch Number: 137060 Batch Start Date: 03/31/15 09:34 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-42391-A-3	HD-CW-13-0/1-0	SM 2320B	T	13.7 mL	13.7 mL	Case 1	0 mg/L	0 mg/L	282.22 mg/L
180-42391-A-4	HD-CW-15A-0/1-0	SM 2320B	T	12.9 mL	12.9 mL	Case 1	0 mg/L	0 mg/L	265.74 mg/L
180-42391-A-5	HD-CW-17-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 1	0 mg/L	0 mg/L	230.72 mg/L
180-42391-A-6	HD-CW-20-0/1-0	SM 2320B	T	10.6 mL	10.6 mL	Case 1	0 mg/L	0 mg/L	218.36 mg/L
180-42391-A-7	HD-MW-100D-0/1-0	SM 2320B	T	10.5 mL	10.5 mL	Case 1	0 mg/L	0 mg/L	216.3 mg/L
180-42391-A-8	HD-MW-147A-0/1-0	SM 2320B	T	10.3 mL	10.3 mL	Case 1	0 mg/L	0 mg/L	212.18 mg/L
180-42391-A-9	HD-MW-75S-0/1-0	SM 2320B	T	10.5 mL	10.5 mL	Case 1	0 mg/L	0 mg/L	216.3 mg/L
180-42391-A-10	HD-MW-37D-0/1-0	SM 2320B	T	10.1 mL	10.1 mL	Case 1	0 mg/L	0 mg/L	208.06 mg/L
CCV 180-137060/13		SM 2320B		3.1 mL	3.1 mL	Case 4	127.72 mg/L	6.1800000000000 1 mg/L	0 mg/L
CCB 180-137060/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.06 mg/L
180-42391-A-11	HD-MW-37S-0/1-0	SM 2320B	T	12.1 mL	12.1 mL	Case 1	0 mg/L	0 mg/L	249.26 mg/L
180-42391-A-12	HD-MW-95-0/1-0	SM 2320B	T	13.4 mL	13.4 mL	Case 1	0 mg/L	0 mg/L	276.04 mg/L
180-42391-A-13	HD-MW-7-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 1	0 mg/L	0 mg/L	230.72 mg/L
180-42391-A-13 DU	HD-MW-7-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 1	0 mg/L	0 mg/L	230.72 mg/L
CCV 180-137060/24		SM 2320B		3.2 mL	3.2 mL	Case 4	131.84 mg/L	2.06 mg/L	0 mg/L
CCB 180-137060/25		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.06 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00082	WALK250PPMPi 00091	
LCS 180-137060/1		SM 2320B		129.78 mg/L	251.32 mg/L	50 mL		50 mL	
MB 180-137060/2		SM 2320B		0 mg/L	4.12 mg/L	50 mL			
180-42391-A-2	HD-CW-9-0/1-0	SM 2320B	T	0 mg/L	212.18 mg/L	50 mL			
180-42391-A-2 DU	HD-CW-9-0/1-0	SM 2320B	T	0 mg/L	210.12 mg/L	50 mL			
180-42391-A-3	HD-CW-13-0/1-0	SM 2320B	T	0 mg/L	282.22 mg/L	50 mL			
180-42391-A-4	HD-CW-15A-0/1-0	SM 2320B	T	0 mg/L	265.74 mg/L	50 mL			
180-42391-A-5	HD-CW-17-0/1-0	SM 2320B	T	0 mg/L	230.72 mg/L	50 mL			
180-42391-A-6	HD-CW-20-0/1-0	SM 2320B	T	0 mg/L	218.36 mg/L	50 mL			
180-42391-A-7	HD-MW-100D-0/1-0	SM 2320B	T	0 mg/L	216.3 mg/L	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42391-1

SDG No.:

Batch Number: 137060 Batch Start Date: 03/31/15 09:34 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00082	WALK250PPMPi 00091	
180-42391-A-8	HD-MW-147A-0/1-0	SM 2320B	T	0 mg/L	212.18 mg/L	50 mL			
180-42391-A-9	HD-MW-75S-0/1-0	SM 2320B	T	0 mg/L	216.3 mg/L	50 mL			
180-42391-A-10	HD-MW-37D-0/1-0	SM 2320B	T	0 mg/L	208.06 mg/L	50 mL			
CCV 180-137060/13		SM 2320B		70.04 mg/L	133.9 mg/L	50 mL	50 mL		
CCB 180-137060/14		SM 2320B		0 mg/L	2.06 mg/L	50 mL			
180-42391-A-11	HD-MW-37S-0/1-0	SM 2320B	T	0 mg/L	249.26 mg/L	50 mL			
180-42391-A-12	HD-MW-95-0/1-0	SM 2320B	T	0 mg/L	276.04 mg/L	50 mL			
180-42391-A-13	HD-MW-7-0/1-0	SM 2320B	T	0 mg/L	230.72 mg/L	50 mL			
180-42391-A-13 DU	HD-MW-7-0/1-0	SM 2320B	T	0 mg/L	230.72 mg/L	50 mL			
CCV 180-137060/24		SM 2320B		67.98 mg/L	133.9 mg/L	50 mL	50 mL		
CCB 180-137060/25		SM 2320B		0 mg/L	2.06 mg/L	50 mL			

Batch Notes	
Batch Comment	PH 4 START: 4.03 PH 4 END: 4.06
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1393069
pH Buffer 4 ID	1500550
pH Buffer 5 ID	1511948
Sulfuric Acid Lot Number	1504514
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0206 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 3/25/2015	COC No: TAP2015032502
Groundwater Sciences Corporation	Tel/Fax: 717-901-8181 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	1 of 1 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No. 10012.16.0005
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			DG No.
Project Name: Start Up Sampling Event 11	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

180-42391 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, CL, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Sample Specific Notes:
HD-QC3-0/1-2	3/25/15	12:00	Trip Blank	Water	2	X			
HD-CW-9-0/1-0	3/25/15	6:00	Groundwater	Water	5	X	X	X	
HD-CW-13-0/1-0	3/25/15	6:15	Groundwater	Water	5	X	X	X	
HD-CW-15A-0/1-0	3/25/15	5:55	Groundwater	Water	5	X	X	X	
HD-CW-17-0/1-0	3/25/15	6:20	Groundwater	Water	5	X	X	X	
HD-CW-20-0/1-0	3/25/15	6:10	Groundwater	Water	5	X	X	X	
HD-MW-100D-0/1-0	3/25/15	9:00	Groundwater	Water	5	X	X	X	
HD-MW-147A-0/1-0	3/25/15	10:10	Groundwater	Water	5	X	X	X	
HD-MW-75S-0/1-0	3/25/15	14:37	Groundwater	Water	5	X	X	X	
HD-MW-37D-0/1-0	3/25/15	13:02	Groundwater	Water	5	X	X	X	
HD-MW-37S-0/1-0	3/25/15	11:12	Groundwater	Water	5	X	X	X	
HD-MW-95-0/1-0	3/25/15	15:20	Groundwater	Water	5	X	X	X	
HD-MW-7-0/1-0	3/25/15	14:30	Groundwater	Water	5	X	X	X	
					Number of Containers	3	1	1	
					Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved, 7=Zinc Acetate & NaOH	2	1	4	
					Field Filter	N	N	N	

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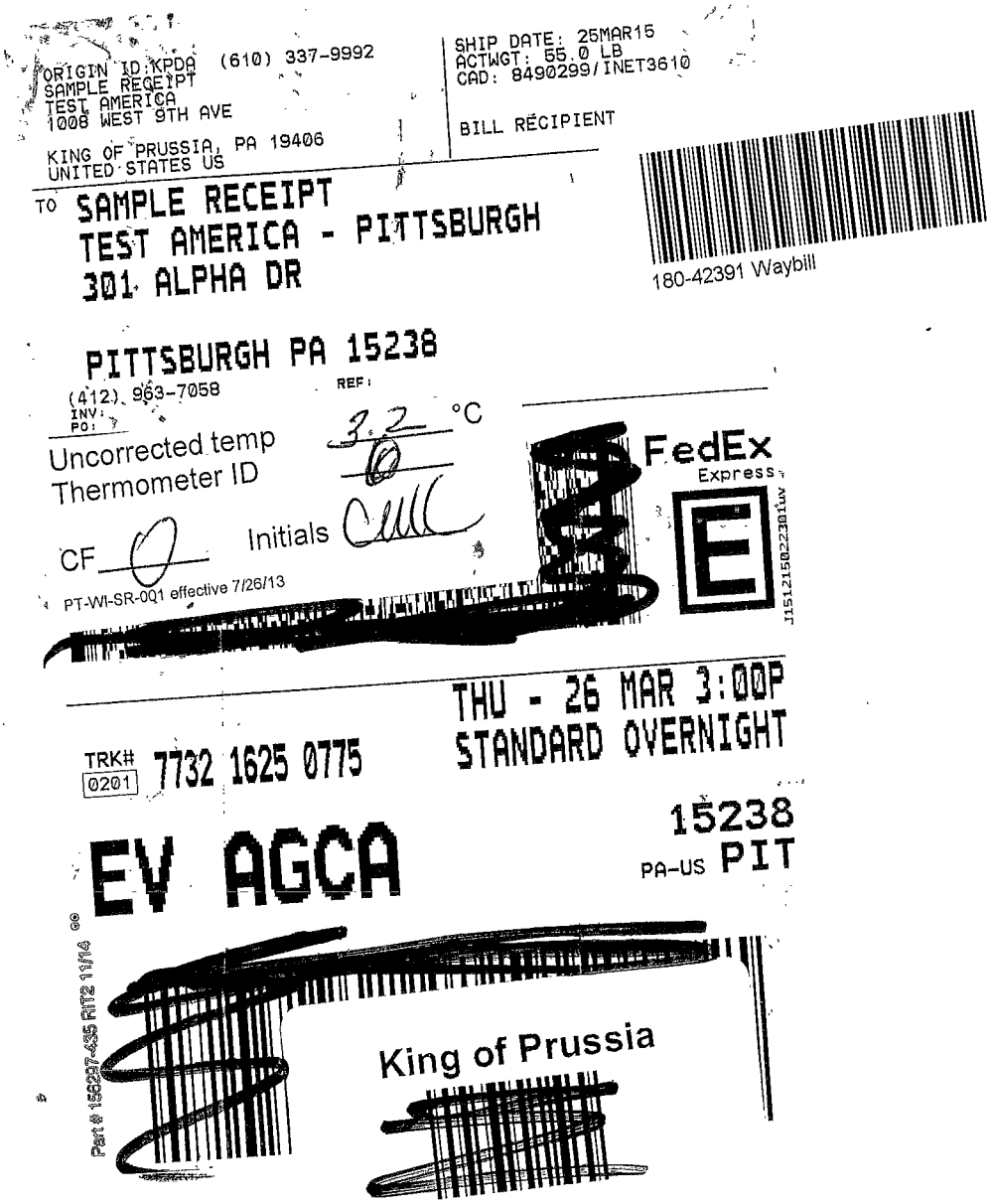
Possible Hazard Identification
■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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: 3/25/15 1545	Received by:	Company: T.A.	Date/Time: 3/25/15 15:45
Relinquished by:	Company: TAP	Date/Time: 3/25/15 1725	Received by: Debbie Watson	Company: TAP	Date/Time: 3-26-15 9:10
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:


ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US
SHIP DATE: 25MAR15
ACTWGT: 55.0 LB
CAD: 8490299/INET3610
BILL RECIPIENT
TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
180-42391 Waybill
PITTSBURGH PA 15238
(412) 963-7058
REF:
INV:
PO:
Uncorrected temp 3.2 °C
Thermometer ID 10
CF 0 Initials
PT-WI-SR-001 effective 7/26/13
FedEx
Express
J151215022301uv
THU - 26 MAR 3:00P
STANDARD OVERNIGHT
TRK# 0201 7732 1625 0775
15238
PA-US PIT
EV AGCA
King of Prussia
Part # 156297-435 RIT2 11/14

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-42391-1

Login Number: 42391

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	