TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-41508-1

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
3/11/2015 8:52 AM

Carrie L Gamber, Senior Project Manager
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2428
carrie.gamber@testamericainc.com
03/11/2015

Table of Contents

Table of Contents

Table of Contents

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.
F1	MS and/or MSD Recovery exceeds the control limits
*	LCS or LCSD exceeds the 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
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.

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: 180-41508-1

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 02/26/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.6 C.

VOLATILES

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

The laboratory control sample (LCS) for batch 134916 recovered outside control limits for the following analytes:
Trans-1,3-dichloropropene. A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

The laboratory control sample (LCS) for batch 135049 recovered outside control limits (low) for the following analytes:
Trans-1,3-dichloropropene. A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

Tetrachloroethene and Trichloroethene failed the recovery criteria low for the MSD of sample HD-MW-98I-0/1-0 (180-41508-1) in batch 180-134814.

METALS

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GENERAL CHEMISRTY

Sample HD-CW-15A-0/1-0 (11) required dilution prior to analysis for chloride. The reporting limits have been adjusted accordingly.

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-134561/2 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.

Chloride was detected in method blank MB 180-134309/6 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.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Client Sample ID: HD-MW-98I-0/1-0 — Lab Sample ID: 180-41508-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.4		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.55	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	20		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	3.5		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	20		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	23		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.4		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	69	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	40		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	3500		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	31000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	290	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC3-0/1-2 — Lab Sample ID: 180-41508-2

No Detections.

Client Sample ID: HD-MW-98S-0/1-0 — Lab Sample ID: 180-41508-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.6		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.53	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	21		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	3.3		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	21		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	25		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.4		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	81	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	41		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	3400		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	33000		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-99S-0/1-0 — Lab Sample ID: 180-41508-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.0		1.0	0.30	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.21	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.7		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	40		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.21	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	5.6		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	39		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	35		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.5		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-99S-0/1-0 (Continued)

Lab Sample ID: 180-41508-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	71	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	27		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	98000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	3300		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	14000		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	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-99D-0/1-0

Lab Sample ID: 180-41508-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	9.0		5.0	1.5	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	1.9	J	5.0	0.58	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	47		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	7.6		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	150		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	16		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	2.2		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	49	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	87000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	2600		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	18000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-145A-0/1-0

Lab Sample ID: 180-41508-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.80	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.30	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	13		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.24	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.0		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	19		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	15		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.7		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	92000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	5100		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	54000		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-147A-0/1-0

Lab Sample ID: 180-41508-7

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-147A-0/1-0 (Continued) — Lab Sample ID: 180-41508-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.6		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	6.1		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	4.5		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	6.0		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		100	2.8	ug/L	1		6020A	Total/NA
Potassium	5600		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	60000		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-MW-100S-0/1-0 — Lab Sample ID: 180-41508-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.8		2.0	0.59	ug/L	2		8260C	Total/NA
1,1-Dichloroethane	0.95	J	2.0	0.23	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	37		2.0	0.47	ug/L	2		8260C	Total/NA
1,1,1-Trichloroethane	1.8	J	2.0	0.57	ug/L	2		8260C	Total/NA
Trichloroethene	80		2.0	0.29	ug/L	2		8260C	Total/NA
Tetrachloroethene	74		2.0	0.30	ug/L	2		8260C	Total/NA
Nitrate as N	3.8		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110	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	95000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	4300		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	22000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	48000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-100I-0/1-0 — Lab Sample ID: 180-41508-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.3		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.76	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	28		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.24	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.3		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	48		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	35		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.8		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110	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	97000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	4700		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	22000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	51000		100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-100I-0/1-0 (Continued) — Lab Sample ID: 180-41508-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-100D-0/1-0 — Lab Sample ID: 180-41508-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.9		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.54	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	26		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.17	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.1		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	47		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	34		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.8		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	97000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	4700		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	22000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	53000		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-CW-15A-0/1-0 — Lab Sample ID: 180-41508-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2400		500	150	ug/L	500		8260C	Total/NA
1,1-Dichloroethane	120	J	500	58	ug/L	500		8260C	Total/NA
cis-1,2-Dichloroethene	10000		500	120	ug/L	500		8260C	Total/NA
1,1,1-Trichloroethane	8700		500	140	ug/L	500		8260C	Total/NA
Trichloroethene	5500		500	72	ug/L	500		8260C	Total/NA
Tetrachloroethene	1600		500	74	ug/L	500		8260C	Total/NA
Nitrate as N	3.7		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	300	B	5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	150		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	200000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	16000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	29000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	98000		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-13-0/1-0 — Lab Sample ID: 180-41508-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	14	J	25	7.4	ug/L	25		8260C	Total/NA
1,1-Dichloroethane	5.4	J	25	2.9	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	460		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	17	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	270		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	220		25	3.7	ug/L	25		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-CW-13-0/1-0 (Continued)

Lab Sample ID: 180-41508-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	4.3		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	37		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	130000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	15000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	23000		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	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

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

Lab Sample ID: 180-41508-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	17	J	50	15	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	12	J	50	5.8	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	180		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	67		50	14	ug/L	50		8260C	Total/NA
Trichloroethene	720		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	1700		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	3.6		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	30		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	96000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	6900		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	24000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	65000		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-9-0/1-0

Lab Sample ID: 180-41508-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	6.3	J	13	3.7	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethane	4.5	J	13	1.5	ug/L	12.5		8260C	Total/NA
cis-1,2-Dichloroethene	130		13	3.0	ug/L	12.5		8260C	Total/NA
1,1,1-Trichloroethane	21		13	3.6	ug/L	12.5		8260C	Total/NA
Trichloroethene	160		13	1.8	ug/L	12.5		8260C	Total/NA
Tetrachloroethene	430		13	1.9	ug/L	12.5		8260C	Total/NA
Nitrate as N	4.3		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	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	15000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	26000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	80000		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-MW-98I-0/1-0
Date Collected: 02/25/15 09:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/05/15 13:46	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 13:46	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 13:46	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 13:46	1
1,1-Dichloroethene	**1.4**		1.0	0.30	ug/L			03/05/15 13:46	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 13:46	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 13:46	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 13:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/05/15 13:46	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 13:46	1
1,1-Dichloroethane	**0.55**	**J**	1.0	0.12	ug/L			03/05/15 13:46	1
cis-1,2-Dichloroethene	**20**		1.0	0.24	ug/L			03/05/15 13:46	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 13:46	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 13:46	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/05/15 13:46	1
1,1,1-Trichloroethane	**3.5**		1.0	0.29	ug/L			03/05/15 13:46	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 13:46	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 13:46	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 13:46	1
Trichloroethene	**20**		1.0	0.14	ug/L			03/05/15 13:46	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 13:46	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 13:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 13:46	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 13:46	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 13:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 13:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 13:46	1
Tetrachloroethene	**23**		1.0	0.15	ug/L			03/05/15 13:46	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 13:46	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 13:46	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 13:46	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 13:46	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 13:46	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 13:46	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 13:46	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 13:46	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 13:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 13:46	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 13:46	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*03/05/15 13:46*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/05/15 13:46*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*03/05/15 13:46*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 128*		*03/05/15 13:46*	*1*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

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

Client Sample ID: HD-QC3-0/1-2
Date Collected: 02/25/15 12:00
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/05/15 14:10	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 14:10	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 14:10	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 14:10	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/05/15 14:10	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 14:10	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 14:10	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 14:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/05/15 14:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 14:10	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/05/15 14:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/05/15 14:10	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 14:10	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 14:10	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/05/15 14:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/05/15 14:10	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 14:10	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 14:10	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 14:10	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/05/15 14:10	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 14:10	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 14:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 14:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 14:10	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 14:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 14:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 14:10	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/05/15 14:10	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 14:10	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 14:10	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 14:10	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 14:10	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 14:10	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 14:10	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 14:10	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 14:10	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 14:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 14:10	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 14:10	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 135*		*03/05/15 14:10*	*1*
Toluene-d8 (Surr)	*103*		*71 - 118*		*03/05/15 14:10*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*03/05/15 14:10*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*03/05/15 14:10*	*1*

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

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 02/25/15 10:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/05/15 21:13	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 21:13	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 21:13	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 21:13	1
1,1-Dichloroethene	**1.6**		1.0	0.30	ug/L			03/05/15 21:13	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 21:13	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 21:13	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 21:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/05/15 21:13	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 21:13	1
1,1-Dichloroethane	**0.53**	**J**	1.0	0.12	ug/L			03/05/15 21:13	1
cis-1,2-Dichloroethene	**21**		1.0	0.24	ug/L			03/05/15 21:13	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 21:13	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 21:13	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/05/15 21:13	1
1,1,1-Trichloroethane	**3.3**		1.0	0.29	ug/L			03/05/15 21:13	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 21:13	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 21:13	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 21:13	1
Trichloroethene	**21**		1.0	0.14	ug/L			03/05/15 21:13	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 21:13	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 21:13	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 21:13	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 21:13	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 21:13	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 21:13	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 21:13	1
Tetrachloroethene	**25**		1.0	0.15	ug/L			03/05/15 21:13	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 21:13	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 21:13	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 21:13	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 21:13	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 21:13	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 21:13	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 21:13	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 21:13	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 21:13	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 21:13	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 21:13	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*03/05/15 21:13*	*1*
Toluene-d8 (Surr)	*100*		*71 - 118*		*03/05/15 21:13*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*03/05/15 21:13*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 128*		*03/05/15 21:13*	*1*

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

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 02/25/15 12:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/05/15 21:37	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 21:37	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 21:37	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 21:37	1
1,1-Dichloroethene	**3.0**		1.0	0.30	ug/L			03/05/15 21:37	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 21:37	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 21:37	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 21:37	1
trans-1,2-Dichloroethene	**0.21**	**J**	1.0	0.17	ug/L			03/05/15 21:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 21:37	1
1,1-Dichloroethane	**1.7**		1.0	0.12	ug/L			03/05/15 21:37	1
cis-1,2-Dichloroethene	**40**		1.0	0.24	ug/L			03/05/15 21:37	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 21:37	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 21:37	1
Chloroform	**0.21**	**J**	1.0	0.17	ug/L			03/05/15 21:37	1
1,1,1-Trichloroethane	**5.6**		1.0	0.29	ug/L			03/05/15 21:37	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 21:37	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 21:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 21:37	1
Trichloroethene	**39**		1.0	0.14	ug/L			03/05/15 21:37	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 21:37	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 21:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 21:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 21:37	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 21:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 21:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 21:37	1
Tetrachloroethene	**35**		1.0	0.15	ug/L			03/05/15 21:37	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 21:37	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 21:37	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 21:37	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 21:37	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 21:37	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 21:37	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 21:37	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 21:37	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 21:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 21:37	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 21:37	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*03/05/15 21:37*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*03/05/15 21:37*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*		*03/05/15 21:37*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 128*		*03/05/15 21:37*	*1*

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

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 02/25/15 13:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			03/05/15 19:49	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			03/05/15 19:49	5
Bromomethane	5.0	U	5.0	1.6	ug/L			03/05/15 19:49	5
Chloroethane	5.0	U	5.0	1.1	ug/L			03/05/15 19:49	5
1,1-Dichloroethene	**9.0**		5.0	1.5	ug/L			03/05/15 19:49	5
Acetone	25	U	25	13	ug/L			03/05/15 19:49	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			03/05/15 19:49	5
Methylene Chloride	5.0	U	5.0	0.63	ug/L			03/05/15 19:49	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			03/05/15 19:49	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			03/05/15 19:49	5
1,1-Dichloroethane	**1.9**	**J**	5.0	0.58	ug/L			03/05/15 19:49	5
cis-1,2-Dichloroethene	**47**		5.0	1.2	ug/L			03/05/15 19:49	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			03/05/15 19:49	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			03/05/15 19:49	5
Chloroform	5.0	U	5.0	0.85	ug/L			03/05/15 19:49	5
1,1,1-Trichloroethane	**7.6**		5.0	1.4	ug/L			03/05/15 19:49	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			03/05/15 19:49	5
Benzene	5.0	U	5.0	0.53	ug/L			03/05/15 19:49	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			03/05/15 19:49	5
Trichloroethene	**150**		5.0	0.72	ug/L			03/05/15 19:49	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			03/05/15 19:49	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			03/05/15 19:49	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			03/05/15 19:49	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			03/05/15 19:49	5
Toluene	5.0	U	5.0	0.75	ug/L			03/05/15 19:49	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			03/05/15 19:49	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			03/05/15 19:49	5
Tetrachloroethene	**16**		5.0	0.74	ug/L			03/05/15 19:49	5
2-Hexanone	25	U	25	0.80	ug/L			03/05/15 19:49	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			03/05/15 19:49	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			03/05/15 19:49	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			03/05/15 19:49	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			03/05/15 19:49	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			03/05/15 19:49	5
Xylenes, Total	15	U	15	2.4	ug/L			03/05/15 19:49	5
Styrene	5.0	U	5.0	0.48	ug/L			03/05/15 19:49	5
Bromoform	5.0	U	5.0	0.96	ug/L			03/05/15 19:49	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			03/05/15 19:49	5
Acrylonitrile	100	U	100	2.7	ug/L			03/05/15 19:49	5
1,4-Dioxane	1000	U	1000	170	ug/L			03/05/15 19:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*03/05/15 19:49*	*5*
Toluene-d8 (Surr)	*111*		*71 - 118*		*03/05/15 19:49*	*5*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*03/05/15 19:49*	*5*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*03/05/15 19:49*	*5*

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

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 02/25/15 11:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/06/15 16:42	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/06/15 16:42	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/06/15 16:42	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/06/15 16:42	1
1,1-Dichloroethene	**0.80**	**J**	1.0	0.30	ug/L			03/06/15 16:42	1
Acetone	5.0	U	5.0	2.5	ug/L			03/06/15 16:42	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/06/15 16:42	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/06/15 16:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/06/15 16:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/06/15 16:42	1
1,1-Dichloroethane	**0.30**	**J**	1.0	0.12	ug/L			03/06/15 16:42	1
cis-1,2-Dichloroethene	**13**		1.0	0.24	ug/L			03/06/15 16:42	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/06/15 16:42	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/06/15 16:42	1
Chloroform	**0.24**	**J**	1.0	0.17	ug/L			03/06/15 16:42	1
1,1,1-Trichloroethane	**1.0**		1.0	0.29	ug/L			03/06/15 16:42	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/06/15 16:42	1
Benzene	1.0	U	1.0	0.11	ug/L			03/06/15 16:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/06/15 16:42	1
Trichloroethene	**19**		1.0	0.14	ug/L			03/06/15 16:42	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/06/15 16:42	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/06/15 16:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/06/15 16:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/06/15 16:42	1
Toluene	1.0	U	1.0	0.15	ug/L			03/06/15 16:42	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.15	ug/L			03/06/15 16:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/06/15 16:42	1
Tetrachloroethene	**15**		1.0	0.15	ug/L			03/06/15 16:42	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/06/15 16:42	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/06/15 16:42	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/06/15 16:42	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/06/15 16:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/06/15 16:42	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/06/15 16:42	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/06/15 16:42	1
Styrene	1.0	U	1.0	0.097	ug/L			03/06/15 16:42	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/06/15 16:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/06/15 16:42	1
Acrylonitrile	20	U	20	0.55	ug/L			03/06/15 16:42	1
1,4-Dioxane	200	U	200	34	ug/L			03/06/15 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*03/06/15 16:42*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*03/06/15 16:42*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*03/06/15 16:42*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*03/06/15 16:42*	*1*

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

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 02/25/15 13:30
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/05/15 21:00	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 21:00	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 21:00	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 21:00	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/05/15 21:00	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 21:00	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 21:00	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 21:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/05/15 21:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 21:00	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/05/15 21:00	1
cis-1,2-Dichloroethene	**5.6**		1.0	0.24	ug/L			03/05/15 21:00	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 21:00	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 21:00	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/05/15 21:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/05/15 21:00	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 21:00	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 21:00	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 21:00	1
Trichloroethene	**6.1**		1.0	0.14	ug/L			03/05/15 21:00	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 21:00	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 21:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 21:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 21:00	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 21:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 21:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 21:00	1
Tetrachloroethene	**4.5**		1.0	0.15	ug/L			03/05/15 21:00	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 21:00	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 21:00	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 21:00	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 21:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 21:00	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 21:00	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 21:00	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 21:00	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 21:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 21:00	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 21:00	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*03/05/15 21:00*	*1*
Toluene-d8 (Surr)	*109*		*71 - 118*		*03/05/15 21:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*03/05/15 21:00*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 128*		*03/05/15 21:00*	*1*

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

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 02/25/15 12:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.0	0.57	ug/L			03/06/15 17:06	2
Vinyl chloride	2.0	U	2.0	0.45	ug/L			03/06/15 17:06	2
Bromomethane	2.0	U	2.0	0.63	ug/L			03/06/15 17:06	2
Chloroethane	2.0	U	2.0	0.43	ug/L			03/06/15 17:06	2
1,1-Dichloroethene	**2.8**		2.0	0.59	ug/L			03/06/15 17:06	2
Acetone	10	U	10	5.0	ug/L			03/06/15 17:06	2
Carbon disulfide	2.0	U	2.0	0.42	ug/L			03/06/15 17:06	2
Methylene Chloride	2.0	U	2.0	0.25	ug/L			03/06/15 17:06	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.34	ug/L			03/06/15 17:06	2
Methyl tert-butyl ether	2.0	U	2.0	0.37	ug/L			03/06/15 17:06	2
1,1-Dichloroethane	**0.95**	**J**	2.0	0.23	ug/L			03/06/15 17:06	2
cis-1,2-Dichloroethene	**37**		2.0	0.47	ug/L			03/06/15 17:06	2
Bromochloromethane	2.0	U	2.0	0.36	ug/L			03/06/15 17:06	2
2-Butanone (MEK)	10	U	10	1.1	ug/L			03/06/15 17:06	2
Chloroform	2.0	U	2.0	0.34	ug/L			03/06/15 17:06	2
1,1,1-Trichloroethane	**1.8**	**J**	2.0	0.57	ug/L			03/06/15 17:06	2
Carbon tetrachloride	2.0	U	2.0	0.27	ug/L			03/06/15 17:06	2
Benzene	2.0	U	2.0	0.21	ug/L			03/06/15 17:06	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			03/06/15 17:06	2
Trichloroethene	**80**		2.0	0.29	ug/L			03/06/15 17:06	2
1,2-Dichloropropane	2.0	U	2.0	0.19	ug/L			03/06/15 17:06	2
Bromodichloromethane	2.0	U	2.0	0.26	ug/L			03/06/15 17:06	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.37	ug/L			03/06/15 17:06	2
4-Methyl-2-pentanone (MIBK)	10	U	10	1.1	ug/L			03/06/15 17:06	2
Toluene	2.0	U	2.0	0.30	ug/L			03/06/15 17:06	2
trans-1,3-Dichloropropene	2.0	U *	2.0	0.30	ug/L			03/06/15 17:06	2
1,1,2-Trichloroethane	2.0	U	2.0	0.40	ug/L			03/06/15 17:06	2
Tetrachloroethene	**74**		2.0	0.30	ug/L			03/06/15 17:06	2
2-Hexanone	10	U	10	0.32	ug/L			03/06/15 17:06	2
Dibromochloromethane	2.0	U	2.0	0.27	ug/L			03/06/15 17:06	2
1,2-Dibromoethane (EDB)	2.0	U	2.0	0.36	ug/L			03/06/15 17:06	2
Chlorobenzene	2.0	U	2.0	0.27	ug/L			03/06/15 17:06	2
1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.55	ug/L			03/06/15 17:06	2
Ethylbenzene	2.0	U	2.0	0.45	ug/L			03/06/15 17:06	2
Xylenes, Total	6.0	U	6.0	0.98	ug/L			03/06/15 17:06	2
Styrene	2.0	U	2.0	0.19	ug/L			03/06/15 17:06	2
Bromoform	2.0	U	2.0	0.38	ug/L			03/06/15 17:06	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.40	ug/L			03/06/15 17:06	2
Acrylonitrile	40	U	40	1.1	ug/L			03/06/15 17:06	2
1,4-Dioxane	400	U	400	69	ug/L			03/06/15 17:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*03/06/15 17:06*	*2*
Toluene-d8 (Surr)	*103*		*71 - 118*		*03/06/15 17:06*	*2*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/06/15 17:06*	*2*
Dibromofluoromethane (Surr)	*96*		*70 - 128*		*03/06/15 17:06*	*2*

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

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 02/25/15 11:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/06/15 17:31	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/06/15 17:31	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/06/15 17:31	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/06/15 17:31	1
1,1-Dichloroethene	**2.3**		1.0	0.30	ug/L			03/06/15 17:31	1
Acetone	5.0	U	5.0	2.5	ug/L			03/06/15 17:31	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/06/15 17:31	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/06/15 17:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/06/15 17:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/06/15 17:31	1
1,1-Dichloroethane	**0.76**	**J**	1.0	0.12	ug/L			03/06/15 17:31	1
cis-1,2-Dichloroethene	**28**		1.0	0.24	ug/L			03/06/15 17:31	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/06/15 17:31	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/06/15 17:31	1
Chloroform	**0.24**	**J**	1.0	0.17	ug/L			03/06/15 17:31	1
1,1,1-Trichloroethane	**1.3**		1.0	0.29	ug/L			03/06/15 17:31	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/06/15 17:31	1
Benzene	1.0	U	1.0	0.11	ug/L			03/06/15 17:31	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/06/15 17:31	1
Trichloroethene	**48**		1.0	0.14	ug/L			03/06/15 17:31	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/06/15 17:31	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/06/15 17:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/06/15 17:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/06/15 17:31	1
Toluene	1.0	U	1.0	0.15	ug/L			03/06/15 17:31	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.15	ug/L			03/06/15 17:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/06/15 17:31	1
Tetrachloroethene	**35**		1.0	0.15	ug/L			03/06/15 17:31	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/06/15 17:31	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/06/15 17:31	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/06/15 17:31	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/06/15 17:31	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/06/15 17:31	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/06/15 17:31	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/06/15 17:31	1
Styrene	1.0	U	1.0	0.097	ug/L			03/06/15 17:31	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/06/15 17:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/06/15 17:31	1
Acrylonitrile	20	U	20	0.55	ug/L			03/06/15 17:31	1
1,4-Dioxane	200	U	200	34	ug/L			03/06/15 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*03/06/15 17:31*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*03/06/15 17:31*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*		*03/06/15 17:31*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*03/06/15 17:31*	*1*

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

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 02/25/15 10:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/09/15 16:07	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/09/15 16:07	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/09/15 16:07	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 16:07	1
1,1-Dichloroethene	**1.9**		1.0	0.30	ug/L			03/09/15 16:07	1
Acetone	5.0	U	5.0	2.5	ug/L			03/09/15 16:07	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/09/15 16:07	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/09/15 16:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/09/15 16:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/09/15 16:07	1
1,1-Dichloroethane	**0.54**	**J**	1.0	0.12	ug/L			03/09/15 16:07	1
cis-1,2-Dichloroethene	**26**		1.0	0.24	ug/L			03/09/15 16:07	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/09/15 16:07	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/09/15 16:07	1
Chloroform	**0.17**	**J**	1.0	0.17	ug/L			03/09/15 16:07	1
1,1,1-Trichloroethane	**1.1**		1.0	0.29	ug/L			03/09/15 16:07	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/09/15 16:07	1
Benzene	1.0	U	1.0	0.11	ug/L			03/09/15 16:07	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 16:07	1
Trichloroethene	**47**		1.0	0.14	ug/L			03/09/15 16:07	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/09/15 16:07	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/09/15 16:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/09/15 16:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/09/15 16:07	1
Toluene	1.0	U	1.0	0.15	ug/L			03/09/15 16:07	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.15	ug/L			03/09/15 16:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 16:07	1
Tetrachloroethene	**34**		1.0	0.15	ug/L			03/09/15 16:07	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/09/15 16:07	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/09/15 16:07	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/09/15 16:07	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/09/15 16:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/09/15 16:07	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/09/15 16:07	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/09/15 16:07	1
Styrene	1.0	U	1.0	0.097	ug/L			03/09/15 16:07	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/09/15 16:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 16:07	1
Acrylonitrile	20	U	20	0.55	ug/L			03/09/15 16:07	1
1,4-Dioxane	200	U	200	34	ug/L			03/09/15 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*03/09/15 16:07*	*1*
Toluene-d8 (Surr)	*103*		*71 - 118*		*03/09/15 16:07*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*03/09/15 16:07*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 128*		*03/09/15 16:07*	*1*

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

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 02/25/15 06:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	500	U	500	140	ug/L			03/06/15 18:43	500
Vinyl chloride	500	U	500	110	ug/L			03/06/15 18:43	500
Bromomethane	500	U	500	160	ug/L			03/06/15 18:43	500
Chloroethane	500	U	500	110	ug/L			03/06/15 18:43	500
1,1-Dichloroethene	**2400**		500	150	ug/L			03/06/15 18:43	500
Acetone	2500	U	2500	1300	ug/L			03/06/15 18:43	500
Carbon disulfide	500	U	500	110	ug/L			03/06/15 18:43	500
Methylene Chloride	500	U	500	63	ug/L			03/06/15 18:43	500
trans-1,2-Dichloroethene	500	U	500	85	ug/L			03/06/15 18:43	500
Methyl tert-butyl ether	500	U	500	92	ug/L			03/06/15 18:43	500
1,1-Dichloroethane	**120**	**J**	500	58	ug/L			03/06/15 18:43	500
cis-1,2-Dichloroethene	**10000**		500	120	ug/L			03/06/15 18:43	500
Bromochloromethane	500	U	500	90	ug/L			03/06/15 18:43	500
2-Butanone (MEK)	2500	U	2500	270	ug/L			03/06/15 18:43	500
Chloroform	500	U	500	85	ug/L			03/06/15 18:43	500
1,1,1-Trichloroethane	**8700**		500	140	ug/L			03/06/15 18:43	500
Carbon tetrachloride	500	U	500	68	ug/L			03/06/15 18:43	500
Benzene	500	U	500	53	ug/L			03/06/15 18:43	500
1,2-Dichloroethane	500	U	500	110	ug/L			03/06/15 18:43	500
Trichloroethene	**5500**		500	72	ug/L			03/06/15 18:43	500
1,2-Dichloropropane	500	U	500	47	ug/L			03/06/15 18:43	500
Bromodichloromethane	500	U	500	65	ug/L			03/06/15 18:43	500
cis-1,3-Dichloropropene	500	U	500	93	ug/L			03/06/15 18:43	500
4-Methyl-2-pentanone (MIBK)	2500	U	2500	260	ug/L			03/06/15 18:43	500
Toluene	500	U	500	75	ug/L			03/06/15 18:43	500
trans-1,3-Dichloropropene	500	U *	500	74	ug/L			03/06/15 18:43	500
1,1,2-Trichloroethane	500	U	500	100	ug/L			03/06/15 18:43	500
Tetrachloroethene	**1600**		500	74	ug/L			03/06/15 18:43	500
2-Hexanone	2500	U	2500	80	ug/L			03/06/15 18:43	500
Dibromochloromethane	500	U	500	68	ug/L			03/06/15 18:43	500
1,2-Dibromoethane (EDB)	500	U	500	90	ug/L			03/06/15 18:43	500
Chlorobenzene	500	U	500	68	ug/L			03/06/15 18:43	500
1,1,1,2-Tetrachloroethane	500	U	500	140	ug/L			03/06/15 18:43	500
Ethylbenzene	500	U	500	110	ug/L			03/06/15 18:43	500
Xylenes, Total	1500	U	1500	240	ug/L			03/06/15 18:43	500
Styrene	500	U	500	48	ug/L			03/06/15 18:43	500
Bromoform	500	U	500	96	ug/L			03/06/15 18:43	500
1,1,2,2-Tetrachloroethane	500	U	500	100	ug/L			03/06/15 18:43	500
Acrylonitrile	10000	U	10000	270	ug/L			03/06/15 18:43	500
1,4-Dioxane	100000	U	100000	17000	ug/L			03/06/15 18:43	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*03/06/15 18:43*	*500*
Toluene-d8 (Surr)	*100*		*71 - 118*		*03/06/15 18:43*	*500*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*		*03/06/15 18:43*	*500*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*03/06/15 18:43*	*500*

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

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 02/25/15 06:55
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			03/06/15 19:07	25
Vinyl chloride	25	U	25	5.7	ug/L			03/06/15 19:07	25
Bromomethane	25	U	25	7.8	ug/L			03/06/15 19:07	25
Chloroethane	25	U	25	5.4	ug/L			03/06/15 19:07	25
1,1-Dichloroethene	**14**	**J**	25	7.4	ug/L			03/06/15 19:07	25
Acetone	130	U	130	63	ug/L			03/06/15 19:07	25
Carbon disulfide	25	U	25	5.3	ug/L			03/06/15 19:07	25
Methylene Chloride	25	U	25	3.1	ug/L			03/06/15 19:07	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			03/06/15 19:07	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			03/06/15 19:07	25
1,1-Dichloroethane	**5.4**	**J**	25	2.9	ug/L			03/06/15 19:07	25
cis-1,2-Dichloroethene	**460**		25	5.9	ug/L			03/06/15 19:07	25
Bromochloromethane	25	U	25	4.5	ug/L			03/06/15 19:07	25
2-Butanone (MEK)	130	U	130	14	ug/L			03/06/15 19:07	25
Chloroform	25	U	25	4.3	ug/L			03/06/15 19:07	25
1,1,1-Trichloroethane	**17**	**J**	25	7.2	ug/L			03/06/15 19:07	25
Carbon tetrachloride	25	U	25	3.4	ug/L			03/06/15 19:07	25
Benzene	25	U	25	2.6	ug/L			03/06/15 19:07	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			03/06/15 19:07	25
Trichloroethene	**270**		25	3.6	ug/L			03/06/15 19:07	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			03/06/15 19:07	25
Bromodichloromethane	25	U	25	3.3	ug/L			03/06/15 19:07	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			03/06/15 19:07	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			03/06/15 19:07	25
Toluene	25	U	25	3.8	ug/L			03/06/15 19:07	25
trans-1,3-Dichloropropene	25	U *	25	3.7	ug/L			03/06/15 19:07	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			03/06/15 19:07	25
Tetrachloroethene	**220**		25	3.7	ug/L			03/06/15 19:07	25
2-Hexanone	130	U	130	4.0	ug/L			03/06/15 19:07	25
Dibromochloromethane	25	U	25	3.4	ug/L			03/06/15 19:07	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			03/06/15 19:07	25
Chlorobenzene	25	U	25	3.4	ug/L			03/06/15 19:07	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			03/06/15 19:07	25
Ethylbenzene	25	U	25	5.7	ug/L			03/06/15 19:07	25
Xylenes, Total	75	U	75	12	ug/L			03/06/15 19:07	25
Styrene	25	U	25	2.4	ug/L			03/06/15 19:07	25
Bromoform	25	U	25	4.8	ug/L			03/06/15 19:07	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			03/06/15 19:07	25
Acrylonitrile	500	U	500	14	ug/L			03/06/15 19:07	25
1,4-Dioxane	5000	U	5000	860	ug/L			03/06/15 19:07	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/06/15 19:07*	*25*
Toluene-d8 (Surr)	*105*		*71 - 118*		*03/06/15 19:07*	*25*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/06/15 19:07*	*25*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*03/06/15 19:07*	*25*

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

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 02/25/15 06:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			03/06/15 19:56	50
Vinyl chloride	50	U	50	11	ug/L			03/06/15 19:56	50
Bromomethane	50	U	50	16	ug/L			03/06/15 19:56	50
Chloroethane	50	U	50	11	ug/L			03/06/15 19:56	50
1,1-Dichloroethene	**17**	**J**	50	15	ug/L			03/06/15 19:56	50
Acetone	250	U	250	130	ug/L			03/06/15 19:56	50
Carbon disulfide	50	U	50	11	ug/L			03/06/15 19:56	50
Methylene Chloride	50	U	50	6.3	ug/L			03/06/15 19:56	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			03/06/15 19:56	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			03/06/15 19:56	50
1,1-Dichloroethane	**12**	**J**	50	5.8	ug/L			03/06/15 19:56	50
cis-1,2-Dichloroethene	**180**		50	12	ug/L			03/06/15 19:56	50
Bromochloromethane	50	U	50	9.0	ug/L			03/06/15 19:56	50
2-Butanone (MEK)	250	U	250	27	ug/L			03/06/15 19:56	50
Chloroform	50	U	50	8.5	ug/L			03/06/15 19:56	50
1,1,1-Trichloroethane	**67**		50	14	ug/L			03/06/15 19:56	50
Carbon tetrachloride	50	U	50	6.8	ug/L			03/06/15 19:56	50
Benzene	50	U	50	5.3	ug/L			03/06/15 19:56	50
1,2-Dichloroethane	50	U	50	11	ug/L			03/06/15 19:56	50
Trichloroethene	**720**		50	7.2	ug/L			03/06/15 19:56	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			03/06/15 19:56	50
Bromodichloromethane	50	U	50	6.5	ug/L			03/06/15 19:56	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			03/06/15 19:56	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			03/06/15 19:56	50
Toluene	50	U	50	7.5	ug/L			03/06/15 19:56	50
trans-1,3-Dichloropropene	50	U *	50	7.4	ug/L			03/06/15 19:56	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			03/06/15 19:56	50
Tetrachloroethene	**1700**		50	7.4	ug/L			03/06/15 19:56	50
2-Hexanone	250	U	250	8.0	ug/L			03/06/15 19:56	50
Dibromochloromethane	50	U	50	6.8	ug/L			03/06/15 19:56	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			03/06/15 19:56	50
Chlorobenzene	50	U	50	6.8	ug/L			03/06/15 19:56	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			03/06/15 19:56	50
Ethylbenzene	50	U	50	11	ug/L			03/06/15 19:56	50
Xylenes, Total	150	U	150	24	ug/L			03/06/15 19:56	50
Styrene	50	U	50	4.8	ug/L			03/06/15 19:56	50
Bromoform	50	U	50	9.6	ug/L			03/06/15 19:56	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			03/06/15 19:56	50
Acrylonitrile	1000	U	1000	27	ug/L			03/06/15 19:56	50
1,4-Dioxane	10000	U	10000	1700	ug/L			03/06/15 19:56	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/06/15 19:56*	*50*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/06/15 19:56*	*50*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*03/06/15 19:56*	*50*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*03/06/15 19:56*	*50*

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

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 02/25/15 06:50
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	13	U	13	3.5	ug/L			03/06/15 20:19	12.5
Vinyl chloride	13	U	13	2.8	ug/L			03/06/15 20:19	12.5
Bromomethane	13	U	13	3.9	ug/L			03/06/15 20:19	12.5
Chloroethane	13	U	13	2.7	ug/L			03/06/15 20:19	12.5
1,1-Dichloroethene	**6.3**	**J**	13	3.7	ug/L			03/06/15 20:19	12.5
Acetone	63	U	63	31	ug/L			03/06/15 20:19	12.5
Carbon disulfide	13	U	13	2.7	ug/L			03/06/15 20:19	12.5
Methylene Chloride	13	U	13	1.6	ug/L			03/06/15 20:19	12.5
trans-1,2-Dichloroethene	13	U	13	2.1	ug/L			03/06/15 20:19	12.5
Methyl tert-butyl ether	13	U	13	2.3	ug/L			03/06/15 20:19	12.5
1,1-Dichloroethane	**4.5**	**J**	13	1.5	ug/L			03/06/15 20:19	12.5
cis-1,2-Dichloroethene	**130**		13	3.0	ug/L			03/06/15 20:19	12.5
Bromochloromethane	13	U	13	2.3	ug/L			03/06/15 20:19	12.5
2-Butanone (MEK)	63	U	63	6.8	ug/L			03/06/15 20:19	12.5
Chloroform	13	U	13	2.1	ug/L			03/06/15 20:19	12.5
1,1,1-Trichloroethane	**21**		13	3.6	ug/L			03/06/15 20:19	12.5
Carbon tetrachloride	13	U	13	1.7	ug/L			03/06/15 20:19	12.5
Benzene	13	U	13	1.3	ug/L			03/06/15 20:19	12.5
1,2-Dichloroethane	13	U	13	2.6	ug/L			03/06/15 20:19	12.5
Trichloroethene	**160**		13	1.8	ug/L			03/06/15 20:19	12.5
1,2-Dichloropropane	13	U	13	1.2	ug/L			03/06/15 20:19	12.5
Bromodichloromethane	13	U	13	1.6	ug/L			03/06/15 20:19	12.5
cis-1,3-Dichloropropene	13	U	13	2.3	ug/L			03/06/15 20:19	12.5
4-Methyl-2-pentanone (MIBK)	63	U	63	6.6	ug/L			03/06/15 20:19	12.5
Toluene	13	U	13	1.9	ug/L			03/06/15 20:19	12.5
trans-1,3-Dichloropropene	13	U *	13	1.9	ug/L			03/06/15 20:19	12.5
1,1,2-Trichloroethane	13	U	13	2.5	ug/L			03/06/15 20:19	12.5
Tetrachloroethene	**430**		13	1.9	ug/L			03/06/15 20:19	12.5
2-Hexanone	63	U	63	2.0	ug/L			03/06/15 20:19	12.5
Dibromochloromethane	13	U	13	1.7	ug/L			03/06/15 20:19	12.5
1,2-Dibromoethane (EDB)	13	U	13	2.3	ug/L			03/06/15 20:19	12.5
Chlorobenzene	13	U	13	1.7	ug/L			03/06/15 20:19	12.5
1,1,1,2-Tetrachloroethane	13	U	13	3.5	ug/L			03/06/15 20:19	12.5
Ethylbenzene	13	U	13	2.8	ug/L			03/06/15 20:19	12.5
Xylenes, Total	38	U	38	6.1	ug/L			03/06/15 20:19	12.5
Styrene	13	U	13	1.2	ug/L			03/06/15 20:19	12.5
Bromoform	13	U	13	2.4	ug/L			03/06/15 20:19	12.5
1,1,2,2-Tetrachloroethane	13	U	13	2.5	ug/L			03/06/15 20:19	12.5
Acrylonitrile	250	U	250	6.8	ug/L			03/06/15 20:19	12.5
1,4-Dioxane	2500	U	2500	430	ug/L			03/06/15 20:19	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*03/06/15 20:19*	*12.5*
Toluene-d8 (Surr)	*100*		*71 - 118*		*03/06/15 20:19*	*12.5*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/06/15 20:19*	*12.5*
Dibromofluoromethane (Surr)	*99*		*70 - 128*		*03/06/15 20:19*	*12.5*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 02/25/15 09:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4		0.10	0.0062	mg/L			02/26/15 16:01	1
Chloride	69	B	1.0	0.20	mg/L			02/26/15 16:01	1
Sulfate	40		1.0	0.21	mg/L			02/26/15 16:01	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 02/25/15 10:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4		0.10	0.0062	mg/L			02/26/15 17:17	1
Chloride	81	B	1.0	0.20	mg/L			02/26/15 17:17	1
Sulfate	41		1.0	0.21	mg/L			02/26/15 17:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 02/25/15 12:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.5		0.10	0.0062	mg/L			02/26/15 17:33	1
Chloride	71	B	1.0	0.20	mg/L			02/26/15 17:33	1
Sulfate	27		1.0	0.21	mg/L			02/26/15 17:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 02/25/15 13:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.2		0.10	0.0062	mg/L			02/26/15 15:15	1
Chloride	49	B	1.0	0.20	mg/L			02/26/15 15:15	1
Sulfate	25		1.0	0.21	mg/L			02/26/15 15:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 02/25/15 11:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.7		0.10	0.0062	mg/L			02/26/15 14:14	1
Chloride	120	B	1.0	0.20	mg/L			02/26/15 14:14	1
Sulfate	35		1.0	0.21	mg/L			02/26/15 14:14	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 02/25/15 13:30
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	6.0		0.10	0.0062	mg/L			02/26/15 15:00	1
Chloride	130	B	1.0	0.20	mg/L			02/26/15 15:00	1
Sulfate	35		1.0	0.21	mg/L			02/26/15 15:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 02/25/15 12:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8		0.10	0.0062	mg/L			02/26/15 17:48	1
Chloride	110	B	1.0	0.20	mg/L			02/26/15 17:48	1
Sulfate	35		1.0	0.21	mg/L			02/26/15 17:48	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 02/25/15 11:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8		0.10	0.0062	mg/L			02/26/15 18:03	1
Chloride	110	B	1.0	0.20	mg/L			02/26/15 18:03	1
Sulfate	35		1.0	0.21	mg/L			02/26/15 18:03	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 02/25/15 10:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8		0.10	0.0062	mg/L			02/26/15 18:19	1
Chloride	120	B	1.0	0.20	mg/L			02/26/15 18:19	1
Sulfate	35		1.0	0.21	mg/L			02/26/15 18:19	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 02/25/15 06:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.7		0.10	0.0062	mg/L			02/26/15 18:34	1
Chloride	300	B	5.0	0.98	mg/L			02/26/15 18:49	5
Sulfate	150		1.0	0.21	mg/L			02/26/15 18:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 02/25/15 06:55
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.3		0.10	0.0062	mg/L			02/26/15 13:28	1
Chloride	170	B	1.0	0.20	mg/L			02/26/15 13:28	1
Sulfate	37		1.0	0.21	mg/L			02/26/15 13:28	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 02/25/15 06:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.6		0.10	0.0062	mg/L			02/26/15 14:29	1
Chloride	160	B	1.0	0.20	mg/L			02/26/15 14:29	1
Sulfate	30		1.0	0.21	mg/L			02/26/15 14:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 02/25/15 06:50
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.3		0.10	0.0062	mg/L			02/26/15 14:44	1
Chloride	190	B	1.0	0.20	mg/L			02/26/15 14:44	1
Sulfate	35		1.0	0.21	mg/L			02/26/15 14:44	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 02/25/15 09:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		100	2.8	ug/L		02/27/15 08:47	03/03/15 11:10	1
Potassium	3500		100	5.8	ug/L		02/27/15 08:47	03/03/15 11:10	1
Magnesium	15000		100	1.2	ug/L		02/27/15 08:47	03/03/15 11:10	1
Sodium	31000		100	3.8	ug/L		02/27/15 08:47	03/03/15 11:10	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 02/25/15 10:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		100	2.8	ug/L		02/27/15 08:47	03/03/15 11:44	1
Potassium	3400		100	5.8	ug/L		02/27/15 08:47	03/03/15 11:44	1
Magnesium	13000		100	1.2	ug/L		02/27/15 08:47	03/03/15 11:44	1
Sodium	33000		100	3.8	ug/L		02/27/15 08:47	03/03/15 11:44	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 02/25/15 12:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	98000		100	2.8	ug/L		02/27/15 08:47	03/03/15 11:48	1
Potassium	3300		100	5.8	ug/L		02/27/15 08:47	03/03/15 11:48	1
Magnesium	14000		100	1.2	ug/L		02/27/15 08:47	03/03/15 11:48	1
Sodium	26000		100	3.8	ug/L		02/27/15 08:47	03/03/15 11:48	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 02/25/15 13:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	87000		100	2.8	ug/L		02/27/15 08:47	03/03/15 11:52	1
Potassium	2600		100	5.8	ug/L		02/27/15 08:47	03/03/15 11:52	1
Magnesium	15000		100	1.2	ug/L		02/27/15 08:47	03/03/15 11:52	1
Sodium	18000		100	3.8	ug/L		02/27/15 08:47	03/03/15 11:52	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 02/25/15 11:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	92000		100	2.8	ug/L		02/27/15 08:47	03/03/15 11:56	1
Potassium	5100		100	5.8	ug/L		02/27/15 08:47	03/03/15 11:56	1
Magnesium	21000		100	1.2	ug/L		02/27/15 08:47	03/03/15 11:56	1
Sodium	54000		100	3.8	ug/L		02/27/15 08:47	03/03/15 11:56	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 02/25/15 13:30
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	94000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:13	1
Potassium	5600		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:13	1
Magnesium	21000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:13	1
Sodium	60000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:13	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 02/25/15 12:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	95000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:17	1
Potassium	4300		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:17	1
Magnesium	22000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:17	1
Sodium	48000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 02/25/15 11:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	97000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:21	1
Potassium	4700		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:21	1
Magnesium	22000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:21	1
Sodium	51000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:21	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 02/25/15 10:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	97000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:25	1
Potassium	4700		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:25	1
Magnesium	22000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:25	1
Sodium	53000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 02/25/15 06:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	200000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:30	1
Potassium	16000		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:30	1
Magnesium	29000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:30	1
Sodium	98000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:30	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 02/25/15 06:55
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:34	1
Potassium	15000		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:34	1
Magnesium	23000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:34	1
Sodium	56000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:34	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 02/25/15 06:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	96000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:38	1
Potassium	6900		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:38	1
Magnesium	24000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:38	1
Sodium	65000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:38	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 02/25/15 06:50
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		100	2.8	ug/L		02/27/15 08:47	03/03/15 12:42	1
Potassium	15000		100	5.8	ug/L		02/27/15 08:47	03/03/15 12:42	1
Magnesium	26000		100	1.2	ug/L		02/27/15 08:47	03/03/15 12:42	1
Sodium	80000		100	3.8	ug/L		02/27/15 08:47	03/03/15 12:42	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 02/25/15 09:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**290**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**290**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 02/25/15 10:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-3
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 02/25/15 12:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-4
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 02/25/15 13:35
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 02/25/15 11:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-6
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 02/25/15 13:30
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-7
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 02/25/15 12:25
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 02/25/15 11:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 02/25/15 10:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-10
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 02/25/15 06:40
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-11
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 02/25/15 06:55
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 02/25/15 06:45
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-13
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

General Chemistry

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 02/25/15 06:50
Date Received: 02/26/15 10:00

Lab Sample ID: 180-41508-14
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			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

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: 180-41508-1

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)
180-41508-1	HD-MW-98I-0/1-0	98	102	103	98
180-41508-1 MS	HD-MW-98I-0/1-0	101	108	101	100
180-41508-1 MSD	HD-MW-98I-0/1-0	95	103	94	101
180-41508-2	HD-QC3-0/1-2	94	103	103	97
180-41508-3	HD-MW-98S-0/1-0	100	100	98	96
180-41508-4	HD-MW-99S-0/1-0	97	107	108	96
180-41508-5	HD-MW-99D-0/1-0	111	111	93	107
180-41508-6	HD-MW-145A-0/1-0	101	101	98	102
180-41508-7	HD-MW-147A-0/1-0	111	109	93	104
180-41508-8	HD-MW-100S-0/1-0	97	103	102	96
180-41508-9	HD-MW-100I-0/1-0	97	101	99	97
180-41508-10	HD-MW-100D-0/1-0	97	103	100	99
180-41508-11	HD-CW-15A-0/1-0	98	100	96	100
180-41508-12	HD-CW-13-0/1-0	99	105	102	97
180-41508-13	HD-CW-20-0/1-0	99	102	101	102
180-41508-14	HD-CW-9-0/1-0	100	100	102	99
LCS 180-134814/12	Lab Control Sample	96	104	95	94
LCS 180-134823/6	Lab Control Sample	103	106	96	99
LCS 180-134916/9	Lab Control Sample	95	98	92	94
LCS 180-135049/7	Lab Control Sample	104	104	95	105
MB 180-134814/9	Method Blank	97	104	106	94
MB 180-134823/4	Method Blank	114	104	91	104
MB 180-134916/6	Method Blank	99	104	101	100
MB 180-135049/4	Method Blank	98	102	105	102

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: 180-41508-1

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

Lab Sample ID: MB 180-134814/9
Matrix: Water
Analysis Batch: 134814

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			03/05/15 13:05	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 13:05	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 13:05	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 13:05	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/05/15 13:05	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 13:05	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 13:05	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 13:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/05/15 13:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 13:05	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/05/15 13:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/05/15 13:05	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 13:05	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 13:05	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/05/15 13:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/05/15 13:05	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 13:05	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 13:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 13:05	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/05/15 13:05	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 13:05	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 13:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 13:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 13:05	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 13:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 13:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 13:05	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/05/15 13:05	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 13:05	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 13:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 13:05	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 13:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 13:05	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 13:05	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 13:05	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 13:05	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 13:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 13:05	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 13:05	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 13:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*03/05/15 13:05*	*1*
Toluene-d8 (Surr)	*104*		*71 - 118*		*03/05/15 13:05*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*03/05/15 13:05*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 128*		*03/05/15 13:05*	*1*

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

Lab Sample ID: LCS 180-134814/12
Matrix: Water
Analysis Batch: 134814

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	9.78		ug/L		98	50 - 139
Vinyl chloride	10.0	9.77		ug/L		98	53 - 138
Bromomethane	10.0	11.6		ug/L		116	33 - 150
Chloroethane	10.0	11.8		ug/L		118	36 - 142
1,1-Dichloroethene	10.0	9.64		ug/L		96	65 - 136
Acetone	20.0	19.7		ug/L		99	22 - 150
Carbon disulfide	10.0	8.05		ug/L		80	54 - 132
Methylene Chloride	10.0	9.31		ug/L		93	63 - 129
trans-1,2-Dichloroethene	10.0	9.97		ug/L		100	73 - 126
Methyl tert-butyl ether	10.0	8.34		ug/L		83	64 - 123
1,1-Dichloroethane	10.0	9.56		ug/L		96	73 - 126
cis-1,2-Dichloroethene	10.0	9.79		ug/L		98	70 - 120
Bromochloromethane	10.0	9.73		ug/L		97	70 - 127
2-Butanone (MEK)	20.0	19.3		ug/L		96	39 - 138
Chloroform	10.0	9.95		ug/L		100	72 - 127
1,1,1-Trichloroethane	10.0	8.77		ug/L		88	63 - 133
Carbon tetrachloride	10.0	9.37		ug/L		94	55 - 150
Benzene	10.0	10.1		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	9.46		ug/L		95	68 - 132
Trichloroethene	10.0	10.5		ug/L		105	73 - 120
1,2-Dichloropropane	10.0	9.25		ug/L		93	76 - 124
Bromodichloromethane	10.0	9.35		ug/L		93	66 - 130
cis-1,3-Dichloropropene	10.0	7.58		ug/L		76	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.7		ug/L		88	45 - 145
Toluene	10.0	10.9		ug/L		109	80 - 123
trans-1,3-Dichloropropene	10.0	7.19		ug/L		72	65 - 125
1,1,2-Trichloroethane	10.0	9.97		ug/L		100	77 - 127
Tetrachloroethene	10.0	11.5		ug/L		115	70 - 135
2-Hexanone	20.0	16.2		ug/L		81	25 - 132
Dibromochloromethane	10.0	9.49		ug/L		95	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.91		ug/L		99	74 - 123
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.28		ug/L		93	63 - 140
Ethylbenzene	10.0	10.9		ug/L		109	72 - 126
Xylenes, Total	20.0	20.9		ug/L		105	76 - 128
Styrene	10.0	10.2		ug/L		102	71 - 127
Bromoform	10.0	9.07		ug/L		91	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	62 - 125
1,4-Dioxane	200	165	J	ug/L		82	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 135*
Toluene-d8 (Surr)	*104*		*71 - 118*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*
Dibromofluoromethane (Surr)	*94*		*70 - 128*

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

Lab Sample ID: 180-41508-1 MS
Matrix: Water
Analysis Batch: 134814

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U	10.0	10.0		ug/L		100	50 - 139
Vinyl chloride	1.0	U	10.0	9.66		ug/L		97	53 - 138
Bromomethane	1.0	U	10.0	11.0		ug/L		110	33 - 150
Chloroethane	1.0	U	10.0	12.0		ug/L		120	36 - 142
1,1-Dichloroethene	1.4		10.0	10.5		ug/L		91	65 - 136
Acetone	5.0	U	20.0	19.7		ug/L		99	22 - 150
Carbon disulfide	1.0	U	10.0	8.06		ug/L		81	54 - 132
Methylene Chloride	1.0	U	10.0	8.75		ug/L		87	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	9.61		ug/L		96	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	8.12		ug/L		81	64 - 123
1,1-Dichloroethane	0.55	J	10.0	9.65		ug/L		91	73 - 126
cis-1,2-Dichloroethene	20		10.0	28.0		ug/L		76	70 - 120
Bromochloromethane	1.0	U	10.0	9.49		ug/L		95	70 - 127
2-Butanone (MEK)	5.0	U	20.0	16.9		ug/L		84	39 - 138
Chloroform	1.0	U	10.0	9.53		ug/L		95	72 - 127
1,1,1-Trichloroethane	3.5		10.0	11.6		ug/L		81	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.15		ug/L		92	55 - 150
Benzene	1.0	U	10.0	9.24		ug/L		92	80 - 120
1,2-Dichloroethane	1.0	U	10.0	9.03		ug/L		90	68 - 132
Trichloroethene	20		10.0	27.8		ug/L		76	73 - 120
1,2-Dichloropropane	1.0	U	10.0	8.80		ug/L		88	76 - 124
Bromodichloromethane	1.0	U	10.0	8.53		ug/L		85	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	7.09		ug/L		71	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	16.1		ug/L		81	45 - 145
Toluene	1.0	U	10.0	9.86		ug/L		99	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	6.52		ug/L		65	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	9.06		ug/L		91	77 - 127
Tetrachloroethene	23		10.0	31.1		ug/L		78	70 - 135
2-Hexanone	5.0	U	20.0	14.5		ug/L		72	25 - 132
Dibromochloromethane	1.0	U	10.0	8.98		ug/L		90	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	8.71		ug/L		87	74 - 123
Chlorobenzene	1.0	U	10.0	9.81		ug/L		98	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	8.65		ug/L		86	63 - 140
Ethylbenzene	1.0	U	10.0	9.79		ug/L		98	72 - 126
Xylenes, Total	3.0	U	20.0	19.7		ug/L		99	76 - 128
Styrene	1.0	U	10.0	9.44		ug/L		94	71 - 127
Bromoform	1.0	U	10.0	8.94		ug/L		89	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.64		ug/L		96	62 - 125
1,4-Dioxane	200	U	200	140	J	ug/L		70	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*
Toluene-d8 (Surr)	*108*		*71 - 118*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*
Dibromofluoromethane (Surr)	*100*		*70 - 128*

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

Lab Sample ID: 180-41508-1 MSD
Matrix: Water
Analysis Batch: 134814

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	1.0	U	10.0	9.51		ug/L		95	50 - 139	6	35
Vinyl chloride	1.0	U	10.0	9.06		ug/L		91	53 - 138	6	35
Bromomethane	1.0	U	10.0	11.1		ug/L		111	33 - 150	1	35
Chloroethane	1.0	U	10.0	11.5		ug/L		115	36 - 142	4	35
1,1-Dichloroethene	1.4		10.0	10.3		ug/L		89	65 - 136	2	35
Acetone	5.0	U	20.0	19.1		ug/L		95	22 - 150	3	35
Carbon disulfide	1.0	U	10.0	7.55		ug/L		75	54 - 132	7	35
Methylene Chloride	1.0	U	10.0	9.20		ug/L		92	63 - 129	5	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.30		ug/L		93	73 - 126	3	35
Methyl tert-butyl ether	1.0	U	10.0	8.13		ug/L		81	64 - 123	0	35
1,1-Dichloroethane	0.55	J	10.0	9.19		ug/L		86	73 - 126	5	35
cis-1,2-Dichloroethene	20		10.0	27.5		ug/L		71	70 - 120	2	35
Bromochloromethane	1.0	U	10.0	9.12		ug/L		91	70 - 127	4	35
2-Butanone (MEK)	5.0	U	20.0	17.0		ug/L		85	39 - 138	0	35
Chloroform	1.0	U	10.0	9.49		ug/L		95	72 - 127	0	35
1,1,1-Trichloroethane	3.5		10.0	11.4		ug/L		79	63 - 133	2	35
Carbon tetrachloride	1.0	U	10.0	8.80		ug/L		88	55 - 150	4	35
Benzene	1.0	U	10.0	9.21		ug/L		92	80 - 120	0	32
1,2-Dichloroethane	1.0	U	10.0	8.84		ug/L		88	68 - 132	2	32
Trichloroethene	20		10.0	26.7	F1	ug/L		65	73 - 120	4	35
1,2-Dichloropropane	1.0	U	10.0	8.89		ug/L		89	76 - 124	1	34
Bromodichloromethane	1.0	U	10.0	8.61		ug/L		86	66 - 130	1	35
cis-1,3-Dichloropropene	1.0	U	10.0	7.18		ug/L		72	66 - 120	1	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	16.5		ug/L		82	45 - 145	2	35
Toluene	1.0	U	10.0	9.64		ug/L		96	80 - 123	2	35
trans-1,3-Dichloropropene	1.0	U	10.0	6.64		ug/L		66	65 - 125	2	35
1,1,2-Trichloroethane	1.0	U	10.0	8.85		ug/L		88	77 - 127	2	35
Tetrachloroethene	23		10.0	29.2	F1	ug/L		59	70 - 135	6	35
2-Hexanone	5.0	U	20.0	14.5		ug/L		73	25 - 132	0	35
Dibromochloromethane	1.0	U	10.0	8.57		ug/L		86	60 - 140	5	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	8.92		ug/L		89	74 - 123	2	35
Chlorobenzene	1.0	U	10.0	9.49		ug/L		95	80 - 120	3	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	8.68		ug/L		87	63 - 140	0	34
Ethylbenzene	1.0	U	10.0	9.48		ug/L		95	72 - 126	3	33
Xylenes, Total	3.0	U	20.0	19.0		ug/L		95	76 - 128	4	32
Styrene	1.0	U	10.0	9.34		ug/L		93	71 - 127	1	34
Bromoform	1.0	U	10.0	8.58		ug/L		86	46 - 150	4	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.31		ug/L		93	62 - 125	3	35
1,4-Dioxane	200	U	200	159	J	ug/L		79	10 - 160	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*
Dibromofluoromethane (Surr)	*101*		*70 - 128*

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

Lab Sample ID: MB 180-134823/4
Matrix: Water
Analysis Batch: 134823

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			03/05/15 11:56	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/05/15 11:56	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/05/15 11:56	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 11:56	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/05/15 11:56	1
Acetone	5.0	U	5.0	2.5	ug/L			03/05/15 11:56	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/05/15 11:56	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/05/15 11:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/05/15 11:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/05/15 11:56	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/05/15 11:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/05/15 11:56	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/05/15 11:56	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/05/15 11:56	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/05/15 11:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/05/15 11:56	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/05/15 11:56	1
Benzene	1.0	U	1.0	0.11	ug/L			03/05/15 11:56	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/05/15 11:56	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/05/15 11:56	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/05/15 11:56	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/05/15 11:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/05/15 11:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/05/15 11:56	1
Toluene	1.0	U	1.0	0.15	ug/L			03/05/15 11:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/05/15 11:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 11:56	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/05/15 11:56	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/05/15 11:56	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/05/15 11:56	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/05/15 11:56	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/05/15 11:56	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/05/15 11:56	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/05/15 11:56	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/05/15 11:56	1
Styrene	1.0	U	1.0	0.097	ug/L			03/05/15 11:56	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/05/15 11:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/05/15 11:56	1
Acrylonitrile	20	U	20	0.55	ug/L			03/05/15 11:56	1
1,4-Dioxane	200	U	200	34	ug/L			03/05/15 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 135*		*03/05/15 11:56*	*1*
Toluene-d8 (Surr)	*104*		*71 - 118*		*03/05/15 11:56*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*03/05/15 11:56*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 128*		*03/05/15 11:56*	*1*

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

Lab Sample ID: LCS 180-134823/6
Matrix: Water
Analysis Batch: 134823

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	7.71		ug/L		77	50 - 139
Vinyl chloride	10.0	8.46		ug/L		85	53 - 138
Bromomethane	10.0	8.33		ug/L		83	33 - 150
Chloroethane	10.0	8.74		ug/L		87	36 - 142
1,1-Dichloroethene	10.0	8.66		ug/L		87	65 - 136
Acetone	20.0	14.7		ug/L		73	22 - 150
Carbon disulfide	10.0	7.25		ug/L		72	54 - 132
Methylene Chloride	10.0	7.73		ug/L		77	63 - 129
trans-1,2-Dichloroethene	10.0	8.64		ug/L		86	73 - 126
Methyl tert-butyl ether	10.0	9.09		ug/L		91	64 - 123
1,1-Dichloroethane	10.0	8.28		ug/L		83	73 - 126
cis-1,2-Dichloroethene	10.0	8.88		ug/L		89	70 - 120
Bromochloromethane	10.0	10.1		ug/L		101	70 - 127
2-Butanone (MEK)	20.0	14.4		ug/L		72	39 - 138
Chloroform	10.0	8.67		ug/L		87	72 - 127
1,1,1-Trichloroethane	10.0	8.12		ug/L		81	63 - 133
Carbon tetrachloride	10.0	8.69		ug/L		87	55 - 150
Benzene	10.0	9.75		ug/L		97	80 - 120
1,2-Dichloroethane	10.0	9.78		ug/L		98	68 - 132
Trichloroethene	10.0	9.37		ug/L		94	73 - 120
1,2-Dichloropropane	10.0	8.56		ug/L		86	76 - 124
Bromodichloromethane	10.0	8.29		ug/L		83	66 - 130
cis-1,3-Dichloropropene	10.0	7.63		ug/L		76	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	18.1		ug/L		91	45 - 145
Toluene	10.0	11.1		ug/L		111	80 - 123
trans-1,3-Dichloropropene	10.0	9.15		ug/L		92	65 - 125
1,1,2-Trichloroethane	10.0	11.1		ug/L		111	77 - 127
Tetrachloroethene	10.0	11.9		ug/L		119	70 - 135
2-Hexanone	20.0	18.8		ug/L		94	25 - 132
Dibromochloromethane	10.0	10.6		ug/L		106	60 - 140
1,2-Dibromoethane (EDB)	10.0	11.1		ug/L		111	74 - 123
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.82		ug/L		98	63 - 140
Ethylbenzene	10.0	10.4		ug/L		104	72 - 126
Xylenes, Total	20.0	20.2		ug/L		101	76 - 128
Styrene	10.0	10.5		ug/L		105	71 - 127
Bromoform	10.0	11.5		ug/L		115	46 - 150
1,1,2,2-Tetrachloroethane	10.0	11.8		ug/L		118	62 - 125
1,4-Dioxane	200	268		ug/L		134	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 135*
Toluene-d8 (Surr)	*106*		*71 - 118*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*
Dibromofluoromethane (Surr)	*99*		*70 - 128*

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

Lab Sample ID: MB 180-134916/6
Matrix: Water
Analysis Batch: 134916

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			03/06/15 13:13	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/06/15 13:13	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/06/15 13:13	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/06/15 13:13	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/06/15 13:13	1
Acetone	5.0	U	5.0	2.5	ug/L			03/06/15 13:13	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/06/15 13:13	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/06/15 13:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/06/15 13:13	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/06/15 13:13	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/06/15 13:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/06/15 13:13	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/06/15 13:13	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/06/15 13:13	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/06/15 13:13	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/06/15 13:13	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/06/15 13:13	1
Benzene	1.0	U	1.0	0.11	ug/L			03/06/15 13:13	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/06/15 13:13	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/06/15 13:13	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/06/15 13:13	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/06/15 13:13	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/06/15 13:13	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/06/15 13:13	1
Toluene	1.0	U	1.0	0.15	ug/L			03/06/15 13:13	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/06/15 13:13	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/06/15 13:13	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/06/15 13:13	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/06/15 13:13	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/06/15 13:13	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/06/15 13:13	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/06/15 13:13	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/06/15 13:13	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/06/15 13:13	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/06/15 13:13	1
Styrene	1.0	U	1.0	0.097	ug/L			03/06/15 13:13	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/06/15 13:13	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/06/15 13:13	1
Acrylonitrile	20	U	20	0.55	ug/L			03/06/15 13:13	1
1,4-Dioxane	200	U	200	34	ug/L			03/06/15 13:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/06/15 13:13*	*1*
Toluene-d8 (Surr)	*104*		*71 - 118*		*03/06/15 13:13*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*03/06/15 13:13*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*03/06/15 13:13*	*1*

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

Lab Sample ID: LCS 180-134916/9
Matrix: Water
Analysis Batch: 134916

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	9.70		ug/L		97	50 - 139
Vinyl chloride	10.0	10.1		ug/L		101	53 - 138
Bromomethane	10.0	12.6		ug/L		126	33 - 150
Chloroethane	10.0	12.5		ug/L		125	36 - 142
1,1-Dichloroethene	10.0	9.63		ug/L		96	65 - 136
Acetone	20.0	18.7		ug/L		94	22 - 150
Carbon disulfide	10.0	8.40		ug/L		84	54 - 132
Methylene Chloride	10.0	10.3		ug/L		103	63 - 129
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	73 - 126
Methyl tert-butyl ether	10.0	7.22		ug/L		72	64 - 123
1,1-Dichloroethane	10.0	9.74		ug/L		97	73 - 126
cis-1,2-Dichloroethene	10.0	9.88		ug/L		99	70 - 120
Bromochloromethane	10.0	9.90		ug/L		99	70 - 127
2-Butanone (MEK)	20.0	15.9		ug/L		80	39 - 138
Chloroform	10.0	9.78		ug/L		98	72 - 127
1,1,1-Trichloroethane	10.0	8.21		ug/L		82	63 - 133
Carbon tetrachloride	10.0	9.04		ug/L		90	55 - 150
Benzene	10.0	9.85		ug/L		98	80 - 120
1,2-Dichloroethane	10.0	9.90		ug/L		99	68 - 132
Trichloroethene	10.0	10.2		ug/L		102	73 - 120
1,2-Dichloropropane	10.0	9.03		ug/L		90	76 - 124
Bromodichloromethane	10.0	9.34		ug/L		93	66 - 130
cis-1,3-Dichloropropene	10.0	6.59		ug/L		66	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.3		ug/L		82	45 - 145
Toluene	10.0	11.1		ug/L		111	80 - 123
trans-1,3-Dichloropropene	10.0	5.81	*	ug/L		58	65 - 125
1,1,2-Trichloroethane	10.0	9.94		ug/L		99	77 - 127
Tetrachloroethene	10.0	11.1		ug/L		111	70 - 135
2-Hexanone	20.0	14.6		ug/L		73	25 - 132
Dibromochloromethane	10.0	9.97		ug/L		100	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.16		ug/L		92	74 - 123
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.28		ug/L		93	63 - 140
Ethylbenzene	10.0	10.5		ug/L		105	72 - 126
Xylenes, Total	20.0	21.4		ug/L		107	76 - 128
Styrene	10.0	10.4		ug/L		104	71 - 127
Bromoform	10.0	9.88		ug/L		99	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	62 - 125
1,4-Dioxane	200	173	J	ug/L		86	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*
Toluene-d8 (Surr)	*98*		*71 - 118*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*
Dibromofluoromethane (Surr)	*94*		*70 - 128*

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

Lab Sample ID: MB 180-135049/4
Matrix: Water
Analysis Batch: 135049

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			03/09/15 12:47	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/09/15 12:47	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/09/15 12:47	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 12:47	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/09/15 12:47	1
Acetone	5.0	U	5.0	2.5	ug/L			03/09/15 12:47	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/09/15 12:47	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/09/15 12:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/09/15 12:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/09/15 12:47	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/09/15 12:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/09/15 12:47	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/09/15 12:47	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/09/15 12:47	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/09/15 12:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/09/15 12:47	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
Benzene	1.0	U	1.0	0.11	ug/L			03/09/15 12:47	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 12:47	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/09/15 12:47	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/09/15 12:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/09/15 12:47	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/09/15 12:47	1
Toluene	1.0	U	1.0	0.15	ug/L			03/09/15 12:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/09/15 12:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 12:47	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/09/15 12:47	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/09/15 12:47	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/09/15 12:47	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/09/15 12:47	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/09/15 12:47	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/09/15 12:47	1
Styrene	1.0	U	1.0	0.097	ug/L			03/09/15 12:47	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/09/15 12:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 12:47	1
Acrylonitrile	20	U	20	0.55	ug/L			03/09/15 12:47	1
1,4-Dioxane	200	U	200	34	ug/L			03/09/15 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*03/09/15 12:47*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/09/15 12:47*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*03/09/15 12:47*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*03/09/15 12:47*	*1*

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

Lab Sample ID: LCS 180-135049/7
Matrix: Water
Analysis Batch: 135049

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	9.63		ug/L		96	50 - 139
Vinyl chloride	10.0	9.31		ug/L		93	53 - 138
Bromomethane	10.0	13.8		ug/L		138	33 - 150
Chloroethane	10.0	12.6		ug/L		126	36 - 142
1,1-Dichloroethene	10.0	10.7		ug/L		107	65 - 136
Acetone	20.0	20.2		ug/L		101	22 - 150
Carbon disulfide	10.0	10.8		ug/L		108	54 - 132
Methylene Chloride	10.0	10.5		ug/L		105	63 - 129
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	73 - 126
Methyl tert-butyl ether	10.0	8.12		ug/L		81	64 - 123
1,1-Dichloroethane	10.0	10.7		ug/L		107	73 - 126
cis-1,2-Dichloroethene	10.0	10.8		ug/L		108	70 - 120
Bromochloromethane	10.0	10.7		ug/L		107	70 - 127
2-Butanone (MEK)	20.0	19.4		ug/L		97	39 - 138
Chloroform	10.0	11.0		ug/L		110	72 - 127
1,1,1-Trichloroethane	10.0	8.93		ug/L		89	63 - 133
Carbon tetrachloride	10.0	10.2		ug/L		102	55 - 150
Benzene	10.0	10.8		ug/L		108	80 - 120
1,2-Dichloroethane	10.0	10.9		ug/L		109	68 - 132
Trichloroethene	10.0	10.9		ug/L		109	73 - 120
1,2-Dichloropropane	10.0	9.77		ug/L		98	76 - 124
Bromodichloromethane	10.0	10.5		ug/L		105	66 - 130
cis-1,3-Dichloropropene	10.0	7.29		ug/L		73	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.9		ug/L		90	45 - 145
Toluene	10.0	11.5		ug/L		115	80 - 123
trans-1,3-Dichloropropene	10.0	6.33	*	ug/L		63	65 - 125
1,1,2-Trichloroethane	10.0	11.2		ug/L		112	77 - 127
Tetrachloroethene	10.0	11.9		ug/L		119	70 - 135
2-Hexanone	20.0	16.4		ug/L		82	25 - 132
Dibromochloromethane	10.0	11.0		ug/L		110	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.66		ug/L		97	74 - 123
Chlorobenzene	10.0	11.1		ug/L		111	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	63 - 140
Ethylbenzene	10.0	11.3		ug/L		113	72 - 126
Xylenes, Total	20.0	22.2		ug/L		111	76 - 128
Styrene	10.0	10.7		ug/L		107	71 - 127
Bromoform	10.0	10.0		ug/L		100	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	62 - 125
1,4-Dioxane	200	155	J	ug/L		77	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*104*		*71 - 118*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*
Dibromofluoromethane (Surr)	*105*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-134309/6
Matrix: Water
Analysis Batch: 134309

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	0.10	U	0.10	0.0062	mg/L			02/26/15 08:43	1
Chloride	0.273	J	1.0	0.20	mg/L			02/26/15 08:43	1
Sulfate	1.0	U	1.0	0.21	mg/L			02/26/15 08:43	1

Lab Sample ID: LCS 180-134309/5
Matrix: Water
Analysis Batch: 134309

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	2.72		mg/L		109	90 - 110
Chloride	50.0	50.6		mg/L		101	90 - 110
Sulfate	50.0	50.3		mg/L		101	90 - 110

Lab Sample ID: 180-41508-1 MS
Matrix: Water
Analysis Batch: 134309

Client Sample ID: HD-MW-98I-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	2.4		1.25	3.61		mg/L		99	80 - 120
Chloride	69	B	25.0	92.8		mg/L		97	80 - 120
Sulfate	40		25.0	64.7		mg/L		97	80 - 120

Lab Sample ID: 180-41508-1 MSD
Matrix: Water
Analysis Batch: 134309

Client Sample ID: HD-MW-98I-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	2.4		1.25	3.59		mg/L		98	80 - 120	0	20
Chloride	69	B	25.0	92.1		mg/L		94	80 - 120	1	20
Sulfate	40		25.0	64.6		mg/L		96	80 - 120	0	20

Lab Sample ID: 180-41508-5 MS
Matrix: Water
Analysis Batch: 134309

Client Sample ID: HD-MW-99D-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	2.2		1.25	3.49		mg/L		104	80 - 120
Chloride	49	B	25.0	74.8		mg/L		102	80 - 120
Sulfate	25		25.0	49.9		mg/L		99	80 - 120

Lab Sample ID: 180-41508-5 MSD
Matrix: Water
Analysis Batch: 134309

Client Sample ID: HD-MW-99D-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	2.2		1.25	3.51		mg/L		106	80 - 120	1	20
Chloride	49	B	25.0	75.5		mg/L		105	80 - 120	1	20
Sulfate	25		25.0	50.5		mg/L		101	80 - 120	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-41508-1 MS
Matrix: Water
Analysis Batch: 134662

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA
Prep Batch: 134395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	120000		50000	172000		ug/L		98	75 - 125
Potassium	3500		50000	54000		ug/L		101	75 - 125
Magnesium	15000		50000	66500		ug/L		103	75 - 125
Sodium	31000		50000	78700		ug/L		96	75 - 125

Lab Sample ID: 180-41508-1 MSD
Matrix: Water
Analysis Batch: 134662

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA
Prep Batch: 134395

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	120000		50000	170000		ug/L		93	75 - 125	1	20
Potassium	3500		50000	53700		ug/L		100	75 - 125	1	20
Magnesium	15000		50000	66400		ug/L		103	75 - 125	0	20
Sodium	31000		50000	77500		ug/L		94	75 - 125	2	20

Lab Sample ID: MB 180-134395/1-A
Matrix: Water
Analysis Batch: 134662

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 134395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100	U	100	2.8	ug/L		02/27/15 08:47	03/03/15 11:02	1
Potassium	100	U	100	5.8	ug/L		02/27/15 08:47	03/03/15 11:02	1
Magnesium	100	U	100	1.2	ug/L		02/27/15 08:47	03/03/15 11:02	1
Sodium	100	U	100	3.8	ug/L		02/27/15 08:47	03/03/15 11:02	1

Lab Sample ID: LCS 180-134395/2-A
Matrix: Water
Analysis Batch: 134662

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 134395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	53500		ug/L		107	80 - 120
Potassium	50000	51400		ug/L		103	80 - 120
Magnesium	50000	53700		ug/L		107	80 - 120
Sodium	50000	50100		ug/L		100	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-134561/2
Matrix: Water
Analysis Batch: 134561

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	2.04	J	5.0	0.41	mg/L			03/03/15 05:29	1
Bicarbonate Alkalinity as CaCO3	2.04	J	5.0	0.41	mg/L			03/03/15 05:29	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/03/15 05:29	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 180-134561/1
Matrix: Water
Analysis Batch: 134561

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	220		mg/L		88	80 - 120		

Lab Sample ID: 180-41508-1 DU
Matrix: Water
Analysis Batch: 134561

Client Sample ID: HD-MW-98I-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	290	B		279		mg/L				2	20
Bicarbonate Alkalinity as CaCO3	290	B		279		mg/L				2	20
Carbonate Alkalinity as CaCO3	5.0	U		5.0	U	mg/L				NC	20

Lab Sample ID: 180-41508-12 DU
Matrix: Water
Analysis Batch: 134561

Client Sample ID: HD-CW-13-0/1-0
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	260	B		273		mg/L				4	20
Bicarbonate Alkalinity as CaCO3	260	B		273		mg/L				4	20
Carbonate Alkalinity as CaCO3	5.0	U		5.0	U	mg/L				NC	20

GC/MS VOA

Analysis Batch: 134814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-1	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
180-41508-1 MS	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
180-41508-1 MSD	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
180-41508-2	HD-QC3-0/1-2	Total/NA	Water	8260C	
180-41508-3	HD-MW-98S-0/1-0	Total/NA	Water	8260C	
180-41508-4	HD-MW-99S-0/1-0	Total/NA	Water	8260C	
LCS 180-134814/12	Lab Control Sample	Total/NA	Water	8260C	
MB 180-134814/9	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 134823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-5	HD-MW-99D-0/1-0	Total/NA	Water	8260C	
180-41508-7	HD-MW-147A-0/1-0	Total/NA	Water	8260C	
LCS 180-134823/6	Lab Control Sample	Total/NA	Water	8260C	
MB 180-134823/4	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 134916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-6	HD-MW-145A-0/1-0	Total/NA	Water	8260C	
180-41508-8	HD-MW-100S-0/1-0	Total/NA	Water	8260C	
180-41508-9	HD-MW-100I-0/1-0	Total/NA	Water	8260C	
180-41508-11	HD-CW-15A-0/1-0	Total/NA	Water	8260C	
180-41508-12	HD-CW-13-0/1-0	Total/NA	Water	8260C	
180-41508-13	HD-CW-20-0/1-0	Total/NA	Water	8260C	
180-41508-14	HD-CW-9-0/1-0	Total/NA	Water	8260C	
LCS 180-134916/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-134916/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 135049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-10	HD-MW-100D-0/1-0	Total/NA	Water	8260C	
LCS 180-135049/7	Lab Control Sample	Total/NA	Water	8260C	
MB 180-135049/4	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 134309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-1	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-41508-1 MS	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-41508-1 MSD	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-41508-3	HD-MW-98S-0/1-0	Total/NA	Water	300.0	
180-41508-4	HD-MW-99S-0/1-0	Total/NA	Water	300.0	
180-41508-5	HD-MW-99D-0/1-0	Total/NA	Water	300.0	
180-41508-5 MS	HD-MW-99D-0/1-0	Total/NA	Water	300.0	
180-41508-5 MSD	HD-MW-99D-0/1-0	Total/NA	Water	300.0	
180-41508-6	HD-MW-145A-0/1-0	Total/NA	Water	300.0	
180-41508-7	HD-MW-147A-0/1-0	Total/NA	Water	300.0	
180-41508-8	HD-MW-100S-0/1-0	Total/NA	Water	300.0	
180-41508-9	HD-MW-100I-0/1-0	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 134309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-10	HD-MW-100D-0/1-0	Total/NA	Water	300.0	
180-41508-11	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-41508-11	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-41508-12	HD-CW-13-0/1-0	Total/NA	Water	300.0	
180-41508-13	HD-CW-20-0/1-0	Total/NA	Water	300.0	
180-41508-14	HD-CW-9-0/1-0	Total/NA	Water	300.0	
LCS 180-134309/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-134309/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 134395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-1	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-41508-1 MS	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-41508-1 MSD	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-41508-1 PDS	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-41508-1 SD	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-41508-3	HD-MW-98S-0/1-0	Total/NA	Water	3005A	
180-41508-4	HD-MW-99S-0/1-0	Total/NA	Water	3005A	
180-41508-5	HD-MW-99D-0/1-0	Total/NA	Water	3005A	
180-41508-6	HD-MW-145A-0/1-0	Total/NA	Water	3005A	
180-41508-7	HD-MW-147A-0/1-0	Total/NA	Water	3005A	
180-41508-8	HD-MW-100S-0/1-0	Total/NA	Water	3005A	
180-41508-9	HD-MW-100I-0/1-0	Total/NA	Water	3005A	
180-41508-10	HD-MW-100D-0/1-0	Total/NA	Water	3005A	
180-41508-11	HD-CW-15A-0/1-0	Total/NA	Water	3005A	
180-41508-12	HD-CW-13-0/1-0	Total/NA	Water	3005A	
180-41508-13	HD-CW-20-0/1-0	Total/NA	Water	3005A	
180-41508-14	HD-CW-9-0/1-0	Total/NA	Water	3005A	
LCS 180-134395/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-134395/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 134662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-1	HD-MW-98I-0/1-0	Total/NA	Water	6020A	134395
180-41508-1 MS	HD-MW-98I-0/1-0	Total/NA	Water	6020A	134395
180-41508-1 MSD	HD-MW-98I-0/1-0	Total/NA	Water	6020A	134395
180-41508-1 PDS	HD-MW-98I-0/1-0	Total/NA	Water	6020A	134395
180-41508-1 SD	HD-MW-98I-0/1-0	Total/NA	Water	6020A	134395
180-41508-3	HD-MW-98S-0/1-0	Total/NA	Water	6020A	134395
180-41508-4	HD-MW-99S-0/1-0	Total/NA	Water	6020A	134395
180-41508-5	HD-MW-99D-0/1-0	Total/NA	Water	6020A	134395
180-41508-6	HD-MW-145A-0/1-0	Total/NA	Water	6020A	134395
180-41508-7	HD-MW-147A-0/1-0	Total/NA	Water	6020A	134395
180-41508-8	HD-MW-100S-0/1-0	Total/NA	Water	6020A	134395
180-41508-9	HD-MW-100I-0/1-0	Total/NA	Water	6020A	134395
180-41508-10	HD-MW-100D-0/1-0	Total/NA	Water	6020A	134395
180-41508-11	HD-CW-15A-0/1-0	Total/NA	Water	6020A	134395
180-41508-12	HD-CW-13-0/1-0	Total/NA	Water	6020A	134395

Metals (Continued)

Analysis Batch: 134662 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-13	HD-CW-20-0/1-0	Total/NA	Water	6020A	134395
180-41508-14	HD-CW-9-0/1-0	Total/NA	Water	6020A	134395
CRI 180-134662/54	DL		Water	6020A	
CRI 180-134662/8	DL		Water	6020A	
ICSA 180-134662/9	ICS		Water	6020A	
ICSAB 180-134662/10	ICS		Water	6020A	
LCS 180-134395/2-A	Lab Control Sample	Total Recoverable	Water	6020A	134395
MB 180-134395/1-A	Method Blank	Total Recoverable	Water	6020A	134395

General Chemistry

Analysis Batch: 134561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41508-1	HD-MW-98I-0/1-0	Total/NA	Water	SM 2320B	
180-41508-1 DU	HD-MW-98I-0/1-0	Total/NA	Water	SM 2320B	
180-41508-3	HD-MW-98S-0/1-0	Total/NA	Water	SM 2320B	
180-41508-4	HD-MW-99S-0/1-0	Total/NA	Water	SM 2320B	
180-41508-5	HD-MW-99D-0/1-0	Total/NA	Water	SM 2320B	
180-41508-6	HD-MW-145A-0/1-0	Total/NA	Water	SM 2320B	
180-41508-7	HD-MW-147A-0/1-0	Total/NA	Water	SM 2320B	
180-41508-8	HD-MW-100S-0/1-0	Total/NA	Water	SM 2320B	
180-41508-9	HD-MW-100I-0/1-0	Total/NA	Water	SM 2320B	
180-41508-10	HD-MW-100D-0/1-0	Total/NA	Water	SM 2320B	
180-41508-11	HD-CW-15A-0/1-0	Total/NA	Water	SM 2320B	
180-41508-12	HD-CW-13-0/1-0	Total/NA	Water	SM 2320B	
180-41508-12 DU	HD-CW-13-0/1-0	Total/NA	Water	SM 2320B	
180-41508-13	HD-CW-20-0/1-0	Total/NA	Water	SM 2320B	
180-41508-14	HD-CW-9-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-134561/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-134561/2	Method Blank	Total/NA	Water	SM 2320B	

Client Sample ID: HD-MW-98I-0/1-0

Lab Sample ID: 180-41508-1

Date Collected: 02/25/15 09:35

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134814	03/05/15 13:46	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 16:01	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 11:10	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-2

Date Collected: 02/25/15 12:00

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134814	03/05/15 14:10	DLF	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-MW-98S-0/1-0

Lab Sample ID: 180-41508-3

Date Collected: 02/25/15 10:25

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134814	03/05/15 21:13	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 17:17	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 11:44	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-99S-0/1-0

Lab Sample ID: 180-41508-4

Date Collected: 02/25/15 12:45

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134814	03/05/15 21:37	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 17:33	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT

Client Sample ID: HD-MW-99S-0/1-0

Lab Sample ID: 180-41508-4

Date Collected: 02/25/15 12:45

Matrix: Water

Date Received: 02/26/15 10:00

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	134662	03/03/15 11:48	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-99D-0/1-0

Lab Sample ID: 180-41508-5

Date Collected: 02/25/15 13:35

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	134823	03/05/15 19:49	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 15:15	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 11:52	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-145A-0/1-0

Lab Sample ID: 180-41508-6

Date Collected: 02/25/15 11:40

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134916	03/06/15 16:42	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 14:14	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 11:56	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-7

Date Collected: 02/25/15 13:30

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134823	03/05/15 21:00	DLF	TAL PIT
	Instrument ID: CHHP6									

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

Lab Sample ID: 180-41508-7

Date Collected: 02/25/15 13:30

Matrix: Water

Date Received: 02/26/15 10:00

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	1.0 mL	134309	02/26/15 15:00	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:13	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-8

Date Collected: 02/25/15 12:25

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	5 mL	5 mL	134916	03/06/15 17:06	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 17:48	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:17	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-9

Date Collected: 02/25/15 11:45

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	134916	03/06/15 17:31	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 18:03	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:21	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-10

Date Collected: 02/25/15 10:40

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	135049	03/09/15 16:07	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 18:19	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:25	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-11

Date Collected: 02/25/15 06:40

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	5 mL	5 mL	134916	03/06/15 18:43	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 18:34	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL	1.0 mL	134309	02/26/15 18:49	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:30	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-12

Date Collected: 02/25/15 06:55

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	5 mL	5 mL	134916	03/06/15 19:07	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 13:28	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:34	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

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

Lab Sample ID: 180-41508-13

Date Collected: 02/25/15 06:45

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	5 mL	5 mL	134916	03/06/15 19:56	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 14:29	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:38	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41508-14

Date Collected: 02/25/15 06:50

Matrix: Water

Date Received: 02/26/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		12.5	5 mL	5 mL	134916	03/06/15 20:19	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134309	02/26/15 14:44	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134395	02/27/15 08:47	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 12:42	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134561	03/03/15 05:29	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

DLF = Donald Ferguson

MJH = Matthew Hartman

WTR = Bill Reinheimer

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

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

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41508-1

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: 180-41508-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-41508-1	HD-MW-98I-0/1-0	Water	02/25/15 09:35	02/26/15 10:00
180-41508-2	HD-QC3-0/1-2	Water	02/25/15 12:00	02/26/15 10:00
180-41508-3	HD-MW-98S-0/1-0	Water	02/25/15 10:25	02/26/15 10:00
180-41508-4	HD-MW-99S-0/1-0	Water	02/25/15 12:45	02/26/15 10:00
180-41508-5	HD-MW-99D-0/1-0	Water	02/25/15 13:35	02/26/15 10:00
180-41508-6	HD-MW-145A-0/1-0	Water	02/25/15 11:40	02/26/15 10:00
180-41508-7	HD-MW-147A-0/1-0	Water	02/25/15 13:30	02/26/15 10:00
180-41508-8	HD-MW-100S-0/1-0	Water	02/25/15 12:25	02/26/15 10:00
180-41508-9	HD-MW-100I-0/1-0	Water	02/25/15 11:45	02/26/15 10:00
180-41508-10	HD-MW-100D-0/1-0	Water	02/25/15 10:40	02/26/15 10:00
180-41508-11	HD-CW-15A-0/1-0	Water	02/25/15 06:40	02/26/15 10:00
180-41508-12	HD-CW-13-0/1-0	Water	02/25/15 06:55	02/26/15 10:00
180-41508-13	HD-CW-20-0/1-0	Water	02/25/15 06:45	02/26/15 10:00
180-41508-14	HD-CW-9-0/1-0	Water	02/25/15 06:50	02/26/15 10:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 134613

Lab Sample ID: IC 180-134613/8 Client Sample ID:

Date Analyzed: 03/03/15 14:28 Lab File ID: 50303008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.31	Peak Tail	fergusond	03/04/15 09:28
1,4-Dioxane	8.07	Peak Tail	fergusond	03/04/15 09:20

Lab Sample ID: ICIS 180-134613/9 Client Sample ID:

Date Analyzed: 03/03/15 14:52 Lab File ID: 50303009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.32	Peak Tail	fergusond	03/04/15 09:28
1,4-Dioxane	8.06	Peak Tail	fergusond	03/04/15 09:25

Lab Sample ID: IC 180-134613/10 Client Sample ID:

Date Analyzed: 03/03/15 15:16 Lab File ID: 50303010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.32	Peak Tail	fergusond	03/04/15 09:31

Lab Sample ID: IC 180-134613/11 Client Sample ID:

Date Analyzed: 03/03/15 15:40 Lab File ID: 50303011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.32	Peak Tail	fergusond	03/04/15 09:33
tert-Butyl alcohol	4.45	Peak Tail	fergusond	03/04/15 09:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 134613

Lab Sample ID: IC 180-134613/12 Client Sample ID:

Date Analyzed: 03/03/15 16:04 Lab File ID: 50303012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
tert-Butyl alcohol	4.45	Peak Tail	fergusond	03/04/15 09:37

Lab Sample ID: IC 180-134613/13 Client Sample ID:

Date Analyzed: 03/03/15 16:28 Lab File ID: 50303013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
tert-Butyl alcohol	4.45	Peak Tail	fergusond	03/04/15 09:39

Lab Sample ID: IC 180-134613/18 Client Sample ID:

Date Analyzed: 03/03/15 18:29 Lab File ID: 50303018.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Peak Tail	fergusond	03/04/15 09:45
Cyclohexane	6.59	Split Peak	fergusond	03/04/15 09:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 134814

Lab Sample ID: CCVIS 180-134814/7 Client Sample ID:

Date Analyzed: 03/05/15 12:16 Lab File ID: 50305007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.27	Baseline	fergusond	03/05/15 12:58
1,4-Dioxane	8.06	Peak Tail	fergusond	03/05/15 12:58

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 134916

Lab Sample ID: 180-41508-13 Client Sample ID: HD-CW-20-0/1-0

Date Analyzed: 03/06/15 19:56 Lab File ID: 50306022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.39	Split Peak	fergusond	03/09/15 10:11

Lab Sample ID: 180-41508-14 Client Sample ID: HD-CW-9-0/1-0

Date Analyzed: 03/06/15 20:19 Lab File ID: 50306023.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.36	Split Peak	fergusond	03/09/15 10:13

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 135049

Lab Sample ID: 180-41508-10 Client Sample ID: HD-MW-100D-0/1-0

Date Analyzed: 03/09/15 16:07 Lab File ID: 50309011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.64	Split Peak	fergusond	03/10/15 08:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 131929

Lab Sample ID: IC 180-131929/6 Client Sample ID:

Date Analyzed: 01/28/15 13:58 Lab File ID: 60128006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Poor chromatography	fergusond	01/29/15 10:25
Chloroethane	2.39	Poor chromatography	fergusond	01/29/15 10:25
Acrylonitrile	4.55	Poor chromatography	fergusond	01/29/15 10:25
Methyl tert-butyl ether	4.61	Split Peak	fergusond	01/29/15 10:25
1,1-Dichloroethane	5.25	Split Peak	fergusond	01/29/15 10:25
1,1,1,2-Tetrachloroethane	10.56	Poor chromatography	fergusond	01/29/15 10:25

Lab Sample ID: IC 180-131929/7 Client Sample ID:

Date Analyzed: 01/28/15 14:21 Lab File ID: 60128007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorofluoromethane	2.68	Baseline	fergusond	01/29/15 10:28
1,4-Dioxane	8.08	Peak Tail	fergusond	01/29/15 10:31
2-Hexanone	9.70	Baseline	fergusond	01/29/15 10:31

Lab Sample ID: ICIS 180-131929/8 Client Sample ID:

Date Analyzed: 01/28/15 14:45 Lab File ID: 60128008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.94	Peak Tail	fergusond	01/29/15 11:08

Lab Sample ID: IC 180-131929/9 Client Sample ID:

Date Analyzed: 01/28/15 15:09 Lab File ID: 60128009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Peak Tail	fergusond	01/29/15 10:51
1,4-Dioxane	8.07	Poor chromatography	fergusond	01/29/15 10:54

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 131929

Lab Sample ID: IC 180-131929/10 Client Sample ID:

Date Analyzed: 01/28/15 15:33 Lab File ID: 60128010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.08	Peak Tail	fergusond	01/29/15 10:53

Lab Sample ID: IC 180-131929/11 Client Sample ID:

Date Analyzed: 01/28/15 15:57 Lab File ID: 60128011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.08	Poor chromatography	fergusond	01/29/15 10:59

Lab Sample ID: IC 180-131929/12 Client Sample ID:

Date Analyzed: 01/28/15 16:21 Lab File ID: 60128012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	01/29/15 11:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 134823

Lab Sample ID: CCVIS 180-134823/2 Client Sample ID:

Date Analyzed: 03/05/15 10:37 Lab File ID: 60305002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.07	Peak Tail	fergusond	03/05/15 11:08

Lab Sample ID: LCS 180-134823/6 Client Sample ID:

Date Analyzed: 03/05/15 13:01 Lab File ID: 60305006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.07	Peak Tail	fergusond	03/05/15 14:57

Lab Sample ID: 180-41508-7 Client Sample ID: HD-MW-147A-0/1-0

Date Analyzed: 03/05/15 21:00 Lab File ID: 60305026.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.38	Split Peak	fergusond	03/06/15 09:17
Methyl tert-butyl ether	4.59	Split Peak	fergusond	03/06/15 09:17
1,1-Dichloroethane	5.26	Split Peak	fergusond	03/06/15 09:17
1,1,1-Trichloroethane	6.58	Split Peak	fergusond	03/06/15 09:17

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01175	02/26/15	02/25/15	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_01207	02/26/15	02/25/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00004	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00004	03/01/15	inorganic ventures, Lot H2-MEB512078			(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_00155	02/18/15	02/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00200	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00200	02/18/15	02/17/15	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
							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
ICSTDL3_00194	02/18/15	02/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00200	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL
							Nitrate as N	0.25 ug/mL
							Orthophosphate as P	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL
.ICSTDL6_00200	02/18/15	02/17/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					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
ICSTDL4_00131	02/18/15	02/17/15	DI Water, Lot na	5 mL	ICSTDL7_00131	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_00131	02/18/15	02/17/15	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_00132	02/18/15	02/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00131	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_00131	02/18/15	02/17/15	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.: 180-41508-1

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_00200	02/18/15	02/17/15	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
ICSTDL7_00131	02/18/15	02/17/15	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
ICSTDL8_00101	02/19/15	02/18/15	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_00106	02/19/15	02/18/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

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_00061	02/26/15	01/26/15	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_00067	03/20/15	02/20/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

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_00063	03/20/15	02/20/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

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_00029	02/23/15	01/23/15	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

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_00027	01/30/15	12/30/14	Methanol, Lot 85233	10 mL	VOA8260INTRES_00051	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_00051	02/01/18	Restek, Lot A093504			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00029	03/13/15	02/13/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00090	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_00090	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_00029	01/30/15	12/30/14	Methanol, Lot 85233	100 mL	VOA8260SURRES_00075	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_00075	01/31/19	Restek, Lot A0101000			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00031	03/13/15	02/13/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00062	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_00062	01/31/19	Restek, Lot A0100424			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00105	03/12/15	03/05/15	Methanol, Lot 85233	8 mL	VOA8260GAS2ND_00086	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00103	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00086	11/30/15		Restek, Lot A099261		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOA2ND_00103	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00027	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00027	02/28/16		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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00097	01/28/15	01/21/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00081	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_00094	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00081	09/30/16		Restek, Lot A0105755		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00094	01/31/15	12/31/14	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00030	0.2 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00025	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00030	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00025	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00102	03/04/15	02/25/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00086	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_00101	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00086	09/30/16		Restek, Lot A0105755		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00101	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00036	0.2 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_00027	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00036	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00027	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00104	03/12/15	03/05/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00088	0.08 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00101	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00088	09/30/16		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00101	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00027	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
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00027	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-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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

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
							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
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
VOAKETONEPRI_00003	02/20/15	01/20/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00034	0.125 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_00034	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
VOAVAPRI_00003	03/12/15	02/12/15	Methanol, Lot 85233	20 mL	VOA8260VARES_00047	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00047	04/30/15		Restek, Lot A0106957		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
voaWAcropri R_00006	02/02/15	01/02/15	Methanol, Lot 85233	50 mL	VOAACRORES_00062	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00062	02/28/15		Restek, Lot A0106504		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWeemixpri_00001	01/29/15	12/29/14	Methanol, Lot 85233	25 mL	VOARESEE1ST_00017	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00017	02/28/15		Restek, Lot A097285		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWEEpri Res_00003	03/30/15	03/02/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00008	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00008	02/28/15		Restek, Lot A097285		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWket2 Rest_00001	03/08/15	02/06/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00040	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00040	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_00003	03/26/15	02/24/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00037	0.125 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_00037	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
voaWVApri Res_00001	02/06/15	01/06/15	Methanol, Lot 85233	20 mL	VOA8260VARES_00049	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00049	04/30/15	Restek, Lot A0106957			(Purchased Reagent)		Vinyl acetate	4000 ug/mL
WALK125PPMCCV_00081	08/25/15	02/25/15	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_00090	08/25/15	02/25/15	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_00004

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 **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** **Ion Chromatography** **Custom Second Source Solution**

Catalog No.: TA-17

Lot Number: **H2-MEB512078**

Matrix: H2O

500 mg/L ea:
Chloride, Sulfate,

100 mg/L ea:
Bromide,

25 mg/L ea:
Fluoride, Nitrate as N, o-Phosphate 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**

ION	CERTIFIED VALUE	ION	CERTIFIED VALUE	ION	CERTIFIED VALUE
Bromide	100.0 ± 0.6 mg/L	Chloride	500.1 ± 3.1 mg/L	Fluoride	25.00 ± 0.13 mg/L
Nitrate as N	25.00 ± 0.15 mg/L	o-Phosphate as P	25.00 ± 0.20 mg/L	Sulfate	500.0 ± 2.6 mg/L

Certified Density: 1.002 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 $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{\frac{1}{2}}$ 2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{\frac{1}{2}}$ = 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 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

ION	METHOD	NIST SRM#	SRM LOT#
Bromide	IC Assay	3184	020701
Bromide	Volhard	999b	999b
Chloride	IC Assay	3182	060925
Chloride	Volhard	999b	999b
Fluoride	Calculated		See Sec. 4.2
Fluoride	IC Assay	3183	050721
Nitrate_as_N	Calculated		See Sec. 4.2
Nitrate_as_N	IC Assay	3185	050517
oPhosphate_as_P	Calculated		See Sec. 4.2
oPhosphate_as_P	IC Assay	3186	090723
Sulfate	Calculated		See Sec. 4.2
Sulfate	IC Assay	3181	080603

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 Chromatogram - 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.

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.

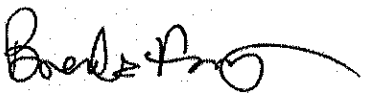
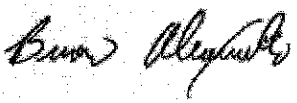
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations 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: February 05, 2014

Expiration Date: EXPIRES 01 MAR 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

M6020ICS-0A_00005

INORGANIC™ VENTURES

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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

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

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

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

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 **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.

SPEX CertiPrep®
Your Science is Our Passion®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

MMSICSAB-1_00007

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 **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.

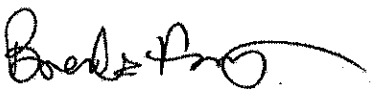
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations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

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 **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

INORGANIC VENTURES

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

tel. 800.669.6799 · 540.585.3030
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

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

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 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.

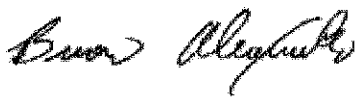
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

MTAPITTMSA_00023

1407255
1407256
1407257

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

tel: 800.669.6799 · 540.585.3030
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. 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 01/2015

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
1407261
1407262

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

tel: 800.669.6799 540.585.3030
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

VOA8260GAS1ST_00081

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567645 **Lot No.:** A0105755

Description : 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : September 30, 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q16A-86) **Purity** 99%	1,996.9 µg/mL	+/- 16.4920 µg/mL +/- 25.3820 µg/mL +/- 28.4359 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,003.6 µg/mL	+/- 13.5945 µg/mL +/- 23.6556 µg/mL +/- 26.9268 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,001.1 µg/mL	+/- 27.3546 µg/mL +/- 33.4976 µg/mL +/- 35.8765 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	1,999.9 µg/mL	+/- 23.4547 µg/mL +/- 30.3891 µg/mL +/- 32.9901 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	1,998.7 µg/mL	+/- 30.0266 µg/mL +/- 35.7004 µg/mL +/- 37.9363 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,000.1 µg/mL	+/- 18.0935 µg/mL +/- 26.4730 µg/mL +/- 29.4228 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	1,999.1 µg/mL	+/- 17.9677 µg/mL +/- 26.3801 µg/mL +/- 29.3364 µg/mL	Gravimetric Unstressed Stressed
8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBD5121V) **Purity** 99%	2,001.1 µg/mL	+/- 24.2299 µg/mL +/- 30.9989 µg/mL +/- 33.5557 µg/mL	Gravimetric Unstressed Stressed

Reagent

VOA8260GAS1ST_00086

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567645 **Lot No.:** A0105755

Description : 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : September 30, 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q16A-86) **Purity** 99%	1,996.9 µg/mL	+/- 16.4920 µg/mL +/- 25.3820 µg/mL +/- 28.4359 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,003.6 µg/mL	+/- 13.5945 µg/mL +/- 23.6556 µg/mL +/- 26.9268 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,001.1 µg/mL	+/- 27.3546 µg/mL +/- 33.4976 µg/mL +/- 35.8765 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	1,999.9 µg/mL	+/- 23.4547 µg/mL +/- 30.3891 µg/mL +/- 32.9901 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	1,998.7 µg/mL	+/- 30.0266 µg/mL +/- 35.7004 µg/mL +/- 37.9363 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,000.1 µg/mL	+/- 18.0935 µg/mL +/- 26.4730 µg/mL +/- 29.4228 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	1,999.1 µg/mL	+/- 17.9677 µg/mL +/- 26.3801 µg/mL +/- 29.3364 µg/mL	Gravimetric Unstressed Stressed
8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBD5121V) **Purity** 99%	2,001.1 µg/mL	+/- 24.2299 µg/mL +/- 30.9989 µg/mL +/- 33.5557 µg/mL	Gravimetric Unstressed Stressed

Reagent

VOA8260GAS1ST_00088

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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 +/- 32.6918 +/- 36.4326	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,509.8 µg/mL	+/- 19.6377 +/- 31.2039 +/- 35.1185	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,515.3 µg/mL	+/- 22.1368 +/- 32.8734 +/- 36.6254	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	2,498.0 µg/mL	+/- 23.6713 +/- 33.8065 +/- 37.4176	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,503.7 µg/mL	+/- 30.8470 +/- 39.2011 +/- 42.3685	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,507.7 µg/mL	+/- 21.9404 +/- 32.6873 +/- 36.4370	µg/mL µg/mL 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 +/- 35.4965 +/- 38.9583	µg/mL µg/mL 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)

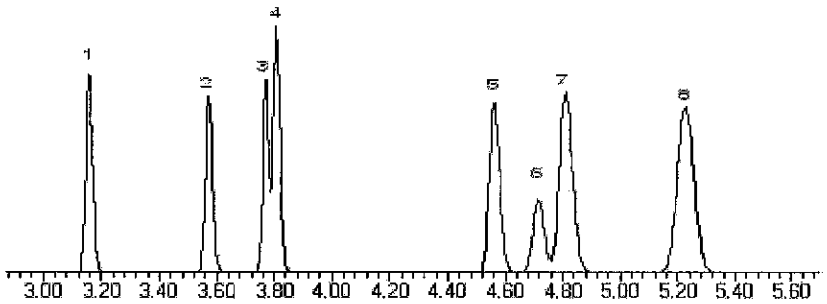
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

VOA8260GAS2ND_00086

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567645.sec **Lot No.:** A099261

Description : 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : November 30, 2015 **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)	2,002.2 µg/mL	+/- 16.7616 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/- 21.2987 µg/mL	Unstressed
	Purity 99%		+/- 24.7536 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/- 15.8216 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 21.2729 µg/mL	Unstressed
	Purity 99%		+/- 24.7262 µg/mL	Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/- 14.6785 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 21.2759 µg/mL	Unstressed
	Purity 99%		+/- 24.7329 µg/mL	Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/- 16.7307 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 21.3051 µg/mL	Unstressed
	Purity 99%		+/- 24.7611 µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/- 16.2313 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 21.2671 µg/mL	Unstressed
	Purity 99%		+/- 24.7183 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/- 14.6721 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 21.2666 µg/mL	Unstressed
	Purity 99%		+/- 24.7221 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/- 15.1665 µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 21.3071 µg/mL	Unstressed
	Purity 99%		+/- 24.7678 µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/- 16.2157 µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/- 21.2894 µg/mL	Unstressed
	Purity 99%		+/- 24.7442 µg/mL	Stressed

Reagent

VOA8260INTRES_00051

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567649 **Lot No.:** A093504

Description : 8260 Internal Standard

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

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

Expiration Date : February 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 25725-11-5		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
2	Fluorobenzene	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 462-06-6		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 17647-74-4		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3114-55-4		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3855-82-1		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed

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

Reagent

VOA8260INTRES_00090

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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_00030

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 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	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

Reagent

VOA8260KET1ST_00034

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 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	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

Reagent

VOA8260KET1ST_00036

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 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	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

Reagent

VOA8260KET1ST_00037

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 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	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

Reagent

VOA8260KET2ND_00040

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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_00025

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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)

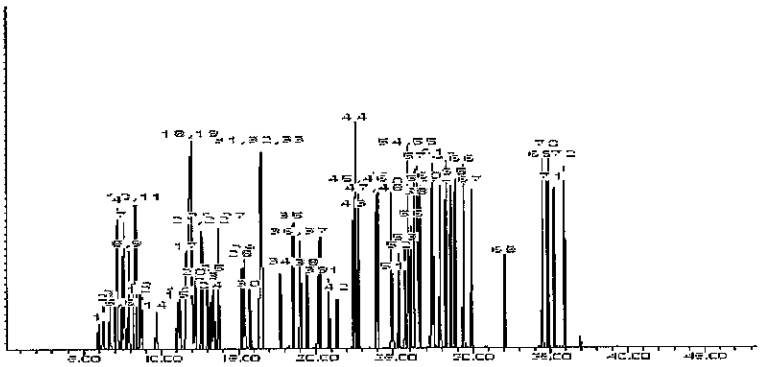
Carrier Gas:
helium-constant pressure 30 psi

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

VOA8260MEGA1_00027

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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)

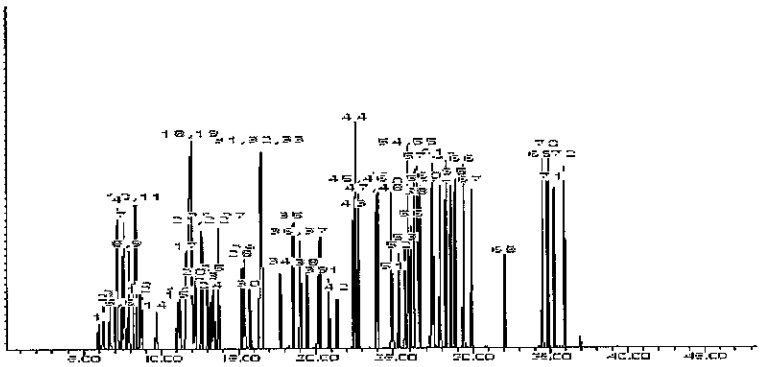
Carrier Gas:
helium-constant pressure 30 psi

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_00027

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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.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 **CAS #** 108-87-2.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	40,000.0	µg/mL	+/- 232.5513 +/- 885.0582 +/- 888.6665	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 97%	2,000.1	µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 98%	2,000.0	µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,1,2-Trichloroethane **CAS #** 79-00-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	2,000.1	µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene **CAS #** 108-38-3.SEC **Purity** 99%	1,000.0	µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	1,000.0	µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed 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)

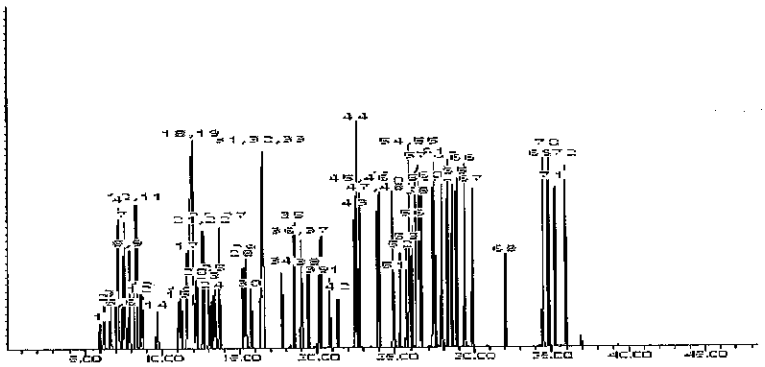
Carrier Gas:
helium-constant pressure 30 psi

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_00062

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0100424

Description : 8260 Surrogate Standard

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

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

Expiration Date : January 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 022012) **Purity** 99%	2,502.2 µg/mL	+/- 14.5480 µg/mL +/- 28.2159 µg/mL +/- 32.4683 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 12K-027) **Purity** 99%	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 28.2046 µg/mL +/- 32.4554 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.8 µg/mL	+/- 14.5399 µg/mL +/- 28.2001 µg/mL +/- 32.4502 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,501.4 µg/mL	+/- 14.5434 µg/mL +/- 28.2069 µg/mL +/- 32.4580 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260SURRES_00075

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0101000

Description : 8260 Surrogate Standard

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

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

Expiration Date : January 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane	2,509.6 µg/mL	+/- 14.5910 µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 022012)		+/- 28.2993 µg/mL	Unstressed
	Purity 99%		+/- 32.5644 µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,508.2 µg/mL	+/- 14.5829 µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 12K-027)		+/- 28.2836 µg/mL	Unstressed
	Purity 99%		+/- 32.5462 µg/mL	Stressed
3	Toluene-d8	2,508.8 µg/mL	+/- 14.5864 µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot 13I-050)		+/- 28.2903 µg/mL	Unstressed
	Purity 99%		+/- 32.5540 µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,509.8 µg/mL	+/- 14.5922 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 01127COV)		+/- 28.3016 µg/mL	Unstressed
	Purity 99%		+/- 32.5670 µg/mL	Stressed

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

Reagent

VOA8260VARES_00047

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 567646 **Lot No.:** A0106957

Description : 8260 List 1 / Std #6 Vinyl Acetate

8260 List 1 / Std #6 Vinyl Acetate 4000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : April 30, 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	4,027.0 µg/mL	+/- 23.6327	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBC8935V)		+/- 214.3321	µg/mL	Unstressed
	Purity 99%		+/- 214.5684	µg/mL	Stressed

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

Tech Tips:

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

Reagent

VOA8260VARES_00049

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 567646 **Lot No.:** A0106957

Description : 8260 List 1 / Std #6 Vinyl Acetate

8260 List 1 / Std #6 Vinyl Acetate 4000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : April 30, 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	4,027.0 µg/mL	+/- 23.6327	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBC8935V)		+/- 214.3321	µg/mL	Unstressed
	Purity 99%		+/- 214.5684	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_00062

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0106504

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 : February 28, 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		19,767.0 µg/mL	+/- 115.7401	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 140903JLM)		+/- 633.7922	µg/mL	Unstressed
	Purity 99%			+/- 736.7140	µg/mL	Stressed

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

Reagent

VOAACRORES_00064

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

VOARESEE1ST_00008

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL **Lot No.:** A097285

Description : Custom EE Standard

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

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

Expiration Date : February 28, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3-Chlorobenzotrifluoride		5,001.0 µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 98-15-7	(Lot 21324DO)		+/- 53.0822	µg/mL	Unstressed
	Purity 99%			+/- 61.7282	µg/mL	Stressed
2	4-Chlorobenzotrifluoride		5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric
	CAS # 98-56-6	(Lot 08507BO)		+/- 53.1034	µg/mL	Unstressed
	Purity 99%			+/- 61.7529	µg/mL	Stressed
3	2-Chlorobenzotrifluoride		5,005.0 µg/mL	+/- 29.3721	µg/mL	Gravimetric
	CAS # 88-16-4	(Lot I0316DQ)		+/- 53.1247	µg/mL	Unstressed
	Purity 99%			+/- 61.7775	µg/mL	Stressed
4	3-Chlorotoluene		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 108-41-8	(Lot 13528LX)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride		5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
	CAS # 320-60-5	(Lot MKBL3552V)		+/- 53.0928	µg/mL	Unstressed
	Purity 99%			+/- 61.7405	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 328-84-7	(Lot 11105EJV)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 320-50-3	(Lot 04415DSV)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
8	2,4-Dichlorotoluene		5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
	CAS # 95-73-8	(Lot 07715JS)		+/- 53.0928	µg/mL	Unstressed
	Purity 99%			+/- 61.7405	µg/mL	Stressed

9	2,5-Dichlorotoluene		5,000.0	µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 19398-61-9	(Lot 10119CU)			+/- 53.0716	µg/mL	Unstressed
	Purity 99%				+/- 61.7158	µg/mL	Stressed
10	2,6-Dichlorotoluene		5,001.0	µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 118-69-4	(Lot 16921JS)			+/- 53.0822	µg/mL	Unstressed
	Purity 99%				+/- 61.7282	µg/mL	Stressed
11	3,4-Dichlorotoluene		5,003.0	µg/mL	+/- 29.3604	µg/mL	Gravimetric
	CAS # 95-75-0	(Lot 09419AS)			+/- 53.1034	µg/mL	Unstressed
	Purity 99%				+/- 61.7529	µg/mL	Stressed
12	2,3-Dichlorotoluene		5,008.0	µg/mL	+/- 29.3897	µg/mL	Gravimetric
	CAS # 32768-54-0	(Lot 00317)			+/- 53.1565	µg/mL	Unstressed
	Purity 99%				+/- 61.8146	µg/mL	Stressed
13	2,4,5-Trichlorotoluene		5,001.0	µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 6639-30-1	(Lot 1767300)			+/- 53.0822	µg/mL	Unstressed
	Purity 99%				+/- 61.7282	µg/mL	Stressed
14	2,3,6-Trichlorotoluene		5,001.0	µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 2077-46-5	(Lot RM01250)			+/- 53.0822	µg/mL	Unstressed
	Purity 99%				+/- 61.7282	µg/mL	Stressed

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

Reagent

VOARESEE1ST_00017

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL **Lot No.:** A097285

Description : Custom EE Standard

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

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

Expiration Date : February 28, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3-Chlorobenzotrifluoride		5,001.0 µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 98-15-7	(Lot 21324DO)		+/- 53.0822	µg/mL	Unstressed
	Purity 99%			+/- 61.7282	µg/mL	Stressed
2	4-Chlorobenzotrifluoride		5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric
	CAS # 98-56-6	(Lot 08507BO)		+/- 53.1034	µg/mL	Unstressed
	Purity 99%			+/- 61.7529	µg/mL	Stressed
3	2-Chlorobenzotrifluoride		5,005.0 µg/mL	+/- 29.3721	µg/mL	Gravimetric
	CAS # 88-16-4	(Lot I0316DQ)		+/- 53.1247	µg/mL	Unstressed
	Purity 99%			+/- 61.7775	µg/mL	Stressed
4	3-Chlorotoluene		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 108-41-8	(Lot 13528LX)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride		5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
	CAS # 320-60-5	(Lot MKBL3552V)		+/- 53.0928	µg/mL	Unstressed
	Purity 99%			+/- 61.7405	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 328-84-7	(Lot 11105EJV)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 320-50-3	(Lot 04415DSV)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
8	2,4-Dichlorotoluene		5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
	CAS # 95-73-8	(Lot 07715JS)		+/- 53.0928	µg/mL	Unstressed
	Purity 99%			+/- 61.7405	µg/mL	Stressed

9	2,5-Dichlorotoluene		5,000.0	µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 19398-61-9	(Lot 10119CU)			+/- 53.0716	µg/mL	Unstressed
	Purity 99%				+/- 61.7158	µg/mL	Stressed
10	2,6-Dichlorotoluene		5,001.0	µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 118-69-4	(Lot 16921JS)			+/- 53.0822	µg/mL	Unstressed
	Purity 99%				+/- 61.7282	µg/mL	Stressed
11	3,4-Dichlorotoluene		5,003.0	µg/mL	+/- 29.3604	µg/mL	Gravimetric
	CAS # 95-75-0	(Lot 09419AS)			+/- 53.1034	µg/mL	Unstressed
	Purity 99%				+/- 61.7529	µg/mL	Stressed
12	2,3-Dichlorotoluene		5,008.0	µg/mL	+/- 29.3897	µg/mL	Gravimetric
	CAS # 32768-54-0	(Lot 00317)			+/- 53.1565	µg/mL	Unstressed
	Purity 99%				+/- 61.8146	µg/mL	Stressed
13	2,4,5-Trichlorotoluene		5,001.0	µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 6639-30-1	(Lot 1767300)			+/- 53.0822	µg/mL	Unstressed
	Purity 99%				+/- 61.7282	µg/mL	Stressed
14	2,3,6-Trichlorotoluene		5,001.0	µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 2077-46-5	(Lot RM01250)			+/- 53.0822	µg/mL	Unstressed
	Purity 99%				+/- 61.7282	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-98I-0/1-0	180-41508-1	98	98	102	103
HD-QC3-0/1-2	180-41508-2	97	94	103	103
HD-MW-98S-0/1-0	180-41508-3	96	100	100	98
HD-MW-99S-0/1-0	180-41508-4	96	97	107	108
HD-MW-99D-0/1-0	180-41508-5	107	111	111	93
HD-MW-145A-0/1-0	180-41508-6	102	101	101	98
HD-MW-147A-0/1-0	180-41508-7	104	111	109	93
HD-MW-100S-0/1-0	180-41508-8	96	97	103	102
HD-MW-100I-0/1-0	180-41508-9	97	97	101	99
HD-MW-100D-0/1-0	180-41508-10	99	97	103	100
HD-CW-15A-0/1-0	180-41508-11	100	98	100	96
HD-CW-13-0/1-0	180-41508-12	97	99	105	102
HD-CW-20-0/1-0	180-41508-13	102	99	102	101
HD-CW-9-0/1-0	180-41508-14	99	100	100	102
	MB 180-134814/9	94	97	104	106
	MB 180-134823/4	104	114	104	91
	MB 180-134916/6	100	99	104	101
	MB 180-135049/4	102	98	102	105
	LCS 180-134814/12	94	96	104	95
	LCS 180-134823/6	99	103	106	96
	LCS 180-134916/9	94	95	98	92
	LCS 180-135049/7	105	104	104	95
HD-MW-98I-0/1-0 MS	180-41508-1 MS	100	101	108	101
HD-MW-98I-0/1-0 MSD	180-41508-1 MSD	101	95	103	94

	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50305012.D

Lab ID: LCS 180-134814/12 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.78	98	50-139	
Vinyl chloride	10.0	9.77	98	53-138	
Bromomethane	10.0	11.6	116	33-150	
Chloroethane	10.0	11.8	118	36-142	
1,1-Dichloroethene	10.0	9.64	96	65-136	
Acetone	20.0	19.7	99	22-150	
Carbon disulfide	10.0	8.05	80	54-132	
Methylene Chloride	10.0	9.31	93	63-129	
trans-1,2-Dichloroethene	10.0	9.97	100	73-126	
Methyl tert-butyl ether	10.0	8.34	83	64-123	
1,1-Dichloroethane	10.0	9.56	96	73-126	
cis-1,2-Dichloroethene	10.0	9.79	98	70-120	
Bromochloromethane	10.0	9.73	97	70-127	
2-Butanone (MEK)	20.0	19.3	96	39-138	
Chloroform	10.0	9.95	100	72-127	
1,1,1-Trichloroethane	10.0	8.77	88	63-133	
Carbon tetrachloride	10.0	9.37	94	55-150	
Benzene	10.0	10.1	101	80-120	
1,2-Dichloroethane	10.0	9.46	95	68-132	
Trichloroethene	10.0	10.5	105	73-120	
1,2-Dichloropropane	10.0	9.25	93	76-124	
Bromodichloromethane	10.0	9.35	93	66-130	
cis-1,3-Dichloropropene	10.0	7.58	76	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.7	88	45-145	
Toluene	10.0	10.9	109	80-123	
trans-1,3-Dichloropropene	10.0	7.19	72	65-125	
1,1,2-Trichloroethane	10.0	9.97	100	77-127	
Tetrachloroethene	10.0	11.5	115	70-135	
2-Hexanone	20.0	16.2	81	25-132	
Dibromochloromethane	10.0	9.49	95	60-140	
1,2-Dibromoethane (EDB)	10.0	9.91	99	74-123	
Chlorobenzene	10.0	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.28	93	63-140	
Ethylbenzene	10.0	10.9	109	72-126	
Xylenes, Total	20.0	20.9	105	76-128	
Styrene	10.0	10.2	102	71-127	
Bromoform	10.0	9.07	91	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.1	101	62-125	
1,4-Dioxane	200	165 J	82	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60305006.D

Lab ID: LCS 180-134823/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.71	77	50-139	
Vinyl chloride	10.0	8.46	85	53-138	
Bromomethane	10.0	8.33	83	33-150	
Chloroethane	10.0	8.74	87	36-142	
1,1-Dichloroethene	10.0	8.66	87	65-136	
Acetone	20.0	14.7	73	22-150	
Carbon disulfide	10.0	7.25	72	54-132	
Methylene Chloride	10.0	7.73	77	63-129	
trans-1,2-Dichloroethene	10.0	8.64	86	73-126	
Methyl tert-butyl ether	10.0	9.09	91	64-123	
1,1-Dichloroethane	10.0	8.28	83	73-126	
cis-1,2-Dichloroethene	10.0	8.88	89	70-120	
Bromochloromethane	10.0	10.1	101	70-127	
2-Butanone (MEK)	20.0	14.4	72	39-138	
Chloroform	10.0	8.67	87	72-127	
1,1,1-Trichloroethane	10.0	8.12	81	63-133	
Carbon tetrachloride	10.0	8.69	87	55-150	
Benzene	10.0	9.75	97	80-120	
1,2-Dichloroethane	10.0	9.78	98	68-132	
Trichloroethene	10.0	9.37	94	73-120	
1,2-Dichloropropane	10.0	8.56	86	76-124	
Bromodichloromethane	10.0	8.29	83	66-130	
cis-1,3-Dichloropropene	10.0	7.63	76	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.1	91	45-145	
Toluene	10.0	11.1	111	80-123	
trans-1,3-Dichloropropene	10.0	9.15	92	65-125	
1,1,2-Trichloroethane	10.0	11.1	111	77-127	
Tetrachloroethene	10.0	11.9	119	70-135	
2-Hexanone	20.0	18.8	94	25-132	
Dibromochloromethane	10.0	10.6	106	60-140	
1,2-Dibromoethane (EDB)	10.0	11.1	111	74-123	
Chlorobenzene	10.0	10.7	107	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.82	98	63-140	
Ethylbenzene	10.0	10.4	104	72-126	
Xylenes, Total	20.0	20.2	101	76-128	
Styrene	10.0	10.5	105	71-127	
Bromoform	10.0	11.5	115	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.8	118	62-125	
1,4-Dioxane	200	268	134	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50306009.D

Lab ID: LCS 180-134916/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.70	97	50-139	
Vinyl chloride	10.0	10.1	101	53-138	
Bromomethane	10.0	12.6	126	33-150	
Chloroethane	10.0	12.5	125	36-142	
1,1-Dichloroethene	10.0	9.63	96	65-136	
Acetone	20.0	18.7	94	22-150	
Carbon disulfide	10.0	8.40	84	54-132	
Methylene Chloride	10.0	10.3	103	63-129	
trans-1,2-Dichloroethene	10.0	10.1	101	73-126	
Methyl tert-butyl ether	10.0	7.22	72	64-123	
1,1-Dichloroethane	10.0	9.74	97	73-126	
cis-1,2-Dichloroethene	10.0	9.88	99	70-120	
Bromochloromethane	10.0	9.90	99	70-127	
2-Butanone (MEK)	20.0	15.9	80	39-138	
Chloroform	10.0	9.78	98	72-127	
1,1,1-Trichloroethane	10.0	8.21	82	63-133	
Carbon tetrachloride	10.0	9.04	90	55-150	
Benzene	10.0	9.85	98	80-120	
1,2-Dichloroethane	10.0	9.90	99	68-132	
Trichloroethene	10.0	10.2	102	73-120	
1,2-Dichloropropane	10.0	9.03	90	76-124	
Bromodichloromethane	10.0	9.34	93	66-130	
cis-1,3-Dichloropropene	10.0	6.59	66	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.3	82	45-145	
Toluene	10.0	11.1	111	80-123	
trans-1,3-Dichloropropene	10.0	5.81	58	65-125	*
1,1,2-Trichloroethane	10.0	9.94	99	77-127	
Tetrachloroethene	10.0	11.1	111	70-135	
2-Hexanone	20.0	14.6	73	25-132	
Dibromochloromethane	10.0	9.97	100	60-140	
1,2-Dibromoethane (EDB)	10.0	9.16	92	74-123	
Chlorobenzene	10.0	10.7	107	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.28	93	63-140	
Ethylbenzene	10.0	10.5	105	72-126	
Xylenes, Total	20.0	21.4	107	76-128	
Styrene	10.0	10.4	104	71-127	
Bromoform	10.0	9.88	99	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	62-125	
1,4-Dioxane	200	173 J	86	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50309007.D

Lab ID: LCS 180-135049/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.63	96	50-139	
Vinyl chloride	10.0	9.31	93	53-138	
Bromomethane	10.0	13.8	138	33-150	
Chloroethane	10.0	12.6	126	36-142	
1,1-Dichloroethene	10.0	10.7	107	65-136	
Acetone	20.0	20.2	101	22-150	
Carbon disulfide	10.0	10.8	108	54-132	
Methylene Chloride	10.0	10.5	105	63-129	
trans-1,2-Dichloroethene	10.0	11.0	110	73-126	
Methyl tert-butyl ether	10.0	8.12	81	64-123	
1,1-Dichloroethane	10.0	10.7	107	73-126	
cis-1,2-Dichloroethene	10.0	10.8	108	70-120	
Bromochloromethane	10.0	10.7	107	70-127	
2-Butanone (MEK)	20.0	19.4	97	39-138	
Chloroform	10.0	11.0	110	72-127	
1,1,1-Trichloroethane	10.0	8.93	89	63-133	
Carbon tetrachloride	10.0	10.2	102	55-150	
Benzene	10.0	10.8	108	80-120	
1,2-Dichloroethane	10.0	10.9	109	68-132	
Trichloroethene	10.0	10.9	109	73-120	
1,2-Dichloropropane	10.0	9.77	98	76-124	
Bromodichloromethane	10.0	10.5	105	66-130	
cis-1,3-Dichloropropene	10.0	7.29	73	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.9	90	45-145	
Toluene	10.0	11.5	115	80-123	
trans-1,3-Dichloropropene	10.0	6.33	63	65-125	*
1,1,2-Trichloroethane	10.0	11.2	112	77-127	
Tetrachloroethene	10.0	11.9	119	70-135	
2-Hexanone	20.0	16.4	82	25-132	
Dibromochloromethane	10.0	11.0	110	60-140	
1,2-Dibromoethane (EDB)	10.0	9.66	97	74-123	
Chlorobenzene	10.0	11.1	111	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	63-140	
Ethylbenzene	10.0	11.3	113	72-126	
Xylenes, Total	20.0	22.2	111	76-128	
Styrene	10.0	10.7	107	71-127	
Bromoform	10.0	10.0	100	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.8	108	62-125	
1,4-Dioxane	200	155 J	77	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50305013.D

Lab ID: 180-41508-1 MS Client ID: HD-MW-98I-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	10.0	100	50-139	
Vinyl chloride	10.0	1.0 U	9.66	97	53-138	
Bromomethane	10.0	1.0 U	11.0	110	33-150	
Chloroethane	10.0	1.0 U	12.0	120	36-142	
1,1-Dichloroethene	10.0	1.4	10.5	91	65-136	
Acetone	20.0	5.0 U	19.7	99	22-150	
Carbon disulfide	10.0	1.0 U	8.06	81	54-132	
Methylene Chloride	10.0	1.0 U	8.75	87	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	9.61	96	73-126	
Methyl tert-butyl ether	10.0	1.0 U	8.12	81	64-123	
1,1-Dichloroethane	10.0	0.55 J	9.65	91	73-126	
cis-1,2-Dichloroethene	10.0	20	28.0	76	70-120	
Bromochloromethane	10.0	1.0 U	9.49	95	70-127	
2-Butanone (MEK)	20.0	5.0 U	16.9	84	39-138	
Chloroform	10.0	1.0 U	9.53	95	72-127	
1,1,1-Trichloroethane	10.0	3.5	11.6	81	63-133	
Carbon tetrachloride	10.0	1.0 U	9.15	92	55-150	
Benzene	10.0	1.0 U	9.24	92	80-120	
1,2-Dichloroethane	10.0	1.0 U	9.03	90	68-132	
Trichloroethene	10.0	20	27.8	76	73-120	
1,2-Dichloropropane	10.0	1.0 U	8.80	88	76-124	
Bromodichloromethane	10.0	1.0 U	8.53	85	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	7.09	71	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	16.1	81	45-145	
Toluene	10.0	1.0 U	9.86	99	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	6.52	65	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	9.06	91	77-127	
Tetrachloroethene	10.0	23	31.1	78	70-135	
2-Hexanone	20.0	5.0 U	14.5	72	25-132	
Dibromochloromethane	10.0	1.0 U	8.98	90	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	8.71	87	74-123	
Chlorobenzene	10.0	1.0 U	9.81	98	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	8.65	86	63-140	
Ethylbenzene	10.0	1.0 U	9.79	98	72-126	
Xylenes, Total	20.0	3.0 U	19.7	99	76-128	
Styrene	10.0	1.0 U	9.44	94	71-127	
Bromoform	10.0	1.0 U	8.94	89	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.64	96	62-125	
1,4-Dioxane	200	200 U	140 J	70	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50305014.D

Lab ID: 180-41508-1 MSD Client ID: HD-MW-98I-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	9.51	95	6	35	50-139	
Vinyl chloride	10.0	9.06	91	6	35	53-138	
Bromomethane	10.0	11.1	111	1	35	33-150	
Chloroethane	10.0	11.5	115	4	35	36-142	
1,1-Dichloroethene	10.0	10.3	89	2	35	65-136	
Acetone	20.0	19.1	95	3	35	22-150	
Carbon disulfide	10.0	7.55	75	7	35	54-132	
Methylene Chloride	10.0	9.20	92	5	35	63-129	
trans-1,2-Dichloroethene	10.0	9.30	93	3	35	73-126	
Methyl tert-butyl ether	10.0	8.13	81	0	35	64-123	
1,1-Dichloroethane	10.0	9.19	86	5	35	73-126	
cis-1,2-Dichloroethene	10.0	27.5	71	2	35	70-120	
Bromochloromethane	10.0	9.12	91	4	35	70-127	
2-Butanone (MEK)	20.0	17.0	85	0	35	39-138	
Chloroform	10.0	9.49	95	0	35	72-127	
1,1,1-Trichloroethane	10.0	11.4	79	2	35	63-133	
Carbon tetrachloride	10.0	8.80	88	4	35	55-150	
Benzene	10.0	9.21	92	0	32	80-120	
1,2-Dichloroethane	10.0	8.84	88	2	32	68-132	
Trichloroethene	10.0	26.7	65	4	35	73-120	F1
1,2-Dichloropropane	10.0	8.89	89	1	34	76-124	
Bromodichloromethane	10.0	8.61	86	1	35	66-130	
cis-1,3-Dichloropropene	10.0	7.18	72	1	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.5	82	2	35	45-145	
Toluene	10.0	9.64	96	2	35	80-123	
trans-1,3-Dichloropropene	10.0	6.64	66	2	35	65-125	
1,1,2-Trichloroethane	10.0	8.85	88	2	35	77-127	
Tetrachloroethene	10.0	29.2	59	6	35	70-135	F1
2-Hexanone	20.0	14.5	73	0	35	25-132	
Dibromochloromethane	10.0	8.57	86	5	35	60-140	
1,2-Dibromoethane (EDB)	10.0	8.92	89	2	35	74-123	
Chlorobenzene	10.0	9.49	95	3	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	8.68	87	0	34	63-140	
Ethylbenzene	10.0	9.48	95	3	33	72-126	
Xylenes, Total	20.0	19.0	95	4	32	76-128	
Styrene	10.0	9.34	93	1	34	71-127	
Bromoform	10.0	8.58	86	4	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.31	93	3	35	62-125	
1,4-Dioxane	200	159 J	79	12	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.: 180-41508-1

SDG No.:

Lab File ID: 60305004.D Lab Sample ID: MB 180-134823/4

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

Instrument ID: CHHP6 Date Analyzed: 03/05/2015 11:56

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 180-134823/6	60305006.D	03/05/2015 13:01
HD-MW-99D-0/1-0	180-41508-5	60305023.D	03/05/2015 19:49
HD-MW-147A-0/1-0	180-41508-7	60305026.D	03/05/2015 21:00

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50305009.D Lab Sample ID: MB 180-134814/9

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

Instrument ID: CHHP5 Date Analyzed: 03/05/2015 13:05

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-98I-0/1-0	180-41508-1	50305010.D	03/05/2015 13:46
HD-QC3-0/1-2	180-41508-2	50305011.D	03/05/2015 14:10
	LCS 180-134814/12	50305012.D	03/05/2015 14:47
HD-MW-98I-0/1-0 MS	180-41508-1 MS	50305013.D	03/05/2015 15:11
HD-MW-98I-0/1-0 MSD	180-41508-1 MSD	50305014.D	03/05/2015 15:35
HD-MW-98S-0/1-0	180-41508-3	50305028.D	03/05/2015 21:13
HD-MW-99S-0/1-0	180-41508-4	50305029.D	03/05/2015 21:37

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50306006.D Lab Sample ID: MB 180-134916/6

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

Instrument ID: CHHP5 Date Analyzed: 03/06/2015 13:13

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 180-134916/9	50306009.D	03/06/2015 14:42
HD-MW-145A-0/1-0	180-41508-6	50306014.D	03/06/2015 16:42
HD-MW-100S-0/1-0	180-41508-8	50306015.D	03/06/2015 17:06
HD-MW-100I-0/1-0	180-41508-9	50306016.D	03/06/2015 17:31
HD-CW-15A-0/1-0	180-41508-11	50306019.D	03/06/2015 18:43
HD-CW-13-0/1-0	180-41508-12	50306020.D	03/06/2015 19:07
HD-CW-20-0/1-0	180-41508-13	50306022.D	03/06/2015 19:56
HD-CW-9-0/1-0	180-41508-14	50306023.D	03/06/2015 20:19

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50309004.D Lab Sample ID: MB 180-135049/4

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

Instrument ID: CHHP5 Date Analyzed: 03/09/2015 12:47

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 180-135049/7	50309007.D	03/09/2015 14:31
HD-MW-100D-0/1-0	180-41508-10	50309011.D	03/09/2015 16:07

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50303006.D BFB Injection Date: 03/03/2015

Instrument ID: CHHP5 BFB Injection Time: 12:21

Analysis Batch No.: 134613

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.6	
75	30.0 - 60.0 % of mass 95	46.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	73.0	
175	5.0 - 9.0 % of mass 174	5.5	(7.5)1
176	95.0 - 101.0 % of mass 174	72.9	(99.8)1
177	5.0 - 9.0 % of mass 176	4.6	(6.3)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
	IC 180-134613/8	50303008.D	03/03/2015	14:28
	ICIS 180-134613/9	50303009.D	03/03/2015	14:52
	IC 180-134613/10	50303010.D	03/03/2015	15:16
	IC 180-134613/11	50303011.D	03/03/2015	15:40
	IC 180-134613/12	50303012.D	03/03/2015	16:04
	IC 180-134613/13	50303013.D	03/03/2015	16:28
	IC 180-134613/14	50303014.D	03/03/2015	16:52
	IC 180-134613/18	50303018.D	03/03/2015	18:29

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50305006.D BFB Injection Date: 03/05/2015

Instrument ID: CHHP5 BFB Injection Time: 10:58

Analysis Batch No.: 134814

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.4	
75	30.0 - 60.0 % of mass 95	47.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.7	(0.8)1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	6.1	(7.5)1
176	95.0 - 101.0 % of mass 174	81.4	(99.6)1
177	5.0 - 9.0 % of mass 176	5.8	(7.2)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
	CCVIS 180-134814/7	50305007.D	03/05/2015	12:16
	MB 180-134814/9	50305009.D	03/05/2015	13:05
HD-MW-98I-0/1-0	180-41508-1	50305010.D	03/05/2015	13:46
HD-QC3-0/1-2	180-41508-2	50305011.D	03/05/2015	14:10
	LCS 180-134814/12	50305012.D	03/05/2015	14:47
HD-MW-98I-0/1-0 MS	180-41508-1 MS	50305013.D	03/05/2015	15:11
HD-MW-98I-0/1-0 MSD	180-41508-1 MSD	50305014.D	03/05/2015	15:35
HD-MW-98S-0/1-0	180-41508-3	50305028.D	03/05/2015	21:13
HD-MW-99S-0/1-0	180-41508-4	50305029.D	03/05/2015	21:37

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50306003.D BFB Injection Date: 03/06/2015

Instrument ID: CHHP5 BFB Injection Time: 10:53

Analysis Batch No.: 134916

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.3	
75	30.0 - 60.0 % of mass 95	50.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	78.6	
175	5.0 - 9.0 % of mass 174	6.8	(8.6)1
176	95.0 - 101.0 % of mass 174	79.1	(100.6)1
177	5.0 - 9.0 % of mass 176	5.1	(6.4)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-134916/4	50306004.D	03/06/2015	12:23
	MB 180-134916/6	50306006.D	03/06/2015	13:13
	LCS 180-134916/9	50306009.D	03/06/2015	14:42
HD-MW-145A-0/1-0	180-41508-6	50306014.D	03/06/2015	16:42
HD-MW-100S-0/1-0	180-41508-8	50306015.D	03/06/2015	17:06
HD-MW-100I-0/1-0	180-41508-9	50306016.D	03/06/2015	17:31
HD-CW-15A-0/1-0	180-41508-11	50306019.D	03/06/2015	18:43
HD-CW-13-0/1-0	180-41508-12	50306020.D	03/06/2015	19:07
HD-CW-20-0/1-0	180-41508-13	50306022.D	03/06/2015	19:56
HD-CW-9-0/1-0	180-41508-14	50306023.D	03/06/2015	20:19

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 50309001.D BFB Injection Date: 03/09/2015

Instrument ID: CHHP5 BFB Injection Time: 10:37

Analysis Batch No.: 135049

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	45.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.1	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	80.8	
175	5.0 - 9.0 % of mass 174	6.6	(8.2)1
176	95.0 - 101.0 % of mass 174	79.9	(98.8)1
177	5.0 - 9.0 % of mass 176	4.9	(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
	CCVIS 180-135049/2	50309002.D	03/09/2015	11:37
	MB 180-135049/4	50309004.D	03/09/2015	12:47
	LCS 180-135049/7	50309007.D	03/09/2015	14:31
HD-MW-100D-0/1-0	180-41508-10	50309011.D	03/09/2015	16:07

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 60128004.D BFB Injection Date: 01/28/2015

Instrument ID: CHHP6 BFB Injection Time: 11:55

Analysis Batch No.: 131929

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.1	
75	30.0 - 60.0 % of mass 95	48.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.5	(0.7)1
174	50.0 - 120.00 % of mass 95	64.3	
175	5.0 - 9.0 % of mass 174	4.8	(7.4)1
176	95.0 - 101.0 % of mass 174	64.5	(100.3)1
177	5.0 - 9.0 % of mass 176	4.6	(7.1)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-131929/6	60128006.D	01/28/2015	13:58
	IC 180-131929/7	60128007.D	01/28/2015	14:21
	ICIS 180-131929/8	60128008.D	01/28/2015	14:45
	IC 180-131929/9	60128009.D	01/28/2015	15:09
	IC 180-131929/10	60128010.D	01/28/2015	15:33
	IC 180-131929/11	60128011.D	01/28/2015	15:57
	IC 180-131929/12	60128012.D	01/28/2015	16:21
	IC 180-131929/13	60128013.D	01/28/2015	16:44

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: 60305001.D BFB Injection Date: 03/05/2015

Instrument ID: CHHP6 BFB Injection Time: 09:54

Analysis Batch No.: 134823

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	50.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	74.8	
175	5.0 - 9.0 % of mass 174	4.9	(6.5)1
176	95.0 - 101.0 % of mass 174	73.8	(98.6)1
177	5.0 - 9.0 % of mass 176	4.8	(6.5)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-134823/2	60305002.D	03/05/2015	10:37
	MB 180-134823/4	60305004.D	03/05/2015	11:56
	LCS 180-134823/6	60305006.D	03/05/2015	13:01
HD-MW-99D-0/1-0	180-41508-5	60305023.D	03/05/2015	19:49
HD-MW-147A-0/1-0	180-41508-7	60305026.D	03/05/2015	21:00

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-134814/7 Date Analyzed: 03/05/2015 12:16

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

Lab File ID (Standard): 50305007.D Heated Purge: (Y/N) N

Calibration ID: 22321

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		110089	4.30	455418	7.27	107822	10.37
UPPER LIMIT		220178	4.80	910836	7.77	215644	10.87
LOWER LIMIT		55045	3.80	227709	6.77	53911	9.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-134814/9		109928	4.31	473345	7.27	106986	10.36
180-41508-1	HD-MW-98I-0/1-0	100513	4.30	476697	7.27	111749	10.36
180-41508-2	HD-QC3-0/1-2	102430	4.30	478314	7.27	109225	10.36
LCS 180-134814/12		103201	4.29	447357	7.27	102383	10.36
180-41508-1 MS	HD-MW-98I-0/1-0 MS	99594	4.30	440529	7.27	103232	10.37
180-41508-1 MSD	HD-MW-98I-0/1-0 MSD	116836	4.31	466498	7.27	111087	10.36
180-41508-3	HD-MW-98S-0/1-0	65472	4.30	390456	7.27	90185	10.36
180-41508-4	HD-MW-99S-0/1-0	55883	4.29	405088	7.27	88541	10.36

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-134814/7 Date Analyzed: 03/05/2015 12:16

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

Lab File ID (Standard): 50305007.D Heated Purge: (Y/N) N

Calibration ID: 22321

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		151087	12.68				
UPPER LIMIT		302174	13.18				
LOWER LIMIT		75544	12.18				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-134814/9		171961	12.68				
180-41508-1	HD-MW-98I-0/1-0	171695	12.68				
180-41508-2	HD-QC3-0/1-2	171625	12.68				
LCS 180-134814/12		140823	12.68				
180-41508-1 MS	HD-MW-98I-0/1-0 MS	149011	12.69				
180-41508-1 MSD	HD-MW-98I-0/1-0 MSD	160870	12.68				
180-41508-3	HD-MW-98S-0/1-0	142932	12.68				
180-41508-4	HD-MW-99S-0/1-0	145919	12.68				

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-134916/4 Date Analyzed: 03/06/2015 12:23

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

Lab File ID (Standard): 50306004.D Heated Purge: (Y/N) N

Calibration ID: 22321

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		91937	4.31	441962	7.27	101049	10.36
UPPER LIMIT		183874	4.81	883924	7.77	202098	10.86
LOWER LIMIT		45969	3.81	220981	6.77	50525	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-134916/6		87938	4.30	465134	7.28	107771	10.36
LCS 180-134916/9		69432	4.31	417924	7.27	95027	10.36
180-41508-6	HD-MW-145A-0/1-0	71493	4.30	395586	7.28	93885	10.36
180-41508-8	HD-MW-100S-0/1-0	65826	4.31	381534	7.28	86655	10.36
180-41508-9	HD-MW-100I-0/1-0	62216	4.29	400233	7.27	90658	10.36
180-41508-11	HD-CW-15A-0/1-0	59791	4.30	389934	7.28	93434	10.36
180-41508-12	HD-CW-13-0/1-0	60132	4.29	393033	7.27	86819	10.36
180-41508-13	HD-CW-20-0/1-0	54068	4.31	385489	7.28	90736	10.36
180-41508-14	HD-CW-9-0/1-0	57503	4.29	374760	7.27	84827	10.36

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-134916/4 Date Analyzed: 03/06/2015 12:23

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

Lab File ID (Standard): 50306004.D Heated Purge: (Y/N) N

Calibration ID: 22321

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135554	12.68				
UPPER LIMIT		271108	13.18				
LOWER LIMIT		67777	12.18				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-134916/6		167302	12.69				
LCS 180-134916/9		137726	12.68				
180-41508-6	HD-MW-145A-0/1-0	137846	12.69				
180-41508-8	HD-MW-100S-0/1-0	136050	12.68				
180-41508-9	HD-MW-100I-0/1-0	128066	12.68				
180-41508-11	HD-CW-15A-0/1-0	135800	12.68				
180-41508-12	HD-CW-13-0/1-0	133607	12.68				
180-41508-13	HD-CW-20-0/1-0	138679	12.68				
180-41508-14	HD-CW-9-0/1-0	137192	12.68				

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-135049/2 Date Analyzed: 03/09/2015 11:37

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

Lab File ID (Standard): 50309002.D Heated Purge: (Y/N) N

Calibration ID: 22321

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		104748	4.33	419520	7.28	96744	10.36
UPPER LIMIT		209496	4.83	839040	7.78	193488	10.86
LOWER LIMIT		52374	3.83	209760	6.78	48372	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-135049/4		107819	4.30	424671	7.28	96438	10.37
LCS 180-135049/7		78530	4.31	375106	7.28	90079	10.37
180-41508-10	HD-MW-100D-0/1-0	98130	4.32	417224	7.28	96333	10.36

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-135049/2 Date Analyzed: 03/09/2015 11:37

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

Lab File ID (Standard): 50309002.D Heated Purge: (Y/N) N

Calibration ID: 22321

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		140304	12.69				
UPPER LIMIT		280608	13.19				
LOWER LIMIT		70152	12.19				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-135049/4		157080	12.69				
LCS 180-135049/7		126667	12.69				
180-41508-10	HD-MW-100D-0/1-0	146459	12.69				

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-134823/2 Date Analyzed: 03/05/2015 10:37

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

Lab File ID (Standard): 60305002.D Heated Purge: (Y/N) N

Calibration ID: 21588

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		206783	4.28	461648	7.32	96577	10.44
UPPER LIMIT		413566	4.78	923296	7.82	193154	10.94
LOWER LIMIT		103392	3.78	230824	6.82	48289	9.94
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-134823/4		228790	4.26	535833	7.33	111566	10.44
LCS 180-134823/6		197709	4.28	487625	7.33	94755	10.44
180-41508-5	HD-MW-99D-0/1-0	245993	4.27	538646	7.33	105224	10.44
180-41508-7	HD-MW-147A-0/1-0	213353	4.27	538327	7.33	111952	10.44

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.: 180-41508-1

SDG No.:

Sample No.: CCVIS 180-134823/2 Date Analyzed: 03/05/2015 10:37

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

Lab File ID (Standard): 60305002.D Heated Purge: (Y/N) N

Calibration ID: 21588

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		177612	12.79				
UPPER LIMIT		355224	13.29				
LOWER LIMIT		88806	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-134823/4		185196	12.79				
LCS 180-134823/6		180067	12.79				
180-41508-5	HD-MW-99D-0/1-0	182701	12.79				
180-41508-7	HD-MW-147A-0/1-0	182913	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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 | Lab Sample ID: 180-41508-1

Matrix: Water | Lab File ID: 50305010.D

Analysis Method: 8260C | Date Collected: 02/25/2015 09:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/05/2015 13:46

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.: 134814 | 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	1.4		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.55	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	20		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	3.5		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	20		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	23		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-41508-1

Matrix: Water Lab File ID: 50305010.D

Analysis Method: 8260C Date Collected: 02/25/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 13:46

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.: 134814 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D
Lims ID: 180-41508-E-1 Lab Sample ID: 180-41508-1
Client ID: HD-MW-98I-0/1-0
Sample Type: Client
Inject. Date: 05-Mar-2015 13:46:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-E-1
Misc. Info.: 180-0005905-010
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:11:43 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:11:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.299	4.299	0.000	92	100513	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	99	476697	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.365	0.000	100	111749	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	99	171695	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.532	-0.007	73	100076	49.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.896	6.897	-0.001	100	123677	49.0	
$ 7 Toluene-d8 (Surr)	98	8.922	8.923	-0.001	100	444792	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.533	-0.001	97	166619	51.4	
11 Dichlorodifluoromethane	85		1.616				ND	
12 Chloromethane	50		1.775				ND	
13 Vinyl chloride	62		1.902				ND	
14 Butadiene	39		1.939				ND	
15 Bromomethane	94		2.249				ND	
16 Chloroethane	64		2.383				ND	
17 Dichlorofluoromethane	67		2.651				ND	
18 Trichlorofluoromethane	101		2.705				ND	
19 Ethanol	45		3.012				ND	
20 Ethyl ether	59		3.083				ND	
21 Acrolein	56		3.265				ND	
22 1,1-Dichloroethene	96	3.386	3.375	0.011	98	19270	6.94	
23 1,1,2-Trichloro-1,2,2-trif	101		3.423				ND	
24 Acetone	43		3.496				ND	
25 Iodomethane	142		3.581				ND	
26 Carbon disulfide	76		3.661				ND	
27 Isopropyl alcohol	45		3.736				ND	
28 3-Chloro-1-propene	76		3.934				ND	
29 Acetonitrile	40		3.943				ND	
30 Methyl acetate	43		4.013				ND	
31 Methylene Chloride	84		4.141				ND	
32 2-Methyl-2-propanol	59		4.421				ND	
33 Acrylonitrile	53		4.549				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96	4.585	4.561	0.024	0	1215	0.4186	
35 Methyl tert-butyl ether	73		4.597				ND	
36 Hexane	57		4.981				ND	
37 1,1-Dichloroethane	63	5.175	5.169	0.006	96	15268	2.76	
38 Vinyl acetate	43		5.297				ND	
41 Isopropyl ether	45		5.300				ND	
39 2-Chloro-1,3-butadiene	53		5.300				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.799				ND	
44 2,2-Dichloropropane	77		5.924				ND	
45 cis-1,2-Dichloroethene	96	5.941	5.942	-0.001	76	316314	101.9	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
46 2-Butanone (MEK)	43		5.984				ND	
48 Ethyl acetate	43		5.993				ND	
47 Propionitrile	54		6.024				ND	
49 Chlorobromomethane	128		6.222				ND	
51 Tetrahydrofuran	42		6.289				ND	
52 Chloroform	83	6.343	6.337	0.006	15	1281	0.2906	
50 Methacrylonitrile	41		6.389				ND	
53 1,1,1-Trichloroethane	97	6.531	6.532	-0.001	73	52759	17.6	
54 Cyclohexane	56		6.587				ND	
56 Carbon tetrachloride	117		6.714				ND	
55 1,1-Dichloropropene	75		6.721				ND	
57 Isobutyl alcohol	41		6.940				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
61 Tert-amyl methyl ether	73		7.143				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.280				ND	
63 n-Butanol	56		7.654				ND	
64 Trichloroethene	130	7.669	7.663	0.006	99	286741	101.1	
66 Methylcyclohexane	83		7.858				ND	
65 Ethyl acrylate	55		7.867				ND	
69 Methyl methacrylate	69		7.867				ND	
67 1,2-Dichloropropane	63		7.901				ND	
68 Dibromomethane	93		8.022				ND	
70 1,4-Dioxane	88		8.059				ND	
71 Dichlorobromomethane	83		8.193				ND	
72 2-Nitropropane	41		8.427				ND	
73 2-Chloroethyl vinyl ether	63		8.506				ND	
74 cis-1,3-Dichloropropene	75		8.661				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
78 Ethyl methacrylate	69		9.318				ND	
79 1,1,2-Trichloroethane	97		9.397				ND	
80 Tetrachloroethene	164	9.537	9.537	0.000	98	247962	116.5	
81 1,3-Dichloropropane	76		9.568				ND	
82 2-Hexanone	43		9.659				ND	
83 n-Butyl acetate	43		9.662				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.902				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.371				ND	
87 Chlorobenzene	112		10.395				ND	
88 4-Chlorobenzotrifluoride	180		10.431				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.498				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.009				ND	
93 Styrene	104		11.028				ND	
94 Bromoform	173		11.216				ND	
96 2-Chlorobenzotrifluoride	180		11.271				ND	
95 Cyclohexanol	57		11.280				ND	
97 Isopropylbenzene	105		11.380				ND	
98 Cyclohexanone	55		11.450				ND	
99 1,1,2,2-Tetrachloroethane	83		11.679				ND	
100 Bromobenzene	156		11.685				ND	
101 1,2,3-Trichloropropane	110		11.721				ND	
102 trans-1,4-Dichloro-2-buten	53		11.733				ND	
103 N-Propylbenzene	120		11.788				ND	
104 2-Chlorotoluene	126		11.873				ND	
105 3-Chlorotoluene	126		11.934				ND	
106 1,3,5-Trimethylbenzene	105		11.964				ND	
107 4-Chlorotoluene	126		11.983				ND	
108 tert-Butylbenzene	119		12.287				ND	
109 Pentachloroethane	167		12.314				ND	
110 1,2,4-Trimethylbenzene	105		12.336				ND	
111 1,2-dichloro-4-(trifluorom	214		12.402				ND	
112 sec-Butylbenzene	105		12.506				ND	
113 1,3-Dichlorobenzene	146		12.621				ND	
114 4-Isopropyltoluene	119		12.652				ND	
119 Benzyl chloride	91		12.655				ND	
115 1,4-Dichlorobenzene	146		12.707				ND	
117 1,2,3-Trimethylbenzene	105		12.758				ND	
116 2,4-Dichloro-1-(triflourom	214		12.761				ND	
118 2,5-Dichlorobenzotrifluori	214		12.810				ND	
120 n-Butylbenzene	91		13.059				ND	
121 1,2-Dichlorobenzene	146		13.084				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.863				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.008				ND	
124 1,3,5-Trichlorobenzene	180		14.078				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.428				ND	
126 1,2,4-Trichlorobenzene	180		14.690				ND	
127 Hexachlorobutadiene	225		14.866				ND	
128 Naphthalene	128		14.945				ND	
129 1,2,3-Trichlorobenzene	180		15.189				ND	
131 2,4,5-Trichlorotoluene	159		15.961				ND	
130 2,3,6-Trichlorotoluene	159		16.065				ND	
132 2-Methylnaphthalene	142		16.080				ND	
147 2,4-Dichlorotoluene	1		0.000				ND	
148 2,3-Dichlorotoluene	1		0.000				ND	
150 2,6-Dichlorotoluene	1		0.000				ND	
146 2,5-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
149 3,4-Dichlorotoluene	1		0.000				ND	
151 Isooctane	57		0.000				ND	
S 134 1,2-Dichloroethene, Total	96				0		102.3	
S 133 Xylenes, Total	106		1.000				ND	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 137 Tetrahydrofuran TIC	42		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	
T 153 1,2 Epoxybutane TIC	42		0.000				ND	
T 136 Mesityl oxide TIC	83		0.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

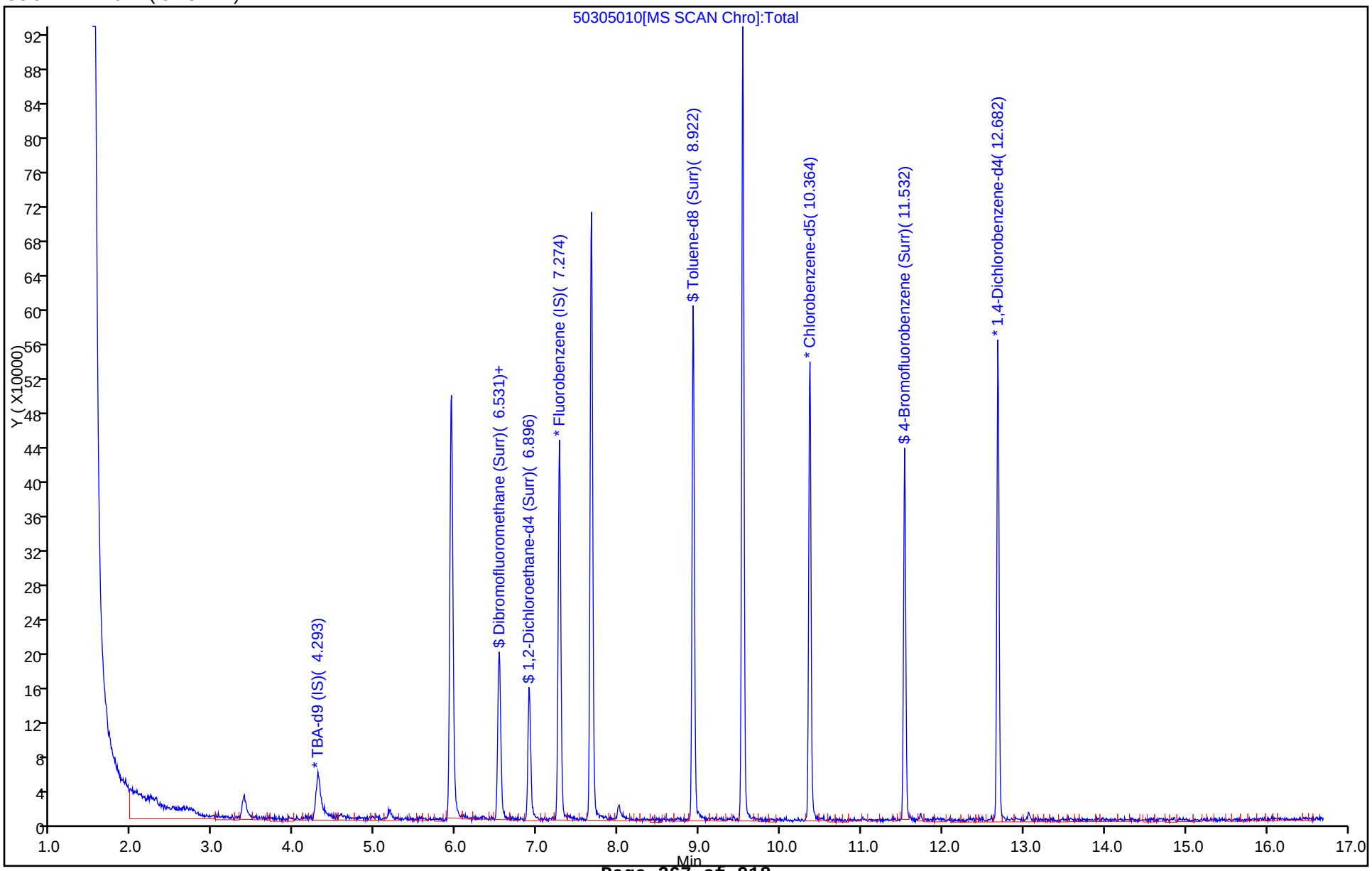
Report Date: 06-Mar-2015 08:11:43 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D

Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1	Worklist Smp#:	10
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



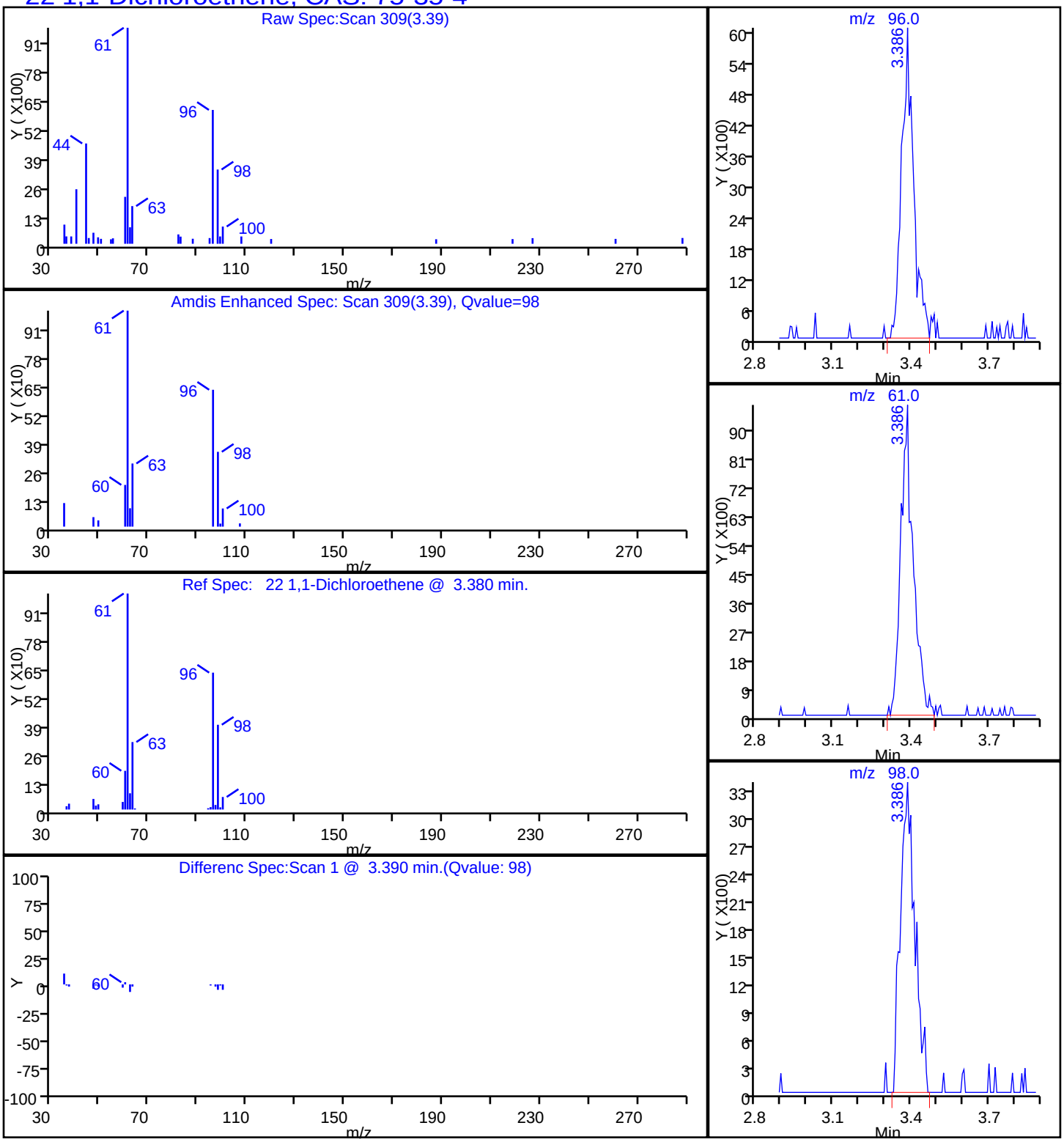
Report Date: 06-Mar-2015 08:11:43 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D

Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



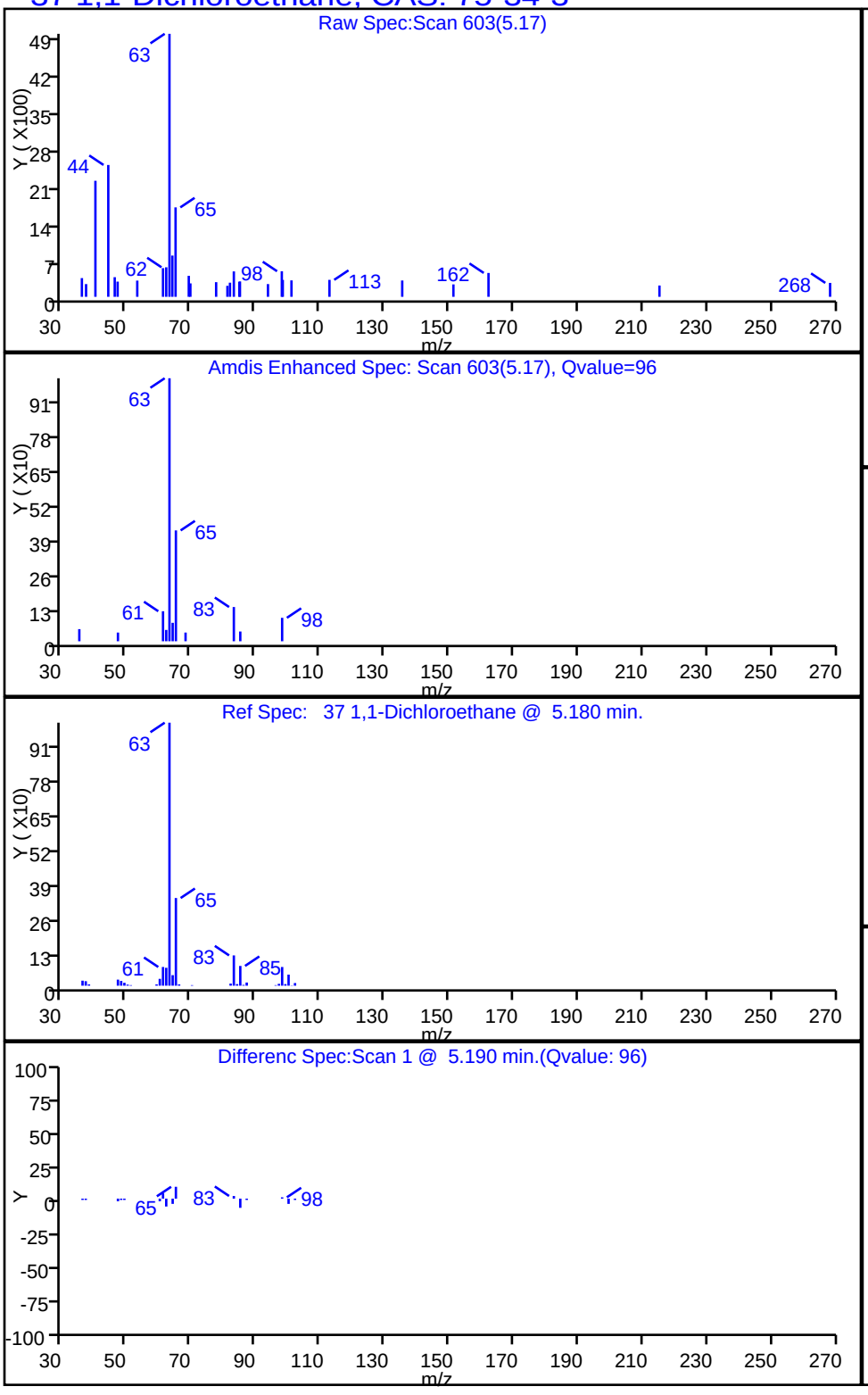
Report Date: 06-Mar-2015 08:11:44 Chrom Revision: 2.2 15-Jan-2015 13:05:58

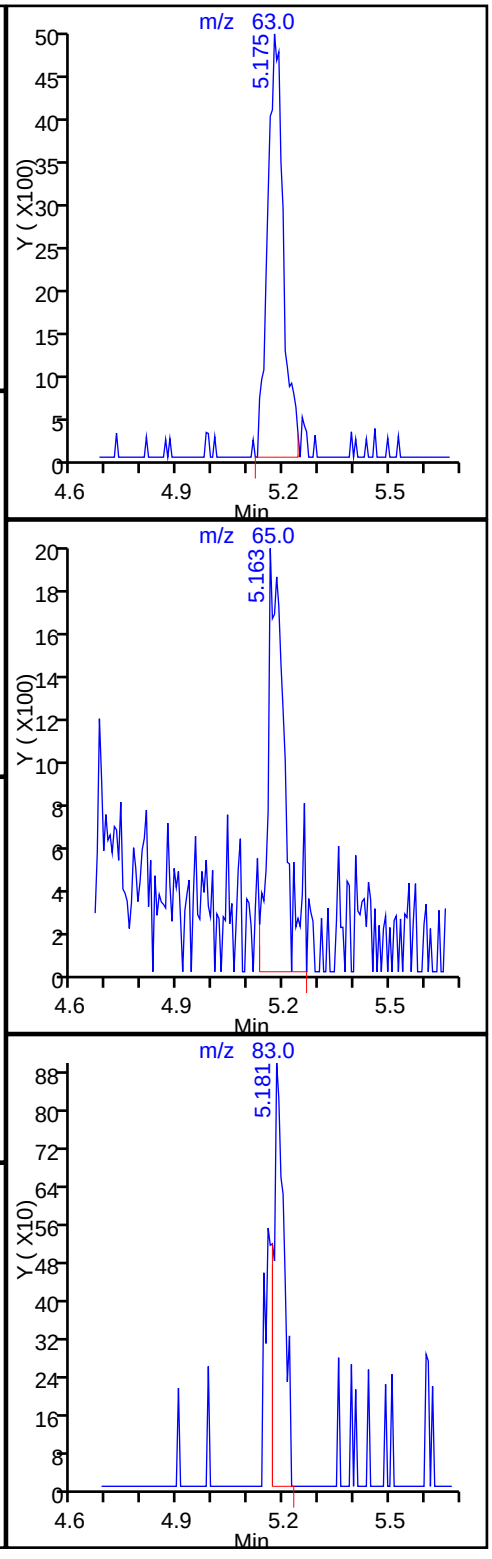
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D

Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



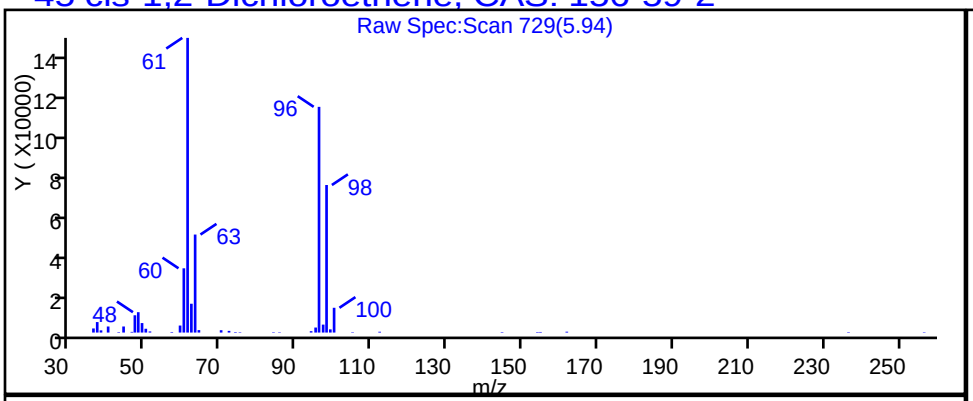


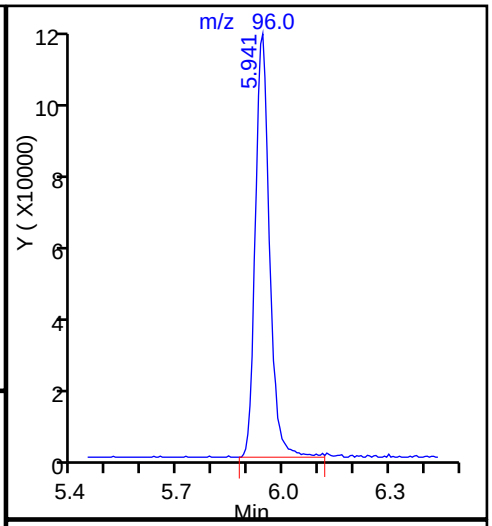
Report Date: 06-Mar-2015 08:11:44 Chrom Revision: 2.2 15-Jan-2015 13:05:58

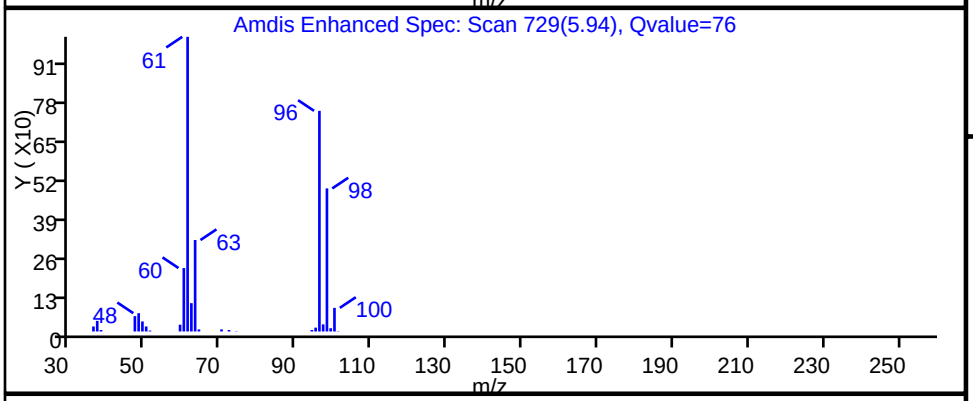
TestAmerica Pittsburgh

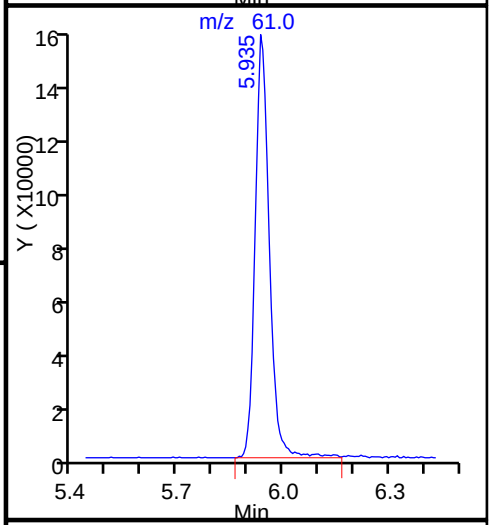
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D				
Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

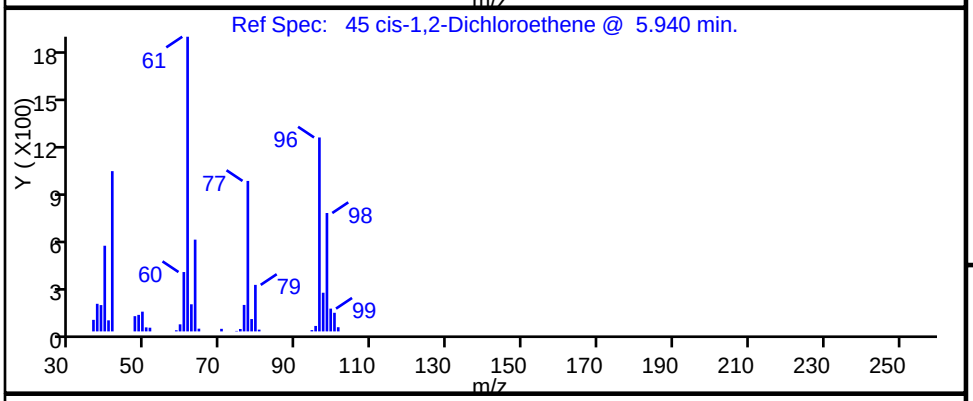
45 cis-1,2-Dichloroethene, CAS: 156-59-2

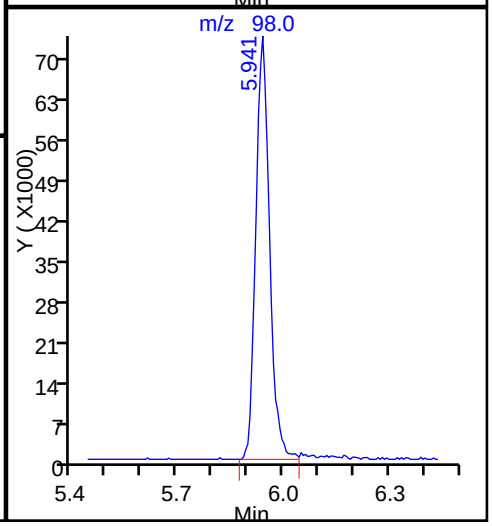


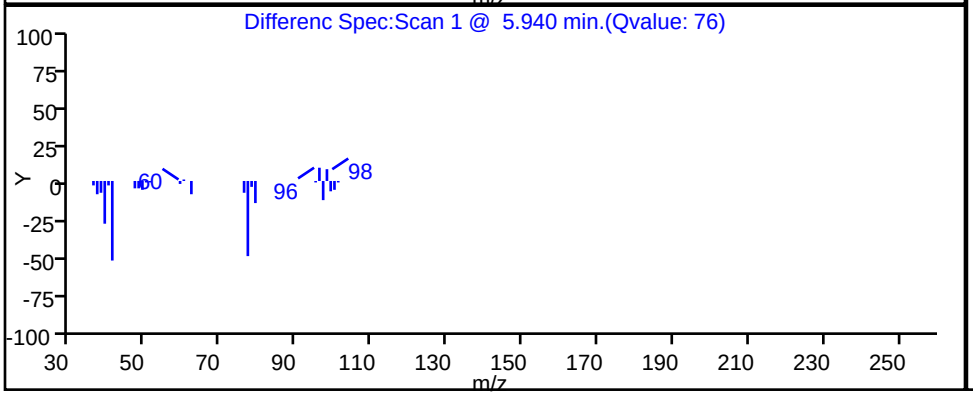










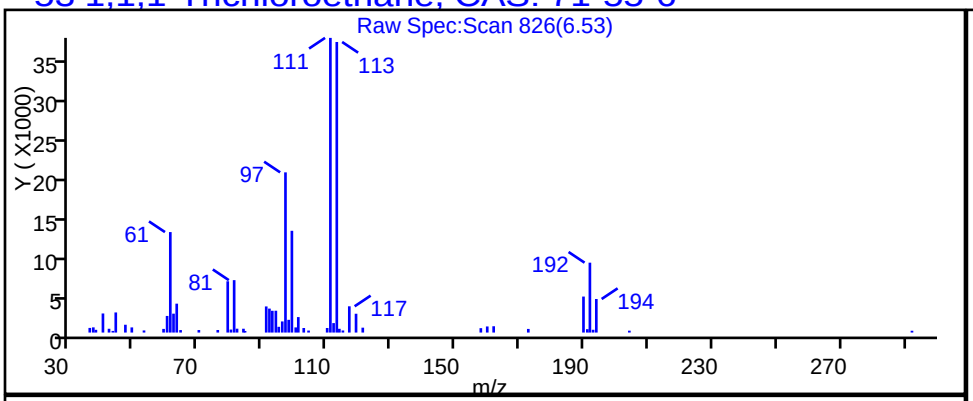


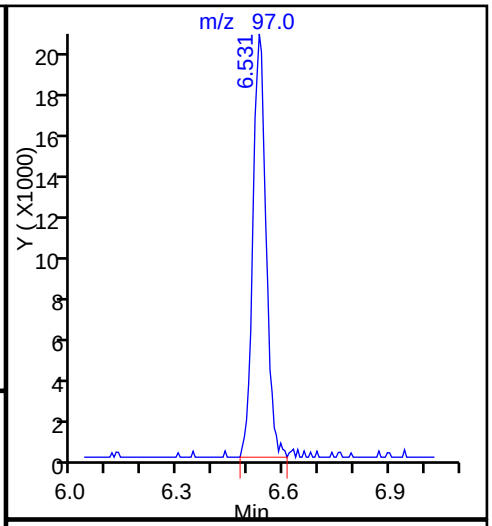
Report Date: 06-Mar-2015 08:11:44 Chrom Revision: 2.2 15-Jan-2015 13:05:58

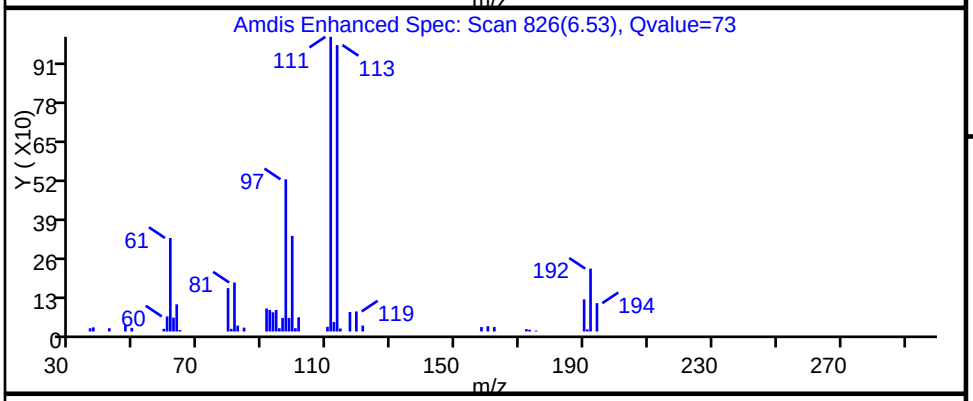
TestAmerica Pittsburgh

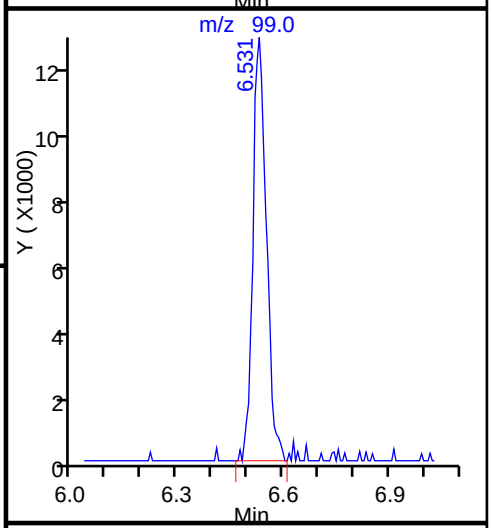
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D				
Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

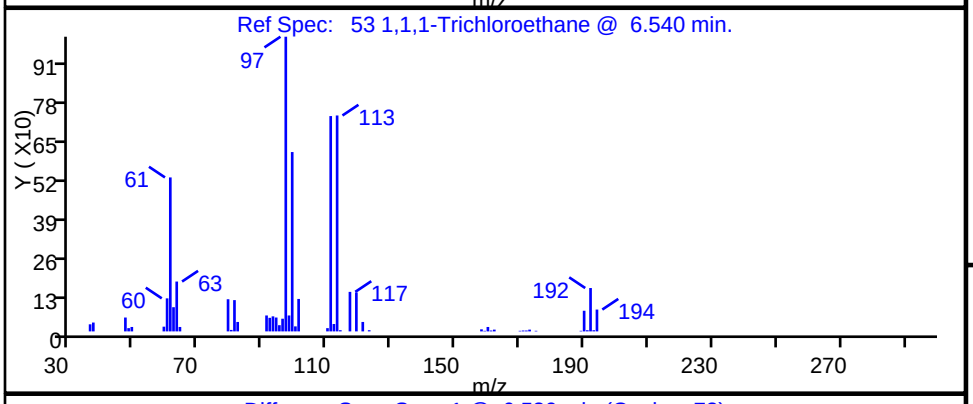
53 1,1,1-Trichloroethane, CAS: 71-55-6

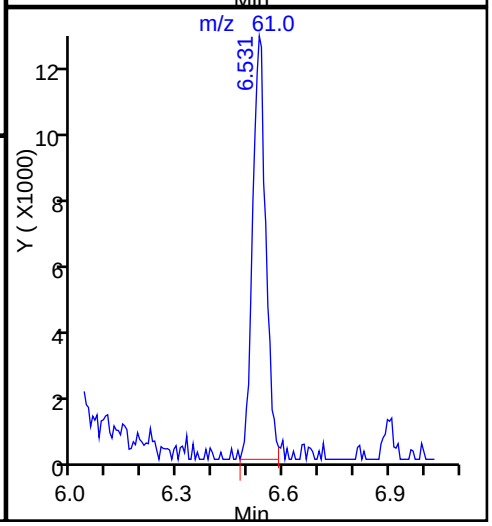


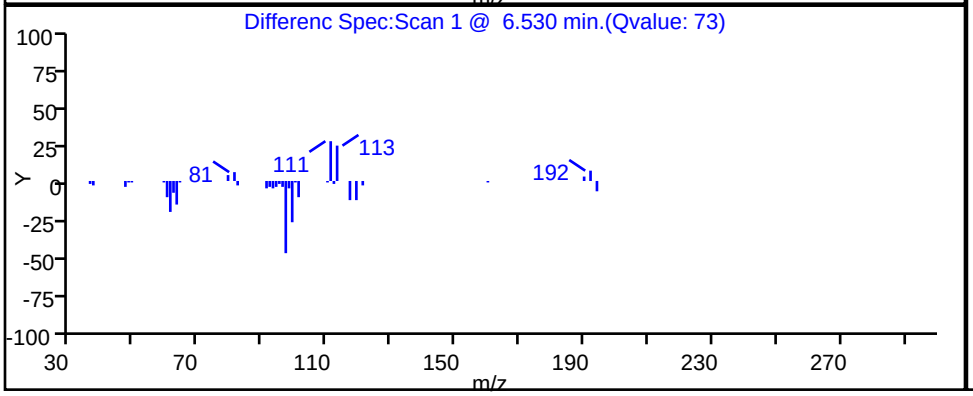










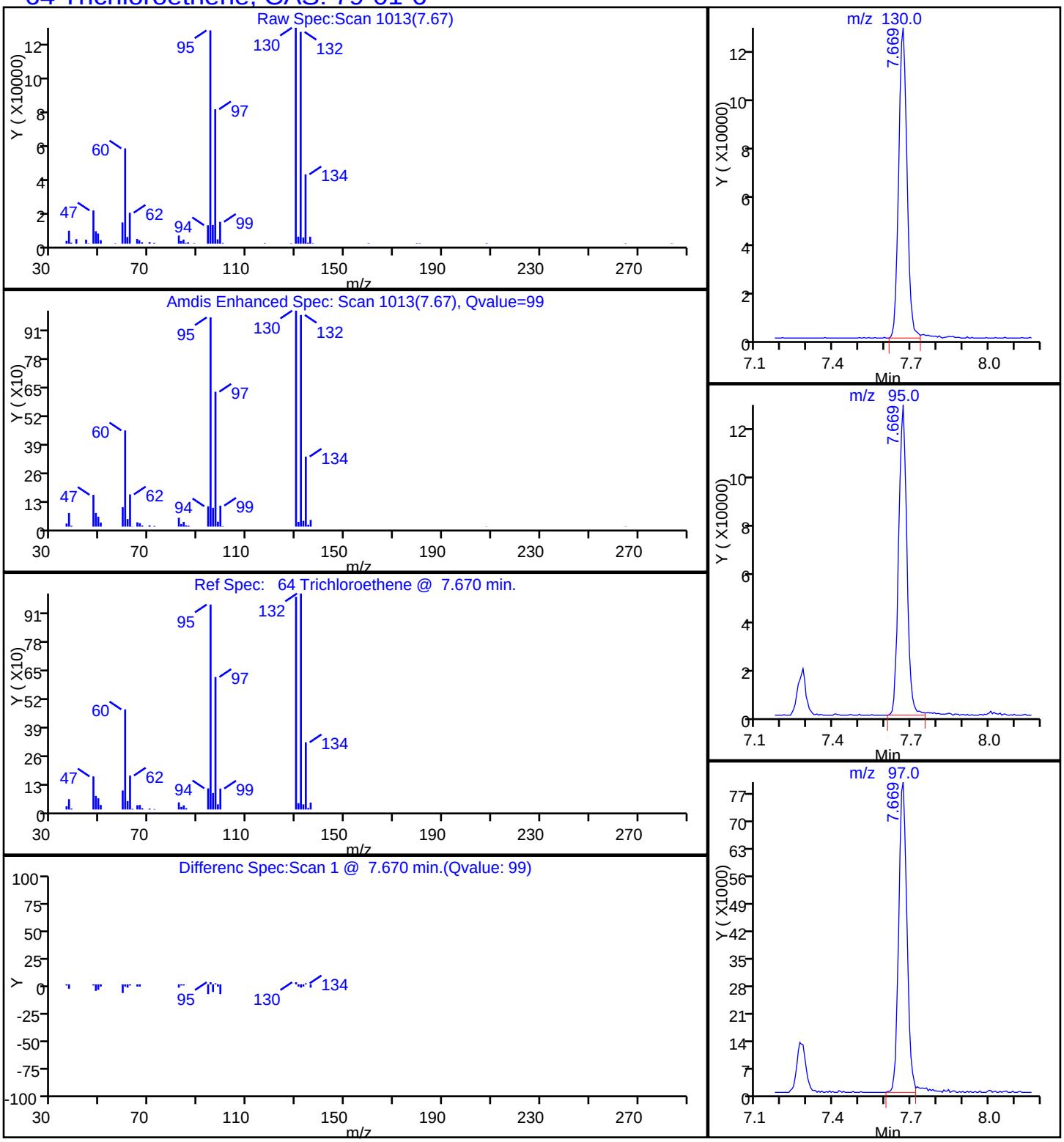


Report Date: 06-Mar-2015 08:11:44 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D				
Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

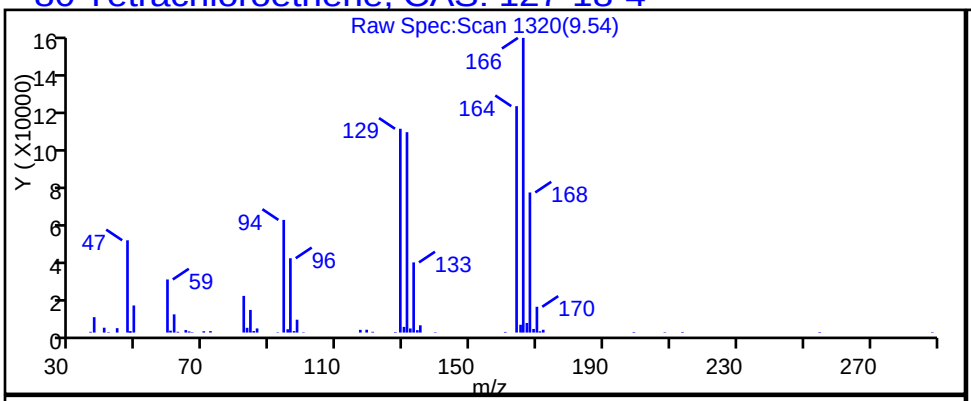


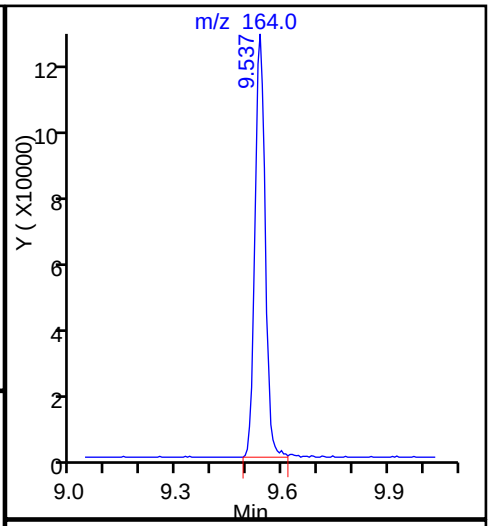
Report Date: 06-Mar-2015 08:11:44 Chrom Revision: 2.2 15-Jan-2015 13:05:58

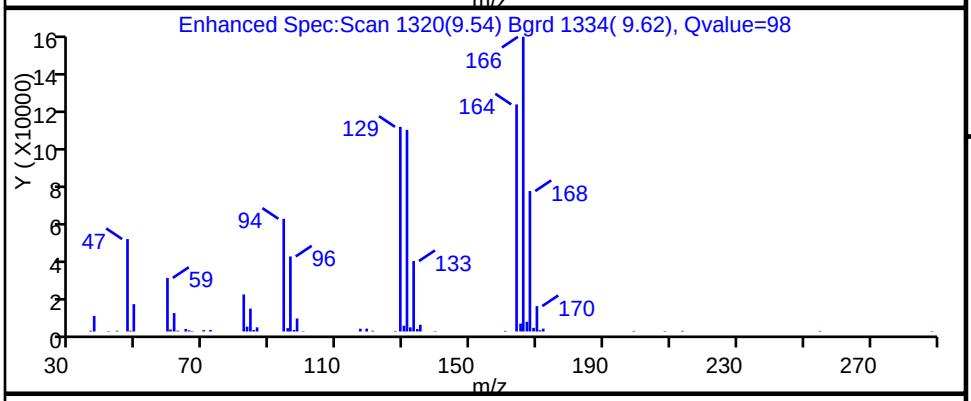
TestAmerica Pittsburgh

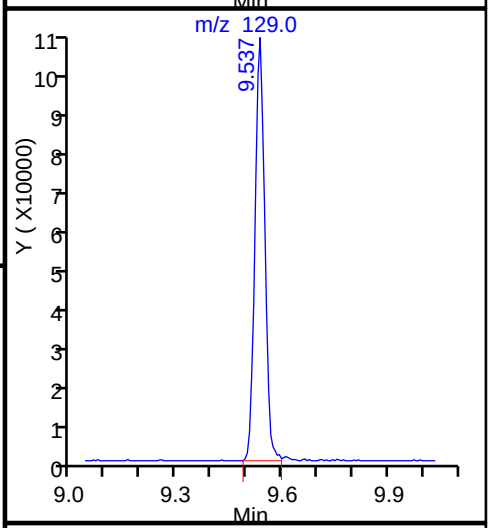
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305010.D				
Injection Date:	05-Mar-2015 13:46:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-1	Lab Sample ID:	180-41508-1		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

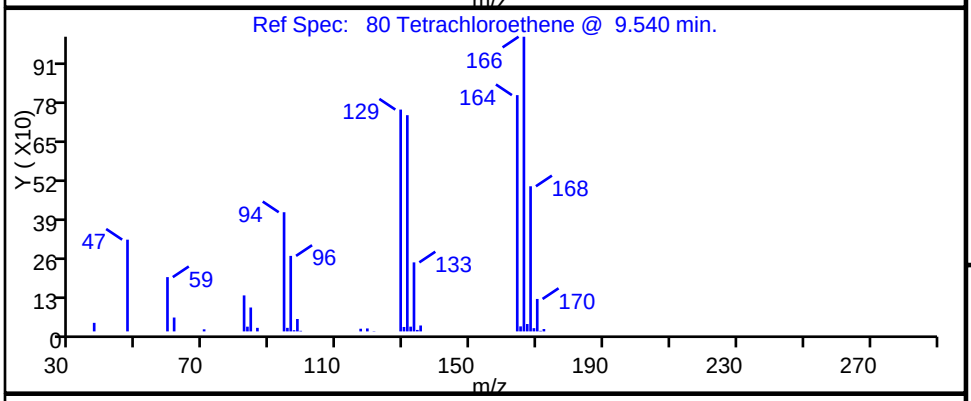
80 Tetrachloroethene, CAS: 127-18-4

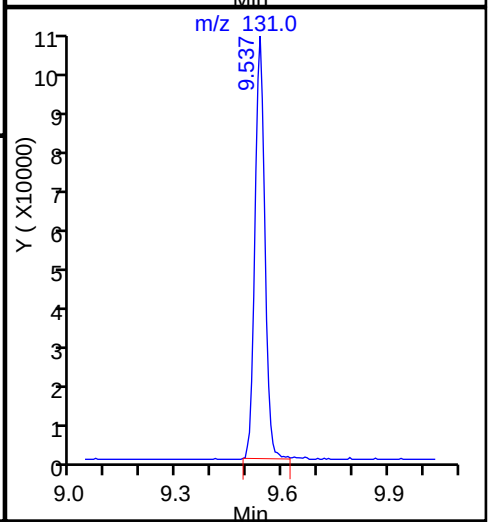


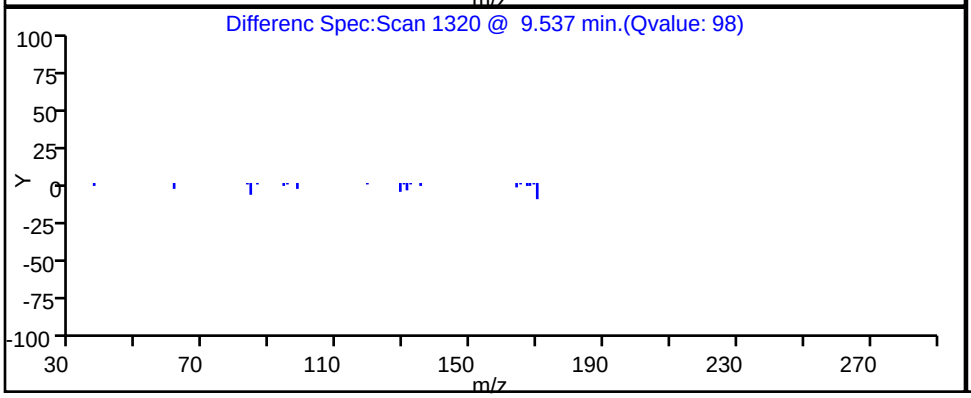












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-41508-2

Matrix: Water Lab File ID: 50305011.D

Analysis Method: 8260C Date Collected: 02/25/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 14:10

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 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.: 180-41508-1

SDG No.:

Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-41508-2

Matrix: Water Lab File ID: 50305011.D

Analysis Method: 8260C Date Collected: 02/25/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 14:10

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 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)	94		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)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305011.D
Lims ID: 180-41508-B-2 Lab Sample ID: 180-41508-2
Client ID: HD-QC3-0/1-2
Sample Type: Client
Inject. Date: 05-Mar-2015 14:10:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-B-2
Misc. Info.: 180-0005905-011
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:12:45 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:12:45

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.297	4.299	-0.002	92	102430	1000.0	
*	2 Fluorobenzene (IS)	96	7.272	7.274	-0.002	99	478314	50.0	
*	3 Chlorobenzene-d5	119	10.362	10.365	-0.002	99	109225	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.680	12.682	-0.002	98	171625	50.0	
$	5 Dibromofluoromethane (Surr	113	6.530	6.532	-0.002	52	98809	48.3	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.897	0.004	99	118317	46.8	
$	7 Toluene-d8 (Surr)	98	8.926	8.923	0.003	99	439378	51.6	
$	8 4-Bromofluorobenzene (Surr	95	11.530	11.533	-0.003	98	163295	51.6	
	12 Chloromethane	50		1.775				ND	
	13 Vinyl chloride	62		1.902				ND	
	15 Bromomethane	94		2.249				ND	
	16 Chloroethane	64		2.383				ND	
	22 1,1-Dichloroethene	96		3.375				ND	
	24 Acetone	43	3.518	3.496	0.022	56	6523	6.49	
	26 Carbon disulfide	76		3.661				ND	
	31 Methylene Chloride	84		4.141				ND	
	33 Acrylonitrile	53		4.549				ND	
	34 trans-1,2-Dichloroethene	96		4.561				ND	
	35 Methyl tert-butyl ether	73		4.597				ND	
	37 1,1-Dichloroethane	63		5.169				ND	
	45 cis-1,2-Dichloroethene	96		5.942				ND	
	46 2-Butanone (MEK)	43		5.984				ND	
	49 Chlorobromomethane	128		6.222				ND	
	52 Chloroform	83		6.337				ND	
	53 1,1,1-Trichloroethane	97		6.532				ND	
	56 Carbon tetrachloride	117		6.714				ND	
	58 Benzene	78		6.952				ND	
	59 1,2-Dichloroethane	62		6.982				ND	
	64 Trichloroethene	130		7.663				ND	
	67 1,2-Dichloropropane	63		7.901				ND	
	70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.193				ND	
74 cis-1,3-Dichloropropene	75		8.661				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.397				ND	
80 Tetrachloroethene	164		9.537				ND	
82 2-Hexanone	43		9.659				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.902				ND	
87 Chlorobenzene	112		10.395				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.498				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.009				ND	
93 Styrene	104		11.028				ND	
94 Bromoform	173		11.216				ND	
99 1,1,2,2-Tetrachloroethane	83		11.679				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

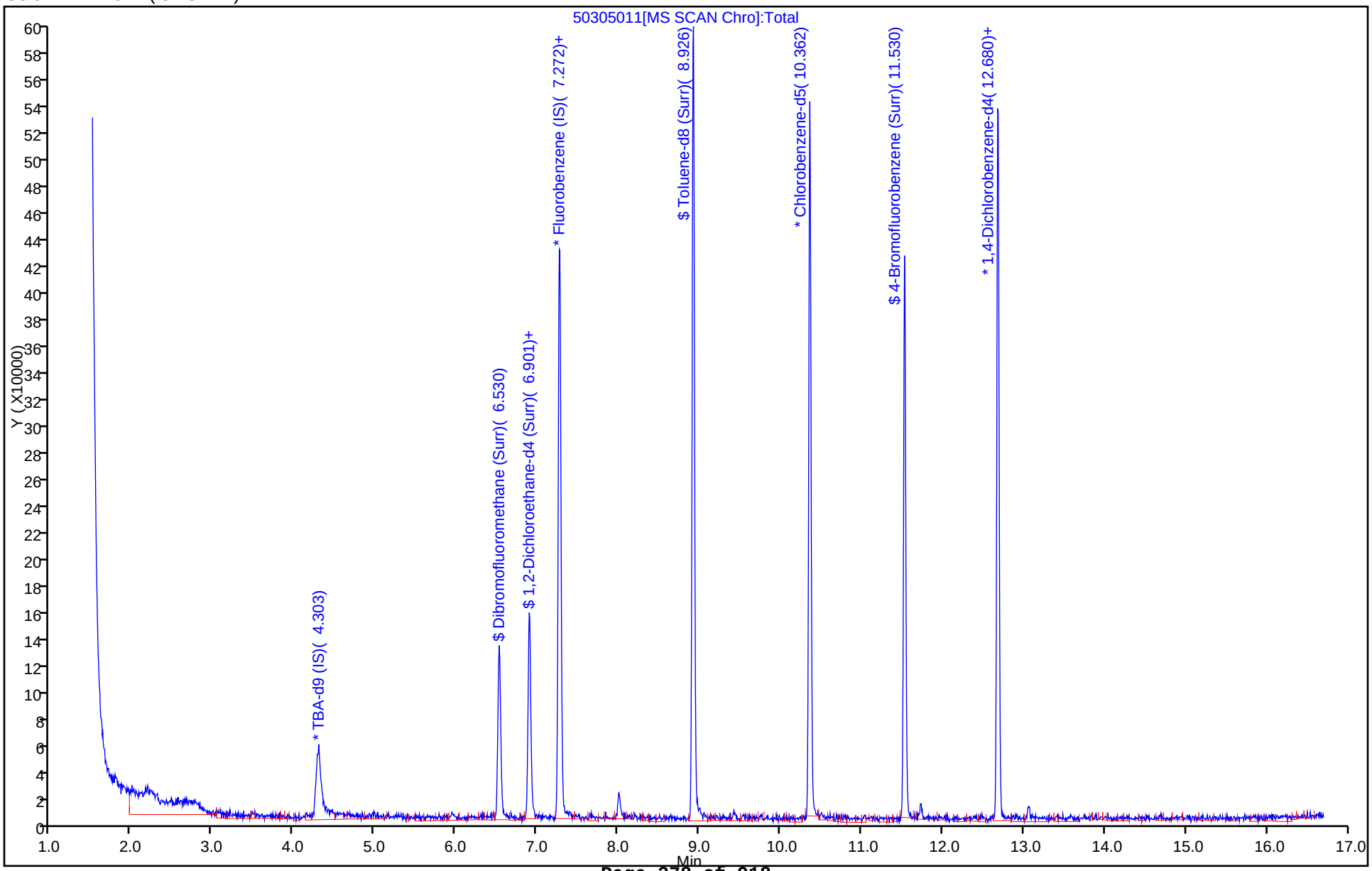
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-Mar-2015 08:12:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305011.D				
Injection Date:	05-Mar-2015 14:10:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-B-2	Lab Sample ID:	180-41508-2	Worklist Smp#:	11
Client ID:	HD-QC3-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-41508-3

Matrix: Water Lab File ID: 50305028.D

Analysis Method: 8260C Date Collected: 02/25/2015 10:25

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 21:13

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 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	1.6		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.53	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	21		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	3.3		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	21		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	25		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-41508-3

Matrix: Water Lab File ID: 50305028.D

Analysis Method: 8260C Date Collected: 02/25/2015 10:25

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 21:13

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 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)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D
Lims ID: 180-41508-D-3 Lab Sample ID: 180-41508-3
Client ID: HD-MW-98S-0/1-0
Sample Type: Client
Inject. Date: 05-Mar-2015 21:13:30 ALS Bottle#: 24 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-D-3
Misc. Info.: 180-0005905-028
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:47:48 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:47:48

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.297	4.299	-0.002	85	65472	1000.0	
*	2 Fluorobenzene (IS)	96	7.272	7.274	-0.002	99	390456	50.0	
*	3 Chlorobenzene-d5	119	10.362	10.365	-0.002	99	90185	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.680	12.682	-0.002	99	142932	50.0	
$	5 Dibromofluoromethane (Surr	113	6.530	6.532	-0.002	72	80653	48.2	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.897	0.004	98	103004	49.9	
$	7 Toluene-d8 (Surr)	98	8.921	8.923	-0.002	100	350282	49.8	
$	8 4-Bromofluorobenzene (Surr	95	11.530	11.533	-0.003	93	128172	49.0	
	12 Chloromethane	50		1.775				ND	
	13 Vinyl chloride	62		1.902				ND	
	15 Bromomethane	94		2.249				ND	
	16 Chloroethane	64		2.383				ND	
	22 1,1-Dichloroethene	96	3.385	3.375	0.010	98	17835	7.85	
	24 Acetone	43	3.488	3.496	-0.008	2	2906	3.54	
	26 Carbon disulfide	76		3.661				ND	
	31 Methylene Chloride	84		4.141				ND	
	33 Acrylonitrile	53		4.549				ND	
	34 trans-1,2-Dichloroethene	96		4.561				ND	
	35 Methyl tert-butyl ether	73		4.597				ND	
	37 1,1-Dichloroethane	63	5.173	5.169	0.004	96	11895	2.63	
	45 cis-1,2-Dichloroethene	96	5.934	5.942	-0.008	76	272086	107.0	
	46 2-Butanone (MEK)	43		5.984				ND	
	49 Chlorobromomethane	128		6.222				ND	
	52 Chloroform	83	6.347	6.337	0.010	21	1782	0.4935	
	53 1,1,1-Trichloroethane	97	6.530	6.532	-0.002	72	39955	16.3	
	56 Carbon tetrachloride	117		6.714				ND	
	58 Benzene	78		6.952				ND	
	59 1,2-Dichloroethane	62		6.982				ND	
	64 Trichloroethene	130	7.667	7.663	0.004	99	238989	102.9	
	67 1,2-Dichloropropane	63		7.901				ND	
	70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.193				ND	
74 cis-1,3-Dichloropropene	75		8.661				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.397				ND	
80 Tetrachloroethene	164	9.535	9.537	-0.002	99	215987	125.7	
82 2-Hexanone	43		9.659				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.902				ND	
87 Chlorobenzene	112		10.395				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.498				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.009				ND	
93 Styrene	104		11.028				ND	
94 Bromoform	173		11.216				ND	
99 1,1,2,2-Tetrachloroethane	83		11.679				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

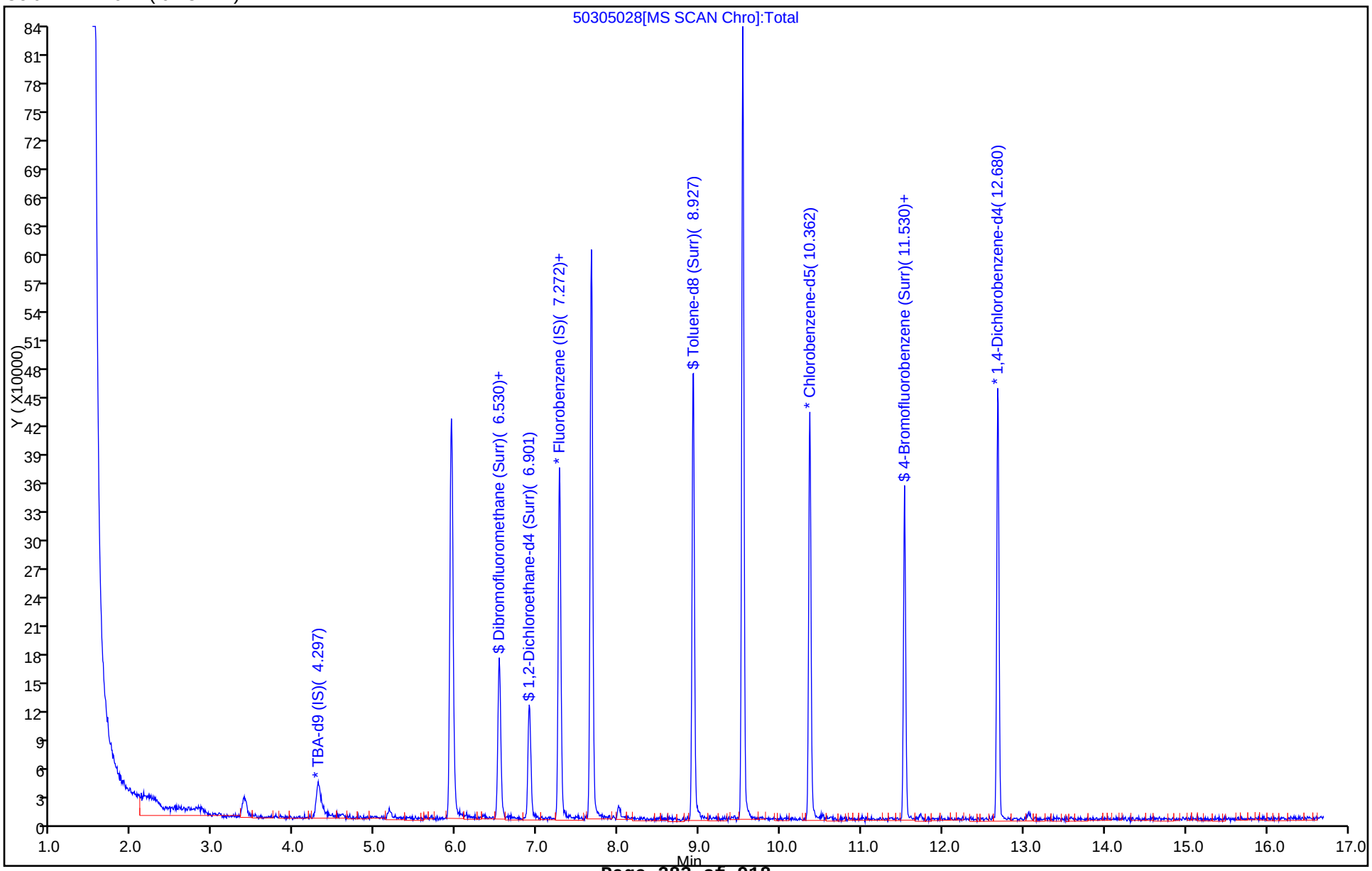
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D				
Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3	Worklist Smp#:	28
Client ID:	HD-MW-98S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

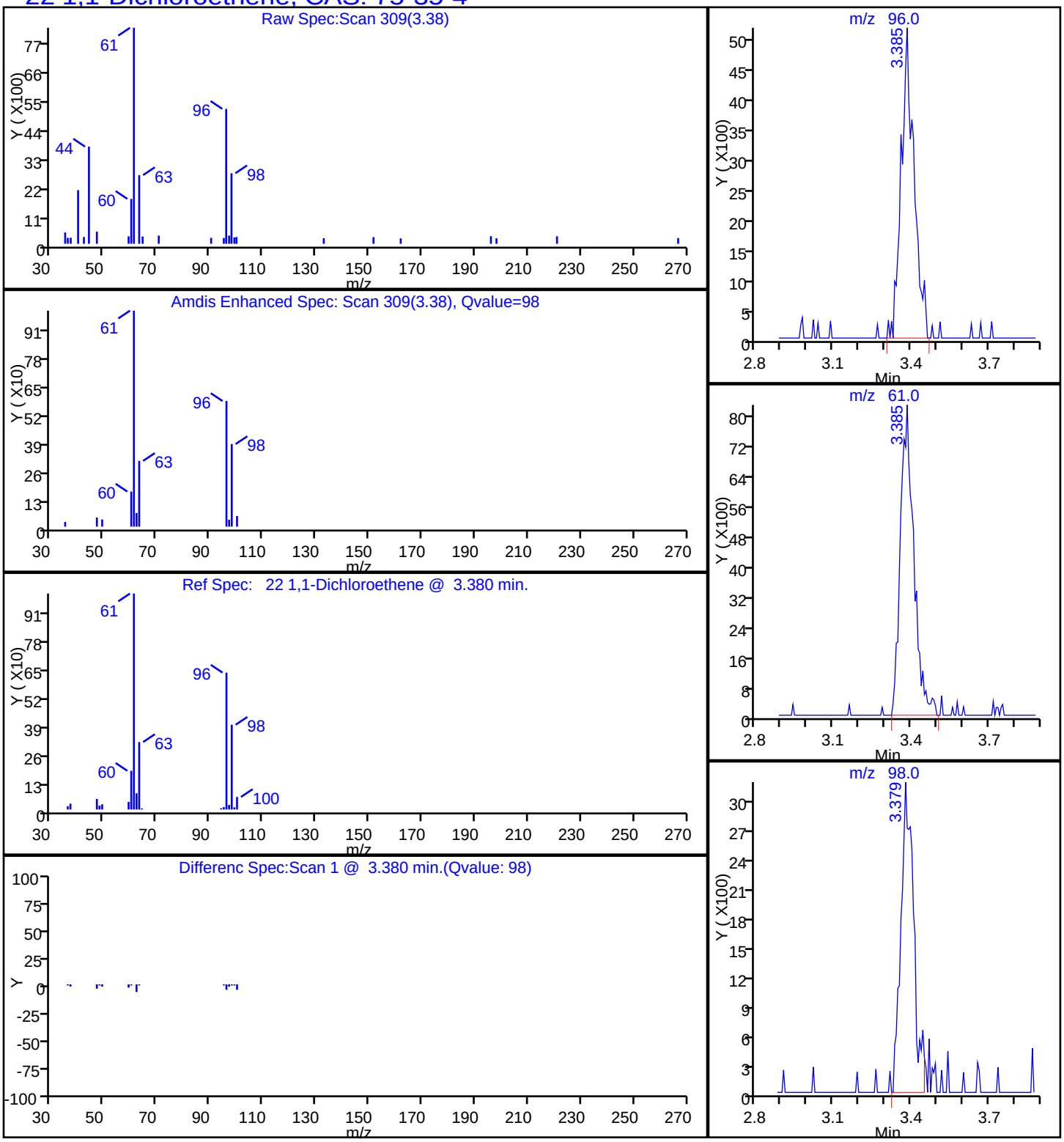


Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D		
Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



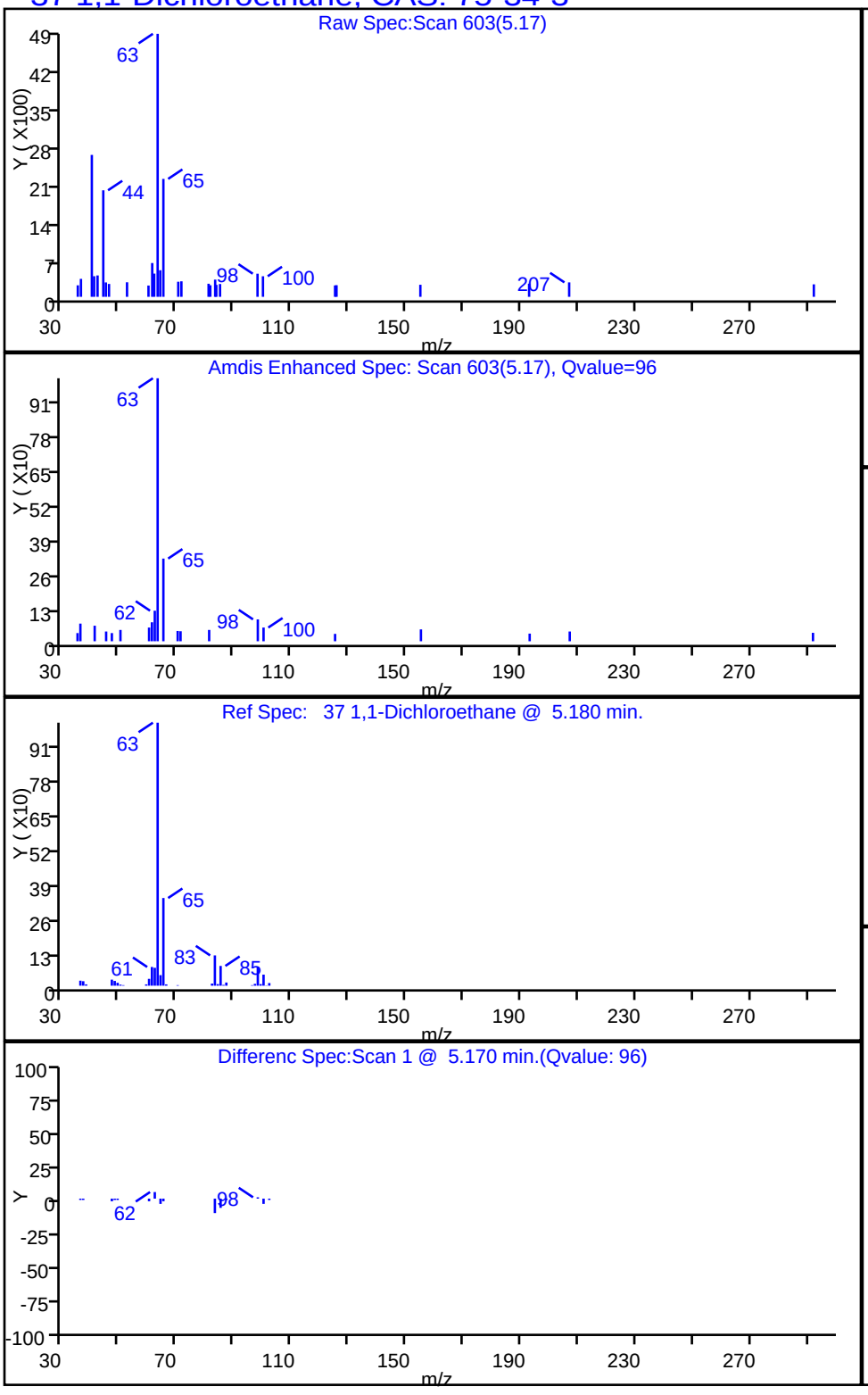
Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

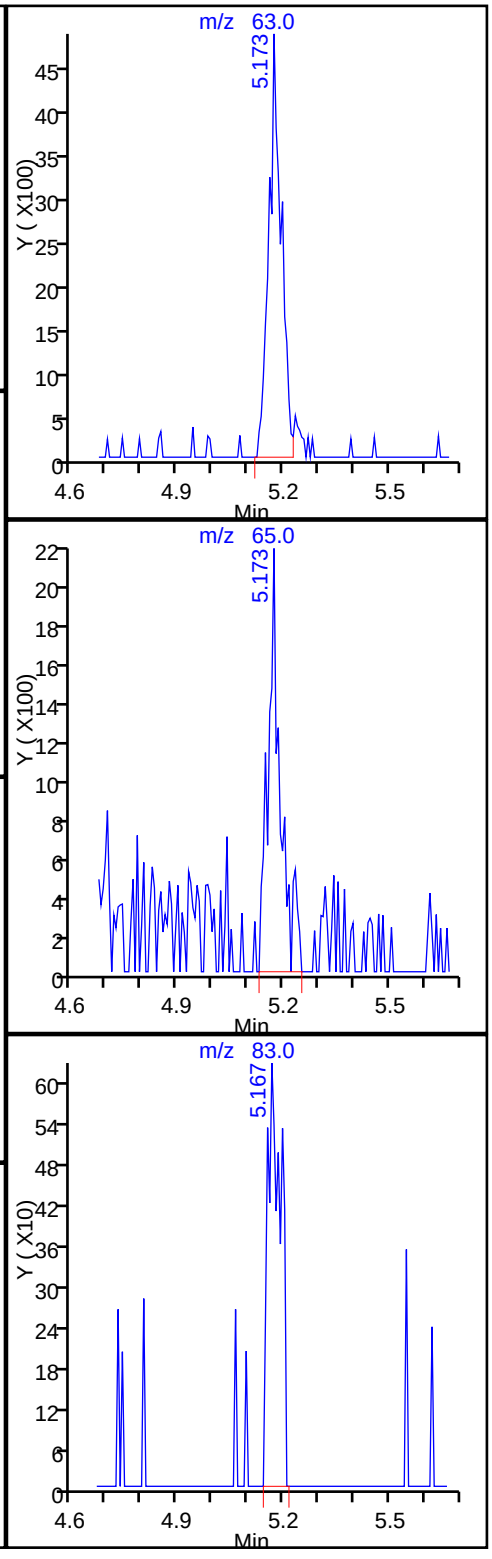
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D

Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



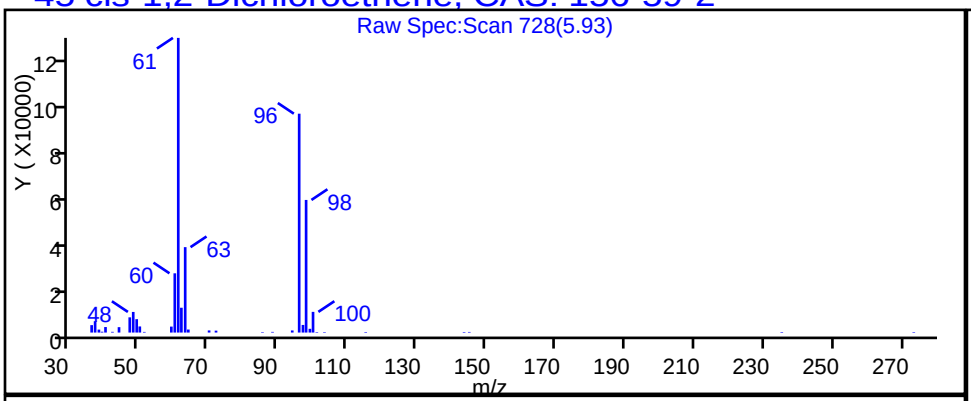


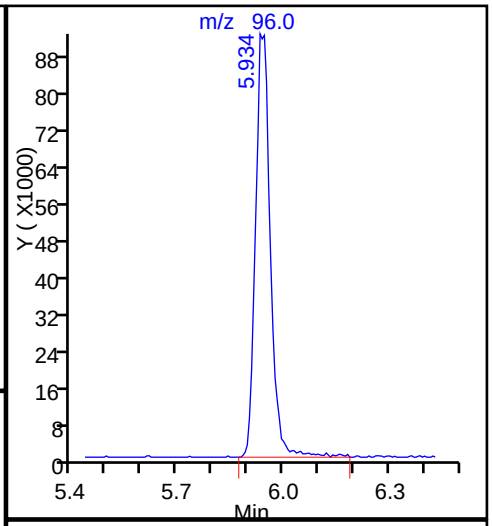
Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

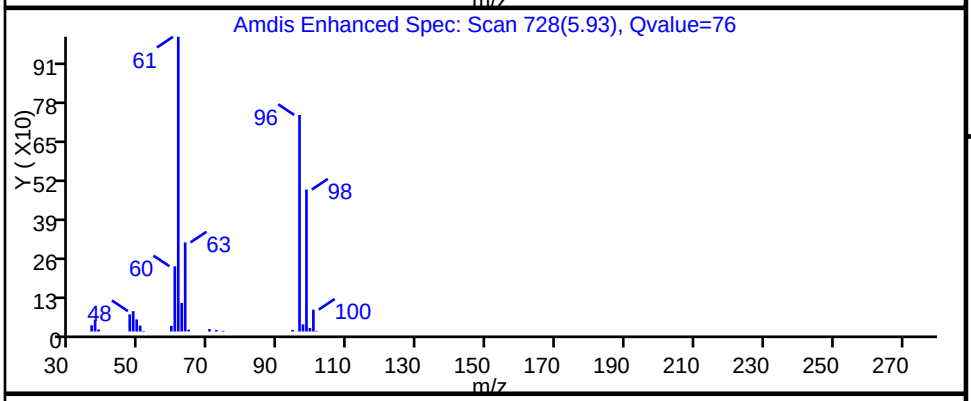
TestAmerica Pittsburgh

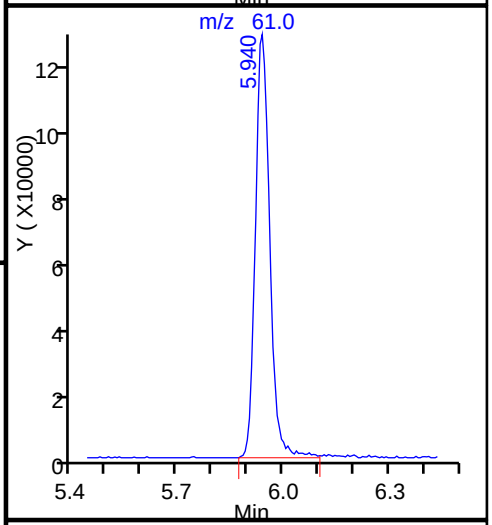
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D		
Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

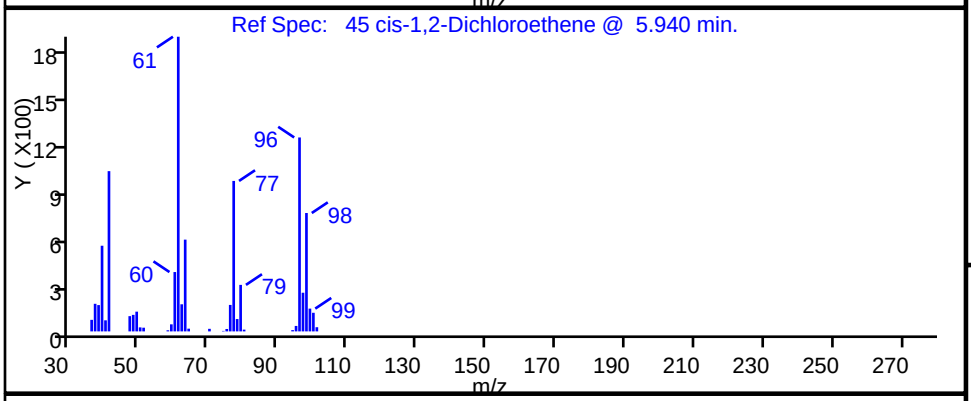
45 cis-1,2-Dichloroethene, CAS: 156-59-2

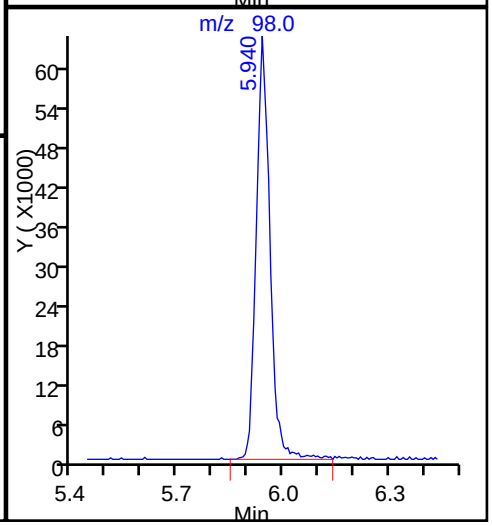


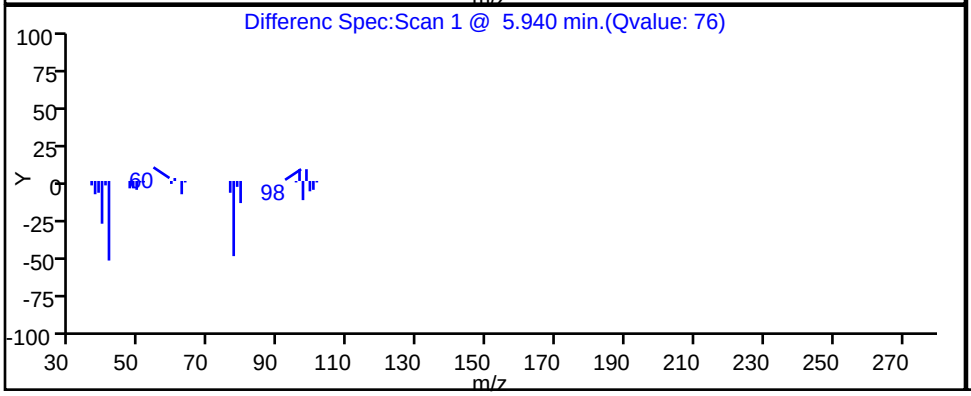










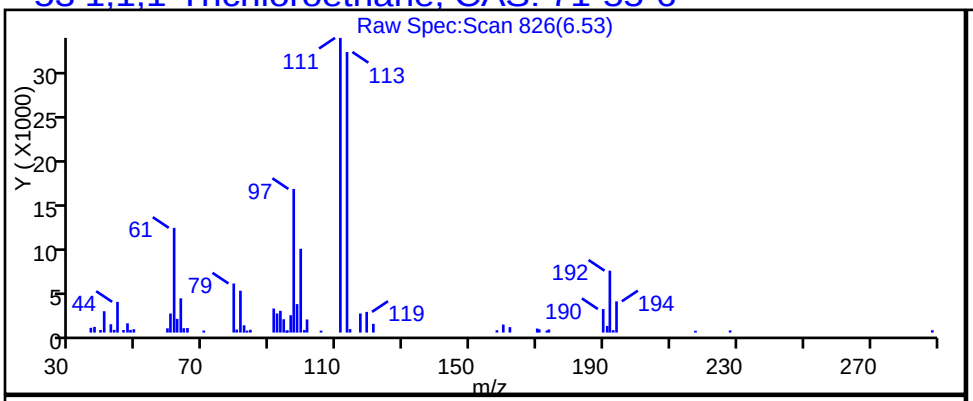


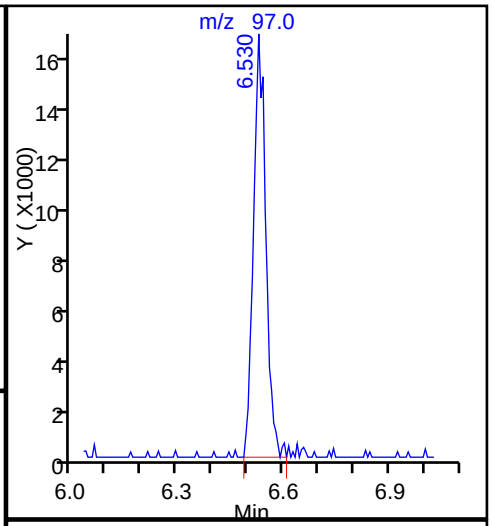
Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

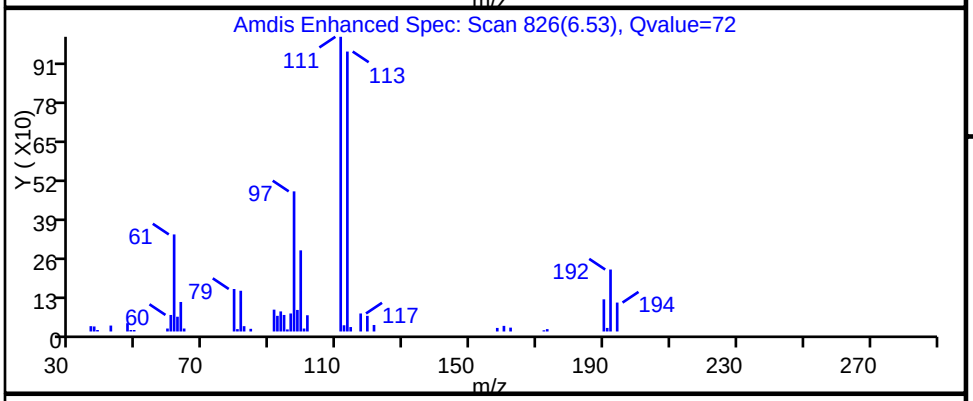
TestAmerica Pittsburgh

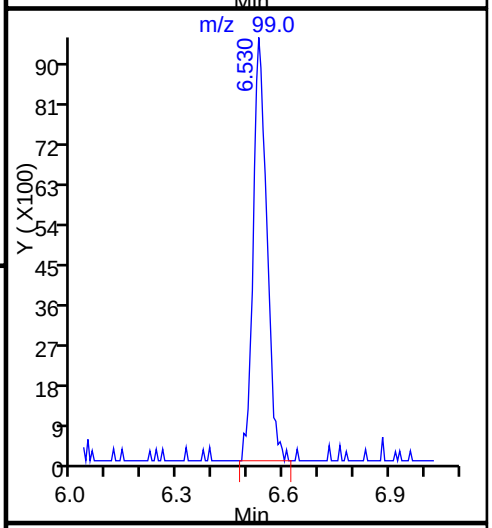
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D				
Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

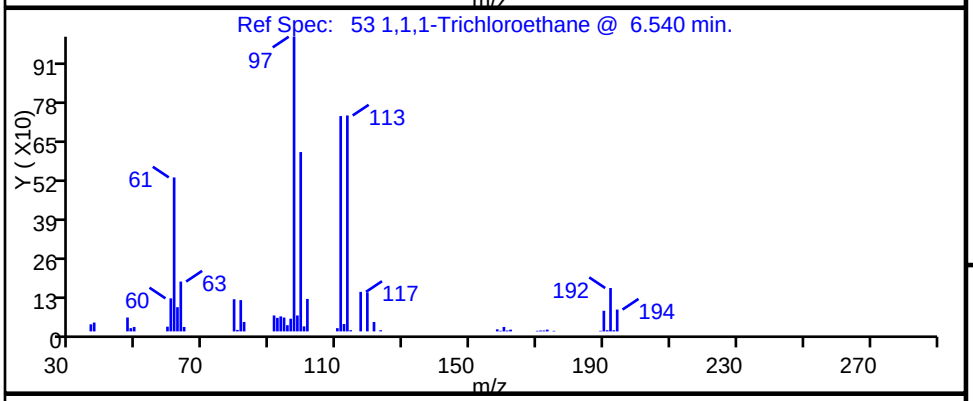
53 1,1,1-Trichloroethane, CAS: 71-55-6

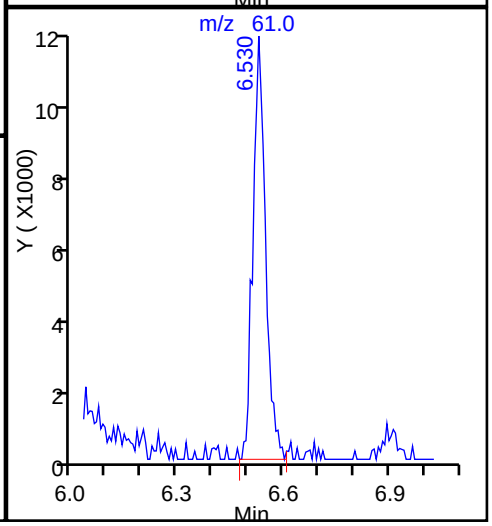


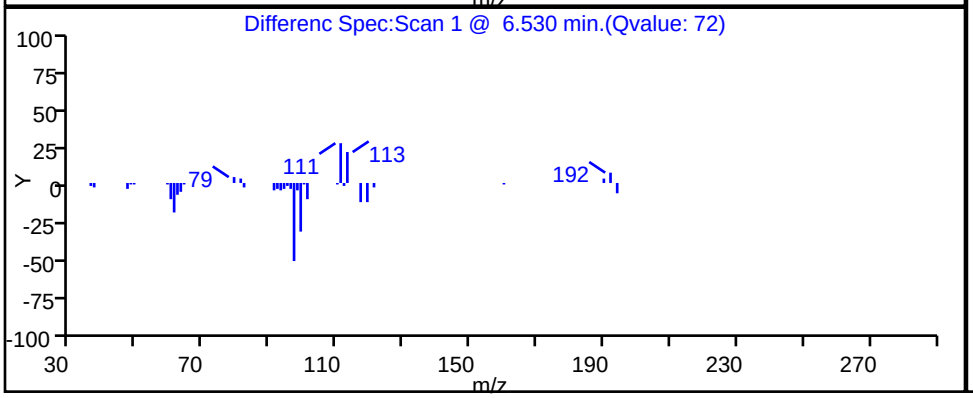










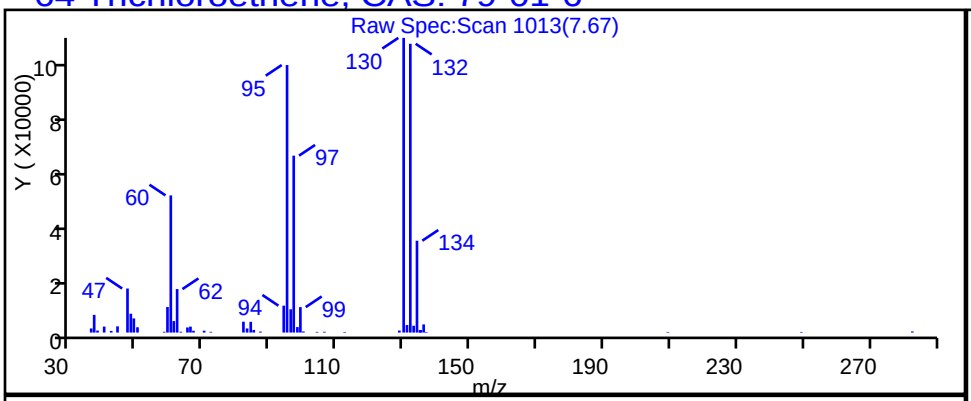


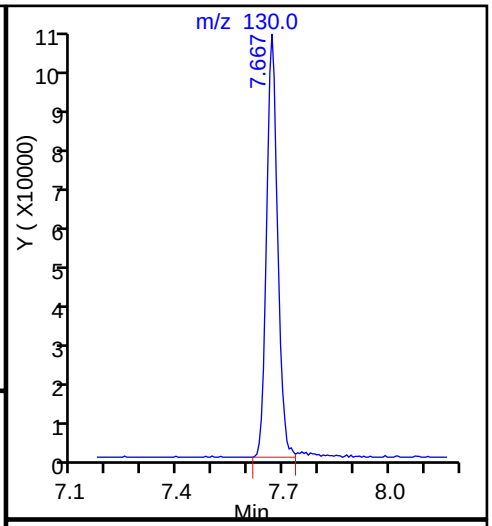
Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

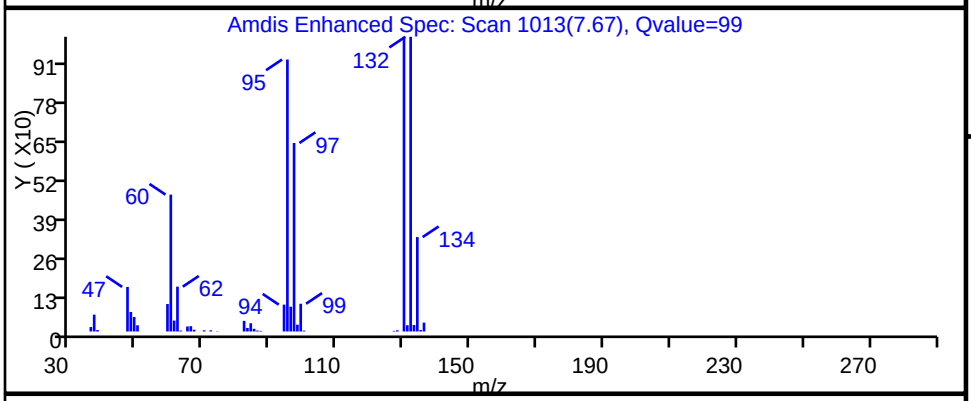
TestAmerica Pittsburgh

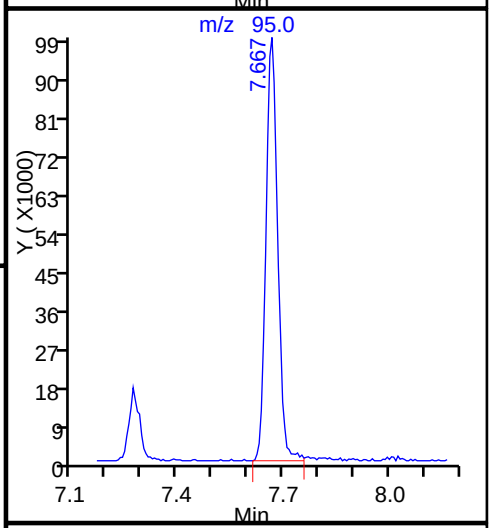
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D		
Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

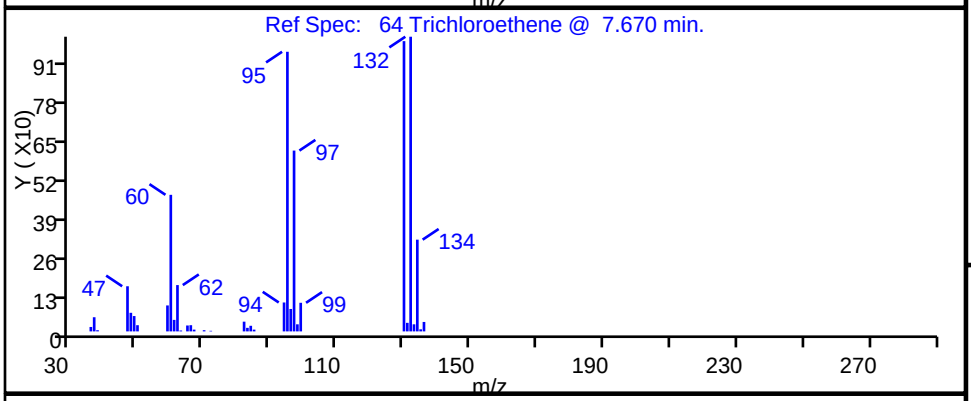
64 Trichloroethene, CAS: 79-01-6

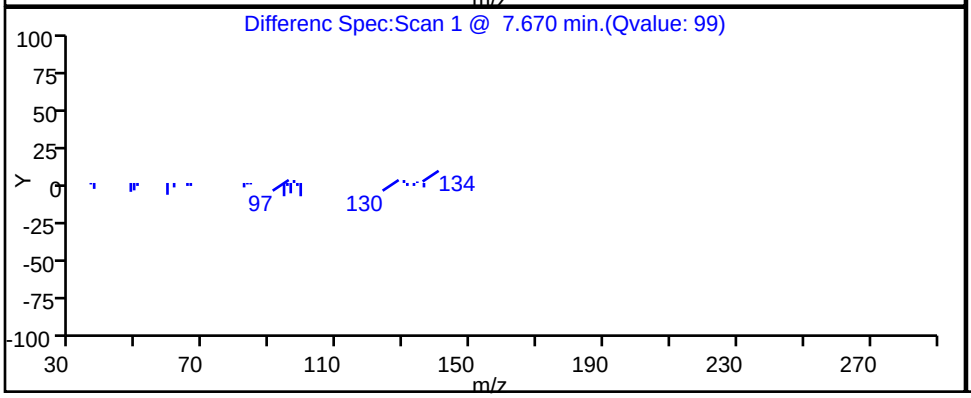


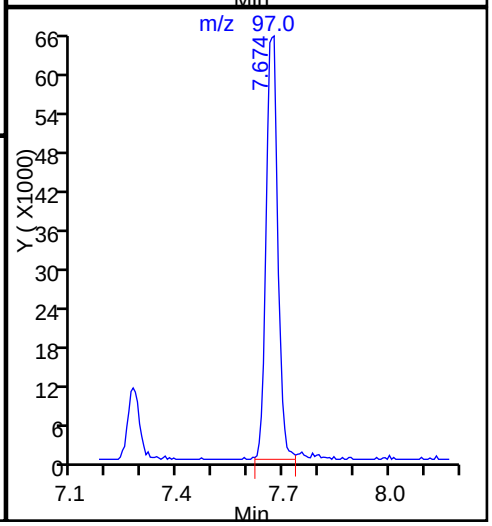










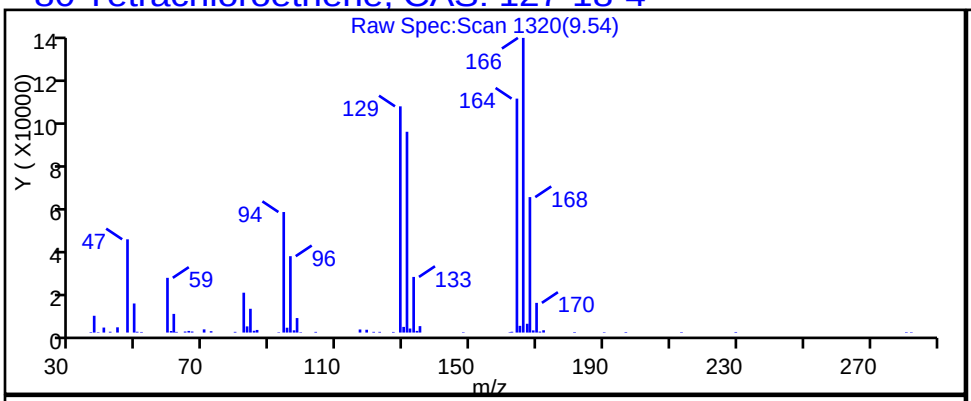


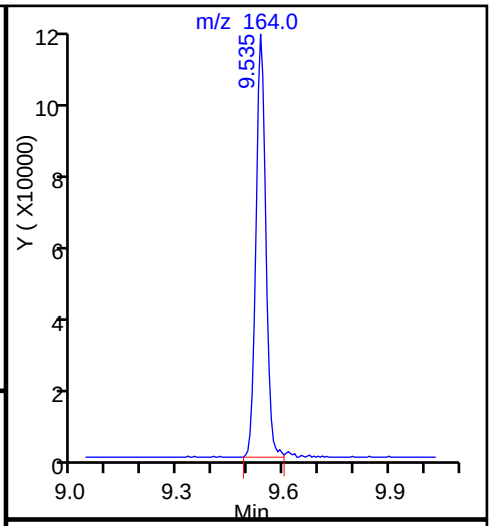
Report Date: 06-Mar-2015 08:47:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

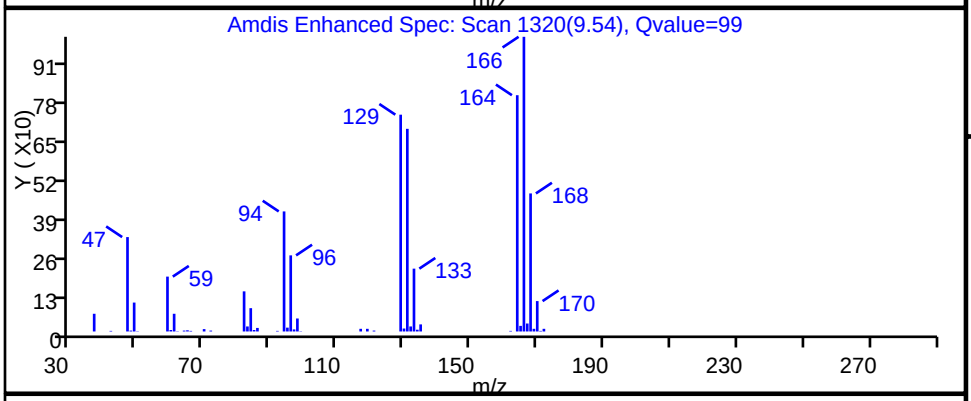
TestAmerica Pittsburgh

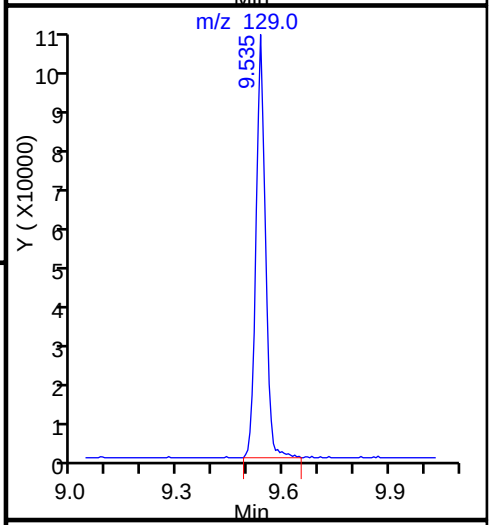
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305028.D		
Injection Date:	05-Mar-2015 21:13:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-3	Lab Sample ID:	180-41508-3
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

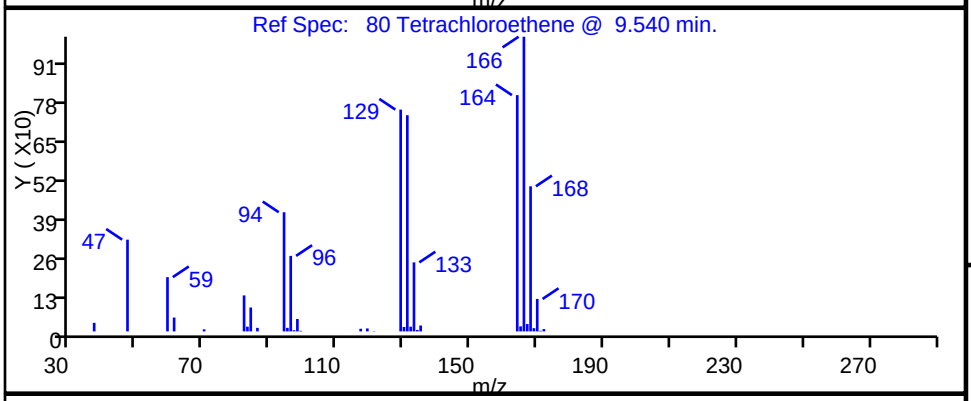
80 Tetrachloroethene, CAS: 127-18-4

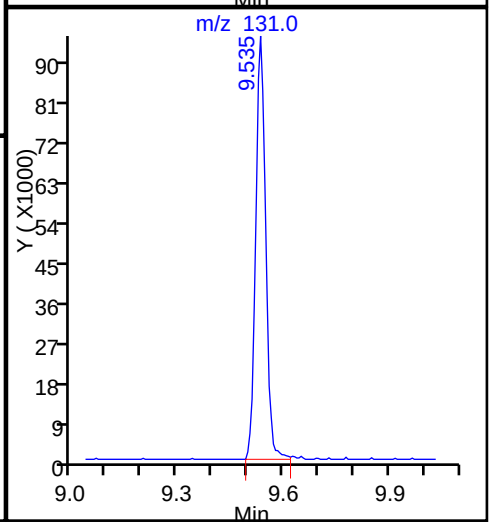


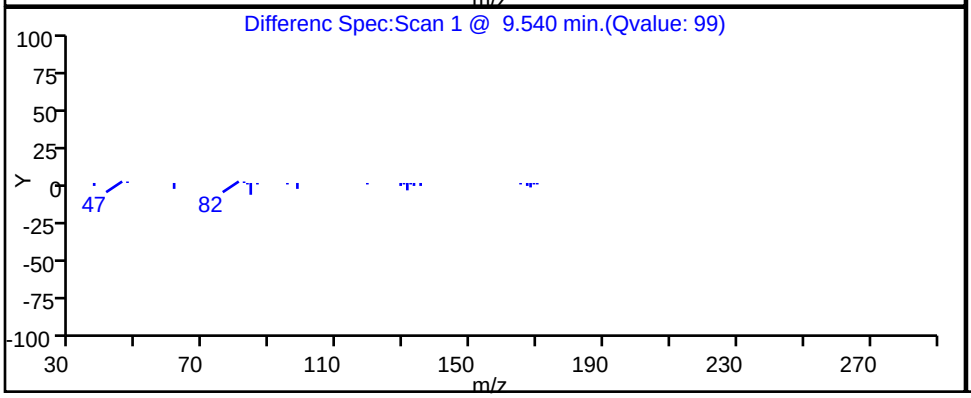












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 | Lab Sample ID: 180-41508-4

Matrix: Water | Lab File ID: 50305029.D

Analysis Method: 8260C | Date Collected: 02/25/2015 12:45

Sample wt/vol: 5(mL) | Date Analyzed: 03/05/2015 21:37

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 134814 | 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	3.0		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	0.21	J	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.7		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	40		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.21	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	5.6		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	39		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	35		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 Lab Sample ID: 180-41508-4

Matrix: Water Lab File ID: 50305029.D

Analysis Method: 8260C Date Collected: 02/25/2015 12:45

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 21:37

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 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)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D
Lims ID: 180-41508-E-4 Lab Sample ID: 180-41508-4
Client ID: HD-MW-99S-0/1-0
Sample Type: Client
Inject. Date: 05-Mar-2015 21:37:30 ALS Bottle#: 25 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-E-4
Misc. Info.: 180-0005905-029
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:50:17 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:50:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.292	4.299	-0.007	86	55883	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.274	-0.001	99	405088	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.365	-0.001	99	88541	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.682	-0.001	99	145919	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.524	6.532	-0.008	85	83165	48.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.897	0.005	99	104294	48.7	
$ 7 Toluene-d8 (Surr)	98	8.927	8.923	0.004	100	367598	53.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.533	-0.002	98	138815	54.1	
12 Chloromethane	50		1.775				ND	
13 Vinyl chloride	62		1.902				ND	
15 Bromomethane	94		2.249				ND	
16 Chloroethane	64		2.383				ND	
22 1,1-Dichloroethene	96	3.391	3.375	0.016	99	35152	14.9	
24 Acetone	43		3.496				ND	
26 Carbon disulfide	76		3.661				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96	4.578	4.561	0.017	3	2606	1.06	
35 Methyl tert-butyl ether	73		4.597				ND	
37 1,1-Dichloroethane	63	5.180	5.169	0.011	99	40272	8.57	
45 cis-1,2-Dichloroethene	96	5.940	5.942	-0.002	75	526204	199.5	
46 2-Butanone (MEK)	43		5.984				ND	
49 Chlorobromomethane	128		6.222				ND	
52 Chloroform	83	6.342	6.337	0.005	45	4019	1.07	
53 1,1,1-Trichloroethane	97	6.536	6.532	0.004	86	70865	27.9	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.668	7.663	0.005	99	465445	193.1	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.193				ND	
74 cis-1,3-Dichloropropene	75		8.661				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.397				ND	
80 Tetrachloroethene	164	9.536	9.537	-0.001	99	293161	173.8	
82 2-Hexanone	43		9.659				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.902				ND	
87 Chlorobenzene	112		10.395				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.498				ND	
91 m-Xylene & p-Xylene	106	10.619	10.620	-0.002	1	1258	0.3018	
92 o-Xylene	106	11.008	11.009	-0.001	1	548	0.1355	
93 Styrene	104		11.028				ND	
94 Bromoform	173		11.216				ND	
99 1,1,2,2-Tetrachloroethane	83		11.679				ND	
S 133 Xylenes, Total	106				0		0.4372	

Reagents:

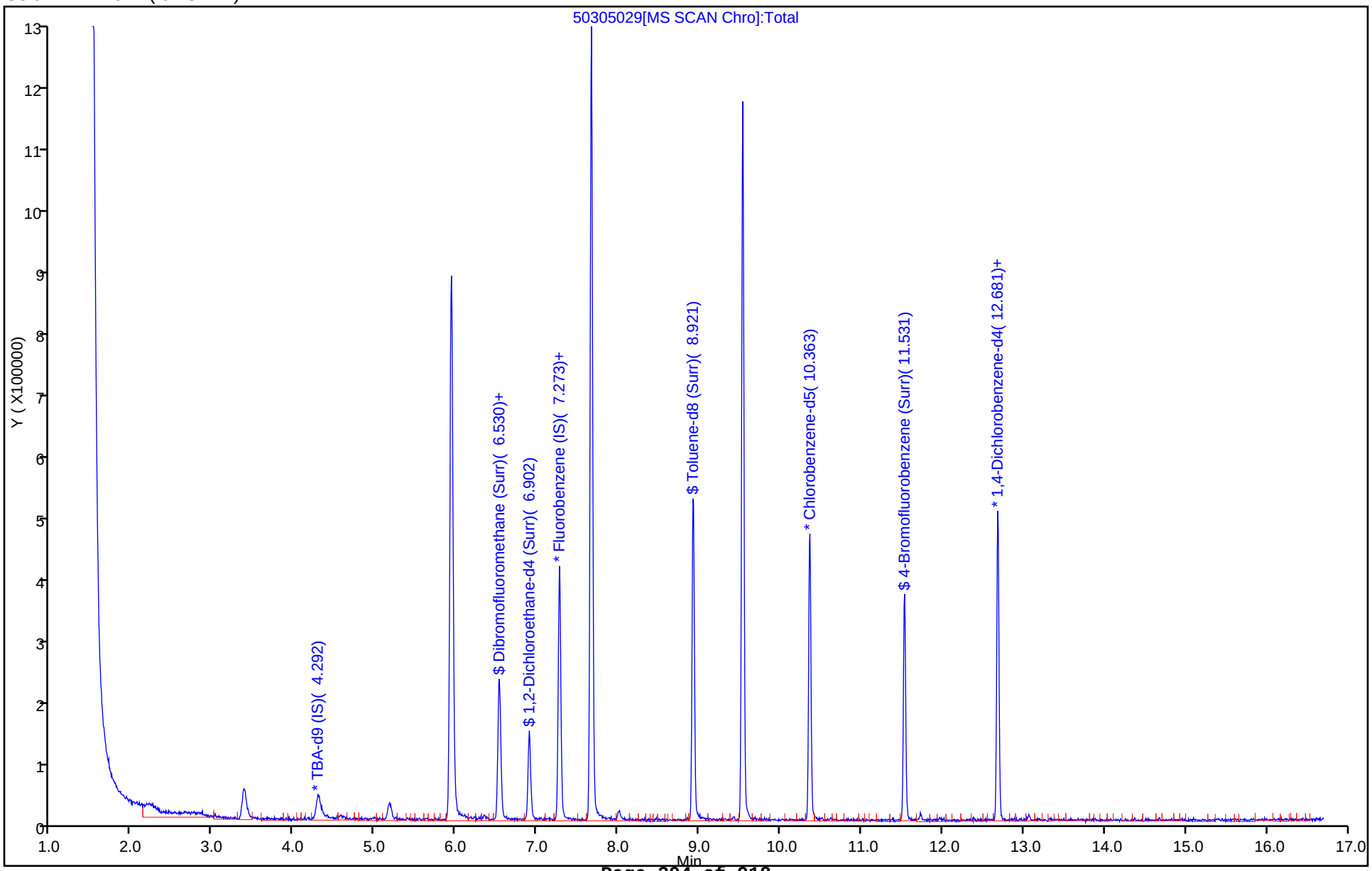
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D				
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4	Worklist Smp#:	29
Client ID:	HD-MW-99S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

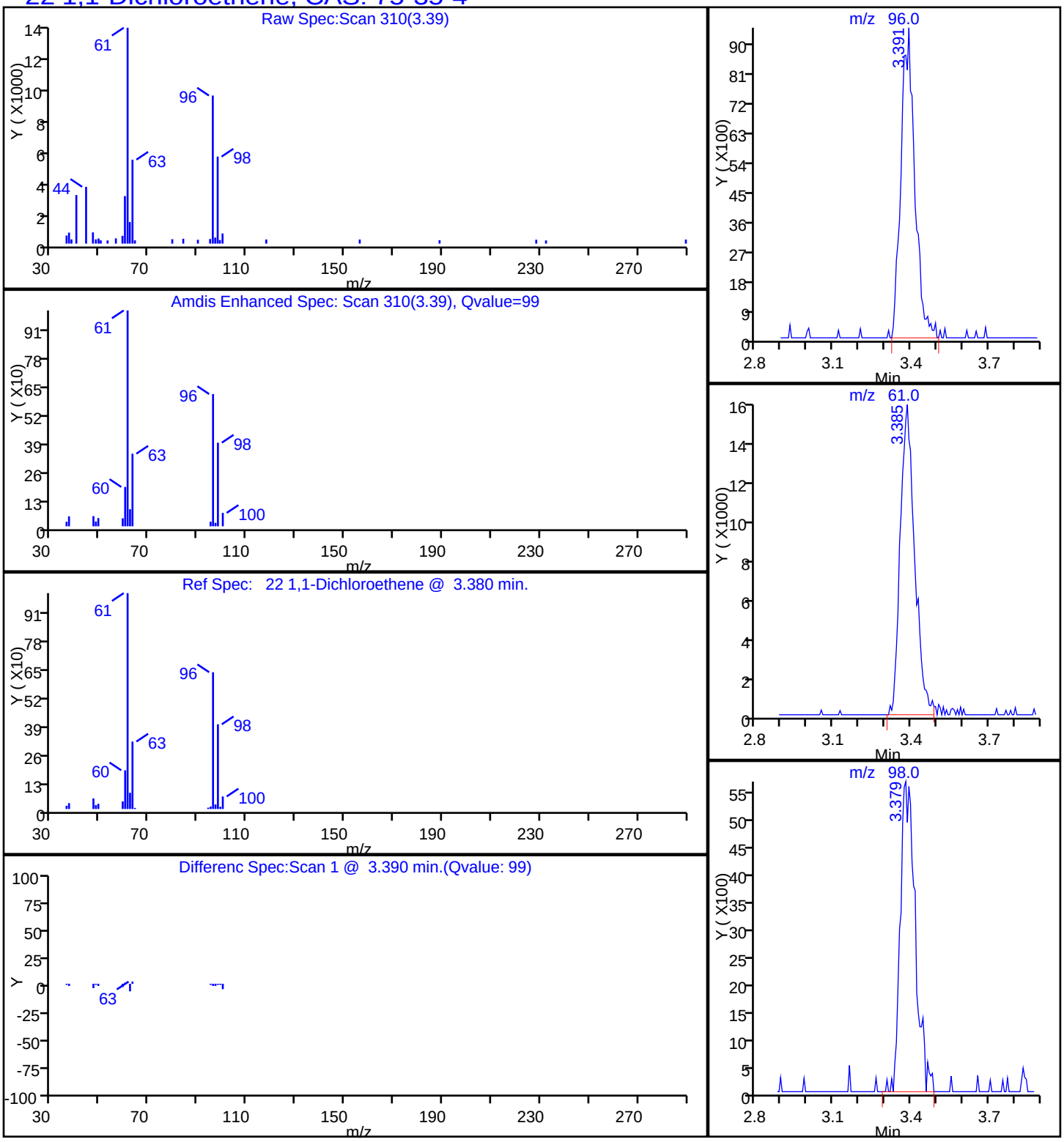


Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D		
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	25 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

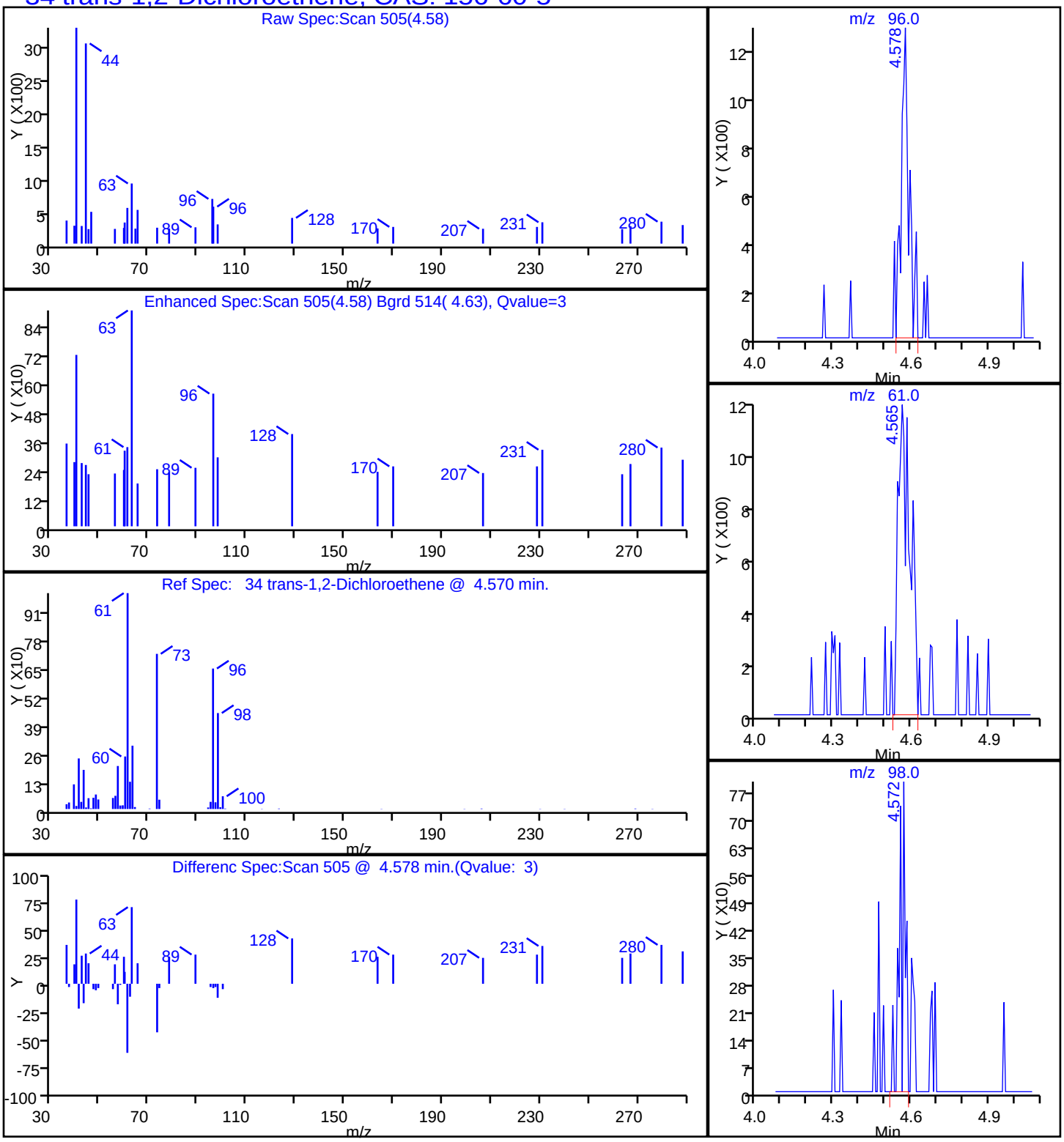


Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D				
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



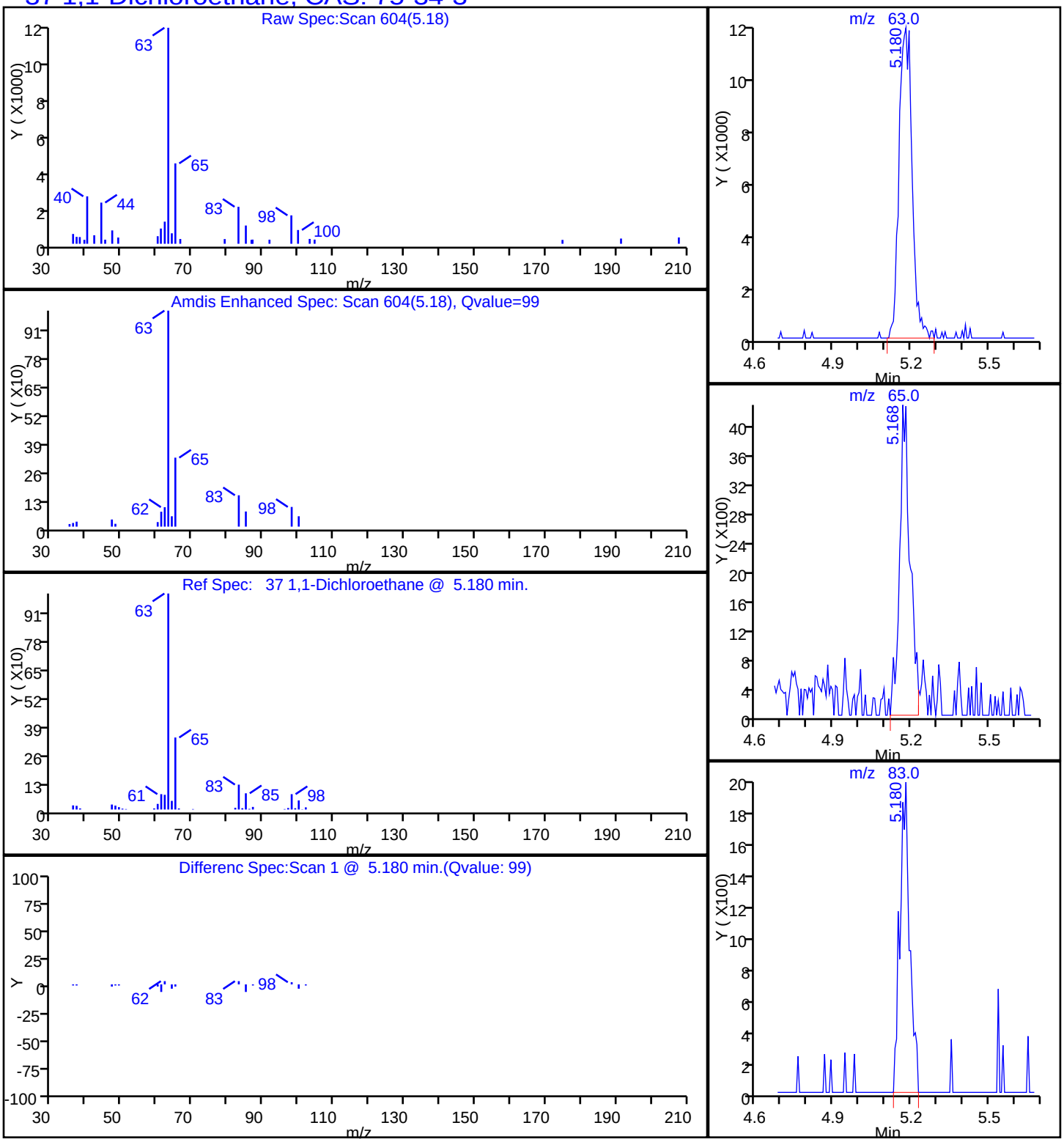
Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D

Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	25 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



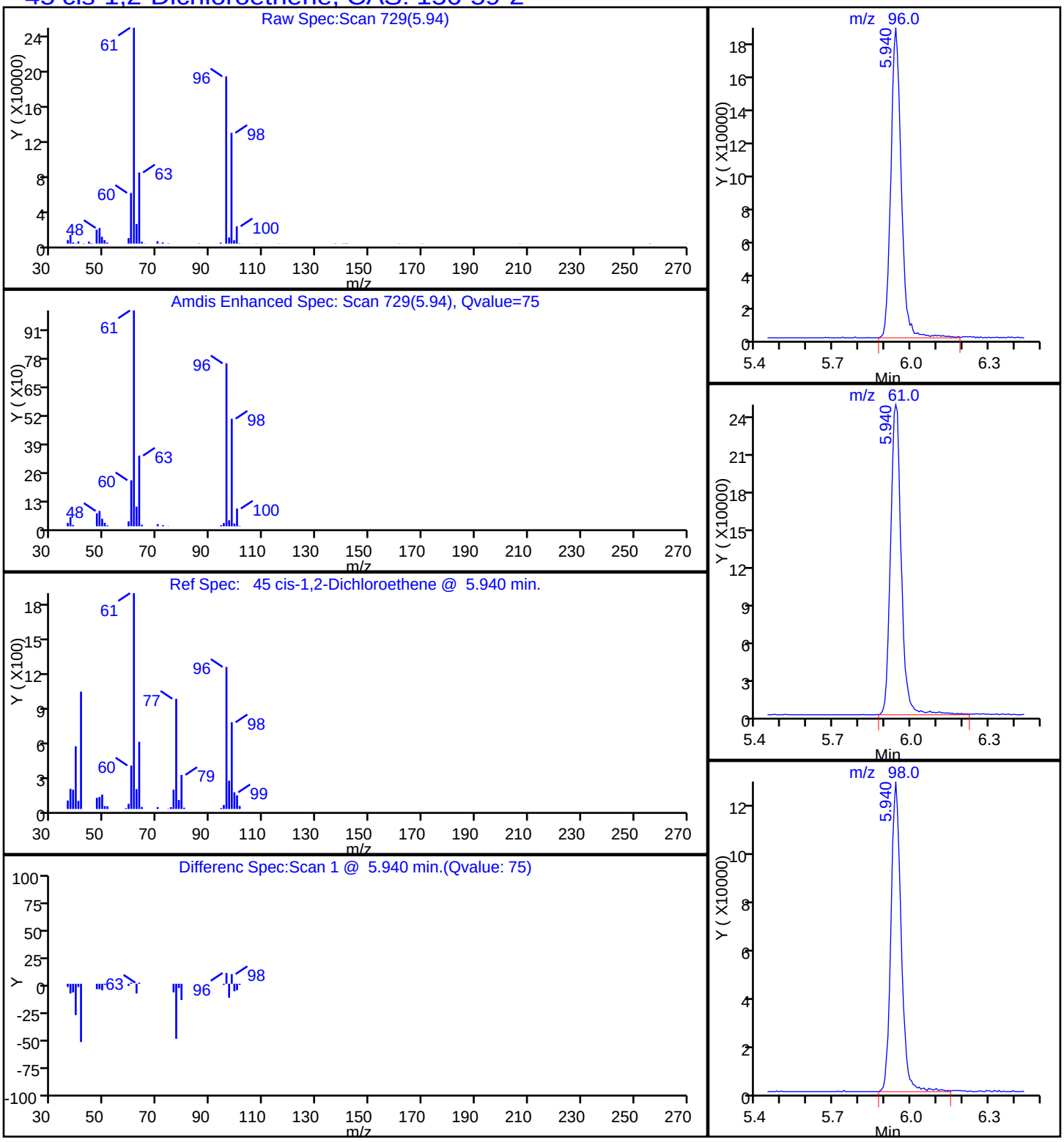
Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D

Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

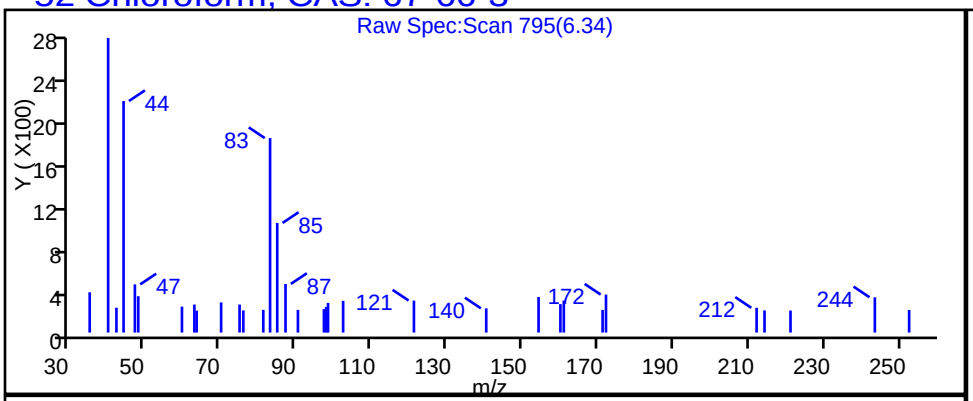


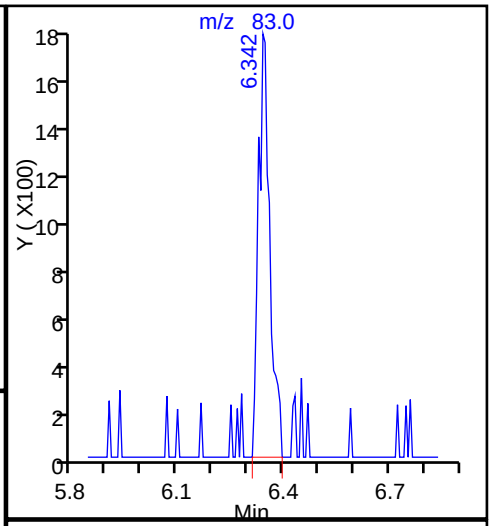
Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

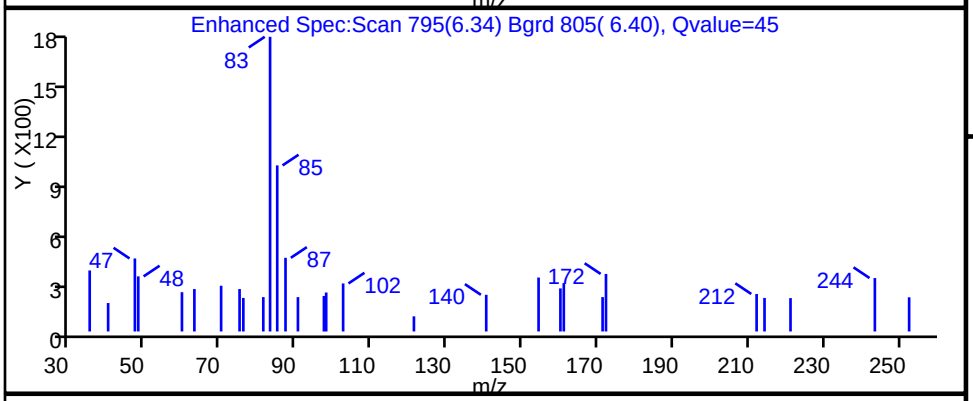
TestAmerica Pittsburgh

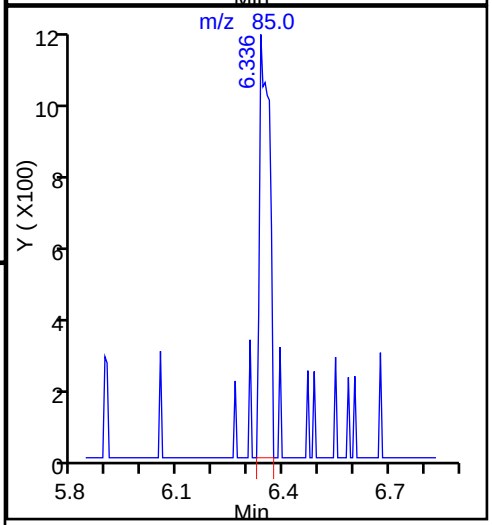
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D				
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

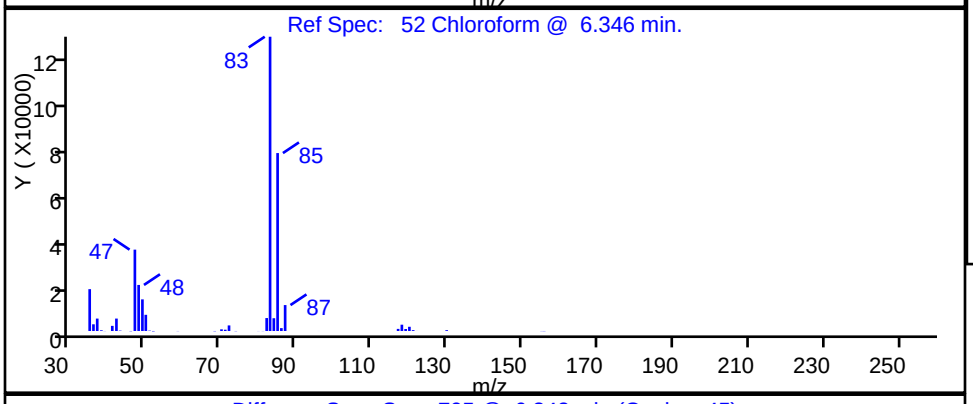
52 Chloroform, CAS: 67-66-3

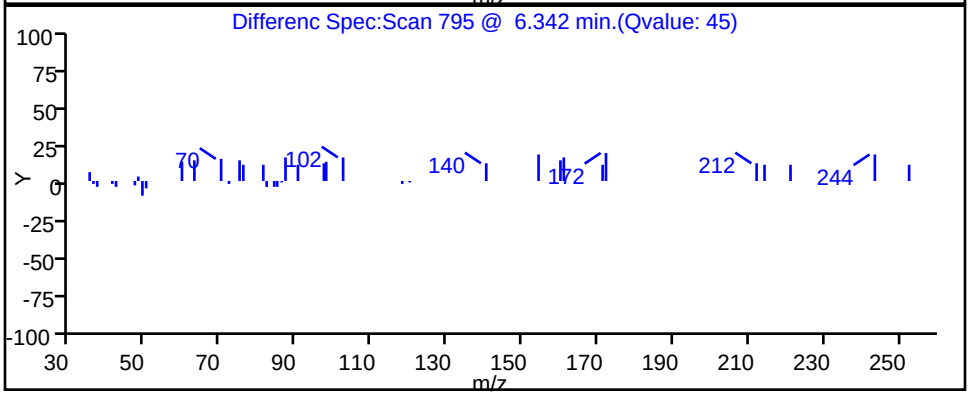










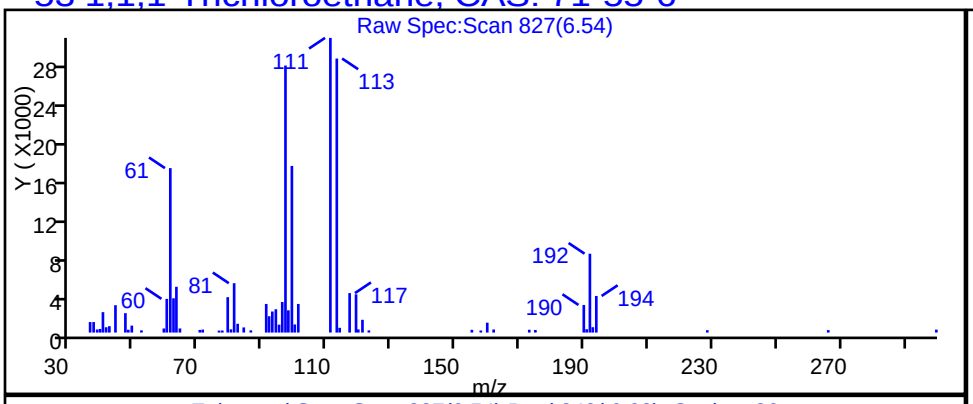


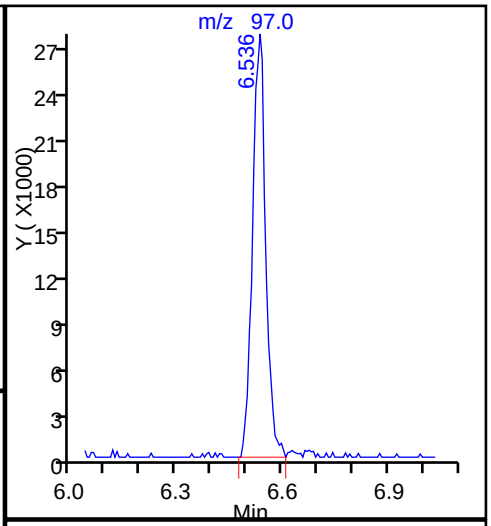
Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

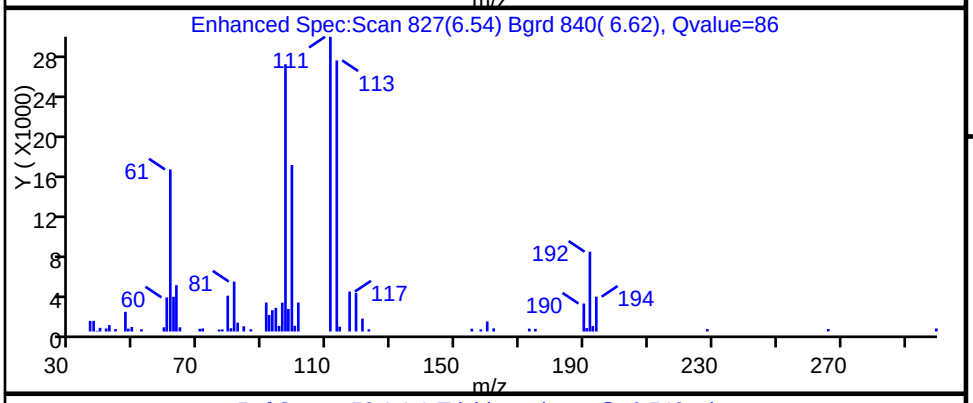
TestAmerica Pittsburgh

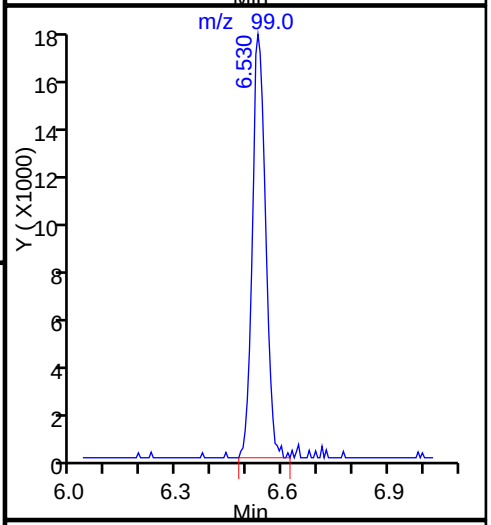
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D				
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

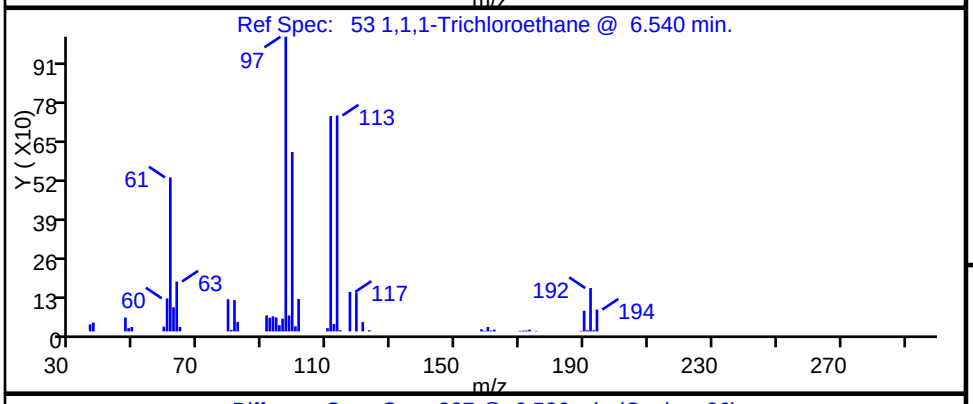
53 1,1,1-Trichloroethane, CAS: 71-55-6

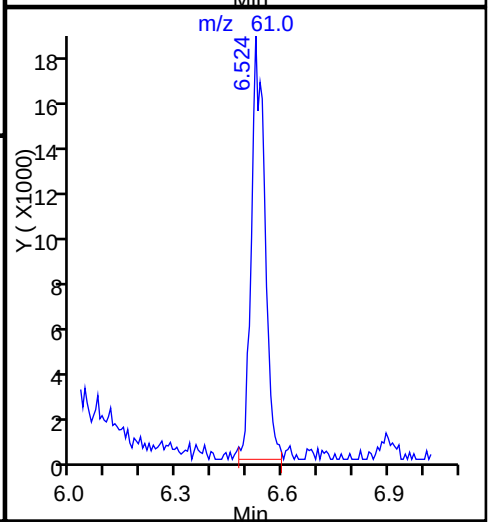


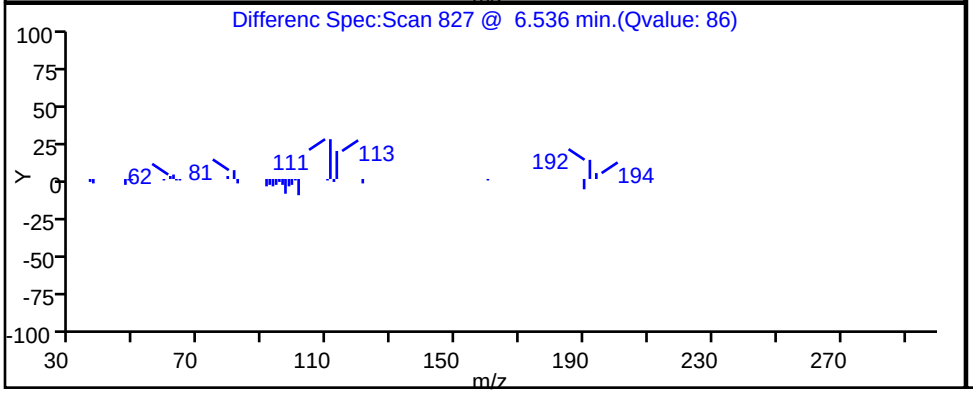










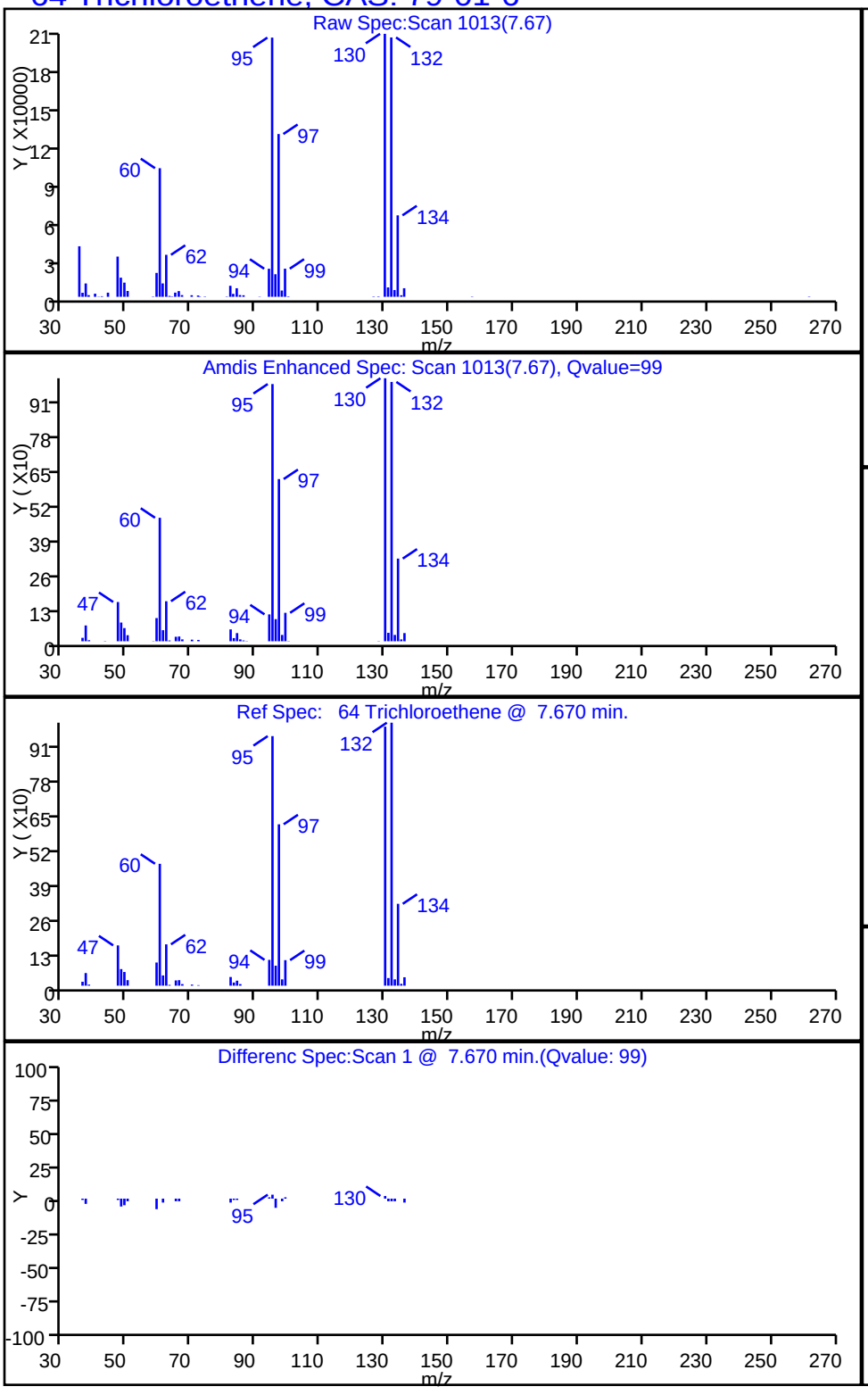


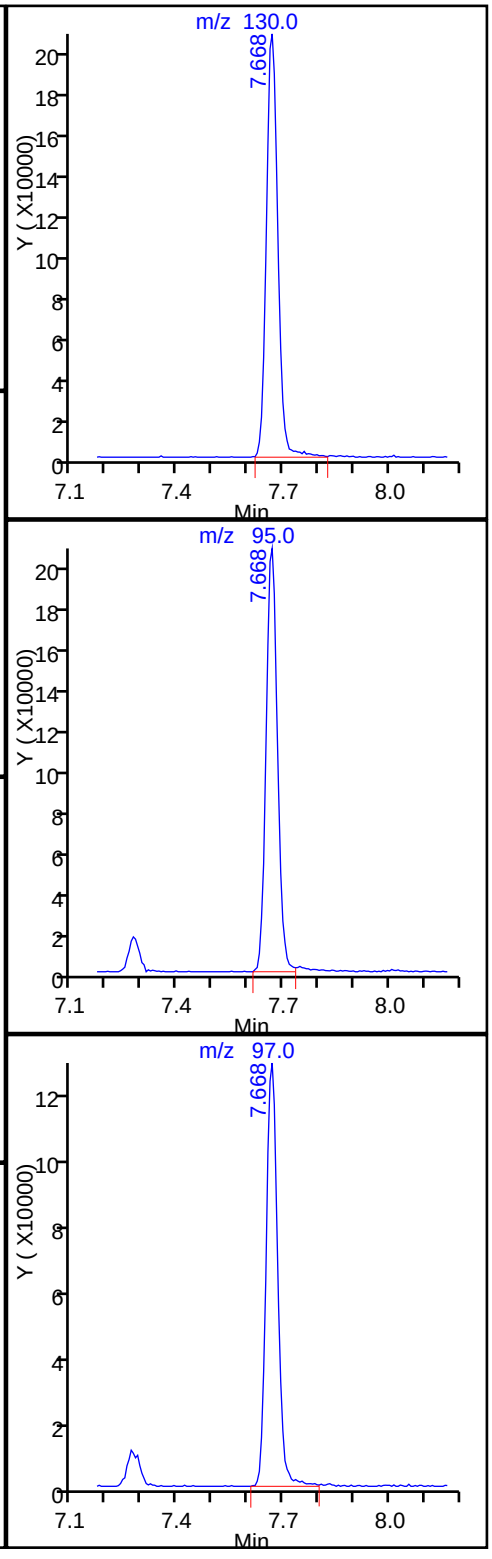
Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D				
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



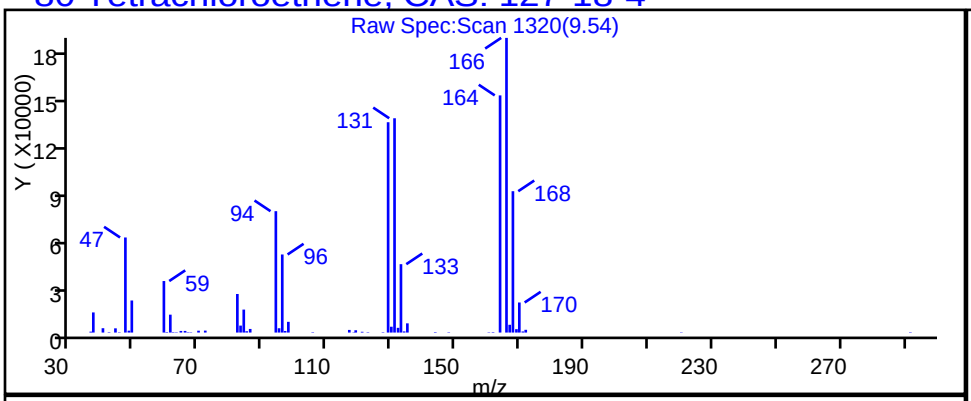


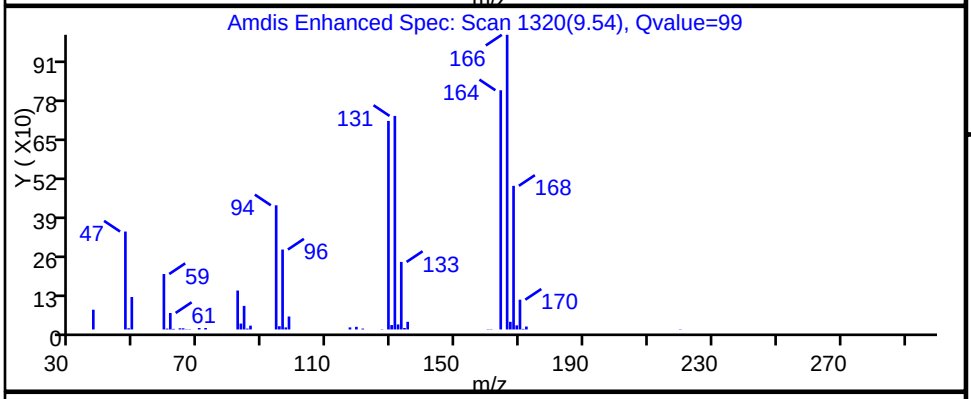
Report Date: 06-Mar-2015 08:50:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

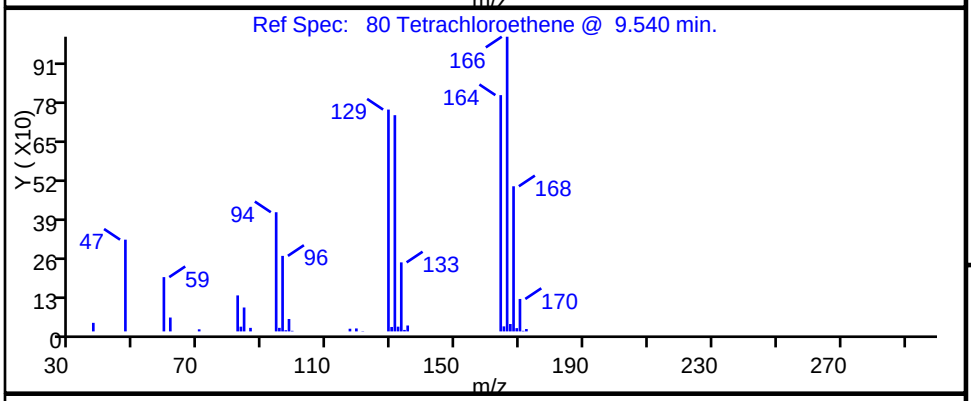
TestAmerica Pittsburgh

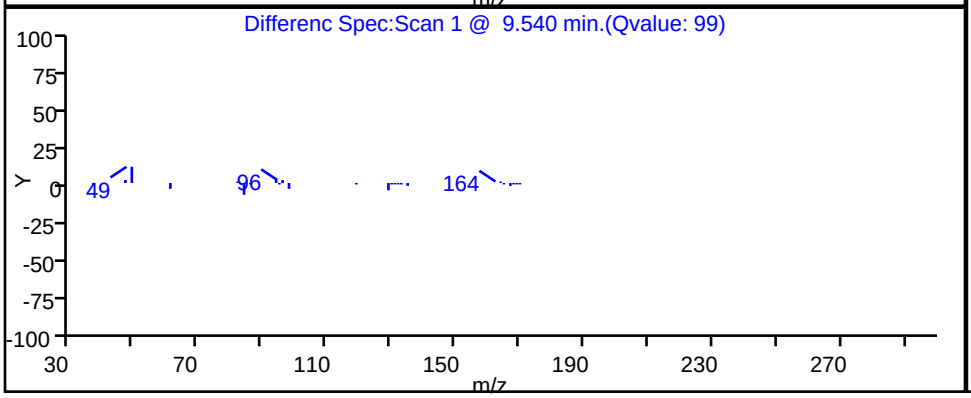
Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305029.D				
Injection Date:	05-Mar-2015 21:37:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

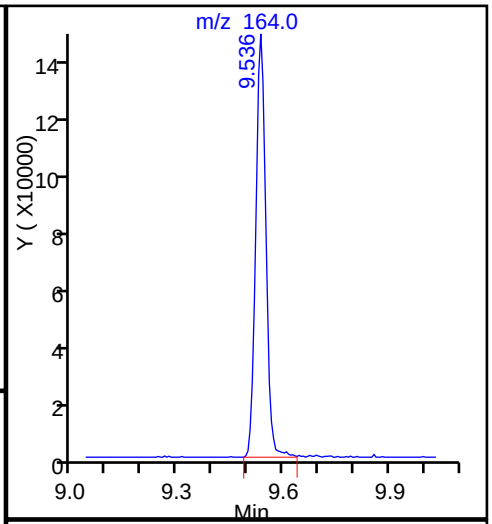
80 Tetrachloroethene, CAS: 127-18-4

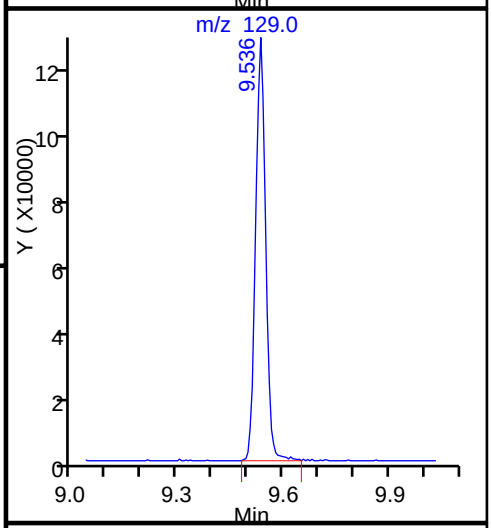


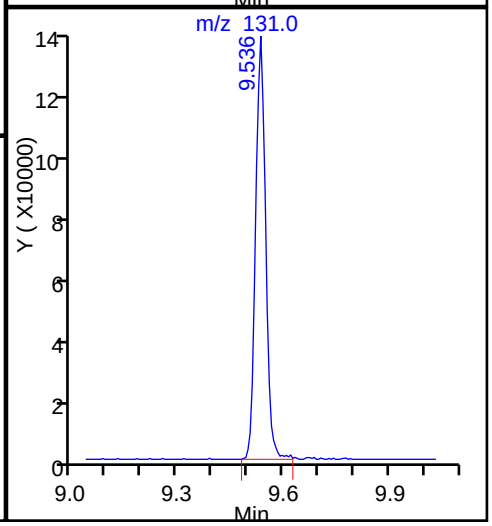












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 Lab Sample ID: 180-41508-5

Matrix: Water Lab File ID: 60305023.D

Analysis Method: 8260C Date Collected: 02/25/2015 13:35

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 19:49

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.: 134823 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	9.0		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	1.9	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	47		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	7.6		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	150		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	16		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 Lab Sample ID: 180-41508-5

Matrix: Water Lab File ID: 60305023.D

Analysis Method: 8260C Date Collected: 02/25/2015 13:35

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 19:49

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.: 134823 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)	111		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)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D
Lims ID: 180-41508-E-5 Lab Sample ID: 180-41508-5
Client ID: HD-MW-99D-0/1-0
Sample Type: Client
Inject. Date: 05-Mar-2015 19:49:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-41508-E-5, 5x
Misc. Info.: 180-0005907-023
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 09:13:41 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 09:13:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.267	4.281	-0.014	90	245993	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.323	0.004	98	538646	50.0	
* 3 Chlorobenzene-d5	119	10.442	10.438	0.004	88	105224	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.792	-0.002	98	182701	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.593	0.010	94	129817	53.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.970	0.004	70	192885	55.3	
$ 7 Toluene-d8 (Surr)	98	8.982	8.978	0.004	93	458648	55.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.630	-0.002	88	163570	46.4	
12 Chloromethane	50		1.757				ND	
13 Vinyl chloride	62		1.890				ND	
15 Bromomethane	94		2.237				ND	
16 Chloroethane	64		2.371				ND	
22 1,1-Dichloroethene	96	3.391	3.363	0.028	94	27086	8.96	
24 Acetone	43		3.454				ND	
26 Carbon disulfide	76		3.667				ND	
31 Methylene Chloride	84		4.172				ND	
33 Acrylonitrile	53		4.537				ND	
34 trans-1,2-Dichloroethene	96	4.620	4.604	0.016	1	1429	0.3925	
35 Methyl tert-butyl ether	73		4.610				ND	
37 1,1-Dichloroethane	63	5.240	5.236	0.004	53	13493	1.92	
44 2-Butanone (MEK)	43		5.979				ND	
43 cis-1,2-Dichloroethene	96	5.982	5.985	-0.003	82	181039	46.9	
48 Chlorobromomethane	128		6.271				ND	
50 Chloroform	83	6.420	6.410	0.010	5	1388	0.2289	
51 1,1,1-Trichloroethane	97	6.591	6.581	0.010	50	35272	7.63	
53 Carbon tetrachloride	117		6.757				ND	
56 Benzene	78		6.976				ND	
57 1,2-Dichloroethane	62		7.061				ND	
61 Trichloroethene	130	7.722	7.718	0.004	96	460844	151.3	
64 1,2-Dichloropropane	63		7.986				ND	
65 1,4-Dioxane	88		8.071				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.266				ND	
71 cis-1,3-Dichloropropene	75		8.716				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.856				ND	
73 Toluene	91		9.045				ND	
74 trans-1,3-Dichloropropene	75		9.288				ND	
76 1,1,2-Trichloroethane	97		9.489				ND	
77 Tetrachloroethene	164	9.572	9.568	0.004	98	31029	16.2	
79 2-Hexanone	43		9.689				ND	
81 Chlorodibromomethane	129		9.866				ND	
82 Ethylene Dibromide	107		9.981				ND	
84 Chlorobenzene	112		10.468				ND	
86 1,1,1,2-Tetrachloroethane	131		10.559				ND	
87 Ethylbenzene	106		10.565				ND	
88 m-Xylene & p-Xylene	106		10.693				ND	
89 o-Xylene	106		11.076				ND	
90 Styrene	104		11.101				ND	
91 Bromoform	173		11.283				ND	
96 1,1,2,2-Tetrachloroethane	83		11.758				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

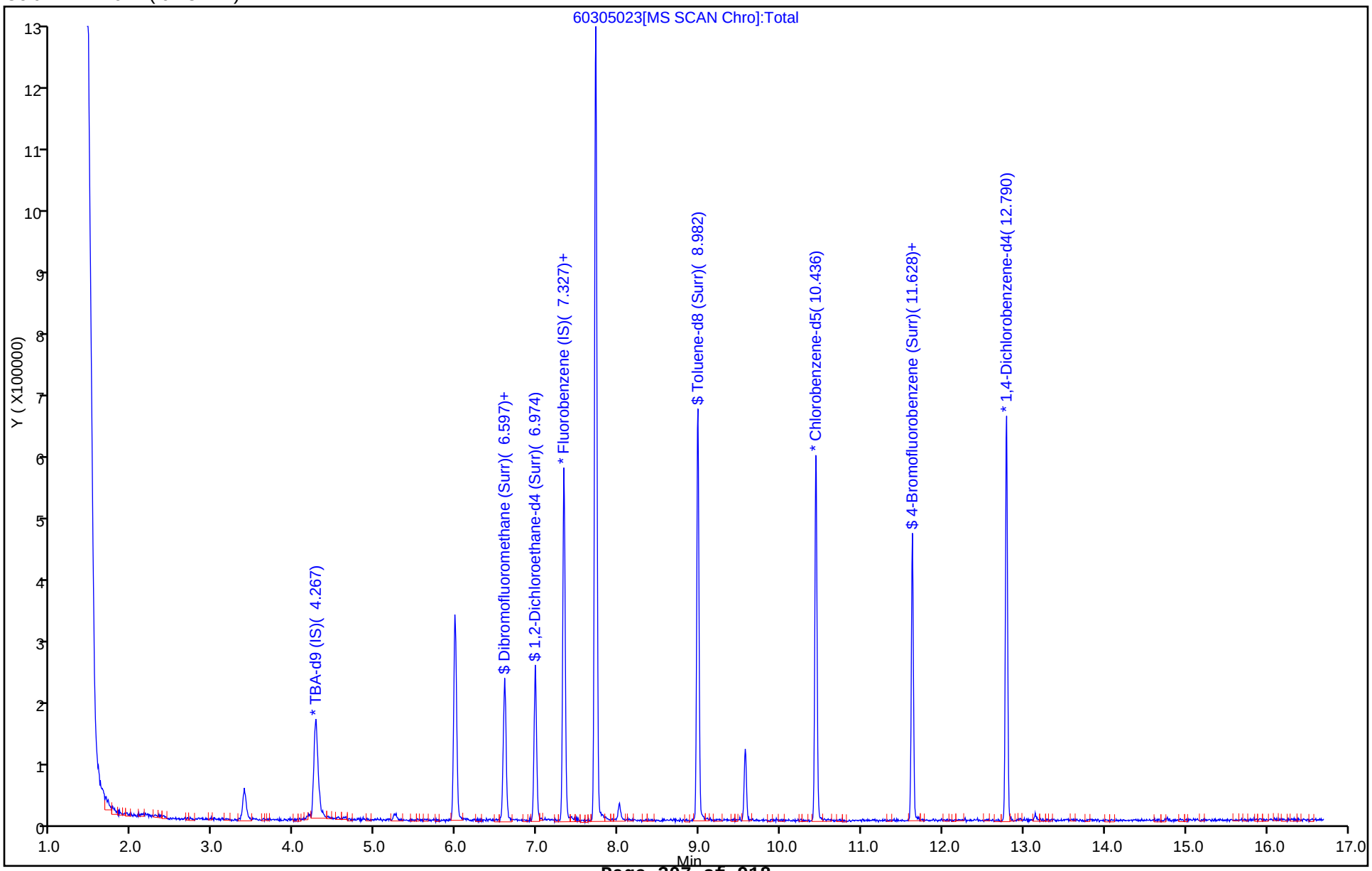
Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D

Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5	Worklist Smp#:	23
Client ID:	HD-MW-99D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



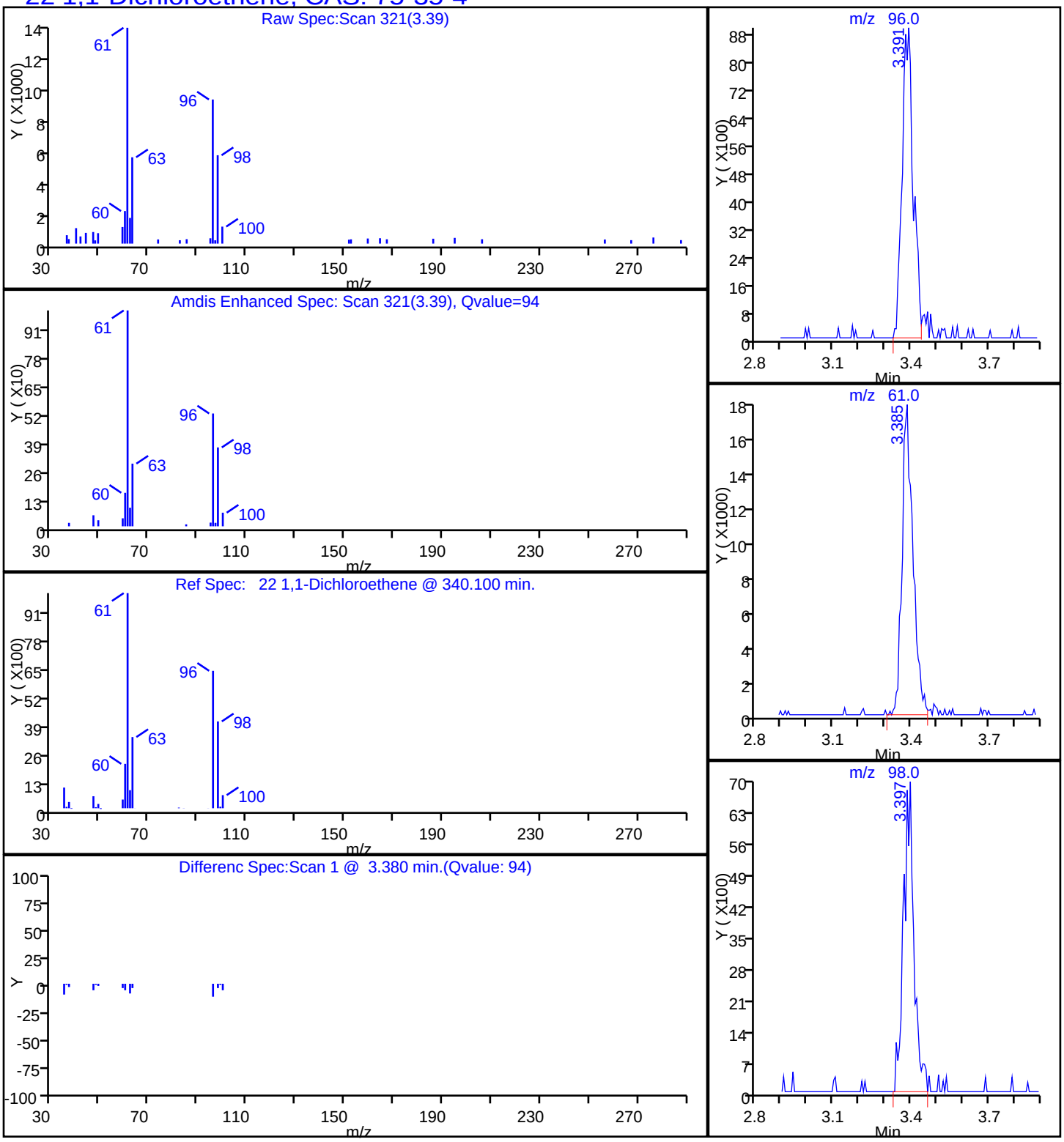
Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D

Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5		
Client ID:	HD-MW-99D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



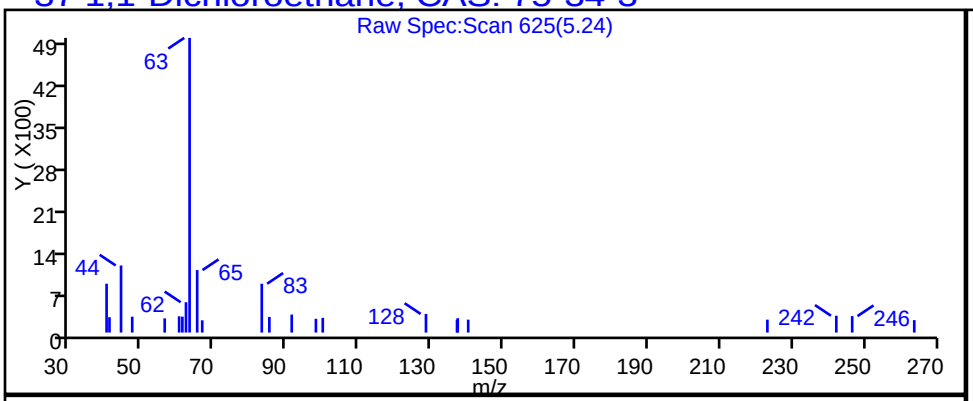
Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

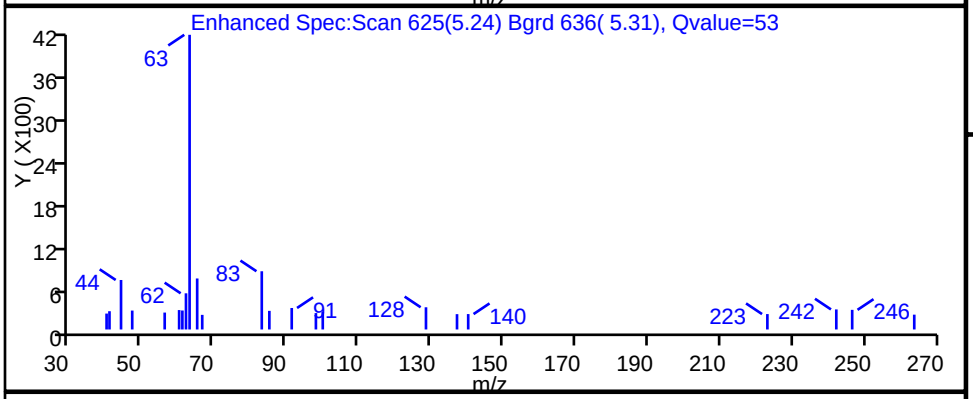
TestAmerica Pittsburgh

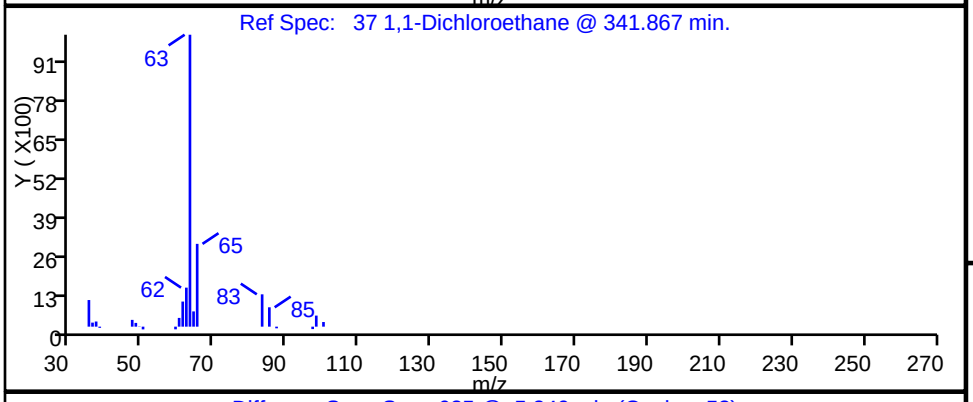
Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D

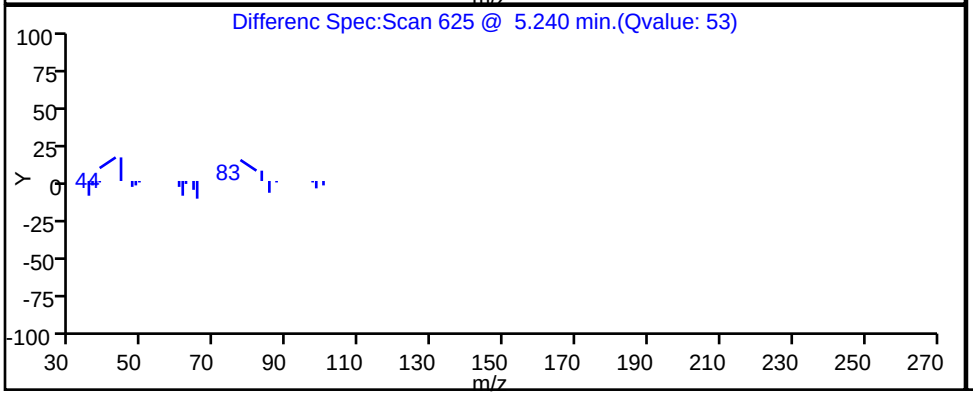
Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	23 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

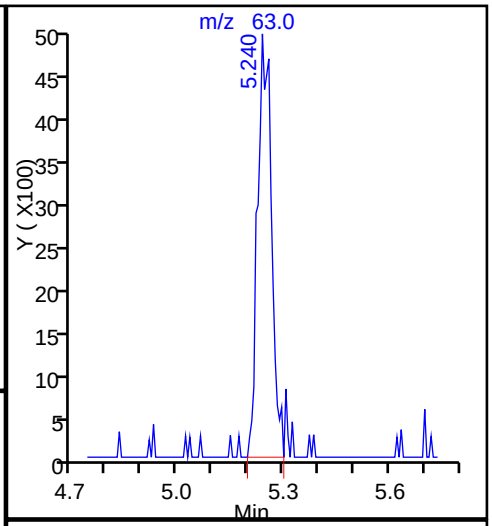
37 1,1-Dichloroethane, CAS: 75-34-3

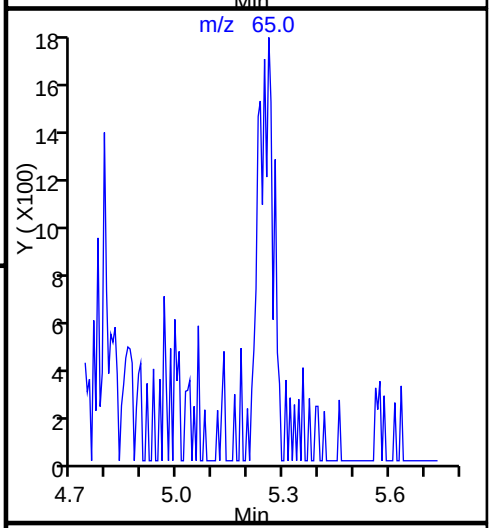


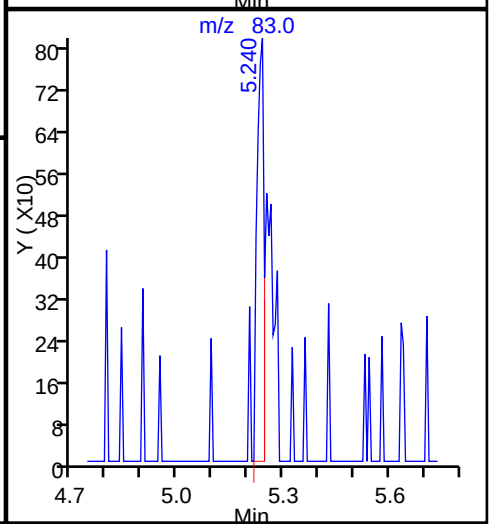










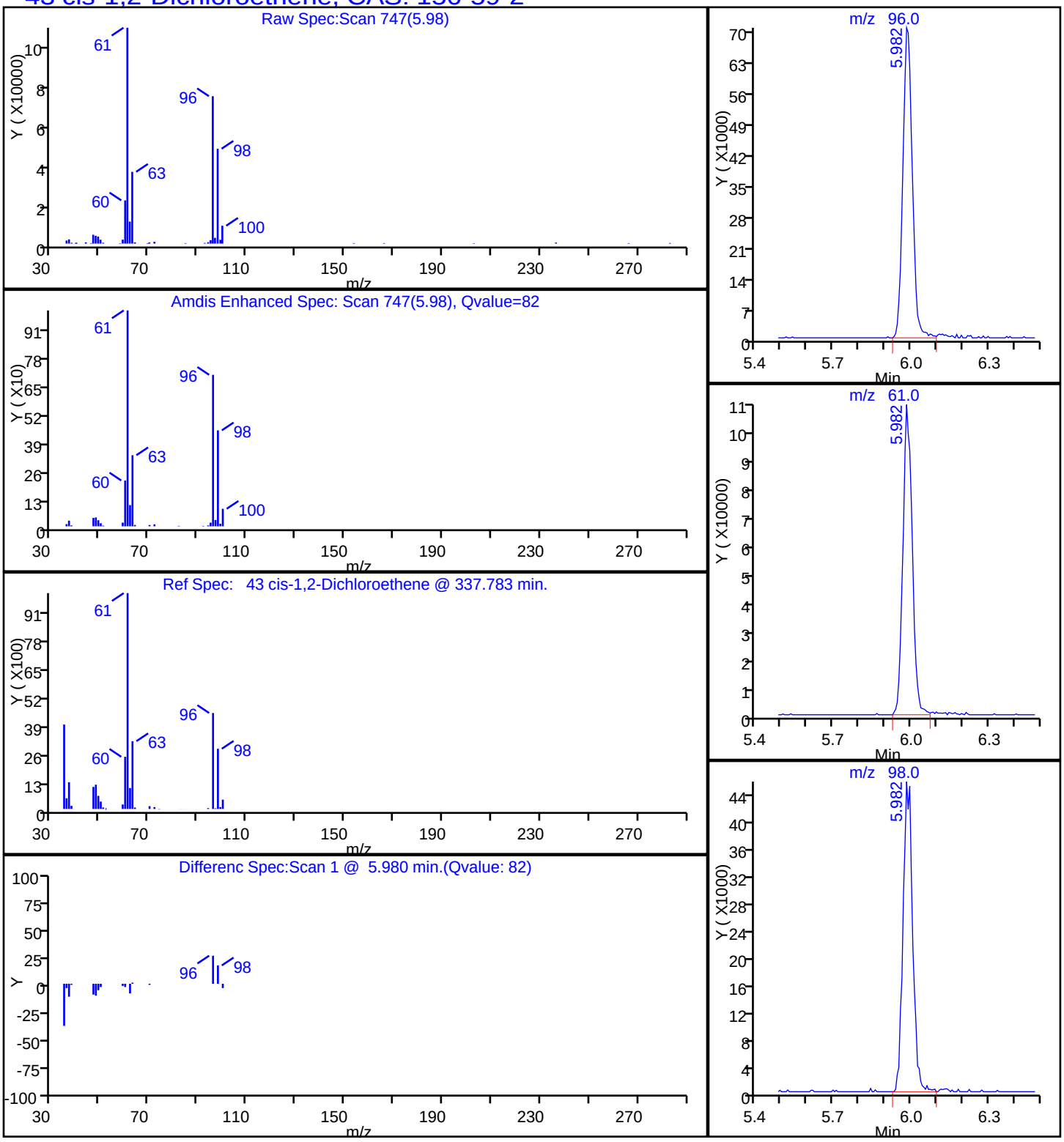


Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D				
Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5		
Client ID:	HD-MW-99D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



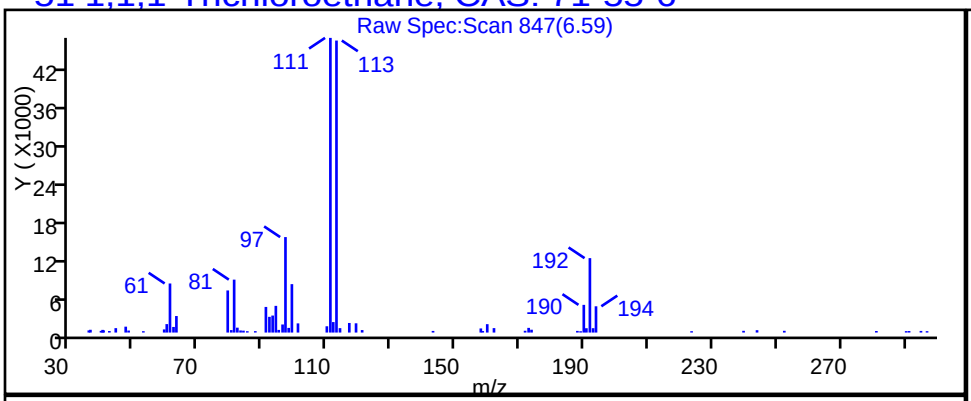
Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

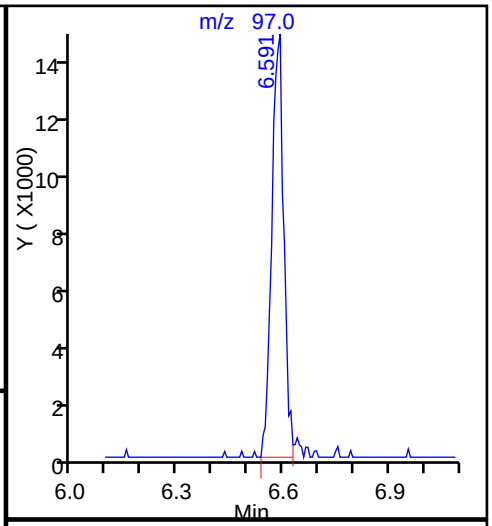
TestAmerica Pittsburgh

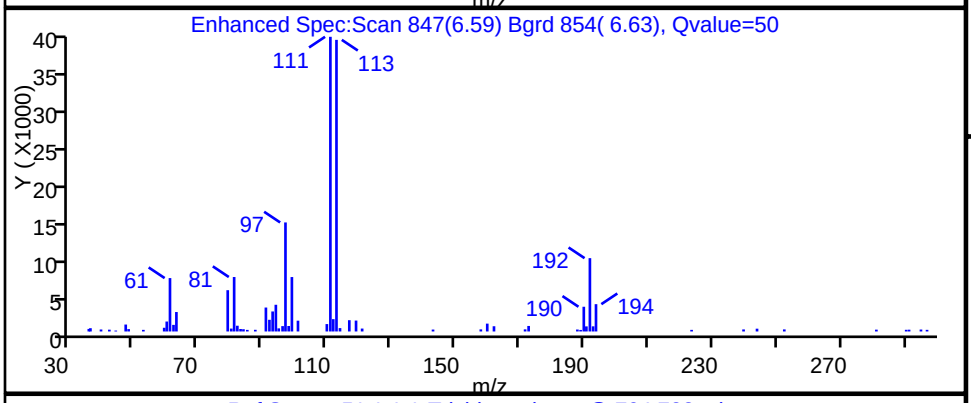
Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D

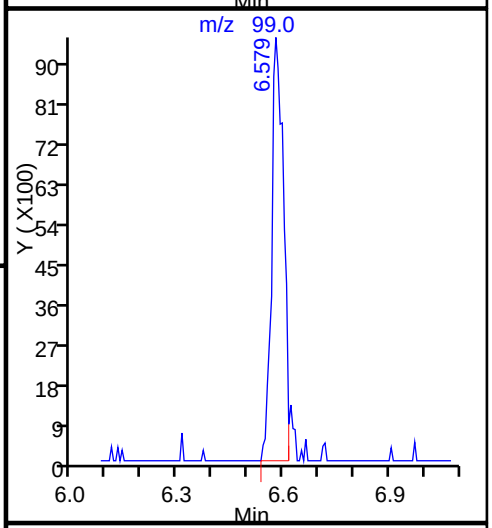
Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5		
Client ID:	HD-MW-99D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

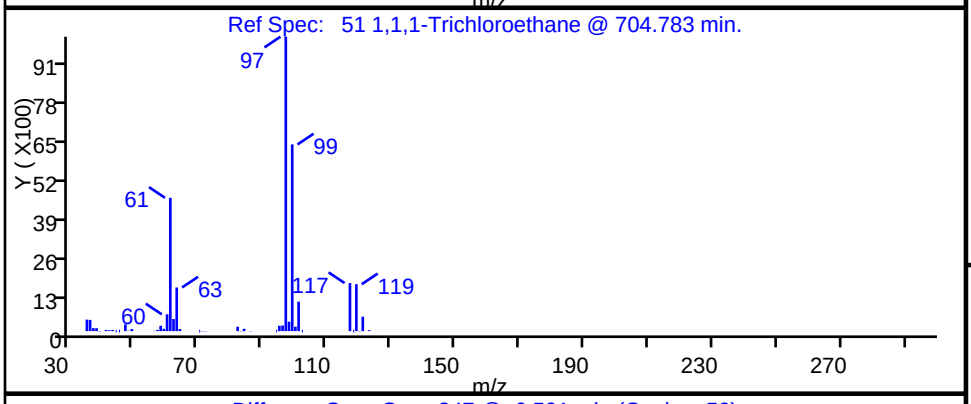
51 1,1,1-Trichloroethane, CAS: 71-55-6

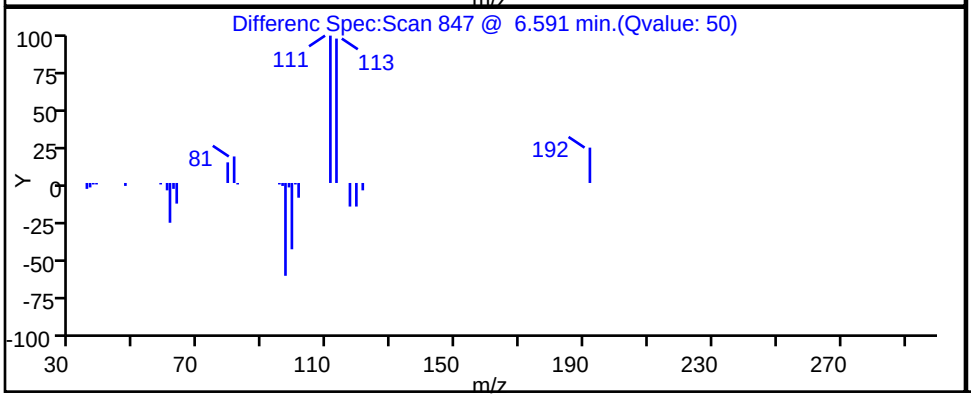


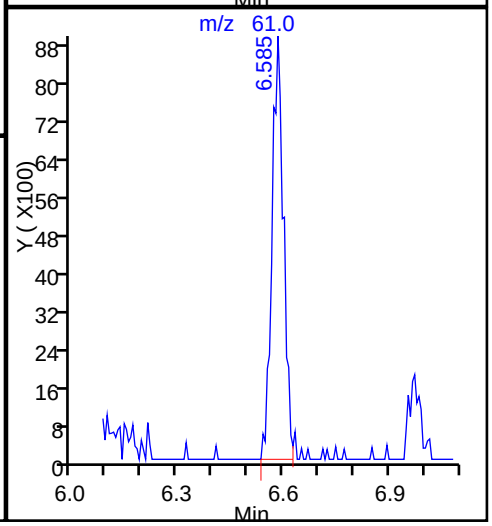










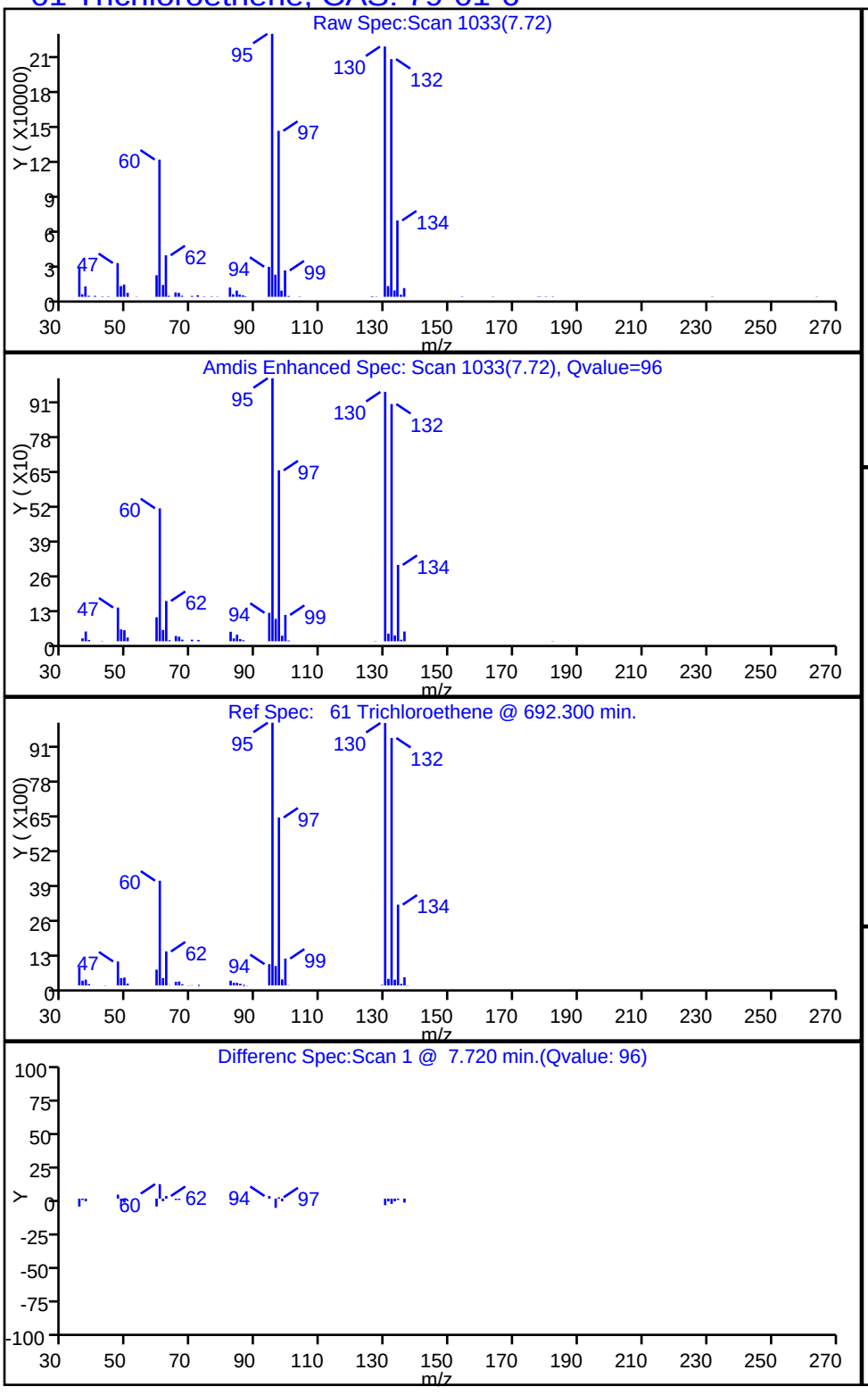


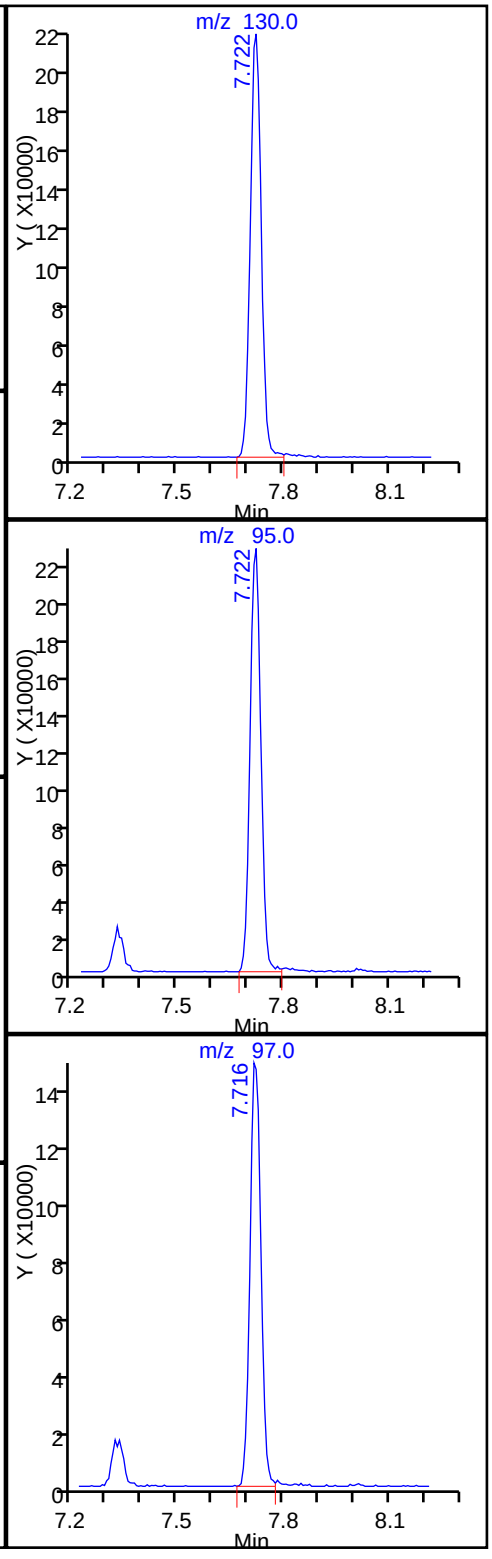
Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D				
Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5		
Client ID:	HD-MW-99D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

61 Trichloroethene, CAS: 79-01-6





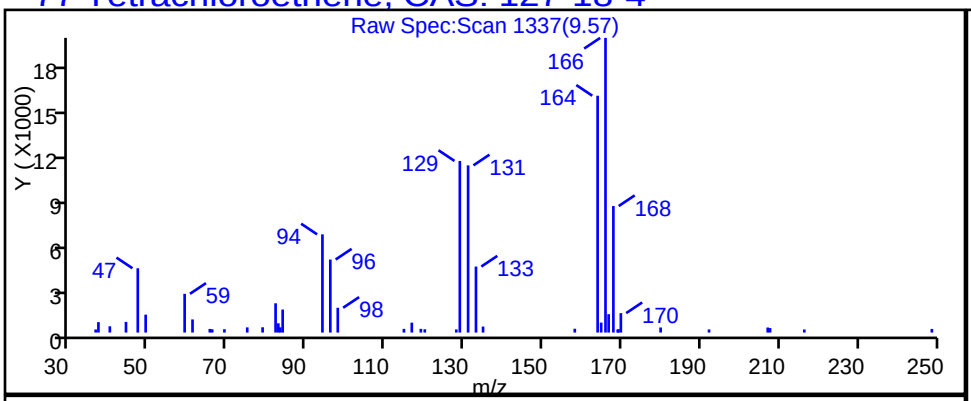
Report Date: 06-Mar-2015 09:13:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

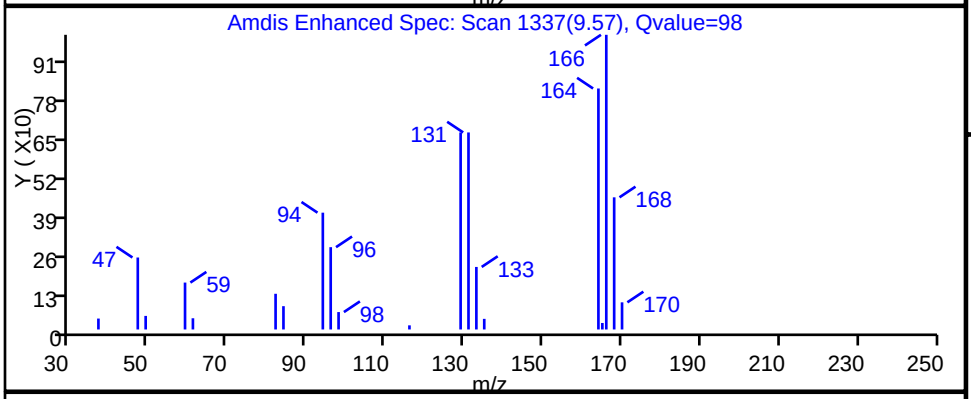
TestAmerica Pittsburgh

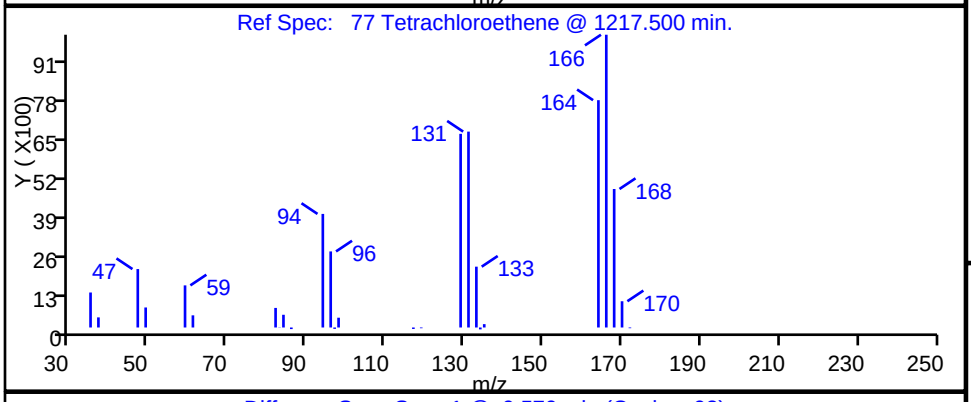
Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305023.D

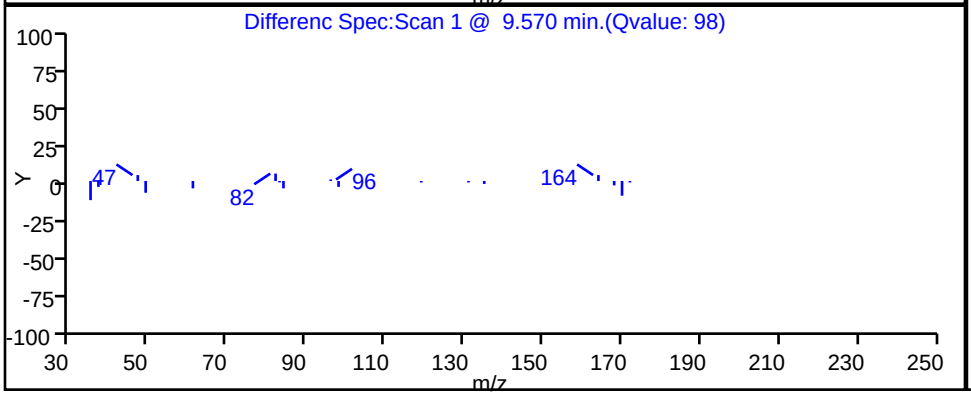
Injection Date:	05-Mar-2015 19:49:30	Instrument ID:	CHHP6
Lims ID:	180-41508-E-5	Lab Sample ID:	180-41508-5
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	23 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

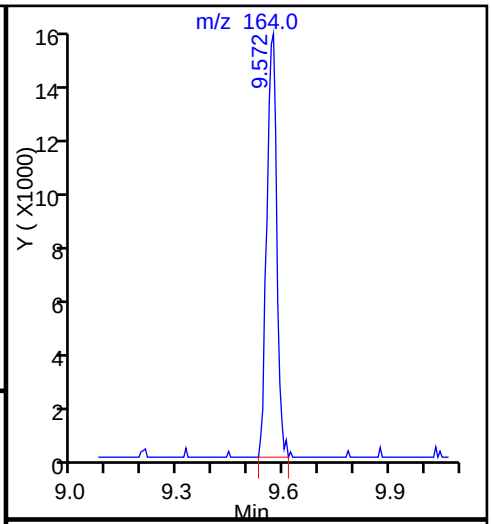
77 Tetrachloroethene, CAS: 127-18-4

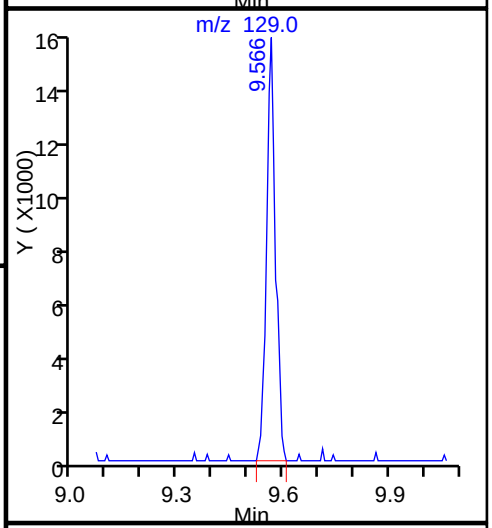


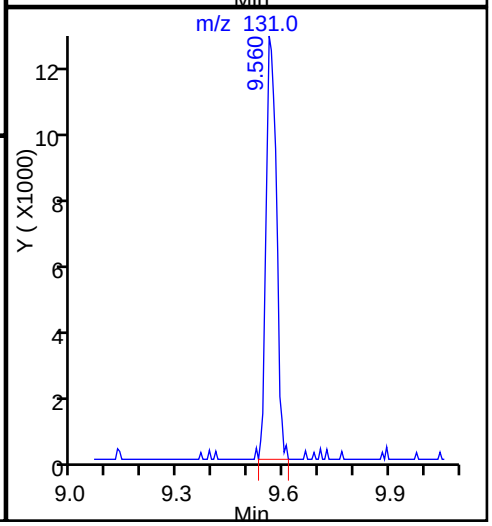












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-41508-6

Matrix: Water Lab File ID: 50306014.D

Analysis Method: 8260C Date Collected: 02/25/2015 11:40

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 16:42

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.80	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.30	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	13		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.24	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0		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	19		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	15		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-41508-6

Matrix: Water Lab File ID: 50306014.D

Analysis Method: 8260C Date Collected: 02/25/2015 11:40

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 16:42

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 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)	101		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D
Lims ID: 180-41508-D-6 Lab Sample ID: 180-41508-6
Client ID: HD-MW-145A-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 16:42:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-D-6
Misc. Info.: 180-0005922-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 17:11:34 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 17:11:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.308	-0.006	90	71493	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	395586	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	99	93885	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.679	0.006	99	137846	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	57	86671	51.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.900	0.006	98	105271	50.3	
$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	368527	50.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	97	133189	48.9	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.377	3.371	0.006	96	9246	4.01	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.178	5.172	0.006	43	6908	1.50	
45 cis-1,2-Dichloroethene	96	5.938	5.932	0.006	77	171681	66.7	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.224				ND	
52 Chloroform	83	6.346	6.346	0.000	19	4326	1.18	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	57	12827	5.16	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.666	7.666	0.000	99	227628	96.7	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.540	9.534	0.006	98	133183	74.5	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

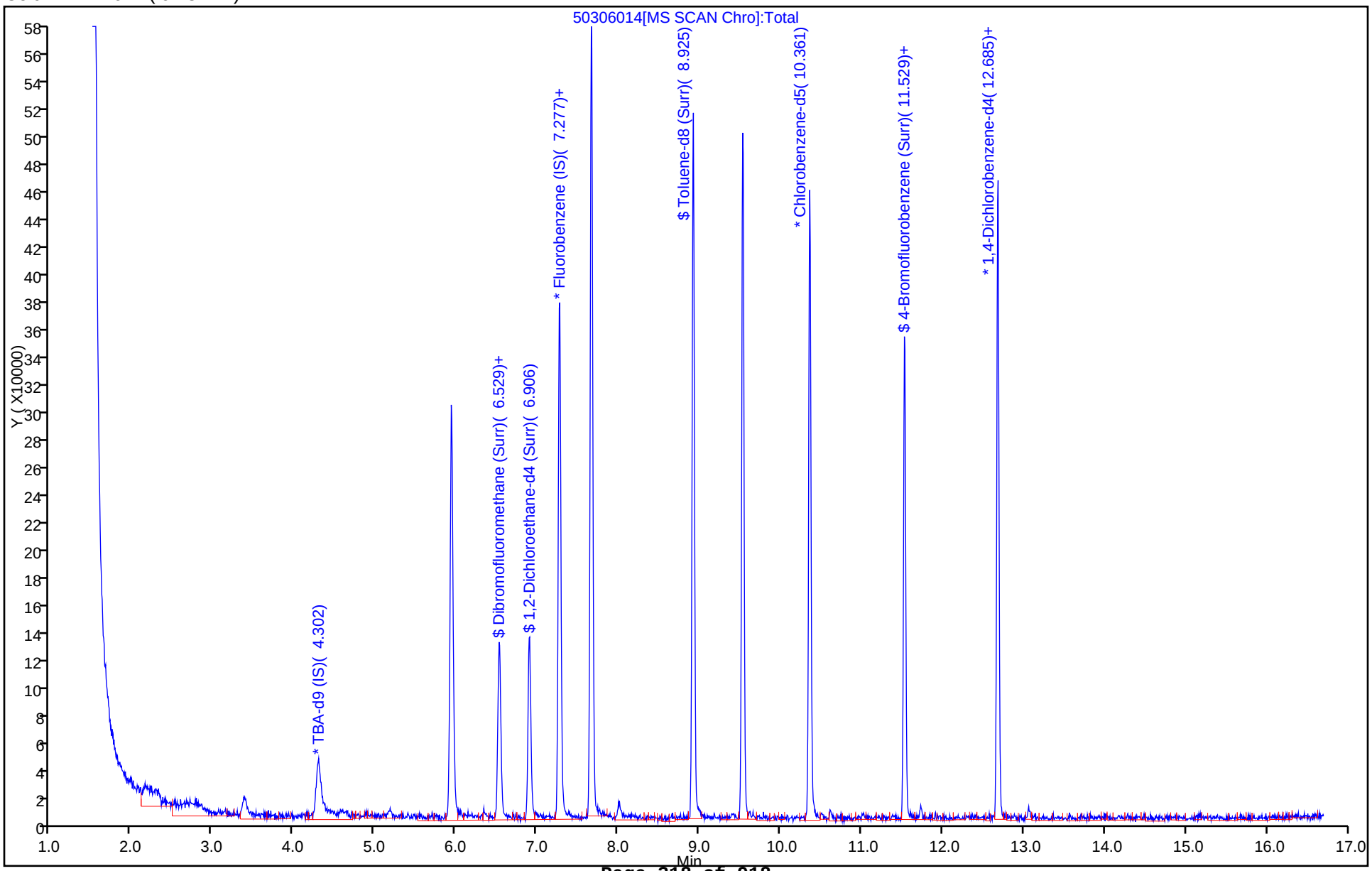
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D				
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6	Worklist Smp#:	14
Client ID:	HD-MW-145A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



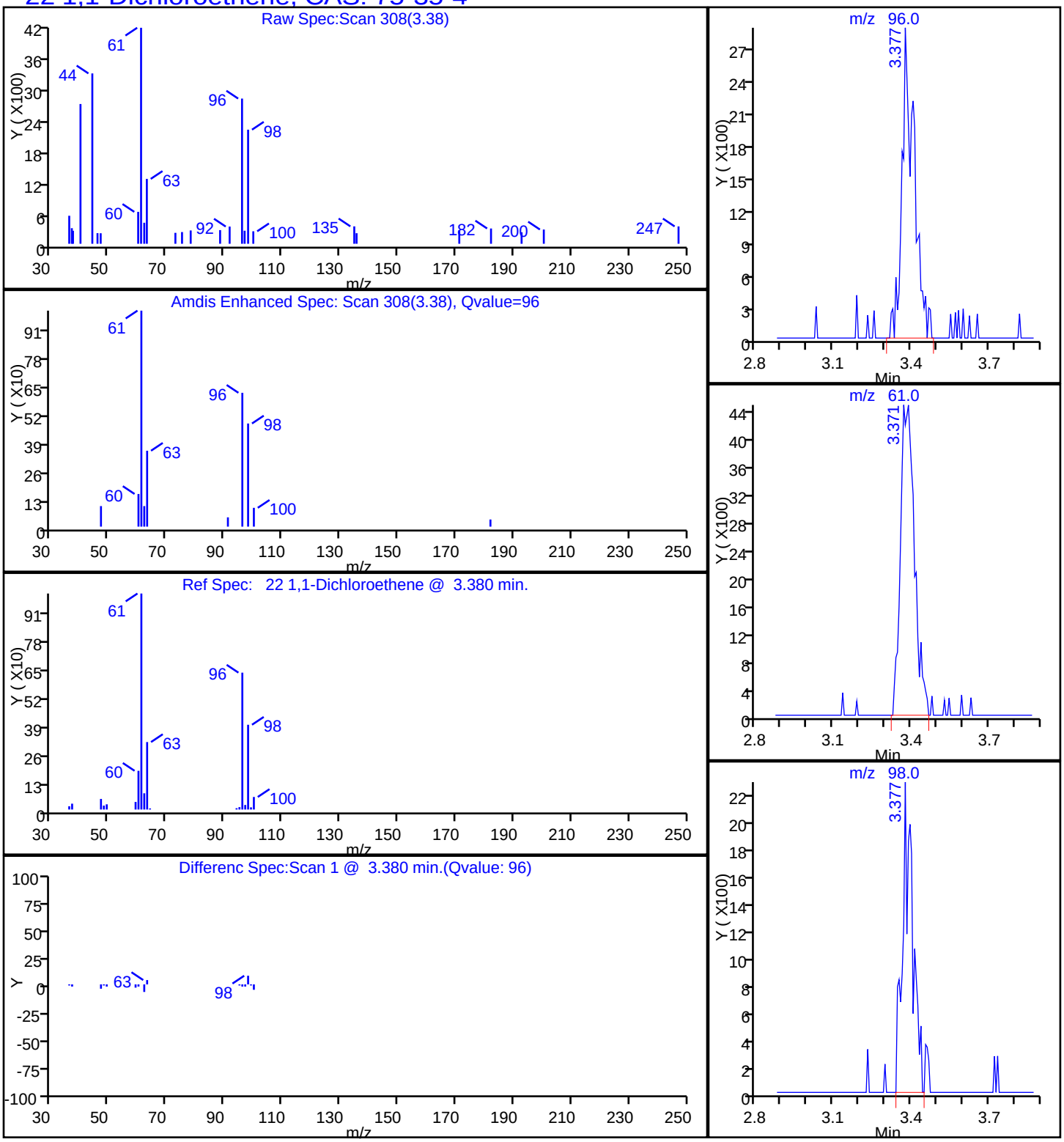
Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D

Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



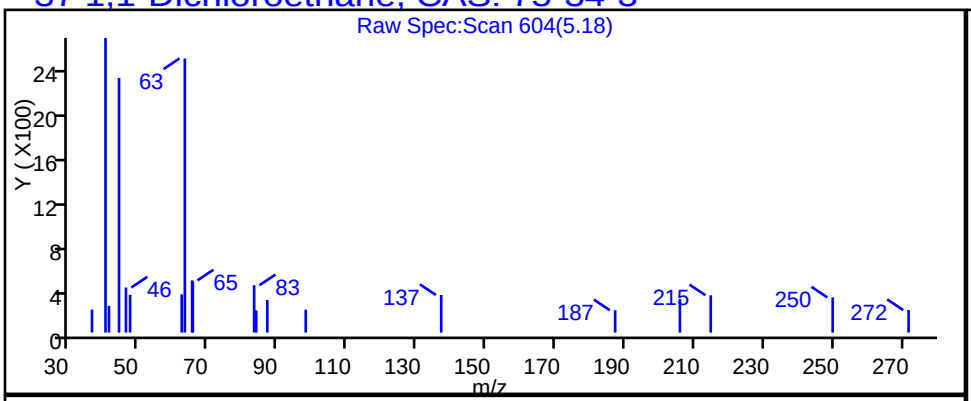
Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

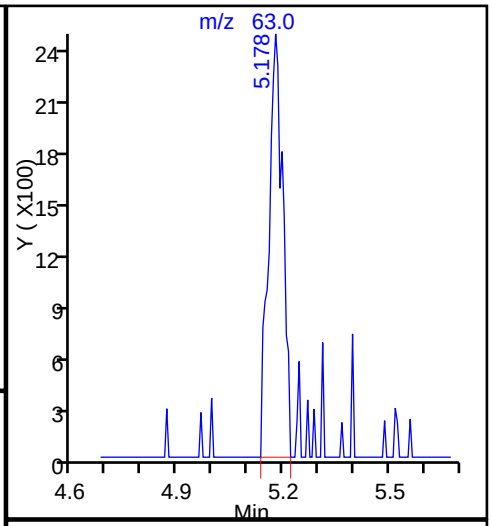
TestAmerica Pittsburgh

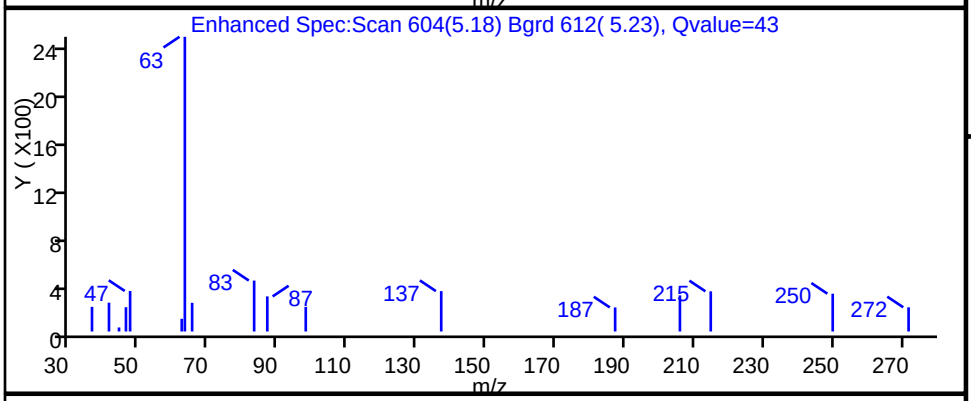
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D

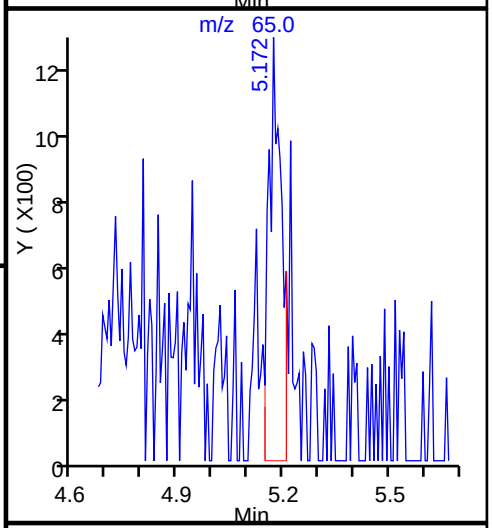
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

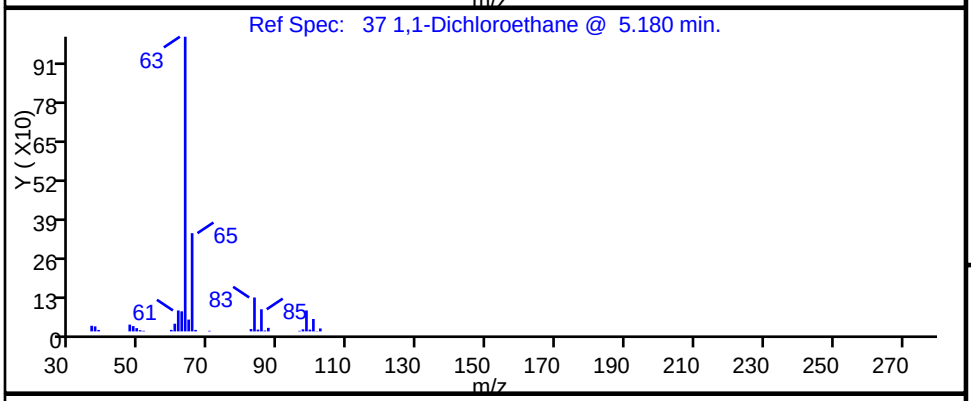
37 1,1-Dichloroethane, CAS: 75-34-3

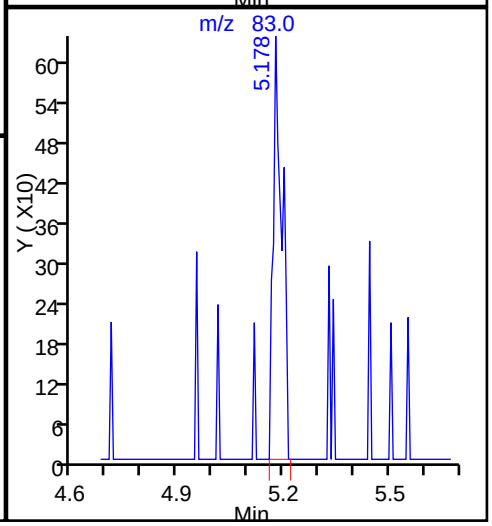


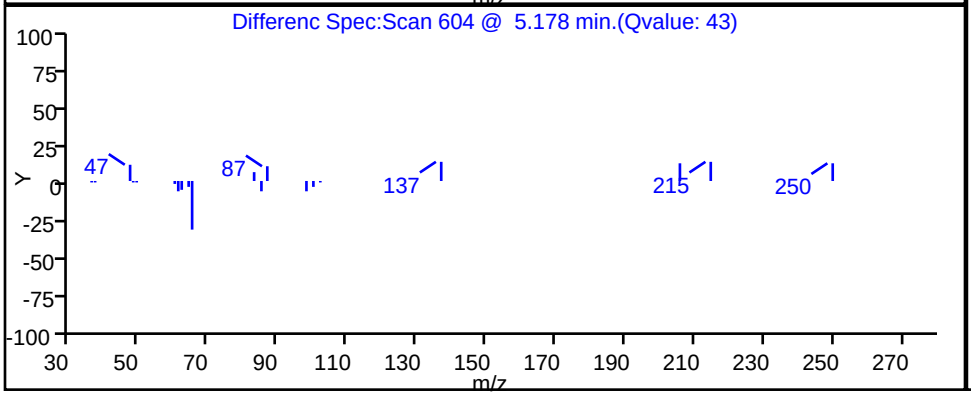










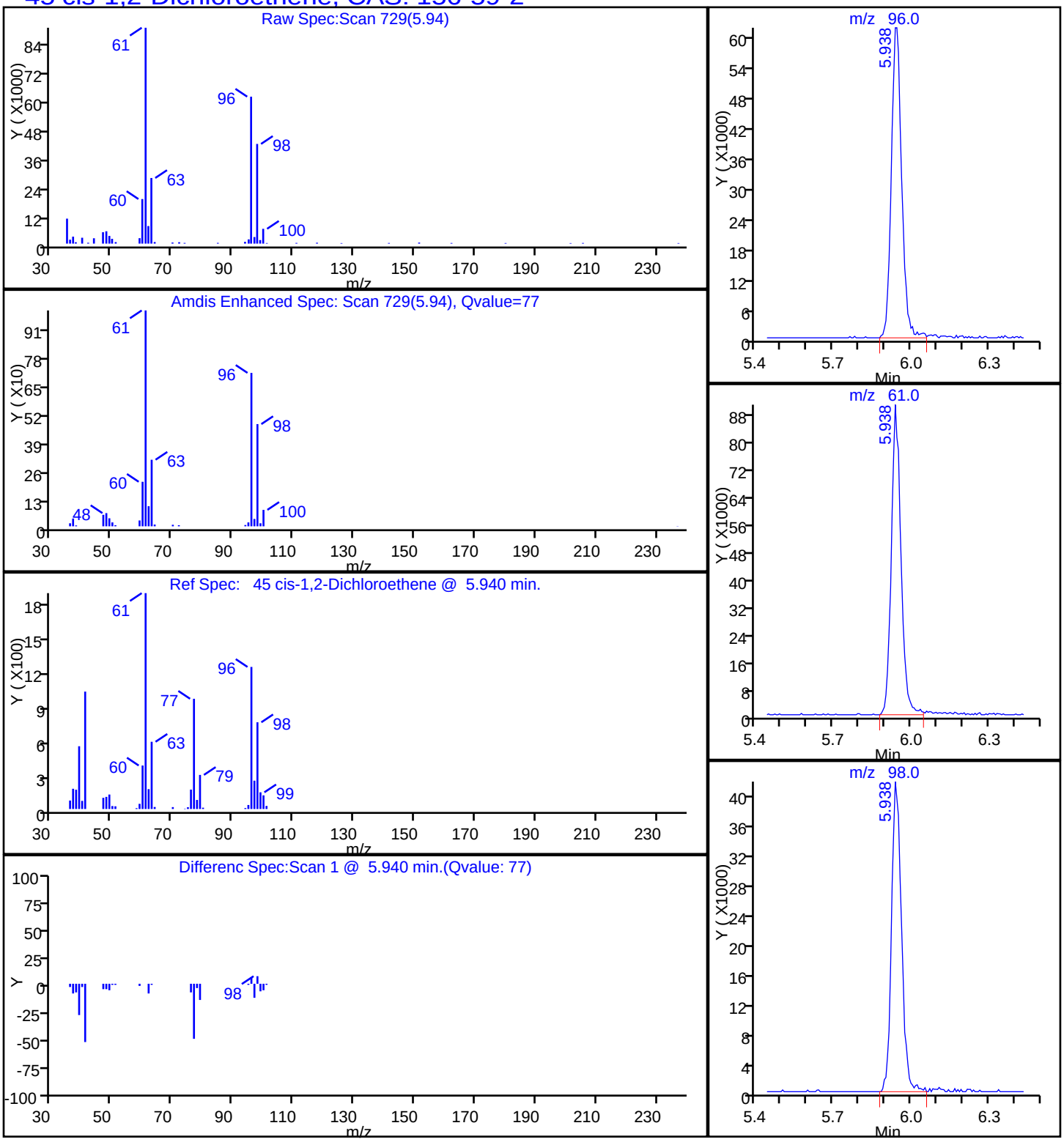


Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D				
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



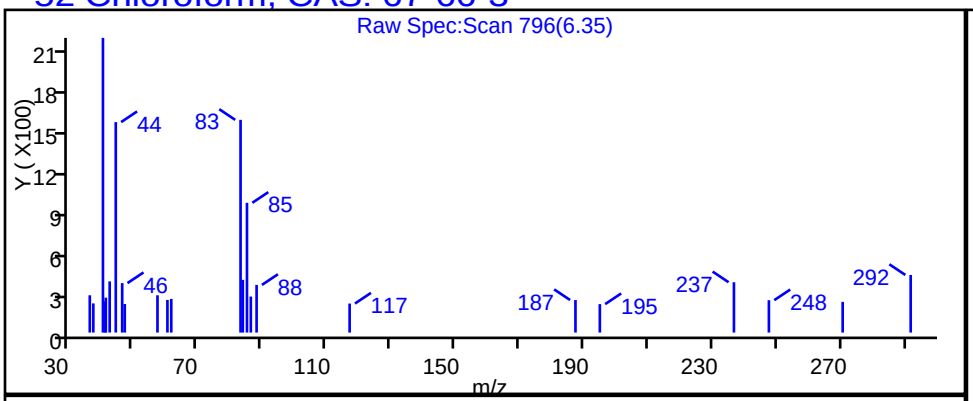
Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

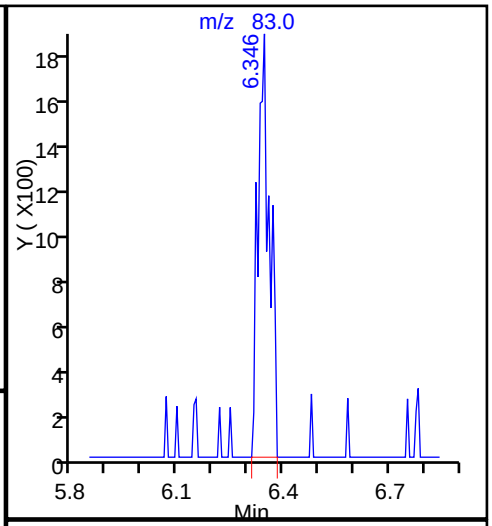
TestAmerica Pittsburgh

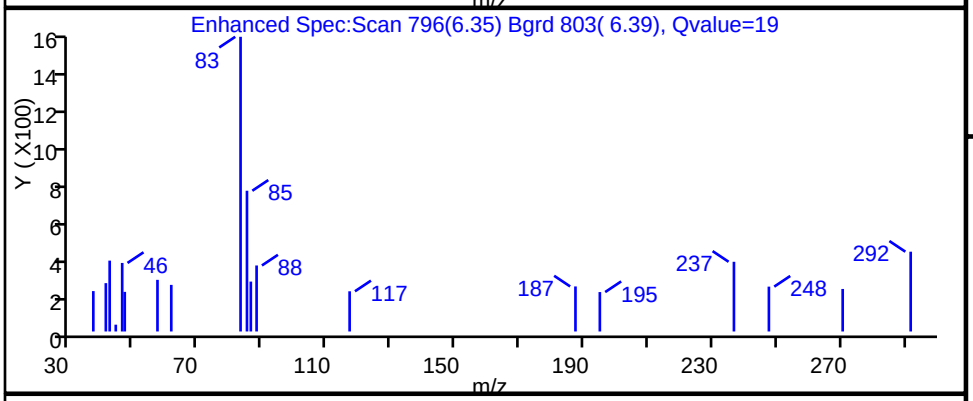
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D

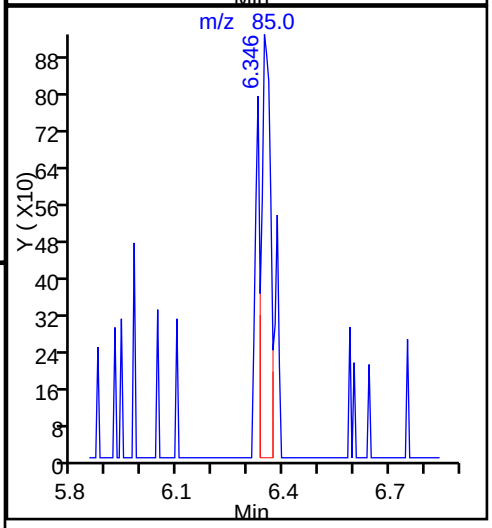
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

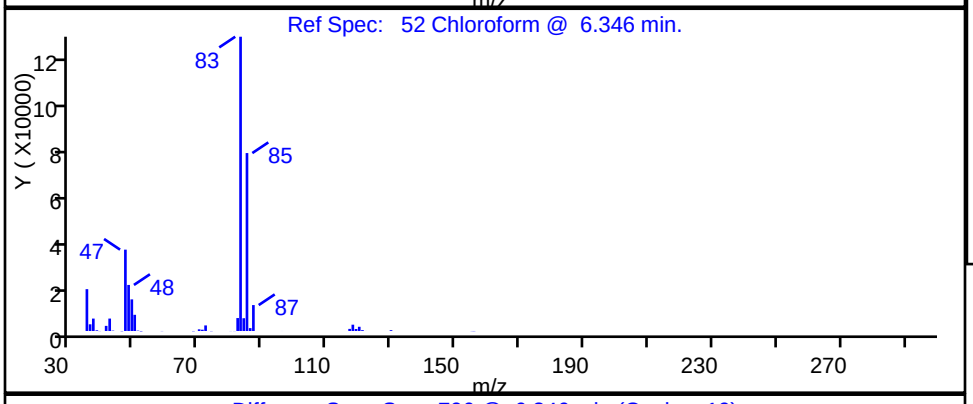
52 Chloroform, CAS: 67-66-3

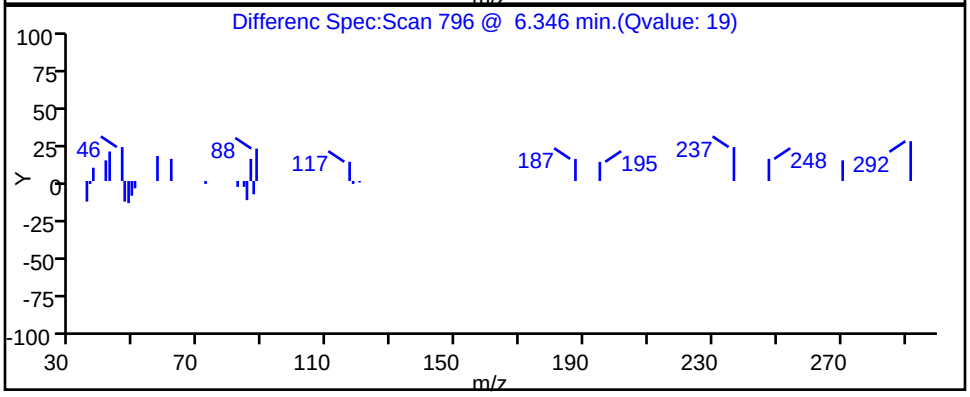












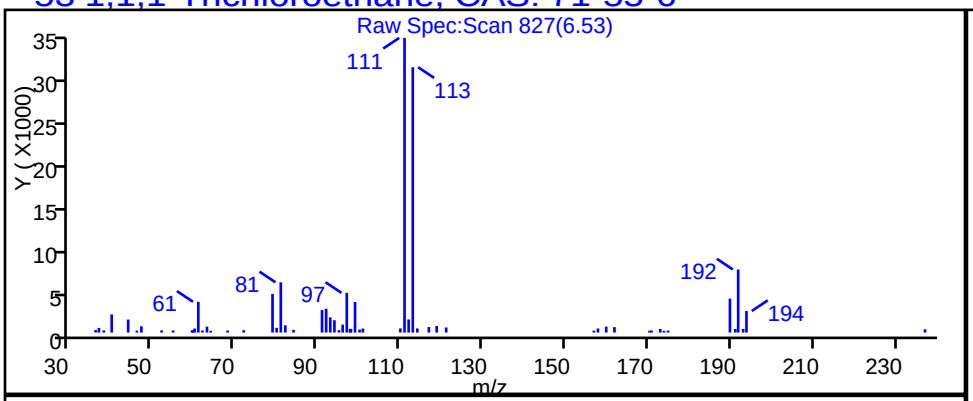
Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

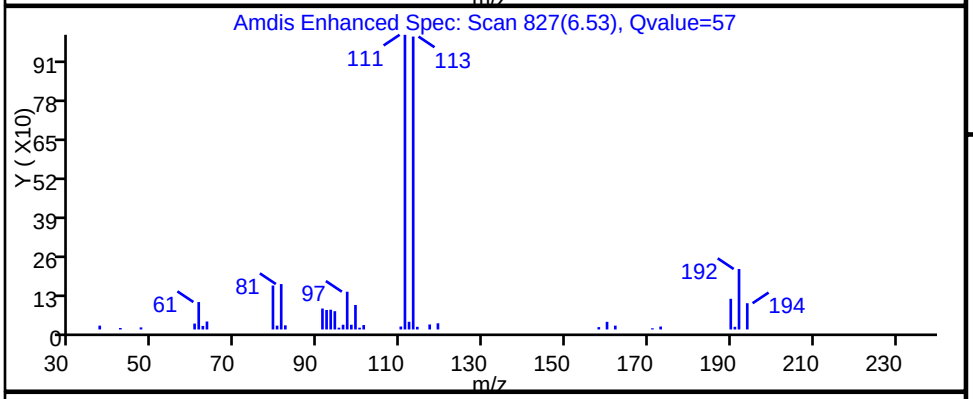
TestAmerica Pittsburgh

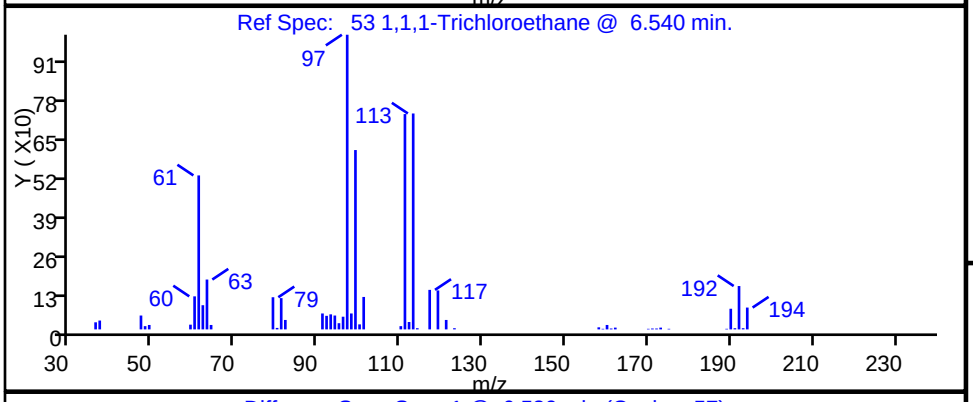
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D

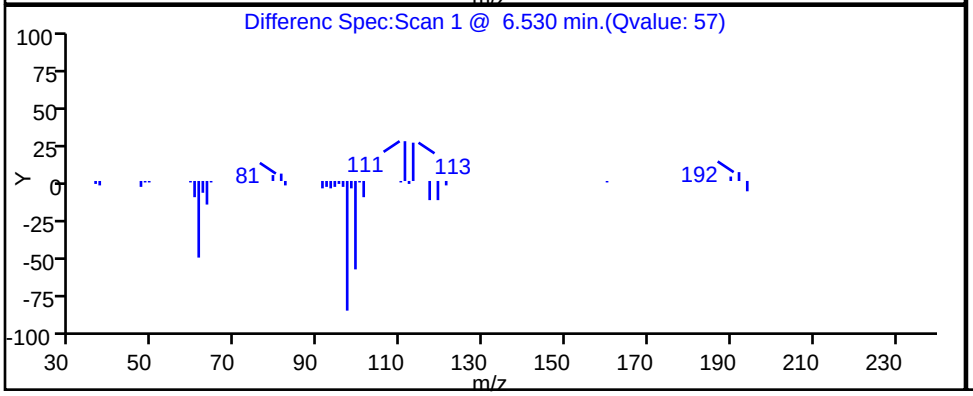
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

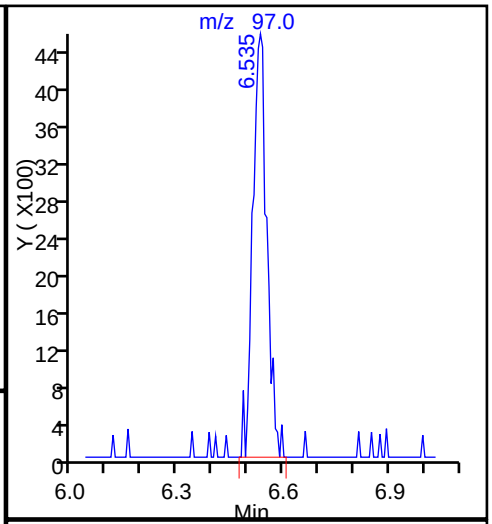
53 1,1,1-Trichloroethane, CAS: 71-55-6

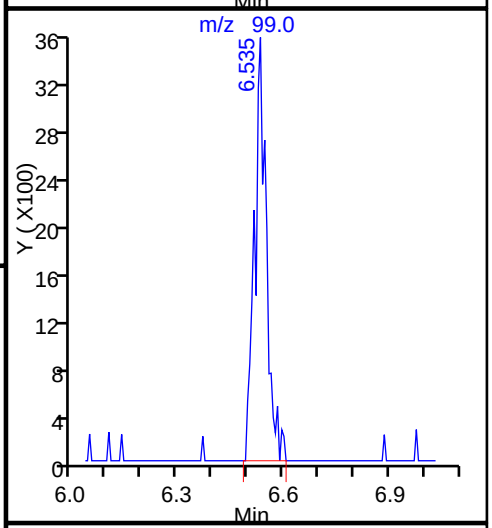


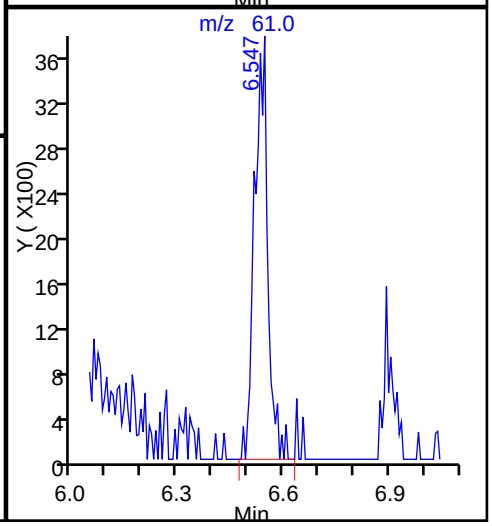










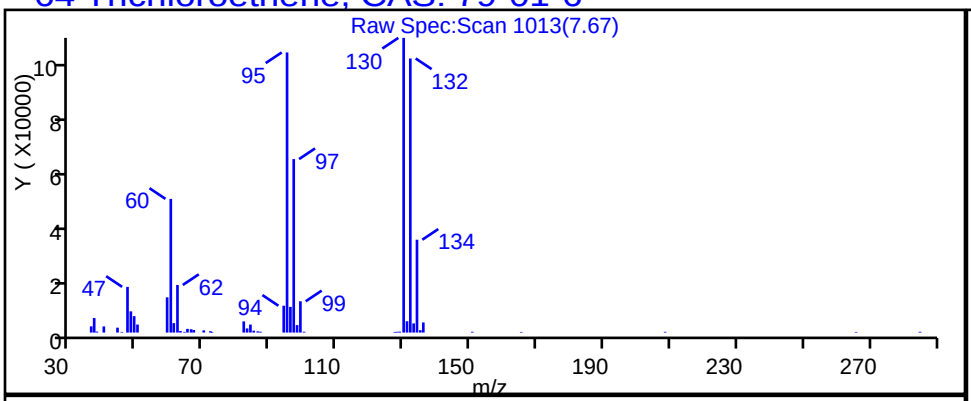


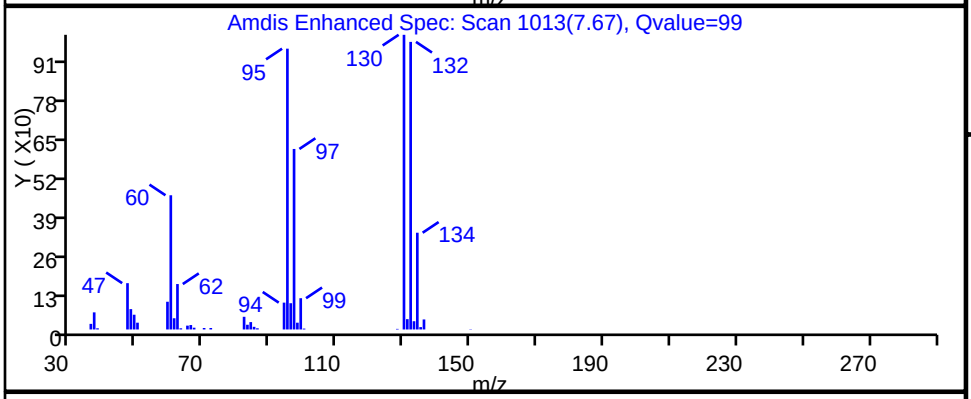
Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

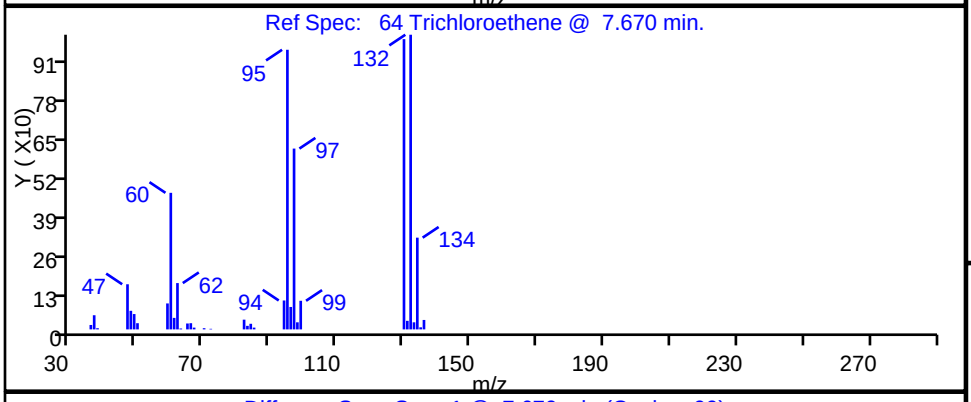
TestAmerica Pittsburgh

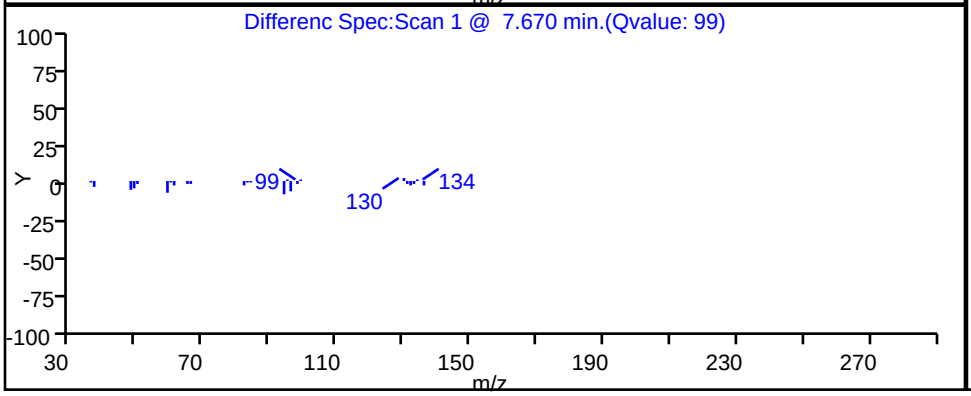
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D				
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

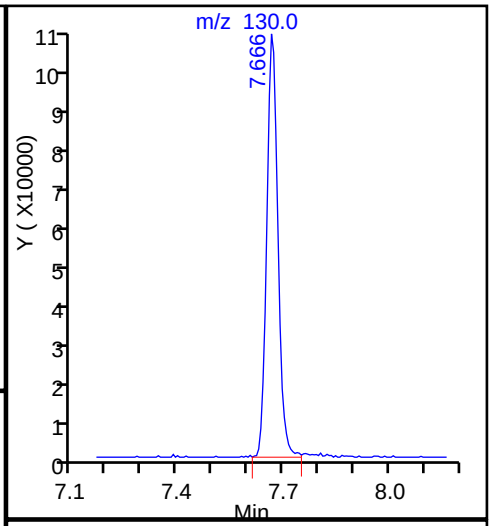
64 Trichloroethene, CAS: 79-01-6

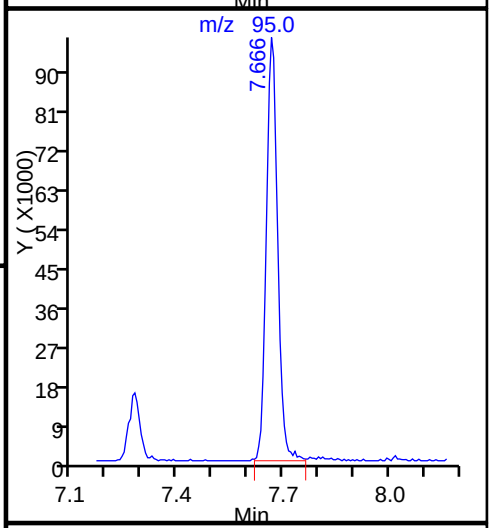


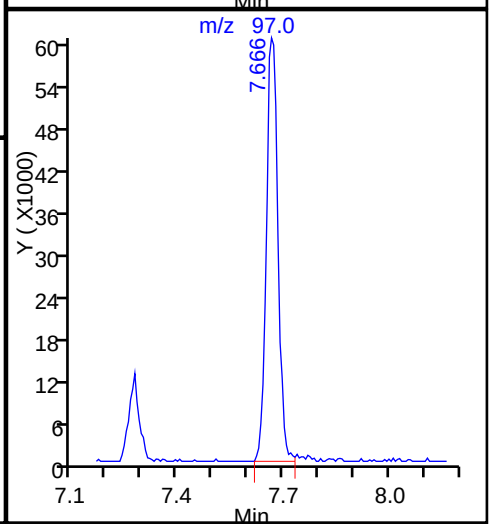










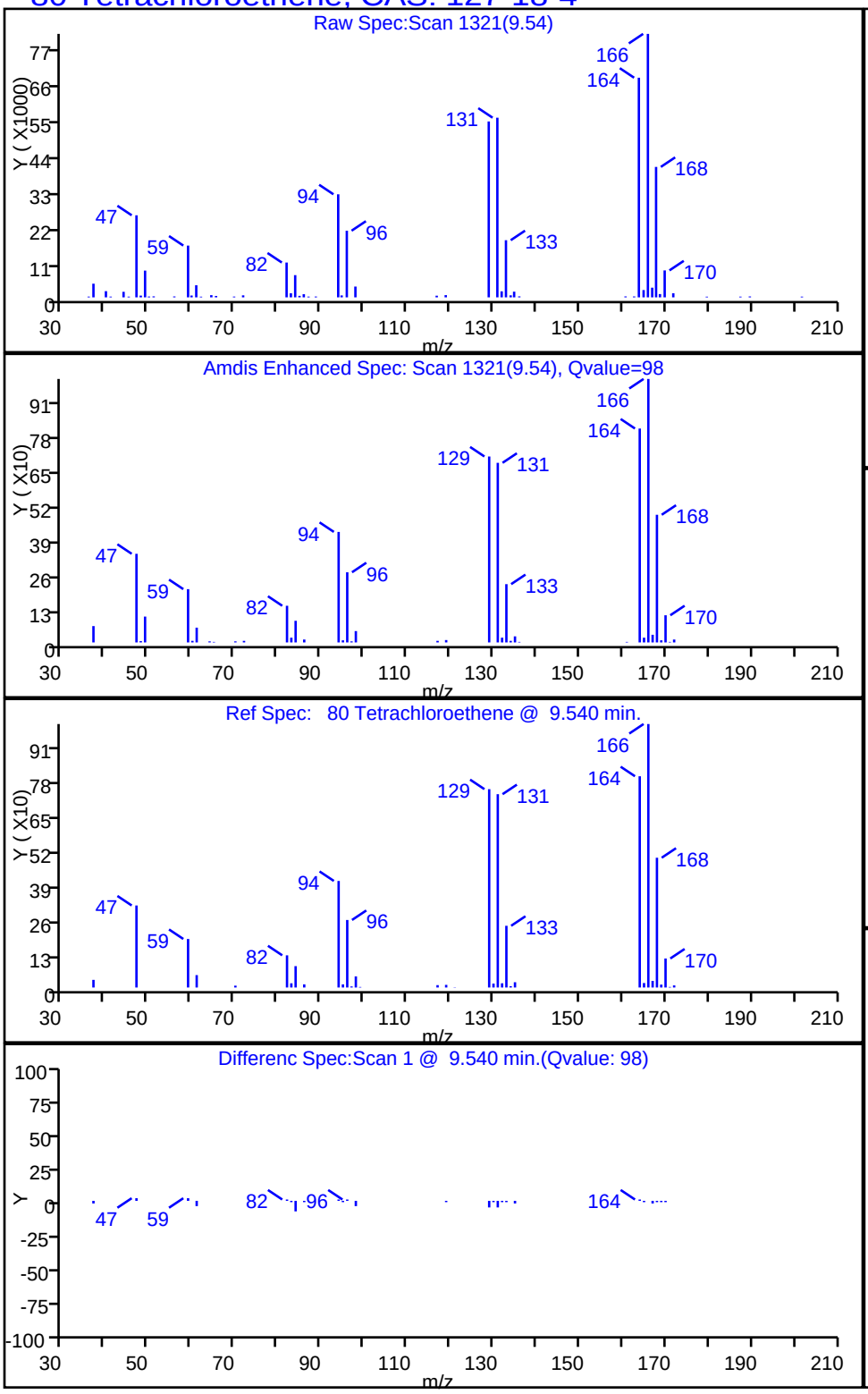


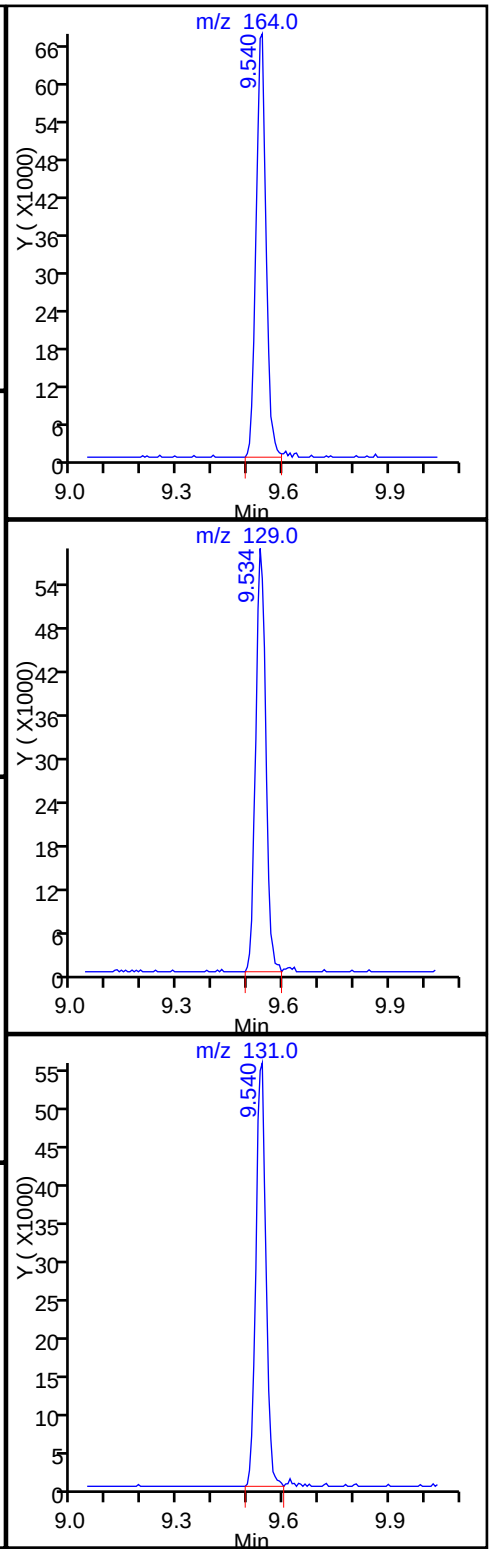
Report Date: 06-Mar-2015 17:11:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306014.D				
Injection Date:	06-Mar-2015 16:42:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-41508-7

Matrix: Water Lab File ID: 60305026.D

Analysis Method: 8260C Date Collected: 02/25/2015 13:30

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 21:00

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134823 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	5.6		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	6.1		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	4.5		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-41508-7

Matrix: Water Lab File ID: 60305026.D

Analysis Method: 8260C Date Collected: 02/25/2015 13:30

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 21:00

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134823 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D
Lims ID: 180-41508-E-7 Lab Sample ID: 180-41508-7
Client ID: HD-MW-147A-0/1-0
Sample Type: Client
Inject. Date: 05-Mar-2015 21:00:30 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-E-7
Misc. Info.: 180-0005907-026
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 09:17:26 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 09:17:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.281	-0.015	89	213353	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.323	0.009	99	538327	50.0	
* 3 Chlorobenzene-d5	119	10.440	10.438	0.002	89	111952	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.792	-0.003	98	182913	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.596	6.593	0.003	93	126410	51.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.970	0.003	70	192637	55.3	
$ 7 Toluene-d8 (Surr)	98	8.980	8.978	0.002	93	481553	54.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.630	-0.003	86	173802	46.3	
12 Chloromethane	50		1.757				ND	
13 Vinyl chloride	62		1.890				ND	
15 Bromomethane	94		2.237				ND	
16 Chloroethane	64		2.371				ND	
22 1,1-Dichloroethene	96	3.378	3.363	0.015	50	4359	1.44	M
24 Acetone	43		3.454				ND	
26 Carbon disulfide	76		3.667				ND	
31 Methylene Chloride	84		4.172				ND	
33 Acrylonitrile	53		4.537				ND	
34 trans-1,2-Dichloroethene	96		4.604				ND	
35 Methyl tert-butyl ether	73	4.594	4.610	-0.016	41	3113	0.3255	M
37 1,1-Dichloroethane	63	5.257	5.236	0.021	1	3549	0.5042	M
44 2-Butanone (MEK)	43		5.979				ND	
43 cis-1,2-Dichloroethene	96	5.987	5.985	0.002	83	107176	27.8	
48 Chlorobromomethane	128		6.271				ND	
50 Chloroform	83	6.419	6.410	0.009	53	4871	0.8037	
51 1,1,1-Trichloroethane	97	6.584	6.581	0.003	35	5340	1.16	M
53 Carbon tetrachloride	117		6.757				ND	
56 Benzene	78		6.976				ND	
57 1,2-Dichloroethane	62		7.061				ND	
61 Trichloroethene	130	7.721	7.718	0.003	97	92607	30.4	
64 1,2-Dichloropropane	63		7.986				ND	
65 1,4-Dioxane	88		8.071				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.266				ND	
71 cis-1,3-Dichloropropene	75		8.716				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.856				ND	
73 Toluene	91		9.045				ND	
74 trans-1,3-Dichloropropene	75		9.288				ND	
76 1,1,2-Trichloroethane	97		9.489				ND	
77 Tetrachloroethene	164	9.564	9.568	-0.004	96	46146	22.6	
79 2-Hexanone	43		9.689				ND	
81 Chlorodibromomethane	129		9.866				ND	
82 Ethylene Dibromide	107		9.981				ND	
84 Chlorobenzene	112		10.468				ND	
86 1,1,1,2-Tetrachloroethane	131		10.559				ND	
87 Ethylbenzene	106		10.565				ND	
88 m-Xylene & p-Xylene	106		10.693				ND	
89 o-Xylene	106		11.076				ND	
90 Styrene	104		11.101				ND	
91 Bromoform	173		11.283				ND	
96 1,1,2,2-Tetrachloroethane	83		11.758				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

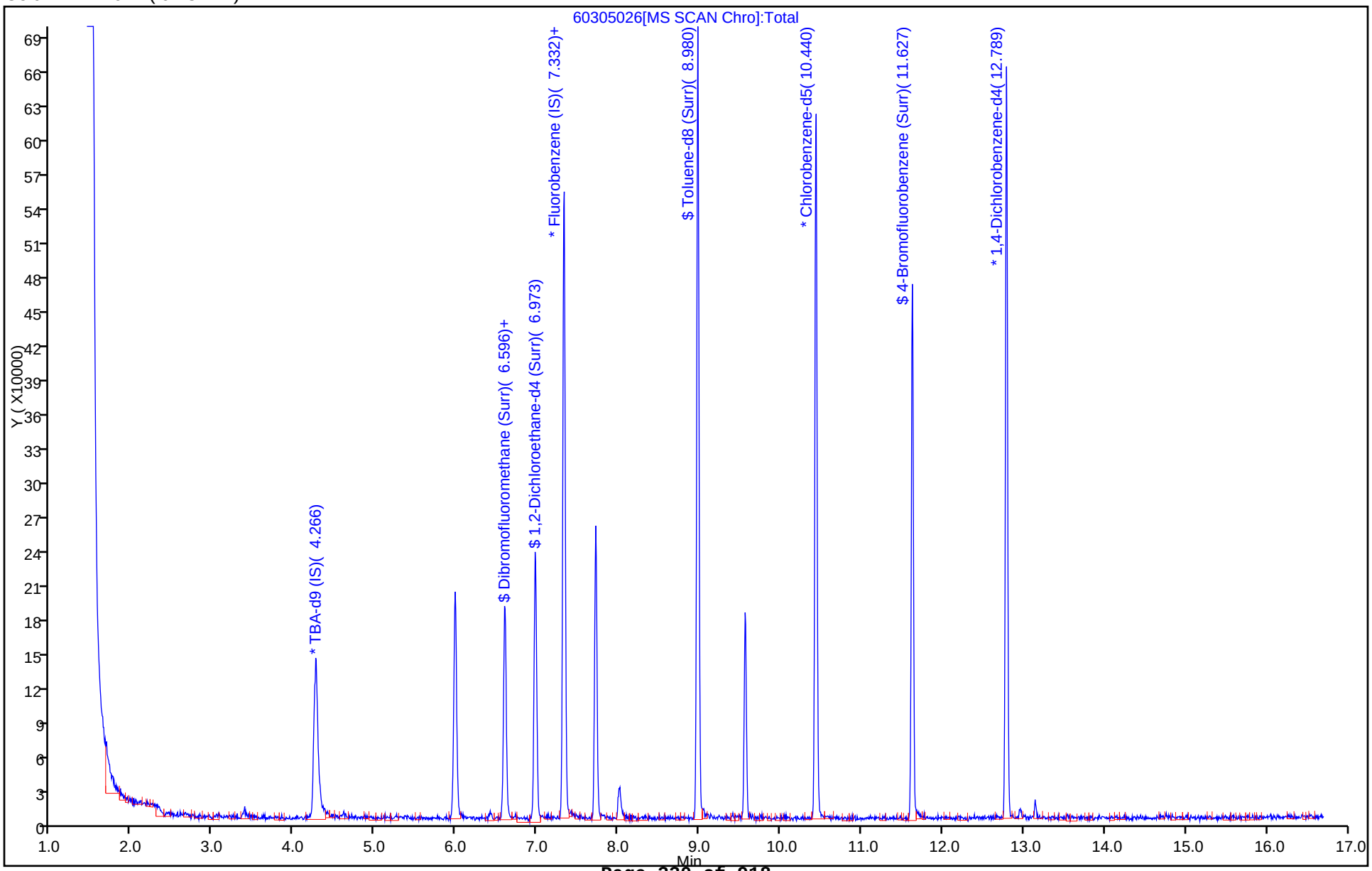
Report Date: 06-Mar-2015 09:17:27 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D

Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7	Worklist Smp#:	26
Client ID:	HD-MW-147A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



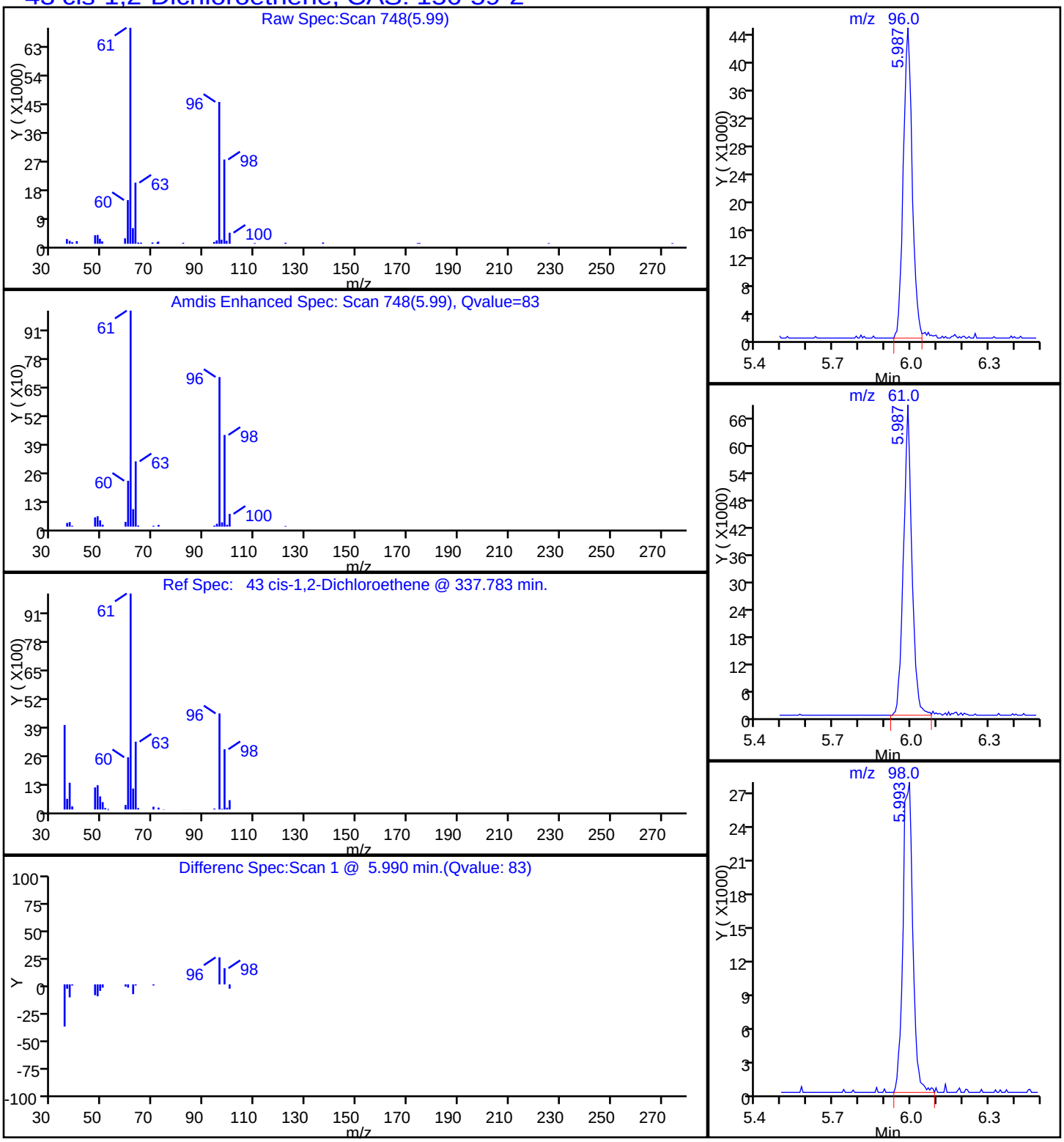
Report Date: 06-Mar-2015 09:17:27 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D

Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

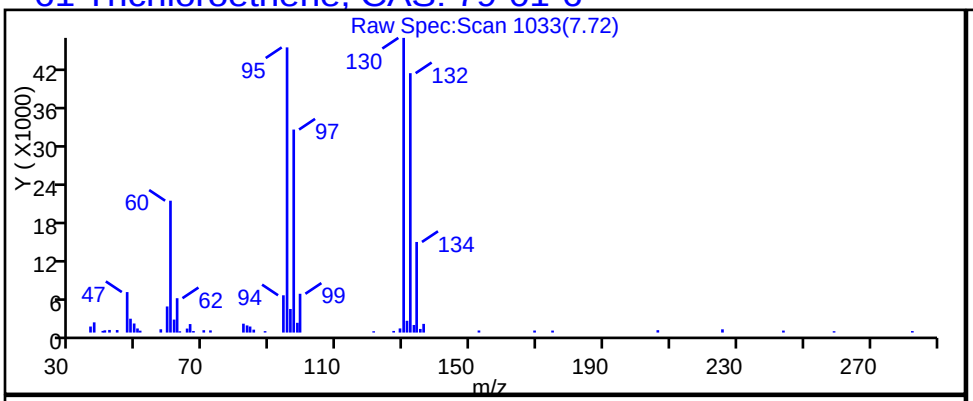


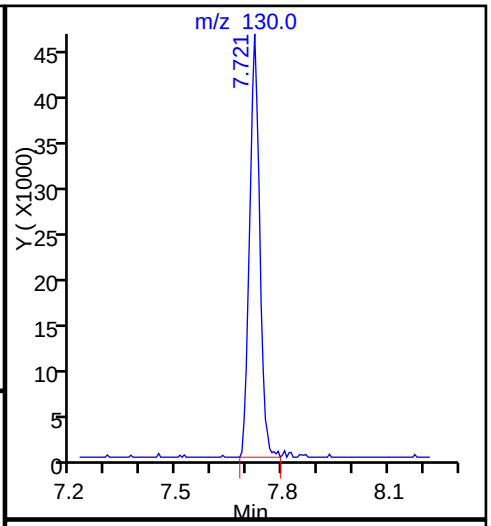
Report Date: 06-Mar-2015 09:17:27 Chrom Revision: 2.2 15-Jan-2015 13:05:58

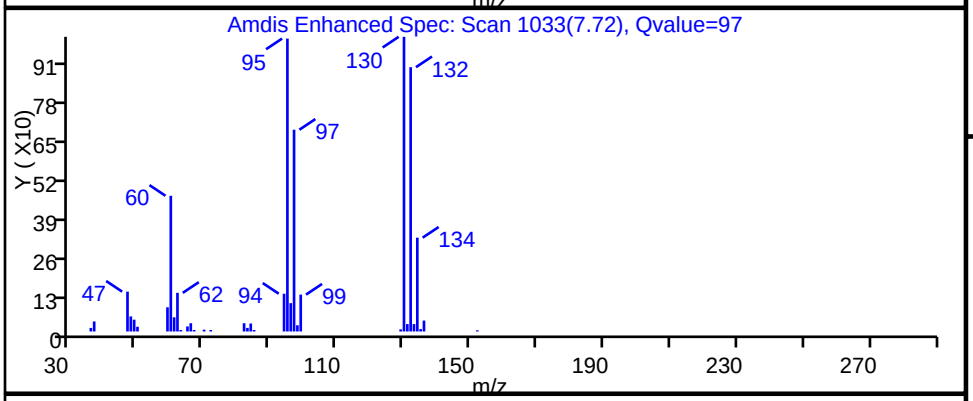
TestAmerica Pittsburgh

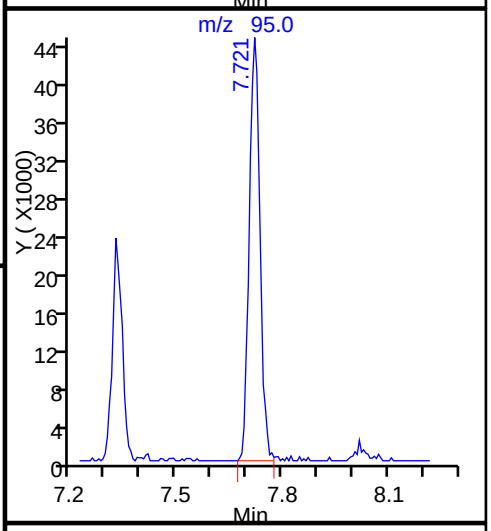
Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D		
Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7
Client ID:	HD-MW-147A-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

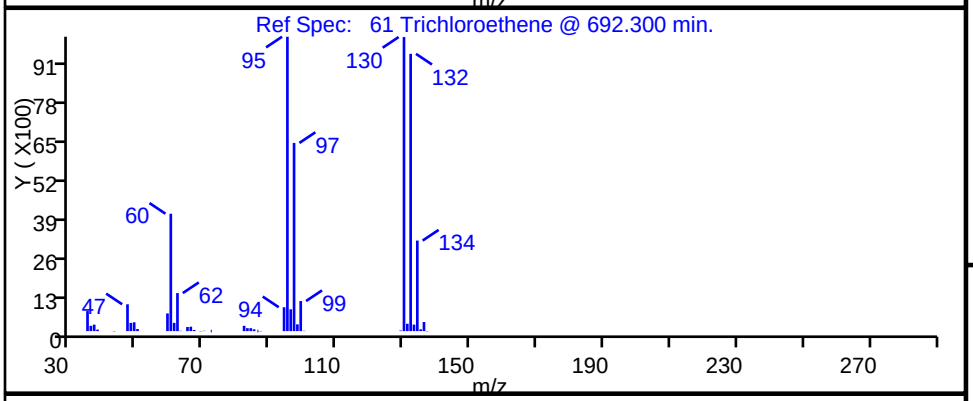
61 Trichloroethene, CAS: 79-01-6

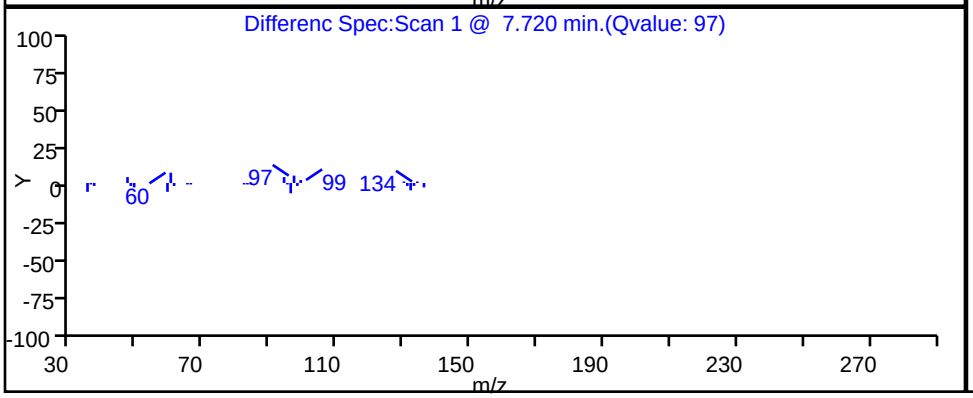


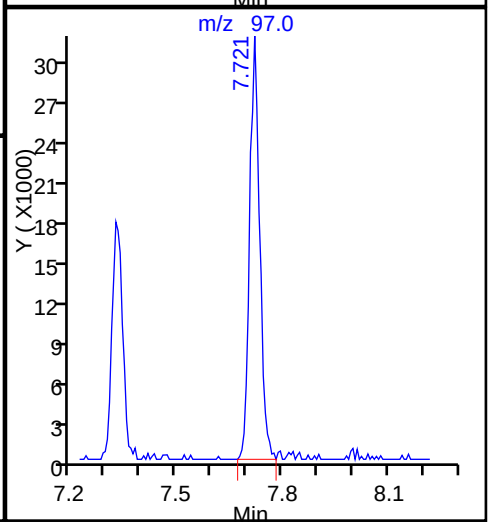










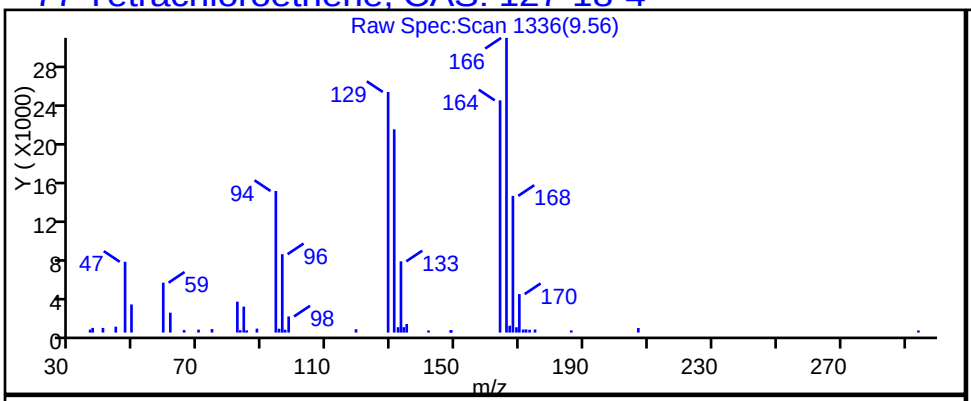


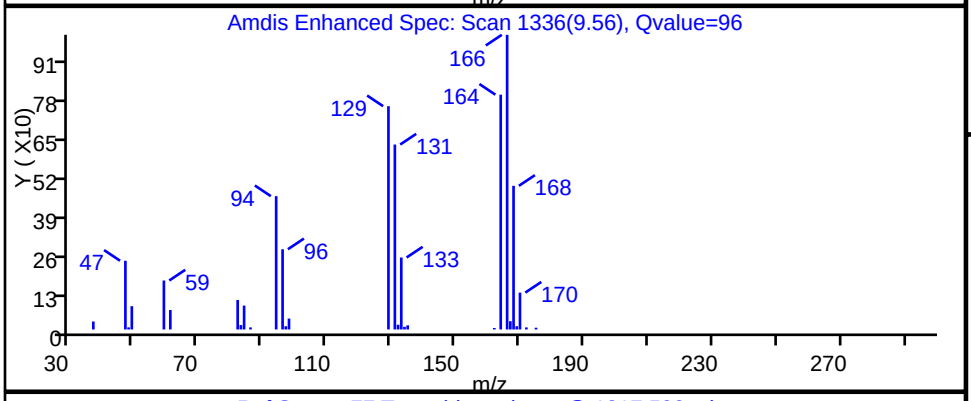
Report Date: 06-Mar-2015 09:17:27 Chrom Revision: 2.2 15-Jan-2015 13:05:58

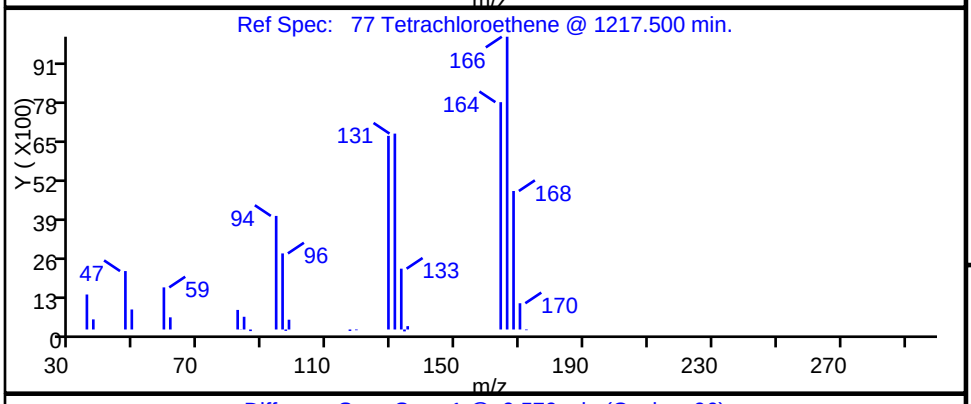
TestAmerica Pittsburgh

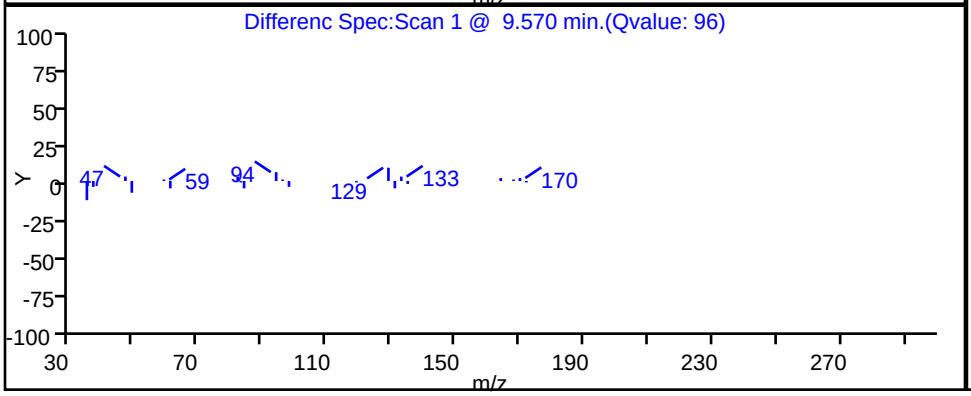
Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D		
Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7
Client ID:	HD-MW-147A-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

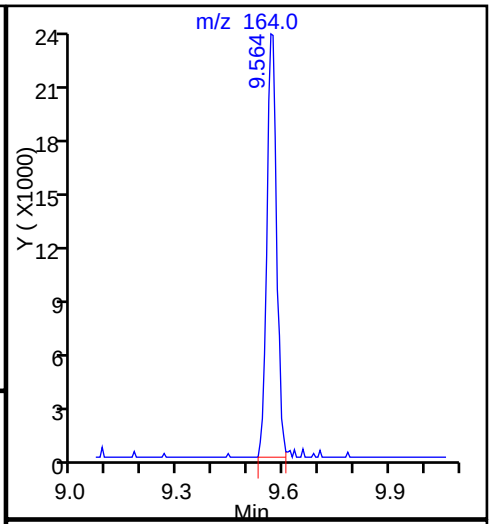
77 Tetrachloroethene, CAS: 127-18-4

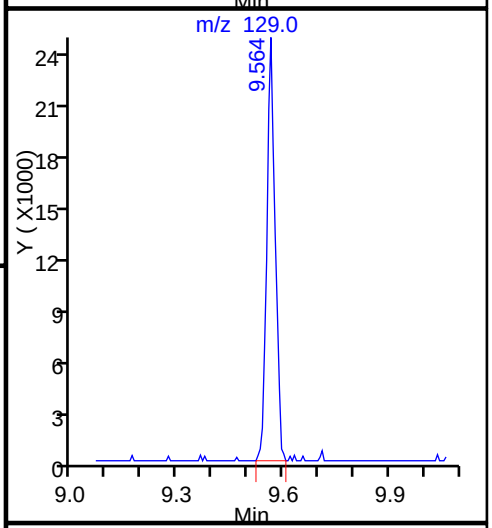


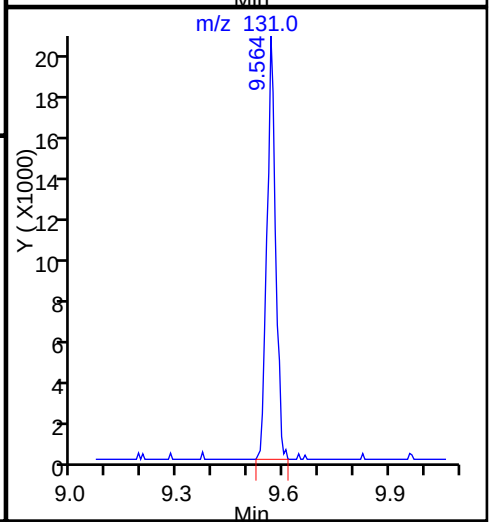












Manual Integration/User Assign Peak Report

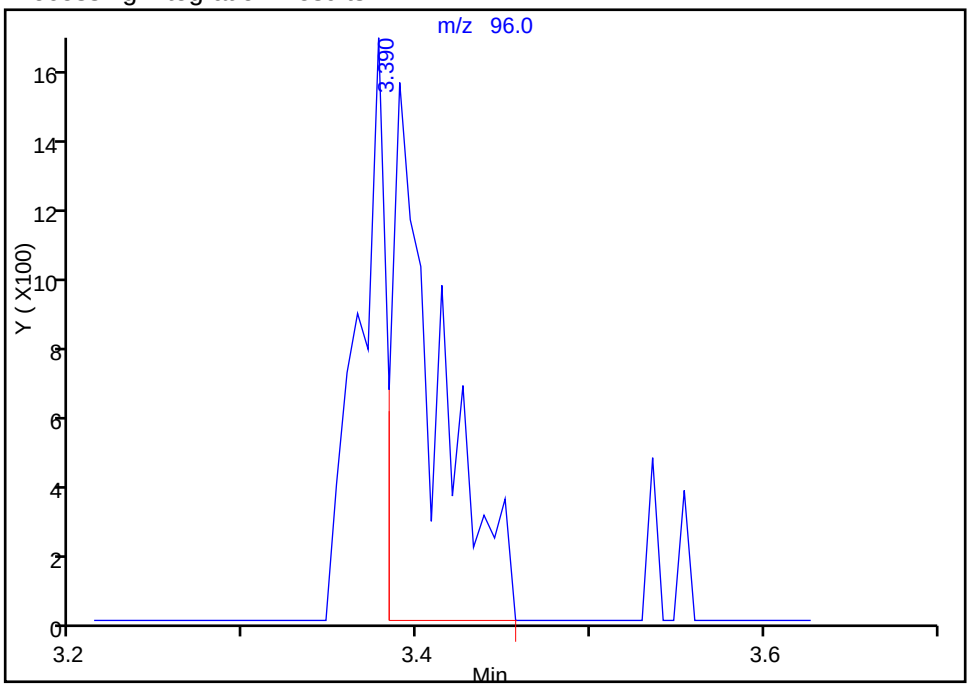
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D				
Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

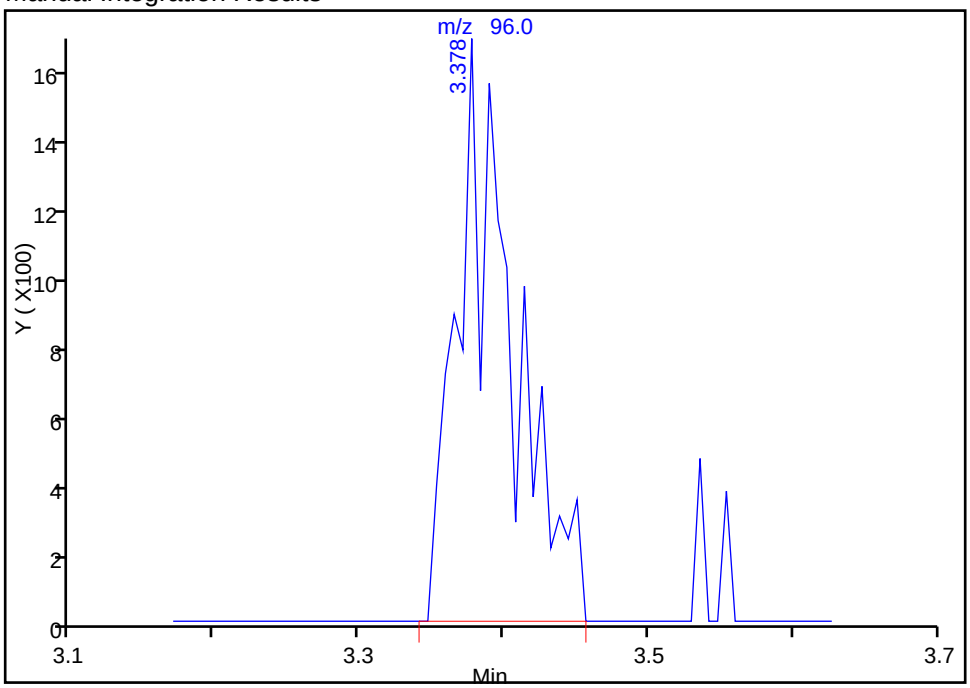
Processing Integration Results

RT: 3.39
Area: 2773
Amount: 0.917488
Amount Units: ng



Manual Integration Results

RT: 3.38
Area: 4359
Amount: 1.442240
Amount Units: ng



Reviewer: fergusond, 06-Mar-2015 09:17:26
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

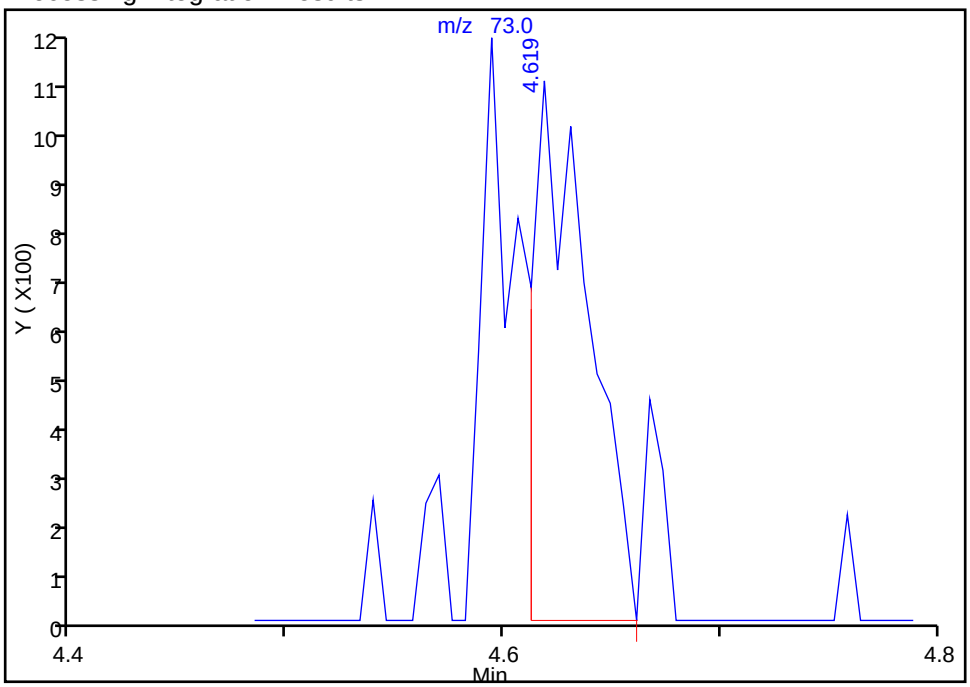
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D				
Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

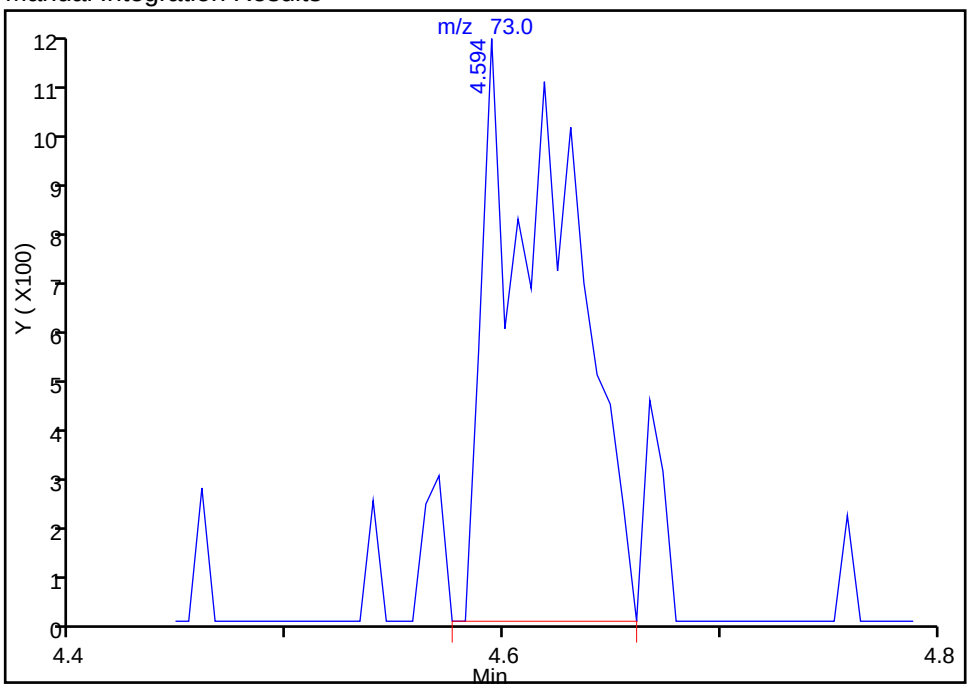
Processing Integration Results

RT: 4.62
Area: 1962
Amount: 0.205120
Amount Units: ng



Manual Integration Results

RT: 4.59
Area: 3113
Amount: 0.325453
Amount Units: ng



Reviewer: fergusond, 06-Mar-2015 09:17:26
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

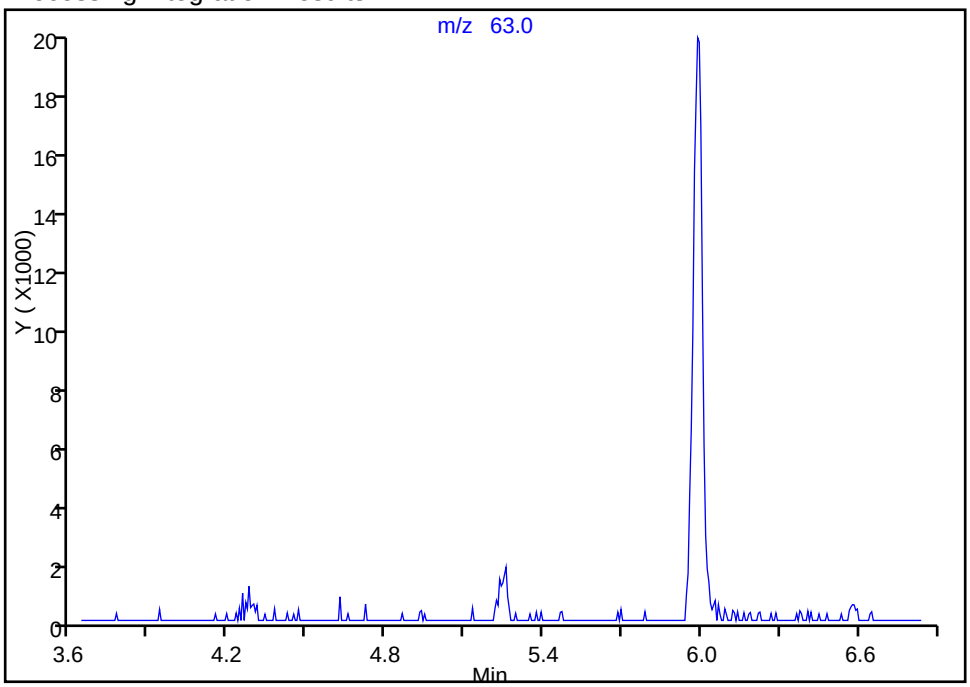
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D				
Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

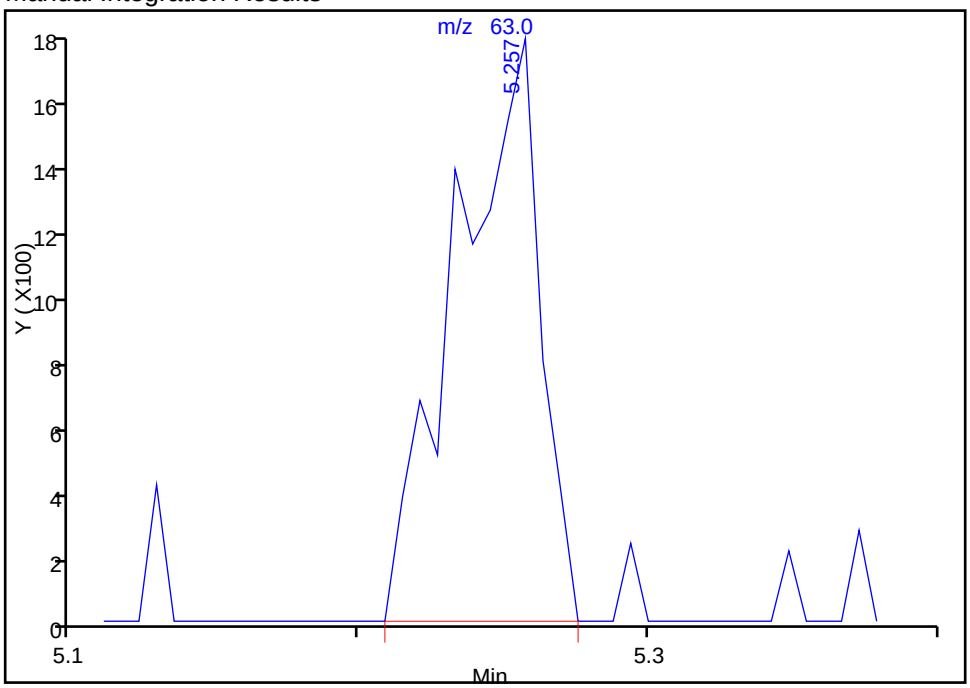
Processing Integration Results

Not Detected
Expected RT: 5.24



Manual Integration Results

RT: 5.26
Area: 3549
Amount: 0.504202
Amount Units: ng



Reviewer: fergusond, 06-Mar-2015 09:17:26
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

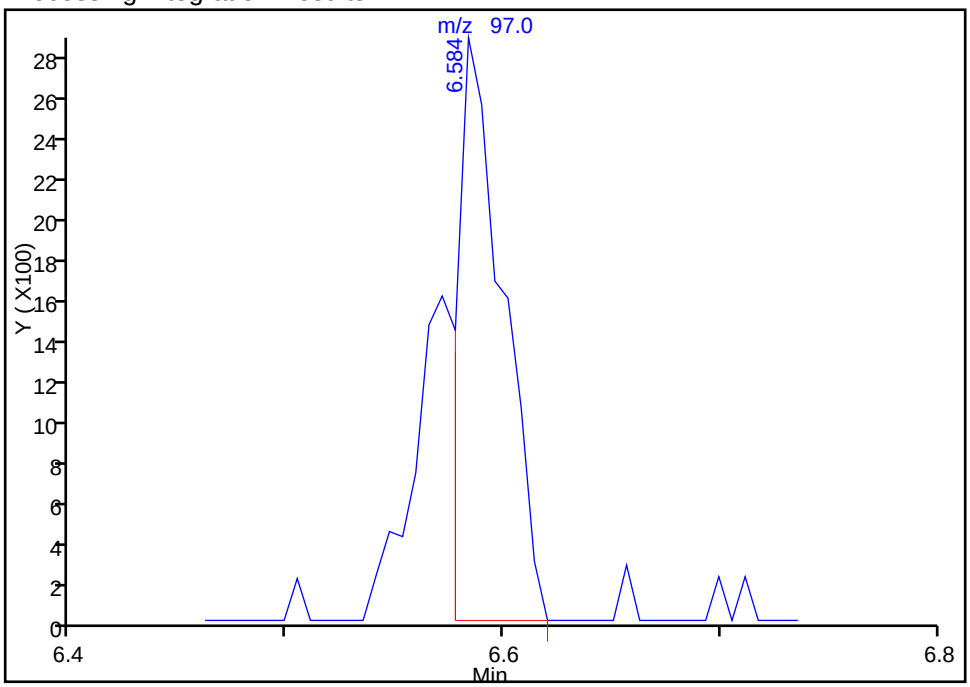
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305026.D				
Injection Date:	05-Mar-2015 21:00:30	Instrument ID:	CHHP6		
Lims ID:	180-41508-E-7	Lab Sample ID:	180-41508-7		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

51 1,1,1-Trichloroethane, CAS: 71-55-6

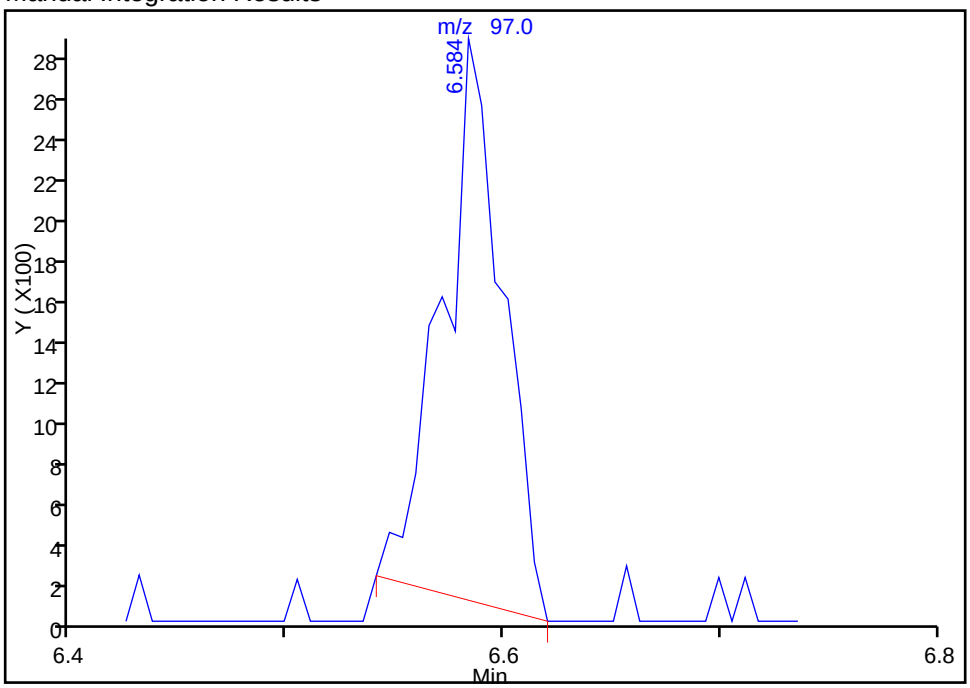
Processing Integration Results

RT: 6.58
Area: 4147
Amount: 0.898171
Amount Units: ng



Manual Integration Results

RT: 6.58
Area: 5340
Amount: 1.156555
Amount Units: ng



Reviewer: fergusond, 06-Mar-2015 09:17:26
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-41508-8

Matrix: Water Lab File ID: 50306015.D

Analysis Method: 8260C Date Collected: 02/25/2015 12:25

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 17:06

Soil Aliquot Vol: Dilution Factor: 2

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U	2.0	0.57
75-01-4	Vinyl chloride	2.0	U	2.0	0.45
74-83-9	Bromomethane	2.0	U	2.0	0.63
75-00-3	Chloroethane	2.0	U	2.0	0.43
75-35-4	1,1-Dichloroethene	2.8		2.0	0.59
67-64-1	Acetone	10	U	10	5.0
75-15-0	Carbon disulfide	2.0	U	2.0	0.42
75-09-2	Methylene Chloride	2.0	U	2.0	0.25
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	0.34
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	0.37
75-34-3	1,1-Dichloroethane	0.95	J	2.0	0.23
156-59-2	cis-1,2-Dichloroethene	37		2.0	0.47
74-97-5	Bromochloromethane	2.0	U	2.0	0.36
78-93-3	2-Butanone (MEK)	10	U	10	1.1
67-66-3	Chloroform	2.0	U	2.0	0.34
71-55-6	1,1,1-Trichloroethane	1.8	J	2.0	0.57
56-23-5	Carbon tetrachloride	2.0	U	2.0	0.27
71-43-2	Benzene	2.0	U	2.0	0.21
107-06-2	1,2-Dichloroethane	2.0	U	2.0	0.42
79-01-6	Trichloroethene	80		2.0	0.29
78-87-5	1,2-Dichloropropane	2.0	U	2.0	0.19
75-27-4	Bromodichloromethane	2.0	U	2.0	0.26
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	0.37
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	1.1
108-88-3	Toluene	2.0	U	2.0	0.30
10061-02-6	trans-1,3-Dichloropropene	2.0	U *	2.0	0.30
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.40
127-18-4	Tetrachloroethene	74		2.0	0.30
591-78-6	2-Hexanone	10	U	10	0.32
124-48-1	Dibromochloromethane	2.0	U	2.0	0.27
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.36
108-90-7	Chlorobenzene	2.0	U	2.0	0.27
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.55
100-41-4	Ethylbenzene	2.0	U	2.0	0.45
1330-20-7	Xylenes, Total	6.0	U	6.0	0.98
100-42-5	Styrene	2.0	U	2.0	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-41508-8

Matrix: Water Lab File ID: 50306015.D

Analysis Method: 8260C Date Collected: 02/25/2015 12:25

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 17:06

Soil Aliquot Vol: Dilution Factor: 2

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.0	U	2.0	0.38
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.40
107-13-1	Acrylonitrile	40	U	40	1.1
123-91-1	1,4-Dioxane	400	U	400	69

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D
Lims ID: 180-41508-C-8 Lab Sample ID: 180-41508-8
Client ID: HD-MW-100S-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 17:06:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 180-41508-C-8, 2x
Misc. Info.: 180-0005922-015
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 09:46:11 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 09:46:11

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.305	4.308	-0.003	82	65826	1000.0	
*	2 Fluorobenzene (IS)	96	7.280	7.271	0.009	99	381534	50.0	
*	3 Chlorobenzene-d5	119	10.364	10.361	0.003	99	86655	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.682	12.679	0.003	98	136050	50.0	
$	5 Dibromofluoromethane (Surr	113	6.526	6.522	0.004	57	78441	48.0	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.900	0.003	99	97928	48.5	
$	7 Toluene-d8 (Surr)	98	8.923	8.925	-0.002	100	347055	51.4	
$	8 4-Bromofluorobenzene (Surr	95	11.532	11.529	0.003	97	128010	50.9	
	12 Chloromethane	50		1.777				ND	
	13 Vinyl chloride	62	1.914	1.905	0.009	0	2195	0.7454	
	15 Bromomethane	94		2.258				ND	
	16 Chloroethane	64		2.380				ND	
	22 1,1-Dichloroethene	96	3.387	3.371	0.016	98	15420	6.94	
	24 Acetone	43		3.499				ND	
	26 Carbon disulfide	76		3.651				ND	
	31 Methylene Chloride	84		4.144				ND	
	33 Acrylonitrile	53		4.545				ND	
	34 trans-1,2-Dichloroethene	96		4.564				ND	
	35 Methyl tert-butyl ether	73		4.594				ND	
	37 1,1-Dichloroethane	63	5.175	5.172	0.003	85	10529	2.38	
	45 cis-1,2-Dichloroethene	96	5.942	5.932	0.010	76	229248	92.3	
	46 2-Butanone (MEK)	43		5.987				ND	
	49 Chlorobromomethane	128		6.224				ND	
	52 Chloroform	83	6.355	6.346	0.009	1	1856	0.5260	
	53 1,1,1-Trichloroethane	97	6.538	6.529	0.009	57	10561	4.41	
	56 Carbon tetrachloride	117		6.717				ND	
	58 Benzene	78		6.954				ND	
	59 1,2-Dichloroethane	62		6.985				ND	
	64 Trichloroethene	130	7.669	7.666	0.003	99	456052	200.9	
	67 1,2-Dichloropropane	63		7.897				ND	
	70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.537	9.534	0.003	98	307320	186.2	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

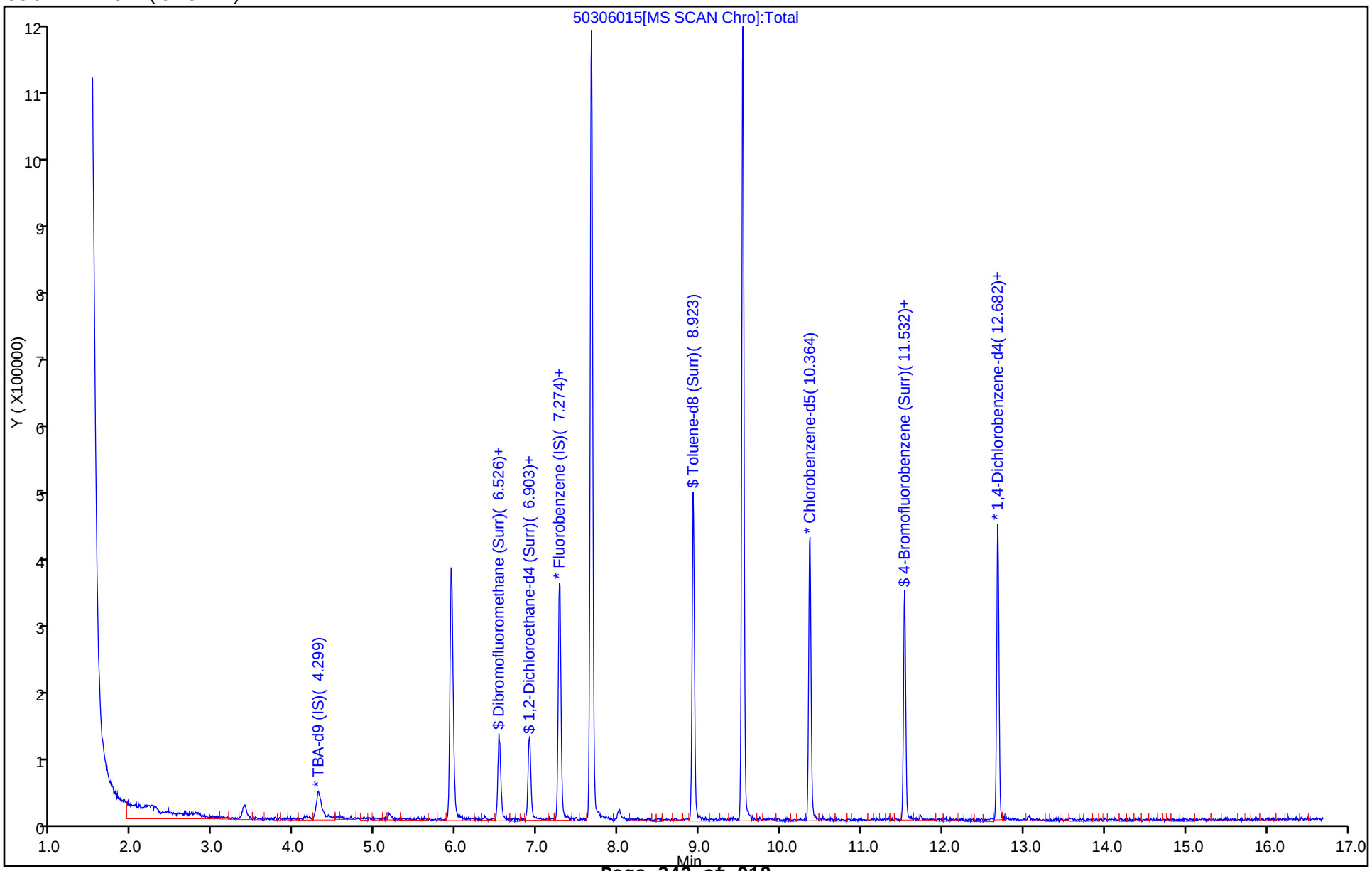
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D				
Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8	Worklist Smp#:	15
Client ID:	HD-MW-100S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



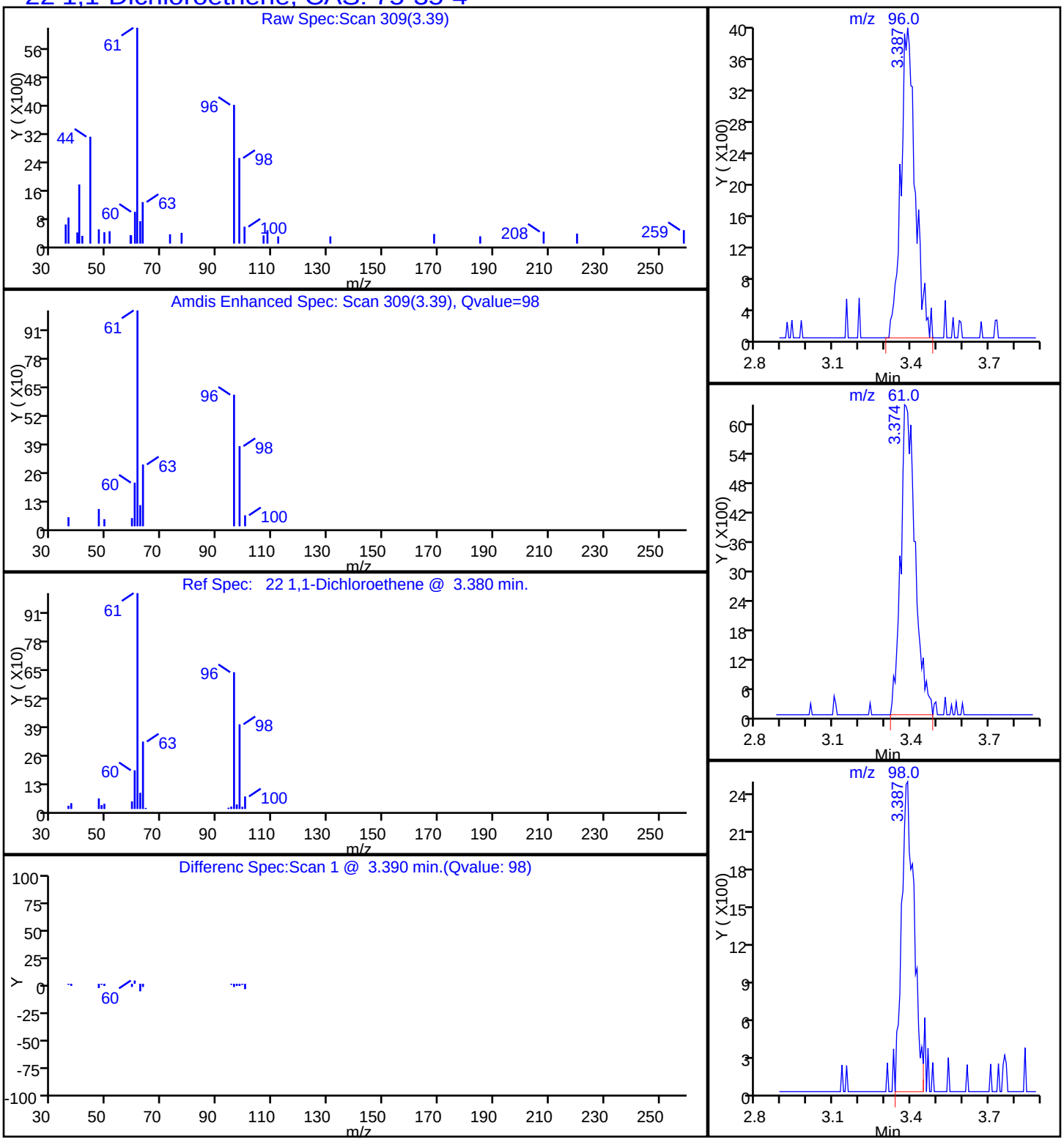
Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D

Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8		
Client ID:	HD-MW-100S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



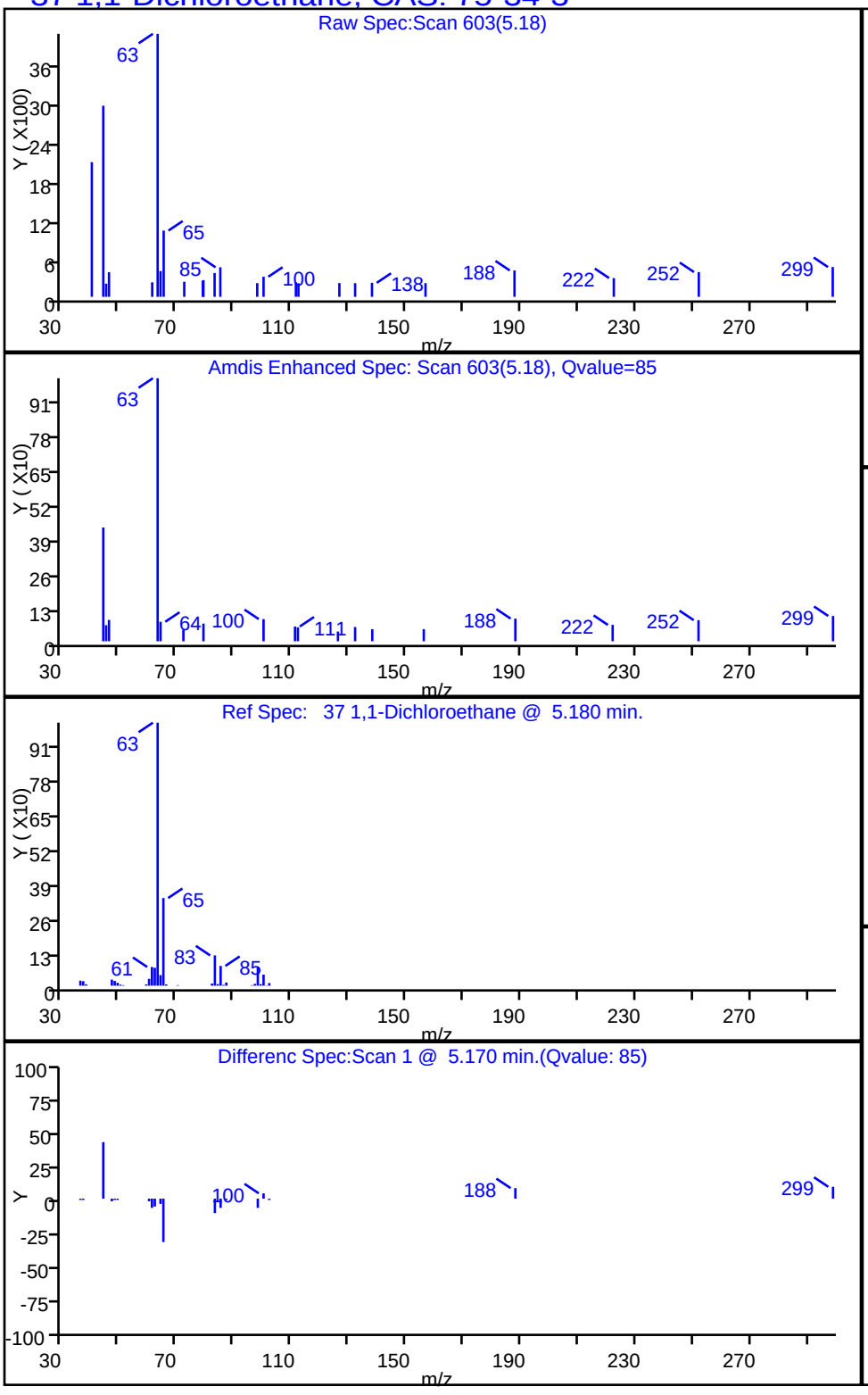
Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

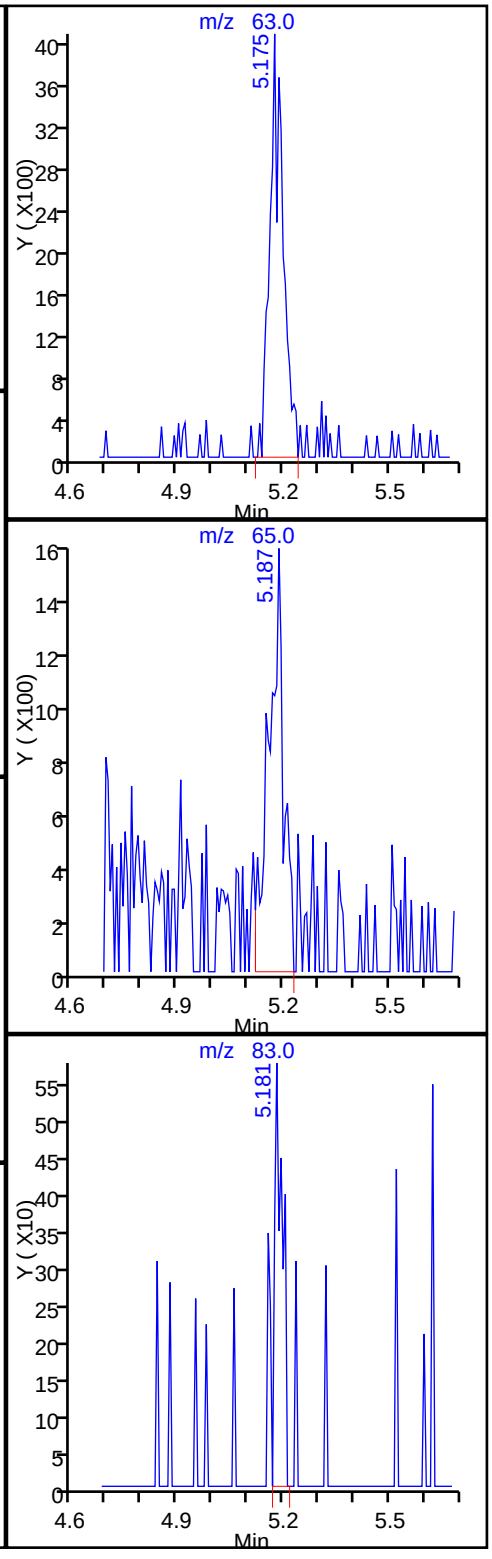
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D

Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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





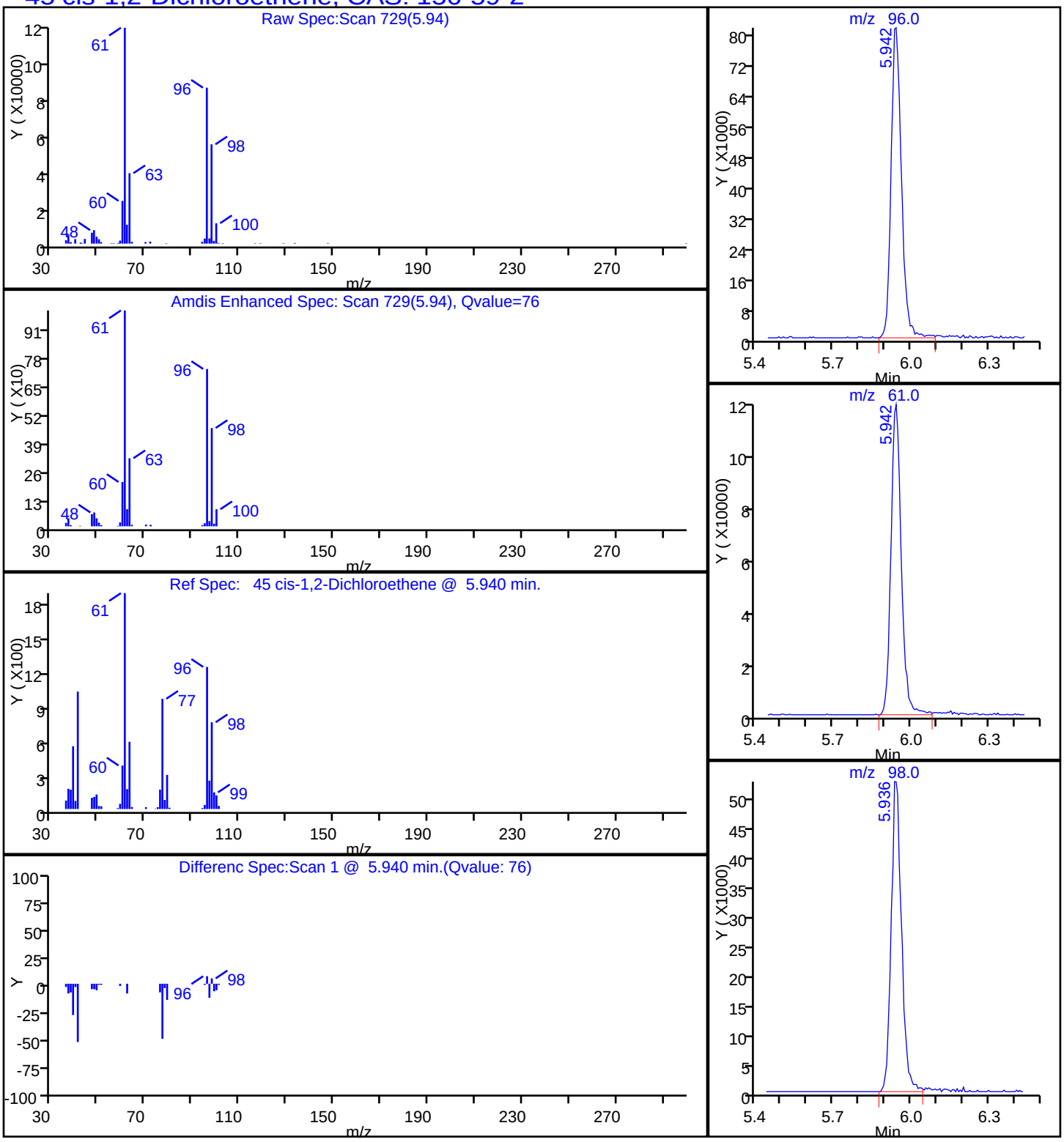
Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D

Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8		
Client ID:	HD-MW-100S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

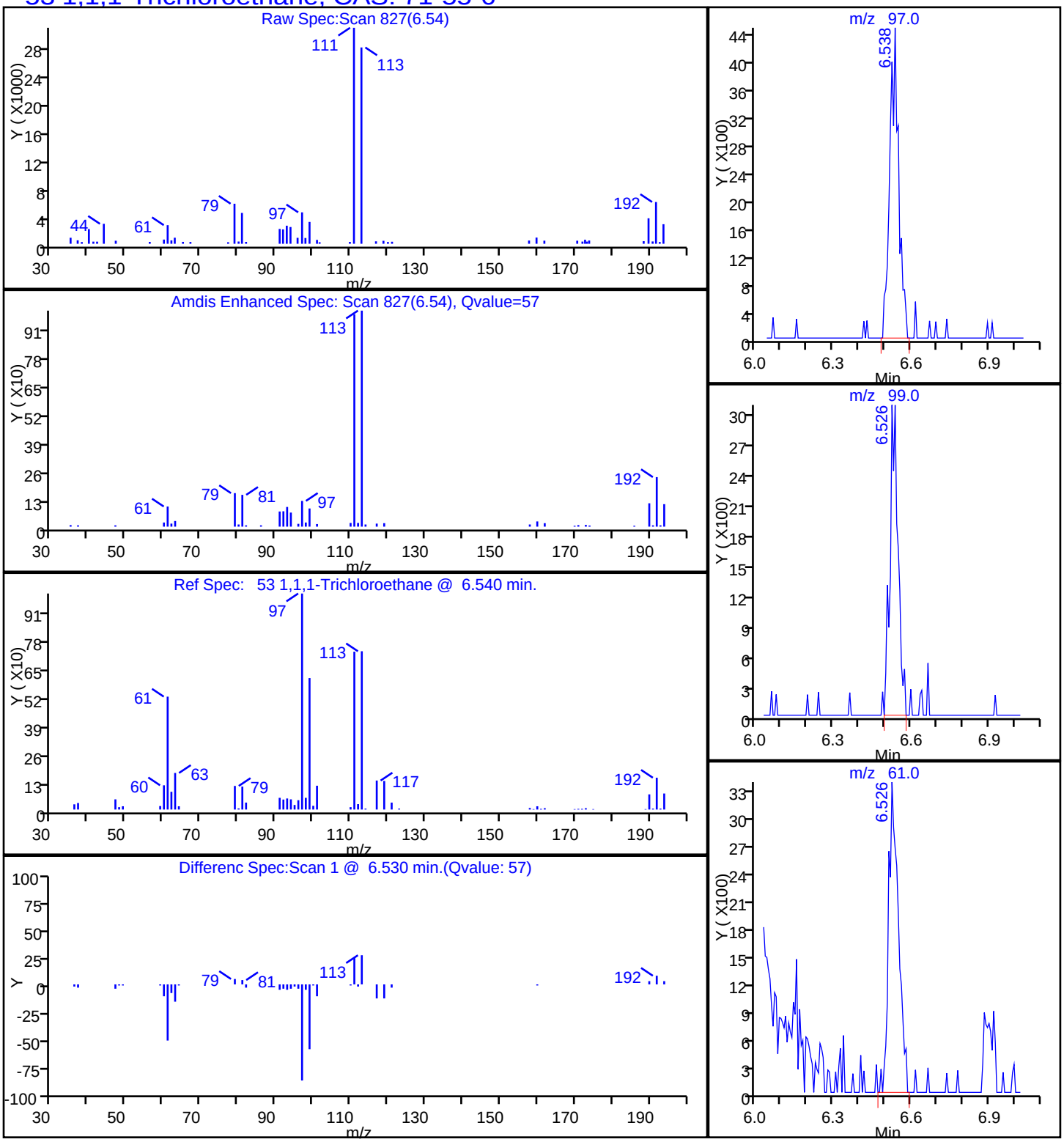


Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D				
Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8		
Client ID:	HD-MW-100S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

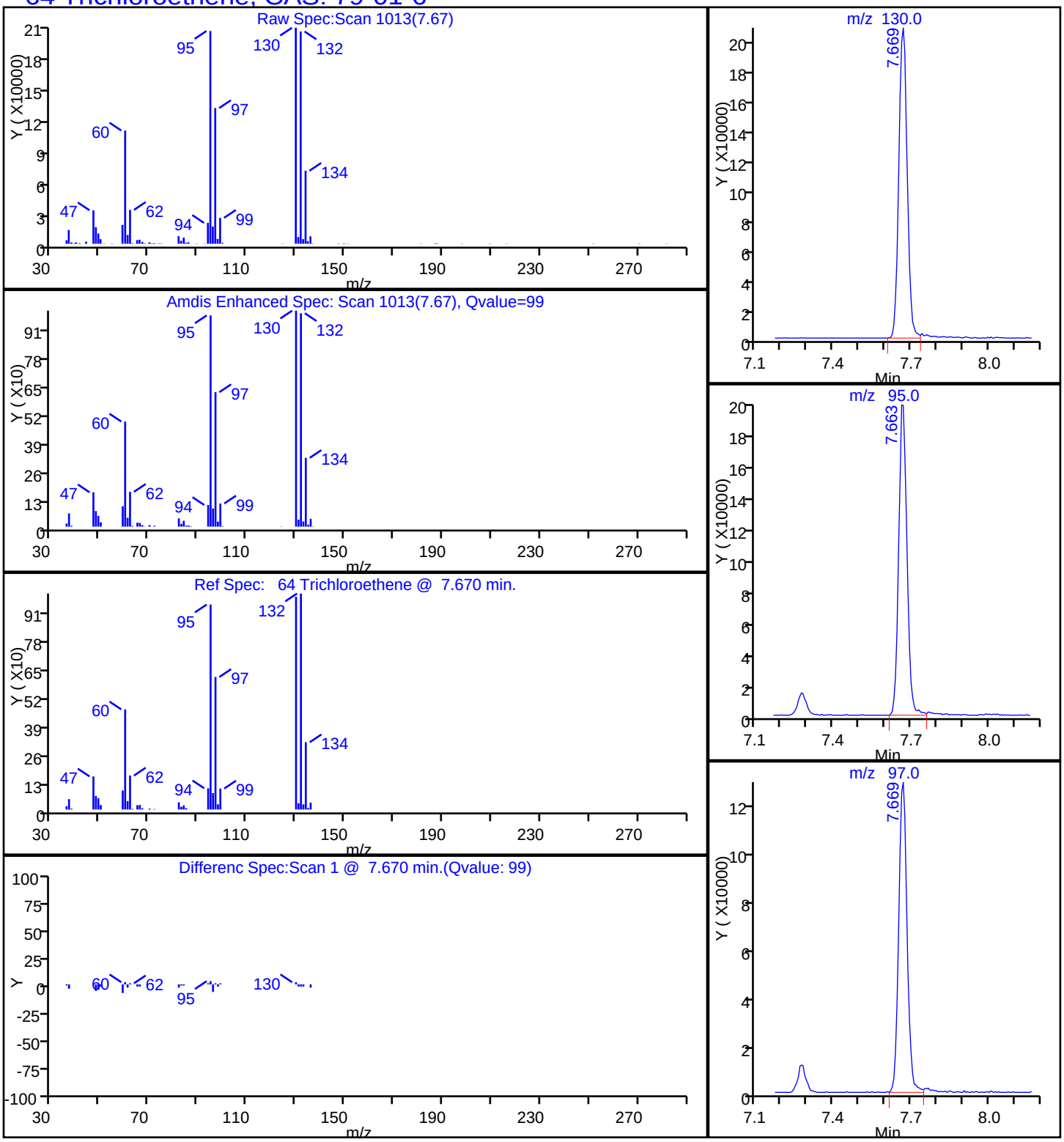


Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D				
Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8		
Client ID:	HD-MW-100S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

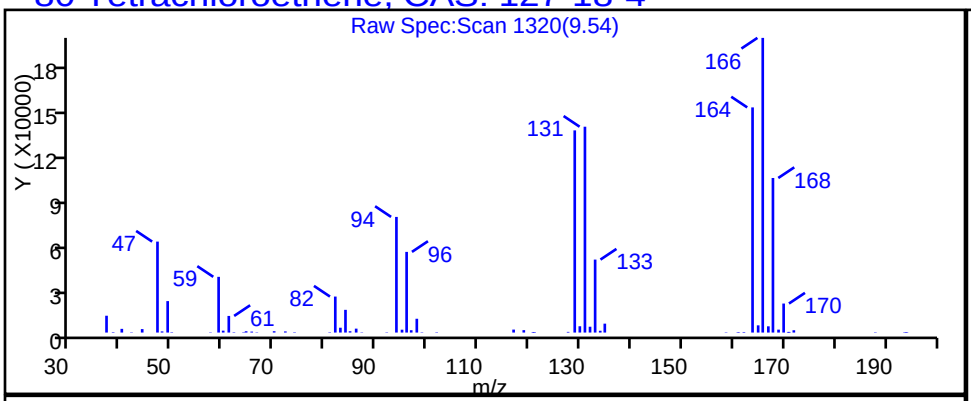


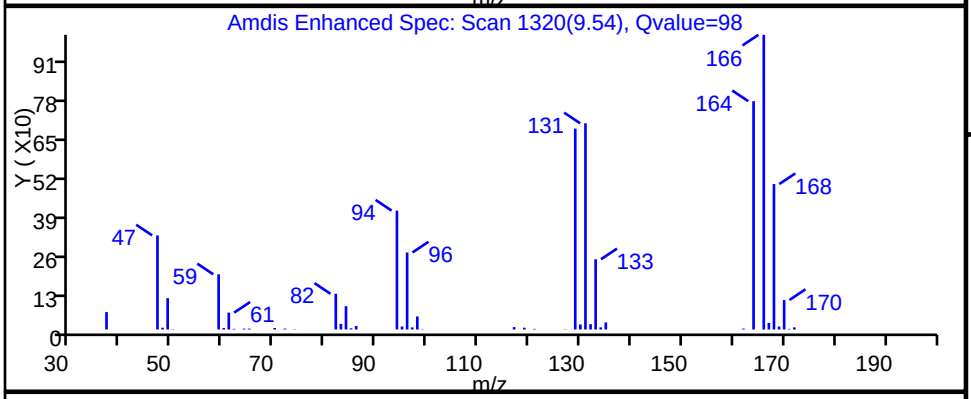
Report Date: 09-Mar-2015 09:46:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

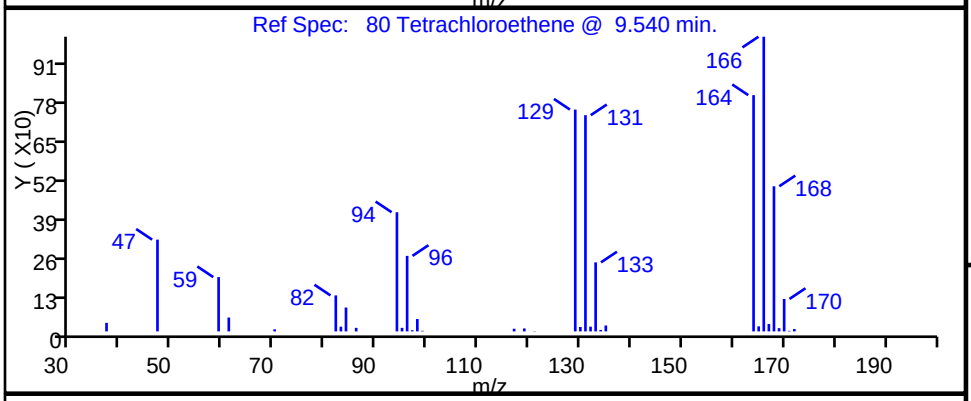
TestAmerica Pittsburgh

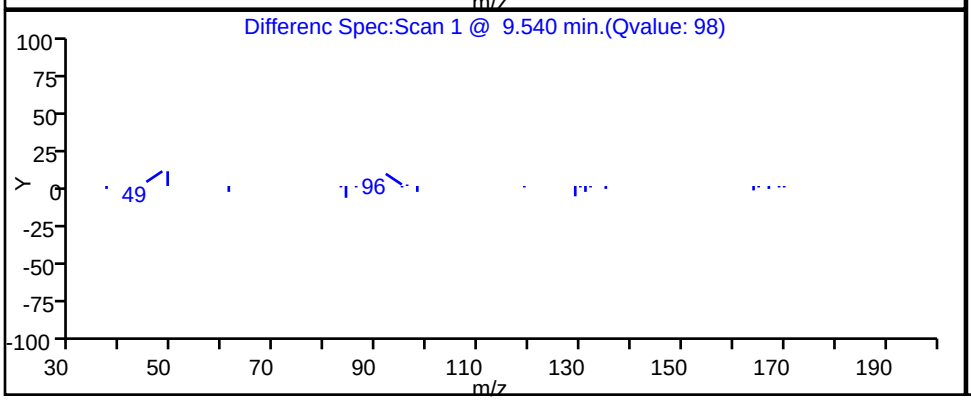
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306015.D		
Injection Date:	06-Mar-2015 17:06:30	Instrument ID:	CHHP5
Lims ID:	180-41508-C-8	Lab Sample ID:	180-41508-8
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

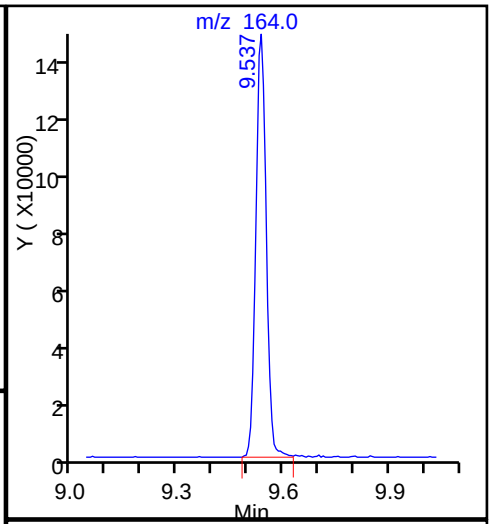
80 Tetrachloroethene, CAS: 127-18-4

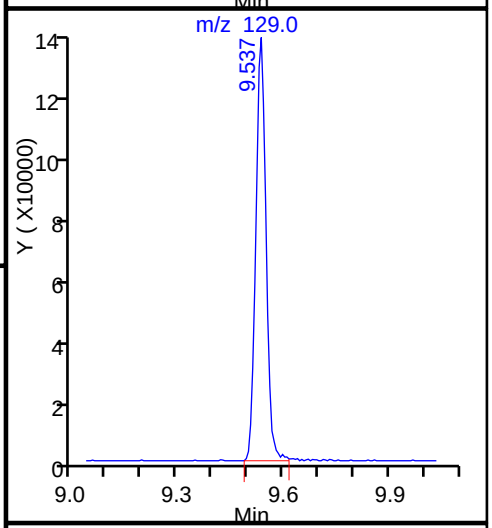


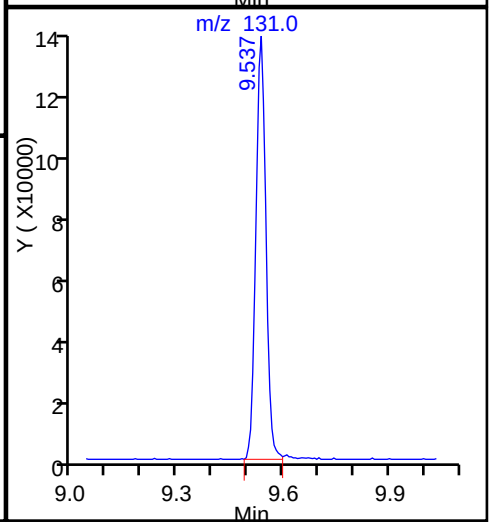












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100I-0/1-0 Lab Sample ID: 180-41508-9

Matrix: Water Lab File ID: 50306016.D

Analysis Method: 8260C Date Collected: 02/25/2015 11:45

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 17:31

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 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	2.3		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.76	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	28		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.24	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.3		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	48		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	35		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100I-0/1-0 Lab Sample ID: 180-41508-9

Matrix: Water Lab File ID: 50306016.D

Analysis Method: 8260C Date Collected: 02/25/2015 11:45

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 17:31

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 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)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D
Lims ID: 180-41508-E-9 Lab Sample ID: 180-41508-9
Client ID: HD-MW-100I-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 17:31:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-E-9
Misc. Info.: 180-0005922-016
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 09:47:46 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 09:47:46

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.292	4.308	-0.016	85	62216	1000.0	
*	2 Fluorobenzene (IS)	96	7.273	7.271	0.002	99	400233	50.0	
*	3 Chlorobenzene-d5	119	10.363	10.361	0.002	99	90658	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.681	12.679	0.002	98	128066	50.0	
$	5 Dibromofluoromethane (Surr	113	6.525	6.522	0.003	60	82723	48.3	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.896	6.900	-0.004	99	102680	48.5	
$	7 Toluene-d8 (Surr)	98	8.922	8.925	-0.003	100	356137	50.4	
$	8 4-Bromofluorobenzene (Surr	95	11.531	11.529	0.002	97	129969	49.4	
	12 Chloromethane	50		1.777				ND	
	13 Vinyl chloride	62	1.895	1.905	-0.010	1	3299	1.07	
	15 Bromomethane	94		2.258				ND	
	16 Chloroethane	64		2.380				ND	
	22 1,1-Dichloroethene	96	3.386	3.371	0.015	98	26238	11.3	
	24 Acetone	43		3.499				ND	
	26 Carbon disulfide	76		3.651				ND	
	31 Methylene Chloride	84		4.144				ND	
	33 Acrylonitrile	53		4.545				ND	
	34 trans-1,2-Dichloroethene	96		4.564				ND	
	35 Methyl tert-butyl ether	73	4.590	4.594	-0.004	3	1774	0.2914	
	37 1,1-Dichloroethane	63	5.174	5.172	0.002	98	17595	3.79	
	45 cis-1,2-Dichloroethene	96	5.941	5.932	0.009	76	366645	140.7	
	46 2-Butanone (MEK)	43		5.987				ND	
	49 Chlorobromomethane	128		6.224				ND	
	52 Chloroform	83	6.342	6.346	-0.004	44	4530	1.22	
	53 1,1,1-Trichloroethane	97	6.537	6.529	0.008	60	16379	6.52	
	56 Carbon tetrachloride	117		6.717				ND	
	58 Benzene	78		6.954				ND	
	59 1,2-Dichloroethane	62		6.985				ND	
	64 Trichloroethene	130	7.668	7.666	0.002	99	568307	238.7	
	67 1,2-Dichloropropane	63		7.897				ND	
	70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97	9.402	9.400	0.002	1	1126	0.6587	
80 Tetrachloroethene	164	9.536	9.534	0.002	98	301017	174.3	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

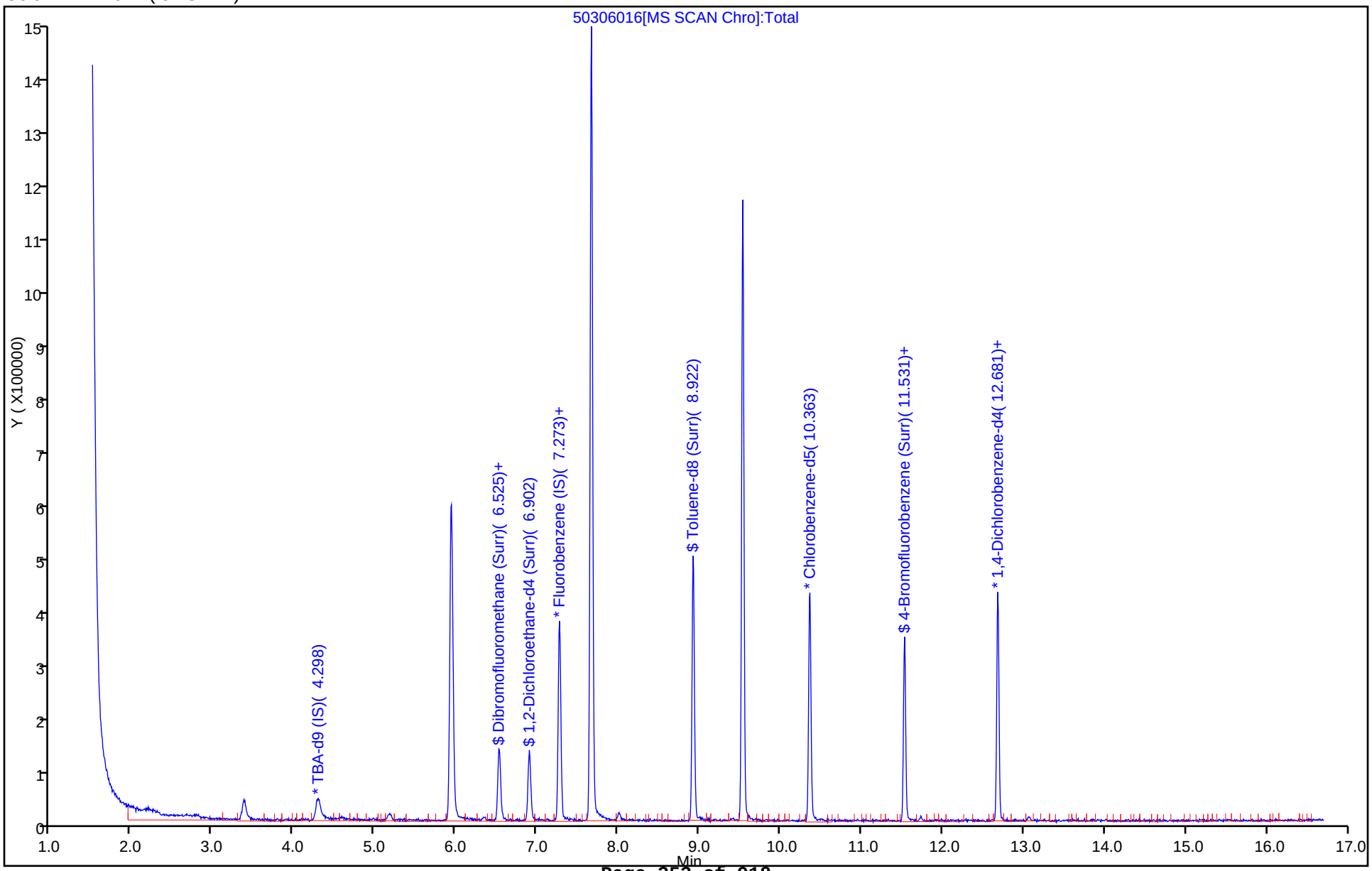
Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D

Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9	Worklist Smp#:	16
Client ID:	HD-MW-100I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



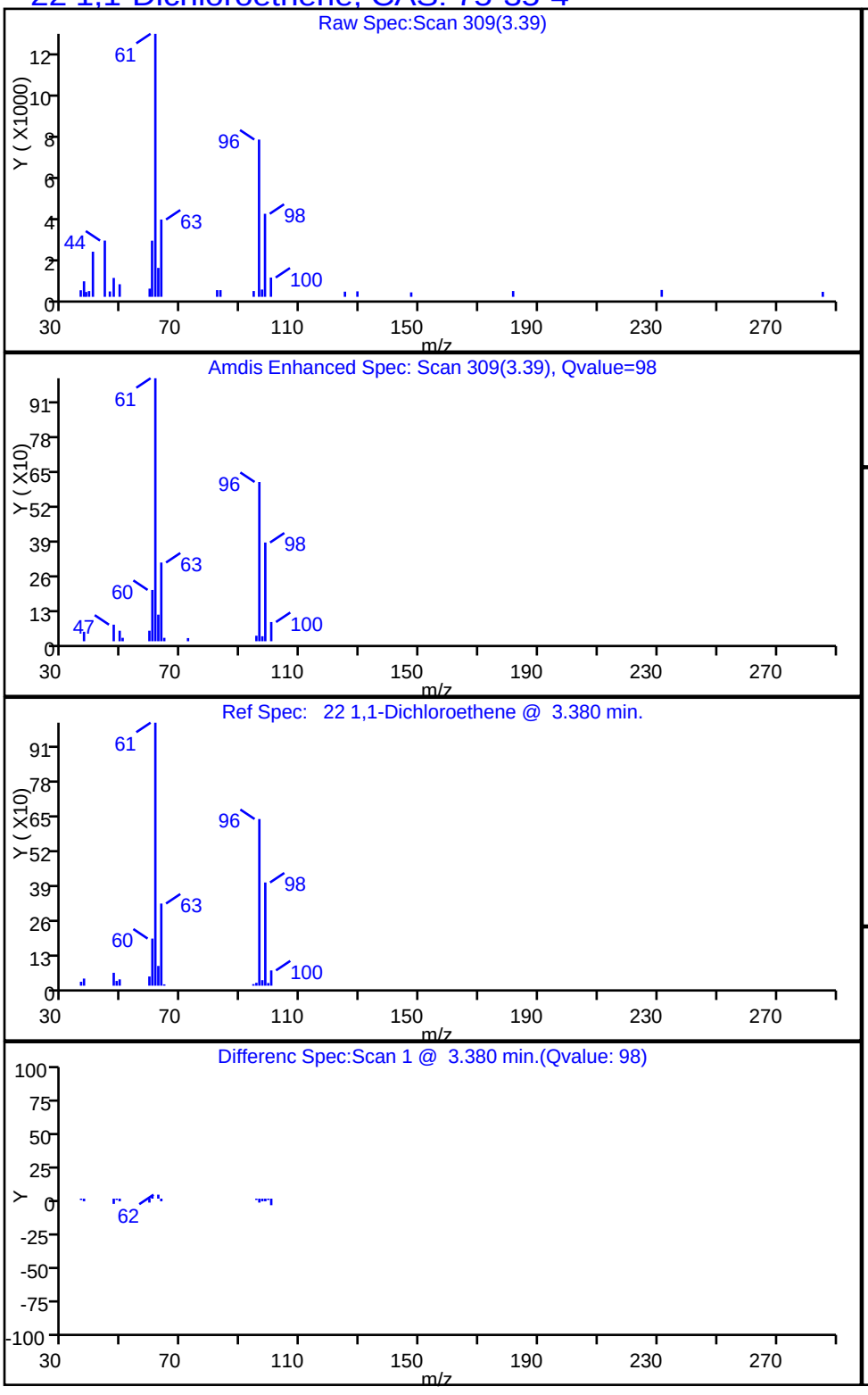
Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

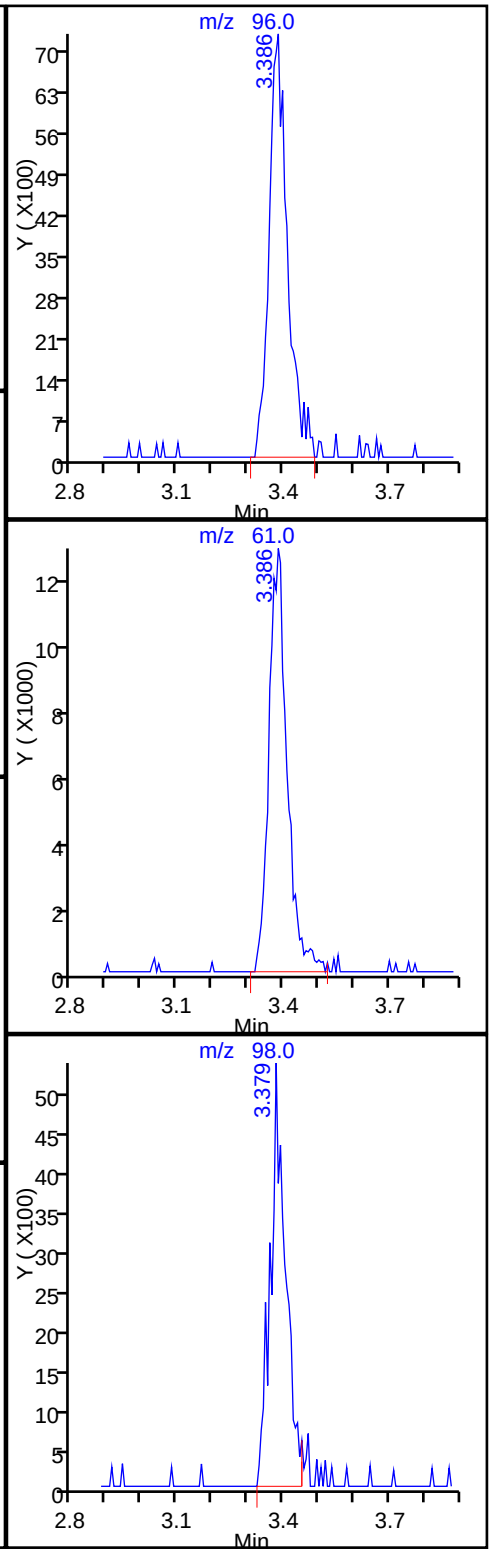
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D

Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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





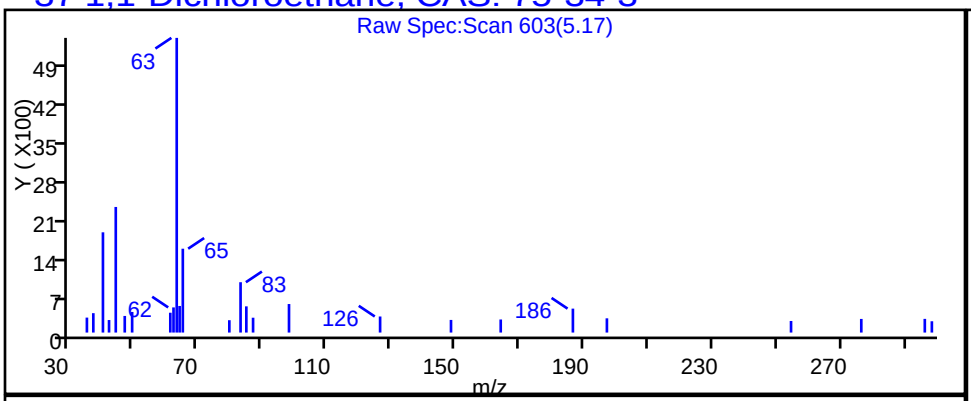
Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

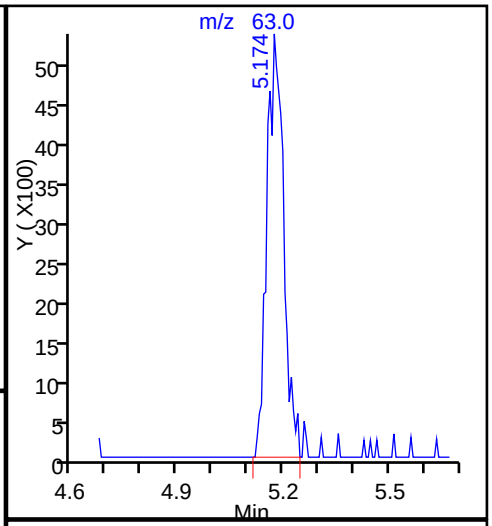
TestAmerica Pittsburgh

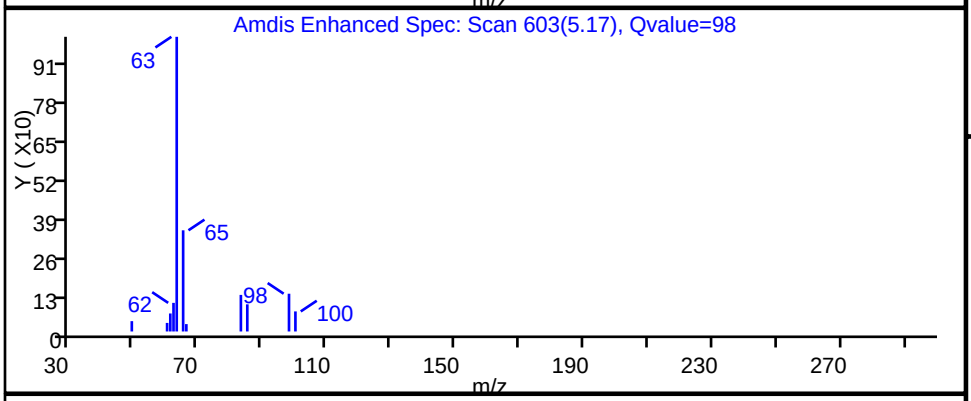
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D

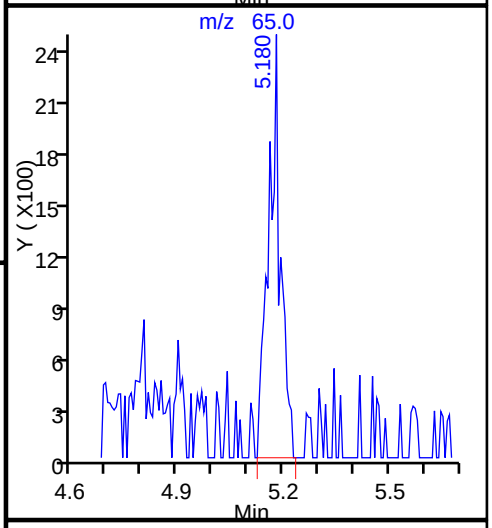
Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

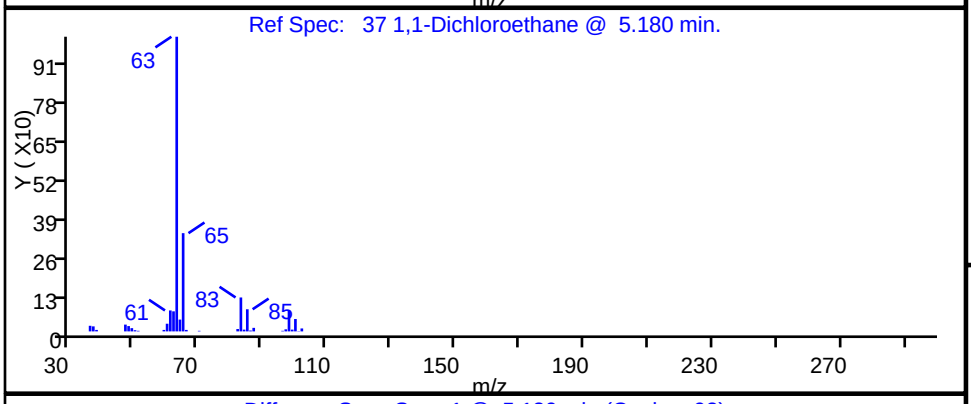
37 1,1-Dichloroethane, CAS: 75-34-3

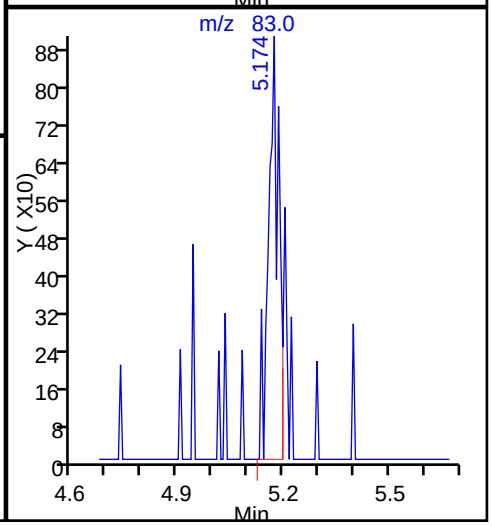


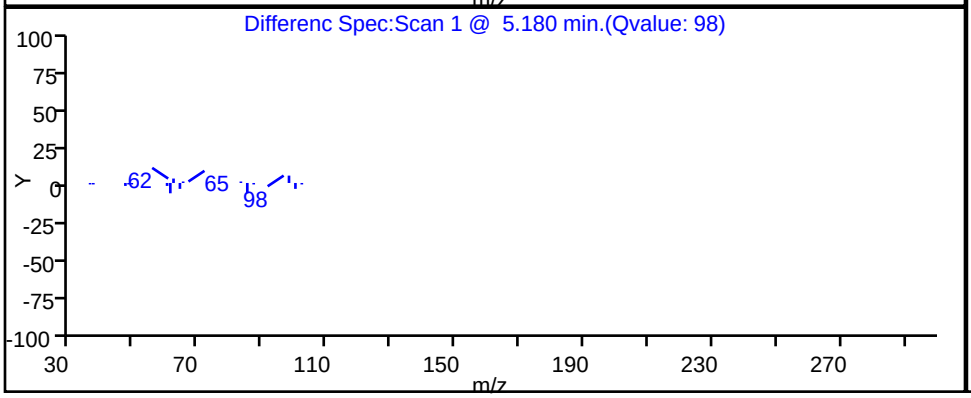












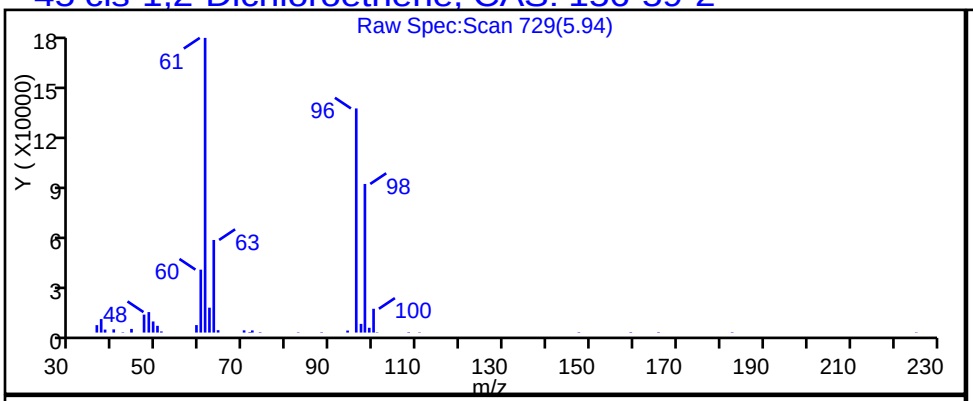
Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

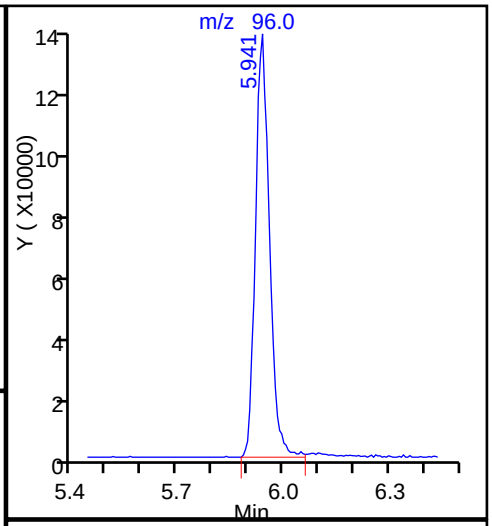
TestAmerica Pittsburgh

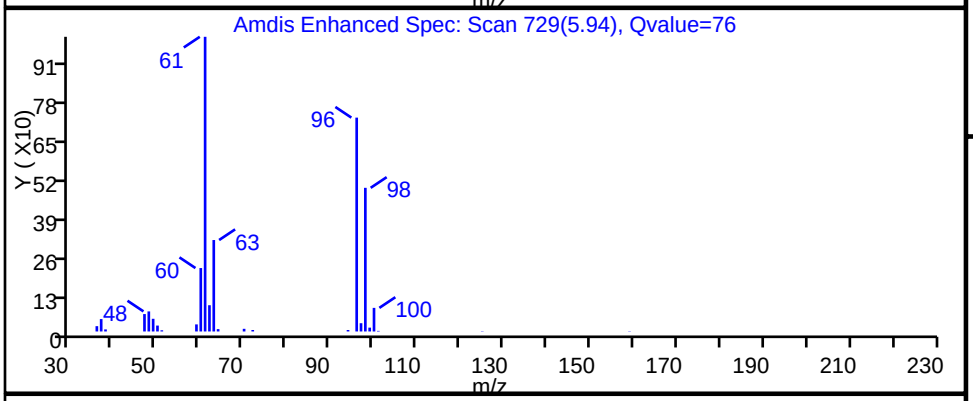
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D

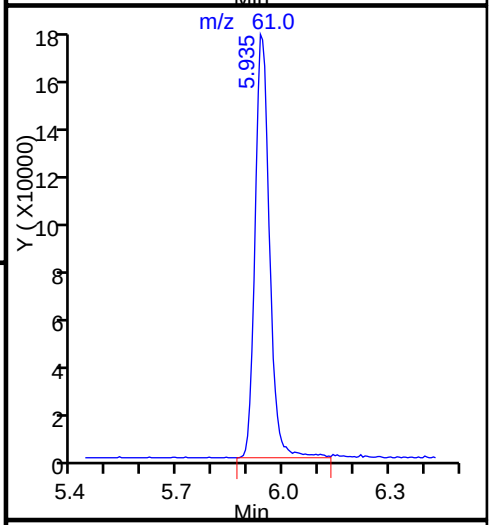
Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

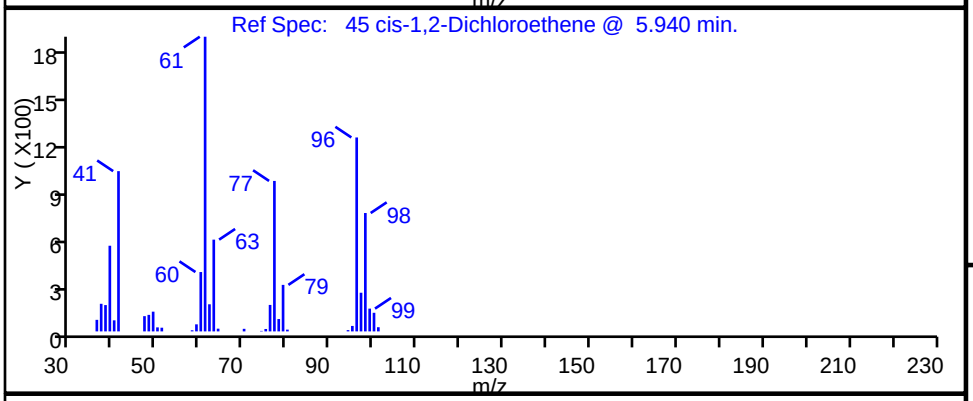
45 cis-1,2-Dichloroethene, CAS: 156-59-2

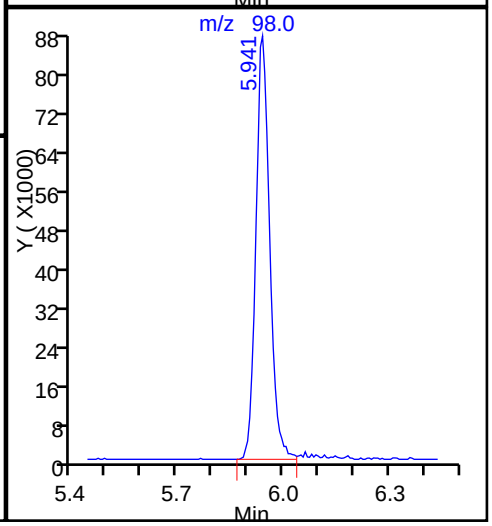


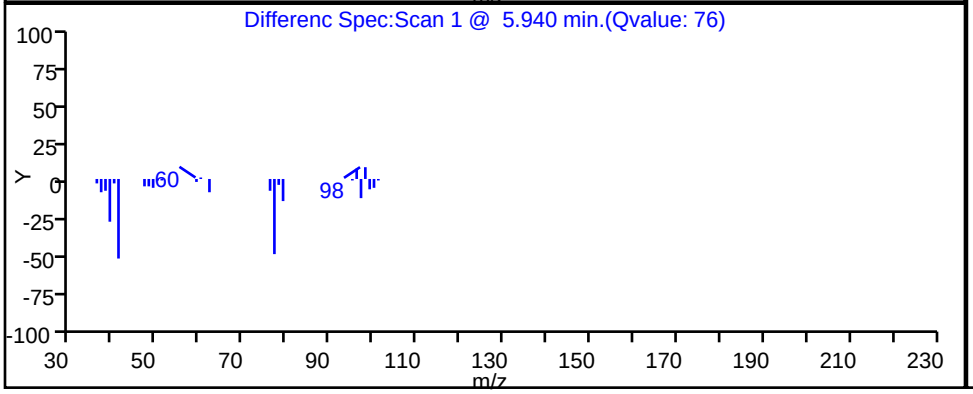












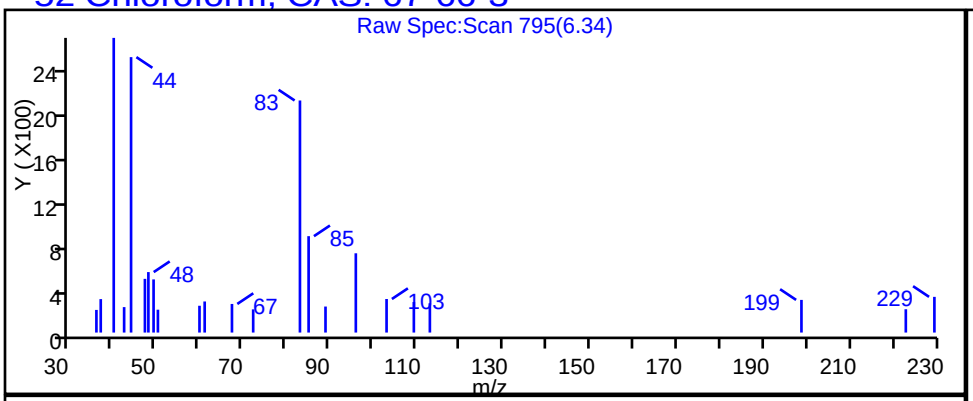
Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

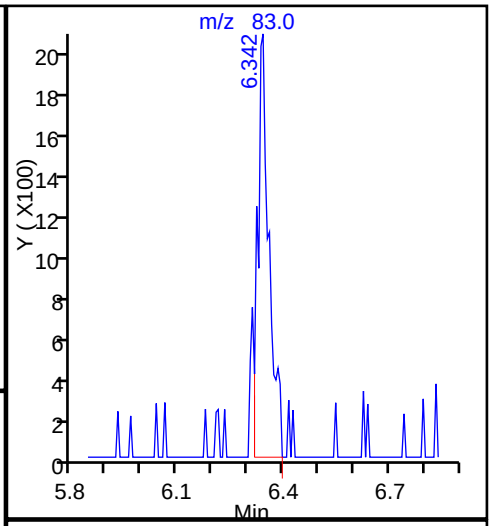
TestAmerica Pittsburgh

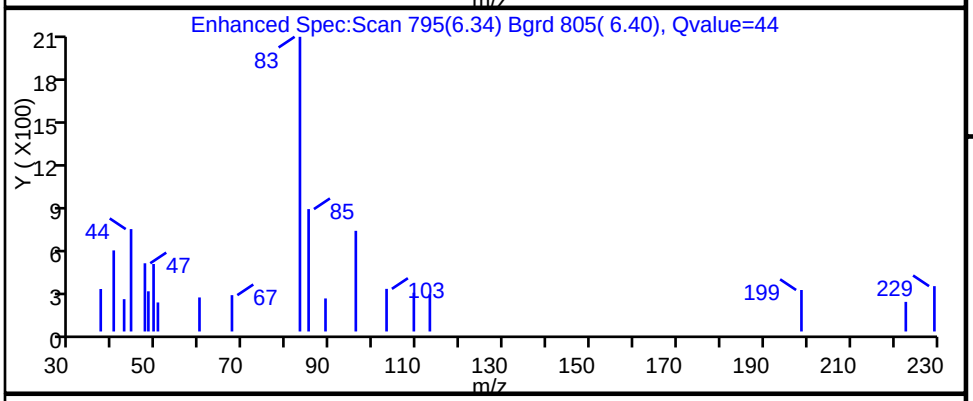
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D

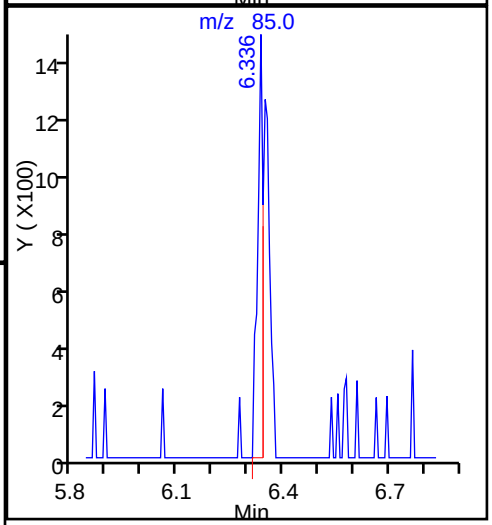
Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9		
Client ID:	HD-MW-100I-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

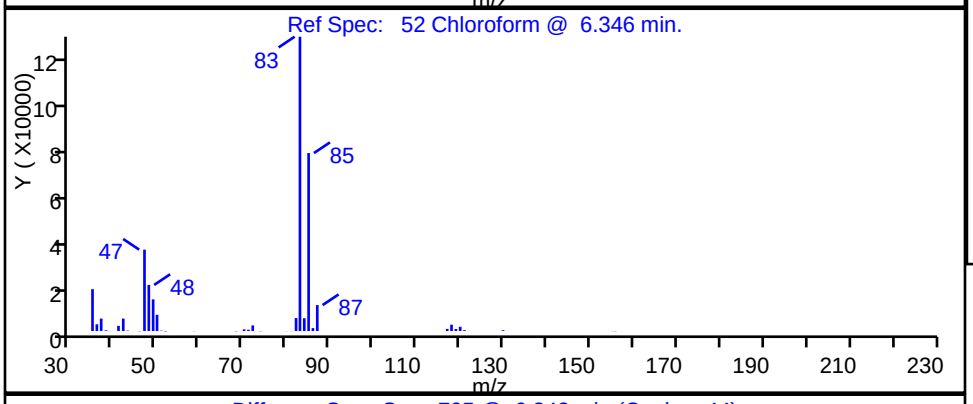
52 Chloroform, CAS: 67-66-3

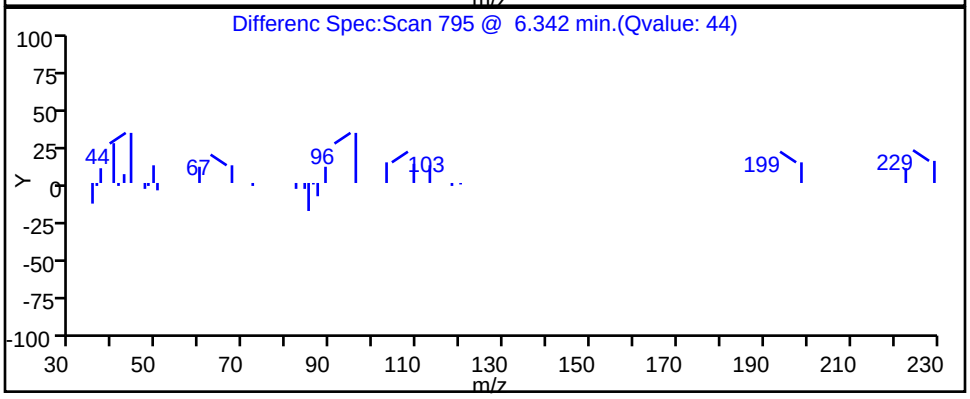










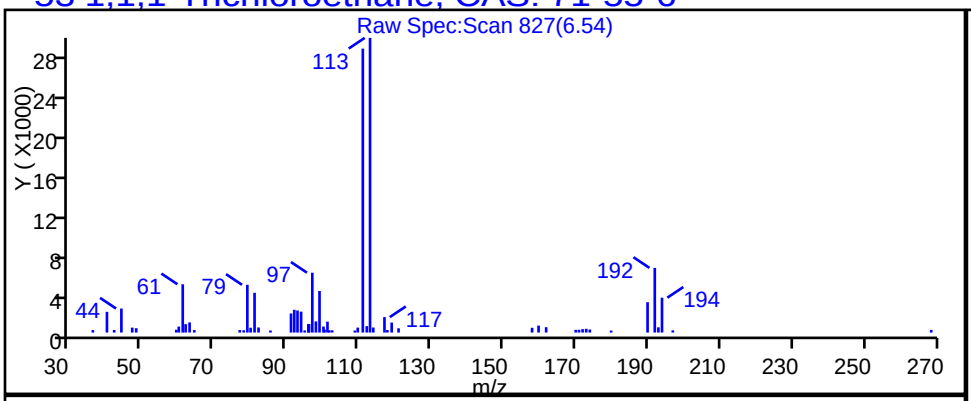


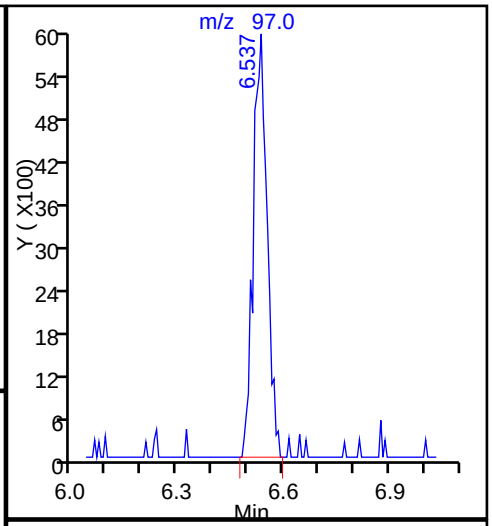
Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

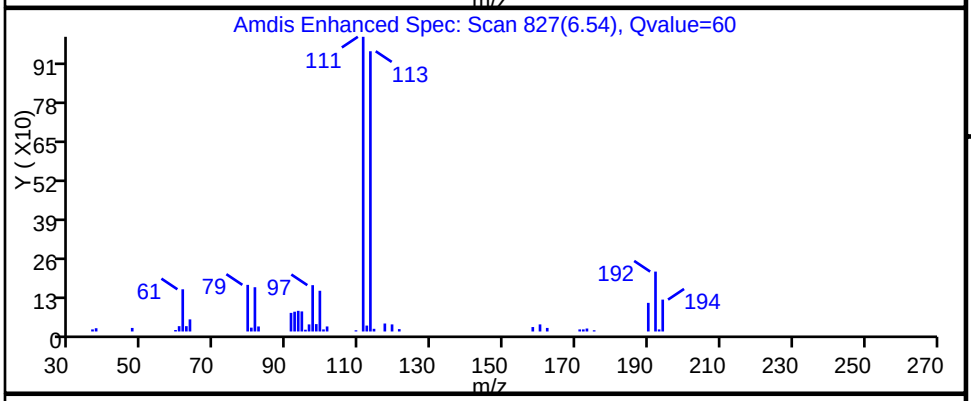
TestAmerica Pittsburgh

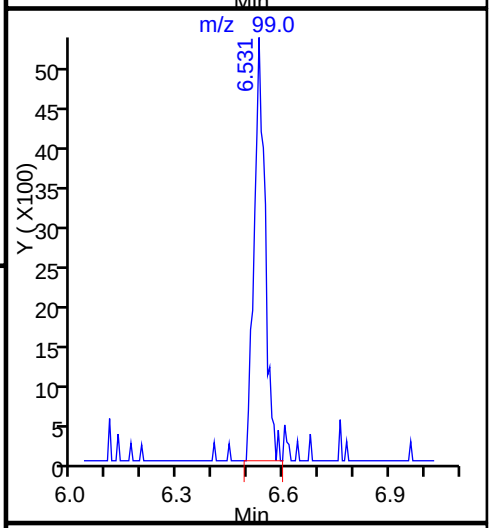
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D				
Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9		
Client ID:	HD-MW-100I-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

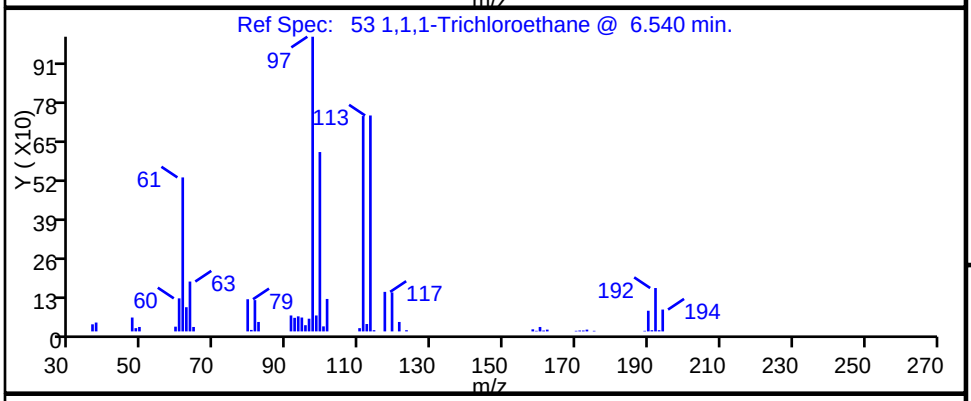
53 1,1,1-Trichloroethane, CAS: 71-55-6

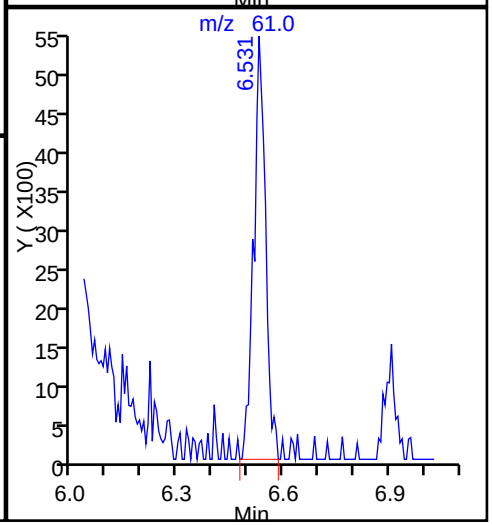


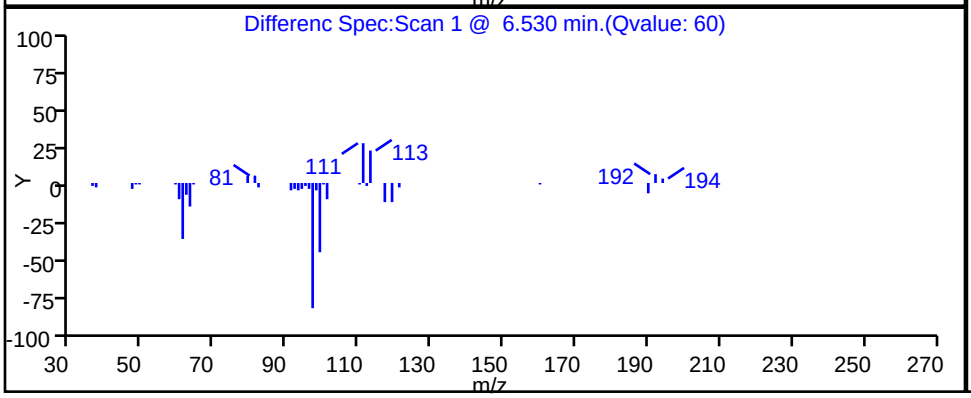










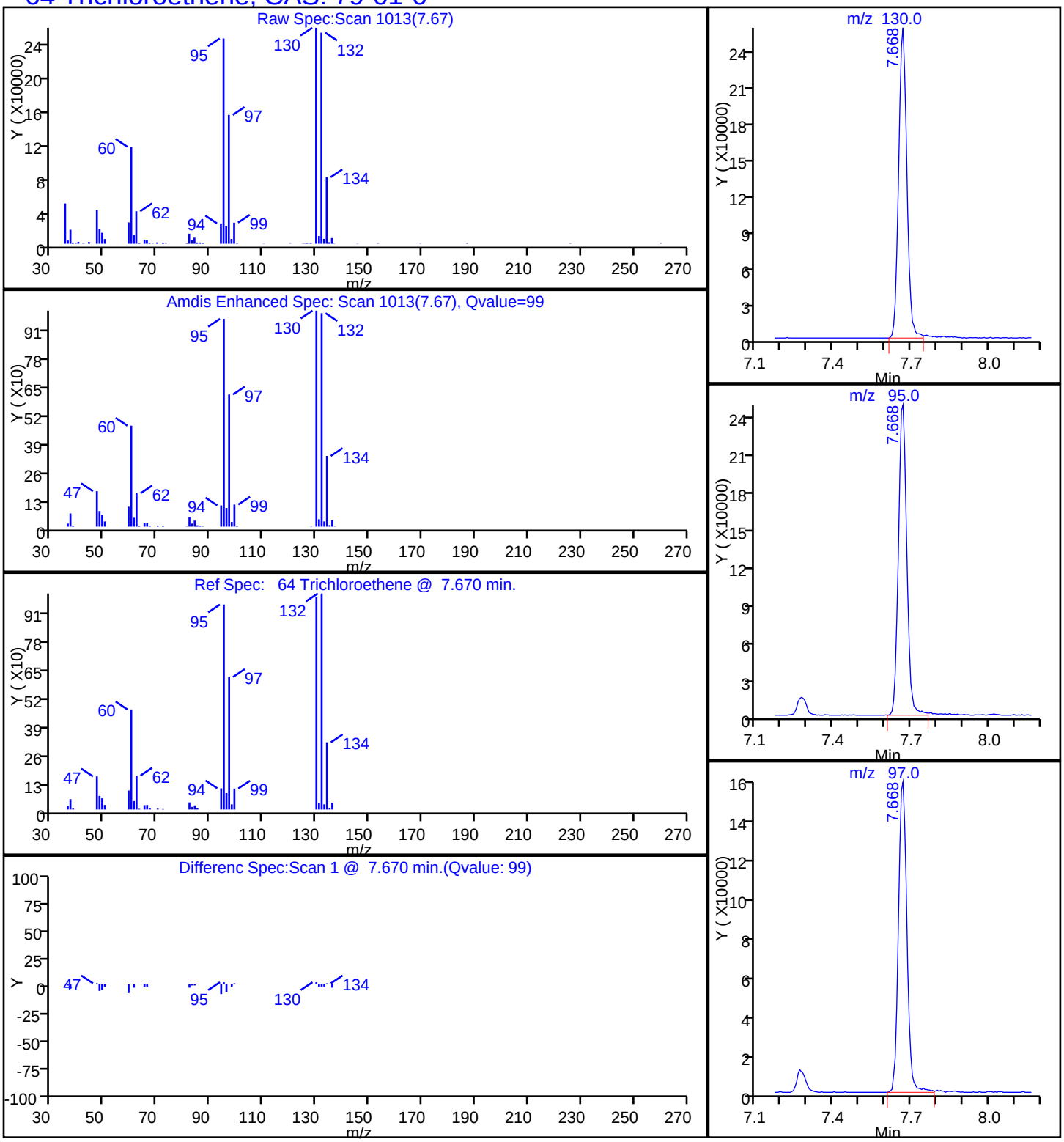


Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D		
Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6

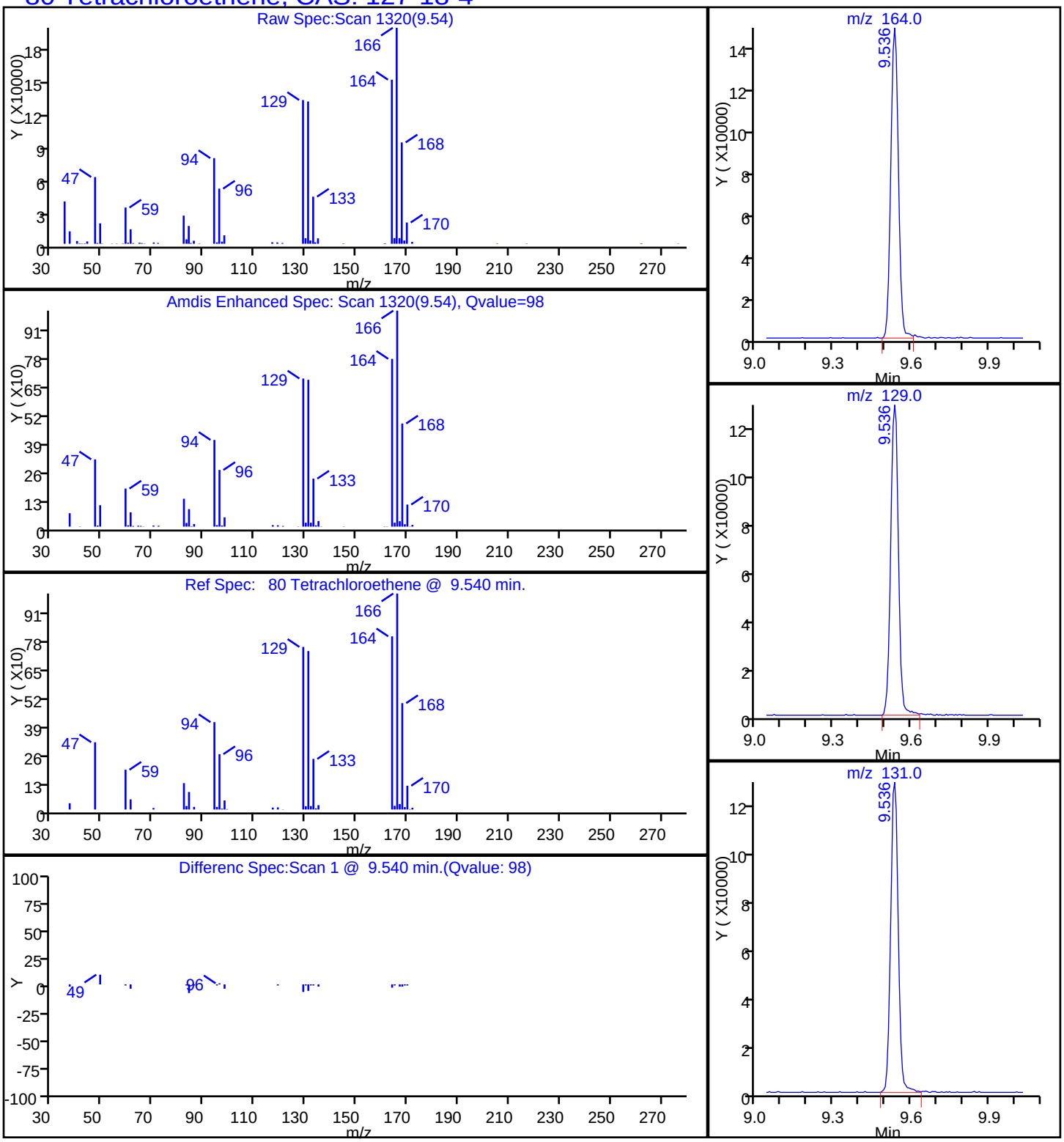


Report Date: 09-Mar-2015 09:47:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306016.D		
Injection Date:	06-Mar-2015 17:31:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-9	Lab Sample ID:	180-41508-9
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-41508-10

Matrix: Water Lab File ID: 50309011.D

Analysis Method: 8260C Date Collected: 02/25/2015 10:40

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 16:07

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.: 135049 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	1.9		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.54	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	26		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.17	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.1		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	47		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	34		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-41508-10

Matrix: Water Lab File ID: 50309011.D

Analysis Method: 8260C Date Collected: 02/25/2015 10:40

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 16:07

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.: 135049 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)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D
Lims ID: 180-41508-D-10 Lab Sample ID: 180-41508-10
Client ID: HD-MW-100D-0/1-0
Sample Type: Client
Inject. Date: 09-Mar-2015 16:07:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-D-10
Misc. Info.: 180-0005947-011
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 08:49:46 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 08:49:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.315	4.327	-0.012	89	98130	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	417224	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	100	96333	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	146459	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	58	88321	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.906	0.000	98	106743	48.4	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	385455	51.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	96	139803	50.0	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62	1.918	1.912	0.006	1	3569	1.11	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.378	3.384	-0.006	98	22546	9.28	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73	4.643	4.601	0.042	9	2273	0.3582	M
37 1,1-Dichloroethane	63	5.185	5.172	0.013	97	13116	2.71	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	76	357862	131.8	
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.341	6.340	0.001	13	3208	0.8314	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	58	14893	5.68	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.673	7.667	0.006	99	579143	233.3	
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.541	9.540	0.001	98	311997	170.0	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

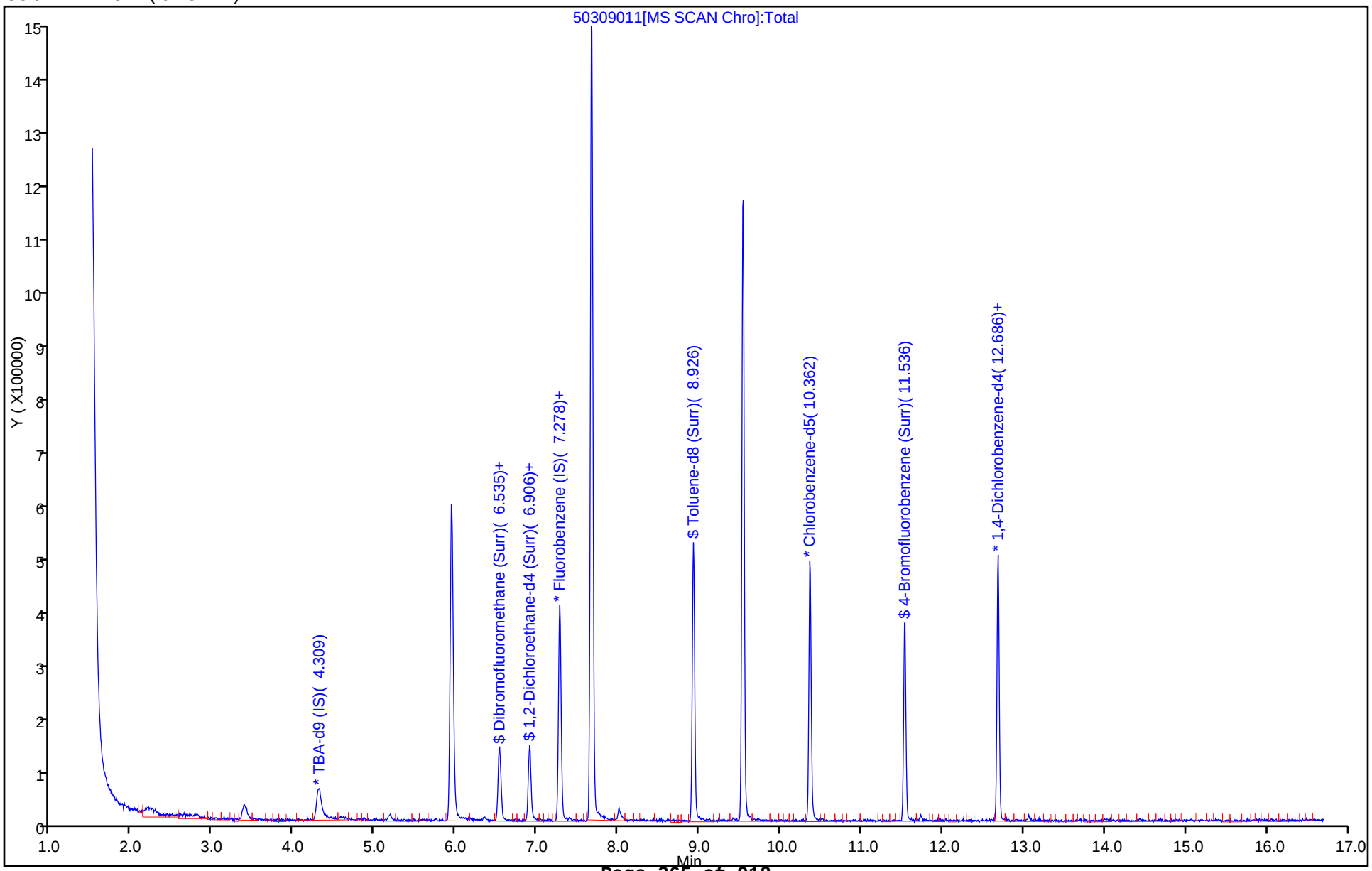
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 10-Mar-2015 08:49:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D				
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10	Worklist Smp#:	11
Client ID:	HD-MW-100D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



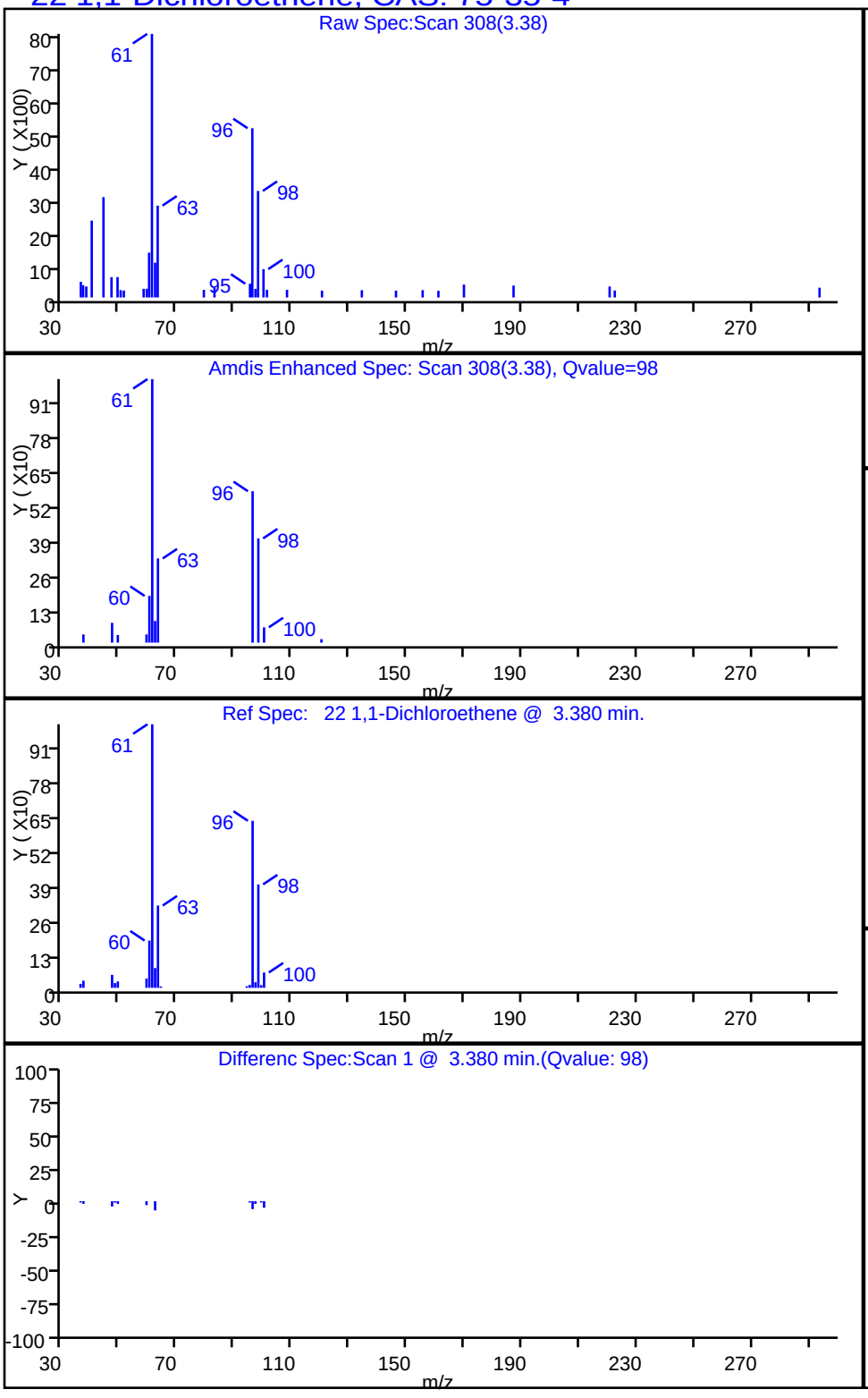
Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

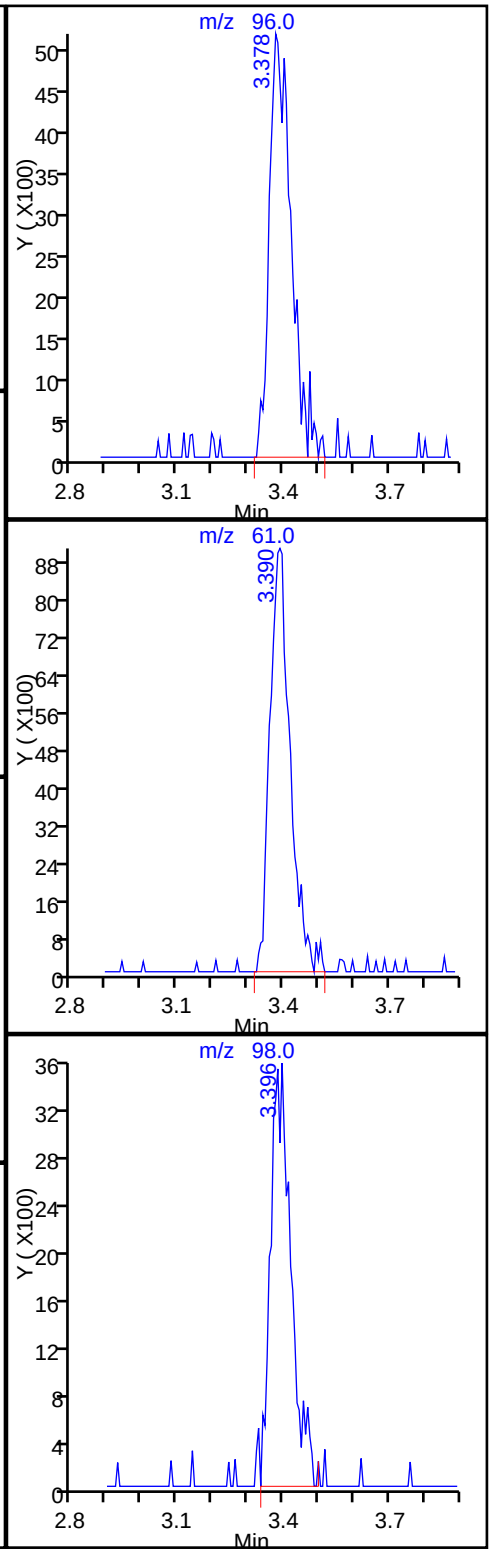
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D

Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10
Client ID:	HD-MW-100D-0/1-0		
Operator ID:	001562	ALS Bottle#:	11 Worklist Smp#: 11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



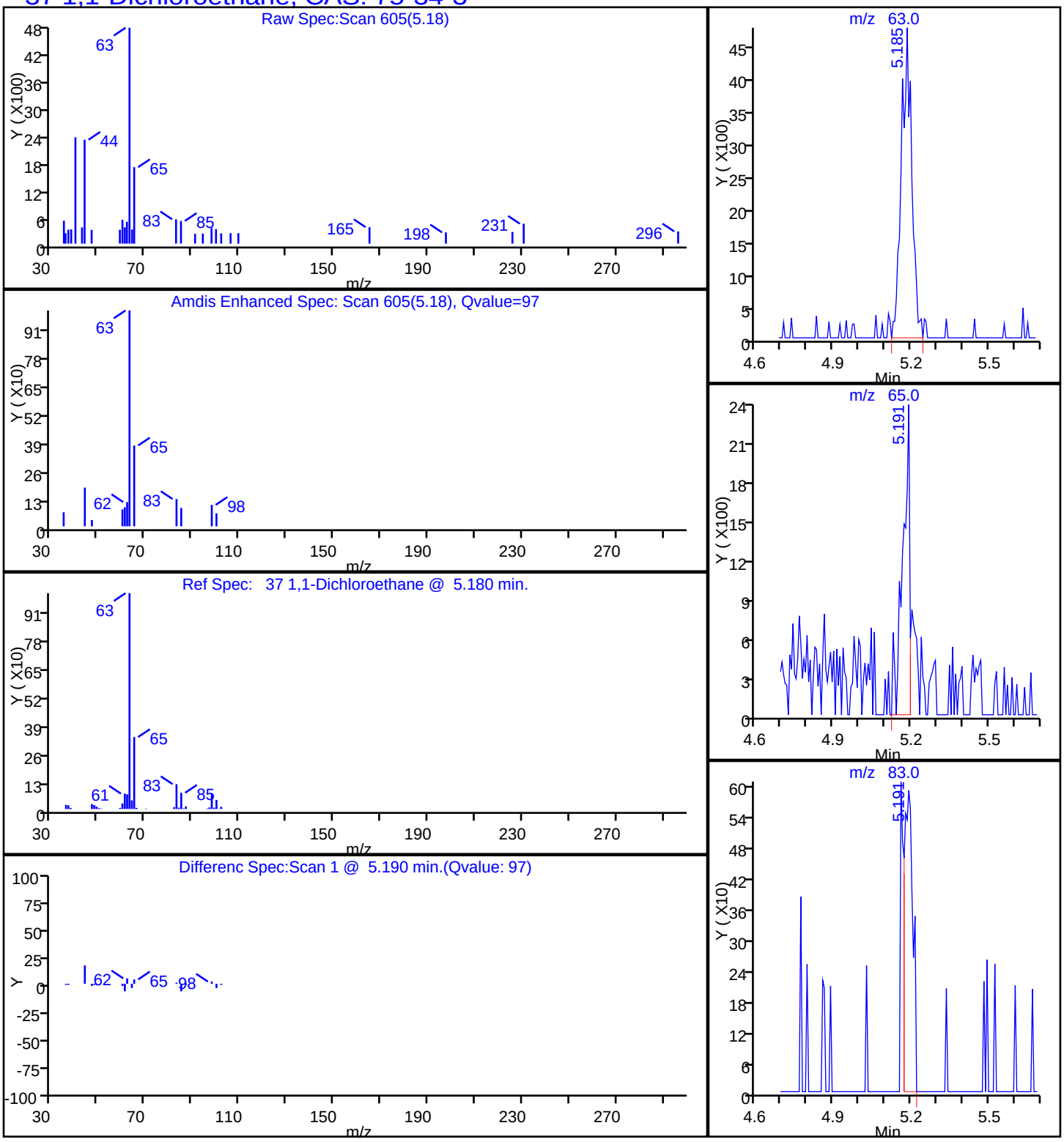


Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D				
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



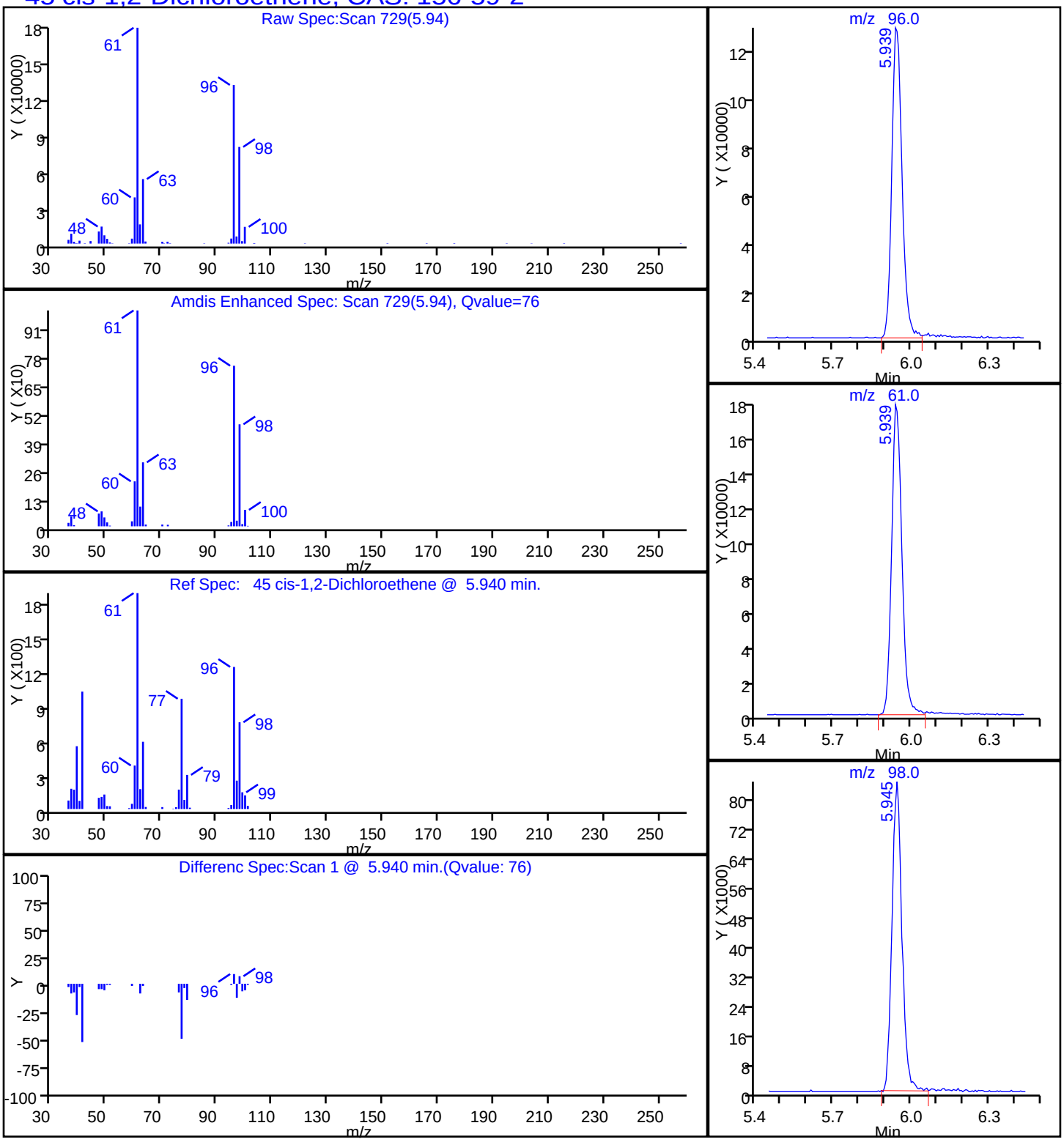
Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D

Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

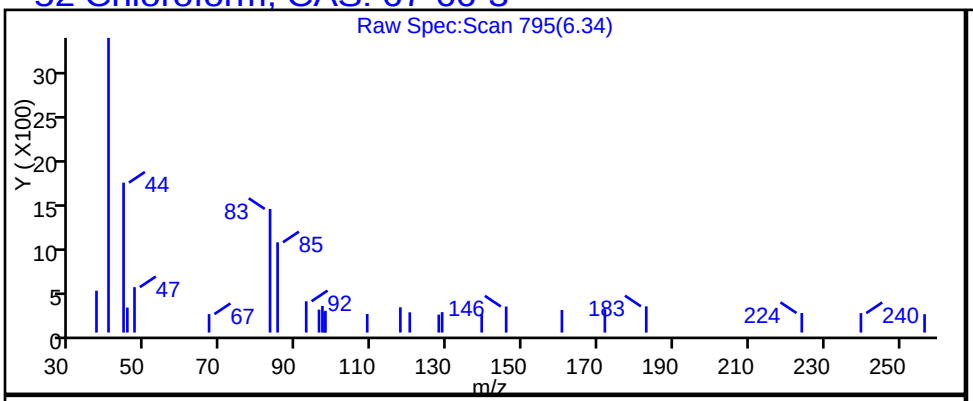


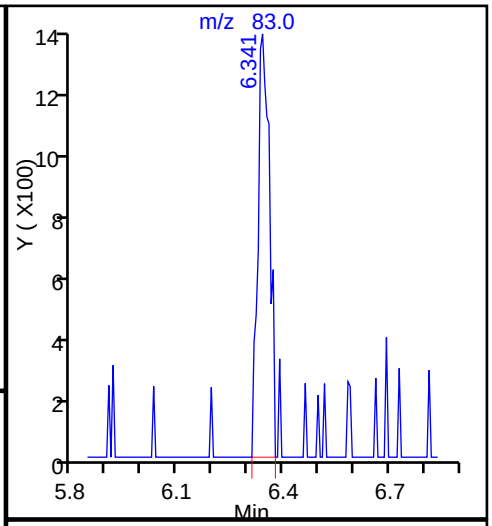
Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

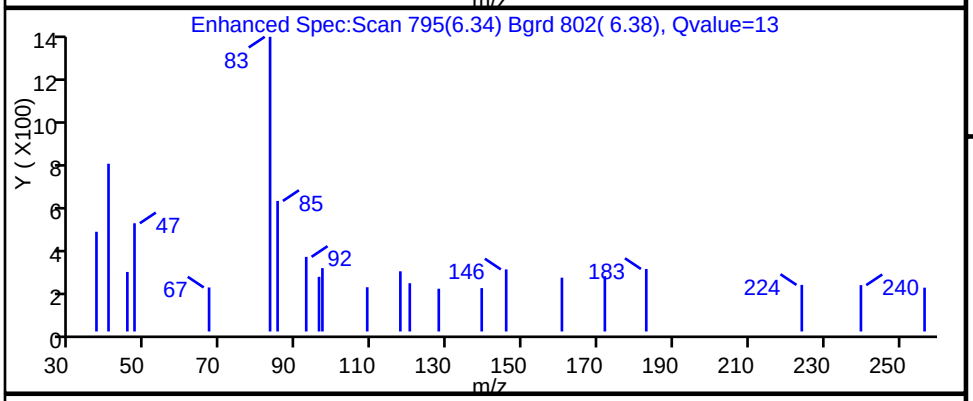
TestAmerica Pittsburgh

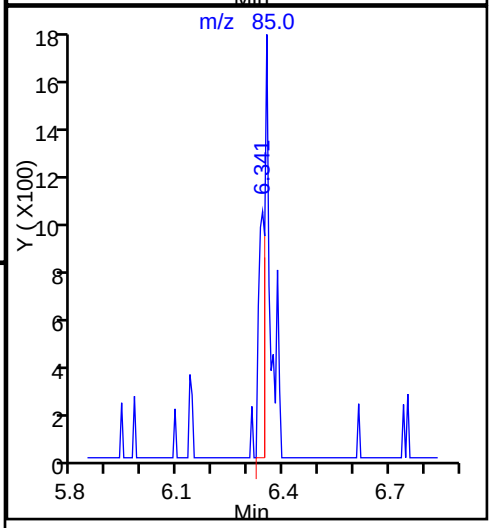
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D				
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

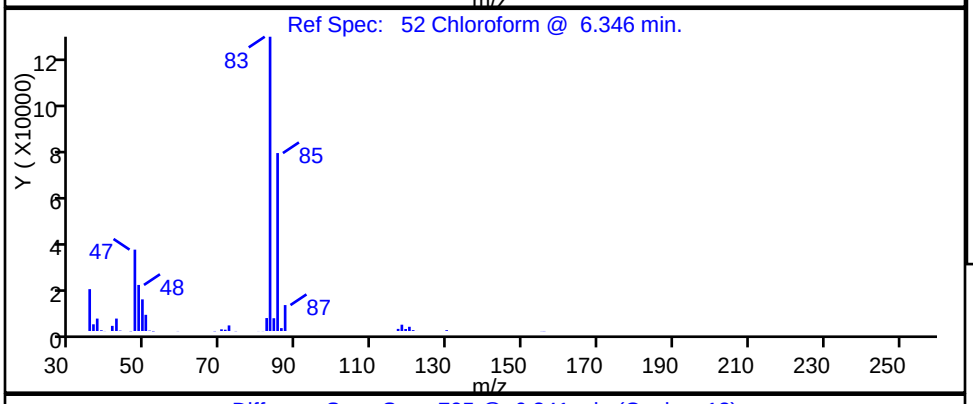
52 Chloroform, CAS: 67-66-3

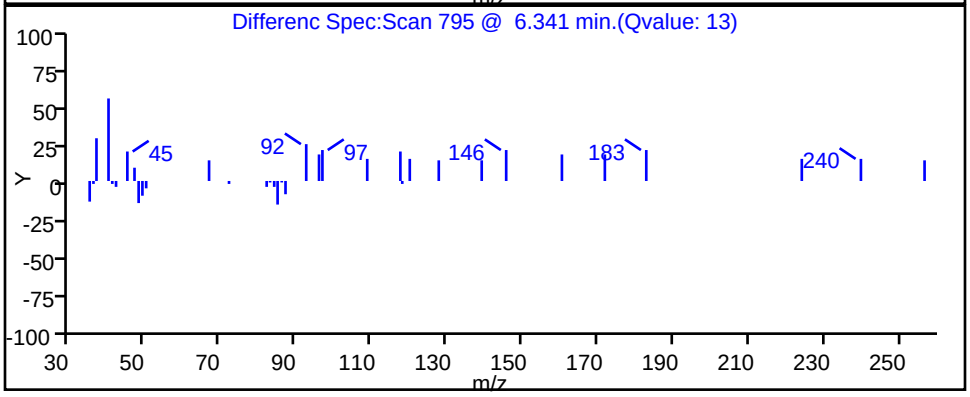










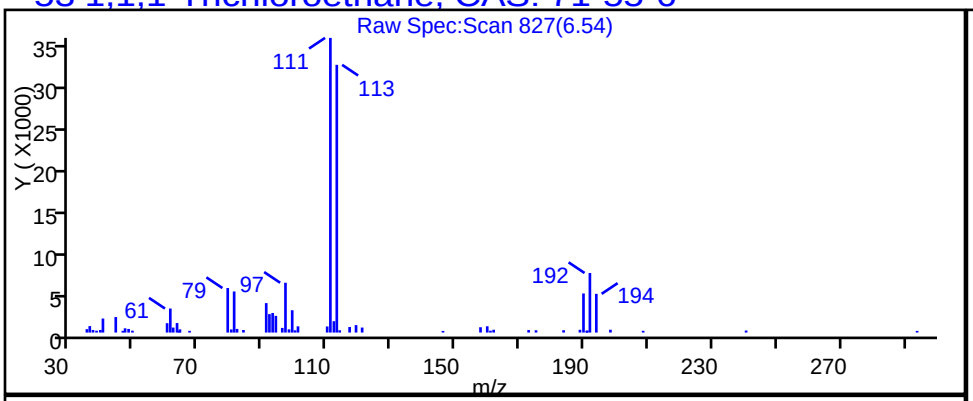


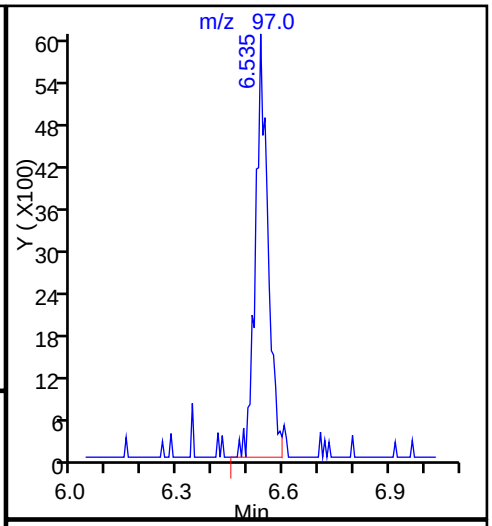
Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

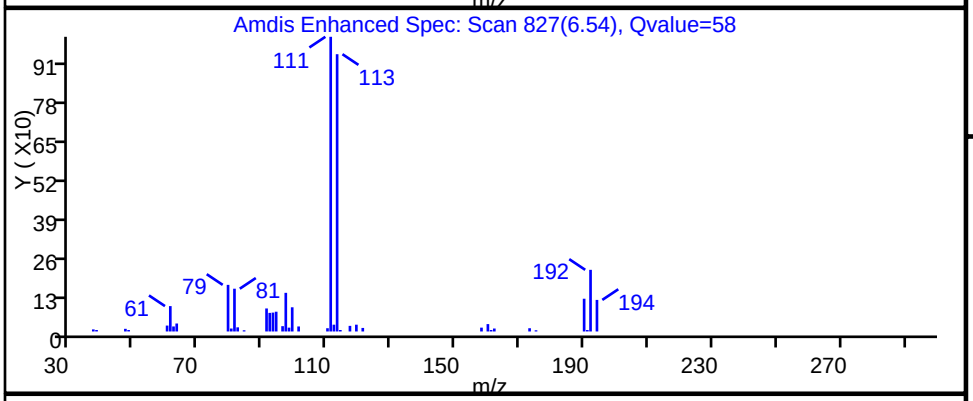
TestAmerica Pittsburgh

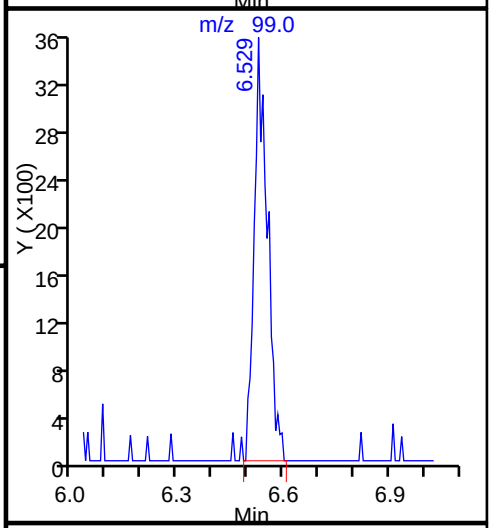
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D				
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

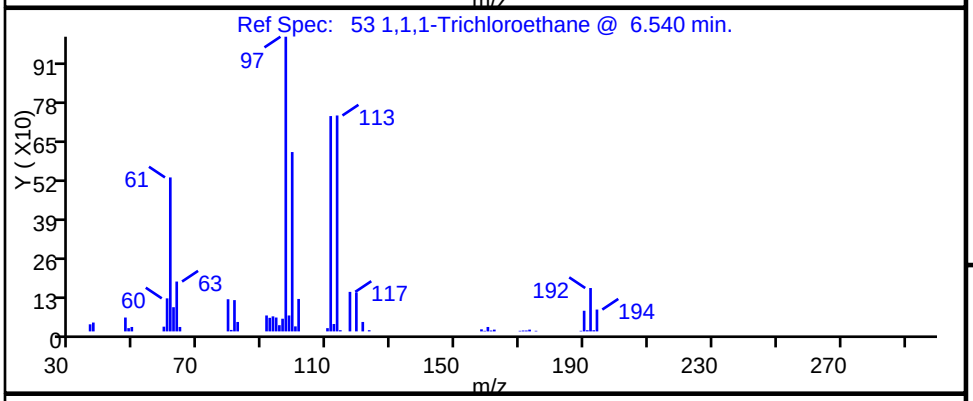
53 1,1,1-Trichloroethane, CAS: 71-55-6

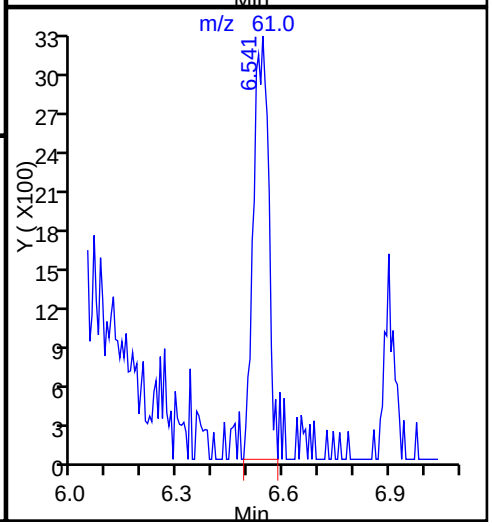


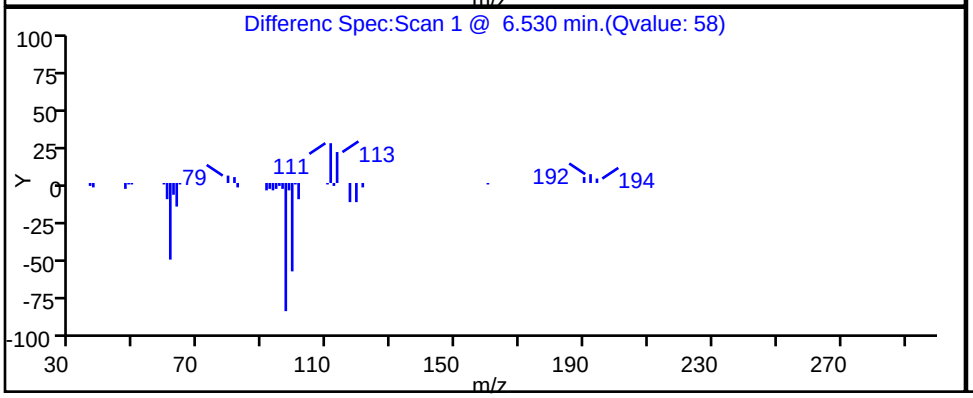












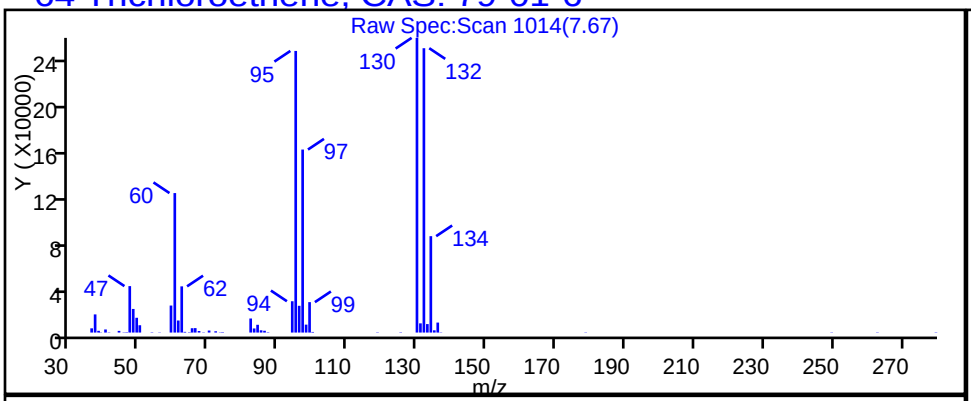
Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

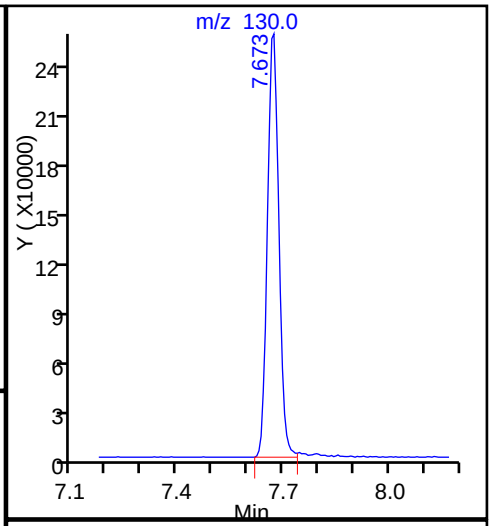
TestAmerica Pittsburgh

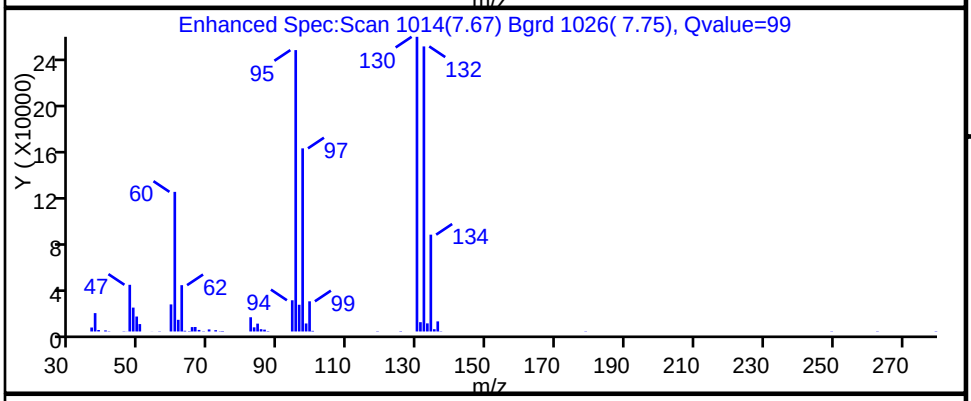
Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D

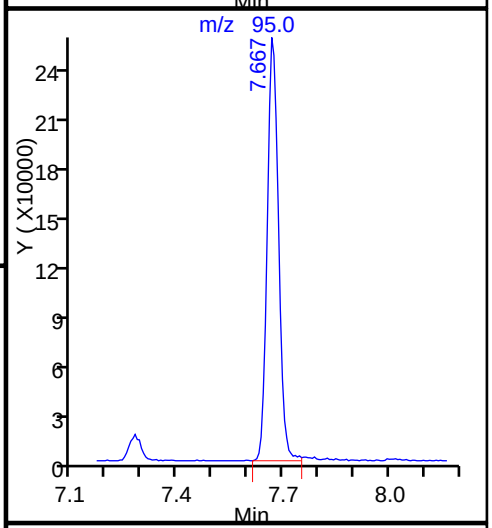
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10
Client ID:	HD-MW-100D-0/1-0		
Operator ID:	001562	ALS Bottle#:	11 Worklist Smp#: 11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

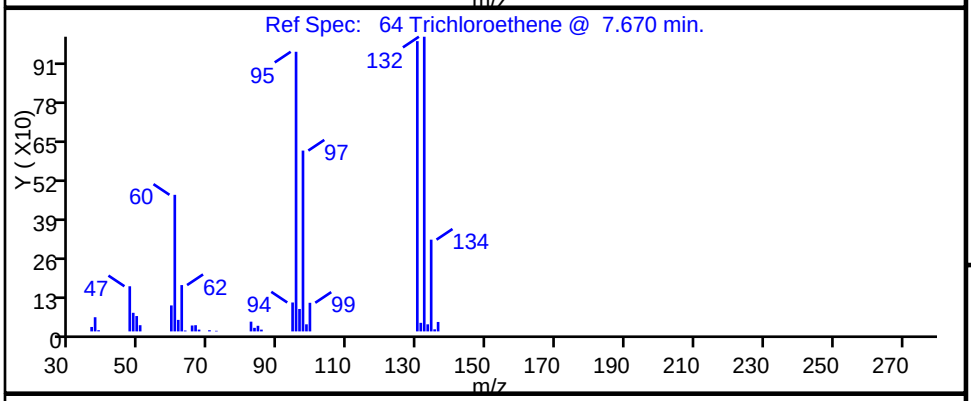
64 Trichloroethene, CAS: 79-01-6

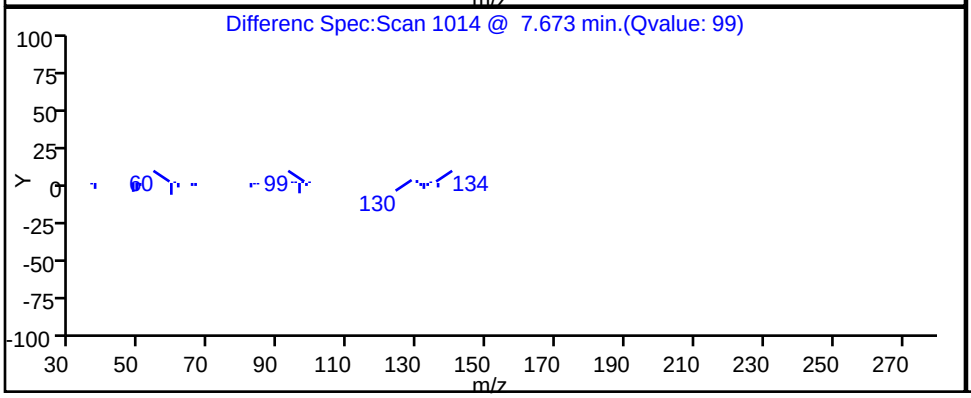


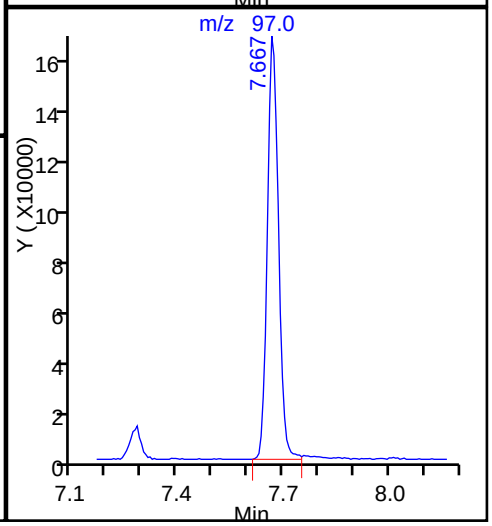












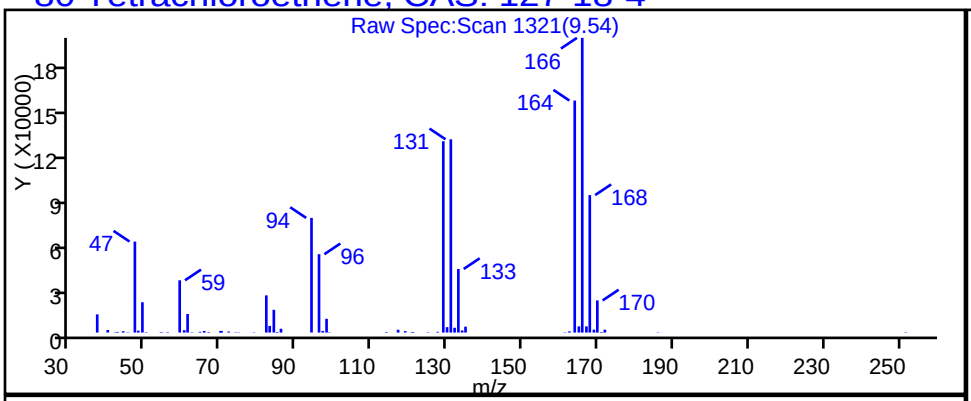
Report Date: 10-Mar-2015 08:49:47 Chrom Revision: 2.2 15-Jan-2015 13:05:58

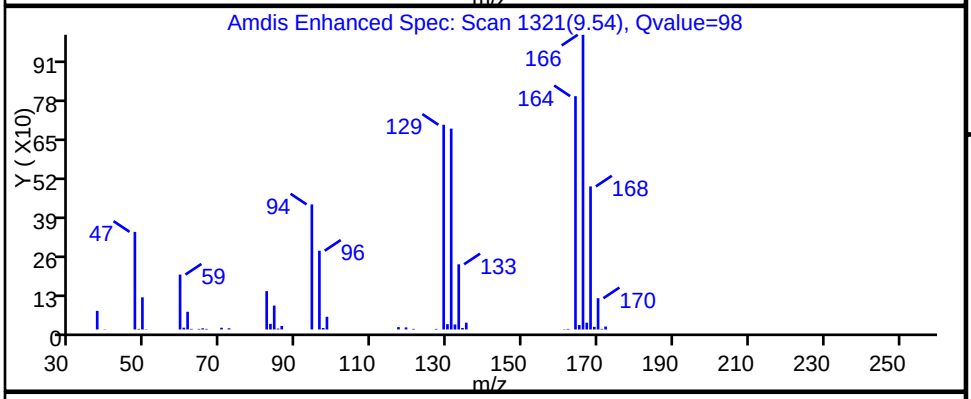
TestAmerica Pittsburgh

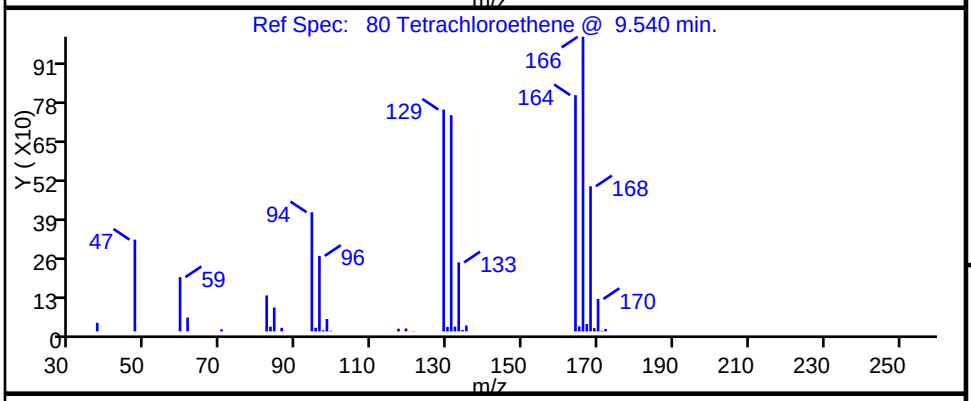
Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D

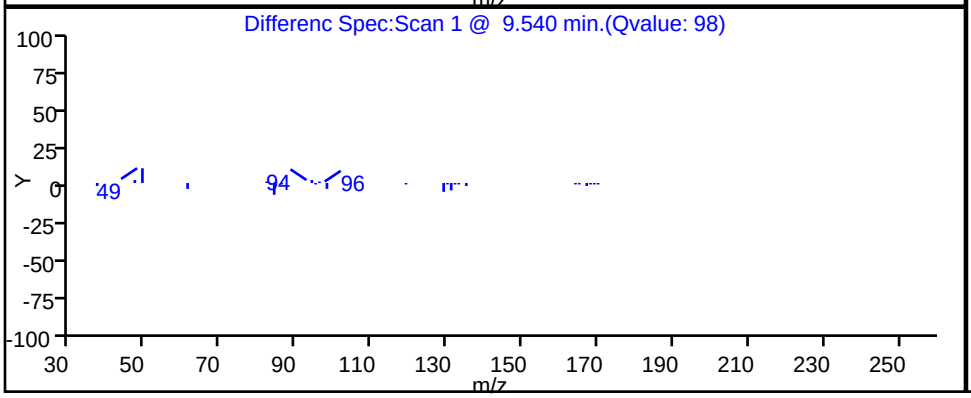
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10
Client ID:	HD-MW-100D-0/1-0		
Operator ID:	001562	ALS Bottle#:	11 Worklist Smp#: 11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

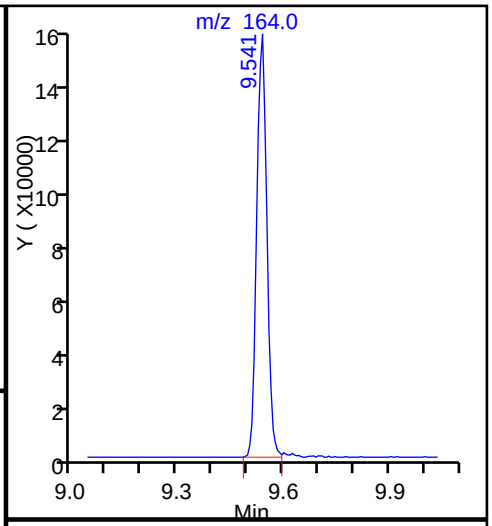
80 Tetrachloroethene, CAS: 127-18-4

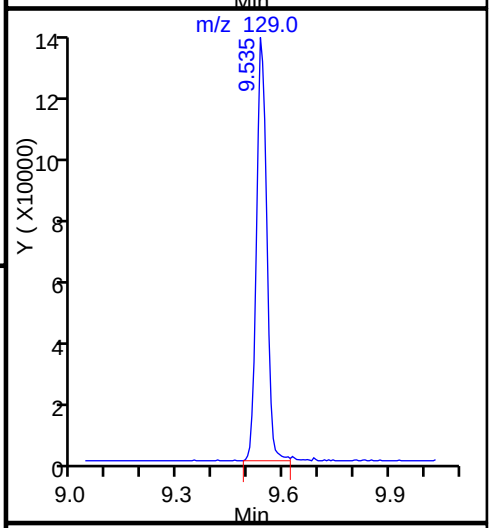


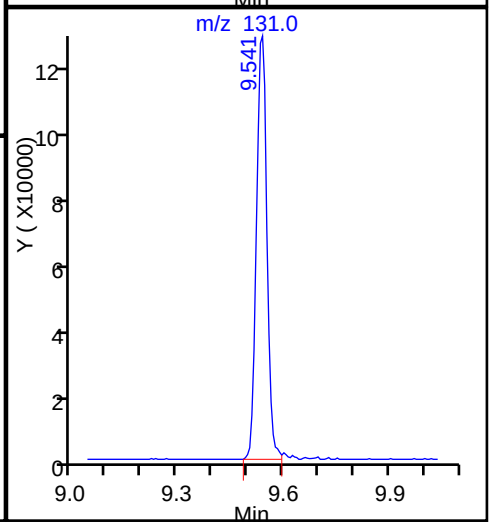












Manual Integration/User Assign Peak Report

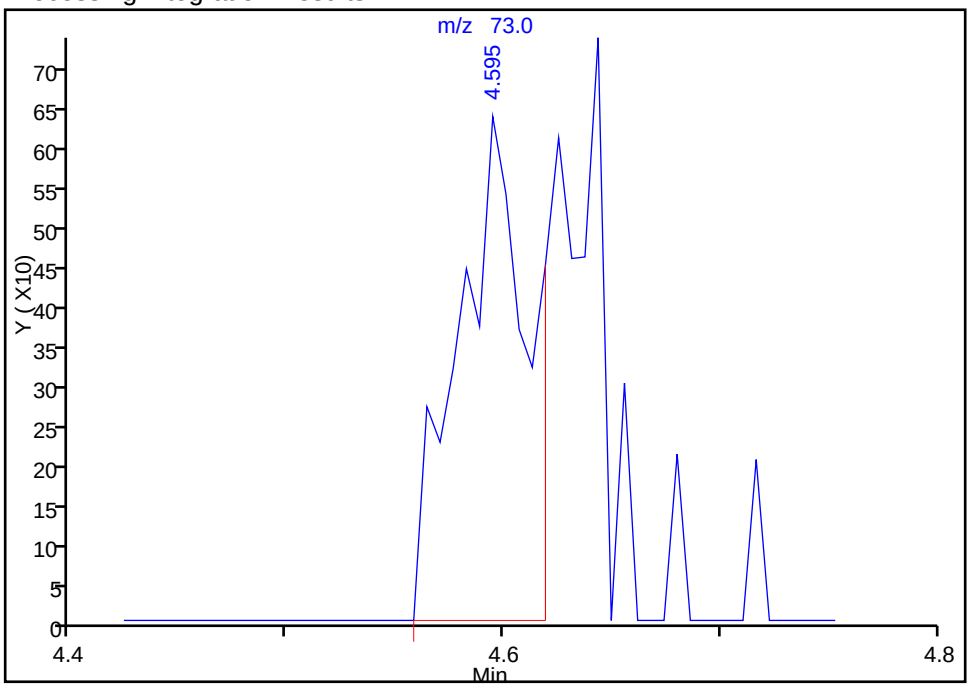
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309011.D				
Injection Date:	09-Mar-2015 16:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-10	Lab Sample ID:	180-41508-10		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

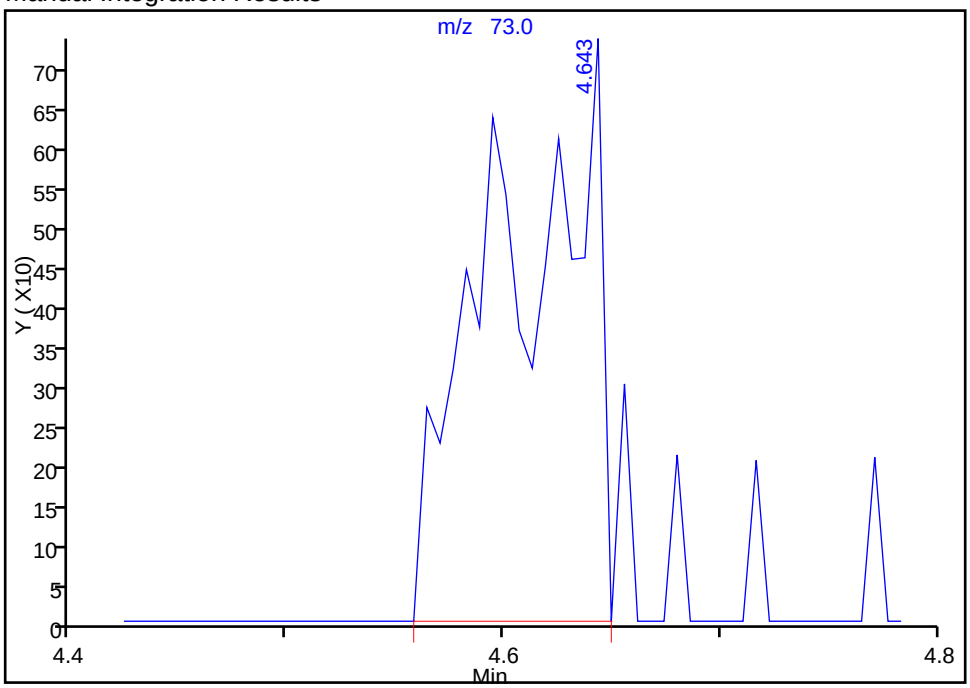
Processing Integration Results

RT: 4.59
Area: 1444
Amount: 0.227547
Amount Units: ng



Manual Integration Results

RT: 4.64
Area: 2273
Amount: 0.358182
Amount Units: ng



Reviewer: fergusond, 10-Mar-2015 08:49:46
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 | Lab Sample ID: 180-41508-11

Matrix: Water | Lab File ID: 50306019.D

Analysis Method: 8260C | Date Collected: 02/25/2015 06:40

Sample wt/vol: 5(mL) | Date Analyzed: 03/06/2015 18:43

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.: 134916 | 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	2400		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	120	J	500	58
156-59-2	cis-1,2-Dichloroethene	10000		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	8700		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	5500		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	1600		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-41508-11

Matrix: Water Lab File ID: 50306019.D

Analysis Method: 8260C Date Collected: 02/25/2015 06:40

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 18:43

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.: 134916 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)	98		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D
Lims ID: 180-41508-E-11 Lab Sample ID: 180-41508-11
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 18:43:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 500.0000
Sample Info: 180-41508-E-11, 500x
Misc. Info.: 180-0005922-019
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 09:55:08 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 09:55:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.303	4.308	-0.005	91	59791	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	389934	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.361	0.001	99	93434	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.680	12.679	0.001	98	135800	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	84	83659	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	100	101185	49.0	
$ 7 Toluene-d8 (Surr)	98	8.920	8.925	-0.005	100	363610	49.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	94	129405	47.8	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.390	3.371	0.019	98	54819	24.1	
24 Acetone	43	3.506	3.499	0.007	9	963	1.18	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.144				ND	M
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.179	5.172	0.007	51	5494	1.21	
45 cis-1,2-Dichloroethene	96	5.945	5.932	0.013	76	263124	103.7	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.224				ND	
52 Chloroform	83		6.346				ND	
53 1,1,1-Trichloroethane	97	6.529	6.529	0.000	84	214034	87.4	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.667	7.666	0.001	98	127966	55.2	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.540	9.534	0.006	93	28459	16.0	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

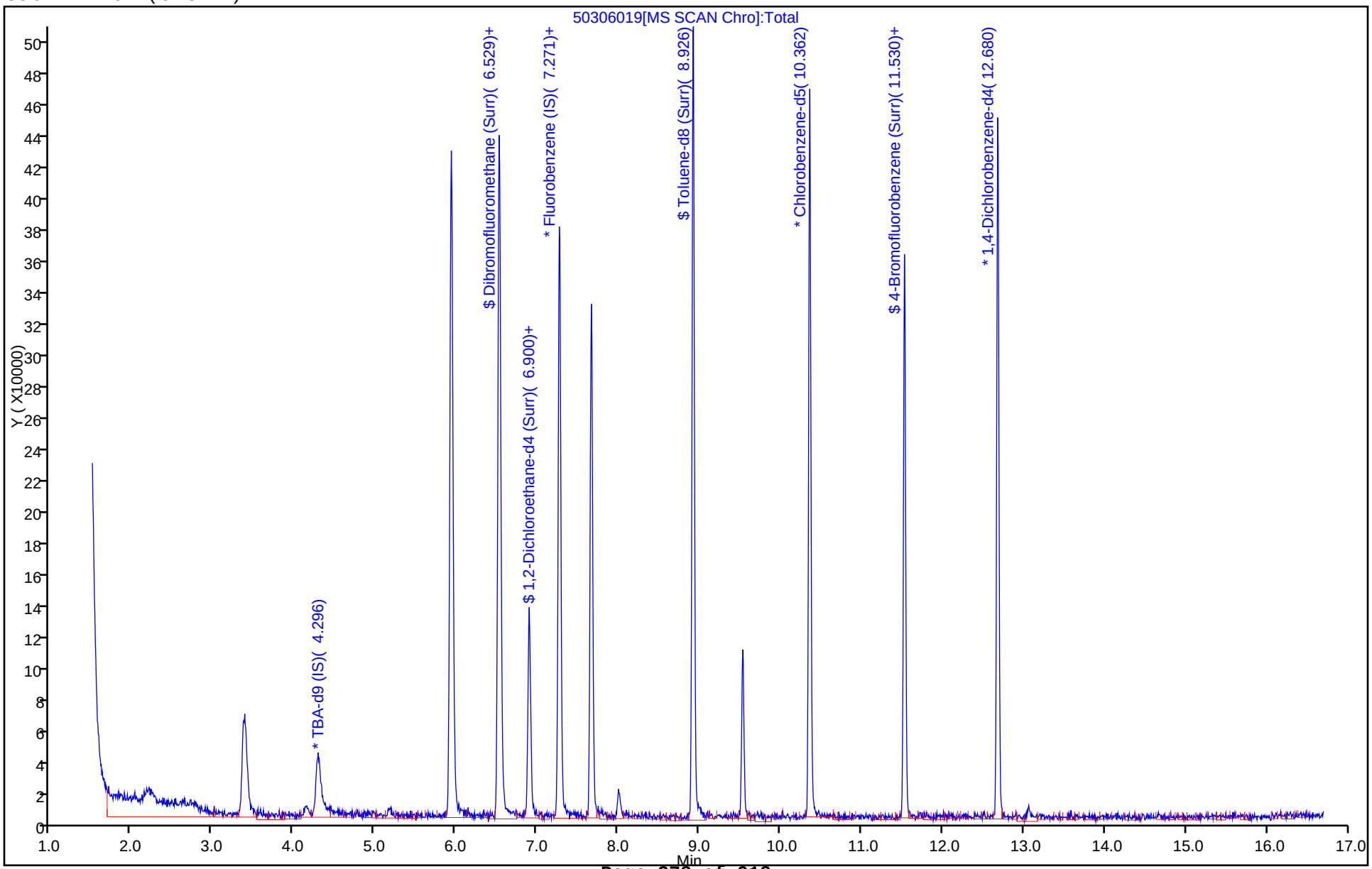
Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D

Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11	Worklist Smp#:	19
Client ID:	HD-CW-15A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	500.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

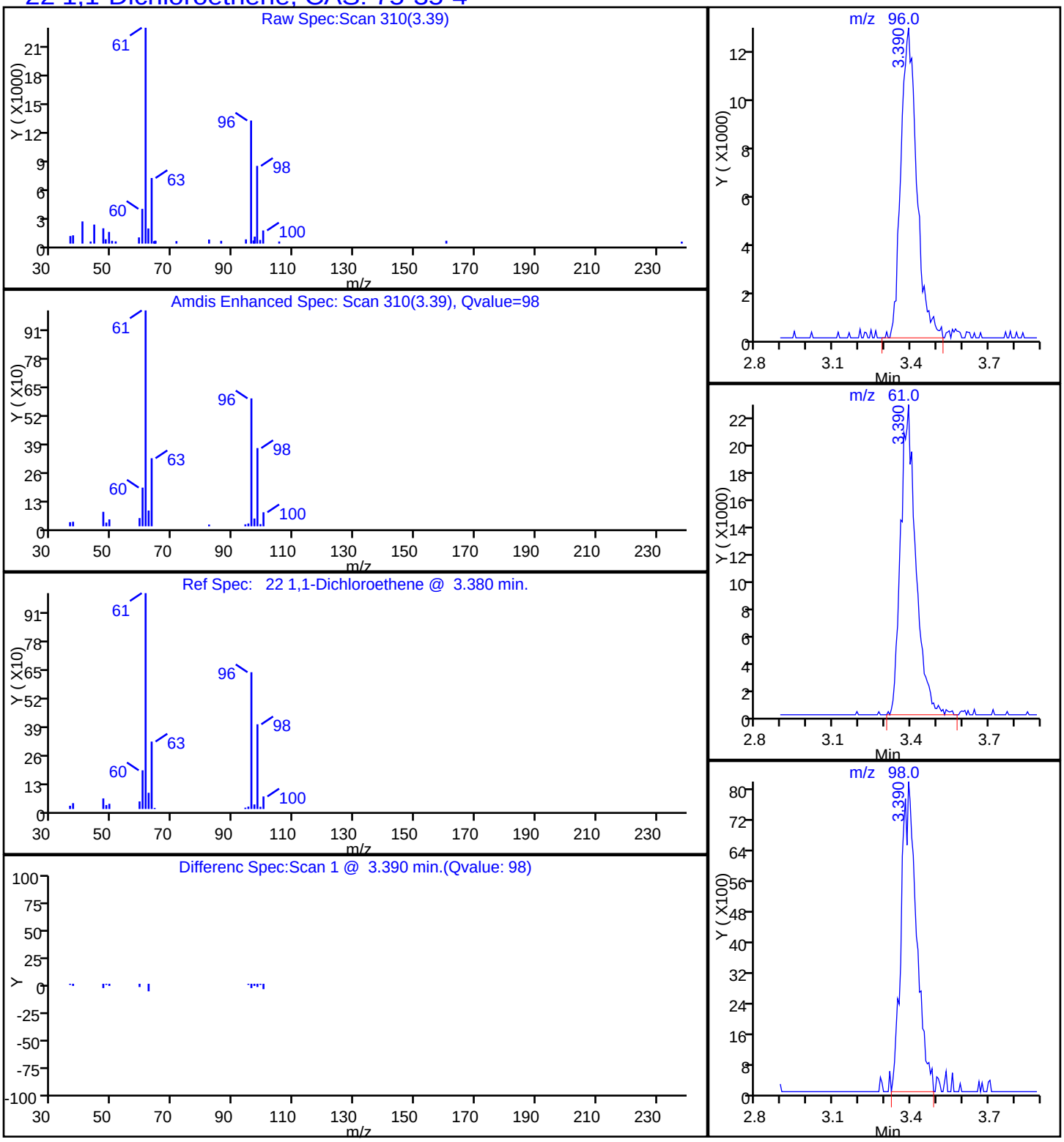


Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D				
Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



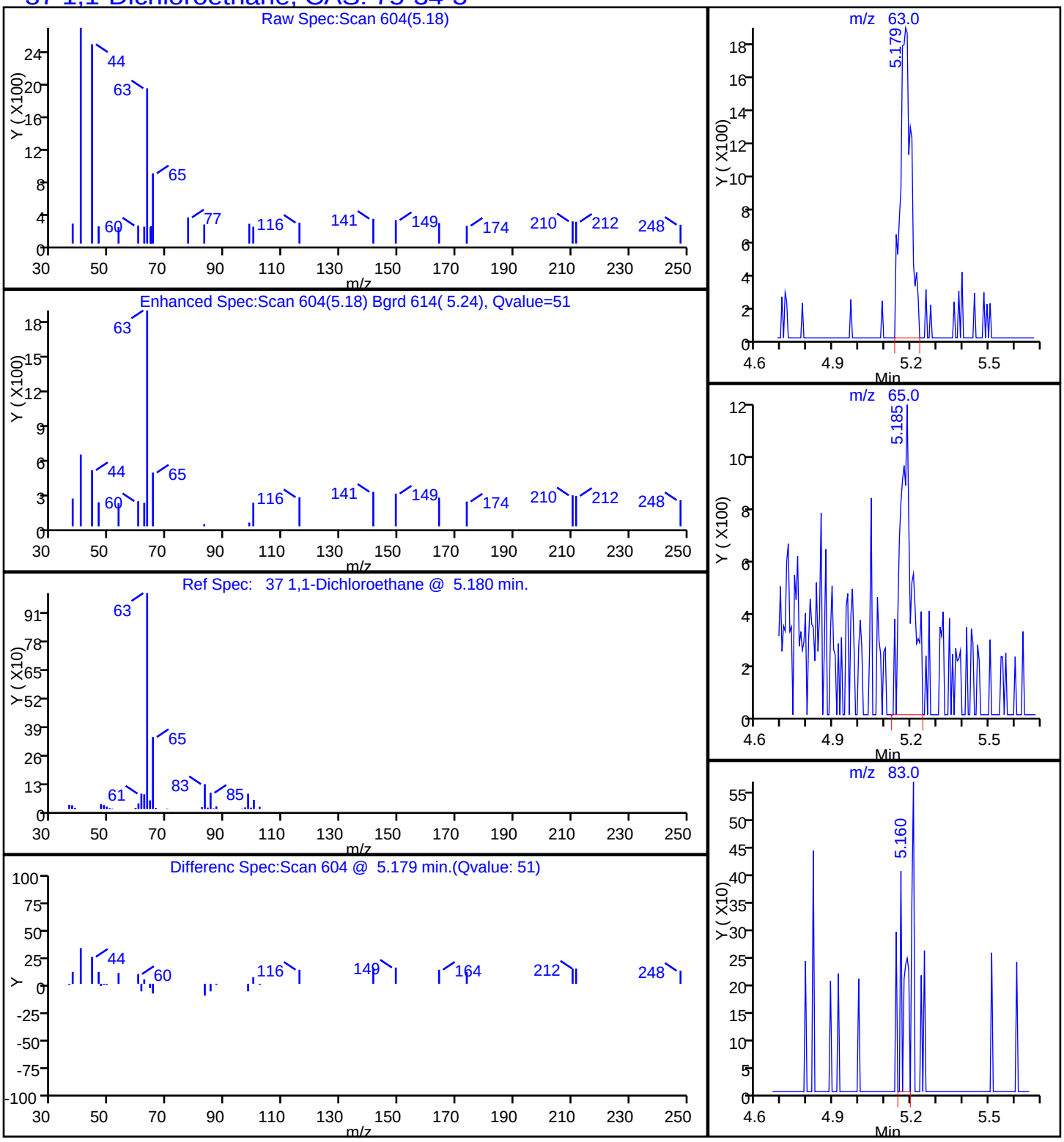
Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D

Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

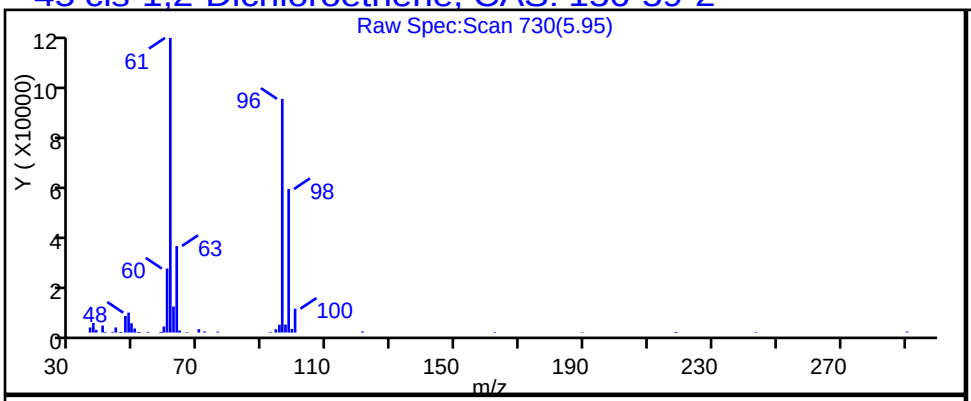


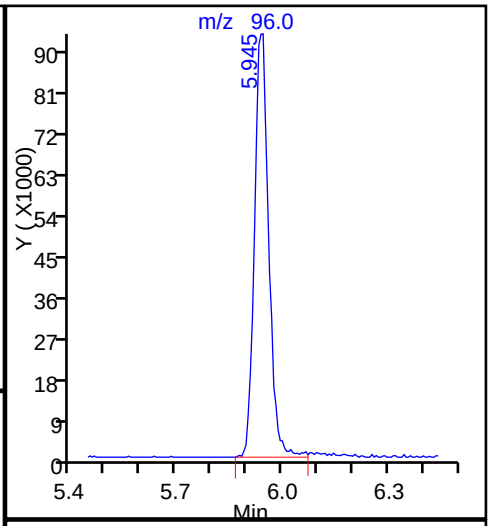
Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

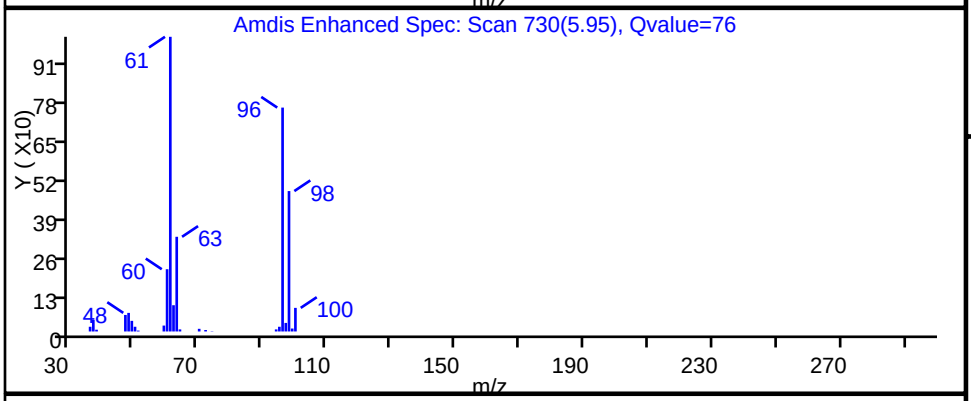
TestAmerica Pittsburgh

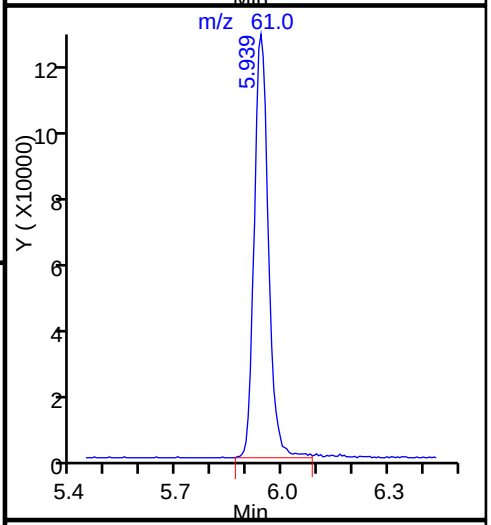
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D				
Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

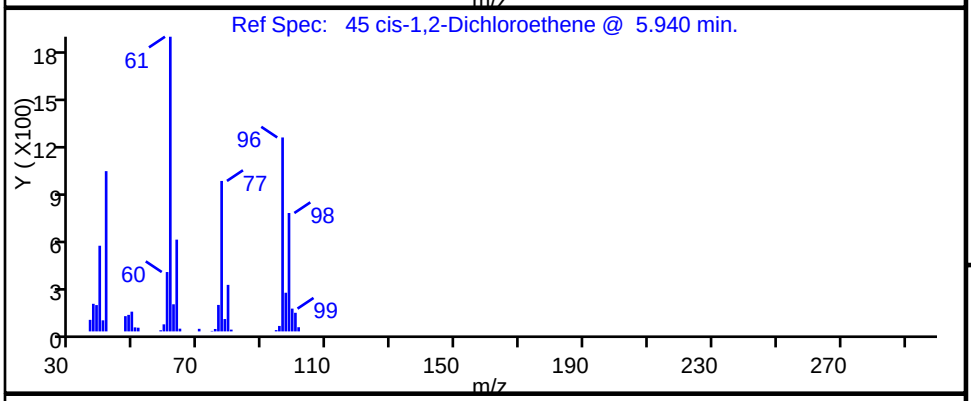
45 cis-1,2-Dichloroethene, CAS: 156-59-2

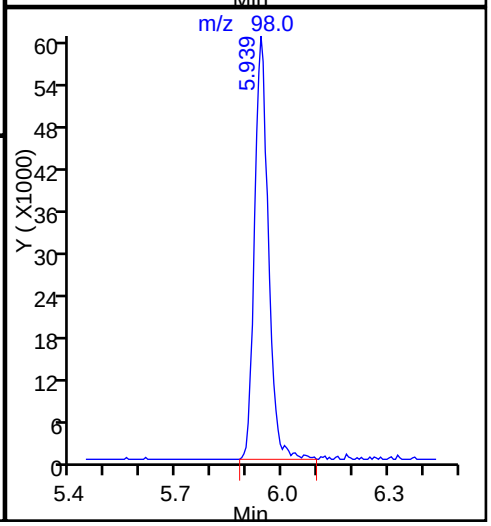


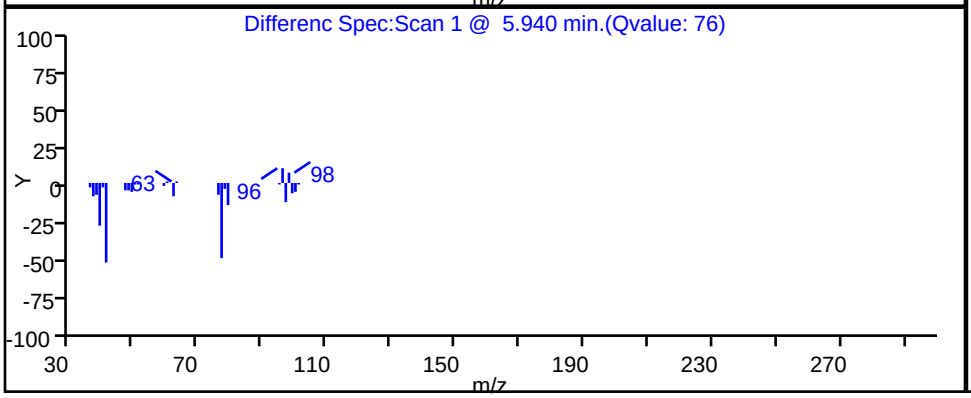










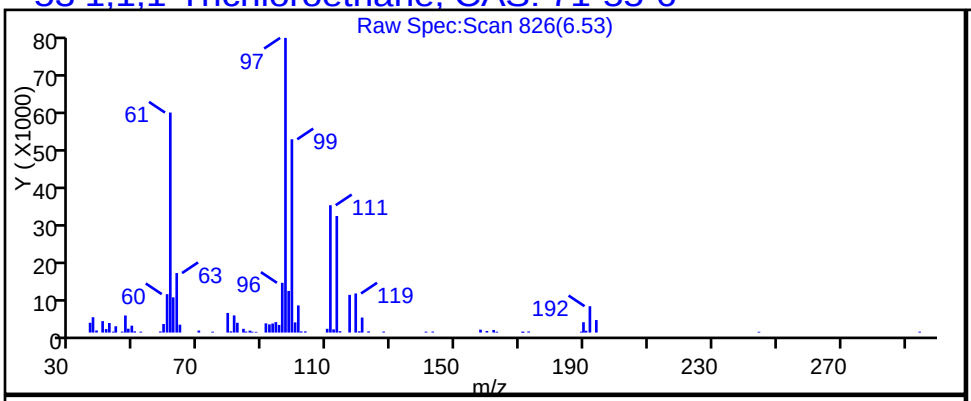


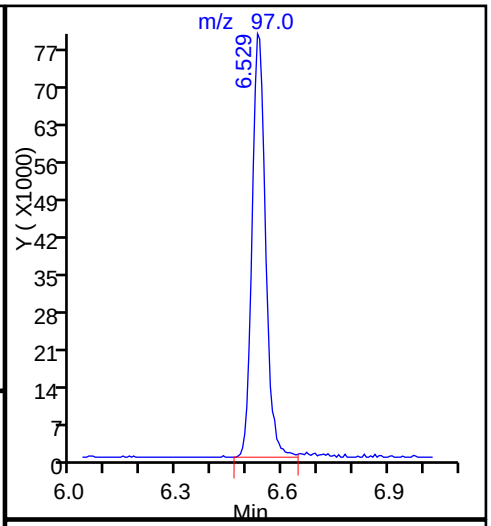
Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

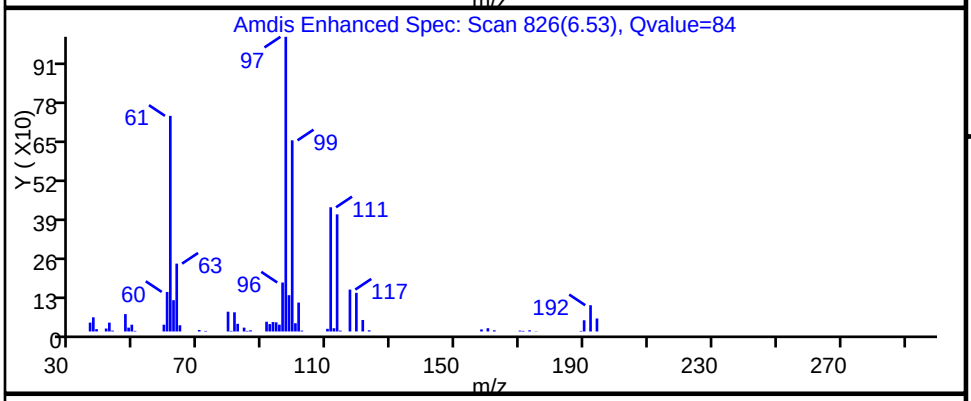
TestAmerica Pittsburgh

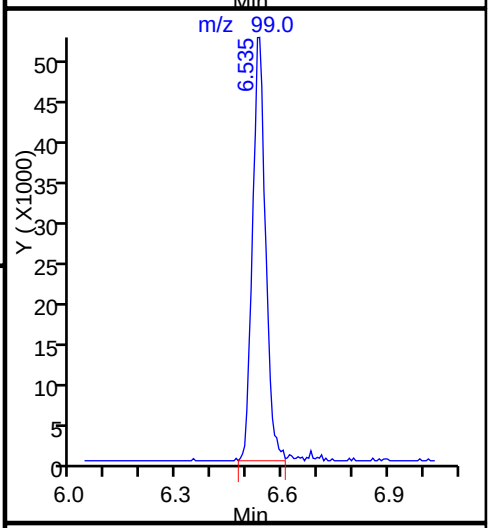
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D				
Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

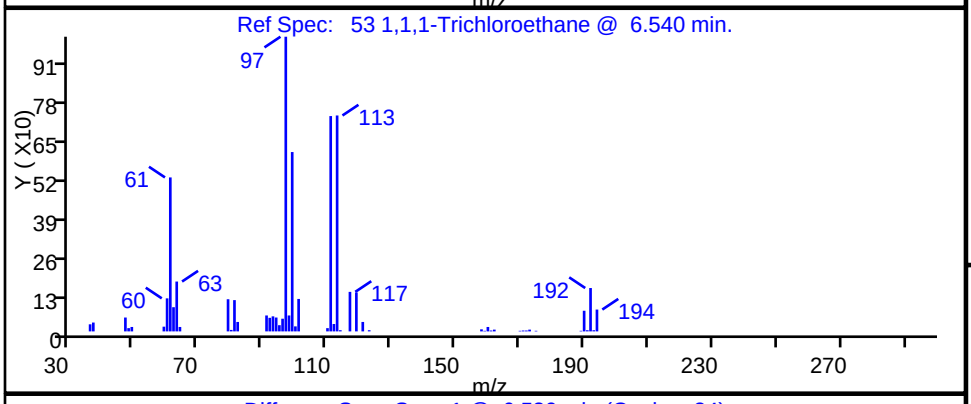
53 1,1,1-Trichloroethane, CAS: 71-55-6

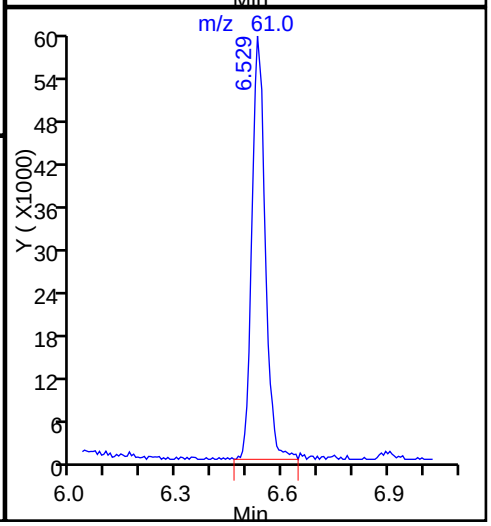


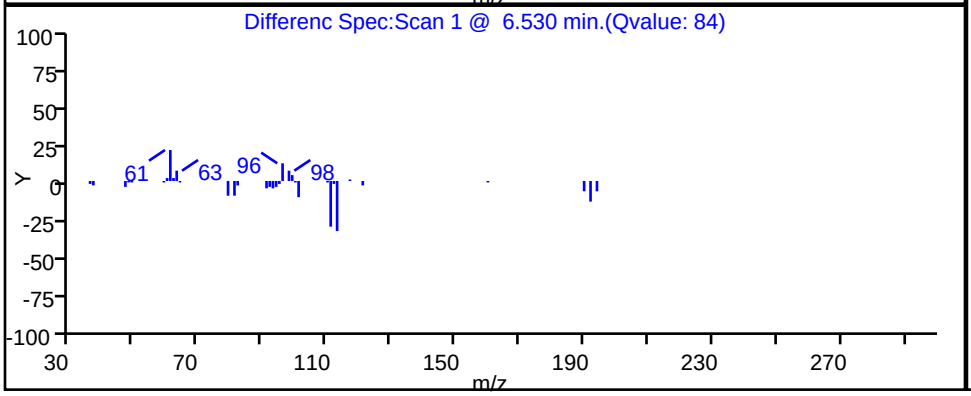










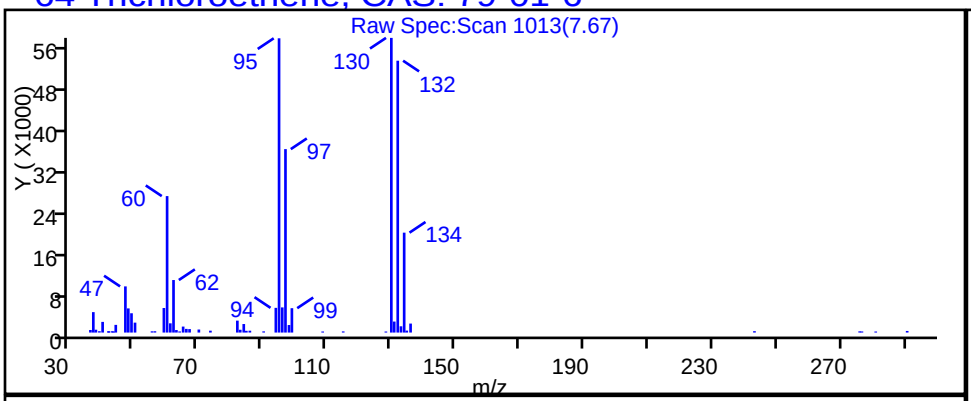


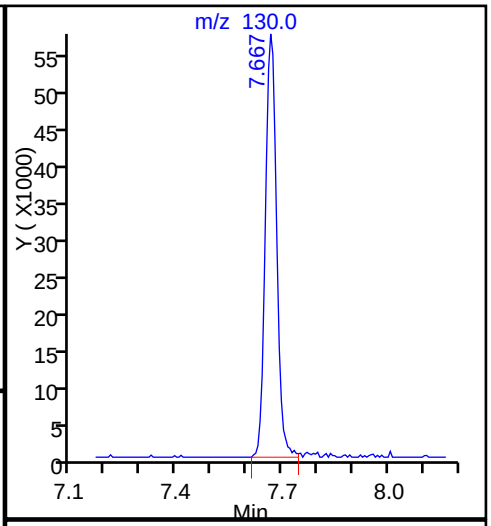
Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

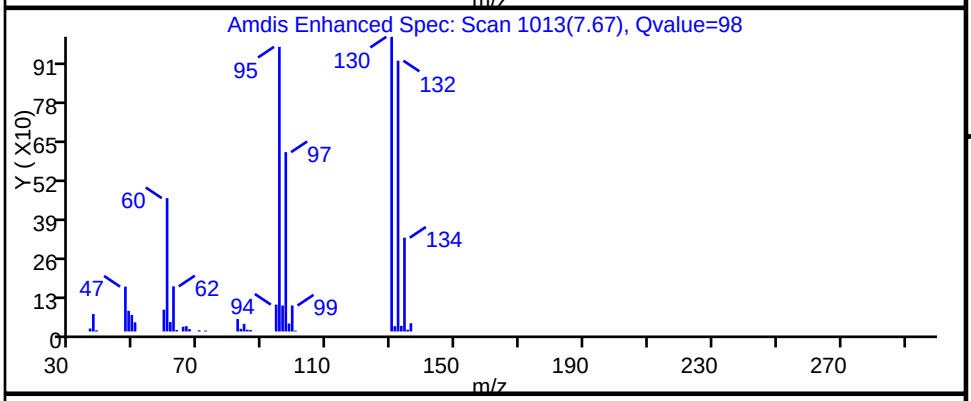
TestAmerica Pittsburgh

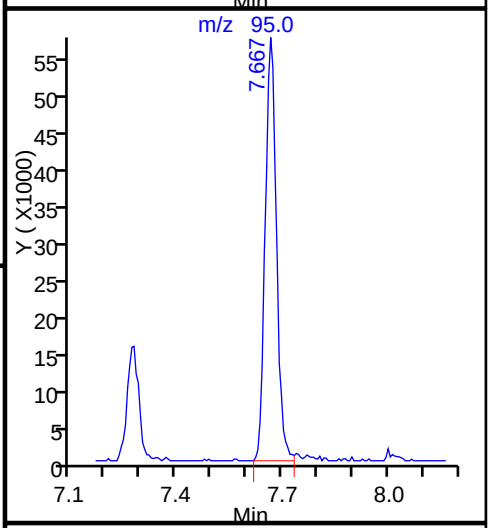
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D				
Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

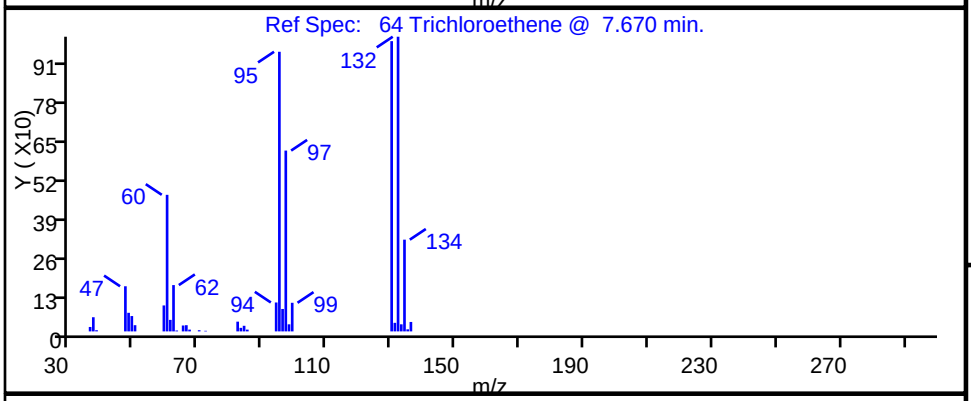
64 Trichloroethene, CAS: 79-01-6

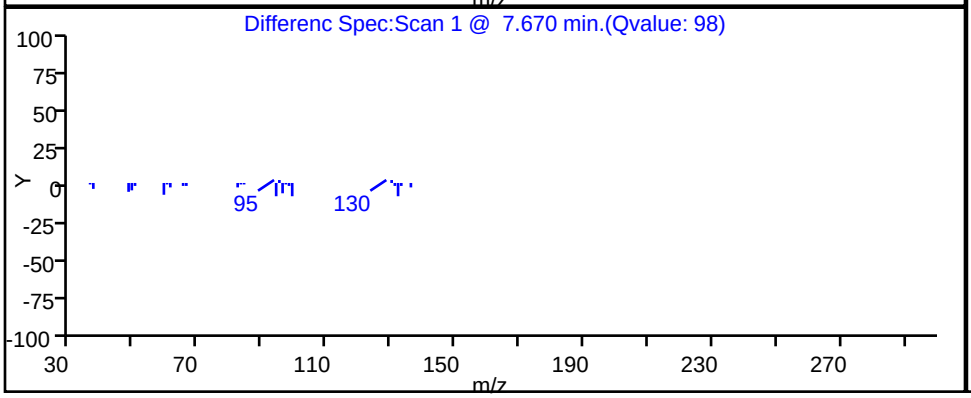


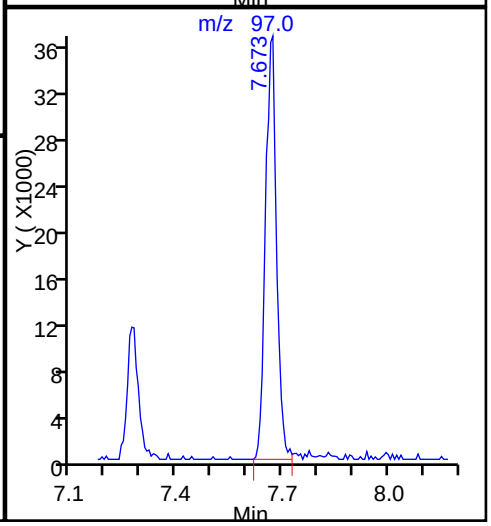










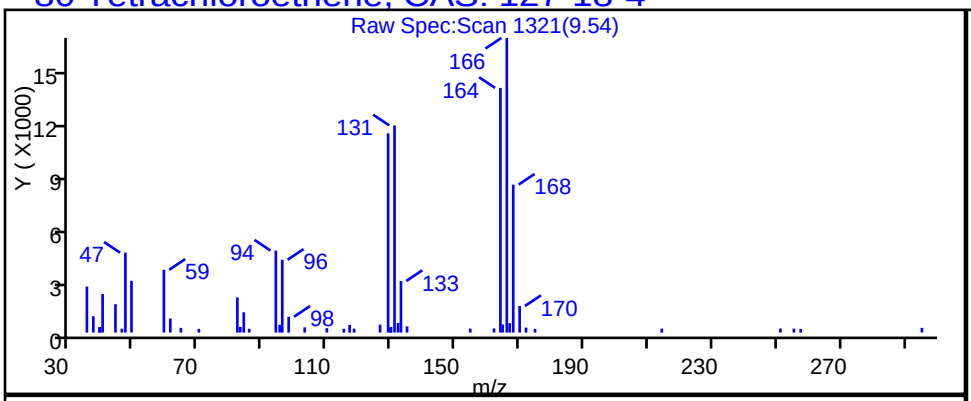


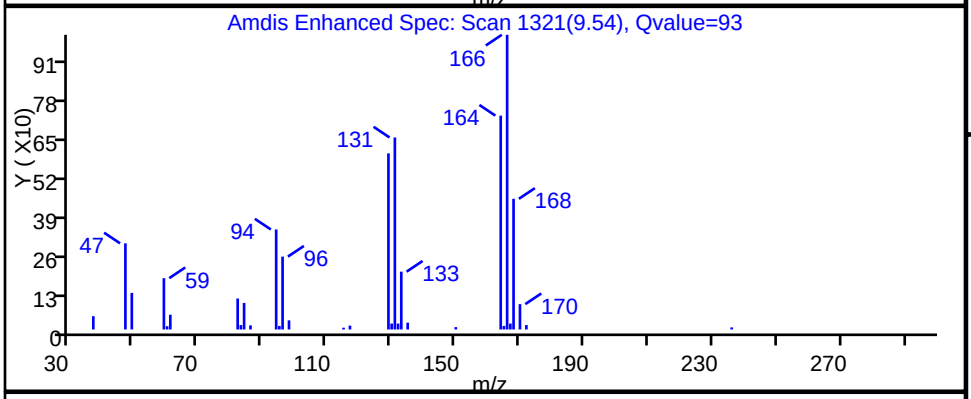
Report Date: 09-Mar-2015 09:55:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

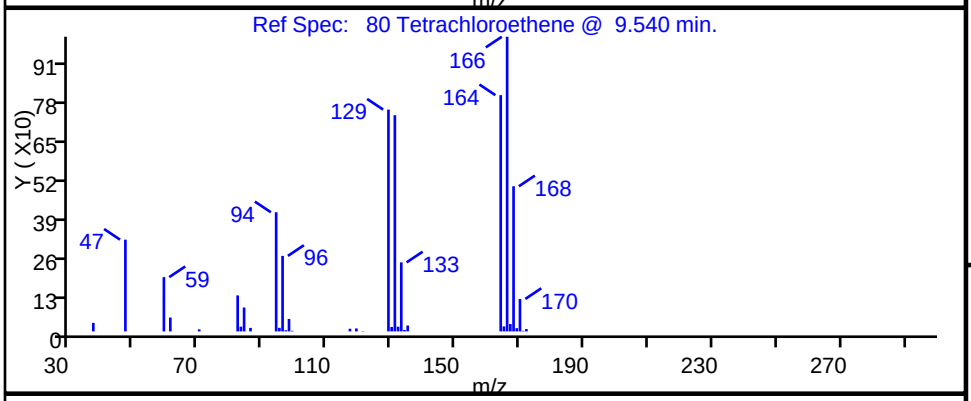
TestAmerica Pittsburgh

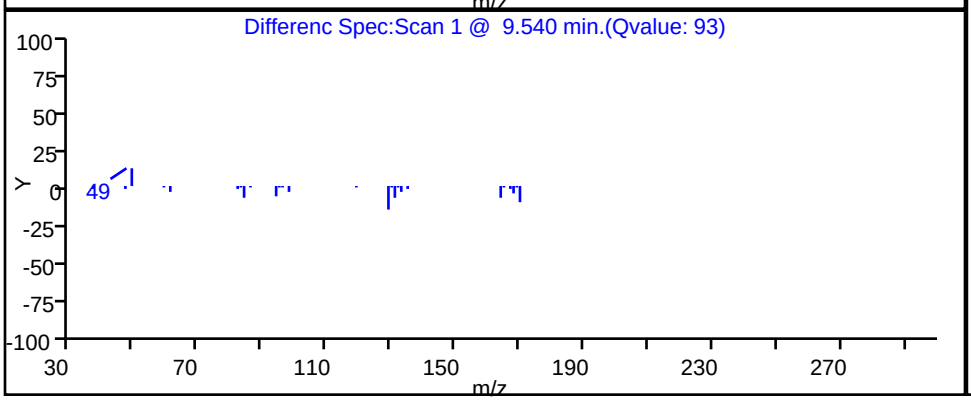
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306019.D		
Injection Date:	06-Mar-2015 18:43:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-11	Lab Sample ID:	180-41508-11
Client ID:	HD-CW-15A-0/1-0		
Operator ID:	001562	ALS Bottle#:	18 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	500.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

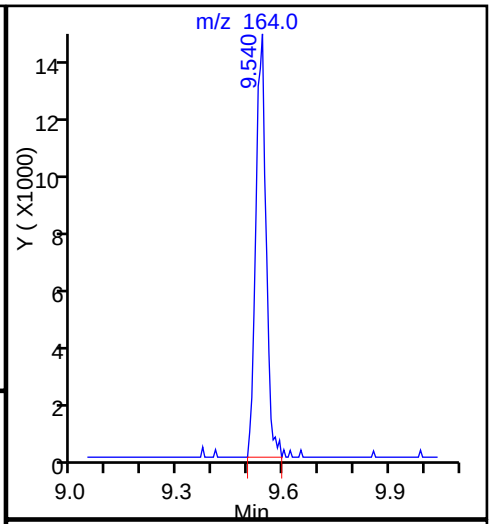
80 Tetrachloroethene, CAS: 127-18-4

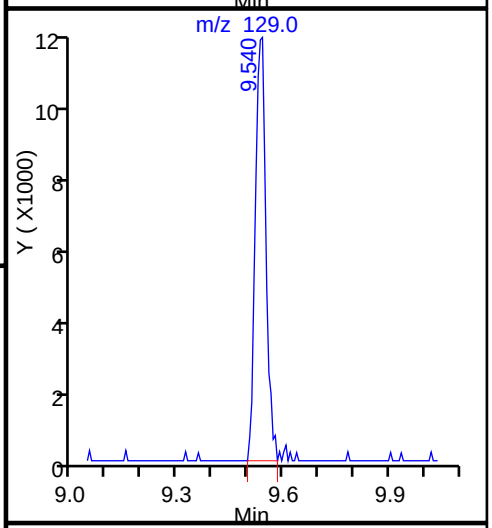


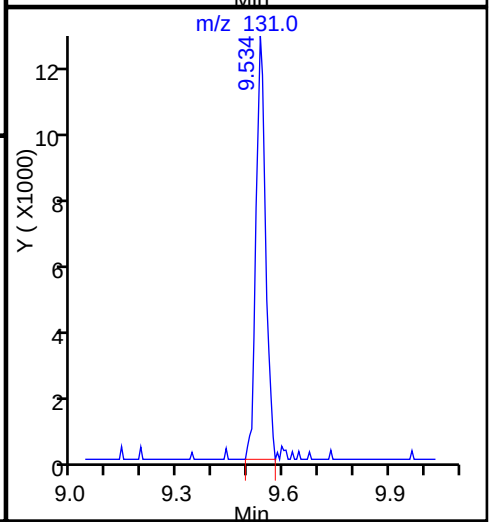












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-41508-12

Matrix: Water Lab File ID: 50306020.D

Analysis Method: 8260C Date Collected: 02/25/2015 06:55

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 19:07

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.: 134916 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	14	J	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	5.4	J	25	2.9
156-59-2	cis-1,2-Dichloroethene	460		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	270		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	220		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-41508-12

Matrix: Water Lab File ID: 50306020.D

Analysis Method: 8260C Date Collected: 02/25/2015 06:55

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 19:07

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.: 134916 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)	99		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D
Lims ID: 180-41508-E-12 Lab Sample ID: 180-41508-12
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 19:07:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-41508-E-12, 25x
Misc. Info.: 180-0005922-020
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 10:09:03 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 10:09:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.308	-0.021	85	60132	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.271	0.003	99	393033	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.361	0.003	100	86819	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.679	0.003	99	133607	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.522	0.004	56	81978	48.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.900	0.003	98	102529	49.3	
$ 7 Toluene-d8 (Surr)	98	8.923	8.925	-0.002	100	355964	52.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.529	0.003	96	127905	50.8	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.387	3.371	0.016	72	6339	2.77	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.144				ND	M
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96	4.579	4.564	0.015	1	1014	0.4238	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.175	5.172	0.003	31	4881	1.07	
45 cis-1,2-Dichloroethene	96	5.936	5.932	0.004	77	232948	91.0	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.224				ND	
52 Chloroform	83		6.346				ND	
53 1,1,1-Trichloroethane	97	6.538	6.529	0.009	56	8231	3.33	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.669	7.666	0.003	99	124954	53.4	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.537	9.534	0.003	97	71673	43.3	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

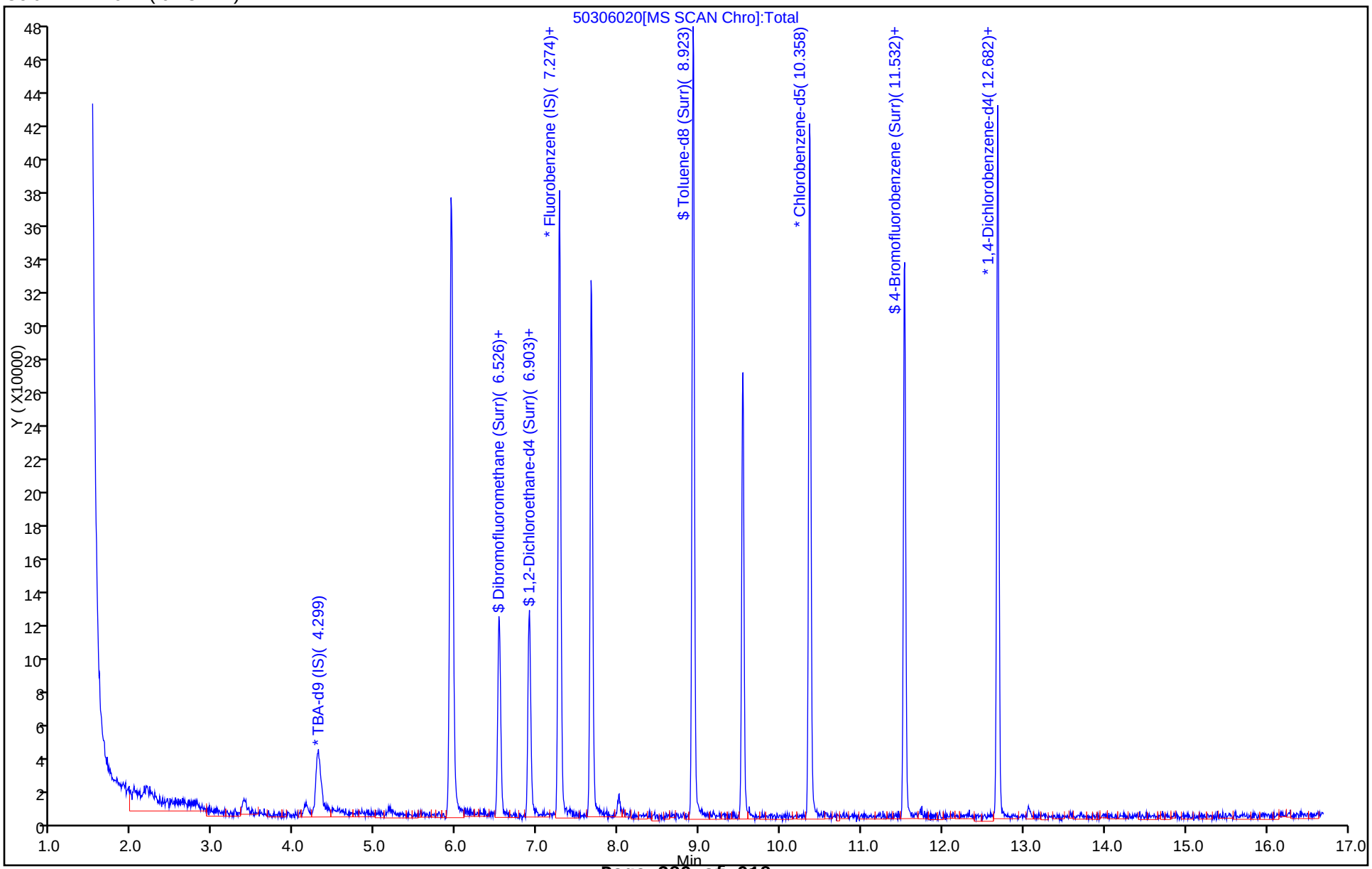
Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D

Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12	Worklist Smp#:	20
Client ID:	HD-CW-13-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

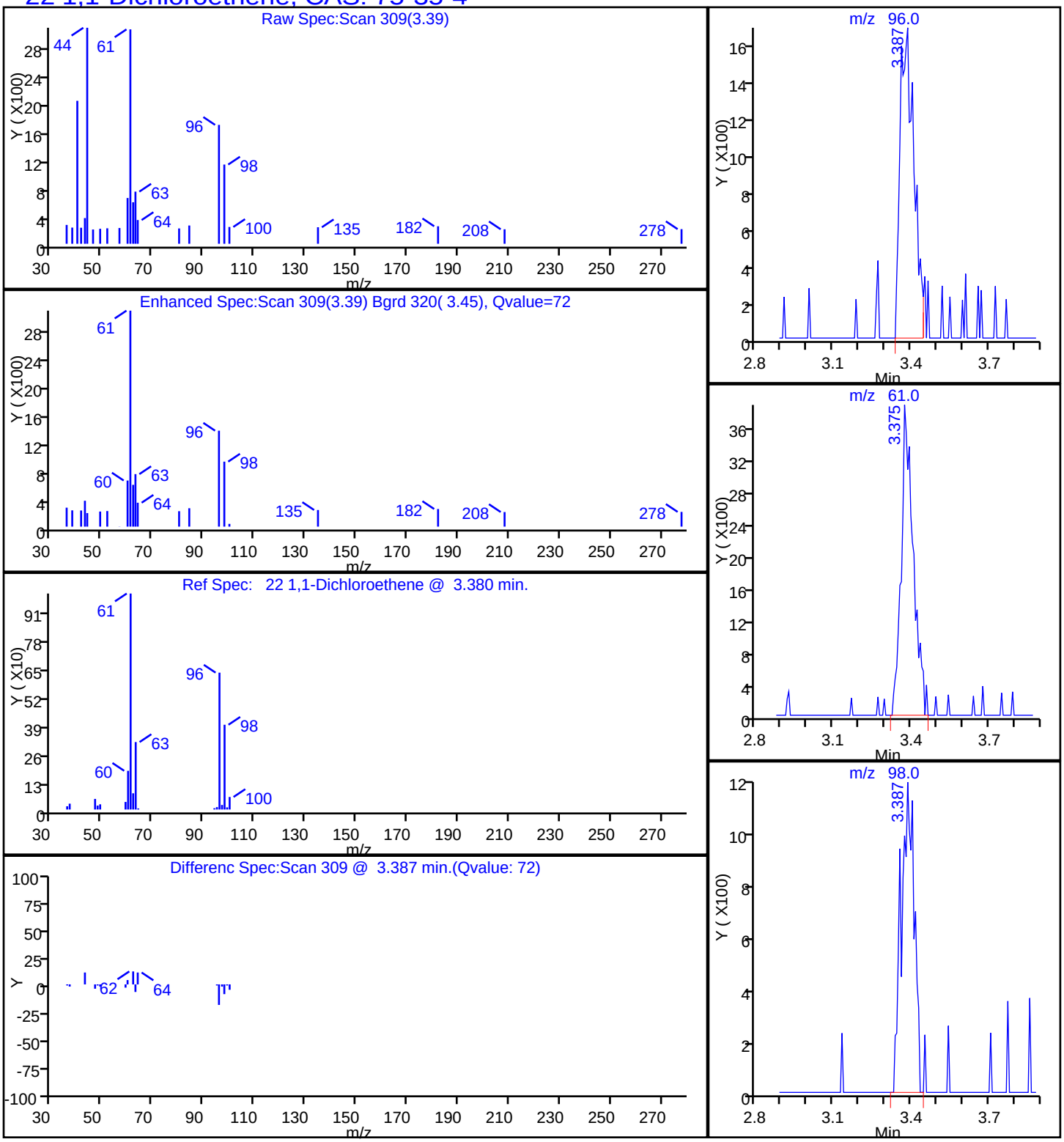


Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D				
Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

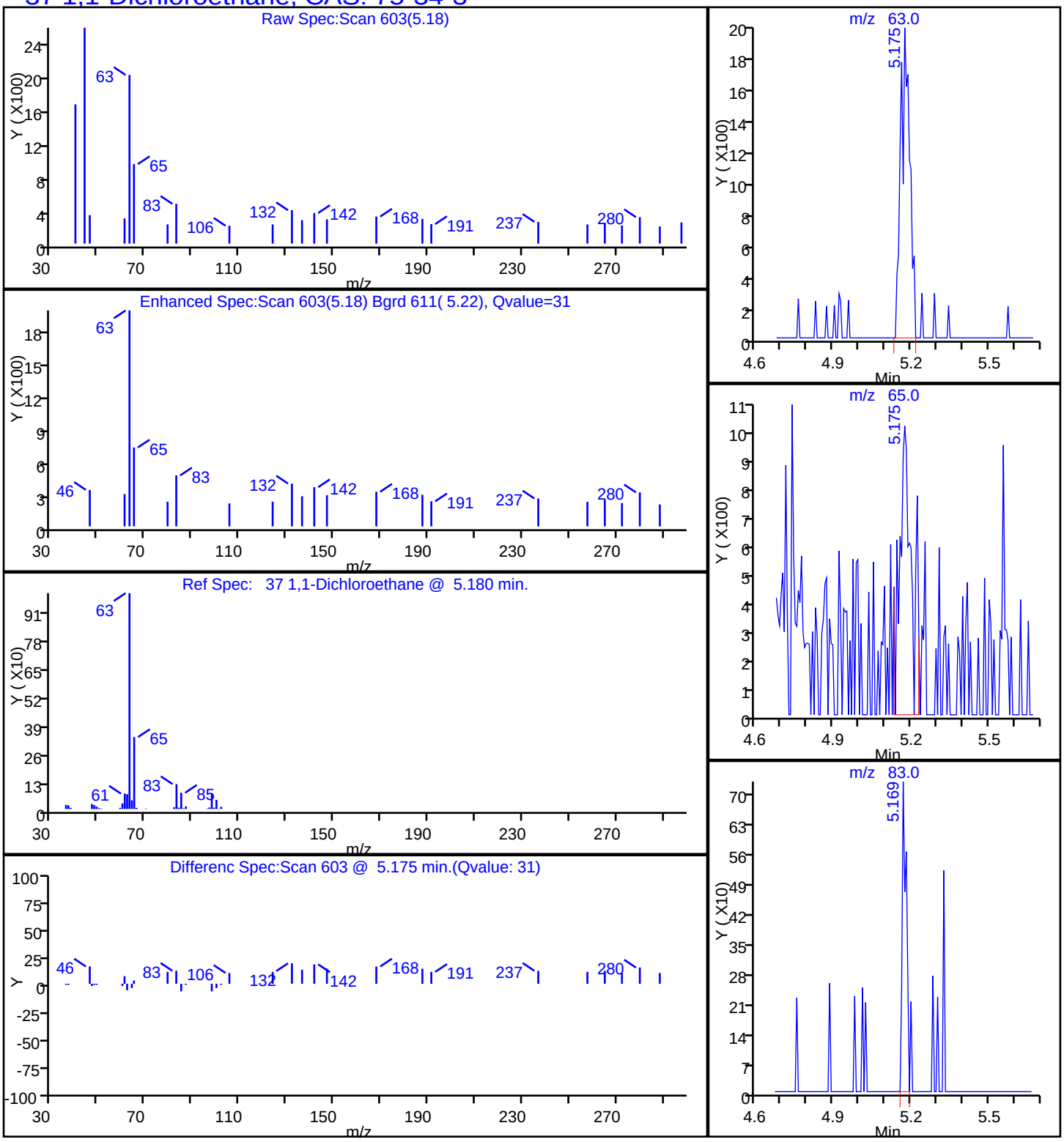


Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D				
Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

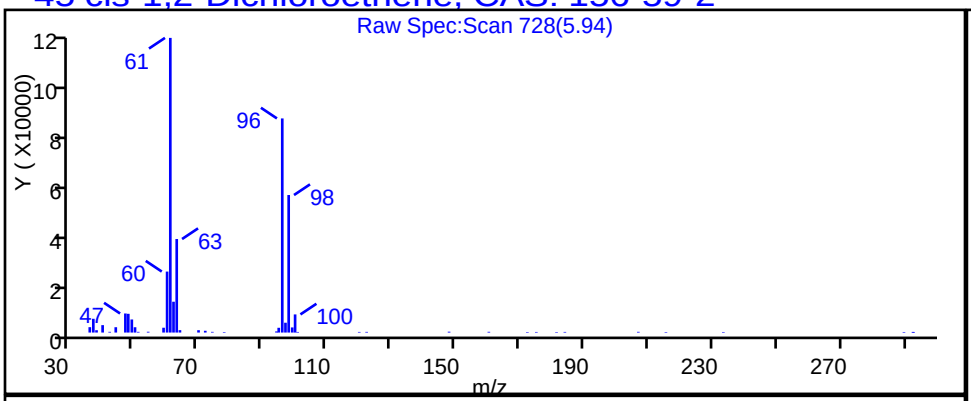


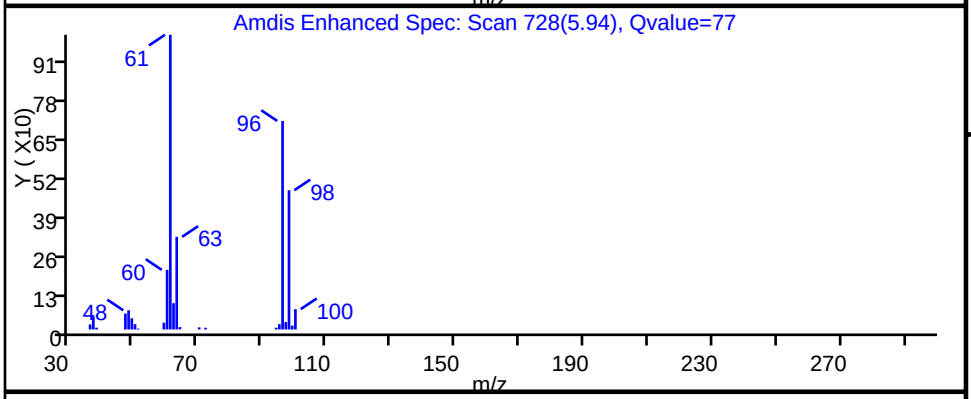
Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

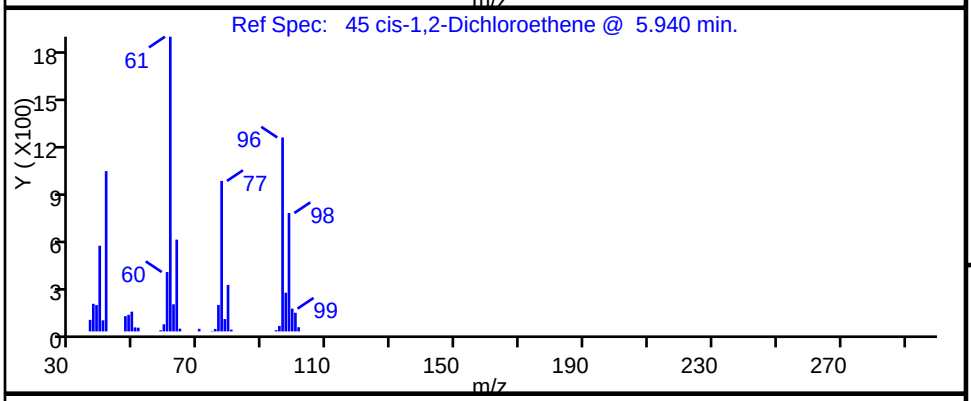
TestAmerica Pittsburgh

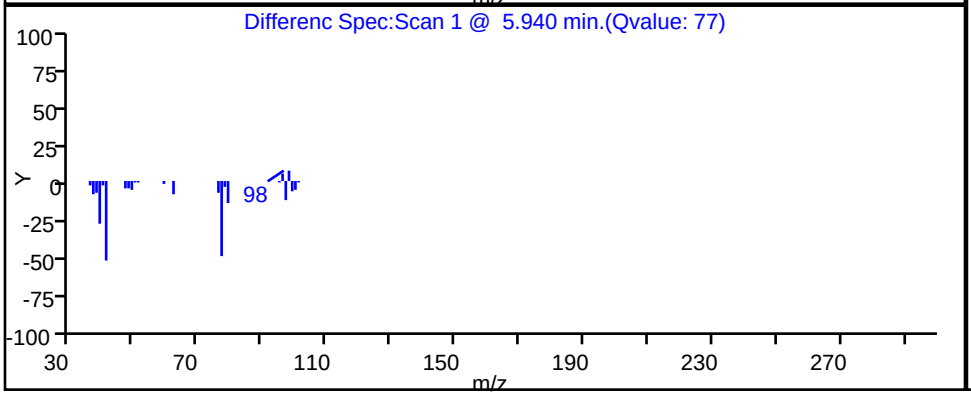
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D				
Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

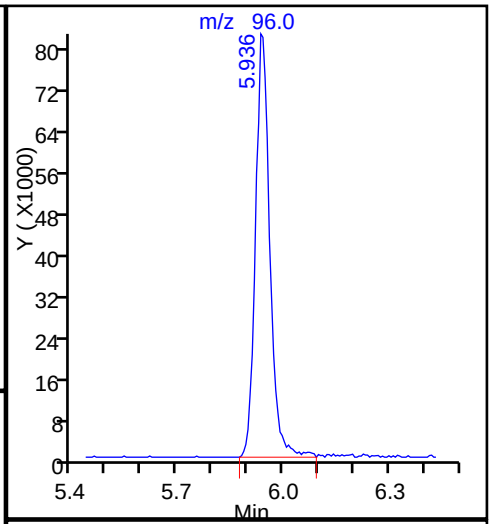
45 cis-1,2-Dichloroethene, CAS: 156-59-2

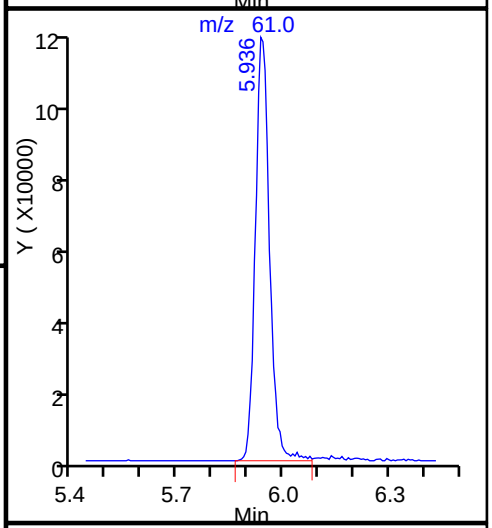


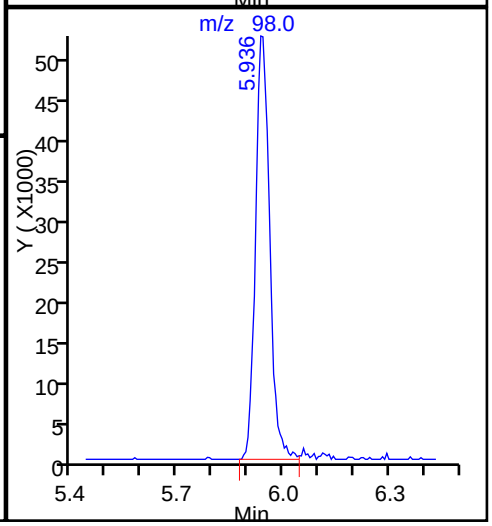










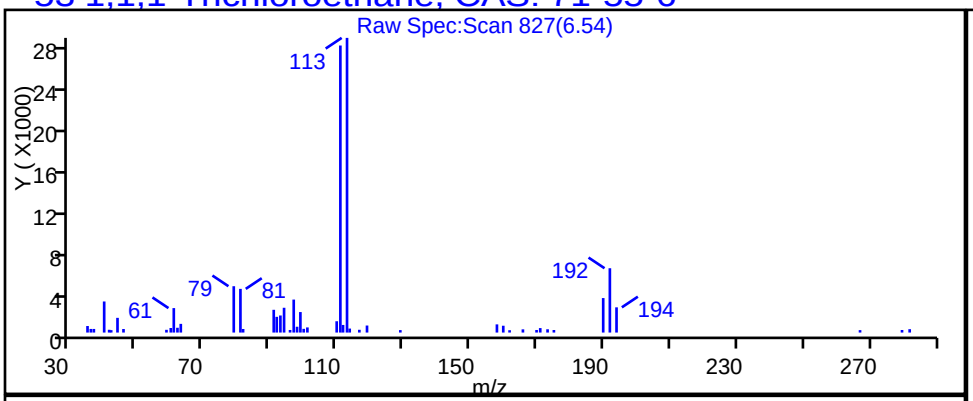


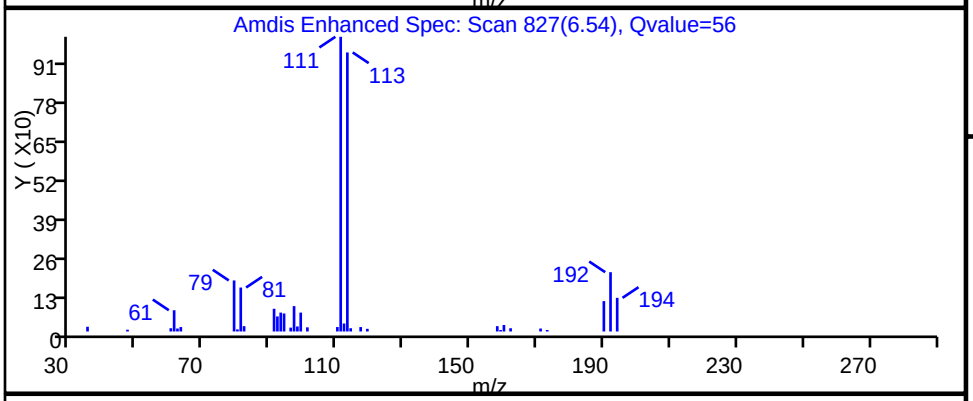
Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

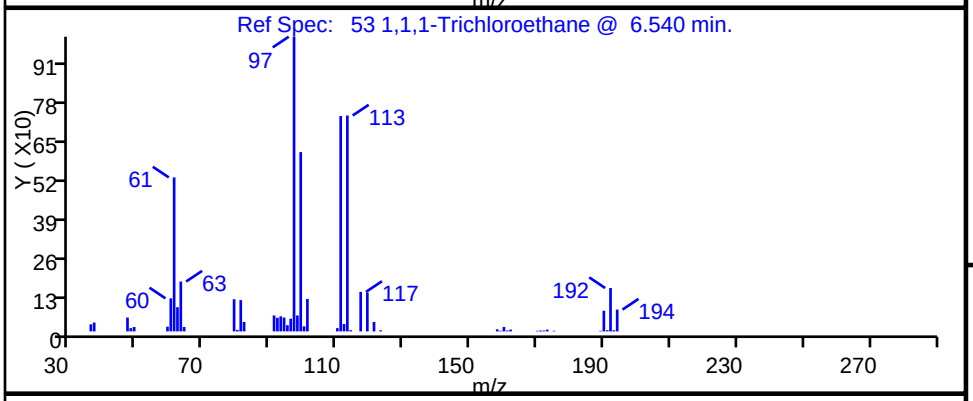
TestAmerica Pittsburgh

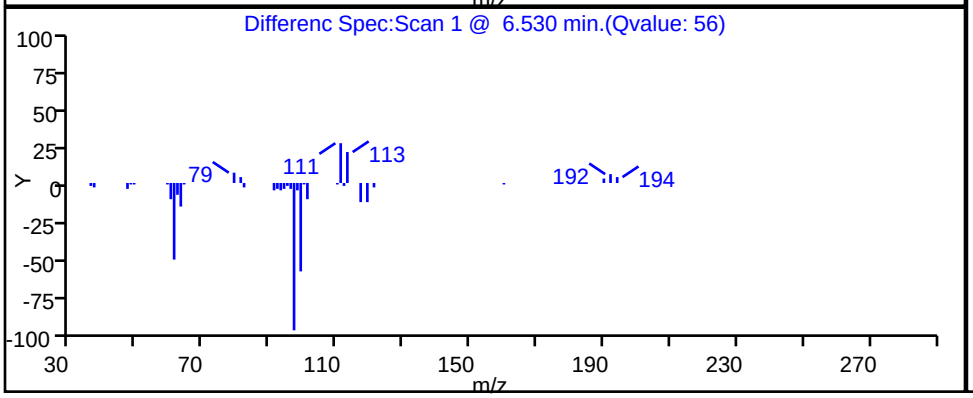
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D				
Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

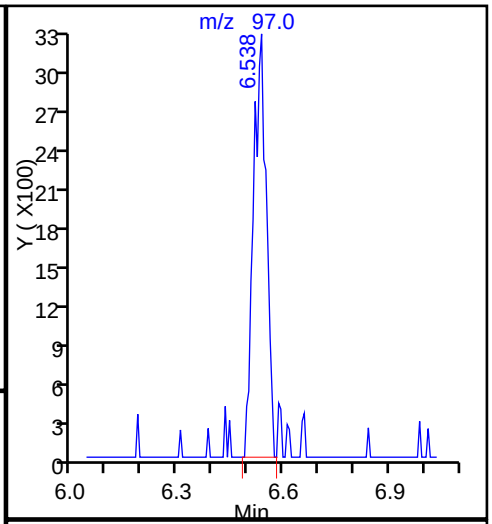
53 1,1,1-Trichloroethane, CAS: 71-55-6

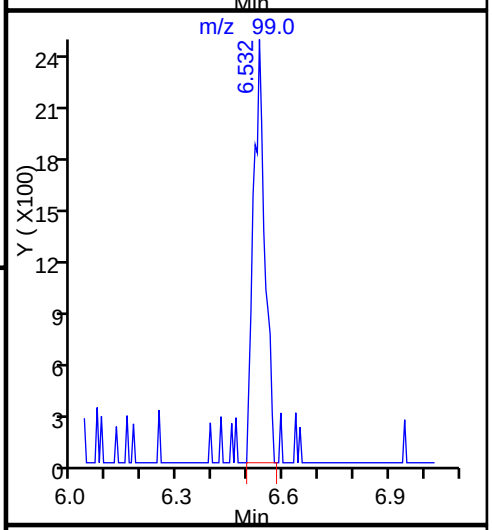


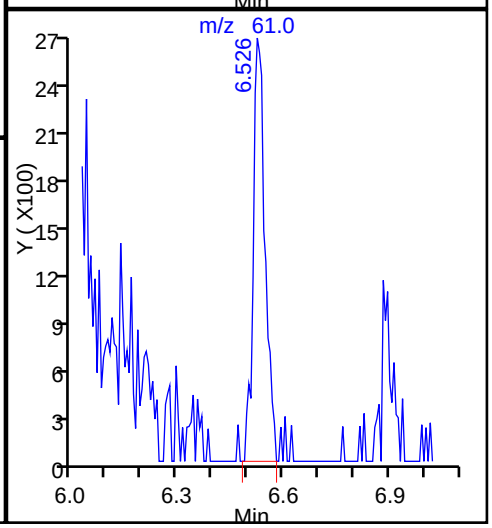










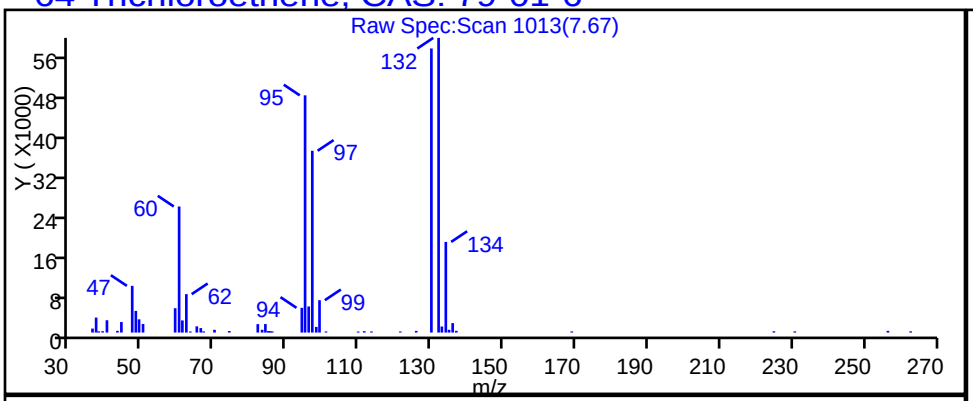


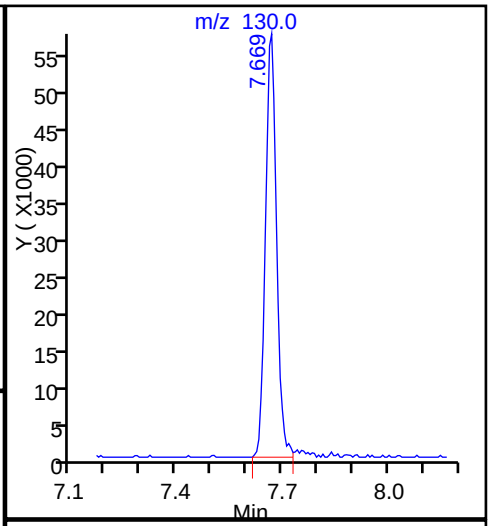
Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

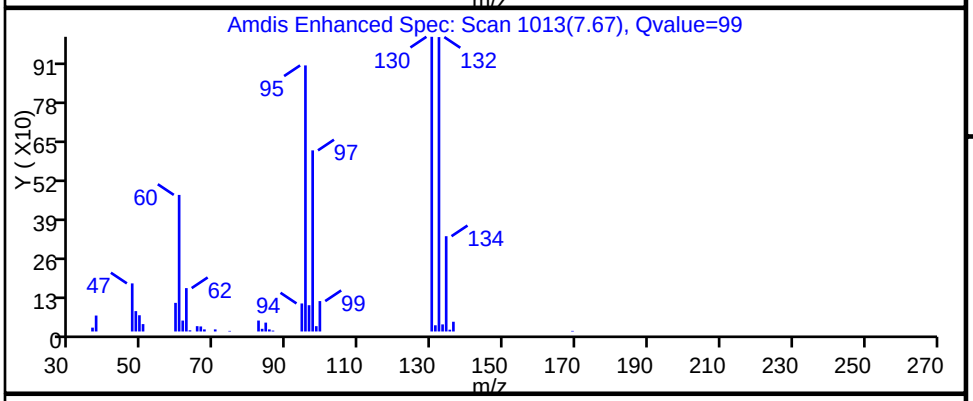
TestAmerica Pittsburgh

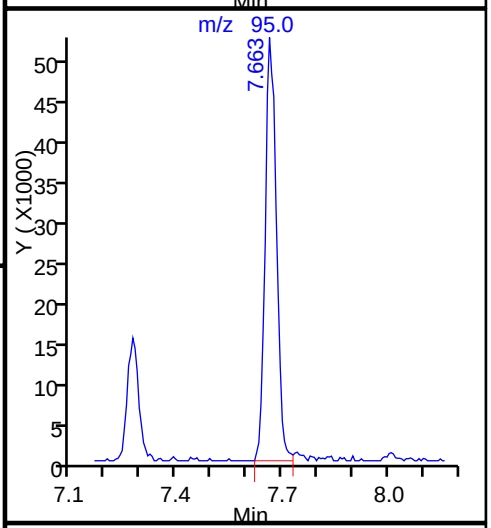
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D		
Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12
Client ID:	HD-CW-13-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

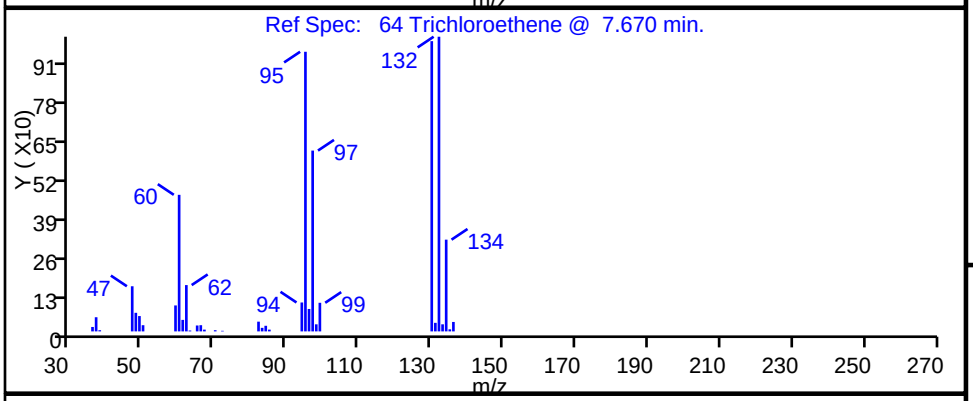
64 Trichloroethene, CAS: 79-01-6

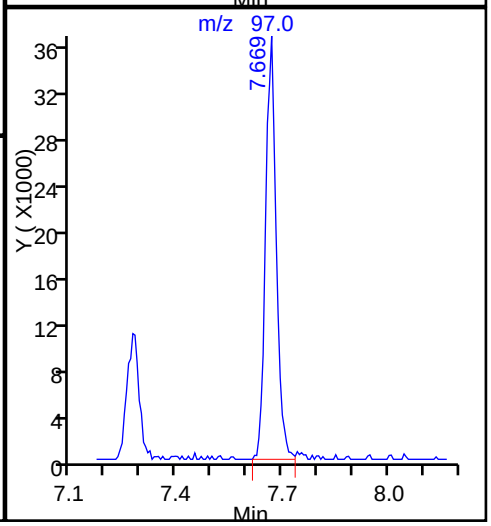


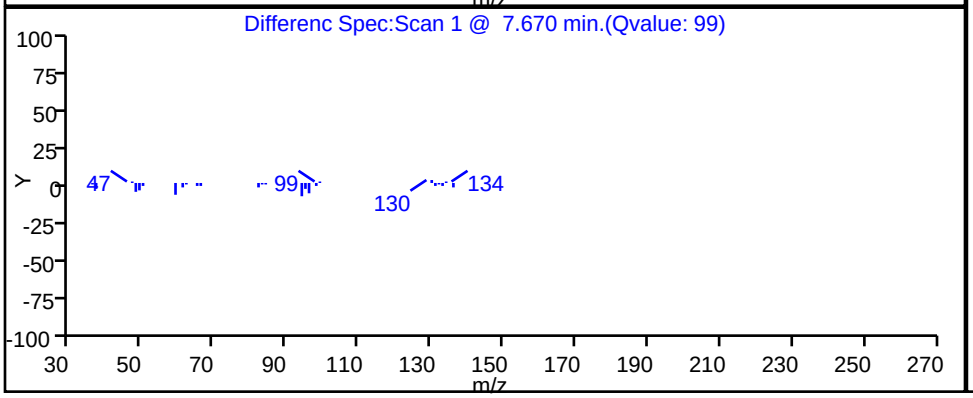












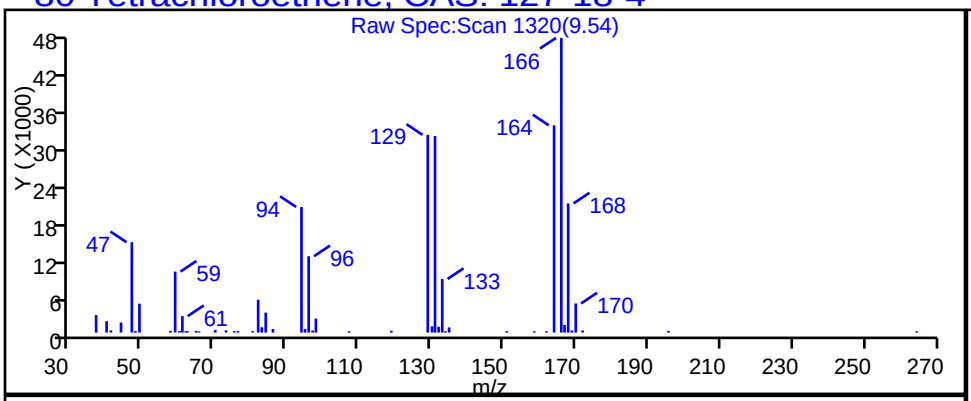
Report Date: 09-Mar-2015 10:09:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

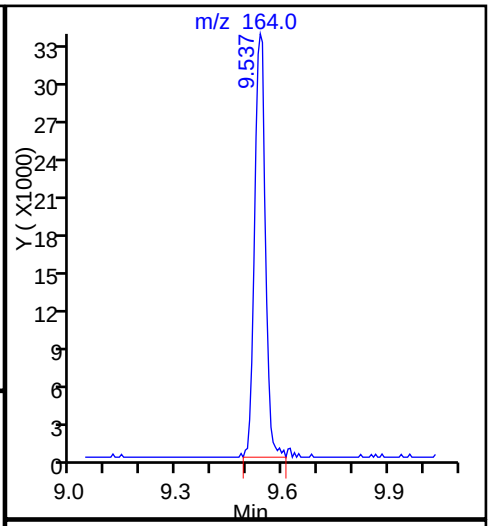
TestAmerica Pittsburgh

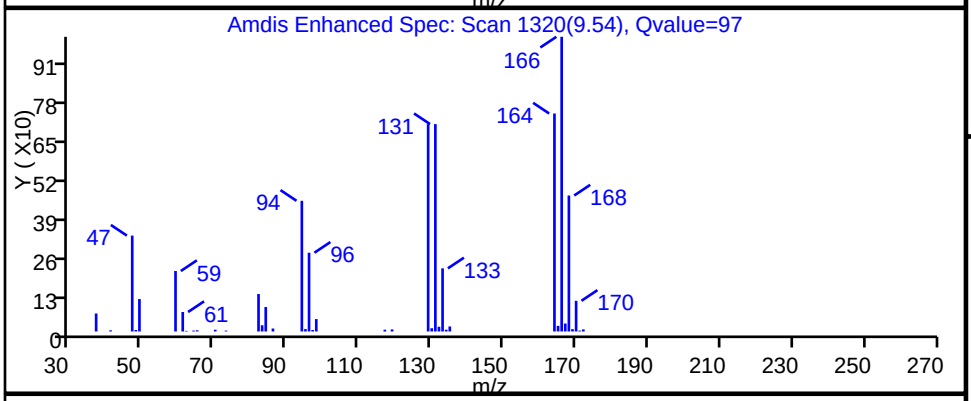
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306020.D

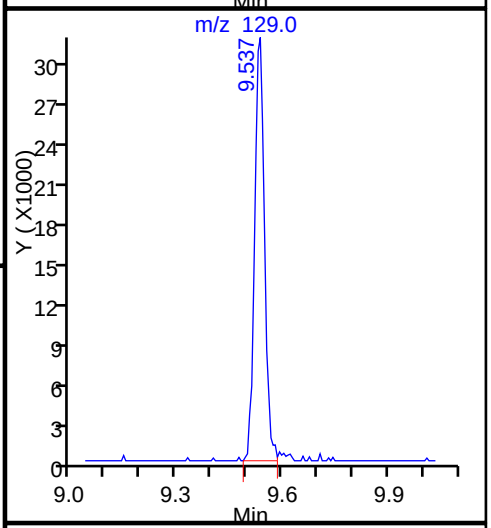
Injection Date:	06-Mar-2015 19:07:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-12	Lab Sample ID:	180-41508-12
Client ID:	HD-CW-13-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

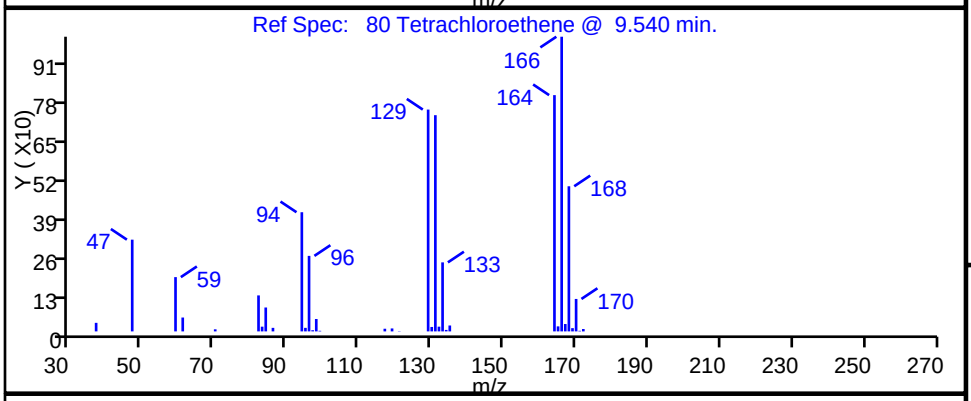
80 Tetrachloroethene, CAS: 127-18-4

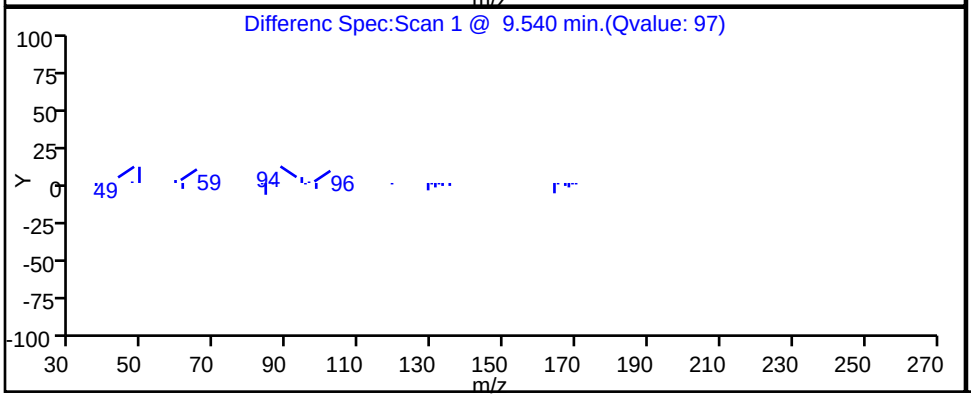


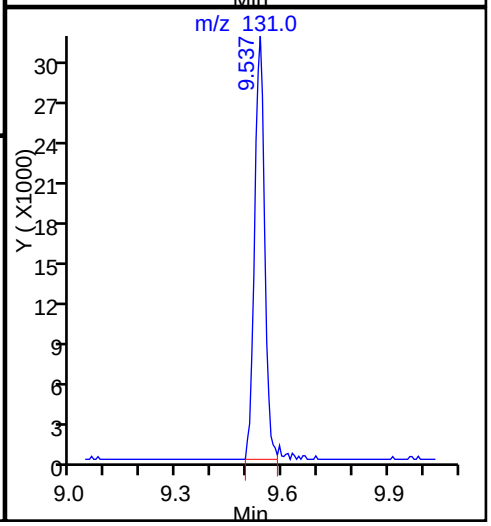












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 | Lab Sample ID: 180-41508-13

Matrix: Water | Lab File ID: 50306022.D

Analysis Method: 8260C | Date Collected: 02/25/2015 06:45

Sample wt/vol: 5(mL) | Date Analyzed: 03/06/2015 19:56

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.: 134916 | 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	17	J	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	12	J	50	5.8
156-59-2	cis-1,2-Dichloroethene	180		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	720		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	1700		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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-41508-13

Matrix: Water Lab File ID: 50306022.D

Analysis Method: 8260C Date Collected: 02/25/2015 06:45

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 19:56

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.: 134916 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)	99		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D
Lims ID: 180-41508-D-13 Lab Sample ID: 180-41508-13
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 19:56:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-41508-D-13, 50x
Misc. Info.: 180-0005922-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 10:11:18 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 10:11:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.306	4.308	-0.002	81	54068	1000.0	
* 2 Fluorobenzene (IS)	96	7.275	7.271	0.004	99	385489	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.361	-0.002	99	90736	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.679	0.004	99	138679	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.522	0.004	59	84542	51.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.900	-0.003	98	100820	49.4	
$ 7 Toluene-d8 (Surr)	98	8.923	8.925	-0.002	100	360357	51.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.529	0.004	97	133444	50.7	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.387	3.371	0.016	13	3761	1.68	M
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.176	5.172	0.004	36	5368	1.20	
45 cis-1,2-Dichloroethene	96	5.942	5.932	0.010	78	45753	18.2	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.224				ND	
52 Chloroform	83		6.346				ND	
53 1,1,1-Trichloroethane	97	6.538	6.529	0.009	59	16343	6.75	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.664	7.666	-0.002	99	164566	71.8	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.538	9.534	0.004	98	287960	166.6	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

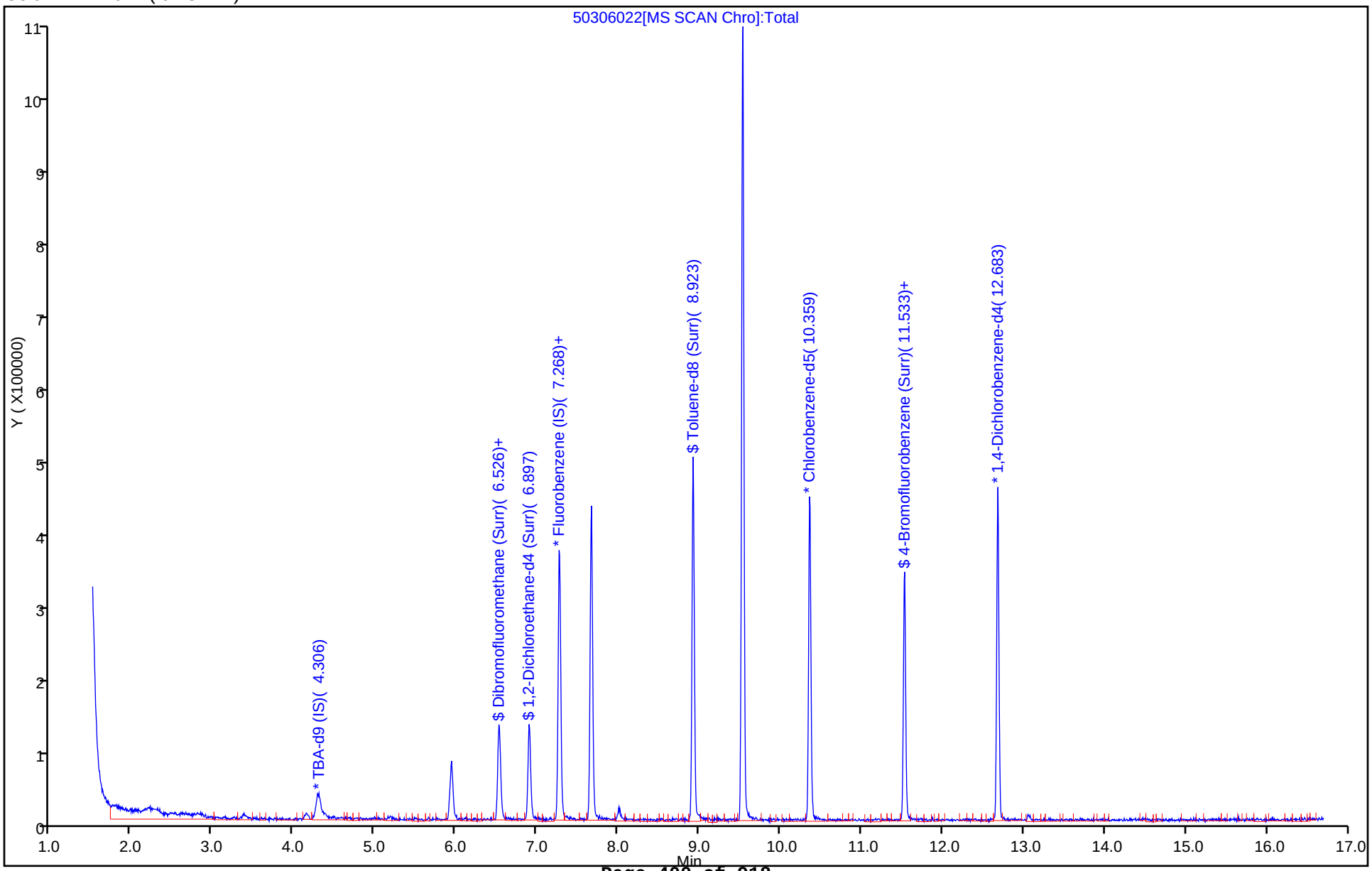
Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D

Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13	Worklist Smp#:	22
Client ID:	HD-CW-20-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

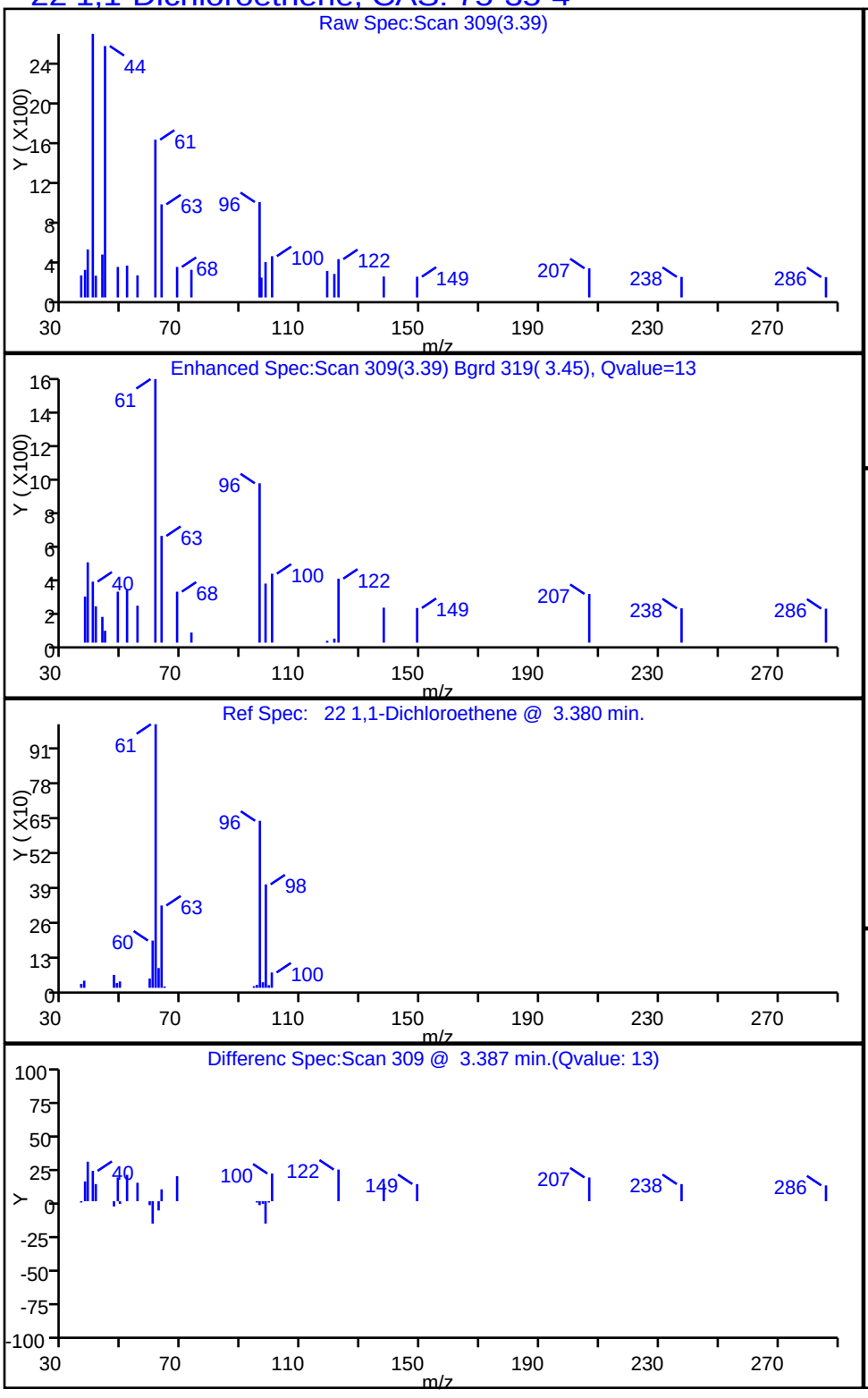


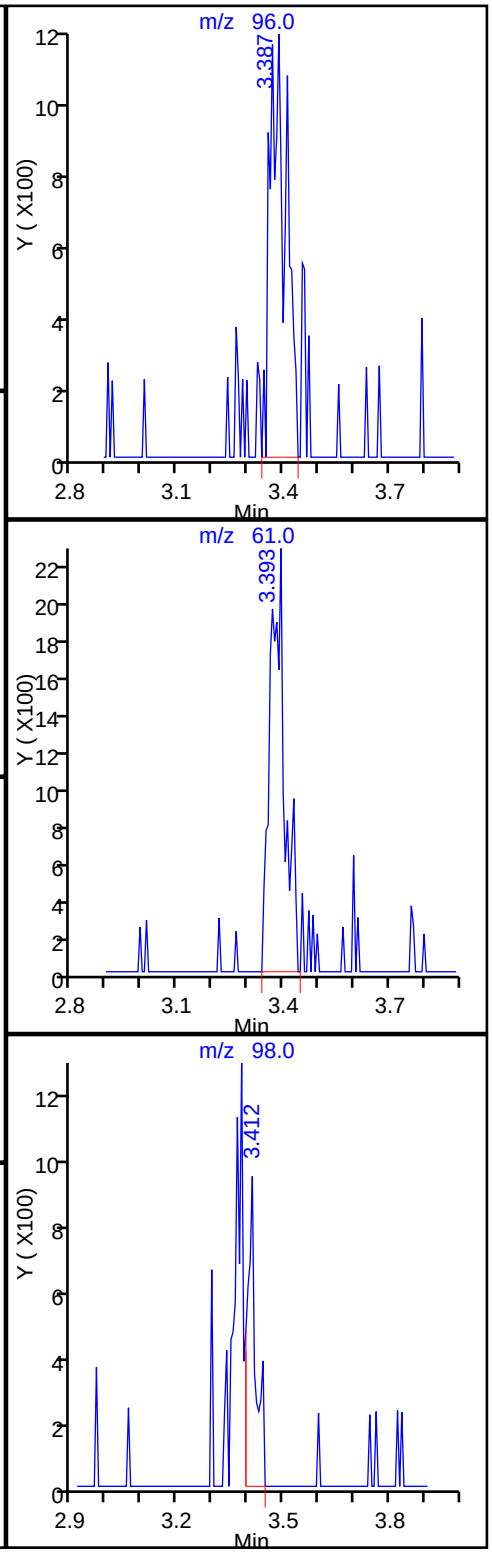
Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D				
Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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





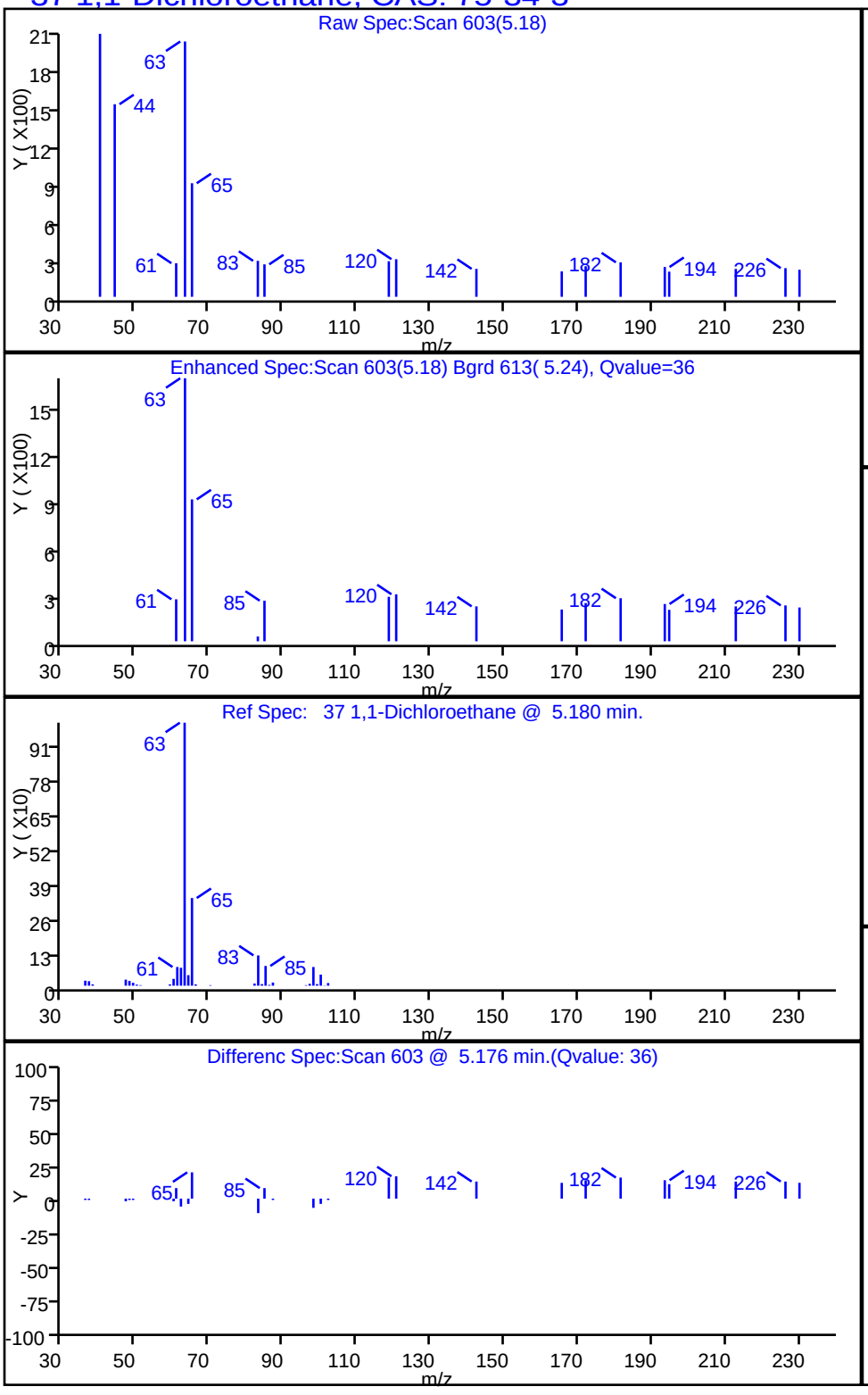
Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

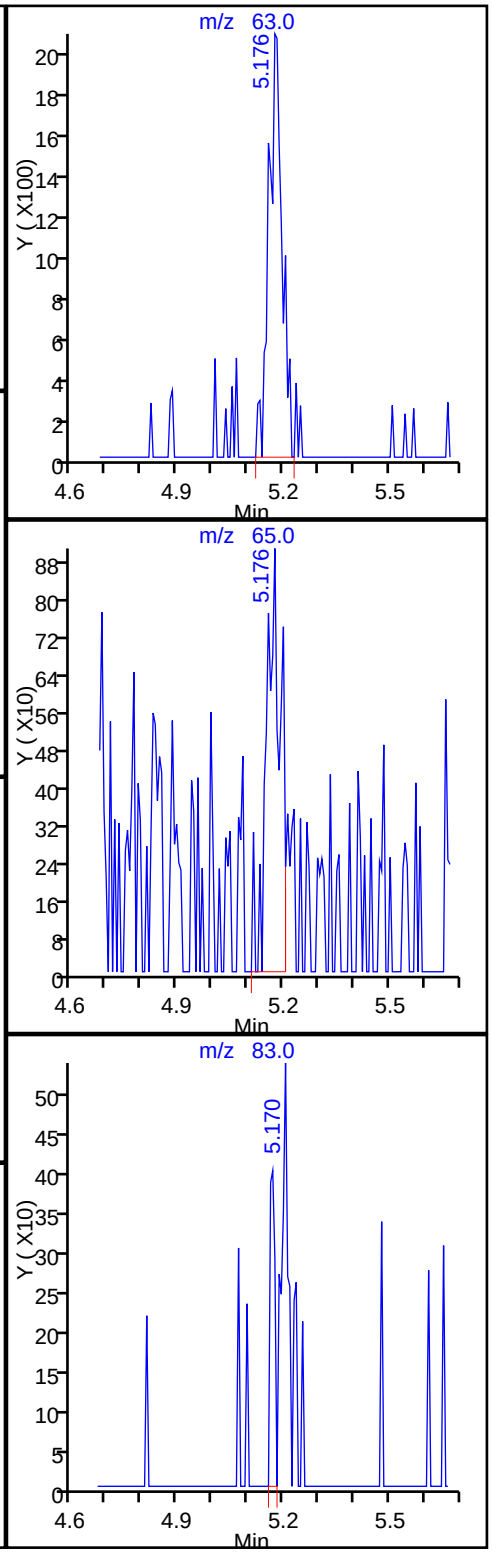
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D

Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



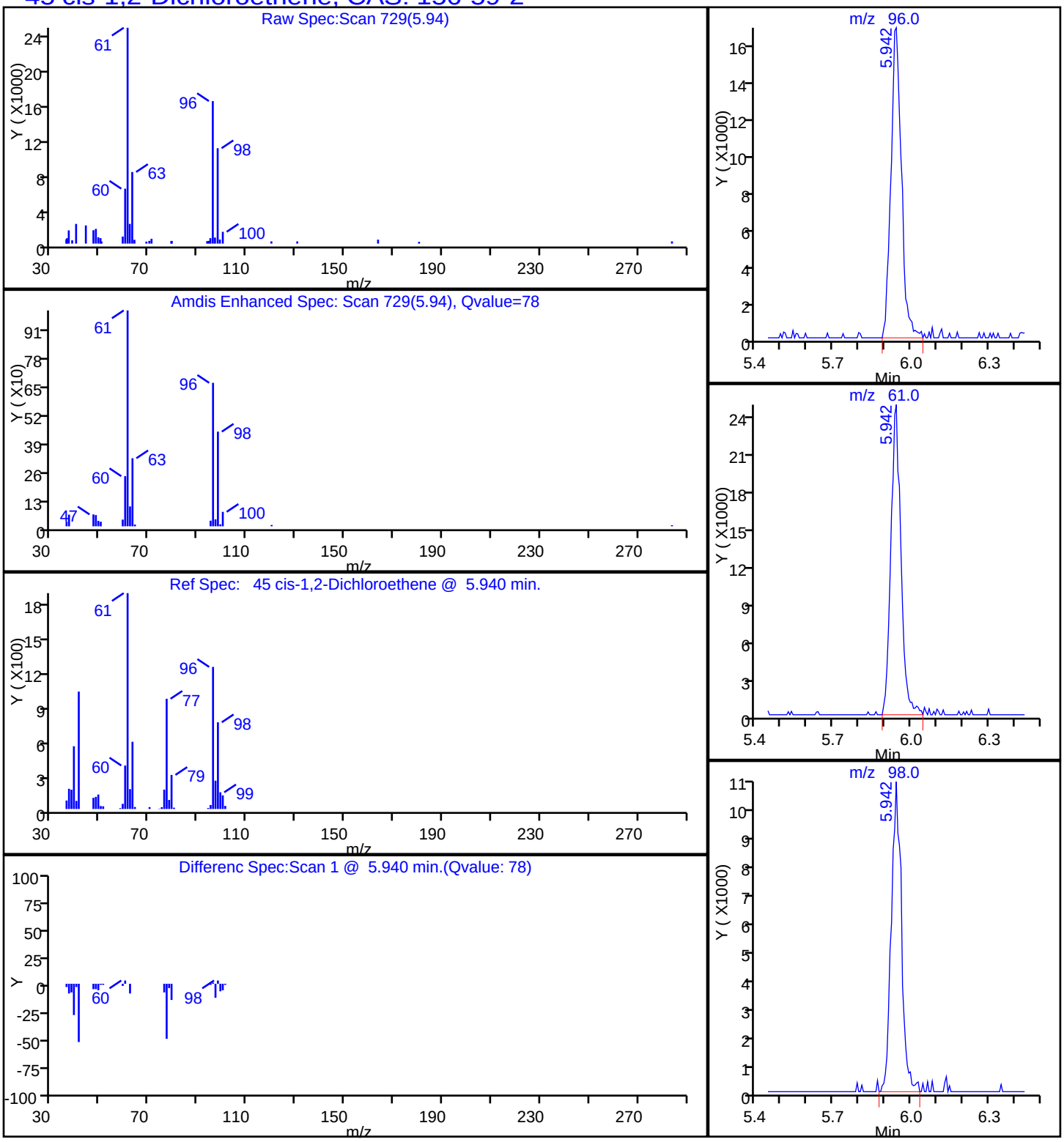


Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D				
Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

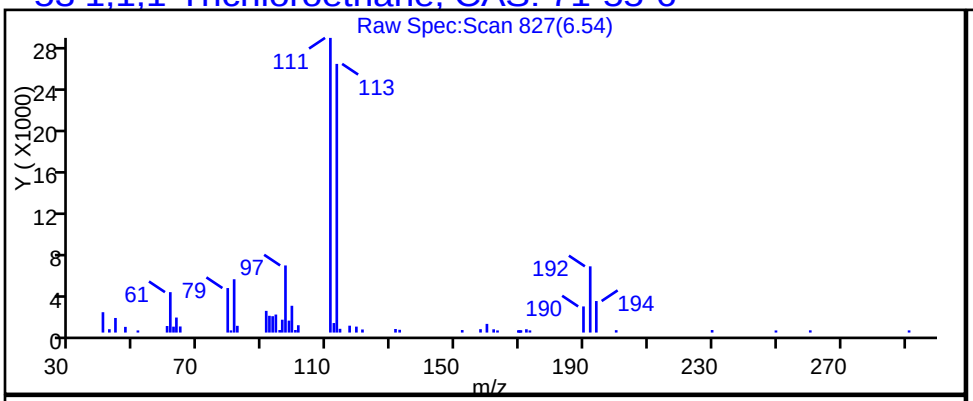


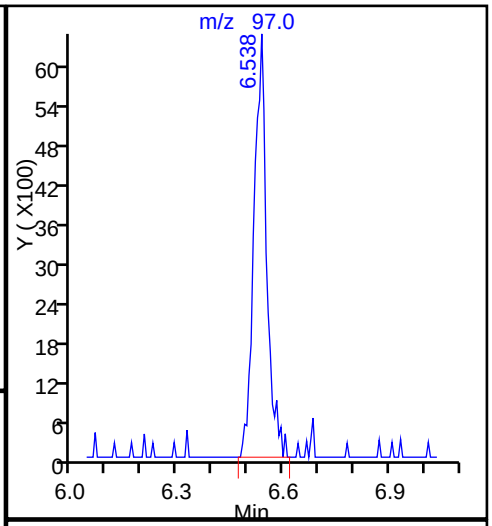
Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

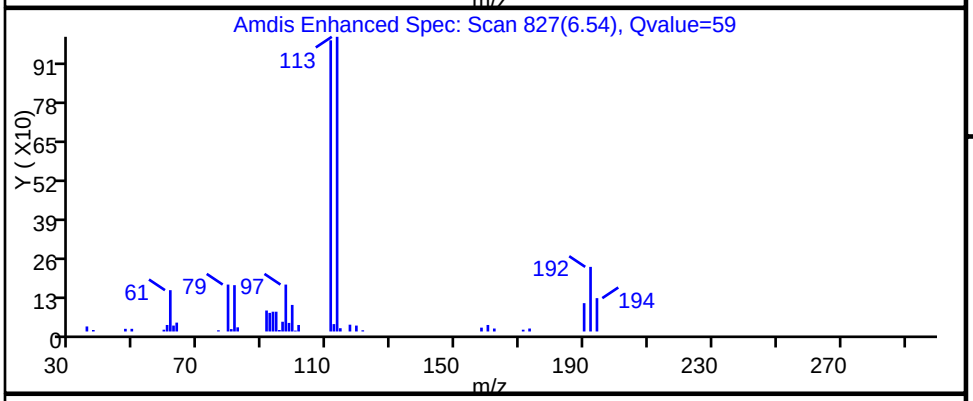
TestAmerica Pittsburgh

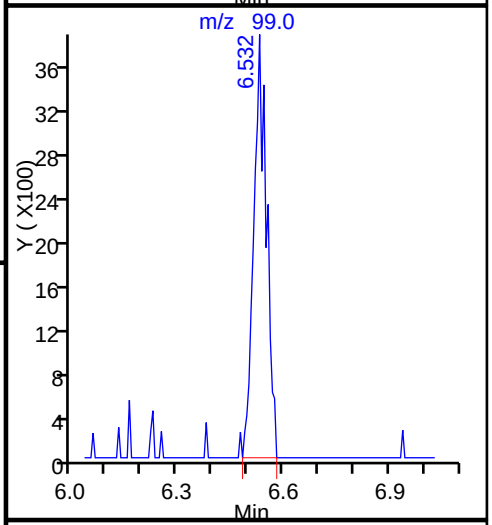
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D				
Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

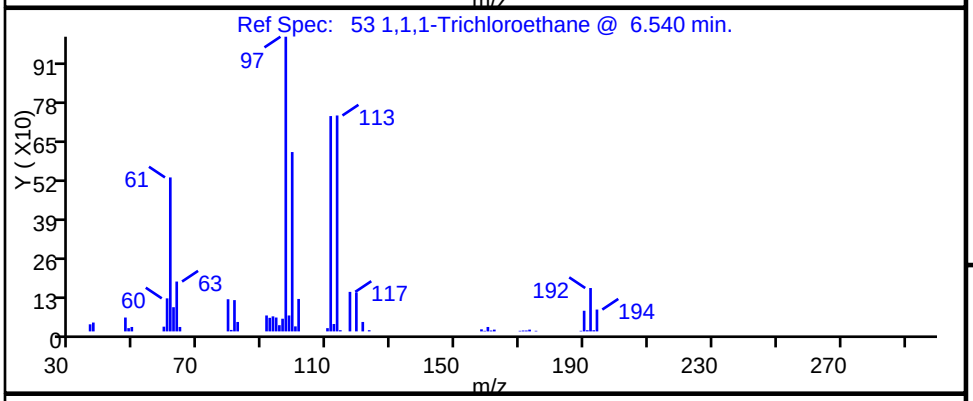
53 1,1,1-Trichloroethane, CAS: 71-55-6

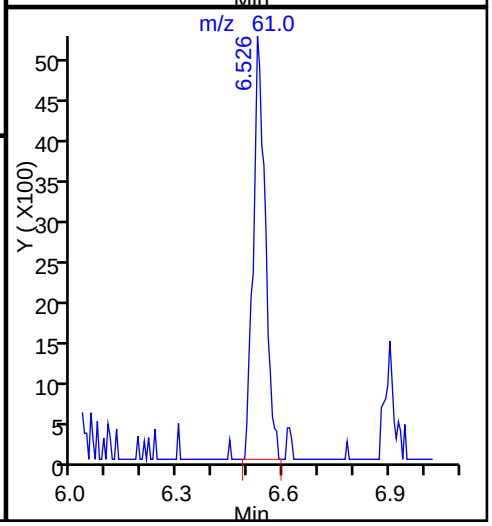


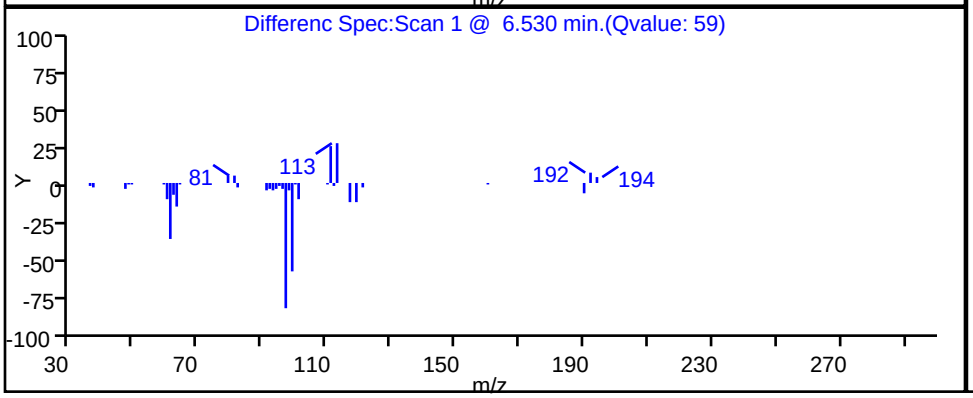










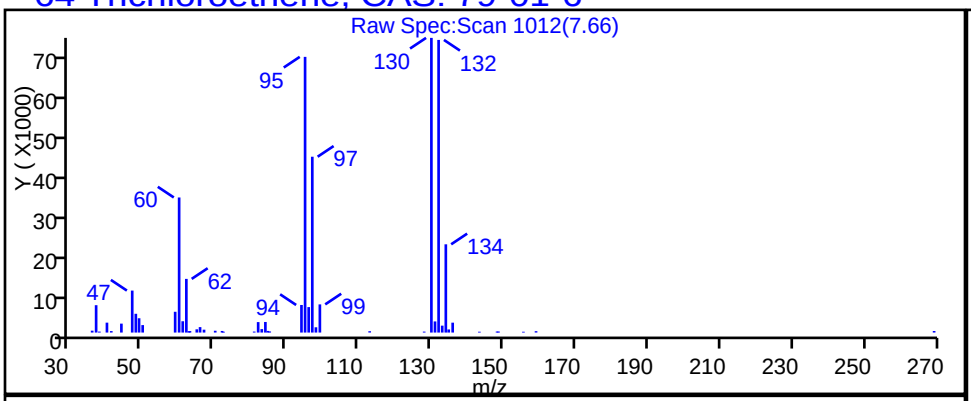


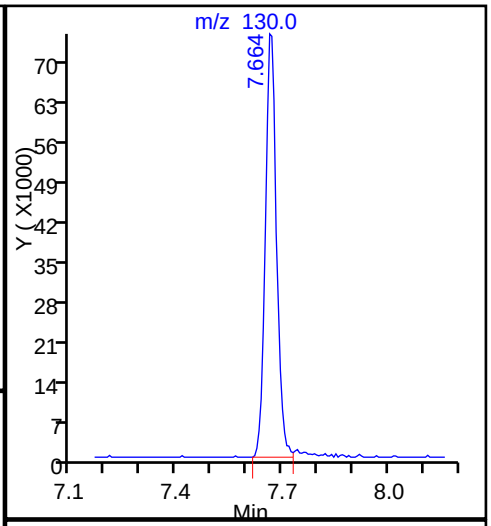
Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

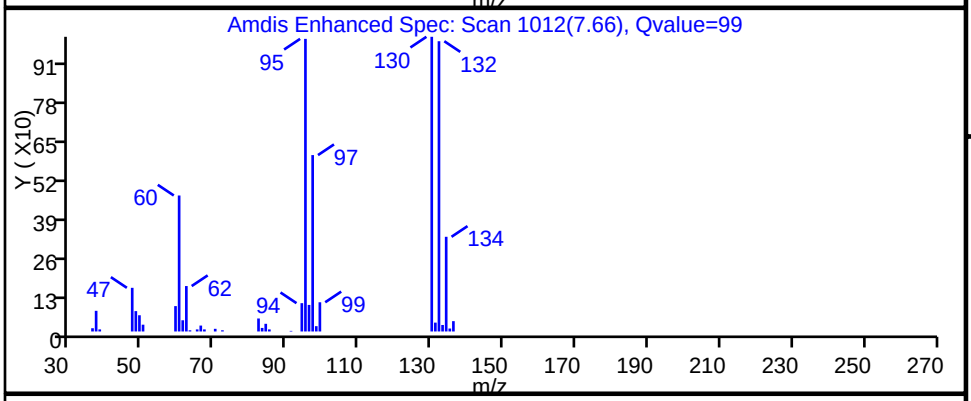
TestAmerica Pittsburgh

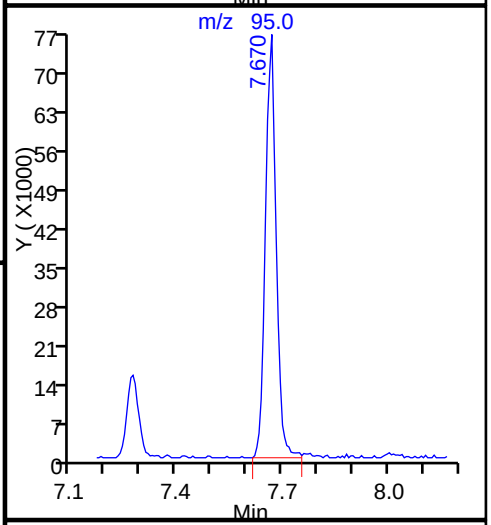
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D				
Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

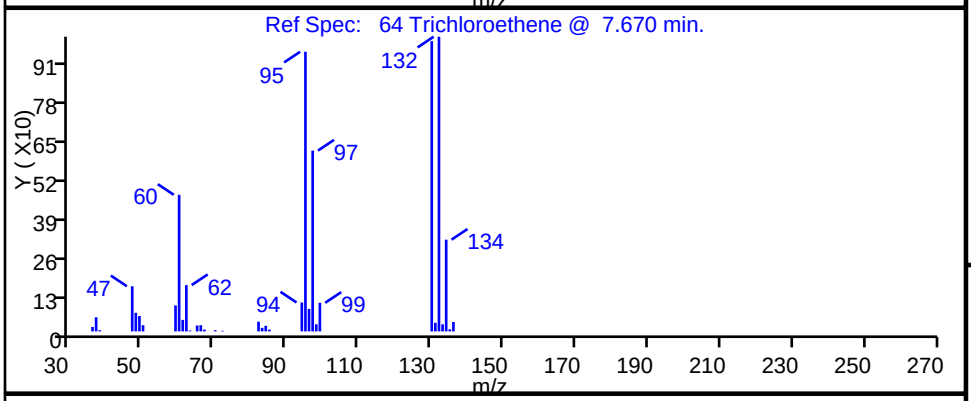
64 Trichloroethene, CAS: 79-01-6

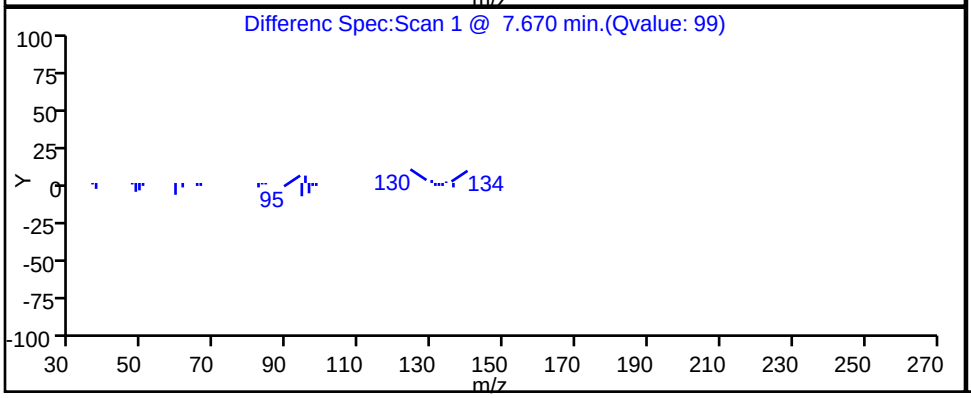


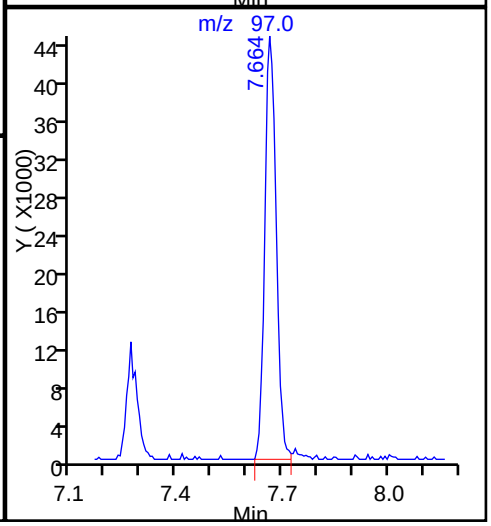










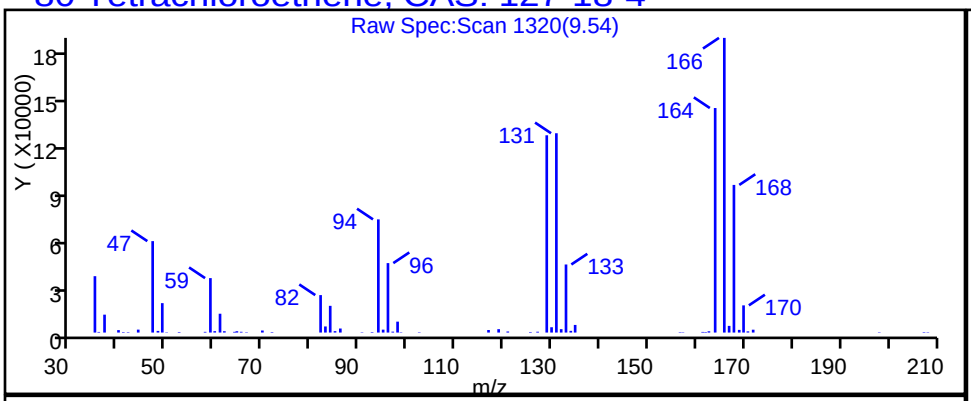


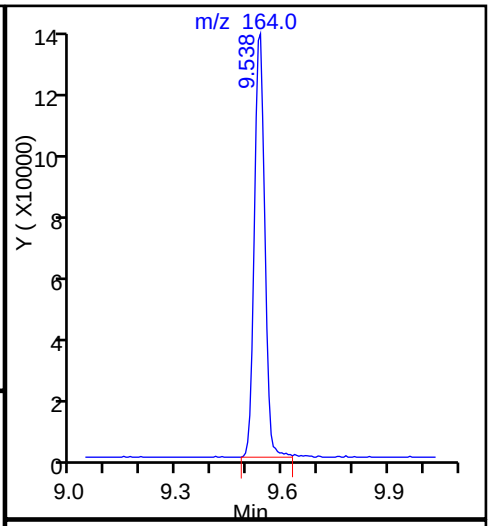
Report Date: 09-Mar-2015 10:11:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

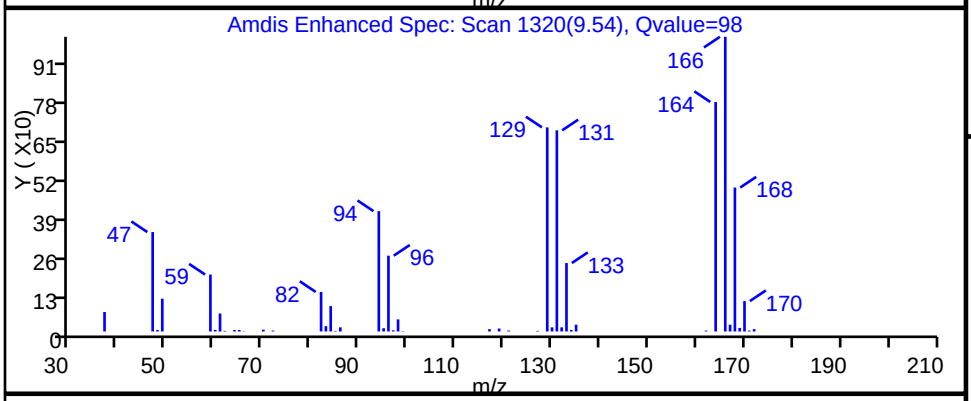
TestAmerica Pittsburgh

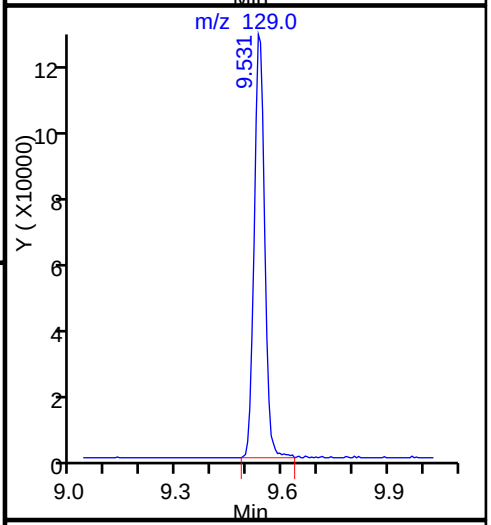
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D				
Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

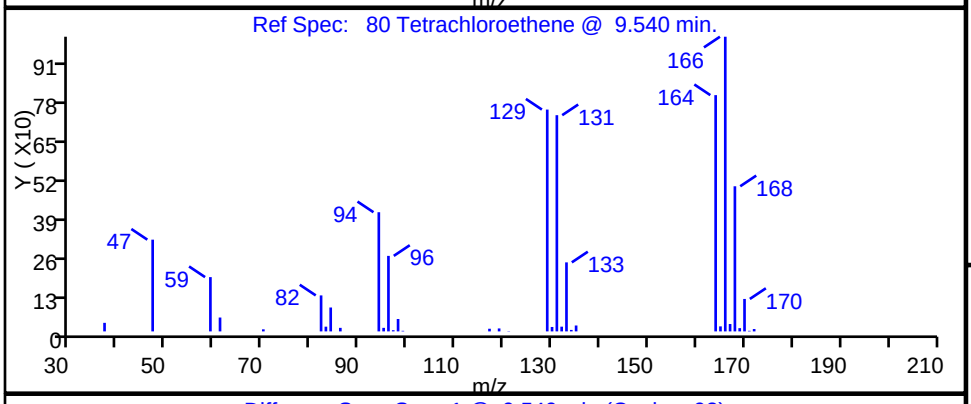
80 Tetrachloroethene, CAS: 127-18-4

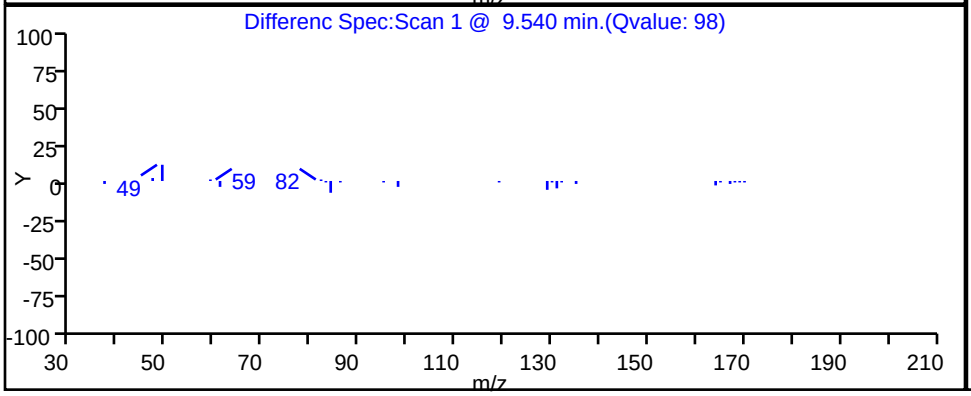


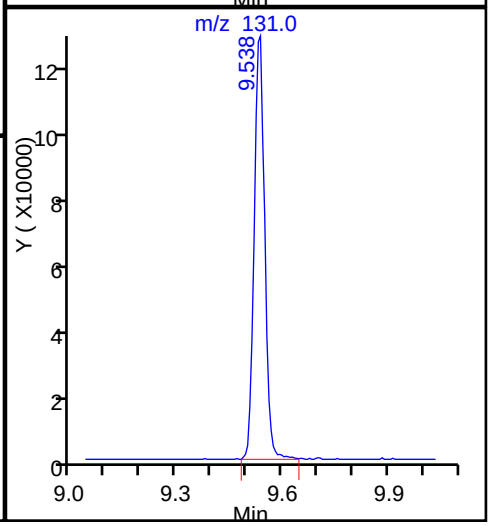












Manual Integration/User Assign Peak Report

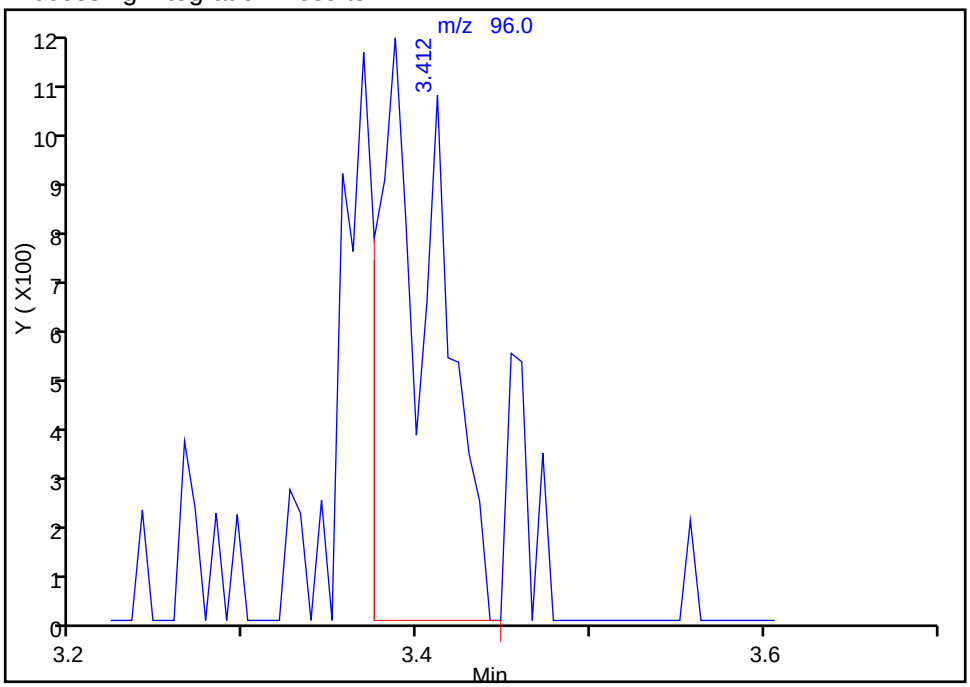
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306022.D				
Injection Date:	06-Mar-2015 19:56:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-D-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

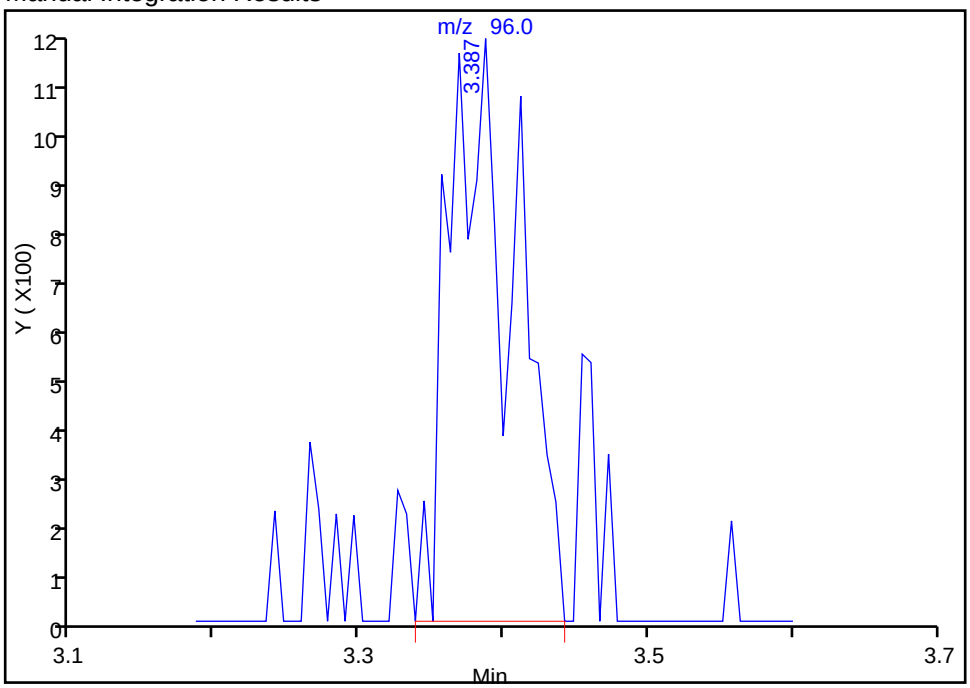
Processing Integration Results

RT: 3.41
Area: 2661
Amount: 1.185608
Amount Units: ng



Manual Integration Results

RT: 3.39
Area: 3761
Amount: 1.675713
Amount Units: ng



Reviewer: fergusond, 09-Mar-2015 10:11:18
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 | Lab Sample ID: 180-41508-14

Matrix: Water | Lab File ID: 50306023.D

Analysis Method: 8260C | Date Collected: 02/25/2015 06:50

Sample wt/vol: 5(mL) | Date Analyzed: 03/06/2015 20:19

Soil Aliquot Vol: | Dilution Factor: 12.5

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

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

Analysis Batch No.: 134916 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13	U	13	3.5
75-01-4	Vinyl chloride	13	U	13	2.8
74-83-9	Bromomethane	13	U	13	3.9
75-00-3	Chloroethane	13	U	13	2.7
75-35-4	1,1-Dichloroethene	6.3	J	13	3.7
67-64-1	Acetone	63	U	63	31
75-15-0	Carbon disulfide	13	U	13	2.7
75-09-2	Methylene Chloride	13	U	13	1.6
156-60-5	trans-1,2-Dichloroethene	13	U	13	2.1
1634-04-4	Methyl tert-butyl ether	13	U	13	2.3
75-34-3	1,1-Dichloroethane	4.5	J	13	1.5
156-59-2	cis-1,2-Dichloroethene	130		13	3.0
74-97-5	Bromochloromethane	13	U	13	2.3
78-93-3	2-Butanone (MEK)	63	U	63	6.8
67-66-3	Chloroform	13	U	13	2.1
71-55-6	1,1,1-Trichloroethane	21		13	3.6
56-23-5	Carbon tetrachloride	13	U	13	1.7
71-43-2	Benzene	13	U	13	1.3
107-06-2	1,2-Dichloroethane	13	U	13	2.6
79-01-6	Trichloroethene	160		13	1.8
78-87-5	1,2-Dichloropropane	13	U	13	1.2
75-27-4	Bromodichloromethane	13	U	13	1.6
10061-01-5	cis-1,3-Dichloropropene	13	U	13	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	63	U	63	6.6
108-88-3	Toluene	13	U	13	1.9
10061-02-6	trans-1,3-Dichloropropene	13	U *	13	1.9
79-00-5	1,1,2-Trichloroethane	13	U	13	2.5
127-18-4	Tetrachloroethene	430		13	1.9
591-78-6	2-Hexanone	63	U	63	2.0
124-48-1	Dibromochloromethane	13	U	13	1.7
106-93-4	1,2-Dibromoethane (EDB)	13	U	13	2.3
108-90-7	Chlorobenzene	13	U	13	1.7
630-20-6	1,1,1,2-Tetrachloroethane	13	U	13	3.5
100-41-4	Ethylbenzene	13	U	13	2.8
1330-20-7	Xylenes, Total	38	U	38	6.1
100-42-5	Styrene	13	U	13	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-41508-14

Matrix: Water Lab File ID: 50306023.D

Analysis Method: 8260C Date Collected: 02/25/2015 06:50

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 20:19

Soil Aliquot Vol: Dilution Factor: 12.5

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	13	U	13	2.4
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	2.5
107-13-1	Acrylonitrile	250	U	250	6.8
123-91-1	1,4-Dioxane	2500	U	2500	430

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D
Lims ID: 180-41508-E-14 Lab Sample ID: 180-41508-14
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 06-Mar-2015 20:19:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-41508-E-14, 12.5x
Misc. Info.: 180-0005922-023
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 10:13:05 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 10:13:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.308	-0.021	88	57503	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.271	0.003	99	374760	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.361	0.003	100	84827	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.679	0.003	99	137192	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.522	0.004	62	79804	49.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.900	-0.003	98	99006	49.9	
$ 7 Toluene-d8 (Surr)	98	8.922	8.925	-0.003	100	330547	50.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.526	11.529	-0.003	98	125831	51.2	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.387	3.371	0.016	52	5525	2.53	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.175	5.172	0.003	25	7910	1.82	
45 cis-1,2-Dichloroethene	96	5.935	5.932	0.003	76	131010	53.7	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.224				ND	
52 Chloroform	83	6.355	6.346	0.009	21	1666	0.4807	M
53 1,1,1-Trichloroethane	97	6.532	6.529	0.003	62	19477	8.27	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.669	7.666	0.003	98	145494	65.3	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.537	9.534	0.003	97	281115	174.0	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

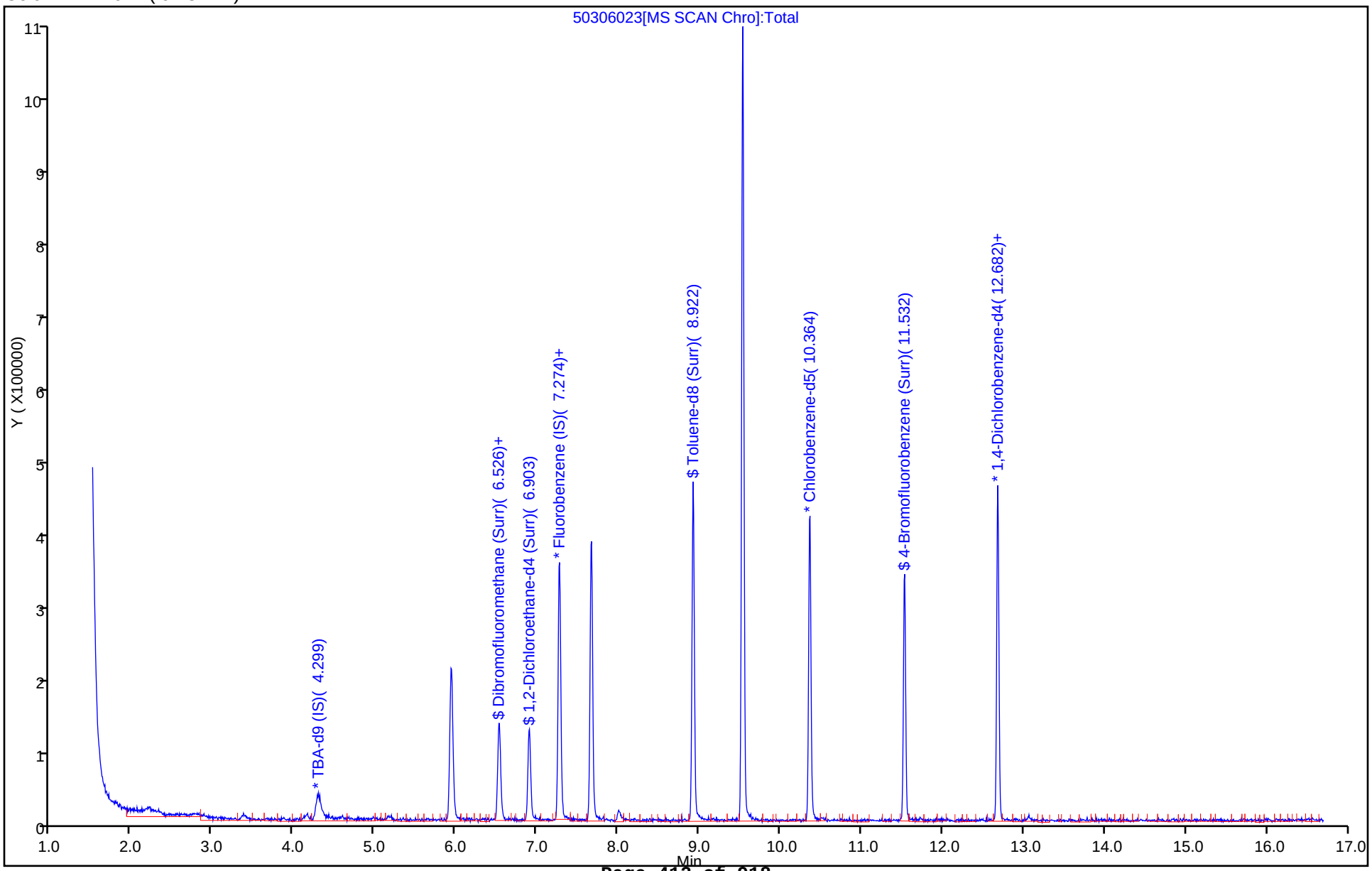
Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D

Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14	Worklist Smp#:	23
Client ID:	HD-CW-9-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



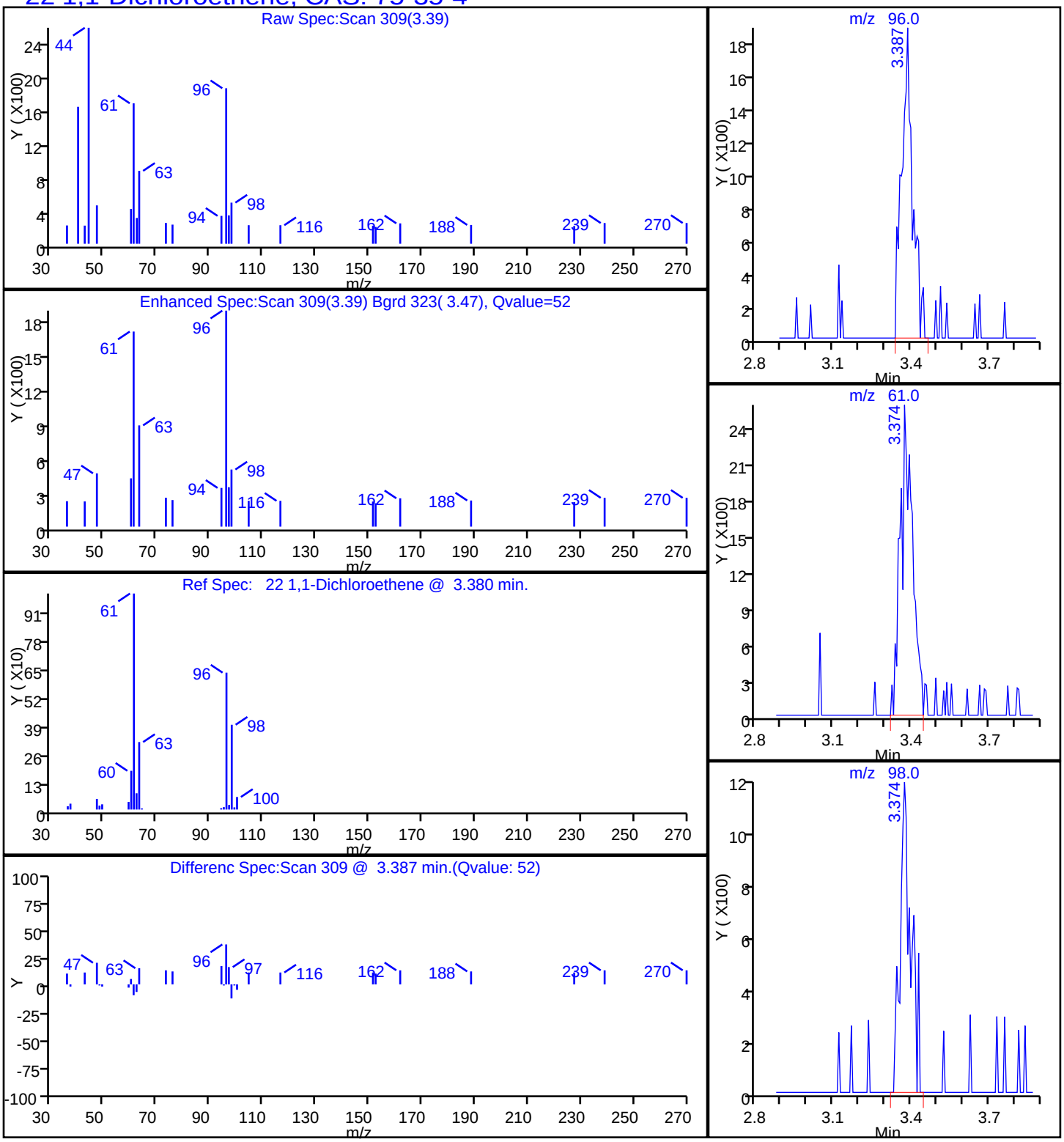
Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D

Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

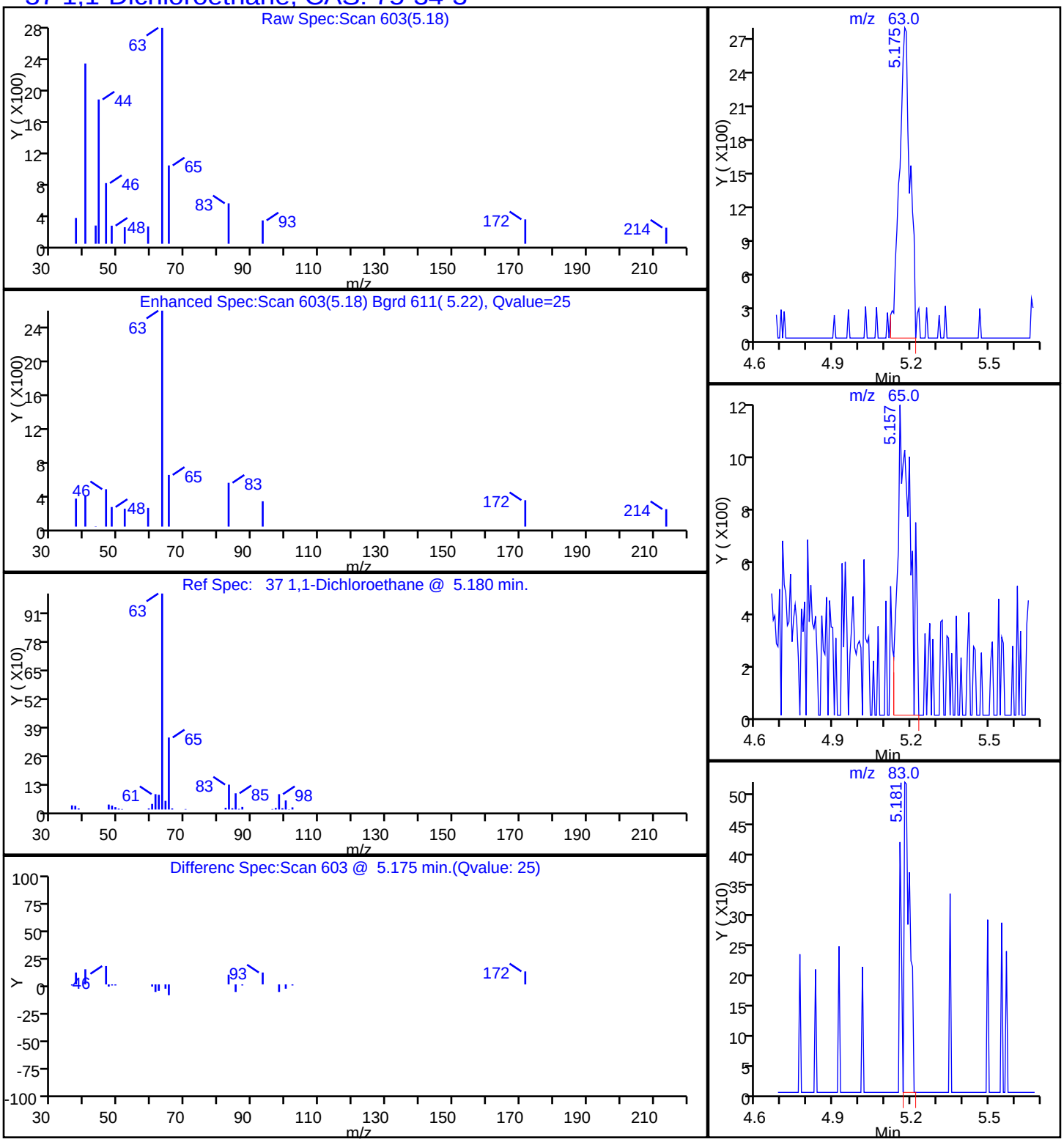


Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D				
Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D

Injection Date: 06-Mar-2015 20:19:30 Instrument ID: CHHP5

Lims ID: 180-41508-E-14 Lab Sample ID: 180-41508-14

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

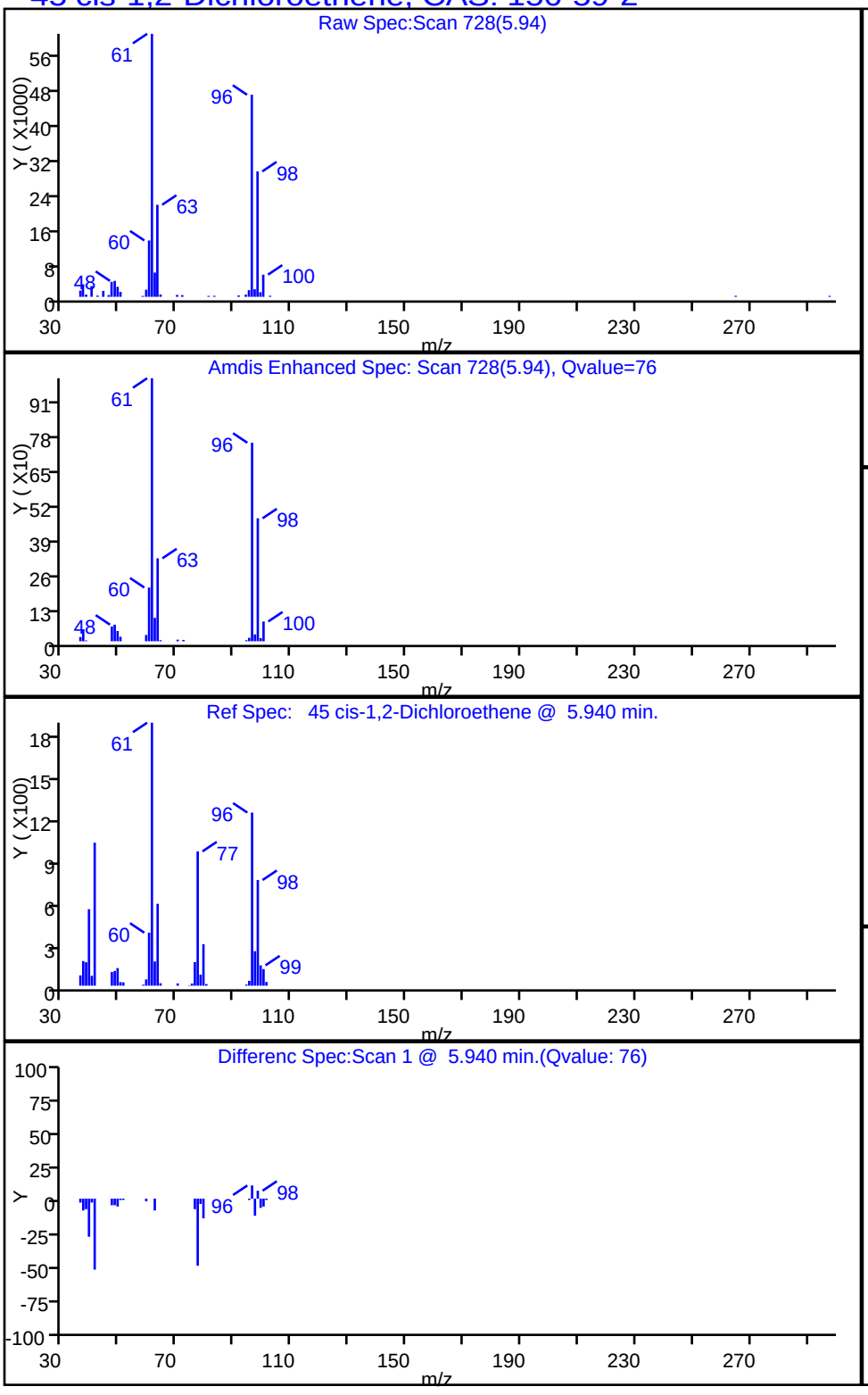
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 23

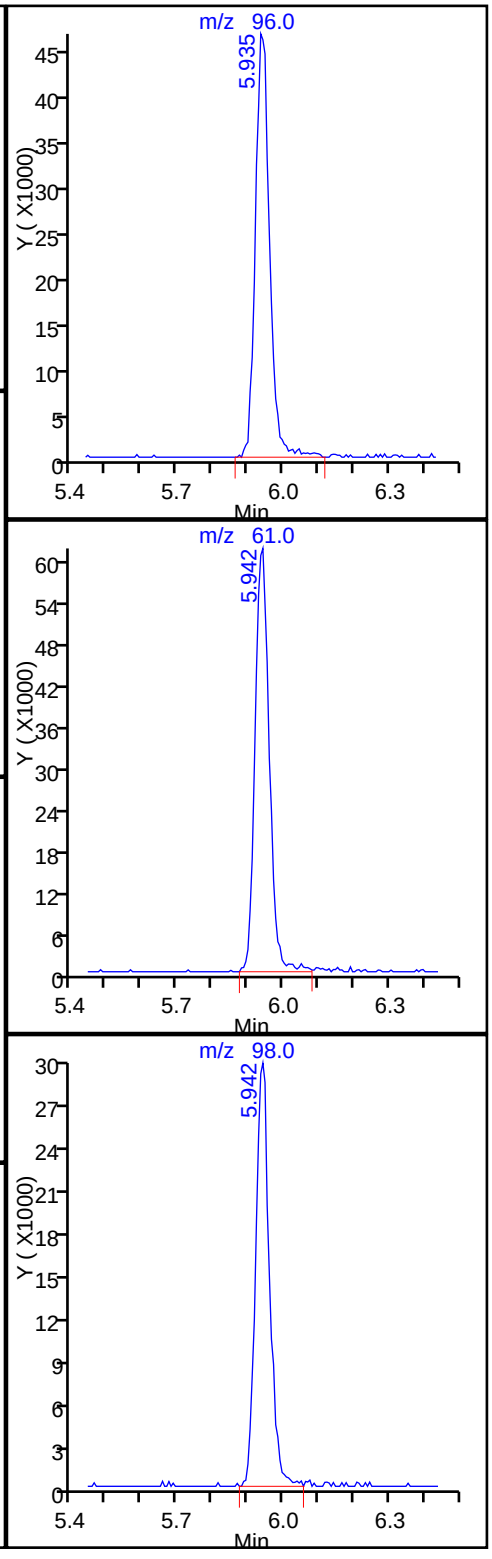
Purge Vol: 5.000 mL Dil. Factor: 12.5000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

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



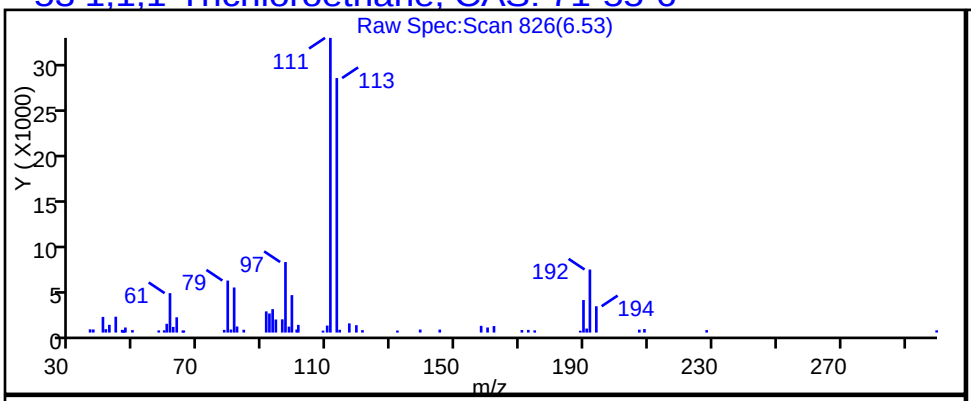


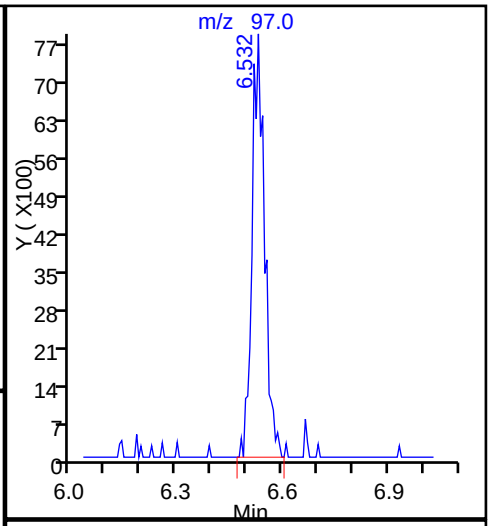
Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

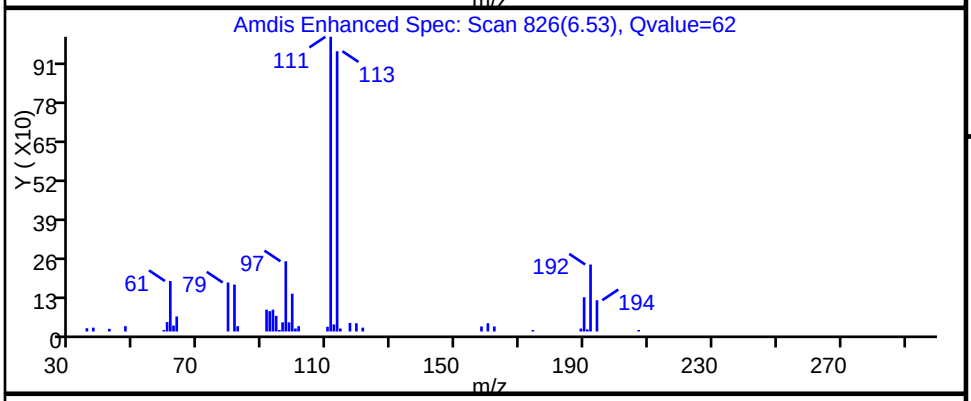
TestAmerica Pittsburgh

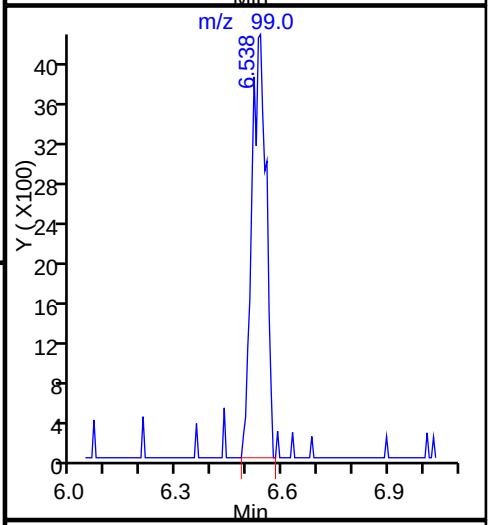
Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D				
Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

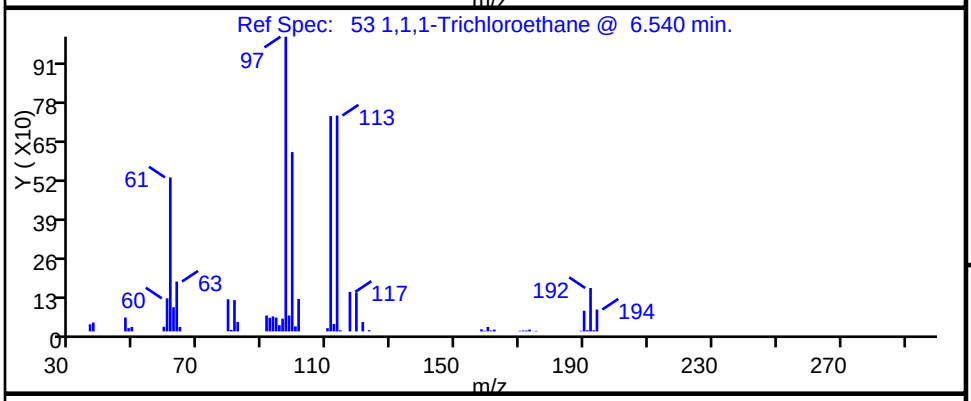
53 1,1,1-Trichloroethane, CAS: 71-55-6

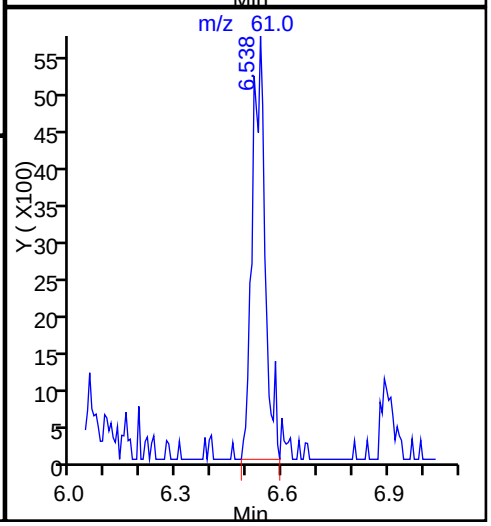


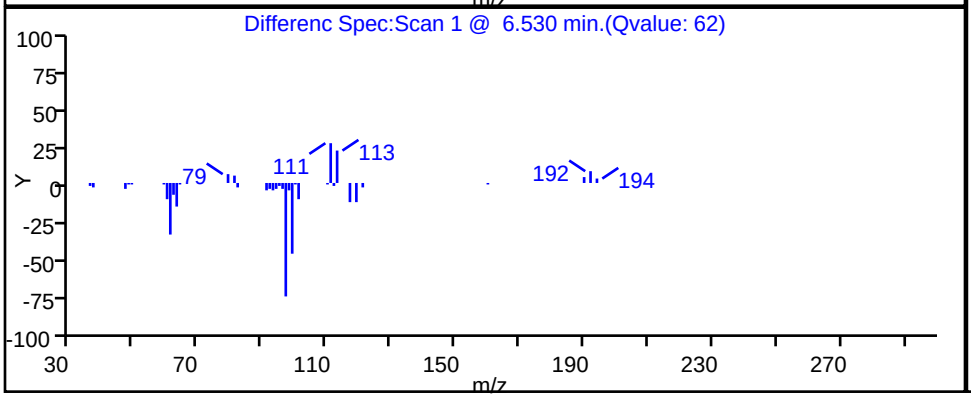












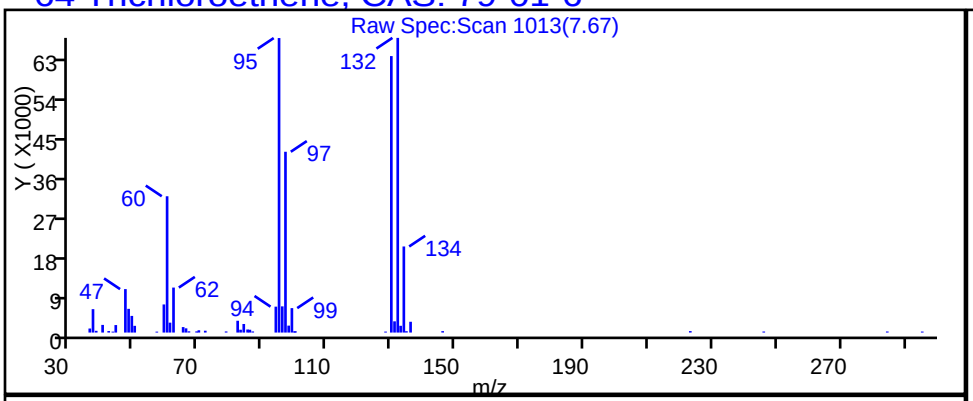
Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

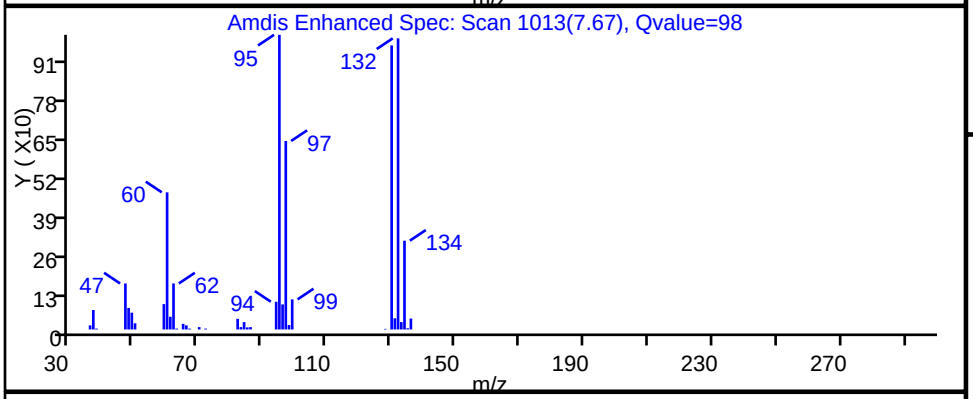
TestAmerica Pittsburgh

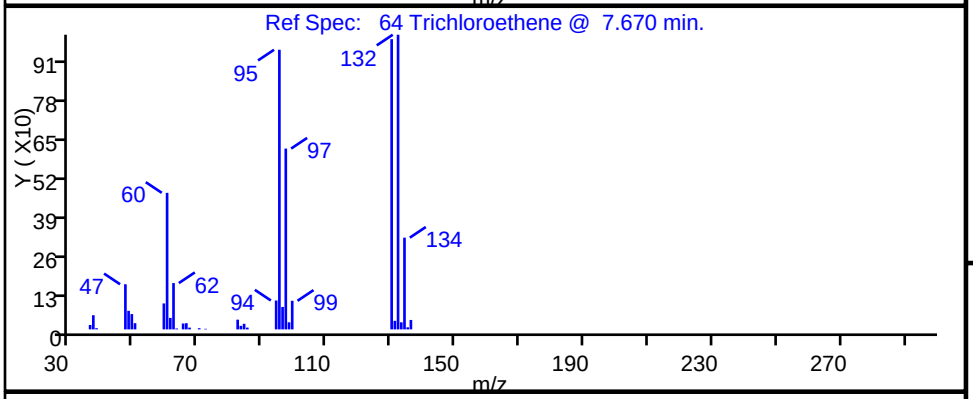
Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D

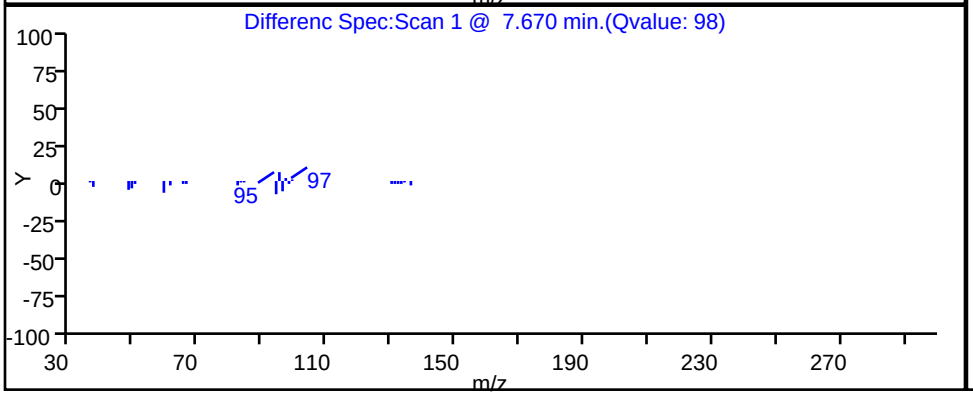
Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

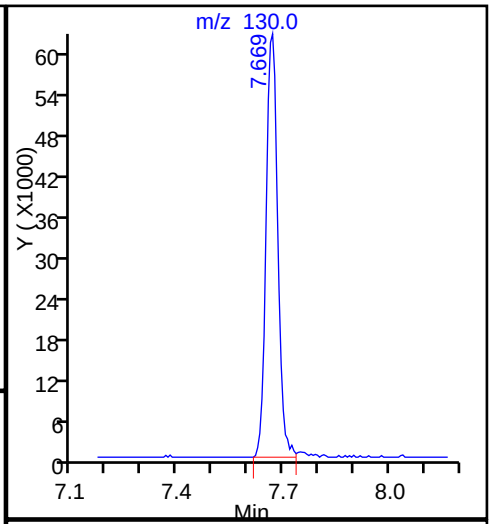
64 Trichloroethene, CAS: 79-01-6

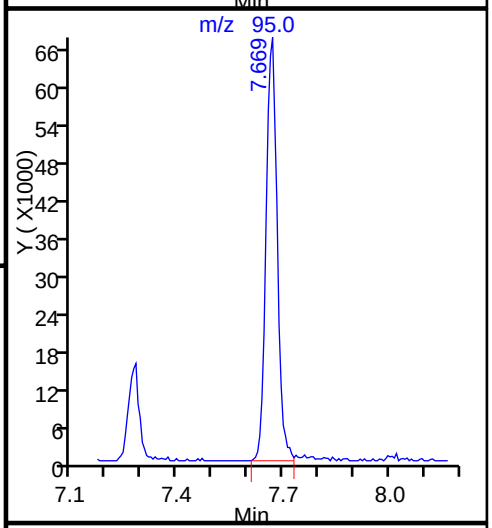


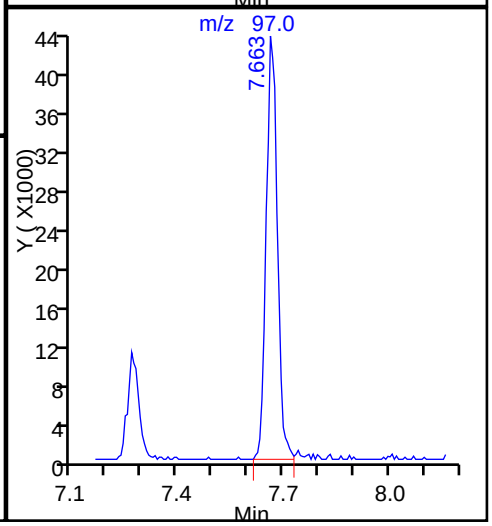










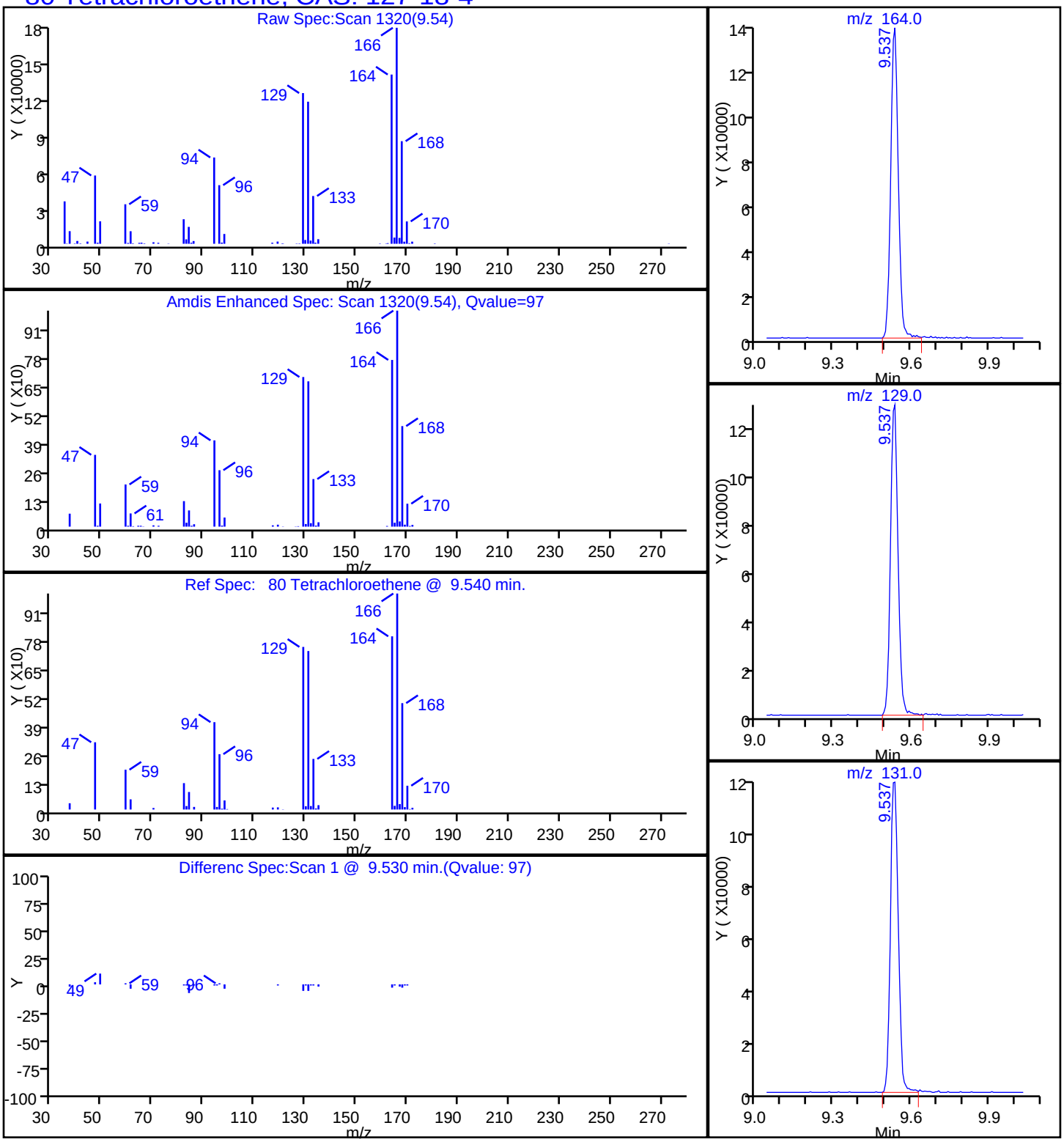


Report Date: 09-Mar-2015 10:13:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D		
Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14
Client ID:	HD-CW-9-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



Manual Integration/User Assign Peak Report

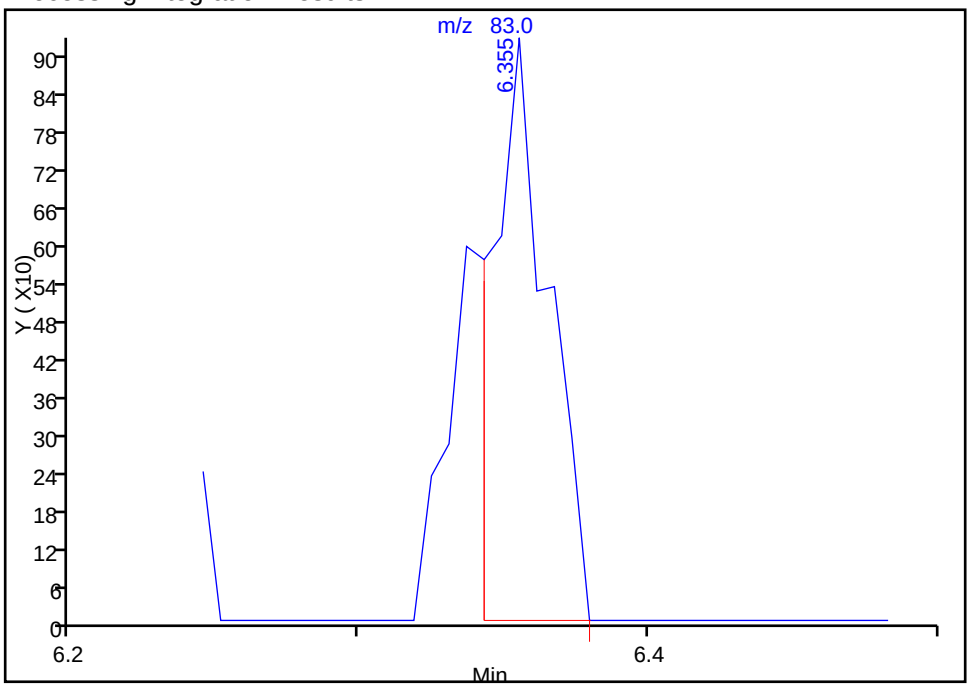
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306023.D				
Injection Date:	06-Mar-2015 20:19:30	Instrument ID:	CHHP5		
Lims ID:	180-41508-E-14	Lab Sample ID:	180-41508-14		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

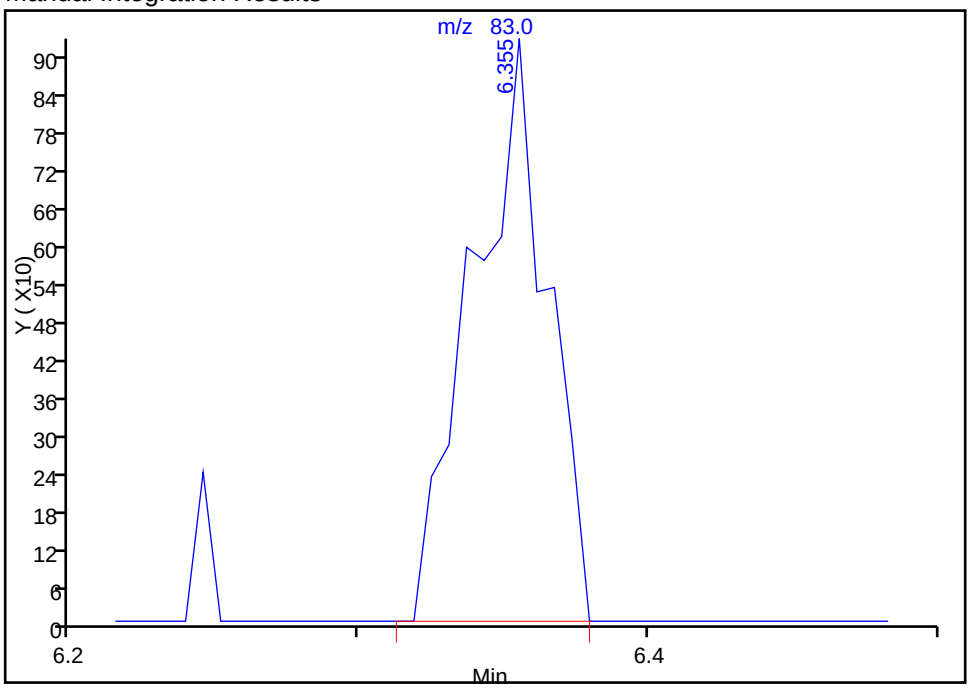
Processing Integration Results

RT: 6.36
Area: 1262
Amount: 0.364129
Amount Units: ng



Manual Integration Results

RT: 6.36
Area: 1666
Amount: 0.480697
Amount Units: ng



Reviewer: fergusond, 09-Mar-2015 10:13:05
Audit Action: Manually Integrated
Audit Reason: Split Peak

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-134613/18	50303018.D
Level 2	IC 180-134613/8	50303008.D
Level 3	ICIS 180-134613/9	50303009.D
Level 4	IC 180-134613/10	50303010.D
Level 5	IC 180-134613/11	50303011.D
Level 6	IC 180-134613/12	50303012.D
Level 7	IC 180-134613/13	50303013.D
Level 8	IC 180-134613/14	50303014.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	0.2690 0.2315	0.2475 0.2504	0.2293 0.2519	0.2623	0.2680	Ave		0.2512			0.1000	6.0		20.0			
Chloromethane	0.4680 0.3696	0.3882 0.4086	0.3655 0.4050	0.4008	0.4067	Ave		0.4015			0.1000	7.9		20.0			
Vinyl chloride	0.4208 0.3539	0.3727 0.3911	0.3674 0.3929	0.3892	0.3994	Ave		0.3859			0.1000	5.4		20.0			
1,3-Butadiene	0.5877 0.3874	0.4356 0.4336	0.4089 0.4363	0.4396	0.4507	Ave		0.4475			0.0100	13.0		20.0			
Bromomethane	0.2102 0.0967	0.1328 0.1105	0.1305 0.0997	0.1176	0.1084	Lin2	0.5322	0.1060			0.0500				0.9930		0.9900
Chloroethane	0.2042 0.1423	0.1531 0.1639	0.1454 0.1403	0.1542	0.1526	Ave		0.1570			0.0500	13.0		20.0			
Dichlorofluoromethane	0.4250 0.3125	0.3499 0.3829	0.3794 0.3280	0.3555	0.3456	Ave		0.3598			0.0100	9.8		20.0			
Trichlorofluoromethane	0.3357 0.2560	0.2761 0.3432	0.3149 0.2839	0.2982	0.2961	Ave		0.3005			0.1000	9.9		20.0			
Ethyl ether	0.3462 0.2756	0.2799 0.2862	0.2559 0.3022	0.2863	0.2877	Ave		0.2900			0.0100	9.0		20.0			
Acrolein	0.0381 0.0352	0.0397 0.0387	0.0353 0.0396	0.0401	0.0397	Ave		0.0383			0.0100	5.1		20.0			
1,1-Dichloroethene	0.3310 0.2752	0.2698 0.2934	0.2608 0.2973	0.2971	0.3045	Ave		0.2911			0.1000	7.7		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3119 0.2752	0.2867 0.3077	0.2648 0.2991	0.3034	0.3054	Ave		0.2943			0.1000	5.8		20.0			
Acetone	0.1272 0.0999	0.1070 0.0981	0.0956 0.1093	0.1023	0.1006	Ave		0.1050			0.0500	9.5		20.0			
Iodomethane	0.4701 0.3888	0.3781 0.4191	0.3659 0.4254	0.4071	0.4219	Ave		0.4096			0.0100	8.0		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.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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								
Carbon disulfide	0.7278 0.6896	0.6311 0.7798	0.6350 0.7889	0.7235	0.7569	Ave		0.7166			0.1000	8.5		20.0			
Allyl chloride	0.1767 0.1804	0.1687 0.1929	0.1597 0.2039	0.1828	0.1896	Ave		0.1818			0.0100	7.7		20.0			
Methyl acetate	0.3135 0.2835	0.2688 0.2970	0.2547 0.3078	0.2918	0.2933	Ave		0.2888			0.1000	6.7		20.0			
Methylene Chloride	0.5303 0.3048	0.3340 0.3171	0.3002 0.3296	0.3199	0.3150	Lin2	1.1200	0.3021			0.1000				0.9970		0.9900
tert-Butyl alcohol	1.0728 1.1874	1.1850 1.2108	1.0775 1.3423	1.2805	1.2306	Ave		1.1984			0.0100	7.7		20.0			
Acrylonitrile	0.1522 0.1402	0.1370 0.1445	0.1317 0.1514	0.1426	0.1458	Ave		0.1432			0.0100	4.8		20.0			
trans-1,2-Dichloroethene	0.3284 0.2932	0.2930 0.3077	0.2772 0.3241	0.3005	0.3112	Ave		0.3044			0.1000	5.6		20.0			
Methyl tert-butyl ether	0.8077 0.7491	0.7066 0.7930	0.6816 0.8220	0.7507	0.7733	Ave		0.7605			0.1000	6.4		20.0			
Hexane	0.6242 0.5039	0.5149 0.5384	0.5008 0.5460	0.5396	0.5552	Ave		0.5404			0.0100	7.3		20.0			
1,1-Dichloroethane	0.6587 0.5578	0.5463 0.5868	0.5240 0.6027	0.5806	0.5849	Ave		0.5802			0.2000	7.0		20.0			
Vinyl acetate	0.1554 0.2042	0.1712 0.2248	0.1846 0.2374	0.1922	0.2159	Ave		0.1982			0.0100	14.0		20.0			
2,2-Dichloropropane	0.2089 0.2094	0.1923 0.2380	0.1918 0.2406	0.2153	0.2221	Ave		0.2148			0.0100	8.5		20.0			
cis-1,2-Dichloroethene	0.3752 0.3124	0.3118 0.3268	0.2893 0.3375	0.3247	0.3263	Ave		0.3255			0.1000	7.6		20.0			
2-Butanone (MEK)	0.1805 0.1692	0.1656 0.1804	0.1533 0.1823	0.1632	0.1743	Ave		0.1711			0.0500	5.9		20.0			
Bromochloromethane	0.1602 0.1300	0.1227 0.1367	0.1187 0.1453	0.1320	0.1397	Ave		0.1357			0.0100	9.7		20.0			
Tetrahydrofuran	0.1465 0.1140	0.1197 0.1221	0.1051 0.1283	0.1156	0.1227	Ave		0.1218			0.0100	10.0		20.0			
Chloroform	0.5305 0.4435	0.4372 0.4691	0.4040 0.4864	0.4580	0.4705	Ave		0.4624			0.2000	8.1		20.0			
1,1,1-Trichloroethane	0.3408 0.3041	0.2781 0.3311	0.2786 0.3337	0.3135	0.3326	Ave		0.3141			0.1000	8.0		20.0			
Cyclohexane	0.7553 0.6547	0.7067 0.7163	0.6518 0.7113	0.7195	0.7234	Ave		0.7049			0.1000	5.0		20.0			
Carbon tetrachloride	0.2188 0.2137	0.1783 0.2421	0.1756 0.2456	0.2093	0.2208	Ave		0.2130			0.1000	12.0		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.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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	0.4190 0.3837	0.3836 0.4120	0.3653 0.4171	0.4094	0.4159	Ave		0.4007			0.0100	5.1		20.0			
Isobutyl alcohol	0.0062 0.0076	0.0051 0.0082	0.0049 0.0094	0.0062	0.0072	Ave		0.0069		*	0.0100	23.0	*	20.0			
Benzene	1.4277 1.1958	1.2285 1.2459	1.1487 1.2779	1.2764	1.3023	Ave		1.2629			0.5000	6.6		20.0			
1,2-Dichloroethane	0.3936 0.3555	0.3377 0.3701	0.3255 0.4002	0.3674	0.3684	Ave		0.3648			0.1000	6.9		20.0			
n-Heptane	0.5428 0.4760	0.4383 0.5130	0.4485 0.5151	0.4948	0.4996	Ave		0.4910			0.0100	7.2		20.0			
Trichloroethene	0.2973 0.2860	0.2875 0.3057	0.2716 0.3157	0.3042	0.3116	Ave		0.2974			0.2000	5.0		20.0			
Methylcyclohexane	0.5952 0.5306	0.5402 0.5732	0.5146 0.5770	0.5673	0.5970	Ave		0.5619			0.1000	5.4		20.0			
1,2-Dichloropropane	0.3666 0.3252	0.3035 0.3418	0.2998 0.3537	0.3291	0.3338	Ave		0.3317			0.1000	6.9		20.0			
Dibromomethane	0.1544 0.1493	0.1379 0.1557	0.1316 0.1667	0.1493	0.1534	Ave		0.1498			0.0100	7.3		20.0			
1,4-Dioxane	0.0032 0.0032	0.0026 0.0030	0.0024 0.0034	0.0029	0.0030	Ave		0.0030		*	0.0100	11.0		20.0			
Bromodichloromethane	0.2516 0.2918	0.2511 0.3052	0.2361 0.3279	0.2772	0.2930	Ave		0.2792			0.2000	11.0		20.0			
cis-1,3-Dichloropropene	0.3080 0.3953	0.3071 0.4172	0.3282 0.4415	0.3733	0.3881	Ave		0.3698			0.2000	14.0		20.0			
4-Methyl-2-pentanone (MIBK)	1.5509 1.4938	1.5302 1.5109	1.3735 1.4677	1.5874	1.5632	Ave		1.5097			0.1000	4.4		20.0			
Toluene	6.2344 4.6779	5.4647 4.8614	4.8117 4.5935	5.3452	5.2977	Ave		5.1608			0.4000	11.0		20.0			
trans-1,3-Dichloropropene	0.9390 1.1640	0.9614 1.2251	0.9301 1.2704	1.0789	1.1369	Ave		1.0882			0.1000	12.0		20.0			
Ethyl methacrylate	1.1441 1.2928	0.9998 1.3638	1.0308 1.3853	1.2627	1.3088	Ave		1.2235			0.0100	12.0		20.0			
1,1,2-Trichloroethane	1.0940 0.8884	0.9633 0.9132	0.8597 0.9115	0.9757	0.9363	Ave		0.9428			0.1000	7.6		20.0			
Tetrachloroethene	1.1157 0.8701	0.9938 0.9281	0.8738 0.8743	0.9857	0.9770	Ave		0.9523			0.2000	8.9		20.0			
1,3-Dichloropropane	1.9802 1.6858	1.8629 1.7187	1.6343 1.6897	1.8293	1.7741	Ave		1.7719			0.0100	6.4		20.0			
2-Hexanone	1.0477 1.0339	1.0431 1.0684	0.9679 1.0449	1.1247	1.1004	Ave		1.0539			0.1000	4.5		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.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.5658 0.6599	0.5280 0.7119	0.5067 0.7217	0.6199	0.6460	Ave		0.6200			0.1000	13.0		20.0			
1,2-Dibromoethane (EDB)	0.9524 0.9044	0.8836 0.9137	0.8153 0.9237	0.9263	0.9441	Ave		0.9079			0.1000	4.8		20.0			
3-Chlorobenzotrifluoride	1.9226 1.4974	1.6501 1.5076	1.5454 1.3370	1.6222	1.5811	Ave		1.5829			0.0100	11.0		20.0			
Chlorobenzene	4.0215 3.0327	3.4837 3.1544	3.0203 3.0023	3.3643	3.3626	Ave		3.3052			0.5000	10.0		20.0			
4-Chlorobenzotrifluoride	1.7532 1.4334	1.5607 1.4283	1.5227 1.2996	1.5809	1.5247	Ave		1.5129			0.0100	8.8		20.0			
1,1,1,2-Tetrachloroethane	0.8054 0.7937	0.6270 0.8576	0.6290 0.8548	0.7520	0.7784	Ave		0.7622			0.0100	12.0		20.0			
Ethylbenzene	2.1162 1.8003	1.9583 1.8639	1.7671 1.7871	1.9934	2.0020	Ave		1.9111			0.1000	6.6		20.0			
m-Xylene & p-Xylene	2.6982 2.2243	2.3435 2.3081	2.1594 2.2145	2.4436	2.4413	Ave		2.3541			0.1000	7.4		20.0			
o-Xylene	2.6404 2.1191	2.3559 2.2160	2.1315 2.1144	2.3759	2.3231	Ave		2.2845			0.3000	7.9		20.0			
Styrene	4.3797 3.4898	3.7333 3.6111	3.4486 3.4638	3.9065	3.8442	Ave		3.7346			0.3000	8.4		20.0			
Bromoform	0.2653 0.3657	0.2684 0.4014	0.2412 0.4171	0.3168	0.3442	Ave		0.3275			0.1000	20.0		20.0			
2-Chlorobenzotrifluoride	1.8187 1.4793	1.6992 1.5053	1.5228 1.3486	1.6018	1.5787	Ave		1.5693			0.0100	9.1		20.0			
Isopropylbenzene	6.6841 5.0501	5.9488 5.3239	5.2815 4.8448	5.9350	5.7977	Ave		5.6082			0.1000	11.0		20.0			
1,1,2,2-Tetrachloroethane	1.2994 1.2807	1.3075 1.3493	1.2094 1.3104	1.3458	1.3524	Ave		1.3069			0.3000	3.6		20.0			
Bromobenzene	1.0162 0.8475	0.8667 0.8518	0.8177 0.8692	0.8652	0.8533	Ave		0.8735			0.0100	6.9		20.0			
1,2,3-Trichloropropane	0.3627 0.2773	0.2931 0.2821	0.2728 0.2922	0.2800	0.2812	Ave		0.2927			0.0100	10.0		20.0			
trans-1,4-Dichloro-2-butene	0.2945 0.2859	0.2754 0.3162	0.2472 0.3267	0.2688	0.2602	Ave		0.2844			0.0100	9.6		20.0			
N-Propylbenzene	1.2166 1.1118	1.1732 1.1670	1.1362 1.1460	1.1729	1.1590	Ave		1.1604			0.0100	2.7		20.0			
2-Chlorotoluene	1.1065 0.9256	0.9581 0.9475	0.8975 0.9360	0.9513	0.9430	Ave		0.9582			0.0100	6.6		20.0			
3-Chlorotoluene	1.1820 0.9566	0.9980 0.9593	0.9643 0.9127	0.9261	0.9364	Ave		0.9794			0.0100	8.8		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.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.6478 3.0305	3.2397 3.1239	3.1299 3.0311	3.2594	3.2246	Ave		3.2109			0.0100	6.2		20.0			
4-Chlorotoluene	1.1560 0.9823	0.9826 1.0361	0.9918 1.0330	1.0376	1.0526	Ave		1.0340			0.0100	5.5		20.0			
tert-Butylbenzene	3.1191 2.5612	2.8481 2.6780	2.7134 2.6395	2.8302	2.7808	Ave		2.7713			0.0100	6.2		20.0			
1,2,4-Trimethylbenzene	3.6951 3.1036	3.3863 3.2221	3.2100 3.1692	3.3631	3.3623	Ave		3.3140			0.0100	5.6		20.0			
3,4-Dichlorobenzotrifluoride	0.7760 0.7222	0.8131 0.7485	0.7548 0.6963	0.7399	0.7344	Ave		0.7482			0.0100	4.7		20.0			
sec-Butylbenzene	4.7250 3.6615	4.1212 3.7973	3.8832 3.6388	4.0747	4.0112	Ave		3.9891			0.0100	8.7		20.0			
1,3-Dichlorobenzene	2.0686 1.6213	1.7447 1.6705	1.6238 1.6741	1.6987	1.7072	Ave		1.7261			0.6000	8.4		20.0			
4-Isopropyltoluene	3.7034 3.0652	3.3375 3.2100	3.1450 3.0900	3.3337	3.2665	Ave		3.2689			0.0100	6.2		20.0			
1,4-Dichlorobenzene	2.0020 1.6465	1.7449 1.6908	1.6438 1.7119	1.7346	1.7242	Ave		1.7373			0.5000	6.5		20.0			
2,4-Dichlorobenzotrifluoride	0.7973 0.6761	0.7429 0.6931	0.7301 0.6448	0.6927	0.7117	Ave		0.7111			0.0100	6.5		20.0			
2,5-Dichlorobenzotrifluoride	0.8019 0.7607	0.8189 0.7865	0.7792 0.7420	0.7522	0.7608	Ave		0.7753			0.0100	3.4		20.0			
n-Butylbenzene	3.2542 2.7311	2.9123 2.8828	2.7781 2.8096	2.9485	2.9341	Ave		2.9063			0.0100	5.5		20.0			
1,2-Dichlorobenzene	1.8289 1.5040	1.5633 1.5462	1.4970 1.5487	1.5655	1.5779	Ave		1.5789			0.4000	6.7		20.0			
1,2-Dibromo-3-Chloropropane	0.0849 0.1157	0.0814 0.1305	0.0843 0.1353	0.0954	0.1047	Ave		0.1040			0.0500	20.0		20.0			
1,2,4-Trichlorobenzene	0.8675 0.7733	0.7499 0.7923	0.7387 0.7989	0.8082	0.7890	Ave		0.7897			0.2000	5.0		20.0			
Hexachlorobutadiene	0.3817 0.3102	0.3469 0.3430	0.3138 0.3383	0.3301	0.3340	Ave		0.3373			0.0100	6.6		20.0			
Naphthalene	2.5167 2.2552	2.2494 2.2646	2.0797 2.3040	2.3468	2.3135	Ave		2.2912			0.0100	5.3		20.0			
1,2,3-Trichlorobenzene	0.7593 0.6559	0.6685 0.6729	0.5998 0.6937	0.6946	0.6725	Ave		0.6771			0.0100	6.6		20.0			
2,4,5-Trichlorotoluene	0.4218 0.3329	0.3284 0.3441	0.3044 0.3502	0.3314	0.3274	Ave		0.3426			0.0100	10.0		20.0			
2,3,6-Trichlorotoluene	0.3897 0.3029	0.3072 0.3055	0.2791 0.3183	0.3175	0.3065	Ave		0.3158			0.0100	10.0		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.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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								
Dibromofluoromethane (Surr)	0.2143 0.2131	0.2130 0.2223	0.2086 0.2061	0.2196	0.2156	Ave		0.2141				2.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2838 0.2624	0.2484 0.2700	0.2554 0.2655	0.2610	0.2699	Ave		0.2646				4.0		20.0			
Toluene-d8 (Surr)	4.5146 3.6171	4.2502 3.7635	3.8828 3.1038	4.0750	3.9724	Ave		3.8974				11.0		20.0			
4-Bromofluorobenzene (Surr)	1.7106 1.3934	1.4785 1.4322	1.3831 1.2832	1.4890	1.4299	Ave		1.4500				8.5		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 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-134613/18	50303018.D
Level 2	IC 180-134613/8	50303008.D
Level 3	ICIS 180-134613/9	50303009.D
Level 4	IC 180-134613/10	50303010.D
Level 5	IC 180-134613/11	50303011.D
Level 6	IC 180-134613/12	50303012.D
Level 7	IC 180-134613/13	50303013.D
Level 8	IC 180-134613/14	50303014.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	11738 392329	61161 459101	120251 555245	186155	248600	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	20422 626420	95934 749194	191737 892689	284435	377346	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	18364 599809	92094 717244	192697 866068	276203	370529	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	25646 656586	107650 795057	214505 961606	311986	418091	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	9174 163842	32814 202557	68450 219710	83485	100603	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	8910 241114	37829 300539	76259 309302	109418	141570	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	18545 529735	86469 702217	199002 722968	252307	320590	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	14651 433936	68228 629405	165171 625870	211640	274680	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	15110 467174	69164 524790	134232 666037	203184	266877	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	33215 76799	49025 88701	55616 95898	66477	73636	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	14445 466370	66672 537938	136777 655372	210842	282447	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	13613 466462	70857 564199	138904 659263	215323	283308	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	27756 338711	52872 359769	100332 482030	145165	186722	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	20517 658969	93450 768602	191906 937612	288929	391404	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	31759 1168823	155959 1429882	333091 1738988	513502	702207	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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	7709 305734	41688 353770	83771 449430	129734	175910	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	68405 2402270	332118 2723193	667992 3392163	1035670	1360573	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	23143 516693	82531 581573	157472 726477	227072	292219	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	8526 407341	47518 473360	88451 611565	166475	219266	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	66409 2376546	338546 2649598	691056 3337128	1012388	1352445	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	14331 496919	72412 564166	145422 714392	213264	288749	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	35247 1269630	174611 1454209	357516 1811989	532783	717429	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	27239 854071	127250 987257	262665 1203451	382955	515034	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	28747 945361	134994 1076133	274871 1328543	412070	542610	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	6783 346138	42316 412211	96814 523307	136421	200290	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9115 354872	47512 436442	100580 530241	152789	206033	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	16372 529478	77048 599342	151771 743970	230462	302735	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	39378 573542	81869 661664	160864 803658	231681	323375	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	6992 220291	30321 250607	62252 320382	93661	129587	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	12789 386544	59174 447707	110296 565784	164028	227621	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	23149 751712	108043 860226	211933 1072109	325101	436474	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	14873 515456	68728 607230	146155 735465	222478	308574	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	32962 1109737	174651 1313560	341881 1567791	510634	671150	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	9550 362211	44069 443952	92122 541326	148555	204809	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	18284 650285	94793 755478	191632 919340	290552	385796	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	6766 324042	31713 374911	64264 519953	110778	166120	125 4375	625 5000	1250 6250	1875	2500

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	62303 2026853	303591 2284771	602514 2816860	905954	1208197	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	17175 602602	83451 678619	170712 882169	260776	341780	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	23686 806729	108328 940701	235230 1135342	351211	463470	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	12976 484743	71046 560499	142439 695890	215876	289114	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25976 899256	133492 1051065	269904 1271791	402645	553839	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	15999 551216	75001 626785	157237 779651	233558	309721	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	6736 252976	34073 285467	69033 367478	105949	142348	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2785 107243	12787 108953	25299 148650	41693	56031	100 3500	500 4000	1000 5000	1500	2000
Bromodichloromethane	FB	Ave	10980 494496	62048 559625	123848 722661	196712	271870	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	13441 670035	75900 764955	172126 973151	264977	360087	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	75647 1293845	171096 1424348	349805 1780762	535170	716953	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	60820 2025808	305509 2291440	612731 2786685	901036	1214867	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	9160 504089	53750 577469	118446 770673	181868	260722	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	11161 559868	55893 642835	131269 840399	212852	300128	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10673 384751	53855 430453	109481 552961	164474	214719	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	10884 376799	55560 437446	111273 530396	166159	224037	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	19318 730064	104148 810109	208110 1025068	308357	406834	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	51105 895448	116636 1007219	246507 1267784	379170	504684	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	5520 285792	29519 335537	64530 437822	104491	148140	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	9291 391652	49397 430697	103819 560401	156151	216491	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	18756 648455	92250 710605	196791 811123	273444	362586	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	39232 1313352	194761 1486822	384609 1821377	567114	771107	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	17103 620760	87255 673239	193901 788386	266494	349632	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	7857 343717	35053 404254	80096 518562	126760	178500	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	20645 779624	109479 878562	225030 1084192	336025	459104	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	26322 963277	131016 1087938	274985 1343425	411920	559842	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	25758 917689	131707 1044535	271432 1282744	400497	532728	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	42726 1511299	208713 1702135	439152 2101328	658511	881546	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	2588 158386	15007 189179	30710 253039	53409	78926	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	17742 640624	94998 709528	193920 818132	270017	362034	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	65207 2186986	332572 2509471	672554 2939157	1000450	1329527	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	12676 554635	73095 635984	154009 794942	226865	310127	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	14051 509283	68608 564181	141042 712137	214072	285408	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	5015 166640	23201 186872	47052 239368	69273	94067	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	4072 171777	21797 209408	42637 267698	66494	87031	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	16822 668080	92868 772940	195976 938881	290195	387657	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	15299 556210	75841 627560	154797 766804	235369	315400	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	16343 574840	78996 635360	166326 747748	229133	313196	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	50437 1821042	256444 2069067	539843 2483271	806423	1078510	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	15984 590273	77780 686264	171070 846300	256729	352063	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	43127 1538995	225443 1773732	468002 2162487	700240	930079	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	51091 1864947	268049 2134132	553643 2596483	832074	1124585	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	10729 433987	64362 495775	130185 570450	183065	245627	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	65330 2200188	326221 2515133	669756 2981190	1008135	1341600	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	28602 974213	138101 1106407	280066 1371526	420272	570988	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	51205 1841892	264184 2126114	542443 2531591	824816	1092513	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	27681 989384	138120 1119886	283523 1402521	429154	576692	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	11024 406260	58806 459072	125921 528265	171372	238033	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	11088 457073	64824 520914	134395 607921	186097	254456	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	44994 1641091	230526 1909418	479164 2301855	729499	981363	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	25288 903766	123743 1024132	258190 1268840	387327	527759	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1174 69537	6441 86409	14541 110818	23597	35031	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	11994 464683	59357 524775	127415 654550	199956	263899	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	5277 186416	27458 227215	54129 277147	81675	111717	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	34798 1355121	178051 1499909	358706 1887643	580632	773789	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	10498 394157	52915 445662	103456 568326	171850	224922	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	5832 200009	25992 227883	52505 286878	81997	109488	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	5388 182005	24319 202347	48130 260759	78544	102526	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9351 361120	52645 407623	109435 454279	155860	199995	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	12383 444667	61392 495199	133978 585333	185233	250369	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	44042 1566428	237614 1773929	494434 1882951	686909	910944	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	16688 603450	82659 675059	176122 778464	251005	327893	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 134613

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

Curve Type Legend:

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2015 14:28:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0005873-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:04 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 03-Mar-2015 15:51:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.314	4.321	-0.007	94	160393	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.277	7.278	-0.001	98	494254	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.368	-0.001	96	111812	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.691	12.686	0.005	96	158312	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.535	-0.007	84	52645	25.0	24.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.899	6.907	-0.007	95	61392	25.0	23.5	
$ 7 Toluene-d8 (Surr)	98	8.931	8.926	0.005	94	237614	25.0	27.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.535	11.536	-0.001	88	82659	25.0	25.5	
11 Dichlorodifluoromethane	85	1.625	1.626	-0.001	98	61161	25.0	24.6	
12 Chloromethane	50	1.777	1.772	0.005	99	95934	25.0	24.2	
13 Vinyl chloride	62	1.899	1.906	-0.007	98	92094	25.0	24.1	
14 Butadiene	39	1.941	1.948	-0.007	97	107650	25.0	24.3	
15 Bromomethane	94	2.252	2.253	-0.001	92	32814	25.0	26.3	
16 Chloroethane	64	2.379	2.386	-0.007	97	37829	25.0	24.4	
17 Dichlorofluoromethane	67	2.653	2.654	-0.001	97	86469	25.0	24.3	
18 Trichlorofluoromethane	101	2.720	2.709	0.011	95	68228	25.0	23.0	
20 Ethyl ether	59	3.085	3.098	-0.013	94	69164	25.0	24.1	
21 Acrolein	56	3.261	3.263	-0.001	98	49025	125.0	129.5	
22 1,1-Dichloroethene	96	3.371	3.384	-0.013	96	66672	25.0	23.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.427	-0.007	94	70857	25.0	24.4	
24 Acetone	43	3.493	3.500	-0.007	98	52872	50.0	50.9	
25 Iodomethane	142	3.584	3.585	-0.001	98	93450	25.0	23.1	
26 Carbon disulfide	76	3.663	3.664	-0.001	99	155959	25.0	22.0	
28 3-Chloro-1-propene	76	3.943	3.950	-0.007	90	41688	25.0	23.2	
30 Methyl acetate	43	4.022	4.023	-0.001	99	332118	125.0	116.3	
31 Methylene Chloride	84	4.150	4.151	-0.001	99	82531	25.0	23.9	
32 2-Methyl-2-propanol	59	4.454	4.437	0.017	96	47518	250.0	247.2	
33 Acrylonitrile	53	4.557	4.558	-0.001	98	338546	250.0	239.2	
34 trans-1,2-Dichloroethene	96	4.569	4.577	-0.008	56	72412	25.0	24.1	
35 Methyl tert-butyl ether	73	4.600	4.601	-0.001	98	174611	25.0	23.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.990	-0.001	96	127250	25.0	23.8	
37 1,1-Dichloroethane	63	5.178	5.179	-0.001	96	134994	25.0	23.5	
38 Vinyl acetate	43	5.299	5.307	-0.008	96	42316	25.0	21.6	
44 2,2-Dichloropropane	77	5.926	5.933	-0.007	77	47512	25.0	22.4	
45 cis-1,2-Dichloroethene	96	5.938	5.939	-0.001	83	77048	25.0	23.9	
46 2-Butanone (MEK)	43	5.993	5.994	-0.001	99	81869	50.0	48.4	
49 Chlorobromomethane	128	6.230	6.231	-0.001	92	30321	25.0	22.6	
51 Tetrahydrofuran	42	6.297	6.298	-0.001	95	59174	50.0	49.2	
52 Chloroform	83	6.340	6.347	-0.007	97	108043	25.0	23.6	
53 1,1,1-Trichloroethane	97	6.534	6.541	-0.007	96	68728	25.0	22.1	
54 Cyclohexane	56	6.589	6.596	-0.007	92	174651	25.0	25.1	
56 Carbon tetrachloride	117	6.723	6.724	-0.001	58	44069	25.0	20.9	
55 1,1-Dichloropropene	75	6.729	6.730	-0.001	92	94793	25.0	23.9	
57 Isobutyl alcohol	41	6.954	6.955	-0.001	36	31713	625.0	467.5	
58 Benzene	78	6.960	6.961	-0.001	98	303591	25.0	24.3	
59 1,2-Dichloroethane	62	6.991	6.992	-0.001	95	83451	25.0	23.1	
62 n-Heptane	43	7.283	7.284	-0.001	96	108328	25.0	22.3	
64 Trichloroethene	130	7.672	7.673	-0.001	97	71046	25.0	24.2	
66 Methylcyclohexane	83	7.867	7.868	-0.001	94	133492	25.0	24.0	
67 1,2-Dichloropropane	63	7.909	7.910	-0.001	91	75001	25.0	22.9	
68 Dibromomethane	93	8.025	8.026	-0.001	95	34073	25.0	23.0	
70 1,4-Dioxane	88	8.067	8.056	0.011	89	12787	500.0	437.5	M
71 Dichlorobromomethane	83	8.201	8.202	-0.001	97	62048	25.0	22.5	
74 cis-1,3-Dichloropropene	75	8.664	8.665	-0.001	91	75900	25.0	20.8	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.829	-0.001	98	171096	50.0	50.7	
76 Toluene	91	8.992	8.993	-0.001	97	305509	25.0	26.5	
77 trans-1,3-Dichloropropene	75	9.223	9.224	-0.001	99	53750	25.0	22.1	
78 Ethyl methacrylate	69	9.321	9.322	-0.001	93	55893	25.0	20.4	
79 1,1,2-Trichloroethane	97	9.400	9.407	-0.007	91	53855	25.0	25.5	
80 Tetrachloroethene	164	9.540	9.541	-0.001	96	55560	25.0	26.1	
81 1,3-Dichloropropane	76	9.570	9.571	-0.001	98	104148	25.0	26.3	
82 2-Hexanone	43	9.661	9.662	-0.001	99	116636	50.0	49.5	
84 Chlorodibromomethane	129	9.795	9.796	-0.001	89	29519	25.0	21.3	
85 Ethylene Dibromide	107	9.905	9.906	-0.001	96	49397	25.0	24.3	
86 3-Chlorobenzotrifluoride	180	10.379	10.374	0.005	94	92250	25.0	26.1	
87 Chlorobenzene	112	10.397	10.398	-0.001	95	194761	25.0	26.4	
88 4-Chlorobenzotrifluoride	180	10.434	10.435	-0.001	94	87255	25.0	25.8	
89 1,1,1,2-Tetrachloroethane	131	10.483	10.477	0.006	86	35053	25.0	20.6	
90 Ethylbenzene	106	10.507	10.508	-0.001	98	109479	25.0	25.6	
91 m-Xylene & p-Xylene	106	10.622	10.624	-0.002	99	131016	25.0	24.9	
92 o-Xylene	106	11.018	11.013	0.005	96	131707	25.0	25.8	
93 Styrene	104	11.030	11.031	-0.001	95	208713	25.0	25.0	
94 Bromoform	173	11.219	11.214	0.005	96	15007	25.0	20.5	
96 2-Chlorobenzotrifluoride	180	11.279	11.274	0.005	97	94998	25.0	27.1	
97 Isopropylbenzene	105	11.383	11.384	-0.001	96	332572	25.0	26.5	
99 1,1,2,2-Tetrachloroethane	83	11.681	11.676	0.005	95	73095	25.0	25.0	
100 Bromobenzene	156	11.693	11.682	0.011	97	68608	25.0	24.8	
101 1,2,3-Trichloropropane	110	11.730	11.725	0.005	87	23201	25.0	25.0	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.737	-0.007	68	21797	25.0	24.2	
103 N-Propylbenzene	120	11.790	11.792	-0.002	99	92868	25.0	25.3	
104 2-Chlorotoluene	126	11.876	11.883	-0.007	96	75841	25.0	25.0	
105 3-Chlorotoluene	126	11.936	11.938	-0.002	95	78996	25.0	25.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.967	11.968	-0.001	95	256444	25.0	25.2	
107 4-Chlorotoluene	126	11.991	11.986	0.005	97	77780	25.0	23.8	
108 tert-Butylbenzene	119	12.289	12.290	-0.001	93	225443	25.0	25.7	
110 1,2,4-Trimethylbenzene	105	12.344	12.339	0.005	95	268049	25.0	25.5	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.406	-0.001	97	64362	25.0	27.2	
112 sec-Butylbenzene	105	12.514	12.509	0.005	94	326221	25.0	25.8	
113 1,3-Dichlorobenzene	146	12.624	12.625	-0.001	97	138101	25.0	25.3	
114 4-Isopropyltoluene	119	12.654	12.655	-0.001	97	264184	25.0	25.5	
115 1,4-Dichlorobenzene	146	12.715	12.710	0.005	95	138120	25.0	25.1	
116 2,4-Dichloro-1-(triflourom	214	12.764	12.765	-0.001	96	58806	25.0	26.1	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.807	0.005	97	64824	25.0	26.4	
120 n-Butylbenzene	91	13.068	13.069	-0.001	98	230526	25.0	25.1	
121 1,2-Dichlorobenzene	146	13.086	13.087	-0.001	95	123743	25.0	24.8	
122 1,2-Dibromo-3-Chloropropan	75	13.865	13.866	-0.001	63	6441	25.0	19.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.006	-0.001	98	259963	75.0	76.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.431	14.432	-0.001	99	168108	50.0	49.8	
126 1,2,4-Trichlorobenzene	180	14.698	14.693	0.005	94	59357	25.0	23.7	
127 Hexachlorobutadiene	225	14.869	14.870	-0.001	96	27458	25.0	25.7	
128 Naphthalene	128	14.948	14.943	0.005	97	178051	25.0	24.5	
129 1,2,3-Trichlorobenzene	180	15.191	15.186	0.005	95	52915	25.0	24.7	
131 2,4,5-Trichlorotoluene	159	15.970	15.971	-0.001	97	25992	25.0	24.0	
130 2,3,6-Trichlorotoluene	159	16.067	16.068	-0.001	97	24319	25.0	24.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		50.0	50.7	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.0	
S 135 1,3-Dichloropropene, Total	1				0		50.0	42.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	5.00	Units: uL	
VOA8260SURR_00031	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	1.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	1.00	Units: uL	
VOAVAPRI_00003	Amount Added:	1.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	1.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

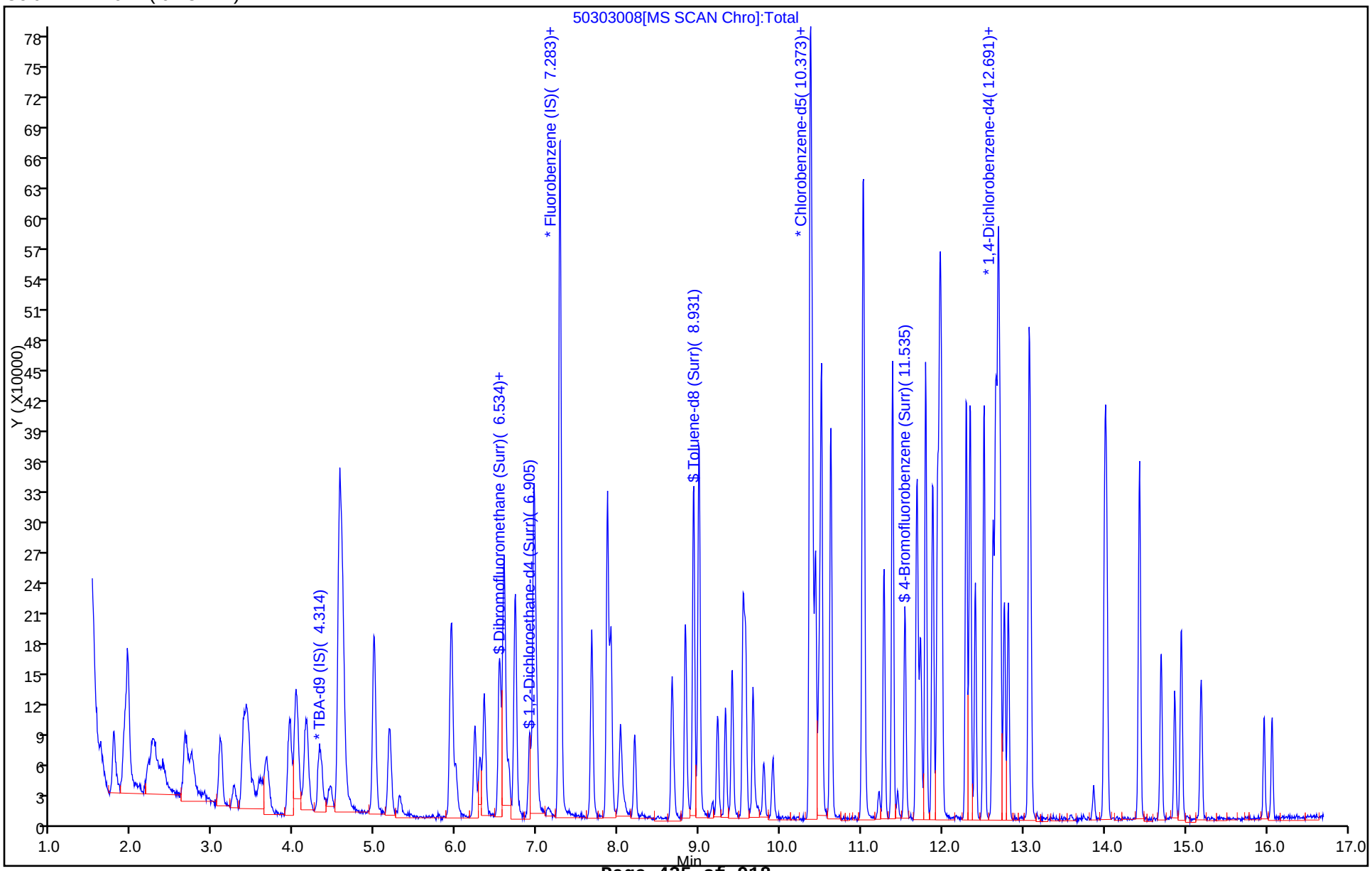
Report Date: 04-Mar-2015 10:13:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D

Injection Date:	03-Mar-2015 14:28:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

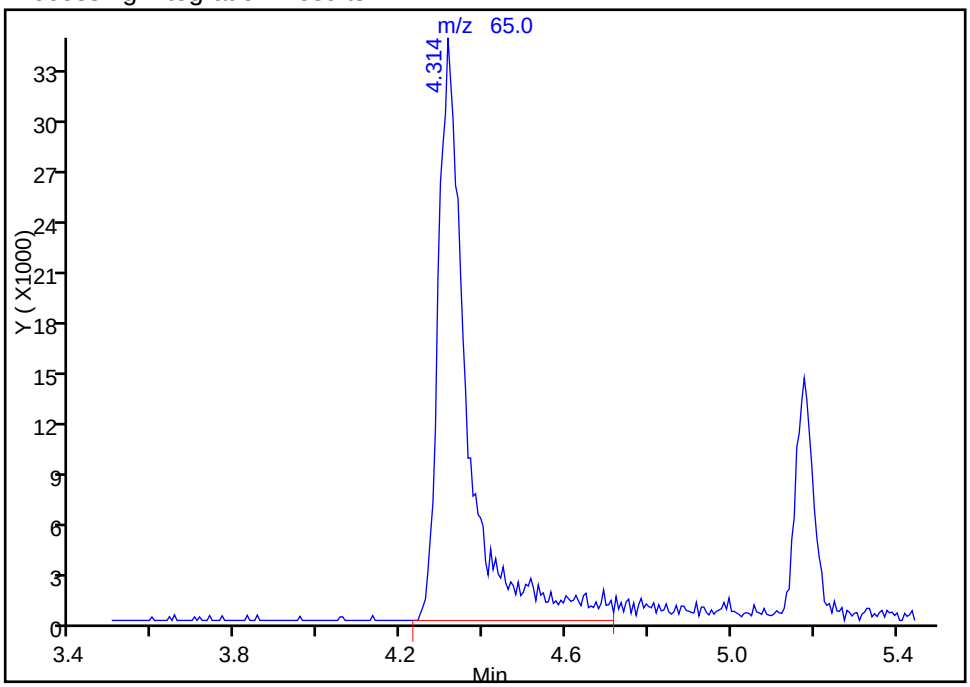
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D				
Injection Date:	03-Mar-2015 14:28:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

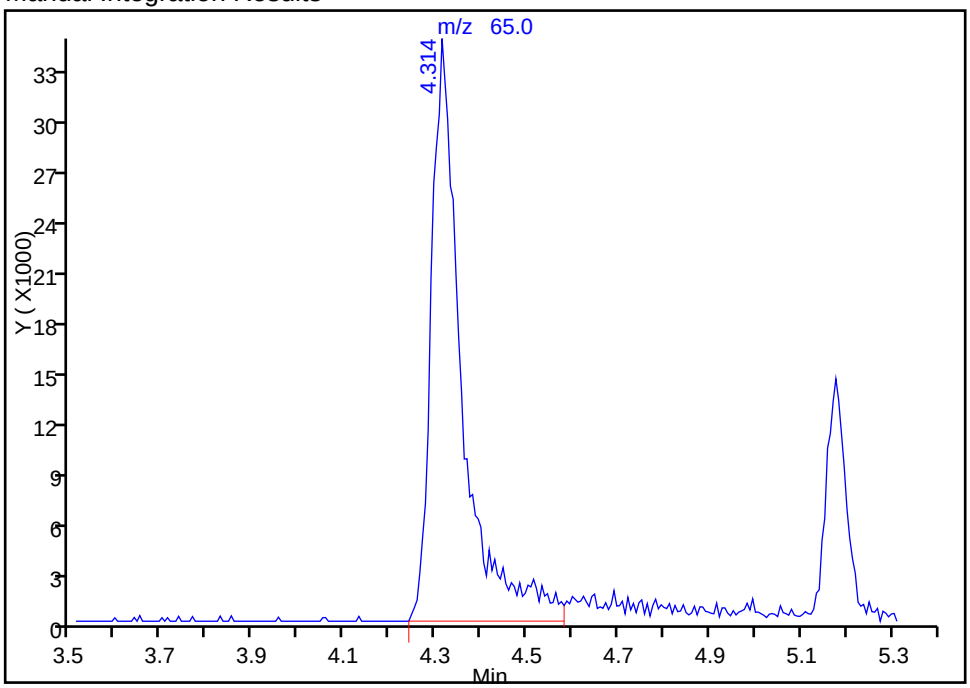
Processing Integration Results

RT: 4.31
Area: 169293
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.31
Area: 160393
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:28:28
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

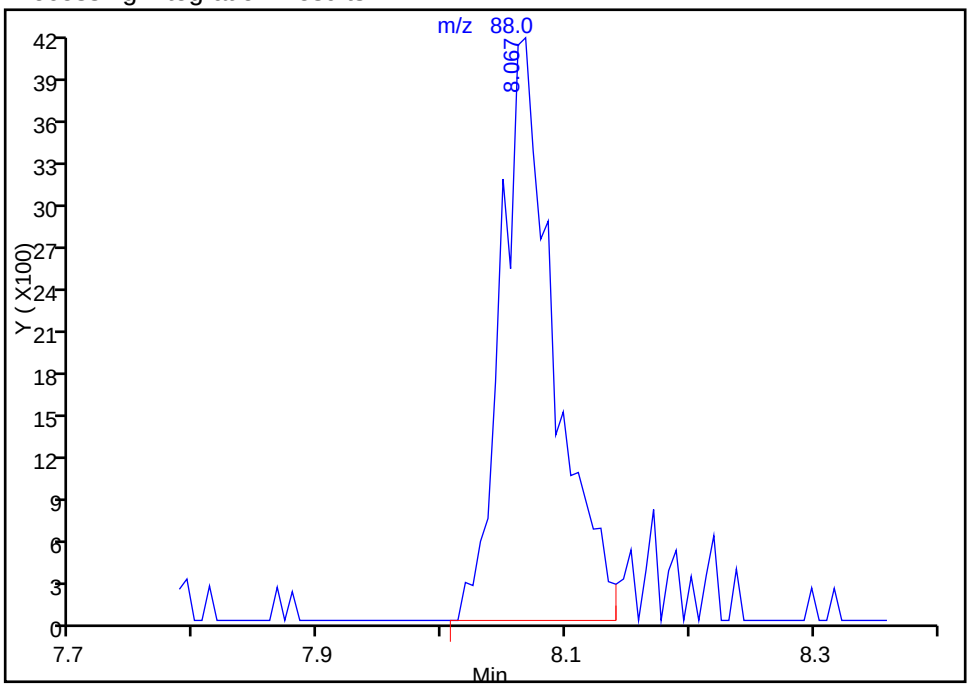
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D
Injection Date: 03-Mar-2015 14:28:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

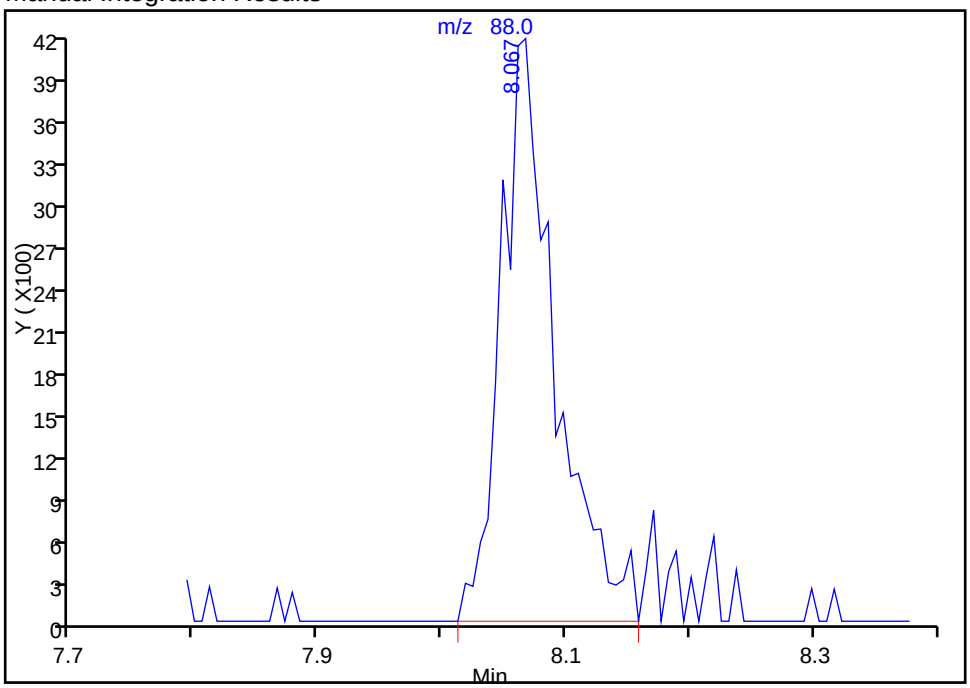
Processing Integration Results

RT: 8.07
Area: 12493
Amount: 432.4578
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 12787
Amount: 437.5160
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:20:09
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 03-Mar-2015 14:52:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0005873-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:28:23 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 10:28:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.321	0.000	75	164184	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.278	7.278	0.000	95	524529	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	94	127341	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.686	0.000	92	172477	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	49	109435	50.0	48.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.907	0.000	67	133978	50.0	48.3	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	80	494434	50.0	49.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	89	176122	50.0	47.7	
11 Dichlorodifluoromethane	85	1.626	1.626	0.000	97	120251	50.0	45.6	
12 Chloromethane	50	1.772	1.772	0.000	87	191737	50.0	45.5	
13 Vinyl chloride	62	1.906	1.906	0.000	83	192697	50.0	47.6	
14 Butadiene	39	1.948	1.948	0.000	97	214505	50.0	45.7	
15 Bromomethane	94	2.253	2.253	0.000	89	68450	50.0	56.6	
16 Chloroethane	64	2.386	2.386	0.000	93	76259	50.0	46.3	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	96	199002	50.0	52.7	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	81	165171	50.0	52.4	
20 Ethyl ether	59	3.098	3.098	0.000	86	134232	50.0	44.1	
21 Acrolein	56	3.263	3.263	0.000	88	55616	150.0	138.4	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	98	136777	50.0	44.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.427	0.000	93	138904	50.0	45.0	
24 Acetone	43	3.500	3.500	0.000	96	100332	100.0	91.1	
25 Iodomethane	142	3.585	3.585	0.000	94	191906	50.0	44.7	
26 Carbon disulfide	76	3.664	3.664	0.000	99	333091	50.0	44.3	
28 3-Chloro-1-propene	76	3.950	3.950	0.000	88	83771	50.0	43.9	
30 Methyl acetate	43	4.023	4.023	0.000	99	667992	250.0	220.5	
31 Methylene Chloride	84	4.151	4.151	0.000	92	157472	50.0	46.0	
32 2-Methyl-2-propanol	59	4.437	4.437	0.000	71	88451	500.0	449.6	
33 Acrylonitrile	53	4.558	4.558	0.000	100	691056	500.0	460.1	
34 trans-1,2-Dichloroethene	96	4.577	4.577	0.000	59	145422	50.0	45.5	
35 Methyl tert-butyl ether	73	4.601	4.601	0.000	92	357516	50.0	44.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	262665	50.0	46.3	
37 1,1-Dichloroethane	63	5.179	5.179	0.000	85	274871	50.0	45.2	
38 Vinyl acetate	43	5.307	5.307	0.000	96	96814	50.0	46.6	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	63	100580	50.0	44.6	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	71	151771	50.0	44.4	
46 2-Butanone (MEK)	43	5.994	5.994	0.000	93	160864	100.0	89.6	
49 Chlorobromomethane	128	6.231	6.231	0.000	87	62252	50.0	43.7	
51 Tetrahydrofuran	42	6.298	6.298	0.000	92	110296	100.0	86.4	
52 Chloroform	83	6.347	6.347	0.000	84	211933	50.0	43.7	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	89	146155	50.0	44.4	
54 Cyclohexane	56	6.596	6.596	0.000	94	341881	50.0	46.2	
56 Carbon tetrachloride	117	6.724	6.724	0.000	61	92122	50.0	41.2	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	90	191632	50.0	45.6	
57 Isobutyl alcohol	41	6.955	6.955	0.000	39	64264	1250.0	892.6	
58 Benzene	78	6.961	6.961	0.000	97	602514	50.0	45.5	
59 1,2-Dichloroethane	62	6.992	6.992	0.000	87	170712	50.0	44.6	
62 n-Heptane	43	7.284	7.284	0.000	71	235230	50.0	45.7	
64 Trichloroethene	130	7.673	7.673	0.000	93	142439	50.0	45.6	
66 Methylcyclohexane	83	7.868	7.868	0.000	92	269904	50.0	45.8	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	90	157237	50.0	45.2	
68 Dibromomethane	93	8.026	8.026	0.000	91	69033	50.0	43.9	
70 1,4-Dioxane	88	8.056	8.056	0.000	94	25299	1000.0	815.7	M
71 Dichlorobromomethane	83	8.202	8.202	0.000	90	123848	50.0	42.3	
74 cis-1,3-Dichloropropene	75	8.665	8.665	0.000	90	172126	50.0	44.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	96	349805	100.0	91.0	
76 Toluene	91	8.993	8.993	0.000	91	612731	50.0	46.6	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	82	118446	50.0	42.7	
78 Ethyl methacrylate	69	9.322	9.322	0.000	94	131269	50.0	42.1	
79 1,1,2-Trichloroethane	97	9.407	9.407	0.000	85	109481	50.0	45.6	
80 Tetrachloroethene	164	9.541	9.541	0.000	97	111273	50.0	45.9	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	95	208110	50.0	46.1	
82 2-Hexanone	43	9.662	9.662	0.000	98	246507	100.0	91.8	
84 Chlorodibromomethane	129	9.796	9.796	0.000	88	64530	50.0	40.9	
85 Ethylene Dibromide	107	9.906	9.906	0.000	99	103819	50.0	44.9	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	74	196791	50.0	48.8	
87 Chlorobenzene	112	10.398	10.398	0.000	90	384609	50.0	45.7	
88 4-Chlorobenzotrifluoride	180	10.435	10.435	0.000	78	193901	50.0	50.3	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	79	80096	50.0	41.3	
90 Ethylbenzene	106	10.508	10.508	0.000	98	225030	50.0	46.2	
91 m-Xylene & p-Xylene	106	10.624	10.624	0.000	99	274985	50.0	45.9	
92 o-Xylene	106	11.013	11.013	0.000	92	271432	50.0	46.7	
93 Styrene	104	11.031	11.031	0.000	91	439152	50.0	46.2	
94 Bromoform	173	11.214	11.214	0.000	69	30710	50.0	36.8	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	95	193920	50.0	48.5	
97 Isopropylbenzene	105	11.384	11.384	0.000	96	672554	50.0	47.1	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.676	0.000	76	154009	50.0	46.3	
100 Bromobenzene	156	11.682	11.682	0.000	94	141042	50.0	46.8	
101 1,2,3-Trichloropropane	110	11.725	11.725	0.000	57	47052	50.0	46.6	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.737	0.000	60	42637	50.0	43.5	
103 N-Propylbenzene	120	11.792	11.792	0.000	93	195976	50.0	49.0	
104 2-Chlorotoluene	126	11.883	11.883	0.000	96	154797	50.0	46.8	
105 3-Chlorotoluene	126	11.938	11.938	0.000	55	166326	50.0	49.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	94	539843	50.0	48.7	
107 4-Chlorotoluene	126	11.986	11.986	0.000	98	171070	50.0	48.0	
108 tert-Butylbenzene	119	12.290	12.290	0.000	63	468002	50.0	49.0	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	98	553643	50.0	48.4	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	96	130185	50.0	50.4	
112 sec-Butylbenzene	105	12.509	12.509	0.000	94	669756	50.0	48.7	
113 1,3-Dichlorobenzene	146	12.625	12.625	0.000	82	280066	50.0	47.0	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	91	542443	50.0	48.1	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	92	283523	50.0	47.3	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.765	0.000	89	125921	50.0	51.3	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	97	134395	50.0	50.3	
120 n-Butylbenzene	91	13.069	13.069	0.000	95	479164	50.0	47.8	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	94	258190	50.0	47.4	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	51	14541	50.0	40.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.006	0.000	96	553886	150.0	148.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.432	0.000	98	360944	100.0	98.1	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	91	127415	50.0	46.8	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	90	54129	50.0	46.5	
128 Naphthalene	128	14.943	14.943	0.000	97	358706	50.0	45.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.186	0.000	95	103456	50.0	44.3	
131 2,4,5-Trichlorotoluene	159	15.971	15.971	0.000	93	52505	50.0	44.4	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	94	48130	50.0	44.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	92.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	87.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	6.00	Units: uL	
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL	
VOAVAPRI_00003	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

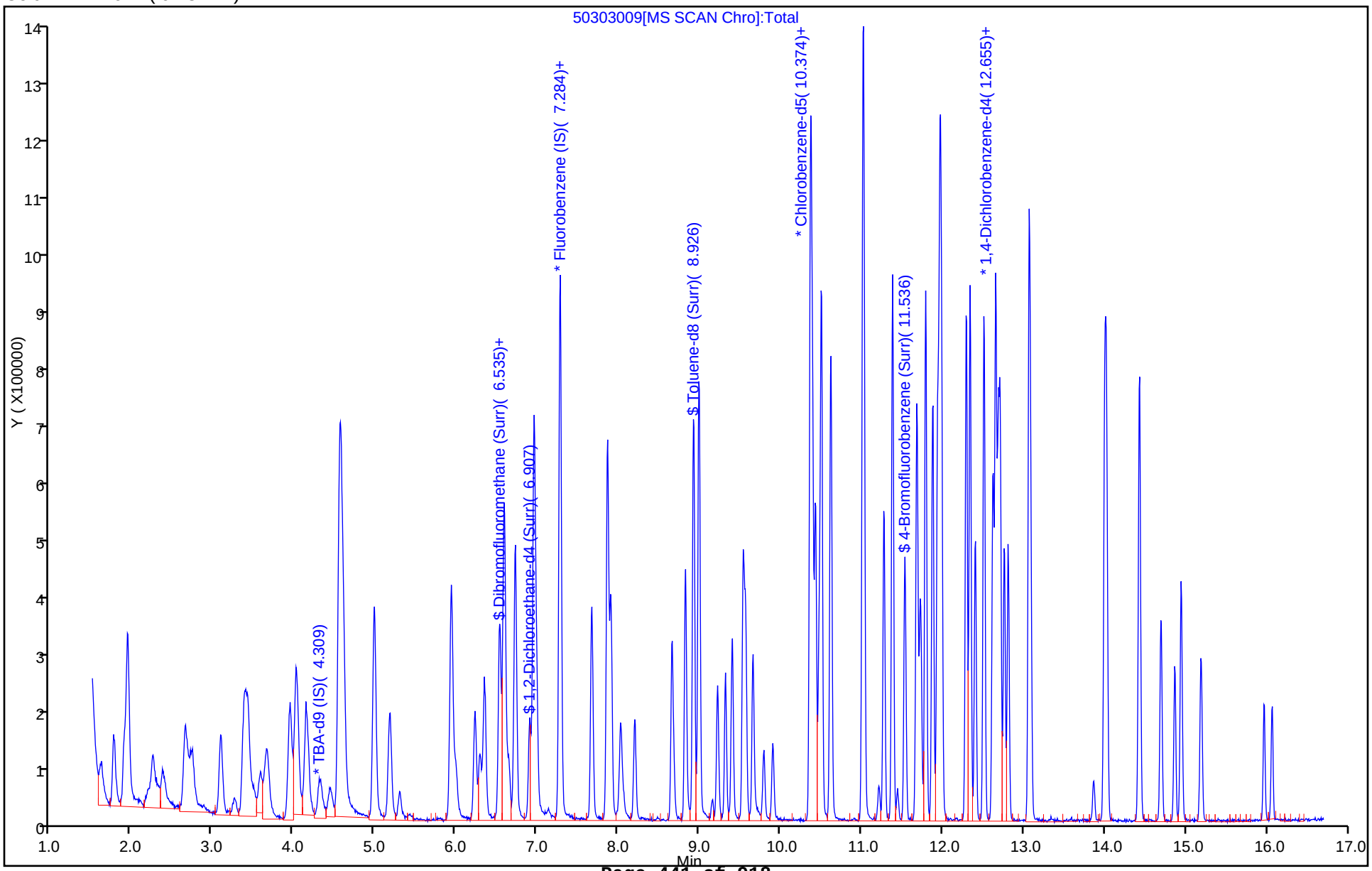
Report Date: 04-Mar-2015 10:28:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D

Injection Date:	03-Mar-2015 14:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

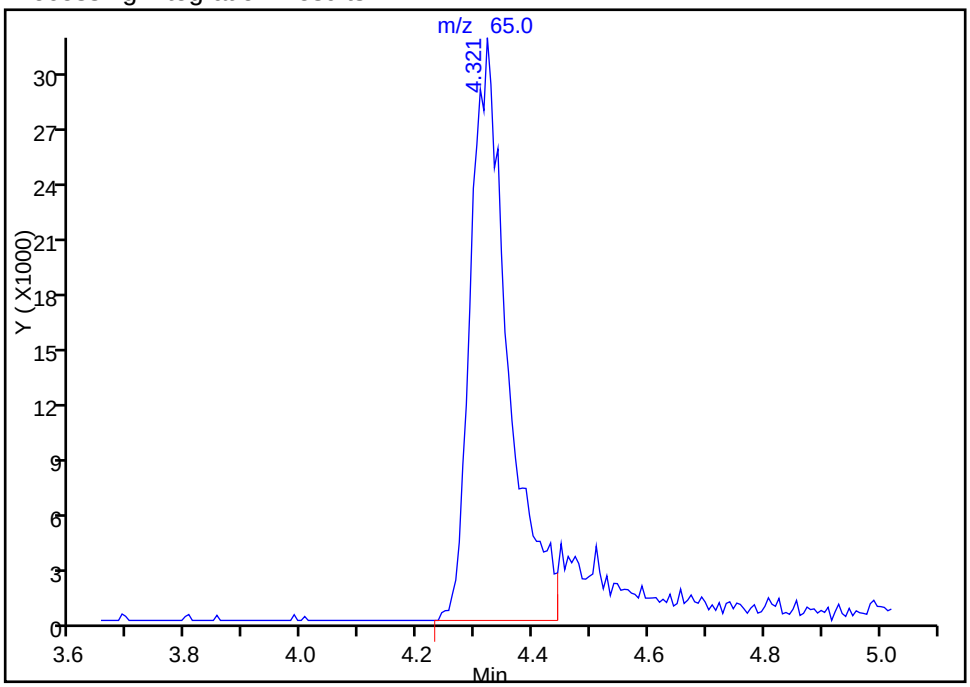
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D
Injection Date: 03-Mar-2015 14:52:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

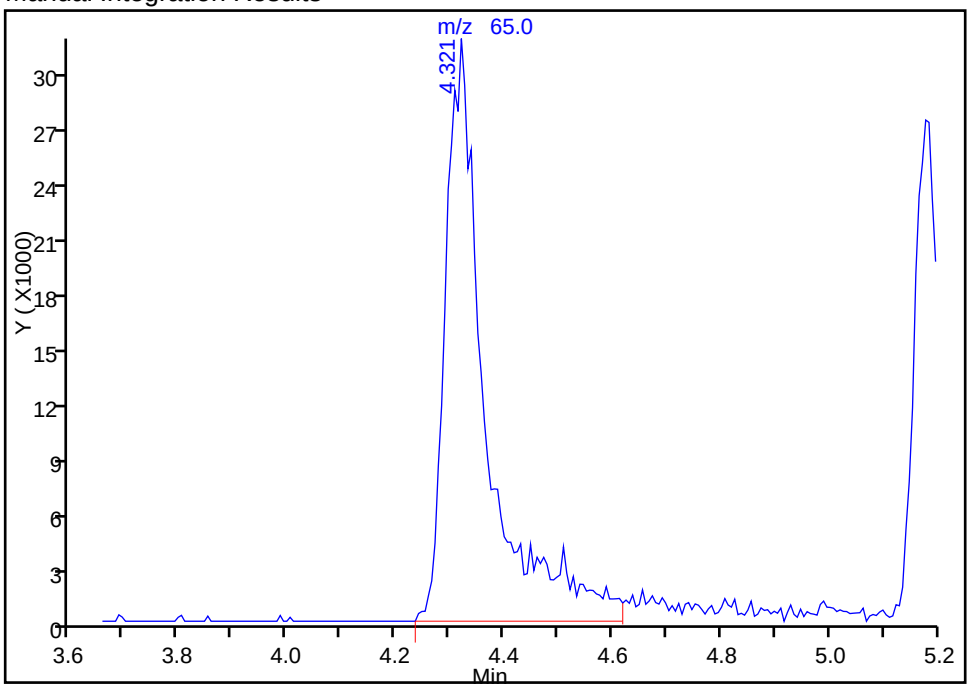
Processing Integration Results

RT: 4.32
Area: 141522
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 164184
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:28:59
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

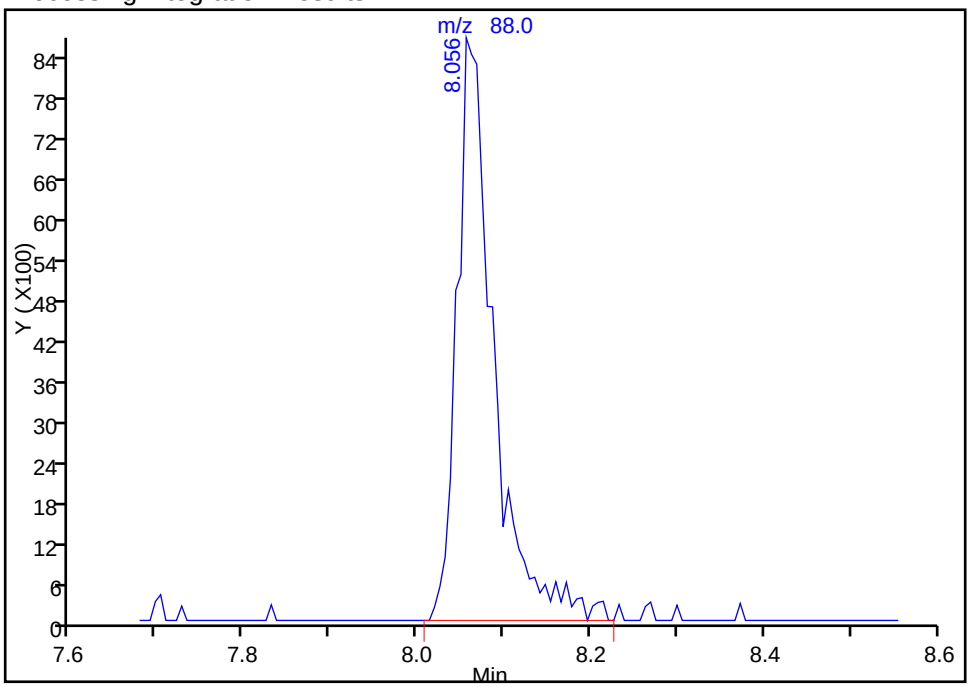
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D
Injection Date: 03-Mar-2015 14:52:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

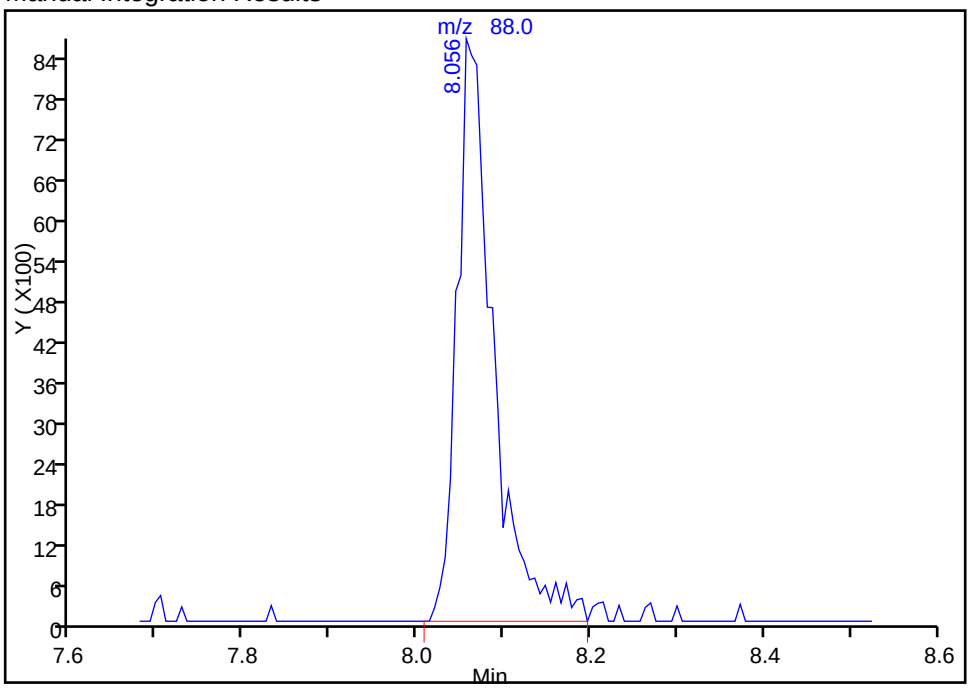
Processing Integration Results

RT: 8.06
Area: 25579
Amount: 832.2190
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 25299
Amount: 815.6604
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:25:43
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303010.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2015 15:16:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0005873-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:08 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:26:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.321	0.000	94	173343	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	96	473168	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	95	112379	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	95	164943	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	79	155860	75.0	76.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.912	6.912	0.000	96	185233	75.0	74.0	
$ 7 Toluene-d8 (Surr)	98	8.932	8.932	0.000	94	686909	75.0	78.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	86	251005	75.0	77.0	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	98	186155	75.0	78.3	
12 Chloromethane	50	1.778	1.778	0.000	99	284435	75.0	74.9	
13 Vinyl chloride	62	1.912	1.912	0.000	98	276203	75.0	75.6	
14 Butadiene	39	1.948	1.948	0.000	98	311986	75.0	73.7	
15 Bromomethane	94	2.258	2.258	0.000	89	83485	75.0	78.2	
16 Chloroethane	64	2.380	2.380	0.000	97	109418	75.0	73.7	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	97	252307	75.0	74.1	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	97	211640	75.0	74.4	
20 Ethyl ether	59	3.092	3.092	0.000	100	203184	75.0	74.0	
21 Acrolein	56	3.274	3.274	0.000	100	66477	175.0	183.4	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	100	210842	75.0	76.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	100	215323	75.0	77.3	
24 Acetone	43	3.505	3.505	0.000	100	145165	150.0	146.1	
25 Iodomethane	142	3.585	3.585	0.000	100	288929	75.0	74.5	
26 Carbon disulfide	76	3.664	3.664	0.000	100	513502	75.0	75.7	
28 3-Chloro-1-propene	76	3.956	3.956	0.000	100	129734	75.0	75.4	
30 Methyl acetate	43	4.029	4.029	0.000	100	1035670	375.0	378.9	
31 Methylene Chloride	84	4.150	4.150	0.000	100	227072	75.0	75.7	
32 2-Methyl-2-propanol	59	4.454	4.454	0.000	100	166475	750.0	801.4	
33 Acrylonitrile	53	4.564	4.564	0.000	100	1012388	750.0	747.2	
34 trans-1,2-Dichloroethene	96	4.576	4.576	0.000	100	213264	75.0	74.0	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	100	532783	75.0	74.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	100	382955	75.0	74.9	
37 1,1-Dichloroethane	63	5.178	5.178	0.000	100	412070	75.0	75.0	
38 Vinyl acetate	43	5.306	5.306	0.000	100	136421	75.0	72.7	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	100	152789	75.0	75.2	
45 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	100	230462	75.0	74.8	
46 2-Butanone (MEK)	43	6.000	6.000	0.000	100	231681	150.0	143.1	
49 Chlorobromomethane	128	6.237	6.237	0.000	100	93661	75.0	73.0	
51 Tetrahydrofuran	42	6.292	6.292	0.000	100	164028	150.0	142.4	
52 Chloroform	83	6.346	6.346	0.000	100	325101	75.0	74.3	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	100	222478	75.0	74.9	
54 Cyclohexane	56	6.590	6.590	0.000	100	510634	75.0	76.6	
56 Carbon tetrachloride	117	6.724	6.724	0.000	100	148555	75.0	73.7	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	100	290552	75.0	76.6	
57 Isobutyl alcohol	41	6.949	6.949	0.000	100	110778	1875.0	1705.7	
58 Benzene	78	6.967	6.967	0.000	100	905954	75.0	75.8	
59 1,2-Dichloroethane	62	6.991	6.991	0.000	100	260776	75.0	75.5	
62 n-Heptane	43	7.283	7.283	0.000	100	351211	75.0	75.6	
64 Trichloroethene	130	7.673	7.673	0.000	100	215876	75.0	76.7	
66 Methylcyclohexane	83	7.867	7.867	0.000	100	402645	75.0	75.7	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	100	233558	75.0	74.4	
68 Dibromomethane	93	8.025	8.025	0.000	100	105949	75.0	74.8	
70 1,4-Dioxane	88	8.068	8.068	0.000	100	41693	1500.0	1490.1	
71 Dichlorobromomethane	83	8.202	8.202	0.000	100	196712	75.0	74.4	
74 cis-1,3-Dichloropropene	75	8.664	8.664	0.000	100	264977	75.0	75.7	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	100	535170	150.0	157.7	
76 Toluene	91	8.999	8.999	0.000	100	901036	75.0	77.7	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	100	181868	75.0	74.4	
78 Ethyl methacrylate	69	9.321	9.321	0.000	100	212852	75.0	77.4	
79 1,1,2-Trichloroethane	97	9.406	9.406	0.000	100	164474	75.0	77.6	
80 Tetrachloroethene	164	9.540	9.540	0.000	100	166159	75.0	77.6	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	100	308357	75.0	77.4	
82 2-Hexanone	43	9.662	9.662	0.000	100	379170	150.0	160.1	
84 Chlorodibromomethane	129	9.796	9.796	0.000	100	104491	75.0	75.0	
85 Ethylene Dibromide	107	9.905	9.905	0.000	100	156151	75.0	76.5	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	100	273444	75.0	76.9	
87 Chlorobenzene	112	10.398	10.398	0.000	100	567114	75.0	76.3	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	100	266494	75.0	78.4	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	100	126760	75.0	74.0	
90 Ethylbenzene	106	10.508	10.508	0.000	100	336025	75.0	78.2	
91 m-Xylene & p-Xylene	106	10.623	10.623	0.000	100	411920	75.0	77.9	
92 o-Xylene	106	11.019	11.019	0.000	100	400497	75.0	78.0	
93 Styrene	104	11.031	11.031	0.000	100	658511	75.0	78.5	
94 Bromoform	173	11.213	11.213	0.000	100	53409	75.0	72.6	
96 2-Chlorobenzotrifluoride	180	11.280	11.280	0.000	100	270017	75.0	76.6	
97 Isopropylbenzene	105	11.384	11.384	0.000	100	1000450	75.0	79.4	
99 1,1,2,2-Tetrachloroethane	83	11.682	11.682	0.000	100	226865	75.0	77.2	
100 Bromobenzene	156	11.688	11.688	0.000	100	214072	75.0	74.3	
101 1,2,3-Trichloropropane	110	11.724	11.724	0.000	100	69273	75.0	71.7	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	100	66494	75.0	70.9	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	290195	75.0	75.8	
104 2-Chlorotoluene	126	11.882	11.882	0.000	100	235369	75.0	74.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	100	229133	75.0	70.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	100	806423	75.0	76.1	
107 4-Chlorotoluene	126	11.986	11.986	0.000	100	256729	75.0	75.3	
108 tert-Butylbenzene	119	12.296	12.296	0.000	100	700240	75.0	76.6	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	100	832074	75.0	76.1	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	100	183065	75.0	74.2	
112 sec-Butylbenzene	105	12.515	12.515	0.000	100	1008135	75.0	76.6	
113 1,3-Dichlorobenzene	146	12.625	12.625	0.000	100	420272	75.0	73.8	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	824816	75.0	76.5	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	100	429154	75.0	74.9	
116 2,4-Dichloro-1-(triflourom	214	12.764	12.764	0.000	100	171372	75.0	73.1	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.813	0.000	100	186097	75.0	72.8	
120 n-Butylbenzene	91	13.069	13.069	0.000	100	729499	75.0	76.1	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	100	387327	75.0	74.4	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	100	23597	75.0	68.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.012	14.012	0.000	100	813805	225.0	228.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.431	14.431	0.000	100	529936	150.0	150.7	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	100	199956	75.0	76.8	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	100	81675	75.0	73.4	
128 Naphthalene	128	14.942	14.942	0.000	100	580632	75.0	76.8	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	100	171850	75.0	76.9	
131 2,4,5-Trichlorotoluene	159	15.970	15.970	0.000	100	81997	75.0	72.6	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	100	78544	75.0	75.4	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		150.0	155.9	
S 134 1,2-Dichloroethene, Total	96				0		150.0	148.8	
S 135 1,3-Dichloropropene, Total	1				0		150.0	150.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWKetpri Re_00003	Amount Added:	3.00	Units: uL	
VOA8260SURR_00031	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	3.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	3.00	Units: uL	
VOAVAPRI_00003	Amount Added:	3.00	Units: uL	
VOAACRPRI_00003	Amount Added:	7.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

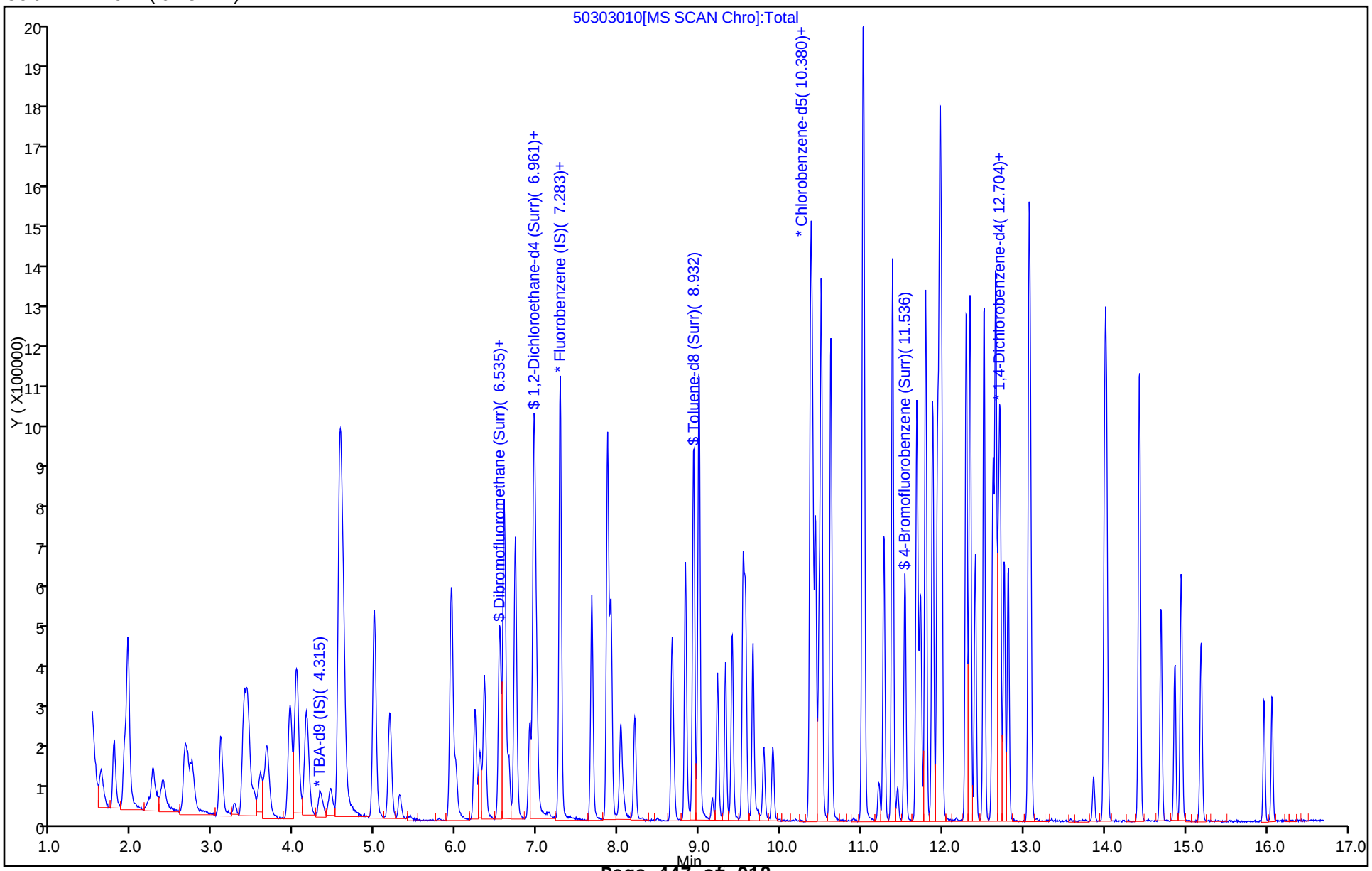
Report Date: 04-Mar-2015 10:13:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303010.D

Injection Date:	03-Mar-2015 15:16:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

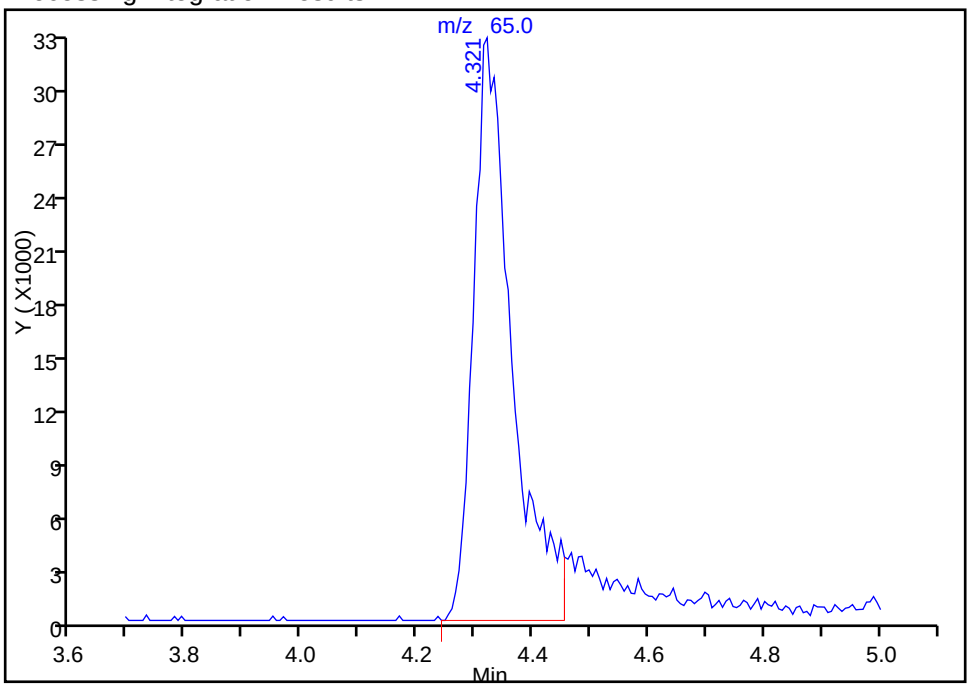
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303010.D				
Injection Date:	03-Mar-2015 15:16:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

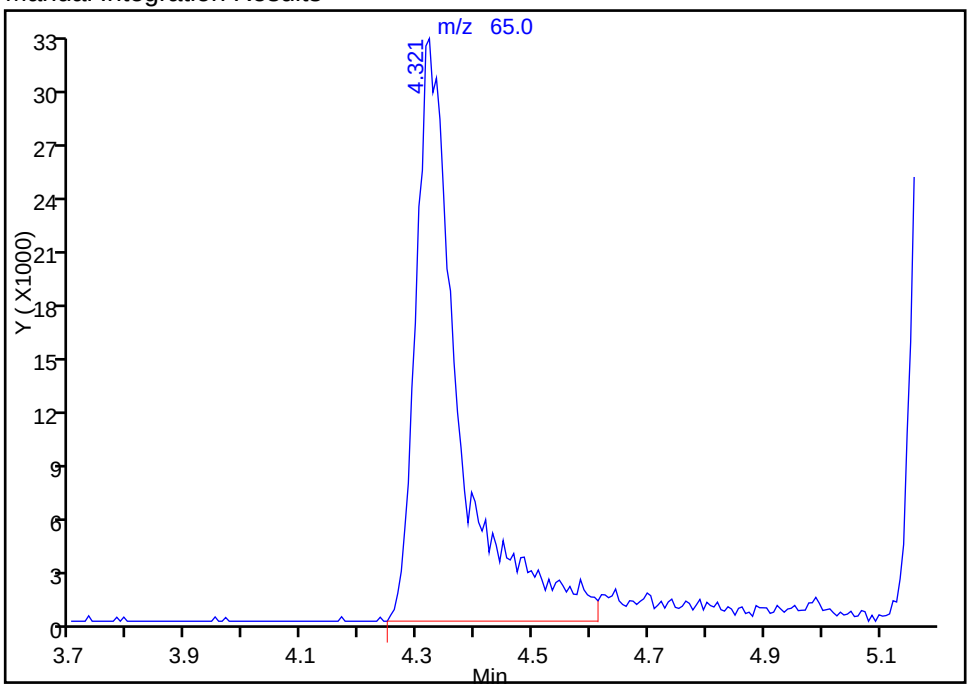
Processing Integration Results

RT: 4.32
Area: 152021
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 173343
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:31:26
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Mar-2015 15:40:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0005873-011
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:10 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:33:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.321	0.000	95	178184	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	90	463863	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	97	114659	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	96	167232	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	98	199995	100.0	100.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.912	-0.006	99	250369	100.0	102.0	
$ 7 Toluene-d8 (Surr)	98	8.926	8.932	-0.006	100	910944	100.0	101.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	99	327893	100.0	98.6	
11 Dichlorodifluoromethane	85	1.626	1.620	0.006	71	248600	100.0	106.7	
12 Chloromethane	50	1.778	1.778	0.000	94	377346	100.0	101.3	
13 Vinyl chloride	62	1.906	1.912	-0.006	100	370529	100.0	103.5	
14 Butadiene	39	1.948	1.948	0.000	98	418091	100.0	100.7	
15 Bromomethane	94	2.252	2.258	-0.006	70	100603	100.0	97.3	
16 Chloroethane	64	2.386	2.380	0.006	78	141570	100.0	97.2	
17 Dichlorofluoromethane	67	2.654	2.648	0.006	99	320590	100.0	96.0	
18 Trichlorofluoromethane	101	2.703	2.708	-0.005	97	274680	100.0	98.5	
20 Ethyl ether	59	3.092	3.092	0.000	99	266877	100.0	99.2	
21 Acrolein	56	3.262	3.274	-0.012	84	73636	200.0	207.2	
22 1,1-Dichloroethene	96	3.378	3.384	-0.006	99	282447	100.0	104.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	98	283308	100.0	103.8	
24 Acetone	43	3.506	3.505	0.001	99	186722	200.0	191.7	
25 Iodomethane	142	3.573	3.585	-0.012	96	391404	100.0	103.0	
26 Carbon disulfide	76	3.658	3.664	-0.006	100	702207	100.0	105.6	
28 3-Chloro-1-propene	76	3.944	3.956	-0.012	91	175910	100.0	104.3	
30 Methyl acetate	43	4.023	4.029	-0.006	100	1360573	500.0	507.8	
31 Methylene Chloride	84	4.144	4.150	-0.006	99	292219	100.0	100.5	
32 2-Methyl-2-propanol	59	4.449	4.454	-0.005	74	219266	1000.0	1026.9	M
33 Acrylonitrile	53	4.558	4.564	-0.006	99	1352445	1000.0	1018.2	
34 trans-1,2-Dichloroethene	96	4.564	4.576	-0.012	56	288749	100.0	102.2	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	100	717429	100.0	101.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	99	515034	100.0	102.7	
37 1,1-Dichloroethane	63	5.173	5.178	-0.005	100	542610	100.0	100.8	
38 Vinyl acetate	43	5.300	5.306	-0.006	95	200290	100.0	108.9	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	65	206033	100.0	103.4	
45 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	92	302735	100.0	100.2	
46 2-Butanone (MEK)	43	5.994	6.000	-0.006	100	323375	200.0	203.7	
49 Chlorobromomethane	128	6.225	6.237	-0.012	79	129587	100.0	103.0	
51 Tetrahydrofuran	42	6.286	6.292	-0.006	98	227621	200.0	201.5	
52 Chloroform	83	6.347	6.346	0.001	98	436474	100.0	101.7	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	75	308574	100.0	105.9	
54 Cyclohexane	56	6.590	6.590	0.000	83	671150	100.0	102.6	
56 Carbon tetrachloride	117	6.724	6.724	0.000	68	204809	100.0	103.6	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	96	385796	100.0	103.8	
57 Isobutyl alcohol	41	6.949	6.949	0.000	41	166120	2500.0	2609.2	
58 Benzene	78	6.961	6.967	-0.006	99	1208197	100.0	103.1	
59 1,2-Dichloroethane	62	6.985	6.991	-0.006	93	341780	100.0	101.0	
62 n-Heptane	43	7.284	7.283	0.001	96	463470	100.0	101.7	
64 Trichloroethene	130	7.673	7.673	0.000	98	289114	100.0	104.8	
66 Methylcyclohexane	83	7.868	7.867	0.001	95	553839	100.0	106.2	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	99	309721	100.0	100.7	
68 Dibromomethane	93	8.026	8.025	0.001	98	142348	100.0	102.4	
70 1,4-Dioxane	88	8.062	8.068	-0.006	93	56031	2000.0	2042.7	
71 Dichlorobromomethane	83	8.202	8.202	0.000	99	271870	100.0	105.0	
74 cis-1,3-Dichloropropene	75	8.658	8.664	-0.006	99	360087	100.0	104.9	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.828	0.001	72	716953	200.0	207.1	
76 Toluene	91	8.993	8.999	-0.006	98	1214867	100.0	102.7	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	80	260722	100.0	104.5	
78 Ethyl methacrylate	69	9.321	9.321	0.000	93	300128	100.0	107.0	
79 1,1,2-Trichloroethane	97	9.407	9.406	0.001	93	214719	100.0	99.3	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	224037	100.0	102.6	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	94	406834	100.0	100.1	
82 2-Hexanone	43	9.662	9.662	0.000	99	504684	200.0	208.8	
84 Chlorodibromomethane	129	9.796	9.796	0.000	93	148140	100.0	104.2	
85 Ethylene Dibromide	107	9.905	9.905	0.000	98	216491	100.0	104.0	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	99	362586	100.0	99.9	
87 Chlorobenzene	112	10.392	10.398	-0.006	89	771107	100.0	101.7	
88 4-Chlorobenzotrifluoride	180	10.435	10.428	0.007	97	349632	100.0	100.8	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	96	178500	100.0	102.1	
90 Ethylbenzene	106	10.508	10.508	0.000	100	459104	100.0	104.8	
91 m-Xylene & p-Xylene	106	10.623	10.623	0.000	100	559842	100.0	103.7	
92 o-Xylene	106	11.013	11.019	-0.005	93	532728	100.0	101.7	
93 Styrene	104	11.031	11.031	0.000	96	881546	100.0	102.9	
94 Bromoform	173	11.213	11.213	0.000	90	78926	100.0	105.1	
96 2-Chlorobenzotrifluoride	180	11.280	11.280	0.000	96	362034	100.0	100.6	
97 Isopropylbenzene	105	11.384	11.384	0.000	97	1329527	100.0	103.4	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.682	-0.006	76	310127	100.0	103.5	
100 Bromobenzene	156	11.688	11.688	0.000	95	285408	100.0	97.7	
101 1,2,3-Trichloropropane	110	11.724	11.724	0.000	70	94067	100.0	96.1	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.736	0.001	79	87031	100.0	91.5	
103 N-Propylbenzene	120	11.791	11.791	0.000	98	387657	100.0	99.9	
104 2-Chlorotoluene	126	11.877	11.882	-0.005	99	315400	100.0	98.4	
105 3-Chlorotoluene	126	11.937	11.937	0.000	75	313196	100.0	95.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	99	1078510	100.0	100.4	
107 4-Chlorotoluene	126	11.986	11.986	0.000	99	352063	100.0	101.8	
108 tert-Butylbenzene	119	12.290	12.296	-0.006	66	930079	100.0	100.3	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	100	1124585	100.0	101.5	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	98	245627	100.0	98.2	
112 sec-Butylbenzene	105	12.509	12.515	-0.006	92	1341600	100.0	100.6	
113 1,3-Dichlorobenzene	146	12.625	12.625	0.000	88	570988	100.0	98.9	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	99	1092513	100.0	99.9	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	97	576692	100.0	99.2	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.764	0.001	94	238033	100.0	100.1	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.813	0.000	97	254456	100.0	98.1	
120 n-Butylbenzene	91	13.069	13.069	0.000	100	981363	100.0	101.0	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	99	527759	100.0	99.9	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.866	-0.006	94	35031	100.0	100.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.012	14.012	0.000	99	1079107	300.0	299.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.431	-0.005	99	704089	200.0	197.4	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	98	263899	100.0	99.9	
127 Hexachlorobutadiene	225	14.864	14.869	-0.005	94	111717	100.0	99.0	
128 Naphthalene	128	14.943	14.942	0.001	100	773789	100.0	101.0	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	98	224922	100.0	99.3	
131 2,4,5-Trichlorotoluene	159	15.971	15.970	0.001	96	109488	100.0	95.6	
130 2,3,6-Trichlorotoluene	159	16.062	16.068	-0.006	97	102526	100.0	97.1	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	205.4	
S 134 1,2-Dichloroethene, Total	96				0		200.0	202.5	
S 135 1,3-Dichloropropene, Total	1				0		200.0	209.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	4.00	Units: uL	
VOAVAPRI_00003	Amount Added:	4.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	4.00	Units: uL	
VOA8260SURR_00031	Amount Added:	4.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

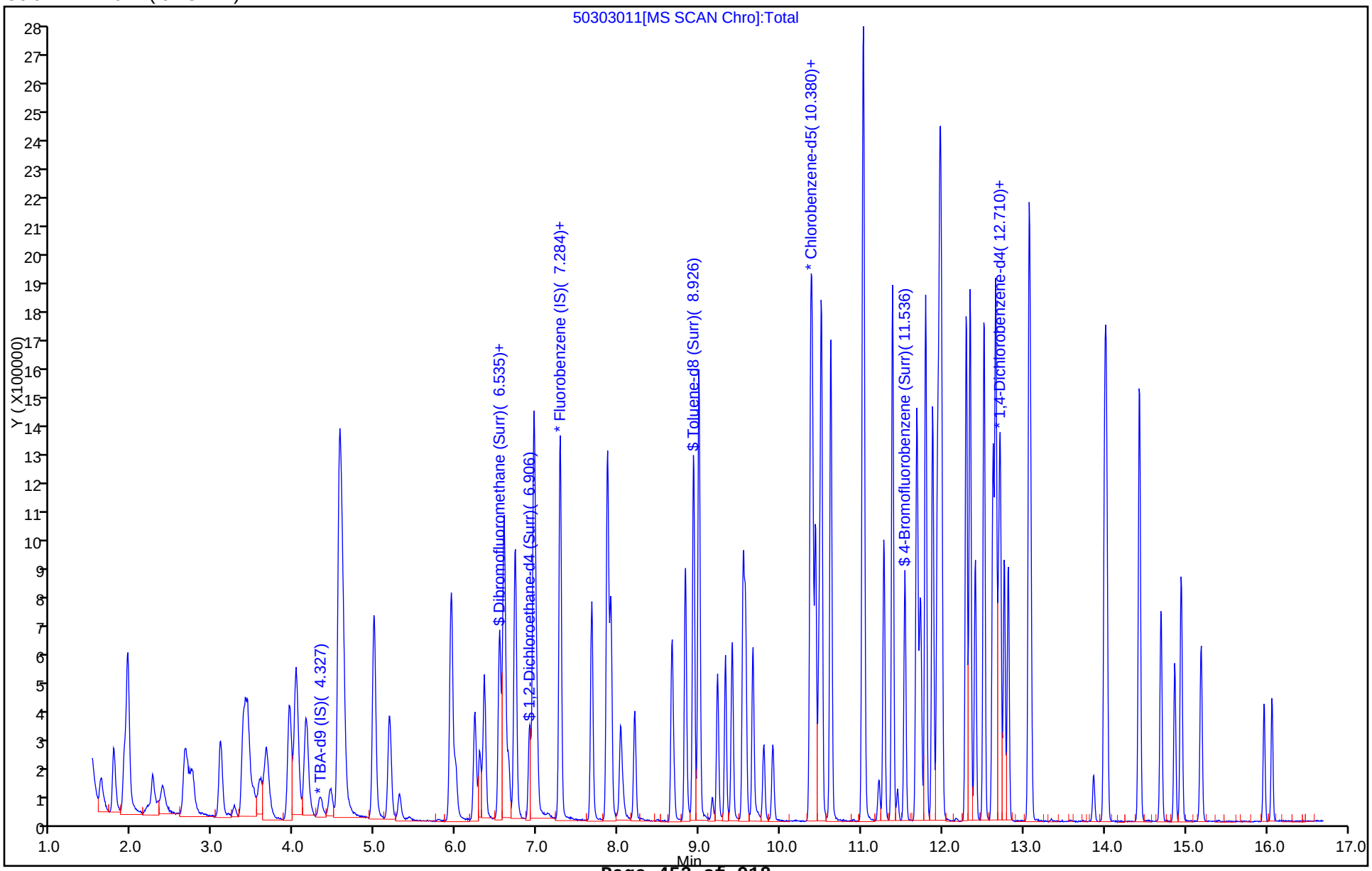
Report Date: 04-Mar-2015 10:13:10 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D

Injection Date:	03-Mar-2015 15:40:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

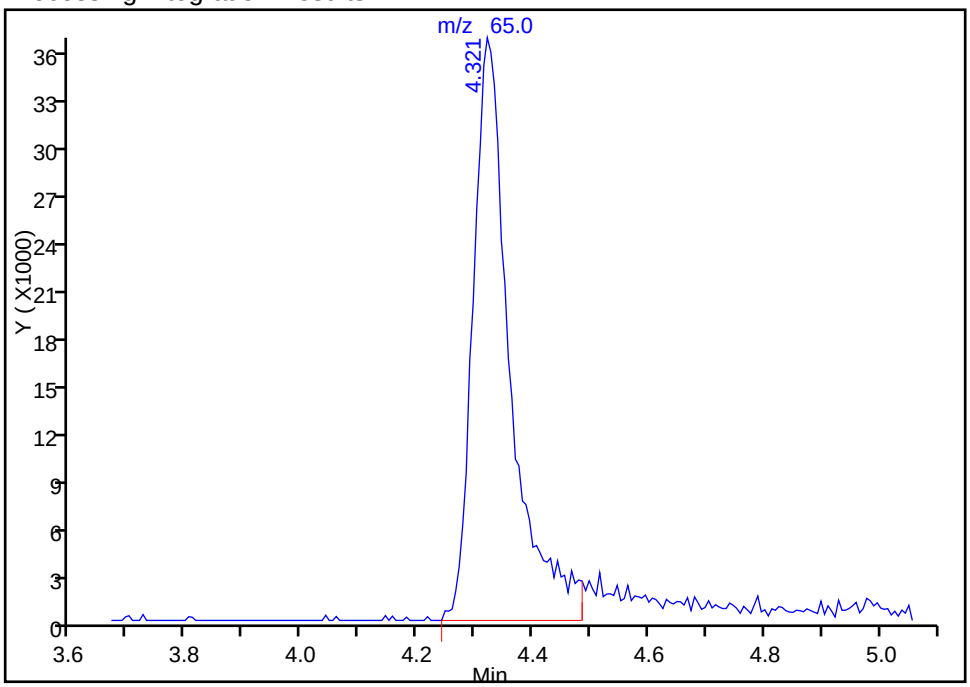
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D				
Injection Date:	03-Mar-2015 15:40:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

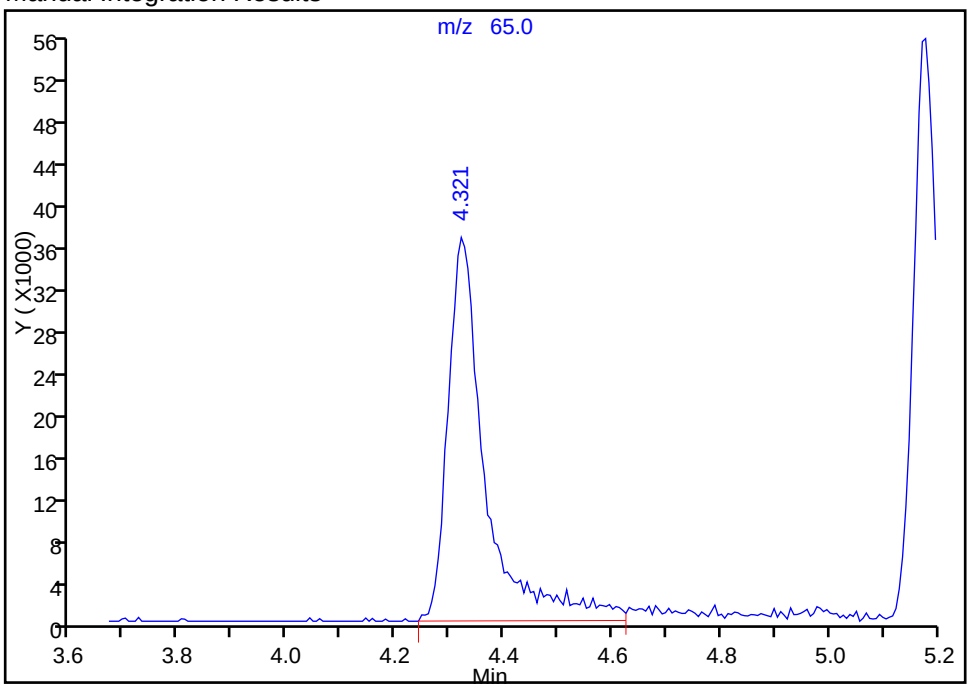
Processing Integration Results

RT: 4.32
Area: 165569
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 178184
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:33:10
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

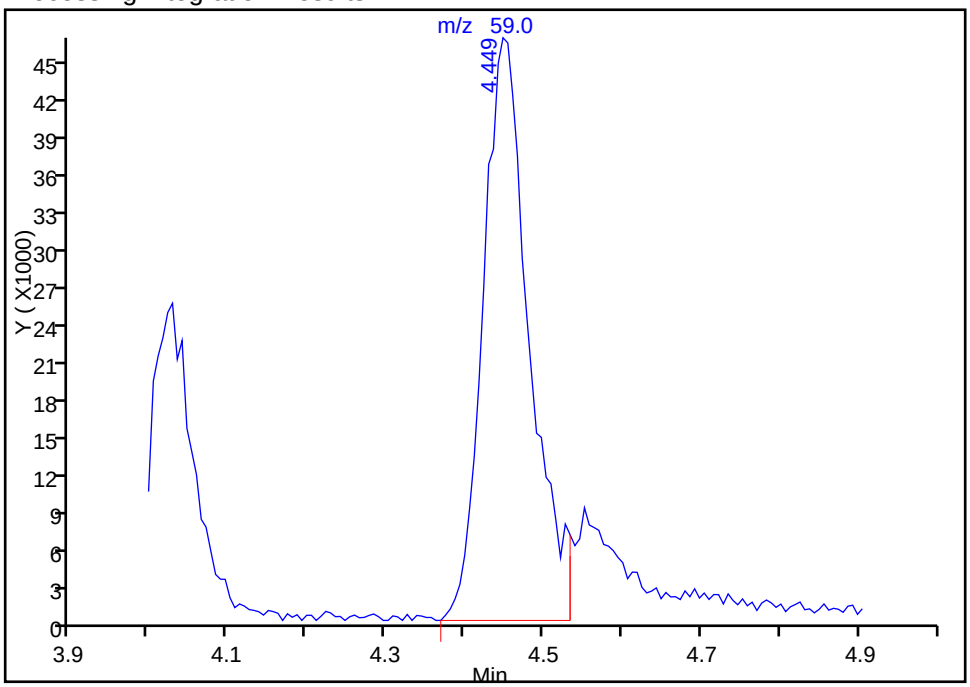
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D
Injection Date: 03-Mar-2015 15:40:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

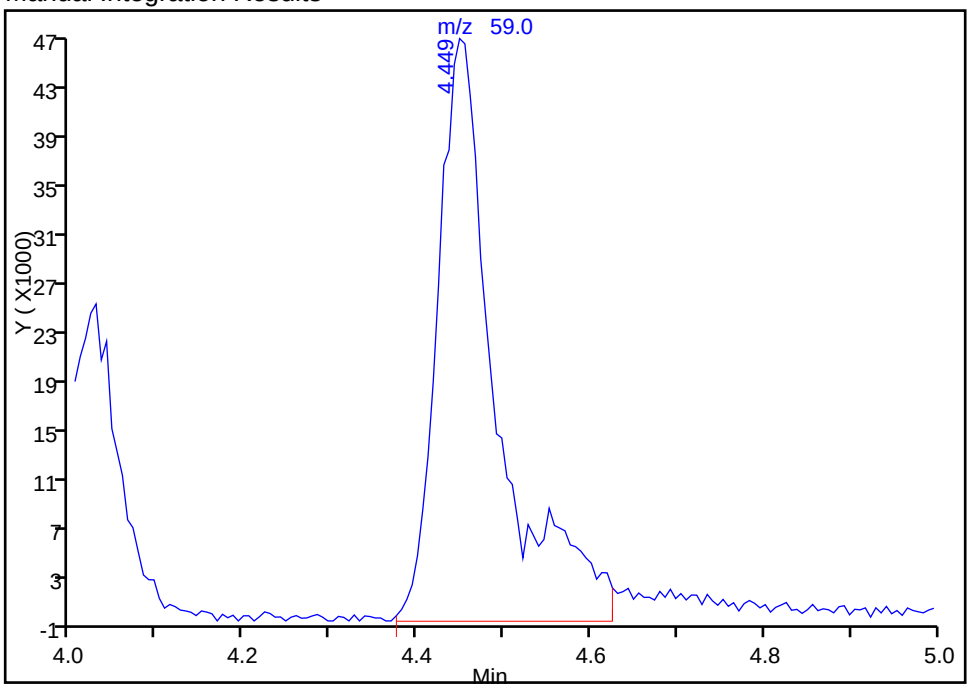
Processing Integration Results

RT: 4.45
Area: 188329
Amount: 911.3747
Amount Units: ng



Manual Integration Results

RT: 4.45
Area: 219266
Amount: 1026.8689
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:35:16
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303012.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Mar-2015 16:04:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0005873-012
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:11 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:37:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.323	4.321	0.002	87	196024	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.280	7.277	0.003	72	484263	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.370	10.368	0.002	80	123732	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.685	0.003	94	171685	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.535	-0.004	98	361120	175.0	174.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.908	6.912	-0.004	99	444667	175.0	173.5	
$ 7 Toluene-d8 (Surr)	98	8.928	8.932	-0.004	100	1566428	175.0	162.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.538	11.536	0.002	99	603450	175.0	168.2	
11 Dichlorodifluoromethane	85	1.622	1.620	0.002	98	392329	175.0	161.2	
12 Chloromethane	50	1.780	1.778	0.002	94	626420	175.0	161.1	
13 Vinyl chloride	62	1.908	1.912	-0.004	99	599809	175.0	160.5	
14 Butadiene	39	1.950	1.948	0.002	98	656586	175.0	151.5	
15 Bromomethane	94	2.255	2.258	-0.003	75	163842	175.0	154.6	
16 Chloroethane	64	2.376	2.380	-0.004	83	241114	175.0	158.6	
17 Dichlorofluoromethane	67	2.650	2.648	0.002	99	529735	175.0	152.0	
18 Trichlorofluoromethane	101	2.717	2.708	0.009	98	433936	175.0	149.1	
20 Ethyl ether	59	3.094	3.092	0.002	100	467174	175.0	166.3	
21 Acrolein	56	3.258	3.274	-0.016	81	76799	225.0	207.0	
22 1,1-Dichloroethene	96	3.374	3.384	-0.010	99	466370	175.0	165.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.420	0.009	98	466462	175.0	163.7	
24 Acetone	43	3.508	3.505	0.003	98	338711	350.0	333.0	
25 Iodomethane	142	3.581	3.585	-0.004	96	658969	175.0	166.1	
26 Carbon disulfide	76	3.654	3.664	-0.010	100	1168823	175.0	168.4	
28 3-Chloro-1-propene	76	3.946	3.956	-0.010	92	305734	175.0	173.6	
30 Methyl acetate	43	4.025	4.029	-0.004	100	2402270	875.0	858.8	
31 Methylene Chloride	84	4.147	4.150	-0.003	99	516693	175.0	172.9	
32 2-Methyl-2-propanol	59	4.451	4.454	-0.003	90	407341	1750.0	1734.0	M
33 Acrylonitrile	53	4.554	4.564	-0.010	98	2376546	1750.0	1713.8	
34 trans-1,2-Dichloroethene	96	4.566	4.576	-0.010	57	496919	175.0	168.5	
35 Methyl tert-butyl ether	73	4.609	4.607	0.002	100	1269630	175.0	172.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	98	854071	175.0	163.2	
37 1,1-Dichloroethane	63	5.175	5.178	-0.003	100	945361	175.0	168.2	
38 Vinyl acetate	43	5.296	5.306	-0.010	98	346138	175.0	180.3	
44 2,2-Dichloropropane	77	5.929	5.933	-0.004	65	354872	175.0	170.6	
45 cis-1,2-Dichloroethene	96	5.941	5.945	-0.004	87	529478	175.0	167.9	
46 2-Butanone (MEK)	43	5.990	6.000	-0.010	100	573542	350.0	346.1	
49 Chlorobromomethane	128	6.227	6.237	-0.010	75	220291	175.0	167.7	
51 Tetrahydrofuran	42	6.288	6.292	-0.004	99	386544	350.0	327.8	
52 Chloroform	83	6.349	6.346	0.003	85	751712	175.0	167.8	
53 1,1,1-Trichloroethane	97	6.531	6.535	-0.004	98	515456	175.0	169.5	
54 Cyclohexane	56	6.592	6.590	0.002	94	1109737	175.0	162.6	
56 Carbon tetrachloride	117	6.720	6.724	-0.004	66	362211	175.0	175.6	
55 1,1-Dichloropropene	75	6.726	6.730	-0.004	96	650285	175.0	167.5	
57 Isobutyl alcohol	41	6.951	6.949	0.002	45	324042	4375.0	4875.2	
58 Benzene	78	6.963	6.967	-0.004	98	2026853	175.0	165.7	
59 1,2-Dichloroethane	62	6.994	6.991	0.003	98	602602	175.0	170.6	
62 n-Heptane	43	7.286	7.283	0.003	89	806729	175.0	169.6	
64 Trichloroethene	130	7.669	7.673	-0.004	99	484743	175.0	168.3	
66 Methylcyclohexane	83	7.864	7.867	-0.003	95	899256	175.0	165.2	
67 1,2-Dichloropropane	63	7.906	7.910	-0.004	95	551216	175.0	171.6	
68 Dibromomethane	93	8.028	8.025	0.003	98	252976	175.0	174.4	
70 1,4-Dioxane	88	8.064	8.068	-0.004	96	107243	3500.0	3745.1	
71 Dichlorobromomethane	83	8.204	8.202	0.002	100	494496	175.0	182.9	
74 cis-1,3-Dichloropropene	75	8.660	8.664	-0.004	100	670035	175.0	187.1	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.828	-0.003	98	1293845	350.0	346.3	
76 Toluene	91	8.995	8.999	-0.004	98	2025808	175.0	158.6	
77 trans-1,3-Dichloropropene	75	9.226	9.224	0.002	93	504089	175.0	187.2	
78 Ethyl methacrylate	69	9.324	9.321	0.003	99	559868	175.0	184.9	
79 1,1,2-Trichloroethane	97	9.403	9.406	-0.003	98	384751	175.0	164.9	
80 Tetrachloroethene	164	9.543	9.540	0.003	99	376799	175.0	159.9	
81 1,3-Dichloropropane	76	9.567	9.571	-0.004	98	730064	175.0	166.5	
82 2-Hexanone	43	9.658	9.662	-0.004	99	895448	350.0	343.4	
84 Chlorodibromomethane	129	9.792	9.796	-0.004	96	285792	175.0	186.3	
85 Ethylene Dibromide	107	9.901	9.905	-0.004	99	391652	175.0	174.3	
86 3-Chlorobenzotrifluoride	180	10.376	10.374	0.002	90	648455	175.0	165.5	
87 Chlorobenzene	112	10.394	10.398	-0.004	98	1313352	175.0	160.6	
88 4-Chlorobenzotrifluoride	180	10.431	10.428	0.003	97	620760	175.0	165.8	
89 1,1,1,2-Tetrachloroethane	131	10.479	10.477	0.002	93	343717	175.0	182.2	
90 Ethylbenzene	106	10.504	10.508	-0.004	99	779624	175.0	164.9	
91 m-Xylene & p-Xylene	106	10.625	10.623	0.002	99	963277	175.0	165.4	
92 o-Xylene	106	11.015	11.019	-0.003	90	917689	175.0	162.3	
93 Styrene	104	11.027	11.031	-0.004	91	1511299	175.0	163.5	
94 Bromoform	173	11.216	11.213	0.003	91	158386	175.0	195.4	
96 2-Chlorobenzotrifluoride	180	11.276	11.280	-0.004	91	640624	175.0	165.0	
97 Isopropylbenzene	105	11.380	11.384	-0.004	99	2186986	175.0	157.6	
99 1,1,2,2-Tetrachloroethane	83	11.678	11.682	-0.004	69	554635	175.0	171.5	
100 Bromobenzene	156	11.684	11.688	-0.004	89	509283	175.0	169.8	
101 1,2,3-Trichloropropane	110	11.727	11.724	0.003	69	166640	175.0	165.8	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.736	-0.003	84	171777	175.0	175.9	
103 N-Propylbenzene	120	11.793	11.791	0.002	98	668080	175.0	167.7	
104 2-Chlorotoluene	126	11.879	11.882	-0.003	98	556210	175.0	169.1	
105 3-Chlorotoluene	126	11.939	11.937	0.002	73	574840	175.0	170.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.964	11.968	-0.004	99	1821042	175.0	165.2	
107 4-Chlorotoluene	126	11.988	11.986	0.002	97	590273	175.0	166.2	
108 tert-Butylbenzene	119	12.292	12.296	-0.004	89	1538995	175.0	161.7	
110 1,2,4-Trimethylbenzene	105	12.341	12.339	0.002	98	1864947	175.0	163.9	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.406	0.002	99	433987	175.0	168.9	
112 sec-Butylbenzene	105	12.511	12.515	-0.004	93	2200188	175.0	160.6	
113 1,3-Dichlorobenzene	146	12.621	12.625	-0.004	91	974213	175.0	164.4	
114 4-Isopropyltoluene	119	12.657	12.655	0.002	98	1841892	175.0	164.1	
115 1,4-Dichlorobenzene	146	12.712	12.710	0.002	97	989384	175.0	165.9	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.764	-0.003	93	406260	175.0	166.4	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.813	-0.004	95	457073	175.0	171.7	
120 n-Butylbenzene	91	13.065	13.069	-0.004	99	1641091	175.0	164.4	
121 1,2-Dichlorobenzene	146	13.083	13.087	-0.004	98	903766	175.0	166.7	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.866	-0.004	92	69537	175.0	194.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.012	-0.004	99	1903055	525.0	514.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.431	-0.003	99	1260859	350.0	344.4	
126 1,2,4-Trichlorobenzene	180	14.695	14.693	0.002	98	464683	175.0	171.4	
127 Hexachlorobutadiene	225	14.866	14.869	-0.003	94	186416	175.0	161.0	
128 Naphthalene	128	14.945	14.942	0.003	100	1355121	175.0	172.2	
129 1,2,3-Trichlorobenzene	180	15.188	15.192	-0.004	99	394157	175.0	169.5	
131 2,4,5-Trichlorotoluene	159	15.967	15.970	-0.003	98	200009	175.0	170.0	
130 2,3,6-Trichlorotoluene	159	16.064	16.068	-0.004	97	182005	175.0	167.8	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	327.7	
S 134 1,2-Dichloroethene, Total	96				0		350.0	336.5	
S 135 1,3-Dichloropropene, Total	1				0		350.0	374.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00031	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	7.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	7.00	Units: uL	
VOAVAPRI_00003	Amount Added:	7.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	7.00	Units: uL	
VOAACRPRI_00003	Amount Added:	9.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

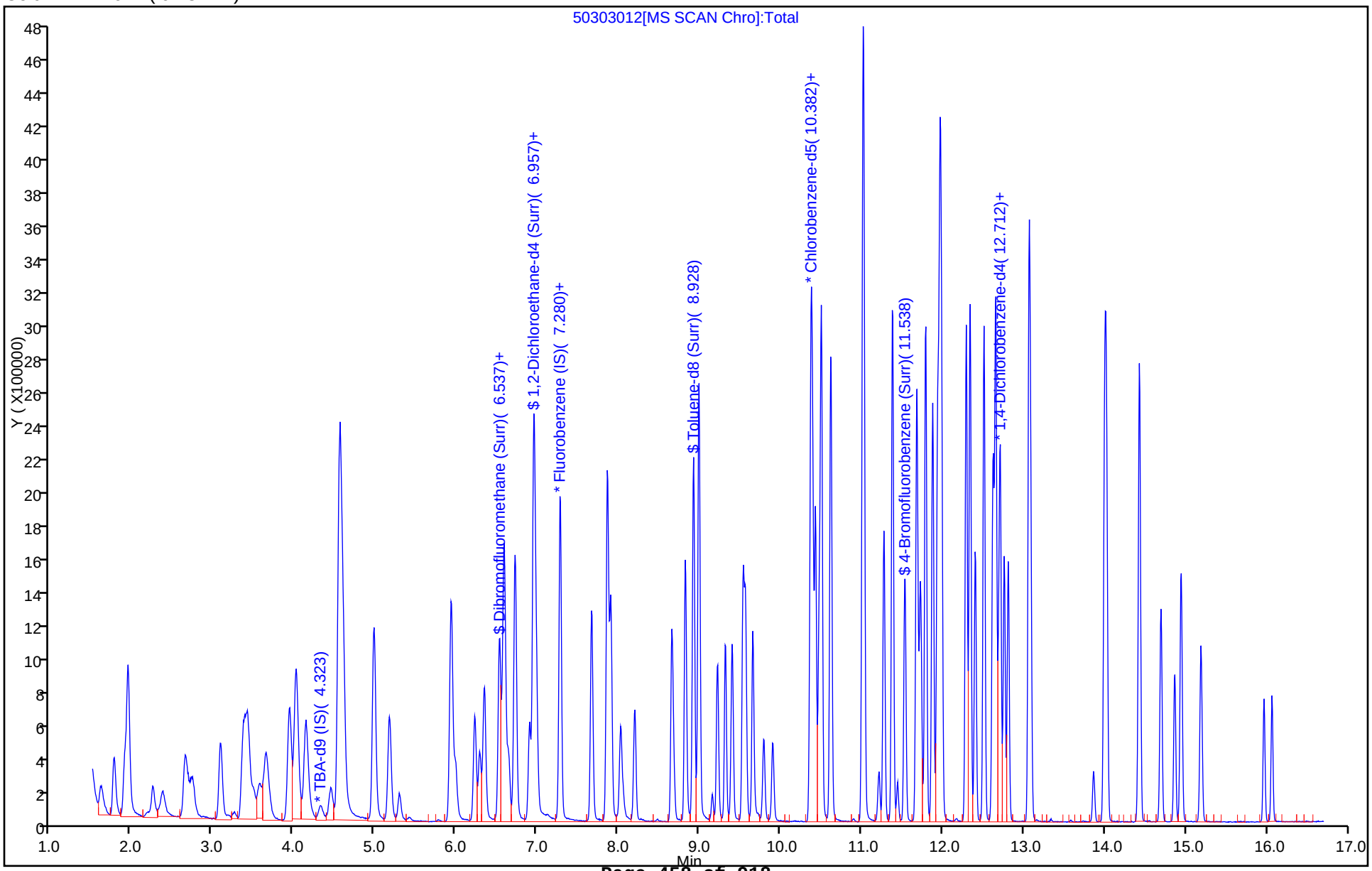
Report Date: 04-Mar-2015 10:13:12 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303012.D

Injection Date:	03-Mar-2015 16:04:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

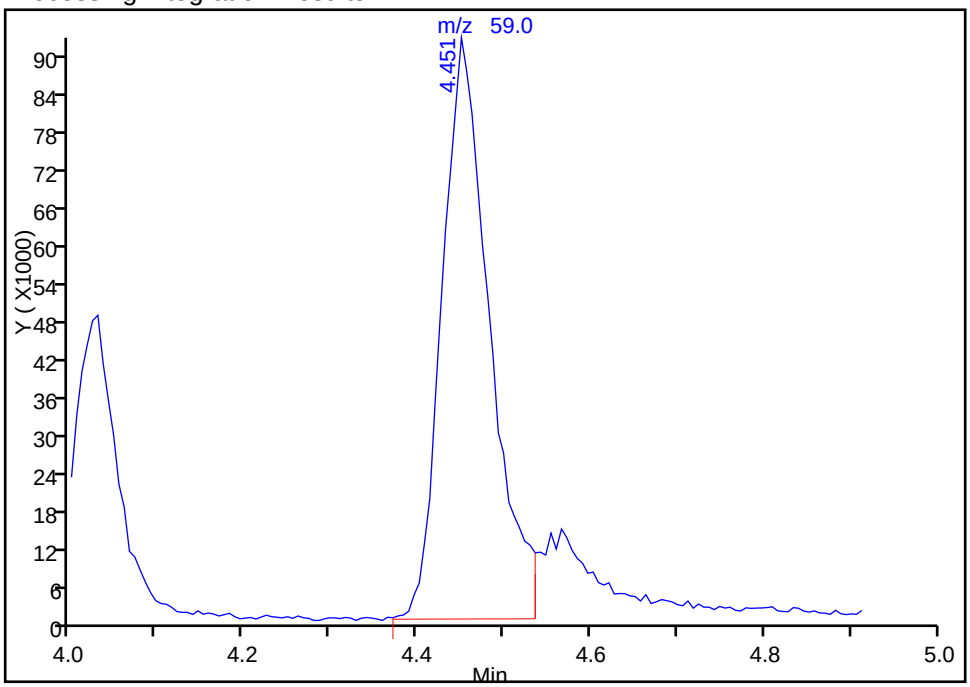
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303012.D
Injection Date: 03-Mar-2015 16:04:30 Instrument ID: CHHP5
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

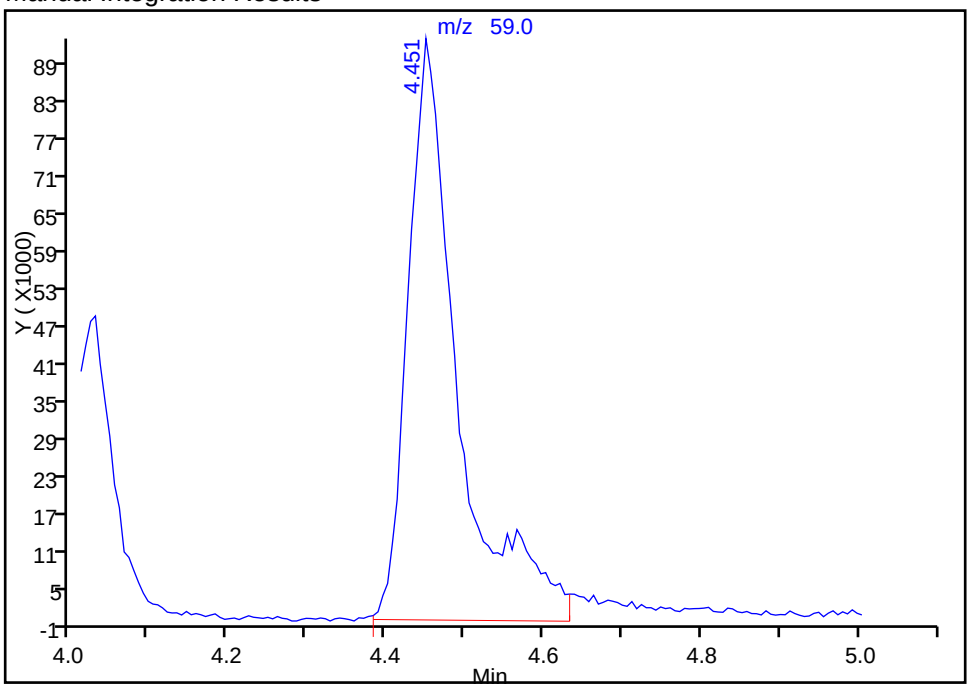
Processing Integration Results

RT: 4.45
Area: 353645
Amount: 1527.0542
Amount Units: ng



Manual Integration Results

RT: 4.45
Area: 407341
Amount: 1734.0487
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:37:20
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303013.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 03-Mar-2015 16:28:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0005873-013
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:13 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:39:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.329	4.321	0.007	99	195478	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	99	458440	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.369	10.368	0.001	99	117839	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.687	12.685	0.002	94	165585	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.535	-0.004	99	407623	200.0	207.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.912	-0.010	99	495199	200.0	204.2	
$ 7 Toluene-d8 (Surr)	98	8.928	8.932	-0.004	100	1773929	200.0	193.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.537	11.536	0.001	99	675059	200.0	197.5	
11 Dichlorodifluoromethane	85	1.621	1.620	0.001	100	459101	200.0	199.3	
12 Chloromethane	50	1.773	1.778	-0.005	100	749194	200.0	203.5	
13 Vinyl chloride	62	1.907	1.912	-0.005	100	717244	200.0	202.7	
14 Butadiene	39	1.944	1.948	-0.004	99	795057	200.0	193.8	
15 Bromomethane	94	2.254	2.258	-0.004	92	202557	200.0	203.5	
16 Chloroethane	64	2.370	2.380	-0.010	98	300539	200.0	208.8	
17 Dichlorofluoromethane	67	2.649	2.648	0.001	99	702217	200.0	212.8	
18 Trichlorofluoromethane	101	2.698	2.708	-0.010	99	629405	200.0	228.4	
20 Ethyl ether	59	3.094	3.092	0.002	99	524790	200.0	197.4	
21 Acrolein	56	3.264	3.274	-0.010	98	88701	250.0	252.6	
22 1,1-Dichloroethene	96	3.373	3.384	-0.011	99	537938	200.0	201.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.420	0.008	100	564199	200.0	209.1	
24 Acetone	43	3.495	3.505	-0.010	100	359769	400.0	373.7	
25 Iodomethane	142	3.574	3.585	-0.011	98	768602	200.0	204.7	
26 Carbon disulfide	76	3.659	3.664	-0.005	100	1429882	200.0	217.6	
28 3-Chloro-1-propene	76	3.939	3.956	-0.017	100	353770	200.0	212.2	
30 Methyl acetate	43	4.024	4.029	-0.005	100	2723193	1000.0	1028.4	
31 Methylene Chloride	84	4.146	4.150	-0.004	99	581573	200.0	206.2	
32 2-Methyl-2-propanol	59	4.450	4.454	-0.004	99	473360	2000.0	2020.7	M
33 Acrylonitrile	53	4.554	4.564	-0.010	100	2649598	2000.0	2018.3	
34 trans-1,2-Dichloroethene	96	4.566	4.576	-0.010	94	564166	200.0	202.1	
35 Methyl tert-butyl ether	73	4.602	4.607	-0.005	100	1454209	200.0	208.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	99	987257	200.0	199.3	
37 1,1-Dichloroethane	63	5.174	5.178	-0.004	100	1076133	200.0	202.3	
38 Vinyl acetate	43	5.296	5.306	-0.010	100	412211	200.0	226.8	
44 2,2-Dichloropropane	77	5.935	5.933	0.002	95	436442	200.0	221.6	
45 cis-1,2-Dichloroethene	96	5.941	5.945	-0.004	98	599342	200.0	200.8	
46 2-Butanone (MEK)	43	5.989	6.000	-0.011	100	661664	400.0	421.8	
49 Chlorobromomethane	128	6.233	6.237	-0.004	99	250607	200.0	201.5	
51 Tetrahydrofuran	42	6.287	6.292	-0.005	99	447707	400.0	401.0	
52 Chloroform	83	6.348	6.346	0.002	96	860226	200.0	202.9	
53 1,1,1-Trichloroethane	97	6.537	6.535	0.002	99	607230	200.0	210.9	
54 Cyclohexane	56	6.592	6.590	0.002	98	1313560	200.0	203.2	
56 Carbon tetrachloride	117	6.725	6.724	0.001	94	443952	200.0	227.3	
55 1,1-Dichloropropene	75	6.725	6.730	-0.005	98	755478	200.0	205.6	
57 Isobutyl alcohol	41	6.950	6.949	0.001	98	374911	5000.0	5958.2	
58 Benzene	78	6.957	6.967	-0.010	98	2284771	200.0	197.3	
59 1,2-Dichloroethane	62	6.987	6.991	-0.004	98	678619	200.0	202.9	
62 n-Heptane	43	7.285	7.283	0.002	89	940701	200.0	209.0	
64 Trichloroethene	130	7.668	7.673	-0.005	99	560499	200.0	205.5	
66 Methylcyclohexane	83	7.869	7.867	0.002	99	1051065	200.0	204.0	
67 1,2-Dichloropropane	63	7.906	7.910	-0.004	97	626785	200.0	206.1	
68 Dibromomethane	93	8.027	8.025	0.002	99	285467	200.0	207.9	
70 1,4-Dioxane	88	8.064	8.068	-0.004	96	108953	4000.0	4019.1	
71 Dichlorobromomethane	83	8.204	8.202	0.002	100	559625	200.0	218.6	
74 cis-1,3-Dichloropropene	75	8.660	8.664	-0.004	100	764955	200.0	225.6	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.828	-0.004	99	1424348	400.0	400.3	
76 Toluene	91	8.995	8.999	-0.004	99	2291440	200.0	188.4	
77 trans-1,3-Dichloropropene	75	9.220	9.224	-0.004	99	577469	200.0	225.2	
78 Ethyl methacrylate	69	9.317	9.321	-0.004	100	642835	200.0	222.9	
79 1,1,2-Trichloroethane	97	9.402	9.406	-0.004	99	430453	200.0	193.7	
80 Tetrachloroethene	164	9.536	9.540	-0.004	99	437446	200.0	194.9	
81 1,3-Dichloropropane	76	9.566	9.571	-0.005	100	810109	200.0	194.0	
82 2-Hexanone	43	9.658	9.662	-0.004	100	1007219	400.0	405.5	
84 Chlorodibromomethane	129	9.791	9.796	-0.005	99	335537	200.0	229.6	
85 Ethylene Dibromide	107	9.907	9.905	0.002	100	430697	200.0	201.3	
86 3-Chlorobenzotrifluoride	180	10.375	10.374	0.001	92	710605	200.0	190.5	
87 Chlorobenzene	112	10.394	10.398	-0.004	99	1486822	200.0	190.9	
88 4-Chlorobenzotrifluoride	180	10.430	10.428	0.002	99	673239	200.0	188.8	
89 1,1,1,2-Tetrachloroethane	131	10.479	10.477	0.002	94	404254	200.0	225.0	
90 Ethylbenzene	106	10.503	10.508	-0.005	99	878562	200.0	195.1	
91 m-Xylene & p-Xylene	106	10.619	10.623	-0.004	99	1087938	200.0	196.1	
92 o-Xylene	106	11.014	11.019	-0.004	95	1044535	200.0	194.0	
93 Styrene	104	11.026	11.031	-0.005	100	1702135	200.0	193.4	
94 Bromoform	173	11.215	11.213	0.002	99	189179	200.0	245.1	
96 2-Chlorobenzotrifluoride	180	11.276	11.280	-0.004	99	709528	200.0	191.8	
97 Isopropylbenzene	105	11.385	11.384	0.001	99	2509471	200.0	189.9	
99 1,1,2,2-Tetrachloroethane	83	11.677	11.682	-0.005	99	635984	200.0	206.5	
100 Bromobenzene	156	11.690	11.688	0.002	99	564181	200.0	195.0	
101 1,2,3-Trichloropropane	110	11.726	11.724	0.002	96	186872	200.0	192.8	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.736	0.002	91	209408	200.0	222.4	
103 N-Propylbenzene	120	11.793	11.791	0.002	99	772940	200.0	201.1	
104 2-Chlorotoluene	126	11.878	11.882	-0.004	99	627560	200.0	197.8	
105 3-Chlorotoluene	126	11.939	11.937	0.002	99	635360	200.0	195.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.969	11.968	0.001	99	2069067	200.0	194.6	
107 4-Chlorotoluene	126	11.988	11.986	0.002	98	686264	200.0	200.4	
108 tert-Butylbenzene	119	12.292	12.296	-0.004	98	1773732	200.0	193.3	
110 1,2,4-Trimethylbenzene	105	12.340	12.339	0.001	98	2134132	200.0	194.5	
111 1,2-dichloro-4-(trifluorom	214	12.407	12.406	0.001	99	495775	200.0	200.1	
112 sec-Butylbenzene	105	12.511	12.515	-0.004	99	2515133	200.0	190.4	
113 1,3-Dichlorobenzene	146	12.620	12.625	-0.005	98	1106407	200.0	193.6	
114 4-Isopropyltoluene	119	12.657	12.655	0.002	98	2126114	200.0	196.4	
115 1,4-Dichlorobenzene	146	12.712	12.710	0.002	96	1119886	200.0	194.6	
116 2,4-Dichloro-1-(triflourom	214	12.760	12.764	-0.004	95	459072	200.0	194.9	
118 2,5-Dichlorobenzotrifluori	214	12.815	12.813	0.002	98	520914	200.0	202.9	
120 n-Butylbenzene	91	13.064	13.069	-0.005	99	1909418	200.0	198.4	
121 1,2-Dichlorobenzene	146	13.083	13.087	-0.004	99	1024132	200.0	195.9	
122 1,2-Dibromo-3-Chloropropan	75	13.861	13.866	-0.005	89	86409	200.0	250.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.007	14.012	-0.005	99	2106510	600.0	589.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.427	14.431	-0.004	99	1383564	400.0	391.9	
126 1,2,4-Trichlorobenzene	180	14.695	14.693	0.002	99	524775	200.0	200.7	
127 Hexachlorobutadiene	225	14.865	14.869	-0.004	98	227215	200.0	203.4	
128 Naphthalene	128	14.944	14.942	0.002	100	1499909	200.0	197.7	
129 1,2,3-Trichlorobenzene	180	15.194	15.192	0.002	99	445662	200.0	198.7	
131 2,4,5-Trichlorotoluene	159	15.966	15.970	-0.004	98	227883	200.0	200.9	
130 2,3,6-Trichlorotoluene	159	16.064	16.068	-0.004	97	202347	200.0	193.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		400.0	390.1	
S 134 1,2-Dichloroethene, Total	96				0		400.0	402.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	450.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	10.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	8.00	Units: uL	
VOAVAPRI_00003	Amount Added:	8.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	8.00	Units: uL	
VOA8260SURR_00031	Amount Added:	8.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

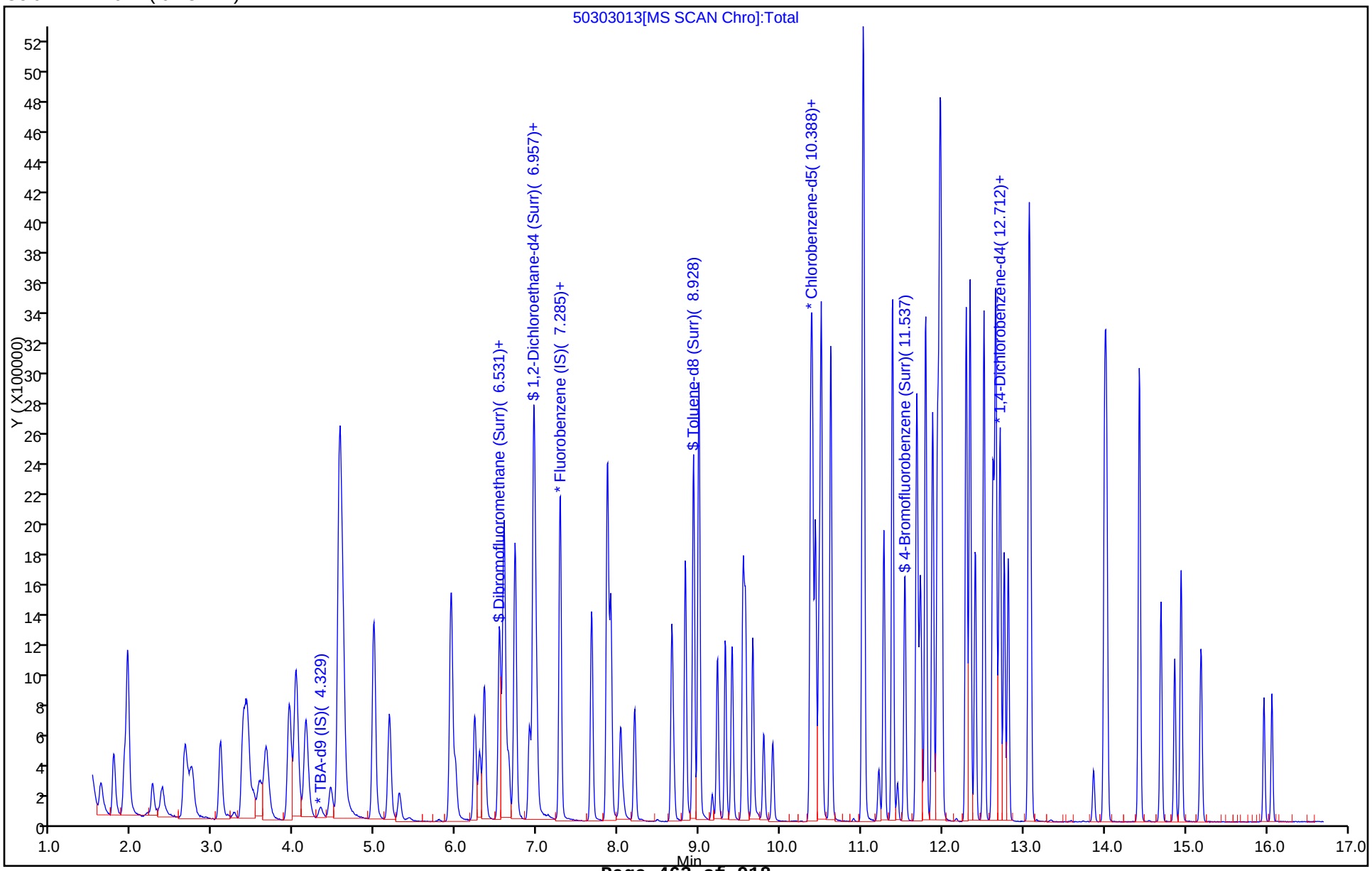
Report Date: 04-Mar-2015 10:13:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303013.D

Injection Date:	03-Mar-2015 16:28:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

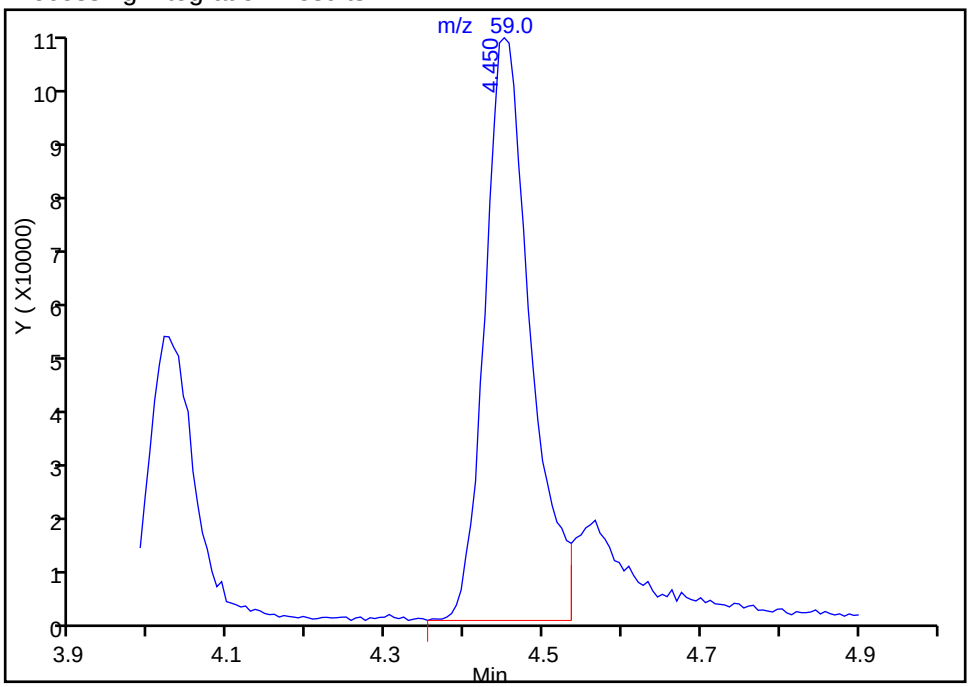
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303013.D				
Injection Date:	03-Mar-2015 16:28:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD40				
Client ID:					
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

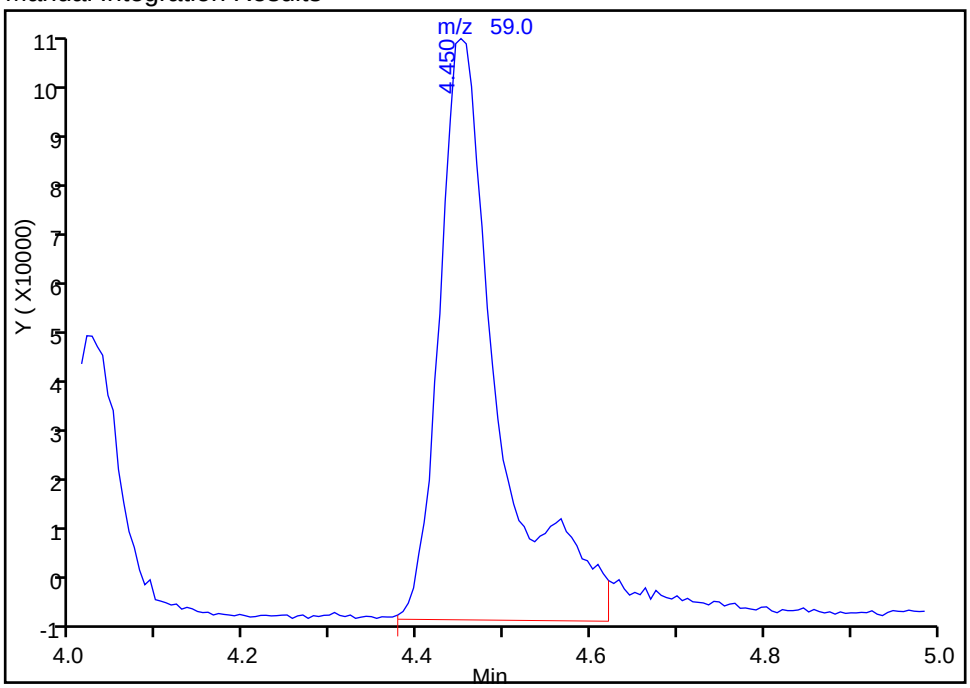
Processing Integration Results

RT: 4.45
Area: 405922
Amount: 1729.0486
Amount Units: ng



Manual Integration Results

RT: 4.45
Area: 473360
Amount: 2020.7198
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:39:19
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303014.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 03-Mar-2015 16:52:30 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0005873-014
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:14 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:40:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.321	0.006	97	182249	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	440848	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	97	121332	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	91	163855	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	98	454279	250.0	240.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.912	-0.006	100	585333	250.0	250.9	
$ 7 Toluene-d8 (Surr)	98	8.926	8.932	-0.006	99	1882951	250.0	199.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	99	778464	250.0	221.2	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	100	555245	250.0	250.7	
12 Chloromethane	50	1.778	1.778	0.000	100	892689	250.0	252.1	
13 Vinyl chloride	62	1.912	1.912	0.000	100	866068	250.0	254.5	
14 Butadiene	39	1.948	1.948	0.000	99	961606	250.0	243.7	
15 Bromomethane	94	2.253	2.258	-0.005	92	219710	250.0	230.1	
16 Chloroethane	64	2.374	2.380	-0.006	98	309302	250.0	223.5	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	100	722968	250.0	227.9	
18 Trichlorofluoromethane	101	2.697	2.708	-0.011	99	625870	250.0	236.2	
20 Ethyl ether	59	3.092	3.092	0.000	100	666037	250.0	260.5	
21 Acrolein	56	3.262	3.274	-0.012	99	95898	275.0	284.0	
22 1,1-Dichloroethene	96	3.372	3.384	-0.012	99	655372	250.0	255.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	97	659263	250.0	254.1	
24 Acetone	43	3.500	3.505	-0.005	100	482030	500.0	520.6	
25 Iodomethane	142	3.573	3.585	-0.012	98	937612	250.0	259.7	
26 Carbon disulfide	76	3.658	3.664	-0.006	100	1738988	250.0	275.2	
28 3-Chloro-1-propene	76	3.944	3.956	-0.012	100	449430	250.0	280.3	
30 Methyl acetate	43	4.023	4.029	-0.006	100	3392163	1250.0	1332.2	
31 Methylene Chloride	84	4.145	4.150	-0.005	100	726477	250.0	269.0	
32 2-Methyl-2-propanol	59	4.461	4.454	0.007	99	611565	2500.0	2800.2	
33 Acrylonitrile	53	4.558	4.564	-0.006	99	3337128	2500.0	2643.5	
34 trans-1,2-Dichloroethene	96	4.570	4.576	-0.006	93	714392	250.0	266.2	
35 Methyl tert-butyl ether	73	4.601	4.607	-0.006	100	1811989	250.0	270.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	100	1203451	250.0	252.6	
37 1,1-Dichloroethane	63	5.179	5.178	0.001	100	1328543	250.0	259.7	
38 Vinyl acetate	43	5.300	5.306	-0.006	100	523307	250.0	299.4	
44 2,2-Dichloropropane	77	5.927	5.933	-0.006	97	530241	250.0	280.0	
45 cis-1,2-Dichloroethene	96	5.939	5.945	-0.006	98	743970	250.0	259.2	
46 2-Butanone (MEK)	43	5.988	6.000	-0.012	100	803658	500.0	532.7	
49 Chlorobromomethane	128	6.231	6.237	-0.006	98	320382	250.0	267.9	
51 Tetrahydrofuran	42	6.286	6.292	-0.006	99	565784	500.0	527.0	
52 Chloroform	83	6.347	6.346	0.001	96	1072109	250.0	263.0	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	98	735465	250.0	265.6	
54 Cyclohexane	56	6.590	6.590	0.000	97	1567791	250.0	252.3	
56 Carbon tetrachloride	117	6.724	6.724	0.000	96	541326	250.0	288.2	
55 1,1-Dichloropropene	75	6.724	6.730	-0.006	98	919340	250.0	260.2	
57 Isobutyl alcohol	41	6.955	6.949	0.006	98	519953	6250.0	8593.0	
58 Benzene	78	6.961	6.967	-0.006	98	2816860	250.0	253.0	
59 1,2-Dichloroethane	62	6.986	6.991	-0.005	99	882169	250.0	274.3	
62 n-Heptane	43	7.284	7.283	0.001	87	1135342	250.0	262.3	
64 Trichloroethene	130	7.673	7.673	0.000	99	695890	250.0	265.3	
66 Methylcyclohexane	83	7.868	7.867	0.001	99	1271791	250.0	256.7	
67 1,2-Dichloropropane	63	7.904	7.910	-0.006	97	779651	250.0	266.6	
68 Dibromomethane	93	8.026	8.025	0.001	99	367478	250.0	278.3	
70 1,4-Dioxane	88	8.062	8.068	-0.006	96	148650	5000.0	5702.3	
71 Dichlorobromomethane	83	8.202	8.202	0.000	100	722661	250.0	293.5	
74 cis-1,3-Dichloropropene	75	8.659	8.664	-0.005	99	973151	250.0	298.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.828	0.001	99	1780762	500.0	486.1	
76 Toluene	91	8.993	8.999	-0.006	99	2786685	250.0	222.5	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	100	770673	250.0	291.8	
78 Ethyl methacrylate	69	9.322	9.321	0.001	100	840399	250.0	283.1	
79 1,1,2-Trichloroethane	97	9.407	9.406	0.001	99	552961	250.0	241.7	
80 Tetrachloroethene	164	9.541	9.540	0.001	99	530396	250.0	229.5	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	99	1025068	250.0	238.4	
82 2-Hexanone	43	9.656	9.662	-0.006	100	1267784	500.0	495.7	
84 Chlorodibromomethane	129	9.796	9.796	0.000	99	437822	250.0	291.0	
85 Ethylene Dibromide	107	9.906	9.905	0.001	100	560401	250.0	254.4	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	92	811123	250.0	211.2	
87 Chlorobenzene	112	10.392	10.398	-0.006	98	1821377	250.0	227.1	
88 4-Chlorobenzotrifluoride	180	10.435	10.428	0.007	98	788386	250.0	214.7	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	94	518562	250.0	280.4	
90 Ethylbenzene	106	10.502	10.508	-0.006	98	1084192	250.0	233.8	
91 m-Xylene & p-Xylene	106	10.623	10.623	0.000	98	1343425	250.0	235.2	
92 o-Xylene	106	11.013	11.019	-0.005	96	1282744	250.0	231.4	
93 Styrene	104	11.031	11.031	0.000	96	2101328	250.0	231.9	
94 Bromoform	173	11.214	11.213	0.001	98	253039	250.0	318.4	
96 2-Chlorobenzotrifluoride	180	11.274	11.280	-0.006	99	818132	250.0	214.8	
97 Isopropylbenzene	105	11.384	11.384	0.000	98	2939157	250.0	216.0	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.682	-0.006	98	794942	250.0	250.7	
100 Bromobenzene	156	11.688	11.688	0.000	99	712137	250.0	248.8	
101 1,2,3-Trichloropropane	110	11.725	11.724	0.001	97	239368	250.0	249.6	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.736	0.001	92	267698	250.0	287.3	
103 N-Propylbenzene	120	11.792	11.791	0.001	98	938881	250.0	246.9	
104 2-Chlorotoluene	126	11.877	11.882	-0.005	98	766804	250.0	244.2	
105 3-Chlorotoluene	126	11.938	11.937	0.001	99	747748	250.0	233.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	98	2483271	250.0	236.0	
107 4-Chlorotoluene	126	11.986	11.986	0.000	98	846300	250.0	249.7	
108 tert-Butylbenzene	119	12.290	12.296	-0.006	98	2162487	250.0	238.1	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	98	2596483	250.0	239.1	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	99	570450	250.0	232.7	
112 sec-Butylbenzene	105	12.509	12.515	-0.006	98	2981190	250.0	228.0	
113 1,3-Dichlorobenzene	146	12.619	12.625	-0.006	97	1371526	250.0	242.5	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	98	2531591	250.0	236.3	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	97	1402521	250.0	246.3	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.764	0.001	95	528265	250.0	226.7	
118 2,5-Dichlorobenzotrifluori	214	12.814	12.813	0.001	98	607921	250.0	239.3	
120 n-Butylbenzene	91	13.063	13.069	-0.006	98	2301855	250.0	241.7	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	98	1268840	250.0	245.2	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	88	110818	250.0	325.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.012	-0.006	99	2522600	750.0	713.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.431	0.001	99	1703909	500.0	487.7	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	98	654550	250.0	252.9	
127 Hexachlorobutadiene	225	14.864	14.869	-0.005	98	277147	250.0	250.8	
128 Naphthalene	128	14.943	14.942	0.001	99	1887643	250.0	251.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.192	-0.006	100	568326	250.0	256.1	
131 2,4,5-Trichlorotoluene	159	15.965	15.970	-0.005	98	286878	250.0	255.6	
130 2,3,6-Trichlorotoluene	159	16.062	16.068	-0.006	98	260759	250.0	251.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	466.6	
S 134 1,2-Dichloroethene, Total	96				0		500.0	525.4	
S 135 1,3-Dichloropropene, Total	1				0		500.0	590.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00031	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	10.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	10.00	Units: uL	
VOAVAPRI_00003	Amount Added:	10.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	10.00	Units: uL	
VOAACRPRI_00003	Amount Added:	11.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

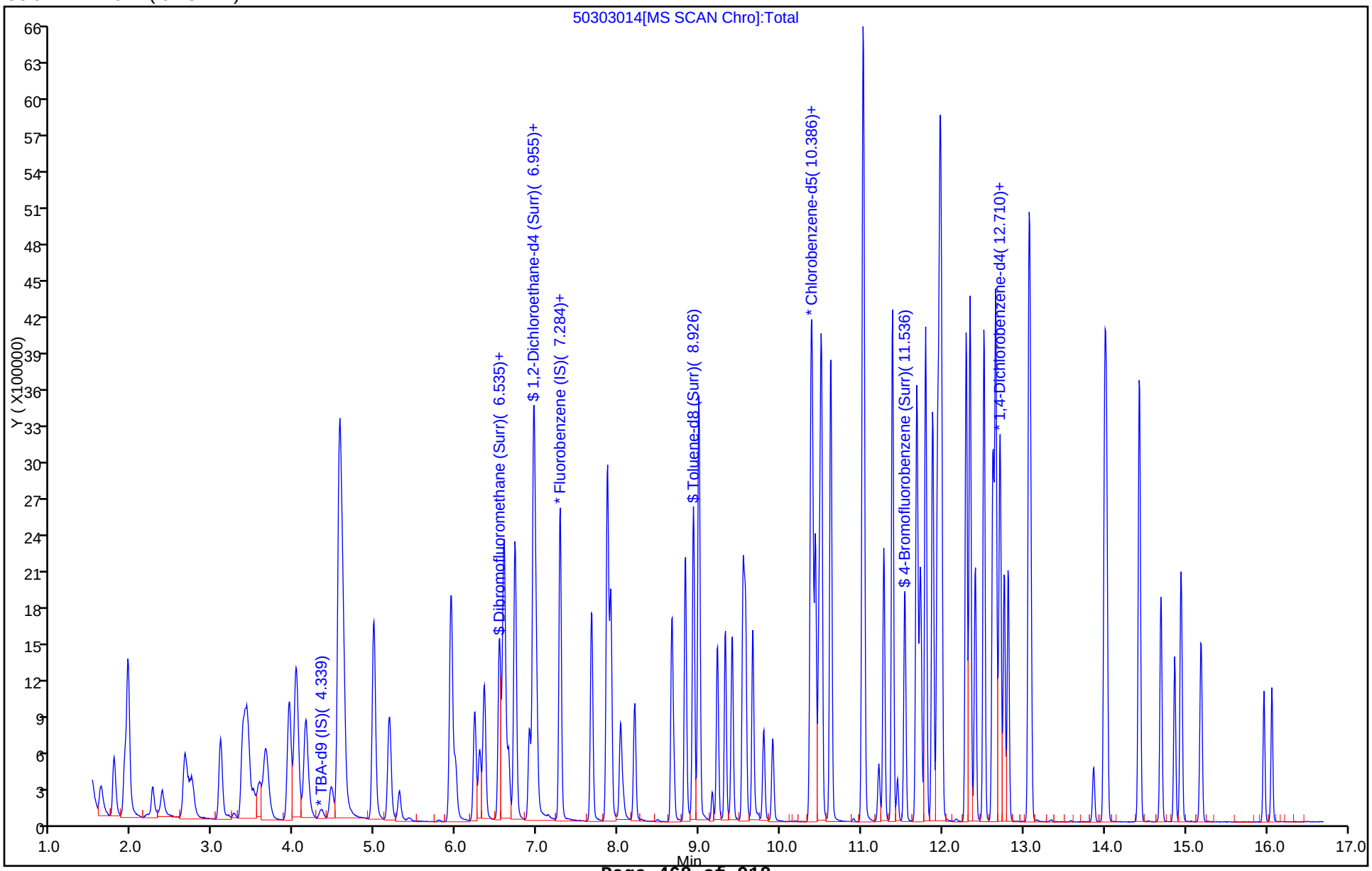
Report Date: 04-Mar-2015 10:13:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303014.D

Injection Date:	03-Mar-2015 16:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 04-Mar-2015 10:13:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2015 18:29:30 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0005873-018
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:25 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:08:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.321	0.006	97	158942	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	436397	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.368	-0.006	99	97555	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	138266	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.536	6.535	0.001	97	9351	5.00	5.00	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.912	-0.011	98	12383	5.00	5.36	
$ 7 Toluene-d8 (Surr)	98	8.926	8.932	-0.006	99	44042	5.00	5.79	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	98	16688	5.00	5.90	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	1	11738	5.00	5.35	
12 Chloromethane	50	1.778	1.778	0.000	99	20422	5.00	5.83	
13 Vinyl chloride	62	1.906	1.912	-0.006	98	18364	5.00	5.45	
14 Butadiene	39	1.949	1.948	0.001	99	25646	5.00	6.57	
15 Bromomethane	94	2.253	2.258	-0.005	49	9174	5.00	4.90	
16 Chloroethane	64	2.393	2.380	0.013	46	8910	5.00	6.50	
17 Dichlorofluoromethane	67	2.654	2.648	0.006	97	18545	5.00	5.90	
18 Trichlorofluoromethane	101	2.703	2.708	-0.005	78	14651	5.00	5.59	
20 Ethyl ether	59	3.098	3.092	0.006	92	15110	5.00	5.97	
21 Acrolein	56	3.263	3.274	-0.011	95	33215	100.0	99.4	
22 1,1-Dichloroethene	96	3.390	3.384	0.006	99	14445	5.00	5.69	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	95	13613	5.00	5.30	
24 Acetone	43	3.518	3.505	0.013	85	27756	25.0	30.3	M
25 Iodomethane	142	3.591	3.585	0.006	94	20517	5.00	5.74	
26 Carbon disulfide	76	3.658	3.664	-0.006	96	31759	5.00	5.08	
28 3-Chloro-1-propene	76	3.944	3.956	-0.012	96	7709	5.00	4.86	
30 Methyl acetate	43	4.029	4.029	0.000	99	68405	25.0	27.1	
31 Methylene Chloride	84	4.145	4.150	-0.005	97	23143	5.00	5.07	
32 2-Methyl-2-propanol	59	4.449	4.454	-0.005	57	8526	50.0	44.8	
33 Acrylonitrile	53	4.564	4.564	0.000	98	66409	50.0	53.1	
34 trans-1,2-Dichloroethene	96	4.571	4.576	-0.005	51	14331	5.00	5.39	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	99	35247	5.00	5.31	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	94	27239	5.00	5.78	
37 1,1-Dichloroethane	63	5.179	5.178	0.001	98	28747	5.00	5.68	
38 Vinyl acetate	43	5.307	5.306	0.001	58	6783	5.00	3.92	
44 2,2-Dichloropropane	77	5.939	5.933	0.006	64	9115	5.00	4.86	
45 cis-1,2-Dichloroethene	96	5.952	5.945	0.007	96	16372	5.00	5.76	
46 2-Butanone (MEK)	43	6.000	6.000	0.000	99	39378	25.0	26.4	
49 Chlorobromomethane	128	6.237	6.237	0.000	91	6992	5.00	5.91	
51 Tetrahydrofuran	42	6.298	6.292	0.006	94	12789	10.0	12.0	
52 Chloroform	83	6.341	6.346	-0.005	96	23149	5.00	5.74	
53 1,1,1-Trichloroethane	97	6.536	6.535	0.001	97	14873	5.00	5.43	
54 Cyclohexane	56	6.590	6.590	0.000	94	32962	5.00	5.36	M
56 Carbon tetrachloride	117	6.724	6.724	0.000	67	9550	5.00	5.14	
55 1,1-Dichloropropene	75	6.736	6.730	0.006	97	18284	5.00	5.23	
57 Isobutyl alcohol	41	6.955	6.949	0.006	34	6766	125.0	113.0	
58 Benzene	78	6.955	6.967	-0.012	98	62303	5.00	5.65	
59 1,2-Dichloroethane	62	6.998	6.991	0.007	97	17175	5.00	5.39	
62 n-Heptane	43	7.278	7.283	-0.005	57	23686	5.00	5.53	
64 Trichloroethene	130	7.679	7.673	0.006	96	12976	5.00	5.00	
66 Methylcyclohexane	83	7.862	7.867	-0.005	98	25976	5.00	5.30	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	93	15999	5.00	5.53	
68 Dibromomethane	93	8.026	8.025	0.001	97	6736	5.00	5.15	
70 1,4-Dioxane	88	8.081	8.068	0.013	40	2785	100.0	107.9	
71 Dichlorobromomethane	83	8.202	8.202	0.000	98	10980	5.00	4.51	
74 cis-1,3-Dichloropropene	75	8.659	8.664	-0.005	97	13441	5.00	4.16	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.828	0.001	99	75647	25.0	25.7	
76 Toluene	91	8.993	8.999	-0.006	99	60820	5.00	6.04	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	94	9160	5.00	4.31	
78 Ethyl methacrylate	69	9.328	9.321	0.007	95	11161	5.00	4.68	
79 1,1,2-Trichloroethane	97	9.407	9.406	0.001	93	10673	5.00	5.80	
80 Tetrachloroethene	164	9.541	9.540	0.001	96	10884	5.00	5.86	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	96	19318	5.00	5.59	
82 2-Hexanone	43	9.669	9.662	0.006	99	51105	25.0	24.9	
84 Chlorodibromomethane	129	9.796	9.796	0.000	96	5520	5.00	4.56	
85 Ethylene Dibromide	107	9.912	9.905	0.007	98	9291	5.00	5.24	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	64	18756	5.00	6.07	
87 Chlorobenzene	112	10.399	10.398	0.000	98	39232	5.00	6.08	
88 4-Chlorobenzotrifluoride	180	10.435	10.428	0.007	97	17103	5.00	5.79	
89 1,1,1,2-Tetrachloroethane	131	10.484	10.477	0.007	94	7857	5.00	5.28	
90 Ethylbenzene	106	10.502	10.508	-0.006	99	20645	5.00	5.54	
91 m-Xylene & p-Xylene	106	10.624	10.623	0.001	99	26322	5.00	5.73	
92 o-Xylene	106	11.019	11.019	0.001	96	25758	5.00	5.78	
93 Styrene	104	11.031	11.031	0.000	96	42726	5.00	5.86	
94 Bromoform	173	11.220	11.213	0.007	52	2588	5.00	4.05	
96 2-Chlorobenzotrifluoride	180	11.275	11.280	-0.005	97	17742	5.00	5.79	
97 Isopropylbenzene	105	11.384	11.384	0.000	99	65207	5.00	5.96	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.682	-0.006	91	12676	5.00	4.97	
100 Bromobenzene	156	11.688	11.688	0.000	97	14051	5.00	5.82	
101 1,2,3-Trichloropropane	110	11.725	11.724	0.001	95	5015	5.00	6.20	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.736	0.007	90	4072	5.00	5.18	
103 N-Propylbenzene	120	11.792	11.791	0.001	100	16822	5.00	5.24	
104 2-Chlorotoluene	126	11.877	11.882	-0.005	99	15299	5.00	5.77	
105 3-Chlorotoluene	126	11.944	11.937	0.007	98	16343	5.00	6.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.962	11.968	-0.006	100	50437	5.00	5.68	
107 4-Chlorotoluene	126	11.986	11.986	0.000	95	15984	5.00	5.59	
108 tert-Butylbenzene	119	12.290	12.296	-0.006	98	43127	5.00	5.63	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	96	51091	5.00	5.58	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	97	10729	5.00	5.19	
112 sec-Butylbenzene	105	12.509	12.515	-0.006	99	65330	5.00	5.92	
113 1,3-Dichlorobenzene	146	12.619	12.625	-0.006	97	28602	5.00	5.99	
114 4-Isopropyltoluene	119	12.662	12.655	0.007	98	51205	5.00	5.66	
115 1,4-Dichlorobenzene	146	12.716	12.710	0.006	98	27681	5.00	5.76	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.764	0.001	93	11024	5.00	5.61	
118 2,5-Dichlorobenzotrifluori	214	12.814	12.813	0.001	95	11088	5.00	5.17	
120 n-Butylbenzene	91	13.063	13.069	-0.006	99	44994	5.00	5.60	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	97	25288	5.00	5.79	
122 1,2-Dibromo-3-Chloropropan	75	13.854	13.866	-0.012	89	1174	5.00	4.08	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.012	-0.006	99	47582	15.0	16.0	M
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.431	0.001	98	32193	10.0	10.9	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	96	11994	5.00	5.49	
127 Hexachlorobutadiene	225	14.864	14.869	-0.005	93	5277	5.00	5.66	
128 Naphthalene	128	14.943	14.942	0.001	99	34798	5.00	5.49	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	95	10498	5.00	5.61	
131 2,4,5-Trichlorotoluene	159	15.965	15.970	-0.005	93	5832	5.00	6.16	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	93	5388	5.00	6.17	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	11.5	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.2	
S 135 1,3-Dichloropropene, Total	1				0		10.0	8.48	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00031	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	0.20	Units: uL	
voaWEEpri Res_00003	Amount Added:	0.20	Units: uL	
voaWKetpri Re_00003	Amount Added:	0.80	Units: uL	
VOAVAPRI_00003	Amount Added:	0.20	Units: uL	
VOAACRPRI_00003	Amount Added:	4.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

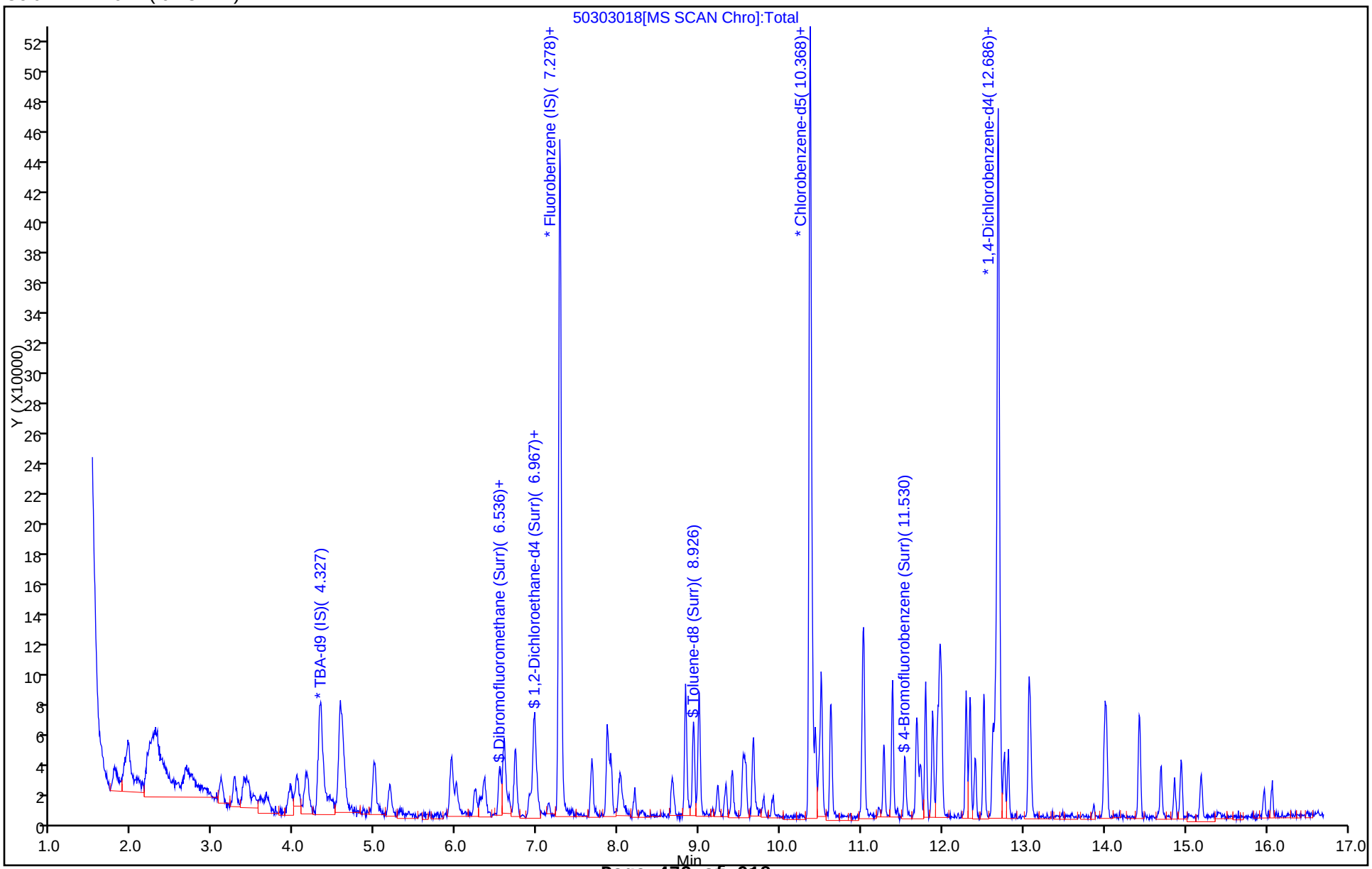
Report Date: 04-Mar-2015 10:13:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Injection Date:	03-Mar-2015 18:29:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	18
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

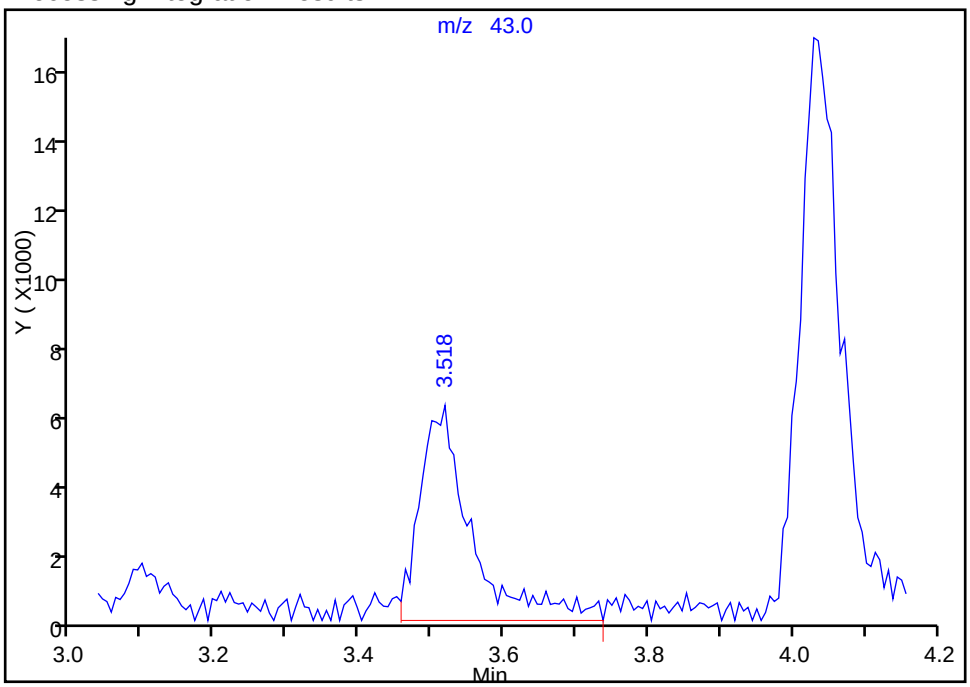
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D
Injection Date: 03-Mar-2015 18:29:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Acetone, CAS: 67-64-1

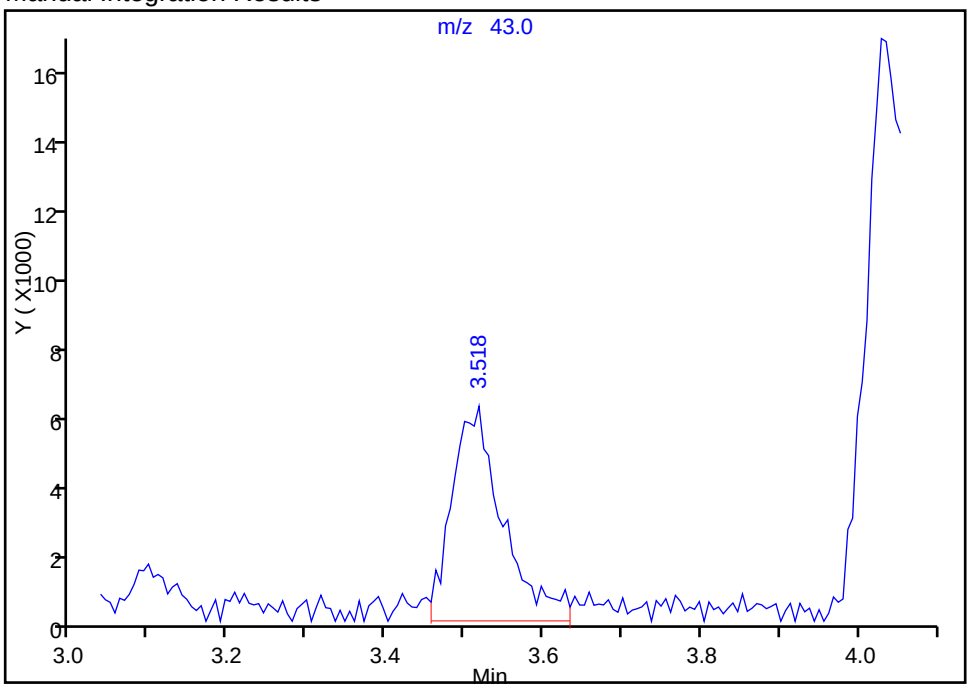
Processing Integration Results

RT: 3.52
Area: 30678
Amount: 34.064759
Amount Units: ng



Manual Integration Results

RT: 3.52
Area: 27756
Amount: 30.284284
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:45:02
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

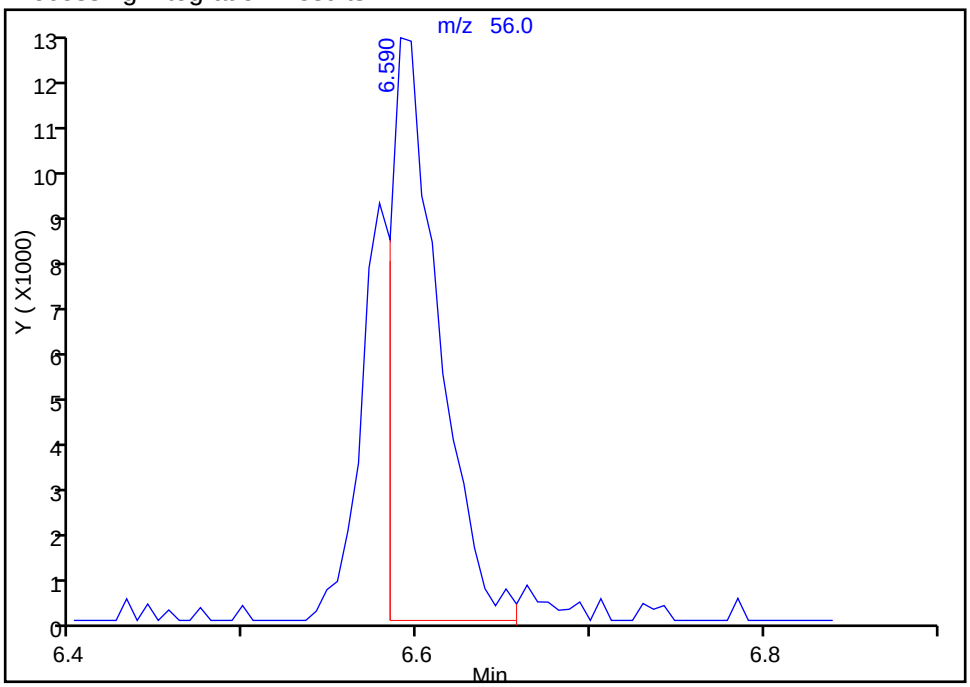
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D
Injection Date: 03-Mar-2015 18:29:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

54 Cyclohexane, CAS: 110-82-7

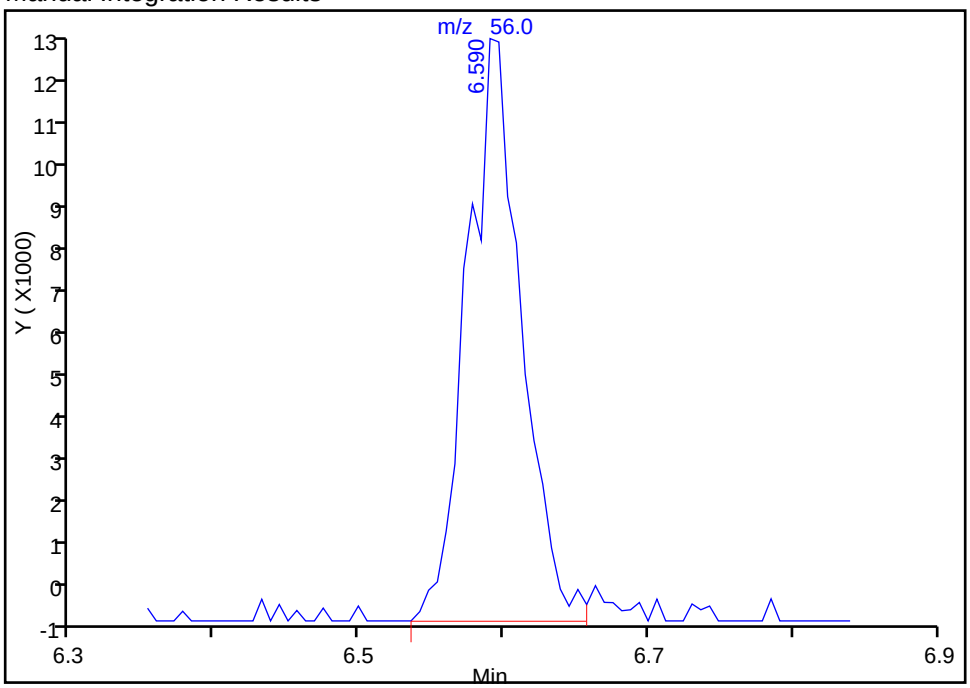
Processing Integration Results

RT: 6.59
Area: 24266
Amount: 3.949469
Amount Units: ng



Manual Integration Results

RT: 6.59
Area: 32962
Amount: 5.357794
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:45:02
Audit Action: Manually Integrated
Audit Reason: Split Peak

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-131929/6	60128006.D
Level 2	IC 180-131929/7	60128007.D
Level 3	ICIS 180-131929/8	60128008.D
Level 4	IC 180-131929/9	60128009.D
Level 5	IC 180-131929/10	60128010.D
Level 6	IC 180-131929/11	60128011.D
Level 7	IC 180-131929/12	60128012.D
Level 8	IC 180-131929/13	60128013.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	0.2515 0.2570	0.3026 0.2707	0.2756 0.2444	0.2408	0.2772	Ave		0.2650			0.1000	7.8		20.0			
Chloromethane	0.3999 0.4010	0.4495 0.4049	0.4034 0.3807	0.3828	0.4377	Ave		0.4075			0.1000	6.0		20.0			
Vinyl chloride	0.3422 0.3550	0.3985 0.3659	0.3669 0.3370	0.3364	0.3870	Ave		0.3611			0.1000	6.4		20.0			
1,3-Butadiene	0.3856 0.3575	0.4506 0.3848	0.3871 0.3581	0.3471	0.4135	Ave		0.3855			0.0100	8.8		20.0			
Bromomethane	0.1467 0.1381	0.1750 0.1385	0.1535 0.1204	0.1356	0.1518	Ave		0.1449			0.0500	11.0		20.0			
Chloroethane	0.2246 0.2156	0.2378 0.2212	0.2308 0.2039	0.2024	0.2350	Ave		0.2214			0.0500	6.0		20.0			
Dichlorofluoromethane	0.5042 0.5028	0.6157 0.5326	0.5347 0.4962	0.4839	0.5527	Ave		0.5279			0.0100	8.0		20.0			
Trichlorofluoromethane	0.3860 0.3913	0.5126 0.4251	0.4168 0.3840	0.3562	0.4323	Ave		0.4130			0.1000	11.0		20.0			
Ethyl ether	0.3086 0.3102	0.3235 0.3233	0.3137 0.3151	0.2963	0.3289	Ave		0.3150			0.0100	3.3		20.0			
Acrolein	0.0396 0.0517	0.0543 0.0531	0.0483 0.0514	0.0494	0.0523	Ave		0.0500			0.0100	9.2		20.0			
1,1-Dichloroethene	0.2617 0.2769	0.3126 0.2902	0.2929 0.2710	0.2438	0.2966	Ave		0.2807			0.1000	7.8		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2784 0.2816	0.3066 0.2868	0.2842 0.2700	0.2572	0.3066	Ave		0.2839			0.1000	5.9		20.0			
Acetone	0.0798 0.0903	0.1021 0.0898	0.0810 0.0901	0.0853	0.0894	Ave		0.0884			0.0500	7.8		20.0			
Iodomethane	0.3845 0.4194	0.4548 0.4293	0.4169 0.4189	0.3736	0.4299	Ave		0.4159			0.0100	6.2		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.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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								
Carbon disulfide	0.7487 0.8423	0.8906 0.8871	0.8183 0.8610	0.7260	0.8778	Ave		0.8315			0.1000	7.6		20.0			
Allyl chloride	0.1478 0.1884	0.2053 0.1953	0.1824 0.1875	0.1614	0.1907	Ave		0.1823			0.0100	10.0		20.0			
Methyl acetate	0.1939 0.2192	0.2296 0.2217	0.2129 0.2109	0.2145	0.2292	Ave		0.2165			0.1000	5.3		20.0			
Methylene Chloride	0.5663 0.3764	0.4406 0.3812	0.3942 0.3763	0.3452	0.4033	Ave		0.4104			0.1000	17.0		20.0			
tert-Butyl alcohol	0.9048 1.1531	1.2046 1.1953	1.1245 1.1486	1.1865	1.1233	Ave		1.1301			0.0100	8.5		20.0			
Acrylonitrile	0.0986 0.1135	0.1174 0.1174	0.1124 0.1105	0.1114	0.1219	Ave		0.1129			0.0100	6.1		20.0			
trans-1,2-Dichloroethene	0.3049 0.3368	0.3676 0.3502	0.3416 0.3352	0.3064	0.3612	Ave		0.3380			0.1000	6.8		20.0			
Methyl tert-butyl ether	0.7928 0.9305	0.9167 0.9185	0.8812 0.8985	0.8253	0.9438	Ave		0.8884			0.1000	6.0		20.0			
Hexane	0.4629 0.4758	0.5115 0.4938	0.4880 0.4752	0.4742	0.5094	Ave		0.4863			0.0100	3.6		20.0			
1,1-Dichloroethane	0.6073 0.6486	0.7152 0.6711	0.6594 0.6387	0.5982	0.6916	Ave		0.6538			0.2000	6.1		20.0			
Vinyl acetate	0.3314 0.3275	0.3270 0.3665	0.3192 0.3491	0.3563	0.3424	Ave		0.3399			0.0100	4.8		20.0			
2-Butanone (MEK)	0.0981 0.1170	0.1045 0.1174	0.1091 0.1130	0.1341	0.1140	Ave		0.1134			0.0500	9.4		20.0			
cis-1,2-Dichloroethene	0.3245 0.3584	0.3872 0.3703	0.3585 0.3605	0.3251	0.3832	Ave		0.3585			0.1000	6.5		20.0			
2,2-Dichloropropane	0.3199 0.3750	0.4095 0.3953	0.3658 0.3787	0.3260	0.3957	Ave		0.3707			0.0100	8.8		20.0			
Bromochloromethane	0.1350 0.1448	0.1446 0.1494	0.1365 0.1459	0.1362	0.1490	Ave		0.1427			0.0100	4.1		20.0			
Tetrahydrofuran	0.0903 0.0790	0.0922 0.0786	0.0695 0.0777	0.0808	0.0836	Ave		0.0815			0.0100	8.9		20.0			
Chloroform	0.5289 0.5736	0.5990 0.5775	0.5675 0.5500	0.5145	0.5923	Ave		0.5629			0.2000	5.3		20.0			
1,1,1-Trichloroethane	0.3563 0.4446	0.4657 0.4553	0.4238 0.4340	0.3968	0.4543	Ave		0.4288			0.1000	8.5		20.0			
Cyclohexane	0.6359 0.6708	0.7886 0.6979	0.7167 0.6628	0.6153	0.7383	Ave		0.6908			0.1000	8.2		20.0			
Carbon tetrachloride	0.3118 0.3436	0.3285 0.3563	0.3441 0.3446	0.2948	0.3616	Ave		0.3357			0.1000	6.8		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.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	0.4003 0.4186	0.4561 0.4404	0.4219 0.4179	0.4152	0.4528	Ave		0.4279			0.0100	4.6		20.0			
Isobutyl alcohol	0.0043 0.0072	0.0064 0.0072	0.0064 0.0068	0.0074	0.0076	Ave		0.0067		*	0.0100	16.0		20.0			
Benzene	1.1307 1.1958	1.3767 1.2342	1.2896 1.1539	1.2476	1.3035	Ave		1.2415			0.5000	6.6		20.0			
1,2-Dichloroethane	0.4007 0.3996	0.4089 0.4174	0.3990 0.4021	0.4078	0.4253	Ave		0.4076			0.1000	2.3		20.0			
n-Heptane	0.3920 0.3756	0.4175 0.3951	0.4074 0.3772	0.3914	0.4078	Ave		0.3955			0.0100	3.8		20.0			
Trichloroethene	0.2891 0.2677	0.3005 0.2889	0.2760 0.2665	0.2817	0.2919	Ave		0.2828			0.2000	4.3		20.0			
Methylcyclohexane	0.5102 0.5411	0.6090 0.5779	0.5854 0.5414	0.5070	0.5852	Ave		0.5572			0.1000	6.8		20.0			
1,2-Dichloropropane	0.3166 0.3290	0.3285 0.3343	0.3184 0.3303	0.3331	0.3380	Ave		0.3285			0.1000	2.3		20.0			
1,4-Dioxane	0.0014 0.0021	0.0019 0.0021	0.0020 0.0019	0.0023	0.0026	Ave		0.0021		*	0.0100	16.0		20.0			
Dibromomethane	0.1216 0.1521	0.1431 0.1598	0.1502 0.1505	0.1442	0.1532	Ave		0.1468			0.0100	7.8		20.0			
Bromodichloromethane	0.2993 0.3553	0.3290 0.3756	0.3325 0.3612	0.3451	0.3571	Ave		0.3444			0.2000	6.9		20.0			
cis-1,3-Dichloropropene	0.3353 0.4110	0.3503 0.4405	0.3634 0.4227	0.4129	0.4256	Ave		0.3952			0.2000	10.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.9540 1.1151	1.1043 1.1718	1.1815 1.0384	1.2050	1.2539	Ave		1.1280			0.1000	8.6		20.0			
Toluene	5.4914 4.5310	5.7208 4.7401	5.6426 4.1615	5.1921	5.4144	Ave		5.1117			0.4000	11.0		20.0			
trans-1,3-Dichloropropene	1.2695 1.3907	1.2955 1.4928	1.3784 1.3478	1.5487	1.4918	Ave		1.4019			0.1000	7.2		20.0			
Ethyl methacrylate	1.1291 1.2563	1.2172 1.3586	1.3093 1.2529	1.3664	1.4291	Ave		1.2899			0.0100	7.4		20.0			
1,1,2-Trichloroethane	1.0185 0.8514	1.0026 0.9021	0.9486 0.8143	0.9248	0.9635	Ave		0.9282			0.1000	7.6		20.0			
Tetrachloroethene	0.9955 0.7962	1.0058 0.8828	0.9677 0.7835	0.9124	0.9591	Ave		0.9129			0.2000	9.4		20.0			
1,3-Dichloropropane	1.7663 1.5809	1.8062 1.6986	1.7615 1.5218	1.8579	1.8132	Ave		1.7258			0.0100	6.8		20.0			
2-Hexanone	0.5452 0.6314	0.6409 0.6677	0.6587 0.6084	0.6924	0.7040	Ave		0.6436			0.1000	7.9		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.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.6719 0.7933	0.7287 0.8651	0.8081 0.7828	0.8040	0.8498	Ave		0.7880			0.1000	7.9		20.0			
1,2-Dibromoethane (EDB)	0.7702 0.8091	0.8566 0.8695	0.8717 0.7825	0.8987	0.8965	Ave		0.8444			0.1000	6.0		20.0			
3-Chlorobenzotrifluoride	2.1092 1.5798	1.9444 1.6709	2.0206 1.4750	1.6511	1.7758	Ave		1.7784			0.0100	13.0		20.0			
Chlorobenzene	3.4601 2.8835	3.3914 3.0356	3.4154 2.7518	3.2008	3.3854	Ave		3.1905			0.5000	8.5		20.0			
4-Chlorobenzotrifluoride	1.8212 1.5037	1.8756 1.5784	1.8254 1.4071	1.5671	1.6615	Ave		1.6550			0.0100	10.0		20.0			
1,1,1,2-Tetrachloroethane	0.8739 1.1196	1.1217 1.1535	1.1594 1.0827	1.0702	1.2192	Ave		1.1000			0.0100	9.3		20.0			
Ethylbenzene	2.0615 1.7563	2.0184 1.8372	2.0638 1.6858	1.8579	2.0338	Ave		1.9143			0.1000	7.8		20.0			
m-Xylene & p-Xylene	2.2289 2.2454	2.6070 2.2936	2.5188 2.0897	2.3575	2.5596	Ave		2.3626			0.1000	7.7		20.0			
o-Xylene	2.3535 2.3021	2.6114 2.3512	2.6901 2.1211	2.3725	2.6243	Ave		2.4283			0.3000	8.0		20.0			
Styrene	3.4711 3.4069	3.6753 3.5670	3.8725 3.1901	3.5790	3.8420	Ave		3.5755			0.3000	6.3		20.0			
Bromoform	0.3456 0.4498	0.4023 0.4747	0.4231 0.4455	0.3941	0.4408	Ave		0.4220			0.1000	9.6		20.0			
2-Chlorobenzotrifluoride	2.0831 1.6651	2.0073 1.7788	2.0600 1.5739	1.7397	1.9308	Ave		1.8549			0.0100	10.0		20.0			
Isopropylbenzene	6.1322 5.3578	7.0417 5.5217	6.7733 4.8040	5.7294	6.5255	Ave		5.9857			0.1000	13.0		20.0			
1,1,2,2-Tetrachloroethane	1.2405 1.1782	1.3514 1.2324	1.3065 1.1416	1.2206	1.3137	Ave		1.2481			0.3000	5.7		20.0			
Bromobenzene	0.8075 0.8703	0.8805 0.8822	0.8751 0.8614	0.9099	0.9143	Ave		0.8752			0.0100	3.8		20.0			
trans-1,4-Dichloro-2-butene	0.2451 0.2511	0.2240 0.2674	0.2263 0.2510	0.2496	0.2545	Ave		0.2461			0.0100	5.9		20.0			
1,2,3-Trichloropropane	0.2160 0.2538	0.2689 0.2524	0.2612 0.2534	0.2761	0.2673	Ave		0.2561			0.0100	7.1		20.0			
N-Propylbenzene	0.9508 1.0270	1.1121 1.0371	1.0896 0.9935	1.0682	1.0870	Ave		1.0457			0.0100	5.2		20.0			
2-Chlorotoluene	0.9024 0.8995	0.9760 0.9205	0.9138 0.8970	0.9017	0.9611	Ave		0.9215			0.0100	3.3		20.0			
3-Chlorotoluene	1.0017 0.9586	0.9692 0.9307	1.0137 0.9112	0.9609	0.9611	Ave		0.9634			0.0100	3.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.0768 3.2530	3.7359 3.2181	3.5555 3.0192	3.4050	3.6257	Ave		3.3612			0.0100	7.8		20.0			
4-Chlorotoluene	0.9577 0.8968	0.9866 0.9558	0.9331 0.9061	0.9440	0.9865	Ave		0.9458			0.0100	3.5		20.0			
tert-Butylbenzene	2.5600 2.5478	2.7508 2.5597	2.6532 2.3924	2.6993	2.7650	Ave		2.6160			0.0100	4.8		20.0			
1,2,4-Trimethylbenzene	3.3035 3.3532	3.8322 3.3235	3.7005 3.1044	3.4799	3.7246	Ave		3.4777			0.0100	7.3		20.0			
3,4-Dichlorobenzotrifluoride	0.9887 0.9504	1.0234 0.9539	1.0268 0.9051	0.9364	0.9894	Ave		0.9718			0.0100	4.4		20.0			
sec-Butylbenzene	3.9016 3.7982	4.5860 3.7545	4.3726 3.4441	4.1591	4.3402	Ave		4.0445			0.0100	9.5		20.0			
1,3-Dichlorobenzene	1.7518 1.6682	1.8502 1.6495	1.7633 1.5971	1.6478	1.7893	Ave		1.7146			0.6000	5.0		20.0			
4-Isopropyltoluene	3.1932 3.1803	3.5244 3.1617	3.4397 2.9124	3.3244	3.5095	Ave		3.2807			0.0100	6.4		20.0			
1,4-Dichlorobenzene	1.8921 1.7229	1.8544 1.7172	1.7634 1.6486	1.7582	1.8323	Ave		1.7736			0.5000	4.6		20.0			
2,4-Dichlorobenzotrifluoride	0.8418 0.9115	1.1643 0.9139	1.0936 0.9451	0.9618	0.9706	Ave		0.9753			0.0100	11.0		20.0			
2,5-Dichlorobenzotrifluoride	1.0277 1.1282	1.0948 1.1145	1.0804 0.9872	1.0256	1.1409	Ave		1.0749			0.0100	5.2		20.0			
n-Butylbenzene	2.8749 3.0408	3.5216 3.0472	3.3346 2.8083	3.1859	3.4281	Ave		3.1552			0.0100	8.2		20.0			
1,2-Dichlorobenzene	1.7178 1.6847	1.8218 1.6615	1.7626 1.6068	1.6829	1.7742	Ave		1.7140			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	0.1196 0.1498	0.1418 0.1456	0.1302 0.1391	0.1296	0.1389	Ave		0.1368			0.0500	7.2		20.0			
1,2,4-Trichlorobenzene	1.2077 1.3259	1.4506 1.3099	1.3159 1.2520	1.3543	1.4062	Ave		1.3278			0.2000	5.9		20.0			
Hexachlorobutadiene	0.4827 0.5151	0.5622 0.5136	0.5273 0.4845	0.5177	0.5517	Ave		0.5193			0.0100	5.4		20.0			
Naphthalene	1.8023 2.3658	2.4053 2.3151	2.3140 2.1769	2.4289	2.4476	Ave		2.2820			0.0100	9.3		20.0			
1,2,3-Trichlorobenzene	0.9869 1.1121	1.2131 1.1031	1.0884 1.0649	1.1361	1.1802	Ave		1.1106			0.0100	6.3		20.0			
2,4,5-Trichlorotoluene	0.8654 0.8230	0.8306 0.8086	0.8131 0.7852	0.7828	0.8314	Ave		0.8175			0.0100	3.3		20.0			
2,3,6-Trichlorotoluene	0.7105 0.7303	0.7883 0.7307	0.7351 0.7070	0.6935	0.7334	Ave		0.7286			0.0100	3.9		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.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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								
Dibromofluoromethane (Surr)	0.2174 0.2296	0.2406 0.2250	0.2312 0.2238	0.2125	0.2294	Ave		0.2262				3.8		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3069 0.3169	0.3462 0.3188	0.3353 0.3175	0.3254	0.3226	Ave		0.3237				3.8		20.0			
Toluene-d8 (Surr)	4.7309 3.4535	4.2834 3.3788	4.5099 3.1748	3.9656	4.0301	Ave		3.9409				14.0		20.0			
4-Bromofluorobenzene (Surr)	2.0381 1.5065	1.7519 1.5176	1.8406 1.4336	1.6178	1.7074	Ave		1.6767				12.0		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 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-131929/6	60128006.D
Level 2	IC 180-131929/7	60128007.D
Level 3	ICIS 180-131929/8	60128008.D
Level 4	IC 180-131929/9	60128009.D
Level 5	IC 180-131929/10	60128010.D
Level 6	IC 180-131929/11	60128011.D
Level 7	IC 180-131929/12	60128012.D
Level 8	IC 180-131929/13	60128013.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	12441 399376	61413 466774	123370 543864	178504	243452	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	19782 623186	91222 698118	180612 847288	283765	384421	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	16929 551705	80864 630878	164249 750079	249364	339939	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	19072 555574	91449 663356	173303 797079	257326	363197	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	7254 214591	35506 238802	68708 267917	100551	133368	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	11109 335043	48264 381411	103324 453830	150069	206434	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	24939 781500	124955 918274	239388 1104334	358712	485448	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	19093 608185	104021 732912	186613 854688	264073	379709	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	15266 482160	65645 557320	140456 701385	219655	288913	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	39186 103226	55086 114431	64846 125821	85368	91786	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	12943 430377	63440 500308	131155 603276	180761	260475	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	13773 437728	62215 494476	127227 600973	190645	269318	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	19736 280558	41421 309648	72525 400973	126400	156961	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	19019 651846	92291 740212	186664 932274	276926	377556	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	37034 1309070	180744 1529475	366360 1916453	538178	770934	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	7309 292881	41661 336687	81645 417234	119671	167495	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	47953 1703104	232955 1911445	476543 2346689	795107	1006389	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	28011 585012	89407 657192	176505 837610	255870	354231	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	5769 335472	44315 373469	82385 475572	157863	196865	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	48759 1763284	238315 2023857	503259 2458471	825638	1070950	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	15080 523513	74610 603714	152947 746155	227148	317224	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	39215 1446119	186042 1583536	394527 1999816	611806	828973	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	22898 739493	103798 851374	218490 1057585	351514	447359	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	30038 1008065	145146 1157116	295240 1421566	443424	607468	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	16394 509076	66357 631938	142927 777050	264095	300763	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	24262 363723	42402 404756	97685 502816	198782	200186	25.0 350	50.0 400	100 500	150	200
cis-1,2-Dichloroethene	FB	Ave	16049 557043	78570 638509	160524 802357	240979	336595	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	15822 582789	83097 681588	163798 842775	241640	347540	5.00 175	25.0 200	50.0 250	75.0	100
Bromochloromethane	FB	Ave	6679 225087	29353 257539	61127 324697	100988	130848	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	8931 245422	37414 271171	62273 346093	119820	146874	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	26162 891515	121573 995734	254065 1224156	381367	520205	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	17622 690974	94502 785027	189759 966056	294109	399010	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	31454 1042561	160049 1203343	320878 1475197	456085	648441	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	15423 533960	66664 614377	154066 766964	218554	317552	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	19800 650661	92563 759338	188906 930038	307766	397719	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	5333 280190	32224 309707	71829 377064	137058	166021	125 4375	625 5000	1250 6250	1875	2500

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	55932 1858516	279397 2127915	577373 2568317	924844	1144809	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	19819 620987	82990 719730	178647 895039	302310	373539	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	19391 583751	84739 681180	182403 839502	290134	358203	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	14298 416102	60983 498060	123549 593184	208800	256342	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25239 840990	123591 996383	262105 1205068	375853	513997	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	15660 511401	66666 576307	142558 735181	246898	296893	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1410 66654	7809 73473	18208 86605	33822	44901	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	6013 236358	29036 275521	67249 334892	106863	134511	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	14807 552260	66762 647525	148860 803958	255826	313642	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	16586 638776	71082 759439	162719 940779	306111	373776	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	48490 833434	94789 963310	221045 1165825	401820	485147	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	55826 1693226	245530 1948278	527825 2335981	865706	1047433	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	12906 519690	55603 613591	128942 756557	258221	288597	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	11478 469489	52242 558436	122480 703298	227823	276463	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10354 318177	43032 370798	88732 457078	154194	186391	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	10120 297552	43168 362836	90521 439818	152121	185546	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	17956 590770	77521 698175	164779 854230	309767	350761	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	27710 471926	55014 548903	123231 682982	230885	272392	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	6831 296438	31276 355583	75589 439418	134047	164399	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	7830 302375	36764 357378	81540 439262	149846	173425	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	21442 590382	83450 686787	189015 827969	275294	343534	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	35175 1077548	145556 1247688	319491 1544665	533675	654919	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	18514 561945	80499 648765	170754 789851	261287	321428	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8884 418399	48143 474135	108450 607735	178444	235848	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	20957 656339	86627 755113	193055 946322	309783	393435	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	22659 839112	111891 942705	235617 1173036	393071	495166	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	23926 860280	112080 966416	251637 1190653	395578	507675	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	35287 1273143	157741 1466119	362245 1790733	596747	743239	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	3513 168078	17267 195103	39579 250089	65704	85273	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	21177 622262	86153 731138	192703 883499	290061	373509	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	62340 2002206	302221 2269536	633598 2696635	955292	1262379	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	12611 440302	58000 506563	122215 640819	203512	254135	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	13104 477179	60469 550534	135116 690860	223525	278729	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3977 137653	15381 166844	34948 201266	61317	77586	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	3506 139161	18469 157512	40329 203260	67823	81476	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	15430 563113	76375 647166	168244 796757	262417	331379	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	14645 493158	67028 574430	141092 719388	221515	293005	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	16255 525597	66559 580756	156510 730727	236047	292985	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	49931 1783600	256568 2008176	548969 2421330	836492	1105314	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	15542 491693	67753 596461	144067 726677	231900	300726	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	41544 1396912	188912 1597317	409657 1918630	663124	842934	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	53610 1838518	263177 2073941	571367 2489630	854880	1135474	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	16045 521070	70285 595281	158534 725838	230038	301633	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	63316 2082501	314946 2342860	675141 2762118	1021731	1323132	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	28428 914665	127066 1029314	272251 1280853	404796	545480	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	51820 1743713	242039 1972986	531099 2335695	816686	1069888	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	30705 944630	127353 1071549	272272 1322179	431926	558588	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	13661 499776	79958 570286	168861 757959	236290	295903	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	16677 618602	75184 695499	166815 791743	251951	347814	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	46654 1667227	241849 1901534	514864 2252239	782657	1045083	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	27877 923690	125111 1036802	272148 1288639	413439	540869	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1941 82124	9741 90830	20104 111534	31840	42357	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	19598 726984	99622 817434	203185 1004110	332715	428696	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	7834 282422	38609 320466	81412 388561	127169	168186	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	29248 1297115	165187 1444669	357281 1745866	596683	746148	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	16016 609774	83313 688354	168045 854020	279103	359783	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	14043 451216	57044 504552	125544 629698	192318	253456	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	11530 400428	54138 455993	113503 566962	170378	223585	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	10756 356892	48823 387858	103502 498125	157502	201508	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	15181 492507	70258 549644	150111 706731	241234	283354	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	48094 1290581	183840 1388779	421866 1782119	661202	779639	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	20719 562972	75189 623752	172172 804742	269743	330292	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 131929

SDG No.:

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

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

Curve Type Legend:
Ave = Average ISTD

Report Date: 29-Jan-2015 12:59:06 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Jan-2015 13:58:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0005450-006
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:05 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:25:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.261	4.279	-0.018	94	127519	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.327	0.000	98	494647	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.436	10.442	-0.006	91	101660	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.790	0.000	98	162281	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.597	6.597	0.000	51	10756	5.00	4.81	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.974	0.000	51	15181	5.00	4.74	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	94	48094	5.00	6.00	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.628	0.000	79	20719	5.00	6.08	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	94	12441	5.00	4.75	
12 Chloromethane	50	1.767	1.773	-0.006	97	19782	5.00	4.91	
13 Vinyl chloride	62	1.900	1.907	-0.006	94	16929	5.00	4.74	
14 Butadiene	39	1.931	1.943	-0.012	96	19072	5.00	5.00	
15 Bromomethane	94	2.247	2.253	-0.006	77	7254	5.00	5.06	M
16 Chloroethane	64	2.393	2.393	0.000	58	11109	5.00	5.07	M
17 Dichlorofluoromethane	67	2.673	2.673	0.000	92	24939	5.00	4.78	
18 Trichlorofluoromethane	101	2.697	2.685	0.012	77	19093	5.00	4.67	
20 Ethyl ether	59	3.062	3.075	-0.013	96	15266	5.00	4.90	
21 Acrolein	56	3.251	3.263	-0.012	96	39186	100.0	79.2	
22 1,1-Dichloroethene	96	3.385	3.373	0.012	78	12943	5.00	4.66	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.427	0.006	68	13773	5.00	4.90	
24 Acetone	43	3.452	3.464	-0.012	97	19736	25.0	22.6	
25 Iodomethane	142	3.567	3.579	-0.012	99	19019	5.00	4.62	
26 Carbon disulfide	76	3.677	3.689	-0.012	100	37034	5.00	4.50	
29 3-Chloro-1-propene	76	3.963	3.957	0.006	66	7309	5.00	4.05	
30 Methyl acetate	43	3.969	3.969	0.000	97	47953	25.0	22.4	
31 Methylene Chloride	84	4.182	4.176	0.006	91	28011	5.00	6.90	
32 2-Methyl-2-propanol	59	4.395	4.407	-0.012	54	5769	50.0	40.0	
33 Acrylonitrile	53	4.547	4.547	0.000	91	48759	50.0	43.7	M
34 trans-1,2-Dichloroethene	96	4.602	4.614	-0.012	73	15080	5.00	4.51	
35 Methyl tert-butyl ether	73	4.608	4.614	-0.006	98	39215	5.00	4.46	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.033	5.033	0.000	96	22898	5.00	4.76	
37 1,1-Dichloroethane	63	5.246	5.246	0.000	55	30038	5.00	4.64	M
38 Vinyl acetate	43	5.283	5.283	0.000	77	16394	5.00	4.87	
44 2-Butanone (MEK)	43	5.982	5.982	0.000	80	24262	25.0	21.6	
43 cis-1,2-Dichloroethene	96	5.989	5.982	0.007	85	16049	5.00	4.53	
42 2,2-Dichloropropane	77	5.982	5.989	-0.006	59	15822	5.00	4.31	
49 Tetrahydrofuran	42	6.287	6.281	0.007	89	8931	10.0	11.1	
48 Chlorobromomethane	128	6.274	6.281	-0.006	94	6679	5.00	4.73	
50 Chloroform	83	6.414	6.414	0.000	94	26162	5.00	4.70	
51 1,1,1-Trichloroethane	97	6.585	6.585	0.000	94	17622	5.00	4.15	
52 Cyclohexane	56	6.658	6.664	-0.006	96	31454	5.00	4.60	
53 Carbon tetrachloride	117	6.755	6.767	-0.012	77	15423	5.00	4.64	
54 1,1-Dichloropropene	75	6.767	6.773	-0.006	90	19800	5.00	4.68	
55 Isobutyl alcohol	41	6.925	6.938	-0.013	43	5333	125.0	81.0	
56 Benzene	78	6.974	6.986	-0.012	97	55932	5.00	4.55	
57 1,2-Dichloroethane	62	7.059	7.065	-0.006	97	19819	5.00	4.91	
59 n-Heptane	43	7.345	7.345	0.000	94	19391	5.00	4.96	
61 Trichloroethene	130	7.722	7.722	0.000	95	14298	5.00	5.11	
63 Methylcyclohexane	83	7.966	7.966	0.000	92	25239	5.00	4.58	
64 1,2-Dichloropropane	63	7.996	7.990	0.006	96	15660	5.00	4.82	
65 1,4-Dioxane	88	8.069	8.075	-0.006	31	1410	100.0	69.4	
67 Dibromomethane	93	8.075	8.081	-0.006	91	6013	5.00	4.14	
68 Dichlorobromomethane	83	8.270	8.270	0.000	93	14807	5.00	4.35	
71 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	92	16586	5.00	4.24	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.854	0.000	97	48490	25.0	21.1	
73 Toluene	91	9.049	9.048	0.001	97	55826	5.00	5.37	
74 trans-1,3-Dichloropropene	75	9.298	9.292	0.006	97	12906	5.00	4.53	
75 Ethyl methacrylate	69	9.347	9.347	0.000	88	11478	5.00	4.38	
76 1,1,2-Trichloroethane	97	9.487	9.493	-0.006	84	10354	5.00	5.49	
77 Tetrachloroethene	164	9.572	9.566	0.006	95	10120	5.00	5.45	
78 1,3-Dichloropropane	76	9.651	9.651	0.000	91	17956	5.00	5.12	
79 2-Hexanone	43	9.687	9.687	0.000	98	27710	25.0	21.2	
81 Chlorodibromomethane	129	9.870	9.864	0.006	88	6831	5.00	4.26	
82 Ethylene Dibromide	107	9.979	9.985	-0.006	69	7830	5.00	4.56	
83 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	91	21442	5.00	5.93	
84 Chlorobenzene	112	10.466	10.472	-0.006	92	35175	5.00	5.42	
85 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	95	18514	5.00	5.50	
87 Ethylbenzene	106	10.563	10.563	0.000	98	20957	5.00	5.38	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.563	0.000	41	8884	5.00	3.97	M
88 m-Xylene & p-Xylene	106	10.697	10.697	0.000	97	22659	5.00	4.72	
89 o-Xylene	106	11.080	11.080	0.000	97	23926	5.00	4.85	
90 Styrene	104	11.099	11.099	0.000	93	35287	5.00	4.85	
91 Bromoform	173	11.281	11.287	-0.006	20	3513	5.00	4.09	
92 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	95	21177	5.00	5.62	
93 Isopropylbenzene	105	11.452	11.451	0.001	96	62340	5.00	5.12	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.756	0.000	90	12611	5.00	4.97	
95 Bromobenzene	156	11.768	11.768	0.000	93	13104	5.00	4.61	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.792	0.000	57	3977	5.00	4.98	
98 1,2,3-Trichloropropane	110	11.823	11.810	0.013	79	3506	5.00	4.22	
99 N-Propylbenzene	120	11.871	11.871	0.000	99	15430	5.00	4.55	
100 2-Chlorotoluene	126	11.963	11.956	0.006	94	14645	5.00	4.90	
101 3-Chlorotoluene	126	12.029	12.023	0.006	96	16255	5.00	5.20	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.048	0.000	92	49931	5.00	4.58	
103 4-Chlorotoluene	126	12.078	12.078	0.000	99	15542	5.00	5.06	
104 tert-Butylbenzene	119	12.364	12.364	0.000	93	41544	5.00	4.89	
106 1,2,4-Trimethylbenzene	105	12.425	12.425	0.000	96	53610	5.00	4.75	
107 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	95	16045	5.00	5.09	
108 sec-Butylbenzene	105	12.583	12.589	-0.006	95	63316	5.00	4.82	
109 1,3-Dichlorobenzene	146	12.711	12.711	0.000	93	28428	5.00	5.11	
110 4-Isopropyltoluene	119	12.747	12.741	0.006	95	51820	5.00	4.87	
111 1,4-Dichlorobenzene	146	12.814	12.814	0.000	89	30705	5.00	5.33	
113 2,4-Dichloro-1-(triflourom	214	12.826	12.826	0.000	55	13661	5.00	4.32	
114 2,5-Dichlorobenzotrifluori	214	12.869	12.869	0.000	94	16677	5.00	4.78	
116 n-Butylbenzene	91	13.155	13.155	0.000	96	46654	5.00	4.56	
117 1,2-Dichlorobenzene	146	13.167	13.173	-0.006	92	27877	5.00	5.01	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.964	-0.006	12	1941	5.00	4.37	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.104	0.000	98	75930	15.0	14.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.524	14.518	0.006	98	55126	10.0	9.66	
122 1,2,4-Trichlorobenzene	180	14.785	14.791	-0.006	91	19598	5.00	4.55	
123 Hexachlorobutadiene	225	14.931	14.931	0.000	93	7834	5.00	4.65	
124 Naphthalene	128	15.053	15.053	0.000	97	29248	5.00	3.95	
125 1,2,3-Trichlorobenzene	180	15.278	15.278	0.000	92	16016	5.00	4.44	
126 2,4,5-Trichlorotoluene	159	16.045	16.044	0.001	0	14043	5.00	5.29	
127 2,3,6-Trichlorotoluene	159	16.148	16.148	0.000	90	11530	5.00	4.88	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	9.04	
S 131 Xylenes, Total	106				0		10.0	9.56	
S 132 1,3-Dichloropropene, Total	1				0		10.0	8.77	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	0.20	Units: uL	
voaWeemixpri_00001	Amount Added:	0.20	Units: uL	
voaWVApri Res_00001	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	0.20	Units: uL	
VOAKETONEPRI_00003	Amount Added:	0.80	Units: uL	
voaWAcropri R_00006	Amount Added:	4.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

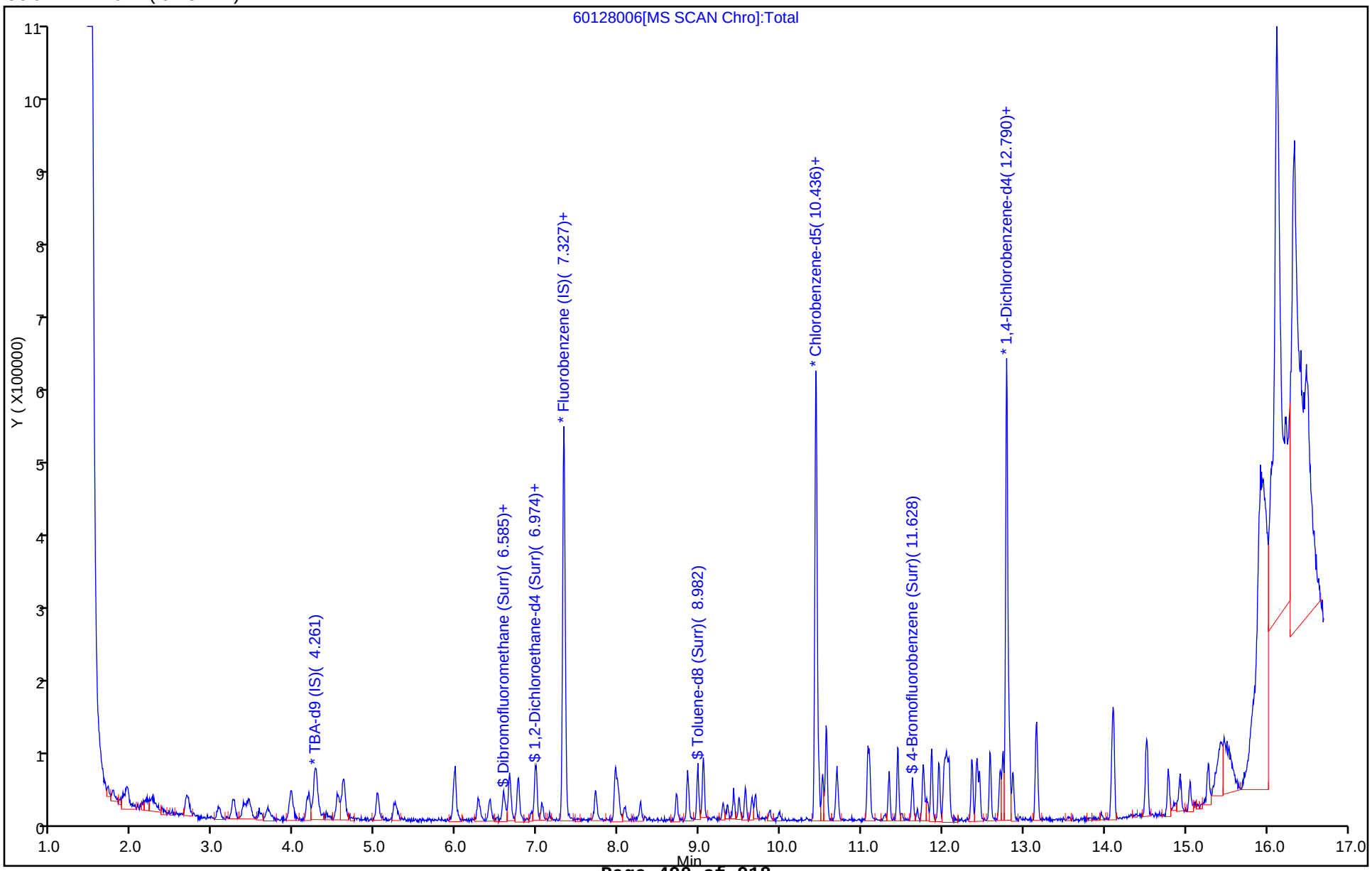
Report Date: 29-Jan-2015 12:59:06 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D

Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

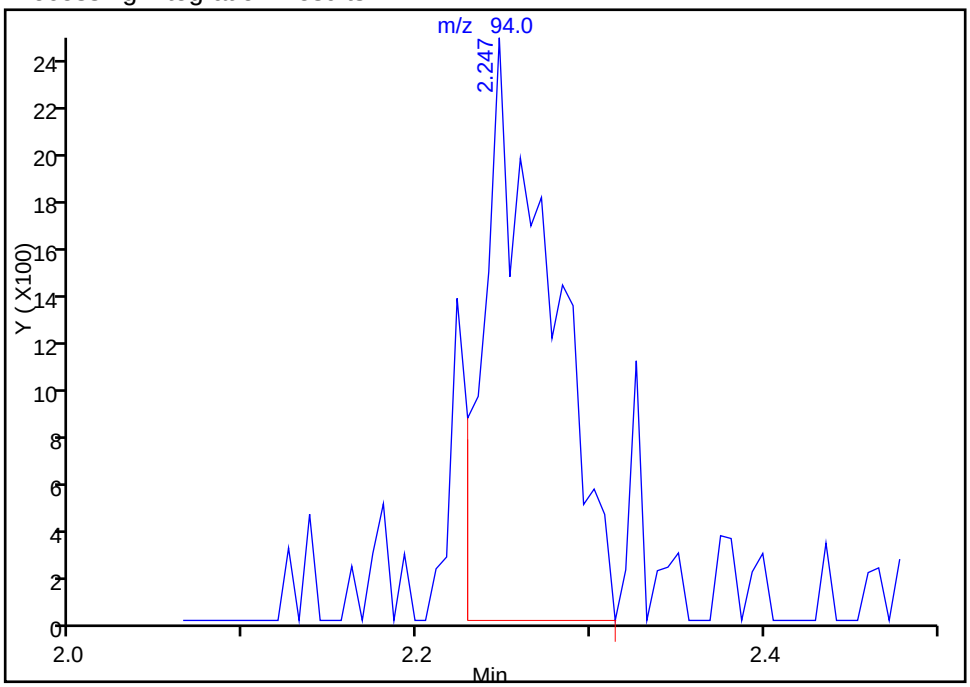
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

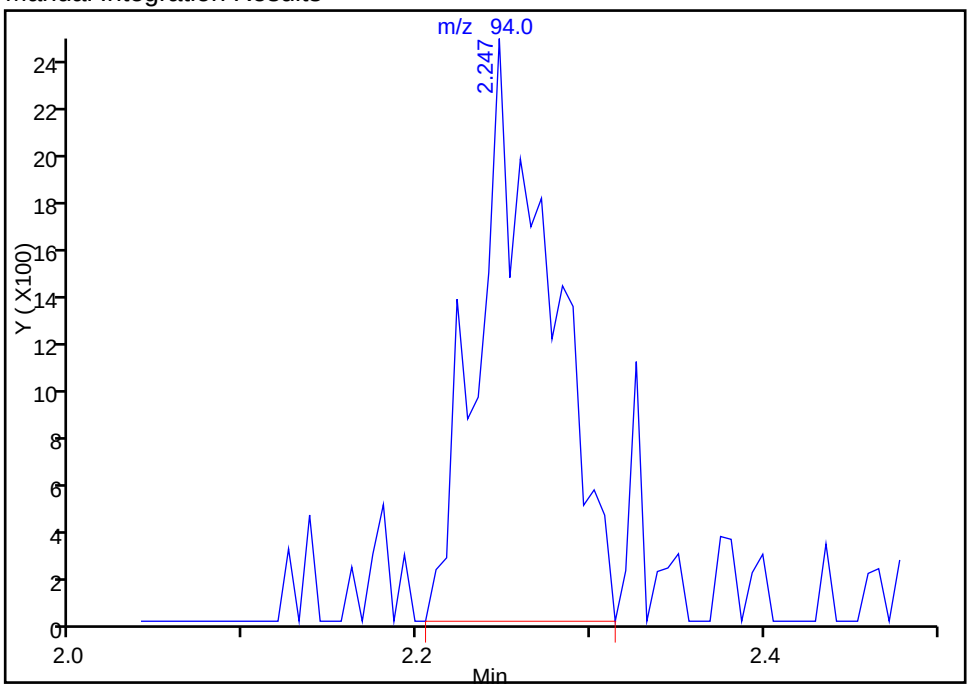
Processing Integration Results

RT: 2.25
Area: 6582
Amount: 4.663707
Amount Units: ng



Manual Integration Results

RT: 2.25
Area: 7254
Amount: 5.059028
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

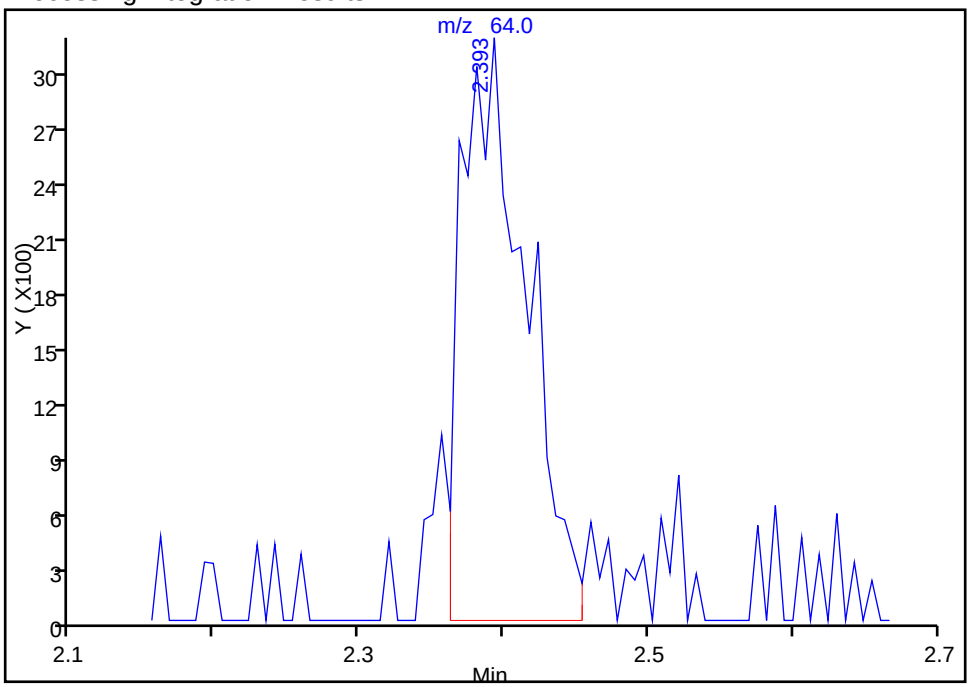
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D
Injection Date: 28-Jan-2015 13:58:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

16 Chloroethane, CAS: 75-00-3

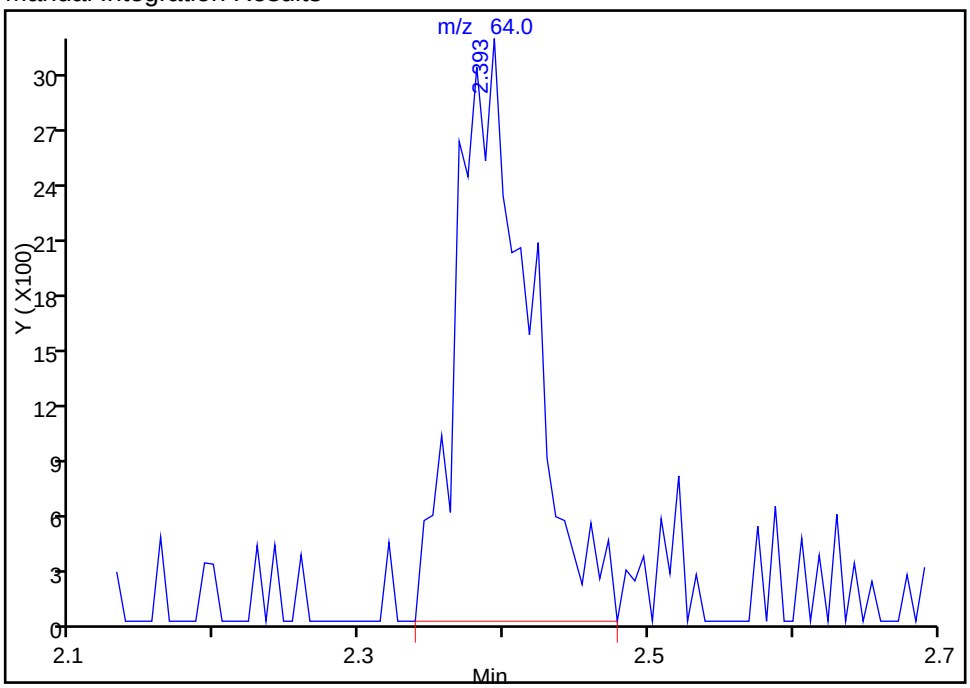
Processing Integration Results

RT: 2.39
Area: 9880
Amount: 4.574556
Amount Units: ng



Manual Integration Results

RT: 2.39
Area: 11109
Amount: 5.071451
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

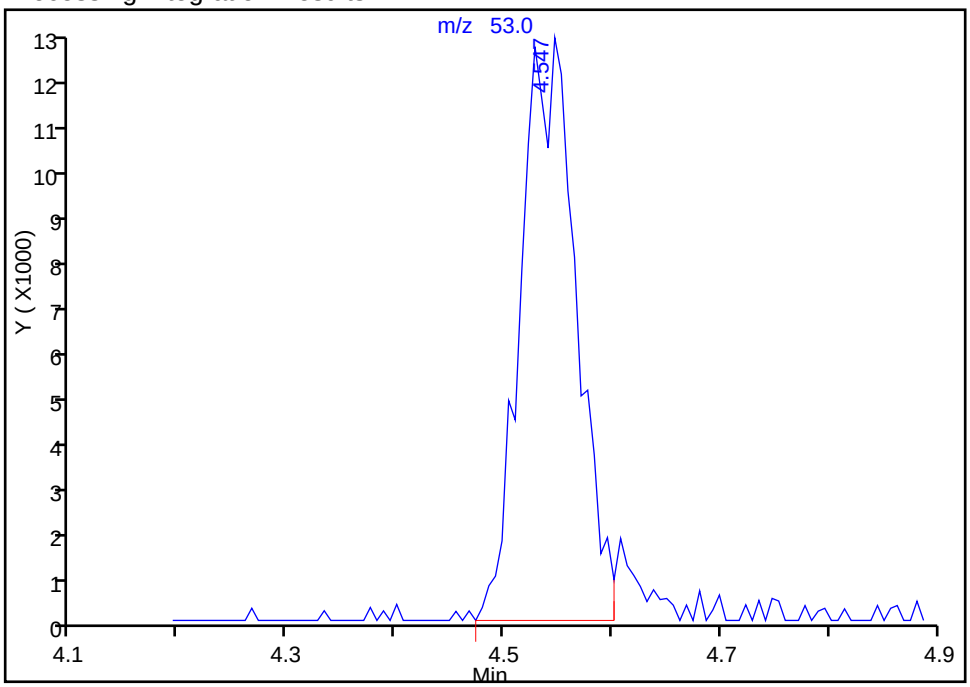
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

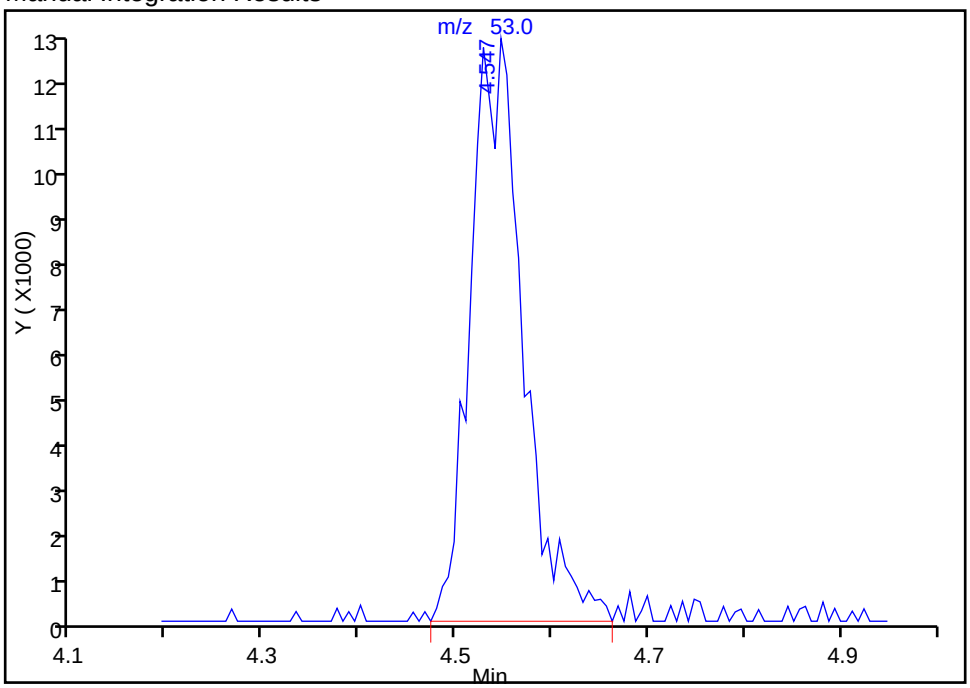
Processing Integration Results

RT: 4.55
Area: 46151
Amount: 41.571241
Amount Units: ng



Manual Integration Results

RT: 4.55
Area: 48759
Amount: 43.664000
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

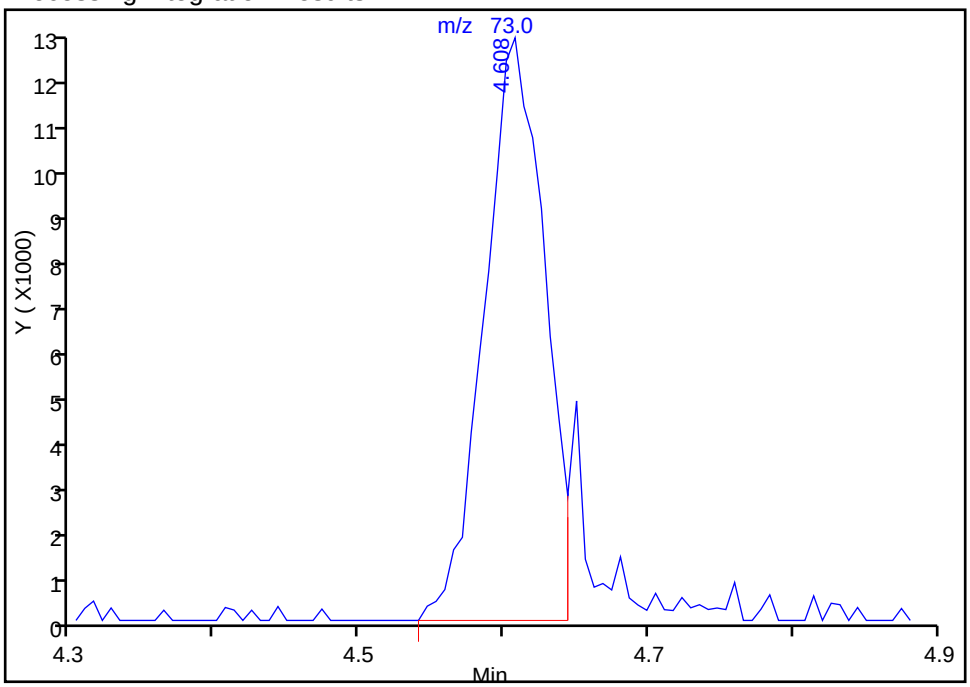
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D
Injection Date: 28-Jan-2015 13:58:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

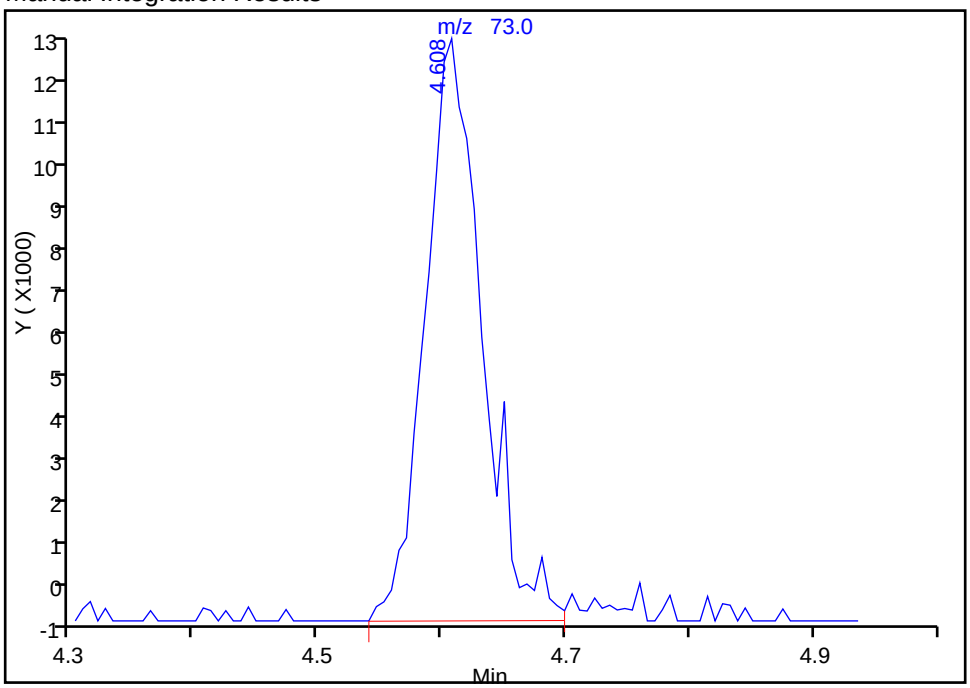
Processing Integration Results

RT: 4.61
Area: 35452
Amount: 4.077319
Amount Units: ng



Manual Integration Results

RT: 4.61
Area: 39215
Amount: 4.461825
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

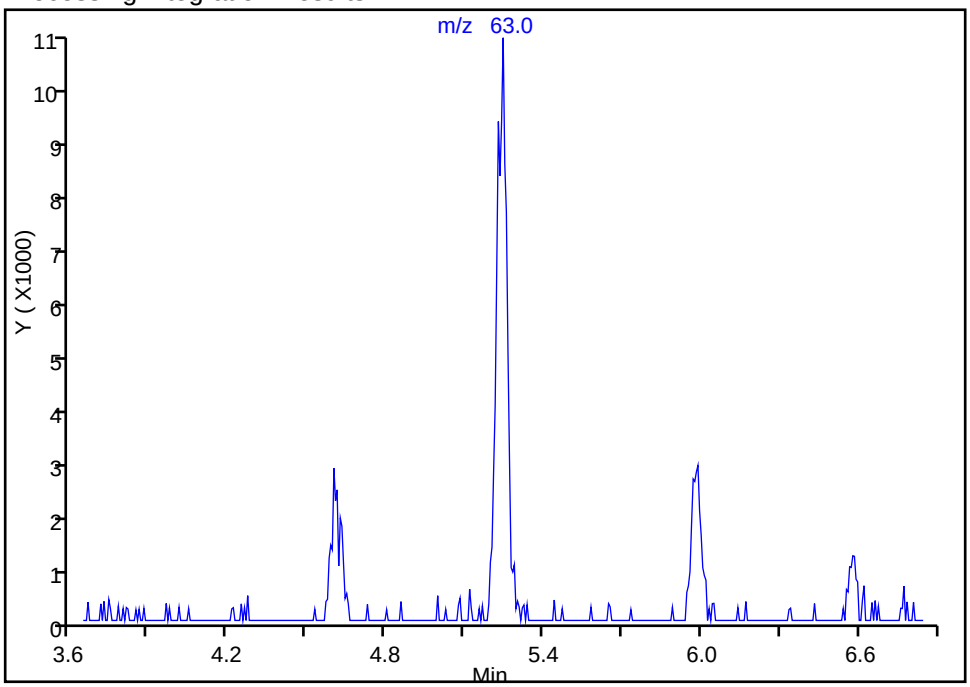
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

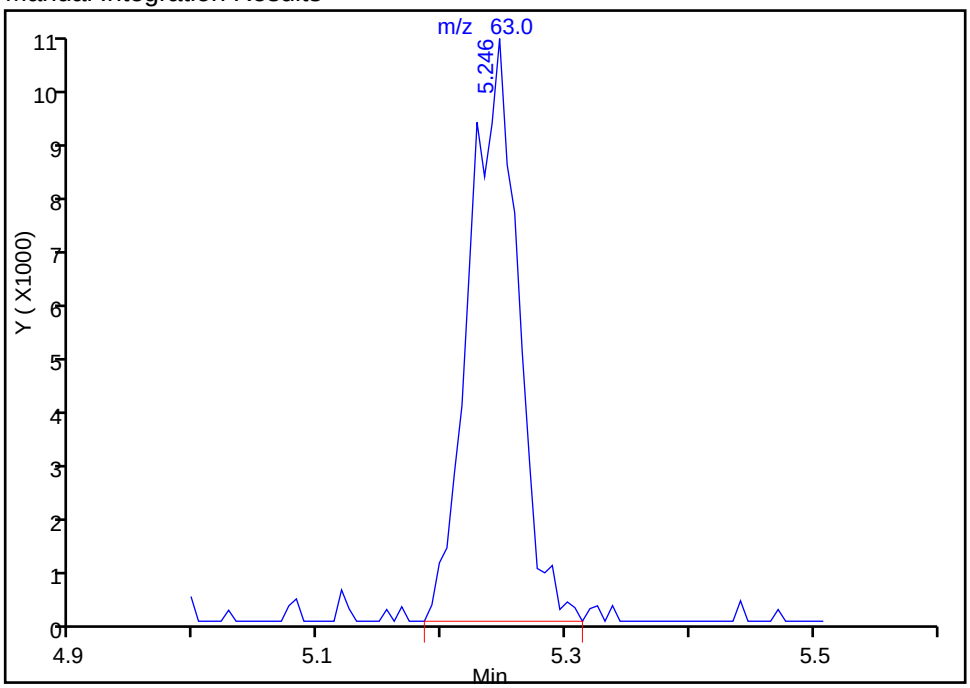
Not Detected
Expected RT: 5.25

Processing Integration Results



Manual Integration Results

RT: 5.25
Area: 30038
Amount: 4.644301
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

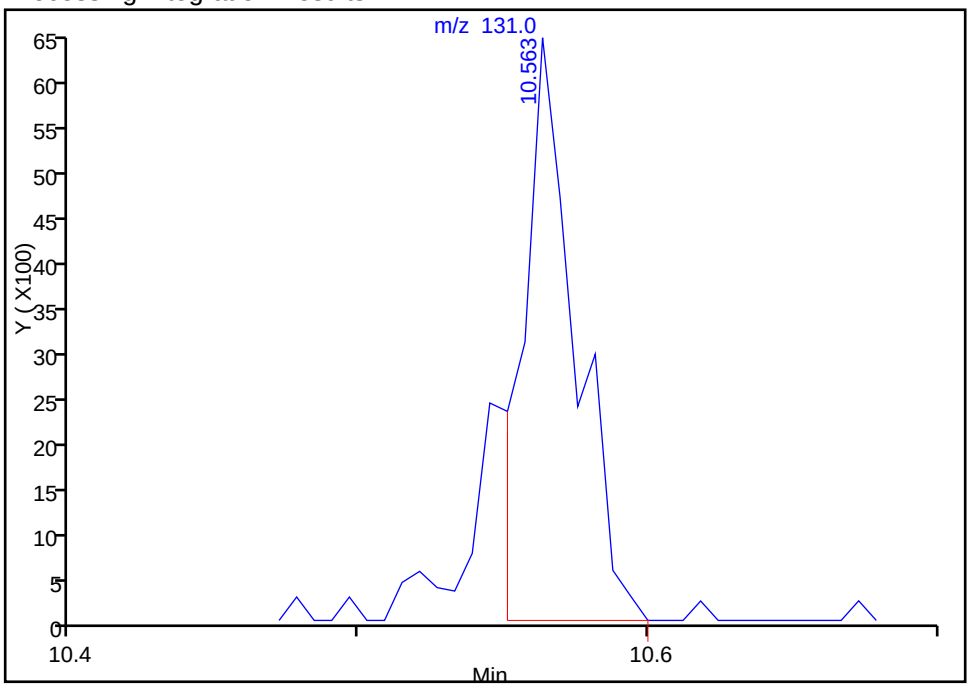
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D
Injection Date: 28-Jan-2015 13:58:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

86 1,1,1,2-Tetrachloroethane, CAS: 630-20-6

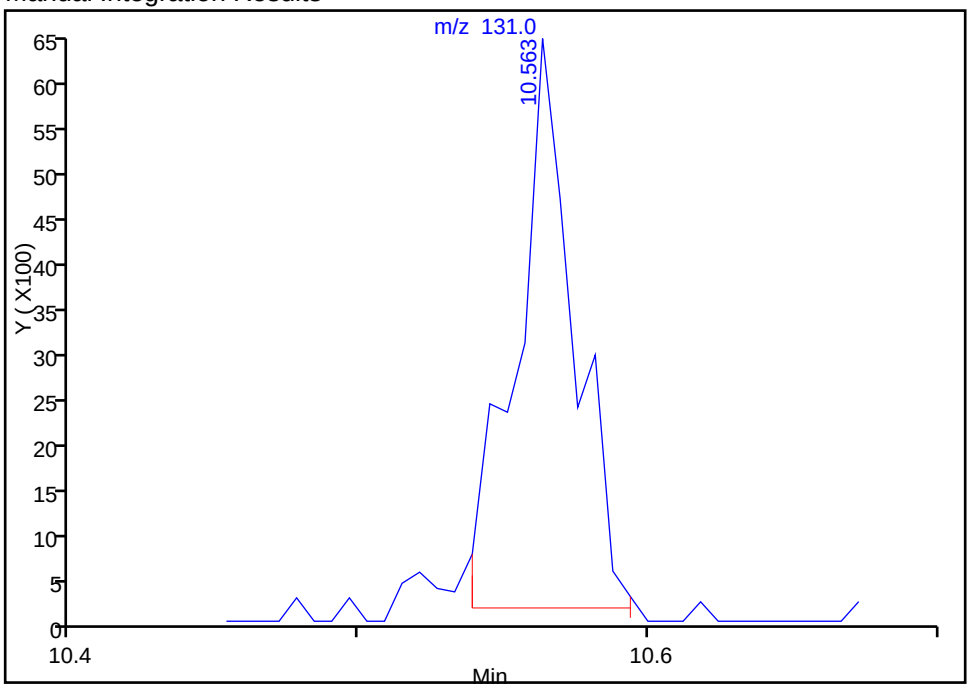
Processing Integration Results

RT: 10.56
Area: 8268
Amount: 3.722370
Amount Units: ng



Manual Integration Results

RT: 10.56
Area: 8884
Amount: 3.972161
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Jan-2015 14:21:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0005450-007
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:07 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:28:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.279	-0.005	94	147158	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.327	0.001	97	405888	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.442	-0.005	92	85838	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.790	0.001	97	137352	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.604	6.597	0.007	90	48823	25.0	26.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.976	6.974	0.002	50	70258	25.0	26.7	
$ 7 Toluene-d8 (Surr)	98	8.983	8.982	0.001	94	183840	25.0	27.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.628	0.001	82	75189	25.0	26.1	
11 Dichlorodifluoromethane	85	1.610	1.608	0.002	99	61413	25.0	28.6	
12 Chloromethane	50	1.774	1.773	0.001	98	91222	25.0	27.6	
13 Vinyl chloride	62	1.902	1.907	-0.004	97	80864	25.0	27.6	
14 Butadiene	39	1.945	1.943	0.001	89	91449	25.0	29.2	
15 Bromomethane	94	2.261	2.253	0.008	92	35506	25.0	30.2	
16 Chloroethane	64	2.389	2.393	-0.004	97	48264	25.0	26.9	
17 Dichlorofluoromethane	67	2.675	2.673	0.002	94	124955	25.0	29.2	M
18 Trichlorofluoromethane	101	2.699	2.685	0.014	95	104021	25.0	31.0	
20 Ethyl ether	59	3.076	3.075	0.001	95	65645	25.0	25.7	
21 Acrolein	56	3.252	3.263	-0.011	97	55086	125.0	135.7	
22 1,1-Dichloroethene	96	3.368	3.373	-0.005	92	63440	25.0	27.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.427	0.014	94	62215	25.0	27.0	
24 Acetone	43	3.465	3.464	0.001	91	41421	50.0	57.7	
25 Iodomethane	142	3.581	3.579	0.002	99	92291	25.0	27.3	
26 Carbon disulfide	76	3.684	3.689	-0.005	99	180744	25.0	26.8	
29 3-Chloro-1-propene	76	3.958	3.957	0.001	76	41661	25.0	28.1	
30 Methyl acetate	43	3.964	3.969	-0.005	98	232955	125.0	132.6	
31 Methylene Chloride	84	4.183	4.176	0.007	99	89407	25.0	26.8	
32 2-Methyl-2-propanol	59	4.408	4.407	0.001	94	44315	250.0	266.5	
33 Acrylonitrile	53	4.542	4.547	-0.005	100	238315	250.0	260.1	
34 trans-1,2-Dichloroethene	96	4.621	4.614	0.007	77	74610	25.0	27.2	
35 Methyl tert-butyl ether	73	4.615	4.614	0.001	98	186042	25.0	25.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.029	5.033	-0.004	93	103798	25.0	26.3	
37 1,1-Dichloroethane	63	5.242	5.246	-0.004	96	145146	25.0	27.3	
38 Vinyl acetate	43	5.278	5.283	-0.005	94	66357	25.0	24.0	
44 2-Butanone (MEK)	43	5.972	5.982	-0.010	49	42402	50.0	46.1	
43 cis-1,2-Dichloroethene	96	5.990	5.982	0.008	85	78570	25.0	27.0	
42 2,2-Dichloropropane	77	5.990	5.989	0.002	66	83097	25.0	27.6	
49 Tetrahydrofuran	42	6.288	6.281	0.008	80	37414	50.0	56.6	
48 Chlorobromomethane	128	6.282	6.281	0.002	89	29353	25.0	25.3	
50 Chloroform	83	6.416	6.414	0.002	95	121573	25.0	26.6	
51 1,1,1-Trichloroethane	97	6.580	6.585	-0.005	97	94502	25.0	27.1	
52 Cyclohexane	56	6.665	6.664	0.001	96	160049	25.0	28.5	
53 Carbon tetrachloride	117	6.757	6.767	-0.010	95	66664	25.0	24.5	
54 1,1-Dichloropropene	75	6.775	6.773	0.002	94	92563	25.0	26.6	
55 Isobutyl alcohol	41	6.933	6.938	-0.005	88	32224	625.0	596.8	
56 Benzene	78	6.982	6.986	-0.004	97	279397	25.0	27.7	
57 1,2-Dichloroethane	62	7.061	7.065	-0.004	96	82990	25.0	25.1	
59 n-Heptane	43	7.353	7.345	0.008	95	84739	25.0	26.4	
61 Trichloroethene	130	7.718	7.722	-0.004	96	60983	25.0	26.6	
63 Methylcyclohexane	83	7.967	7.966	0.001	94	123591	25.0	27.3	
64 1,2-Dichloropropane	63	7.998	7.990	0.008	88	66666	25.0	25.0	
65 1,4-Dioxane	88	8.077	8.075	0.002	40	7809	500.0	468.1	M
67 Dibromomethane	93	8.083	8.081	0.002	93	29036	25.0	24.4	
68 Dichlorobromomethane	83	8.271	8.270	0.001	98	66762	25.0	23.9	
71 cis-1,3-Dichloropropene	75	8.721	8.720	0.001	91	71082	25.0	22.2	
72 4-Methyl-2-pentanone (MIBK	43	8.855	8.854	0.001	97	94789	50.0	48.9	
73 Toluene	91	9.050	9.048	0.002	99	245530	25.0	28.0	
74 trans-1,3-Dichloropropene	75	9.299	9.292	0.007	98	55603	25.0	23.1	
75 Ethyl methacrylate	69	9.354	9.347	0.007	91	52242	25.0	23.6	
76 1,1,2-Trichloroethane	97	9.488	9.493	-0.005	89	43032	25.0	27.0	
77 Tetrachloroethene	164	9.567	9.566	0.001	96	43168	25.0	27.5	
78 1,3-Dichloropropane	76	9.652	9.651	0.001	92	77521	25.0	26.2	
79 2-Hexanone	43	9.695	9.687	0.008	95	55014	50.0	49.8	M
81 Chlorodibromomethane	129	9.871	9.864	0.007	87	31276	25.0	23.1	
82 Ethylene Dibromide	107	9.981	9.985	-0.004	95	36764	25.0	25.4	
83 3-Chlorobenzotrifluoride	180	10.431	10.429	0.002	93	83450	25.0	27.3	
84 Chlorobenzene	112	10.467	10.472	-0.005	91	145556	25.0	26.6	
85 4-Chlorobenzotrifluoride	180	10.522	10.521	0.001	95	80499	25.0	28.3	
87 Ethylbenzene	106	10.571	10.563	0.008	99	86627	25.0	26.4	
86 1,1,1,2-Tetrachloroethane	131	10.559	10.563	-0.004	42	48143	25.0	25.5	
88 m-Xylene & p-Xylene	106	10.705	10.697	0.008	99	111891	25.0	27.6	
89 o-Xylene	106	11.076	11.080	-0.004	97	112080	25.0	26.9	
90 Styrene	104	11.106	11.099	0.007	95	157741	25.0	25.7	
91 Bromoform	173	11.283	11.287	-0.004	93	17267	25.0	23.8	
92 2-Chlorobenzotrifluoride	180	11.343	11.342	0.001	96	86153	25.0	27.1	
93 Isopropylbenzene	105	11.447	11.451	-0.004	97	302221	25.0	29.4	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.756	0.001	96	58000	25.0	27.1	
95 Bromobenzene	156	11.769	11.768	0.001	97	60469	25.0	25.2	
97 trans-1,4-Dichloro-2-buten	53	11.794	11.792	0.002	60	15381	25.0	22.8	
98 1,2,3-Trichloropropane	110	11.812	11.810	0.002	83	18469	25.0	26.2	
99 N-Propylbenzene	120	11.867	11.871	-0.004	99	76375	25.0	26.6	
100 2-Chlorotoluene	126	11.958	11.956	0.002	95	67028	25.0	26.5	
101 3-Chlorotoluene	126	12.025	12.023	0.002	96	66559	25.0	25.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.049	12.048	0.001	93	256568	25.0	27.8	
103 4-Chlorotoluene	126	12.080	12.078	0.002	99	67753	25.0	26.1	
104 tert-Butylbenzene	119	12.365	12.364	0.001	92	188912	25.0	26.3	
106 1,2,4-Trimethylbenzene	105	12.426	12.425	0.001	97	263177	25.0	27.5	
107 1,2-dichloro-4-(trifluorom	214	12.457	12.455	0.002	97	70285	25.0	26.3	
108 sec-Butylbenzene	105	12.591	12.589	0.002	95	314946	25.0	28.3	
109 1,3-Dichlorobenzene	146	12.712	12.711	0.001	95	127066	25.0	27.0	
110 4-Isopropyltoluene	119	12.743	12.741	0.002	96	242039	25.0	26.9	
111 1,4-Dichlorobenzene	146	12.816	12.814	0.002	89	127353	25.0	26.1	
113 2,4-Dichloro-1-(triflourom	214	12.834	12.826	0.008	43	79958	25.0	29.8	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.869	0.001	97	75184	25.0	25.5	
116 n-Butylbenzene	91	13.156	13.155	0.001	98	241849	25.0	27.9	
117 1,2-Dichlorobenzene	146	13.169	13.173	-0.005	92	125111	25.0	26.6	
118 1,2-Dibromo-3-Chloropropan	75	13.959	13.964	-0.005	70	9741	25.0	25.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.104	0.001	99	389895	75.0	88.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.519	14.518	0.001	99	285810	50.0	59.2	
122 1,2,4-Trichlorobenzene	180	14.781	14.791	-0.010	93	99622	25.0	27.3	
123 Hexachlorobutadiene	225	14.927	14.931	-0.004	95	38609	25.0	27.1	
124 Naphthalene	128	15.054	15.053	0.001	97	165187	25.0	26.4	
125 1,2,3-Trichlorobenzene	180	15.279	15.278	0.001	94	83313	25.0	27.3	
126 2,4,5-Trichlorotoluene	159	16.046	16.044	0.002	0	57044	25.0	25.4	
127 2,3,6-Trichlorotoluene	159	16.149	16.148	0.001	94	54138	25.0	27.0	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	54.2	
S 131 Xylenes, Total	106				0		50.0	54.5	
S 132 1,3-Dichloropropene, Total	1				0		50.0	45.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	1.00	Units: uL	
voaWAcropri R_00006	Amount Added:	5.00	Units: uL	
voaWeemixpri_00001	Amount Added:	1.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	1.00	Units: uL	
voaWVApri Res_00001	Amount Added:	1.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

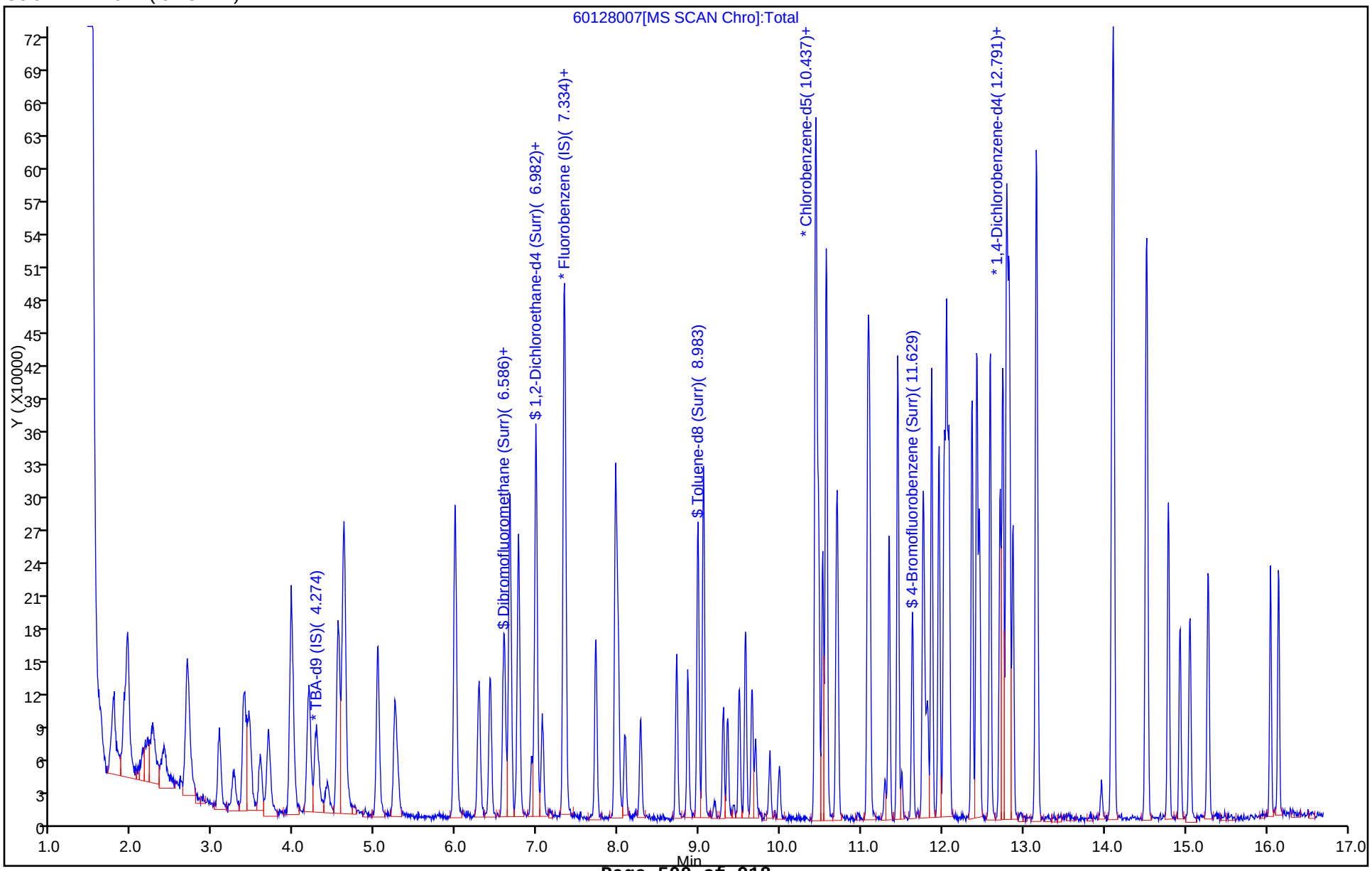
Report Date: 29-Jan-2015 12:59:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D

Injection Date:	28-Jan-2015 14:21:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

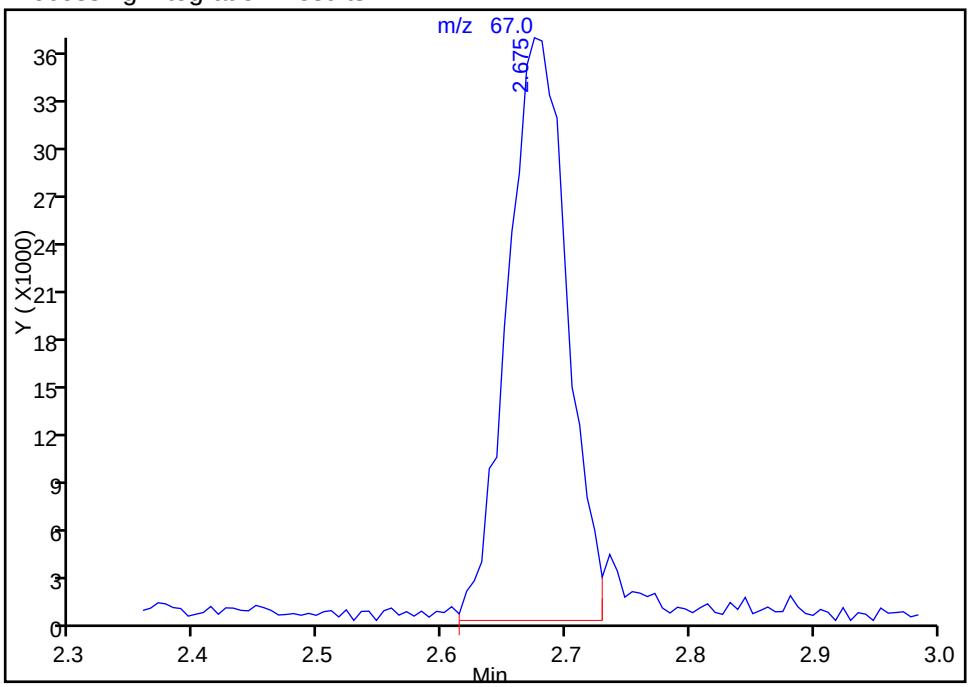
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Injection Date: 28-Jan-2015 14:21:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

17 Dichlorofluoromethane, CAS: 75-43-4

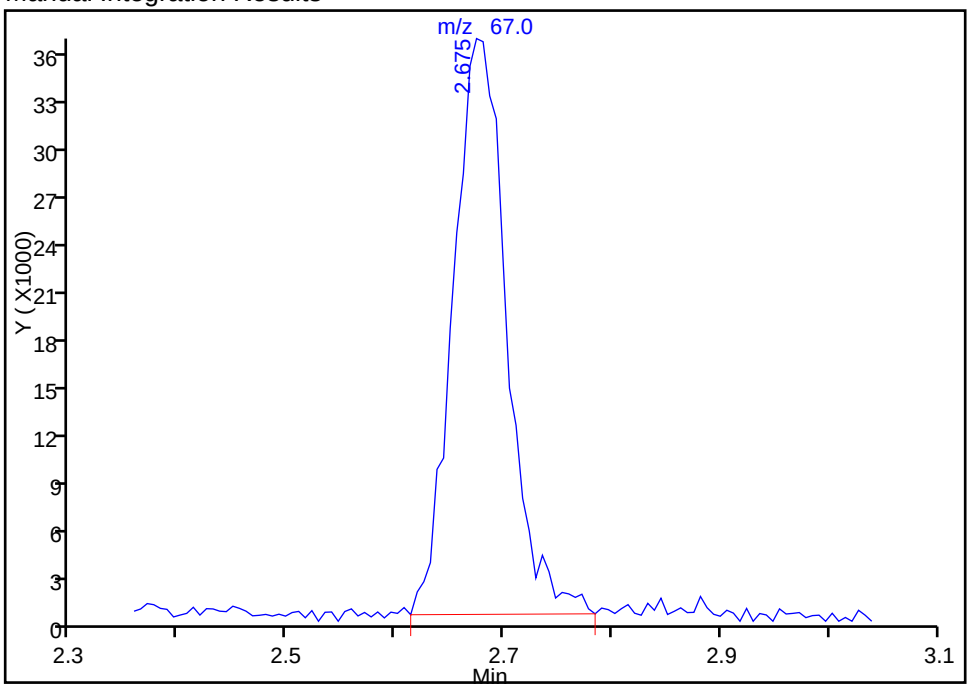
Processing Integration Results

RT: 2.67
Area: 123498
Amount: 28.870358
Amount Units: ng



Manual Integration Results

RT: 2.67
Area: 124955
Amount: 29.161301
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:28:06
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

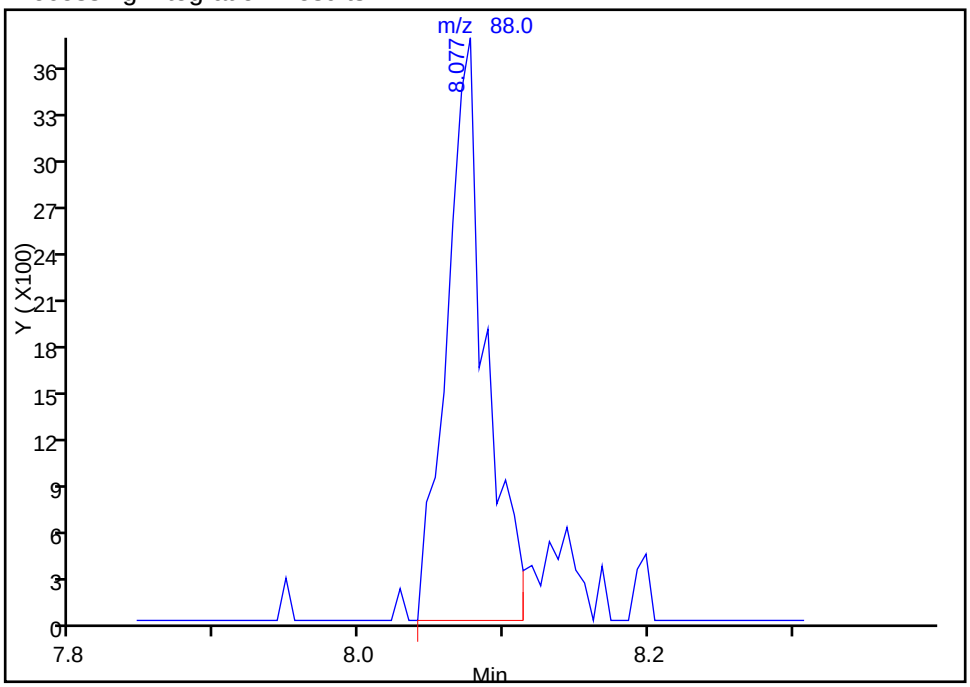
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Injection Date: 28-Jan-2015 14:21:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

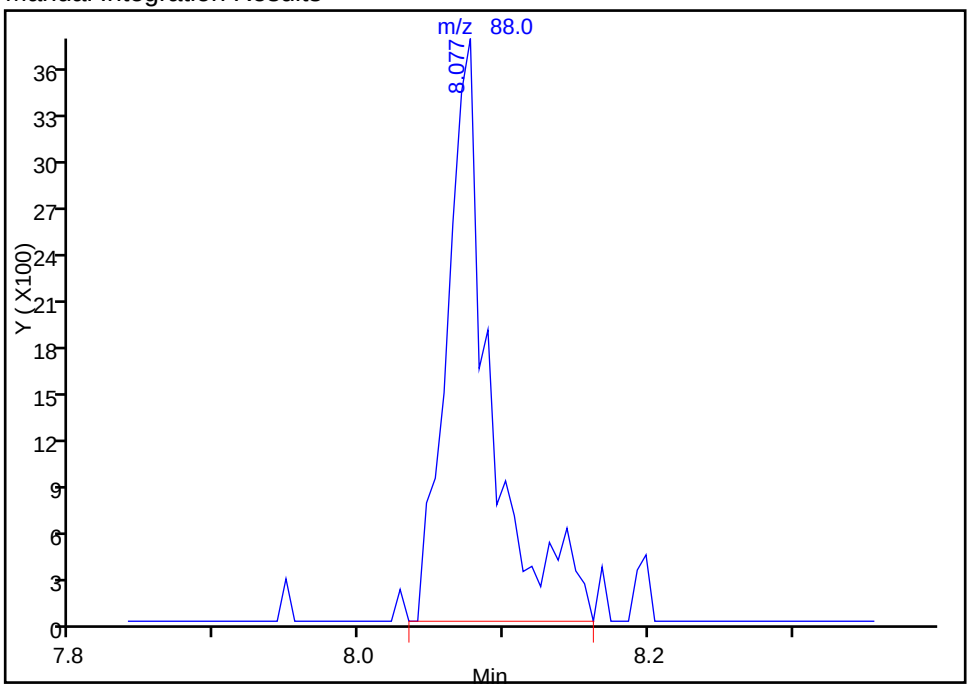
Processing Integration Results

RT: 8.08
Area: 6858
Amount: 429.4537
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 7809
Amount: 468.0903
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:31:00
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

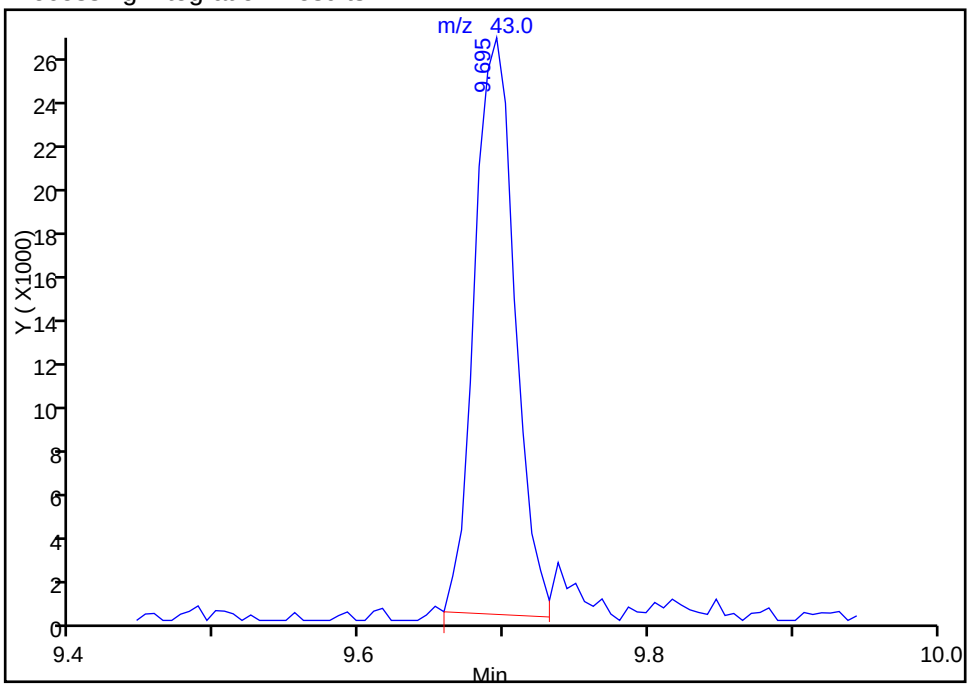
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Injection Date: 28-Jan-2015 14:21:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

79 2-Hexanone, CAS: 591-78-6

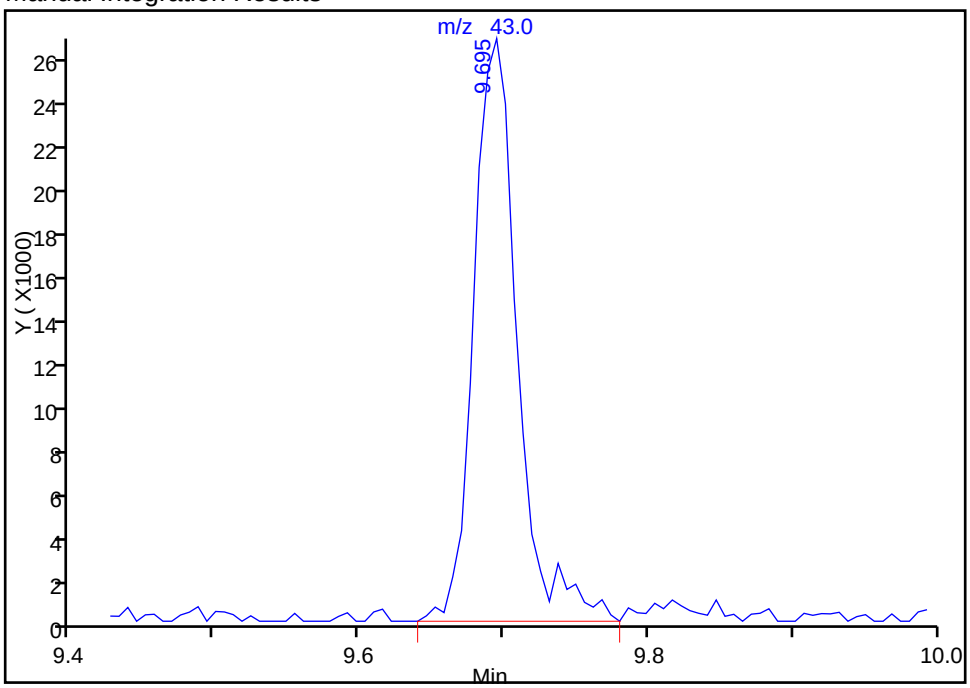
Processing Integration Results

RT: 9.69
Area: 50333
Amount: 46.043032
Amount Units: ng



Manual Integration Results

RT: 9.69
Area: 55014
Amount: 49.792035
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:31:00
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128008.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 28-Jan-2015 14:45:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0005450-008
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:09 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:09:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.279	0.000	95	146525	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.327	0.000	97	447720	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.442	10.442	0.000	93	93543	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.790	0.000	96	154402	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.597	6.597	0.000	92	103502	50.0	51.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.974	0.000	49	150111	50.0	51.8	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	94	421866	50.0	57.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.628	0.000	84	172172	50.0	54.9	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	100	123370	50.0	52.0	
12 Chloromethane	50	1.773	1.773	0.000	98	180612	50.0	49.5	
13 Vinyl chloride	62	1.907	1.907	0.000	98	164249	50.0	50.8	
14 Butadiene	39	1.943	1.943	0.000	91	173303	50.0	50.2	
15 Bromomethane	94	2.253	2.253	0.000	90	68708	50.0	52.9	
16 Chloroethane	64	2.393	2.393	0.000	98	103324	50.0	52.1	
17 Dichlorofluoromethane	67	2.673	2.673	0.000	96	239388	50.0	50.6	
18 Trichlorofluoromethane	101	2.685	2.685	0.000	74	186613	50.0	50.5	
20 Ethyl ether	59	3.075	3.075	0.000	95	140456	50.0	49.8	
21 Acrolein	56	3.263	3.263	0.000	93	64846	150.0	144.9	
22 1,1-Dichloroethene	96	3.373	3.373	0.000	94	131155	50.0	52.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.427	0.000	95	127227	50.0	50.0	
24 Acetone	43	3.464	3.464	0.000	100	72525	100.0	91.6	
25 Iodomethane	142	3.579	3.579	0.000	98	186664	50.0	50.1	
26 Carbon disulfide	76	3.689	3.689	0.000	100	366360	50.0	49.2	
29 3-Chloro-1-propene	76	3.957	3.957	0.000	78	81645	50.0	50.0	
30 Methyl acetate	43	3.969	3.969	0.000	97	476543	250.0	245.8	
31 Methylene Chloride	84	4.176	4.176	0.000	97	176505	50.0	48.0	
32 2-Methyl-2-propanol	59	4.407	4.407	0.000	96	82385	500.0	497.5	
33 Acrylonitrile	53	4.547	4.547	0.000	99	503259	500.0	497.9	
34 trans-1,2-Dichloroethene	96	4.614	4.614	0.000	74	152947	50.0	50.5	
35 Methyl tert-butyl ether	73	4.614	4.614	0.000	98	394527	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.033	5.033	0.000	93	218490	50.0	50.2	
37 1,1-Dichloroethane	63	5.246	5.246	0.000	96	295240	50.0	50.4	
38 Vinyl acetate	43	5.283	5.283	0.000	97	142927	50.0	47.0	
44 2-Butanone (MEK)	43	5.982	5.982	0.000	48	97685	100.0	96.2	
43 cis-1,2-Dichloroethene	96	5.982	5.982	0.000	85	160524	50.0	50.0	
42 2,2-Dichloropropane	77	5.989	5.989	0.000	64	163798	50.0	49.3	
49 Tetrahydrofuran	42	6.281	6.281	0.000	68	62273	100.0	85.4	
48 Chlorobromomethane	128	6.281	6.281	0.000	91	61127	50.0	47.8	
50 Chloroform	83	6.414	6.414	0.000	94	254065	50.0	50.4	
51 1,1,1-Trichloroethane	97	6.585	6.585	0.000	98	189759	50.0	49.4	
52 Cyclohexane	56	6.664	6.664	0.000	95	320878	50.0	51.9	
53 Carbon tetrachloride	117	6.767	6.767	0.000	94	154066	50.0	51.3	
54 1,1-Dichloropropene	75	6.773	6.773	0.000	93	188906	50.0	49.3	
55 Isobutyl alcohol	41	6.938	6.938	0.000	89	71829	1250.0	1206.0	M
56 Benzene	78	6.986	6.986	0.000	97	577373	50.0	51.9	
57 1,2-Dichloroethane	62	7.065	7.065	0.000	97	178647	50.0	48.9	
59 n-Heptane	43	7.345	7.345	0.000	95	182403	50.0	51.5	
61 Trichloroethene	130	7.722	7.722	0.000	96	123549	50.0	48.8	
63 Methylcyclohexane	83	7.966	7.966	0.000	94	262105	50.0	52.5	
64 1,2-Dichloropropane	63	7.990	7.990	0.000	86	142558	50.0	48.5	
65 1,4-Dioxane	88	8.075	8.075	0.000	38	18208	1000.0	989.5	
67 Dibromomethane	93	8.081	8.081	0.000	94	67249	50.0	51.2	
68 Dichlorobromomethane	83	8.270	8.270	0.000	98	148860	50.0	48.3	
71 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	92	162719	50.0	46.0	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.854	0.000	97	221045	100.0	104.7	
73 Toluene	91	9.048	9.048	0.000	98	527825	50.0	55.2	
74 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	98	128942	50.0	49.2	
75 Ethyl methacrylate	69	9.347	9.347	0.000	92	122480	50.0	50.8	
76 1,1,2-Trichloroethane	97	9.493	9.493	0.000	94	88732	50.0	51.1	
77 Tetrachloroethene	164	9.566	9.566	0.000	94	90521	50.0	53.0	
78 1,3-Dichloropropane	76	9.651	9.651	0.000	94	164779	50.0	51.0	
79 2-Hexanone	43	9.687	9.687	0.000	97	123231	100.0	102.3	
81 Chlorodibromomethane	129	9.864	9.864	0.000	91	75589	50.0	51.3	
82 Ethylene Dibromide	107	9.985	9.985	0.000	98	81540	50.0	51.6	
83 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	93	189015	50.0	56.8	
84 Chlorobenzene	112	10.472	10.472	0.000	90	319491	50.0	53.5	
85 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	97	170754	50.0	55.1	
87 Ethylbenzene	106	10.563	10.563	0.000	99	193055	50.0	53.9	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.563	0.000	80	108450	50.0	52.7	
88 m-Xylene & p-Xylene	106	10.697	10.697	0.000	99	235617	50.0	53.3	
89 o-Xylene	106	11.080	11.080	0.000	96	251637	50.0	55.4	
90 Styrene	104	11.099	11.099	0.000	94	362245	50.0	54.2	
91 Bromoform	173	11.287	11.287	0.000	96	39579	50.0	50.1	
92 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	95	192703	50.0	55.5	
93 Isopropylbenzene	105	11.451	11.451	0.000	97	633598	50.0	56.6	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.756	0.000	96	122215	50.0	52.3	
95 Bromobenzene	156	11.768	11.768	0.000	96	135116	50.0	50.0	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.792	0.000	70	34948	50.0	46.0	
98 1,2,3-Trichloropropane	110	11.810	11.810	0.000	85	40329	50.0	51.0	
99 N-Propylbenzene	120	11.871	11.871	0.000	99	168244	50.0	52.1	
100 2-Chlorotoluene	126	11.956	11.956	0.000	94	141092	50.0	49.6	
101 3-Chlorotoluene	126	12.023	12.023	0.000	96	156510	50.0	52.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.048	0.000	94	548969	50.0	52.9	
103 4-Chlorotoluene	126	12.078	12.078	0.000	99	144067	50.0	49.3	
104 tert-Butylbenzene	119	12.364	12.364	0.000	92	409657	50.0	50.7	
106 1,2,4-Trimethylbenzene	105	12.425	12.425	0.000	98	571367	50.0	53.2	
107 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	97	158534	50.0	52.8	
108 sec-Butylbenzene	105	12.589	12.589	0.000	95	675141	50.0	54.1	
109 1,3-Dichlorobenzene	146	12.711	12.711	0.000	95	272251	50.0	51.4	
110 4-Isopropyltoluene	119	12.741	12.741	0.000	96	531099	50.0	52.4	
111 1,4-Dichlorobenzene	146	12.814	12.814	0.000	92	272272	50.0	49.7	
113 2,4-Dichloro-1-(triflourom	214	12.826	12.826	0.000	57	168861	50.0	56.1	
114 2,5-Dichlorobenzotrifluori	214	12.869	12.869	0.000	97	166815	50.0	50.3	
116 n-Butylbenzene	91	13.155	13.155	0.000	98	514864	50.0	52.8	
117 1,2-Dichlorobenzene	146	13.173	13.173	0.000	95	272148	50.0	51.4	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.964	-0.006	76	20104	50.0	47.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.104	0.000	99	818401	150.0	164.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.518	0.000	99	576450	100.0	106.2	
122 1,2,4-Trichlorobenzene	180	14.791	14.791	0.000	94	203185	50.0	49.6	
123 Hexachlorobutadiene	225	14.931	14.931	0.000	96	81412	50.0	50.8	
124 Naphthalene	128	15.053	15.053	0.000	98	357281	50.0	50.7	
125 1,2,3-Trichlorobenzene	180	15.278	15.278	0.000	94	168045	50.0	49.0	
126 2,4,5-Trichlorotoluene	159	16.044	16.044	0.000	0	125544	50.0	49.7	
127 2,3,6-Trichlorotoluene	159	16.148	16.148	0.000	95	113503	50.0	50.4	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	100.5	
S 131 Xylenes, Total	106				0		100.0	108.7	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	2.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaWVApri Res_00001	Amount Added:	2.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	2.00	Units: uL	
voaWAcropri R_00006	Amount Added:	6.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

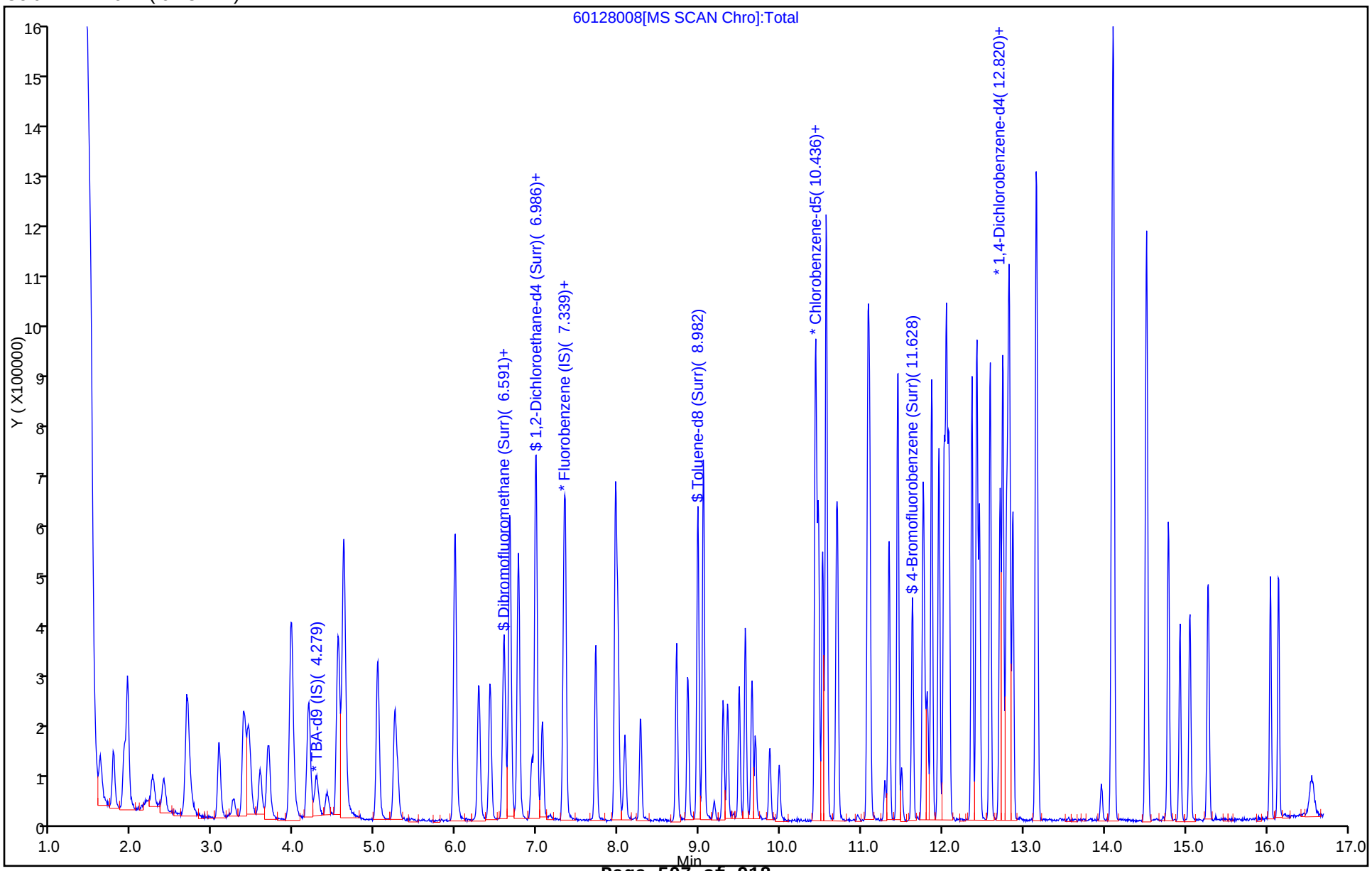
Report Date: 29-Jan-2015 12:59:09 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128008.D

Injection Date:	28-Jan-2015 14:45:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

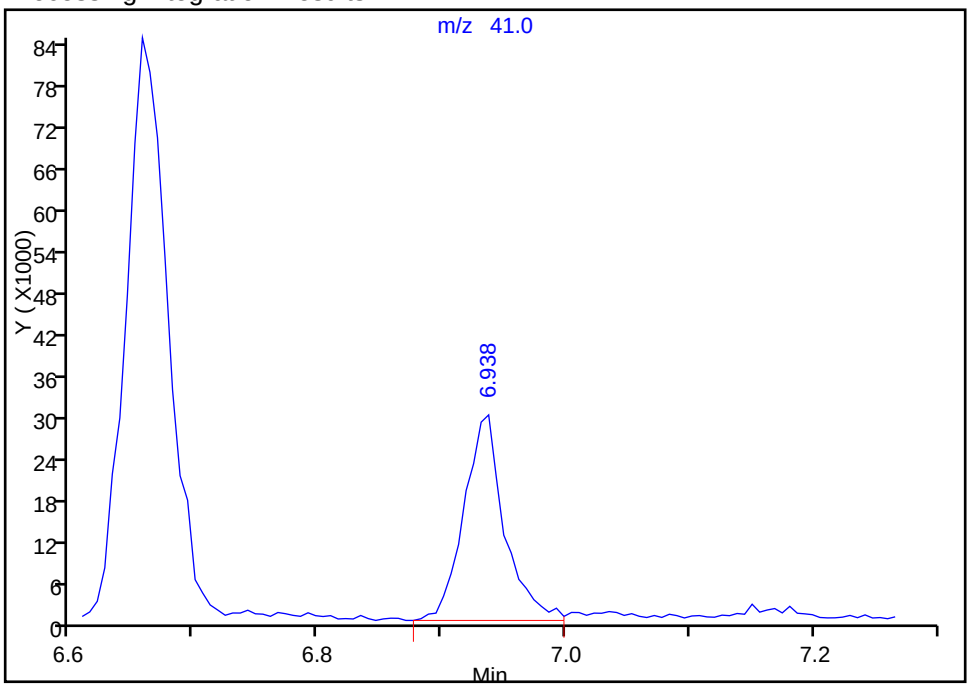
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128008.D				
Injection Date:	28-Jan-2015 14:45:30	Instrument ID:	CHHP6		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 Isobutyl alcohol, CAS: 78-83-1

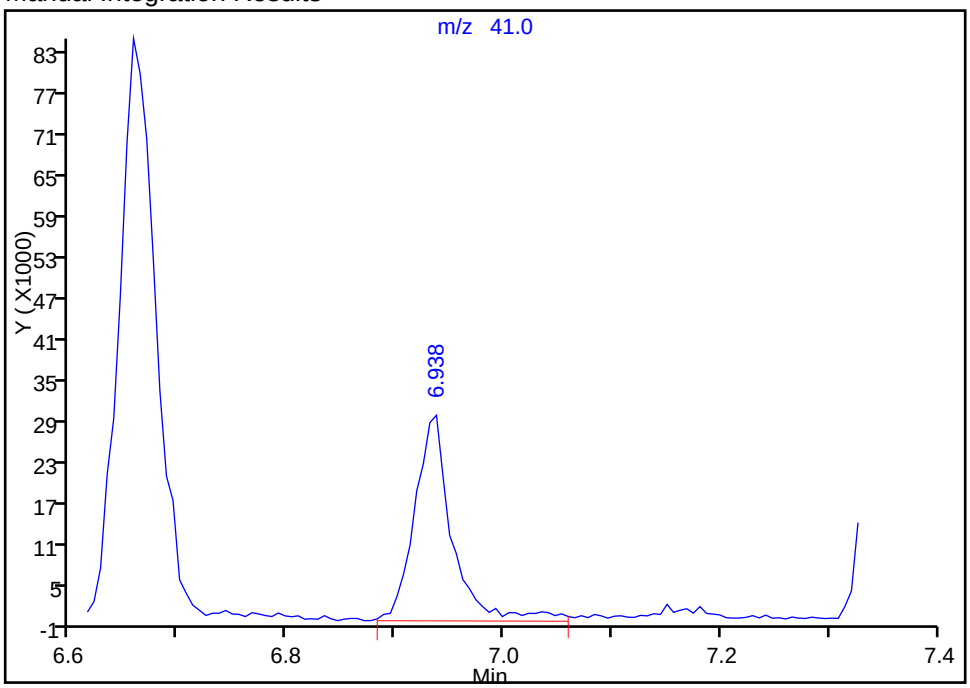
Processing Integration Results

RT: 6.94
Area: 67676
Amount: 1108.5181
Amount Units: ng



Manual Integration Results

RT: 6.94
Area: 71829
Amount: 1206.0150
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 11:08:50
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 28-Jan-2015 15:09:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0005450-009
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:10 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:51:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.278	0.000	96	177406	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.326	7.326	0.000	98	494191	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.440	10.440	0.000	92	111156	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	95	163776	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.596	6.596	0.000	93	157502	75.0	70.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.973	0.000	69	241234	75.0	75.4	
$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	93	661202	75.0	75.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.627	0.000	83	269743	75.0	72.4	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	99	178504	75.0	68.2	
12 Chloromethane	50	1.759	1.759	0.000	99	283765	75.0	70.5	
13 Vinyl chloride	62	1.893	1.893	0.000	98	249364	75.0	69.9	
14 Butadiene	39	1.936	1.936	0.000	92	257326	75.0	67.5	
15 Bromomethane	94	2.240	2.240	0.000	92	100551	75.0	70.2	M
16 Chloroethane	64	2.380	2.380	0.000	99	150069	75.0	68.6	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	96	358712	75.0	68.8	
18 Trichlorofluoromethane	101	2.684	2.684	0.000	68	264073	75.0	64.7	
20 Ethyl ether	59	3.067	3.067	0.000	95	219655	75.0	70.6	
21 Acrolein	56	3.244	3.244	0.000	99	85368	175.0	172.8	
22 1,1-Dichloroethene	96	3.365	3.365	0.000	92	180761	75.0	65.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.426	0.000	96	190645	75.0	67.9	
24 Acetone	43	3.451	3.451	0.000	99	126400	150.0	144.6	
25 Iodomethane	142	3.578	3.578	0.000	98	276926	75.0	67.4	
26 Carbon disulfide	76	3.676	3.676	0.000	100	538178	75.0	65.5	
29 3-Chloro-1-propene	76	3.956	3.956	0.000	70	119671	75.0	66.4	
30 Methyl acetate	43	3.962	3.962	0.000	97	795107	375.0	371.6	
31 Methylene Chloride	84	4.175	4.175	0.000	98	255870	75.0	63.1	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	94	157863	750.0	787.4	
33 Acrylonitrile	53	4.540	4.540	0.000	99	825638	750.0	740.0	
34 trans-1,2-Dichloroethene	96	4.613	4.613	0.000	72	227148	75.0	68.0	
35 Methyl tert-butyl ether	73	4.613	4.613	0.000	98	611806	75.0	69.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.026	5.026	0.000	95	351514	75.0	73.1	
37 1,1-Dichloroethane	63	5.239	5.239	0.000	97	443424	75.0	68.6	
38 Vinyl acetate	43	5.276	5.276	0.000	97	264095	75.0	78.6	
44 2-Butanone (MEK)	43	5.975	5.975	0.000	77	198782	150.0	177.4	
43 cis-1,2-Dichloroethene	96	5.981	5.981	0.000	86	240979	75.0	68.0	
42 2,2-Dichloropropane	77	5.987	5.987	0.000	64	241640	75.0	65.9	
49 Tetrahydrofuran	42	6.279	6.279	0.000	83	119820	150.0	148.8	
48 Chlorobromomethane	128	6.279	6.279	0.000	91	100988	75.0	71.6	
50 Chloroform	83	6.419	6.419	0.000	94	381367	75.0	68.5	
51 1,1,1-Trichloroethane	97	6.584	6.584	0.000	97	294109	75.0	69.4	
52 Cyclohexane	56	6.657	6.657	0.000	96	456085	75.0	66.8	
53 Carbon tetrachloride	117	6.760	6.760	0.000	96	218554	75.0	65.9	
54 1,1-Dichloropropene	75	6.766	6.766	0.000	93	307766	75.0	72.8	
55 Isobutyl alcohol	41	6.936	6.936	0.000	95	137058	1875.0	2084.8	
56 Benzene	78	6.985	6.985	0.000	98	924844	75.0	75.4	
57 1,2-Dichloroethane	62	7.058	7.058	0.000	97	302310	75.0	75.0	
59 n-Heptane	43	7.350	7.350	0.000	94	290134	75.0	74.2	
61 Trichloroethene	130	7.721	7.721	0.000	96	208800	75.0	74.7	
63 Methylcyclohexane	83	7.965	7.965	0.000	94	375853	75.0	68.3	
64 1,2-Dichloropropane	63	7.995	7.995	0.000	88	246898	75.0	76.0	
65 1,4-Dioxane	88	8.074	8.074	0.000	48	33822	1500.0	1665.1	M
67 Dibromomethane	93	8.080	8.080	0.000	97	106863	75.0	73.6	
68 Dichlorobromomethane	83	8.275	8.275	0.000	98	255826	75.0	75.2	
71 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	92	306111	75.0	78.4	
72 4-Methyl-2-pentanone (MIBK	43	8.853	8.853	0.000	98	401820	150.0	160.2	
73 Toluene	91	9.047	9.047	0.000	98	865706	75.0	76.2	
74 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	96	258221	75.0	82.9	
75 Ethyl methacrylate	69	9.345	9.345	0.000	91	227823	75.0	79.4	
76 1,1,2-Trichloroethane	97	9.491	9.491	0.000	92	154194	75.0	74.7	
77 Tetrachloroethene	164	9.564	9.564	0.000	95	152121	75.0	75.0	
78 1,3-Dichloropropane	76	9.650	9.650	0.000	92	309767	75.0	80.7	
79 2-Hexanone	43	9.692	9.692	0.000	98	230885	150.0	161.4	
81 Chlorodibromomethane	129	9.869	9.869	0.000	90	134047	75.0	76.5	
82 Ethylene Dibromide	107	9.984	9.984	0.000	100	149846	75.0	79.8	
83 3-Chlorobenzotrifluoride	180	10.428	10.428	0.000	93	275294	75.0	69.6	
84 Chlorobenzene	112	10.471	10.471	0.000	91	533675	75.0	75.2	
85 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	97	261287	75.0	71.0	
87 Ethylbenzene	106	10.568	10.568	0.000	98	309783	75.0	72.8	
86 1,1,1,2-Tetrachloroethane	131	10.562	10.562	0.000	91	178444	75.0	73.0	
88 m-Xylene & p-Xylene	106	10.702	10.702	0.000	99	393071	75.0	74.8	
89 o-Xylene	106	11.079	11.079	0.000	97	395578	75.0	73.3	
90 Styrene	104	11.098	11.098	0.000	94	596747	75.0	75.1	
91 Bromoform	173	11.292	11.292	0.000	95	65704	75.0	70.0	
92 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	96	290061	75.0	70.3	
93 Isopropylbenzene	105	11.444	11.444	0.000	98	955292	75.0	71.8	
96 1,1,2,2-Tetrachloroethane	83	11.755	11.755	0.000	95	203512	75.0	73.3	
95 Bromobenzene	156	11.767	11.767	0.000	97	223525	75.0	78.0	
97 trans-1,4-Dichloro-2-buten	53	11.791	11.791	0.000	74	61317	75.0	76.1	
98 1,2,3-Trichloropropane	110	11.815	11.815	0.000	84	67823	75.0	80.8	
99 N-Propylbenzene	120	11.864	11.864	0.000	98	262417	75.0	76.6	
100 2-Chlorotoluene	126	11.955	11.955	0.000	94	221515	75.0	73.4	
101 3-Chlorotoluene	126	12.022	12.022	0.000	96	236047	75.0	74.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.047	12.047	0.000	93	836492	75.0	76.0	
103 4-Chlorotoluene	126	12.083	12.083	0.000	98	231900	75.0	74.9	
104 tert-Butylbenzene	119	12.363	12.363	0.000	92	663124	75.0	77.4	
106 1,2,4-Trimethylbenzene	105	12.424	12.424	0.000	98	854880	75.0	75.0	
107 1,2-dichloro-4-(trifluorom	214	12.460	12.460	0.000	97	230038	75.0	72.3	
108 sec-Butylbenzene	105	12.588	12.588	0.000	96	1021731	75.0	77.1	
109 1,3-Dichlorobenzene	146	12.710	12.710	0.000	93	404796	75.0	72.1	
110 4-Isopropyltoluene	119	12.740	12.740	0.000	96	816686	75.0	76.0	
111 1,4-Dichlorobenzene	146	12.813	12.813	0.000	92	431926	75.0	74.3	
113 2,4-Dichloro-1-(triflourom	214	12.831	12.831	0.000	96	236290	75.0	74.0	
114 2,5-Dichlorobenzotrifluori	214	12.868	12.868	0.000	98	251951	75.0	71.6	
116 n-Butylbenzene	91	13.154	13.154	0.000	97	782657	75.0	75.7	
117 1,2-Dichlorobenzene	146	13.166	13.166	0.000	92	413439	75.0	73.6	
118 1,2-Dibromo-3-Chloropropan	75	13.957	13.963	-0.006	79	31840	75.0	71.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.103	14.103	0.000	98	1177478	225.0	223.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.516	14.516	0.000	99	856615	150.0	148.8	
122 1,2,4-Trichlorobenzene	180	14.784	14.784	0.000	93	332715	75.0	76.5	
123 Hexachlorobutadiene	225	14.930	14.930	0.000	95	127169	75.0	74.8	
124 Naphthalene	128	15.052	15.052	0.000	98	596683	75.0	79.8	
125 1,2,3-Trichlorobenzene	180	15.277	15.277	0.000	94	279103	75.0	76.7	
126 2,4,5-Trichlorotoluene	159	16.049	16.049	0.000	0	192318	75.0	71.8	
127 2,3,6-Trichlorotoluene	159	16.147	16.147	0.000	93	170378	75.0	71.4	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		150.0	136.0	
S 131 Xylenes, Total	106				0		150.0	148.1	
S 132 1,3-Dichloropropene, Total	1				0		150.0	161.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	3.00	Units: uL	
voaWeemixpri_00001	Amount Added:	3.00	Units: uL	
voaWVApri Res_00001	Amount Added:	3.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	3.00	Units: uL	
voaWAcropri R_00006	Amount Added:	7.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

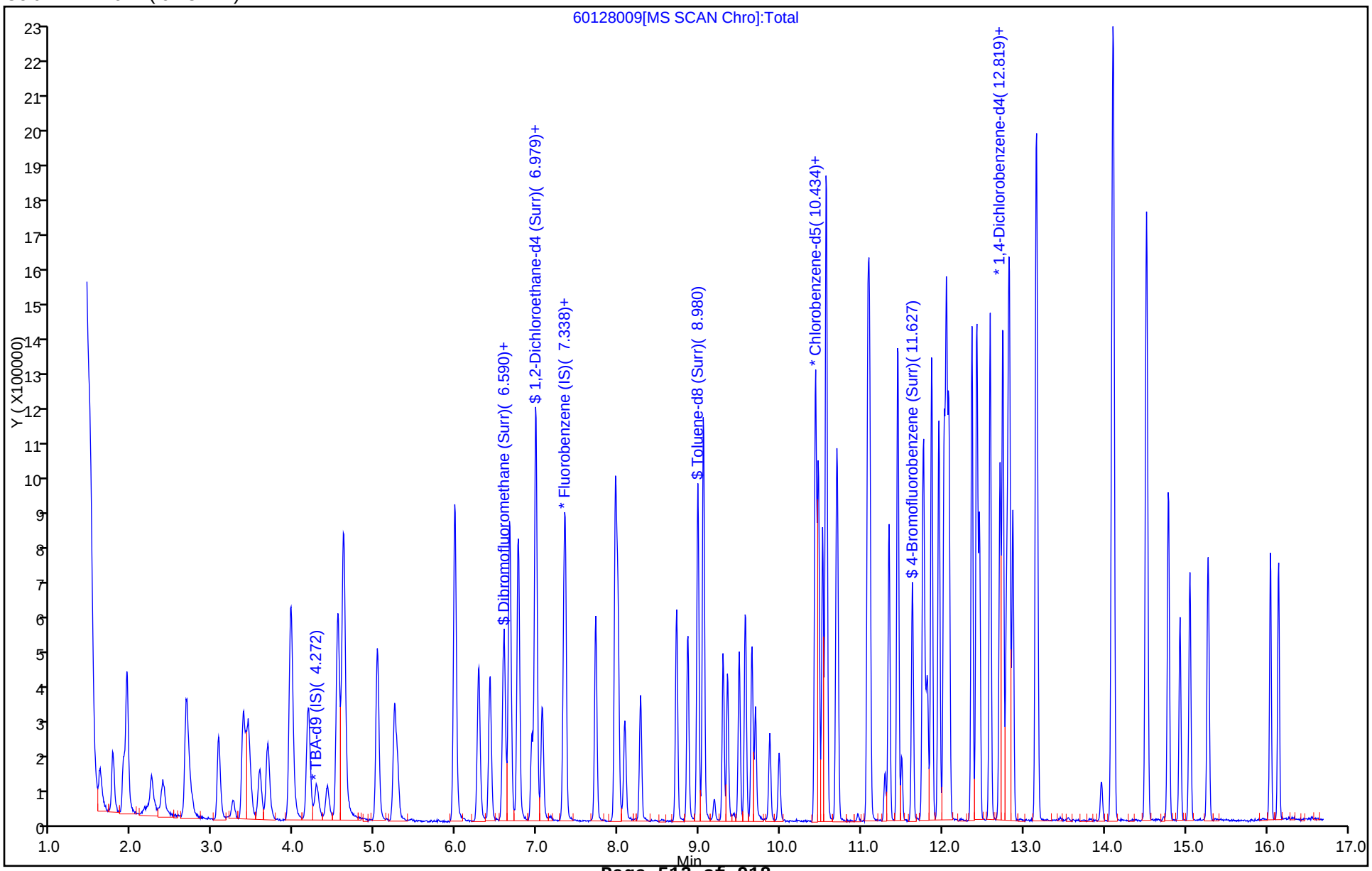
Report Date: 29-Jan-2015 12:59:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D

Injection Date:	28-Jan-2015 15:09:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

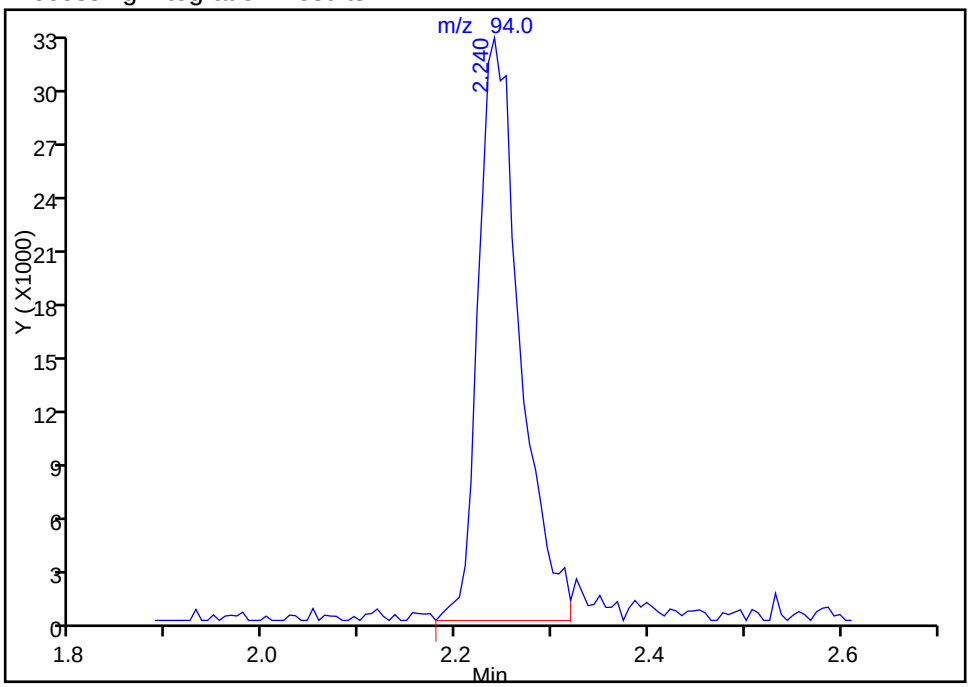
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D				
Injection Date:	28-Jan-2015 15:09:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

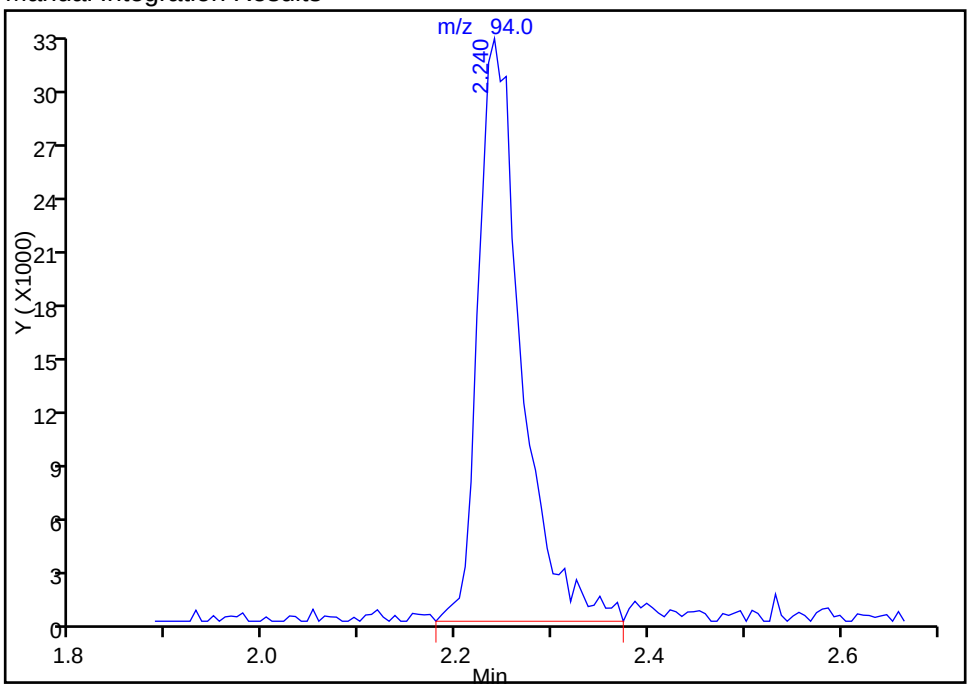
Processing Integration Results

RT: 2.24
Area: 97105
Amount: 68.057558
Amount Units: ng



Manual Integration Results

RT: 2.24
Area: 100551
Amount: 70.190204
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:51:24
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

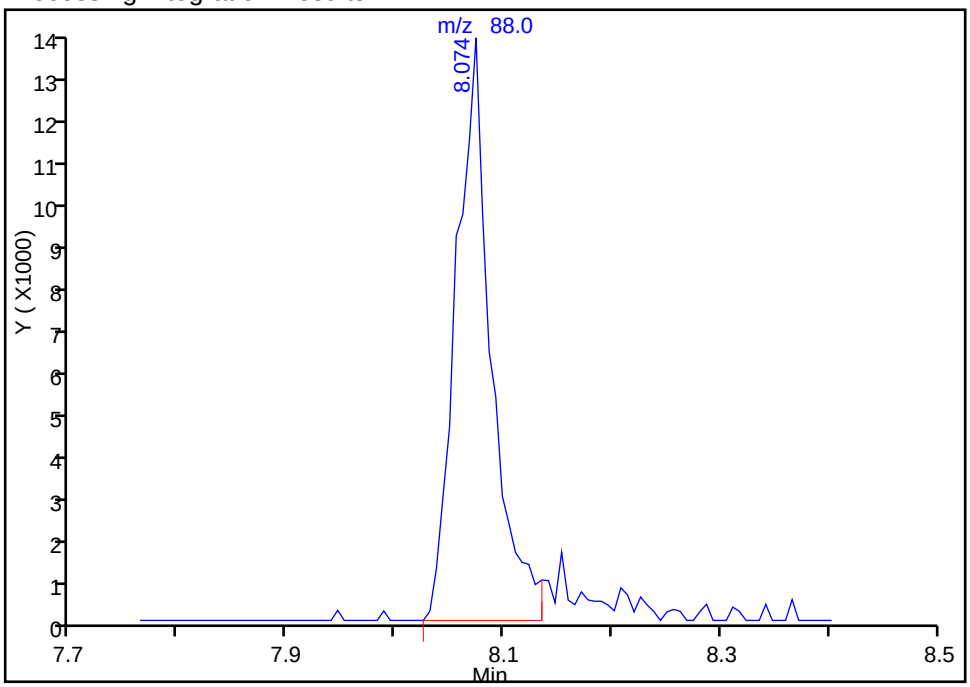
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D
Injection Date: 28-Jan-2015 15:09:30 Instrument ID: CHHP6
Lims ID: IC VSTD15
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

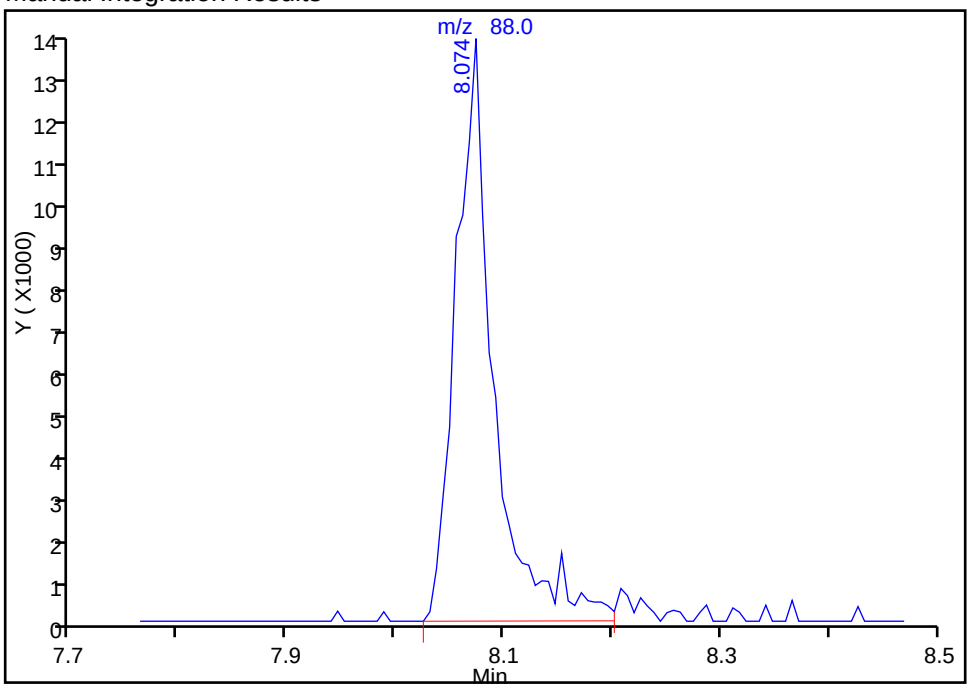
Processing Integration Results

RT: 8.07
Area: 31486
Amount: 1595.6203
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 33822
Amount: 1665.1175
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:54:39
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 29-Jan-2015 12:59:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128010.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 28-Jan-2015 15:33:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0005450-010
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:13 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:53:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.278	-0.004	95	175261	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.326	0.002	98	439145	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.440	-0.003	94	96726	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.789	0.002	95	152427	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.596	0.002	93	201508	100.0	101.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.975	6.973	0.002	70	283354	100.0	99.7	
$ 7 Toluene-d8 (Surr)	98	8.983	8.980	0.003	93	779639	100.0	102.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.627	0.002	83	330292	100.0	101.8	
11 Dichlorodifluoromethane	85	1.604	1.607	-0.003	99	243452	100.0	104.6	
12 Chloromethane	50	1.762	1.759	0.003	99	384421	100.0	107.4	
13 Vinyl chloride	62	1.896	1.893	0.003	98	339939	100.0	107.2	
14 Butadiene	39	1.938	1.936	0.002	91	363197	100.0	107.3	
15 Bromomethane	94	2.242	2.240	0.002	91	133368	100.0	104.8	
16 Chloroethane	64	2.382	2.380	0.002	99	206434	100.0	106.2	
17 Dichlorofluoromethane	67	2.668	2.666	0.002	97	485448	100.0	104.7	
18 Trichlorofluoromethane	101	2.686	2.684	0.002	97	379709	100.0	104.7	
20 Ethyl ether	59	3.064	3.067	-0.003	94	288913	100.0	104.4	
21 Acrolein	56	3.246	3.244	0.002	99	91786	200.0	209.0	
22 1,1-Dichloroethene	96	3.374	3.365	0.009	93	260475	100.0	105.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.426	0.003	95	269318	100.0	108.0	
24 Acetone	43	3.453	3.451	0.002	99	156961	200.0	202.1	
25 Iodomethane	142	3.581	3.578	0.003	99	377556	100.0	103.4	
26 Carbon disulfide	76	3.678	3.676	0.002	100	770934	100.0	105.6	
29 3-Chloro-1-propene	76	3.964	3.956	0.008	69	167495	100.0	104.6	
30 Methyl acetate	43	3.964	3.962	0.002	98	1006389	500.0	529.3	
31 Methylene Chloride	84	4.171	4.175	-0.004	98	354231	100.0	98.3	
32 2-Methyl-2-propanol	59	4.414	4.412	0.002	95	196865	1000.0	994.0	
33 Acrylonitrile	53	4.542	4.540	0.002	99	1070950	1000.0	1080.3	
34 trans-1,2-Dichloroethene	96	4.609	4.613	-0.004	74	317224	100.0	106.9	
35 Methyl tert-butyl ether	73	4.615	4.613	0.002	98	828973	100.0	106.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.029	5.026	0.003	94	447359	100.0	104.7	
37 1,1-Dichloroethane	63	5.241	5.239	0.002	97	607468	100.0	105.8	
38 Vinyl acetate	43	5.278	5.276	0.002	97	300763	100.0	100.7	
44 2-Butanone (MEK)	43	5.984	5.975	0.009	51	200186	200.0	201.0	
43 cis-1,2-Dichloroethene	96	5.984	5.981	0.003	86	336595	100.0	106.9	
42 2,2-Dichloropropane	77	5.990	5.987	0.003	66	347540	100.0	106.7	
49 Tetrahydrofuran	42	6.282	6.279	0.003	94	146874	200.0	205.3	
48 Chlorobromomethane	128	6.276	6.279	-0.003	94	130848	100.0	104.4	
50 Chloroform	83	6.422	6.419	0.003	94	520205	100.0	105.2	
51 1,1,1-Trichloroethane	97	6.580	6.584	-0.004	97	399010	100.0	105.9	
52 Cyclohexane	56	6.659	6.657	0.002	95	648441	100.0	106.9	
53 Carbon tetrachloride	117	6.762	6.760	0.002	97	317552	100.0	107.7	
54 1,1-Dichloropropene	75	6.768	6.766	0.002	94	397719	100.0	105.8	
55 Isobutyl alcohol	41	6.933	6.936	-0.003	95	166021	2500.0	2841.9	
56 Benzene	78	6.981	6.985	-0.004	98	1144809	100.0	105.0	
57 1,2-Dichloroethane	62	7.067	7.058	0.009	97	373539	100.0	104.3	
59 n-Heptane	43	7.352	7.350	0.002	95	358203	100.0	103.1	
61 Trichloroethene	130	7.724	7.721	0.003	97	256342	100.0	103.2	
63 Methylcyclohexane	83	7.967	7.965	0.002	95	513997	100.0	105.0	
64 1,2-Dichloropropane	63	7.997	7.995	0.002	88	296893	100.0	102.9	
65 1,4-Dioxane	88	8.076	8.074	0.002	43	44901	2000.0	2487.6	M
67 Dibromomethane	93	8.082	8.080	0.002	96	134511	100.0	104.3	
68 Dichlorobromomethane	83	8.277	8.275	0.002	98	313642	100.0	103.7	
71 cis-1,3-Dichloropropene	75	8.721	8.719	0.002	92	373776	100.0	107.7	
72 4-Methyl-2-pentanone (MIBK	43	8.855	8.853	0.002	97	485147	200.0	222.3	
73 Toluene	91	9.050	9.047	0.003	97	1047433	100.0	105.9	
74 trans-1,3-Dichloropropene	75	9.293	9.291	0.002	96	288597	100.0	106.4	
75 Ethyl methacrylate	69	9.348	9.345	0.003	92	276463	100.0	110.8	
76 1,1,2-Trichloroethane	97	9.494	9.491	0.003	92	186391	100.0	103.8	
77 Tetrachloroethene	164	9.567	9.564	0.003	95	185546	100.0	105.1	
78 1,3-Dichloropropane	76	9.646	9.650	-0.004	94	350761	100.0	105.1	
79 2-Hexanone	43	9.689	9.692	-0.004	97	272392	200.0	218.8	
81 Chlorodibromomethane	129	9.871	9.869	0.002	91	164399	100.0	107.9	
82 Ethylene Dibromide	107	9.987	9.984	0.003	98	173425	100.0	106.2	
83 3-Chlorobenzotrifluoride	180	10.431	10.428	0.003	93	343534	100.0	99.9	
84 Chlorobenzene	112	10.467	10.471	-0.004	90	654919	100.0	106.1	
85 4-Chlorobenzotrifluoride	180	10.522	10.520	0.002	97	321428	100.0	100.4	
87 Ethylbenzene	106	10.565	10.568	-0.003	98	393435	100.0	106.2	
86 1,1,1,2-Tetrachloroethane	131	10.565	10.562	0.003	90	235848	100.0	110.8	
88 m-Xylene & p-Xylene	106	10.698	10.702	-0.004	98	495166	100.0	108.3	
89 o-Xylene	106	11.082	11.079	0.003	97	507675	100.0	108.1	
90 Styrene	104	11.100	11.098	0.002	93	743239	100.0	107.5	
91 Bromoform	173	11.288	11.292	-0.004	94	85273	100.0	104.5	
92 2-Chlorobenzotrifluoride	180	11.337	11.341	-0.004	96	373509	100.0	104.1	
93 Isopropylbenzene	105	11.447	11.444	0.003	98	1262379	100.0	109.0	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.755	0.002	96	254135	100.0	105.3	
95 Bromobenzene	156	11.763	11.767	-0.004	98	278729	100.0	104.5	
97 trans-1,4-Dichloro-2-buten	53	11.787	11.791	-0.004	73	77586	100.0	103.4	
98 1,2,3-Trichloropropane	110	11.812	11.815	-0.003	86	81476	100.0	104.3	
99 N-Propylbenzene	120	11.866	11.864	0.002	98	331379	100.0	104.0	
100 2-Chlorotoluene	126	11.958	11.955	0.003	95	293005	100.0	104.3	
101 3-Chlorotoluene	126	12.018	12.022	-0.004	96	292985	100.0	99.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.049	12.047	0.002	94	1105314	100.0	107.9	
103 4-Chlorotoluene	126	12.079	12.083	-0.004	99	300726	100.0	104.3	
104 tert-Butylbenzene	119	12.365	12.363	0.002	92	842934	100.0	105.7	
106 1,2,4-Trimethylbenzene	105	12.426	12.424	0.002	99	1135474	100.0	107.1	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.460	-0.004	97	301633	100.0	101.8	
108 sec-Butylbenzene	105	12.584	12.588	-0.004	96	1323132	100.0	107.3	
109 1,3-Dichlorobenzene	146	12.712	12.710	0.002	95	545480	100.0	104.4	
110 4-Isopropyltoluene	119	12.742	12.740	0.002	95	1069888	100.0	107.0	
111 1,4-Dichlorobenzene	146	12.815	12.813	0.002	90	558588	100.0	103.3	
113 2,4-Dichloro-1-(triflourom	214	12.828	12.831	-0.003	96	295903	100.0	99.5	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.868	0.002	98	347814	100.0	106.1	
116 n-Butylbenzene	91	13.150	13.154	-0.004	96	1045083	100.0	108.7	
117 1,2-Dichlorobenzene	146	13.168	13.166	0.002	93	540869	100.0	103.5	
118 1,2-Dibromo-3-Chloropropan	75	13.953	13.963	-0.010	75	42357	100.0	101.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.103	0.002	98	1526957	300.0	311.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.519	14.516	0.003	99	1109689	200.0	207.1	
122 1,2,4-Trichlorobenzene	180	14.786	14.784	0.002	93	428696	100.0	105.9	
123 Hexachlorobutadiene	225	14.932	14.930	0.002	96	168186	100.0	106.2	
124 Naphthalene	128	15.048	15.052	-0.004	98	746148	100.0	107.3	
125 1,2,3-Trichlorobenzene	180	15.279	15.277	0.002	95	359783	100.0	106.3	
126 2,4,5-Trichlorotoluene	159	16.046	16.049	-0.003	0	253456	100.0	101.7	
127 2,3,6-Trichlorotoluene	159	16.143	16.147	-0.004	93	223585	100.0	100.7	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	213.8	
S 131 Xylenes, Total	106				0		200.0	216.4	
S 132 1,3-Dichloropropene, Total	1				0		200.0	214.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	4.00	Units: uL	
voaWeemixpri_00001	Amount Added:	4.00	Units: uL	
voaWVApri Res_00001	Amount Added:	4.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	4.00	Units: uL	
voaWAcropri R_00006	Amount Added:	8.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

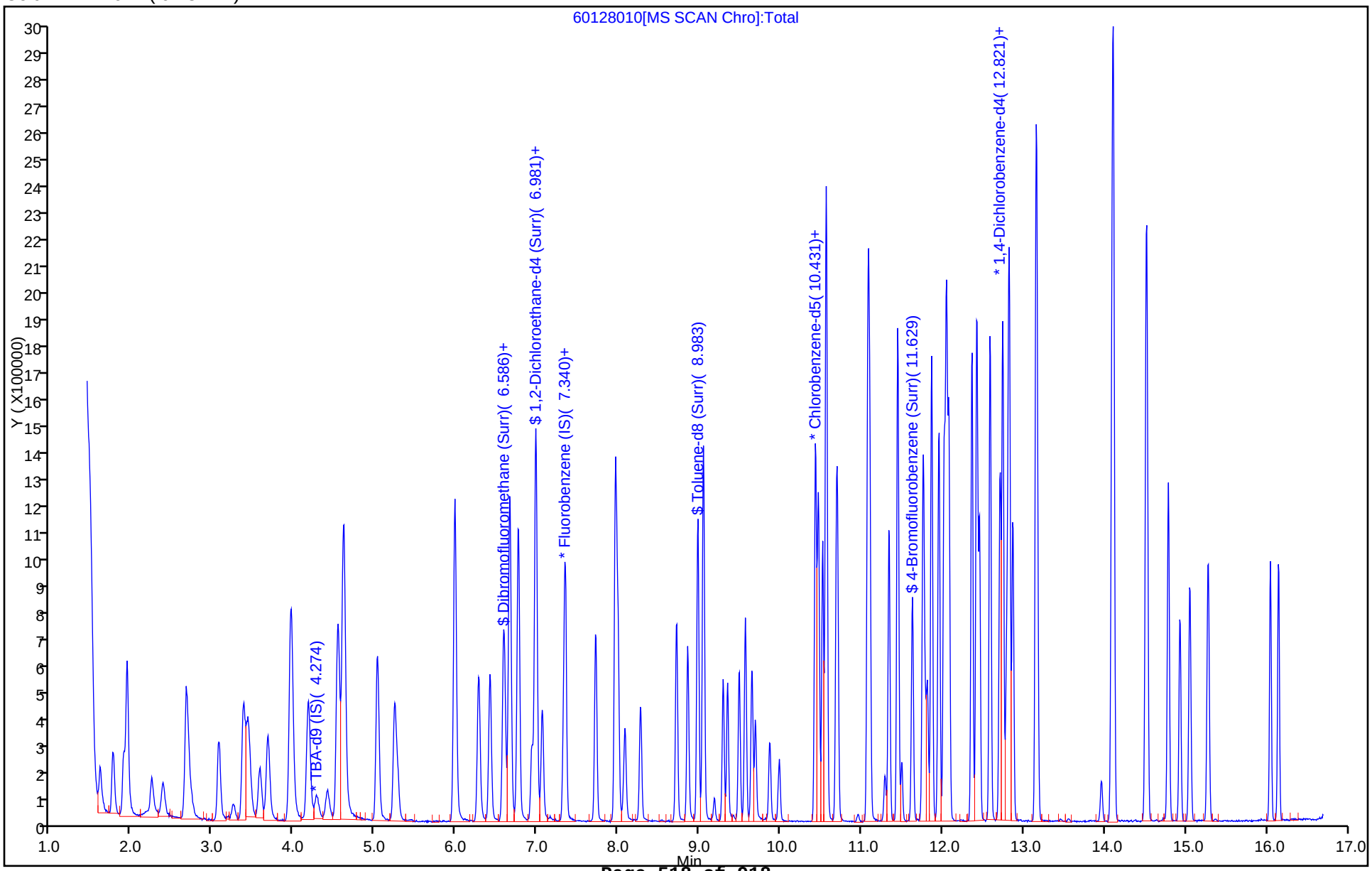
Report Date: 29-Jan-2015 12:59:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128010.D

Injection Date:	28-Jan-2015 15:33:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

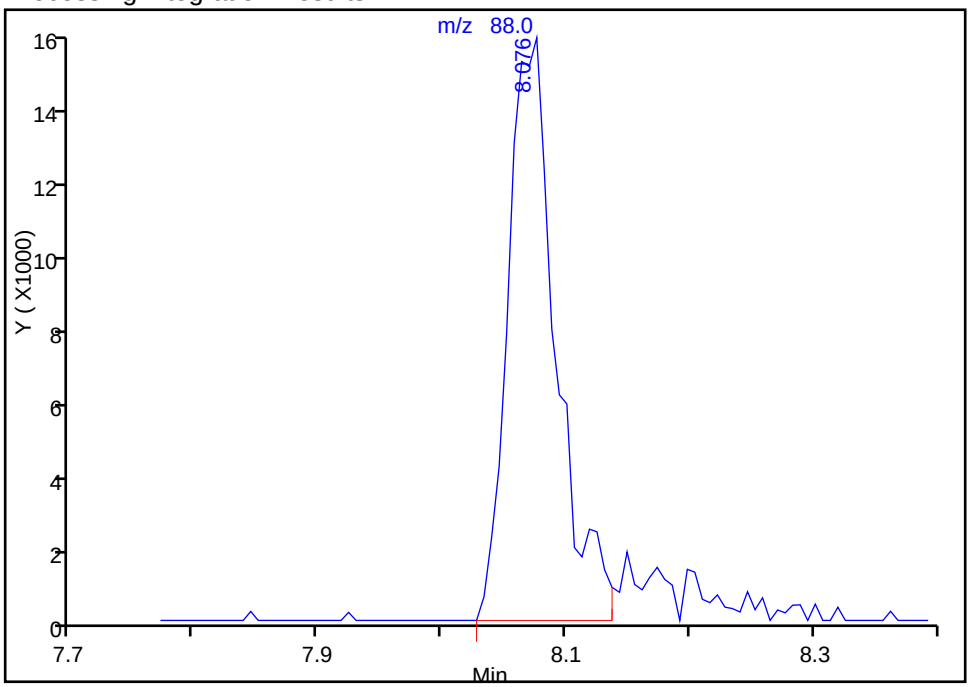
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128010.D				
Injection Date:	28-Jan-2015 15:33:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

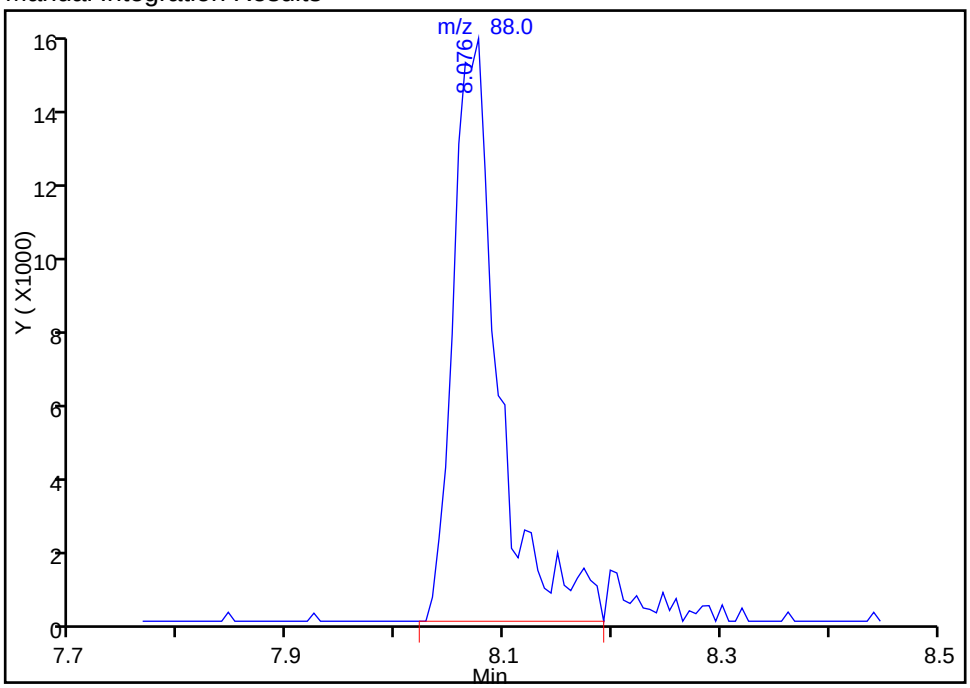
Processing Integration Results

RT: 8.08
Area: 41652
Amount: 2341.8822
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 44901
Amount: 2487.6456
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:53:28
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128011.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-Jan-2015 15:57:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0005450-011
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:14 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:59:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.280	4.278	0.002	94	166250	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.326	0.002	98	444059	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.436	10.440	-0.004	91	106771	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.789	0.002	95	156653	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.596	0.002	93	356892	175.0	177.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.975	6.973	0.002	71	492507	175.0	171.3	
$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	93	1290581	175.0	153.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.627	0.002	83	562972	175.0	157.2	
11 Dichlorodifluoromethane	85	1.609	1.607	0.002	100	399376	175.0	169.7	
12 Chloromethane	50	1.767	1.759	0.008	99	623186	175.0	172.2	
13 Vinyl chloride	62	1.895	1.893	0.002	97	551705	175.0	172.0	
14 Butadiene	39	1.938	1.936	0.002	89	555574	175.0	162.3	
15 Bromomethane	94	2.242	2.240	0.002	91	214591	175.0	166.7	
16 Chloroethane	64	2.382	2.380	0.002	99	335043	175.0	170.4	
17 Dichlorofluoromethane	67	2.662	2.666	-0.004	97	781500	175.0	166.7	
18 Trichlorofluoromethane	101	2.680	2.684	-0.004	97	608185	175.0	165.8	
20 Ethyl ether	59	3.069	3.067	0.002	95	482160	175.0	172.4	
21 Acrolein	56	3.252	3.244	0.008	97	103226	225.0	232.5	
22 1,1-Dichloroethene	96	3.373	3.365	0.008	94	430377	175.0	172.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.426	0.002	96	437728	175.0	173.6	
24 Acetone	43	3.453	3.451	0.002	100	280558	350.0	357.2	
25 Iodomethane	142	3.580	3.578	0.002	98	651846	175.0	176.5	
26 Carbon disulfide	76	3.678	3.676	0.002	100	1309070	175.0	177.3	
29 3-Chloro-1-propene	76	3.957	3.956	0.001	73	292881	175.0	180.9	
30 Methyl acetate	43	3.964	3.962	0.002	97	1703104	875.0	885.9	
31 Methylene Chloride	84	4.170	4.175	-0.005	98	585012	175.0	160.5	
32 2-Methyl-2-propanol	59	4.408	4.412	-0.004	96	335472	1750.0	1785.6	
33 Acrylonitrile	53	4.541	4.540	0.001	98	1763284	1750.0	1758.9	
34 trans-1,2-Dichloroethene	96	4.614	4.613	0.001	74	523513	175.0	174.4	
35 Methyl tert-butyl ether	73	4.614	4.613	0.001	98	1446119	175.0	183.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.028	5.026	0.002	93	739493	175.0	171.2	
37 1,1-Dichloroethane	63	5.241	5.239	0.002	96	1008065	175.0	173.6	
38 Vinyl acetate	43	5.278	5.276	0.002	97	509076	175.0	168.6	
44 2-Butanone (MEK)	43	5.983	5.975	0.008	50	363723	350.0	361.2	
43 cis-1,2-Dichloroethene	96	5.983	5.981	0.002	84	557043	175.0	175.0	
42 2,2-Dichloropropane	77	5.983	5.987	-0.004	65	582789	175.0	177.0	
49 Tetrahydrofuran	42	6.287	6.279	0.008	93	245422	350.0	339.2	
48 Chlorobromomethane	128	6.275	6.279	-0.004	92	225087	175.0	177.6	
50 Chloroform	83	6.415	6.419	-0.004	94	891515	175.0	178.3	
51 1,1,1-Trichloroethane	97	6.586	6.584	0.002	97	690974	175.0	181.4	
52 Cyclohexane	56	6.659	6.657	0.002	95	1042561	175.0	169.9	
53 Carbon tetrachloride	117	6.762	6.760	0.002	96	533960	175.0	179.1	
54 1,1-Dichloropropene	75	6.774	6.766	0.008	95	650661	175.0	171.2	
55 Isobutyl alcohol	41	6.938	6.936	0.002	94	280190	4375.0	4743.2	
56 Benzene	78	6.987	6.985	0.002	99	1858516	175.0	168.6	
57 1,2-Dichloroethane	62	7.066	7.058	0.008	96	620987	175.0	171.5	
59 n-Heptane	43	7.346	7.350	-0.004	93	583751	175.0	166.2	
61 Trichloroethene	130	7.723	7.721	0.002	95	416102	175.0	165.7	
63 Methylcyclohexane	83	7.966	7.965	0.001	95	840990	175.0	170.0	
64 1,2-Dichloropropane	63	7.997	7.995	0.002	88	511401	175.0	175.3	
65 1,4-Dioxane	88	8.076	8.074	0.002	42	66654	3500.0	3652.0	M
67 Dibromomethane	93	8.082	8.080	0.002	96	236358	175.0	181.3	
68 Dichlorobromomethane	83	8.277	8.275	0.002	98	552260	175.0	180.6	
71 cis-1,3-Dichloropropene	75	8.721	8.719	0.002	92	638776	175.0	182.0	
72 4-Methyl-2-pentanone (MIBK	43	8.861	8.853	0.008	96	833434	350.0	346.0	
73 Toluene	91	9.049	9.047	0.002	96	1693226	175.0	155.1	
74 trans-1,3-Dichloropropene	75	9.293	9.291	0.002	97	519690	175.0	173.6	
75 Ethyl methacrylate	69	9.347	9.345	0.002	91	469489	175.0	170.4	
76 1,1,2-Trichloroethane	97	9.493	9.491	0.002	93	318177	175.0	160.5	
77 Tetrachloroethene	164	9.566	9.564	0.002	94	297552	175.0	152.6	
78 1,3-Dichloropropane	76	9.652	9.650	0.002	95	590770	175.0	160.3	
79 2-Hexanone	43	9.694	9.692	0.002	96	471926	350.0	343.4	
81 Chlorodibromomethane	129	9.871	9.869	0.002	92	296438	175.0	176.2	
82 Ethylene Dibromide	107	9.986	9.984	0.002	98	302375	175.0	167.7	
83 3-Chlorobenzotrifluoride	180	10.430	10.428	0.002	93	590382	175.0	155.5	
84 Chlorobenzene	112	10.473	10.471	0.002	89	1077548	175.0	158.2	
85 4-Chlorobenzotrifluoride	180	10.522	10.520	0.002	96	561945	175.0	159.0	
86 1,1,1,2-Tetrachloroethane	131	10.564	10.562	0.002	92	418399	175.0	178.1	
87 Ethylbenzene	106	10.570	10.568	0.002	97	656339	175.0	160.6	
88 m-Xylene & p-Xylene	106	10.698	10.702	-0.004	97	839112	175.0	166.3	
89 o-Xylene	106	11.081	11.079	0.002	97	860280	175.0	165.9	
90 Styrene	104	11.099	11.098	0.001	94	1273143	175.0	166.7	
91 Bromoform	173	11.294	11.292	0.002	95	168078	175.0	186.5	
92 2-Chlorobenzotrifluoride	180	11.343	11.341	0.002	95	622262	175.0	157.1	
93 Isopropylbenzene	105	11.452	11.444	0.008	98	2002206	175.0	156.6	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.755	0.001	95	440302	175.0	165.2	
95 Bromobenzene	156	11.769	11.767	0.002	98	477179	175.0	174.0	
97 trans-1,4-Dichloro-2-buten	53	11.793	11.791	0.002	78	137653	175.0	178.5	
98 1,2,3-Trichloropropane	110	11.817	11.815	0.002	86	139161	175.0	173.4	
99 N-Propylbenzene	120	11.866	11.864	0.002	97	563113	175.0	171.9	
100 2-Chlorotoluene	126	11.957	11.955	0.002	95	493158	175.0	170.8	
101 3-Chlorotoluene	126	12.024	12.022	0.002	95	525597	175.0	174.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.047	0.001	95	1783600	175.0	169.4	
103 4-Chlorotoluene	126	12.079	12.083	-0.004	99	491693	175.0	165.9	
104 tert-Butylbenzene	119	12.365	12.363	0.002	92	1396912	175.0	170.4	
106 1,2,4-Trimethylbenzene	105	12.426	12.424	0.002	98	1838518	175.0	168.7	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.460	-0.004	97	521070	175.0	171.1	
108 sec-Butylbenzene	105	12.590	12.588	0.002	96	2082501	175.0	164.3	
109 1,3-Dichlorobenzene	146	12.712	12.710	0.002	94	914665	175.0	170.3	
110 4-Isopropyltoluene	119	12.748	12.740	0.008	94	1743713	175.0	169.6	
111 1,4-Dichlorobenzene	146	12.815	12.813	0.002	91	944630	175.0	170.0	
113 2,4-Dichloro-1-(triflourom	214	12.827	12.831	-0.004	97	499776	175.0	163.5	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.868	0.002	98	618602	175.0	183.7	
116 n-Butylbenzene	91	13.156	13.154	0.002	96	1667227	175.0	168.7	
117 1,2-Dichlorobenzene	146	13.168	13.166	0.002	94	923690	175.0	172.0	
118 1,2-Dibromo-3-Chloropropan	75	13.965	13.963	0.002	79	82124	175.0	191.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.103	0.002	96	2518550	525.0	499.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.516	0.002	97	1844544	350.0	335.0	
122 1,2,4-Trichlorobenzene	180	14.786	14.784	0.002	94	726984	175.0	174.7	
123 Hexachlorobutadiene	225	14.932	14.930	0.002	95	282422	175.0	173.6	
124 Naphthalene	128	15.054	15.052	0.002	98	1297115	175.0	181.4	
125 1,2,3-Trichlorobenzene	180	15.279	15.277	0.002	94	609774	175.0	175.2	
126 2,4,5-Trichlorotoluene	159	16.045	16.049	-0.004	0	451216	175.0	176.2	
127 2,3,6-Trichlorotoluene	159	16.143	16.147	-0.004	94	400428	175.0	175.4	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		350.0	349.4	
S 131 Xylenes, Total	106				0		350.0	332.2	
S 132 1,3-Dichloropropene, Total	1				0		350.0	355.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	7.00	Units: uL	
voaWeemixpri_00001	Amount Added:	7.00	Units: uL	
voaWVApri Res_00001	Amount Added:	7.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	7.00	Units: uL	
voaWAcropri R_00006	Amount Added:	9.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

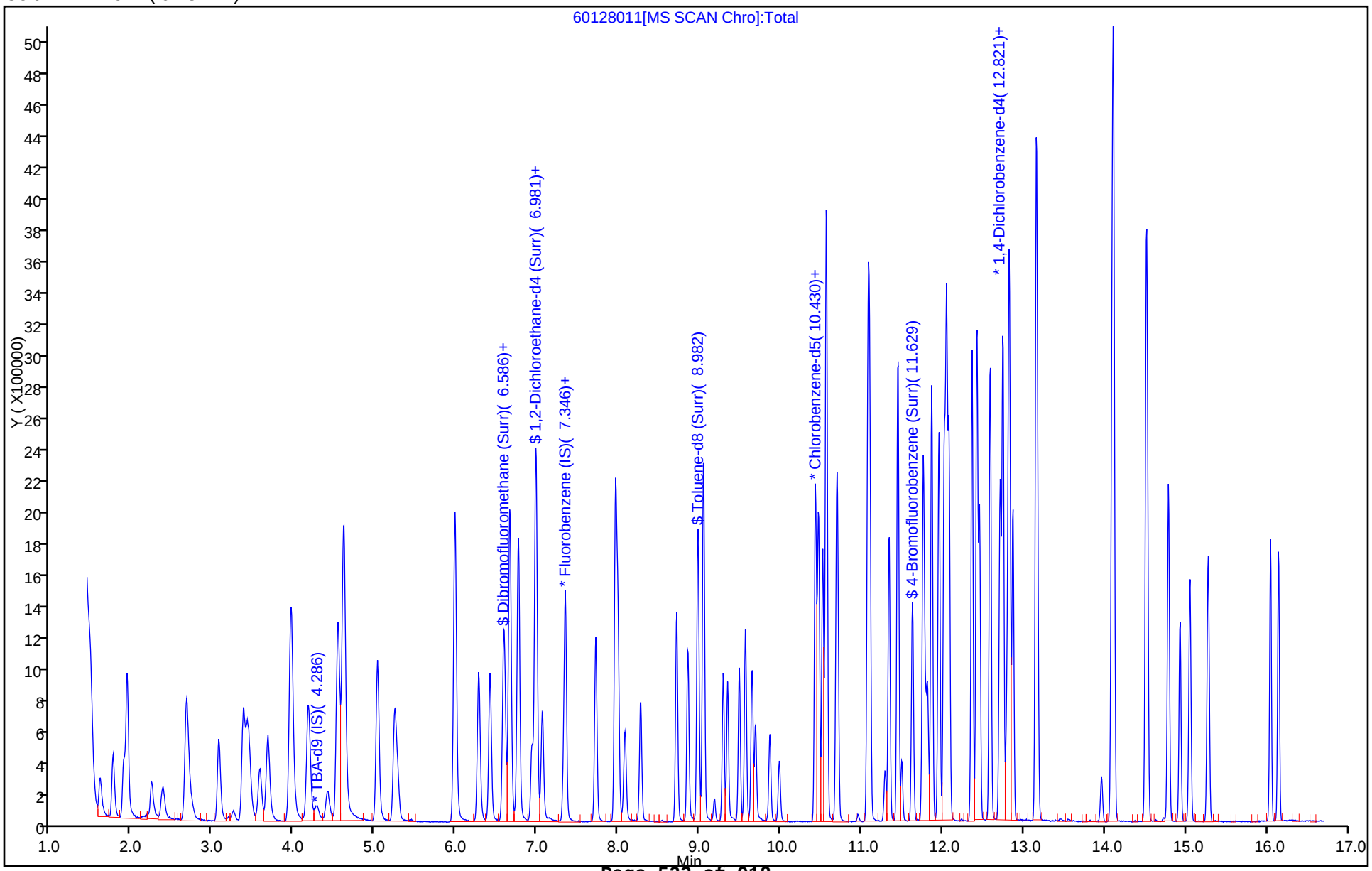
Report Date: 29-Jan-2015 12:59:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128011.D

Injection Date:	28-Jan-2015 15:57:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

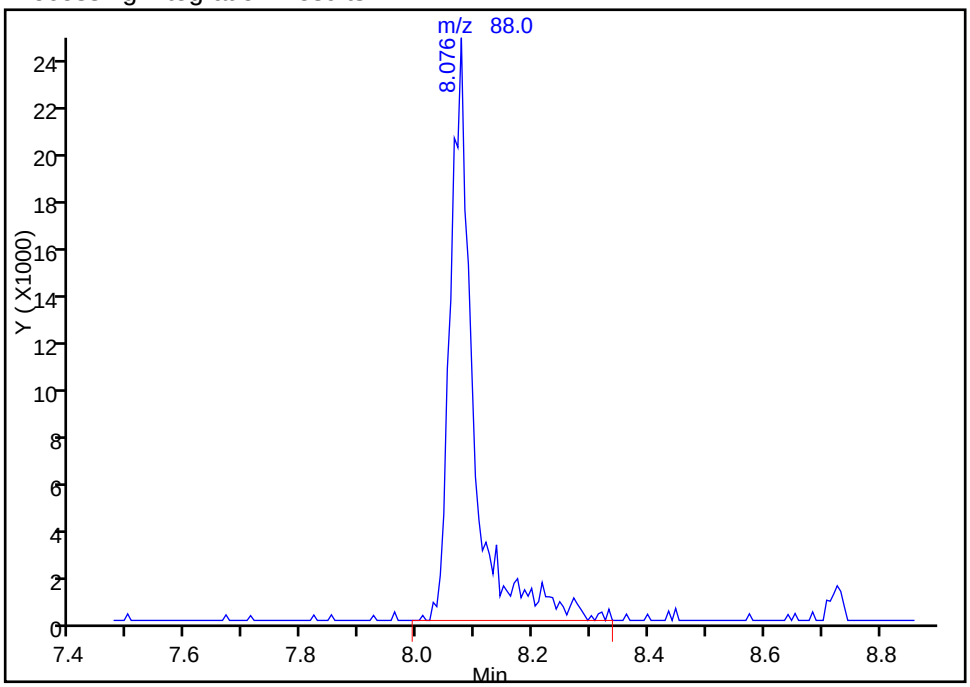
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128011.D				
Injection Date:	28-Jan-2015 15:57:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD35				
Client ID:					
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

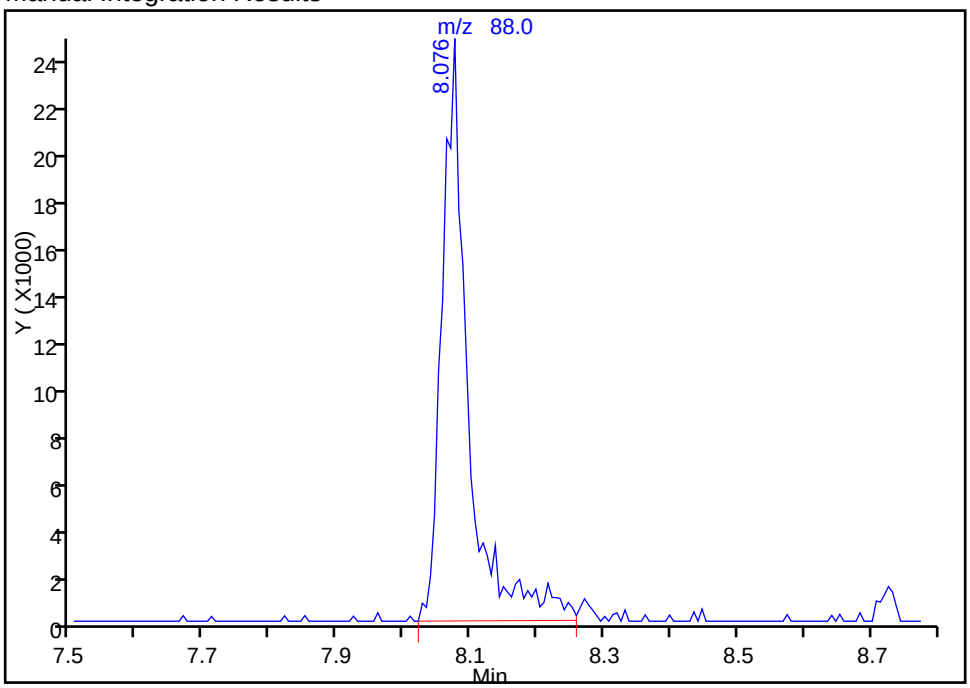
Processing Integration Results

RT: 8.08
Area: 68578
Amount: 3642.8098
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 66654
Amount: 3651.9598
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:59:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 29-Jan-2015 12:59:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128012.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 28-Jan-2015 16:21:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0005450-012
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:16 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 11:05:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.278	0.001	95	156228	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.326	0.001	98	431028	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.442	10.440	0.002	89	102756	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.796	12.789	0.007	96	156005	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.596	0.007	93	387858	200.0	198.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.973	0.001	69	549644	200.0	197.0	
$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	94	1388779	200.0	171.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.627	0.001	83	623752	200.0	181.0	
11 Dichlorodifluoromethane	85	1.609	1.607	0.002	99	466774	200.0	204.4	
12 Chloromethane	50	1.773	1.759	0.014	98	698118	200.0	198.7	
13 Vinyl chloride	62	1.901	1.893	0.008	98	630878	200.0	202.7	
14 Butadiene	39	1.943	1.936	0.007	92	663356	200.0	199.6	
15 Bromomethane	94	2.247	2.240	0.007	92	238802	200.0	191.1	
16 Chloroethane	64	2.393	2.380	0.013	100	381411	200.0	199.8	
17 Dichlorofluoromethane	67	2.673	2.666	0.007	97	918274	200.0	201.8	
18 Trichlorofluoromethane	101	2.685	2.684	0.001	98	732912	200.0	205.8	
20 Ethyl ether	59	3.069	3.067	0.002	94	557320	200.0	205.3	
21 Acrolein	56	3.251	3.244	0.007	99	114431	250.0	265.5	
22 1,1-Dichloroethene	96	3.379	3.365	0.014	95	500308	200.0	206.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.434	3.426	0.008	94	494476	200.0	202.0	
24 Acetone	43	3.458	3.451	0.007	100	309648	400.0	406.1	
25 Iodomethane	142	3.580	3.578	0.002	99	740212	200.0	206.5	
26 Carbon disulfide	76	3.677	3.676	0.001	100	1529475	200.0	213.4	
29 3-Chloro-1-propene	76	3.963	3.956	0.007	91	336687	200.0	214.2	
30 Methyl acetate	43	3.969	3.962	0.007	98	1911445	1000.0	1024.3	
31 Methylene Chloride	84	4.182	4.175	0.007	97	657192	200.0	185.7	
32 2-Methyl-2-propanol	59	4.407	4.412	-0.005	96	373469	2000.0	2115.4	
33 Acrylonitrile	53	4.541	4.540	0.001	99	2023857	2000.0	2079.9	
34 trans-1,2-Dichloroethene	96	4.614	4.613	0.001	79	603714	200.0	207.2	
35 Methyl tert-butyl ether	73	4.614	4.613	0.001	98	1583536	200.0	206.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.028	5.026	0.002	93	851374	200.0	203.1	
37 1,1-Dichloroethane	63	5.241	5.239	0.001	96	1157116	200.0	205.3	
38 Vinyl acetate	43	5.277	5.276	0.001	97	631938	200.0	215.6	
44 2-Butanone (MEK)	43	5.977	5.975	0.002	54	404756	400.0	414.1	
43 cis-1,2-Dichloroethene	96	5.983	5.981	0.002	84	638509	200.0	206.6	
42 2,2-Dichloropropane	77	5.983	5.987	-0.004	85	681588	200.0	213.3	
49 Tetrahydrofuran	42	6.287	6.279	0.008	82	271171	400.0	386.1	
48 Chlorobromomethane	128	6.269	6.279	-0.010	92	257539	200.0	209.4	
50 Chloroform	83	6.415	6.419	-0.004	95	995734	200.0	205.2	
51 1,1,1-Trichloroethane	97	6.579	6.584	-0.005	97	785027	200.0	212.3	
52 Cyclohexane	56	6.664	6.657	0.007	95	1203343	200.0	202.1	
53 Carbon tetrachloride	117	6.761	6.760	0.001	96	614377	200.0	212.3	
54 1,1-Dichloropropene	75	6.767	6.766	0.001	94	759338	200.0	205.8	
55 Isobutyl alcohol	41	6.932	6.936	-0.004	95	309707	5000.0	5401.4	
56 Benzene	78	6.986	6.985	0.001	99	2127915	200.0	198.8	
57 1,2-Dichloroethane	62	7.066	7.058	0.008	96	719730	200.0	204.8	
59 n-Heptane	43	7.345	7.350	-0.005	93	681180	200.0	199.8	
61 Trichloroethene	130	7.723	7.721	0.002	95	498060	200.0	204.3	
63 Methylcyclohexane	83	7.966	7.965	0.001	94	996383	200.0	207.4	
64 1,2-Dichloropropane	63	7.996	7.995	0.001	91	576307	200.0	203.5	
65 1,4-Dioxane	88	8.063	8.074	-0.011	95	73473	4000.0	4147.3	M
67 Dibromomethane	93	8.082	8.080	0.002	95	275521	200.0	217.7	
68 Dichlorobromomethane	83	8.276	8.275	0.001	98	647525	200.0	218.1	
71 cis-1,3-Dichloropropene	75	8.714	8.719	-0.005	92	759439	200.0	222.9	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.853	0.001	97	963310	400.0	415.5	
73 Toluene	91	9.049	9.047	0.002	96	1948278	200.0	185.5	
74 trans-1,3-Dichloropropene	75	9.292	9.291	0.001	96	613591	200.0	213.0	
75 Ethyl methacrylate	69	9.347	9.345	0.002	92	558436	200.0	210.7	
76 1,1,2-Trichloroethane	97	9.493	9.491	0.002	93	370798	200.0	194.4	
77 Tetrachloroethene	164	9.566	9.564	0.002	94	362836	200.0	193.4	
78 1,3-Dichloropropane	76	9.651	9.650	0.001	95	698175	200.0	196.9	
79 2-Hexanone	43	9.694	9.692	0.002	97	548903	400.0	415.0	
81 Chlorodibromomethane	129	9.870	9.869	0.001	91	355583	200.0	219.6	
82 Ethylene Dibromide	107	9.986	9.984	0.002	99	357378	200.0	206.0	
83 3-Chlorobenzotrifluoride	180	10.430	10.428	0.002	93	686787	200.0	187.9	
84 Chlorobenzene	112	10.472	10.471	0.001	89	1247688	200.0	190.3	
85 4-Chlorobenzotrifluoride	180	10.521	10.520	0.001	96	648765	200.0	190.7	
86 1,1,1,2-Tetrachloroethane	131	10.564	10.562	0.002	92	474135	200.0	209.7	
87 Ethylbenzene	106	10.570	10.568	0.002	98	755113	200.0	191.9	
88 m-Xylene & p-Xylene	106	10.697	10.702	-0.005	97	942705	200.0	194.2	
89 o-Xylene	106	11.081	11.079	0.002	96	966416	200.0	193.7	
90 Styrene	104	11.099	11.098	0.001	93	1466119	200.0	199.5	
91 Bromoform	173	11.287	11.292	-0.005	94	195103	200.0	225.0	
92 2-Chlorobenzotrifluoride	180	11.342	11.341	0.001	95	731138	200.0	191.8	
93 Isopropylbenzene	105	11.446	11.444	0.002	99	2269536	200.0	184.5	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.755	0.001	95	506563	200.0	197.5	
95 Bromobenzene	156	11.768	11.767	0.001	97	550534	200.0	201.6	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.791	0.001	76	166844	200.0	217.3	
98 1,2,3-Trichloropropane	110	11.817	11.815	0.002	86	157512	200.0	197.1	
99 N-Propylbenzene	120	11.865	11.864	0.001	97	647166	200.0	198.4	
100 2-Chlorotoluene	126	11.957	11.955	0.002	95	574430	200.0	199.8	
101 3-Chlorotoluene	126	12.018	12.022	-0.004	95	580756	200.0	193.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.047	0.001	96	2008176	200.0	191.5	
103 4-Chlorotoluene	126	12.078	12.083	-0.005	98	596461	200.0	202.1	
104 tert-Butylbenzene	119	12.364	12.363	0.001	92	1597317	200.0	195.7	
106 1,2,4-Trimethylbenzene	105	12.425	12.424	0.001	98	2073941	200.0	191.1	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.460	-0.004	97	595281	200.0	196.3	
108 sec-Butylbenzene	105	12.589	12.588	0.001	96	2342860	200.0	185.7	
109 1,3-Dichlorobenzene	146	12.711	12.710	0.001	93	1029314	200.0	192.4	
110 4-Isopropyltoluene	119	12.741	12.740	0.001	94	1972986	200.0	192.7	
111 1,4-Dichlorobenzene	146	12.814	12.813	0.001	85	1071549	200.0	193.6	
113 2,4-Dichloro-1-(triflourom	214	12.827	12.831	-0.004	97	570286	200.0	187.4	
114 2,5-Dichlorobenzotrifluori	214	12.869	12.868	0.001	98	695499	200.0	207.4	
116 n-Butylbenzene	91	13.155	13.154	0.001	95	1901534	200.0	193.2	
117 1,2-Dichlorobenzene	146	13.167	13.166	0.001	91	1036802	200.0	193.9	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.963	-0.005	77	90830	200.0	212.8	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.103	0.001	95	2764683	600.0	550.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.516	0.002	96	2037341	400.0	371.6	
122 1,2,4-Trichlorobenzene	180	14.785	14.784	0.001	94	817434	200.0	197.3	
123 Hexachlorobutadiene	225	14.931	14.930	0.001	96	320466	200.0	197.8	
124 Naphthalene	128	15.053	15.052	0.001	98	1444669	200.0	202.9	
125 1,2,3-Trichlorobenzene	180	15.278	15.277	0.001	94	688354	200.0	198.6	
126 2,4,5-Trichlorotoluene	159	16.045	16.049	-0.004	0	504552	200.0	197.8	
127 2,3,6-Trichlorotoluene	159	16.148	16.147	0.001	94	455993	200.0	200.6	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	413.8	
S 131 Xylenes, Total	106				0		400.0	387.8	
S 132 1,3-Dichloropropene, Total	1				0		400.0	435.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	8.00	Units: uL	
voaWeemixpri_00001	Amount Added:	8.00	Units: uL	
voaWVApri Res_00001	Amount Added:	8.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	8.00	Units: uL	
voaWAcropri R_00006	Amount Added:	10.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

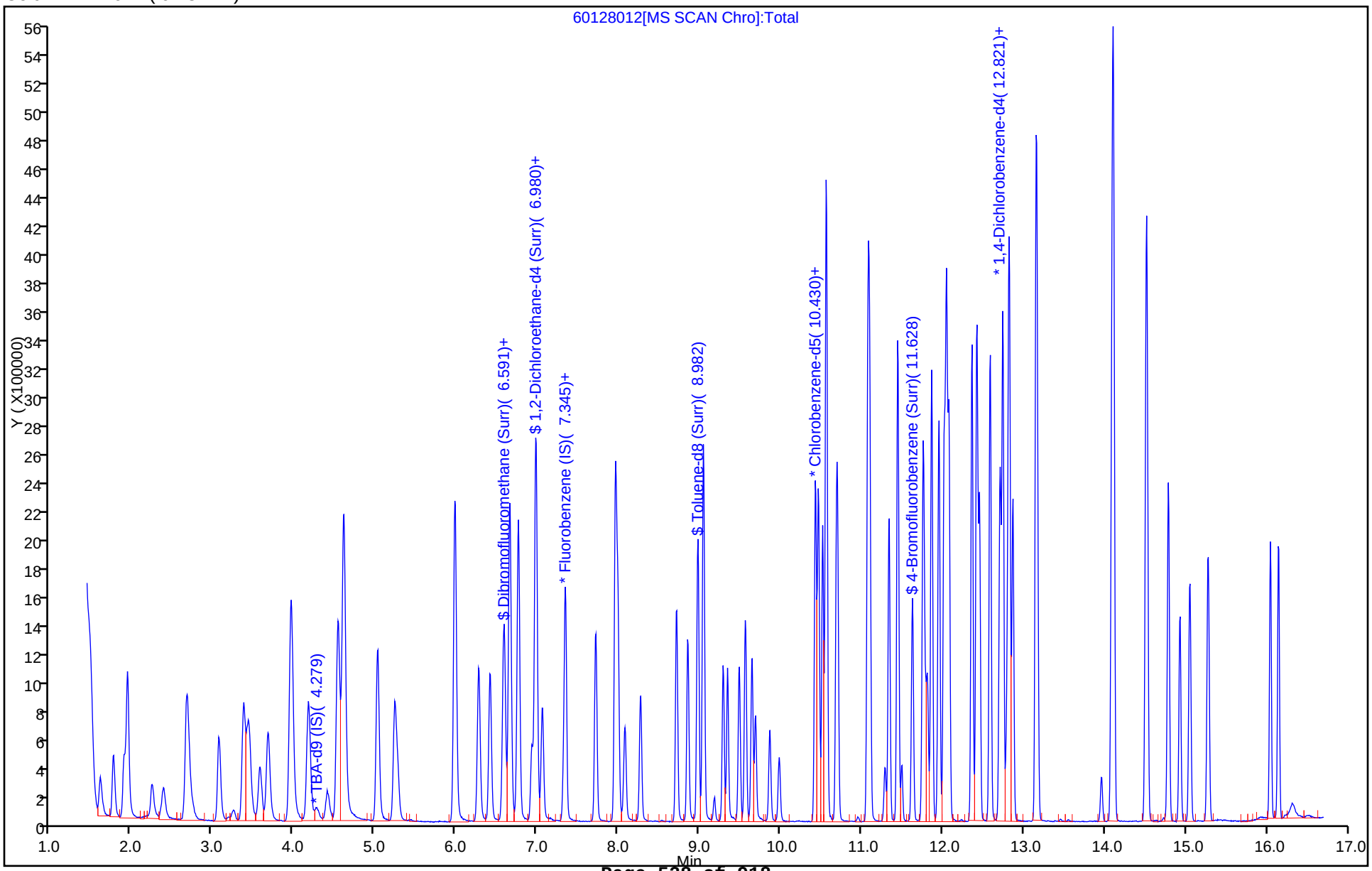
Report Date: 29-Jan-2015 12:59:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128012.D

Injection Date:	28-Jan-2015 16:21:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

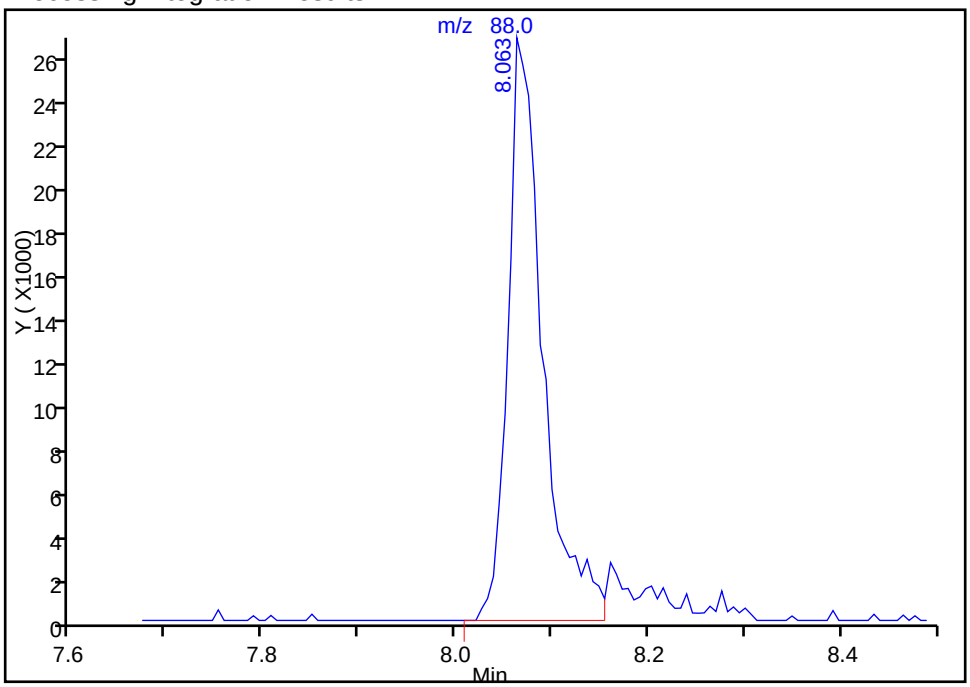
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128012.D				
Injection Date:	28-Jan-2015 16:21:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD40				
Client ID:					
Operator ID:	001562	ALS Bottle#:	10	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

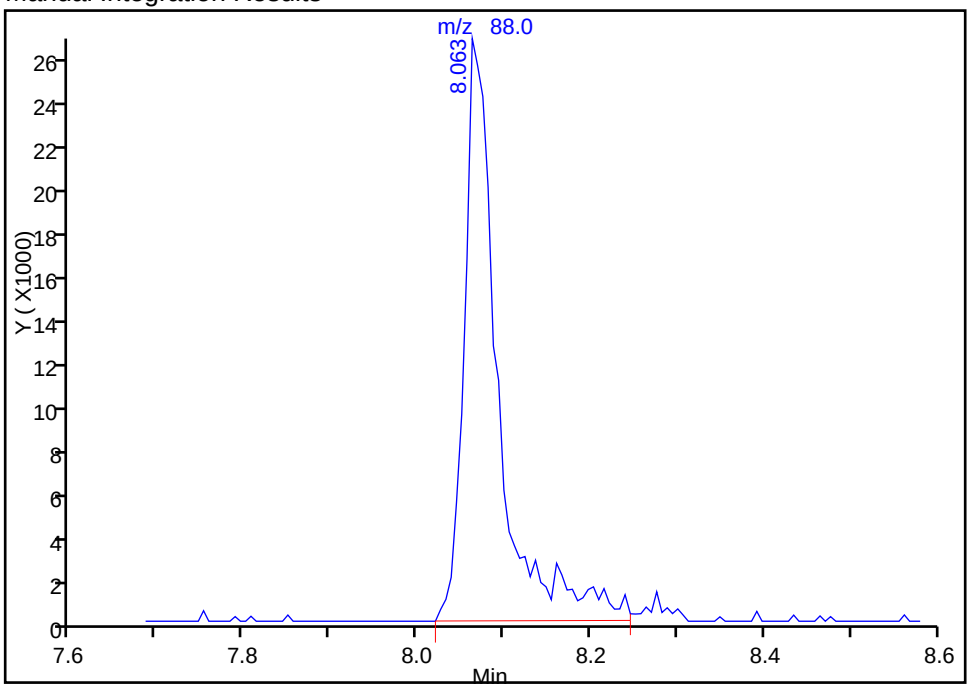
Processing Integration Results

RT: 8.06
Area: 66981
Amount: 3712.8569
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 73473
Amount: 4147.2741
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 11:12:56
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 28-Jan-2015 16:44:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0005450-013
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:17 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 11:15:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.278	0.000	97	165623	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.326	7.326	0.000	98	445145	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.440	-0.005	89	112267	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	93	160396	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.596	6.596	0.000	93	498125	250.0	247.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.973	0.000	70	706731	250.0	245.2	
$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	94	1782119	250.0	201.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.627	0.000	83	804742	250.0	213.8	
11 Dichlorodifluoromethane	85	1.608	1.607	0.001	98	543864	250.0	230.6	
12 Chloromethane	50	1.766	1.759	0.007	99	847288	250.0	233.6	
13 Vinyl chloride	62	1.900	1.893	0.007	98	750079	250.0	233.3	
14 Butadiene	39	1.942	1.936	0.006	90	797079	250.0	232.2	
15 Bromomethane	94	2.247	2.240	0.007	90	267917	250.0	207.6	
16 Chloroethane	64	2.387	2.380	0.007	100	453830	250.0	230.2	
17 Dichlorofluoromethane	67	2.672	2.666	0.006	98	1104334	250.0	235.0	
18 Trichlorofluoromethane	101	2.685	2.684	0.001	98	854688	250.0	232.4	
20 Ethyl ether	59	3.074	3.067	0.007	94	701385	250.0	250.1	
21 Acrolein	56	3.244	3.244	0.000	99	125821	275.0	282.7	
22 1,1-Dichloroethene	96	3.372	3.365	0.007	96	603276	250.0	241.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.426	0.007	95	600973	250.0	237.7	
24 Acetone	43	3.457	3.451	0.006	100	400973	500.0	509.2	
25 Iodomethane	142	3.579	3.578	0.001	99	932274	250.0	251.8	
26 Carbon disulfide	76	3.676	3.676	0.000	100	1916453	250.0	258.9	
29 3-Chloro-1-propene	76	3.956	3.956	0.000	90	417234	250.0	257.0	
30 Methyl acetate	43	3.968	3.962	0.006	98	2346689	1250.0	1217.6	
31 Methylene Chloride	84	4.175	4.175	0.000	97	837610	250.0	229.2	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	96	475572	2500.0	2540.9	
33 Acrylonitrile	53	4.540	4.540	0.000	97	2458471	2500.0	2446.4	
34 trans-1,2-Dichloroethene	96	4.613	4.613	0.000	74	746155	250.0	248.0	
35 Methyl tert-butyl ether	73	4.613	4.613	0.000	98	1999816	250.0	252.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.027	5.026	0.001	94	1057585	250.0	244.3	
37 1,1-Dichloroethane	63	5.240	5.239	0.001	96	1421566	250.0	244.2	
38 Vinyl acetate	43	5.276	5.276	0.000	97	777050	250.0	256.8	
44 2-Butanone (MEK)	43	5.982	5.975	0.007	50	502816	500.0	498.1	
43 cis-1,2-Dichloroethene	96	5.982	5.981	0.001	84	802357	250.0	251.4	
42 2,2-Dichloropropane	77	5.982	5.987	-0.005	66	842775	250.0	255.3	
49 Tetrahydrofuran	42	6.286	6.279	0.007	91	346093	500.0	477.1	
48 Chlorobromomethane	128	6.280	6.279	0.001	93	324697	250.0	255.6	
50 Chloroform	83	6.414	6.419	-0.005	94	1224156	250.0	244.3	
51 1,1,1-Trichloroethane	97	6.584	6.584	0.000	96	966056	250.0	253.0	
52 Cyclohexane	56	6.663	6.657	0.006	95	1475197	250.0	239.9	
53 Carbon tetrachloride	117	6.761	6.760	0.001	95	766964	250.0	256.7	
54 1,1-Dichloropropene	75	6.773	6.766	0.007	94	930038	250.0	244.1	
55 Isobutyl alcohol	41	6.931	6.936	-0.005	94	377064	6250.0	6367.6	
56 Benzene	78	6.986	6.985	0.001	99	2568317	250.0	232.4	
57 1,2-Dichloroethane	62	7.065	7.058	0.007	97	895039	250.0	246.6	
59 n-Heptane	43	7.345	7.350	-0.005	94	839502	250.0	238.4	
61 Trichloroethene	130	7.722	7.721	0.001	94	593184	250.0	235.6	
63 Methylcyclohexane	83	7.965	7.965	0.000	94	1205068	250.0	242.9	
64 1,2-Dichloropropane	63	7.995	7.995	0.000	89	735181	250.0	251.4	
65 1,4-Dioxane	88	8.075	8.074	0.001	35	86605	5000.0	4733.5	
67 Dibromomethane	93	8.081	8.080	0.001	95	334892	250.0	256.2	
68 Dichlorobromomethane	83	8.275	8.275	0.000	98	803958	250.0	262.2	
71 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	92	940779	250.0	267.4	
72 4-Methyl-2-pentanone (MIBK	43	8.859	8.853	0.006	96	1165825	500.0	460.3	
73 Toluene	91	9.048	9.047	0.001	96	2335981	250.0	203.5	
74 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	96	756557	250.0	240.3	
75 Ethyl methacrylate	69	9.346	9.345	0.001	91	703298	250.0	242.8	
76 1,1,2-Trichloroethane	97	9.492	9.491	0.001	93	457078	250.0	219.3	
77 Tetrachloroethene	164	9.565	9.564	0.001	93	439818	250.0	214.6	
78 1,3-Dichloropropane	76	9.650	9.650	0.000	95	854230	250.0	220.4	
79 2-Hexanone	43	9.693	9.692	0.001	95	682982	500.0	472.6	
81 Chlorodibromomethane	129	9.869	9.869	0.000	90	439418	250.0	248.4	
82 Ethylene Dibromide	107	9.985	9.984	0.001	99	439262	250.0	231.7	
83 3-Chlorobenzotrifluoride	180	10.429	10.428	0.001	94	827969	250.0	207.4	
84 Chlorobenzene	112	10.471	10.471	0.000	89	1544665	250.0	215.6	
85 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	97	789851	250.0	212.6	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.562	0.001	92	607735	250.0	246.1	
87 Ethylbenzene	106	10.569	10.568	0.001	97	946322	250.0	220.2	
88 m-Xylene & p-Xylene	106	10.697	10.702	-0.005	96	1173036	250.0	221.1	
89 o-Xylene	106	11.080	11.079	0.001	96	1190653	250.0	218.4	
90 Styrene	104	11.098	11.098	0.000	93	1790733	250.0	223.1	
91 Bromoform	173	11.293	11.292	0.001	95	250089	250.0	264.0	
92 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	94	883499	250.0	212.1	
93 Isopropylbenzene	105	11.451	11.444	0.007	99	2696635	250.0	200.6	
96 1,1,2,2-Tetrachloroethane	83	11.755	11.755	0.000	95	640819	250.0	228.7	
95 Bromobenzene	156	11.767	11.767	0.000	98	690860	250.0	246.1	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.791	0.001	82	201266	250.0	254.9	
98 1,2,3-Trichloropropane	110	11.816	11.815	0.001	85	203260	250.0	247.4	
99 N-Propylbenzene	120	11.865	11.864	0.001	97	796757	250.0	237.5	
100 2-Chlorotoluene	126	11.956	11.955	0.001	95	719388	250.0	243.4	
101 3-Chlorotoluene	126	12.023	12.022	0.001	95	730727	250.0	236.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.047	12.047	0.000	94	2421330	250.0	224.6	
103 4-Chlorotoluene	126	12.077	12.083	-0.006	98	726677	250.0	239.5	
104 tert-Butylbenzene	119	12.363	12.363	0.000	92	1918630	250.0	228.6	
106 1,2,4-Trimethylbenzene	105	12.424	12.424	0.000	98	2489630	250.0	223.2	
107 1,2-dichloro-4-(trifluorom	214	12.455	12.460	-0.005	96	725838	250.0	232.8	
108 sec-Butylbenzene	105	12.589	12.588	0.000	96	2762118	250.0	212.9	
109 1,3-Dichlorobenzene	146	12.710	12.710	0.000	93	1280853	250.0	232.9	
110 4-Isopropyltoluene	119	12.747	12.740	0.007	93	2335695	250.0	221.9	
111 1,4-Dichlorobenzene	146	12.820	12.813	0.007	86	1322179	250.0	232.4	
113 2,4-Dichloro-1-(triflourom	214	12.832	12.831	0.001	96	757959	250.0	242.3	
114 2,5-Dichlorobenzotrifluori	214	12.868	12.868	0.000	97	791743	250.0	229.6	
116 n-Butylbenzene	91	13.154	13.154	0.000	94	2252239	250.0	222.5	
117 1,2-Dichlorobenzene	146	13.166	13.166	0.000	91	1288639	250.0	234.4	
118 1,2-Dibromo-3-Chloropropan	75	13.963	13.963	0.000	77	111534	250.0	254.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.103	14.103	0.000	94	3312790	750.0	641.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.517	14.516	0.001	95	2461660	500.0	436.7	
122 1,2,4-Trichlorobenzene	180	14.785	14.784	0.001	94	1004110	250.0	235.7	
123 Hexachlorobutadiene	225	14.931	14.930	0.001	96	388561	250.0	233.2	
124 Naphthalene	128	15.052	15.052	0.000	98	1745866	250.0	238.5	
125 1,2,3-Trichlorobenzene	180	15.277	15.277	0.000	93	854020	250.0	239.7	
126 2,4,5-Trichlorotoluene	159	16.044	16.049	-0.005	0	629698	250.0	240.1	
127 2,3,6-Trichlorotoluene	159	16.147	16.147	0.000	93	566962	250.0	242.6	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		500.0	499.4	
S 131 Xylenes, Total	106				0		500.0	439.5	
S 132 1,3-Dichloropropene, Total	1				0		500.0	507.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00029	Amount Added:	10.00	Units: uL	
voaWeemixpri_00001	Amount Added:	10.00	Units: uL	
voaWVApri Res_00001	Amount Added:	10.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	10.00	Units: uL	
voaWAcropri R_00006	Amount Added:	11.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

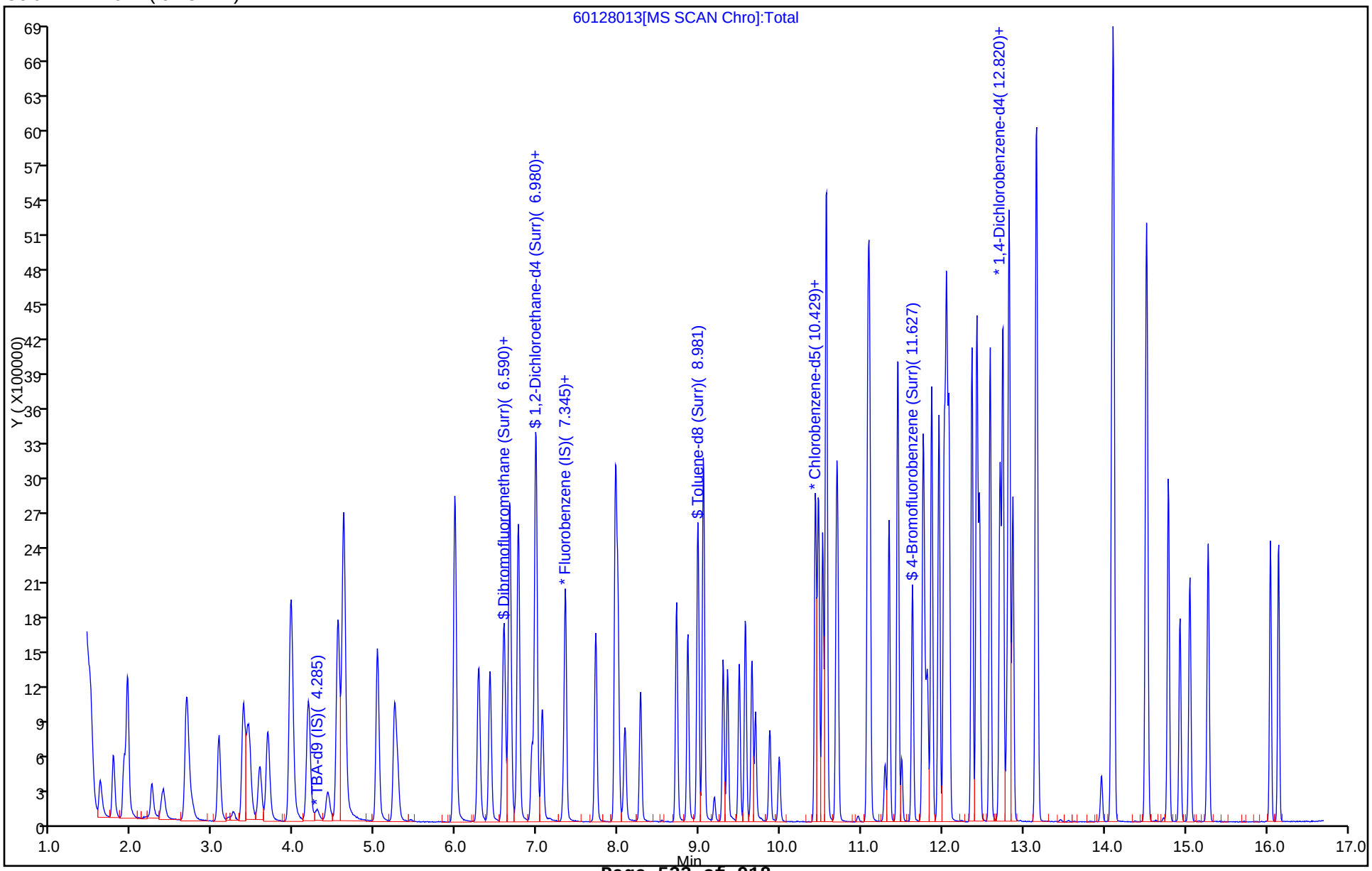
Report Date: 29-Jan-2015 12:59:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Injection Date:	28-Jan-2015 16:44:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134814/7 Calibration Date: 03/05/2015 12:16

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50305007.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	0.2512	0.2787	0.1000	11.1	10.0	10.9	20.0
Chloromethane	Ave	0.4015	0.5109	0.1000	12.7	10.0	27.2*	20.0
Vinyl chloride	Ave	0.3859	0.4887	0.1000	12.7	10.0	26.6*	20.0
Bromomethane	Lin2		0.1726	0.0500	15.3	10.0	52.8*	20.0
Chloroethane	Ave	0.1570	0.2472	0.0500	15.7	10.0	57.5*	20.0
Dichlorofluoromethane	Ave	0.3598	0.5786	0.0100	16.1	10.0	60.8*	20.0
Trichlorofluoromethane	Ave	0.3005	0.5061	0.1000	16.8	10.0	68.4*	20.0
Ethyl ether	Ave	0.2900	0.2878	0.0100	9.93	10.0	-0.7	20.0
Acrolein	Ave	0.0383	0.0328	0.0100	25.7	30.0	-14.4	20.0
1,1-Dichloroethene	Ave	0.2911	0.3087	0.1000	10.6	10.0	6.0	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2943	0.3283	0.1000	11.2	10.0	11.6	20.0
Acetone	Ave	0.1050	0.1184	0.0500	22.5	20.0	12.7	20.0
Iodomethane	Ave	0.4096	0.4450	0.0100	10.9	10.0	8.6	20.0
Carbon disulfide	Ave	0.7166	0.6310	0.1000	8.81	10.0	-11.9	20.0
Allyl chloride	Ave	0.1818	0.1624	0.0100	8.93	10.0	-10.7	20.0
Methyl acetate	Ave	0.2888	0.2525	0.1000	43.7	50.0	-12.6	20.0
Methylene Chloride	Lin2		0.3421	0.1000	10.6	10.0	5.8	20.0
tert-Butyl alcohol	Ave	1.198	1.071	0.0100	89.3	100	-10.7	20.0
Acrylonitrile	Ave	0.1432	0.1392	0.0100	97.2	100	-2.8	20.0
trans-1,2-Dichloroethene	Ave	0.3044	0.3303	0.1000	10.8	10.0	8.5	20.0
Methyl tert-butyl ether	Ave	0.7605	0.7045	0.1000	9.26	10.0	-7.4	20.0
Hexane	Ave	0.5404	0.5344	0.0100	9.89	10.0	-1.1	20.0
1,1-Dichloroethane	Ave	0.5802	0.5949	0.2000	10.3	10.0	2.5	20.0
Vinyl acetate	Ave	0.1982	0.1594	0.0100	8.04	10.0	-19.6	20.0
2,2-Dichloropropane	Ave	0.2148	0.1626	0.0100	7.57	10.0	-24.3*	20.0
cis-1,2-Dichloroethene	Ave	0.3255	0.3406	0.1000	10.5	10.0	4.6	20.0
2-Butanone (MEK)	Ave	0.1711	0.1687	0.0500	19.7	20.0	-1.4	20.0
Bromochloromethane	Ave	0.1357	0.1412	0.0100	10.4	10.0	4.1	20.0
Tetrahydrofuran	Ave	0.1218	0.1066	0.0100	17.5	20.0	-12.5	20.0
Chloroform	Ave	0.4624	0.4836	0.2000	10.5	10.0	4.6	20.0
1,1,1-Trichloroethane	Ave	0.3141	0.3179	0.1000	10.1	10.0	1.2	20.0
Cyclohexane	Ave	0.7049	0.7446	0.1000	10.6	10.0	5.6	20.0
Carbon tetrachloride	Ave	0.2130	0.2085	0.1000	9.79	10.0	-2.1	20.0
1,1-Dichloropropene	Ave	0.4007	0.4126	0.0100	10.3	10.0	3.0	20.0
Isobutyl alcohol	Ave	0.0069	0.0036*	0.0100	130	250	-48.1*	20.0
Benzene	Ave	1.263	1.305	0.5000	10.3	10.0	3.3	20.0
1,2-Dichloroethane	Ave	0.3648	0.3635	0.1000	9.97	10.0	-0.3	20.0
n-Heptane	Ave	0.4910	0.4839	0.0100	9.86	10.0	-1.4	20.0
Trichloroethene	Ave	0.2974	0.3158	0.2000	10.6	10.0	6.2	20.0
Methylcyclohexane	Ave	0.5619	0.6019	0.1000	10.7	10.0	7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134814/7 Calibration Date: 03/05/2015 12:16

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50305007.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	0.3317	0.3240	0.1000	9.77	10.0	-2.3	20.0
Dibromomethane	Ave	0.1498	0.1530	0.0100	10.2	10.0	2.1	20.0
1,4-Dioxane	Ave	0.0030	0.0021*	0.0100	144	200	-27.9*	20.0
Bromodichloromethane	Ave	0.2792	0.2559	0.2000	9.16	10.0	-8.4	20.0
cis-1,3-Dichloropropene	Ave	0.3698	0.2828	0.2000	7.65	10.0	-23.5*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.510	1.400	0.1000	18.5	20.0	-7.3	20.0
Toluene	Ave	5.161	5.459	0.4000	10.6	10.0	5.8	20.0
trans-1,3-Dichloropropene	Ave	1.088	0.7279	0.1000	6.69	10.0	-33.1*	20.0
Ethyl methacrylate	Ave	1.224	0.8327	0.0100	6.81	10.0	-31.9*	20.0
1,1,2-Trichloroethane	Ave	0.9428	0.9318	0.1000	9.88	10.0	-1.2	20.0
Tetrachloroethene	Ave	0.9523	1.054	0.2000	11.1	10.0	10.7	20.0
1,3-Dichloropropane	Ave	1.772	1.770	0.0100	9.99	10.0	-0.1	20.0
2-Hexanone	Ave	1.054	0.9741	0.1000	18.5	20.0	-7.6	20.0
Dibromochloromethane	Ave	0.6200	0.5539	0.1000	8.93	10.0	-10.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.9079	0.8445	0.1000	9.30	10.0	-7.0	20.0
3-Chlorobenzotrifluoride	Ave	1.583	1.676	0.0100	10.6	10.0	5.9	20.0
Chlorobenzene	Ave	3.305	3.490	0.5000	10.6	10.0	5.6	20.0
4-Chlorobenzotrifluoride	Ave	1.513	1.571	0.0100	10.4	10.0	3.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7622	0.7388	0.0100	9.69	10.0	-3.1	20.0
Ethylbenzene	Ave	1.911	2.040	0.1000	10.7	10.0	6.7	20.0
m-Xylene & p-Xylene	Ave	2.354	2.435	0.1000	10.3	10.0	3.4	20.0
o-Xylene	Ave	2.285	2.432	0.3000	10.6	10.0	6.4	20.0
Styrene	Ave	3.735	3.938	0.3000	10.5	10.0	5.4	20.0
Bromoform	Ave	0.3275	0.2762	0.1000	8.43	10.0	-15.7	20.0
2-Chlorobenzotrifluoride	Ave	1.569	1.648	0.0100	10.5	10.0	5.0	20.0
Isopropylbenzene	Ave	5.608	6.225	0.1000	11.1	10.0	11.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.307	1.283	0.3000	9.82	10.0	-1.8	20.0
Bromobenzene	Ave	0.8735	0.9319	0.0100	10.7	10.0	6.7	20.0
1,2,3-Trichloropropane	Ave	0.2927	0.2956	0.0100	10.1	10.0	1.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2844	0.2172	0.0100	7.64	10.0	-23.6*	20.0
N-Propylbenzene	Ave	1.160	1.226	0.0100	10.6	10.0	5.6	20.0
2-Chlorotoluene	Ave	0.9582	1.000	0.0100	10.4	10.0	4.4	20.0
3-Chlorotoluene	Ave	0.9794	0.9874	0.0100	10.1	10.0	0.8	20.0
1,3,5-Trimethylbenzene	Ave	3.211	3.492	0.0100	10.9	10.0	8.7	20.0
4-Chlorotoluene	Ave	1.034	1.086	0.0100	10.5	10.0	5.1	20.0
tert-Butylbenzene	Ave	2.771	3.027	0.0100	10.9	10.0	9.2	20.0
1,2,4-Trimethylbenzene	Ave	3.314	3.515	0.0100	10.6	10.0	6.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7482	0.8102	0.0100	10.8	10.0	8.3	20.0
sec-Butylbenzene	Ave	3.989	4.358	0.0100	10.9	10.0	9.2	20.0
1,3-Dichlorobenzene	Ave	1.726	1.820	0.6000	10.5	10.0	5.4	20.0
4-Isopropyltoluene	Ave	3.269	3.500	0.0100	10.7	10.0	7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134814/7 Calibration Date: 03/05/2015 12:16

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50305007.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
1,4-Dichlorobenzene	Ave	1.737	1.852	0.5000	10.7	10.0	6.6	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7111	0.7647	0.0100	10.8	10.0	7.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7753	0.8540	0.0100	11.0	10.0	10.2	20.0
n-Butylbenzene	Ave	2.906	3.116	0.0100	10.7	10.0	7.2	20.0
1,2-Dichlorobenzene	Ave	1.579	1.693	0.4000	10.7	10.0	7.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1040	0.0676	0.0500	6.50	10.0	-35.0*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.078	1.011	0.0100	28.1	30.0	-6.3	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.066	0.9561	0.0100	17.9	20.0	-10.3	20.0
1,2,4-Trichlorobenzene	Ave	0.7897	0.7400	0.2000	9.37	10.0	-6.3	20.0
Hexachlorobutadiene	Ave	0.3373	0.3651	0.0100	10.8	10.0	8.3	20.0
Naphthalene	Ave	2.291	1.978	0.0100	8.63	10.0	-13.7	20.0
1,2,3-Trichlorobenzene	Ave	0.6771	0.6020	0.0100	8.89	10.0	-11.1	20.0
2,4,5-Trichlorotoluene	Ave	0.3426	0.2664	0.0100	7.78	10.0	-22.2*	20.0
2,3,6-Trichlorotoluene	Ave	0.3158	0.2469	0.0100	7.82	10.0	-21.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2141	0.2184		10.2	10.0	2.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2646	0.2630		9.94	10.0	-0.6	20.0
Toluene-d8 (Surr)	Ave	3.897	4.062		10.4	10.0	4.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.450	1.427		9.84	10.0	-1.6	20.0

Report Date: 06-Mar-2015 08:06:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305007.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 05-Mar-2015 12:16:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005905-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:06:07 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 05-Mar-2015 12:58:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.299	4.299	0.000	93	110089	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	95	455418	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.365	10.365	0.000	98	107822	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	97	151087	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.532	0.000	97	99453	50.0	51.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.897	0.000	97	119773	50.0	49.7	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	100	438020	50.0	52.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.533	0.000	95	153812	50.0	49.2	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	99	126907	50.0	55.5	
12 Chloromethane	50	1.775	1.775	0.000	99	232691	50.0	63.6	
13 Vinyl chloride	62	1.902	1.902	0.000	100	222570	50.0	63.3	
14 Butadiene	39	1.939	1.939	0.000	99	269880	50.0	66.2	
15 Bromomethane	94	2.249	2.249	0.000	76	78586	50.0	76.4	
16 Chloroethane	64	2.383	2.383	0.000	97	112595	50.0	78.7	
17 Dichlorofluoromethane	67	2.651	2.651	0.000	98	263485	50.0	80.4	
18 Trichlorofluoromethane	101	2.705	2.705	0.000	97	230493	50.0	84.2	
20 Ethyl ether	59	3.083	3.083	0.000	98	131079	50.0	49.6	
21 Acrolein	56	3.265	3.265	0.000	85	44787	150.0	128.4	M
22 1,1-Dichloroethene	96	3.375	3.375	0.000	98	140578	50.0	53.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	93	149513	50.0	55.8	
24 Acetone	43	3.496	3.496	0.000	92	107831	100.0	112.7	
25 Iodomethane	142	3.581	3.581	0.000	95	202642	50.0	54.3	
26 Carbon disulfide	76	3.661	3.661	0.000	100	287387	50.0	44.0	
28 3-Chloro-1-propene	76	3.934	3.934	0.000	98	73960	50.0	44.7	
30 Methyl acetate	43	4.013	4.013	0.000	98	574941	250.0	218.6	
31 Methylene Chloride	84	4.141	4.141	0.000	96	155791	50.0	52.9	
32 2-Methyl-2-propanol	59	4.421	4.421	0.000	73	58925	500.0	446.7	
33 Acrylonitrile	53	4.549	4.549	0.000	99	634055	500.0	486.2	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	62	150407	50.0	54.2	
35 Methyl tert-butyl ether	73	4.597	4.597	0.000	99	320852	50.0	46.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.981	4.981	0.000	97	243365	50.0	49.4	
37 1,1-Dichloroethane	63	5.169	5.169	0.000	98	270944	50.0	51.3	
38 Vinyl acetate	43	5.297	5.297	0.000	97	72573	50.0	40.2	
44 2,2-Dichloropropane	77	5.924	5.924	0.000	63	74061	50.0	37.9	
45 cis-1,2-Dichloroethene	96	5.942	5.942	0.000	89	155105	50.0	52.3	
46 2-Butanone (MEK)	43	5.984	5.984	0.000	100	153670	100.0	98.6	
49 Chlorobromomethane	128	6.222	6.222	0.000	80	64282	50.0	52.0	
51 Tetrahydrofuran	42	6.289	6.289	0.000	98	97054	100.0	87.5	
52 Chloroform	83	6.337	6.337	0.000	85	220219	50.0	52.3	
53 1,1,1-Trichloroethane	97	6.532	6.532	0.000	97	144757	50.0	50.6	
54 Cyclohexane	56	6.587	6.587	0.000	84	339100	50.0	52.8	
56 Carbon tetrachloride	117	6.714	6.714	0.000	67	94941	50.0	48.9	
55 1,1-Dichloropropene	75	6.721	6.721	0.000	96	187915	50.0	51.5	
57 Isobutyl alcohol	41	6.940	6.940	0.000	33	40522	1250.0	648.3	
58 Benzene	78	6.952	6.952	0.000	99	594387	50.0	51.7	
59 1,2-Dichloroethane	62	6.982	6.982	0.000	97	165561	50.0	49.8	
62 n-Heptane	43	7.280	7.280	0.000	83	220383	50.0	49.3	
64 Trichloroethene	130	7.663	7.663	0.000	96	143828	50.0	53.1	
66 Methylcyclohexane	83	7.858	7.858	0.000	95	274122	50.0	53.6	
67 1,2-Dichloropropane	63	7.901	7.901	0.000	96	147553	50.0	48.8	
68 Dibromomethane	93	8.022	8.022	0.000	95	69661	50.0	51.1	
70 1,4-Dioxane	88	8.059	8.059	0.000	77	19426	1000.0	721.4	M
71 Dichlorobromomethane	83	8.193	8.193	0.000	98	116517	50.0	45.8	
74 cis-1,3-Dichloropropene	75	8.661	8.661	0.000	99	128774	50.0	38.2	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	94	301852	100.0	92.7	
76 Toluene	91	8.990	8.990	0.000	100	588547	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.221	9.221	0.000	77	78484	50.0	33.4	
78 Ethyl methacrylate	69	9.318	9.318	0.000	82	89780	50.0	34.0	
79 1,1,2-Trichloroethane	97	9.397	9.397	0.000	97	100469	50.0	49.4	
80 Tetrachloroethene	164	9.537	9.537	0.000	96	113635	50.0	55.3	
81 1,3-Dichloropropane	76	9.568	9.568	0.000	96	190807	50.0	49.9	
82 2-Hexanone	43	9.659	9.659	0.000	99	210053	100.0	92.4	
84 Chlorodibromomethane	129	9.793	9.793	0.000	96	59723	50.0	44.7	
85 Ethylene Dibromide	107	9.902	9.902	0.000	96	91059	50.0	46.5	
86 3-Chlorobenzotrifluoride	180	10.371	10.371	0.000	81	180705	50.0	52.9	
87 Chlorobenzene	112	10.395	10.395	0.000	89	376335	50.0	52.8	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	93	169411	50.0	51.9	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.474	0.000	91	79661	50.0	48.5	
90 Ethylbenzene	106	10.498	10.498	0.000	100	219956	50.0	53.4	
91 m-Xylene & p-Xylene	106	10.620	10.620	0.000	99	262561	50.0	51.7	
92 o-Xylene	106	11.009	11.009	0.000	91	262191	50.0	53.2	
93 Styrene	104	11.028	11.028	0.000	97	424562	50.0	52.7	
94 Bromoform	173	11.216	11.216	0.000	74	29776	50.0	42.2	
96 2-Chlorobenzotrifluoride	180	11.271	11.271	0.000	88	177640	50.0	52.5	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	671142	50.0	55.5	
99 1,1,2,2-Tetrachloroethane	83	11.679	11.679	0.000	63	138339	50.0	49.1	
100 Bromobenzene	156	11.685	11.685	0.000	92	140791	50.0	53.3	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	65	44657	50.0	50.5	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	54	32816	50.0	38.2	
103 N-Propylbenzene	120	11.788	11.788	0.000	100	185168	50.0	52.8	
104 2-Chlorotoluene	126	11.873	11.873	0.000	99	151094	50.0	52.2	
105 3-Chlorotoluene	126	11.934	11.934	0.000	74	149180	50.0	50.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.964	11.964	0.000	99	527565	50.0	54.4	
107 4-Chlorotoluene	126	11.983	11.983	0.000	98	164131	50.0	52.5	
108 tert-Butylbenzene	119	12.287	12.287	0.000	67	457382	50.0	54.6	
110 1,2,4-Trimethylbenzene	105	12.336	12.336	0.000	97	531143	50.0	53.0	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	97	122410	50.0	54.1	
112 sec-Butylbenzene	105	12.506	12.506	0.000	100	658415	50.0	54.6	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	86	274956	50.0	52.7	
114 4-Isopropyltoluene	119	12.652	12.652	0.000	99	528826	50.0	53.5	
115 1,4-Dichlorobenzene	146	12.707	12.707	0.000	98	279750	50.0	53.3	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.761	0.000	87	115539	50.0	53.8	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.810	0.000	97	129026	50.0	55.1	
120 n-Butylbenzene	91	13.059	13.059	0.000	100	470860	50.0	53.6	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	99	255825	50.0	53.6	
122 1,2-Dibromo-3-Chloropropan	75	13.863	13.863	0.000	87	10211	50.0	32.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	98	458186	150.0	140.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	98	288914	100.0	89.7	
126 1,2,4-Trichlorobenzene	180	14.690	14.690	0.000	97	111811	50.0	46.9	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	89	55161	50.0	54.1	
128 Naphthalene	128	14.945	14.945	0.000	100	298876	50.0	43.2	
129 1,2,3-Trichlorobenzene	180	15.189	15.189	0.000	92	90956	50.0	44.5	
131 2,4,5-Trichlorotoluene	159	15.961	15.961	0.000	92	40254	50.0	38.9	
130 2,3,6-Trichlorotoluene	159	16.065	16.065	0.000	96	37300	50.0	39.1	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	106.6	
S 133 Xylenes, Total	106				0		100.0	104.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	71.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00104	Amount Added:	2.00	Units: uL		
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL		
VOAVAPRI_00003	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL		
VOAACRPRI_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent	

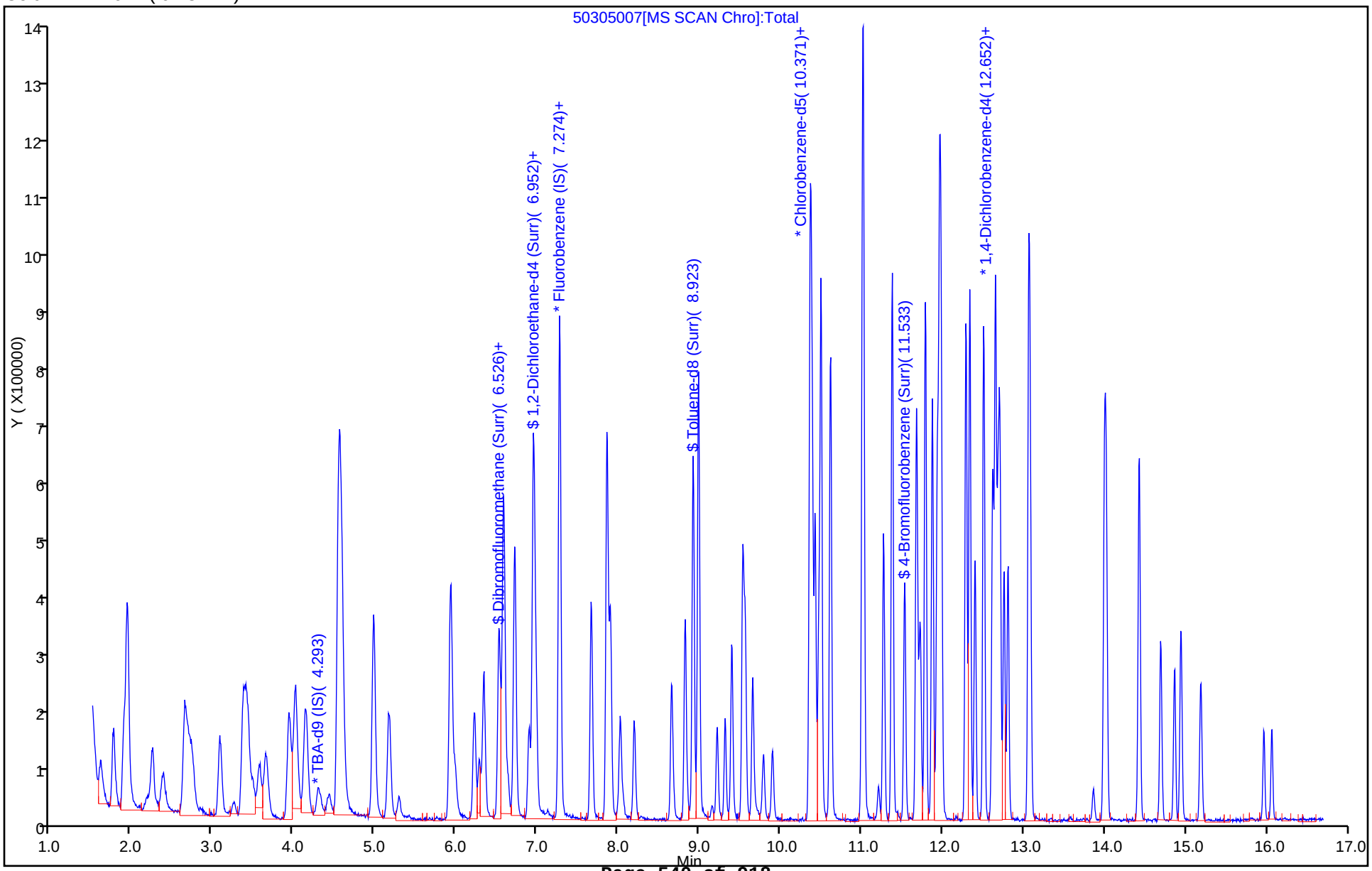
Report Date: 06-Mar-2015 08:06:09 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305007.D

Injection Date:	05-Mar-2015 12:16:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

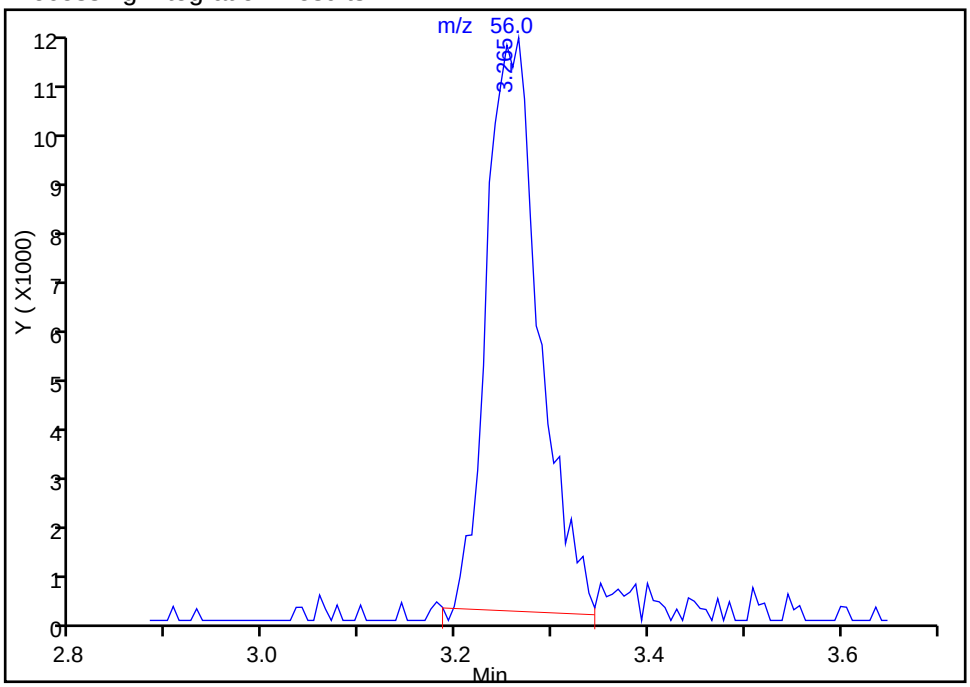
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305007.D
Injection Date: 05-Mar-2015 12:16:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 Acrolein, CAS: 107-02-8

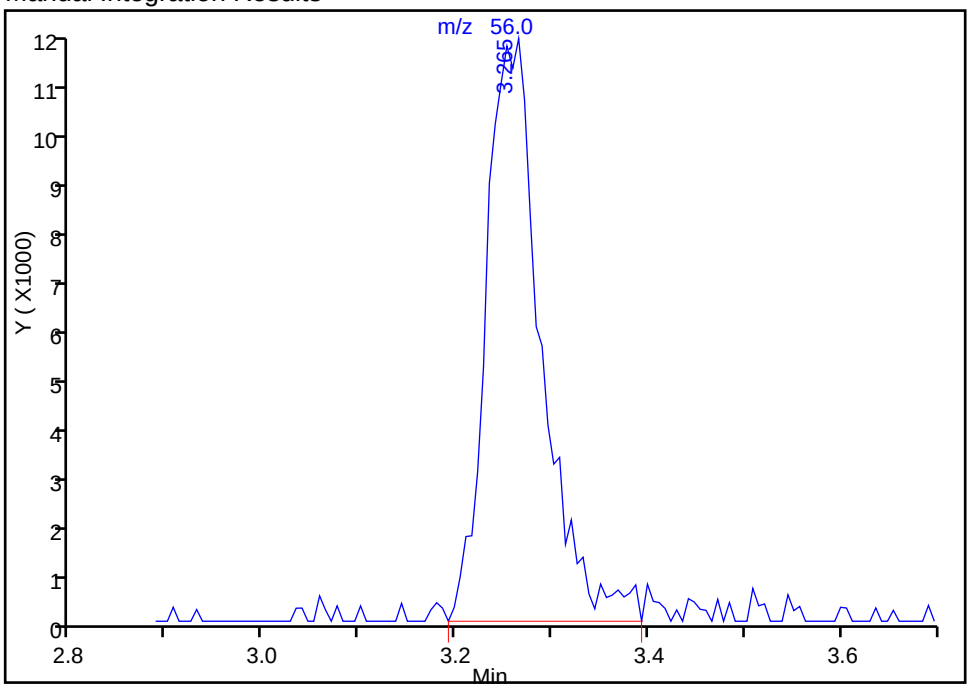
Processing Integration Results

RT: 3.27
Area: 41705
Amount: 119.5528
Amount Units: ng



Manual Integration Results

RT: 3.27
Area: 44787
Amount: 128.3877
Amount Units: ng



Reviewer: fergusond, 05-Mar-2015 12:58:14
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

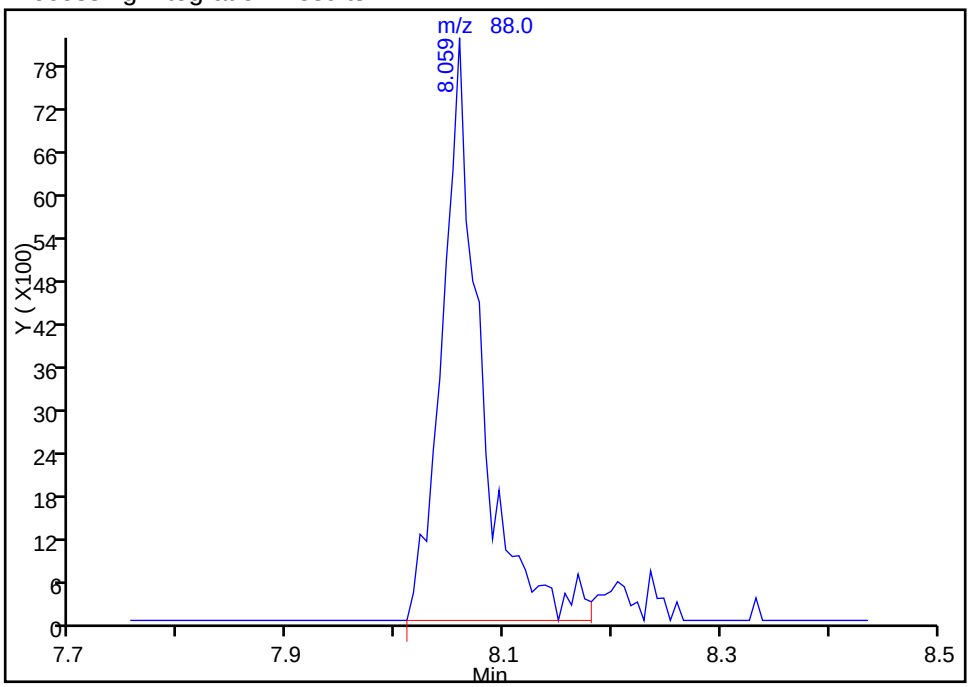
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305007.D
Injection Date: 05-Mar-2015 12:16:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

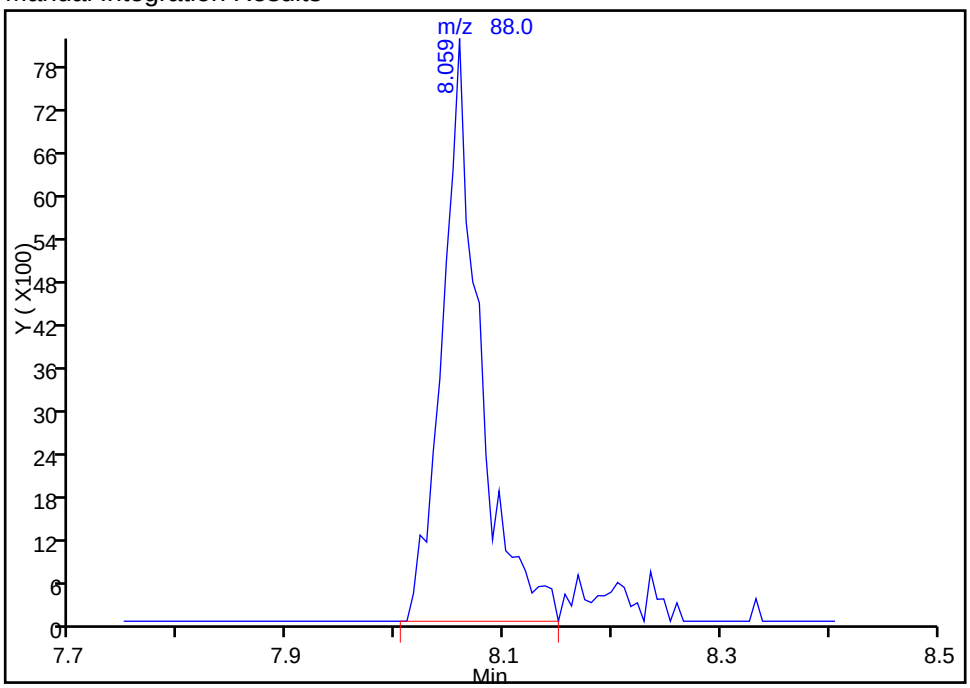
Processing Integration Results

RT: 8.06
Area: 20083
Amount: 745.7511
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 19426
Amount: 721.3544
Amount Units: ng



Reviewer: fergusond, 05-Mar-2015 12:58:14
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134916/4 Calibration Date: 03/06/2015 12:23

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50306004.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	0.2512	0.2843	0.1000	11.3	10.0	13.2	20.0
Chloromethane	Ave	0.4015	0.4612	0.1000	11.5	10.0	14.9	20.0
Vinyl chloride	Ave	0.3859	0.4419	0.1000	11.5	10.0	14.5	20.0
Bromomethane	Lin2		0.1659	0.0500	14.6	10.0	46.5*	20.0
Chloroethane	Ave	0.1570	0.2134	0.0500	13.6	10.0	35.9*	20.0
Dichlorofluoromethane	Ave	0.3598	0.5315	0.0100	14.8	10.0	47.7*	20.0
Trichlorofluoromethane	Ave	0.3005	0.4770	0.1000	15.9	10.0	58.7*	20.0
Ethyl ether	Ave	0.2900	0.2756	0.0100	9.50	10.0	-5.0	20.0
Acrolein	Ave	0.0383	0.0337	0.0100	26.4	30.0	-11.9	20.0
1,1-Dichloroethene	Ave	0.2911	0.3027	0.1000	10.4	10.0	4.0	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2943	0.3188	0.1000	10.8	10.0	8.3	20.0
Acetone	Ave	0.1050	0.1372	0.0500	26.1	20.0	30.6*	20.0
Iodomethane	Ave	0.4096	0.4417	0.0100	10.8	10.0	7.9	20.0
Carbon disulfide	Ave	0.7166	0.6525	0.1000	9.11	10.0	-8.9	20.0
Allyl chloride	Ave	0.1818	0.1546	0.0100	8.50	10.0	-15.0	20.0
Methyl acetate	Ave	0.2888	0.2529	0.1000	43.8	50.0	-12.4	20.0
Methylene Chloride	Lin2		0.3209	0.1000	9.88	10.0	-1.2	20.0
tert-Butyl alcohol	Ave	1.198	1.027	0.0100	85.7	100	-14.3	20.0
Acrylonitrile	Ave	0.1432	0.1377	0.0100	96.2	100	-3.8	20.0
trans-1,2-Dichloroethene	Ave	0.3044	0.3222	0.1000	10.6	10.0	5.8	20.0
Methyl tert-butyl ether	Ave	0.7605	0.5960	0.1000	7.84	10.0	-21.6*	20.0
Hexane	Ave	0.5404	0.5217	0.0100	9.65	10.0	-3.5	20.0
1,1-Dichloroethane	Ave	0.5802	0.5761	0.2000	9.93	10.0	-0.7	20.0
Vinyl acetate	Ave	0.1982	0.1690	0.0100	8.53	10.0	-14.7	20.0
2,2-Dichloropropane	Ave	0.2148	0.1205	0.0100	5.61	10.0	-43.9*	20.0
cis-1,2-Dichloroethene	Ave	0.3255	0.3452	0.1000	10.6	10.0	6.0	20.0
2-Butanone (MEK)	Ave	0.1711	0.1752	0.0500	20.5	20.0	2.4	20.0
Bromochloromethane	Ave	0.1357	0.1374	0.0100	10.1	10.0	1.3	20.0
Tetrahydrofuran	Ave	0.1218	0.1033	0.0100	17.0	20.0	-15.2	20.0
Chloroform	Ave	0.4624	0.4805	0.2000	10.4	10.0	3.9	20.0
1,1,1-Trichloroethane	Ave	0.3141	0.2807	0.1000	8.94	10.0	-10.6	20.0
Cyclohexane	Ave	0.7049	0.7092	0.1000	10.1	10.0	0.6	20.0
Carbon tetrachloride	Ave	0.2130	0.2017	0.1000	9.47	10.0	-5.3	20.0
1,1-Dichloropropene	Ave	0.4007	0.4154	0.0100	10.4	10.0	3.6	20.0
Isobutyl alcohol	Ave	0.0069	0.0043*	0.0100	155	250	-38.0*	20.0
Benzene	Ave	1.263	1.286	0.5000	10.2	10.0	1.8	20.0
1,2-Dichloroethane	Ave	0.3648	0.3572	0.1000	9.79	10.0	-2.1	20.0
n-Heptane	Ave	0.4910	0.4849	0.0100	9.87	10.0	-1.3	20.0
Trichloroethene	Ave	0.2974	0.3116	0.2000	10.5	10.0	4.8	20.0
Methylcyclohexane	Ave	0.5619	0.5736	0.1000	10.2	10.0	2.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134916/4 Calibration Date: 03/06/2015 12:23

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50306004.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	0.3317	0.3050	0.1000	9.20	10.0	-8.0	20.0
Dibromomethane	Ave	0.1498	0.1504	0.0100	10.0	10.0	0.4	20.0
1,4-Dioxane	Ave	0.0030	0.0024*	0.0100	161	200	-19.7	20.0
Bromodichloromethane	Ave	0.2792	0.2605	0.2000	9.33	10.0	-6.7	20.0
cis-1,3-Dichloropropene	Ave	0.3698	0.2511	0.2000	6.79	10.0	-32.1*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.510	1.283	0.1000	17.0	20.0	-15.0	20.0
Toluene	Ave	5.161	5.552	0.4000	10.8	10.0	7.6	20.0
trans-1,3-Dichloropropene	Ave	1.088	0.6299	0.1000	5.79	10.0	-42.1*	20.0
Ethyl methacrylate	Ave	1.224	0.7688	0.0100	6.28	10.0	-37.2*	20.0
1,1,2-Trichloroethane	Ave	0.9428	0.9775	0.1000	10.4	10.0	3.7	20.0
Tetrachloroethene	Ave	0.9523	1.080	0.2000	11.3	10.0	13.4	20.0
1,3-Dichloropropane	Ave	1.772	1.734	0.0100	9.79	10.0	-2.1	20.0
2-Hexanone	Ave	1.054	0.9836	0.1000	18.7	20.0	-6.7	20.0
Dibromochloromethane	Ave	0.6200	0.6363	0.1000	10.3	10.0	2.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.9079	0.8307	0.1000	9.15	10.0	-8.5	20.0
3-Chlorobenzotrifluoride	Ave	1.583	1.627	0.0100	10.3	10.0	2.8	20.0
Chlorobenzene	Ave	3.305	3.538	0.5000	10.7	10.0	7.0	20.0
4-Chlorobenzotrifluoride	Ave	1.513	1.530	0.0100	10.1	10.0	1.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7622	0.6877	0.0100	9.02	10.0	-9.8	20.0
Ethylbenzene	Ave	1.911	2.044	0.1000	10.7	10.0	7.0	20.0
m-Xylene & p-Xylene	Ave	2.354	2.530	0.1000	10.7	10.0	7.5	20.0
o-Xylene	Ave	2.285	2.400	0.3000	10.5	10.0	5.0	20.0
Styrene	Ave	3.735	3.937	0.3000	10.5	10.0	5.4	20.0
Bromoform	Ave	0.3275	0.3102	0.1000	9.47	10.0	-5.3	20.0
2-Chlorobenzotrifluoride	Ave	1.569	1.606	0.0100	10.2	10.0	2.3	20.0
Isopropylbenzene	Ave	5.608	6.241	0.1000	11.1	10.0	11.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.307	1.269	0.3000	9.71	10.0	-2.9	20.0
Bromobenzene	Ave	0.8735	0.9703	0.0100	11.1	10.0	11.1	20.0
1,2,3-Trichloropropane	Ave	0.2927	0.3024	0.0100	10.3	10.0	3.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2844	0.2433	0.0100	8.56	10.0	-14.4	20.0
N-Propylbenzene	Ave	1.160	1.286	0.0100	11.1	10.0	10.8	20.0
2-Chlorotoluene	Ave	0.9582	1.049	0.0100	10.9	10.0	9.5	20.0
3-Chlorotoluene	Ave	0.9794	0.9391	0.0100	9.59	10.0	-4.1	20.0
1,3,5-Trimethylbenzene	Ave	3.211	3.641	0.0100	11.3	10.0	13.4	20.0
4-Chlorotoluene	Ave	1.034	1.157	0.0100	11.2	10.0	11.9	20.0
tert-Butylbenzene	Ave	2.771	3.088	0.0100	11.1	10.0	11.4	20.0
1,2,4-Trimethylbenzene	Ave	3.314	3.677	0.0100	11.1	10.0	11.0	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7482	0.8253	0.0100	11.0	10.0	10.3	20.0
sec-Butylbenzene	Ave	3.989	4.548	0.0100	11.4	10.0	14.0	20.0
1,3-Dichlorobenzene	Ave	1.726	1.884	0.6000	10.9	10.0	9.1	20.0
4-Isopropyltoluene	Ave	3.269	3.636	0.0100	11.1	10.0	11.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134916/4 Calibration Date: 03/06/2015 12:23

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50306004.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
1,4-Dichlorobenzene	Ave	1.737	1.975	0.5000	11.4	10.0	13.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7111	0.7645	0.0100	10.8	10.0	7.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7753	0.8499	0.0100	11.0	10.0	9.6	20.0
n-Butylbenzene	Ave	2.906	3.278	0.0100	11.3	10.0	12.8	20.0
1,2-Dichlorobenzene	Ave	1.579	1.703	0.4000	10.8	10.0	7.8	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1040	0.0730	0.0500	7.01	10.0	-29.9*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.078	1.023	0.0100	28.5	30.0	-5.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.066	0.9568	0.0100	17.9	20.0	-10.3	20.0
1,2,4-Trichlorobenzene	Ave	0.7897	0.7861	0.2000	9.95	10.0	-0.5	20.0
Hexachlorobutadiene	Ave	0.3373	0.3742	0.0100	11.1	10.0	11.0	20.0
Naphthalene	Ave	2.291	2.054	0.0100	8.97	10.0	-10.3	20.0
1,2,3-Trichlorobenzene	Ave	0.6771	0.6157	0.0100	9.09	10.0	-9.1	20.0
2,4,5-Trichlorotoluene	Ave	0.3426	0.2621	0.0100	7.65	10.0	-23.5*	20.0
2,3,6-Trichlorotoluene	Ave	0.3158	0.2470	0.0100	7.82	10.0	-21.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2141	0.2079		9.71	10.0	-2.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2646	0.2437		9.21	10.0	-7.9	20.0
Toluene-d8 (Surr)	Ave	3.897	3.815		9.79	10.0	-2.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.450	1.314		9.06	10.0	-9.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 06-Mar-2015 12:23:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005922-004
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 15:11:36 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 12:51:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.308	4.308	0.000	88	91937	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	441962	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	99	101049	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.679	12.679	0.000	97	135554	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.522	6.522	0.000	97	91885	50.0	48.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	99	107685	50.0	46.1	
$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	385493	50.0	48.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	96	132815	50.0	45.3	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	100	125656	50.0	56.6	
12 Chloromethane	50	1.777	1.777	0.000	100	203832	50.0	57.4	
13 Vinyl chloride	62	1.905	1.905	0.000	100	195309	50.0	57.3	
14 Butadiene	39	1.948	1.948	0.000	99	227001	50.0	57.4	
15 Bromomethane	94	2.258	2.258	0.000	92	73309	50.0	73.2	
16 Chloroethane	64	2.380	2.380	0.000	99	94301	50.0	68.0	
17 Dichlorofluoromethane	67	2.659	2.659	0.000	100	234915	50.0	73.9	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	99	210814	50.0	79.4	
20 Ethyl ether	59	3.091	3.091	0.000	98	121790	50.0	47.5	
21 Acrolein	56	3.262	3.262	0.000	99	44720	150.0	132.1	
22 1,1-Dichloroethene	96	3.371	3.371	0.000	99	133782	50.0	52.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.426	0.000	98	140902	50.0	54.2	
24 Acetone	43	3.499	3.499	0.000	99	121260	100.0	130.6	
25 Iodomethane	142	3.572	3.572	0.000	96	195229	50.0	53.9	
26 Carbon disulfide	76	3.651	3.651	0.000	100	288377	50.0	45.5	
28 3-Chloro-1-propene	76	3.949	3.949	0.000	99	68338	50.0	42.5	
30 Methyl acetate	43	4.016	4.016	0.000	100	558868	250.0	218.9	
31 Methylene Chloride	84	4.144	4.144	0.000	99	141833	50.0	49.4	
32 2-Methyl-2-propanol	59	4.436	4.436	0.000	89	47215	500.0	428.6	
33 Acrylonitrile	53	4.545	4.545	0.000	99	608478	500.0	480.8	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	91	142408	50.0	52.9	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	94	263418	50.0	39.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.983	0.000	99	230571	50.0	48.3	
37 1,1-Dichloroethane	63	5.172	5.172	0.000	99	254622	50.0	49.6	
38 Vinyl acetate	43	5.300	5.300	0.000	100	74702	50.0	42.6	
44 2,2-Dichloropropane	77	5.932	5.932	0.000	62	53253	50.0	28.1	
45 cis-1,2-Dichloroethene	96	5.932	5.932	0.000	93	152543	50.0	53.0	
46 2-Butanone (MEK)	43	5.987	5.987	0.000	100	154867	100.0	102.4	
49 Chlorobromomethane	128	6.224	6.224	0.000	98	60745	50.0	50.7	
51 Tetrahydrofuran	42	6.285	6.285	0.000	97	91279	100.0	84.8	
52 Chloroform	83	6.346	6.346	0.000	97	212378	50.0	52.0	
53 1,1,1-Trichloroethane	97	6.529	6.529	0.000	98	124070	50.0	44.7	
54 Cyclohexane	56	6.583	6.583	0.000	98	313432	50.0	50.3	
56 Carbon tetrachloride	117	6.717	6.717	0.000	96	89121	50.0	47.3	
55 1,1-Dichloropropene	75	6.723	6.723	0.000	97	183569	50.0	51.8	
57 Isobutyl alcohol	41	6.942	6.942	0.000	34	47046	1250.0	775.6	
58 Benzene	78	6.954	6.954	0.000	99	568392	50.0	50.9	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	98	157863	50.0	49.0	
62 n-Heptane	43	7.277	7.277	0.000	82	214289	50.0	49.4	
64 Trichloroethene	130	7.666	7.666	0.000	98	137734	50.0	52.4	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	253529	50.0	51.0	
67 1,2-Dichloropropane	63	7.897	7.897	0.000	94	134818	50.0	46.0	
68 Dibromomethane	93	8.019	8.019	0.000	99	66448	50.0	50.2	
70 1,4-Dioxane	88	8.056	8.056	0.000	94	20976	1000.0	802.6	
71 Dichlorobromomethane	83	8.195	8.195	0.000	100	115107	50.0	46.6	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	98	110985	50.0	33.9	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	99	259302	100.0	85.0	
76 Toluene	91	8.986	8.986	0.000	99	561063	50.0	53.8	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	98	63647	50.0	28.9	
78 Ethyl methacrylate	69	9.315	9.315	0.000	99	77686	50.0	31.4	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	98770	50.0	51.8	
80 Tetrachloroethene	164	9.534	9.534	0.000	97	109090	50.0	56.7	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	100	175260	50.0	48.9	
82 2-Hexanone	43	9.662	9.662	0.000	98	198774	100.0	93.3	
84 Chlorodibromomethane	129	9.789	9.789	0.000	97	64301	50.0	51.3	
85 Ethylene Dibromide	107	9.899	9.899	0.000	99	83939	50.0	45.7	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	98	164406	50.0	51.4	
87 Chlorobenzene	112	10.392	10.392	0.000	99	357496	50.0	53.5	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	99	154600	50.0	50.6	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.471	0.000	93	69492	50.0	45.1	
90 Ethylbenzene	106	10.501	10.501	0.000	100	206578	50.0	53.5	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	255611	50.0	53.7	
92 o-Xylene	106	11.012	11.012	0.000	95	242483	50.0	52.5	
93 Styrene	104	11.024	11.024	0.000	96	397809	50.0	52.7	
94 Bromoform	173	11.213	11.213	0.000	97	31348	50.0	47.4	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	162275	50.0	51.2	
97 Isopropylbenzene	105	11.377	11.377	0.000	100	630623	50.0	55.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	98	128247	50.0	48.6	
100 Bromobenzene	156	11.681	11.681	0.000	97	131532	50.0	55.5	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	94	40995	50.0	51.7	
102 trans-1,4-Dichloro-2-buten	53	11.724	11.724	0.000	86	32977	50.0	42.8	
103 N-Propylbenzene	120	11.785	11.785	0.000	100	174327	50.0	55.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	142191	50.0	54.7	
105 3-Chlorotoluene	126	11.937	11.937	0.000	99	127297	50.0	47.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.961	11.961	0.000	100	493559	50.0	56.7	
107 4-Chlorotoluene	126	11.979	11.979	0.000	98	156836	50.0	55.9	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	418579	50.0	55.7	
110 1,2,4-Trimethylbenzene	105	12.338	12.338	0.000	100	498499	50.0	55.5	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.399	0.000	98	111873	50.0	55.2	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	616514	50.0	57.0	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	100	255316	50.0	54.6	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	492832	50.0	55.6	
115 1,4-Dichlorobenzene	146	12.709	12.709	0.000	98	267653	50.0	56.8	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	94	103630	50.0	53.8	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.813	0.000	97	115203	50.0	54.8	
120 n-Butylbenzene	91	13.062	13.062	0.000	100	444336	50.0	56.4	
121 1,2-Dichlorobenzene	146	13.080	13.080	0.000	99	230811	50.0	53.9	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	93	9888	50.0	35.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.005	0.000	100	416169	150.0	142.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	99	259401	100.0	89.7	
126 1,2,4-Trichlorobenzene	180	14.686	14.686	0.000	99	106564	50.0	49.8	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	98	50723	50.0	55.5	
128 Naphthalene	128	14.942	14.942	0.000	100	278446	50.0	44.8	
129 1,2,3-Trichlorobenzene	180	15.191	15.191	0.000	98	83457	50.0	45.5	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	97	35526	50.0	38.3	
130 2,3,6-Trichlorotoluene	159	16.061	16.061	0.000	96	33483	50.0	39.1	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	62.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00104	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL	
VOAVAPRI_00003	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOAACRPRI_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

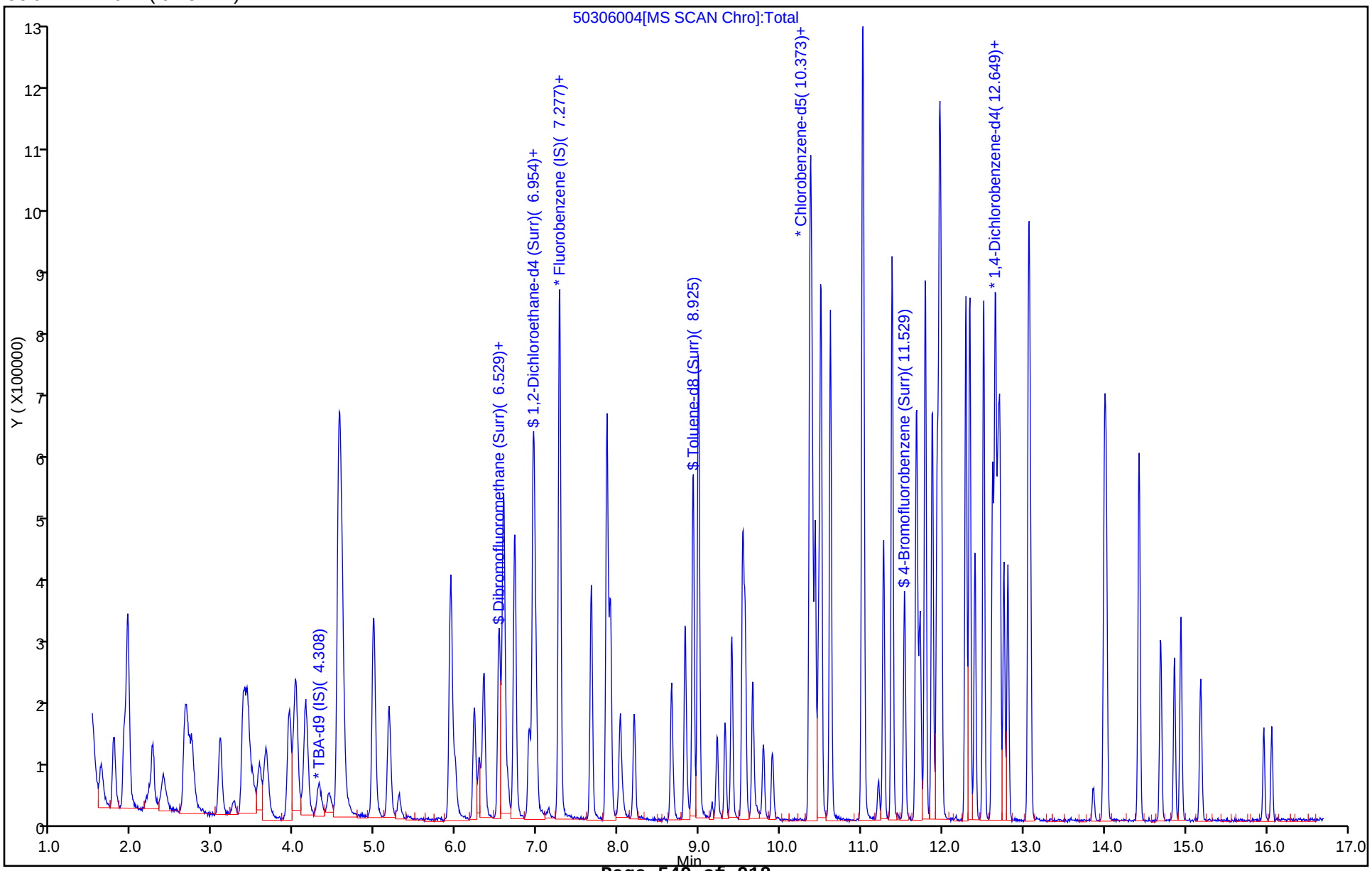
Report Date: 06-Mar-2015 15:11:36 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306004.D

Injection Date:	06-Mar-2015 12:23:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-135049/2 Calibration Date: 03/09/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50309002.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	0.2512	0.2591	0.1000	10.3	10.0	3.1	20.0
Chloromethane	Ave	0.4015	0.4015	0.1000	10.0	10.0	0.0	20.0
Vinyl chloride	Ave	0.3859	0.3994	0.1000	10.3	10.0	3.5	20.0
Bromomethane	Lin2		0.1474	0.0500	12.9	10.0	29.1*	20.0
Chloroethane	Ave	0.1570	0.2083	0.0500	13.3	10.0	32.7*	20.0
Dichlorofluoromethane	Ave	0.3598	0.4870	0.0100	13.5	10.0	35.3*	20.0
Trichlorofluoromethane	Ave	0.3005	0.3921	0.1000	13.0	10.0	30.5*	20.0
Ethyl ether	Ave	0.2900	0.2581	0.0100	8.90	10.0	-11.0	20.0
Acrolein	Ave	0.0383	0.0322	0.0100	25.2	30.0	-15.9	20.0
1,1-Dichloroethene	Ave	0.2911	0.3102	0.1000	10.7	10.0	6.6	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2943	0.3058	0.1000	10.4	10.0	3.9	20.0
Acetone	Ave	0.1050	0.1051	0.0500	20.0	20.0	0.1	20.0
Iodomethane	Ave	0.4096	0.4306	0.0100	10.5	10.0	5.1	20.0
Carbon disulfide	Ave	0.7166	0.7584	0.1000	10.6	10.0	5.8	20.0
Allyl chloride	Ave	0.1818	0.1448	0.0100	7.96	10.0	-20.4*	20.0
Methyl acetate	Ave	0.2888	0.2653	0.1000	45.9	50.0	-8.1	20.0
Methylene Chloride	Lin2		0.3129	0.1000	9.61	10.0	-3.9	20.0
tert-Butyl alcohol	Ave	1.198	1.201	0.0100	100	100	0.2	20.0
Acrylonitrile	Ave	0.1432	0.1389	0.0100	97.0	100	-3.0	20.0
trans-1,2-Dichloroethene	Ave	0.3044	0.2984	0.1000	9.80	10.0	-2.0	20.0
Methyl tert-butyl ether	Ave	0.7605	0.5927	0.1000	7.79	10.0	-22.1*	20.0
Hexane	Ave	0.5404	0.5092	0.0100	9.42	10.0	-5.8	20.0
1,1-Dichloroethane	Ave	0.5802	0.5467	0.2000	9.42	10.0	-5.8	20.0
Vinyl acetate	Ave	0.1982	0.1948	0.0100	9.83	10.0	-1.7	20.0
2,2-Dichloropropane	Ave	0.2148	0.1169	0.0100	5.44	10.0	-45.6*	20.0
cis-1,2-Dichloroethene	Ave	0.3255	0.3148	0.1000	9.67	10.0	-3.3	20.0
2-Butanone (MEK)	Ave	0.1711	0.1673	0.0500	19.6	20.0	-2.2	20.0
Bromochloromethane	Ave	0.1357	0.1366	0.0100	10.1	10.0	0.7	20.0
Tetrahydrofuran	Ave	0.1218	0.1172	0.0100	19.3	20.0	-3.7	20.0
Chloroform	Ave	0.4624	0.4535	0.2000	9.81	10.0	-1.9	20.0
1,1,1-Trichloroethane	Ave	0.3141	0.2667	0.1000	8.49	10.0	-15.1	20.0
Cyclohexane	Ave	0.7049	0.6868	0.1000	9.74	10.0	-2.6	20.0
Carbon tetrachloride	Ave	0.2130	0.2159	0.1000	10.1	10.0	1.4	20.0
1,1-Dichloropropene	Ave	0.4007	0.3905	0.0100	9.74	10.0	-2.6	20.0
Isobutyl alcohol	Ave	0.0069	0.0055*	0.0100	198	250	-20.7*	20.0
Benzene	Ave	1.263	1.242	0.5000	9.83	10.0	-1.7	20.0
1,2-Dichloroethane	Ave	0.3648	0.3747	0.1000	10.3	10.0	2.7	20.0
n-Heptane	Ave	0.4910	0.4716	0.0100	9.60	10.0	-4.0	20.0
Trichloroethene	Ave	0.2974	0.3058	0.2000	10.3	10.0	2.8	20.0
Methylcyclohexane	Ave	0.5619	0.5438	0.1000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-135049/2 Calibration Date: 03/09/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50309002.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	0.3317	0.3128	0.1000	9.43	10.0	-5.7	20.0
Dibromomethane	Ave	0.1498	0.1501	0.0100	10.0	10.0	0.2	20.0
1,4-Dioxane	Ave	0.0030	0.0029*	0.0100	193	200	-3.6	20.0
Bromodichloromethane	Ave	0.2792	0.2811	0.2000	10.1	10.0	0.7	20.0
cis-1,3-Dichloropropene	Ave	0.3698	0.2652	0.2000	7.17	10.0	-28.3*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.510	1.469	0.1000	19.5	20.0	-2.7	20.0
Toluene	Ave	5.161	5.468	0.4000	10.6	10.0	6.0	20.0
trans-1,3-Dichloropropene	Ave	1.088	0.7458	0.1000	6.85	10.0	-31.5*	20.0
Ethyl methacrylate	Ave	1.224	0.8964	0.0100	7.33	10.0	-26.7*	20.0
1,1,2-Trichloroethane	Ave	0.9428	0.9889	0.1000	10.5	10.0	4.9	20.0
Tetrachloroethene	Ave	0.9523	1.054	0.2000	11.1	10.0	10.7	20.0
1,3-Dichloropropane	Ave	1.772	1.800	0.0100	10.2	10.0	1.6	20.0
2-Hexanone	Ave	1.054	1.041	0.1000	19.8	20.0	-1.2	20.0
Dibromochloromethane	Ave	0.6200	0.7056	0.1000	11.4	10.0	13.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.9079	0.9024	0.1000	9.94	10.0	-0.6	20.0
3-Chlorobenzotrifluoride	Ave	1.583	1.797	0.0100	11.4	10.0	13.5	20.0
Chlorobenzene	Ave	3.305	3.468	0.5000	10.5	10.0	4.9	20.0
4-Chlorobenzotrifluoride	Ave	1.513	1.700	0.0100	11.2	10.0	12.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7622	0.7552	0.0100	9.91	10.0	-0.9	20.0
Ethylbenzene	Ave	1.911	2.065	0.1000	10.8	10.0	8.1	20.0
m-Xylene & p-Xylene	Ave	2.354	2.572	0.1000	10.9	10.0	9.2	20.0
o-Xylene	Ave	2.285	2.428	0.3000	10.6	10.0	6.3	20.0
Styrene	Ave	3.735	3.979	0.3000	10.7	10.0	6.6	20.0
Bromoform	Ave	0.3275	0.4054	0.1000	12.4	10.0	23.8*	20.0
2-Chlorobenzotrifluoride	Ave	1.569	1.758	0.0100	11.2	10.0	12.0	20.0
Isopropylbenzene	Ave	5.608	6.261	0.1000	11.2	10.0	11.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.307	1.396	0.3000	10.7	10.0	6.8	20.0
Bromobenzene	Ave	0.8735	0.9489	0.0100	10.9	10.0	8.6	20.0
1,2,3-Trichloropropane	Ave	0.2927	0.2935	0.0100	10.0	10.0	0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2844	0.2107	0.0100	7.41	10.0	-25.9*	20.0
N-Propylbenzene	Ave	1.160	1.239	0.0100	10.7	10.0	6.8	20.0
2-Chlorotoluene	Ave	0.9582	0.9647	0.0100	10.1	10.0	0.7	20.0
3-Chlorotoluene	Ave	0.9794	0.9885	0.0100	10.1	10.0	0.9	20.0
1,3,5-Trimethylbenzene	Ave	3.211	3.404	0.0100	10.6	10.0	6.0	20.0
4-Chlorotoluene	Ave	1.034	1.085	0.0100	10.5	10.0	4.9	20.0
tert-Butylbenzene	Ave	2.771	2.893	0.0100	10.4	10.0	4.4	20.0
1,2,4-Trimethylbenzene	Ave	3.314	3.458	0.0100	10.4	10.0	4.4	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7482	0.8804	0.0100	11.8	10.0	17.7	20.0
sec-Butylbenzene	Ave	3.989	4.261	0.0100	10.7	10.0	6.8	20.0
1,3-Dichlorobenzene	Ave	1.726	1.804	0.6000	10.5	10.0	4.5	20.0
4-Isopropyltoluene	Ave	3.269	3.511	0.0100	10.7	10.0	7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-135049/2 Calibration Date: 03/09/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50309002.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
1,4-Dichlorobenzene	Ave	1.737	1.811	0.5000	10.4	10.0	4.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7111	0.7960	0.0100	11.2	10.0	11.9	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7753	0.9373	0.0100	12.1	10.0	20.9*	20.0
n-Butylbenzene	Ave	2.906	3.053	0.0100	10.5	10.0	5.0	20.0
1,2-Dichlorobenzene	Ave	1.579	1.635	0.4000	10.4	10.0	3.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1040	0.0824	0.0500	7.92	10.0	-20.8*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.078	1.067	0.0100	29.7	30.0	-1.0	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.066	1.001	0.0100	18.8	20.0	-6.1	20.0
1,2,4-Trichlorobenzene	Ave	0.7897	0.7373	0.2000	9.34	10.0	-6.6	20.0
Hexachlorobutadiene	Ave	0.3373	0.3683	0.0100	10.9	10.0	9.2	20.0
Naphthalene	Ave	2.291	2.029	0.0100	8.86	10.0	-11.4	20.0
1,2,3-Trichlorobenzene	Ave	0.6771	0.6084	0.0100	8.98	10.0	-10.2	20.0
2,4,5-Trichlorotoluene	Ave	0.3426	0.2656	0.0100	7.75	10.0	-22.5*	20.0
2,3,6-Trichlorotoluene	Ave	0.3158	0.2589	0.0100	8.20	10.0	-18.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2141	0.2172		10.1	10.0	1.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2646	0.2603		9.84	10.0	-1.6	20.0
Toluene-d8 (Surr)	Ave	3.897	4.054		10.4	10.0	4.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.450	1.426		9.83	10.0	-1.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Mar-2015 11:37:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005947-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 15:52:39 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 12:10:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.327	0.000	93	104748	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	419520	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	99	96744	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	140304	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	90	91122	50.0	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.906	0.000	97	109201	50.0	49.2	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	392235	50.0	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	97	137934	50.0	49.2	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	100	108682	50.0	51.6	
12 Chloromethane	50	1.778	1.778	0.000	100	168450	50.0	50.0	
13 Vinyl chloride	62	1.912	1.912	0.000	100	167564	50.0	51.7	
14 Butadiene	39	1.954	1.954	0.000	99	209408	50.0	55.8	
15 Bromomethane	94	2.252	2.252	0.000	90	61853	50.0	64.5	
16 Chloroethane	64	2.386	2.386	0.000	98	87399	50.0	66.4	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	99	204325	50.0	67.7	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	99	164496	50.0	65.2	
20 Ethyl ether	59	3.086	3.086	0.000	98	108269	50.0	44.5	
21 Acrolein	56	3.256	3.256	0.000	99	40556	150.0	126.2	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	100	130144	50.0	53.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.445	3.445	0.000	97	128270	50.0	52.0	
24 Acetone	43	3.499	3.499	0.000	99	88215	100.0	100.1	
25 Iodomethane	142	3.579	3.579	0.000	96	180650	50.0	52.6	
26 Carbon disulfide	76	3.658	3.658	0.000	100	318150	50.0	52.9	
28 3-Chloro-1-propene	76	3.944	3.944	0.000	99	60758	50.0	39.8	
30 Methyl acetate	43	4.023	4.023	0.000	100	556516	250.0	229.7	
31 Methylene Chloride	84	4.150	4.150	0.000	99	131253	50.0	48.1	
32 2-Methyl-2-propanol	59	4.436	4.436	0.000	89	62912	500.0	501.2	
33 Acrylonitrile	53	4.552	4.552	0.000	99	582733	500.0	485.1	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	95	125165	50.0	49.0	
35 Methyl tert-butyl ether	73	4.601	4.601	0.000	94	248651	50.0	39.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	99	213620	50.0	47.1	
37 1,1-Dichloroethane	63	5.172	5.172	0.000	99	229347	50.0	47.1	
38 Vinyl acetate	43	5.294	5.294	0.000	100	81737	50.0	49.1	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	84	49054	50.0	27.2	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	93	132073	50.0	48.4	
46 2-Butanone (MEK)	43	5.988	5.988	0.000	100	140362	100.0	97.8	
49 Chlorobromomethane	128	6.231	6.231	0.000	98	57285	50.0	50.3	
51 Tetrahydrofuran	42	6.292	6.292	0.000	99	98348	100.0	96.3	
52 Chloroform	83	6.340	6.340	0.000	96	190253	50.0	49.0	
53 1,1,1-Trichloroethane	97	6.529	6.529	0.000	90	111888	50.0	42.5	
54 Cyclohexane	56	6.590	6.590	0.000	97	288136	50.0	48.7	
56 Carbon tetrachloride	117	6.718	6.718	0.000	69	90586	50.0	50.7	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	97	163809	50.0	48.7	
57 Isobutyl alcohol	41	6.949	6.949	0.000	34	57110	1250.0	991.8	
58 Benzene	78	6.955	6.955	0.000	99	520970	50.0	49.2	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	99	157207	50.0	51.4	
62 n-Heptane	43	7.283	7.283	0.000	83	197831	50.0	48.0	
64 Trichloroethene	130	7.667	7.667	0.000	99	128291	50.0	51.4	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	228144	50.0	48.4	
67 1,2-Dichloropropane	63	7.904	7.904	0.000	97	131220	50.0	47.2	
68 Dibromomethane	93	8.026	8.026	0.000	96	62956	50.0	50.1	
70 1,4-Dioxane	88	8.062	8.062	0.000	97	23904	1000.0	963.6	
71 Dichlorobromomethane	83	8.202	8.202	0.000	99	117939	50.0	50.3	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	97	111244	50.0	35.8	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	99	284293	100.0	97.3	
76 Toluene	91	8.993	8.993	0.000	100	528987	50.0	53.0	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	97	72156	50.0	34.3	
78 Ethyl methacrylate	69	9.321	9.321	0.000	98	86717	50.0	36.6	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	95674	50.0	52.4	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	101959	50.0	55.3	
81 1,3-Dichloropropane	76	9.565	9.565	0.000	99	174162	50.0	50.8	
82 2-Hexanone	43	9.656	9.656	0.000	99	201449	100.0	98.8	
84 Chlorodibromomethane	129	9.790	9.790	0.000	99	68258	50.0	56.9	
85 Ethylene Dibromide	107	9.899	9.899	0.000	99	87299	50.0	49.7	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	92	173863	50.0	56.8	
87 Chlorobenzene	112	10.392	10.392	0.000	100	335556	50.0	52.5	
88 4-Chlorobenzotrifluoride	180	10.429	10.429	0.000	99	164501	50.0	56.2	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	95	73059	50.0	49.5	
90 Ethylbenzene	106	10.502	10.502	0.000	100	199775	50.0	54.0	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	248786	50.0	54.6	
92 o-Xylene	106	11.013	11.013	0.000	97	234899	50.0	53.1	
93 Styrene	104	11.025	11.025	0.000	97	384981	50.0	53.3	
94 Bromoform	173	11.207	11.207	0.000	97	39224	50.0	61.9	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	170058	50.0	56.0	
97 Isopropylbenzene	105	11.378	11.378	0.000	100	605679	50.0	55.8	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.676	0.000	98	135062	50.0	53.4	
100 Bromobenzene	156	11.682	11.682	0.000	98	133127	50.0	54.3	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	94	41176	50.0	50.1	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	83	29558	50.0	37.0	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	173888	50.0	53.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	135354	50.0	50.3	
105 3-Chlorotoluene	126	11.937	11.937	0.000	100	138695	50.0	50.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.962	11.962	0.000	99	477611	50.0	53.0	
107 4-Chlorotoluene	126	11.980	11.980	0.000	94	152237	50.0	52.5	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	405842	50.0	52.2	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	100	485212	50.0	52.2	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	98	123523	50.0	58.8	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	597832	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.619	12.619	0.000	99	253175	50.0	52.3	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	492545	50.0	53.7	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	98	254028	50.0	52.1	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	94	111686	50.0	56.0	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	98	131504	50.0	60.4	
120 n-Butylbenzene	91	13.063	13.063	0.000	100	428323	50.0	52.5	
121 1,2-Dichlorobenzene	146	13.081	13.081	0.000	99	229346	50.0	51.8	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	92	11557	50.0	39.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.012	14.012	0.000	100	449267	150.0	148.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.431	14.431	0.000	99	281015	100.0	93.9	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	99	103449	50.0	46.7	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	94	51677	50.0	54.6	
128 Naphthalene	128	14.942	14.942	0.000	100	284676	50.0	44.3	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	98	85354	50.0	44.9	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	37262	50.0	38.8	
130 2,3,6-Trichlorotoluene	159	16.062	16.062	0.000	98	36319	50.0	41.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	107.8	
S 134 1,2-Dichloroethene, Total	96				0		100.0	97.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	70.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00104	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL	
VOAVAPRI_00003	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOAACRPRI_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

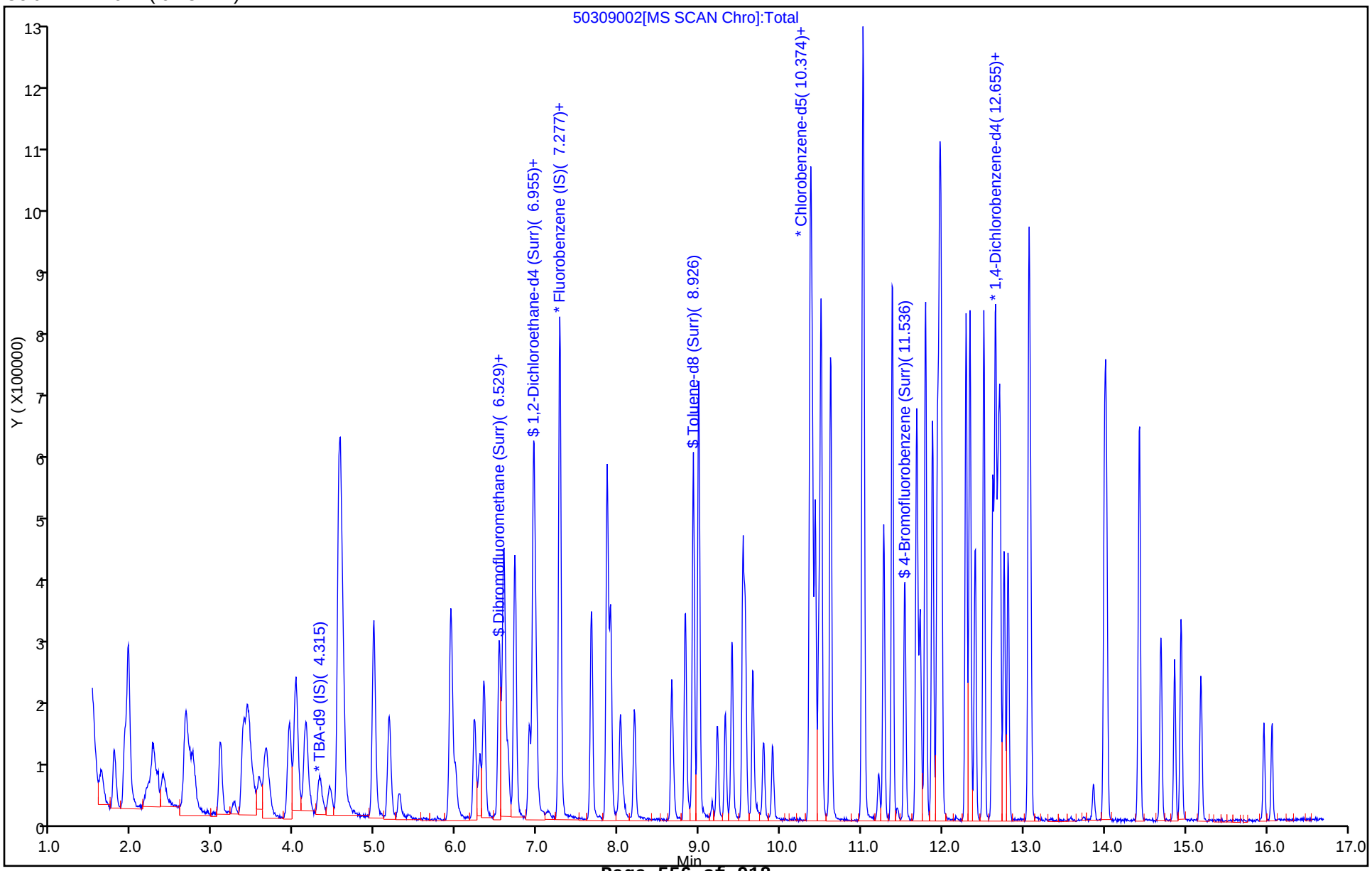
Report Date: 09-Mar-2015 15:52:40 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309002.D

Injection Date:	09-Mar-2015 11:37:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134823/2 Calibration Date: 03/05/2015 10:37

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60305002.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	0.2650	0.2503	0.1000	9.45	10.0	-5.5	20.0
Chloromethane	Ave	0.4075	0.3227	0.1000	7.92	10.0	-20.8*	20.0
Vinyl chloride	Ave	0.3611	0.3230	0.1000	8.95	10.0	-10.5	20.0
Bromomethane	Ave	0.1449	0.1259	0.0500	8.69	10.0	-13.1	20.0
Chloroethane	Ave	0.2214	0.2026	0.0500	9.15	10.0	-8.5	20.0
Dichlorofluoromethane	Ave	0.5279	0.5124	0.0100	9.71	10.0	-2.9	20.0
Trichlorofluoromethane	Ave	0.4130	0.4189	0.1000	10.1	10.0	1.4	20.0
Ethyl ether	Ave	0.3150	0.3374	0.0100	10.7	10.0	7.1	20.0
Acrolein	Ave	0.0500	0.0272	0.0100	16.3	30.0	-45.7*	20.0
1,1-Dichloroethene	Ave	0.2807	0.2552	0.1000	9.09	10.0	-9.1	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2839	0.2713	0.1000	9.56	10.0	-4.4	20.0
Acetone	Ave	0.0884	0.0762	0.0500	17.2	20.0	-13.8	20.0
Iodomethane	Ave	0.4159	0.3648	0.0100	8.77	10.0	-12.3	20.0
Carbon disulfide	Ave	0.8315	0.6106	0.1000	7.34	10.0	-26.6*	20.0
Allyl chloride	Ave	0.1823	0.1499	0.0100	8.22	10.0	-17.8	20.0
Methyl acetate	Ave	0.2165	0.2631	0.1000	60.8	50.0	21.5*	20.0
Methylene Chloride	Ave	0.4104	0.3330	0.1000	8.11	10.0	-18.9	20.0
tert-Butyl alcohol	Ave	1.130	1.068	0.0100	94.5	100	-5.5	20.0
Acrylonitrile	Ave	0.1129	0.1373	0.0100	122	100	21.6*	20.0
trans-1,2-Dichloroethene	Ave	0.3380	0.2799	0.1000	8.28	10.0	-17.2	20.0
Methyl tert-butyl ether	Ave	0.8884	0.7919	0.1000	8.91	10.0	-10.9	20.0
Hexane	Ave	0.4863	0.4087	0.0100	8.40	10.0	-16.0	20.0
1,1-Dichloroethane	Ave	0.6538	0.5217	0.2000	7.98	10.0	-20.2*	20.0
Vinyl acetate	Ave	0.3399	0.2691	0.0100	7.92	10.0	-20.8*	20.0
2,2-Dichloropropane	Ave	0.3707	0.2321	0.0100	6.26	10.0	-37.4*	20.0
2-Butanone (MEK)	Ave	0.1134	0.1126	0.0500	19.9	20.0	-0.7	20.0
cis-1,2-Dichloroethene	Ave	0.3585	0.3043	0.1000	8.49	10.0	-15.1	20.0
Bromochloromethane	Ave	0.1427	0.1420	0.0100	9.95	10.0	-0.5	20.0
Tetrahydrofuran	Ave	0.0815	0.0898	0.0100	22.1	20.0	10.3	20.0
Chloroform	Ave	0.5629	0.4865	0.2000	8.64	10.0	-13.6	20.0
1,1,1-Trichloroethane	Ave	0.4288	0.3510	0.1000	8.18	10.0	-18.2	20.0
Cyclohexane	Ave	0.6908	0.5667	0.1000	8.20	10.0	-18.0	20.0
Carbon tetrachloride	Ave	0.3357	0.2792	0.1000	8.32	10.0	-16.8	20.0
1,1-Dichloropropene	Ave	0.4279	0.3657	0.0100	8.55	10.0	-14.5	20.0
Isobutyl alcohol	Ave	0.0067	0.0088*	0.0100	330	250	32.1*	20.0
Benzene	Ave	1.242	1.183	0.5000	9.52	10.0	-4.8	20.0
1,2-Dichloroethane	Ave	0.4076	0.4045	0.1000	9.92	10.0	-0.8	20.0
n-Heptane	Ave	0.3955	0.2972	0.0100	7.51	10.0	-24.9*	20.0
Trichloroethene	Ave	0.2828	0.2630	0.2000	9.30	10.0	-7.0	20.0
Methylcyclohexane	Ave	0.5572	0.4451	0.1000	7.99	10.0	-20.1*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134823/2 Calibration Date: 03/05/2015 10:37

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60305002.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	0.3285	0.2793	0.1000	8.50	10.0	-15.0	20.0
1,4-Dioxane	Ave	0.0021	0.0034*	0.0100	327	200	63.6*	20.0
Dibromomethane	Ave	0.1468	0.1599	0.0100	10.9	10.0	8.9	20.0
Bromodichloromethane	Ave	0.3444	0.2949	0.2000	8.56	10.0	-14.4	20.0
cis-1,3-Dichloropropene	Ave	0.3952	0.3059	0.2000	7.74	10.0	-22.6*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.128	1.099	0.1000	19.5	20.0	-2.6	20.0
Toluene	Ave	5.112	5.191	0.4000	10.2	10.0	1.5	20.0
trans-1,3-Dichloropropene	Ave	1.402	1.148	0.1000	8.19	10.0	-18.1	20.0
Ethyl methacrylate	Ave	1.290	1.319	0.0100	10.2	10.0	2.2	20.0
1,1,2-Trichloroethane	Ave	0.9282	1.025	0.1000	11.0	10.0	10.4	20.0
Tetrachloroethene	Ave	0.9129	1.011	0.2000	11.1	10.0	10.7	20.0
1,3-Dichloropropane	Ave	1.726	1.890	0.0100	11.0	10.0	9.5	20.0
2-Hexanone	Ave	0.6436	0.7189	0.1000	22.3	20.0	11.7	20.0
Dibromochloromethane	Ave	0.7880	0.7819	0.1000	9.92	10.0	-0.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.8444	0.8874	0.1000	10.5	10.0	5.1	20.0
3-Chlorobenzotrifluoride	Ave	1.778	1.694	0.0100	9.53	10.0	-4.7	20.0
Chlorobenzene	Ave	3.190	3.246	0.5000	10.2	10.0	1.7	20.0
4-Chlorobenzotrifluoride	Ave	1.655	1.600	0.0100	9.66	10.0	-3.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.100	1.021	0.0100	9.29	10.0	-7.1	20.0
Ethylbenzene	Ave	1.914	1.796	0.1000	9.38	10.0	-6.2	20.0
m-Xylene & p-Xylene	Ave	2.363	2.352	0.1000	9.96	10.0	-0.4	20.0
o-Xylene	Ave	2.428	2.293	0.3000	9.44	10.0	-5.6	20.0
Styrene	Ave	3.575	3.707	0.3000	10.4	10.0	3.7	20.0
Bromoform	Ave	0.4220	0.4665	0.1000	11.1	10.0	10.5	20.0
2-Chlorobenzotrifluoride	Ave	1.855	1.782	0.0100	9.61	10.0	-3.9	20.0
Isopropylbenzene	Ave	5.986	5.852	0.1000	9.78	10.0	-2.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.248	1.496	0.3000	12.0	10.0	19.8	20.0
Bromobenzene	Ave	0.8752	0.7350	0.0100	8.40	10.0	-16.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2461	0.2126	0.0100	8.64	10.0	-13.6	20.0
1,2,3-Trichloropropane	Ave	0.2561	0.2730	0.0100	10.7	10.0	6.6	20.0
N-Propylbenzene	Ave	1.046	0.8451	0.0100	8.08	10.0	-19.2	20.0
2-Chlorotoluene	Ave	0.9215	0.7400	0.0100	8.03	10.0	-19.7	20.0
3-Chlorotoluene	Ave	0.9634	0.7166	0.0100	7.44	10.0	-25.6*	20.0
1,3,5-Trimethylbenzene	Ave	3.361	2.858	0.0100	8.50	10.0	-15.0	20.0
4-Chlorotoluene	Ave	0.9458	0.8067	0.0100	8.53	10.0	-14.7	20.0
tert-Butylbenzene	Ave	2.616	2.123	0.0100	8.12	10.0	-18.8	20.0
1,2,4-Trimethylbenzene	Ave	3.478	3.005	0.0100	8.64	10.0	-13.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9718	0.8014	0.0100	8.25	10.0	-17.5	20.0
sec-Butylbenzene	Ave	4.045	3.301	0.0100	8.16	10.0	-18.4	20.0
1,3-Dichlorobenzene	Ave	1.715	1.491	0.6000	8.70	10.0	-13.0	20.0
4-Isopropyltoluene	Ave	3.281	2.658	0.0100	8.10	10.0	-19.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCVIS 180-134823/2 Calibration Date: 03/05/2015 10:37

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60305002.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
1,4-Dichlorobenzene	Ave	1.774	1.572	0.5000	8.86	10.0	-11.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.9753	0.8303	0.0100	8.51	10.0	-14.9	20.0
2,5-Dichlorobenzotrifluoride	Ave	1.075	0.9168	0.0100	8.53	10.0	-14.7	20.0
n-Butylbenzene	Ave	3.155	2.551	0.0100	8.09	10.0	-19.1	20.0
1,2-Dichlorobenzene	Ave	1.714	1.582	0.4000	9.23	10.0	-7.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1368	0.1250	0.0500	9.14	10.0	-8.6	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.609	1.264	0.0100	23.6	30.0	-21.4*	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.757	1.411	0.0100	16.1	20.0	-19.7	20.0
1,2,4-Trichlorobenzene	Ave	1.328	1.188	0.2000	8.95	10.0	-10.5	20.0
Hexachlorobutadiene	Ave	0.5193	0.4602	0.0100	8.86	10.0	-11.4	20.0
Naphthalene	Ave	2.282	2.644	0.0100	11.6	10.0	15.8	20.0
1,2,3-Trichlorobenzene	Ave	1.111	1.084	0.0100	9.76	10.0	-2.4	20.0
2,4,5-Trichlorotoluene	Ave	0.8175	0.5866	0.0100	7.18	10.0	-28.2*	20.0
2,3,6-Trichlorotoluene	Ave	0.7286	0.5650	0.0100	7.75	10.0	-22.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2262	0.2268		10.0	10.0	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3350		10.3	10.0	3.5	20.0
Toluene-d8 (Surr)	Ave	3.941	4.089		10.4	10.0	3.7	20.0
4-Bromofluorobenzene (Surr)	Ave	1.677	1.600		9.54	10.0	-4.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 05-Mar-2015 10:37:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005907-002
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-Mar-2015 16:04:18 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: fergusond Date: 05-Mar-2015 11:08:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.281	0.000	91	206783	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.323	7.323	0.000	97	461648	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.438	10.438	0.000	89	96577	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	95	177612	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.593	6.593	0.000	94	104697	50.0	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.970	6.970	0.000	51	154656	50.0	51.7	
$ 7 Toluene-d8 (Surr)	98	8.978	8.978	0.000	93	394860	50.0	51.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	86	154498	50.0	47.7	
11 Dichlorodifluoromethane	85	1.611	1.611	0.000	98	115536	50.0	47.2	
12 Chloromethane	50	1.757	1.757	0.000	99	148952	50.0	39.6	
13 Vinyl chloride	62	1.890	1.890	0.000	98	149128	50.0	44.7	
14 Butadiene	39	1.939	1.939	0.000	89	144735	50.0	40.7	
15 Bromomethane	94	2.237	2.237	0.000	94	58119	50.0	43.4	
16 Chloroethane	64	2.371	2.371	0.000	99	93537	50.0	45.8	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	98	236540	50.0	48.5	
18 Trichlorofluoromethane	101	2.681	2.681	0.000	98	193400	50.0	50.7	
20 Ethyl ether	59	3.071	3.071	0.000	92	155738	50.0	53.6	
21 Acrolein	56	3.247	3.247	0.000	97	37629	150.0	81.5	
22 1,1-Dichloroethene	96	3.363	3.363	0.000	95	117833	50.0	45.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.417	3.417	0.000	93	125258	50.0	47.8	
24 Acetone	43	3.454	3.454	0.000	100	70373	100.0	86.2	
25 Iodomethane	142	3.569	3.569	0.000	98	168429	50.0	43.9	
26 Carbon disulfide	76	3.667	3.667	0.000	100	281873	50.0	36.7	
29 3-Chloro-1-propene	76	3.947	3.947	0.000	61	69185	50.0	41.1	
30 Methyl acetate	43	3.959	3.959	0.000	97	607232	250.0	303.8	
31 Methylene Chloride	84	4.172	4.172	0.000	95	153714	50.0	40.6	
32 2-Methyl-2-propanol	59	4.421	4.421	0.000	92	110370	500.0	472.3	
33 Acrylonitrile	53	4.537	4.537	0.000	99	633737	500.0	608.1	
34 trans-1,2-Dichloroethene	96	4.604	4.604	0.000	68	129213	50.0	41.4	
35 Methyl tert-butyl ether	73	4.610	4.610	0.000	98	365589	50.0	44.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.023	5.023	0.000	93	188693	50.0	42.0	
37 1,1-Dichloroethane	63	5.236	5.236	0.000	96	240837	50.0	39.9	
38 Vinyl acetate	43	5.273	5.273	0.000	97	124226	50.0	39.6	
44 2-Butanone (MEK)	43	5.979	5.979	0.000	56	103957	100.0	99.3	
42 2,2-Dichloropropane	77	5.979	5.979	0.000	58	107159	50.0	31.3	
43 cis-1,2-Dichloroethene	96	5.985	5.985	0.000	83	140478	50.0	42.4	
48 Chlorobromomethane	128	6.271	6.271	0.000	95	65563	50.0	49.8	
49 Tetrahydrofuran	42	6.277	6.277	0.000	87	82952	100.0	110.3	
50 Chloroform	83	6.410	6.410	0.000	94	224597	50.0	43.2	
51 1,1,1-Trichloroethane	97	6.581	6.581	0.000	97	162019	50.0	40.9	
52 Cyclohexane	56	6.660	6.660	0.000	94	261613	50.0	41.0	
53 Carbon tetrachloride	117	6.757	6.757	0.000	81	128909	50.0	41.6	
54 1,1-Dichloropropene	75	6.763	6.763	0.000	93	168843	50.0	42.7	
55 Isobutyl alcohol	41	6.928	6.928	0.000	90	101391	1250.0	1651.0	
56 Benzene	78	6.976	6.976	0.000	97	545910	50.0	47.6	
57 1,2-Dichloroethane	62	7.061	7.061	0.000	96	186749	50.0	49.6	
59 n-Heptane	43	7.341	7.341	0.000	93	137210	50.0	37.6	
61 Trichloroethene	130	7.718	7.718	0.000	97	121418	50.0	46.5	
63 Methylcyclohexane	83	7.962	7.962	0.000	94	205456	50.0	39.9	
64 1,2-Dichloropropane	63	7.986	7.986	0.000	95	128947	50.0	42.5	
65 1,4-Dioxane	88	8.071	8.071	0.000	90	31036	1000.0	1635.7	M
67 Dibromomethane	93	8.071	8.071	0.000	95	73823	50.0	54.5	
68 Dichlorobromomethane	83	8.266	8.266	0.000	98	136141	50.0	42.8	
71 cis-1,3-Dichloropropene	75	8.716	8.716	0.000	93	141214	50.0	38.7	
72 4-Methyl-2-pentanone (MIBK	43	8.856	8.856	0.000	97	212202	100.0	97.4	
73 Toluene	91	9.045	9.045	0.000	98	501318	50.0	50.8	
74 trans-1,3-Dichloropropene	75	9.288	9.288	0.000	95	110864	50.0	40.9	
75 Ethyl methacrylate	69	9.343	9.343	0.000	92	127373	50.0	51.1	
76 1,1,2-Trichloroethane	97	9.489	9.489	0.000	94	98999	50.0	55.2	
77 Tetrachloroethene	164	9.568	9.568	0.000	97	97610	50.0	55.4	
78 1,3-Dichloropropane	76	9.647	9.647	0.000	92	182512	50.0	54.8	
79 2-Hexanone	43	9.689	9.689	0.000	96	138854	100.0	111.7	
81 Chlorodibromomethane	129	9.866	9.866	0.000	91	75512	50.0	49.6	
82 Ethylene Dibromide	107	9.981	9.981	0.000	100	85698	50.0	52.5	
83 3-Chlorobenzotrifluoride	180	10.432	10.432	0.000	93	163638	50.0	47.6	
84 Chlorobenzene	112	10.468	10.468	0.000	92	313509	50.0	50.9	
85 4-Chlorobenzotrifluoride	180	10.523	10.523	0.000	94	154476	50.0	48.3	
86 1,1,1,2-Tetrachloroethane	131	10.559	10.559	0.000	90	98646	50.0	46.4	
87 Ethylbenzene	106	10.565	10.565	0.000	99	173471	50.0	46.9	
88 m-Xylene & p-Xylene	106	10.693	10.693	0.000	100	227196	50.0	49.8	
89 o-Xylene	106	11.076	11.076	0.000	97	221465	50.0	47.2	
90 Styrene	104	11.101	11.101	0.000	95	358050	50.0	51.8	
91 Bromoform	173	11.283	11.283	0.000	94	45051	50.0	55.3	
92 2-Chlorobenzotrifluoride	180	11.344	11.344	0.000	97	172069	50.0	48.0	
93 Isopropylbenzene	105	11.448	11.448	0.000	96	565164	50.0	48.9	
96 1,1,2,2-Tetrachloroethane	83	11.758	11.758	0.000	96	144458	50.0	59.9	
95 Bromobenzene	156	11.764	11.764	0.000	96	130546	50.0	42.0	
97 trans-1,4-Dichloro-2-buten	53	11.794	11.794	0.000	69	37760	50.0	43.2	
98 1,2,3-Trichloropropane	110	11.813	11.813	0.000	84	48494	50.0	53.3	
99 N-Propylbenzene	120	11.867	11.867	0.000	99	150091	50.0	40.4	
100 2-Chlorotoluene	126	11.952	11.952	0.000	95	131429	50.0	40.2	
101 3-Chlorotoluene	126	12.019	12.019	0.000	96	127275	50.0	37.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.044	12.044	0.000	93	507545	50.0	42.5	
103 4-Chlorotoluene	126	12.080	12.080	0.000	99	143279	50.0	42.6	
104 tert-Butylbenzene	119	12.366	12.366	0.000	92	377119	50.0	40.6	
106 1,2,4-Trimethylbenzene	105	12.421	12.421	0.000	99	533737	50.0	43.2	
107 1,2-dichloro-4-(trifluorom	214	12.451	12.451	0.000	98	142336	50.0	41.2	
108 sec-Butylbenzene	105	12.585	12.585	0.000	95	586264	50.0	40.8	
109 1,3-Dichlorobenzene	146	12.707	12.707	0.000	95	264871	50.0	43.5	
110 4-Isopropyltoluene	119	12.743	12.743	0.000	96	472146	50.0	40.5	
111 1,4-Dichlorobenzene	146	12.816	12.816	0.000	92	279130	50.0	44.3	
113 2,4-Dichloro-1-(triflourom	214	12.829	12.829	0.000	96	147479	50.0	42.6	
114 2,5-Dichlorobenzotrifluori	214	12.865	12.865	0.000	96	162840	50.0	42.6	
116 n-Butylbenzene	91	13.151	13.151	0.000	97	453106	50.0	40.4	
117 1,2-Dichlorobenzene	146	13.169	13.169	0.000	94	280913	50.0	46.1	
118 1,2-Dibromo-3-Chloropropan	75	13.954	13.960	-0.006	78	22206	50.0	45.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.106	14.106	0.000	99	673596	150.0	117.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.520	14.520	0.000	99	501124	100.0	80.3	
122 1,2,4-Trichlorobenzene	180	14.787	14.787	0.000	94	211080	50.0	44.8	
123 Hexachlorobutadiene	225	14.933	14.933	0.000	88	81730	50.0	44.3	
124 Naphthalene	128	15.055	15.055	0.000	98	469530	50.0	57.9	
125 1,2,3-Trichlorobenzene	180	15.280	15.280	0.000	96	192492	50.0	48.8	
126 2,4,5-Trichlorotoluene	159	16.047	16.047	0.000	0	104193	50.0	35.9	
127 2,3,6-Trichlorotoluene	159	16.144	16.144	0.000	94	100343	50.0	38.8	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	97.0	
S 130 1,2-Dichloroethene, Total	96				0		100.0	83.8	
S 132 1,3-Dichloropropene, Total	1				0		100.0	79.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00104	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL		
VOAVAPRI_00003	Amount Added:	2.00	Units: uL		
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL		
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL		
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent	

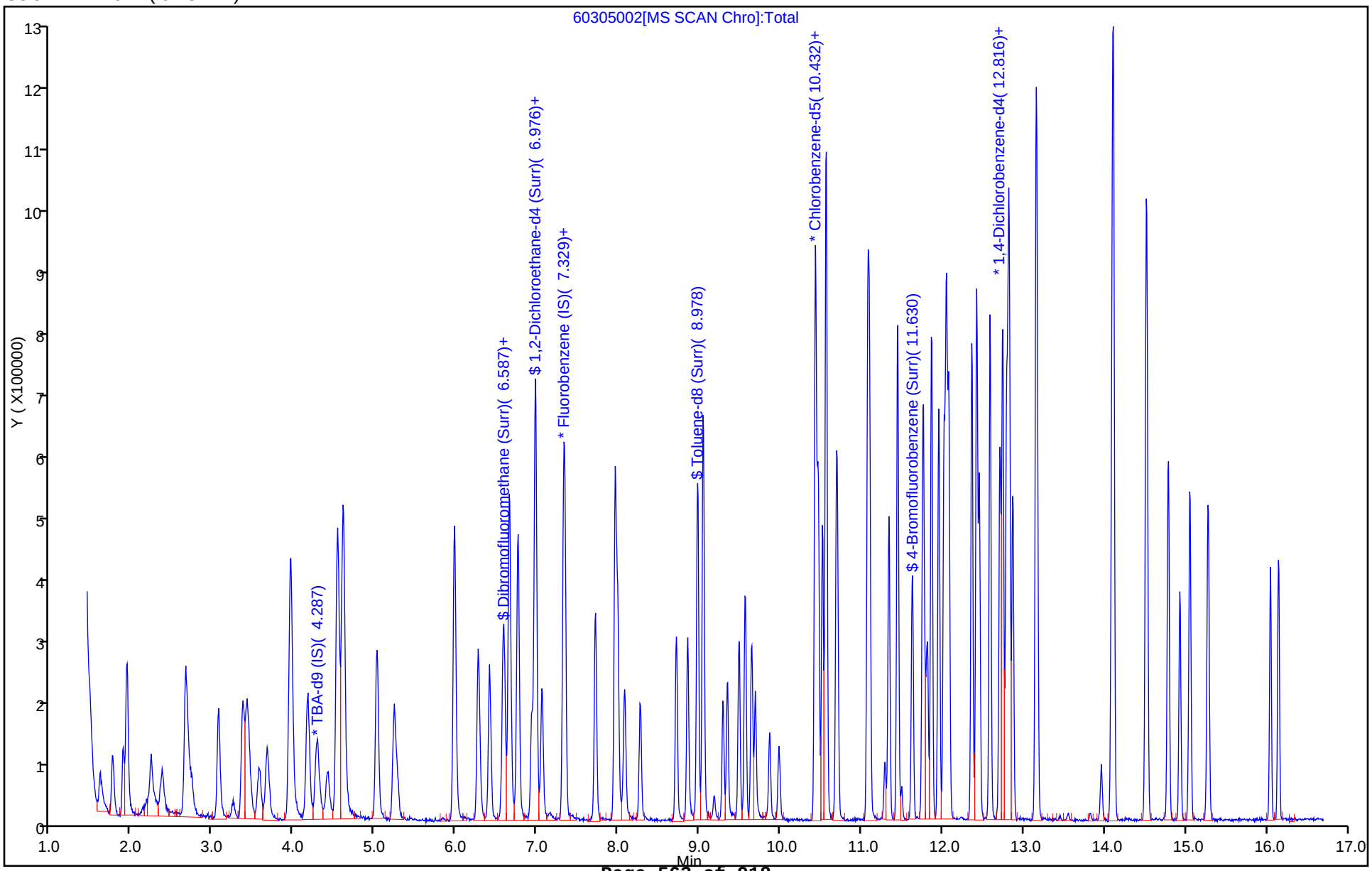
Report Date: 05-Mar-2015 16:04:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305002.D

Injection Date:	05-Mar-2015 10:37:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

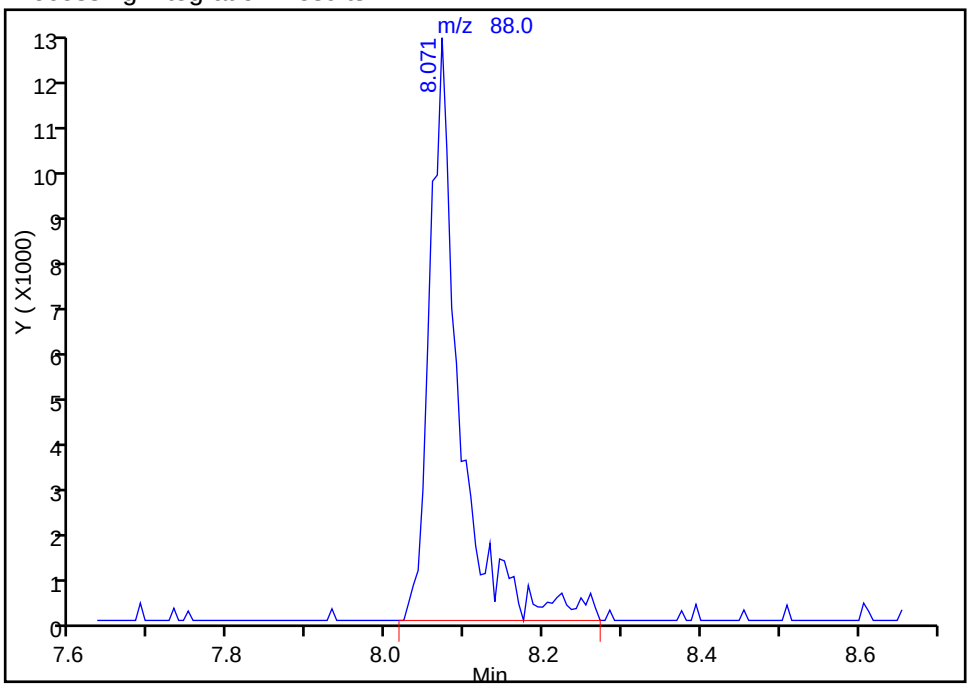
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305002.D				
Injection Date:	05-Mar-2015 10:37:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

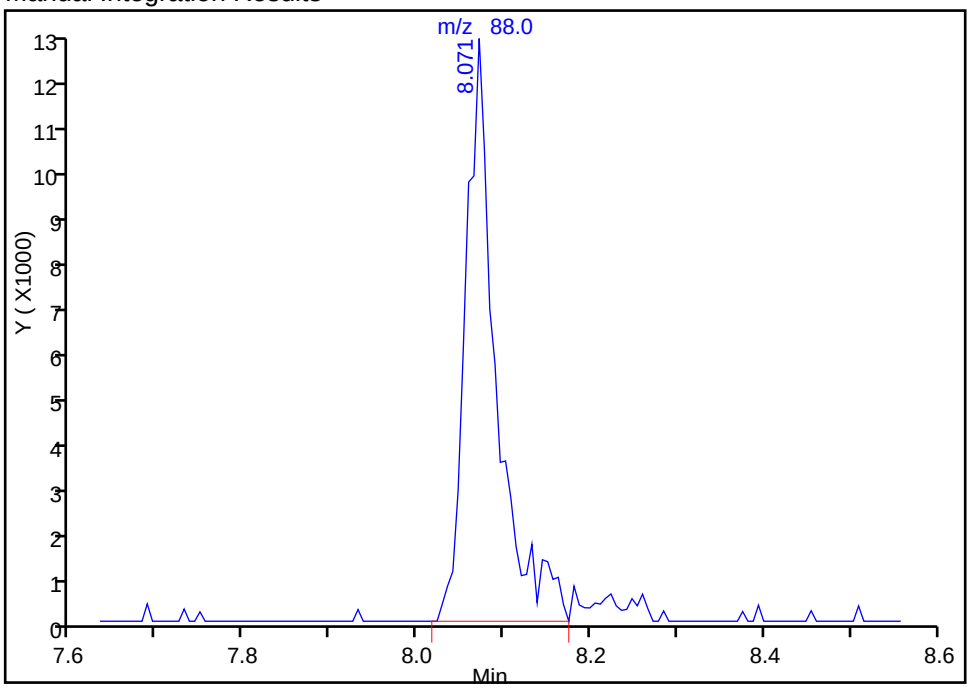
Processing Integration Results

RT: 8.07
Area: 33235
Amount: 1751.5606
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 31036
Amount: 1635.6683
Amount Units: ng



Reviewer: fergusond, 05-Mar-2015 11:08:24
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 03-Mar-2015 12:21:30 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005873-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:03 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 03-Mar-2015 12:34:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.342	8.342	0.000	0	147446	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

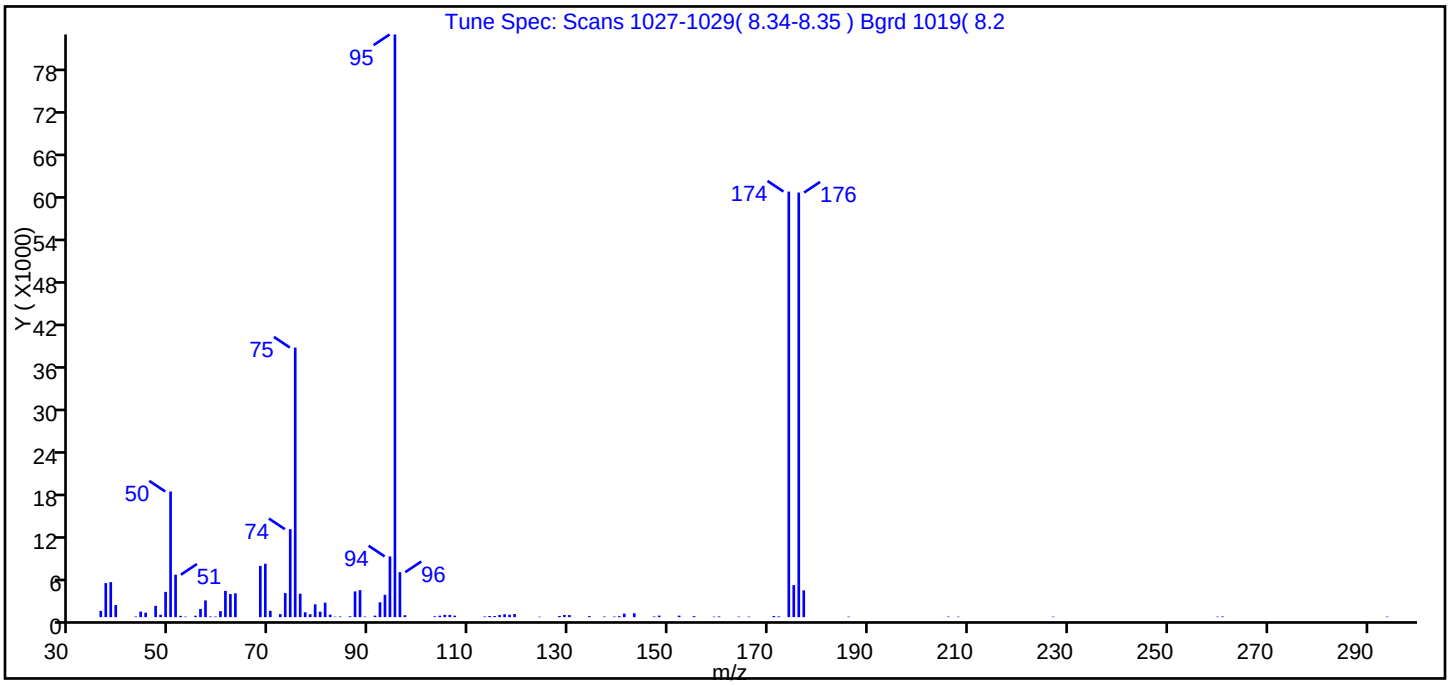
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D				
Injection Date:	03-Mar-2015 12:21:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.6
75	30 to 60% of m/z 95	46.3
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	73.0
175	5 to 9% of m/z 174	5.5 (7.5)
176	Greater than 95% but less than 101% of m/z 174	72.9 (99.8)
177	5 to 9% of m/z 176	4.6 (6.3)

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 03-Mar-2015 12:21:30
Spectrum: Tune Spec: Scans 1027-1029(8.34-8.35) Bgrd 1019(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 93

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	884	69.00	7531	96.00	6342	147.00	90
37.00	4798	70.00	895	97.00	267	148.00	212
38.00	4937	72.00	420	103.00	118	152.00	208
39.00	1701	73.00	3394	104.00	203	155.00	140
43.00	90	74.00	12405	105.00	323	159.00	71
44.00	787	75.00	38024	106.00	305	160.00	100
45.00	628	76.00	3310	107.00	205	164.00	78
47.00	1594	77.00	688	113.00	90	166.00	74
48.00	327	78.00	405	114.00	165	171.00	160
49.00	3565	79.00	1805	115.00	156	172.00	105
50.00	17720	80.00	768	116.00	297	174.00	60024
51.00	5986	81.00	2046	117.00	405	175.00	4514
52.00	186	82.00	354	118.00	334	176.00	59888
53.00	74	83.00	67	119.00	437	177.00	3780
55.00	198	84.00	93	124.00	67	186.00	69
56.00	1152	86.00	120	128.00	166	206.00	73
57.00	2364	87.00	3629	129.00	302	208.00	68
58.00	96	88.00	3807	130.00	296	227.00	70
59.00	84	89.00	81	134.00	146	260.00	73
60.00	846	91.00	210	137.00	89	261.00	93
61.00	3705	92.00	2094	139.00	81	294.00	74
62.00	3255	93.00	3151	140.00	139		
63.00	3358	94.00	8567	141.00	495		
68.00	7231	95.00	82184	143.00	545		

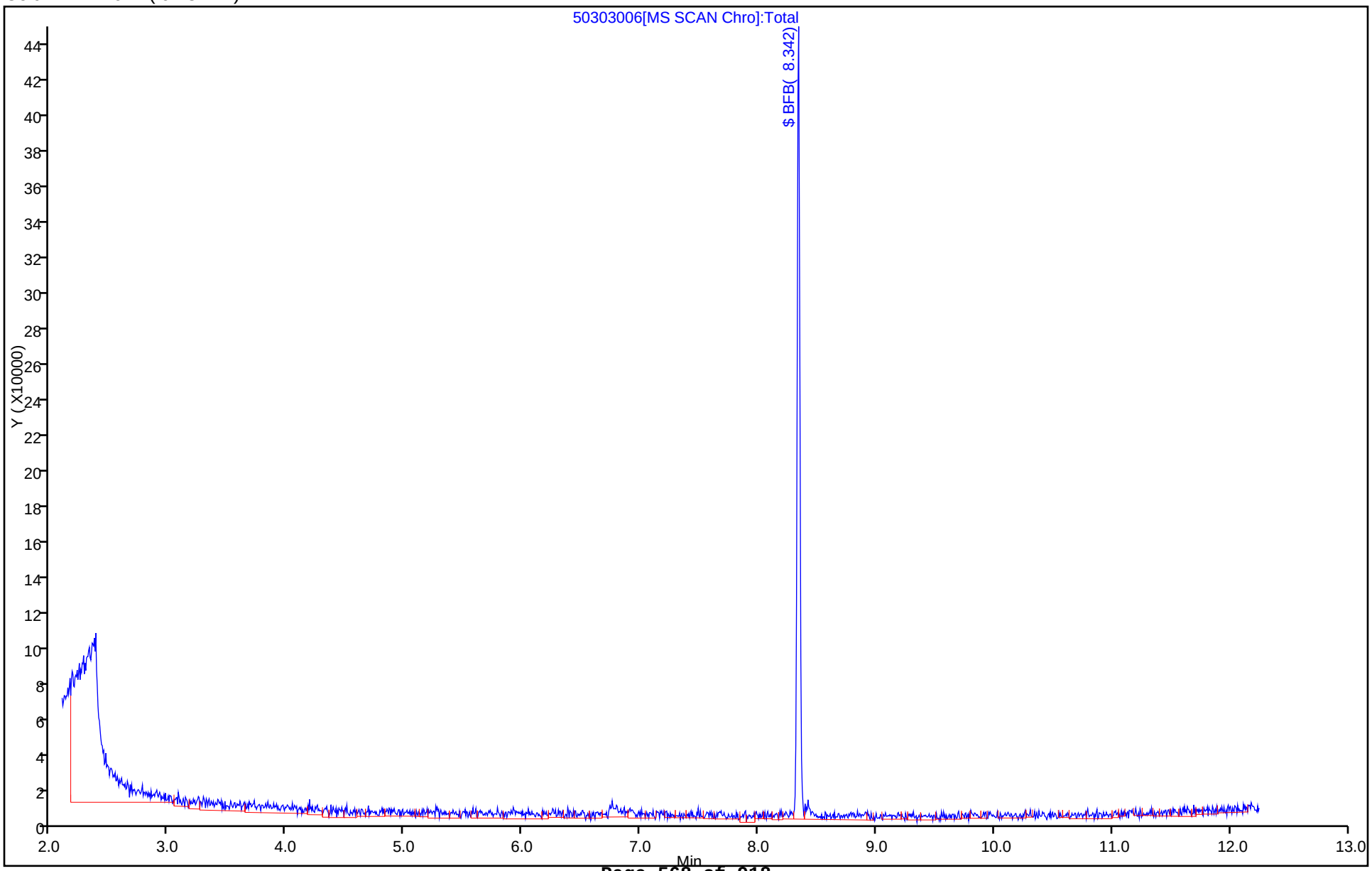
Report Date: 04-Mar-2015 10:13:03 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D

Injection Date:	03-Mar-2015 12:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305006.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 05-Mar-2015 10:58:30 ALS Bottle#: 1 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005905-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:06:05 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 05-Mar-2015 11:11:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.337	8.337	0.000	0	168791	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

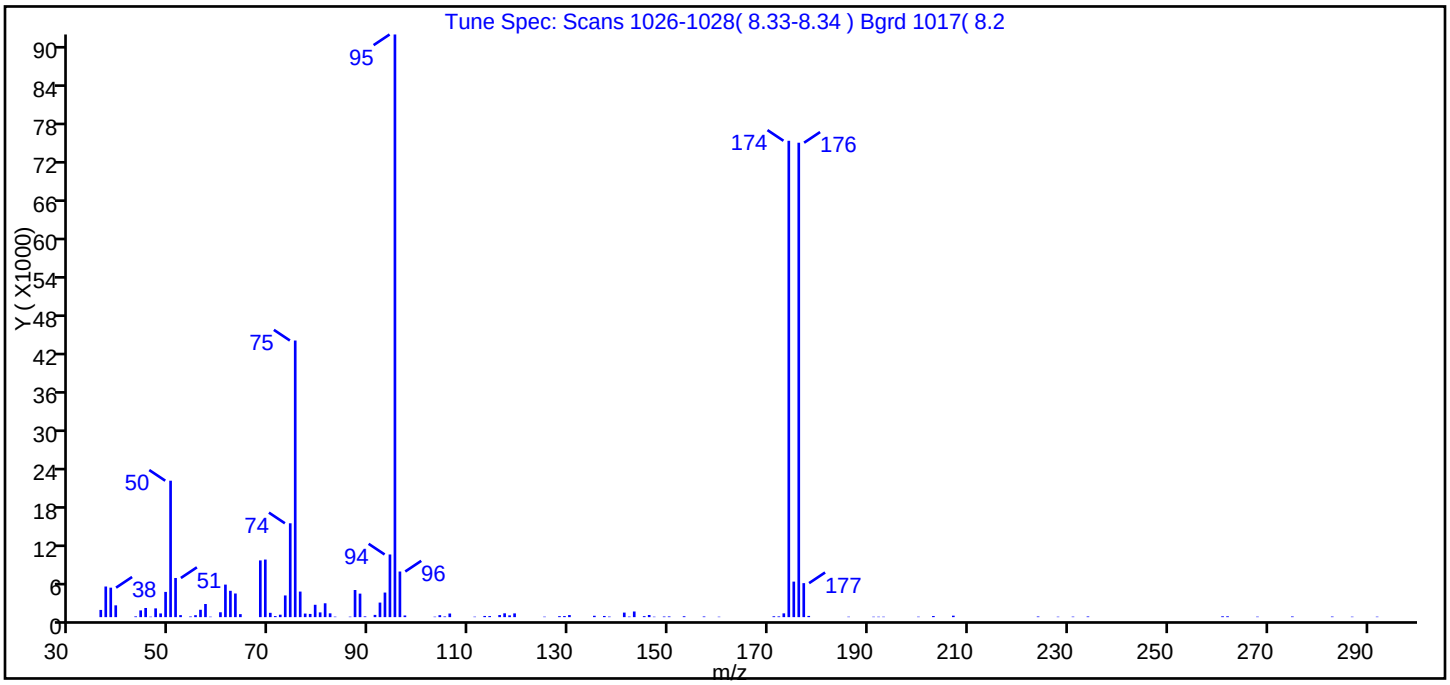
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305006.D
Injection Date: 05-Mar-2015 10:58:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.4
75	30 to 60% of m/z 95	47.5
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.7 (0.8)
174	50 to 120% of m/z 95	81.8
175	5 to 9% of m/z 174	6.1 (7.5)
176	Greater than 95% but less than 101% of m/z 174	81.4 (99.6)
177	5 to 9% of m/z 176	5.8 (7.2)

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 05-Mar-2015 10:58:30
Spectrum: Tune Spec: Scans 1026-1028(8.33-8.34) Bgrd 1017(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 106

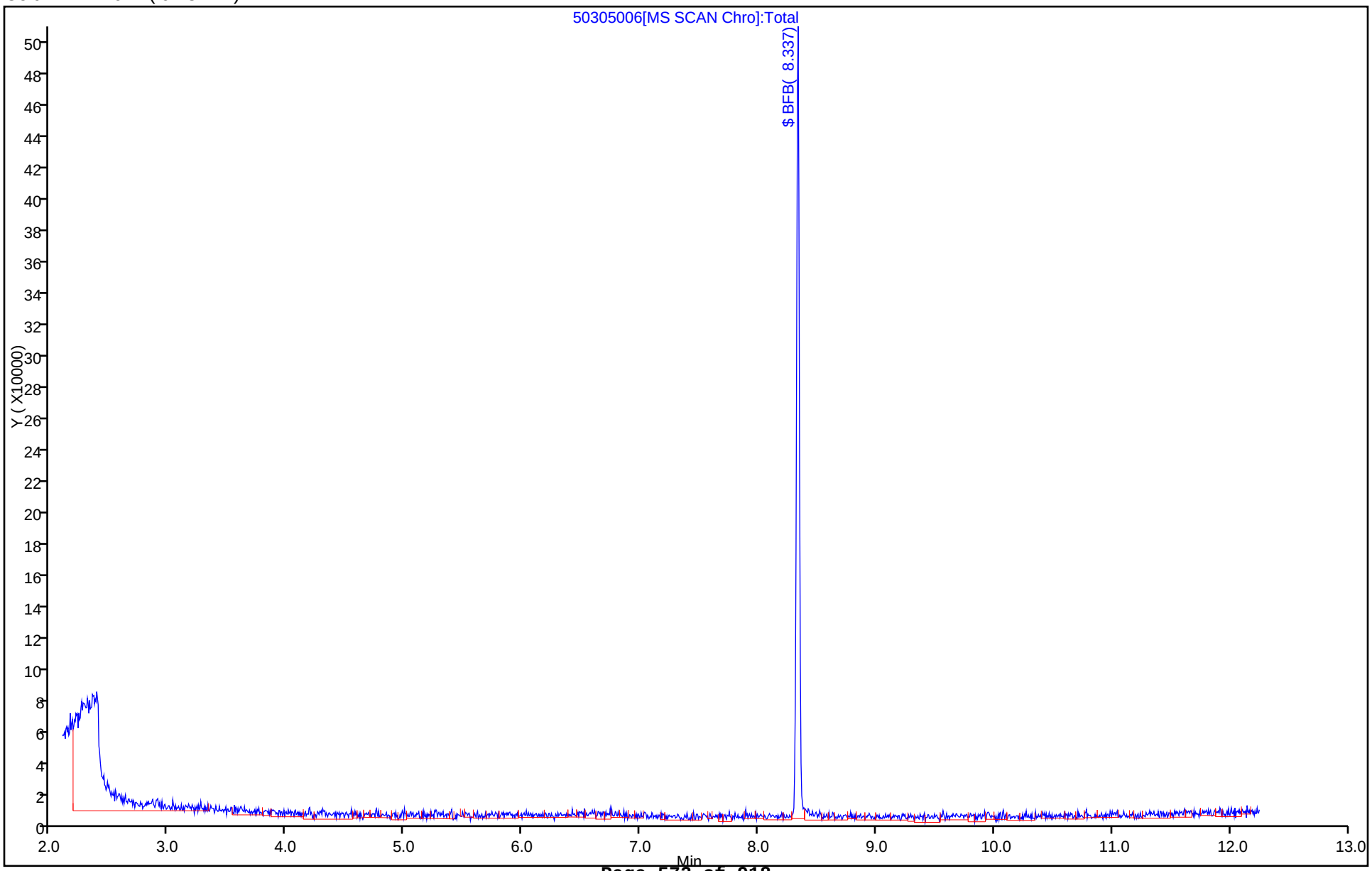
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1128	71.00	166	106.00	567	172.00	119
37.00	4789	72.00	381	111.00	72	173.00	593
38.00	4610	73.00	3391	113.00	185	174.00	74464
39.00	1845	74.00	14672	114.00	169	175.00	5554
43.00	118	75.00	43240	116.00	327	176.00	74160
44.00	1056	76.00	3997	117.00	600	177.00	5315
45.00	1433	77.00	558	118.00	278	178.00	192
46.00	73	78.00	504	119.00	587	186.00	67
47.00	1371	79.00	1932	125.00	74	191.00	67
48.00	582	80.00	742	128.00	154	192.00	67
49.00	3946	81.00	2166	129.00	169	193.00	68
50.00	21328	82.00	594	130.00	325	200.00	71
51.00	6120	83.00	77	135.00	214	203.00	171
52.00	316	86.00	74	137.00	182	207.00	228
54.00	100	87.00	4240	138.00	89	224.00	103
55.00	304	88.00	3678	141.00	711	228.00	68
56.00	1153	89.00	118	142.00	87	231.00	79
57.00	2053	91.00	352	143.00	884	234.00	107
58.00	70	92.00	2276	145.00	155	261.00	132
60.00	763	93.00	3844	146.00	336	262.00	132
61.00	5087	94.00	9795	147.00	69	268.00	77
62.00	4118	95.00	91080	149.00	97	275.00	107
63.00	3695	96.00	7133	150.00	111	283.00	92
64.00	469	97.00	259	153.00	138	287.00	70
68.00	8868	103.00	71	157.00	104	292.00	74
69.00	9001	104.00	308	160.00	67		
70.00	676	105.00	107	171.00	135		

Report Date: 06-Mar-2015 08:06:06 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305006.D				
Injection Date:	05-Mar-2015 10:58:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306003.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 06-Mar-2015 10:53:30 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005922-003
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 15:11:35 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 11:07:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.335	8.335	0.000	0	142859	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

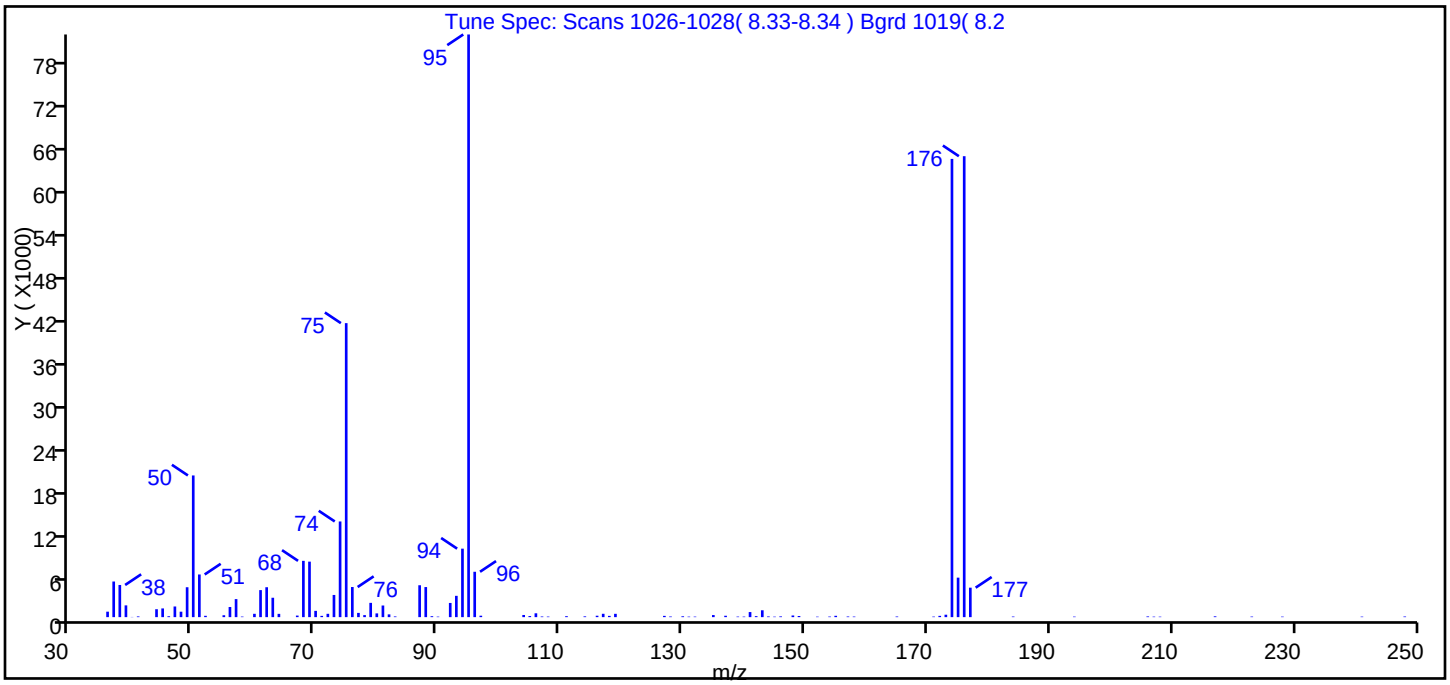
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306003.D
Injection Date: 06-Mar-2015 10:53:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	24.3
75	30 to 60% of m/z 95	50.5
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	78.6
175	5 to 9% of m/z 174	6.8 (8.6)
176	Greater than 95% but less than 101% of m/z 174	79.1 (100.6)
177	5 to 9% of m/z 176	5.1 (6.4)

Report Date: 06-Mar-2015 15:11:35 Chrom Revision: 2.2 15-Jan-2015 13:05:58

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306003.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 06-Mar-2015 10:53:30
Spectrum: Tune Spec: Scans 1026-1028(8.33-8.34) Bgrd 1019(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	762	69.00	7738	105.00	150	149.00	157
37.00	4967	70.00	875	106.00	538	152.00	67
38.00	4484	71.00	177	107.00	90	154.00	82
39.00	1641	72.00	466	108.00	79	155.00	187
40.00	26	73.00	3093	111.00	133	157.00	90
41.00	99	74.00	13338	114.00	108	158.00	79
44.00	1104	75.00	40984	116.00	197	165.00	89
45.00	1215	76.00	4199	117.00	469	171.00	77
46.00	125	77.00	592	118.00	176	172.00	179
47.00	1486	78.00	284	119.00	463	173.00	339
48.00	760	79.00	1991	127.00	177	174.00	63880
49.00	4169	80.00	523	128.00	88	175.00	5506
50.00	19752	81.00	1622	130.00	118	176.00	64256
51.00	5948	82.00	387	131.00	72	177.00	4109
52.00	187	83.00	98	132.00	74	184.00	83
55.00	265	87.00	4447	135.00	290	194.00	73
56.00	1415	88.00	4194	137.00	194	206.00	99
57.00	2515	89.00	129	139.00	77	207.00	71
58.00	78	90.00	73	140.00	74	208.00	67
60.00	465	92.00	1978	141.00	709	217.00	112
61.00	3769	93.00	2971	142.00	139	223.00	80
62.00	4170	94.00	9547	143.00	957	228.00	72
63.00	2704	95.00	81224	144.00	96	241.00	73
64.00	459	96.00	6325	145.00	68	248.00	88
67.00	218	97.00	200	146.00	104		
68.00	7848	104.00	301	148.00	230		

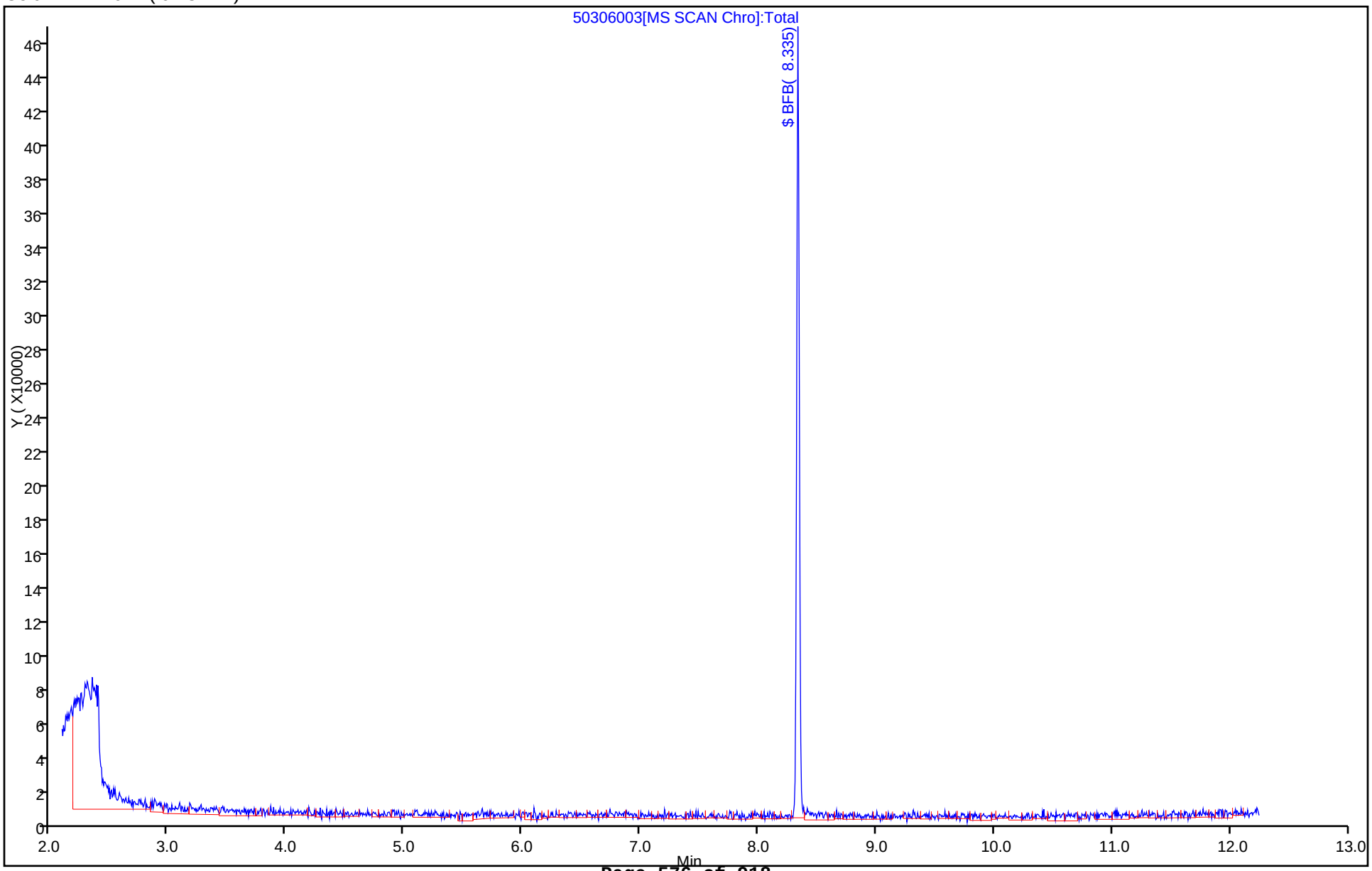
Report Date: 06-Mar-2015 15:11:35 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306003.D

Injection Date:	06-Mar-2015 10:53:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 09-Mar-2015 10:37:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005947-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 15:52:38 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 11:14:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.344	8.344	0.000	0	103133	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

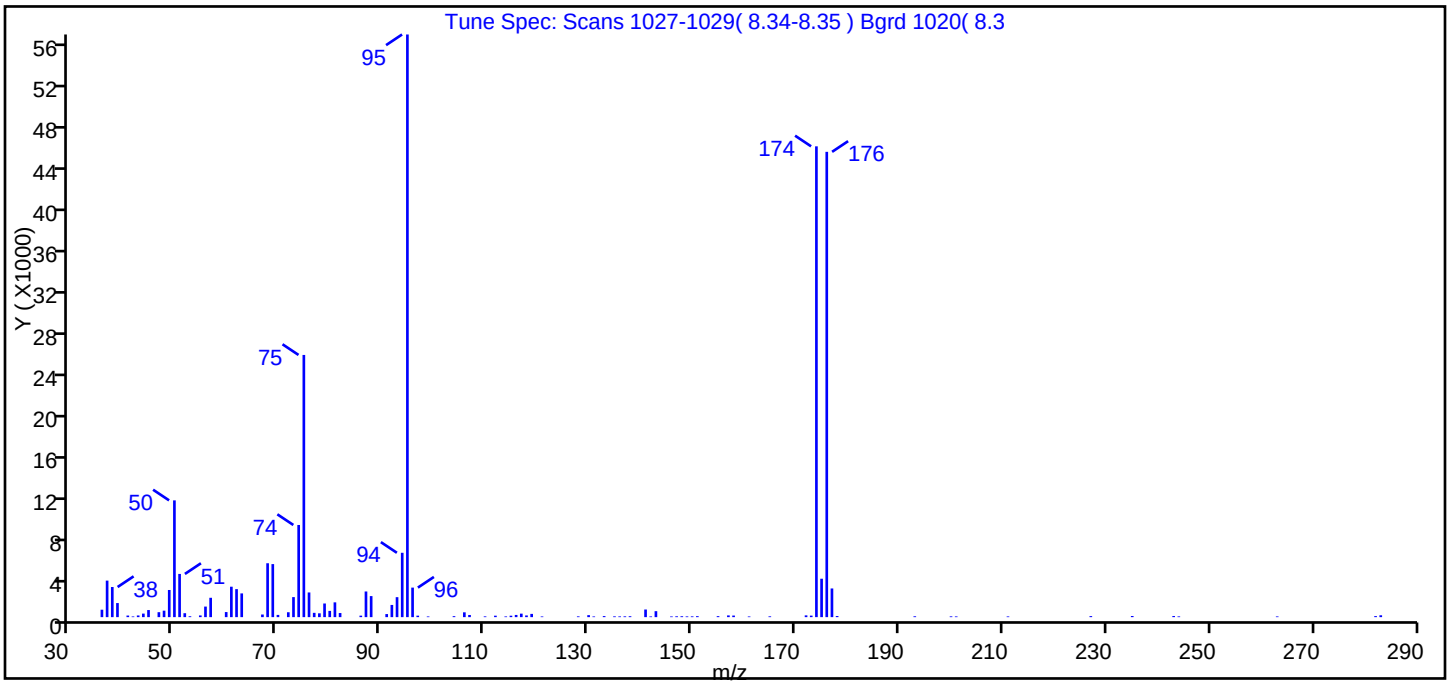
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D				
Injection Date:	09-Mar-2015 10:37:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.0
75	30 to 60% of m/z 95	45.0
96	5 to 9% of m/z 95	5.1
173	Less than 2% of m/z 174	0.3 (0.3)
174	50 to 120% of m/z 95	80.8
175	5 to 9% of m/z 174	6.6 (8.2)
176	Greater than 95% but less than 101% of m/z 174	79.9 (98.8)
177	5 to 9% of m/z 176	4.9 (6.2)

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 09-Mar-2015 10:37:30
Spectrum: Tune Spec: Scans 1027-1029(8.34-8.35) Bgrd 1020(8.3
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 101

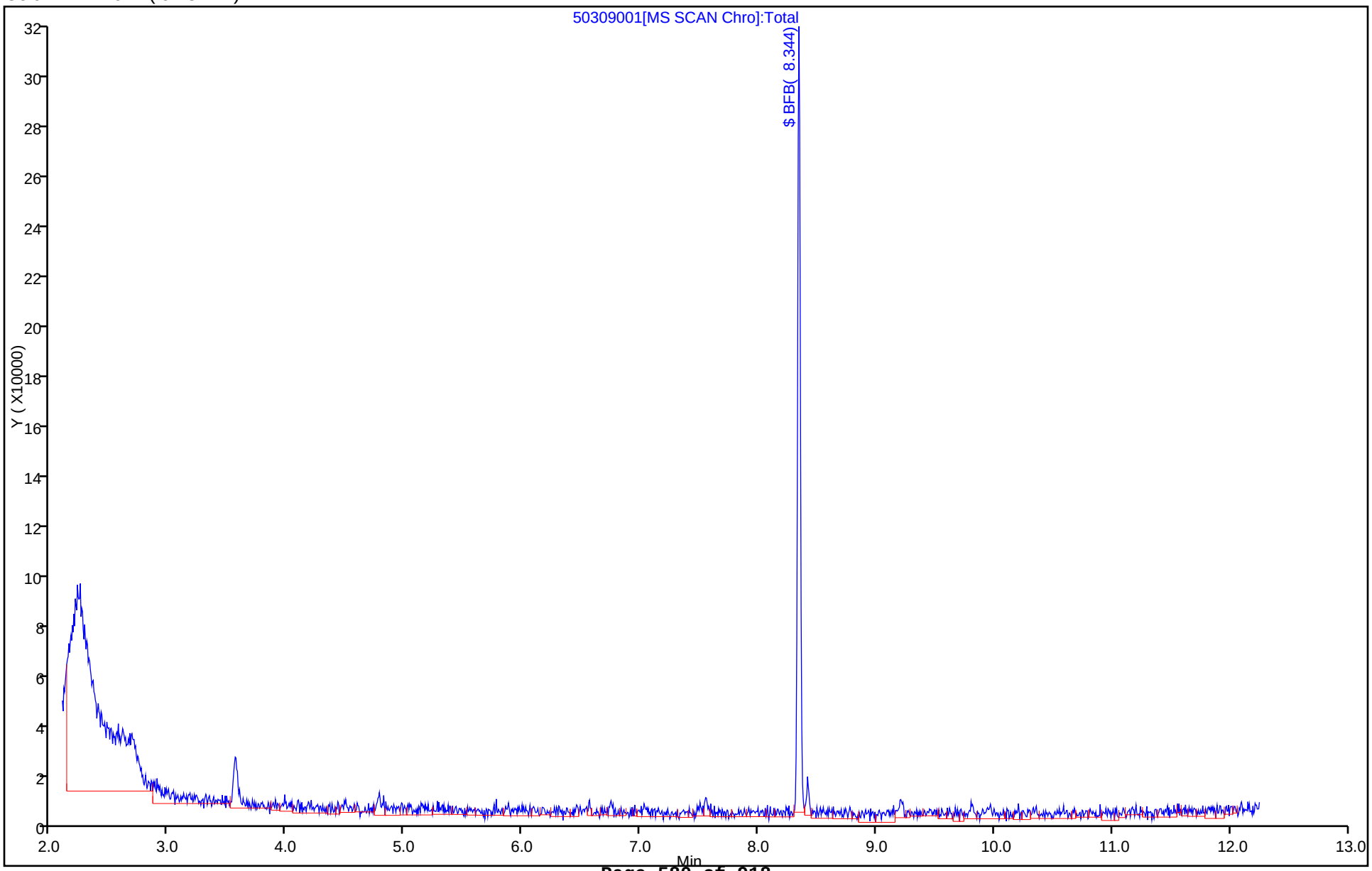
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	725	70.00	218	110.00	74	155.00	96
37.00	3561	72.00	477	112.00	142	157.00	169
38.00	2937	73.00	1953	114.00	70	158.00	155
39.00	1373	74.00	8984	115.00	140	161.00	66
41.00	155	75.00	25560	116.00	214	165.00	78
42.00	67	76.00	2407	117.00	342	172.00	173
43.00	164	77.00	419	118.00	166	173.00	148
44.00	346	78.00	373	119.00	317	174.00	45896
45.00	691	79.00	1330	121.00	67	175.00	3745
47.00	482	80.00	609	128.00	75	176.00	45360
48.00	632	81.00	1442	130.00	194	177.00	2796
49.00	2647	82.00	401	131.00	68	178.00	108
50.00	11383	86.00	145	133.00	102	193.00	83
51.00	4212	87.00	2502	135.00	76	200.00	76
52.00	384	88.00	2052	136.00	72	201.00	70
53.00	84	91.00	300	137.00	77	211.00	69
55.00	165	92.00	1189	138.00	88	227.00	100
56.00	1030	93.00	1947	141.00	744	235.00	110
57.00	1887	94.00	6274	142.00	69	243.00	108
60.00	496	95.00	56800	143.00	582	244.00	72
61.00	2967	96.00	2879	146.00	68	263.00	70
62.00	2731	97.00	144	147.00	83	282.00	102
63.00	2314	99.00	67	148.00	87	283.00	181
67.00	257	104.00	94	149.00	72		
68.00	5254	106.00	470	150.00	75		
69.00	5171	107.00	211	151.00	94		

Report Date: 09-Mar-2015 15:52:39 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D				
Injection Date:	09-Mar-2015 10:37:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 28-Jan-2015 11:55:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005450-004
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:04 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 28-Jan-2015 12:11:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.412	8.412	0.000	0	199884	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

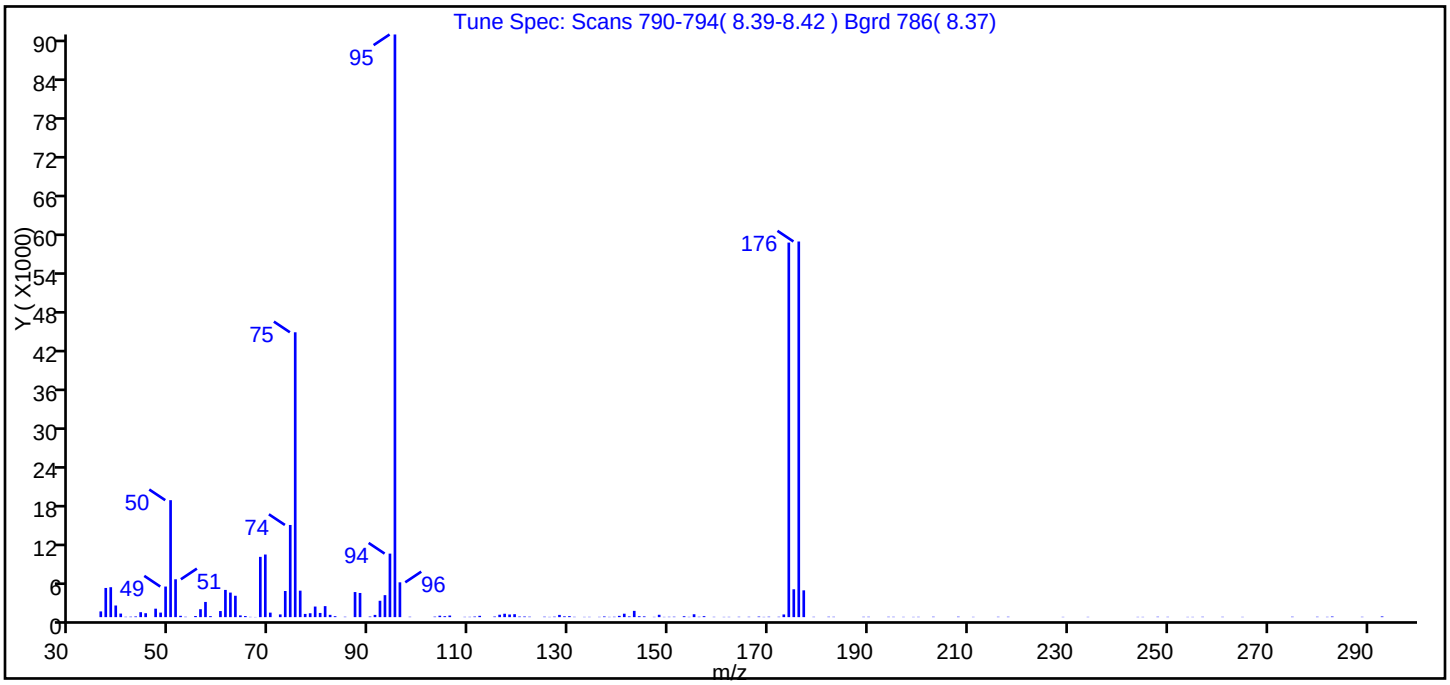
VOABFB25_00058 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D				
Injection Date:	28-Jan-2015 11:55:30	Instrument ID:	CHHP6		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.1
75	30 to 60% of m/z 95	48.9
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.5 (0.7)
174	50 to 120% of m/z 95	64.3
175	5 to 9% of m/z 174	4.8 (7.4)
176	Greater than 95% but less than 101% of m/z 174	64.5 (100.3)
177	5 to 9% of m/z 176	4.6 (7.1)

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 28-Jan-2015 11:55:30
Spectrum: Tune Spec: Scans 790-794(8.39-8.42) Bgrd 786(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 146

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	891	77.00	502	128.00	348	175.00	4324
37.00	4531	78.00	605	129.00	124	176.00	58296
38.00	4646	79.00	1644	130.00	152	177.00	4160
39.00	1807	80.00	651	131.00	50	179.00	52
40.00	555	81.00	1709	133.00	41	182.00	63
41.00	56	82.00	356	134.00	46	183.00	55
42.00	70	83.00	146	136.00	46	189.00	53
43.00	107	85.00	61	137.00	103	190.00	57
44.00	769	87.00	3894	138.00	43	194.00	56
45.00	610	88.00	3751	139.00	61	195.00	52
47.00	1314	90.00	90	140.00	200	197.00	43
48.00	705	91.00	349	141.00	534	199.00	40
49.00	4748	92.00	2541	142.00	114	200.00	48
50.00	18152	93.00	3413	143.00	975	203.00	62
51.00	5876	94.00	9860	144.00	138	208.00	68
52.00	208	95.00	90424	145.00	118	211.00	43
53.00	59	96.00	5404	147.00	46	216.00	55
55.00	176	98.00	59	148.00	368	218.00	59
56.00	1231	103.00	79	149.00	41	229.00	40
57.00	2359	104.00	225	150.00	55	234.00	42
58.00	152	105.00	149	151.00	67	244.00	41
60.00	945	106.00	249	153.00	140	245.00	40
61.00	4225	109.00	47	154.00	45	248.00	60
62.00	3811	110.00	49	155.00	450	250.00	48
63.00	3318	111.00	93	156.00	59	254.00	40
64.00	267	112.00	207	157.00	151	255.00	40
65.00	170	115.00	95	159.00	49	257.00	56
66.00	41	116.00	375	161.00	40	261.00	50
67.00	26	117.00	527	162.00	45	265.00	41
68.00	9355	118.00	409	164.00	56	275.00	63
69.00	9719	119.00	460	166.00	56	280.00	60
70.00	700	120.00	94	168.00	91	282.00	47
72.00	421	121.00	98	169.00	40	283.00	95

Report Date: 29-Jan-2015 12:59:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58
Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 28-Jan-2015 11:55:30
Spectrum: Tune Spec: Scans 790-794(8.39-8.42) Bgrd 786(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 146

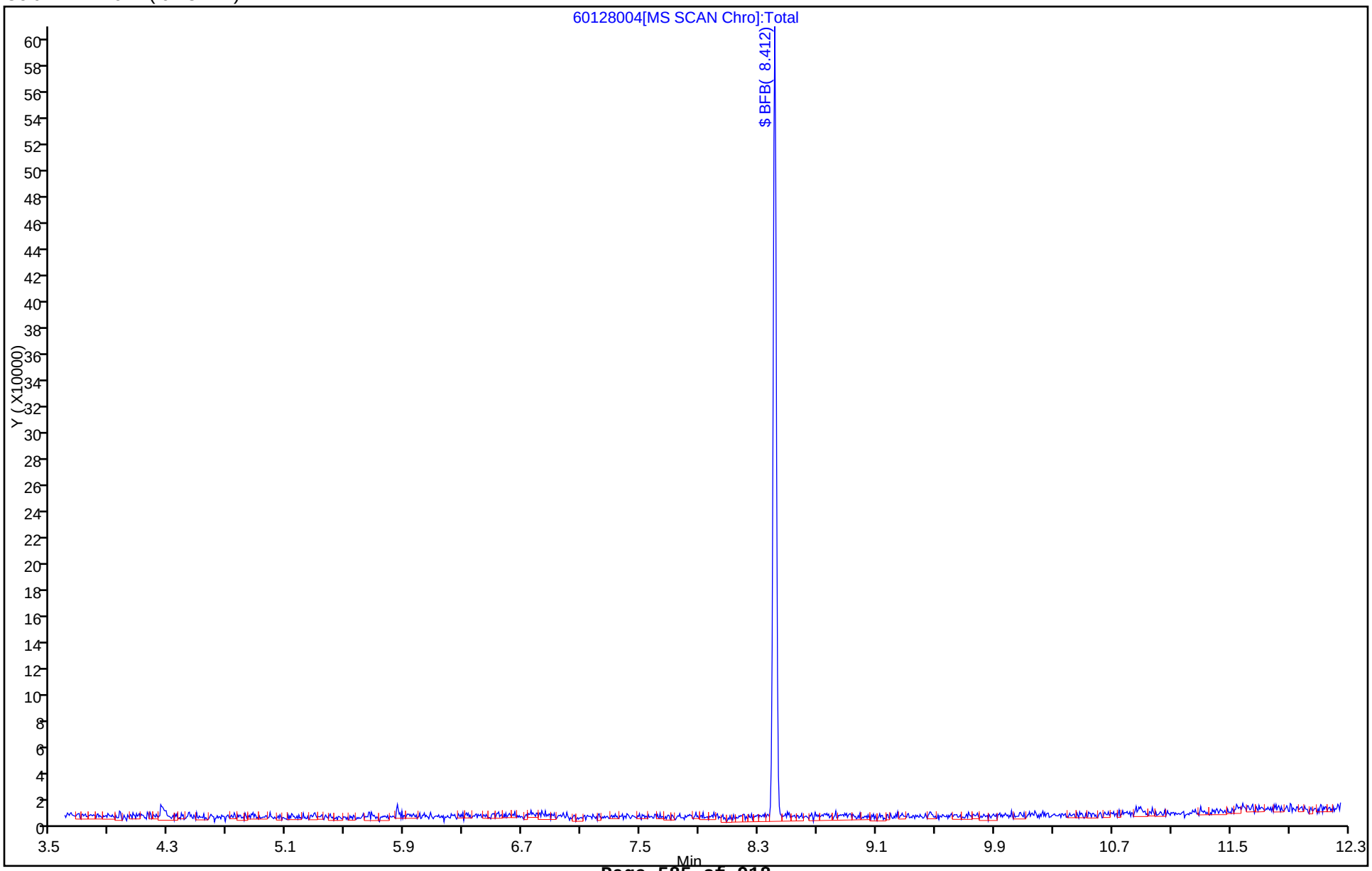
m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	4056	122.00	70	170.00	67	289.00	51
74.00	14305	125.00	68	172.00	59	293.00	109
75.00	44208	126.00	40	173.00	418		
76.00	4109	127.00	76	174.00	58128		

Report Date: 29-Jan-2015 12:59:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D				
Injection Date:	28-Jan-2015 11:55:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 05-Mar-2015 09:54:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005907-001
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-Mar-2015 16:04:15 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: fergusond Date: 05-Mar-2015 10:06:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.412	8.412	0.000	0	94515	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

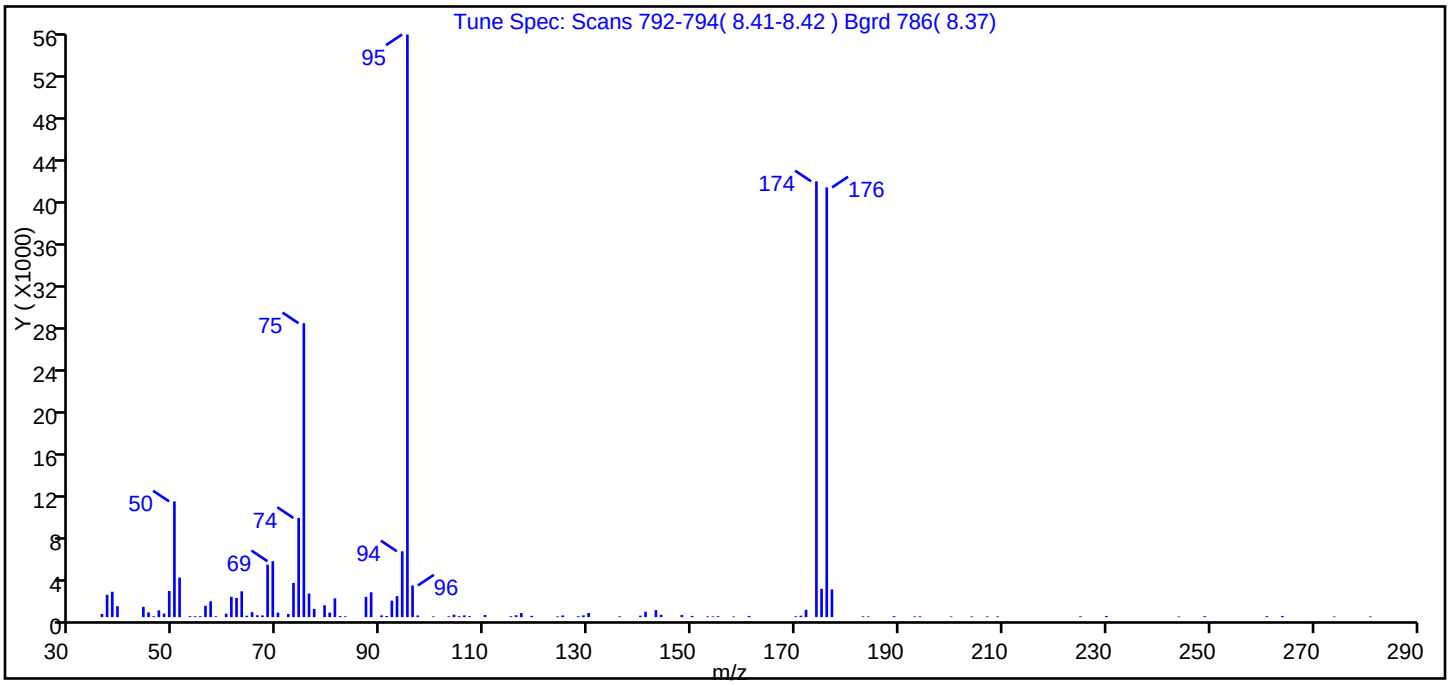
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305001.D				
Injection Date:	05-Mar-2015 09:54:30	Instrument ID:	CHHP6		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.9
75	30 to 60% of m/z 95	50.4
96	5 to 9% of m/z 95	5.4
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	74.8
175	5 to 9% of m/z 174	4.9 (6.5)
176	Greater than 95% but less than 101% of m/z 174	73.8 (98.6)
177	5 to 9% of m/z 176	4.8 (6.5)

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 05-Mar-2015 09:54:30
Spectrum: Tune Spec: Scans 792-794(8.41-8.42) Bgrd 786(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 102

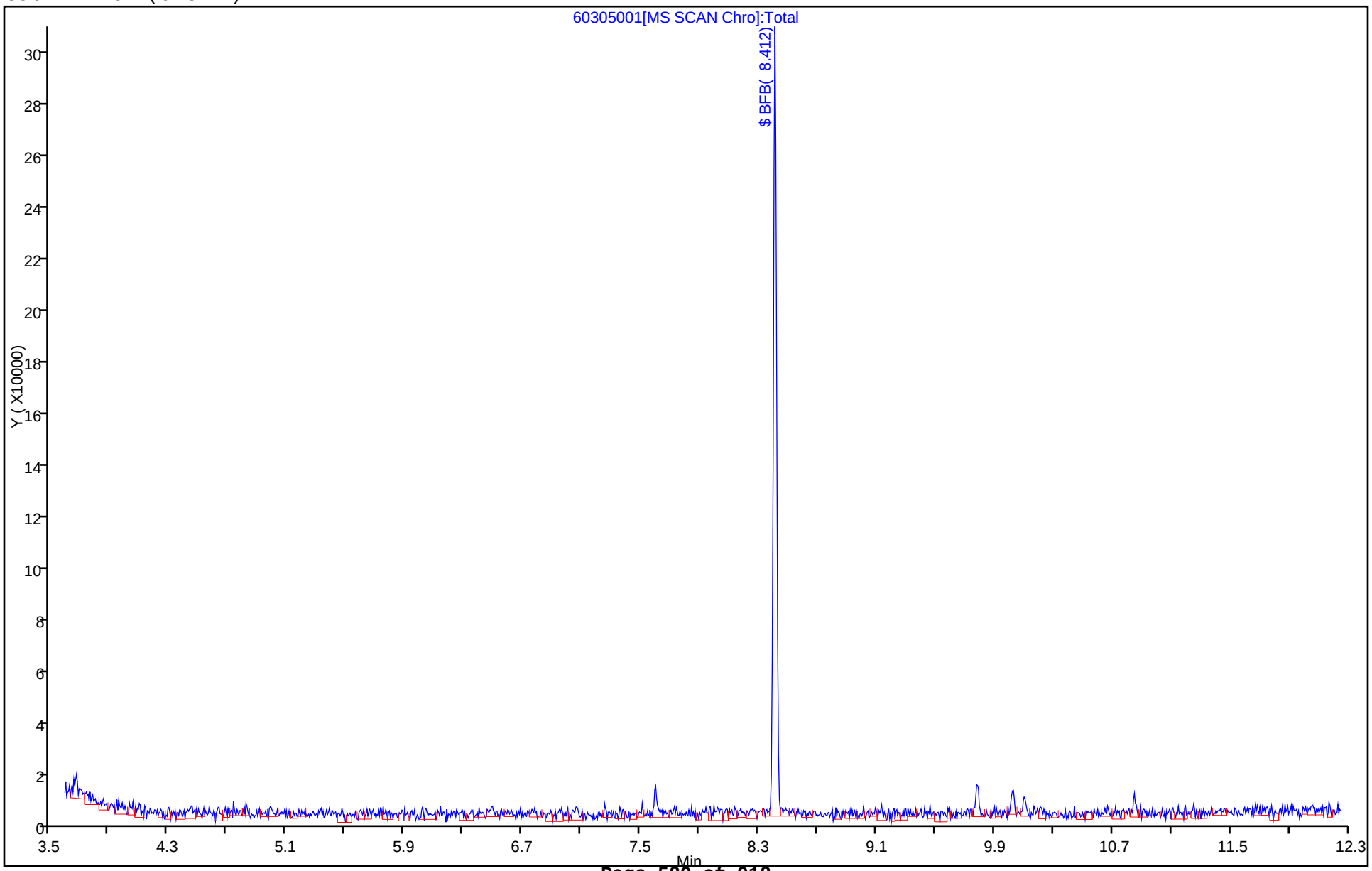
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	307	68.00	5021	104.00	244	170.00	81
37.00	2136	69.00	5358	105.00	90	171.00	139
38.00	2432	70.00	434	106.00	171	172.00	701
39.00	1048	72.00	305	107.00	98	174.00	41768
44.00	985	73.00	3279	110.00	209	175.00	2716
45.00	451	74.00	9508	115.00	85	176.00	41184
46.00	82	75.00	28168	116.00	183	177.00	2657
47.00	650	76.00	2260	117.00	390	183.00	75
48.00	336	77.00	792	119.00	128	184.00	72
49.00	2505	79.00	1135	124.00	76	189.00	93
50.00	11092	80.00	429	125.00	166	193.00	72
51.00	3781	81.00	1803	128.00	83	194.00	85
53.00	91	82.00	103	129.00	168	200.00	69
54.00	85	83.00	78	130.00	391	204.00	68
55.00	90	87.00	1944	136.00	81	207.00	71
56.00	1090	88.00	2383	140.00	140	209.00	76
57.00	1522	90.00	170	141.00	514	225.00	79
58.00	84	91.00	111	143.00	674	230.00	112
60.00	327	92.00	1581	144.00	218	244.00	67
61.00	1951	93.00	2010	148.00	210	249.00	91
62.00	1835	94.00	6310	150.00	117	261.00	94
63.00	2477	95.00	55840	153.00	77	264.00	117
64.00	137	96.00	3038	154.00	71	274.00	68
65.00	478	97.00	161	155.00	95	281.00	73
66.00	178	100.00	70	158.00	69		
67.00	161	103.00	80	161.00	116		

Report Date: 05-Mar-2015 16:04:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305001.D				
Injection Date:	05-Mar-2015 09:54:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-134814/9

Matrix: Water | Lab File ID: 50305009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/05/2015 13:05

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 134814 | 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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134814/9

Matrix: Water Lab File ID: 50305009.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 13:05

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 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)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	94		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305009.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 05-Mar-2015 13:05:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005905-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:09:33 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:09:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.299	0.006	95	109928	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	99	473345	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.365	0.000	99	106986	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	99	171961	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.532	-0.001	52	94926	50.0	46.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.897	0.006	99	120972	50.0	48.3	
$ 7 Toluene-d8 (Surr)	98	8.928	8.923	0.005	100	434922	50.0	52.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.533	-0.001	99	164279	50.0	52.9	
11 Dichlorodifluoromethane	85		1.616					ND	
12 Chloromethane	50		1.775					ND	
13 Vinyl chloride	62		1.902					ND	
14 Butadiene	39		1.939					ND	
15 Bromomethane	94		2.249					ND	
16 Chloroethane	64		2.383					ND	
17 Dichlorofluoromethane	67		2.651					ND	
18 Trichlorofluoromethane	101		2.705					ND	
19 Ethanol	45		3.012					ND	
20 Ethyl ether	59		3.083					ND	
21 Acrolein	56		3.265					ND	
22 1,1-Dichloroethene	96		3.375					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.423					ND	
24 Acetone	43		3.496					ND	
25 Iodomethane	142		3.581					ND	
26 Carbon disulfide	76		3.661					ND	
27 Isopropyl alcohol	45		3.736					ND	
28 3-Chloro-1-propene	76		3.934					ND	
29 Acetonitrile	40		3.943					ND	
30 Methyl acetate	43		4.013					ND	
31 Methylene Chloride	84		4.141					ND	
32 2-Methyl-2-propanol	59		4.421					ND	
33 Acrylonitrile	53		4.549					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.561					ND	
35 Methyl tert-butyl ether	73		4.597					ND	
36 Hexane	57		4.981					ND	
37 1,1-Dichloroethane	63		5.169					ND	
38 Vinyl acetate	43		5.297					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.799					ND	
44 2,2-Dichloropropane	77		5.924					ND	
45 cis-1,2-Dichloroethene	96		5.942					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.984					ND	
48 Ethyl acetate	43		5.993					ND	
47 Propionitrile	54		6.024					ND	
49 Chlorobromomethane	128		6.222					ND	
51 Tetrahydrofuran	42		6.289					ND	
52 Chloroform	83		6.337					ND	
50 Methacrylonitrile	41		6.389					ND	
53 1,1,1-Trichloroethane	97		6.532					ND	
54 Cyclohexane	56		6.587					ND	
56 Carbon tetrachloride	117		6.714					ND	
55 1,1-Dichloropropene	75		6.721					ND	
57 Isobutyl alcohol	41		6.940					ND	
58 Benzene	78		6.952					ND	
59 1,2-Dichloroethane	62		6.982					ND	
61 Tert-amyl methyl ether	73		7.143					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.280					ND	
63 n-Butanol	56		7.654					ND	
64 Trichloroethene	130		7.663					ND	
66 Methylcyclohexane	83		7.858					ND	
65 Ethyl acrylate	55		7.867					ND	
69 Methyl methacrylate	69		7.867					ND	
67 1,2-Dichloropropane	63		7.901					ND	
68 Dibromomethane	93		8.022					ND	
70 1,4-Dioxane	88		8.059					ND	
71 Dichlorobromomethane	83		8.193					ND	
72 2-Nitropropane	41		8.427					ND	
73 2-Chloroethyl vinyl ether	63		8.506					ND	
74 cis-1,3-Dichloropropene	75		8.661					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825					ND	
76 Toluene	91		8.990					ND	
77 trans-1,3-Dichloropropene	75		9.221					ND	
78 Ethyl methacrylate	69		9.318					ND	
79 1,1,2-Trichloroethane	97		9.397					ND	
80 Tetrachloroethene	164		9.537					ND	
81 1,3-Dichloropropane	76		9.568					ND	
82 2-Hexanone	43		9.659					ND	
83 n-Butyl acetate	43		9.662					ND	
84 Chlorodibromomethane	129		9.793					ND	
85 Ethylene Dibromide	107		9.902					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.371					ND	
87 Chlorobenzene	112		10.395					ND	
88 4-Chlorobenzotrifluoride	180		10.431					ND	
89 1,1,1,2-Tetrachloroethane	131		10.474					ND	
90 Ethylbenzene	106		10.498					ND	
91 m-Xylene & p-Xylene	106		10.620					ND	
92 o-Xylene	106		11.009					ND	
93 Styrene	104		11.028					ND	
94 Bromoform	173		11.216					ND	
96 2-Chlorobenzotrifluoride	180		11.271					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.380					ND	
98 Cyclohexanone	55		11.450					ND	
99 1,1,2,2-Tetrachloroethane	83		11.679					ND	
100 Bromobenzene	156		11.685					ND	
101 1,2,3-Trichloropropane	110		11.721					ND	
102 trans-1,4-Dichloro-2-buten	53		11.733					ND	
103 N-Propylbenzene	120		11.788					ND	
104 2-Chlorotoluene	126		11.873					ND	
105 3-Chlorotoluene	126		11.934					ND	
106 1,3,5-Trimethylbenzene	105		11.964					ND	
107 4-Chlorotoluene	126		11.983					ND	
108 tert-Butylbenzene	119		12.287					ND	
109 Pentachloroethane	167		12.314					ND	
110 1,2,4-Trimethylbenzene	105		12.336					ND	
111 1,2-dichloro-4-(trifluorom	214		12.402					ND	
112 sec-Butylbenzene	105		12.506					ND	
113 1,3-Dichlorobenzene	146		12.621					ND	
114 4-Isopropyltoluene	119		12.652					ND	
119 Benzyl chloride	91		12.655					ND	
115 1,4-Dichlorobenzene	146		12.707					ND	
117 1,2,3-Trimethylbenzene	105		12.758					ND	
116 2,4-Dichloro-1-(triflourom	214		12.761					ND	
118 2,5-Dichlorobenzotrifluori	214		12.810					ND	
120 n-Butylbenzene	91		13.059					ND	
121 1,2-Dichlorobenzene	146		13.084					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.863					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.008					ND	
124 1,3,5-Trichlorobenzene	180		14.078					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.428					ND	
126 1,2,4-Trichlorobenzene	180		14.690					ND	
127 Hexachlorobutadiene	225		14.866					ND	
128 Naphthalene	128	14.945	14.945	0.000	1	2438		0.3094	
129 1,2,3-Trichlorobenzene	180		15.189					ND	
131 2,4,5-Trichlorotoluene	159		15.961					ND	
130 2,3,6-Trichlorotoluene	159		16.065					ND	
132 2-Methylnaphthalene	142		16.080					ND	
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	
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
150 2,6-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 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

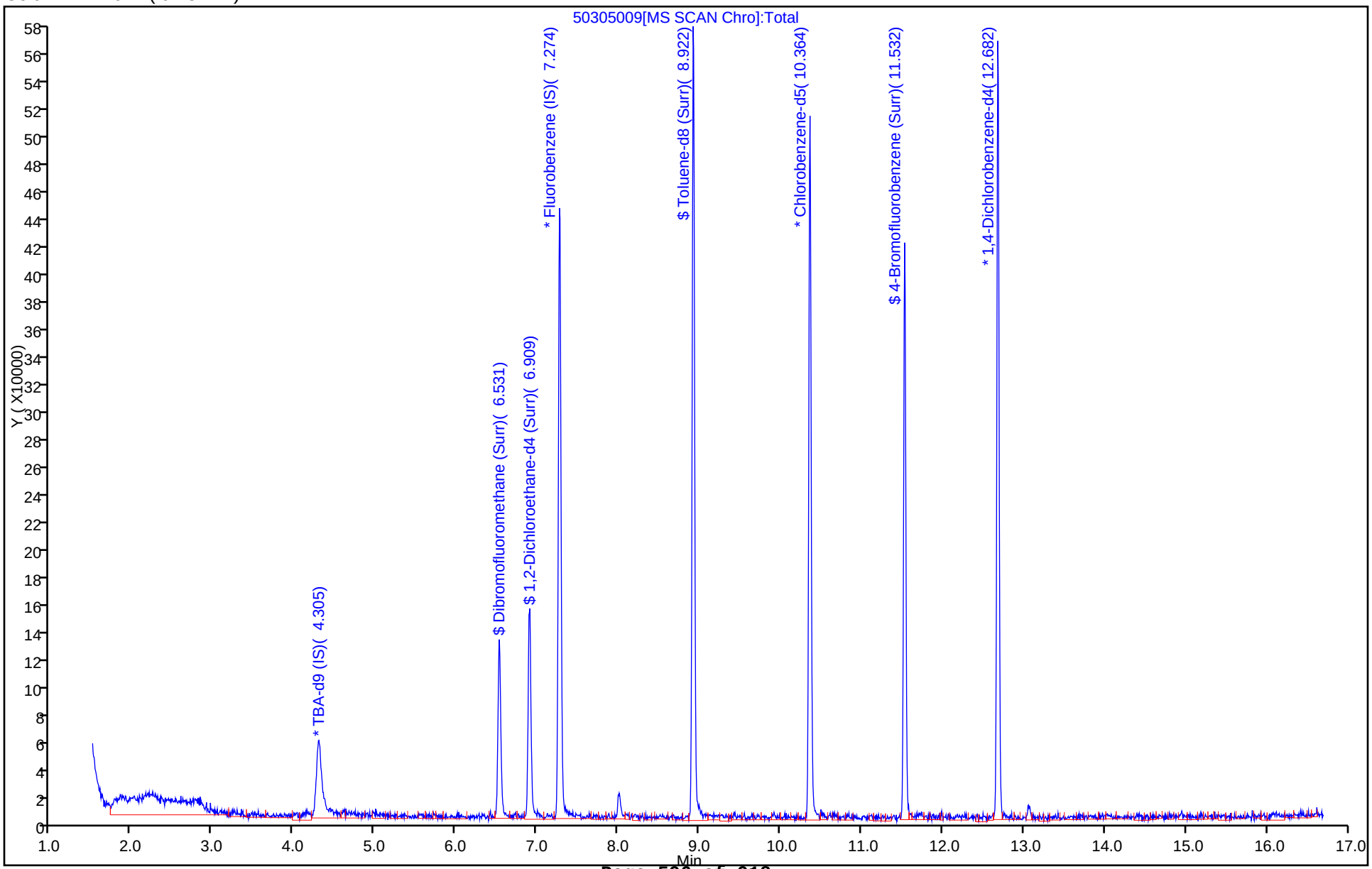
Report Date: 06-Mar-2015 08:09:33 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305009.D

Injection Date:	05-Mar-2015 13:05:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134823/4

Matrix: Water Lab File ID: 60305004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 11:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134823 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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134823/4

Matrix: Water Lab File ID: 60305004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 11:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134823 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305004.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 05-Mar-2015 11:56:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005907-004
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-Mar-2015 16:06:11 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: fergusond Date: 05-Mar-2015 16:06:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.281	-0.019	89	228790	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.323	0.005	98	535833	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.438	-0.001	88	111566	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.792	-0.001	98	185196	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.593	0.005	94	126648	50.0	52.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.969	6.970	-0.001	70	196899	50.0	56.8	
$ 7 Toluene-d8 (Surr)	98	8.977	8.978	-0.001	94	458018	50.0	52.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.630	-0.001	86	170296	50.0	45.5	
11 Dichlorodifluoromethane	85		1.611					ND	
12 Chloromethane	50		1.757					ND	
13 Vinyl chloride	62		1.890					ND	
14 Butadiene	39		1.939					ND	
15 Bromomethane	94		2.237					ND	
16 Chloroethane	64		2.371					ND	
17 Dichlorofluoromethane	67		2.663					ND	
18 Trichlorofluoromethane	101		2.681					ND	
19 Ethanol	45		2.958					ND	
20 Ethyl ether	59		3.071					ND	
21 Acrolein	56		3.247					ND	
22 1,1-Dichloroethene	96		3.363					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.417					ND	
24 Acetone	43		3.454					ND	
25 Iodomethane	142		3.569					ND	
26 Carbon disulfide	76		3.667					ND	
27 Isopropyl alcohol	45		3.724					ND	
28 Acetonitrile	40		3.895					ND	
29 3-Chloro-1-propene	76		3.947					ND	
30 Methyl acetate	43		3.959					ND	
31 Methylene Chloride	84		4.172					ND	
32 2-Methyl-2-propanol	59		4.421					ND	
33 Acrylonitrile	53		4.537					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.604					ND	
35 Methyl tert-butyl ether	73		4.610					ND	
36 Hexane	57		5.023					ND	
37 1,1-Dichloroethane	63		5.236					ND	
38 Vinyl acetate	43		5.273					ND	
40 Isopropyl ether	45		5.336					ND	
39 2-Chloro-1,3-butadiene	53		5.343					ND	
41 Tert-butyl ethyl ether	59		5.811					ND	
44 2-Butanone (MEK)	43		5.979					ND	
42 2,2-Dichloropropane	77		5.979					ND	
43 cis-1,2-Dichloroethene	96		5.985					ND	
45 Propionitrile	54		6.048					ND	
46 Ethyl acetate	43		6.066					ND	
47 Methacrylonitrile	41		6.237					ND	
48 Chlorobromomethane	128		6.271					ND	
49 Tetrahydrofuran	42		6.277					ND	
50 Chloroform	83		6.410					ND	
51 1,1,1-Trichloroethane	97		6.581					ND	
52 Cyclohexane	56		6.660					ND	
53 Carbon tetrachloride	117		6.757					ND	
54 1,1-Dichloropropene	75		6.763					ND	
55 Isobutyl alcohol	41		6.928					ND	
56 Benzene	78		6.976					ND	
57 1,2-Dichloroethane	62		7.061					ND	
58 Tert-amyl methyl ether	73		7.162					ND	
59 n-Heptane	43		7.341					ND	
60 n-Butanol	56		7.648					ND	
61 Trichloroethene	130		7.718					ND	
62 Ethyl acrylate	55		7.831					ND	
63 Methylcyclohexane	83		7.962					ND	
64 1,2-Dichloropropane	63		7.986					ND	
66 Methyl methacrylate	69		8.068					ND	
65 1,4-Dioxane	88		8.071					ND	
67 Dibromomethane	93		8.071					ND	
68 Dichlorobromomethane	83		8.266					ND	
69 2-Nitropropane	41		8.482					ND	
70 2-Chloroethyl vinyl ether	63		8.569					ND	
71 cis-1,3-Dichloropropene	75		8.716					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.856					ND	
73 Toluene	91		9.045					ND	
74 trans-1,3-Dichloropropene	75		9.288					ND	
75 Ethyl methacrylate	69		9.343					ND	
76 1,1,2-Trichloroethane	97		9.489					ND	
77 Tetrachloroethene	164		9.568					ND	
78 1,3-Dichloropropane	76		9.647					ND	
79 2-Hexanone	43		9.689					ND	
80 n-Butyl acetate	43		9.820					ND	
81 Chlorodibromomethane	129		9.866					ND	
82 Ethylene Dibromide	107		9.981					ND	
83 3-Chlorobenzotrifluoride	180		10.432					ND	
84 Chlorobenzene	112		10.468					ND	
85 4-Chlorobenzotrifluoride	180		10.523					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 1,1,1,2-Tetrachloroethane	131		10.559					ND	
87 Ethylbenzene	106		10.565					ND	
88 m-Xylene & p-Xylene	106		10.693					ND	
89 o-Xylene	106		11.076					ND	
90 Styrene	104		11.101					ND	
91 Bromoform	173		11.283					ND	
129 Cyclohexanol	57		11.342					ND	
92 2-Chlorobenzotrifluoride	180		11.344					ND	
93 Isopropylbenzene	105		11.448					ND	
94 Cyclohexanone	55		11.536					ND	
96 1,1,2,2-Tetrachloroethane	83		11.758					ND	
95 Bromobenzene	156		11.764					ND	
97 trans-1,4-Dichloro-2-buten	53		11.794					ND	
98 1,2,3-Trichloropropane	110		11.813					ND	
99 N-Propylbenzene	120		11.867					ND	
100 2-Chlorotoluene	126		11.952					ND	
101 3-Chlorotoluene	126		12.019					ND	
102 1,3,5-Trimethylbenzene	105		12.044					ND	
103 4-Chlorotoluene	126		12.080					ND	
104 tert-Butylbenzene	119		12.366					ND	
105 Pentachloroethane	167		12.399					ND	
106 1,2,4-Trimethylbenzene	105		12.421					ND	
107 1,2-dichloro-4-(trifluorom	214		12.451					ND	
108 sec-Butylbenzene	105		12.585					ND	
109 1,3-Dichlorobenzene	146		12.707					ND	
110 4-Isopropyltoluene	119		12.743					ND	
111 1,4-Dichlorobenzene	146		12.816					ND	
113 2,4-Dichloro-1-(triflourom	214		12.829					ND	
112 1,2,3-Trimethylbenzene	105		12.837					ND	
114 2,5-Dichlorobenzotrifluori	214		12.865					ND	
115 Benzyl chloride	91		12.923					ND	
116 n-Butylbenzene	91		13.151					ND	
117 1,2-Dichlorobenzene	146		13.169					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.960					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.106					ND	
120 1,3,5-Trichlorobenzene	180		14.153					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.520					ND	
122 1,2,4-Trichlorobenzene	180		14.787					ND	
123 Hexachlorobutadiene	225		14.933					ND	
124 Naphthalene	128		15.055					ND	
125 1,2,3-Trichlorobenzene	180		15.280					ND	
126 2,4,5-Trichlorotoluene	159		16.047					ND	
127 2,3,6-Trichlorotoluene	159		16.144					ND	
128 2-Methylnaphthalene	142		16.189					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
148 Isooctane	57		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
145 2,3-Dichlorotoluene	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

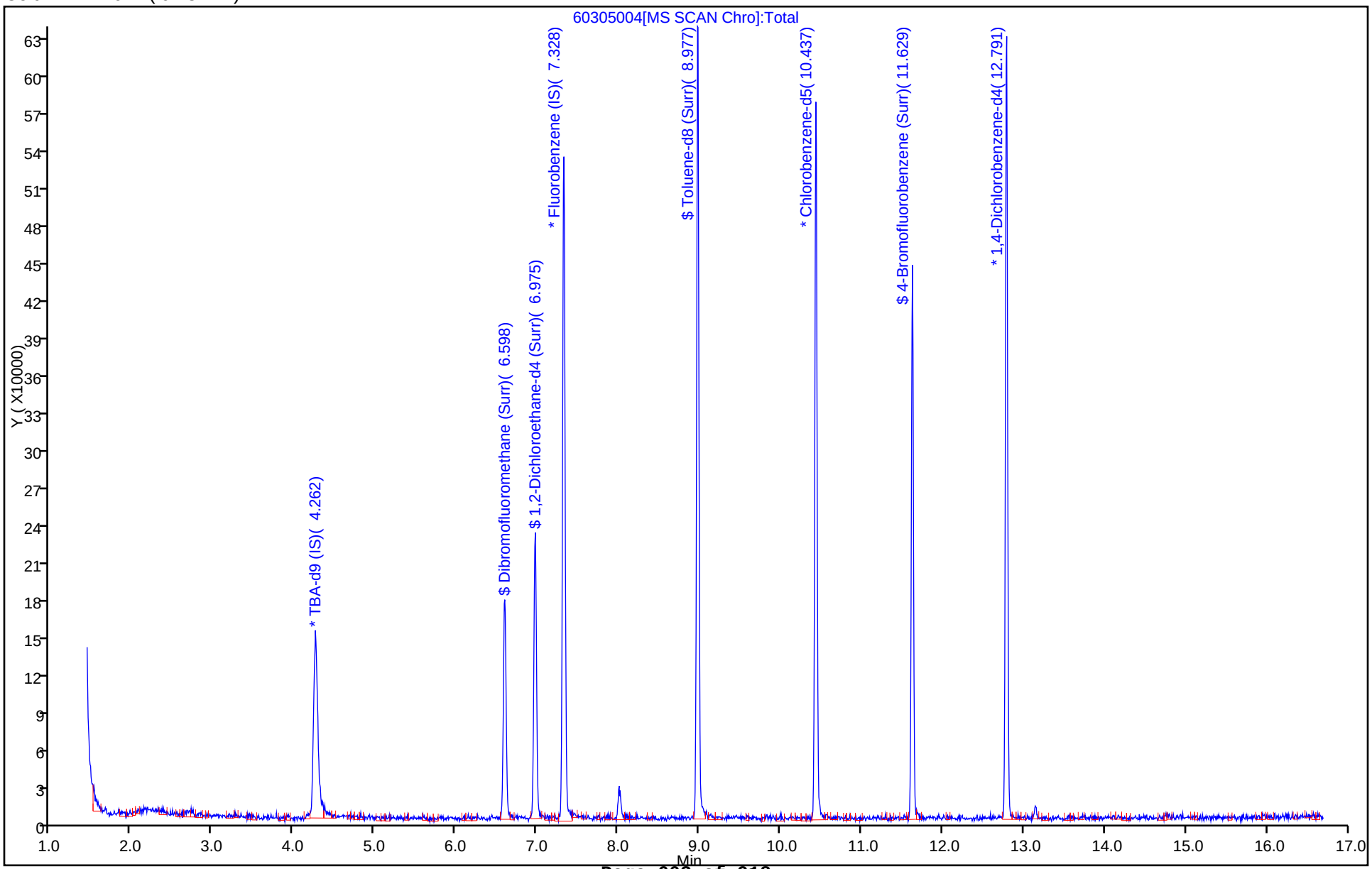
Report Date: 05-Mar-2015 16:06:12 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305004.D

Injection Date:	05-Mar-2015 11:56:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134916/6

Matrix: Water Lab File ID: 50306006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 13:13

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134916/6

Matrix: Water Lab File ID: 50306006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 13:13

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 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)	99		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306006.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 06-Mar-2015 13:13:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005922-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 15:11:43 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 15:11:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.296	4.308	-0.012	89	87938	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	465134	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.361	0.001	99	107771	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.679	0.006	98	167302	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	52	99146	50.0	49.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	98	122297	50.0	49.7	
$ 7 Toluene-d8 (Surr)	98	8.926	8.925	0.001	100	435166	50.0	51.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	97	157917	50.0	50.5	
11 Dichlorodifluoromethane	85		1.613					ND	
12 Chloromethane	50		1.777					ND	
13 Vinyl chloride	62		1.905					ND	
14 Butadiene	39	1.985	1.948	0.037	1	260		0.0625	
15 Bromomethane	94		2.258					ND	
16 Chloroethane	64		2.380					ND	
17 Dichlorofluoromethane	67		2.659					ND	
18 Trichlorofluoromethane	101		2.708					ND	
19 Ethanol	45		3.012					ND	
20 Ethyl ether	59		3.091					ND	
21 Acrolein	56		3.262					ND	
22 1,1-Dichloroethene	96		3.371					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.426					ND	
24 Acetone	43		3.499					ND	
25 Iodomethane	142		3.572					ND	
26 Carbon disulfide	76		3.651					ND	
27 Isopropyl alcohol	45		3.736					ND	
29 Acetonitrile	40		3.943					ND	
28 3-Chloro-1-propene	76		3.949					ND	
30 Methyl acetate	43		4.016					ND	
31 Methylene Chloride	84		4.144					ND	
32 2-Methyl-2-propanol	59		4.436					ND	
33 Acrylonitrile	53		4.545					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.564					ND	
35 Methyl tert-butyl ether	73		4.594					ND	
36 Hexane	57		4.983					ND	
37 1,1-Dichloroethane	63		5.172					ND	
38 Vinyl acetate	43		5.300					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.799					ND	
44 2,2-Dichloropropane	77		5.932					ND	
45 cis-1,2-Dichloroethene	96		5.932					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.987					ND	
48 Ethyl acetate	43		5.993					ND	
47 Propionitrile	54		6.024					ND	
49 Chlorobromomethane	128		6.224					ND	
51 Tetrahydrofuran	42		6.285					ND	
52 Chloroform	83		6.346					ND	
50 Methacrylonitrile	41		6.389					ND	
53 1,1,1-Trichloroethane	97		6.529					ND	
54 Cyclohexane	56		6.583					ND	
56 Carbon tetrachloride	117		6.717					ND	
55 1,1-Dichloropropene	75		6.723					ND	
57 Isobutyl alcohol	41		6.942					ND	
58 Benzene	78		6.954					ND	
59 1,2-Dichloroethane	62		6.985					ND	
61 Tert-amyl methyl ether	73		7.143					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.277					ND	
63 n-Butanol	56		7.654					ND	
64 Trichloroethene	130		7.666					ND	
66 Methylcyclohexane	83		7.861					ND	
65 Ethyl acrylate	55		7.867					ND	
69 Methyl methacrylate	69		7.867					ND	
67 1,2-Dichloropropane	63		7.897					ND	
68 Dibromomethane	93		8.019					ND	
70 1,4-Dioxane	88		8.056					ND	
71 Dichlorobromomethane	83		8.195					ND	
72 2-Nitropropane	41		8.427					ND	
73 2-Chloroethyl vinyl ether	63		8.506					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
76 Toluene	91		8.986					ND	
77 trans-1,3-Dichloropropene	75		9.224					ND	
78 Ethyl methacrylate	69		9.315					ND	
79 1,1,2-Trichloroethane	97		9.400					ND	
80 Tetrachloroethene	164		9.534					ND	
81 1,3-Dichloropropane	76		9.564					ND	
82 2-Hexanone	43		9.662					ND	
83 n-Butyl acetate	43		9.662					ND	
84 Chlorodibromomethane	129		9.789					ND	
85 Ethylene Dibromide	107		9.899					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.373					ND	
87 Chlorobenzene	112		10.392					ND	
88 4-Chlorobenzotrifluoride	180		10.428					ND	
89 1,1,1,2-Tetrachloroethane	131		10.471					ND	
90 Ethylbenzene	106		10.501					ND	
91 m-Xylene & p-Xylene	106		10.617					ND	
92 o-Xylene	106		11.012					ND	
93 Styrene	104		11.024					ND	
94 Bromoform	173		11.213					ND	
96 2-Chlorobenzotrifluoride	180		11.274					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.377					ND	
98 Cyclohexanone	55		11.450					ND	
99 1,1,2,2-Tetrachloroethane	83		11.675					ND	
100 Bromobenzene	156		11.681					ND	
101 1,2,3-Trichloropropane	110		11.718					ND	
102 trans-1,4-Dichloro-2-buten	53		11.724					ND	
103 N-Propylbenzene	120		11.785					ND	
104 2-Chlorotoluene	126		11.876					ND	
105 3-Chlorotoluene	126		11.937					ND	
106 1,3,5-Trimethylbenzene	105		11.961					ND	
107 4-Chlorotoluene	126		11.979					ND	
108 tert-Butylbenzene	119		12.290					ND	
109 Pentachloroethane	167		12.314					ND	
110 1,2,4-Trimethylbenzene	105		12.338					ND	
111 1,2-dichloro-4-(trifluorom	214		12.399					ND	
112 sec-Butylbenzene	105		12.509					ND	
113 1,3-Dichlorobenzene	146		12.618					ND	
114 4-Isopropyltoluene	119		12.655					ND	
119 Benzyl chloride	91		12.655					ND	
115 1,4-Dichlorobenzene	146		12.709					ND	
116 2,4-Dichloro-1-(triflourom	214		12.758					ND	
117 1,2,3-Trimethylbenzene	105		12.758					ND	
118 2,5-Dichlorobenzotrifluori	214		12.813					ND	
120 n-Butylbenzene	91		13.062					ND	
121 1,2-Dichlorobenzene	146		13.080					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.859					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.005					ND	
124 1,3,5-Trichlorobenzene	180		14.078					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.425					ND	
126 1,2,4-Trichlorobenzene	180		14.686					ND	
127 Hexachlorobutadiene	225		14.863					ND	
128 Naphthalene	128	14.930	14.942	-0.012	1	2033		0.2652	
129 1,2,3-Trichlorobenzene	180		15.191					ND	
131 2,4,5-Trichlorotoluene	159		15.964					ND	
130 2,3,6-Trichlorotoluene	159		16.061					ND	
132 2-Methylnaphthalene	142		16.080					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-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
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 153 1,2 Epoxybutane TIC	42		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	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

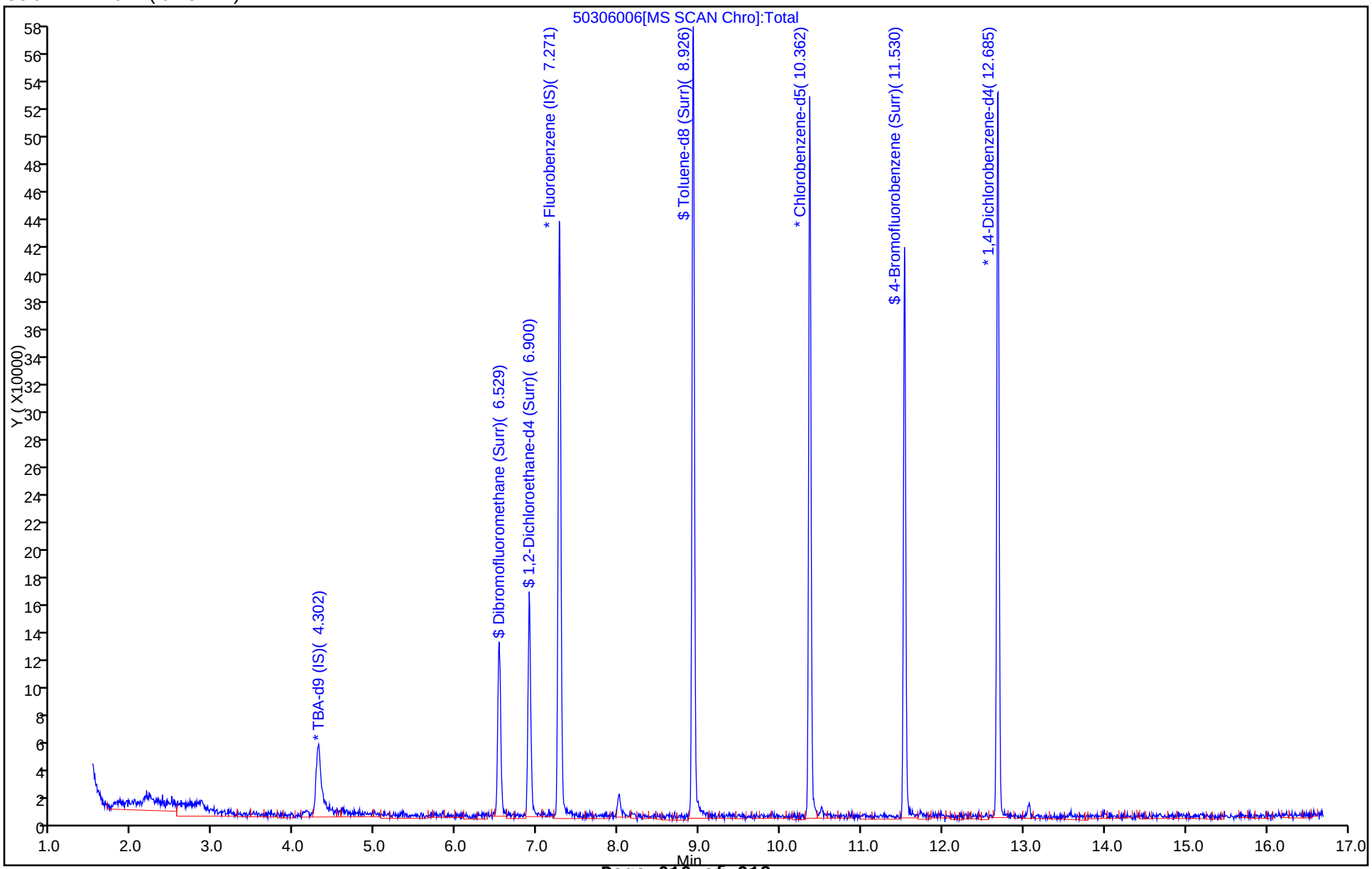
Report Date: 06-Mar-2015 15:12:00 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306006.D

Injection Date:	06-Mar-2015 13:13:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-135049/4

Matrix: Water Lab File ID: 50309004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 12:47

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.: 135049 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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-135049/4

Matrix: Water Lab File ID: 50309004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 12:47

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.: 135049 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309004.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 09-Mar-2015 12:47:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005947-004
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 15:52:39 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 15:52:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.303	4.327	-0.024	88	107819	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	424671	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.362	0.006	100	96438	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	157080	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.536	6.529	0.007	52	93146	50.0	51.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.906	0.001	100	109987	50.0	48.9	
$ 7 Toluene-d8 (Surr)	98	8.927	8.926	0.001	100	384366	50.0	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.530	0.006	97	147011	50.0	52.6	
11 Dichlorodifluoromethane	85		1.620					ND	
12 Chloromethane	50		1.778					ND	
13 Vinyl chloride	62		1.912					ND	
14 Butadiene	39		1.954					ND	
15 Bromomethane	94		2.252					ND	
16 Chloroethane	64		2.386					ND	
17 Dichlorofluoromethane	67		2.660					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		3.012					ND	
20 Ethyl ether	59		3.086					ND	
21 Acrolein	56		3.256					ND	
22 1,1-Dichloroethene	96		3.384					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.445					ND	
24 Acetone	43	3.512	3.499	0.013	59	2424		2.72	
25 Iodomethane	142		3.579					ND	
26 Carbon disulfide	76		3.658					ND	
27 Isopropyl alcohol	45		3.736					ND	
29 Acetonitrile	40		3.943					ND	
28 3-Chloro-1-propene	76		3.944					ND	
30 Methyl acetate	43		4.023					ND	
31 Methylene Chloride	84		4.150					ND	
32 2-Methyl-2-propanol	59		4.436					ND	
33 Acrylonitrile	53		4.552					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558					ND	
35 Methyl tert-butyl ether	73		4.601					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.172					ND	
38 Vinyl acetate	43		5.294					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.799					ND	
44 2,2-Dichloropropane	77		5.933					ND	
45 cis-1,2-Dichloroethene	96		5.939					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.988					ND	
48 Ethyl acetate	43		5.993					ND	
47 Propionitrile	54		6.024					ND	
49 Chlorobromomethane	128		6.231					ND	
51 Tetrahydrofuran	42		6.292					ND	
52 Chloroform	83		6.340					ND	
50 Methacrylonitrile	41		6.389					ND	
53 1,1,1-Trichloroethane	97		6.529					ND	
54 Cyclohexane	56		6.590					ND	
56 Carbon tetrachloride	117		6.718					ND	
55 1,1-Dichloropropene	75		6.724					ND	
57 Isobutyl alcohol	41		6.949					ND	
58 Benzene	78		6.955					ND	
59 1,2-Dichloroethane	62		6.985					ND	
61 Tert-amyl methyl ether	73		7.143					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.283					ND	
63 n-Butanol	56		7.654					ND	
64 Trichloroethene	130		7.667					ND	
66 Methylcyclohexane	83		7.861					ND	
65 Ethyl acrylate	55		7.867					ND	
69 Methyl methacrylate	69		7.867					ND	
67 1,2-Dichloropropane	63		7.904					ND	
68 Dibromomethane	93		8.026					ND	
70 1,4-Dioxane	88		8.062					ND	
71 Dichlorobromomethane	83		8.202					ND	
72 2-Nitropropane	41		8.427					ND	
73 2-Chloroethyl vinyl ether	63		8.506					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
76 Toluene	91		8.993					ND	
77 trans-1,3-Dichloropropene	75		9.224					ND	
78 Ethyl methacrylate	69		9.321					ND	
79 1,1,2-Trichloroethane	97		9.400					ND	
80 Tetrachloroethene	164		9.540					ND	
81 1,3-Dichloropropane	76		9.565					ND	
82 2-Hexanone	43		9.656					ND	
83 n-Butyl acetate	43		9.662					ND	
84 Chlorodibromomethane	129		9.790					ND	
85 Ethylene Dibromide	107		9.899					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.374					ND	
87 Chlorobenzene	112		10.392					ND	
88 4-Chlorobenzotrifluoride	180		10.429					ND	
89 1,1,1,2-Tetrachloroethane	131		10.477					ND	
90 Ethylbenzene	106		10.502					ND	
91 m-Xylene & p-Xylene	106		10.617					ND	
92 o-Xylene	106		11.013					ND	
93 Styrene	104		11.025					ND	
94 Bromoform	173		11.207					ND	
96 2-Chlorobenzotrifluoride	180		11.274					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.378					ND	
98 Cyclohexanone	55		11.450					ND	
99 1,1,2,2-Tetrachloroethane	83		11.676					ND	
100 Bromobenzene	156		11.682					ND	
101 1,2,3-Trichloropropane	110		11.718					ND	
102 trans-1,4-Dichloro-2-buten	53		11.736					ND	
103 N-Propylbenzene	120		11.791					ND	
104 2-Chlorotoluene	126		11.876					ND	
105 3-Chlorotoluene	126		11.937					ND	
106 1,3,5-Trimethylbenzene	105		11.962					ND	
107 4-Chlorotoluene	126		11.980					ND	
108 tert-Butylbenzene	119		12.290					ND	
109 Pentachloroethane	167		12.314					ND	
110 1,2,4-Trimethylbenzene	105		12.339					ND	
111 1,2-dichloro-4-(trifluorom	214		12.406					ND	
112 sec-Butylbenzene	105		12.509					ND	
113 1,3-Dichlorobenzene	146		12.619					ND	
119 Benzyl chloride	91		12.655					ND	
114 4-Isopropyltoluene	119		12.655					ND	
115 1,4-Dichlorobenzene	146		12.710					ND	
117 1,2,3-Trimethylbenzene	105		12.758					ND	
116 2,4-Dichloro-1-(triflourom	214		12.758					ND	
118 2,5-Dichlorobenzotrifluori	214		12.807					ND	
120 n-Butylbenzene	91		13.063					ND	
121 1,2-Dichlorobenzene	146		13.081					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.866					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.012					ND	
124 1,3,5-Trichlorobenzene	180		14.078					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.431					ND	
126 1,2,4-Trichlorobenzene	180		14.693					ND	
127 Hexachlorobutadiene	225		14.863					ND	
128 Naphthalene	128		14.942					ND	
129 1,2,3-Trichlorobenzene	180		15.192					ND	
131 2,4,5-Trichlorotoluene	159		15.964					ND	
130 2,3,6-Trichlorotoluene	159		16.062					ND	
132 2-Methylnaphthalene	142		16.080					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-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
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 153 1,2 Epoxybutane TIC	42		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	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

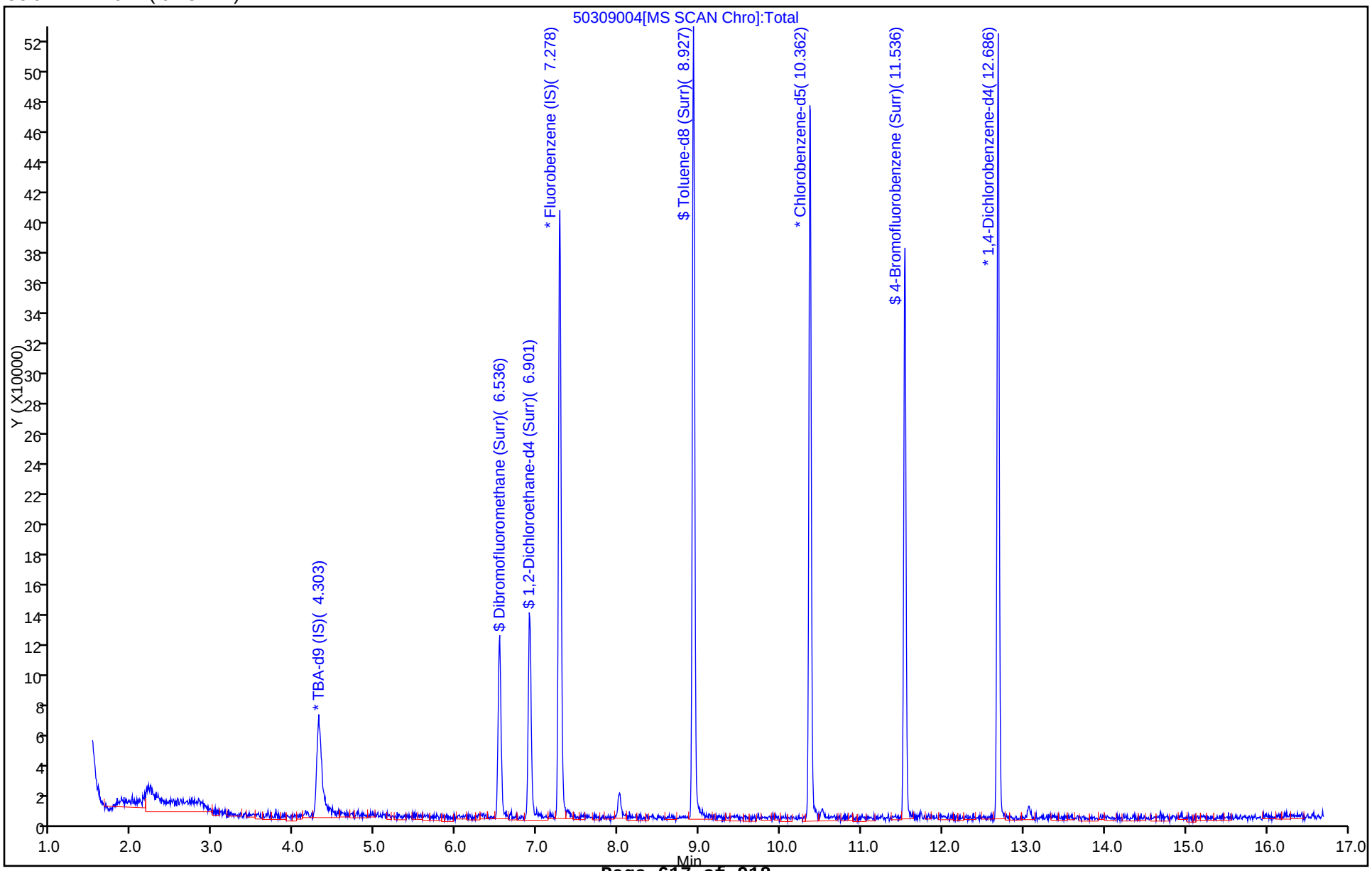
Report Date: 09-Mar-2015 15:52:58 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309004.D

Injection Date:	09-Mar-2015 12:47:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-134814/12

Matrix: Water | Lab File ID: 50305012.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/05/2015 14:47

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.: 134814 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.78		1.0	0.28
75-01-4	Vinyl chloride	9.77		1.0	0.23
74-83-9	Bromomethane	11.6		1.0	0.31
75-00-3	Chloroethane	11.8		1.0	0.21
75-35-4	1,1-Dichloroethene	9.64		1.0	0.30
67-64-1	Acetone	19.7		5.0	2.5
75-15-0	Carbon disulfide	8.05		1.0	0.21
75-09-2	Methylene Chloride	9.31		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.97		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.34		1.0	0.18
75-34-3	1,1-Dichloroethane	9.56		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.79		1.0	0.24
74-97-5	Bromochloromethane	9.73		1.0	0.18
78-93-3	2-Butanone (MEK)	19.3		5.0	0.55
67-66-3	Chloroform	9.95		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.77		1.0	0.29
56-23-5	Carbon tetrachloride	9.37		1.0	0.14
71-43-2	Benzene	10.1		1.0	0.11
107-06-2	1,2-Dichloroethane	9.46		1.0	0.21
79-01-6	Trichloroethene	10.5		1.0	0.14
78-87-5	1,2-Dichloropropane	9.25		1.0	0.095
75-27-4	Bromodichloromethane	9.35		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.58		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.7		5.0	0.53
108-88-3	Toluene	10.9		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.19		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.97		1.0	0.20
127-18-4	Tetrachloroethene	11.5		1.0	0.15
591-78-6	2-Hexanone	16.2		5.0	0.16
124-48-1	Dibromochloromethane	9.49		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.91		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.28		1.0	0.28
100-41-4	Ethylbenzene	10.9		1.0	0.23
1330-20-7	Xylenes, Total	20.9		3.0	0.49
100-42-5	Styrene	10.2		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-134814/12

Matrix: Water Lab File ID: 50305012.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 14:47

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.: 134814 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.07		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.1		1.0	0.20
107-13-1	Acrylonitrile	95.8		20	0.55
123-91-1	1,4-Dioxane	165	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)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	94		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305012.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 05-Mar-2015 14:47:30 ALS Bottle#: 8 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005905-012
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:12:45 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:13:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.292	4.299	-0.007	93	103201	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.274	-0.001	99	447357	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.365	0.000	99	102383	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.682	-0.001	97	140823	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.532	-0.007	96	90466	50.0	47.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.897	0.005	99	114000	50.0	48.2	
$ 7 Toluene-d8 (Surr)	98	8.928	8.923	0.005	100	414745	50.0	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.533	-0.001	98	140776	50.0	47.4	
11 Dichlorodifluoromethane	85	1.622	1.616	0.006	100	123177	50.0	54.8	
12 Chloromethane	50	1.780	1.775	0.005	99	175755	50.0	48.9	
13 Vinyl chloride	62	1.902	1.902	0.000	99	168724	50.0	48.9	
14 Butadiene	39	1.950	1.939	0.011	100	202122	50.0	50.5	
15 Bromomethane	94	2.254	2.249	0.005	91	59619	50.0	57.9	
16 Chloroethane	64	2.388	2.383	0.005	99	83041	50.0	59.1	
17 Dichlorofluoromethane	67	2.656	2.651	0.005	99	191845	50.0	59.6	
18 Trichlorofluoromethane	101	2.705	2.705	0.000	95	164463	50.0	61.2	
20 Ethyl ether	59	3.088	3.083	0.005	98	125545	50.0	48.4	
21 Acrolein	56	3.252	3.265	-0.013	98	50028	150.0	146.0	
22 1,1-Dichloroethene	96	3.380	3.375	0.005	97	125553	50.0	48.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.435	3.423	0.012	96	126054	50.0	47.9	
24 Acetone	43	3.495	3.496	-0.001	99	92714	100.0	98.7	
25 Iodomethane	142	3.568	3.581	-0.013	97	189004	50.0	51.6	
26 Carbon disulfide	76	3.654	3.661	-0.007	100	258001	50.0	40.2	
28 3-Chloro-1-propene	76	3.939	3.934	0.005	98	64701	50.0	39.8	
30 Methyl acetate	43	4.019	4.013	0.006	100	561154	250.0	217.2	
31 Methylene Chloride	84	4.146	4.141	0.005	100	135803	50.0	46.5	
32 2-Methyl-2-propanol	59	4.426	4.421	0.005	90	58935	500.0	476.5	
33 Acrylonitrile	53	4.542	4.549	-0.007	98	613889	500.0	479.2	
34 trans-1,2-Dichloroethene	96	4.566	4.561	0.005	94	135796	50.0	49.9	
35 Methyl tert-butyl ether	73	4.596	4.597	-0.001	98	283807	50.0	41.7	
36 Hexane	57	4.986	4.981	0.005	98	243388	50.0	50.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.174	5.169	0.005	100	248046	50.0	47.8	
38 Vinyl acetate	43	5.296	5.297	-0.001	100	66289	50.0	37.4	
44 2,2-Dichloropropane	77	5.929	5.924	0.005	60	57187	50.0	29.8	
45 cis-1,2-Dichloroethene	96	5.935	5.942	-0.007	92	142516	50.0	48.9	
46 2-Butanone (MEK)	43	5.984	5.984	0.000	100	147653	100.0	96.4	
49 Chlorobromomethane	128	6.227	6.222	0.005	99	59046	50.0	48.6	
51 Tetrahydrofuran	42	6.282	6.289	-0.007	99	102897	100.0	94.5	
52 Chloroform	83	6.336	6.337	-0.001	96	205914	50.0	49.8	
53 1,1,1-Trichloroethane	97	6.531	6.532	-0.001	97	123180	50.0	43.8	
54 Cyclohexane	56	6.586	6.587	-0.001	99	308752	50.0	49.0	
56 Carbon tetrachloride	117	6.714	6.714	0.000	92	89325	50.0	46.9	
55 1,1-Dichloropropene	75	6.720	6.721	0.000	97	192141	50.0	53.6	
57 Isobutyl alcohol	41	6.933	6.940	-0.007	42	48215	1250.0	785.2	
58 Benzene	78	6.957	6.952	0.005	99	569635	50.0	50.4	
59 1,2-Dichloroethane	62	6.981	6.982	-0.001	99	154453	50.0	47.3	
62 n-Heptane	43	7.279	7.280	-0.001	84	218502	50.0	49.7	
64 Trichloroethene	130	7.669	7.663	0.006	99	139718	50.0	52.5	
66 Methylcyclohexane	83	7.863	7.858	0.005	99	252237	50.0	50.2	
67 1,2-Dichloropropane	63	7.906	7.901	0.005	96	137326	50.0	46.3	
68 Dibromomethane	93	8.021	8.022	-0.001	99	66432	50.0	49.6	
70 1,4-Dioxane	88	8.058	8.059	-0.001	95	21815	1000.0	824.7	
71 Dichlorobromomethane	83	8.198	8.193	0.005	100	116790	50.0	46.7	
74 cis-1,3-Dichloropropene	75	8.654	8.661	-0.007	99	125431	50.0	37.9	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.825	-0.001	99	273371	100.0	88.4	
76 Toluene	91	8.989	8.990	-0.001	100	575386	50.0	54.4	
77 trans-1,3-Dichloropropene	75	9.220	9.221	-0.001	98	80083	50.0	35.9	
78 Ethyl methacrylate	69	9.317	9.318	-0.001	99	88364	50.0	35.3	
79 1,1,2-Trichloroethane	97	9.402	9.397	0.005	99	96283	50.0	49.9	
80 Tetrachloroethene	164	9.536	9.537	-0.001	98	112403	50.0	57.6	
81 1,3-Dichloropropane	76	9.567	9.568	-0.001	99	183366	50.0	50.5	
82 2-Hexanone	43	9.658	9.659	-0.001	100	174260	100.0	80.8	
84 Chlorodibromomethane	129	9.786	9.793	-0.007	99	60243	50.0	47.5	
85 Ethylene Dibromide	107	9.901	9.902	-0.001	100	92113	50.0	49.5	
86 3-Chlorobenzotrifluoride	180	10.370	10.371	-0.001	95	212342	50.0	65.5	
87 Chlorobenzene	112	10.394	10.395	-0.001	99	356071	50.0	52.6	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	99	202795	50.0	65.5	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.474	-0.001	94	72448	50.0	46.4	
90 Ethylbenzene	106	10.504	10.498	0.006	100	213806	50.0	54.6	
91 m-Xylene & p-Xylene	106	10.619	10.620	-0.001	100	257070	50.0	53.3	
92 o-Xylene	106	11.015	11.009	0.006	96	239699	50.0	51.2	
93 Styrene	104	11.027	11.028	-0.001	99	391006	50.0	51.1	
94 Bromoform	173	11.209	11.216	-0.007	98	30426	50.0	45.4	
96 2-Chlorobenzotrifluoride	180	11.276	11.271	0.005	99	207893	50.0	64.7	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	636733	50.0	55.4	
99 1,1,2,2-Tetrachloroethane	83	11.678	11.679	-0.001	97	134580	50.0	50.3	
100 Bromobenzene	156	11.684	11.685	-0.001	98	133071	50.0	54.1	
101 1,2,3-Trichloropropane	110	11.720	11.721	-0.001	95	41203	50.0	50.0	
102 trans-1,4-Dichloro-2-buten	53	11.732	11.733	-0.001	86	35272	50.0	44.0	
103 N-Propylbenzene	120	11.787	11.788	-0.001	100	180491	50.0	55.2	
104 2-Chlorotoluene	126	11.878	11.873	0.005	100	139907	50.0	51.8	
105 3-Chlorotoluene	126	11.933	11.934	-0.001	100	168306	50.0	61.0	
106 1,3,5-Trimethylbenzene	105	11.964	11.964	0.000	100	501864	50.0	55.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.982	11.983	-0.001	99	158319	50.0	54.4	
108 tert-Butylbenzene	119	12.292	12.287	0.005	99	425070	50.0	54.5	
110 1,2,4-Trimethylbenzene	105	12.335	12.336	-0.001	100	493141	50.0	52.8	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	98	143711	50.0	68.2	
112 sec-Butylbenzene	105	12.505	12.506	-0.001	100	617785	50.0	55.0	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	99	250362	50.0	51.5	
114 4-Isopropyltoluene	119	12.651	12.652	-0.001	100	490585	50.0	53.3	
115 1,4-Dichlorobenzene	146	12.706	12.707	-0.001	98	256008	50.0	52.3	
116 2,4-Dichloro-1-(triflourom	214	12.760	12.761	-0.001	95	131834	50.0	65.8	
118 2,5-Dichlorobenzotrifluori	214	12.803	12.810	-0.007	98	143542	50.0	65.7	
120 n-Butylbenzene	91	13.065	13.059	0.006	99	427571	50.0	52.2	
121 1,2-Dichlorobenzene	146	13.083	13.084	-0.001	99	223949	50.0	50.4	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.863	0.000	95	10818	50.0	36.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	100	519613	150.0	171.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.427	14.428	-0.001	99	321766	100.0	107.2	
126 1,2,4-Trichlorobenzene	180	14.695	14.690	0.005	98	95639	50.0	43.0	
127 Hexachlorobutadiene	225	14.859	14.866	-0.007	96	47188	50.0	49.7	
128 Naphthalene	128	14.938	14.945	-0.007	100	266184	50.0	41.2	
129 1,2,3-Trichlorobenzene	180	15.188	15.189	-0.001	97	75035	50.0	39.3	
131 2,4,5-Trichlorotoluene	159	15.966	15.961	0.005	96	42439	50.0	44.0	
130 2,3,6-Trichlorotoluene	159	16.064	16.065	-0.001	97	38490	50.0	43.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.8	
S 133 Xylenes, Total	106				0		100.0	104.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	73.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
voaWket2 Rest_00001	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

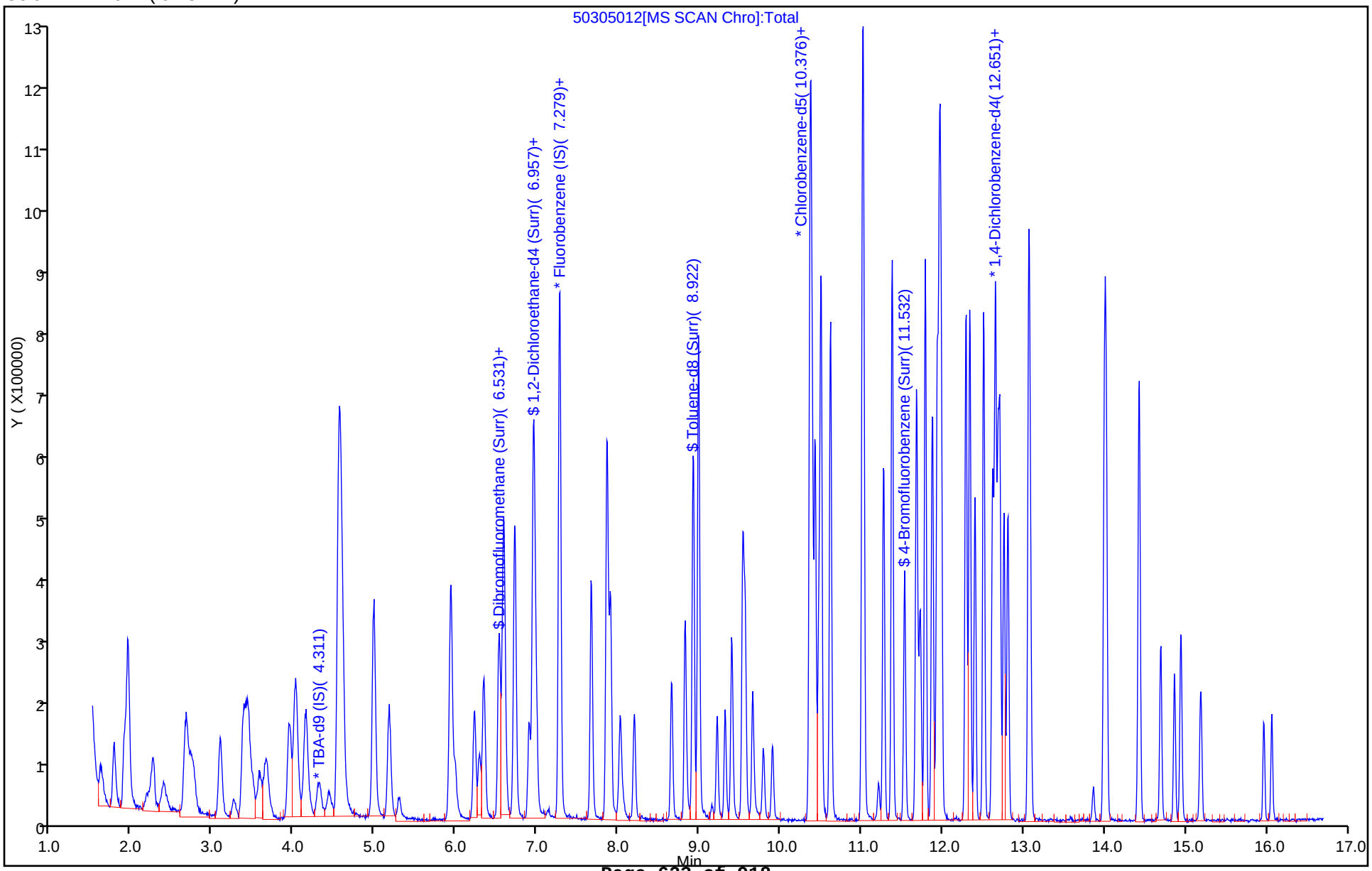
Report Date: 06-Mar-2015 08:13:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305012.D

Injection Date:	05-Mar-2015 14:47:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-134823/6

Matrix: Water | Lab File ID: 60305006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/05/2015 13:01

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 134823 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.71		1.0	0.28
75-01-4	Vinyl chloride	8.46		1.0	0.23
74-83-9	Bromomethane	8.33		1.0	0.31
75-00-3	Chloroethane	8.74		1.0	0.21
75-35-4	1,1-Dichloroethene	8.66		1.0	0.30
67-64-1	Acetone	14.7		5.0	2.5
75-15-0	Carbon disulfide	7.25		1.0	0.21
75-09-2	Methylene Chloride	7.73		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.64		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.09		1.0	0.18
75-34-3	1,1-Dichloroethane	8.28		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.88		1.0	0.24
74-97-5	Bromochloromethane	10.1		1.0	0.18
78-93-3	2-Butanone (MEK)	14.4		5.0	0.55
67-66-3	Chloroform	8.67		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.12		1.0	0.29
56-23-5	Carbon tetrachloride	8.69		1.0	0.14
71-43-2	Benzene	9.75		1.0	0.11
107-06-2	1,2-Dichloroethane	9.78		1.0	0.21
79-01-6	Trichloroethene	9.37		1.0	0.14
78-87-5	1,2-Dichloropropane	8.56		1.0	0.095
75-27-4	Bromodichloromethane	8.29		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.63		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.1		5.0	0.53
108-88-3	Toluene	11.1		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.15		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.1		1.0	0.20
127-18-4	Tetrachloroethene	11.9		1.0	0.15
591-78-6	2-Hexanone	18.8		5.0	0.16
124-48-1	Dibromochloromethane	10.6		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.1		1.0	0.18
108-90-7	Chlorobenzene	10.7		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.82		1.0	0.28
100-41-4	Ethylbenzene	10.4		1.0	0.23
1330-20-7	Xylenes, Total	20.2		3.0	0.49
100-42-5	Styrene	10.5		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-134823/6

Matrix: Water Lab File ID: 60305006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 13:01

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134823 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.5		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.8		1.0	0.20
107-13-1	Acrylonitrile	121		20	0.55
123-91-1	1,4-Dioxane	268		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305006.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 05-Mar-2015 13:01:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005907-006
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-Mar-2015 16:07:46 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: fergusond Date: 05-Mar-2015 16:08:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.281	0.000	89	197709	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.323	0.005	97	487625	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.438	-0.001	89	94755	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.792	-0.001	96	180067	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.593	0.005	93	109026	50.0	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.976	6.970	0.006	50	163150	50.0	51.7	
$ 7 Toluene-d8 (Surr)	98	8.977	8.978	-0.001	94	395484	50.0	53.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	90	151967	50.0	47.8	
11 Dichlorodifluoromethane	85	1.610	1.611	-0.001	99	124938	50.0	48.3	
12 Chloromethane	50	1.762	1.757	0.005	99	153294	50.0	38.6	
13 Vinyl chloride	62	1.890	1.890	0.000	98	148970	50.0	42.3	
14 Butadiene	39	1.939	1.939	0.000	89	143737	50.0	38.2	
15 Bromomethane	94	2.237	2.237	0.000	93	58851	50.0	41.6	
16 Chloroethane	64	2.377	2.371	0.006	99	94343	50.0	43.7	
17 Dichlorofluoromethane	67	2.656	2.663	-0.007	97	225746	50.0	43.9	
18 Trichlorofluoromethane	101	2.693	2.681	0.012	95	181568	50.0	45.1	
20 Ethyl ether	59	3.070	3.071	-0.001	92	150120	50.0	48.9	
21 Acrolein	56	3.253	3.247	0.006	97	35854	150.0	73.5	
22 1,1-Dichloroethene	96	3.368	3.363	0.005	96	118529	50.0	43.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.417	0.012	94	129060	50.0	46.6	
24 Acetone	43	3.447	3.454	-0.007	99	63188	100.0	73.3	
25 Iodomethane	142	3.575	3.569	0.006	99	186720	50.0	46.0	
26 Carbon disulfide	76	3.678	3.667	0.011	99	293798	50.0	36.2	
29 3-Chloro-1-propene	76	3.958	3.947	0.011	54	66010	50.0	37.1	
30 Methyl acetate	43	3.964	3.959	0.005	97	668727	250.0	316.8	
31 Methylene Chloride	84	4.171	4.172	-0.001	97	154661	50.0	38.6	
32 2-Methyl-2-propanol	59	4.408	4.421	-0.013	93	116943	500.0	523.4	
33 Acrylonitrile	53	4.536	4.537	-0.001	100	663352	500.0	602.6	
34 trans-1,2-Dichloroethene	96	4.609	4.604	0.005	70	142328	50.0	43.2	
35 Methyl tert-butyl ether	73	4.609	4.610	-0.001	97	393779	50.0	45.4	
36 Hexane	57	5.023	5.023	0.000	92	200425	50.0	42.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.236	5.236	0.000	96	263942	50.0	41.4	
38 Vinyl acetate	43	5.278	5.273	0.005	97	109235	50.0	32.9	
44 2-Butanone (MEK)	43	5.984	5.979	0.005	46	79777	100.0	72.1	
42 2,2-Dichloropropane	77	5.984	5.979	0.005	57	113115	50.0	31.3	
43 cis-1,2-Dichloroethene	96	5.978	5.985	-0.007	83	155136	50.0	44.4	
48 Chlorobromomethane	128	6.276	6.271	0.005	95	70603	50.0	50.7	
49 Tetrahydrofuran	42	6.282	6.277	0.005	87	83614	100.0	105.2	
50 Chloroform	83	6.416	6.410	0.006	93	238003	50.0	43.4	
51 1,1,1-Trichloroethane	97	6.580	6.581	-0.001	96	169716	50.0	40.6	
52 Cyclohexane	56	6.659	6.660	-0.001	94	270281	50.0	40.1	
53 Carbon tetrachloride	117	6.763	6.757	0.006	73	142253	50.0	43.5	
54 1,1-Dichloropropene	75	6.763	6.763	0.000	93	189886	50.0	45.5	
55 Isobutyl alcohol	41	6.933	6.928	0.005	93	97426	1250.0	1501.9	
56 Benzene	78	6.982	6.976	0.006	96	590192	50.0	48.7	
57 1,2-Dichloroethane	62	7.061	7.061	0.000	96	194362	50.0	48.9	
59 n-Heptane	43	7.347	7.341	0.006	94	140652	50.0	36.5	
61 Trichloroethene	130	7.718	7.718	0.000	97	129238	50.0	46.9	
63 Methylcyclohexane	83	7.961	7.962	-0.001	94	213566	50.0	39.3	
64 1,2-Dichloropropane	63	7.992	7.986	0.006	95	137178	50.0	42.8	
65 1,4-Dioxane	88	8.071	8.071	0.000	39	26828	1000.0	1338.6	M
67 Dibromomethane	93	8.083	8.071	0.012	95	78875	50.0	55.1	
68 Dichlorobromomethane	83	8.271	8.266	0.005	98	139158	50.0	41.4	
71 cis-1,3-Dichloropropene	75	8.716	8.716	0.000	93	146962	50.0	38.1	
72 4-Methyl-2-pentanone (MIBK	43	8.855	8.856	-0.001	97	193757	100.0	90.6	
73 Toluene	91	9.050	9.045	0.005	99	539199	50.0	55.7	
74 trans-1,3-Dichloropropene	75	9.293	9.288	0.005	96	121587	50.0	45.8	
75 Ethyl methacrylate	69	9.342	9.343	-0.001	90	129960	50.0	53.2	
76 1,1,2-Trichloroethane	97	9.494	9.489	0.005	94	97789	50.0	55.6	
77 Tetrachloroethene	164	9.567	9.568	-0.001	97	103236	50.0	59.7	
78 1,3-Dichloropropane	76	9.652	9.647	0.005	92	185508	50.0	56.7	
79 2-Hexanone	43	9.689	9.689	0.000	96	114537	100.0	93.9	
81 Chlorodibromomethane	129	9.871	9.866	0.005	90	78861	50.0	52.8	
82 Ethylene Dibromide	107	9.987	9.981	0.006	99	88506	50.0	55.3	
83 3-Chlorobenzotrifluoride	180	10.431	10.432	-0.001	93	177030	50.0	52.5	
84 Chlorobenzene	112	10.468	10.468	0.000	92	322920	50.0	53.4	
85 4-Chlorobenzotrifluoride	180	10.522	10.523	-0.001	95	160260	50.0	51.1	
86 1,1,1,2-Tetrachloroethane	131	10.565	10.559	0.006	90	102316	50.0	49.1	
87 Ethylbenzene	106	10.565	10.565	0.000	99	188055	50.0	51.8	
88 m-Xylene & p-Xylene	106	10.699	10.693	0.006	100	226747	50.0	50.6	
89 o-Xylene	106	11.082	11.076	0.006	97	233008	50.0	50.6	
90 Styrene	104	11.100	11.101	-0.001	94	355893	50.0	52.5	
91 Bromoform	173	11.289	11.283	0.006	95	46112	50.0	57.7	
92 2-Chlorobenzotrifluoride	180	11.337	11.344	-0.007	96	183775	50.0	52.3	
93 Isopropylbenzene	105	11.447	11.448	-0.001	96	602827	50.0	53.1	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.758	-0.001	96	140086	50.0	59.2	
95 Bromobenzene	156	11.763	11.764	-0.001	97	132198	50.0	41.9	
97 trans-1,4-Dichloro-2-buten	53	11.788	11.794	-0.006	70	38337	50.0	43.3	
98 1,2,3-Trichloropropane	110	11.812	11.813	-0.001	84	47675	50.0	51.7	
99 N-Propylbenzene	120	11.867	11.867	0.000	99	150031	50.0	39.8	
100 2-Chlorotoluene	126	11.952	11.952	0.000	95	140755	50.0	42.4	
101 3-Chlorotoluene	126	12.019	12.019	0.000	96	133230	50.0	38.4	
102 1,3,5-Trimethylbenzene	105	12.049	12.044	0.005	94	535584	50.0	44.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.074	12.080	-0.006	99	138946	50.0	40.8	
104 tert-Butylbenzene	119	12.366	12.366	0.000	92	381861	50.0	40.5	
106 1,2,4-Trimethylbenzene	105	12.420	12.421	-0.001	97	536514	50.0	42.8	
107 1,2-dichloro-4-(trifluorom	214	12.457	12.451	0.006	98	148858	50.0	42.5	
108 sec-Butylbenzene	105	12.585	12.585	0.000	95	620067	50.0	42.6	
109 1,3-Dichlorobenzene	146	12.712	12.707	0.005	96	278550	50.0	45.1	
110 4-Isopropyltoluene	119	12.743	12.743	0.000	95	482294	50.0	40.8	
111 1,4-Dichlorobenzene	146	12.816	12.816	0.000	92	287622	50.0	45.0	
113 2,4-Dichloro-1-(triflourom	214	12.828	12.829	-0.001	97	143302	50.0	40.8	
114 2,5-Dichlorobenzotrifluori	214	12.871	12.865	0.006	97	171096	50.0	44.2	
116 n-Butylbenzene	91	13.150	13.151	-0.001	97	469381	50.0	41.3	
117 1,2-Dichlorobenzene	146	13.169	13.169	0.000	95	284424	50.0	46.1	
118 1,2-Dibromo-3-Chloropropan	75	13.966	13.960	0.006	74	22738	50.0	46.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.106	-0.001	99	699146	150.0	120.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.519	14.520	-0.001	99	530083	100.0	83.8	
122 1,2,4-Trichlorobenzene	180	14.787	14.787	0.000	94	224679	50.0	47.0	
123 Hexachlorobutadiene	225	14.927	14.933	-0.006	95	82883	50.0	44.3	
124 Naphthalene	128	15.054	15.055	-0.001	98	493600	50.0	60.1	
125 1,2,3-Trichlorobenzene	180	15.280	15.280	0.000	96	207569	50.0	51.9	
126 2,4,5-Trichlorotoluene	159	16.046	16.047	-0.001	0	111745	50.0	38.0	
127 2,3,6-Trichlorotoluene	159	16.143	16.144	-0.001	92	107893	50.0	41.1	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	101.3	
S 130 1,2-Dichloroethene, Total	96				0		100.0	87.6	
S 132 1,3-Dichloropropene, Total	1				0		100.0	83.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
voaWket2 Rest_00001	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

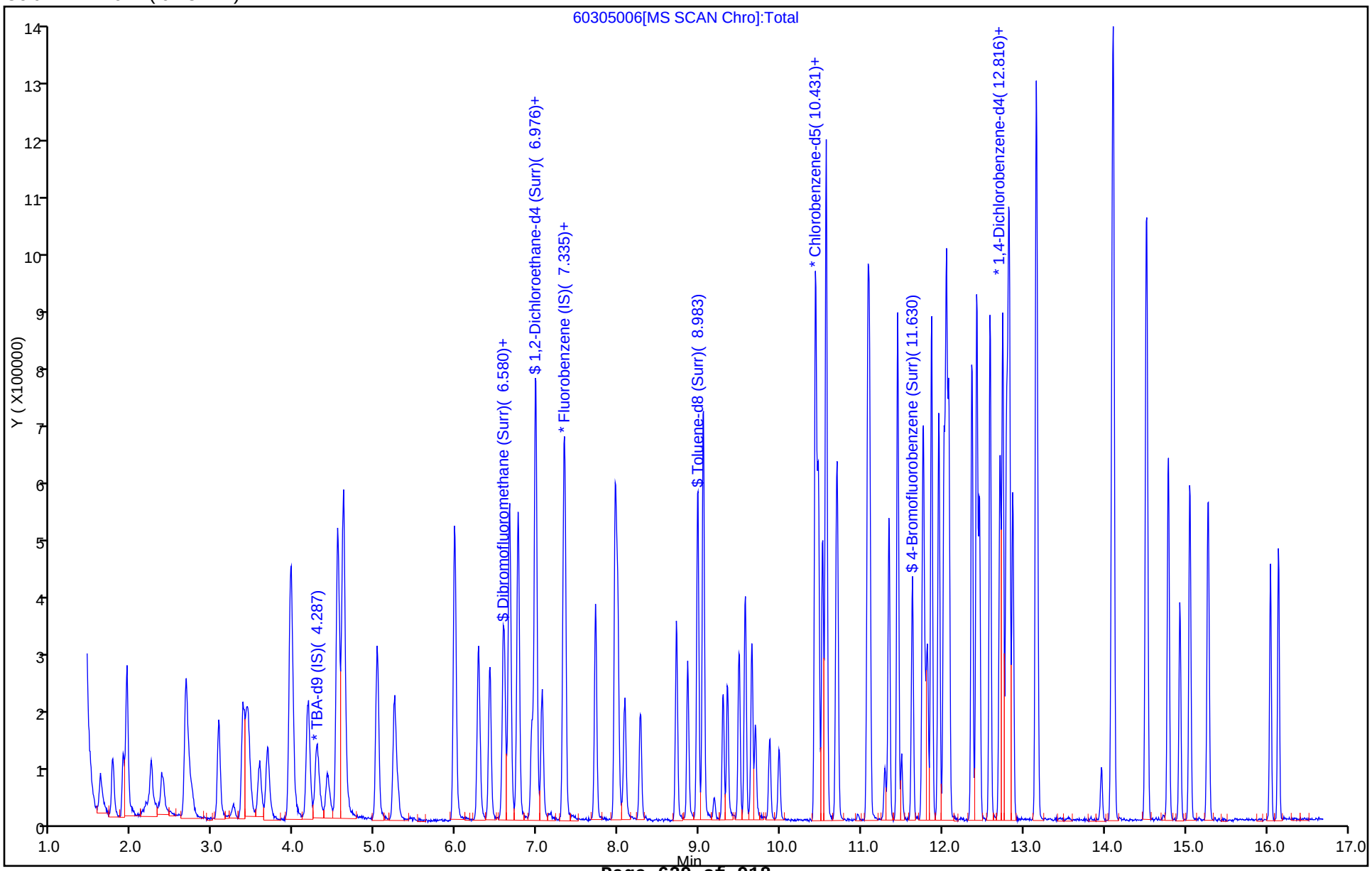
Report Date: 05-Mar-2015 16:08:02 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305006.D

Injection Date:	05-Mar-2015 13:01:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

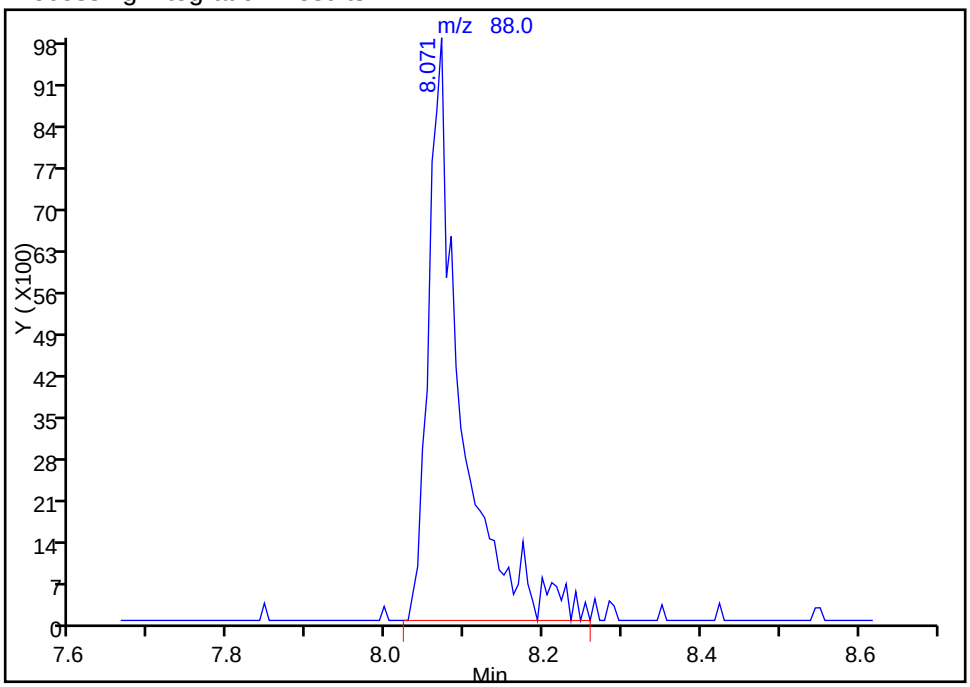
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150305-5907.b\60305006.D				
Injection Date:	05-Mar-2015 13:01:30	Instrument ID:	CHHP6		
Lims ID:	LCS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

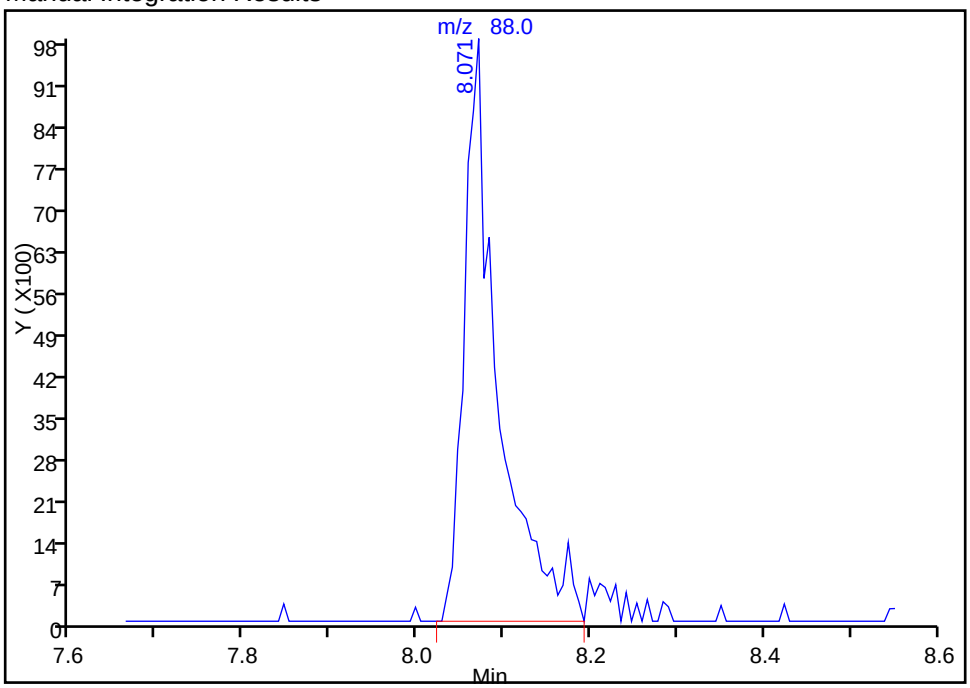
Processing Integration Results

RT: 8.07
Area: 28330
Amount: 1355.0489
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 26828
Amount: 1338.5752
Amount Units: ng



Reviewer: fergusond, 05-Mar-2015 14:57:47
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-134916/9

Matrix: Water | Lab File ID: 50306009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/06/2015 14:42

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 134916 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.70		1.0	0.28
75-01-4	Vinyl chloride	10.1		1.0	0.23
74-83-9	Bromomethane	12.6		1.0	0.31
75-00-3	Chloroethane	12.5		1.0	0.21
75-35-4	1,1-Dichloroethene	9.63		1.0	0.30
67-64-1	Acetone	18.7		5.0	2.5
75-15-0	Carbon disulfide	8.40		1.0	0.21
75-09-2	Methylene Chloride	10.3		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.1		1.0	0.17
1634-04-4	Methyl tert-butyl ether	7.22		1.0	0.18
75-34-3	1,1-Dichloroethane	9.74		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.88		1.0	0.24
74-97-5	Bromochloromethane	9.90		1.0	0.18
78-93-3	2-Butanone (MEK)	15.9		5.0	0.55
67-66-3	Chloroform	9.78		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.21		1.0	0.29
56-23-5	Carbon tetrachloride	9.04		1.0	0.14
71-43-2	Benzene	9.85		1.0	0.11
107-06-2	1,2-Dichloroethane	9.90		1.0	0.21
79-01-6	Trichloroethene	10.2		1.0	0.14
78-87-5	1,2-Dichloropropane	9.03		1.0	0.095
75-27-4	Bromodichloromethane	9.34		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	6.59		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.3		5.0	0.53
108-88-3	Toluene	11.1		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	5.81		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.94		1.0	0.20
127-18-4	Tetrachloroethene	11.1		1.0	0.15
591-78-6	2-Hexanone	14.6		5.0	0.16
124-48-1	Dibromochloromethane	9.97		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.16		1.0	0.18
108-90-7	Chlorobenzene	10.7		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.28		1.0	0.28
100-41-4	Ethylbenzene	10.5		1.0	0.23
1330-20-7	Xylenes, Total	21.4		3.0	0.49
100-42-5	Styrene	10.4		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-134916/9

Matrix: Water Lab File ID: 50306009.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/06/2015 14:42

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134916 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.88		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.20
107-13-1	Acrylonitrile	92.0		20	0.55
123-91-1	1,4-Dioxane	173	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	94		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306009.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 06-Mar-2015 14:42:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005922-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 15:15:28 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 15:15:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.314	4.308	0.006	82	69432	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	417924	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	99	95027	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.679	12.679	0.000	98	137726	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.006	94	84371	50.0	47.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	100	105055	50.0	47.5	
$ 7 Toluene-d8 (Surr)	98	8.919	8.925	-0.006	100	362038	50.0	48.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	98	126968	50.0	46.1	
11 Dichlorodifluoromethane	85	1.619	1.613	0.006	99	107929	50.0	51.4	
12 Chloromethane	50	1.777	1.777	0.000	99	162831	50.0	48.5	
13 Vinyl chloride	62	1.905	1.905	0.000	100	163634	50.0	50.7	
14 Butadiene	39	1.942	1.948	-0.006	98	180877	50.0	48.4	
15 Bromomethane	94	2.252	2.258	-0.006	93	60298	50.0	63.1	
16 Chloroethane	64	2.386	2.380	0.006	98	81722	50.0	62.3	
17 Dichlorofluoromethane	67	2.653	2.659	-0.006	99	196924	50.0	65.5	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	97	175895	50.0	70.0	
20 Ethyl ether	59	3.085	3.091	-0.006	100	115517	50.0	47.7	
21 Acrolein	56	3.262	3.262	0.000	96	41992	150.0	131.2	
22 1,1-Dichloroethene	96	3.383	3.371	0.012	98	117105	50.0	48.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.426	0.006	99	122300	50.0	49.7	
24 Acetone	43	3.493	3.499	-0.006	100	82200	100.0	93.7	
25 Iodomethane	142	3.572	3.572	0.000	98	178601	50.0	52.2	
26 Carbon disulfide	76	3.663	3.651	0.012	100	251641	50.0	42.0	
28 3-Chloro-1-propene	76	3.937	3.949	-0.012	98	50784	50.0	33.4	
30 Methyl acetate	43	4.016	4.016	0.000	100	486912	250.0	201.7	
31 Methylene Chloride	84	4.144	4.144	0.000	100	139090	50.0	51.4	
32 2-Methyl-2-propanol	59	4.436	4.436	0.000	82	40614	500.0	488.1	
33 Acrylonitrile	53	4.551	4.545	0.006	99	550722	500.0	460.2	
34 trans-1,2-Dichloroethene	96	4.570	4.564	0.006	95	128562	50.0	50.5	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	93	229359	50.0	36.1	
36 Hexane	57	4.983	4.983	0.000	99	217406	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.178	5.172	0.006	100	236296	50.0	48.7	
38 Vinyl acetate	43	5.287	5.300	-0.013	98	56161	50.0	33.9	
44 2,2-Dichloropropane	77	5.926	5.932	-0.006	62	42831	50.0	23.9	
45 cis-1,2-Dichloroethene	96	5.938	5.932	0.006	93	134338	50.0	49.4	
46 2-Butanone (MEK)	43	5.993	5.987	0.006	100	113925	100.0	79.7	
49 Chlorobromomethane	128	6.230	6.224	0.006	99	56143	50.0	49.5	
51 Tetrahydrofuran	42	6.285	6.285	0.000	99	89432	100.0	87.9	
52 Chloroform	83	6.340	6.346	-0.006	96	189008	50.0	48.9	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	95	107791	50.0	41.1	
54 Cyclohexane	56	6.583	6.583	0.000	99	284331	50.0	48.3	
56 Carbon tetrachloride	117	6.717	6.717	0.000	63	80501	50.0	45.2	
55 1,1-Dichloropropene	75	6.723	6.723	0.000	96	180420	50.0	53.9	
57 Isobutyl alcohol	41	6.936	6.942	-0.006	36	35914	1250.0	626.1	
58 Benzene	78	6.954	6.954	0.000	99	519722	50.0	49.2	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	100	150967	50.0	49.5	
62 n-Heptane	43	7.283	7.277	0.006	85	192872	50.0	47.0	
64 Trichloroethene	130	7.666	7.666	0.000	98	127224	50.0	51.2	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	226517	50.0	48.2	
67 1,2-Dichloropropane	63	7.903	7.897	0.006	98	125118	50.0	45.1	
68 Dibromomethane	93	8.025	8.019	0.006	98	62660	50.0	50.1	
70 1,4-Dioxane	88	8.068	8.056	0.012	95	21315	1000.0	862.5	
71 Dichlorobromomethane	83	8.195	8.195	0.000	98	109031	50.0	46.7	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	98	101917	50.0	33.0	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	99	234470	100.0	81.7	
76 Toluene	91	8.992	8.986	0.006	99	542340	50.0	55.3	
77 trans-1,3-Dichloropropene	75	9.217	9.224	-0.007	97	60128	50.0	29.1	
78 Ethyl methacrylate	69	9.321	9.315	0.006	97	72917	50.0	31.4	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	95	89084	50.0	49.7	
80 Tetrachloroethene	164	9.534	9.534	0.000	98	100147	50.0	55.3	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	100	167620	50.0	49.8	
82 2-Hexanone	43	9.661	9.662	-0.001	99	146122	100.0	73.0	
84 Chlorodibromomethane	129	9.789	9.789	0.000	98	58749	50.0	49.9	
85 Ethylene Dibromide	107	9.899	9.899	0.000	99	79074	50.0	45.8	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	95	192587	50.0	64.0	
87 Chlorobenzene	112	10.392	10.392	0.000	98	337402	50.0	53.7	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	99	176251	50.0	61.3	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.471	0.006	92	67222	50.0	46.4	
90 Ethylbenzene	106	10.501	10.501	0.000	100	189939	50.0	52.3	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	239616	50.0	53.6	
92 o-Xylene	106	11.012	11.012	0.000	95	233354	50.0	53.7	
93 Styrene	104	11.024	11.024	0.000	96	369638	50.0	52.1	
94 Bromoform	173	11.207	11.213	-0.006	95	30762	50.0	49.4	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	192498	50.0	64.5	
97 Isopropylbenzene	105	11.377	11.377	0.000	100	599780	50.0	56.3	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	97	128765	50.0	51.8	
100 Bromobenzene	156	11.681	11.681	0.000	99	128808	50.0	53.5	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	97	38503	50.0	47.8	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.724	0.006	87	32361	50.0	41.3	
103 N-Propylbenzene	120	11.791	11.785	0.006	100	173170	50.0	54.2	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	135907	50.0	51.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	99	155901	50.0	57.8	
106 1,3,5-Trimethylbenzene	105	11.961	11.961	0.000	100	468113	50.0	52.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.985	11.979	0.006	96	144600	50.0	50.8	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	406046	50.0	53.2	
110 1,2,4-Trimethylbenzene	105	12.332	12.338	-0.006	99	465572	50.0	51.0	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.399	0.000	98	132997	50.0	64.5	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	587005	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	99	248614	50.0	52.3	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	469360	50.0	52.1	
115 1,4-Dichlorobenzene	146	12.703	12.709	-0.006	98	254540	50.0	53.2	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	94	120146	50.0	61.3	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.813	-0.006	98	133041	50.0	62.3	
120 n-Butylbenzene	91	13.062	13.062	0.000	100	415854	50.0	51.9	
121 1,2-Dichlorobenzene	146	13.080	13.080	0.000	99	233901	50.0	53.8	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	93	9437	50.0	32.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	13.999	14.005	-0.006	1	487452	150.0	164.1	M
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	100	315576	100.0	107.5	
126 1,2,4-Trichlorobenzene	180	14.693	14.686	0.007	98	102584	50.0	47.2	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	96	47856	50.0	51.5	
128 Naphthalene	128	14.942	14.942	0.000	100	276856	50.0	43.9	
129 1,2,3-Trichlorobenzene	180	15.185	15.191	-0.006	99	82238	50.0	44.1	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	40593	50.0	43.0	
130 2,3,6-Trichlorotoluene	159	16.061	16.061	0.000	97	37156	50.0	42.7	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.9	
S 133 Xylenes, Total	106				0		100.0	107.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	62.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
voaWket2 Rest_00001	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

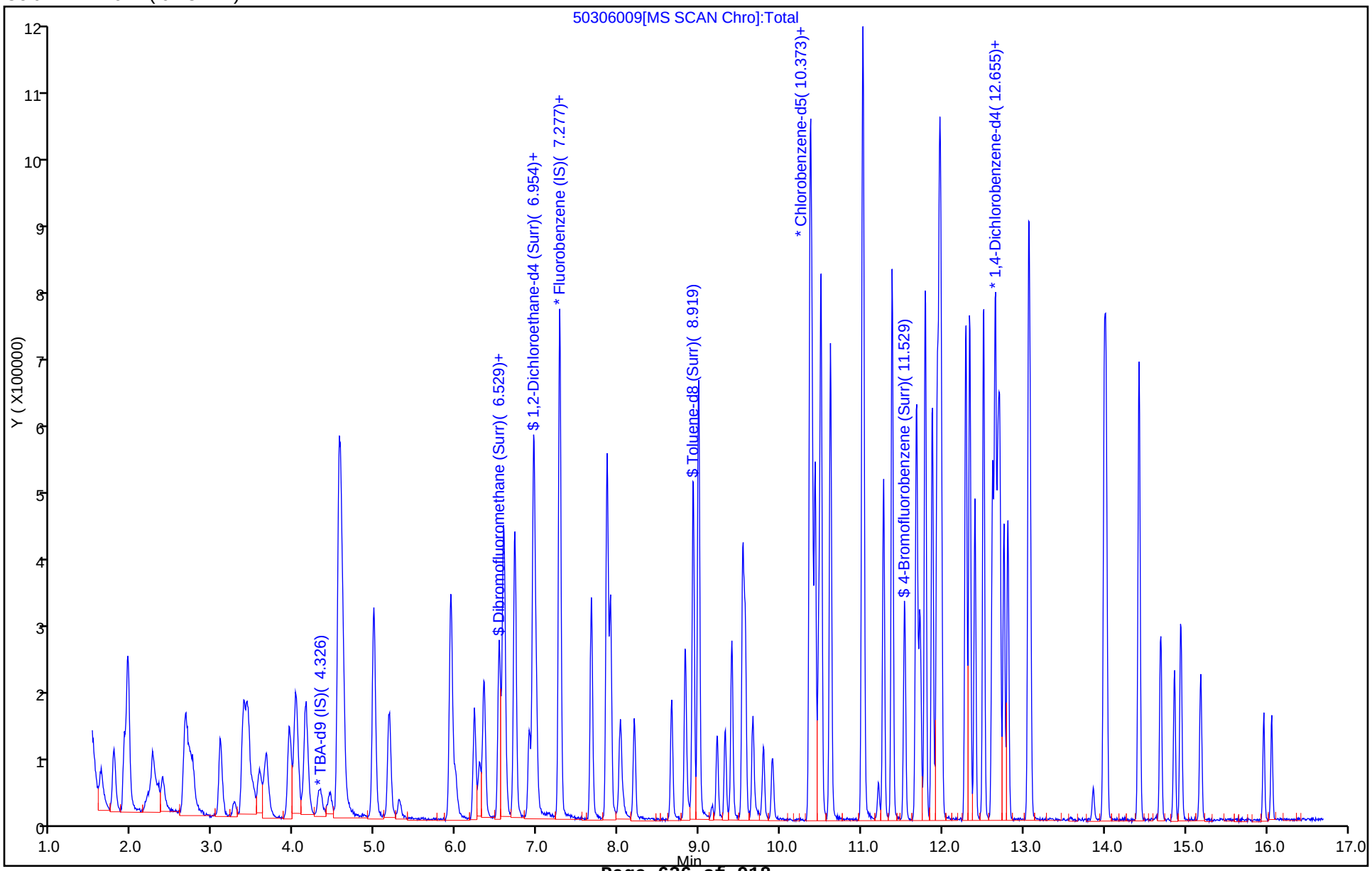
Report Date: 06-Mar-2015 15:15:37 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150306-5922.b\50306009.D

Injection Date:	06-Mar-2015 14:42:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-135049/7

Matrix: Water | Lab File ID: 50309007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/09/2015 14:31

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 135049 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.63		1.0	0.28
75-01-4	Vinyl chloride	9.31		1.0	0.23
74-83-9	Bromomethane	13.8		1.0	0.31
75-00-3	Chloroethane	12.6		1.0	0.21
75-35-4	1,1-Dichloroethene	10.7		1.0	0.30
67-64-1	Acetone	20.2		5.0	2.5
75-15-0	Carbon disulfide	10.8		1.0	0.21
75-09-2	Methylene Chloride	10.5		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.0		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.12		1.0	0.18
75-34-3	1,1-Dichloroethane	10.7		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.8		1.0	0.24
74-97-5	Bromochloromethane	10.7		1.0	0.18
78-93-3	2-Butanone (MEK)	19.4		5.0	0.55
67-66-3	Chloroform	11.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.93		1.0	0.29
56-23-5	Carbon tetrachloride	10.2		1.0	0.14
71-43-2	Benzene	10.8		1.0	0.11
107-06-2	1,2-Dichloroethane	10.9		1.0	0.21
79-01-6	Trichloroethene	10.9		1.0	0.14
78-87-5	1,2-Dichloropropane	9.77		1.0	0.095
75-27-4	Bromodichloromethane	10.5		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.29		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.9		5.0	0.53
108-88-3	Toluene	11.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	6.33		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.2		1.0	0.20
127-18-4	Tetrachloroethene	11.9		1.0	0.15
591-78-6	2-Hexanone	16.4		5.0	0.16
124-48-1	Dibromochloromethane	11.0		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.66		1.0	0.18
108-90-7	Chlorobenzene	11.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	11.3		1.0	0.23
1330-20-7	Xylenes, Total	22.2		3.0	0.49
100-42-5	Styrene	10.7		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-135049/7

Matrix: Water Lab File ID: 50309007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 14:31

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.0		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.8		1.0	0.20
107-13-1	Acrylonitrile	103		20	0.55
123-91-1	1,4-Dioxane	155	J	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)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309007.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 09-Mar-2015 14:31:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005947-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 16:04:45 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 09-Mar-2015 16:04:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.314	4.327	-0.013	88	78530	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	375106	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.362	0.006	99	90079	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	126667	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.529	0.006	89	84235	50.0	52.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.906	-0.006	99	103693	50.0	52.2	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	363555	50.0	51.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.530	0.006	97	123889	50.0	47.4	
11 Dichlorodifluoromethane	85	1.626	1.620	0.006	100	98685	50.0	52.4	
12 Chloromethane	50	1.778	1.778	0.000	99	144980	50.0	48.1	
13 Vinyl chloride	62	1.899	1.912	-0.013	100	134737	50.0	46.5	
14 Butadiene	39	1.948	1.954	-0.006	99	182781	50.0	54.4	
15 Bromomethane	94	2.252	2.252	0.000	94	59018	50.0	69.2	
16 Chloroethane	64	2.386	2.386	0.000	98	74306	50.0	63.1	
17 Dichlorofluoromethane	67	2.654	2.660	-0.006	100	177346	50.0	65.7	
18 Trichlorofluoromethane	101	2.708	2.703	0.005	98	153489	50.0	68.1	
20 Ethyl ether	59	3.092	3.086	0.006	98	111136	50.0	51.1	
21 Acrolein	56	3.268	3.256	0.012	100	40971	150.0	142.6	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	99	116519	50.0	53.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.445	-0.013	98	120272	50.0	54.5	
24 Acetone	43	3.505	3.499	0.006	99	79598	100.0	101.0	
25 Iodomethane	142	3.578	3.579	-0.001	97	169942	50.0	55.3	
26 Carbon disulfide	76	3.664	3.658	0.006	100	291065	50.0	54.1	
28 3-Chloro-1-propene	76	3.949	3.944	0.005	99	52654	50.0	38.6	
30 Methyl acetate	43	4.022	4.023	-0.001	100	536309	250.0	247.5	
31 Methylene Chloride	84	4.144	4.150	-0.006	99	126924	50.0	52.3	
32 2-Methyl-2-propanol	59	4.442	4.436	0.006	86	47895	500.0	508.9	
33 Acrylonitrile	53	4.558	4.552	0.006	100	552383	500.0	514.3	
34 trans-1,2-Dichloroethene	96	4.570	4.558	0.012	93	126000	50.0	55.2	
35 Methyl tert-butyl ether	73	4.606	4.601	0.005	92	231566	50.0	40.6	
36 Hexane	57	4.990	4.984	0.006	99	209175	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.178	5.172	0.006	99	232039	50.0	53.3	
38 Vinyl acetate	43	5.306	5.294	0.012	100	45473	50.0	30.6	
44 2,2-Dichloropropane	77	5.927	5.933	-0.006	81	39526	50.0	24.5	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	91	132024	50.0	54.1	
46 2-Butanone (MEK)	43	5.993	5.988	0.005	99	124719	100.0	97.2	
49 Chlorobromomethane	128	6.225	6.231	-0.006	99	54374	50.0	53.4	
51 Tetrahydrofuran	42	6.292	6.292	0.000	98	83538	100.0	91.5	
52 Chloroform	83	6.346	6.340	0.006	96	190174	50.0	54.8	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	89	105228	50.0	44.7	
54 Cyclohexane	56	6.590	6.590	0.000	98	269963	50.0	51.1	
56 Carbon tetrachloride	117	6.724	6.718	0.006	94	81863	50.0	51.2	
55 1,1-Dichloropropene	75	6.730	6.724	0.006	97	174613	50.0	58.1	
57 Isobutyl alcohol	41	6.949	6.949	0.000	33	44142	1250.0	857.4	
58 Benzene	78	6.961	6.955	0.006	99	510502	50.0	53.9	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	99	149074	50.0	54.5	
62 n-Heptane	43	7.283	7.283	0.000	85	184671	50.0	50.1	
64 Trichloroethene	130	7.673	7.667	0.006	97	122122	50.0	54.7	
66 Methylcyclohexane	83	7.867	7.861	0.006	99	227560	50.0	54.0	
67 1,2-Dichloropropane	63	7.904	7.904	0.000	94	121593	50.0	48.9	
68 Dibromomethane	93	8.025	8.026	-0.001	99	60602	50.0	53.9	
70 1,4-Dioxane	88	8.068	8.062	0.006	93	17156	1000.0	773.5	
71 Dichlorobromomethane	83	8.196	8.202	-0.006	98	110428	50.0	52.7	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	98	101083	50.0	36.4	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.822	0.006	99	243468	100.0	89.5	
76 Toluene	91	8.993	8.993	0.000	99	533902	50.0	57.4	
77 trans-1,3-Dichloropropene	75	9.218	9.224	-0.006	97	62025	50.0	31.6	
78 Ethyl methacrylate	69	9.321	9.321	0.000	99	84057	50.0	38.1	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	94718	50.0	55.8	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	102185	50.0	59.6	
81 1,3-Dichloropropane	76	9.571	9.565	0.006	100	171964	50.0	53.9	
82 2-Hexanone	43	9.662	9.656	0.006	100	156048	100.0	82.2	
84 Chlorodibromomethane	129	9.796	9.790	0.006	99	61302	50.0	54.9	
85 Ethylene Dibromide	107	9.905	9.899	0.006	98	78979	50.0	48.3	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	94	156005	50.0	54.7	
87 Chlorobenzene	112	10.392	10.392	0.000	100	330936	50.0	55.6	
88 4-Chlorobenzotrifluoride	180	10.428	10.429	-0.001	99	145801	50.0	53.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	95	70080	50.0	51.0	
90 Ethylbenzene	106	10.507	10.502	0.005	100	195028	50.0	56.6	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	235145	50.0	55.4	
92 o-Xylene	106	11.012	11.013	-0.001	97	228135	50.0	55.4	
93 Styrene	104	11.025	11.025	0.000	98	361315	50.0	53.7	
94 Bromoform	173	11.213	11.207	0.006	96	29580	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	154321	50.0	54.6	
97 Isopropylbenzene	105	11.383	11.378	0.005	100	582948	50.0	57.7	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.676	-0.001	98	127688	50.0	54.2	
100 Bromobenzene	156	11.682	11.682	0.000	98	121471	50.0	54.9	
101 1,2,3-Trichloropropane	110	11.724	11.718	0.006	95	39131	50.0	52.8	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	82	22176	50.0	30.8	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	161318	50.0	54.9	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	129966	50.0	53.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	99	127976	50.0	51.6	
106 1,3,5-Trimethylbenzene	105	11.967	11.962	0.005	100	451756	50.0	55.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.986	11.980	0.006	98	144697	50.0	55.2	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	389474	50.0	55.5	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	98	449436	50.0	53.5	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.406	-0.001	98	104318	50.0	55.0	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	576089	50.0	57.0	
113 1,3-Dichlorobenzene	146	12.618	12.619	-0.001	99	239984	50.0	54.9	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	461912	50.0	55.8	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	98	244850	50.0	55.6	
116 2,4-Dichloro-1-(triflourom	214	12.764	12.758	0.006	94	93016	50.0	51.6	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	98	111266	50.0	56.7	
120 n-Butylbenzene	91	13.062	13.063	-0.001	100	405579	50.0	55.1	
121 1,2-Dichlorobenzene	146	13.087	13.081	0.006	99	220407	50.0	55.1	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.866	-0.007	96	9940	50.0	37.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.012	-0.007	99	397935	150.0	145.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.431	-0.006	99	253759	100.0	94.0	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	98	101588	50.0	50.8	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	95	45979	50.0	53.8	
128 Naphthalene	128	14.942	14.942	0.000	100	272009	50.0	46.9	
129 1,2,3-Trichlorobenzene	180	15.186	15.192	-0.006	96	77345	50.0	45.1	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	35727	50.0	41.2	
130 2,3,6-Trichlorotoluene	159	16.062	16.062	0.000	97	33039	50.0	41.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	110.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	109.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	68.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

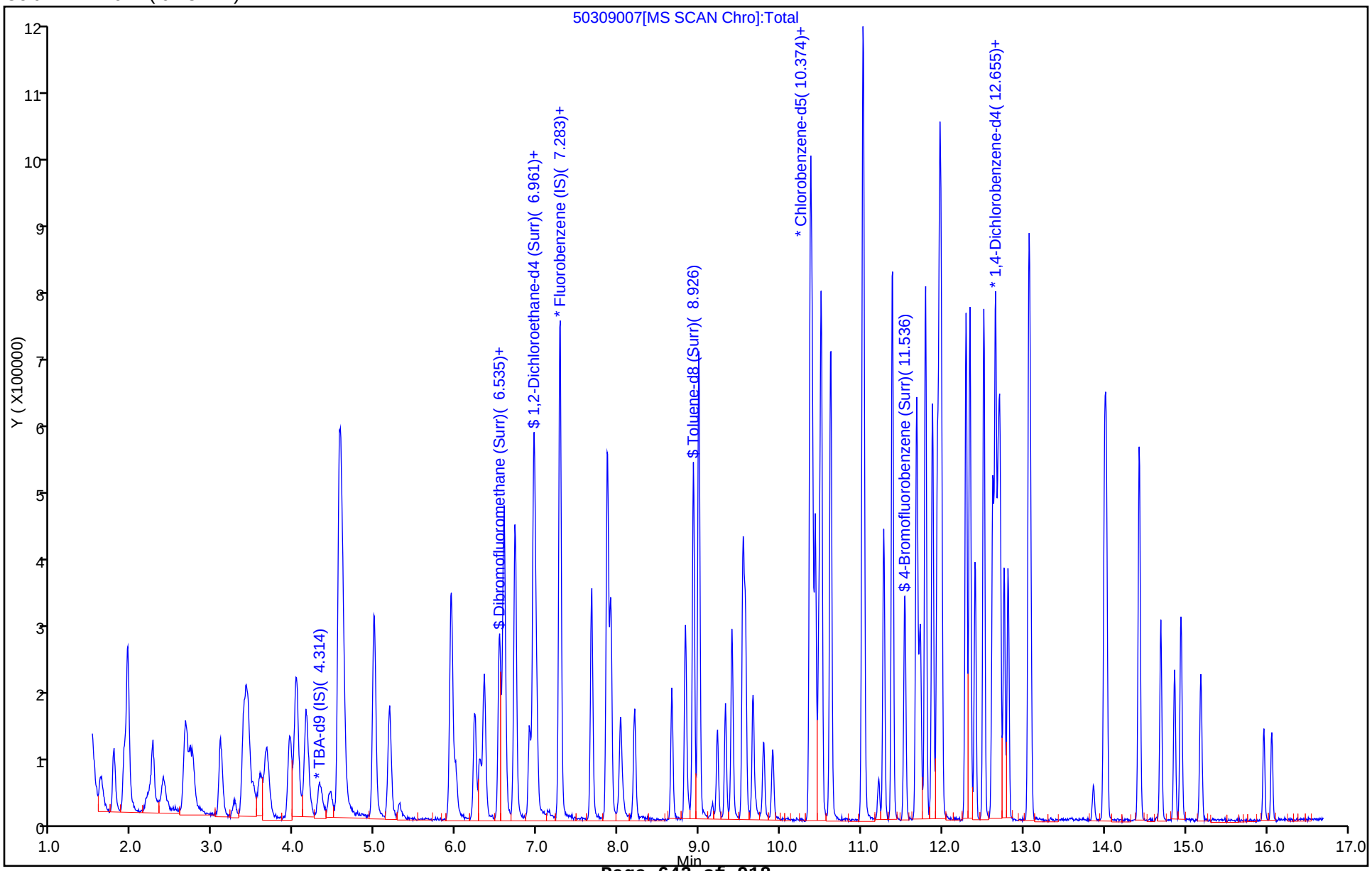
Report Date: 09-Mar-2015 16:04:53 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309007.D

Injection Date:	09-Mar-2015 14:31:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MS Lab Sample ID: 180-41508-1 MS

Matrix: Water Lab File ID: 50305013.D

Analysis Method: 8260C Date Collected: 02/25/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 15:11

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.: 134814 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.0		1.0	0.28
75-01-4	Vinyl chloride	9.66		1.0	0.23
74-83-9	Bromomethane	11.0		1.0	0.31
75-00-3	Chloroethane	12.0		1.0	0.21
75-35-4	1,1-Dichloroethene	10.5		1.0	0.30
67-64-1	Acetone	19.7		5.0	2.5
75-15-0	Carbon disulfide	8.06		1.0	0.21
75-09-2	Methylene Chloride	8.75		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.61		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.12		1.0	0.18
75-34-3	1,1-Dichloroethane	9.65		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	28.0		1.0	0.24
74-97-5	Bromochloromethane	9.49		1.0	0.18
78-93-3	2-Butanone (MEK)	16.9		5.0	0.55
67-66-3	Chloroform	9.53		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.6		1.0	0.29
56-23-5	Carbon tetrachloride	9.15		1.0	0.14
71-43-2	Benzene	9.24		1.0	0.11
107-06-2	1,2-Dichloroethane	9.03		1.0	0.21
79-01-6	Trichloroethene	27.8		1.0	0.14
78-87-5	1,2-Dichloropropane	8.80		1.0	0.095
75-27-4	Bromodichloromethane	8.53		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.09		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.1		5.0	0.53
108-88-3	Toluene	9.86		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	6.52		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.06		1.0	0.20
127-18-4	Tetrachloroethene	31.1		1.0	0.15
591-78-6	2-Hexanone	14.5		5.0	0.16
124-48-1	Dibromochloromethane	8.98		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	8.71		1.0	0.18
108-90-7	Chlorobenzene	9.81		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	8.65		1.0	0.28
100-41-4	Ethylbenzene	9.79		1.0	0.23
1330-20-7	Xylenes, Total	19.7		3.0	0.49
100-42-5	Styrene	9.44		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MS Lab Sample ID: 180-41508-1 MS

Matrix: Water Lab File ID: 50305013.D

Analysis Method: 8260C Date Collected: 02/25/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 15:11

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.: 134814 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.94		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.64		1.0	0.20
107-13-1	Acrylonitrile	89.8		20	0.55
123-91-1	1,4-Dioxane	140	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

Report Date: 06-Mar-2015 08:14:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305013.D
Lims ID: 180-41508-E-1 MS
Client ID: HD-MW-98I-0/1-0
Sample Type: MS
Inject. Date: 05-Mar-2015 15:11:30 ALS Bottle#: 9 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-E-1 MS
Misc. Info.: 180-0005905-013
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:14:24 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:14:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.299	0.003	86	99594	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.274	-0.003	96	440529	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.365	0.004	97	103232	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	96	149011	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.523	6.532	-0.009	96	94606	50.0	50.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.897	0.003	99	117555	50.0	50.4	
$ 7 Toluene-d8 (Surr)	98	8.926	8.923	0.003	100	433496	50.0	53.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.533	-0.003	97	150790	50.0	50.4	
11 Dichlorodifluoromethane	85	1.614	1.616	-0.002	8	105389	50.0	47.6	
12 Chloromethane	50	1.772	1.775	-0.003	97	177764	50.0	50.2	
13 Vinyl chloride	62	1.899	1.902	-0.003	99	164228	50.0	48.3	
14 Butadiene	39	1.942	1.939	0.003	99	199534	50.0	50.6	
15 Bromomethane	94	2.258	2.249	0.009	64	55813	50.0	54.8	
16 Chloroethane	64	2.380	2.383	-0.003	93	82677	50.0	59.8	
17 Dichlorofluoromethane	67	2.648	2.651	-0.003	95	205769	50.0	64.9	
18 Trichlorofluoromethane	101	2.702	2.705	-0.003	93	174096	50.0	65.8	
20 Ethyl ether	59	3.086	3.083	0.003	91	111756	50.0	43.7	
21 Acrolein	56	3.262	3.265	-0.003	83	47124	150.0	139.7	
22 1,1-Dichloroethene	96	3.372	3.375	-0.003	99	134528	50.0	52.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.423	0.003	97	125287	50.0	48.3	
24 Acetone	43	3.493	3.496	-0.003	100	91358	100.0	98.7	
25 Iodomethane	142	3.572	3.581	-0.009	95	182748	50.0	50.6	
26 Carbon disulfide	76	3.651	3.661	-0.010	99	254297	50.0	40.3	
28 3-Chloro-1-propene	76	3.937	3.934	0.003	93	60643	50.0	37.9	
30 Methyl acetate	43	4.023	4.013	0.010	100	506382	250.0	199.0	
31 Methylene Chloride	84	4.144	4.141	0.003	95	126298	50.0	43.7	
32 2-Methyl-2-propanol	59	4.442	4.421	0.021	60	57643	500.0	483.0	
33 Acrylonitrile	53	4.552	4.549	0.003	98	566484	500.0	449.1	
34 trans-1,2-Dichloroethene	96	4.570	4.561	0.009	67	128937	50.0	48.1	
35 Methyl tert-butyl ether	73	4.594	4.597	-0.003	95	271998	50.0	40.6	
36 Hexane	57	4.984	4.981	0.003	100	215328	50.0	45.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.172	5.169	0.003	99	246544	50.0	48.2	
38 Vinyl acetate	43	5.300	5.297	0.003	99	67583	50.0	38.7	
44 2,2-Dichloropropane	77	5.927	5.924	0.003	43	56002	50.0	29.6	
45 cis-1,2-Dichloroethene	96	5.939	5.942	-0.003	81	401126	50.0	139.9	
46 2-Butanone (MEK)	43	5.981	5.984	-0.003	98	127221	100.0	84.4	
49 Chlorobromomethane	128	6.231	6.222	0.009	77	56715	50.0	47.5	
51 Tetrahydrofuran	42	6.286	6.289	-0.003	97	86103	100.0	80.3	
52 Chloroform	83	6.340	6.337	0.003	86	194029	50.0	47.6	
53 1,1,1-Trichloroethane	97	6.535	6.532	0.003	93	160176	50.0	57.9	
54 Cyclohexane	56	6.584	6.587	-0.003	98	288068	50.0	46.4	
56 Carbon tetrachloride	117	6.718	6.714	0.004	65	85910	50.0	45.8	
55 1,1-Dichloropropene	75	6.724	6.721	0.004	96	172152	50.0	48.8	
57 Isobutyl alcohol	41	6.943	6.940	0.003	33	38790	1250.0	641.5	
58 Benzene	78	6.955	6.952	0.003	99	513955	50.0	46.2	
59 1,2-Dichloroethane	62	6.979	6.982	-0.003	87	145045	50.0	45.1	
62 n-Heptane	43	7.283	7.280	0.003	82	184864	50.0	42.7	
64 Trichloroethene	130	7.667	7.663	0.004	97	364600	50.0	139.1	
66 Methylcyclohexane	83	7.861	7.858	0.003	95	232046	50.0	46.9	
67 1,2-Dichloropropane	63	7.904	7.901	0.003	95	128549	50.0	44.0	
68 Dibromomethane	93	8.026	8.022	0.003	98	62504	50.0	47.4	
70 1,4-Dioxane	88	8.068	8.059	0.009	87	18272	1000.0	701.4	
71 Dichlorobromomethane	83	8.196	8.193	0.003	96	104963	50.0	42.7	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.003	98	115520	50.0	35.5	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.825	-0.003	69	251331	100.0	80.6	
76 Toluene	91	8.993	8.990	0.003	97	525150	50.0	49.3	
77 trans-1,3-Dichloropropene	75	9.224	9.221	0.003	84	73194	50.0	32.6	
78 Ethyl methacrylate	69	9.315	9.318	-0.003	94	81801	50.0	32.4	
79 1,1,2-Trichloroethane	97	9.400	9.397	0.003	97	88131	50.0	45.3	
80 Tetrachloroethene	164	9.534	9.537	-0.003	98	305608	50.0	155.4	
81 1,3-Dichloropropane	76	9.565	9.568	-0.003	98	166463	50.0	45.5	
82 2-Hexanone	43	9.656	9.659	-0.003	99	157250	100.0	72.3	
84 Chlorodibromomethane	129	9.790	9.793	-0.003	96	57496	50.0	44.9	
85 Ethylene Dibromide	107	9.905	9.902	0.003	98	81610	50.0	43.5	
86 3-Chlorobenzotrifluoride	180	10.374	10.371	0.003	89	228828	50.0	70.0	
87 Chlorobenzene	112	10.392	10.395	-0.003	93	334624	50.0	49.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.431	-0.003	92	207563	50.0	66.4	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.474	0.003	91	68025	50.0	43.2	
90 Ethylbenzene	106	10.501	10.498	0.003	100	193227	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.617	10.620	-0.003	99	239057	50.0	49.2	
92 o-Xylene	106	11.012	11.009	0.003	92	233058	50.0	49.4	
93 Styrene	104	11.025	11.028	-0.003	95	363995	50.0	47.2	
94 Bromoform	173	11.207	11.216	-0.009	88	30214	50.0	44.7	
96 2-Chlorobenzotrifluoride	180	11.274	11.271	0.003	96	222142	50.0	68.6	
97 Isopropylbenzene	105	11.378	11.380	-0.002	100	592970	50.0	51.2	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.679	-0.003	71	130039	50.0	48.2	
100 Bromobenzene	156	11.682	11.685	-0.003	87	126035	50.0	48.4	
101 1,2,3-Trichloropropane	110	11.718	11.721	-0.003	54	38996	50.0	44.7	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.733	0.003	54	28803	50.0	34.0	
103 N-Propylbenzene	120	11.785	11.788	-0.003	99	168906	50.0	48.8	
104 2-Chlorotoluene	126	11.870	11.873	-0.003	98	136178	50.0	47.7	
105 3-Chlorotoluene	126	11.937	11.934	0.003	93	170303	50.0	58.3	
106 1,3,5-Trimethylbenzene	105	11.962	11.964	-0.002	98	468760	50.0	49.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.986	11.983	0.003	96	159032	50.0	51.6	
108 tert-Butylbenzene	119	12.290	12.287	0.003	66	401333	50.0	48.6	
110 1,2,4-Trimethylbenzene	105	12.339	12.336	0.003	99	474051	50.0	48.0	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.402	0.004	95	156870	50.0	70.4	
112 sec-Butylbenzene	105	12.509	12.506	0.003	99	585542	50.0	49.3	
113 1,3-Dichlorobenzene	146	12.619	12.621	-0.002	82	249440	50.0	48.5	
114 4-Isopropyltoluene	119	12.655	12.652	0.003	100	472267	50.0	48.5	
115 1,4-Dichlorobenzene	146	12.710	12.707	0.003	95	251010	50.0	48.5	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.761	-0.003	93	140447	50.0	66.3	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.810	-0.003	96	158085	50.0	68.4	
120 n-Butylbenzene	91	13.063	13.059	0.004	99	411698	50.0	47.5	
121 1,2-Dichlorobenzene	146	13.081	13.084	-0.003	98	226277	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.853	13.863	-0.009	90	9816	50.0	31.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.008	-0.002	99	571544	150.0	177.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	100	359275	100.0	113.1	
126 1,2,4-Trichlorobenzene	180	14.693	14.690	0.003	96	102126	50.0	43.4	
127 Hexachlorobutadiene	225	14.863	14.866	-0.003	91	49670	50.0	49.4	
128 Naphthalene	128	14.942	14.945	-0.003	100	280975	50.0	41.1	
129 1,2,3-Trichlorobenzene	180	15.186	15.189	-0.003	97	81700	50.0	40.5	
131 2,4,5-Trichlorotoluene	159	15.964	15.961	0.003	93	47624	50.0	46.6	
130 2,3,6-Trichlorotoluene	159	16.062	16.065	-0.003	94	44956	50.0	47.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	187.9	
S 133 Xylenes, Total	106				0		100.0	98.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	68.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
voaWket2 Rest_00001	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

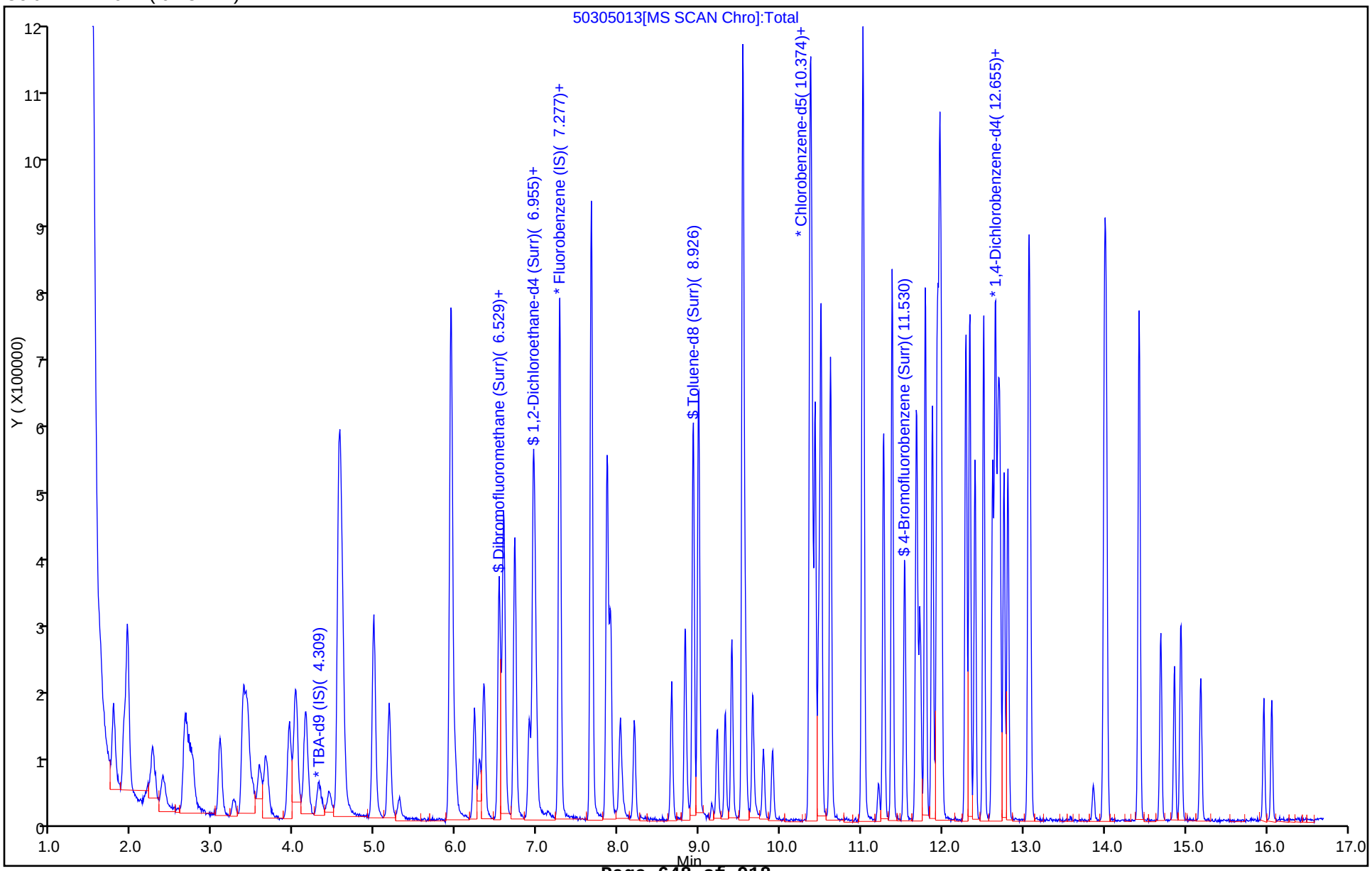
Report Date: 06-Mar-2015 08:14:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305013.D

Injection Date:	05-Mar-2015 15:11:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-1 MS			Worklist Smp#:	13
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MSD | Lab Sample ID: 180-41508-1 MSD

Matrix: Water | Lab File ID: 50305014.D

Analysis Method: 8260C | Date Collected: 02/25/2015 09:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/05/2015 15:35

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 134814 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.51		1.0	0.28
75-01-4	Vinyl chloride	9.06		1.0	0.23
74-83-9	Bromomethane	11.1		1.0	0.31
75-00-3	Chloroethane	11.5		1.0	0.21
75-35-4	1,1-Dichloroethene	10.3		1.0	0.30
67-64-1	Acetone	19.1		5.0	2.5
75-15-0	Carbon disulfide	7.55		1.0	0.21
75-09-2	Methylene Chloride	9.20		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.30		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.13		1.0	0.18
75-34-3	1,1-Dichloroethane	9.19		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	27.5		1.0	0.24
74-97-5	Bromochloromethane	9.12		1.0	0.18
78-93-3	2-Butanone (MEK)	17.0		5.0	0.55
67-66-3	Chloroform	9.49		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.4		1.0	0.29
56-23-5	Carbon tetrachloride	8.80		1.0	0.14
71-43-2	Benzene	9.21		1.0	0.11
107-06-2	1,2-Dichloroethane	8.84		1.0	0.21
79-01-6	Trichloroethene	26.7		1.0	0.14
78-87-5	1,2-Dichloropropane	8.89		1.0	0.095
75-27-4	Bromodichloromethane	8.61		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.18		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.5		5.0	0.53
108-88-3	Toluene	9.64		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	6.64		1.0	0.15
79-00-5	1,1,2-Trichloroethane	8.85		1.0	0.20
127-18-4	Tetrachloroethene	29.2		1.0	0.15
591-78-6	2-Hexanone	14.5		5.0	0.16
124-48-1	Dibromochloromethane	8.57		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	8.92		1.0	0.18
108-90-7	Chlorobenzene	9.49		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	8.68		1.0	0.28
100-41-4	Ethylbenzene	9.48		1.0	0.23
1330-20-7	Xylenes, Total	19.0		3.0	0.49
100-42-5	Styrene	9.34		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MSD Lab Sample ID: 180-41508-1 MSD

Matrix: Water Lab File ID: 50305014.D

Analysis Method: 8260C Date Collected: 02/25/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 03/05/2015 15:35

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 134814 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.58		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.31		1.0	0.20
107-13-1	Acrylonitrile	89.1		20	0.55
123-91-1	1,4-Dioxane	159	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

Report Date: 06-Mar-2015 08:15:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305014.D
Lims ID: 180-41508-E-1 MSD
Client ID: HD-MW-98I-0/1-0
Sample Type: MSD
Inject. Date: 05-Mar-2015 15:35:30 ALS Bottle#: 10 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41508-E-1 MSD
Misc. Info.: 180-0005905-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Mar-2015 08:14:24 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: fergusond Date: 06-Mar-2015 08:15:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.311	4.299	0.012	76	116836	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	96	466498	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.358	10.365	-0.006	85	111087	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	96	160870	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.532	-0.006	97	101309	50.0	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.897	0.000	98	117392	50.0	47.6	
$ 7 Toluene-d8 (Surr)	98	8.922	8.923	-0.001	99	445570	50.0	51.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.526	11.533	-0.007	97	151608	50.0	47.1	
11 Dichlorodifluoromethane	85	1.622	1.616	0.006	97	115073	50.0	49.1	
12 Chloromethane	50	1.774	1.775	-0.001	96	178059	50.0	47.5	
13 Vinyl chloride	62	1.908	1.902	0.006	100	163189	50.0	45.3	
14 Butadiene	39	1.945	1.939	0.006	99	198466	50.0	47.5	
15 Bromomethane	94	2.255	2.249	0.006	75	59734	50.0	55.4	
16 Chloroethane	64	2.383	2.383	0.000	96	83858	50.0	57.3	
17 Dichlorofluoromethane	67	2.656	2.651	0.005	97	199070	50.0	59.3	
18 Trichlorofluoromethane	101	2.699	2.705	-0.006	96	172850	50.0	61.6	
20 Ethyl ether	59	3.095	3.083	0.011	93	124243	50.0	45.9	
21 Acrolein	56	3.259	3.265	-0.006	80	48319	150.0	135.2	
22 1,1-Dichloroethene	96	3.374	3.375	-0.001	99	139817	50.0	51.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.423	0.006	95	126860	50.0	46.2	
24 Acetone	43	3.502	3.496	0.006	91	93539	100.0	95.5	
25 Iodomethane	142	3.581	3.581	0.000	94	188047	50.0	49.2	
26 Carbon disulfide	76	3.666	3.661	0.005	100	252258	50.0	37.7	
28 3-Chloro-1-propene	76	3.940	3.934	0.006	88	64852	50.0	38.2	
30 Methyl acetate	43	4.025	4.013	0.012	99	557495	250.0	206.9	
31 Methylene Chloride	84	4.147	4.141	0.006	97	140141	50.0	46.0	
32 2-Methyl-2-propanol	59	4.433	4.421	0.012	84	64625	500.0	461.6	
33 Acrylonitrile	53	4.548	4.549	-0.001	97	595285	500.0	445.6	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	55	132099	50.0	46.5	
35 Methyl tert-butyl ether	73	4.597	4.597	0.000	96	288501	50.0	40.7	
36 Hexane	57	4.986	4.981	0.005	96	224855	50.0	44.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.169	5.169	0.000	100	248765	50.0	46.0	
38 Vinyl acetate	43	5.297	5.297	0.000	98	72108	50.0	39.0	
44 2,2-Dichloropropane	77	5.923	5.924	-0.001	42	56956	50.0	28.4	
45 cis-1,2-Dichloroethene	96	5.942	5.942	0.000	81	417161	50.0	137.4	
46 2-Butanone (MEK)	43	5.990	5.984	0.006	99	135308	100.0	84.8	
49 Chlorobromomethane	128	6.221	6.222	-0.001	72	57735	50.0	45.6	
51 Tetrahydrofuran	42	6.282	6.289	-0.007	97	96164	100.0	84.7	
52 Chloroform	83	6.343	6.337	0.006	85	204662	50.0	47.4	
53 1,1,1-Trichloroethane	97	6.532	6.532	0.000	94	166780	50.0	56.9	
54 Cyclohexane	56	6.586	6.587	-0.001	98	283759	50.0	43.1	
56 Carbon tetrachloride	117	6.720	6.714	0.006	63	87486	50.0	44.0	
55 1,1-Dichloropropene	75	6.720	6.721	0.000	95	178520	50.0	47.7	
57 Isobutyl alcohol	41	6.939	6.940	-0.001	40	53938	1250.0	842.4	
58 Benzene	78	6.957	6.952	0.005	99	542589	50.0	46.0	
59 1,2-Dichloroethane	62	6.988	6.982	0.006	98	150419	50.0	44.2	
62 n-Heptane	43	7.280	7.280	0.000	79	201908	50.0	44.1	
64 Trichloroethene	130	7.669	7.663	0.006	98	370778	50.0	133.6	
66 Methylcyclohexane	83	7.858	7.858	0.000	95	234131	50.0	44.7	
67 1,2-Dichloropropane	63	7.907	7.901	0.006	97	137535	50.0	44.4	
68 Dibromomethane	93	8.028	8.022	0.006	96	63980	50.0	45.8	
70 1,4-Dioxane	88	8.059	8.059	0.000	86	21908	1000.0	794.2	
71 Dichlorobromomethane	83	8.199	8.193	0.006	97	112132	50.0	43.0	
74 cis-1,3-Dichloropropene	75	8.661	8.661	0.000	98	123802	50.0	35.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	72	276462	100.0	82.4	
76 Toluene	91	8.989	8.990	-0.001	100	552476	50.0	48.2	
77 trans-1,3-Dichloropropene	75	9.221	9.221	0.000	81	80293	50.0	33.2	
78 Ethyl methacrylate	69	9.318	9.318	0.000	97	86469	50.0	31.8	
79 1,1,2-Trichloroethane	97	9.403	9.397	0.006	91	92644	50.0	44.2	
80 Tetrachloroethene	164	9.537	9.537	0.000	98	308686	50.0	145.9	
81 1,3-Dichloropropane	76	9.567	9.568	-0.001	99	172809	50.0	43.9	
82 2-Hexanone	43	9.659	9.659	0.000	97	169820	100.0	72.5	
84 Chlorodibromomethane	129	9.792	9.793	-0.001	93	59007	50.0	42.8	
85 Ethylene Dibromide	107	9.902	9.902	0.000	99	89920	50.0	44.6	
86 3-Chlorobenzotrifluoride	180	10.370	10.371	-0.001	85	206069	50.0	58.6	
87 Chlorobenzene	112	10.395	10.395	0.000	88	348335	50.0	47.4	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	96	200571	50.0	59.7	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.474	0.000	95	73482	50.0	43.4	
90 Ethylbenzene	106	10.498	10.498	0.000	100	201347	50.0	47.4	
91 m-Xylene & p-Xylene	106	10.620	10.620	0.000	100	248938	50.0	47.6	
92 o-Xylene	106	11.009	11.009	0.000	93	241436	50.0	47.6	
93 Styrene	104	11.027	11.028	-0.001	96	387673	50.0	46.7	
94 Bromoform	173	11.210	11.216	-0.006	73	31206	50.0	42.9	
96 2-Chlorobenzotrifluoride	180	11.277	11.271	0.006	96	211634	50.0	60.7	
97 Isopropylbenzene	105	11.380	11.380	0.000	99	615701	50.0	49.4	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.679	-0.007	38	135152	50.0	46.5	
100 Bromobenzene	156	11.678	11.685	-0.007	96	136726	50.0	48.7	
101 1,2,3-Trichloropropane	110	11.727	11.721	0.006	81	43111	50.0	45.8	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	85	29126	50.0	31.8	
103 N-Propylbenzene	120	11.788	11.788	0.000	76	171513	50.0	45.9	
104 2-Chlorotoluene	126	11.873	11.873	0.000	99	146679	50.0	47.6	
105 3-Chlorotoluene	126	11.934	11.934	0.000	93	173418	50.0	55.0	
106 1,3,5-Trimethylbenzene	105	11.964	11.964	0.000	99	494881	50.0	47.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.982	11.983	-0.001	98	157493	50.0	47.3	
108 tert-Butylbenzene	119	12.287	12.287	0.000	65	420974	50.0	47.2	
110 1,2,4-Trimethylbenzene	105	12.335	12.336	-0.001	100	495907	50.0	46.5	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	96	147646	50.0	61.3	
112 sec-Butylbenzene	105	12.506	12.506	0.000	100	617219	50.0	48.1	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	81	260885	50.0	47.0	
114 4-Isopropyltoluene	119	12.652	12.652	0.000	99	496961	50.0	47.3	
115 1,4-Dichlorobenzene	146	12.706	12.707	-0.001	97	266564	50.0	47.7	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.761	0.000	91	130086	50.0	56.9	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.810	0.000	97	157534	50.0	63.2	
120 n-Butylbenzene	91	13.059	13.059	0.000	100	435711	50.0	46.6	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	98	242118	50.0	47.7	
122 1,2-Dibromo-3-Chloropropan	75	13.856	13.863	-0.006	76	11530	50.0	34.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	99	578201	150.0	166.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	99	373790	100.0	109.0	
126 1,2,4-Trichlorobenzene	180	14.690	14.690	0.000	99	111383	50.0	43.8	
127 Hexachlorobutadiene	225	14.860	14.866	-0.006	87	52535	50.0	48.4	
128 Naphthalene	128	14.939	14.945	-0.006	100	298308	50.0	40.5	
129 1,2,3-Trichlorobenzene	180	15.188	15.189	-0.001	94	88411	50.0	40.6	
131 2,4,5-Trichlorotoluene	159	15.961	15.961	0.000	91	50144	50.0	45.5	
130 2,3,6-Trichlorotoluene	159	16.058	16.065	-0.007	96	48385	50.0	47.6	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	183.9	
S 133 Xylenes, Total	106				0		100.0	95.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	69.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
voaWket2 Rest_00001	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

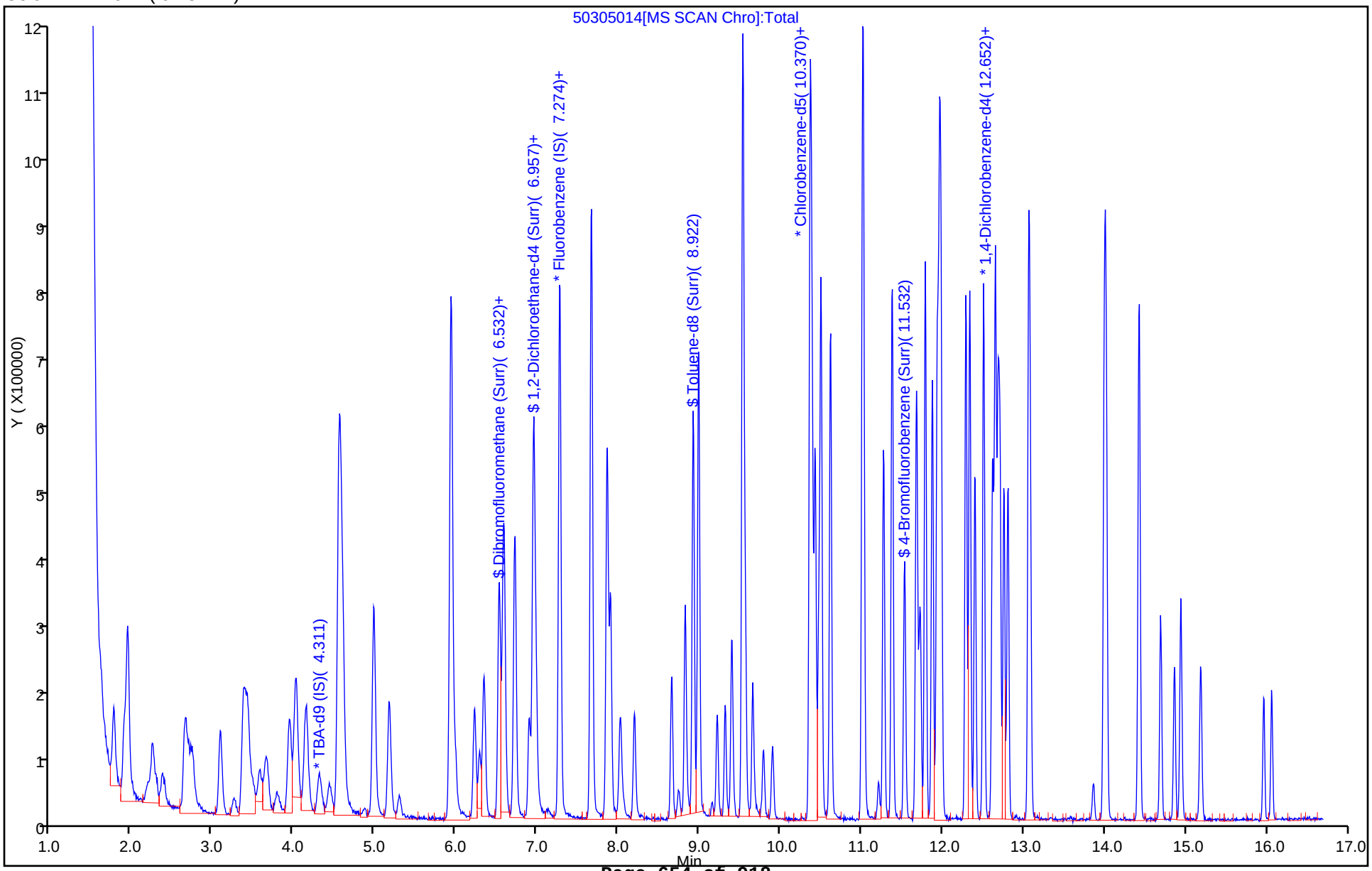
Report Date: 06-Mar-2015 08:15:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150305-5905.b\50305014.D

Injection Date:	05-Mar-2015 15:35:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41508-E-1 MSD			Worklist Smp#:	14
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP6 Start Date: 01/28/2015 11:55

Analysis Batch Number: 131929 End Date: 01/28/2015 18:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-131929/4		01/28/2015 11:55	1	60128004.D	DB-624 0.18(mm)
IC 180-131929/6		01/28/2015 13:58	1	60128006.D	DB-624 0.18(mm)
IC 180-131929/7		01/28/2015 14:21	1	60128007.D	DB-624 0.18(mm)
ICIS 180-131929/8		01/28/2015 14:45	1	60128008.D	DB-624 0.18(mm)
IC 180-131929/9		01/28/2015 15:09	1	60128009.D	DB-624 0.18(mm)
IC 180-131929/10		01/28/2015 15:33	1	60128010.D	DB-624 0.18(mm)
IC 180-131929/11		01/28/2015 15:57	1	60128011.D	DB-624 0.18(mm)
IC 180-131929/12		01/28/2015 16:21	1	60128012.D	DB-624 0.18(mm)
IC 180-131929/13		01/28/2015 16:44	1	60128013.D	DB-624 0.18(mm)
ICV 180-131929/18		01/28/2015 18:43	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/03/2015 12:21

Analysis Batch Number: 134613 End Date: 03/03/2015 19:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-134613/6		03/03/2015 12:21	1	50303006.D	DB-624 0.18(mm)
IC 180-134613/8		03/03/2015 14:28	1	50303008.D	DB-624 0.18(mm)
ICIS 180-134613/9		03/03/2015 14:52	1	50303009.D	DB-624 0.18(mm)
IC 180-134613/10		03/03/2015 15:16	1	50303010.D	DB-624 0.18(mm)
IC 180-134613/11		03/03/2015 15:40	1	50303011.D	DB-624 0.18(mm)
IC 180-134613/12		03/03/2015 16:04	1	50303012.D	DB-624 0.18(mm)
IC 180-134613/13		03/03/2015 16:28	1	50303013.D	DB-624 0.18(mm)
IC 180-134613/14		03/03/2015 16:52	1	50303014.D	DB-624 0.18(mm)
IC 180-134613/18		03/03/2015 18:29	1	50303018.D	DB-624 0.18(mm)
ICV 180-134613/20		03/03/2015 19:17	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/05/2015 10:58

Analysis Batch Number: 134814 End Date: 03/05/2015 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-134814/6		03/05/2015 10:58	1	50305006.D	DB-624 0.18(mm)
CCVIS 180-134814/7		03/05/2015 12:16	1	50305007.D	DB-624 0.18(mm)
MB 180-134814/9		03/05/2015 13:05	1	50305009.D	DB-624 0.18(mm)
180-41508-1	HD-MW-98I-0/1-0	03/05/2015 13:46	1	50305010.D	DB-624 0.18(mm)
180-41508-2	HD-QC3-0/1-2	03/05/2015 14:10	1	50305011.D	DB-624 0.18(mm)
LCS 180-134814/12		03/05/2015 14:47	1	50305012.D	DB-624 0.18(mm)
180-41508-1 MS	HD-MW-98I-0/1-0 MS	03/05/2015 15:11	1	50305013.D	DB-624 0.18(mm)
180-41508-1 MSD	HD-MW-98I-0/1-0 MSD	03/05/2015 15:35	1	50305014.D	DB-624 0.18(mm)
ZZZZZ		03/05/2015 16:24	5		DB-624 0.18(mm)
ZZZZZ		03/05/2015 16:48	5		DB-624 0.18(mm)
ZZZZZ		03/05/2015 17:12	50		DB-624 0.18(mm)
ZZZZZ		03/05/2015 17:36	8		DB-624 0.18(mm)
ZZZZZ		03/05/2015 18:00	500		DB-624 0.18(mm)
ZZZZZ		03/05/2015 18:24	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 19:12	125		DB-624 0.18(mm)
ZZZZZ		03/05/2015 19:37	3		DB-624 0.18(mm)
ZZZZZ		03/05/2015 20:01	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 20:25	1		DB-624 0.18(mm)
180-41508-3	HD-MW-98S-0/1-0	03/05/2015 21:13	1	50305028.D	DB-624 0.18(mm)
180-41508-4	HD-MW-99S-0/1-0	03/05/2015 21:37	1	50305029.D	DB-624 0.18(mm)
ZZZZZ		03/05/2015 22:25	50		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP6 Start Date: 03/05/2015 09:54

Analysis Batch Number: 134823 End Date: 03/05/2015 21:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-134823/1		03/05/2015 09:54	1	60305001.D	DB-624 0.18(mm)
CCVIS 180-134823/2		03/05/2015 10:37	1	60305002.D	DB-624 0.18(mm)
MB 180-134823/4		03/05/2015 11:56	1	60305004.D	DB-624 0.18(mm)
LCS 180-134823/6		03/05/2015 13:01	1	60305006.D	DB-624 0.18(mm)
ZZZZZ		03/05/2015 14:38	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 15:01	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 15:25	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 15:49	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 16:13	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 16:37	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 17:01	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 17:25	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 17:49	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 18:13	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 18:37	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 19:01	1		DB-624 0.18(mm)
180-41508-5	HD-MW-99D-0/1-0	03/05/2015 19:49	5	60305023.D	DB-624 0.18(mm)
180-41508-7	HD-MW-147A-0/1-0	03/05/2015 21:00	1	60305026.D	DB-624 0.18(mm)
ZZZZZ		03/05/2015 21:24	1		DB-624 0.18(mm)
ZZZZZ		03/05/2015 21:48	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/06/2015 10:53

Analysis Batch Number: 134916 End Date: 03/06/2015 22:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-134916/3		03/06/2015 10:53	1	50306003.D	DB-624 0.18(mm)
CCVIS 180-134916/4		03/06/2015 12:23	1	50306004.D	DB-624 0.18(mm)
MB 180-134916/6		03/06/2015 13:13	1	50306006.D	DB-624 0.18(mm)
ZZZZZ		03/06/2015 13:54	1		DB-624 0.18(mm)
ZZZZZ		03/06/2015 14:18	1		DB-624 0.18(mm)
LCS 180-134916/9		03/06/2015 14:42	1	50306009.D	DB-624 0.18(mm)
ZZZZZ		03/06/2015 15:06	1		DB-624 0.18(mm)
ZZZZZ		03/06/2015 15:30	1		DB-624 0.18(mm)
ZZZZZ		03/06/2015 16:18	1		DB-624 0.18(mm)
180-41508-6	HD-MW-145A-0/1-0	03/06/2015 16:42	1	50306014.D	DB-624 0.18(mm)
180-41508-8	HD-MW-100S-0/1-0	03/06/2015 17:06	2	50306015.D	DB-624 0.18(mm)
180-41508-9	HD-MW-100I-0/1-0	03/06/2015 17:31	1	50306016.D	DB-624 0.18(mm)
ZZZZZ		03/06/2015 18:19	1		DB-624 0.18(mm)
180-41508-11	HD-CW-15A-0/1-0	03/06/2015 18:43	500	50306019.D	DB-624 0.18(mm)
180-41508-12	HD-CW-13-0/1-0	03/06/2015 19:07	25	50306020.D	DB-624 0.18(mm)
ZZZZZ		03/06/2015 19:32	1		DB-624 0.18(mm)
180-41508-13	HD-CW-20-0/1-0	03/06/2015 19:56	50	50306022.D	DB-624 0.18(mm)
180-41508-14	HD-CW-9-0/1-0	03/06/2015 20:19	12.5	50306023.D	DB-624 0.18(mm)
ZZZZZ		03/06/2015 20:43	1		DB-624 0.18(mm)
ZZZZZ		03/06/2015 21:07	1		DB-624 0.18(mm)
ZZZZZ		03/06/2015 21:31	20		DB-624 0.18(mm)
ZZZZZ		03/06/2015 21:55	5		DB-624 0.18(mm)
ZZZZZ		03/06/2015 22:19	1		DB-624 0.18(mm)
ZZZZZ		03/06/2015 22:43	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/09/2015 10:37

Analysis Batch Number: 135049 End Date: 03/09/2015 22:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-135049/1		03/09/2015 10:37	1	50309001.D	DB-624 0.18(mm)
CCVIS 180-135049/2		03/09/2015 11:37	1	50309002.D	DB-624 0.18(mm)
MB 180-135049/4		03/09/2015 12:47	1	50309004.D	DB-624 0.18(mm)
ZZZZZ		03/09/2015 13:42	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 14:06	1		DB-624 0.18(mm)
LCS 180-135049/7		03/09/2015 14:31	1	50309007.D	DB-624 0.18(mm)
ZZZZZ		03/09/2015 14:55	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 15:19	1		DB-624 0.18(mm)
180-41508-10	HD-MW-100D-0/1-0	03/09/2015 16:07	1	50309011.D	DB-624 0.18(mm)
ZZZZZ		03/09/2015 16:31	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 16:55	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 17:19	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 17:44	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 18:08	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 18:32	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 18:56	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 19:20	40		DB-624 0.18(mm)
ZZZZZ		03/09/2015 20:09	50		DB-624 0.18(mm)
ZZZZZ		03/09/2015 20:33	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 21:21	12.5		DB-624 0.18(mm)
ZZZZZ		03/09/2015 22:33	10		DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-26-2015-5.d

Lab ID: LCS 180-134309/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.72	109	90-110	
Chloride	50.0	50.6	101	90-110	
Sulfate	50.0	50.3	101	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-26-2015-25.d

Lab ID: 180-41508-1 MS Client ID: HD-MW-98I-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	2.4	3.61	99	80-120	
Chloride	25.0	69	92.8	97	80-120	
Sulfate	25.0	40	64.7	97	80-120	

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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-26-2015-22.d

Lab ID: 180-41508-5 MS Client ID: HD-MW-99D-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	2.2	3.49	104	80-120	
Chloride	25.0	49	74.8	102	80-120	
Sulfate	25.0	25	49.9	99	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-26-2015-26.d

Lab ID: 180-41508-1 MSD Client ID: HD-MW-98I-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	3.59	98	0	20	80-120	
Chloride	25.0	92.1	94	1	20	80-120	
Sulfate	25.0	64.6	96	0	20	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.: 180-41508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-26-2015-23.d

Lab ID: 180-41508-5 MSD Client ID: HD-MW-99D-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	3.51	106	1	20	80-120	
Chloride	25.0	75.5	105	1	20	80-120	
Sulfate	25.0	50.5	101	1	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.: 180-41508-1

SDG No.:

Lab File ID: A-ICS2100 A 02-26-2015-6.d Lab Sample ID: MB 180-134309/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 02/26/2015 08:43

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-134309/4	A-ICS2100 A 02-26-2015-4.d	02/26/2015 08:13
	LCS 180-134309/5	A-ICS2100 A 02-26-2015-5.d	02/26/2015 08:28
HD-CW-13-0/1-0	180-41508-12	A-ICS2100 A 02-26-2015-14.d	02/26/2015 13:28
	CCB 180-134309/16	A-ICS2100 A 02-26-2015-16.d	02/26/2015 13:59
HD-MW-145A-0/1-0	180-41508-6	A-ICS2100 A 02-26-2015-17.d	02/26/2015 14:14
HD-CW-20-0/1-0	180-41508-13	A-ICS2100 A 02-26-2015-18.d	02/26/2015 14:29
HD-CW-9-0/1-0	180-41508-14	A-ICS2100 A 02-26-2015-19.d	02/26/2015 14:44
HD-MW-147A-0/1-0	180-41508-7	A-ICS2100 A 02-26-2015-20.d	02/26/2015 15:00
HD-MW-99D-0/1-0	180-41508-5	A-ICS2100 A 02-26-2015-21.d	02/26/2015 15:15
HD-MW-99D-0/1-0 MS	180-41508-5 MS	A-ICS2100 A 02-26-2015-22.d	02/26/2015 15:30
HD-MW-99D-0/1-0 MSD	180-41508-5 MSD	A-ICS2100 A 02-26-2015-23.d	02/26/2015 15:46
HD-MW-98I-0/1-0	180-41508-1	A-ICS2100 A 02-26-2015-24.d	02/26/2015 16:01
HD-MW-98I-0/1-0 MS	180-41508-1 MS	A-ICS2100 A 02-26-2015-25.d	02/26/2015 16:16
HD-MW-98I-0/1-0 MSD	180-41508-1 MSD	A-ICS2100 A 02-26-2015-26.d	02/26/2015 16:31
	CCB 180-134309/28	A-ICS2100 A 02-26-2015-28.d	02/26/2015 17:02

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab File ID: A-ICS2100 A 02-26-2015-6.d Lab Sample ID: MB 180-134309/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 02/26/2015 08:43

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-98S-0/1-0	180-41508-3	A-ICS2100 A 02-26-2015-29.d	02/26/2015 17:17
HD-MW-99S-0/1-0	180-41508-4	A-ICS2100 A 02-26-2015-30.d	02/26/2015 17:33
HD-MW-100S-0/1-0	180-41508-8	A-ICS2100 A 02-26-2015-31.d	02/26/2015 17:48
HD-MW-100I-0/1-0	180-41508-9	A-ICS2100 A 02-26-2015-32.d	02/26/2015 18:03
HD-MW-100D-0/1-0	180-41508-10	A-ICS2100 A 02-26-2015-33.d	02/26/2015 18:19
HD-CW-15A-0/1-0	180-41508-11	A-ICS2100 A 02-26-2015-34.d	02/26/2015 18:34
HD-CW-15A-0/1-0	180-41508-11	A-ICS2100 A 02-26-2015-35.d	02/26/2015 18:49
	CCB 180-134309/39	A-ICS2100 A 02-26-2015-39.d	02/26/2015 19:50

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-41508-1

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-24.d

Analysis Method: 300.0 Date Collected: 02/25/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 16:01

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4		0.10	0.0062
16887-00-6	Chloride	69	B	1.0	0.20
14808-79-8	Sulfate	40		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-24.d
Lims ID: 180-41508-A-1 Lab Sample ID: 180-41508-1
Client ID: HD-MW-98I-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 16:01:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-024
Misc. Info.: 24 180-41508-a-1
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

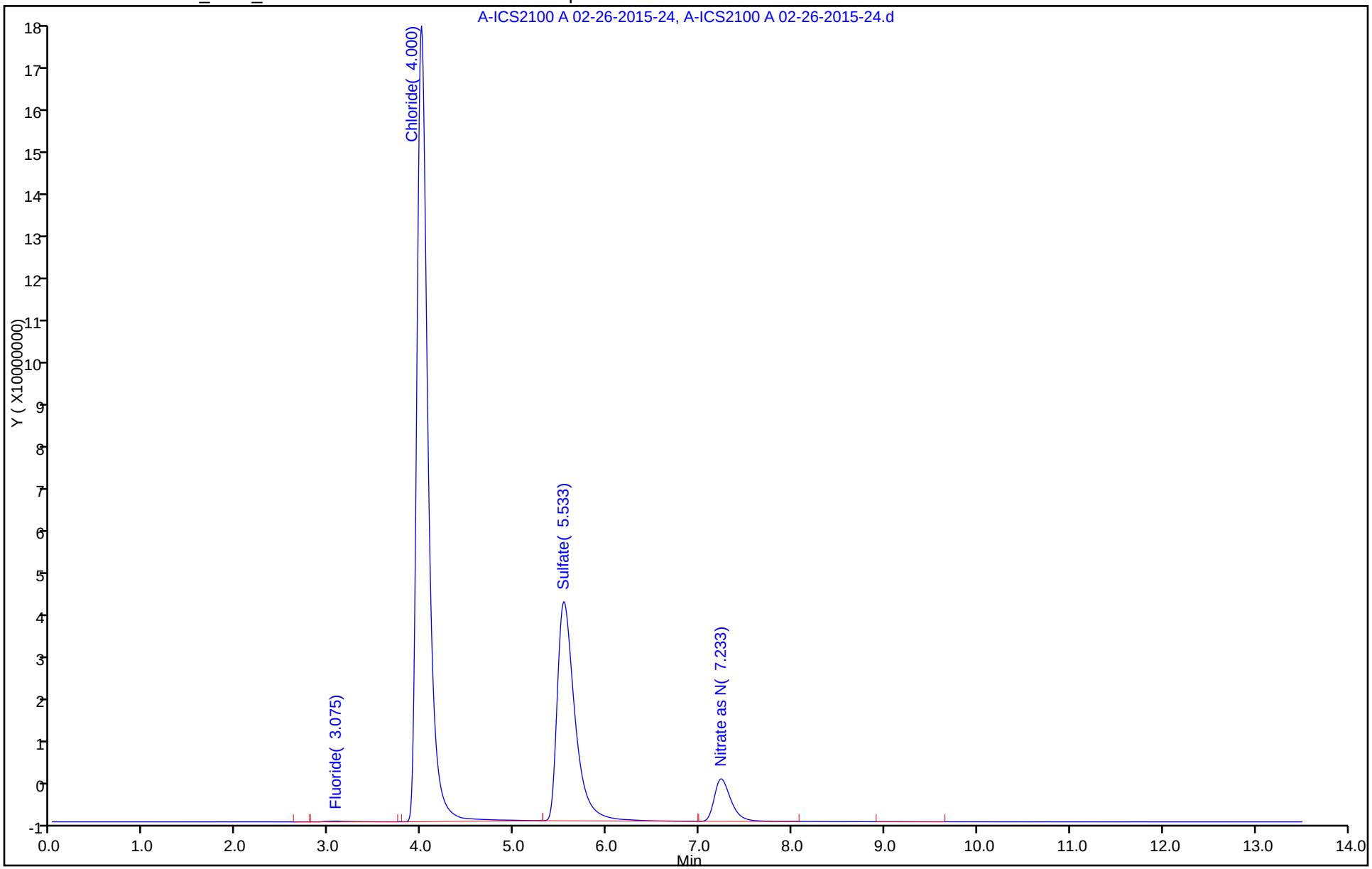
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	2.992	0.083	152686	H 0.0663	
2 Chloride	4.000	4.000	0.000	173410687	H 68.6	
7 Nitrite as N		4.692			ND	
3 Sulfate	5.533	5.525	0.008	634234320	40.4	
4 Bromide		6.242			ND	
5 Nitrate as N	7.233	7.217	0.016	9264559	H 2.37	
6 Orthophosphate as P		10.392			ND	

Report Date: 09-Mar-2015 11:55:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-24.d				
Injection Date:	26-Feb-2015 16:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-1	Lab Sample ID:	180-41508-1	Worklist Smp#:	24
Client ID:	HD-MW-98I-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-41508-3

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-29.d

Analysis Method: 300.0 Date Collected: 02/25/2015 10:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 17:17

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4		0.10	0.0062
16887-00-6	Chloride	81	B	1.0	0.20
14808-79-8	Sulfate	41		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-29.d
Lims ID: 180-41508-A-3 Lab Sample ID: 180-41508-3
Client ID: HD-MW-98S-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 17:17:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-029
Misc. Info.: 29 180-41508-a-3
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:35 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

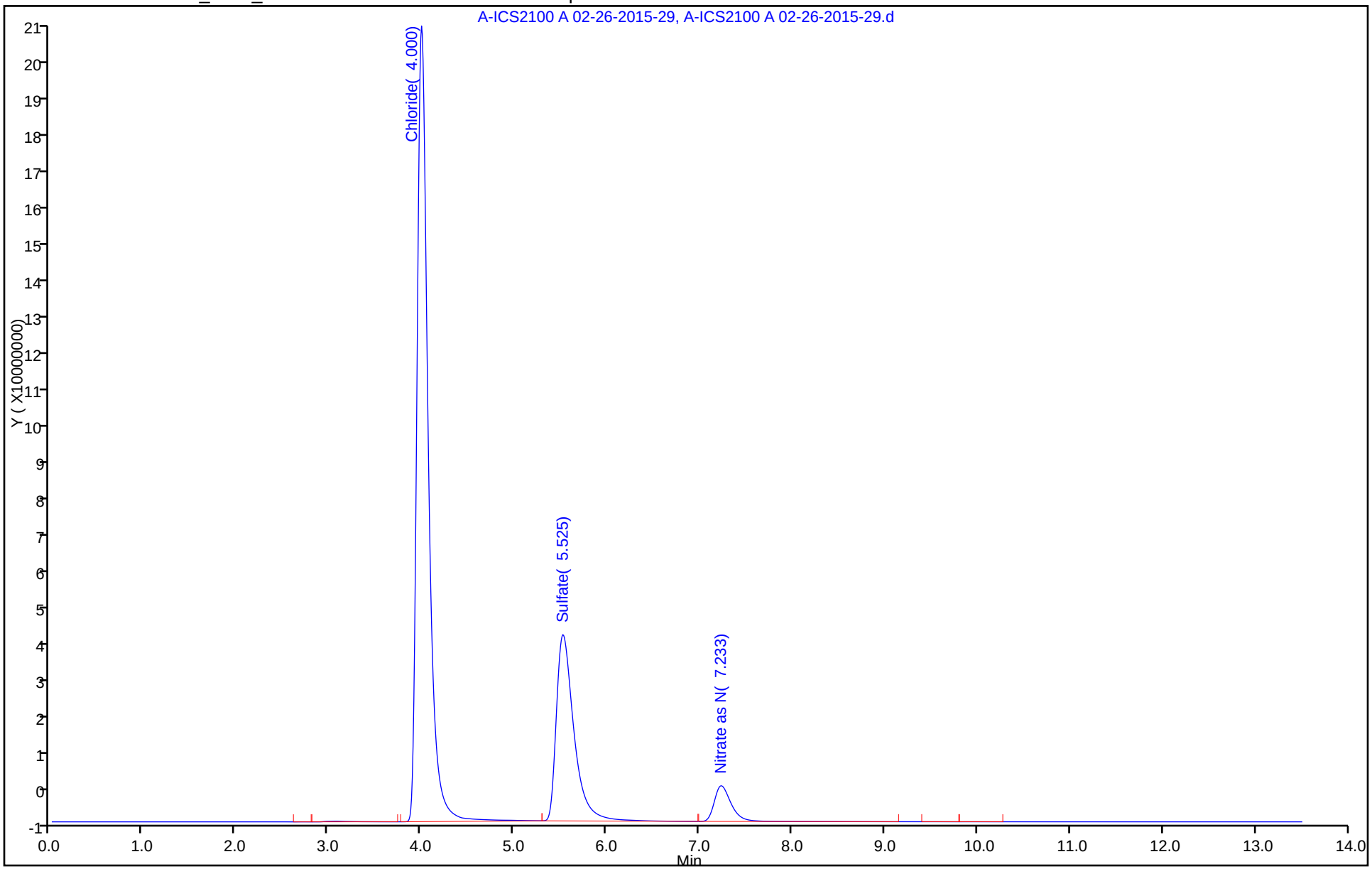
First Level Reviewer: hartmanm Date: 26-Feb-2015 17:36:26

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	205339133H	81.1	
3 Sulfate	5.525	5.525	0.000	635957741	40.6	
5 Nitrate as N	7.233	7.225	0.008	9199771H	2.35	

Report Date: 09-Mar-2015 11:55:36 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-29.d				
Injection Date:	26-Feb-2015 17:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-3	Lab Sample ID:	180-41508-3	Worklist Smp#:	29
Client ID:	HD-MW-98S-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 Lab Sample ID: 180-41508-4

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-30.d

Analysis Method: 300.0 Date Collected: 02/25/2015 12:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 17:33

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.5		0.10	0.0062
16887-00-6	Chloride	71	B	1.0	0.20
14808-79-8	Sulfate	27		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

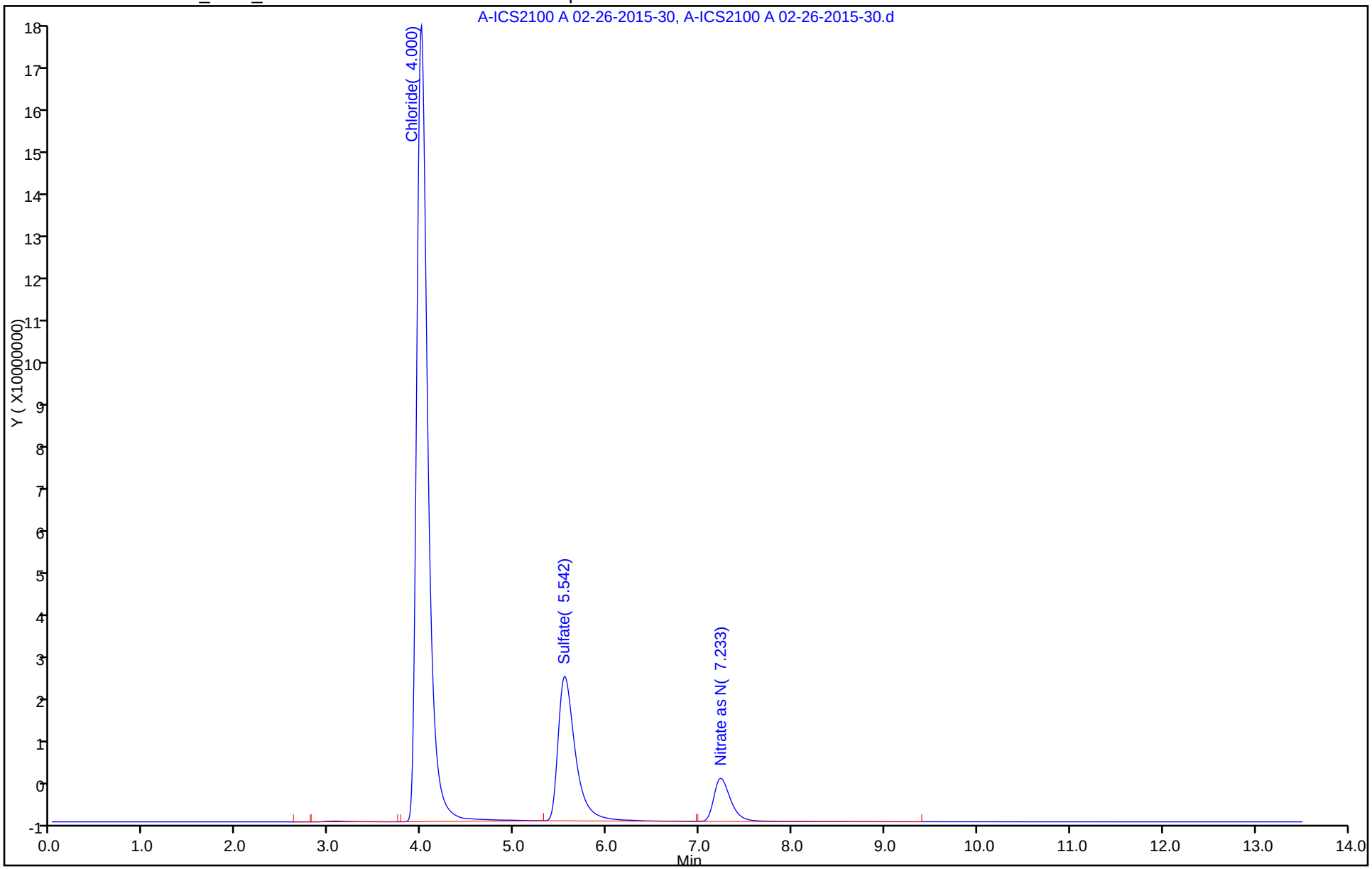
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-30.d				
Lims ID:	180-41508-A-4	Lab Sample ID:	180-41508-4		
Client ID:	HD-MW-99S-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 17:33:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005830-030				
Misc. Info.:	30 180-41508-a-4				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:35	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	179547528	H 71.0	
3 Sulfate	5.542	5.525	0.017	424406294	27.0	
5 Nitrate as N	7.233	7.225	0.008	9738929	H 2.49	

Report Date: 09-Mar-2015 11:55:36 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-30.d				
Injection Date:	26-Feb-2015 17:33:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-4	Lab Sample ID:	180-41508-4	Worklist Smp#:	30
Client ID:	HD-MW-99S-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 Lab Sample ID: 180-41508-5

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-21.d

Analysis Method: 300.0 Date Collected: 02/25/2015 13:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 15:15

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.2		0.10	0.0062
16887-00-6	Chloride	49	B	1.0	0.20
14808-79-8	Sulfate	25		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-21.d
Lims ID: 180-41508-A-5 Lab Sample ID: 180-41508-5
Client ID: HD-MW-99D-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 15:15:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-021
Misc. Info.: 21 180-41508-a-5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

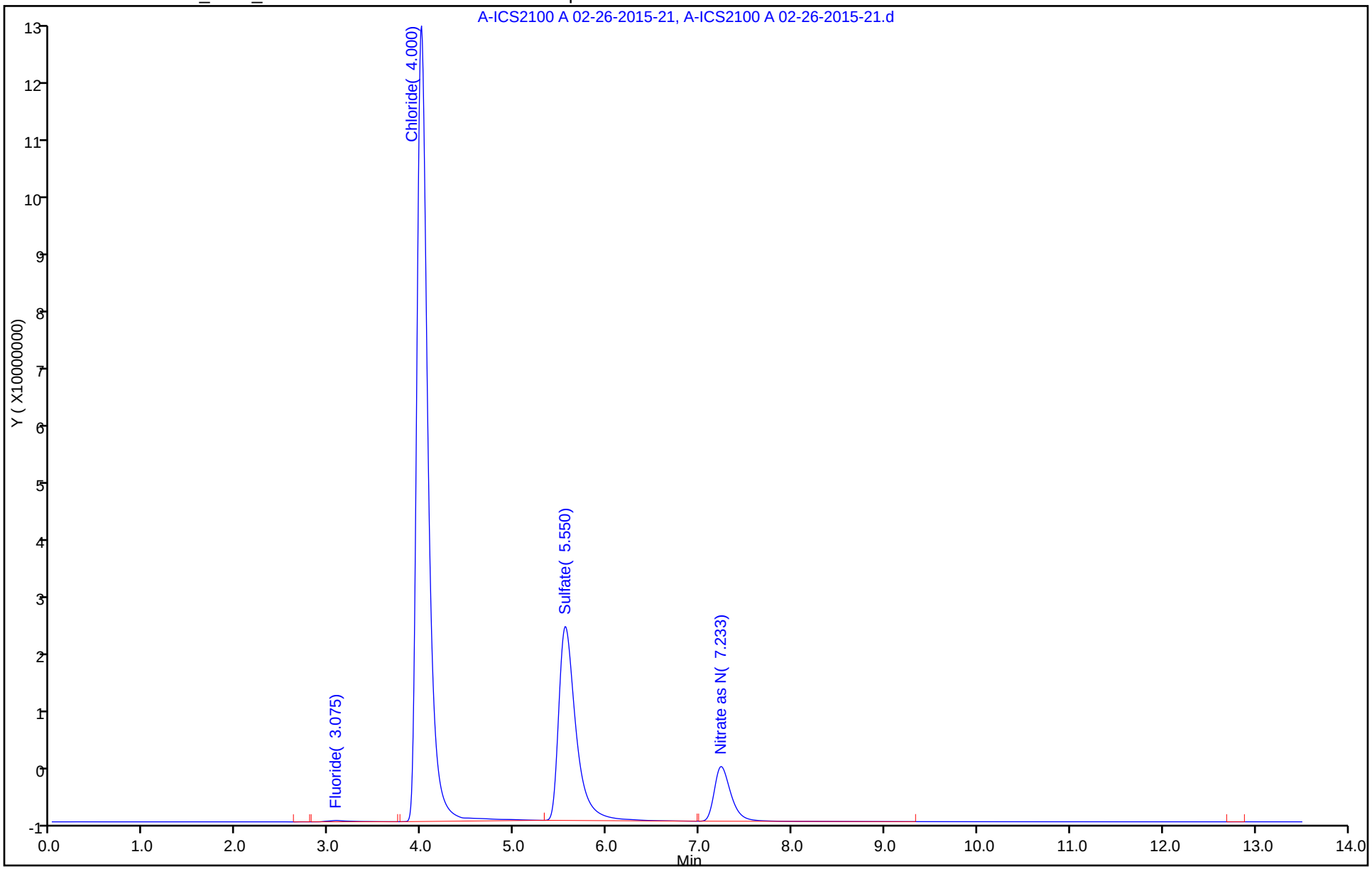
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	2.992	0.083	205656	H 0.0839	
2 Chloride	4.000	4.000	0.000	124436965	H 49.3	
7 Nitrite as N		4.692			ND	
3 Sulfate	5.550	5.525	0.025	394112687	25.1	
4 Bromide		6.242			ND	
5 Nitrate as N	7.233	7.217	0.016	8550688	H 2.19	
6 Orthophosphate as P		10.392			ND	

Report Date: 09-Mar-2015 11:55:33 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-21.d				
Injection Date:	26-Feb-2015 15:15:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-5	Lab Sample ID:	180-41508-5	Worklist Smp#:	21
Client ID:	HD-MW-99D-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-41508-6

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-17.d

Analysis Method: 300.0 Date Collected: 02/25/2015 11:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 14:14

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.7		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

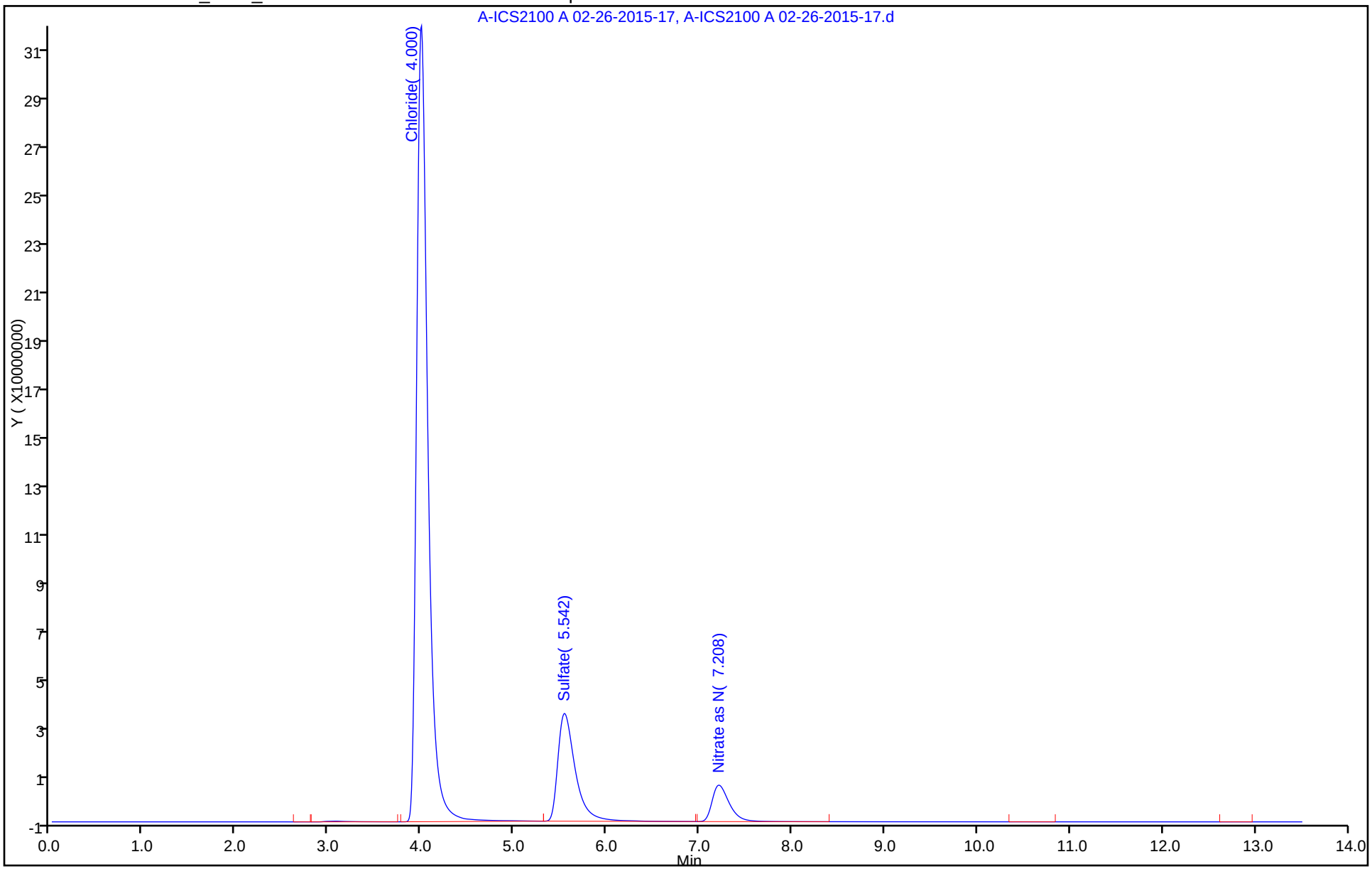
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-17.d				
Lims ID:	180-41508-A-6	Lab Sample ID:	180-41508-6		
Client ID:	HD-MW-145A-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 14:14:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005830-017				
Misc. Info.:	17 180-41508-a-6				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:31	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	312991281	H 123.5	
3 Sulfate	5.542	5.525	0.017	555530173	35.4	
5 Nitrate as N	7.208	7.217	-0.009	14321973	H 3.66	

Report Date: 09-Mar-2015 11:55:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-17.d				
Injection Date:	26-Feb-2015 14:14:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-6	Lab Sample ID:	180-41508-6	Worklist Smp#:	17
Client ID:	HD-MW-145A-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-41508-7

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-20.d

Analysis Method: 300.0 Date Collected: 02/25/2015 13:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 15:00

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	6.0		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\20150226-5830.b\A-ICS2100 A 02-26-2015-20.d
Lims ID: 180-41508-A-7 Lab Sample ID: 180-41508-7
Client ID: HD-MW-147A-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 15:00:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-020
Misc. Info.: 20 180-41508-a-7
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

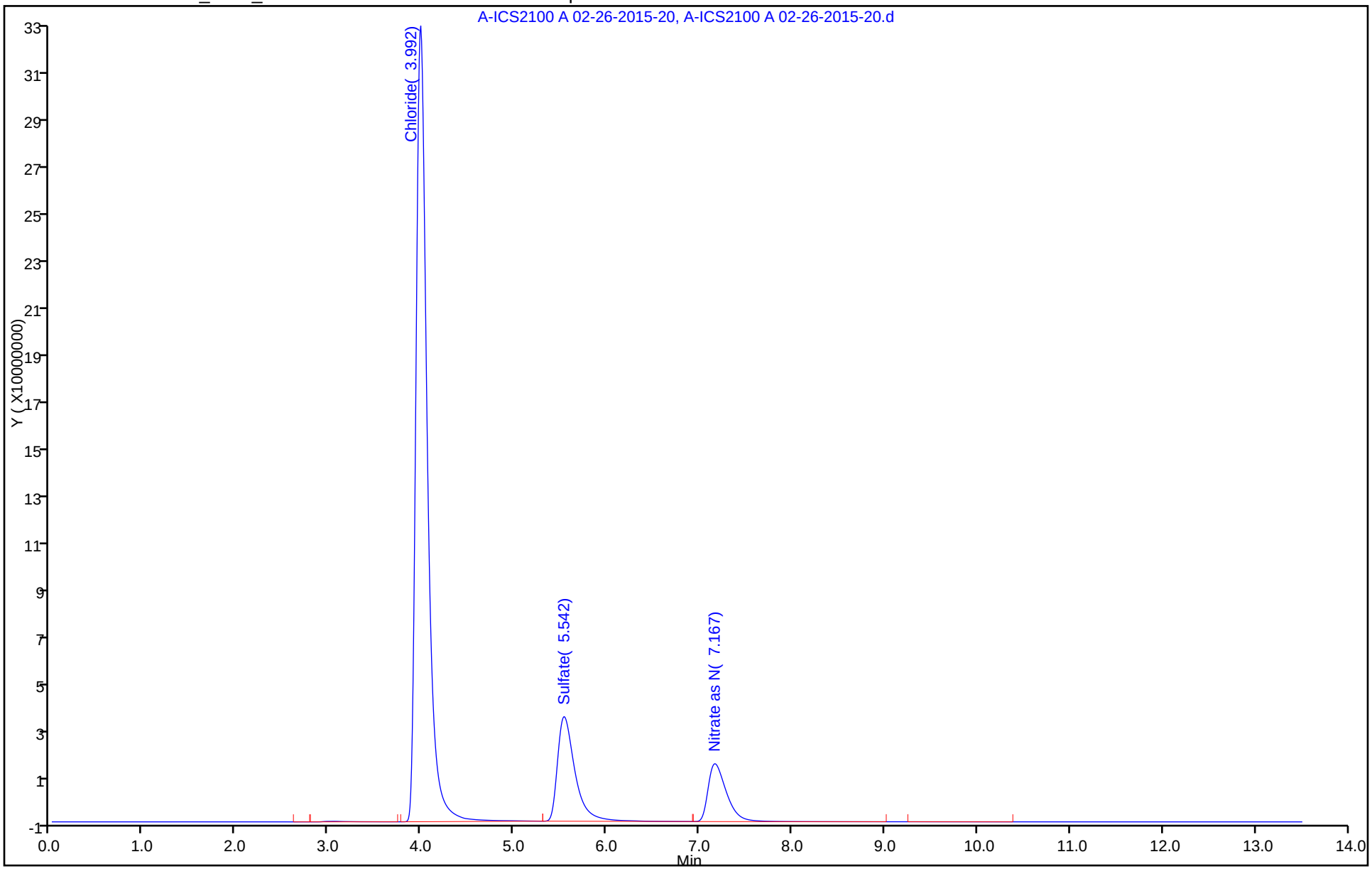
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	321155847	126.8	H
3 Sulfate	5.542	5.525	0.017	555946528	35.4	
5 Nitrate as N	7.167	7.217	-0.050	23336677	5.95	H

Report Date: 09-Mar-2015 11:55:33 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-20.d				
Injection Date:	26-Feb-2015 15:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-7	Lab Sample ID:	180-41508-7	Worklist Smp#:	20
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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-41508-8

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-31.d

Analysis Method: 300.0 Date Collected: 02/25/2015 12:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 17:48

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8		0.10	0.0062
16887-00-6	Chloride	110	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\20150226-5830.b\A-ICS2100 A 02-26-2015-31.d
Lims ID: 180-41508-A-8 Lab Sample ID: 180-41508-8
Client ID: HD-MW-100S-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 17:48:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-031
Misc. Info.: 31 180-41508-a-8
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:35 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

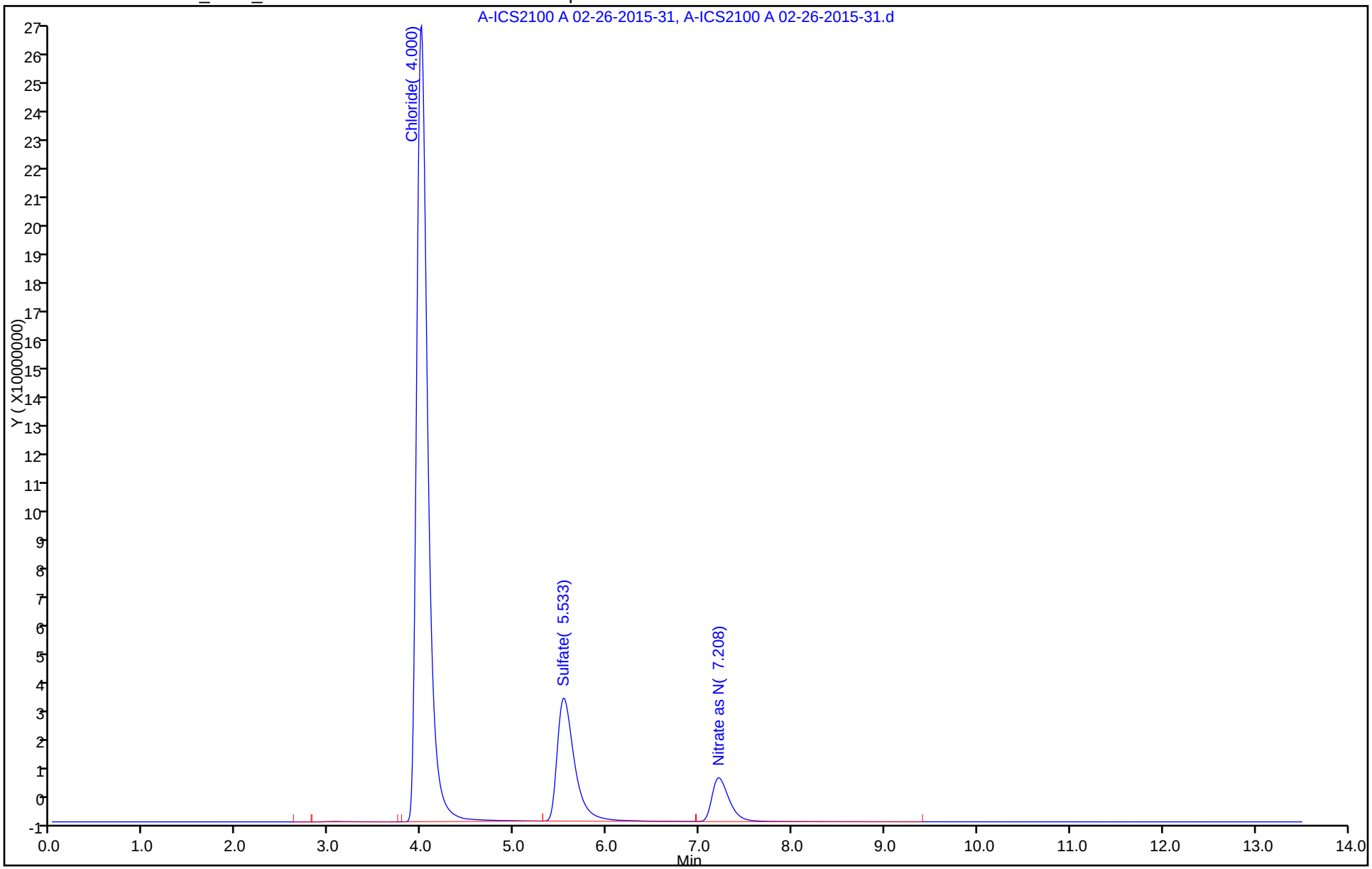
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	269258599	106.3	H
3 Sulfate	5.533	5.525	0.008	544889151	34.7	
5 Nitrate as N	7.208	7.225	-0.017	14798973	3.78	H

Report Date: 09-Mar-2015 11:55:37 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-31.d				
Injection Date:	26-Feb-2015 17:48:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-8	Lab Sample ID:	180-41508-8	Worklist Smp#:	31
Client ID:	HD-MW-100S-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100I-0/1-0 Lab Sample ID: 180-41508-9

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-32.d

Analysis Method: 300.0 Date Collected: 02/25/2015 11:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 18:03

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8		0.10	0.0062
16887-00-6	Chloride	110	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\20150226-5830.b\A-ICS2100 A 02-26-2015-32.d
Lims ID: 180-41508-A-9 Lab Sample ID: 180-41508-9
Client ID: HD-MW-100I-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 18:03:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-032
Misc. Info.: 32 180-41508-a-9
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:35 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

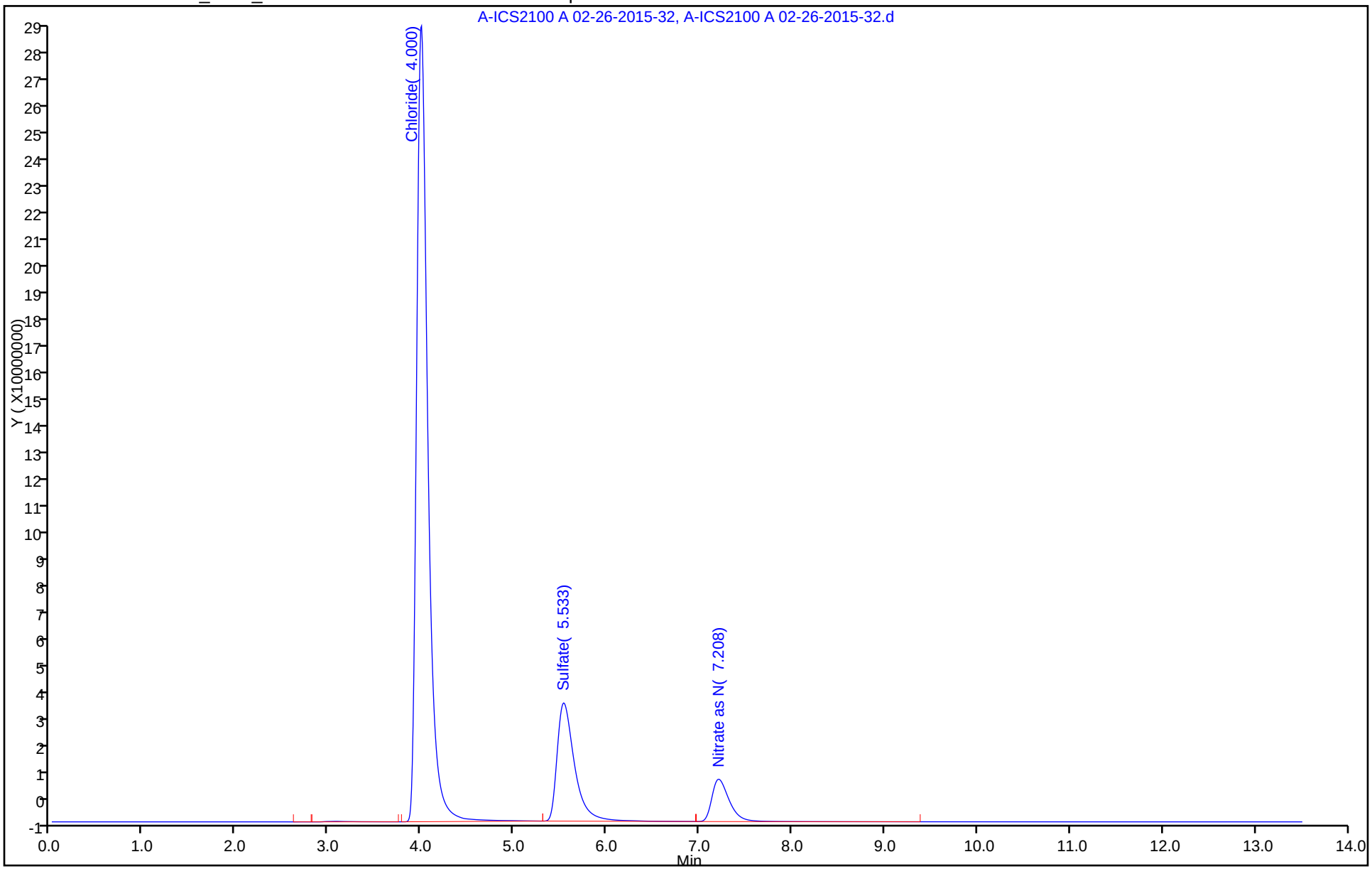
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	281874620	H 111.3	
3 Sulfate	5.533	5.525	0.008	549738006	35.1	
5 Nitrate as N	7.208	7.225	-0.017	14985317	H 3.83	

Report Date: 09-Mar-2015 11:55:38 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-32.d				
Injection Date:	26-Feb-2015 18:03:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-9	Lab Sample ID:	180-41508-9	Worklist Smp#:	32
Client ID:	HD-MW-100I-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-41508-10

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-33.d

Analysis Method: 300.0 Date Collected: 02/25/2015 10:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 18:19

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8		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\20150226-5830.b\A-ICS2100 A 02-26-2015-33.d
Lims ID: 180-41508-A-10 Lab Sample ID: 180-41508-10
Client ID: HD-MW-100D-0/1-0
Sample Type: Client
Inject. Date: 26-Feb-2015 18:19:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-033
Misc. Info.: 33 180-41508-a-10
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:35 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

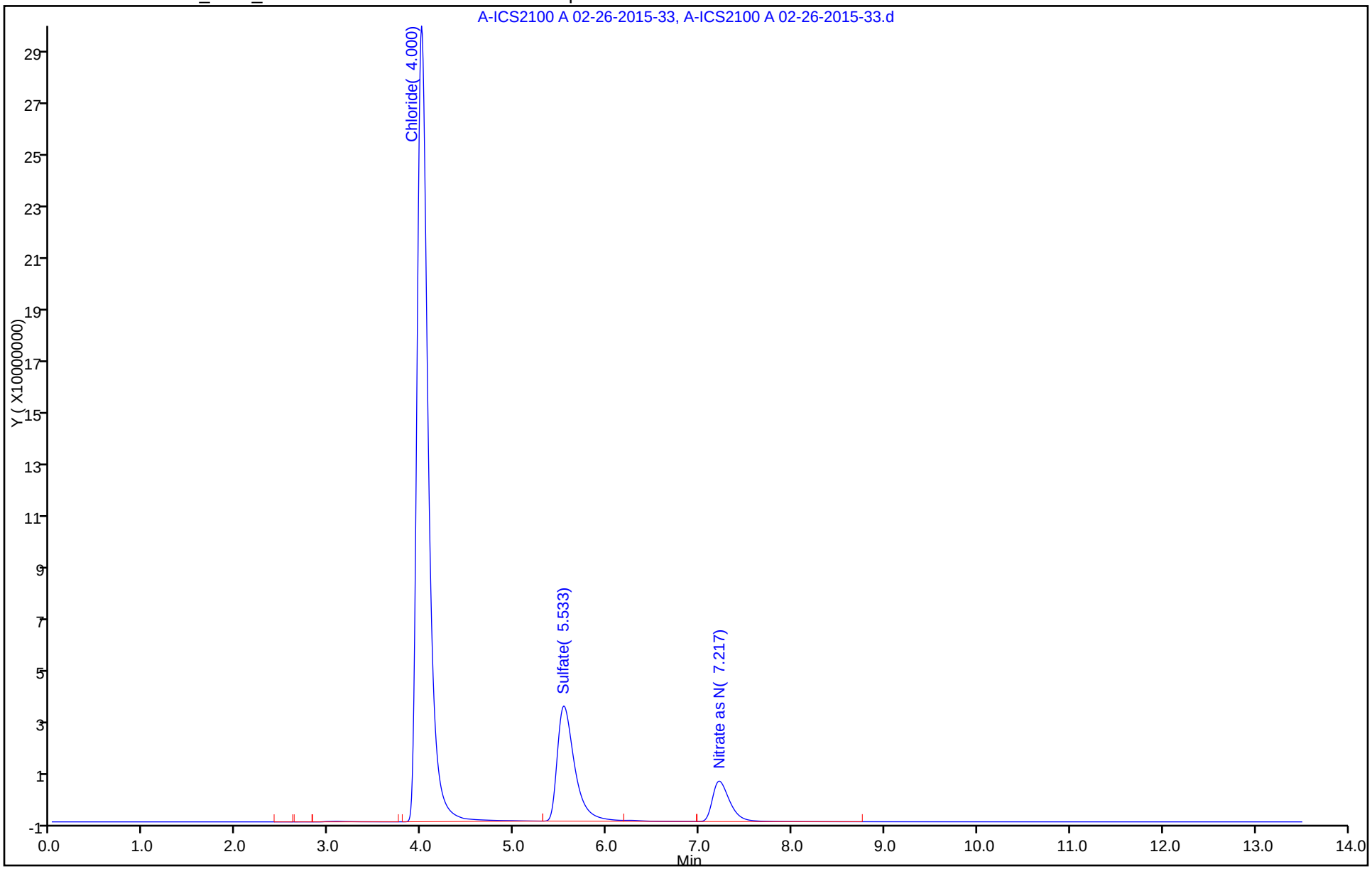
First Level Reviewer: hartmanm Date: 27-Feb-2015 10:08:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	292895628	115.6	H
3 Sulfate	5.533	5.525	0.008	553774437	35.3	
5 Nitrate as N	7.217	7.225	-0.008	14864145	3.79	H

Report Date: 09-Mar-2015 11:55:38 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-33.d				
Injection Date:	26-Feb-2015 18:19:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-10	Lab Sample ID:	180-41508-10	Worklist Smp#:	33
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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-41508-11

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-34.d

Analysis Method: 300.0 Date Collected: 02/25/2015 06:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 18:34

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.7		0.10	0.0062
14808-79-8	Sulfate	150		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-34.d				
Lims ID:	180-41508-A-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 18:34:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005830-034				
Misc. Info.:	13518 180-41508-a-11				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:35	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	737924612H	290.9	E
3 Sulfate	5.425	5.525	-0.100	2375414447	151.7	
5 Nitrate as N	7.208	7.225	-0.017	14431219H	3.68	

QC Flag Legend

Processing Flags

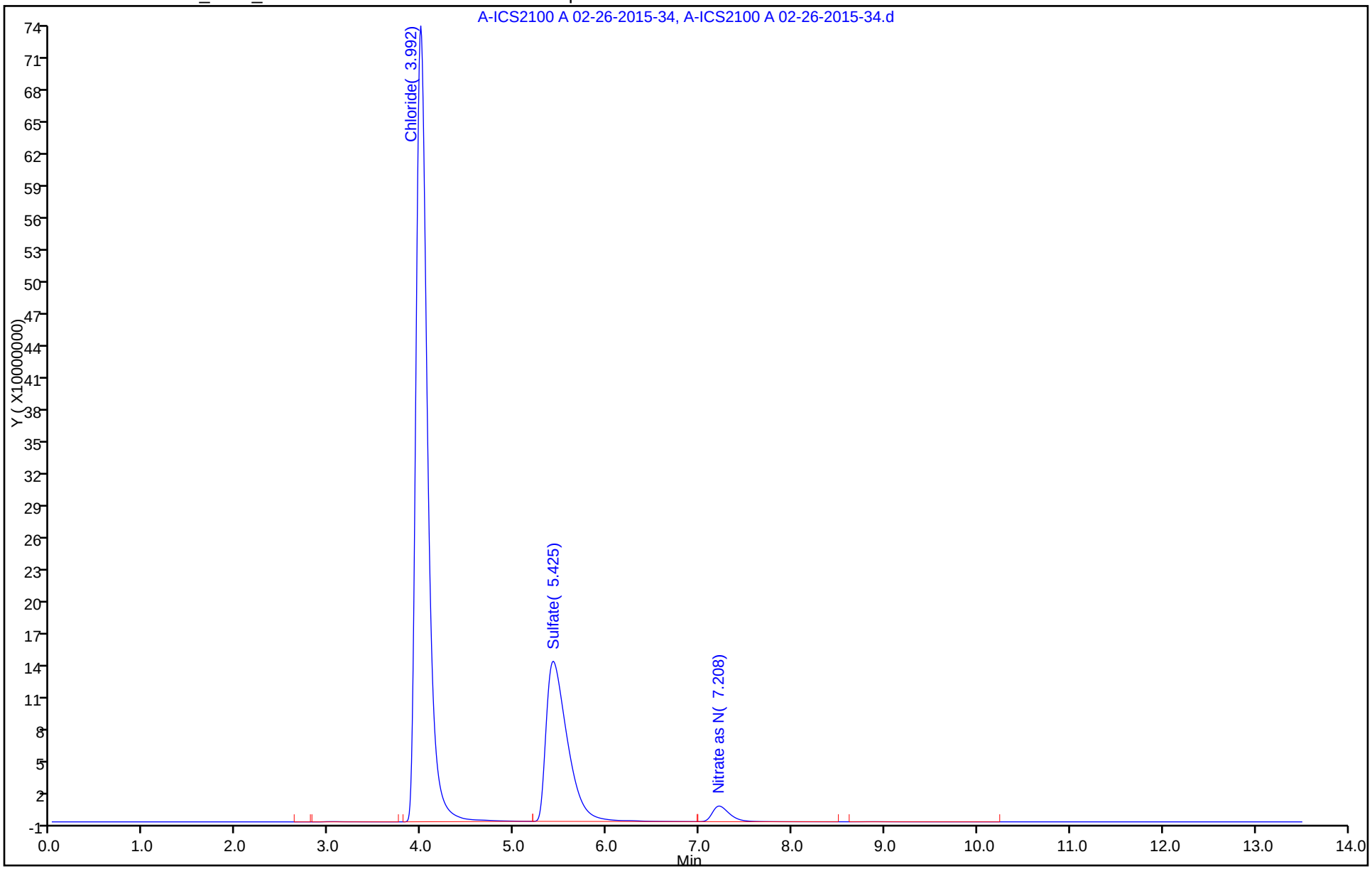
E - Exceeded Maximum Amount

H - Response Measured by Height

Report Date: 09-Mar-2015 11:55:39 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-34.d				
Injection Date:	26-Feb-2015 18:34:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-11	Lab Sample ID:	180-41508-11	Worklist Smp#:	34
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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-41508-11

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-35.d

Analysis Method: 300.0 Date Collected: 02/25/2015 06:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 18:49

Con. Extract Vol.: 1.0(mL) Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	300	B	5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

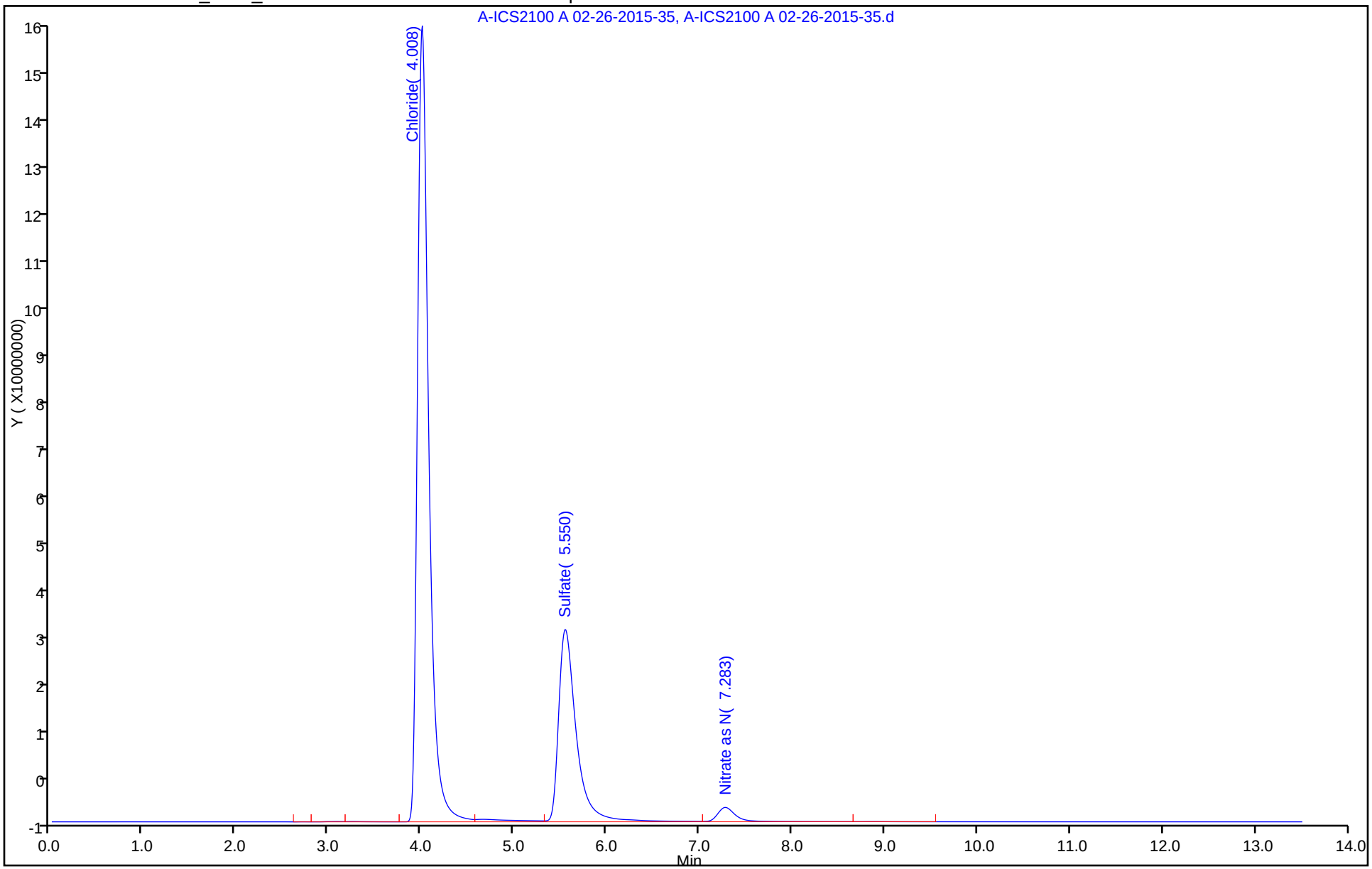
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-35.d				
Lims ID:	180-41508-A-11	Lab Sample ID:	180-41508-11		
Client ID:	HD-CW-15A-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 18:49:00	ALS Bottle#:	0	Worklist Smp#:	35
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0005830-035				
Misc. Info.:	7120 180-41508-a-11 5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:35	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.000	0.008	153451988	60.7	H
3 Sulfate	5.550	5.525	0.025	493856645	31.5	
5 Nitrate as N	7.283	7.225	0.058	2767055	0.7141	H

Report Date: 09-Mar-2015 11:55:39 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-35.d				
Injection Date:	26-Feb-2015 18:49:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-11	Lab Sample ID:	180-41508-11	Worklist Smp#:	35
Client ID:	HD-CW-15A-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-41508-12

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-14.d

Analysis Method: 300.0 Date Collected: 02/25/2015 06:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 13:28

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.3		0.10	0.0062
16887-00-6	Chloride	170	B	1.0	0.20
14808-79-8	Sulfate	37		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

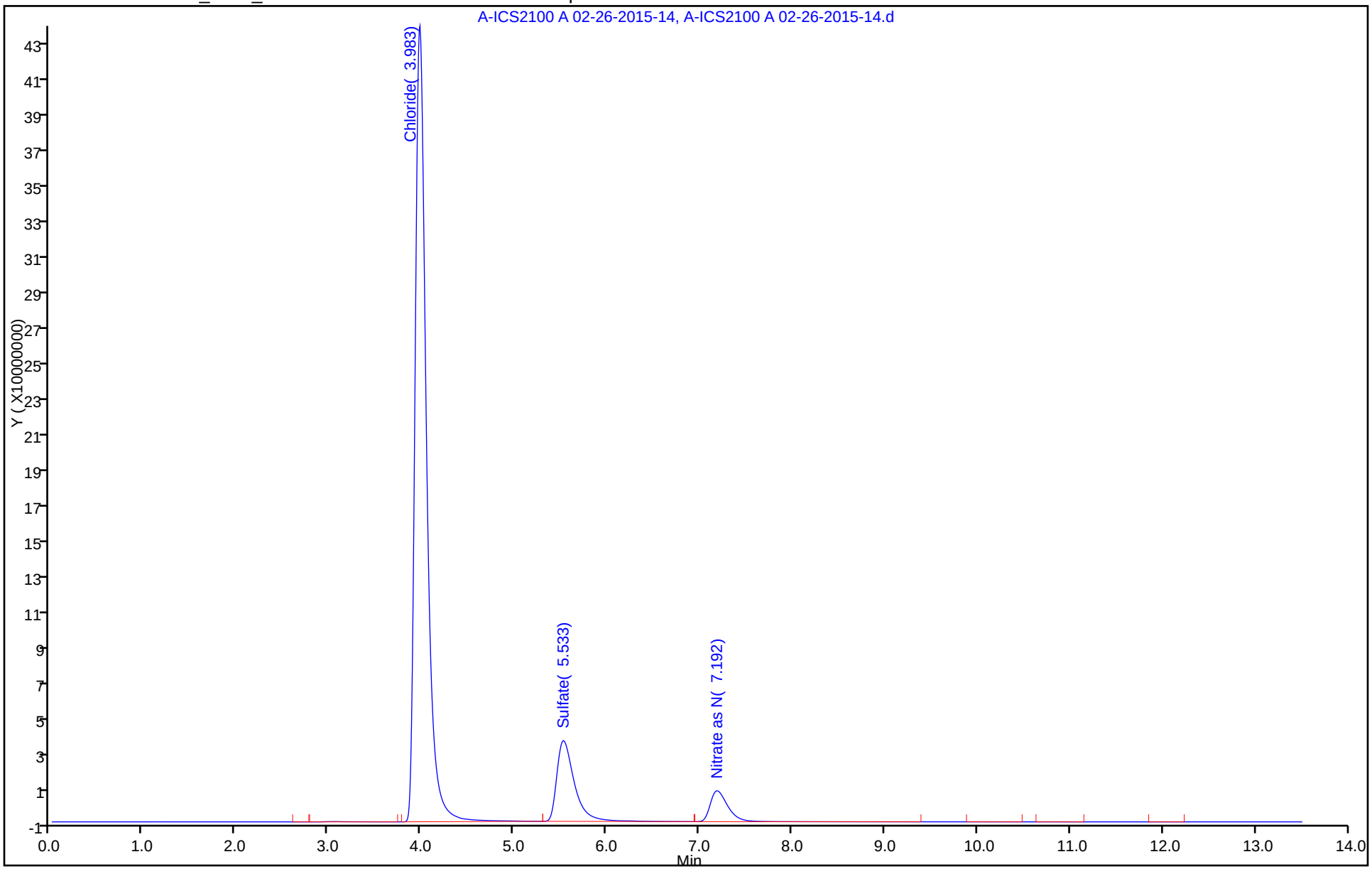
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-14.d				
Lims ID:	180-41508-A-12	Lab Sample ID:	180-41508-12		
Client ID:	HD-CW-13-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 13:28:00	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005830-014				
Misc. Info.:	14 180-41508-a-12				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:23	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.008	-0.025	435219586	H 171.7	
3 Sulfate	5.533	5.525	0.008	583720549	37.2	
5 Nitrate as N	7.192	7.233	-0.041	16866150	H 4.30	

Report Date: 09-Mar-2015 11:55:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-14.d				
Injection Date:	26-Feb-2015 13:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-12	Lab Sample ID:	180-41508-12	Worklist Smp#:	14
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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-41508-13

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-18.d

Analysis Method: 300.0 Date Collected: 02/25/2015 06:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 14:29

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.6		0.10	0.0062
16887-00-6	Chloride	160	B	1.0	0.20
14808-79-8	Sulfate	30		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

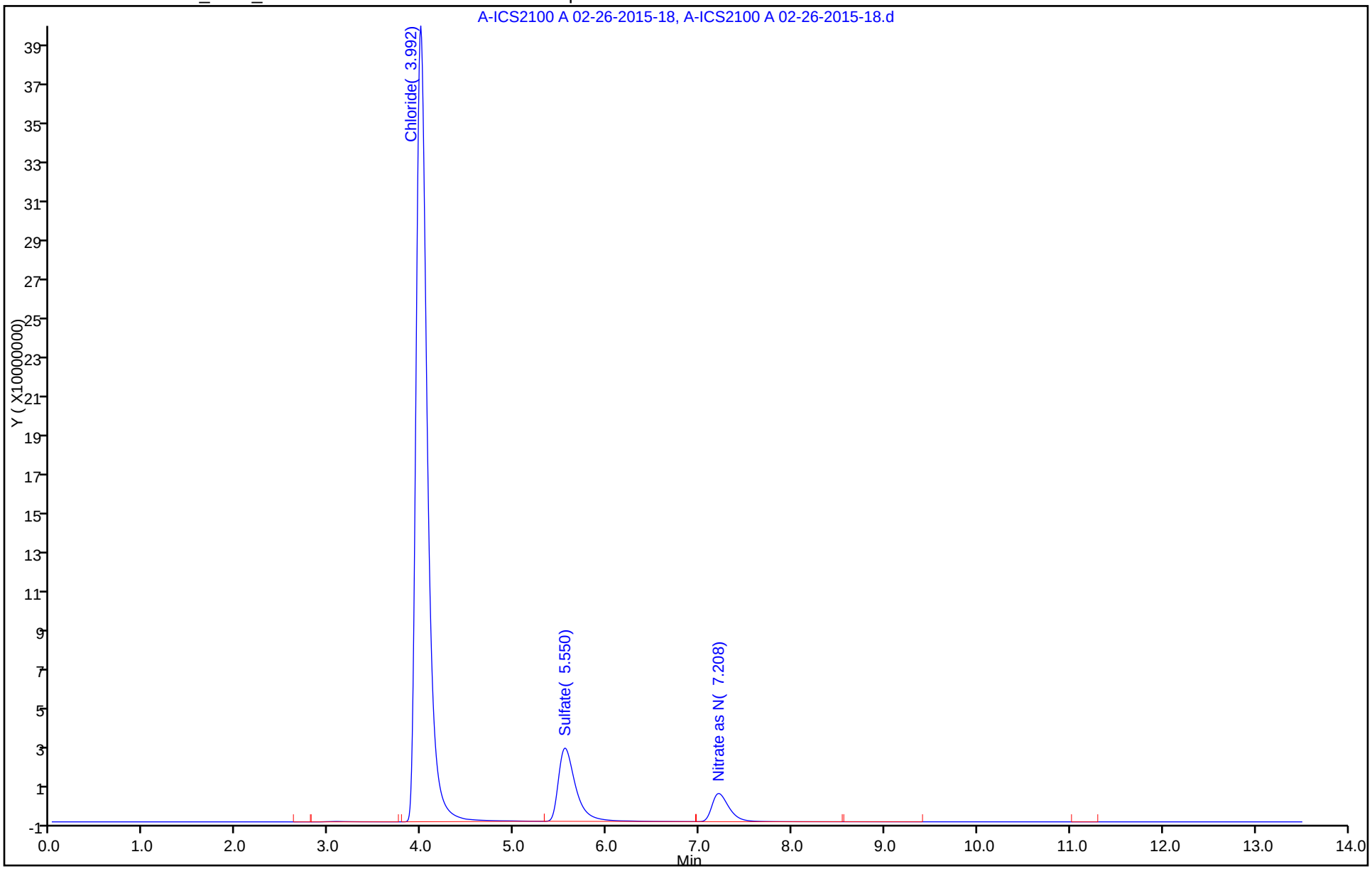
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-18.d				
Lims ID:	180-41508-A-13	Lab Sample ID:	180-41508-13		
Client ID:	HD-CW-20-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 14:29:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005830-018				
Misc. Info.:	18 180-41508-a-13				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:31	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	399211727H	157.5	
3 Sulfate	5.550	5.525	0.025	478082975	30.5	
5 Nitrate as N	7.208	7.217	-0.009	14123820H	3.61	

Report Date: 09-Mar-2015 11:55:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-18.d				
Injection Date:	26-Feb-2015 14:29:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-13	Lab Sample ID:	180-41508-13	Worklist Smp#:	18
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.: 180-41508-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-41508-14

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-19.d

Analysis Method: 300.0 Date Collected: 02/25/2015 06:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 14:44

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.3		0.10	0.0062
16887-00-6	Chloride	190	B	1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

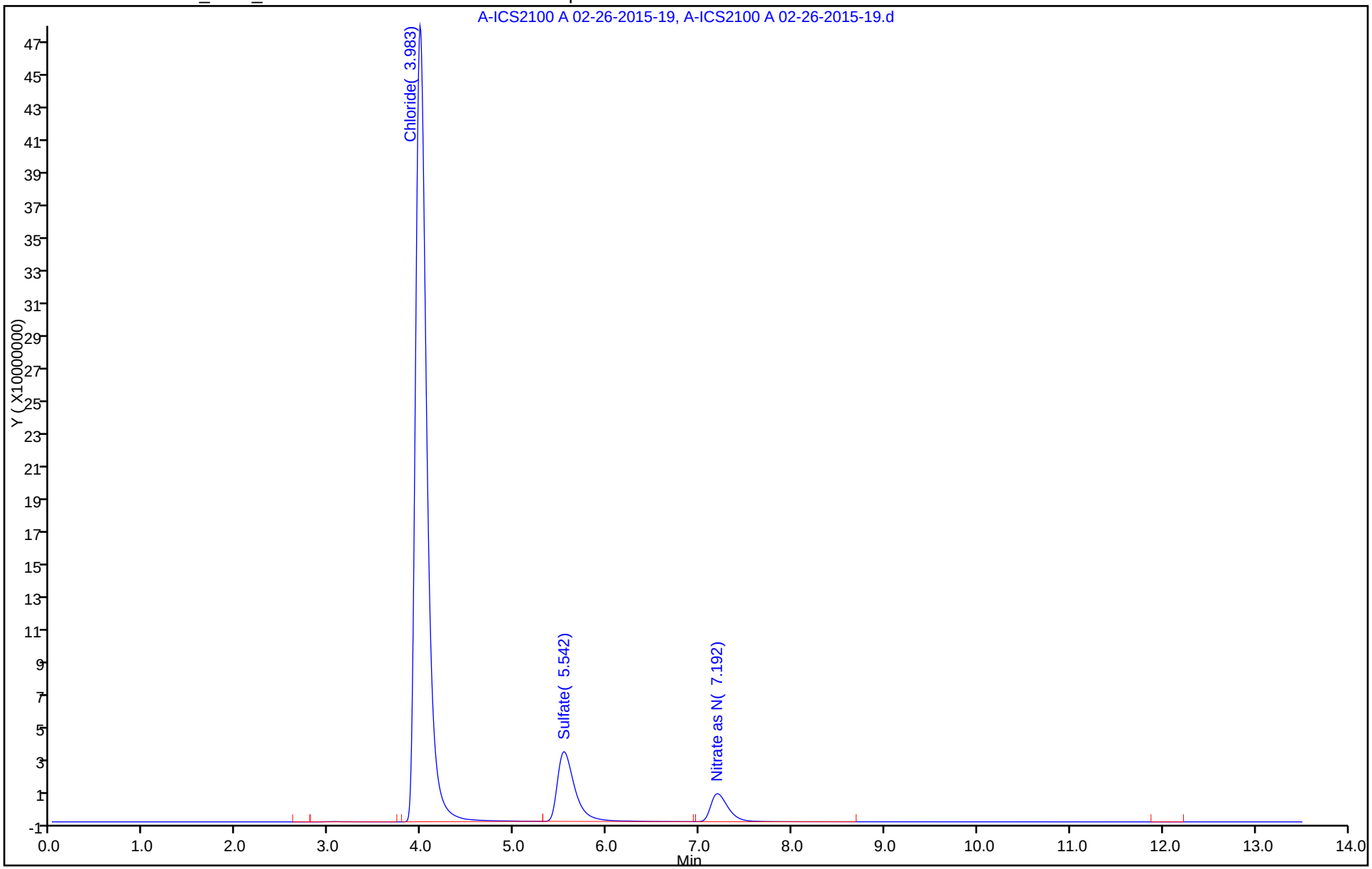
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-19.d				
Lims ID:	180-41508-A-14	Lab Sample ID:	180-41508-14		
Client ID:	HD-CW-9-0/1-0				
Sample Type:	Client				
Inject. Date:	26-Feb-2015 14:44:00	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005830-019				
Misc. Info.:	19 180-41508-a-14				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	09-Mar-2015 11:55:31	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.000	-0.017	474701784H	187.2	
3 Sulfate	5.542	5.525	0.017	545518726	34.8	
5 Nitrate as N	7.192	7.217	-0.025	16676663H	4.26	

Report Date: 09-Mar-2015 11:55:33 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-19.d				
Injection Date:	26-Feb-2015 14:44:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-14	Lab Sample ID:	180-41508-14	Worklist Smp#:	19
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 VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 133779

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 02/18/2015 16:38 Calibration End Date: 02/18/2015 18:25 Calibration ID: 21971

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-133779/2	A-ICS2100 A 02-18A-2015-2.d
Level 2	IC 180-133779/3	A-ICS2100 A 02-18A-2015-3.d
Level 3	ICRT 180-133779/4	A-ICS2100 A 02-18A-2015-4.d
Level 4	IC 180-133779/5	A-ICS2100 A 02-18A-2015-5.d
Level 5	IC 180-133779/6	A-ICS2100 A 02-18A-2015-6.d
Level 6	IC 180-133779/7	A-ICS2100 A 02-18A-2015-7.d
Level 7	IC 180-133779/8	A-ICS2100 A 02-18A-2015-8.d
Level 8	IC 180-133779/9	A-ICS2100 A 02-18A-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	3.000	3.000	3.000	2.992	2.992	2.992	2.983			2.650 - 3.350	2.996
Chloride	4.042	4.033	4.017	4.008	4.000	4.000	3.992	3.983			3.667 - 4.367	4.009
Nitrite as N	4.733	4.725	4.717	4.717	4.700	4.700	4.683	4.675			4.467 - 4.967	4.706
Sulfate	5.567	5.550	5.550	5.533	5.467	5.425	5.367	5.342			5.200 - 5.900	5.475
Bromide	6.325	6.317	6.300	6.292	6.283	6.258	6.225	6.217			5.950 - 6.650	6.277
Nitrate as N	7.350	7.333	7.317	7.300	7.267	7.217	7.175	7.142			7.067 - 7.567	7.263
Orthophosphate as P		+++++	10.458	10.375	10.200	10.117	10.000	9.942			10.208 - 10.708	10.182

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1 Analy Batch No.: 133779

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 02/18/2015 16:38 Calibration End Date: 02/18/2015 18:25 Calibration ID: 21971

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-133779/2	A-ICS2100 A 02-18A-2015-2.d
Level 2	IC 180-133779/3	A-ICS2100 A 02-18A-2015-3.d
Level 3	ICRT 180-133779/4	A-ICS2100 A 02-18A-2015-4.d
Level 4	IC 180-133779/5	A-ICS2100 A 02-18A-2015-5.d
Level 5	IC 180-133779/6	A-ICS2100 A 02-18A-2015-6.d
Level 6	IC 180-133779/7	A-ICS2100 A 02-18A-2015-7.d
Level 7	IC 180-133779/8	A-ICS2100 A 02-18A-2015-8.d
Level 8	IC 180-133779/9	A-ICS2100 A 02-18A-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	2163200 3165843	2445916 3212839	2684732 3169919	2963388 2965770	Lin2	-46911.187	3009662.85							0.9950		0.9900
Chloride	1881673 2567721	2349794 2575536	2454915 2548766	2585728 2421631	Lin2	-665487.98	2538987.66							0.9990		0.9900
Nitrite as N	4289940 4114648	3721616 3759856	3877108 3530822	4108169 3257069	Lin2	27970.5648	3735089.23							0.9940		0.9900
Sulfate	16949742 16074169	15515894 15891053	15500606 15836712	16166879 14968109	Lin2	1228486.84	15649189.8							0.9990		0.9900
Bromide	746315 868610	769310 868188	797174 854789	854312 810309	Lin2	-20794.475	839212.726							0.9980		0.9900
Nitrate as N	3199060 4205984	3604280 4022596	3833744 3807690	4201889 3504135	Lin2	-37245.802	3927006.52							0.9960		0.9900
Orthophosphate as P	 12849501	+++++ 16235438	5311680 16994054	10345730 16850946	Lin2	-6082562.0	16983972.7							0.9950		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.: 180-41508-1 Analy Batch No.: 133779

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 02/18/2015 16:38 Calibration End Date: 02/18/2015 18:25 Calibration ID: 21971

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-133779/2	A-ICS2100 A 02-18A-2015-2.d
Level 2	IC 180-133779/3	A-ICS2100 A 02-18A-2015-3.d
Level 3	ICRT 180-133779/4	A-ICS2100 A 02-18A-2015-4.d
Level 4	IC 180-133779/5	A-ICS2100 A 02-18A-2015-5.d
Level 5	IC 180-133779/6	A-ICS2100 A 02-18A-2015-6.d
Level 6	IC 180-133779/7	A-ICS2100 A 02-18A-2015-7.d
Level 7	IC 180-133779/8	A-ICS2100 A 02-18A-2015-8.d
Level 8	IC 180-133779/9	A-ICS2100 A 02-18A-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	Lin2	108160 16064197	611479 23774396	1342366 29657700	2963388	7914608	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	1881673 257553603	11748971 382314941	24549148 484326140	51714566	128386026	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	214497 18799281	930404 26481163	1938554 32570690	4108169	10286620	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Sulfate	Lin2	16949742 1589105343	77579469 2375506786	155006056 2993621710	323337576	803708435	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	149263 17363768	769310 25643657	1594349 32412358	3417246	8686100	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	159953 20112979	901070 28557676	1916872 35041348	4201889	10514959	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	 81177192	+++++ 127455403	2655840 168509455	10345730	32123753	 5.00	+++++ 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:
Lin2 = Linear 1/conc^2 by height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Feb-2015 16:38:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:48 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:28:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.000	0.008	108160H	0.0500	0.0515	
2 Chloride	4.042	4.017	0.025	1881673H	1.00	1.00	
7 Nitrite as N	4.733	4.717	0.016	214497H	0.0500	0.0499	
3 Sulfate	5.567	5.550	0.017	16949742	1.00	1.00	
4 Bromide	6.325	6.300	0.025	149263H	0.2000	0.2026	
5 Nitrate as N	7.350	7.317	0.033	159953H	0.0500	0.0502	
6 Orthophosphate as P		10.458			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

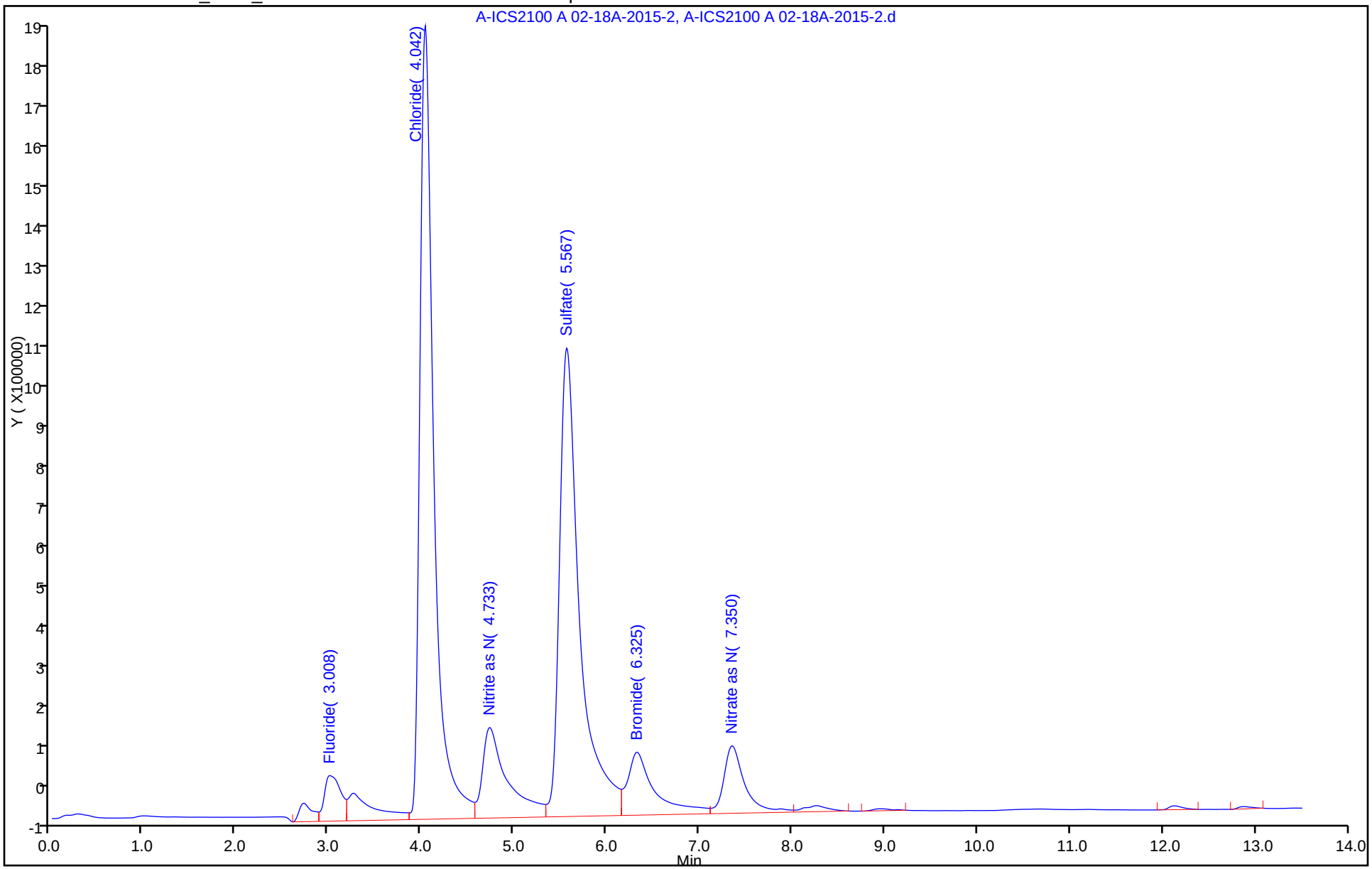
Reagents:

ICSTDL2_00155 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-2.d				
Injection Date:	18-Feb-2015 16:38:00	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		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Feb-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:49 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:28:41

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	611479H	0.2500	0.2188	
2 Chloride	4.033	4.017	0.016	11748971H	5.00	4.89	
7 Nitrite as N	4.725	4.717	0.008	930404H	0.2500	0.2416	
3 Sulfate	5.550	5.550	0.000	77579469	5.00	4.88	
4 Bromide	6.317	6.300	0.017	769310H	1.00	0.9415	
5 Nitrate as N	7.333	7.317	0.016	901070H	0.2500	0.2389	
6 Orthophosphate as P	10.467	10.458	0.009	686387	0.2500	0.3985	

Reagents:

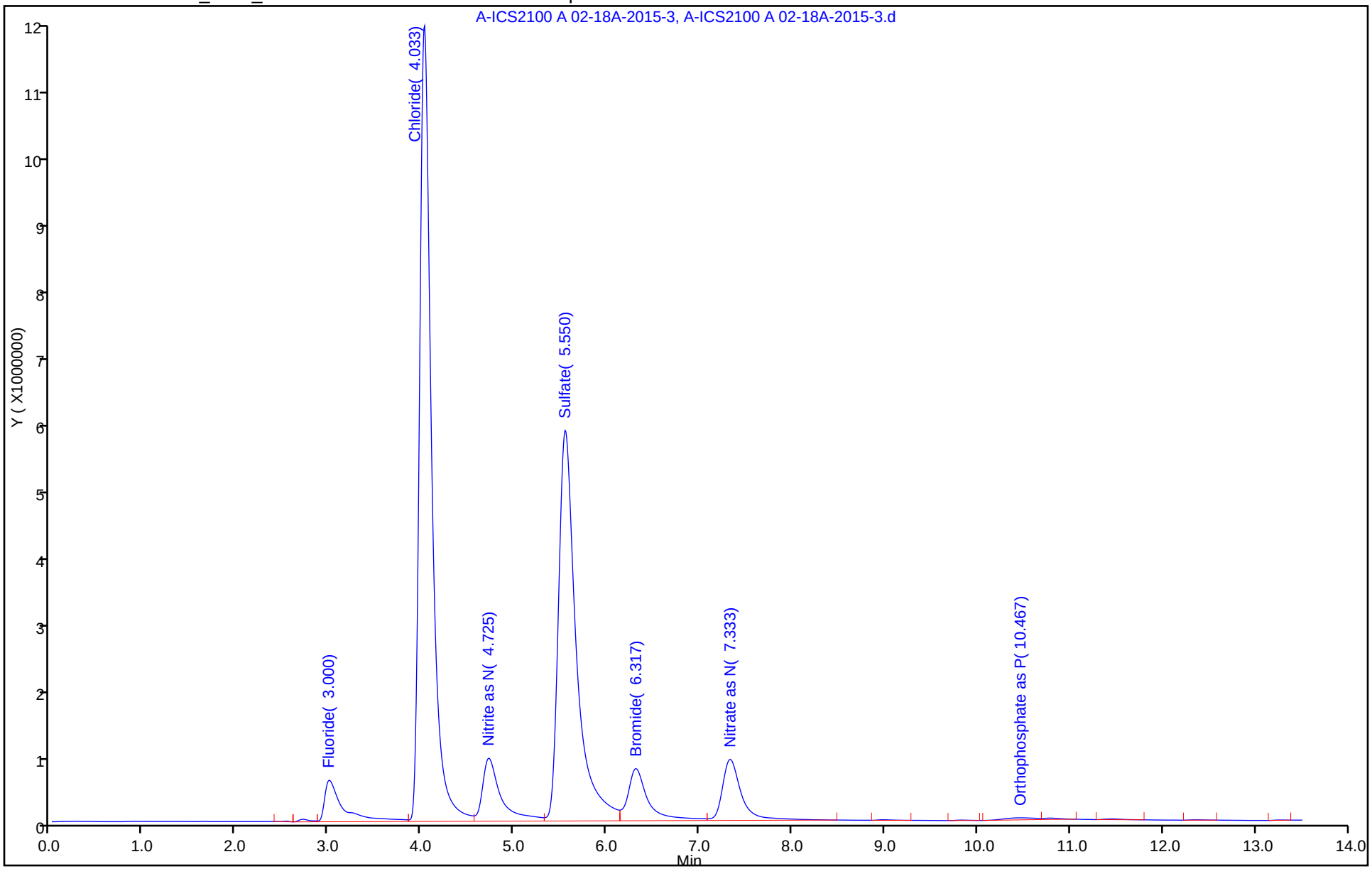
ICSTDL3_00194 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-3.d

Injection Date:	18-Feb-2015 16:53:00	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		



Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 18-Feb-2015 17:08:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:49 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: hartmanm Date: 03-Mar-2015 13:48:26

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	1342366H	0.5000	0.4616	
2 Chloride	4.017	4.017	0.000	24549148H	10.0	9.93	
7 Nitrite as N	4.717	4.717	0.000	1938554H	0.5000	0.5115	
3 Sulfate	5.550	5.550	0.000	155006056	10.0	9.83	
4 Bromide	6.300	6.300	0.000	1594349H	2.00	1.92	
5 Nitrate as N	7.317	7.317	0.000	1916872H	0.5000	0.4976	
6 Orthophosphate as P	10.458	10.458	0.000	2655840	0.5000	0.5145	

Reagents:

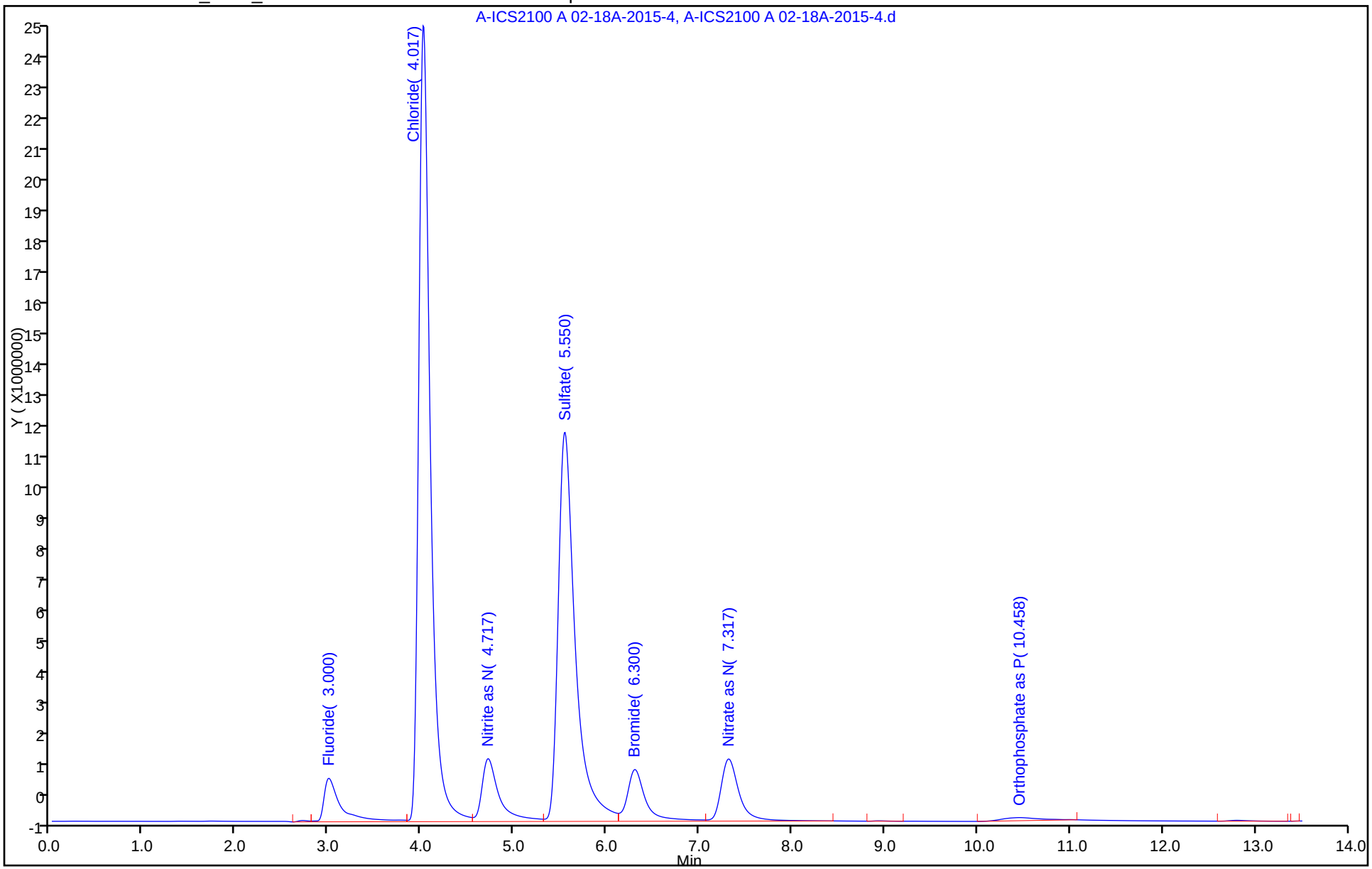
ICSTDL4_00131 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-4.d

Injection Date:	18-Feb-2015 17:08:00	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\20150218-5751.b\A-ICS2100 A 02-18A-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Feb-2015 17:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:49 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

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	2963388H	1.00	1.00	
2 Chloride	4.008	4.017	-0.009	51714566H	20.0	20.6	
7 Nitrite as N	4.717	4.717	0.000	4108169H	1.00	1.09	
3 Sulfate	5.533	5.550	-0.017	323337576	20.0	20.6	
4 Bromide	6.292	6.300	-0.008	3417246H	4.00	4.10	
5 Nitrate as N	7.300	7.317	-0.017	4201889H	1.00	1.08	
6 Orthophosphate as P	10.375	10.458	-0.083	10345730	1.00	0.9673	

Reagents:

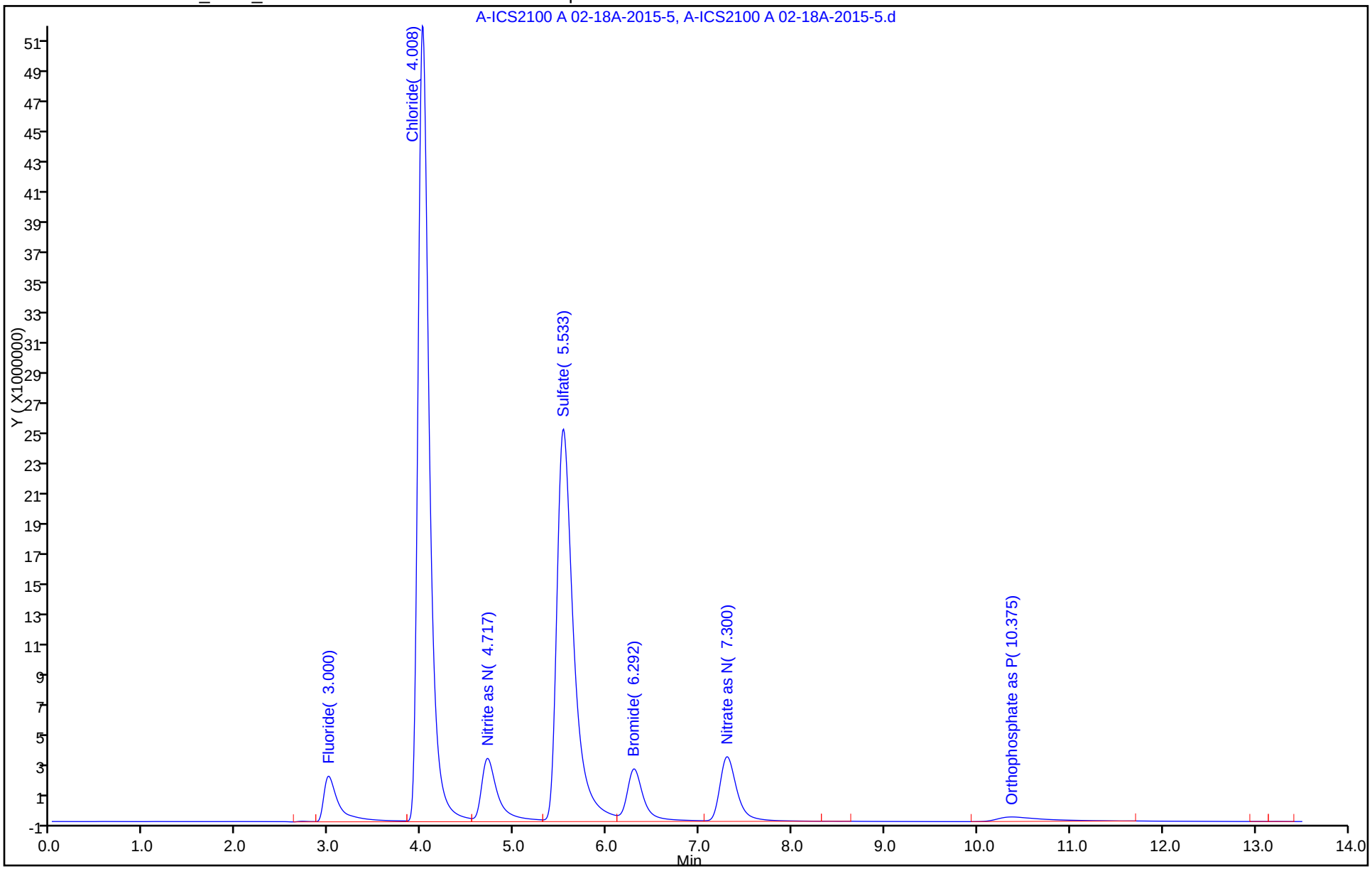
ICSTDL5_00132 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-5.d

Injection Date:	18-Feb-2015 17:24:00	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: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Feb-2015 17:39:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:50 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:29:36

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	7914608H	2.50	2.65	
2 Chloride	4.000	4.017	-0.017	128386026H	50.0	50.8	
7 Nitrite as N	4.700	4.717	-0.017	10286620H	2.50	2.75	
3 Sulfate	5.467	5.550	-0.083	803708435	50.0	51.3	
4 Bromide	6.283	6.300	-0.017	8686100H	10.0	10.4	
5 Nitrate as N	7.267	7.317	-0.050	10514959H	2.50	2.69	
6 Orthophosphate as P	10.200	10.458	-0.258	32123753	2.50	2.25	

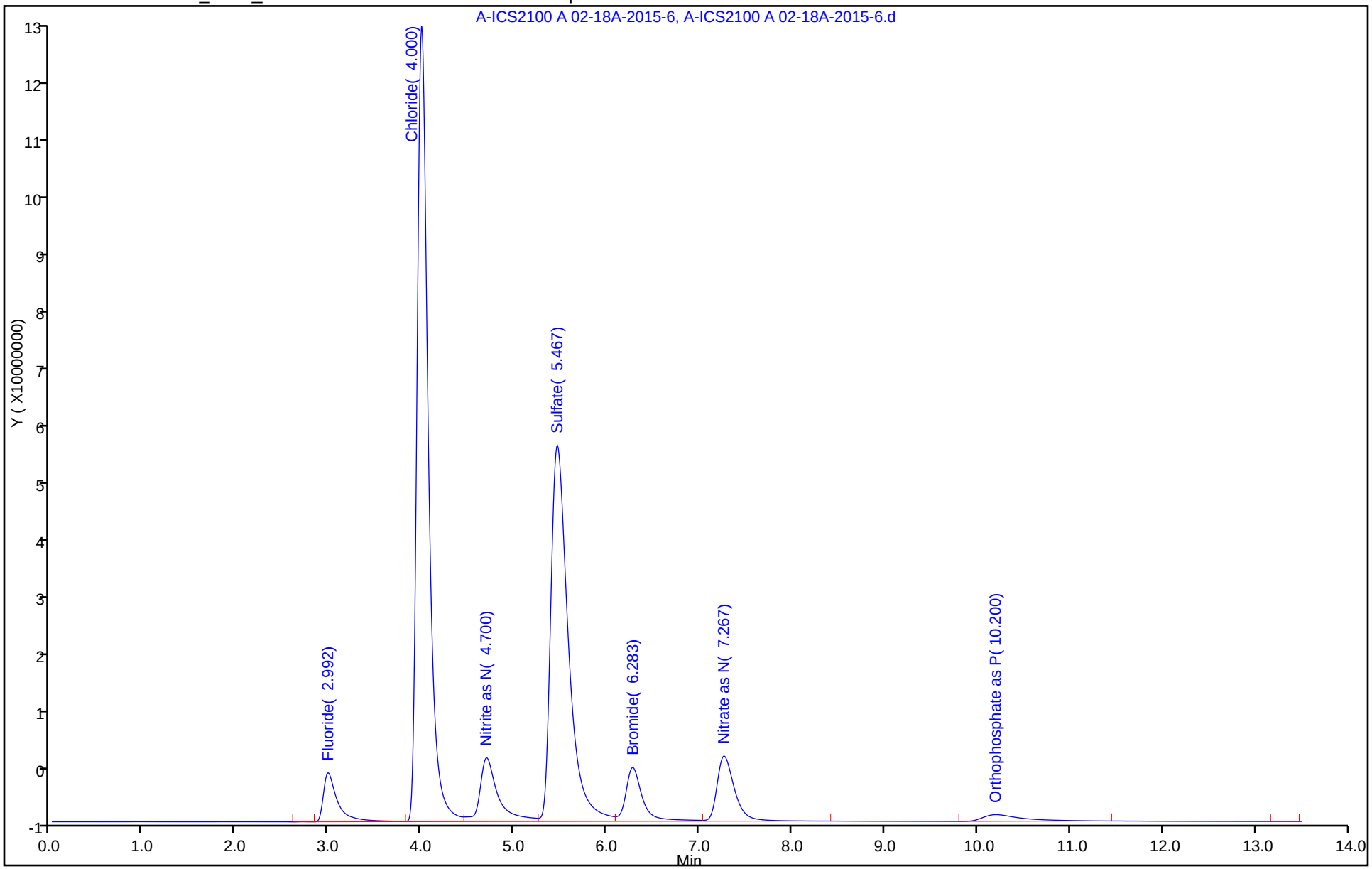
Reagents:

ICSTDL6_00200 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-6.d				
Injection Date:	18-Feb-2015 17:39:00	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: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Feb-2015 17:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-007
Misc. Info.: 7 IC L7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:50 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:29:29

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	16064197H	5.00	5.35	
2 Chloride	4.000	4.017	-0.017	257553603H	100.0	101.7	
7 Nitrite as N	4.700	4.717	-0.017	18799281H	5.00	5.03	
3 Sulfate	5.425	5.550	-0.125	1589105343	100.0	101.5	
4 Bromide	6.258	6.300	-0.042	17363768H	20.0	20.7	
5 Nitrate as N	7.217	7.317	-0.100	20112979H	5.00	5.13	
6 Orthophosphate as P	10.117	10.458	-0.341	81177192	5.00	5.14	

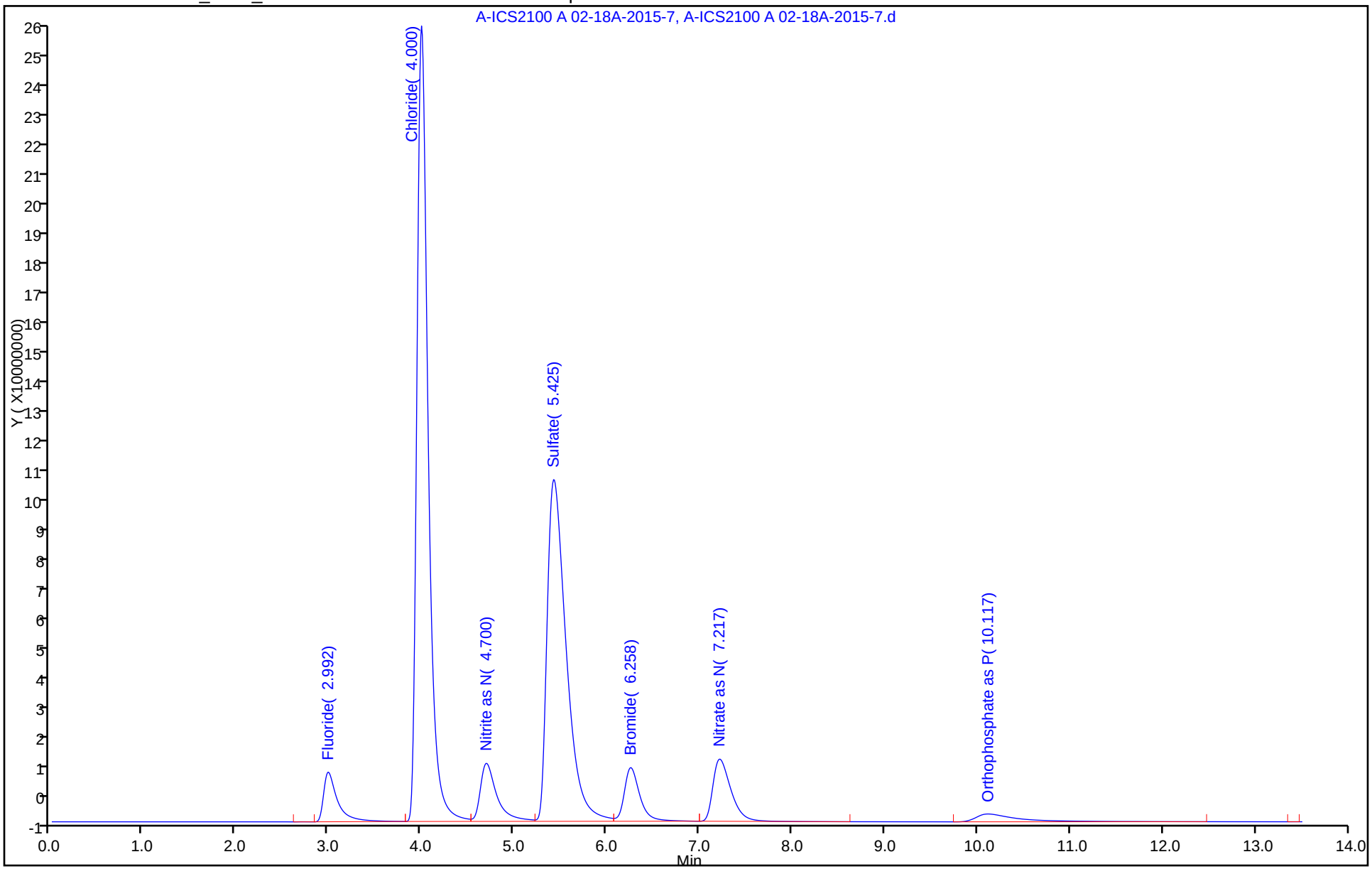
Reagents:

ICSTDL7_00131 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-7.d				
Injection Date:	18-Feb-2015 17:54:00	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: 03-Mar-2015 14:01:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Feb-2015 18:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:50 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:29:21

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	23774396H	7.50	7.91	
2 Chloride	3.992	4.017	-0.025	382314941H	150.0	150.8	
7 Nitrite as N	4.683	4.717	-0.034	26481163H	7.50	7.08	
3 Sulfate	5.367	5.550	-0.183	2375506786	150.0	151.7	
4 Bromide	6.225	6.300	-0.075	25643657H	30.0	30.6	
5 Nitrate as N	7.175	7.317	-0.142	28557676H	7.50	7.28	
6 Orthophosphate as P	10.000	10.458	-0.458	127455403	7.50	7.86	

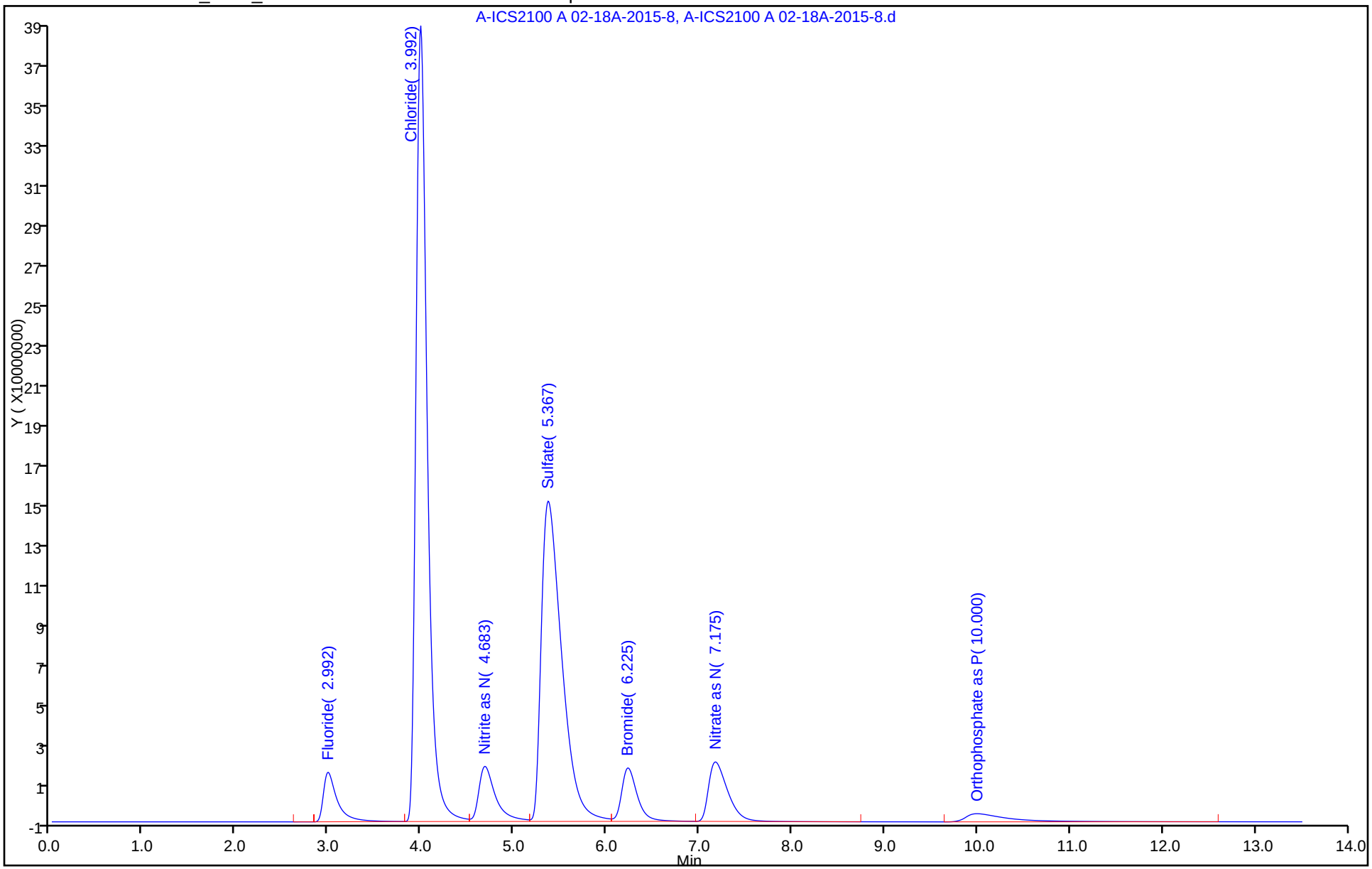
Reagents:

ICSTDL8_00101 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-8.d				
Injection Date:	18-Feb-2015 18:09:00	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\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 18-Feb-2015 18:25:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:02:05 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: hartmanm Date: 03-Mar-2015 14:01:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	3.000	-0.017	29657700H	10.0	9.87	
2 Chloride	3.983	4.017	-0.034	484326140H	200.0	191.0	
7 Nitrite as N	4.675	4.717	-0.042	32570690H	10.0	8.71	
3 Sulfate	5.342	5.550	-0.208	2993621710	200.0	191.2	
4 Bromide	6.217	6.300	-0.083	32412358H	40.0	38.6	
5 Nitrate as N	7.142	7.317	-0.175	35041348H	10.0	8.93	
6 Orthophosphate as P	9.942	10.458	-0.516	168509455	10.0	10.3	

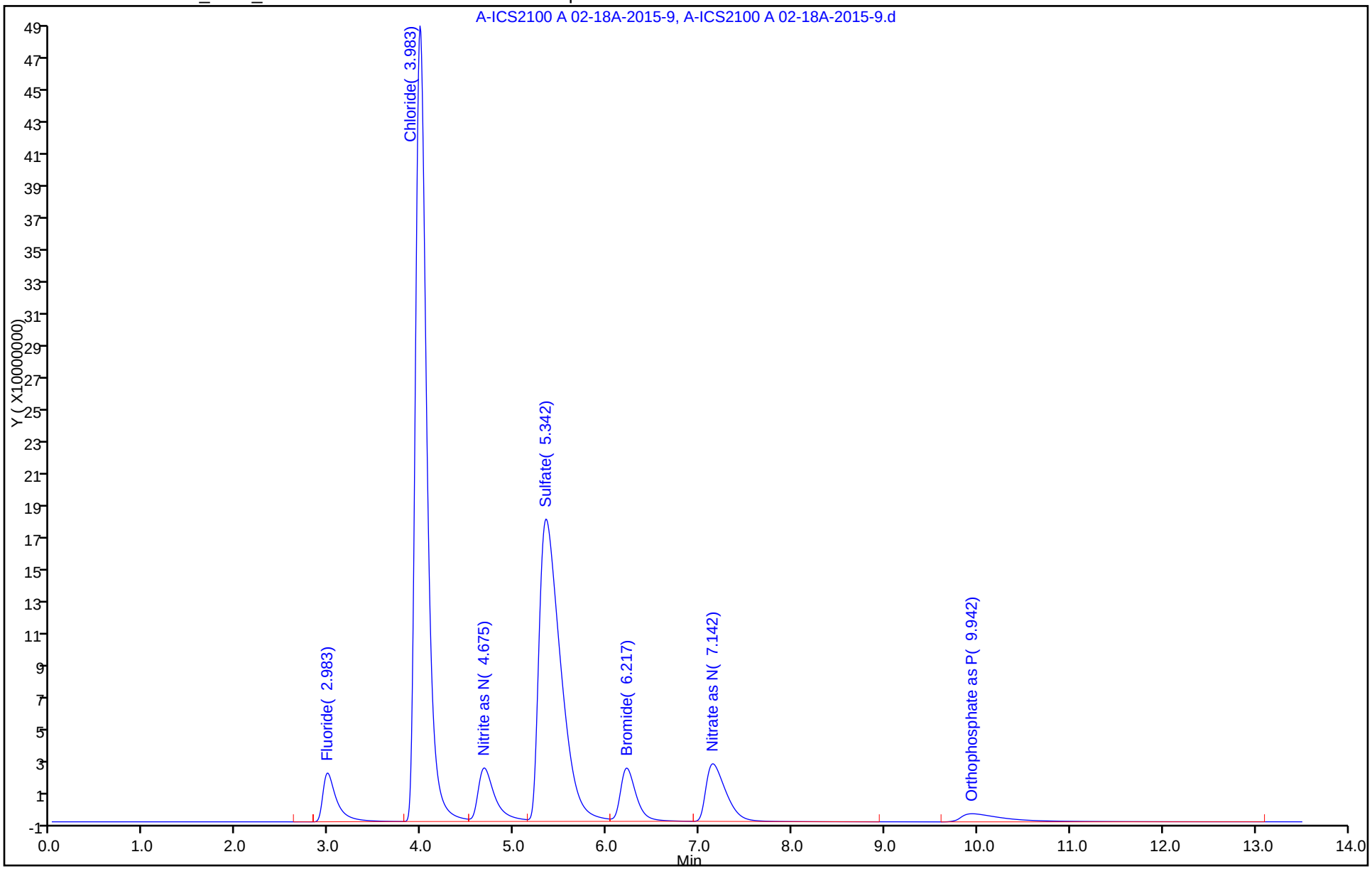
Reagents:

ICSTDL9_00106 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:02:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Injection Date:	18-Feb-2015 18:25:00	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.: 180-41508-1

SDG No.:

Lab Sample ID: ICV 180-134309/2 Calibration Date: 02/26/2015 07:42

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3088091		3.09	3.00	3.1	10.0
Chloride	Lin2		2557856		60.7	60.0	1.2	10.0
Nitrite as N	Lin2		3735493		2.99	3.00	-0.2	10.0
Sulfate	Lin2		15965427		61.1	60.0	1.9	10.0
Bromide	Lin2		885900		12.7	12.0	5.8	10.0
Nitrate as N	Lin2		4168475		3.19	3.00	6.5	10.0
Orthophosphate as P	Lin2		15715600		3.13	3.00	4.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: ICV 180-134309/2 Calibration Date: 02/26/2015 07:42

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.01	3.66	4.36
Nitrite as N	4.69	4.46	4.96
Sulfate	5.51	5.18	5.88
Bromide	6.25	5.91	6.61
Nitrate as N	7.22	6.98	7.48
Orthophosphate as P	10.31	10.09	10.59

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 26-Feb-2015 07:42:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:51:21 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

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	9264274H	3.00	3.09	
2 Chloride	4.008	4.008	0.000	153471378H	60.0	60.7	
7 Nitrite as N	4.692	4.708	-0.016	11210962H	3.00	2.99	
3 Sulfate	5.508	5.525	-0.017	957925626	60.0	61.1	
4 Bromide	6.250	6.258	-0.008	10630801H	12.0	12.7	
5 Nitrate as N	7.217	7.233	-0.016	12505425H	3.00	3.19	
6 Orthophosphate as P	10.308	10.342	-0.034	47146800	3.00	3.13	

Reagents:

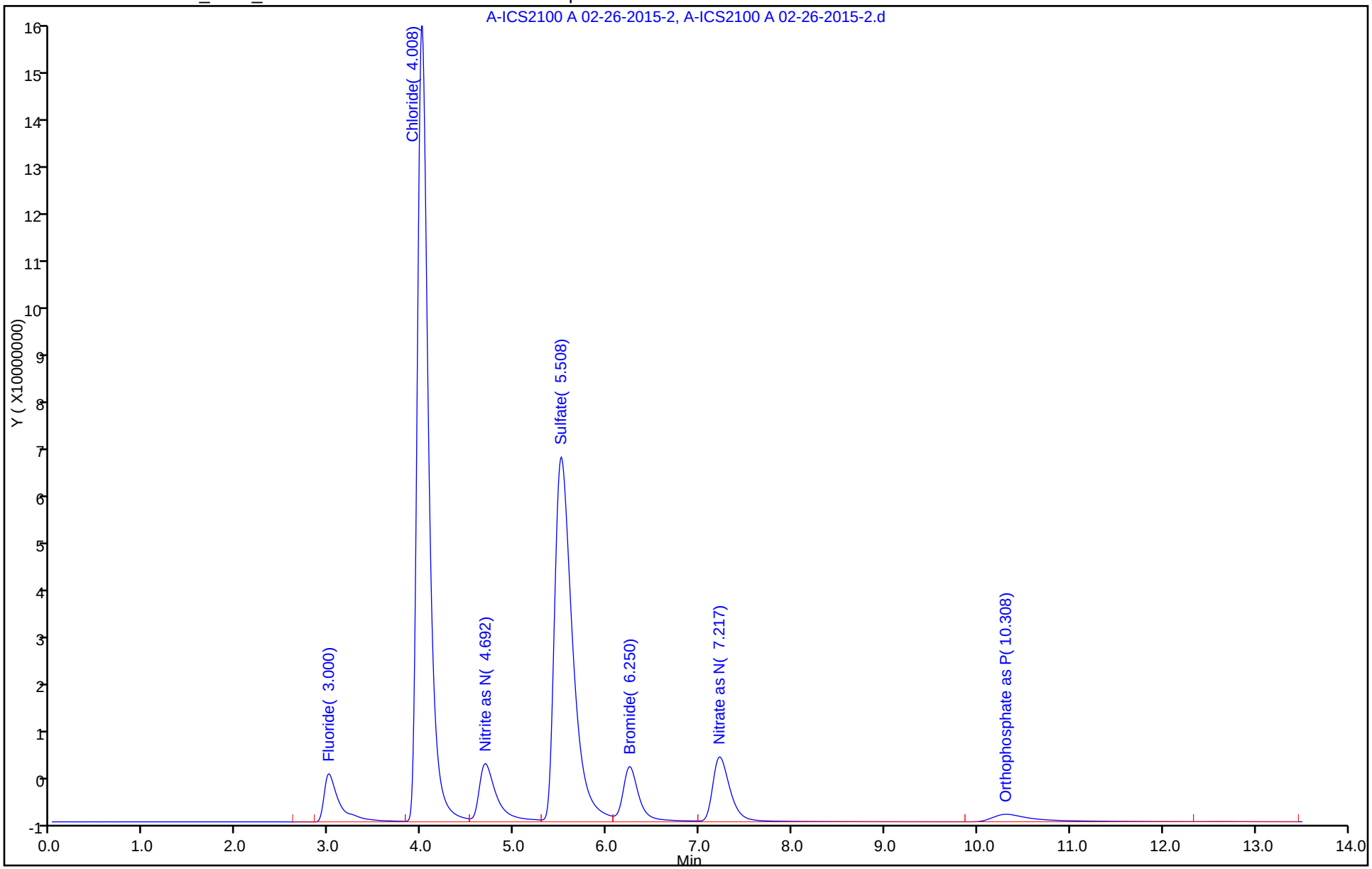
icicv_01207 Amount Added: 1.00 Units: mL

Report Date: 09-Mar-2015 11:55:23 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-2.d

Injection Date:	26-Feb-2015 07:42:00	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.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/3 Calibration Date: 02/26/2015 07:57

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3053754		2.55	2.50	2.1	10.0
Chloride	Lin2		2539782		50.3	50.0	0.6	10.0
Nitrite as N	Lin2		3891853		2.60	2.50	3.9	10.0
Sulfate	Lin2		15677845		50.0	50.0	0.0	10.0
Bromide	Lin2		872228		10.4	10.0	4.2	10.0
Nitrate as N	Lin2		4227327		2.70	2.50	8.0	10.0
Orthophosphate as P	Lin2		15282810		2.61	2.50	4.3	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/3 Calibration Date: 02/26/2015 07:57

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.01	3.66	4.36
Nitrite as N	4.71	4.46	4.96
Sulfate	5.53	5.18	5.88
Bromide	6.26	5.91	6.61
Nitrate as N	7.23	6.98	7.48
Orthophosphate as P	10.34	10.09	10.59

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Feb-2015 07:57:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:23 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

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	7634385H	2.50	2.55	
2 Chloride	4.008	4.008	0.000	126989108H	50.0	50.3	
7 Nitrite as N	4.708	4.708	0.000	9729633H	2.50	2.60	
3 Sulfate	5.525	5.525	0.000	783892246	50.0	50.0	
4 Bromide	6.258	6.258	0.000	8722280H	10.0	10.4	
5 Nitrate as N	7.233	7.233	0.000	10568317H	2.50	2.70	
6 Orthophosphate as P	10.342	10.342	0.000	38207024	2.50	2.61	

Reagents:

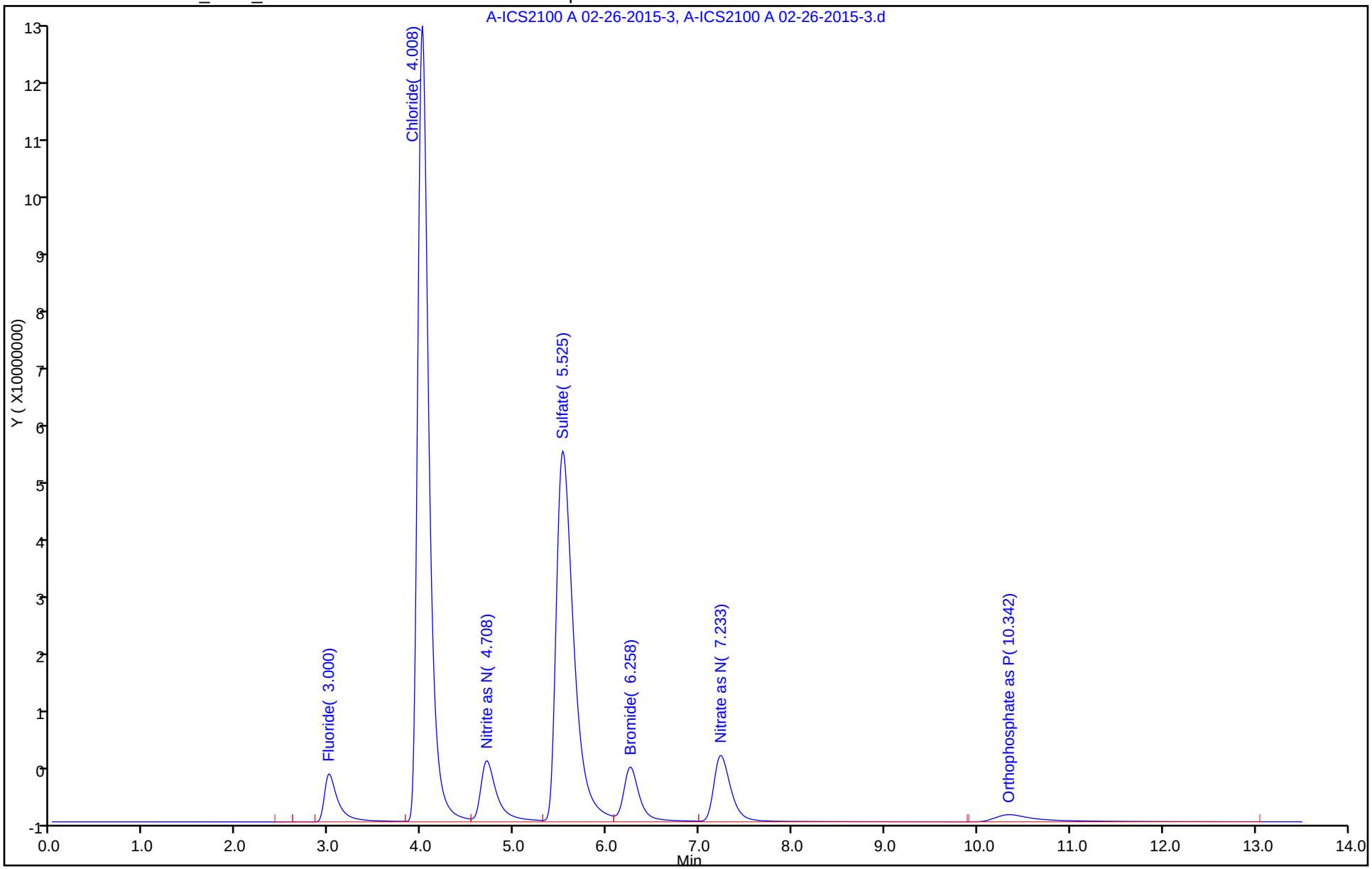
icccv_01175 Amount Added: 1.00 Units: mL

Report Date: 09-Mar-2015 11:55:23 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-3.d

Injection Date:	26-Feb-2015 07:57:00	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.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/15 Calibration Date: 02/26/2015 13:43

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3094662		2.59	2.50	3.4	10.0
Chloride	Lin2		2568359		50.8	50.0	1.7	10.0
Nitrite as N	Lin2		3949833		2.64	2.50	5.4	10.0
Sulfate	Lin2		15721742		50.2	50.0	0.3	10.0
Bromide	Lin2		884454		10.6	10.0	5.6	10.0
Nitrate as N	Lin2		4250267		2.72	2.50	8.6	10.0
Orthophosphate as P	Lin2		14159670		2.44	2.50	-2.3	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/15 Calibration Date: 02/26/2015 13:43

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.00	3.65	4.35
Nitrite as N	4.69	4.44	4.94
Sulfate	5.53	5.18	5.88
Bromide	6.24	5.89	6.59
Nitrate as N	7.22	6.97	7.47
Orthophosphate as P	10.39	10.14	10.64

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Feb-2015 13:43:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-015
Misc. Info.: 15 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	7736655H	2.50	2.59	
2 Chloride	4.000	4.000	0.000	128417972H	50.0	50.8	
7 Nitrite as N	4.692	4.692	0.000	9874583H	2.50	2.64	
3 Sulfate	5.525	5.525	0.000	786087085	50.0	50.2	
4 Bromide	6.242	6.242	0.000	8844543H	10.0	10.6	
5 Nitrate as N	7.217	7.217	0.000	10625668H	2.50	2.72	
6 Orthophosphate as P	10.392	10.392	0.000	35399175	2.50	2.44	

Reagents:

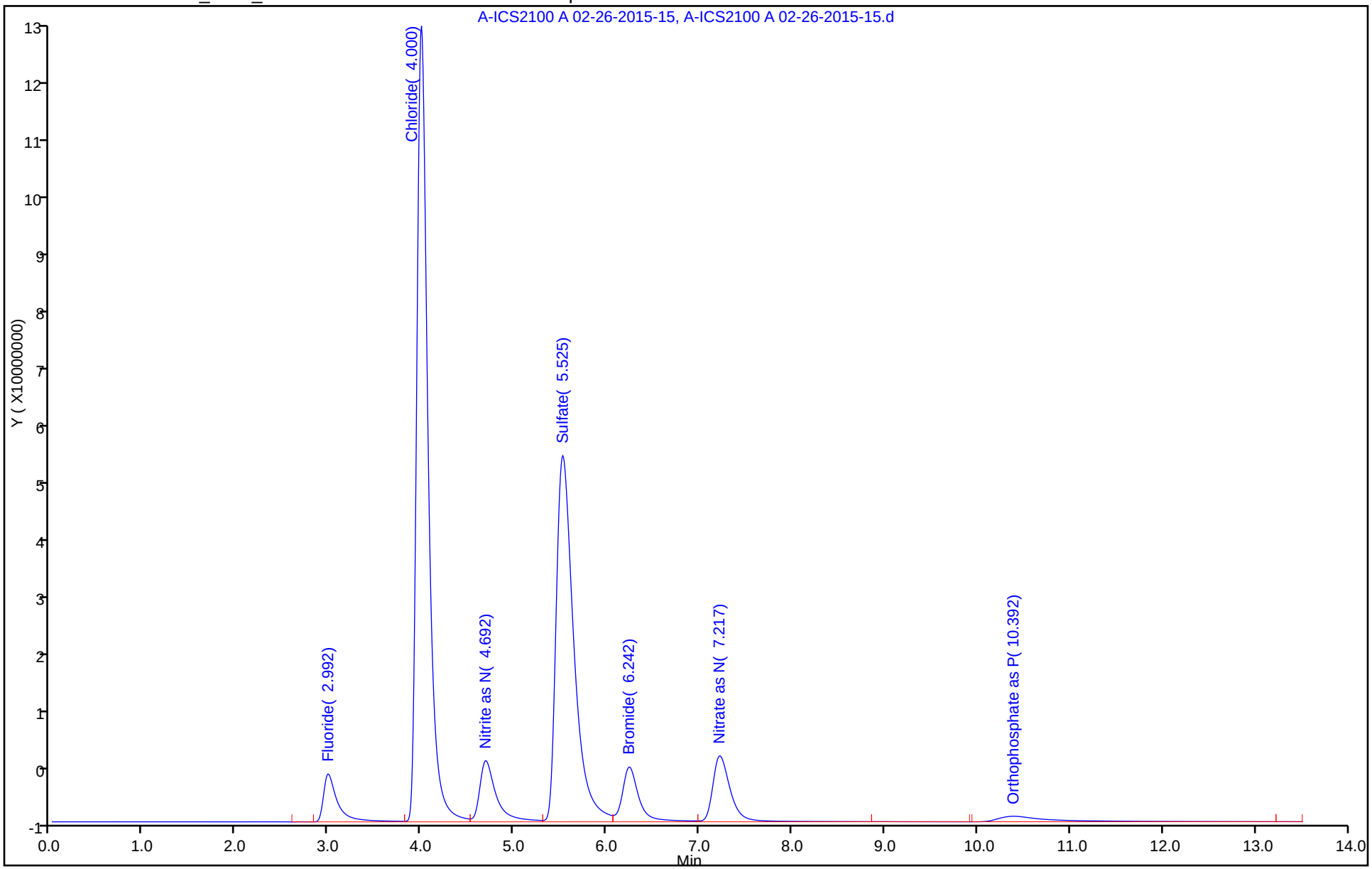
icccv_01175 Amount Added: 1.00 Units: mL

Report Date: 09-Mar-2015 11:55:31 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-15.d

Injection Date:	26-Feb-2015 13:43:00	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.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/27 Calibration Date: 02/26/2015 16:47

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3081560		2.58	2.50	3.0	10.0
Chloride	Lin2		2550746		50.5	50.0	1.0	10.0
Nitrite as N	Lin2		3900785		2.60	2.50	4.1	10.0
Sulfate	Lin2		15715649		50.1	50.0	0.3	10.0
Bromide	Lin2		875127		10.5	10.0	4.5	10.0
Nitrate as N	Lin2		4236900		2.71	2.50	8.3	10.0
Orthophosphate as P	Lin2		12089852		2.14	2.50	-14.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/27 Calibration Date: 02/26/2015 16:47

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.00	3.65	4.35
Nitrite as N	4.70	4.45	4.95
Sulfate	5.53	5.18	5.88
Bromide	6.25	5.90	6.60
Nitrate as N	7.23	6.98	7.48
Orthophosphate as P	10.45	10.20	10.70

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Feb-2015 16:47:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:35 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	7703900H	2.50	2.58	
2 Chloride	4.000	4.000	0.000	127537284H	50.0	50.5	
7 Nitrite as N	4.700	4.700	0.000	9751962H	2.50	2.60	
3 Sulfate	5.525	5.525	0.000	785782454	50.0	50.1	
4 Bromide	6.250	6.250	0.000	8751266H	10.0	10.5	
5 Nitrate as N	7.225	7.225	0.000	10592251H	2.50	2.71	
6 Orthophosphate as P	10.450	10.450	0.000	30224631	2.50	2.14	

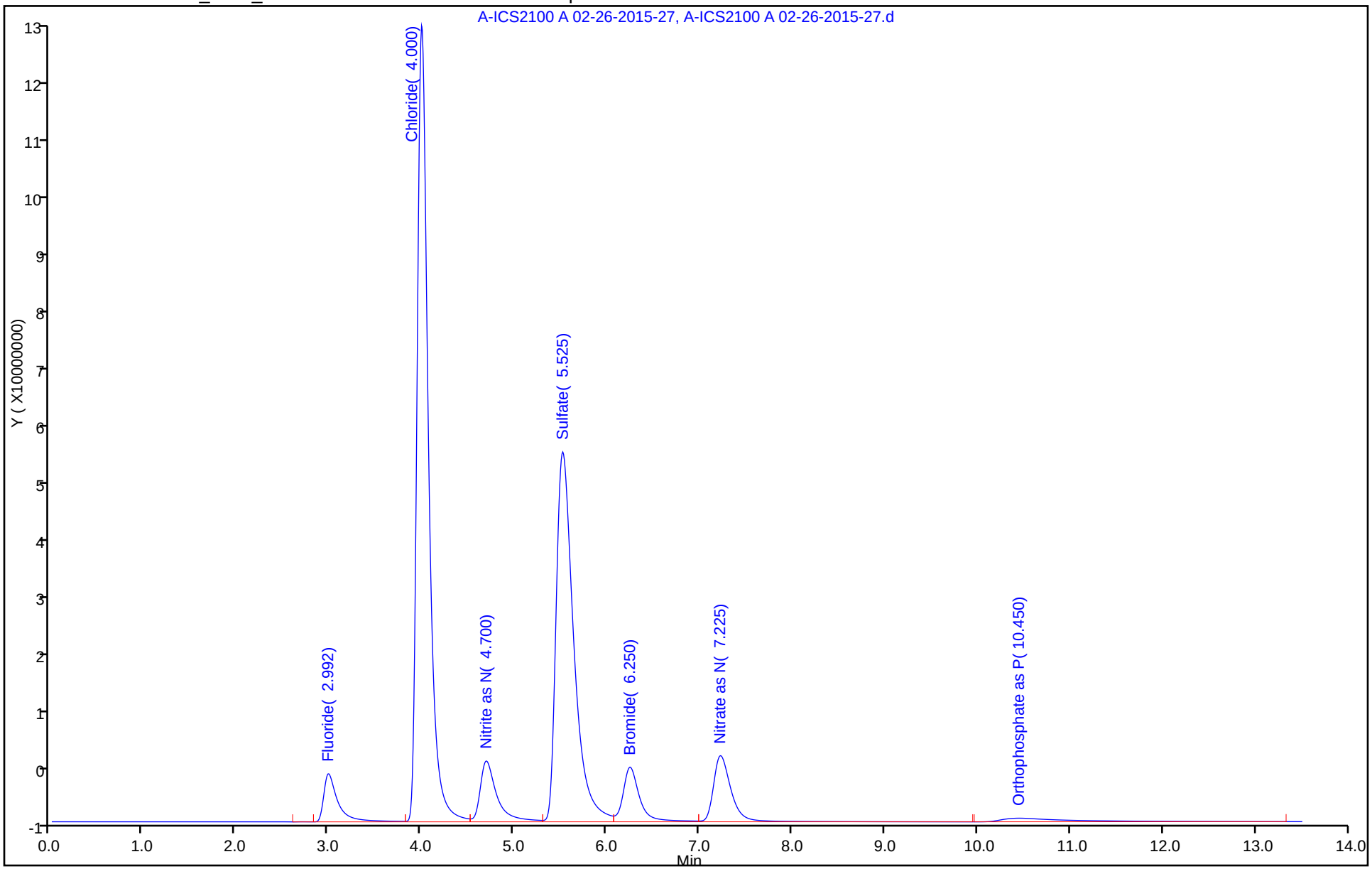
Reagents:

icccv_01175 Amount Added: 1.00 Units: mL

Report Date: 09-Mar-2015 11:55:35 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-27.d				
Injection Date:	26-Feb-2015 16:47:00	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.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/38 Calibration Date: 02/26/2015 19:35

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-38.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3053437		2.55	2.50	2.1	10.0
Chloride	Lin2		2565515		50.8	50.0	1.6	10.0
Nitrite as N	Lin2		3911730		2.61	2.50	4.4	10.0
Sulfate	Lin2		15805247		50.4	50.0	0.8	10.0
Bromide	Lin2		880834		10.5	10.0	5.2	10.0
Nitrate as N	Lin2		4260172		2.72	2.50	8.9	10.0
Orthophosphate as P	Lin2		12172795		2.15	2.50	-14.0*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Lab Sample ID: CCV 180-134309/38 Calibration Date: 02/26/2015 19:35

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-26-2015-38.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.01	3.66	4.36
Nitrite as N	4.71	4.46	4.96
Sulfate	5.53	5.18	5.88
Bromide	6.26	5.91	6.61
Nitrate as N	7.23	6.98	7.48
Orthophosphate as P	10.44	10.19	10.69

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-38.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-Feb-2015 19:35:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-038
Misc. Info.: 17032 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:40 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

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	7633592H	2.50	2.55	
2 Chloride	4.008	4.008	0.000	128275758H	50.0	50.8	
7 Nitrite as N	4.708	4.708	0.000	9779326H	2.50	2.61	
3 Sulfate	5.525	5.525	0.000	790262342	50.0	50.4	
4 Bromide	6.258	6.258	0.000	8808339H	10.0	10.5	
5 Nitrate as N	7.233	7.233	0.000	10650430H	2.50	2.72	
6 Orthophosphate as P	10.442	10.442	0.000	30431987	2.50	2.15	

Reagents:

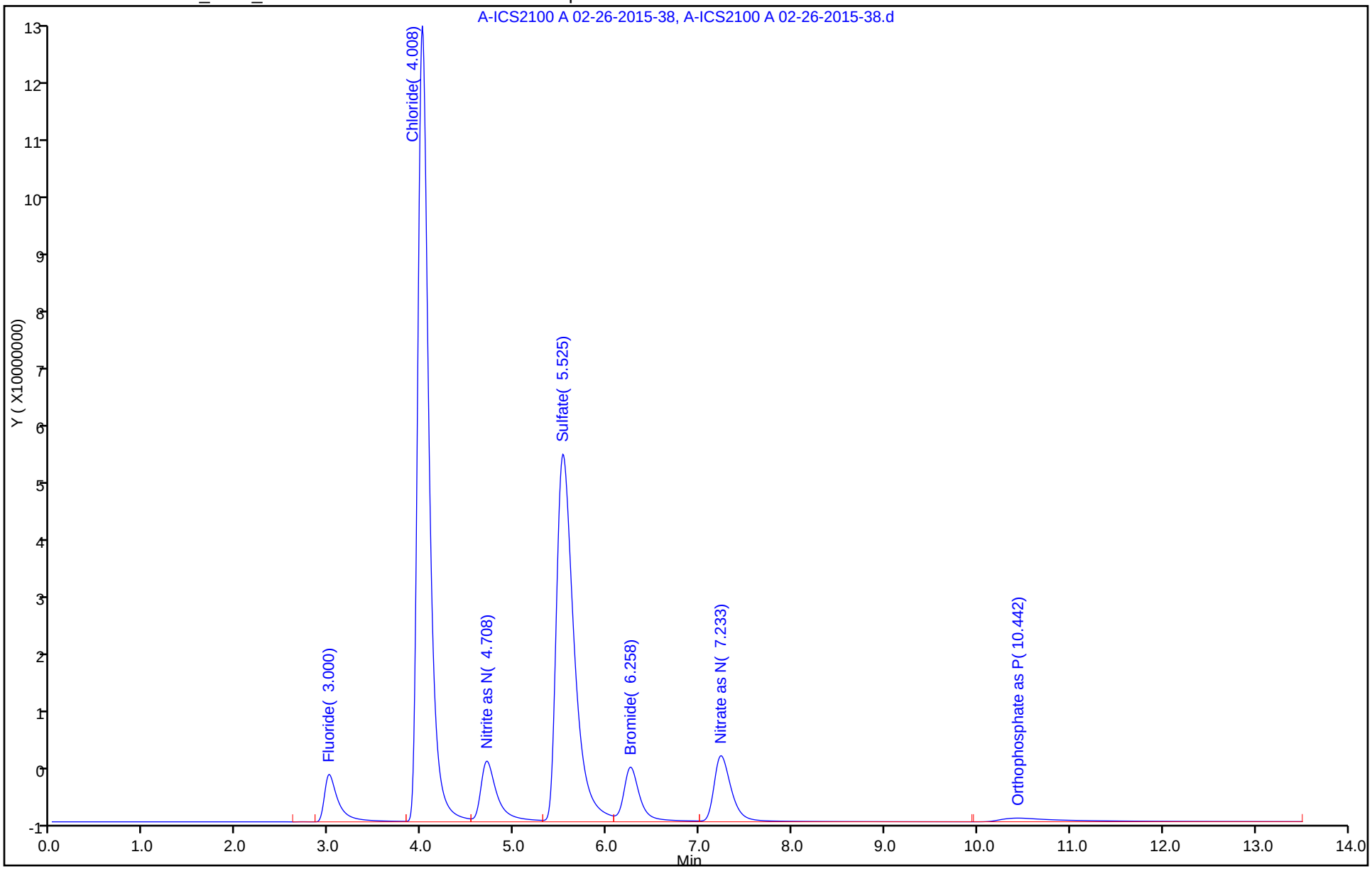
icccv_01175 Amount Added: 1.00 Units: mL

Report Date: 09-Mar-2015 11:55:40 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-38.d

Injection Date:	26-Feb-2015 19:35:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	38
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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134309/6

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 08:43

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	0.273	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\20150226-5830.b\A-ICS2100 A 02-26-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 26-Feb-2015 08:43:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:23 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

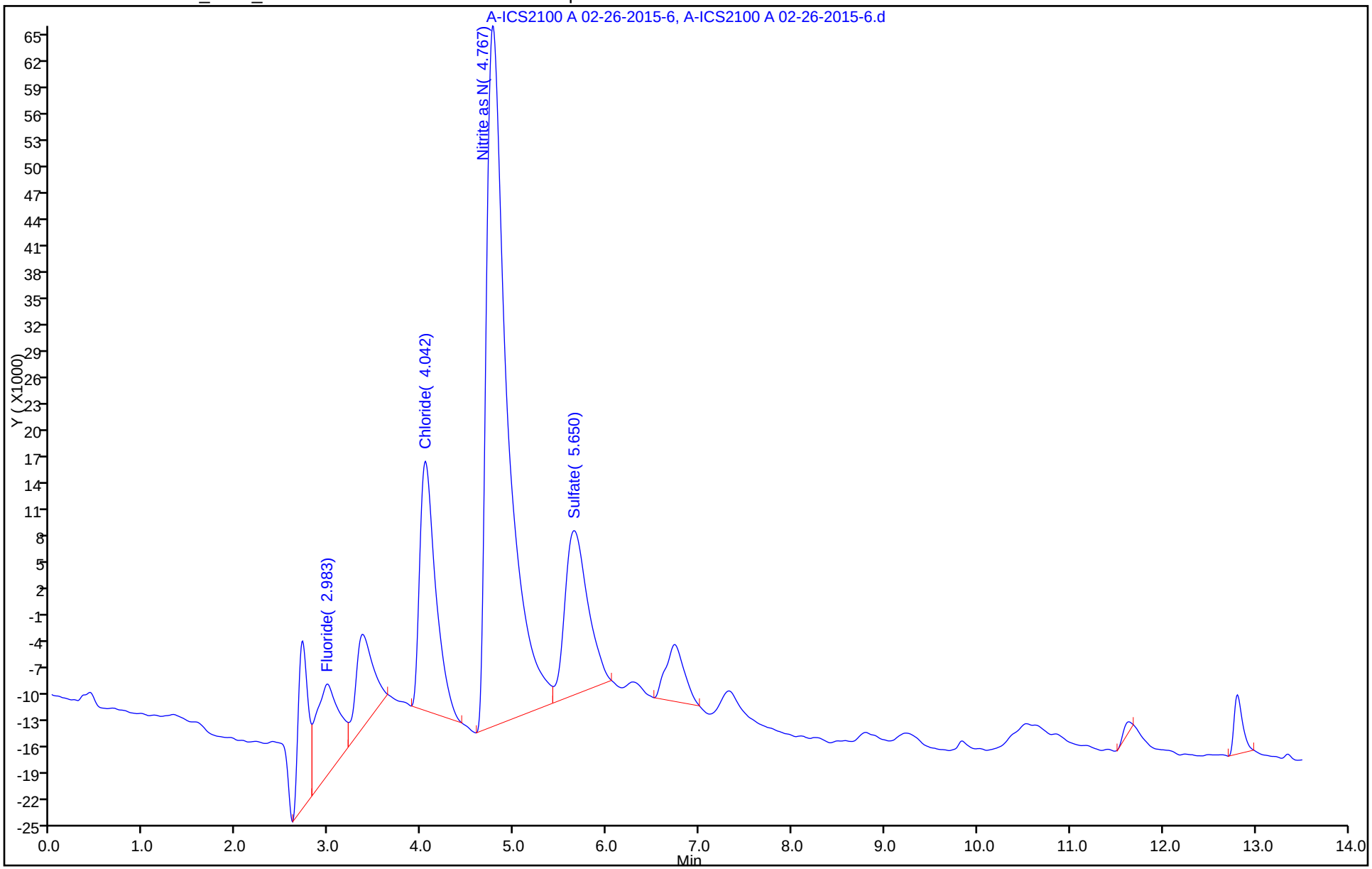
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	3.000	-0.017	10304H		0.0190	
2 Chloride	4.042	4.008	0.034	28176H		0.2732	
7 Nitrite as N	4.767	4.708	0.059	79187H		0.0137	
3 Sulfate	5.650	5.525	0.125	322989		-0.0579	
4 Bromide		6.258				ND	
5 Nitrate as N		7.233				ND	
6 Orthophosphate as P		10.342				ND	

Report Date: 09-Mar-2015 11:55:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-6.d				
Injection Date:	26-Feb-2015 08:43:00	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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134309/4

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 08:13

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	0.272	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\20150226-5830.b\A-ICS2100 A 02-26-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Feb-2015 08:13:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:23 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

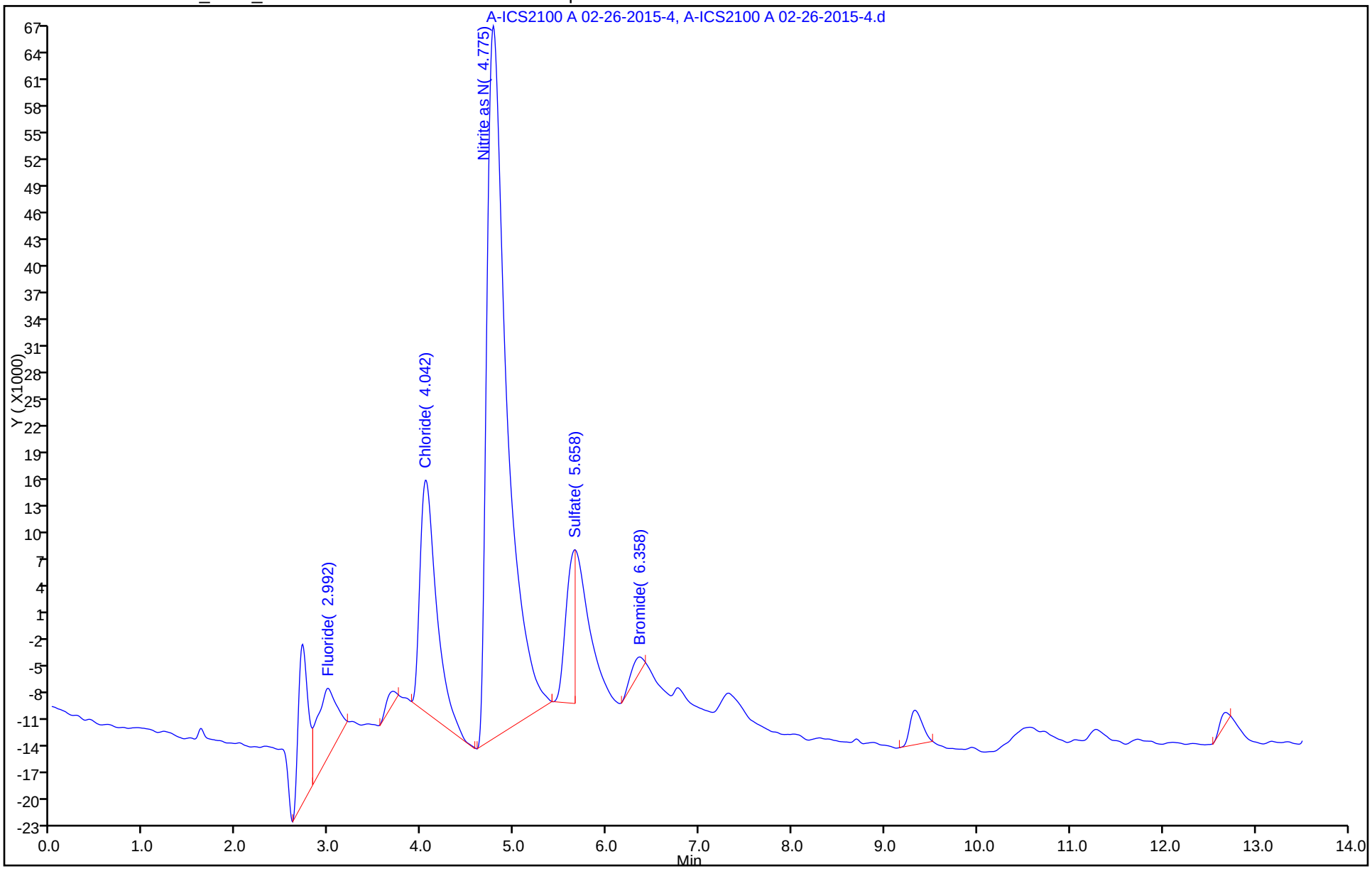
Column 1 : Det: 0008
Process Host: XAWRK025

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	7617H		0.0181	
2 Chloride	4.042	4.008	0.034	25814H		0.2723	
7 Nitrite as N	4.775	4.708	0.067	79407H		0.0138	
3 Sulfate	5.658	5.525	0.133	112903		-0.0713	
4 Bromide	6.358	6.258	0.100	1641H		0.0267	
5 Nitrate as N		7.233				ND	
6 Orthophosphate as P		10.342				ND	

Report Date: 09-Mar-2015 11:55:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-4.d				
Injection Date:	26-Feb-2015 08:13:00	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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134309/16

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 13:59

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	0.332	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\20150226-5830.b\A-ICS2100 A 02-26-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Feb-2015 13:59:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-016
Misc. Info.: 16 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

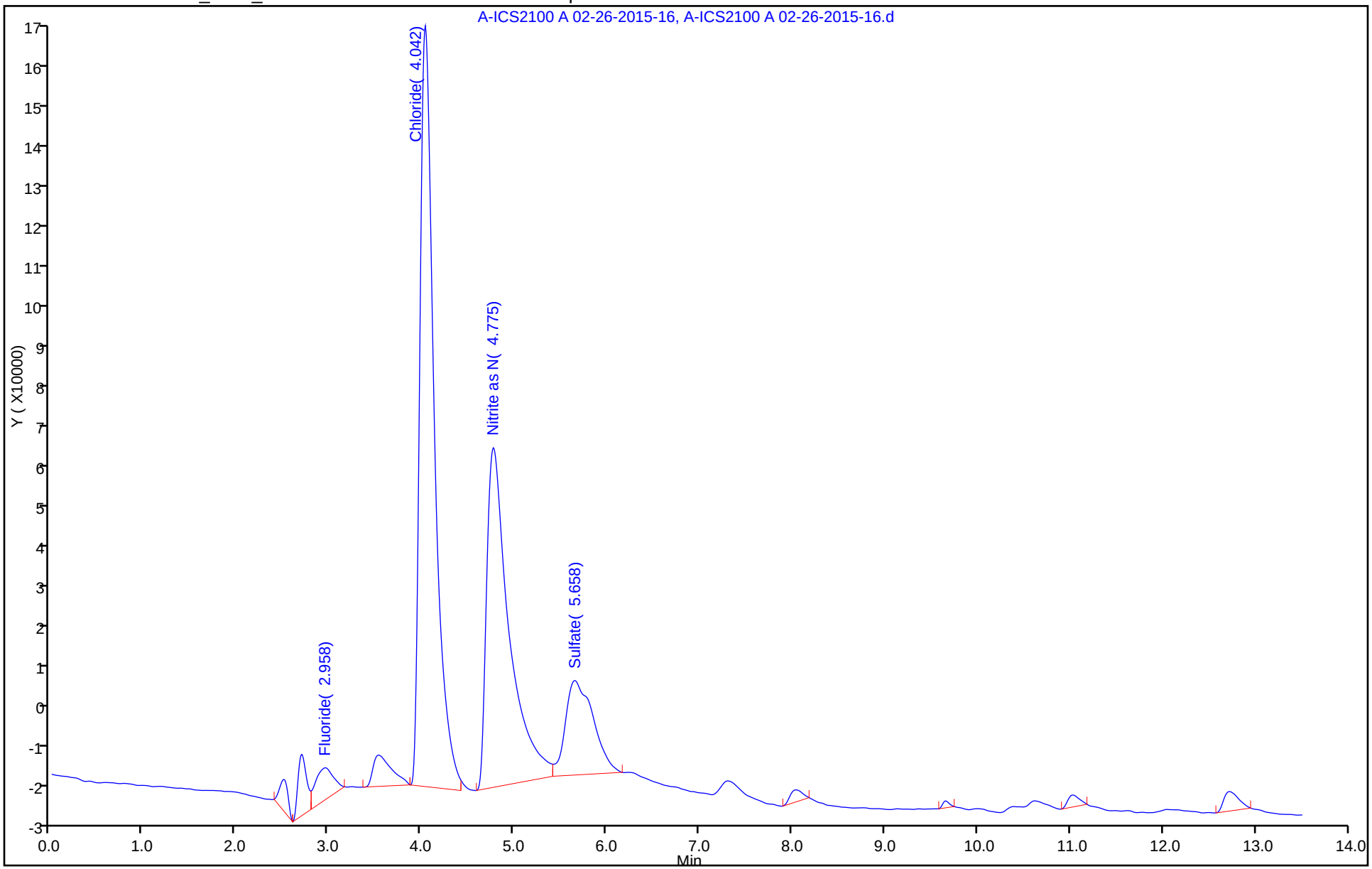
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.958	2.992	-0.034	7528H		0.0181	
2 Chloride	4.042	4.000	0.042	178658H		0.3325	
7 Nitrite as N	4.775	4.692	0.083	79756H		0.0139	
3 Sulfate	5.658	5.525	0.133	464848		-0.0488	
4 Bromide		6.242				ND	
5 Nitrate as N		7.217				ND	
6 Orthophosphate as P		10.392				ND	

Report Date: 09-Mar-2015 11:55:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-16.d				
Injection Date:	26-Feb-2015 13:59:00	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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134309/28

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 17:02

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0109	J	0.10	0.0062
16887-00-6	Chloride	0.303	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\20150226-5830.b\A-ICS2100 A 02-26-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Feb-2015 17:02:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:35 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

First Level Reviewer: hartmanm Date: 26-Feb-2015 17:19:40

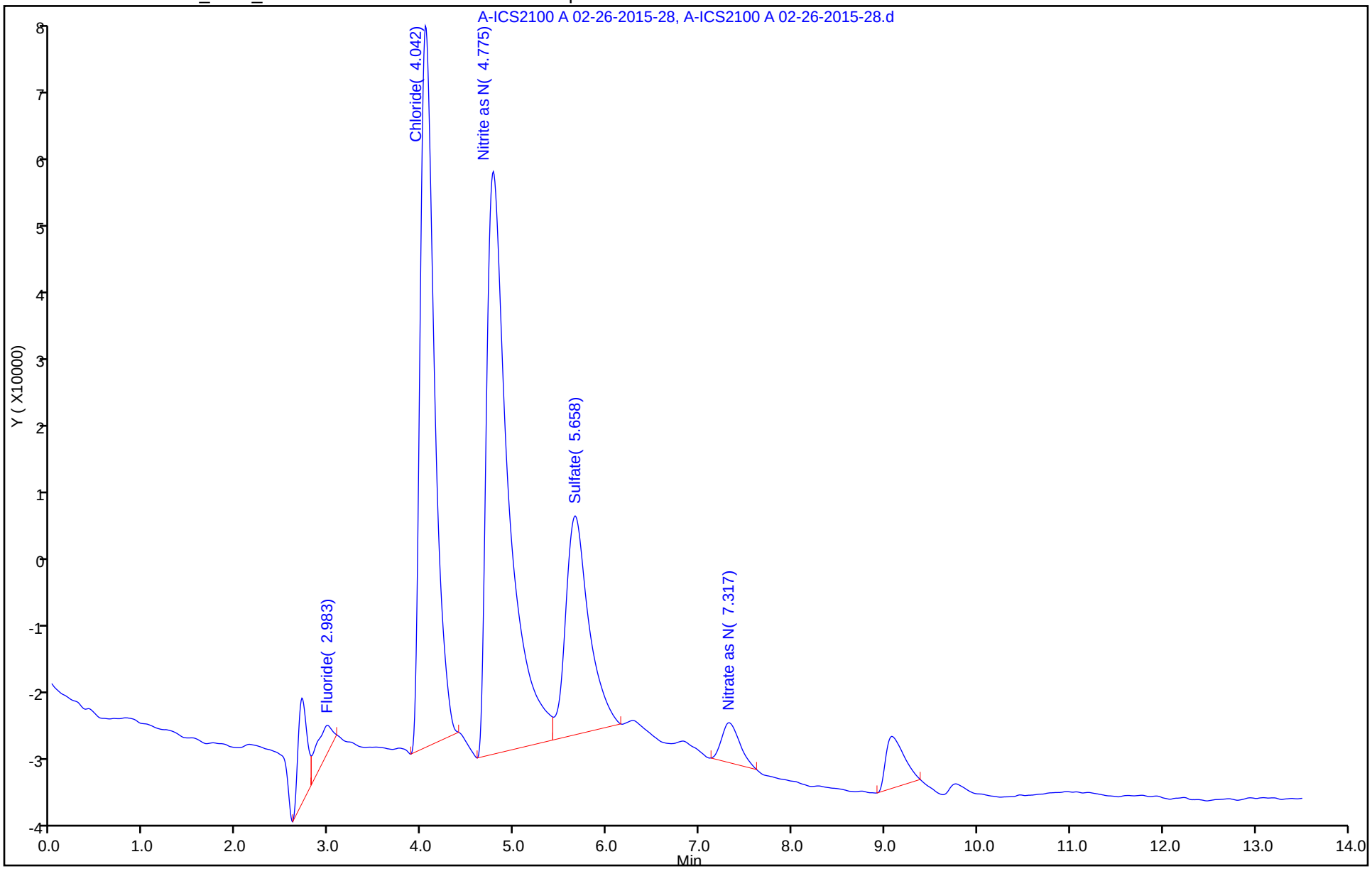
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	2.992	-0.009	3968H		0.0169	
2 Chloride	4.042	4.000	0.042	103038H		0.3027	
7 Nitrite as N	4.775	4.700	0.075	83208H		0.0148	
3 Sulfate	5.658	5.525	0.133	551534		-0.0433	
4 Bromide		6.250				ND	
5 Nitrate as N	7.317	7.225	0.092	5683H		0.0109	
6 Orthophosphate as P		10.450				ND	

Report Date: 09-Mar-2015 11:55:35 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-28.d

Injection Date:	26-Feb-2015 17:02:00	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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134309/39

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-39.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 19:50

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0107	J	0.10	0.0062
16887-00-6	Chloride	0.299	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\20150226-5830.b\A-ICS2100 A 02-26-2015-39.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 26-Feb-2015 19:50:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-039
Misc. Info.: 24812 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:40 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

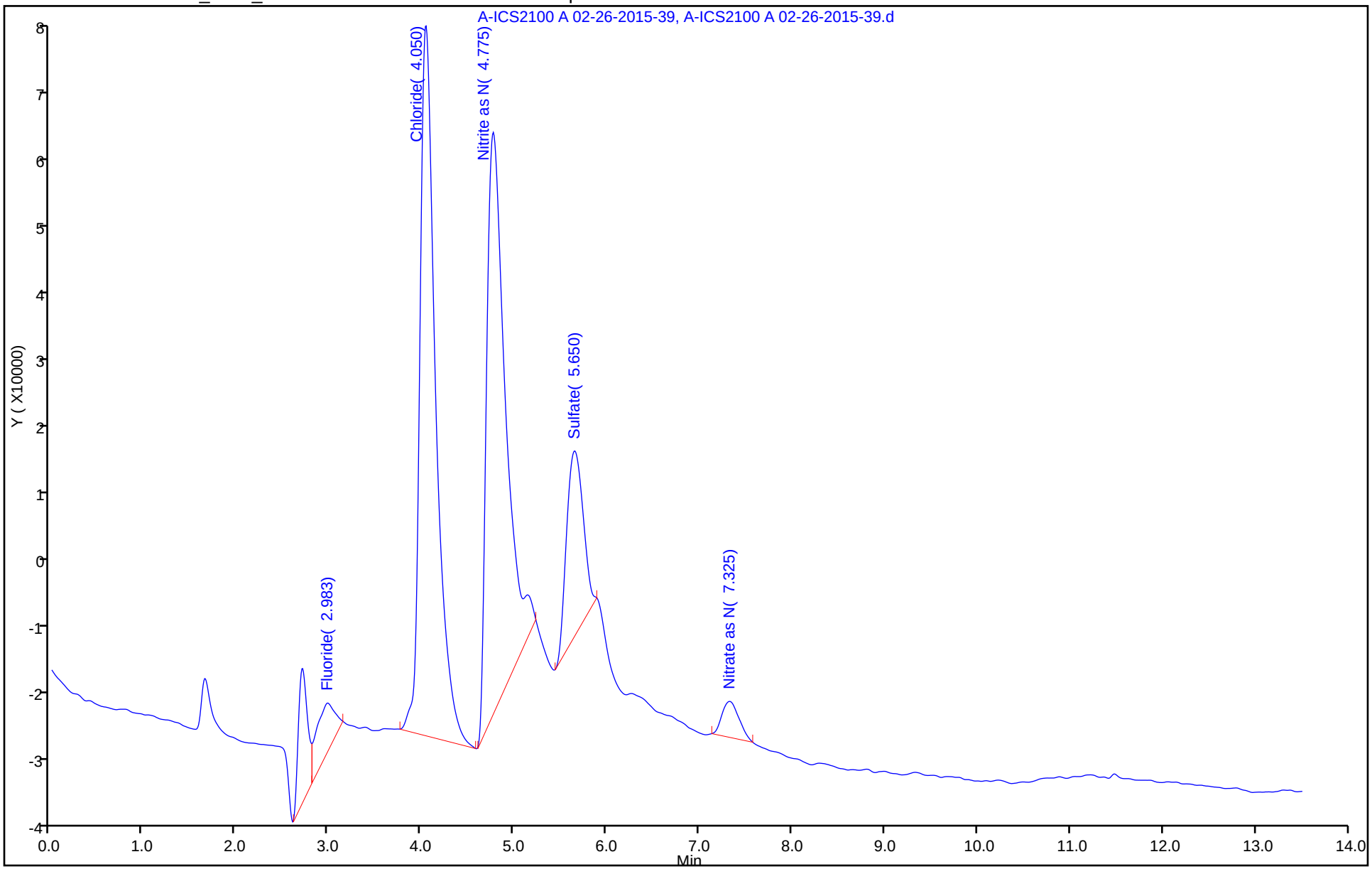
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	3.000	-0.017	6470H		0.0177	
2 Chloride	4.050	4.008	0.042	93392H		0.2989	
7 Nitrite as N	4.775	4.708	0.067	76532H		0.0130	
3 Sulfate	5.650	5.525	0.125	305222		-0.0590	
4 Bromide		6.258				ND	
5 Nitrate as N	7.325	7.233	0.092	4730H		0.0107	
6 Orthophosphate as P		10.442				ND	

Report Date: 09-Mar-2015 11:55:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-39.d				
Injection Date:	26-Feb-2015 19:50:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			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.: 180-41508-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-134309/5

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 08:28

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.72		0.10	0.0062
16887-00-6	Chloride	50.6		1.0	0.20
14808-79-8	Sulfate	50.3		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 26-Feb-2015 08:28:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:23 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

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	7714815H	2.50	2.58	
2 Chloride	4.008	4.008	0.000	127719301H	50.0	50.6	
7 Nitrite as N	4.708	4.708	0.000	9809693H	2.50	2.62	
3 Sulfate	5.525	5.525	0.000	788832459	50.0	50.3	
4 Bromide	6.258	6.258	0.000	8776988H	10.0	10.5	
5 Nitrate as N	7.233	7.233	0.000	10632841H	2.50	2.72	
6 Orthophosphate as P	10.342	10.342	0.000	36757620	2.50	2.52	

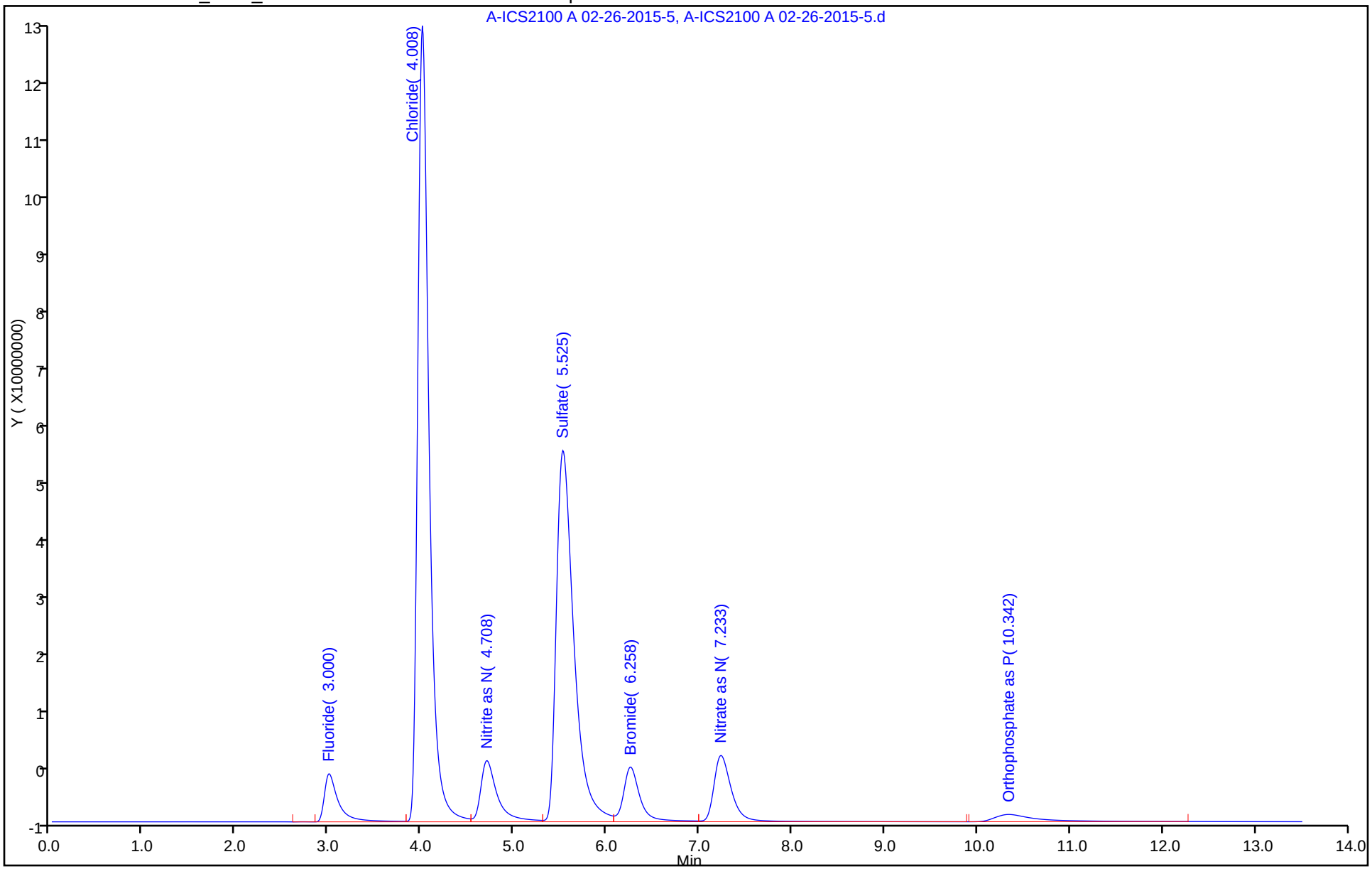
Reagents:

icccv_01175 Amount Added: 1.00 Units: mL

Report Date: 09-Mar-2015 11:55:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-5.d				
Injection Date:	26-Feb-2015 08:28:00	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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MS Lab Sample ID: 180-41508-1 MS

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-25.d

Analysis Method: 300.0 Date Collected: 02/25/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 16:16

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.61		0.10	0.0062
16887-00-6	Chloride	92.8		1.0	0.20
14808-79-8	Sulfate	64.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-25.d
Lims ID: 180-41508-A-1 MS
Client ID: HD-MW-98I-0/1-0
Sample Type: MS
Inject. Date: 26-Feb-2015 16:16:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-025
Misc. Info.: 25 180-41508-a-1 ms
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	2.992	0.008	3343678H	1.25	1.13	
2 Chloride	3.992	4.000	-0.008	234905983H	25.0	92.8	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.500	5.525	-0.025	1013622895	25.0	64.7	
4 Bromide	6.258	6.242	0.016	4381300H	5.00	5.25	
5 Nitrate as N	7.208	7.217	-0.009	14133714H	1.25	3.61	
6 Orthophosphate as P		10.392			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

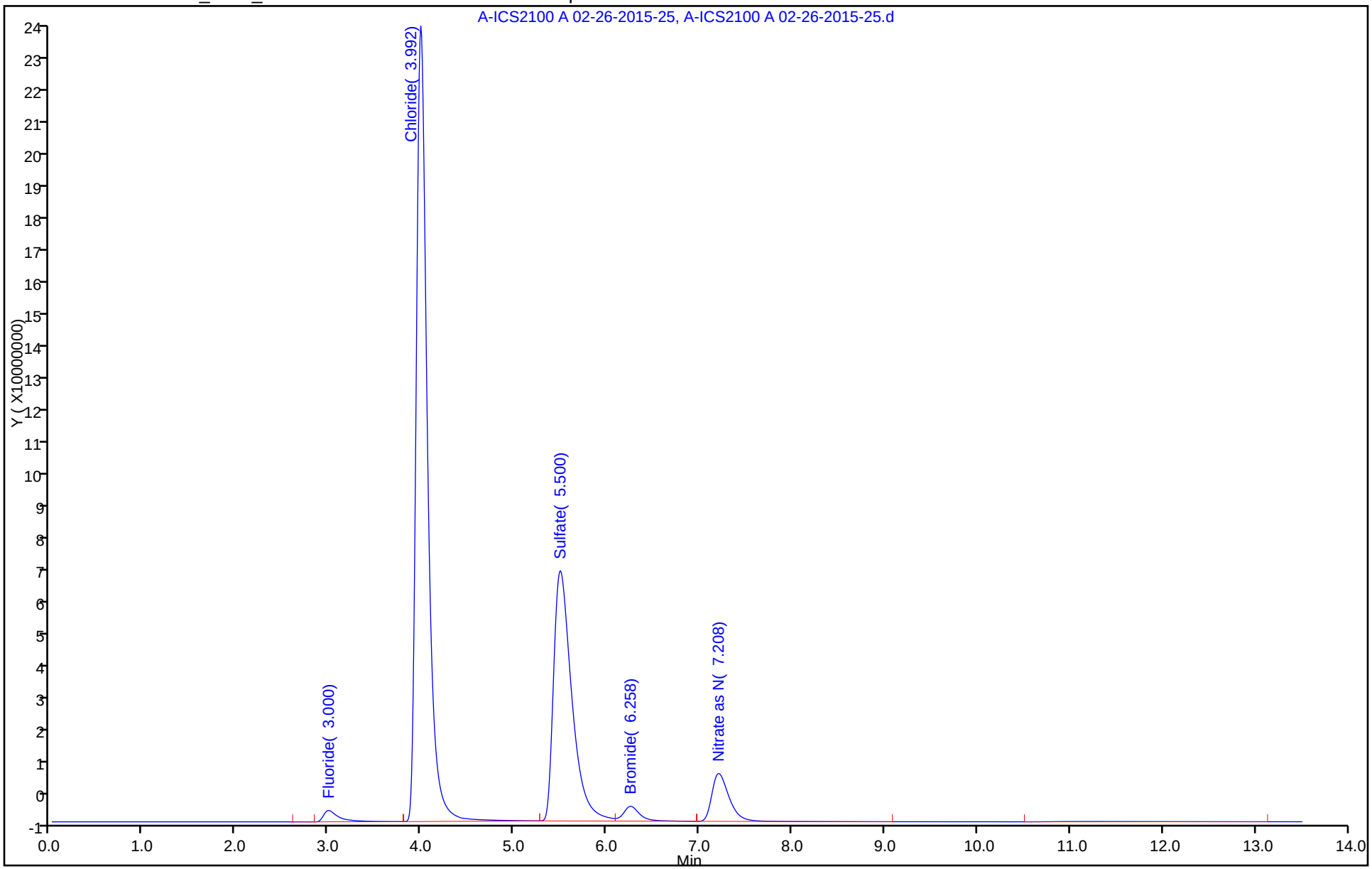
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 09-Mar-2015 11:55:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-25.d				
Injection Date:	26-Feb-2015 16:16:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-1 MS			Worklist Smp#:	25
Client ID:	HD-MW-98I-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 MS Lab Sample ID: 180-41508-5 MS

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-22.d

Analysis Method: 300.0 Date Collected: 02/25/2015 13:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 15:30

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.49		0.10	0.0062
16887-00-6	Chloride	74.8		1.0	0.20
14808-79-8	Sulfate	49.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-22.d
Lims ID: 180-41508-A-5 MS
Client ID:
Sample Type: MS
Inject. Date: 26-Feb-2015 15:30:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-022
Misc. Info.: 22 180-41508-a-5 ms
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:40 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

First Level Reviewer: oravecj Date: 09-Mar-2015 11:51:04

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	3383260H	1.25	1.14	
2 Chloride	3.992	4.008	-0.016	189351946H	25.0	74.8	
7 Nitrite as N		4.708				ND	
3 Sulfate	5.517	5.525	-0.008	782749310	25.0	49.9	
4 Bromide	6.258	6.258	0.000	4359447H	5.00	5.22	
5 Nitrate as N	7.208	7.233	-0.025	13657283H	1.25	3.49	
6 Orthophosphate as P		10.442			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

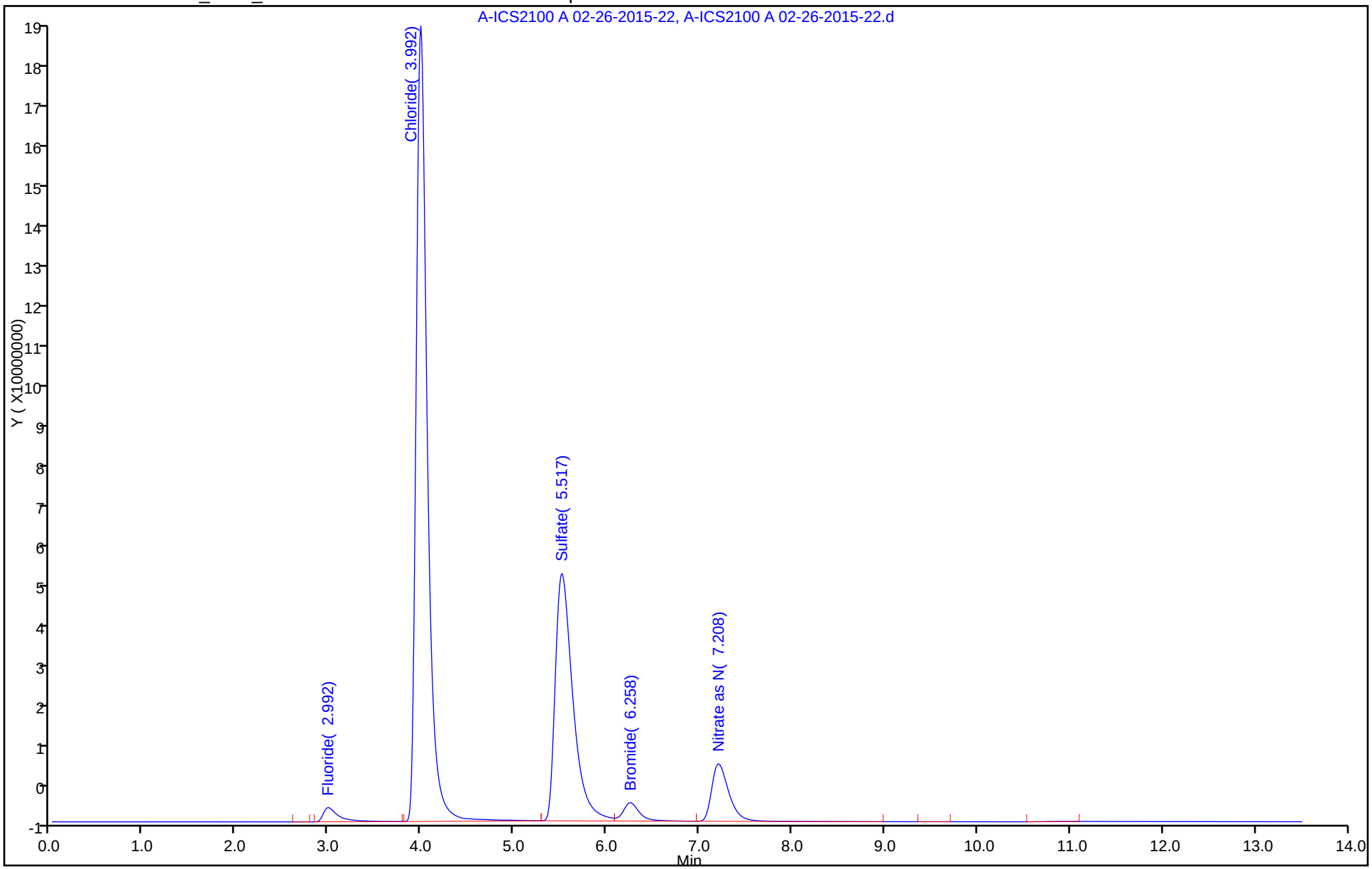
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 09-Mar-2015 12:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-22.d				
Injection Date:	26-Feb-2015 15:30:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-5 MS			Worklist Smp#:	22
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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MSD Lab Sample ID: 180-41508-1 MSD

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-26.d

Analysis Method: 300.0 Date Collected: 02/25/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 16:31

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.59		0.10	0.0062
16887-00-6	Chloride	92.1		1.0	0.20
14808-79-8	Sulfate	64.6		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-26.d
Lims ID: 180-41508-A-1 MSD
Client ID: HD-MW-98I-0/1-0
Sample Type: MSD
Inject. Date: 26-Feb-2015 16:31:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-026
Misc. Info.: 26 180-41508-a-1 msd
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	2.992	0.008	3391473H	1.25	1.14	
2 Chloride	3.992	4.000	-0.008	233062928H	25.0	92.1	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.500	5.525	-0.025	1011411335	25.0	64.6	
4 Bromide	6.258	6.242	0.016	4370562H	5.00	5.23	
5 Nitrate as N	7.208	7.217	-0.009	14066731H	1.25	3.59	
6 Orthophosphate as P		10.392			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

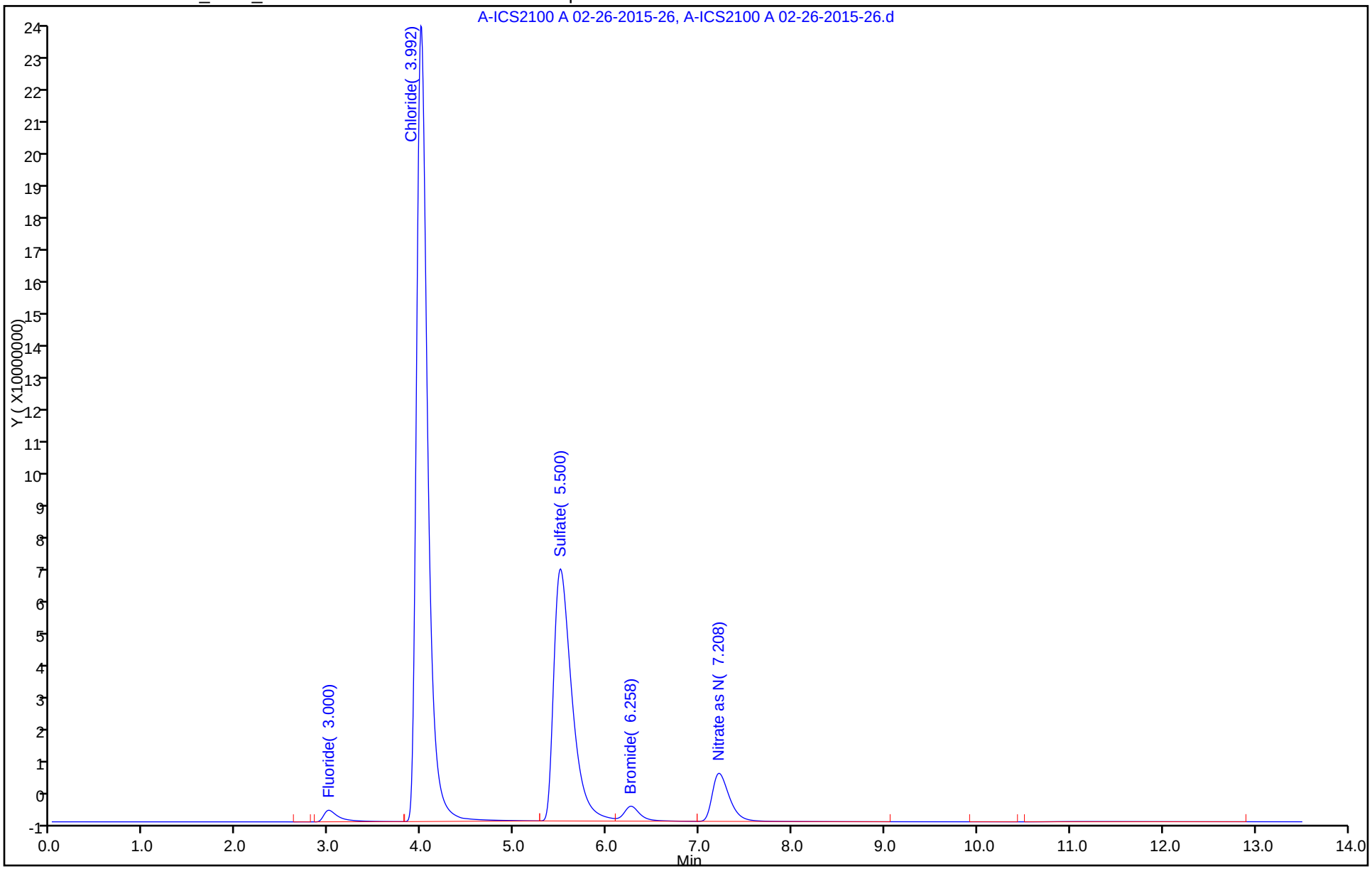
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 09-Mar-2015 11:55:35 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-26.d				
Injection Date:	26-Feb-2015 16:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-1 MSD			Worklist Smp#:	26
Client ID:	HD-MW-98I-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.: 180-41508-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 MSD Lab Sample ID: 180-41508-5 MSD

Matrix: Water Lab File ID: A-ICS2100 A 02-26-2015-23.d

Analysis Method: 300.0 Date Collected: 02/25/2015 13:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/26/2015 15:46

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.51		0.10	0.0062
16887-00-6	Chloride	75.5		1.0	0.20
14808-79-8	Sulfate	50.5		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-23.d
Lims ID: 180-41508-A-5 MSD
Client ID:
Sample Type: MSD
Inject. Date: 26-Feb-2015 15:46:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005830-023
Misc. Info.: 23 180-41508-a-5 msd
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 09-Mar-2015 11:55:31 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3437184H	1.25	1.16	
2 Chloride	3.992	4.000	-0.008	190909175H	25.0	75.5	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.517	5.525	-0.008	791123178	25.0	50.5	
4 Bromide	6.258	6.242	0.016	4392770H	5.00	5.26	
5 Nitrate as N	7.208	7.217	-0.009	13761199H	1.25	3.51	
6 Orthophosphate as P		10.392			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

Reagents:

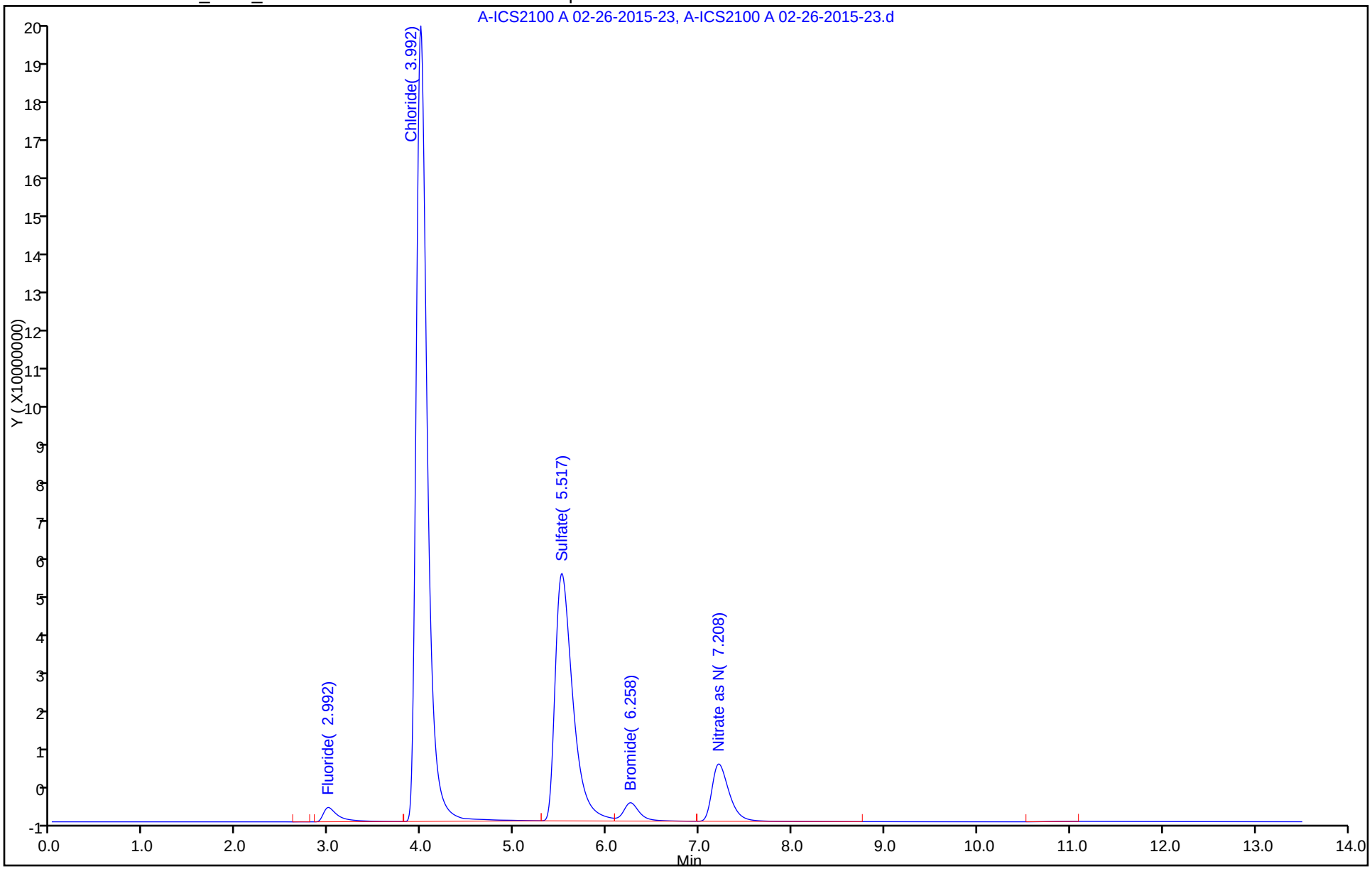
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 09-Mar-2015 11:55:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150226-5830.b\A-ICS2100 A 02-26-2015-23.d

Injection Date:	26-Feb-2015 15:46:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41508-A-5 MSD			Worklist Smp#:	23
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.: 180-41508-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/18/2015 16:38

Analysis Batch Number: 133779 End Date: 02/19/2015 10:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-133779/2		02/18/2015 16:38	1	A-ICS2100 A 02-18A-2015-2.d	AS-18
IC 180-133779/3		02/18/2015 16:53	1	A-ICS2100 A 02-18A-2015-3.d	AS-18
ICRT 180-133779/4		02/18/2015 17:08	1	A-ICS2100 A 02-18A-2015-4.d	AS-18
IC 180-133779/5		02/18/2015 17:24	1	A-ICS2100 A 02-18A-2015-5.d	AS-18
IC 180-133779/6		02/18/2015 17:39	1	A-ICS2100 A 02-18A-2015-6.d	AS-18
IC 180-133779/7		02/18/2015 17:54	1	A-ICS2100 A 02-18A-2015-7.d	AS-18
IC 180-133779/8		02/18/2015 18:09	1	A-ICS2100 A 02-18A-2015-8.d	AS-18
IC 180-133779/9		02/18/2015 18:25	1	A-ICS2100 A 02-18A-2015-9.d	AS-18
ZZZZZ		02/18/2015 18:40	1		AS-18
ZZZZZ		02/18/2015 18:55	1		AS-18
ZZZZZ		02/18/2015 19:11	1		AS-18
ICV 180-133779/13		02/18/2015 19:49	1		AS-18
CCV 180-133779/14		02/18/2015 20:04	1		AS-18
CCB 180-133779/15		02/18/2015 20:20	1		AS-18
ZZZZZ		02/18/2015 20:35	1		AS-18
ZZZZZ		02/18/2015 20:50	1		AS-18
ZZZZZ		02/18/2015 21:06	1		AS-18
ZZZZZ		02/18/2015 21:21	1		AS-18
ZZZZZ		02/18/2015 21:36	1		AS-18
ZZZZZ		02/18/2015 21:52	1		AS-18
ZZZZZ		02/18/2015 22:07	1		AS-18
ZZZZZ		02/18/2015 22:22	1		AS-18
ZZZZZ		02/18/2015 22:38	1		AS-18
ZZZZZ		02/18/2015 22:53	1		AS-18
CCV 180-133779/26		02/18/2015 23:08	1		AS-18
CCB 180-133779/27		02/18/2015 23:23	1		AS-18
ZZZZZ		02/18/2015 23:39	1		AS-18
ZZZZZ		02/18/2015 23:54	5		AS-18
ZZZZZ		02/19/2015 00:09	5		AS-18
ZZZZZ		02/19/2015 00:25	50		AS-18
ZZZZZ		02/19/2015 00:40	1		AS-18
ZZZZZ		02/19/2015 00:55	5		AS-18
ZZZZZ		02/19/2015 01:11	10		AS-18
ZZZZZ		02/19/2015 01:26	100		AS-18
ZZZZZ		02/19/2015 01:41	2.5		AS-18
ZZZZZ		02/19/2015 01:56	25		AS-18
CCV 180-133779/38		02/19/2015 02:12	1		AS-18
CCB 180-133779/39		02/19/2015 02:27	1		AS-18
ZZZZZ		02/19/2015 02:42	10		AS-18
ZZZZZ		02/19/2015 02:58	100		AS-18
ZZZZZ		02/19/2015 03:13	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/18/2015 16:38

Analysis Batch Number: 133779 End Date: 02/19/2015 10:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/19/2015 03:28	10		AS-18
ZZZZZ		02/19/2015 03:44	1		AS-18
ZZZZZ		02/19/2015 03:59	1		AS-18
ZZZZZ		02/19/2015 04:14	1		AS-18
ZZZZZ		02/19/2015 04:29	1		AS-18
ZZZZZ		02/19/2015 04:45	1		AS-18
ZZZZZ		02/19/2015 05:00	1		AS-18
CCV 180-133779/50		02/19/2015 05:15	1		AS-18
CCB 180-133779/51		02/19/2015 05:31	1		AS-18
ZZZZZ		02/19/2015 05:46	1		AS-18
ZZZZZ		02/19/2015 06:01	1		AS-18
ZZZZZ		02/19/2015 06:17	1		AS-18
ZZZZZ		02/19/2015 06:32	1		AS-18
ZZZZZ		02/19/2015 06:47	1		AS-18
ZZZZZ		02/19/2015 07:02	1		AS-18
ZZZZZ		02/19/2015 07:18	1		AS-18
ZZZZZ		02/19/2015 07:33	1		AS-18
ZZZZZ		02/19/2015 07:48	1		AS-18
ZZZZZ		02/19/2015 08:04	10		AS-18
CCV 180-133779/62		02/19/2015 08:19	1		AS-18
CCB 180-133779/63		02/19/2015 08:34	1		AS-18
ZZZZZ		02/19/2015 08:49	1		AS-18
ZZZZZ		02/19/2015 09:05	10		AS-18
ZZZZZ		02/19/2015 09:20	1		AS-18
ZZZZZ		02/19/2015 09:35	10		AS-18
CCV 180-133779/68		02/19/2015 09:51	1		AS-18
CCB 180-133779/69		02/19/2015 10:06	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/26/2015 07:27

Analysis Batch Number: 134309 End Date: 02/27/2015 00:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/26/2015 07:27	1		AS-18
ICV 180-134309/2		02/26/2015 07:42	1	A-ICS2100 A 02-26-2015-2.d	AS-18
CCV 180-134309/3		02/26/2015 07:57	1	A-ICS2100 A 02-26-2015-3.d	AS-18
CCB 180-134309/4		02/26/2015 08:13	1	A-ICS2100 A 02-26-2015-4.d	AS-18
LCS 180-134309/5		02/26/2015 08:28	1	A-ICS2100 A 02-26-2015-5.d	AS-18
MB 180-134309/6		02/26/2015 08:43	1	A-ICS2100 A 02-26-2015-6.d	AS-18
ZZZZZ		02/26/2015 11:07	1		AS-18
ZZZZZ		02/26/2015 11:56	100		AS-18
ZZZZZ		02/26/2015 12:11	1000		AS-18
ZZZZZ		02/26/2015 12:27	100		AS-18
ZZZZZ		02/26/2015 12:42	1000		AS-18
ZZZZZ		02/26/2015 12:57	100		AS-18
ZZZZZ		02/26/2015 13:13	1000		AS-18
180-41508-12	HD-CW-13-0/1-0	02/26/2015 13:28	1	A-ICS2100 A 02-26-2015-14.d	AS-18
CCV 180-134309/15		02/26/2015 13:43	1	A-ICS2100 A 02-26-2015-15.d	AS-18
CCB 180-134309/16		02/26/2015 13:59	1	A-ICS2100 A 02-26-2015-16.d	AS-18
180-41508-6	HD-MW-145A-0/1-0	02/26/2015 14:14	1	A-ICS2100 A 02-26-2015-17.d	AS-18
180-41508-13	HD-CW-20-0/1-0	02/26/2015 14:29	1	A-ICS2100 A 02-26-2015-18.d	AS-18
180-41508-14	HD-CW-9-0/1-0	02/26/2015 14:44	1	A-ICS2100 A 02-26-2015-19.d	AS-18
180-41508-7	HD-MW-147A-0/1-0	02/26/2015 15:00	1	A-ICS2100 A 02-26-2015-20.d	AS-18
180-41508-5	HD-MW-99D-0/1-0	02/26/2015 15:15	1	A-ICS2100 A 02-26-2015-21.d	AS-18
180-41508-5 MS	HD-MW-99D-0/1-0 MS	02/26/2015 15:30	1	A-ICS2100 A 02-26-2015-22.d	AS-18
180-41508-5 MSD	HD-MW-99D-0/1-0 MSD	02/26/2015 15:46	1	A-ICS2100 A 02-26-2015-23.d	AS-18
180-41508-1	HD-MW-98I-0/1-0	02/26/2015 16:01	1	A-ICS2100 A 02-26-2015-24.d	AS-18
180-41508-1 MS	HD-MW-98I-0/1-0 MS	02/26/2015 16:16	1	A-ICS2100 A 02-26-2015-25.d	AS-18
180-41508-1 MSD	HD-MW-98I-0/1-0 MSD	02/26/2015 16:31	1	A-ICS2100 A 02-26-2015-26.d	AS-18
CCV 180-134309/27		02/26/2015 16:47	1	A-ICS2100 A 02-26-2015-27.d	AS-18
CCB 180-134309/28		02/26/2015 17:02	1	A-ICS2100 A 02-26-2015-28.d	AS-18
180-41508-3	HD-MW-98S-0/1-0	02/26/2015 17:17	1	A-ICS2100 A 02-26-2015-29.d	AS-18
180-41508-4	HD-MW-99S-0/1-0	02/26/2015 17:33	1	A-ICS2100 A 02-26-2015-30.d	AS-18
180-41508-8	HD-MW-100S-0/1-0	02/26/2015 17:48	1	A-ICS2100 A 02-26-2015-31.d	AS-18
180-41508-9	HD-MW-100I-0/1-0	02/26/2015 18:03	1	A-ICS2100 A 02-26-2015-32.d	AS-18
180-41508-10	HD-MW-100D-0/1-0	02/26/2015 18:19	1	A-ICS2100 A 02-26-2015-33.d	AS-18
180-41508-11	HD-CW-15A-0/1-0	02/26/2015 18:34	1	A-ICS2100 A 02-26-2015-34.d	AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/26/2015 07:27

Analysis Batch Number: 134309 End Date: 02/27/2015 00:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
180-41508-11	HD-CW-15A-0/1-0	02/26/2015 18:49	5	A-ICS2100 A 02-26-2015-35.d	AS-18
ZZZZZ		02/26/2015 19:05	1		AS-18
ZZZZZ		02/26/2015 19:20	1		AS-18
CCV 180-134309/38		02/26/2015 19:35	1	A-ICS2100 A 02-26-2015-38.d	AS-18
CCB 180-134309/39		02/26/2015 19:50	1	A-ICS2100 A 02-26-2015-39.d	AS-18
ZZZZZ		02/26/2015 20:06	25		AS-18
ZZZZZ		02/26/2015 20:21	25		AS-18
ZZZZZ		02/26/2015 20:36	25		AS-18
ZZZZZ		02/26/2015 20:52	25		AS-18
ZZZZZ		02/26/2015 21:07	1		AS-18
ZZZZZ		02/26/2015 21:22	5		AS-18
ZZZZZ		02/26/2015 21:37	1		AS-18
ZZZZZ		02/26/2015 21:53	5		AS-18
ZZZZZ		02/26/2015 22:08	1		AS-18
ZZZZZ		02/26/2015 22:23	5		AS-18
CCV 180-134309/50		02/26/2015 22:39	1		AS-18
CCB 180-134309/51		02/26/2015 22:54	1		AS-18
ZZZZZ		02/26/2015 23:09	5		AS-18
ZZZZZ		02/26/2015 23:24	5		AS-18
ZZZZZ		02/26/2015 23:40	5		AS-18
CCV 180-134309/55		02/26/2015 23:55	1		AS-18
CCB 180-134309/56		02/27/2015 00:10	1		AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-41508-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-98I-0/1-0	180-41508-1
HD-MW-98S-0/1-0	180-41508-3
HD-MW-99S-0/1-0	180-41508-4
HD-MW-99D-0/1-0	180-41508-5
HD-MW-145A-0/1-0	180-41508-6
HD-MW-147A-0/1-0	180-41508-7
HD-MW-100S-0/1-0	180-41508-8
HD-MW-100I-0/1-0	180-41508-9
HD-MW-100D-0/1-0	180-41508-10
HD-CW-15A-0/1-0	180-41508-11
HD-CW-13-0/1-0	180-41508-12
HD-CW-20-0/1-0	180-41508-13
HD-CW-9-0/1-0	180-41508-14

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-41508-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 09:35

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	3500	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	15000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	31000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-41508-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 10:25

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	3400	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	33000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-99S-0/1-0 Lab Sample ID: 180-41508-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 12:45

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	98000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	3300	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	14000	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-99D-0/1-0 Lab Sample ID: 180-41508-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 13:35

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	87000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	2600	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	15000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	18000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-41508-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 11:40

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	92000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	5100	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	54000	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: 180-41508-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 13:30

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	94000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	5600	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	60000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-41508-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 12:25

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	95000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	4300	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	22000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	48000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-100I-0/1-0 Lab Sample ID: 180-41508-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 11:45

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	97000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	4700	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	22000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	51000	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: 180-41508-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 10:40

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	97000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	4700	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	22000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	53000	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: 180-41508-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:40

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	200000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	16000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	29000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	98000	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: 180-41508-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:55

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	130000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	15000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	23000	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-20-0/1-0 Lab Sample ID: 180-41508-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:45

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	96000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	6900	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	24000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	65000	100	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-41508-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:50

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	15000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	26000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	80000	100	3.8	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

ICV Source: MICVX_00029 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	ICV 180-134662/5 03/03/2015 08:58				CCV 180-134662/11 03/03/2015 09:27				CCV 180-134662/23 03/03/2015 10:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	42400		40000	106	50400		50000	101	51700		50000	103
Magnesium	40100		40000	100	50600		50000	101	50500		50000	101
Potassium	41600		40000	104	50700		50000	101	51200		50000	102
Sodium	40500		40000	101	49900		50000	100	49800		50000	100

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.: 180-41508-1

SDG No.:

ICV Source: MICVX_00029 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	CCV 180-134662/35 03/03/2015 11:19				CCV 180-134662/44 03/03/2015 12:01				CCV 180-134662/55 03/03/2015 12:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49000		50000	98	50600		50000	101	47900		50000	96
Magnesium	50200		50000	100	51400		50000	103	49500		50000	99
Potassium	49800		50000	100	51100		50000	102	48900		50000	98
Sodium	50000		50000	100	50800		50000	102	49300		50000	99

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.: 180-41508-1

SDG No.:

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-134662/8 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00061

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	113		113	70-130
Potassium	100	108		108	70-130
Magnesium	100	110		110	70-130
Sodium	100	113		113	70-130

Lab Sample ID: CRI 180-134662/54 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00061

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	116		116	70-130
Potassium	100	102		102	70-130
Magnesium	100	114		114	70-130
Sodium	100	110		110	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.: 180-41508-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-134662/7 03/03/2015 09:07		CCB1 180-134662/12 03/03/2015 09:34		CCB2 180-134662/24 03/03/2015 10:29		CCB3 180-134662/36 03/03/2015 11:26	
		Found	C	Found	C	Found	C	Found	C
Calcium	100	100	U	100	U	5.59	J	3.31	J
Magnesium	100	100	U	100	U	1.49	J	1.57	J
Potassium	100	100	U	100	U	100	U	100	U
Sodium	100	100	U	7.29	J	100	U	100	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB4 180-134662/45 03/03/2015 12:08		CCB5 180-134662/56 03/03/2015 13:02					
		Found	C	Found	C	Found	C	Found	C
Calcium	100	4.10	J	5.65	J				
Magnesium	100	2.12	J	2.42	J				
Potassium	100	100	U	100	U				
Sodium	100	100	U	100	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-134395/1-A

Instrument Code: X Batch No.: 134662

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	100	U		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.: 180-41508-1

SDG No.:

Lab Sample ID: ICSA 180-134662/9 Instrument ID: X

Lab File ID: X50303A.xml ICS Source: MICSAX_00063

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**101800**	**102**
Magnesium	**100000**	**103300**	**103**
Potassium	**100000**	**102200**	**102**
Sodium	**100000**	**102300**	**102**
Aluminum	*100000*	*98260*	*98*
Antimony		*0.0110*	
Arsenic		*0.234*	
Barium		*0.112*	
Beryllium		*0.0180*	
Boron		*0.781*	
Cadmium		*0.276*	
Chromium		*0.242*	
Cobalt		*0.0900*	
Copper		*1.77*	
Iron	*100000*	*97030*	*97*
Lead		*0.220*	
Manganese		*0.663*	
Molybdenum	*2000*	*2185*	*109*
Nickel		*-0.567*	
Selenium		*0.270*	
Silicon		*17.9*	
Silver		*0.0120*	
Strontium		*0.648*	
Thallium		*0.0180*	
Tin		*0.0230*	
Titanium	*2000*	*2117*	*106*
Vanadium		*-0.325*	
Zinc		*2.21*	

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.: 180-41508-1

SDG No.:

Lab Sample ID: ICSAB 180-134662/10 Instrument ID: X

Lab File ID: X50303A.xml ICS Source: MICSABX_00067

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**100000**	**103533**	**104**
Magnesium	**100000**	**104333**	**104**
Potassium	**100000**	**103000**	**103**
Sodium	**100000**	**101100**	**101**
Aluminum	*100000*	*98367*	*98*
Antimony	*20.0*	*19.8*	*99*
Arsenic	*20.0*	*21.2*	*106*
Barium	*20.0*	*19.5*	*97*
Beryllium	*20.0*	*18.7*	*93*
Boron	*50.0*	*51.5*	*103*
Cadmium	*20.0*	*20.1*	*100*
Chromium	*20.0*	*19.1*	*95*
Cobalt	*20.0*	*19.8*	*99*
Copper	*20.0*	*22.2*	*111*
Iron	*100000*	*98720*	*99*
Lead	*20.0*	*20.4*	*102*
Manganese	*22.5*	*19.8*	*88*
Molybdenum	*2000*	*2260*	*113*
Nickel	*20.0*	*18.9*	*94*
Selenium	*50.0*	*54.9*	*110*
Silicon	*500*	*557*	*111*
Silver	*20.0*	*18.9*	*94*
Strontium	*25.0*	*21.0*	*84*
Thallium	*20.0*	*19.3*	*96*
Tin	*100*	*100*	*100*
Titanium	*2000*	*2142*	*107*
Vanadium	*20.0*	*18.7*	*93*
Zinc	*25.0*	*22.7*	*91*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-98I-0/1-0 MS Lab ID: 180-41508-1 MS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	172000		120000		50000	98	75-125		6020A
Potassium	54000		3500		50000	101	75-125		6020A
Magnesium	66500		15000		50000	103	75-125		6020A
Sodium	78700		31000		50000	96	75-125		6020A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-MW-98I-0/1-0 MSD Lab ID: 180-41508-1 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	170000		50000	93	75-125	1	20		6020A
Potassium	53700		50000	100	75-125	1	20		6020A
Magnesium	66400		50000	103	75-125	0	20		6020A
Sodium	77500		50000	94	75-125	2	20		6020A

SDR = Sample Duplicate Result

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

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-98I-0/1-0 PDS Lab ID: 180-41508-1 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	173000		120000		50000	100	75-125		6020A
Potassium	54800		3500		50000	103	75-125		6020A
Magnesium	67700		15000		50000	105	75-125		6020A
Sodium	78300		31000		50000	95	75-125		6020A

SSR = Spiked Sample Result

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

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-134395/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	53500		107	80	120		6020A
Potassium	50000	51400		103	80	120		6020A
Magnesium	50000	53700		107	80	120		6020A
Sodium	50000	50100		100	80	120		6020A

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-41508-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-41508-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	120000		120000		2.5		6020A
Potassium	3500		3610		3.2		6020A
Magnesium	15000		14300		4.7		6020A
Sodium	31000		31900		4.2		6020A

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

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-41508-1

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: 180-41508-1

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: 180-41508-1

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.: 180-41508-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-134395/1-A	02/27/2015 08:47	134395		50	50
LCS 180-134395/2-A	02/27/2015 08:47	134395		50	50
180-41508-1	02/27/2015 08:47	134395		50	50
180-41508-1 MS	02/27/2015 08:47	134395		50	50
180-41508-1 MSD	02/27/2015 08:47	134395		50	50
180-41508-3	02/27/2015 08:47	134395		50	50
180-41508-4	02/27/2015 08:47	134395		50	50
180-41508-5	02/27/2015 08:47	134395		50	50
180-41508-6	02/27/2015 08:47	134395		50	50
180-41508-7	02/27/2015 08:47	134395		50	50
180-41508-8	02/27/2015 08:47	134395		50	50
180-41508-9	02/27/2015 08:47	134395		50	50
180-41508-10	02/27/2015 08:47	134395		50	50
180-41508-11	02/27/2015 08:47	134395		50	50
180-41508-12	02/27/2015 08:47	134395		50	50
180-41508-13	02/27/2015 08:47	134395		50	50
180-41508-14	02/27/2015 08:47	134395		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 03/03/2015 06:53 End Date: 03/03/2015 13:39

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-134662/1			06:53																										
STD1 180-134662/2 IC	1		08:45	X	X	X	X																						
STD2 180-134662/3 IC	1		08:50	X	X	X	X																						
STD3 180-134662/4 IC	1		08:54	X	X	X	X																						
ICV 180-134662/5	1		08:58	X	X	X	X																						
ICV 180-134662/6	1		09:02	X	X	X	X																						
ICB 180-134662/7	1		09:07	X	X	X	X																						
CRI 180-134662/8	1		09:11	X	X	X	X																						
ICSA 180-134662/9	1		09:15	X	X	X	X																						
ICSAB 180-134662/10	1		09:20	X	X	X	X																						
CCV 180-134662/11	1		09:27	X	X	X	X																						
CCB1 180-134662/12	1		09:34	X	X	X	X																						
ZZZZZZ			09:39																										
ZZZZZZ			09:43																										
ZZZZZZ			09:47																										
ZZZZZZ			09:51																										
ZZZZZZ			09:56																										
ZZZZZZ			10:00																										
ZZZZZZ			10:04																										
ZZZZZZ			10:09																										
ZZZZZZ			10:13																										
ZZZZZZ			10:17																										
CCV 180-134662/23	1		10:21	X	X	X	X																						
CCB2 180-134662/24	1		10:29	X	X	X	X																						
ZZZZZZ			10:33																										
ZZZZZZ			10:37																										
ZZZZZZ			10:42																										
ZZZZZZ			10:46																										
ZZZZZZ			10:50																										
ZZZZZZ			10:54																										
MB 180-134395/1-A	1	R	11:02	X	X	X	X																						
LCS 180-134395/2-A	1	R	11:06	X	X	X	X																						
180-41508-1	1	T	11:10	X	X	X	X																						
180-41508-1 SD	5	T	11:15	X	X	X	X																						
CCV 180-134662/35	1		11:19	X	X	X	X																						
CCB3 180-134662/36	1		11:26	X	X	X	X																						
180-41508-1 MS	1	T	11:31	X	X	X	X																						
180-41508-1 MSD	1	T	11:35	X	X	X	X																						
180-41508-1 PDS	1	T	11:39	X	X	X	X																						
180-41508-3	1	T	11:44	X	X	X	X																						
180-41508-4	1	T	11:48	X	X	X	X																						
180-41508-5	1	T	11:52	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 03/03/2015 06:53 End Date: 03/03/2015 13:39

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
180-41508-6	1	T	11:56	X	X	X	X																						
CCV 180-134662/44	1		12:01	X	X	X	X																						
CCB4 180-134662/45	1		12:08	X	X	X	X																						
180-41508-7	1	T	12:13	X	X	X	X																						
180-41508-8	1	T	12:17	X	X	X	X																						
180-41508-9	1	T	12:21	X	X	X	X																						
180-41508-10	1	T	12:25	X	X	X	X																						
180-41508-11	1	T	12:30	X	X	X	X																						
180-41508-12	1	T	12:34	X	X	X	X																						
180-41508-13	1	T	12:38	X	X	X	X																						
180-41508-14	1	T	12:42	X	X	X	X																						
CRI 180-134662/54	1		12:50	X	X	X	X																						
CCV 180-134662/55	1		12:54	X	X	X	X																						
CCB5 180-134662/56	1		13:02	X	X	X	X																						
ZZZZZZ			13:06																										
ZZZZZZ			13:10																										
ZZZZZZ			13:14																										
ZZZZZZ			13:19																										
ZZZZZZ			13:23																										
ZZZZZZ			13:27																										
CCV 180-134662/63			13:31																										
CCB6 180-134662/64			13:39																										

Prep Types:
R = Total Recoverable
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 03/03/2015 End Date: 03/03/2015

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 180-134662/2 IC	08:45	100		100		100		100		100	
STD2 180-134662/3 IC	08:50	91		94		90		86		85	
STD3 180-134662/4 IC	08:54	100		102		97		97		96	
ICV 180-134662/5	08:58	101		100		96		93		93	
ICV 180-134662/6	09:02	103		107		99		98		98	
ICB 180-134662/7	09:07	100		101		98		98		98	
CRI 180-134662/8	09:11	100		100		97		97		96	
ICSA 180-134662/9	09:15	86		92		93		87		90	
ICSAB 180-134662/10	09:20	82		87		85		86		91	
CCV 180-134662/11	09:27	86		89		90		87		90	
CCB1 180-134662/12	09:34	92		91		93		94		94	
CCV 180-134662/23	10:21	86		87		87		86		86	
CCB2 180-134662/24	10:29	94		92		90		91		90	
MB 180-134395/1-A	11:02	101		99		94		95		93	
LCS 180-134395/2-A	11:06	74		72		81		81		82	
180-41508-1	11:10	74		71		82		83		84	
180-41508-1 SD	11:15	84		80		89		90		91	
CCV 180-134662/35	11:19	91		95		90		88		88	
CCB3 180-134662/36	11:26	101		98		94		95		93	
180-41508-1 MS	11:31	74		73		82		80		81	
180-41508-1 MSD	11:35	69		68		79		79		79	
180-41508-1 PDS	11:39	69		66		77		80		77	
180-41508-3	11:44	73		72		77		78		79	
180-41508-4	11:48	75		72		78		80		80	
180-41508-5	11:52	76		74		79		82		83	
180-41508-6	11:56	76		76		81		81		84	
CCV 180-134662/44	12:01	89		90		88		86		87	
CCB4 180-134662/45	12:08	97		95		92		94		92	
180-41508-7	12:13	75		74		82		82		83	
180-41508-8	12:17	74		72		81		82		83	
180-41508-9	12:21	73		71		81		82		84	
180-41508-10	12:25	73		70		81		82		82	
180-41508-11	12:30	70		72		82		81		84	
180-41508-12	12:34	72		72		83		83		85	
180-41508-13	12:38	73		73		84		84		85	
180-41508-14	12:42	73		74		84		83		85	
CRI 180-134662/54	12:50	100		96		101		94		93	
CCV 180-134662/55	12:54	93		99		91		88		88	
CCB5 180-134662/56	13:02	99		97		92		92		91	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 03/03/2015 End Date: 03/03/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-134662/2 IC	08:45	100		100		100					
STD2 180-134662/3 IC	08:50	90		89		87					
STD3 180-134662/4 IC	08:54	97		97		99					
ICV 180-134662/5	08:58	96		95		95					
ICV 180-134662/6	09:02	98		98		95					
ICB 180-134662/7	09:07	98		98		98					
CRI 180-134662/8	09:11	97		97		98					
ICSA 180-134662/9	09:15	96		96		94					
ICSAB 180-134662/10	09:20	97		97		88					
CCV 180-134662/11	09:27	95		95		89					
CCB1 180-134662/12	09:34	97		97		97					
CCV 180-134662/23	10:21	91		92		85					
CCB2 180-134662/24	10:29	93		93		91					
MB 180-134395/1-A	11:02	94		94		91					
LCS 180-134395/2-A	11:06	93		94		82					
180-41508-1	11:10	94		95		85					
180-41508-1 SD	11:15	96		96		89					
CCV 180-134662/35	11:19	92		93		86					
CCB3 180-134662/36	11:26	95		95		93					
180-41508-1 MS	11:31	93		93		81					
180-41508-1 MSD	11:35	92		93		80					
180-41508-1 PDS	11:39	90		91		80					
180-41508-3	11:44	90		91		81					
180-41508-4	11:48	91		92		83					
180-41508-5	11:52	93		93		85					
180-41508-6	11:56	93		94		84					
CCV 180-134662/44	12:01	92		92		84					
CCB4 180-134662/45	12:08	93		94		93					
180-41508-7	12:13	93		93		83					
180-41508-8	12:17	93		94		84					
180-41508-9	12:21	93		94		84					
180-41508-10	12:25	93		93		82					
180-41508-11	12:30	93		93		82					
180-41508-12	12:34	95		94		83					
180-41508-13	12:38	95		96		85					
180-41508-14	12:42	94		94		82					
CRI 180-134662/54	12:50	95		95		93					
CCV 180-134662/55	12:54	92		92		90					
CCB5 180-134662/56	13:02	93		92		91					

Dilution Corrected Concentrations

STD1 1490881 3/3/2015 8:45:50 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:17	99.946%	0.012	0.027	-0.019	0.000	-0.125	-0.162	-0.023
2	08:46:44	99.221%	-0.011	0.114	-0.115	0.000	-0.056	-0.028	0.032
3	08:47:10	100.833%	-0.000	-0.142	0.134	0.000	0.181	0.189	-0.009
x		100.000%	-0.000	0.000	0.000	0.000	0.000	-0.000	-0.000
σ		0.807%	0.012	0.130	0.126	0.000	0.160	0.177	0.029
%RSD		0.807	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	08:46:17	-0.076	0.289	0.000	1.297	-0.977	0.559	99.731%	-0.104
2	08:46:44	-0.030	-0.307	0.000	-0.037	0.478	0.331	100.371%	0.020
3	08:47:10	0.106	0.018	0.000	-1.260	0.499	-0.890	99.898%	0.084
x		0.000	0.000	0.000	0.000	-0.000	0.000	100.000%	-0.000
σ		0.095	0.298	0.000	1.279	0.846	0.779	0.332%	0.096
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.332	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:17	-0.022	-0.002	-0.004	0.526	-0.788	-0.003	0.000	-0.009
2	08:46:44	0.023	-0.010	0.007	-0.539	0.540	0.002	0.024	-0.008
3	08:47:10	-0.001	0.012	-0.002	0.013	0.248	0.000	-0.024	0.016
x		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ		0.023	0.011	0.006	0.532	0.698	0.002	0.024	0.014
%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	08:46:17	0.011	0.016	0.102	-0.065	-0.034	-0.424	0.000	0.002
2	08:46:44	0.022	0.022	-0.055	0.024	-0.452	0.059	0.000	0.002
3	08:47:10	-0.034	-0.038	-0.048	0.041	0.486	0.365	0.000	-0.003
x		0.000	-0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
σ		0.030	0.033	0.089	0.057	0.470	0.398	0.000	0.003
%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	08:46:17	99.470%	-0.006	-0.011	99.123%	-0.012	-0.015	-0.013	-0.015
2	08:46:44	100.165%	-0.001	0.006	100.108%	-0.007	0.009	0.041	0.027
3	08:47:10	100.365%	0.007	0.006	100.769%	0.019	0.006	-0.029	-0.013
x		100.000%	0.000	0.000	100.000%	0.000	0.000	-0.000	0.000
σ		0.470%	0.007	0.010	0.829%	0.017	0.013	0.037	0.024
%RSD		0.470	0.000	0.000	0.829	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	08:46:17	99.367%	-0.039	-0.008	-0.018	-0.007	0.001	99.013%	99.047%
2	08:46:44	100.050%	-0.013	0.009	0.004	0.001	-0.006	100.749%	100.615%
3	08:47:10	100.583%	0.052	-0.001	0.014	0.005	0.005	100.238%	100.339%
x		100.000%	0.000	0.000	-0.000	0.000	0.000	100.000%	100.000%
σ		0.610%	0.047	0.008	0.016	0.006	0.006	0.892%	0.837%
%RSD		0.610	0.000	0.000	0.000	0.000	0.000	0.892	0.837

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:17	0.001	0.001	0.001	-0.007	0.000	99.963%
2	08:46:44	-0.001	-0.001	-0.003	0.006	-0.001	99.695%
3	08:47:10	0.001	0.000	0.002	0.001	0.001	100.342%
x		-0.000	0.000	-0.000	0.000	0.000	100.000%
σ		0.001	0.001	0.002	0.007	0.001	0.325%
%RSD		0.000	0.000	0.000	0.000	0.000	0.325

STD2 1487947 3/3/2015 8:50:00 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	90.927%	197.300	-0.083	0.299	0.000	99040.000	98250.000	98040.000
2	08:50:53	91.113%	198.300	0.636	0.278	0.000	100100.000	100100.000	100200.000
3	08:51:19	91.224%	204.400	0.634	0.212	0.000	100900.000	101700.000	101700.000
x		91.088%	200.000	0.396	0.263	0.000	100000.000	100000.000	100000.000
σ		0.150%	3.861	0.414	0.046	0.000	920.600	1708.000	1848.000
%RSD		0.165	1.931	104.700	17.370	0.000	0.921	1.708	1.848

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	983.800	4.152	0.000	98390.000	98120.000	97560.000	94.652%	0.203
2	08:50:53	1005.000	5.129	0.000	100700.000	100400.000	100100.000	93.687%	0.257
3	08:51:19	1011.000	3.933	0.000	100900.000	101500.000	102300.000	94.487%	0.104
x		1000.000	4.405	0.000	100000.000	100000.000	100000.000	94.275%	0.188
σ		14.290	0.637	0.000	1396.000	1713.000	2396.000	0.516%	0.078
%RSD		1.429	14.460	0.000	1.396	1.713	2.396	0.547	41.480

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	195.600	195.200	975.300	48610.000	48650.000	195.400	193.000	195.600
2	08:50:53	201.100	200.700	1011.000	50440.000	50420.000	201.600	203.800	199.800
3	08:51:19	203.300	204.000	1014.000	50950.000	50930.000	203.000	203.200	204.600
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		3.965	4.433	21.400	1229.000	1195.000	4.060	6.053	4.478
%RSD		1.983	2.216	2.140	2.459	2.390	2.030	3.027	2.239

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	196.400	198.600	198.100	197.000	198.300	198.800	0.000	198.500
2	08:50:53	200.500	198.200	199.200	202.100	201.800	201.600	0.000	200.800
3	08:51:19	203.200	203.100	202.700	200.900	199.900	199.600	0.000	200.600
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		3.402	2.731	2.442	2.674	1.732	1.419	0.000	1.261
%RSD		1.701	1.366	1.221	1.337	0.866	0.710	0.000	0.631

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	89.375%	0.080	0.090	85.420%	199.100	198.400	197.200	197.900
2	08:50:53	89.908%	0.111	0.071	86.230%	200.700	200.700	203.100	201.700
3	08:51:19	90.367%	0.095	0.114	85.778%	200.200	200.900	199.600	200.400
x		89.883%	0.095	0.092	85.809%	200.000	200.000	200.000	200.000
σ		0.496%	0.016	0.021	0.406%	0.803	1.348	2.982	1.895
%RSD		0.552	16.450	23.300	0.473	0.402	0.674	1.491	0.947

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	84.648%	0.178	0.182	0.195	199.400	197.600	89.251%	89.377%
2	08:50:53	84.029%	0.213	0.228	0.215	201.000	201.600	89.277%	89.129%
3	08:51:19	85.628%	0.231	0.208	0.236	199.600	200.800	89.856%	88.774%
x		84.768%	0.208	0.206	0.215	200.000	200.000	89.461%	89.093%
σ		0.806%	0.027	0.023	0.021	0.892	2.085	0.342%	0.303%
%RSD		0.951	12.870	11.200	9.526	0.446	1.043	0.383	0.340

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	191.900	191.200	190.700	191.200	190.700	91.126%
2	08:50:53	203.000	202.900	202.700	202.100	202.100	86.566%
3	08:51:19	205.200	205.900	206.600	206.700	207.200	84.572%
x		200.000	200.000	200.000	200.000	200.000	87.421%
σ		7.129	7.743	8.265	7.944	8.465	3.360%
%RSD		3.564	3.872	4.133	3.972	4.232	3.843

STD3 1487948 3/3/2015 8:54:15 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	100.115%	0.059	203.100	200.500	0.000	59.480	49.160	47.360
2	08:55:08	101.278%	0.104	193.400	195.900	0.000	59.590	48.210	47.620
3	08:55:35	99.426%	0.048	203.600	203.600	0.000	61.130	48.910	47.200
x		100.273%	0.070	200.000	200.000	0.000	60.070	48.760	47.390
σ		0.936%	0.030	5.755	3.881	0.000	0.922	0.491	0.211
%RSD		0.934	42.590	2.878	1.940	0.000	1.534	1.007	0.445
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	8.230	9861.000	0.000	43.740	57.520	95.060	101.424%	196.100
2	08:55:08	7.677	9997.000	0.000	42.970	51.540	93.950	101.591%	201.700
3	08:55:35	7.589	10140.000	0.000	45.520	66.360	91.880	101.383%	202.200
x		7.832	10000.000	0.000	44.080	58.480	93.630	101.466%	200.000
σ		0.347	140.400	0.000	1.306	7.455	1.614	0.110%	3.347
%RSD		4.435	1.404	0.000	2.963	12.750	1.724	0.108	1.674
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	0.086	0.084	0.682	72.400	72.400	0.112	0.256	0.266
2	08:55:08	0.085	0.057	0.661	48.360	50.090	0.107	0.288	0.328
3	08:55:35	0.106	0.104	0.638	37.280	36.830	0.098	0.248	0.265
x		0.093	0.082	0.660	52.680	53.110	0.106	0.264	0.286
σ		0.012	0.024	0.022	17.950	17.970	0.007	0.021	0.036
%RSD		12.730	29.040	3.378	34.080	33.840	6.351	7.941	12.560
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	0.370	0.942	0.732	0.220	0.034	0.370	0.000	0.128
2	08:55:08	0.316	0.704	0.739	0.323	0.796	1.107	0.000	0.128
3	08:55:35	0.318	0.911	0.804	0.195	1.061	0.518	0.000	0.144
x		0.335	0.852	0.759	0.246	0.630	0.665	0.000	0.133
σ		0.030	0.129	0.040	0.068	0.533	0.390	0.000	0.009
%RSD		9.080	15.180	5.231	27.640	84.530	58.680	0.000	6.904
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	95.758%	194.000	194.000	95.153%	0.297	0.254	0.119	-0.259
2	08:55:08	97.364%	202.800	202.000	97.116%	0.301	0.251	0.199	-0.419
3	08:55:35	98.678%	203.200	204.000	98.302%	0.292	0.307	0.185	-0.567
x		97.266%	200.000	200.000	96.857%	0.297	0.271	0.167	-0.415
σ		1.462%	5.169	5.258	1.591%	0.004	0.032	0.042	0.154
%RSD		1.504	2.584	2.629	1.642	1.451	11.680	25.370	37.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	93.939%	196.000	197.000	197.600	0.143	0.292	94.599%	94.688%
2	08:55:08	96.851%	201.200	201.400	200.600	0.155	0.234	97.463%	96.830%
3	08:55:35	97.474%	202.700	201.600	201.800	0.171	0.280	98.070%	97.835%
x		96.088%	200.000	200.000	200.000	0.156	0.269	96.711%	96.451%
σ		1.887%	3.511	2.611	2.160	0.014	0.031	1.854%	1.607%
%RSD		1.964	1.756	1.306	1.080	8.863	11.510	1.917	1.666
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	08:54:42	0.124	0.138	0.119	0.098	0.114	99.008%		
2	08:55:08	0.129	0.136	0.119	0.106	0.119	98.631%		
3	08:55:35	0.137	0.122	0.114	0.104	0.116	98.244%		
x		0.130	0.132	0.117	0.103	0.117	98.627%		
σ		0.007	0.009	0.003	0.004	0.003	0.382%		
%RSD		5.037	6.465	2.451	4.053	2.462	0.388		

ICV 1470870 3/3/2015 8:58:30 AM 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	08:58:56	100.385%	79.930	81.390	86.100	0.000	39710.000	38500.000	38900.000
2	08:59:23	99.506%	83.100	90.310	87.610	0.000	40930.000	40400.000	40680.000
3	08:59:49	101.652%	79.760	86.630	87.530	0.000	40910.000	40760.000	40800.000
x		100.514%	101.165%	107.635%	108.851%	0.000	101.295%	99.720%	100.319%
σ		1.079%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.073	2.326	5.207	0.974	0.000	1.732	3.043	2.653
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	388.900	4808.000	0.000	41050.000	39480.000	41150.000	99.834%	82.400
2	08:59:23	409.600	4491.000	0.000	41990.000	40810.000	42900.000	100.612%	87.320
3	08:59:49	410.600	4578.000	0.000	41760.000	41430.000	43030.000	99.881%	88.770
x		100.761%	115.643%	0.000	103.997%	101.435%	105.900%	100.109%	107.707%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.436%	n/a
%RSD		3.032	3.546	0.000	1.172	2.462	2.472	0.436	3.880
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	79.830	80.450	412.600	19850.000	20560.000	80.460	80.020	80.750
2	08:59:23	81.680	83.440	427.300	20530.000	21340.000	82.720	84.780	82.760
3	08:59:49	82.580	83.810	429.600	20620.000	21440.000	83.480	84.080	83.520
x		101.705%	103.208%	105.793%	101.675%	105.571%	102.776%	103.699%	102.934%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.727	2.228	2.178	2.078	2.276	1.909	3.101	1.737
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	83.210	79.860	81.430	81.730	84.070	82.520	0.000	79.830
2	08:59:23	83.980	83.190	83.600	82.630	83.100	84.050	0.000	81.950
3	08:59:49	84.060	83.420	83.170	82.770	82.540	83.610	0.000	82.350
x		104.683%	102.697%	103.414%	102.969%	104.045%	104.244%	0.000	101.724%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.561	2.425	1.385	0.682	0.932	0.947	0.000	1.665
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	95.610%	84.300	84.240	92.311%	80.830	80.810	80.570	79.120
2	08:59:23	96.095%	86.770	87.810	92.754%	81.810	81.870	82.840	80.870
3	08:59:49	97.092%	87.420	88.940	93.105%	82.410	81.990	81.830	81.530
x		96.266%	107.705%	108.741%	92.723%	102.107%	101.951%	102.184%	100.634%
σ		0.756%	n/a	n/a	0.398%	n/a	n/a	n/a	n/a
%RSD		0.785	1.911	2.820	0.429	0.975	0.795	1.393	1.549
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	92.951%	82.500	82.480	83.640	79.550	79.930	94.766%	94.818%
2	08:59:23	93.187%	85.060	83.680	84.830	82.520	81.850	95.638%	95.686%
3	08:59:49	93.789%	86.360	83.660	84.150	82.310	81.960	96.666%	95.521%
x		93.309%	105.801%	104.088%	105.257%	101.826%	101.557%	95.690%	95.342%
σ		0.432%	n/a	n/a	n/a	n/a	n/a	0.951%	0.461%
%RSD		0.463	2.317	0.822	0.710	2.034	1.401	0.994	0.483
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	08:58:56	80.830	79.610	78.020	76.940	76.690	97.311%		
2	08:59:23	82.670	82.830	82.730	79.850	80.710	95.376%		
3	08:59:49	84.470	83.500	83.630	81.390	82.140	93.662%		
x		103.323%	102.479%	101.823%	99.241%	99.807%	95.450%		
σ		n/a	n/a	n/a	n/a	n/a	1.826%		
%RSD		2.203	2.536	3.694	2.851	3.539	1.913		

ICV 3/3/2015 9:02:47 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	102.492%	-0.002	1.204	0.885	0.000	20.250	14.300	14.180
2	09:03:40	104.287%	-0.014	0.937	0.676	0.000	19.580	14.480	13.350
3	09:04:07	103.141%	-0.002	0.318	1.122	0.000	20.170	12.530	13.440
x		103.306%	-0.006	0.820	0.894	0.000	20.000	13.770	13.660
σ		0.909%	0.007	0.454	0.223	0.000	0.366	1.081	0.457
%RSD		0.880	120.100	55.420	24.970	0.000	1.832	7.849	3.343
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	1.351	4249.000	0.000	14.850	15.480	29.680	106.651%	0.330
2	09:03:40	1.495	4312.000	0.000	8.647	13.900	30.040	107.585%	0.310
3	09:04:07	1.618	4327.000	0.000	6.372	20.750	28.760	107.904%	0.280
x		1.488	4296.000	0.000	9.955	16.710	29.490	107.380%	0.307
σ		0.134	41.730	0.000	4.387	3.588	0.656	0.651%	0.026
%RSD		8.973	0.971	0.000	44.060	21.470	2.226	0.606	8.323
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	0.036	0.272	0.145	28.010	26.540	0.019	0.054	0.091
2	09:03:40	0.018	0.272	0.098	18.180	21.750	0.014	0.048	0.083
3	09:04:07	0.010	0.265	0.115	12.690	14.600	0.031	0.020	0.132
x		0.021	0.270	0.119	19.630	20.960	0.021	0.041	0.102
σ		0.013	0.004	0.023	7.759	6.006	0.009	0.018	0.026
%RSD		60.330	1.462	19.680	39.530	28.650	41.290	44.170	25.830
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	0.106	0.961	0.848	0.049	0.972	0.315	0.000	0.031
2	09:03:40	0.118	0.964	1.011	-0.039	-0.979	-0.060	0.000	0.025
3	09:04:07	0.098	1.013	1.133	-0.232	0.613	-0.751	0.000	0.023
x		0.107	0.979	0.997	-0.074	0.202	-0.165	0.000	0.026
σ		0.010	0.029	0.143	0.143	1.038	0.540	0.000	0.004
%RSD		9.210	2.972	14.360	193.500	514.200	327.000	0.000	16.580
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	97.272%	0.964	0.958	97.260%	0.119	0.077	0.063	0.054
2	09:03:40	99.486%	0.779	0.789	97.338%	0.103	0.112	0.066	0.037
3	09:04:07	99.265%	0.568	0.579	98.356%	0.119	0.093	-0.010	0.009
x		98.674%	0.770	0.775	97.651%	0.114	0.094	0.040	0.033
σ		1.219%	0.198	0.190	0.612%	0.009	0.017	0.043	0.022
%RSD		1.236	25.740	24.500	0.627	8.001	18.370	107.700	67.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	96.069%	0.061	0.009	0.014	0.041	0.034	97.012%	96.886%
2	09:03:40	98.522%	0.091	0.017	0.011	0.023	0.004	98.920%	97.777%
3	09:04:07	99.246%	0.106	0.040	0.015	0.031	0.016	98.316%	98.576%
x		97.946%	0.086	0.022	0.013	0.031	0.018	98.083%	97.746%
σ		1.665%	0.023	0.016	0.002	0.009	0.015	0.975%	0.845%
%RSD		1.700	26.580	71.990	14.840	28.980	86.290	0.994	0.865
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:03:14	0.047	0.035	0.042	0.017	0.031	93.253%		
2	09:03:40	0.034	0.035	0.025	0.007	0.017	94.848%		
3	09:04:07	0.033	0.031	0.019	0.010	0.018	95.646%		
x		0.038	0.034	0.029	0.012	0.022	94.582%		
σ		0.008	0.002	0.012	0.005	0.008	1.219%		
%RSD		20.390	6.359	42.510	44.260	35.070	1.288		

ICB 3/3/2015 9:07:07 AM 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	09:07:34	100.335%	-0.012	0.105	0.507	0.000	1.430	0.096	0.237
2	09:08:00	99.592%	0.036	-0.054	0.317	0.000	1.971	0.856	0.046
3	09:08:27	99.716%	-0.035	-0.219	0.099	0.000	2.164	0.189	-0.029
x		99.881%	-0.004	-0.056	0.308	0.000	1.855	0.380	0.085
σ		0.398%	0.036	0.162	0.204	0.000	0.381	0.415	0.137
%RSD		0.398	936.600	290.200	66.270	0.000	20.530	109.100	161.500

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	-0.647	4.496	0.000	0.358	1.860	1.113	101.717%	-0.184
2	09:08:00	-0.645	1.886	0.000	1.411	0.452	3.544	100.804%	-0.152
3	09:08:27	-0.623	0.982	0.000	-1.543	0.429	1.164	101.228%	-0.152
x		-0.639	2.455	0.000	0.075	0.914	1.940	101.250%	-0.163
σ		0.013	1.825	0.000	1.497	0.820	1.389	0.457%	0.018
%RSD		2.049	74.320	0.000	1989.000	89.720	71.590	0.452	11.160

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	-0.002	0.014	-0.000	2.000	2.038	0.004	0.024	0.014
2	09:08:00	0.001	0.023	0.015	1.046	-0.912	0.003	0.024	0.024
3	09:08:27	-0.014	0.021	0.019	0.530	2.604	0.004	0.048	-0.021
x		-0.005	0.019	0.011	1.192	1.243	0.004	0.032	0.006
σ		0.008	0.005	0.010	0.746	1.888	0.001	0.014	0.024
%RSD		166.700	25.720	88.100	62.590	151.800	13.730	43.320	409.100

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	0.019	0.136	0.049	0.257	0.710	1.567	0.000	0.006
2	09:08:00	-0.013	0.052	0.055	0.218	0.379	1.222	0.000	0.001
3	09:08:27	-0.022	0.079	0.114	0.135	0.480	0.912	0.000	0.008
x		-0.005	0.089	0.073	0.204	0.523	1.234	0.000	0.005
σ		0.022	0.043	0.036	0.062	0.170	0.328	0.000	0.004
%RSD		408.500	47.920	49.570	30.700	32.450	26.580	0.000	75.130

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	97.780%	0.065	0.110	97.487%	-0.025	-0.051	0.046	0.022
2	09:08:00	98.713%	0.134	0.103	98.514%	-0.033	-0.052	0.053	0.042
3	09:08:27	98.604%	0.078	0.093	98.620%	-0.025	-0.053	-0.013	-0.008
x		98.366%	0.092	0.102	98.207%	-0.028	-0.052	0.029	0.018
σ		0.510%	0.036	0.009	0.626%	0.005	0.001	0.036	0.025
%RSD		0.519	39.290	8.779	0.637	16.330	1.359	126.800	137.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	96.896%	-0.210	-0.049	-0.046	0.015	-0.003	96.740%	96.789%
2	09:08:00	98.329%	-0.158	-0.036	-0.059	-0.006	-0.011	98.126%	97.962%
3	09:08:27	97.387%	-0.113	-0.029	-0.038	-0.006	-0.018	98.957%	98.434%
x		97.537%	-0.160	-0.038	-0.048	0.001	-0.011	97.941%	97.728%
σ		0.728%	0.049	0.010	0.011	0.012	0.007	1.120%	0.847%
%RSD		0.747	30.480	26.650	22.210	1697.000	69.620	1.143	0.867

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	0.002	0.004	-0.004	-0.009	-0.002	98.079%
2	09:08:00	0.009	0.002	0.009	0.004	0.002	98.049%
3	09:08:27	0.004	0.005	-0.002	0.009	-0.003	98.063%
x		0.005	0.004	0.001	0.002	-0.001	98.064%
σ		0.004	0.002	0.007	0.009	0.003	0.015%
%RSD		69.560	41.750	892.000	570.900	361.100	0.015

CRI 1470869 3/3/2015 9:11:28 AM 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	09:11:55	99.543%	1.133	5.554	4.932	0.000	111.400	108.600	109.400
2	09:12:21	101.012%	0.908	5.313	5.335	0.000	111.900	111.800	107.400
3	09:12:48	100.201%	0.880	5.360	5.753	0.000	115.900	109.900	112.000
x		100.252%	97.375%	108.183%	106.802%	0.000	141.366%	110.077%	109.614%
σ		0.736%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.734	14.240	2.364	7.692	0.000	2.188	1.472	2.109
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	29.440	524.100	0.000	106.100	111.000	116.000	100.766%	5.710
2	09:12:21	30.150	534.900	0.000	106.100	108.500	113.800	100.230%	5.720
3	09:12:48	30.960	538.400	0.000	110.800	125.600	108.300	99.624%	4.952
x		100.623%	106.496%	0.000	107.679%	115.046%	112.715%	100.207%	109.214%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.571%	n/a
%RSD		2.519	1.407	0.000	2.540	8.030	3.535	0.570	8.068
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	0.965	1.958	5.101	51.120	52.210	0.496	1.343	2.220
2	09:12:21	1.012	2.064	5.167	52.450	56.810	0.486	1.161	2.159
3	09:12:48	0.980	2.073	5.185	52.860	54.730	0.531	1.278	2.332
x		98.585%	101.581%	103.019%	104.287%	109.169%	100.841%	126.087%	111.868%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.451	3.156	0.862	1.748	4.217	4.705	7.303	3.919
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	2.153	5.102	5.182	1.253	5.519	6.208	0.000	5.081
2	09:12:21	2.397	5.142	5.493	1.164	5.840	5.329	0.000	5.076
3	09:12:48	2.181	5.406	5.338	1.120	5.256	5.693	0.000	5.033
x		112.184%	104.334%	106.758%	117.871%	110.764%	114.869%	0.000	101.269%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.949	3.158	2.916	5.741	5.281	7.691	0.000	0.518
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	96.158%	5.031	5.022	96.240%	1.006	0.937	1.011	0.988
2	09:12:21	97.611%	5.119	5.329	96.432%	0.963	0.997	0.993	0.958
3	09:12:48	97.458%	5.216	5.085	97.290%	0.929	0.938	1.056	1.030
x		97.076%	102.441%	102.907%	96.654%	96.574%	95.740%	102.023%	99.181%
σ		0.798%	n/a	n/a	0.559%	n/a	n/a	n/a	n/a
%RSD		0.822	1.806	3.153	0.578	3.987	3.556	3.164	3.631
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	94.727%	4.772	1.931	1.845	9.932	10.320	95.727%	96.221%
2	09:12:21	97.007%	4.765	1.933	1.995	10.040	10.170	97.568%	97.833%
3	09:12:48	96.322%	5.167	2.017	1.926	10.350	10.020	97.800%	97.028%
x		96.019%	98.029%	98.022%	96.103%	101.079%	101.736%	97.032%	97.028%
σ		1.170%	n/a	n/a	n/a	n/a	n/a	1.136%	0.806%
%RSD		1.218	4.699	2.494	3.920	2.145	1.477	1.170	0.831
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:11:55	1.073	1.017	1.083	0.976	1.025	97.370%		
2	09:12:21	1.018	1.029	1.032	1.011	1.006	98.908%		
3	09:12:48	1.093	1.038	1.105	1.041	1.070	96.451%		
x		106.123%	102.822%	107.341%	100.922%	103.344%	97.577%		
σ		n/a	n/a	n/a	n/a	n/a	1.242%		
%RSD		3.683	1.021	3.498	3.196	3.161	1.272		

ICSA 1488332 3/3/2015 9:15:45 AM 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	09:16:11	87.759%	-0.019	0.125	0.591	0.000	100500.000	99520.000	99670.000
2	09:16:38	85.895%	0.050	-0.333	0.930	0.000	103600.000	104900.000	104900.000
3	09:17:05	85.647%	0.023	0.050	0.821	0.000	102800.000	104700.000	105500.000
x		86.434%	0.018	-0.052	0.781	0.000	102300.000	103000.000	103300.000
σ		1.154%	0.035	0.246	0.173	0.000	1647.000	3048.000	3198.000
%RSD		1.336	190.500	468.900	22.140	0.000	1.610	2.958	3.094

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	94930.000	19.580	0.000	100100.000	96790.000	99000.000	92.745%	2066.000
2	09:16:38	99800.000	17.180	0.000	103800.000	102800.000	102300.000	91.728%	2133.000
3	09:17:05	100100.000	16.810	0.000	102700.000	102900.000	104200.000	90.901%	2154.000
x		98260.000	17.850	0.000	102200.000	100800.000	101800.000	91.792%	2117.000
σ		2888.000	1.502	0.000	1880.000	3517.000	2628.000	0.924%	46.280
%RSD		2.939	8.412	0.000	1.839	3.488	2.580	1.006	2.186

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	-0.277	0.266	0.626	94470.000	94930.000	0.099	-0.434	1.571
2	09:16:38	-0.300	0.230	0.701	98100.000	98140.000	0.079	-0.677	1.510
3	09:17:05	-0.398	0.229	0.662	98510.000	98470.000	0.093	-0.590	1.593
x		-0.325	0.242	0.663	97030.000	97180.000	0.090	-0.567	1.558
σ		0.064	0.021	0.037	2223.000	1958.000	0.010	0.123	0.043
%RSD		19.720	8.801	5.650	2.291	2.015	11.590	21.710	2.758

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	1.722	2.185	1.266	0.161	0.305	0.338	0.000	0.593
2	09:16:38	1.779	2.260	1.385	0.168	0.298	0.296	0.000	0.642
3	09:17:05	1.820	2.197	1.170	0.373	0.206	1.068	0.000	0.709
x		1.773	2.214	1.274	0.234	0.270	0.567	0.000	0.648
σ		0.049	0.040	0.108	0.121	0.056	0.434	0.000	0.058
%RSD		2.768	1.829	8.449	51.540	20.590	76.420	0.000	8.946

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	91.950%	2111.000	2106.000	85.885%	0.017	0.011	0.197	0.207
2	09:16:38	92.740%	2247.000	2206.000	86.689%	0.003	-0.011	0.298	0.324
3	09:17:05	93.160%	2287.000	2243.000	87.168%	0.015	0.020	0.332	0.211
x		92.617%	2215.000	2185.000	86.580%	0.012	0.007	0.276	0.247
σ		0.614%	92.600	70.760	0.648%	0.008	0.016	0.070	0.067
%RSD		0.663	4.180	3.238	0.749	65.800	236.300	25.530	26.940

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	89.111%	-0.024	-0.010	0.001	0.095	0.138	93.727%	95.031%
2	09:16:38	89.515%	0.032	0.030	-0.004	0.124	0.108	95.893%	96.310%
3	09:17:05	91.788%	0.059	0.014	-0.001	0.143	0.088	96.866%	97.888%
x		90.138%	0.023	0.011	-0.001	0.121	0.112	95.495%	96.410%
σ		1.443%	0.042	0.020	0.003	0.025	0.025	1.607%	1.431%
%RSD		1.601	187.400	180.300	230.000	20.380	22.750	1.683	1.485

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	0.022	0.023	0.225	0.193	0.206	100.046%
2	09:16:38	0.015	0.014	0.246	0.234	0.225	91.034%
3	09:17:05	0.011	0.015	0.242	0.239	0.228	90.457%
x		0.016	0.018	0.237	0.222	0.220	93.846%
σ		0.006	0.005	0.011	0.025	0.012	5.378%
%RSD		36.280	28.130	4.648	11.450	5.440	5.730

ICSAB 1488333 3/3/2015 9:20:05 AM 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	09:20:32	82.619%	17.700	46.070	51.260	0.000	100100.000	101300.000	101600.000
2	09:20:59	81.783%	19.300	42.620	51.930	0.000	101700.000	104800.000	105300.000
3	09:21:25	81.558%	18.990	54.120	51.340	0.000	101500.000	105700.000	106100.000
x		81.986%	93.313%	95.210%	103.017%	0.000	101.121%	103.910%	104.326%
σ		0.559%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.682	4.551	12.400	0.712	0.000	0.849	2.231	2.330

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	95670.000	551.300	0.000	101700.000	100400.000	101800.000	87.589%	2087.000
2	09:20:59	99620.000	560.800	0.000	103500.000	103700.000	103900.000	87.335%	2159.000
3	09:21:25	99810.000	560.000	0.000	103800.000	105100.000	104900.000	85.994%	2179.000
x		98.366%	111.466%	0.000	102.988%	103.076%	103.530%	86.973%	107.098%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.857%	n/a
%RSD		2.378	0.947	0.000	1.120	2.324	1.509	0.985	2.256

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	17.970	18.490	19.460	96040.000	95890.000	19.510	18.560	20.580
2	09:20:59	19.000	19.200	20.090	99620.000	99480.000	19.710	18.960	21.210
3	09:21:25	19.030	19.530	19.960	100500.000	100100.000	20.140	19.140	21.450
x		93.334%	95.362%	99.188%	98.735%	98.507%	98.929%	94.427%	105.399%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.231	2.784	1.674	2.412	2.321	1.619	1.585	2.151

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	20.860	22.060	20.990	20.960	55.900	54.870	0.000	20.390
2	09:20:59	22.940	23.030	21.620	21.160	54.510	56.350	0.000	21.220
3	09:21:25	22.660	23.020	21.900	21.510	54.180	55.860	0.000	21.250
x		110.769%	90.812%	86.014%	106.043%	109.726%	111.387%	0.000	104.767%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.087	2.459	2.161	1.313	1.664	1.355	0.000	2.348

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	85.196%	2220.000	2201.000	85.473%	18.660	18.710	19.710	18.440
2	09:20:59	85.273%	2334.000	2278.000	86.418%	18.980	18.710	20.230	18.880
3	09:21:25	85.596%	2368.000	2301.000	86.788%	18.950	18.810	20.260	18.840
x		85.355%	115.365%	113.001%	86.226%	94.314%	93.717%	100.329%	93.604%
σ		0.212%	n/a	n/a	0.678%	n/a	n/a	n/a	n/a
%RSD		0.248	3.362	2.303	0.786	0.956	0.322	1.536	1.323

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	89.920%	96.370	19.320	19.890	19.630	18.950	96.433%	96.309%
2	09:20:59	90.925%	101.700	20.000	19.950	19.530	19.580	96.513%	96.740%
3	09:21:25	91.293%	102.300	20.180	20.080	19.860	19.890	97.964%	98.333%
x		90.713%	100.111%	99.159%	99.871%	98.377%	97.366%	96.970%	97.127%
σ		0.711%	n/a	n/a	n/a	n/a	n/a	0.862%	1.066%
%RSD		0.784	3.250	2.277	0.492	0.865	2.458	0.889	1.098

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	18.490	18.320	19.760	20.060	19.630	89.542%
2	09:20:59	20.040	19.570	20.800	20.960	20.600	87.351%
3	09:21:25	20.620	19.990	21.090	21.340	20.940	86.772%
x		98.585%	96.461%	102.758%	103.927%	101.951%	87.888%
σ		n/a	n/a	n/a	n/a	n/a	1.461%
%RSD		5.608	4.515	3.404	3.162	3.339	1.662

CCV 1487954 3/3/2015 9:27:31 AM 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	09:27:57	86.390%	94.880	97.770	101.900	0.000	49550.000	49560.000	49500.000
2	09:28:23	84.971%	99.220	95.790	103.800	0.000	50670.000	51330.000	51770.000
3	09:28:50	86.215%	97.710	103.200	103.200	0.000	49500.000	50820.000	50580.000
x		85.858%	97.271%	98.924%	102.968%	0.000	99.808%	101.141%	101.231%
σ		0.774%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.901	2.267	3.881	0.912	0.000	1.324	1.800	2.238
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	482.300	5129.000	0.000	50910.000	50500.000	50030.000	88.092%	100.800
2	09:28:23	503.900	5238.000	0.000	51340.000	50420.000	51210.000	87.941%	106.400
3	09:28:50	491.800	5118.000	0.000	49990.000	50640.000	49910.000	90.343%	102.600
x		98.541%	103.233%	0.000	101.487%	101.038%	100.768%	88.792%	103.286%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.345%	n/a
%RSD		2.199	1.291	0.000	1.360	0.223	1.426	1.515	2.765
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	94.760	94.160	503.100	24040.000	24930.000	96.350	96.250	97.170
2	09:28:23	96.680	97.810	516.000	24750.000	25750.000	98.580	99.030	99.580
3	09:28:50	95.120	95.770	506.200	24280.000	25350.000	96.740	97.830	97.580
x		95.520%	95.915%	101.687%	97.427%	101.369%	97.225%	97.704%	98.109%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.067	1.905	1.332	1.474	1.618	1.226	1.429	1.312
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	96.320	97.780	99.320	98.120	97.040	101.400	0.000	95.960
2	09:28:23	99.040	99.930	102.500	98.370	104.200	99.120	0.000	100.100
3	09:28:50	98.170	100.200	102.200	97.690	98.410	99.970	0.000	99.400
x		97.842%	99.301%	101.353%	98.059%	99.896%	100.168%	0.000	98.491%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.419	1.336	1.743	0.352	3.824	1.157	0.000	2.255
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	89.769%	98.930	101.600	86.619%	97.890	97.810	97.050	95.410
2	09:28:23	90.157%	105.100	105.300	87.414%	97.890	96.870	98.410	96.290
3	09:28:50	90.466%	106.800	107.900	86.771%	98.910	99.130	100.100	98.700
x		90.131%	103.608%	104.918%	86.935%	98.231%	97.937%	98.523%	96.802%
σ		0.349%	n/a	n/a	0.422%	n/a	n/a	n/a	n/a
%RSD		0.388	3.988	3.033	0.486	0.599	1.160	1.556	1.760
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	88.673%	98.170	97.050	97.790	97.210	96.550	95.158%	93.910%
2	09:28:23	90.982%	99.590	99.470	99.130	98.000	97.210	94.287%	94.916%
3	09:28:50	89.003%	102.200	101.100	102.800	99.310	99.680	95.433%	94.616%
x		89.553%	99.975%	99.194%	99.896%	98.172%	97.810%	94.960%	94.481%
σ		1.249%	n/a	n/a	n/a	n/a	n/a	0.598%	0.517%
%RSD		1.394	2.031	2.033	2.577	1.085	1.685	0.630	0.547
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:27:57	99.700	98.980	99.200	99.590	99.200	89.749%		
2	09:28:23	99.940	99.470	99.580	101.200	99.670	90.787%		
3	09:28:50	102.800	102.800	105.000	104.900	104.700	87.702%		
x		100.803%	100.400%	101.266%	101.881%	101.203%	89.413%		
σ		n/a	n/a	n/a	n/a	n/a	1.570%		
%RSD		1.687	2.048	3.213	2.666	3.037	1.756		

CCB1 3/3/2015 9:34:55 AM 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	09:35:21	92.517%	-0.008	-0.001	0.292	0.000	7.263	1.094	1.228
2	09:35:48	91.541%	-0.020	0.005	0.127	0.000	7.626	1.202	1.121
3	09:36:14	92.901%	0.043	-0.270	0.290	0.000	6.983	1.048	0.675
x		92.320%	0.005	-0.088	0.236	0.000	7.290	1.114	1.008
σ		0.701%	0.033	0.157	0.095	0.000	0.322	0.079	0.293
%RSD		0.759	687.500	177.200	40.150	0.000	4.419	7.105	29.080
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	-0.629	2.503	0.000	2.657	5.909	2.556	91.480%	-0.108
2	09:35:48	-0.486	-0.437	0.000	1.495	2.679	2.480	91.377%	-0.057
3	09:36:14	-0.388	-1.176	0.000	0.037	4.347	2.447	90.880%	-0.125
x		-0.501	0.297	0.000	1.396	4.312	2.494	91.246%	-0.097
σ		0.121	1.946	0.000	1.313	1.615	0.056	0.321%	0.035
%RSD		24.170	656.500	0.000	94.030	37.460	2.243	0.352	36.630
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	-0.018	0.008	0.009	5.472	4.580	-0.010	-0.006	-0.016
2	09:35:48	0.014	-0.011	-0.003	5.084	3.487	0.001	0.031	-0.020
3	09:36:14	0.010	0.016	0.002	3.918	3.093	-0.007	0.020	0.007
x		0.002	0.004	0.003	4.825	3.720	-0.005	0.015	-0.010
σ		0.017	0.014	0.006	0.809	0.770	0.006	0.019	0.015
%RSD		800.900	331.200	204.700	16.760	20.700	106.100	124.600	154.300
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	0.018	-0.079	0.083	-0.044	0.713	-0.171	0.000	0.002
2	09:35:48	-0.005	0.064	0.021	0.171	-0.044	0.824	0.000	0.005
3	09:36:14	-0.027	0.109	0.056	0.187	0.270	0.887	0.000	0.003
x		-0.005	0.031	0.053	0.105	0.313	0.513	0.000	0.003
σ		0.023	0.098	0.031	0.129	0.381	0.593	0.000	0.002
%RSD		477.700	316.600	58.820	123.200	121.700	115.500	0.000	53.060
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	92.110%	0.587	0.606	93.015%	-0.037	-0.060	0.024	0.008
2	09:35:48	93.408%	0.613	0.596	93.785%	-0.031	-0.050	-0.000	0.008
3	09:36:14	94.154%	0.589	0.609	93.731%	-0.044	-0.061	0.013	0.033
x		93.224%	0.596	0.604	93.510%	-0.037	-0.057	0.012	0.016
σ		1.034%	0.015	0.007	0.430%	0.006	0.006	0.012	0.014
%RSD		1.110	2.451	1.171	0.460	16.890	10.780	99.220	87.750
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	93.522%	-0.247	0.009	0.011	-0.010	-0.005	96.017%	95.547%
2	09:35:48	94.679%	-0.234	0.007	-0.000	-0.019	0.017	97.350%	97.272%
3	09:36:14	94.839%	-0.176	-0.002	0.003	-0.010	0.012	97.463%	97.309%
x		94.347%	-0.219	0.005	0.005	-0.013	0.008	96.943%	96.709%
σ		0.719%	0.038	0.006	0.006	0.005	0.012	0.804%	1.007%
%RSD		0.762	17.390	118.100	129.500	38.480	147.100	0.829	1.041
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:35:21	0.004	0.004	0.008	-0.012	0.001	97.940%		
2	09:35:48	0.004	0.004	0.003	-0.006	0.000	95.817%		
3	09:36:14	0.004	0.002	0.009	-0.006	0.001	95.874%		
x		0.004	0.003	0.007	-0.008	0.001	96.544%		
σ		0.000	0.001	0.003	0.004	0.000	1.210%		
%RSD		9.504	25.740	42.880	45.210	46.330	1.253		

MB 180-134507/1-A 3/3/2015 9:39:12 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	91.819%	-0.046	-0.265	-0.046	0.000	7.106	0.765	0.044
2	09:40:06	91.846%	0.031	-0.086	0.083	0.000	7.595	0.088	-0.092
3	09:40:32	91.389%	-0.033	-0.173	0.107	0.000	7.712	0.433	0.292
x		91.685%	-0.016	-0.174	0.048	0.000	7.471	0.429	0.081
σ		0.256%	0.041	0.090	0.082	0.000	0.321	0.338	0.195
%RSD		0.280	257.200	51.450	172.200	0.000	4.297	78.950	239.800

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	-0.707	1.021	0.000	0.427	-2.185	1.126	91.139%	-0.194
2	09:40:06	-0.663	-0.469	0.000	2.200	2.751	1.474	90.521%	-0.107
3	09:40:32	-0.691	-0.004	0.000	-0.010	4.416	1.503	90.290%	-0.072
x		-0.687	0.183	0.000	0.872	1.661	1.368	90.650%	-0.124
σ		0.022	0.762	0.000	1.170	3.433	0.210	0.439%	0.063
%RSD		3.212	417.400	0.000	134.100	206.700	15.340	0.484	50.420

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	0.003	-0.002	-0.019	1.172	-1.157	0.001	0.047	-0.022
2	09:40:06	-0.016	-0.014	-0.014	0.617	-2.880	-0.004	0.042	0.007
3	09:40:32	-0.021	-0.010	0.002	0.941	-2.587	0.009	0.042	-0.009
x		-0.011	-0.009	-0.011	0.910	-2.208	0.002	0.044	-0.008
σ		0.013	0.006	0.011	0.279	0.922	0.007	0.003	0.014
%RSD		110.700	71.820	102.600	30.690	41.760	369.200	6.677	179.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	0.023	0.053	-0.054	0.086	0.521	0.428	0.000	0.006
2	09:40:06	0.001	0.039	0.193	-0.106	-0.014	-0.486	0.000	0.004
3	09:40:32	0.032	0.099	0.148	0.105	0.662	0.465	0.000	0.010
x		0.018	0.064	0.096	0.028	0.390	0.136	0.000	0.006
σ		0.016	0.031	0.132	0.117	0.357	0.538	0.000	0.003
%RSD		85.730	48.810	137.600	414.900	91.540	396.900	0.000	44.580

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	92.196%	0.257	0.270	91.672%	-0.058	-0.065	-0.075	-0.057
2	09:40:06	92.531%	0.267	0.271	92.691%	-0.044	-0.069	-0.023	-0.011
3	09:40:32	93.171%	0.268	0.340	93.008%	-0.041	-0.074	-0.006	-0.006
x		92.633%	0.264	0.294	92.457%	-0.048	-0.069	-0.035	-0.025
σ		0.496%	0.006	0.040	0.698%	0.009	0.005	0.036	0.028
%RSD		0.535	2.383	13.580	0.755	18.920	6.922	103.500	115.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	92.831%	-0.260	-0.033	-0.039	0.012	-0.013	95.633%	95.234%
2	09:40:06	92.895%	-0.253	-0.045	-0.045	0.016	0.020	96.538%	96.376%
3	09:40:32	94.172%	-0.235	-0.036	-0.039	-0.010	0.020	96.874%	96.708%
x		93.299%	-0.249	-0.038	-0.041	0.006	0.009	96.348%	96.106%
σ		0.757%	0.013	0.006	0.003	0.014	0.019	0.642%	0.773%
%RSD		0.811	5.034	16.020	8.308	236.200	208.200	0.666	0.804

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	0.004	-0.000	0.006	0.004	0.005	97.395%
2	09:40:06	0.003	0.002	0.008	0.008	0.007	96.291%
3	09:40:32	0.004	0.002	0.013	0.008	0.009	95.922%
x		0.004	0.001	0.009	0.007	0.007	96.536%
σ		0.001	0.001	0.004	0.002	0.002	0.766%
%RSD		19.130	95.030	41.260	29.280	30.680	0.794

LCS 180-134507/2-A 3/3/2015 9:43:27 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	79.924%	41.790	926.100	983.200	0.000	46200.000	47450.000	47940.000
2	09:44:20	79.531%	41.630	927.800	1004.000	0.000	47090.000	49480.000	49950.000
3	09:44:47	78.863%	41.370	948.100	1015.000	0.000	46620.000	50540.000	50510.000
x		79.439%	41.600	934.000	1001.000	0.000	46640.000	49160.000	49470.000
σ		0.536%	0.212	12.260	16.080	0.000	447.600	1572.000	1348.000
%RSD		0.675	0.509	1.312	1.606	0.000	0.960	3.198	2.725
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	1866.000	9727.000	0.000	48920.000	48530.000	49480.000	77.336%	969.500
2	09:44:20	1929.000	10030.000	0.000	49880.000	50760.000	51280.000	77.275%	1011.000
3	09:44:47	1931.000	10010.000	0.000	49170.000	49960.000	52110.000	76.197%	1011.000
x		1909.000	9922.000	0.000	49330.000	49750.000	50960.000	76.936%	997.400
σ		36.920	169.400	0.000	493.900	1133.000	1343.000	0.641%	24.140
%RSD		1.934	1.707	0.000	1.001	2.278	2.636	0.833	2.421
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	468.000	182.100	473.500	984.700	1007.000	473.000	460.300	230.600
2	09:44:20	482.300	189.300	490.700	1021.000	1036.000	486.700	475.900	236.500
3	09:44:47	485.100	190.500	495.900	1033.000	1032.000	493.200	484.000	237.000
x		478.400	187.300	486.700	1013.000	1025.000	484.300	473.400	234.700
σ		9.182	4.538	11.710	25.230	15.540	10.340	12.020	3.529
%RSD		1.919	2.423	2.407	2.490	1.516	2.135	2.538	1.504
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	238.100	463.800	469.200	37.350	9.751	9.255	0.000	957.500
2	09:44:20	243.300	475.100	483.400	37.110	9.653	11.180	0.000	985.200
3	09:44:47	244.000	480.400	483.200	37.410	8.704	11.350	0.000	983.900
x		241.800	473.100	478.600	37.290	9.369	10.600	0.000	975.500
σ		3.216	8.499	8.147	0.161	0.578	1.165	0.000	15.620
%RSD		1.330	1.797	1.702	0.433	6.169	11.000	0.000	1.602
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	83.753%	1003.000	1031.000	82.931%	46.610	46.360	46.630	38.460
2	09:44:20	84.752%	1042.000	1066.000	84.531%	46.580	47.150	48.430	40.760
3	09:44:47	85.358%	1057.000	1091.000	84.154%	46.480	46.260	48.530	39.150
x		84.621%	1034.000	1063.000	83.872%	46.560	46.590	47.860	39.460
σ		0.810%	27.810	29.950	0.836%	0.067	0.485	1.068	1.179
%RSD		0.958	2.689	2.818	0.997	0.145	1.041	2.231	2.987
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	84.535%	1978.000	501.100	499.700	1894.000	1950.000	92.793%	94.010%
2	09:44:20	84.604%	2054.000	520.100	519.100	1956.000	2048.000	94.154%	95.213%
3	09:44:47	86.349%	2025.000	514.700	509.300	1948.000	2014.000	94.730%	96.381%
x		85.163%	2019.000	512.000	509.400	1933.000	2004.000	93.893%	95.201%
σ		1.028%	38.580	9.771	9.706	33.640	49.780	0.995%	1.186%
%RSD		1.207	1.911	1.908	1.905	1.741	2.484	1.059	1.245
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:43:54	47.690	46.610	20.110	20.560	20.080	83.864%		
2	09:44:20	50.560	49.450	21.060	21.070	20.890	83.256%		
3	09:44:47	49.700	49.160	20.090	20.560	20.040	86.603%		
x		49.310	48.410	20.420	20.730	20.330	84.575%		
σ		1.474	1.562	0.552	0.290	0.481	1.783%		
%RSD		2.988	3.226	2.705	1.401	2.368	2.108		

180-41569-B-1-A 3/3/2015 9:47:42 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	76.654%	0.034	6982.000	7720.000	0.000	164900.000	49500.000	49720.000
2	09:48:36	74.311%	0.036	7201.000	7948.000	0.000	169800.000	51610.000	52050.000
3	09:49:02	73.402%	-0.043	7054.000	7955.000	0.000	171900.000	52700.000	52840.000
x		74.789%	0.009	7079.000	7874.000	0.000	168900.000	51270.000	51540.000
σ		1.678%	0.045	111.400	133.700	0.000	3606.000	1624.000	1626.000
%RSD		2.243	496.300	1.574	1.698	0.000	2.135	3.167	3.156
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	46.010	5318.000	0.000	11330.000	98960.000	100100.000	73.752%	2.146
2	09:48:36	46.580	5491.000	0.000	11560.000	102800.000	102500.000	73.117%	1.845
3	09:49:02	46.660	5548.000	0.000	11650.000	104900.000	104500.000	71.986%	3.048
x		46.420	5452.000	0.000	11510.000	102200.000	102400.000	72.952%	2.346
σ		0.359	120.000	0.000	164.600	2996.000	2206.000	0.895%	0.626
%RSD		0.773	2.201	0.000	1.430	2.932	2.155	1.226	26.670
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	0.477	3.752	4007.000	4887.000	4968.000	1.957	314.700	2.590
2	09:48:36	0.836	3.742	4114.000	5037.000	5065.000	1.918	320.000	2.654
3	09:49:02	0.669	3.900	4174.000	5111.000	5122.000	2.067	325.300	2.588
x		0.661	3.798	4098.000	5012.000	5052.000	1.981	320.000	2.611
σ		0.179	0.089	84.600	113.800	78.290	0.077	5.290	0.037
%RSD		27.140	2.331	2.064	2.270	1.550	3.901	1.653	1.427
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	2.070	7.027	6.928	0.370	-0.182	1.144	0.000	137.400
2	09:48:36	1.775	7.171	7.379	0.008	0.512	1.185	0.000	140.500
3	09:49:02	1.799	7.498	7.198	0.213	-0.429	0.680	0.000	142.300
x		1.881	7.232	7.168	0.197	-0.033	1.003	0.000	140.100
σ		0.164	0.242	0.227	0.181	0.488	0.281	0.000	2.512
%RSD		8.717	3.344	3.164	92.090	1477.000	27.970	0.000	1.793
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	81.562%	6.752	6.876	80.741%	-0.017	-0.022	0.094	0.069
2	09:48:36	81.585%	4.581	4.947	81.699%	-0.006	-0.015	8.946	5.954
3	09:49:02	80.938%	3.774	3.686	81.273%	0.033	-0.004	11.570	7.727
x		81.361%	5.035	5.170	81.238%	0.003	-0.014	6.869	4.583
σ		0.367%	1.540	1.607	0.480%	0.027	0.009	6.013	4.009
%RSD		0.451	30.580	31.080	0.591	803.400	65.430	87.530	87.460
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	82.993%	5.864	0.259	0.360	65.370	65.050	91.232%	91.784%
2	09:48:36	82.804%	4.901	0.265	0.339	67.340	67.630	91.183%	93.049%
3	09:49:02	81.604%	4.204	0.238	0.412	69.480	68.200	91.559%	92.418%
x		82.467%	4.990	0.254	0.370	67.400	66.960	91.325%	92.417%
σ		0.753%	0.833	0.014	0.038	2.054	1.680	0.204%	0.633%
%RSD		0.914	16.700	5.665	10.140	3.048	2.509	0.224	0.684
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:48:09	0.312	0.292	1.469	1.299	1.364	81.581%		
2	09:48:36	0.146	0.136	1.521	1.410	1.408	80.655%		
3	09:49:02	0.087	0.090	1.611	1.399	1.444	78.976%		
x		0.181	0.173	1.534	1.369	1.405	80.404%		
σ		0.117	0.106	0.072	0.061	0.040	1.320%		
%RSD		64.310	61.150	4.681	4.457	2.850	1.642		

180-41569-B-1-A SD@5 3/3/2015 9:51:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	86.018%	-0.018	1347.000	1417.000	0.000	32460.000	9650.000	9650.000
2	09:52:50	83.339%	-0.016	1436.000	1507.000	0.000	33740.000	10210.000	10200.000
3	09:53:17	84.718%	0.011	1369.000	1469.000	0.000	33540.000	10200.000	10270.000
x		84.692%	-0.008	1384.000	1464.000	0.000	33250.000	10020.000	10040.000
σ		1.339%	0.016	45.970	45.530	0.000	687.600	321.100	339.200
%RSD		1.581	209.000	3.322	3.109	0.000	2.068	3.204	3.379
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	7.841	934.200	0.000	2183.000	18730.000	18530.000	82.507%	0.210
2	09:52:50	7.988	982.300	0.000	2259.000	19320.000	18940.000	81.173%	0.371
3	09:53:17	7.932	975.100	0.000	2240.000	19590.000	19480.000	81.006%	0.179
x		7.921	963.900	0.000	2227.000	19220.000	18980.000	81.562%	0.253
σ		0.074	25.920	0.000	39.250	439.700	475.100	0.823%	0.103
%RSD		0.933	2.689	0.000	1.762	2.288	2.502	1.009	40.690
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	0.383	0.699	827.100	1016.000	987.300	0.346	62.690	0.496
2	09:52:50	0.000	0.847	861.000	1058.000	1005.000	0.366	63.440	0.522
3	09:53:17	-0.165	0.690	866.900	1063.000	1007.000	0.370	65.840	0.466
x		0.073	0.745	851.700	1046.000	999.600	0.361	63.990	0.494
σ		0.281	0.088	21.490	26.130	10.700	0.013	1.647	0.028
%RSD		387.500	11.870	2.523	2.499	1.070	3.555	2.574	5.703
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	0.410	1.522	1.677	0.411	-0.753	1.623	0.000	26.810
2	09:52:50	0.439	1.871	1.763	-0.303	0.639	0.016	0.000	27.320
3	09:53:17	0.461	1.750	1.771	0.423	0.270	1.132	0.000	27.400
x		0.437	1.714	1.737	0.177	0.052	0.924	0.000	27.180
σ		0.025	0.177	0.052	0.416	0.721	0.823	0.000	0.320
%RSD		5.785	10.330	2.994	234.800	1385.000	89.130	0.000	1.177
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	84.485%	0.472	0.466	84.382%	-0.064	-0.082	0.089	0.060
2	09:52:50	85.005%	0.515	0.489	85.182%	-0.060	-0.086	-0.034	-0.011
3	09:53:17	85.875%	0.418	0.468	85.208%	-0.049	-0.077	-0.047	-0.030
x		85.122%	0.469	0.474	84.924%	-0.058	-0.081	0.002	0.006
σ		0.702%	0.049	0.013	0.469%	0.007	0.005	0.075	0.048
%RSD		0.825	10.390	2.644	0.553	12.930	5.798	3182.000	785.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	86.123%	-0.097	-0.038	-0.033	13.320	12.560	91.777%	92.087%
2	09:52:50	86.425%	-0.140	-0.026	-0.020	13.420	13.270	91.739%	93.367%
3	09:53:17	87.984%	-0.100	-0.039	-0.008	13.340	13.290	93.148%	93.546%
x		86.844%	-0.113	-0.034	-0.020	13.360	13.040	92.221%	93.000%
σ		0.998%	0.024	0.007	0.012	0.053	0.415	0.803%	0.796%
%RSD		1.150	21.220	21.900	61.230	0.397	3.185	0.871	0.855
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:52:24	0.018	0.021	0.295	0.246	0.274	85.181%		
2	09:52:50	0.021	0.022	0.312	0.271	0.275	84.474%		
3	09:53:17	0.022	0.020	0.277	0.287	0.270	86.486%		
x		0.021	0.021	0.295	0.268	0.273	85.381%		
σ		0.002	0.001	0.018	0.021	0.003	1.021%		
%RSD		11.310	5.187	5.977	7.721	0.942	1.196		

180-41569-B-1-B MS 3/3/2015 9:56:12 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	73.876%	40.780	8188.000	9122.000	0.000	217300.000	100600.000	101300.000
2	09:57:05	71.628%	42.850	8396.000	9367.000	0.000	223700.000	105400.000	106100.000
3	09:57:31	70.329%	41.040	8536.000	9459.000	0.000	223600.000	108200.000	107300.000
x		71.944%	41.560	8373.000	9316.000	0.000	221500.000	104700.000	104900.000
σ		1.794%	1.123	175.300	174.000	0.000	3630.000	3846.000	3204.000
%RSD		2.494	2.702	2.094	1.867	0.000	1.639	3.672	3.054

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	1948.000	15040.000	0.000	61110.000	153600.000	151300.000	72.101%	995.700
2	09:57:05	2020.000	15470.000	0.000	62170.000	160100.000	157700.000	70.808%	1035.000
3	09:57:31	2034.000	15530.000	0.000	61920.000	161500.000	160400.000	69.827%	1036.000
x		2001.000	15350.000	0.000	61730.000	158400.000	156400.000	70.912%	1022.000
σ		46.180	271.500	0.000	554.800	4215.000	4693.000	1.140%	23.010
%RSD		2.308	1.769	0.000	0.899	2.661	3.000	1.608	2.251

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	469.200	185.900	4577.000	6024.000	6154.000	472.800	779.900	227.900
2	09:57:05	488.600	193.700	4733.000	6269.000	6379.000	489.100	813.100	233.000
3	09:57:31	494.600	196.500	4763.000	6310.000	6462.000	492.400	819.300	234.600
x		484.100	192.000	4691.000	6201.000	6332.000	484.800	804.100	231.800
σ		13.260	5.516	99.650	155.100	159.500	10.490	21.200	3.473
%RSD		2.738	2.873	2.124	2.501	2.519	2.164	2.637	1.498

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	232.000	468.100	471.900	37.580	9.492	11.730	0.000	1110.000
2	09:57:05	242.000	483.000	487.200	36.950	9.668	10.230	0.000	1137.000
3	09:57:31	239.000	487.200	489.900	37.430	9.819	10.220	0.000	1143.000
x		237.700	479.400	483.000	37.320	9.660	10.730	0.000	1130.000
σ		5.120	10.050	9.667	0.329	0.163	0.870	0.000	17.690
%RSD		2.154	2.096	2.002	0.880	1.691	8.106	0.000	1.566

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	79.585%	1032.000	1052.000	78.719%	45.890	45.960	47.210	38.750
2	09:57:05	79.674%	1063.000	1093.000	78.399%	46.460	46.590	49.170	39.920
3	09:57:31	79.789%	1080.000	1114.000	78.776%	46.590	46.180	49.490	40.730
x		79.683%	1058.000	1086.000	78.631%	46.310	46.240	48.620	39.800
σ		0.102%	24.650	31.120	0.203%	0.372	0.321	1.232	0.992
%RSD		0.128	2.330	2.864	0.259	0.804	0.694	2.534	2.493

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	79.279%	2050.000	517.300	517.400	1983.000	2051.000	88.821%	90.586%
2	09:57:05	78.230%	2128.000	538.600	537.400	2049.000	2126.000	89.874%	91.133%
3	09:57:31	79.247%	2118.000	536.200	533.700	2047.000	2126.000	89.694%	91.492%
x		78.919%	2099.000	530.700	529.500	2026.000	2101.000	89.463%	91.070%
σ		0.597%	42.240	11.640	10.660	37.180	43.210	0.564%	0.456%
%RSD		0.756	2.013	2.193	2.013	1.835	2.057	0.630	0.501

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	49.330	48.350	22.570	22.280	22.030	76.855%
2	09:57:05	51.660	50.560	23.360	22.560	22.700	76.983%
3	09:57:31	52.110	50.730	22.910	22.580	22.740	77.873%
x		51.030	49.880	22.950	22.470	22.490	77.237%
σ		1.492	1.327	0.395	0.166	0.400	0.554%
%RSD		2.923	2.660	1.721	0.740	1.776	0.718

180-41569-B-1-C MSD 3/3/2015 10:00:27 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	72.503%	39.020	8049.000	9014.000	0.000	211000.000	98730.000	98920.000
2	10:01:20	71.480%	40.490	8325.000	9183.000	0.000	218200.000	104000.000	103200.000
3	10:01:47	72.489%	39.010	8106.000	9092.000	0.000	215200.000	102800.000	103000.000
x		72.158%	39.500	8160.000	9096.000	0.000	214800.000	101800.000	101700.000
σ		0.587%	0.850	145.600	84.590	0.000	3588.000	2748.000	2434.000
%RSD		0.813	2.152	1.784	0.930	0.000	1.670	2.698	2.392
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	1911.000	14610.000	0.000	58090.000	149800.000	150500.000	70.447%	954.800
2	10:01:20	1991.000	15060.000	0.000	59400.000	156400.000	155300.000	70.128%	993.500
3	10:01:47	1958.000	14990.000	0.000	59450.000	158600.000	156500.000	70.008%	990.200
x		1953.000	14890.000	0.000	58980.000	154900.000	154100.000	70.194%	979.500
σ		39.810	238.800	0.000	770.700	4577.000	3177.000	0.227%	21.460
%RSD		2.038	1.604	0.000	1.307	2.954	2.062	0.323	2.191
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	461.400	183.200	4493.000	5994.000	6163.000	462.400	775.900	221.900
2	10:01:20	479.600	190.100	4674.000	6209.000	6388.000	475.700	802.000	227.100
3	10:01:47	483.300	192.800	4701.000	6263.000	6340.000	481.900	809.200	229.400
x		474.800	188.700	4623.000	6155.000	6297.000	473.300	795.700	226.100
σ		11.730	4.971	113.000	142.300	118.800	9.976	17.520	3.876
%RSD		2.471	2.634	2.445	2.313	1.886	2.108	2.202	1.714
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	227.800	457.900	465.500	36.670	9.742	11.560	0.000	1080.000
2	10:01:20	232.200	474.800	478.000	37.070	9.410	10.040	0.000	1107.000
3	10:01:47	236.400	476.700	481.300	37.430	10.500	11.650	0.000	1116.000
x		232.100	469.800	474.900	37.060	9.885	11.090	0.000	1101.000
σ		4.274	10.360	8.330	0.381	0.561	0.906	0.000	18.550
%RSD		1.841	2.205	1.754	1.029	5.675	8.177	0.000	1.685
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	78.437%	973.100	991.300	79.778%	43.090	43.180	46.630	36.820
2	10:01:20	79.142%	1021.000	1068.000	76.893%	45.340	46.140	48.180	39.630
3	10:01:47	78.837%	1038.000	1074.000	76.804%	45.550	45.510	47.720	38.520
x		78.805%	1011.000	1045.000	77.825%	44.660	44.940	47.510	38.320
σ		0.354%	33.670	46.240	1.692%	1.361	1.562	0.795	1.413
%RSD		0.449	3.331	4.427	2.174	3.048	3.476	1.674	3.687
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	78.794%	1953.000	496.300	490.000	1917.000	1973.000	89.007%	90.119%
2	10:01:20	77.822%	2036.000	515.200	511.600	1984.000	2047.000	90.373%	90.006%
3	10:01:47	77.379%	2063.000	520.100	517.600	1997.000	2081.000	89.703%	90.325%
x		77.998%	2017.000	510.500	506.400	1966.000	2034.000	89.694%	90.150%
σ		0.724%	57.060	12.580	14.490	42.900	55.370	0.683%	0.162%
%RSD		0.929	2.828	2.463	2.861	2.182	2.723	0.761	0.180
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:00:53	47.310	46.910	21.720	21.550	21.360	76.821%		
2	10:01:20	48.980	48.780	22.640	21.830	22.040	76.572%		
3	10:01:47	50.440	49.750	22.640	22.140	22.210	75.979%		
x		48.910	48.480	22.340	21.840	21.870	76.457%		
σ		1.569	1.443	0.530	0.293	0.454	0.432%		
%RSD		3.208	2.977	2.374	1.341	2.074	0.566		

180-41569-B-1-A PDS 3/3/2015 10:04:44 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	72.276%	42.910	7733.000	8613.000	0.000	207500.000	100100.000	100200.000
2	10:05:38	70.944%	43.600	7903.000	8780.000	0.000	211600.000	103900.000	103600.000
3	10:06:04	69.950%	43.640	7945.000	8756.000	0.000	210800.000	104100.000	104100.000
x		71.057%	43.380	7860.000	8716.000	0.000	210000.000	102700.000	102600.000
σ		1.167%	0.414	112.400	90.400	0.000	2176.000	2237.000	2128.000
%RSD		1.642	0.953	1.431	1.037	0.000	1.036	2.177	2.073
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	2031.000	15390.000	0.000	60600.000	147400.000	147800.000	70.625%	1064.000
2	10:05:38	2087.000	15720.000	0.000	61820.000	154600.000	151700.000	70.194%	1090.000
3	10:06:04	2015.000	15740.000	0.000	61640.000	153600.000	152500.000	70.142%	1106.000
x		2044.000	15620.000	0.000	61350.000	151900.000	150600.000	70.321%	1087.000
σ		37.850	193.600	0.000	661.200	3917.000	2529.000	0.265%	20.960
%RSD		1.852	1.240	0.000	1.078	2.579	1.679	0.377	1.929
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	497.800	196.300	4372.000	5735.000	5857.000	498.800	789.000	237.900
2	10:05:38	511.000	203.200	4475.000	5880.000	6013.000	514.900	813.900	245.000
3	10:06:04	517.400	206.000	4525.000	5935.000	6019.000	519.100	815.000	245.300
x		508.700	201.800	4457.000	5850.000	5963.000	510.900	806.000	242.700
σ		10.040	5.002	77.810	103.400	92.000	10.720	14.690	4.206
%RSD		1.973	2.478	1.746	1.767	1.543	2.097	1.822	1.733
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	246.700	490.300	495.500	39.300	8.706	10.280	0.000	1156.000
2	10:05:38	252.400	507.600	510.400	37.920	11.960	11.240	0.000	1186.000
3	10:06:04	253.800	511.700	514.100	37.680	8.460	11.160	0.000	1199.000
x		251.000	503.200	506.700	38.300	9.709	10.890	0.000	1181.000
σ		3.798	11.350	9.853	0.872	1.953	0.536	0.000	22.010
%RSD		1.513	2.255	1.945	2.277	20.120	4.916	0.000	1.865
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	77.761%	1106.000	1135.000	78.874%	44.670	45.250	49.380	40.430
2	10:05:38	78.133%	1163.000	1204.000	76.617%	47.210	47.110	51.080	42.810
3	10:06:04	77.617%	1148.000	1178.000	80.320%	45.630	45.820	51.120	42.430
x		77.837%	1139.000	1173.000	78.604%	45.840	46.060	50.530	41.890
σ		0.266%	29.370	35.080	1.867%	1.286	0.948	0.994	1.279
%RSD		0.342	2.577	2.992	2.375	2.806	2.059	1.967	3.053
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	78.168%	2177.000	560.100	553.600	2089.000	2162.000	88.471%	89.521%
2	10:05:38	76.457%	2298.000	580.300	579.900	2170.000	2273.000	89.487%	89.670%
3	10:06:04	77.867%	2274.000	577.700	573.000	2157.000	2253.000	89.484%	90.426%
x		77.497%	2249.000	572.700	568.900	2139.000	2230.000	89.147%	89.872%
σ		0.913%	63.980	11.010	13.620	43.990	59.110	0.586%	0.485%
%RSD		1.179	2.844	1.922	2.395	2.057	2.651	0.657	0.540
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:05:11	52.220	52.060	23.070	23.440	22.980	76.698%		
2	10:05:38	55.280	54.790	24.320	24.260	24.110	75.396%		
3	10:06:04	54.410	53.840	24.090	23.680	23.520	77.636%		
x		53.970	53.560	23.830	23.790	23.540	76.577%		
σ		1.574	1.385	0.663	0.420	0.563	1.125%		
%RSD		2.917	2.587	2.781	1.765	2.393	1.469		

180-41569-B-3-A 3/3/2015 10:09:02 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	75.058%	0.020	57.370	63.610	0.000	18060.000	51210.000	51290.000
2	10:09:55	74.359%	0.037	52.450	57.410	0.000	18400.000	53500.000	53820.000
3	10:10:21	73.288%	-0.010	54.070	59.690	0.000	18670.000	54410.000	54590.000
x		74.235%	0.015	54.630	60.240	0.000	18380.000	53040.000	53240.000
σ		0.892%	0.024	2.505	3.134	0.000	302.500	1648.000	1724.000
%RSD		1.201	155.700	4.586	5.202	0.000	1.646	3.107	3.239

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	74.440	6089.000	0.000	2356.000	152700.000	151300.000	71.928%	2.293
2	10:09:55	81.820	6300.000	0.000	2422.000	160300.000	159100.000	70.146%	2.666
3	10:10:21	79.570	6346.000	0.000	2422.000	161200.000	160800.000	69.828%	2.499
x		78.610	6245.000	0.000	2400.000	158100.000	157100.000	70.634%	2.486
σ		3.781	136.800	0.000	38.100	4693.000	5047.000	1.132%	0.187
%RSD		4.809	2.190	0.000	1.588	2.969	3.213	1.602	7.504

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	0.630	5.891	174.000	705.000	1037.000	0.911	3.156	1.424
2	10:09:55	0.360	5.913	183.600	740.000	1059.000	0.930	3.119	1.277
3	10:10:21	-0.013	6.263	185.300	750.900	1062.000	0.877	3.399	1.348
x		0.326	6.022	181.000	732.000	1053.000	0.906	3.225	1.350
σ		0.323	0.209	6.095	23.970	13.820	0.027	0.152	0.073
%RSD		99.080	3.464	3.368	3.275	1.313	3.000	4.723	5.416

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	1.850	6.477	6.788	0.675	-0.559	0.352	0.000	1061.000
2	10:09:55	1.776	6.672	6.477	1.295	-0.465	0.621	0.000	1091.000
3	10:10:21	1.887	7.206	6.857	0.073	0.174	0.678	0.000	1096.000
x		1.837	6.785	6.707	0.681	-0.283	0.550	0.000	1083.000
σ		0.056	0.378	0.203	0.611	0.399	0.174	0.000	18.790
%RSD		3.055	5.566	3.020	89.730	140.800	31.630	0.000	1.735

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	79.273%	5.642	5.835	79.719%	-0.061	-0.075	0.025	-0.009
2	10:09:55	79.662%	4.594	4.260	79.835%	-0.042	-0.091	0.000	-0.006
3	10:10:21	80.062%	3.290	3.480	80.270%	-0.051	-0.070	6.692	4.435
x		79.666%	4.508	4.525	79.941%	-0.052	-0.079	2.239	1.473
σ		0.395%	1.178	1.200	0.291%	0.010	0.011	3.856	2.565
%RSD		0.496	26.140	26.510	0.364	18.660	14.290	172.200	174.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	81.115%	3.744	0.061	0.195	44.350	44.760	90.400%	91.609%
2	10:09:55	81.243%	2.777	0.057	0.181	47.300	46.570	92.452%	92.329%
3	10:10:21	81.644%	2.292	0.081	0.155	46.790	47.170	90.988%	92.908%
x		81.334%	2.938	0.066	0.177	46.150	46.170	91.280%	92.282%
σ		0.276%	0.739	0.013	0.020	1.578	1.251	1.057%	0.651%
%RSD		0.339	25.150	19.200	11.560	3.421	2.709	1.158	0.705

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	0.270	0.260	0.721	0.586	0.615	83.016%
2	10:09:55	0.141	0.138	0.716	0.587	0.634	83.087%
3	10:10:21	0.090	0.089	0.636	0.624	0.626	83.104%
x		0.167	0.162	0.691	0.599	0.625	83.069%
σ		0.092	0.088	0.048	0.022	0.009	0.047%
%RSD		55.380	54.140	6.910	3.597	1.494	0.056

180-41569-B-4-A 3/3/2015 10:13:17 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	75.433%	0.004	345.600	369.600	0.000	51340.000	17380.000	17620.000
2	10:14:10	74.547%	-0.043	336.800	369.900	0.000	52200.000	18270.000	18440.000
3	10:14:37	74.461%	0.005	346.200	368.100	0.000	52290.000	18720.000	18680.000
x		74.814%	-0.011	342.900	369.200	0.000	51940.000	18120.000	18250.000
σ		0.538%	0.027	5.246	0.961	0.000	525.000	681.900	555.400
%RSD		0.719	238.000	1.530	0.260	0.000	1.011	3.762	3.044
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	3.109	5707.000	0.000	9335.000	124400.000	126200.000	71.410%	0.651
2	10:14:10	3.649	5906.000	0.000	9476.000	132500.000	131800.000	70.777%	0.658
3	10:14:37	3.635	5922.000	0.000	9478.000	134600.000	134100.000	69.884%	0.691
x		3.464	5845.000	0.000	9430.000	130500.000	130700.000	70.690%	0.667
σ		0.308	119.400	0.000	81.950	5368.000	4078.000	0.767%	0.022
%RSD		8.886	2.043	0.000	0.869	4.114	3.120	1.085	3.247
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	-0.203	56.790	9.836	15.460	325.000	1.714	9.067	1.338
2	10:14:10	-0.742	59.310	10.190	14.670	319.000	1.776	9.368	1.392
3	10:14:37	-0.274	60.080	10.410	14.620	316.300	1.728	9.662	1.311
x		-0.406	58.730	10.150	14.920	320.100	1.740	9.366	1.347
σ		0.293	1.718	0.292	0.475	4.451	0.033	0.298	0.041
%RSD		72.040	2.926	2.875	3.181	1.390	1.872	3.178	3.061
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	1.270	2.150	1.901	0.391	0.378	1.157	0.000	245.800
2	10:14:10	1.235	1.974	2.157	-0.490	-0.147	0.691	0.000	252.100
3	10:14:37	1.248	2.100	1.888	0.178	-1.134	0.482	0.000	255.100
x		1.251	2.075	1.982	0.026	-0.301	0.777	0.000	251.000
σ		0.018	0.091	0.152	0.460	0.767	0.346	0.000	4.721
%RSD		1.427	4.382	7.656	1734.000	255.200	44.510	0.000	1.881
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	78.945%	1.355	1.347	79.454%	-0.046	-0.075	0.066	0.111
2	10:14:10	79.542%	1.275	1.359	79.661%	-0.053	-0.072	0.208	0.231
3	10:14:37	79.877%	1.383	1.345	79.753%	-0.048	-0.068	0.145	0.107
x		79.455%	1.338	1.350	79.623%	-0.049	-0.072	0.140	0.150
σ		0.472%	0.056	0.008	0.153%	0.004	0.004	0.071	0.070
%RSD		0.594	4.168	0.561	0.192	7.328	5.380	50.980	47.030
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	81.164%	0.746	0.036	0.088	65.290	65.530	89.660%	90.822%
2	10:14:10	80.851%	0.882	0.026	0.106	66.800	68.070	91.355%	91.925%
3	10:14:37	82.444%	0.829	0.040	0.132	66.910	67.800	91.449%	91.778%
x		81.486%	0.819	0.034	0.109	66.330	67.130	90.821%	91.508%
σ		0.844%	0.068	0.007	0.022	0.906	1.392	1.007%	0.599%
%RSD		1.036	8.339	20.990	20.120	1.366	2.074	1.109	0.655
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:13:43	0.057	0.044	0.055	0.055	0.052	81.201%		
2	10:14:10	0.060	0.048	0.069	0.051	0.056	79.759%		
3	10:14:37	0.044	0.035	0.064	0.052	0.061	82.115%		
x		0.054	0.042	0.063	0.053	0.057	81.025%		
σ		0.009	0.007	0.007	0.002	0.005	1.188%		
%RSD		16.330	15.380	11.150	3.630	8.124	1.466		

180-41569-B-5-A 3/3/2015 10:17:34 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	71.515%	0.023	7172.000	7998.000	0.000	167500.000	51190.000	51630.000
2	10:18:28	71.213%	-0.026	7230.000	8063.000	0.000	171900.000	53510.000	53700.000
3	10:18:54	69.720%	0.026	7284.000	8101.000	0.000	172100.000	54820.000	54550.000
x		70.816%	0.008	7228.000	8054.000	0.000	170500.000	53170.000	53300.000
σ		0.961%	0.029	55.870	52.090	0.000	2608.000	1838.000	1501.000
%RSD		1.358	374.300	0.773	0.647	0.000	1.530	3.458	2.816
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	46.320	5482.000	0.000	11330.000	101500.000	100600.000	71.505%	1.678
2	10:18:28	46.170	5652.000	0.000	11490.000	105800.000	104800.000	70.159%	2.802
3	10:18:54	47.550	5709.000	0.000	11460.000	105800.000	106700.000	70.266%	1.931
x		46.680	5614.000	0.000	11430.000	104400.000	104000.000	70.643%	2.137
σ		0.757	118.000	0.000	82.850	2472.000	3103.000	0.748%	0.590
%RSD		1.622	2.102	0.000	0.725	2.368	2.982	1.059	27.610
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	0.240	6.872	4092.000	5132.000	5146.000	1.760	268.300	2.691
2	10:18:28	-0.096	6.925	4248.000	5358.000	5337.000	1.735	279.500	2.563
3	10:18:54	0.743	6.925	4290.000	5412.000	5363.000	1.691	278.600	2.660
x		0.296	6.907	4210.000	5301.000	5282.000	1.729	275.500	2.638
σ		0.422	0.030	104.600	148.700	118.500	0.035	6.223	0.067
%RSD		142.800	0.442	2.484	2.805	2.244	2.028	2.259	2.522
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	2.247	9.571	9.668	1.129	-1.253	0.781	0.000	143.300
2	10:18:28	2.006	9.761	9.553	1.536	0.000	0.897	0.000	148.400
3	10:18:54	2.363	9.860	10.690	0.536	-0.410	1.729	0.000	148.200
x		2.206	9.731	9.969	1.067	-0.554	1.136	0.000	146.600
σ		0.182	0.146	0.623	0.503	0.639	0.517	0.000	2.866
%RSD		8.253	1.505	6.251	47.110	115.200	45.520	0.000	1.954
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	76.757%	0.756	0.779	77.916%	-0.057	-0.078	0.141	0.082
2	10:18:28	77.253%	1.011	0.863	81.848%	-0.058	-0.072	-0.050	-0.031
3	10:18:54	77.680%	0.860	0.950	78.102%	-0.069	-0.085	-0.003	0.041
x		77.230%	0.876	0.864	79.289%	-0.061	-0.078	0.029	0.031
σ		0.462%	0.128	0.086	2.219%	0.007	0.007	0.100	0.057
%RSD		0.598	14.670	9.930	2.798	10.650	8.629	343.000	186.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	78.631%	0.324	0.034	0.118	68.950	69.770	87.676%	89.778%
2	10:18:28	78.734%	0.411	0.035	0.123	71.110	71.190	89.185%	90.363%
3	10:18:54	79.971%	0.414	0.048	0.127	70.490	70.520	90.047%	91.021%
x		79.112%	0.383	0.039	0.123	70.180	70.490	88.969%	90.387%
σ		0.745%	0.051	0.008	0.004	1.111	0.710	1.200%	0.622%
%RSD		0.942	13.270	20.280	3.598	1.583	1.007	1.349	0.688
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:18:01	0.021	0.021	1.630	1.415	1.495	78.733%		
2	10:18:28	0.027	0.024	1.670	1.374	1.503	78.088%		
3	10:18:54	0.018	0.020	1.679	1.436	1.506	80.891%		
x		0.022	0.022	1.660	1.409	1.501	79.237%		
σ		0.005	0.002	0.026	0.032	0.006	1.468%		
%RSD		21.460	8.356	1.575	2.260	0.395	1.852		

CCV 1487954 3/3/2015 10:21:52 AM 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	10:22:18	85.943%	98.560	140.200	139.400	0.000	49150.000	49070.000	49090.000
2	10:22:45	84.318%	102.800	142.100	143.900	0.000	50560.000	51360.000	51350.000
3	10:23:11	88.091%	99.160	135.700	134.800	0.000	49630.000	50740.000	50960.000
x		86.117%	100.162%	139.327%	139.361%	0.000	99.566%	100.783%	100.937%
σ		1.892%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.198	2.272	2.355	3.237	0.000	1.439	2.357	2.388
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	475.900	5101.000	0.000	50730.000	49270.000	50820.000	86.136%	98.820
2	10:22:45	502.000	5276.000	0.000	51860.000	51140.000	53040.000	86.177%	100.100
3	10:23:11	498.200	5228.000	0.000	50880.000	50420.000	51340.000	87.094%	103.000
x		98.407%	104.029%	0.000	102.320%	100.552%	103.471%	86.469%	100.628%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.541%	n/a
%RSD		2.861	1.740	0.000	1.197	1.879	2.240	0.626	2.129
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	94.580	94.240	496.500	23960.000	24620.000	96.360	96.280	96.040
2	10:22:45	97.730	97.600	514.900	24810.000	25670.000	98.620	99.090	99.420
3	10:23:11	97.630	97.440	517.200	24900.000	25980.000	99.150	98.920	99.910
x		96.647%	96.426%	101.909%	98.238%	101.694%	98.044%	98.093%	98.454%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.851	1.969	2.235	2.114	2.817	1.509	1.607	2.142
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	96.690	98.420	98.720	97.740	100.300	99.750	0.000	96.570
2	10:22:45	98.740	100.900	102.000	99.340	100.100	102.800	0.000	98.810
3	10:23:11	99.020	100.300	100.400	99.050	101.800	100.600	0.000	98.950
x		98.147%	99.862%	100.399%	98.712%	100.713%	101.080%	0.000	98.108%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.293	1.290	1.651	0.862	0.933	1.574	0.000	1.361
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	86.078%	97.110	96.300	85.586%	97.620	97.580	97.340	97.620
2	10:22:45	86.973%	100.700	102.000	85.590%	99.130	98.950	100.000	99.400
3	10:23:11	88.463%	104.400	105.300	86.714%	98.560	97.280	100.600	96.810
x		87.171%	100.737%	101.184%	85.963%	98.436%	97.934%	99.319%	97.944%
σ		1.205%	n/a	n/a	0.650%	n/a	n/a	n/a	n/a
%RSD		1.382	3.604	4.494	0.756	0.778	0.910	1.751	1.350
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	84.118%	99.370	99.630	99.770	97.450	97.780	90.397%	90.320%
2	10:22:45	85.685%	102.200	101.000	101.000	97.690	99.060	91.585%	91.618%
3	10:23:11	87.702%	99.940	99.530	100.500	99.420	98.940	91.208%	92.507%
x		85.835%	100.497%	100.068%	100.420%	98.186%	98.592%	91.063%	91.482%
σ		1.797%	n/a	n/a	n/a	n/a	n/a	0.607%	1.100%
%RSD		2.093	1.479	0.849	0.624	1.094	0.716	0.666	1.202
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:22:18	105.200	102.700	104.700	103.800	103.900	83.845%		
2	10:22:45	107.800	105.700	108.800	108.100	108.100	82.908%		
3	10:23:11	103.100	103.500	103.900	106.000	104.300	86.967%		
x		105.366%	103.977%	105.830%	105.964%	105.443%	84.573%		
σ		n/a	n/a	n/a	n/a	n/a	2.125%		
%RSD		2.243	1.522	2.488	2.007	2.165	2.513		

CCB2 3/3/2015 10:29:18 AM 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	10:29:44	94.571%	-0.034	18.370	19.200	0.000	-0.079	1.164	1.492
2	10:30:11	94.193%	0.054	15.400	19.990	0.000	0.250	1.941	1.704
3	10:30:37	93.861%	-0.021	15.530	18.510	0.000	0.529	1.416	1.272
x		94.208%	-0.000	16.430	19.230	0.000	0.233	1.507	1.489
σ		0.355%	0.047	1.683	0.739	0.000	0.304	0.397	0.216
%RSD		0.377	12890.000	10.240	3.844	0.000	130.400	26.310	14.490
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	-0.528	1.187	0.000	-3.352	23.560	7.416	91.995%	-0.126
2	10:30:11	-0.466	-1.496	0.000	-4.934	30.280	4.879	91.263%	-0.125
3	10:30:37	-0.603	-0.652	0.000	-4.824	14.010	4.484	91.456%	-0.177
x		-0.532	-0.320	0.000	-4.370	22.610	5.593	91.571%	-0.143
σ		0.068	1.372	0.000	0.883	8.177	1.591	0.379%	0.030
%RSD		12.820	428.600	0.000	20.210	36.160	28.450	0.414	20.750
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	0.008	-0.013	0.105	3.541	5.280	0.004	0.037	0.005
2	10:30:11	0.001	-0.020	0.101	3.070	1.387	-0.003	0.021	-0.018
3	10:30:37	0.010	-0.000	0.137	1.934	-0.081	-0.002	-0.006	0.020
x		0.006	-0.011	0.114	2.848	2.195	-0.000	0.017	0.002
σ		0.005	0.010	0.020	0.826	2.770	0.004	0.021	0.019
%RSD		80.140	91.390	17.280	29.010	126.200	1169.000	123.200	828.700
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	0.020	0.137	0.034	-0.048	0.312	-0.111	0.000	0.010
2	10:30:11	0.007	0.081	0.033	0.150	1.175	1.181	0.000	0.009
3	10:30:37	0.055	0.017	0.075	0.146	-0.107	1.414	0.000	0.009
x		0.027	0.079	0.047	0.083	0.460	0.828	0.000	0.010
σ		0.025	0.060	0.024	0.113	0.654	0.822	0.000	0.001
%RSD		91.350	76.540	50.430	136.500	142.100	99.220	0.000	7.664
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	89.241%	0.233	0.266	90.100%	-0.054	-0.054	-0.021	-0.009
2	10:30:11	89.975%	0.215	0.273	91.124%	-0.042	-0.073	-0.043	-0.024
3	10:30:37	90.457%	0.194	0.226	91.653%	-0.050	-0.059	-0.036	-0.022
x		89.891%	0.214	0.255	90.959%	-0.049	-0.062	-0.033	-0.018
σ		0.612%	0.020	0.025	0.789%	0.006	0.010	0.012	0.008
%RSD		0.681	9.129	9.832	0.868	12.220	15.710	34.500	43.960
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	89.567%	-0.316	0.016	-0.016	-0.009	0.009	91.928%	91.300%
2	10:30:11	89.673%	-0.326	-0.001	-0.028	-0.014	-0.009	92.512%	92.943%
3	10:30:37	91.276%	-0.309	-0.016	0.010	0.008	-0.005	93.079%	93.183%
x		90.172%	-0.317	-0.001	-0.012	-0.005	-0.002	92.506%	92.475%
σ		0.958%	0.008	0.016	0.020	0.012	0.010	0.576%	1.025%
%RSD		1.062	2.667	3067.000	166.800	238.300	566.100	0.622	1.109
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:29:44	0.011	0.008	0.029	0.000	0.006	91.628%		
2	10:30:11	0.005	0.007	0.011	-0.003	0.006	90.813%		
3	10:30:37	0.012	0.009	0.014	-0.001	0.012	91.287%		
x		0.009	0.008	0.018	-0.001	0.008	91.243%		
σ		0.004	0.001	0.010	0.001	0.003	0.410%		
%RSD		37.550	12.610	53.550	164.800	40.760	0.449		

180-41569-B-6-A 3/3/2015 10:33:35 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	77.285%	-0.028	158.200	171.000	0.000	40760.000	25720.000	23610.000
2	10:34:28	75.835%	-0.012	166.600	175.900	0.000	42260.000	27150.000	24970.000
3	10:34:55	74.516%	-0.027	163.900	173.500	0.000	41610.000	27660.000	25190.000
x		75.879%	-0.023	162.900	173.500	0.000	41540.000	26840.000	24590.000
σ		1.385%	0.009	4.296	2.423	0.000	750.300	1004.000	852.900
%RSD		1.825	39.910	2.637	1.397	0.000	1.806	3.739	3.469

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	4.526	5234.000	0.000	9755.000	120300.000	120800.000	75.860%	0.228
2	10:34:28	4.821	5425.000	0.000	9998.000	126700.000	126300.000	74.173%	0.638
3	10:34:55	11.670	5438.000	0.000	9932.000	126400.000	128100.000	72.708%	0.527
x		7.005	5366.000	0.000	9895.000	124500.000	125100.000	74.247%	0.464
σ		4.042	114.300	0.000	125.500	3614.000	3829.000	1.577%	0.212
%RSD		57.700	2.131	0.000	1.268	2.904	3.062	2.125	45.670

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	0.623	4.143	181.000	1041.000	1231.000	1.088	3.061	1.179
2	10:34:28	0.384	4.349	189.700	1096.000	1294.000	1.048	3.564	1.309
3	10:34:55	0.499	4.405	191.700	1114.000	1272.000	1.171	2.984	1.281
x		0.502	4.299	187.500	1083.000	1266.000	1.102	3.203	1.256
σ		0.119	0.138	5.706	38.070	31.820	0.062	0.315	0.069
%RSD		23.790	3.208	3.044	3.514	2.514	5.661	9.827	5.461

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	1.387	7.999	8.182	0.669	-0.046	0.091	0.000	321.000
2	10:34:28	1.210	8.079	8.619	1.107	0.331	-0.041	0.000	330.800
3	10:34:55	1.530	8.222	8.452	1.851	-0.038	0.558	0.000	335.500
x		1.376	8.100	8.418	1.209	0.082	0.203	0.000	329.100
σ		0.160	0.113	0.220	0.597	0.215	0.315	0.000	7.381
%RSD		11.650	1.392	2.619	49.410	262.000	155.100	0.000	2.243

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	82.984%	0.772	0.911	82.938%	-0.034	-0.079	6.062	4.031
2	10:34:28	82.916%	0.871	0.869	83.179%	-0.045	-0.061	6.471	4.289
3	10:34:55	81.810%	0.710	0.776	82.766%	-0.042	-0.050	-0.032	-0.022
x		82.570%	0.784	0.852	82.961%	-0.040	-0.063	4.167	2.766
σ		0.659%	0.081	0.069	0.207%	0.006	0.014	3.642	2.418
%RSD		0.798	10.390	8.109	0.250	14.390	22.650	87.400	87.410

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	83.164%	0.467	0.340	0.421	48.240	48.820	92.658%	93.642%
2	10:34:28	84.088%	0.615	0.336	0.363	49.950	50.120	92.900%	93.719%
3	10:34:55	85.126%	0.506	0.284	0.371	50.100	50.530	94.575%	95.328%
x		84.126%	0.529	0.320	0.385	49.430	49.820	93.378%	94.230%
σ		0.982%	0.077	0.031	0.031	1.031	0.895	1.044%	0.952%
%RSD		1.167	14.520	9.803	8.097	2.086	1.796	1.118	1.010

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	0.104	0.108	0.129	0.105	0.115	82.074%
2	10:34:28	0.109	0.102	0.128	0.114	0.123	82.802%
3	10:34:55	0.093	0.110	0.126	0.108	0.114	86.323%
x		0.102	0.107	0.128	0.109	0.117	83.733%
σ		0.008	0.004	0.001	0.005	0.005	2.272%
%RSD		8.002	3.664	1.049	4.267	4.297	2.714

180-41569-B-7-A 3/3/2015 10:37:50 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	75.369%	-0.043	78.520	85.080	0.000	56100.000	20120.000	20240.000
2	10:38:44	73.597%	0.005	86.130	88.060	0.000	56630.000	20990.000	21130.000
3	10:39:11	73.288%	0.054	88.010	86.560	0.000	56250.000	21060.000	21200.000
x		74.085%	0.005	84.220	86.570	0.000	56330.000	20730.000	20860.000
σ		1.123%	0.048	5.027	1.490	0.000	275.500	527.200	538.400
%RSD		1.516	907.700	5.969	1.721	0.000	0.489	2.543	2.582
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	36.720	5590.000	0.000	19690.000	132700.000	133200.000	72.946%	1.338
2	10:38:44	38.270	5706.000	0.000	20060.000	138200.000	138800.000	71.346%	1.503
3	10:39:11	37.530	5709.000	0.000	20120.000	139700.000	139100.000	70.623%	1.189
x		37.510	5668.000	0.000	19960.000	136800.000	137000.000	71.638%	1.343
σ		0.776	67.810	0.000	234.700	3657.000	3313.000	1.189%	0.157
%RSD		2.068	1.196	0.000	1.176	2.672	2.418	1.659	11.670
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	0.134	53.770	9.209	55.370	376.200	0.640	0.609	2.854
2	10:38:44	1.290	56.630	9.911	56.750	384.300	0.646	0.393	2.770
3	10:39:11	-0.354	56.920	9.940	56.430	373.200	0.685	0.350	2.729
x		0.357	55.770	9.687	56.180	377.900	0.657	0.451	2.784
σ		0.844	1.743	0.414	0.725	5.751	0.024	0.139	0.064
%RSD		236.600	3.125	4.276	1.290	1.522	3.706	30.740	2.290
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	2.801	7.556	7.218	0.306	0.470	0.694	0.000	355.300
2	10:38:44	2.772	7.772	7.499	0.831	-0.041	0.857	0.000	368.600
3	10:39:11	2.949	7.537	7.426	0.609	-0.828	0.337	0.000	370.600
x		2.841	7.622	7.381	0.582	-0.133	0.629	0.000	364.800
σ		0.095	0.130	0.146	0.264	0.654	0.266	0.000	8.332
%RSD		3.333	1.708	1.979	45.270	491.400	42.280	0.000	2.284
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	80.645%	1.863	1.762	80.854%	-0.054	-0.057	0.003	-0.004
2	10:38:44	80.819%	1.828	1.897	80.624%	-0.039	-0.083	0.029	0.010
3	10:39:11	80.332%	1.887	1.851	80.347%	-0.047	-0.068	5.212	3.487
x		80.599%	1.859	1.837	80.608%	-0.047	-0.069	1.748	1.164
σ		0.247%	0.030	0.069	0.254%	0.007	0.013	3.000	2.011
%RSD		0.306	1.605	3.742	0.315	15.630	18.990	171.600	172.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	82.500%	0.195	0.044	0.113	63.000	62.560	90.880%	92.313%
2	10:38:44	82.724%	0.266	0.044	0.123	64.630	65.370	91.376%	92.817%
3	10:39:11	82.722%	0.281	0.041	0.106	64.010	66.680	91.356%	92.914%
x		82.648%	0.247	0.043	0.114	63.880	64.870	91.204%	92.681%
σ		0.129%	0.046	0.002	0.008	0.825	2.107	0.281%	0.323%
%RSD		0.156	18.580	3.687	7.221	1.292	3.248	0.308	0.348
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:38:17	0.030	0.026	0.469	0.435	0.441	80.676%		
2	10:38:44	0.040	0.035	0.458	0.466	0.444	80.906%		
3	10:39:11	0.036	0.034	0.427	0.444	0.434	81.181%		
x		0.035	0.032	0.451	0.448	0.440	80.921%		
σ		0.005	0.005	0.022	0.016	0.005	0.253%		
%RSD		14.300	15.350	4.901	3.641	1.104	0.312		

180-41569-B-8-A 3/3/2015 10:42:05 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	75.517%	-0.012	55.700	62.250	0.000	45600.000	14300.000	14320.000
2	10:42:58	74.216%	0.052	59.440	62.750	0.000	46030.000	14950.000	15060.000
3	10:43:25	71.484%	-0.009	60.760	64.330	0.000	46740.000	15220.000	15350.000
x		73.739%	0.010	58.640	63.110	0.000	46120.000	14820.000	14910.000
σ		2.058%	0.036	2.627	1.088	0.000	578.200	470.900	531.400
%RSD		2.791	350.700	4.480	1.725	0.000	1.254	3.177	3.565
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	2.444	5729.000	0.000	8825.000	116000.000	117100.000	72.384%	0.487
2	10:42:58	2.784	5839.000	0.000	8926.000	120800.000	121300.000	71.444%	0.605
3	10:43:25	2.678	5997.000	0.000	9052.000	121700.000	122900.000	70.642%	0.659
x		2.636	5855.000	0.000	8934.000	119500.000	120400.000	71.490%	0.584
σ		0.174	134.300	0.000	113.500	3045.000	3023.000	0.872%	0.088
%RSD		6.601	2.294	0.000	1.270	2.548	2.510	1.220	15.030
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	0.119	7.167	9.891	10.550	283.300	0.299	19.150	10.710
2	10:42:58	-0.427	7.369	10.220	10.580	284.100	0.333	19.500	11.680
3	10:43:25	0.162	7.771	10.200	11.210	280.900	0.316	19.980	11.890
x		-0.049	7.436	10.100	10.780	282.800	0.316	19.540	11.430
σ		0.328	0.307	0.185	0.376	1.657	0.017	0.416	0.627
%RSD		674.100	4.133	1.827	3.489	0.586	5.461	2.128	5.488
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	11.360	58.200	58.800	0.390	0.351	1.623	0.000	203.000
2	10:42:58	11.800	59.070	60.700	0.848	-0.784	1.029	0.000	208.100
3	10:43:25	11.720	61.090	62.370	0.461	-0.882	1.026	0.000	209.800
x		11.630	59.450	60.620	0.566	-0.439	1.226	0.000	207.000
σ		0.234	1.481	1.785	0.246	0.685	0.344	0.000	3.546
%RSD		2.012	2.490	2.945	43.510	156.200	28.050	0.000	1.713
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	80.757%	0.771	0.855	81.197%	-0.035	-0.066	10.820	7.167
2	10:42:58	81.579%	0.846	0.979	81.563%	-0.042	-0.059	7.281	4.824
3	10:43:25	81.498%	0.833	0.870	82.071%	-0.032	-0.054	5.709	3.760
x		81.278%	0.817	0.902	81.610%	-0.037	-0.060	7.936	5.250
σ		0.453%	0.040	0.068	0.439%	0.005	0.006	2.618	1.743
%RSD		0.558	4.877	7.507	0.538	13.390	9.909	32.980	33.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	83.557%	0.068	0.008	0.040	47.350	47.870	92.544%	92.609%
2	10:42:58	83.379%	0.114	-0.007	0.022	48.830	49.400	92.917%	94.466%
3	10:43:25	84.400%	0.158	-0.002	0.062	49.630	48.880	93.353%	94.084%
x		83.779%	0.113	-0.000	0.041	48.610	48.720	92.938%	93.720%
σ		0.545%	0.045	0.008	0.020	1.156	0.776	0.405%	0.980%
%RSD		0.651	39.490	2584.000	49.220	2.378	1.592	0.435	1.046
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:42:32	0.019	0.019	2.297	2.111	2.153	82.237%		
2	10:42:58	0.018	0.019	2.340	2.141	2.218	83.387%		
3	10:43:25	0.017	0.016	2.280	2.183	2.221	84.184%		
x		0.018	0.018	2.306	2.145	2.197	83.269%		
σ		0.001	0.001	0.031	0.036	0.038	0.978%		
%RSD		8.100	8.317	1.360	1.672	1.750	1.175		

180-41569-B-9-A 3/3/2015 10:46:20 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	73.454%	0.069	63.200	68.750	0.000	64730.000	22860.000	23270.000
2	10:47:14	72.893%	-0.010	67.950	70.460	0.000	67300.000	24270.000	24310.000
3	10:47:40	73.878%	-0.027	58.610	71.890	0.000	65030.000	24450.000	24320.000
x		73.408%	0.011	63.250	70.370	0.000	65680.000	23860.000	23970.000
σ		0.494%	0.051	4.668	1.570	0.000	1408.000	870.900	599.200
%RSD		0.673	477.100	7.380	2.230	0.000	2.144	3.650	2.500

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	60.480	6406.000	0.000	11200.000	130700.000	132100.000	72.049%	1.681
2	10:47:14	63.250	6609.000	0.000	11420.000	138900.000	138600.000	70.765%	1.934
3	10:47:40	62.330	5845.000	0.000	11380.000	137700.000	139500.000	71.009%	2.014
x		62.020	6287.000	0.000	11330.000	135800.000	136700.000	71.275%	1.876
σ		1.411	395.600	0.000	118.200	4420.000	4041.000	0.682%	0.174
%RSD		2.275	6.292	0.000	1.043	3.256	2.956	0.957	9.266

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	1.011	8.493	82.260	118.800	417.400	0.699	0.988	1.459
2	10:47:14	1.245	8.849	84.940	124.900	423.700	0.785	0.685	1.657
3	10:47:40	0.966	9.087	86.120	126.100	425.200	0.742	0.574	1.554
x		1.074	8.810	84.440	123.300	422.100	0.742	0.749	1.557
σ		0.150	0.299	1.978	3.924	4.132	0.043	0.214	0.099
%RSD		13.960	3.397	2.343	3.183	0.979	5.791	28.630	6.346

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	1.344	138.900	141.300	0.904	0.188	1.231	0.000	300.300
2	10:47:14	1.310	144.100	145.200	0.442	-0.843	1.909	0.000	307.600
3	10:47:40	1.471	144.300	147.100	-0.395	1.133	1.066	0.000	309.600
x		1.375	142.400	144.500	0.317	0.159	1.402	0.000	305.800
σ		0.085	3.053	2.949	0.658	0.988	0.447	0.000	4.884
%RSD		6.182	2.144	2.041	207.700	620.200	31.860	0.000	1.597

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	80.897%	1.381	1.393	80.946%	-0.060	-0.081	0.005	0.004
2	10:47:14	81.795%	1.359	1.457	82.180%	-0.054	-0.075	7.873	5.230
3	10:47:40	82.020%	1.363	1.517	81.859%	-0.060	-0.077	0.050	0.056
x		81.570%	1.367	1.456	81.662%	-0.058	-0.077	2.643	1.764
σ		0.594%	0.012	0.062	0.640%	0.003	0.003	4.530	3.002
%RSD		0.728	0.856	4.282	0.784	5.507	3.728	171.400	170.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	84.112%	0.044	0.114	0.105	58.450	59.260	92.419%	93.930%
2	10:47:14	83.040%	0.011	0.083	0.154	59.300	60.520	94.641%	95.002%
3	10:47:40	85.324%	0.073	0.091	0.142	60.150	60.370	94.566%	95.764%
x		84.159%	0.043	0.096	0.134	59.300	60.050	93.875%	94.899%
σ		1.143%	0.031	0.016	0.026	0.851	0.691	1.262%	0.921%
%RSD		1.358	72.990	16.730	19.070	1.435	1.151	1.344	0.971

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	0.033	0.031	0.182	0.203	0.182	84.552%
2	10:47:14	0.047	0.038	0.196	0.168	0.187	82.807%
3	10:47:40	0.049	0.040	0.198	0.170	0.194	85.449%
x		0.043	0.036	0.192	0.180	0.188	84.269%
σ		0.009	0.004	0.009	0.019	0.006	1.344%
%RSD		19.730	12.130	4.549	10.780	3.151	1.595

180-41569-B-10-A 3/3/2015 10:50:38 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	76.836%	-0.013	66.600	66.400	0.000	52080.000	21340.000	21320.000
2	10:51:31	74.266%	-0.027	66.280	73.690	0.000	54000.000	22350.000	22630.000
3	10:51:57	74.715%	-0.027	67.250	70.090	0.000	53080.000	22500.000	22670.000
x		75.272%	-0.022	66.710	70.060	0.000	53050.000	22060.000	22210.000
σ		1.373%	0.008	0.493	3.645	0.000	958.700	631.800	767.100
%RSD		1.824	37.400	0.739	5.203	0.000	1.807	2.864	3.454
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	33.060	5968.000	0.000	5799.000	130500.000	131400.000	73.179%	1.012
2	10:51:31	33.290	6217.000	0.000	5923.000	133100.000	134600.000	72.761%	1.318
3	10:51:57	34.320	6176.000	0.000	5875.000	134700.000	136700.000	72.713%	1.341
x		33.560	6121.000	0.000	5866.000	132800.000	134200.000	72.884%	1.224
σ		0.671	133.600	0.000	62.710	2124.000	2685.000	0.257%	0.184
%RSD		2.001	2.182	0.000	1.069	1.600	2.001	0.352	15.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	0.596	12.050	18.240	84.780	387.600	0.495	0.193	1.405
2	10:51:31	1.336	12.190	18.860	87.510	392.800	0.550	0.326	1.295
3	10:51:57	0.976	12.520	19.040	88.520	383.200	0.543	0.027	1.303
x		0.969	12.250	18.720	86.940	387.900	0.529	0.182	1.334
σ		0.370	0.240	0.418	1.932	4.819	0.030	0.150	0.061
%RSD		38.180	1.961	2.236	2.222	1.242	5.648	82.310	4.596
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	1.262	26.790	27.310	0.752	0.384	0.404	0.000	257.000
2	10:51:31	1.124	26.300	26.860	0.626	0.302	1.573	0.000	265.400
3	10:51:57	1.493	27.310	28.580	0.177	-0.488	0.723	0.000	267.300
x		1.293	26.800	27.580	0.518	0.066	0.900	0.000	263.200
σ		0.186	0.505	0.892	0.302	0.481	0.604	0.000	5.458
%RSD		14.400	1.885	3.234	58.380	731.000	67.100	0.000	2.073
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	82.317%	0.995	0.972	81.510%	-0.062	-0.082	8.849	5.832
2	10:51:31	83.103%	1.102	0.989	82.437%	-0.050	-0.084	10.410	6.923
3	10:51:57	83.069%	1.137	0.999	83.001%	-0.062	-0.081	5.768	3.835
x		82.830%	1.078	0.987	82.316%	-0.058	-0.082	8.343	5.530
σ		0.444%	0.074	0.014	0.753%	0.007	0.002	2.363	1.566
%RSD		0.536	6.846	1.396	0.914	11.930	2.038	28.330	28.310
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	84.035%	-0.044	0.012	0.023	61.400	61.670	92.950%	93.228%
2	10:51:31	84.257%	-0.032	-0.012	0.104	64.030	64.200	93.646%	95.232%
3	10:51:57	84.340%	-0.007	0.034	0.052	62.650	64.310	94.649%	95.234%
x		84.210%	-0.027	0.011	0.060	62.690	63.390	93.748%	94.565%
σ		0.158%	0.019	0.023	0.041	1.317	1.493	0.854%	1.158%
%RSD		0.187	68.960	203.200	68.770	2.100	2.355	0.911	1.224
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:51:04	0.009	0.011	0.160	0.163	0.156	82.104%		
2	10:51:31	0.012	0.014	0.197	0.171	0.176	82.667%		
3	10:51:57	0.013	0.009	0.201	0.186	0.175	83.496%		
x		0.012	0.012	0.186	0.173	0.169	82.756%		
σ		0.002	0.002	0.023	0.012	0.012	0.700%		
%RSD		17.070	21.500	12.290	6.752	6.834	0.846		

180-41606-C-3-A 3/3/2015 10:54:55 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	80.374%	0.044	14.100	17.460	0.000	244.700	4.487	4.193
2	10:55:48	78.415%	-0.029	13.920	17.220	0.000	251.400	4.294	4.000
3	10:56:14	77.867%	0.002	14.110	17.190	0.000	247.200	3.888	3.593
x		78.885%	0.006	14.040	17.290	0.000	247.800	4.223	3.929
σ		1.318%	0.037	0.105	0.151	0.000	3.405	0.306	0.306
%RSD		1.671	637.600	0.749	0.872	0.000	1.374	7.245	7.795
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	2.186	148.500	0.000	5.889	78.380	74.570	75.914%	-0.102
2	10:55:48	2.288	152.400	0.000	5.223	79.420	78.270	75.038%	0.087
3	10:56:14	2.441	151.500	0.000	5.075	92.560	71.190	75.605%	0.146
x		2.305	150.800	0.000	5.395	83.450	74.680	75.519%	0.044
σ		0.128	2.033	0.000	0.434	7.904	3.539	0.445%	0.129
%RSD		5.561	1.348	0.000	8.036	9.471	4.739	0.589	295.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	0.157	0.799	0.213	9.397	0.827	0.002	0.129	0.778
2	10:55:48	0.343	0.898	0.244	9.402	-1.744	0.007	0.118	0.793
3	10:56:14	-0.047	0.904	0.213	8.863	0.783	0.004	0.104	0.897
x		0.151	0.867	0.223	9.221	-0.045	0.004	0.117	0.823
σ		0.195	0.059	0.018	0.310	1.472	0.003	0.013	0.065
%RSD		128.900	6.781	8.088	3.362	3305.000	61.290	10.700	7.902
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	0.884	1.114	1.512	-0.154	-0.441	-0.585	0.000	0.225
2	10:55:48	0.939	0.997	1.388	-0.610	-0.234	1.106	0.000	0.222
3	10:56:14	1.015	1.173	1.065	-0.090	-0.606	1.414	0.000	0.227
x		0.946	1.095	1.322	-0.285	-0.427	0.645	0.000	0.225
σ		0.066	0.089	0.231	0.283	0.186	1.076	0.000	0.002
%RSD		6.940	8.168	17.460	99.540	43.600	166.900	0.000	0.997
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	84.856%	-0.004	0.033	88.789%	-0.061	-0.080	-0.050	-0.041
2	10:55:48	85.353%	0.009	0.034	89.230%	-0.062	-0.084	-0.053	-0.037
3	10:56:14	86.409%	0.037	0.041	90.331%	-0.065	-0.090	0.048	0.038
x		85.539%	0.014	0.036	89.450%	-0.063	-0.085	-0.018	-0.013
σ		0.793%	0.021	0.004	0.794%	0.002	0.005	0.057	0.044
%RSD		0.927	154.100	12.390	0.888	3.794	5.905	309.500	332.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	88.073%	0.193	-0.049	-0.035	0.081	0.131	95.066%	96.424%
2	10:55:48	89.849%	0.217	-0.052	-0.019	0.061	0.120	96.915%	97.279%
3	10:56:14	90.748%	0.309	-0.045	-0.018	0.096	0.129	97.197%	98.592%
x		89.557%	0.240	-0.048	-0.024	0.079	0.126	96.392%	97.432%
σ		1.361%	0.061	0.003	0.009	0.017	0.006	1.158%	1.092%
%RSD		1.520	25.550	7.035	39.120	21.880	4.573	1.201	1.121
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:55:22	0.006	0.002	0.046	0.026	0.037	88.782%		
2	10:55:48	0.001	0.002	0.035	0.058	0.037	92.037%		
3	10:56:14	0.002	0.000	0.044	0.025	0.033	93.153%		
x		0.003	0.002	0.042	0.037	0.036	91.324%		
σ		0.003	0.001	0.006	0.019	0.003	2.271%		
%RSD		89.640	74.050	13.670	51.440	7.471	2.487		

MB 180-134395/1-A 3/3/2015 11:02:19 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	99.823%	0.012	5.462	5.714	0.000	-3.939	0.328	-0.297
2	11:03:12	100.891%	-0.012	5.409	5.292	0.000	-3.510	-0.029	-0.352
3	11:03:39	101.796%	-0.036	4.794	5.753	0.000	-3.195	0.278	-0.191
x		100.837%	-0.012	5.222	5.586	0.000	-3.548	0.192	-0.280
σ		0.987%	0.024	0.372	0.255	0.000	0.374	0.193	0.082
%RSD		0.979	199.200	7.115	4.570	0.000	10.530	100.400	29.290
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	-0.729	1.684	0.000	-4.766	4.973	2.663	99.763%	-0.135
2	11:03:12	-0.676	-0.290	0.000	-5.856	11.040	3.608	98.932%	-0.230
3	11:03:39	-0.710	-0.751	0.000	-6.198	8.049	2.083	98.869%	-0.182
x		-0.705	0.214	0.000	-5.606	8.022	2.785	99.188%	-0.182
σ		0.026	1.294	0.000	0.748	3.036	0.769	0.499%	0.047
%RSD		3.748	604.200	0.000	13.340	37.850	27.630	0.503	25.920
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	0.014	0.010	0.027	0.871	-0.625	-0.008	-0.008	-0.019
2	11:03:12	0.004	-0.027	0.037	0.933	0.956	-0.009	0.056	-0.017
3	11:03:39	0.045	-0.029	0.016	0.193	-2.598	-0.013	0.041	0.015
x		0.021	-0.015	0.027	0.665	-0.756	-0.010	0.029	-0.007
σ		0.021	0.022	0.010	0.411	1.781	0.002	0.034	0.019
%RSD		102.600	145.500	38.710	61.720	235.700	21.200	114.600	272.100
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	0.089	0.037	0.025	0.228	0.127	1.625	0.000	0.007
2	11:03:12	-0.017	0.111	0.056	-0.036	0.152	0.130	0.000	0.005
3	11:03:39	0.020	0.146	0.073	-0.029	0.491	0.179	0.000	0.008
x		0.031	0.098	0.051	0.054	0.256	0.645	0.000	0.006
σ		0.054	0.056	0.025	0.151	0.203	0.850	0.000	0.001
%RSD		175.200	57.090	47.860	278.200	79.240	131.800	0.000	23.150
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	92.844%	-0.021	-0.003	94.959%	-0.065	-0.085	0.016	0.015
2	11:03:12	94.542%	-0.034	-0.021	95.367%	-0.057	-0.088	0.040	0.033
3	11:03:39	95.357%	-0.025	-0.019	95.213%	-0.063	-0.081	-0.019	-0.019
x		94.248%	-0.027	-0.014	95.180%	-0.062	-0.085	0.012	0.010
σ		1.282%	0.006	0.009	0.206%	0.004	0.003	0.030	0.027
%RSD		1.360	24.340	65.820	0.216	7.201	3.875	240.800	275.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	92.879%	-0.447	-0.090	-0.099	-0.001	-0.012	93.356%	93.705%
2	11:03:12	92.409%	-0.450	-0.080	-0.099	0.003	0.013	94.885%	94.132%
3	11:03:39	94.941%	-0.450	-0.093	-0.092	0.020	0.010	94.618%	95.153%
x		93.409%	-0.449	-0.087	-0.097	0.008	0.003	94.287%	94.330%
σ		1.347%	0.002	0.007	0.004	0.011	0.014	0.817%	0.744%
%RSD		1.442	0.381	7.711	4.543	147.400	400.800	0.866	0.789
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:02:46	0.002	0.000	0.007	-0.006	0.006	91.358%		
2	11:03:12	0.001	0.002	0.019	-0.005	0.006	89.157%		
3	11:03:39	0.001	0.002	0.010	0.007	0.009	91.612%		
x		0.001	0.001	0.012	-0.001	0.007	90.709%		
σ		0.001	0.001	0.007	0.007	0.002	1.350%		
%RSD		61.640	67.730	55.330	469.100	24.130	1.488		

LCS 180-134395/2-A 3/3/2015 11:06:36 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	74.732%	44.350	1008.000	1088.000	0.000	50220.000	52370.000	52430.000
2	11:07:30	74.532%	44.120	1003.000	1075.000	0.000	49700.000	53600.000	53870.000
3	11:07:56	72.626%	43.320	1020.000	1107.000	0.000	50270.000	54870.000	54740.000
x		73.963%	43.930	1010.000	1090.000	0.000	50060.000	53610.000	53680.000
σ		1.162%	0.539	8.652	15.960	0.000	317.100	1252.000	1167.000
%RSD		1.571	1.226	0.856	1.464	0.000	0.634	2.335	2.174

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	2030.000	10530.000	0.000	51230.000	51020.000	52200.000	73.368%	1032.000
2	11:07:30	2052.000	10640.000	0.000	51300.000	52600.000	54070.000	71.636%	1052.000
3	11:07:56	2070.000	10730.000	0.000	51640.000	52990.000	54160.000	71.175%	1064.000
x		2051.000	10640.000	0.000	51390.000	52200.000	53480.000	72.060%	1049.000
σ		20.010	100.400	0.000	220.700	1044.000	1107.000	1.156%	15.940
%RSD		0.976	0.944	0.000	0.429	2.001	2.070	1.605	1.519

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	498.500	196.200	513.600	1059.000	1062.000	508.500	495.300	242.400
2	11:07:30	512.900	201.000	528.200	1093.000	1088.000	519.800	509.300	248.600
3	11:07:56	519.600	203.900	536.800	1105.000	1109.000	524.200	508.500	248.100
x		510.300	200.400	526.200	1086.000	1087.000	517.500	504.400	246.400
σ		10.780	3.907	11.740	24.400	23.610	8.115	7.894	3.471
%RSD		2.113	1.950	2.232	2.247	2.173	1.568	1.565	1.409

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	248.400	504.700	509.200	38.660	9.697	9.931	0.000	1029.000
2	11:07:30	255.400	515.600	517.700	38.360	9.588	10.450	0.000	1051.000
3	11:07:56	259.200	522.700	519.900	38.690	10.190	9.830	0.000	1061.000
x		254.300	514.300	515.600	38.570	9.824	10.070	0.000	1047.000
σ		5.445	9.058	5.611	0.184	0.319	0.335	0.000	16.610
%RSD		2.141	1.761	1.088	0.478	3.250	3.323	0.000	1.586

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	80.358%	1046.000	1070.000	80.616%	48.760	48.500	50.070	41.730
2	11:07:30	81.143%	1081.000	1109.000	80.987%	48.510	49.010	59.280	47.200
3	11:07:56	80.498%	1093.000	1125.000	81.262%	48.310	48.770	59.230	45.970
x		80.666%	1073.000	1102.000	80.955%	48.530	48.760	56.190	44.970
σ		0.419%	24.490	28.490	0.324%	0.224	0.253	5.303	2.868
%RSD		0.519	2.282	2.586	0.401	0.462	0.518	9.437	6.378

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	81.314%	2081.000	530.800	523.700	2006.000	2084.000	91.834%	92.921%
2	11:07:30	81.456%	2148.000	545.400	539.800	2050.000	2137.000	92.981%	93.953%
3	11:07:56	82.176%	2158.000	546.700	536.100	2051.000	2135.000	93.734%	95.301%
x		81.649%	2129.000	540.900	533.200	2036.000	2119.000	92.850%	94.058%
σ		0.462%	41.830	8.820	8.438	25.810	29.750	0.957%	1.193%
%RSD		0.566	1.965	1.630	1.583	1.268	1.404	1.030	1.269

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	51.490	49.650	21.840	21.710	21.640	80.831%
2	11:07:30	52.540	51.410	21.970	22.160	21.810	82.463%
3	11:07:56	52.620	51.980	21.770	22.390	21.780	83.452%
x		52.220	51.010	21.860	22.090	21.740	82.249%
σ		0.631	1.210	0.105	0.343	0.090	1.324%
%RSD		1.207	2.372	0.480	1.555	0.412	1.609

180-41508-B-1-A 3/3/2015 11:10:54 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	74.641%	0.020	39.770	44.560	0.000	30140.000	14510.000	14520.000
2	11:11:47	73.589%	-0.011	38.810	43.870	0.000	30690.000	15210.000	15230.000
3	11:12:13	72.337%	0.006	39.250	45.170	0.000	31010.000	15320.000	15340.000
x		73.522%	0.005	39.280	44.530	0.000	30610.000	15010.000	15030.000
σ		1.154%	0.015	0.483	0.647	0.000	440.800	436.300	444.000
%RSD		1.569	290.900	1.231	1.453	0.000	1.440	2.907	2.955

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	28.020	5779.000	0.000	3457.000	119300.000	119000.000	71.457%	1.282
2	11:11:47	32.800	5959.000	0.000	3515.000	124200.000	125300.000	70.009%	1.401
3	11:12:13	30.930	6026.000	0.000	3512.000	124600.000	124800.000	70.968%	1.642
x		30.580	5921.000	0.000	3495.000	122700.000	123000.000	70.811%	1.442
σ		2.407	128.200	0.000	32.480	2933.000	3495.000	0.736%	0.183
%RSD		7.869	2.164	0.000	0.929	2.390	2.840	1.040	12.720

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	0.245	2.900	13.460	97.000	366.700	0.219	-0.139	1.228
2	11:11:47	0.266	3.123	14.060	100.500	363.500	0.274	-0.144	1.292
3	11:12:13	0.357	3.122	14.300	101.900	372.500	0.301	-0.463	1.280
x		0.289	3.048	13.940	99.830	367.600	0.265	-0.249	1.267
σ		0.060	0.128	0.433	2.541	4.527	0.042	0.186	0.034
%RSD		20.620	4.213	3.109	2.546	1.232	15.850	74.770	2.667

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	1.499	3.208	2.902	1.160	0.395	1.167	0.000	234.100
2	11:11:47	1.187	3.262	3.481	-0.379	1.008	1.869	0.000	239.900
3	11:12:13	1.404	3.020	3.166	0.627	-0.091	0.718	0.000	241.000
x		1.363	3.163	3.183	0.469	0.438	1.251	0.000	238.300
σ		0.160	0.127	0.290	0.781	0.551	0.580	0.000	3.704
%RSD		11.710	4.007	9.108	166.600	125.900	46.380	0.000	1.554

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	80.622%	6.887	6.790	82.272%	-0.060	-0.069	10.170	6.737
2	11:11:47	81.326%	4.847	5.229	82.766%	-0.058	-0.078	11.250	7.426
3	11:12:13	82.417%	3.805	3.889	83.170%	-0.065	-0.082	7.437	4.911
x		81.455%	5.179	5.302	82.736%	-0.061	-0.076	9.620	6.358
σ		0.904%	1.568	1.452	0.450%	0.003	0.006	1.966	1.300
%RSD		1.110	30.270	27.380	0.544	5.674	8.445	20.440	20.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	83.113%	3.864	0.075	0.125	46.090	46.000	92.054%	93.543%
2	11:11:47	84.144%	2.793	0.083	0.118	46.410	47.570	93.621%	94.962%
3	11:12:13	84.844%	2.048	0.107	0.110	47.100	47.050	95.845%	96.258%
x		84.033%	2.902	0.088	0.118	46.530	46.870	93.840%	94.921%
σ		0.871%	0.913	0.016	0.008	0.515	0.803	1.905%	1.358%
%RSD		1.036	31.460	18.540	6.535	1.106	1.713	2.030	1.431

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	0.382	0.374	0.178	0.136	0.154	82.474%
2	11:11:47	0.194	0.173	0.159	0.128	0.146	84.780%
3	11:12:13	0.098	0.094	0.159	0.148	0.157	86.446%
x		0.225	0.213	0.166	0.137	0.152	84.567%
σ		0.145	0.144	0.011	0.010	0.006	1.995%
%RSD		64.450	67.640	6.574	7.420	3.621	2.359

180-41508-B-1-A SD@5 3/3/2015 11:15:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	83.821%	-0.002	15.130	13.710	0.000	6343.000	2814.000	2803.000
2	11:16:04	84.238%	0.011	12.430	13.910	0.000	6400.000	2897.000	2887.000
3	11:16:31	84.088%	-0.031	10.490	13.970	0.000	6396.000	2930.000	2909.000
x		84.049%	-0.007	12.690	13.860	0.000	6379.000	2880.000	2866.000
σ		0.211%	0.021	2.332	0.138	0.000	31.830	59.420	55.760
%RSD		0.252	293.600	18.390	0.992	0.000	0.499	2.063	1.945
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	6.222	1099.000	0.000	712.000	23560.000	23040.000	80.846%	0.218
2	11:16:04	5.927	1128.000	0.000	731.500	24570.000	24290.000	79.867%	0.204
3	11:16:31	6.859	1123.000	0.000	720.200	24630.000	24640.000	79.941%	-0.050
x		6.336	1117.000	0.000	721.200	24250.000	23990.000	80.218%	0.124
σ		0.476	15.160	0.000	9.807	599.800	839.900	0.545%	0.151
%RSD		7.516	1.358	0.000	1.360	2.473	3.501	0.680	122.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	0.022	0.659	2.715	23.300	84.140	0.062	-0.038	0.333
2	11:16:04	0.181	0.586	2.815	24.500	79.080	0.056	0.011	0.342
3	11:16:31	0.268	0.604	2.933	22.870	75.740	0.052	-0.002	0.293
x		0.157	0.616	2.821	23.560	79.650	0.057	-0.010	0.323
σ		0.125	0.038	0.109	0.848	4.230	0.005	0.025	0.026
%RSD		79.520	6.223	3.864	3.598	5.310	9.539	261.700	8.095
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	0.386	0.722	0.752	-0.109	0.069	-0.129	0.000	45.250
2	11:16:04	0.249	0.756	0.984	-0.750	0.160	-0.967	0.000	46.120
3	11:16:31	0.347	0.682	0.642	0.183	-0.271	-0.314	0.000	45.950
x		0.327	0.720	0.793	-0.225	-0.014	-0.470	0.000	45.780
σ		0.071	0.037	0.174	0.477	0.227	0.440	0.000	0.459
%RSD		21.650	5.137	21.990	211.900	1640.000	93.730	0.000	1.003
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	88.504%	0.669	0.579	89.928%	-0.062	-0.084	0.035	0.010
2	11:16:04	88.869%	0.586	0.616	89.450%	-0.062	-0.083	-0.026	-0.018
3	11:16:31	89.911%	0.655	0.600	90.211%	-0.058	-0.087	-0.047	-0.034
x		89.095%	0.637	0.598	89.863%	-0.061	-0.085	-0.012	-0.014
σ		0.730%	0.045	0.018	0.385%	0.002	0.002	0.043	0.022
%RSD		0.819	7.041	3.083	0.428	3.522	2.760	344.600	161.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	90.656%	-0.114	-0.056	-0.054	9.433	9.276	94.393%	95.449%
2	11:16:04	89.685%	-0.109	-0.056	-0.061	9.384	9.384	96.608%	96.203%
3	11:16:31	92.182%	-0.144	-0.062	-0.042	9.203	9.151	96.877%	96.013%
x		90.841%	-0.123	-0.058	-0.052	9.340	9.270	95.959%	95.888%
σ		1.259%	0.019	0.003	0.009	0.121	0.117	1.363%	0.392%
%RSD		1.385	15.580	5.968	17.700	1.297	1.257	1.421	0.409
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:15:38	0.032	0.034	0.047	0.020	0.030	88.883%		
2	11:16:04	0.028	0.022	0.037	0.033	0.038	87.739%		
3	11:16:31	0.016	0.019	0.025	0.033	0.028	89.824%		
x		0.026	0.025	0.036	0.029	0.032	88.815%		
σ		0.008	0.008	0.011	0.008	0.005	1.044%		
%RSD		32.200	30.900	29.040	27.310	15.370	1.175		

CCV 1487954 3/3/2015 11:19:29 AM 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	11:19:55	91.820%	97.060	104.100	105.000	0.000	50100.000	49650.000	49600.000
2	11:20:22	90.545%	100.100	108.400	112.700	0.000	50210.000	50790.000	50600.000
3	11:20:49	91.319%	100.400	110.200	112.700	0.000	49710.000	50610.000	50500.000
x		91.228%	99.179%	107.560%	110.127%	0.000	100.019%	100.700%	100.466%
σ		0.642%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.704	1.858	2.916	4.070	0.000	0.525	1.211	1.099
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	480.500	5170.000	0.000	50660.000	48340.000	49180.000	92.068%	99.050
2	11:20:22	490.700	5185.000	0.000	49630.000	48510.000	49120.000	94.917%	97.150
3	11:20:49	489.700	5114.000	0.000	49200.000	48540.000	48720.000	96.441%	97.080
x		97.387%	103.131%	0.000	99.661%	96.920%	98.010%	94.475%	97.762%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.220%	n/a
%RSD		1.156	0.734	0.000	1.503	0.225	0.515	2.350	1.141
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	93.710	94.630	500.500	24140.000	24960.000	96.290	96.300	97.040
2	11:20:22	94.340	94.490	501.900	24110.000	24900.000	96.300	95.880	96.620
3	11:20:49	94.610	93.920	498.000	24140.000	24940.000	95.910	96.380	96.380
x		94.220%	94.349%	100.025%	96.524%	99.738%	96.169%	96.189%	96.677%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.491	0.401	0.393	0.063	0.131	0.235	0.280	0.344
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	97.870	99.860	98.450	97.320	100.100	99.140	0.000	97.320
2	11:20:22	96.990	98.450	99.570	97.820	98.960	100.300	0.000	98.670
3	11:20:49	97.150	97.890	100.100	96.730	97.070	100.400	0.000	98.760
x		97.337%	98.735%	99.376%	97.293%	98.695%	99.946%	0.000	98.249%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.482	1.028	0.848	0.561	1.536	0.698	0.000	0.819
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	89.456%	96.040	96.370	87.822%	96.620	96.970	97.510	95.580
2	11:20:22	90.096%	101.200	102.500	88.048%	98.100	98.820	99.470	97.660
3	11:20:49	91.250%	103.600	104.000	88.599%	98.070	97.830	99.620	98.880
x		90.268%	100.274%	100.954%	88.156%	97.596%	97.873%	98.863%	97.372%
σ		0.909%	n/a	n/a	0.400%	n/a	n/a	n/a	n/a
%RSD		1.007	3.850	4.003	0.453	0.867	0.946	1.191	1.715
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	87.616%	98.310	97.980	98.270	96.500	97.670	92.154%	92.276%
2	11:20:22	87.237%	100.900	100.600	101.600	98.320	99.840	92.809%	92.728%
3	11:20:49	88.209%	102.500	101.000	102.100	100.300	100.000	92.312%	93.392%
x		87.687%	100.571%	99.869%	100.633%	98.364%	99.180%	92.425%	92.799%
σ		0.490%	n/a	n/a	n/a	n/a	n/a	0.342%	0.561%
%RSD		0.559	2.090	1.645	2.044	1.920	1.318	0.370	0.605
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:19:55	101.100	99.390	100.400	100.200	99.960	85.749%		
2	11:20:22	102.300	101.200	102.900	103.100	102.700	85.863%		
3	11:20:49	103.800	102.000	104.200	105.600	104.600	85.768%		
x		102.399%	100.864%	102.484%	102.954%	102.418%	85.794%		
σ		n/a	n/a	n/a	n/a	n/a	0.061%		
%RSD		1.335	1.329	1.896	2.619	2.280	0.071		

CCB3 3/3/2015 11:26:57 AM 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	11:27:24	98.854%	0.013	4.860	3.727	0.000	-0.849	1.870	1.468
2	11:27:50	101.008%	-0.024	4.352	3.969	0.000	-0.209	1.857	1.660
3	11:28:17	101.846%	0.034	3.588	3.864	0.000	-0.075	1.632	1.567
x		100.569%	0.008	4.266	3.853	0.000	-0.378	1.786	1.565
σ		1.543%	0.029	0.640	0.121	0.000	0.414	0.134	0.096
%RSD		1.534	383.100	15.000	3.150	0.000	109.500	7.498	6.137
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	-0.575	1.799	0.000	-8.425	8.122	3.248	98.463%	-0.198
2	11:27:50	-0.337	-0.596	0.000	-5.733	9.782	2.955	97.312%	-0.133
3	11:28:17	-0.507	-0.488	0.000	-4.415	8.350	3.736	96.602%	-0.213
x		-0.473	0.238	0.000	-6.191	8.751	3.313	97.459%	-0.181
σ		0.123	1.353	0.000	2.044	0.900	0.395	0.939%	0.043
%RSD		25.910	567.800	0.000	33.010	10.280	11.910	0.964	23.590
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	-0.014	-0.015	0.040	3.297	3.774	0.002	0.041	0.002
2	11:27:50	0.005	0.035	0.050	2.717	4.072	-0.001	0.047	0.007
3	11:28:17	0.014	-0.043	0.053	2.259	1.893	-0.007	0.037	-0.003
x		0.001	-0.008	0.048	2.758	3.247	-0.002	0.042	0.002
σ		0.014	0.039	0.007	0.520	1.181	0.005	0.005	0.005
%RSD		1030.000	503.700	14.120	18.850	36.390	226.100	11.680	235.400
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	-0.007	0.131	-0.062	0.051	0.263	0.727	0.000	0.007
2	11:27:50	0.031	0.147	0.055	0.101	0.162	0.587	0.000	0.016
3	11:28:17	-0.003	0.201	0.020	0.429	0.319	2.331	0.000	0.013
x		0.007	0.160	0.005	0.194	0.248	1.215	0.000	0.012
σ		0.021	0.037	0.060	0.206	0.080	0.969	0.000	0.004
%RSD		295.900	23.070	1327.000	106.200	32.030	79.800	0.000	37.200
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	93.558%	0.243	0.295	95.001%	-0.058	-0.071	0.070	0.058
2	11:27:50	94.180%	0.230	0.276	94.824%	-0.050	-0.051	-0.009	-0.011
3	11:28:17	94.814%	0.274	0.226	95.023%	-0.056	-0.074	0.060	0.032
x		94.184%	0.249	0.266	94.949%	-0.054	-0.066	0.040	0.026
σ		0.628%	0.023	0.035	0.109%	0.004	0.012	0.043	0.035
%RSD		0.667	9.043	13.320	0.114	7.469	18.870	107.700	132.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	93.424%	-0.356	0.006	-0.004	-0.010	-0.005	93.686%	94.529%
2	11:27:50	93.046%	-0.307	0.002	-0.012	-0.006	-0.000	95.951%	95.110%
3	11:28:17	93.300%	-0.314	-0.009	-0.001	-0.006	0.010	95.938%	95.624%
x		93.257%	-0.326	-0.000	-0.006	-0.007	0.002	95.192%	95.088%
σ		0.193%	0.027	0.008	0.006	0.002	0.008	1.304%	0.548%
%RSD		0.207	8.169	1813.000	101.200	34.550	451.400	1.370	0.576
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:27:24	0.013	0.008	0.006	-0.004	0.003	94.470%		
2	11:27:50	0.011	0.009	0.009	0.009	0.007	92.774%		
3	11:28:17	0.010	0.011	0.006	0.003	0.006	92.318%		
x		0.011	0.009	0.007	0.003	0.005	93.188%		
σ		0.001	0.001	0.001	0.006	0.002	1.134%		
%RSD		12.180	15.510	19.820	217.600	42.450	1.217		

180-41508-B-1-B MS 3/3/2015 11:31:18 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	76.114%	42.070	996.000	1069.000	0.000	78130.000	64630.000	64410.000
2	11:32:11	74.332%	41.000	1008.000	1071.000	0.000	79250.000	67130.000	66720.000
3	11:32:38	70.390%	42.320	1050.000	1118.000	0.000	78750.000	68660.000	68400.000
x		73.612%	41.800	1018.000	1086.000	0.000	78710.000	66810.000	66510.000
σ		2.930%	0.705	28.520	27.550	0.000	563.100	2034.000	2002.000
%RSD		3.980	1.686	2.802	2.537	0.000	0.715	3.044	3.010
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	2047.000	15590.000	0.000	53360.000	167700.000	168600.000	74.440%	1000.000
2	11:32:11	2105.000	15920.000	0.000	54250.000	174700.000	174900.000	72.124%	1040.000
3	11:32:38	2118.000	16110.000	0.000	54290.000	171900.000	172100.000	71.885%	1035.000
x		2090.000	15880.000	0.000	53970.000	171400.000	171900.000	72.816%	1025.000
σ		37.740	263.400	0.000	528.100	3558.000	3153.000	1.411%	21.790
%RSD		1.806	1.659	0.000	0.979	2.076	1.834	1.938	2.125
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	490.100	193.700	515.900	1147.000	1488.000	491.800	479.000	234.900
2	11:32:11	509.700	201.000	536.900	1188.000	1539.000	507.500	494.400	241.900
3	11:32:38	508.100	201.500	537.800	1196.000	1497.000	507.400	491.400	240.100
x		502.600	198.700	530.200	1177.000	1508.000	502.200	488.300	239.000
σ		10.900	4.329	12.400	26.580	27.020	9.053	8.158	3.627
%RSD		2.169	2.178	2.339	2.258	1.792	1.803	1.671	1.518
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	243.100	481.000	488.100	38.400	10.620	11.350	0.000	1248.000
2	11:32:11	248.800	501.300	500.500	38.230	9.506	10.460	0.000	1275.000
3	11:32:38	248.100	497.500	502.300	39.370	10.260	12.930	0.000	1297.000
x		246.700	493.300	497.000	38.670	10.130	11.580	0.000	1273.000
σ		3.081	10.790	7.766	0.615	0.571	1.252	0.000	24.100
%RSD		1.249	2.187	1.563	1.591	5.632	10.810	0.000	1.893
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	82.547%	1030.000	1063.000	80.244%	46.970	46.670	48.520	40.030
2	11:32:11	82.017%	1059.000	1093.000	80.128%	48.320	48.120	49.990	41.650
3	11:32:38	80.881%	1080.000	1103.000	80.430%	46.970	47.260	49.280	39.650
x		81.815%	1056.000	1086.000	80.267%	47.420	47.350	49.260	40.440
σ		0.851%	24.980	20.560	0.153%	0.779	0.730	0.737	1.065
%RSD		1.040	2.365	1.892	0.190	1.642	1.542	1.496	2.633
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	81.565%	2078.000	525.800	512.400	2020.000	2101.000	92.507%	93.281%
2	11:32:11	79.745%	2151.000	538.800	532.800	2090.000	2182.000	93.114%	92.920%
3	11:32:38	81.396%	2130.000	530.700	527.100	2071.000	2155.000	92.555%	93.597%
x		80.902%	2120.000	531.800	524.100	2060.000	2146.000	92.725%	93.266%
σ		1.005%	37.350	6.574	10.540	36.380	40.910	0.337%	0.339%
%RSD		1.243	1.762	1.236	2.012	1.766	1.906	0.364	0.363
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:31:44	48.850	48.530	21.130	21.050	20.990	81.105%		
2	11:32:11	52.800	51.820	22.520	22.420	22.320	78.247%		
3	11:32:38	52.100	50.570	21.320	21.940	21.270	82.092%		
x		51.250	50.310	21.660	21.800	21.530	80.481%		
σ		2.108	1.659	0.757	0.695	0.702	1.997%		
%RSD		4.113	3.298	3.494	3.190	3.261	2.481		

180-41508-B-1-C MSD 3/3/2015 11:35:35 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	69.984%	42.520	995.900	1069.000	0.000	76550.000	64840.000	64670.000
2	11:36:28	70.725%	40.060	956.100	1064.000	0.000	76790.000	66630.000	66380.000
3	11:36:55	67.292%	41.930	1025.000	1096.000	0.000	79020.000	68970.000	68240.000
x		69.334%	41.510	992.500	1076.000	0.000	77450.000	66810.000	66430.000
σ		1.806%	1.286	34.770	17.310	0.000	1362.000	2070.000	1784.000
%RSD		2.605	3.098	3.504	1.608	0.000	1.759	3.099	2.686
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	1960.000	15390.000	0.000	53300.000	165700.000	164900.000	68.826%	990.000
2	11:36:28	1998.000	15490.000	0.000	53840.000	171100.000	171400.000	68.122%	1022.000
3	11:36:55	2048.000	15890.000	0.000	53970.000	175500.000	172800.000	67.281%	1044.000
x		2002.000	15590.000	0.000	53700.000	170800.000	169700.000	68.076%	1018.000
σ		44.520	261.700	0.000	354.800	4901.000	4225.000	0.773%	26.950
%RSD		2.223	1.679	0.000	0.661	2.870	2.490	1.136	2.646
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	482.900	193.300	505.300	1293.000	1840.000	483.900	470.900	230.300
2	11:36:28	496.900	197.000	521.100	1325.000	1640.000	498.200	485.900	237.000
3	11:36:55	502.700	200.600	532.000	1346.000	1601.000	498.500	485.000	236.800
x		494.200	197.000	519.500	1321.000	1694.000	493.600	480.600	234.700
σ		10.160	3.603	13.420	26.670	128.100	8.324	8.386	3.831
%RSD		2.056	1.829	2.583	2.019	7.563	1.686	1.745	1.633
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	238.000	479.400	481.600	37.240	8.806	12.150	0.000	1224.000
2	11:36:28	242.200	491.500	492.700	37.060	8.316	11.740	0.000	1249.000
3	11:36:55	243.800	495.000	499.400	38.050	10.350	11.430	0.000	1252.000
x		241.300	488.700	491.200	37.450	9.158	11.770	0.000	1242.000
σ		2.983	8.199	9.018	0.529	1.062	0.364	0.000	15.040
%RSD		1.236	1.678	1.836	1.413	11.600	3.093	0.000	1.211
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	78.319%	1013.000	1037.000	78.171%	45.990	46.220	48.480	37.850
2	11:36:28	79.376%	1052.000	1082.000	78.847%	46.680	46.950	48.560	39.580
3	11:36:55	79.209%	1056.000	1091.000	78.766%	47.070	47.290	49.370	40.610
x		78.968%	1041.000	1070.000	78.595%	46.580	46.820	48.810	39.350
σ		0.568%	24.000	28.980	0.369%	0.548	0.548	0.492	1.393
%RSD		0.720	2.306	2.709	0.470	1.176	1.169	1.008	3.540
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	79.107%	2054.000	511.900	508.100	1962.000	2047.000	90.584%	92.103%
2	11:36:28	79.233%	2108.000	525.800	516.000	2017.000	2105.000	92.223%	92.881%
3	11:36:55	78.907%	2131.000	527.500	525.900	2040.000	2131.000	92.232%	93.035%
x		79.082%	2098.000	521.700	516.700	2006.000	2094.000	91.680%	92.673%
σ		0.164%	39.160	8.539	8.950	40.450	43.110	0.949%	0.499%
%RSD		0.208	1.867	1.637	1.732	2.016	2.059	1.035	0.539
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:36:01	48.520	47.910	21.050	21.370	20.810	80.321%		
2	11:36:28	50.480	49.830	21.420	21.540	21.300	81.184%		
3	11:36:55	52.680	51.350	22.110	22.150	21.910	79.617%		
x		50.560	49.690	21.530	21.690	21.340	80.374%		
σ		2.081	1.723	0.541	0.412	0.552	0.785%		
%RSD		4.117	3.467	2.512	1.898	2.586	0.976		

180-41508-B-1-A PDS 3/3/2015 11:39:53 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	69.418%	40.830	986.000	1078.000	0.000	77100.000	65930.000	65480.000
2	11:40:46	69.294%	42.110	1012.000	1100.000	0.000	78050.000	68280.000	68190.000
3	11:41:12	67.068%	42.750	1012.000	1105.000	0.000	79650.000	69240.000	69430.000
x		68.593%	41.900	1003.000	1094.000	0.000	78270.000	67810.000	67700.000
σ		1.323%	0.979	14.860	14.150	0.000	1288.000	1703.000	2020.000
%RSD		1.928	2.336	1.482	1.293	0.000	1.646	2.512	2.984
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	1975.000	15960.000	0.000	54500.000	168600.000	168600.000	66.644%	1070.000
2	11:40:46	2036.000	16330.000	0.000	54820.000	172600.000	174300.000	66.483%	1105.000
3	11:41:12	2068.000	16580.000	0.000	55120.000	174000.000	175400.000	66.170%	1113.000
x		2026.000	16290.000	0.000	54810.000	171700.000	172800.000	66.433%	1096.000
σ		47.280	311.900	0.000	311.300	2804.000	3641.000	0.241%	22.540
%RSD		2.333	1.914	0.000	0.568	1.632	2.107	0.362	2.056
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	497.800	194.300	520.800	1144.000	1397.000	496.000	478.600	235.300
2	11:40:46	516.000	202.700	542.000	1191.000	1461.000	515.800	503.900	242.300
3	11:41:12	521.600	206.700	545.800	1202.000	1455.000	519.800	501.000	242.800
x		511.800	201.200	536.200	1179.000	1438.000	510.500	494.500	240.100
σ		12.430	6.329	13.510	30.820	35.570	12.730	13.840	4.193
%RSD		2.429	3.145	2.519	2.614	2.474	2.494	2.799	1.746
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	242.300	491.200	492.400	35.380	9.080	11.380	0.000	1235.000
2	11:40:46	252.300	511.700	514.100	38.390	8.839	11.140	0.000	1291.000
3	11:41:12	253.100	513.500	521.900	37.290	11.770	12.990	0.000	1296.000
x		249.200	505.500	509.400	37.020	9.895	11.840	0.000	1274.000
σ		6.017	12.400	15.300	1.522	1.624	1.003	0.000	33.880
%RSD		2.414	2.453	3.003	4.111	16.420	8.476	0.000	2.659
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	77.643%	1065.000	1080.000	79.710%	43.760	43.980	49.220	39.570
2	11:40:46	76.904%	1117.000	1137.000	79.520%	45.230	45.320	51.030	41.230
3	11:41:12	76.515%	1128.000	1154.000	79.206%	44.650	45.610	50.090	40.820
x		77.021%	1103.000	1124.000	79.478%	44.550	44.970	50.120	40.540
σ		0.573%	33.610	38.910	0.255%	0.740	0.871	0.903	0.864
%RSD		0.744	3.046	3.462	0.320	1.661	1.937	1.802	2.131
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	76.977%	2207.000	551.700	547.600	2025.000	2103.000	89.201%	91.073%
2	11:40:46	77.581%	2249.000	566.300	556.700	2077.000	2164.000	90.828%	91.731%
3	11:41:12	77.345%	2269.000	570.600	559.500	2086.000	2184.000	89.711%	90.973%
x		77.301%	2242.000	562.900	554.600	2063.000	2150.000	89.914%	91.259%
σ		0.304%	31.790	9.891	6.243	33.140	42.480	0.832%	0.411%
%RSD		0.393	1.418	1.757	1.126	1.607	1.976	0.925	0.451
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:40:19	52.080	51.310	21.130	21.220	20.980	79.377%		
2	11:40:46	53.010	52.440	21.910	21.820	21.550	80.184%		
3	11:41:12	52.900	52.290	21.870	21.900	21.560	80.020%		
x		52.660	52.010	21.640	21.640	21.370	79.861%		
σ		0.509	0.616	0.442	0.372	0.331	0.427%		
%RSD		0.967	1.185	2.043	1.717	1.551	0.534		

180-41508-B-3-A 3/3/2015 11:44:10 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	75.147%	0.020	41.890	41.740	0.000	33220.000	12900.000	12830.000
2	11:45:04	71.814%	-0.042	38.460	41.010	0.000	33470.000	13460.000	13530.000
3	11:45:31	72.102%	0.007	39.700	42.030	0.000	33730.000	13600.000	13550.000
x		73.021%	-0.005	40.020	41.600	0.000	33470.000	13320.000	13300.000
σ		1.847%	0.033	1.734	0.526	0.000	252.800	369.600	412.100
%RSD		2.529	607.100	4.334	1.264	0.000	0.755	2.775	3.097

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	42.320	4830.000	0.000	3357.000	108600.000	108800.000	72.477%	1.589
2	11:45:04	44.290	4961.000	0.000	3403.000	109500.000	111200.000	71.276%	4.928
3	11:45:31	43.460	4990.000	0.000	3431.000	112200.000	112800.000	71.052%	1.513
x		43.360	4927.000	0.000	3397.000	110100.000	110900.000	71.602%	2.676
σ		0.993	85.430	0.000	37.160	1873.000	1991.000	0.766%	1.950
%RSD		2.291	1.734	0.000	1.094	1.701	1.795	1.070	72.860

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	-0.291	3.129	5.704	266.400	502.300	0.281	-0.004	1.162
2	11:45:04	0.717	3.296	5.962	275.300	521.800	0.282	0.030	1.124
3	11:45:31	0.624	3.274	5.871	276.900	504.100	0.324	-0.060	1.191
x		0.350	3.233	5.846	272.900	509.400	0.296	-0.011	1.159
σ		0.557	0.091	0.131	5.697	10.790	0.024	0.045	0.034
%RSD		159.100	2.809	2.237	2.088	2.119	8.213	404.300	2.912

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	1.160	2.185	2.358	0.605	0.111	0.879	0.000	214.800
2	11:45:04	1.158	2.574	2.400	0.734	0.009	1.675	0.000	220.800
3	11:45:31	1.111	2.333	2.027	0.282	-0.718	1.462	0.000	222.000
x		1.143	2.364	2.262	0.540	-0.200	1.338	0.000	219.200
σ		0.028	0.197	0.205	0.233	0.452	0.412	0.000	3.899
%RSD		2.420	8.314	9.044	43.130	226.600	30.800	0.000	1.779

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	76.251%	7.148	7.681	77.219%	-0.053	-0.075	-0.006	-0.023
2	11:45:04	76.713%	5.939	5.704	77.870%	-0.050	-0.081	-0.047	-0.040
3	11:45:31	77.425%	4.588	4.511	78.470%	-0.049	-0.068	-0.027	-0.028
x		76.797%	5.892	5.965	77.853%	-0.051	-0.074	-0.026	-0.030
σ		0.591%	1.281	1.601	0.626%	0.002	0.007	0.021	0.009
%RSD		0.770	21.740	26.840	0.804	4.110	8.736	77.810	29.870

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	77.999%	4.509	1.709	1.720	38.090	39.080	89.151%	89.499%
2	11:45:04	80.124%	3.226	0.959	1.049	39.400	39.170	90.556%	91.755%
3	11:45:31	79.387%	2.423	0.714	0.791	39.620	40.110	90.093%	91.512%
x		79.170%	3.386	1.127	1.187	39.040	39.450	89.934%	90.922%
σ		1.079%	1.052	0.518	0.480	0.831	0.573	0.716%	1.238%
%RSD		1.363	31.080	45.970	40.420	2.128	1.451	0.796	1.362

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	0.063	0.071	0.213	0.209	0.201	78.573%
2	11:45:04	0.046	0.050	0.197	0.167	0.188	82.897%
3	11:45:31	0.044	0.043	0.213	0.210	0.195	81.159%
x		0.051	0.055	0.208	0.195	0.194	80.876%
σ		0.010	0.015	0.009	0.025	0.006	2.176%
%RSD		20.480	26.500	4.403	12.570	3.188	2.690

180-41508-B-4-A 3/3/2015 11:48:25 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	76.576%	-0.012	33.100	33.240	0.000	25120.000	13730.000	13670.000
2	11:49:18	73.814%	0.005	29.660	33.740	0.000	26010.000	14250.000	14400.000
3	11:49:44	73.102%	-0.027	29.820	35.570	0.000	26130.000	14610.000	14660.000
x		74.497%	-0.011	30.860	34.190	0.000	25750.000	14200.000	14240.000
σ		1.835%	0.016	1.939	1.228	0.000	547.300	441.200	508.800
%RSD		2.463	140.100	6.283	3.593	0.000	2.125	3.108	3.572
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	25.680	5658.000	0.000	3249.000	93920.000	94800.000	72.118%	0.773
2	11:49:18	26.890	5829.000	0.000	3299.000	97440.000	98550.000	71.799%	0.799
3	11:49:44	25.860	5881.000	0.000	3302.000	98180.000	99550.000	71.646%	0.823
x		26.140	5789.000	0.000	3283.000	96510.000	97630.000	71.855%	0.798
σ		0.654	116.600	0.000	29.930	2274.000	2505.000	0.241%	0.025
%RSD		2.500	2.013	0.000	0.912	2.356	2.566	0.335	3.101
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	-0.544	3.666	6.498	58.910	282.000	0.215	-0.302	0.779
2	11:49:18	0.212	3.698	6.839	61.140	279.800	0.211	-0.378	0.917
3	11:49:44	0.377	3.822	6.776	61.980	278.900	0.210	-0.404	0.918
x		0.015	3.729	6.704	60.680	280.200	0.212	-0.361	0.871
σ		0.491	0.083	0.182	1.589	1.602	0.003	0.053	0.080
%RSD		3307.000	2.220	2.707	2.619	0.572	1.284	14.750	9.215
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	0.891	8.765	8.741	1.233	-0.279	0.607	0.000	184.000
2	11:49:18	0.782	8.913	8.523	0.821	-1.514	1.580	0.000	190.900
3	11:49:44	0.796	8.902	8.781	1.700	-0.143	1.144	0.000	191.000
x		0.823	8.860	8.682	1.251	-0.645	1.110	0.000	188.700
σ		0.059	0.082	0.139	0.440	0.755	0.487	0.000	4.014
%RSD		7.194	0.928	1.599	35.170	117.000	43.900	0.000	2.128
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	76.990%	2.790	2.594	80.878%	-0.060	-0.075	-0.036	-0.020
2	11:49:18	77.437%	2.803	2.814	79.132%	-0.061	-0.085	-0.004	0.003
3	11:49:44	77.948%	2.725	2.779	79.697%	-0.073	-0.075	-0.057	-0.043
x		77.458%	2.773	2.729	79.903%	-0.065	-0.079	-0.032	-0.020
σ		0.480%	0.042	0.118	0.891%	0.007	0.006	0.027	0.023
%RSD		0.619	1.502	4.328	1.115	10.770	7.415	81.760	117.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	79.594%	0.537	0.231	0.246	37.750	37.820	89.621%	91.291%
2	11:49:18	79.891%	0.583	0.211	0.217	38.480	39.060	90.633%	91.959%
3	11:49:44	81.628%	0.520	0.155	0.180	38.190	38.620	92.283%	93.020%
x		80.371%	0.547	0.199	0.214	38.140	38.500	90.846%	92.090%
σ		1.099%	0.032	0.039	0.033	0.367	0.627	1.344%	0.872%
%RSD		1.367	5.889	19.740	15.550	0.963	1.628	1.479	0.947
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:48:51	0.022	0.024	0.056	0.045	0.048	81.905%		
2	11:49:18	0.020	0.022	0.049	0.045	0.042	83.084%		
3	11:49:44	0.016	0.023	0.070	0.051	0.059	84.772%		
x		0.020	0.023	0.059	0.047	0.050	83.254%		
σ		0.003	0.001	0.011	0.004	0.009	1.441%		
%RSD		14.580	4.300	18.250	7.936	17.660	1.731		

180-41508-B-5-A 3/3/2015 11:52:40 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	76.455%	-0.059	27.210	29.640	0.000	18170.000	14090.000	14030.000
2	11:53:33	75.438%	-0.028	24.830	29.490	0.000	18500.000	14680.000	14630.000
3	11:54:00	74.710%	-0.012	25.040	29.220	0.000	18470.000	15000.000	14920.000
x		75.534%	-0.033	25.690	29.450	0.000	18380.000	14590.000	14530.000
σ		0.877%	0.024	1.317	0.210	0.000	182.200	459.300	453.300
%RSD		1.161	73.640	5.125	0.714	0.000	0.992	3.148	3.120

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	3.232	5643.000	0.000	2554.000	83860.000	84820.000	74.376%	0.490
2	11:53:33	3.228	5785.000	0.000	2586.000	87810.000	88600.000	74.059%	0.387
3	11:54:00	3.096	5853.000	0.000	2592.000	88150.000	88730.000	74.351%	0.385
x		3.186	5760.000	0.000	2577.000	86610.000	87380.000	74.262%	0.421
σ		0.077	107.500	0.000	20.170	2381.000	2222.000	0.176%	0.060
%RSD		2.425	1.866	0.000	0.782	2.750	2.543	0.237	14.290

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	0.067	1.763	3.152	21.720	210.400	0.196	-0.449	0.904
2	11:53:33	0.146	1.846	3.174	23.210	221.000	0.167	-0.417	0.967
3	11:54:00	0.281	1.855	3.353	23.310	212.600	0.176	-0.430	0.945
x		0.165	1.821	3.226	22.750	214.700	0.180	-0.432	0.939
σ		0.108	0.051	0.111	0.888	5.602	0.014	0.016	0.032
%RSD		65.580	2.798	3.428	3.904	2.610	8.068	3.734	3.395

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	1.071	2.812	3.078	1.085	-1.032	1.163	0.000	188.000
2	11:53:33	1.086	3.213	3.029	0.659	-0.501	1.924	0.000	191.700
3	11:54:00	1.000	2.965	3.111	0.268	-0.533	2.135	0.000	195.200
x		1.052	2.997	3.073	0.670	-0.689	1.741	0.000	191.600
σ		0.046	0.202	0.041	0.409	0.298	0.511	0.000	3.608
%RSD		4.383	6.755	1.343	60.930	43.260	29.380	0.000	1.882

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	78.480%	1.413	1.360	80.931%	-0.065	-0.090	0.013	0.023
2	11:53:33	79.769%	1.294	1.415	81.729%	-0.070	-0.083	-0.027	-0.025
3	11:54:00	79.646%	1.234	1.396	82.309%	-0.068	-0.095	-0.010	0.016
x		79.298%	1.314	1.391	81.656%	-0.067	-0.090	-0.008	0.005
σ		0.712%	0.091	0.028	0.692%	0.002	0.006	0.020	0.026
%RSD		0.897	6.939	2.000	0.847	3.507	7.076	246.700	568.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	81.427%	0.152	0.451	0.524	24.740	25.270	91.437%	92.082%
2	11:53:33	82.688%	0.229	0.476	0.434	26.320	26.020	93.338%	93.520%
3	11:54:00	84.133%	0.150	0.430	0.434	26.050	25.900	93.762%	94.707%
x		82.749%	0.177	0.452	0.464	25.700	25.730	92.846%	93.437%
σ		1.354%	0.045	0.023	0.052	0.843	0.401	1.239%	1.314%
%RSD		1.636	25.380	5.108	11.260	3.280	1.559	1.334	1.407

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	0.015	0.014	0.040	0.029	0.038	83.116%
2	11:53:33	0.028	0.017	0.038	0.032	0.039	85.200%
3	11:54:00	0.017	0.019	0.041	0.044	0.038	87.522%
x		0.020	0.016	0.040	0.035	0.038	85.279%
σ		0.007	0.002	0.002	0.008	0.000	2.204%
%RSD		33.120	13.510	4.192	23.690	1.040	2.584

180-41508-B-6-A 3/3/2015 11:56:55 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	77.030%	-0.028	46.790	50.380	0.000	53300.000	19830.000	19920.000
2	11:57:48	76.952%	-0.028	48.420	50.740	0.000	54940.000	20990.000	21010.000
3	11:58:14	74.652%	-0.027	46.790	51.890	0.000	54720.000	21230.000	21320.000
x		76.211%	-0.028	47.330	51.000	0.000	54320.000	20680.000	20750.000
σ		1.351%	0.001	0.939	0.785	0.000	891.800	748.700	733.200
%RSD		1.773	1.861	1.983	1.540	0.000	1.642	3.620	3.533

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	51.100	4639.000	0.000	5000.000	86440.000	88780.000	76.701%	1.162
2	11:57:48	54.000	4778.000	0.000	5118.000	91660.000	93420.000	75.419%	0.894
3	11:58:14	53.290	4855.000	0.000	5118.000	92200.000	93290.000	75.613%	1.180
x		52.800	4757.000	0.000	5079.000	90100.000	91830.000	75.911%	1.079
σ		1.512	109.900	0.000	68.120	3182.000	2640.000	0.691%	0.160
%RSD		2.863	2.311	0.000	1.341	3.531	2.875	0.910	14.850

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	-0.665	5.792	9.924	256.100	445.500	0.591	0.295	3.636
2	11:57:48	0.745	5.994	10.200	267.200	466.600	0.534	0.255	3.661
3	11:58:14	0.100	5.784	10.540	272.500	444.800	0.573	0.153	3.709
x		0.060	5.856	10.220	265.300	452.300	0.566	0.235	3.669
σ		0.706	0.119	0.307	8.390	12.410	0.029	0.073	0.037
%RSD		1174.000	2.032	3.004	3.163	2.744	5.152	31.200	1.009

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	3.731	6.372	6.667	0.552	0.441	1.422	0.000	205.600
2	11:57:48	3.765	6.820	6.358	0.639	-0.063	1.945	0.000	209.600
3	11:58:14	3.520	6.622	6.206	0.897	0.621	2.301	0.000	211.600
x		3.672	6.605	6.410	0.696	0.333	1.889	0.000	208.900
σ		0.133	0.224	0.235	0.180	0.355	0.442	0.000	3.070
%RSD		3.609	3.397	3.664	25.800	106.500	23.410	0.000	1.470

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	79.898%	8.897	8.799	80.536%	0.273	0.290	0.046	0.026
2	11:57:48	81.023%	9.289	9.429	80.777%	0.289	0.243	-0.130	-0.071
3	11:58:14	81.540%	9.258	9.342	81.360%	0.278	0.201	0.021	0.025
x		80.820%	9.148	9.190	80.891%	0.280	0.244	-0.021	-0.007
σ		0.839%	0.218	0.341	0.424%	0.008	0.044	0.095	0.056
%RSD		1.038	2.384	3.710	0.524	3.012	18.170	455.700	825.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	83.806%	0.050	0.109	0.107	37.990	39.030	92.244%	92.735%
2	11:57:48	83.425%	0.108	0.102	0.155	39.600	40.220	94.342%	94.123%
3	11:58:14	84.562%	0.077	0.079	0.126	40.740	40.290	93.356%	94.566%
x		83.931%	0.078	0.097	0.129	39.440	39.850	93.314%	93.808%
σ		0.579%	0.029	0.016	0.024	1.383	0.710	1.050%	0.955%
%RSD		0.690	37.520	16.400	18.450	3.506	1.782	1.125	1.019

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	0.020	0.015	0.171	0.134	0.143	84.127%
2	11:57:48	0.016	0.020	0.154	0.123	0.139	82.990%
3	11:58:14	0.021	0.012	0.160	0.130	0.136	84.561%
x		0.019	0.016	0.161	0.129	0.139	83.893%
σ		0.003	0.004	0.008	0.005	0.004	0.812%
%RSD		14.620	23.610	5.234	4.207	2.571	0.967

CCV 1487954 3/3/2015 12:01:13 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	12:01:39	90.182%	96.930	101.000	104.500	0.000	49030.000	48860.000	48830.000
2	12:02:05	87.905%	100.900	104.400	111.100	0.000	51870.000	52690.000	52560.000
3	12:02:31	87.580%	98.520	111.400	108.600	0.000	51410.000	52570.000	52690.000
x		88.556%	98.766%	105.635%	108.096%	0.000	101.540%	102.746%	102.718%
σ		1.418%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.601	1.996	5.008	3.067	0.000	3.000	4.244	4.272

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	469.400	5053.000	0.000	48680.000	46920.000	47700.000	93.997%	95.900
2	12:02:05	505.700	5369.000	0.000	52390.000	51060.000	52150.000	86.917%	103.500
3	12:02:31	509.500	5356.000	0.000	52210.000	51150.000	52000.000	88.580%	106.500
x		98.977%	105.194%	0.000	102.186%	99.418%	101.233%	89.831%	101.972%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.702%	n/a
%RSD		4.471	3.400	0.000	4.092	4.856	4.997	4.121	5.371

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	90.480	90.770	484.200	23390.000	24180.000	93.700	93.150	95.480
2	12:02:05	98.890	99.330	520.300	25330.000	26010.000	100.700	101.600	100.200
3	12:02:31	98.330	99.310	519.900	25330.000	26040.000	99.160	100.300	99.570
x		95.899%	96.471%	101.625%	98.728%	101.632%	97.840%	98.358%	98.432%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.904	5.115	4.086	4.520	4.198	3.740	4.639	2.616

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	95.990	97.500	97.460	97.490	98.390	99.300	0.000	97.410
2	12:02:05	100.600	102.900	102.500	99.810	99.750	103.600	0.000	99.010
3	12:02:31	102.000	100.300	104.400	100.100	99.340	103.100	0.000	100.200
x		99.514%	100.263%	101.477%	99.146%	99.162%	102.003%	0.000	98.862%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.149	2.712	3.551	1.452	0.702	2.311	0.000	1.397

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	88.188%	95.210	97.210	85.890%	96.380	96.800	96.510	95.240
2	12:02:05	88.505%	102.600	101.100	86.455%	98.140	97.900	100.500	98.650
3	12:02:31	88.451%	103.800	104.000	86.701%	97.820	97.970	99.330	98.780
x		88.382%	100.519%	100.766%	86.349%	97.446%	97.556%	98.765%	97.555%
σ		0.170%	n/a	n/a	0.416%	n/a	n/a	n/a	n/a
%RSD		0.192	4.612	3.378	0.481	0.959	0.673	2.056	2.060

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	87.570%	97.330	98.230	98.630	96.830	97.660	91.662%	91.910%
2	12:02:05	86.149%	101.900	100.600	101.900	99.080	101.200	91.718%	92.033%
3	12:02:31	87.102%	101.400	101.700	101.600	100.400	99.550	91.980%	92.156%
x		86.940%	100.189%	100.152%	100.701%	98.753%	99.458%	91.787%	92.033%
σ		0.724%	n/a	n/a	n/a	n/a	n/a	0.169%	0.123%
%RSD		0.833	2.483	1.753	1.791	1.806	1.764	0.185	0.134

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	102.000	101.300	101.100	102.600	101.200	84.242%
2	12:02:05	103.900	103.300	104.600	105.200	104.100	83.359%
3	12:02:31	103.800	103.000	104.900	105.900	104.900	83.794%
x		103.244%	102.525%	103.535%	104.537%	103.438%	83.798%
σ		n/a	n/a	n/a	n/a	n/a	0.441%
%RSD		1.015	1.025	2.050	1.676	1.885	0.527

CCB4 3/3/2015 12:08:41 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	12:09:08	97.544%	0.002	2.158	2.923	0.000	-0.557	2.341	2.033
2	12:09:35	96.804%	0.002	2.776	2.766	0.000	-0.904	2.136	1.964
3	12:10:01	97.126%	0.038	1.915	2.693	0.000	-0.563	1.889	2.363
x		97.158%	0.014	2.283	2.794	0.000	-0.674	2.122	2.120
σ		0.371%	0.021	0.444	0.118	0.000	0.199	0.227	0.214
%RSD		0.382	150.400	19.450	4.210	0.000	29.450	10.670	10.070
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	-0.417	2.043	0.000	-5.370	13.190	3.106	95.504%	-0.147
2	12:09:35	-0.564	-1.182	0.000	-4.383	8.667	4.828	94.566%	-0.046
3	12:10:01	-0.446	-0.944	0.000	-4.980	13.210	4.357	95.375%	-0.130
x		-0.476	-0.028	0.000	-4.911	11.690	4.097	95.148%	-0.108
σ		0.078	1.797	0.000	0.497	2.618	0.890	0.508%	0.054
%RSD		16.390	6499.000	0.000	10.130	22.390	21.730	0.534	49.940
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	0.011	0.014	0.053	4.622	3.465	0.004	0.024	0.038
2	12:09:35	-0.040	0.011	0.049	3.659	2.340	-0.001	0.049	-0.031
3	12:10:01	0.004	-0.021	0.050	2.632	1.124	-0.004	0.013	-0.003
x		-0.008	0.001	0.051	3.638	2.310	-0.000	0.029	0.001
σ		0.027	0.019	0.002	0.995	1.171	0.004	0.019	0.035
%RSD		331.000	1453.000	4.471	27.350	50.700	1411.000	65.140	2480.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	0.018	0.075	0.099	0.298	-0.313	1.656	0.000	0.008
2	12:09:35	0.010	0.144	0.056	0.273	0.725	1.380	0.000	0.009
3	12:10:01	0.060	-0.008	0.179	0.096	0.771	0.968	0.000	0.018
x		0.030	0.070	0.111	0.222	0.394	1.335	0.000	0.012
σ		0.027	0.076	0.063	0.110	0.613	0.346	0.000	0.005
%RSD		91.530	108.400	56.370	49.620	155.500	25.950	0.000	44.860
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	91.600%	0.209	0.262	93.281%	-0.058	-0.069	-0.058	-0.034
2	12:09:35	92.666%	0.265	0.188	93.617%	-0.043	-0.070	0.007	0.003
3	12:10:01	92.855%	0.175	0.196	94.552%	-0.047	-0.074	0.012	0.021
x		92.373%	0.217	0.215	93.816%	-0.049	-0.071	-0.013	-0.003
σ		0.677%	0.046	0.041	0.658%	0.008	0.003	0.039	0.028
%RSD		0.733	21.120	18.880	0.702	15.590	4.070	306.400	837.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	91.577%	-0.315	0.014	0.014	0.026	0.016	91.859%	92.505%
2	12:09:35	90.958%	-0.327	0.014	0.023	-0.010	-0.002	93.526%	93.423%
3	12:10:01	92.297%	-0.314	0.009	-0.003	0.017	-0.005	93.561%	94.451%
x		91.611%	-0.319	0.012	0.011	0.011	0.003	92.982%	93.460%
σ		0.670%	0.007	0.003	0.013	0.019	0.011	0.973%	0.973%
%RSD		0.731	2.275	25.540	115.000	165.400	355.600	1.046	1.041
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:09:08	0.017	0.009	0.009	0.003	0.008	93.187%		
2	12:09:35	0.004	0.012	0.020	0.003	0.006	92.265%		
3	12:10:01	0.007	0.006	0.001	0.001	0.000	92.403%		
x		0.009	0.009	0.010	0.002	0.005	92.618%		
σ		0.007	0.003	0.010	0.001	0.004	0.497%		
%RSD		72.780	29.680	98.040	47.120	83.560	0.537		

180-41508-B-7-A 3/3/2015 12:13:02 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	12:13:28	76.347%	-0.059	49.860	51.560	0.000	59720.000	20730.000	20890.000
2	12:13:55	76.325%	-0.012	45.870	52.690	0.000	59630.000	21460.000	21430.000
3	12:14:21	73.534%	-0.011	50.770	55.190	0.000	60950.000	21870.000	21970.000
x		75.402%	-0.027	48.830	53.140	0.000	60100.000	21350.000	21430.000
σ		1.618%	0.027	2.607	1.858	0.000	738.700	578.200	543.000
%RSD		2.146	99.760	5.339	3.496	0.000	1.229	2.708	2.534
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	2.233	4812.000	0.000	5568.000	90210.000	91430.000	75.186%	0.482
2	12:13:55	2.225	4875.000	0.000	5642.000	93120.000	95240.000	73.730%	0.199
3	12:14:21	2.408	4966.000	0.000	5704.000	93590.000	95770.000	72.626%	0.227
x		2.288	4884.000	0.000	5638.000	92310.000	94150.000	73.848%	0.302
σ		0.103	77.810	0.000	68.360	1832.000	2371.000	1.284%	0.156
%RSD		4.513	1.593	0.000	1.212	1.984	2.518	1.739	51.510
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	-0.054	6.348	0.650	51.930	282.700	0.121	-0.401	1.365
2	12:13:55	0.002	6.500	0.642	51.870	271.400	0.135	-0.482	1.336
3	12:14:21	0.642	6.713	0.664	53.210	272.400	0.145	-0.419	1.218
x		0.197	6.520	0.652	52.330	275.500	0.134	-0.434	1.306
σ		0.387	0.184	0.011	0.755	6.242	0.012	0.043	0.078
%RSD		196.300	2.818	1.724	1.442	2.266	8.900	9.799	5.967
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	1.080	2.151	2.591	0.161	0.740	0.697	0.000	196.700
2	12:13:55	1.028	2.476	2.306	0.100	0.132	2.218	0.000	200.500
3	12:14:21	1.074	2.290	2.482	0.574	0.424	2.655	0.000	202.600
x		1.061	2.306	2.460	0.278	0.432	1.857	0.000	199.900
σ		0.029	0.163	0.144	0.258	0.304	1.028	0.000	3.023
%RSD		2.711	7.080	5.845	92.650	70.470	55.350	0.000	1.512
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	81.441%	10.690	10.400	82.237%	-0.058	-0.076	-0.040	-0.025
2	12:13:55	82.830%	10.240	10.600	82.188%	-0.054	-0.076	10.220	6.754
3	12:14:21	81.309%	10.540	10.950	82.516%	-0.049	-0.077	10.960	7.295
x		81.860%	10.490	10.650	82.314%	-0.054	-0.077	7.047	4.675
σ		0.843%	0.226	0.277	0.177%	0.004	0.001	6.149	4.079
%RSD		1.030	2.158	2.597	0.215	8.265	0.830	87.250	87.250
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	82.952%	0.106	0.184	0.204	39.570	39.780	91.654%	92.250%
2	12:13:55	83.485%	0.062	0.153	0.206	41.400	40.500	93.075%	93.566%
3	12:14:21	82.788%	0.155	0.131	0.167	40.740	41.240	92.730%	93.787%
x		83.075%	0.108	0.156	0.192	40.570	40.510	92.486%	93.201%
σ		0.365%	0.046	0.027	0.022	0.927	0.734	0.741%	0.831%
%RSD		0.439	42.930	17.220	11.380	2.284	1.812	0.802	0.892
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:13:28	0.037	0.033	0.016	0.005	0.012	81.972%		
2	12:13:55	0.029	0.029	0.028	0.014	0.015	83.040%		
3	12:14:21	0.032	0.027	0.013	0.005	0.008	83.096%		
x		0.033	0.030	0.019	0.008	0.012	82.702%		
σ		0.004	0.003	0.008	0.005	0.004	0.633%		
%RSD		12.450	10.440	41.690	66.340	32.440	0.766		

180-41508-B-8-A 3/3/2015 12:17:19 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	12:17:46	74.509%	-0.011	43.960	49.480	0.000	47660.000	21440.000	21590.000
2	12:18:12	73.600%	-0.011	49.020	51.120	0.000	48440.000	22360.000	22490.000
3	12:18:39	72.918%	0.006	45.800	50.580	0.000	48280.000	22450.000	22800.000
x		73.676%	-0.005	46.260	50.390	0.000	48130.000	22080.000	22290.000
σ		0.798%	0.010	2.558	0.835	0.000	413.700	555.700	626.100
%RSD		1.084	181.900	5.530	1.657	0.000	0.860	2.516	2.808

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	1.394	5625.000	0.000	4214.000	90590.000	92560.000	72.752%	0.441
2	12:18:12	1.449	5759.000	0.000	4275.000	94640.000	96530.000	71.555%	0.386
3	12:18:39	1.473	5781.000	0.000	4322.000	96880.000	97230.000	70.244%	0.464
x		1.439	5722.000	0.000	4270.000	94030.000	95440.000	71.517%	0.430
σ		0.040	84.640	0.000	54.310	3188.000	2516.000	1.254%	0.040
%RSD		2.811	1.479	0.000	1.272	3.390	2.636	1.754	9.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	-0.120	1.793	38.390	3.042	219.300	0.151	-0.314	1.032
2	12:18:12	0.526	1.980	40.320	3.035	221.000	0.153	-0.367	1.074
3	12:18:39	0.275	1.987	40.650	3.300	218.700	0.183	-0.345	1.065
x		0.227	1.920	39.790	3.126	219.700	0.162	-0.342	1.057
σ		0.326	0.110	1.217	0.151	1.191	0.018	0.027	0.022
%RSD		143.600	5.732	3.059	4.827	0.542	10.980	7.850	2.104

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	0.952	1.433	1.744	0.371	-0.400	1.599	0.000	201.000
2	12:18:12	0.938	1.609	1.352	0.259	0.425	1.168	0.000	206.200
3	12:18:39	0.861	1.415	1.584	0.396	0.617	1.620	0.000	206.800
x		0.917	1.486	1.560	0.342	0.214	1.462	0.000	204.700
σ		0.049	0.107	0.197	0.073	0.540	0.255	0.000	3.204
%RSD		5.371	7.214	12.650	21.320	252.200	17.450	0.000	1.566

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	81.066%	2.148	2.164	81.741%	-0.059	-0.084	-0.007	-0.005
2	12:18:12	81.754%	2.145	2.262	82.614%	-0.052	-0.085	7.764	5.141
3	12:18:39	81.224%	2.074	2.286	82.188%	-0.062	-0.084	8.255	5.484
x		81.348%	2.122	2.237	82.181%	-0.058	-0.084	5.337	3.540
σ		0.361%	0.042	0.065	0.437%	0.005	0.001	4.635	3.075
%RSD		0.443	1.979	2.894	0.532	8.626	0.877	86.840	86.860

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	82.497%	-0.139	0.075	0.097	39.190	39.710	92.183%	92.806%
2	12:18:12	83.434%	-0.145	0.125	0.101	39.710	39.880	93.018%	94.257%
3	12:18:39	83.710%	-0.111	0.080	0.115	39.430	40.650	93.010%	93.528%
x		83.214%	-0.132	0.093	0.105	39.440	40.080	92.737%	93.530%
σ		0.636%	0.018	0.028	0.009	0.262	0.498	0.480%	0.725%
%RSD		0.764	13.590	29.770	8.574	0.664	1.244	0.518	0.776

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	0.023	0.015	0.019	0.013	0.018	83.185%
2	12:18:12	0.026	0.014	0.028	0.012	0.020	83.517%
3	12:18:39	0.022	0.020	0.019	0.030	0.018	84.215%
x		0.024	0.016	0.022	0.018	0.019	83.639%
σ		0.002	0.003	0.005	0.010	0.001	0.526%
%RSD		7.373	18.950	23.510	55.580	5.353	0.629

180-41508-B-9-A 3/3/2015 12:21:37 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	12:22:03	72.963%	-0.027	44.040	48.160	0.000	51130.000	21650.000	21720.000
2	12:22:30	72.963%	0.022	44.740	50.290	0.000	51180.000	22240.000	22440.000
3	12:22:57	72.052%	0.007	49.260	48.110	0.000	51610.000	22690.000	22690.000
x		72.659%	0.001	46.010	48.850	0.000	51310.000	22190.000	22280.000
σ		0.526%	0.025	2.834	1.245	0.000	262.100	522.400	503.200
%RSD		0.724	3485.000	6.158	2.548	0.000	0.511	2.354	2.258

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	1.622	5379.000	0.000	4694.000	92550.000	93780.000	72.483%	0.314
2	12:22:30	1.632	5541.000	0.000	4747.000	97000.000	98550.000	70.427%	0.330
3	12:22:57	1.926	5572.000	0.000	4770.000	97480.000	98890.000	70.380%	0.463
x		1.726	5497.000	0.000	4737.000	95670.000	97070.000	71.097%	0.369
σ		0.173	103.700	0.000	38.790	2718.000	2858.000	1.201%	0.082
%RSD		9.994	1.886	0.000	0.819	2.840	2.944	1.689	22.180

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	0.652	5.141	1.980	3.595	217.800	0.140	-0.449	0.965
2	12:22:30	-0.119	5.223	2.097	3.975	217.800	0.129	-0.342	0.998
3	12:22:57	0.121	5.482	2.171	3.926	221.500	0.121	-0.556	1.022
x		0.218	5.282	2.083	3.832	219.100	0.130	-0.449	0.995
σ		0.395	0.178	0.096	0.207	2.142	0.009	0.107	0.029
%RSD		181.100	3.372	4.611	5.394	0.978	7.188	23.810	2.902

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	1.008	1.230	1.277	0.690	0.030	2.006	0.000	202.500
2	12:22:30	0.836	1.261	0.979	-0.352	-0.031	1.702	0.000	208.100
3	12:22:57	0.974	1.285	1.016	0.647	0.330	2.828	0.000	211.400
x		0.939	1.259	1.091	0.328	0.110	2.179	0.000	207.300
σ		0.091	0.027	0.163	0.589	0.194	0.582	0.000	4.495
%RSD		9.689	2.170	14.920	179.500	176.700	26.730	0.000	2.168

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	81.063%	4.334	4.359	81.979%	-0.062	-0.091	-0.017	0.004
2	12:22:30	81.506%	4.315	4.486	82.497%	-0.067	-0.093	0.024	0.011
3	12:22:57	81.085%	4.286	4.530	82.346%	-0.062	-0.086	-0.007	-0.015
x		81.218%	4.312	4.458	82.274%	-0.064	-0.090	-0.000	0.000
σ		0.249%	0.024	0.088	0.266%	0.003	0.003	0.021	0.013
%RSD		0.307	0.558	1.981	0.324	4.054	3.728	8244.000	6381.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	83.009%	-0.184	0.034	0.066	42.120	41.920	92.240%	92.585%
2	12:22:30	83.604%	-0.212	0.052	0.063	42.370	42.590	93.652%	94.545%
3	12:22:57	84.304%	-0.127	0.032	0.063	42.500	43.240	93.840%	94.615%
x		83.639%	-0.174	0.039	0.064	42.330	42.580	93.244%	93.915%
σ		0.648%	0.043	0.011	0.002	0.193	0.659	0.875%	1.152%
%RSD		0.775	24.930	28.030	2.458	0.456	1.547	0.938	1.227

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	0.015	0.007	0.025	0.021	0.028	83.386%
2	12:22:30	0.005	0.010	0.027	0.025	0.016	84.614%
3	12:22:57	0.011	0.009	0.034	0.026	0.032	84.763%
x		0.010	0.009	0.029	0.024	0.025	84.254%
σ		0.005	0.001	0.005	0.003	0.008	0.756%
%RSD		48.560	14.720	16.120	13.090	32.370	0.897

180-41508-B-10-A 3/3/2015 12:25:54 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	12:26:21	72.654%	0.006	41.710	51.390	0.000	53150.000	21370.000	21580.000
2	12:26:48	73.768%	-0.027	43.650	48.610	0.000	52390.000	22280.000	22240.000
3	12:27:14	72.784%	0.006	47.930	50.880	0.000	53390.000	22600.000	22710.000
x		73.068%	-0.005	44.430	50.290	0.000	52980.000	22080.000	22180.000
σ		0.609%	0.019	3.186	1.481	0.000	519.700	641.900	563.800
%RSD		0.834	389.100	7.170	2.945	0.000	0.981	2.907	2.542

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	2.293	5341.000	0.000	4721.000	92850.000	94390.000	70.849%	0.261
2	12:26:48	2.416	5399.000	0.000	4772.000	97900.000	98440.000	70.096%	0.355
3	12:27:14	2.301	5426.000	0.000	4755.000	96970.000	99240.000	69.965%	0.445
x		2.337	5389.000	0.000	4749.000	95900.000	97360.000	70.303%	0.353
σ		0.069	43.250	0.000	26.020	2689.000	2602.000	0.477%	0.092
%RSD		2.956	0.802	0.000	0.548	2.804	2.672	0.678	26.040

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	1.159	4.383	26.820	9.092	215.000	0.524	0.009	1.042
2	12:26:48	0.018	4.554	27.850	8.337	219.500	0.595	-0.029	1.013
3	12:27:14	0.296	4.836	27.680	8.898	217.200	0.532	-0.107	1.061
x		0.491	4.591	27.450	8.776	217.200	0.551	-0.042	1.039
σ		0.595	0.229	0.551	0.392	2.294	0.039	0.059	0.024
%RSD		121.100	4.982	2.007	4.467	1.056	7.047	138.900	2.332

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	1.022	2.221	2.140	0.846	1.521	2.628	0.000	199.000
2	12:26:48	0.861	2.316	2.493	-0.745	-0.430	2.481	0.000	205.100
3	12:27:14	0.867	2.372	2.288	0.478	0.408	2.801	0.000	207.000
x		0.917	2.303	2.307	0.193	0.499	2.637	0.000	203.700
σ		0.091	0.076	0.177	0.833	0.979	0.160	0.000	4.185
%RSD		9.973	3.311	7.680	431.300	196.000	6.064	0.000	2.055

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	80.366%	4.507	4.691	81.294%	-0.057	-0.098	-0.061	-0.042
2	12:26:48	81.348%	4.848	4.867	81.431%	-0.056	-0.084	-0.013	-0.006
3	12:27:14	81.513%	4.815	4.722	81.691%	-0.060	-0.079	-0.122	-0.077
x		81.076%	4.723	4.760	81.472%	-0.058	-0.087	-0.065	-0.042
σ		0.620%	0.189	0.094	0.202%	0.002	0.010	0.054	0.036
%RSD		0.765	3.991	1.975	0.248	3.121	11.400	82.980	85.110

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	81.018%	-0.165	-0.017	0.033	40.260	40.440	92.035%	92.460%
2	12:26:48	82.448%	-0.158	0.006	0.003	42.250	41.610	93.170%	93.148%
3	12:27:14	83.032%	-0.159	0.010	0.021	41.790	42.930	93.425%	94.068%
x		82.166%	-0.161	-0.000	0.019	41.430	41.660	92.877%	93.225%
σ		1.036%	0.004	0.015	0.015	1.043	1.245	0.740%	0.807%
%RSD		1.261	2.190	5215.000	81.320	2.518	2.988	0.796	0.866

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	0.011	0.009	0.047	0.044	0.043	80.288%
2	12:26:48	0.008	0.010	0.049	0.024	0.041	83.080%
3	12:27:14	0.010	0.013	0.048	0.040	0.045	83.005%
x		0.010	0.011	0.048	0.036	0.043	82.124%
σ		0.002	0.002	0.001	0.010	0.002	1.591%
%RSD		19.300	16.840	2.852	29.070	5.607	1.937

180-41508-B-11-A 3/3/2015 12:30:09 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	12:30:35	71.117%	-0.026	36.520	46.600	0.000	96530.000	29960.000	27400.000
2	12:31:01	69.107%	0.026	44.440	50.050	0.000	99800.000	29460.000	29260.000
3	12:31:28	69.692%	0.009	45.000	49.270	0.000	98000.000	29260.000	29150.000
x		69.972%	0.003	41.990	48.640	0.000	98110.000	29560.000	28600.000
σ		1.034%	0.026	4.740	1.810	0.000	1638.000	358.200	1040.000
%RSD		1.477	894.000	11.290	3.721	0.000	1.669	1.212	3.635
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	1.570	6264.000	0.000	15300.000	193000.000	194600.000	72.883%	0.354
2	12:31:01	1.391	6538.000	0.000	15660.000	209000.000	209400.000	71.647%	0.668
3	12:31:28	1.502	6537.000	0.000	15710.000	207300.000	209600.000	72.172%	0.575
x		1.488	6447.000	0.000	15560.000	203100.000	204500.000	72.234%	0.532
σ		0.091	157.900	0.000	221.400	8793.000	8620.000	0.620%	0.161
%RSD		6.102	2.450	0.000	1.423	4.330	4.215	0.858	30.290
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	0.298	1.254	325.600	26.880	471.300	9.186	9.115	14.730
2	12:31:01	0.466	1.467	347.800	29.800	481.000	9.465	9.745	15.620
3	12:31:28	-0.197	1.369	349.500	29.790	476.200	9.368	9.854	15.700
x		0.189	1.363	341.000	28.820	476.200	9.340	9.571	15.350
σ		0.345	0.107	13.330	1.679	4.810	0.142	0.399	0.542
%RSD		182.300	7.844	3.909	5.825	1.010	1.519	4.170	3.534
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	14.640	23.210	23.520	1.308	0.716	2.209	0.000	383.700
2	12:31:01	16.170	23.040	23.510	1.790	0.644	2.292	0.000	392.700
3	12:31:28	15.460	24.220	23.640	0.295	-0.108	1.662	0.000	400.300
x		15.420	23.490	23.560	1.131	0.417	2.055	0.000	392.200
σ		0.767	0.637	0.072	0.763	0.457	0.342	0.000	8.273
%RSD		4.970	2.710	0.305	67.470	109.400	16.650	0.000	2.109
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	80.461%	0.185	0.195	80.959%	-0.043	-0.058	10.190	6.764
2	12:31:01	82.168%	0.234	0.200	80.928%	-0.028	-0.052	0.038	0.055
3	12:31:28	82.110%	0.184	0.176	81.972%	-0.041	-0.068	0.084	0.054
x		81.580%	0.201	0.190	81.286%	-0.037	-0.059	3.437	2.291
σ		0.969%	0.029	0.012	0.594%	0.008	0.008	5.848	3.874
%RSD		1.188	14.380	6.547	0.731	21.010	13.180	170.100	169.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	82.079%	-0.217	0.010	0.003	103.500	107.900	91.014%	91.993%
2	12:31:01	83.508%	-0.172	-0.003	-0.002	108.100	107.400	93.427%	93.042%
3	12:31:28	85.202%	-0.194	-0.005	0.014	109.800	108.600	92.989%	93.799%
x		83.596%	-0.195	0.001	0.005	107.100	107.900	92.477%	92.945%
σ		1.563%	0.023	0.008	0.008	3.252	0.643	1.286%	0.907%
%RSD		1.870	11.580	1178.000	166.200	3.035	0.595	1.390	0.976
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:30:35	0.044	0.036	0.503	0.445	0.462	80.142%		
2	12:31:01	0.038	0.040	0.521	0.463	0.479	81.650%		
3	12:31:28	0.038	0.035	0.489	0.473	0.486	82.588%		
x		0.040	0.037	0.504	0.460	0.476	81.460%		
σ		0.003	0.002	0.016	0.014	0.012	1.234%		
%RSD		8.780	6.281	3.201	3.058	2.513	1.515		

180-41508-B-12-A 3/3/2015 12:34:24 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	12:34:50	72.901%	0.022	48.040	57.750	0.000	55910.000	22130.000	22140.000
2	12:35:17	72.347%	0.022	50.740	56.560	0.000	55650.000	23350.000	23410.000
3	12:35:43	71.613%	-0.026	51.700	57.000	0.000	56790.000	23830.000	23900.000
x		72.287%	0.006	50.160	57.100	0.000	56120.000	23100.000	23150.000
σ		0.646%	0.028	1.900	0.598	0.000	598.200	880.300	904.400
%RSD		0.893	451.900	3.788	1.048	0.000	1.066	3.810	3.907
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	1.342	5836.000	0.000	14390.000	127400.000	128200.000	72.295%	0.401
2	12:35:17	1.404	5998.000	0.000	14550.000	130800.000	133700.000	72.491%	0.378
3	12:35:43	1.234	6150.000	0.000	14740.000	134800.000	135400.000	72.157%	0.402
x		1.327	5995.000	0.000	14560.000	131000.000	132400.000	72.314%	0.394
σ		0.086	157.000	0.000	177.000	3701.000	3751.000	0.168%	0.014
%RSD		6.460	2.618	0.000	1.216	2.825	2.832	0.232	3.505
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	0.409	15.560	83.780	11.220	296.300	0.362	10.750	9.408
2	12:35:17	0.211	16.080	87.860	11.330	298.200	0.353	10.720	9.637
3	12:35:43	0.944	16.760	89.870	13.200	297.700	0.399	10.940	9.613
x		0.521	16.130	87.170	11.910	297.400	0.371	10.800	9.552
σ		0.379	0.599	3.103	1.116	0.973	0.025	0.121	0.126
%RSD		72.800	3.716	3.560	9.365	0.327	6.640	1.122	1.319
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	9.467	38.540	40.580	-0.364	-0.000	0.808	0.000	327.500
2	12:35:17	9.980	40.570	42.200	0.371	-0.026	1.285	0.000	343.000
3	12:35:43	9.713	41.040	42.130	-0.780	1.303	1.191	0.000	346.900
x		9.720	40.050	41.640	-0.258	0.426	1.095	0.000	339.100
σ		0.256	1.327	0.916	0.583	0.760	0.253	0.000	10.250
%RSD		2.638	3.314	2.200	226.200	178.500	23.090	0.000	3.023
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	82.306%	0.139	0.191	81.663%	-0.036	-0.069	7.286	4.826
2	12:35:17	83.347%	0.184	0.192	83.100%	-0.045	-0.070	-0.058	-0.016
3	12:35:43	83.531%	0.179	0.182	83.870%	-0.041	-0.066	7.035	4.660
x		83.061%	0.167	0.188	82.878%	-0.041	-0.069	4.754	3.157
σ		0.661%	0.025	0.006	1.120%	0.004	0.002	4.170	2.749
%RSD		0.795	14.870	3.025	1.352	10.920	3.284	87.700	87.080
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	82.632%	-0.047	0.003	0.005	67.020	67.360	93.343%	92.456%
2	12:35:17	86.421%	0.049	-0.027	0.004	68.520	68.380	95.472%	94.661%
3	12:35:43	85.668%	0.006	-0.025	-0.010	69.440	69.960	95.542%	95.944%
x		84.907%	0.002	-0.016	-0.000	68.330	68.570	94.786%	94.354%
σ		2.006%	0.048	0.017	0.008	1.224	1.313	1.250%	1.764%
%RSD		2.362	2035.000	103.800	2002.000	1.792	1.915	1.319	1.870
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:34:50	0.011	0.021	2.074	1.951	1.998	80.235%		
2	12:35:17	0.010	0.015	2.101	1.885	1.949	85.603%		
3	12:35:43	0.016	0.016	2.151	1.982	2.021	84.087%		
x		0.012	0.017	2.109	1.939	1.989	83.308%		
σ		0.004	0.004	0.039	0.050	0.037	2.767%		
%RSD		29.820	20.840	1.858	2.577	1.841	3.322		

180-41508-B-13-A 3/3/2015 12:38:41 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	12:39:08	73.144%	0.022	38.270	43.080	0.000	63670.000	23070.000	23300.000
2	12:39:34	74.372%	-0.027	38.820	43.290	0.000	63760.000	23830.000	24110.000
3	12:40:01	70.820%	0.024	35.270	44.270	0.000	66100.000	24750.000	24860.000
x		72.779%	0.006	37.450	43.550	0.000	64510.000	23880.000	24090.000
σ		1.804%	0.029	1.914	0.632	0.000	1378.000	843.100	779.400
%RSD		2.479	466.700	5.110	1.451	0.000	2.137	3.530	3.235
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	50.180	4699.000	0.000	6813.000	91590.000	92870.000	73.330%	3.283
2	12:39:34	52.380	5101.000	0.000	6888.000	95490.000	97370.000	72.885%	1.337
3	12:40:01	51.830	5267.000	0.000	6942.000	96250.000	98230.000	73.077%	1.629
x		51.460	5022.000	0.000	6881.000	94440.000	96160.000	73.097%	2.083
σ		1.143	291.900	0.000	64.820	2498.000	2877.000	0.223%	1.049
%RSD		2.221	5.812	0.000	0.942	2.645	2.992	0.305	50.380
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	0.239	14.350	66.330	417.600	601.300	0.250	2.899	11.150
2	12:39:34	0.347	14.920	68.090	437.500	613.300	0.228	2.667	11.050
3	12:40:01	0.320	15.010	68.220	438.300	603.400	0.201	2.754	11.240
x		0.302	14.760	67.550	431.100	606.000	0.226	2.773	11.150
σ		0.057	0.359	1.055	11.730	6.399	0.025	0.117	0.095
%RSD		18.720	2.432	1.561	2.721	1.056	10.980	4.222	0.854
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	11.140	57.350	56.360	0.197	0.506	1.044	0.000	230.400
2	12:39:34	10.840	58.710	60.430	0.094	-0.294	2.031	0.000	240.300
3	12:40:01	11.590	59.410	58.240	0.573	0.650	1.239	0.000	237.600
x		11.190	58.490	58.340	0.288	0.287	1.438	0.000	236.100
σ		0.377	1.045	2.036	0.252	0.508	0.523	0.000	5.137
%RSD		3.366	1.787	3.489	87.440	176.900	36.350	0.000	2.176
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	83.823%	0.220	0.218	83.548%	-0.012	-0.026	7.977	5.332
2	12:39:34	83.778%	0.230	0.211	83.882%	-0.005	-0.042	-0.050	-0.023
3	12:40:01	85.611%	0.279	0.242	84.740%	-0.013	-0.027	6.582	4.348
x		84.404%	0.243	0.224	84.056%	-0.010	-0.032	4.837	3.219
σ		1.046%	0.031	0.017	0.615%	0.004	0.009	4.289	2.850
%RSD		1.239	12.950	7.394	0.732	41.510	27.650	88.670	88.550
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	84.211%	-0.210	0.043	0.057	61.460	62.650	93.700%	94.855%
2	12:39:34	84.854%	-0.176	0.021	0.054	61.970	63.130	94.929%	95.759%
3	12:40:01	86.228%	-0.156	0.028	0.070	63.450	64.260	96.406%	97.290%
x		85.098%	-0.181	0.031	0.060	62.290	63.340	95.011%	95.968%
σ		1.030%	0.027	0.011	0.009	1.036	0.825	1.355%	1.231%
%RSD		1.211	14.980	37.140	14.500	1.663	1.302	1.426	1.283
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:39:08	0.007	0.007	1.757	1.612	1.627	83.924%		
2	12:39:34	0.000	0.005	1.726	1.768	1.720	85.123%		
3	12:40:01	0.008	0.005	1.804	1.638	1.700	85.132%		
x		0.005	0.006	1.762	1.673	1.682	84.726%		
σ		0.004	0.001	0.039	0.084	0.049	0.695%		
%RSD		84.130	16.290	2.222	5.012	2.908	0.820		

180-41508-B-14-A 3/3/2015 12:42:59 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	12:43:25	73.768%	0.053	46.880	51.000	0.000	78710.000	26920.000	24910.000
2	12:43:52	73.875%	-0.011	45.370	51.950	0.000	79340.000	28180.000	25790.000
3	12:44:19	71.284%	-0.009	50.550	52.830	0.000	82030.000	26860.000	26550.000
x		72.976%	0.011	47.600	51.920	0.000	80030.000	27320.000	25750.000
σ		1.466%	0.036	2.662	0.915	0.000	1763.000	741.000	819.700
%RSD		2.009	336.700	5.592	1.762	0.000	2.203	2.712	3.184
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	6.443	4447.000	0.000	15200.000	96650.000	98020.000	73.484%	0.434
2	12:43:52	8.454	4562.000	0.000	15490.000	101200.000	102300.000	73.489%	0.412
3	12:44:19	1.216	4645.000	0.000	15600.000	101500.000	103200.000	73.567%	0.347
x		5.371	4552.000	0.000	15430.000	99800.000	101200.000	73.513%	0.398
σ		3.736	99.470	0.000	204.700	2737.000	2776.000	0.047%	0.045
%RSD		69.560	2.185	0.000	1.327	2.742	2.744	0.063	11.280
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	-0.213	6.731	4.134	23.130	235.600	0.221	-0.402	2.145
2	12:43:52	0.592	7.314	4.076	23.770	242.300	0.196	-0.377	2.217
3	12:44:19	0.450	7.189	4.226	23.430	243.300	0.203	-0.365	2.055
x		0.276	7.078	4.145	23.440	240.400	0.207	-0.381	2.139
σ		0.430	0.307	0.076	0.322	4.208	0.013	0.019	0.081
%RSD		155.600	4.332	1.822	1.375	1.751	6.144	5.027	3.793
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	1.681	7.787	7.789	0.222	0.608	0.925	0.000	206.700
2	12:43:52	1.714	8.248	7.812	0.313	1.037	2.983	0.000	213.600
3	12:44:19	1.817	8.064	7.577	1.162	0.058	1.392	0.000	214.300
x		1.737	8.033	7.726	0.565	0.568	1.766	0.000	211.500
σ		0.071	0.232	0.129	0.518	0.491	1.079	0.000	4.192
%RSD		4.089	2.890	1.674	91.650	86.390	61.090	0.000	1.982
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	82.546%	0.742	0.661	82.276%	-0.062	-0.077	-0.037	-0.003
2	12:43:52	83.445%	0.655	0.753	83.081%	-0.063	-0.077	-0.035	-0.017
3	12:44:19	85.010%	0.760	0.724	83.843%	-0.066	-0.090	-0.048	-0.028
x		83.667%	0.719	0.713	83.067%	-0.064	-0.081	-0.040	-0.016
σ		1.247%	0.056	0.047	0.784%	0.002	0.008	0.007	0.013
%RSD		1.490	7.817	6.631	0.944	2.903	9.610	16.830	80.640
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	84.789%	-0.257	0.107	0.098	69.520	68.550	92.636%	93.013%
2	12:43:52	84.943%	-0.208	0.090	0.121	71.570	71.450	93.839%	94.015%
3	12:44:19	85.679%	-0.234	0.095	0.094	71.480	72.780	95.240%	94.686%
x		85.137%	-0.233	0.098	0.104	70.850	70.930	93.905%	93.905%
σ		0.475%	0.025	0.008	0.015	1.158	2.161	1.303%	0.842%
%RSD		0.558	10.570	8.495	14.430	1.634	3.046	1.388	0.897
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:43:25	0.010	0.006	0.152	0.168	0.159	82.067%		
2	12:43:52	0.009	0.004	0.156	0.189	0.155	82.325%		
3	12:44:19	0.006	0.008	0.156	0.141	0.157	82.686%		
x		0.008	0.006	0.155	0.166	0.157	82.360%		
σ		0.002	0.002	0.002	0.024	0.002	0.311%		
%RSD		25.660	26.040	1.510	14.580	1.320	0.377		

CRI 1470869 3/3/2015 12:50:22 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	12:50:49	99.953%	1.049	5.470	6.041	0.000	109.400	107.400	111.000
2	12:51:16	100.099%	0.979	4.897	5.871	0.000	110.700	117.300	114.700
3	12:51:43	100.283%	1.072	5.635	6.263	0.000	110.300	115.300	116.700
x		100.112%	103.311%	106.680%	121.167%	0.000	137.653%	113.338%	114.143%
σ		0.165%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.165	4.706	7.265	3.249	0.000	0.630	4.633	2.576
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	30.270	528.400	0.000	99.480	137.500	112.100	97.447%	4.414
2	12:51:16	31.150	543.600	0.000	102.200	110.600	116.300	95.692%	4.705
3	12:51:43	31.870	550.900	0.000	104.400	135.000	119.600	94.840%	5.407
x		103.663%	108.189%	0.000	102.024%	127.722%	115.975%	95.993%	96.843%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.329%	n/a
%RSD		2.576	2.122	0.000	2.414	11.640	3.240	1.384	10.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	0.928	2.073	4.934	52.510	45.610	0.509	1.145	2.191
2	12:51:16	1.037	2.081	5.287	54.250	51.740	0.532	1.135	2.123
3	12:51:43	1.121	2.021	5.191	55.250	50.300	0.481	1.111	2.240
x		102.851%	102.925%	102.748%	108.004%	98.436%	101.488%	113.007%	109.228%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		9.431	1.589	3.557	2.570	6.512	5.035	1.553	2.689
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	2.085	5.265	5.183	1.478	5.721	5.571	0.000	4.656
2	12:51:16	2.086	5.141	5.469	0.999	4.947	4.081	0.000	4.825
3	12:51:43	2.252	5.271	5.396	1.053	5.644	4.464	0.000	4.813
x		107.060%	104.514%	106.988%	117.623%	108.744%	94.106%	0.000	95.292%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.490	1.406	2.778	22.320	7.844	16.450	0.000	1.982
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	99.813%	4.605	4.662	93.599%	0.940	0.894	1.298	1.014
2	12:51:16	101.228%	4.689	4.928	94.614%	0.957	0.938	1.052	1.044
3	12:51:43	101.480%	5.107	5.222	95.030%	0.983	0.972	1.174	1.119
x		100.840%	96.006%	98.749%	94.415%	96.010%	93.457%	117.460%	105.897%
σ		0.898%	n/a	n/a	0.736%	n/a	n/a	n/a	n/a
%RSD		0.891	5.598	5.677	0.780	2.280	4.150	10.480	5.125
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	93.168%	4.414	1.866	1.907	10.060	10.260	94.538%	93.742%
2	12:51:16	93.539%	4.570	1.956	2.060	10.350	10.450	95.827%	94.995%
3	12:51:43	92.481%	4.717	1.970	1.979	10.420	10.480	95.826%	95.132%
x		93.063%	91.343%	96.526%	99.105%	102.762%	103.946%	95.397%	94.623%
σ		0.537%	n/a	n/a	n/a	n/a	n/a	0.744%	0.766%
%RSD		0.576	3.317	2.925	3.881	1.828	1.132	0.780	0.810
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:50:49	0.956	0.949	1.031	0.929	0.975	93.835%		
2	12:51:16	1.036	0.987	1.078	0.973	1.000	93.874%		
3	12:51:43	1.028	1.008	1.128	0.966	1.056	91.944%		
x		100.638%	98.126%	107.902%	95.570%	101.024%	93.217%		
σ		n/a	n/a	n/a	n/a	n/a	1.103%		
%RSD		4.385	3.048	4.455	2.472	4.108	1.184		

CCV 1487954 3/3/2015 12:54:40 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	12:55:06	92.014%	98.380	103.700	104.200	0.000	48870.000	48230.000	48350.000
2	12:55:33	94.526%	99.570	108.300	103.300	0.000	49260.000	49500.000	49810.000
3	12:55:59	93.703%	98.930	98.300	106.400	0.000	49810.000	50360.000	50420.000
x		93.414%	98.962%	103.446%	104.663%	0.000	98.631%	98.732%	99.051%
σ		1.281%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.371	0.602	4.864	1.513	0.000	0.959	2.167	2.149
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	466.500	5070.000	0.000	48370.000	45790.000	46730.000	98.922%	94.150
2	12:55:33	480.700	5142.000	0.000	49010.000	47480.000	48440.000	99.123%	95.690
3	12:55:59	486.300	5162.000	0.000	49430.000	46940.000	48610.000	99.213%	97.670
x		95.567%	102.495%	0.000	97.870%	93.473%	95.856%	99.086%	95.836%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.149%	n/a
%RSD		2.145	0.944	0.000	1.085	1.848	2.172	0.150	1.845
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	89.700	89.780	477.900	23200.000	23850.000	93.320	92.410	93.750
2	12:55:33	93.160	93.220	494.100	24070.000	24900.000	95.840	95.880	96.860
3	12:55:59	93.150	93.780	495.800	24270.000	25030.000	95.450	96.400	96.520
x		92.004%	92.259%	97.849%	95.391%	98.363%	94.870%	94.897%	95.709%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.165	2.345	2.022	2.387	2.626	1.431	2.286	1.786
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	93.800	92.740	95.820	96.350	98.900	100.700	0.000	96.340
2	12:55:33	98.420	96.790	100.600	97.180	96.410	101.800	0.000	99.620
3	12:55:59	98.460	96.500	99.680	99.110	98.700	100.800	0.000	98.870
x		96.894%	95.344%	98.691%	97.548%	98.006%	101.131%	0.000	98.279%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.765	2.374	2.555	1.454	1.412	0.607	0.000	1.751
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	89.821%	95.640	96.540	87.570%	97.170	96.180	95.280	93.770
2	12:55:33	90.407%	100.800	102.500	88.238%	98.520	98.440	98.520	96.710
3	12:55:59	91.263%	103.200	103.900	88.695%	97.860	98.190	100.200	97.370
x		90.497%	99.872%	100.994%	88.168%	97.850%	97.605%	98.000%	95.948%
σ		0.725%	n/a	n/a	0.566%	n/a	n/a	n/a	n/a
%RSD		0.801	3.871	3.878	0.642	0.690	1.268	2.553	2.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	87.699%	96.560	97.530	97.490	96.060	96.520	91.238%	90.970%
2	12:55:33	88.240%	100.700	99.640	100.100	99.590	98.160	92.648%	92.448%
3	12:55:59	87.684%	101.800	101.600	102.100	100.600	99.660	91.984%	92.622%
x		87.874%	99.685%	99.576%	99.908%	98.754%	98.110%	91.956%	92.013%
σ		0.317%	n/a	n/a	n/a	n/a	n/a	0.705%	0.908%
%RSD		0.361	2.783	2.024	2.320	2.422	1.602	0.767	0.986
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:55:06	93.090	92.050	92.040	92.470	90.960	93.003%		
2	12:55:33	97.270	96.750	97.810	98.350	97.200	89.661%		
3	12:55:59	99.880	97.910	99.900	101.000	99.760	88.007%		
x		96.749%	95.571%	96.582%	97.284%	95.974%	90.224%		
σ		n/a	n/a	n/a	n/a	n/a	2.545%		
%RSD		3.539	3.245	4.212	4.507	4.717	2.821		

CCB5 3/3/2015 1:02:03 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	13:02:29	100.349%	-0.024	1.012	1.141	0.000	-0.354	2.669	2.716
2	13:02:56	97.686%	0.038	0.888	1.121	0.000	0.112	2.464	2.394
3	13:03:23	98.635%	-0.011	0.290	0.989	0.000	0.102	2.731	2.163
x		98.890%	0.001	0.730	1.083	0.000	-0.047	2.622	2.424
σ		1.350%	0.032	0.386	0.083	0.000	0.266	0.140	0.278
%RSD		1.365	3107.000	52.880	7.637	0.000	568.900	5.328	11.460

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	-0.451	1.408	0.000	-5.674	8.232	5.425	97.549%	-0.213
2	13:02:56	-0.150	0.110	0.000	-2.474	2.261	4.667	96.274%	-0.099
3	13:03:23	-0.500	-1.221	0.000	-4.244	8.487	6.842	95.760%	-0.164
x		-0.367	0.099	0.000	-4.131	6.327	5.645	96.528%	-0.159
σ		0.190	1.315	0.000	1.603	3.523	1.104	0.921%	0.057
%RSD		51.670	1328.000	0.000	38.810	55.680	19.560	0.954	36.240

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	-0.019	0.011	0.044	4.644	3.284	0.008	0.018	0.007
2	13:02:56	0.018	-0.024	0.070	5.521	4.637	-0.003	0.003	0.032
3	13:03:23	0.024	-0.029	0.049	3.780	5.817	-0.004	0.054	-0.007
x		0.008	-0.014	0.054	4.648	4.579	0.000	0.025	0.011
σ		0.023	0.022	0.014	0.871	1.268	0.006	0.026	0.020
%RSD		288.900	152.900	25.110	18.730	27.680	2372.000	105.500	184.900

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	-0.013	0.102	-0.052	0.360	1.025	2.733	0.000	0.017
2	13:02:56	-0.048	0.098	0.071	0.158	-0.195	0.881	0.000	0.022
3	13:03:23	0.013	0.069	0.107	0.312	0.093	1.754	0.000	0.014
x		-0.016	0.089	0.042	0.276	0.308	1.789	0.000	0.018
σ		0.030	0.018	0.083	0.106	0.638	0.926	0.000	0.004
%RSD		190.200	19.940	198.400	38.170	207.300	51.780	0.000	22.880

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	90.464%	0.178	0.137	92.287%	-0.062	-0.073	0.008	0.009
2	13:02:56	92.749%	0.106	0.182	92.364%	-0.064	-0.079	0.000	0.001
3	13:03:23	93.060%	0.158	0.184	92.410%	-0.054	-0.073	0.009	0.009
x		92.091%	0.148	0.168	92.354%	-0.060	-0.075	0.006	0.006
σ		1.417%	0.037	0.027	0.062%	0.005	0.003	0.005	0.004
%RSD		1.539	25.100	16.070	0.067	8.709	4.582	83.710	67.280

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	90.662%	-0.360	-0.011	-0.017	0.004	-0.007	90.750%	90.485%
2	13:02:56	90.130%	-0.328	-0.014	0.008	-0.009	-0.002	92.708%	91.695%
3	13:03:23	90.874%	-0.337	-0.019	0.003	-0.010	-0.005	94.984%	92.243%
x		90.556%	-0.342	-0.015	-0.002	-0.005	-0.004	92.814%	91.475%
σ		0.383%	0.016	0.004	0.013	0.008	0.003	2.119%	0.900%
%RSD		0.423	4.766	27.850	578.800	163.700	57.590	2.283	0.983

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	0.005	0.007	0.008	0.001	0.004	92.762%
2	13:02:56	0.004	0.006	0.006	0.004	0.002	89.596%
3	13:03:23	0.005	0.004	0.010	0.006	0.010	90.435%
x		0.005	0.006	0.008	0.004	0.005	90.931%
σ		0.001	0.002	0.002	0.003	0.004	1.640%
%RSD		14.360	33.130	21.480	66.490	76.170	1.804

MB 180-134393/1-A 3/3/2015 1:06:21 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	13:06:47	99.532%	-0.047	0.860	0.995	0.000	-3.015	0.164	-0.193
2	13:07:14	98.889%	-0.011	0.621	0.985	0.000	-2.129	0.354	-0.373
3	13:07:40	96.998%	0.026	0.306	0.665	0.000	-2.129	-0.001	-0.062
x		98.473%	-0.011	0.596	0.882	0.000	-2.424	0.172	-0.209
σ		1.317%	0.037	0.278	0.188	0.000	0.512	0.177	0.157
%RSD		1.337	344.800	46.690	21.290	0.000	21.110	102.900	74.820

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	-0.687	1.858	0.000	-6.148	19.020	3.180	96.930%	-0.181
2	13:07:14	-0.549	-1.089	0.000	-7.049	3.824	1.641	95.971%	-0.147
3	13:07:40	-0.644	-1.329	0.000	-5.007	8.571	3.406	95.238%	-0.147
x		-0.627	-0.187	0.000	-6.068	10.470	2.743	96.046%	-0.158
σ		0.071	1.775	0.000	1.023	7.777	0.960	0.849%	0.019
%RSD		11.280	951.400	0.000	16.870	74.250	35.010	0.884	12.290

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	0.003	0.005	0.017	1.218	-0.317	-0.002	-0.018	0.014
2	13:07:14	0.008	-0.048	0.003	0.561	-0.086	-0.004	0.018	0.033
3	13:07:40	0.015	-0.005	0.029	0.208	1.437	-0.010	0.008	0.046
x		0.009	-0.016	0.016	0.662	0.344	-0.005	0.003	0.031
σ		0.006	0.028	0.013	0.513	0.953	0.004	0.019	0.016
%RSD		68.750	177.100	80.230	77.420	276.800	82.560	617.300	52.070

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	-0.030	0.281	0.197	0.179	-0.397	1.003	0.000	0.009
2	13:07:14	-0.008	0.270	0.337	0.251	0.396	1.637	0.000	0.011
3	13:07:40	0.001	0.442	0.077	0.379	0.268	2.644	0.000	0.005
x		-0.012	0.331	0.204	0.270	0.089	1.761	0.000	0.008
σ		0.016	0.096	0.130	0.102	0.426	0.827	0.000	0.003
%RSD		129.100	29.090	63.850	37.640	478.500	46.980	0.000	35.300

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	90.811%	0.037	0.010	91.851%	-0.069	-0.092	-0.028	-0.020
2	13:07:14	91.885%	0.039	0.038	92.461%	-0.064	-0.094	0.067	0.044
3	13:07:40	91.990%	0.023	0.033	93.552%	-0.069	-0.093	-0.007	0.008
x		91.562%	0.033	0.027	92.621%	-0.067	-0.093	0.011	0.011
σ		0.653%	0.009	0.015	0.862%	0.003	0.001	0.050	0.032
%RSD		0.713	26.710	56.320	0.930	4.602	0.727	477.000	299.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	89.162%	-0.390	-0.062	-0.062	0.009	0.009	90.776%	90.912%
2	13:07:14	91.688%	-0.356	-0.045	-0.053	0.013	0.006	92.492%	91.959%
3	13:07:40	90.840%	-0.372	-0.051	-0.056	0.026	-0.007	92.924%	93.132%
x		90.563%	-0.373	-0.053	-0.057	0.016	0.003	92.064%	92.001%
σ		1.286%	0.017	0.009	0.005	0.009	0.009	1.137%	1.110%
%RSD		1.420	4.540	16.390	8.173	56.110	320.500	1.234	1.207

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	0.001	0.002	0.009	-0.003	0.006	93.803%
2	13:07:14	0.005	0.001	0.013	0.008	0.009	93.710%
3	13:07:40	0.000	0.001	0.022	-0.001	0.012	91.300%
x		0.002	0.001	0.015	0.001	0.009	92.938%
σ		0.002	0.000	0.007	0.006	0.003	1.419%
%RSD		129.000	29.970	44.090	444.300	32.300	1.527

LCS 180-134393/2-A 3/3/2015 1:10:36 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	13:11:02	93.668%	23.270	467.000	478.000	0.000	23640.000	23230.000	23340.000
2	13:11:29	92.003%	24.130	486.400	498.200	0.000	24310.000	24350.000	24430.000
3	13:11:56	89.982%	25.300	487.100	502.600	0.000	24490.000	24370.000	24570.000
x		91.884%	24.230	480.200	492.900	0.000	24150.000	23980.000	24110.000
σ		1.846%	1.019	11.390	13.120	0.000	448.600	647.500	673.400
%RSD		2.009	4.203	2.371	2.662	0.000	1.858	2.700	2.793
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	935.600	4991.000	0.000	24420.000	23740.000	22990.000	91.272%	480.300
2	13:11:29	972.800	5133.000	0.000	24920.000	24410.000	24210.000	90.072%	506.200
3	13:11:56	978.000	5155.000	0.000	24810.000	24030.000	23690.000	89.465%	498.300
x		962.100	5093.000	0.000	24720.000	24060.000	23630.000	90.269%	494.900
σ		23.140	88.750	0.000	263.200	338.000	612.900	0.920%	13.300
%RSD		2.405	1.742	0.000	1.065	1.405	2.594	1.019	2.687
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	233.400	92.320	235.200	460.600	522.100	238.400	237.900	121.200
2	13:11:29	240.900	95.590	241.300	478.600	525.300	242.900	245.300	123.500
3	13:11:56	240.700	96.140	243.200	486.600	526.300	245.900	247.600	124.800
x		238.300	94.680	239.900	475.200	524.500	242.400	243.600	123.200
σ		4.273	2.066	4.180	13.320	2.201	3.813	5.049	1.803
%RSD		1.793	2.182	1.742	2.804	0.420	1.573	2.073	1.464
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	124.400	244.800	248.000	19.190	5.885	7.019	0.000	508.300
2	13:11:29	126.300	249.900	254.300	19.360	4.266	8.284	0.000	518.600
3	13:11:56	126.700	250.500	253.500	19.700	5.460	7.639	0.000	525.700
x		125.800	248.400	251.900	19.420	5.204	7.648	0.000	517.500
σ		1.224	3.167	3.411	0.258	0.839	0.633	0.000	8.796
%RSD		0.973	1.275	1.354	1.330	16.130	8.270	0.000	1.700
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	89.086%	409.900	411.400	87.726%	23.350	23.600	23.710	18.530
2	13:11:29	89.461%	444.900	453.000	87.750%	24.200	23.700	24.270	19.360
3	13:11:56	88.730%	474.000	474.100	88.233%	23.540	23.560	24.640	18.880
x		89.093%	442.900	446.200	87.903%	23.690	23.620	24.210	18.920
σ		0.366%	32.070	31.900	0.286%	0.447	0.068	0.468	0.420
%RSD		0.410	7.242	7.149	0.326	1.888	0.288	1.933	2.222
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	87.586%	1026.000	247.300	246.100	964.000	983.200	91.369%	91.734%
2	13:11:29	87.088%	1061.000	254.800	252.800	979.400	1003.000	93.597%	93.094%
3	13:11:56	88.049%	1063.000	253.700	254.900	990.400	1008.000	92.415%	94.139%
x		87.574%	1050.000	252.000	251.300	977.900	998.100	92.460%	92.989%
σ		0.481%	20.990	4.042	4.577	13.280	13.230	1.115%	1.206%
%RSD		0.549	1.999	1.604	1.822	1.358	1.326	1.206	1.297
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:11:02	22.070	21.390	9.344	9.421	9.238	91.314%		
2	13:11:29	23.140	22.670	9.700	9.704	9.660	90.363%		
3	13:11:56	23.600	22.910	9.681	9.872	9.666	90.352%		
x		22.930	22.320	9.575	9.666	9.521	90.676%		
σ		0.788	0.819	0.201	0.228	0.245	0.552%		
%RSD		3.434	3.668	2.094	2.358	2.576	0.609		

LCSD 180-134393/3-A 3/3/2015 1:14:53 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	13:15:20	89.706%	23.750	476.800	486.700	0.000	24040.000	23620.000	23850.000
2	13:15:47	90.055%	24.430	477.700	495.400	0.000	24460.000	24420.000	24510.000
3	13:16:13	87.879%	23.930	477.400	493.600	0.000	24550.000	24560.000	24750.000
x		89.213%	24.040	477.300	491.900	0.000	24350.000	24200.000	24370.000
σ		1.168%	0.353	0.467	4.569	0.000	273.400	508.700	461.600
%RSD		1.310	1.467	0.098	0.929	0.000	1.123	2.102	1.894

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	937.500	5520.000	0.000	24700.000	23330.000	23030.000	87.860%	484.200
2	13:15:47	970.400	5074.000	0.000	24950.000	24740.000	24410.000	86.459%	504.600
3	13:16:13	979.500	5690.000	0.000	24930.000	24830.000	24270.000	85.989%	494.300
x		962.500	5428.000	0.000	24860.000	24300.000	23900.000	86.770%	494.400
σ		22.090	318.200	0.000	137.200	840.800	757.500	0.974%	10.240
%RSD		2.295	5.862	0.000	0.552	3.460	3.169	1.122	2.071

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	232.100	92.740	235.500	469.200	507.100	239.400	241.400	120.500
2	13:15:47	238.300	95.560	242.100	485.900	534.100	244.500	245.500	125.200
3	13:16:13	240.100	95.930	243.600	491.800	531.300	244.700	246.800	122.100
x		236.800	94.740	240.400	482.300	524.200	242.900	244.600	122.600
σ		4.228	1.744	4.299	11.700	14.810	3.012	2.790	2.385
%RSD		1.785	1.841	1.788	2.427	2.826	1.240	1.141	1.945

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	123.000	243.900	247.900	19.340	5.517	6.896	0.000	511.700
2	13:15:47	125.100	251.900	255.200	19.630	5.120	7.034	0.000	518.300
3	13:16:13	126.500	251.900	255.000	19.740	5.242	7.145	0.000	519.900
x		124.900	249.200	252.700	19.570	5.293	7.025	0.000	516.600
σ		1.788	4.595	4.163	0.205	0.203	0.125	0.000	4.332
%RSD		1.432	1.844	1.647	1.047	3.841	1.772	0.000	0.839

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	87.174%	424.500	420.200	87.403%	23.220	23.240	23.400	18.180
2	13:15:47	87.549%	452.200	463.800	86.536%	23.850	23.410	24.680	19.730
3	13:16:13	87.910%	474.900	482.100	87.170%	23.030	23.480	24.890	18.470
x		87.545%	450.500	455.400	87.036%	23.370	23.380	24.320	18.790
σ		0.368%	25.270	31.780	0.449%	0.428	0.121	0.804	0.825
%RSD		0.420	5.609	6.979	0.516	1.830	0.519	3.308	4.391

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	86.447%	1027.000	246.400	247.100	960.600	982.300	90.754%	92.414%
2	13:15:47	87.310%	1045.000	249.800	246.900	971.500	987.700	93.046%	92.526%
3	13:16:13	89.532%	1039.000	248.500	247.300	970.900	985.200	92.523%	93.638%
x		87.763%	1037.000	248.300	247.100	967.600	985.100	92.108%	92.859%
σ		1.592%	9.364	1.723	0.221	6.115	2.720	1.201%	0.677%
%RSD		1.813	0.903	0.694	0.089	0.632	0.276	1.304	0.729

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	22.390	21.650	9.562	9.393	9.325	91.804%
2	13:15:47	23.160	22.730	9.623	9.901	9.593	91.595%
3	13:16:13	23.030	23.080	9.685	9.653	9.526	91.569%
x		22.860	22.490	9.624	9.649	9.481	91.656%
σ		0.412	0.740	0.062	0.254	0.140	0.129%
%RSD		1.804	3.293	0.640	2.630	1.471	0.141

180-41522-A-1-A 3/3/2015 1:19:08 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	13:19:35	84.621%	-0.003	9.229	8.623	0.000	1487.000	734.700	725.000
2	13:20:02	82.884%	0.055	8.936	9.261	0.000	1520.000	759.200	758.900
3	13:20:29	81.302%	0.028	8.614	7.965	0.000	1504.000	765.700	767.400
x		82.936%	0.027	8.927	8.617	0.000	1503.000	753.200	750.400
σ		1.660%	0.029	0.308	0.648	0.000	16.260	16.350	22.420
%RSD		2.001	108.700	3.445	7.519	0.000	1.081	2.171	2.988

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	254900.000	13750.000	0.000	59.600	2323.000	2312.000	81.798%	14.590
2	13:20:02	264700.000	14110.000	0.000	59.520	2527.000	2361.000	80.375%	14.470
3	13:20:29	265200.000	14160.000	0.000	59.540	2570.000	2372.000	79.070%	15.080
x		261600.000	14010.000	0.000	59.550	2473.000	2348.000	80.414%	14.710
σ		5803.000	228.100	0.000	0.043	131.700	32.110	1.364%	0.323
%RSD		2.218	1.628	0.000	0.073	5.323	1.368	1.697	2.198

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	10.020	6.616	17.340	10680.000	10340.000	2.273	824.200	4014.000
2	13:20:02	10.460	6.970	17.300	11100.000	10750.000	2.342	847.300	4089.000
3	13:20:29	10.720	6.949	17.780	11330.000	10910.000	2.413	849.100	4107.000
x		10.400	6.845	17.470	11040.000	10670.000	2.342	840.200	4070.000
σ		0.350	0.199	0.265	329.600	293.800	0.070	13.900	49.480
%RSD		3.369	2.908	1.514	2.986	2.755	2.985	1.654	1.216

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	4202.000	3592.000	3580.000	1.892	-0.071	2.618	0.000	14.260
2	13:20:02	4292.000	3668.000	3650.000	1.662	0.197	1.446	0.000	14.630
3	13:20:29	4320.000	3707.000	3697.000	1.570	-0.054	1.090	0.000	14.510
x		4271.000	3656.000	3642.000	1.708	0.024	1.718	0.000	14.470
σ		61.700	58.390	59.140	0.166	0.150	0.799	0.000	0.191
%RSD		1.445	1.597	1.624	9.707	621.700	46.530	0.000	1.321

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	83.409%	7.370	7.651	81.780%	-0.042	-0.069	7.418	4.279
2	13:20:02	84.387%	7.584	7.621	82.279%	-0.034	-0.055	7.544	4.496
3	13:20:29	83.795%	7.328	6.997	82.375%	-0.032	-0.061	8.414	4.856
x		83.863%	7.427	7.423	82.145%	-0.036	-0.062	7.792	4.543
σ		0.492%	0.137	0.369	0.319%	0.005	0.007	0.542	0.292
%RSD		0.587	1.847	4.972	0.389	14.040	12.000	6.960	6.417

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	83.514%	205.900	0.651	0.667	7.605	7.542	91.031%	91.709%
2	13:20:02	82.643%	215.000	0.690	0.648	8.038	8.354	92.523%	92.575%
3	13:20:29	83.694%	214.700	0.642	0.673	7.893	7.546	92.703%	93.078%
x		83.284%	211.800	0.661	0.663	7.845	7.814	92.086%	92.454%
σ		0.562%	5.140	0.026	0.013	0.221	0.468	0.917%	0.692%
%RSD		0.675	2.427	3.876	2.005	2.814	5.989	0.996	0.749

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	0.123	0.111	73.530	70.630	71.080	110.196%
2	13:20:02	0.084	0.066	75.580	71.690	72.470	110.438%
3	13:20:29	0.055	0.049	74.720	70.720	71.390	112.305%
x		0.087	0.075	74.610	71.010	71.650	110.980%
σ		0.034	0.032	1.031	0.591	0.729	1.154%
%RSD		39.260	42.170	1.382	0.832	1.017	1.040

180-41506-I-1-A 3/3/2015 1:23:26 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	13:23:52	83.980%	-0.031	9.008	10.830	0.000	5480.000	11860.000	11940.000
2	13:24:19	82.434%	-0.030	8.483	10.650	0.000	5592.000	12370.000	12330.000
3	13:24:45	81.469%	-0.001	7.871	10.760	0.000	5599.000	12410.000	12440.000
x		82.628%	-0.021	8.454	10.740	0.000	5557.000	12210.000	12240.000
σ		1.267%	0.017	0.569	0.092	0.000	66.580	305.900	264.000
%RSD		1.533	82.440	6.735	0.856	0.000	1.198	2.505	2.157

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	45.880	2277.000	0.000	444.200	28670.000	29050.000	81.317%	0.486
2	13:24:19	60.070	2334.000	0.000	457.200	30240.000	29780.000	80.408%	0.454
3	13:24:45	53.400	2330.000	0.000	452.600	29880.000	29860.000	80.668%	0.781
x		53.120	2314.000	0.000	451.300	29600.000	29570.000	80.798%	0.574
σ		7.098	31.660	0.000	6.592	824.800	451.200	0.468%	0.181
%RSD		13.360	1.368	0.000	1.461	2.787	1.526	0.580	31.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	-0.009	0.100	22.610	74.800	145.100	0.097	0.716	0.950
2	13:24:19	0.023	0.092	23.140	69.520	142.600	0.110	0.855	0.840
3	13:24:45	0.144	0.096	23.380	65.810	137.300	0.091	0.833	0.785
x		0.052	0.096	23.040	70.040	141.700	0.099	0.801	0.858
σ		0.080	0.004	0.392	4.514	4.018	0.010	0.075	0.084
%RSD		153.400	4.282	1.703	6.445	2.836	9.623	9.306	9.767

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	1.003	3.680	3.810	0.944	0.588	4.515	0.000	88.920
2	13:24:19	0.936	3.900	4.035	0.486	0.920	2.720	0.000	90.940
3	13:24:45	0.864	4.266	4.267	0.374	0.229	1.963	0.000	91.160
x		0.934	3.949	4.037	0.601	0.579	3.066	0.000	90.340
σ		0.069	0.296	0.229	0.302	0.345	1.311	0.000	1.233
%RSD		7.434	7.492	5.660	50.300	59.640	42.750	0.000	1.365

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	85.195%	1.972	2.102	85.748%	-0.078	-0.094	0.039	0.002
2	13:24:19	86.251%	2.218	1.975	87.161%	-0.073	-0.082	-0.099	-0.088
3	13:24:45	86.513%	1.904	1.860	87.790%	-0.068	-0.091	-0.000	-0.006
x		85.986%	2.031	1.979	86.900%	-0.073	-0.089	-0.020	-0.030
σ		0.698%	0.165	0.121	1.046%	0.005	0.006	0.071	0.050
%RSD		0.811	8.129	6.114	1.204	6.970	6.695	356.100	162.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	87.614%	4.468	0.060	0.014	25.640	25.830	93.527%	92.648%
2	13:24:19	88.173%	4.692	0.067	0.043	26.230	26.890	93.127%	93.967%
3	13:24:45	88.228%	4.562	0.040	0.054	26.970	27.140	94.573%	94.096%
x		88.005%	4.574	0.056	0.037	26.280	26.620	93.742%	93.570%
σ		0.339%	0.112	0.014	0.021	0.668	0.696	0.747%	0.801%
%RSD		0.386	2.451	24.920	56.620	2.541	2.613	0.796	0.856

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	0.015	0.010	0.137	0.105	0.101	100.827%
2	13:24:19	0.014	0.015	0.114	0.105	0.110	97.054%
3	13:24:45	0.012	0.012	0.118	0.104	0.111	96.054%
x		0.014	0.012	0.123	0.104	0.107	97.978%
σ		0.002	0.002	0.012	0.000	0.005	2.517%
%RSD		12.240	18.630	9.889	0.375	4.852	2.569

180-41506-I-1-A SD@5 3/3/2015 1:27:41 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	13:28:07	88.256%	0.008	3.013	3.557	0.000	1092.000	2213.000	2188.000
2	13:28:33	88.181%	-0.059	3.303	3.256	0.000	1117.000	2299.000	2285.000
3	13:29:00	86.638%	-0.059	2.897	2.864	0.000	1142.000	2332.000	2339.000
x		87.692%	-0.037	3.071	3.226	0.000	1117.000	2281.000	2271.000
σ		0.913%	0.038	0.209	0.348	0.000	24.980	61.550	76.290
%RSD		1.041	105.200	6.816	10.780	0.000	2.237	2.698	3.360

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	7.583	420.700	0.000	74.730	5378.000	5245.000	87.948%	-0.032
2	13:28:33	12.670	434.200	0.000	77.160	5786.000	5515.000	86.454%	0.243
3	13:29:00	6.178	438.500	0.000	79.370	5779.000	5545.000	85.566%	0.285
x		8.811	431.100	0.000	77.090	5648.000	5435.000	86.656%	0.166
σ		3.416	9.328	0.000	2.324	233.800	165.500	1.204%	0.172
%RSD		38.770	2.164	0.000	3.014	4.139	3.044	1.389	103.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	0.014	0.006	4.403	14.530	22.950	0.020	0.189	0.173
2	13:28:33	0.024	0.030	4.515	15.060	19.090	0.012	0.281	0.121
3	13:29:00	0.066	0.029	4.503	14.050	21.310	0.023	0.178	0.100
x		0.035	0.022	4.474	14.550	21.120	0.018	0.216	0.131
σ		0.028	0.013	0.062	0.507	1.937	0.005	0.056	0.038
%RSD		80.110	61.400	1.376	3.485	9.174	29.670	26.130	28.580

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	0.113	0.650	0.541	0.383	0.063	1.803	0.000	17.240
2	13:28:33	0.101	0.571	0.700	0.391	0.106	2.740	0.000	17.640
3	13:29:00	0.125	0.777	0.834	0.245	0.234	1.138	0.000	17.880
x		0.113	0.666	0.691	0.340	0.134	1.893	0.000	17.590
σ		0.012	0.104	0.147	0.082	0.089	0.805	0.000	0.321
%RSD		10.640	15.570	21.190	24.070	66.300	42.510	0.000	1.824

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	88.266%	0.917	0.842	90.251%	-0.068	-0.088	0.004	0.001
2	13:28:33	88.967%	0.992	0.890	90.339%	-0.070	-0.093	-0.010	-0.015
3	13:29:00	89.494%	0.868	0.923	90.930%	-0.080	-0.084	-0.054	-0.016
x		88.909%	0.925	0.885	90.507%	-0.073	-0.089	-0.020	-0.010
σ		0.616%	0.063	0.041	0.369%	0.007	0.005	0.030	0.009
%RSD		0.693	6.757	4.602	0.408	8.985	5.105	148.200	93.330

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	88.959%	1.847	0.013	-0.004	5.067	5.120	93.570%	93.500%
2	13:28:33	89.652%	2.033	0.009	-0.026	5.124	5.314	94.408%	93.753%
3	13:29:00	91.072%	2.128	0.001	-0.004	5.266	5.302	94.409%	95.314%
x		89.894%	2.003	0.007	-0.012	5.152	5.245	94.129%	94.189%
σ		1.077%	0.143	0.006	0.013	0.103	0.109	0.484%	0.983%
%RSD		1.198	7.135	84.900	109.200	1.990	2.081	0.514	1.043

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	0.009	0.004	0.026	0.039	0.032	96.424%
2	13:28:33	0.010	0.006	0.038	0.027	0.029	93.639%
3	13:29:00	0.012	0.005	0.038	0.023	0.030	94.364%
x		0.010	0.005	0.034	0.030	0.031	94.809%
σ		0.002	0.001	0.007	0.008	0.002	1.445%
%RSD		15.020	27.540	20.820	27.610	6.501	1.524

CCV 1487954 3/3/2015 1:31:58 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	13:32:25	86.354%	96.420	97.910	106.000	0.000	50510.000	50460.000	50570.000
2	13:32:51	87.273%	95.640	99.550	104.800	0.000	50970.000	52290.000	52210.000
3	13:33:18	87.292%	97.590	107.900	103.300	0.000	51130.000	52560.000	52660.000
x		86.973%	96.551%	101.777%	104.707%	0.000	101.740%	103.537%	103.629%
σ		0.536%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.617	1.018	5.248	1.270	0.000	0.635	2.200	2.125
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	487.200	5232.000	0.000	51160.000	48070.000	51000.000	86.374%	101.200
2	13:32:51	505.900	5375.000	0.000	52490.000	51070.000	53210.000	84.620%	104.000
3	13:33:18	506.600	5372.000	0.000	52310.000	51320.000	53740.000	85.140%	104.000
x		99.978%	106.519%	0.000	103.972%	100.306%	105.302%	85.378%	103.070%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.901%	n/a
%RSD		2.203	1.532	0.000	1.385	3.611	2.759	1.055	1.580
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	94.510	94.470	504.200	24550.000	25030.000	95.910	97.570	97.690
2	13:32:51	98.730	98.000	520.900	25510.000	25980.000	100.200	100.100	100.100
3	13:33:18	99.800	99.220	522.000	25640.000	26130.000	99.600	100.100	99.330
x		97.678%	97.230%	103.141%	100.936%	102.845%	98.556%	99.252%	99.028%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.865	2.538	1.943	2.347	2.327	2.342	1.472	1.230
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	98.630	98.020	98.730	99.110	102.700	101.200	0.000	97.280
2	13:32:51	101.600	102.800	102.100	98.820	100.400	100.200	0.000	99.630
3	13:33:18	102.200	100.400	104.500	99.390	100.900	103.400	0.000	99.170
x		100.811%	100.387%	101.758%	99.108%	101.333%	101.609%	0.000	98.696%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.896	2.374	2.838	0.289	1.164	1.635	0.000	1.262
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	86.160%	96.890	95.910	84.774%	96.240	96.290	103.900	99.190
2	13:32:51	85.921%	101.800	101.700	84.661%	97.420	97.650	108.900	104.200
3	13:33:18	86.210%	103.400	104.700	84.557%	97.170	97.720	100.800	98.770
x		86.097%	100.690%	100.768%	84.664%	96.942%	97.220%	104.518%	100.731%
σ		0.154%	n/a	n/a	0.109%	n/a	n/a	n/a	n/a
%RSD		0.179	3.371	4.433	0.128	0.641	0.827	3.953	3.015
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	85.424%	99.550	97.780	98.090	97.570	96.810	89.204%	90.642%
2	13:32:51	84.872%	102.900	100.400	100.100	98.540	100.400	90.690%	90.887%
3	13:33:18	84.209%	104.000	102.500	102.500	101.400	100.900	91.302%	90.837%
x		84.835%	102.144%	100.215%	100.210%	99.155%	99.351%	90.398%	90.788%
σ		0.608%	n/a	n/a	n/a	n/a	n/a	1.079%	0.130%
%RSD		0.717	2.260	2.346	2.187	1.986	2.231	1.194	0.143
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:32:25	91.690	91.690	90.760	91.700	90.260	92.851%		
2	13:32:51	97.430	96.440	97.710	98.200	96.870	89.364%		
3	13:33:18	99.010	97.960	99.970	99.130	98.620	87.983%		
x		96.042%	95.361%	96.149%	96.342%	95.252%	90.066%		
σ		n/a	n/a	n/a	n/a	n/a	2.509%		
%RSD		4.012	3.429	4.993	4.203	4.631	2.785		

CCB6 3/3/2015 1:39:24 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	13:39:51	93.947%	0.004	1.303	1.267	0.000	1.678	3.124	2.615
2	13:40:17	95.089%	-0.009	0.413	0.812	0.000	2.125	2.612	3.568
3	13:40:44	95.221%	-0.034	0.933	0.791	0.000	2.889	3.333	2.766
x		94.752%	-0.013	0.883	0.957	0.000	2.231	3.023	2.983
σ		0.700%	0.019	0.447	0.269	0.000	0.612	0.371	0.512
%RSD		0.739	146.900	50.620	28.110	0.000	27.450	12.280	17.160

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	-0.292	1.788	0.000	-3.762	12.260	4.564	92.153%	-0.160
2	13:40:17	-0.257	-1.561	0.000	-6.451	10.500	5.886	92.968%	-0.161
3	13:40:44	-0.213	-2.009	0.000	-6.992	20.270	4.642	92.211%	-0.075
x		-0.254	-0.594	0.000	-5.735	14.340	5.031	92.444%	-0.132
σ		0.040	2.075	0.000	1.730	5.206	0.742	0.454%	0.049
%RSD		15.670	349.500	0.000	30.160	36.290	14.760	0.492	37.220

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	-0.002	0.033	0.033	5.564	3.418	0.004	0.036	0.012
2	13:40:17	-0.016	-0.019	0.046	4.789	2.863	0.012	0.014	-0.008
3	13:40:44	-0.004	-0.016	0.039	4.706	3.422	0.004	0.046	-0.001
x		-0.007	-0.001	0.039	5.019	3.234	0.007	0.032	0.001
σ		0.007	0.029	0.007	0.473	0.322	0.004	0.016	0.010
%RSD		99.840	3776.000	17.600	9.427	9.950	64.130	50.290	1094.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	-0.026	0.200	0.098	0.306	0.297	2.030	0.000	0.008
2	13:40:17	-0.014	0.077	0.156	0.293	-0.078	2.086	0.000	0.018
3	13:40:44	-0.009	0.096	0.084	0.557	0.606	3.327	0.000	0.021
x		-0.016	0.125	0.113	0.386	0.275	2.481	0.000	0.016
σ		0.009	0.066	0.038	0.149	0.342	0.734	0.000	0.007
%RSD		53.080	53.280	33.940	38.640	124.500	29.570	0.000	43.620

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	91.167%	0.306	0.264	91.563%	-0.051	-0.068	-0.003	0.012
2	13:40:17	92.195%	0.293	0.305	92.505%	-0.053	-0.079	-0.032	-0.014
3	13:40:44	91.817%	0.290	0.303	92.700%	-0.059	-0.070	0.020	0.019
x		91.726%	0.297	0.291	92.256%	-0.054	-0.072	-0.005	0.006
σ		0.520%	0.009	0.023	0.608%	0.004	0.006	0.026	0.017
%RSD		0.567	2.873	7.876	0.659	7.385	8.043	509.900	313.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	89.270%	0.158	0.007	0.022	-0.000	0.009	93.785%	92.096%
2	13:40:17	92.094%	0.246	0.014	0.014	-0.005	0.003	94.831%	94.526%
3	13:40:44	92.710%	0.302	-0.002	0.017	0.052	0.005	94.264%	94.021%
x		91.358%	0.235	0.006	0.018	0.015	0.006	94.294%	93.548%
σ		1.834%	0.072	0.008	0.004	0.032	0.003	0.524%	1.282%
%RSD		2.007	30.770	123.000	23.190	206.000	52.580	0.556	1.371

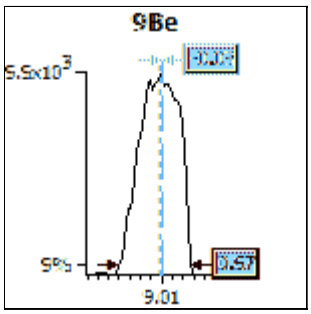
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	0.011	0.007	0.012	-0.004	0.004	92.848%
2	13:40:17	0.013	0.008	0.010	-0.006	0.002	94.549%
3	13:40:44	0.007	0.004	-0.002	-0.007	-0.001	94.349%
x		0.010	0.007	0.007	-0.005	0.002	93.915%
σ		0.003	0.002	0.008	0.001	0.002	0.930%
%RSD		29.920	34.530	118.700	22.730	124.700	0.990

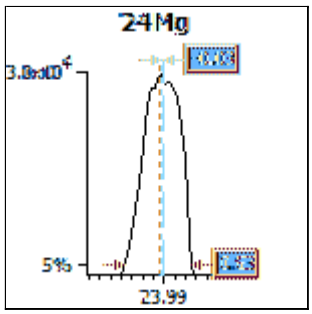
Performance Report

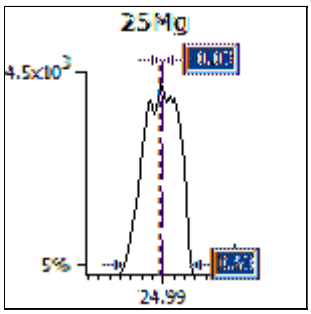
Sample details
Sample name : ITUNE
Acquired at : 3/3/2015 6:53:40 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

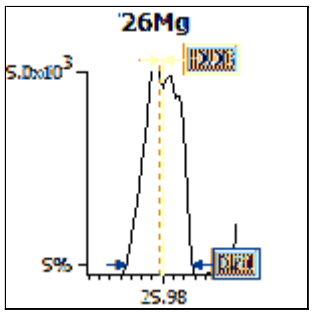
Mass Calibration verification

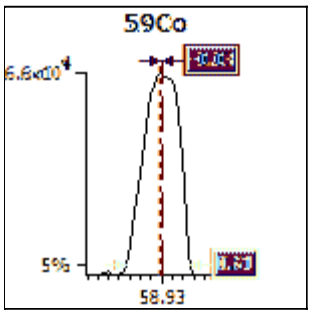
Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

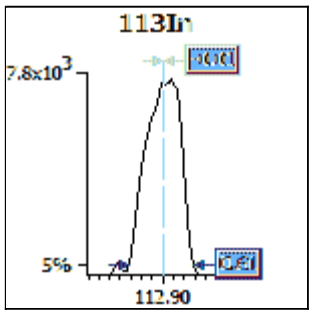


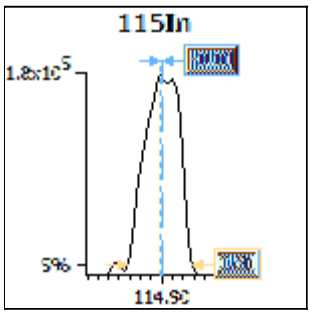


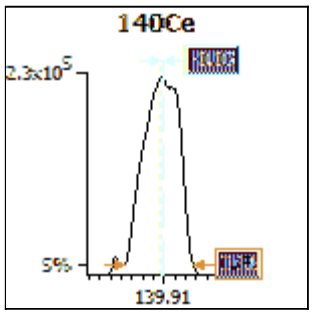


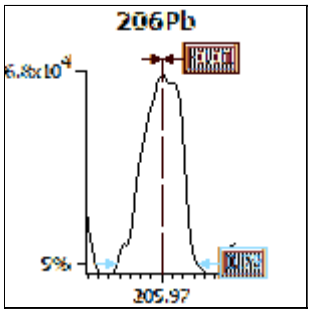


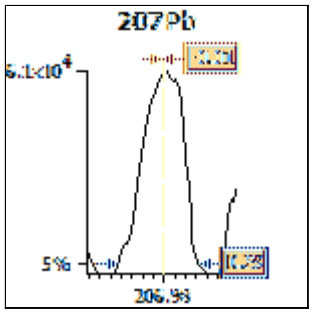


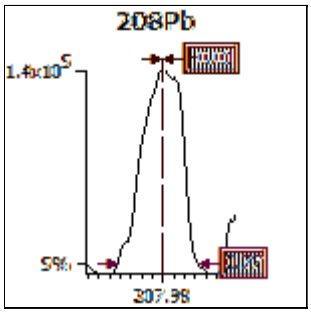












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.67	-0.03
24Mg	0.90	0.40	0.10	0.63	-0.03
25Mg	0.90	0.40	0.10	0.63	-0.03
26Mg	0.90	0.40	0.10	0.61	-0.03
59Co	0.90	0.40	0.10	0.61	-0.03
113In	0.90	0.40	0.10	0.61	-0.01
115In	0.90	0.40	0.10	0.61	-0.01
140Ce	0.90	0.40	0.10	0.65	-0.03
206Pb	0.90	0.40	0.10	0.79	-0.01
207Pb	0.90	0.40	0.10	0.79	-0.01
208Pb	0.90	0.40	0.10	0.77	-0.01

Sample details
Sample name : ITUNE
Acquired at : 3/3/2015 6:53:40 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-153
Lens 1	4.7
Focus	22.7
D1	-29.8
Pole Bias	-0.0
Hexapole Bias	-3.4
Nebuliser	0.87
Sampling Depth	200

Minor	
Lens 2	-35.3
Lens 3	-181.2
Forward power	1404
Horizontal	30
Vertical	409
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	6:54:27 AM	0	5571	29457	3913	4777	67412	7531	178544
2	6:55:39 AM	0	5640	29312	3938	4864	68110	7382	178202
3	6:56:51 AM	0	5498	29350	3790	4889	67689	7503	179019
4	6:58:03 AM	0	5515	29533	3968	4811	67797	7428	178944
5	6:59:16 AM	0	5657	29772	3929	4973	69031	7604	179240
x		0	5576	29485	3908	4863	68008	7489	178790
σ		0.08	71.63	182.93	68.55	75.76	624.11	87.31	413.85
%RSD		70.711	1.284	0.620	1.754	1.558	0.918	1.166	0.231

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	6:54:27 AM	219979	3516	69940	60871	144925	0
2	6:55:39 AM	222039	3555	70143	61507	146206	0
3	6:56:51 AM	222655	3566	70730	61021	146714	0
4	6:58:03 AM	222574	3562	69963	60846	145795	0
5	6:59:16 AM	224787	3613	69260	60072	144710	0
x		222407	3562	70007	60864	145670	0
σ		1716.37	34.40	525.73	516.15	846.69	0.06
%RSD		0.772	0.966	0.751	0.848	0.581	100.000

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	6:54:27 AM	0
2	6:55:39 AM	0
3	6:56:51 AM	0
4	6:58:03 AM	0
5	6:59:16 AM	0
x		0.0160
σ		0.00
%RSD		0.2056

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Batch Number: 134395 Batch Start Date: 02/27/15 10:40 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 02/27/15 14:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-134395/1		3005A, 6020A		50 mL	50 mL				
LCS 180-134395/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-41508-B-1	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-1 MS	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-41508-B-1 MSD	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-41508-B-3	HD-MW-98S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-4	HD-MW-99S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-5	HD-MW-99D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-6	HD-MW-145A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-7	HD-MW-147A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-8	HD-MW-100S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-9	HD-MW-100I-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-10	HD-MW-100D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-11	HD-CW-15A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-12	HD-CW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-13	HD-CW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41508-B-14	HD-CW-9-0/1-0	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.: 180-41508-1

SDG No.:

Batch Number: 134395 Batch Start Date: 02/27/15 10:40 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 02/27/15 14:40

Batch Notes	
Batch Comment	Metals C2
First End time	14:40
Lot # of hydrochloric acid	2.5 ml 1452455
Lot # of Nitric Acid	1.0 ml 1472455
Hot Block ID number	#3
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	10:40
ID number of the thermometer	IP2-14 CF=0.0 I6
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	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: 180-41508-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-98I-0/1-0	180-41508-1
HD-MW-98S-0/1-0	180-41508-3
HD-MW-99S-0/1-0	180-41508-4
HD-MW-99D-0/1-0	180-41508-5
HD-MW-145A-0/1-0	180-41508-6
HD-MW-147A-0/1-0	180-41508-7
HD-MW-100S-0/1-0	180-41508-8
HD-MW-100I-0/1-0	180-41508-9
HD-MW-100D-0/1-0	180-41508-10
HD-CW-15A-0/1-0	180-41508-11
HD-CW-13-0/1-0	180-41508-12
HD-CW-20-0/1-0	180-41508-13
HD-CW-9-0/1-0	180-41508-14

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-41508-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 09:35

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	290	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	290	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-98S-0/1-0 Lab Sample ID: 180-41508-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 10:25

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-99S-0/1-0 Lab Sample ID: 180-41508-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 12:45

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-99D-0/1-0 Lab Sample ID: 180-41508-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 13:35

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	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-145A-0/1-0 Lab Sample ID: 180-41508-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 11:40

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-147A-0/1-0 Lab Sample ID: 180-41508-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 13:30

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-MW-100S-0/1-0 Lab Sample ID: 180-41508-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 12:25

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	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-100I-0/1-0 Lab Sample ID: 180-41508-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 11:45

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	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: 180-41508-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 10:40

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-CW-15A-0/1-0 Lab Sample ID: 180-41508-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:40

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-13-0/1-0 Lab Sample ID: 180-41508-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:55

Reporting Basis: WET Date Received: 02/26/2015 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	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: 180-41508-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:45

Reporting Basis: WET Date Received: 02/26/2015 10:00

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-9-0/1-0 Lab Sample ID: 180-41508-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG ID.:

Matrix: Water Date Sampled: 02/25/2015 06:50

Reporting Basis: WET Date Received: 02/26/2015 10:00

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.: 180-41508-1

SDG No.:

Analyst: CLL Batch Start Date: 03/03/2015

Reporting Units: mg/L Analytical Batch No.: 134561

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
22	CCV	05:29	Total Alkalinity as CaCO3 to pH 4.5	131	125	104	80-120		WALK125PPMCCV_00081
			Bicarbonate Alkalinity as CaCO3	4.08				J	
			Carbonate Alkalinity as CaCO3	126					
23	CCB	05:29	Total Alkalinity as CaCO3 to pH 4.5	2.04				J	
			Bicarbonate Alkalinity as CaCO3	2.04				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
11	CCV	05:29	Total Alkalinity as CaCO3 to pH 4.5	131	125	104	80-120		WALK125PPMCCV_00081
12	CCB	05:29	Total Alkalinity as CaCO3 to pH 4.5	2.04				J	
			Bicarbonate Alkalinity as CaCO3	2.04				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.: 180-41508-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 134561 Date: 03/03/2015 05:29							
SM 2320B	MB 180-134561/2	Total Alkalinity as CaCO3 to pH 4.5	2.04	J	mg/L	5.0	1
SM 2320B	MB 180-134561/2	Bicarbonate Alkalinity as CaCO3	2.04	J	mg/L	5.0	1
SM 2320B	MB 180-134561/2	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.: 180-41508-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 134561 Date: 03/03/2015 05:29								
SM 2320B	HD-MW-98I-0/1-0	180-41508-1	Total Alkalinity as CaCO3 to pH 4.5	290	mg/L			
SM 2320B	HD-MW-98I-0/1-0	180-41508-1 DU	Total Alkalinity as CaCO3 to pH 4.5	279	mg/L	2	20	
SM 2320B	HD-MW-98I-0/1-0	180-41508-1	Bicarbonate Alkalinity as CaCO3	290	mg/L			
SM 2320B	HD-MW-98I-0/1-0	180-41508-1 DU	Bicarbonate Alkalinity as CaCO3	279	mg/L	2	20	
SM 2320B	HD-MW-98I-0/1-0	180-41508-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-98I-0/1-0	180-41508-1 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 134561 Date: 03/03/2015 05:29								
SM 2320B	HD-CW-13-0/1-0	180-41508-12	Total Alkalinity as CaCO3 to pH 4.5	260	mg/L			
SM 2320B	HD-CW-13-0/1-0	180-41508-12 DU	Total Alkalinity as CaCO3 to pH 4.5	273	mg/L	4	20	
SM 2320B	HD-CW-13-0/1-0	180-41508-12	Bicarbonate Alkalinity as CaCO3	260	mg/L			
SM 2320B	HD-CW-13-0/1-0	180-41508-12 DU	Bicarbonate Alkalinity as CaCO3	273	mg/L	4	20	
SM 2320B	HD-CW-13-0/1-0	180-41508-12	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-CW-13-0/1-0	180-41508-12 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.: 180-41508-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 134561 Date: 03/03/2015 05:29											
						LCS Source: WALK250PPMPi_00090					
SM 2320B	LCS 180-134561/1	Total Alkalinity as CaCO3 to pH 4.5	220		mg/L	250	88	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: 180-41508-1

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: 180-41508-1

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.: 180-41508-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 03/03/2015 05:29 End Date: 03/03/2015 05:29

Lab Sample Id	D/F	Type	Time	Analytes																										
				Alk	BALKCC	CarAlk																								
LCS 180-134561/1	1	T	05:29	X																										
MB 180-134561/2	1	T	05:29	X	X	X																								
180-41508-1	1	T	05:29	X	X	X																								
180-41508-1 DU	1	T	05:29	X	X	X																								
180-41508-3	1	T	05:29	X	X	X																								
180-41508-4	1	T	05:29	X	X	X																								
180-41508-5	1	T	05:29	X	X	X																								
180-41508-6	1	T	05:29	X	X	X																								
180-41508-7	1	T	05:29	X	X	X																								
180-41508-8	1	T	05:29	X	X	X																								
CCV 180-134561/11	1		05:29	X																										
CCB 180-134561/12	1		05:29	X	X	X																								
180-41508-9	1	T	05:29	X	X	X																								
180-41508-10	1	T	05:29	X	X	X																								
180-41508-11	1	T	05:29	X	X	X																								
180-41508-12	1	T	05:29	X	X	X																								
180-41508-12 DU	1	T	05:29	X	X	X																								
180-41508-13	1	T	05:29	X	X	X																								
180-41508-14	1	T	05:29	X	X	X																								
ZZZZZZ			05:29																											
ZZZZZZ			05:29																											
CCV 180-134561/22	1		05:29	X	X	X																								
CCB 180-134561/23	1		05:29	X	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

AG#030315AK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-012

Analyst: CLLahuyde
Reviewed By: SMDKC
pH Meter ID: Accumet XL S/N#94102132 CM 3-3-15
pH 4 Start: 4.01

Date: 3-3-15
Date: CM 3-3-15
AD Batch: 134561
pH 4 End: 4.03

Job Number(s): 41508-41594

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
LCS	10.55	50	5.7	10.8	.0204	220.32				
MB	5.28		0	0.1		2.04				
180-41508-1	7.20		0	14.0		285.6				
-1X	7.13		0	13.7		279.48				
3	7.10		0	13.6		277.44				
4	7.25		0	12.1		246.84				
5	7.45		0	12.0		244.8				
6	7.37		0	12.2		248.88				
7	7.26		0	11.3		230.52				
8	7.58		0	12.5		255				
CCV	10.40		3.1	6.4		130.56				
CCB	5.63		0	0.1		2.04				
180-41508-9	7.48		0	12.0		244.8				
10	7.57		0	12.2		248.88				
11	7.42		0	13.0		265.2				
12	7.25		0	12.9		263.16				
12X	7.33		0	13.4		273.36				
13	7.58		0	11.2		228.48				
14	7.46		0	11.2		228.48				
180-41594-1	7.48		0	12.6		257.04				
~~2~~	~~6.01~~		0			~~CW3 3-15~~				
CCV	10.38		3.1	6.4		130.56				
CCB	5.67		0	0.1		2.04				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41508-1

SDG No.:

Batch Number: 134561 Batch Start Date: 03/03/15 05:29 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 180-134561/1		SM 2320B		50 mL	10.55 SU	0 mL	5.7 mL	5.7 mL	0 mL
MB 180-134561/2		SM 2320B		50 mL	5.28 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-1	HD-MW-98I-0/1-0	SM 2320B	T	50 mL	7.20 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-1 DU	HD-MW-98I-0/1-0	SM 2320B	T	50 mL	7.13 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-3	HD-MW-98S-0/1-0	SM 2320B	T	50 mL	7.10 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-4	HD-MW-99S-0/1-0	SM 2320B	T	50 mL	7.25 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-5	HD-MW-99D-0/1-0	SM 2320B	T	50 mL	7.45 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-6	HD-MW-145A-0/1-0	SM 2320B	T	50 mL	7.37 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-7	HD-MW-147A-0/1-0	SM 2320B	T	50 mL	7.26 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-8	HD-MW-100S-0/1-0	SM 2320B	T	50 mL	7.58 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-134561/11		SM 2320B		50 mL	10.40 SU	0 mL	3.1 mL	3.1 mL	0 mL
CCB 180-134561/12		SM 2320B		50 mL	5.63 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-9	HD-MW-100I-0/1-0	SM 2320B	T	50 mL	7.48 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-10	HD-MW-100D-0/1-0	SM 2320B	T	50 mL	7.57 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-11	HD-CW-15A-0/1-0	SM 2320B	T	50 mL	7.42 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-12	HD-CW-13-0/1-0	SM 2320B	T	50 mL	7.25 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-12 DU	HD-CW-13-0/1-0	SM 2320B	T	50 mL	7.33 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-13	HD-CW-20-0/1-0	SM 2320B	T	50 mL	7.58 SU	0 mL	0 mL	0 mL	0 mL
180-41508-A-14	HD-CW-9-0/1-0	SM 2320B	T	50 mL	7.46 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-134561/22		SM 2320B		50 mL	10.38 SU	0 mL	3.1 mL	3.1 mL	0 mL
CCB 180-134561/23		SM 2320B		50 mL	5.67 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 180-134561/1		SM 2320B		5.1 mL	5.1 mL	Case 4	208.08 mg/L	12.24 mg/L	0 mg/L
MB 180-134561/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.04 mg/L
180-41508-A-1	HD-MW-98I-0/1-0	SM 2320B	T	14.0 mL	14 mL	Case 1	0 mg/L	0 mg/L	285.6 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.: 180-41508-1

SDG No.:

Batch Number: 134561 Batch Start Date: 03/03/15 05:29 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
180-41508-A-1 DU	HD-MW-98I-0/1-0	SM 2320B	T	13.7 mL	13.7 mL	Case 1	0 mg/L	0 mg/L	279.48 mg/L
180-41508-A-3	HD-MW-98S-0/1-0	SM 2320B	T	13.6 mL	13.6 mL	Case 1	0 mg/L	0 mg/L	277.44 mg/L
180-41508-A-4	HD-MW-99S-0/1-0	SM 2320B	T	12.1 mL	12.1 mL	Case 1	0 mg/L	0 mg/L	246.84 mg/L
180-41508-A-5	HD-MW-99D-0/1-0	SM 2320B	T	12.0 mL	12 mL	Case 1	0 mg/L	0 mg/L	244.8 mg/L
180-41508-A-6	HD-MW-145A-0/1-0	SM 2320B	T	12.2 mL	12.2 mL	Case 1	0 mg/L	0 mg/L	248.88 mg/L
180-41508-A-7	HD-MW-147A-0/1-0	SM 2320B	T	11.3 mL	11.3 mL	Case 1	0 mg/L	0 mg/L	230.52 mg/L
180-41508-A-8	HD-MW-100S-0/1-0	SM 2320B	T	12.5 mL	12.5 mL	Case 1	0 mg/L	0 mg/L	255 mg/L
CCV 180-134561/11		SM 2320B		3.3 mL	3.3 mL	Case 2	126.48 mg/L	0 mg/L	4.08 mg/L
CCB 180-134561/12		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.04 mg/L
180-41508-A-9	HD-MW-100I-0/1-0	SM 2320B	T	12.0 mL	12 mL	Case 1	0 mg/L	0 mg/L	244.8 mg/L
180-41508-A-10	HD-MW-100D-0/1-0	SM 2320B	T	12.2 mL	12.2 mL	Case 1	0 mg/L	0 mg/L	248.88 mg/L
180-41508-A-11	HD-CW-15A-0/1-0	SM 2320B	T	13.0 mL	13 mL	Case 1	0 mg/L	0 mg/L	265.2 mg/L
180-41508-A-12	HD-CW-13-0/1-0	SM 2320B	T	12.9 mL	12.9 mL	Case 1	0 mg/L	0 mg/L	263.16 mg/L
180-41508-A-12 DU	HD-CW-13-0/1-0	SM 2320B	T	13.4 mL	13.4 mL	Case 1	0 mg/L	0 mg/L	273.36 mg/L
180-41508-A-13	HD-CW-20-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 1	0 mg/L	0 mg/L	228.48 mg/L
180-41508-A-14	HD-CW-9-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 1	0 mg/L	0 mg/L	228.48 mg/L
CCV 180-134561/22		SM 2320B		3.3 mL	3.3 mL	Case 2	126.48 mg/L	0 mg/L	4.08 mg/L
CCB 180-134561/23		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.04 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00081	WALK250PPMPi 00090	
LCS 180-134561/1		SM 2320B		116.28 mg/L	220.32 mg/L	50 mL		50 mL	
MB 180-134561/2		SM 2320B		0 mg/L	2.04 mg/L	50 mL			
180-41508-A-1	HD-MW-98I-0/1-0	SM 2320B	T	0 mg/L	285.6 mg/L	50 mL			
180-41508-A-1 DU	HD-MW-98I-0/1-0	SM 2320B	T	0 mg/L	279.48 mg/L	50 mL			
180-41508-A-3	HD-MW-98S-0/1-0	SM 2320B	T	0 mg/L	277.44 mg/L	50 mL			
180-41508-A-4	HD-MW-99S-0/1-0	SM 2320B	T	0 mg/L	246.84 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.: 180-41508-1

SDG No.:

Batch Number: 134561 Batch Start Date: 03/03/15 05:29 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00081	WALK250PPMPi 00090	
180-41508-A-5	HD-MW-99D-0/1-0	SM 2320B	T	0 mg/L	244.8 mg/L	50 mL			
180-41508-A-6	HD-MW-145A-0/1-0	SM 2320B	T	0 mg/L	248.88 mg/L	50 mL			
180-41508-A-7	HD-MW-147A-0/1-0	SM 2320B	T	0 mg/L	230.52 mg/L	50 mL			
180-41508-A-8	HD-MW-100S-0/1-0	SM 2320B	T	0 mg/L	255 mg/L	50 mL			
CCV 180-134561/11		SM 2320B		63.24 mg/L	130.56 mg/L	50 mL	50 mL		
CCB 180-134561/12		SM 2320B		0 mg/L	2.04 mg/L	50 mL			
180-41508-A-9	HD-MW-100I-0/1-0	SM 2320B	T	0 mg/L	244.8 mg/L	50 mL			
180-41508-A-10	HD-MW-100D-0/1-0	SM 2320B	T	0 mg/L	248.88 mg/L	50 mL			
180-41508-A-11	HD-CW-15A-0/1-0	SM 2320B	T	0 mg/L	265.2 mg/L	50 mL			
180-41508-A-12	HD-CW-13-0/1-0	SM 2320B	T	0 mg/L	263.16 mg/L	50 mL			
180-41508-A-12 DU	HD-CW-13-0/1-0	SM 2320B	T	0 mg/L	273.36 mg/L	50 mL			
180-41508-A-13	HD-CW-20-0/1-0	SM 2320B	T	0 mg/L	228.48 mg/L	50 mL			
180-41508-A-14	HD-CW-9-0/1-0	SM 2320B	T	0 mg/L	228.48 mg/L	50 mL			
CCV 180-134561/22		SM 2320B		63.24 mg/L	130.56 mg/L	50 mL	50 mL		
CCB 180-134561/23		SM 2320B		0 mg/L	2.04 mg/L	50 mL			

Batch Notes	
Batch Comment	PH 4 START: 4.01 PH 4 END: 4.03
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1393069
pH Buffer 4 ID	1233635
pH Buffer 5 ID	1179928
Sulfuric Acid Lot Number	1473396
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0204 N

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.: 180-41508-1

SDG No.:

Batch Number: 134561 Batch Start Date: 03/03/15 05:29 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

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: 2/25/2015	COC No: TAP2015022501
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
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			
(717) 657-1611 FAX	■ 2 weeks			
Project Name: Dry Season Shutdown Event 10	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

180-41508 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-MW-98I-0/1-0	2/25/15	9:35	Groundwater	Water	5	X	X	X	
HD-QC3-0/1-2	2/25/15	12:00	Trip Blank	Water	2	X			
HD-MW-98S-0/1-0	2/25/15	10:25	Groundwater	Water	5	X	X	X	
HD-MW-98I-0/1-0 MS	2/25/15	9:35	Groundwater	Water	5	X	X	X	
HD-MW-98I-0/1-0 MSD	2/25/15	1:35	Groundwater	Water	5	X	X	X	
HD-MW-99S-0/1-0	2/25/15	12:45	Groundwater	Water	5	X	X	X	
HD-MW-99D-0/1-0	2/25/15	13:35	Groundwater	Water	5	X	X	X	
HD-MW-145A-0/1-0	2/25/15	11:40	Groundwater	Water	5	X	X	X	
HD-MW-147A-0/1-0	2/25/15	13:30	Groundwater	Water	5	X	X	X	
HD-MW-100S-0/1-0	2/25/15	12:25	Groundwater	Water	5	X	X	X	
HD-MW-100I-0/1-0	2/25/15	11:45	Groundwater	Water	5	X	X	X	
HD-MW-100D-0/1-0	2/25/15	10:40	Groundwater	Water	5	X	X	X	
HD-CW-15A-0/1-0	2/25/15	6:40	Groundwater	Water	5	X	X	X	
HD-CW-13-0/1-0	2/25/15	6:55	Groundwater	Water	5	X	X	X	
HD-CW-20-0/1-0	2/25/15	6:45	Groundwater	Water	5	X	X	X	
HD-CW-9-0/1-0	2/25/15	6:50	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=Na2S2O3						2	1	4	
Field Filter						N	N	N	

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: 2/25/15 1937	Received by:	Company: T.A.	Date/Time: 2/25/15 14:37
Relinquished by:	Company: FAKER	Date/Time: 2/25/15 1600	Received by:	Company: TA	Date/Time: 2-26-15 10:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Shor

ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE

KING OF PRUSSIA, PA 19406
UNITED STATES US

180-41508 Waybill

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0201 7729 9487 8760

THU - 26 FEB AA
STANDARD OVERNIGHT

EV AGCA

15238
PA-US PIT

Uncorrected temp
Thermometer ID 36 °C
CF 0
Initials ES
PT-WI-SR-001 effective 7/26/13

Part # 158297-455 Rit2 11/14

03

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-41508-1

Login Number: 41508

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	