TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-43359-1

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
5/6/2015 11:52 AM

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05/06/2015

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Qualifiers

GC/MS VOA

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

HPLC/IC

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

General Chemistry

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

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-43359-1

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 04/23/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.9 C.

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

The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) for 140474 recovered outside control limits for the following analytes: Acetone and 2-Butanone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Acetone failed the recovery criteria high for the MSD of sample HD-MW-95-0/1-0 (180-43359-8) in batch 180-140387.

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

GENERAL CHEMISTRY
Samples HD-CW-15A-0/1-0 (4), HD-CW-18-0/1-0 (11) and HD-MW-50D-0/1-0 (12) required dilution prior to analysis for the IC. 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 180-140221/2 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.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Client Sample ID: HD-QC4-0/1-2 — Lab Sample ID: 180-43359-1

No Detections.

Client Sample ID: HD-CW-9-0/1-0 — Lab Sample ID: 180-43359-2

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
Methylene Chloride	5.9	J	13	1.6	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethane	4.4	J	13	1.5	ug/L	12.5		8260C	Total/NA
cis-1,2-Dichloroethene	110		13	3.0	ug/L	12.5		8260C	Total/NA
1,1,1-Trichloroethane	25		13	3.6	ug/L	12.5		8260C	Total/NA
Trichloroethene	130		13	1.8	ug/L	12.5		8260C	Total/NA
Tetrachloroethene	370		13	1.9	ug/L	12.5		8260C	Total/NA
Nitrate as N	3.8		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	190		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	90000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	14000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	73000		500	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-13-0/1-0 — Lab Sample ID: 180-43359-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	13	J	25	7.4	ug/L	25		8260C	Total/NA
Methylene Chloride	12	J	25	3.1	ug/L	25		8260C	Total/NA
1,1-Dichloroethane	6.3	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	23	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	240		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	200		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	3.5		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150		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	120000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	13000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	48000		500	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-15A-0/1-0 — Lab Sample ID: 180-43359-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2000		1000	300	ug/L	1000		8260C	Total/NA
Methylene Chloride	480	J	1000	130	ug/L	1000		8260C	Total/NA
1,1-Dichloroethane	140	J	1000	120	ug/L	1000		8260C	Total/NA
cis-1,2-Dichloroethene	9500		1000	240	ug/L	1000		8260C	Total/NA
1,1,1-Trichloroethane	9700		1000	290	ug/L	1000		8260C	Total/NA
Trichloroethene	4800		1000	140	ug/L	1000		8260C	Total/NA
Tetrachloroethene	1400		1000	150	ug/L	1000		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-CW-15A-0/1-0 (Continued) — Lab Sample ID: 180-43359-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	4.5		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	270		5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	140		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	180000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	12000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	77000		500	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-17-0/1-0 — Lab Sample ID: 180-43359-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	4.9	J	5.0	1.5	ug/L	5		8260C	Total/NA
Methylene Chloride	2.3	J	5.0	0.63	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	2.9	J	5.0	0.58	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	65		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	11		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	61		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	32		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	1.9		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	94		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	4800		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	10000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	32000		500	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: 180-43359-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	18	J	50	15	ug/L	50		8260C	Total/NA
Methylene Chloride	26	J	50	6.3	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	12	J	50	5.8	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	160		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	77		50	14	ug/L	50		8260C	Total/NA
Trichloroethene	600		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	1400		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	3.3		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	31		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	89000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	6200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	60000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

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Client Sample ID: HD-MW-7-0/1-0 — Lab Sample ID: 180-43359-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	16		10	3.0	ug/L	10		8260C	Total/NA
Methylene Chloride	4.0	J	10	1.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	6.9	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	200		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	25		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	250		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	190		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	3.9		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120		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	93000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	26000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	10000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	46000		500	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-95-0/1-0 — Lab Sample ID: 180-43359-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.30	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	6.1		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	3.2		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.8		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	0.63		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	49		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		500	2.8	ug/L	1		6020A	Total/NA
Potassium	2600		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	7800		500	1.2	ug/L	1		6020A	Total/NA
Sodium	21000		500	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-MW-96S-0/1-0 — Lab Sample ID: 180-43359-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.9	J	2.5	0.74	ug/L	2.5		8260C	Total/NA
Methylene Chloride	1.8	J	2.5	0.31	ug/L	2.5		8260C	Total/NA
trans-1,2-Dichloroethene	0.54	J	2.5	0.42	ug/L	2.5		8260C	Total/NA
1,1-Dichloroethane	1.3	J	2.5	0.29	ug/L	2.5		8260C	Total/NA
cis-1,2-Dichloroethene	91		2.5	0.59	ug/L	2.5		8260C	Total/NA
Chloroform	0.45	J	2.5	0.43	ug/L	2.5		8260C	Total/NA
1,1,1-Trichloroethane	6.8		2.5	0.72	ug/L	2.5		8260C	Total/NA
Trichloroethene	210	E	2.5	0.36	ug/L	2.5		8260C	Total/NA
Tetrachloroethene	470	E	2.5	0.37	ug/L	2.5		8260C	Total/NA
Methylene Chloride - DL	12	J	25	3.1	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene - DL	94		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane - DL	8.1	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene - DL	240		25	3.6	ug/L	25		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-96S-0/1-0 (Continued) — Lab Sample ID: 180-43359-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	630		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	3.5		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	49		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	7100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	55000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	330	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	330	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-96D-0/1-0 — Lab Sample ID: 180-43359-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	4.4	J	10	3.0	ug/L	10		8260C	Total/NA
Methylene Chloride	4.8	J	10	1.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	1.3	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	96		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	8.5	J	10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	270		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	120		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	3.7		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	44		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	4700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	43000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-18-0/1-0 — Lab Sample ID: 180-43359-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.25	J	1.0	0.23	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.90	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.6		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	38		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.36	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	8.2		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.80	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	0.12		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	230		5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	290		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	100000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	10000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	42000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	150000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Client Sample ID: HD-MW-50D-0/1-0 — Lab Sample ID: 180-43359-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	34	J	130	28	ug/L	125		8260C	Total/NA
1,1-Dichloroethene	300		130	37	ug/L	125		8260C	Total/NA
Methylene Chloride	63	J	130	16	ug/L	125		8260C	Total/NA
1,1-Dichloroethane	840		130	15	ug/L	125		8260C	Total/NA
cis-1,2-Dichloroethene	5300		130	30	ug/L	125		8260C	Total/NA
1,1,1-Trichloroethane	280		130	36	ug/L	125		8260C	Total/NA
Trichloroethene	5700		130	18	ug/L	125		8260C	Total/NA
Tetrachloroethene	510		130	19	ug/L	125		8260C	Total/NA
Nitrate as N	0.017	J	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	98		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	270		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	160000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	2300		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	48000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	17000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	310	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	310	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-51S-0/1-0 — Lab Sample ID: 180-43359-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	46	J	50	15	ug/L	50		8260C	Total/NA
Methylene Chloride	25	J	50	6.3	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	15	J	50	5.8	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	730		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	110		50	14	ug/L	50		8260C	Total/NA
Trichloroethene	740		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	480		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	2.6		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	54		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	8100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	14000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	47000		500	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-QC4-0/1-2
Date Collected: 04/22/15 12:00
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/03/15 13:00	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/03/15 13:00	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/03/15 13:00	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/03/15 13:00	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/03/15 13:00	1
Acetone	5.0	U	5.0	2.5	ug/L			05/03/15 13:00	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/03/15 13:00	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/03/15 13:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/03/15 13:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/03/15 13:00	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/03/15 13:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/03/15 13:00	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/03/15 13:00	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/03/15 13:00	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/03/15 13:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/03/15 13:00	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/03/15 13:00	1
Benzene	1.0	U	1.0	0.11	ug/L			05/03/15 13:00	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/03/15 13:00	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/03/15 13:00	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/03/15 13:00	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/03/15 13:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/03/15 13:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/03/15 13:00	1
Toluene	1.0	U	1.0	0.15	ug/L			05/03/15 13:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/03/15 13:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/03/15 13:00	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/03/15 13:00	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/03/15 13:00	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/03/15 13:00	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/03/15 13:00	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/03/15 13:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/03/15 13:00	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/03/15 13:00	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/03/15 13:00	1
Styrene	1.0	U	1.0	0.097	ug/L			05/03/15 13:00	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/03/15 13:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/03/15 13:00	1
Acrylonitrile	20	U	20	0.55	ug/L			05/03/15 13:00	1
1,4-Dioxane	200	U	200	34	ug/L			05/03/15 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 135*		*05/03/15 13:00*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/03/15 13:00*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*05/03/15 13:00*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*05/03/15 13:00*	*1*

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

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 04/22/15 02:45
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	13	U	13	3.5	ug/L			05/04/15 17:39	12.5
Vinyl chloride	13	U	13	2.8	ug/L			05/04/15 17:39	12.5
Bromomethane	13	U	13	3.9	ug/L			05/04/15 17:39	12.5
Chloroethane	13	U	13	2.7	ug/L			05/04/15 17:39	12.5
1,1-Dichloroethene	**6.3**	**J**	13	3.7	ug/L			05/04/15 17:39	12.5
Acetone	63	U *	63	31	ug/L			05/04/15 17:39	12.5
Carbon disulfide	13	U	13	2.7	ug/L			05/04/15 17:39	12.5
Methylene Chloride	**5.9**	**J**	13	1.6	ug/L			05/04/15 17:39	12.5
trans-1,2-Dichloroethene	13	U	13	2.1	ug/L			05/04/15 17:39	12.5
Methyl tert-butyl ether	13	U	13	2.3	ug/L			05/04/15 17:39	12.5
1,1-Dichloroethane	**4.4**	**J**	13	1.5	ug/L			05/04/15 17:39	12.5
cis-1,2-Dichloroethene	**110**		13	3.0	ug/L			05/04/15 17:39	12.5
Bromochloromethane	13	U	13	2.3	ug/L			05/04/15 17:39	12.5
2-Butanone (MEK)	63	U *	63	6.8	ug/L			05/04/15 17:39	12.5
Chloroform	13	U	13	2.1	ug/L			05/04/15 17:39	12.5
1,1,1-Trichloroethane	**25**		13	3.6	ug/L			05/04/15 17:39	12.5
Carbon tetrachloride	13	U	13	1.7	ug/L			05/04/15 17:39	12.5
Benzene	13	U	13	1.3	ug/L			05/04/15 17:39	12.5
1,2-Dichloroethane	13	U	13	2.6	ug/L			05/04/15 17:39	12.5
Trichloroethene	**130**		13	1.8	ug/L			05/04/15 17:39	12.5
1,2-Dichloropropane	13	U	13	1.2	ug/L			05/04/15 17:39	12.5
Bromodichloromethane	13	U	13	1.6	ug/L			05/04/15 17:39	12.5
cis-1,3-Dichloropropene	13	U	13	2.3	ug/L			05/04/15 17:39	12.5
4-Methyl-2-pentanone (MIBK)	63	U	63	6.6	ug/L			05/04/15 17:39	12.5
Toluene	13	U	13	1.9	ug/L			05/04/15 17:39	12.5
trans-1,3-Dichloropropene	13	U	13	1.9	ug/L			05/04/15 17:39	12.5
1,1,2-Trichloroethane	13	U	13	2.5	ug/L			05/04/15 17:39	12.5
Tetrachloroethene	**370**		13	1.9	ug/L			05/04/15 17:39	12.5
2-Hexanone	63	U	63	2.0	ug/L			05/04/15 17:39	12.5
Dibromochloromethane	13	U	13	1.7	ug/L			05/04/15 17:39	12.5
1,2-Dibromoethane (EDB)	13	U	13	2.3	ug/L			05/04/15 17:39	12.5
Chlorobenzene	13	U	13	1.7	ug/L			05/04/15 17:39	12.5
1,1,1,2-Tetrachloroethane	13	U	13	3.5	ug/L			05/04/15 17:39	12.5
Ethylbenzene	13	U	13	2.8	ug/L			05/04/15 17:39	12.5
Xylenes, Total	38	U	38	6.1	ug/L			05/04/15 17:39	12.5
Styrene	13	U	13	1.2	ug/L			05/04/15 17:39	12.5
Bromoform	13	U	13	2.4	ug/L			05/04/15 17:39	12.5
1,1,2,2-Tetrachloroethane	13	U	13	2.5	ug/L			05/04/15 17:39	12.5
Acrylonitrile	250	U	250	6.8	ug/L			05/04/15 17:39	12.5
1,4-Dioxane	2500	U	2500	430	ug/L			05/04/15 17:39	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*		*05/04/15 17:39*	*12.5*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/04/15 17:39*	*12.5*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*05/04/15 17:39*	*12.5*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/04/15 17:39*	*12.5*

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

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 04/22/15 03:00
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			05/04/15 18:03	25
Vinyl chloride	25	U	25	5.7	ug/L			05/04/15 18:03	25
Bromomethane	25	U	25	7.8	ug/L			05/04/15 18:03	25
Chloroethane	25	U	25	5.4	ug/L			05/04/15 18:03	25
1,1-Dichloroethene	**13**	**J**	25	7.4	ug/L			05/04/15 18:03	25
Acetone	130	U *	130	63	ug/L			05/04/15 18:03	25
Carbon disulfide	25	U	25	5.3	ug/L			05/04/15 18:03	25
Methylene Chloride	**12**	**J**	25	3.1	ug/L			05/04/15 18:03	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			05/04/15 18:03	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			05/04/15 18:03	25
1,1-Dichloroethane	**6.3**	**J**	25	2.9	ug/L			05/04/15 18:03	25
cis-1,2-Dichloroethene	**460**		25	5.9	ug/L			05/04/15 18:03	25
Bromochloromethane	25	U	25	4.5	ug/L			05/04/15 18:03	25
2-Butanone (MEK)	130	U *	130	14	ug/L			05/04/15 18:03	25
Chloroform	25	U	25	4.3	ug/L			05/04/15 18:03	25
1,1,1-Trichloroethane	**23**	**J**	25	7.2	ug/L			05/04/15 18:03	25
Carbon tetrachloride	25	U	25	3.4	ug/L			05/04/15 18:03	25
Benzene	25	U	25	2.6	ug/L			05/04/15 18:03	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			05/04/15 18:03	25
Trichloroethene	**240**		25	3.6	ug/L			05/04/15 18:03	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			05/04/15 18:03	25
Bromodichloromethane	25	U	25	3.3	ug/L			05/04/15 18:03	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			05/04/15 18:03	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			05/04/15 18:03	25
Toluene	25	U	25	3.8	ug/L			05/04/15 18:03	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			05/04/15 18:03	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			05/04/15 18:03	25
Tetrachloroethene	**200**		25	3.7	ug/L			05/04/15 18:03	25
2-Hexanone	130	U	130	4.0	ug/L			05/04/15 18:03	25
Dibromochloromethane	25	U	25	3.4	ug/L			05/04/15 18:03	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			05/04/15 18:03	25
Chlorobenzene	25	U	25	3.4	ug/L			05/04/15 18:03	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			05/04/15 18:03	25
Ethylbenzene	25	U	25	5.7	ug/L			05/04/15 18:03	25
Xylenes, Total	75	U	75	12	ug/L			05/04/15 18:03	25
Styrene	25	U	25	2.4	ug/L			05/04/15 18:03	25
Bromoform	25	U	25	4.8	ug/L			05/04/15 18:03	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			05/04/15 18:03	25
Acrylonitrile	500	U	500	14	ug/L			05/04/15 18:03	25
1,4-Dioxane	5000	U	5000	860	ug/L			05/04/15 18:03	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*		*05/04/15 18:03*	*25*
Toluene-d8 (Surr)	*112*		*71 - 118*		*05/04/15 18:03*	*25*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*05/04/15 18:03*	*25*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/04/15 18:03*	*25*

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

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 04/22/15 02:40
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1000	U	1000	280	ug/L			05/04/15 18:27	1000
Vinyl chloride	1000	U	1000	230	ug/L			05/04/15 18:27	1000
Bromomethane	1000	U	1000	310	ug/L			05/04/15 18:27	1000
Chloroethane	1000	U	1000	210	ug/L			05/04/15 18:27	1000
1,1-Dichloroethene	**2000**		1000	300	ug/L			05/04/15 18:27	1000
Acetone	5000	U *	5000	2500	ug/L			05/04/15 18:27	1000
Carbon disulfide	1000	U	1000	210	ug/L			05/04/15 18:27	1000
Methylene Chloride	**480**	**J**	1000	130	ug/L			05/04/15 18:27	1000
trans-1,2-Dichloroethene	1000	U	1000	170	ug/L			05/04/15 18:27	1000
Methyl tert-butyl ether	1000	U	1000	180	ug/L			05/04/15 18:27	1000
1,1-Dichloroethane	**140**	**J**	1000	120	ug/L			05/04/15 18:27	1000
cis-1,2-Dichloroethene	**9500**		1000	240	ug/L			05/04/15 18:27	1000
Bromochloromethane	1000	U	1000	180	ug/L			05/04/15 18:27	1000
2-Butanone (MEK)	5000	U *	5000	550	ug/L			05/04/15 18:27	1000
Chloroform	1000	U	1000	170	ug/L			05/04/15 18:27	1000
1,1,1-Trichloroethane	**9700**		1000	290	ug/L			05/04/15 18:27	1000
Carbon tetrachloride	1000	U	1000	140	ug/L			05/04/15 18:27	1000
Benzene	1000	U	1000	110	ug/L			05/04/15 18:27	1000
1,2-Dichloroethane	1000	U	1000	210	ug/L			05/04/15 18:27	1000
Trichloroethene	**4800**		1000	140	ug/L			05/04/15 18:27	1000
1,2-Dichloropropane	1000	U	1000	95	ug/L			05/04/15 18:27	1000
Bromodichloromethane	1000	U	1000	130	ug/L			05/04/15 18:27	1000
cis-1,3-Dichloropropene	1000	U	1000	190	ug/L			05/04/15 18:27	1000
4-Methyl-2-pentanone (MIBK)	5000	U	5000	530	ug/L			05/04/15 18:27	1000
Toluene	1000	U	1000	150	ug/L			05/04/15 18:27	1000
trans-1,3-Dichloropropene	1000	U	1000	150	ug/L			05/04/15 18:27	1000
1,1,2-Trichloroethane	1000	U	1000	200	ug/L			05/04/15 18:27	1000
Tetrachloroethene	**1400**		1000	150	ug/L			05/04/15 18:27	1000
2-Hexanone	5000	U	5000	160	ug/L			05/04/15 18:27	1000
Dibromochloromethane	1000	U	1000	140	ug/L			05/04/15 18:27	1000
1,2-Dibromoethane (EDB)	1000	U	1000	180	ug/L			05/04/15 18:27	1000
Chlorobenzene	1000	U	1000	140	ug/L			05/04/15 18:27	1000
1,1,1,2-Tetrachloroethane	1000	U	1000	280	ug/L			05/04/15 18:27	1000
Ethylbenzene	1000	U	1000	230	ug/L			05/04/15 18:27	1000
Xylenes, Total	3000	U	3000	490	ug/L			05/04/15 18:27	1000
Styrene	1000	U	1000	97	ug/L			05/04/15 18:27	1000
Bromoform	1000	U	1000	190	ug/L			05/04/15 18:27	1000
1,1,2,2-Tetrachloroethane	1000	U	1000	200	ug/L			05/04/15 18:27	1000
Acrylonitrile	20000	U	20000	550	ug/L			05/04/15 18:27	1000
1,4-Dioxane	200000	U	200000	34000	ug/L			05/04/15 18:27	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*		*05/04/15 18:27*	*1000*
Toluene-d8 (Surr)	*111*		*71 - 118*		*05/04/15 18:27*	*1000*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*05/04/15 18:27*	*1000*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/04/15 18:27*	*1000*

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

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 04/22/15 03:05
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			05/04/15 18:50	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			05/04/15 18:50	5
Bromomethane	5.0	U	5.0	1.6	ug/L			05/04/15 18:50	5
Chloroethane	5.0	U	5.0	1.1	ug/L			05/04/15 18:50	5
1,1-Dichloroethene	**4.9**	**J**	5.0	1.5	ug/L			05/04/15 18:50	5
Acetone	25	U *	25	13	ug/L			05/04/15 18:50	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			05/04/15 18:50	5
Methylene Chloride	**2.3**	**J**	5.0	0.63	ug/L			05/04/15 18:50	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			05/04/15 18:50	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			05/04/15 18:50	5
1,1-Dichloroethane	**2.9**	**J**	5.0	0.58	ug/L			05/04/15 18:50	5
cis-1,2-Dichloroethene	**65**		5.0	1.2	ug/L			05/04/15 18:50	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			05/04/15 18:50	5
2-Butanone (MEK)	25	U *	25	2.7	ug/L			05/04/15 18:50	5
Chloroform	5.0	U	5.0	0.85	ug/L			05/04/15 18:50	5
1,1,1-Trichloroethane	**11**		5.0	1.4	ug/L			05/04/15 18:50	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			05/04/15 18:50	5
Benzene	5.0	U	5.0	0.53	ug/L			05/04/15 18:50	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			05/04/15 18:50	5
Trichloroethene	**61**		5.0	0.72	ug/L			05/04/15 18:50	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			05/04/15 18:50	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			05/04/15 18:50	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			05/04/15 18:50	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			05/04/15 18:50	5
Toluene	5.0	U	5.0	0.75	ug/L			05/04/15 18:50	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			05/04/15 18:50	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			05/04/15 18:50	5
Tetrachloroethene	**32**		5.0	0.74	ug/L			05/04/15 18:50	5
2-Hexanone	25	U	25	0.80	ug/L			05/04/15 18:50	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			05/04/15 18:50	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			05/04/15 18:50	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			05/04/15 18:50	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			05/04/15 18:50	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			05/04/15 18:50	5
Xylenes, Total	15	U	15	2.4	ug/L			05/04/15 18:50	5
Styrene	5.0	U	5.0	0.48	ug/L			05/04/15 18:50	5
Bromoform	5.0	U	5.0	0.96	ug/L			05/04/15 18:50	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			05/04/15 18:50	5
Acrylonitrile	100	U	100	2.7	ug/L			05/04/15 18:50	5
1,4-Dioxane	1000	U	1000	170	ug/L			05/04/15 18:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*05/04/15 18:50*	*5*
Toluene-d8 (Surr)	*110*		*71 - 118*		*05/04/15 18:50*	*5*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*05/04/15 18:50*	*5*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/04/15 18:50*	*5*

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

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 04/22/15 02:55
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			05/04/15 19:14	50
Vinyl chloride	50	U	50	11	ug/L			05/04/15 19:14	50
Bromomethane	50	U	50	16	ug/L			05/04/15 19:14	50
Chloroethane	50	U	50	11	ug/L			05/04/15 19:14	50
1,1-Dichloroethene	**18**	**J**	50	15	ug/L			05/04/15 19:14	50
Acetone	250	U *	250	130	ug/L			05/04/15 19:14	50
Carbon disulfide	50	U	50	11	ug/L			05/04/15 19:14	50
Methylene Chloride	**26**	**J**	50	6.3	ug/L			05/04/15 19:14	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			05/04/15 19:14	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			05/04/15 19:14	50
1,1-Dichloroethane	**12**	**J**	50	5.8	ug/L			05/04/15 19:14	50
cis-1,2-Dichloroethene	**160**		50	12	ug/L			05/04/15 19:14	50
Bromochloromethane	50	U	50	9.0	ug/L			05/04/15 19:14	50
2-Butanone (MEK)	250	U *	250	27	ug/L			05/04/15 19:14	50
Chloroform	50	U	50	8.5	ug/L			05/04/15 19:14	50
1,1,1-Trichloroethane	**77**		50	14	ug/L			05/04/15 19:14	50
Carbon tetrachloride	50	U	50	6.8	ug/L			05/04/15 19:14	50
Benzene	50	U	50	5.3	ug/L			05/04/15 19:14	50
1,2-Dichloroethane	50	U	50	11	ug/L			05/04/15 19:14	50
Trichloroethene	**600**		50	7.2	ug/L			05/04/15 19:14	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			05/04/15 19:14	50
Bromodichloromethane	50	U	50	6.5	ug/L			05/04/15 19:14	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			05/04/15 19:14	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			05/04/15 19:14	50
Toluene	50	U	50	7.5	ug/L			05/04/15 19:14	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			05/04/15 19:14	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			05/04/15 19:14	50
Tetrachloroethene	**1400**		50	7.4	ug/L			05/04/15 19:14	50
2-Hexanone	250	U	250	8.0	ug/L			05/04/15 19:14	50
Dibromochloromethane	50	U	50	6.8	ug/L			05/04/15 19:14	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			05/04/15 19:14	50
Chlorobenzene	50	U	50	6.8	ug/L			05/04/15 19:14	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			05/04/15 19:14	50
Ethylbenzene	50	U	50	11	ug/L			05/04/15 19:14	50
Xylenes, Total	150	U	150	24	ug/L			05/04/15 19:14	50
Styrene	50	U	50	4.8	ug/L			05/04/15 19:14	50
Bromoform	50	U	50	9.6	ug/L			05/04/15 19:14	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			05/04/15 19:14	50
Acrylonitrile	1000	U	1000	27	ug/L			05/04/15 19:14	50
1,4-Dioxane	10000	U	10000	1700	ug/L			05/04/15 19:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*05/04/15 19:14*	*50*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/04/15 19:14*	*50*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*05/04/15 19:14*	*50*
Dibromofluoromethane (Surr)	*104*		*70 - 128*		*05/04/15 19:14*	*50*

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

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 04/22/15 09:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			05/04/15 20:02	10
Vinyl chloride	10	U	10	2.3	ug/L			05/04/15 20:02	10
Bromomethane	10	U	10	3.1	ug/L			05/04/15 20:02	10
Chloroethane	10	U	10	2.1	ug/L			05/04/15 20:02	10
1,1-Dichloroethene	**16**		10	3.0	ug/L			05/04/15 20:02	10
Acetone	50	U *	50	25	ug/L			05/04/15 20:02	10
Carbon disulfide	10	U	10	2.1	ug/L			05/04/15 20:02	10
Methylene Chloride	**4.0**	**J**	10	1.3	ug/L			05/04/15 20:02	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			05/04/15 20:02	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			05/04/15 20:02	10
1,1-Dichloroethane	**6.9**	**J**	10	1.2	ug/L			05/04/15 20:02	10
cis-1,2-Dichloroethene	**200**		10	2.4	ug/L			05/04/15 20:02	10
Bromochloromethane	10	U	10	1.8	ug/L			05/04/15 20:02	10
2-Butanone (MEK)	50	U *	50	5.5	ug/L			05/04/15 20:02	10
Chloroform	10	U	10	1.7	ug/L			05/04/15 20:02	10
1,1,1-Trichloroethane	**25**		10	2.9	ug/L			05/04/15 20:02	10
Carbon tetrachloride	10	U	10	1.4	ug/L			05/04/15 20:02	10
Benzene	10	U	10	1.1	ug/L			05/04/15 20:02	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			05/04/15 20:02	10
Trichloroethene	**250**		10	1.4	ug/L			05/04/15 20:02	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			05/04/15 20:02	10
Bromodichloromethane	10	U	10	1.3	ug/L			05/04/15 20:02	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			05/04/15 20:02	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			05/04/15 20:02	10
Toluene	10	U	10	1.5	ug/L			05/04/15 20:02	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			05/04/15 20:02	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			05/04/15 20:02	10
Tetrachloroethene	**190**		10	1.5	ug/L			05/04/15 20:02	10
2-Hexanone	50	U	50	1.6	ug/L			05/04/15 20:02	10
Dibromochloromethane	10	U	10	1.4	ug/L			05/04/15 20:02	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			05/04/15 20:02	10
Chlorobenzene	10	U	10	1.4	ug/L			05/04/15 20:02	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			05/04/15 20:02	10
Ethylbenzene	10	U	10	2.3	ug/L			05/04/15 20:02	10
Xylenes, Total	30	U	30	4.9	ug/L			05/04/15 20:02	10
Styrene	10	U	10	0.97	ug/L			05/04/15 20:02	10
Bromoform	10	U	10	1.9	ug/L			05/04/15 20:02	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			05/04/15 20:02	10
Acrylonitrile	200	U	200	5.5	ug/L			05/04/15 20:02	10
1,4-Dioxane	2000	U	2000	340	ug/L			05/04/15 20:02	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 135*		*05/04/15 20:02*	*10*
Toluene-d8 (Surr)	*112*		*71 - 118*		*05/04/15 20:02*	*10*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*05/04/15 20:02*	*10*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*05/04/15 20:02*	*10*

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

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 04/22/15 12:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/03/15 12:36	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/03/15 12:36	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/03/15 12:36	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/03/15 12:36	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/03/15 12:36	1
Acetone	5.0	U F1	5.0	2.5	ug/L			05/03/15 12:36	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/03/15 12:36	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/03/15 12:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/03/15 12:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/03/15 12:36	1
1,1-Dichloroethane	**0.30**	**J**	1.0	0.12	ug/L			05/03/15 12:36	1
cis-1,2-Dichloroethene	**6.1**		1.0	0.24	ug/L			05/03/15 12:36	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/03/15 12:36	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/03/15 12:36	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/03/15 12:36	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/03/15 12:36	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/03/15 12:36	1
Benzene	1.0	U	1.0	0.11	ug/L			05/03/15 12:36	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/03/15 12:36	1
Trichloroethene	**3.2**		1.0	0.14	ug/L			05/03/15 12:36	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/03/15 12:36	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/03/15 12:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/03/15 12:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/03/15 12:36	1
Toluene	1.0	U	1.0	0.15	ug/L			05/03/15 12:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/03/15 12:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/03/15 12:36	1
Tetrachloroethene	**2.8**		1.0	0.15	ug/L			05/03/15 12:36	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/03/15 12:36	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/03/15 12:36	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/03/15 12:36	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/03/15 12:36	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/03/15 12:36	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/03/15 12:36	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/03/15 12:36	1
Styrene	1.0	U	1.0	0.097	ug/L			05/03/15 12:36	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/03/15 12:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/03/15 12:36	1
Acrylonitrile	20	U	20	0.55	ug/L			05/03/15 12:36	1
1,4-Dioxane	200	U	200	34	ug/L			05/03/15 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*05/03/15 12:36*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*05/03/15 12:36*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 118*		*05/03/15 12:36*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*05/03/15 12:36*	*1*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 04/22/15 11:20
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.5	U	2.5	0.71	ug/L			05/05/15 22:39	2.5
Vinyl chloride	2.5	U	2.5	0.57	ug/L			05/05/15 22:39	2.5
Bromomethane	2.5	U	2.5	0.78	ug/L			05/05/15 22:39	2.5
Chloroethane	2.5	U	2.5	0.54	ug/L			05/05/15 22:39	2.5
1,1-Dichloroethene	**1.9**	**J**	2.5	0.74	ug/L			05/05/15 22:39	2.5
Acetone	13	U	13	6.3	ug/L			05/05/15 22:39	2.5
Carbon disulfide	2.5	U	2.5	0.53	ug/L			05/05/15 22:39	2.5
Methylene Chloride	**1.8**	**J**	2.5	0.31	ug/L			05/05/15 22:39	2.5
trans-1,2-Dichloroethene	**0.54**	**J**	2.5	0.42	ug/L			05/05/15 22:39	2.5
Methyl tert-butyl ether	2.5	U	2.5	0.46	ug/L			05/05/15 22:39	2.5
1,1-Dichloroethane	**1.3**	**J**	2.5	0.29	ug/L			05/05/15 22:39	2.5
cis-1,2-Dichloroethene	**91**		2.5	0.59	ug/L			05/05/15 22:39	2.5
Bromochloromethane	2.5	U	2.5	0.45	ug/L			05/05/15 22:39	2.5
2-Butanone (MEK)	13	U	13	1.4	ug/L			05/05/15 22:39	2.5
Chloroform	**0.45**	**J**	2.5	0.43	ug/L			05/05/15 22:39	2.5
1,1,1-Trichloroethane	**6.8**		2.5	0.72	ug/L			05/05/15 22:39	2.5
Carbon tetrachloride	2.5	U	2.5	0.34	ug/L			05/05/15 22:39	2.5
Benzene	2.5	U	2.5	0.26	ug/L			05/05/15 22:39	2.5
1,2-Dichloroethane	2.5	U	2.5	0.53	ug/L			05/05/15 22:39	2.5
Trichloroethene	**210**	**E**	2.5	0.36	ug/L			05/05/15 22:39	2.5
1,2-Dichloropropane	2.5	U	2.5	0.24	ug/L			05/05/15 22:39	2.5
Bromodichloromethane	2.5	U	2.5	0.33	ug/L			05/05/15 22:39	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	0.47	ug/L			05/05/15 22:39	2.5
4-Methyl-2-pentanone (MIBK)	13	U	13	1.3	ug/L			05/05/15 22:39	2.5
Toluene	2.5	U	2.5	0.38	ug/L			05/05/15 22:39	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	0.37	ug/L			05/05/15 22:39	2.5
1,1,2-Trichloroethane	2.5	U	2.5	0.50	ug/L			05/05/15 22:39	2.5
Tetrachloroethene	**470**	**E**	2.5	0.37	ug/L			05/05/15 22:39	2.5
2-Hexanone	13	U	13	0.40	ug/L			05/05/15 22:39	2.5
Dibromochloromethane	2.5	U	2.5	0.34	ug/L			05/05/15 22:39	2.5
1,2-Dibromoethane (EDB)	2.5	U	2.5	0.45	ug/L			05/05/15 22:39	2.5
Chlorobenzene	2.5	U	2.5	0.34	ug/L			05/05/15 22:39	2.5
1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.69	ug/L			05/05/15 22:39	2.5
Ethylbenzene	2.5	U	2.5	0.57	ug/L			05/05/15 22:39	2.5
Xylenes, Total	7.5	U	7.5	1.2	ug/L			05/05/15 22:39	2.5
Styrene	2.5	U	2.5	0.24	ug/L			05/05/15 22:39	2.5
Bromoform	2.5	U	2.5	0.48	ug/L			05/05/15 22:39	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.50	ug/L			05/05/15 22:39	2.5
Acrylonitrile	50	U	50	1.4	ug/L			05/05/15 22:39	2.5
1,4-Dioxane	500	U	500	86	ug/L			05/05/15 22:39	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*64 - 135*		*05/05/15 22:39*	*2.5*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/05/15 22:39*	*2.5*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*		*05/05/15 22:39*	*2.5*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*05/05/15 22:39*	*2.5*

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

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 04/22/15 10:32
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			05/04/15 20:50	10
Vinyl chloride	10	U	10	2.3	ug/L			05/04/15 20:50	10
Bromomethane	10	U	10	3.1	ug/L			05/04/15 20:50	10
Chloroethane	10	U	10	2.1	ug/L			05/04/15 20:50	10
1,1-Dichloroethene	**4.4**	**J**	10	3.0	ug/L			05/04/15 20:50	10
Acetone	50	U *	50	25	ug/L			05/04/15 20:50	10
Carbon disulfide	10	U	10	2.1	ug/L			05/04/15 20:50	10
Methylene Chloride	**4.8**	**J**	10	1.3	ug/L			05/04/15 20:50	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			05/04/15 20:50	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			05/04/15 20:50	10
1,1-Dichloroethane	**1.3**	**J**	10	1.2	ug/L			05/04/15 20:50	10
cis-1,2-Dichloroethene	**96**		10	2.4	ug/L			05/04/15 20:50	10
Bromochloromethane	10	U	10	1.8	ug/L			05/04/15 20:50	10
2-Butanone (MEK)	50	U *	50	5.5	ug/L			05/04/15 20:50	10
Chloroform	10	U	10	1.7	ug/L			05/04/15 20:50	10
1,1,1-Trichloroethane	**8.5**	**J**	10	2.9	ug/L			05/04/15 20:50	10
Carbon tetrachloride	10	U	10	1.4	ug/L			05/04/15 20:50	10
Benzene	10	U	10	1.1	ug/L			05/04/15 20:50	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			05/04/15 20:50	10
Trichloroethene	**270**		10	1.4	ug/L			05/04/15 20:50	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			05/04/15 20:50	10
Bromodichloromethane	10	U	10	1.3	ug/L			05/04/15 20:50	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			05/04/15 20:50	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			05/04/15 20:50	10
Toluene	10	U	10	1.5	ug/L			05/04/15 20:50	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			05/04/15 20:50	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			05/04/15 20:50	10
Tetrachloroethene	**120**		10	1.5	ug/L			05/04/15 20:50	10
2-Hexanone	50	U	50	1.6	ug/L			05/04/15 20:50	10
Dibromochloromethane	10	U	10	1.4	ug/L			05/04/15 20:50	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			05/04/15 20:50	10
Chlorobenzene	10	U	10	1.4	ug/L			05/04/15 20:50	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			05/04/15 20:50	10
Ethylbenzene	10	U	10	2.3	ug/L			05/04/15 20:50	10
Xylenes, Total	30	U	30	4.9	ug/L			05/04/15 20:50	10
Styrene	10	U	10	0.97	ug/L			05/04/15 20:50	10
Bromoform	10	U	10	1.9	ug/L			05/04/15 20:50	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			05/04/15 20:50	10
Acrylonitrile	200	U	200	5.5	ug/L			05/04/15 20:50	10
1,4-Dioxane	2000	U	2000	340	ug/L			05/04/15 20:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*05/04/15 20:50*	*10*
Toluene-d8 (Surr)	*106*		*71 - 118*		*05/04/15 20:50*	*10*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*		*05/04/15 20:50*	*10*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*05/04/15 20:50*	*10*

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

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 04/22/15 13:30
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/04/15 21:14	1
Vinyl chloride	**0.25**	**J**	1.0	0.23	ug/L			05/04/15 21:14	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/04/15 21:14	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/04/15 21:14	1
1,1-Dichloroethene	**0.90**	**J**	1.0	0.30	ug/L			05/04/15 21:14	1
Acetone	5.0	U *	5.0	2.5	ug/L			05/04/15 21:14	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/04/15 21:14	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/04/15 21:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/04/15 21:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/04/15 21:14	1
1,1-Dichloroethane	**1.6**		1.0	0.12	ug/L			05/04/15 21:14	1
cis-1,2-Dichloroethene	**38**		1.0	0.24	ug/L			05/04/15 21:14	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/04/15 21:14	1
2-Butanone (MEK)	5.0	U *	5.0	0.55	ug/L			05/04/15 21:14	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/04/15 21:14	1
1,1,1-Trichloroethane	**0.36**	**J**	1.0	0.29	ug/L			05/04/15 21:14	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/04/15 21:14	1
Benzene	1.0	U	1.0	0.11	ug/L			05/04/15 21:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/04/15 21:14	1
Trichloroethene	**8.2**		1.0	0.14	ug/L			05/04/15 21:14	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/04/15 21:14	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/04/15 21:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/04/15 21:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/04/15 21:14	1
Toluene	1.0	U	1.0	0.15	ug/L			05/04/15 21:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/04/15 21:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/04/15 21:14	1
Tetrachloroethene	**0.80**	**J**	1.0	0.15	ug/L			05/04/15 21:14	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/04/15 21:14	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/04/15 21:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/04/15 21:14	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/04/15 21:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/04/15 21:14	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/04/15 21:14	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/04/15 21:14	1
Styrene	1.0	U	1.0	0.097	ug/L			05/04/15 21:14	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/04/15 21:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/04/15 21:14	1
Acrylonitrile	20	U	20	0.55	ug/L			05/04/15 21:14	1
1,4-Dioxane	200	U	200	34	ug/L			05/04/15 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*05/04/15 21:14*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*05/04/15 21:14*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 118*		*05/04/15 21:14*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*05/04/15 21:14*	*1*

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

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 04/22/15 10:03
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	130	U	130	35	ug/L			05/04/15 22:03	125
Vinyl chloride	**34**	**J**	130	28	ug/L			05/04/15 22:03	125
Bromomethane	130	U	130	39	ug/L			05/04/15 22:03	125
Chloroethane	130	U	130	27	ug/L			05/04/15 22:03	125
1,1-Dichloroethene	**300**		130	37	ug/L			05/04/15 22:03	125
Acetone	630	U *	630	310	ug/L			05/04/15 22:03	125
Carbon disulfide	130	U	130	27	ug/L			05/04/15 22:03	125
Methylene Chloride	**63**	**J**	130	16	ug/L			05/04/15 22:03	125
trans-1,2-Dichloroethene	130	U	130	21	ug/L			05/04/15 22:03	125
Methyl tert-butyl ether	130	U	130	23	ug/L			05/04/15 22:03	125
1,1-Dichloroethane	**840**		130	15	ug/L			05/04/15 22:03	125
cis-1,2-Dichloroethene	**5300**		130	30	ug/L			05/04/15 22:03	125
Bromochloromethane	130	U	130	23	ug/L			05/04/15 22:03	125
2-Butanone (MEK)	630	U *	630	68	ug/L			05/04/15 22:03	125
Chloroform	130	U	130	21	ug/L			05/04/15 22:03	125
1,1,1-Trichloroethane	**280**		130	36	ug/L			05/04/15 22:03	125
Carbon tetrachloride	130	U	130	17	ug/L			05/04/15 22:03	125
Benzene	130	U	130	13	ug/L			05/04/15 22:03	125
1,2-Dichloroethane	130	U	130	26	ug/L			05/04/15 22:03	125
Trichloroethene	**5700**		130	18	ug/L			05/04/15 22:03	125
1,2-Dichloropropane	130	U	130	12	ug/L			05/04/15 22:03	125
Bromodichloromethane	130	U	130	16	ug/L			05/04/15 22:03	125
cis-1,3-Dichloropropene	130	U	130	23	ug/L			05/04/15 22:03	125
4-Methyl-2-pentanone (MIBK)	630	U	630	66	ug/L			05/04/15 22:03	125
Toluene	130	U	130	19	ug/L			05/04/15 22:03	125
trans-1,3-Dichloropropene	130	U	130	19	ug/L			05/04/15 22:03	125
1,1,2-Trichloroethane	130	U	130	25	ug/L			05/04/15 22:03	125
Tetrachloroethene	**510**		130	19	ug/L			05/04/15 22:03	125
2-Hexanone	630	U	630	20	ug/L			05/04/15 22:03	125
Dibromochloromethane	130	U	130	17	ug/L			05/04/15 22:03	125
1,2-Dibromoethane (EDB)	130	U	130	23	ug/L			05/04/15 22:03	125
Chlorobenzene	130	U	130	17	ug/L			05/04/15 22:03	125
1,1,1,2-Tetrachloroethane	130	U	130	35	ug/L			05/04/15 22:03	125
Ethylbenzene	130	U	130	28	ug/L			05/04/15 22:03	125
Xylenes, Total	380	U	380	61	ug/L			05/04/15 22:03	125
Styrene	130	U	130	12	ug/L			05/04/15 22:03	125
Bromoform	130	U	130	24	ug/L			05/04/15 22:03	125
1,1,2,2-Tetrachloroethane	130	U	130	25	ug/L			05/04/15 22:03	125
Acrylonitrile	2500	U	2500	68	ug/L			05/04/15 22:03	125
1,4-Dioxane	25000	U	25000	4300	ug/L			05/04/15 22:03	125

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*05/04/15 22:03*	*125*
Toluene-d8 (Surr)	*110*		*71 - 118*		*05/04/15 22:03*	*125*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*05/04/15 22:03*	*125*
Dibromofluoromethane (Surr)	*104*		*70 - 128*		*05/04/15 22:03*	*125*

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

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 04/22/15 15:01
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			05/04/15 22:26	50
Vinyl chloride	50	U	50	11	ug/L			05/04/15 22:26	50
Bromomethane	50	U	50	16	ug/L			05/04/15 22:26	50
Chloroethane	50	U	50	11	ug/L			05/04/15 22:26	50
1,1-Dichloroethene	**46**	**J**	50	15	ug/L			05/04/15 22:26	50
Acetone	250	U *	250	130	ug/L			05/04/15 22:26	50
Carbon disulfide	50	U	50	11	ug/L			05/04/15 22:26	50
Methylene Chloride	**25**	**J**	50	6.3	ug/L			05/04/15 22:26	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			05/04/15 22:26	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			05/04/15 22:26	50
1,1-Dichloroethane	**15**	**J**	50	5.8	ug/L			05/04/15 22:26	50
cis-1,2-Dichloroethene	**730**		50	12	ug/L			05/04/15 22:26	50
Bromochloromethane	50	U	50	9.0	ug/L			05/04/15 22:26	50
2-Butanone (MEK)	250	U *	250	27	ug/L			05/04/15 22:26	50
Chloroform	50	U	50	8.5	ug/L			05/04/15 22:26	50
1,1,1-Trichloroethane	**110**		50	14	ug/L			05/04/15 22:26	50
Carbon tetrachloride	50	U	50	6.8	ug/L			05/04/15 22:26	50
Benzene	50	U	50	5.3	ug/L			05/04/15 22:26	50
1,2-Dichloroethane	50	U	50	11	ug/L			05/04/15 22:26	50
Trichloroethene	**740**		50	7.2	ug/L			05/04/15 22:26	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			05/04/15 22:26	50
Bromodichloromethane	50	U	50	6.5	ug/L			05/04/15 22:26	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			05/04/15 22:26	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			05/04/15 22:26	50
Toluene	50	U	50	7.5	ug/L			05/04/15 22:26	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			05/04/15 22:26	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			05/04/15 22:26	50
Tetrachloroethene	**480**		50	7.4	ug/L			05/04/15 22:26	50
2-Hexanone	250	U	250	8.0	ug/L			05/04/15 22:26	50
Dibromochloromethane	50	U	50	6.8	ug/L			05/04/15 22:26	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			05/04/15 22:26	50
Chlorobenzene	50	U	50	6.8	ug/L			05/04/15 22:26	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			05/04/15 22:26	50
Ethylbenzene	50	U	50	11	ug/L			05/04/15 22:26	50
Xylenes, Total	150	U	150	24	ug/L			05/04/15 22:26	50
Styrene	50	U	50	4.8	ug/L			05/04/15 22:26	50
Bromoform	50	U	50	9.6	ug/L			05/04/15 22:26	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			05/04/15 22:26	50
Acrylonitrile	1000	U	1000	27	ug/L			05/04/15 22:26	50
1,4-Dioxane	10000	U	10000	1700	ug/L			05/04/15 22:26	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 135*		*05/04/15 22:26*	*50*
Toluene-d8 (Surr)	*108*		*71 - 118*		*05/04/15 22:26*	*50*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*05/04/15 22:26*	*50*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*05/04/15 22:26*	*50*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 04/22/15 11:20
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			05/04/15 20:26	25
Vinyl chloride	25	U	25	5.7	ug/L			05/04/15 20:26	25
Bromomethane	25	U	25	7.8	ug/L			05/04/15 20:26	25
Chloroethane	25	U	25	5.4	ug/L			05/04/15 20:26	25
1,1-Dichloroethene	25	U	25	7.4	ug/L			05/04/15 20:26	25
Acetone	130	U *	130	63	ug/L			05/04/15 20:26	25
Carbon disulfide	25	U	25	5.3	ug/L			05/04/15 20:26	25
Methylene Chloride	**12**	**J**	25	3.1	ug/L			05/04/15 20:26	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			05/04/15 20:26	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			05/04/15 20:26	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			05/04/15 20:26	25
cis-1,2-Dichloroethene	**94**		25	5.9	ug/L			05/04/15 20:26	25
Bromochloromethane	25	U	25	4.5	ug/L			05/04/15 20:26	25
2-Butanone (MEK)	130	U *	130	14	ug/L			05/04/15 20:26	25
Chloroform	25	U	25	4.3	ug/L			05/04/15 20:26	25
1,1,1-Trichloroethane	**8.1**	**J**	25	7.2	ug/L			05/04/15 20:26	25
Carbon tetrachloride	25	U	25	3.4	ug/L			05/04/15 20:26	25
Benzene	25	U	25	2.6	ug/L			05/04/15 20:26	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			05/04/15 20:26	25
Trichloroethene	**240**		25	3.6	ug/L			05/04/15 20:26	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			05/04/15 20:26	25
Bromodichloromethane	25	U	25	3.3	ug/L			05/04/15 20:26	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			05/04/15 20:26	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			05/04/15 20:26	25
Toluene	25	U	25	3.8	ug/L			05/04/15 20:26	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			05/04/15 20:26	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			05/04/15 20:26	25
Tetrachloroethene	**630**		25	3.7	ug/L			05/04/15 20:26	25
2-Hexanone	130	U	130	4.0	ug/L			05/04/15 20:26	25
Dibromochloromethane	25	U	25	3.4	ug/L			05/04/15 20:26	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			05/04/15 20:26	25
Chlorobenzene	25	U	25	3.4	ug/L			05/04/15 20:26	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			05/04/15 20:26	25
Ethylbenzene	25	U	25	5.7	ug/L			05/04/15 20:26	25
Xylenes, Total	75	U	75	12	ug/L			05/04/15 20:26	25
Styrene	25	U	25	2.4	ug/L			05/04/15 20:26	25
Bromoform	25	U	25	4.8	ug/L			05/04/15 20:26	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			05/04/15 20:26	25
Acrylonitrile	500	U	500	14	ug/L			05/04/15 20:26	25
1,4-Dioxane	5000	U	5000	860	ug/L			05/04/15 20:26	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*05/04/15 20:26*	*25*
Toluene-d8 (Surr)	*108*		*71 - 118*		*05/04/15 20:26*	*25*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*05/04/15 20:26*	*25*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/04/15 20:26*	*25*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 04/22/15 02:45
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8		0.10	0.0062	mg/L			04/23/15 17:43	1
Chloride	190		1.0	0.20	mg/L			04/23/15 17:43	1
Sulfate	34		1.0	0.21	mg/L			04/23/15 17:43	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 04/22/15 03:00
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.5		0.10	0.0062	mg/L			04/23/15 15:07	1
Chloride	150		1.0	0.20	mg/L			04/23/15 15:07	1
Sulfate	37		1.0	0.21	mg/L			04/23/15 15:07	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 04/22/15 02:40
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.5		0.10	0.0062	mg/L			04/23/15 22:02	1
Chloride	270		5.0	0.98	mg/L			04/25/15 04:39	5
Sulfate	140		1.0	0.21	mg/L			04/23/15 22:02	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 04/22/15 03:05
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.9		0.10	0.0062	mg/L			04/23/15 22:37	1
Chloride	94		1.0	0.20	mg/L			04/23/15 22:37	1
Sulfate	34		1.0	0.21	mg/L			04/23/15 22:37	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 04/22/15 02:55
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.3		0.10	0.0062	mg/L			04/23/15 14:49	1
Chloride	170		1.0	0.20	mg/L			04/23/15 14:49	1
Sulfate	31		1.0	0.21	mg/L			04/23/15 14:49	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 04/22/15 09:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.9		0.10	0.0062	mg/L			04/23/15 15:24	1
Chloride	120		1.0	0.20	mg/L			04/23/15 15:24	1
Sulfate	30		1.0	0.21	mg/L			04/23/15 15:24	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 04/22/15 12:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.63		0.10	0.0062	mg/L			04/23/15 18:35	1
Chloride	49		1.0	0.20	mg/L			04/23/15 18:35	1
Sulfate	35		1.0	0.21	mg/L			04/23/15 18:35	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 04/22/15 11:20
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.5		0.10	0.0062	mg/L			04/23/15 18:17	1
Chloride	140		1.0	0.20	mg/L			04/23/15 18:17	1
Sulfate	49		1.0	0.21	mg/L			04/23/15 18:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 04/22/15 10:32
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.7		0.10	0.0062	mg/L			04/23/15 18:00	1
Chloride	120		1.0	0.20	mg/L			04/23/15 18:00	1
Sulfate	44		1.0	0.21	mg/L			04/23/15 18:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 04/22/15 13:30
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.12		0.10	0.0062	mg/L			04/23/15 19:27	1
Chloride	230		5.0	0.98	mg/L			04/24/15 20:52	5
Sulfate	290		5.0	1.1	mg/L			04/24/15 20:52	5

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 04/22/15 10:03
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.017**	**J**	0.10	0.0062	mg/L			04/23/15 15:41	1
Chloride	**98**		1.0	0.20	mg/L			04/23/15 15:41	1
Sulfate	**270**		5.0	1.1	mg/L			04/27/15 23:32	5

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 04/22/15 15:01
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.6		0.10	0.0062	mg/L			04/23/15 22:20	1
Chloride	170		1.0	0.20	mg/L			04/23/15 22:20	1
Sulfate	54		1.0	0.21	mg/L			04/23/15 22:20	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 04/22/15 02:45
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	90000		500	2.8	ug/L		04/24/15 10:05	04/30/15 14:33	1
Potassium	14000		500	5.8	ug/L		04/24/15 10:05	04/30/15 14:33	1
Magnesium	20000		500	1.2	ug/L		04/24/15 10:05	04/30/15 14:33	1
Sodium	73000		500	3.8	ug/L		04/24/15 10:05	04/30/15 14:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 04/22/15 03:00
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	2.8	ug/L		04/24/15 10:05	04/30/15 14:37	1
Potassium	13000		500	5.8	ug/L		04/24/15 10:05	04/30/15 14:37	1
Magnesium	17000		500	1.2	ug/L		04/24/15 10:05	04/30/15 14:37	1
Sodium	48000		500	3.8	ug/L		04/24/15 10:05	04/30/15 14:37	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 04/22/15 02:40
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	180000		500	2.8	ug/L		04/24/15 10:05	04/30/15 14:40	1
Potassium	12000		500	5.8	ug/L		04/24/15 10:05	04/30/15 14:40	1
Magnesium	20000		500	1.2	ug/L		04/24/15 10:05	04/30/15 14:40	1
Sodium	77000		500	3.8	ug/L		04/24/15 10:05	04/30/15 14:40	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 04/22/15 03:05
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		500	2.8	ug/L		04/24/15 10:05	04/30/15 14:55	1
Potassium	4800		500	5.8	ug/L		04/24/15 10:05	04/30/15 14:55	1
Magnesium	10000		500	1.2	ug/L		04/24/15 10:05	04/30/15 14:55	1
Sodium	32000		500	3.8	ug/L		04/24/15 10:05	04/30/15 14:55	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 04/22/15 02:55
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	89000		500	2.8	ug/L		04/24/15 10:05	04/30/15 14:59	1
Potassium	6200		500	5.8	ug/L		04/24/15 10:05	04/30/15 14:59	1
Magnesium	18000		500	1.2	ug/L		04/24/15 10:05	04/30/15 14:59	1
Sodium	60000		500	3.8	ug/L		04/24/15 10:05	04/30/15 14:59	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 04/22/15 09:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	93000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:02	1
Potassium	26000		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:02	1
Magnesium	10000		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:02	1
Sodium	46000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:02	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 04/22/15 12:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:06	1
Potassium	2600		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:06	1
Magnesium	7800		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:06	1
Sodium	21000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:06	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 04/22/15 11:20
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:36	1
Potassium	7100		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:36	1
Magnesium	17000		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:36	1
Sodium	55000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 04/22/15 10:32
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:39	1
Potassium	4700		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:39	1
Magnesium	16000		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:39	1
Sodium	43000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:39	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 04/22/15 13:30
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:43	1
Potassium	10000		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:43	1
Magnesium	42000		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:43	1
Sodium	150000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:43	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 04/22/15 10:03
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:47	1
Potassium	2300		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:47	1
Magnesium	48000		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:47	1
Sodium	17000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:47	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 04/22/15 15:01
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	2.8	ug/L		04/24/15 10:05	04/30/15 15:51	1
Potassium	8100		500	5.8	ug/L		04/24/15 10:05	04/30/15 15:51	1
Magnesium	14000		500	1.2	ug/L		04/24/15 10:05	04/30/15 15:51	1
Sodium	47000		500	3.8	ug/L		04/24/15 10:05	04/30/15 15:51	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 04/22/15 02:45
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-2
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 04/22/15 03:00
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-3
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 04/22/15 02:40
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-4
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 04/22/15 03:05
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-5
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 04/22/15 02:55
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 04/22/15 09:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-7
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 04/22/15 12:15
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-8
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 04/22/15 11:20
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**330**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**330**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

General Chemistry

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 04/22/15 10:32
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-10
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 04/22/15 13:30
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**300**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

General Chemistry

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 04/22/15 10:03
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**310**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

General Chemistry

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 04/22/15 15:01
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-13
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			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

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	500	2.8	ug/L	6020A

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

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

Analyte	RL	MDL	Units	Method
Magnesium	500	1.2	ug/L	6020A
Potassium	500	5.8	ug/L	6020A
Sodium	500	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: 180-43359-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (64-135)	TOL (71-118)	BFB (70-118)	DBFM (70-128)
180-43359-1	HD-QC4-0/1-2	103	107	102	101
180-43359-2	HD-CW-9-0/1-0	105	107	103	103
180-43359-3	HD-CW-13-0/1-0	105	112	106	103
180-43359-4	HD-CW-15A-0/1-0	104	111	105	103
180-43359-5	HD-CW-17-0/1-0	108	110	103	103
180-43359-6	HD-CW-20-0/1-0	109	105	98	104
180-43359-7	HD-MW-7-0/1-0	106	112	103	101
180-43359-8	HD-MW-95-0/1-0	101	108	104	100
180-43359-8 MS	HD-MW-95-0/1-0	105	106	107	101
180-43359-8 MSD	HD-MW-95-0/1-0	106	103	107	102
180-43359-9 - DL	HD-MW-96S-0/1-0	109	108	102	103
180-43359-9	HD-MW-96S-0/1-0	113	105	99	102
180-43359-10	HD-MW-96D-0/1-0	109	106	99	102
180-43359-11	HD-CW-18-0/1-0	108	108	104	105
180-43359-12	HD-MW-50D-0/1-0	109	110	103	104
180-43359-13	HD-MW-51S-0/1-0	107	108	100	101
LCS 180-140387/6	Lab Control Sample	104	103	108	101
LCS 180-140474/10	Lab Control Sample	100	105	102	98
LCS 180-140579/9	Lab Control Sample	111	106	108	107
LCSD 180-140474/11	Lab Control Sample Dup	105	99	96	95
MB 180-140387/3	Method Blank	100	108	104	104
MB 180-140474/5	Method Blank	105	107	102	103
MB 180-140579/6	Method Blank	109	111	105	102

Surrogate Legend

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

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

Lab Sample ID: MB 180-140387/3
Matrix: Water
Analysis Batch: 140387

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			05/03/15 11:59	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/03/15 11:59	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/03/15 11:59	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/03/15 11:59	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/03/15 11:59	1
Acetone	5.0	U	5.0	2.5	ug/L			05/03/15 11:59	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/03/15 11:59	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/03/15 11:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/03/15 11:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/03/15 11:59	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/03/15 11:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/03/15 11:59	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/03/15 11:59	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/03/15 11:59	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/03/15 11:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/03/15 11:59	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/03/15 11:59	1
Benzene	1.0	U	1.0	0.11	ug/L			05/03/15 11:59	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/03/15 11:59	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/03/15 11:59	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/03/15 11:59	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/03/15 11:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/03/15 11:59	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/03/15 11:59	1
Toluene	1.0	U	1.0	0.15	ug/L			05/03/15 11:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/03/15 11:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/03/15 11:59	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/03/15 11:59	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/03/15 11:59	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/03/15 11:59	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/03/15 11:59	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/03/15 11:59	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/03/15 11:59	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/03/15 11:59	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/03/15 11:59	1
Styrene	1.0	U	1.0	0.097	ug/L			05/03/15 11:59	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/03/15 11:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/03/15 11:59	1
Acrylonitrile	20	U	20	0.55	ug/L			05/03/15 11:59	1
1,4-Dioxane	200	U	200	34	ug/L			05/03/15 11:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*05/03/15 11:59*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*05/03/15 11:59*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 118*		*05/03/15 11:59*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 128*		*05/03/15 11:59*	*1*

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

Lab Sample ID: LCS 180-140387/6
Matrix: Water
Analysis Batch: 140387

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	9.02		ug/L		90	50 - 139
Vinyl chloride	10.0	9.47		ug/L		95	53 - 138
Bromomethane	10.0	9.57		ug/L		96	33 - 150
Chloroethane	10.0	9.76		ug/L		98	36 - 142
1,1-Dichloroethene	10.0	10.1		ug/L		101	65 - 136
Acetone	20.0	28.8		ug/L		144	22 - 150
Carbon disulfide	10.0	10.3		ug/L		103	54 - 132
Methylene Chloride	10.0	10.5		ug/L		105	63 - 129
trans-1,2-Dichloroethene	10.0	10.7		ug/L		107	73 - 126
Methyl tert-butyl ether	10.0	9.87		ug/L		99	64 - 123
1,1-Dichloroethane	10.0	10.7		ug/L		107	73 - 126
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	70 - 120
Bromochloromethane	10.0	9.79		ug/L		98	70 - 127
2-Butanone (MEK)	20.0	24.2		ug/L		121	39 - 138
Chloroform	10.0	10.3		ug/L		103	72 - 127
1,1,1-Trichloroethane	10.0	9.98		ug/L		100	63 - 133
Carbon tetrachloride	10.0	9.68		ug/L		97	55 - 150
Benzene	10.0	10.6		ug/L		106	80 - 120
1,2-Dichloroethane	10.0	10.6		ug/L		106	68 - 132
Trichloroethene	10.0	10.2		ug/L		102	73 - 120
1,2-Dichloropropane	10.0	10.3		ug/L		103	76 - 124
Bromodichloromethane	10.0	9.20		ug/L		92	66 - 130
cis-1,3-Dichloropropene	10.0	9.29		ug/L		93	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.8		ug/L		89	45 - 145
Toluene	10.0	10.6		ug/L		106	80 - 123
trans-1,3-Dichloropropene	10.0	10.0		ug/L		100	65 - 125
1,1,2-Trichloroethane	10.0	9.71		ug/L		97	77 - 127
Tetrachloroethene	10.0	10.1		ug/L		101	70 - 135
2-Hexanone	20.0	20.1		ug/L		101	25 - 132
Dibromochloromethane	10.0	9.10		ug/L		91	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.64		ug/L		96	74 - 123
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	63 - 140
Ethylbenzene	10.0	10.3		ug/L		103	72 - 126
Xylenes, Total	20.0	20.5		ug/L		103	76 - 128
Styrene	10.0	10.1		ug/L		101	71 - 127
Bromoform	10.0	7.89		ug/L		79	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.73		ug/L		97	62 - 125
1,4-Dioxane	200	174	J	ug/L		87	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*
Dibromofluoromethane (Surr)	*101*		*70 - 128*

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

Lab Sample ID: 180-43359-8 MS
Matrix: Water
Analysis Batch: 140387

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U	10.0	8.76		ug/L		88	50 - 139
Vinyl chloride	1.0	U	10.0	9.74		ug/L		97	53 - 138
Bromomethane	1.0	U	10.0	8.85		ug/L		88	33 - 150
Chloroethane	1.0	U	10.0	10.1		ug/L		101	36 - 142
1,1-Dichloroethene	1.0	U	10.0	10.6		ug/L		106	65 - 136
Acetone	5.0	U F1	20.0	30.1		ug/L		150	22 - 150
Carbon disulfide	1.0	U	10.0	10.6		ug/L		106	54 - 132
Methylene Chloride	1.0	U	10.0	11.3		ug/L		113	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	11.1		ug/L		111	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	10.6		ug/L		106	64 - 123
1,1-Dichloroethane	0.30	J	10.0	11.4		ug/L		111	73 - 126
cis-1,2-Dichloroethene	6.1		10.0	17.3		ug/L		112	70 - 120
Bromochloromethane	1.0	U	10.0	10.5		ug/L		105	70 - 127
2-Butanone (MEK)	5.0	U	20.0	26.4		ug/L		132	39 - 138
Chloroform	1.0	U	10.0	11.0		ug/L		110	72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.94		ug/L		99	55 - 150
Benzene	1.0	U	10.0	11.0		ug/L		110	80 - 120
1,2-Dichloroethane	1.0	U	10.0	11.2		ug/L		112	68 - 132
Trichloroethene	3.2		10.0	13.4		ug/L		102	73 - 120
1,2-Dichloropropane	1.0	U	10.0	10.5		ug/L		105	76 - 124
Bromodichloromethane	1.0	U	10.0	9.74		ug/L		97	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	9.97		ug/L		100	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.2		ug/L		101	45 - 145
Toluene	1.0	U	10.0	11.1		ug/L		111	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	10.5		ug/L		105	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	10.6		ug/L		106	77 - 127
Tetrachloroethene	2.8		10.0	13.5		ug/L		107	70 - 135
2-Hexanone	5.0	U	20.0	22.4		ug/L		112	25 - 132
Dibromochloromethane	1.0	U	10.0	9.63		ug/L		96	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	1.0	U	10.0	11.1		ug/L		111	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.5		ug/L		105	63 - 140
Ethylbenzene	1.0	U	10.0	10.8		ug/L		108	72 - 126
Xylenes, Total	3.0	U	20.0	21.6		ug/L		108	76 - 128
Styrene	1.0	U	10.0	10.8		ug/L		108	71 - 127
Bromoform	1.0	U	10.0	8.47		ug/L		85	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.8		ug/L		108	62 - 125
1,4-Dioxane	200	U	200	218		ug/L		109	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*
Toluene-d8 (Surr)	*106*		*71 - 118*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*
Dibromofluoromethane (Surr)	*101*		*70 - 128*

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

Lab Sample ID: 180-43359-8 MSD
Matrix: Water
Analysis Batch: 140387

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	1.0	U	10.0	9.42		ug/L		94	50 - 139	7	35
Vinyl chloride	1.0	U	10.0	9.83		ug/L		98	53 - 138	1	35
Bromomethane	1.0	U	10.0	8.65		ug/L		86	33 - 150	2	35
Chloroethane	1.0	U	10.0	10.3		ug/L		103	36 - 142	2	35
1,1-Dichloroethene	1.0	U	10.0	10.4		ug/L		104	65 - 136	2	35
Acetone	5.0	U F1	20.0	31.2	F1	ug/L		156	22 - 150	4	35
Carbon disulfide	1.0	U	10.0	10.3		ug/L		103	54 - 132	3	35
Methylene Chloride	1.0	U	10.0	11.0		ug/L		110	63 - 129	2	35
trans-1,2-Dichloroethene	1.0	U	10.0	11.3		ug/L		113	73 - 126	1	35
Methyl tert-butyl ether	1.0	U	10.0	10.5		ug/L		105	64 - 123	1	35
1,1-Dichloroethane	0.30	J	10.0	11.2		ug/L		109	73 - 126	2	35
cis-1,2-Dichloroethene	6.1		10.0	17.2		ug/L		111	70 - 120	1	35
Bromochloromethane	1.0	U	10.0	10.1		ug/L		101	70 - 127	4	35
2-Butanone (MEK)	5.0	U	20.0	25.9		ug/L		129	39 - 138	2	35
Chloroform	1.0	U	10.0	10.9		ug/L		109	72 - 127	1	35
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	63 - 133	0	35
Carbon tetrachloride	1.0	U	10.0	9.91		ug/L		99	55 - 150	0	35
Benzene	1.0	U	10.0	11.0		ug/L		110	80 - 120	1	32
1,2-Dichloroethane	1.0	U	10.0	11.2		ug/L		112	68 - 132	0	32
Trichloroethene	3.2		10.0	13.5		ug/L		103	73 - 120	1	35
1,2-Dichloropropane	1.0	U	10.0	10.5		ug/L		105	76 - 124	0	34
Bromodichloromethane	1.0	U	10.0	9.85		ug/L		98	66 - 130	1	35
cis-1,3-Dichloropropene	1.0	U	10.0	9.98		ug/L		100	66 - 120	0	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.1		ug/L		95	45 - 145	6	35
Toluene	1.0	U	10.0	10.9		ug/L		109	80 - 123	2	35
trans-1,3-Dichloropropene	1.0	U	10.0	10.3		ug/L		103	65 - 125	2	35
1,1,2-Trichloroethane	1.0	U	10.0	10.9		ug/L		109	77 - 127	3	35
Tetrachloroethene	2.8		10.0	12.7		ug/L		99	70 - 135	6	35
2-Hexanone	5.0	U	20.0	21.8		ug/L		109	25 - 132	3	35
Dibromochloromethane	1.0	U	10.0	9.30		ug/L		93	60 - 140	3	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.3		ug/L		103	74 - 123	0	35
Chlorobenzene	1.0	U	10.0	10.8		ug/L		108	80 - 120	3	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.2		ug/L		102	63 - 140	3	34
Ethylbenzene	1.0	U	10.0	10.8		ug/L		108	72 - 126	0	33
Xylenes, Total	3.0	U	20.0	21.2		ug/L		106	76 - 128	2	32
Styrene	1.0	U	10.0	10.5		ug/L		105	71 - 127	2	34
Bromoform	1.0	U	10.0	8.44		ug/L		84	46 - 150	0	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.4		ug/L		104	62 - 125	4	35
1,4-Dioxane	200	U	200	249		ug/L		124	10 - 160	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*
Dibromofluoromethane (Surr)	*102*		*70 - 128*

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

Lab Sample ID: MB 180-140474/5
Matrix: Water
Analysis Batch: 140474

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			05/04/15 13:08	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/04/15 13:08	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/04/15 13:08	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/04/15 13:08	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/04/15 13:08	1
Acetone	5.0	U	5.0	2.5	ug/L			05/04/15 13:08	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/04/15 13:08	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/04/15 13:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/04/15 13:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/04/15 13:08	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/04/15 13:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/04/15 13:08	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/04/15 13:08	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/04/15 13:08	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/04/15 13:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/04/15 13:08	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/04/15 13:08	1
Benzene	1.0	U	1.0	0.11	ug/L			05/04/15 13:08	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/04/15 13:08	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/04/15 13:08	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/04/15 13:08	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/04/15 13:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/04/15 13:08	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/04/15 13:08	1
Toluene	1.0	U	1.0	0.15	ug/L			05/04/15 13:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/04/15 13:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/04/15 13:08	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/04/15 13:08	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/04/15 13:08	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/04/15 13:08	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/04/15 13:08	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/04/15 13:08	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/04/15 13:08	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/04/15 13:08	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/04/15 13:08	1
Styrene	1.0	U	1.0	0.097	ug/L			05/04/15 13:08	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/04/15 13:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/04/15 13:08	1
Acrylonitrile	20	U	20	0.55	ug/L			05/04/15 13:08	1
1,4-Dioxane	200	U	200	34	ug/L			05/04/15 13:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*		*05/04/15 13:08*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/04/15 13:08*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*05/04/15 13:08*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/04/15 13:08*	*1*

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

Lab Sample ID: LCS 180-140474/10
Matrix: Water
Analysis Batch: 140474

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	8.83		ug/L		88	50 - 139
Vinyl chloride	10.0	10.1		ug/L		101	53 - 138
Bromomethane	10.0	9.19		ug/L		92	33 - 150
Chloroethane	10.0	10.6		ug/L		106	36 - 142
1,1-Dichloroethene	10.0	9.65		ug/L		96	65 - 136
Acetone	20.0	42.6	*	ug/L		213	22 - 150
Carbon disulfide	10.0	9.78		ug/L		98	54 - 132
Methylene Chloride	10.0	10.7		ug/L		107	63 - 129
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	73 - 126
Methyl tert-butyl ether	10.0	9.58		ug/L		96	64 - 123
1,1-Dichloroethane	10.0	10.2		ug/L		102	73 - 126
cis-1,2-Dichloroethene	10.0	9.51		ug/L		95	70 - 120
Bromochloromethane	10.0	9.30		ug/L		93	70 - 127
2-Butanone (MEK)	20.0	28.8	*	ug/L		144	39 - 138
Chloroform	10.0	10.3		ug/L		103	72 - 127
1,1,1-Trichloroethane	10.0	9.83		ug/L		98	63 - 133
Carbon tetrachloride	10.0	9.47		ug/L		95	55 - 150
Benzene	10.0	10.4		ug/L		104	80 - 120
1,2-Dichloroethane	10.0	10.5		ug/L		105	68 - 132
Trichloroethene	10.0	9.43		ug/L		94	73 - 120
1,2-Dichloropropane	10.0	9.79		ug/L		98	76 - 124
Bromodichloromethane	10.0	8.91		ug/L		89	66 - 130
cis-1,3-Dichloropropene	10.0	8.87		ug/L		89	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	15.7		ug/L		79	45 - 145
Toluene	10.0	10.6		ug/L		106	80 - 123
trans-1,3-Dichloropropene	10.0	9.57		ug/L		96	65 - 125
1,1,2-Trichloroethane	10.0	9.84		ug/L		98	77 - 127
Tetrachloroethene	10.0	10.2		ug/L		102	70 - 135
2-Hexanone	20.0	25.0		ug/L		125	25 - 132
Dibromochloromethane	10.0	8.45		ug/L		85	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.51		ug/L		95	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.63		ug/L		96	63 - 140
Ethylbenzene	10.0	10.2		ug/L		102	72 - 126
Xylenes, Total	20.0	20.5		ug/L		103	76 - 128
Styrene	10.0	10.2		ug/L		102	71 - 127
Bromoform	10.0	7.50		ug/L		75	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.32		ug/L		93	62 - 125
1,4-Dioxane	200	182	J	ug/L		91	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*
Toluene-d8 (Surr)	*105*		*71 - 118*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*
Dibromofluoromethane (Surr)	*98*		*70 - 128*

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

Lab Sample ID: LCSD 180-140474/11
Matrix: Water
Analysis Batch: 140474

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane			10.0	9.23		ug/L		92	50 - 139	4	35
Vinyl chloride			10.0	10.0		ug/L		100	53 - 138	1	35
Bromomethane			10.0	10.4		ug/L		104	33 - 150	13	35
Chloroethane			10.0	10.6		ug/L		106	36 - 142	0	35
1,1-Dichloroethene			10.0	9.89		ug/L		99	65 - 136	3	35
Acetone			20.0	45.3	*	ug/L		227	22 - 150	6	35
Carbon disulfide			10.0	9.96		ug/L		100	54 - 132	2	35
Methylene Chloride			10.0	11.0		ug/L		110	63 - 129	2	35
trans-1,2-Dichloroethene			10.0	10.7		ug/L		107	73 - 126	4	35
Methyl tert-butyl ether			10.0	10.2		ug/L		102	64 - 123	6	35
1,1-Dichloroethane			10.0	10.8		ug/L		108	73 - 126	6	35
cis-1,2-Dichloroethene			10.0	10.1		ug/L		101	70 - 120	6	35
Bromochloromethane			10.0	9.62		ug/L		96	70 - 127	3	35
2-Butanone (MEK)			20.0	31.8	*	ug/L		159	39 - 138	10	35
Chloroform			10.0	10.5		ug/L		105	72 - 127	2	35
1,1,1-Trichloroethane			10.0	10.0		ug/L		100	63 - 133	2	35
Carbon tetrachloride			10.0	9.38		ug/L		94	55 - 150	1	35
Benzene			10.0	10.6		ug/L		106	80 - 120	2	32
1,2-Dichloroethane			10.0	11.1		ug/L		111	68 - 132	6	32
Trichloroethene			10.0	9.98		ug/L		100	73 - 120	6	35
1,2-Dichloropropane			10.0	10.1		ug/L		101	76 - 124	3	34
Bromodichloromethane			10.0	9.45		ug/L		95	66 - 130	6	35
cis-1,3-Dichloropropene			10.0	9.22		ug/L		92	66 - 120	4	35
4-Methyl-2-pentanone (MIBK)			20.0	17.3		ug/L		87	45 - 145	10	35
Toluene			10.0	10.4		ug/L		104	80 - 123	1	35
trans-1,3-Dichloropropene			10.0	9.59		ug/L		96	65 - 125	0	35
1,1,2-Trichloroethane			10.0	9.90		ug/L		99	77 - 127	1	35
Tetrachloroethene			10.0	9.70		ug/L		97	70 - 135	5	35
2-Hexanone			20.0	26.4		ug/L		132	25 - 132	6	35
Dibromochloromethane			10.0	8.56		ug/L		86	60 - 140	1	35
1,2-Dibromoethane (EDB)			10.0	9.70		ug/L		97	74 - 123	2	35
Chlorobenzene			10.0	10.2		ug/L		102	80 - 120	4	29
1,1,1,2-Tetrachloroethane			10.0	9.36		ug/L		94	63 - 140	3	34
Ethylbenzene			10.0	10.2		ug/L		102	72 - 126	1	33
Xylenes, Total			20.0	20.1		ug/L		100	76 - 128	2	32
Styrene			10.0	9.72		ug/L		97	71 - 127	4	34
Bromoform			10.0	7.44		ug/L		74	46 - 150	1	35
1,1,2,2-Tetrachloroethane			10.0	9.90		ug/L		99	62 - 125	6	35
1,4-Dioxane			200	148	J	ug/L		74	10 - 160	21	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*
Toluene-d8 (Surr)	*99*		*71 - 118*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*
Dibromofluoromethane (Surr)	*95*		*70 - 128*

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

Lab Sample ID: MB 180-140579/6
Matrix: Water
Analysis Batch: 140579

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			05/05/15 12:48	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/05/15 12:48	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/05/15 12:48	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/05/15 12:48	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/05/15 12:48	1
Acetone	5.0	U	5.0	2.5	ug/L			05/05/15 12:48	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/05/15 12:48	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/05/15 12:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/05/15 12:48	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/05/15 12:48	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/05/15 12:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/05/15 12:48	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/05/15 12:48	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/05/15 12:48	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/05/15 12:48	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/05/15 12:48	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/05/15 12:48	1
Benzene	1.0	U	1.0	0.11	ug/L			05/05/15 12:48	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/05/15 12:48	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/05/15 12:48	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/05/15 12:48	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/05/15 12:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/05/15 12:48	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/05/15 12:48	1
Toluene	1.0	U	1.0	0.15	ug/L			05/05/15 12:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/05/15 12:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/05/15 12:48	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/05/15 12:48	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/05/15 12:48	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/05/15 12:48	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/05/15 12:48	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/05/15 12:48	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/05/15 12:48	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/05/15 12:48	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/05/15 12:48	1
Styrene	1.0	U	1.0	0.097	ug/L			05/05/15 12:48	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/05/15 12:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/05/15 12:48	1
Acrylonitrile	20	U	20	0.55	ug/L			05/05/15 12:48	1
1,4-Dioxane	200	U	200	34	ug/L			05/05/15 12:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*05/05/15 12:48*	*1*
Toluene-d8 (Surr)	*111*		*71 - 118*		*05/05/15 12:48*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*05/05/15 12:48*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*05/05/15 12:48*	*1*

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

Lab Sample ID: LCS 180-140579/9
Matrix: Water
Analysis Batch: 140579

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	10.5		ug/L		105	50 - 139
Vinyl chloride	10.0	11.2		ug/L		112	53 - 138
Bromomethane	10.0	12.3		ug/L		123	33 - 150
Chloroethane	10.0	12.2		ug/L		122	36 - 142
1,1-Dichloroethene	10.0	11.3		ug/L		113	65 - 136
Acetone	20.0	27.5		ug/L		137	22 - 150
Carbon disulfide	10.0	11.7		ug/L		117	54 - 132
Methylene Chloride	10.0	12.2		ug/L		122	63 - 129
trans-1,2-Dichloroethene	10.0	11.5		ug/L		115	73 - 126
Methyl tert-butyl ether	10.0	10.8		ug/L		108	64 - 123
1,1-Dichloroethane	10.0	12.2		ug/L		122	73 - 126
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 - 120
Bromochloromethane	10.0	10.0		ug/L		100	70 - 127
2-Butanone (MEK)	20.0	23.5		ug/L		117	39 - 138
Chloroform	10.0	11.6		ug/L		116	72 - 127
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	63 - 133
Carbon tetrachloride	10.0	10.9		ug/L		109	55 - 150
Benzene	10.0	11.8		ug/L		118	80 - 120
1,2-Dichloroethane	10.0	12.0		ug/L		120	68 - 132
Trichloroethene	10.0	11.1		ug/L		111	73 - 120
1,2-Dichloropropane	10.0	10.9		ug/L		109	76 - 124
Bromodichloromethane	10.0	10.1		ug/L		101	66 - 130
cis-1,3-Dichloropropene	10.0	9.78		ug/L		98	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.8		ug/L		89	45 - 145
Toluene	10.0	11.9		ug/L		119	80 - 123
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	65 - 125
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	10.0	11.1		ug/L		111	70 - 135
2-Hexanone	20.0	19.7		ug/L		98	25 - 132
Dibromochloromethane	10.0	9.55		ug/L		96	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.4		ug/L		104	74 - 123
Chlorobenzene	10.0	11.4		ug/L		114	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.3		ug/L		103	63 - 140
Ethylbenzene	10.0	11.4		ug/L		114	72 - 126
Xylenes, Total	20.0	22.4		ug/L		112	76 - 128
Styrene	10.0	10.9		ug/L		109	71 - 127
Bromoform	10.0	7.96		ug/L		80	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.9		ug/L		109	62 - 125
1,4-Dioxane	200	175	J	ug/L		87	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*
Toluene-d8 (Surr)	*106*		*71 - 118*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*
Dibromofluoromethane (Surr)	*107*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-139449/6
Matrix: Water
Analysis Batch: 139449

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			04/23/15 14:32	1
Chloride	1.0	U	1.0	0.20	mg/L			04/23/15 14:32	1
Sulfate	1.0	U	1.0	0.21	mg/L			04/23/15 14:32	1

Lab Sample ID: LCS 180-139449/5
Matrix: Water
Analysis Batch: 139449

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	2.49		mg/L		100	90 - 110
Chloride	50.0	49.6		mg/L		99	90 - 110
Sulfate	50.0	49.1		mg/L		98	90 - 110

Lab Sample ID: 180-43359-8 MS
Matrix: Water
Analysis Batch: 139449

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.63		1.25	1.84		mg/L		97	80 - 120
Chloride	49		25.0	73.4		mg/L		97	80 - 120
Sulfate	35		25.0	58.7		mg/L		95	80 - 120

Lab Sample ID: 180-43359-8 MSD
Matrix: Water
Analysis Batch: 139449

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.63		1.25	1.89		mg/L		101	80 - 120	3	20
Chloride	49		25.0	73.8		mg/L		99	80 - 120	1	20
Sulfate	35		25.0	59.5		mg/L		98	80 - 120	1	20

Lab Sample ID: MB 180-139625/6
Matrix: Water
Analysis Batch: 139625

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.20	mg/L			04/24/15 17:17	1
Sulfate	1.0	U	1.0	0.21	mg/L			04/24/15 17:17	1

Lab Sample ID: LCS 180-139625/5
Matrix: Water
Analysis Batch: 139625

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	47.6		mg/L		95	90 - 110
Sulfate	50.0	47.0		mg/L		94	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-139754/6
Matrix: Water
Analysis Batch: 139754

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.0	U	1.0	0.21	mg/L			04/27/15 13:26	1

Lab Sample ID: LCS 180-139754/5
Matrix: Water
Analysis Batch: 139754

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	47.5		mg/L		95	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-43359-8 MS
Matrix: Water
Analysis Batch: 140241

Client Sample ID: HD-MW-95-0/1-0
Prep Type: Total/NA
Prep Batch: 139546

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	100000		50000	154000		ug/L		108	75 - 125
Potassium	2600		50000	47900		ug/L		91	75 - 125
Magnesium	7800		50000	48700		ug/L		82	75 - 125
Sodium	21000		50000	63300		ug/L		85	75 - 125

Lab Sample ID: 180-43359-8 MSD
Matrix: Water
Analysis Batch: 140241

Client Sample ID: HD-MW-95-0/1-0
Prep Type: Total/NA
Prep Batch: 139546

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	100000		50000	154000		ug/L		108	75 - 125	0	20
Potassium	2600		50000	47900		ug/L		90	75 - 125	0	20
Magnesium	7800		50000	48400		ug/L		81	75 - 125	0	20
Sodium	21000		50000	62600		ug/L		83	75 - 125	1	20

Lab Sample ID: MB 180-139546/1-A
Matrix: Water
Analysis Batch: 140241

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 139546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	500	U	500	2.8	ug/L		04/24/15 10:05	04/30/15 14:25	1
Potassium	500	U	500	5.8	ug/L		04/24/15 10:05	04/30/15 14:25	1
Magnesium	500	U	500	1.2	ug/L		04/24/15 10:05	04/30/15 14:25	1
Sodium	500	U	500	3.8	ug/L		04/24/15 10:05	04/30/15 14:25	1

Lab Sample ID: LCS 180-139546/2-A
Matrix: Water
Analysis Batch: 140241

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 139546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	49900		ug/L		100	80 - 120
Potassium	50000	47500		ug/L		95	80 - 120
Magnesium	50000	42500		ug/L		85	80 - 120

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

Lab Sample ID: LCS 180-139546/2-A
Matrix: Water
Analysis Batch: 140241

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 139546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	50000	42700		ug/L		85	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-140221/2
Matrix: Water
Analysis Batch: 140221

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	2.01	J	5.0	0.41	mg/L			05/01/15 05:23	1
Bicarbonate Alkalinity as CaCO3	2.01	J	5.0	0.41	mg/L			05/01/15 05:23	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/01/15 05:23	1

Lab Sample ID: LCS 180-140221/1
Matrix: Water
Analysis Batch: 140221

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	275		mg/L		110	80 - 120

Lab Sample ID: 180-43359-8 DU
Matrix: Water
Analysis Batch: 140221

Client Sample ID: HD-MW-95-0/1-0
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	270	B	269		mg/L		0.7	20
Bicarbonate Alkalinity as CaCO3	270	B	269		mg/L		0.7	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

GC/MS VOA

Analysis Batch: 140387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-1	HD-QC4-0/1-2	Total/NA	Water	8260C	
180-43359-8	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-43359-8 MS	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-43359-8 MSD	HD-MW-95-0/1-0	Total/NA	Water	8260C	
LCS 180-140387/6	Lab Control Sample	Total/NA	Water	8260C	
MB 180-140387/3	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 140474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-2	HD-CW-9-0/1-0	Total/NA	Water	8260C	
180-43359-3	HD-CW-13-0/1-0	Total/NA	Water	8260C	
180-43359-4	HD-CW-15A-0/1-0	Total/NA	Water	8260C	
180-43359-5	HD-CW-17-0/1-0	Total/NA	Water	8260C	
180-43359-6	HD-CW-20-0/1-0	Total/NA	Water	8260C	
180-43359-7	HD-MW-7-0/1-0	Total/NA	Water	8260C	
180-43359-9 - DL	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
180-43359-10	HD-MW-96D-0/1-0	Total/NA	Water	8260C	
180-43359-11	HD-CW-18-0/1-0	Total/NA	Water	8260C	
180-43359-12	HD-MW-50D-0/1-0	Total/NA	Water	8260C	
180-43359-13	HD-MW-51S-0/1-0	Total/NA	Water	8260C	
LCS 180-140474/10	Lab Control Sample	Total/NA	Water	8260C	
LCSD 180-140474/11	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 180-140474/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 140579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-9	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
LCS 180-140579/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-140579/6	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 139449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-2	HD-CW-9-0/1-0	Total/NA	Water	300.0	
180-43359-3	HD-CW-13-0/1-0	Total/NA	Water	300.0	
180-43359-4	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-43359-5	HD-CW-17-0/1-0	Total/NA	Water	300.0	
180-43359-6	HD-CW-20-0/1-0	Total/NA	Water	300.0	
180-43359-7	HD-MW-7-0/1-0	Total/NA	Water	300.0	
180-43359-8	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-43359-8 MS	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-43359-8 MSD	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-43359-9	HD-MW-96S-0/1-0	Total/NA	Water	300.0	
180-43359-10	HD-MW-96D-0/1-0	Total/NA	Water	300.0	
180-43359-11	HD-CW-18-0/1-0	Total/NA	Water	300.0	
180-43359-12	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
180-43359-13	HD-MW-51S-0/1-0	Total/NA	Water	300.0	
LCS 180-139449/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-139449/6	Method Blank	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 139625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-4	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-43359-11	HD-CW-18-0/1-0	Total/NA	Water	300.0	
LCS 180-139625/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-139625/6	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 139754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-12	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
LCS 180-139754/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-139754/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 139546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-2	HD-CW-9-0/1-0	Total/NA	Water	3005A	
180-43359-3	HD-CW-13-0/1-0	Total/NA	Water	3005A	
180-43359-4	HD-CW-15A-0/1-0	Total/NA	Water	3005A	
180-43359-5	HD-CW-17-0/1-0	Total/NA	Water	3005A	
180-43359-6	HD-CW-20-0/1-0	Total/NA	Water	3005A	
180-43359-7	HD-MW-7-0/1-0	Total/NA	Water	3005A	
180-43359-8	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-43359-8 MS	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-43359-8 MSD	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-43359-8 PDS	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-43359-8 SD	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-43359-9	HD-MW-96S-0/1-0	Total/NA	Water	3005A	
180-43359-10	HD-MW-96D-0/1-0	Total/NA	Water	3005A	
180-43359-11	HD-CW-18-0/1-0	Total/NA	Water	3005A	
180-43359-12	HD-MW-50D-0/1-0	Total/NA	Water	3005A	
180-43359-13	HD-MW-51S-0/1-0	Total/NA	Water	3005A	
LCS 180-139546/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-139546/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 140241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-2	HD-CW-9-0/1-0	Total/NA	Water	6020A	139546
180-43359-3	HD-CW-13-0/1-0	Total/NA	Water	6020A	139546
180-43359-4	HD-CW-15A-0/1-0	Total/NA	Water	6020A	139546
180-43359-5	HD-CW-17-0/1-0	Total/NA	Water	6020A	139546
180-43359-6	HD-CW-20-0/1-0	Total/NA	Water	6020A	139546
180-43359-7	HD-MW-7-0/1-0	Total/NA	Water	6020A	139546
180-43359-8	HD-MW-95-0/1-0	Total/NA	Water	6020A	139546
180-43359-8 MS	HD-MW-95-0/1-0	Total/NA	Water	6020A	139546
180-43359-8 MSD	HD-MW-95-0/1-0	Total/NA	Water	6020A	139546
180-43359-8 PDS	HD-MW-95-0/1-0	Total/NA	Water	6020A	139546
180-43359-8 SD	HD-MW-95-0/1-0	Total/NA	Water	6020A	139546
180-43359-9	HD-MW-96S-0/1-0	Total/NA	Water	6020A	139546
180-43359-10	HD-MW-96D-0/1-0	Total/NA	Water	6020A	139546
180-43359-11	HD-CW-18-0/1-0	Total/NA	Water	6020A	139546

Metals (Continued)

Analysis Batch: 140241 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-12	HD-MW-50D-0/1-0	Total/NA	Water	6020A	139546
180-43359-13	HD-MW-51S-0/1-0	Total/NA	Water	6020A	139546
CRI 180-140241/51	DL		Water	6020A	
CRI 180-140241/7	DL		Water	6020A	
ICSA 180-140241/8	ICS		Water	6020A	
ICSAB 180-140241/9	ICS		Water	6020A	
LCS 180-139546/2-A	Lab Control Sample	Total Recoverable	Water	6020A	139546
MB 180-139546/1-A	Method Blank	Total Recoverable	Water	6020A	139546

General Chemistry

Analysis Batch: 140221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-43359-2	HD-CW-9-0/1-0	Total/NA	Water	SM 2320B	
180-43359-3	HD-CW-13-0/1-0	Total/NA	Water	SM 2320B	
180-43359-4	HD-CW-15A-0/1-0	Total/NA	Water	SM 2320B	
180-43359-5	HD-CW-17-0/1-0	Total/NA	Water	SM 2320B	
180-43359-6	HD-CW-20-0/1-0	Total/NA	Water	SM 2320B	
180-43359-7	HD-MW-7-0/1-0	Total/NA	Water	SM 2320B	
180-43359-8	HD-MW-95-0/1-0	Total/NA	Water	SM 2320B	
180-43359-8 DU	HD-MW-95-0/1-0	Total/NA	Water	SM 2320B	
180-43359-9	HD-MW-96S-0/1-0	Total/NA	Water	SM 2320B	
180-43359-10	HD-MW-96D-0/1-0	Total/NA	Water	SM 2320B	
180-43359-11	HD-CW-18-0/1-0	Total/NA	Water	SM 2320B	
180-43359-12	HD-MW-50D-0/1-0	Total/NA	Water	SM 2320B	
180-43359-13	HD-MW-51S-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-140221/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-140221/2	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Client Sample ID: HD-QC4-0/1-2

Lab Sample ID: 180-43359-1

Date Collected: 04/22/15 12:00

Matrix: Water

Date Received: 04/23/15 08:45

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	140387	05/03/15 13:00	DLF	TAL PIT
	Instrument ID: CHHP6									

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

Lab Sample ID: 180-43359-2

Date Collected: 04/22/15 02:45

Matrix: Water

Date Received: 04/23/15 08:45

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	140474	05/04/15 17:39	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 17:43	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 14:33	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-43359-3

Date Collected: 04/22/15 03:00

Matrix: Water

Date Received: 04/23/15 08:45

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	140474	05/04/15 18:03	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 15:07	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 14:37	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-43359-4

Date Collected: 04/22/15 02:40

Matrix: Water

Date Received: 04/23/15 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1000	5 mL	5 mL	140474	05/04/15 18:27	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 22:02	MJH	TAL PIT
	Instrument ID: CHICS2100B									

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

Lab Sample ID: 180-43359-4

Date Collected: 04/22/15 02:40

Matrix: Water

Date Received: 04/23/15 08:45

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		5	1 mL		139625	04/25/15 04:39	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 14:40	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-43359-5

Date Collected: 04/22/15 03:05

Matrix: Water

Date Received: 04/23/15 08:45

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	140474	05/04/15 18:50	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 22:37	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 14:55	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-43359-6

Date Collected: 04/22/15 02:55

Matrix: Water

Date Received: 04/23/15 08:45

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	140474	05/04/15 19:14	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 14:49	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 14:59	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-43359-7

Date Collected: 04/22/15 09:15

Matrix: Water

Date Received: 04/23/15 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	140474	05/04/15 20:02	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 15:24	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:02	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-43359-8

Date Collected: 04/22/15 12:15

Matrix: Water

Date Received: 04/23/15 08:45

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	140387	05/03/15 12:36	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 18:35	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:06	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-96S-0/1-0

Lab Sample ID: 180-43359-9

Date Collected: 04/22/15 11:20

Matrix: Water

Date Received: 04/23/15 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	25	5 mL	5 mL	140474	05/04/15 20:26	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	8260C		2.5	5 mL	5 mL	140579	05/05/15 22:39	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 18:17	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:36	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-96D-0/1-0

Lab Sample ID: 180-43359-10

Date Collected: 04/22/15 10:32

Matrix: Water

Date Received: 04/23/15 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	140474	05/04/15 20:50	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 18:00	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:39	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-18-0/1-0

Lab Sample ID: 180-43359-11

Date Collected: 04/22/15 13:30

Matrix: Water

Date Received: 04/23/15 08:45

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	140474	05/04/15 21:14	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 19:27	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Analysis	300.0		5	1 mL		139625	04/24/15 20:52	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:43	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-50D-0/1-0

Lab Sample ID: 180-43359-12

Date Collected: 04/22/15 10:03

Matrix: Water

Date Received: 04/23/15 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		125	5 mL	5 mL	140474	05/04/15 22:03	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 15:41	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Analysis	300.0		5	1 mL		139754	04/27/15 23:32	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:47	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Client Sample ID: HD-MW-51S-0/1-0

Date Collected: 04/22/15 15:01
Date Received: 04/23/15 08:45

Lab Sample ID: 180-43359-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	5 mL	5 mL	140474	05/04/15 22:26	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		139449	04/23/15 22:20	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	139546	04/24/15 10:05	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	140241	04/30/15 15:51	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	140221	05/01/15 05:23	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

AB1 = Ashwin Baikadi

Batch Type: Analysis

CLL = Cheryl Loheyde

CNF = Caitlin Ferguson

DLF = Donald Ferguson

MJH = Matthew Hartman

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-16

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-43359-1

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: 180-43359-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-43359-1	HD-QC4-0/1-2	Water	04/22/15 12:00	04/23/15 08:45
180-43359-2	HD-CW-9-0/1-0	Water	04/22/15 02:45	04/23/15 08:45
180-43359-3	HD-CW-13-0/1-0	Water	04/22/15 03:00	04/23/15 08:45
180-43359-4	HD-CW-15A-0/1-0	Water	04/22/15 02:40	04/23/15 08:45
180-43359-5	HD-CW-17-0/1-0	Water	04/22/15 03:05	04/23/15 08:45
180-43359-6	HD-CW-20-0/1-0	Water	04/22/15 02:55	04/23/15 08:45
180-43359-7	HD-MW-7-0/1-0	Water	04/22/15 09:15	04/23/15 08:45
180-43359-8	HD-MW-95-0/1-0	Water	04/22/15 12:15	04/23/15 08:45
180-43359-9	HD-MW-96S-0/1-0	Water	04/22/15 11:20	04/23/15 08:45
180-43359-10	HD-MW-96D-0/1-0	Water	04/22/15 10:32	04/23/15 08:45
180-43359-11	HD-CW-18-0/1-0	Water	04/22/15 13:30	04/23/15 08:45
180-43359-12	HD-MW-50D-0/1-0	Water	04/22/15 10:03	04/23/15 08:45
180-43359-13	HD-MW-51S-0/1-0	Water	04/22/15 15:01	04/23/15 08:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140280

Lab Sample ID: IC 180-140280/3 Client Sample ID:

Date Analyzed: 05/01/15 13:53 Lab File ID: 60501003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Baseline	fergusond	05/02/15 10:38
Dichlorofluoromethane	2.66	Baseline	fergusond	05/02/15 10:38

Lab Sample ID: IC 180-140280/6 Client Sample ID:

Date Analyzed: 05/01/15 14:17 Lab File ID: 60501006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.05	Peak Tail	fergusond	05/02/15 10:42

Lab Sample ID: ICIS 180-140280/7 Client Sample ID:

Date Analyzed: 05/01/15 14:41 Lab File ID: 60501007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Peak Tail	fergusond	05/02/15 10:12

Lab Sample ID: IC 180-140280/8 Client Sample ID:

Date Analyzed: 05/01/15 15:06 Lab File ID: 60501008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Peak Tail	fergusond	05/02/15 10:45

Lab Sample ID: IC 180-140280/9 Client Sample ID:

Date Analyzed: 05/01/15 15:31 Lab File ID: 60501009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Baseline	fergusond	05/02/15 10:49
1,4-Dioxane	8.03	Peak Tail	fergusond	05/02/15 10:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140280

Lab Sample ID: IC 180-140280/10 Client Sample ID:

Date Analyzed: 05/01/15 15:56 Lab File ID: 60501010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.23	Peak Tail	fergusond	05/02/15 10:57

Lab Sample ID: IC 180-140280/11 Client Sample ID:

Date Analyzed: 05/01/15 16:20 Lab File ID: 60501011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Poor chromatography	fergusond	05/02/15 11:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140387

Lab Sample ID: 180-43359-8 Client Sample ID: HD-MW-95-0/1-0

Date Analyzed: 05/03/15 12:36 Lab File ID: 60503004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.20	Poor chromatography	fergusond	05/03/15 12:56

Lab Sample ID: 180-43359-1 Client Sample ID: HD-QC4-0/1-2

Date Analyzed: 05/03/15 13:00 Lab File ID: 60503005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.45	Poor chromatography	fergusond	05/03/15 13:23

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140474

Lab Sample ID: CCVIS 180-140474/3 Client Sample ID:

Date Analyzed: 05/04/15 12:12 Lab File ID: 60504003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Peak Tail	fergusond	05/04/15 12:53
1,4-Dioxane	8.04	Peak Tail	fergusond	05/04/15 12:53

Lab Sample ID: LCSD 180-140474/11 Client Sample ID:

Date Analyzed: 05/04/15 15:51 Lab File ID: 60504011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/05/15 07:25

Lab Sample ID: 180-43359-2 Client Sample ID: HD-CW-9-0/1-0

Date Analyzed: 05/04/15 17:39 Lab File ID: 60504015.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.19	Poor chromatography	fergusond	05/05/15 07:31

Lab Sample ID: 180-43359-3 Client Sample ID: HD-CW-13-0/1-0

Date Analyzed: 05/04/15 18:03 Lab File ID: 60504016.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.19	Peak Not Integrated	fergusond	05/05/15 07:32

Lab Sample ID: 180-43359-4 Client Sample ID: HD-CW-15A-0/1-0

Date Analyzed: 05/04/15 18:27 Lab File ID: 60504017.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.20	Peak Not Integrated	fergusond	05/05/15 07:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140474

Lab Sample ID: 180-43359-9 DL Client Sample ID: HD-MW-96S-0/1-0 DL

Date Analyzed: 05/04/15 20:26 Lab File ID: 60504022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.34	Split Peak	fergusond	05/05/15 07:41

Lab Sample ID: 180-43359-11 Client Sample ID: HD-CW-18-0/1-0

Date Analyzed: 05/04/15 21:14 Lab File ID: 60504024.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.44	Poor chromatography	fergusond	05/05/15 07:46

Lab Sample ID: 180-43359-13 Client Sample ID: HD-MW-51S-0/1-0

Date Analyzed: 05/04/15 22:26 Lab File ID: 60504027.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.19	Peak Not Integrated	fergusond	05/05/15 07:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140579

Lab Sample ID: LCS 180-140579/9 Client Sample ID:

Date Analyzed: 05/05/15 14:35 Lab File ID: 60505009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Peak Tail	fergusond	05/05/15 14:53

Lab Sample ID: 180-43359-9 Client Sample ID: HD-MW-96S-0/1-0

Date Analyzed: 05/05/15 22:39 Lab File ID: 60505029.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.20	Peak Not Integrated	fergusond	05/06/15 07:56

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01219	04/23/15	04/22/15	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
icccv_01220	04/24/15	04/23/15	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
icccv_01222	04/28/15	04/27/15	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_01250	04/23/15	04/22/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
icicv_01251	04/24/15	04/23/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
icicv_01253	04/28/15	04/27/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00171	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00209	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	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_00213	04/16/15	04/15/15	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
ICSTDL4_00143	04/16/15	04/15/15	DI Water, Lot na	5 mL	ICSTDL7_00141	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_00141	04/16/15	04/15/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Orthophosphate as P	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_00145	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00141	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_00141	04/16/15	04/15/15	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
ICSTDL6_00213	04/16/15	04/15/15	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_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00112	04/16/15	04/15/15	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_00115	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							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_00074	05/01/15	04/14/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00066	05/29/15	04/29/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00005	1 mL	Calcium	0.5 ppm
							Magnesium	0.5 ppm
							Potassium	0.5 ppm
							Sodium	0.5 ppm
.MMSCRI-1B_00005	04/01/16	Inorganic Ventures, Lot J2-MEB572092			(Purchased Reagent)		Calcium	125 ppm
							Magnesium	125 ppm
							Potassium	125 ppm
							Sodium	125 ppm
MICSABX_00069	05/01/15	04/14/15	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.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_00065	05/14/15	04/14/15	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
							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_00031	05/09/15	04/09/15	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_00043	05/01/15	04/14/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00032	05/15/15	04/15/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00095	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_00095	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_00034	04/15/16	04/15/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00084	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00084	04/30/19		Restek, Lot A0102817		(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_00035	06/01/15	05/01/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00089	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_00089	04/30/19		Restek, Lot A0102817		(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_00114	05/08/15	05/01/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00096	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00112	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00096	01/31/18		Restek, Lot A0108226		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00112	05/17/15	04/17/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00034	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
..VOA8260MEGA2_00034	02/01/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00114	05/08/15	05/01/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00096	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_00111	1.25 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00096	01/31/18		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00111	05/17/15	04/17/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00042	0.16 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00031	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

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							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_00042	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00031	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00114	05/08/15	05/01/15	Methanol, Lot 85233	10 mL	VOA8260VOAPRI_00111	1.25 mL	Xylenes, Total	50 ug/mL
.VOA8260VOAPRI_00111	05/17/15	04/17/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00031	1 mL	Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00031	02/28/16		Restek, Lot A093581		(Purchased Reagent)		Xylenes, Total	4000 ug/mL
VOAACROPRI_00005	05/31/15	05/01/15	Methanol, Lot 85233	100 mL	VOAACRORES_00067	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00067	05/31/15		Restek, Lot A0108734		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWeemixPRI_00002	05/14/15	04/14/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00019	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_00019	09/30/16		Restek, Lot A0109701		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKet2n Res_00001	05/25/15	04/25/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00045	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_00045	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_00005	06/01/15	05/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00041	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00041	01/31/18	Restek, Lot A0108151			(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA2ndRes_00001	05/25/15	04/25/15	Methanol, Lot 85233	25 mL	VOA8260VARES2_00050	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES2_00050	07/31/15	Restek, Lot A0108224			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WALK125PPMCCV_00084	10/28/15	04/28/15	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_00093	10/28/15	04/28/15	DI Water, Lot Super Q	1000 mL	WNa2CO3P_00007	0.25 g	Total Alkalinity as CaCO3 to pH 4.5	250 mg/L
.WNa2CO3P_00007	07/09/18	Fisher Scientific, Lot 138124			(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g

Reagent

ICPRIMARYSTA_00006

HIGH-PURITY STANDARDS
www.highpuritystandards.com

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

Certificate of Analysis

Product Description:

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

Certified Values:

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

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

Preparation Information:

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

Traceability Information:

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

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

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

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

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

Packaging and Storage Conditions:

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

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

Expiration Information:

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

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

Quality Information:

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

Angel Sellers,
Quality Manager

Reagent

ICPRIMARYSTDB_00008

HIGH-PURITY STANDARDS
www.highpuritystandards.com

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

Certificate of Analysis

Product Description:

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

Certified Value:

NO_2 as N 125.00 µg/mL ± 1.25 µg/mL

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

Preparation Information:

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

Traceability Information:

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

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

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

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

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

Packaging and Storage Conditions:

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

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

Expiration Information:

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

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

Quality Information:

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

Angel Sellers,
Quality Manager

Reagent

ICSECONDSTD1_00005

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution

Catalog Number: TA-17

Lot Number: J2-MEB568059

Matrix: H2O

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

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

- N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 18, 2015

11.2 Period of Validity

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

11.3 Expiration Date EXPIRES: 1 MAR 2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Christy Shortridge
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0A_00005

INORGANIC VENTURES™

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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

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0B_00006

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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®
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www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

MMSCRI-1B_00005

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSCRI-1B-REV1
Lot Number:	J2-MEB572092
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	125 µg/mL ea:
	Ca, K, Mg, Na,
	12.5 µg/mL ea:
	Fe,
	7.5 µg/mL ea:
	Al,
	2.5 µg/mL ea:
	Ba,
	1.25 µg/mL ea:
	Mn, Se, Sr, Zn,
	0.5 µg/mL ea:
	Cr3, Cu,
	0.25 µg/mL ea:
	Ag, As, Be, Cd,
	Ni, Pb, Tl, V,
	0.125 µg/mL ea:
	Co

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	7.49 ± 0.05 µg/mL	Arsenic, As	0.2501 ± 0.0021 µg/mL
Barium, Ba	2.500 ± 0.019 µg/mL	Beryllium, Be	0.2500 ± 0.0021 µg/mL
Cadmium, Cd	0.2501 ± 0.0019 µg/mL	Calcium, Ca	125.0 ± 0.6 µg/mL
Chromium+3, Cr3	0.5000 ± 0.0041 µg/mL	Cobalt, Co	0.1250 ± 0.0011 µg/mL
Copper, Cu	0.5003 ± 0.0035 µg/mL	Iron, Fe	12.50 ± 0.07 µg/mL
Lead, Pb	0.2501 ± 0.0017 µg/mL	Magnesium, Mg	125.0 ± 0.6 µg/mL
Manganese, Mn	1.250 ± 0.010 µg/mL	Nickel, Ni	0.2500 ± 0.0020 µg/mL
Potassium, K	125.0 ± 0.6 µg/mL	Selenium, Se	1.250 ± 0.010 µg/mL
Silver, Ag	0.2500 ± 0.0023 µg/mL	Sodium, Na	125.0 ± 0.6 µg/mL
Strontium, Sr	1.250 ± 0.008 µg/mL	Thallium, Tl	0.2501 ± 0.0021 µg/mL
Vanadium, V	0.2499 ± 0.0018 µg/mL	Zinc, Zn	1.250 ± 0.010 µg/mL

Certified Density: 1.019 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	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	892707
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	Calculated		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 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 cap 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 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

March 20, 2015

11.2 Expiration Date

EXPIRES
01 APR 2016

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:

Zach Saunders
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-1_00007

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CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

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

Catalog No.: TAPITT-MSICSAB-1

Lot Number: **H2-MEB524028**

Matrix: 3% HNO3(v/v)

10 µg/mL ea:

Ba, Be, Pb, Sr, Tl, V

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

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

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

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

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Brenda Francis
Product Documentation Technician

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

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-2_00006

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CERTIFICATE OF ANALYSIS

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

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

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

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

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

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

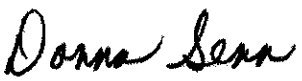
11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 08, 2013

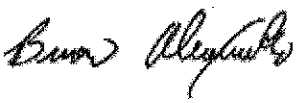
Expiration Date: EXPIRES 01 May 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician



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



Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTICPMS_00020

1222800

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CERTIFICATE OF ANALYSIS

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

EXPIRES
01/2015

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.

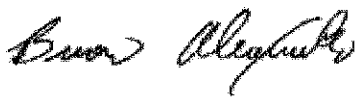
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

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INORGANIC VENTURES™

CERTIFICATE OF ANALYSIS

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

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

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
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CERTIFICATE OF ANALYSIS

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fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

rec'd 11/3/14 SLB

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
Ti	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_00096

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Certificate of Analysis

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0108198

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

8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,504.8 µg/mL	+/- 21.9788 µg/mL +/- 32.6918 µg/mL +/- 36.4326 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,509.8 µg/mL	+/- 19.6377 µg/mL +/- 31.2039 µg/mL +/- 35.1185 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,515.3 µg/mL	+/- 22.1368 µg/mL +/- 32.8734 µg/mL +/- 36.6254 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	2,498.0 µg/mL	+/- 23.6713 µg/mL +/- 33.8065 µg/mL +/- 37.4176 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,503.7 µg/mL	+/- 30.8470 µg/mL +/- 39.2011 µg/mL +/- 42.3685 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,507.7 µg/mL	+/- 21.9404 µg/mL +/- 32.6873 µg/mL +/- 36.4370 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.7 µg/mL	+/- 26.0039 µg/mL +/- 35.4965 µg/mL +/- 38.9583 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.9	µg/mL	+/-	21.5914	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBD5121V)			+/-	32.4119	µg/mL	Unstressed
	Purity 99%				+/-	36.1734	µg/mL	Stressed

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

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

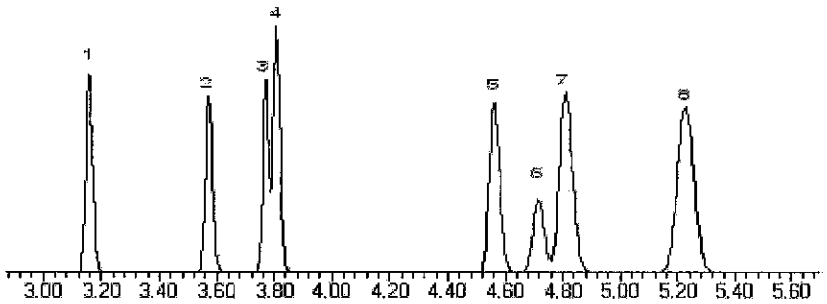
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

Date Mixed: 08-Jan-2015 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS2ND_00096

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722.sec **Lot No.:** A0108226

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

8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,494.8 µg/mL	+/- 23.5521 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 19630)		+/- 33.7009 µg/mL	Unstressed
	Purity 99%		+/- 37.3133 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,505.6 µg/mL	+/- 26.4745 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 35.8743 µg/mL	Unstressed
	Purity 99%		+/- 39.3156 µg/mL	Stressed
3	Vinyl chloride	2,499.8 µg/mL	+/- 25.3054 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 34.9816 µg/mL	Unstressed
	Purity 99%		+/- 38.4872 µg/mL	Stressed
4	1,3-Butadiene	2,505.4 µg/mL	+/- 23.1450 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 33.4914 µg/mL	Unstressed
	Purity 99%		+/- 37.1536 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,495.4 µg/mL	+/- 25.3762 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 35.0038 µg/mL	Unstressed
	Purity 99%		+/- 38.4957 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,499.5 µg/mL	+/- 21.8687 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 32.5806 µg/mL	Unstressed
	Purity 99%		+/- 36.3180 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,511.0 µg/mL	+/- 21.9690 µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 32.7299 µg/mL	Unstressed
	Purity 99%		+/- 36.4846 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,504.4	µg/mL	+/-	25.2390	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q158-102)			+/-	34.9647	µg/mL	Unstressed
	Purity 99%				+/-	38.4843	µg/mL	Stressed

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

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

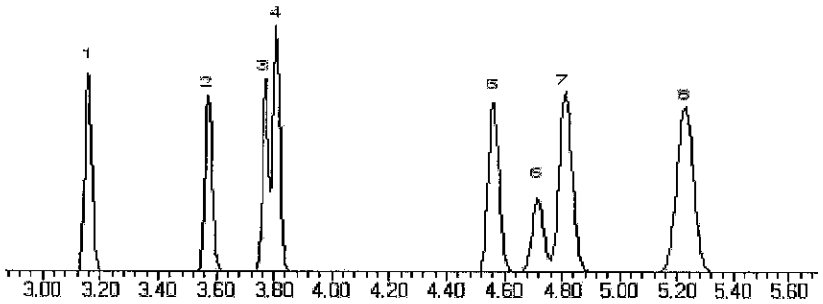
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

Date Mixed: 12-Jan-2015 **Balance:** 1127510105

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260INTRES_00095

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567649 **Lot No.:** A0104742

Description : 8260 Internal Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 (Lot I201P5) **Purity** 99%	5,003.0 µg/mL	+/- 29.0879 µg/mL +/- 106.1005 µg/mL +/- 106.5713 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene **CAS #** 462-06-6 (Lot 1380033) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
3	1,4-Dioxane-d8 **CAS #** 17647-74-4 (Lot 11C-596) **Purity** 99%	5,009.6 µg/mL	+/- 29.1262 µg/mL +/- 106.2405 µg/mL +/- 106.7119 µg/mL	Gravimetric Unstressed Stressed
4	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-22736) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
5	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00041

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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 **Lot No.:** A0108151

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBK8325V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET2ND_00045

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721.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

VOA8260SURRES_00084

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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Fax: (814)353-1309

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0102817

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 : April 30, 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%	2,503.8 µg/mL	+/- 14.5573 µg/mL +/- 28.2339 µg/mL +/- 32.4891 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 13I-483) **Purity** 99%	2,502.4 µg/mL	+/- 14.5492 µg/mL +/- 28.2182 µg/mL +/- 32.4709 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 28.1911 µg/mL +/- 32.4398 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,503.6 µg/mL	+/- 14.5561 µg/mL +/- 28.2317 µg/mL +/- 32.4865 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260SURRES_00089

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Certificate of Analysis

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

Catalog No. : 567650 **Lot No.:** A0102817

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 : April 30, 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%	2,503.8 µg/mL	+/- 14.5573 +/- 28.2339 +/- 32.4891	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 13I-483) **Purity** 99%	2,502.4 µg/mL	+/- 14.5492 +/- 28.2182 +/- 32.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 28.1911 +/- 32.4398	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,503.6 µg/mL	+/- 14.5561 +/- 28.2317 +/- 32.4865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260VARES2_00050

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724.sec **Lot No.:** A0108224

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

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

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

Expiration Date : July 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot F3Z5C)		+/- 266.2785	µg/mL	Unstressed
	Purity 99%		+/- 266.5721	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_00067

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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.:** A0108734

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 : May 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	19,890.0 µg/mL	+/- 116.4603	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 150115JLM)		+/- 637.7359	µg/mL	Unstressed
	Purity 99%		+/- 741.2982	µg/mL	Stressed

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

Reagent

VOARESEE1ST_00019

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL **Lot No.:** A0109701

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3-Chlorobenzotrifluoride **CAS #** 98-15-7 **Purity** 99%	(Lot 21324DO)	5,000.0 µg/mL	+/- 29.3428 +/- 56.5231 +/- 65.0021	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	4-Chlorobenzotrifluoride **CAS #** 98-56-6 **Purity** 99%	(Lot 08507BO)	5,003.0 µg/mL	+/- 29.3604 +/- 56.5570 +/- 65.0411	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorobenzotrifluoride **CAS #** 88-16-4 **Purity** 99%	(Lot I0316DQ)	5,009.0 µg/mL	+/- 29.3956 +/- 56.6248 +/- 65.1191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	3-Chlorotoluene **CAS #** 108-41-8 **Purity** 99%	(Lot 13528LX)	5,012.0 µg/mL	+/- 29.4132 +/- 56.6587 +/- 65.1581	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	2,4-Dichlorobenzotrifluoride **CAS #** 320-60-5 **Purity** 99%	(Lot MKBL3552V)	5,013.0 µg/mL	+/- 29.4191 +/- 56.6701 +/- 65.1711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	3,4-Dichlorobenzotrifluoride **CAS #** 328-84-7 **Purity** 99%	(Lot 11105EJV)	5,018.0 µg/mL	+/- 29.4484 +/- 56.7266 +/- 65.2361	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	2,5-Dichlorobenzotrifluoride **CAS #** 320-50-3 **Purity** 99%	(Lot 04415DSV)	5,015.0 µg/mL	+/- 29.4308 +/- 56.6927 +/- 65.1971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	2,4-Dichlorotoluene		5,021.0	µg/mL	+/-	29.4660	µg/mL	Gravimetric
	CAS # 95-73-8	(Lot 07715JS)			+/-	56.7605	µg/mL	Unstressed
	Purity 99%				+/-	65.2751	µg/mL	Stressed
9	2,5-Dichlorotoluene		5,005.0	µg/mL	+/-	29.3721	µg/mL	Gravimetric
	CAS # 19398-61-9	(Lot 1381346V)			+/-	56.5796	µg/mL	Unstressed
	Purity 99%				+/-	65.0671	µg/mL	Stressed
10	2,6-Dichlorotoluene		5,014.0	µg/mL	+/-	29.4250	µg/mL	Gravimetric
	CAS # 118-69-4	(Lot 16921JS)			+/-	56.6814	µg/mL	Unstressed
	Purity 99%				+/-	65.1841	µg/mL	Stressed
11	3,4-Dichlorotoluene		5,011.0	µg/mL	+/-	29.4074	µg/mL	Gravimetric
	CAS # 95-75-0	(Lot 09419AS)			+/-	56.6474	µg/mL	Unstressed
	Purity 99%				+/-	65.1451	µg/mL	Stressed
12	2,3-Dichlorotoluene		5,016.0	µg/mL	+/-	29.4367	µg/mL	Gravimetric
	CAS # 32768-54-0	(Lot 00317)			+/-	56.7040	µg/mL	Unstressed
	Purity 99%				+/-	65.2101	µg/mL	Stressed
13	2,4,5-Trichlorotoluene		5,000.0	µg/mL	+/-	29.3428	µg/mL	Gravimetric
	CAS # 6639-30-1	(Lot 2490300)			+/-	56.5231	µg/mL	Unstressed
	Purity 99%				+/-	65.0021	µg/mL	Stressed
14	2,3,6-Trichlorotoluene		5,005.0	µg/mL	+/-	29.3721	µg/mL	Gravimetric
	CAS # 2077-46-5	(Lot NT050444)			+/-	56.5796	µg/mL	Unstressed
	Purity 99%				+/-	65.0671	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.: 180-43359-1

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-QC4-0/1-2	180-43359-1	101	103	107	102
HD-CW-9-0/1-0	180-43359-2	103	105	107	103
HD-CW-13-0/1-0	180-43359-3	103	105	112	106
HD-CW-15A-0/1-0	180-43359-4	103	104	111	105
HD-CW-17-0/1-0	180-43359-5	103	108	110	103
HD-CW-20-0/1-0	180-43359-6	104	109	105	98
HD-MW-7-0/1-0	180-43359-7	101	106	112	103
HD-MW-95-0/1-0	180-43359-8	100	101	108	104
HD-MW-96S-0/1-0	180-43359-9	102	113	105	99
HD-MW-96S-0/1-0 DL	180-43359-9 DL	103	109	108	102
HD-MW-96D-0/1-0	180-43359-10	102	109	106	99
HD-CW-18-0/1-0	180-43359-11	105	108	108	104
HD-MW-50D-0/1-0	180-43359-12	104	109	110	103
HD-MW-51S-0/1-0	180-43359-13	101	107	108	100
	MB 180-140387/3	104	100	108	104
	MB 180-140474/5	103	105	107	102
	MB 180-140579/6	102	109	111	105
	LCS 180-140387/6	101	104	103	108
	LCS 180-140474/10	98	100	105	102
	LCS 180-140579/9	107	111	106	108
	LCSD 180-140474/11	95	105	99	96
HD-MW-95-0/1-0 MS	180-43359-8 MS	101	105	106	107
HD-MW-95-0/1-0 MSD	180-43359-8 MSD	102	106	103	107

	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60503006.D

Lab ID: LCS 180-140387/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.02	90	50-139	
Vinyl chloride	10.0	9.47	95	53-138	
Bromomethane	10.0	9.57	96	33-150	
Chloroethane	10.0	9.76	98	36-142	
1,1-Dichloroethene	10.0	10.1	101	65-136	
Acetone	20.0	28.8	144	22-150	
Carbon disulfide	10.0	10.3	103	54-132	
Methylene Chloride	10.0	10.5	105	63-129	
trans-1,2-Dichloroethene	10.0	10.7	107	73-126	
Methyl tert-butyl ether	10.0	9.87	99	64-123	
1,1-Dichloroethane	10.0	10.7	107	73-126	
cis-1,2-Dichloroethene	10.0	10.2	102	70-120	
Bromochloromethane	10.0	9.79	98	70-127	
2-Butanone (MEK)	20.0	24.2	121	39-138	
Chloroform	10.0	10.3	103	72-127	
1,1,1-Trichloroethane	10.0	9.98	100	63-133	
Carbon tetrachloride	10.0	9.68	97	55-150	
Benzene	10.0	10.6	106	80-120	
1,2-Dichloroethane	10.0	10.6	106	68-132	
Trichloroethene	10.0	10.2	102	73-120	
1,2-Dichloropropane	10.0	10.3	103	76-124	
Bromodichloromethane	10.0	9.20	92	66-130	
cis-1,3-Dichloropropene	10.0	9.29	93	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.8	89	45-145	
Toluene	10.0	10.6	106	80-123	
trans-1,3-Dichloropropene	10.0	10.0	100	65-125	
1,1,2-Trichloroethane	10.0	9.71	97	77-127	
Tetrachloroethene	10.0	10.1	101	70-135	
2-Hexanone	20.0	20.1	101	25-132	
Dibromochloromethane	10.0	9.10	91	60-140	
1,2-Dibromoethane (EDB)	10.0	9.64	96	74-123	
Chlorobenzene	10.0	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.1	101	63-140	
Ethylbenzene	10.0	10.3	103	72-126	
Xylenes, Total	20.0	20.5	103	76-128	
Styrene	10.0	10.1	101	71-127	
Bromoform	10.0	7.89	79	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.73	97	62-125	
1,4-Dioxane	200	174 J	87	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60504010.D

Lab ID: LCS 180-140474/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	8.83	88	50-139	
Vinyl chloride	10.0	10.1	101	53-138	
Bromomethane	10.0	9.19	92	33-150	
Chloroethane	10.0	10.6	106	36-142	
1,1-Dichloroethene	10.0	9.65	96	65-136	
Acetone	20.0	42.6	213	22-150	*
Carbon disulfide	10.0	9.78	98	54-132	
Methylene Chloride	10.0	10.7	107	63-129	
trans-1,2-Dichloroethene	10.0	10.3	103	73-126	
Methyl tert-butyl ether	10.0	9.58	96	64-123	
1,1-Dichloroethane	10.0	10.2	102	73-126	
cis-1,2-Dichloroethene	10.0	9.51	95	70-120	
Bromochloromethane	10.0	9.30	93	70-127	
2-Butanone (MEK)	20.0	28.8	144	39-138	*
Chloroform	10.0	10.3	103	72-127	
1,1,1-Trichloroethane	10.0	9.83	98	63-133	
Carbon tetrachloride	10.0	9.47	95	55-150	
Benzene	10.0	10.4	104	80-120	
1,2-Dichloroethane	10.0	10.5	105	68-132	
Trichloroethene	10.0	9.43	94	73-120	
1,2-Dichloropropane	10.0	9.79	98	76-124	
Bromodichloromethane	10.0	8.91	89	66-130	
cis-1,3-Dichloropropene	10.0	8.87	89	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	15.7	79	45-145	
Toluene	10.0	10.6	106	80-123	
trans-1,3-Dichloropropene	10.0	9.57	96	65-125	
1,1,2-Trichloroethane	10.0	9.84	98	77-127	
Tetrachloroethene	10.0	10.2	102	70-135	
2-Hexanone	20.0	25.0	125	25-132	
Dibromochloromethane	10.0	8.45	85	60-140	
1,2-Dibromoethane (EDB)	10.0	9.51	95	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.63	96	63-140	
Ethylbenzene	10.0	10.2	102	72-126	
Xylenes, Total	20.0	20.5	103	76-128	
Styrene	10.0	10.2	102	71-127	
Bromoform	10.0	7.50	75	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.32	93	62-125	
1,4-Dioxane	200	182 J	91	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60505009.D

Lab ID: LCS 180-140579/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.5	105	50-139	
Vinyl chloride	10.0	11.2	112	53-138	
Bromomethane	10.0	12.3	123	33-150	
Chloroethane	10.0	12.2	122	36-142	
1,1-Dichloroethene	10.0	11.3	113	65-136	
Acetone	20.0	27.5	137	22-150	
Carbon disulfide	10.0	11.7	117	54-132	
Methylene Chloride	10.0	12.2	122	63-129	
trans-1,2-Dichloroethene	10.0	11.5	115	73-126	
Methyl tert-butyl ether	10.0	10.8	108	64-123	
1,1-Dichloroethane	10.0	12.2	122	73-126	
cis-1,2-Dichloroethene	10.0	10.5	105	70-120	
Bromochloromethane	10.0	10.0	100	70-127	
2-Butanone (MEK)	20.0	23.5	117	39-138	
Chloroform	10.0	11.6	116	72-127	
1,1,1-Trichloroethane	10.0	11.3	113	63-133	
Carbon tetrachloride	10.0	10.9	109	55-150	
Benzene	10.0	11.8	118	80-120	
1,2-Dichloroethane	10.0	12.0	120	68-132	
Trichloroethene	10.0	11.1	111	73-120	
1,2-Dichloropropane	10.0	10.9	109	76-124	
Bromodichloromethane	10.0	10.1	101	66-130	
cis-1,3-Dichloropropene	10.0	9.78	98	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.8	89	45-145	
Toluene	10.0	11.9	119	80-123	
trans-1,3-Dichloropropene	10.0	10.3	103	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	77-127	
Tetrachloroethene	10.0	11.1	111	70-135	
2-Hexanone	20.0	19.7	98	25-132	
Dibromochloromethane	10.0	9.55	96	60-140	
1,2-Dibromoethane (EDB)	10.0	10.4	104	74-123	
Chlorobenzene	10.0	11.4	114	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.3	103	63-140	
Ethylbenzene	10.0	11.4	114	72-126	
Xylenes, Total	20.0	22.4	112	76-128	
Styrene	10.0	10.9	109	71-127	
Bromoform	10.0	7.96	80	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.9	109	62-125	
1,4-Dioxane	200	175 J	87	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60504011.D

Lab ID: LCSD 180-140474/11 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	9.23	92	4	35	50-139	
Vinyl chloride	10.0	10.0	100	1	35	53-138	
Bromomethane	10.0	10.4	104	13	35	33-150	
Chloroethane	10.0	10.6	106	0	35	36-142	
1,1-Dichloroethene	10.0	9.89	99	3	35	65-136	
Acetone	20.0	45.3	227	6	35	22-150	*
Carbon disulfide	10.0	9.96	100	2	35	54-132	
Methylene Chloride	10.0	11.0	110	2	35	63-129	
trans-1,2-Dichloroethene	10.0	10.7	107	4	35	73-126	
Methyl tert-butyl ether	10.0	10.2	102	6	35	64-123	
1,1-Dichloroethane	10.0	10.8	108	6	35	73-126	
cis-1,2-Dichloroethene	10.0	10.1	101	6	35	70-120	
Bromochloromethane	10.0	9.62	96	3	35	70-127	
2-Butanone (MEK)	20.0	31.8	159	10	35	39-138	*
Chloroform	10.0	10.5	105	2	35	72-127	
1,1,1-Trichloroethane	10.0	10.0	100	2	35	63-133	
Carbon tetrachloride	10.0	9.38	94	1	35	55-150	
Benzene	10.0	10.6	106	2	32	80-120	
1,2-Dichloroethane	10.0	11.1	111	6	32	68-132	
Trichloroethene	10.0	9.98	100	6	35	73-120	
1,2-Dichloropropane	10.0	10.1	101	3	34	76-124	
Bromodichloromethane	10.0	9.45	95	6	35	66-130	
cis-1,3-Dichloropropene	10.0	9.22	92	4	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.3	87	10	35	45-145	
Toluene	10.0	10.4	104	1	35	80-123	
trans-1,3-Dichloropropene	10.0	9.59	96	0	35	65-125	
1,1,2-Trichloroethane	10.0	9.90	99	1	35	77-127	
Tetrachloroethene	10.0	9.70	97	5	35	70-135	
2-Hexanone	20.0	26.4	132	6	35	25-132	
Dibromochloromethane	10.0	8.56	86	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	9.70	97	2	35	74-123	
Chlorobenzene	10.0	10.2	102	4	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.36	94	3	34	63-140	
Ethylbenzene	10.0	10.2	102	1	33	72-126	
Xylenes, Total	20.0	20.1	100	2	32	76-128	
Styrene	10.0	9.72	97	4	34	71-127	
Bromoform	10.0	7.44	74	1	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.90	99	6	35	62-125	
1,4-Dioxane	200	148 J	74	21	35	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60503007.D

Lab ID: 180-43359-8 MS Client ID: HD-MW-95-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	8.76	88	50-139	
Vinyl chloride	10.0	1.0 U	9.74	97	53-138	
Bromomethane	10.0	1.0 U	8.85	88	33-150	
Chloroethane	10.0	1.0 U	10.1	101	36-142	
1,1-Dichloroethene	10.0	1.0 U	10.6	106	65-136	
Acetone	20.0	5.0 U	30.1	150	22-150	
Carbon disulfide	10.0	1.0 U	10.6	106	54-132	
Methylene Chloride	10.0	1.0 U	11.3	113	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	11.1	111	73-126	
Methyl tert-butyl ether	10.0	1.0 U	10.6	106	64-123	
1,1-Dichloroethane	10.0	0.30 J	11.4	111	73-126	
cis-1,2-Dichloroethene	10.0	6.1	17.3	112	70-120	
Bromochloromethane	10.0	1.0 U	10.5	105	70-127	
2-Butanone (MEK)	20.0	5.0 U	26.4	132	39-138	
Chloroform	10.0	1.0 U	11.0	110	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	10.4	104	63-133	
Carbon tetrachloride	10.0	1.0 U	9.94	99	55-150	
Benzene	10.0	1.0 U	11.0	110	80-120	
1,2-Dichloroethane	10.0	1.0 U	11.2	112	68-132	
Trichloroethene	10.0	3.2	13.4	102	73-120	
1,2-Dichloropropane	10.0	1.0 U	10.5	105	76-124	
Bromodichloromethane	10.0	1.0 U	9.74	97	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	9.97	100	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	20.2	101	45-145	
Toluene	10.0	1.0 U	11.1	111	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	10.5	105	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	10.6	106	77-127	
Tetrachloroethene	10.0	2.8	13.5	107	70-135	
2-Hexanone	20.0	5.0 U	22.4	112	25-132	
Dibromochloromethane	10.0	1.0 U	9.63	96	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.3	103	74-123	
Chlorobenzene	10.0	1.0 U	11.1	111	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.5	105	63-140	
Ethylbenzene	10.0	1.0 U	10.8	108	72-126	
Xylenes, Total	20.0	3.0 U	21.6	108	76-128	
Styrene	10.0	1.0 U	10.8	108	71-127	
Bromoform	10.0	1.0 U	8.47	85	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	10.8	108	62-125	
1,4-Dioxane	200	200 U	218	109	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60503008.D

Lab ID: 180-43359-8 MSD Client ID: HD-MW-95-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	9.42	94	7	35	50-139	
Vinyl chloride	10.0	9.83	98	1	35	53-138	
Bromomethane	10.0	8.65	86	2	35	33-150	
Chloroethane	10.0	10.3	103	2	35	36-142	
1,1-Dichloroethene	10.0	10.4	104	2	35	65-136	
Acetone	20.0	31.2	156	4	35	22-150	F1
Carbon disulfide	10.0	10.3	103	3	35	54-132	
Methylene Chloride	10.0	11.0	110	2	35	63-129	
trans-1,2-Dichloroethene	10.0	11.3	113	1	35	73-126	
Methyl tert-butyl ether	10.0	10.5	105	1	35	64-123	
1,1-Dichloroethane	10.0	11.2	109	2	35	73-126	
cis-1,2-Dichloroethene	10.0	17.2	111	1	35	70-120	
Bromochloromethane	10.0	10.1	101	4	35	70-127	
2-Butanone (MEK)	20.0	25.9	129	2	35	39-138	
Chloroform	10.0	10.9	109	1	35	72-127	
1,1,1-Trichloroethane	10.0	10.4	104	0	35	63-133	
Carbon tetrachloride	10.0	9.91	99	0	35	55-150	
Benzene	10.0	11.0	110	1	32	80-120	
1,2-Dichloroethane	10.0	11.2	112	0	32	68-132	
Trichloroethene	10.0	13.5	103	1	35	73-120	
1,2-Dichloropropane	10.0	10.5	105	0	34	76-124	
Bromodichloromethane	10.0	9.85	98	1	35	66-130	
cis-1,3-Dichloropropene	10.0	9.98	100	0	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.1	95	6	35	45-145	
Toluene	10.0	10.9	109	2	35	80-123	
trans-1,3-Dichloropropene	10.0	10.3	103	2	35	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	3	35	77-127	
Tetrachloroethene	10.0	12.7	99	6	35	70-135	
2-Hexanone	20.0	21.8	109	3	35	25-132	
Dibromochloromethane	10.0	9.30	93	3	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	0	35	74-123	
Chlorobenzene	10.0	10.8	108	3	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	3	34	63-140	
Ethylbenzene	10.0	10.8	108	0	33	72-126	
Xylenes, Total	20.0	21.2	106	2	32	76-128	
Styrene	10.0	10.5	105	2	34	71-127	
Bromoform	10.0	8.44	84	0	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	4	35	62-125	
1,4-Dioxane	200	249	124	13	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.: 180-43359-1

SDG No.:

Lab File ID: 60503003.D Lab Sample ID: MB 180-140387/3

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

Instrument ID: CHHP6 Date Analyzed: 05/03/2015 11:59

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-95-0/1-0	180-43359-8	60503004.D	05/03/2015 12:36
HD-QC4-0/1-2	180-43359-1	60503005.D	05/03/2015 13:00
	LCS 180-140387/6	60503006.D	05/03/2015 13:26
HD-MW-95-0/1-0 MS	180-43359-8 MS	60503007.D	05/03/2015 13:50
HD-MW-95-0/1-0 MSD	180-43359-8 MSD	60503008.D	05/03/2015 14:25

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: 60504005.D Lab Sample ID: MB 180-140474/5

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

Instrument ID: CHHP6 Date Analyzed: 05/04/2015 13:08

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 180-140474/10	60504010.D	05/04/2015 15:27
	LCSD 180-140474/11	60504011.D	05/04/2015 15:51
HD-CW-9-0/1-0	180-43359-2	60504015.D	05/04/2015 17:39
HD-CW-13-0/1-0	180-43359-3	60504016.D	05/04/2015 18:03
HD-CW-15A-0/1-0	180-43359-4	60504017.D	05/04/2015 18:27
HD-CW-17-0/1-0	180-43359-5	60504018.D	05/04/2015 18:50
HD-CW-20-0/1-0	180-43359-6	60504019.D	05/04/2015 19:14
HD-MW-7-0/1-0	180-43359-7	60504021.D	05/04/2015 20:02
HD-MW-96S-0/1-0 DL	180-43359-9 DL	60504022.D	05/04/2015 20:26
HD-MW-96D-0/1-0	180-43359-10	60504023.D	05/04/2015 20:50
HD-CW-18-0/1-0	180-43359-11	60504024.D	05/04/2015 21:14
HD-MW-50D-0/1-0	180-43359-12	60504026.D	05/04/2015 22:03
HD-MW-51S-0/1-0	180-43359-13	60504027.D	05/04/2015 22:26

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: 60505006.D Lab Sample ID: MB 180-140579/6

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

Instrument ID: CHHP6 Date Analyzed: 05/05/2015 12:48

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 180-140579/9	60505009.D	05/05/2015 14:35
HD-MW-96S-0/1-0	180-43359-9	60505029.D	05/05/2015 22:39

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: 60501005.D BFB Injection Date: 05/01/2015

Instrument ID: CHHP6 BFB Injection Time: 11:31

Analysis Batch No.: 140280

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	54.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.7	(7.1)1
176	95.0 - 101.0 % of mass 174	66.3	(98.7)1
177	5.0 - 9.0 % of mass 176	4.5	(6.8)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-140280/3	60501003.D	05/01/2015	13:53
	IC 180-140280/6	60501006.D	05/01/2015	14:17
	ICIS 180-140280/7	60501007.D	05/01/2015	14:41
	IC 180-140280/8	60501008.D	05/01/2015	15:06
	IC 180-140280/9	60501009.D	05/01/2015	15:31
	IC 180-140280/10	60501010.D	05/01/2015	15:56
	IC 180-140280/11	60501011.D	05/01/2015	16:20
	IC 180-140280/12	60501012.D	05/01/2015	16:46

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: 60503001.D BFB Injection Date: 05/03/2015

Instrument ID: CHHP6 BFB Injection Time: 10:28

Analysis Batch No.: 140387

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	58.3	
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	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	66.0	
175	5.0 - 9.0 % of mass 174	5.2	(7.9)1
176	95.0 - 101.0 % of mass 174	64.1	(97.1)1
177	5.0 - 9.0 % of mass 176	4.5	(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
	CCVIS 180-140387/2	60503002.D	05/03/2015	11:08
	MB 180-140387/3	60503003.D	05/03/2015	11:59
HD-MW-95-0/1-0	180-43359-8	60503004.D	05/03/2015	12:36
HD-QC4-0/1-2	180-43359-1	60503005.D	05/03/2015	13:00
	LCS 180-140387/6	60503006.D	05/03/2015	13:26
HD-MW-95-0/1-0 MS	180-43359-8 MS	60503007.D	05/03/2015	13:50
HD-MW-95-0/1-0 MSD	180-43359-8 MSD	60503008.D	05/03/2015	14:25

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: 60504001.D BFB Injection Date: 05/04/2015

Instrument ID: CHHP6 BFB Injection Time: 10:49

Analysis Batch No.: 140474

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	59.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	68.0	
175	5.0 - 9.0 % of mass 174	5.5	(8.2)1
176	95.0 - 101.0 % of mass 174	64.8	(95.3)1
177	5.0 - 9.0 % of mass 176	4.5	(6.9)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-140474/3	60504003.D	05/04/2015	12:12
	MB 180-140474/5	60504005.D	05/04/2015	13:08
	LCS 180-140474/10	60504010.D	05/04/2015	15:27
	LCSD 180-140474/11	60504011.D	05/04/2015	15:51
HD-CW-9-0/1-0	180-43359-2	60504015.D	05/04/2015	17:39
HD-CW-13-0/1-0	180-43359-3	60504016.D	05/04/2015	18:03
HD-CW-15A-0/1-0	180-43359-4	60504017.D	05/04/2015	18:27
HD-CW-17-0/1-0	180-43359-5	60504018.D	05/04/2015	18:50
HD-CW-20-0/1-0	180-43359-6	60504019.D	05/04/2015	19:14
HD-MW-7-0/1-0	180-43359-7	60504021.D	05/04/2015	20:02
HD-MW-96S-0/1-0 DL	180-43359-9 DL	60504022.D	05/04/2015	20:26
HD-MW-96D-0/1-0	180-43359-10	60504023.D	05/04/2015	20:50
HD-CW-18-0/1-0	180-43359-11	60504024.D	05/04/2015	21:14
HD-MW-50D-0/1-0	180-43359-12	60504026.D	05/04/2015	22:03
HD-MW-51S-0/1-0	180-43359-13	60504027.D	05/04/2015	22:26

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: 60505004.D BFB Injection Date: 05/05/2015

Instrument ID: CHHP6 BFB Injection Time: 10:45

Analysis Batch No.: 140579

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	59.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	62.9	
175	5.0 - 9.0 % of mass 174	4.6	(7.3)1
176	95.0 - 101.0 % of mass 174	61.7	(98.0)1
177	5.0 - 9.0 % of mass 176	4.4	(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
	CCVIS 180-140579/2	60505002.D	05/05/2015	11:28
	CCV 180-140579/3	60505003.D	05/05/2015	11:52
	MB 180-140579/6	60505006.D	05/05/2015	12:48
	LCS 180-140579/9	60505009.D	05/05/2015	14:35
HD-MW-96S-0/1-0	180-43359-9	60505029.D	05/05/2015	22:39

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Sample No.: CCVIS 180-140387/2 Date Analyzed: 05/03/2015 11:08

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

Lab File ID (Standard): 60503002.D Heated Purge: (Y/N) N

Calibration ID: 23671

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		206032	4.24	353057	7.28	75958	10.40
UPPER LIMIT		412064	4.74	706114	7.78	151916	10.90
LOWER LIMIT		103016	3.74	176529	6.78	37979	9.90
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-140387/3		258067	4.23	424609	7.29	86827	10.40
180-43359-8	HD-MW-95-0/1-0	232081	4.23	426733	7.29	87021	10.40
180-43359-1	HD-QC4-0/1-2	252177	4.23	412467	7.29	85380	10.40
LCS 180-140387/6		206599	4.25	355095	7.29	76306	10.40
180-43359-8 MS	HD-MW-95-0/1-0 MS	229945	4.25	338751	7.29	71589	10.40
180-43359-8 MSD	HD-MW-95-0/1-0 MSD	227136	4.25	348174	7.29	74983	10.40

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.: 180-43359-1

SDG No.:

Sample No.: CCVIS 180-140387/2 Date Analyzed: 05/03/2015 11:08

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

Lab File ID (Standard): 60503002.D Heated Purge: (Y/N) N

Calibration ID: 23671

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		114767	12.75				
UPPER LIMIT		229534	13.25				
LOWER LIMIT		57384	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-140387/3		135477	12.75				
180-43359-8	HD-MW-95-0/1-0	136298	12.75				
180-43359-1	HD-QC4-0/1-2	130707	12.75				
LCS 180-140387/6		116679	12.75				
180-43359-8 MS	HD-MW-95-0/1-0 MS	111382	12.75				
180-43359-8 MSD	HD-MW-95-0/1-0 MSD	115432	12.75				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Sample No.: CCVIS 180-140474/3 Date Analyzed: 05/04/2015 12:12

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

Lab File ID (Standard): 60504003.D Heated Purge: (Y/N) N

Calibration ID: 23671

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		188239	4.25	363329	7.28	74938	10.40
UPPER LIMIT		376478	4.75	726658	7.78	149876	10.90
LOWER LIMIT		94120	3.75	181665	6.78	37469	9.90
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-140474/5		200588	4.23	400217	7.29	82898	10.40
LCS 180-140474/10		185980	4.24	368102	7.29	75839	10.40
LCSD 180-140474/11		166735	4.24	362342	7.29	77079	10.40
180-43359-2	HD-CW-9-0/1-0	199877	4.23	385806	7.29	79769	10.40
180-43359-3	HD-CW-13-0/1-0	198891	4.24	390748	7.29	77689	10.40
180-43359-4	HD-CW-15A-0/1-0	185959	4.24	388686	7.29	76893	10.40
180-43359-5	HD-CW-17-0/1-0	192486	4.24	380294	7.29	77923	10.40
180-43359-6	HD-CW-20-0/1-0	208716	4.24	377460	7.29	80655	10.40
180-43359-7	HD-MW-7-0/1-0	202991	4.23	382458	7.29	75378	10.40
180-43359-9 DL	HD-MW-96S-0/1-0 DL	184445	4.24	374186	7.29	76732	10.40
180-43359-10	HD-MW-96D-0/1-0	172362	4.24	374281	7.29	78781	10.40
180-43359-11	HD-CW-18-0/1-0	196096	4.24	374324	7.29	75965	10.40
180-43359-12	HD-MW-50D-0/1-0	153015	4.23	366948	7.29	75606	10.40
180-43359-13	HD-MW-51S-0/1-0	154700	4.23	372339	7.29	75898	10.40

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.: 180-43359-1

SDG No.:

Sample No.: CCVIS 180-140474/3 Date Analyzed: 05/04/2015 12:12

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

Lab File ID (Standard): 60504003.D Heated Purge: (Y/N) N

Calibration ID: 23671

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		116589	12.75				
UPPER LIMIT		233178	13.25				
LOWER LIMIT		58295	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-140474/5		125290	12.75				
LCS 180-140474/10		119228	12.75				
LCSD 180-140474/11		113618	12.75				
180-43359-2	HD-CW-9-0/1-0	119577	12.75				
180-43359-3	HD-CW-13-0/1-0	120571	12.75				
180-43359-4	HD-CW-15A-0/1-0	119903	12.75				
180-43359-5	HD-CW-17-0/1-0	117515	12.75				
180-43359-6	HD-CW-20-0/1-0	118950	12.75				
180-43359-7	HD-MW-7-0/1-0	116220	12.75				
180-43359-9 DL	HD-MW-96S-0/1-0 DL	115615	12.75				
180-43359-10	HD-MW-96D-0/1-0	112789	12.75				
180-43359-11	HD-CW-18-0/1-0	114375	12.75				
180-43359-12	HD-MW-50D-0/1-0	109492	12.74				
180-43359-13	HD-MW-51S-0/1-0	111570	12.75				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Sample No.: CCVIS 180-140579/2 Date Analyzed: 05/05/2015 11:28

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

Lab File ID (Standard): 60505002.D Heated Purge: (Y/N) N

Calibration ID: 23671

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		180942	4.24	345760	7.29	74520	10.39
UPPER LIMIT		361884	4.74	691520	7.79	149040	10.89
LOWER LIMIT		90471	3.74	172880	6.79	37260	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-140579/3		175127	4.24	330618	7.29	67492	10.40
MB 180-140579/6		144525	4.23	382815	7.29	76665	10.40
LCS 180-140579/9		155828	4.24	320979	7.29	66925	10.39
180-43359-9	HD-MW-96S-0/1-0	183975	4.23	355808	7.29	75932	10.40

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.: 180-43359-1

SDG No.:

Sample No.: CCVIS 180-140579/2 Date Analyzed: 05/05/2015 11:28

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

Lab File ID (Standard): 60505002.D Heated Purge: (Y/N) N

Calibration ID: 23671

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		110772	12.75				
UPPER LIMIT		221544	13.25				
LOWER LIMIT		55386	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-140579/3		99830	12.74				
MB 180-140579/6		113768	12.75				
LCS 180-140579/9		101010	12.75				
180-43359-9	HD-MW-96S-0/1-0	112545	12.75				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 | Lab Sample ID: 180-43359-1

Matrix: Water | Lab File ID: 60503005.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 13:00

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.: 140387 | 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.: 180-43359-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 | Lab Sample ID: 180-43359-1

Matrix: Water | Lab File ID: 60503005.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 13:00

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.: 140387 | 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)	103		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503005.D
Lims ID: 180-43359-A-1 Lab Sample ID: 180-43359-1
Client ID: HD-QC4-0/1-2
Sample Type: Client
Inject. Date: 03-May-2015 13:00:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-43359-A-1
Misc. Info.: 180-0006739-005
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 13:23:33 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 13:23:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.232	4.241	-0.009	98	252177	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.283	0.003	98	412467	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	91	85380	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.746	0.003	97	130707	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.553	0.003	92	85877	50.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	71	146449	51.4	
$ 7 Toluene-d8 (Surr)	98	8.940	8.944	-0.004	94	385574	53.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.584	0.003	81	149946	50.9	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.447	3.426	0.021	1	3259	5.95	M
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.951				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97		6.541				ND	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.942				ND	
57 1,2-Dichloroethane	62		7.022				ND	
61 Trichloroethene	130		7.679				ND	
64 1,2-Dichloropropane	63		7.952				ND	
65 1,4-Dioxane	88		8.037				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.232				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164		9.528				ND	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.659				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.718				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

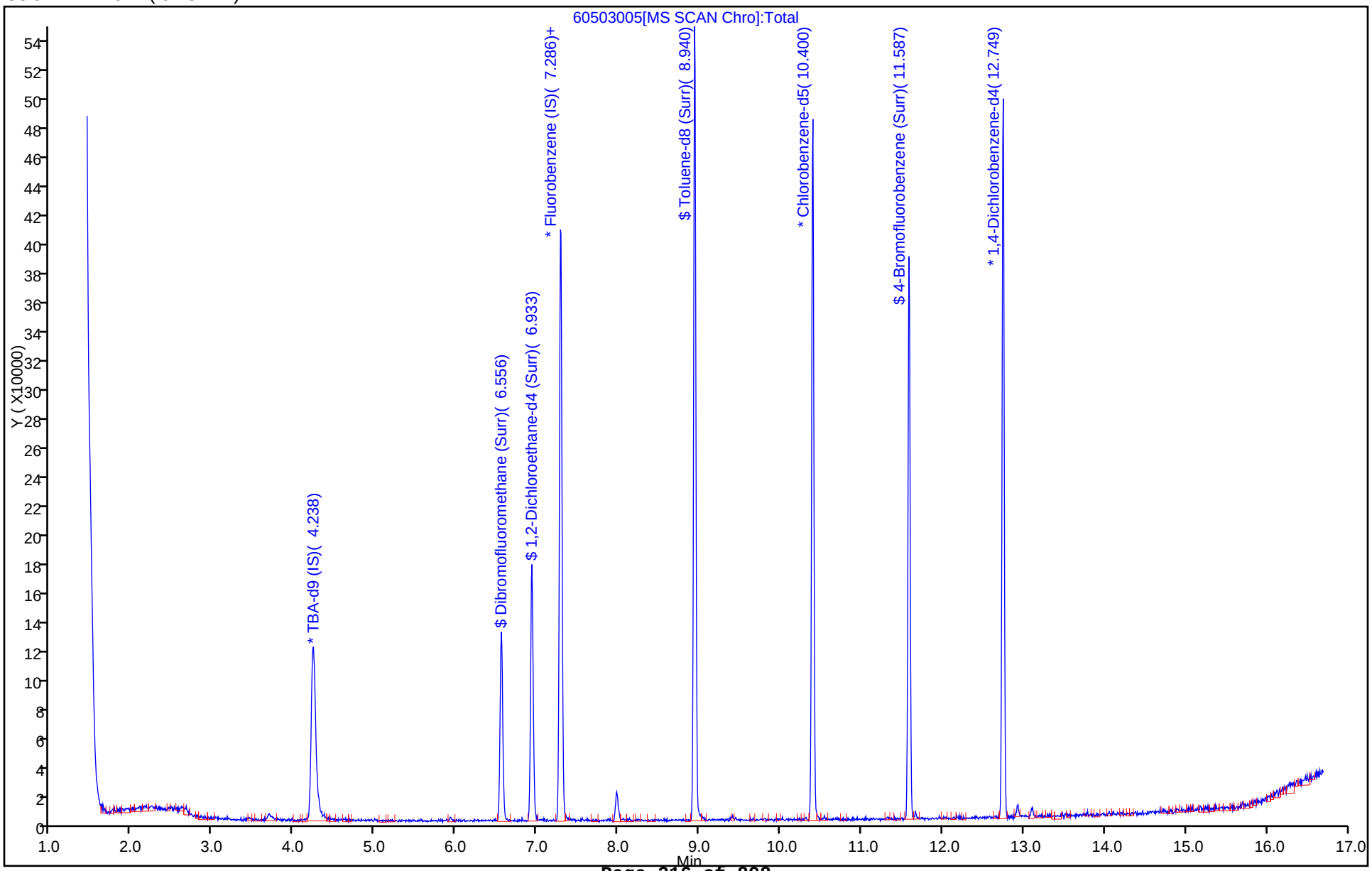
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 03-May-2015 13:23:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503005.D				
Injection Date:	03-May-2015 13:00:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-A-1	Lab Sample ID:	180-43359-1	Worklist Smp#:	5
Client ID:	HD-QC4-0/1-2				
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

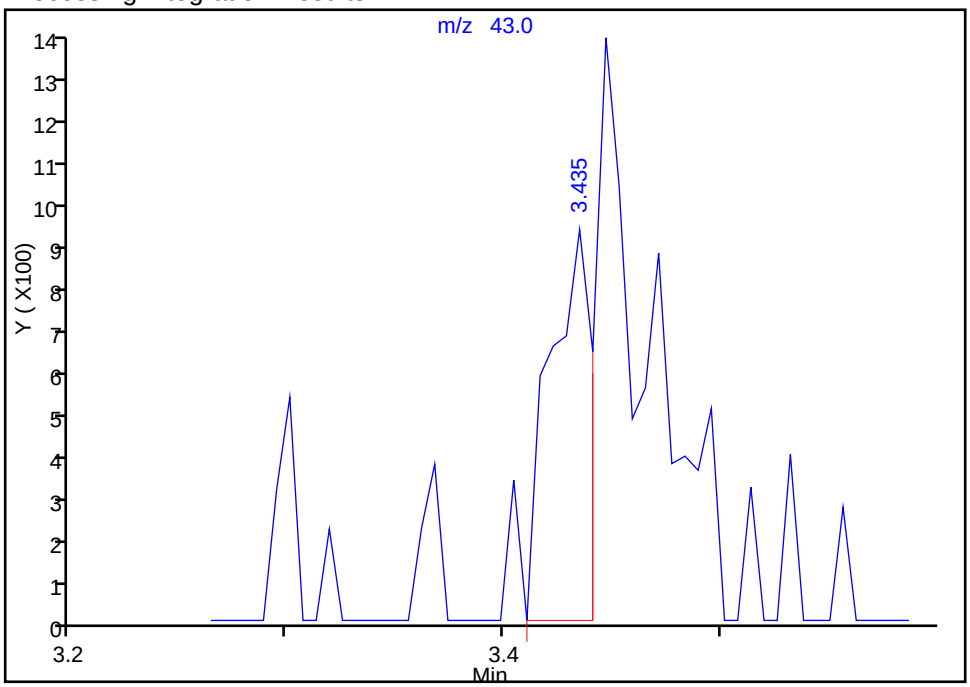
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503005.D				
Injection Date:	03-May-2015 13:00:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-A-1	Lab Sample ID:	180-43359-1		
Client ID:	HD-QC4-0/1-2				
Operator ID:	001562	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

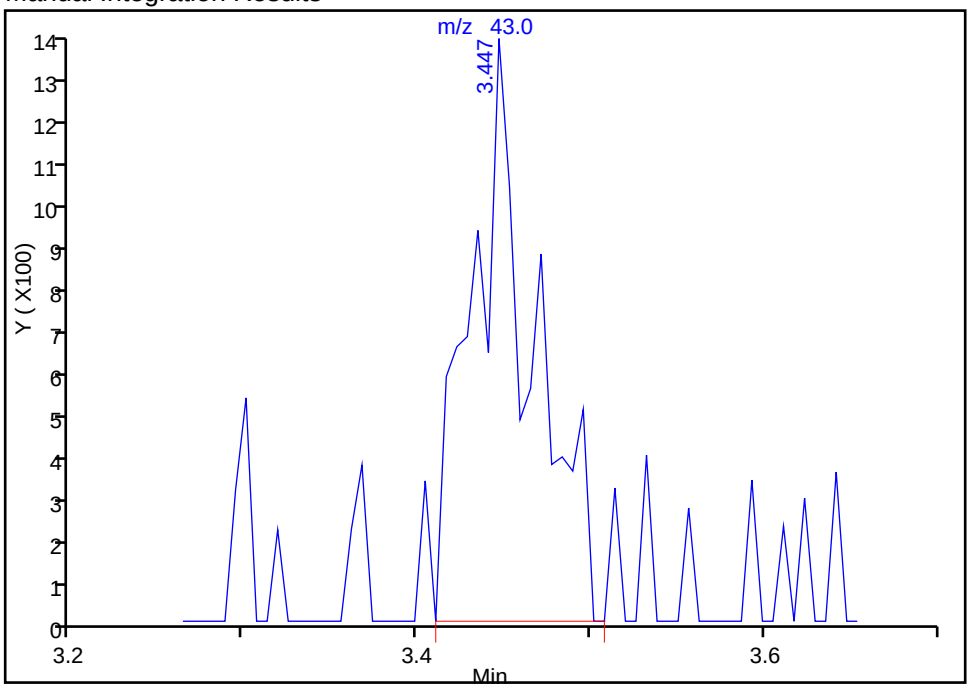
Processing Integration Results

RT: 3.43
Area: 1203
Amount: 2.197676
Amount Units: ng



Manual Integration Results

RT: 3.45
Area: 3259
Amount: 5.953637
Amount Units: ng



Reviewer: fergusond, 03-May-2015 13:23:33
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 | Lab Sample ID: 180-43359-2

Matrix: Water | Lab File ID: 60504015.D

Analysis Method: 8260C | Date Collected: 04/22/2015 02:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 17:39

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.: 140474 | 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	5.9	J	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	4.4	J	13	1.5
156-59-2	cis-1,2-Dichloroethene	110		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	25		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	130		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	370		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 | Lab Sample ID: 180-43359-2

Matrix: Water | Lab File ID: 60504015.D

Analysis Method: 8260C | Date Collected: 04/22/2015 02:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 17:39

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.: 140474 | 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)	105		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D
Lims ID: 180-43359-C-2 Lab Sample ID: 180-43359-2
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 17:39:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-43359-C-2, 12.5x
Misc. Info.: 180-0006756-015
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:31:21 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:31:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.232	4.254	-0.022	96	199877	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.283	0.002	97	385806	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	92	79769	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.746	0.002	98	119577	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.553	0.002	91	82164	51.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.924	0.009	71	140584	52.7	
$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	94	362217	53.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.584	0.002	79	141915	51.6	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.343	3.335	0.008	93	4497	2.52	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.134	4.120	0.014	56	5094	2.35	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.187	5.190	-0.003	10	6652	1.78	M
43 cis-1,2-Dichloroethene	96	5.947	5.933	0.014	83	99485	44.0	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.367	6.371	-0.004	7	1357	0.3755	
51 1,1,1-Trichloroethane	97	6.537	6.535	0.002	71	30247	10.2	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.681	7.673	0.008	91	98163	53.5	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.524	9.522	0.002	92	203549	149.5	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

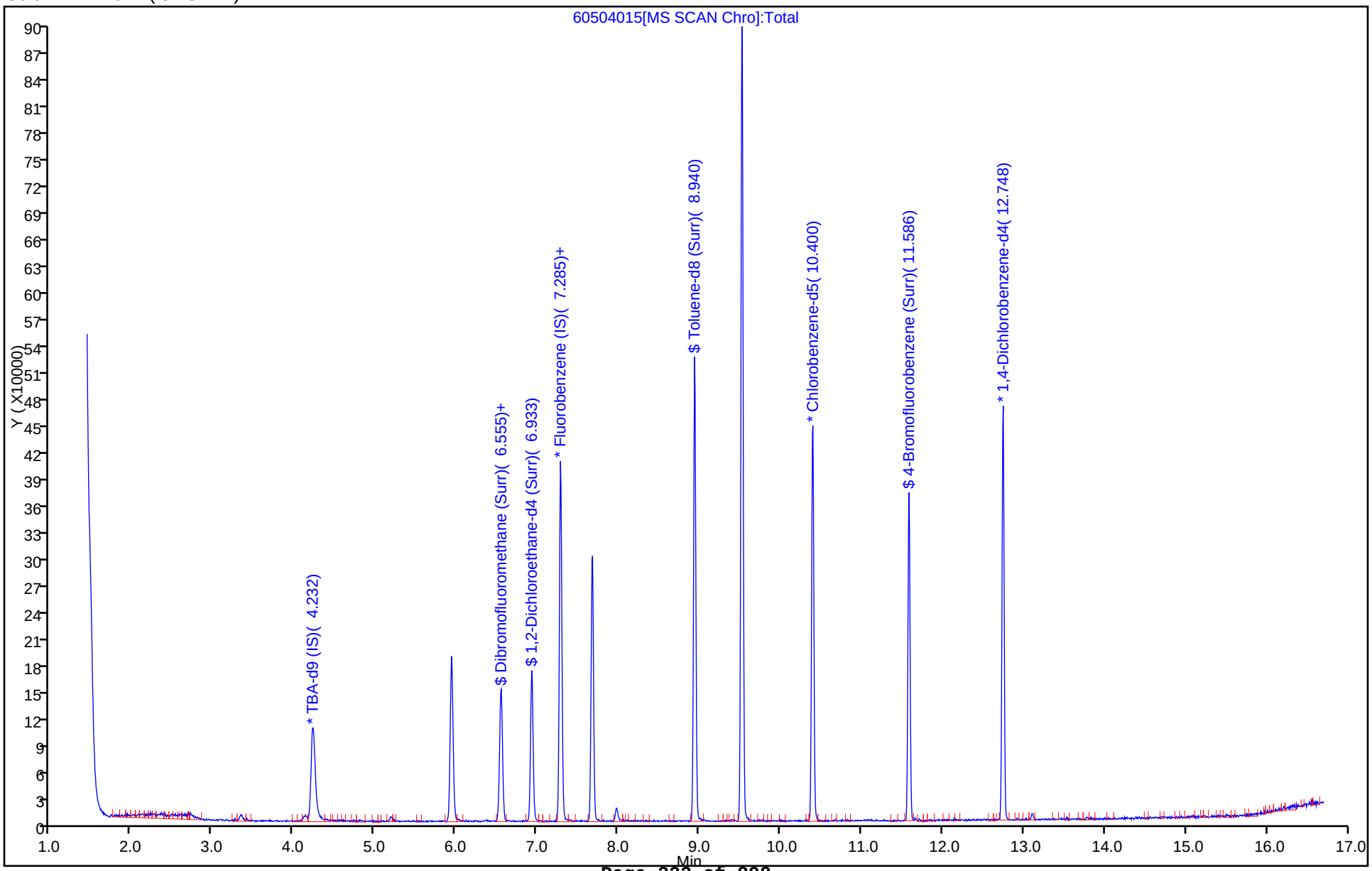
Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D

Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2	Worklist Smp#:	15
Client ID:	HD-CW-9-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D

Injection Date: 04-May-2015 17:39:30 Instrument ID: CHHP6

Lims ID: 180-43359-C-2 Lab Sample ID: 180-43359-2

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

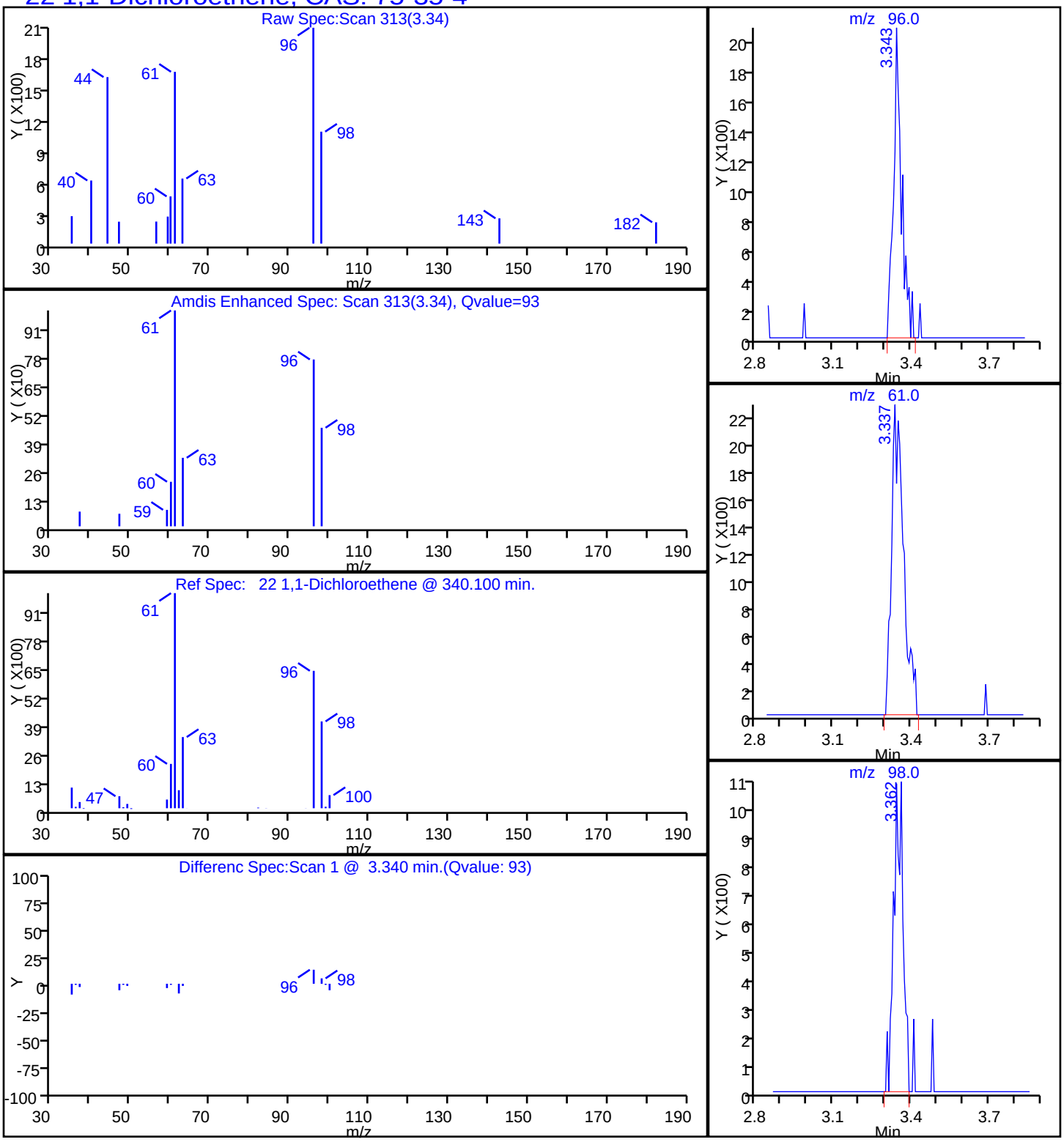
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL Dil. Factor: 12.5000

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



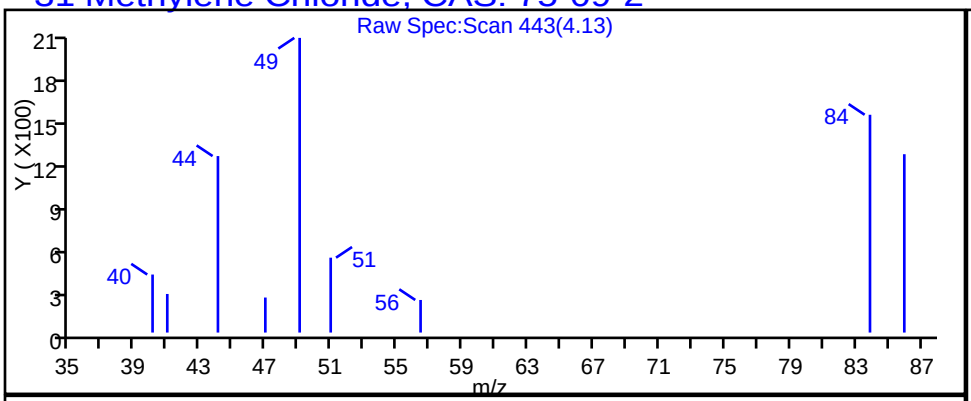
Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

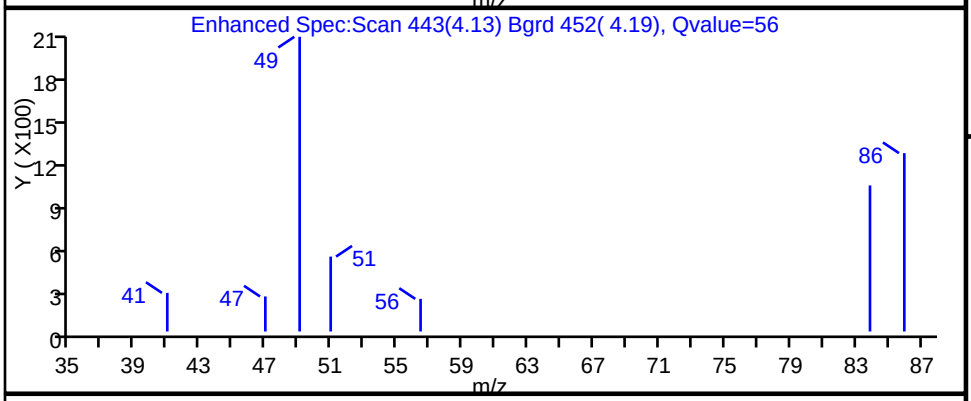
TestAmerica Pittsburgh

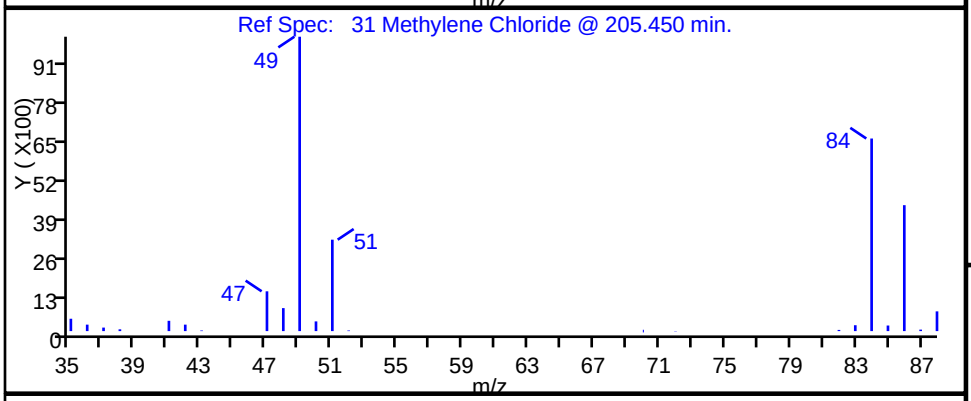
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D

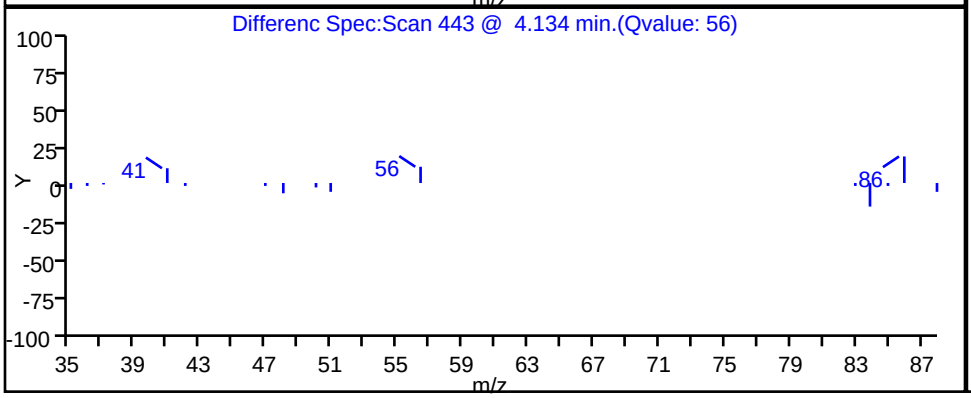
Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2
Client ID:	HD-CW-9-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

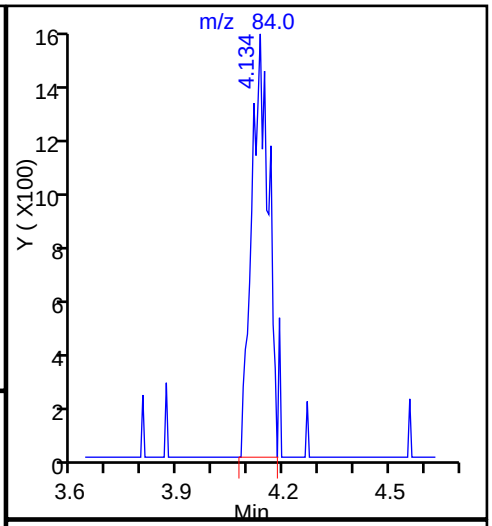
31 Methylene Chloride, CAS: 75-09-2

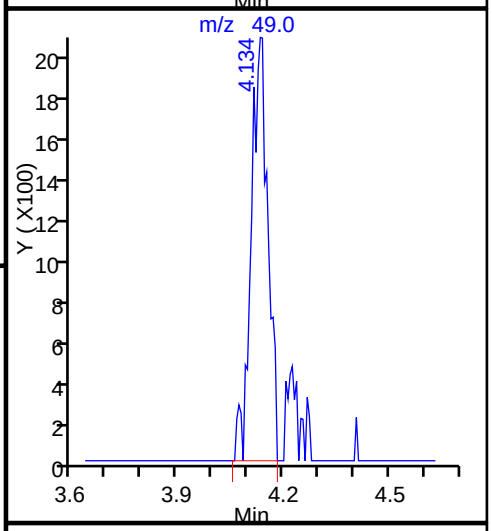


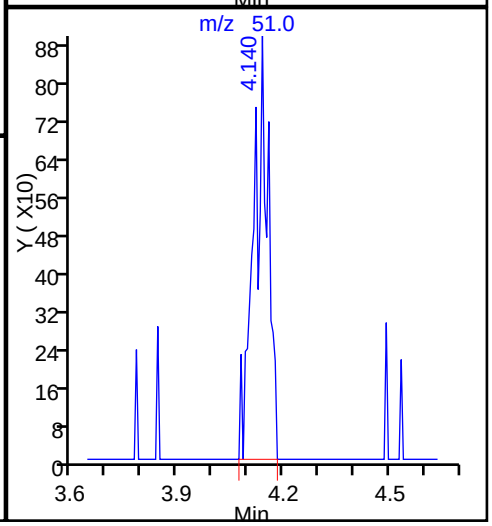












Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D

Injection Date: 04-May-2015 17:39:30 Instrument ID: CHHP6

Lims ID: 180-43359-C-2 Lab Sample ID: 180-43359-2

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

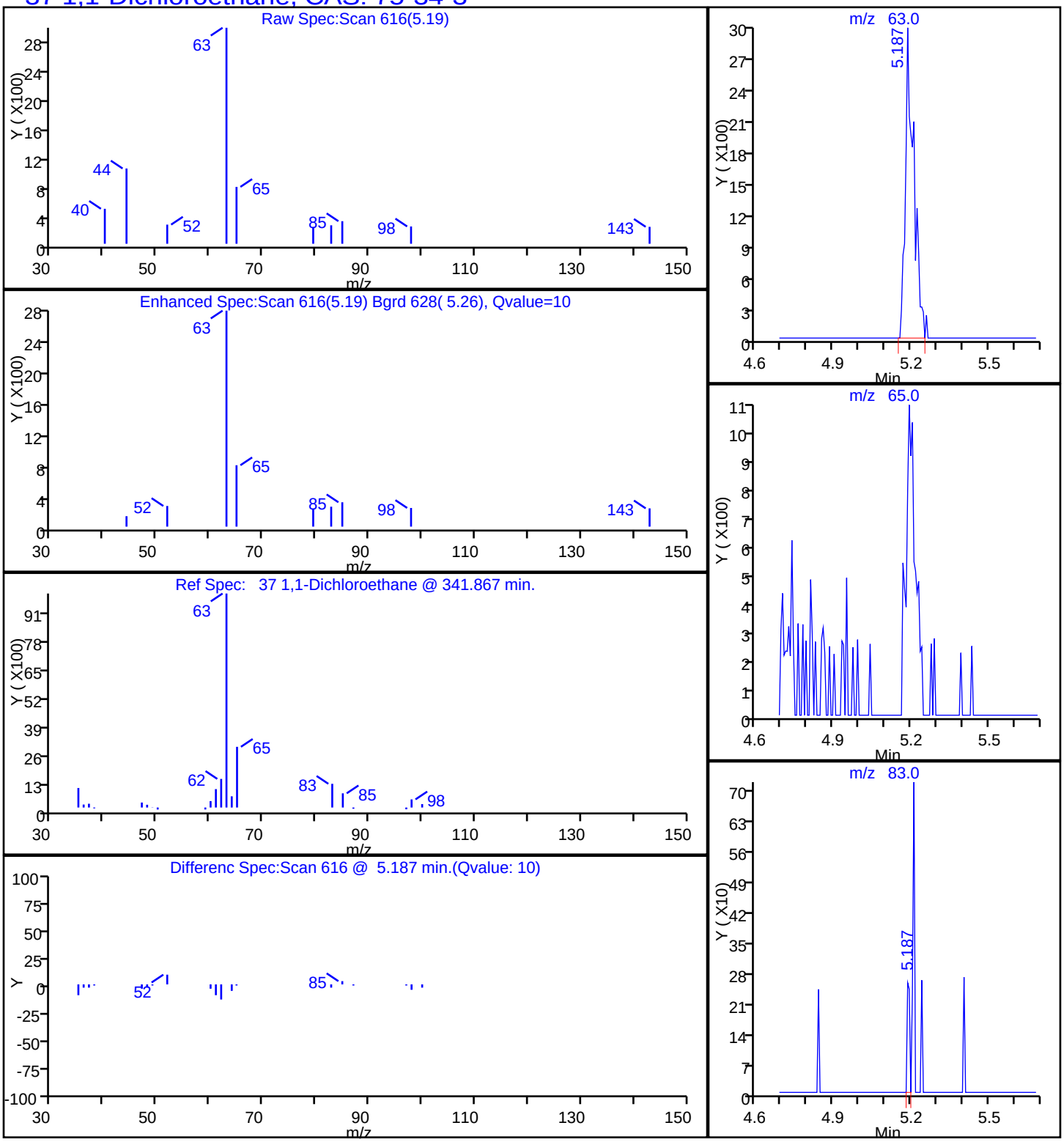
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL Dil. Factor: 12.5000

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

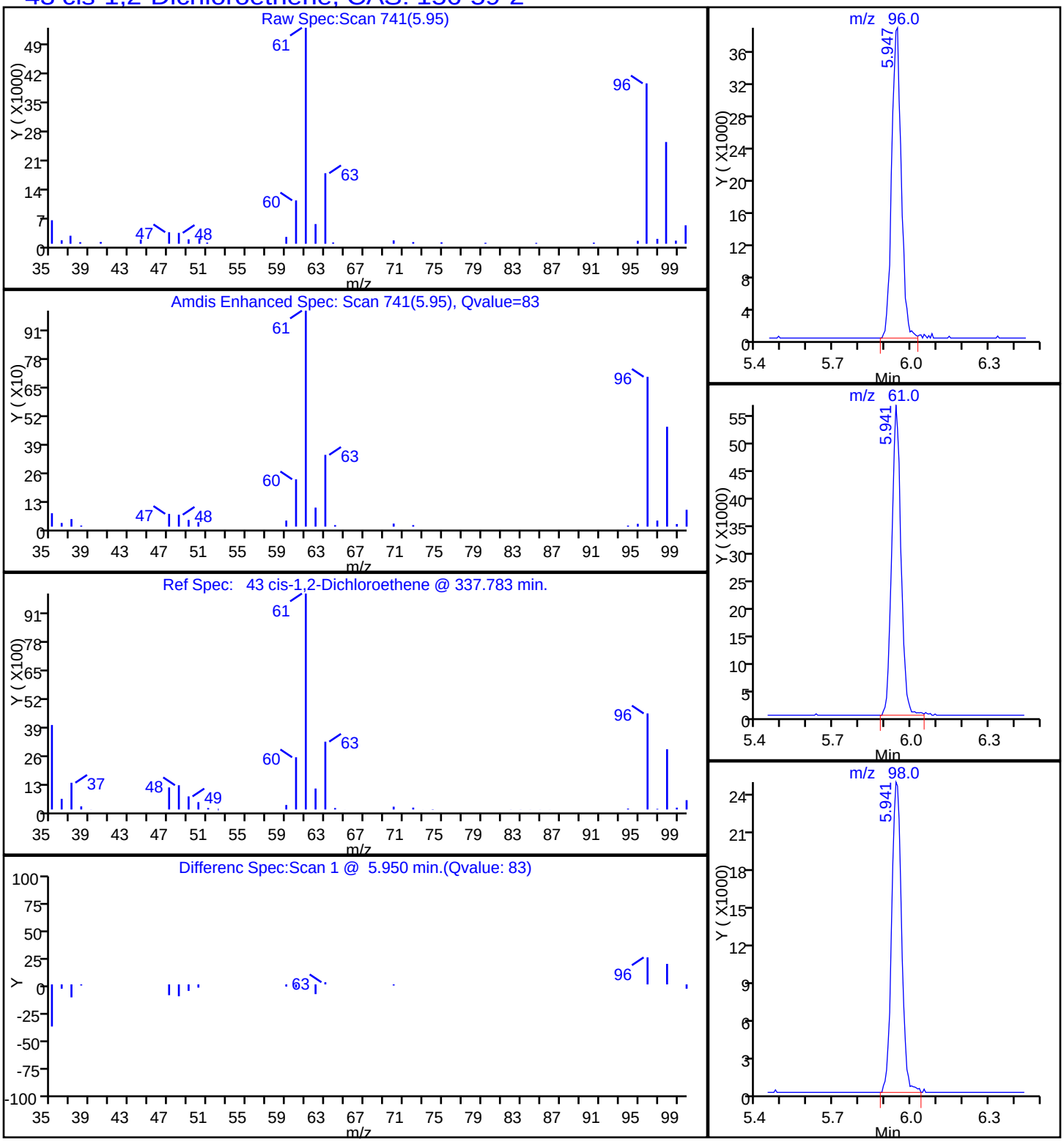


Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D				
Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
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

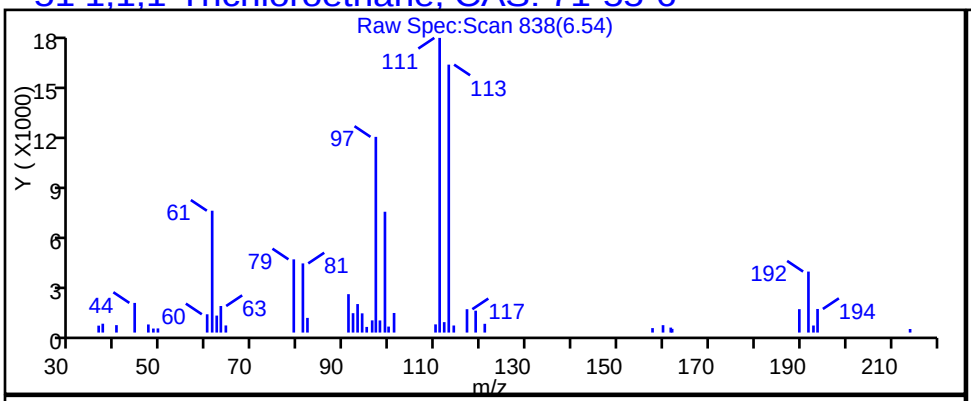


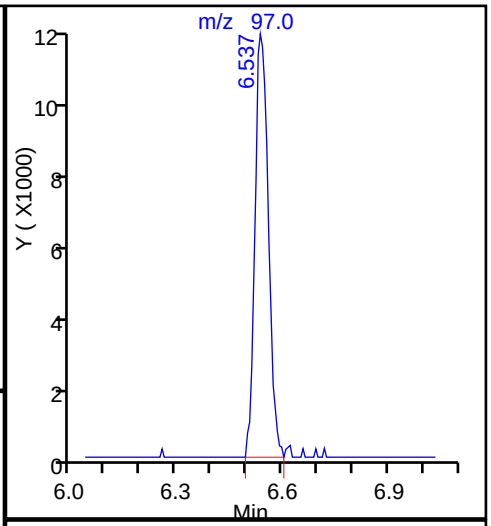
Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

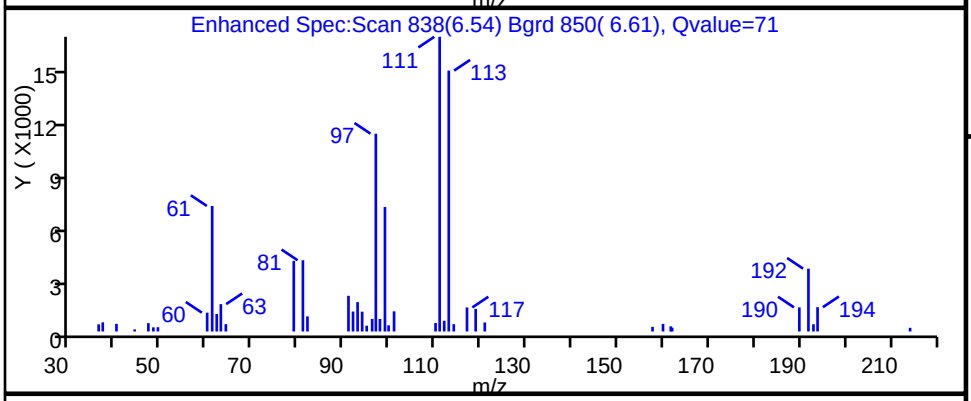
TestAmerica Pittsburgh

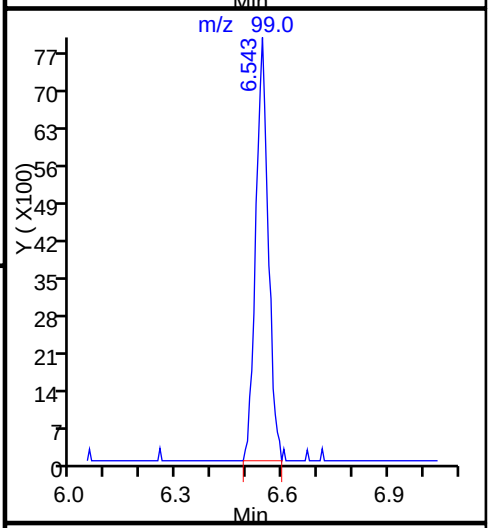
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D				
Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

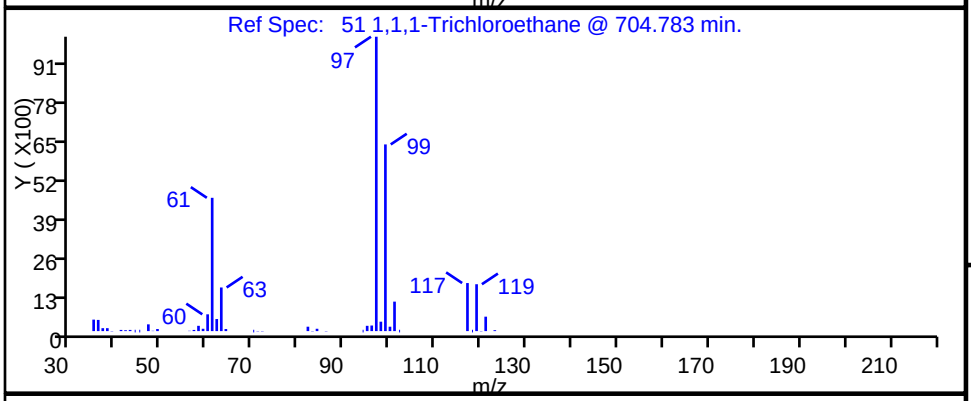
51 1,1,1-Trichloroethane, CAS: 71-55-6

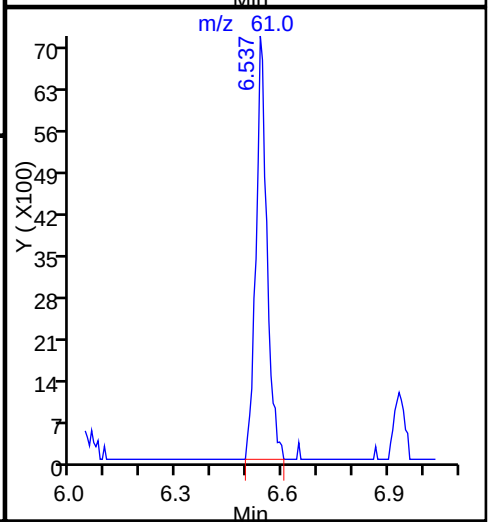


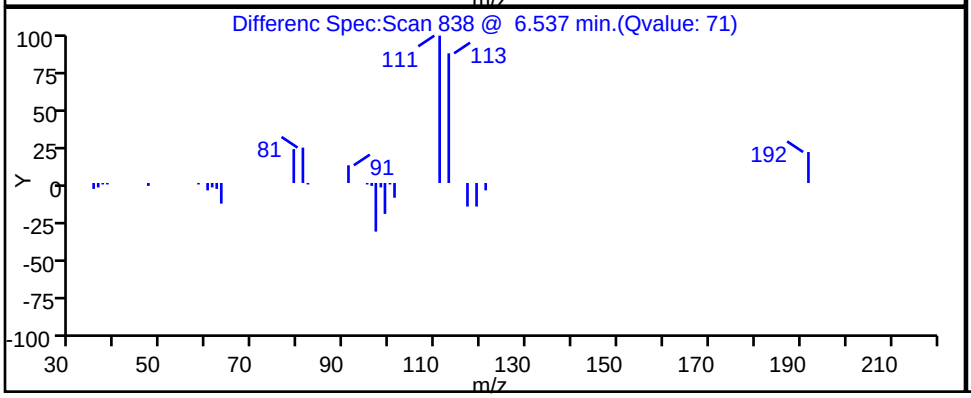










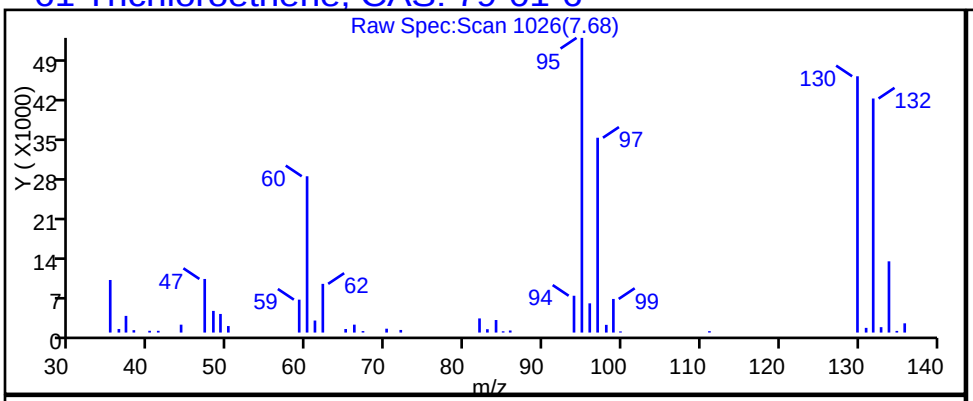


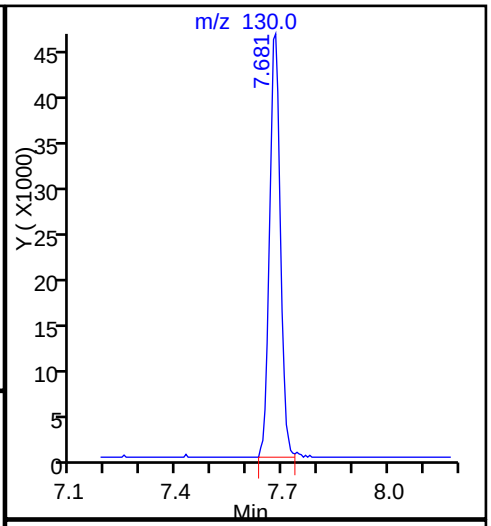
Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

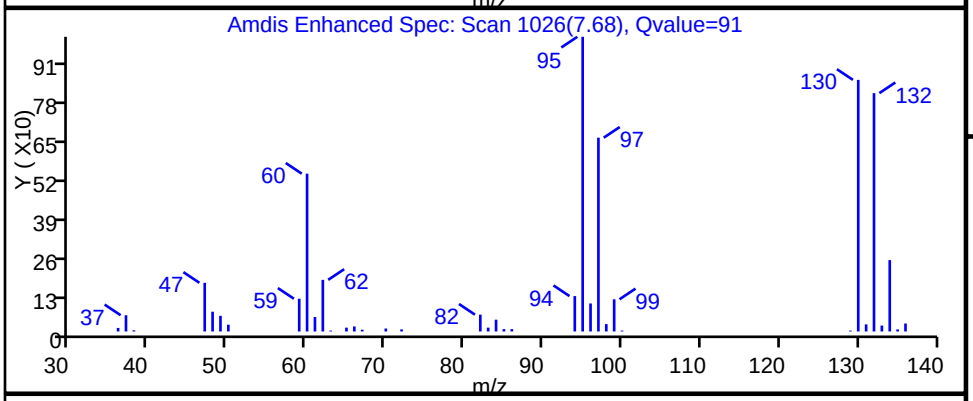
TestAmerica Pittsburgh

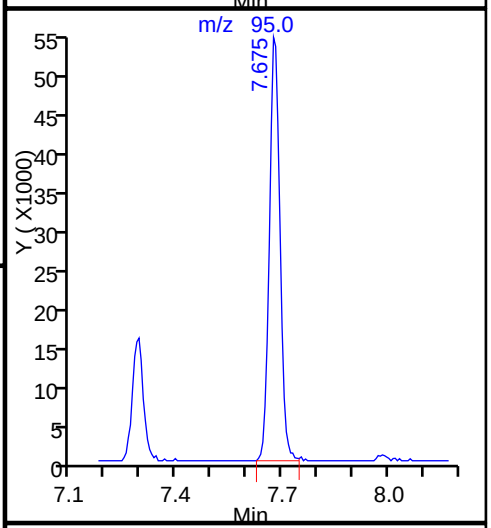
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D		
Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2
Client ID:	HD-CW-9-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

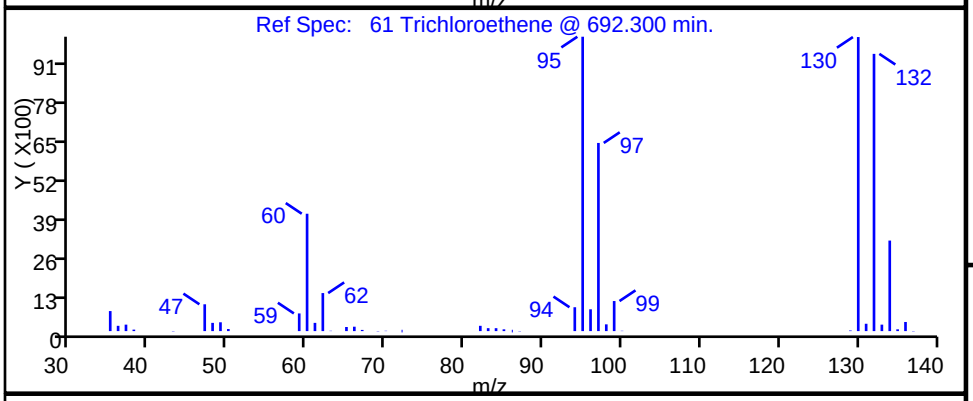
61 Trichloroethene, CAS: 79-01-6

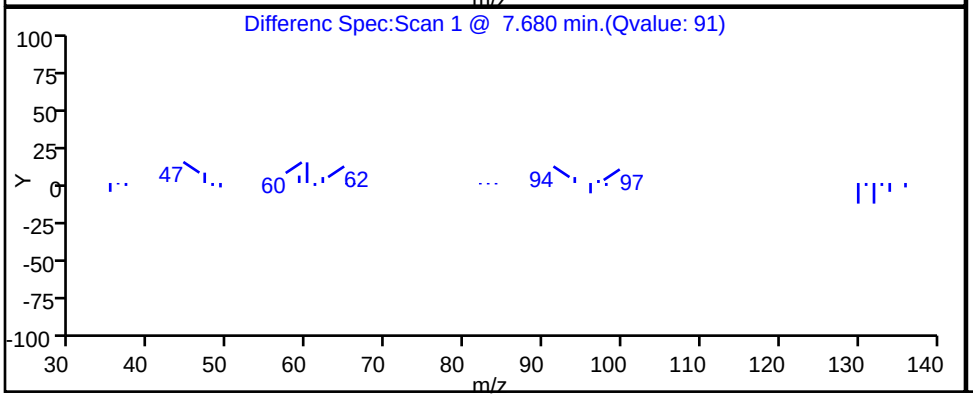


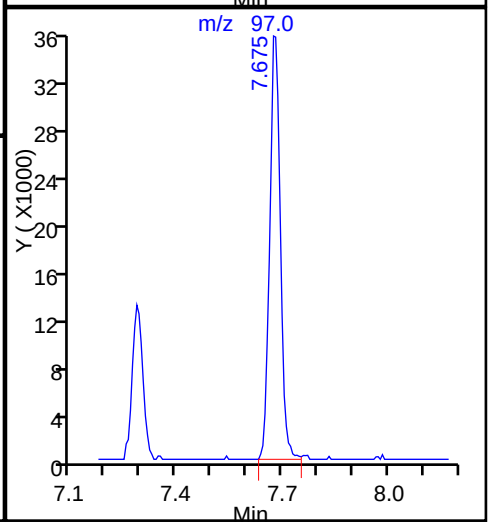












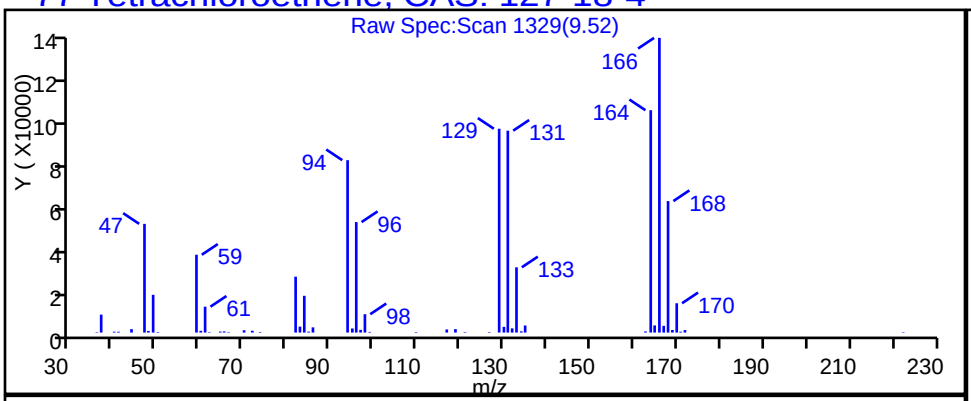
Report Date: 05-May-2015 07:31:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

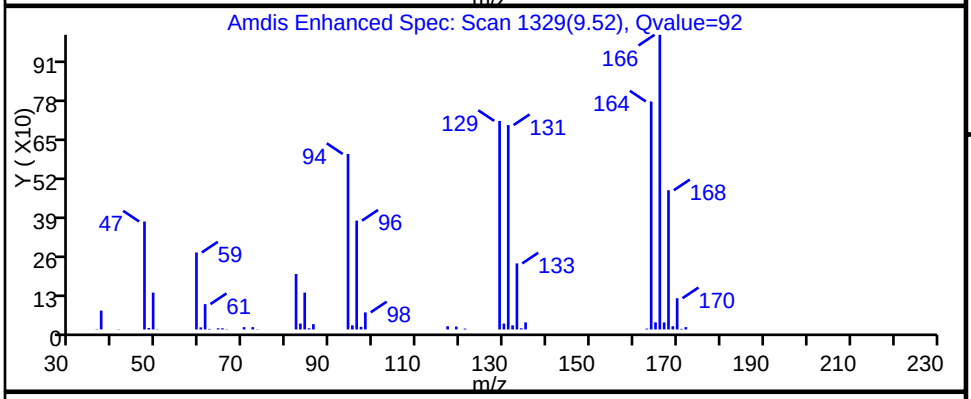
TestAmerica Pittsburgh

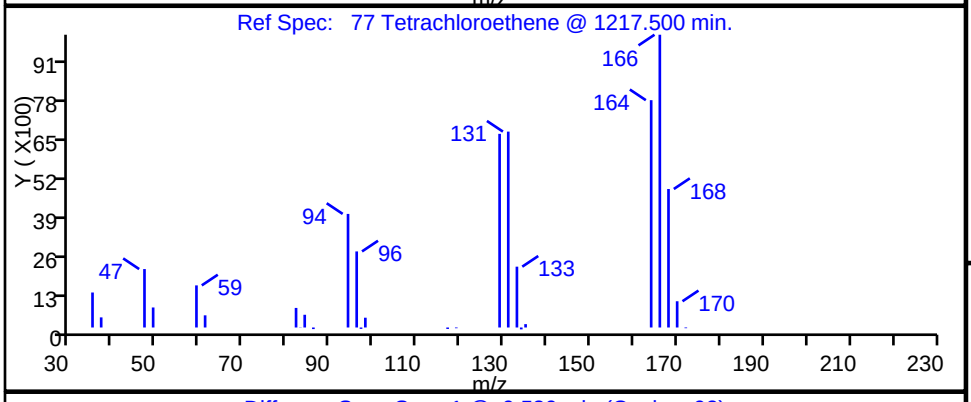
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D

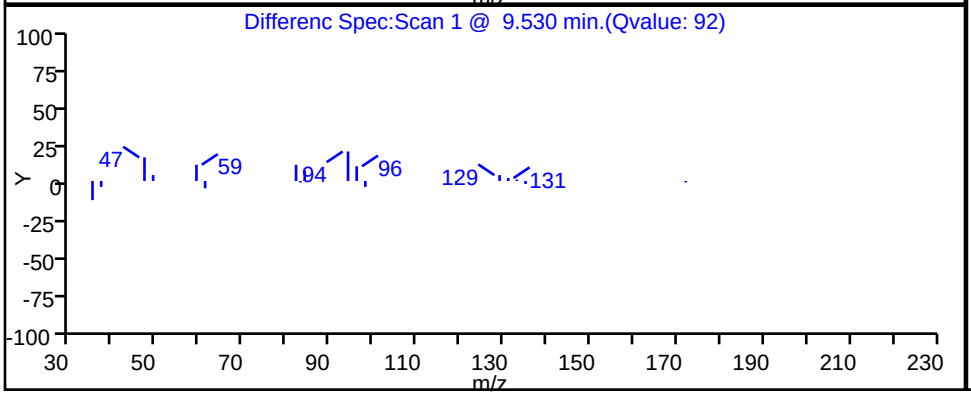
Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2
Client ID:	HD-CW-9-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

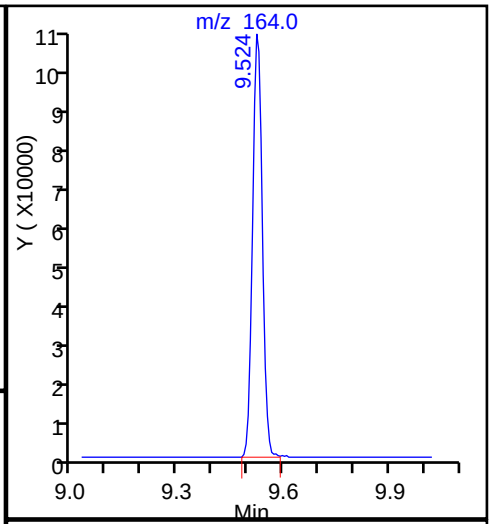
77 Tetrachloroethene, CAS: 127-18-4

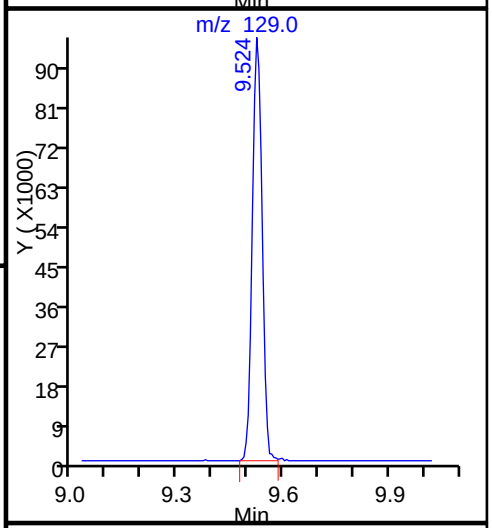


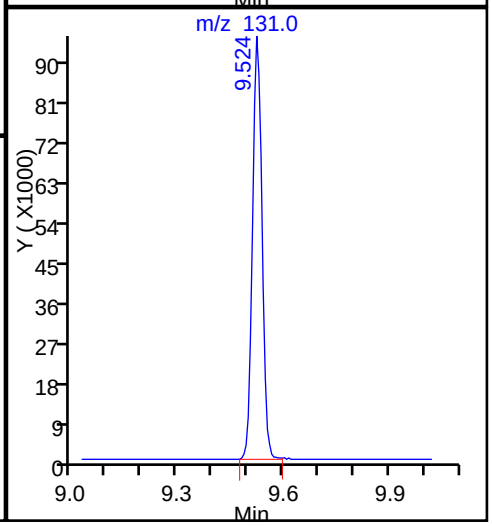












Manual Integration/User Assign Peak Report

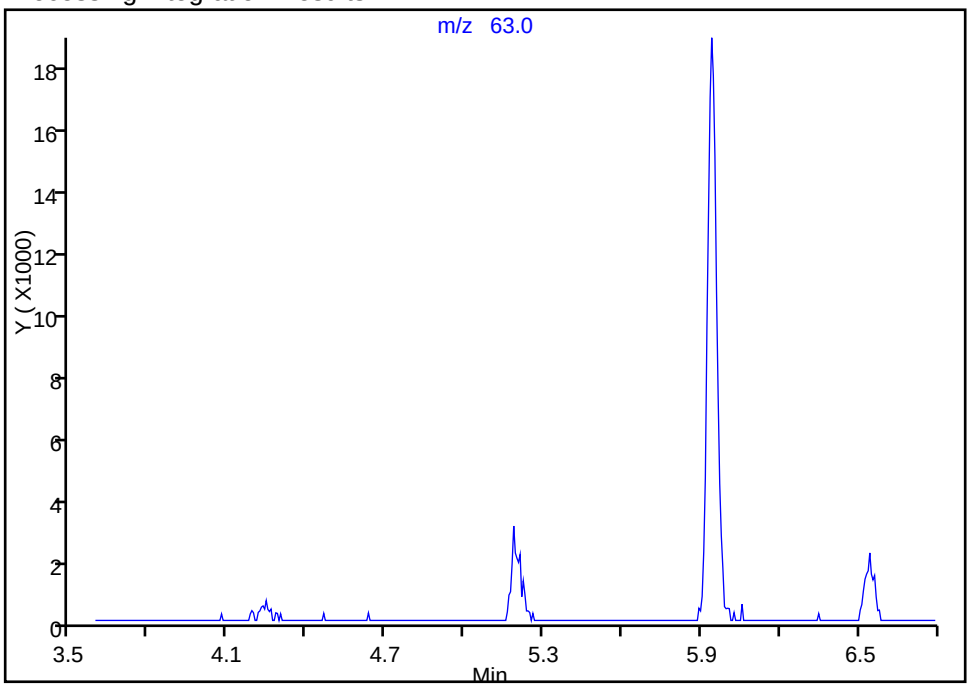
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504015.D				
Injection Date:	04-May-2015 17:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-2	Lab Sample ID:	180-43359-2		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
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

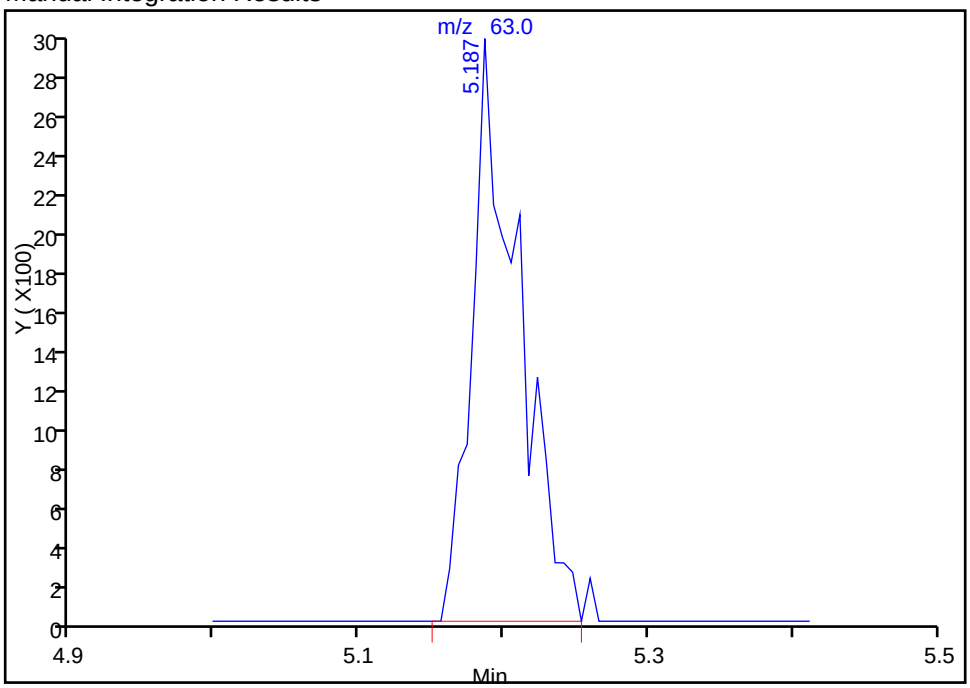
Processing Integration Results

Not Detected
Expected RT: 5.19



Manual Integration Results

RT: 5.19
Area: 6652
Amount: 1.777174
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:31:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 | Lab Sample ID: 180-43359-3

Matrix: Water | Lab File ID: 60504016.D

Analysis Method: 8260C | Date Collected: 04/22/2015 03:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 18:03

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.: 140474 | 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	13	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	12	J	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	6.3	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	23	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	240		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	200		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 | Lab Sample ID: 180-43359-3

Matrix: Water | Lab File ID: 60504016.D

Analysis Method: 8260C | Date Collected: 04/22/2015 03:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 18:03

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.: 140474 | 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)	105		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D
Lims ID: 180-43359-E-3 Lab Sample ID: 180-43359-3
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 18:03:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-43359-E-3, 25x
Misc. Info.: 180-0006756-016
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:32:34 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:32:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.235	4.254	-0.019	96	198891	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	390748	50.0	
* 3 Chlorobenzene-d5	119	10.397	10.398	-0.001	92	77689	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	120571	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.553	0.006	91	82867	51.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.924	0.006	71	141786	52.5	
$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	368847	56.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	142134	53.0	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.353	3.335	0.018	94	4737	2.62	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.144	4.120	0.024	64	5073	2.31	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.190	5.190	0.000	1	4801	1.27	M
43 cis-1,2-Dichloroethene	96	5.938	5.933	0.005	82	209287	91.3	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.376	6.371	0.005	1	1112	0.3038	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	96	13876	4.61	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.678	7.673	0.005	92	90177	48.5	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.528	9.522	0.006	92	54210	40.9	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

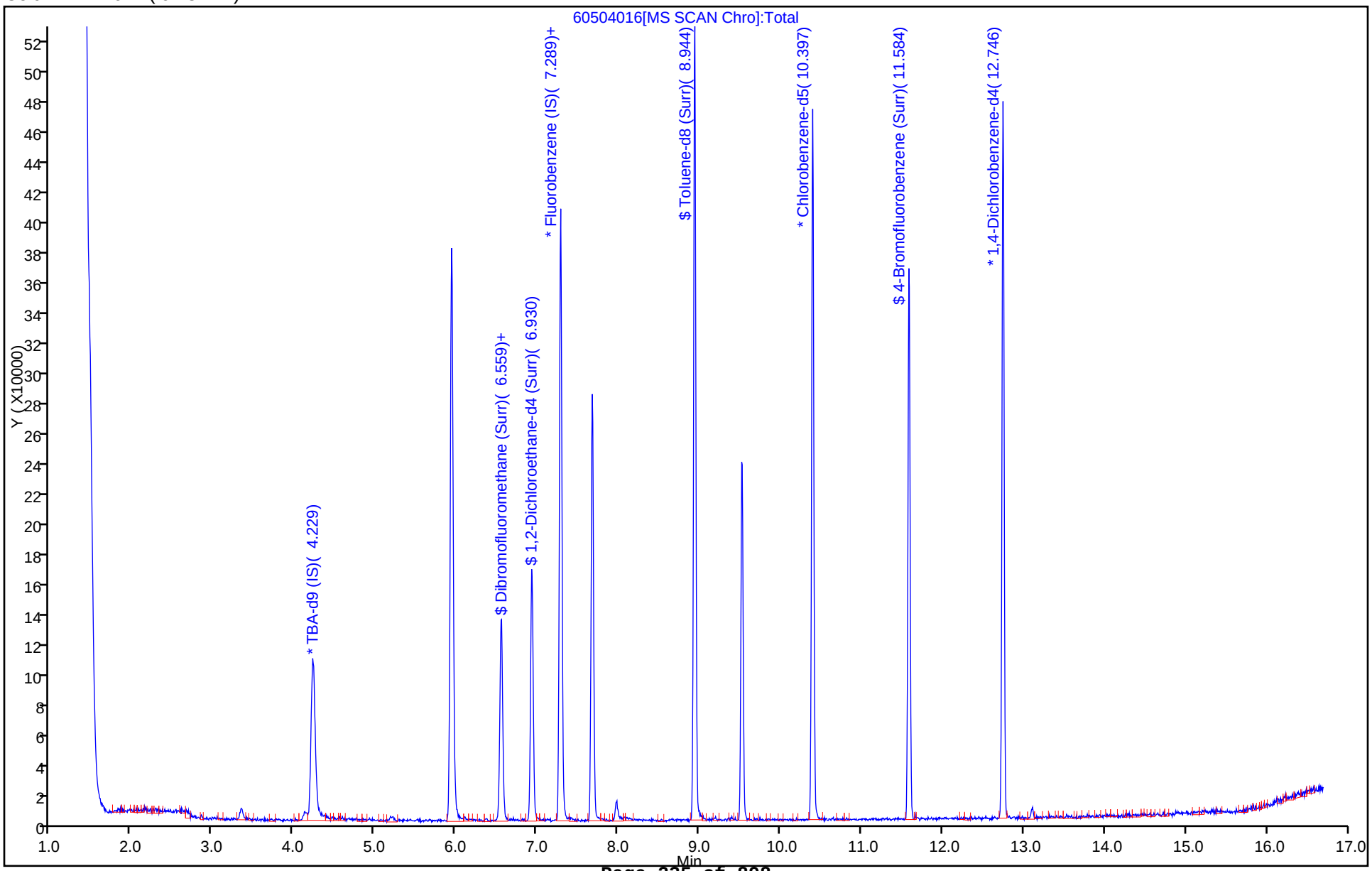
Report Date: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D

Injection Date:	04-May-2015 18:03:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-3	Lab Sample ID:	180-43359-3	Worklist Smp#:	16
Client ID:	HD-CW-13-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D

Injection Date: 04-May-2015 18:03:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-3 Lab Sample ID: 180-43359-3

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

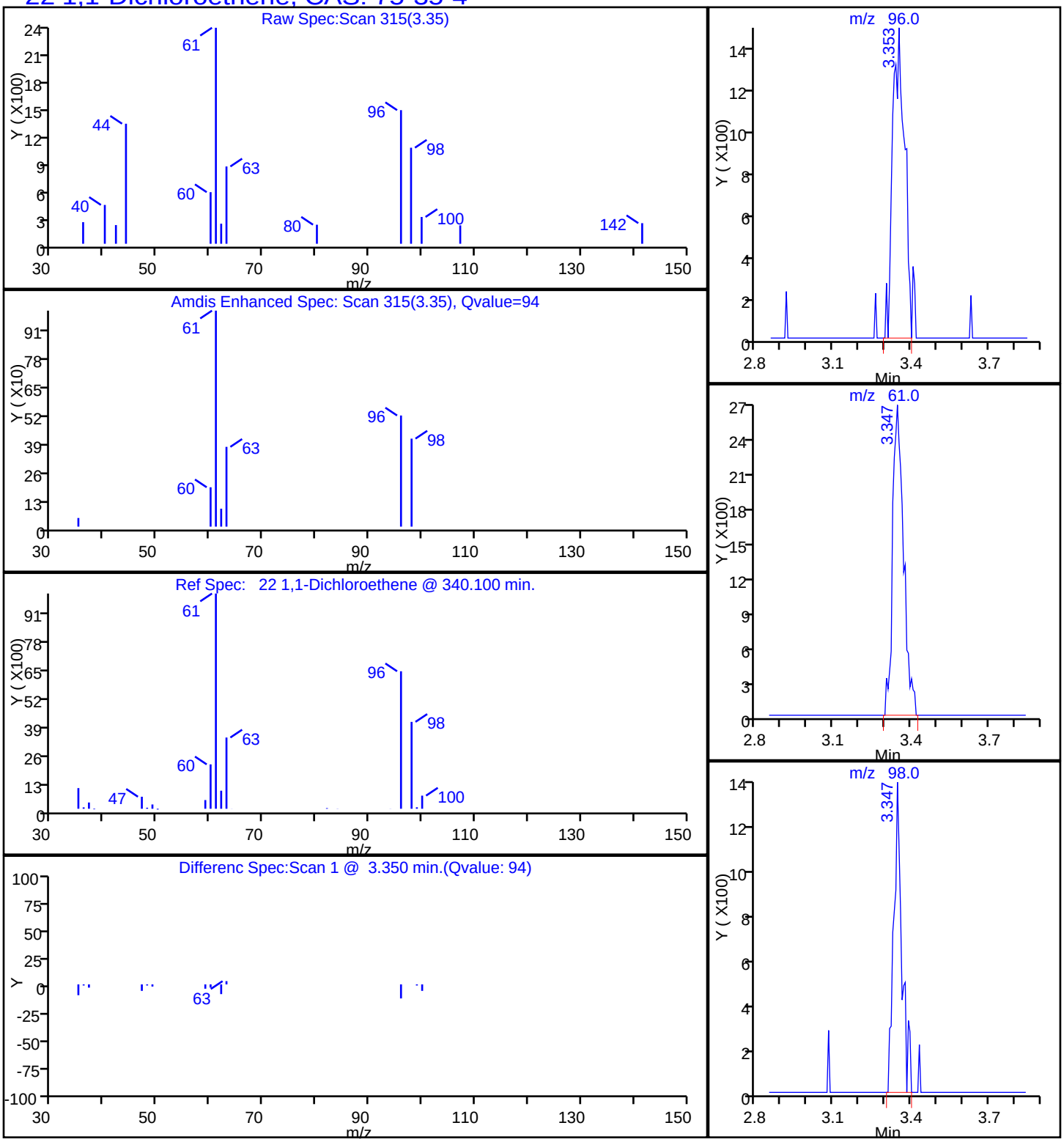
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

Purge Vol: 5.000 mL Dil. Factor: 25.0000

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: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D

Injection Date: 04-May-2015 18:03:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-3 Lab Sample ID: 180-43359-3

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

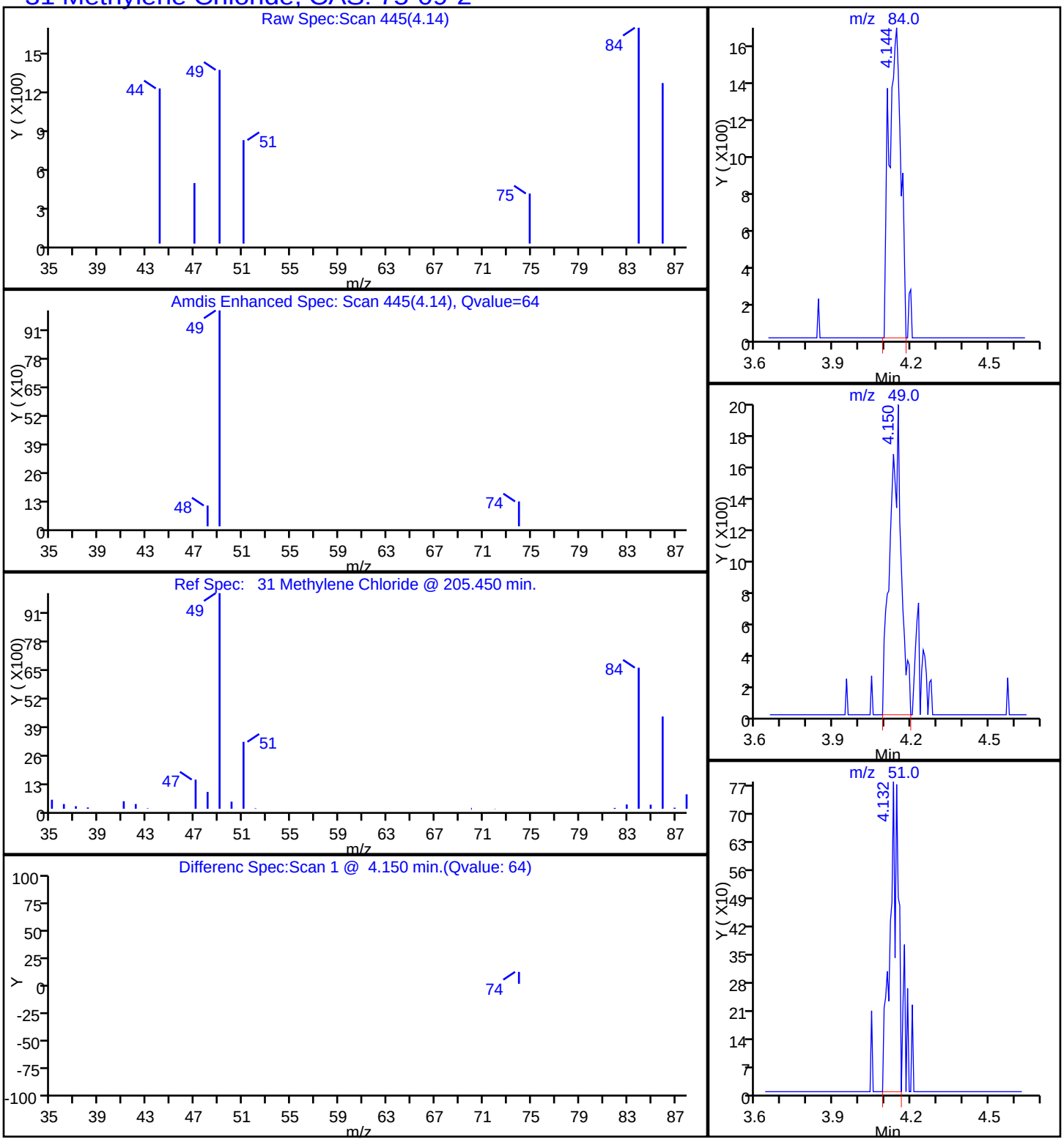
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

Purge Vol: 5.000 mL Dil. Factor: 25.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2

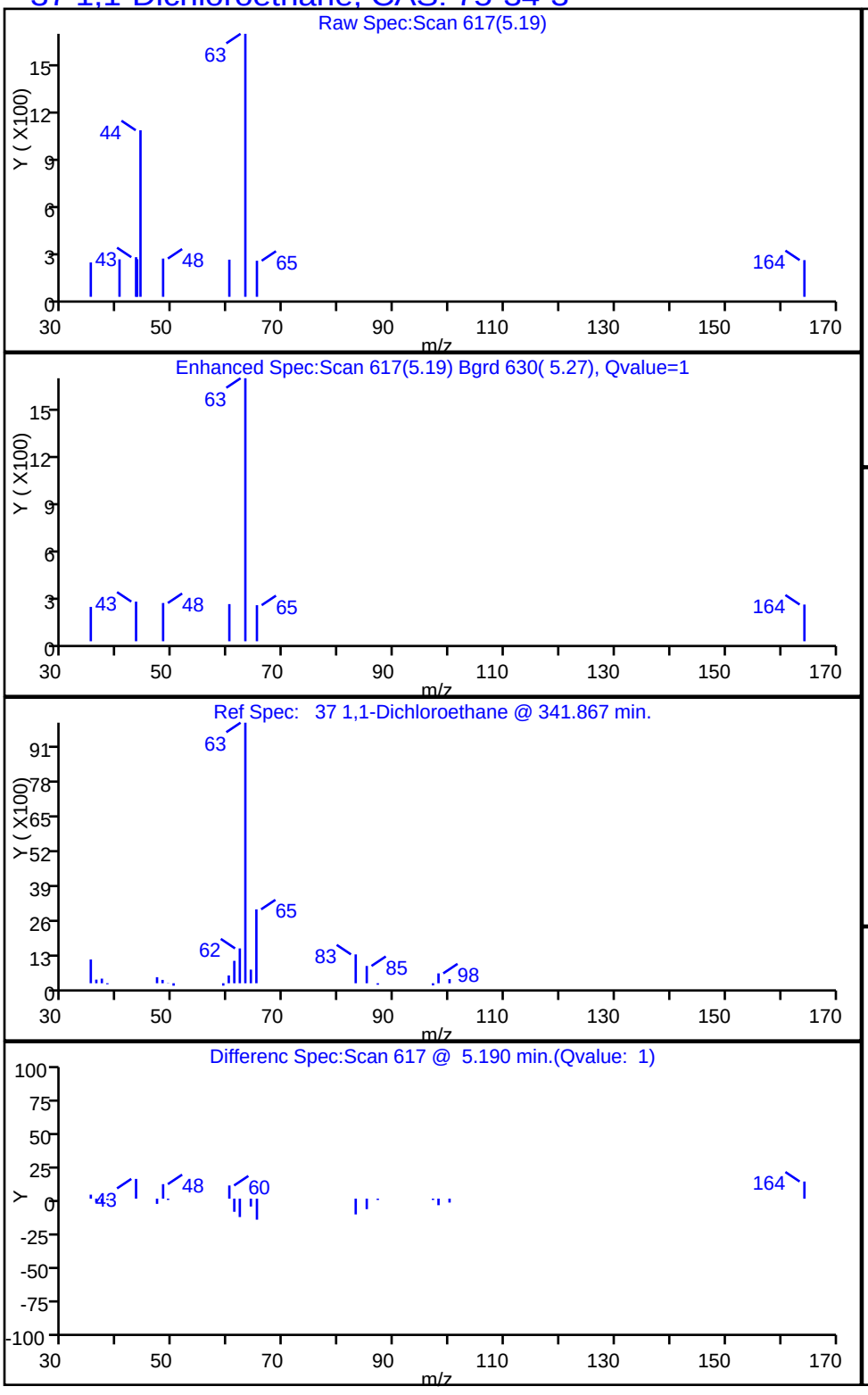


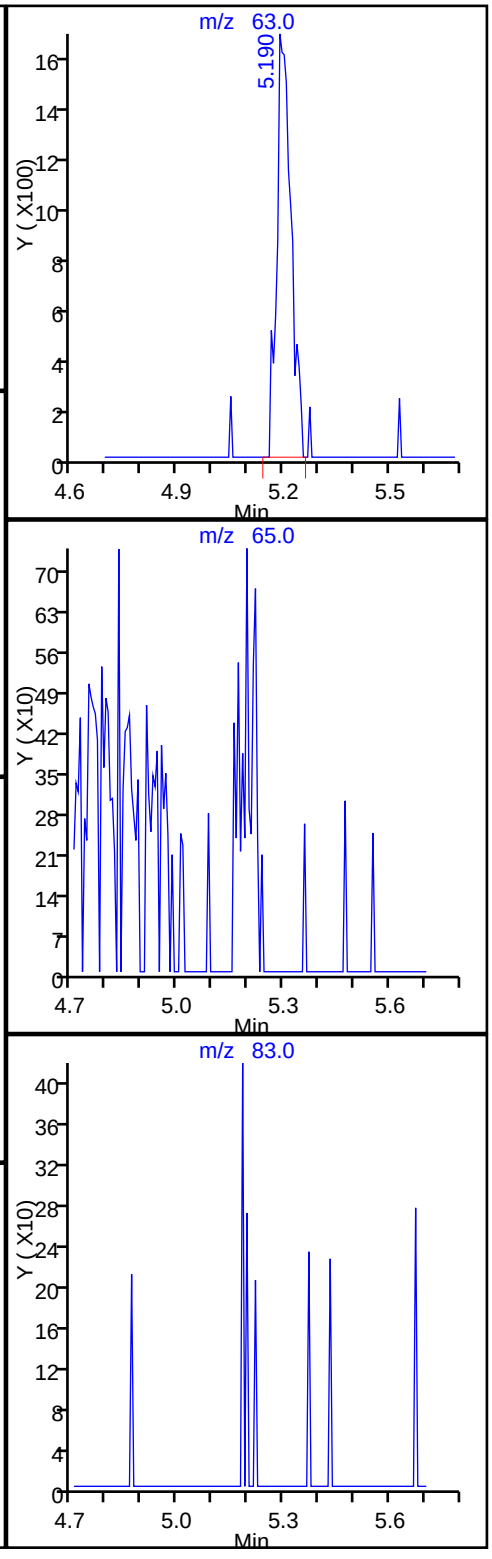
Report Date: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D		
Injection Date:	04-May-2015 18:03:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-3	Lab Sample ID:	180-43359-3
Client ID:	HD-CW-13-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
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



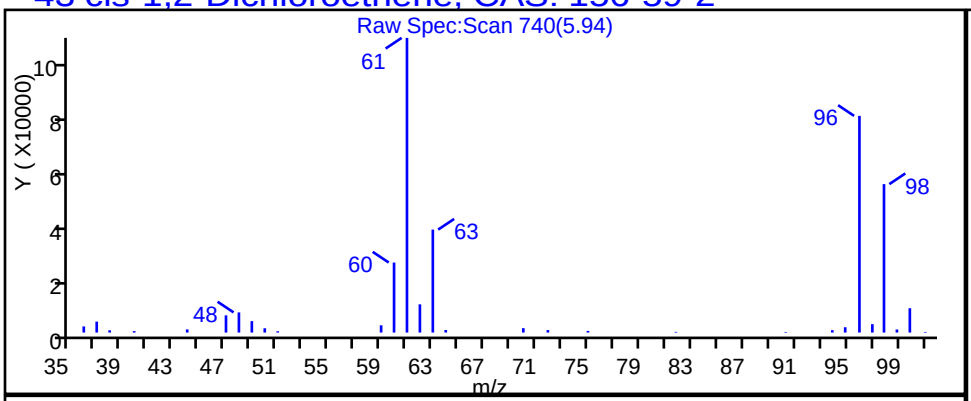


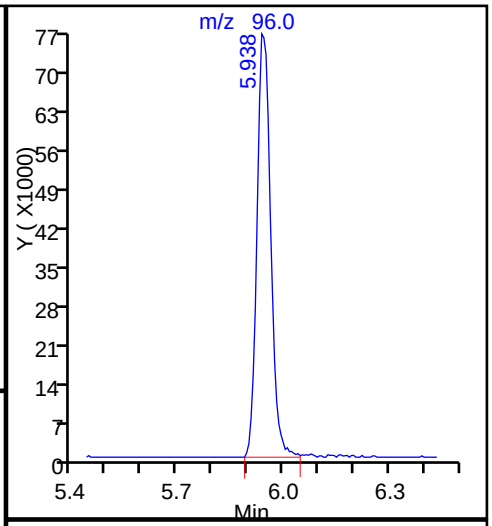
Report Date: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

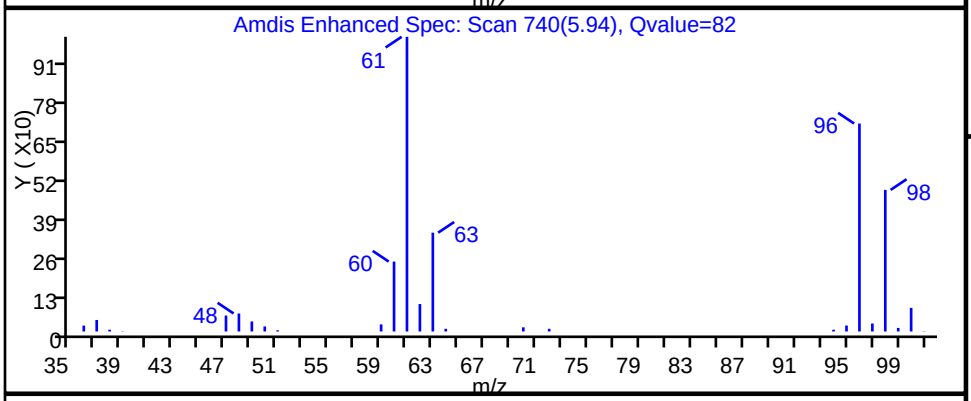
TestAmerica Pittsburgh

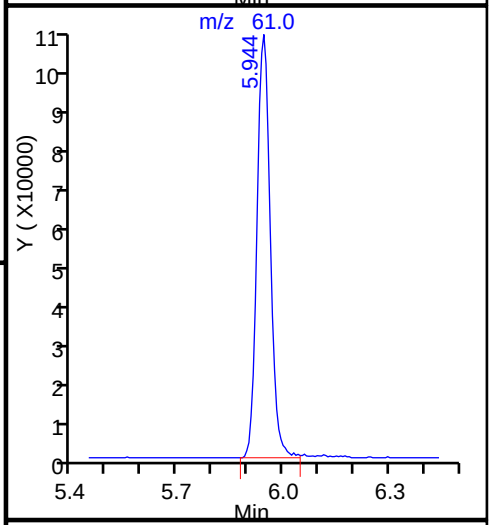
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D		
Injection Date:	04-May-2015 18:03:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-3	Lab Sample ID:	180-43359-3
Client ID:	HD-CW-13-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

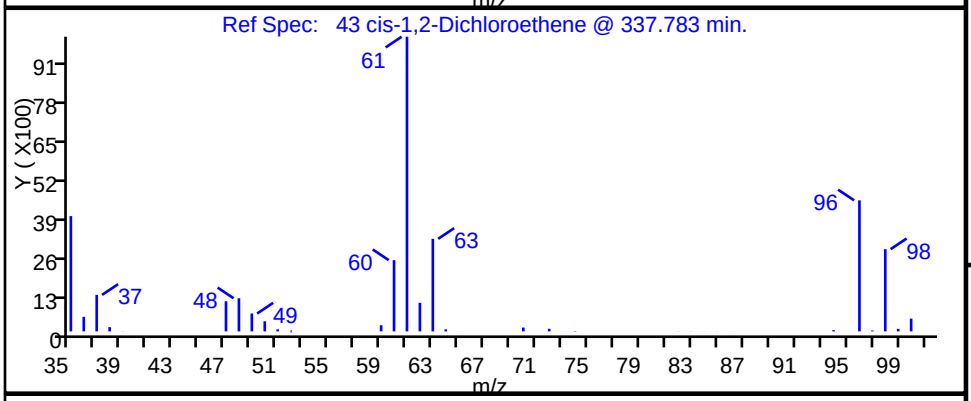
43 cis-1,2-Dichloroethene, CAS: 156-59-2

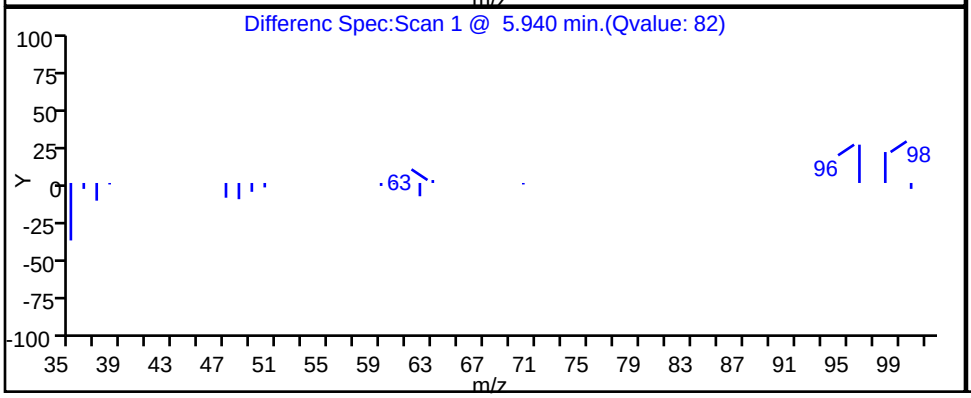


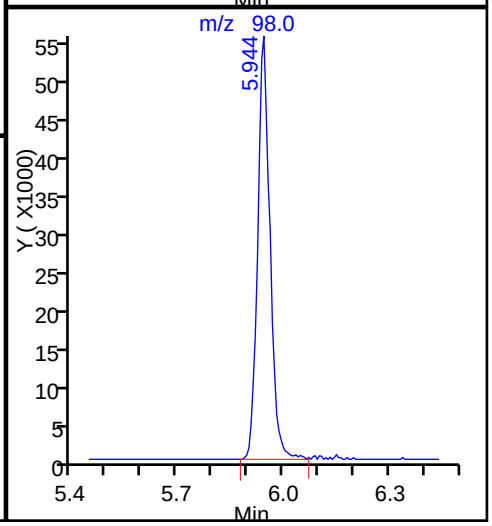












Report Date: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D

Injection Date: 04-May-2015 18:03:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-3 Lab Sample ID: 180-43359-3

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

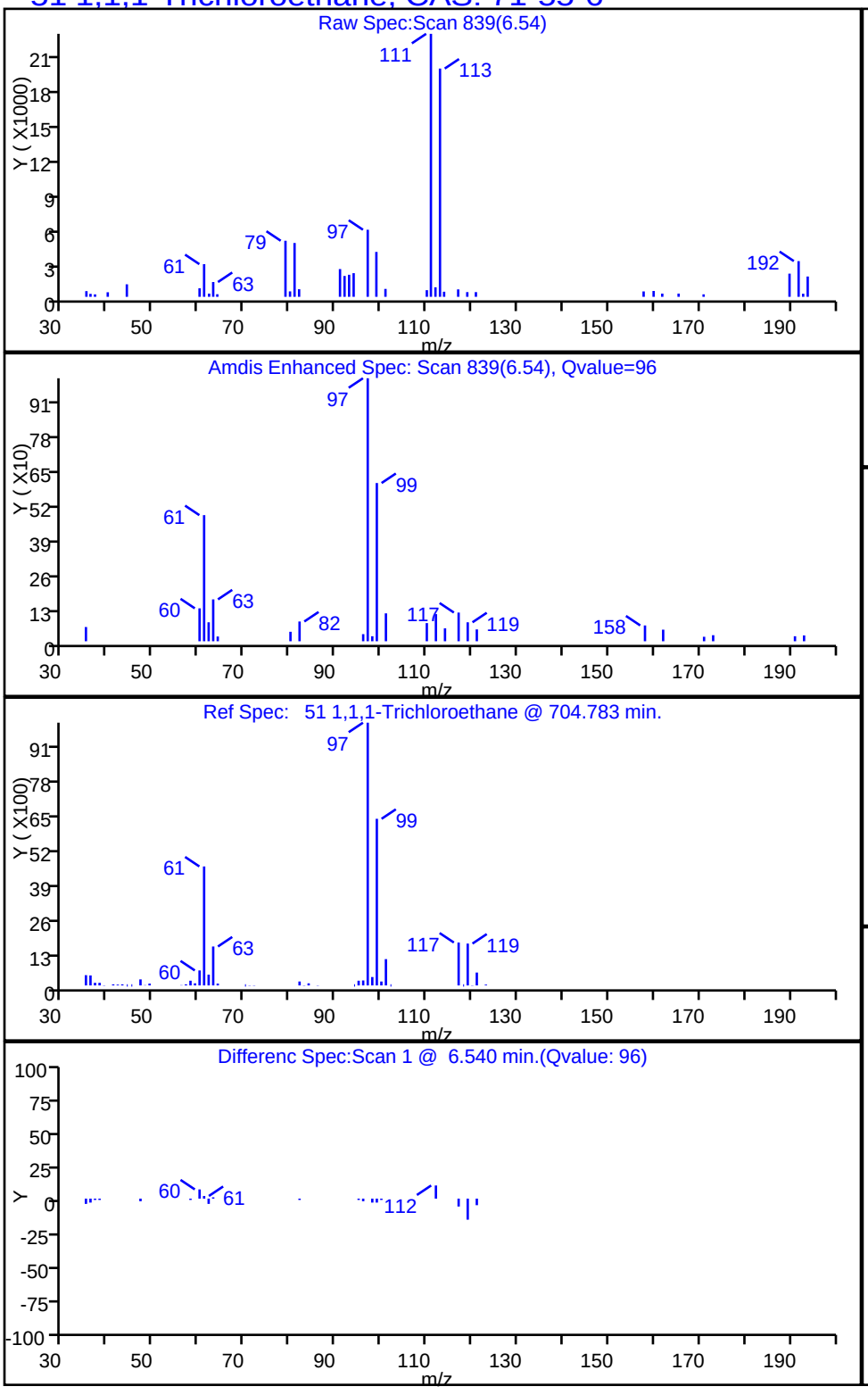
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

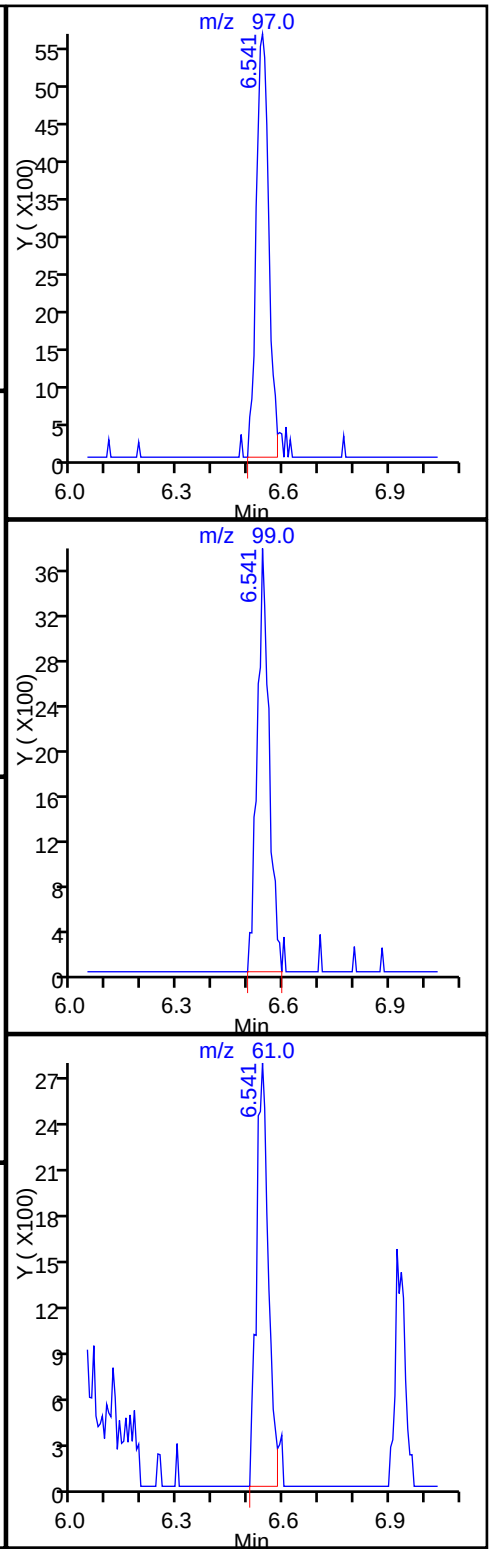
Purge Vol: 5.000 mL Dil. Factor: 25.0000

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: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D

Injection Date: 04-May-2015 18:03:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-3 Lab Sample ID: 180-43359-3

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

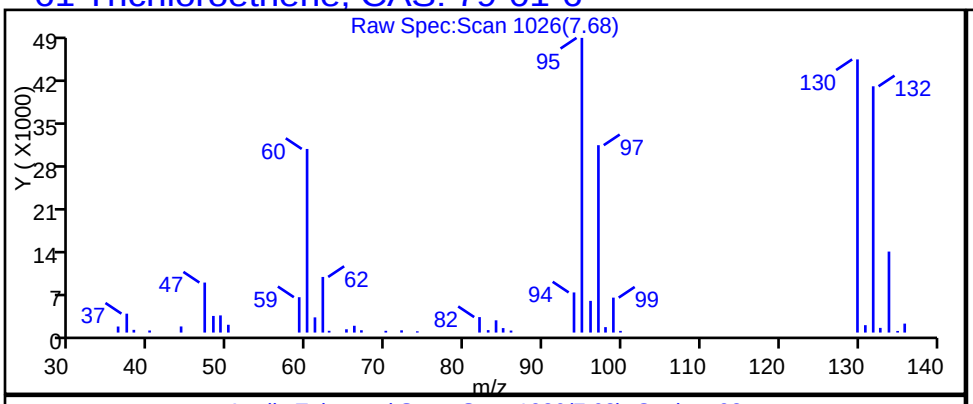
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

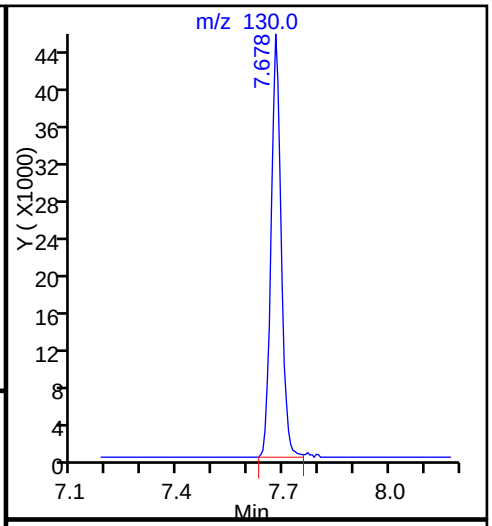
Purge Vol: 5.000 mL Dil. Factor: 25.0000

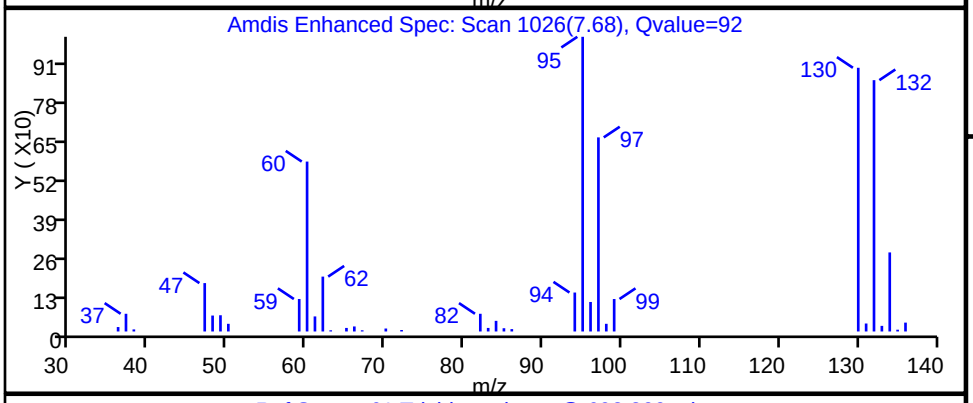
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

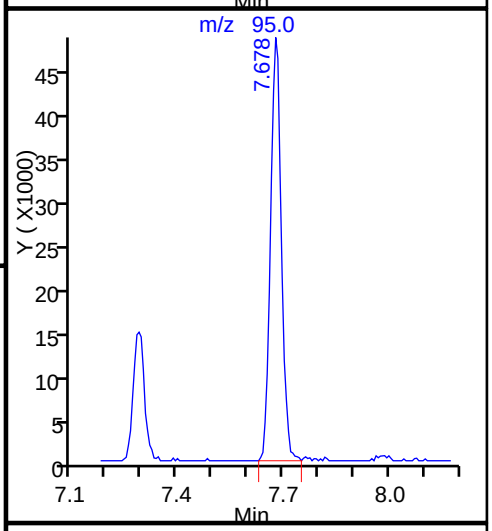
Column: DB-624 (0.18 mm) Detector MS SCAN

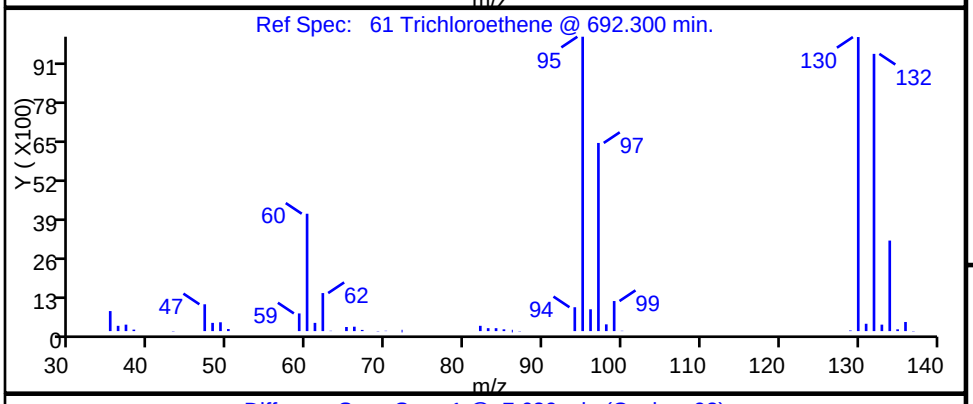
61 Trichloroethene, CAS: 79-01-6

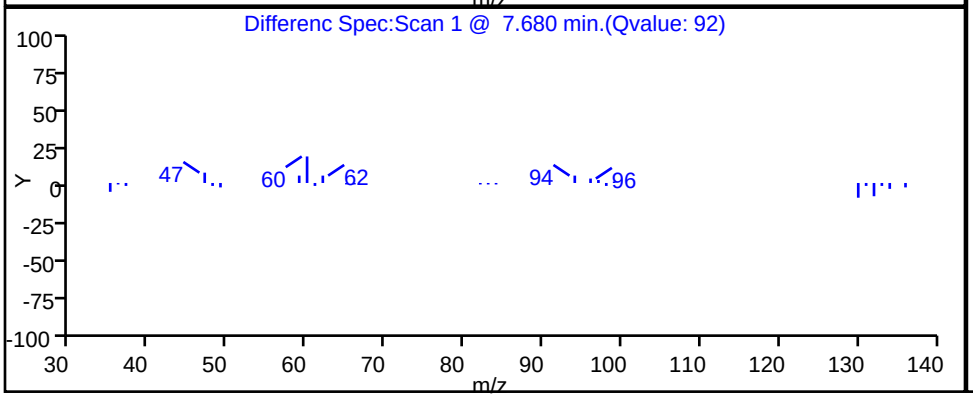


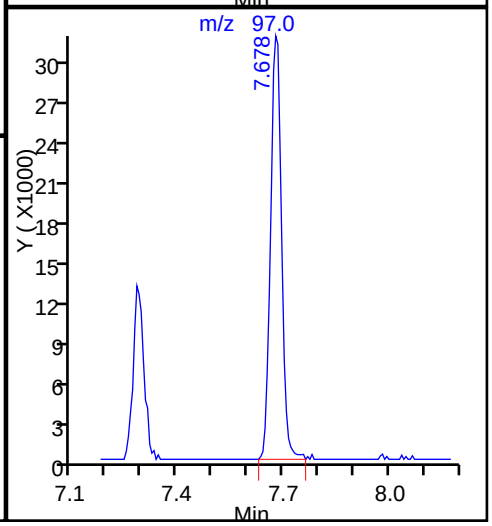












Report Date: 05-May-2015 07:32:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D

Injection Date: 04-May-2015 18:03:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-3 Lab Sample ID: 180-43359-3

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

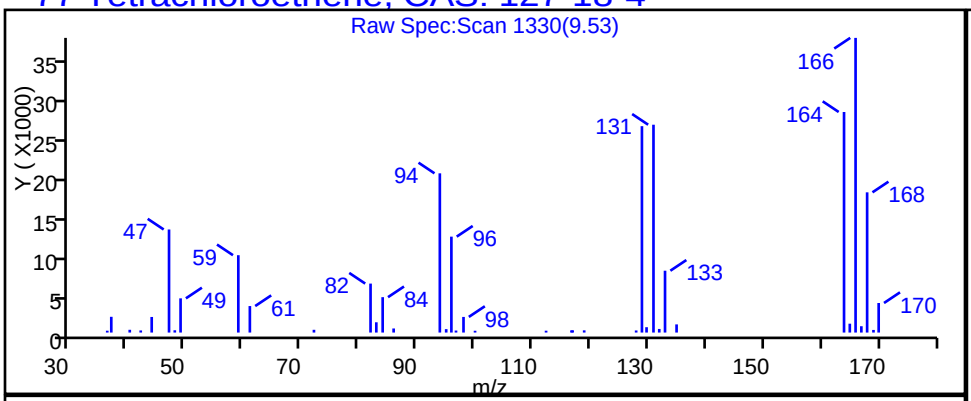
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

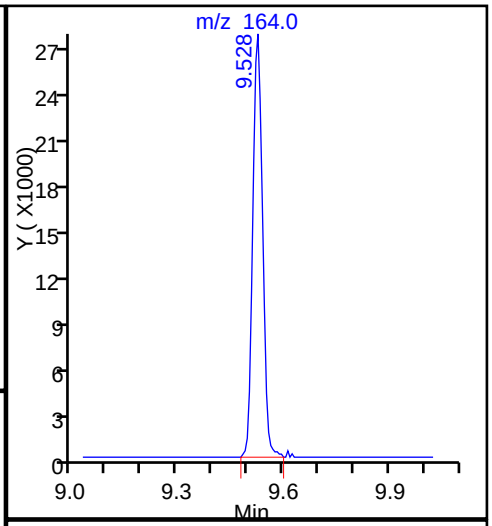
Purge Vol: 5.000 mL Dil. Factor: 25.0000

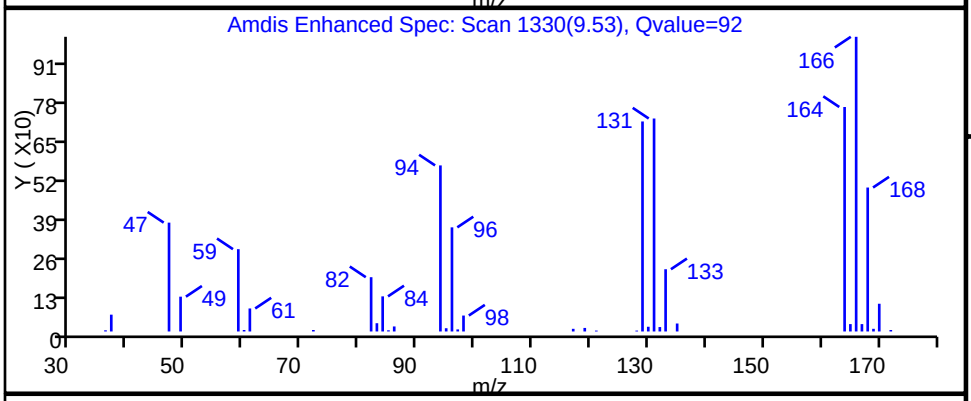
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

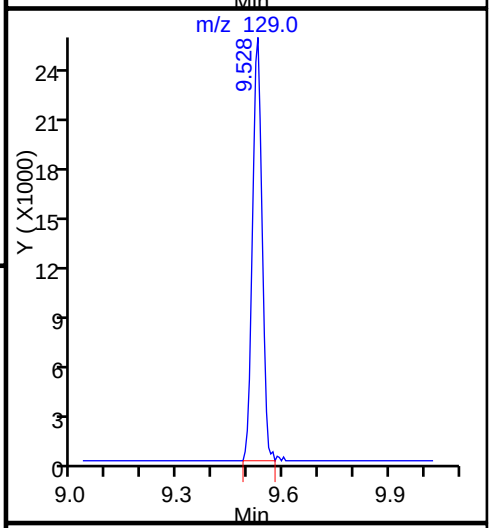
Column: DB-624 (0.18 mm) Detector MS SCAN

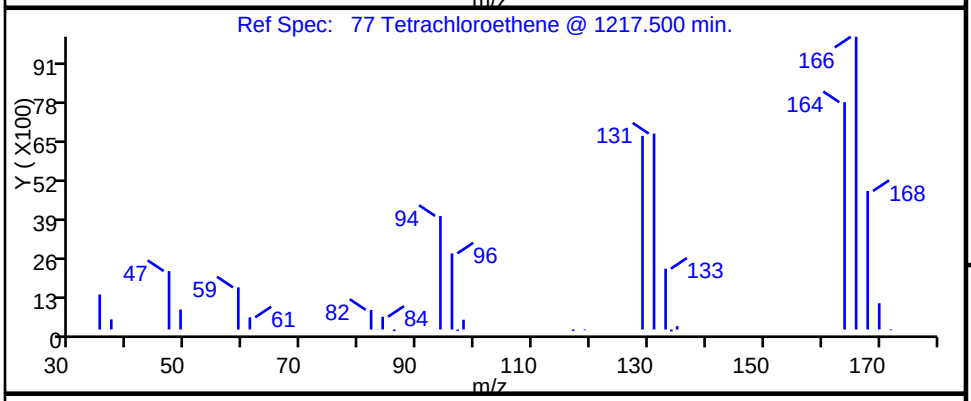
77 Tetrachloroethene, CAS: 127-18-4

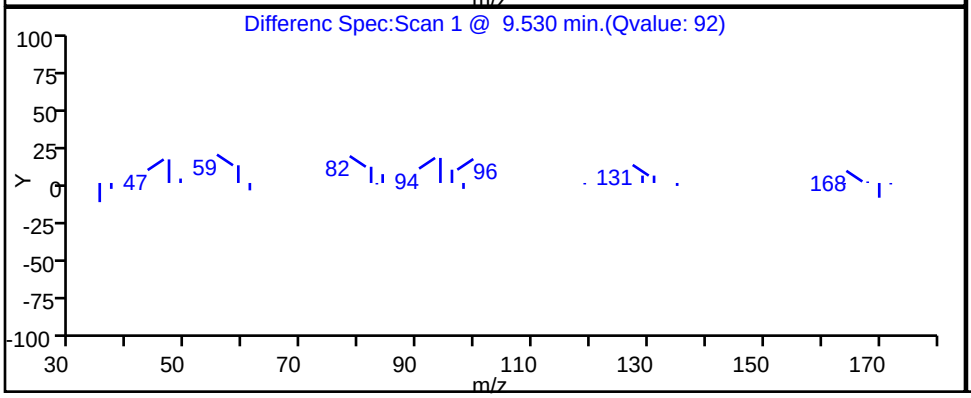


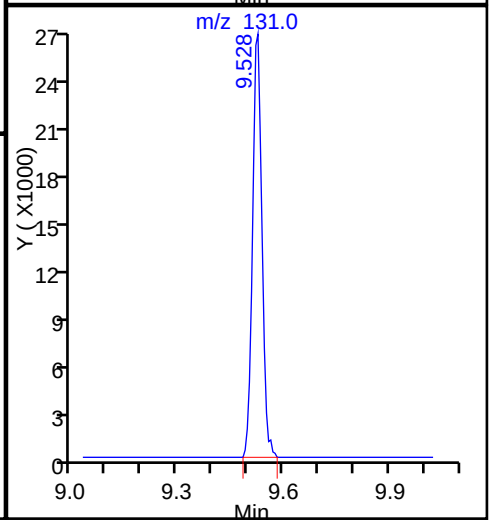












Manual Integration/User Assign Peak Report

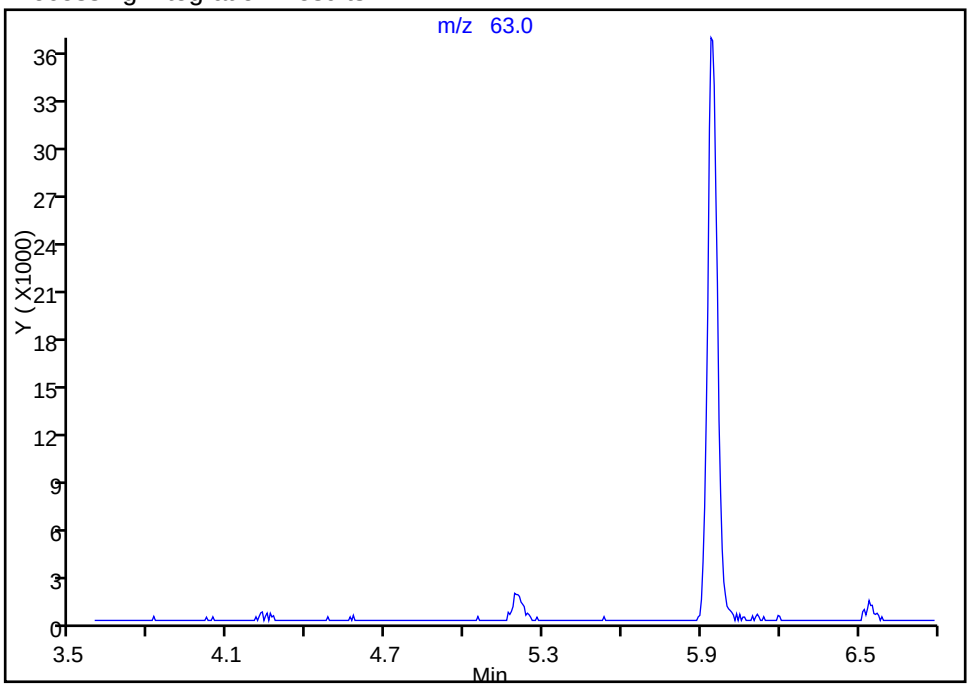
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504016.D				
Injection Date:	04-May-2015 18:03:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-3	Lab Sample ID:	180-43359-3		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
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

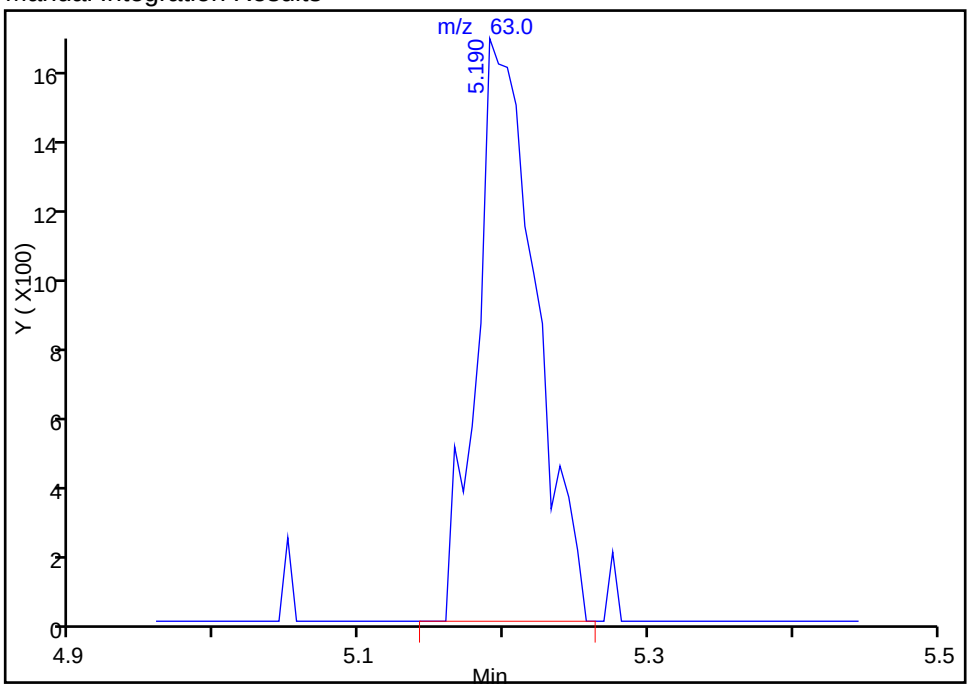
Not Detected
Expected RT: 5.19

Processing Integration Results



Manual Integration Results

RT: 5.19
Area: 4801
Amount: 1.266431
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:32:34
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 | Lab Sample ID: 180-43359-4

Matrix: Water | Lab File ID: 60504017.D

Analysis Method: 8260C | Date Collected: 04/22/2015 02:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 18:27

Soil Aliquot Vol: | Dilution Factor: 1000

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1000	U	1000	280
75-01-4	Vinyl chloride	1000	U	1000	230
74-83-9	Bromomethane	1000	U	1000	310
75-00-3	Chloroethane	1000	U	1000	210
75-35-4	1,1-Dichloroethene	2000		1000	300
67-64-1	Acetone	5000	U *	5000	2500
75-15-0	Carbon disulfide	1000	U	1000	210
75-09-2	Methylene Chloride	480	J	1000	130
156-60-5	trans-1,2-Dichloroethene	1000	U	1000	170
1634-04-4	Methyl tert-butyl ether	1000	U	1000	180
75-34-3	1,1-Dichloroethane	140	J	1000	120
156-59-2	cis-1,2-Dichloroethene	9500		1000	240
74-97-5	Bromochloromethane	1000	U	1000	180
78-93-3	2-Butanone (MEK)	5000	U *	5000	550
67-66-3	Chloroform	1000	U	1000	170
71-55-6	1,1,1-Trichloroethane	9700		1000	290
56-23-5	Carbon tetrachloride	1000	U	1000	140
71-43-2	Benzene	1000	U	1000	110
107-06-2	1,2-Dichloroethane	1000	U	1000	210
79-01-6	Trichloroethene	4800		1000	140
78-87-5	1,2-Dichloropropane	1000	U	1000	95
75-27-4	Bromodichloromethane	1000	U	1000	130
10061-01-5	cis-1,3-Dichloropropene	1000	U	1000	190
108-10-1	4-Methyl-2-pentanone (MIBK)	5000	U	5000	530
108-88-3	Toluene	1000	U	1000	150
10061-02-6	trans-1,3-Dichloropropene	1000	U	1000	150
79-00-5	1,1,2-Trichloroethane	1000	U	1000	200
127-18-4	Tetrachloroethene	1400		1000	150
591-78-6	2-Hexanone	5000	U	5000	160
124-48-1	Dibromochloromethane	1000	U	1000	140
106-93-4	1,2-Dibromoethane (EDB)	1000	U	1000	180
108-90-7	Chlorobenzene	1000	U	1000	140
630-20-6	1,1,1,2-Tetrachloroethane	1000	U	1000	280
100-41-4	Ethylbenzene	1000	U	1000	230
1330-20-7	Xylenes, Total	3000	U	3000	490
100-42-5	Styrene	1000	U	1000	97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 | Lab Sample ID: 180-43359-4

Matrix: Water | Lab File ID: 60504017.D

Analysis Method: 8260C | Date Collected: 04/22/2015 02:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 18:27

Soil Aliquot Vol: | Dilution Factor: 1000

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1000	U	1000	190
79-34-5	1,1,2,2-Tetrachloroethane	1000	U	1000	200
107-13-1	Acrylonitrile	20000	U	20000	550
123-91-1	1,4-Dioxane	200000	U	200000	34000

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D
Lims ID: 180-43359-E-4 Lab Sample ID: 180-43359-4
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 18:27:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1000.0000
Sample Info: 180-43359-E-4, 1000x
Misc. Info.: 180-0006756-017
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:40:10 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:34:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.236	4.254	-0.018	96	185959	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	98	388686	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	91	76893	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	97	119903	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.553	0.001	90	83098	51.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.924	0.007	70	140374	52.2	
$ 7 Toluene-d8 (Surr)	98	8.945	8.938	0.007	94	359568	55.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	79	139315	52.5	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.360	3.335	0.025	95	17651	9.81	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.145	4.120	0.025	85	5201	2.38	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.197	5.190	0.007	1	2638	0.6996	M
43 cis-1,2-Dichloroethene	96	5.946	5.933	0.013	80	107771	47.3	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.536	6.535	0.001	97	144582	48.3	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	92	44226	23.9	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.529	9.522	0.007	89	9482	7.23	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

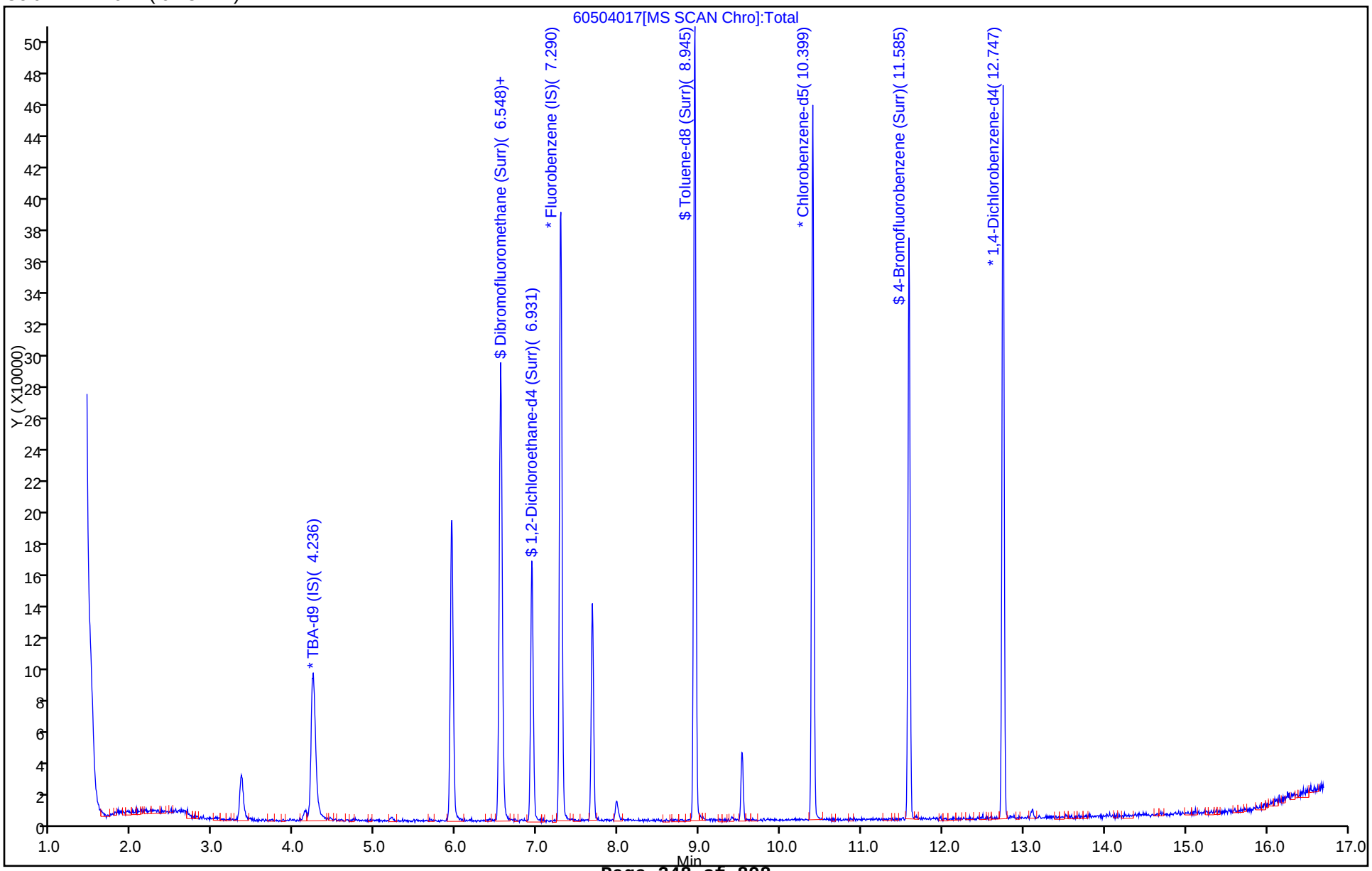
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4	Worklist Smp#:	17
Client ID:	HD-CW-15A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



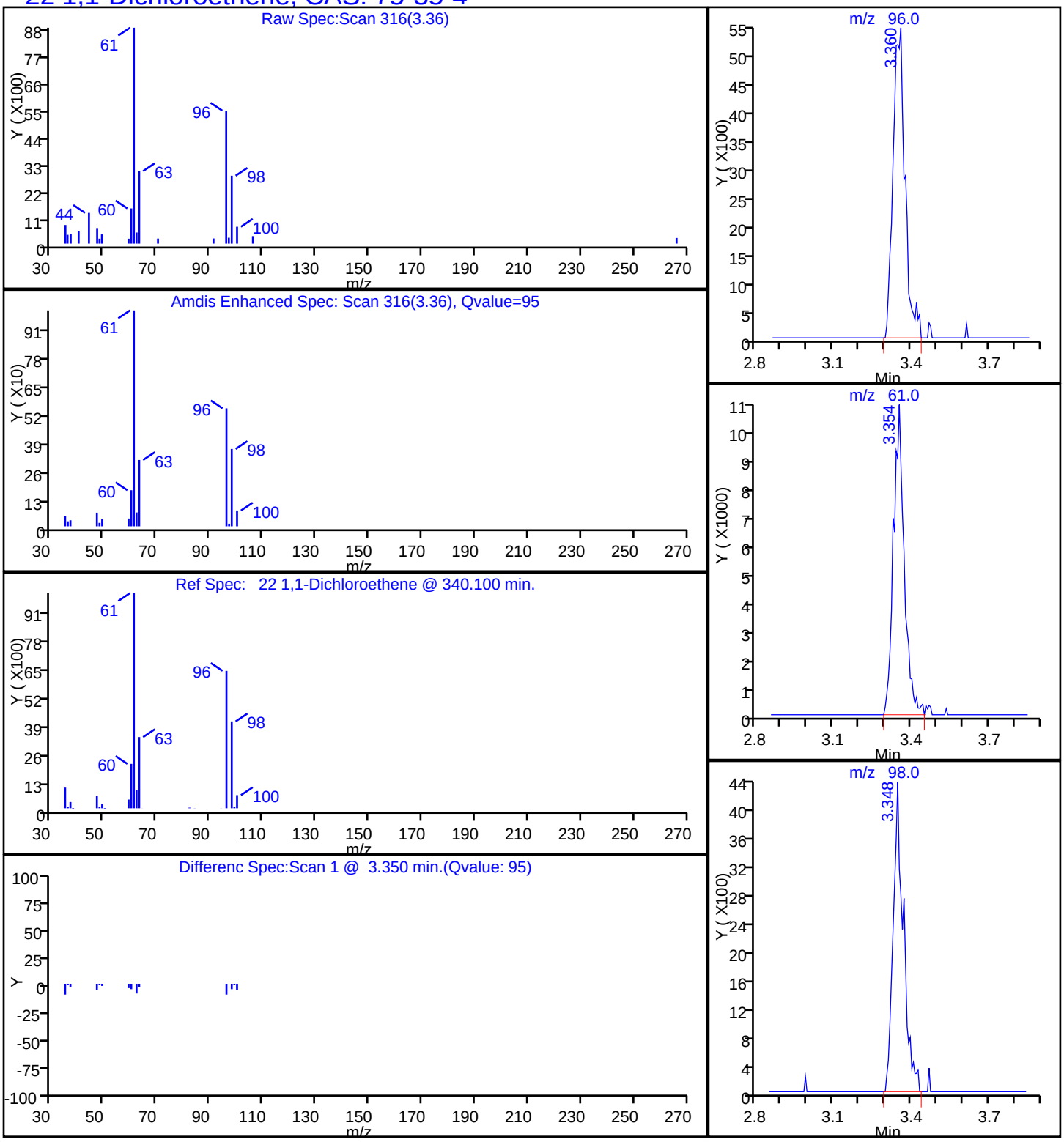
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4
Client ID:	HD-CW-15A-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000
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: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

Injection Date: 04-May-2015 18:27:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-4 Lab Sample ID: 180-43359-4

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

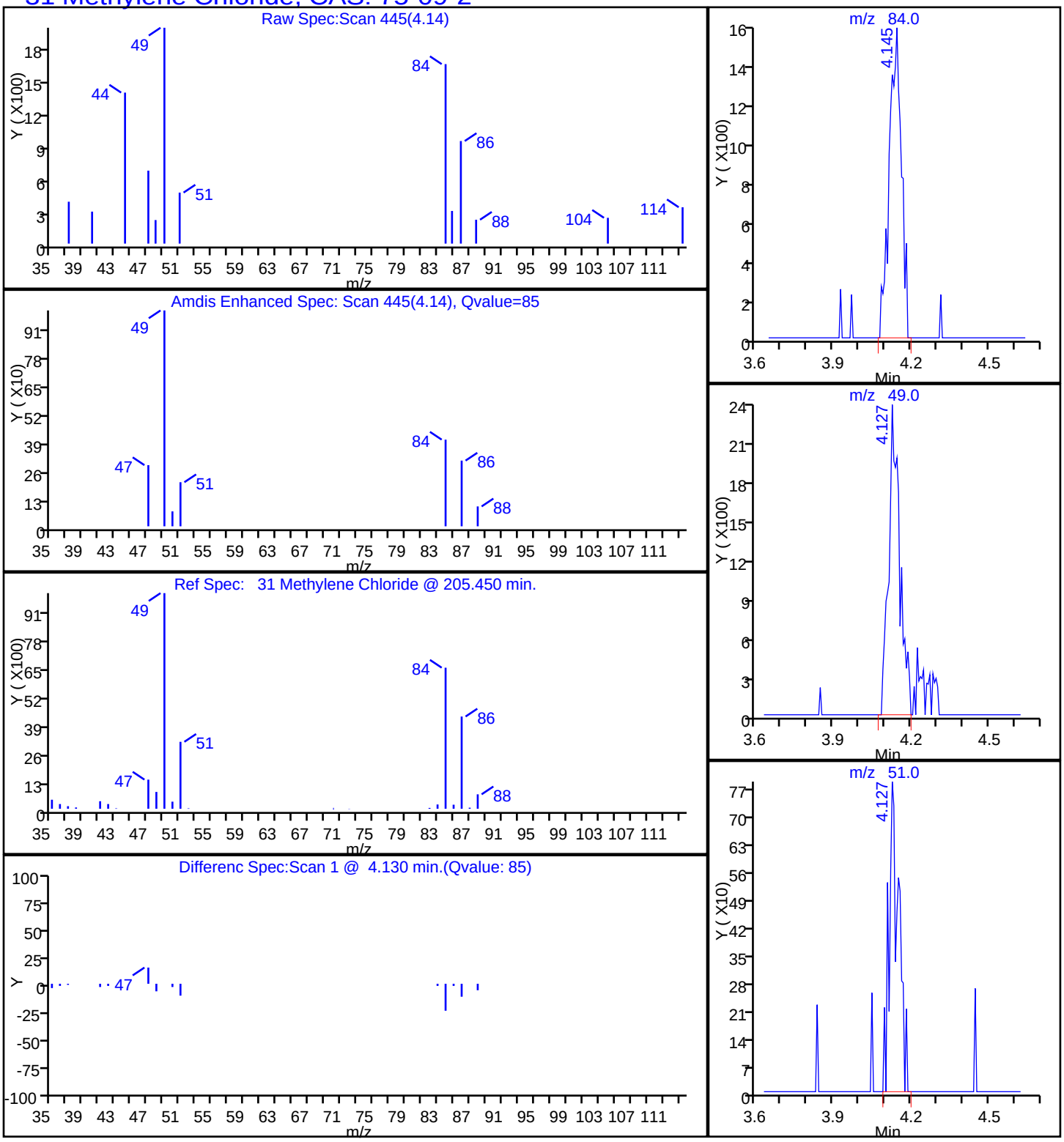
Operator ID: 001562 ALS Bottle#: 17 Worklist Smp#: 17

Purge Vol: 5.000 mL Dil. Factor: 1000.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



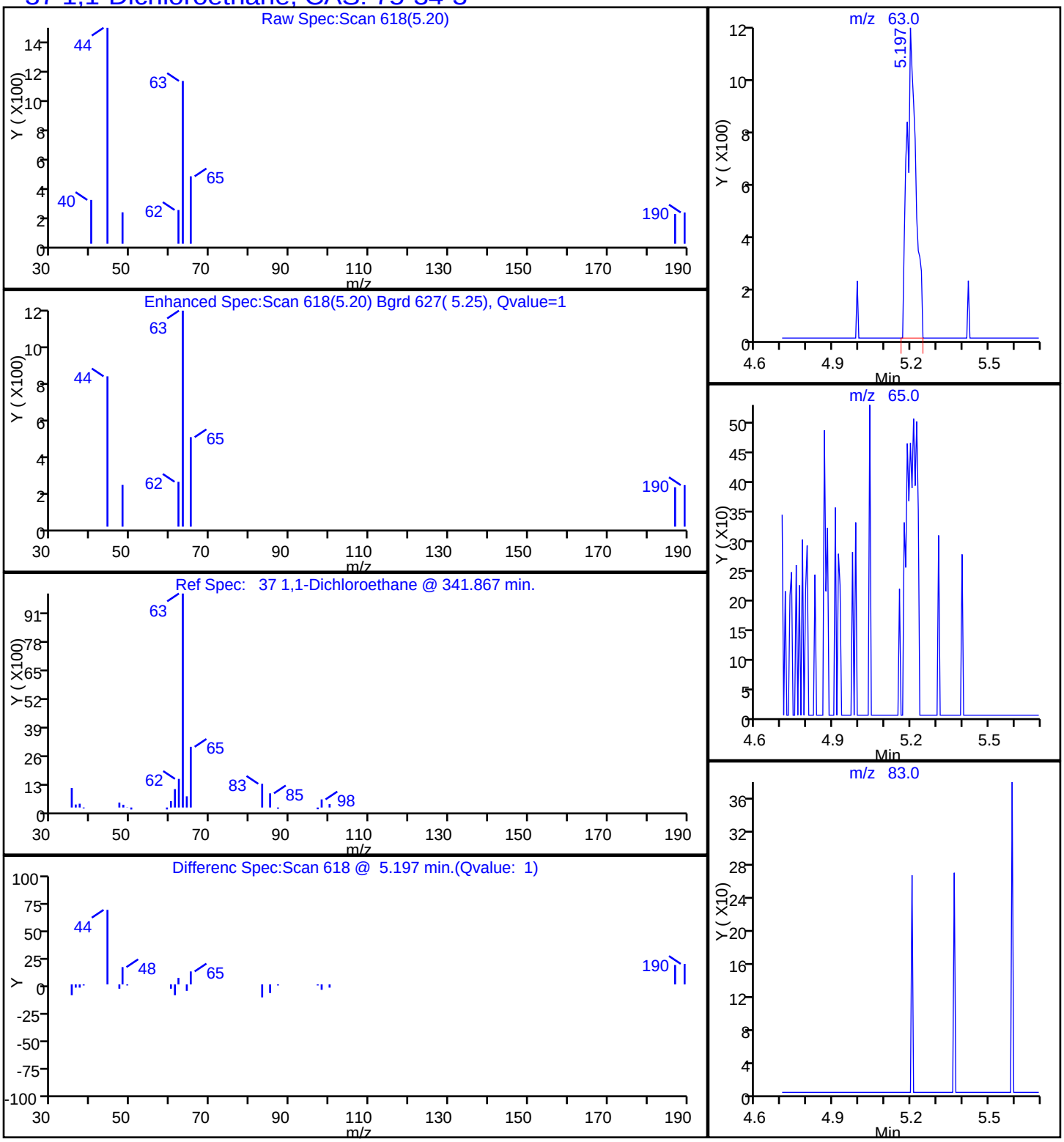
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4
Client ID:	HD-CW-15A-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000
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



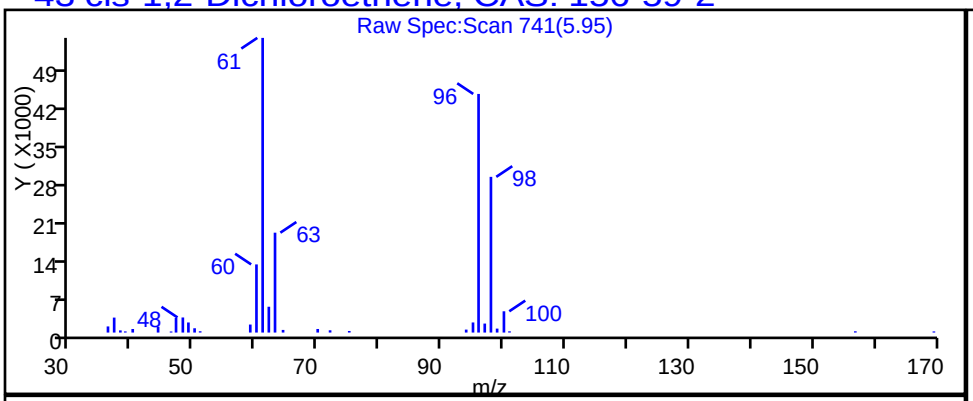
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

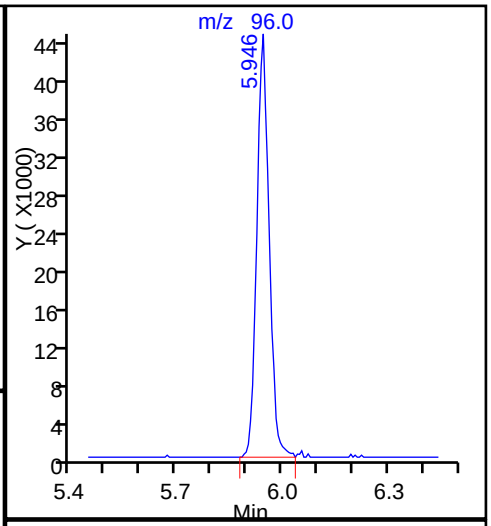
TestAmerica Pittsburgh

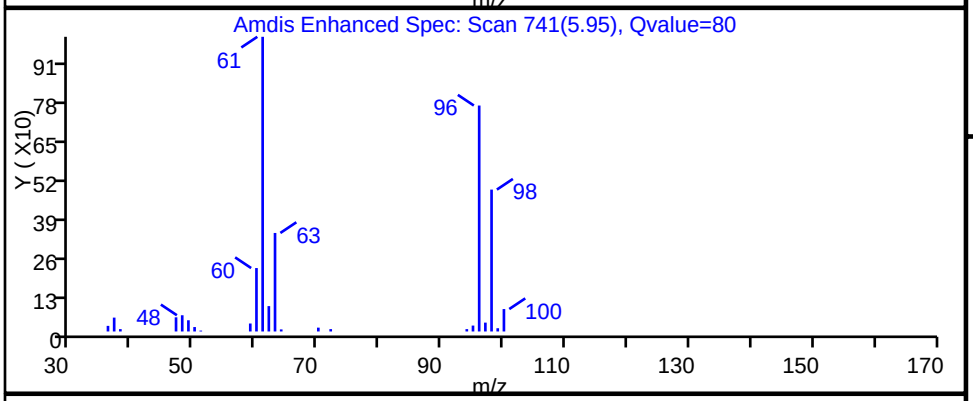
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

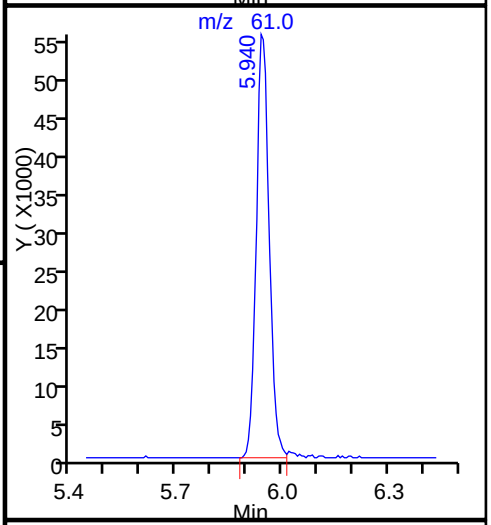
Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

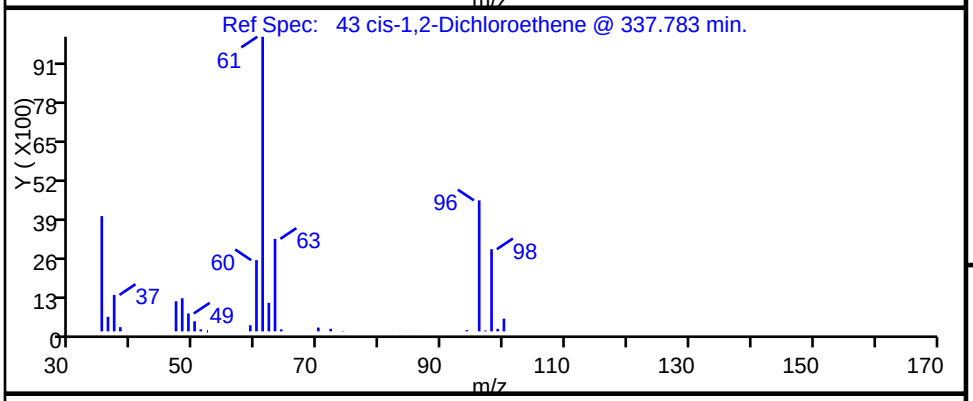
43 cis-1,2-Dichloroethene, CAS: 156-59-2

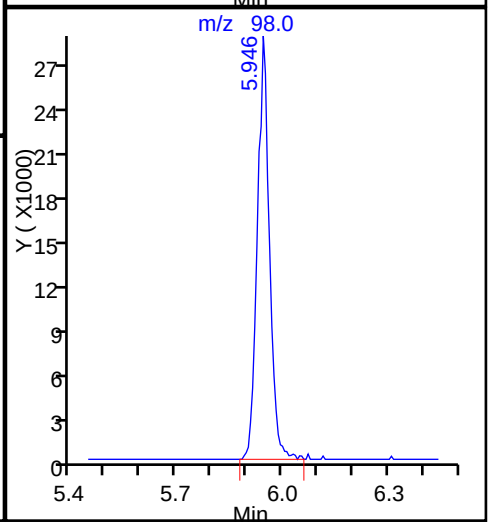


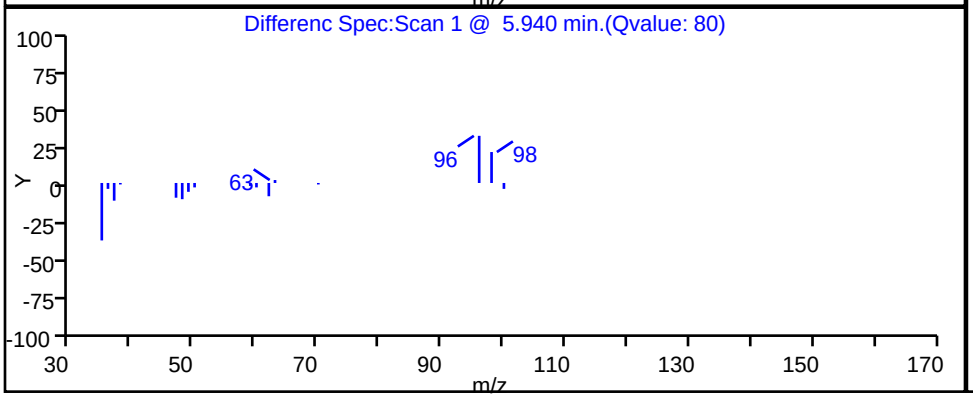












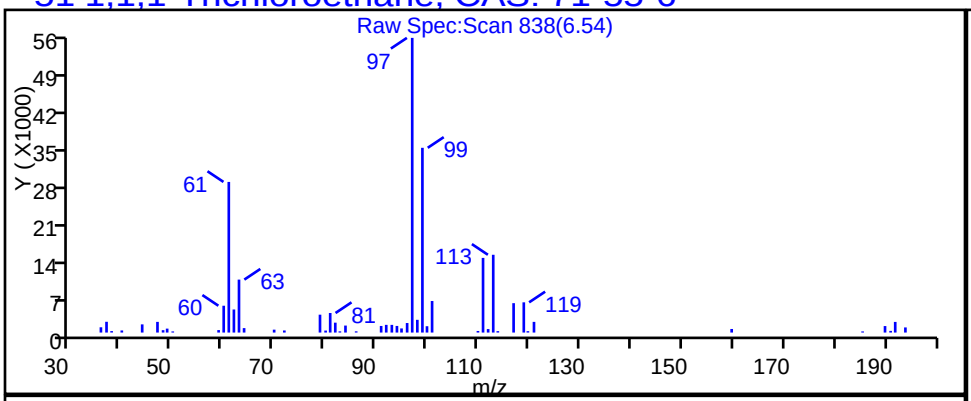
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

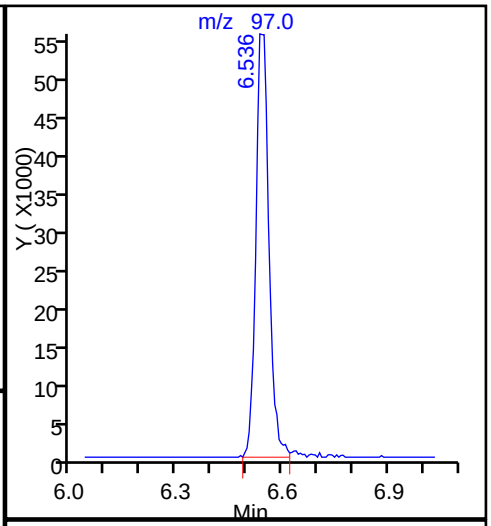
TestAmerica Pittsburgh

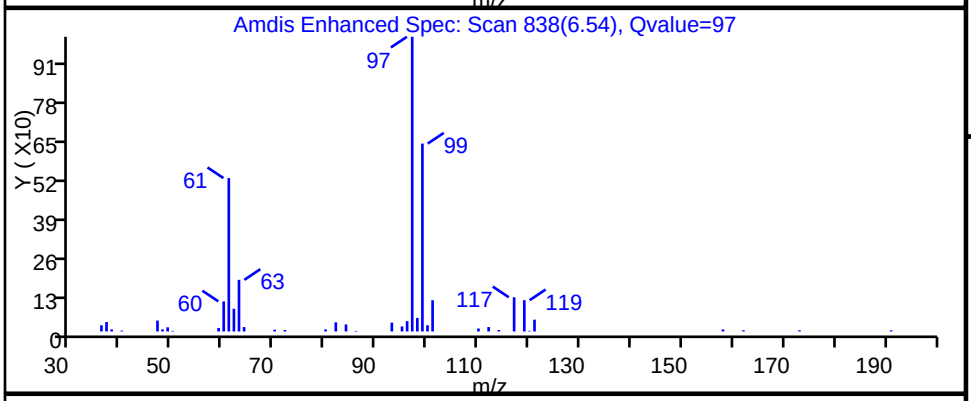
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

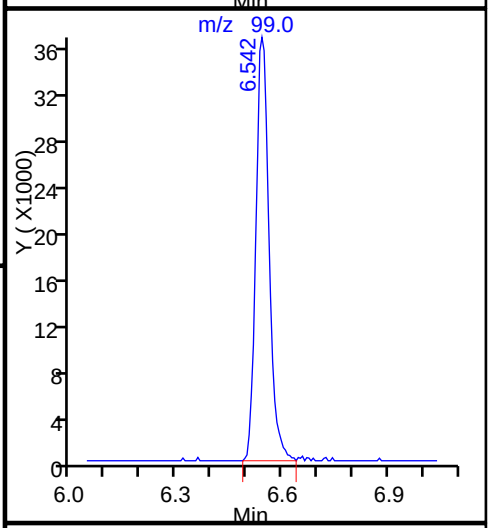
Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4
Client ID:	HD-CW-15A-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

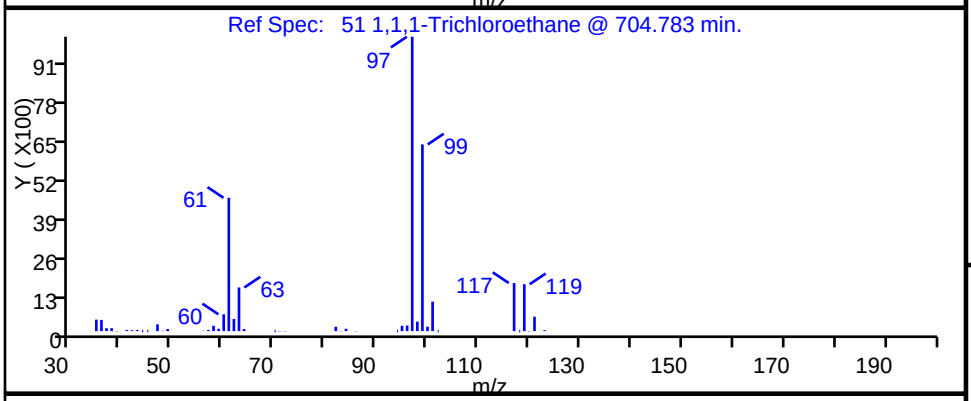
51 1,1,1-Trichloroethane, CAS: 71-55-6

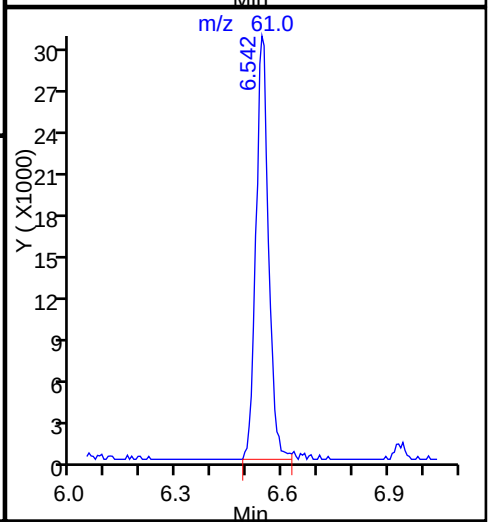


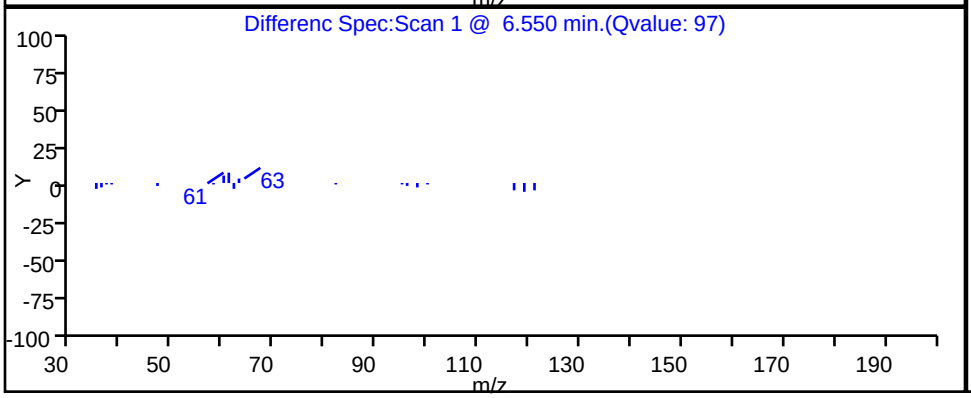












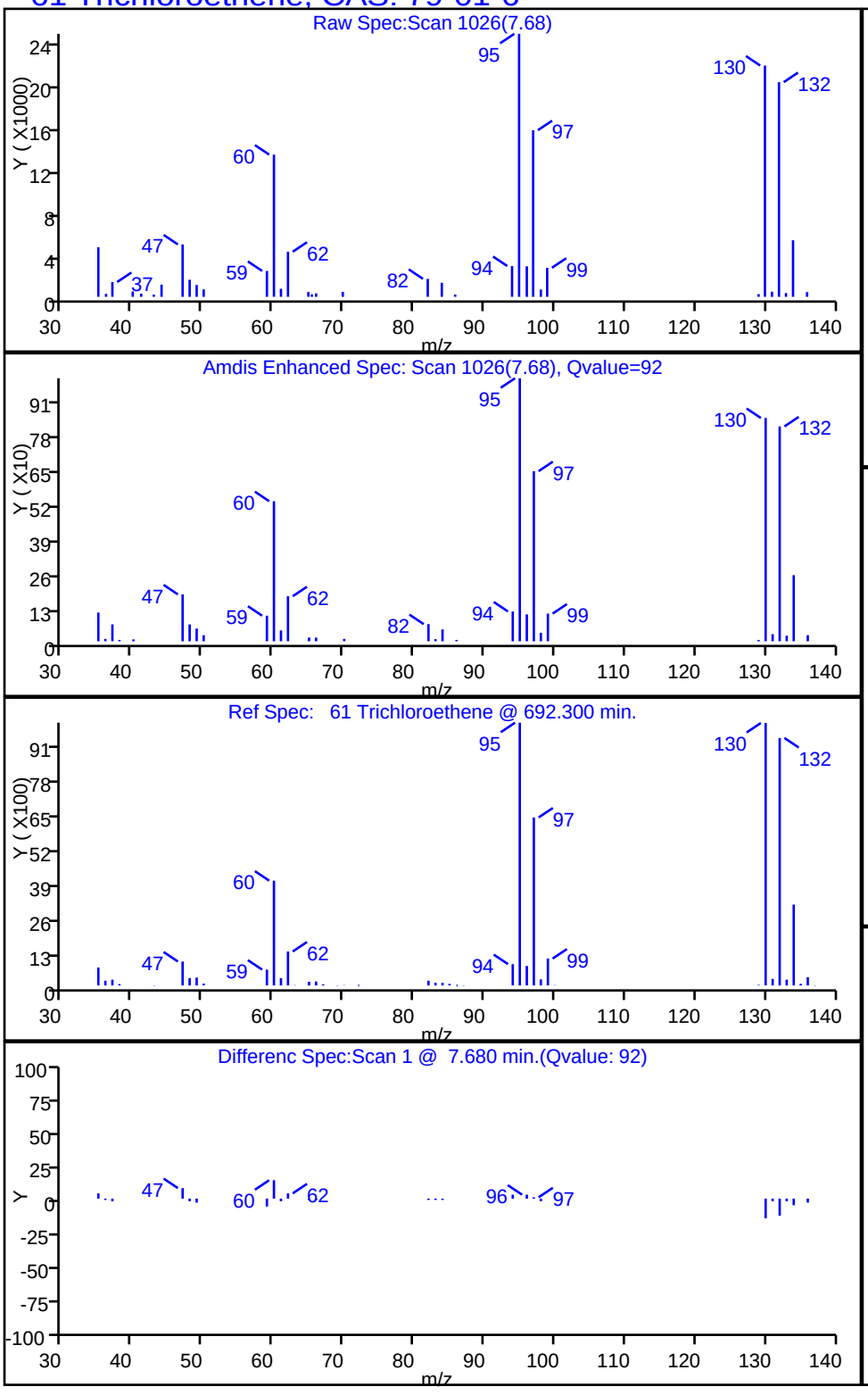
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

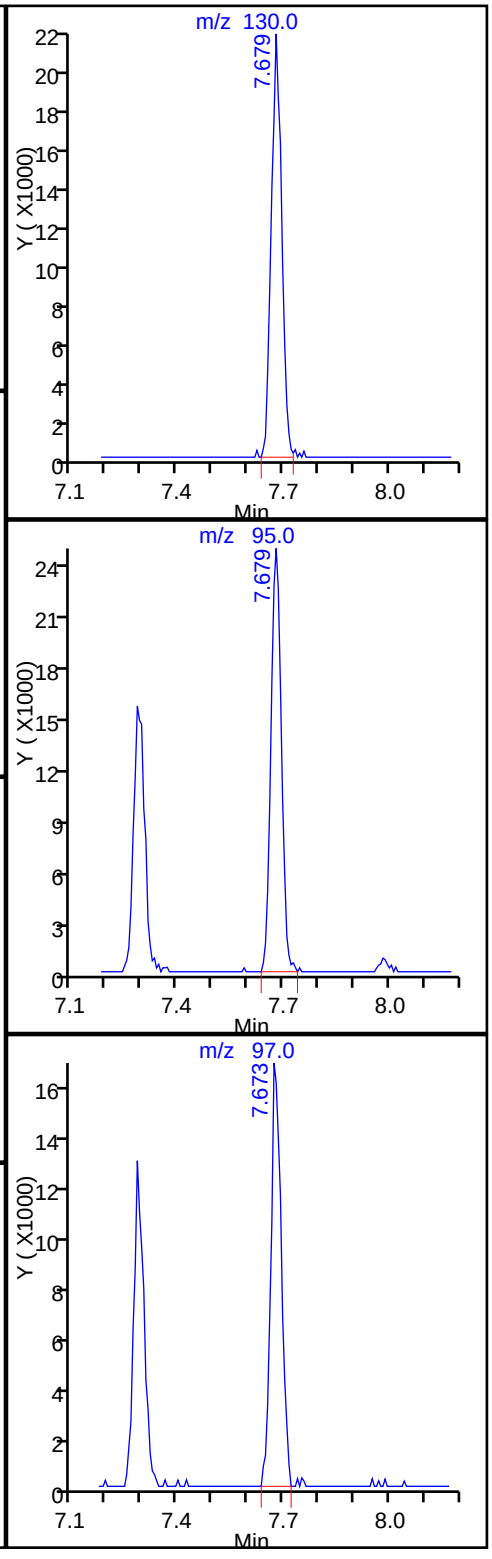
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4
Client ID:	HD-CW-15A-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

61 Trichloroethene, CAS: 79-01-6





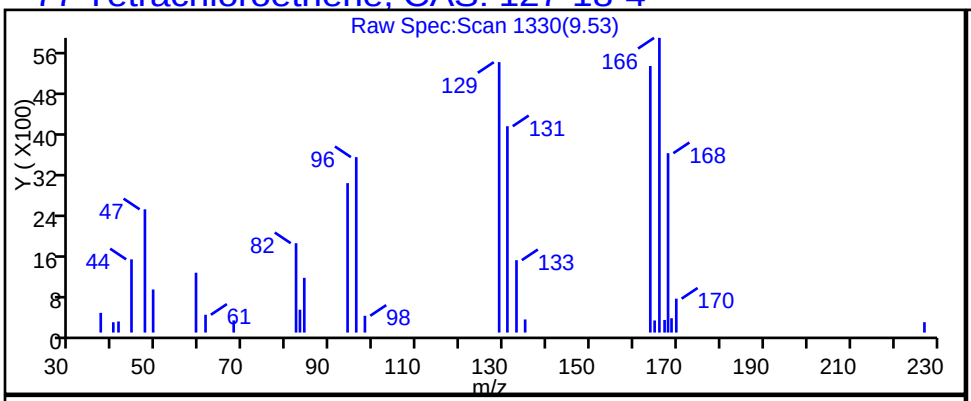
Report Date: 05-May-2015 07:40:10 Chrom Revision: 2.2 09-Apr-2015 10:05:40

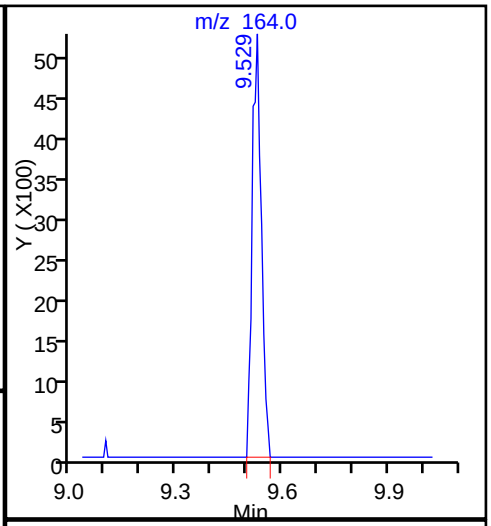
TestAmerica Pittsburgh

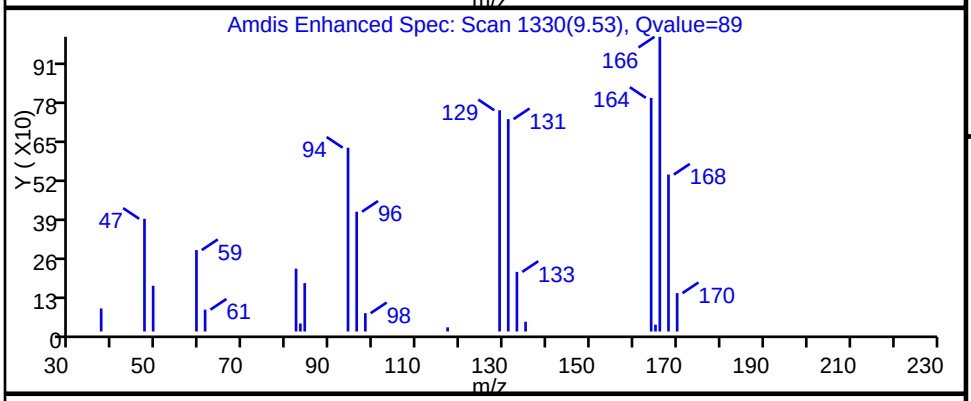
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D

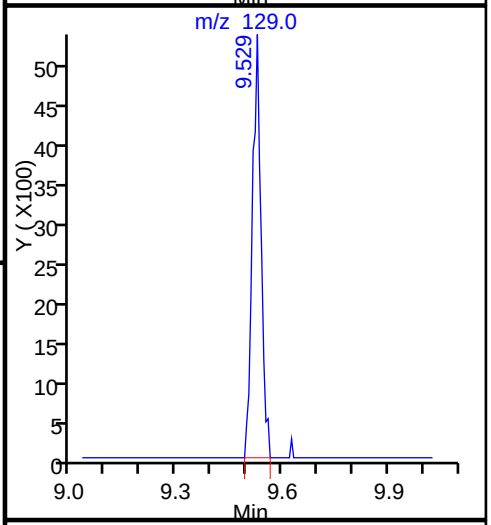
Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4
Client ID:	HD-CW-15A-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

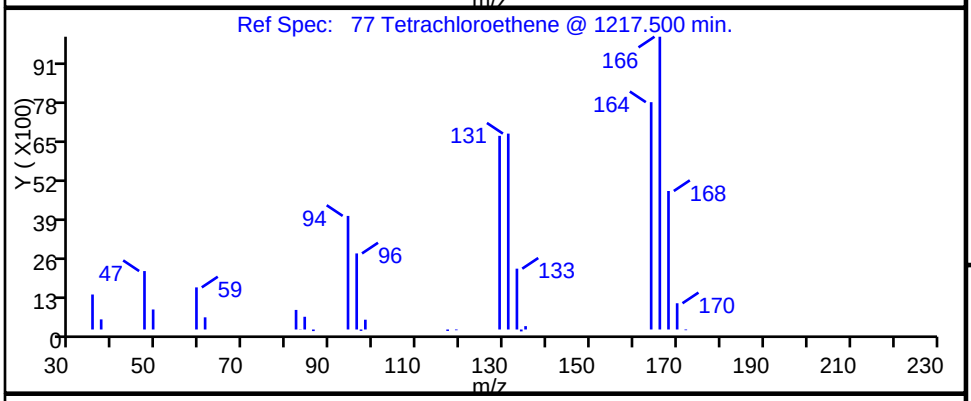
77 Tetrachloroethene, CAS: 127-18-4

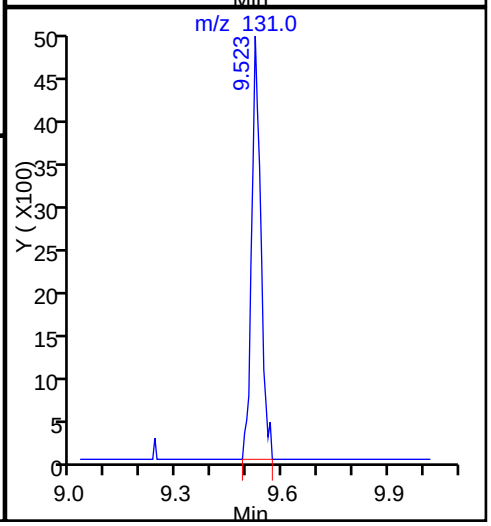


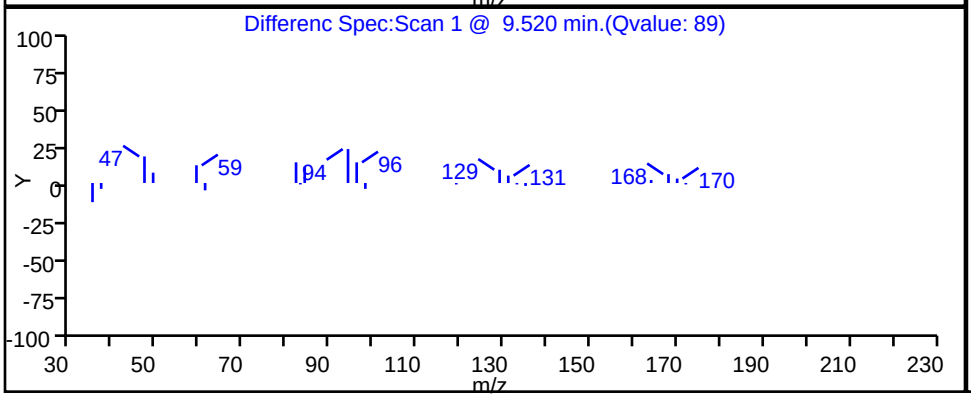












Manual Integration/User Assign Peak Report

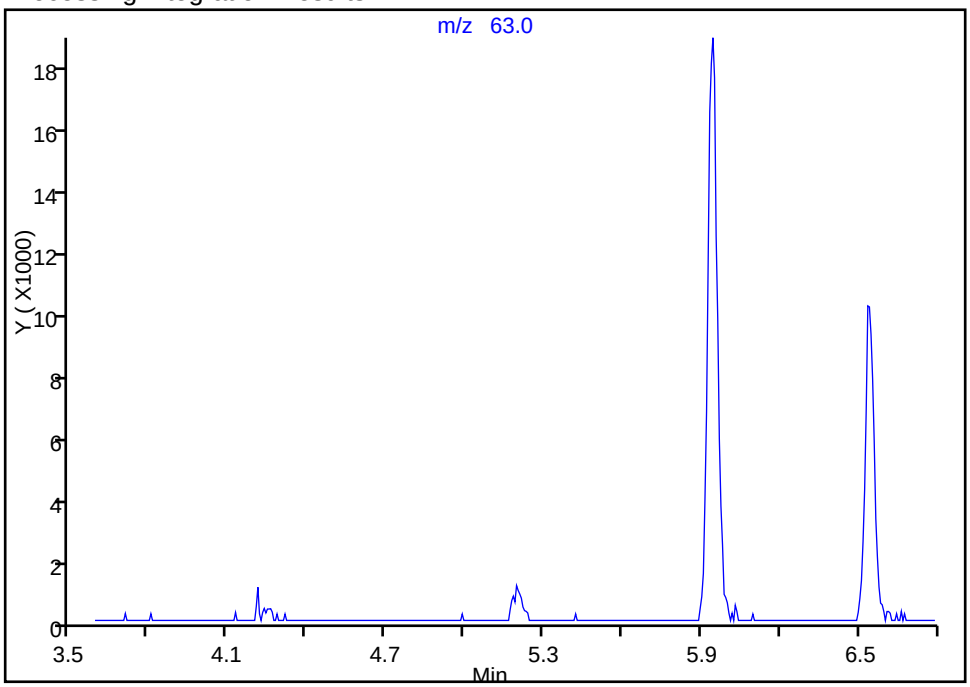
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504017.D				
Injection Date:	04-May-2015 18:27:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-4	Lab Sample ID:	180-43359-4		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1000.0000		
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

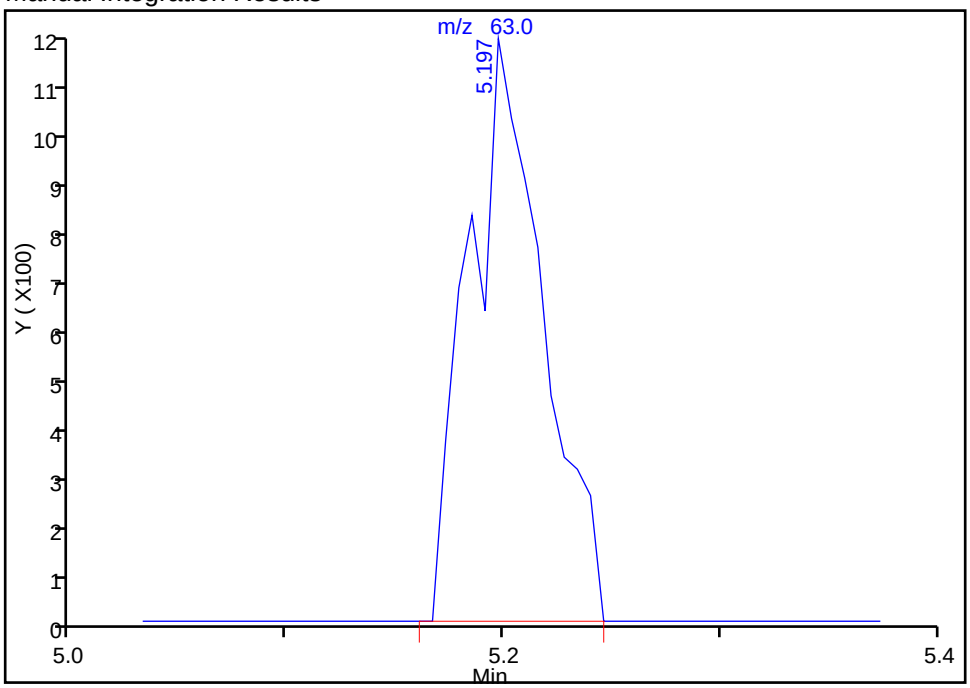
Not Detected
Expected RT: 5.19

Processing Integration Results



Manual Integration Results

RT: 5.20
Area: 2638
Amount: 0.699556
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:40:10
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 | Lab Sample ID: 180-43359-5

Matrix: Water | Lab File ID: 60504018.D

Analysis Method: 8260C | Date Collected: 04/22/2015 03:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 18:50

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.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.4
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
74-83-9	Bromomethane	5.0	U	5.0	1.6
75-00-3	Chloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	4.9	J	5.0	1.5
67-64-1	Acetone	25	U *	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	2.3	J	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	2.9	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	65		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	11		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	61		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	32		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 | Lab Sample ID: 180-43359-5

Matrix: Water | Lab File ID: 60504018.D

Analysis Method: 8260C | Date Collected: 04/22/2015 03:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 18:50

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.: 140474 | 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)	108		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D
Lims ID: 180-43359-E-5 Lab Sample ID: 180-43359-5
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 18:50:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-43359-E-5, 5x
Misc. Info.: 180-0006756-018
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:39:42 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:36:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.235	4.254	-0.019	96	192486	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	97	380294	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	93	77923	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	117515	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.553	0.006	91	81023	51.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.924	0.006	71	142280	54.1	
$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	363944	55.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	138599	51.6	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.347	3.335	0.012	97	8696	4.94	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.126	4.120	0.006	53	4884	2.28	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.197	5.190	0.007	52	10687	2.90	
43 cis-1,2-Dichloroethene	96	5.945	5.933	0.012	82	144397	64.7	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.377	6.371	0.006	1	1500	0.4211	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	97	31540	10.8	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	92	111200	61.5	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.522	9.522	0.000	92	42781	32.2	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

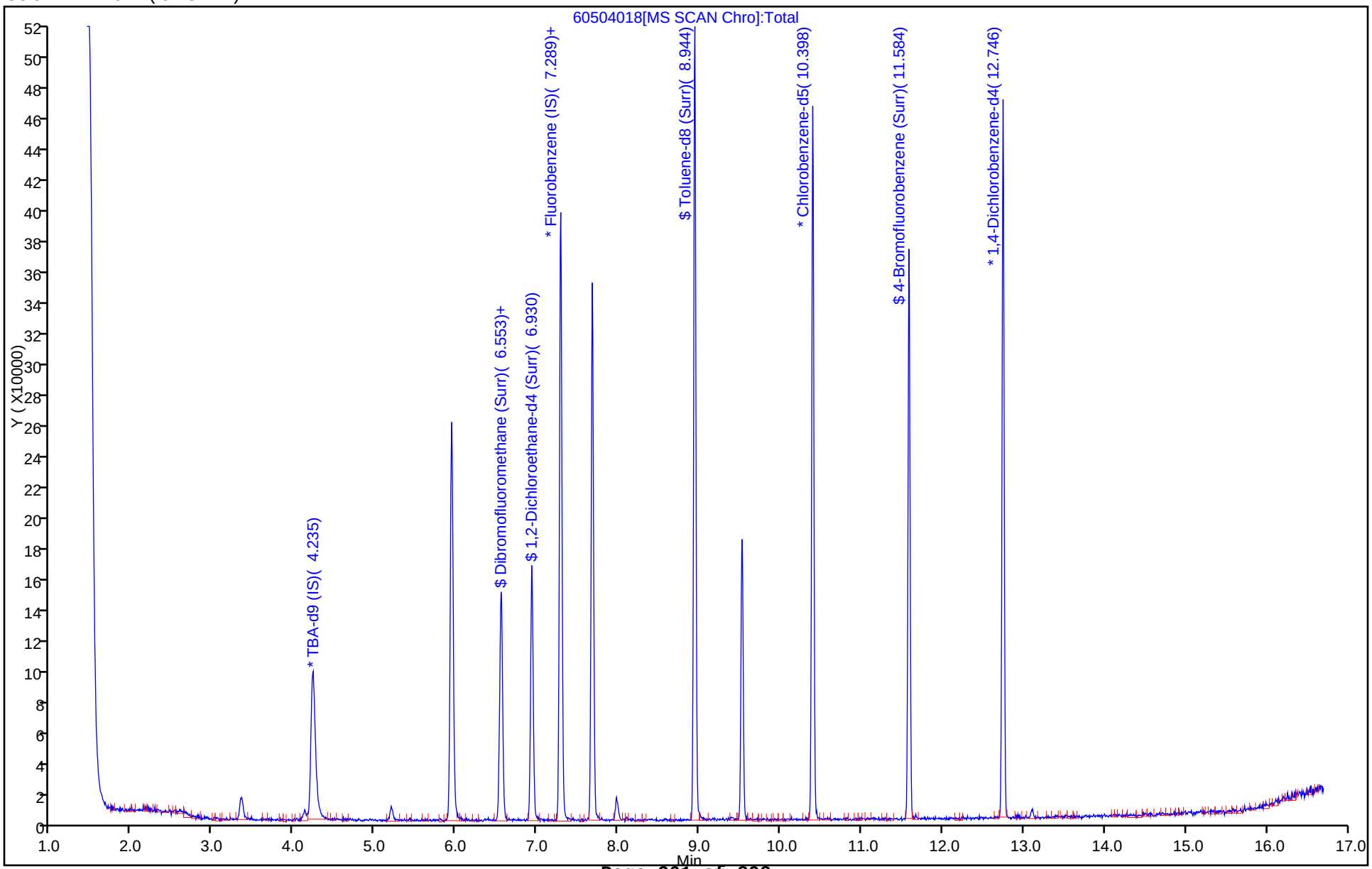
Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date:	04-May-2015 18:50:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-5	Lab Sample ID:	180-43359-5	Worklist Smp#:	18
Client ID:	HD-CW-17-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date: 04-May-2015 18:50:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-5 Lab Sample ID: 180-43359-5

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

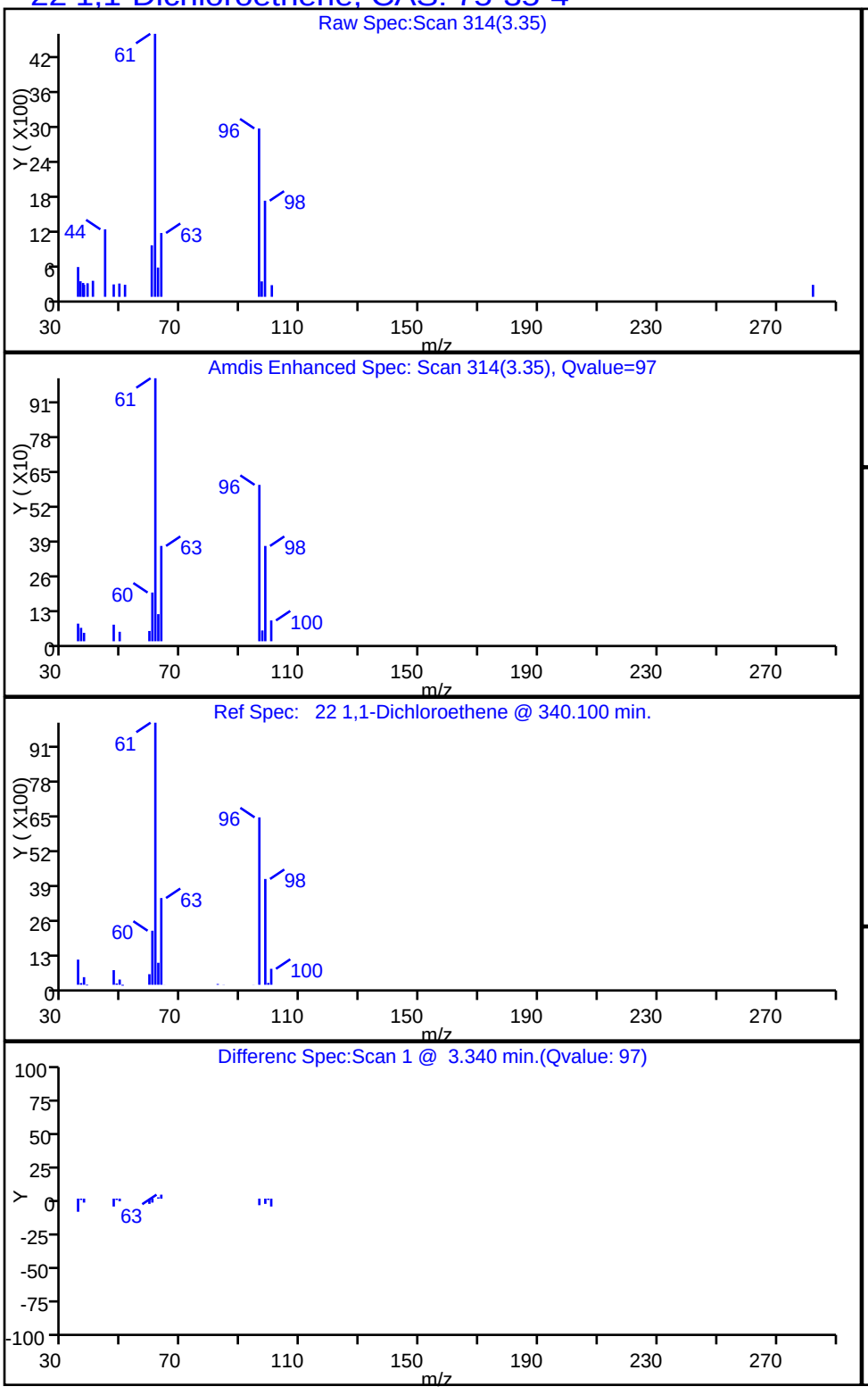
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18

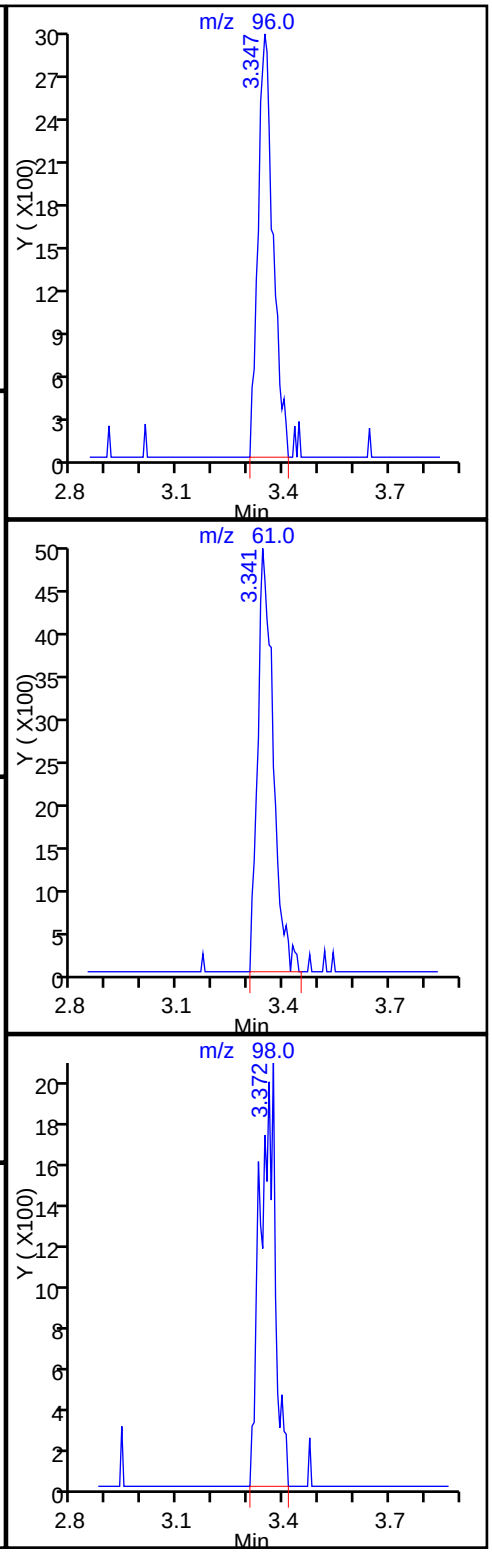
Purge Vol: 5.000 mL Dil. Factor: 5.0000

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





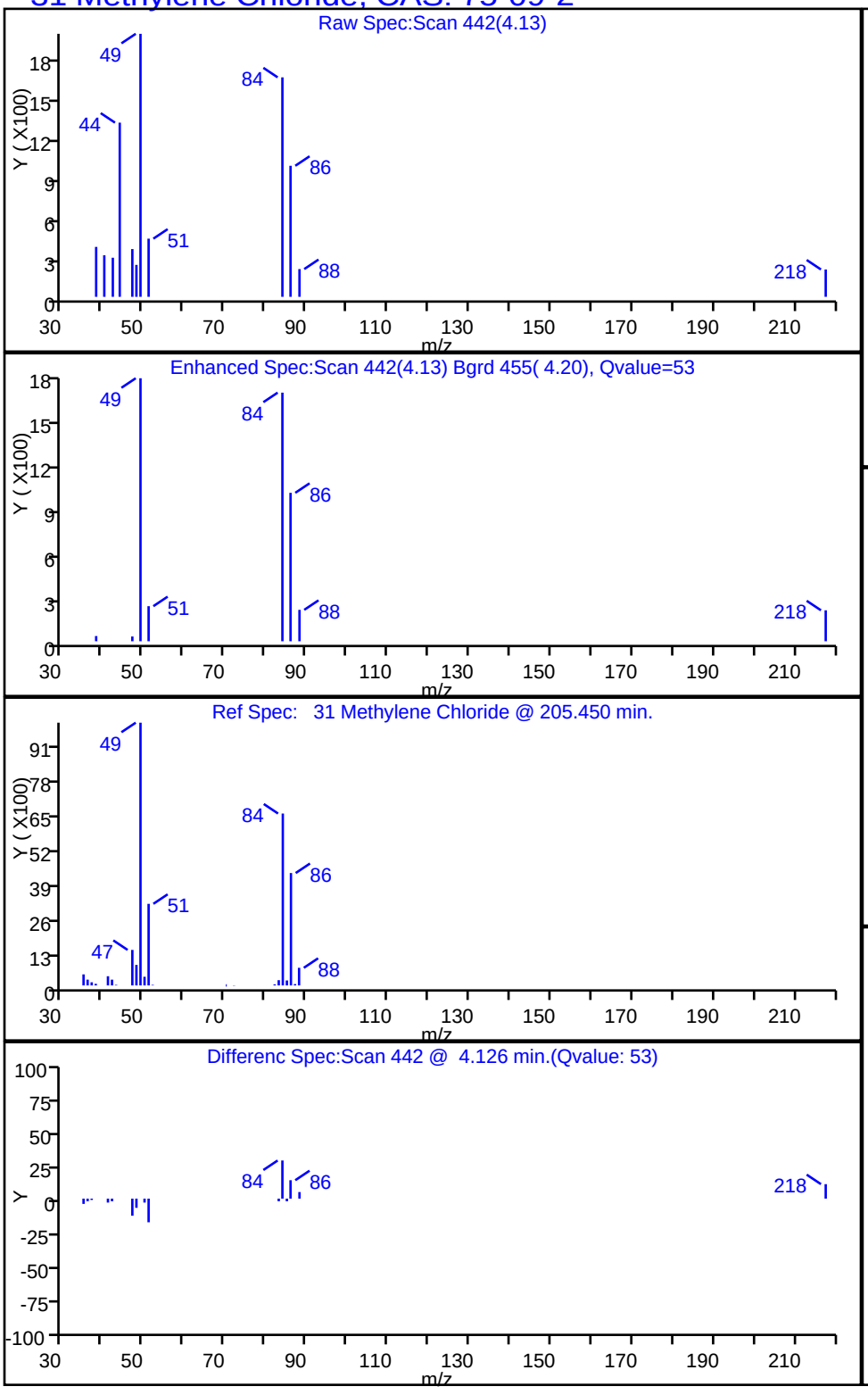
Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

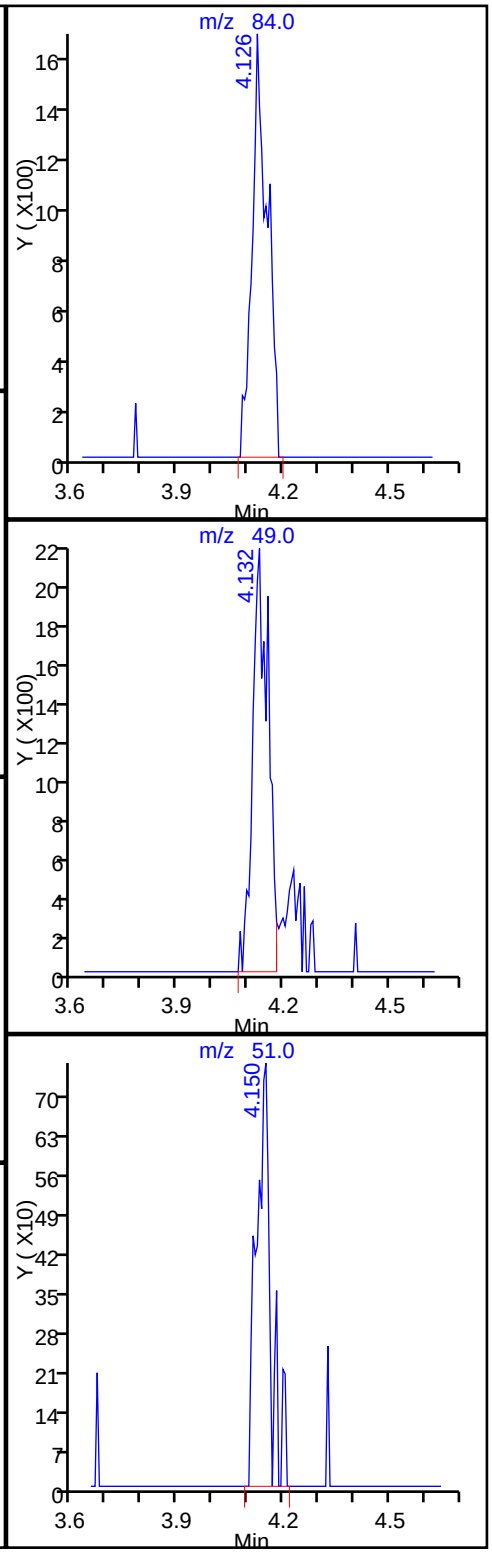
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date:	04-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-5	Lab Sample ID:	180-43359-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	18
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		

31 Methylene Chloride, CAS: 75-09-2





Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date: 04-May-2015 18:50:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-5 Lab Sample ID: 180-43359-5

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

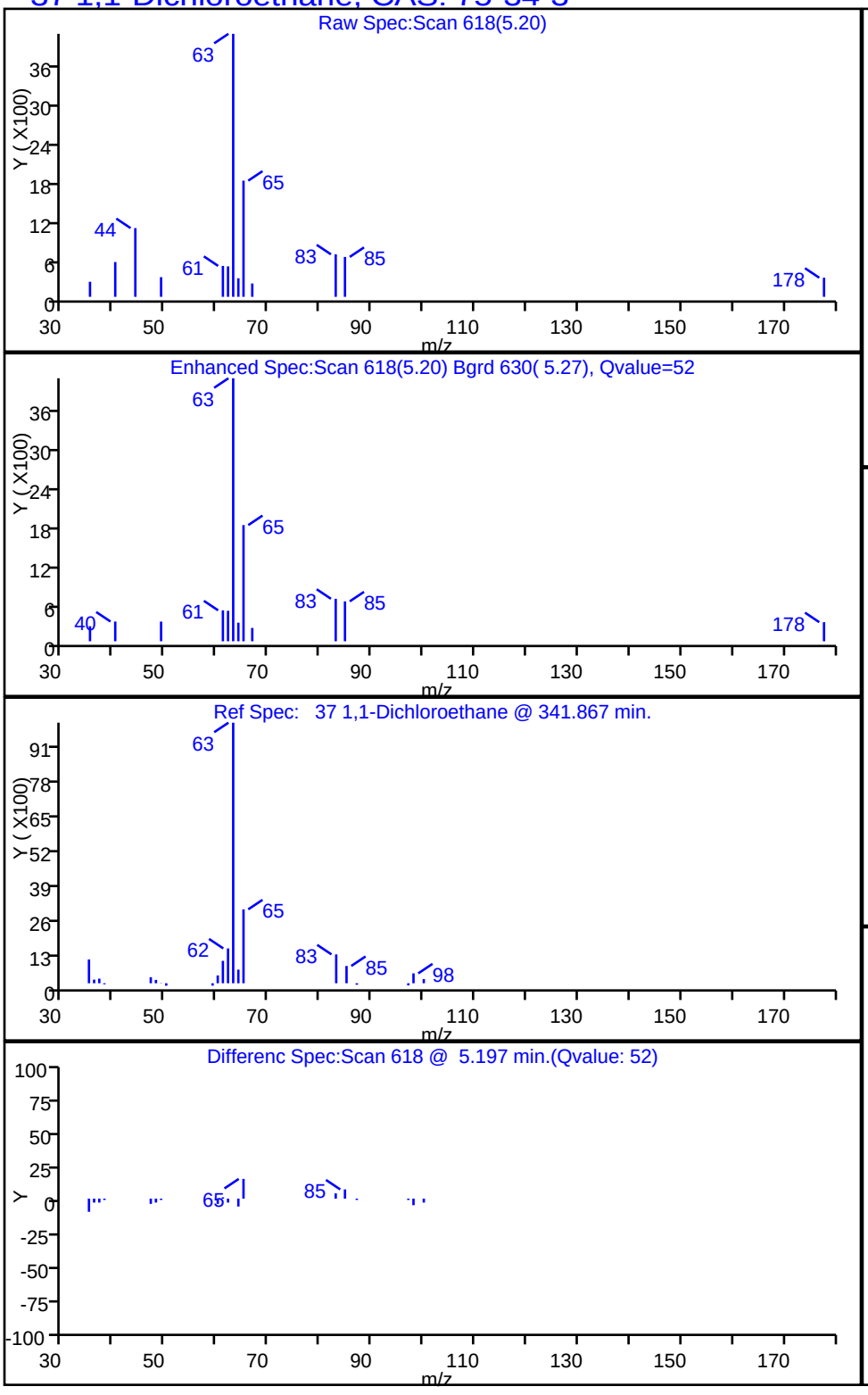
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18

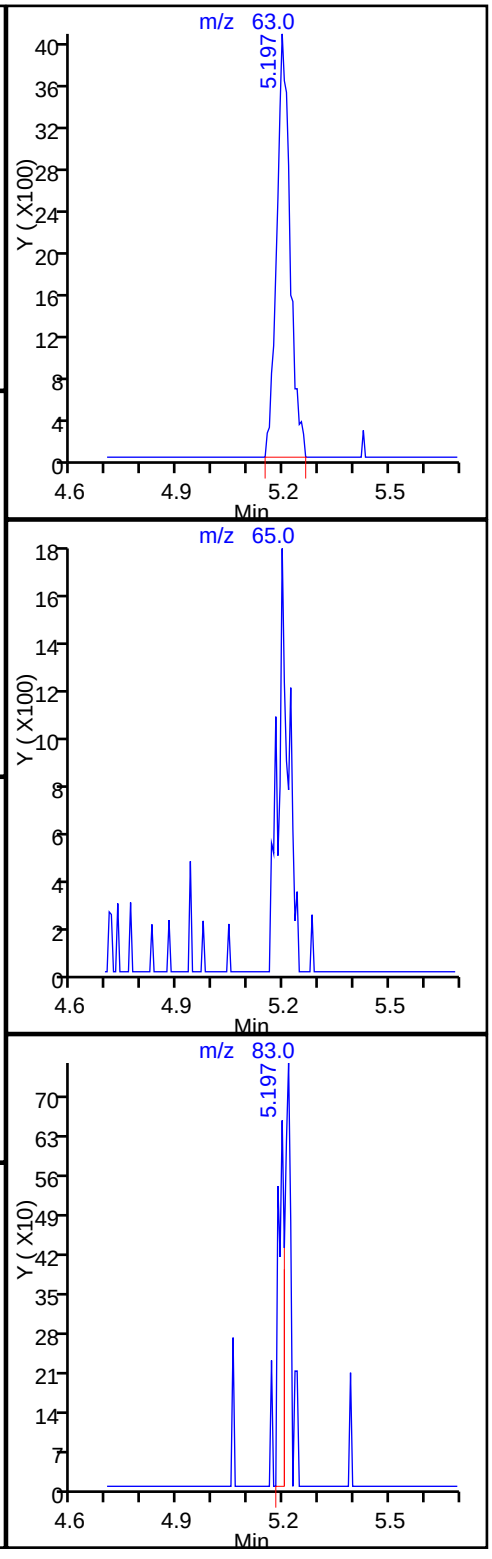
Purge Vol: 5.000 mL Dil. Factor: 5.0000

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: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date: 04-May-2015 18:50:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-5 Lab Sample ID: 180-43359-5

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

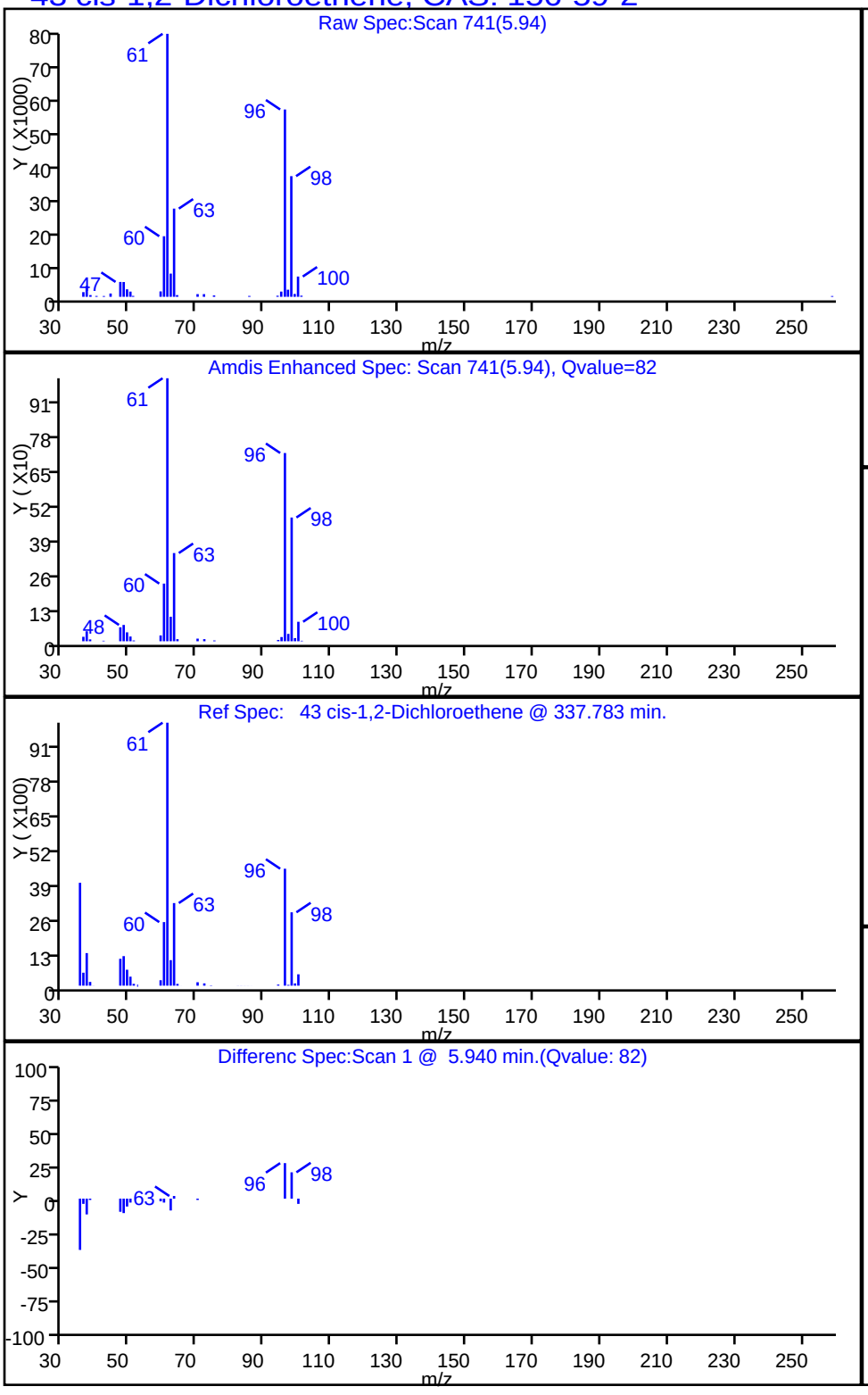
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18

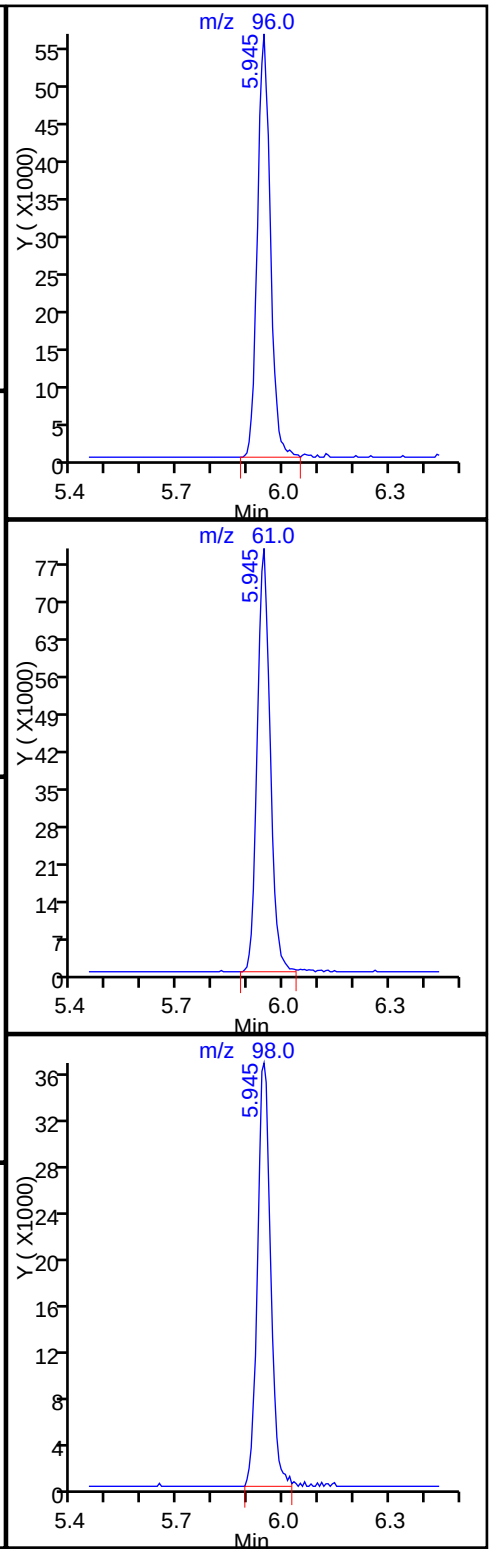
Purge Vol: 5.000 mL Dil. Factor: 5.0000

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



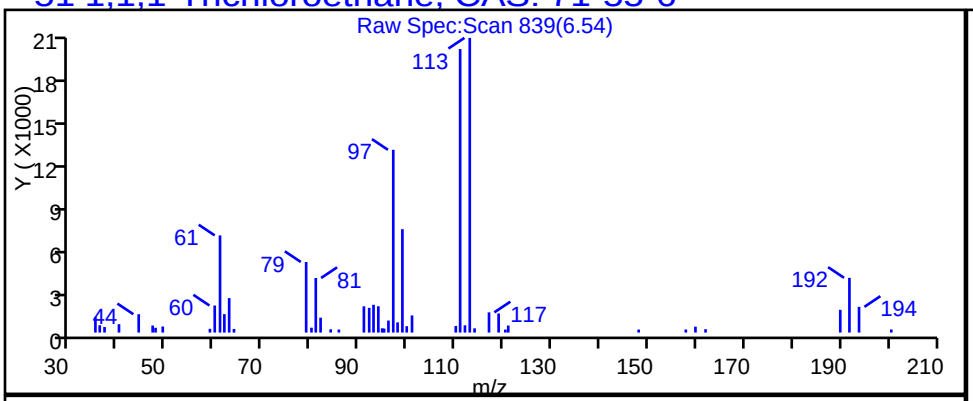


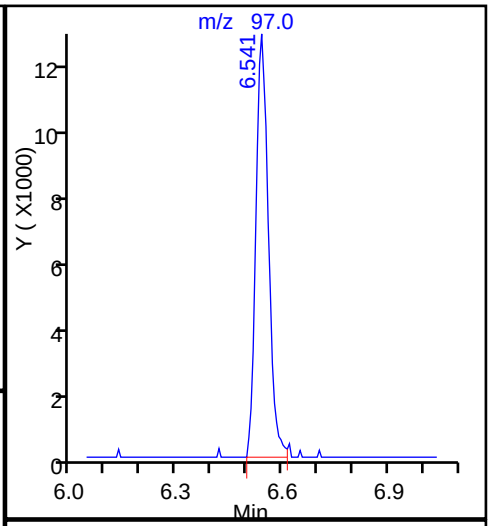
Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

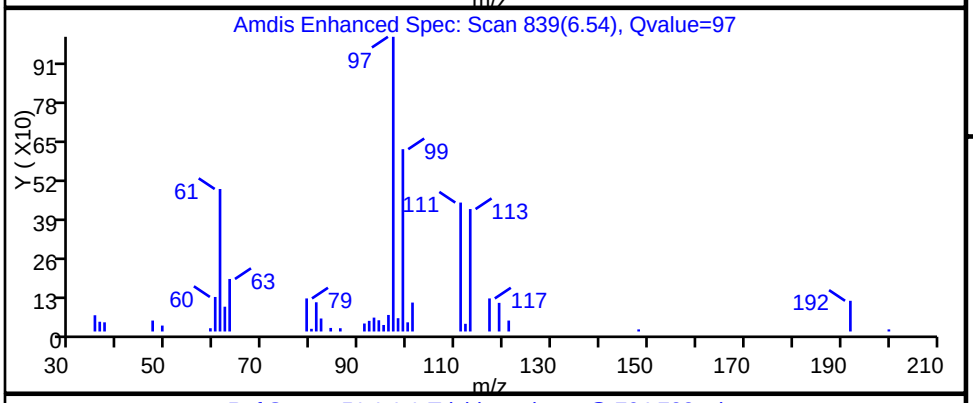
TestAmerica Pittsburgh

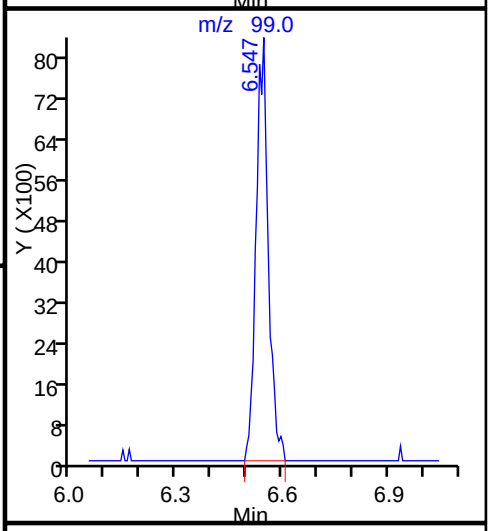
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D				
Injection Date:	04-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-5	Lab Sample ID:	180-43359-5		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

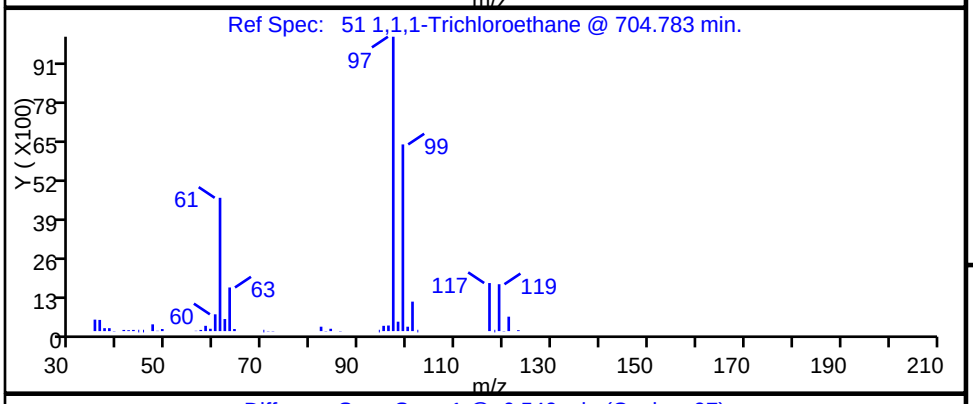
51 1,1,1-Trichloroethane, CAS: 71-55-6

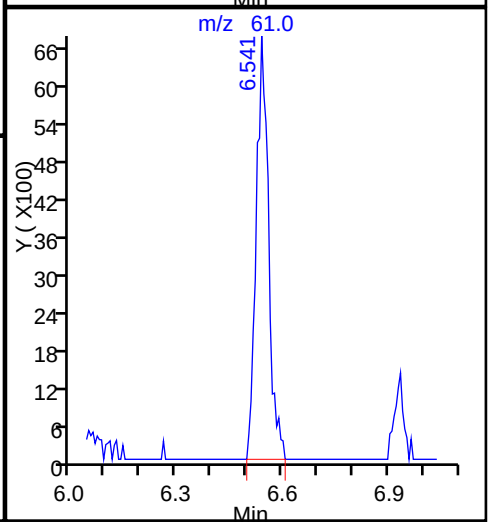


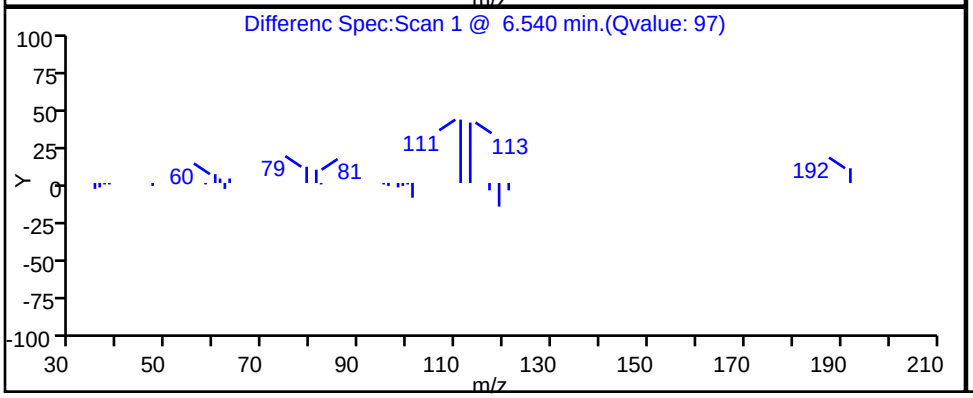












Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date: 04-May-2015 18:50:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-5 Lab Sample ID: 180-43359-5

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

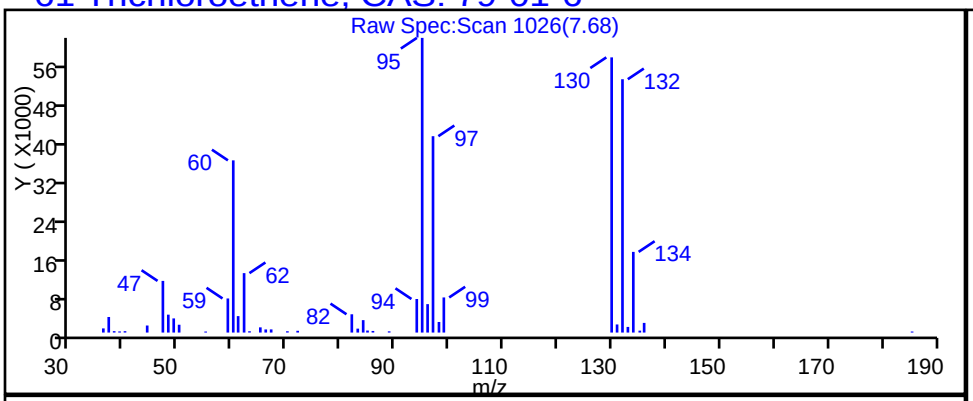
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18

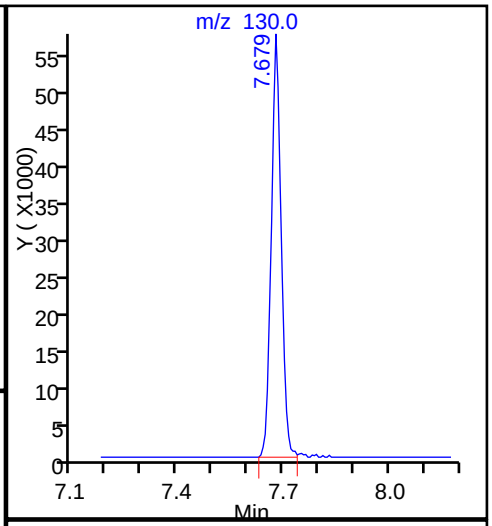
Purge Vol: 5.000 mL Dil. Factor: 5.0000

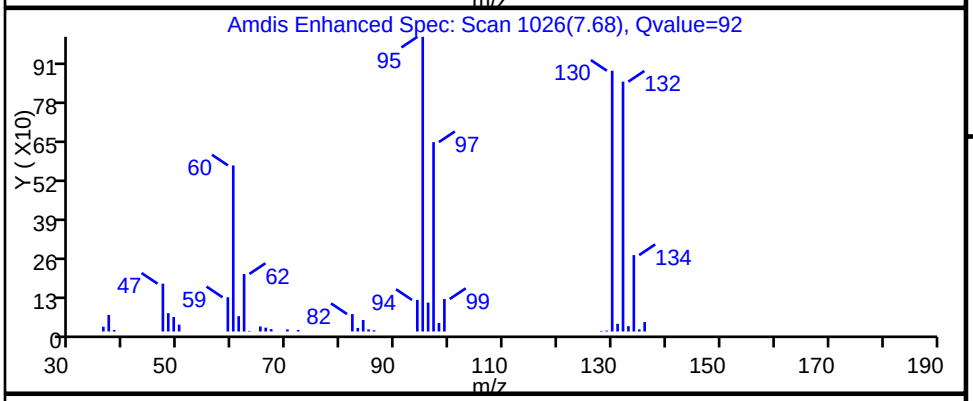
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

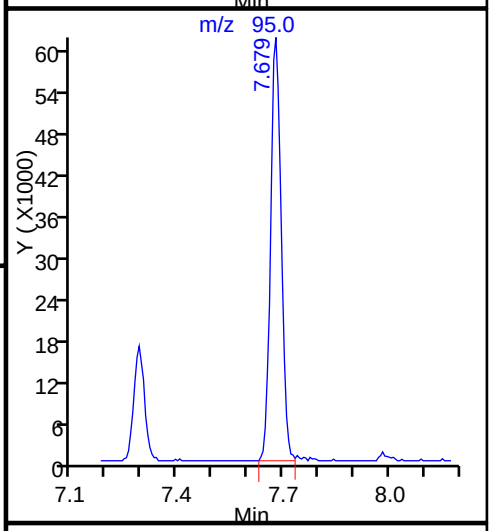
Column: DB-624 (0.18 mm) Detector MS SCAN

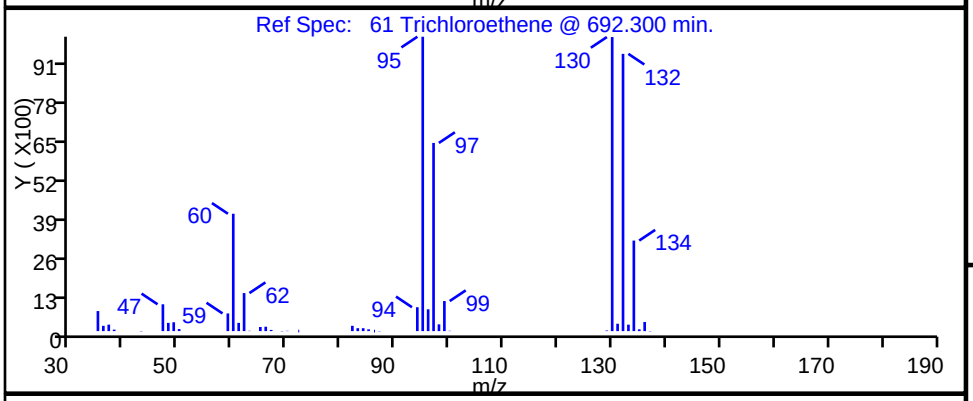
61 Trichloroethene, CAS: 79-01-6

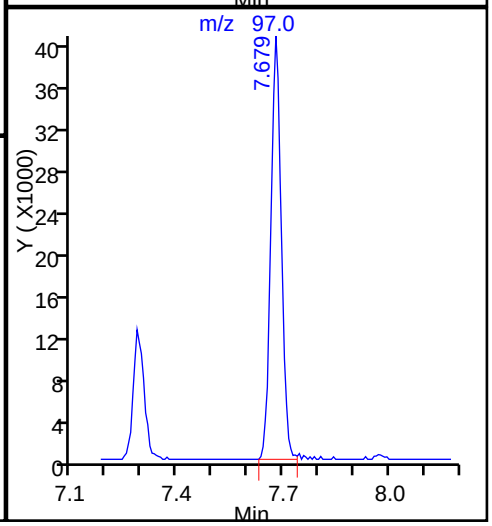


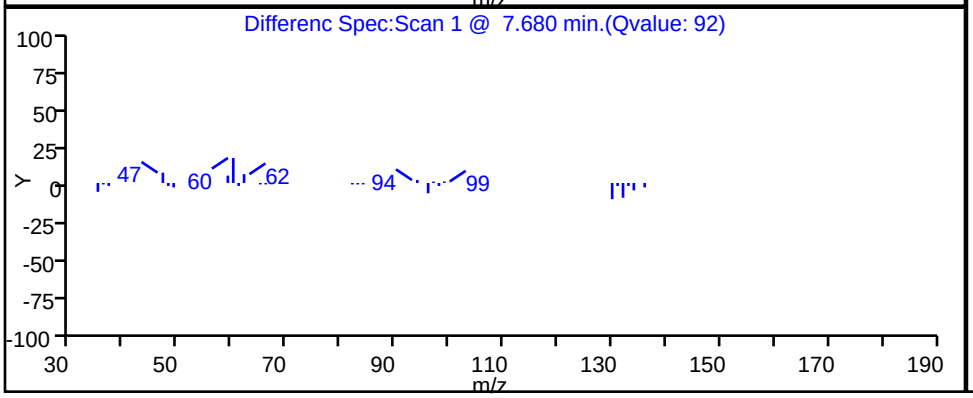












Report Date: 05-May-2015 07:39:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504018.D

Injection Date: 04-May-2015 18:50:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-5 Lab Sample ID: 180-43359-5

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

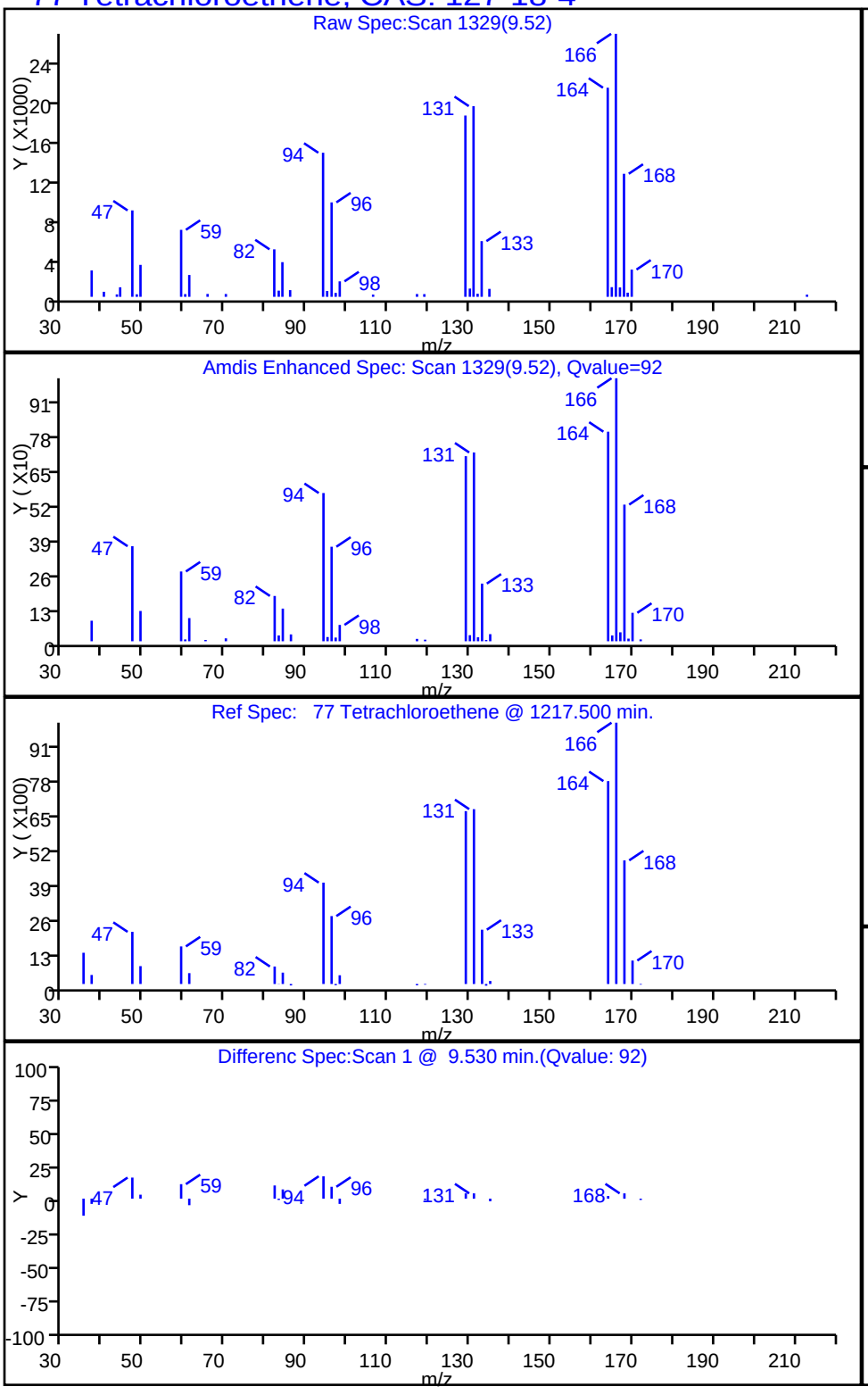
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18

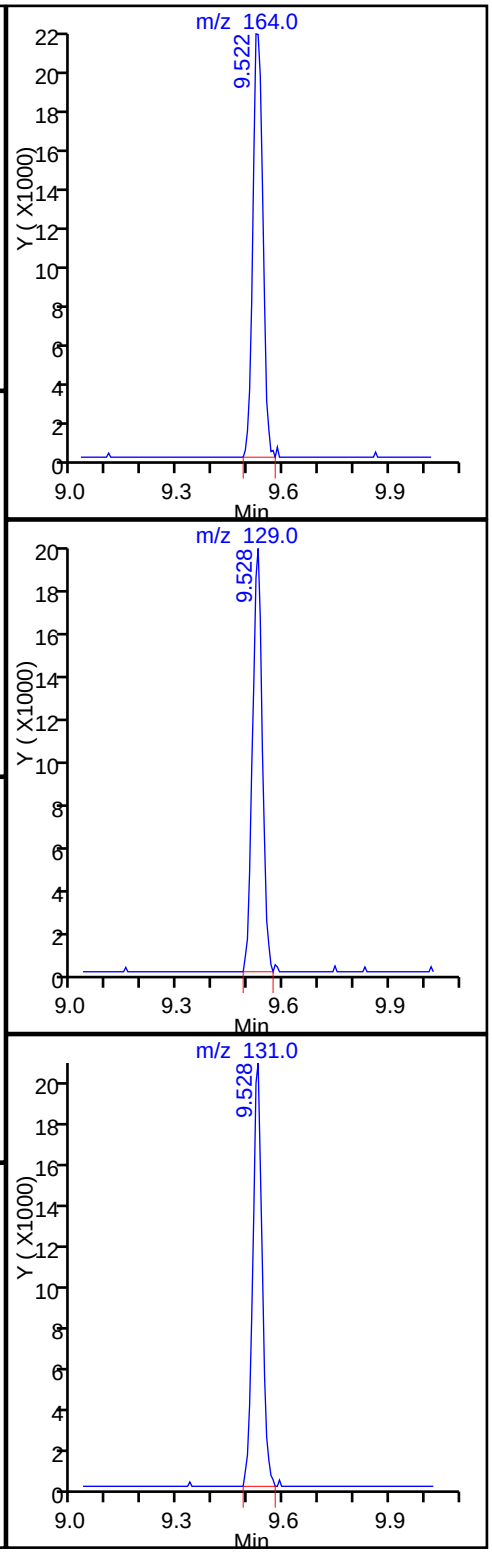
Purge Vol: 5.000 mL Dil. Factor: 5.0000

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.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 | Lab Sample ID: 180-43359-6

Matrix: Water | Lab File ID: 60504019.D

Analysis Method: 8260C | Date Collected: 04/22/2015 02:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 19:14

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 140474 | 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	18	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	26	J	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	160		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	77		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	600		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	1400		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 | Lab Sample ID: 180-43359-6

Matrix: Water | Lab File ID: 60504019.D

Analysis Method: 8260C | Date Collected: 04/22/2015 02:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 19:14

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 140474 | 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)	109		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D
Lims ID: 180-43359-E-6 Lab Sample ID: 180-43359-6
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 19:14:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-43359-E-6, 50x
Misc. Info.: 180-0006756-019
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:39:27 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:37:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.254	-0.013	97	208716	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	377460	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	80655	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	118950	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.553	0.006	91	80890	51.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.924	0.012	71	142075	54.4	
$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	359566	52.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	136014	48.9	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.359	3.335	0.024	92	3071	1.76	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.126	4.120	0.006	32	5429	2.56	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.196	5.190	0.006	21	4375	1.19	
43 cis-1,2-Dichloroethene	96	5.944	5.933	0.011	82	35045	15.8	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	93	22385	7.70	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.684	7.673	0.011	90	107052	59.6	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.528	9.522	0.006	92	189374	137.6	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

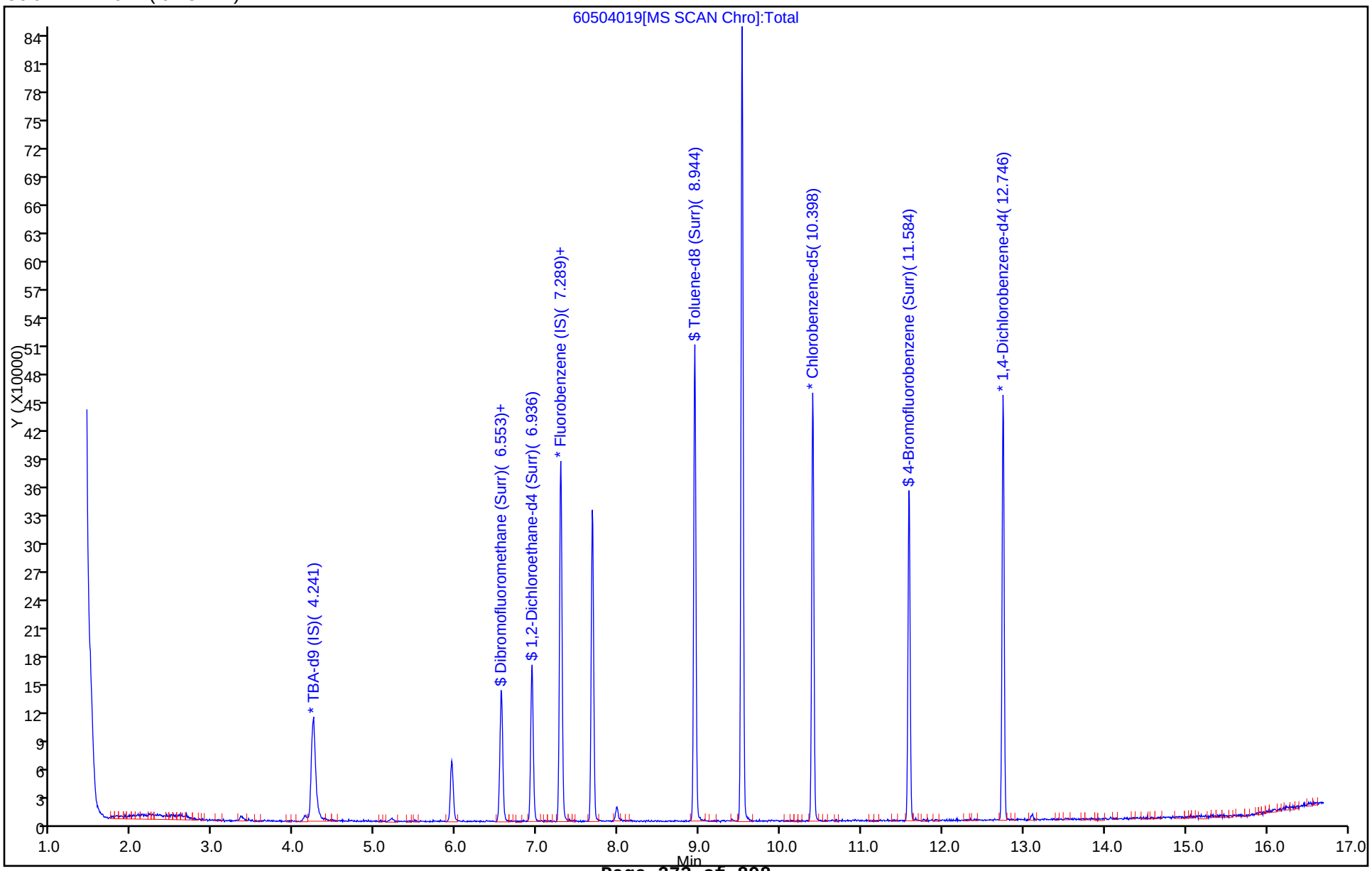
Report Date: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

Injection Date:	04-May-2015 19:14:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-6	Lab Sample ID:	180-43359-6	Worklist Smp#:	19
Client ID:	HD-CW-20-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



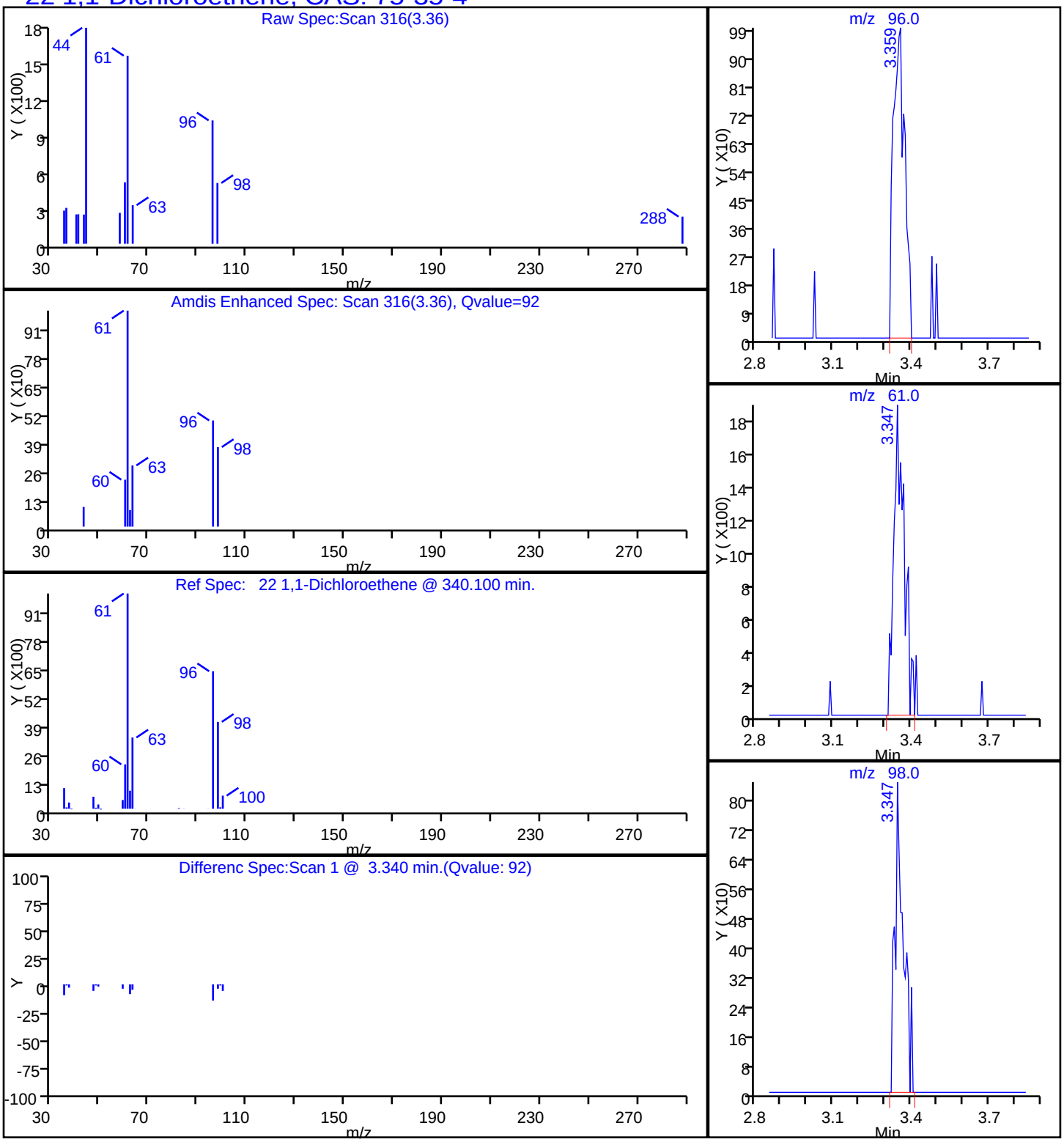
Report Date: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

Injection Date:	04-May-2015 19:14:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-6	Lab Sample ID:	180-43359-6
Client ID:	HD-CW-20-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
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: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

Injection Date: 04-May-2015 19:14:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-6 Lab Sample ID: 180-43359-6

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

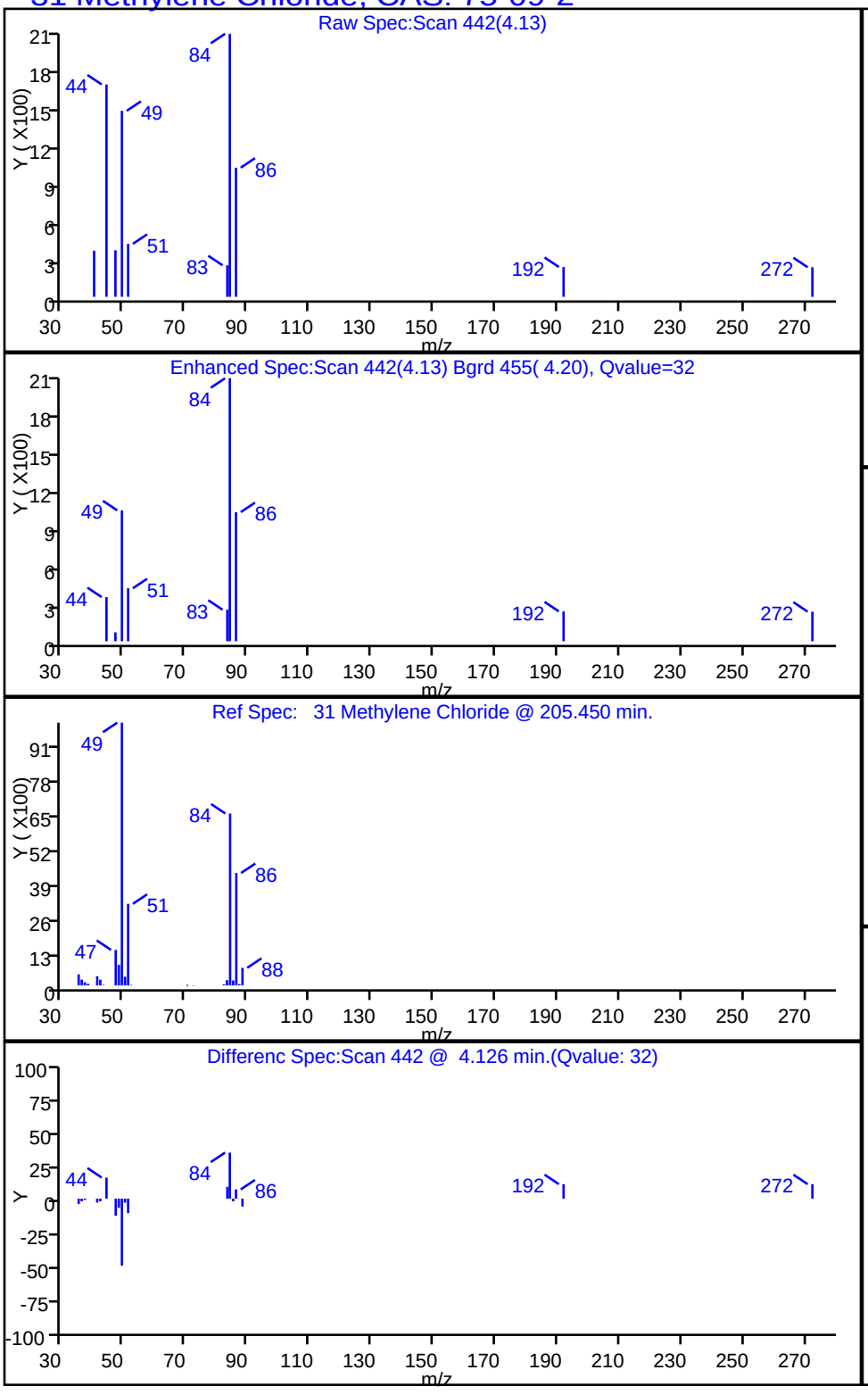
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 19

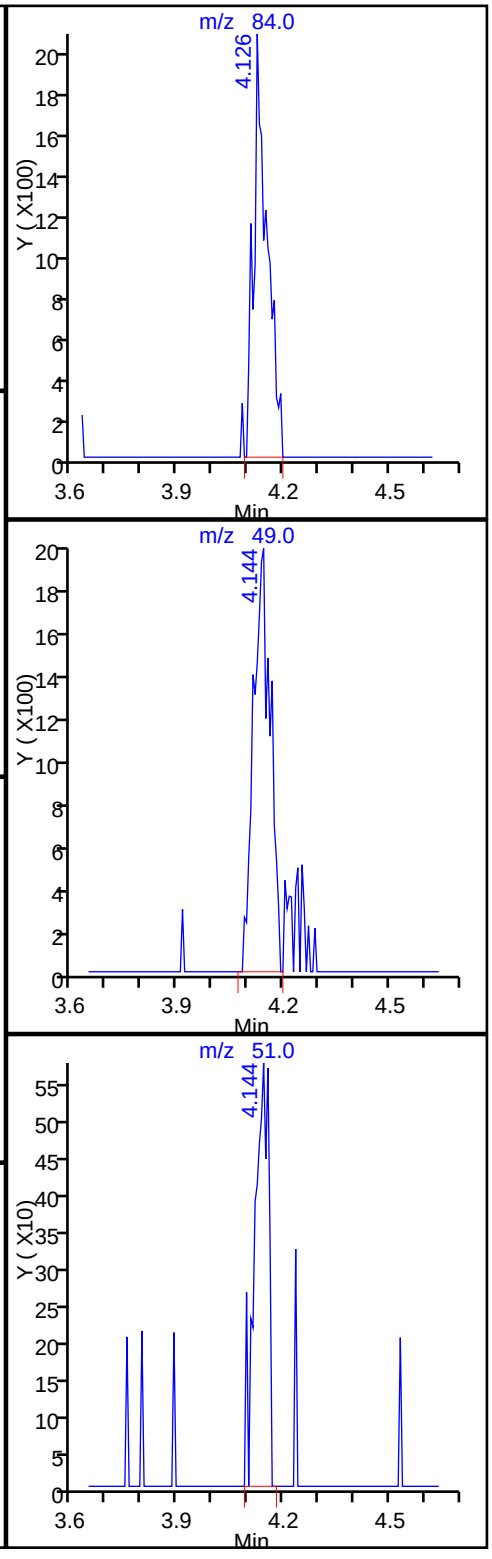
Purge Vol: 5.000 mL Dil. Factor: 50.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2





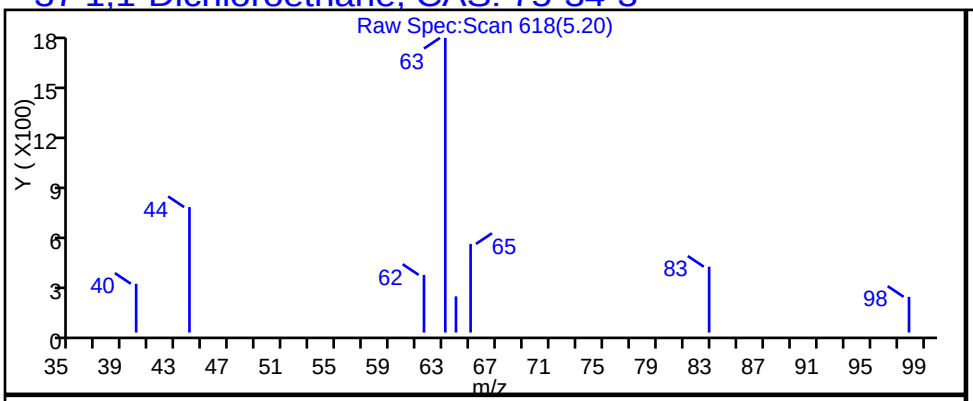
Report Date: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

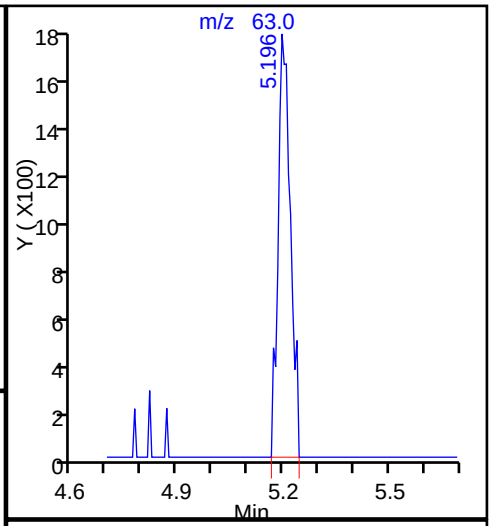
TestAmerica Pittsburgh

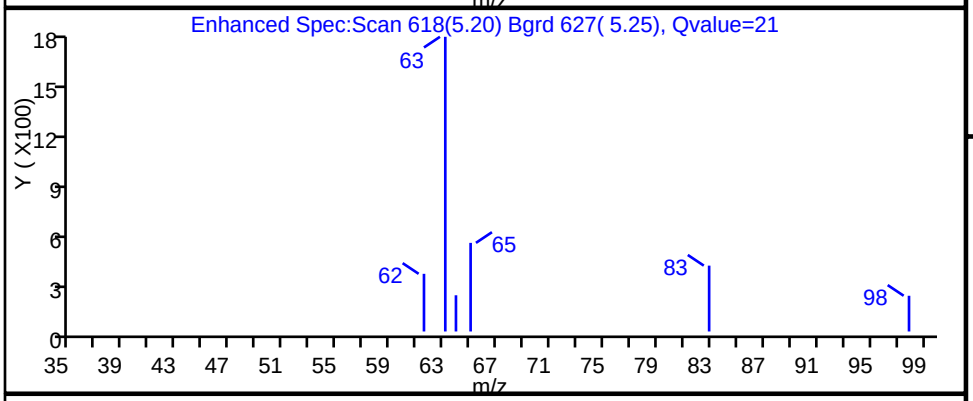
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

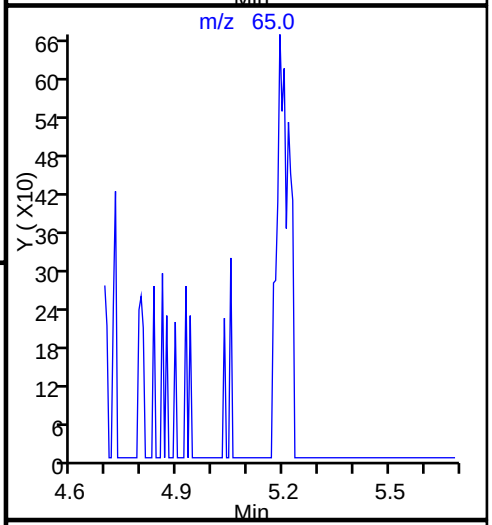
Injection Date:	04-May-2015 19:14:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-6	Lab Sample ID:	180-43359-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

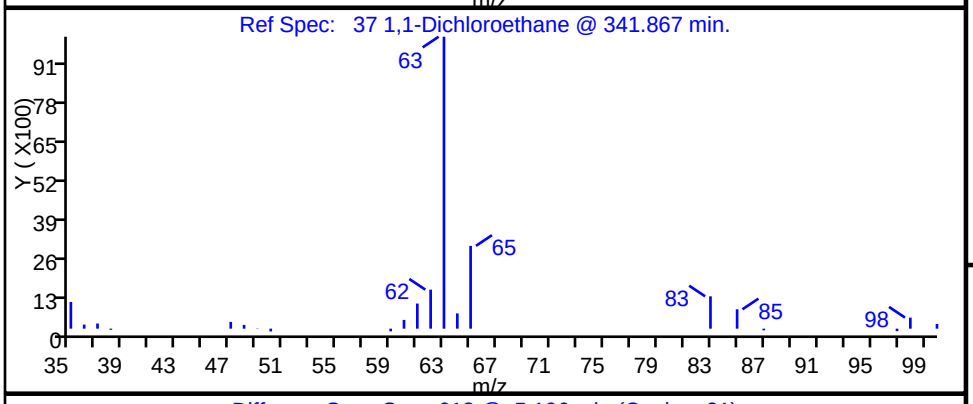
37 1,1-Dichloroethane, CAS: 75-34-3

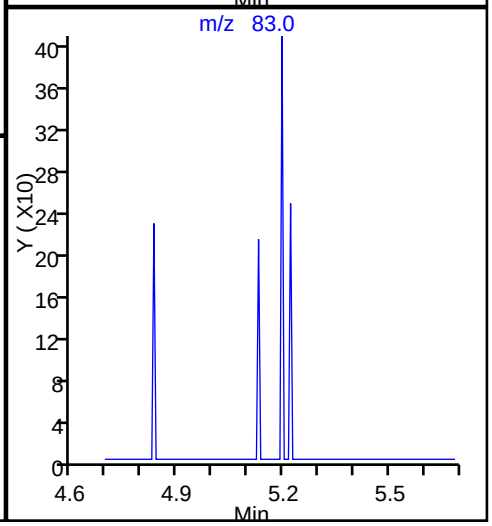


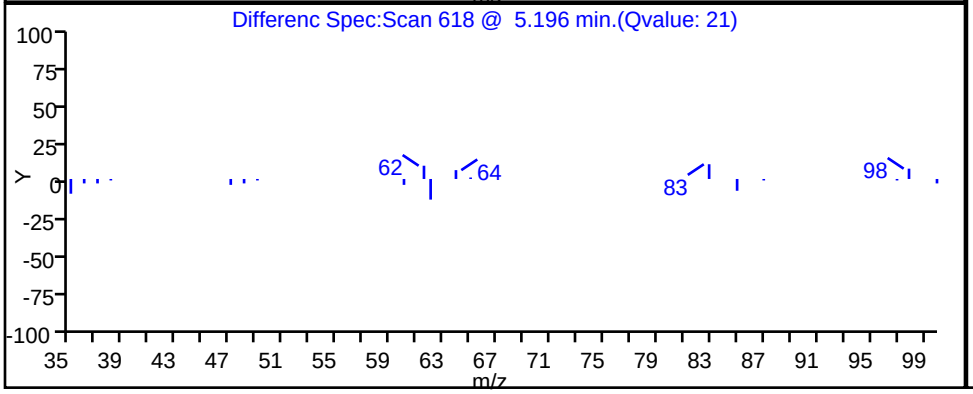










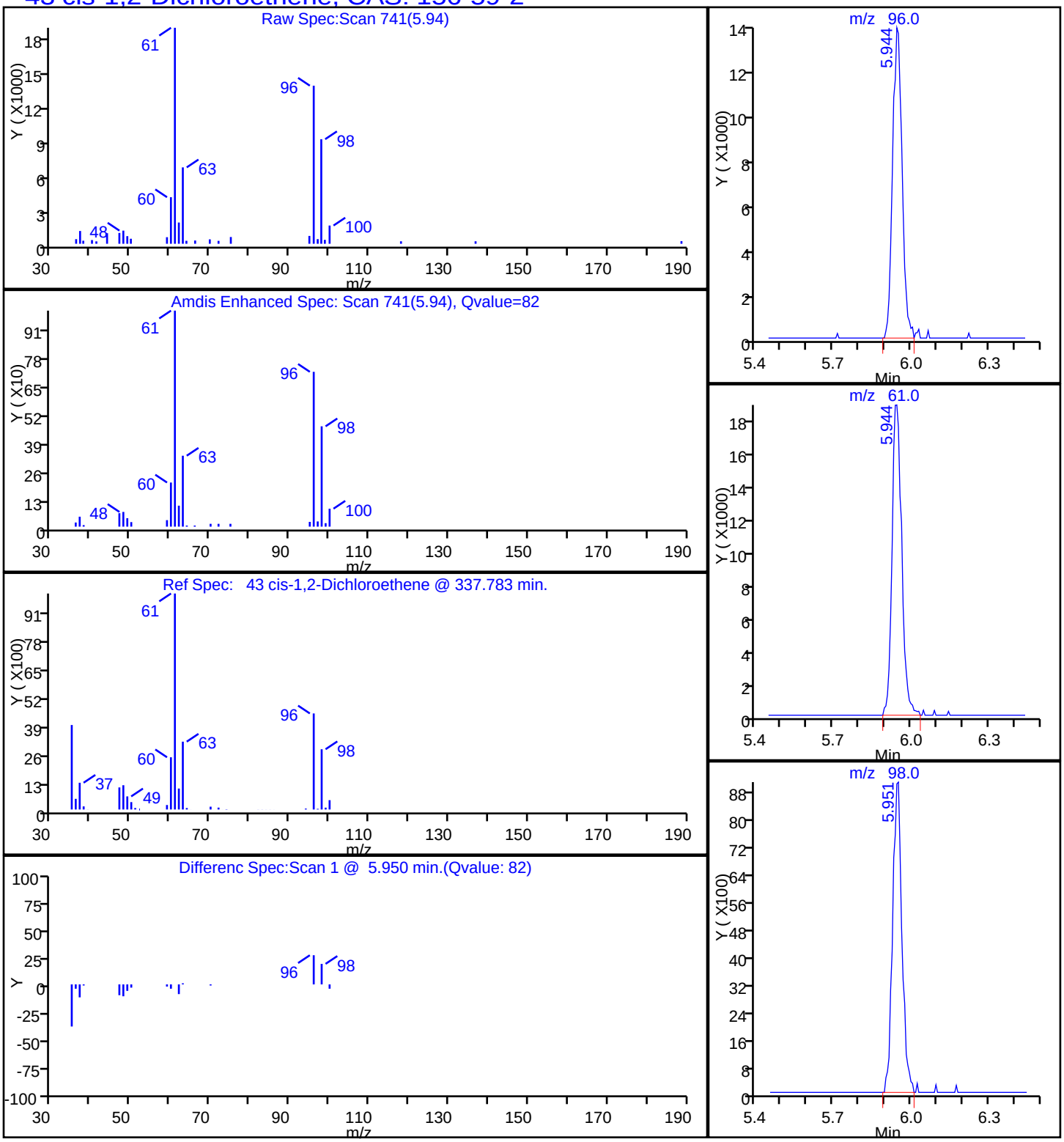


Report Date: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D				
Injection Date:	04-May-2015 19:14:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-6	Lab Sample ID:	180-43359-6		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
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: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

Injection Date: 04-May-2015 19:14:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-6 Lab Sample ID: 180-43359-6

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

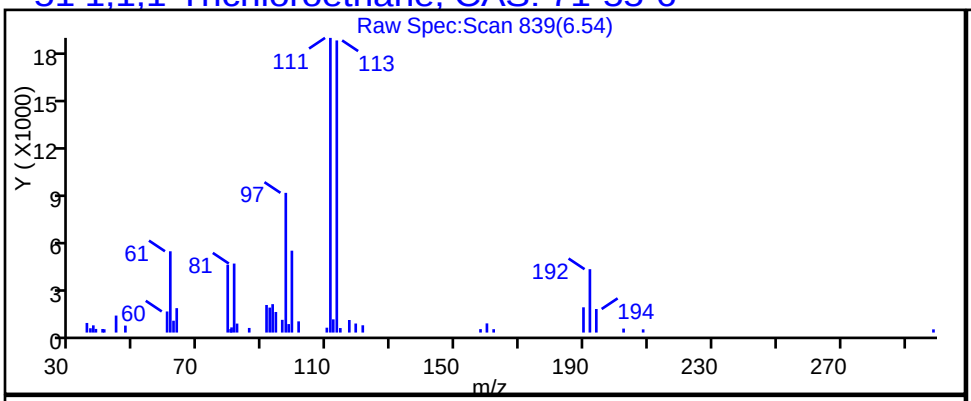
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 19

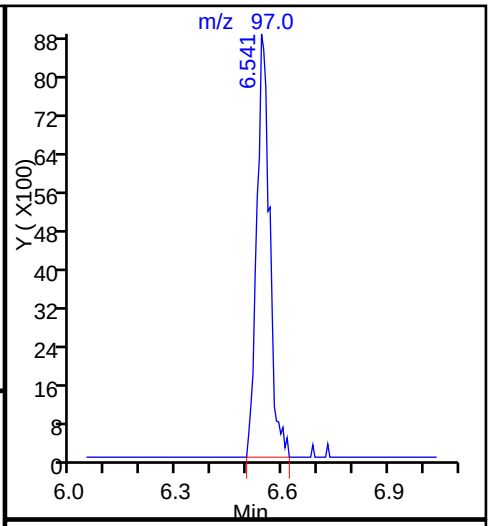
Purge Vol: 5.000 mL Dil. Factor: 50.0000

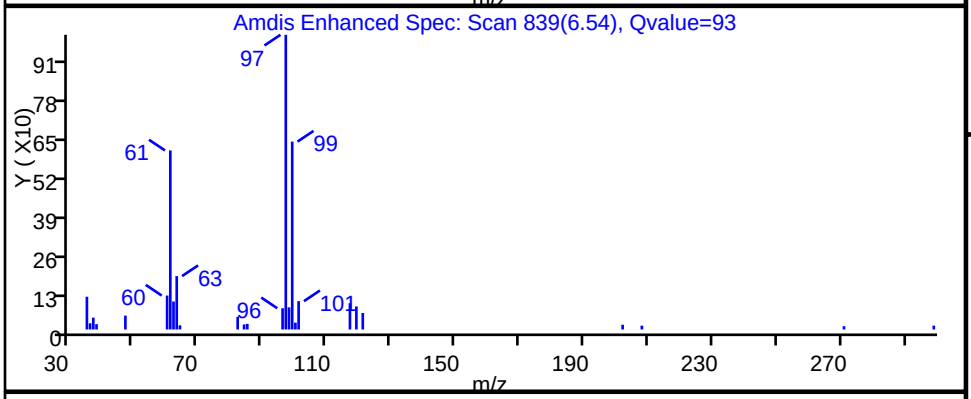
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

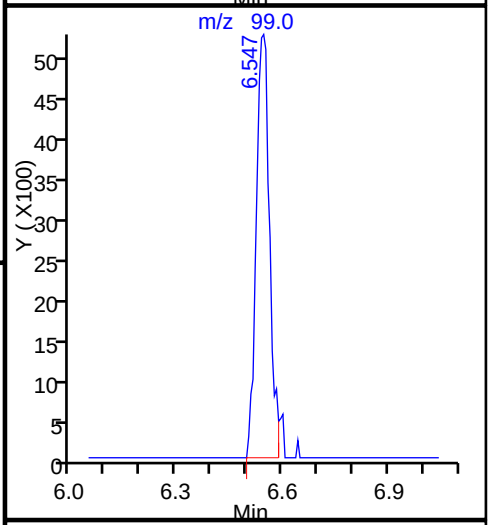
Column: DB-624 (0.18 mm) Detector MS SCAN

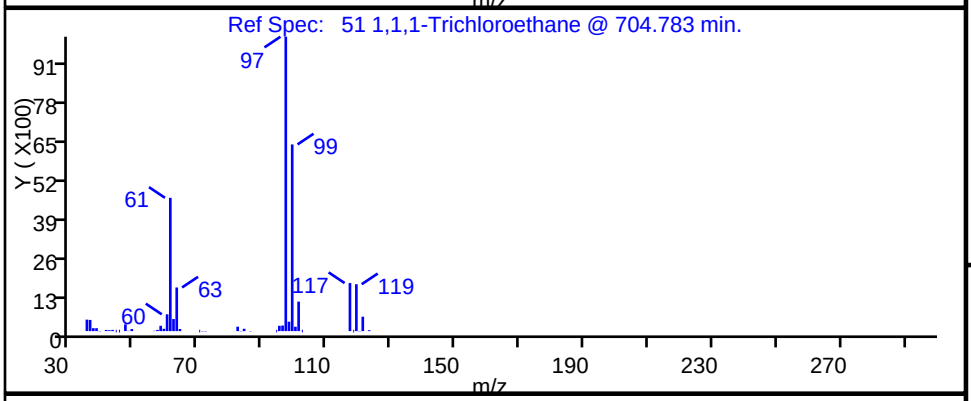
51 1,1,1-Trichloroethane, CAS: 71-55-6

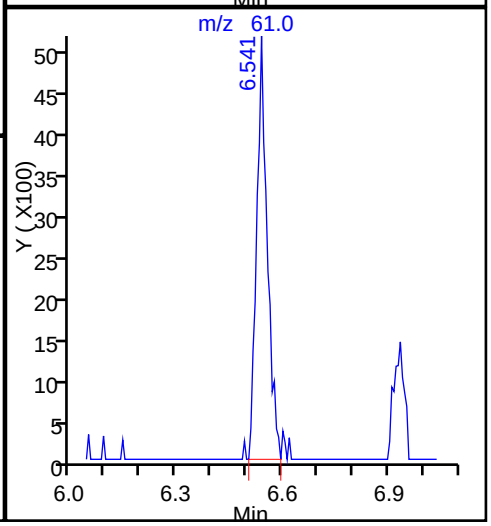


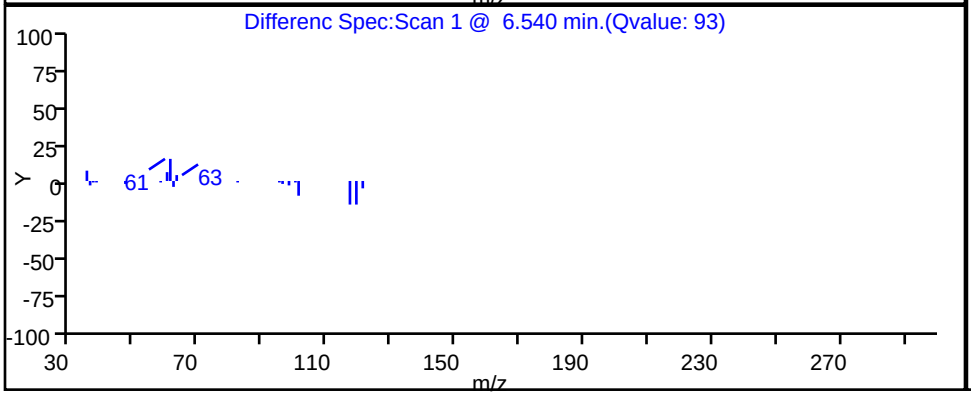












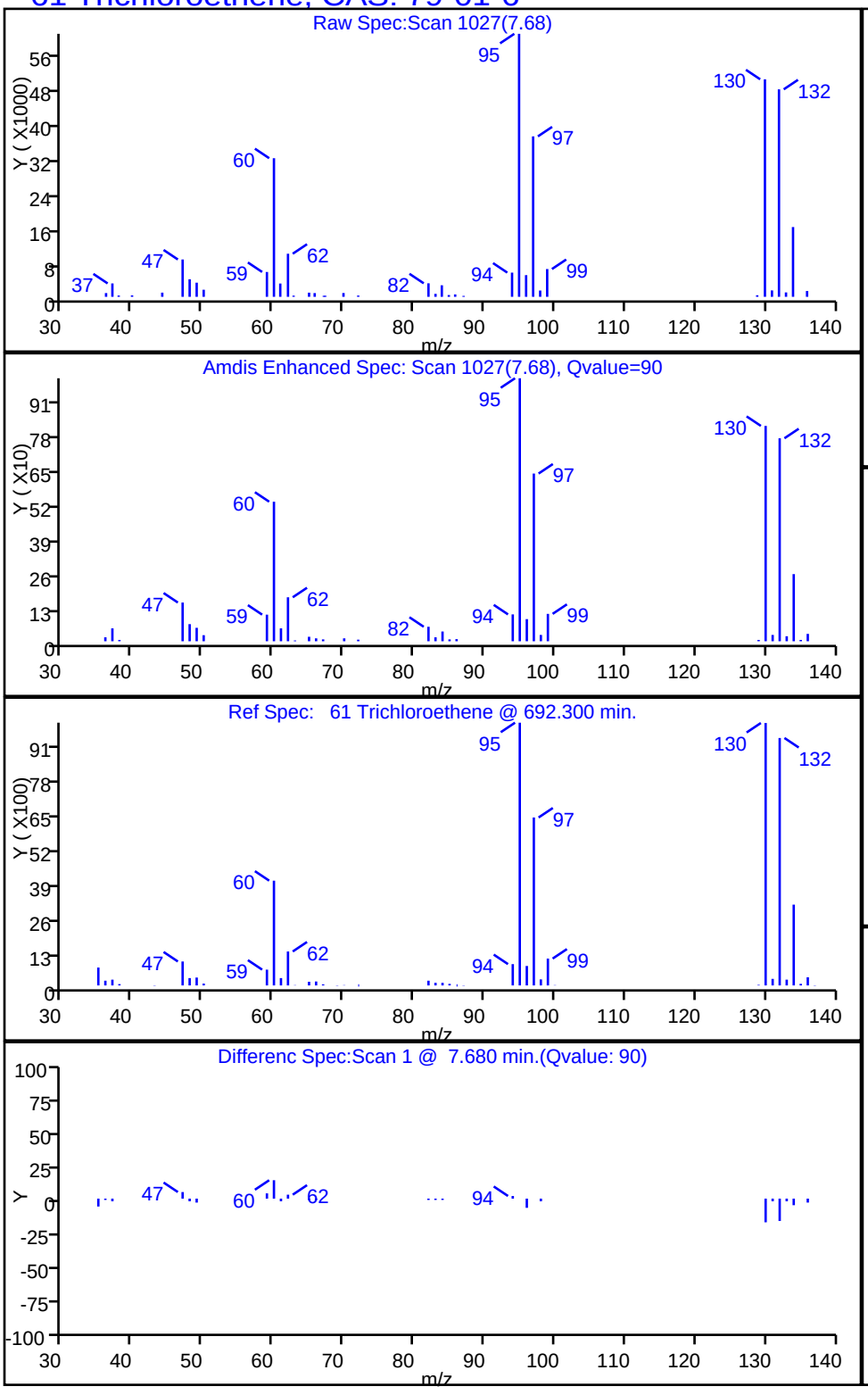
Report Date: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

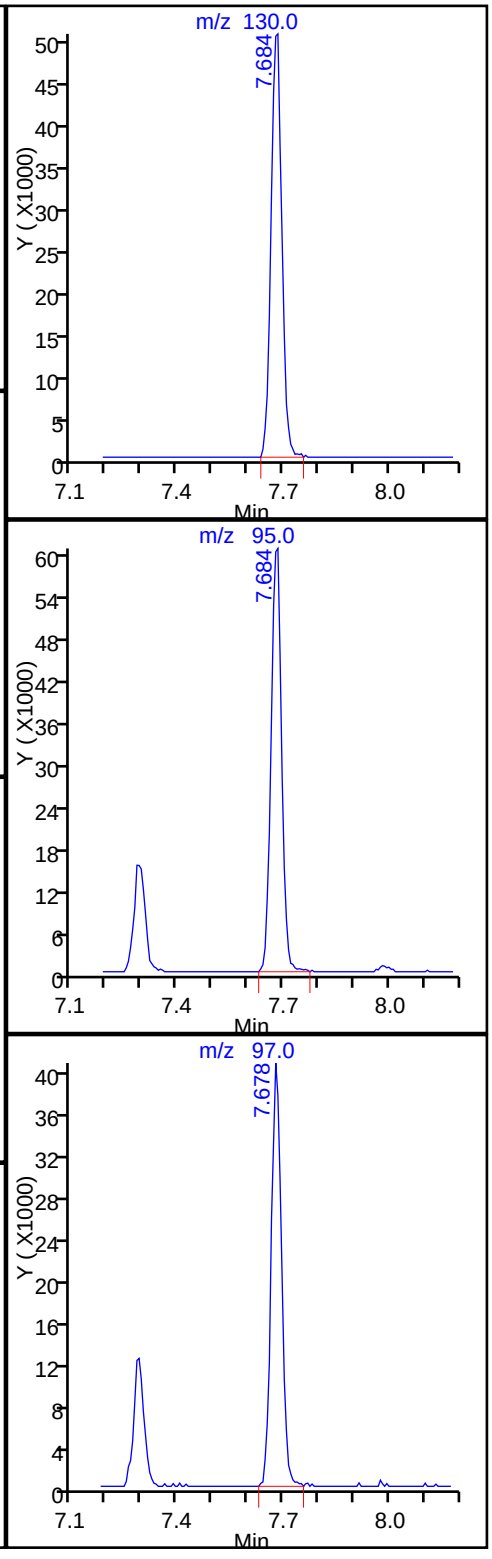
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

Injection Date:	04-May-2015 19:14:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-6	Lab Sample ID:	180-43359-6
Client ID:	HD-CW-20-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
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: 05-May-2015 07:39:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504019.D

Injection Date: 04-May-2015 19:14:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-6 Lab Sample ID: 180-43359-6

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

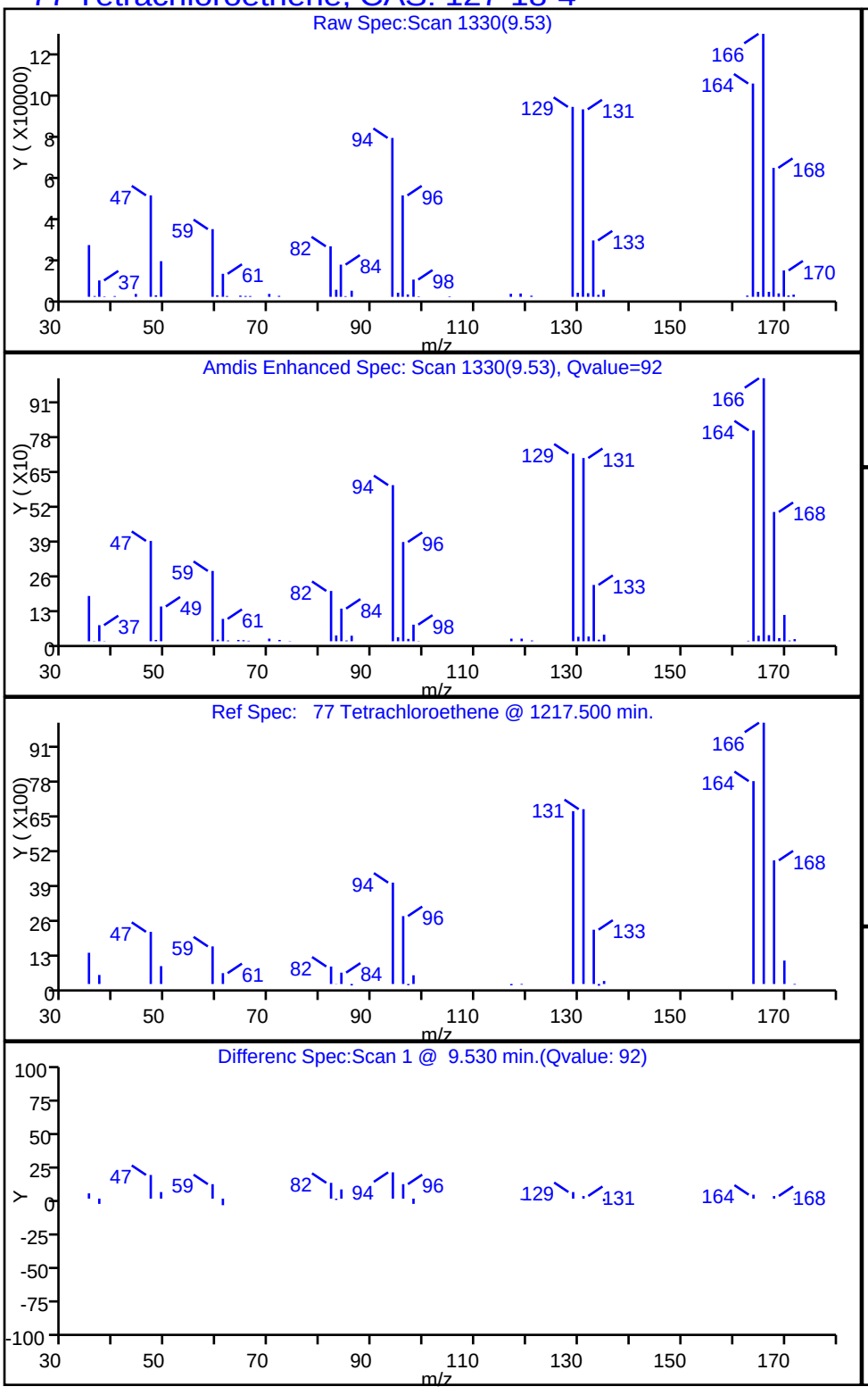
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 19

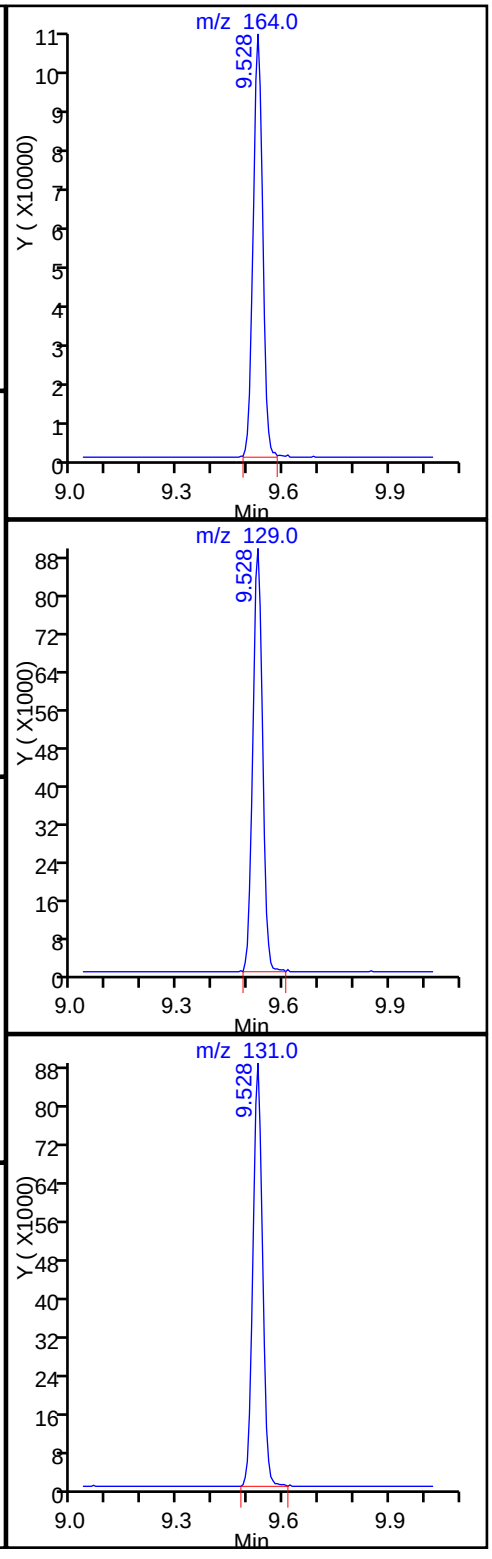
Purge Vol: 5.000 mL Dil. Factor: 50.0000

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.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 | Lab Sample ID: 180-43359-7

Matrix: Water | Lab File ID: 60504021.D

Analysis Method: 8260C | Date Collected: 04/22/2015 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 20:02

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	16		10	3.0
67-64-1	Acetone	50	U *	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	4.0	J	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	6.9	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	200		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U *	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	25		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	250		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	190		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 | Lab Sample ID: 180-43359-7

Matrix: Water | Lab File ID: 60504021.D

Analysis Method: 8260C | Date Collected: 04/22/2015 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 20:02

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D
Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7
Client ID: HD-MW-7-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 20:02:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-43359-E-7, 10x
Misc. Info.: 180-0006756-021
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:39:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:39:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.230	4.254	-0.024	97	202991	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	98	382458	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	92	75378	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	98	116220	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.553	0.001	91	79794	50.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.925	6.924	0.001	71	139759	52.9	
$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	94	356382	55.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	79	134258	51.6	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.348	3.335	0.013	93	14262	8.05	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.139	4.120	0.019	58	4300	2.00	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.198	5.190	0.008	69	12844	3.46	
43 cis-1,2-Dichloroethene	96	5.946	5.933	0.013	82	225031	100.3	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.384	6.371	0.013	1	1584	0.4421	
51 1,1,1-Trichloroethane	97	6.536	6.535	0.001	96	37257	12.6	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.680	7.673	0.007	91	225927	124.1	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.529	9.522	0.007	93	125058	97.2	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

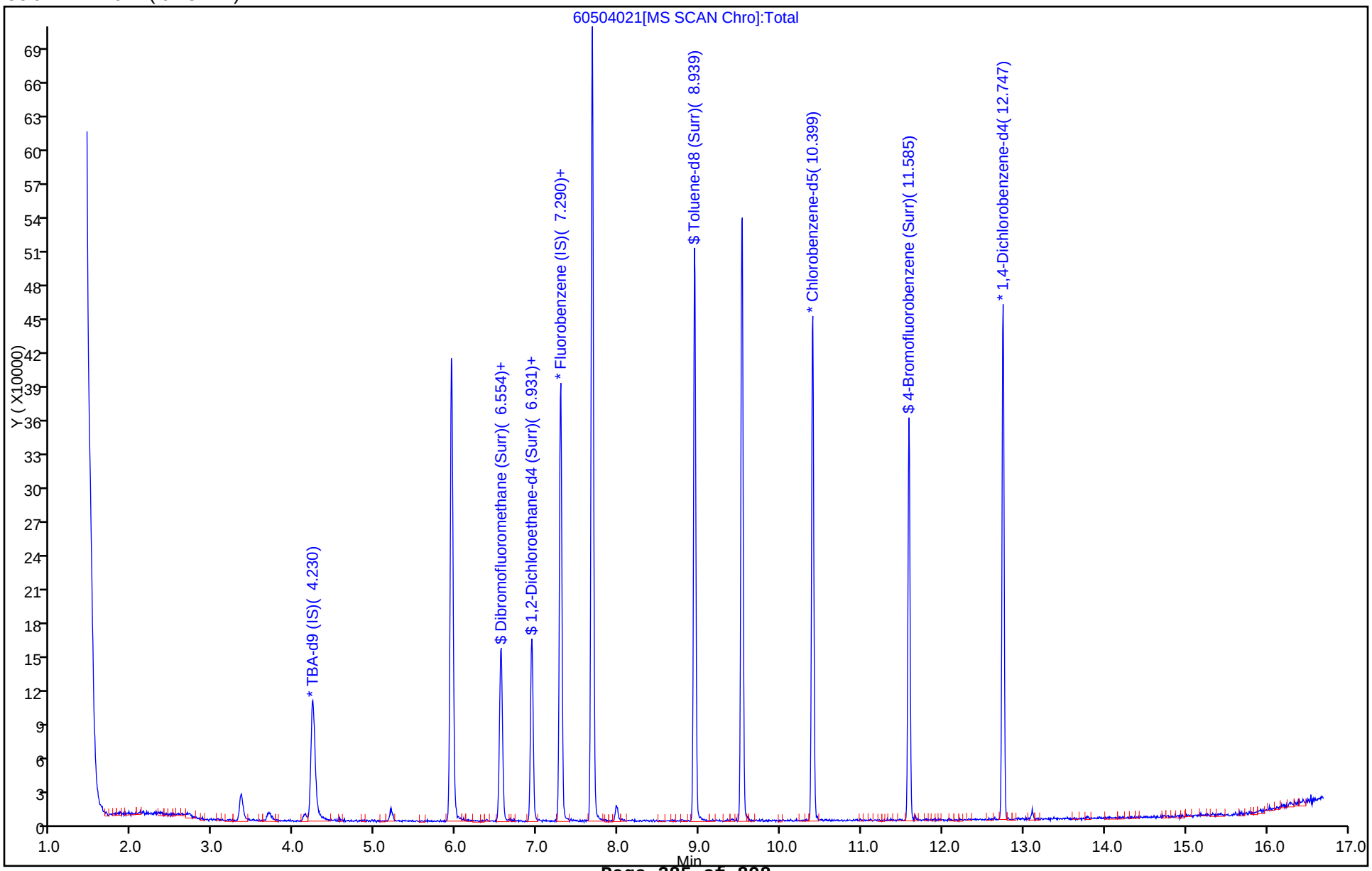
Report Date: 05-May-2015 07:39:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date:	04-May-2015 20:02:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-7	Lab Sample ID:	180-43359-7	Worklist Smp#:	21
Client ID:	HD-MW-7-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 05-May-2015 07:39:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date: 04-May-2015 20:02:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7

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

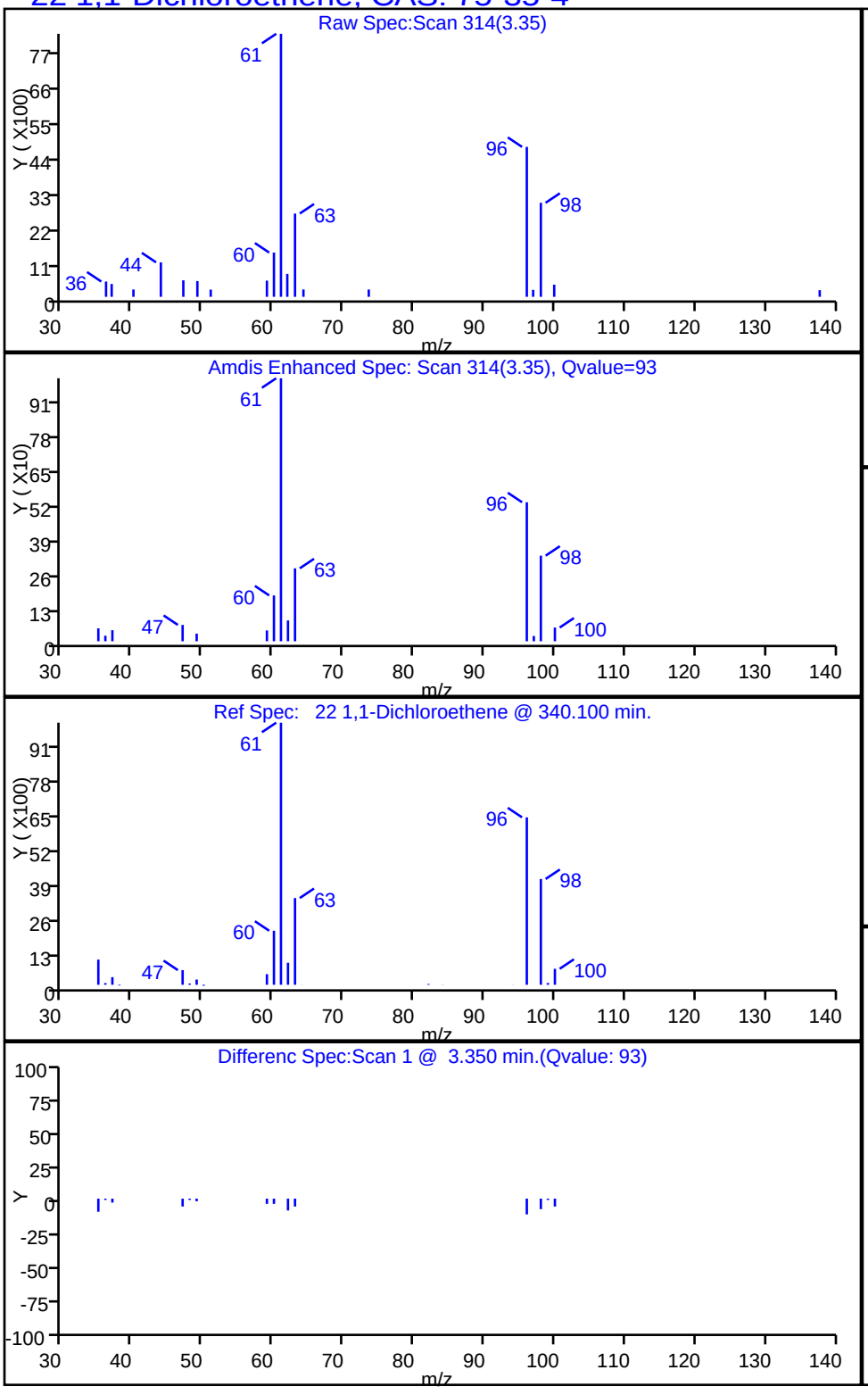
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21

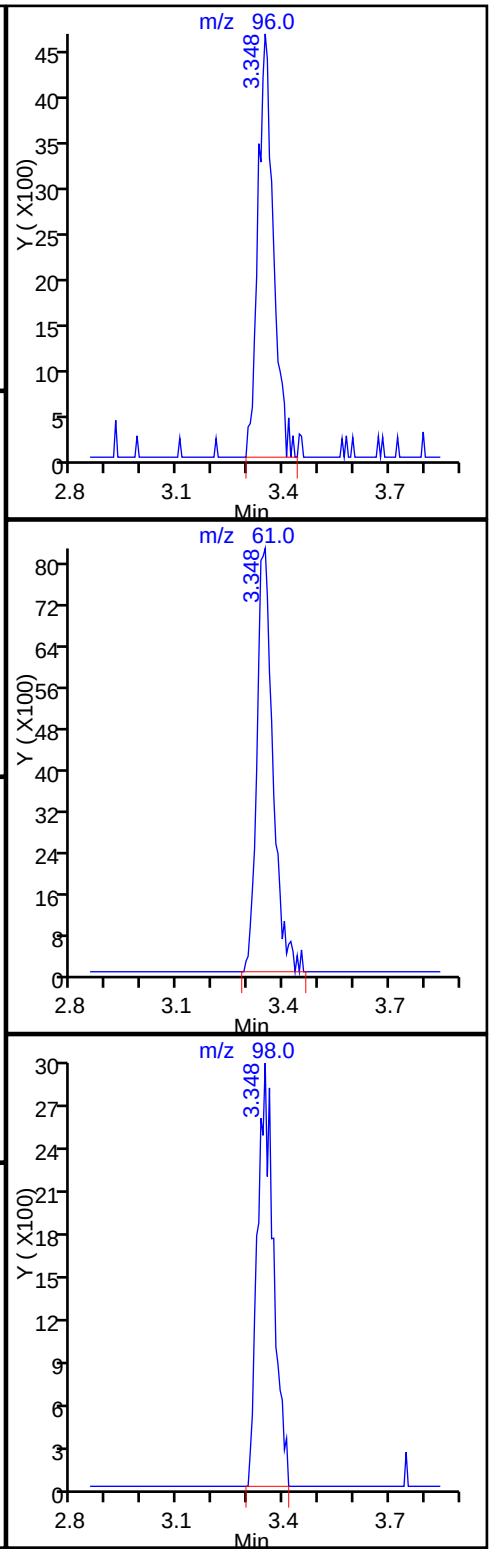
Purge Vol: 5.000 mL Dil. Factor: 10.0000

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





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TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date: 04-May-2015 20:02:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7

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

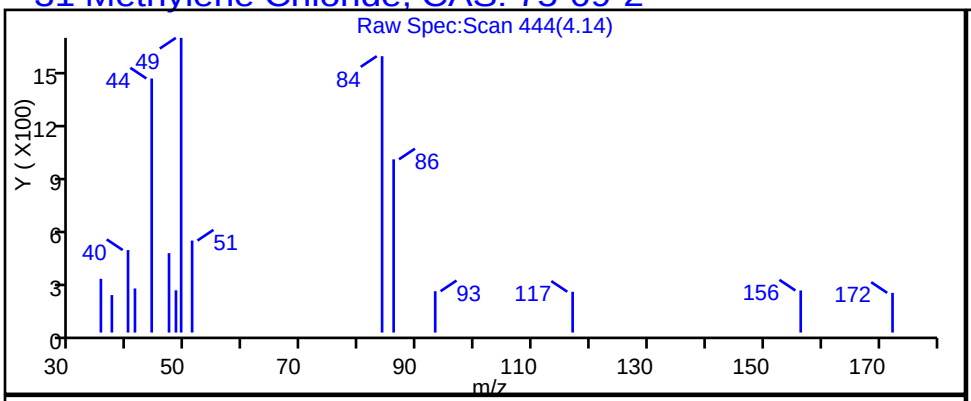
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21

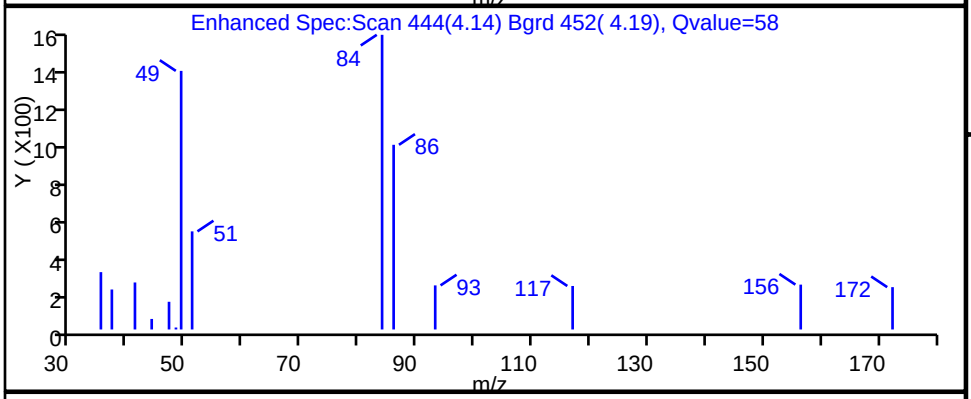
Purge Vol: 5.000 mL Dil. Factor: 10.0000

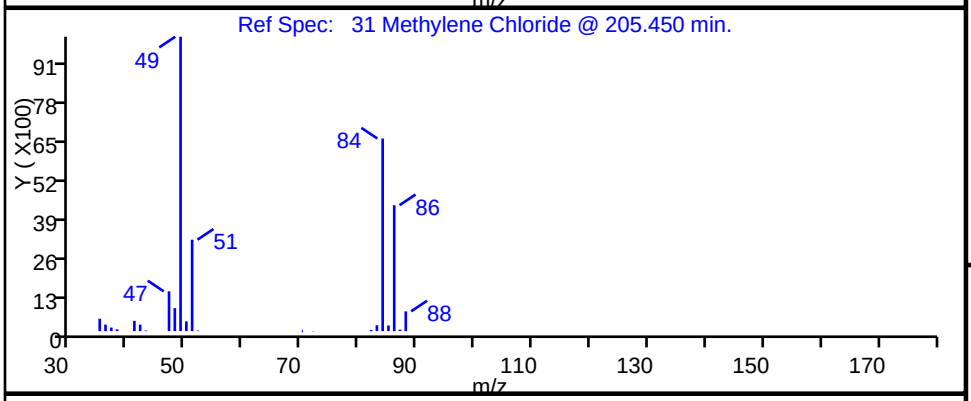
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

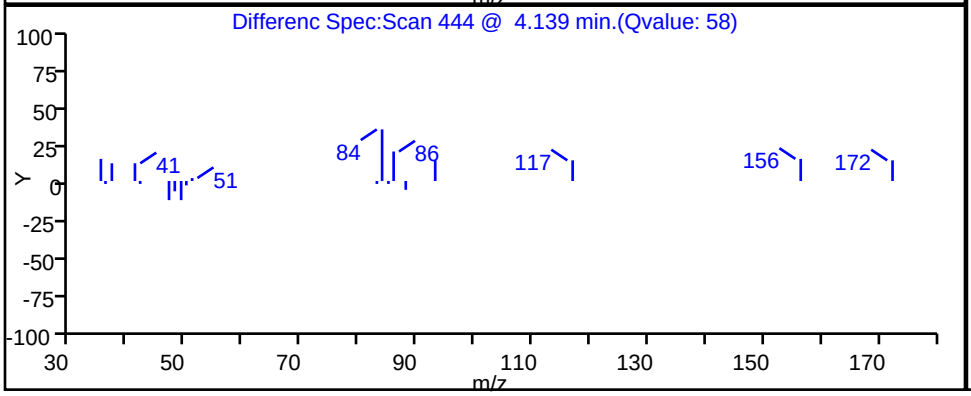
Column: DB-624 (0.18 mm) Detector MS SCAN

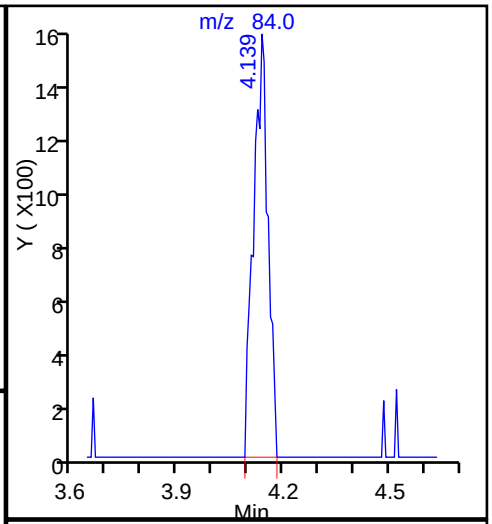
31 Methylene Chloride, CAS: 75-09-2

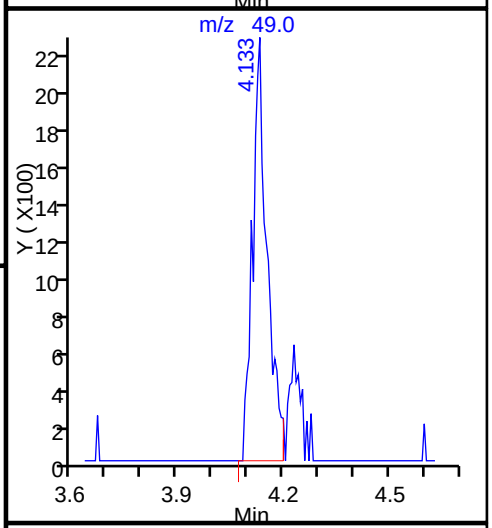


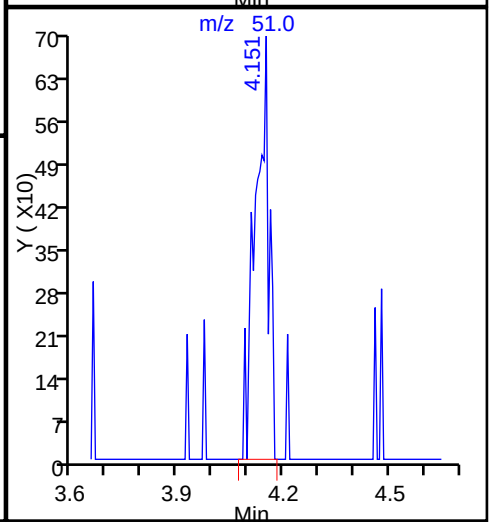












Report Date: 05-May-2015 07:39:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date: 04-May-2015 20:02:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7

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

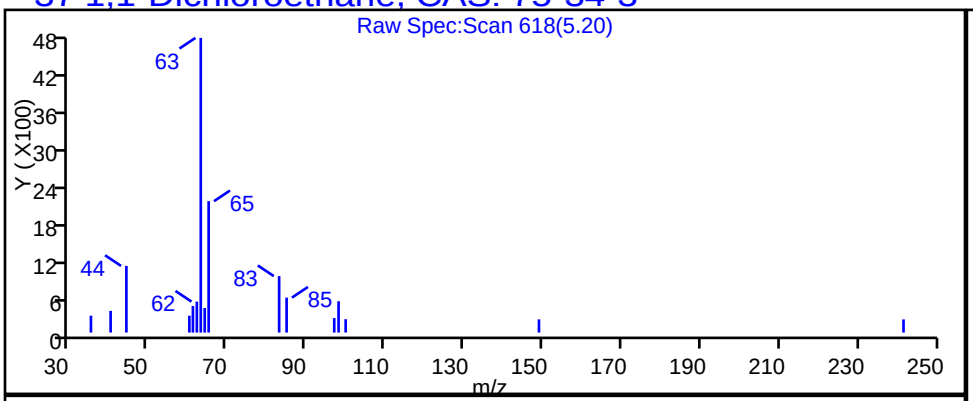
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21

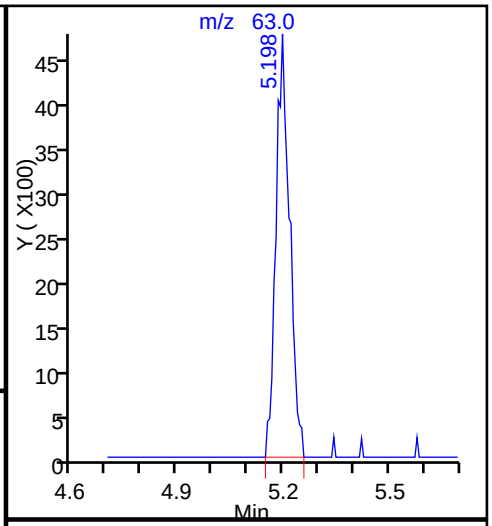
Purge Vol: 5.000 mL Dil. Factor: 10.0000

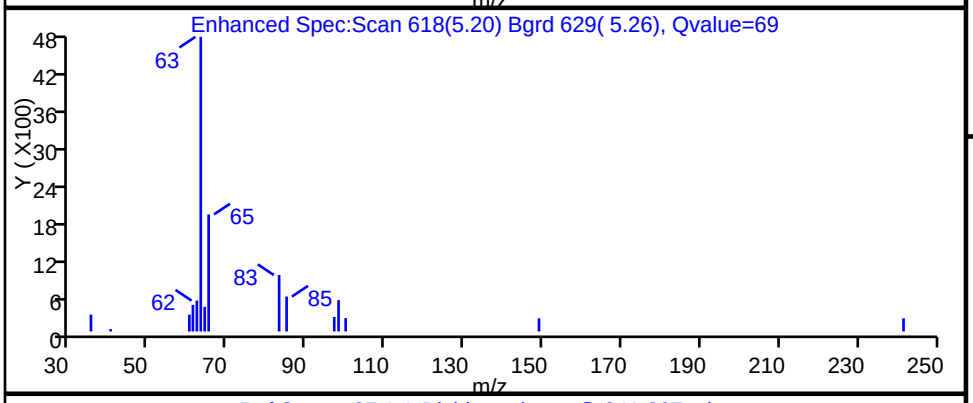
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

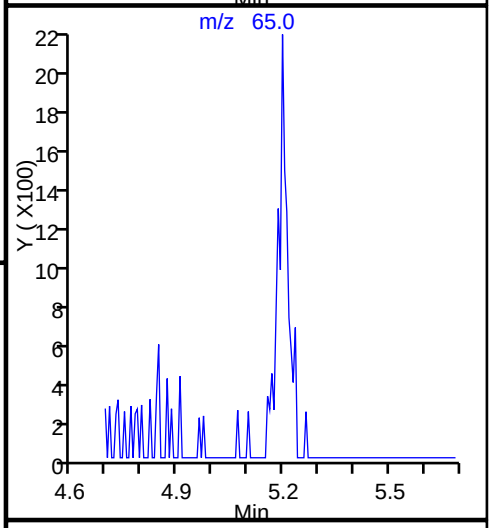
Column: DB-624 (0.18 mm) Detector MS SCAN

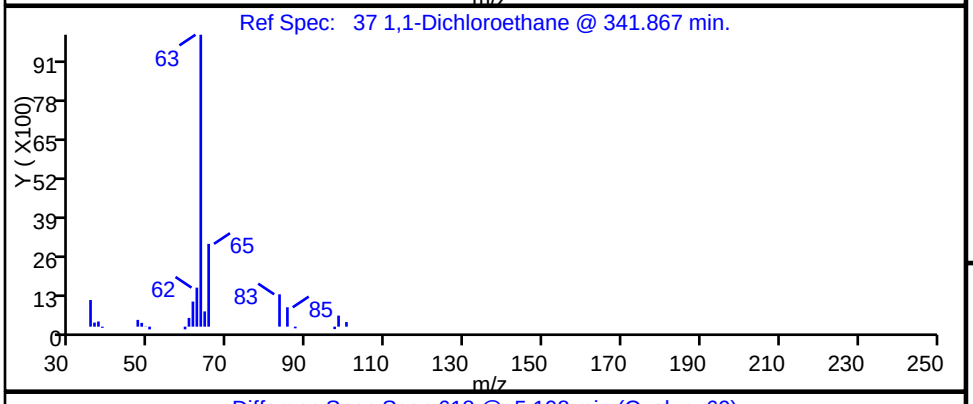
37 1,1-Dichloroethane, CAS: 75-34-3

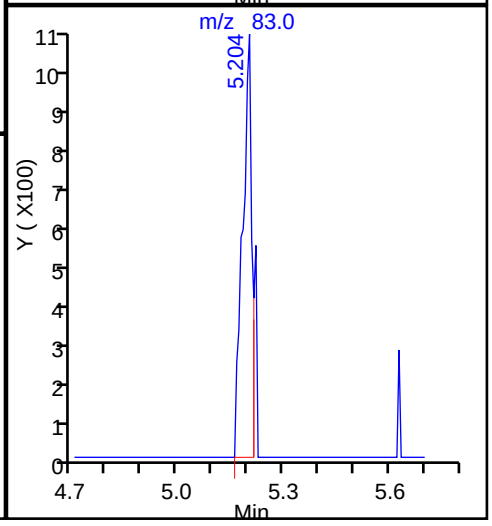


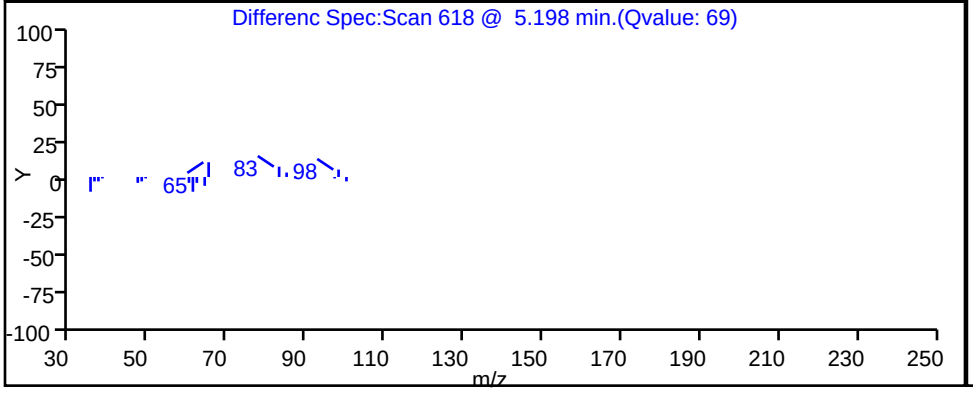












Report Date: 05-May-2015 07:39:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date: 04-May-2015 20:02:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7

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

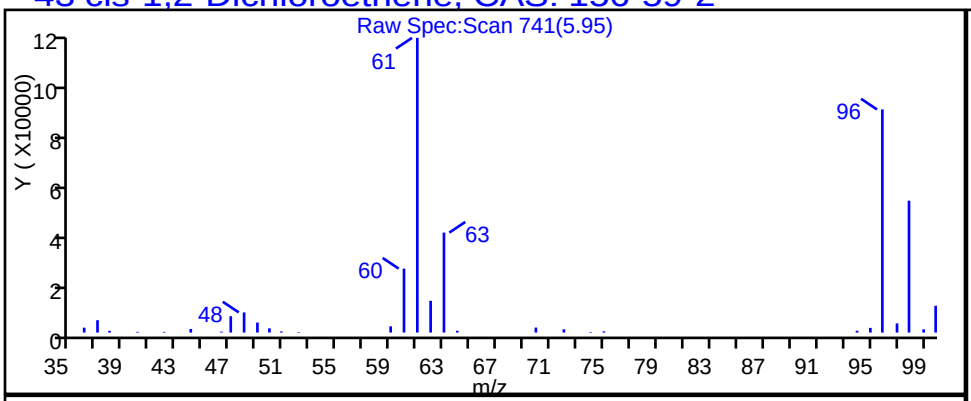
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21

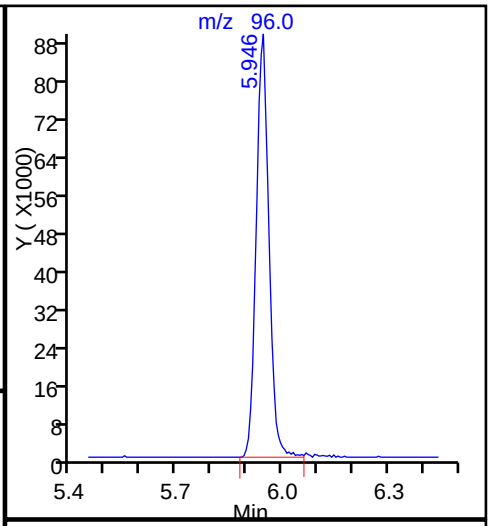
Purge Vol: 5.000 mL Dil. Factor: 10.0000

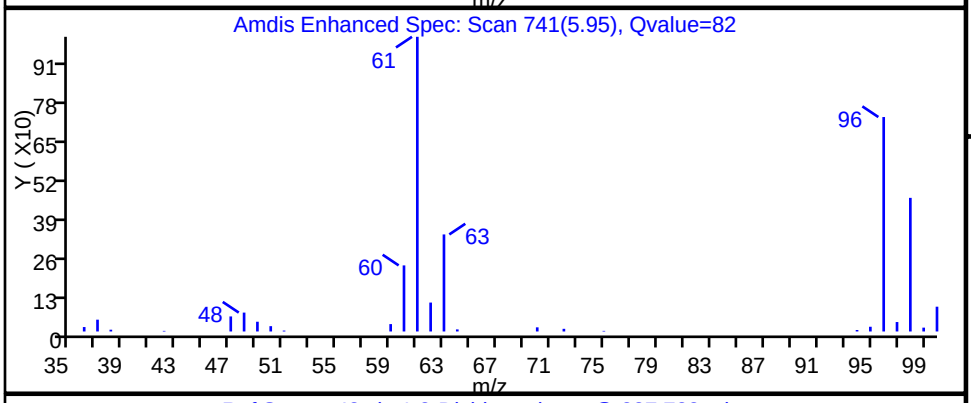
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

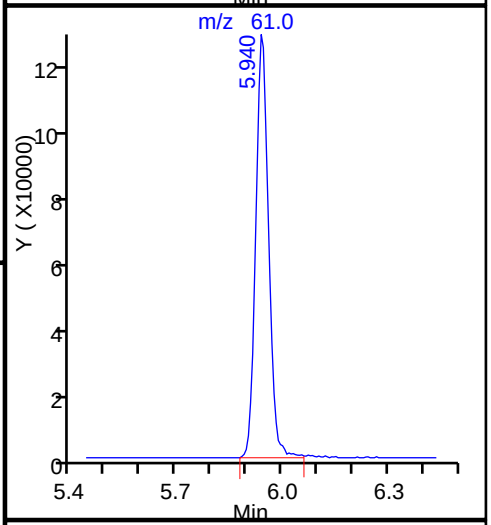
Column: DB-624 (0.18 mm) Detector MS SCAN

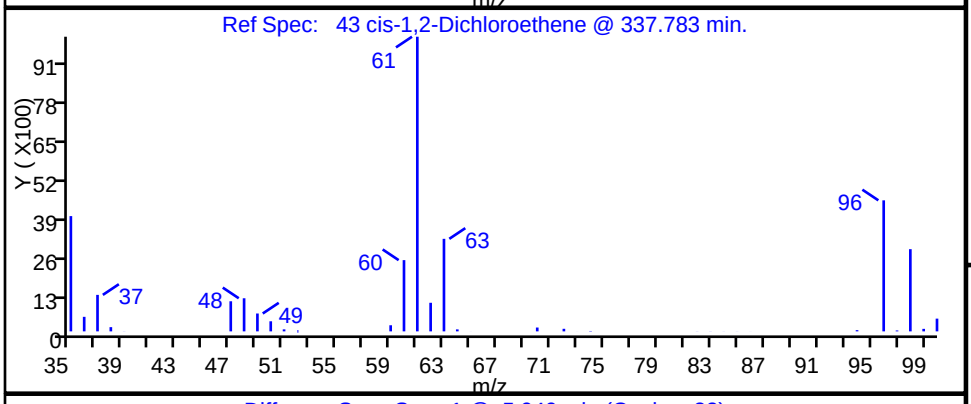
43 cis-1,2-Dichloroethene, CAS: 156-59-2

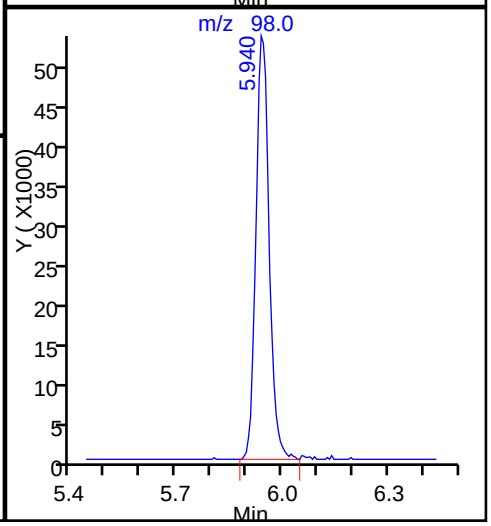


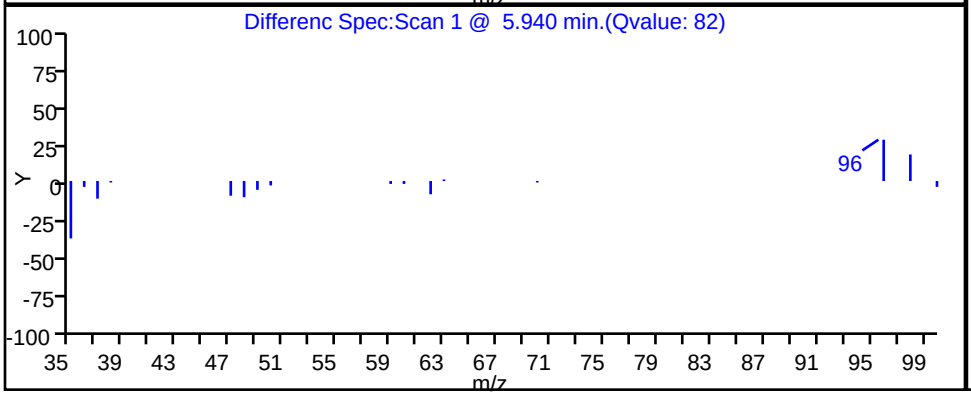












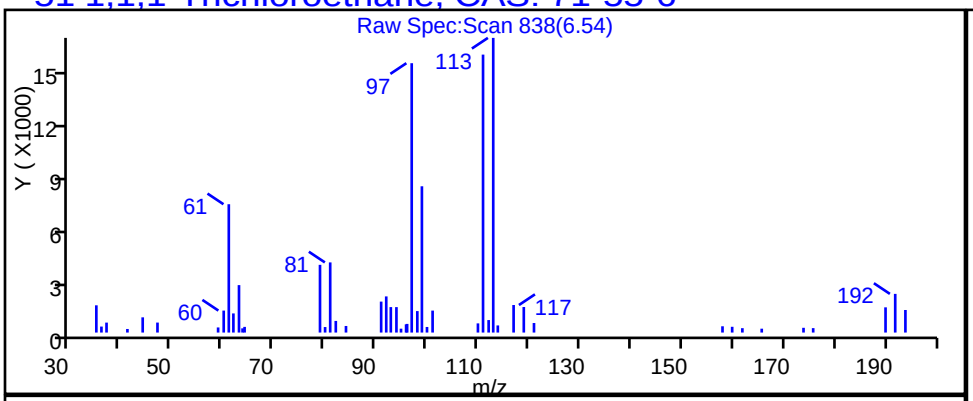
Report Date: 05-May-2015 07:39:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

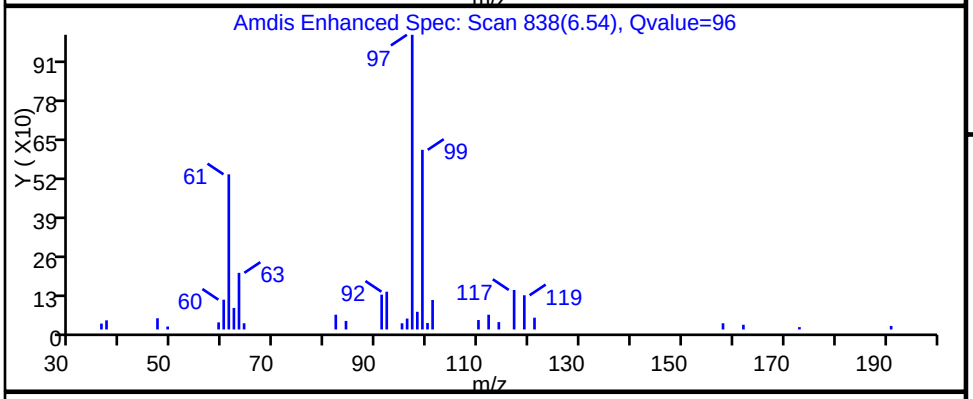
TestAmerica Pittsburgh

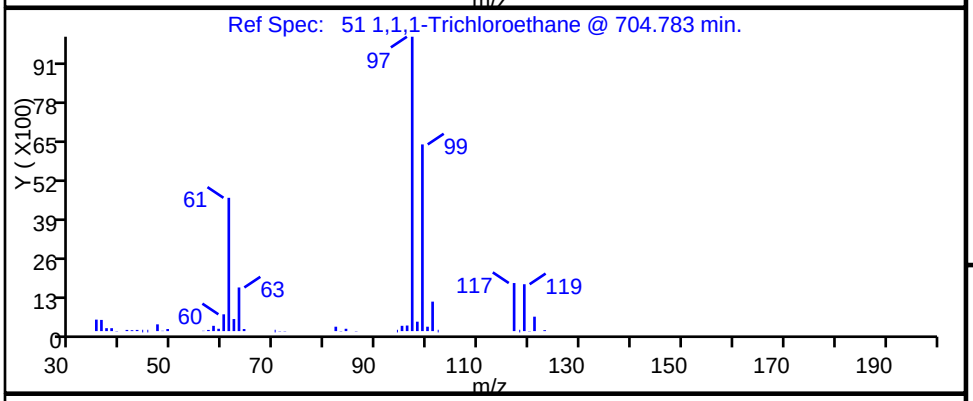
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

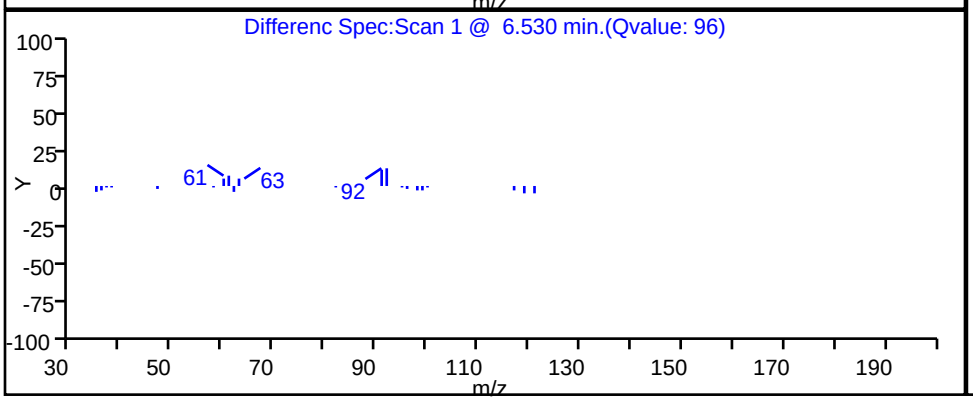
Injection Date:	04-May-2015 20:02:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-7	Lab Sample ID:	180-43359-7		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

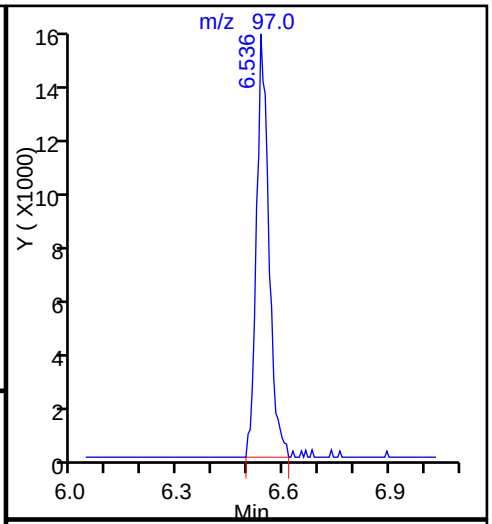
51 1,1,1-Trichloroethane, CAS: 71-55-6

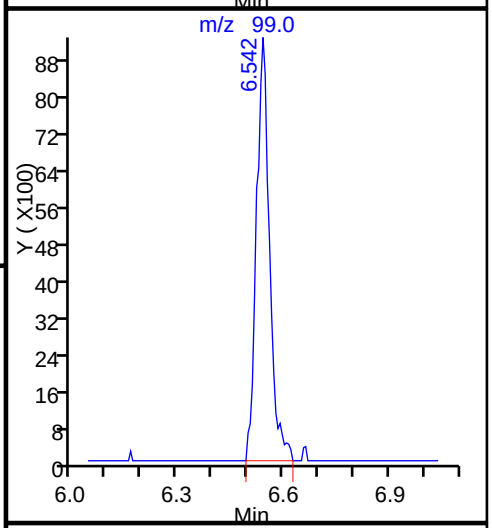


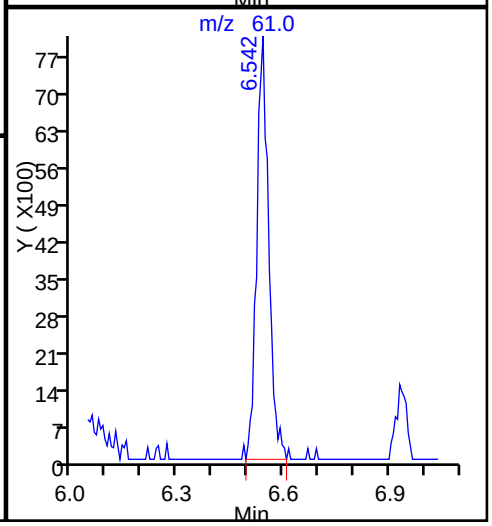












Report Date: 05-May-2015 07:39:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date: 04-May-2015 20:02:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7

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

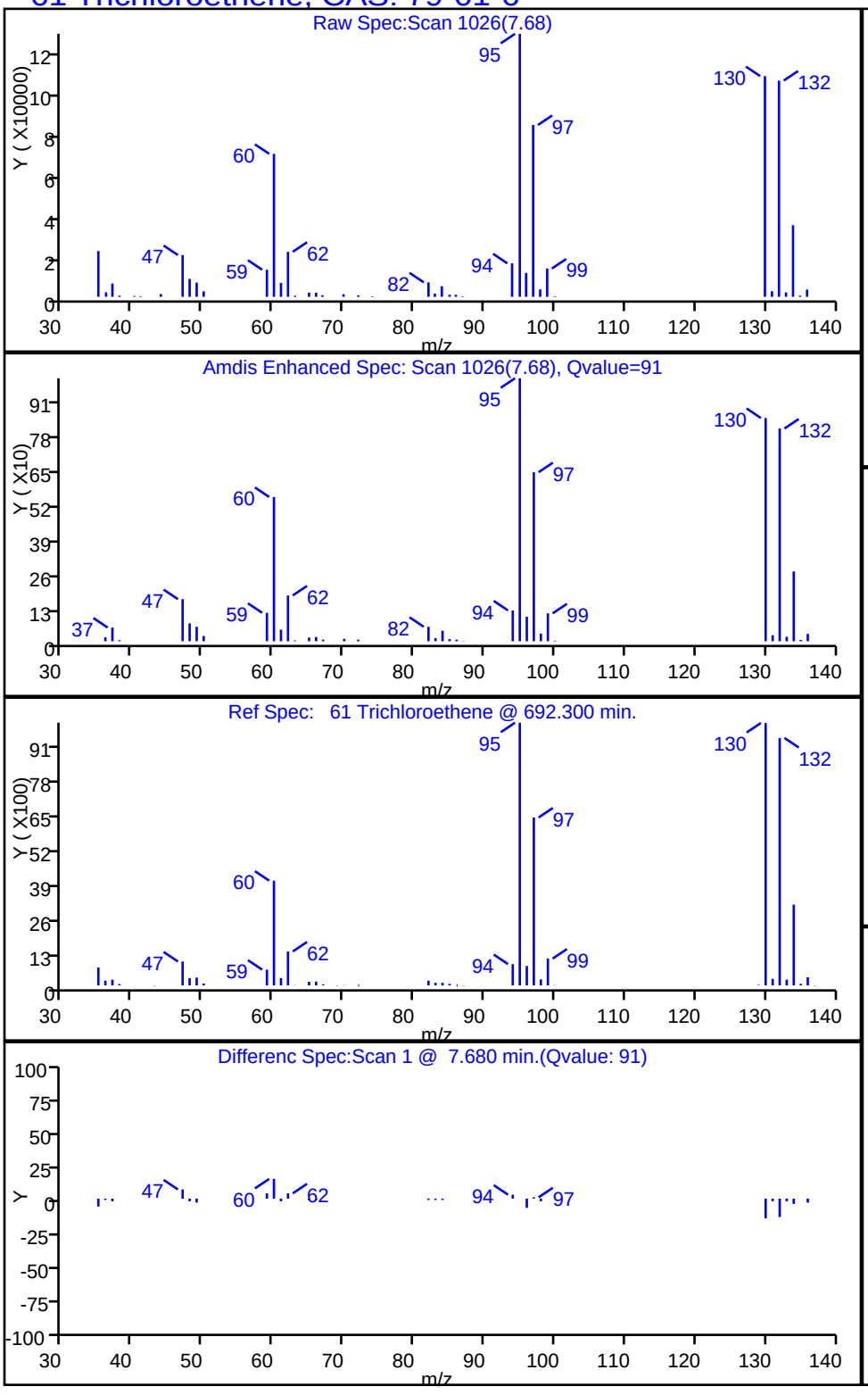
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21

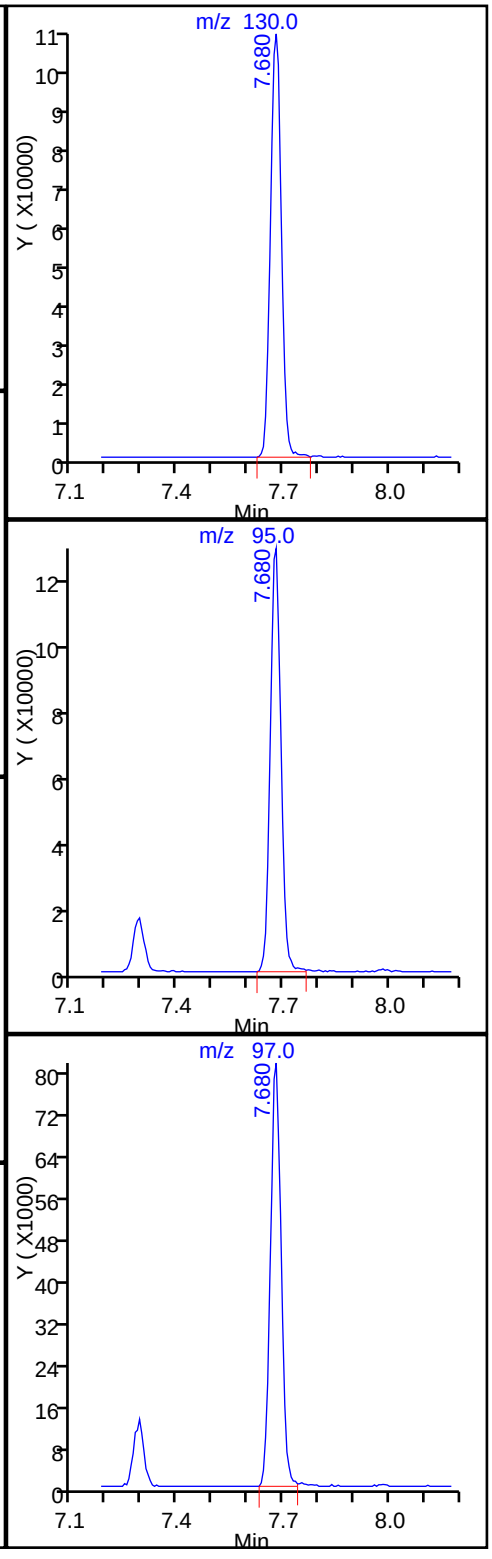
Purge Vol: 5.000 mL Dil. Factor: 10.0000

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: 05-May-2015 07:39:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504021.D

Injection Date: 04-May-2015 20:02:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-7 Lab Sample ID: 180-43359-7

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

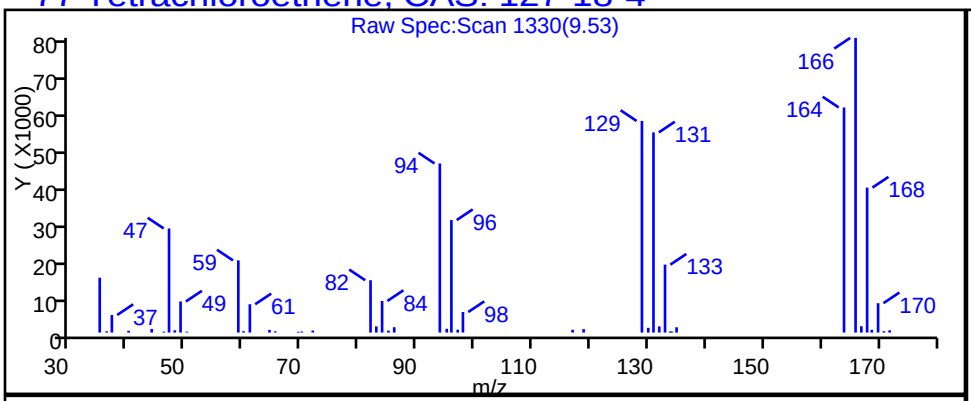
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21

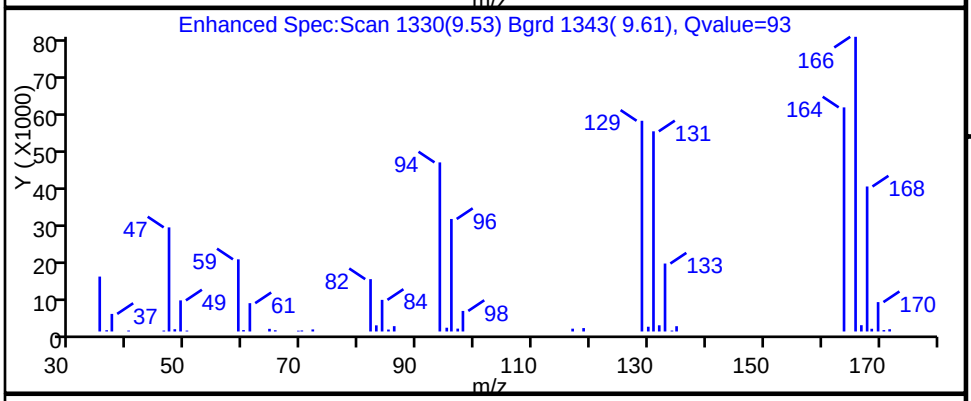
Purge Vol: 5.000 mL Dil. Factor: 10.0000

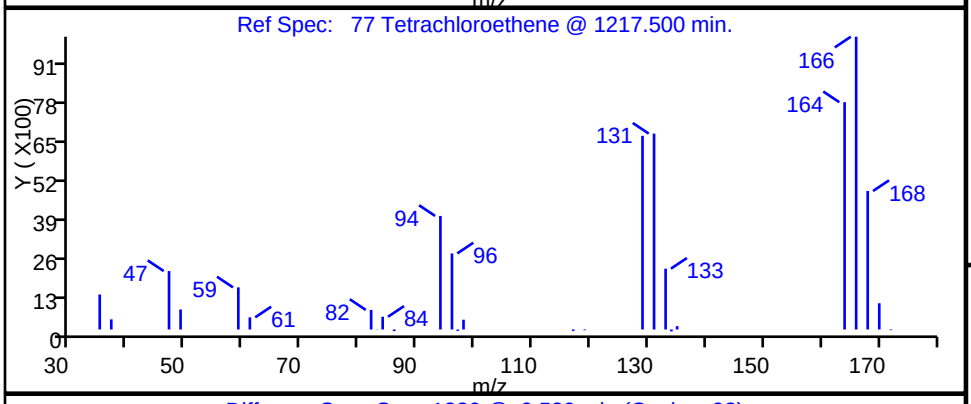
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

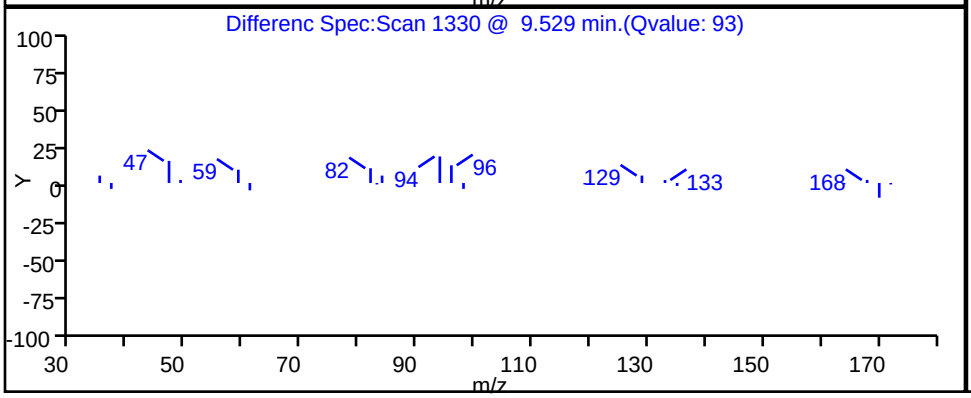
Column: DB-624 (0.18 mm) Detector MS SCAN

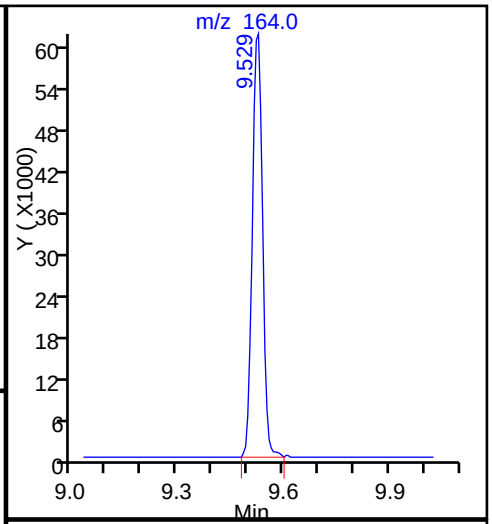
77 Tetrachloroethene, CAS: 127-18-4

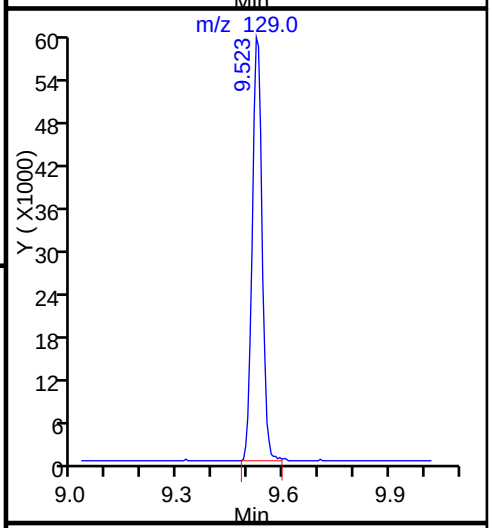


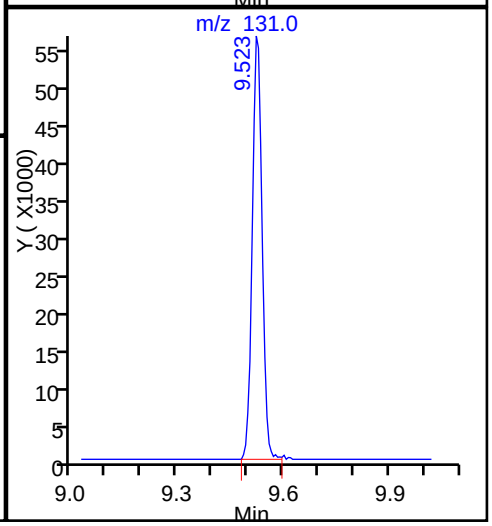












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 | Lab Sample ID: 180-43359-8

Matrix: Water | Lab File ID: 60503004.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 12:36

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140387 | 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 F1	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	6.1		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	3.2		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	2.8		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 | Lab Sample ID: 180-43359-8

Matrix: Water | Lab File ID: 60503004.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 12:36

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140387 | 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)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D
Lims ID: 180-43359-D-8 Lab Sample ID: 180-43359-8
Client ID: HD-MW-95-0/1-0
Sample Type: Client
Inject. Date: 03-May-2015 12:36:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-43359-D-8
Misc. Info.: 180-0006739-004
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 12:56:44 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 12:56:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.241	-0.012	98	232081	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	426733	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	87021	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	98	136298	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	91	87990	49.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	71	148500	50.3	
$ 7 Toluene-d8 (Surr)	98	8.944	8.944	0.000	94	396070	53.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	156248	52.1	
11 Dichlorodifluoromethane	85		1.601				ND	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
14 Butadiene	39		1.936				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
17 Dichlorofluoromethane	67		2.660				ND	
18 Trichlorofluoromethane	101		2.684				ND	
19 Ethanol	45		2.888				ND	
20 Ethyl ether	59		3.049				ND	
21 Acrolein	56		3.219				ND	
22 1,1-Dichloroethene	96	3.353	3.341	0.012	1	1468	0.7429	
23 1,1,2-Trichloro-1,2,2-trif	101		3.414				ND	
24 Acetone	43	3.438	3.426	0.012	75	5421	9.57	
25 Iodomethane	142		3.530				ND	
26 Carbon disulfide	76		3.627				ND	
27 Isopropyl alcohol	45		3.649				ND	
28 Acetonitrile	40		3.795				ND	
29 3-Chloro-1-propene	76		3.913				ND	
30 Methyl acetate	43		3.925				ND	
31 Methylene Chloride	84		4.126				ND	
32 2-Methyl-2-propanol	59		4.381				ND	
33 Acrylonitrile	53		4.503				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
36 Hexane	57		4.984				ND	
37 1,1-Dichloroethane	63	5.202	5.197	0.006	41	6278	1.52	M
38 Vinyl acetate	43		5.239				ND	
39 2-Chloro-1,3-butadiene	53		5.255				ND	
40 Isopropyl ether	45		5.255				ND	
41 Tert-butyl ethyl ether	59		5.735				ND	
42 2,2-Dichloropropane	77		5.939				ND	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	82	76891	30.7	
44 2-Butanone (MEK)	43		5.951				ND	
45 Propionitrile	54		5.979				ND	
46 Ethyl acetate	43		5.991				ND	
47 Methacrylonitrile	41		6.161				ND	
48 Chlorobromomethane	128		6.231				ND	
49 Tetrahydrofuran	42		6.249				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	35	3400	1.03	
52 Cyclohexane	56		6.614				ND	
53 Carbon tetrachloride	117		6.711				ND	
54 1,1-Dichloropropene	75		6.723				ND	
55 Isobutyl alcohol	41		6.900				ND	
56 Benzene	78		6.942				ND	
57 1,2-Dichloroethane	62		7.022				ND	
148 Isooctane	57		7.074				ND	
58 Tert-amyl methyl ether	73		7.092				ND	
59 n-Heptane	43		7.307				ND	
60 n-Butanol	56		7.579				ND	
61 Trichloroethene	130	7.678	7.679	-0.001	91	32586	16.0	
62 Ethyl acrylate	55		7.767				ND	
63 Methylcyclohexane	83		7.922				ND	
64 1,2-Dichloropropane	63		7.952				ND	
66 Methyl methacrylate	69		7.998				ND	
65 1,4-Dioxane	88		8.037				ND	
67 Dibromomethane	93		8.037				ND	
68 Dichlorobromomethane	83		8.232				ND	
69 2-Nitropropane	41		8.418				ND	
70 2-Chloroethyl vinyl ether	63		8.500				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
75 Ethyl methacrylate	69		9.315				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.528	9.528	0.000	95	20482	13.8	
78 1,3-Dichloropropane	76		9.607				ND	
79 2-Hexanone	43		9.662				ND	
80 n-Butyl acetate	43		9.756				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
83 3-Chlorobenzotrifluoride	180		10.398				ND	
84 Chlorobenzene	112		10.428				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.659				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
129 Cyclohexanol	57		11.289				ND	
92 2-Chlorobenzotrifluoride	180		11.304				ND	
93 Isopropylbenzene	105		11.408				ND	
94 Cyclohexanone	55		11.472				ND	
96 1,1,2,2-Tetrachloroethane	83		11.718				ND	
95 Bromobenzene	156		11.724				ND	
97 trans-1,4-Dichloro-2-buten	53		11.754				ND	
98 1,2,3-Trichloropropane	110		11.773				ND	
99 N-Propylbenzene	120		11.827				ND	
100 2-Chlorotoluene	126		11.913				ND	
101 3-Chlorotoluene	126		11.980				ND	
102 1,3,5-Trimethylbenzene	105		12.010				ND	
103 4-Chlorotoluene	126		12.034				ND	
104 tert-Butylbenzene	119		12.326				ND	
105 Pentachloroethane	167		12.330				ND	
106 1,2,4-Trimethylbenzene	105		12.381				ND	
107 1,2-dichloro-4-(trifluorom	214		12.424				ND	
108 sec-Butylbenzene	105		12.551				ND	
109 1,3-Dichlorobenzene	146		12.667				ND	
110 4-Isopropyltoluene	119		12.710				ND	
112 1,2,3-Trimethylbenzene	105		12.768				ND	
111 1,4-Dichlorobenzene	146		12.770				ND	
113 2,4-Dichloro-1-(triflourom	214		12.795				ND	
114 2,5-Dichlorobenzotrifluori	214		12.831				ND	
115 Benzyl chloride	91		12.853				ND	
116 n-Butylbenzene	91		13.117				ND	
117 1,2-Dichlorobenzene	146		13.129				ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914				ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060				ND	
120 1,3,5-Trichlorobenzene	180		14.082				ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.474				ND	
122 1,2,4-Trichlorobenzene	180		14.741				ND	
123 Hexachlorobutadiene	225		14.887				ND	
124 Naphthalene	128		15.009				ND	
125 1,2,3-Trichlorobenzene	180		15.234				ND	
126 2,4,5-Trichlorotoluene	159		16.007				ND	
127 2,3,6-Trichlorotoluene	159		16.110				ND	
128 2-Methylnaphthalene	142		16.126				ND	
152 Formaldehyde TIC	1		0.000				ND	
146 3,4-Dichlorotoluene	1		0.000				ND	
147 2,6-Dichlorotoluene	1		0.000				ND	
150 Tert-butyl ethyl ether (TI	1		0.000				ND	
143 2,5-Dichlorotoluene	1		0.000				ND	
149 Isopropyl ether TIC	1		0.000				ND	
151 Tert-amyl methyl ether (TI	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
153 1,2 Epoxybutane TIC	1		0.000				ND	
145 2,3-Dichlorotoluene	1		0.000				ND	
144 2,4-Dichlorotoluene	1		0.000				ND	
S 130 1,2-Dichloroethene, Total	96				0		30.7	
S 131 Xylenes, Total	106		1.000				ND	
S 132 1,3-Dichloropropene, Total	1		0.000				ND	
T 133 Tetrahydrofuran TIC	42		0.000				ND	
T 134 Methyl n-amyl ketone TIC	43		0.000				ND	
T 135 Mesityl oxide TIC	83		0.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

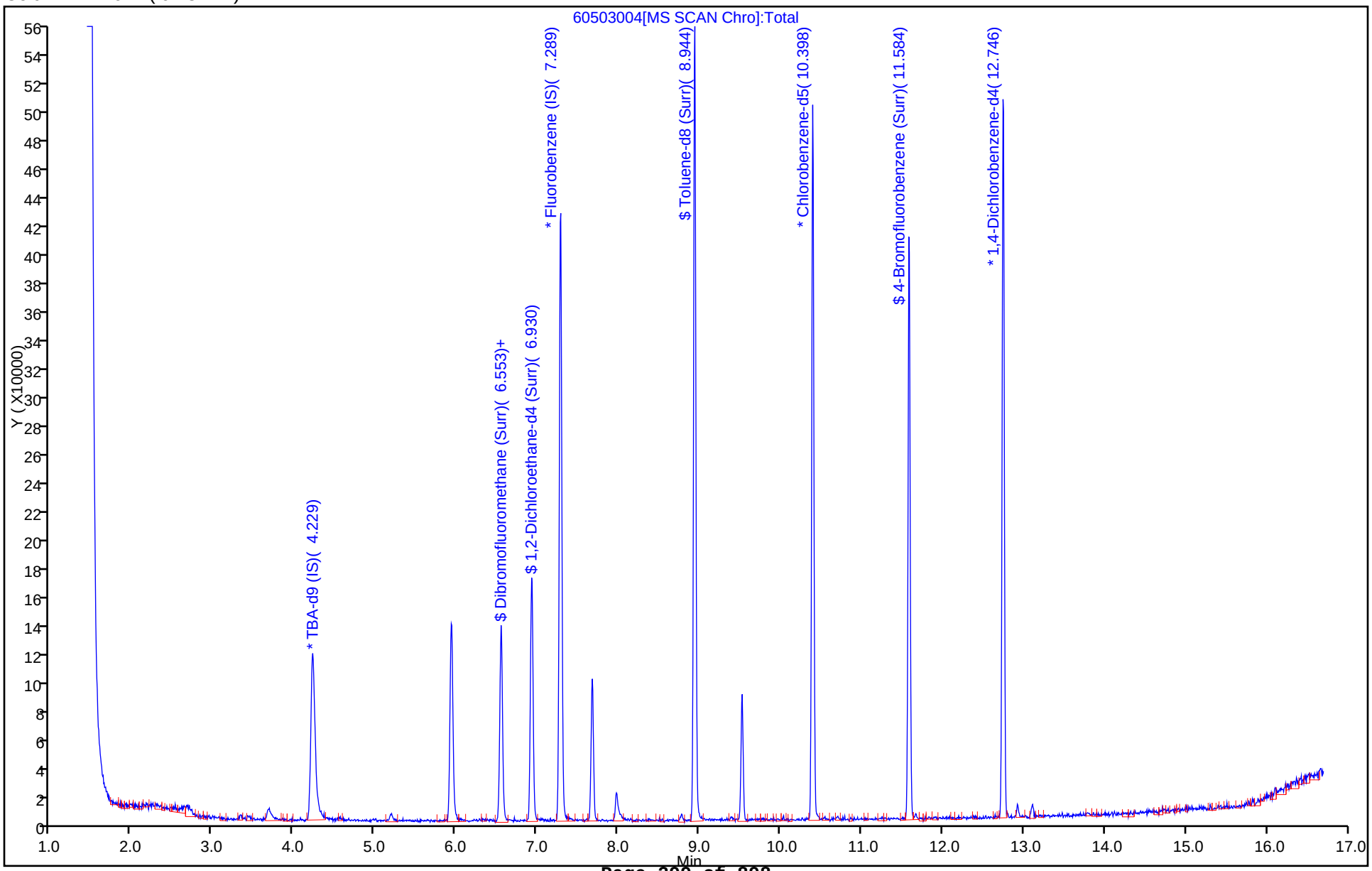
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 03-May-2015 12:56:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D				
Injection Date:	03-May-2015 12:36:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-D-8	Lab Sample ID:	180-43359-8	Worklist Smp#:	4
Client ID:	HD-MW-95-0/1-0				
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)

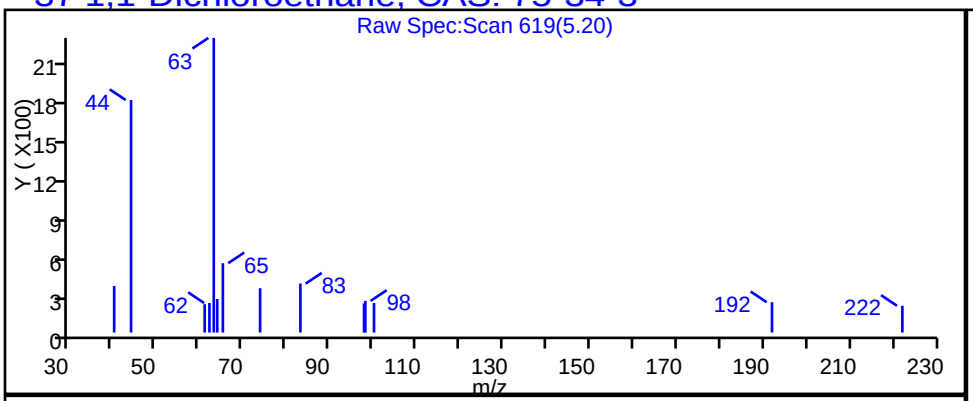


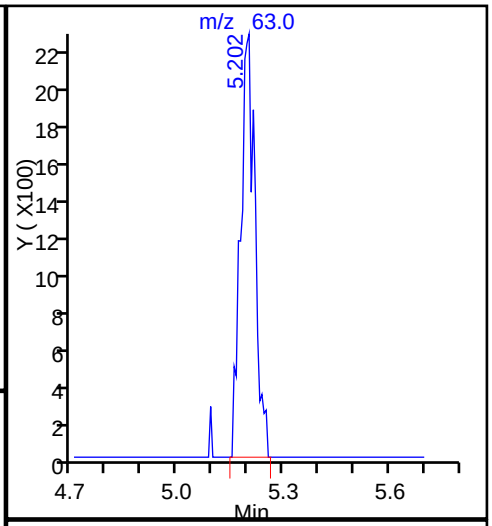
Report Date: 03-May-2015 12:56:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

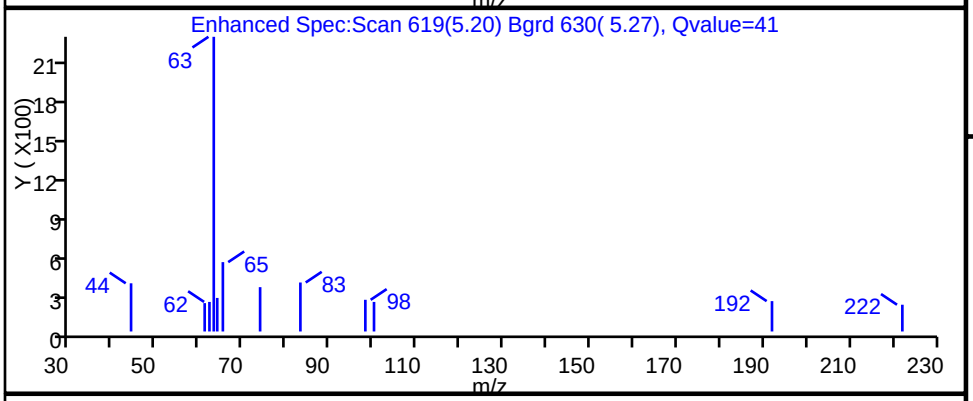
TestAmerica Pittsburgh

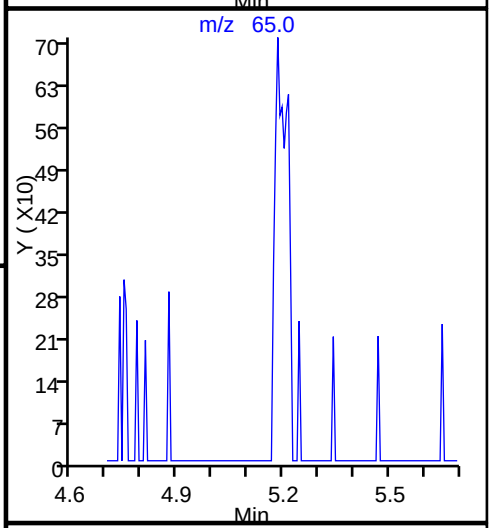
Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D				
Injection Date:	03-May-2015 12:36:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-8	Lab Sample ID:	180-43359-8		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

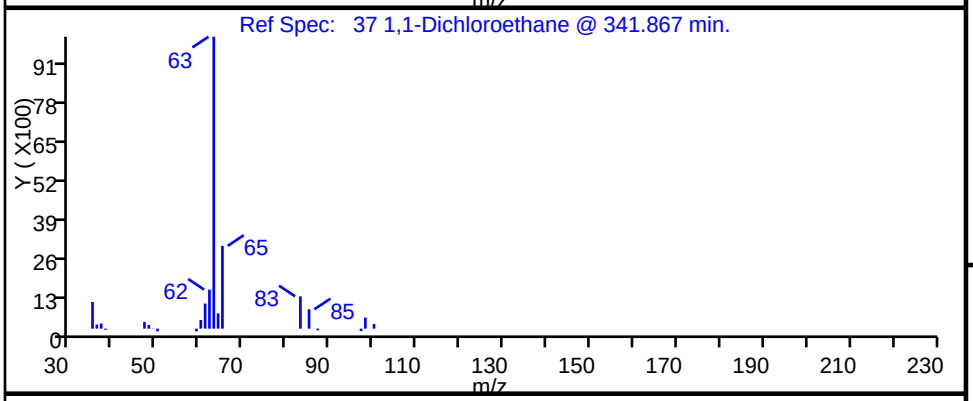
37 1,1-Dichloroethane, CAS: 75-34-3

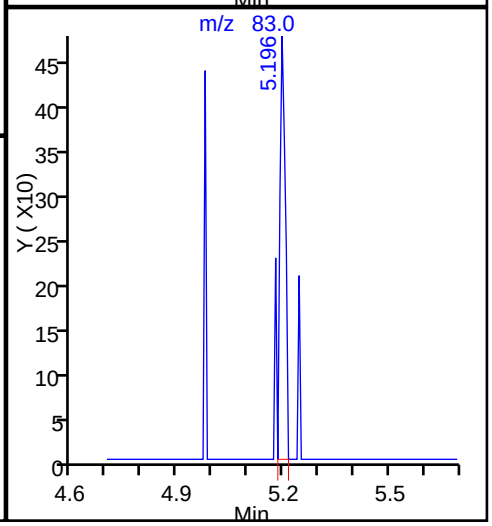


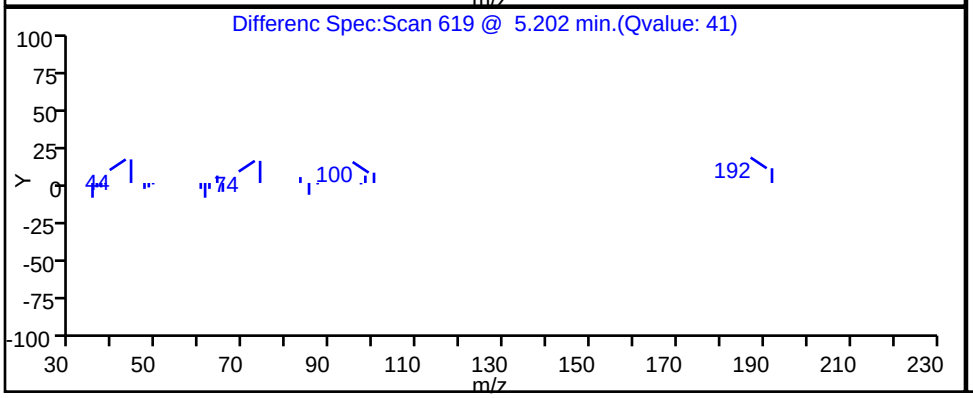










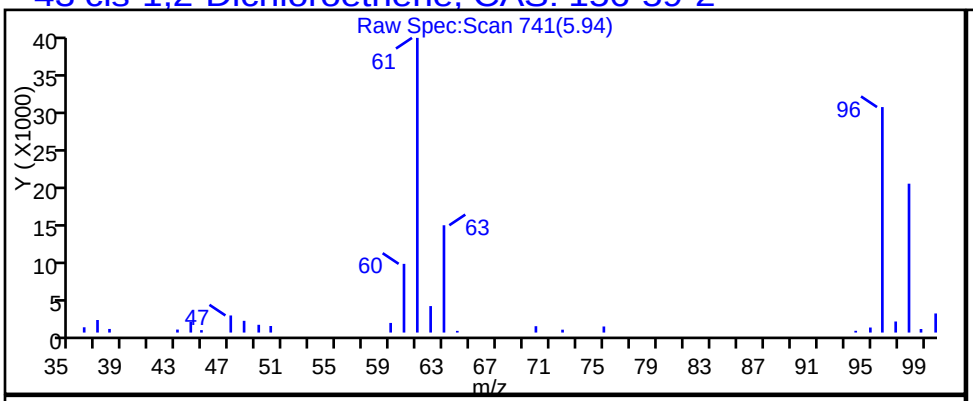


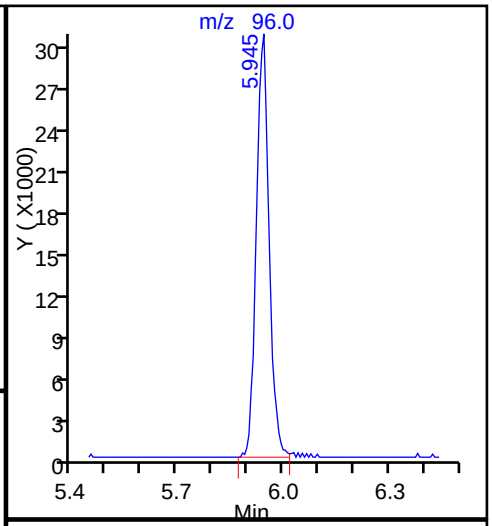
Report Date: 03-May-2015 12:56:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

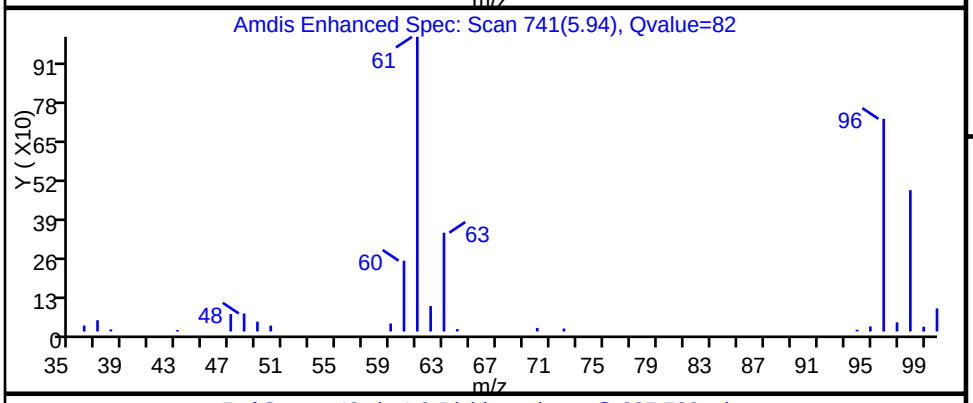
TestAmerica Pittsburgh

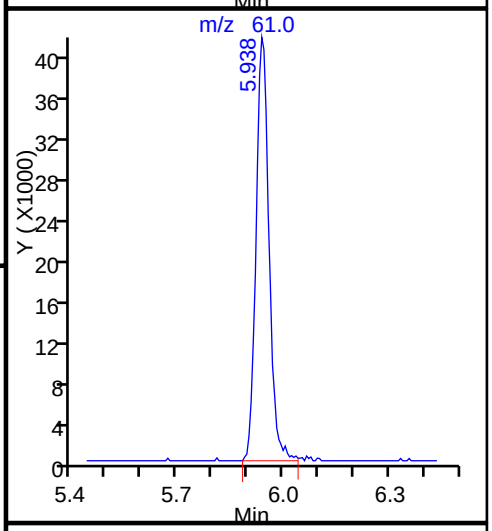
Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D				
Injection Date:	03-May-2015 12:36:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-8	Lab Sample ID:	180-43359-8		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

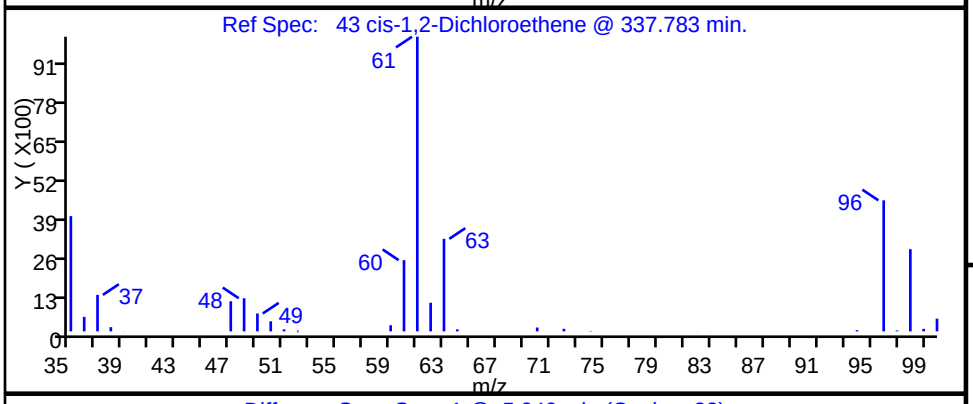
43 cis-1,2-Dichloroethene, CAS: 156-59-2

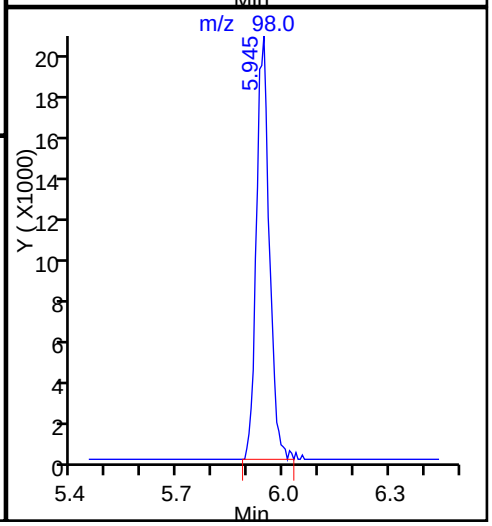


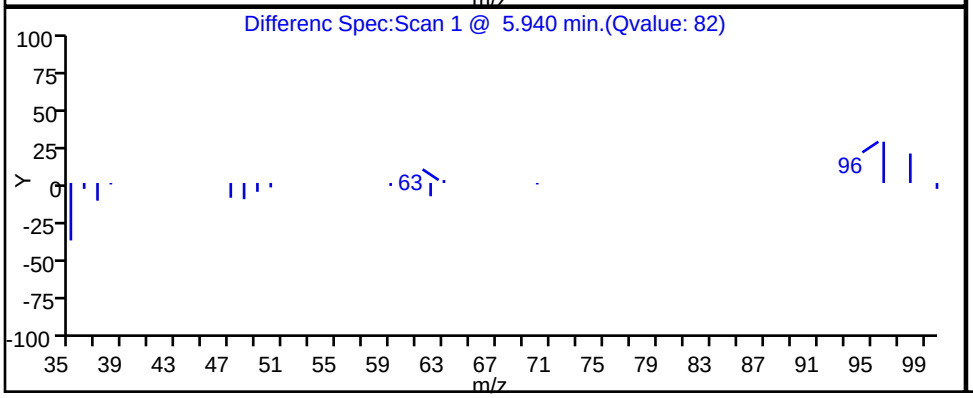










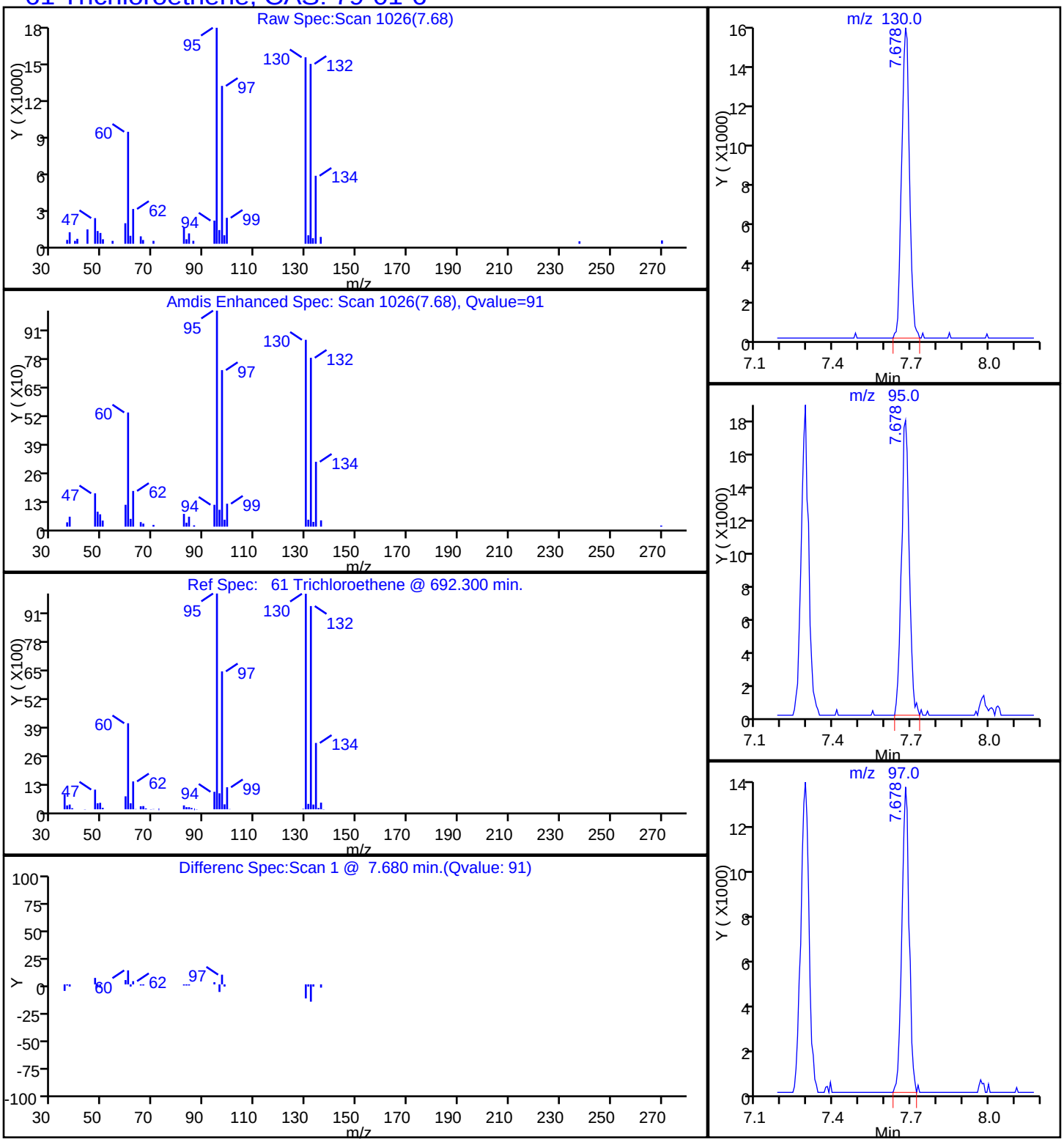


Report Date: 03-May-2015 12:56:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D				
Injection Date:	03-May-2015 12:36:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-8	Lab Sample ID:	180-43359-8		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

61 Trichloroethene, CAS: 79-01-6



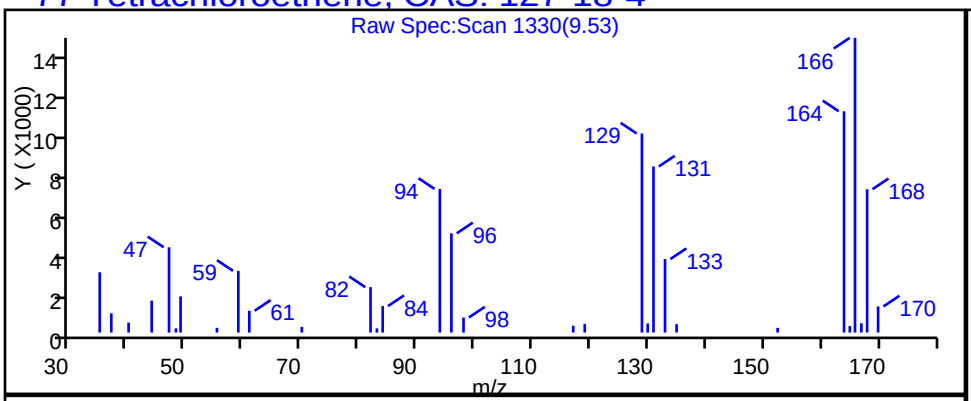
Report Date: 03-May-2015 12:56:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

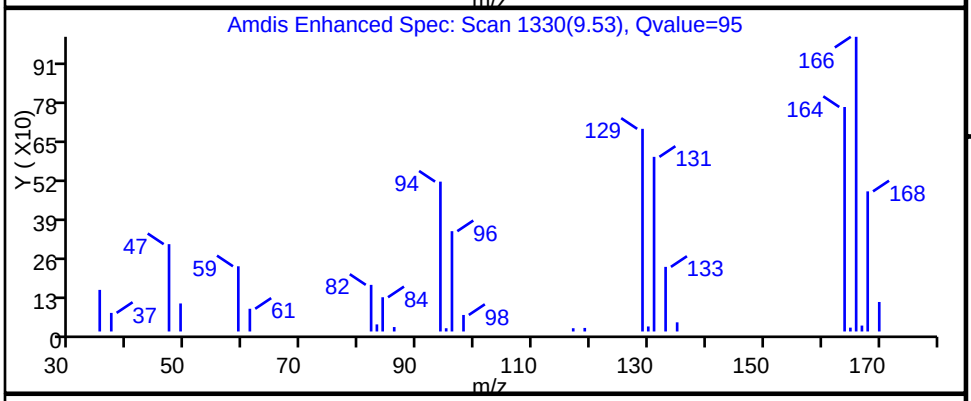
TestAmerica Pittsburgh

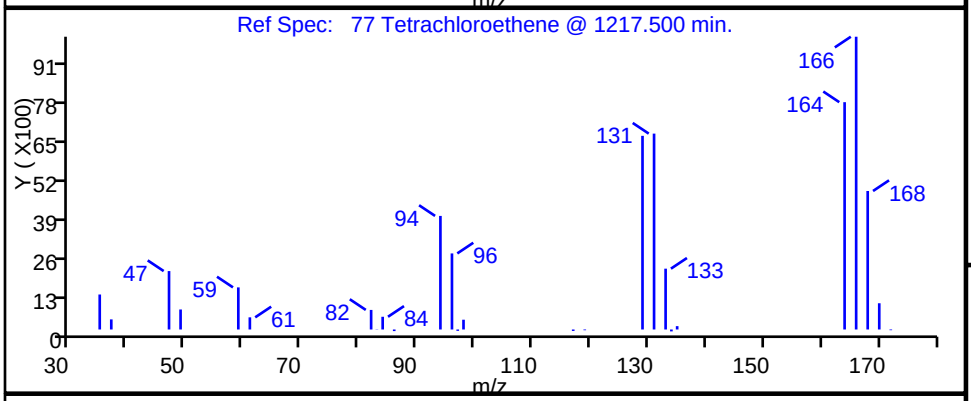
Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D

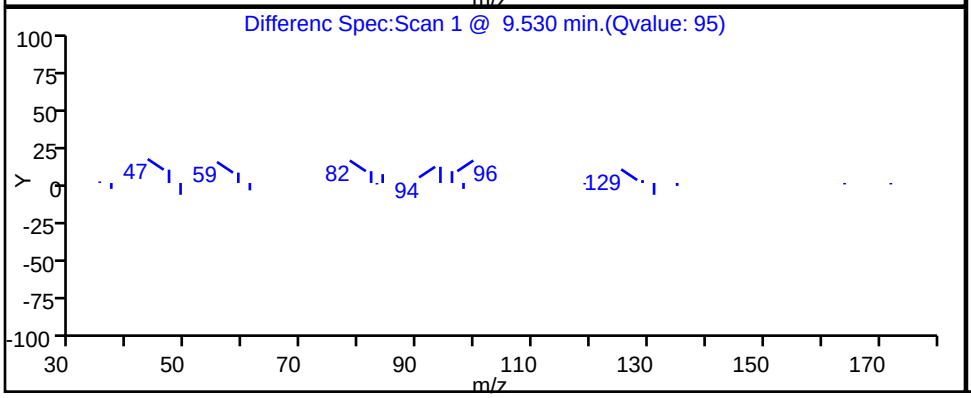
Injection Date:	03-May-2015 12:36:30	Instrument ID:	CHHP6
Lims ID:	180-43359-D-8	Lab Sample ID:	180-43359-8
Client ID:	HD-MW-95-0/1-0		
Operator ID:	001562	ALS Bottle#:	4 Worklist Smp#: 4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

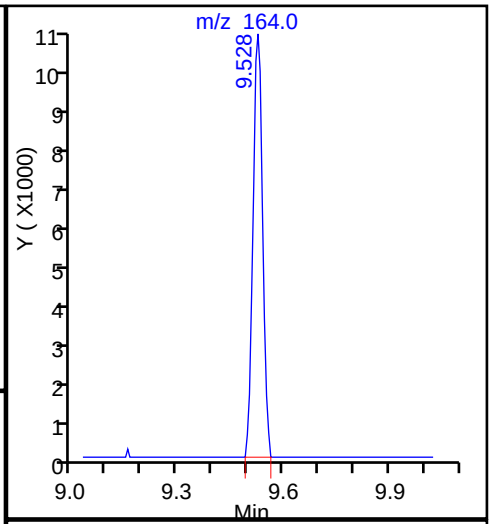
77 Tetrachloroethene, CAS: 127-18-4

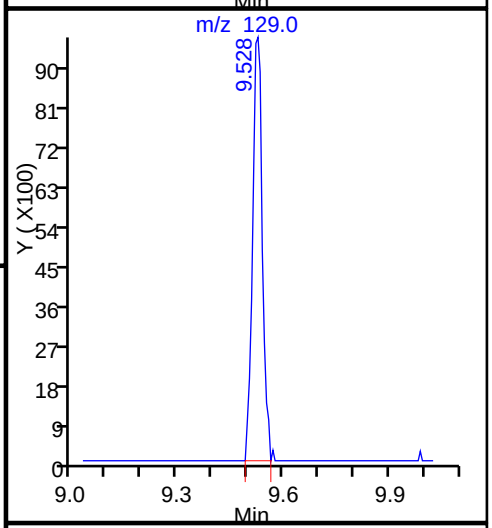


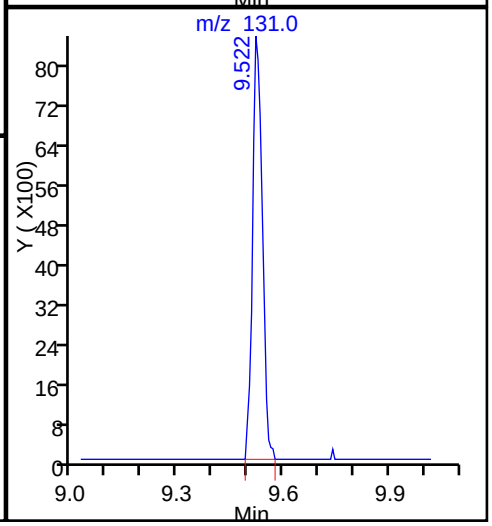












Manual Integration/User Assign Peak Report

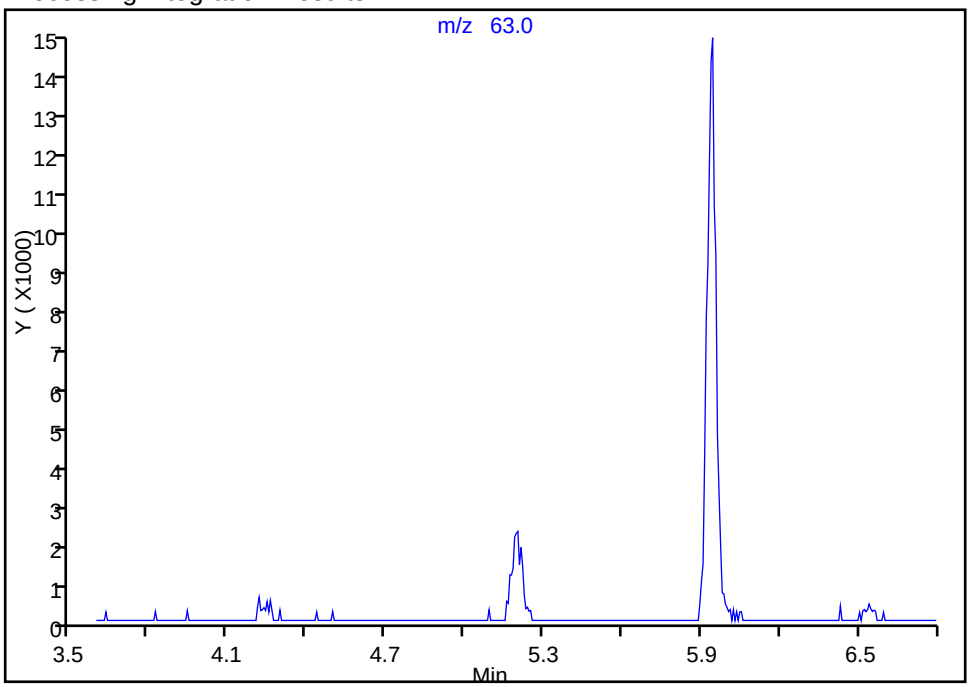
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503004.D				
Injection Date:	03-May-2015 12:36:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-8	Lab Sample ID:	180-43359-8		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

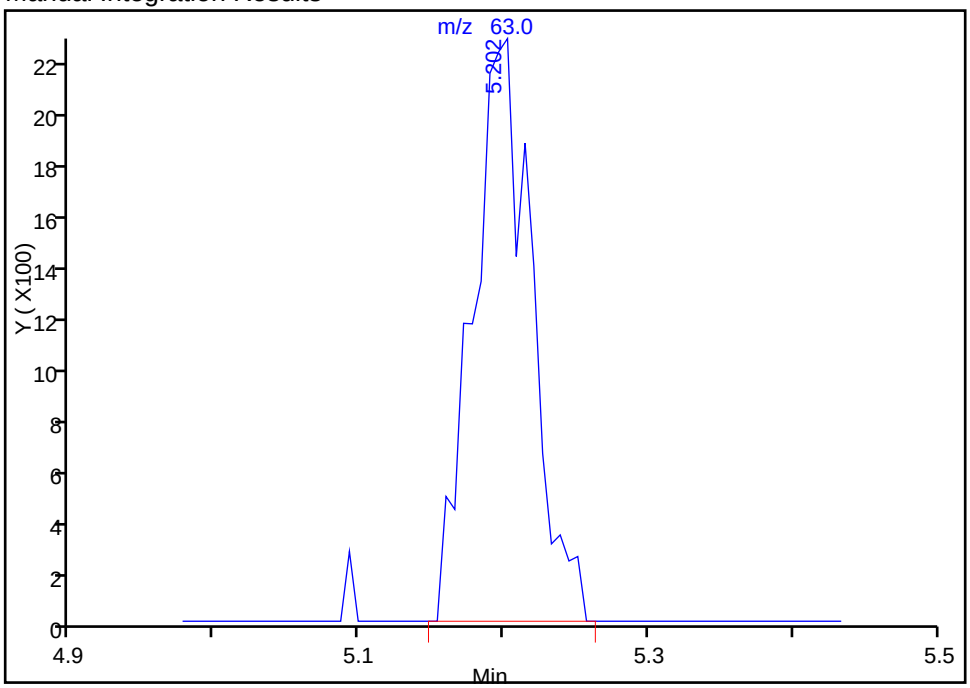
Not Detected
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.20
Area: 6278
Amount: 1.516393
Amount Units: ng



Reviewer: fergusond, 03-May-2015 12:56:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 | Lab Sample ID: 180-43359-9

Matrix: Water | Lab File ID: 60505029.D

Analysis Method: 8260C | Date Collected: 04/22/2015 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/05/2015 22:39

Soil Aliquot Vol: | Dilution Factor: 2.5

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

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

Analysis Batch No.: 140579 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.5	U	2.5	0.71
75-01-4	Vinyl chloride	2.5	U	2.5	0.57
74-83-9	Bromomethane	2.5	U	2.5	0.78
75-00-3	Chloroethane	2.5	U	2.5	0.54
75-35-4	1,1-Dichloroethene	1.9	J	2.5	0.74
67-64-1	Acetone	13	U	13	6.3
75-15-0	Carbon disulfide	2.5	U	2.5	0.53
75-09-2	Methylene Chloride	1.8	J	2.5	0.31
156-60-5	trans-1,2-Dichloroethene	0.54	J	2.5	0.42
1634-04-4	Methyl tert-butyl ether	2.5	U	2.5	0.46
75-34-3	1,1-Dichloroethane	1.3	J	2.5	0.29
156-59-2	cis-1,2-Dichloroethene	91		2.5	0.59
74-97-5	Bromochloromethane	2.5	U	2.5	0.45
78-93-3	2-Butanone (MEK)	13	U	13	1.4
67-66-3	Chloroform	0.45	J	2.5	0.43
71-55-6	1,1,1-Trichloroethane	6.8		2.5	0.72
56-23-5	Carbon tetrachloride	2.5	U	2.5	0.34
71-43-2	Benzene	2.5	U	2.5	0.26
107-06-2	1,2-Dichloroethane	2.5	U	2.5	0.53
79-01-6	*Trichloroethene*	*210*	*E*	*2.5*	*0.36*
78-87-5	1,2-Dichloropropane	2.5	U	2.5	0.24
75-27-4	Bromodichloromethane	2.5	U	2.5	0.33
10061-01-5	cis-1,3-Dichloropropene	2.5	U	2.5	0.47
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	13	1.3
108-88-3	Toluene	2.5	U	2.5	0.38
10061-02-6	trans-1,3-Dichloropropene	2.5	U	2.5	0.37
79-00-5	1,1,2-Trichloroethane	2.5	U	2.5	0.50
127-18-4	*Tetrachloroethene*	*470*	*E*	*2.5*	*0.37*
591-78-6	2-Hexanone	13	U	13	0.40
124-48-1	Dibromochloromethane	2.5	U	2.5	0.34
106-93-4	1,2-Dibromoethane (EDB)	2.5	U	2.5	0.45
108-90-7	Chlorobenzene	2.5	U	2.5	0.34
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.69
100-41-4	Ethylbenzene	2.5	U	2.5	0.57
1330-20-7	Xylenes, Total	7.5	U	7.5	1.2
100-42-5	Styrene	2.5	U	2.5	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 | Lab Sample ID: 180-43359-9

Matrix: Water | Lab File ID: 60505029.D

Analysis Method: 8260C | Date Collected: 04/22/2015 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/05/2015 22:39

Soil Aliquot Vol: | Dilution Factor: 2.5

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

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

Analysis Batch No.: 140579 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.5	U	2.5	0.48
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.50
107-13-1	Acrylonitrile	50	U	50	1.4
123-91-1	1,4-Dioxane	500	U	500	86

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D
Lims ID: 180-43359-D-9 Lab Sample ID: 180-43359-9
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 05-May-2015 22:39:30 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 2.5000
Sample Info: 180-43359-D-9, 2.5x
Misc. Info.: 180-0006773-029
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 06-May-2015 07:56:30 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: fergusond Date: 06-May-2015 07:56:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.230	4.239	-0.009	95	183975	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.286	0.004	98	355808	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.401	-0.002	92	75932	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.743	0.004	97	112545	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.547	0.007	90	75118	51.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	71	139507	56.7	
$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	95	336006	52.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.001	79	130204	49.7	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.894				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96	3.361	3.341	0.020	92	6320	3.84	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84	4.133	4.132	0.001	95	7253	3.63	
33 Acrylonitrile	53		4.497				ND	
34 trans-1,2-Dichloroethene	96	4.577	4.558	0.019	92	1995	1.09	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.198	5.197	0.001	1	8916	2.58	M
43 cis-1,2-Dichloroethene	96	5.946	5.945	0.001	82	378404	181.3	
44 2-Butanone (MEK)	43		5.951				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.378	6.371	0.007	91	3009	0.9028	
51 1,1,1-Trichloroethane	97	6.542	6.541	0.001	96	37087	13.5	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.680	7.679	0.001	90	721282	426.0	E
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.529	9.522	0.007	86	1214329	937.1	E
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

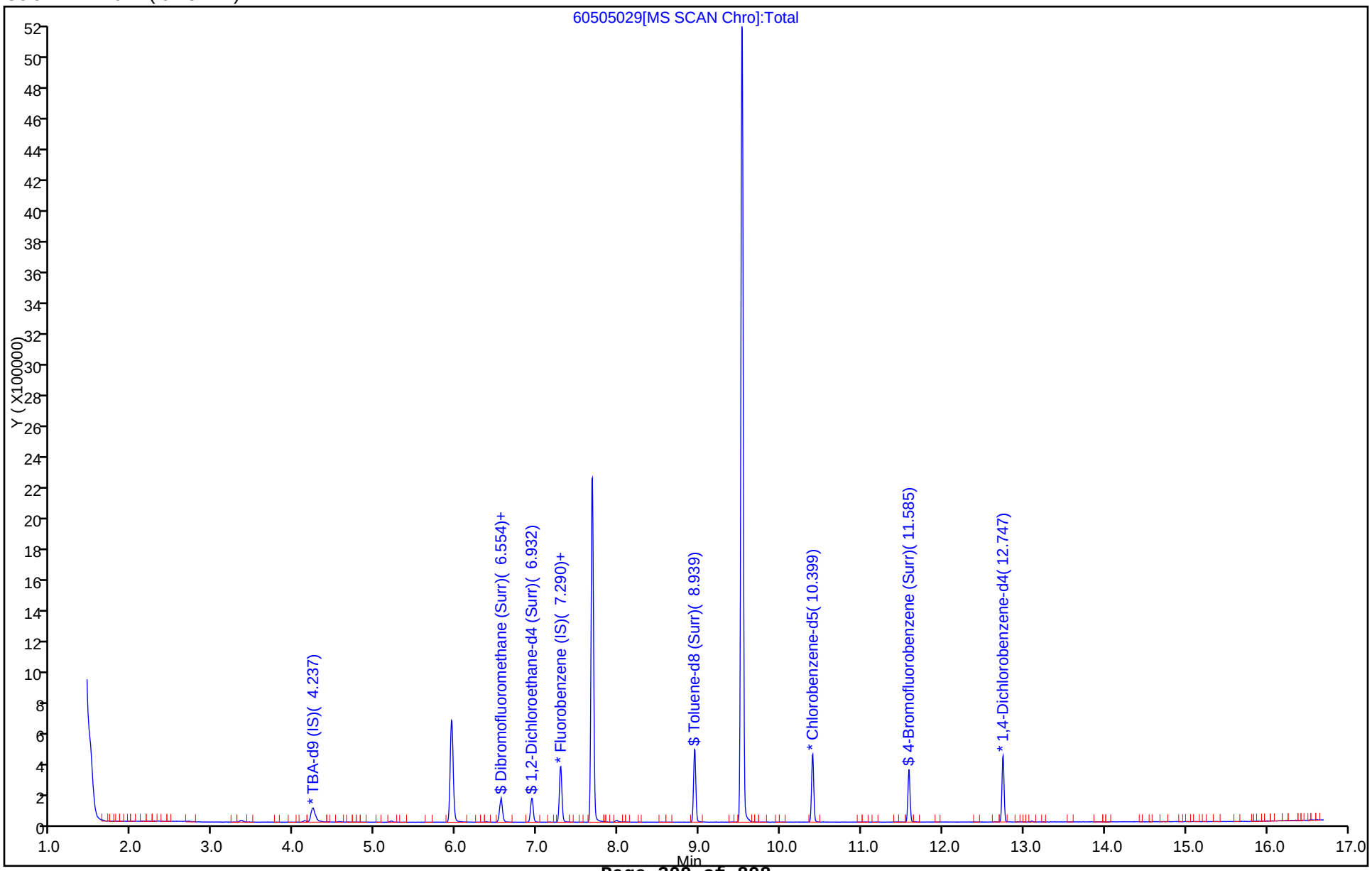
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D				
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9	Worklist Smp#:	29
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.5000	ALS Bottle#:	28
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

Injection Date: 05-May-2015 22:39:30 Instrument ID: CHHP6

Lims ID: 180-43359-D-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

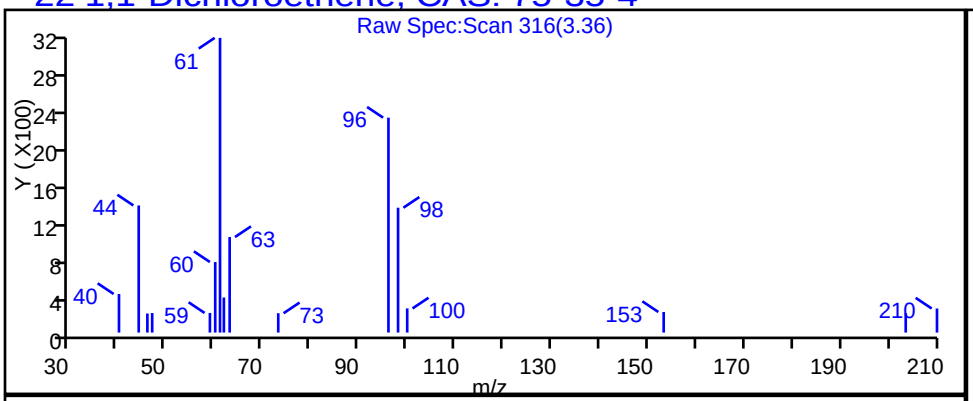
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 29

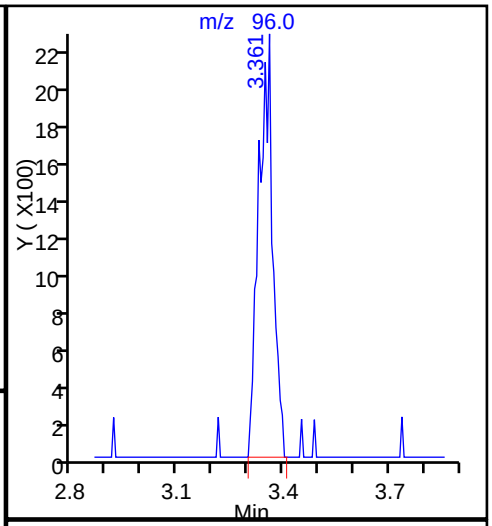
Purge Vol: 5.000 mL Dil. Factor: 2.5000

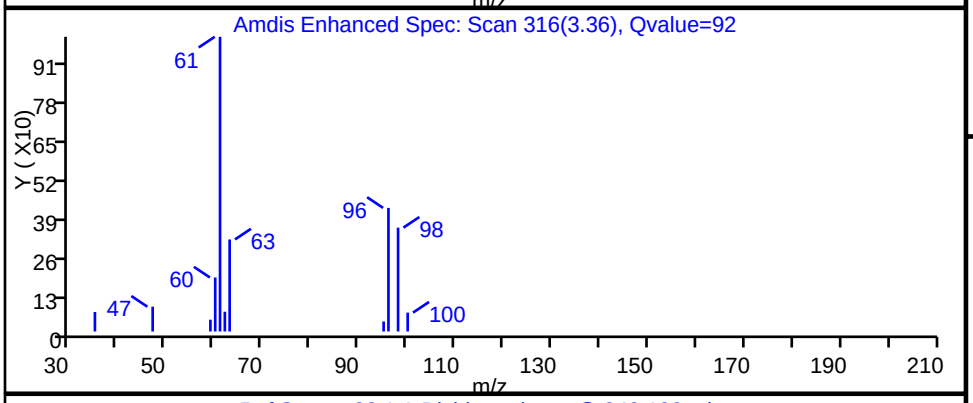
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

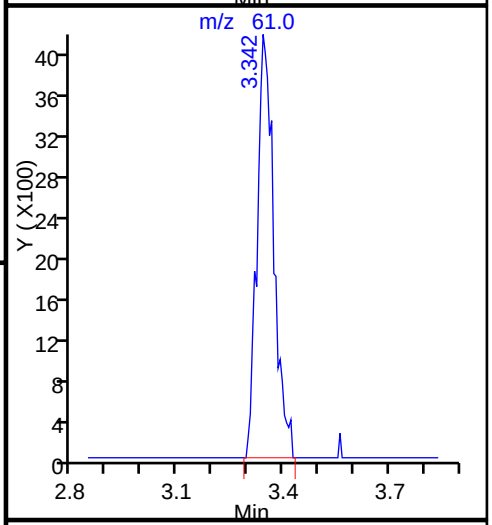
Column: DB-624 (0.18 mm) Detector MS SCAN

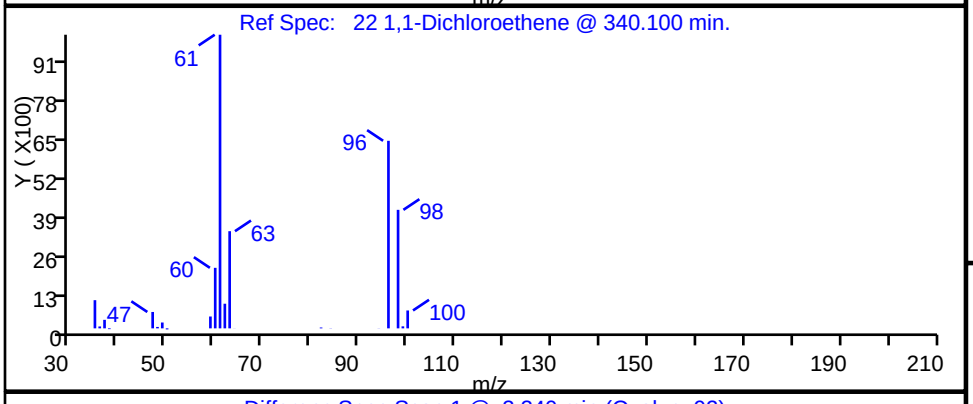
22 1,1-Dichloroethene, CAS: 75-35-4

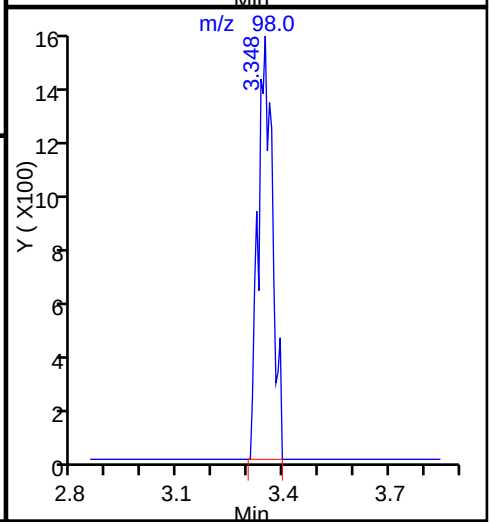


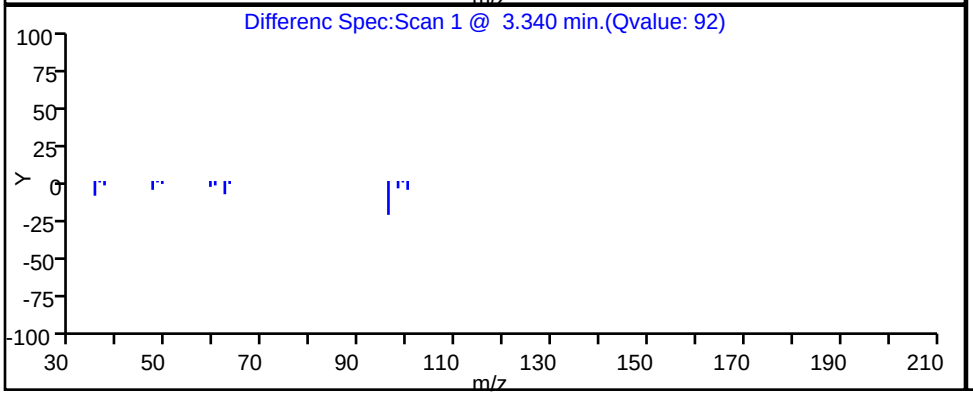










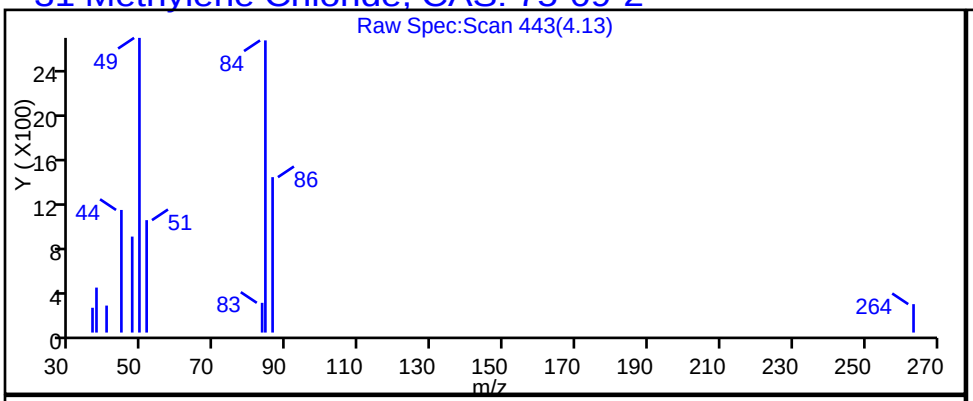


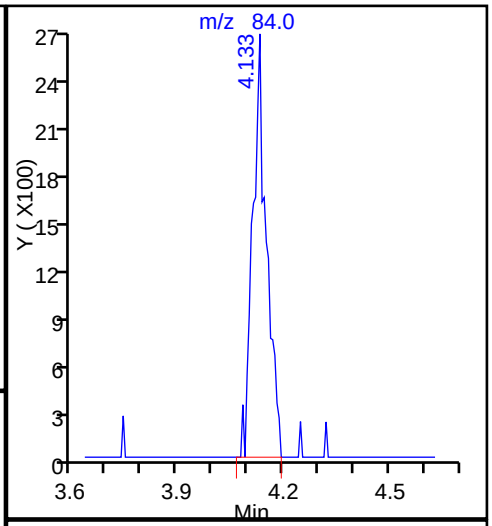
Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

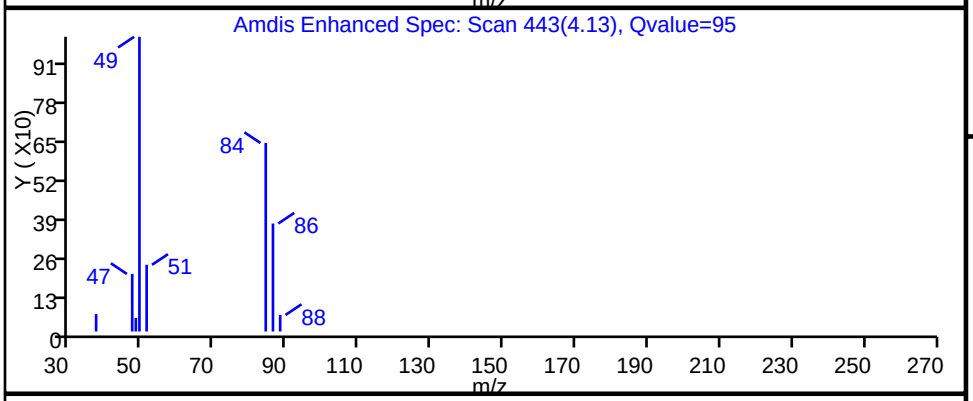
TestAmerica Pittsburgh

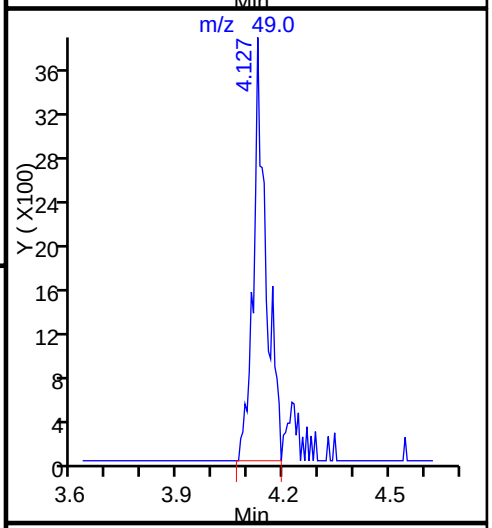
Data File:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D		
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	28 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

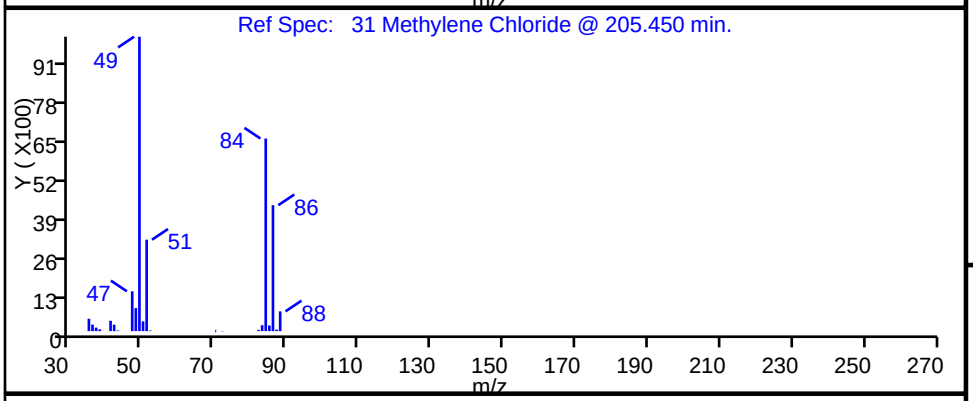
31 Methylene Chloride, CAS: 75-09-2

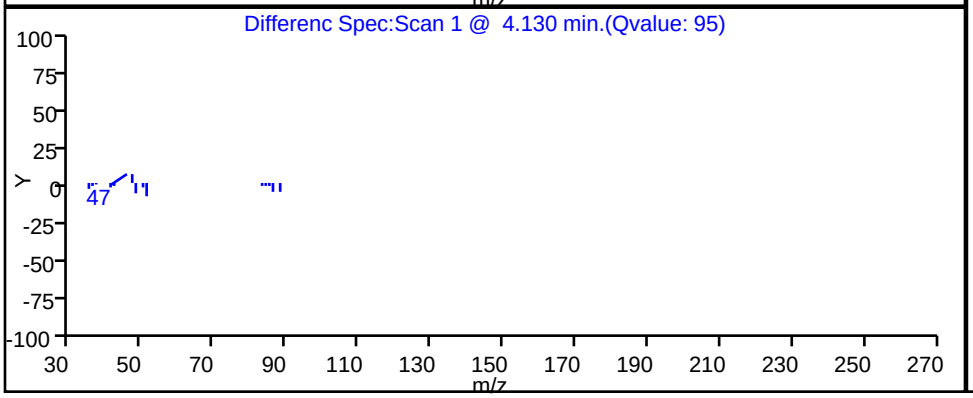


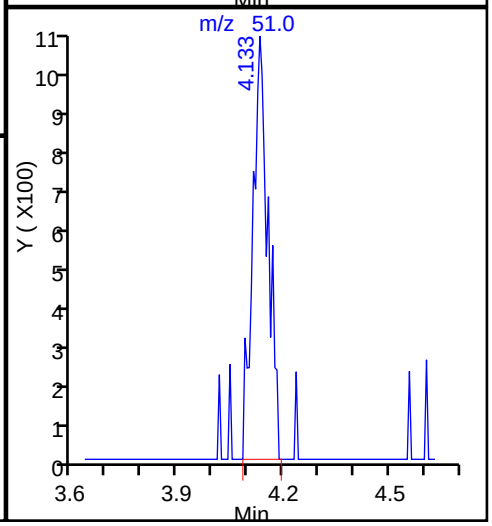










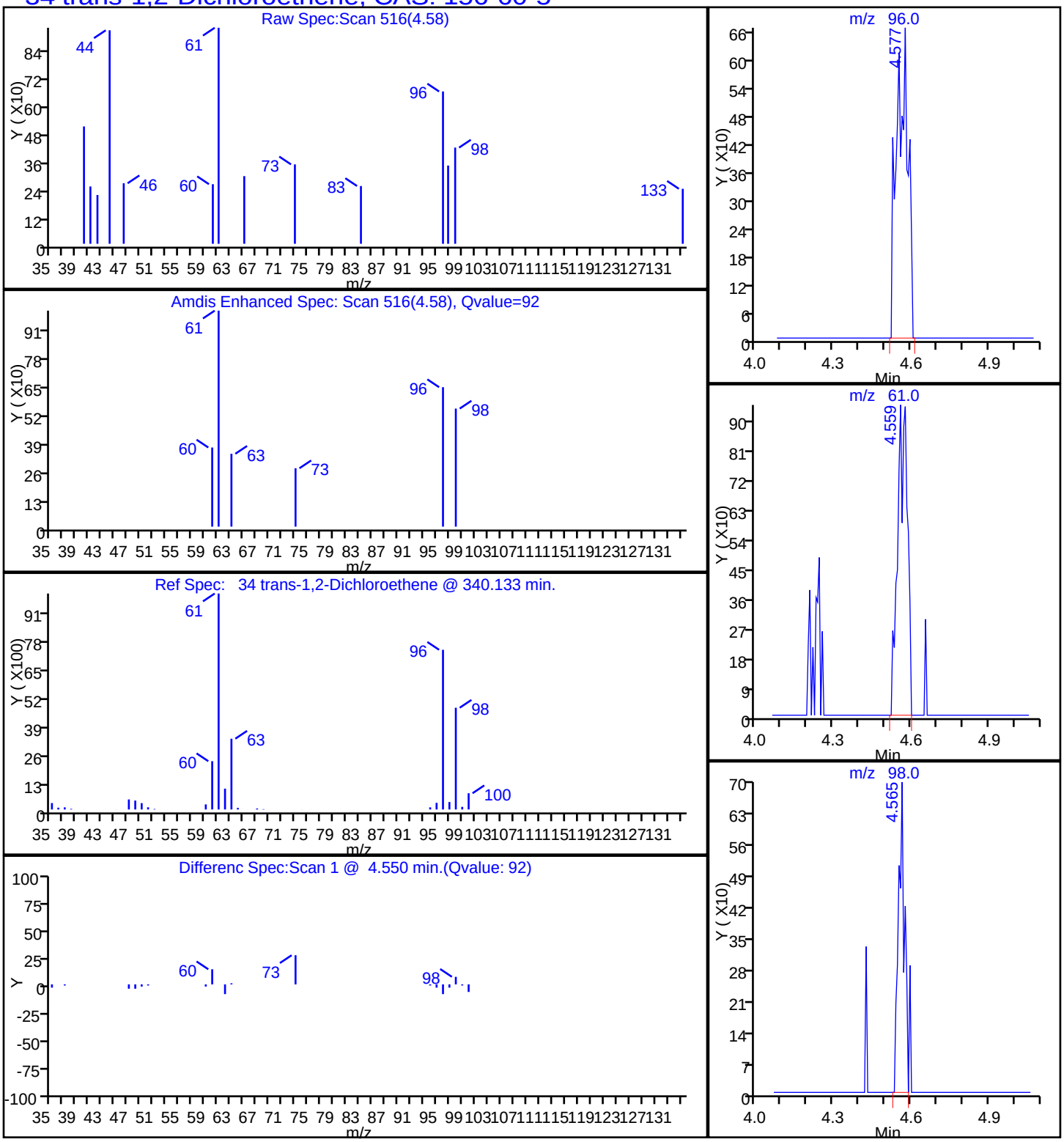


Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D				
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

Injection Date: 05-May-2015 22:39:30 Instrument ID: CHHP6

Lims ID: 180-43359-D-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

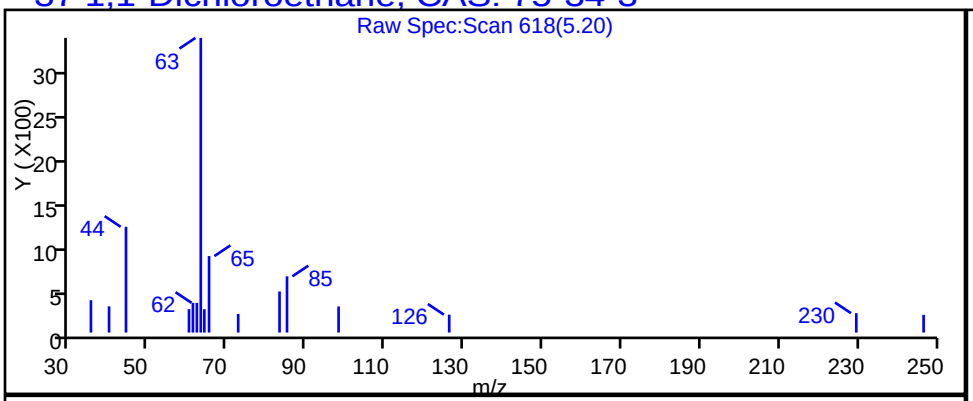
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 29

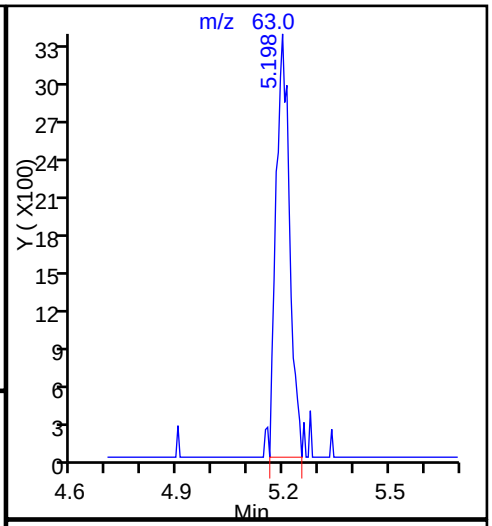
Purge Vol: 5.000 mL Dil. Factor: 2.5000

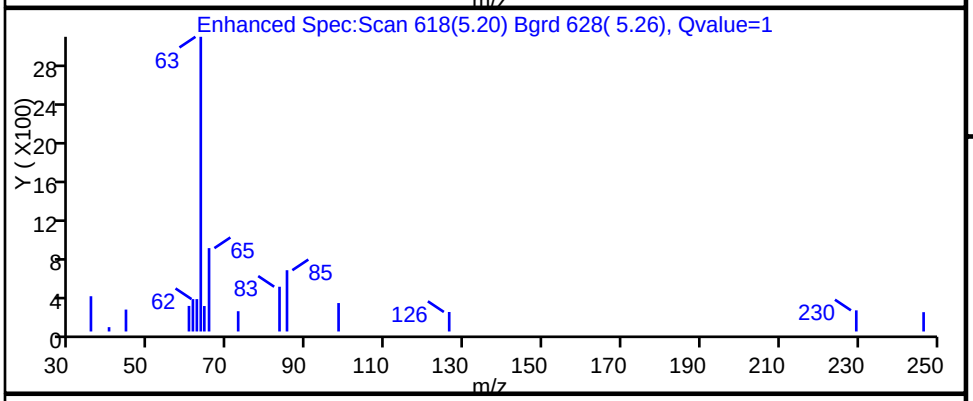
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

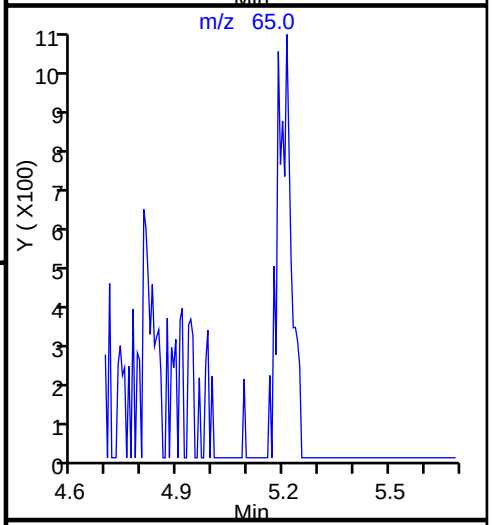
Column: DB-624 (0.18 mm) Detector MS SCAN

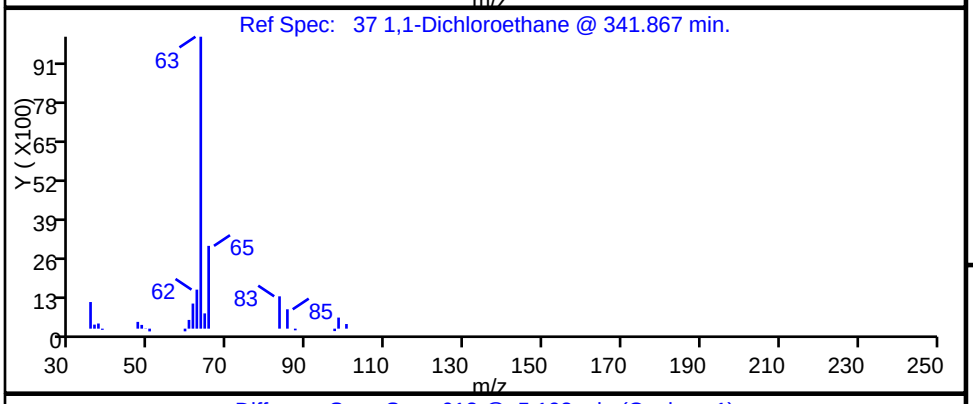
37 1,1-Dichloroethane, CAS: 75-34-3

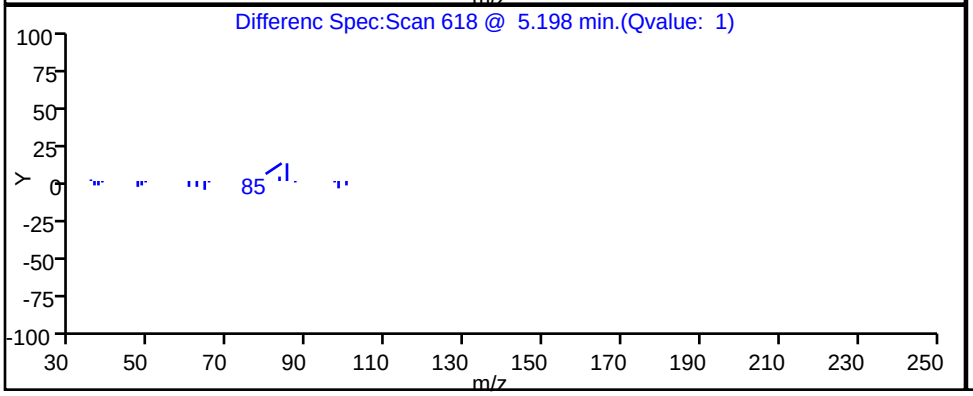


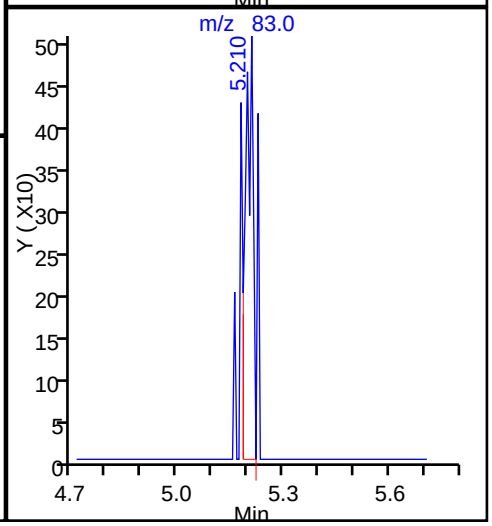












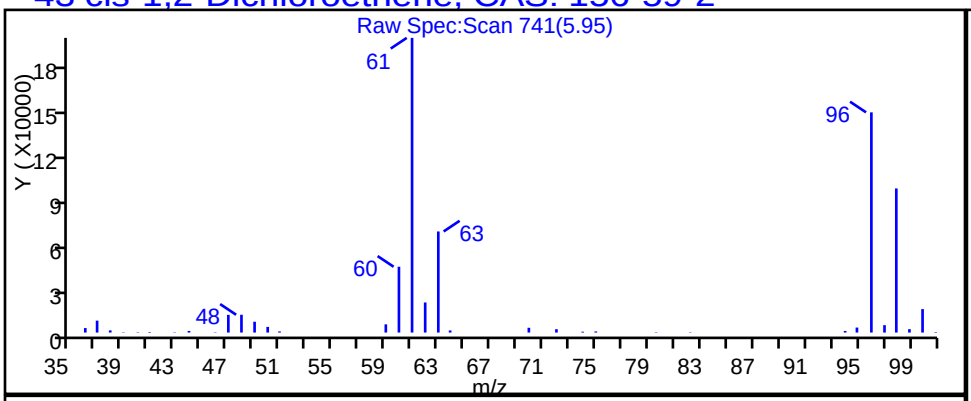
Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

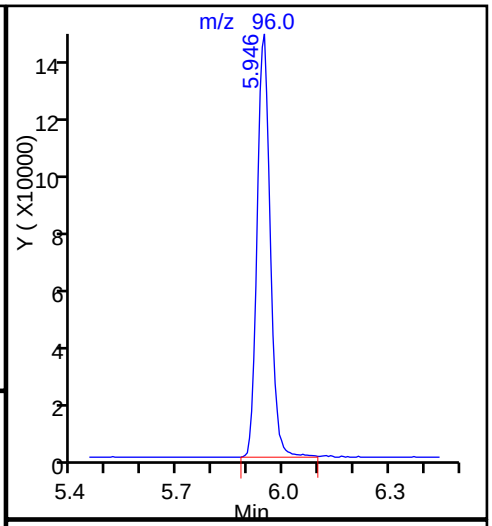
TestAmerica Pittsburgh

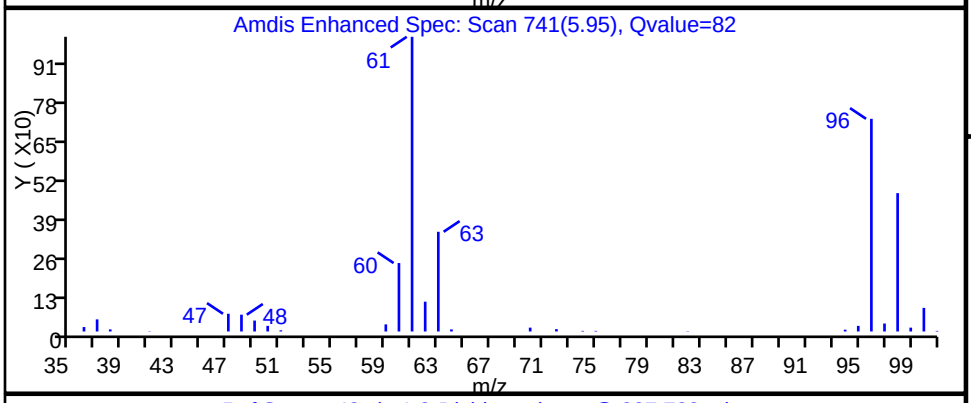
Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

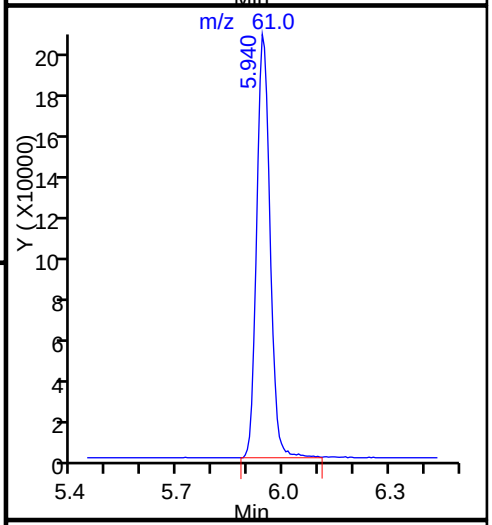
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

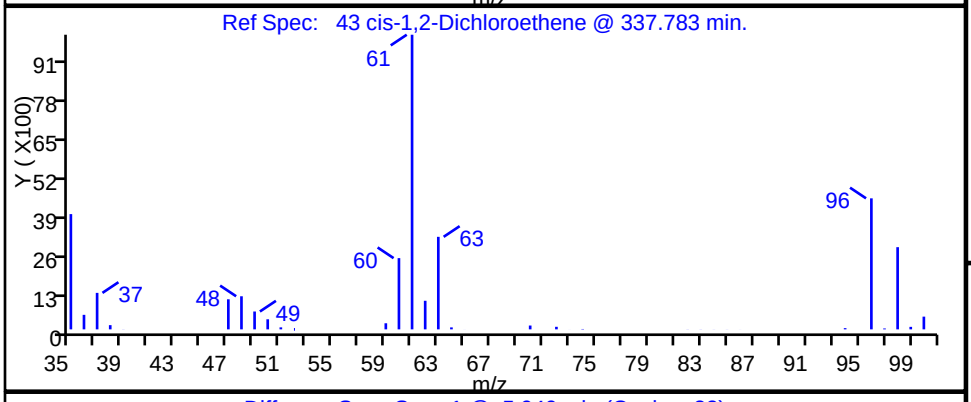
43 cis-1,2-Dichloroethene, CAS: 156-59-2

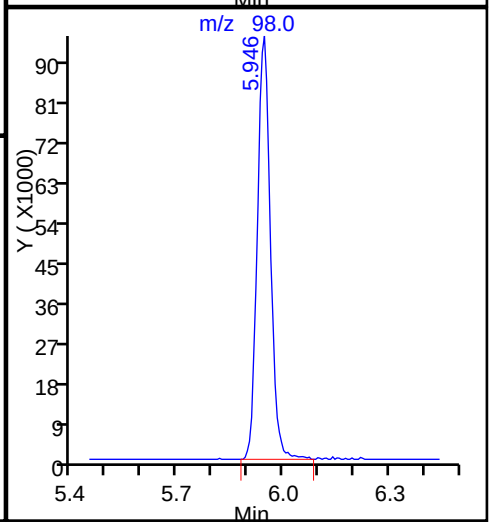


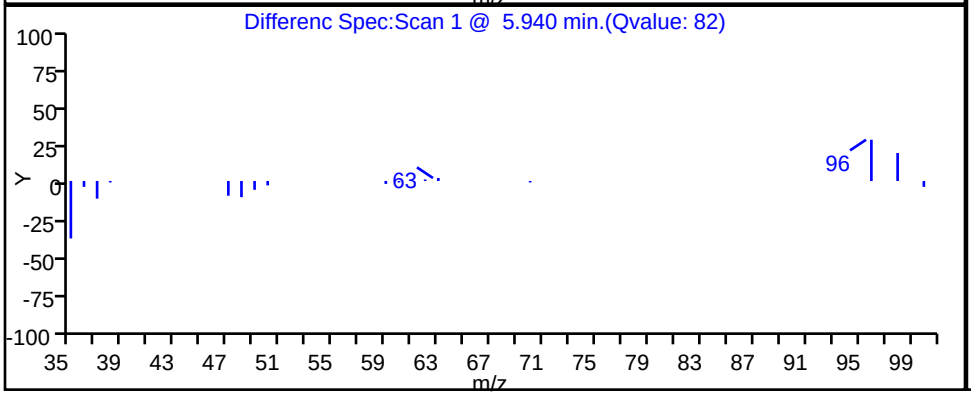












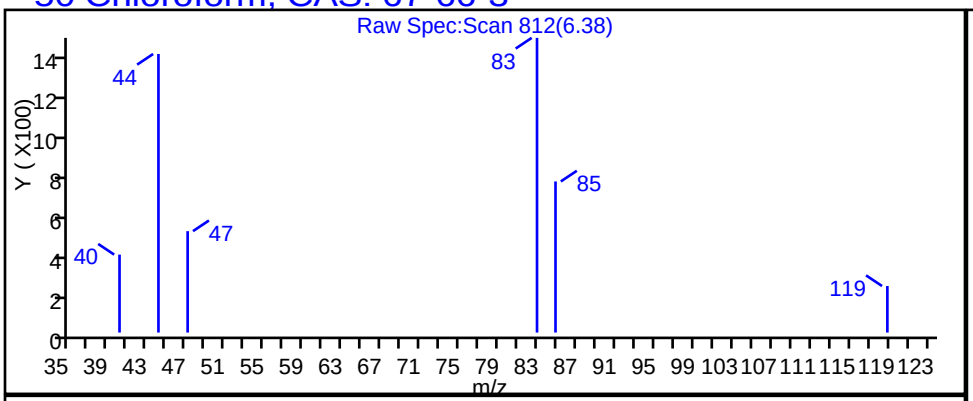
Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

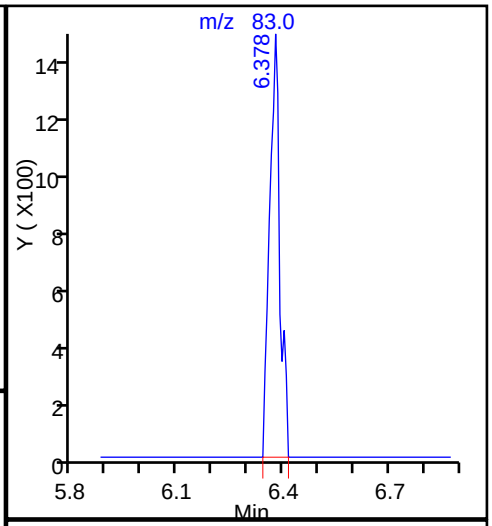
TestAmerica Pittsburgh

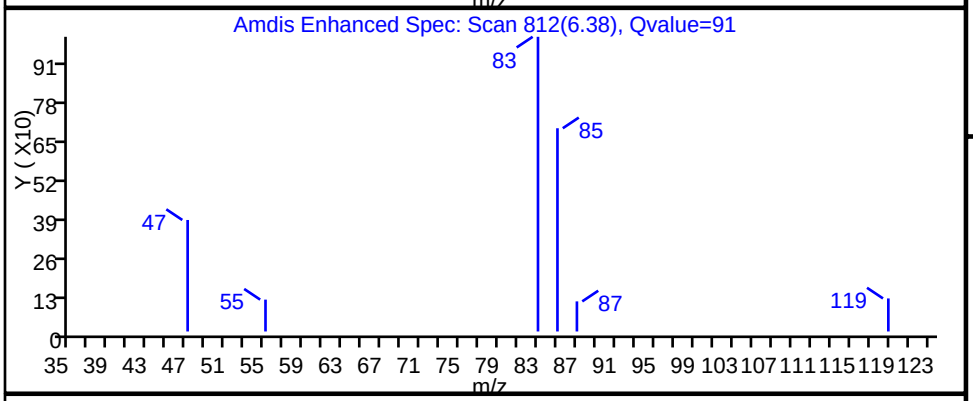
Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

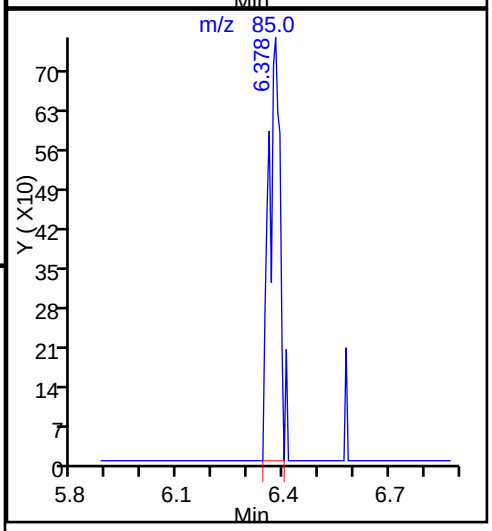
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

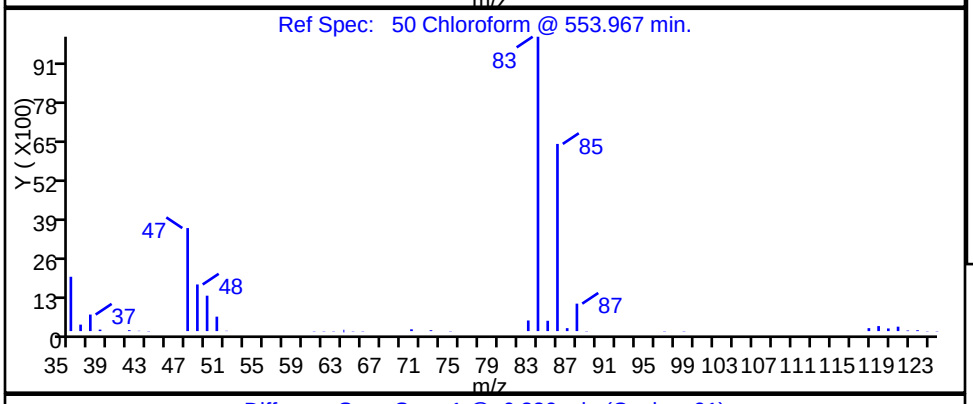
50 Chloroform, CAS: 67-66-3

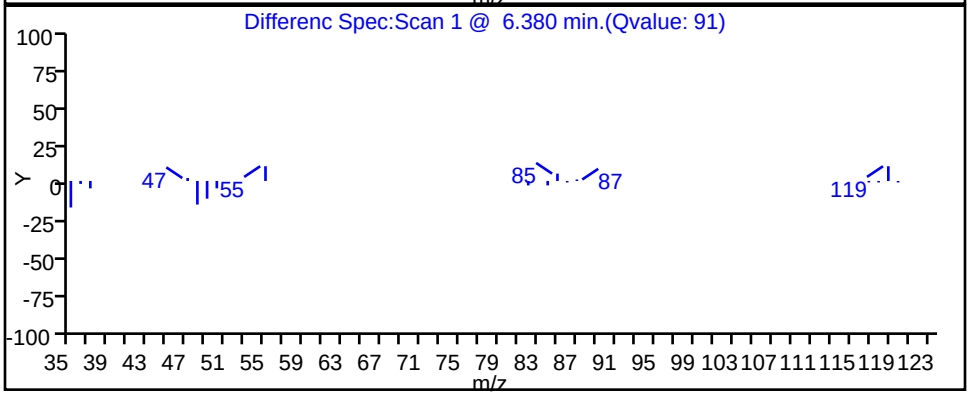












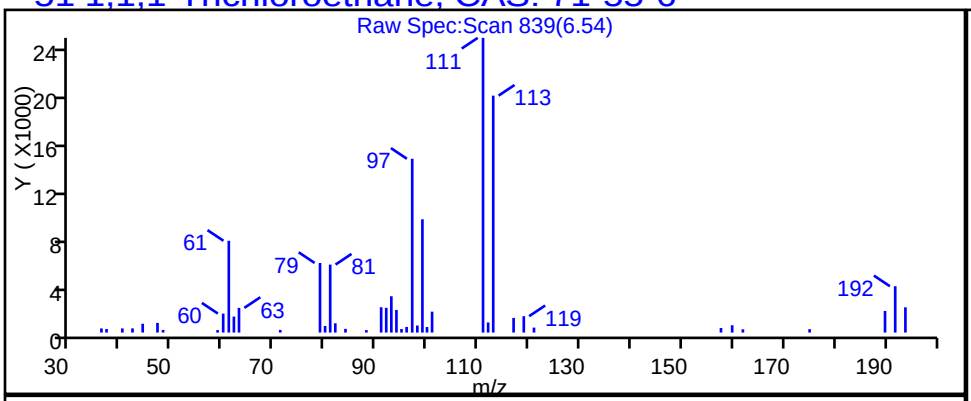
Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

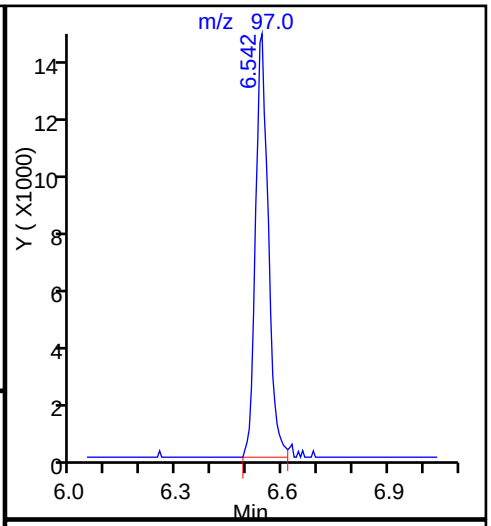
TestAmerica Pittsburgh

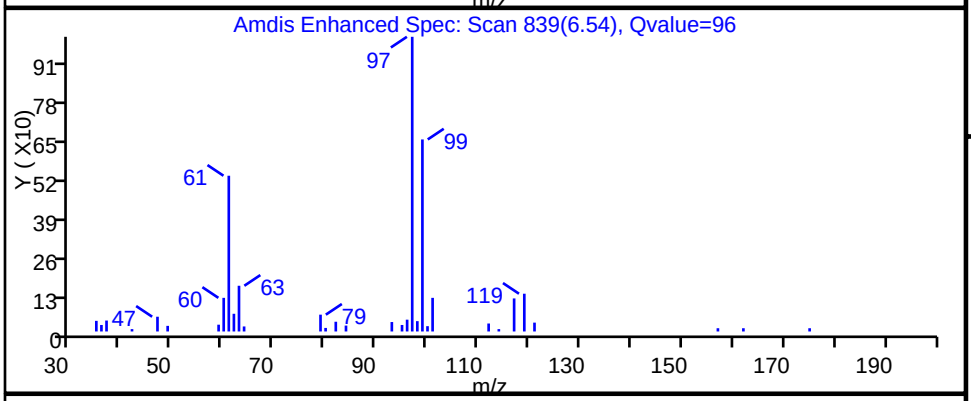
Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

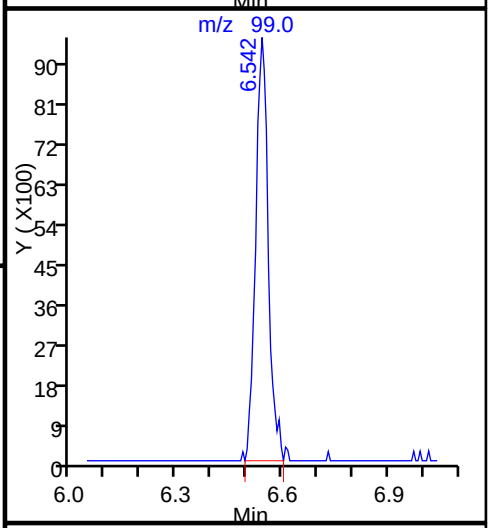
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	28 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

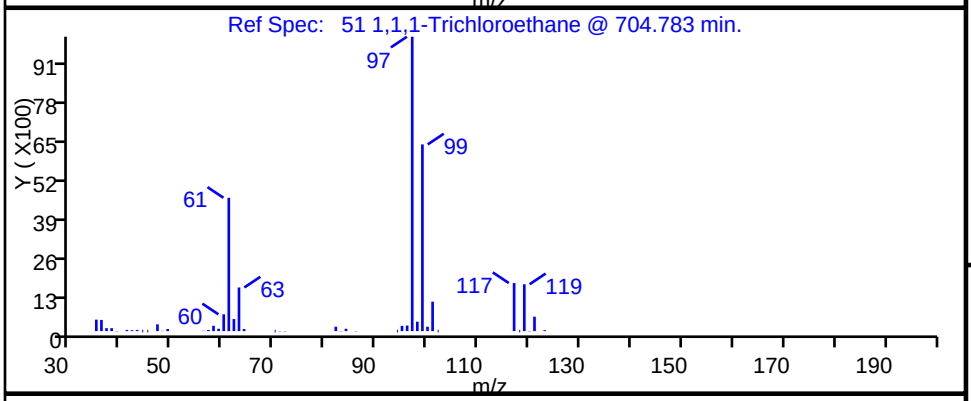
51 1,1,1-Trichloroethane, CAS: 71-55-6

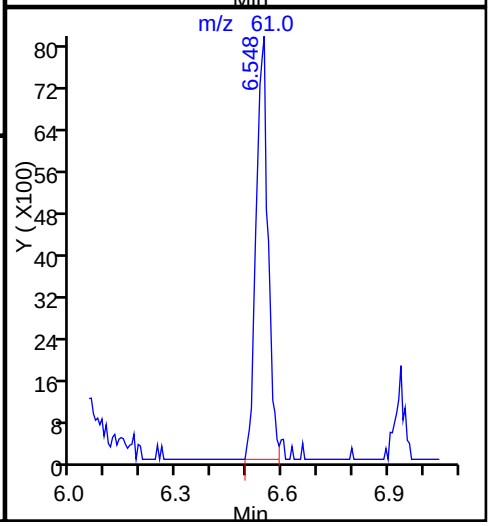


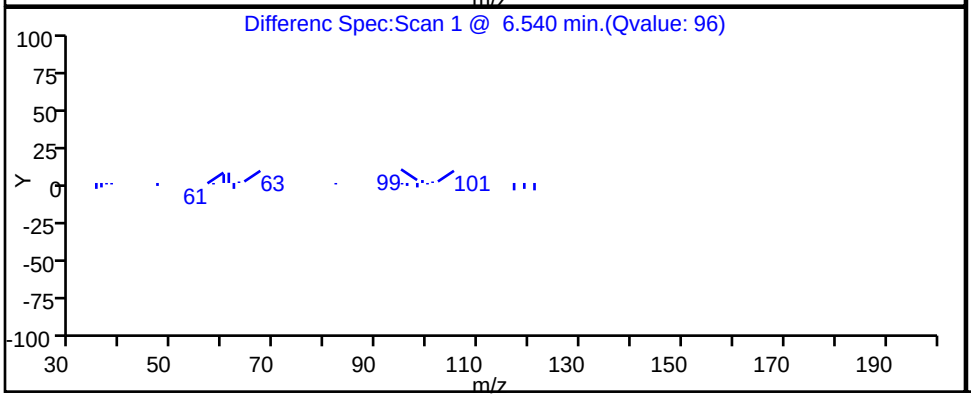












Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

Injection Date: 05-May-2015 22:39:30 Instrument ID: CHHP6

Lims ID: 180-43359-D-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

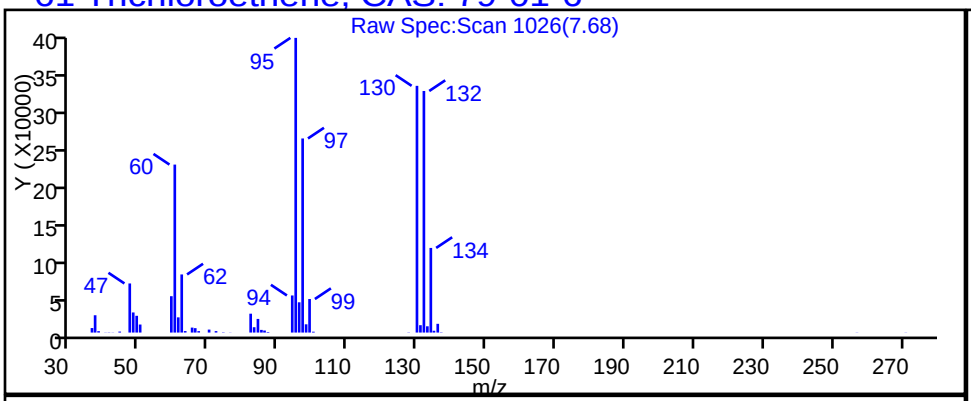
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 29

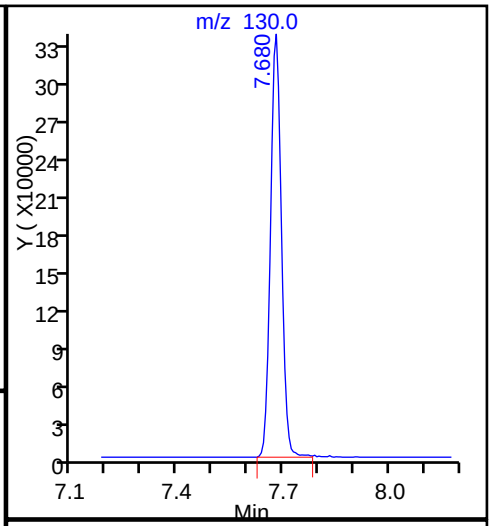
Purge Vol: 5.000 mL Dil. Factor: 2.5000

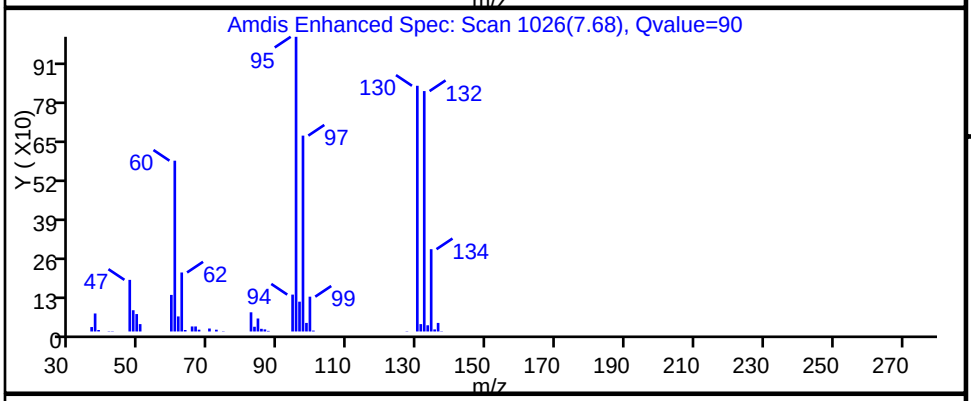
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

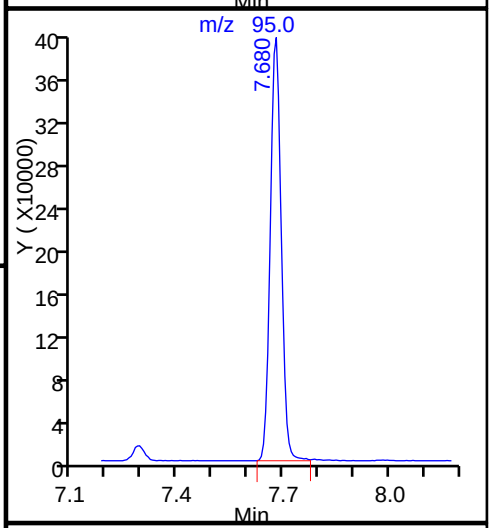
Column: DB-624 (0.18 mm) Detector MS SCAN

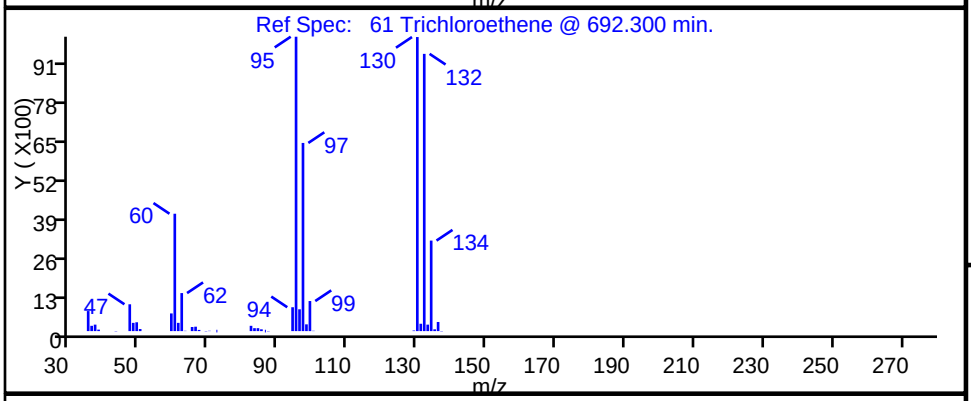
61 Trichloroethene, CAS: 79-01-6

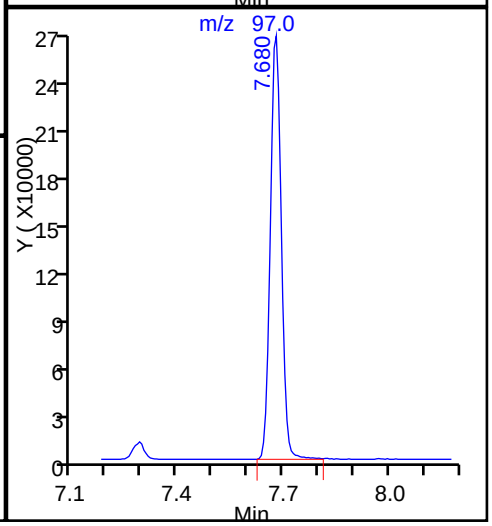


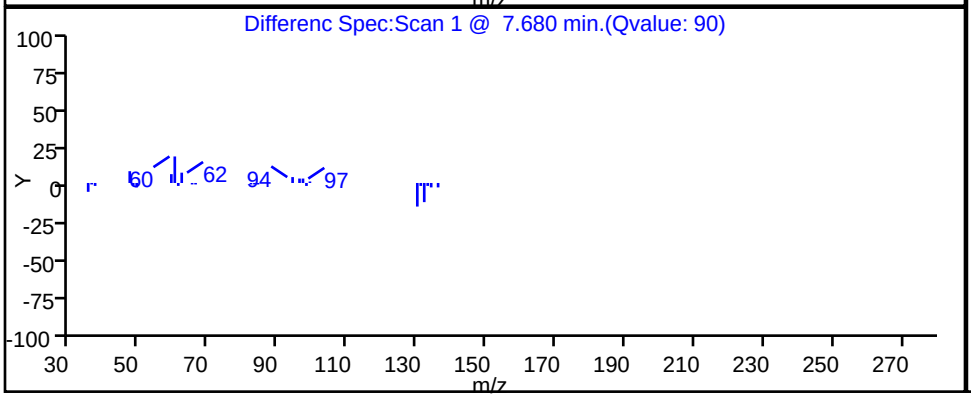












Report Date: 06-May-2015 07:56:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D

Injection Date: 05-May-2015 22:39:30 Instrument ID: CHHP6

Lims ID: 180-43359-D-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

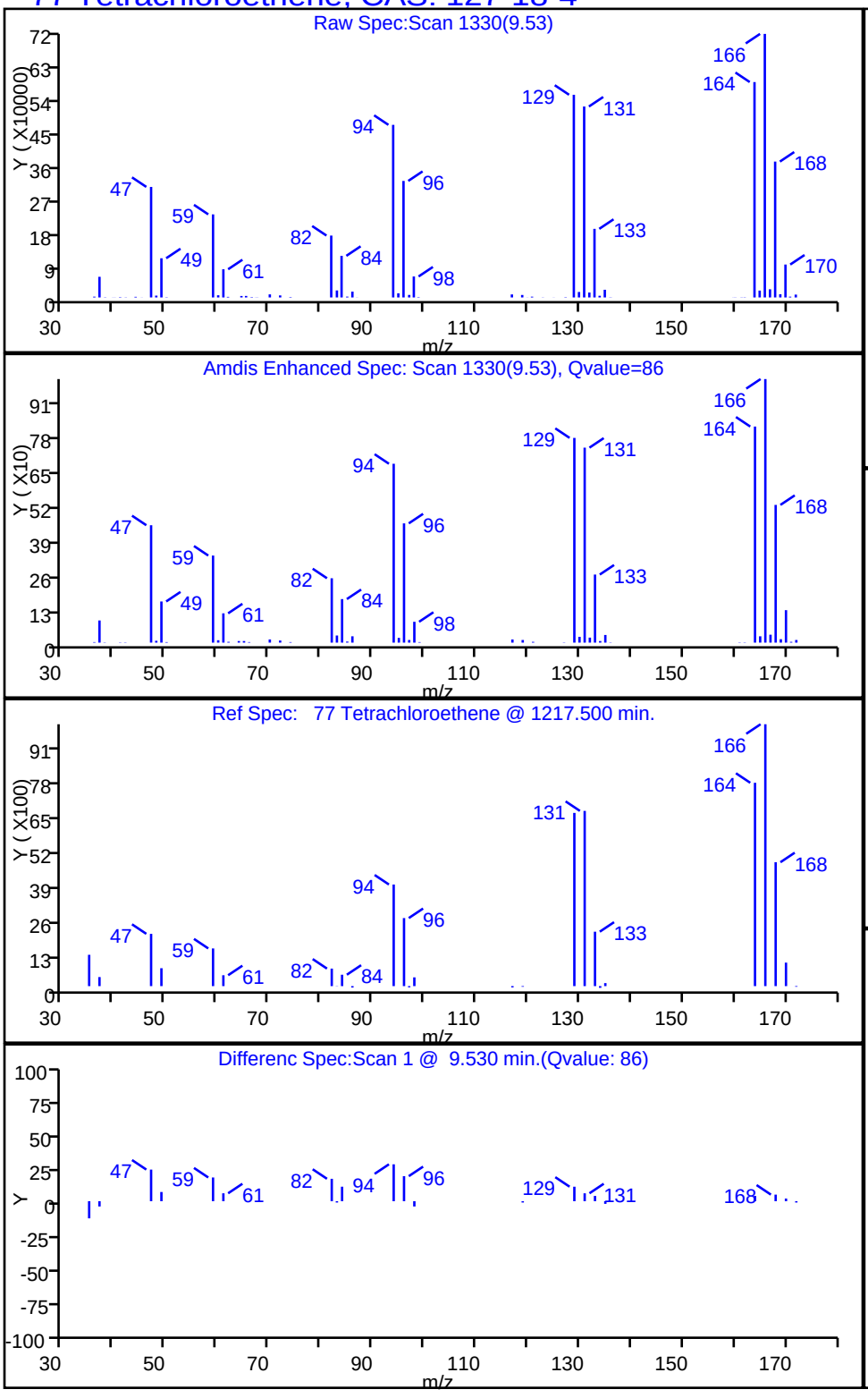
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 29

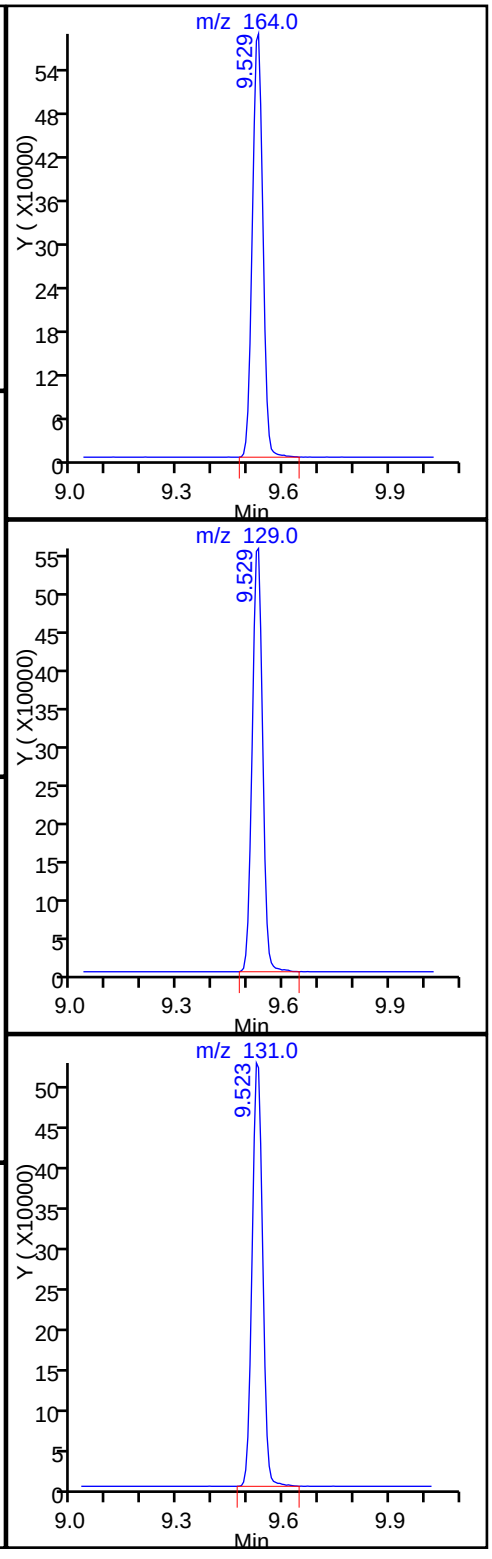
Purge Vol: 5.000 mL Dil. Factor: 2.5000

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

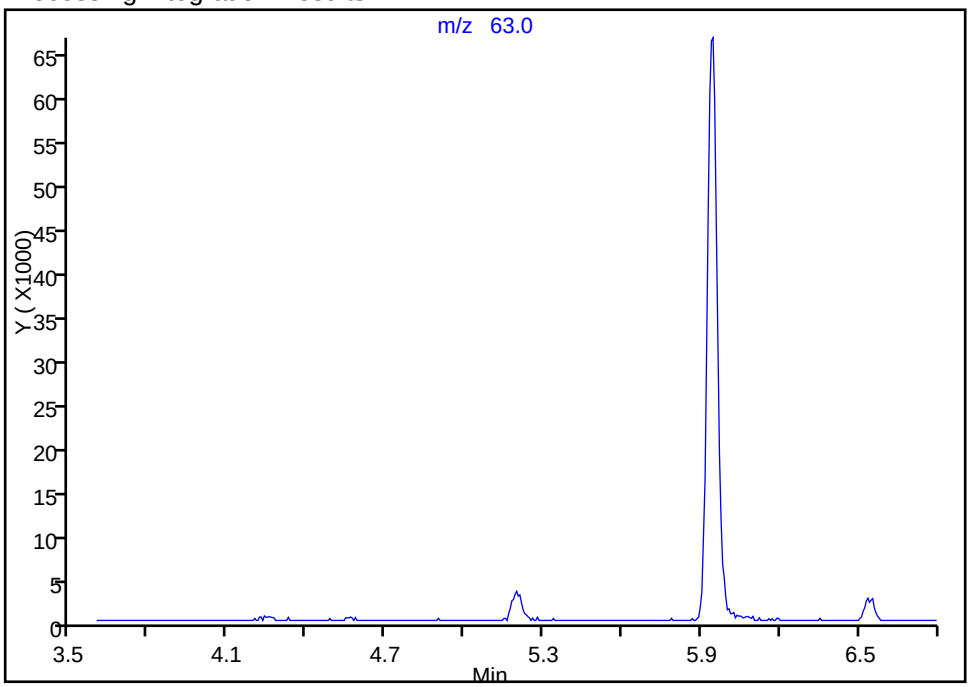
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505029.D				
Injection Date:	05-May-2015 22:39:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-D-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

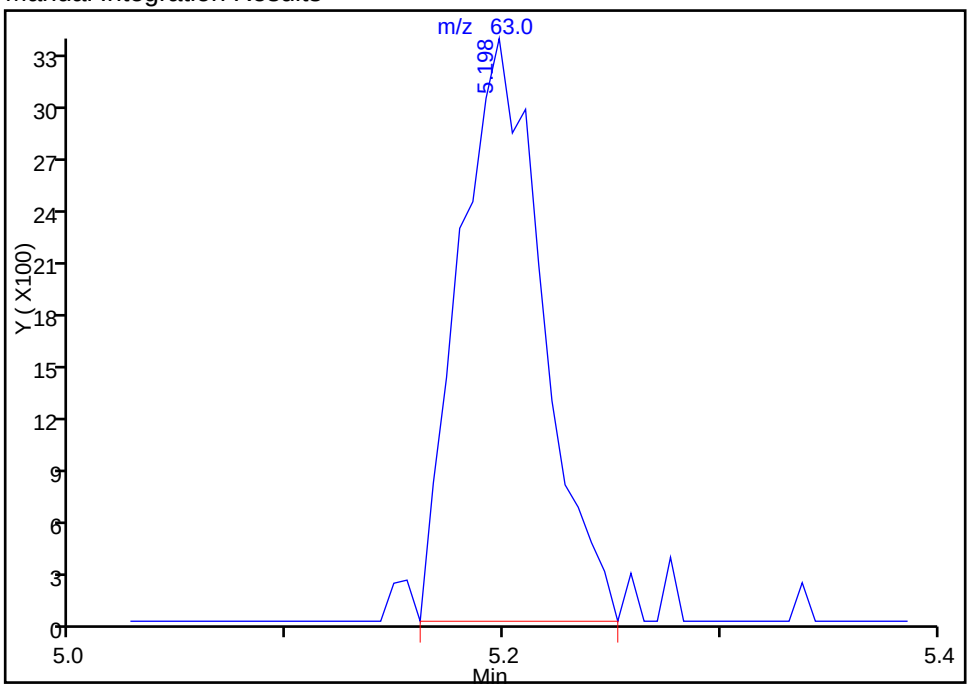
Not Detected
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.20
Area: 8916
Amount: 2.582860
Amount Units: ng



Reviewer: fergusond, 06-May-2015 07:56:30
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL | Lab Sample ID: 180-43359-9 DL

Matrix: Water | Lab File ID: 60504022.D

Analysis Method: 8260C | Date Collected: 04/22/2015 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 20:26

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.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	25	U	25	7.4
67-64-1	Acetone	130	U *	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	12	J	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	25	U	25	2.9
156-59-2	cis-1,2-Dichloroethene	94		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	8.1	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	240		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	630		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL | Lab Sample ID: 180-43359-9 DL

Matrix: Water | Lab File ID: 60504022.D

Analysis Method: 8260C | Date Collected: 04/22/2015 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 20:26

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.: 140474 | 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)	109		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D
Lims ID: 180-43359-E-9 Lab Sample ID: 180-43359-9
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 20:26:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-43359-E-9, 25x
Misc. Info.: 180-0006756-022
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:41:49 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:41:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.237	4.254	-0.017	96	184445	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.283	0.008	98	374186	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	92	76732	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.746	0.002	98	115615	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.553	0.002	91	79361	51.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.924	0.008	71	140569	54.3	
$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	95	350101	53.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.584	0.002	79	135403	51.2	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.343	3.335	0.008	1	1040	0.6002	M
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.134	4.120	0.014	84	4925	2.34	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63		5.190				ND	
43 cis-1,2-Dichloroethene	96	5.947	5.933	0.014	81	41214	18.8	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.373	6.371	0.002	1	822	0.2345	
51 1,1,1-Trichloroethane	97	6.543	6.535	0.008	36	4646	1.61	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.675	7.673	0.002	90	86747	48.7	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.530	9.522	0.008	91	165898	126.7	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

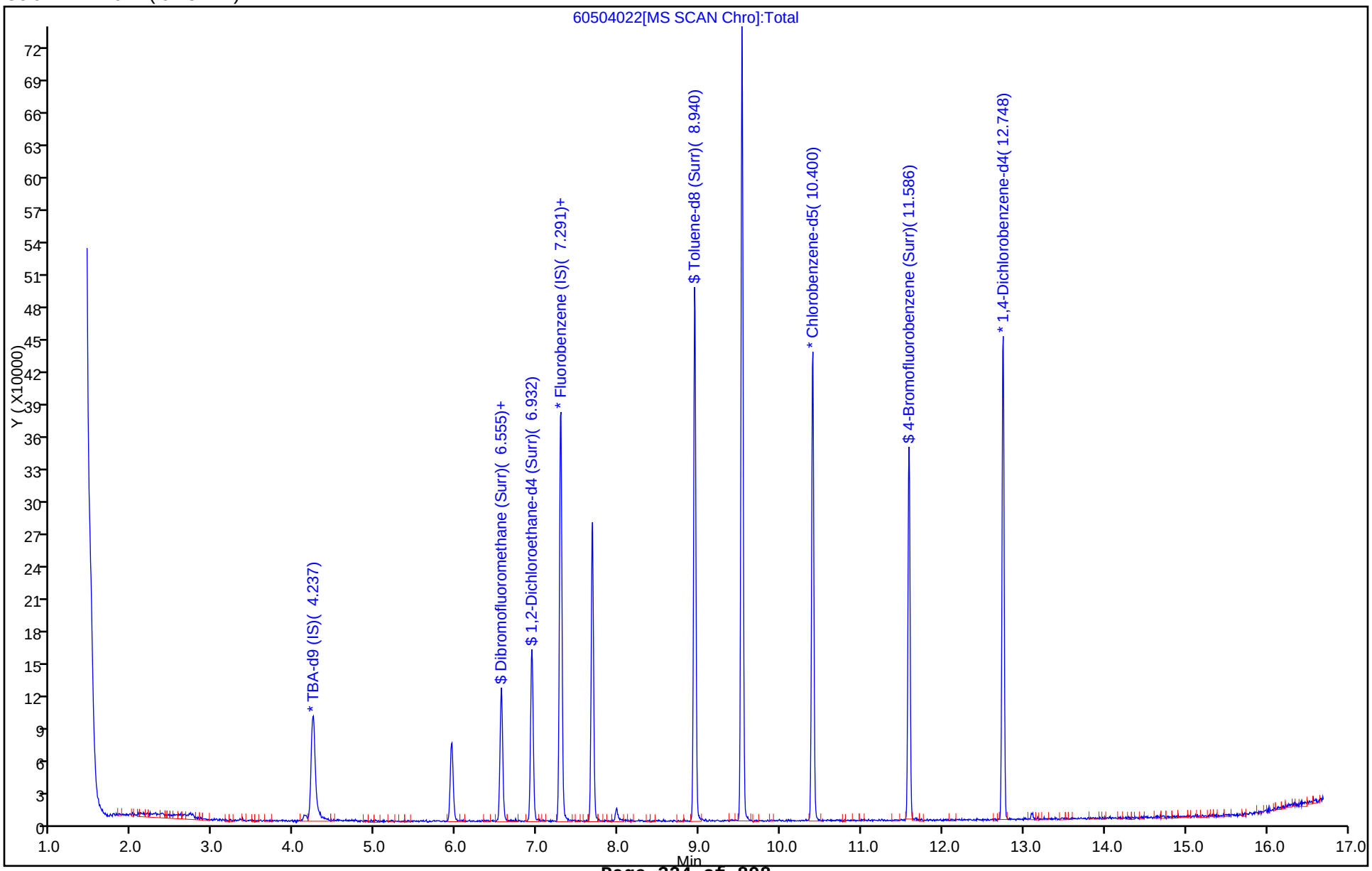
Report Date: 05-May-2015 07:41:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D

Injection Date:	04-May-2015 20:26:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-9	Lab Sample ID:	180-43359-9	Worklist Smp#:	22
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



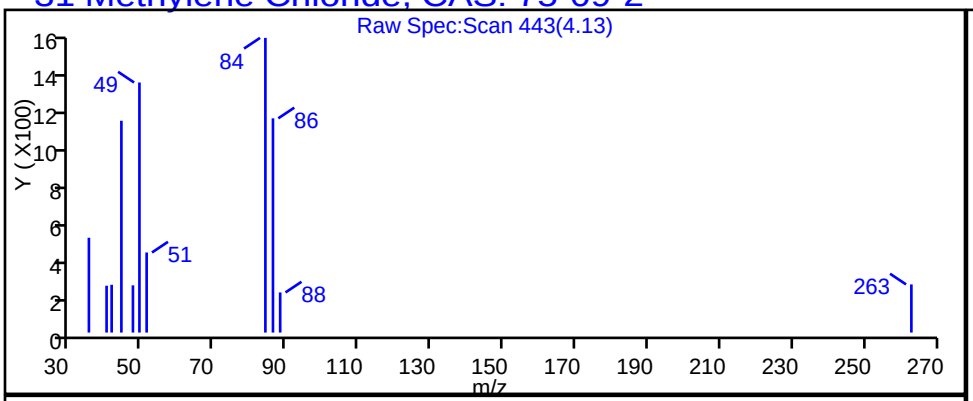
Report Date: 05-May-2015 07:41:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

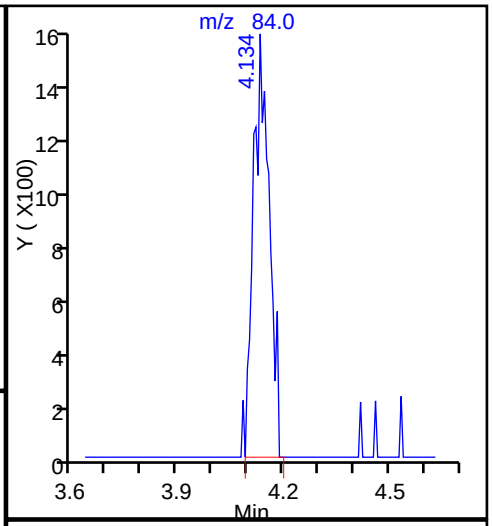
TestAmerica Pittsburgh

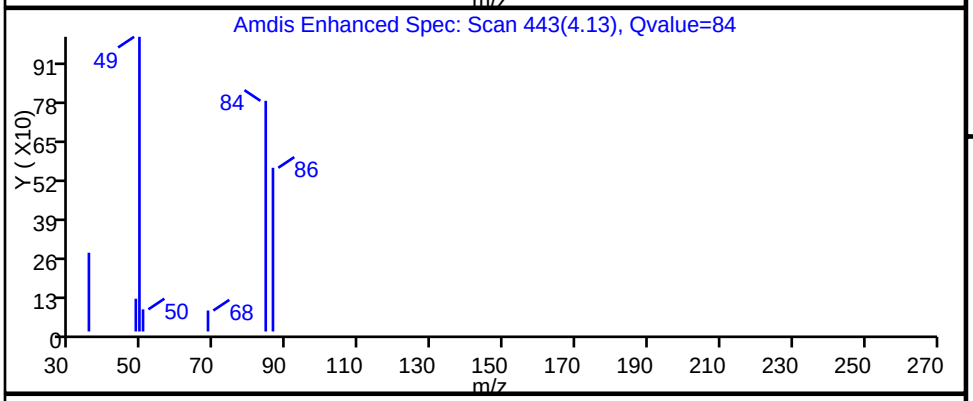
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D

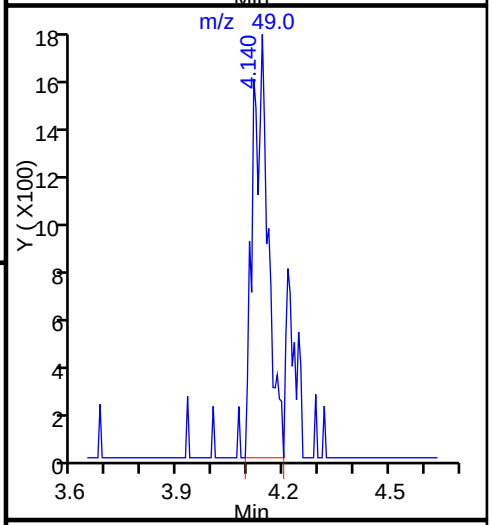
Injection Date:	04-May-2015 20:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

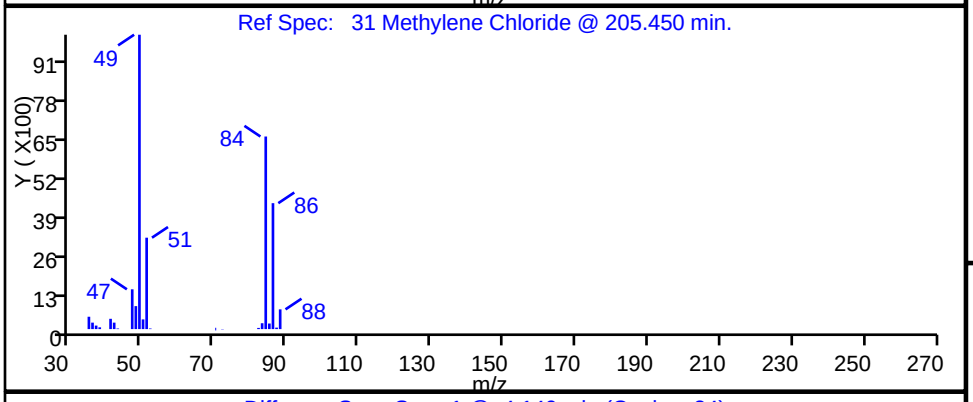
31 Methylene Chloride, CAS: 75-09-2

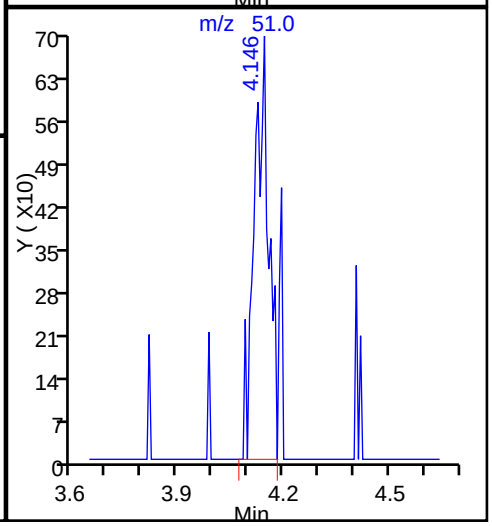


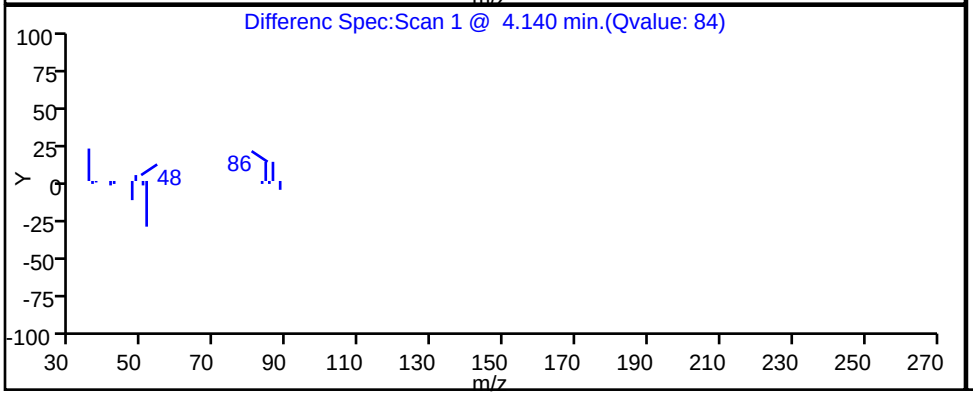












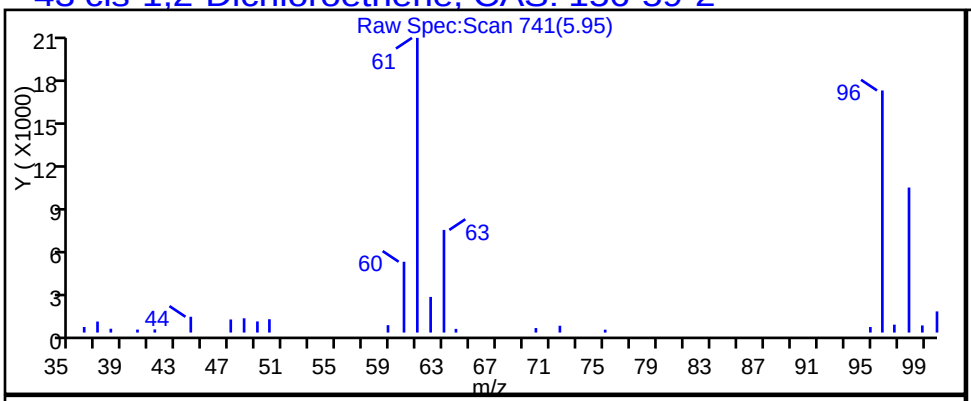
Report Date: 05-May-2015 07:41:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

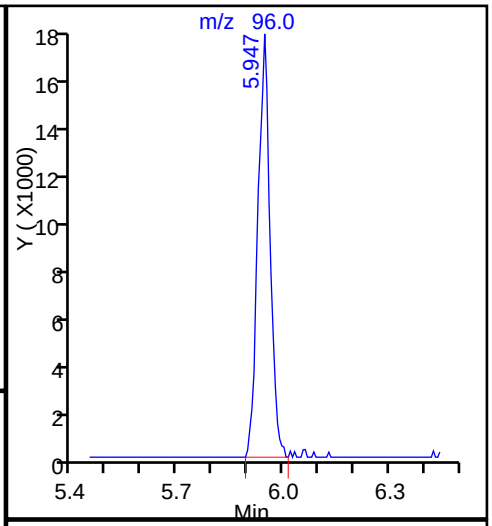
TestAmerica Pittsburgh

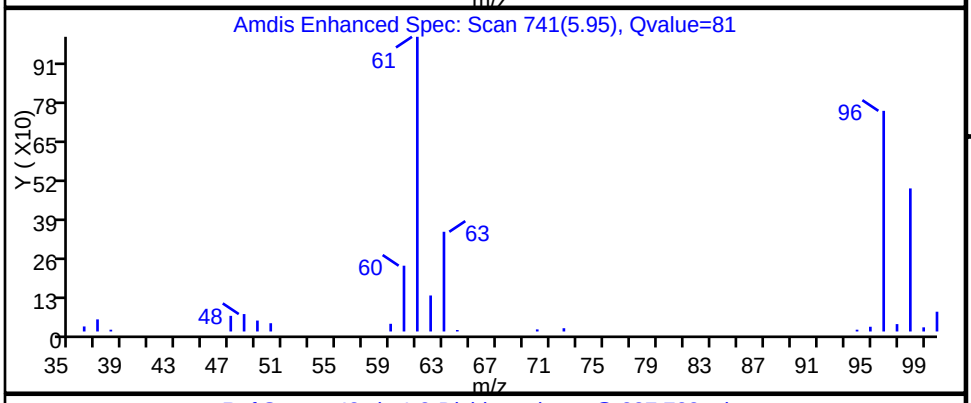
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D

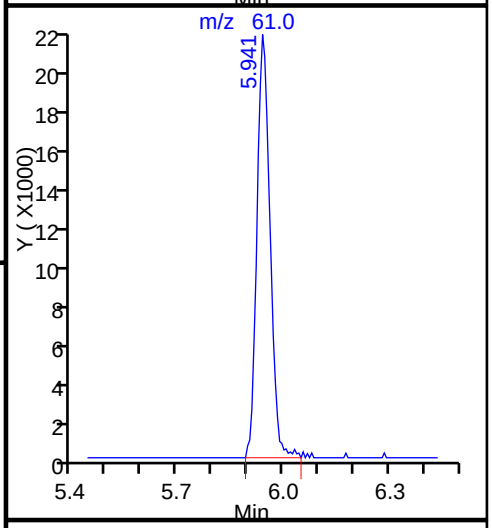
Injection Date:	04-May-2015 20:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

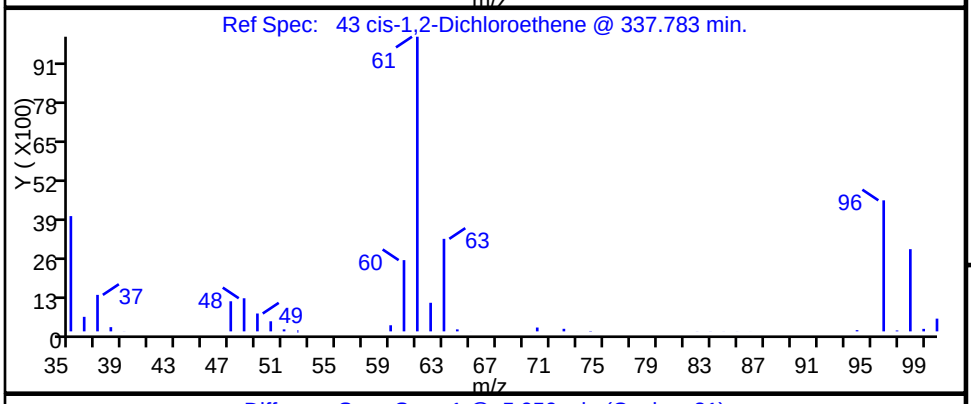
43 cis-1,2-Dichloroethene, CAS: 156-59-2

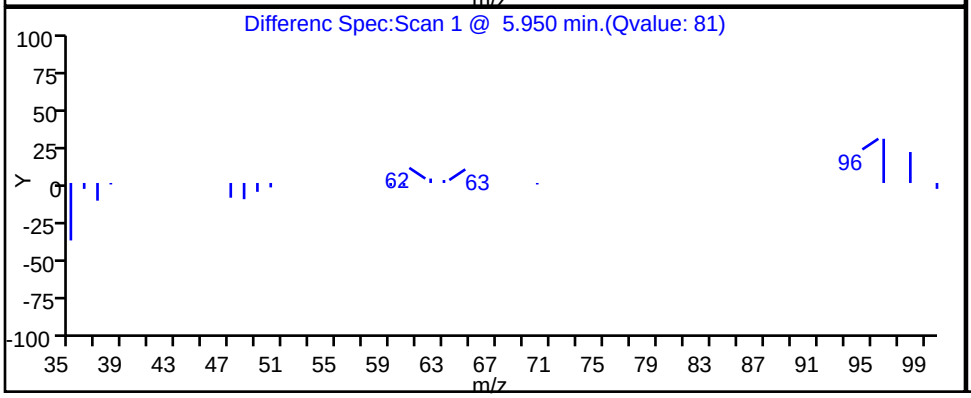


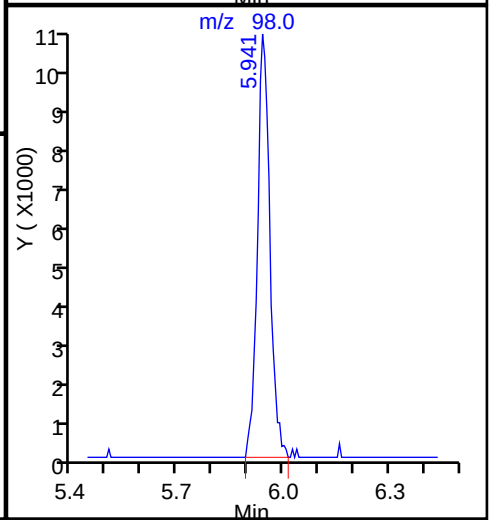












Report Date: 05-May-2015 07:41:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D

Injection Date: 04-May-2015 20:26:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

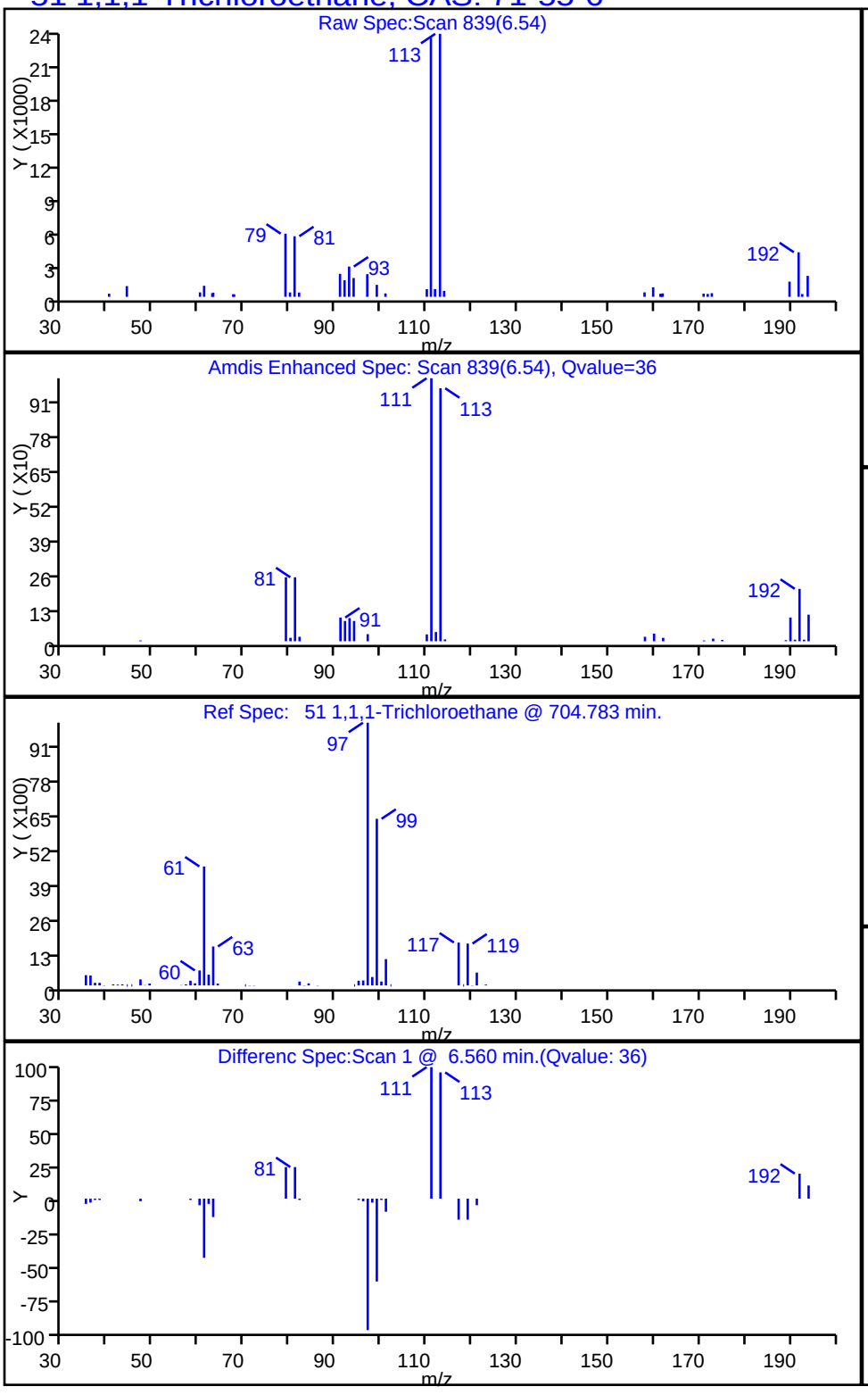
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 22

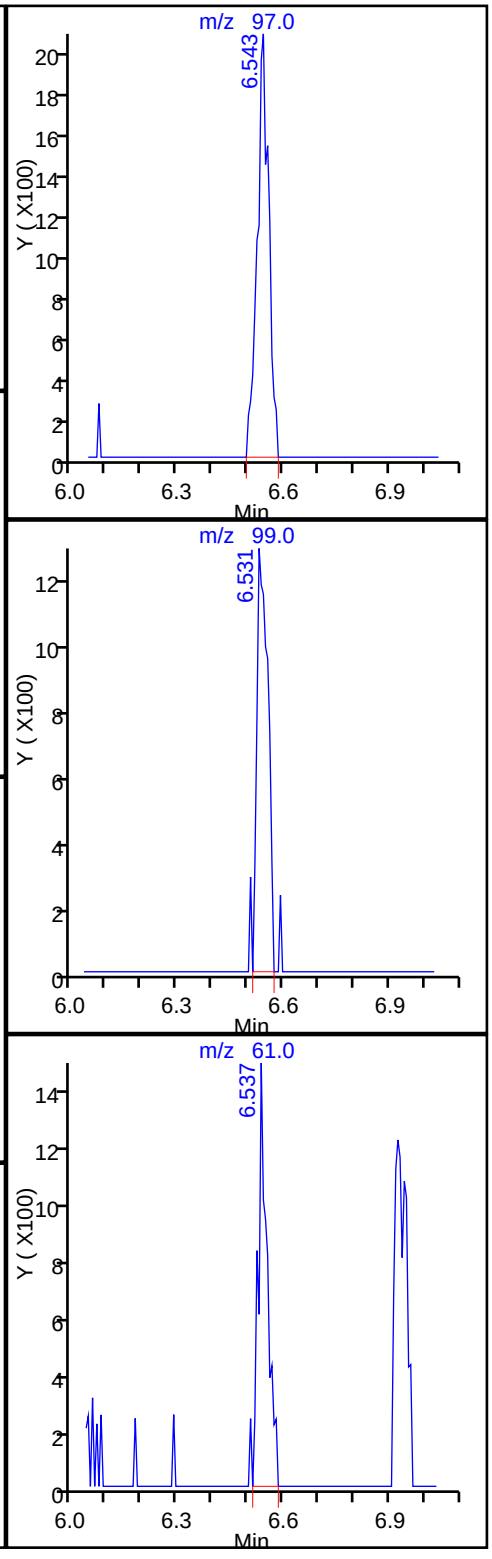
Purge Vol: 5.000 mL Dil. Factor: 25.0000

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: 05-May-2015 07:41:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D

Injection Date: 04-May-2015 20:26:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

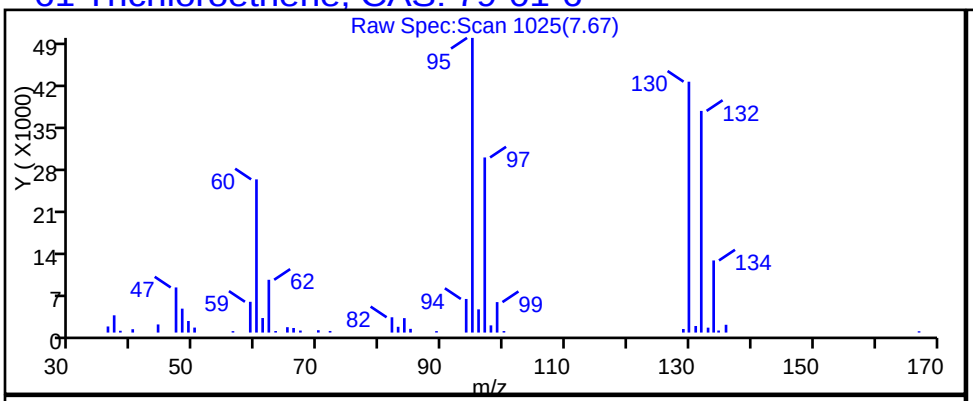
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 22

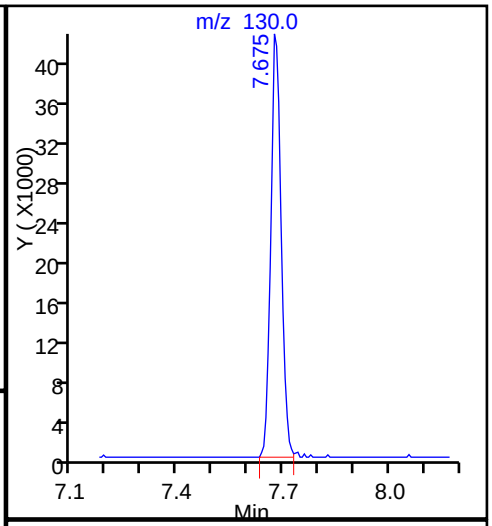
Purge Vol: 5.000 mL Dil. Factor: 25.0000

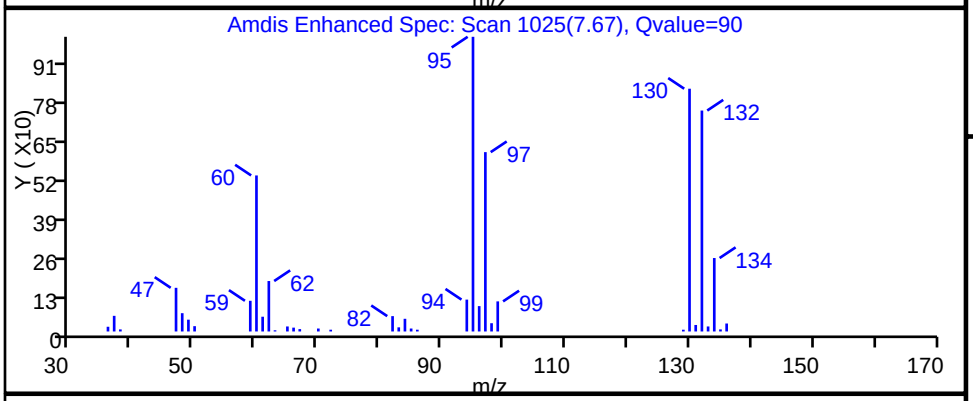
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

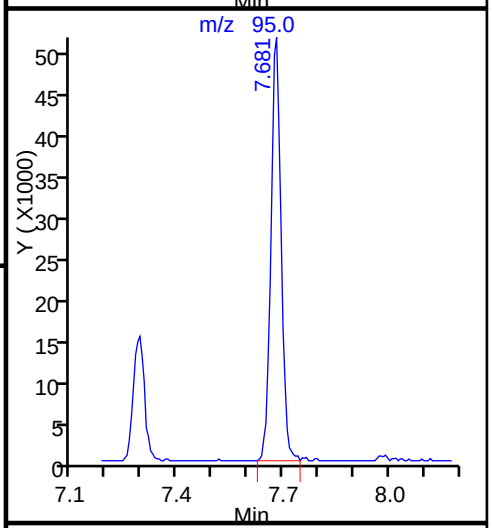
Column: DB-624 (0.18 mm) Detector MS SCAN

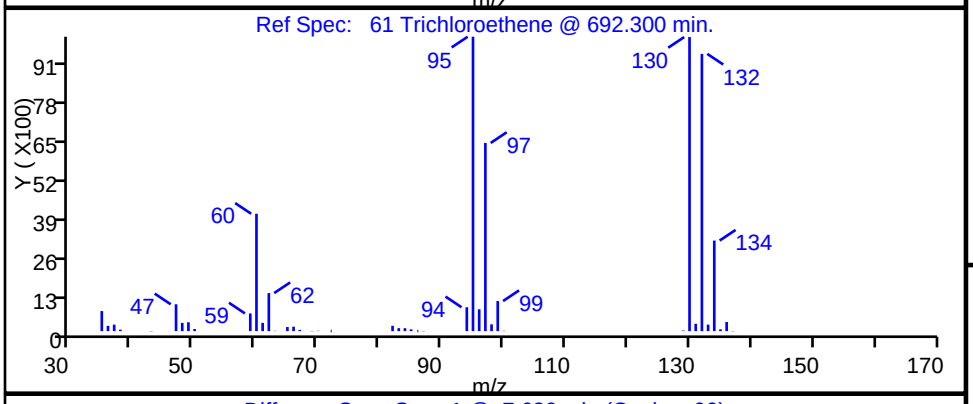
61 Trichloroethene, CAS: 79-01-6

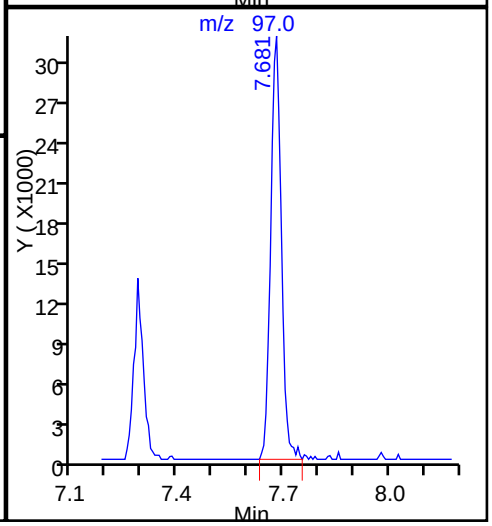


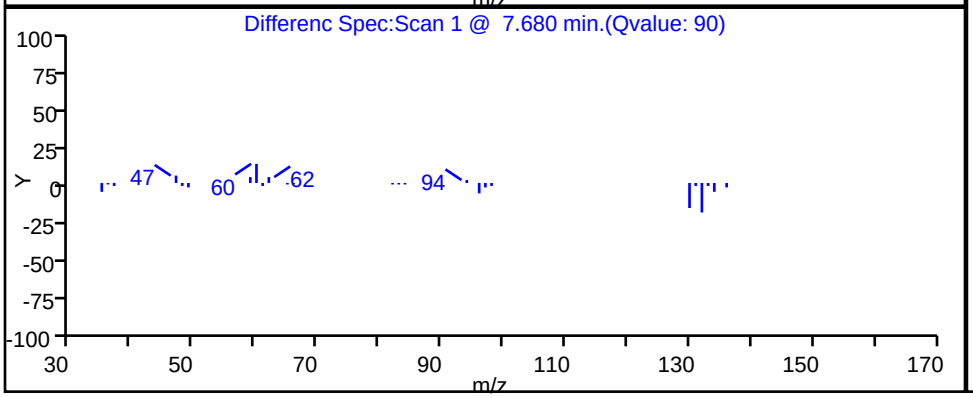












Report Date: 05-May-2015 07:41:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D

Injection Date: 04-May-2015 20:26:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-9 Lab Sample ID: 180-43359-9

Client ID: HD-MW-96S-0/1-0

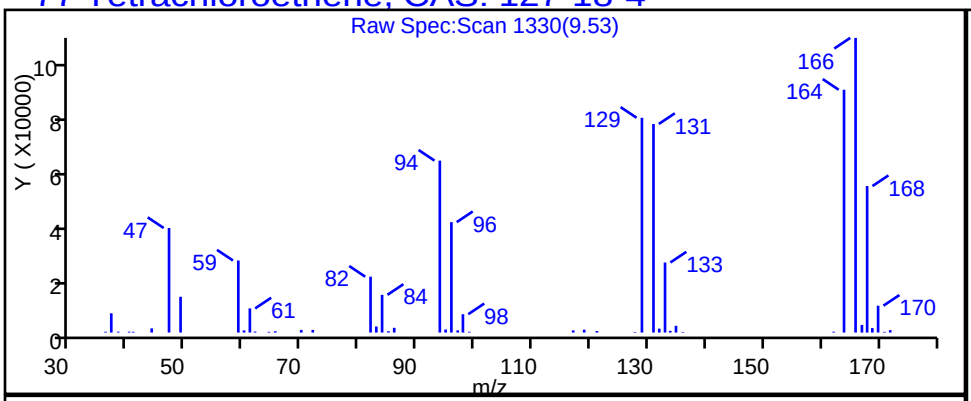
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 22

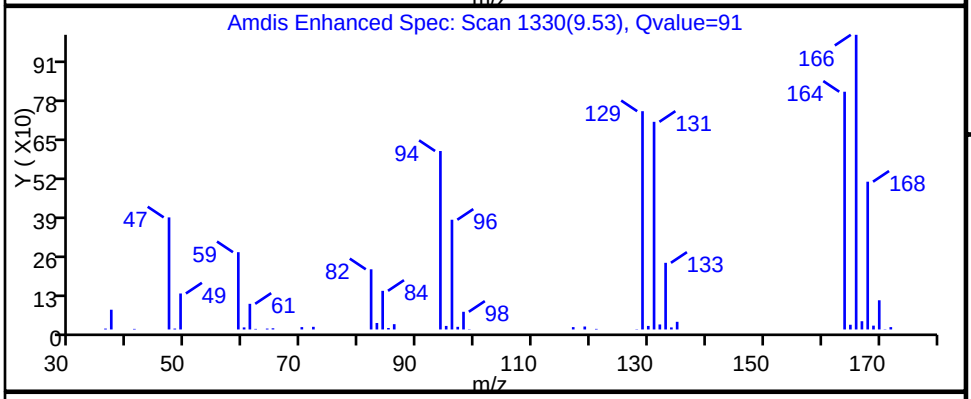
Purge Vol: 5.000 mL Dil. Factor: 25.0000

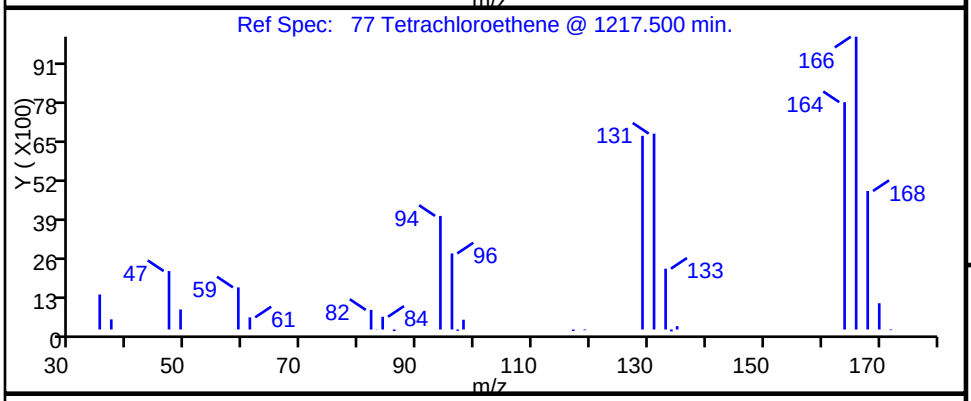
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

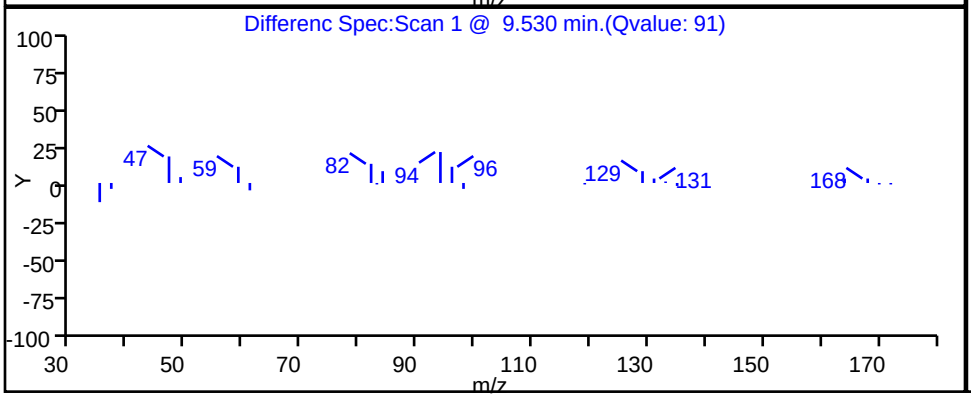
Column: DB-624 (0.18 mm) Detector MS SCAN

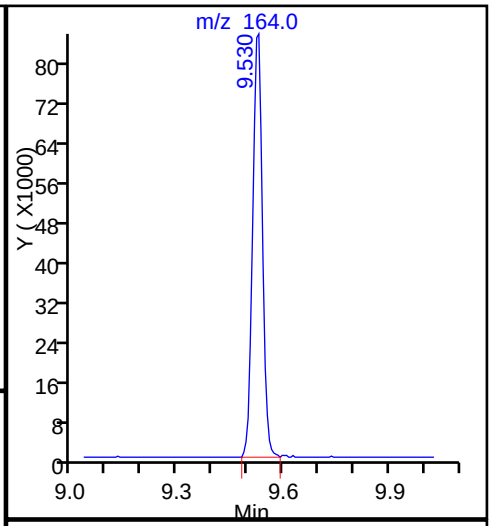
77 Tetrachloroethene, CAS: 127-18-4

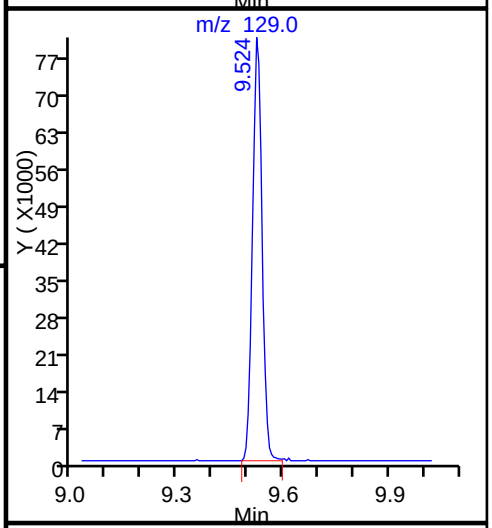


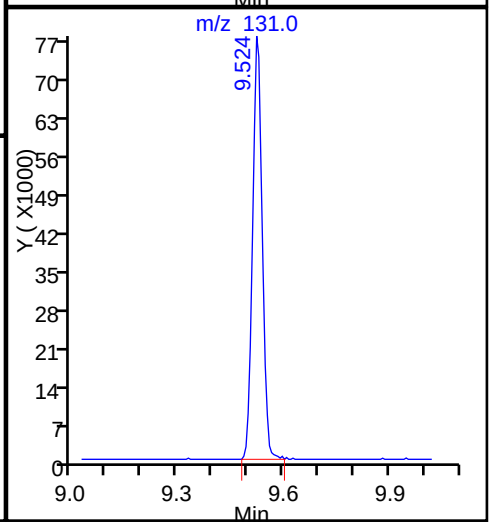












Manual Integration/User Assign Peak Report

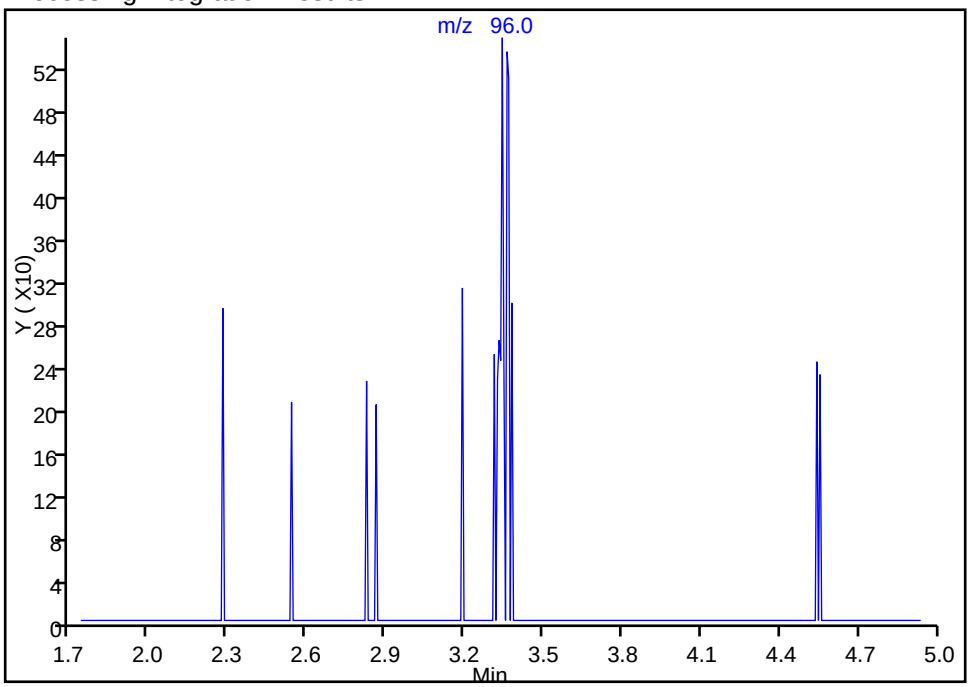
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504022.D				
Injection Date:	04-May-2015 20:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
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

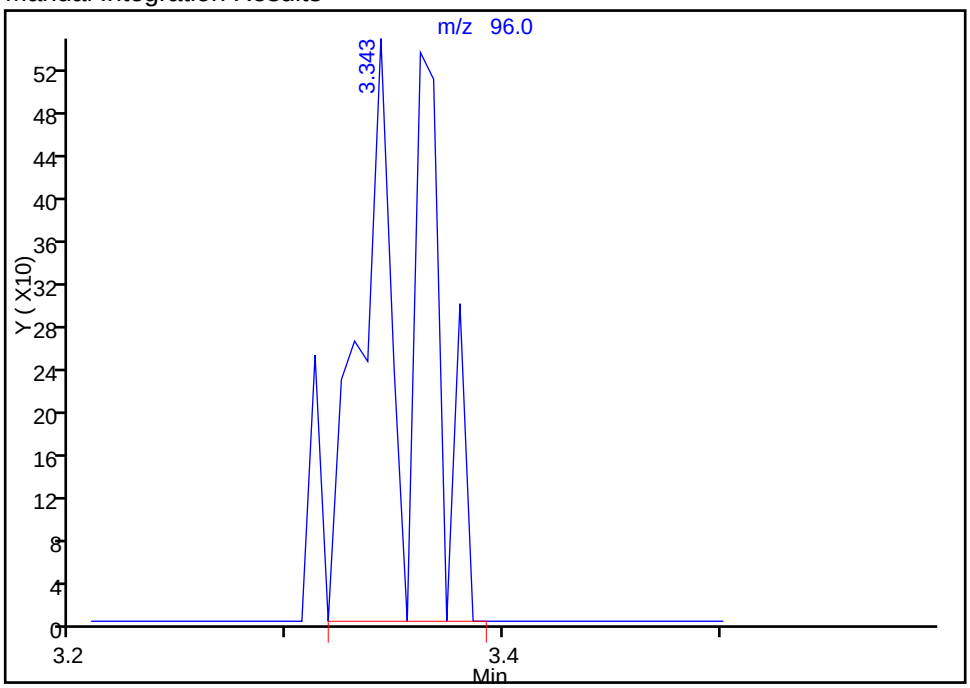
Not Detected
Expected RT: 3.34

Processing Integration Results



Manual Integration Results

RT: 3.34
Area: 1040
Amount: 0.600205
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:41:49
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 | Lab Sample ID: 180-43359-10

Matrix: Water | Lab File ID: 60504023.D

Analysis Method: 8260C | Date Collected: 04/22/2015 10:32

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 20:50

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	4.4	J	10	3.0
67-64-1	Acetone	50	U *	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	4.8	J	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	1.3	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	96		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U *	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	8.5	J	10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	270		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	120		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 | Lab Sample ID: 180-43359-10

Matrix: Water | Lab File ID: 60504023.D

Analysis Method: 8260C | Date Collected: 04/22/2015 10:32

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 20:50

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D
Lims ID: 180-43359-C-10 Lab Sample ID: 180-43359-10
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 20:50:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-43359-C-10, 10x
Misc. Info.: 180-0006756-023
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:43:44 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:43:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.235	4.254	-0.019	95	172362	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	374281	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	78781	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	112789	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.553	0.006	89	78889	50.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.924	0.006	71	141429	54.7	
$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	353939	53.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	133854	49.3	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.359	3.335	0.024	97	3831	2.21	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.144	4.120	0.024	47	5101	2.42	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.191	5.190	0.001	1	2439	0.6717	
43 cis-1,2-Dichloroethene	96	5.945	5.933	0.012	82	105066	47.9	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.535	6.535	0.000	43	12273	4.26	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	92	243015	136.5	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.528	9.522	0.006	93	82766	61.6	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

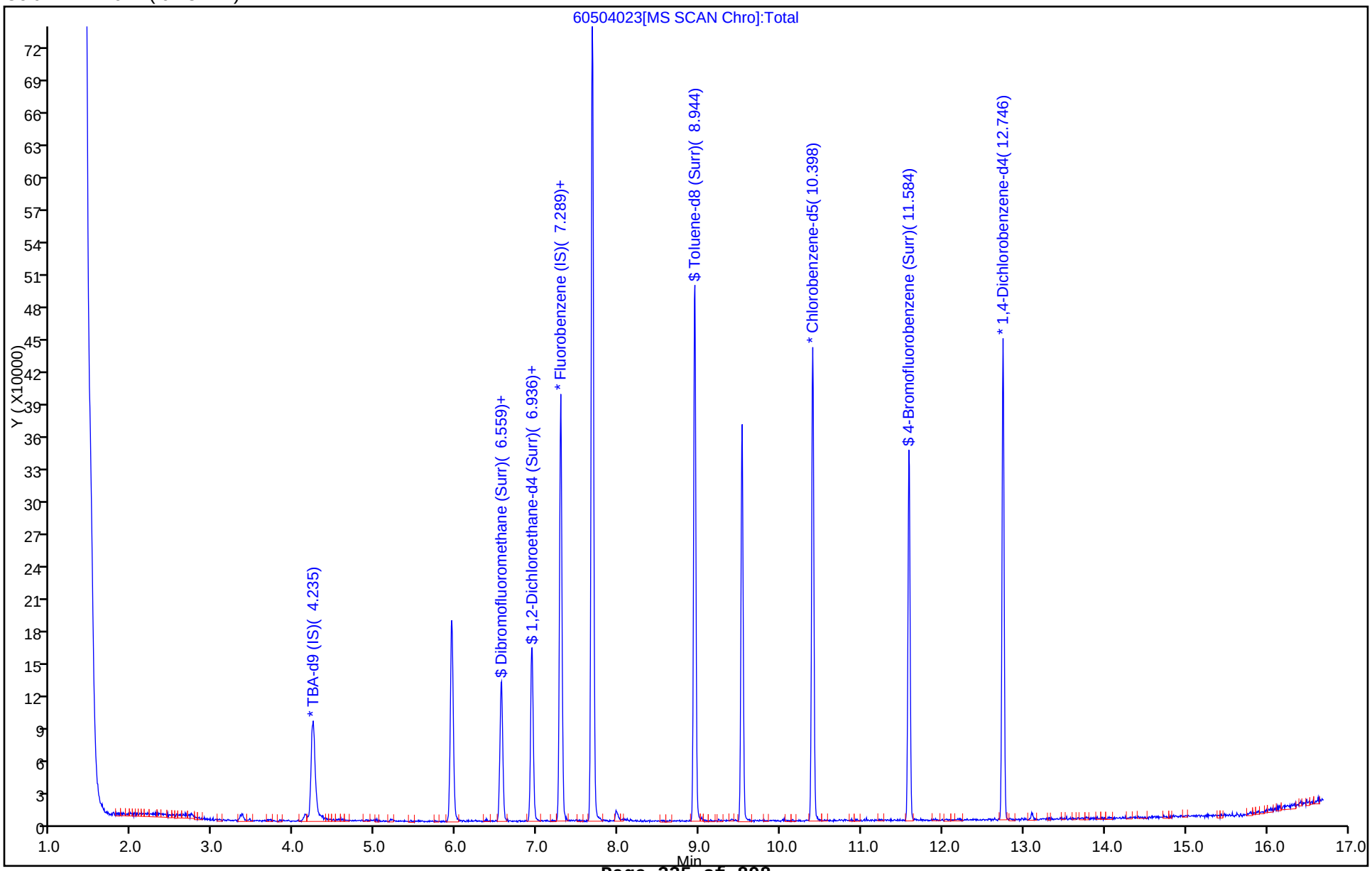
Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D

Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10	Worklist Smp#:	23
Client ID:	HD-MW-96D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D

Injection Date: 04-May-2015 20:50:30 Instrument ID: CHHP6

Lims ID: 180-43359-C-10 Lab Sample ID: 180-43359-10

Client ID: HD-MW-96D-0/1-0

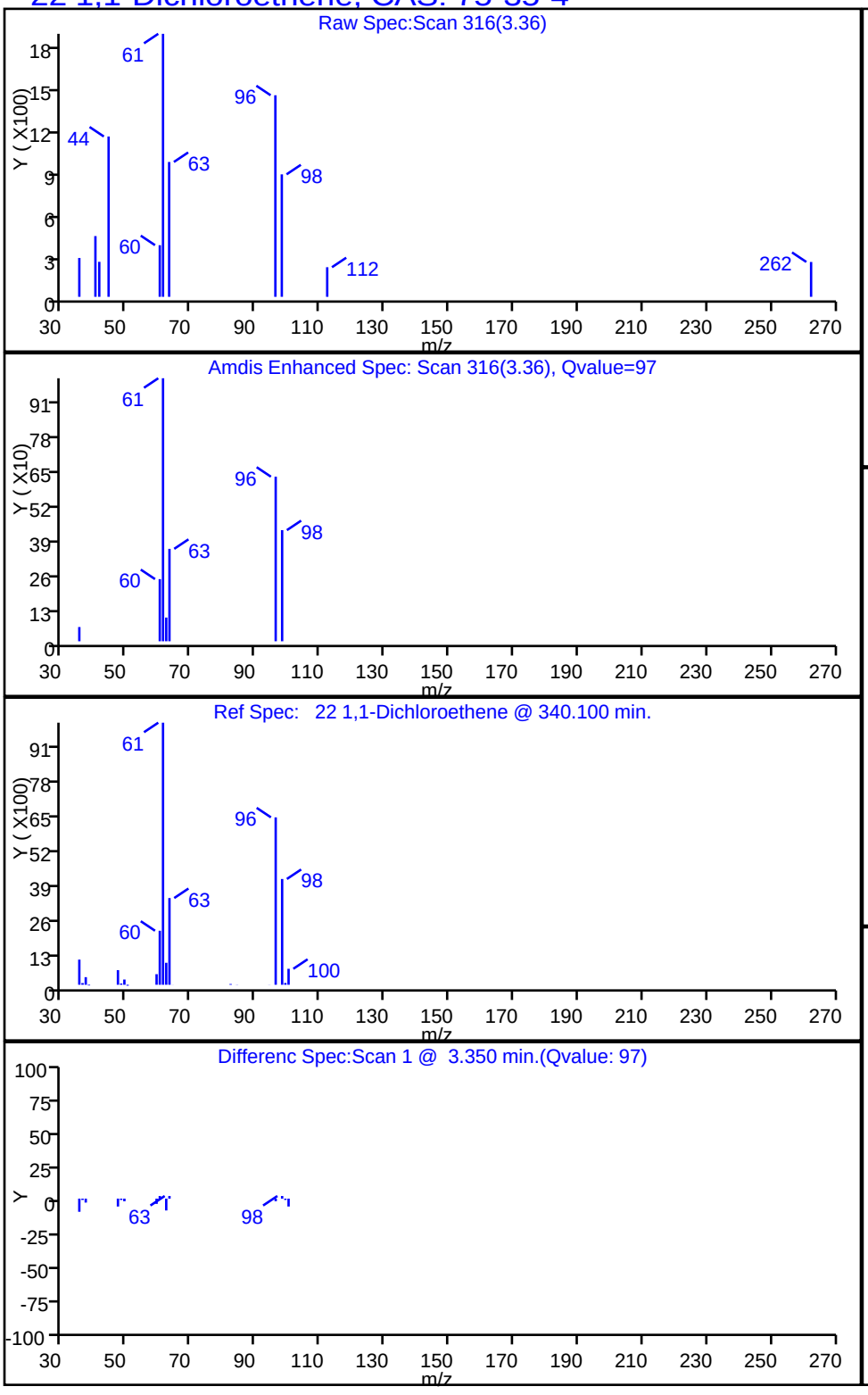
Operator ID: 001562 ALS Bottle#: 23 Worklist Smp#: 23

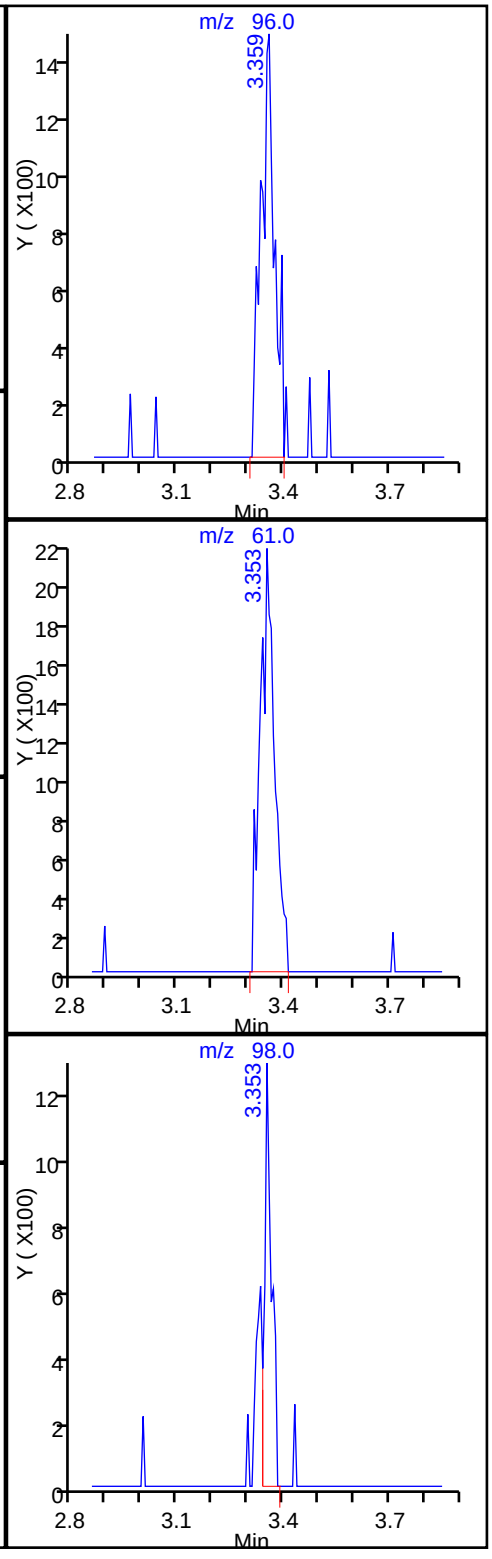
Purge Vol: 5.000 mL Dil. Factor: 10.0000

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



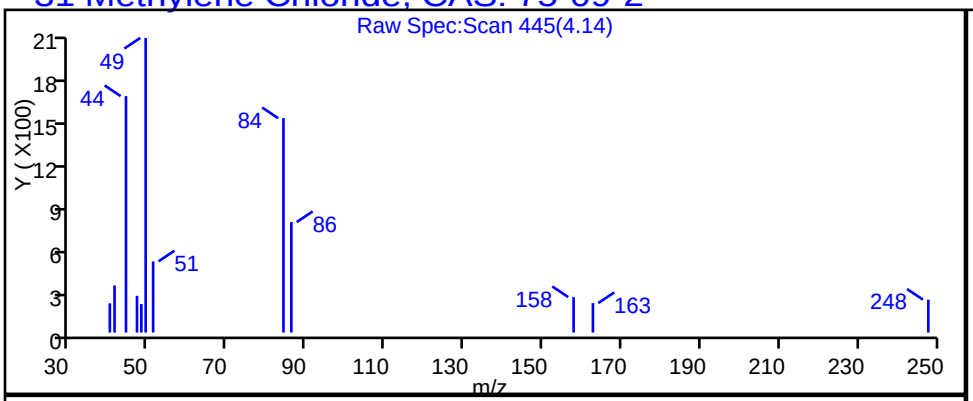


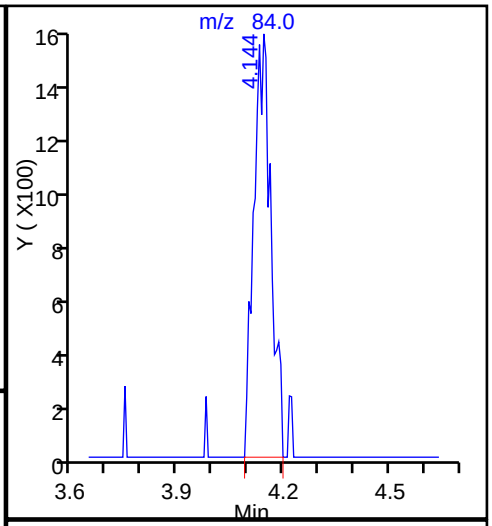
Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

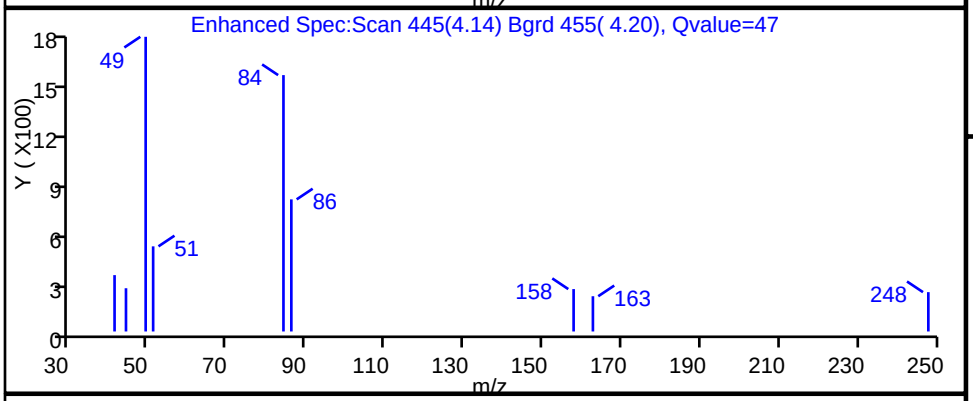
TestAmerica Pittsburgh

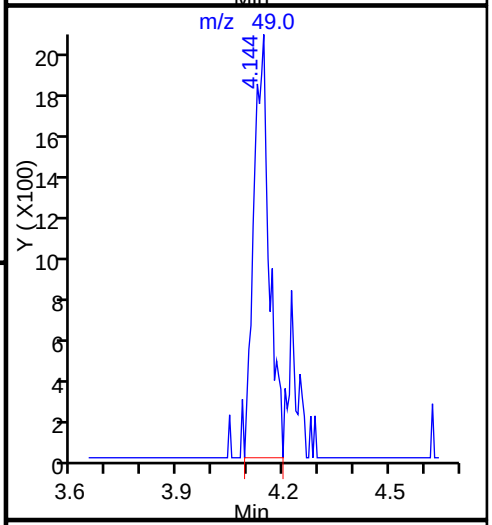
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D				
Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

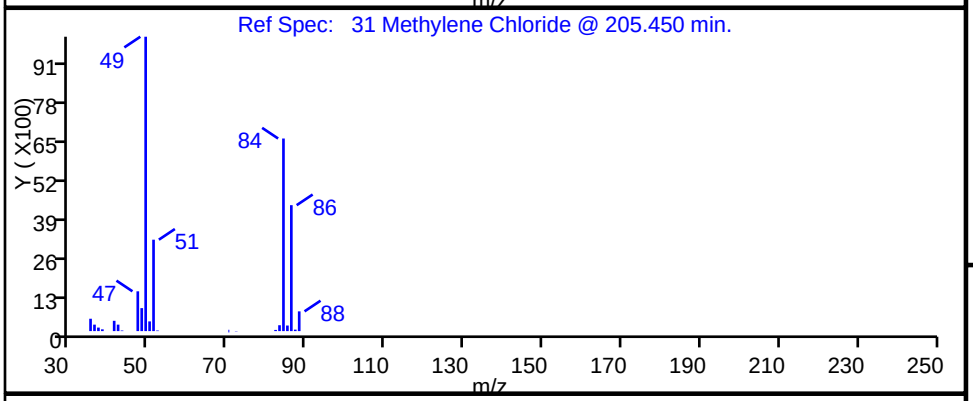
31 Methylene Chloride, CAS: 75-09-2

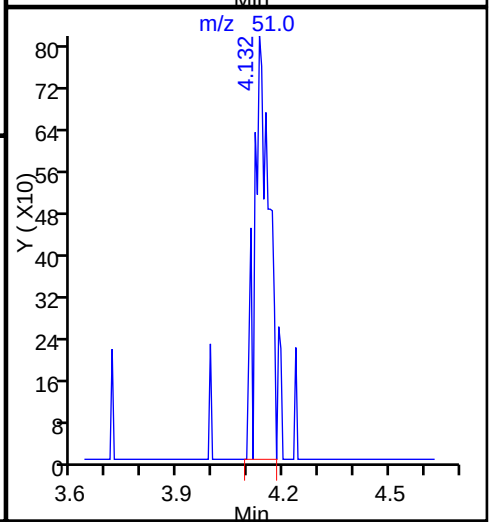


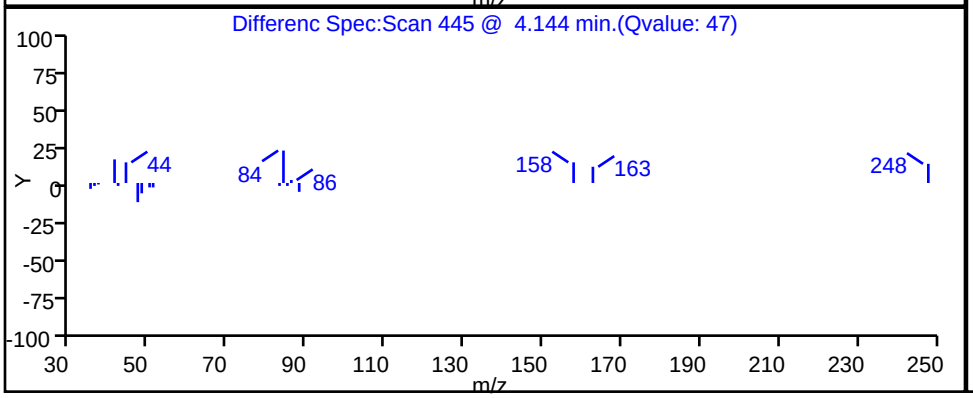












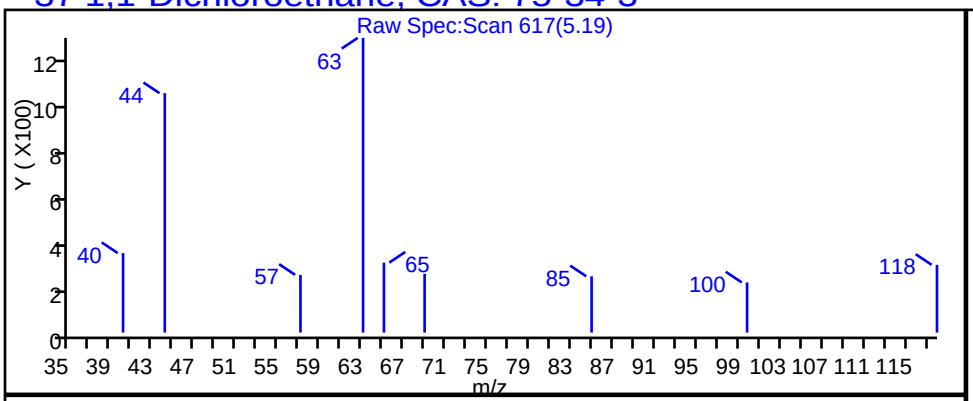
Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

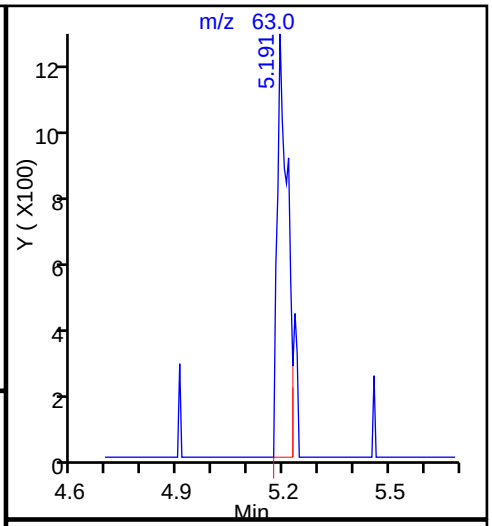
TestAmerica Pittsburgh

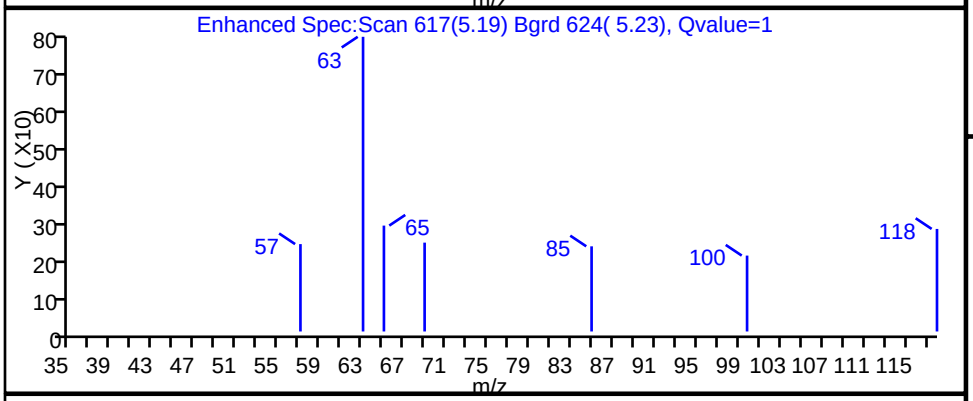
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D

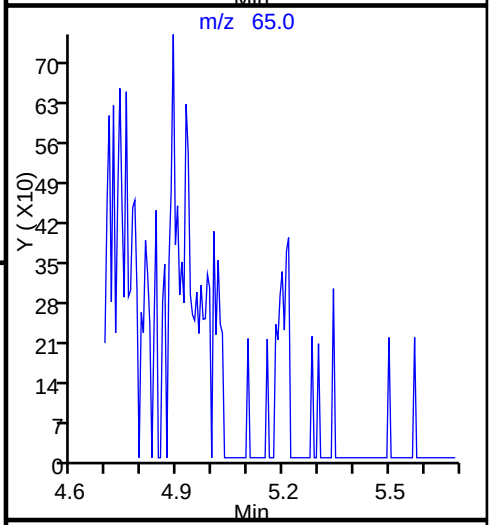
Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

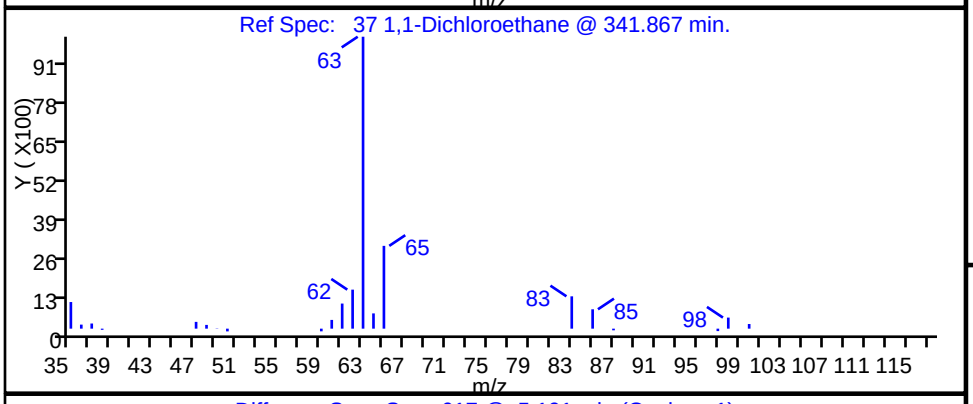
37 1,1-Dichloroethane, CAS: 75-34-3

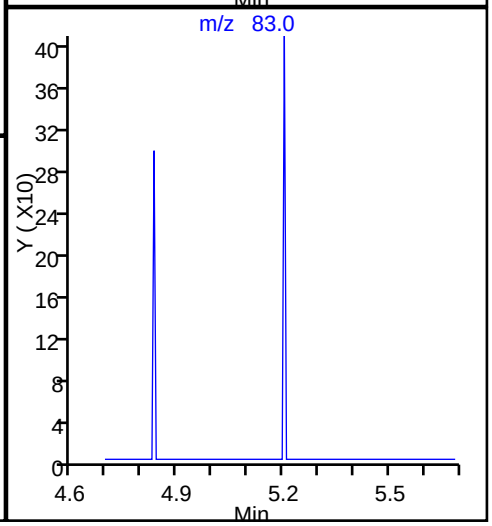


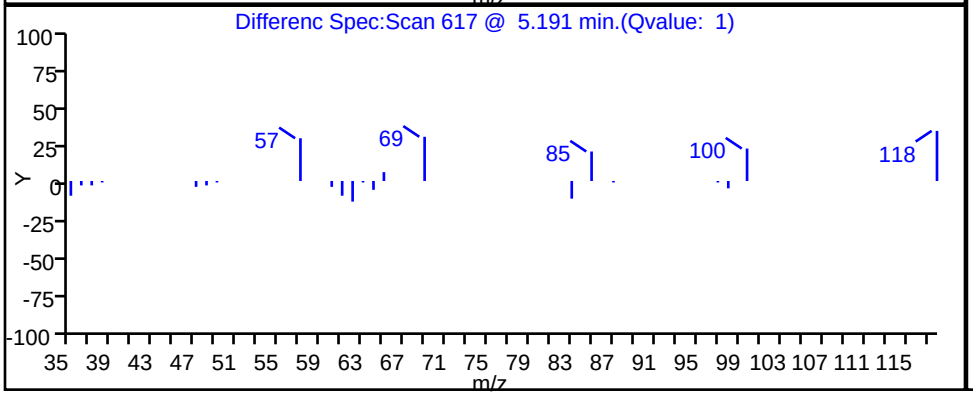










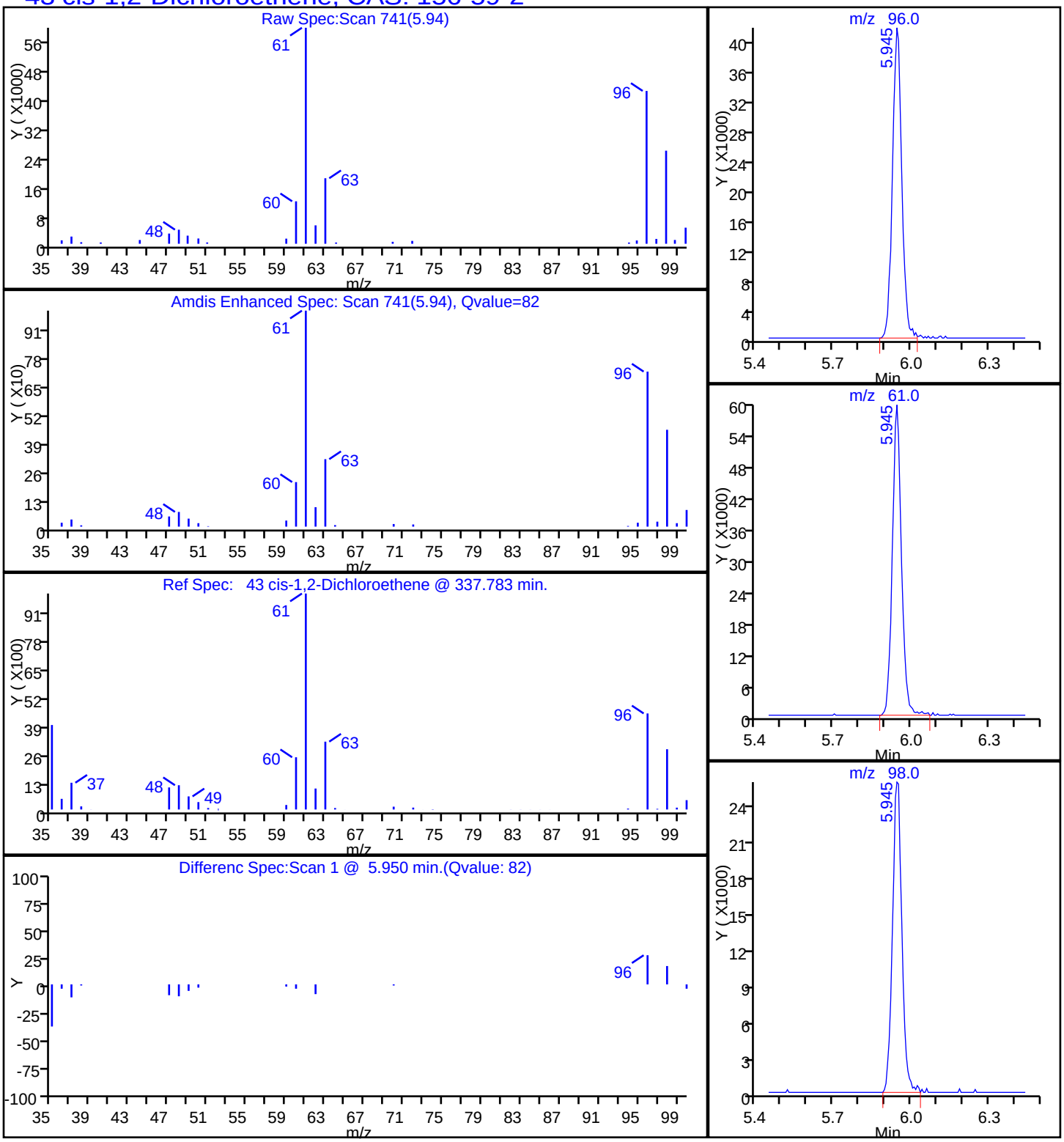


Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D				
Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
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



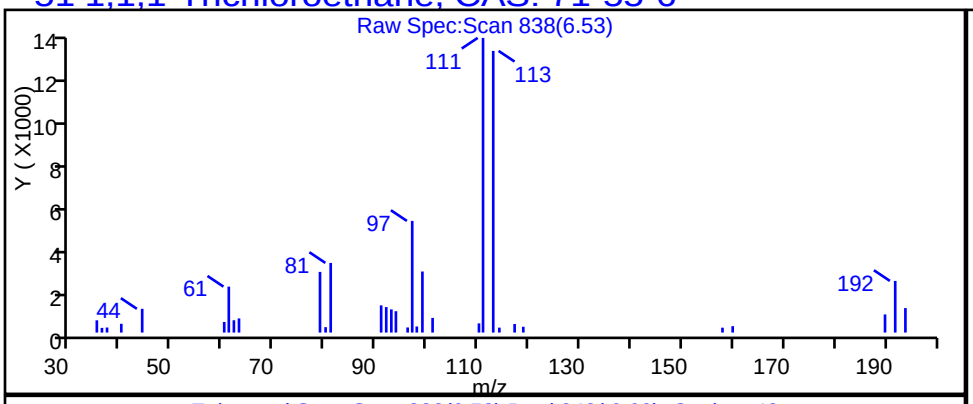
Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

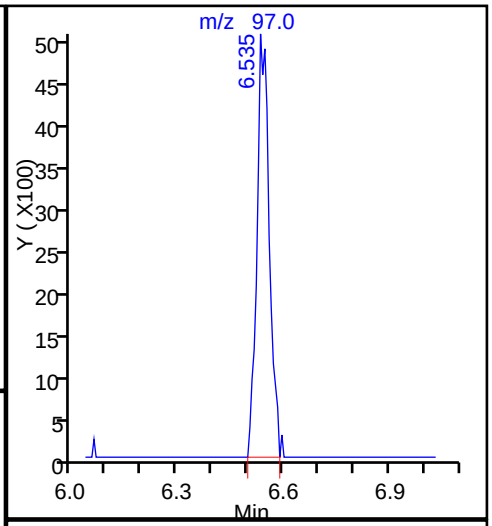
TestAmerica Pittsburgh

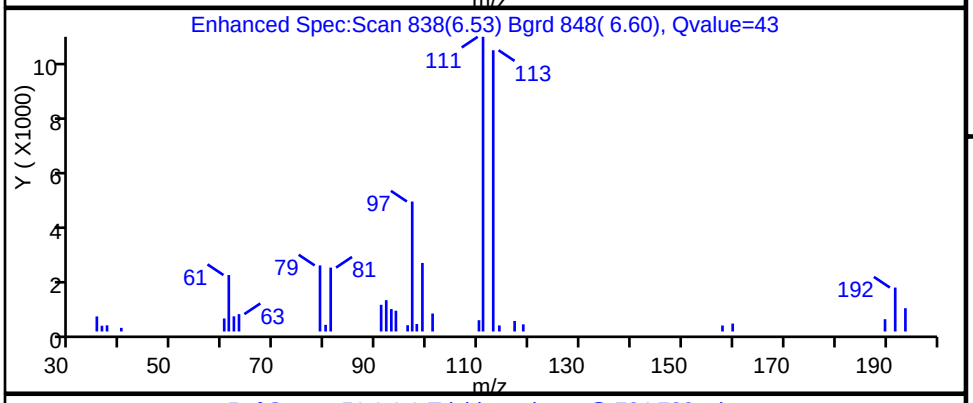
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D

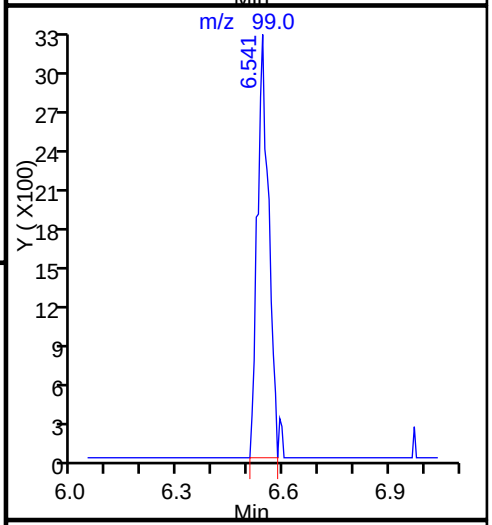
Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

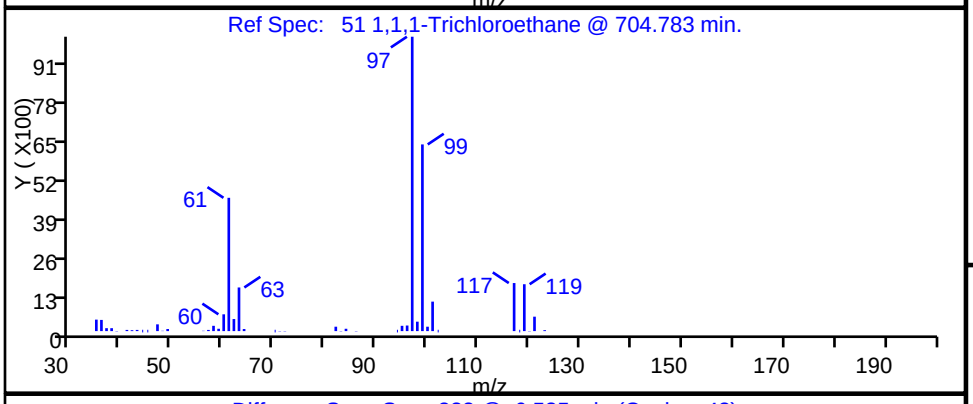
51 1,1,1-Trichloroethane, CAS: 71-55-6

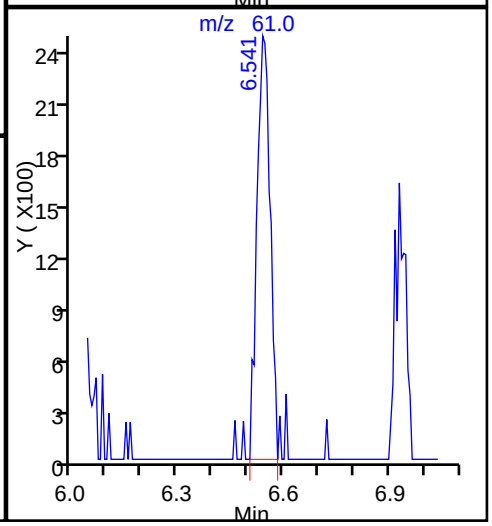


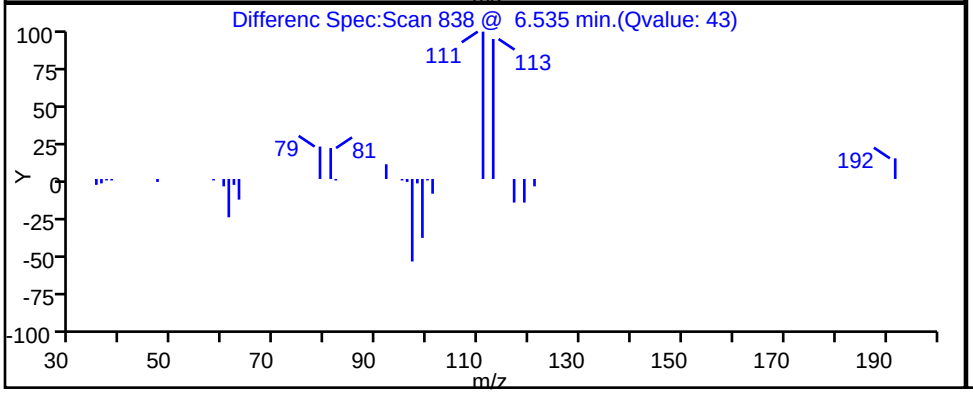










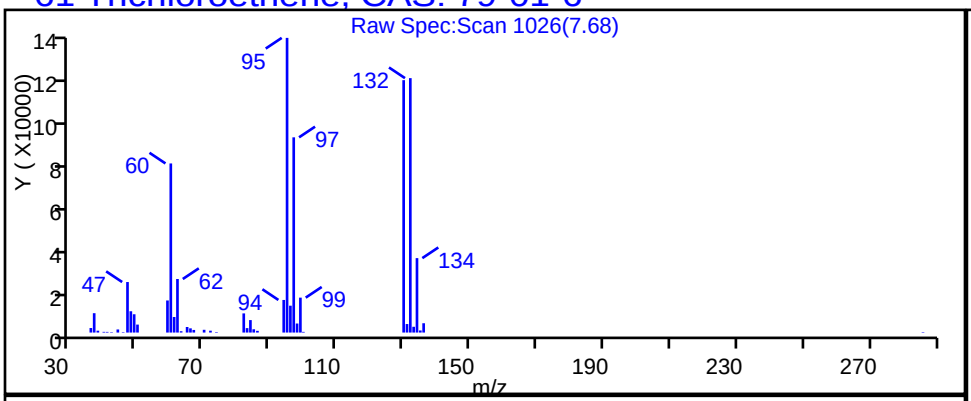


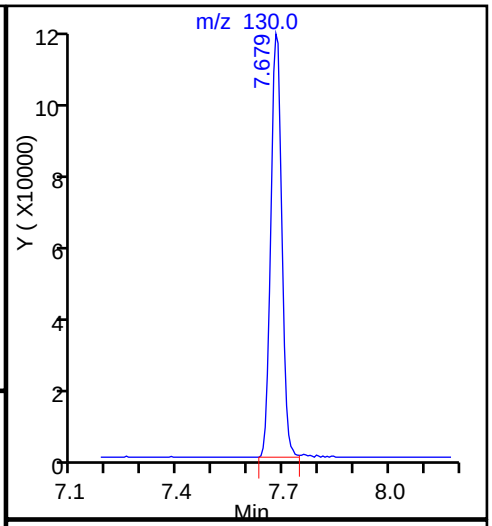
Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

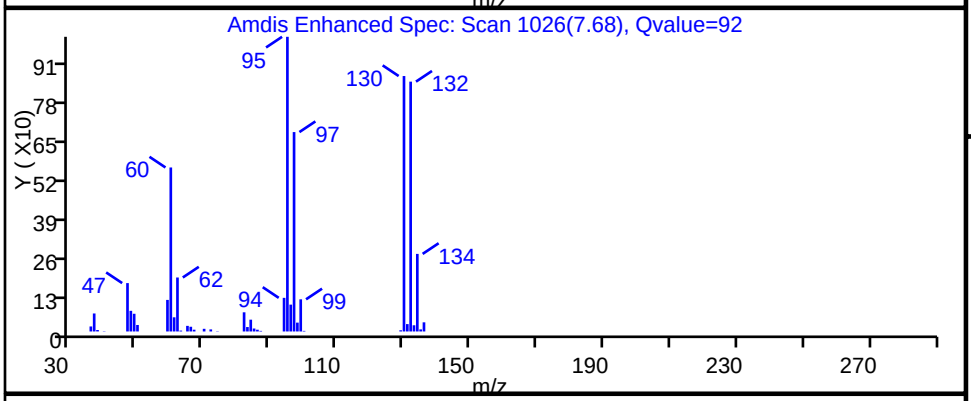
TestAmerica Pittsburgh

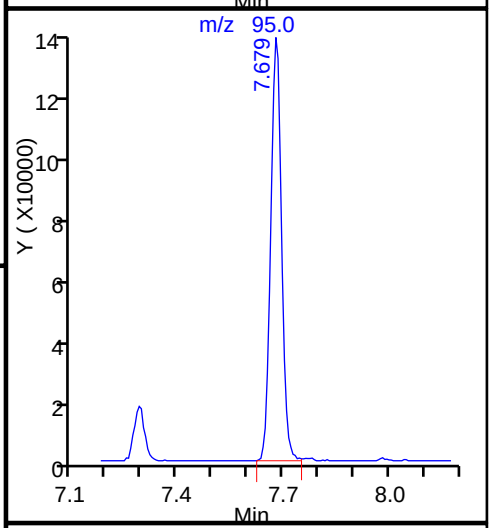
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D		
Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10
Client ID:	HD-MW-96D-0/1-0		
Operator ID:	001562	ALS Bottle#:	23 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

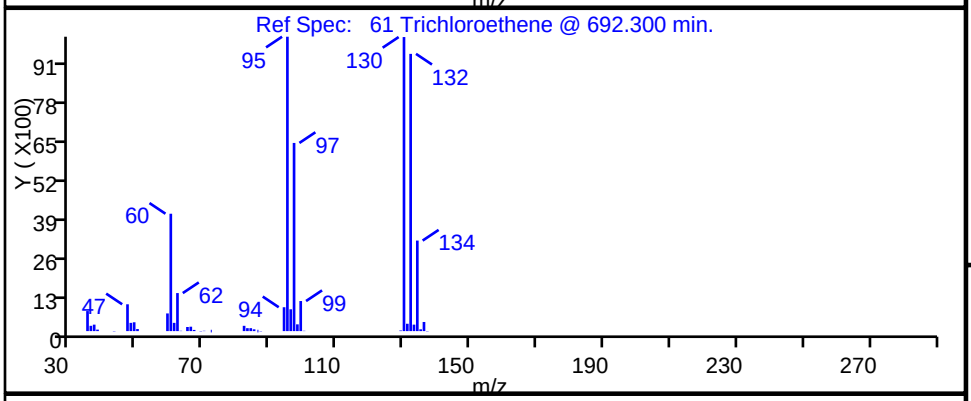
61 Trichloroethene, CAS: 79-01-6

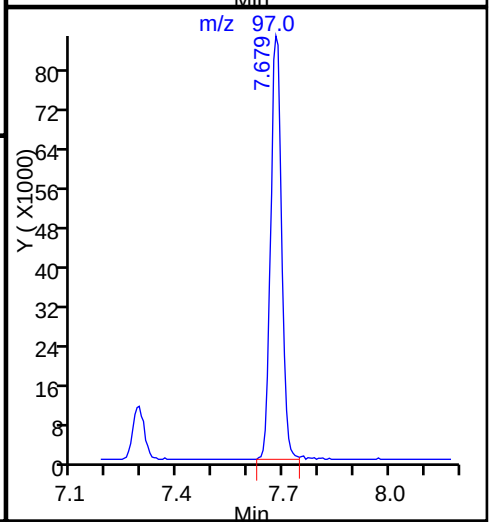


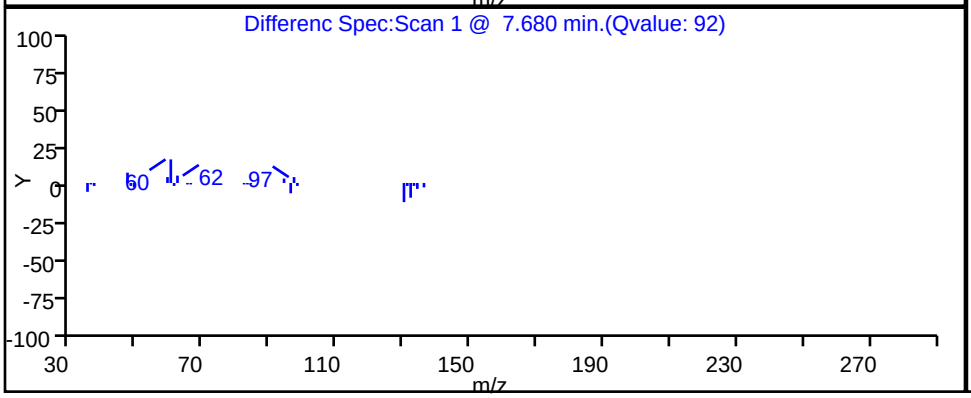












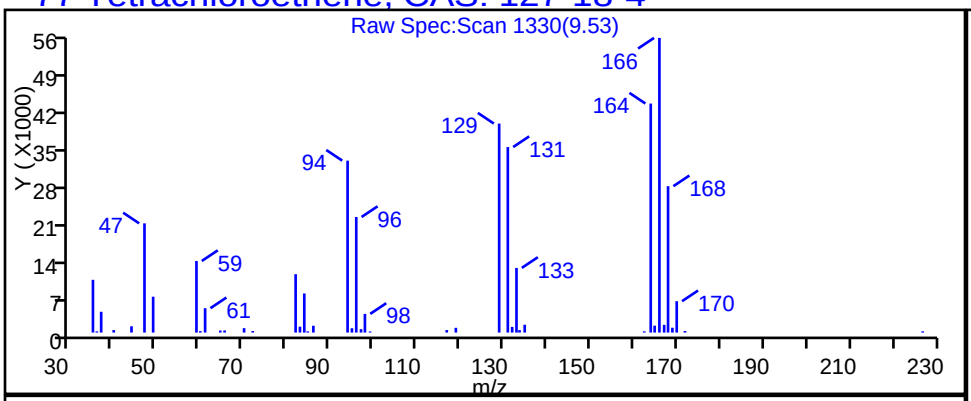
Report Date: 05-May-2015 07:43:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

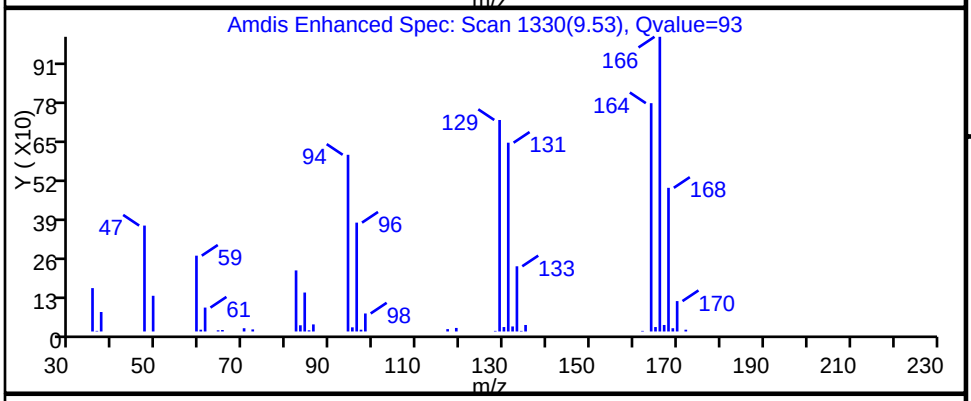
TestAmerica Pittsburgh

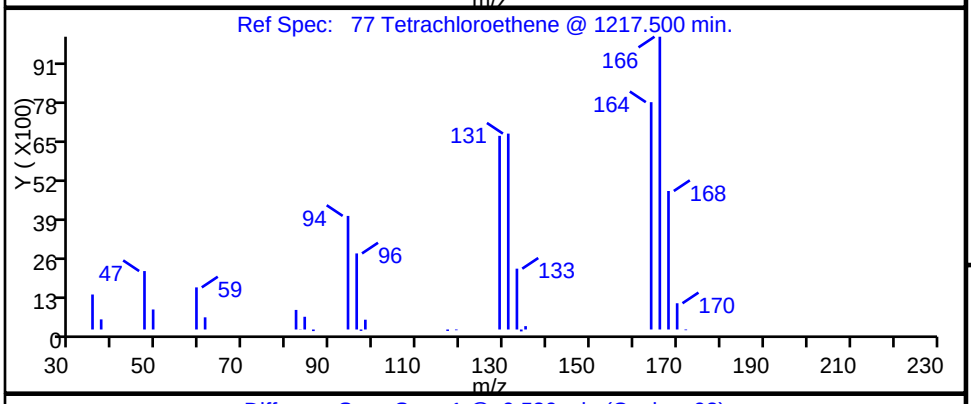
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504023.D

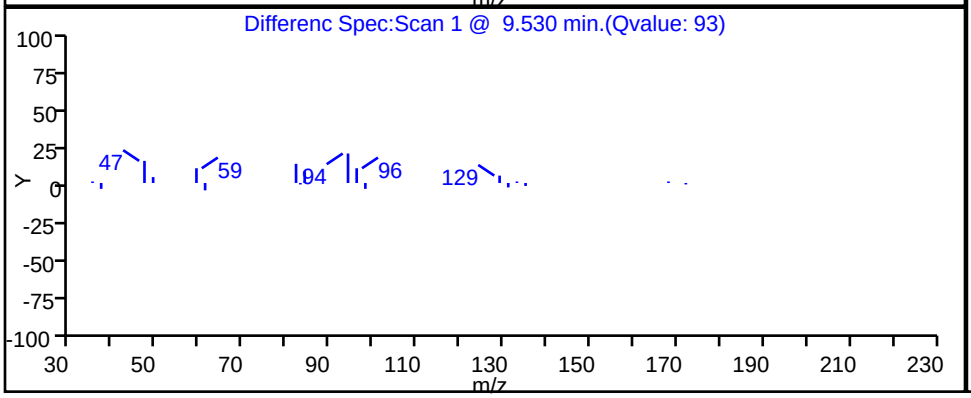
Injection Date:	04-May-2015 20:50:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-C-10	Lab Sample ID:	180-43359-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

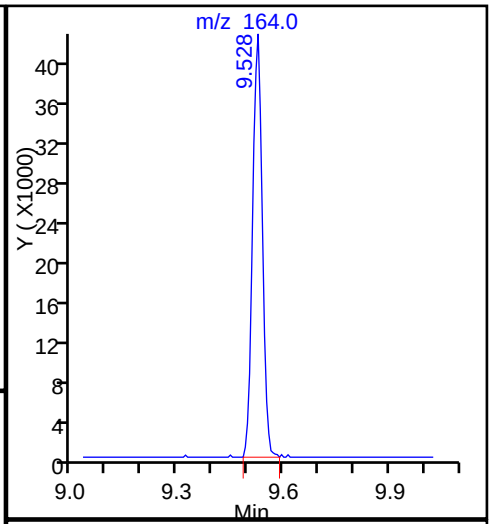
77 Tetrachloroethene, CAS: 127-18-4

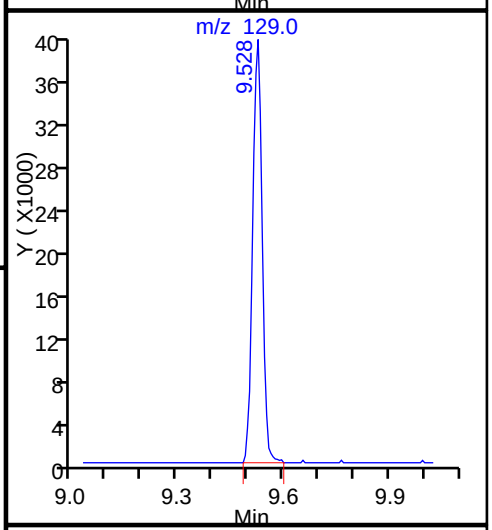


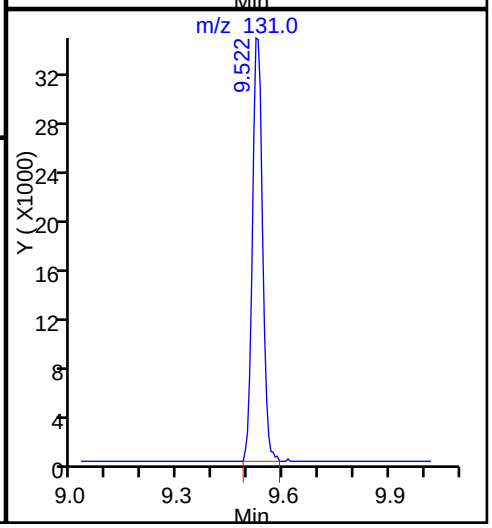












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 | Lab Sample ID: 180-43359-11

Matrix: Water | Lab File ID: 60504024.D

Analysis Method: 8260C | Date Collected: 04/22/2015 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 21:14

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140474 | 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	0.25	J	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	0.90	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	1.6		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	38		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U *	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.36	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	8.2		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.80	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 | Lab Sample ID: 180-43359-11

Matrix: Water | Lab File ID: 60504024.D

Analysis Method: 8260C | Date Collected: 04/22/2015 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 21:14

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140474 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D
Lims ID: 180-43359-E-11 Lab Sample ID: 180-43359-11
Client ID: HD-CW-18-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 21:14:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-43359-E-11
Misc. Info.: 180-0006756-024
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:46:25 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:46:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.235	4.254	-0.019	96	196096	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	97	374324	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	75965	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	114375	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	80963	52.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.924	0.006	71	139657	54.0	
$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	347503	54.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	78	136259	52.0	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62	1.887	1.887	0.000	24	2557	1.26	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.347	3.335	0.012	93	7767	4.48	
24 Acetone	43	3.439	3.432	0.007	58	5439	10.9	M
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96	4.576	4.558	0.018	81	788	0.4080	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.203	5.190	0.013	97	28762	7.92	
43 cis-1,2-Dichloroethene	96	5.945	5.933	0.012	82	415086	189.0	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.377	6.371	0.006	10	1193	0.3402	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	35	5230	1.81	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	92	73176	41.1	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.534	9.522	0.012	89	5162	3.98	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

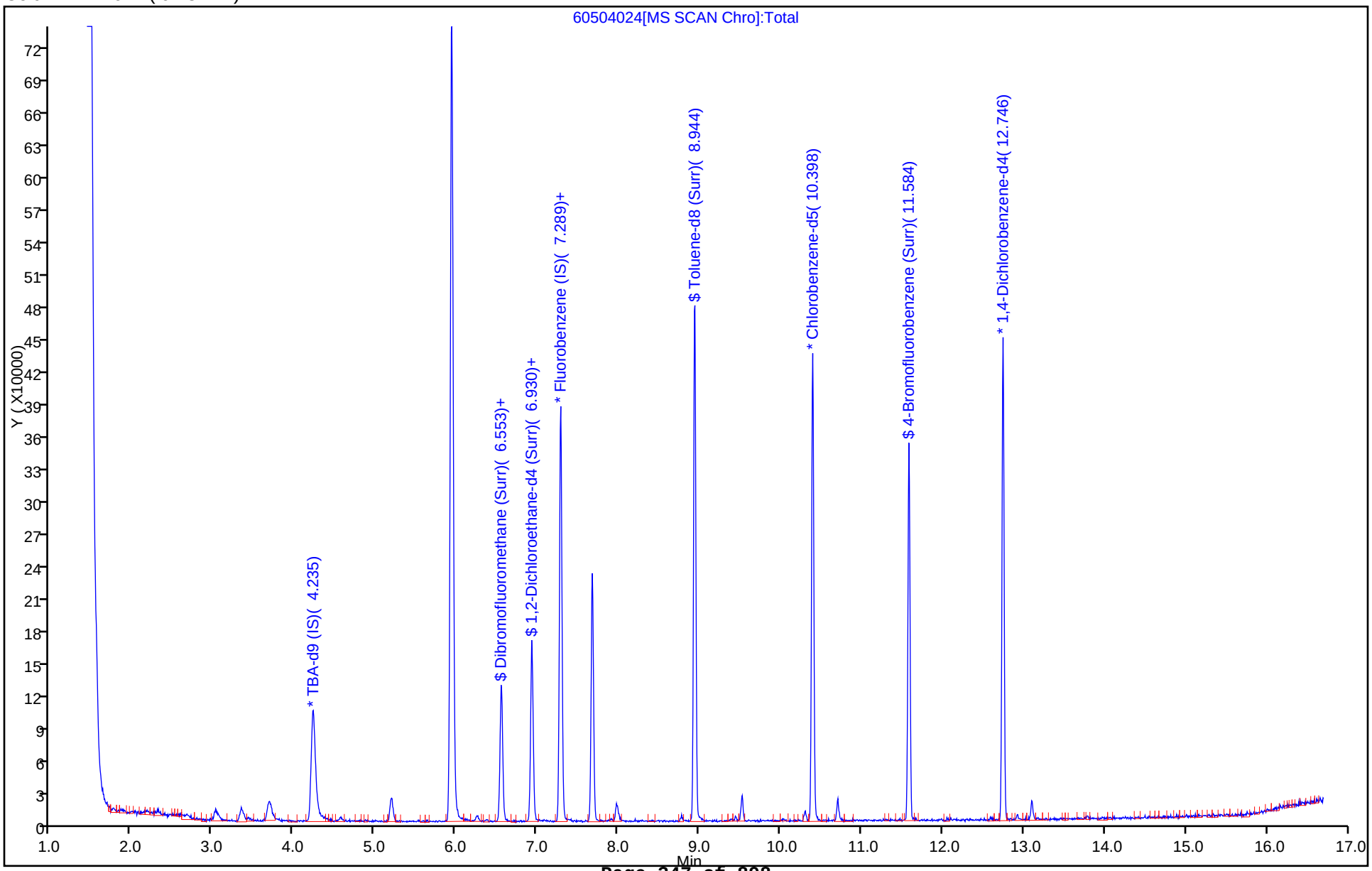
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D				
Injection Date:	04-May-2015 21:14:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-11	Lab Sample ID:	180-43359-11	Worklist Smp#:	24
Client ID:	HD-CW-18-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

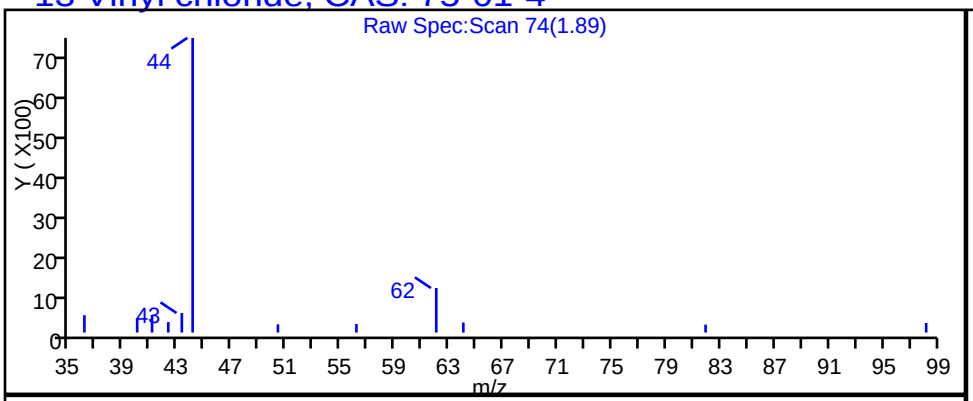


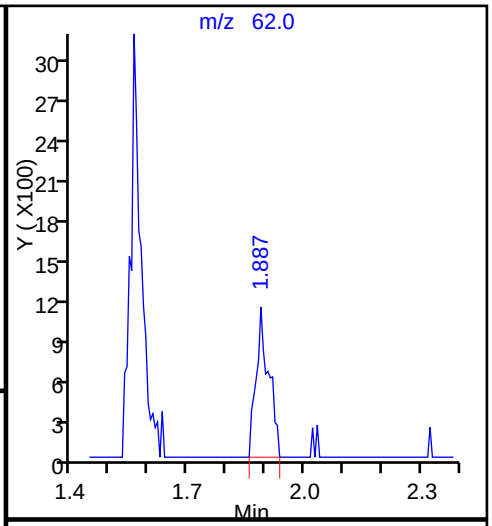
Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

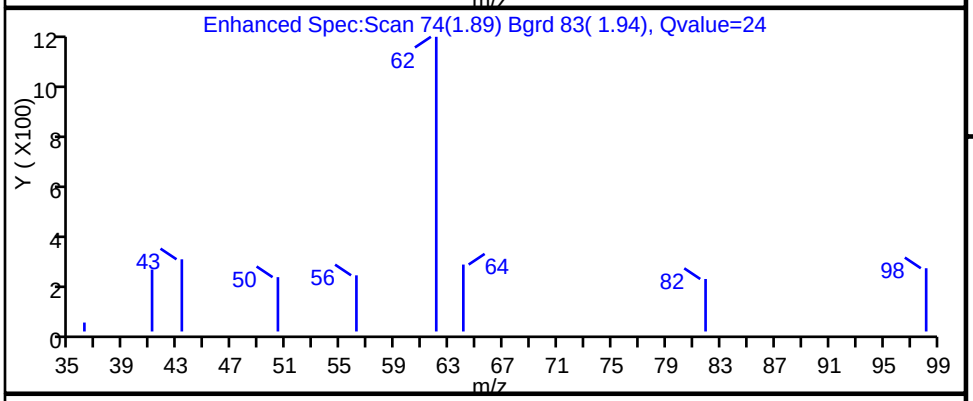
TestAmerica Pittsburgh

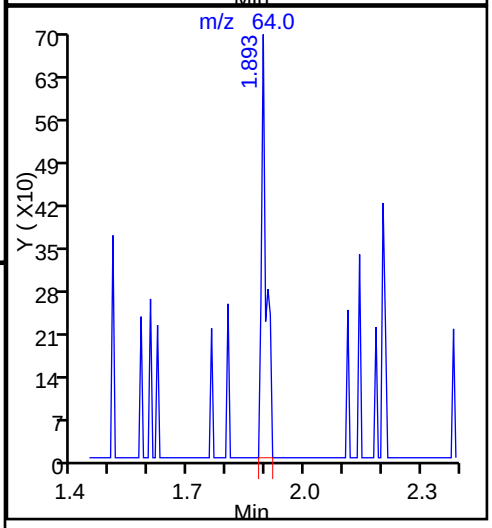
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D		
Injection Date:	04-May-2015 21:14:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-11	Lab Sample ID:	180-43359-11
Client ID:	HD-CW-18-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

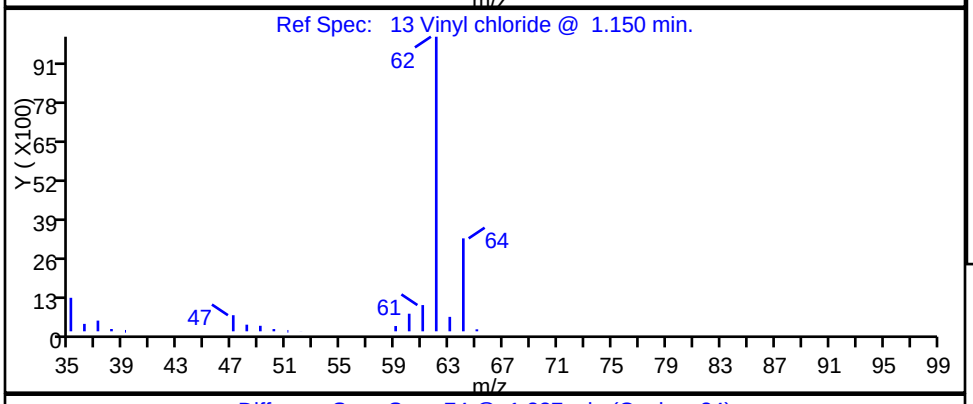
13 Vinyl chloride, CAS: 75-01-4

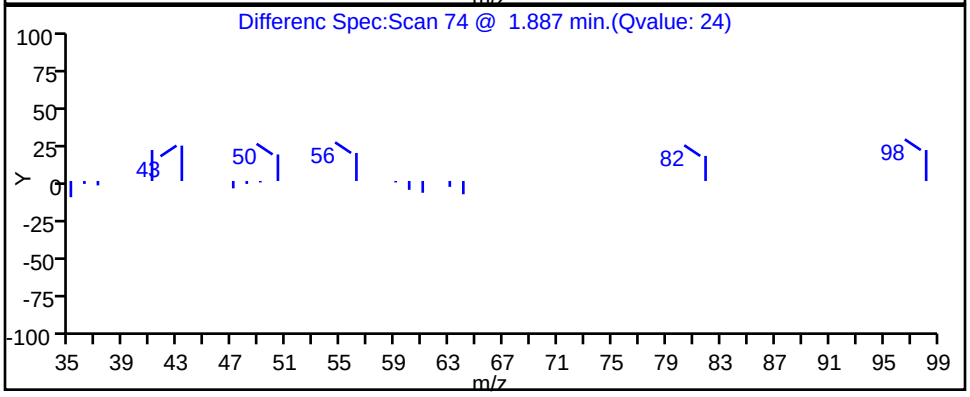












Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D

Injection Date: 04-May-2015 21:14:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-11 Lab Sample ID: 180-43359-11

Client ID: HD-CW-18-0/1-0

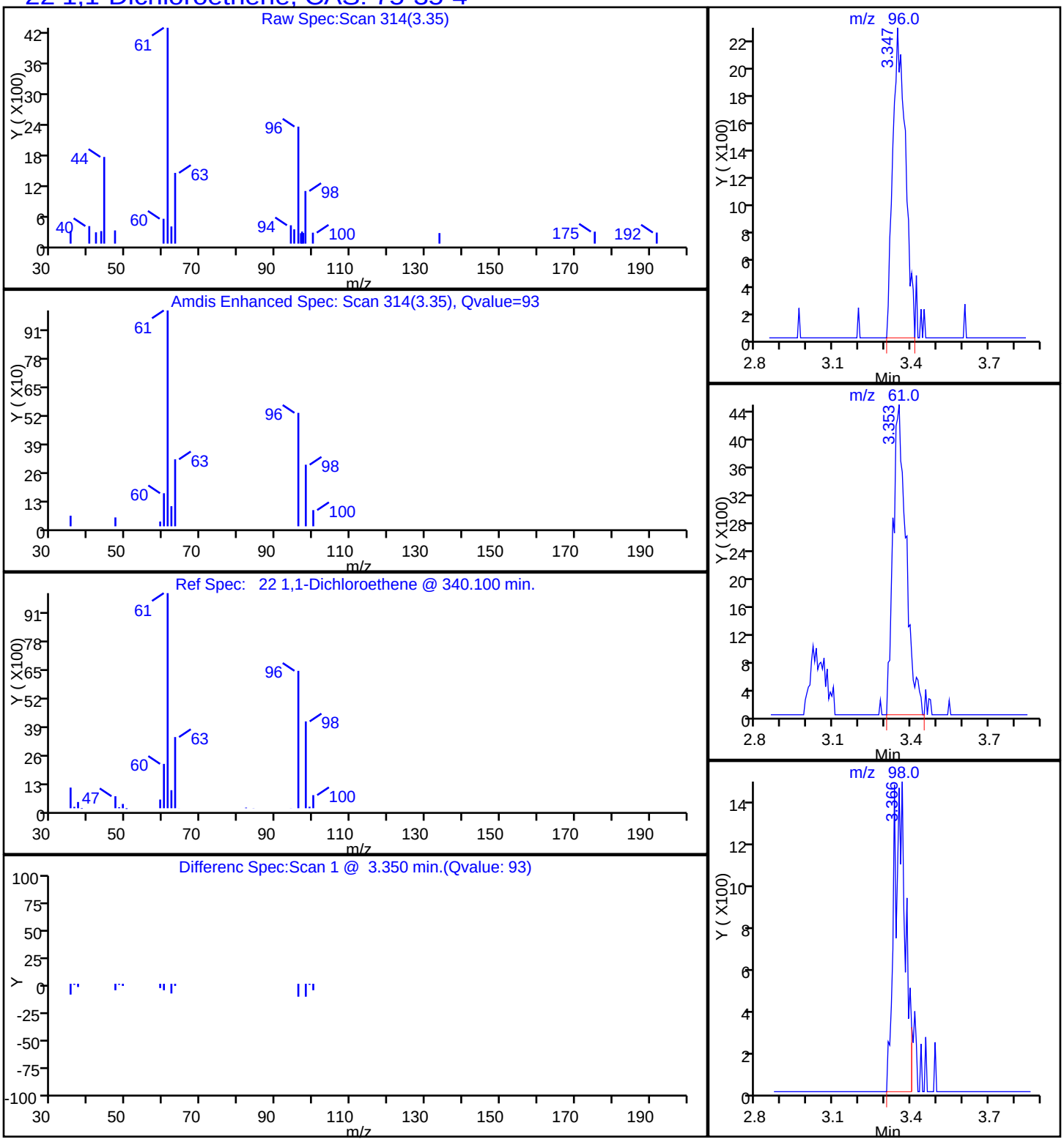
Operator ID: 001562 ALS Bottle#: 24 Worklist Smp#: 24

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



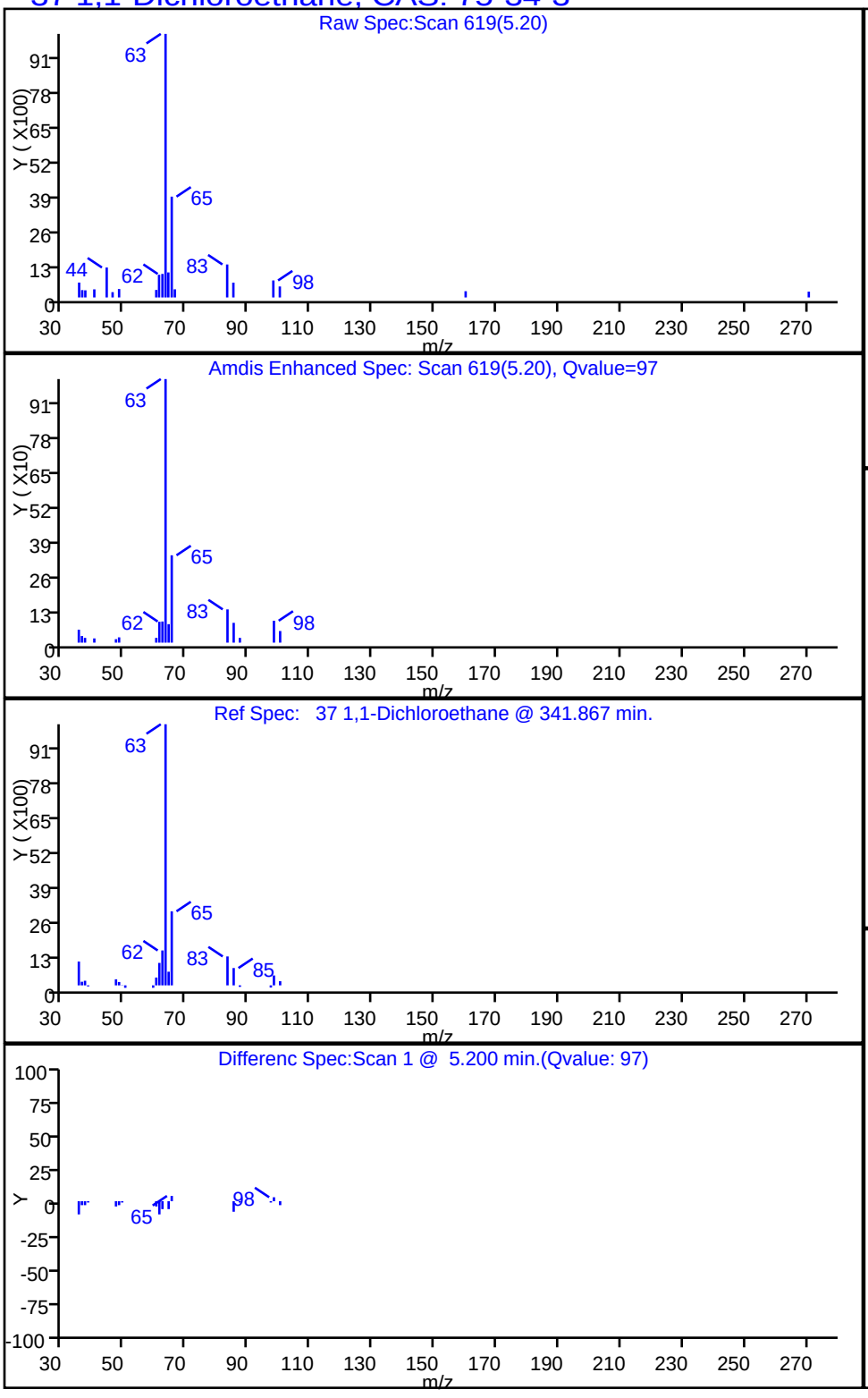
Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

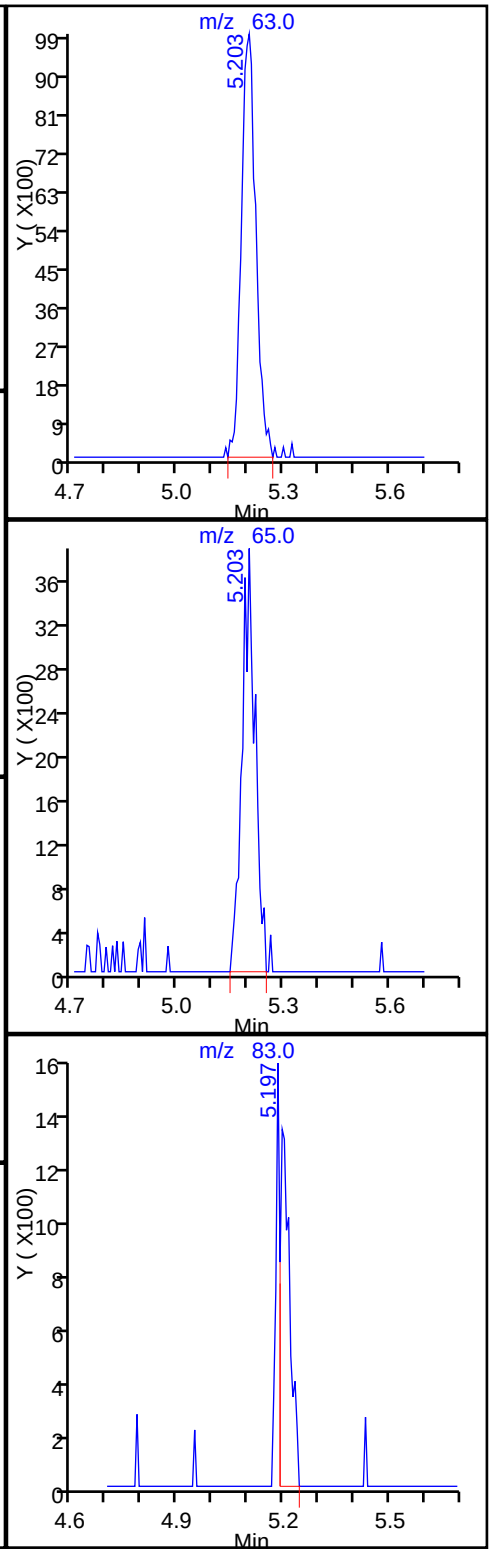
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D

Injection Date:	04-May-2015 21:14:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-11	Lab Sample ID:	180-43359-11
Client ID:	HD-CW-18-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
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



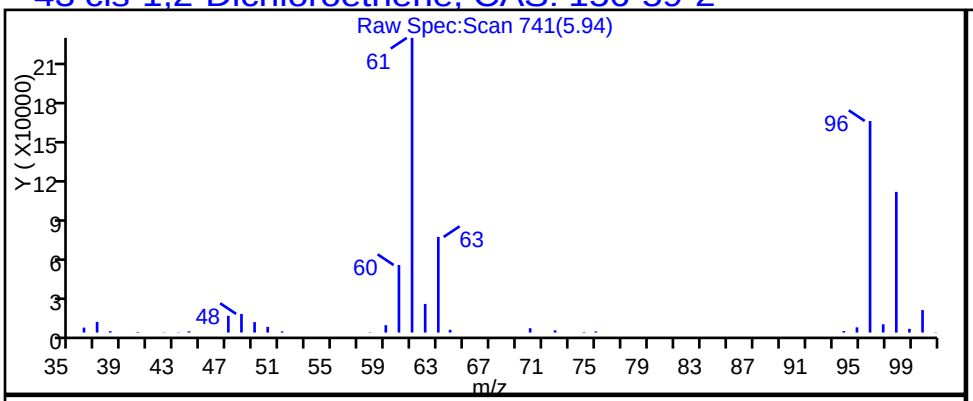


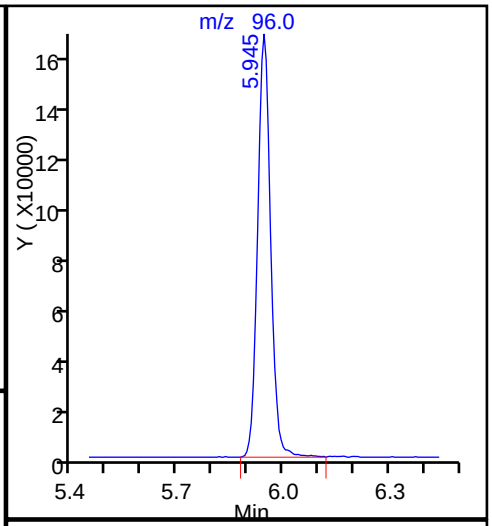
Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

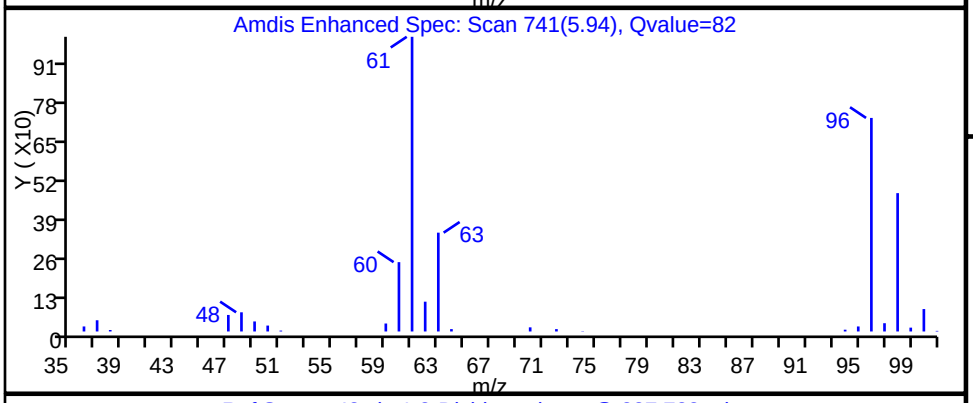
TestAmerica Pittsburgh

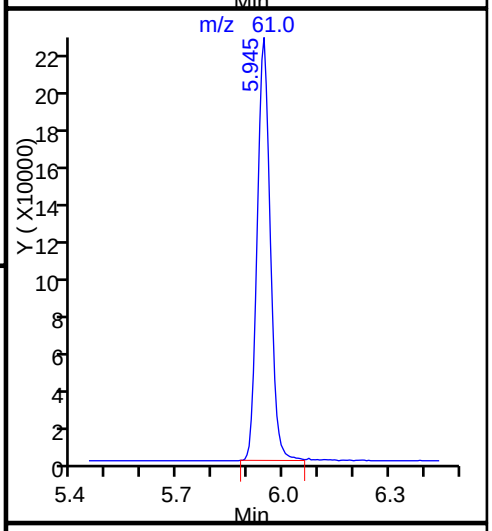
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D				
Injection Date:	04-May-2015 21:14:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-11	Lab Sample ID:	180-43359-11		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

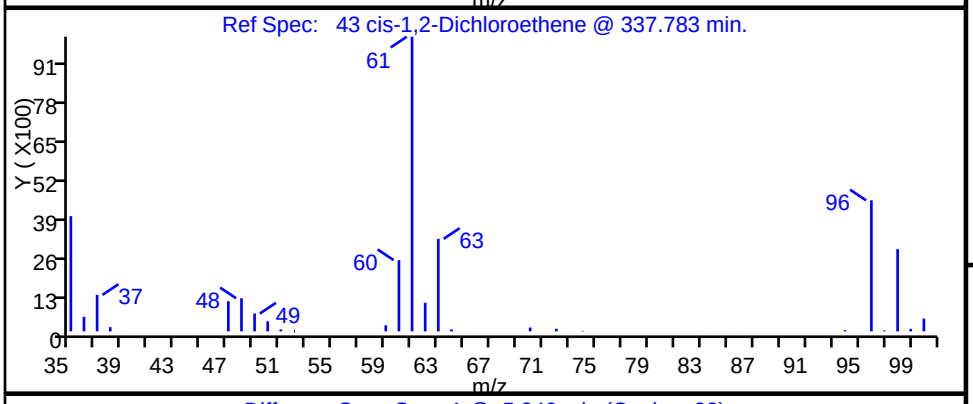
43 cis-1,2-Dichloroethene, CAS: 156-59-2

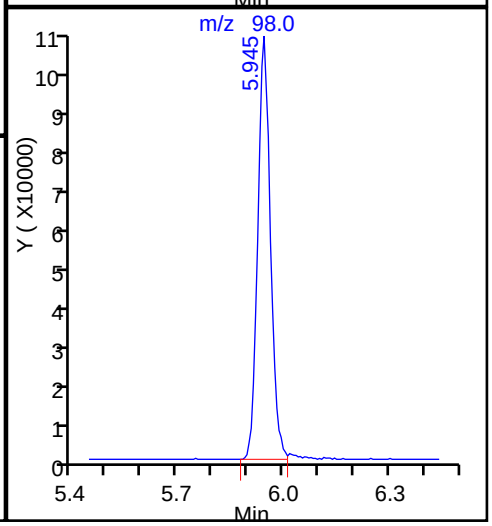


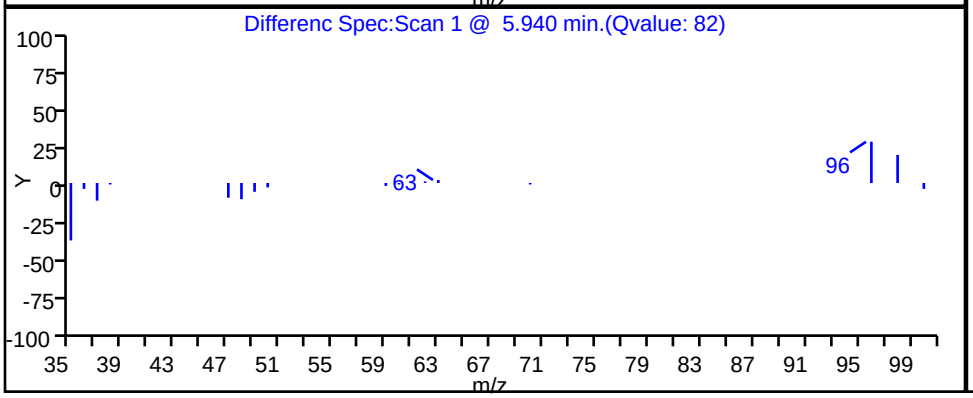










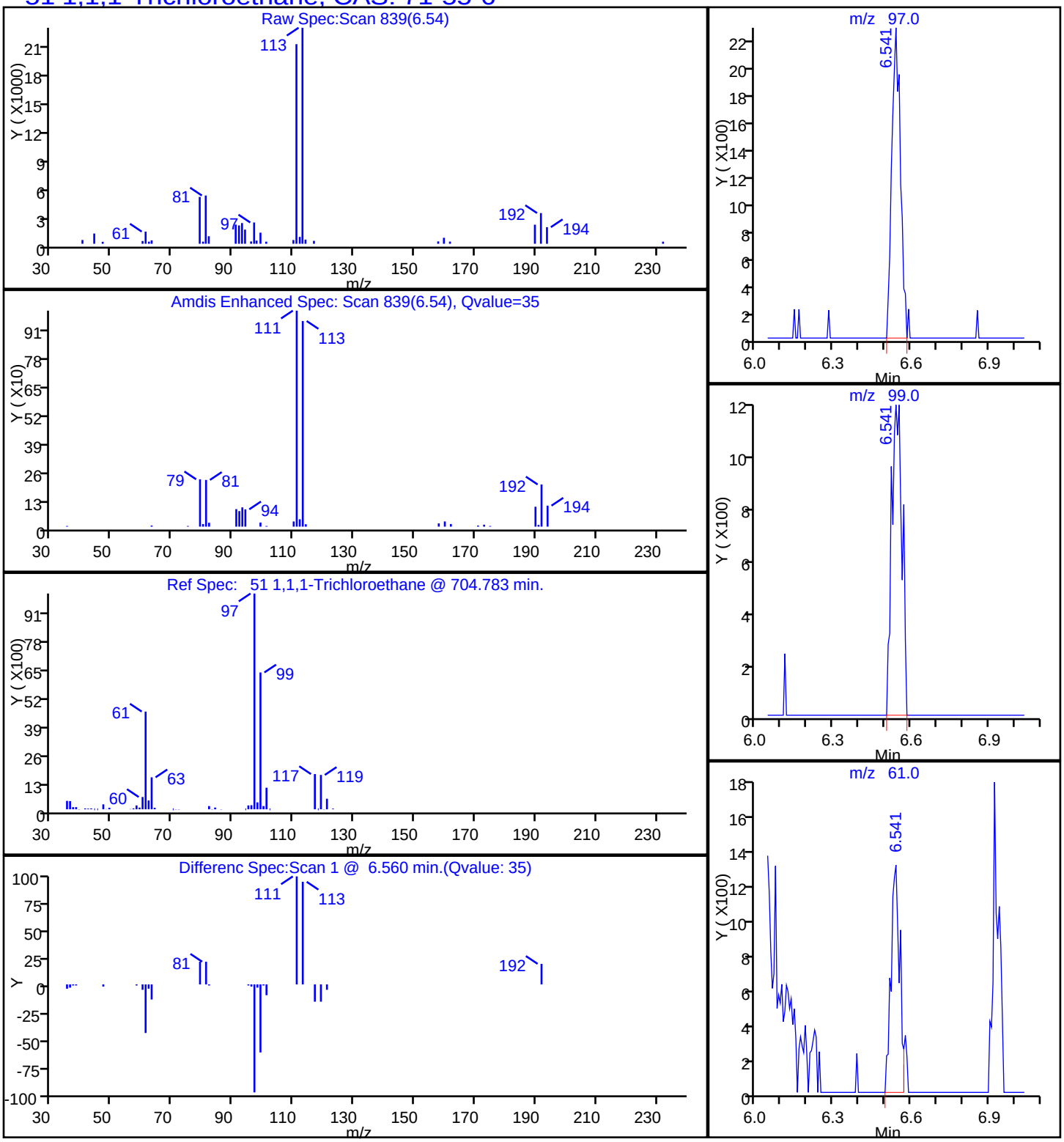


Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D				
Injection Date:	04-May-2015 21:14:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-11	Lab Sample ID:	180-43359-11		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
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



Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D

Injection Date: 04-May-2015 21:14:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-11 Lab Sample ID: 180-43359-11

Client ID: HD-CW-18-0/1-0

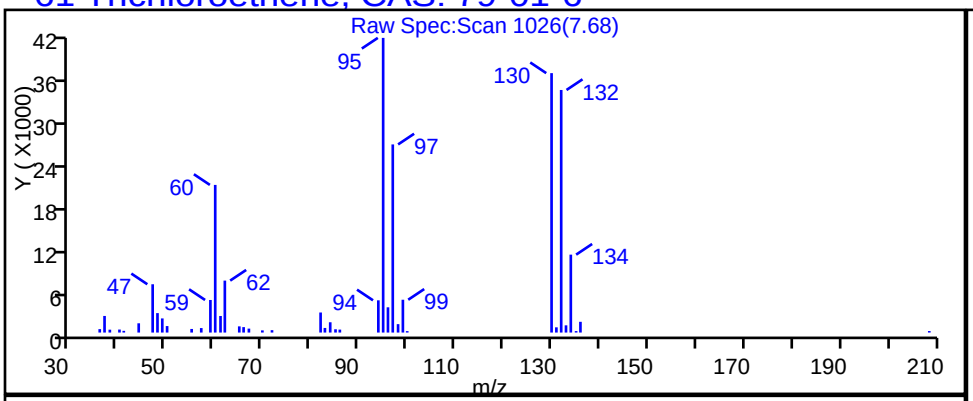
Operator ID: 001562 ALS Bottle#: 24 Worklist Smp#: 24

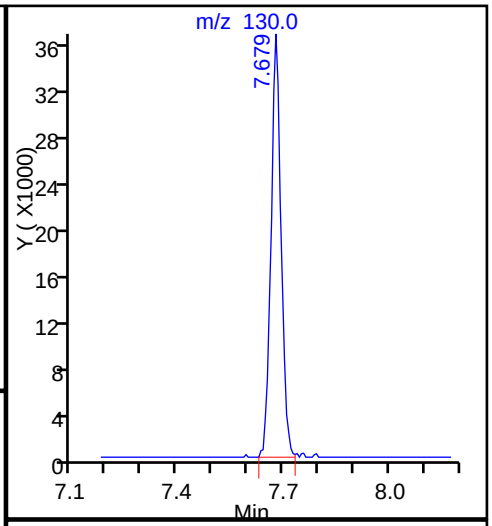
Purge Vol: 5.000 mL Dil. Factor: 1.0000

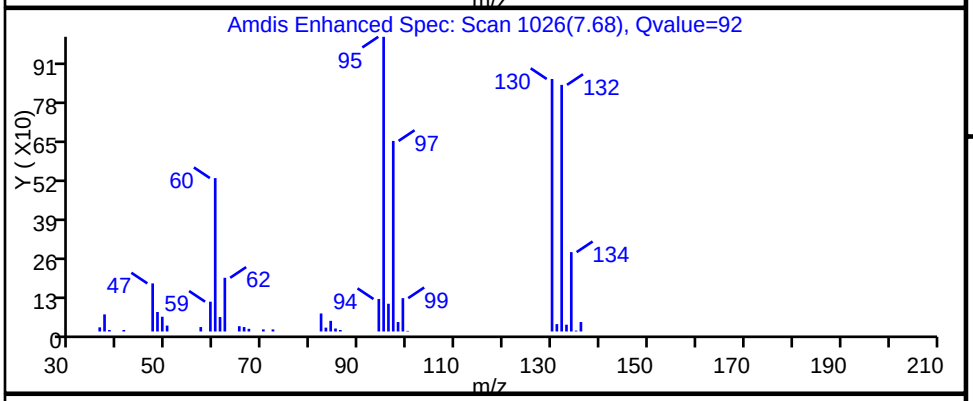
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

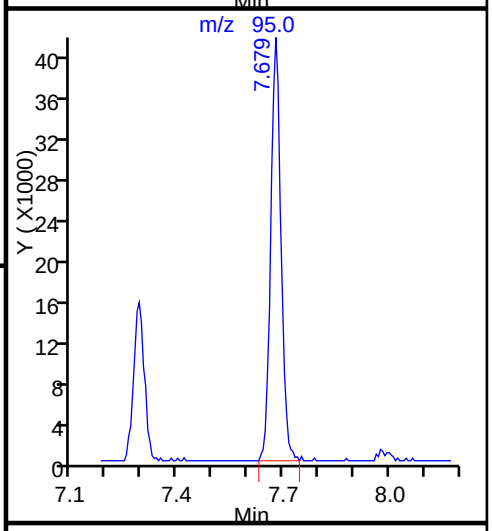
Column: DB-624 (0.18 mm) Detector MS SCAN

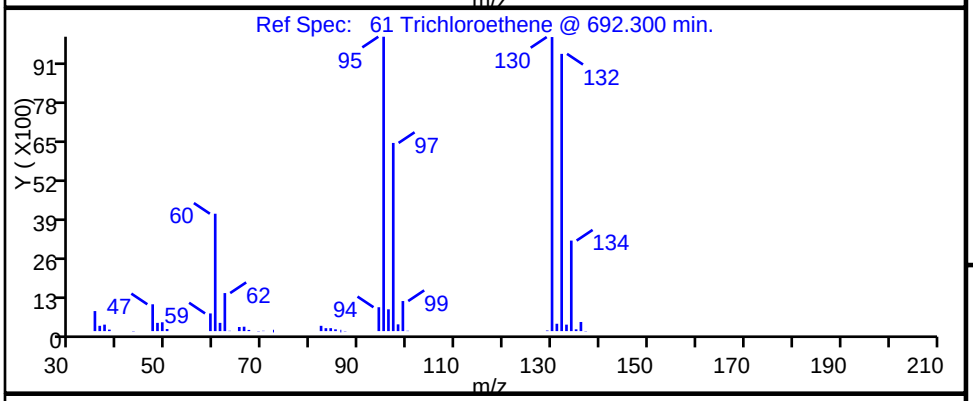
61 Trichloroethene, CAS: 79-01-6

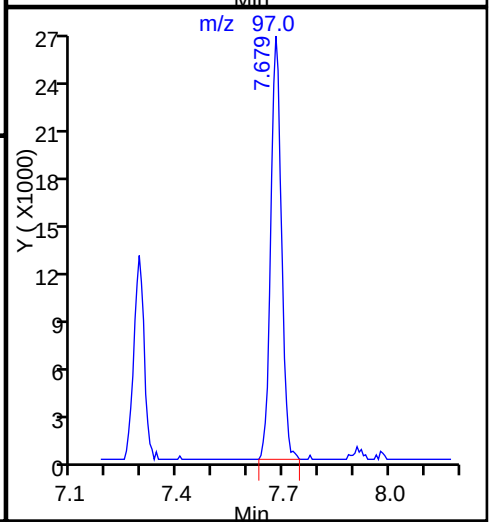


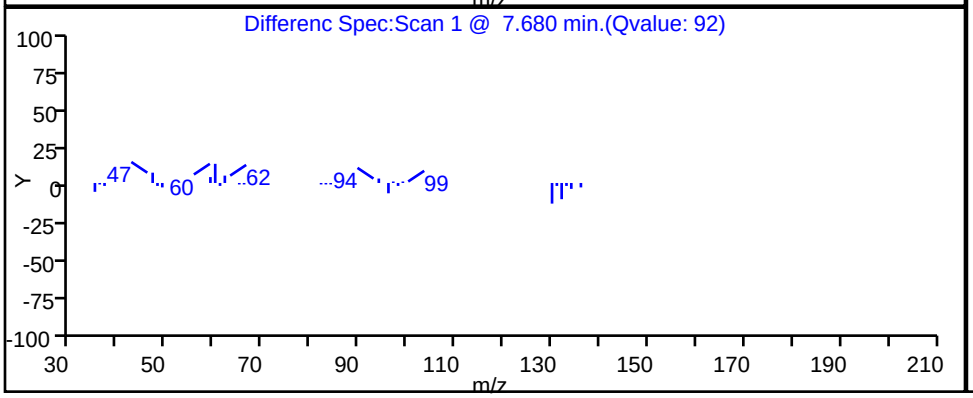












Report Date: 05-May-2015 07:46:26 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D

Injection Date: 04-May-2015 21:14:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-11 Lab Sample ID: 180-43359-11

Client ID: HD-CW-18-0/1-0

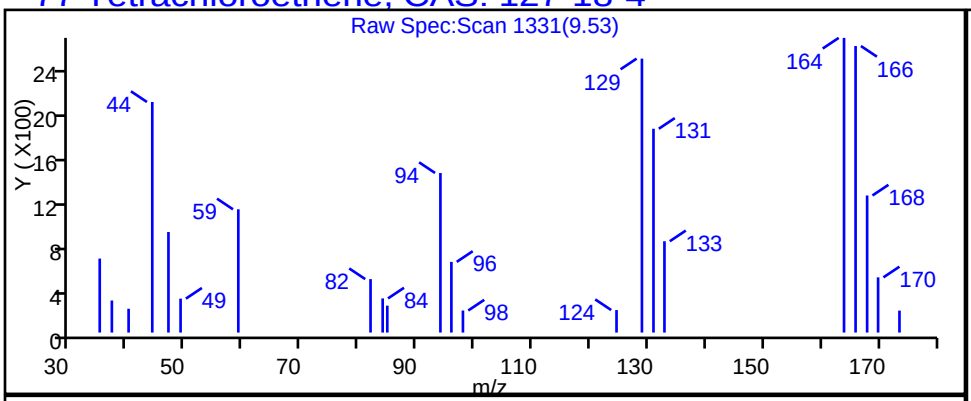
Operator ID: 001562 ALS Bottle#: 24 Worklist Smp#: 24

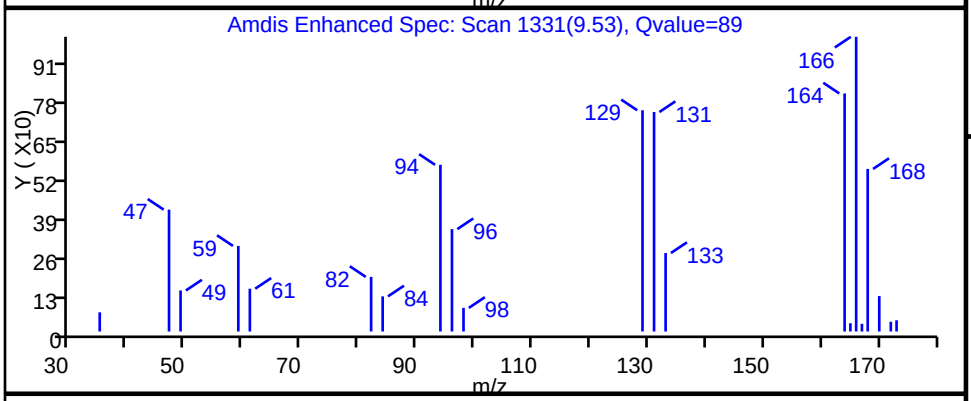
Purge Vol: 5.000 mL Dil. Factor: 1.0000

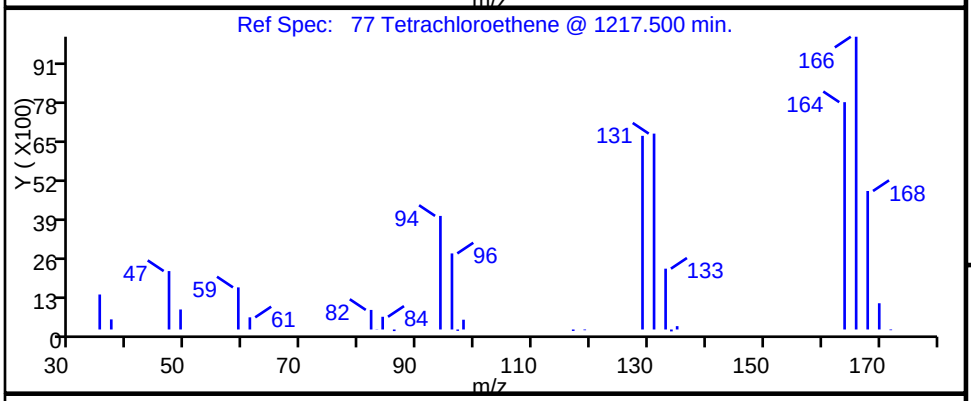
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

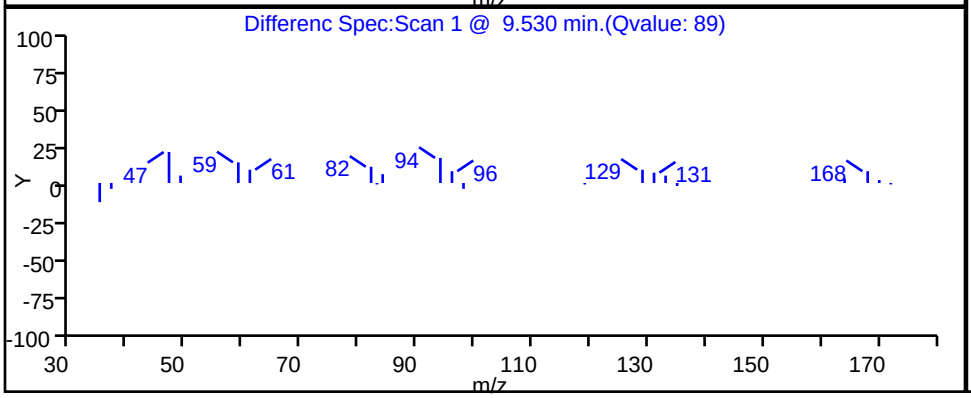
Column: DB-624 (0.18 mm) Detector MS SCAN

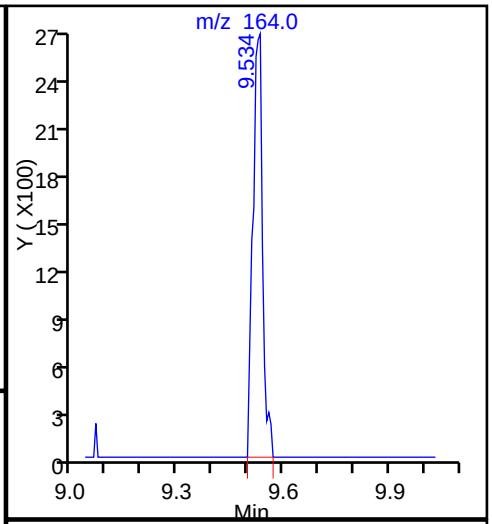
77 Tetrachloroethene, CAS: 127-18-4

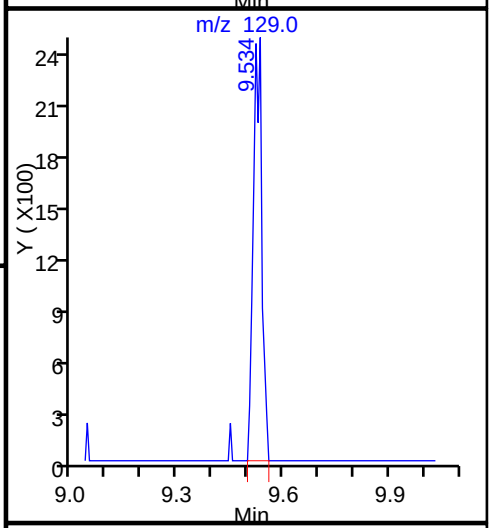


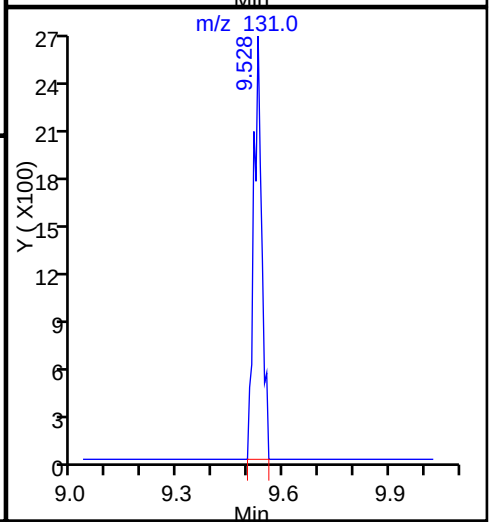












Manual Integration/User Assign Peak Report

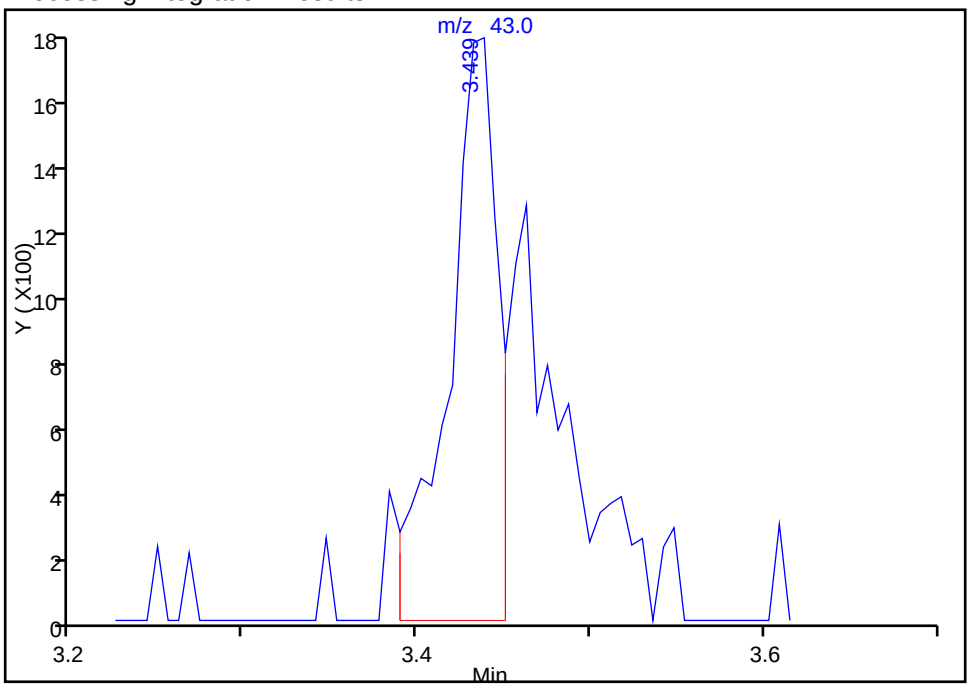
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504024.D				
Injection Date:	04-May-2015 21:14:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-11	Lab Sample ID:	180-43359-11		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

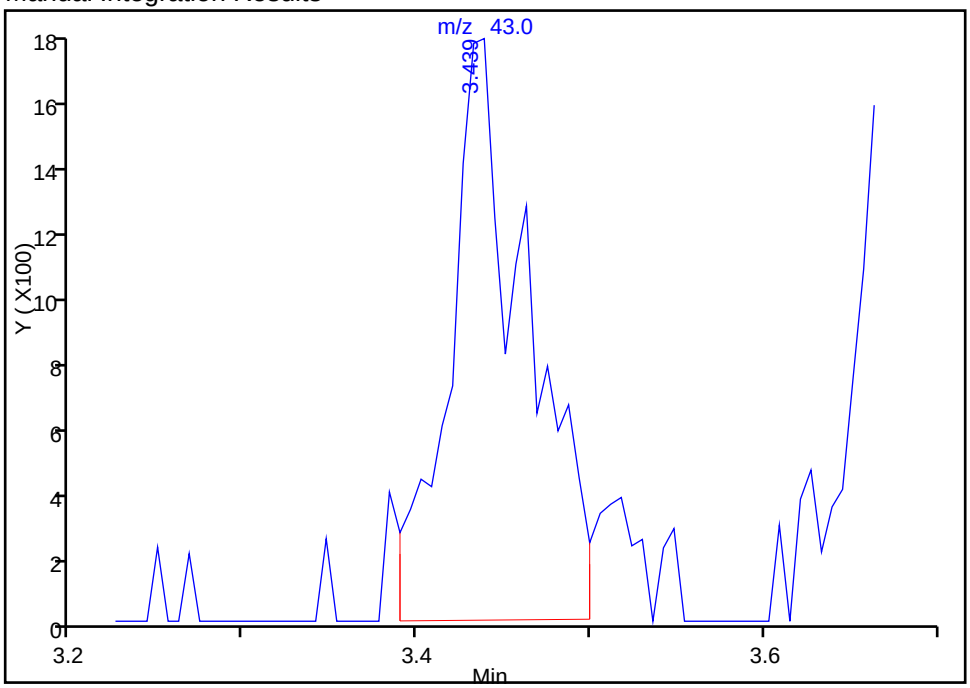
Processing Integration Results

RT: 3.44
Area: 3451
Amount: 6.946795
Amount Units: ng



Manual Integration Results

RT: 3.44
Area: 5439
Amount: 10.948599
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:46:25
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 | Lab Sample ID: 180-43359-12

Matrix: Water | Lab File ID: 60504026.D

Analysis Method: 8260C | Date Collected: 04/22/2015 10:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 22:03

Soil Aliquot Vol: | Dilution Factor: 125

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	130	U	130	35
75-01-4	Vinyl chloride	34	J	130	28
74-83-9	Bromomethane	130	U	130	39
75-00-3	Chloroethane	130	U	130	27
75-35-4	1,1-Dichloroethene	300		130	37
67-64-1	Acetone	630	U *	630	310
75-15-0	Carbon disulfide	130	U	130	27
75-09-2	Methylene Chloride	63	J	130	16
156-60-5	trans-1,2-Dichloroethene	130	U	130	21
1634-04-4	Methyl tert-butyl ether	130	U	130	23
75-34-3	1,1-Dichloroethane	840		130	15
156-59-2	cis-1,2-Dichloroethene	5300		130	30
74-97-5	Bromochloromethane	130	U	130	23
78-93-3	2-Butanone (MEK)	630	U *	630	68
67-66-3	Chloroform	130	U	130	21
71-55-6	1,1,1-Trichloroethane	280		130	36
56-23-5	Carbon tetrachloride	130	U	130	17
71-43-2	Benzene	130	U	130	13
107-06-2	1,2-Dichloroethane	130	U	130	26
79-01-6	Trichloroethene	5700		130	18
78-87-5	1,2-Dichloropropane	130	U	130	12
75-27-4	Bromodichloromethane	130	U	130	16
10061-01-5	cis-1,3-Dichloropropene	130	U	130	23
108-10-1	4-Methyl-2-pentanone (MIBK)	630	U	630	66
108-88-3	Toluene	130	U	130	19
10061-02-6	trans-1,3-Dichloropropene	130	U	130	19
79-00-5	1,1,2-Trichloroethane	130	U	130	25
127-18-4	Tetrachloroethene	510		130	19
591-78-6	2-Hexanone	630	U	630	20
124-48-1	Dibromochloromethane	130	U	130	17
106-93-4	1,2-Dibromoethane (EDB)	130	U	130	23
108-90-7	Chlorobenzene	130	U	130	17
630-20-6	1,1,1,2-Tetrachloroethane	130	U	130	35
100-41-4	Ethylbenzene	130	U	130	28
1330-20-7	Xylenes, Total	380	U	380	61
100-42-5	Styrene	130	U	130	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 | Lab Sample ID: 180-43359-12

Matrix: Water | Lab File ID: 60504026.D

Analysis Method: 8260C | Date Collected: 04/22/2015 10:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 22:03

Soil Aliquot Vol: | Dilution Factor: 125

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	130	U	130	24
79-34-5	1,1,2,2-Tetrachloroethane	130	U	130	25
107-13-1	Acrylonitrile	2500	U	2500	68
123-91-1	1,4-Dioxane	25000	U	25000	4300

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D
Lims ID: 180-43359-E-12 Lab Sample ID: 180-43359-12
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 22:03:30 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 125.0000
Sample Info: 180-43359-E-12, 125x
Misc. Info.: 180-0006756-026
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:47:40 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:47:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.226	4.254	-0.028	95	153015	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.283	0.003	97	366948	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.398	-0.003	92	75606	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.746	-0.003	97	109492	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.553	0.003	92	79033	52.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.924	0.010	71	138317	54.5	
$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	94	352805	55.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.584	0.003	79	134785	51.7	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62	1.896	1.887	0.009	21	2677	1.35	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.344	3.335	0.009	96	20655	12.2	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.141	4.120	0.021	63	5198	2.52	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.194	5.190	0.004	97	119126	33.5	
43 cis-1,2-Dichloroethene	96	5.942	5.933	0.009	81	455362	211.5	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.544	6.535	0.009	96	31937	11.3	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.676	7.673	0.003	91	395539	226.5	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.531	9.522	0.009	90	26125	20.2	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

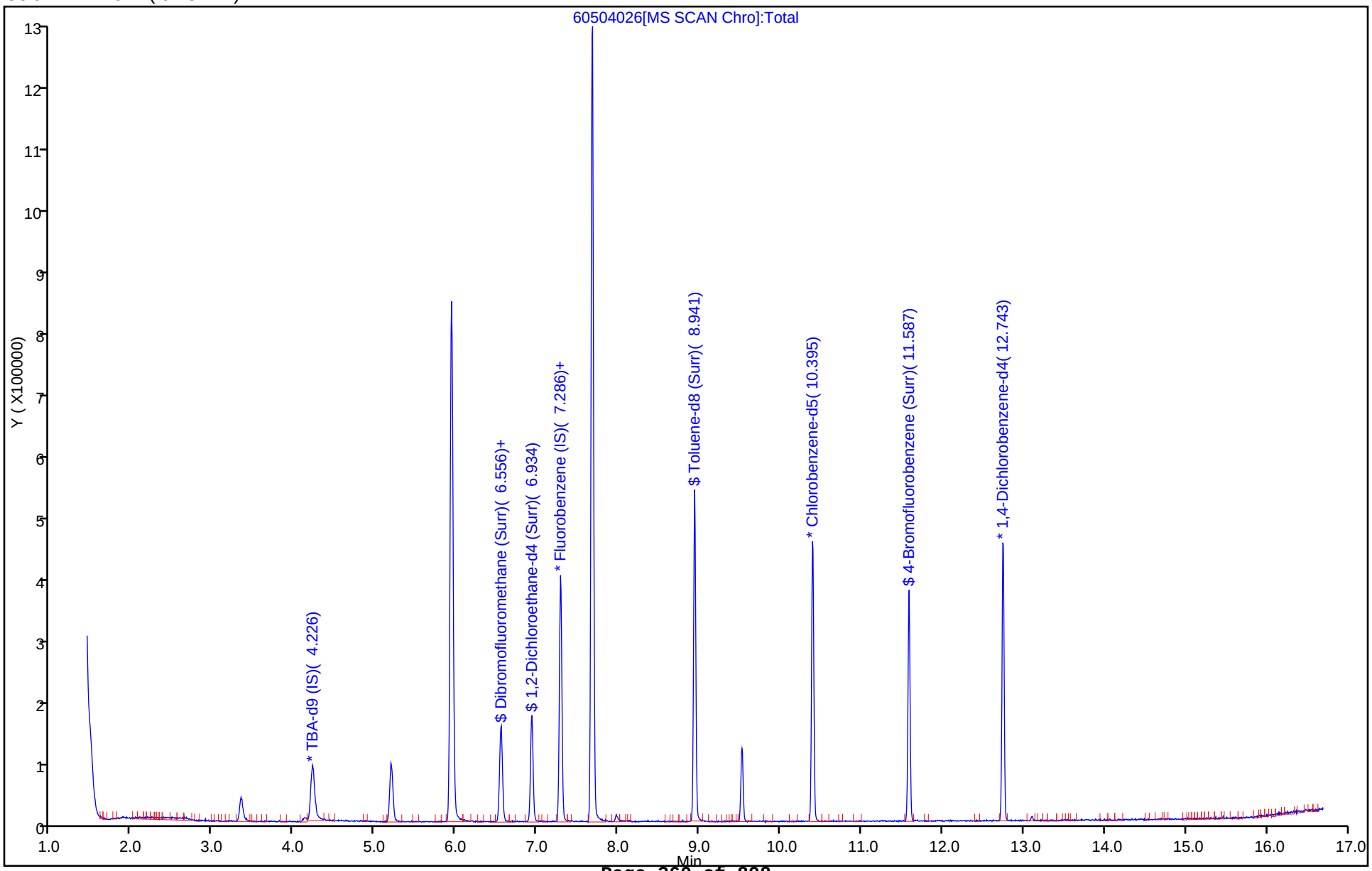
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D				
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12	Worklist Smp#:	26
Client ID:	HD-MW-50D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	125.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

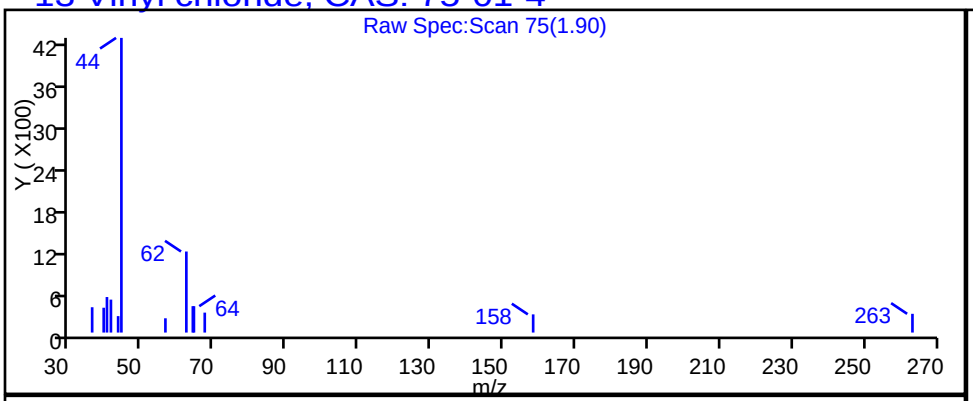


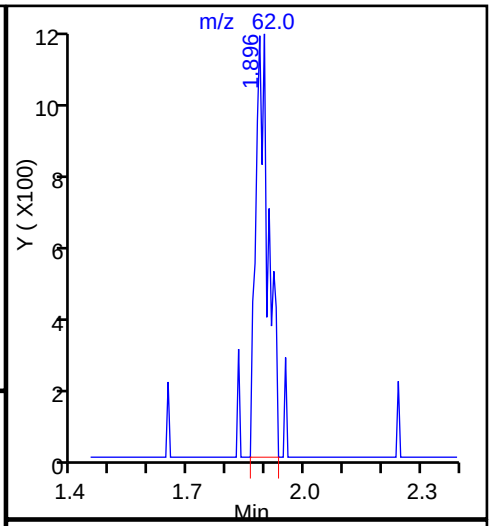
Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

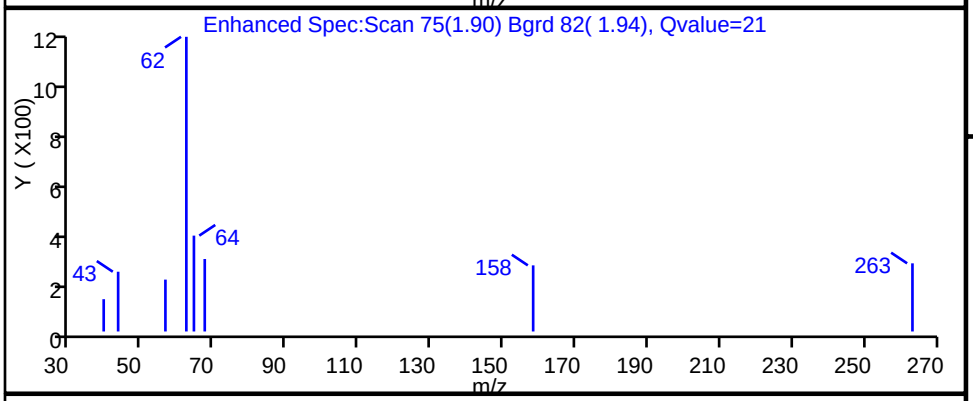
TestAmerica Pittsburgh

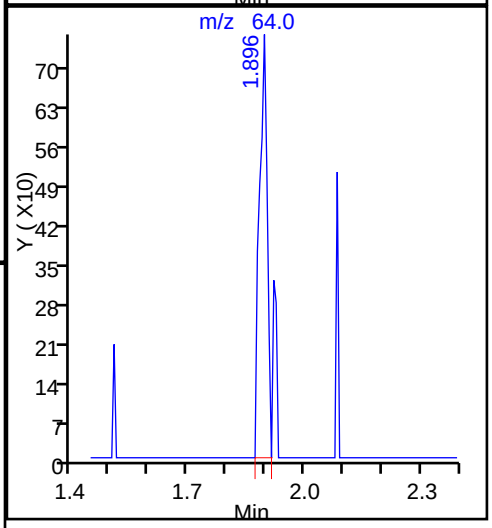
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D		
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

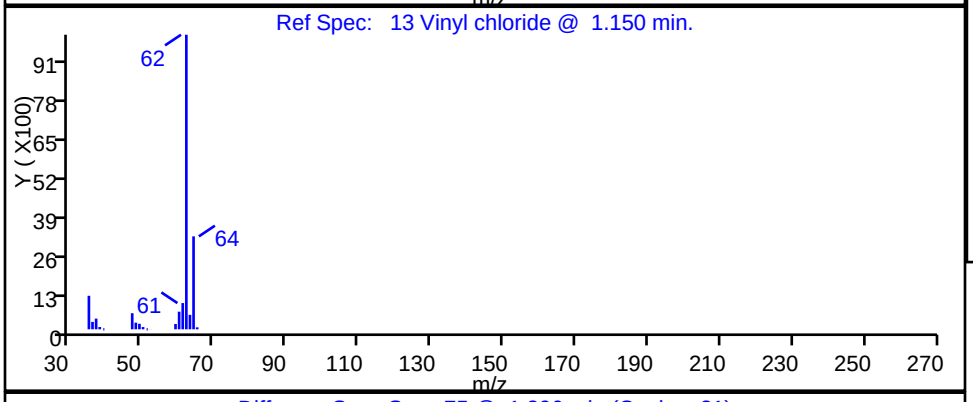
13 Vinyl chloride, CAS: 75-01-4

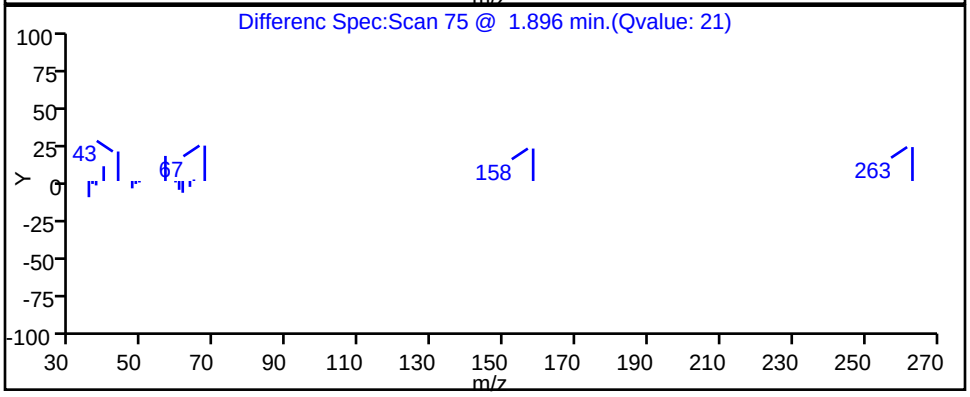










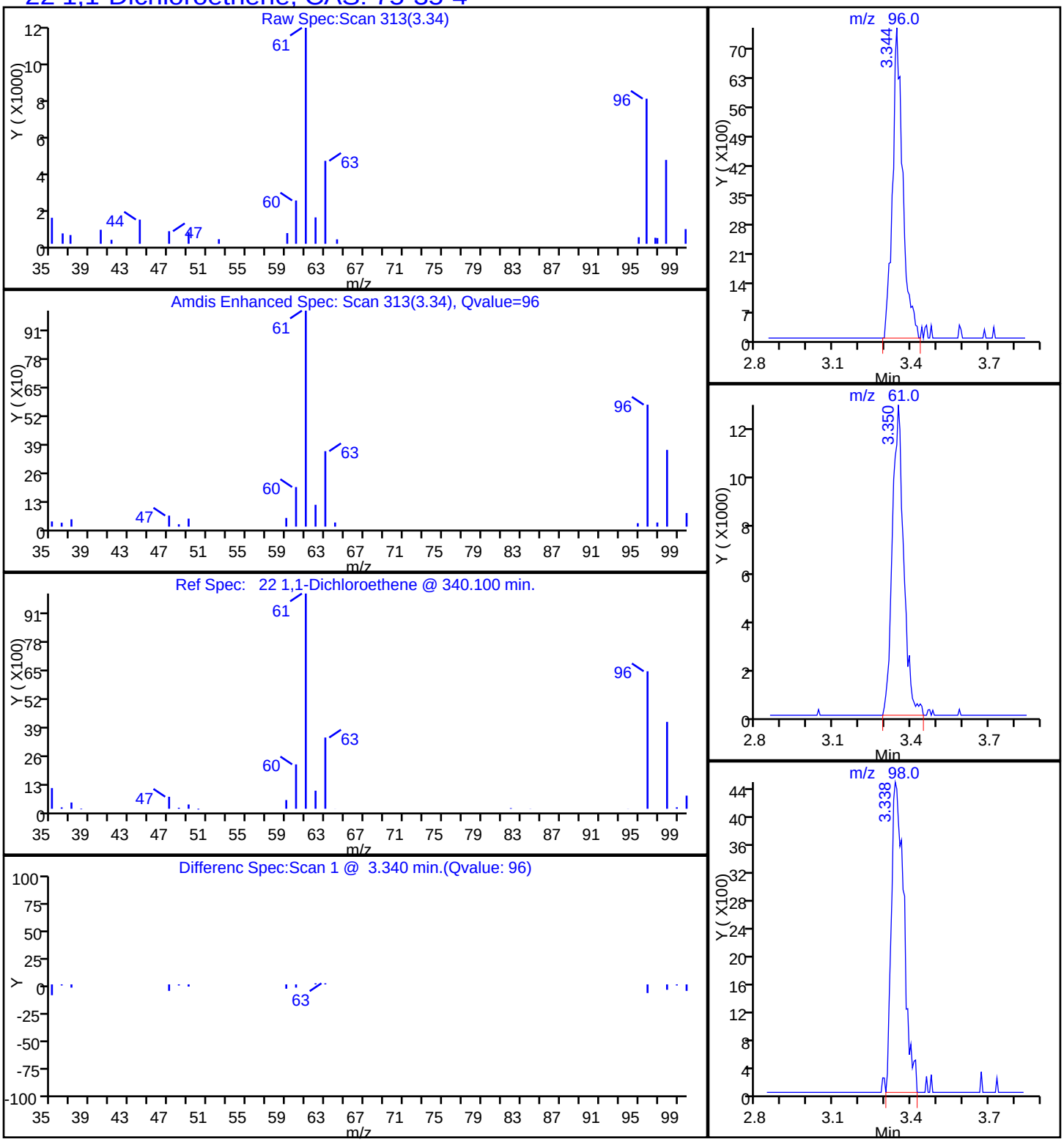


Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D		
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
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: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D

Injection Date: 04-May-2015 22:03:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-12 Lab Sample ID: 180-43359-12

Client ID: HD-MW-50D-0/1-0

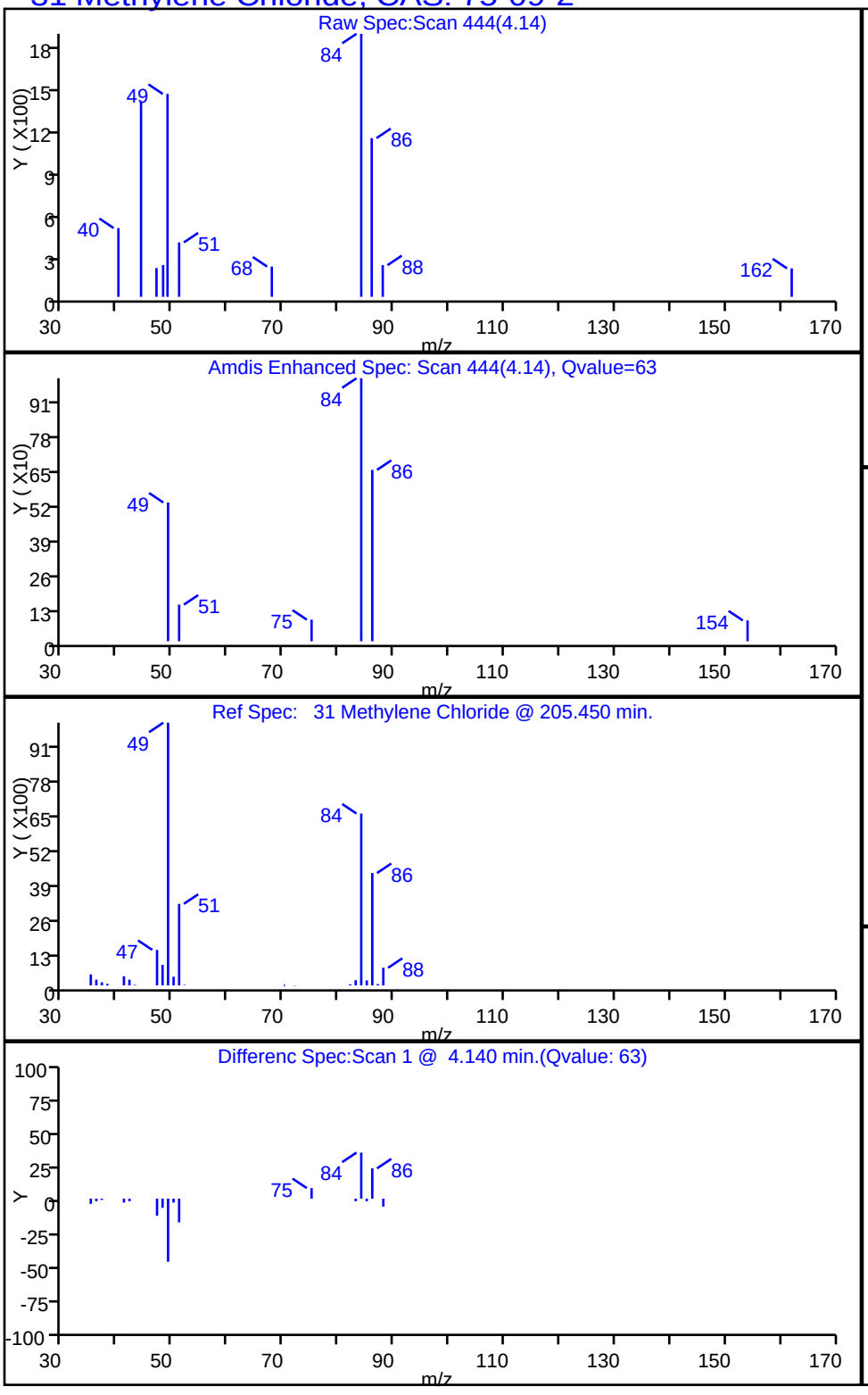
Operator ID: 001562 ALS Bottle#: 26 Worklist Smp#: 26

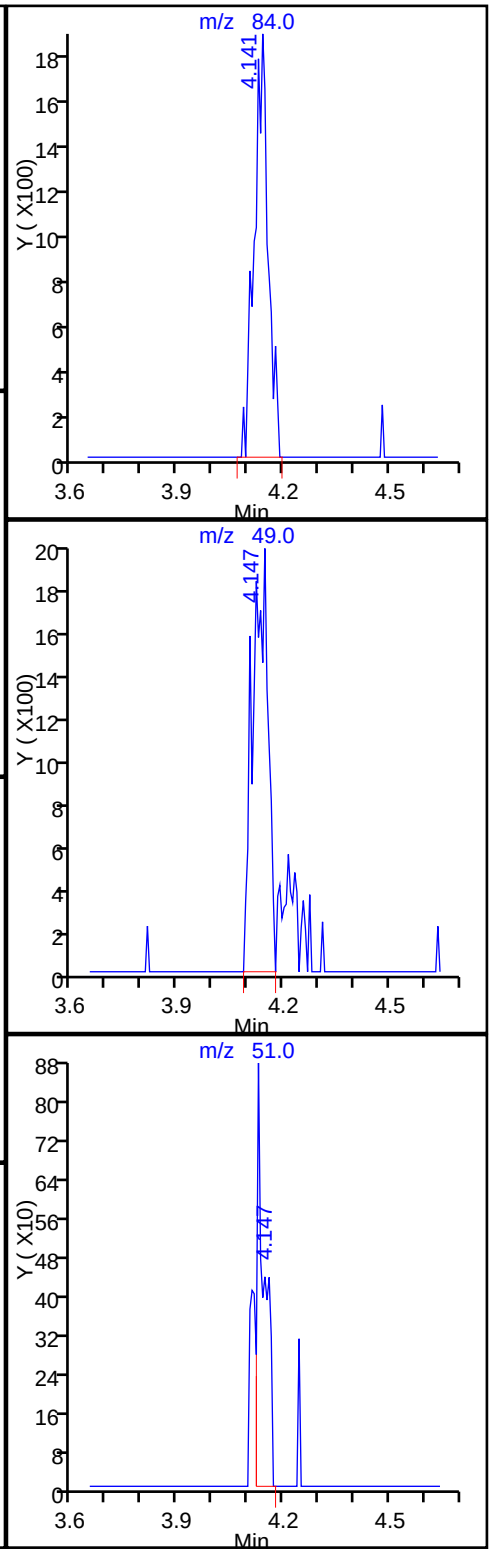
Purge Vol: 5.000 mL Dil. Factor: 125.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2





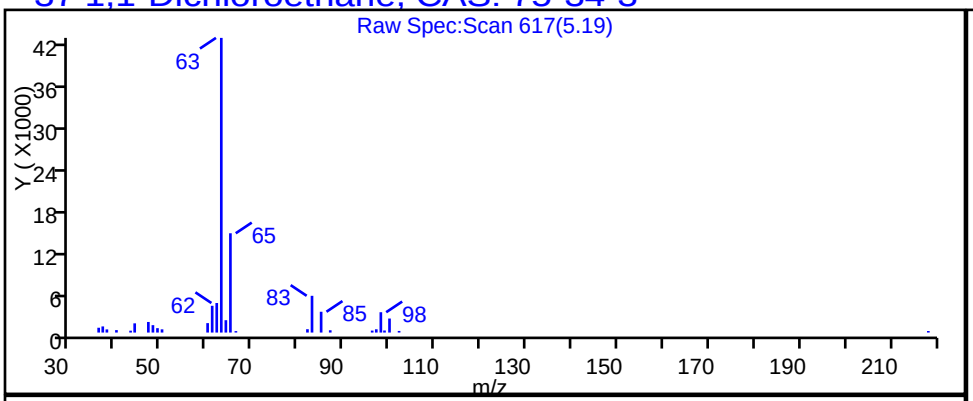
Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

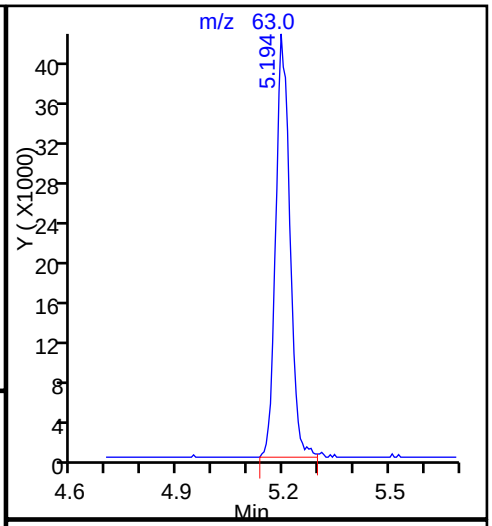
TestAmerica Pittsburgh

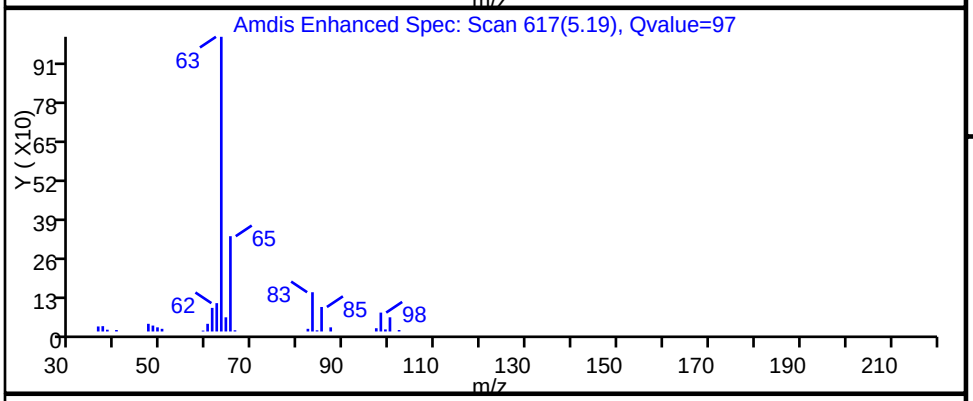
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D

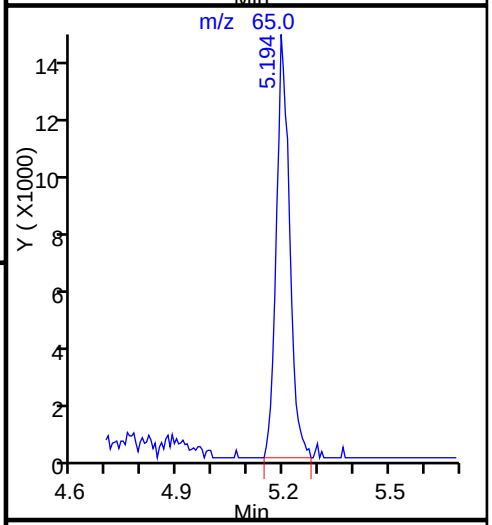
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

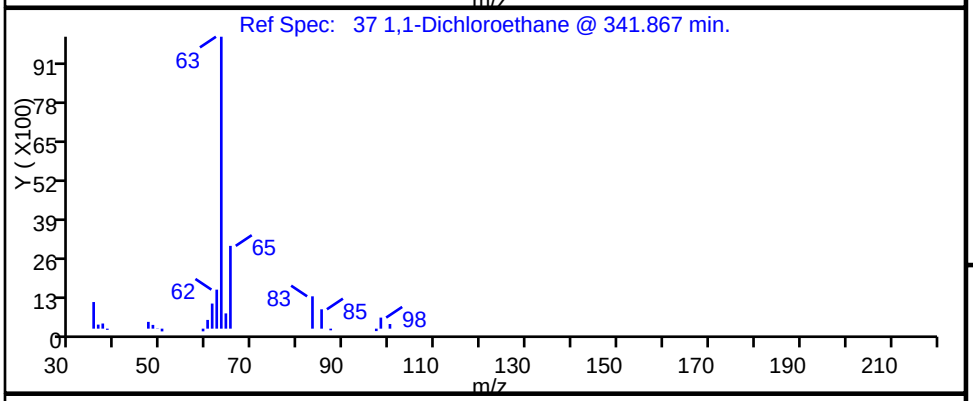
37 1,1-Dichloroethane, CAS: 75-34-3

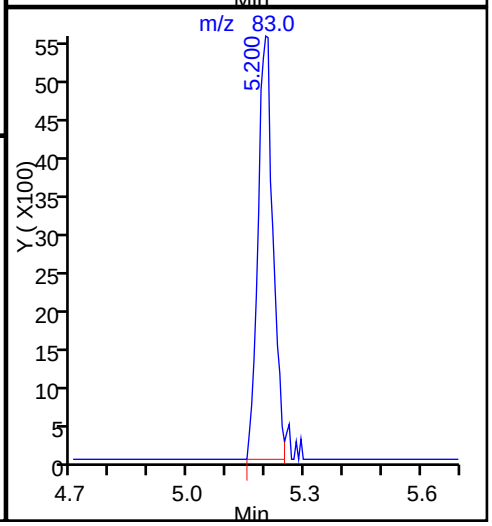


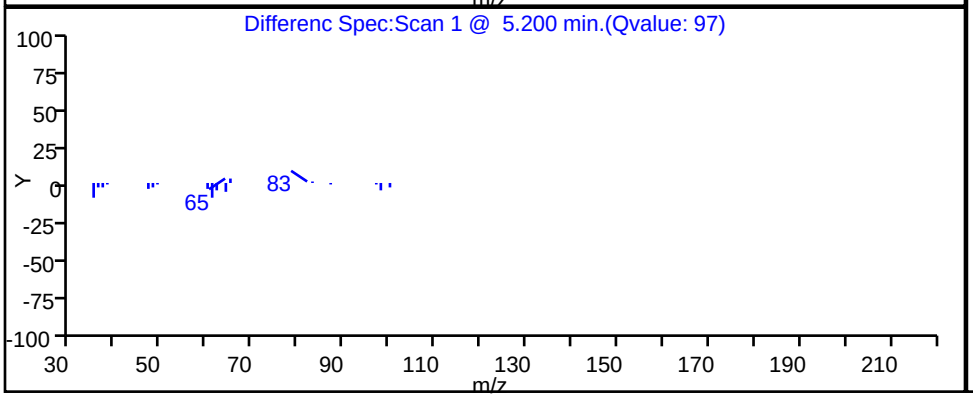










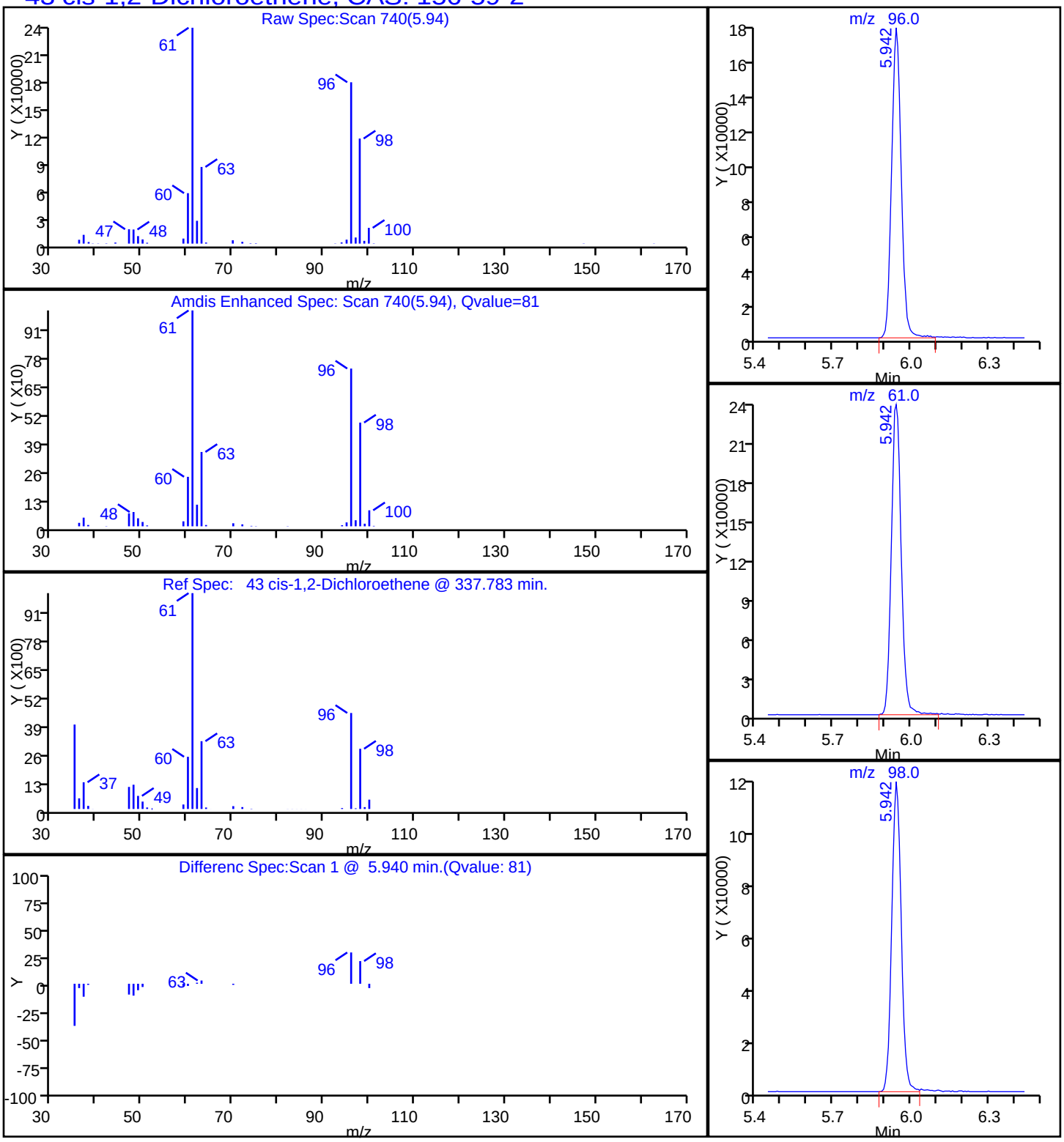


Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D				
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
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

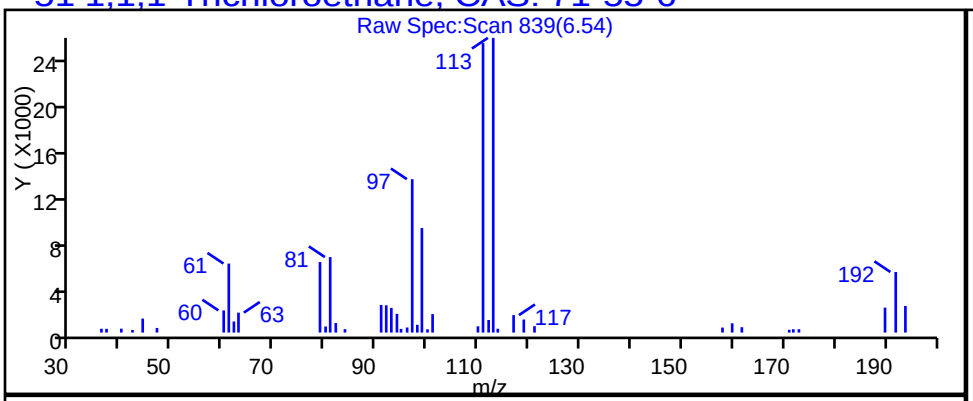


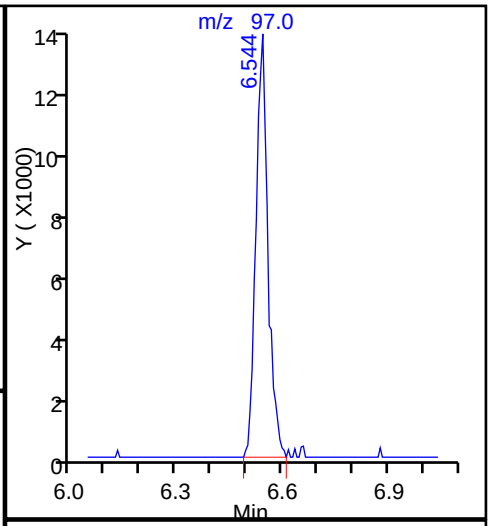
Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

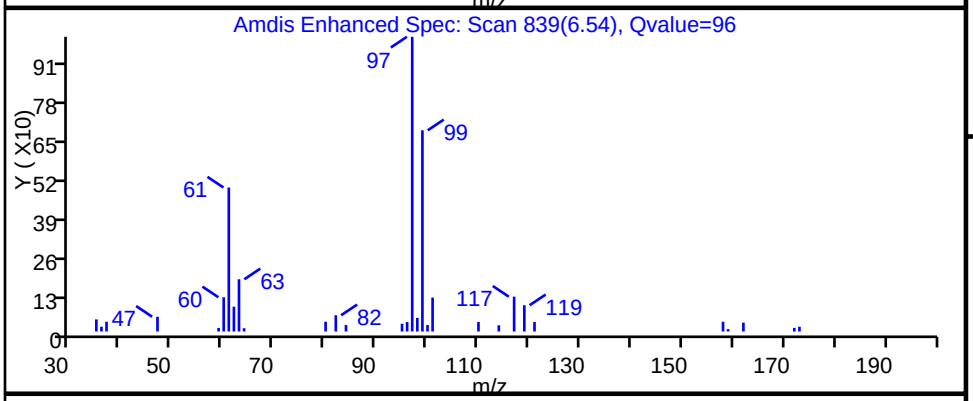
TestAmerica Pittsburgh

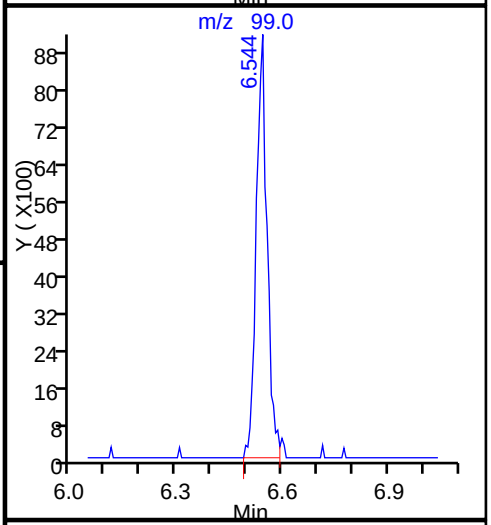
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D				
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

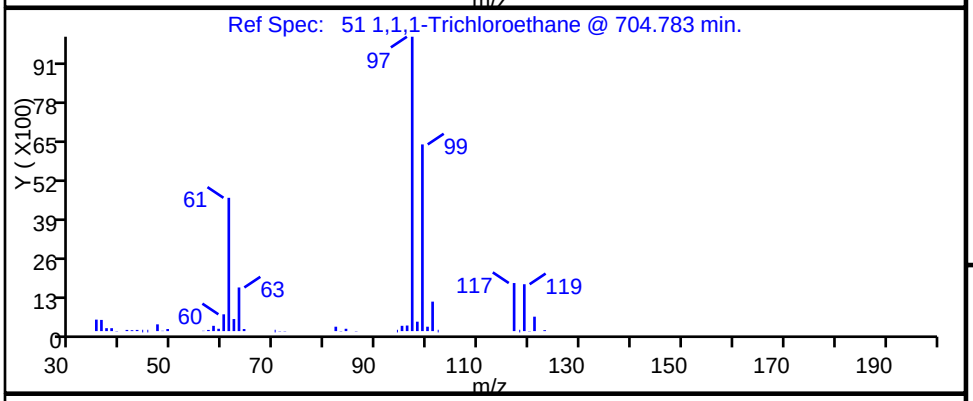
51 1,1,1-Trichloroethane, CAS: 71-55-6

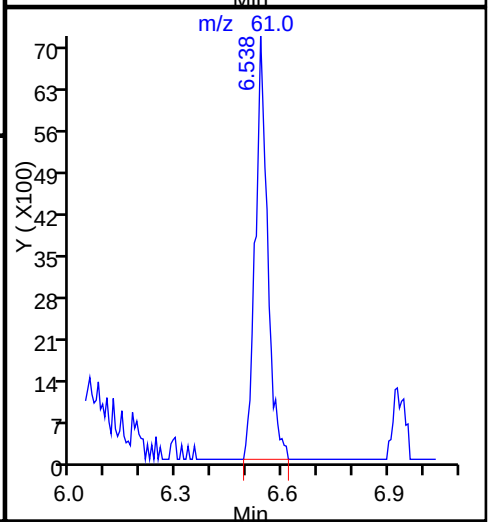


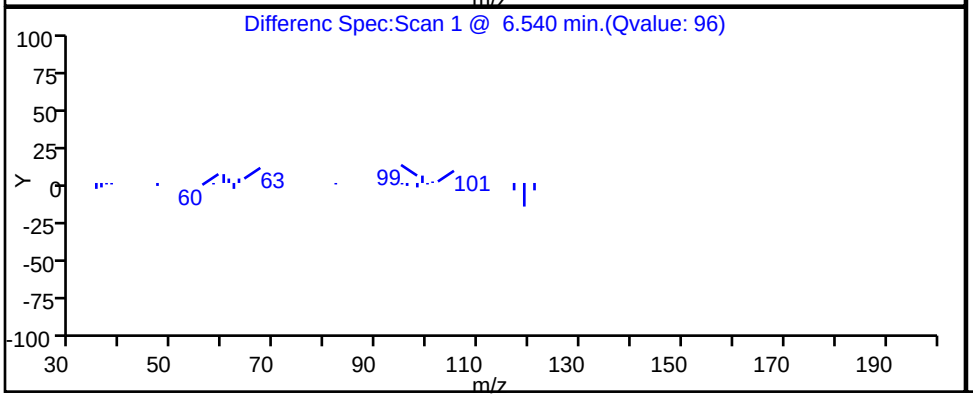










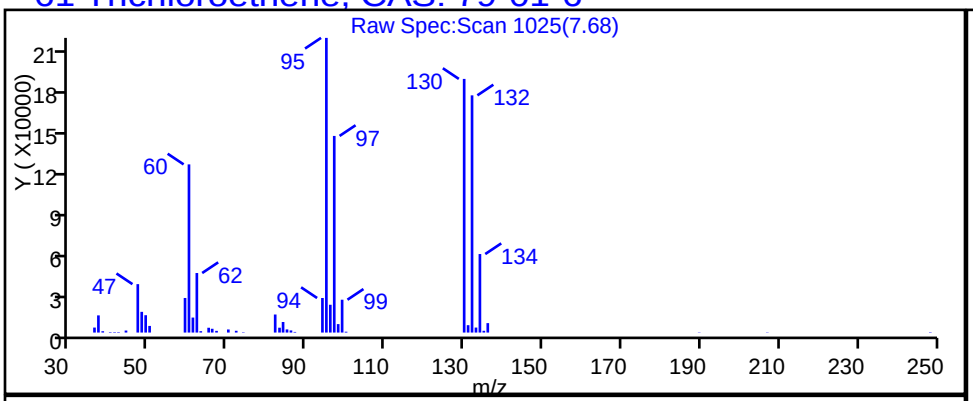


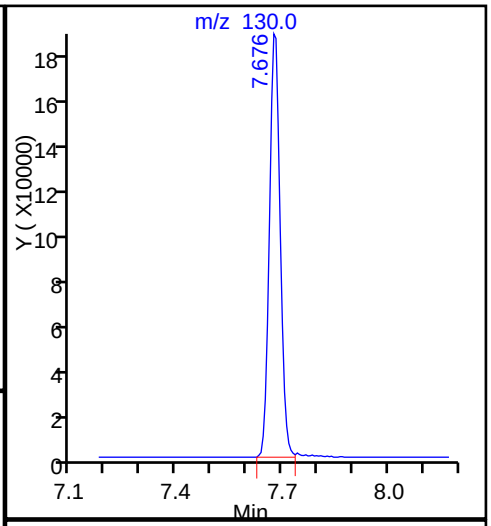
Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

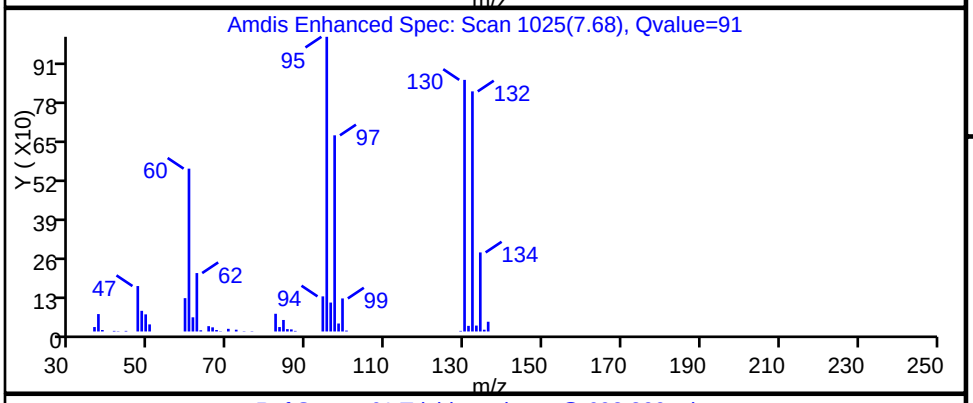
TestAmerica Pittsburgh

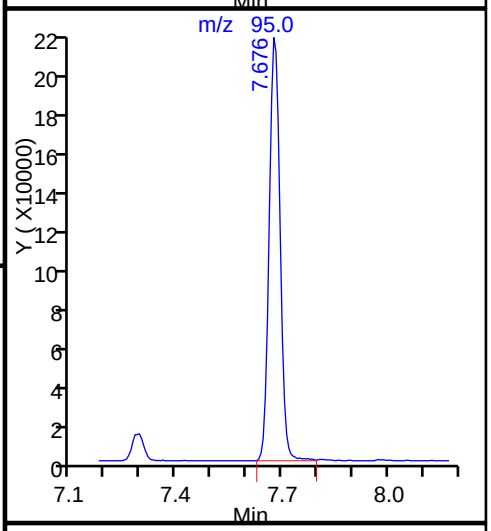
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D		
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

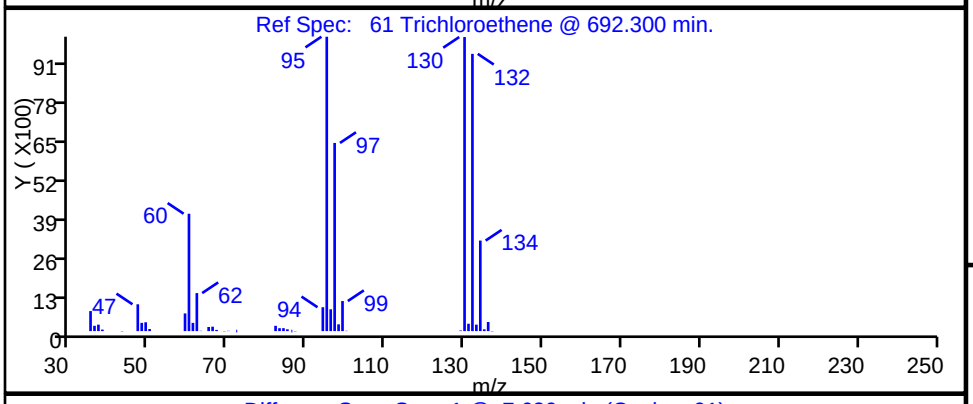
61 Trichloroethene, CAS: 79-01-6

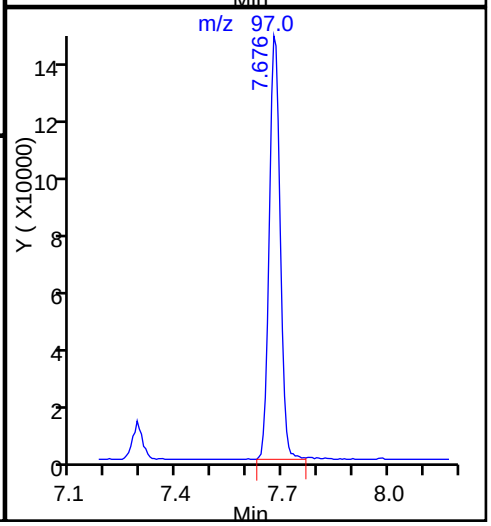


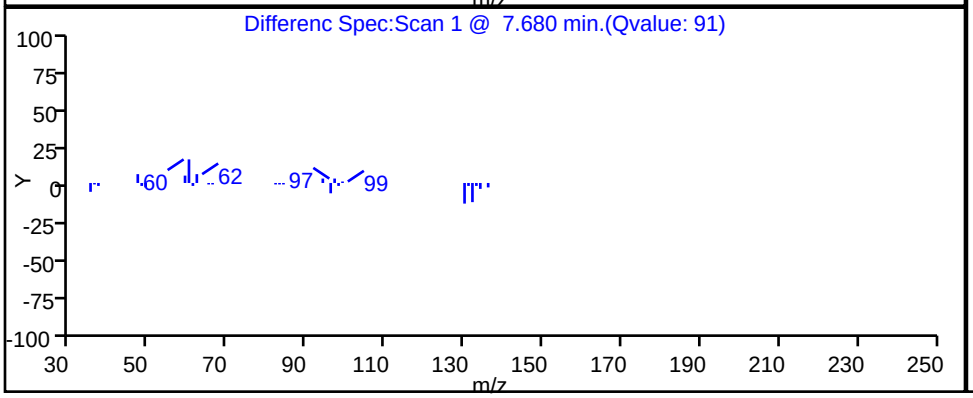










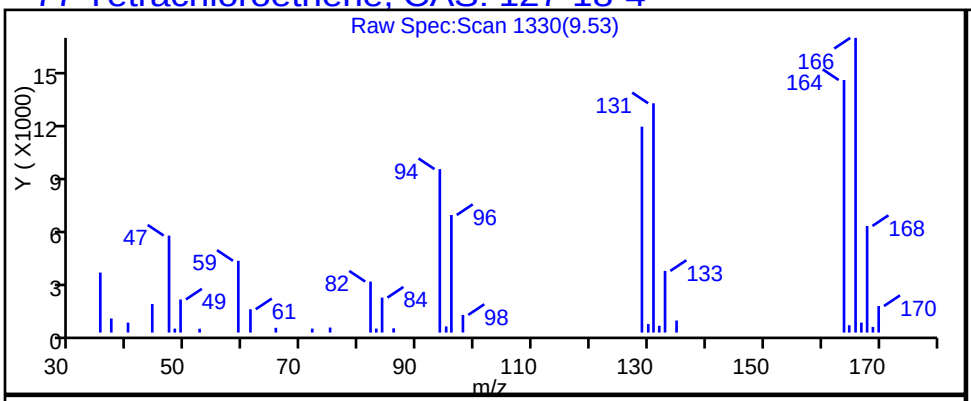


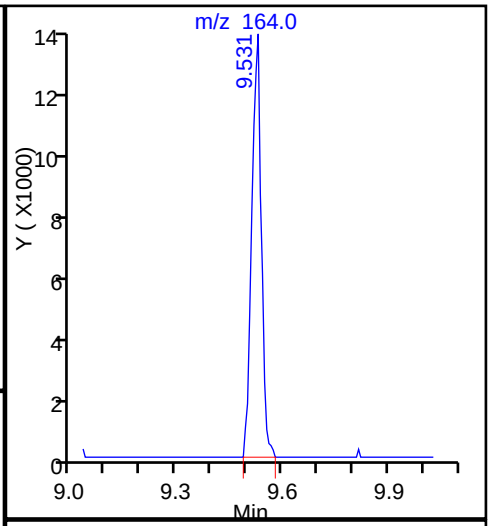
Report Date: 05-May-2015 07:47:40 Chrom Revision: 2.2 09-Apr-2015 10:05:40

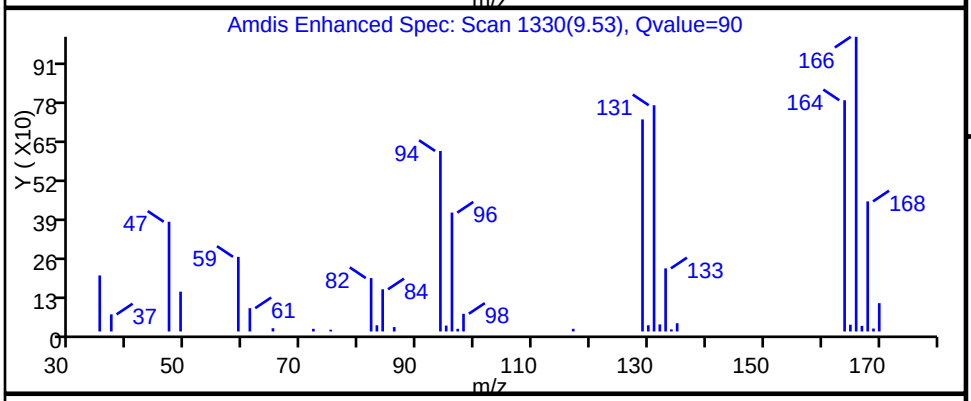
TestAmerica Pittsburgh

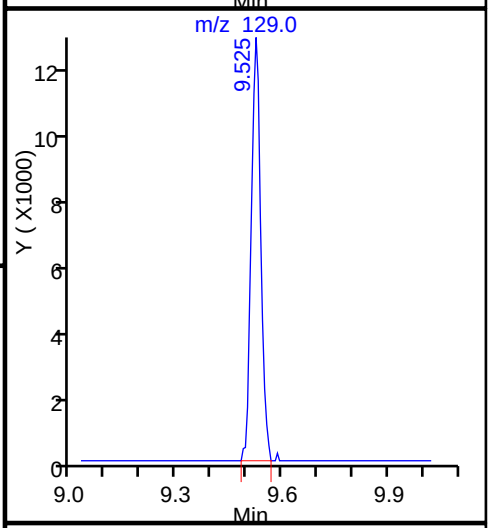
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504026.D		
Injection Date:	04-May-2015 22:03:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-12	Lab Sample ID:	180-43359-12
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

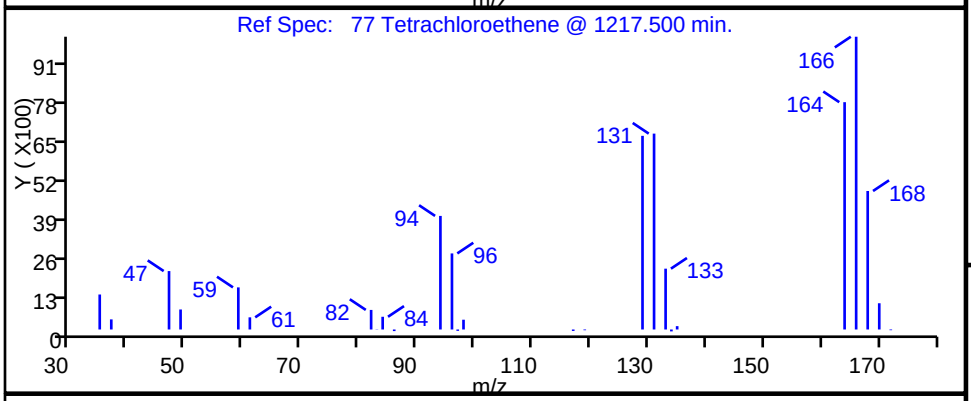
77 Tetrachloroethene, CAS: 127-18-4

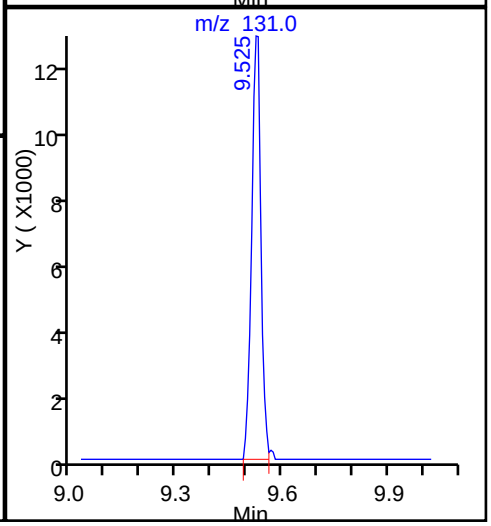


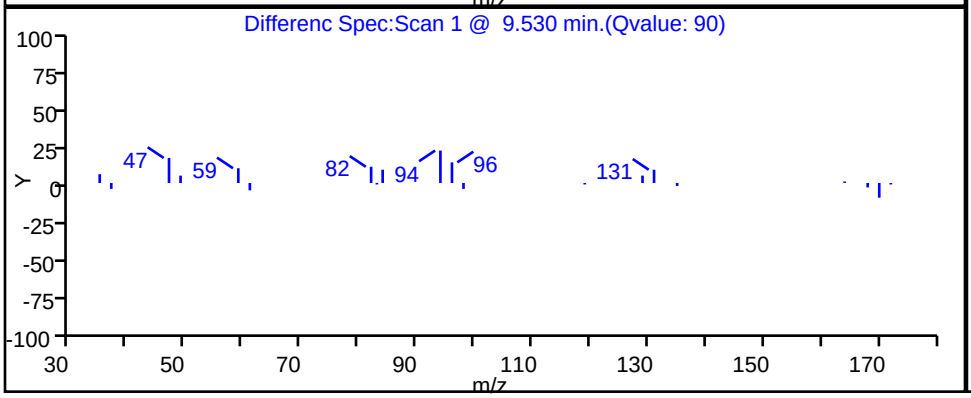












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 | Lab Sample ID: 180-43359-13

Matrix: Water | Lab File ID: 60504027.D

Analysis Method: 8260C | Date Collected: 04/22/2015 15:01

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 22:26

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.: 140474 | 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	46	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	25	J	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	15	J	50	5.8
156-59-2	cis-1,2-Dichloroethene	730		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	110		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	740		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	480		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 | Lab Sample ID: 180-43359-13

Matrix: Water | Lab File ID: 60504027.D

Analysis Method: 8260C | Date Collected: 04/22/2015 15:01

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 22:26

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.: 140474 | 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)	107		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D
Lims ID: 180-43359-E-13 Lab Sample ID: 180-43359-13
Client ID: HD-MW-51S-0/1-0
Sample Type: Client
Inject. Date: 04-May-2015 22:26:30 ALS Bottle#: 27 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-43359-E-13, 50x
Misc. Info.: 180-0006756-027
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:50:02 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:50:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.254	-0.025	96	154700	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	372339	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	75898	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	111570	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.553	0.006	91	77487	50.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.924	0.006	71	137272	53.3	
$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	348340	54.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	130899	50.0	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.887				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.353	3.335	0.018	95	7851	4.55	
24 Acetone	43		3.432				ND	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.132	4.120	0.012	84	5219	2.49	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.190	5.190	0.000	1	5442	1.51	M
43 cis-1,2-Dichloroethene	96	5.945	5.933	0.012	84	160406	73.4	
44 2-Butanone (MEK)	43		5.939				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.358	6.371	-0.013	1	1382	0.3962	
51 1,1,1-Trichloroethane	97	6.547	6.535	0.012	55	30611	10.7	
53 Carbon tetrachloride	117		6.711				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	92	131101	74.0	
64 1,2-Dichloropropane	63		7.946				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.528	9.522	0.006	92	62579	48.3	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.250				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

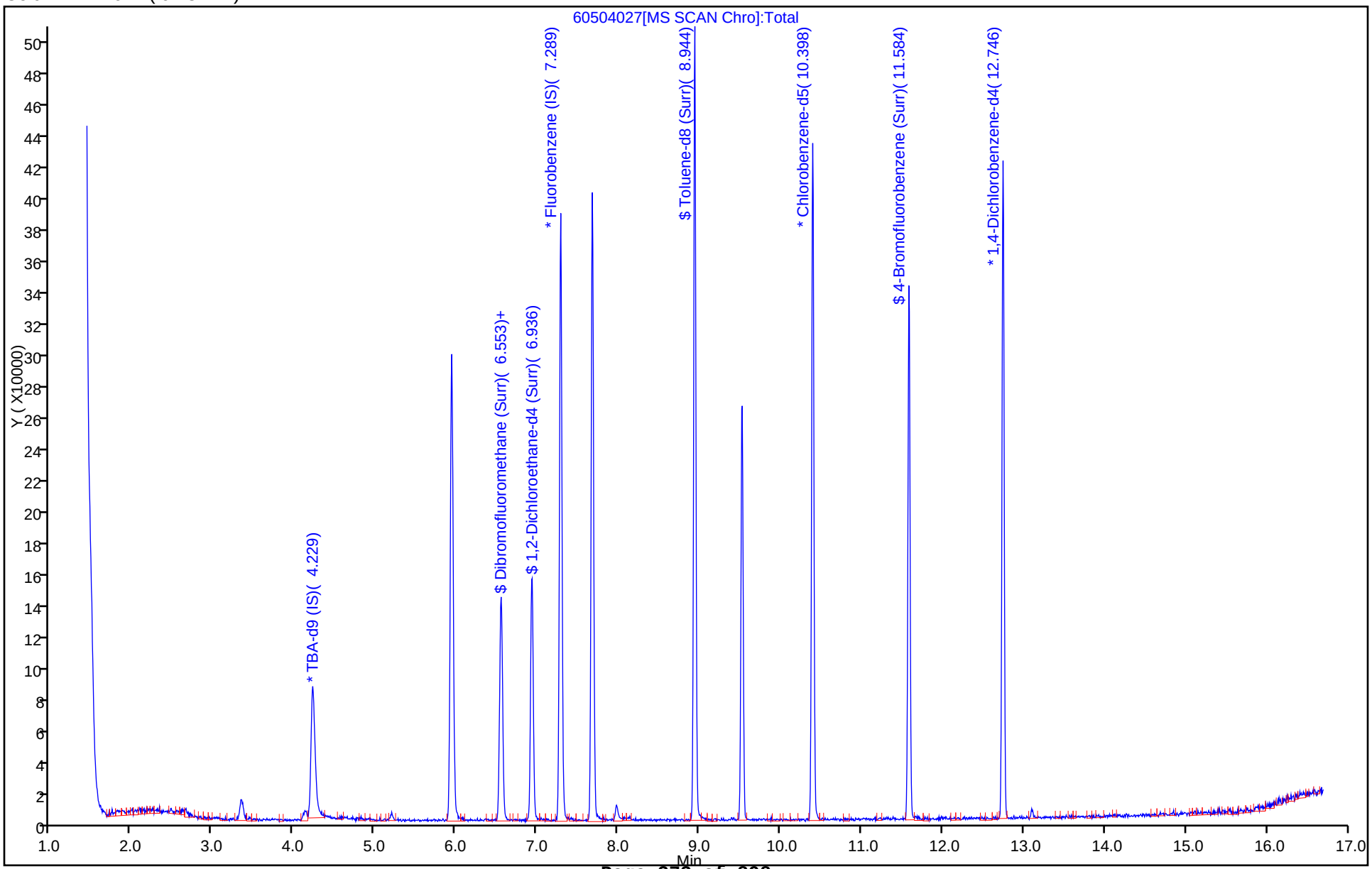
Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D

Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13	Worklist Smp#:	27
Client ID:	HD-MW-51S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	27
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

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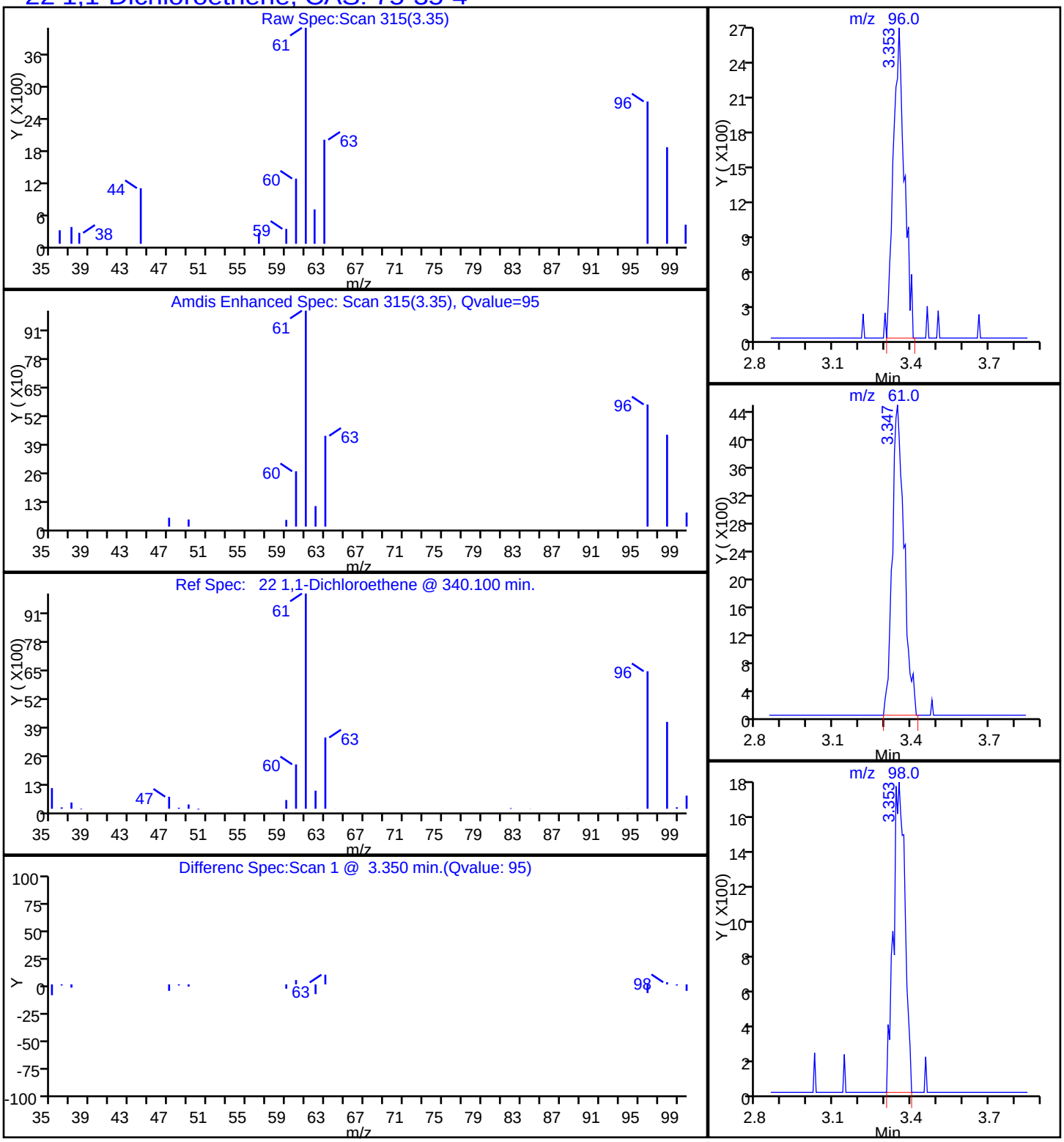
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



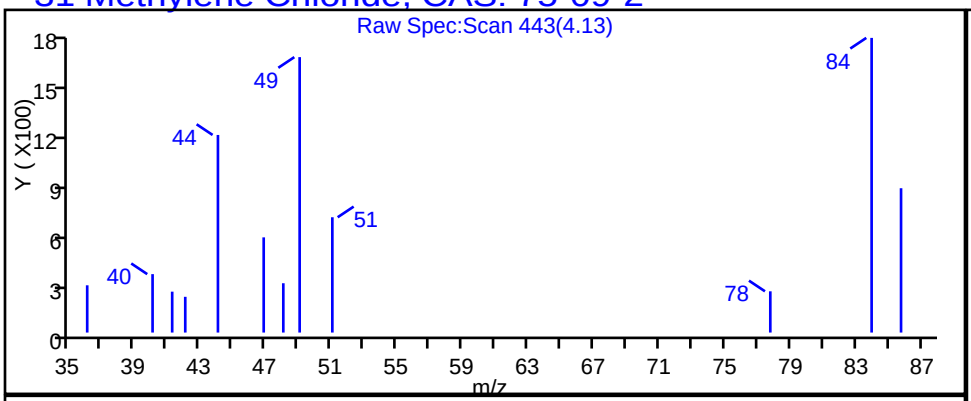
Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

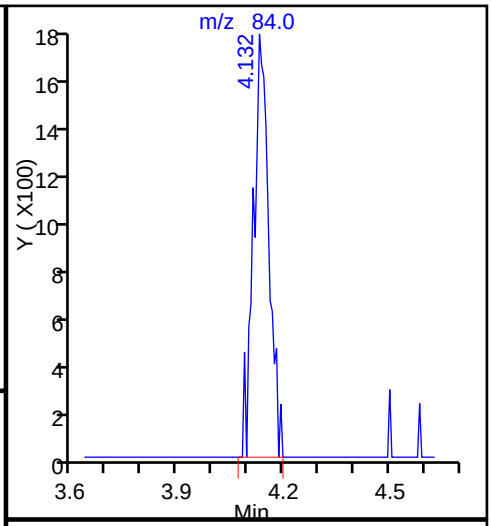
TestAmerica Pittsburgh

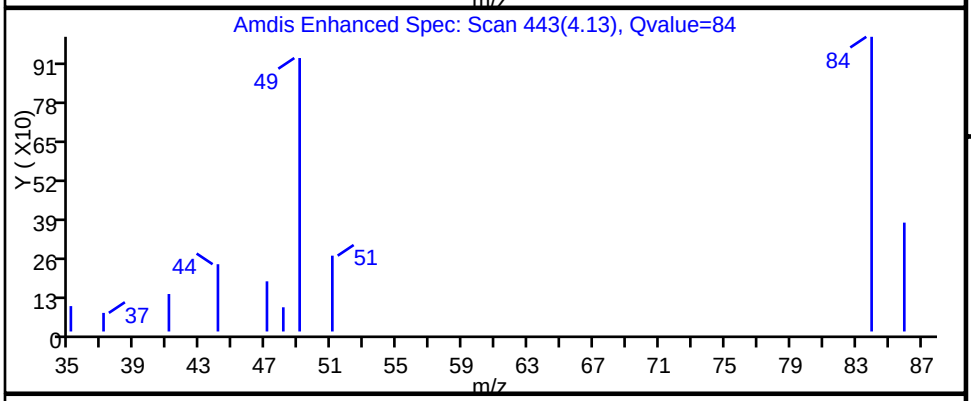
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D

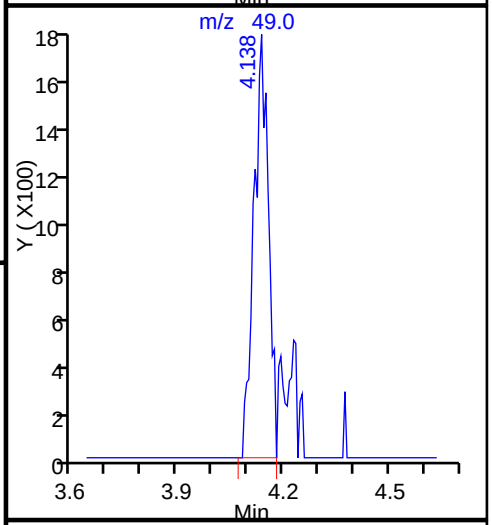
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

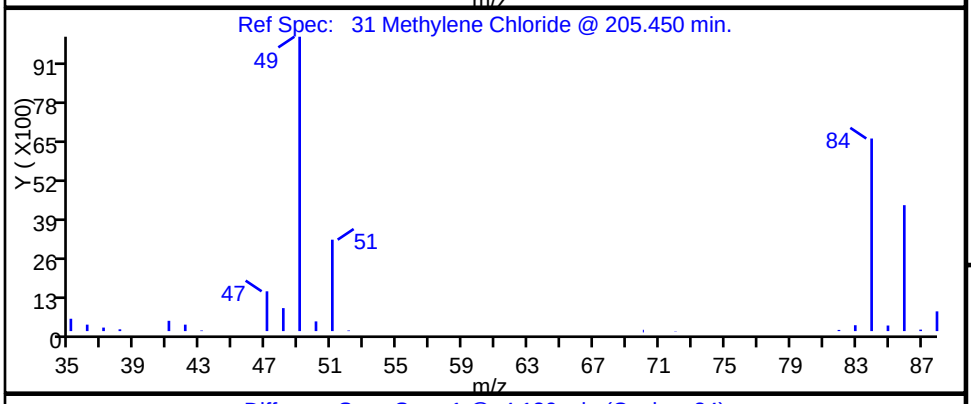
31 Methylene Chloride, CAS: 75-09-2

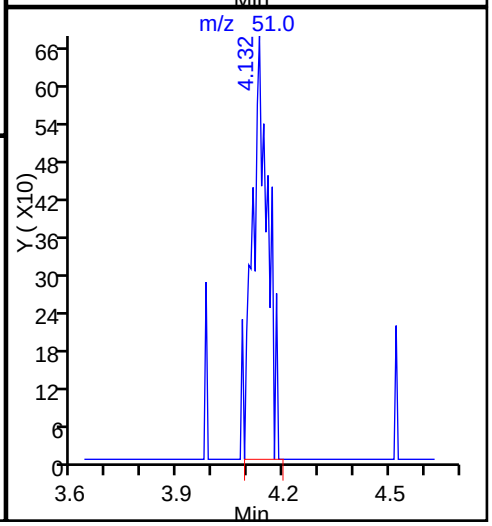


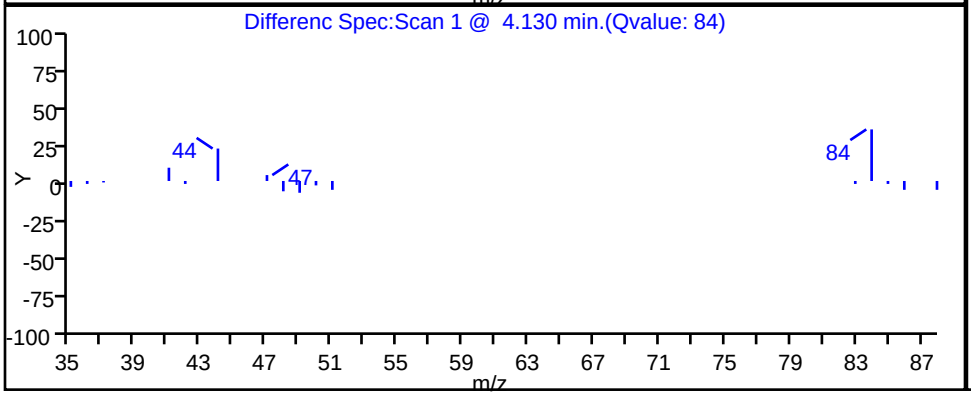










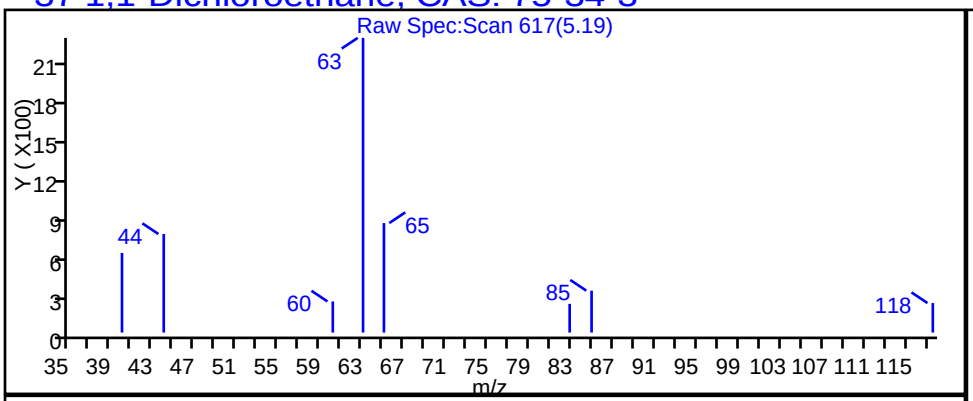


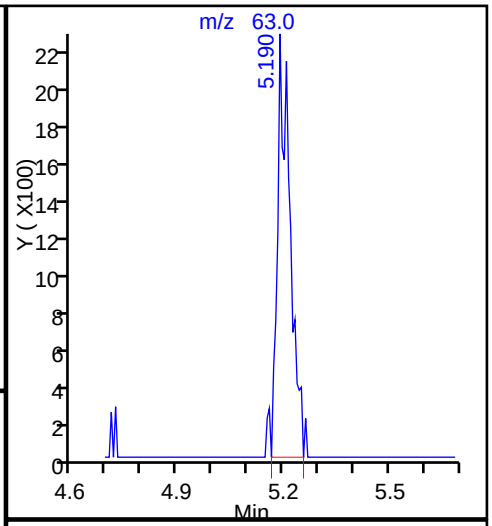
Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

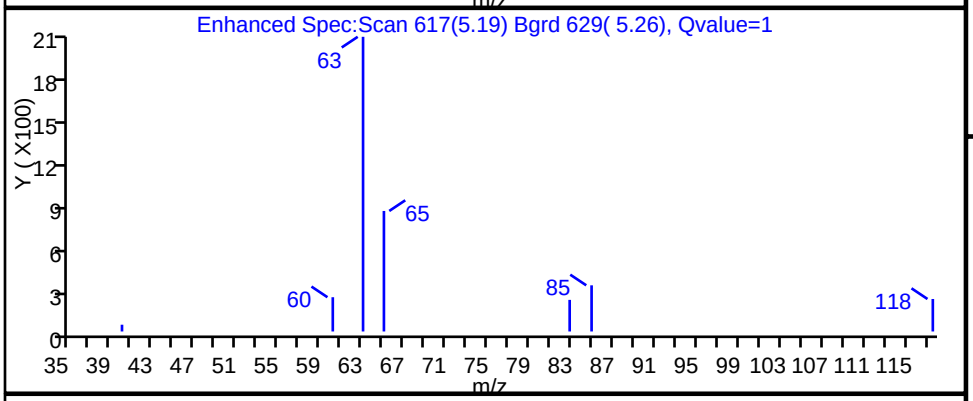
TestAmerica Pittsburgh

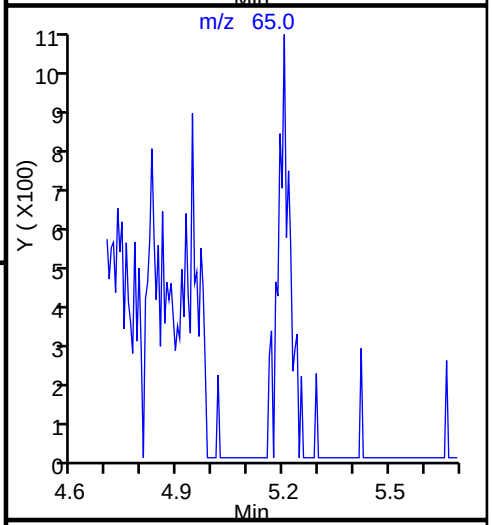
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D				
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

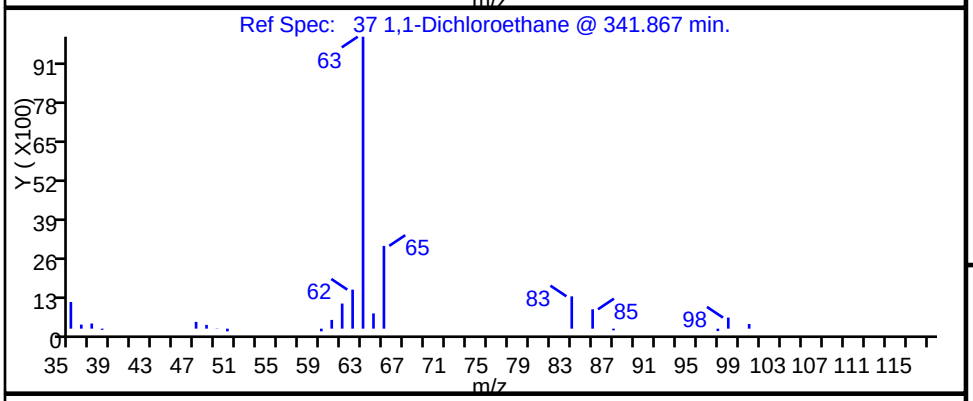
37 1,1-Dichloroethane, CAS: 75-34-3

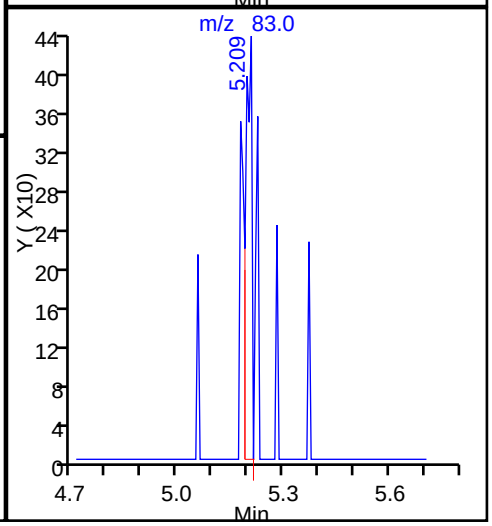


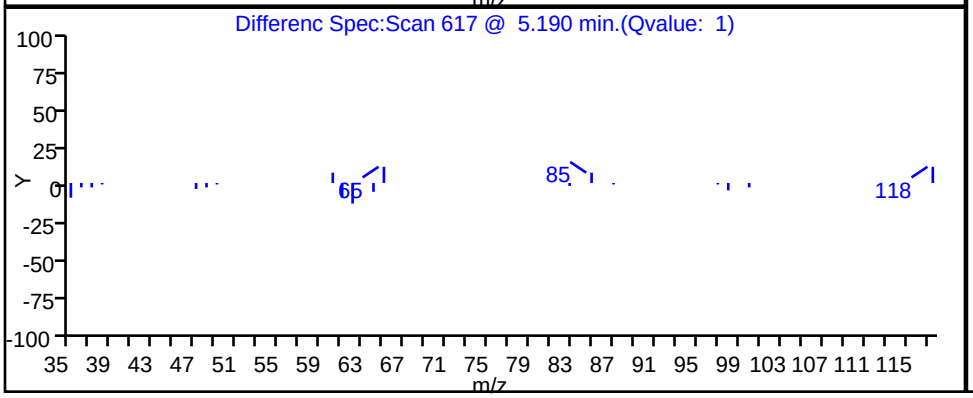












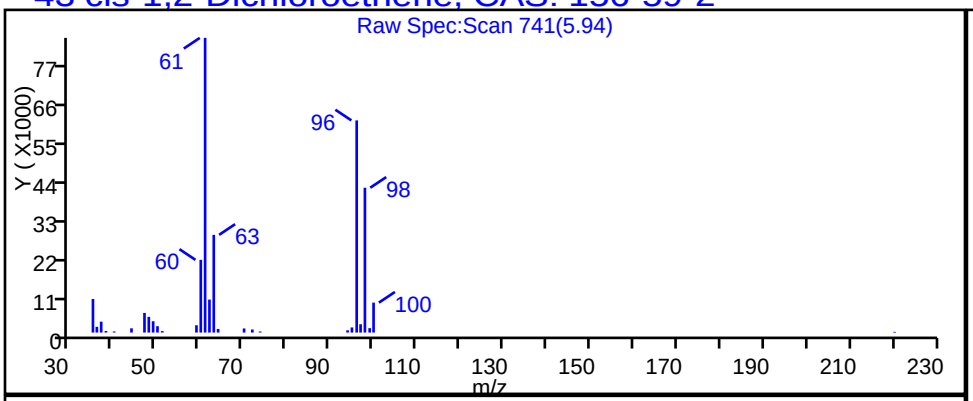
Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

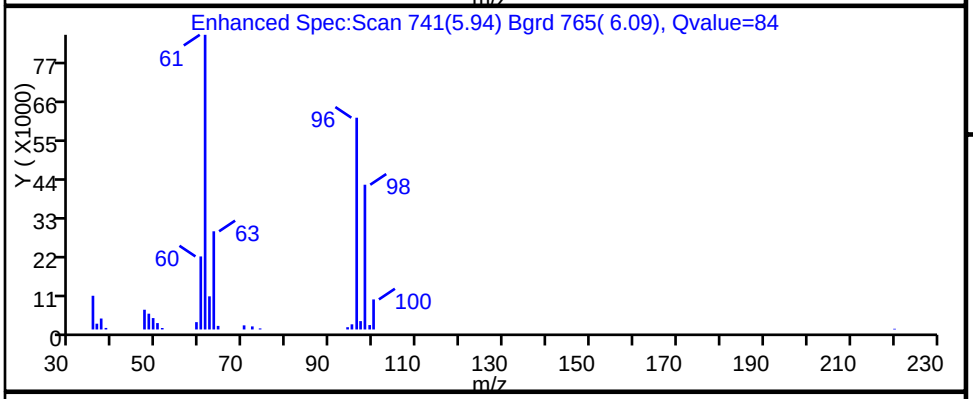
TestAmerica Pittsburgh

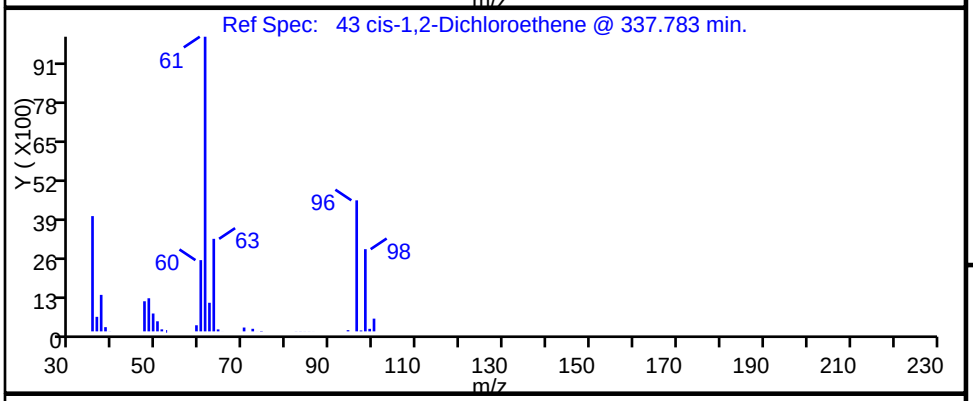
Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D

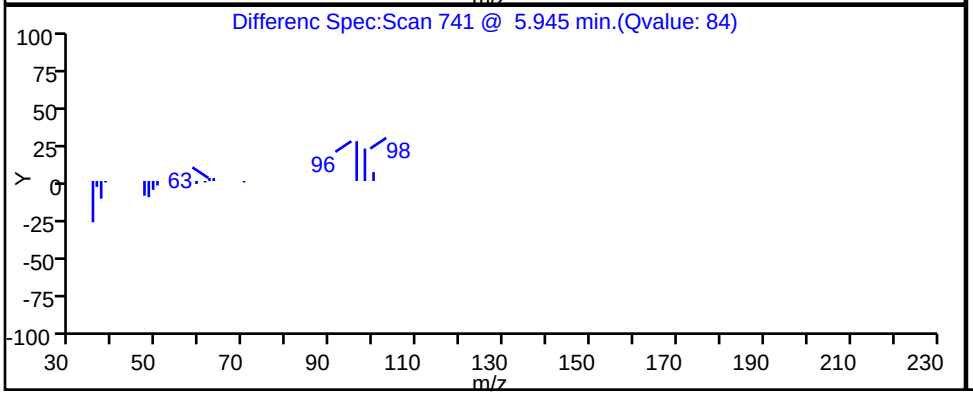
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

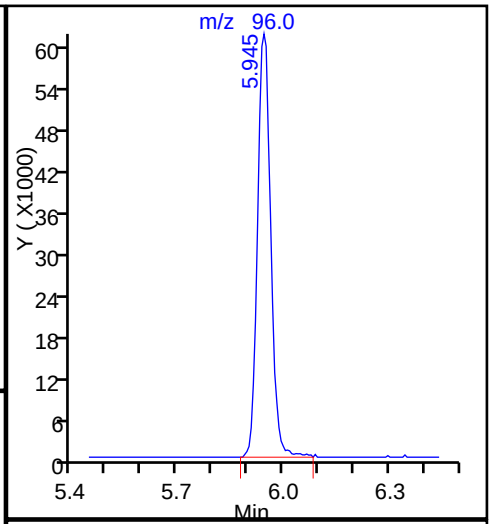
43 cis-1,2-Dichloroethene, CAS: 156-59-2

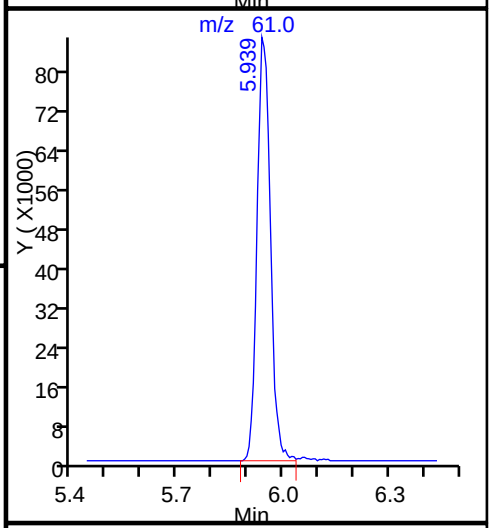


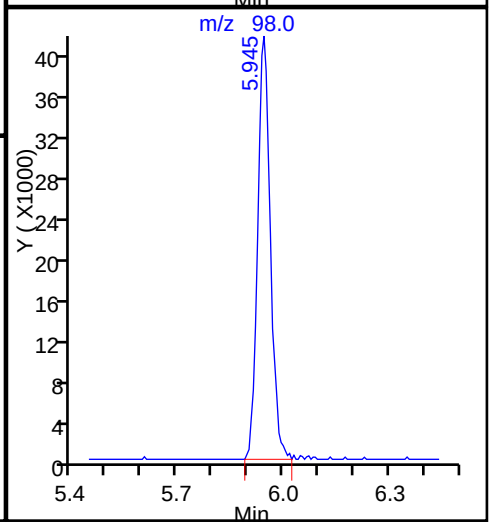










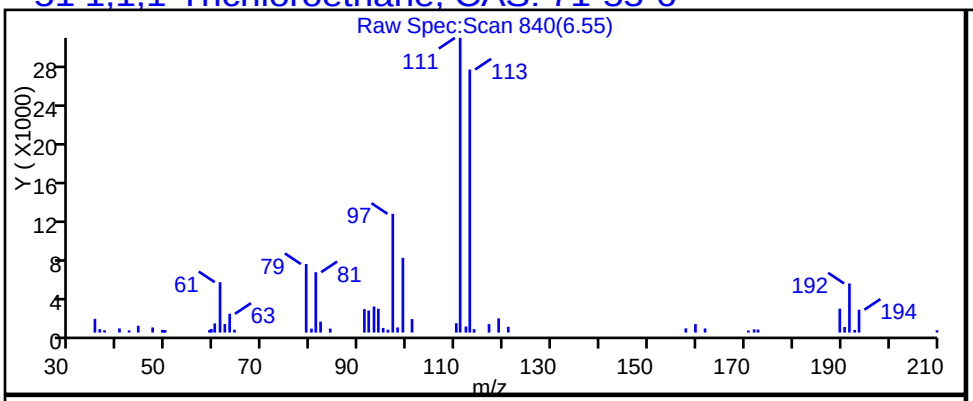


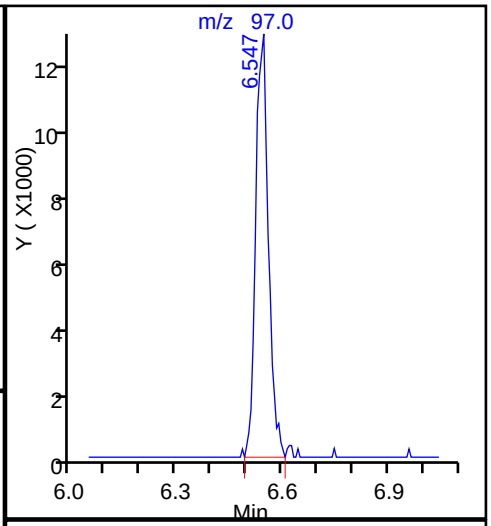
Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

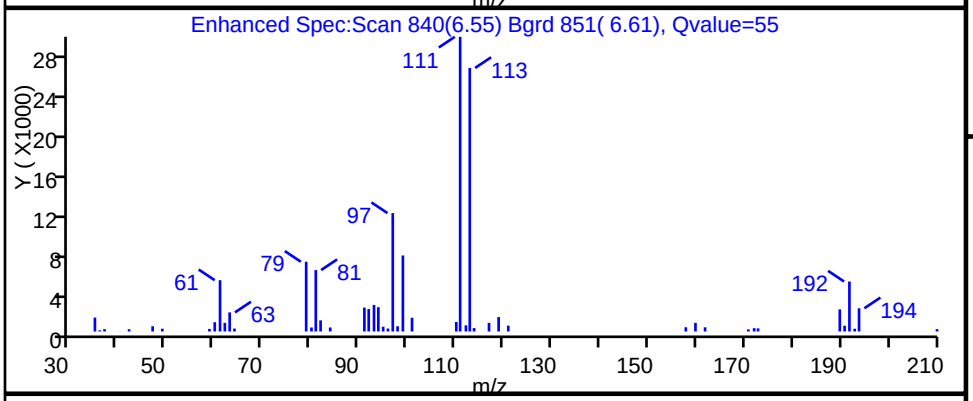
TestAmerica Pittsburgh

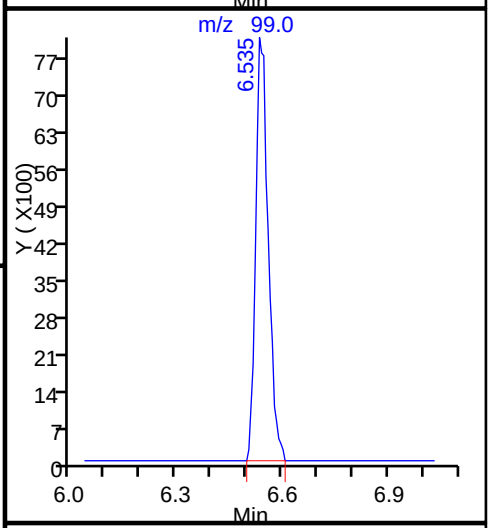
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D				
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

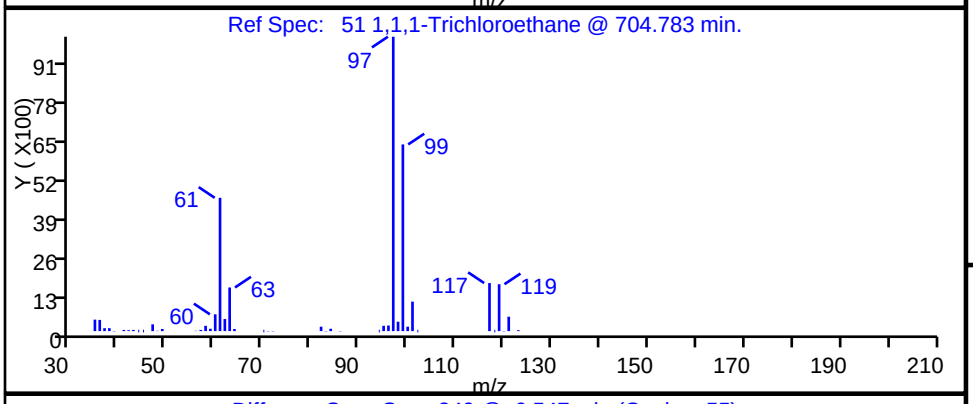
51 1,1,1-Trichloroethane, CAS: 71-55-6

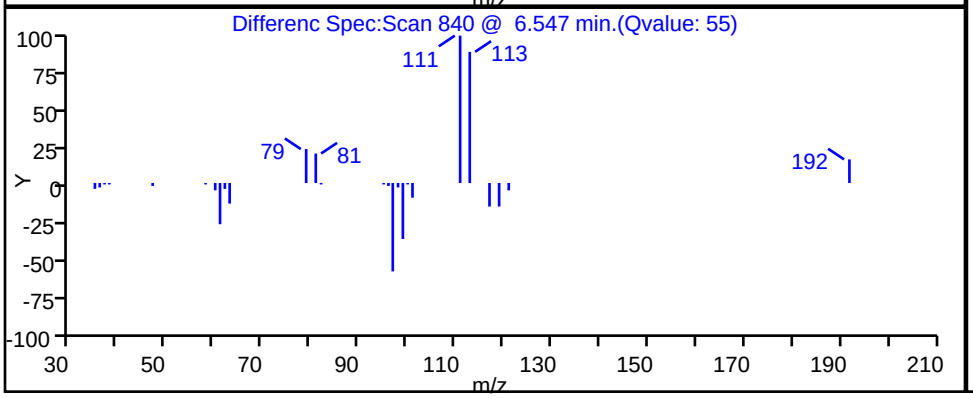


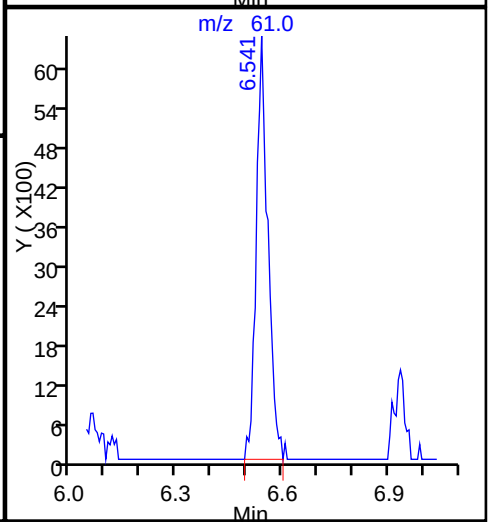










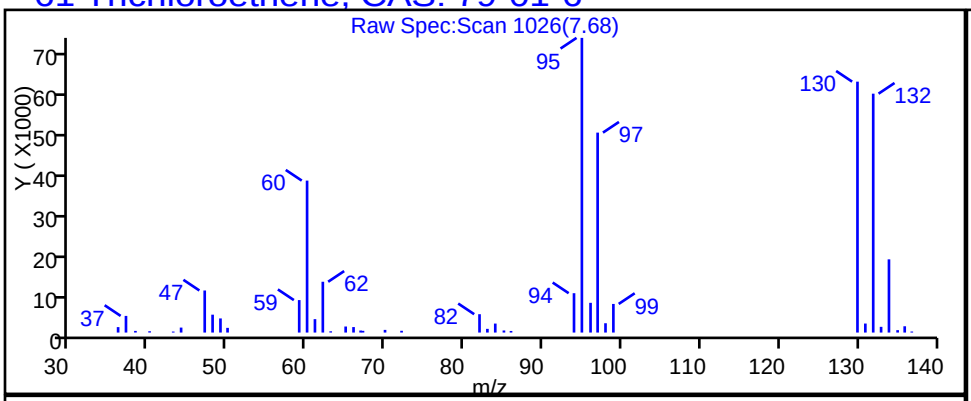


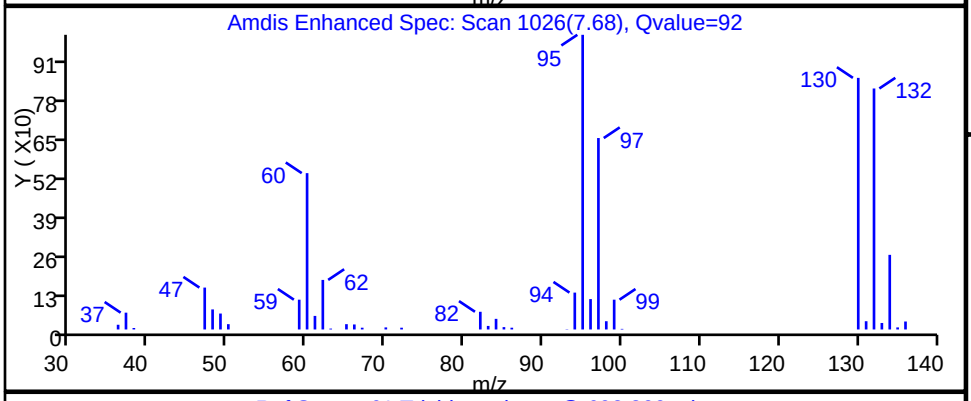
Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

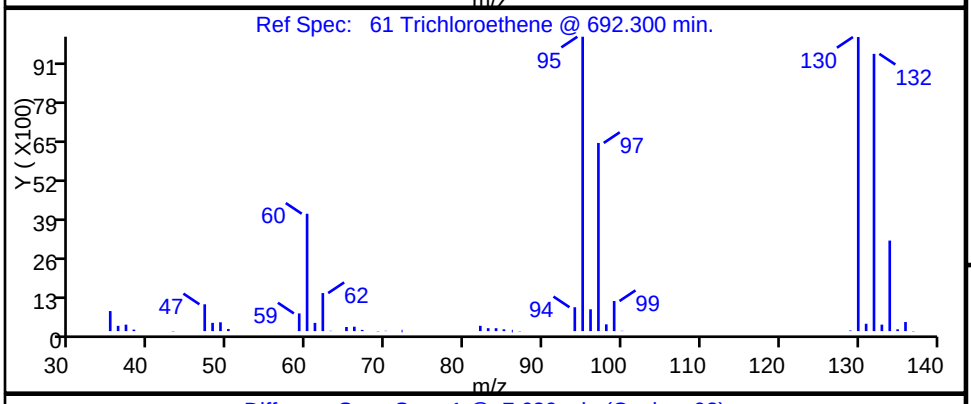
TestAmerica Pittsburgh

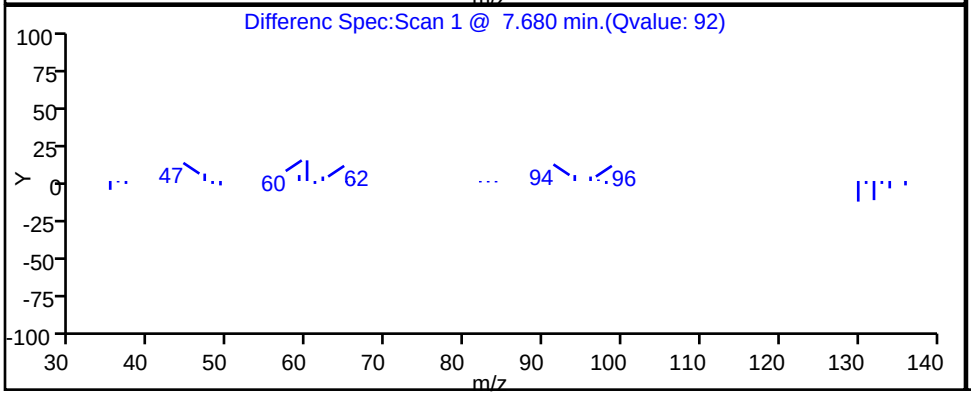
Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D				
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

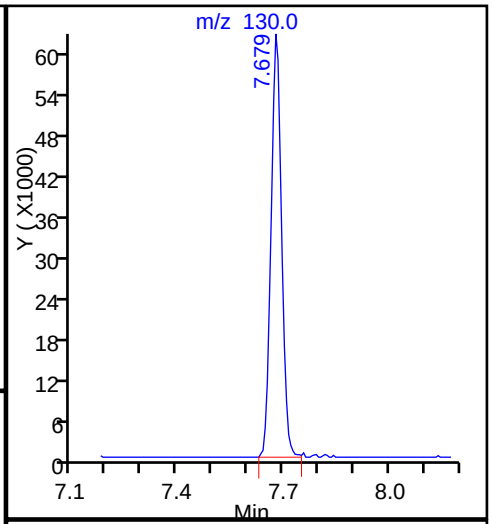
61 Trichloroethene, CAS: 79-01-6

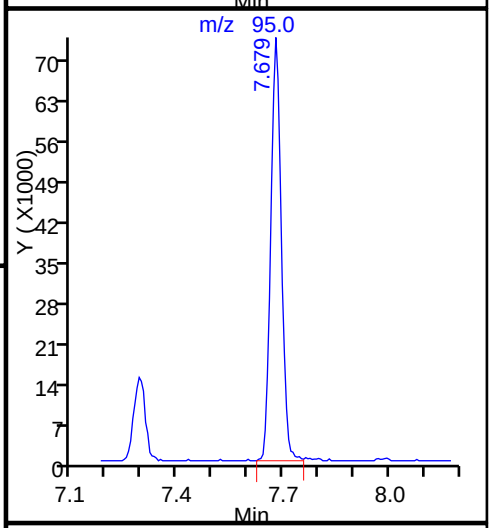


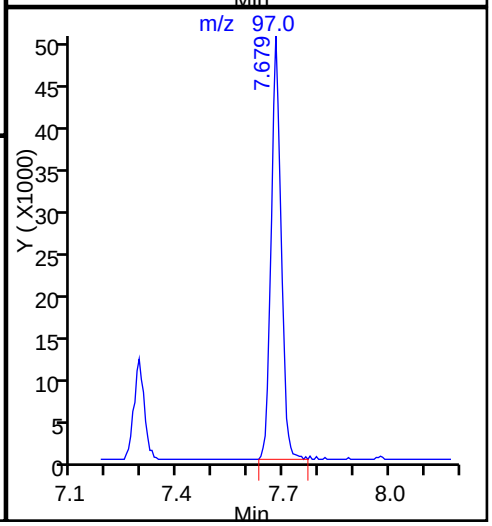












Report Date: 05-May-2015 07:50:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D

Injection Date: 04-May-2015 22:26:30 Instrument ID: CHHP6

Lims ID: 180-43359-E-13 Lab Sample ID: 180-43359-13

Client ID: HD-MW-51S-0/1-0

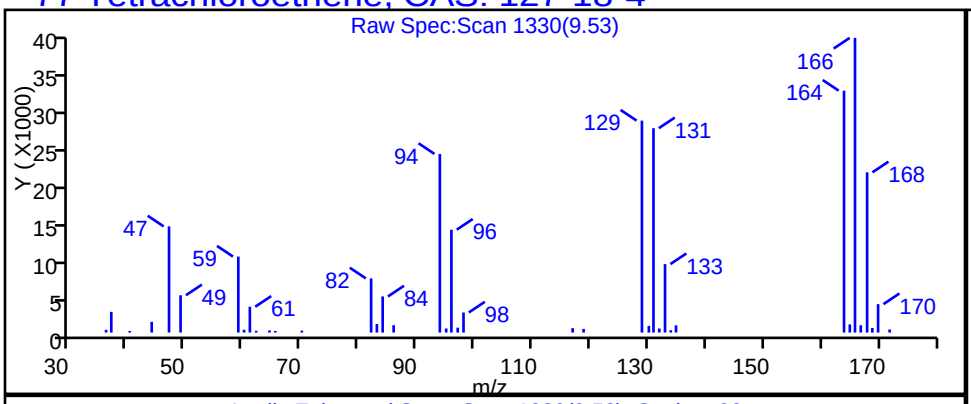
Operator ID: 001562 ALS Bottle#: 27 Worklist Smp#: 27

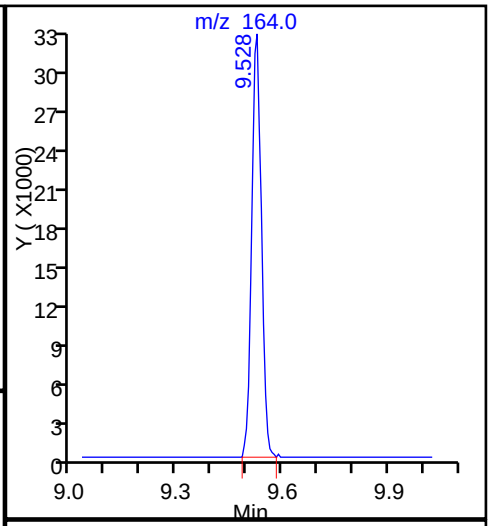
Purge Vol: 5.000 mL Dil. Factor: 50.0000

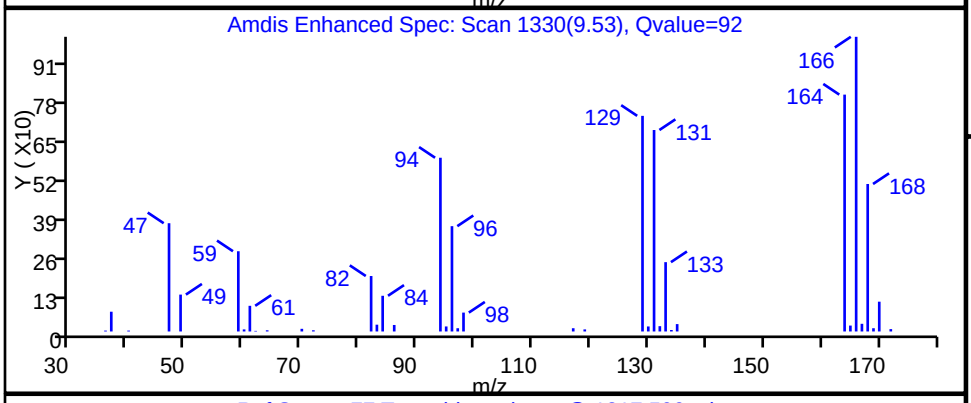
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

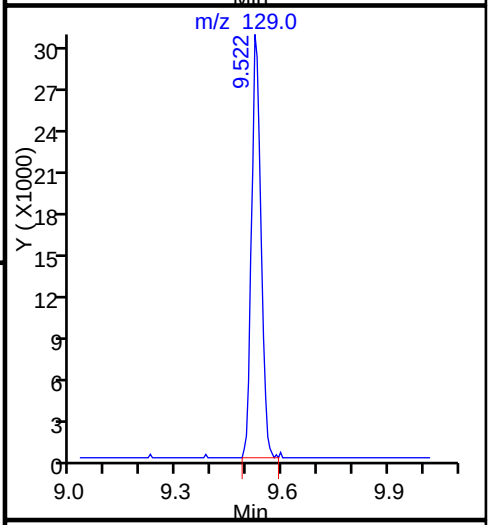
Column: DB-624 (0.18 mm) Detector MS SCAN

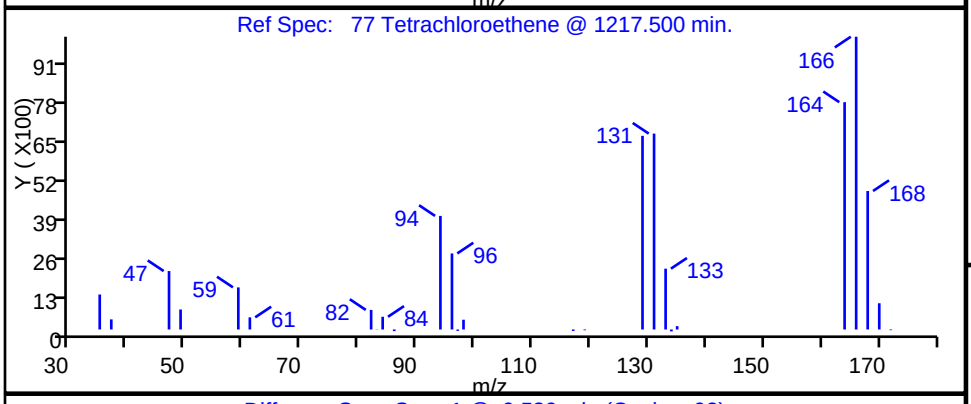
77 Tetrachloroethene, CAS: 127-18-4

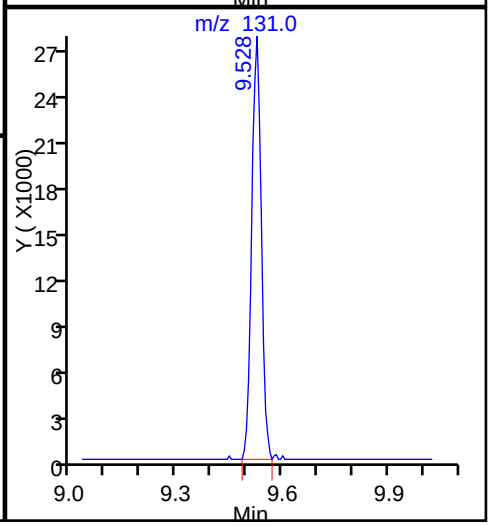


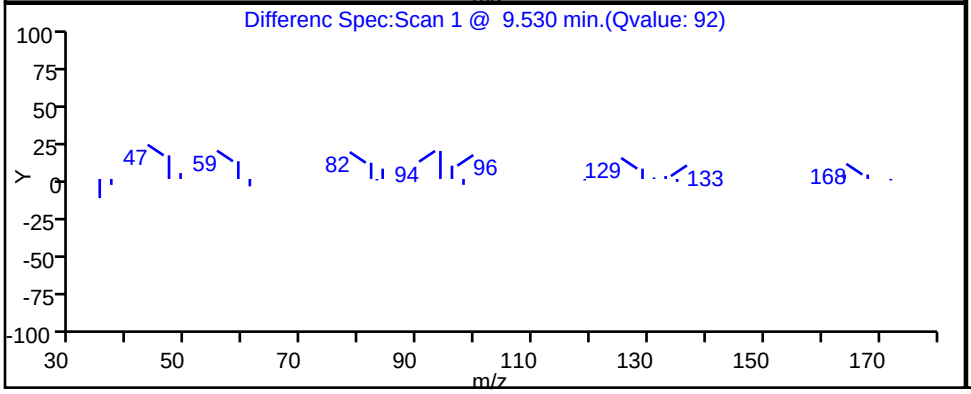












Manual Integration/User Assign Peak Report

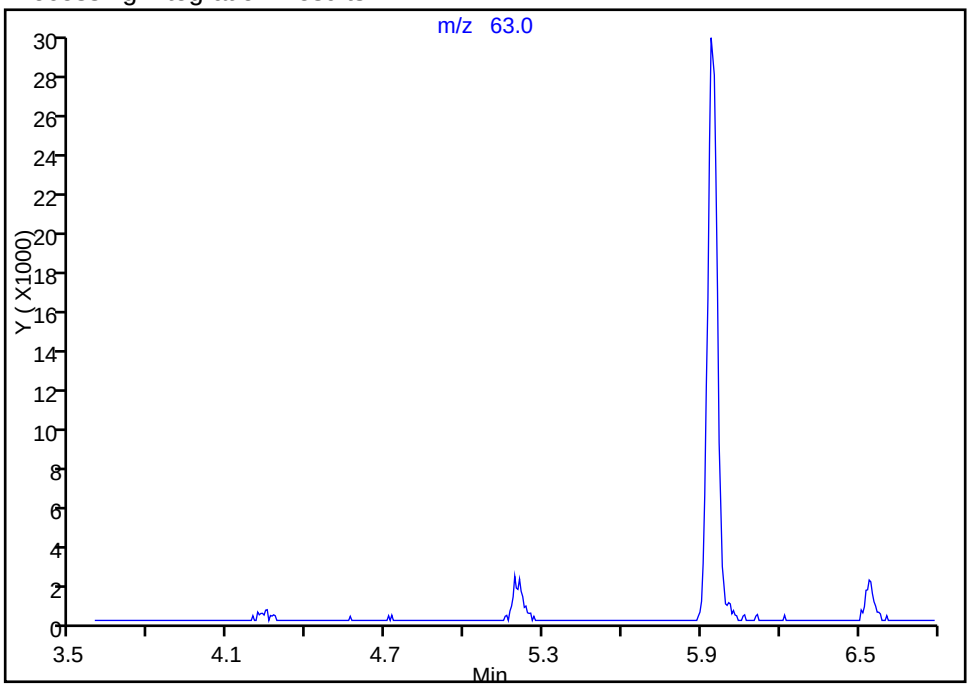
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504027.D				
Injection Date:	04-May-2015 22:26:30	Instrument ID:	CHHP6		
Lims ID:	180-43359-E-13	Lab Sample ID:	180-43359-13		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
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

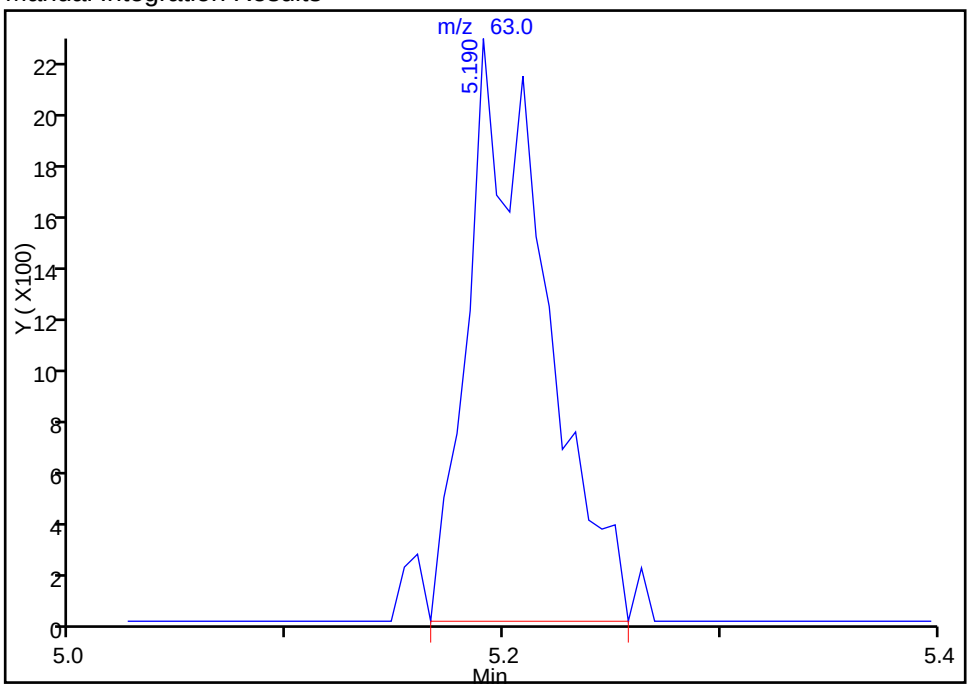
Not Detected
Expected RT: 5.19

Processing Integration Results



Manual Integration Results

RT: 5.19
Area: 5442
Amount: 1.506491
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:50:02
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-140280/3	60501003.D
Level 2	IC 180-140280/6	60501006.D
Level 3	ICIS 180-140280/7	60501007.D
Level 4	IC 180-140280/8	60501008.D
Level 5	IC 180-140280/9	60501009.D
Level 6	IC 180-140280/10	60501010.D
Level 7	IC 180-140280/11	60501011.D
Level 8	IC 180-140280/12	60501012.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	0.3486 0.2827	0.3150 0.3020	0.2923 0.2839	0.3161	0.3026	Ave		0.3054			0.1000	7.0		20.0			
Chloromethane	0.3209 0.2323	0.2691 0.2406	0.2341 0.2361	0.2581	0.2392	Ave		0.2538			0.1000	11.8		20.0			
Vinyl chloride	0.3151 0.2504	0.2847 0.2684	0.2565 0.2554	0.2689	0.2627	Ave		0.2703			0.1000	7.8		20.0			
1,3-Butadiene	0.3651 0.2243	0.2740 0.2442	0.2482 0.2289	0.2429	0.2364	Ave		0.2580			0.0100	17.7		20.0			
Bromomethane	0.1854 0.1321	0.1463 0.1393	0.1244 0.1347	0.1314	0.1324	Ave		0.1407			0.0500	13.6		20.0			
Chloroethane	0.2262 0.1611	0.1679 0.1699	0.1466 0.1556	0.1724	0.1629	Ave		0.1703			0.0500	14.1		20.0			
Dichlorofluoromethane	0.4776 0.3760	0.4560 0.4012	0.3952 0.3718	0.4114	0.4013	Ave		0.4113			0.0100	9.0		20.0			
Trichlorofluoromethane	0.3562 0.2923	0.3407 0.3023	0.2925 0.2849	0.3167	0.3141	Ave		0.3125			0.1000	8.0		20.0			
Ethyl ether	0.2739 0.2311	0.2559 0.2065	0.2121 0.2229	0.2294	0.2336	Ave		0.2332			0.0100	9.5		20.0			
Acrolein	0.0432 0.0419	0.0430 0.0383	0.0393 0.0414	0.0427	0.0413	Ave		0.0414			0.0100	4.2		20.0			
1,1-Dichloroethene	0.2755 0.2147	0.2404 0.2225	0.2260 0.2192	0.2289	0.2251	Ave		0.2315			0.1000	8.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2750 0.2169	0.2451 0.2269	0.2250 0.2192	0.2368	0.2253	Ave		0.2338			0.1000	8.1		20.0			
Acetone	0.0696 0.0652	0.0723 0.0566	0.0628 0.0704	0.0692	0.0646	Ave		0.0664			0.0500	7.7		20.0			
Iodomethane	0.3175 0.2842	0.3128 0.2903	0.2868 0.2809	0.3057	0.2900	Ave		0.2960			0.0100	4.7		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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	0.7842 0.6293	0.7272 0.6654	0.6482 0.6230	0.6894	0.6593	Ave		0.6782			0.1000	8.0		20.0			
Allyl chloride	0.1764 0.1567	0.1753 0.1592	0.1527 0.1584	0.1601	0.1609	Ave		0.1625			0.0100	5.3		20.0			
Methyl acetate	0.2266 0.2203	0.2385 0.2030	0.2068 0.2104	0.2282	0.2188	Ave		0.2191			0.1000	5.5		20.0			
Methylene Chloride	0.3350 0.2730	0.2894 0.2662	0.2624 0.2655	0.2918	0.2650	Ave		0.2810			0.1000	8.7		20.0			
tert-Butyl alcohol	1.0636 1.1642	1.1377 1.0891	1.1066 0.9445	1.1091	1.1001	Ave		1.0894			0.0100	6.0		20.0			
Acrylonitrile	0.1084 0.1159	0.1191 0.1028	0.1087 0.1081	0.1183	0.1131	Ave		0.1118			0.0100	5.1		20.0			
trans-1,2-Dichloroethene	0.2932 0.2453	0.2739 0.2498	0.2450 0.2417	0.2606	0.2544	Ave		0.2580			0.1000	6.8		20.0			
Methyl tert-butyl ether	0.9007 0.9321	0.9593 0.8926	0.9006 0.9017	0.9967	0.9265	Ave		0.9263			0.1000	3.9		20.0			
Hexane	0.4228 0.3233	0.3595 0.3408	0.3262 0.3236	0.3435	0.3289	Ave		0.3461			0.0100	9.7		20.0			
1,1-Dichloroethane	0.5170 0.4679	0.5250 0.4696	0.4714 0.4599	0.5018	0.4681	Ave		0.4851			0.2000	5.2		20.0			
Vinyl acetate	0.5970 0.5479	0.6352 0.5382	0.5814 0.5748	0.6089	0.5821	Ave		0.5832			0.0100	5.4		20.0			
2,2-Dichloropropane	0.3319 0.2831	0.3322 0.2906	0.2897 0.2681	0.3122	0.2953	Ave		0.3004			0.0100	7.7		20.0			
cis-1,2-Dichloroethene	0.3501 0.2788	0.3072 0.2782	0.2765 0.2726	0.3026	0.2806	Ave		0.2933			0.1000	8.9		20.0			
2-Butanone (MEK)	0.1170 0.1123	0.1159 0.0988	0.0988 0.1169	0.1148	0.1091	Ave		0.1105			0.0500	6.9		20.0			
Bromochloromethane	0.1429 0.1178	0.1271 0.1104	0.1121 0.1138	0.1203	0.1181	Ave		0.1203			0.0100	8.7		20.0			
Tetrahydrofuran	0.1295 0.0997	0.1074 0.0917	0.0947 0.0981	0.1056	0.0940	Ave		0.1026			0.0100	11.9		20.0			
Chloroform	0.5191 0.4540	0.5102 0.4498	0.4363 0.4431	0.4752	0.4592	Ave		0.4684			0.2000	6.6		20.0			
1,1,1-Trichloroethane	0.4309 0.3699	0.3959 0.3824	0.3652 0.3690	0.3960	0.3712	Ave		0.3851			0.1000	5.7		20.0			
Cyclohexane	0.5558 0.4313	0.4731 0.4508	0.4433 0.4227	0.4663	0.4530	Ave		0.4620			0.1000	9.0		20.0			
Carbon tetrachloride	0.3359 0.2788	0.3048 0.2954	0.2697 0.2878	0.2910	0.2882	Ave		0.2940			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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	0.4216 0.3511	0.3875 0.3690	0.3523 0.3568	0.3782	0.3641	Ave		0.3726			0.0100	6.3		20.0			
Isobutyl alcohol	0.0101 0.0100	0.0113 0.0082	0.0099 0.0102	0.0106	0.0103	Ave		0.0101			0.0100	8.7		20.0			
Benzene	1.3012 1.0375	1.1968 1.0199	1.0488 0.9834	1.1390	1.0729	Ave		1.0999			0.5000	9.6		20.0			
1,2-Dichloroethane	0.4169 0.4242	0.4457 0.4048	0.3924 0.4107	0.4376	0.4110	Ave		0.4179			0.1000	4.2		20.0			
n-Heptane	0.3696 0.2414	0.2670 0.2581	0.2417 0.2395	0.2574	0.2528	Ave		0.2659			0.0100	16.2		20.0			
Trichloroethene	0.2659 0.2283	0.2513 0.2298	0.2253 0.2221	0.2450	0.2355	Ave		0.2379			0.2000	6.3		20.0			
Methylcyclohexane	0.5216 0.4200	0.4663 0.4421	0.4303 0.4134	0.4526	0.4392	Ave		0.4482			0.1000	7.6		20.0			
1,2-Dichloropropane	0.3569 0.2779	0.3034 0.2753	0.2639 0.2716	0.2942	0.2769	Ave		0.2900			0.1000	10.3		20.0			
1,4-Dioxane	0.0031 0.0027	0.0029 0.0026	0.0027 0.0028	0.0029	0.0027	Ave		0.0028		*	0.0100	6.2		20.0			
Dibromomethane	0.1960 0.1754	0.1756 0.1684	0.1679 0.1713	0.1797	0.1712	Ave		0.1757			0.0100	5.2		20.0			
Bromodichloromethane	0.3546 0.3552	0.3667 0.3488	0.3250 0.3519	0.3593	0.3460	Ave		0.3510			0.2000	3.5		20.0			
cis-1,3-Dichloropropene	0.4778 0.4674	0.4837 0.4564	0.4280 0.4560	0.4861	0.4600	Ave		0.4644			0.2000	4.1		20.0			
4-Methyl-2-pentanone (MIBK)	1.2844 1.3453	1.4737 1.2221	1.3609 1.2275	1.4462	1.3607	Ave		1.3401			0.1000	6.9		20.0			
Toluene	6.9520 4.6351	5.9471 4.3736	5.1756 4.1162	5.3908	4.8886	Ave		5.1849			0.4000	17.8		20.0			
trans-1,3-Dichloropropene	2.0804 1.8574	2.0888 1.7255	1.8056 1.7170	1.9804	1.8472	Ave		1.8878			0.1000	7.8		20.0			
Ethyl methacrylate	1.9430 1.9170	2.0477 1.7286	1.8819 1.7451	2.0170	1.8481	Ave		1.8910			0.0100	6.1		20.0			
1,1,2-Trichloroethane	1.3090 1.0972	1.1937 1.0111	1.1015 1.0164	1.2035	1.0964	Ave		1.1286			0.1000	9.0		20.0			
Tetrachloroethene	1.0559 0.7799	0.9436 0.7743	0.8447 0.7287	0.8773	0.8221	Ave		0.8533			0.2000	12.4		20.0			
1,3-Dichloropropane	2.3851 2.0739	2.3736 1.8996	2.1124 1.8879	2.2638	2.0862	Ave		2.1353			0.0100	9.0		20.0			
2-Hexanone	0.8137 0.8180	0.8895 0.7426	0.8132 0.7959	0.8713	0.7922	Ave		0.8171			0.1000	5.6		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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	0.9167 0.9114	0.9437 0.8460	0.8397 0.8533	0.9210	0.8760	Ave		0.8885			0.1000	4.5		20.0			
1,2-Dibromoethane (EDB)	1.2139 1.0591	1.1581 0.9625	1.0311 0.9525	1.1248	1.0337	Ave		1.0670			0.1000	8.7		20.0			
3-Chlorobenzotrifluoride	1.9805 1.4626	1.6674 1.4754	1.6219 1.3101	1.6115	1.5409	Ave		1.5838			0.0100	12.4		20.0			
Chlorobenzene	4.1572 3.0173	3.6944 2.8262	3.2363 2.6981	3.4110	3.1473	Ave		3.2735			0.5000	14.6		20.0			
4-Chlorobenzotrifluoride	1.7944 1.3844	1.5995 1.4056	1.5949 1.2457	1.5342	1.4650	Ave		1.5030			0.0100	11.1		20.0			
1,1,1,2-Tetrachloroethane	1.0462 0.9323	1.0556 0.8891	0.9455 0.8654	1.0123	0.9304	Ave		0.9596			0.0100	7.4		20.0			
Ethylbenzene	2.1434 1.7309	2.0220 1.6580	1.8071 1.5780	1.9438	1.7518	Ave		1.8294			0.1000	10.5		20.0			
m-Xylene & p-Xylene	2.7561 2.1427	2.5607 2.0419	2.2355 1.9778	2.3726	2.2356	Ave		2.2904			0.1000	11.5		20.0			
o-Xylene	2.5889 2.0760	2.4881 1.9690	2.2413 1.8727	2.3686	2.1678	Ave		2.2215			0.3000	11.3		20.0			
Styrene	4.2036 3.4635	4.1366 3.2025	3.6392 3.0610	3.9430	3.5757	Ave		3.6531			0.3000	11.4		20.0			
Bromoform	0.5584 0.5947	0.5952 0.5417	0.5243 0.5638	0.6035	0.5628	Ave		0.5680			0.1000	4.9		20.0			
2-Chlorobenzotrifluoride	1.9675 1.4709	1.6890 1.4639	1.6132 1.3327	1.6729	1.5786	Ave		1.5986			0.0100	12.0		20.0			
Isopropylbenzene	6.7613 4.7610	6.2753 4.5877	5.5543 4.2667	5.7405	5.2468	Ave		5.3992			0.1000	15.9		20.0			
1,1,2,2-Tetrachloroethane	1.7406 1.4945	1.7556 1.3542	1.5202 1.3660	1.6481	1.5198	Ave		1.5499			0.3000	9.9		20.0			
Bromobenzene	0.8541 0.8053	0.8436 0.7956	0.7867 0.7784	0.8441	0.7802	Ave		0.8110			0.0100	3.9		20.0			
trans-1,4-Dichloro-2-butene	0.3636 0.3906	0.3775 0.3896	0.3354 0.3834	0.3759	0.3637	Ave		0.3725			0.0100	4.9		20.0			
1,2,3-Trichloropropane	0.3519 0.3764	0.3580 0.3604	0.3344 0.3601	0.3631	0.3476	Ave		0.3565			0.0100	3.4		20.0			
N-Propylbenzene	1.0677 0.9565	1.0033 0.9784	0.9374 0.9298	1.0131	0.9370	Ave		0.9779			0.0100	4.9		20.0			
2-Chlorotoluene	0.8628 0.7831	0.8481 0.7932	0.7692 0.7626	0.8214	0.7902	Ave		0.8038			0.0100	4.5		20.0			
3-Chlorotoluene	0.9393 0.8788	0.8948 0.8891	0.8480 0.8035	0.9060	0.8425	Ave		0.8753			0.0100	4.8		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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	3.4045 2.9658	3.3453 3.0076	3.0340 2.7998	3.2793	3.0536	Ave		3.1112			0.0100	6.7		20.0			
4-Chlorotoluene	0.9042 0.8212	0.8863 0.8300	0.8235 0.8181	0.8794	0.8188	Ave		0.8477			0.0100	4.2		20.0			
tert-Butylbenzene	2.5515 2.2638	2.5374 2.3472	2.3376 2.1899	2.4758	2.3734	Ave		2.3846			0.0100	5.4		20.0			
1,2,4-Trimethylbenzene	3.5873 3.1129	3.5167 3.0959	3.1889 2.9089	3.4241	3.2298	Ave		3.2580			0.0100	7.1		20.0			
3,4-Dichlorobenzotrifluoride	0.9327 0.7872	0.8183 0.8349	0.8149 0.7441	0.8385	0.7934	Ave		0.8205			0.0100	6.6		20.0			
sec-Butylbenzene	4.0858 3.4212	3.8506 3.4857	3.6000 3.1968	3.8098	3.5861	Ave		3.6295			0.0100	7.7		20.0			
1,3-Dichlorobenzene	1.6565 1.5022	1.6535 1.5010	1.4791 1.4375	1.6349	1.5185	Ave		1.5479			0.6000	5.6		20.0			
4-Isopropyltoluene	3.1670 2.7206	3.0629 2.7728	2.8091 2.5586	3.0162	2.8478	Ave		2.8694			0.0100	7.0		20.0			
1,4-Dichlorobenzene	1.7468 1.5253	1.7372 1.5273	1.5452 1.4750	1.6893	1.5519	Ave		1.5997			0.5000	6.7		20.0			
2,4-Dichlorobenzotrifluoride	0.9158 0.7446	0.8383 0.8321	0.8043 0.7049	0.8446	0.8128	Ave		0.8122			0.0100	7.9		20.0			
2,5-Dichlorobenzotrifluoride	0.9825 0.8895	0.8751 0.8714	0.8798 0.8144	0.9199	0.8750	Ave		0.8885			0.0100	5.4		20.0			
n-Butylbenzene	3.2634 2.6981	3.0747 2.7532	2.8311 2.5522	3.0336	2.8801	Ave		2.8858			0.0100	7.9		20.0			
1,2-Dichlorobenzene	1.6790 1.4921	1.6306 1.4418	1.4765 1.3972	1.6122	1.5146	Ave		1.5305			0.4000	6.5		20.0			
1,2-Dibromo-3-Chloropropane	0.2183 0.2510	0.2425 0.2258	0.2143 0.2414	0.2408	0.2338	Ave		0.2335			0.0500	5.5		20.0			
1,2,4-Trichlorobenzene	1.1835 1.0025	1.2046 0.9061	1.0578 0.9365	1.2090	1.0778	Ave		1.0722			0.2000	11.1		20.0			
Hexachlorobutadiene	0.4789 0.3274	0.3961 0.3177	0.3567 0.3053	0.3905	0.3508	Ave		0.3654			0.0100	15.4		20.0			
Naphthalene	2.9245 2.7208	3.1203 2.3816	2.8947 2.5219	3.2380	2.9038	Ave		2.8382			0.0100	10.1		20.0			
1,2,3-Trichlorobenzene	1.1359 0.9221	1.1475 0.8130	0.9868 0.8910	1.1440	1.0070	Ave		1.0059			0.0100	12.7		20.0			
2,4,5-Trichlorotoluene	0.7426 0.5474	0.6592 0.5993	0.6129 0.6293	0.7138	0.5831	Ave		0.6359			0.0100	10.4		20.0			
2,3,6-Trichlorotoluene	0.6980 0.4946	0.5983 0.5342	0.5392 0.5788	0.6361	0.5370	Ave		0.5770			0.0100	11.4		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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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)	0.2166 0.2058	0.2131 0.1988	0.2115 0.2011	0.2161	0.1920	Ave		0.2069				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3840 0.3371	0.3499 0.3249	0.3449 0.3345	0.3681	0.3218	Ave		0.3457				6.2		20.0			
Toluene-d8 (Surr)	5.4309 3.7758	4.7338 3.5724	4.6852 3.4669	4.4758	3.7046	Ave		4.2307				16.6		20.0			
4-Bromofluorobenzene (Surr)	2.0654 1.5977	1.9677 1.4921	1.8550 1.4803	1.7933	1.5449	Ave		1.7245				13.1		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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-140280/3	60501003.D
Level 2	IC 180-140280/6	60501006.D
Level 3	ICIS 180-140280/7	60501007.D
Level 4	IC 180-140280/8	60501008.D
Level 5	IC 180-140280/9	60501009.D
Level 6	IC 180-140280/10	60501010.D
Level 7	IC 180-140280/11	60501011.D
Level 8	IC 180-140280/12	60501012.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	14620 393068	62218 499728	126679 575476	187095	250149	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	13456 322970	53152 398212	101459 478453	152788	197707	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	13213 348129	56220 444140	111175 517720	159170	217145	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	15310 311831	54119 404201	107576 464004	143792	195445	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	7774 183599	28897 230594	53923 272991	77761	109446	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	9487 224025	33151 281244	63525 315384	102015	134678	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	20031 522769	90056 664016	171304 753551	243522	331737	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	14937 406408	67290 500291	126784 577522	187475	259631	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	11485 321282	50543 341678	91939 451701	135802	193102	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	36220 74857	42429 79297	51168 92403	59022	68259	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11555 298478	47470 368258	97947 444270	135482	186100	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	11531 301559	48408 375445	97512 444261	140183	186259	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	14591 181333	28568 187221	54459 285567	81971	106890	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	13317 395139	61771 480425	124319 569324	180970	239779	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	32888 874906	143618 1101219	280976 1262586	408054	545025	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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	7399 217864	34624 263380	66194 320994	94749	133021	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	47506 1531708	235556 1680076	448132 2131842	675270	904615	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	14048 379527	57152 440482	113752 538163	172741	219046	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	12674 437766	75192 423693	148632 561100	211317	284065	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	45474 1611348	235229 1701239	471254 2190199	700311	935388	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	12297 341011	54099 413336	106188 489846	154219	210289	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	37775 1295877	189455 1477234	390371 1827456	589934	765940	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	17731 449492	70993 563934	141416 655934	203332	271882	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	21682 650535	103692 777143	204336 932123	297015	386941	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	25035 761767	125444 890652	252021 1164902	360384	481236	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	13921 393550	65618 480936	125582 543470	184800	244089	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	14682 387653	60662 460452	119864 552410	179083	231955	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	24544 312233	45773 327104	85635 473847	135914	180453	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5991 163837	25094 182772	48600 230583	71233	97630	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	10864 277320	42422 303387	82088 397850	124988	155359	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	21772 631187	100773 744366	189114 898092	281261	379639	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	18072 514270	78188 632812	158279 747775	234417	306831	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	23311 599552	93429 746051	192149 856768	275975	374513	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	14088 387561	60197 488872	116915 583377	172271	238253	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	17681 488097	76537 610679	152706 723072	223842	301032	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	10633 348172	55741 339375	106831 518160	157057	212107	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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	54569 1442452	236377 1687761	454609 1993212	674168	886979	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	17485 589729	88016 669830	170097 832399	259031	339774	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	15500 335663	52724 427101	104766 485433	152333	209022	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	11152 317378	49633 380219	97663 450242	145038	194700	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	21875 583932	92085 731561	186510 837825	267913	363050	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	14968 386326	59925 455627	114408 550561	174135	228950	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2630 75662	11389 85036	23730 113034	33881	43846	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	8221 243858	34683 278635	72777 347141	106380	141515	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	14873 493846	72416 577215	140878 713291	212684	286051	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	20037 649830	95523 755309	185519 924184	287718	380296	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	54251 852834	122138 957320	248428 1201067	371586	506634	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	58730 1469166	246446 1712971	472389 2013806	692573	910104	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	17575 588746	86561 675791	164800 840048	254423	343888	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	16414 607621	84855 677036	171769 853762	259135	344058	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	11058 347762	49466 396004	100537 497273	154621	204111	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	8920 247215	39101 303279	77095 356494	112710	153046	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	20149 657365	98360 744014	192805 923637	290836	388394	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	34369 518554	73724 581725	148448 778828	223875	294952	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7744 288883	39108 331360	76638 417451	118323	163091	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	10255 335705	47993 376974	94113 466009	144503	192453	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	16731 463604	69099 577854	148039 640982	207040	286874	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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	35120 956397	153098 1106916	295391 1320047	438228	585932	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15159 438815	66283 550514	145575 609472	197098	272731	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8838 295523	43746 348221	86295 423407	130058	173217	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	18107 548629	83792 649357	164938 772048	249733	326136	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	23283 679172	106116 799744	204038 967652	304814	416204	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	21871 658013	103108 771182	204569 916218	304301	403574	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	35512 1097806	171422 1254290	332158 1497570	506573	665694	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	4717 188498	24665 212157	47850 275852	77540	104771	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	16621 466230	69992 573355	147246 652016	214923	293892	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	57119 1509094	260050 1796814	506955 2087440	737501	976791	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	14704 473696	72752 530388	138753 668303	211742	282941	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	11822 351137	54793 402872	108631 493553	160950	209662	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	5033 170289	24523 197280	46308 243093	71679	97726	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4871 164103	23251 182497	46172 228328	69230	93411	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	14778 417057	65168 495397	129444 589561	193168	251809	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11942 341443	55085 401659	106218 483577	156618	212346	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	13001 383186	58118 450187	117101 509493	172757	226403	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	47124 1293117	217291 1522884	418940 1775313	625299	820602	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	12516 358037	57566 420291	113709 518735	167686	220038	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	35316 987056	164817 1188495	322788 1388596	472090	637815	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	49653 1357258	228421 1567584	440328 1844484	652905	867967	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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

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	12910 343227	53155 422746	112527 471815	159882	213219	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	56554 1491702	250114 1764994	497104 2027020	726443	963722	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	22929 654979	107399 760032	204242 911485	311742	408084	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	43836 1186196	198948 1403979	387889 1622356	575133	765296	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	24178 665067	112838 773327	213363 935299	322104	417041	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	12676 324649	54452 421311	111058 446968	161041	218417	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	13599 387822	56843 441248	121492 516380	175409	235142	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	45170 1176426	199711 1394081	390925 1618275	578451	773974	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	23240 650565	105916 730064	203881 885916	307417	407040	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	3021 109457	15751 114309	29597 153064	45915	62834	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	16381 437105	78246 458809	146069 593825	230538	289639	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	6629 142741	25727 160877	49256 193594	74455	94269	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	40480 1186321	202675 1205925	399712 1599080	617410	780358	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	15722 402043	74534 411642	136259 564994	218128	270622	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	10279 238660	42820 303439	84630 398998	136106	156693	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	9662 215650	38864 270492	74459 367031	121283	144312	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9082 286117	42078 328982	91685 407664	127929	158749	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	16103 468642	69113 537741	149513 677859	217902	266001	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	45880 1196797	196169 1399177	427631 1696172	575027	689691	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	17448 506432	81543 584398	169309 724215	230387	287611	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.: 180-43359-1 Analy Batch No.: 140280

SDG No.:

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

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

Curve Type Legend:
Ave = Average ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 01-May-2015 13:53:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0006721-003
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:23 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:38:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.256	4.255	0.001	100	238315	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.291	-0.006	98	419378	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.405	-0.005	90	84479	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.754	12.748	0.006	98	138415	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.555	0.000	90	9082	5.00	5.23	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.926	6.938	-0.012	61	16103	5.00	5.55	
$ 7 Toluene-d8 (Surr)	98	8.946	8.945	0.001	92	45880	5.00	6.42	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.592	-0.006	79	17448	5.00	5.99	
11 Dichlorodifluoromethane	85	1.603	1.603	0.000	93	14620	5.00	5.71	
12 Chloromethane	50	1.762	1.755	0.007	98	13456	5.00	6.32	
13 Vinyl chloride	62	1.883	1.889	-0.006	96	13213	5.00	5.83	
14 Butadiene	39	1.938	1.931	0.007	87	15310	5.00	7.07	
15 Bromomethane	94	2.236	2.229	0.007	81	7774	5.00	6.59	M
16 Chloroethane	64	2.376	2.381	-0.005	94	9487	5.00	6.64	
17 Dichlorofluoromethane	67	2.656	2.655	0.001	1	20031	5.00	5.81	M
18 Trichlorofluoromethane	101	2.650	2.692	-0.042	67	14937	5.00	5.70	
20 Ethyl ether	59	3.045	3.051	-0.006	90	11485	5.00	5.87	
21 Acrolein	56	3.228	3.227	0.001	96	36220	100.0	104.0	
22 1,1-Dichloroethene	96	3.337	3.343	-0.006	97	11555	5.00	5.95	
23 1,1,2-Trichloro-1,2,2-trif	101	3.404	3.403	0.001	92	11531	5.00	5.88	
24 Acetone	43	3.435	3.440	-0.005	99	14591	25.0	26.2	
25 Iodomethane	142	3.526	3.543	-0.017	97	13317	5.00	5.36	
26 Carbon disulfide	76	3.623	3.641	-0.018	99	32888	5.00	5.78	
29 3-Chloro-1-propene	76	3.897	3.914	-0.017	91	7399	5.00	5.43	
30 Methyl acetate	43	3.933	3.939	-0.006	96	47506	25.0	25.9	
31 Methylene Chloride	84	4.122	4.133	-0.011	91	14048	5.00	5.96	
32 2-Methyl-2-propanol	59	4.384	4.389	-0.005	96	12674	50.0	48.8	
33 Acrylonitrile	53	4.499	4.511	-0.012	97	45474	50.0	48.5	
34 trans-1,2-Dichloroethene	96	4.548	4.565	-0.017	95	12297	5.00	5.68	
35 Methyl tert-butyl ether	73	4.578	4.584	-0.006	95	37775	5.00	4.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.991	-0.005	88	17731	5.00	6.11	
37 1,1-Dichloroethane	63	5.187	5.198	-0.011	65	21682	5.00	5.33	
38 Vinyl acetate	43	5.229	5.247	-0.018	98	25035	5.00	5.12	
42 2,2-Dichloropropane	77	5.941	5.946	-0.005	65	13921	5.00	5.52	
43 cis-1,2-Dichloroethene	96	5.935	5.946	-0.011	83	14682	5.00	5.97	
44 2-Butanone (MEK)	43	5.953	5.952	0.001	98	24544	25.0	26.5	
48 Chlorobromomethane	128	6.233	6.238	-0.005	96	5991	5.00	5.94	
49 Tetrahydrofuran	42	6.257	6.257	0.000	87	10864	10.0	12.6	
50 Chloroform	83	6.373	6.372	0.001	95	21772	5.00	5.54	
51 1,1,1-Trichloroethane	97	6.543	6.542	0.001	98	18072	5.00	5.60	
52 Cyclohexane	56	6.616	6.622	-0.006	88	23311	5.00	6.02	
53 Carbon tetrachloride	117	6.714	6.719	-0.005	73	14088	5.00	5.71	
54 1,1-Dichloropropene	75	6.726	6.731	-0.005	94	17681	5.00	5.66	
55 Isobutyl alcohol	41	6.908	6.908	0.000	93	10633	125.0	125.8	
56 Benzene	78	6.939	6.944	-0.005	97	54569	5.00	5.91	
57 1,2-Dichloroethane	62	7.024	7.023	0.001	98	17485	5.00	4.99	
59 n-Heptane	43	7.304	7.315	-0.011	91	15500	5.00	6.95	
61 Trichloroethene	130	7.681	7.680	0.001	94	11152	5.00	5.59	
63 Methylcyclohexane	83	7.924	7.923	0.001	90	21875	5.00	5.82	
64 1,2-Dichloropropane	63	7.955	7.954	0.001	81	14968	5.00	8.07	
65 1,4-Dioxane	88	8.028	8.039	-0.011	38	2630	100.0	121.4	
67 Dibromomethane	93	8.046	8.039	0.007	86	8221	5.00	5.58	
68 Dichlorobromomethane	83	8.234	8.234	0.000	97	14873	5.00	5.05	
71 cis-1,3-Dichloropropene	75	8.679	8.678	0.000	91	20037	5.00	5.14	
72 4-Methyl-2-pentanone (MIBK	43	8.825	8.830	-0.006	95	54251	25.0	24.0	
73 Toluene	91	9.013	9.012	0.001	98	58730	5.00	6.70	
74 trans-1,3-Dichloropropene	75	9.250	9.256	-0.006	96	17575	5.00	5.51	
75 Ethyl methacrylate	69	9.317	9.317	0.000	87	16414	5.00	5.14	
76 1,1,2-Trichloroethane	97	9.451	9.456	-0.005	90	11058	5.00	5.80	
77 Tetrachloroethene	164	9.530	9.529	0.001	91	8920	5.00	6.19	
78 1,3-Dichloropropane	76	9.615	9.615	0.000	91	20149	5.00	5.58	
79 2-Hexanone	43	9.664	9.663	0.001	97	34369	25.0	24.9	
81 Chlorodibromomethane	129	9.828	9.828	0.000	87	7744	5.00	5.16	
82 Ethylene Dibromide	107	9.938	9.943	-0.005	97	10255	5.00	5.69	
83 3-Chlorobenzotrifluoride	180	10.400	10.399	0.001	56	16731	5.00	6.25	
84 Chlorobenzene	112	10.431	10.430	0.001	93	35120	5.00	6.35	
85 4-Chlorobenzotrifluoride	180	10.485	10.491	-0.006	97	15159	5.00	5.97	
86 1,1,1,2-Tetrachloroethane	131	10.528	10.527	0.001	41	8838	5.00	5.45	
87 Ethylbenzene	106	10.534	10.533	0.001	99	18107	5.00	5.86	
88 m-Xylene & p-Xylene	106	10.662	10.661	0.001	99	23283	5.00	6.02	
89 o-Xylene	106	11.045	11.044	0.001	96	21871	5.00	5.83	
90 Styrene	104	11.063	11.063	0.001	91	35512	5.00	5.75	
91 Bromoform	173	11.252	11.251	0.001	92	4717	5.00	4.91	
92 2-Chlorobenzotrifluoride	180	11.313	11.306	0.007	93	16621	5.00	6.15	
93 Isopropylbenzene	105	11.410	11.409	0.001	96	57119	5.00	6.26	
96 1,1,2,2-Tetrachloroethane	83	11.720	11.720	0.000	73	14704	5.00	5.62	
95 Bromobenzene	156	11.726	11.726	0.000	92	11822	5.00	5.27	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.756	0.001	81	5033	5.00	4.88	
98 1,2,3-Trichloropropane	110	11.775	11.774	0.001	80	4871	5.00	4.94	
99 N-Propylbenzene	120	11.830	11.829	0.001	99	14778	5.00	5.46	
100 2-Chlorotoluene	126	11.915	11.914	0.001	94	11942	5.00	5.37	
101 3-Chlorotoluene	126	11.982	11.981	0.001	99	13001	5.00	5.37	

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	12.012	12.012	0.000	92	47124	5.00	5.47	
103 4-Chlorotoluene	126	12.043	12.042	0.001	98	12516	5.00	5.33	
104 tert-Butylbenzene	119	12.329	12.328	0.001	91	35316	5.00	5.35	
106 1,2,4-Trimethylbenzene	105	12.389	12.389	0.000	98	49653	5.00	5.51	
107 1,2-dichloro-4-(trifluorom	214	12.420	12.425	-0.005	96	12910	5.00	5.68	
108 sec-Butylbenzene	105	12.554	12.553	0.001	95	56554	5.00	5.63	
109 1,3-Dichlorobenzene	146	12.669	12.669	0.000	94	22929	5.00	5.35	
110 4-Isopropyltoluene	119	12.706	12.711	-0.005	96	43836	5.00	5.52	
111 1,4-Dichlorobenzene	146	12.779	12.772	0.007	88	24178	5.00	5.46	
113 2,4-Dichloro-1-(triflourom	214	12.791	12.796	-0.005	93	12676	5.00	5.64	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.833	0.001	96	13599	5.00	5.77	
116 n-Butylbenzene	91	13.119	13.119	0.000	98	45170	5.00	5.65	
117 1,2-Dichlorobenzene	146	13.126	13.125	0.001	92	23240	5.00	5.49	
118 1,2-Dibromo-3-Chloropropan	75	13.916	13.922	-0.006	74	3021	5.00	4.67	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.062	14.062	0.000	98	60061	15.0	16.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.476	14.481	-0.005	99	44007	10.0	11.2	
122 1,2,4-Trichlorobenzene	180	14.744	14.743	0.001	92	16381	5.00	5.52	
123 Hexachlorobutadiene	225	14.896	14.895	0.001	93	6629	5.00	6.55	
124 Naphthalene	128	15.011	15.011	0.000	97	40480	5.00	5.15	
125 1,2,3-Trichlorobenzene	180	15.230	15.236	-0.006	92	15722	5.00	5.65	
126 2,4,5-Trichlorotoluene	159	16.015	16.008	0.007	0	10279	5.00	5.84	
127 2,3,6-Trichlorotoluene	159	16.119	16.112	0.007	91	9662	5.00	6.05	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	11.7	
S 131 Xylenes, Total	106				0		10.0	11.8	
S 132 1,3-Dichloropropene, Total	1				0		10.0	10.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWeemixPRI_00002	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	0.20	Units: uL	
voaWketPri Re_00005	Amount Added:	0.80	Units: uL	
voaWVA2ndRes_00001	Amount Added:	0.20	Units: uL	
VOA8260SURR_00034	Amount Added:	0.20	Units: uL	
VOAACROPRI_00005	Amount Added:	4.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

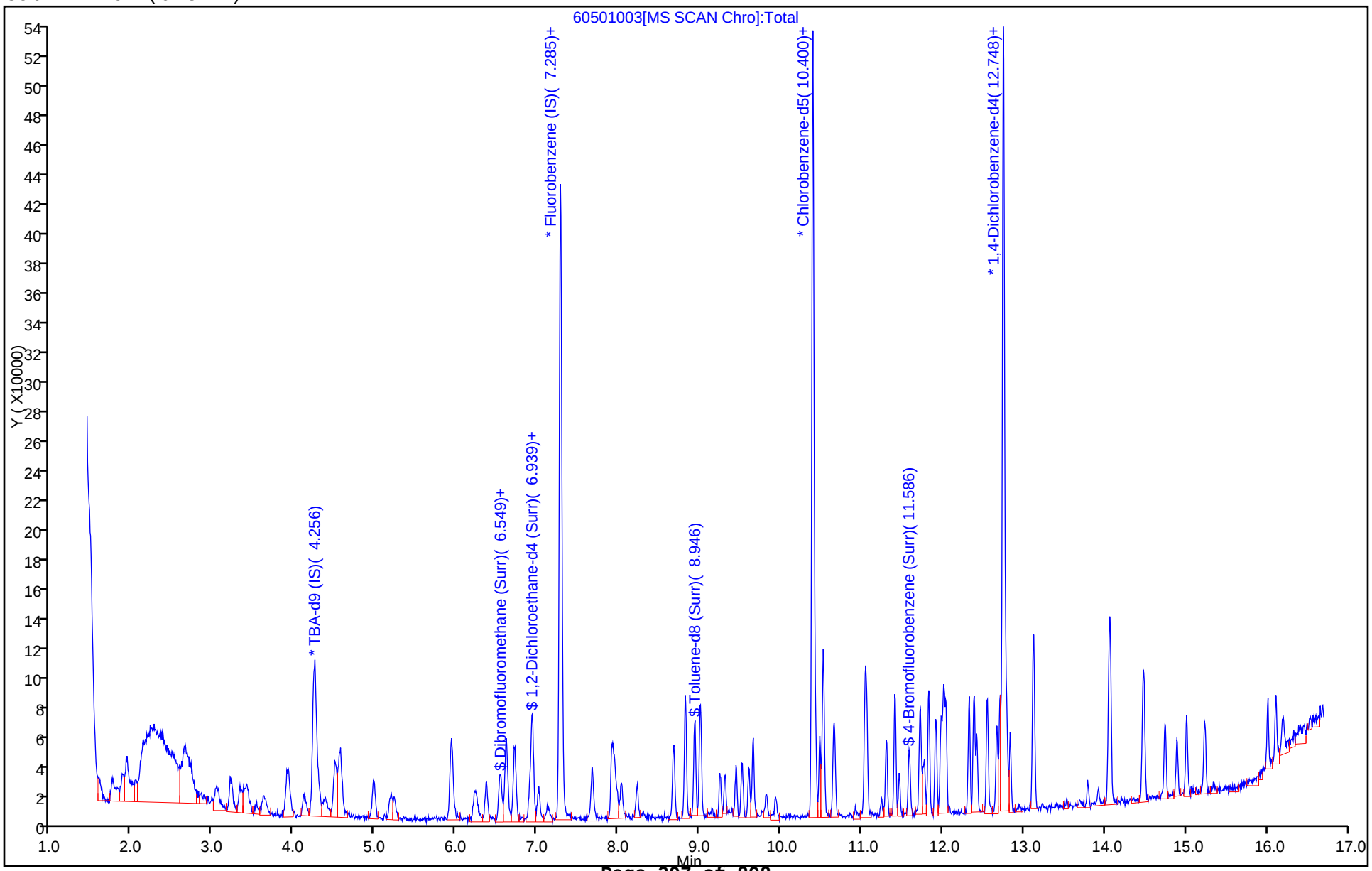
Report Date: 02-May-2015 10:49:24 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D

Injection Date:	01-May-2015 13:53:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

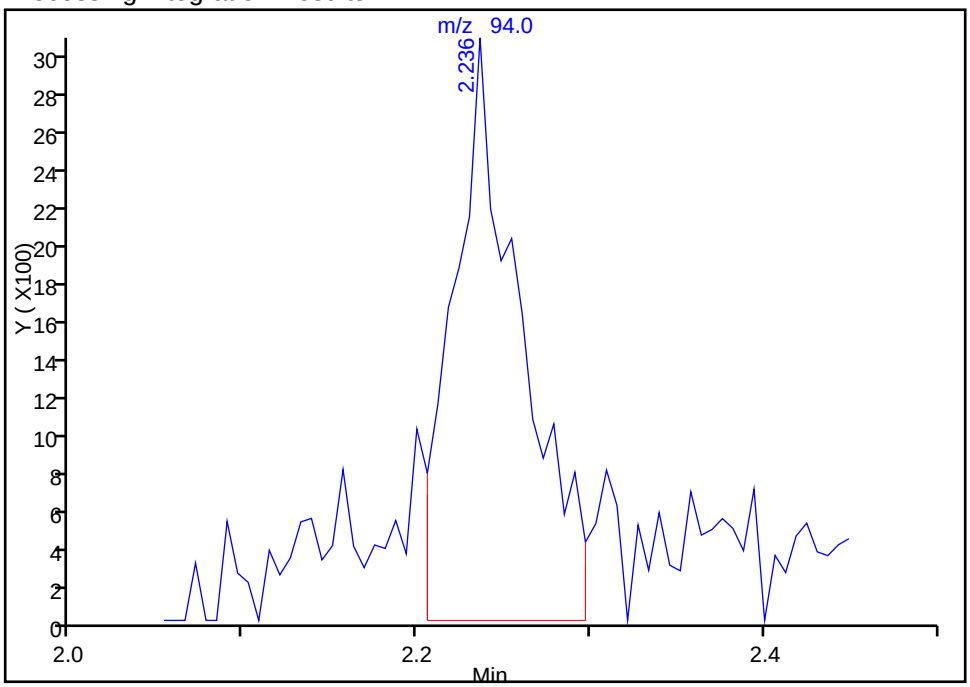
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D				
Injection Date:	01-May-2015 13:53:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

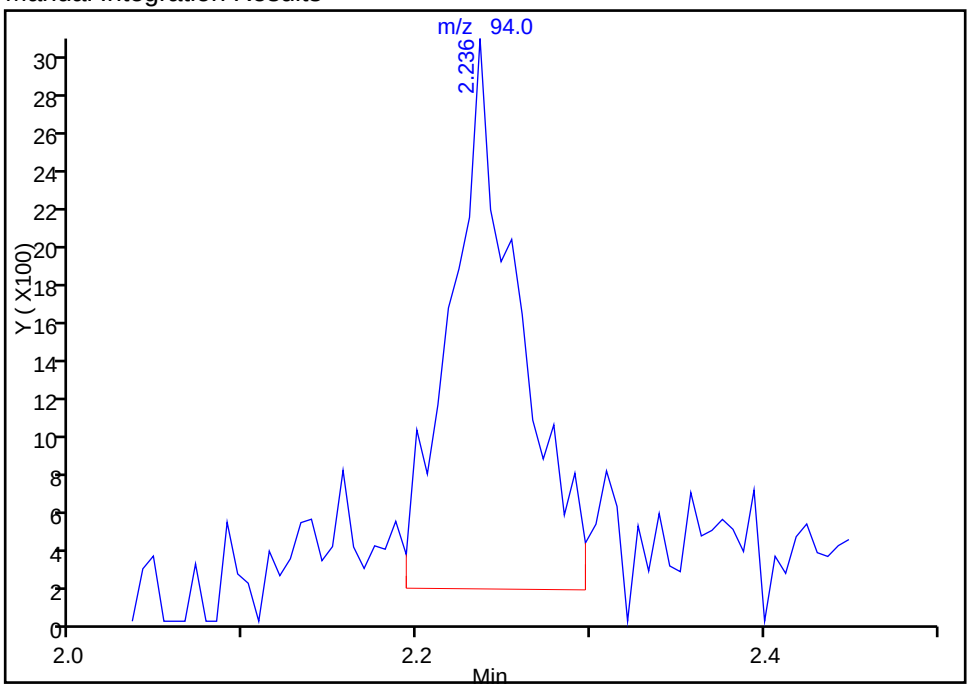
Processing Integration Results

RT: 2.24
Area: 8392
Amount: 5.021302
Amount Units: ng



Manual Integration Results

RT: 2.24
Area: 7774
Amount: 6.585385
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:38:44
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

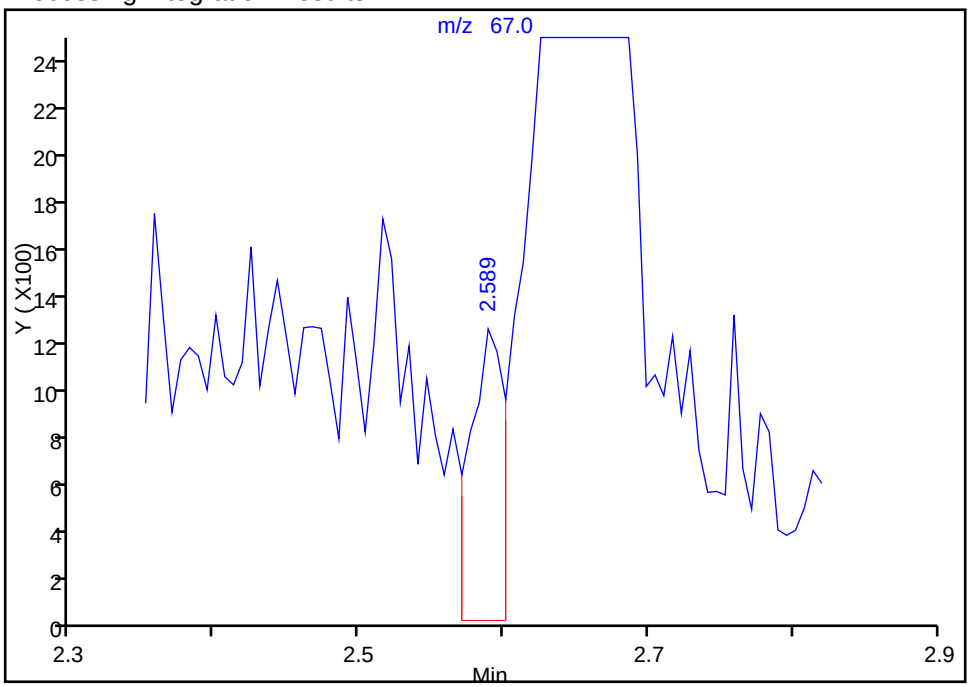
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D				
Injection Date:	01-May-2015 13:53:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

17 Dichlorofluoromethane, CAS: 75-43-4

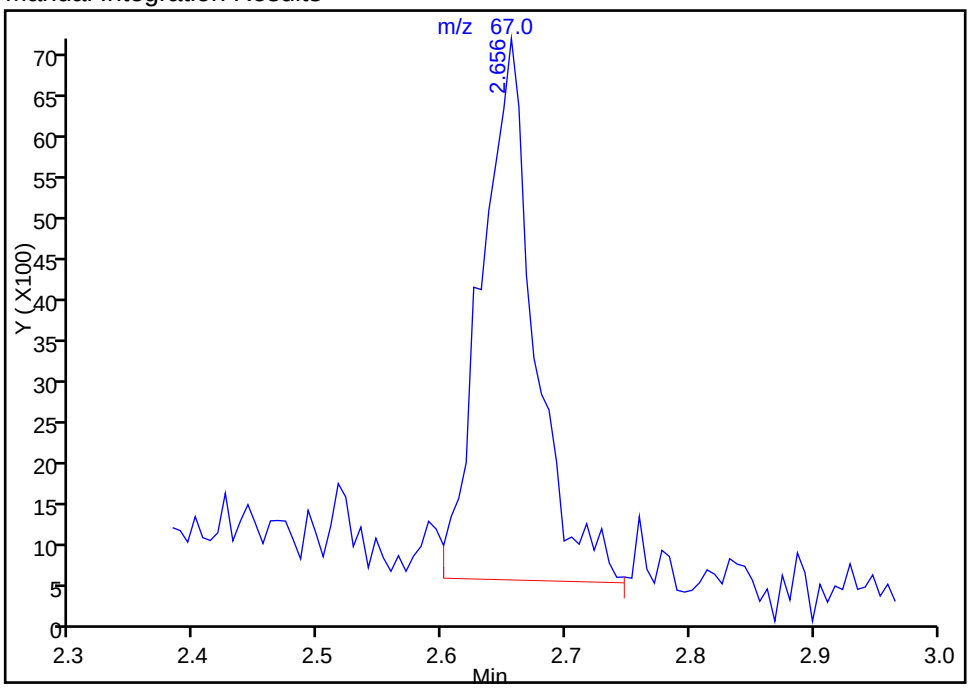
Processing Integration Results

RT: 2.59
Area: 2061
Amount: 3.312701
Amount Units: ng



Manual Integration Results

RT: 2.66
Area: 20031
Amount: 5.806076
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:38:44
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501006.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-May-2015 14:17:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0006721-006
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:25 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:42:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.257	4.255	0.002	100	264370	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.291	-0.004	98	394999	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.402	10.405	-0.003	91	82880	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.750	12.748	0.002	97	129908	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.557	6.555	0.002	92	42078	25.0	25.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.938	-0.004	78	69113	25.0	25.3	
$ 7 Toluene-d8 (Surr)	98	8.948	8.945	0.003	93	196169	25.0	28.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.588	11.592	-0.004	80	81543	25.0	28.5	
11 Dichlorodifluoromethane	85	1.605	1.603	0.002	99	62218	25.0	25.8	
12 Chloromethane	50	1.763	1.755	0.008	100	53152	25.0	26.5	
13 Vinyl chloride	62	1.897	1.889	0.008	97	56220	25.0	26.3	
14 Butadiene	39	1.946	1.931	0.015	94	54119	25.0	26.6	
15 Bromomethane	94	2.250	2.229	0.021	91	28897	25.0	26.0	
16 Chloroethane	64	2.390	2.381	0.009	99	33151	25.0	24.6	
17 Dichlorofluoromethane	67	2.657	2.655	0.002	99	90056	25.0	27.7	
18 Trichlorofluoromethane	101	2.694	2.692	0.002	82	67290	25.0	27.3	
20 Ethyl ether	59	3.053	3.051	0.002	87	50543	25.0	27.4	
21 Acrolein	56	3.235	3.227	0.008	99	42429	125.0	129.3	
22 1,1-Dichloroethene	96	3.339	3.343	-0.004	96	47470	25.0	26.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.418	3.403	0.015	95	48408	25.0	26.2	
24 Acetone	43	3.436	3.440	-0.004	97	28568	50.0	54.5	
25 Iodomethane	142	3.545	3.543	0.002	99	61771	25.0	26.4	
26 Carbon disulfide	76	3.631	3.641	-0.010	99	143618	25.0	26.8	
29 3-Chloro-1-propene	76	3.923	3.914	0.009	90	34624	25.0	27.0	
30 Methyl acetate	43	3.935	3.939	-0.004	97	235556	125.0	136.1	
31 Methylene Chloride	84	4.136	4.133	0.003	92	57152	25.0	25.7	
32 2-Methyl-2-propanol	59	4.391	4.389	0.002	100	75192	250.0	261.1	
33 Acrylonitrile	53	4.513	4.511	0.002	99	235229	250.0	266.3	
34 trans-1,2-Dichloroethene	96	4.561	4.565	-0.004	94	54099	25.0	26.5	
35 Methyl tert-butyl ether	73	4.580	4.584	-0.004	95	189455	25.0	25.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.993	4.991	0.002	89	70993	25.0	26.0	
37 1,1-Dichloroethane	63	5.200	5.198	0.002	96	103692	25.0	27.1	
38 Vinyl acetate	43	5.243	5.247	-0.004	97	125444	25.0	27.2	
42 2,2-Dichloropropane	77	5.942	5.946	-0.004	74	65618	25.0	27.6	
43 cis-1,2-Dichloroethene	96	5.942	5.946	-0.004	84	60662	25.0	26.2	
44 2-Butanone (MEK)	43	5.955	5.952	0.003	95	45773	50.0	52.5	
48 Chlorobromomethane	128	6.234	6.238	-0.004	96	25094	25.0	26.4	
49 Tetrahydrofuran	42	6.259	6.257	0.002	82	42422	50.0	52.3	
50 Chloroform	83	6.374	6.372	0.002	95	100773	25.0	27.2	
51 1,1,1-Trichloroethane	97	6.545	6.542	0.003	98	78188	25.0	25.7	
52 Cyclohexane	56	6.624	6.622	0.002	89	93429	25.0	25.6	
53 Carbon tetrachloride	117	6.715	6.719	-0.004	85	60197	25.0	25.9	
54 1,1-Dichloropropene	75	6.727	6.731	-0.004	94	76537	25.0	26.0	
55 Isobutyl alcohol	41	6.910	6.908	0.002	95	55741	625.0	700.2	
56 Benzene	78	6.946	6.944	0.002	96	236377	25.0	27.2	
57 1,2-Dichloroethane	62	7.019	7.023	-0.004	98	88016	25.0	26.7	
59 n-Heptane	43	7.311	7.315	-0.004	89	52724	25.0	25.1	
61 Trichloroethene	130	7.682	7.680	0.002	93	49633	25.0	26.4	
63 Methylcyclohexane	83	7.919	7.923	-0.004	91	92085	25.0	26.0	
64 1,2-Dichloropropane	63	7.956	7.954	0.002	83	59925	25.0	34.3	
65 1,4-Dioxane	88	8.047	8.039	0.008	41	11389	500.0	558.1	M
67 Dibromomethane	93	8.041	8.039	0.002	92	34683	25.0	25.0	
68 Dichlorobromomethane	83	8.236	8.234	0.002	97	72416	25.0	26.1	
71 cis-1,3-Dichloropropene	75	8.680	8.678	0.002	93	95523	25.0	26.0	
72 4-Methyl-2-pentanone (MIBK	43	8.826	8.830	-0.004	95	122138	50.0	55.0	
73 Toluene	91	9.015	9.012	0.002	98	246446	25.0	28.7	
74 trans-1,3-Dichloropropene	75	9.258	9.256	0.002	95	86561	25.0	27.7	
75 Ethyl methacrylate	69	9.319	9.317	0.002	87	84855	25.0	27.1	
76 1,1,2-Trichloroethane	97	9.453	9.456	-0.003	93	49466	25.0	26.4	
77 Tetrachloroethene	164	9.532	9.529	0.003	95	39101	25.0	27.6	
78 1,3-Dichloropropane	76	9.611	9.615	-0.004	91	98360	25.0	27.8	
79 2-Hexanone	43	9.665	9.663	0.002	95	73724	50.0	54.4	
81 Chlorodibromomethane	129	9.830	9.828	0.002	89	39108	25.0	26.6	
82 Ethylene Dibromide	107	9.945	9.943	0.002	98	47993	25.0	27.1	
83 3-Chlorobenzotrifluoride	180	10.395	10.399	-0.004	88	69099	25.0	26.3	
84 Chlorobenzene	112	10.432	10.430	0.002	93	153098	25.0	28.2	
85 4-Chlorobenzotrifluoride	180	10.487	10.491	-0.004	96	66283	25.0	26.6	
86 1,1,1,2-Tetrachloroethane	131	10.529	10.527	0.002	92	43746	25.0	27.5	
87 Ethylbenzene	106	10.529	10.533	-0.004	99	83792	25.0	27.6	
88 m-Xylene & p-Xylene	106	10.663	10.661	0.002	100	106116	25.0	28.0	
89 o-Xylene	106	11.046	11.044	0.002	97	103108	25.0	28.0	
90 Styrene	104	11.065	11.063	0.003	94	171422	25.0	28.3	
91 Bromoform	173	11.247	11.251	-0.004	93	24665	25.0	26.2	
92 2-Chlorobenzotrifluoride	180	11.308	11.306	0.002	95	69992	25.0	26.4	
93 Isopropylbenzene	105	11.411	11.409	0.002	97	260050	25.0	29.1	
96 1,1,2,2-Tetrachloroethane	83	11.716	11.720	-0.004	96	72752	25.0	28.3	
95 Bromobenzene	156	11.728	11.726	0.002	97	54793	25.0	26.0	
97 trans-1,4-Dichloro-2-buten	53	11.752	11.756	-0.004	83	24523	25.0	25.3	
98 1,2,3-Trichloropropane	110	11.770	11.774	-0.004	85	23251	25.0	25.1	
99 N-Propylbenzene	120	11.831	11.829	0.002	99	65168	25.0	25.6	
100 2-Chlorotoluene	126	11.916	11.914	0.002	93	55085	25.0	26.4	
101 3-Chlorotoluene	126	11.983	11.981	0.002	97	58118	25.0	25.6	

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	12.014	12.012	0.002	93	217291	25.0	26.9	
103 4-Chlorotoluene	126	12.038	12.042	-0.004	99	57566	25.0	26.1	
104 tert-Butylbenzene	119	12.330	12.328	0.002	90	164817	25.0	26.6	
106 1,2,4-Trimethylbenzene	105	12.385	12.389	-0.004	97	228421	25.0	27.0	
107 1,2-dichloro-4-(trifluorom	214	12.421	12.425	-0.004	96	53155	25.0	24.9	
108 sec-Butylbenzene	105	12.555	12.553	0.002	95	250114	25.0	26.5	
109 1,3-Dichlorobenzene	146	12.671	12.669	0.002	94	107399	25.0	26.7	
110 4-Isopropyltoluene	119	12.707	12.711	-0.004	96	198948	25.0	26.7	
111 1,4-Dichlorobenzene	146	12.774	12.772	0.002	92	112838	25.0	27.1	
113 2,4-Dichloro-1-(triflourom	214	12.792	12.796	-0.004	94	54452	25.0	25.8	
114 2,5-Dichlorobenzotrifluori	214	12.835	12.833	0.002	98	56843	25.0	25.7	
116 n-Butylbenzene	91	13.115	13.119	-0.004	98	199711	25.0	26.6	
117 1,2-Dichlorobenzene	146	13.133	13.125	0.008	93	105916	25.0	26.6	
118 1,2-Dibromo-3-Chloropropan	75	13.924	13.922	0.002	73	15751	25.0	26.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.064	14.062	0.002	99	271825	75.0	81.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.477	14.481	-0.004	99	194878	50.0	53.0	
122 1,2,4-Trichlorobenzene	180	14.745	14.743	0.002	92	78246	25.0	28.1	
123 Hexachlorobutadiene	225	14.891	14.895	-0.004	94	25727	25.0	27.1	
124 Naphthalene	128	15.013	15.011	0.002	98	202675	25.0	27.5	
125 1,2,3-Trichlorobenzene	180	15.238	15.236	0.002	94	74534	25.0	28.5	
126 2,4,5-Trichlorotoluene	159	16.010	16.008	0.002	0	42820	25.0	25.9	
127 2,3,6-Trichlorotoluene	159	16.114	16.112	0.002	92	38864	25.0	25.9	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	52.7	
S 131 Xylenes, Total	106				0		50.0	56.0	
S 132 1,3-Dichloropropene, Total	1				0		50.0	53.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	5.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	1.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	1.00	Units: uL	
voaWketPri Re_00005	Amount Added:	1.00	Units: uL	
VOA8260SURR_00034	Amount Added:	1.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

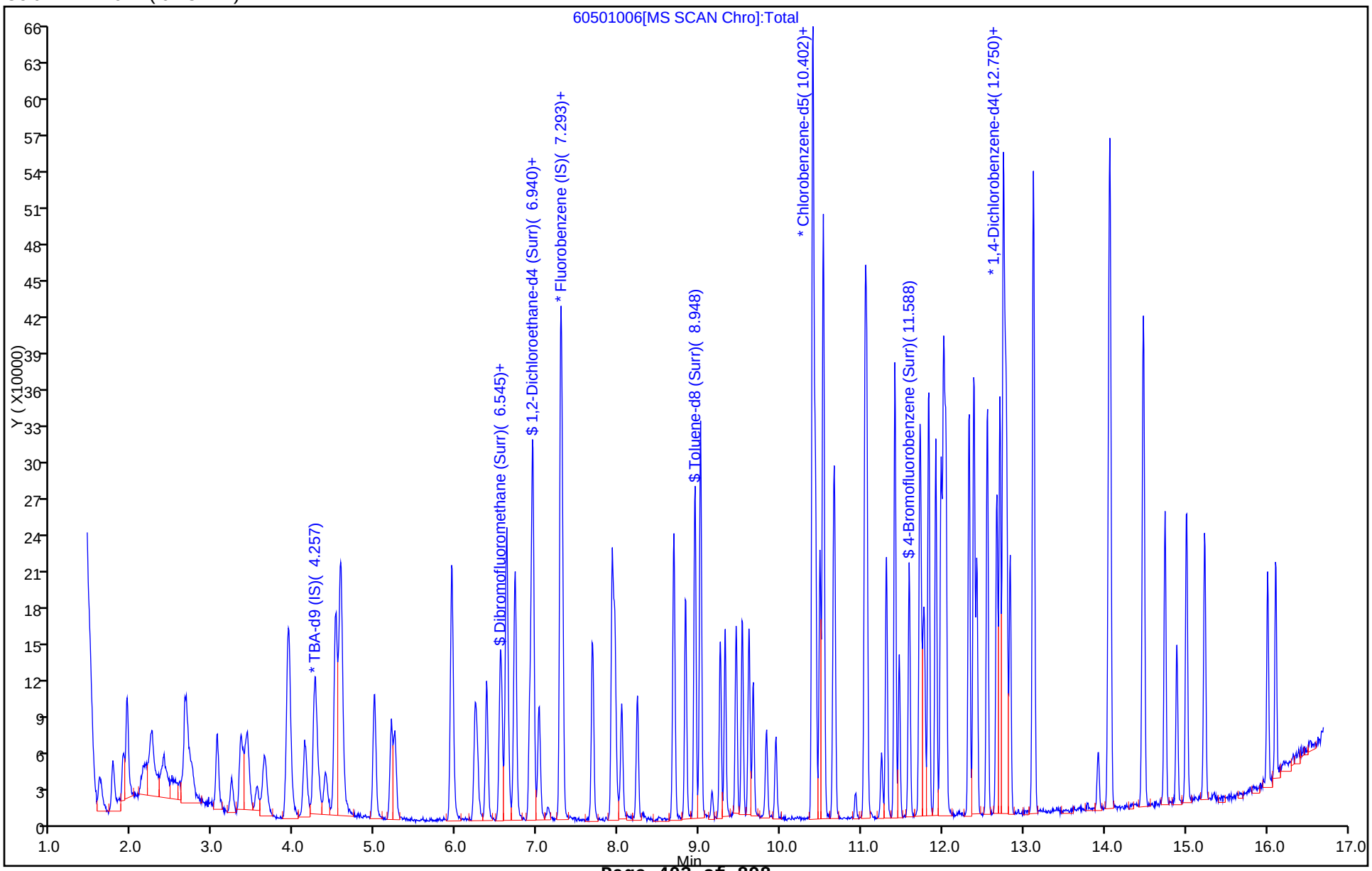
Report Date: 02-May-2015 10:49:25 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501006.D

Injection Date:	01-May-2015 14:17:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD5			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

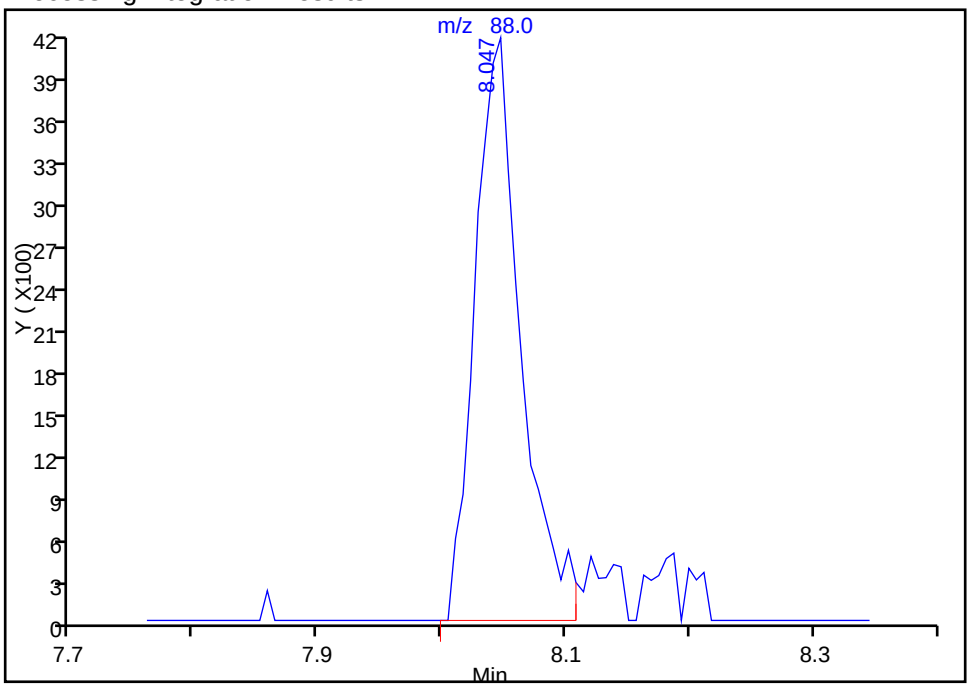
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501006.D				
Injection Date:	01-May-2015 14:17:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD5				
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		

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

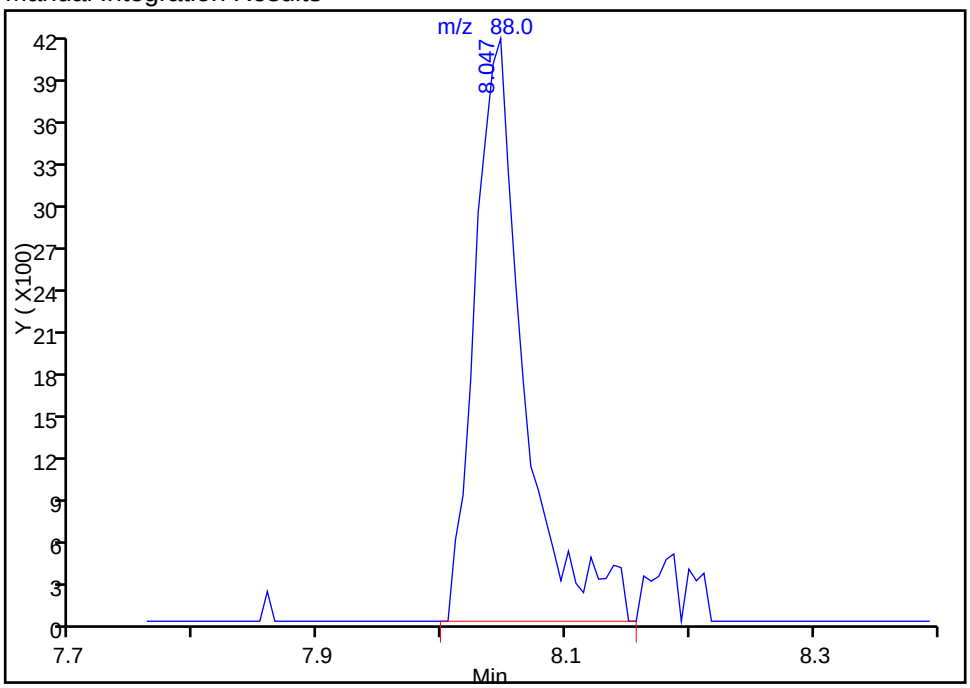
Processing Integration Results

RT: 8.05
Area: 10646
Amount: 680.3497
Amount Units: ng



Manual Integration Results

RT: 8.05
Area: 11389
Amount: 558.1213
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:42:12
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501007.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 01-May-2015 14:41:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0006721-007
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:11:04 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 11:11:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.254	0.000	100	268623	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	433461	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.404	10.404	0.000	90	91273	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.753	12.753	0.000	97	138083	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	91	91685	50.0	51.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	72	149513	50.0	49.9	
$ 7 Toluene-d8 (Surr)	98	8.944	8.944	0.000	94	427631	50.0	55.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.591	11.591	0.000	80	169309	50.0	53.8	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	99	126679	50.0	47.8	
12 Chloromethane	50	1.760	1.760	0.000	100	101459	50.0	46.1	
13 Vinyl chloride	62	1.888	1.888	0.000	98	111175	50.0	47.5	
14 Butadiene	39	1.936	1.936	0.000	93	107576	50.0	48.1	
15 Bromomethane	94	2.240	2.240	0.000	90	53923	50.0	44.2	
16 Chloroethane	64	2.386	2.386	0.000	99	63525	50.0	43.0	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	98	171304	50.0	48.0	
18 Trichlorofluoromethane	101	2.697	2.697	0.000	94	126784	50.0	46.8	
20 Ethyl ether	59	3.050	3.050	0.000	89	91939	50.0	45.5	
21 Acrolein	56	3.226	3.226	0.000	99	51168	150.0	142.6	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	98	97947	50.0	48.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.415	0.000	96	97512	50.0	48.1	
24 Acetone	43	3.433	3.433	0.000	98	54459	100.0	94.7	
25 Iodomethane	142	3.536	3.536	0.000	99	124319	50.0	48.4	
26 Carbon disulfide	76	3.634	3.634	0.000	99	280976	50.0	47.8	
29 3-Chloro-1-propene	76	3.919	3.919	0.000	90	66194	50.0	47.0	
30 Methyl acetate	43	3.938	3.938	0.000	97	448132	250.0	236.0	
31 Methylene Chloride	84	4.138	4.138	0.000	91	113752	50.0	46.7	
32 2-Methyl-2-propanol	59	4.394	4.394	0.000	99	148632	500.0	507.9	
33 Acrylonitrile	53	4.510	4.510	0.000	99	471254	500.0	486.2	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	98	106188	50.0	47.5	
35 Methyl tert-butyl ether	73	4.583	4.583	0.000	95	390371	50.0	48.6	

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	90	141416	50.0	47.1	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	96	204336	50.0	48.6	
38 Vinyl acetate	43	5.246	5.246	0.000	98	252021	50.0	49.8	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	65	125582	50.0	48.2	
43 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	83	119864	50.0	47.1	
44 2-Butanone (MEK)	43	5.957	5.957	0.000	98	85635	100.0	89.4	
48 Chlorobromomethane	128	6.237	6.237	0.000	97	48600	50.0	46.6	
49 Tetrahydrofuran	42	6.256	6.256	0.000	84	82088	100.0	92.3	
50 Chloroform	83	6.377	6.377	0.000	96	189114	50.0	46.6	
51 1,1,1-Trichloroethane	97	6.548	6.548	0.000	98	158279	50.0	47.4	
52 Cyclohexane	56	6.621	6.621	0.000	89	192149	50.0	48.0	
53 Carbon tetrachloride	117	6.718	6.718	0.000	96	116915	50.0	45.9	
54 1,1-Dichloropropene	75	6.730	6.730	0.000	96	152706	50.0	47.3	
55 Isobutyl alcohol	41	6.906	6.906	0.000	92	106831	1250.0	1222.9	
56 Benzene	78	6.943	6.943	0.000	96	454609	50.0	47.7	
57 1,2-Dichloroethane	62	7.022	7.022	0.000	98	170097	50.0	46.9	
59 n-Heptane	43	7.314	7.314	0.000	89	104766	50.0	45.4	
61 Trichloroethene	130	7.685	7.685	0.000	95	97663	50.0	47.4	
63 Methylcyclohexane	83	7.922	7.922	0.000	90	186510	50.0	48.0	
64 1,2-Dichloropropane	63	7.959	7.959	0.000	93	114408	50.0	45.5	
65 1,4-Dioxane	88	8.044	8.044	0.000	41	23730	1000.0	979.8	M
67 Dibromomethane	93	8.044	8.044	0.000	90	72777	50.0	47.8	
68 Dichlorobromomethane	83	8.233	8.233	0.000	99	140878	50.0	46.3	
71 cis-1,3-Dichloropropene	75	8.683	8.683	0.000	94	185519	50.0	46.1	
72 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	95	248428	100.0	101.6	
73 Toluene	91	9.011	9.011	0.000	99	472389	50.0	49.9	
74 trans-1,3-Dichloropropene	75	9.261	9.261	0.000	95	164800	50.0	47.8	
75 Ethyl methacrylate	69	9.322	9.322	0.000	87	171769	50.0	49.8	
76 1,1,2-Trichloroethane	97	9.455	9.455	0.000	93	100537	50.0	48.8	
77 Tetrachloroethene	164	9.528	9.528	0.000	95	77095	50.0	49.5	
78 1,3-Dichloropropane	76	9.614	9.614	0.000	91	192805	50.0	49.5	
79 2-Hexanone	43	9.662	9.662	0.000	96	148448	100.0	99.5	
81 Chlorodibromomethane	129	9.827	9.827	0.000	91	76638	50.0	47.3	
82 Ethylene Dibromide	107	9.942	9.942	0.000	98	94113	50.0	48.3	
83 3-Chlorobenzotrifluoride	180	10.398	10.398	0.000	90	148039	50.0	51.2	
84 Chlorobenzene	112	10.429	10.429	0.000	93	295391	50.0	49.4	
85 4-Chlorobenzotrifluoride	180	10.490	10.490	0.000	96	145575	50.0	53.1	
86 1,1,1,2-Tetrachloroethane	131	10.526	10.526	0.000	92	86295	50.0	49.3	
87 Ethylbenzene	106	10.532	10.532	0.000	99	164938	50.0	49.4	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	100	204038	50.0	48.8	
89 o-Xylene	106	11.043	11.043	0.000	97	204569	50.0	50.4	
90 Styrene	104	11.061	11.061	0.000	95	332158	50.0	49.8	
91 Bromoform	173	11.250	11.250	0.000	90	47850	50.0	46.1	
92 2-Chlorobenzotrifluoride	180	11.311	11.311	0.000	96	147246	50.0	50.5	
93 Isopropylbenzene	105	11.414	11.414	0.000	97	506955	50.0	51.4	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.718	0.000	96	138753	50.0	49.0	
95 Bromobenzene	156	11.731	11.731	0.000	95	108631	50.0	48.5	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.755	0.000	85	46308	50.0	45.0	
98 1,2,3-Trichloropropane	110	11.779	11.779	0.000	83	46172	50.0	46.9	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	129444	50.0	47.9	
100 2-Chlorotoluene	126	11.919	11.919	0.000	94	106218	50.0	47.8	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	117101	50.0	48.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	418940	50.0	48.8	
103 4-Chlorotoluene	126	12.041	12.041	0.000	98	113709	50.0	48.6	
104 tert-Butylbenzene	119	12.327	12.327	0.000	91	322788	50.0	49.0	
106 1,2,4-Trimethylbenzene	105	12.388	12.388	0.000	98	440328	50.0	48.9	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.424	0.000	97	112527	50.0	49.7	
108 sec-Butylbenzene	105	12.552	12.552	0.000	96	497104	50.0	49.6	
109 1,3-Dichlorobenzene	146	12.674	12.674	0.000	94	204242	50.0	47.8	
110 4-Isopropyltoluene	119	12.710	12.710	0.000	95	387889	50.0	48.9	
111 1,4-Dichlorobenzene	146	12.777	12.777	0.000	90	213363	50.0	48.3	
113 2,4-Dichloro-1-(triflourom	214	12.795	12.795	0.000	95	111058	50.0	49.5	
114 2,5-Dichlorobenzotrifluori	214	12.838	12.838	0.000	98	121492	50.0	49.5	
116 n-Butylbenzene	91	13.118	13.118	0.000	98	390925	50.0	49.1	
117 1,2-Dichlorobenzene	146	13.130	13.130	0.000	94	203881	50.0	48.2	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.921	-0.006	73	29597	50.0	45.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	98	557142	150.0	156.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.480	0.000	99	406060	100.0	103.8	
122 1,2,4-Trichlorobenzene	180	14.748	14.748	0.000	93	146069	50.0	49.3	
123 Hexachlorobutadiene	225	14.894	14.894	0.000	96	49256	50.0	48.8	
124 Naphthalene	128	15.010	15.010	0.000	99	399712	50.0	51.0	
125 1,2,3-Trichlorobenzene	180	15.235	15.235	0.000	93	136259	50.0	49.1	
126 2,4,5-Trichlorotoluene	159	16.013	16.013	0.000	0	84630	50.0	48.2	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	91	74459	50.0	46.7	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	94.6	
S 131 Xylenes, Total	106				0		100.0	99.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	93.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00034	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	2.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

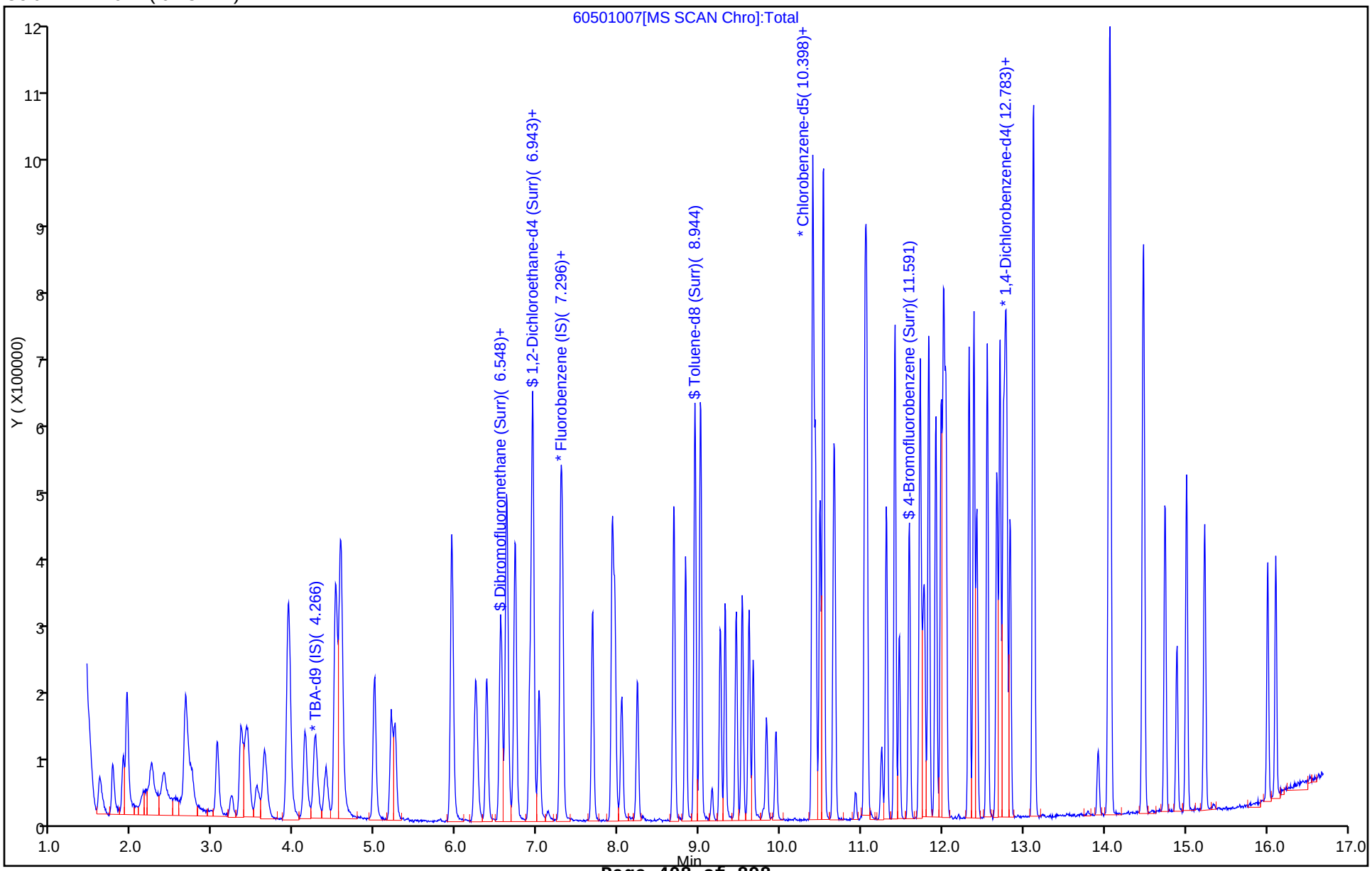
Report Date: 02-May-2015 11:11:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501007.D

Injection Date:	01-May-2015 14:41:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	ICIS VSTD10			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

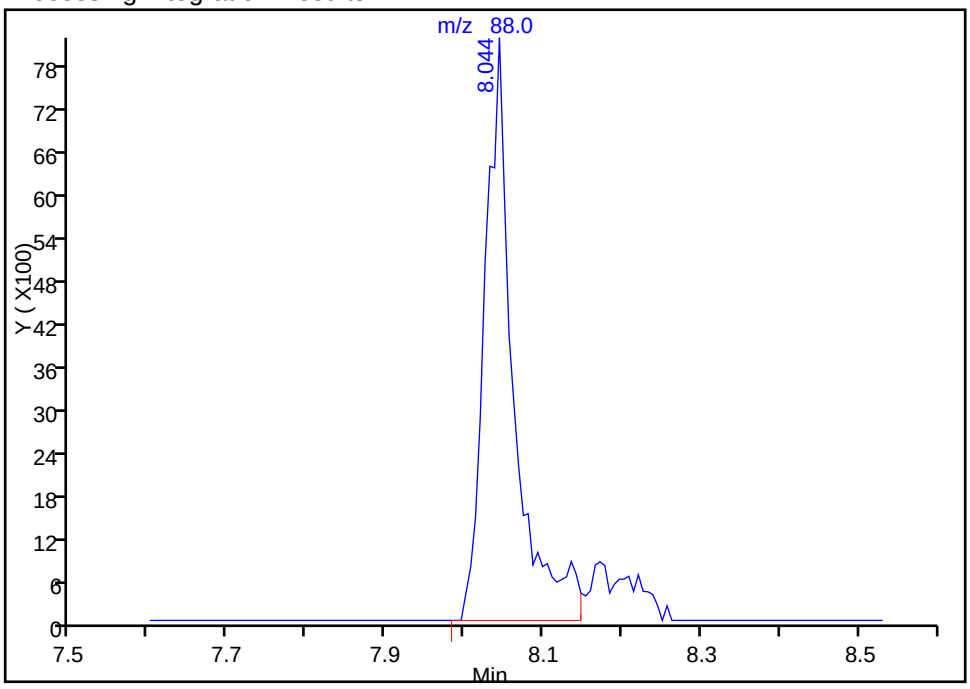
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501007.D				
Injection Date:	01-May-2015 14:41:30	Instrument ID:	CHHP6		
Lims ID:	ICIS VSTD10				
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

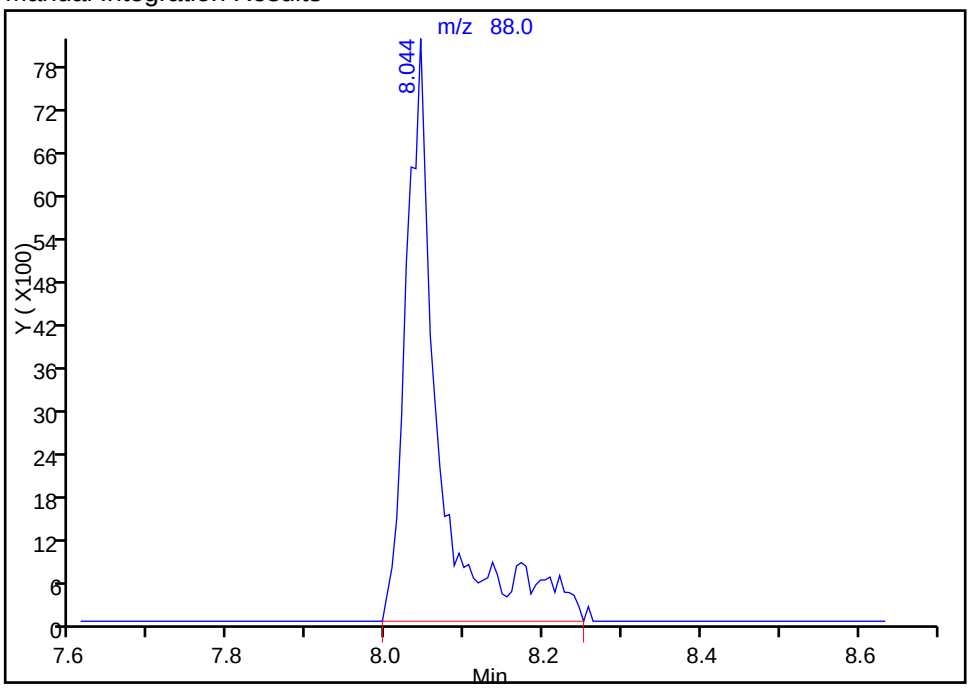
Processing Integration Results

RT: 8.04
Area: 20740
Amount: 1234.6890
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 23730
Amount: 979.8254
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:12:54
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501008.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 01-May-2015 15:06:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0006721-008
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:28 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:45:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.255	4.255	0.000	100	254041	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.291	0.000	98	394597	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.405	0.000	90	85649	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.748	0.000	97	127119	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.555	0.000	91	127929	75.0	78.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.938	0.000	82	217902	75.0	79.9	
$ 7 Toluene-d8 (Surr)	98	8.945	8.945	0.000	94	575027	75.0	79.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.592	11.592	0.000	82	230387	75.0	78.0	
11 Dichlorodifluoromethane	85	1.603	1.603	0.000	99	187095	75.0	77.6	
12 Chloromethane	50	1.755	1.755	0.000	99	152788	75.0	76.3	
13 Vinyl chloride	62	1.889	1.889	0.000	99	159170	75.0	74.6	
14 Butadiene	39	1.931	1.931	0.000	94	143792	75.0	70.6	
15 Bromomethane	94	2.229	2.229	0.000	92	77761	75.0	70.0	
16 Chloroethane	64	2.381	2.381	0.000	99	102015	75.0	75.9	
17 Dichlorofluoromethane	67	2.655	2.655	0.000	98	243522	75.0	75.0	
18 Trichlorofluoromethane	101	2.692	2.692	0.000	98	187475	75.0	76.0	
20 Ethyl ether	59	3.051	3.051	0.000	89	135802	75.0	73.8	
21 Acrolein	56	3.227	3.227	0.000	98	59022	175.0	180.0	
22 1,1-Dichloroethene	96	3.343	3.343	0.000	96	135482	75.0	74.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.403	3.403	0.000	97	140183	75.0	76.0	
24 Acetone	43	3.440	3.440	0.000	94	81971	150.0	156.5	
25 Iodomethane	142	3.543	3.543	0.000	99	180970	75.0	77.5	
26 Carbon disulfide	76	3.641	3.641	0.000	99	408054	75.0	76.2	
29 3-Chloro-1-propene	76	3.914	3.914	0.000	90	94749	75.0	73.9	
30 Methyl acetate	43	3.939	3.939	0.000	97	675270	375.0	390.6	
31 Methylene Chloride	84	4.133	4.133	0.000	92	172741	75.0	77.9	
32 2-Methyl-2-propanol	59	4.389	4.389	0.000	98	211317	750.0	763.6	
33 Acrylonitrile	53	4.511	4.511	0.000	98	700311	750.0	793.6	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	98	154219	75.0	75.7	
35 Methyl tert-butyl ether	73	4.584	4.584	0.000	95	589934	75.0	80.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	92	203332	75.0	74.4	
37 1,1-Dichloroethane	63	5.198	5.198	0.000	97	297015	75.0	77.6	
38 Vinyl acetate	43	5.247	5.247	0.000	97	360384	75.0	78.3	
42 2,2-Dichloropropane	77	5.946	5.946	0.000	65	184800	75.0	77.9	
43 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	84	179083	75.0	77.4	
44 2-Butanone (MEK)	43	5.952	5.952	0.000	65	135914	150.0	155.9	
48 Chlorobromomethane	128	6.238	6.238	0.000	97	71233	75.0	75.0	
49 Tetrahydrofuran	42	6.257	6.257	0.000	86	124988	150.0	154.4	
50 Chloroform	83	6.372	6.372	0.000	94	281261	75.0	76.1	
51 1,1,1-Trichloroethane	97	6.542	6.542	0.000	97	234417	75.0	77.1	
52 Cyclohexane	56	6.622	6.622	0.000	88	275975	75.0	75.7	
53 Carbon tetrachloride	117	6.719	6.719	0.000	94	172271	75.0	74.3	
54 1,1-Dichloropropene	75	6.731	6.731	0.000	96	223842	75.0	76.1	
55 Isobutyl alcohol	41	6.908	6.908	0.000	93	157057	1875.0	1975.0	
56 Benzene	78	6.944	6.944	0.000	97	674168	75.0	77.7	
57 1,2-Dichloroethane	62	7.023	7.023	0.000	99	259031	75.0	78.5	
59 n-Heptane	43	7.315	7.315	0.000	90	152333	75.0	72.6	
61 Trichloroethene	130	7.680	7.680	0.000	94	145038	75.0	77.2	
63 Methylcyclohexane	83	7.923	7.923	0.000	90	267913	75.0	75.7	
64 1,2-Dichloropropane	63	7.954	7.954	0.000	94	174135	75.0	99.7	
65 1,4-Dioxane	88	8.039	8.039	0.000	51	33881	1500.0	1662.0	M
67 Dibromomethane	93	8.039	8.039	0.000	91	106380	75.0	76.7	
68 Dichlorobromomethane	83	8.234	8.234	0.000	99	212684	75.0	76.8	
71 cis-1,3-Dichloropropene	75	8.678	8.678	0.000	94	287718	75.0	78.5	
72 4-Methyl-2-pentanone (MIBK	43	8.830	8.830	0.000	94	371586	150.0	161.9	
73 Toluene	91	9.012	9.012	0.000	99	692573	75.0	78.0	
74 trans-1,3-Dichloropropene	75	9.256	9.256	0.000	94	254423	75.0	78.7	
75 Ethyl methacrylate	69	9.317	9.317	0.000	88	259135	75.0	80.0	
76 1,1,2-Trichloroethane	97	9.456	9.456	0.000	93	154621	75.0	80.0	
77 Tetrachloroethene	164	9.529	9.529	0.000	95	112710	75.0	77.1	
78 1,3-Dichloropropane	76	9.615	9.615	0.000	90	290836	75.0	79.5	
79 2-Hexanone	43	9.663	9.663	0.000	94	223875	150.0	160.0	
81 Chlorodibromomethane	129	9.828	9.828	0.000	90	118323	75.0	77.7	
82 Ethylene Dibromide	107	9.943	9.943	0.000	100	144503	75.0	79.1	
83 3-Chlorobenzotrifluoride	180	10.399	10.399	0.000	91	207040	75.0	76.3	
84 Chlorobenzene	112	10.430	10.430	0.000	93	438228	75.0	78.2	
85 4-Chlorobenzotrifluoride	180	10.491	10.491	0.000	96	197098	75.0	76.6	
86 1,1,1,2-Tetrachloroethane	131	10.527	10.527	0.000	92	130058	75.0	79.1	
87 Ethylbenzene	106	10.533	10.533	0.000	98	249733	75.0	79.7	
88 m-Xylene & p-Xylene	106	10.661	10.661	0.000	100	304814	75.0	77.7	
89 o-Xylene	106	11.044	11.044	0.000	97	304301	75.0	80.0	
90 Styrene	104	11.063	11.063	0.000	94	506573	75.0	81.0	
91 Bromoform	173	11.251	11.251	0.000	93	77540	75.0	79.7	
92 2-Chlorobenzotrifluoride	180	11.306	11.306	0.000	94	214923	75.0	78.5	
93 Isopropylbenzene	105	11.409	11.409	0.000	97	737501	75.0	79.7	
96 1,1,2,2-Tetrachloroethane	83	11.720	11.720	0.000	97	211742	75.0	79.8	
95 Bromobenzene	156	11.726	11.726	0.000	97	160950	75.0	78.1	
97 trans-1,4-Dichloro-2-buten	53	11.756	11.756	0.000	89	71679	75.0	75.7	
98 1,2,3-Trichloropropane	110	11.774	11.774	0.000	84	69230	75.0	76.4	
99 N-Propylbenzene	120	11.829	11.829	0.000	99	193168	75.0	77.7	
100 2-Chlorotoluene	126	11.914	11.914	0.000	94	156618	75.0	76.6	
101 3-Chlorotoluene	126	11.981	11.981	0.000	97	172757	75.0	77.6	

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	12.012	12.012	0.000	92	625299	75.0	79.1	
103 4-Chlorotoluene	126	12.042	12.042	0.000	99	167686	75.0	77.8	
104 tert-Butylbenzene	119	12.328	12.328	0.000	90	472090	75.0	77.9	
106 1,2,4-Trimethylbenzene	105	12.389	12.389	0.000	98	652905	75.0	78.8	
107 1,2-dichloro-4-(trifluorom	214	12.425	12.425	0.000	96	159882	75.0	76.6	
108 sec-Butylbenzene	105	12.553	12.553	0.000	96	726443	75.0	78.7	
109 1,3-Dichlorobenzene	146	12.669	12.669	0.000	93	311742	75.0	79.2	
110 4-Isopropyltoluene	119	12.711	12.711	0.000	95	575133	75.0	78.8	
111 1,4-Dichlorobenzene	146	12.772	12.772	0.000	91	322104	75.0	79.2	
113 2,4-Dichloro-1-(triflourom	214	12.796	12.796	0.000	96	161041	75.0	78.0	
114 2,5-Dichlorobenzotrifluori	214	12.833	12.833	0.000	98	175409	75.0	81.0	
116 n-Butylbenzene	91	13.119	13.119	0.000	98	578451	75.0	78.8	
117 1,2-Dichlorobenzene	146	13.125	13.125	0.000	91	307417	75.0	79.0	
118 1,2-Dibromo-3-Chloropropan	75	13.922	13.922	0.000	71	45915	75.0	77.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.062	14.062	0.000	98	811375	225.0	247.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.481	14.481	0.000	99	605114	150.0	168.1	
122 1,2,4-Trichlorobenzene	180	14.743	14.743	0.000	92	230538	75.0	84.6	
123 Hexachlorobutadiene	225	14.895	14.895	0.000	96	74455	75.0	80.1	
124 Naphthalene	128	15.011	15.011	0.000	98	617410	75.0	85.6	
125 1,2,3-Trichlorobenzene	180	15.236	15.236	0.000	94	218128	75.0	85.3	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	136106	75.0	84.2	
127 2,3,6-Trichlorotoluene	159	16.112	16.112	0.000	92	121283	75.0	82.7	
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		150.0	153.1	
S 131 Xylenes, Total	106				0		150.0	157.7	
S 132 1,3-Dichloropropene, Total	1				0		150.0	157.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	7.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	3.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	3.00	Units: uL	
voaWketPri Re_00005	Amount Added:	3.00	Units: uL	
VOA8260SURR_00034	Amount Added:	3.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

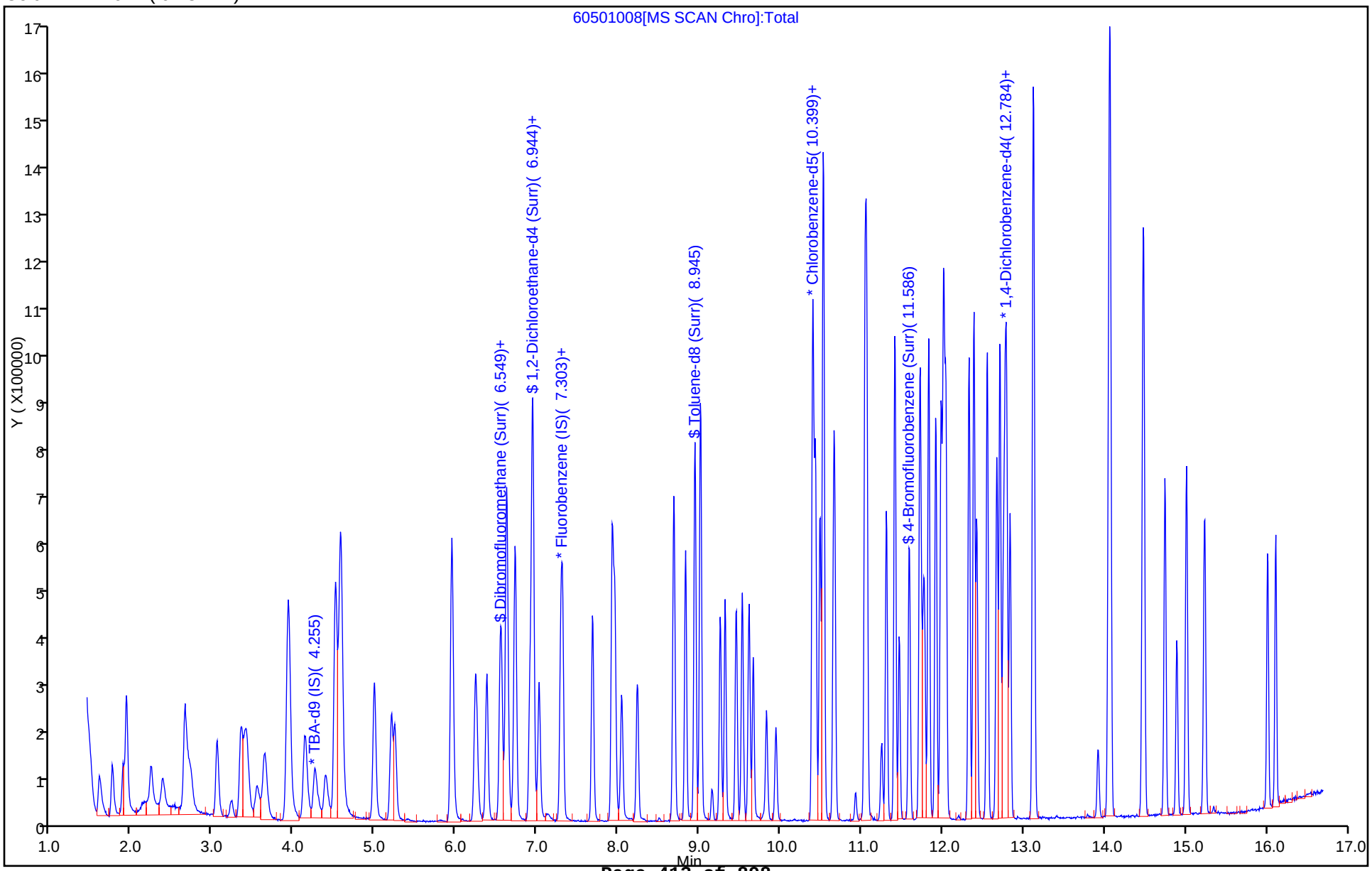
Report Date: 02-May-2015 10:49:28 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501008.D

Injection Date:	01-May-2015 15:06:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD15			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

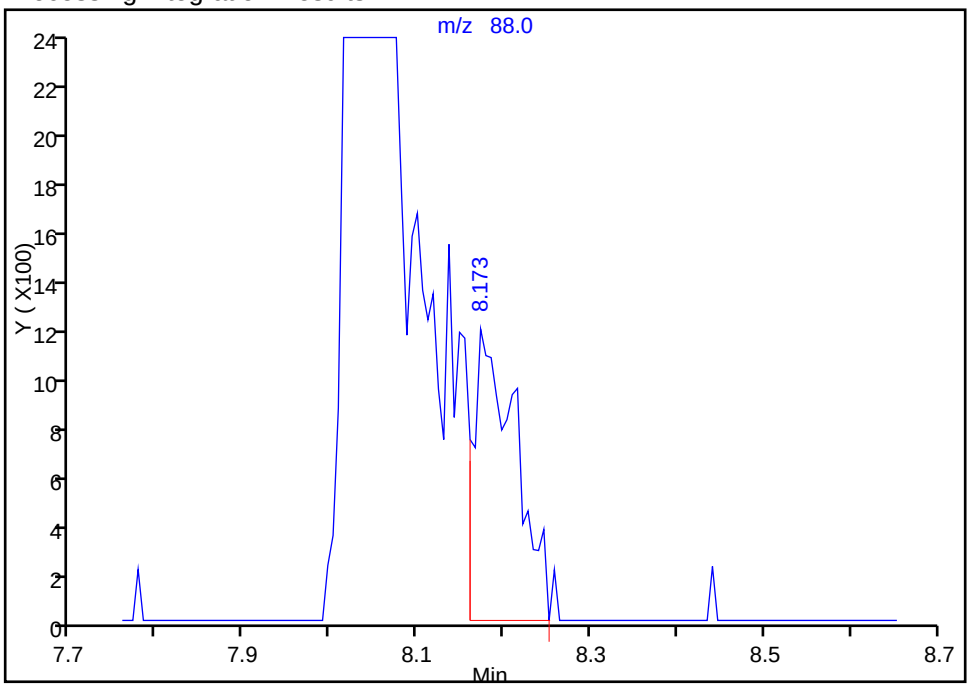
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501008.D				
Injection Date:	01-May-2015 15:06:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD15				
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		

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

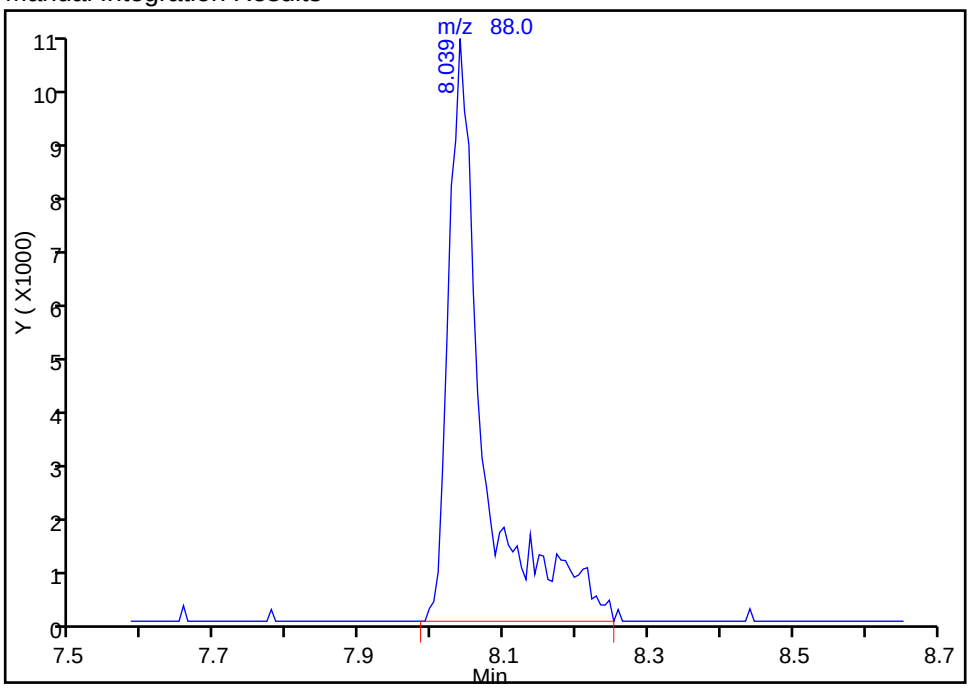
Processing Integration Results

RT: 8.17
Area: 3884
Amount: 245.5513
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 33881
Amount: 1662.0398
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:45:43
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 01-May-2015 15:31:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0006721-009
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:01:05 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:49:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.255	0.008	100	258227	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	413350	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.407	10.405	0.002	89	93085	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.755	12.748	0.007	96	134368	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.555	0.007	92	158749	100.0	92.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.938	-0.005	78	266001	100.0	93.1	
$ 7 Toluene-d8 (Surr)	98	8.947	8.945	0.002	93	689691	100.0	87.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.592	-0.005	80	287611	100.0	89.6	
11 Dichlorodifluoromethane	85	1.610	1.603	0.007	99	250149	100.0	99.1	
12 Chloromethane	50	1.762	1.755	0.007	99	197707	100.0	94.2	
13 Vinyl chloride	62	1.896	1.889	0.007	98	217145	100.0	97.2	
14 Butadiene	39	1.939	1.931	0.008	91	195445	100.0	91.6	
15 Bromomethane	94	2.249	2.229	0.020	93	109446	100.0	94.1	M
16 Chloroethane	64	2.395	2.381	0.014	99	134678	100.0	95.6	
17 Dichlorofluoromethane	67	2.657	2.655	0.002	98	331737	100.0	97.6	
18 Trichlorofluoromethane	101	2.687	2.692	-0.005	96	259631	100.0	100.5	
20 Ethyl ether	59	3.052	3.051	0.001	89	193102	100.0	100.2	
21 Acrolein	56	3.222	3.227	-0.005	99	68259	200.0	199.5	
22 1,1-Dichloroethene	96	3.350	3.343	0.007	97	186100	100.0	97.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.403	0.008	96	186259	100.0	96.4	
24 Acetone	43	3.441	3.440	0.001	99	106890	200.0	194.9	
25 Iodomethane	142	3.545	3.543	0.002	99	239779	100.0	98.0	
26 Carbon disulfide	76	3.642	3.641	0.001	100	545025	100.0	97.2	
29 3-Chloro-1-propene	76	3.916	3.914	0.002	89	133021	100.0	99.0	
30 Methyl acetate	43	3.940	3.939	0.001	96	904615	500.0	499.5	
31 Methylene Chloride	84	4.141	4.133	0.008	91	219046	100.0	94.3	
32 2-Methyl-2-propanol	59	4.390	4.389	0.001	98	284065	1000.0	1009.8	
33 Acrylonitrile	53	4.512	4.511	0.001	99	935388	1000.0	1012.0	
34 trans-1,2-Dichloroethene	96	4.567	4.565	0.002	97	210289	100.0	98.6	
35 Methyl tert-butyl ether	73	4.585	4.584	0.001	96	765940	100.0	100.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.993	4.991	0.002	91	271882	100.0	95.0	
37 1,1-Dichloroethane	63	5.199	5.198	0.001	96	386941	100.0	96.5	
38 Vinyl acetate	43	5.242	5.247	-0.005	97	481236	100.0	99.8	
42 2,2-Dichloropropane	77	5.942	5.946	-0.004	71	244089	100.0	98.3	
43 cis-1,2-Dichloroethene	96	5.948	5.946	0.002	85	231955	100.0	95.7	
44 2-Butanone (MEK)	43	5.954	5.952	0.002	94	180453	200.0	197.6	
48 Chlorobromomethane	128	6.234	6.238	-0.004	97	97630	100.0	98.2	
49 Tetrahydrofuran	42	6.258	6.257	0.001	83	155359	200.0	183.2	
50 Chloroform	83	6.374	6.372	0.002	96	379639	100.0	98.0	
51 1,1,1-Trichloroethane	97	6.544	6.542	0.002	97	306831	100.0	96.4	
52 Cyclohexane	56	6.623	6.622	0.001	88	374513	100.0	98.0	
53 Carbon tetrachloride	117	6.720	6.719	0.001	94	238253	100.0	98.0	
54 1,1-Dichloropropene	75	6.732	6.731	0.001	96	301032	100.0	97.7	
55 Isobutyl alcohol	41	6.909	6.908	0.001	93	212107	2500.0	2546.2	
56 Benzene	78	6.945	6.944	0.001	98	886979	100.0	97.5	
57 1,2-Dichloroethane	62	7.024	7.023	0.001	98	339774	100.0	98.3	
59 n-Heptane	43	7.310	7.315	-0.005	88	209022	100.0	95.1	
61 Trichloroethene	130	7.681	7.680	0.001	93	194700	100.0	99.0	
63 Methylcyclohexane	83	7.925	7.923	0.002	90	363050	100.0	98.0	
64 1,2-Dichloropropane	63	7.955	7.954	0.001	88	228950	100.0	95.5	
65 1,4-Dioxane	88	8.034	8.039	-0.005	51	43846	2000.0	1898.5	M
67 Dibromomethane	93	8.040	8.039	0.001	91	141515	100.0	97.4	
68 Dichlorobromomethane	83	8.235	8.234	0.001	99	286051	100.0	98.6	
71 cis-1,3-Dichloropropene	75	8.679	8.678	0.001	94	380296	100.0	99.1	
72 4-Methyl-2-pentanone (MIBK	43	8.831	8.830	0.001	95	506634	200.0	203.1	
73 Toluene	91	9.014	9.012	0.002	98	910104	100.0	94.3	
74 trans-1,3-Dichloropropene	75	9.257	9.256	0.001	95	343888	100.0	97.8	
75 Ethyl methacrylate	69	9.318	9.317	0.001	87	344058	100.0	97.7	
76 1,1,2-Trichloroethane	97	9.458	9.456	0.002	94	204111	100.0	97.1	
77 Tetrachloroethene	164	9.531	9.529	0.002	95	153046	100.0	96.3	
78 1,3-Dichloropropane	76	9.610	9.615	-0.005	91	388394	100.0	97.7	
79 2-Hexanone	43	9.665	9.663	0.002	94	294952	200.0	193.9	
81 Chlorodibromomethane	129	9.829	9.828	0.001	90	163091	100.0	98.6	
82 Ethylene Dibromide	107	9.945	9.943	0.002	98	192453	100.0	96.9	
83 3-Chlorobenzotrifluoride	180	10.401	10.399	0.002	93	286874	100.0	97.3	
84 Chlorobenzene	112	10.431	10.430	0.001	92	585932	100.0	96.1	
85 4-Chlorobenzotrifluoride	180	10.486	10.491	-0.005	97	272731	100.0	97.5	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.527	-0.005	93	173217	100.0	97.0	
87 Ethylbenzene	106	10.535	10.533	0.002	99	326136	100.0	95.8	
88 m-Xylene & p-Xylene	106	10.662	10.661	0.001	99	416204	100.0	97.6	
89 o-Xylene	106	11.046	11.044	0.002	95	403574	100.0	97.6	
90 Styrene	104	11.064	11.063	0.002	94	665694	100.0	97.9	
91 Bromoform	173	11.246	11.251	-0.005	93	104771	100.0	99.1	
92 2-Chlorobenzotrifluoride	180	11.307	11.306	0.001	95	293892	100.0	98.8	
93 Isopropylbenzene	105	11.411	11.409	0.002	98	976791	100.0	97.2	
96 1,1,2,2-Tetrachloroethane	83	11.721	11.720	0.001	96	282941	100.0	98.1	
95 Bromobenzene	156	11.727	11.726	0.001	97	209662	100.0	96.2	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.756	0.001	84	97726	100.0	97.6	
98 1,2,3-Trichloropropane	110	11.776	11.774	0.002	83	93411	100.0	97.5	
99 N-Propylbenzene	120	11.830	11.829	0.001	98	251809	100.0	95.8	
100 2-Chlorotoluene	126	11.916	11.914	0.002	94	212346	100.0	98.3	
101 3-Chlorotoluene	126	11.982	11.981	0.001	97	226403	100.0	96.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.013	12.012	0.001	94	820602	100.0	98.1	
103 4-Chlorotoluene	126	12.043	12.042	0.001	99	220038	100.0	96.6	
104 tert-Butylbenzene	119	12.329	12.328	0.001	90	637815	100.0	99.5	
106 1,2,4-Trimethylbenzene	105	12.384	12.389	-0.005	98	867967	100.0	99.1	
107 1,2-dichloro-4-(trifluorom	214	12.427	12.425	0.002	96	213219	100.0	96.7	
108 sec-Butylbenzene	105	12.554	12.553	0.001	96	963722	100.0	98.8	
109 1,3-Dichlorobenzene	146	12.670	12.669	0.001	93	408084	100.0	98.1	
110 4-Isopropyltoluene	119	12.706	12.711	-0.005	95	765296	100.0	99.2	
111 1,4-Dichlorobenzene	146	12.773	12.772	0.001	94	417041	100.0	97.0	
113 2,4-Dichloro-1-(triflourom	214	12.798	12.796	0.002	93	218417	100.0	100.1	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.833	0.001	98	235142	100.0	100.0	
116 n-Butylbenzene	91	13.114	13.119	-0.005	98	773974	100.0	99.8	
117 1,2-Dichlorobenzene	146	13.126	13.125	0.001	94	407040	100.0	99.0	
118 1,2-Dibromo-3-Chloropropan	75	13.917	13.922	-0.005	72	62834	100.0	100.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.062	0.001	97	1059454	300.0	305.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.477	14.481	-0.004	97	772795	200.0	203.0	
122 1,2,4-Trichlorobenzene	180	14.744	14.743	0.001	92	289639	100.0	100.5	
123 Hexachlorobutadiene	225	14.890	14.895	-0.005	96	94269	100.0	96.0	
124 Naphthalene	128	15.012	15.011	0.001	99	780358	100.0	102.3	
125 1,2,3-Trichlorobenzene	180	15.237	15.236	0.001	93	270622	100.0	100.1	
126 2,4,5-Trichlorotoluene	159	16.010	16.008	0.002	0	156693	100.0	91.7	
127 2,3,6-Trichlorotoluene	159	16.113	16.112	0.001	93	144312	100.0	93.1	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	194.3	
S 131 Xylenes, Total	106				0		200.0	195.2	
S 132 1,3-Dichloropropene, Total	1				0		200.0	196.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWeemixPRI_00002	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	4.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	4.00	Units: uL	
voaWketPri Re_00005	Amount Added:	4.00	Units: uL	
VOA8260SURR_00034	Amount Added:	4.00	Units: uL	
VOAACROPRI_00005	Amount Added:	8.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

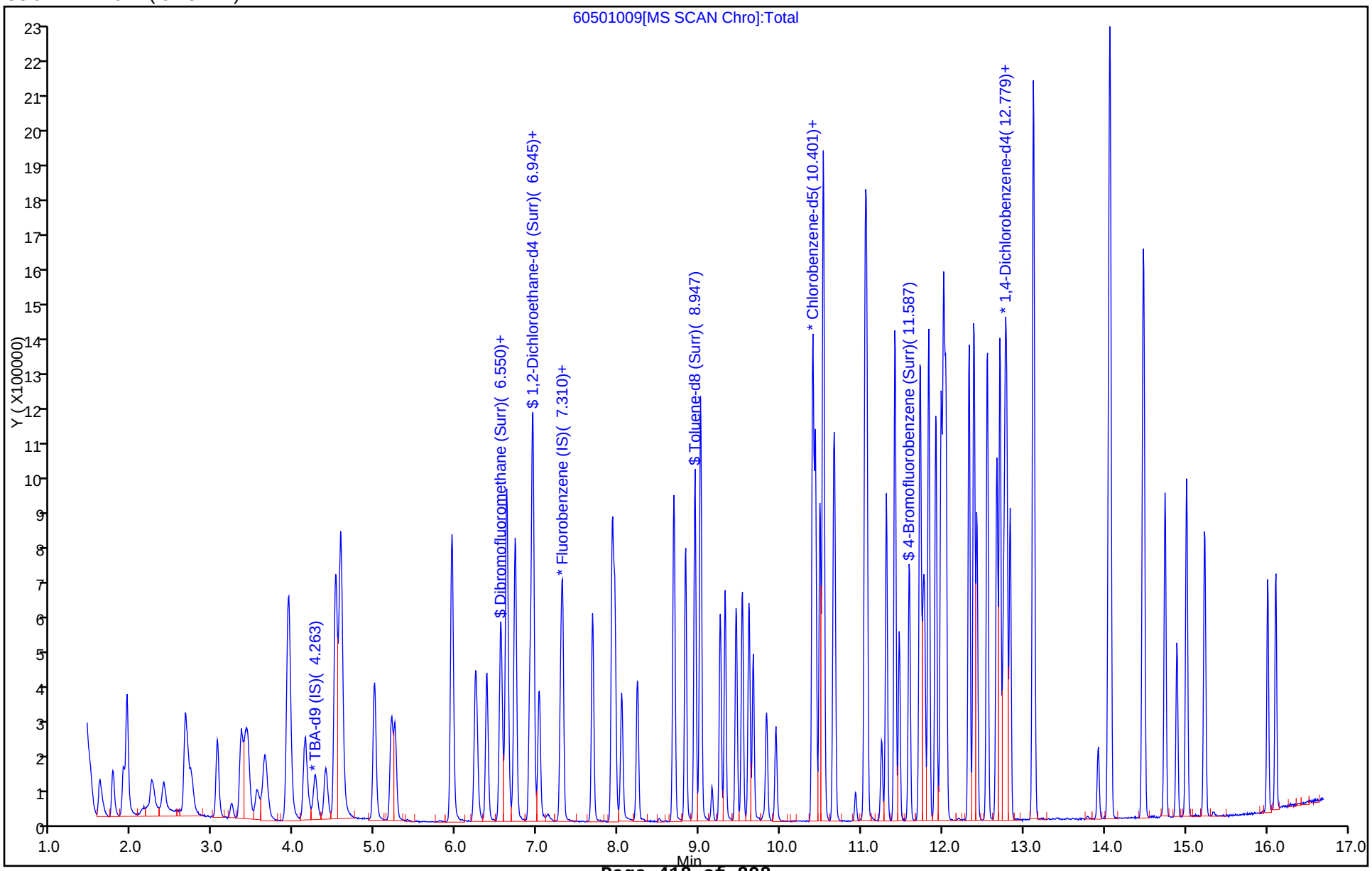
Report Date: 02-May-2015 11:01:06 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D

Injection Date:	01-May-2015 15:31:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD20			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

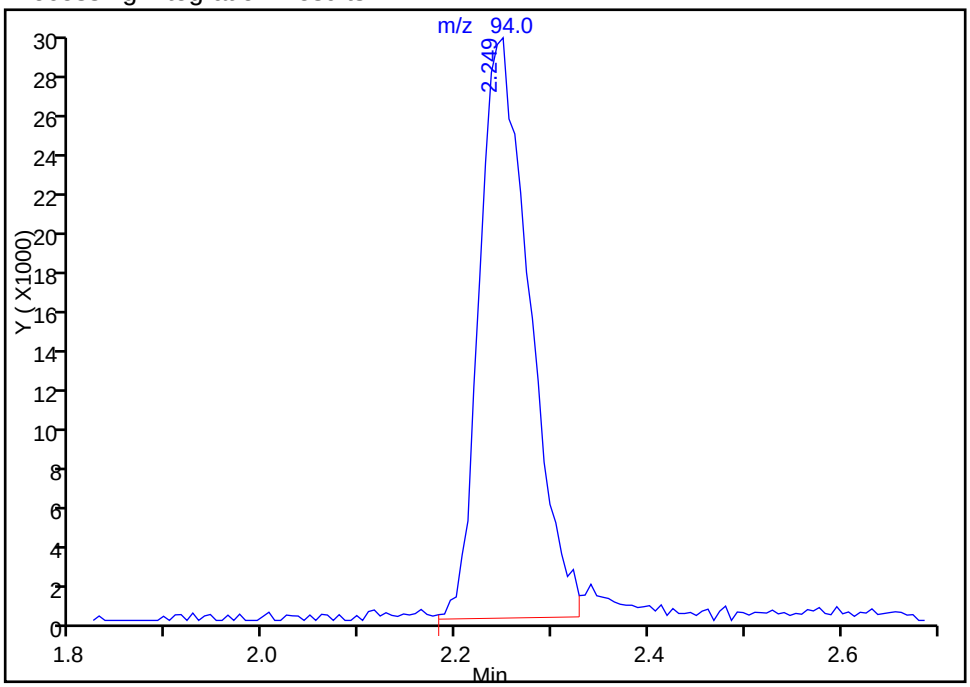
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D				
Injection Date:	01-May-2015 15:31:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD20				
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

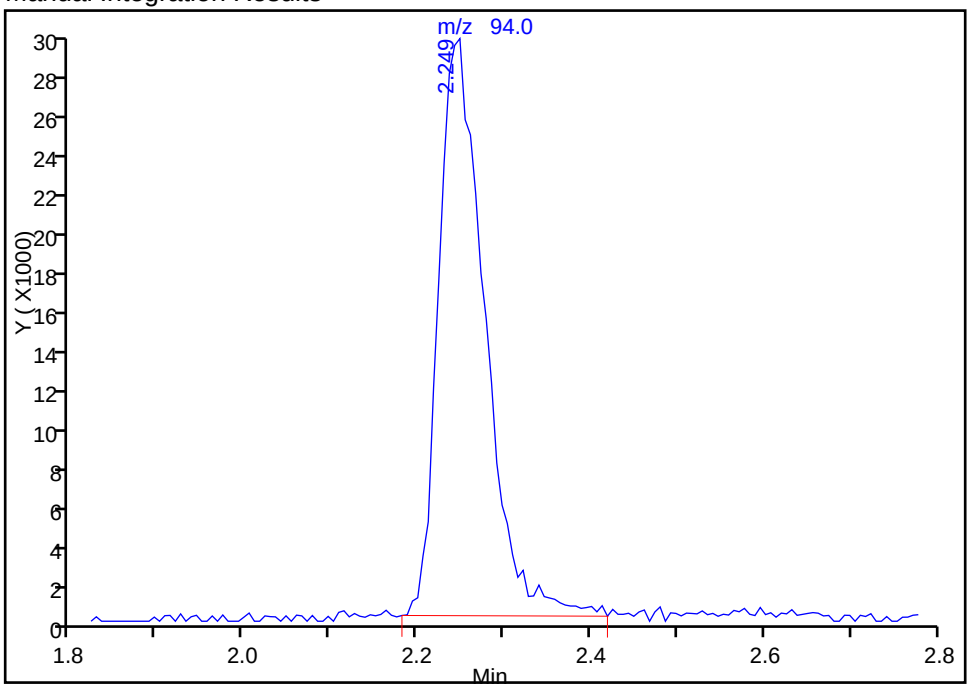
Processing Integration Results

RT: 2.25
Area: 107353
Amount: 92.473255
Amount Units: ng



Manual Integration Results

RT: 2.25
Area: 109446
Amount: 94.064168
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:49:03
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

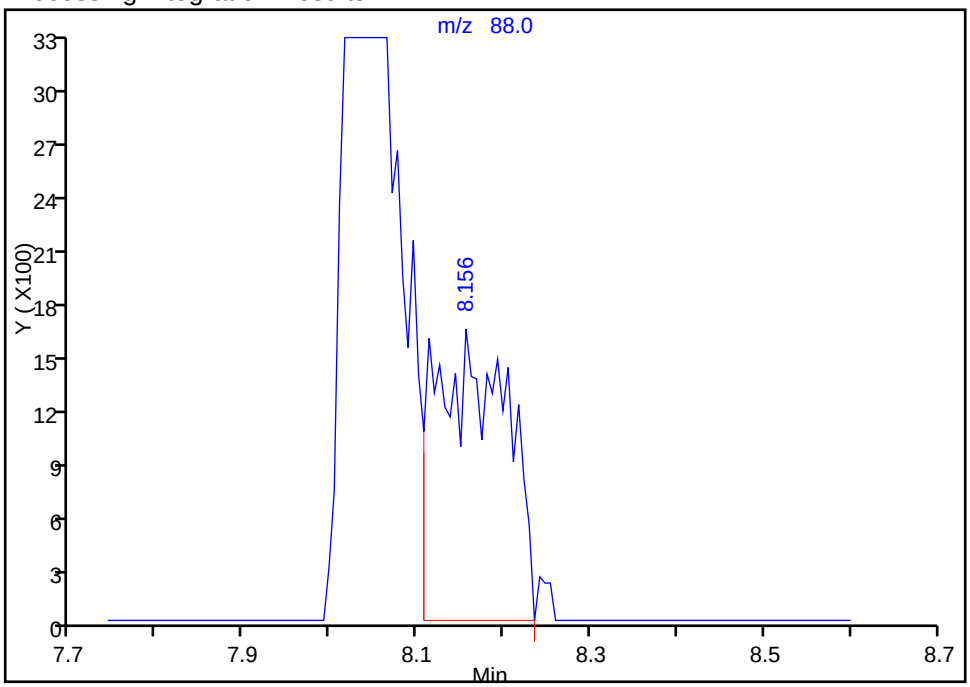
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D
Injection Date: 01-May-2015 15:31:30 Instrument ID: CHHP6
Lims ID: IC VSTD20
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

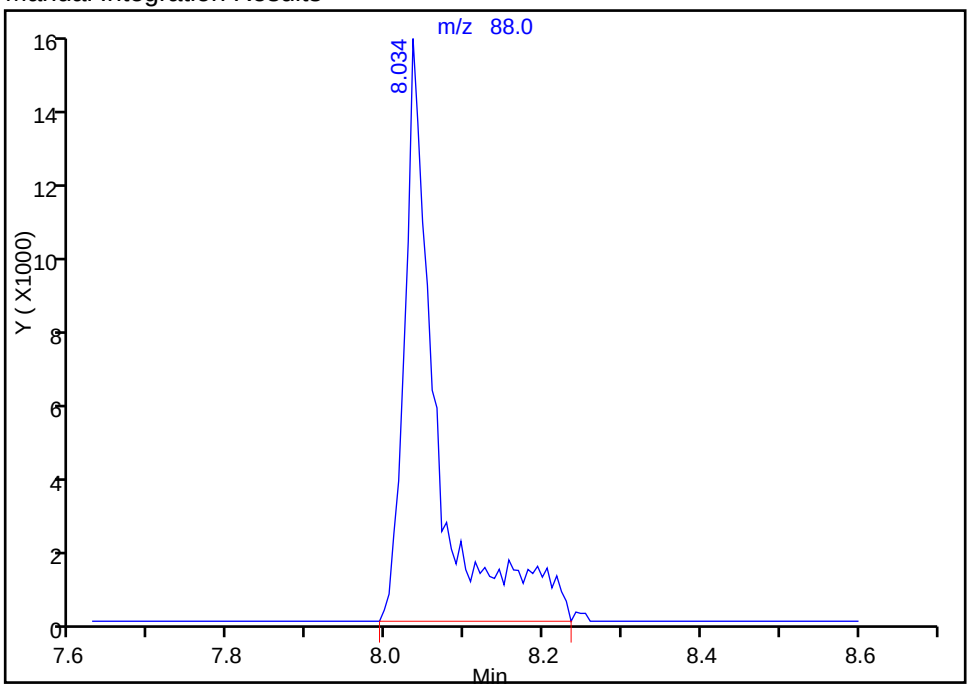
Processing Integration Results

RT: 8.16
Area: 9186
Amount: 478.7433
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 43846
Amount: 1898.5105
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:49:03
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501010.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 01-May-2015 15:56:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0006721-010
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:57:11 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:57:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.255	0.004	99	214871	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.291	0.004	98	397215	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.403	10.405	-0.002	89	90562	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.751	12.748	0.003	94	124575	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.558	6.555	0.003	92	286117	175.0	174.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.938	-0.002	74	468642	175.0	170.7	
$ 7 Toluene-d8 (Surr)	98	8.943	8.945	-0.002	94	1196797	175.0	156.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.590	11.592	-0.002	80	506432	175.0	162.1	
11 Dichlorodifluoromethane	85	1.607	1.603	0.004	100	393068	175.0	162.0	
12 Chloromethane	50	1.759	1.755	0.004	99	322970	175.0	160.2	
13 Vinyl chloride	62	1.899	1.889	0.010	98	348129	175.0	162.1	
14 Butadiene	39	1.935	1.931	0.004	92	311831	175.0	152.1	
15 Bromomethane	94	2.257	2.229	0.028	92	183599	175.0	164.2	
16 Chloroethane	64	2.391	2.381	0.010	99	224025	175.0	165.6	
17 Dichlorofluoromethane	67	2.659	2.655	0.004	97	522769	175.0	160.0	
18 Trichlorofluoromethane	101	2.695	2.692	0.003	98	406408	175.0	163.7	
20 Ethyl ether	59	3.048	3.051	-0.003	89	321282	175.0	173.4	
21 Acrolein	56	3.231	3.227	0.004	99	74857	225.0	227.6	M
22 1,1-Dichloroethene	96	3.340	3.343	-0.003	98	298478	175.0	162.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.407	3.403	0.004	97	301559	175.0	162.4	
24 Acetone	43	3.432	3.440	-0.008	100	181333	350.0	344.0	
25 Iodomethane	142	3.541	3.543	-0.002	99	395139	175.0	168.0	
26 Carbon disulfide	76	3.638	3.641	-0.003	100	874906	175.0	162.4	
29 3-Chloro-1-propene	76	3.924	3.914	0.010	89	217864	175.0	168.8	
30 Methyl acetate	43	3.937	3.939	-0.003	96	1531708	875.0	880.1	
31 Methylene Chloride	84	4.131	4.133	-0.002	91	379527	175.0	170.0	
32 2-Methyl-2-propanol	59	4.387	4.389	-0.002	99	437766	1750.0	1870.2	
33 Acrylonitrile	53	4.514	4.511	0.003	98	1611348	1750.0	1814.1	
34 trans-1,2-Dichloroethene	96	4.569	4.565	0.004	97	341011	175.0	166.4	
35 Methyl tert-butyl ether	73	4.581	4.584	-0.003	95	1295877	175.0	176.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.991	-0.002	91	449492	175.0	163.5	
37 1,1-Dichloroethane	63	5.202	5.198	0.004	97	650535	175.0	168.8	
38 Vinyl acetate	43	5.244	5.247	-0.003	97	761767	175.0	164.4	
42 2,2-Dichloropropane	77	5.944	5.946	-0.002	64	393550	175.0	164.9	
43 cis-1,2-Dichloroethene	96	5.944	5.946	-0.002	83	387653	175.0	166.4	
44 2-Butanone (MEK)	43	5.956	5.952	0.004	97	312233	350.0	355.8	
48 Chlorobromomethane	128	6.236	6.238	-0.002	97	163837	175.0	171.4	
49 Tetrahydrofuran	42	6.248	6.257	-0.009	84	277320	350.0	340.3	
50 Chloroform	83	6.376	6.372	0.004	96	631187	175.0	169.6	
51 1,1,1-Trichloroethane	97	6.546	6.542	0.004	98	514270	175.0	168.1	
52 Cyclohexane	56	6.625	6.622	0.003	93	599552	175.0	163.3	
53 Carbon tetrachloride	117	6.717	6.719	-0.002	96	387561	175.0	166.0	
54 1,1-Dichloropropene	75	6.729	6.731	-0.002	96	488097	175.0	164.9	
55 Isobutyl alcohol	41	6.911	6.908	0.003	92	348172	4375.0	4349.3	
56 Benzene	78	6.948	6.944	0.004	98	1442452	175.0	165.1	
57 1,2-Dichloroethane	62	7.021	7.023	-0.002	98	589729	175.0	177.6	
59 n-Heptane	43	7.313	7.315	-0.002	88	335663	175.0	158.9	
61 Trichloroethene	130	7.684	7.680	0.004	93	317378	175.0	167.9	
63 Methylcyclohexane	83	7.927	7.923	0.004	90	583932	175.0	164.0	
64 1,2-Dichloropropane	63	7.958	7.954	0.004	94	386326	175.0	219.8	
65 1,4-Dioxane	88	8.037	8.039	-0.002	36	75662	3500.0	3687.2	
67 Dibromomethane	93	8.043	8.039	0.004	90	243858	175.0	174.7	
68 Dichlorobromomethane	83	8.231	8.234	-0.003	99	493846	175.0	177.1	
71 cis-1,3-Dichloropropene	75	8.682	8.678	0.004	94	649830	175.0	176.1	
72 4-Methyl-2-pentanone (MIBK	43	8.828	8.830	-0.002	94	852834	350.0	351.4	
73 Toluene	91	9.016	9.012	0.004	98	1469166	175.0	156.4	
74 trans-1,3-Dichloropropene	75	9.260	9.256	0.004	95	588746	175.0	172.2	
75 Ethyl methacrylate	69	9.320	9.317	0.003	87	607621	175.0	177.4	
76 1,1,2-Trichloroethane	97	9.454	9.456	-0.002	93	347762	175.0	170.1	
77 Tetrachloroethene	164	9.533	9.529	0.004	95	247215	175.0	160.0	
78 1,3-Dichloropropane	76	9.612	9.615	-0.003	91	657365	175.0	170.0	
79 2-Hexanone	43	9.661	9.663	-0.002	94	518554	350.0	350.4	
81 Chlorodibromomethane	129	9.831	9.828	0.003	88	288883	175.0	179.5	
82 Ethylene Dibromide	107	9.947	9.943	0.004	98	335705	175.0	173.7	
83 3-Chlorobenzotrifluoride	180	10.397	10.399	-0.002	91	463604	175.0	161.6	
84 Chlorobenzene	112	10.434	10.430	0.004	92	956397	175.0	161.3	
85 4-Chlorobenzotrifluoride	180	10.488	10.491	-0.003	95	438815	175.0	161.2	
86 1,1,1,2-Tetrachloroethane	131	10.525	10.527	-0.002	93	295523	175.0	170.0	
87 Ethylbenzene	106	10.531	10.533	-0.002	99	548629	175.0	165.6	
88 m-Xylene & p-Xylene	106	10.665	10.661	0.004	98	679172	175.0	163.7	
89 o-Xylene	106	11.042	11.044	-0.002	95	658013	175.0	163.5	
90 Styrene	104	11.066	11.063	0.004	93	1097806	175.0	165.9	
91 Bromoform	173	11.249	11.251	-0.002	91	188498	175.0	183.2	
92 2-Chlorobenzotrifluoride	180	11.310	11.306	0.004	94	466230	175.0	161.0	
93 Isopropylbenzene	105	11.413	11.409	0.004	98	1509094	175.0	154.3	
96 1,1,2,2-Tetrachloroethane	83	11.717	11.720	-0.003	97	473696	175.0	168.7	
95 Bromobenzene	156	11.729	11.726	0.003	98	351137	175.0	173.8	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.756	-0.002	88	170289	175.0	183.5	
98 1,2,3-Trichloropropane	110	11.778	11.774	0.004	84	164103	175.0	184.8	
99 N-Propylbenzene	120	11.833	11.829	0.004	98	417057	175.0	171.2	
100 2-Chlorotoluene	126	11.918	11.914	0.004	93	341443	175.0	170.5	
101 3-Chlorotoluene	126	11.985	11.981	0.004	97	383186	175.0	175.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.015	12.012	0.003	95	1293117	175.0	166.8	
103 4-Chlorotoluene	126	12.040	12.042	-0.002	100	358037	175.0	169.5	
104 tert-Butylbenzene	119	12.326	12.328	-0.002	90	987056	175.0	166.1	
106 1,2,4-Trimethylbenzene	105	12.386	12.389	-0.003	99	1357258	175.0	167.2	
107 1,2-dichloro-4-(trifluorom	214	12.423	12.425	-0.002	96	343227	175.0	167.9	
108 sec-Butylbenzene	105	12.551	12.553	-0.002	96	1491702	175.0	165.0	
109 1,3-Dichlorobenzene	146	12.672	12.669	0.003	92	654979	175.0	169.8	
110 4-Isopropyltoluene	119	12.709	12.711	-0.002	94	1186196	175.0	165.9	
111 1,4-Dichlorobenzene	146	12.776	12.772	0.004	86	665067	175.0	166.9	
113 2,4-Dichloro-1-(triflourom	214	12.794	12.796	-0.002	94	324649	175.0	160.4	
114 2,5-Dichlorobenzotrifluori	214	12.837	12.833	0.004	98	387822	175.0	178.9	
116 n-Butylbenzene	91	13.116	13.119	-0.003	97	1176426	175.0	163.6	
117 1,2-Dichlorobenzene	146	13.129	13.125	0.004	89	650565	175.0	170.6	
118 1,2-Dibromo-3-Chloropropan	75	13.919	13.922	-0.003	73	109457	175.0	188.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.065	14.062	0.003	96	1577392	525.0	490.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.479	14.481	-0.002	96	1157594	350.0	328.1	
122 1,2,4-Trichlorobenzene	180	14.747	14.743	0.004	92	437105	175.0	163.6	
123 Hexachlorobutadiene	225	14.893	14.895	-0.002	96	142741	175.0	156.8	
124 Naphthalene	128	15.008	15.011	-0.003	99	1186321	175.0	167.8	
125 1,2,3-Trichlorobenzene	180	15.234	15.236	-0.002	92	402043	175.0	160.4	
126 2,4,5-Trichlorotoluene	159	16.012	16.008	0.004	0	238660	175.0	150.6	
127 2,3,6-Trichlorotoluene	159	16.110	16.112	-0.002	92	215650	175.0	150.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		350.0	332.8	
S 131 Xylenes, Total	106				0		350.0	327.3	
S 132 1,3-Dichloropropene, Total	1				0		350.0	348.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	9.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	7.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	7.00	Units: uL	
voaWketPri Re_00005	Amount Added:	7.00	Units: uL	
VOA8260SURR_00034	Amount Added:	7.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

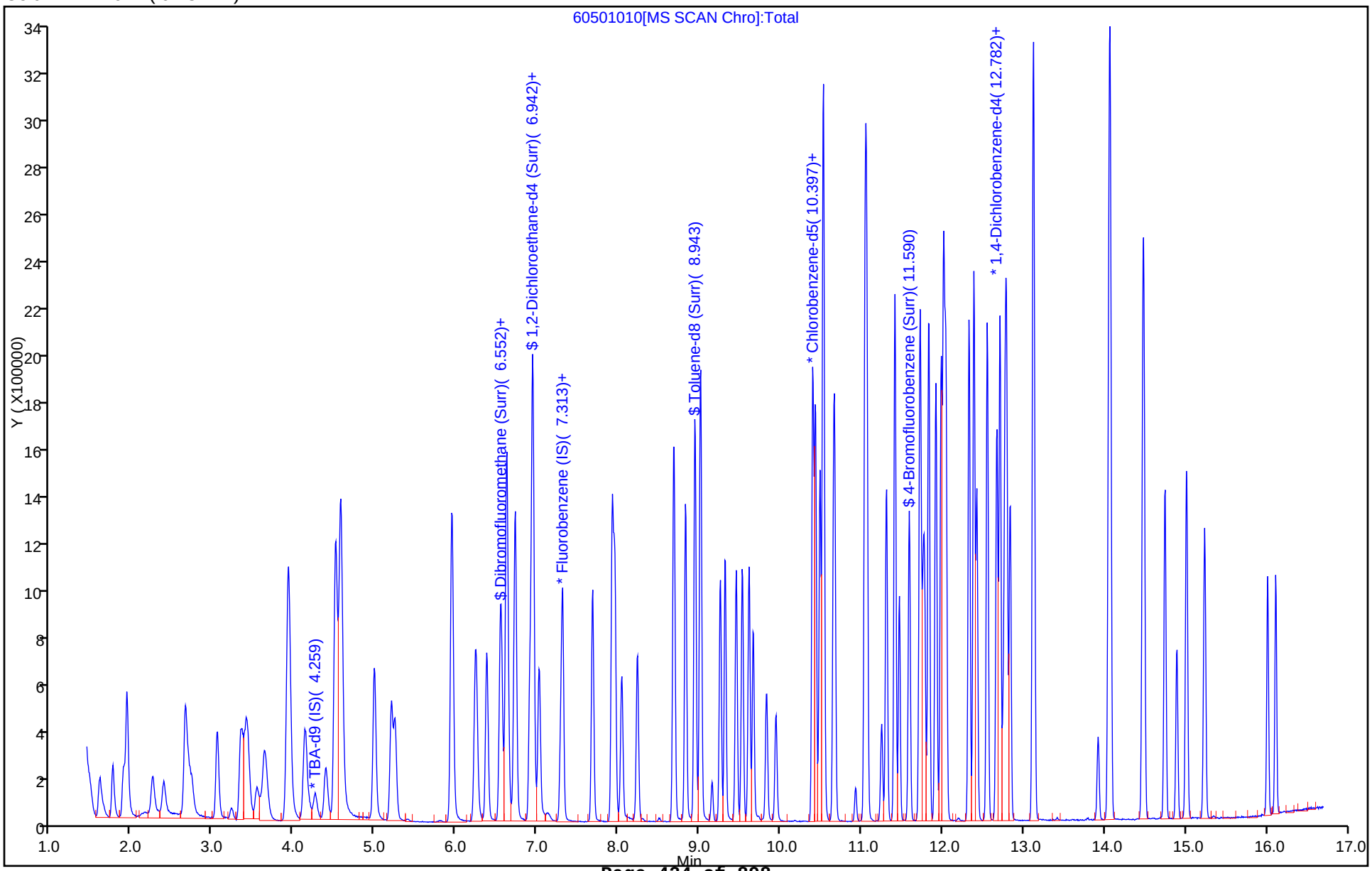
Report Date: 02-May-2015 10:57:12 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501010.D

Injection Date:	01-May-2015 15:56:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD35			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

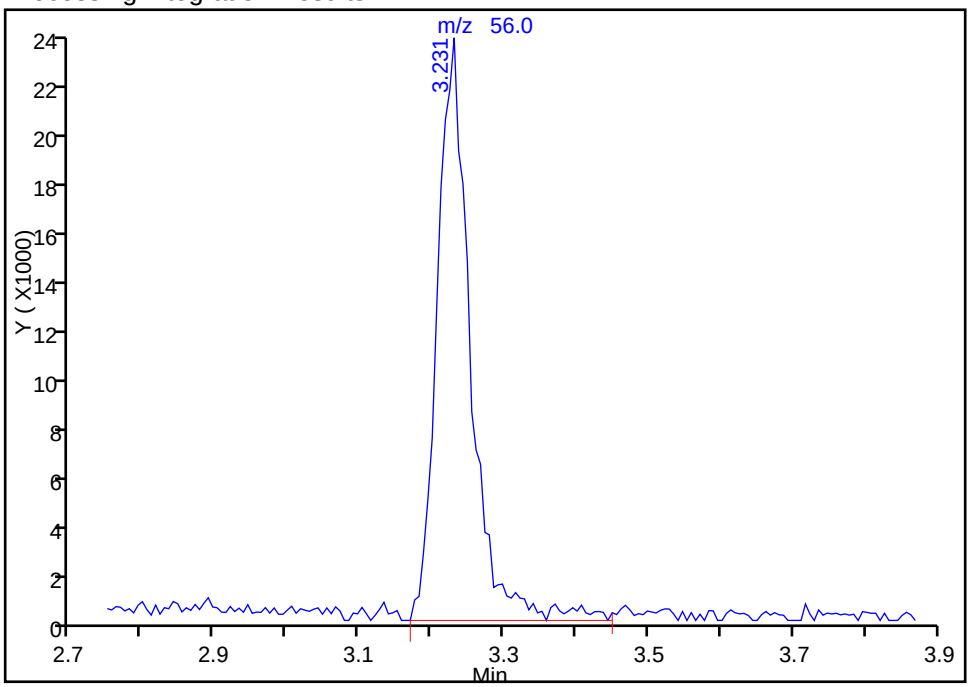
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501010.D				
Injection Date:	01-May-2015 15:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD35				
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		

21 Acrolein, CAS: 107-02-8

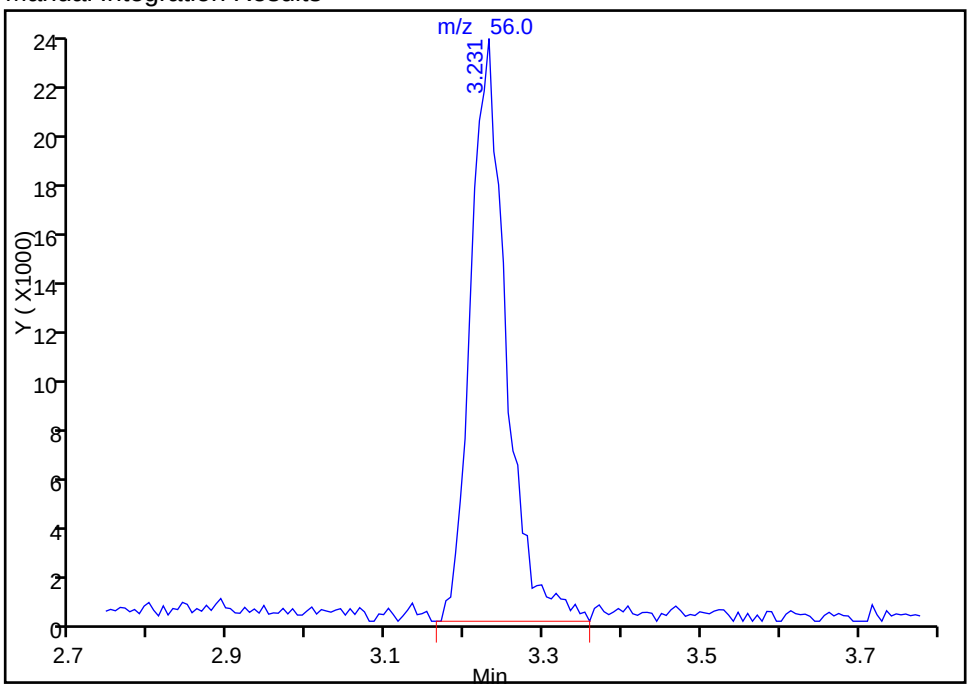
Processing Integration Results

RT: 3.23
Area: 76920
Amount: 233.0790
Amount Units: ng



Manual Integration Results

RT: 3.23
Area: 74857
Amount: 227.6183
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:57:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501011.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 01-May-2015 16:20:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0006721-011
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:00:33 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 11:00:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.255	0.013	100	194509	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	413723	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.405	-0.005	89	97915	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.748	0.001	95	126587	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.555	0.001	92	328982	200.0	192.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.938	-0.005	80	537741	200.0	188.0	
$ 7 Toluene-d8 (Surr)	98	8.947	8.945	0.001	94	1399177	200.0	168.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.592	-0.005	80	584398	200.0	173.0	
11 Dichlorodifluoromethane	85	1.598	1.603	-0.005	100	499728	200.0	197.8	
12 Chloromethane	50	1.756	1.755	0.001	99	398212	200.0	189.6	
13 Vinyl chloride	62	1.896	1.889	0.007	99	444140	200.0	198.6	
14 Butadiene	39	1.932	1.931	0.001	91	404201	200.0	189.3	
15 Bromomethane	94	2.243	2.229	0.014	92	230594	200.0	198.0	
16 Chloroethane	64	2.382	2.381	0.001	99	281244	200.0	199.6	
17 Dichlorofluoromethane	67	2.650	2.655	-0.005	98	664016	200.0	195.1	
18 Trichlorofluoromethane	101	2.693	2.692	0.001	98	500291	200.0	193.5	
20 Ethyl ether	59	3.052	3.051	0.001	89	341678	200.0	177.1	
21 Acrolein	56	3.222	3.227	-0.005	98	79297	250.0	231.5	
22 1,1-Dichloroethene	96	3.344	3.343	0.001	99	368258	200.0	192.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.404	3.403	0.001	97	375445	200.0	194.1	
24 Acetone	43	3.435	3.440	-0.005	100	187221	400.0	341.0	
25 Iodomethane	142	3.544	3.543	0.001	100	480425	200.0	196.1	
26 Carbon disulfide	76	3.642	3.641	0.001	100	1101219	200.0	196.2	
29 3-Chloro-1-propene	76	3.915	3.914	0.001	89	263380	200.0	195.9	
30 Methyl acetate	43	3.940	3.939	0.001	96	1680076	1000.0	926.8	
31 Methylene Chloride	84	4.134	4.133	0.001	91	440482	200.0	189.4	
32 2-Methyl-2-propanol	59	4.396	4.389	0.007	99	423693	2000.0	1999.6	
33 Acrylonitrile	53	4.512	4.511	0.001	98	1701239	2000.0	1838.8	
34 trans-1,2-Dichloroethene	96	4.566	4.565	0.001	97	413336	200.0	193.6	
35 Methyl tert-butyl ether	73	4.585	4.584	0.001	96	1477234	200.0	192.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.992	4.991	0.001	92	563934	200.0	196.9	
37 1,1-Dichloroethane	63	5.199	5.198	0.001	96	777143	200.0	193.6	
38 Vinyl acetate	43	5.248	5.247	0.001	97	890652	200.0	184.6	
42 2,2-Dichloropropane	77	5.947	5.946	0.001	65	480936	200.0	193.5	
43 cis-1,2-Dichloroethene	96	5.947	5.946	0.001	83	460452	200.0	189.7	
44 2-Butanone (MEK)	43	5.953	5.952	0.001	99	327104	400.0	357.9	
48 Chlorobromomethane	128	6.233	6.238	-0.005	97	182772	200.0	183.6	
49 Tetrahydrofuran	42	6.252	6.257	-0.005	85	303387	400.0	357.4	
50 Chloroform	83	6.379	6.372	0.007	96	744366	200.0	192.1	
51 1,1,1-Trichloroethane	97	6.544	6.542	0.002	98	632812	200.0	198.6	
52 Cyclohexane	56	6.623	6.622	0.001	92	746051	200.0	195.1	
53 Carbon tetrachloride	117	6.720	6.719	0.001	96	488872	200.0	201.0	
54 1,1-Dichloropropene	75	6.732	6.731	0.001	96	610679	200.0	198.1	
55 Isobutyl alcohol	41	6.909	6.908	0.001	93	339375	5000.0	4070.3	
56 Benzene	78	6.945	6.944	0.001	98	1687761	200.0	185.4	
57 1,2-Dichloroethane	62	7.024	7.023	0.001	98	669830	200.0	193.7	
59 n-Heptane	43	7.310	7.315	-0.005	88	427101	200.0	194.1	
61 Trichloroethene	130	7.681	7.680	0.001	93	380219	200.0	193.1	
63 Methylcyclohexane	83	7.924	7.923	0.001	90	731561	200.0	197.3	
64 1,2-Dichloropropane	63	7.955	7.954	0.001	87	455627	200.0	215.4	
65 1,4-Dioxane	88	8.040	8.039	0.001	75	85036	4000.0	3678.7	M
67 Dibromomethane	93	8.040	8.039	0.001	91	278635	200.0	191.7	
68 Dichlorobromomethane	83	8.235	8.234	0.001	99	577215	200.0	198.8	
71 cis-1,3-Dichloropropene	75	8.679	8.678	0.001	94	755309	200.0	196.5	
72 4-Methyl-2-pentanone (MIBK	43	8.831	8.830	0.001	93	957320	400.0	364.8	
73 Toluene	91	9.013	9.012	0.001	97	1712971	200.0	168.7	
74 trans-1,3-Dichloropropene	75	9.257	9.256	0.001	95	675791	200.0	182.8	
75 Ethyl methacrylate	69	9.318	9.317	0.001	87	677036	200.0	182.8	
76 1,1,2-Trichloroethane	97	9.458	9.456	0.002	94	396004	200.0	179.2	
77 Tetrachloroethene	164	9.531	9.529	0.002	95	303279	200.0	181.5	
78 1,3-Dichloropropane	76	9.616	9.615	0.001	91	744014	200.0	177.9	
79 2-Hexanone	43	9.664	9.663	0.001	94	581725	400.0	363.6	
81 Chlorodibromomethane	129	9.829	9.828	0.001	90	331360	200.0	190.4	
82 Ethylene Dibromide	107	9.944	9.943	0.001	98	376974	200.0	180.4	
83 3-Chlorobenzotrifluoride	180	10.400	10.399	0.001	91	577854	200.0	186.3	
84 Chlorobenzene	112	10.431	10.430	0.001	91	1106916	200.0	172.7	
85 4-Chlorobenzotrifluoride	180	10.486	10.491	-0.005	96	550514	200.0	187.0	
86 1,1,1,2-Tetrachloroethane	131	10.528	10.527	0.001	93	348221	200.0	185.3	
87 Ethylbenzene	106	10.534	10.533	0.001	98	649357	200.0	181.3	
88 m-Xylene & p-Xylene	106	10.662	10.661	0.001	98	799744	200.0	178.3	
89 o-Xylene	106	11.045	11.044	0.001	96	771182	200.0	177.3	
90 Styrene	104	11.064	11.063	0.002	93	1254290	200.0	175.3	
91 Bromoform	173	11.246	11.251	-0.005	91	212157	200.0	190.7	
92 2-Chlorobenzotrifluoride	180	11.307	11.306	0.001	93	573355	200.0	183.1	
93 Isopropylbenzene	105	11.410	11.409	0.001	98	1796814	200.0	169.9	
96 1,1,2,2-Tetrachloroethane	83	11.721	11.720	0.001	97	530388	200.0	174.8	
95 Bromobenzene	156	11.727	11.726	0.001	98	402872	200.0	196.2	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.756	0.001	89	197280	200.0	209.2	
98 1,2,3-Trichloropropane	110	11.775	11.774	0.001	85	182497	200.0	202.2	
99 N-Propylbenzene	120	11.830	11.829	0.001	98	495397	200.0	200.1	
100 2-Chlorotoluene	126	11.915	11.914	0.001	93	401659	200.0	197.4	
101 3-Chlorotoluene	126	11.982	11.981	0.001	97	450187	200.0	203.2	

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	12.013	12.012	0.001	94	1522884	200.0	193.3	
103 4-Chlorotoluene	126	12.037	12.042	-0.005	100	420291	200.0	195.8	
104 tert-Butylbenzene	119	12.329	12.328	0.001	90	1188495	200.0	196.9	
106 1,2,4-Trimethylbenzene	105	12.390	12.389	0.001	99	1567584	200.0	190.0	
107 1,2-dichloro-4-(trifluorom	214	12.426	12.425	0.001	96	422746	200.0	203.5	
108 sec-Butylbenzene	105	12.554	12.553	0.001	96	1764994	200.0	192.1	
109 1,3-Dichlorobenzene	146	12.670	12.669	0.001	92	760032	200.0	193.9	
110 4-Isopropyltoluene	119	12.706	12.711	-0.005	94	1403979	200.0	193.3	
111 1,4-Dichlorobenzene	146	12.773	12.772	0.001	94	773327	200.0	190.9	
113 2,4-Dichloro-1-(triflourom	214	12.797	12.796	0.001	96	421311	200.0	204.9	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.833	0.001	98	441248	200.0	199.2	
116 n-Butylbenzene	91	13.114	13.119	-0.005	96	1394081	200.0	190.8	
117 1,2-Dichlorobenzene	146	13.126	13.125	0.001	94	730064	200.0	188.4	
118 1,2-Dibromo-3-Chloropropan	75	13.917	13.922	-0.005	72	114309	200.0	193.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.062	0.001	95	1760189	600.0	538.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.482	14.481	0.001	97	1257444	400.0	350.7	
122 1,2,4-Trichlorobenzene	180	14.744	14.743	0.001	92	458809	200.0	169.0	
123 Hexachlorobutadiene	225	14.890	14.895	-0.005	96	160877	200.0	173.9	
124 Naphthalene	128	15.012	15.011	0.001	99	1205925	200.0	167.8	
125 1,2,3-Trichlorobenzene	180	15.231	15.236	-0.005	92	411642	200.0	161.6	
126 2,4,5-Trichlorotoluene	159	16.009	16.008	0.001	0	303439	200.0	188.5	
127 2,3,6-Trichlorotoluene	159	16.113	16.112	0.001	91	270492	200.0	185.2	
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		400.0	383.4	
S 131 Xylenes, Total	106				0		400.0	355.6	
S 132 1,3-Dichloropropene, Total	1				0		400.0	379.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	10.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	8.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260SURR_00034	Amount Added:	8.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

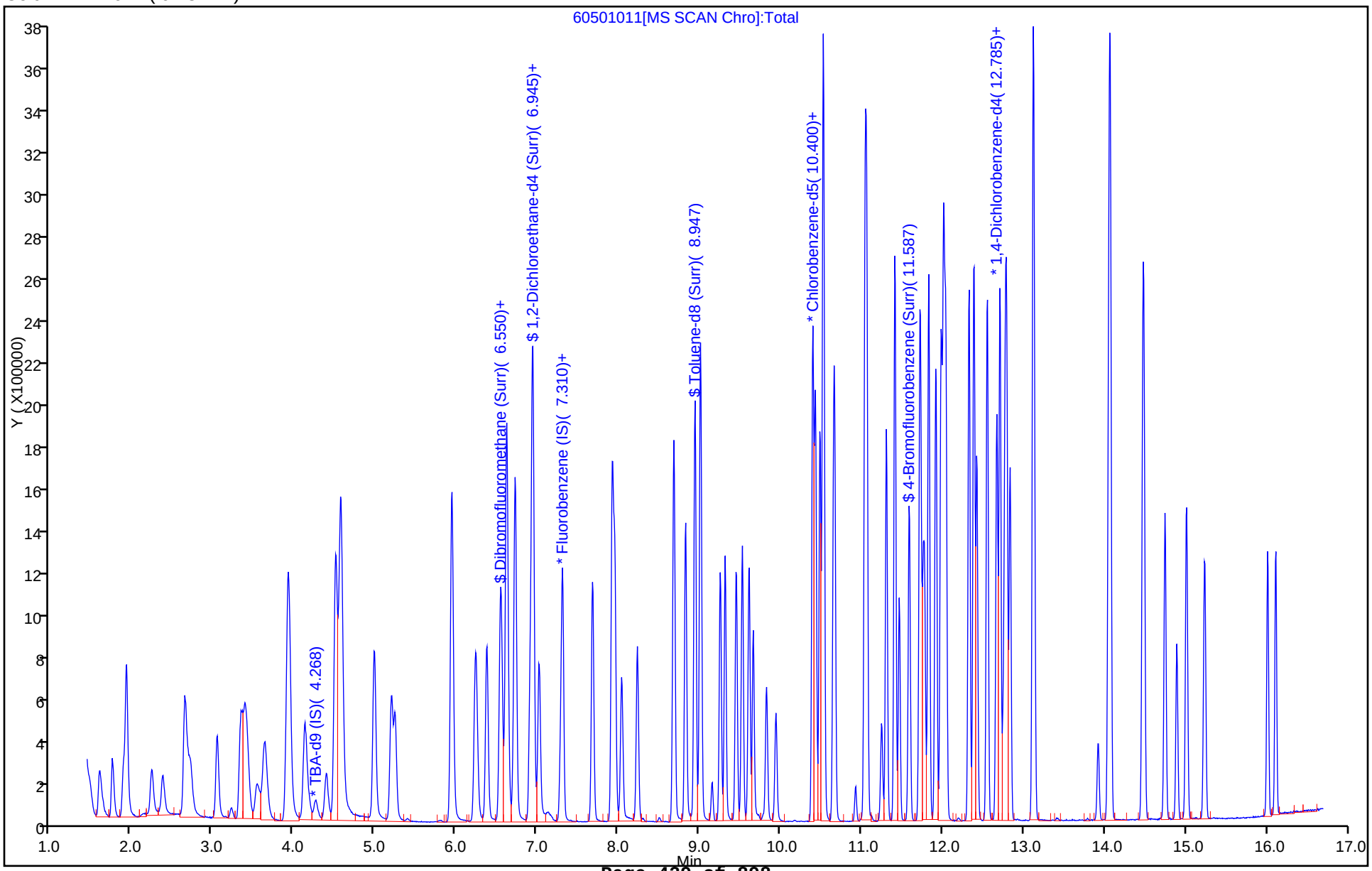
Report Date: 02-May-2015 11:00:33 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501011.D

Injection Date:	01-May-2015 16:20:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD40			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

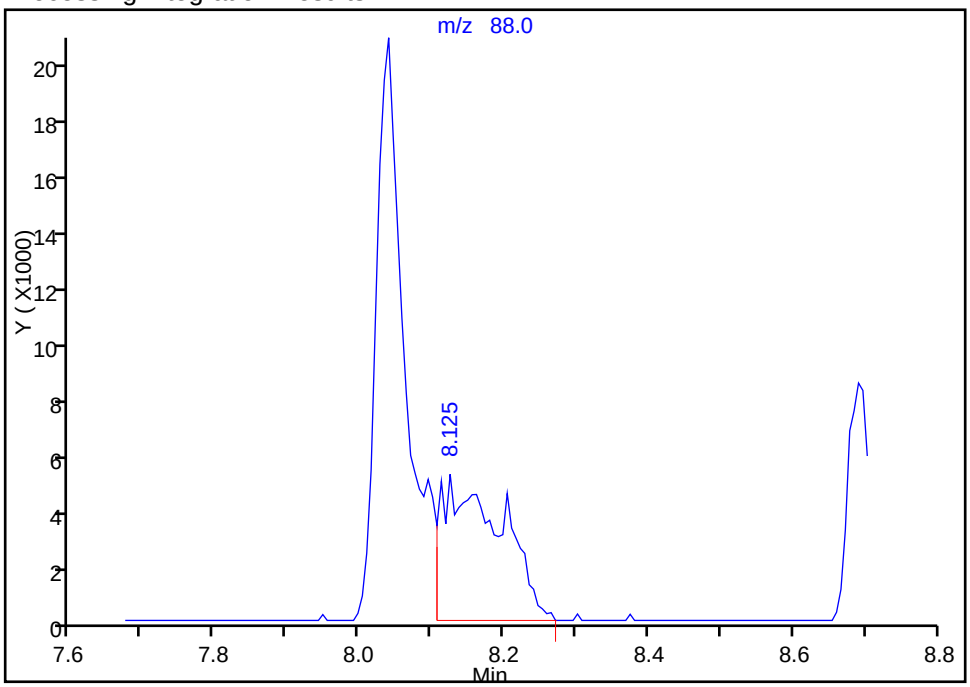
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501011.D				
Injection Date:	01-May-2015 16:20:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD40				
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

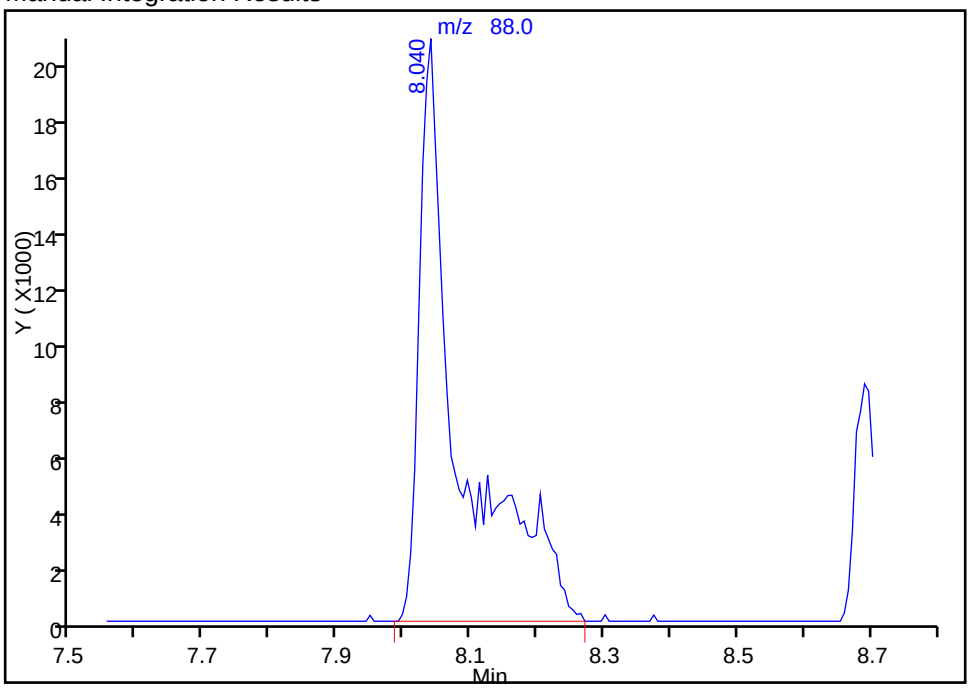
Processing Integration Results

RT: 8.13
Area: 29275
Amount: 1369.7024
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 85036
Amount: 3678.6979
Amount Units: ng



Reviewer: fergusond, 02-May-2015 11:00:33
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 01-May-2015 16:46:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0006721-012
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:05:36 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 11:05:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.255	0.011	100	237620	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	405351	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.405	-0.007	89	97849	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.753	12.748	0.005	92	126816	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.555	0.005	91	407664	250.0	243.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.938	-0.001	80	677859	250.0	241.9	
$ 7 Toluene-d8 (Surr)	98	8.944	8.945	-0.001	94	1696172	250.0	204.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.591	11.592	-0.001	80	724215	250.0	214.6	
11 Dichlorodifluoromethane	85	1.602	1.603	-0.001	99	575476	250.0	232.4	
12 Chloromethane	50	1.760	1.755	0.005	99	478453	250.0	232.5	
13 Vinyl chloride	62	1.900	1.889	0.011	97	517720	250.0	236.3	
14 Butadiene	39	1.936	1.931	0.005	90	464004	250.0	221.8	
15 Bromomethane	94	2.253	2.229	0.024	92	272991	250.0	239.3	
16 Chloroethane	64	2.386	2.381	0.005	99	315384	250.0	228.4	
17 Dichlorofluoromethane	67	2.654	2.655	-0.001	97	753551	250.0	226.0	
18 Trichlorofluoromethane	101	2.691	2.692	-0.001	98	577522	250.0	228.0	
20 Ethyl ether	59	3.050	3.051	-0.001	90	451701	250.0	239.0	
21 Acrolein	56	3.226	3.227	-0.001	98	92403	275.0	275.3	
22 1,1-Dichloroethene	96	3.348	3.343	0.005	98	444270	250.0	236.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.409	3.403	0.005	97	444261	250.0	234.4	
24 Acetone	43	3.439	3.440	-0.001	100	285567	500.0	530.8	
25 Iodomethane	142	3.567	3.543	0.024	99	569324	250.0	237.2	
26 Carbon disulfide	76	3.640	3.641	-0.001	100	1262586	250.0	229.6	
29 3-Chloro-1-propene	76	3.913	3.914	-0.001	89	320994	250.0	243.7	
30 Methyl acetate	43	3.938	3.939	-0.001	96	2131842	1250.0	1200.3	
31 Methylene Chloride	84	4.139	4.133	0.006	91	538163	250.0	236.2	
32 2-Methyl-2-propanol	59	4.394	4.389	0.005	98	561100	2500.0	2167.6	
33 Acrylonitrile	53	4.516	4.511	0.005	98	2190199	2500.0	2416.2	
34 trans-1,2-Dichloroethene	96	4.564	4.565	-0.001	97	489846	250.0	234.2	
35 Methyl tert-butyl ether	73	4.583	4.584	-0.001	96	1827456	250.0	243.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.991	-0.001	91	655934	250.0	233.8	
37 1,1-Dichloroethane	63	5.197	5.198	-0.001	97	932123	250.0	237.0	
38 Vinyl acetate	43	5.246	5.247	-0.001	97	1164902	250.0	246.4	
42 2,2-Dichloropropane	77	5.945	5.946	-0.001	63	543470	250.0	223.2	
43 cis-1,2-Dichloroethene	96	5.945	5.946	-0.001	84	552410	250.0	232.3	
44 2-Butanone (MEK)	43	5.957	5.952	0.005	98	473847	500.0	529.1	
48 Chlorobromomethane	128	6.231	6.238	-0.007	97	230583	250.0	236.4	
49 Tetrahydrofuran	42	6.256	6.257	-0.001	84	397850	500.0	478.4	
50 Chloroform	83	6.377	6.372	0.005	96	898092	250.0	236.5	
51 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	97	747775	250.0	239.5	
52 Cyclohexane	56	6.621	6.622	-0.001	89	856768	250.0	228.7	
53 Carbon tetrachloride	117	6.718	6.719	-0.001	96	583377	250.0	244.8	
54 1,1-Dichloropropene	75	6.730	6.731	-0.001	96	723072	250.0	239.4	
55 Isobutyl alcohol	41	6.907	6.908	-0.002	93	518160	6250.0	6342.9	
56 Benzene	78	6.949	6.944	0.005	98	1993212	250.0	223.5	
57 1,2-Dichloroethane	62	7.022	7.023	-0.001	98	832399	250.0	245.7	
59 n-Heptane	43	7.314	7.315	-0.001	88	485433	250.0	225.2	
61 Trichloroethene	130	7.679	7.680	-0.001	93	450242	250.0	233.4	
63 Methylcyclohexane	83	7.929	7.923	0.006	90	837825	250.0	230.6	
64 1,2-Dichloropropane	63	7.959	7.954	0.005	94	550561	250.0	234.2	
65 1,4-Dioxane	88	8.038	8.039	-0.001	37	113034	5000.0	4990.9	
67 Dibromomethane	93	8.044	8.039	0.005	91	347141	250.0	243.7	
68 Dichlorobromomethane	83	8.233	8.234	-0.001	98	713291	250.0	250.7	
71 cis-1,3-Dichloropropene	75	8.683	8.678	0.005	94	924184	250.0	245.5	
72 4-Methyl-2-pentanone (MIBK	43	8.829	8.830	-0.001	92	1201067	500.0	458.0	
73 Toluene	91	9.017	9.012	0.005	97	2013806	250.0	198.5	
74 trans-1,3-Dichloropropene	75	9.261	9.256	0.005	95	840048	250.0	227.4	
75 Ethyl methacrylate	69	9.316	9.317	-0.001	88	853762	250.0	230.7	
76 1,1,2-Trichloroethane	97	9.455	9.456	-0.001	94	497273	250.0	225.2	
77 Tetrachloroethene	164	9.528	9.529	-0.001	92	356494	250.0	213.5	
78 1,3-Dichloropropane	76	9.614	9.615	-0.001	92	923637	250.0	221.0	
79 2-Hexanone	43	9.662	9.663	-0.001	93	778828	500.0	487.1	
81 Chlorodibromomethane	129	9.833	9.828	0.005	90	417451	250.0	240.1	
82 Ethylene Dibromide	107	9.942	9.943	-0.001	99	466009	250.0	223.2	
83 3-Chlorobenzotrifluoride	180	10.398	10.399	-0.001	92	640982	250.0	206.8	
84 Chlorobenzene	112	10.435	10.430	0.005	90	1320047	250.0	206.1	
85 4-Chlorobenzotrifluoride	180	10.490	10.491	-0.001	96	609472	250.0	207.2	
86 1,1,1,2-Tetrachloroethane	131	10.526	10.527	-0.001	93	423407	250.0	225.5	
87 Ethylbenzene	106	10.532	10.533	-0.001	98	772048	250.0	215.7	
88 m-Xylene & p-Xylene	106	10.666	10.661	0.005	97	967652	250.0	215.9	
89 o-Xylene	106	11.043	11.044	-0.001	96	916218	250.0	210.7	
90 Styrene	104	11.068	11.063	0.006	93	1497570	250.0	209.5	
91 Bromoform	173	11.250	11.251	-0.001	92	275852	250.0	248.1	
92 2-Chlorobenzotrifluoride	180	11.311	11.306	0.005	93	652016	250.0	208.4	
93 Isopropylbenzene	105	11.414	11.409	0.005	99	2087440	250.0	197.6	
96 1,1,2,2-Tetrachloroethane	83	11.719	11.720	-0.001	97	668303	250.0	220.3	
95 Bromobenzene	156	11.731	11.726	0.005	98	493553	250.0	239.9	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.756	-0.001	87	243093	250.0	257.3	
98 1,2,3-Trichloropropane	110	11.779	11.774	0.005	83	228328	250.0	252.5	
99 N-Propylbenzene	120	11.834	11.829	0.005	97	589561	250.0	237.7	
100 2-Chlorotoluene	126	11.919	11.914	0.005	93	483577	250.0	237.2	
101 3-Chlorotoluene	126	11.980	11.981	-0.001	96	509493	250.0	229.5	

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	12.017	12.012	0.005	95	1775313	250.0	225.0	
103 4-Chlorotoluene	126	12.041	12.042	-0.001	100	518735	250.0	241.3	
104 tert-Butylbenzene	119	12.327	12.328	-0.001	90	1388596	250.0	229.6	
106 1,2,4-Trimethylbenzene	105	12.388	12.389	-0.001	99	1844484	250.0	223.2	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.425	-0.001	95	471815	250.0	226.7	
108 sec-Butylbenzene	105	12.552	12.553	-0.001	97	2027020	250.0	220.2	
109 1,3-Dichlorobenzene	146	12.674	12.669	0.005	92	911485	250.0	232.2	
110 4-Isopropyltoluene	119	12.710	12.711	-0.001	94	1622356	250.0	222.9	
111 1,4-Dichlorobenzene	146	12.777	12.772	0.005	92	935299	250.0	230.5	
113 2,4-Dichloro-1-(triflourom	214	12.795	12.796	-0.001	93	446968	250.0	217.0	
114 2,5-Dichlorobenzotrifluori	214	12.838	12.833	0.005	97	516380	250.0	229.2	
116 n-Butylbenzene	91	13.118	13.119	-0.001	96	1618275	250.0	221.1	
117 1,2-Dichlorobenzene	146	13.130	13.125	0.005	94	885916	250.0	228.2	
118 1,2-Dibromo-3-Chloropropan	75	13.921	13.922	-0.001	92	153064	250.0	258.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.067	14.062	0.005	95	2000436	750.0	610.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.481	-0.001	96	1491443	500.0	415.2	
122 1,2,4-Trichlorobenzene	180	14.748	14.743	0.005	92	593825	250.0	218.4	
123 Hexachlorobutadiene	225	14.894	14.895	-0.001	96	193594	250.0	208.9	
124 Naphthalene	128	15.010	15.011	-0.001	99	1599080	250.0	222.1	
125 1,2,3-Trichlorobenzene	180	15.235	15.236	-0.001	92	564994	250.0	221.5	
126 2,4,5-Trichlorotoluene	159	16.013	16.008	0.005	0	398998	250.0	247.4	
127 2,3,6-Trichlorotoluene	159	16.111	16.112	-0.001	91	367031	250.0	250.8	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		500.0	466.5	
S 131 Xylenes, Total	106				0		500.0	426.6	
S 132 1,3-Dichloropropene, Total	1				0		500.0	472.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWeemixPRI_00002	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	10.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	10.00	Units: uL	
voaWketPri Re_00005	Amount Added:	10.00	Units: uL	
VOA8260SURR_00034	Amount Added:	10.00	Units: uL	
VOAACROPRI_00005	Amount Added:	11.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

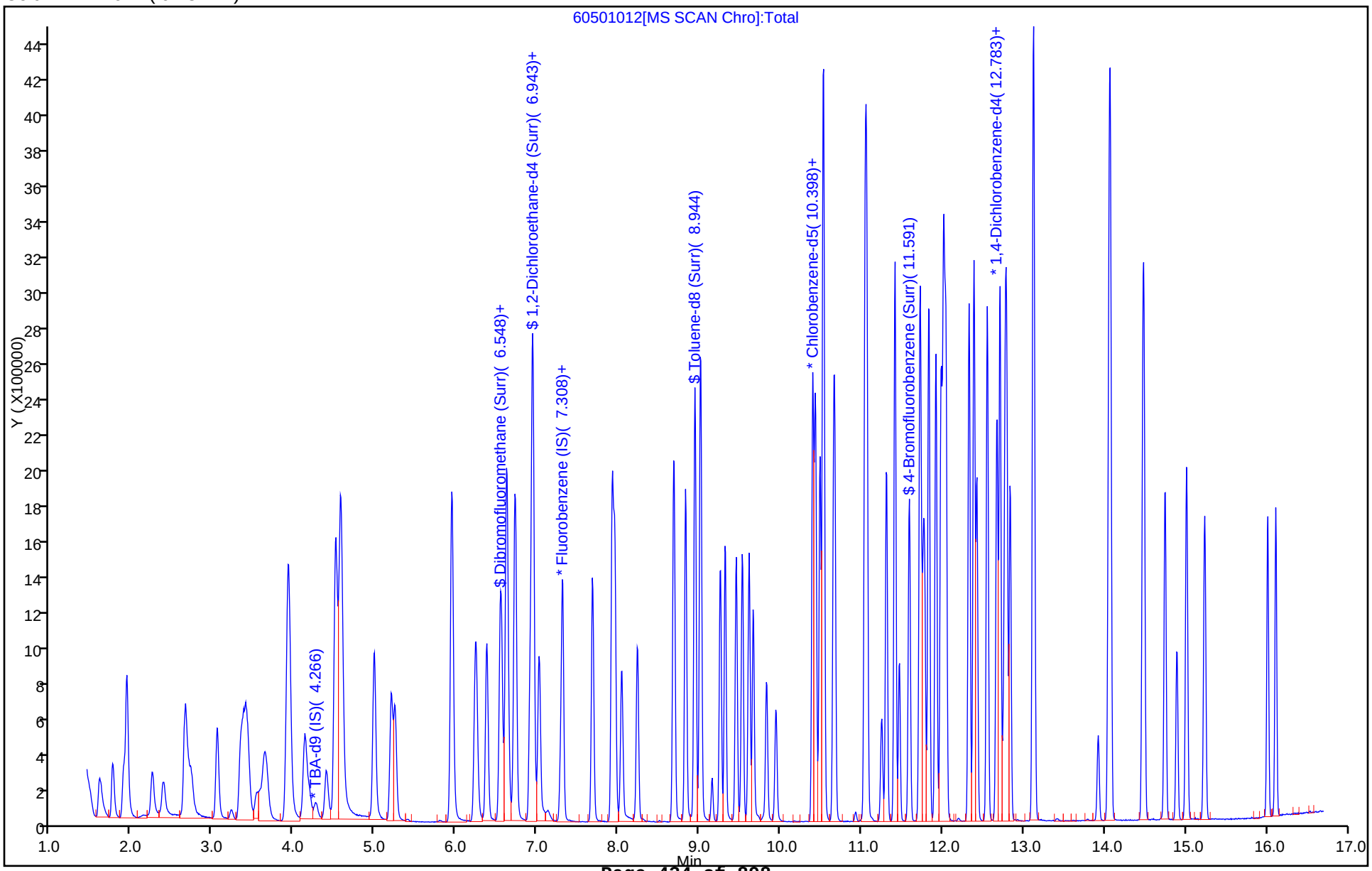
Report Date: 02-May-2015 11:05:37 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Injection Date:	01-May-2015 16:46:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD50			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)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140387/2 Calibration Date: 05/03/2015 11:08

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60503002.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	0.3054	0.3472	0.1000	11.4	10.0	13.7	20.0
Chloromethane	Ave	0.2538	0.2889	0.1000	11.4	10.0	13.8	20.0
Vinyl chloride	Ave	0.2703	0.3044	0.1000	11.3	10.0	12.6	20.0
Bromomethane	Ave	0.1407	0.1370	0.0500	9.74	10.0	-2.6	20.0
Chloroethane	Ave	0.1703	0.1887	0.0500	11.1	10.0	10.8	20.0
Dichlorofluoromethane	Ave	0.4113	0.4670	0.0100	11.4	10.0	13.5	20.0
Trichlorofluoromethane	Ave	0.3125	0.3782	0.1000	12.1	10.0	21.0*	20.0
Ethyl ether	Ave	0.2332	0.2410	0.0100	10.3	10.0	3.4	20.0
Acrolein	Ave	0.0414	0.0330	0.0100	23.9	30.0	-20.3*	20.0
1,1-Dichloroethene	Ave	0.2315	0.2532	0.1000	10.9	10.0	9.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2338	0.2664	0.1000	11.4	10.0	14.0	20.0
Acetone	Ave	0.0664	0.0730	0.0500	22.0	20.0	10.0	20.0
Iodomethane	Ave	0.2960	0.3281	0.0100	11.1	10.0	10.8	20.0
Carbon disulfide	Ave	0.6782	0.7211	0.1000	10.6	10.0	6.3	20.0
Allyl chloride	Ave	0.1625	0.1684	0.0100	10.4	10.0	3.6	20.0
Methyl acetate	Ave	0.2191	0.2138	0.1000	48.8	50.0	-2.4	20.0
Methylene Chloride	Ave	0.2810	0.3040	0.1000	10.8	10.0	8.2	20.0
tert-Butyl alcohol	Ave	1.089	1.104	0.0100	101	100	1.3	20.0
Acrylonitrile	Ave	0.1118	0.1101	0.0100	98.5	100	-1.5	20.0
trans-1,2-Dichloroethene	Ave	0.2580	0.2825	0.1000	11.0	10.0	9.5	20.0
Methyl tert-butyl ether	Ave	0.9263	0.9215	0.1000	9.95	10.0	-0.5	20.0
Hexane	Ave	0.3461	0.3714	0.0100	10.7	10.0	7.3	20.0
1,1-Dichloroethane	Ave	0.4851	0.5284	0.2000	10.9	10.0	8.9	20.0
Vinyl acetate	Ave	0.5832	0.4820	0.0100	8.26	10.0	-17.4	20.0
2,2-Dichloropropane	Ave	0.3004	0.3114	0.0100	10.4	10.0	3.7	20.0
cis-1,2-Dichloroethene	Ave	0.2933	0.3002	0.1000	10.2	10.0	2.3	20.0
2-Butanone (MEK)	Ave	0.1105	0.1142	0.0500	20.7	20.0	3.4	20.0
Bromochloromethane	Ave	0.1203	0.1251	0.0100	10.4	10.0	4.0	20.0
Tetrahydrofuran	Ave	0.1026	0.0882	0.0100	17.2	20.0	-14.0	20.0
Chloroform	Ave	0.4684	0.4991	0.2000	10.7	10.0	6.6	20.0
1,1,1-Trichloroethane	Ave	0.3851	0.4082	0.1000	10.6	10.0	6.0	20.0
Cyclohexane	Ave	0.4620	0.4966	0.1000	10.7	10.0	7.5	20.0
Carbon tetrachloride	Ave	0.2940	0.3111	0.1000	10.6	10.0	5.8	20.0
1,1-Dichloropropene	Ave	0.3726	0.4038	0.0100	10.8	10.0	8.4	20.0
Isobutyl alcohol	Ave	0.0101	0.0097*	0.0100	239	250	-4.2	20.0
Benzene	Ave	1.100	1.209	0.5000	11.0	10.0	9.9	20.0
1,2-Dichloroethane	Ave	0.4179	0.4480	0.1000	10.7	10.0	7.2	20.0
n-Heptane	Ave	0.2659	0.2935	0.0100	11.0	10.0	10.3	20.0
Trichloroethene	Ave	0.2379	0.2536	0.2000	10.7	10.0	6.6	20.0
Methylcyclohexane	Ave	0.4482	0.4828	0.1000	10.8	10.0	7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140387/2 Calibration Date: 05/03/2015 11:08

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60503002.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	0.2900	0.3010	0.1000	10.4	10.0	3.8	20.0
1,4-Dioxane	Ave	0.0028	0.0031*	0.0100	223	200	11.7	20.0
Dibromomethane	Ave	0.1757	0.1779	0.0100	10.1	10.0	1.3	20.0
Bromodichloromethane	Ave	0.3510	0.3512	0.2000	10.0	10.0	0.0	20.0
cis-1,3-Dichloropropene	Ave	0.4644	0.4587	0.2000	9.88	10.0	-1.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.340	1.259	0.1000	18.8	20.0	-6.0	20.0
Toluene	Ave	5.185	5.619	0.4000	10.8	10.0	8.4	20.0
trans-1,3-Dichloropropene	Ave	1.888	1.790	0.1000	9.48	10.0	-5.2	20.0
Ethyl methacrylate	Ave	1.891	1.733	0.0100	9.16	10.0	-8.4	20.0
1,1,2-Trichloroethane	Ave	1.129	1.160	0.1000	10.3	10.0	2.8	20.0
Tetrachloroethene	Ave	0.8533	0.9010	0.2000	10.6	10.0	5.6	20.0
1,3-Dichloropropane	Ave	2.135	2.230	0.0100	10.4	10.0	4.4	20.0
2-Hexanone	Ave	0.8171	1.032	0.1000	25.3	20.0	26.3*	20.0
Dibromochloromethane	Ave	0.8885	0.8589	0.1000	9.67	10.0	-3.3	20.0
1,2-Dibromoethane (EDB)	Ave	1.067	1.064	0.1000	9.97	10.0	-0.3	20.0
3-Chlorobenzotrifluoride	Ave	1.584	1.655	0.0100	10.5	10.0	4.5	20.0
Chlorobenzene	Ave	3.274	3.502	0.5000	10.7	10.0	7.0	20.0
4-Chlorobenzotrifluoride	Ave	1.503	1.594	0.0100	10.6	10.0	6.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9596	1.018	0.0100	10.6	10.0	6.0	20.0
Ethylbenzene	Ave	1.829	2.022	0.1000	11.1	10.0	10.5	20.0
m-Xylene & p-Xylene	Ave	2.290	2.456	0.1000	10.7	10.0	7.2	20.0
o-Xylene	Ave	2.222	2.399	0.3000	10.8	10.0	8.0	20.0
Styrene	Ave	3.653	3.905	0.3000	10.7	10.0	6.9	20.0
Bromoform	Ave	0.5680	0.5337	0.1000	9.40	10.0	-6.0	20.0
2-Chlorobenzotrifluoride	Ave	1.599	1.663	0.0100	10.4	10.0	4.0	20.0
Isopropylbenzene	Ave	5.399	5.995	0.1000	11.1	10.0	11.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.550	1.575	0.3000	10.2	10.0	1.6	20.0
Bromobenzene	Ave	0.8110	0.8501	0.0100	10.5	10.0	4.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3725	0.3188	0.0100	8.56	10.0	-14.4	20.0
1,2,3-Trichloropropane	Ave	0.3565	0.3413	0.0100	9.57	10.0	-4.3	20.0
N-Propylbenzene	Ave	0.9779	1.015	0.0100	10.4	10.0	3.8	20.0
2-Chlorotoluene	Ave	0.8038	0.8405	0.0100	10.5	10.0	4.6	20.0
3-Chlorotoluene	Ave	0.8753	0.8761	0.0100	10.0	10.0	0.1	20.0
1,3,5-Trimethylbenzene	Ave	3.111	3.364	0.0100	10.8	10.0	8.1	20.0
4-Chlorotoluene	Ave	0.8477	0.8926	0.0100	10.5	10.0	5.3	20.0
tert-Butylbenzene	Ave	2.385	2.484	0.0100	10.4	10.0	4.2	20.0
1,2,4-Trimethylbenzene	Ave	3.258	3.452	0.0100	10.6	10.0	5.9	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8205	0.8378	0.0100	10.2	10.0	2.1	20.0
sec-Butylbenzene	Ave	3.630	4.005	0.0100	11.0	10.0	10.4	20.0
1,3-Dichlorobenzene	Ave	1.548	1.653	0.6000	10.7	10.0	6.8	20.0
4-Isopropyltoluene	Ave	2.869	3.177	0.0100	11.1	10.0	10.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140387/2 Calibration Date: 05/03/2015 11:08

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60503002.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	1.600	1.666	0.5000	10.4	10.0	4.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8122	0.8562	0.0100	10.5	10.0	5.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8885	0.9089	0.0100	10.2	10.0	2.3	20.0
n-Butylbenzene	Ave	2.886	3.158	0.0100	10.9	10.0	9.4	20.0
1,2-Dichlorobenzene	Ave	1.531	1.642	0.4000	10.7	10.0	7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2335	0.1973	0.0500	8.45	10.0	-15.5	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.292	1.401	0.0100	32.5	30.0	8.4	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.416	1.514	0.0100	21.4	20.0	6.9	20.0
1,2,4-Trichlorobenzene	Ave	1.072	1.202	0.2000	11.2	10.0	12.1	20.0
Hexachlorobutadiene	Ave	0.3654	0.3914	0.0100	10.7	10.0	7.1	20.0
Naphthalene	Ave	2.838	2.856	0.0100	10.1	10.0	0.6	20.0
1,2,3-Trichlorobenzene	Ave	1.006	1.110	0.0100	11.0	10.0	10.3	20.0
2,4,5-Trichlorotoluene	Ave	0.6359	0.6279	0.0100	9.87	10.0	-1.3	20.0
2,3,6-Trichlorotoluene	Ave	0.5770	0.5905	0.0100	10.2	10.0	2.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.2060		9.96	10.0	-0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3457	0.3477		10.1	10.0	0.6	20.0
Toluene-d8 (Surr)	Ave	4.231	4.432		10.5	10.0	4.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.725	1.875		10.9	10.0	8.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-May-2015 11:08:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006739-002
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 12:53:50 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 11:36:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.241	0.000	99	206032	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.283	0.000	98	353057	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	89	75958	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	94	114767	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	91	72716	50.0	49.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	73	122764	50.0	50.3	
$ 7 Toluene-d8 (Surr)	98	8.944	8.944	0.000	94	336622	50.0	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	142394	50.0	54.4	
11 Dichlorodifluoromethane	85	1.601	1.601	0.000	99	122586	50.0	56.8	
12 Chloromethane	50	1.765	1.765	0.000	99	101981	50.0	56.9	
13 Vinyl chloride	62	1.893	1.893	0.000	98	107455	50.0	56.3	
14 Butadiene	39	1.936	1.936	0.000	90	98929	50.0	54.3	
15 Bromomethane	94	2.240	2.240	0.000	91	48383	50.0	48.7	
16 Chloroethane	64	2.386	2.386	0.000	99	66629	50.0	55.4	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	96	164868	50.0	56.8	
18 Trichlorofluoromethane	101	2.684	2.684	0.000	97	133513	50.0	60.5	
20 Ethyl ether	59	3.049	3.049	0.000	89	85101	50.0	51.7	
21 Acrolein	56	3.219	3.219	0.000	96	34924	150.0	119.5	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	89400	50.0	54.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	95	94067	50.0	57.0	
24 Acetone	43	3.426	3.426	0.000	99	51544	100.0	110.0	
25 Iodomethane	142	3.530	3.530	0.000	98	115839	50.0	55.4	
26 Carbon disulfide	76	3.627	3.627	0.000	100	254583	50.0	53.2	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	73	59445	50.0	51.8	
30 Methyl acetate	43	3.925	3.925	0.000	96	377373	250.0	243.9	
31 Methylene Chloride	84	4.126	4.126	0.000	93	107336	50.0	54.1	
32 2-Methyl-2-propanol	59	4.381	4.381	0.000	97	113716	500.0	506.7	
33 Acrylonitrile	53	4.503	4.503	0.000	98	388683	500.0	492.3	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	97	99738	50.0	54.8	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	95	325344	50.0	49.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	91	131139	50.0	53.7	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	186552	50.0	54.5	
38 Vinyl acetate	43	5.239	5.239	0.000	97	170167	50.0	41.3	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	65	109951	50.0	51.8	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	87	105974	50.0	51.2	
44 2-Butanone (MEK)	43	5.951	5.951	0.000	73	80664	100.0	103.4	
48 Chlorobromomethane	128	6.231	6.231	0.000	96	44177	50.0	52.0	
49 Tetrahydrofuran	42	6.249	6.249	0.000	88	62278	100.0	86.0	
50 Chloroform	83	6.371	6.371	0.000	96	176199	50.0	53.3	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	144128	50.0	53.0	
52 Cyclohexane	56	6.614	6.614	0.000	90	175322	50.0	53.7	
53 Carbon tetrachloride	117	6.711	6.711	0.000	94	109845	50.0	52.9	
54 1,1-Dichloropropene	75	6.723	6.723	0.000	95	142548	50.0	54.2	
55 Isobutyl alcohol	41	6.900	6.900	0.000	93	85194	1250.0	1197.3	
56 Benzene	78	6.942	6.942	0.000	97	426712	50.0	54.9	
57 1,2-Dichloroethane	62	7.022	7.022	0.000	99	158173	50.0	53.6	
59 n-Heptane	43	7.307	7.307	0.000	91	103608	50.0	55.2	
61 Trichloroethene	130	7.679	7.679	0.000	93	89531	50.0	53.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	170437	50.0	53.9	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	94	106266	50.0	51.9	
65 1,4-Dioxane	88	8.037	8.037	0.000	45	22043	1000.0	1117.4	
67 Dibromomethane	93	8.037	8.037	0.000	89	62807	50.0	50.6	
68 Dichlorobromomethane	83	8.232	8.232	0.000	98	124007	50.0	50.0	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	94	161940	50.0	49.4	
72 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	96	191302	100.0	94.0	
73 Toluene	91	9.011	9.011	0.000	98	426819	50.0	54.2	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	135955	50.0	47.4	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	131637	50.0	45.8	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	88138	50.0	51.4	
77 Tetrachloroethene	164	9.528	9.528	0.000	93	68441	50.0	52.8	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	91	169388	50.0	52.2	
79 2-Hexanone	43	9.662	9.662	0.000	95	156765	100.0	126.3	
81 Chlorodibromomethane	129	9.826	9.826	0.000	90	65243	50.0	48.3	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	80841	50.0	49.9	
83 3-Chlorobenzotrifluoride	180	10.398	10.398	0.000	91	125738	50.0	52.3	
84 Chlorobenzene	112	10.428	10.428	0.000	92	266035	50.0	53.5	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	121066	50.0	53.0	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	91	77298	50.0	53.0	
87 Ethylbenzene	106	10.526	10.526	0.000	99	153577	50.0	55.3	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	99	186516	50.0	53.6	
89 o-Xylene	106	11.043	11.043	0.000	97	182204	50.0	54.0	
90 Styrene	104	11.061	11.061	0.000	94	296578	50.0	53.4	
91 Bromoform	173	11.250	11.250	0.000	93	40542	50.0	47.0	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	95	126339	50.0	52.0	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	455358	50.0	55.5	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.718	0.000	97	119618	50.0	50.8	
95 Bromobenzene	156	11.724	11.724	0.000	95	97561	50.0	52.4	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.754	0.000	86	36582	50.0	42.8	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	39172	50.0	47.9	
99 N-Propylbenzene	120	11.827	11.827	0.000	99	116540	50.0	51.9	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	96464	50.0	52.3	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	100550	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	386056	50.0	54.1	
103 4-Chlorotoluene	126	12.034	12.034	0.000	99	102435	50.0	52.6	
104 tert-Butylbenzene	119	12.326	12.326	0.000	90	285094	50.0	52.1	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	396151	50.0	53.0	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.424	0.000	95	96154	50.0	51.1	
108 sec-Butylbenzene	105	12.551	12.551	0.000	96	459687	50.0	55.2	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	94	189729	50.0	53.4	
110 4-Isopropyltoluene	119	12.710	12.710	0.000	96	364585	50.0	55.4	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	89	191222	50.0	52.1	
113 2,4-Dichloro-1-(triflourom	214	12.795	12.795	0.000	94	98265	50.0	52.7	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	98	104310	50.0	51.1	
116 n-Butylbenzene	91	13.117	13.117	0.000	98	362427	50.0	54.7	
117 1,2-Dichlorobenzene	146	13.129	13.129	0.000	91	188483	50.0	53.7	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.914	0.000	69	22640	50.0	42.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	98	482243	150.0	162.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	347551	100.0	106.9	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	91	138000	50.0	56.1	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	95	44922	50.0	53.6	
124 Naphthalene	128	15.009	15.009	0.000	98	327767	50.0	50.3	
125 1,2,3-Trichlorobenzene	180	15.234	15.234	0.000	94	127381	50.0	55.2	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	72064	50.0	49.4	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	92	67764	50.0	51.2	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	105.9	
S 131 Xylenes, Total	106				0		100.0	107.6	
S 132 1,3-Dichloropropene, Total	1				0		100.0	96.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent

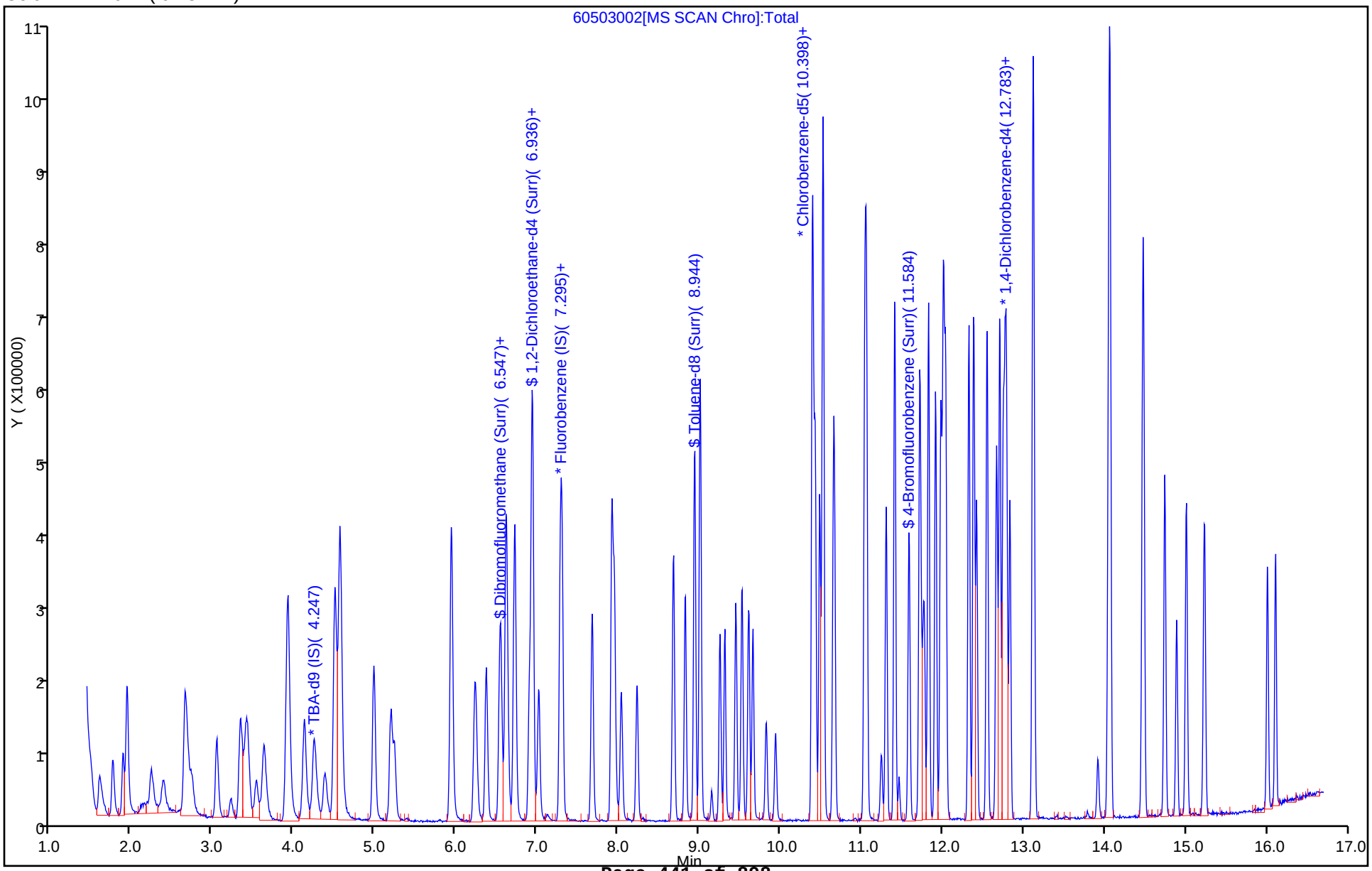
Report Date: 03-May-2015 12:53:51 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503002.D

Injection Date:	03-May-2015 11:08:30	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)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140474/3 Calibration Date: 05/04/2015 12:12

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60504003.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	0.3054	0.3011	0.1000	9.86	10.0	-1.4	20.0
Chloromethane	Ave	0.2538	0.2665	0.1000	10.5	10.0	5.0	20.0
Vinyl chloride	Ave	0.2703	0.2847	0.1000	10.5	10.0	5.3	20.0
Bromomethane	Ave	0.1407	0.1207	0.0500	8.57	10.0	-14.3	20.0
Chloroethane	Ave	0.1703	0.1899	0.0500	11.1	10.0	11.5	20.0
Dichlorofluoromethane	Ave	0.4113	0.4471	0.0100	10.9	10.0	8.7	20.0
Trichlorofluoromethane	Ave	0.3125	0.3547	0.1000	11.4	10.0	13.5	20.0
Ethyl ether	Ave	0.2332	0.2405	0.0100	10.3	10.0	3.1	20.0
Acrolein	Ave	0.0414	0.0276	0.0100	20.0	30.0	-33.4*	20.0
1,1-Dichloroethene	Ave	0.2315	0.2156	0.1000	9.31	10.0	-6.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2338	0.2339	0.1000	10.0	10.0	0.0	20.0
Acetone	Ave	0.0664	0.0701	0.0500	21.1	20.0	5.6	20.0
Iodomethane	Ave	0.2960	0.2865	0.0100	9.68	10.0	-3.2	20.0
Carbon disulfide	Ave	0.6782	0.6113	0.1000	9.01	10.0	-9.9	20.0
Allyl chloride	Ave	0.1625	0.1468	0.0100	9.04	10.0	-9.6	20.0
Methyl acetate	Ave	0.2191	0.1988	0.1000	45.4	50.0	-9.3	20.0
Methylene Chloride	Ave	0.2810	0.3067	0.1000	10.9	10.0	9.1	20.0
tert-Butyl alcohol	Ave	1.089	1.050	0.0100	96.4	100	-3.6	20.0
Acrylonitrile	Ave	0.1118	0.1023	0.0100	91.5	100	-8.5	20.0
trans-1,2-Dichloroethene	Ave	0.2580	0.2466	0.1000	9.56	10.0	-4.4	20.0
Methyl tert-butyl ether	Ave	0.9263	0.8591	0.1000	9.28	10.0	-7.2	20.0
Hexane	Ave	0.3461	0.3137	0.0100	9.06	10.0	-9.4	20.0
1,1-Dichloroethane	Ave	0.4851	0.4743	0.2000	9.78	10.0	-2.2	20.0
Vinyl acetate	Ave	0.5832	0.3859	0.0100	6.62	10.0	-33.8*	20.0
2,2-Dichloropropane	Ave	0.3004	0.2927	0.0100	9.74	10.0	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.2933	0.2685	0.1000	9.15	10.0	-8.5	20.0
2-Butanone (MEK)	Ave	0.1105	0.0971	0.0500	17.6	20.0	-12.1	20.0
Bromochloromethane	Ave	0.1203	0.1087	0.0100	9.03	10.0	-9.7	20.0
Tetrahydrofuran	Ave	0.1026	0.0768	0.0100	15.0	20.0	-25.1*	20.0
Chloroform	Ave	0.4684	0.4531	0.2000	9.67	10.0	-3.3	20.0
1,1,1-Trichloroethane	Ave	0.3851	0.3666	0.1000	9.52	10.0	-4.8	20.0
Cyclohexane	Ave	0.4620	0.4439	0.1000	9.61	10.0	-3.9	20.0
Carbon tetrachloride	Ave	0.2940	0.2730	0.1000	9.29	10.0	-7.1	20.0
1,1-Dichloropropene	Ave	0.3726	0.3655	0.0100	9.81	10.0	-1.9	20.0
Isobutyl alcohol	Ave	0.0101	0.0082*	0.0100	204	250	-18.3	20.0
Benzene	Ave	1.100	1.100	0.5000	10.0	10.0	0.0	20.0
1,2-Dichloroethane	Ave	0.4179	0.4237	0.1000	10.1	10.0	1.4	20.0
n-Heptane	Ave	0.2659	0.2485	0.0100	9.34	10.0	-6.6	20.0
Trichloroethene	Ave	0.2379	0.2220	0.2000	9.33	10.0	-6.7	20.0
Methylcyclohexane	Ave	0.4482	0.4090	0.1000	9.13	10.0	-8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140474/3 Calibration Date: 05/04/2015 12:12

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60504003.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	0.2900	0.2785	0.1000	9.60	10.0	-4.0	20.0
1,4-Dioxane	Ave	0.0028	0.0031*	0.0100	219	200	9.4	20.0
Dibromomethane	Ave	0.1757	0.1584	0.0100	9.02	10.0	-9.8	20.0
Bromodichloromethane	Ave	0.3510	0.3166	0.2000	9.02	10.0	-9.8	20.0
cis-1,3-Dichloropropene	Ave	0.4644	0.3959	0.2000	8.53	10.0	-14.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.340	1.168	0.1000	17.4	20.0	-12.9	20.0
Toluene	Ave	5.185	5.272	0.4000	10.2	10.0	1.7	20.0
trans-1,3-Dichloropropene	Ave	1.888	1.640	0.1000	8.69	10.0	-13.1	20.0
Ethyl methacrylate	Ave	1.891	1.587	0.0100	8.39	10.0	-16.1	20.0
1,1,2-Trichloroethane	Ave	1.129	1.096	0.1000	9.71	10.0	-2.9	20.0
Tetrachloroethene	Ave	0.8533	0.8538	0.2000	10.0	10.0	0.0	20.0
1,3-Dichloropropane	Ave	2.135	2.089	0.0100	9.78	10.0	-2.2	20.0
2-Hexanone	Ave	0.8171	0.9257	0.1000	22.7	20.0	13.3	20.0
Dibromochloromethane	Ave	0.8885	0.7643	0.1000	8.60	10.0	-14.0	20.0
1,2-Dibromoethane (EDB)	Ave	1.067	0.9745	0.1000	9.13	10.0	-8.7	20.0
3-Chlorobenzotrifluoride	Ave	1.584	1.488	0.0100	9.39	10.0	-6.1	20.0
Chlorobenzene	Ave	3.274	3.244	0.5000	9.91	10.0	-0.9	20.0
4-Chlorobenzotrifluoride	Ave	1.503	1.440	0.0100	9.58	10.0	-4.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9596	0.9093	0.0100	9.48	10.0	-5.2	20.0
Ethylbenzene	Ave	1.829	1.793	0.1000	9.80	10.0	-2.0	20.0
m-Xylene & p-Xylene	Ave	2.290	2.260	0.1000	9.87	10.0	-1.3	20.0
o-Xylene	Ave	2.222	2.161	0.3000	9.73	10.0	-2.7	20.0
Styrene	Ave	3.653	3.577	0.3000	9.79	10.0	-2.1	20.0
Bromoform	Ave	0.5680	0.4526	0.1000	7.97	10.0	-20.3*	20.0
2-Chlorobenzotrifluoride	Ave	1.599	1.554	0.0100	9.72	10.0	-2.8	20.0
Isopropylbenzene	Ave	5.399	5.484	0.1000	10.2	10.0	1.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.550	1.419	0.3000	9.16	10.0	-8.4	20.0
Bromobenzene	Ave	0.8110	0.7462	0.0100	9.20	10.0	-8.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3725	0.2909	0.0100	7.81	10.0	-21.9*	20.0
1,2,3-Trichloropropane	Ave	0.3565	0.2841	0.0100	7.97	10.0	-20.3*	20.0
N-Propylbenzene	Ave	0.9779	0.9044	0.0100	9.25	10.0	-7.5	20.0
2-Chlorotoluene	Ave	0.8038	0.7403	0.0100	9.21	10.0	-7.9	20.0
3-Chlorotoluene	Ave	0.8753	0.8032	0.0100	9.18	10.0	-8.2	20.0
1,3,5-Trimethylbenzene	Ave	3.111	3.004	0.0100	9.66	10.0	-3.4	20.0
4-Chlorotoluene	Ave	0.8477	0.8033	0.0100	9.48	10.0	-5.2	20.0
tert-Butylbenzene	Ave	2.385	2.253	0.0100	9.45	10.0	-5.5	20.0
1,2,4-Trimethylbenzene	Ave	3.258	3.124	0.0100	9.59	10.0	-4.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8205	0.7517	0.0100	9.16	10.0	-8.4	20.0
sec-Butylbenzene	Ave	3.630	3.517	0.0100	9.69	10.0	-3.1	20.0
1,3-Dichlorobenzene	Ave	1.548	1.492	0.6000	9.64	10.0	-3.6	20.0
4-Isopropyltoluene	Ave	2.869	2.752	0.0100	9.59	10.0	-4.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140474/3 Calibration Date: 05/04/2015 12:12

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60504003.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	1.600	1.531	0.5000	9.57	10.0	-4.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8122	0.7714	0.0100	9.50	10.0	-5.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8885	0.7822	0.0100	8.80	10.0	-12.0	20.0
n-Butylbenzene	Ave	2.886	2.785	0.0100	9.65	10.0	-3.5	20.0
1,2-Dichlorobenzene	Ave	1.531	1.449	0.4000	9.47	10.0	-5.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2335	0.1625	0.0500	6.96	10.0	-30.4*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.292	1.267	0.0100	29.4	30.0	-1.9	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.416	1.410	0.0100	19.9	20.0	-0.4	20.0
1,2,4-Trichlorobenzene	Ave	1.072	1.069	0.2000	9.97	10.0	-0.3	20.0
Hexachlorobutadiene	Ave	0.3654	0.3667	0.0100	10.0	10.0	0.4	20.0
Naphthalene	Ave	2.838	2.542	0.0100	8.96	10.0	-10.4	20.0
1,2,3-Trichlorobenzene	Ave	1.006	1.004	0.0100	9.98	10.0	-0.2	20.0
2,4,5-Trichlorotoluene	Ave	0.6359	0.6252	0.0100	9.83	10.0	-1.7	20.0
2,3,6-Trichlorotoluene	Ave	0.5770	0.5973	0.0100	10.4	10.0	3.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1977		9.56	10.0	-4.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3457	0.3435		9.94	10.0	-0.6	20.0
Toluene-d8 (Surr)	Ave	4.231	4.272		10.1	10.0	1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.725	1.687		9.78	10.0	-2.2	20.0

Report Date: 04-May-2015 13:28:20 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504003.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-May-2015 12:12:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006756-003
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-May-2015 13:28:19 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: fergusond Date: 04-May-2015 12:53:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.254	0.000	97	188239	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.283	0.000	98	363329	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	74938	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	96	116589	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	91	71830	50.0	47.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.924	6.924	0.000	76	124785	50.0	49.7	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	320134	50.0	50.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	126432	50.0	48.9	
11 Dichlorodifluoromethane	85	1.601	1.601	0.000	99	109386	50.0	49.3	
12 Chloromethane	50	1.765	1.765	0.000	99	96840	50.0	52.5	
13 Vinyl chloride	62	1.887	1.887	0.000	98	103426	50.0	52.7	
14 Butadiene	39	1.942	1.942	0.000	90	93214	50.0	49.7	
15 Bromomethane	94	2.240	2.240	0.000	92	43837	50.0	42.9	M
16 Chloroethane	64	2.380	2.380	0.000	100	68998	50.0	55.7	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	99	162457	50.0	54.4	
18 Trichlorofluoromethane	101	2.678	2.678	0.000	98	128856	50.0	56.8	
20 Ethyl ether	59	3.049	3.049	0.000	89	87375	50.0	51.6	
21 Acrolein	56	3.226	3.226	0.000	99	30059	150.0	99.9	
22 1,1-Dichloroethene	96	3.335	3.335	0.000	96	78318	50.0	46.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	92	84994	50.0	50.0	
24 Acetone	43	3.432	3.432	0.000	89	50929	100.0	105.6	
25 Iodomethane	142	3.524	3.524	0.000	99	104105	50.0	48.4	
26 Carbon disulfide	76	3.621	3.621	0.000	100	222115	50.0	45.1	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	53343	50.0	45.2	
30 Methyl acetate	43	3.925	3.925	0.000	96	361151	250.0	226.9	
31 Methylene Chloride	84	4.120	4.120	0.000	92	111447	50.0	54.6	
32 2-Methyl-2-propanol	59	4.381	4.381	0.000	96	98826	500.0	481.9	
33 Acrylonitrile	53	4.503	4.503	0.000	99	371598	500.0	457.4	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	96	89582	50.0	47.8	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	96	312146	50.0	46.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.978	4.978	0.000	95	113975	50.0	45.3	
37 1,1-Dichloroethane	63	5.190	5.190	0.000	97	172318	50.0	48.9	
38 Vinyl acetate	43	5.233	5.233	0.000	98	140201	50.0	33.1	
43 cis-1,2-Dichloroethene	96	5.933	5.933	0.000	87	97551	50.0	45.8	
42 2,2-Dichloropropane	77	5.933	5.933	0.000	64	106338	50.0	48.7	
44 2-Butanone (MEK)	43	5.939	5.939	0.000	92	70566	100.0	87.9	
48 Chlorobromomethane	128	6.231	6.231	0.000	94	39483	50.0	45.2	
49 Tetrahydrofuran	42	6.243	6.243	0.000	84	55839	100.0	74.9	
50 Chloroform	83	6.371	6.371	0.000	94	164620	50.0	48.4	
51 1,1,1-Trichloroethane	97	6.535	6.535	0.000	97	133178	50.0	47.6	
52 Cyclohexane	56	6.620	6.620	0.000	92	161298	50.0	48.0	
53 Carbon tetrachloride	117	6.711	6.711	0.000	77	99202	50.0	46.4	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	94	132800	50.0	49.1	
55 Isobutyl alcohol	41	6.900	6.900	0.000	91	74811	1250.0	1021.7	
56 Benzene	78	6.943	6.943	0.000	96	399718	50.0	50.0	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	98	153940	50.0	50.7	
59 n-Heptane	43	7.308	7.308	0.000	89	90292	50.0	46.7	
61 Trichloroethene	130	7.673	7.673	0.000	94	80646	50.0	46.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	148587	50.0	45.6	
64 1,2-Dichloropropane	63	7.946	7.946	0.000	94	101172	50.0	48.0	
67 Dibromomethane	93	8.038	8.038	0.000	91	57545	50.0	45.1	
65 1,4-Dioxane	88	8.038	8.038	0.000	43	22213	1000.0	1094.2	M
68 Dichlorobromomethane	83	8.226	8.226	0.000	99	115032	50.0	45.1	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	94	143849	50.0	42.6	
72 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	95	175023	100.0	87.1	
73 Toluene	91	9.011	9.011	0.000	98	395096	50.0	50.8	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	95	122888	50.0	43.4	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	118951	50.0	42.0	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	82099	50.0	48.5	
77 Tetrachloroethene	164	9.522	9.522	0.000	94	63983	50.0	50.0	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	156530	50.0	48.9	
79 2-Hexanone	43	9.662	9.662	0.000	95	138738	100.0	113.3	
81 Chlorodibromomethane	129	9.826	9.826	0.000	90	57275	50.0	43.0	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	73025	50.0	45.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	89	111493	50.0	47.0	
84 Chlorobenzene	112	10.428	10.428	0.000	91	243110	50.0	49.6	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	107889	50.0	47.9	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	86	68144	50.0	47.4	
87 Ethylbenzene	106	10.526	10.526	0.000	99	134375	50.0	49.0	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	100	169395	50.0	49.3	
89 o-Xylene	106	11.043	11.043	0.000	97	161966	50.0	48.6	
90 Styrene	104	11.061	11.061	0.000	93	268048	50.0	49.0	
91 Bromoform	173	11.250	11.250	0.000	92	33915	50.0	39.8	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	93	116434	50.0	48.6	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	410956	50.0	50.8	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	106350	50.0	45.8	
95 Bromobenzene	156	11.724	11.724	0.000	96	87002	50.0	46.0	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	81	33914	50.0	39.0	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	83	33120	50.0	39.8	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	105442	50.0	46.2	
100 2-Chlorotoluene	126	11.919	11.919	0.000	93	86316	50.0	46.1	
101 3-Chlorotoluene	126	11.980	11.980	0.000	98	93648	50.0	45.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	350257	50.0	48.3	
103 4-Chlorotoluene	126	12.040	12.040	0.000	99	93655	50.0	47.4	
104 tert-Butylbenzene	119	12.326	12.326	0.000	91	262716	50.0	47.2	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	364224	50.0	47.9	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	95	87643	50.0	45.8	
108 sec-Butylbenzene	105	12.551	12.551	0.000	96	409987	50.0	48.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	174008	50.0	48.2	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	320836	50.0	48.0	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	90	178539	50.0	47.9	
113 2,4-Dichloro-1-(triflourom	214	12.795	12.795	0.000	95	89933	50.0	47.5	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	97	91195	50.0	44.0	
116 n-Butylbenzene	91	13.117	13.117	0.000	98	324690	50.0	48.3	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	90	168990	50.0	47.4	
118 1,2-Dibromo-3-Chloropropan	75	13.920	13.914	0.006	67	18944	50.0	34.8	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	97	443096	150.0	147.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.480	0.000	98	328885	100.0	99.6	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	92	124638	50.0	49.9	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	94	42754	50.0	50.2	
124 Naphthalene	128	15.009	15.009	0.000	99	296423	50.0	44.8	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	91	117000	50.0	49.9	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	72893	50.0	49.2	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	92	69637	50.0	51.8	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
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	
S 131 Xylenes, Total	106				0		100.0	98.0	
S 130 1,2-Dichloroethene, Total	96				0		100.0	93.6	
S 132 1,3-Dichloropropene, Total	1				0		100.0	86.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

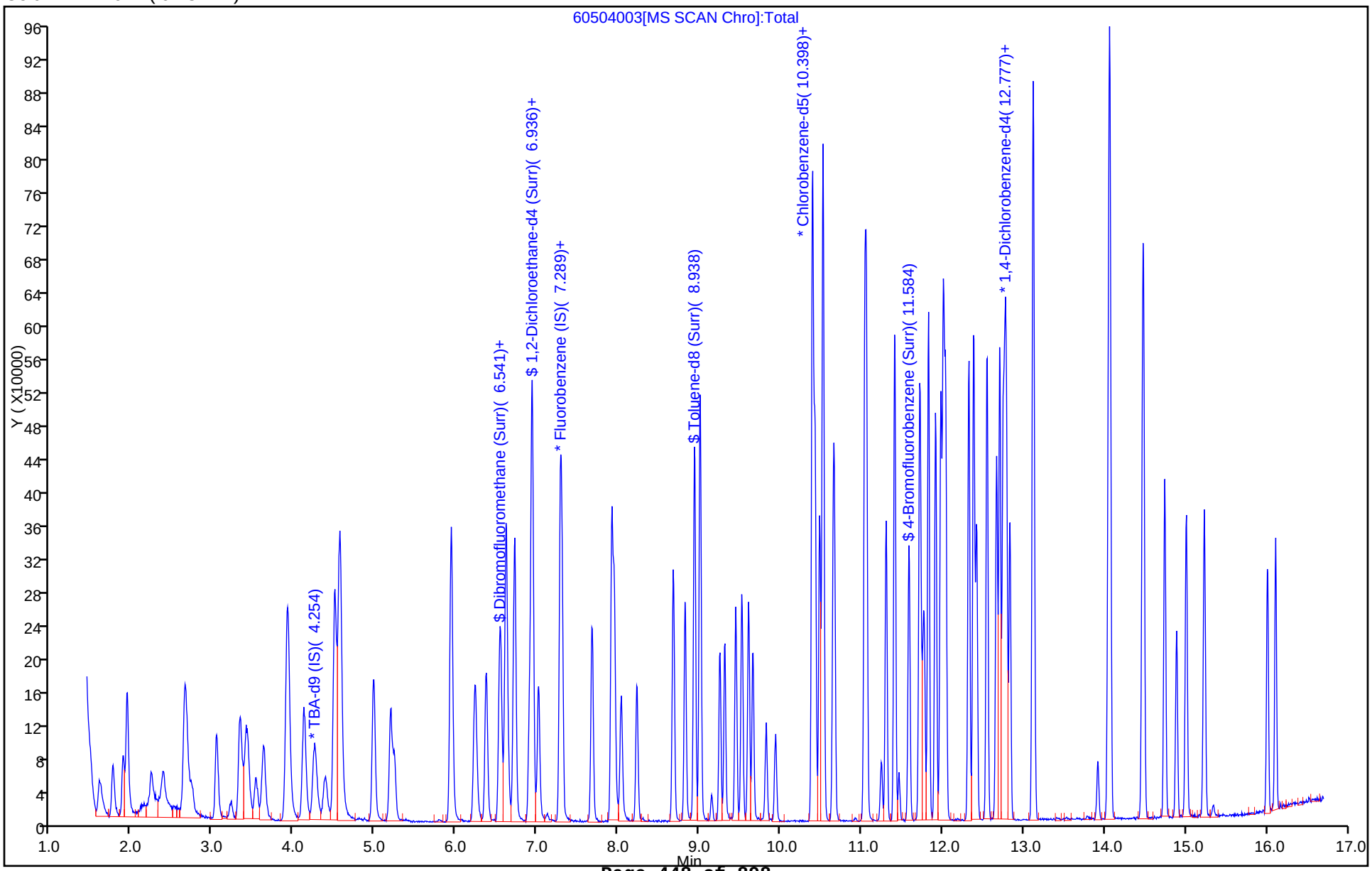
Report Date: 04-May-2015 13:28:20 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504003.D

Injection Date:	04-May-2015 12:12:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

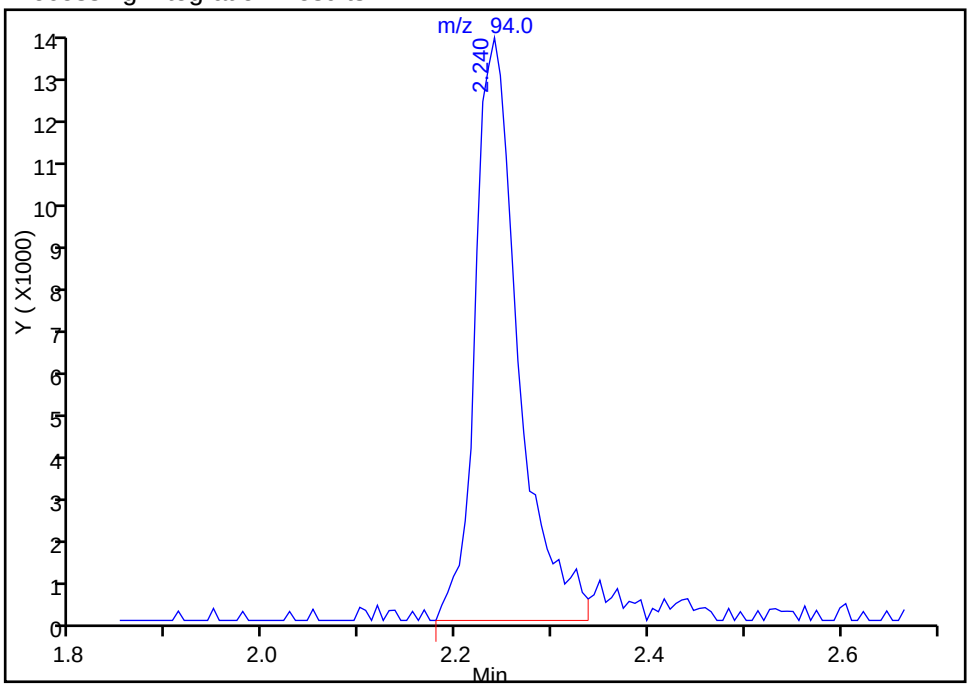
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504003.D				
Injection Date:	04-May-2015 12:12:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

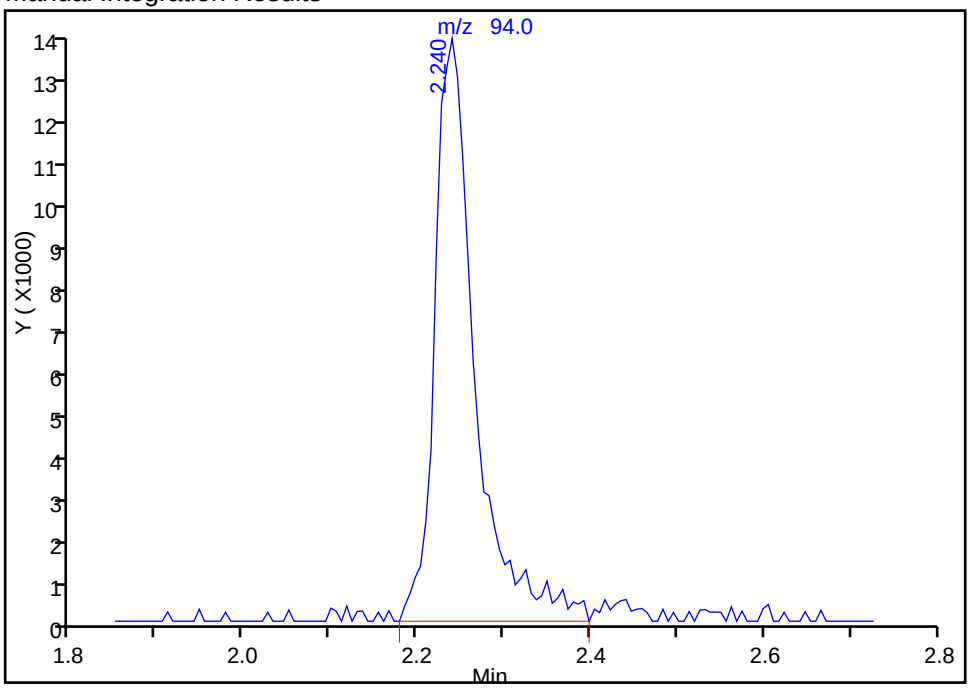
Processing Integration Results

RT: 2.24
Area: 42085
Amount: 41.149971
Amount Units: ng



Manual Integration Results

RT: 2.24
Area: 43837
Amount: 42.863046
Amount Units: ng



Reviewer: fergusond, 04-May-2015 12:53:42
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

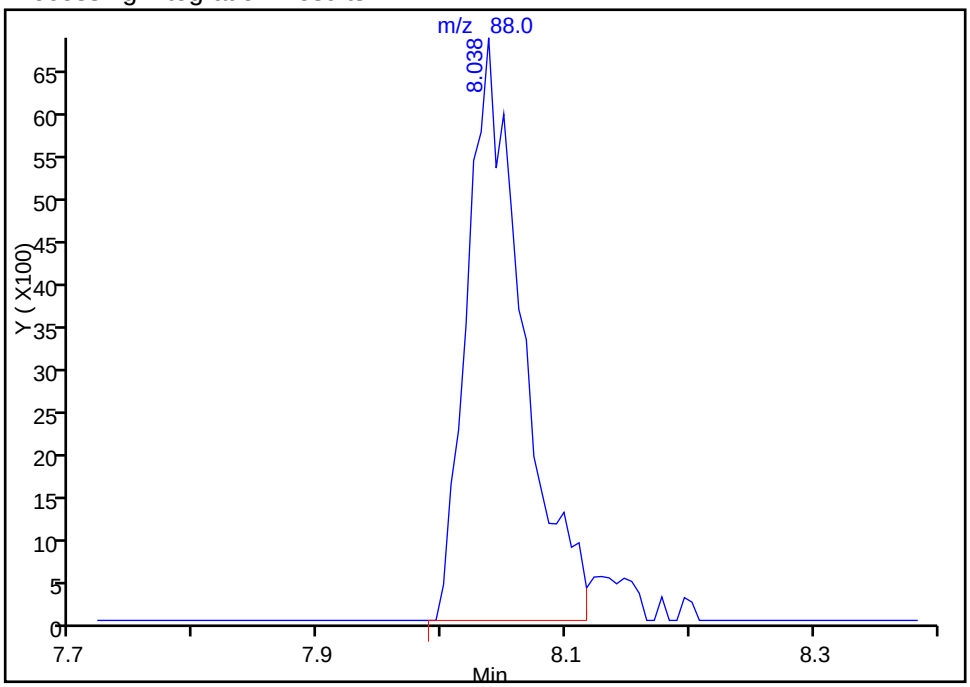
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504003.D
Injection Date: 04-May-2015 12:12:30 Instrument ID: CHHP6
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

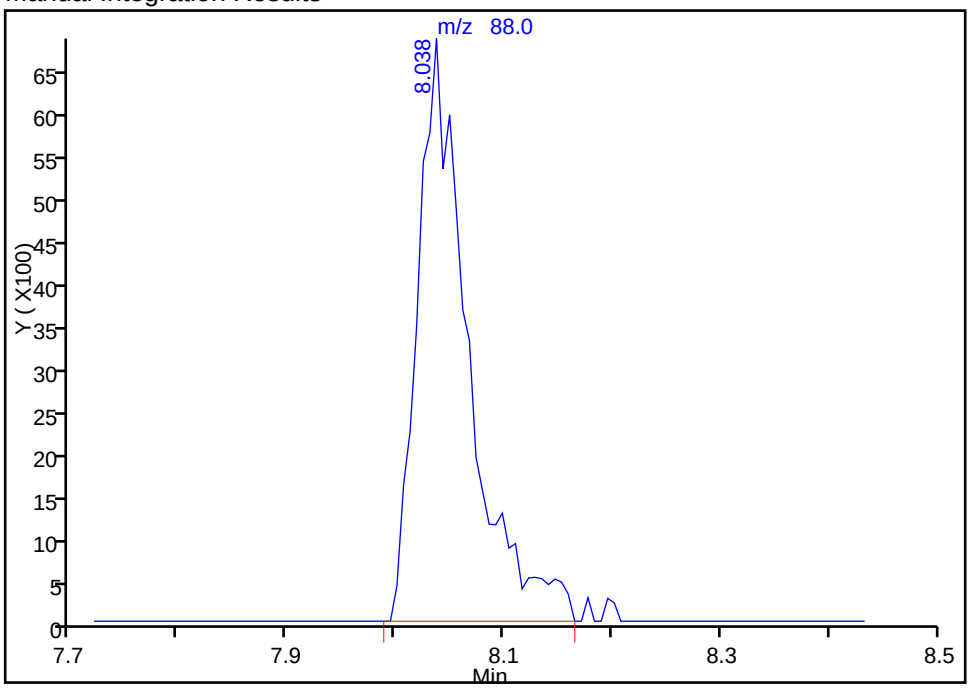
Processing Integration Results

RT: 8.04
Area: 21042
Amount: 1036.5444
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 22213
Amount: 1094.2288
Amount Units: ng



Reviewer: fergusond, 04-May-2015 12:53:42
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140579/2 Calibration Date: 05/05/2015 11:28

Instrument ID: CHHP6 Calib Start Date: 04/10/2015 17:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2015 19:27

Lab File ID: 60505002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1938	0.1818	0.0100	18.8	20.0	-6.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 05-May-2015 11:28:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006773-002
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 13:53:46 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 12:00:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	98	180942	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	96	345760	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.392	0.000	89	74520	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	90	110772	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.547	6.547	0.000	42	70741	50.0	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	59	126641	50.0	53.0	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	80	315200	50.0	50.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	77	122699	50.0	47.7	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	59	108810	50.0	51.5	
12 Chloromethane	50	1.766	1.766	0.000	99	101530	50.0	57.9	
13 Vinyl chloride	62	1.894	1.894	0.000	99	109673	50.0	58.7	
14 Butadiene	39	1.942	1.942	0.000	90	102174	50.0	57.3	
15 Bromomethane	94	2.246	2.246	0.000	89	59049	50.0	60.7	
16 Chloroethane	64	2.392	2.392	0.000	94	69935	50.0	59.4	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	80	180070	50.0	63.3	
18 Trichlorofluoromethane	101	2.678	2.678	0.000	72	142610	50.0	66.0	
20 Ethyl ether	59	3.043	3.043	0.000	88	87564	50.0	54.3	
21 Acrolein	56	3.220	3.220	0.000	87	41574	150.0	145.2	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	78806	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	93	85242	50.0	52.7	
24 Acetone	43	3.427	3.427	0.000	87	58734	100.0	128.0	
25 Iodomethane	142	3.536	3.536	0.000	98	103933	50.0	50.8	
26 Carbon disulfide	76	3.633	3.633	0.000	99	231679	50.0	49.4	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	66	51608	50.0	45.9	
30 Methyl acetate	43	3.925	3.925	0.000	97	365872	250.0	241.5	
31 Methylene Chloride	84	4.132	4.132	0.000	91	107795	50.0	55.5	
32 2-Methyl-2-propanol	59	4.370	4.370	0.000	89	93464	500.0	474.2	
33 Acrylonitrile	53	4.497	4.497	0.000	99	365767	500.0	473.1	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	69	89429	50.0	50.1	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	90	300518	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	93	118054	50.0	49.3	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	174793	50.0	52.1	
38 Vinyl acetate	43	5.239	5.239	0.000	97	120384	50.0	29.9	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	64	108087	50.0	52.0	
43 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	73	94584	50.0	46.6	
44 2-Butanone (MEK)	43	5.951	5.951	0.000	75	87947	100.0	115.1	
48 Chlorobromomethane	128	6.231	6.231	0.000	90	38621	50.0	46.4	
49 Tetrahydrofuran	42	6.243	6.243	0.000	83	51988	100.0	73.3	
50 Chloroform	83	6.371	6.371	0.000	96	170017	50.0	52.5	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	92	132511	50.0	49.8	
52 Cyclohexane	56	6.614	6.614	0.000	77	159789	50.0	50.0	
53 Carbon tetrachloride	117	6.718	6.718	0.000	72	99483	50.0	48.9	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	92	133803	50.0	51.9	
55 Isobutyl alcohol	41	6.894	6.894	0.000	88	71021	1250.0	1019.2	
56 Benzene	78	6.943	6.943	0.000	97	396121	50.0	52.1	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	92	151779	50.0	52.5	
59 n-Heptane	43	7.308	7.308	0.000	88	94243	50.0	51.2	
61 Trichloroethene	130	7.679	7.679	0.000	87	75627	50.0	46.0	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	149330	50.0	48.2	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	87	99312	50.0	49.5	
67 Dibromomethane	93	8.032	8.032	0.000	83	59227	50.0	48.7	
65 1,4-Dioxane	88	8.032	8.032	0.000	42	16025	1000.0	829.5	
68 Dichlorobromomethane	83	8.233	8.233	0.000	92	116004	50.0	47.8	
70 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	91	125737	100.0	93.8	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	90	145374	50.0	45.3	
72 4-Methyl-2-pentanone (MIBK	43	8.823	8.823	0.000	95	172714	100.0	86.5	
73 Toluene	91	9.011	9.011	0.000	98	395463	50.0	51.2	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	81	122878	50.0	43.7	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	113767	50.0	40.4	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	89	79000	50.0	47.0	
77 Tetrachloroethene	164	9.522	9.522	0.000	86	63234	50.0	49.7	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	93	158600	50.0	49.8	
79 2-Hexanone	43	9.662	9.662	0.000	95	156799	100.0	128.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	87	55790	50.0	42.1	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	73538	50.0	46.2	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	81	115378	50.0	48.9	
84 Chlorobenzene	112	10.429	10.429	0.000	87	241432	50.0	49.5	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	90	112068	50.0	50.0	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	45	68187	50.0	47.7	
87 Ethylbenzene	106	10.526	10.526	0.000	99	136363	50.0	50.0	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	165624	50.0	48.5	
89 o-Xylene	106	11.043	11.043	0.000	95	162388	50.0	49.0	
90 Styrene	104	11.061	11.061	0.000	93	263484	50.0	48.4	
91 Bromoform	173	11.244	11.244	0.000	86	33129	50.0	39.1	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	93	117587	50.0	49.4	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	407147	50.0	50.6	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	66	107859	50.0	46.7	
95 Bromobenzene	156	11.724	11.724	0.000	81	87030	50.0	48.4	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.755	0.000	66	30394	50.0	36.8	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	53	35786	50.0	45.3	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	105342	50.0	48.6	
100 2-Chlorotoluene	126	11.913	11.913	0.000	92	81842	50.0	46.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.980	11.980	0.000	77	95646	50.0	49.3	
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	92	352769	50.0	51.2	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	94708	50.0	50.4	
104 tert-Butylbenzene	119	12.327	12.327	0.000	80	257111	50.0	48.7	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	99	359028	50.0	49.7	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	94	89195	50.0	49.1	
108 sec-Butylbenzene	105	12.546	12.546	0.000	97	413852	50.0	51.5	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	83	169392	50.0	49.4	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	80	323913	50.0	51.0	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	88	172068	50.0	48.6	
113 2,4-Dichloro-1-(triflourom	214	12.789	12.789	0.000	82	82411	50.0	45.8	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	95	103925	50.0	52.8	
116 n-Butylbenzene	91	13.111	13.111	0.000	95	322409	50.0	50.4	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	83	169413	50.0	50.0	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.914	0.000	51	19064	50.0	36.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	97	440783	150.0	154.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	97	310231	100.0	98.9	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	90	112526	50.0	47.4	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	90	42304	50.0	52.3	
124 Naphthalene	128	15.009	15.009	0.000	98	262443	50.0	41.7	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	93	101578	50.0	45.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	56066	50.0	39.8	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	90	52120	50.0	40.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	97.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	96.8	
S 132 1,3-Dichloropropene, Total	1				0		100.0	88.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00006	Amount Added:	2.00	Units: uL	
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

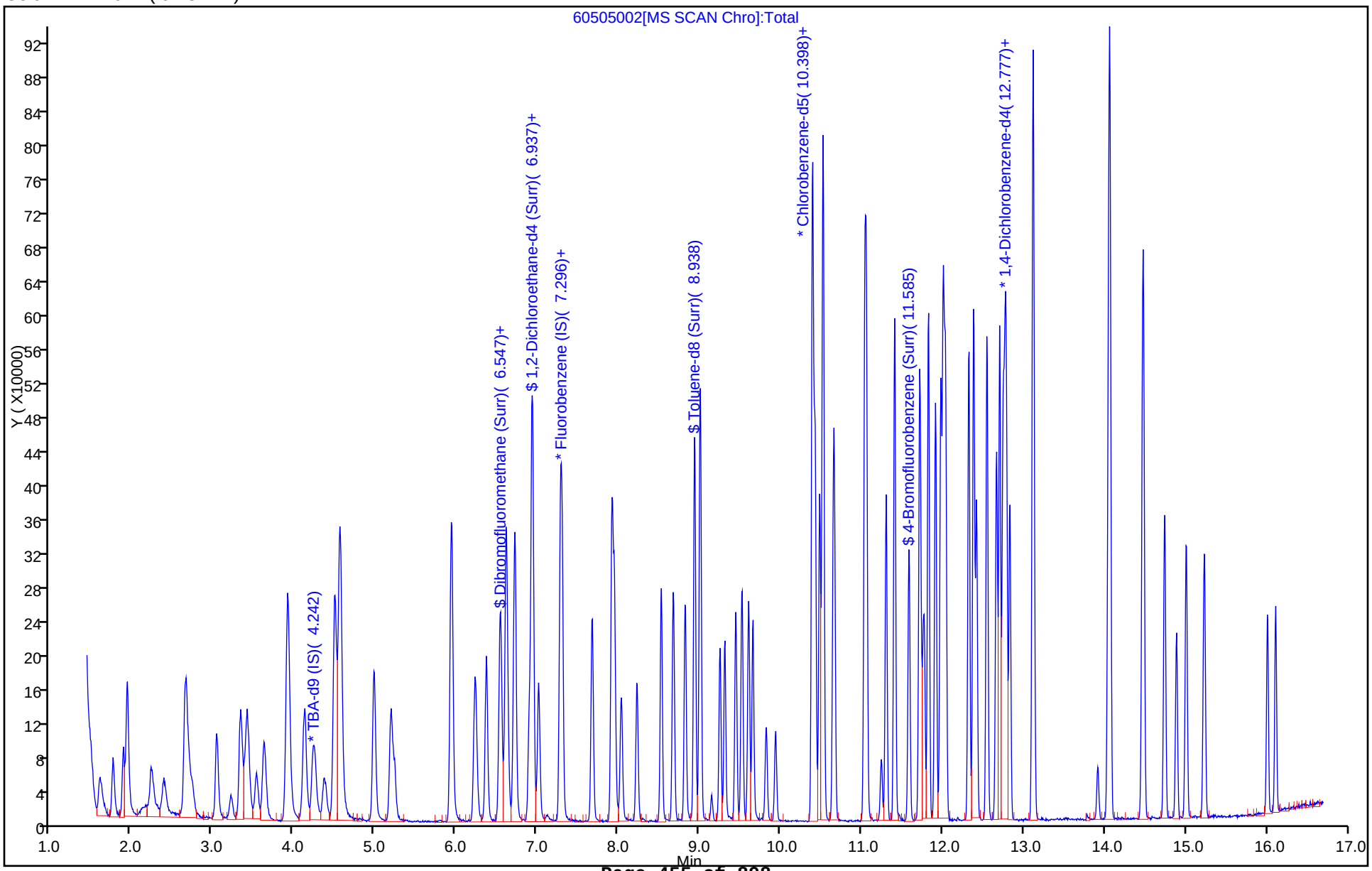
Report Date: 05-May-2015 13:53:47 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505002.D

Injection Date:	05-May-2015 11:28:30	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)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140579/2 Calibration Date: 05/05/2015 11:28

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60505002.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	0.3054	0.3147	0.1000	10.3	10.0	3.0	20.0
Chloromethane	Ave	0.2538	0.2936	0.1000	11.6	10.0	15.7	20.0
Vinyl chloride	Ave	0.2703	0.3172	0.1000	11.7	10.0	17.4	20.0
Bromomethane	Ave	0.1407	0.1708	0.0500	12.1	10.0	21.3*	20.0
Chloroethane	Ave	0.1703	0.2023	0.0500	11.9	10.0	18.8	20.0
Dichlorofluoromethane	Ave	0.4113	0.5208	0.0100	12.7	10.0	26.6*	20.0
Trichlorofluoromethane	Ave	0.3125	0.4125	0.1000	13.2	10.0	32.0*	20.0
Ethyl ether	Ave	0.2332	0.2533	0.0100	10.9	10.0	8.6	20.0
Acrolein	Ave	0.0414	0.0401	0.0100	29.0	30.0	-3.2	20.0
1,1-Dichloroethene	Ave	0.2315	0.2279	0.1000	9.84	10.0	-1.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2338	0.2465	0.1000	10.5	10.0	5.5	20.0
Acetone	Ave	0.0664	0.0849	0.0500	25.6	20.0	28.0*	20.0
Iodomethane	Ave	0.2960	0.3006	0.0100	10.2	10.0	1.5	20.0
Carbon disulfide	Ave	0.6782	0.6701	0.1000	9.88	10.0	-1.2	20.0
Allyl chloride	Ave	0.1625	0.1493	0.0100	9.19	10.0	-8.1	20.0
Methyl acetate	Ave	0.2191	0.2116	0.1000	48.3	50.0	-3.4	20.0
Methylene Chloride	Ave	0.2810	0.3118	0.1000	11.1	10.0	10.9	20.0
tert-Butyl alcohol	Ave	1.089	1.033	0.0100	94.8	100	-5.2	20.0
Acrylonitrile	Ave	0.1118	0.1058	0.0100	94.6	100	-5.4	20.0
trans-1,2-Dichloroethene	Ave	0.2580	0.2586	0.1000	10.0	10.0	0.3	20.0
Methyl tert-butyl ether	Ave	0.9263	0.8692	0.1000	9.38	10.0	-6.2	20.0
Hexane	Ave	0.3461	0.3414	0.0100	9.87	10.0	-1.3	20.0
1,1-Dichloroethane	Ave	0.4851	0.5055	0.2000	10.4	10.0	4.2	20.0
Vinyl acetate	Ave	0.5832	0.3482	0.0100	5.97	10.0	-40.3*	20.0
2,2-Dichloropropane	Ave	0.3004	0.3126	0.0100	10.4	10.0	4.1	20.0
cis-1,2-Dichloroethene	Ave	0.2933	0.2736	0.1000	9.33	10.0	-6.7	20.0
2-Butanone (MEK)	Ave	0.1105	0.1272	0.0500	23.0	20.0	15.1	20.0
Bromochloromethane	Ave	0.1203	0.1117	0.0100	9.28	10.0	-7.2	20.0
Tetrahydrofuran	Ave	0.1026	0.0752	0.0100	14.7	20.0	-26.7*	20.0
Chloroform	Ave	0.4684	0.4917	0.2000	10.5	10.0	5.0	20.0
1,1,1-Trichloroethane	Ave	0.3851	0.3833	0.1000	9.95	10.0	-0.5	20.0
Cyclohexane	Ave	0.4620	0.4621	0.1000	10.0	10.0	0.0	20.0
Carbon tetrachloride	Ave	0.2940	0.2877	0.1000	9.79	10.0	-2.1	20.0
1,1-Dichloropropene	Ave	0.3726	0.3870	0.0100	10.4	10.0	3.9	20.0
Isobutyl alcohol	Ave	0.0101	0.0082*	0.0100	204	250	-18.5	20.0
Benzene	Ave	1.100	1.146	0.5000	10.4	10.0	4.2	20.0
1,2-Dichloroethane	Ave	0.4179	0.4390	0.1000	10.5	10.0	5.0	20.0
n-Heptane	Ave	0.2659	0.2726	0.0100	10.2	10.0	2.5	20.0
Trichloroethene	Ave	0.2379	0.2187	0.2000	9.19	10.0	-8.1	20.0
Methylcyclohexane	Ave	0.4482	0.4319	0.1000	9.64	10.0	-3.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140579/2 Calibration Date: 05/05/2015 11:28

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60505002.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	0.2900	0.2872	0.1000	9.90	10.0	-1.0	20.0
1,4-Dioxane	Ave	0.0028	0.0023*	0.0100	166	200	-17.0	20.0
Dibromomethane	Ave	0.1757	0.1713	0.0100	9.75	10.0	-2.5	20.0
Bromodichloromethane	Ave	0.3510	0.3355	0.2000	9.56	10.0	-4.4	20.0
cis-1,3-Dichloropropene	Ave	0.4644	0.4205	0.2000	9.05	10.0	-9.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.340	1.159	0.1000	17.3	20.0	-13.5	20.0
Toluene	Ave	5.185	5.307	0.4000	10.2	10.0	2.4	20.0
trans-1,3-Dichloropropene	Ave	1.888	1.649	0.1000	8.73	10.0	-12.7	20.0
Ethyl methacrylate	Ave	1.891	1.527	0.0100	8.07	10.0	-19.3	20.0
1,1,2-Trichloroethane	Ave	1.129	1.060	0.1000	9.39	10.0	-6.1	20.0
Tetrachloroethene	Ave	0.8533	0.8486	0.2000	9.94	10.0	-0.6	20.0
1,3-Dichloropropane	Ave	2.135	2.128	0.0100	9.97	10.0	-0.3	20.0
2-Hexanone	Ave	0.8171	1.052	0.1000	25.8	20.0	28.8*	20.0
Dibromochloromethane	Ave	0.8885	0.7487	0.1000	8.43	10.0	-15.7	20.0
1,2-Dibromoethane (EDB)	Ave	1.067	0.9868	0.1000	9.25	10.0	-7.5	20.0
3-Chlorobenzotrifluoride	Ave	1.584	1.548	0.0100	9.78	10.0	-2.2	20.0
Chlorobenzene	Ave	3.274	3.240	0.5000	9.90	10.0	-1.0	20.0
4-Chlorobenzotrifluoride	Ave	1.503	1.504	0.0100	10.0	10.0	0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9596	0.9150	0.0100	9.54	10.0	-4.6	20.0
Ethylbenzene	Ave	1.829	1.830	0.1000	10.0	10.0	0.0	20.0
m-Xylene & p-Xylene	Ave	2.290	2.223	0.1000	9.70	10.0	-3.0	20.0
o-Xylene	Ave	2.222	2.179	0.3000	9.81	10.0	-1.9	20.0
Styrene	Ave	3.653	3.536	0.3000	9.68	10.0	-3.2	20.0
Bromoform	Ave	0.5680	0.4446	0.1000	7.83	10.0	-21.7*	20.0
2-Chlorobenzotrifluoride	Ave	1.599	1.578	0.0100	9.87	10.0	-1.3	20.0
Isopropylbenzene	Ave	5.399	5.464	0.1000	10.1	10.0	1.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.550	1.447	0.3000	9.34	10.0	-6.6	20.0
Bromobenzene	Ave	0.8110	0.7857	0.0100	9.69	10.0	-3.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3725	0.2744	0.0100	7.37	10.0	-26.3*	20.0
1,2,3-Trichloropropane	Ave	0.3565	0.3231	0.0100	9.06	10.0	-9.4	20.0
N-Propylbenzene	Ave	0.9779	0.9510	0.0100	9.72	10.0	-2.8	20.0
2-Chlorotoluene	Ave	0.8038	0.7388	0.0100	9.19	10.0	-8.1	20.0
3-Chlorotoluene	Ave	0.8753	0.8635	0.0100	9.87	10.0	-1.3	20.0
1,3,5-Trimethylbenzene	Ave	3.111	3.185	0.0100	10.2	10.0	2.4	20.0
4-Chlorotoluene	Ave	0.8477	0.8550	0.0100	10.1	10.0	0.9	20.0
tert-Butylbenzene	Ave	2.385	2.321	0.0100	9.73	10.0	-2.7	20.0
1,2,4-Trimethylbenzene	Ave	3.258	3.241	0.0100	9.95	10.0	-0.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8205	0.8052	0.0100	9.81	10.0	-1.9	20.0
sec-Butylbenzene	Ave	3.630	3.736	0.0100	10.3	10.0	2.9	20.0
1,3-Dichlorobenzene	Ave	1.548	1.529	0.6000	9.88	10.0	-1.2	20.0
4-Isopropyltoluene	Ave	2.869	2.924	0.0100	10.2	10.0	1.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCVIS 180-140579/2 Calibration Date: 05/05/2015 11:28

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60505002.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	1.600	1.553	0.5000	9.71	10.0	-2.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8122	0.7440	0.0100	9.16	10.0	-8.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8885	0.9382	0.0100	10.6	10.0	5.6	20.0
n-Butylbenzene	Ave	2.886	2.911	0.0100	10.1	10.0	0.9	20.0
1,2-Dichlorobenzene	Ave	1.531	1.529	0.4000	9.99	10.0	-0.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2335	0.1721	0.0500	7.37	10.0	-26.3*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.292	1.326	0.0100	30.8	30.0	2.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.416	1.400	0.0100	19.8	20.0	-1.1	20.0
1,2,4-Trichlorobenzene	Ave	1.072	1.016	0.2000	9.47	10.0	-5.3	20.0
Hexachlorobutadiene	Ave	0.3654	0.3819	0.0100	10.5	10.0	4.5	20.0
Naphthalene	Ave	2.838	2.369	0.0100	8.35	10.0	-16.5	20.0
1,2,3-Trichlorobenzene	Ave	1.006	0.9170	0.0100	9.12	10.0	-8.8	20.0
2,4,5-Trichlorotoluene	Ave	0.6359	0.5061	0.0100	7.96	10.0	-20.4*	20.0
2,3,6-Trichlorotoluene	Ave	0.5770	0.4705	0.0100	8.15	10.0	-18.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.2046		9.89	10.0	-1.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3457	0.3663		10.6	10.0	6.0	20.0
Toluene-d8 (Surr)	Ave	4.231	4.230		10.0	10.0	-0.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.725	1.647		9.55	10.0	-4.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 05-May-2015 11:28:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006773-002
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 13:53:46 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 12:00:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	98	180942	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	96	345760	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.392	0.000	89	74520	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	90	110772	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.547	6.547	0.000	42	70741	50.0	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	59	126641	50.0	53.0	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	80	315200	50.0	50.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	77	122699	50.0	47.7	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	59	108810	50.0	51.5	
12 Chloromethane	50	1.766	1.766	0.000	99	101530	50.0	57.9	
13 Vinyl chloride	62	1.894	1.894	0.000	99	109673	50.0	58.7	
14 Butadiene	39	1.942	1.942	0.000	90	102174	50.0	57.3	
15 Bromomethane	94	2.246	2.246	0.000	89	59049	50.0	60.7	
16 Chloroethane	64	2.392	2.392	0.000	94	69935	50.0	59.4	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	80	180070	50.0	63.3	
18 Trichlorofluoromethane	101	2.678	2.678	0.000	72	142610	50.0	66.0	
20 Ethyl ether	59	3.043	3.043	0.000	88	87564	50.0	54.3	
21 Acrolein	56	3.220	3.220	0.000	87	41574	150.0	145.2	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	78806	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	93	85242	50.0	52.7	
24 Acetone	43	3.427	3.427	0.000	87	58734	100.0	128.0	
25 Iodomethane	142	3.536	3.536	0.000	98	103933	50.0	50.8	
26 Carbon disulfide	76	3.633	3.633	0.000	99	231679	50.0	49.4	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	66	51608	50.0	45.9	
30 Methyl acetate	43	3.925	3.925	0.000	97	365872	250.0	241.5	
31 Methylene Chloride	84	4.132	4.132	0.000	91	107795	50.0	55.5	
32 2-Methyl-2-propanol	59	4.370	4.370	0.000	89	93464	500.0	474.2	
33 Acrylonitrile	53	4.497	4.497	0.000	99	365767	500.0	473.1	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	69	89429	50.0	50.1	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	90	300518	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	93	118054	50.0	49.3	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	174793	50.0	52.1	
38 Vinyl acetate	43	5.239	5.239	0.000	97	120384	50.0	29.9	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	64	108087	50.0	52.0	
43 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	73	94584	50.0	46.6	
44 2-Butanone (MEK)	43	5.951	5.951	0.000	75	87947	100.0	115.1	
48 Chlorobromomethane	128	6.231	6.231	0.000	90	38621	50.0	46.4	
49 Tetrahydrofuran	42	6.243	6.243	0.000	83	51988	100.0	73.3	
50 Chloroform	83	6.371	6.371	0.000	96	170017	50.0	52.5	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	92	132511	50.0	49.8	
52 Cyclohexane	56	6.614	6.614	0.000	77	159789	50.0	50.0	
53 Carbon tetrachloride	117	6.718	6.718	0.000	72	99483	50.0	48.9	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	92	133803	50.0	51.9	
55 Isobutyl alcohol	41	6.894	6.894	0.000	88	71021	1250.0	1019.2	
56 Benzene	78	6.943	6.943	0.000	97	396121	50.0	52.1	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	92	151779	50.0	52.5	
59 n-Heptane	43	7.308	7.308	0.000	88	94243	50.0	51.2	
61 Trichloroethene	130	7.679	7.679	0.000	87	75627	50.0	46.0	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	149330	50.0	48.2	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	87	99312	50.0	49.5	
67 Dibromomethane	93	8.032	8.032	0.000	83	59227	50.0	48.7	
65 1,4-Dioxane	88	8.032	8.032	0.000	42	16025	1000.0	829.5	
68 Dichlorobromomethane	83	8.233	8.233	0.000	92	116004	50.0	47.8	
70 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	91	125737	100.0	93.8	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	90	145374	50.0	45.3	
72 4-Methyl-2-pentanone (MIBK	43	8.823	8.823	0.000	95	172714	100.0	86.5	
73 Toluene	91	9.011	9.011	0.000	98	395463	50.0	51.2	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	81	122878	50.0	43.7	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	113767	50.0	40.4	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	89	79000	50.0	47.0	
77 Tetrachloroethene	164	9.522	9.522	0.000	86	63234	50.0	49.7	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	93	158600	50.0	49.8	
79 2-Hexanone	43	9.662	9.662	0.000	95	156799	100.0	128.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	87	55790	50.0	42.1	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	73538	50.0	46.2	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	81	115378	50.0	48.9	
84 Chlorobenzene	112	10.429	10.429	0.000	87	241432	50.0	49.5	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	90	112068	50.0	50.0	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	45	68187	50.0	47.7	
87 Ethylbenzene	106	10.526	10.526	0.000	99	136363	50.0	50.0	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	165624	50.0	48.5	
89 o-Xylene	106	11.043	11.043	0.000	95	162388	50.0	49.0	
90 Styrene	104	11.061	11.061	0.000	93	263484	50.0	48.4	
91 Bromoform	173	11.244	11.244	0.000	86	33129	50.0	39.1	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	93	117587	50.0	49.4	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	407147	50.0	50.6	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	66	107859	50.0	46.7	
95 Bromobenzene	156	11.724	11.724	0.000	81	87030	50.0	48.4	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.755	0.000	66	30394	50.0	36.8	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	53	35786	50.0	45.3	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	105342	50.0	48.6	
100 2-Chlorotoluene	126	11.913	11.913	0.000	92	81842	50.0	46.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.980	11.980	0.000	77	95646	50.0	49.3	
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	92	352769	50.0	51.2	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	94708	50.0	50.4	
104 tert-Butylbenzene	119	12.327	12.327	0.000	80	257111	50.0	48.7	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	99	359028	50.0	49.7	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	94	89195	50.0	49.1	
108 sec-Butylbenzene	105	12.546	12.546	0.000	97	413852	50.0	51.5	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	83	169392	50.0	49.4	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	80	323913	50.0	51.0	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	88	172068	50.0	48.6	
113 2,4-Dichloro-1-(triflourom	214	12.789	12.789	0.000	82	82411	50.0	45.8	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	95	103925	50.0	52.8	
116 n-Butylbenzene	91	13.111	13.111	0.000	95	322409	50.0	50.4	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	83	169413	50.0	50.0	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.914	0.000	51	19064	50.0	36.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	97	440783	150.0	154.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	97	310231	100.0	98.9	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	90	112526	50.0	47.4	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	90	42304	50.0	52.3	
124 Naphthalene	128	15.009	15.009	0.000	98	262443	50.0	41.7	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	93	101578	50.0	45.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	56066	50.0	39.8	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	90	52120	50.0	40.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	97.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	96.8	
S 132 1,3-Dichloropropene, Total	1				0		100.0	88.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00006	Amount Added:	2.00	Units: uL	
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

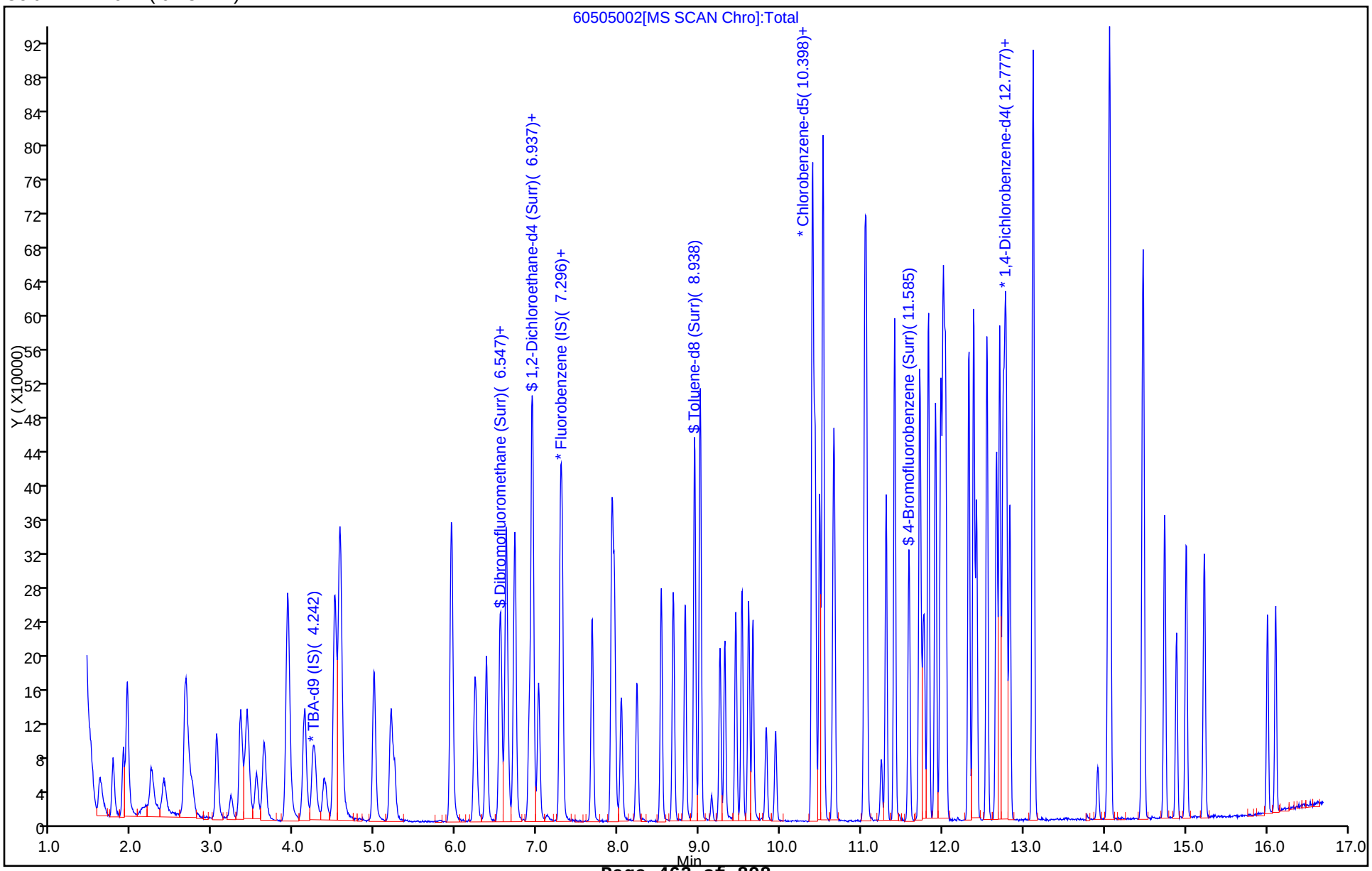
Report Date: 05-May-2015 13:53:47 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505002.D

Injection Date:	05-May-2015 11:28:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	01-May-2015 11:31:30	ALS Bottle#:	1	Worklist Smp#:	5
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006721-005				
Operator ID:	001562	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	02-May-2015 10:49:22	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK027				
First Level Reviewer: fergusond		Date:	01-May-2015 11:43:54		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.383	8.383	0.000	0	105205	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

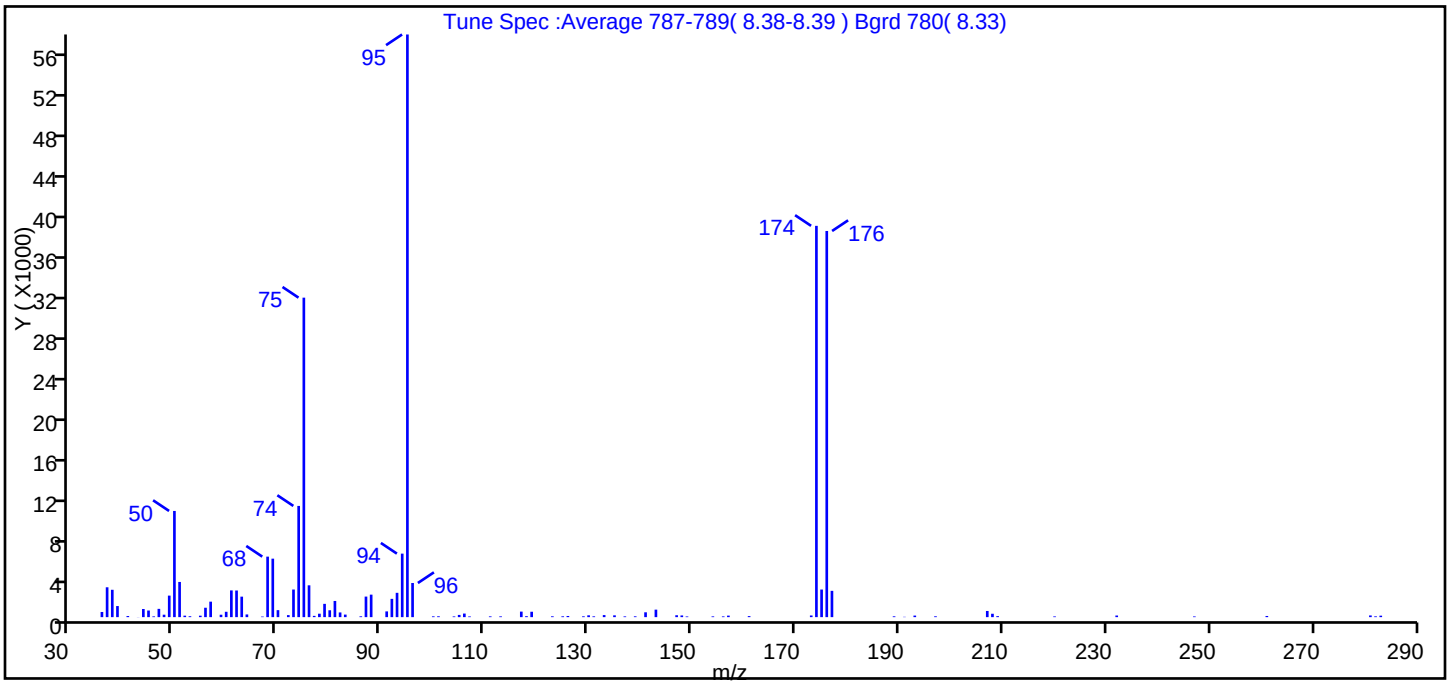
VOABFB25_00060 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D
Injection Date: 01-May-2015 11:31:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 5
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.2
75	30 to 60% of m/z 95	54.8
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	67.2
175	5 to 9% of m/z 174	4.7 (7.1)
176	Greater than 95% but less than 101% of m/z 174	66.3 (98.7)
177	5 to 9% of m/z 176	4.5 (6.8)

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 01-May-2015 11:31:30
Spectrum: Tune Spec :Average 787-789(8.38-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 99

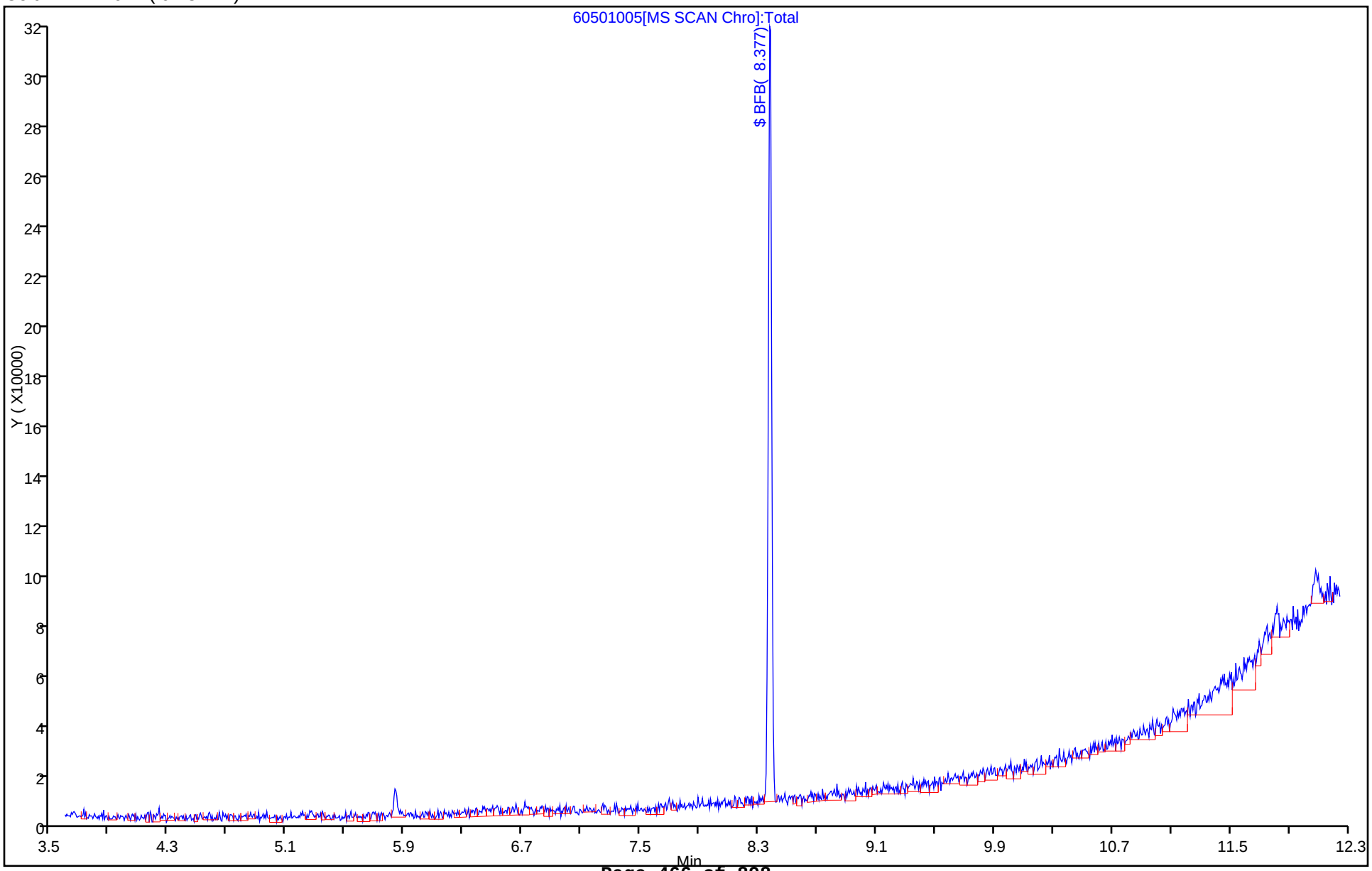
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	506	67.00	57	100.00	77	149.00	67
37.00	2928	68.00	5932	101.00	83	154.00	74
38.00	2682	69.00	5733	104.00	70	156.00	72
39.00	1088	70.00	686	105.00	218	157.00	150
41.00	109	72.00	199	106.00	351	161.00	101
43.00	11	73.00	2708	107.00	68	173.00	163
44.00	797	74.00	10903	111.00	75	174.00	38360
45.00	649	75.00	31320	113.00	75	175.00	2707
46.00	74	76.00	3120	117.00	543	176.00	37856
47.00	812	77.00	124	118.00	93	177.00	2578
48.00	240	78.00	337	119.00	530	189.00	80
49.00	2111	79.00	1303	123.00	82	191.00	31
50.00	10410	80.00	674	125.00	80	193.00	153
51.00	3450	81.00	1586	126.00	113	197.00	83
52.00	145	82.00	461	129.00	79	207.00	605
53.00	88	83.00	250	130.00	179	208.00	332
55.00	142	86.00	81	131.00	78	209.00	97
56.00	922	87.00	2015	133.00	202	220.00	70
57.00	1518	88.00	2206	135.00	177	232.00	159
59.00	237	91.00	564	137.00	73	247.00	68
60.00	526	92.00	1792	139.00	80	261.00	113
61.00	2621	93.00	2384	141.00	475	281.00	166
62.00	2611	94.00	6227	143.00	735	282.00	79
63.00	2009	95.00	57120	147.00	187	283.00	144
64.00	265	96.00	3347	148.00	166		

Report Date: 02-May-2015 10:49:23 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D				
Injection Date:	01-May-2015 11:31:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-May-2015 10:28:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006739-001				
Operator ID:	001562	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	03-May-2015 12:53:49	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK021				
First Level Reviewer: fergusond		Date:	03-May-2015 10:40:05		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.381	8.381	0.000	0	90963	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

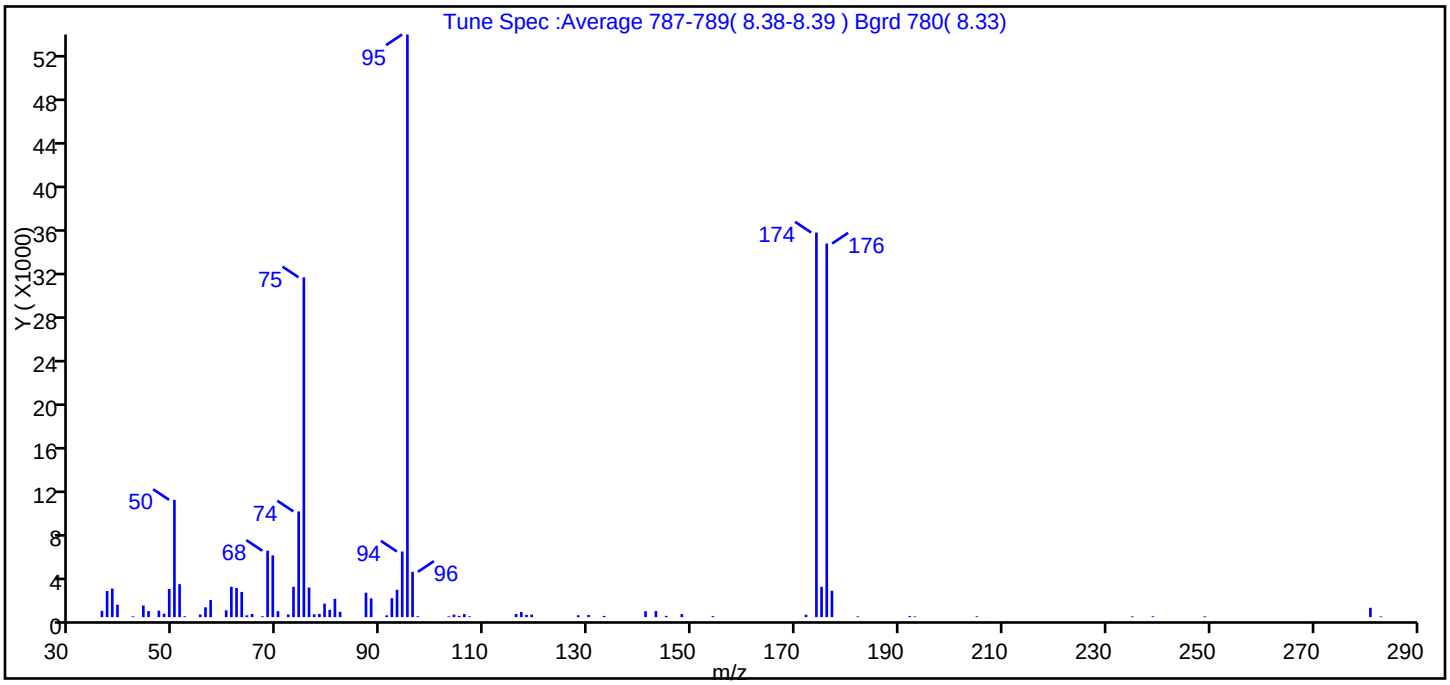
VOABFB25_00060 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503001.D				
Injection Date:	03-May-2015 10:28:30	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	20.1
75	30 to 60% of m/z 95	58.3
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	66.0
175	5 to 9% of m/z 174	5.2 (7.9)
176	Greater than 95% but less than 101% of m/z 174	64.1 (97.1)
177	5 to 9% of m/z 176	4.5 (7.1)

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 03-May-2015 10:28:30
Spectrum: Tune Spec :Average 787-789(8.38-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	573	64.00	167	92.00	1727	145.00	119
37.00	2380	65.00	297	93.00	2495	148.00	276
38.00	2608	67.00	81	94.00	5987	154.00	93
39.00	1134	68.00	6057	95.00	53152	172.00	219
42.00	73	69.00	5636	96.00	4135	174.00	35088
44.00	1059	70.00	544	97.00	82	175.00	2762
45.00	555	72.00	239	103.00	71	176.00	34080
47.00	596	73.00	2766	104.00	235	177.00	2410
48.00	309	74.00	9645	105.00	114	182.00	71
49.00	2569	75.00	31000	106.00	280	192.00	93
50.00	10699	76.00	2697	107.00	79	193.00	69
51.00	3013	77.00	260	116.00	291	205.00	76
52.00	80	78.00	295	117.00	475	207.00	7
55.00	239	79.00	1235	118.00	196	235.00	73
56.00	900	80.00	666	119.00	229	239.00	78
57.00	1558	81.00	1668	128.00	171	249.00	73
60.00	624	82.00	484	130.00	201	281.00	855
61.00	2772	87.00	2230	133.00	111	283.00	67
62.00	2656	88.00	1714	141.00	538		
63.00	2300	91.00	167	143.00	557		

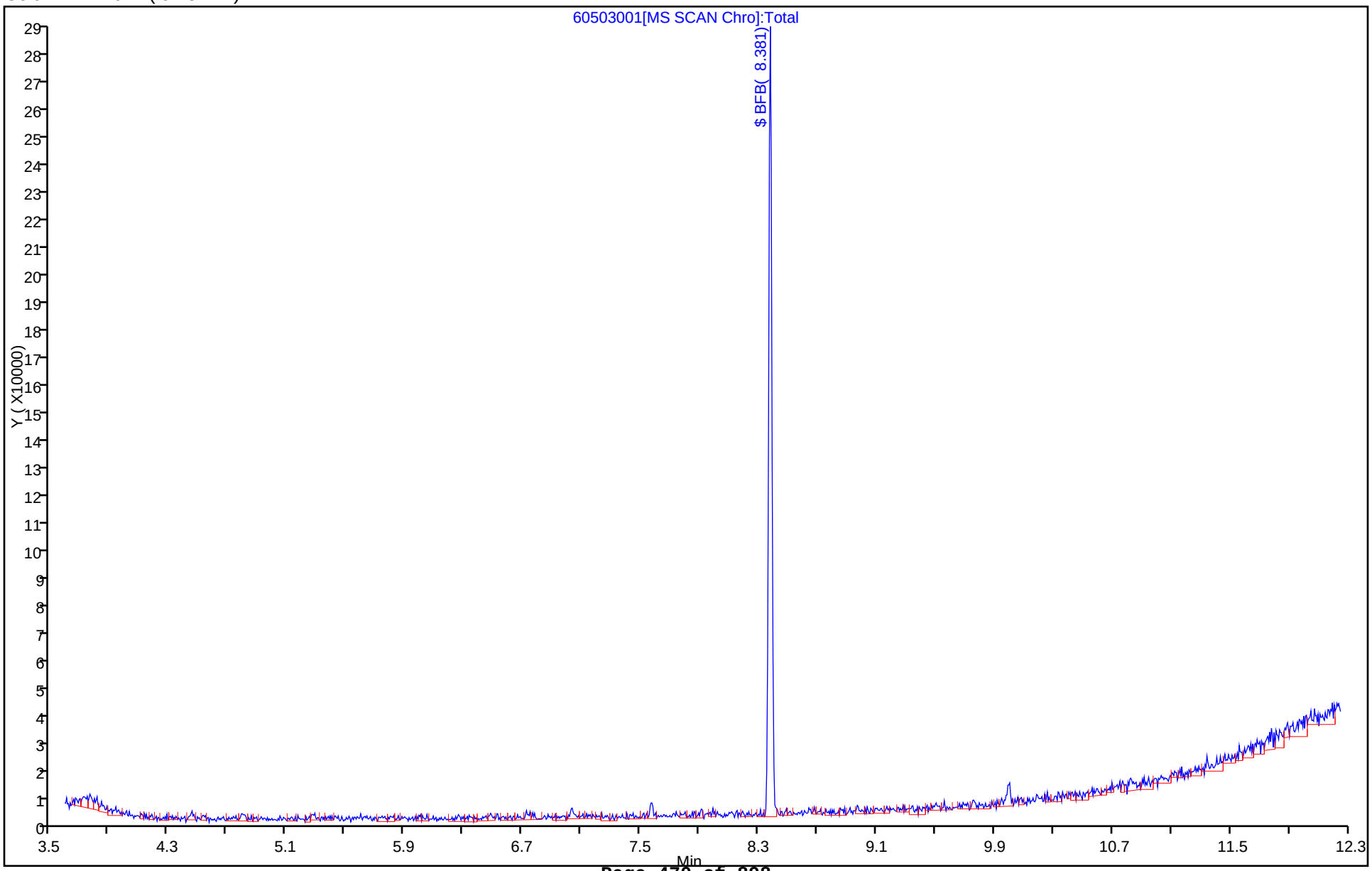
Report Date: 03-May-2015 12:53:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503001.D

Injection Date:	03-May-2015 10:28:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	04-May-2015 10:49:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006756-001				
Operator ID:	001562	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	04-May-2015 13:28:22	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK002				
First Level Reviewer: fergusond		Date:	04-May-2015 11:00:02		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.383	8.383	0.000	0	83396	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

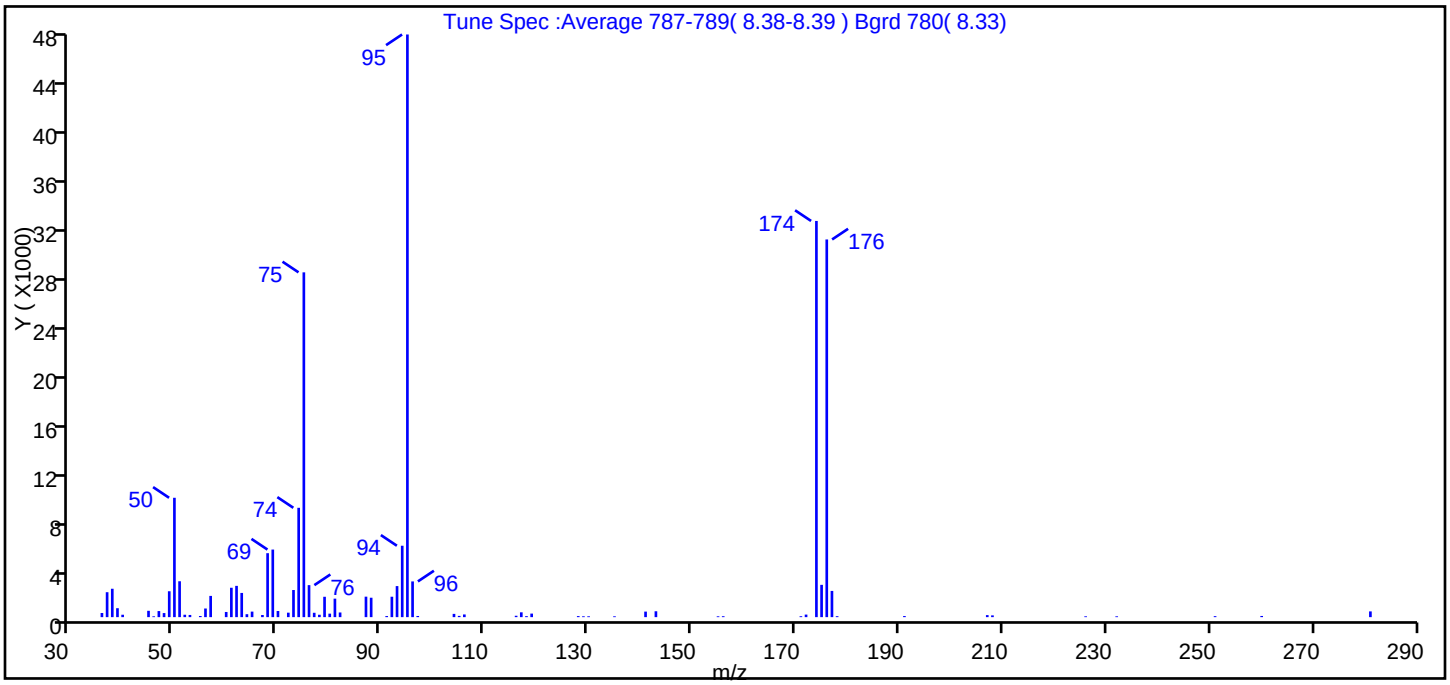
VOABFB25_00060 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504001.D				
Injection Date:	04-May-2015 10:49:30	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	20.5
75	30 to 60% of m/z 95	59.2
96	5 to 9% of m/z 95	6.1
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	68.0
175	5 to 9% of m/z 174	5.5 (8.2)
176	Greater than 95% but less than 101% of m/z 174	64.8 (95.3)
177	5 to 9% of m/z 176	4.5 (6.9)

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 04-May-2015 10:49:30
Spectrum: Tune Spec :Average 787-789(8.38-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	337	63.00	1967	91.00	89	155.00	67
37.00	2026	64.00	239	92.00	1659	156.00	74
38.00	2307	65.00	450	93.00	2524	171.00	74
39.00	727	67.00	173	94.00	5802	172.00	208
40.00	196	68.00	5197	95.00	47344	174.00	32192
45.00	515	69.00	5491	96.00	2902	175.00	2624
46.00	67	70.00	499	97.00	94	176.00	30688
47.00	494	72.00	363	104.00	265	177.00	2130
48.00	332	73.00	2204	105.00	102	178.00	77
49.00	2104	74.00	8885	106.00	219	191.00	88
50.00	9699	75.00	28016	116.00	113	207.00	165
51.00	2916	76.00	2601	117.00	392	208.00	144
52.00	195	77.00	354	118.00	80	226.00	67
53.00	178	78.00	194	119.00	289	232.00	67
55.00	93	79.00	1655	128.00	85	251.00	80
56.00	702	80.00	284	129.00	68	260.00	96
57.00	1726	81.00	1503	130.00	68	281.00	467
60.00	420	82.00	379	135.00	67		
61.00	2388	87.00	1664	141.00	450		
62.00	2541	88.00	1578	143.00	478		

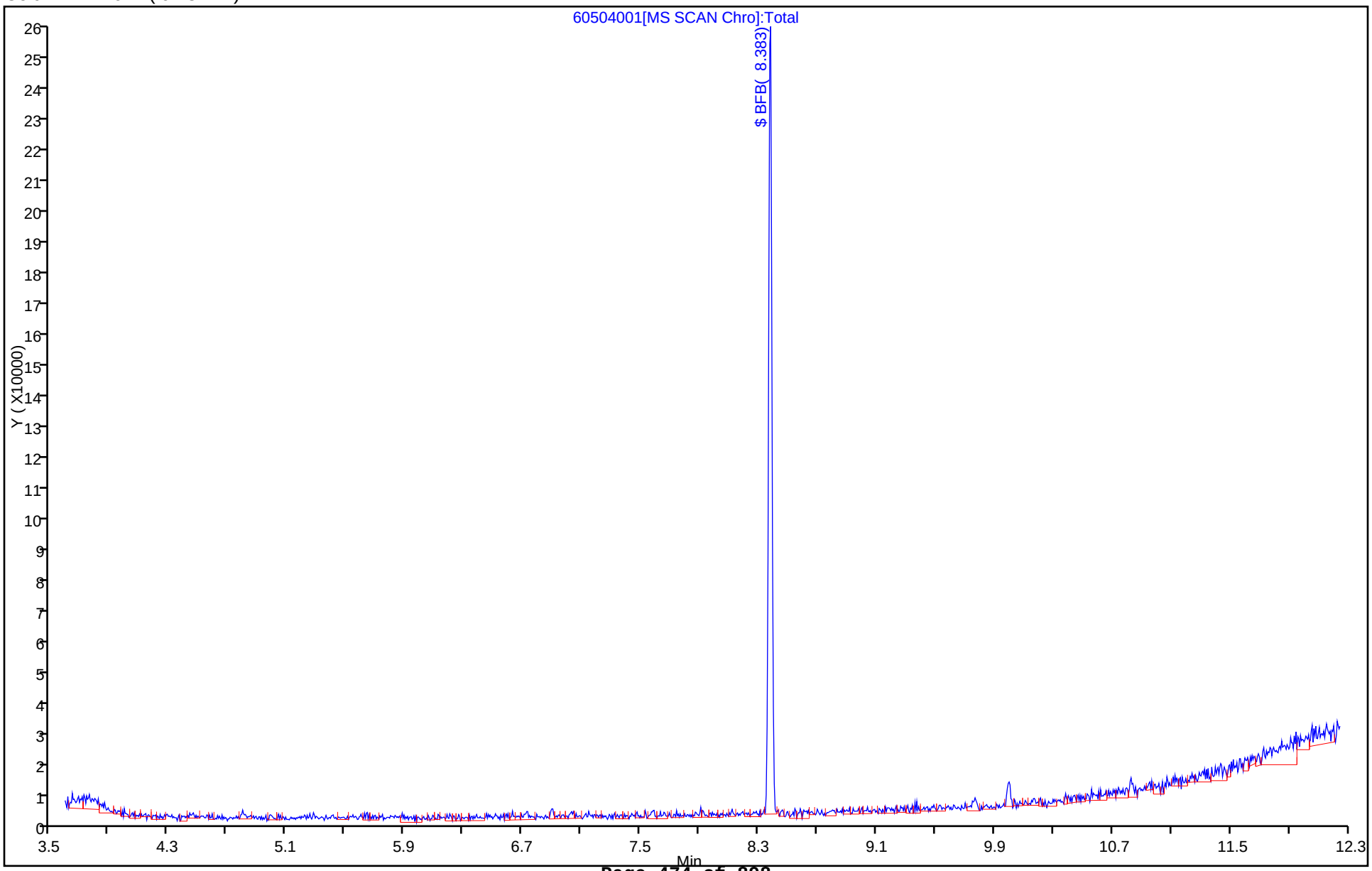
Report Date: 04-May-2015 13:28:22 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504001.D

Injection Date:	04-May-2015 10:49:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505004.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	05-May-2015 10:45:30	ALS Bottle#:	1	Worklist Smp#:	4
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006773-004				
Operator ID:	001562	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	05-May-2015 13:53:42	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: fergusond		Date:	05-May-2015 10:58:30		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.378	8.378	0.000	0	63633	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

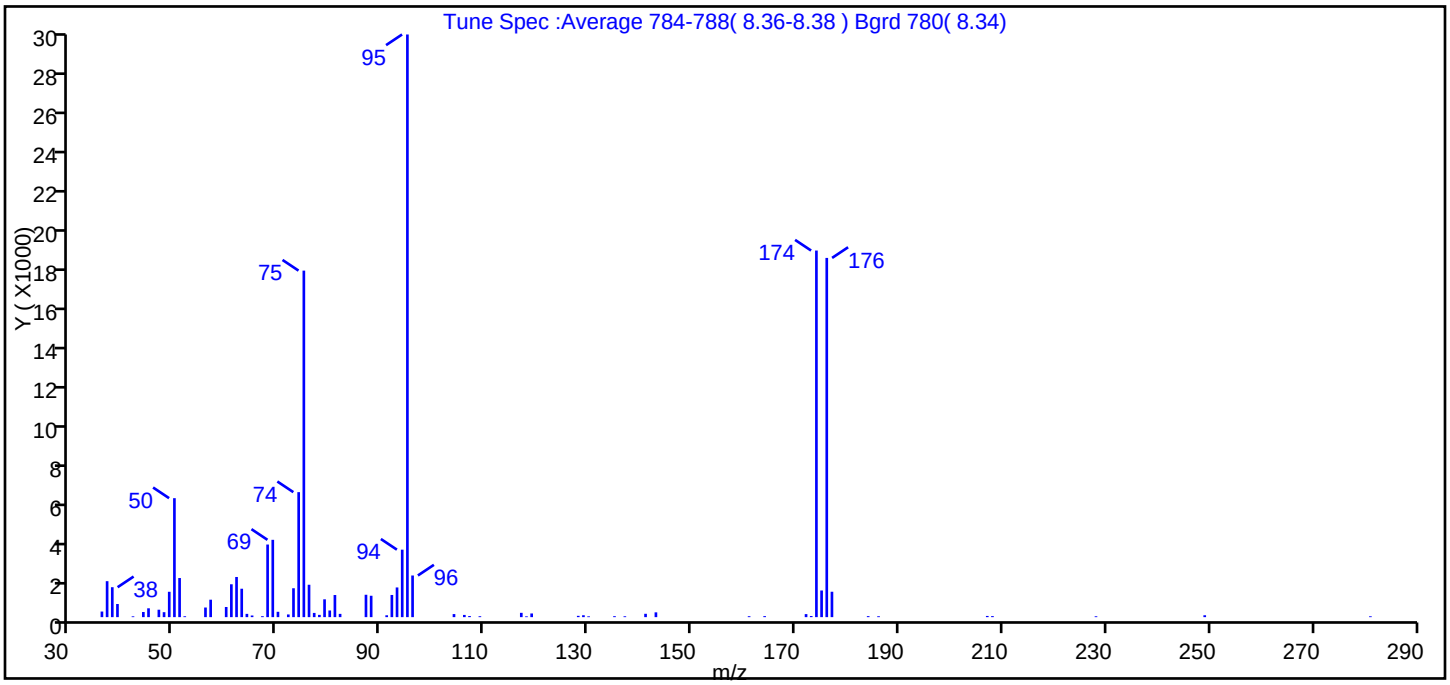
VOABFB25_00060 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505004.D
Injection Date: 05-May-2015 10:45:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 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	20.4
75	30 to 60% of m/z 95	59.5
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	62.9
175	5 to 9% of m/z 174	4.6 (7.3)
176	Greater than 95% but less than 101% of m/z 174	61.7 (98.0)
177	5 to 9% of m/z 176	4.4 (7.1)

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505004.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 05-May-2015 10:45:30
Spectrum: Tune Spec :Average 784-788(8.36-8.38) Bgrd 780(8.34)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 73

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	286	64.00	167	91.00	95	143.00	245
37.00	1835	65.00	84	92.00	1131	161.00	47
38.00	1527	67.00	48	93.00	1515	164.00	52
39.00	670	68.00	3705	94.00	3443	172.00	155
42.00	41	69.00	3945	95.00	29728	173.00	57
44.00	262	70.00	273	96.00	2125	174.00	18704
45.00	451	72.00	137	104.00	157	175.00	1360
47.00	379	73.00	1474	106.00	113	176.00	18328
48.00	253	74.00	6377	107.00	56	177.00	1296
49.00	1294	75.00	17680	109.00	46	184.00	51
50.00	6070	76.00	1653	117.00	220	186.00	45
51.00	1996	77.00	215	118.00	40	207.00	61
52.00	45	78.00	116	119.00	188	208.00	53
56.00	491	79.00	910	128.00	67	228.00	44
57.00	890	80.00	340	129.00	97	249.00	96
60.00	518	81.00	1129	130.00	41	281.00	43
61.00	1677	82.00	167	135.00	49		
62.00	2049	87.00	1142	137.00	44		
63.00	1450	88.00	1091	141.00	171		

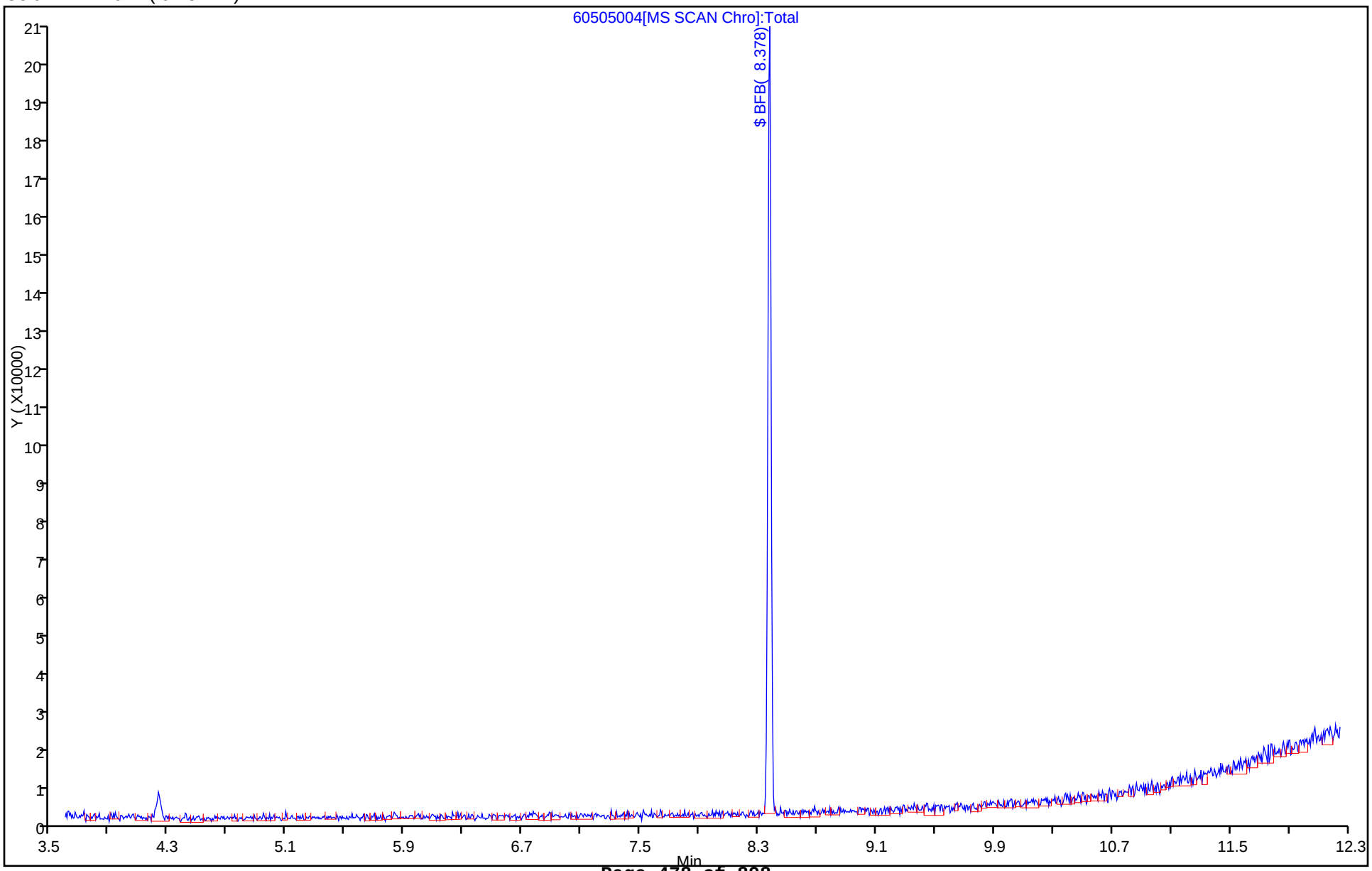
Report Date: 05-May-2015 13:53:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505004.D

Injection Date:	05-May-2015 10:45:30	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#:	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.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-140387/3

Matrix: Water | Lab File ID: 60503003.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 11:59

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140387 | 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.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-140387/3

Matrix: Water Lab File ID: 60503003.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/03/2015 11:59

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 140387 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)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503003.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-May-2015 11:59:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0006739-003
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 13:22:08 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 13:22:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.232	4.241	-0.009	98	258067	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.283	0.003	98	424609	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.401	10.398	0.003	91	86827	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.746	0.003	97	135477	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.550	6.553	-0.003	92	91715	50.0	52.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	70	146565	50.0	49.9	
$ 7 Toluene-d8 (Surr)	98	8.941	8.944	-0.003	94	396357	50.0	53.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.584	0.003	80	155514	50.0	51.9	
11 Dichlorodifluoromethane	85		1.601					ND	
12 Chloromethane	50		1.765					ND	
13 Vinyl chloride	62		1.893					ND	
14 Butadiene	39		1.936					ND	
15 Bromomethane	94		2.240					ND	
16 Chloroethane	64		2.386					ND	
17 Dichlorofluoromethane	67		2.660					ND	
18 Trichlorofluoromethane	101		2.684					ND	
19 Ethanol	45		2.888					ND	
20 Ethyl ether	59		3.049					ND	
21 Acrolein	56		3.219					ND	
22 1,1-Dichloroethene	96		3.341					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.414					ND	
24 Acetone	43		3.426					ND	
25 Iodomethane	142		3.530					ND	
26 Carbon disulfide	76		3.627					ND	
27 Isopropyl alcohol	45		3.649					ND	
28 Acetonitrile	40		3.795					ND	
29 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.925					ND	
31 Methylene Chloride	84		4.126					ND	
32 2-Methyl-2-propanol	59		4.381					ND	
33 Acrylonitrile	53		4.503					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		4.570					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.239					ND	
39 2-Chloro-1,3-butadiene	53		5.255					ND	
40 Isopropyl ether	45		5.255					ND	
41 Tert-butyl ethyl ether	59		5.735					ND	
42 2,2-Dichloropropane	77		5.939					ND	
43 cis-1,2-Dichloroethene	96		5.939					ND	
44 2-Butanone (MEK)	43		5.951					ND	
45 Propionitrile	54		5.979					ND	
46 Ethyl acetate	43		5.991					ND	
47 Methacrylonitrile	41		6.161					ND	
48 Chlorobromomethane	128		6.231					ND	
49 Tetrahydrofuran	42		6.249					ND	
50 Chloroform	83		6.371					ND	
51 1,1,1-Trichloroethane	97		6.541					ND	
52 Cyclohexane	56		6.614					ND	
53 Carbon tetrachloride	117		6.711					ND	
54 1,1-Dichloropropene	75		6.723					ND	
55 Isobutyl alcohol	41		6.900					ND	
56 Benzene	78		6.942					ND	
57 1,2-Dichloroethane	62		7.022					ND	
148 Isooctane	57		7.074					ND	
58 Tert-amyl methyl ether	73		7.092					ND	
59 n-Heptane	43		7.307					ND	
60 n-Butanol	56		7.579					ND	
61 Trichloroethene	130		7.679					ND	
62 Ethyl acrylate	55		7.767					ND	
63 Methylcyclohexane	83		7.922					ND	
64 1,2-Dichloropropane	63		7.952					ND	
66 Methyl methacrylate	69		7.998					ND	
65 1,4-Dioxane	88		8.037					ND	
67 Dibromomethane	93		8.037					ND	
68 Dichlorobromomethane	83		8.232					ND	
69 2-Nitropropane	41		8.418					ND	
70 2-Chloroethyl vinyl ether	63		8.500					ND	
71 cis-1,3-Dichloropropene	75		8.676					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.828					ND	
73 Toluene	91		9.011					ND	
74 trans-1,3-Dichloropropene	75		9.254					ND	
75 Ethyl methacrylate	69		9.315					ND	
76 1,1,2-Trichloroethane	97		9.449					ND	
77 Tetrachloroethene	164		9.528					ND	
78 1,3-Dichloropropane	76		9.607					ND	
79 2-Hexanone	43		9.662					ND	
80 n-Butyl acetate	43		9.756					ND	
81 Chlorodibromomethane	129		9.826					ND	
82 Ethylene Dibromide	107		9.942					ND	
83 3-Chlorobenzotrifluoride	180		10.398					ND	
84 Chlorobenzene	112		10.428					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.659					ND	
89 o-Xylene	106		11.043					ND	
90 Styrene	104		11.061					ND	
91 Bromoform	173		11.250					ND	
129 Cyclohexanol	57		11.289					ND	
92 2-Chlorobenzotrifluoride	180		11.304					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.472					ND	
96 1,1,2,2-Tetrachloroethane	83		11.718					ND	
95 Bromobenzene	156		11.724					ND	
97 trans-1,4-Dichloro-2-buten	53		11.754					ND	
98 1,2,3-Trichloropropane	110		11.773					ND	
99 N-Propylbenzene	120		11.827					ND	
100 2-Chlorotoluene	126		11.913					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.010					ND	
103 4-Chlorotoluene	126		12.034					ND	
104 tert-Butylbenzene	119		12.326					ND	
105 Pentachloroethane	167		12.330					ND	
106 1,2,4-Trimethylbenzene	105		12.381					ND	
107 1,2-dichloro-4-(trifluorom	214		12.424					ND	
108 sec-Butylbenzene	105		12.551					ND	
109 1,3-Dichlorobenzene	146		12.667					ND	
110 4-Isopropyltoluene	119		12.710					ND	
112 1,2,3-Trimethylbenzene	105		12.768					ND	
111 1,4-Dichlorobenzene	146		12.770					ND	
113 2,4-Dichloro-1-(triflourom	214		12.795					ND	
114 2,5-Dichlorobenzotrifluori	214		12.831					ND	
115 Benzyl chloride	91		12.853					ND	
116 n-Butylbenzene	91		13.117					ND	
117 1,2-Dichlorobenzene	146		13.129					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060					ND	
120 1,3,5-Trichlorobenzene	180		14.082					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.474					ND	
122 1,2,4-Trichlorobenzene	180		14.741					ND	
123 Hexachlorobutadiene	225		14.887					ND	
124 Naphthalene	128		15.009					ND	
125 1,2,3-Trichlorobenzene	180		15.234					ND	
126 2,4,5-Trichlorotoluene	159		16.007					ND	
127 2,3,6-Trichlorotoluene	159		16.110					ND	
128 2-Methylnaphthalene	142		16.126					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent

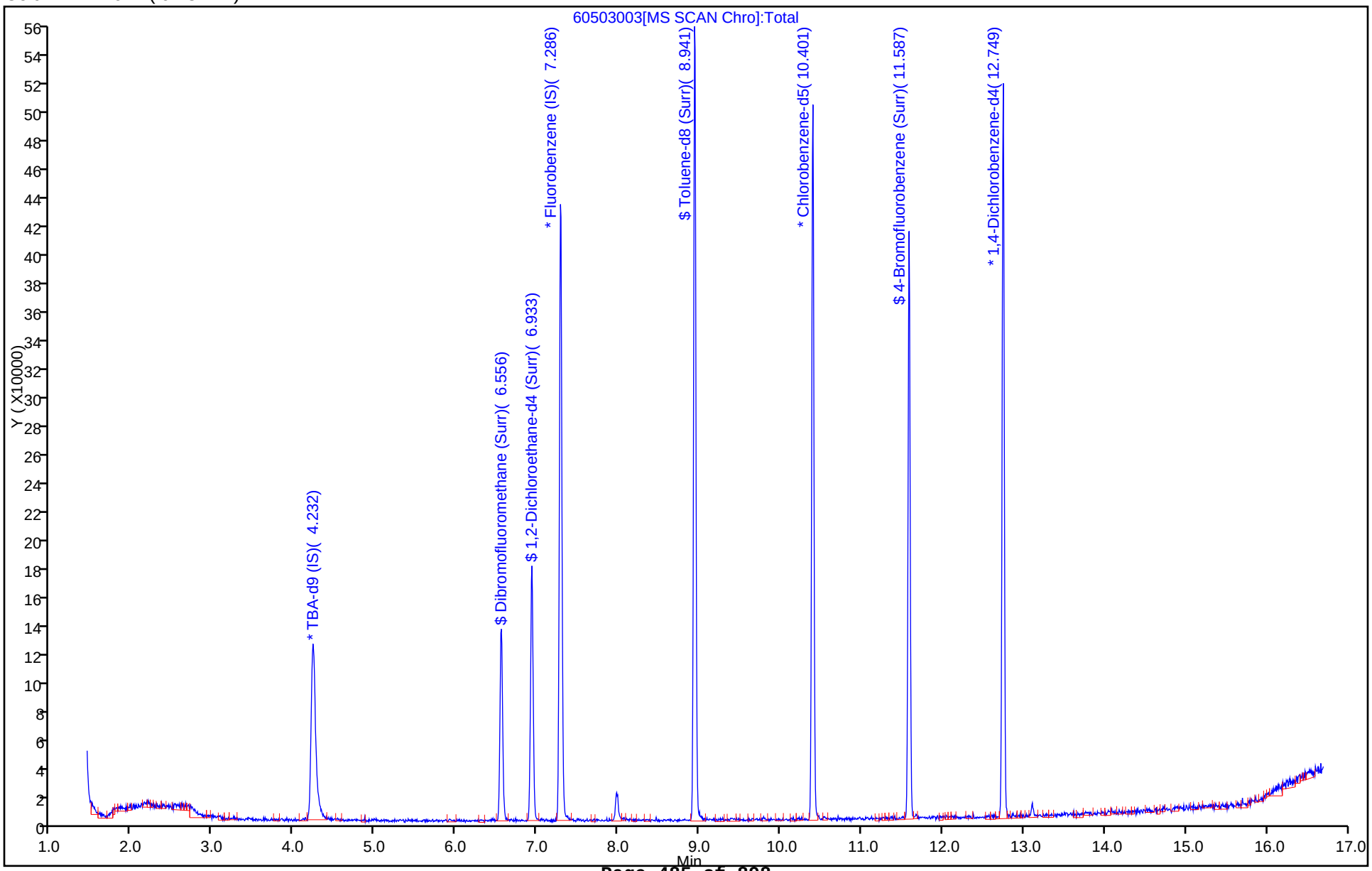
Report Date: 03-May-2015 13:22:09 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503003.D

Injection Date:	03-May-2015 11:59:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-140474/5

Matrix: Water | Lab File ID: 60504005.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 13:08

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.: 140474 | 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.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-140474/5

Matrix: Water Lab File ID: 60504005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/04/2015 13:08

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.: 140474 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)	105		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 04-May-2015 13:08:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0006756-005
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-May-2015 12:25:29 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: fergusond Date: 04-May-2015 14:28:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.254	-0.025	97	200588	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	400217	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.397	10.398	-0.001	91	82898	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	125290	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.553	0.006	91	85360	50.0	51.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.924	0.006	70	145225	50.0	52.5	
$ 7 Toluene-d8 (Surr)	98	8.937	8.938	-0.001	94	374463	50.0	53.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	79	145670	50.0	50.9	
11 Dichlorodifluoromethane	85		1.601					ND	
12 Chloromethane	50		1.765					ND	
13 Vinyl chloride	62		1.887					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.240					ND	
16 Chloroethane	64		2.380					ND	
17 Dichlorofluoromethane	67		2.654					ND	
18 Trichlorofluoromethane	101		2.678					ND	
19 Ethanol	45		2.888					ND	
20 Ethyl ether	59		3.049					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.335					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.420					ND	
24 Acetone	43		3.432					ND	
25 Iodomethane	142		3.524					ND	
26 Carbon disulfide	76		3.621					ND	
27 Isopropyl alcohol	45		3.649					ND	
28 Acetonitrile	40		3.795					ND	
29 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.925					ND	
31 Methylene Chloride	84		4.120					ND	
32 2-Methyl-2-propanol	59		4.381					ND	
33 Acrylonitrile	53		4.503					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		4.570					ND	
36 Hexane	57		4.978					ND	
37 1,1-Dichloroethane	63		5.190					ND	
38 Vinyl acetate	43		5.233					ND	
39 2-Chloro-1,3-butadiene	53		5.255					ND	
40 Isopropyl ether	45		5.255					ND	
41 Tert-butyl ethyl ether	59		5.735					ND	
42 2,2-Dichloropropane	77		5.933					ND	
43 cis-1,2-Dichloroethene	96		5.933					ND	
44 2-Butanone (MEK)	43		5.939					ND	
45 Propionitrile	54		5.979					ND	
46 Ethyl acetate	43		5.991					ND	
47 Methacrylonitrile	41		6.161					ND	
48 Chlorobromomethane	128		6.231					ND	
49 Tetrahydrofuran	42		6.243					ND	
50 Chloroform	83	6.376	6.371	0.005	1	1073		0.2862	
51 1,1,1-Trichloroethane	97		6.535					ND	
52 Cyclohexane	56		6.620					ND	
53 Carbon tetrachloride	117		6.711					ND	
54 1,1-Dichloropropene	75		6.724					ND	
55 Isobutyl alcohol	41		6.900					ND	
56 Benzene	78		6.943					ND	
57 1,2-Dichloroethane	62		7.016					ND	
148 Isooctane	57		7.074					ND	
58 Tert-amyl methyl ether	73		7.092					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.579					ND	
61 Trichloroethene	130		7.673					ND	
62 Ethyl acrylate	55		7.767					ND	
63 Methylcyclohexane	83		7.922					ND	
64 1,2-Dichloropropane	63		7.946					ND	
66 Methyl methacrylate	69		7.998					ND	
65 1,4-Dioxane	88		8.038					ND	
67 Dibromomethane	93		8.038					ND	
68 Dichlorobromomethane	83		8.226					ND	
69 2-Nitropropane	41		8.418					ND	
70 2-Chloroethyl vinyl ether	63		8.500					ND	
71 cis-1,3-Dichloropropene	75		8.676					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
73 Toluene	91		9.011					ND	
74 trans-1,3-Dichloropropene	75		9.254					ND	
75 Ethyl methacrylate	69		9.315					ND	
76 1,1,2-Trichloroethane	97		9.449					ND	
77 Tetrachloroethene	164		9.522					ND	
78 1,3-Dichloropropane	76		9.607					ND	
79 2-Hexanone	43		9.662					ND	
80 n-Butyl acetate	43		9.756					ND	
81 Chlorodibromomethane	129		9.826					ND	
82 Ethylene Dibromide	107		9.942					ND	
83 3-Chlorobenzotrifluoride	180		10.392					ND	
84 Chlorobenzene	112		10.428					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.660					ND	
89 o-Xylene	106		11.043					ND	
90 Styrene	104		11.061					ND	
91 Bromoform	173		11.250					ND	
129 Cyclohexanol	57		11.289					ND	
92 2-Chlorobenzotrifluoride	180		11.304					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.472					ND	
96 1,1,2,2-Tetrachloroethane	83		11.712					ND	
95 Bromobenzene	156		11.724					ND	
97 trans-1,4-Dichloro-2-buten	53		11.748					ND	
98 1,2,3-Trichloropropane	110		11.773					ND	
99 N-Propylbenzene	120		11.828					ND	
100 2-Chlorotoluene	126		11.919					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.010					ND	
103 4-Chlorotoluene	126		12.040					ND	
104 tert-Butylbenzene	119		12.326					ND	
105 Pentachloroethane	167		12.330					ND	
106 1,2,4-Trimethylbenzene	105		12.381					ND	
107 1,2-dichloro-4-(trifluorom	214		12.418					ND	
108 sec-Butylbenzene	105		12.551					ND	
109 1,3-Dichlorobenzene	146		12.667					ND	
110 4-Isopropyltoluene	119		12.704					ND	
112 1,2,3-Trimethylbenzene	105		12.768					ND	
111 1,4-Dichlorobenzene	146		12.770					ND	
113 2,4-Dichloro-1-(triflourom	214		12.795					ND	
114 2,5-Dichlorobenzotrifluori	214		12.831					ND	
115 Benzyl chloride	91		12.853					ND	
116 n-Butylbenzene	91		13.117					ND	
117 1,2-Dichlorobenzene	146		13.123					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060					ND	
120 1,3,5-Trichlorobenzene	180		14.082					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.480					ND	
122 1,2,4-Trichlorobenzene	180		14.742					ND	
123 Hexachlorobutadiene	225		14.888					ND	
124 Naphthalene	128		15.009					ND	
125 1,2,3-Trichlorobenzene	180		15.228					ND	
126 2,4,5-Trichlorotoluene	159		16.007					ND	
127 2,3,6-Trichlorotoluene	159		16.110					ND	
128 2-Methylnaphthalene	142		16.126					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

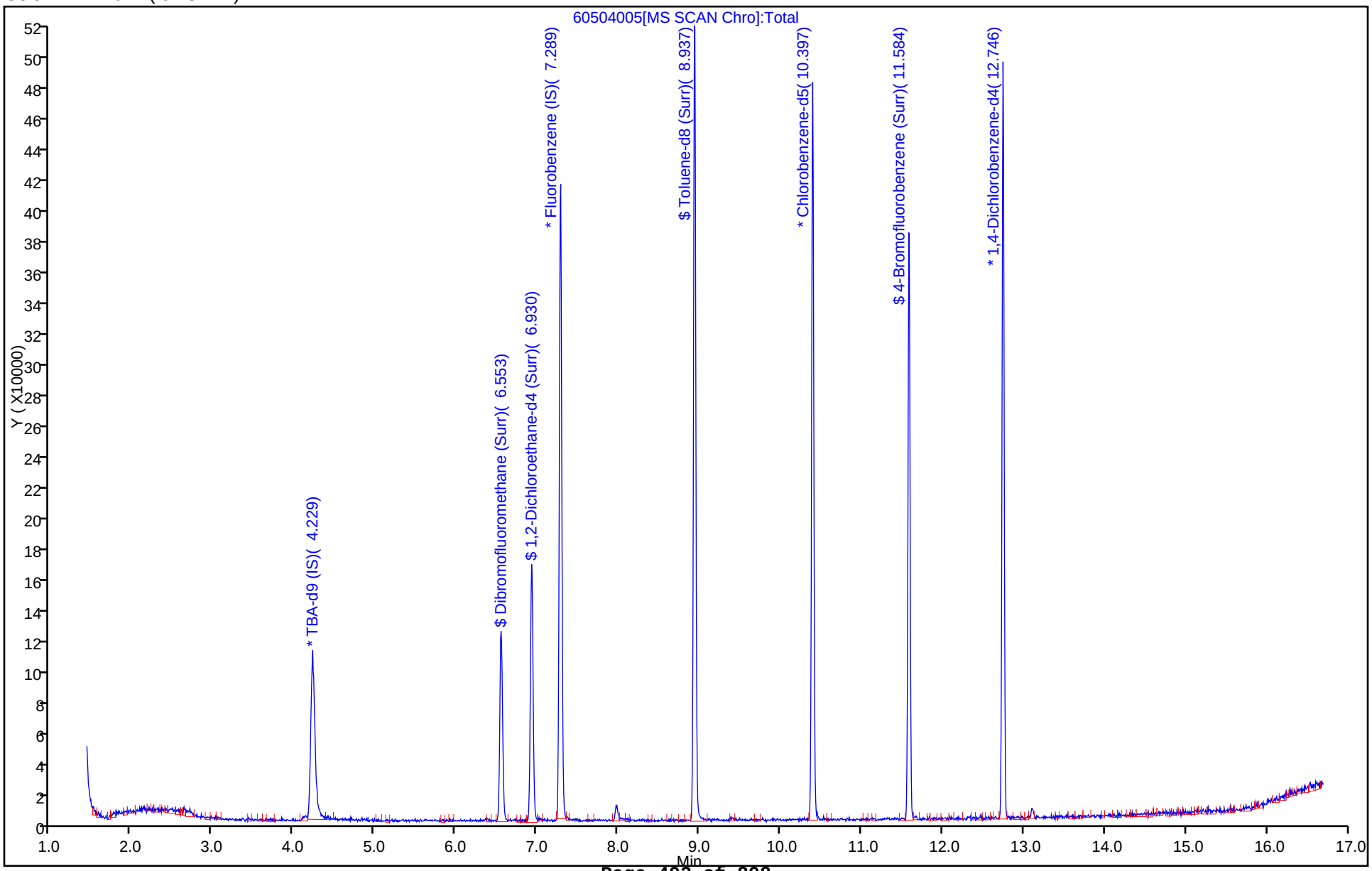
Report Date: 04-May-2015 14:28:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504005.D

Injection Date:	04-May-2015 13:08:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-140579/6

Matrix: Water | Lab File ID: 60505006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/05/2015 12:48

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.: 140579 | 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.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-140579/6

Matrix: Water Lab File ID: 60505006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/05/2015 12:48

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.: 140579 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)	109		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505006.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 05-May-2015 12:48:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0006773-006
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 14:54:42 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 14:54:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.225	4.239	-0.014	97	144525	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.286	-0.001	98	382815	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.401	-0.001	92	76665	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.743	0.005	97	113768	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.547	0.008	91	80506	50.0	50.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	71	144726	50.0	54.7	
$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	94	360342	50.0	55.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.585	0.002	78	138859	50.0	52.5	
11 Dichlorodifluoromethane	85		1.602					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.894					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.246					ND	
16 Chloroethane	64		2.392					ND	
17 Dichlorofluoromethane	67		2.660					ND	
18 Trichlorofluoromethane	101		2.678					ND	
19 Ethanol	45		2.925					ND	
20 Ethyl ether	59		3.043					ND	
21 Acrolein	56		3.220					ND	
22 1,1-Dichloroethene	96		3.341					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.420					ND	
24 Acetone	43		3.427					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.633					ND	
27 Isopropyl alcohol	45		3.685					ND	
28 Acetonitrile	40		3.855					ND	
29 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.925					ND	
31 Methylene Chloride	84	4.116	4.132	-0.016	4	1332		0.6190	
32 2-Methyl-2-propanol	59		4.370					ND	
33 Acrylonitrile	53		4.497					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558					ND	
35 Methyl tert-butyl ether	73		4.570					ND	
36 Hexane	57		4.990					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.239					ND	
39 2-Chloro-1,3-butadiene	53		5.291					ND	
40 Isopropyl ether	45		5.297					ND	
41 Tert-butyl ethyl ether	59		5.772					ND	
42 2,2-Dichloropropane	77		5.939					ND	
43 cis-1,2-Dichloroethene	96		5.945					ND	
44 2-Butanone (MEK)	43		5.951					ND	
45 Propionitrile	54		6.015					ND	
46 Ethyl acetate	43		6.027					ND	
47 Methacrylonitrile	41		6.198					ND	
48 Chlorobromomethane	128		6.231					ND	
49 Tetrahydrofuran	42		6.243					ND	
50 Chloroform	83		6.371					ND	
51 1,1,1-Trichloroethane	97		6.541					ND	
52 Cyclohexane	56		6.614					ND	
53 Carbon tetrachloride	117		6.718					ND	
54 1,1-Dichloropropene	75		6.724					ND	
55 Isobutyl alcohol	41		6.894					ND	
56 Benzene	78		6.943					ND	
57 1,2-Dichloroethane	62		7.016					ND	
148 Isooctane	57		7.104					ND	
58 Tert-amyl methyl ether	73		7.122					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.609					ND	
61 Trichloroethene	130		7.679					ND	
62 Ethyl acrylate	55		7.791					ND	
63 Methylcyclohexane	83		7.922					ND	
64 1,2-Dichloropropane	63		7.953					ND	
66 Methyl methacrylate	69		8.029					ND	
67 Dibromomethane	93		8.032					ND	
65 1,4-Dioxane	88		8.032					ND	
68 Dichlorobromomethane	83		8.233					ND	
69 2-Nitropropane	41		8.448					ND	
70 2-Chloroethyl vinyl ether	63		8.531					ND	
71 cis-1,3-Dichloropropene	75		8.677					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823					ND	
73 Toluene	91		9.011					ND	
74 trans-1,3-Dichloropropene	75		9.255					ND	
75 Ethyl methacrylate	69		9.315					ND	
76 1,1,2-Trichloroethane	97		9.449					ND	
77 Tetrachloroethene	164		9.522					ND	
78 1,3-Dichloropropane	76		9.607					ND	
79 2-Hexanone	43		9.662					ND	
80 n-Butyl acetate	43		9.787					ND	
81 Chlorodibromomethane	129		9.826					ND	
82 Ethylene Dibromide	107		9.942					ND	
83 3-Chlorobenzotrifluoride	180		10.392					ND	
84 Chlorobenzene	112		10.429					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.660					ND	
89 o-Xylene	106		11.043					ND	
90 Styrene	104		11.061					ND	
91 Bromoform	173		11.244					ND	
129 Cyclohexanol	57		11.289					ND	
92 2-Chlorobenzotrifluoride	180		11.305					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.496					ND	
96 1,1,2,2-Tetrachloroethane	83		11.712					ND	
95 Bromobenzene	156		11.724					ND	
97 trans-1,4-Dichloro-2-buten	53		11.755					ND	
98 1,2,3-Trichloropropane	110		11.773					ND	
99 N-Propylbenzene	120		11.828					ND	
100 2-Chlorotoluene	126		11.913					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.010					ND	
103 4-Chlorotoluene	126		12.035					ND	
104 tert-Butylbenzene	119		12.327					ND	
105 Pentachloroethane	167		12.360					ND	
106 1,2,4-Trimethylbenzene	105		12.381					ND	
107 1,2-dichloro-4-(trifluorom	214		12.418					ND	
108 sec-Butylbenzene	105		12.546					ND	
109 1,3-Dichlorobenzene	146		12.667					ND	
110 4-Isopropyltoluene	119		12.704					ND	
111 1,4-Dichlorobenzene	146		12.771					ND	
113 2,4-Dichloro-1-(triflourom	214		12.789					ND	
112 1,2,3-Trimethylbenzene	105		12.792					ND	
114 2,5-Dichlorobenzotrifluori	214		12.832					ND	
115 Benzyl chloride	91		12.883					ND	
116 n-Butylbenzene	91		13.111					ND	
117 1,2-Dichlorobenzene	146		13.124					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060					ND	
120 1,3,5-Trichlorobenzene	180		14.106					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.474					ND	
122 1,2,4-Trichlorobenzene	180		14.742					ND	
123 Hexachlorobutadiene	225		14.888					ND	
124 Naphthalene	128		15.009					ND	
125 1,2,3-Trichlorobenzene	180		15.229					ND	
126 2,4,5-Trichlorotoluene	159		16.007					ND	
127 2,3,6-Trichlorotoluene	159		16.111					ND	
128 2-Methylnaphthalene	142		16.150					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
149 Isopropyl ether TIC	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	

Reagents:

VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

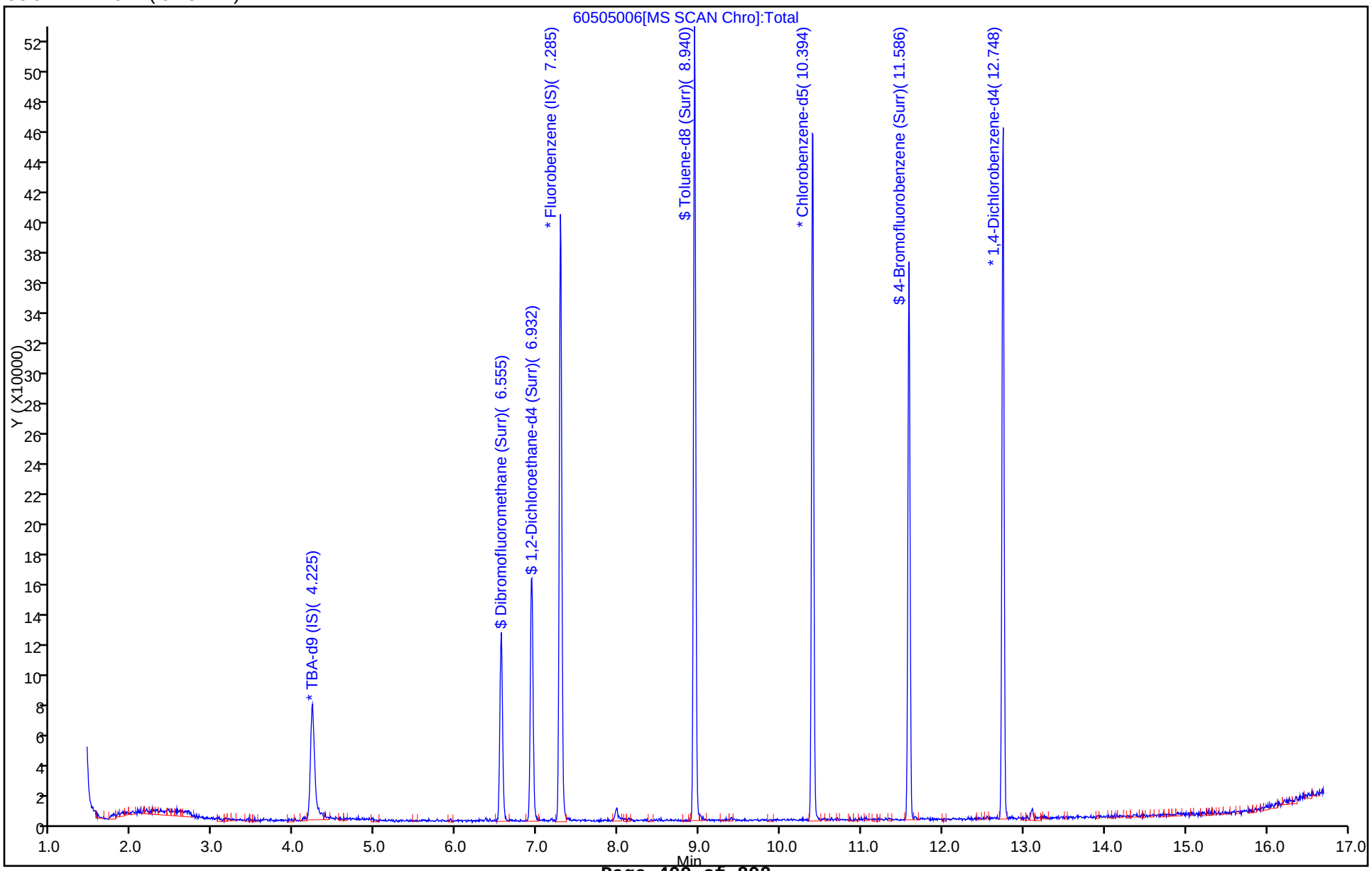
Report Date: 05-May-2015 14:54:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505006.D

Injection Date:	05-May-2015 12:48:30	Instrument ID:	CHHP6	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_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.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-140387/6

Matrix: Water | Lab File ID: 60503006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 13:26

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.02		1.0	0.28
75-01-4	Vinyl chloride	9.47		1.0	0.23
74-83-9	Bromomethane	9.57		1.0	0.31
75-00-3	Chloroethane	9.76		1.0	0.21
75-35-4	1,1-Dichloroethene	10.1		1.0	0.30
67-64-1	Acetone	28.8		5.0	2.5
75-15-0	Carbon disulfide	10.3		1.0	0.21
75-09-2	Methylene Chloride	10.5		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.7		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.87		1.0	0.18
75-34-3	1,1-Dichloroethane	10.7		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.2		1.0	0.24
74-97-5	Bromochloromethane	9.79		1.0	0.18
78-93-3	2-Butanone (MEK)	24.2		5.0	0.55
67-66-3	Chloroform	10.3		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.98		1.0	0.29
56-23-5	Carbon tetrachloride	9.68		1.0	0.14
71-43-2	Benzene	10.6		1.0	0.11
107-06-2	1,2-Dichloroethane	10.6		1.0	0.21
79-01-6	Trichloroethene	10.2		1.0	0.14
78-87-5	1,2-Dichloropropane	10.3		1.0	0.095
75-27-4	Bromodichloromethane	9.20		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.29		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.8		5.0	0.53
108-88-3	Toluene	10.6		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.71		1.0	0.20
127-18-4	Tetrachloroethene	10.1		1.0	0.15
591-78-6	2-Hexanone	20.1		5.0	0.16
124-48-1	Dibromochloromethane	9.10		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.64		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.1		1.0	0.28
100-41-4	Ethylbenzene	10.3		1.0	0.23
1330-20-7	Xylenes, Total	20.5		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-140387/6

Matrix: Water Lab File ID: 60503006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/03/2015 13:26

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 140387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.89		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.73		1.0	0.20
107-13-1	Acrylonitrile	97.4		20	0.55
123-91-1	1,4-Dioxane	174	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)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503006.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-May-2015 13:26:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0006739-006
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 13:48:37 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 13:48:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.250	4.241	0.009	99	206599	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.283	0.003	98	355095	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	90	76306	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.746	0.003	95	116679	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.553	0.003	91	74310	50.0	50.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	71	127527	50.0	52.0	
$ 7 Toluene-d8 (Surr)	98	8.940	8.944	-0.004	95	333969	50.0	51.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.584	0.003	79	141743	50.0	53.9	
11 Dichlorodifluoromethane	85	1.604	1.601	0.003	99	91238	50.0	42.1	
12 Chloromethane	50	1.762	1.765	-0.003	99	81286	50.0	45.1	
13 Vinyl chloride	62	1.890	1.893	-0.003	98	90863	50.0	47.3	
14 Butadiene	39	1.932	1.936	-0.004	97	86473	50.0	47.2	
15 Bromomethane	94	2.249	2.240	0.009	91	47820	50.0	47.8	
16 Chloroethane	64	2.382	2.386	-0.004	99	59015	50.0	48.8	
17 Dichlorofluoromethane	67	2.656	2.660	-0.004	97	152511	50.0	52.2	
18 Trichlorofluoromethane	101	2.681	2.684	-0.004	87	117262	50.0	52.8	
20 Ethyl ether	59	3.046	3.049	-0.003	88	93519	50.0	56.5	
21 Acrolein	56	3.222	3.219	0.003	99	45252	150.0	153.9	
22 1,1-Dichloroethene	96	3.338	3.341	-0.003	97	83225	50.0	50.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.414	-0.003	96	85140	50.0	51.3	
24 Acetone	43	3.435	3.426	0.009	98	67817	100.0	143.9	
25 Iodomethane	142	3.532	3.530	0.002	99	115625	50.0	55.0	
26 Carbon disulfide	76	3.636	3.627	0.009	100	247758	50.0	51.4	
29 3-Chloro-1-propene	76	3.915	3.913	0.002	56	51858	50.0	44.9	
30 Methyl acetate	43	3.928	3.925	0.003	96	392717	250.0	252.4	
31 Methylene Chloride	84	4.134	4.126	0.008	93	105106	50.0	52.7	
32 2-Methyl-2-propanol	59	4.378	4.381	-0.003	98	111912	500.0	497.2	
33 Acrylonitrile	53	4.512	4.503	0.009	100	386714	500.0	487.0	
34 trans-1,2-Dichloroethene	96	4.560	4.564	-0.004	71	98369	50.0	53.7	
35 Methyl tert-butyl ether	73	4.572	4.570	0.002	96	324659	50.0	49.4	
36 Hexane	57	4.986	4.984	0.002	92	126002	50.0	51.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.197	0.003	96	184941	50.0	53.7	
38 Vinyl acetate	43	5.236	5.239	-0.003	97	130430	50.0	31.5	
43 cis-1,2-Dichloroethene	96	5.941	5.939	0.002	86	106735	50.0	51.2	
42 2,2-Dichloropropane	77	5.947	5.939	0.008	65	105882	50.0	49.6	
44 2-Butanone (MEK)	43	5.947	5.951	-0.004	73	95081	100.0	121.2	
48 Chlorobromomethane	128	6.227	6.231	-0.004	95	41828	50.0	49.0	
49 Tetrahydrofuran	42	6.245	6.249	-0.004	85	62158	100.0	85.3	
50 Chloroform	83	6.367	6.371	-0.004	94	170634	50.0	51.3	
51 1,1,1-Trichloroethane	97	6.537	6.541	-0.004	98	136419	50.0	49.9	
52 Cyclohexane	56	6.617	6.614	0.002	89	161890	50.0	49.3	
53 Carbon tetrachloride	117	6.714	6.711	0.003	80	101073	50.0	48.4	
54 1,1-Dichloropropene	75	6.726	6.723	0.003	94	148166	50.0	56.0	
55 Isobutyl alcohol	41	6.902	6.900	0.002	93	82360	1250.0	1150.9	
56 Benzene	78	6.939	6.942	-0.003	97	415603	50.0	53.2	
57 1,2-Dichloroethane	62	7.018	7.022	-0.004	98	157559	50.0	53.1	
59 n-Heptane	43	7.310	7.307	0.003	87	93657	50.0	49.6	
61 Trichloroethene	130	7.681	7.679	0.002	93	86367	50.0	51.1	
63 Methylcyclohexane	83	7.918	7.922	-0.004	89	155338	50.0	48.8	
64 1,2-Dichloropropane	63	7.949	7.952	-0.003	94	105571	50.0	51.3	
67 Dibromomethane	93	8.034	8.037	-0.003	88	61263	50.0	49.1	
65 1,4-Dioxane	88	8.040	8.037	0.003	43	17309	1000.0	872.4	
68 Dichlorobromomethane	83	8.235	8.232	0.003	98	114650	50.0	46.0	
71 cis-1,3-Dichloropropene	75	8.679	8.676	0.003	94	153206	50.0	46.5	
72 4-Methyl-2-pentanone (MIBK	43	8.825	8.828	-0.003	95	181783	100.0	88.9	
73 Toluene	91	9.013	9.011	0.002	98	419663	50.0	53.0	
74 trans-1,3-Dichloropropene	75	9.251	9.254	-0.003	94	144620	50.0	50.2	
75 Ethyl methacrylate	69	9.318	9.315	0.003	88	129143	50.0	44.7	
76 1,1,2-Trichloroethane	97	9.451	9.449	0.002	94	83609	50.0	48.5	
77 Tetrachloroethene	164	9.524	9.528	-0.004	93	65647	50.0	50.4	
78 1,3-Dichloropropane	76	9.610	9.607	0.003	91	164836	50.0	50.6	
79 2-Hexanone	43	9.658	9.662	-0.004	95	125464	100.0	100.6	
81 Chlorodibromomethane	129	9.822	9.826	-0.004	89	61717	50.0	45.5	
82 Ethylene Dibromide	107	9.938	9.942	-0.004	99	78526	50.0	48.2	
83 3-Chlorobenzotrifluoride	180	10.394	10.398	-0.004	86	122424	50.0	50.6	
84 Chlorobenzene	112	10.425	10.428	-0.003	92	262916	50.0	52.6	
85 4-Chlorobenzotrifluoride	180	10.486	10.483	0.003	96	114493	50.0	49.9	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.520	0.002	91	73738	50.0	50.4	
87 Ethylbenzene	106	10.528	10.526	0.002	99	143928	50.0	51.6	
88 m-Xylene & p-Xylene	106	10.662	10.659	0.003	100	176986	50.0	50.6	
89 o-Xylene	106	11.039	11.043	-0.004	97	176294	50.0	52.0	
90 Styrene	104	11.064	11.061	0.003	94	282193	50.0	50.6	
91 Bromoform	173	11.246	11.250	-0.004	92	34206	50.0	39.5	
92 2-Chlorobenzotrifluoride	180	11.307	11.304	0.003	94	125145	50.0	51.3	
93 Isopropylbenzene	105	11.410	11.408	0.002	98	435114	50.0	52.8	
96 1,1,2,2-Tetrachloroethane	83	11.714	11.718	-0.004	96	115043	50.0	48.6	
95 Bromobenzene	156	11.727	11.724	0.003	95	95267	50.0	50.3	
97 trans-1,4-Dichloro-2-buten	53	11.751	11.754	-0.003	76	36359	50.0	41.8	
98 1,2,3-Trichloropropane	110	11.775	11.773	0.002	83	37953	50.0	45.6	
99 N-Propylbenzene	120	11.824	11.827	-0.003	99	114145	50.0	50.0	
100 2-Chlorotoluene	126	11.909	11.913	-0.004	94	92745	50.0	49.4	
101 3-Chlorotoluene	126	11.976	11.980	-0.004	98	101331	50.0	49.6	
102 1,3,5-Trimethylbenzene	105	12.006	12.010	-0.004	92	375667	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.037	12.034	0.003	99	103230	50.0	52.2	
104 tert-Butylbenzene	119	12.323	12.326	-0.003	91	284824	50.0	51.2	
106 1,2,4-Trimethylbenzene	105	12.384	12.381	0.003	98	377384	50.0	49.6	
107 1,2-dichloro-4-(trifluorom	214	12.420	12.424	-0.004	96	94854	50.0	49.5	
108 sec-Butylbenzene	105	12.548	12.551	-0.003	96	433389	50.0	51.2	
109 1,3-Dichlorobenzene	146	12.670	12.667	0.003	92	180082	50.0	49.9	
110 4-Isopropyltoluene	119	12.706	12.710	-0.004	96	341686	50.0	51.0	
111 1,4-Dichlorobenzene	146	12.773	12.770	0.003	89	189034	50.0	50.6	
113 2,4-Dichloro-1-(triflourom	214	12.791	12.795	-0.004	92	89110	50.0	47.0	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.831	0.003	97	105742	50.0	51.0	
116 n-Butylbenzene	91	13.114	13.117	-0.003	98	340691	50.0	50.6	
117 1,2-Dichlorobenzene	146	13.126	13.129	-0.003	93	178858	50.0	50.1	
118 1,2-Dibromo-3-Chloropropan	75	13.917	13.914	0.003	69	21092	50.0	38.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.060	0.003	98	482108	150.0	159.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.476	14.474	0.002	99	348223	100.0	105.4	
122 1,2,4-Trichlorobenzene	180	14.744	14.741	0.003	93	130108	50.0	52.0	
123 Hexachlorobutadiene	225	14.890	14.887	0.003	96	42339	50.0	49.7	
124 Naphthalene	128	15.006	15.009	-0.003	99	315473	50.0	47.6	
125 1,2,3-Trichlorobenzene	180	15.231	15.234	-0.003	93	120441	50.0	51.3	
126 2,4,5-Trichlorotoluene	159	16.009	16.007	0.002	0	67628	50.0	45.6	
127 2,3,6-Trichlorotoluene	159	16.113	16.110	0.003	92	63571	50.0	47.2	
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	
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	102.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	104.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	96.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaW VA pri R_00005	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00114	Amount Added:	2.00	Units: uL		
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL		
voaW ee2nd_00001	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent	

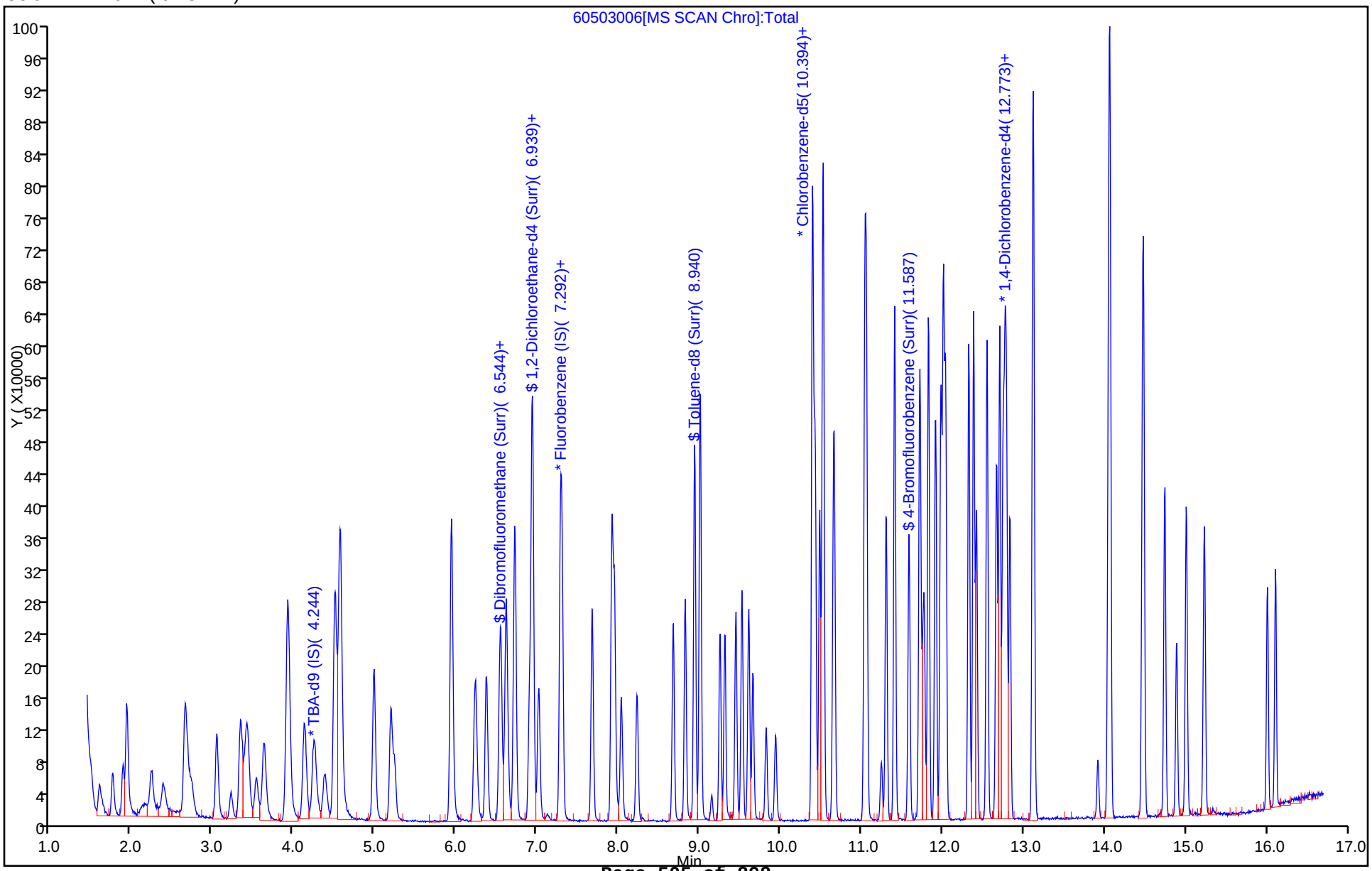
Report Date: 03-May-2015 13:48:37 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503006.D

Injection Date:	03-May-2015 13:26:30	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)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-140474/10

Matrix: Water | Lab File ID: 60504010.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 15:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.83		1.0	0.28
75-01-4	Vinyl chloride	10.1		1.0	0.23
74-83-9	Bromomethane	9.19		1.0	0.31
75-00-3	Chloroethane	10.6		1.0	0.21
75-35-4	1,1-Dichloroethene	9.65		1.0	0.30
67-64-1	Acetone	42.6		5.0	2.5
75-15-0	Carbon disulfide	9.78		1.0	0.21
75-09-2	Methylene Chloride	10.7		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.58		1.0	0.18
75-34-3	1,1-Dichloroethane	10.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.51		1.0	0.24
74-97-5	Bromochloromethane	9.30		1.0	0.18
78-93-3	2-Butanone (MEK)	28.8		5.0	0.55
67-66-3	Chloroform	10.3		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.83		1.0	0.29
56-23-5	Carbon tetrachloride	9.47		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	10.5		1.0	0.21
79-01-6	Trichloroethene	9.43		1.0	0.14
78-87-5	1,2-Dichloropropane	9.79		1.0	0.095
75-27-4	Bromodichloromethane	8.91		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.87		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	15.7		5.0	0.53
108-88-3	Toluene	10.6		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.57		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.84		1.0	0.20
127-18-4	Tetrachloroethene	10.2		1.0	0.15
591-78-6	2-Hexanone	25.0		5.0	0.16
124-48-1	Dibromochloromethane	8.45		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.51		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.63		1.0	0.28
100-41-4	Ethylbenzene	10.2		1.0	0.23
1330-20-7	Xylenes, Total	20.5		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.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-140474/10

Matrix: Water | Lab File ID: 60504010.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 15:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.50		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.32		1.0	0.20
107-13-1	Acrylonitrile	91.2		20	0.55
123-91-1	1,4-Dioxane	182	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504010.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 04-May-2015 15:27:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0006756-010
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-May-2015 15:49:55 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: fergusond Date: 04-May-2015 15:49:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.254	-0.012	98	185980	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	98	368102	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	75839	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	95	119228	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.547	6.553	-0.006	92	74740	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.924	0.007	79	127529	50.0	50.1	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	335512	50.0	52.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	78	133975	50.0	51.2	
11 Dichlorodifluoromethane	85	1.602	1.601	0.001	99	92094	50.0	41.0	
12 Chloromethane	50	1.760	1.765	-0.005	99	82533	50.0	44.2	
13 Vinyl chloride	62	1.881	1.887	-0.006	98	100581	50.0	50.6	
14 Butadiene	39	1.930	1.942	-0.012	93	90352	50.0	47.6	
15 Bromomethane	94	2.234	2.240	-0.006	90	47620	50.0	46.0	
16 Chloroethane	64	2.368	2.380	-0.012	99	66482	50.0	53.0	
17 Dichlorofluoromethane	67	2.642	2.654	-0.012	97	158186	50.0	52.2	
18 Trichlorofluoromethane	101	2.654	2.678	-0.024	70	119962	50.0	52.1	
20 Ethyl ether	59	3.043	3.049	-0.006	89	90346	50.0	52.6	
21 Acrolein	56	3.214	3.226	-0.012	98	51608	150.0	169.3	
22 1,1-Dichloroethene	96	3.335	3.335	0.000	96	82216	50.0	48.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.402	3.420	-0.018	95	85037	50.0	49.4	
24 Acetone	43	3.427	3.432	-0.005	99	104011	100.0	212.9	
25 Iodomethane	142	3.530	3.524	0.006	99	113474	50.0	52.1	
26 Carbon disulfide	76	3.627	3.621	0.006	100	244284	50.0	48.9	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	49161	50.0	41.1	
30 Methyl acetate	43	3.926	3.925	0.001	96	371791	250.0	230.5	
31 Methylene Chloride	84	4.126	4.120	0.006	93	110846	50.0	53.6	
32 2-Methyl-2-propanol	59	4.382	4.381	0.001	97	97429	500.0	480.9	
33 Acrylonitrile	53	4.503	4.503	0.000	98	375247	500.0	455.9	
34 trans-1,2-Dichloroethene	96	4.564	4.558	0.006	96	97570	50.0	51.4	
35 Methyl tert-butyl ether	73	4.576	4.570	0.006	96	326588	50.0	47.9	
36 Hexane	57	4.984	4.978	0.006	92	130249	50.0	51.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.197	5.190	0.007	97	181916	50.0	50.9	
38 Vinyl acetate	43	5.240	5.233	0.007	97	142915	50.0	33.3	
42 2,2-Dichloropropane	77	5.939	5.933	0.006	66	114395	50.0	51.7	
43 cis-1,2-Dichloroethene	96	5.933	5.933	0.000	85	102716	50.0	47.6	
44 2-Butanone (MEK)	43	5.945	5.939	0.006	82	117053	100.0	143.9	
48 Chlorobromomethane	128	6.231	6.231	0.000	95	41203	50.0	46.5	
49 Tetrahydrofuran	42	6.249	6.243	0.006	87	58855	100.0	77.9	
50 Chloroform	83	6.371	6.371	0.000	94	178323	50.0	51.7	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	97	139285	50.0	49.1	
52 Cyclohexane	56	6.614	6.620	-0.006	90	162893	50.0	47.9	
53 Carbon tetrachloride	117	6.718	6.711	0.007	70	102435	50.0	47.3	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	93	146137	50.0	53.3	
55 Isobutyl alcohol	41	6.906	6.900	0.006	91	68939	1250.0	929.3	
56 Benzene	78	6.943	6.943	0.001	97	421283	50.0	52.0	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	99	161302	50.0	52.4	
59 n-Heptane	43	7.308	7.308	0.000	89	96501	50.0	49.3	
61 Trichloroethene	130	7.679	7.673	0.006	91	82601	50.0	47.2	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	155443	50.0	47.1	
64 1,2-Dichloropropane	63	7.953	7.946	0.007	94	104530	50.0	49.0	
65 1,4-Dioxane	88	8.038	8.038	0.000	42	18727	1000.0	910.5	
67 Dibromomethane	93	8.038	8.038	0.000	89	60764	50.0	47.0	
68 Dichlorobromomethane	83	8.233	8.226	0.007	98	115134	50.0	44.6	
71 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	93	151698	50.0	44.4	
72 4-Methyl-2-pentanone (MIBK	43	8.823	8.822	0.001	96	159936	100.0	78.7	
73 Toluene	91	9.011	9.011	0.000	98	415026	50.0	52.8	
74 trans-1,3-Dichloropropene	75	9.255	9.254	0.001	96	136998	50.0	47.8	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	126436	50.0	44.1	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	84222	50.0	49.2	
77 Tetrachloroethene	164	9.522	9.522	0.000	90	66179	50.0	51.1	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	163970	50.0	50.6	
79 2-Hexanone	43	9.662	9.662	0.000	96	154767	100.0	124.9	
81 Chlorodibromomethane	129	9.826	9.826	0.000	89	56970	50.0	42.3	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	76943	50.0	47.5	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	90	118843	50.0	49.5	
84 Chlorobenzene	112	10.429	10.428	0.001	92	264180	50.0	53.2	
85 4-Chlorobenzotrifluoride	180	10.484	10.483	0.001	96	110633	50.0	48.5	
86 1,1,1,2-Tetrachloroethane	131	10.526	10.520	0.006	45	70095	50.0	48.2	
87 Ethylbenzene	106	10.526	10.526	0.000	99	141881	50.0	51.1	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	100	177705	50.0	51.2	
89 o-Xylene	106	11.043	11.043	0.000	97	172806	50.0	51.3	
90 Styrene	104	11.061	11.061	0.000	94	281753	50.0	50.8	
91 Bromoform	173	11.250	11.250	0.000	92	32316	50.0	37.5	
92 2-Chlorobenzotrifluoride	180	11.305	11.304	0.001	93	116781	50.0	48.2	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	439738	50.0	53.7	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	109543	50.0	46.6	
95 Bromobenzene	156	11.725	11.724	0.001	96	92489	50.0	47.8	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.748	0.007	80	33709	50.0	38.0	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	84	38237	50.0	45.0	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	112776	50.0	48.4	
100 2-Chlorotoluene	126	11.913	11.919	-0.006	93	91872	50.0	47.9	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	99091	50.0	47.5	
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	369956	50.0	49.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.035	12.040	-0.005	99	98732	50.0	48.8	
104 tert-Butylbenzene	119	12.327	12.326	0.001	91	279502	50.0	49.2	
106 1,2,4-Trimethylbenzene	105	12.382	12.381	0.001	98	381330	50.0	49.1	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	92434	50.0	47.2	
108 sec-Butylbenzene	105	12.546	12.551	-0.005	96	436195	50.0	50.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	180399	50.0	48.9	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	338930	50.0	49.5	
111 1,4-Dichlorobenzene	146	12.771	12.770	0.001	89	184133	50.0	48.3	
113 2,4-Dichloro-1-(triflourom	214	12.789	12.795	-0.006	95	94650	50.0	48.9	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.831	0.001	97	96955	50.0	45.8	
116 n-Butylbenzene	91	13.112	13.117	-0.005	99	346130	50.0	50.3	
117 1,2-Dichlorobenzene	146	13.130	13.123	0.007	91	181420	50.0	49.7	
118 1,2-Dibromo-3-Chloropropan	75	13.921	13.914	0.007	67	20316	50.0	36.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.060	0.001	97	463078	150.0	150.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.480	-0.006	98	338226	100.0	100.2	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	91	132320	50.0	51.8	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	95	43461	50.0	49.9	
124 Naphthalene	128	15.004	15.009	-0.005	99	303153	50.0	44.8	
125 1,2,3-Trichlorobenzene	180	15.235	15.228	0.007	92	122669	50.0	51.1	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	73224	50.0	48.3	
127 2,3,6-Trichlorotoluene	159	16.111	16.110	0.001	91	69019	50.0	50.2	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	98.9	
S 131 Xylenes, Total	106				0		100.0	102.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	92.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00114	Amount Added:	2.00	Units: uL	
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL	
voaW ee2nd_00001	Amount Added:	2.00	Units: uL	
voaW VA pri R_00005	Amount Added:	2.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

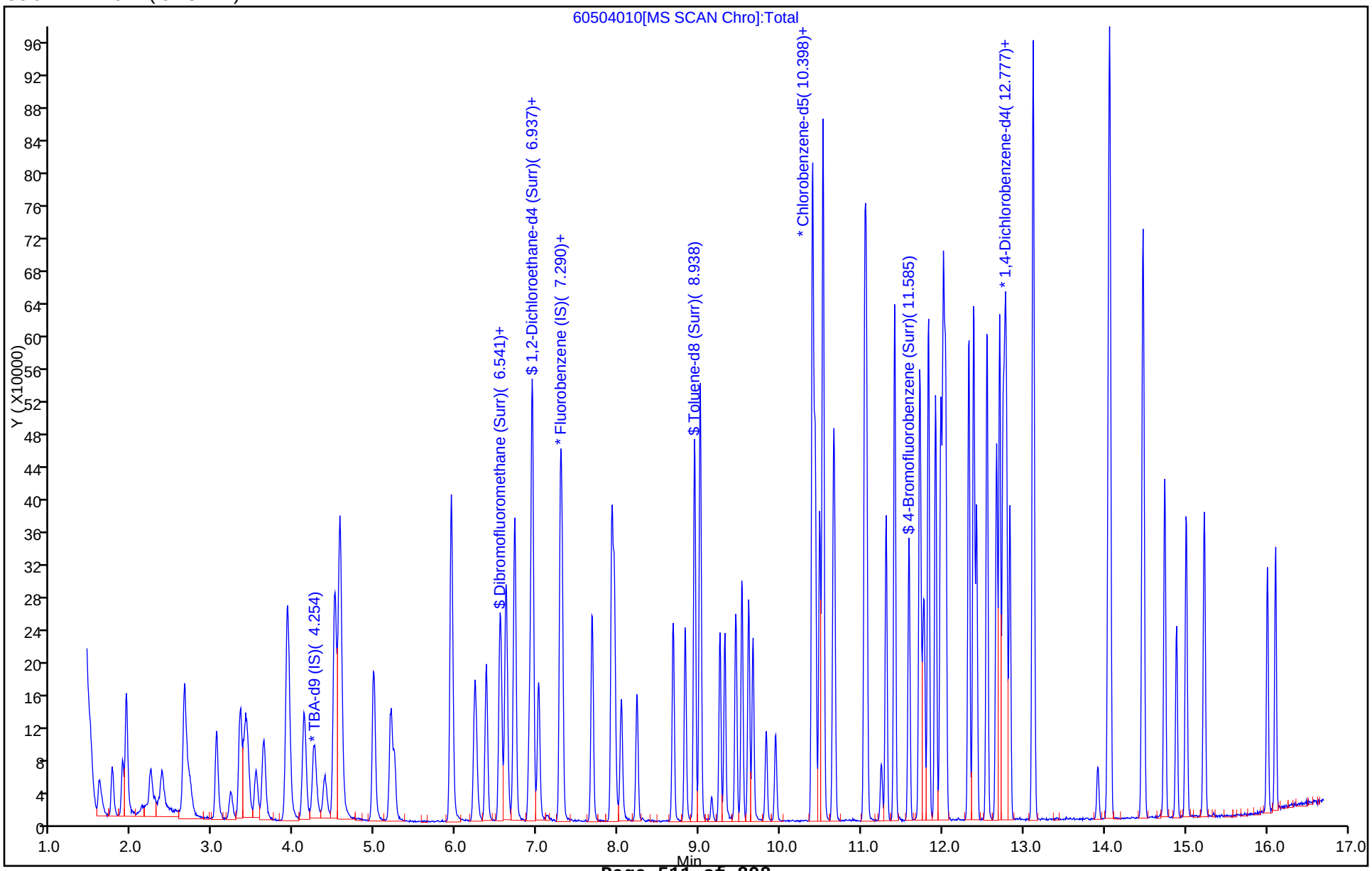
Report Date: 04-May-2015 15:49:55 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504010.D

Injection Date:	04-May-2015 15:27:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-140579/9

Matrix: Water | Lab File ID: 60505009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/05/2015 14:35

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.: 140579 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.5		1.0	0.28
75-01-4	Vinyl chloride	11.2		1.0	0.23
74-83-9	Bromomethane	12.3		1.0	0.31
75-00-3	Chloroethane	12.2		1.0	0.21
75-35-4	1,1-Dichloroethene	11.3		1.0	0.30
67-64-1	Acetone	27.5		5.0	2.5
75-15-0	Carbon disulfide	11.7		1.0	0.21
75-09-2	Methylene Chloride	12.2		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.5		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.8		1.0	0.18
75-34-3	1,1-Dichloroethane	12.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.5		1.0	0.24
74-97-5	Bromochloromethane	10.0		1.0	0.18
78-93-3	2-Butanone (MEK)	23.5		5.0	0.55
67-66-3	Chloroform	11.6		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.3		1.0	0.29
56-23-5	Carbon tetrachloride	10.9		1.0	0.14
71-43-2	Benzene	11.8		1.0	0.11
107-06-2	1,2-Dichloroethane	12.0		1.0	0.21
79-01-6	Trichloroethene	11.1		1.0	0.14
78-87-5	1,2-Dichloropropane	10.9		1.0	0.095
75-27-4	Bromodichloromethane	10.1		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.78		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.8		5.0	0.53
108-88-3	Toluene	11.9		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.3		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	11.1		1.0	0.15
591-78-6	2-Hexanone	19.7		5.0	0.16
124-48-1	Dibromochloromethane	9.55		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.4		1.0	0.18
108-90-7	Chlorobenzene	11.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.3		1.0	0.28
100-41-4	Ethylbenzene	11.4		1.0	0.23
1330-20-7	Xylenes, Total	22.4		3.0	0.49
100-42-5	Styrene	10.9		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-140579/9

Matrix: Water | Lab File ID: 60505009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/05/2015 14:35

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.: 140579 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.96		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.9		1.0	0.20
107-13-1	Acrylonitrile	106		20	0.55
123-91-1	1,4-Dioxane	175	J	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)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505009.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 05-May-2015 14:35:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0006773-009
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 14:55:56 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 14:56:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.238	4.239	-0.001	96	155828	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.286	0.000	97	320979	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.394	10.401	-0.007	91	66925	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.743	0.006	95	101010	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.550	6.547	0.003	92	71038	50.0	53.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.931	0.002	72	123523	50.0	55.7	
$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	94	301346	50.0	53.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.581	11.585	-0.003	78	124465	50.0	53.9	
11 Dichlorodifluoromethane	85	1.604	1.602	0.002	99	90383	50.0	46.1	
12 Chloromethane	50	1.762	1.766	-0.004	100	85546	50.0	52.5	
13 Vinyl chloride	62	1.890	1.894	-0.004	99	96921	50.0	55.9	
14 Butadiene	39	1.938	1.942	-0.004	94	102900	50.0	62.1	
15 Bromomethane	94	2.255	2.246	0.009	93	55418	50.0	61.3	
16 Chloroethane	64	2.401	2.392	0.009	100	66601	50.0	60.9	
17 Dichlorofluoromethane	67	2.656	2.660	-0.004	97	165607	50.0	62.7	
18 Trichlorofluoromethane	101	2.680	2.678	0.002	85	124627	50.0	62.1	
20 Ethyl ether	59	3.046	3.043	0.003	88	90273	50.0	60.3	
21 Acrolein	56	3.222	3.220	0.002	98	34894	150.0	131.3	
22 1,1-Dichloroethene	96	3.338	3.341	-0.003	96	83700	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.404	3.420	-0.016	95	87900	50.0	58.6	
24 Acetone	43	3.435	3.427	0.008	94	58537	100.0	137.4	
25 Iodomethane	142	3.532	3.536	-0.004	99	111013	50.0	58.4	
26 Carbon disulfide	76	3.630	3.633	-0.003	100	254919	50.0	58.5	
29 3-Chloro-1-propene	76	3.915	3.913	0.002	89	46508	50.0	44.6	
30 Methyl acetate	43	3.928	3.925	0.003	96	387072	250.0	275.2	
31 Methylene Chloride	84	4.122	4.132	-0.010	92	110076	50.0	61.0	
32 2-Methyl-2-propanol	59	4.366	4.370	-0.004	98	85579	500.0	504.1	
33 Acrylonitrile	53	4.506	4.497	0.009	98	381782	500.0	531.9	
34 trans-1,2-Dichloroethene	96	4.566	4.558	0.008	66	95509	50.0	57.7	
35 Methyl tert-butyl ether	73	4.572	4.570	0.002	97	320851	50.0	54.0	
36 Hexane	57	4.986	4.990	-0.004	92	127425	50.0	57.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.197	0.002	97	189948	50.0	61.0	
38 Vinyl acetate	43	5.236	5.239	-0.003	97	127330	50.0	34.0	
42 2,2-Dichloropropane	77	5.941	5.939	0.002	65	110864	50.0	57.5	
43 cis-1,2-Dichloroethene	96	5.941	5.945	-0.004	86	98498	50.0	52.3	
44 2-Butanone (MEK)	43	5.947	5.951	-0.004	64	83252	100.0	117.4	
48 Chlorobromomethane	128	6.233	6.231	0.002	94	38751	50.0	50.2	
49 Tetrahydrofuran	42	6.245	6.243	0.002	81	54996	100.0	83.5	
50 Chloroform	83	6.373	6.371	0.002	96	175089	50.0	58.2	
51 1,1,1-Trichloroethane	97	6.537	6.541	-0.004	97	139652	50.0	56.5	
52 Cyclohexane	56	6.623	6.614	0.009	89	162234	50.0	54.7	
53 Carbon tetrachloride	117	6.714	6.718	-0.004	95	102838	50.0	54.5	
54 1,1-Dichloropropene	75	6.726	6.724	0.002	95	147879	50.0	61.8	
55 Isobutyl alcohol	41	6.896	6.894	0.002	90	73739	1250.0	1139.9	
56 Benzene	78	6.945	6.943	0.002	97	415590	50.0	58.9	
57 1,2-Dichloroethane	62	7.018	7.016	0.002	98	161172	50.0	60.1	
59 n-Heptane	43	7.310	7.308	0.002	88	93355	50.0	54.7	
61 Trichloroethene	130	7.675	7.679	-0.004	90	84616	50.0	55.4	
63 Methylcyclohexane	83	7.918	7.922	-0.004	90	157352	50.0	54.7	
64 1,2-Dichloropropane	63	7.955	7.953	0.002	94	101479	50.0	54.5	
65 1,4-Dioxane	88	8.040	8.032	0.008	35	15664	1000.0	873.4	M
67 Dibromomethane	93	8.034	8.032	0.002	86	60239	50.0	53.4	
68 Dichlorobromomethane	83	8.229	8.233	-0.003	98	113573	50.0	50.4	
70 2-Chloroethyl vinyl ether	63	8.533	8.531	0.002	93	124483	100.0	100.1	
71 cis-1,3-Dichloropropene	75	8.679	8.677	0.002	94	145734	50.0	48.9	
72 4-Methyl-2-pentanone (MIBK	43	8.825	8.823	0.002	95	159710	100.0	89.0	
73 Toluene	91	9.013	9.011	0.002	98	411697	50.0	59.3	
74 trans-1,3-Dichloropropene	75	9.257	9.255	0.002	95	130644	50.0	51.7	
75 Ethyl methacrylate	69	9.311	9.315	-0.004	88	119445	50.0	47.2	
76 1,1,2-Trichloroethane	97	9.451	9.449	0.002	95	82133	50.0	54.4	
77 Tetrachloroethene	164	9.524	9.522	0.002	91	63289	50.0	55.4	
78 1,3-Dichloropropane	76	9.610	9.607	0.003	92	161192	50.0	56.4	
79 2-Hexanone	43	9.658	9.662	-0.004	95	107708	100.0	98.5	
81 Chlorodibromomethane	129	9.822	9.826	-0.004	88	56796	50.0	47.8	
82 Ethylene Dibromide	107	9.938	9.942	-0.004	99	74166	50.0	51.9	
83 3-Chlorobenzotrifluoride	180	10.394	10.392	0.002	91	106921	50.0	50.4	
84 Chlorobenzene	112	10.431	10.429	0.002	91	249478	50.0	56.9	
85 4-Chlorobenzotrifluoride	180	10.486	10.483	0.003	96	101779	50.0	50.6	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.520	0.002	88	65957	50.0	51.4	
87 Ethylbenzene	106	10.528	10.526	0.002	99	139504	50.0	57.0	
88 m-Xylene & p-Xylene	106	10.662	10.660	0.002	99	171235	50.0	55.9	
89 o-Xylene	106	11.039	11.043	-0.004	97	166659	50.0	56.0	
90 Styrene	104	11.064	11.061	0.003	94	267599	50.0	54.7	
91 Bromoform	173	11.246	11.244	0.002	89	30251	50.0	39.8	
92 2-Chlorobenzotrifluoride	180	11.307	11.305	0.002	93	107407	50.0	50.2	
93 Isopropylbenzene	105	11.410	11.408	0.002	97	430824	50.0	59.6	
96 1,1,2,2-Tetrachloroethane	83	11.714	11.712	0.002	96	112636	50.0	54.3	
95 Bromobenzene	156	11.721	11.724	-0.003	95	87685	50.0	53.5	
97 trans-1,4-Dichloro-2-buten	53	11.751	11.755	-0.004	79	25346	50.0	33.7	
98 1,2,3-Trichloropropane	110	11.775	11.773	0.002	86	37392	50.0	51.9	
99 N-Propylbenzene	120	11.824	11.828	-0.004	99	108519	50.0	54.9	
100 2-Chlorotoluene	126	11.915	11.913	0.002	93	87539	50.0	53.9	
101 3-Chlorotoluene	126	11.982	11.980	0.002	97	88189	50.0	49.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.006	12.010	-0.004	93	362420	50.0	57.7	
103 4-Chlorotoluene	126	12.037	12.035	0.002	98	96909	50.0	56.6	
104 tert-Butylbenzene	119	12.323	12.327	-0.004	90	270776	50.0	56.2	
106 1,2,4-Trimethylbenzene	105	12.384	12.381	0.003	98	366648	50.0	55.7	
107 1,2-dichloro-4-(trifluorom	214	12.420	12.418	0.002	96	84259	50.0	50.8	
108 sec-Butylbenzene	105	12.548	12.546	0.002	96	428922	50.0	58.5	
109 1,3-Dichlorobenzene	146	12.670	12.667	0.003	92	175562	50.0	56.1	
110 4-Isopropyltoluene	119	12.706	12.704	0.002	95	328387	50.0	56.7	
111 1,4-Dichlorobenzene	146	12.773	12.771	0.002	88	182160	50.0	56.4	
113 2,4-Dichloro-1-(triflourom	214	12.791	12.789	0.002	94	82322	50.0	50.2	
114 2,5-Dichlorobenzotrifluori	214	12.828	12.832	-0.004	97	91940	50.0	51.2	
116 n-Butylbenzene	91	13.114	13.111	0.003	98	329131	50.0	56.5	
117 1,2-Dichlorobenzene	146	13.126	13.124	0.002	89	171400	50.0	55.4	
118 1,2-Dibromo-3-Chloropropan	75	13.917	13.914	0.003	64	19157	50.0	40.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.057	14.060	-0.003	96	395703	150.0	151.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.470	14.474	-0.004	98	285937	100.0	99.9	
122 1,2,4-Trichlorobenzene	180	14.744	14.742	0.002	91	104293	50.0	48.1	
123 Hexachlorobutadiene	225	14.884	14.888	-0.004	95	37144	50.0	50.3	
124 Naphthalene	128	15.006	15.009	-0.003	99	255766	50.0	44.6	
125 1,2,3-Trichlorobenzene	180	15.231	15.229	0.003	91	92113	50.0	45.3	
126 2,4,5-Trichlorotoluene	159	16.009	16.007	0.002	0	41505	50.0	32.3	
127 2,3,6-Trichlorotoluene	159	16.107	16.111	-0.004	92	41085	50.0	35.2	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	110.0	
S 131 Xylenes, Total	106				0		100.0	111.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	100.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00114	Amount Added:	2.00	Units: uL		
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL		
voaW ee2nd_00001	Amount Added:	2.00	Units: uL		
voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL		
VOACEVEPRI_00006	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent	

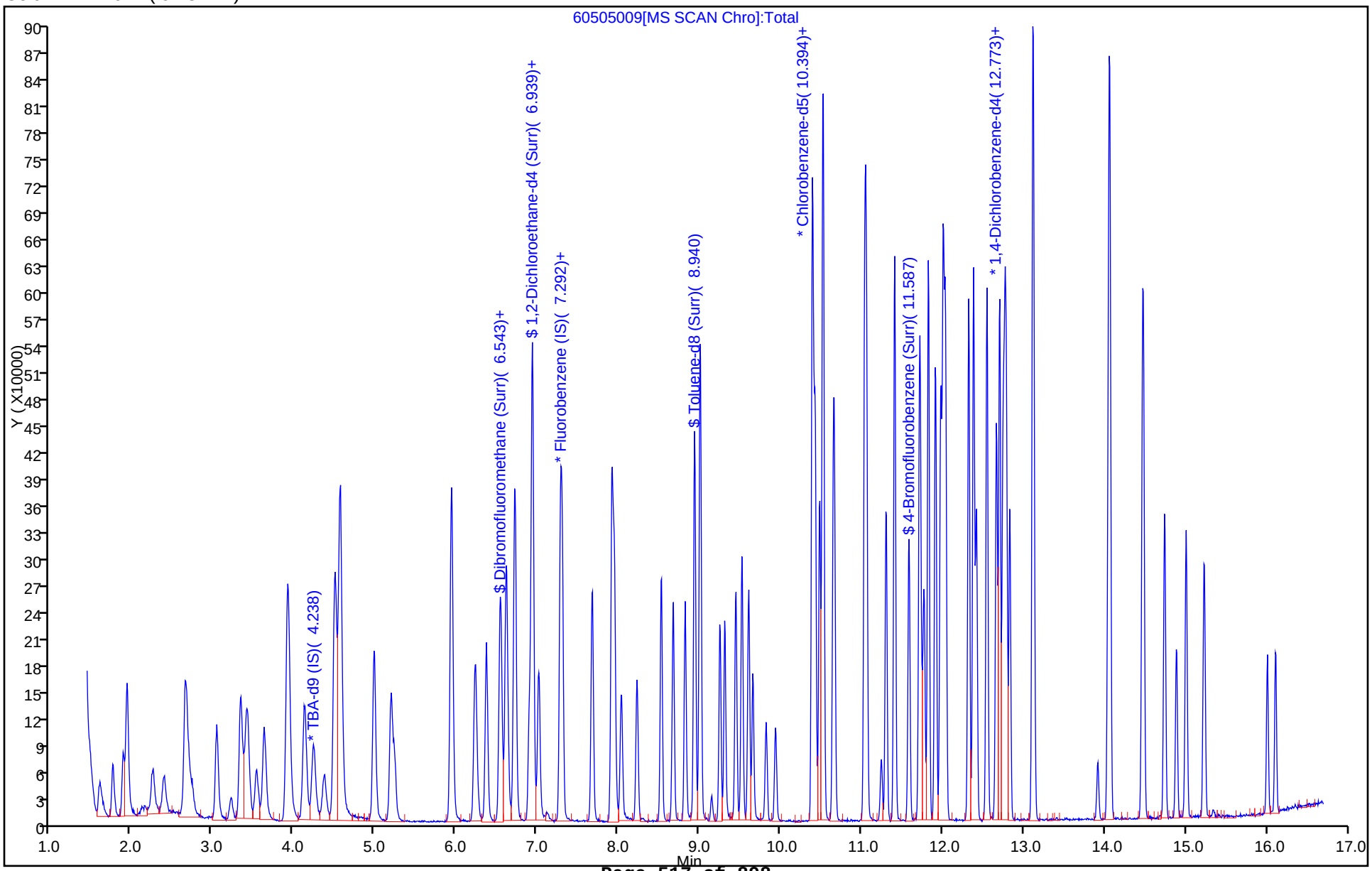
Report Date: 05-May-2015 14:56:45 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505009.D

Injection Date:	05-May-2015 14:35:30	Instrument ID:	CHHP6	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_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

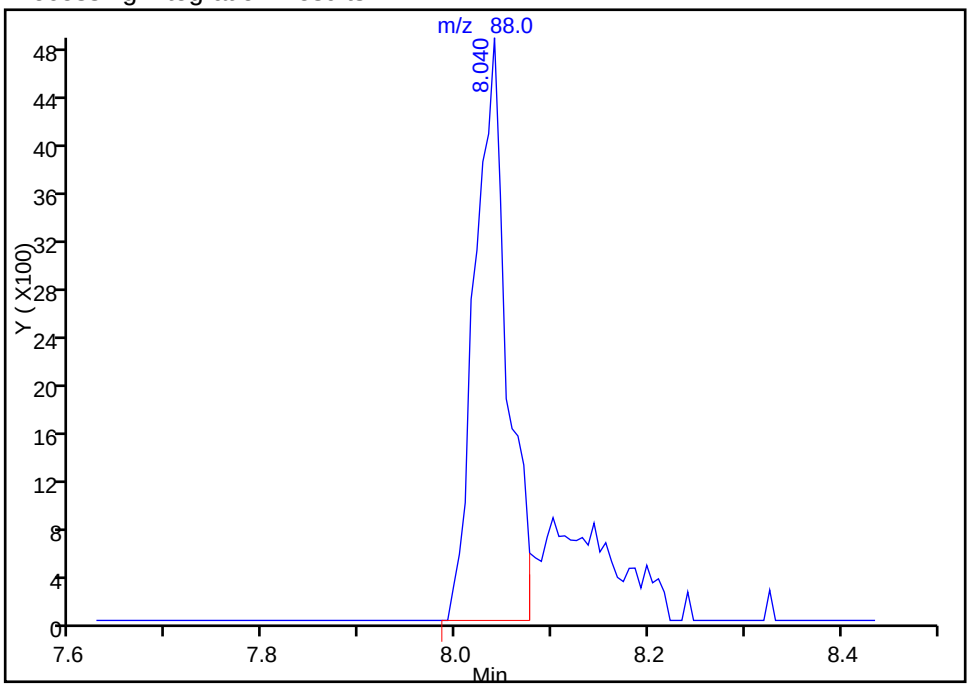
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150505-6773.b\60505009.D				
Injection Date:	05-May-2015 14:35:30	Instrument ID:	CHHP6		
Lims ID:	LCS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	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

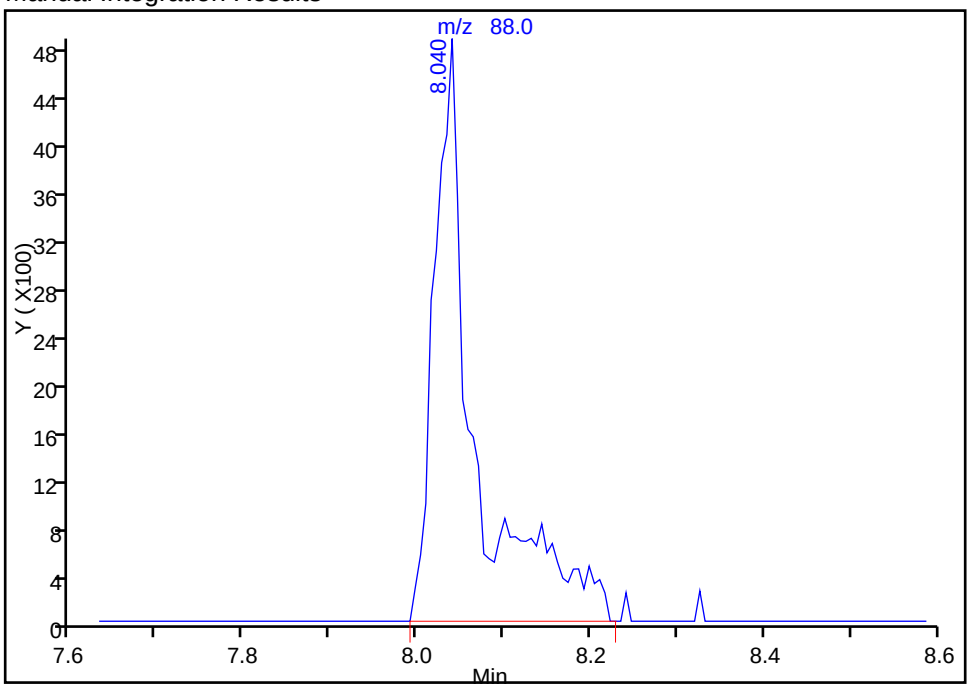
Processing Integration Results

RT: 8.04
Area: 11177
Amount: 623.2318
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 15664
Amount: 873.4278
Amount Units: ng



Reviewer: fergusond, 05-May-2015 14:53:42
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-140474/11

Matrix: Water | Lab File ID: 60504011.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 15:51

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.23		1.0	0.28
75-01-4	Vinyl chloride	10.0		1.0	0.23
74-83-9	Bromomethane	10.4		1.0	0.31
75-00-3	Chloroethane	10.6		1.0	0.21
75-35-4	1,1-Dichloroethene	9.89		1.0	0.30
67-64-1	Acetone	45.3		5.0	2.5
75-15-0	Carbon disulfide	9.96		1.0	0.21
75-09-2	Methylene Chloride	11.0		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.7		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.2		1.0	0.18
75-34-3	1,1-Dichloroethane	10.8		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.24
74-97-5	Bromochloromethane	9.62		1.0	0.18
78-93-3	2-Butanone (MEK)	31.8		5.0	0.55
67-66-3	Chloroform	10.5		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.0		1.0	0.29
56-23-5	Carbon tetrachloride	9.38		1.0	0.14
71-43-2	Benzene	10.6		1.0	0.11
107-06-2	1,2-Dichloroethane	11.1		1.0	0.21
79-01-6	Trichloroethene	9.98		1.0	0.14
78-87-5	1,2-Dichloropropane	10.1		1.0	0.095
75-27-4	Bromodichloromethane	9.45		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.22		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.3		5.0	0.53
108-88-3	Toluene	10.4		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.59		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.90		1.0	0.20
127-18-4	Tetrachloroethene	9.70		1.0	0.15
591-78-6	2-Hexanone	26.4		5.0	0.16
124-48-1	Dibromochloromethane	8.56		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.70		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.36		1.0	0.28
100-41-4	Ethylbenzene	10.2		1.0	0.23
1330-20-7	Xylenes, Total	20.1		3.0	0.49
100-42-5	Styrene	9.72		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-140474/11

Matrix: Water | Lab File ID: 60504011.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/04/2015 15:51

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 140474 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.44		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.90		1.0	0.20
107-13-1	Acrylonitrile	99.4		20	0.55
123-91-1	1,4-Dioxane	148	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

Report Date: 05-May-2015 07:25:06 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504011.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 04-May-2015 15:51:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 180-0006756-011
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 05-May-2015 07:25:05 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 05-May-2015 07:25:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.254	-0.012	98	166735	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	98	362342	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	77079	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	94	113618	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.553	0.001	91	71542	50.0	47.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.924	0.013	49	131527	50.0	52.5	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	321527	50.0	49.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	78	127214	50.0	47.9	
11 Dichlorodifluoromethane	85	1.602	1.601	0.001	99	92959	50.0	42.0	
12 Chloromethane	50	1.760	1.765	-0.005	100	84867	50.0	46.1	
13 Vinyl chloride	62	1.888	1.887	0.001	97	98053	50.0	50.1	
14 Butadiene	39	1.936	1.942	-0.006	91	90684	50.0	48.5	
15 Bromomethane	94	2.253	2.240	0.013	94	53129	50.0	52.1	
16 Chloroethane	64	2.386	2.380	0.006	99	65437	50.0	53.0	
17 Dichlorofluoromethane	67	2.660	2.654	0.006	96	158571	50.0	53.2	
18 Trichlorofluoromethane	101	2.678	2.678	0.000	93	116840	50.0	51.6	
20 Ethyl ether	59	3.043	3.049	-0.006	91	90146	50.0	53.3	
21 Acrolein	56	3.232	3.226	0.006	98	52448	150.0	174.8	
22 1,1-Dichloroethene	96	3.342	3.335	0.007	96	83012	50.0	49.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.408	3.420	-0.012	86	85860	50.0	50.7	
24 Acetone	43	3.433	3.432	0.001	99	108943	100.0	226.6	
25 Iodomethane	142	3.542	3.524	0.018	99	117014	50.0	54.5	
26 Carbon disulfide	76	3.634	3.621	0.013	100	244782	50.0	49.8	
29 3-Chloro-1-propene	76	3.919	3.913	0.006	89	52450	50.0	44.6	
30 Methyl acetate	43	3.932	3.925	0.007	97	412453	250.0	259.8	
31 Methylene Chloride	84	4.138	4.120	0.018	92	111771	50.0	54.9	
32 2-Methyl-2-propanol	59	4.376	4.381	-0.005	96	91789	500.0	505.3	
33 Acrylonitrile	53	4.503	4.503	0.000	98	402717	500.0	497.0	
34 trans-1,2-Dichloroethene	96	4.564	4.558	0.006	95	100201	50.0	53.6	
35 Methyl tert-butyl ether	73	4.576	4.570	0.006	96	342968	50.0	51.1	
36 Hexane	57	4.990	4.978	0.012	91	124127	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.197	5.190	0.007	97	190457	50.0	54.2	
38 Vinyl acetate	43	5.240	5.233	0.007	97	152227	50.0	36.0	
42 2,2-Dichloropropane	77	5.945	5.933	0.012	66	112948	50.0	51.9	
43 cis-1,2-Dichloroethene	96	5.939	5.933	0.006	83	107701	50.0	50.7	
44 2-Butanone (MEK)	43	5.951	5.939	0.012	99	127432	100.0	159.2	
48 Chlorobromomethane	128	6.231	6.231	0.000	95	41936	50.0	48.1	
49 Tetrahydrofuran	42	6.243	6.243	0.000	84	62861	100.0	84.6	
50 Chloroform	83	6.377	6.371	0.006	94	178758	50.0	52.7	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	97	139795	50.0	50.1	
52 Cyclohexane	56	6.621	6.620	0.001	91	166023	50.0	49.6	
53 Carbon tetrachloride	117	6.718	6.711	0.007	95	99882	50.0	46.9	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	96	148437	50.0	55.0	
55 Isobutyl alcohol	41	6.900	6.900	0.000	89	66046	1250.0	904.4	
56 Benzene	78	6.943	6.943	0.001	97	421136	50.0	52.8	
57 1,2-Dichloroethane	62	7.022	7.016	0.006	98	168529	50.0	55.6	
59 n-Heptane	43	7.308	7.308	0.000	87	89896	50.0	46.6	
61 Trichloroethene	130	7.679	7.673	0.006	93	86014	50.0	49.9	
63 Methylcyclohexane	83	7.922	7.922	0.000	90	153714	50.0	47.3	
64 1,2-Dichloropropane	63	7.953	7.946	0.007	95	105706	50.0	50.3	
65 1,4-Dioxane	88	8.032	8.038	-0.006	37	14955	1000.0	738.7	M
67 Dibromomethane	93	8.038	8.038	0.000	90	62419	50.0	49.0	
68 Dichlorobromomethane	83	8.233	8.226	0.007	97	120198	50.0	47.3	
71 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	93	155191	50.0	46.1	
72 4-Methyl-2-pentanone (MIBK	43	8.823	8.822	0.001	96	179120	100.0	86.7	
73 Toluene	91	9.011	9.011	0.000	98	415936	50.0	52.0	
74 trans-1,3-Dichloropropene	75	9.255	9.254	0.001	96	139594	50.0	48.0	
75 Ethyl methacrylate	69	9.316	9.315	0.001	87	135199	50.0	46.4	
76 1,1,2-Trichloroethane	97	9.455	9.449	0.006	95	86119	50.0	49.5	
77 Tetrachloroethene	164	9.528	9.522	0.006	93	63791	50.0	48.5	
78 1,3-Dichloropropane	76	9.608	9.607	0.001	92	167400	50.0	50.9	
79 2-Hexanone	43	9.662	9.662	0.000	96	166272	100.0	132.0	
81 Chlorodibromomethane	129	9.827	9.826	0.001	90	58625	50.0	42.8	
82 Ethylene Dibromide	107	9.942	9.942	0.000	98	79736	50.0	48.5	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	89	109082	50.0	44.7	
84 Chlorobenzene	112	10.429	10.428	0.001	91	256834	50.0	50.9	
85 4-Chlorobenzotrifluoride	180	10.484	10.483	0.001	96	107509	50.0	46.4	
86 1,1,1,2-Tetrachloroethane	131	10.526	10.520	0.006	89	69234	50.0	46.8	
87 Ethylbenzene	106	10.526	10.526	0.000	99	143331	50.0	50.8	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	174382	50.0	49.4	
89 o-Xylene	106	11.043	11.043	0.000	97	174060	50.0	50.8	
90 Styrene	104	11.061	11.061	0.000	95	273819	50.0	48.6	
91 Bromoform	173	11.244	11.250	-0.006	91	32580	50.0	37.2	
92 2-Chlorobenzotrifluoride	180	11.305	11.304	0.001	94	115144	50.0	46.7	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	435137	50.0	52.3	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.712	0.006	96	118261	50.0	49.5	
95 Bromobenzene	156	11.725	11.724	0.001	94	90806	50.0	49.3	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.748	0.007	80	36278	50.0	42.9	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	41398	50.0	51.1	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	109147	50.0	49.1	
100 2-Chlorotoluene	126	11.913	11.919	-0.006	93	86889	50.0	47.6	
101 3-Chlorotoluene	126	11.980	11.980	0.000	99	92881	50.0	46.7	
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	363419	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.035	12.040	-0.005	99	95446	50.0	49.6	
104 tert-Butylbenzene	119	12.327	12.326	0.001	90	267321	50.0	49.3	
106 1,2,4-Trimethylbenzene	105	12.382	12.381	0.001	97	378966	50.0	51.2	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.418	0.006	94	82716	50.0	44.4	
108 sec-Butylbenzene	105	12.552	12.551	0.001	96	427262	50.0	51.8	
109 1,3-Dichlorobenzene	146	12.668	12.667	0.001	92	174969	50.0	49.7	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	321900	50.0	49.4	
111 1,4-Dichlorobenzene	146	12.771	12.770	0.001	87	184480	50.0	50.7	
113 2,4-Dichloro-1-(triflourom	214	12.789	12.795	-0.006	93	85412	50.0	46.3	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.831	0.001	97	89794	50.0	44.5	
116 n-Butylbenzene	91	13.112	13.117	-0.005	98	326767	50.0	49.8	
117 1,2-Dichlorobenzene	146	13.124	13.123	0.001	89	173593	50.0	49.9	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.914	0.001	65	21049	50.0	39.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.060	0.001	97	395695	150.0	134.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.480	-0.006	98	280971	100.0	87.3	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	92	104092	50.0	42.7	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	95	35222	50.0	42.4	
124 Naphthalene	128	15.010	15.009	0.001	98	258494	50.0	40.1	
125 1,2,3-Trichlorobenzene	180	15.229	15.228	0.001	92	92136	50.0	40.3	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	41271	50.0	28.6	
127 2,3,6-Trichlorotoluene	159	16.111	16.110	0.001	89	37888	50.0	28.9	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	104.3	
S 131 Xylenes, Total	106				0		100.0	100.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	94.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWacro2 Res_00003	Amount Added:	6.00	Units: uL	
voaW VA pri R_00005	Amount Added:	2.00	Units: uL	
voaW ee2nd_00001	Amount Added:	2.00	Units: uL	
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00114	Amount Added:	2.00	Units: uL	
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

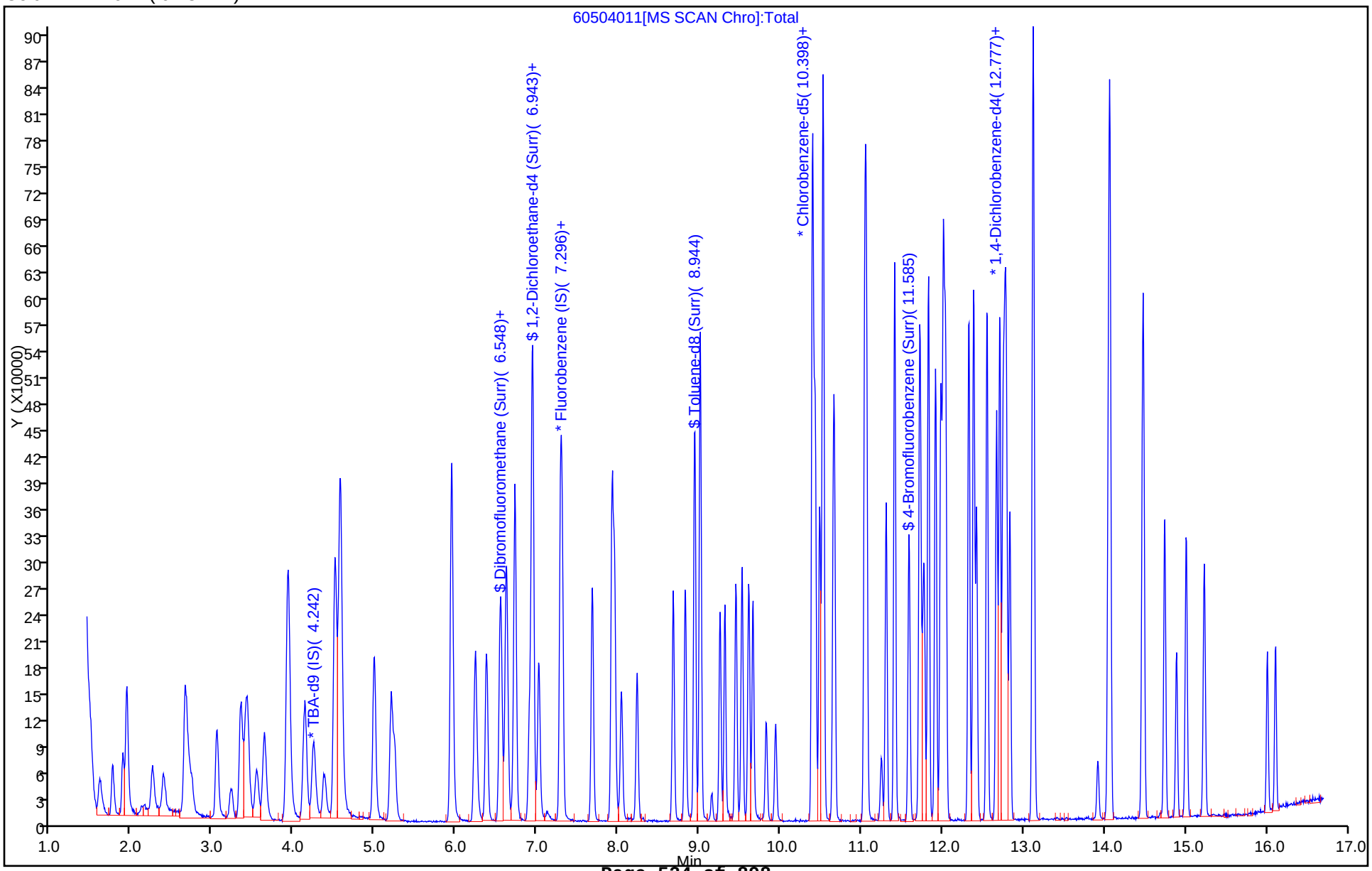
Report Date: 05-May-2015 07:25:06 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504011.D

Injection Date:	04-May-2015 15:51:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	LCSD			Worklist Smp#:	11
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)



Manual Integration/User Assign Peak Report

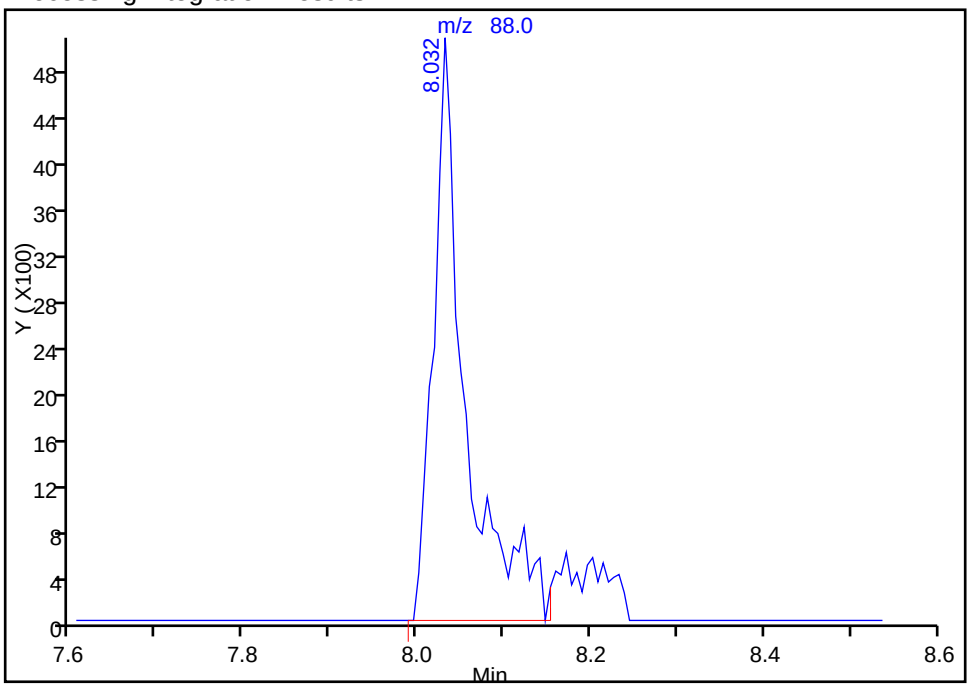
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150504-6756.b\60504011.D				
Injection Date:	04-May-2015 15:51:30	Instrument ID:	CHHP6		
Lims ID:	LCSD				
Client ID:					
Operator ID:	001562	ALS Bottle#:	11	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

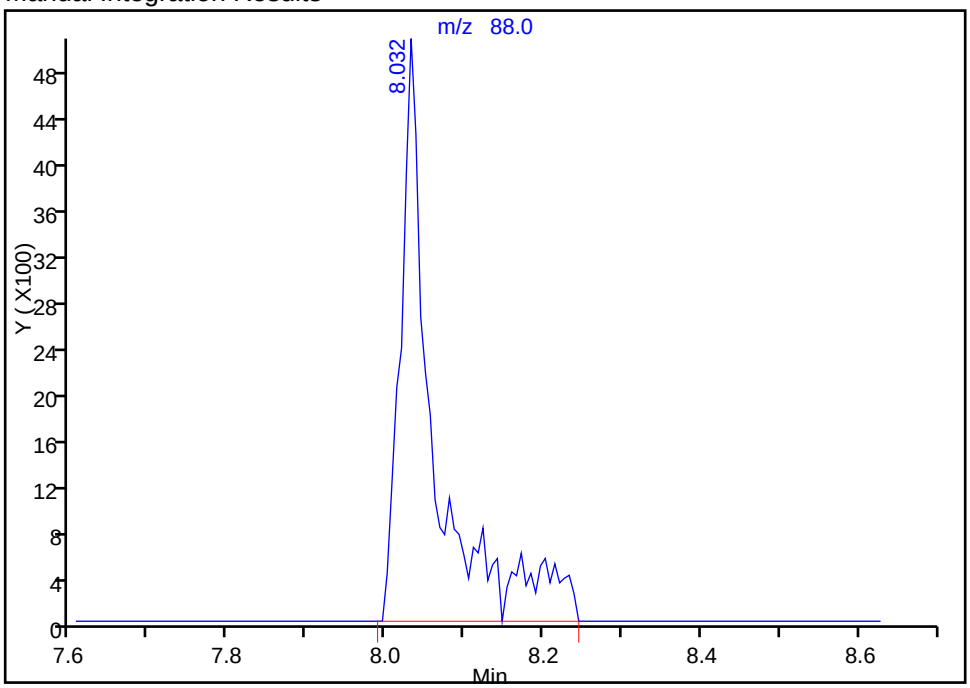
Processing Integration Results

RT: 8.03
Area: 12930
Amount: 638.6763
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 14955
Amount: 738.7010
Amount Units: ng



Reviewer: fergusond, 05-May-2015 07:25:05
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS | Lab Sample ID: 180-43359-8 MS

Matrix: Water | Lab File ID: 60503007.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 13:50

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.: 140387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.76		1.0	0.28
75-01-4	Vinyl chloride	9.74		1.0	0.23
74-83-9	Bromomethane	8.85		1.0	0.31
75-00-3	Chloroethane	10.1		1.0	0.21
75-35-4	1,1-Dichloroethene	10.6		1.0	0.30
67-64-1	Acetone	30.1		5.0	2.5
75-15-0	Carbon disulfide	10.6		1.0	0.21
75-09-2	Methylene Chloride	11.3		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.1		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.6		1.0	0.18
75-34-3	1,1-Dichloroethane	11.4		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	17.3		1.0	0.24
74-97-5	Bromochloromethane	10.5		1.0	0.18
78-93-3	2-Butanone (MEK)	26.4		5.0	0.55
67-66-3	Chloroform	11.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.29
56-23-5	Carbon tetrachloride	9.94		1.0	0.14
71-43-2	Benzene	11.0		1.0	0.11
107-06-2	1,2-Dichloroethane	11.2		1.0	0.21
79-01-6	Trichloroethene	13.4		1.0	0.14
78-87-5	1,2-Dichloropropane	10.5		1.0	0.095
75-27-4	Bromodichloromethane	9.74		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.97		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.2		5.0	0.53
108-88-3	Toluene	11.1		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.5		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.6		1.0	0.20
127-18-4	Tetrachloroethene	13.5		1.0	0.15
591-78-6	2-Hexanone	22.4		5.0	0.16
124-48-1	Dibromochloromethane	9.63		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	11.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.5		1.0	0.28
100-41-4	Ethylbenzene	10.8		1.0	0.23
1330-20-7	Xylenes, Total	21.6		3.0	0.49
100-42-5	Styrene	10.8		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS | Lab Sample ID: 180-43359-8 MS

Matrix: Water | Lab File ID: 60503007.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 13:50

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.: 140387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.47		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.8		1.0	0.20
107-13-1	Acrylonitrile	109		20	0.55
123-91-1	1,4-Dioxane	218		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503007.D
Lims ID: 180-43359-E-8 MS
Client ID: HD-MW-95-0/1-0
Sample Type: MS
Inject. Date: 03-May-2015 13:50:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-43359-E-8 MS
Misc. Info.: 180-0006739-007
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 12:39:49 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 14:55:01

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.253	4.241	0.012	98	229945	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.289	7.283	0.006	98	338751	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	71589	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	95	111382	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	90	70932	50.0	50.6	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	77	123142	50.0	52.6	
$	7 Toluene-d8 (Surr)	98	8.944	8.944	0.000	93	320001	50.0	52.8	
$	8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	81	131594	50.0	53.3	
	11 Dichlorodifluoromethane	85	1.607	1.601	0.006	99	90413	50.0	43.7	
	12 Chloromethane	50	1.765	1.765	0.000	97	75336	50.0	43.8	
	13 Vinyl chloride	62	1.893	1.893	0.000	98	89178	50.0	48.7	
	14 Butadiene	39	1.936	1.936	0.000	92	83768	50.0	47.9	
	15 Bromomethane	94	2.240	2.240	0.000	93	42173	50.0	44.2	
	16 Chloroethane	64	2.386	2.386	0.000	99	58172	50.0	50.4	
	17 Dichlorofluoromethane	67	2.659	2.660	-0.001	97	147783	50.0	53.0	
	18 Trichlorofluoromethane	101	2.672	2.684	-0.012	96	109125	50.0	51.5	
	20 Ethyl ether	59	3.049	3.049	0.000	88	90790	50.0	57.5	
	21 Acrolein	56	3.225	3.219	0.006	98	55673	150.0	198.5	
	22 1,1-Dichloroethene	96	3.335	3.341	-0.006	96	83329	50.0	53.1	
	23 1,1,2-Trichloro-1,2,2-trif	101	3.408	3.414	-0.006	96	84688	50.0	53.5	
	24 Acetone	43	3.432	3.426	0.006	99	67650	100.0	150.5	
	25 Iodomethane	142	3.529	3.530	-0.001	98	118021	50.0	58.8	
	26 Carbon disulfide	76	3.627	3.627	0.000	100	243469	50.0	53.0	
	29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	51197	50.0	46.5	
	30 Methyl acetate	43	3.925	3.925	0.000	97	414089	250.0	279.0	
	31 Methylene Chloride	84	4.126	4.126	0.000	92	107311	50.0	56.4	
	32 2-Methyl-2-propanol	59	4.387	4.381	0.006	97	123713	500.0	493.9	
	33 Acrylonitrile	53	4.509	4.503	0.006	99	412379	500.0	544.4	
	34 trans-1,2-Dichloroethene	96	4.558	4.564	-0.006	96	97399	50.0	55.7	
	35 Methyl tert-butyl ether	73	4.570	4.570	0.000	96	331906	50.0	52.9	
	36 Hexane	57	4.983	4.984	-0.001	93	121189	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.196	5.197	0.000	96	187537	50.0	57.1	
38 Vinyl acetate	43	5.239	5.239	0.000	97	127777	50.0	32.3	
43 cis-1,2-Dichloroethene	96	5.938	5.939	-0.001	83	172081	50.0	86.6	
42 2,2-Dichloropropane	77	5.938	5.939	-0.001	51	109109	50.0	53.6	
44 2-Butanone (MEK)	43	5.951	5.951	0.000	58	98688	100.0	131.9	
48 Chlorobromomethane	128	6.230	6.231	-0.001	95	42834	50.0	52.5	
49 Tetrahydrofuran	42	6.249	6.249	0.000	86	67634	100.0	97.3	
50 Chloroform	83	6.370	6.371	-0.001	95	174855	50.0	55.1	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	96	135479	50.0	51.9	
52 Cyclohexane	56	6.614	6.614	0.000	88	158104	50.0	50.5	
53 Carbon tetrachloride	117	6.711	6.711	0.000	94	98945	50.0	49.7	
54 1,1-Dichloropropene	75	6.723	6.723	0.000	96	144303	50.0	57.2	
55 Isobutyl alcohol	41	6.906	6.900	0.006	92	89230	1250.0	1307.0	
56 Benzene	78	6.942	6.942	0.000	96	411651	50.0	55.2	
57 1,2-Dichloroethane	62	7.015	7.022	-0.007	98	158402	50.0	55.9	
59 n-Heptane	43	7.307	7.307	0.000	86	87972	50.0	48.8	
61 Trichloroethene	130	7.678	7.679	-0.001	92	108011	50.0	67.0	
63 Methylcyclohexane	83	7.922	7.922	0.000	90	153395	50.0	50.5	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	94	102683	50.0	52.3	
67 Dibromomethane	93	8.037	8.037	0.000	87	65177	50.0	54.8	
65 1,4-Dioxane	88	8.043	8.037	0.006	42	20599	1000.0	1088.3	
68 Dichlorobromomethane	83	8.232	8.232	0.000	99	115852	50.0	48.7	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	156787	50.0	49.8	
72 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	96	193949	100.0	101.1	
73 Toluene	91	9.011	9.011	0.000	98	412097	50.0	55.5	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	95	142020	50.0	52.5	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	137016	50.0	50.6	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	85448	50.0	52.9	
77 Tetrachloroethene	164	9.528	9.528	0.000	93	82163	50.0	67.3	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	91	167602	50.0	54.8	
79 2-Hexanone	43	9.662	9.662	0.000	96	130883	100.0	111.9	
81 Chlorodibromomethane	129	9.826	9.826	0.000	90	61241	50.0	48.1	
82 Ethylene Dibromide	107	9.941	9.942	-0.001	98	78559	50.0	51.4	
83 3-Chlorobenzotrifluoride	180	10.398	10.398	0.000	94	120229	50.0	53.0	
84 Chlorobenzene	112	10.428	10.428	0.000	92	260849	50.0	55.7	
85 4-Chlorobenzotrifluoride	180	10.489	10.483	0.006	97	110175	50.0	51.2	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.520	-0.001	87	72435	50.0	52.7	
87 Ethylbenzene	106	10.531	10.526	0.005	99	141092	50.0	53.9	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	100	177802	50.0	54.2	
89 o-Xylene	106	11.042	11.043	-0.001	98	171021	50.0	53.8	
90 Styrene	104	11.061	11.061	0.000	94	282203	50.0	54.0	
91 Bromoform	173	11.243	11.250	-0.007	89	34464	50.0	42.4	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	94	121902	50.0	53.3	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	428072	50.0	55.4	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.718	0.000	97	119787	50.0	54.0	
95 Bromobenzene	156	11.724	11.724	0.000	96	95668	50.0	53.0	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.754	0.000	83	38883	50.0	46.9	
98 1,2,3-Trichloropropane	110	11.773	11.773	-0.001	84	40037	50.0	50.4	
99 N-Propylbenzene	120	11.827	11.827	0.000	99	109164	50.0	50.1	
100 2-Chlorotoluene	126	11.912	11.913	-0.001	93	93190	50.0	52.0	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	97	100865	50.0	51.7	
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	368877	50.0	53.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.040	12.034	0.006	99	99423	50.0	52.7	
104 tert-Butylbenzene	119	12.326	12.326	0.000	91	276025	50.0	52.0	
106 1,2,4-Trimethylbenzene	105	12.387	12.381	0.006	98	378620	50.0	52.2	
107 1,2-dichloro-4-(trifluorom	214	12.423	12.424	-0.001	96	90534	50.0	49.5	
108 sec-Butylbenzene	105	12.551	12.551	0.000	96	426670	50.0	52.8	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	182943	50.0	53.1	
110 4-Isopropyltoluene	119	12.703	12.710	-0.007	96	332781	50.0	52.1	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	90	187591	50.0	52.6	
113 2,4-Dichloro-1-(triflourom	214	12.788	12.795	-0.007	94	91090	50.0	50.3	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	97	96826	50.0	48.9	
116 n-Butylbenzene	91	13.117	13.117	0.000	98	332535	50.0	51.7	
117 1,2-Dichlorobenzene	146	13.123	13.129	-0.006	91	180080	50.0	52.8	
118 1,2-Dibromo-3-Chloropropan	75	13.920	13.914	0.006	69	22954	50.0	44.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	97	469589	150.0	163.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.474	0.006	98	343528	100.0	108.9	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	131509	50.0	55.1	
123 Hexachlorobutadiene	225	14.893	14.887	0.006	95	41846	50.0	51.4	
124 Naphthalene	128	15.009	15.009	0.000	99	330034	50.0	52.2	
125 1,2,3-Trichlorobenzene	180	15.228	15.234	-0.006	92	120273	50.0	53.7	
126 2,4,5-Trichlorotoluene	159	16.013	16.007	0.006	0	71172	50.0	50.2	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	67662	50.0	52.6	
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	
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	108.0	
S 130 1,2-Dichloroethene, Total	96				0		100.0	142.3	
S 132 1,3-Dichloropropene, Total	1				0		100.0	102.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
voaW VA pri R_00005	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00114	Amount Added:	2.00	Units: uL		
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL		
voaW ee2nd_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent	

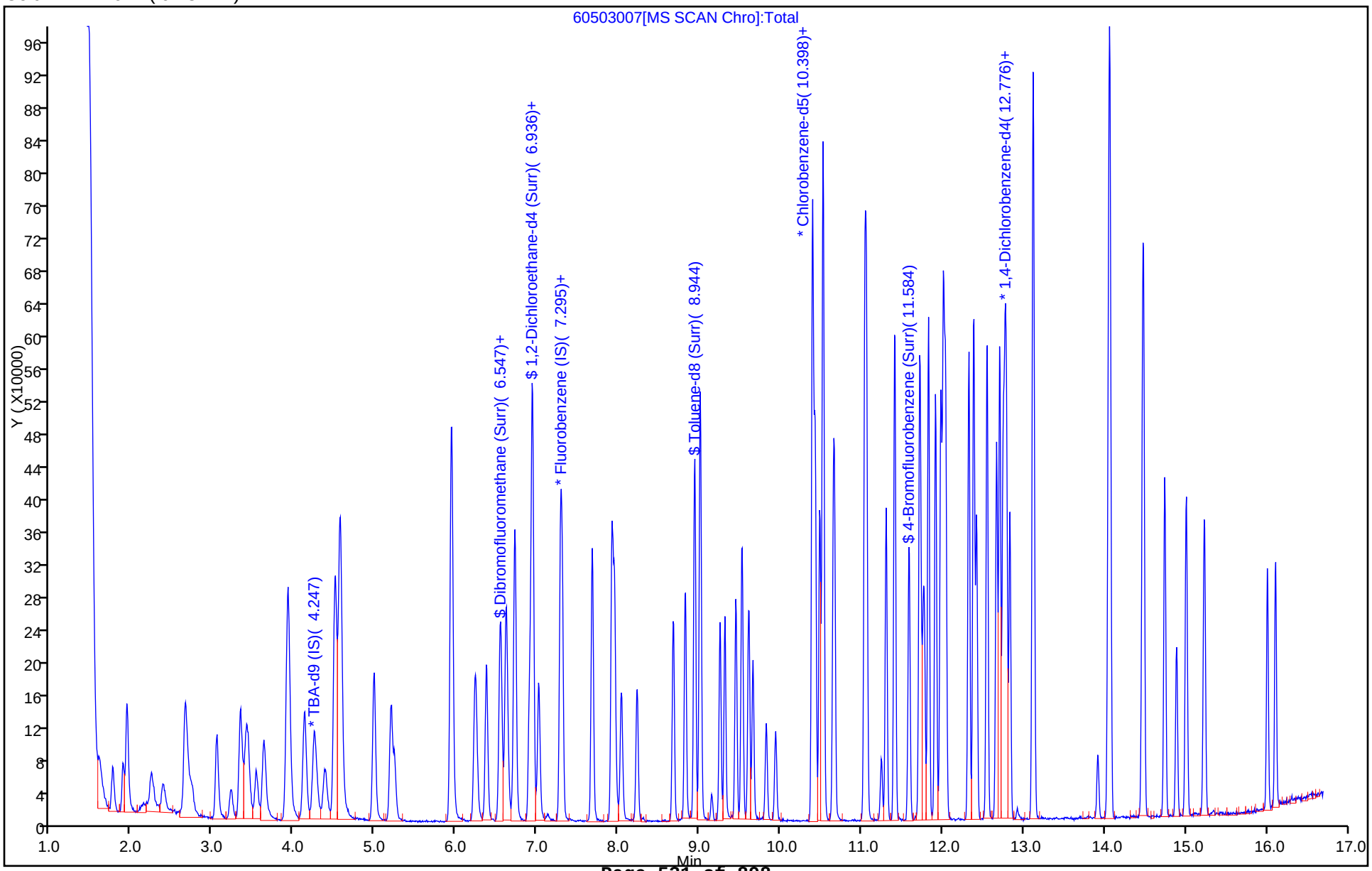
Report Date: 03-May-2015 14:55:01 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503007.D

Injection Date:	03-May-2015 13:50:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-8 MS			Worklist Smp#:	7
Client ID:	HD-MW-95-0/1-0				
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)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD | Lab Sample ID: 180-43359-8 MSD

Matrix: Water | Lab File ID: 60503008.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 14:25

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.: 140387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.42		1.0	0.28
75-01-4	Vinyl chloride	9.83		1.0	0.23
74-83-9	Bromomethane	8.65		1.0	0.31
75-00-3	Chloroethane	10.3		1.0	0.21
75-35-4	1,1-Dichloroethene	10.4		1.0	0.30
67-64-1	Acetone	31.2		5.0	2.5
75-15-0	Carbon disulfide	10.3		1.0	0.21
75-09-2	Methylene Chloride	11.0		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.5		1.0	0.18
75-34-3	1,1-Dichloroethane	11.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	17.2		1.0	0.24
74-97-5	Bromochloromethane	10.1		1.0	0.18
78-93-3	2-Butanone (MEK)	25.9		5.0	0.55
67-66-3	Chloroform	10.9		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.29
56-23-5	Carbon tetrachloride	9.91		1.0	0.14
71-43-2	Benzene	11.0		1.0	0.11
107-06-2	1,2-Dichloroethane	11.2		1.0	0.21
79-01-6	Trichloroethene	13.5		1.0	0.14
78-87-5	1,2-Dichloropropane	10.5		1.0	0.095
75-27-4	Bromodichloromethane	9.85		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.98		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.1		5.0	0.53
108-88-3	Toluene	10.9		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.3		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	12.7		1.0	0.15
591-78-6	2-Hexanone	21.8		5.0	0.16
124-48-1	Dibromochloromethane	9.30		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.8		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	10.8		1.0	0.23
1330-20-7	Xylenes, Total	21.2		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.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD | Lab Sample ID: 180-43359-8 MSD

Matrix: Water | Lab File ID: 60503008.D

Analysis Method: 8260C | Date Collected: 04/22/2015 12:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/03/2015 14:25

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.: 140387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.44		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.20
107-13-1	Acrylonitrile	105		20	0.55
123-91-1	1,4-Dioxane	249		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503008.D
Lims ID: 180-43359-E-8 MSD
Client ID: HD-MW-95-0/1-0
Sample Type: MSD
Inject. Date: 03-May-2015 14:25:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-43359-E-8 MSD
Misc. Info.: 180-0006739-008
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-May-2015 14:56:00 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

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

First Level Reviewer: fergusond Date: 03-May-2015 14:55:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.250	4.241	0.009	98	227136	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.283	0.002	97	348174	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	90	74983	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.746	0.002	95	115432	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.553	0.002	91	73112	50.0	50.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.930	0.002	72	127006	50.0	52.8	
$ 7 Toluene-d8 (Surr)	98	8.940	8.944	-0.004	94	327185	50.0	51.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.584	0.002	81	138234	50.0	53.5	
11 Dichlorodifluoromethane	85	1.609	1.601	0.008	99	92140	50.0	43.3	
12 Chloromethane	50	1.761	1.765	-0.004	99	83275	50.0	47.1	
13 Vinyl chloride	62	1.889	1.893	-0.004	99	92488	50.0	49.1	
14 Butadiene	39	1.938	1.936	0.002	91	84078	50.0	46.8	
15 Bromomethane	94	2.242	2.240	0.002	91	42366	50.0	43.2	
16 Chloroethane	64	2.382	2.386	-0.004	99	60899	50.0	51.3	
17 Dichlorofluoromethane	67	2.656	2.660	-0.004	97	154326	50.0	53.9	
18 Trichlorofluoromethane	101	2.692	2.684	0.008	81	113235	50.0	52.0	
20 Ethyl ether	59	3.045	3.049	-0.004	88	91926	50.0	56.6	
21 Acrolein	56	3.221	3.219	0.002	99	51286	150.0	177.9	
22 1,1-Dichloroethene	96	3.337	3.341	-0.004	97	84010	50.0	52.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.414	0.002	94	84291	50.0	51.8	
24 Acetone	43	3.428	3.426	0.002	99	72032	100.0	155.9	
25 Iodomethane	142	3.538	3.530	0.008	98	117682	50.0	57.1	
26 Carbon disulfide	76	3.629	3.627	0.002	100	243701	50.0	51.6	
29 3-Chloro-1-propene	76	3.921	3.913	0.008	88	52346	50.0	46.3	
30 Methyl acetate	43	3.927	3.925	0.002	97	413413	250.0	271.0	
31 Methylene Chloride	84	4.128	4.126	0.002	93	108000	50.0	55.2	
32 2-Methyl-2-propanol	59	4.383	4.381	0.002	96	124880	500.0	504.7	
33 Acrylonitrile	53	4.505	4.503	0.002	98	410133	500.0	526.8	
34 trans-1,2-Dichloroethene	96	4.560	4.564	-0.004	97	101302	50.0	56.4	
35 Methyl tert-butyl ether	73	4.572	4.570	0.002	96	339277	50.0	52.6	
36 Hexane	57	4.986	4.984	0.002	92	123732	50.0	51.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.193	5.197	-0.003	96	189369	50.0	56.1	
38 Vinyl acetate	43	5.241	5.239	0.002	97	128546	50.0	31.7	
43 cis-1,2-Dichloroethene	96	5.941	5.939	0.002	85	175814	50.0	86.1	
42 2,2-Dichloropropane	77	5.935	5.939	-0.004	48	101734	50.0	48.6	
44 2-Butanone (MEK)	43	5.947	5.951	-0.004	57	99512	100.0	129.4	
48 Chlorobromomethane	128	6.227	6.231	-0.004	96	42498	50.0	50.7	
49 Tetrahydrofuran	42	6.245	6.249	-0.004	86	66837	100.0	93.6	
50 Chloroform	83	6.373	6.371	0.002	94	177465	50.0	54.4	
51 1,1,1-Trichloroethane	97	6.537	6.541	-0.004	98	139786	50.0	52.1	
52 Cyclohexane	56	6.616	6.614	0.002	90	162469	50.0	50.5	
53 Carbon tetrachloride	117	6.713	6.711	0.002	96	101468	50.0	49.6	
54 1,1-Dichloropropene	75	6.726	6.723	0.003	95	146185	50.0	56.3	
55 Isobutyl alcohol	41	6.902	6.900	0.002	93	88236	1250.0	1257.5	
56 Benzene	78	6.945	6.942	0.003	97	420463	50.0	54.9	
57 1,2-Dichloroethane	62	7.018	7.022	-0.004	98	162269	50.0	55.8	
59 n-Heptane	43	7.310	7.307	0.003	87	92523	50.0	50.0	
61 Trichloroethene	130	7.675	7.679	-0.004	91	111838	50.0	67.5	
63 Methylcyclohexane	83	7.918	7.922	-0.004	89	157888	50.0	50.6	
64 1,2-Dichloropropane	63	7.954	7.952	0.002	93	105753	50.0	52.4	
67 Dibromomethane	93	8.034	8.037	-0.003	91	61650	50.0	50.4	
65 1,4-Dioxane	88	8.034	8.037	-0.003	47	24214	1000.0	1244.7	
68 Dichlorobromomethane	83	8.228	8.232	-0.004	98	120318	50.0	49.2	
71 cis-1,3-Dichloropropene	75	8.678	8.676	0.002	93	161334	50.0	49.9	
72 4-Methyl-2-pentanone (MIBK	43	8.824	8.828	-0.004	95	191664	100.0	95.4	
73 Toluene	91	9.013	9.011	0.002	98	424481	50.0	54.6	
74 trans-1,3-Dichloropropene	75	9.250	9.254	-0.004	95	146119	50.0	51.6	
75 Ethyl methacrylate	69	9.317	9.315	0.002	87	136651	50.0	48.2	
76 1,1,2-Trichloroethane	97	9.451	9.449	0.002	94	92169	50.0	54.5	
77 Tetrachloroethene	164	9.524	9.528	-0.004	94	81190	50.0	63.4	
78 1,3-Dichloropropane	76	9.609	9.607	0.002	91	173900	50.0	54.3	
79 2-Hexanone	43	9.664	9.662	0.002	94	133634	100.0	109.1	
81 Chlorodibromomethane	129	9.822	9.826	-0.004	90	61944	50.0	46.5	
82 Ethylene Dibromide	107	9.938	9.942	-0.004	96	82645	50.0	51.6	
83 3-Chlorobenzotrifluoride	180	10.394	10.398	-0.004	93	110122	50.0	46.4	
84 Chlorobenzene	112	10.430	10.428	0.002	93	264794	50.0	53.9	
85 4-Chlorobenzotrifluoride	180	10.485	10.483	0.002	96	105492	50.0	46.8	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.520	0.002	89	73718	50.0	51.2	
87 Ethylbenzene	106	10.528	10.526	0.002	99	147525	50.0	53.8	
88 m-Xylene & p-Xylene	106	10.662	10.659	0.003	100	179976	50.0	52.4	
89 o-Xylene	106	11.039	11.043	-0.004	97	178912	50.0	53.7	
90 Styrene	104	11.063	11.061	0.002	94	288347	50.0	52.6	
91 Bromoform	173	11.246	11.250	-0.004	92	35966	50.0	42.2	
92 2-Chlorobenzotrifluoride	180	11.306	11.304	0.002	94	112678	50.0	47.0	
93 Isopropylbenzene	105	11.410	11.408	0.002	97	444585	50.0	54.9	
96 1,1,2,2-Tetrachloroethane	83	11.714	11.718	-0.004	95	121118	50.0	52.1	
95 Bromobenzene	156	11.726	11.724	0.002	96	94119	50.0	50.3	
97 trans-1,4-Dichloro-2-buten	53	11.751	11.754	-0.004	79	37643	50.0	43.8	
98 1,2,3-Trichloropropane	110	11.775	11.773	0.002	85	40664	50.0	49.4	
99 N-Propylbenzene	120	11.830	11.827	0.003	99	113039	50.0	50.1	
100 2-Chlorotoluene	126	11.915	11.913	0.002	93	94784	50.0	51.1	
101 3-Chlorotoluene	126	11.982	11.980	0.002	97	92843	50.0	45.9	
102 1,3,5-Trimethylbenzene	105	12.012	12.010	0.002	93	375018	50.0	52.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.036	12.034	0.002	99	103005	50.0	52.6	
104 tert-Butylbenzene	119	12.328	12.326	0.002	91	276392	50.0	50.2	
106 1,2,4-Trimethylbenzene	105	12.383	12.381	0.002	98	386254	50.0	51.4	
107 1,2-dichloro-4-(trifluorom	214	12.420	12.424	-0.004	94	83611	50.0	44.1	
108 sec-Butylbenzene	105	12.547	12.551	-0.004	96	433917	50.0	51.8	
109 1,3-Dichlorobenzene	146	12.669	12.667	0.002	93	184491	50.0	51.6	
110 4-Isopropyltoluene	119	12.706	12.710	-0.004	96	343948	50.0	51.9	
111 1,4-Dichlorobenzene	146	12.773	12.770	0.003	88	191268	50.0	51.8	
113 2,4-Dichloro-1-(triflourom	214	12.791	12.795	-0.004	96	91381	50.0	48.7	
114 2,5-Dichlorobenzotrifluori	214	12.833	12.831	0.002	98	90720	50.0	44.2	
116 n-Butylbenzene	91	13.113	13.117	-0.004	98	340690	50.0	51.1	
117 1,2-Dichlorobenzene	146	13.125	13.129	-0.004	91	188900	50.0	53.5	
118 1,2-Dibromo-3-Chloropropan	75	13.916	13.914	0.002	69	22503	50.0	41.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.062	14.060	0.002	98	449800	150.0	150.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.476	14.474	0.002	98	336753	100.0	103.0	
122 1,2,4-Trichlorobenzene	180	14.744	14.741	0.003	92	133138	50.0	53.8	
123 Hexachlorobutadiene	225	14.890	14.887	0.003	95	44003	50.0	52.2	
124 Naphthalene	128	15.011	15.009	0.002	99	339525	50.0	51.8	
125 1,2,3-Trichlorobenzene	180	15.230	15.234	-0.004	91	125679	50.0	54.1	
126 2,4,5-Trichlorotoluene	159	16.009	16.007	0.002	0	69025	50.0	47.0	
127 2,3,6-Trichlorotoluene	159	16.112	16.110	0.002	90	66051	50.0	49.6	
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	
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	106.1	
S 130 1,2-Dichloroethene, Total	96				0		100.0	142.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	101.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaW ee2nd_00001	Amount Added:	2.00	Units: uL	
voaW VA pri R_00005	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00114	Amount Added:	2.00	Units: uL	
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00034	Amount Added:	2.00	Units: uL	Run Reagent

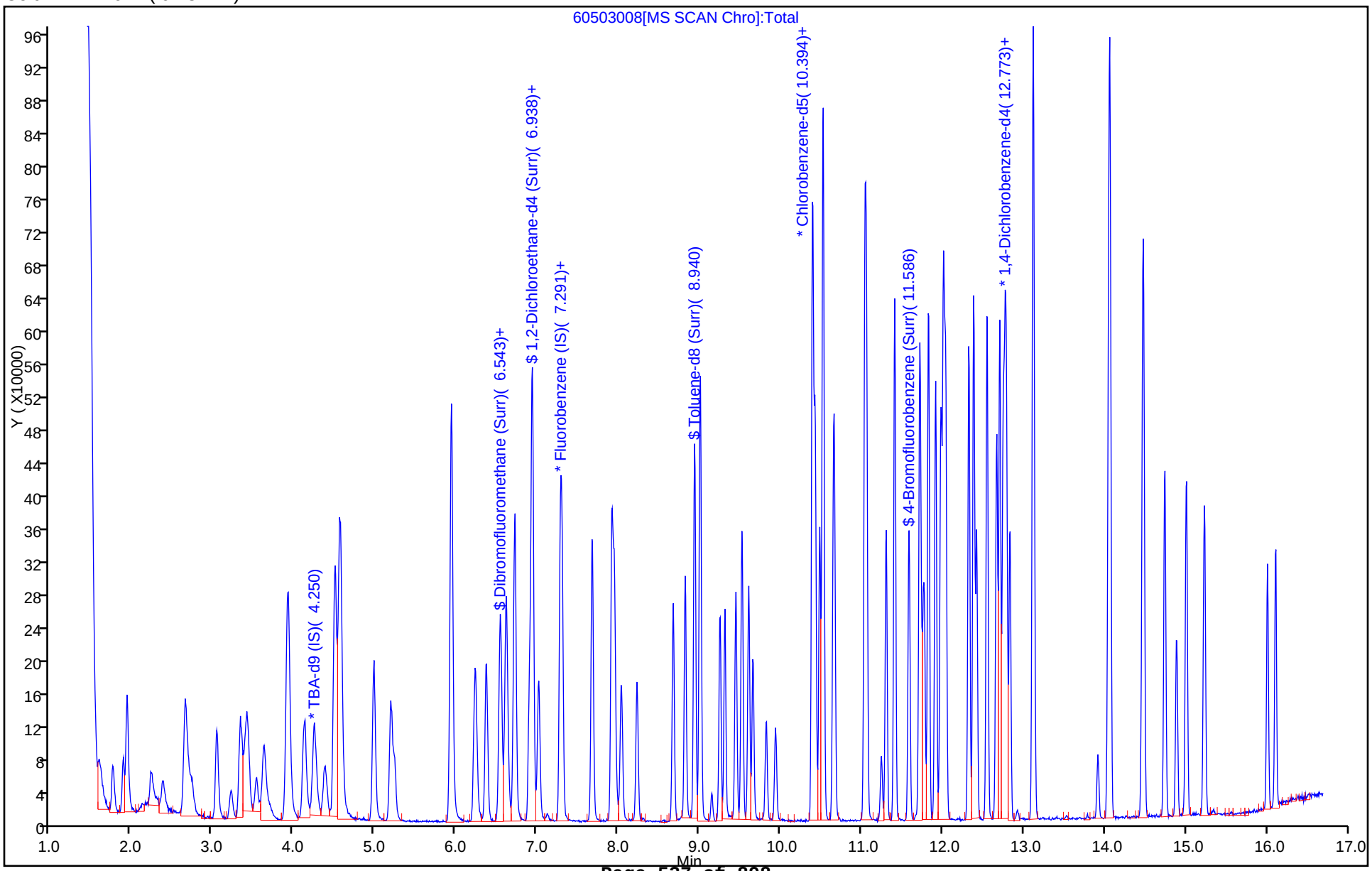
Report Date: 03-May-2015 14:56:00 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150503-6739.b\60503008.D

Injection Date:	03-May-2015 14:25:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-43359-E-8 MSD			Worklist Smp#:	8
Client ID:	HD-MW-95-0/1-0				
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)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Start Date: 05/01/2015 11:31

Analysis Batch Number: 140280 End Date: 05/02/2015 14:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-140280/5		05/01/2015 11:31	1	60501005.D	DB-624 0.18(mm)
IC 180-140280/3		05/01/2015 13:53	1	60501003.D	DB-624 0.18(mm)
IC 180-140280/6		05/01/2015 14:17	1	60501006.D	DB-624 0.18(mm)
ICIS 180-140280/7		05/01/2015 14:41	1	60501007.D	DB-624 0.18(mm)
IC 180-140280/8		05/01/2015 15:06	1	60501008.D	DB-624 0.18(mm)
IC 180-140280/9		05/01/2015 15:31	1	60501009.D	DB-624 0.18(mm)
IC 180-140280/10		05/01/2015 15:56	1	60501010.D	DB-624 0.18(mm)
IC 180-140280/11		05/01/2015 16:20	1	60501011.D	DB-624 0.18(mm)
IC 180-140280/12		05/01/2015 16:46	1	60501012.D	DB-624 0.18(mm)
ICV 180-140280/18		05/02/2015 14:27	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Start Date: 05/03/2015 10:28

Analysis Batch Number: 140387 End Date: 05/03/2015 22:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-140387/1		05/03/2015 10:28	1	60503001.D	DB-624 0.18(mm)
CCVIS 180-140387/2		05/03/2015 11:08	1	60503002.D	DB-624 0.18(mm)
MB 180-140387/3		05/03/2015 11:59	1	60503003.D	DB-624 0.18(mm)
180-43359-8	HD-MW-95-0/1-0	05/03/2015 12:36	1	60503004.D	DB-624 0.18(mm)
180-43359-1	HD-QC4-0/1-2	05/03/2015 13:00	1	60503005.D	DB-624 0.18(mm)
LCS 180-140387/6		05/03/2015 13:26	1	60503006.D	DB-624 0.18(mm)
180-43359-8 MS	HD-MW-95-0/1-0 MS	05/03/2015 13:50	1	60503007.D	DB-624 0.18(mm)
180-43359-8 MSD	HD-MW-95-0/1-0 MSD	05/03/2015 14:25	1	60503008.D	DB-624 0.18(mm)
ZZZZZ		05/03/2015 15:16	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 15:40	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 16:04	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 16:27	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 16:51	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 17:19	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 17:43	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 18:07	10		DB-624 0.18(mm)
ZZZZZ		05/03/2015 18:32	250		DB-624 0.18(mm)
ZZZZZ		05/03/2015 18:56	500		DB-624 0.18(mm)
ZZZZZ		05/03/2015 19:20	20		DB-624 0.18(mm)
ZZZZZ		05/03/2015 19:44	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 20:32	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 20:57	1		DB-624 0.18(mm)
ZZZZZ		05/03/2015 21:20	3		DB-624 0.18(mm)
ZZZZZ		05/03/2015 21:44	50		DB-624 0.18(mm)
ZZZZZ		05/03/2015 22:09	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Start Date: 05/04/2015 10:49

Analysis Batch Number: 140474 End Date: 05/04/2015 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-140474/1		05/04/2015 10:49	1	60504001.D	DB-624 0.18(mm)
CCVIS 180-140474/3		05/04/2015 12:12	1	60504003.D	DB-624 0.18(mm)
LODV 180-140474/4		05/04/2015 12:36	1		DB-624 0.18(mm)
MB 180-140474/5		05/04/2015 13:08	1	60504005.D	DB-624 0.18(mm)
LCS 180-140474/10		05/04/2015 15:27	1	60504010.D	DB-624 0.18(mm)
LCSD 180-140474/11		05/04/2015 15:51	1	60504011.D	DB-624 0.18(mm)
ZZZZZ		05/04/2015 16:51	2		DB-624 0.18(mm)
ZZZZZ		05/04/2015 17:15	25		DB-624 0.18(mm)
180-43359-2	HD-CW-9-0/1-0	05/04/2015 17:39	12.5	60504015.D	DB-624 0.18(mm)
180-43359-3	HD-CW-13-0/1-0	05/04/2015 18:03	25	60504016.D	DB-624 0.18(mm)
180-43359-4	HD-CW-15A-0/1-0	05/04/2015 18:27	1000	60504017.D	DB-624 0.18(mm)
180-43359-5	HD-CW-17-0/1-0	05/04/2015 18:50	5	60504018.D	DB-624 0.18(mm)
180-43359-6	HD-CW-20-0/1-0	05/04/2015 19:14	50	60504019.D	DB-624 0.18(mm)
ZZZZZ		05/04/2015 19:39	1		DB-624 0.18(mm)
180-43359-7	HD-MW-7-0/1-0	05/04/2015 20:02	10	60504021.D	DB-624 0.18(mm)
180-43359-9 DL	HD-MW-96S-0/1-0 DL	05/04/2015 20:26	25	60504022.D	DB-624 0.18(mm)
180-43359-10	HD-MW-96D-0/1-0	05/04/2015 20:50	10	60504023.D	DB-624 0.18(mm)
180-43359-11	HD-CW-18-0/1-0	05/04/2015 21:14	1	60504024.D	DB-624 0.18(mm)
180-43359-12	HD-MW-50D-0/1-0	05/04/2015 22:03	125	60504026.D	DB-624 0.18(mm)
180-43359-13	HD-MW-51S-0/1-0	05/04/2015 22:26	50	60504027.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHHP6 Start Date: 05/05/2015 10:45

Analysis Batch Number: 140579 End Date: 05/05/2015 22:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-140579/4		05/05/2015 10:45	1	60505004.D	DB-624 0.18(mm)
CCVIS 180-140579/2		05/05/2015 11:28	1	60505002.D	DB-624 0.18(mm)
ZZZZZ		05/05/2015 11:28	1		DB-624 0.18(mm)
CCV 180-140579/3		05/05/2015 11:52	1	60505003.D	DB-624 0.18(mm)
MB 180-140579/6		05/05/2015 12:48	1	60505006.D	DB-624 0.18(mm)
ZZZZZ		05/05/2015 13:35	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 14:11	1		DB-624 0.18(mm)
LCS 180-140579/9		05/05/2015 14:35	1	60505009.D	DB-624 0.18(mm)
ZZZZZ		05/05/2015 14:58	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 15:22	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 16:14	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 16:38	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 17:02	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 17:26	100		DB-624 0.18(mm)
ZZZZZ		05/05/2015 17:50	5		DB-624 0.18(mm)
ZZZZZ		05/05/2015 18:38	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 19:02	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 19:26	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 19:50	10		DB-624 0.18(mm)
ZZZZZ		05/05/2015 20:14	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 20:38	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 21:02	50		DB-624 0.18(mm)
ZZZZZ		05/05/2015 21:27	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 21:51	1		DB-624 0.18(mm)
ZZZZZ		05/05/2015 22:15	1		DB-624 0.18(mm)
180-43359-9	HD-MW-96S-0/1-0	05/05/2015 22:39	2.5	60505029.D	DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 04-23-2015-5.d

Lab ID: LCS 180-139449/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.49	100	90-110	
Chloride	50.0	49.6	99	90-110	
Sulfate	50.0	49.1	98	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 04-24-2015-5.d

Lab ID: LCS 180-139625/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Chloride	50.0	47.6	95	90-110	
Sulfate	50.0	47.0	94	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 04-27-2015-5.d

Lab ID: LCS 180-139754/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Sulfate	50.0	47.5	95	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 04-23-2015-21.d

Lab ID: 180-43359-8 MS Client ID: HD-MW-95-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	0.63	1.84	97	80-120	
Chloride	25.0	49	73.4	97	80-120	
Sulfate	25.0	35	58.7	95	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.: 180-43359-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 04-23-2015-22.d

Lab ID: 180-43359-8 MSD Client ID: HD-MW-95-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	1.89	101	3	20	80-120	
Chloride	25.0	73.8	99	1	20	80-120	
Sulfate	25.0	59.5	98	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.: 180-43359-1

SDG No.:

Lab File ID: B-ICS2100 B 04-23-2015-6.d Lab Sample ID: MB 180-139449/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 04/23/2015 14:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-139449/4	B-ICS2100 B 04-23-2015-4.d	04/23/2015 13:57
	LCS 180-139449/5	B-ICS2100 B 04-23-2015-5.d	04/23/2015 14:15
HD-CW-20-0/1-0	180-43359-6	B-ICS2100 B 04-23-2015-7.d	04/23/2015 14:49
HD-CW-13-0/1-0	180-43359-3	B-ICS2100 B 04-23-2015-8.d	04/23/2015 15:07
HD-MW-7-0/1-0	180-43359-7	B-ICS2100 B 04-23-2015-9.d	04/23/2015 15:24
HD-MW-50D-0/1-0	180-43359-12	B-ICS2100 B 04-23-2015-10.d	04/23/2015 15:41
	CCB 180-139449/16	B-ICS2100 B 04-23-2015-16.d	04/23/2015 17:25
HD-CW-9-0/1-0	180-43359-2	B-ICS2100 B 04-23-2015-17.d	04/23/2015 17:43
HD-MW-96D-0/1-0	180-43359-10	B-ICS2100 B 04-23-2015-18.d	04/23/2015 18:00
HD-MW-96S-0/1-0	180-43359-9	B-ICS2100 B 04-23-2015-19.d	04/23/2015 18:17
HD-MW-95-0/1-0	180-43359-8	B-ICS2100 B 04-23-2015-20.d	04/23/2015 18:35
HD-MW-95-0/1-0 MS	180-43359-8 MS	B-ICS2100 B 04-23-2015-21.d	04/23/2015 18:52
HD-MW-95-0/1-0 MSD	180-43359-8 MSD	B-ICS2100 B 04-23-2015-22.d	04/23/2015 19:09
HD-CW-18-0/1-0	180-43359-11	B-ICS2100 B 04-23-2015-23.d	04/23/2015 19:27
	CCB 180-139449/28	B-ICS2100 B 04-23-2015-28.d	04/23/2015 20:53

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: B-ICS2100 B 04-23-2015-6.d Lab Sample ID: MB 180-139449/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 04/23/2015 14:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-CW-15A-0/1-0	180-43359-4	B-ICS2100 B 04-23-2015-32.d	04/23/2015 22:02
HD-MW-51S-0/1-0	180-43359-13	B-ICS2100 B 04-23-2015-33.d	04/23/2015 22:20
HD-CW-17-0/1-0	180-43359-5	B-ICS2100 B 04-23-2015-34.d	04/23/2015 22:37
	CCB 180-139449/40	B-ICS2100 B 04-23-2015-40.d	04/24/2015 00:21

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: B-ICS2100 B 04-24-2015-6.d Lab Sample ID: MB 180-139625/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 04/24/2015 17:17

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-139625/4	B-ICS2100 B 04-24-2015-4.d	04/24/2015 16:39
	LCS 180-139625/5	B-ICS2100 B 04-24-2015-5.d	04/24/2015 16:56
	CCB 180-139625/16	B-ICS2100 B 04-24-2015-16.d	04/24/2015 20:12
HD-CW-18-0/1-0	180-43359-11	B-ICS2100 B 04-24-2015-18.d	04/24/2015 20:52
	CCB 180-139625/28	B-ICS2100 B 04-24-2015-28.d	04/24/2015 23:45
	CCB 180-139625/40	B-ICS2100 B 04-24-2015-40.d	04/25/2015 03:13
HD-CW-15A-0/1-0	180-43359-4	B-ICS2100 B 04-24-2015-45.d	04/25/2015 04:39
	CCB 180-139625/49	B-ICS2100 B 04-24-2015-49.d	04/25/2015 05:49

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab File ID: B-ICS2100 B 04-27-2015-6.d Lab Sample ID: MB 180-139754/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 04/27/2015 13:26

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-139754/4	B-ICS2100 B 04-27-2015-4.d	04/27/2015 12:02
	LCS 180-139754/5	B-ICS2100 B 04-27-2015-5.d	04/27/2015 13:08
	CCB 180-139754/16	B-ICS2100 B 04-27-2015-16.d	04/27/2015 16:19
	CCB 180-139754/40	B-ICS2100 B 04-27-2015-40.d	04/27/2015 23:15
HD-MW-50D-0/1-0	180-43359-12	B-ICS2100 B 04-27-2015-41.d	04/27/2015 23:32
	CCB 180-139754/52	B-ICS2100 B 04-27-2015-52.d	04/28/2015 02:42

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 | Lab Sample ID: 180-43359-2

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-17.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 02:45

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 17:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | 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	190		1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-17.d
Lims ID: 180-43359-A-2 Lab Sample ID: 180-43359-2
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 23-Apr-2015 17:43:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-017
Misc. Info.: 17 180-43359-a-2
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:40 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

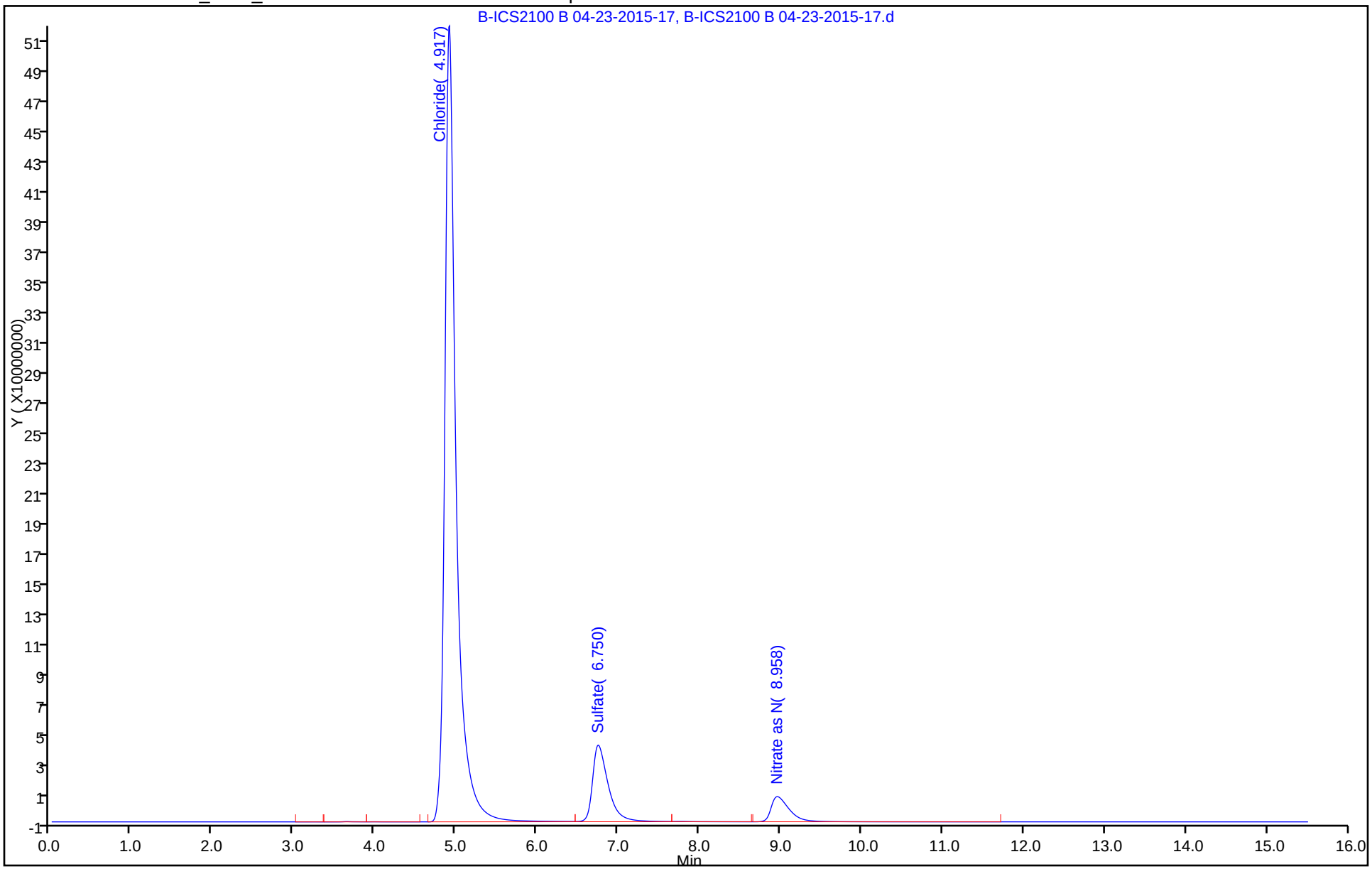
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.917	4.933	-0.016	4989229719	187.0	
3 Sulfate	6.750	6.733	0.017	661527315	33.8	
5 Nitrate as N	8.958	9.000	-0.042	252866502	3.83	

Report Date: 24-Apr-2015 14:23:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-17.d				
Injection Date:	23-Apr-2015 17:43:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-2	Lab Sample ID:	180-43359-2	Worklist Smp#:	17
Client ID:	HD-CW-9-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 | Lab Sample ID: 180-43359-3

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-8.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 03:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 15:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5		0.10	0.0062
16887-00-6	Chloride	150		1.0	0.20
14808-79-8	Sulfate	37		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

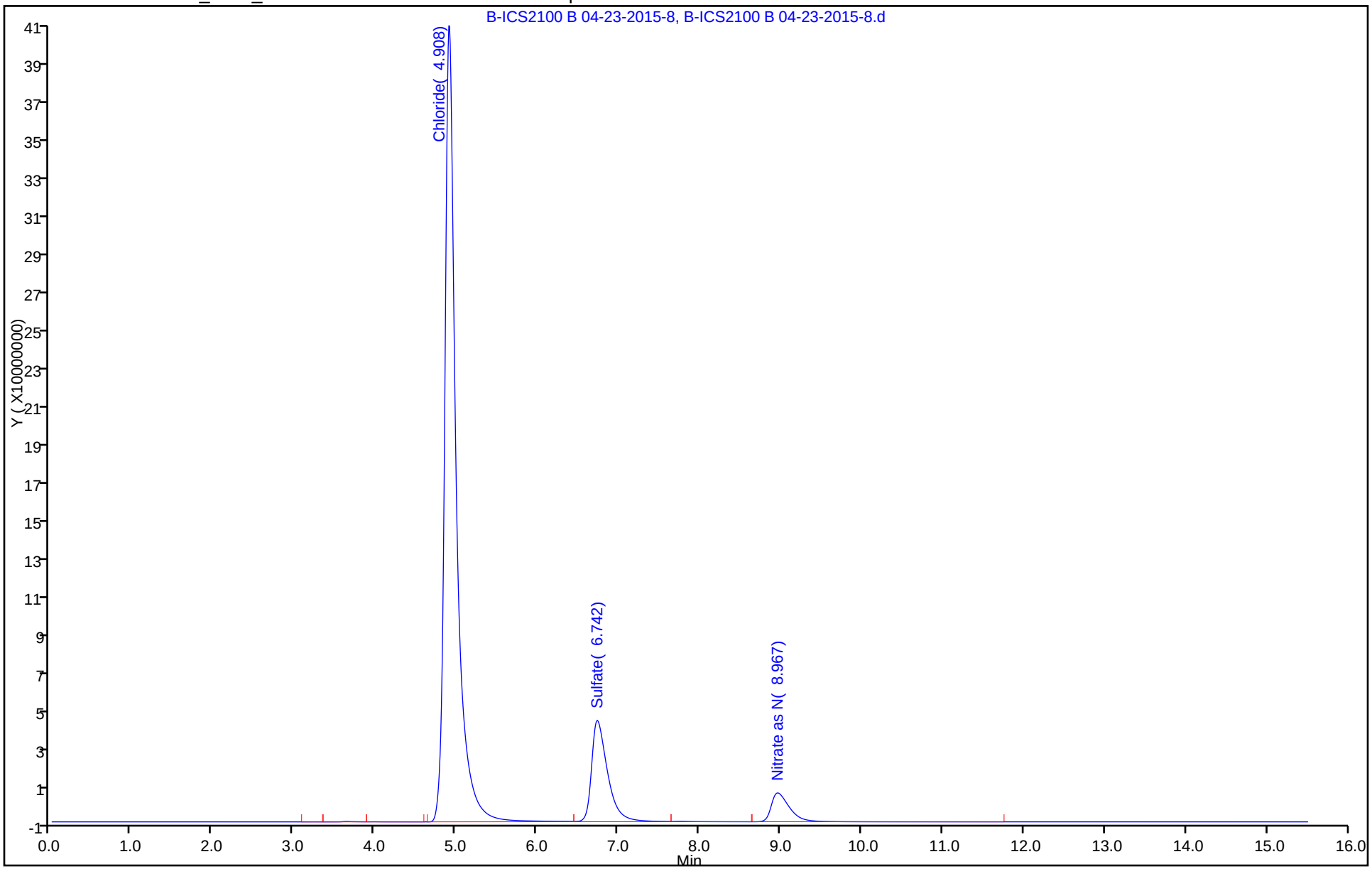
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-8.d				
Lims ID:	180-43359-A-3	Lab Sample ID:	180-43359-3		
Client ID:	HD-CW-13-0/1-0				
Sample Type:	Client				
Inject. Date:	23-Apr-2015 15:07:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006605-008				
Misc. Info.:	8 180-43359-a-3				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	24-Apr-2015 14:23:44	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK005				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.925	-0.017	4034209582	151.2	
3 Sulfate	6.742	6.733	0.009	715065249	36.5	
5 Nitrate as N	8.967	8.992	-0.025	231859284	3.51	

Report Date: 24-Apr-2015 14:23:48 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-8.d				
Injection Date:	23-Apr-2015 15:07:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-3	Lab Sample ID:	180-43359-3	Worklist Smp#:	8
Client ID:	HD-CW-13-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 | Lab Sample ID: 180-43359-4

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-32.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 02:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 22:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.5		0.10	0.0062
14808-79-8	Sulfate	140		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-32.d				
Lims ID:	180-43359-A-4	Lab Sample ID:	180-43359-4		
Client ID:	HD-CW-15A-0/1-0				
Sample Type:	Client				
Inject. Date:	23-Apr-2015 22:02:00	ALS Bottle#:	0	Worklist Smp#:	32
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006605-032				
Misc. Info.:	32 180-43359-a-4				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	24-Apr-2015 14:26:33	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK005				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.933	-0.025	7166906297	268.6	E
3 Sulfate	6.617	6.733	-0.116	2770885738	142.1	
5 Nitrate as N	8.950	9.000	-0.050	300265932	4.54	

QC Flag Legend

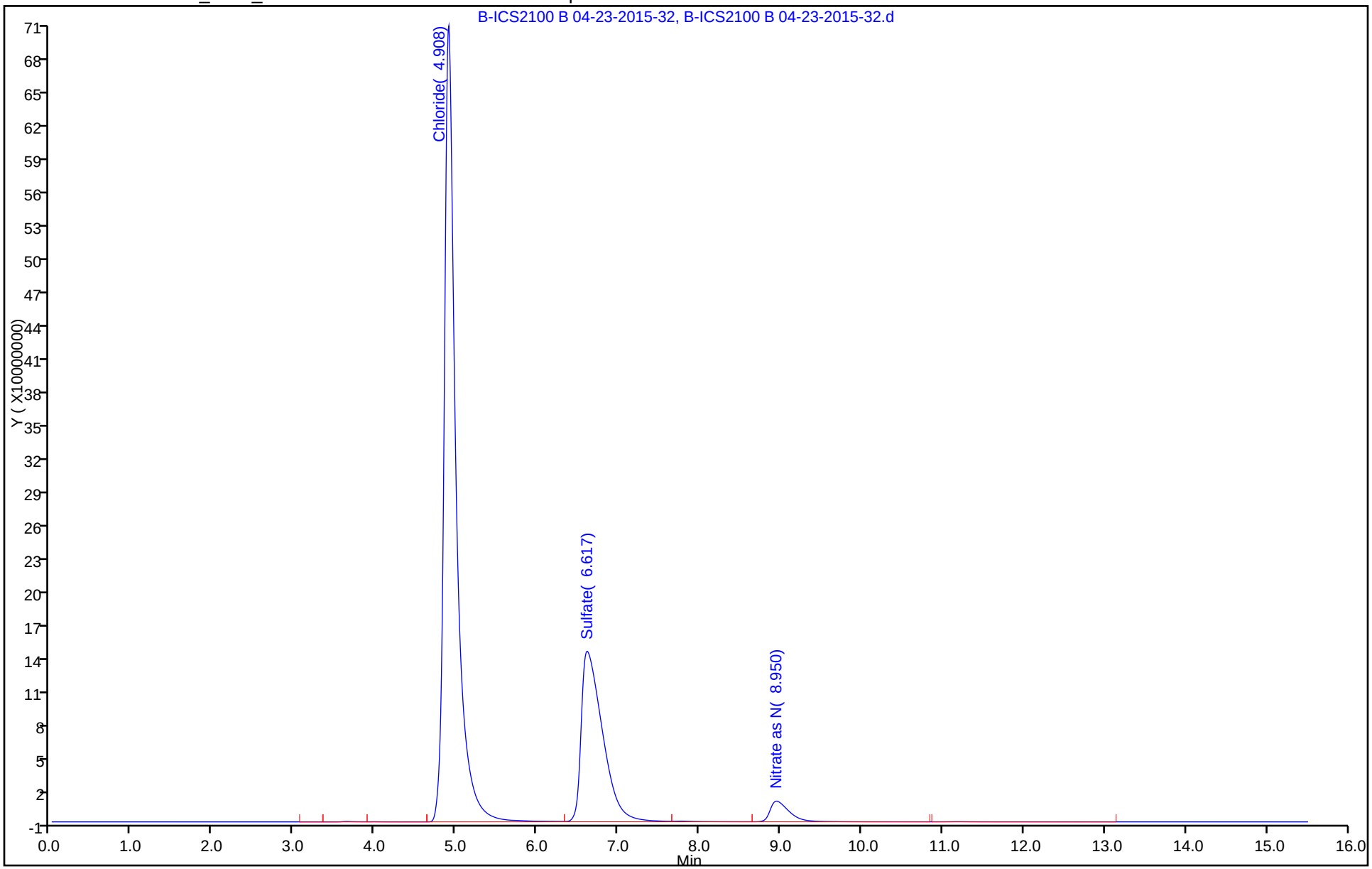
Processing Flags

E - Exceeded Maximum Amount

Report Date: 24-Apr-2015 14:26:34 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-32.d				
Injection Date:	23-Apr-2015 22:02:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-4	Lab Sample ID:	180-43359-4	Worklist Smp#:	32
Client ID:	HD-CW-15A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-43359-4

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-45.d

Analysis Method: 300.0 Date Collected: 04/22/2015 02:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/25/2015 04:39

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	270		5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-45.d
Lims ID: 180-43359-A-4 Lab Sample ID: 180-43359-4
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 25-Apr-2015 04:39:00 ALS Bottle#: 0 Worklist Smp#: 45
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0006629-045
Misc. Info.: 44 180-43359-a-4 5
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:57:07 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

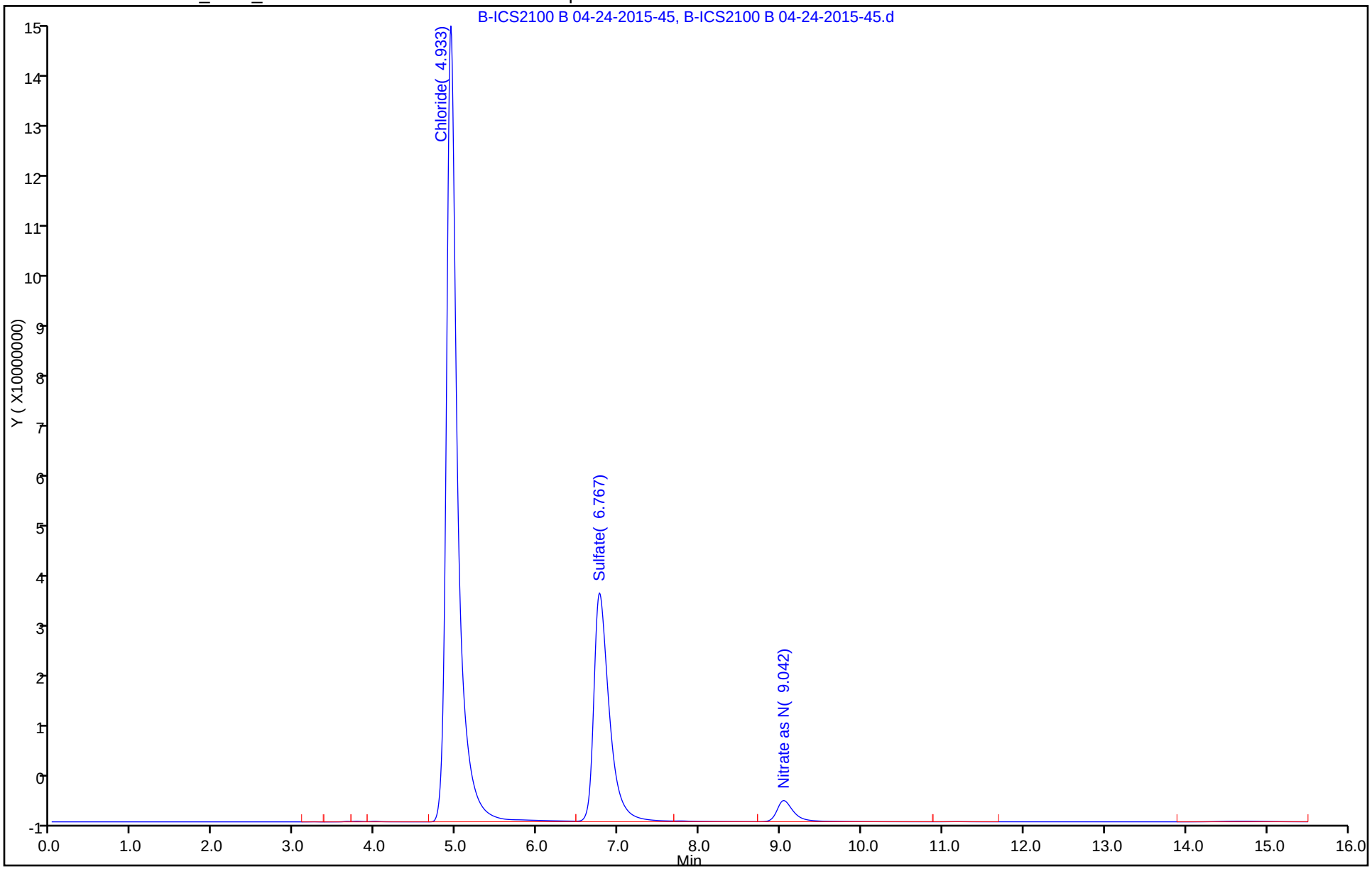
Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.933	4.933	0.000	1444545908	54.2	
3 Sulfate	6.767	6.733	0.034	566146329	28.9	
5 Nitrate as N	9.042	8.992	0.050	57826821	0.8817	

Report Date: 25-Apr-2015 08:57:09 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-45.d				
Injection Date:	25-Apr-2015 04:39:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-4	Lab Sample ID:	180-43359-4	Worklist Smp#:	45
Client ID:	HD-CW-15A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 | Lab Sample ID: 180-43359-5

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-34.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 03:05

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 22:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.9		0.10	0.0062
16887-00-6	Chloride	94		1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

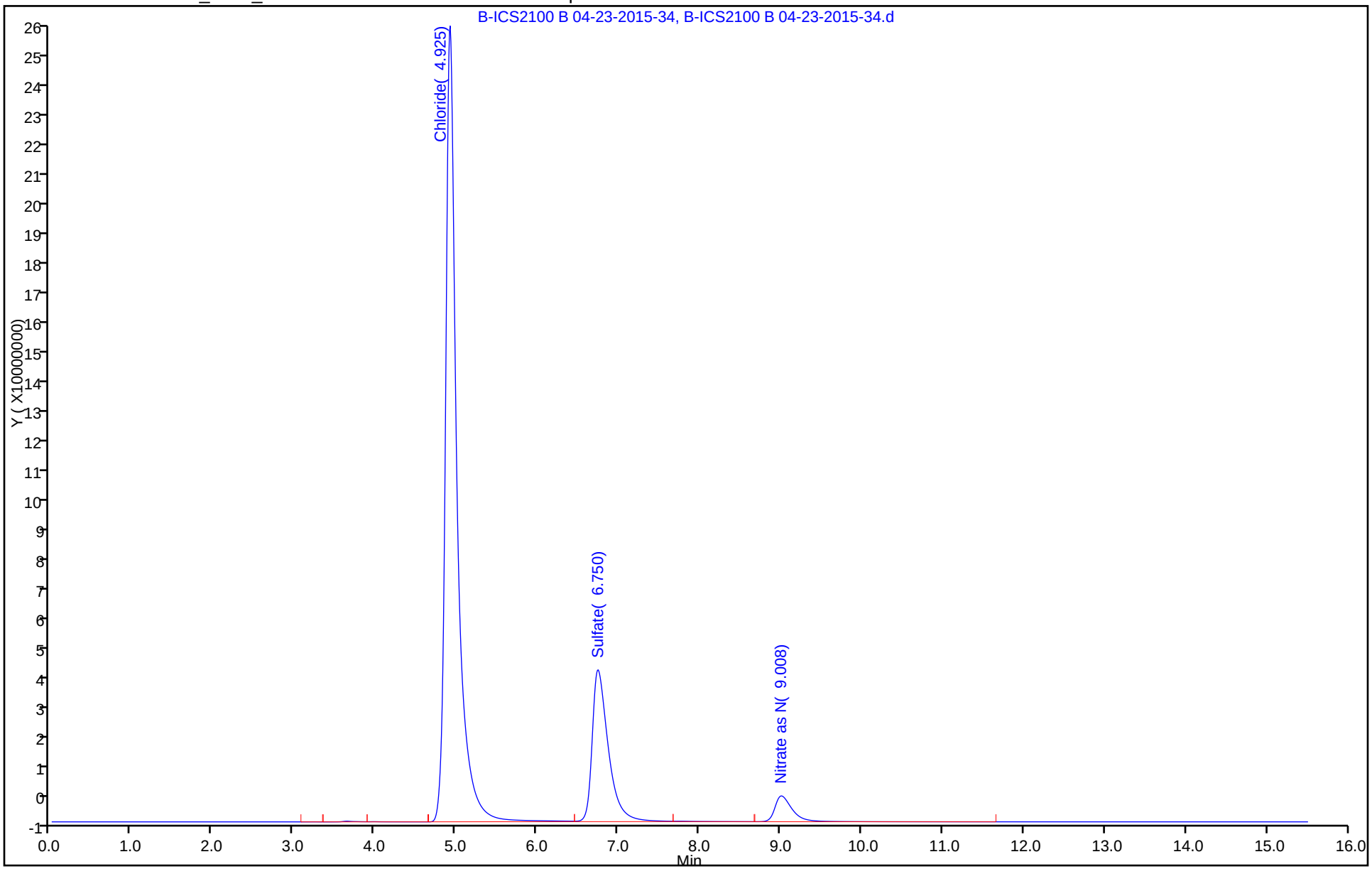
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-34.d				
Lims ID:	180-43359-A-5	Lab Sample ID:	180-43359-5		
Client ID:	HD-CW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	23-Apr-2015 22:37:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006605-034				
Misc. Info.:	34 180-43359-a-5				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	24-Apr-2015 14:26:33	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK005				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.925	4.933	-0.008	2500052595	93.7	
3 Sulfate	6.750	6.733	0.017	673065610	34.4	
5 Nitrate as N	9.008	9.000	0.008	123005854	1.87	

Report Date: 24-Apr-2015 14:26:35 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-34.d				
Injection Date:	23-Apr-2015 22:37:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-5	Lab Sample ID:	180-43359-5	Worklist Smp#:	34
Client ID:	HD-CW-17-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 | Lab Sample ID: 180-43359-6

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-7.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 02:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 14:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3		0.10	0.0062
16887-00-6	Chloride	170		1.0	0.20
14808-79-8	Sulfate	31		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-7.d				
Lims ID:	180-43359-A-6	Lab Sample ID:	180-43359-6		
Client ID:	HD-CW-20-0/1-0				
Sample Type:	Client				
Inject. Date:	23-Apr-2015 14:49:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006605-007				
Misc. Info.:	7 180-43359-a-6				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	24-Apr-2015 14:23:44	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK005				

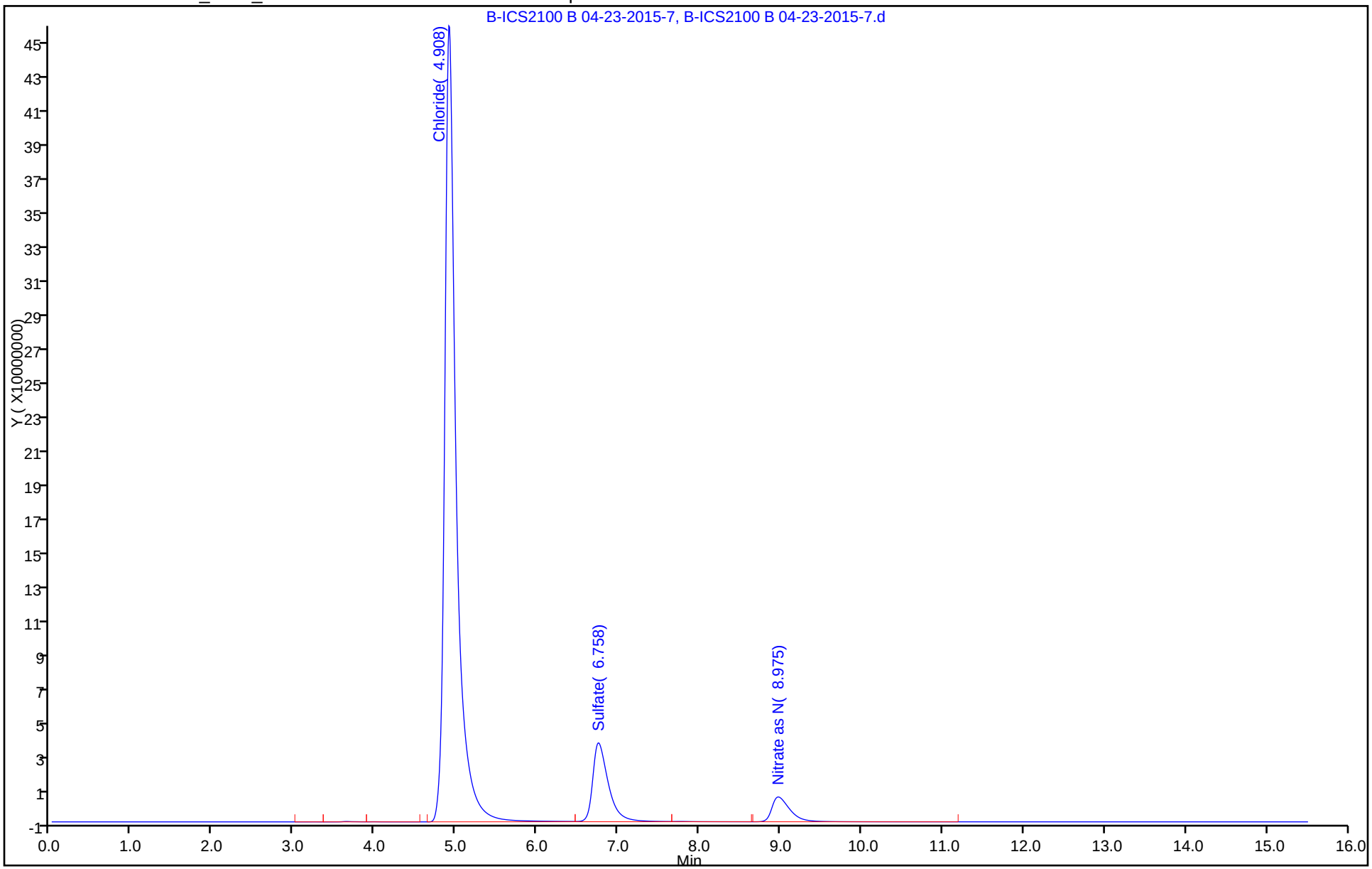
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.925	-0.017	4449887704	166.8	
3 Sulfate	6.758	6.733	0.025	600035852	30.6	
5 Nitrate as N	8.975	8.992	-0.017	217859302	3.30	

Report Date: 24-Apr-2015 14:23:48 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-7.d

Injection Date:	23-Apr-2015 14:49:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-6	Lab Sample ID:	180-43359-6	Worklist Smp#:	7
Client ID:	HD-CW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 | Lab Sample ID: 180-43359-7

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-9.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 09:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 15:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.9		0.10	0.0062
16887-00-6	Chloride	120		1.0	0.20
14808-79-8	Sulfate	30		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-9.d				
Lims ID:	180-43359-A-7	Lab Sample ID:	180-43359-7		
Client ID:	HD-MW-7-0/1-0				
Sample Type:	Client				
Inject. Date:	23-Apr-2015 15:24:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006605-009				
Misc. Info.:	9 180-43359-a-7				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	24-Apr-2015 14:23:44	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK005				

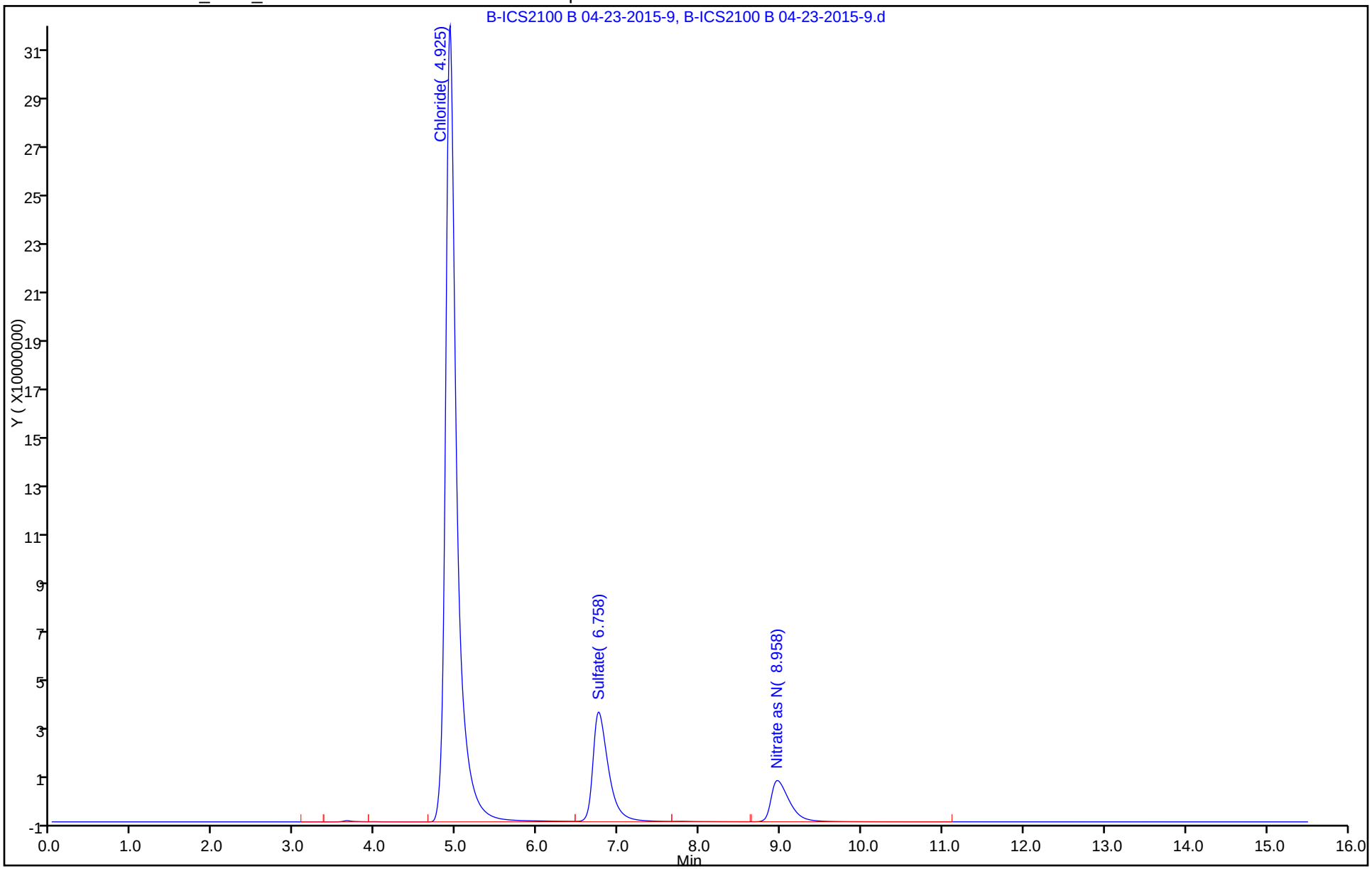
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.925	4.925	0.000	3090558904	115.9	
3 Sulfate	6.758	6.733	0.025	585224929	29.8	
5 Nitrate as N	8.958	8.992	-0.034	259555029	3.93	

Report Date: 24-Apr-2015 14:23:47 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-9.d

Injection Date:	23-Apr-2015 15:24:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-7	Lab Sample ID:	180-43359-7	Worklist Smp#:	9
Client ID:	HD-MW-7-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 | Lab Sample ID: 180-43359-8

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-20.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 12:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 18:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.63		0.10	0.0062
16887-00-6	Chloride	49		1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-20.d
Lims ID: 180-43359-A-8 Lab Sample ID: 180-43359-8
Client ID: HD-MW-95-0/1-0
Sample Type: Client
Inject. Date: 23-Apr-2015 18:35:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-020
Misc. Info.: 20 180-43359-a-8
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:30 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

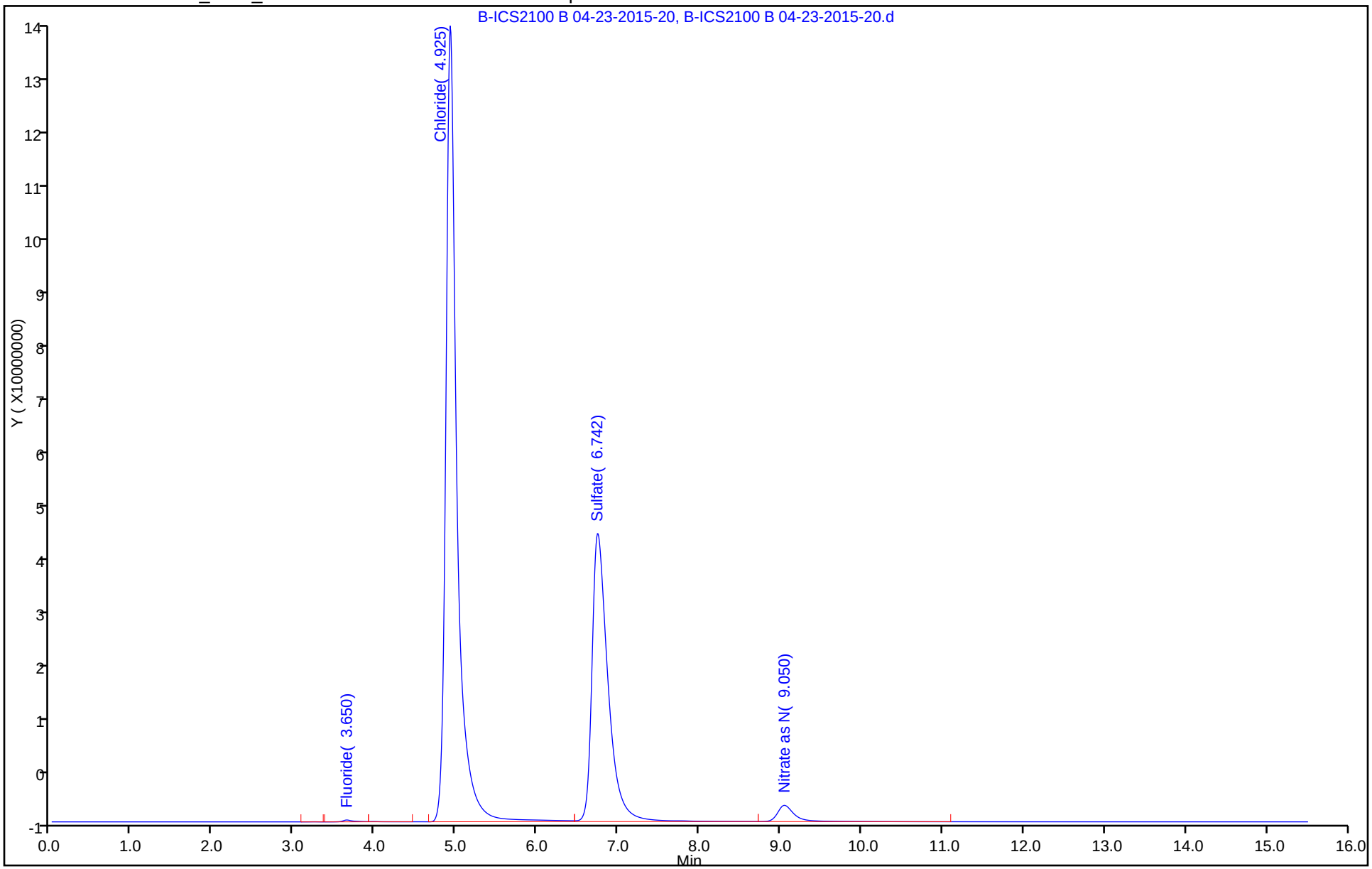
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.675	-0.025	2934704	0.0643	
2 Chloride	4.925	4.942	-0.017	1309278995	49.1	
7 Nitrite as N		5.817			ND	
3 Sulfate	6.742	6.733	0.009	683361784	34.9	
4 Bromide		7.783			ND	
5 Nitrate as N	9.050	9.008	0.042	41284700	0.6320	
6 Orthophosphate as P		12.283			ND	

Report Date: 24-Apr-2015 14:26:30 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-20.d

Injection Date:	23-Apr-2015 18:35:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-8	Lab Sample ID:	180-43359-8	Worklist Smp#:	20
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 | Lab Sample ID: 180-43359-9

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-19.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 11:20

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 18:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5		0.10	0.0062
16887-00-6	Chloride	140		1.0	0.20
14808-79-8	Sulfate	49		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

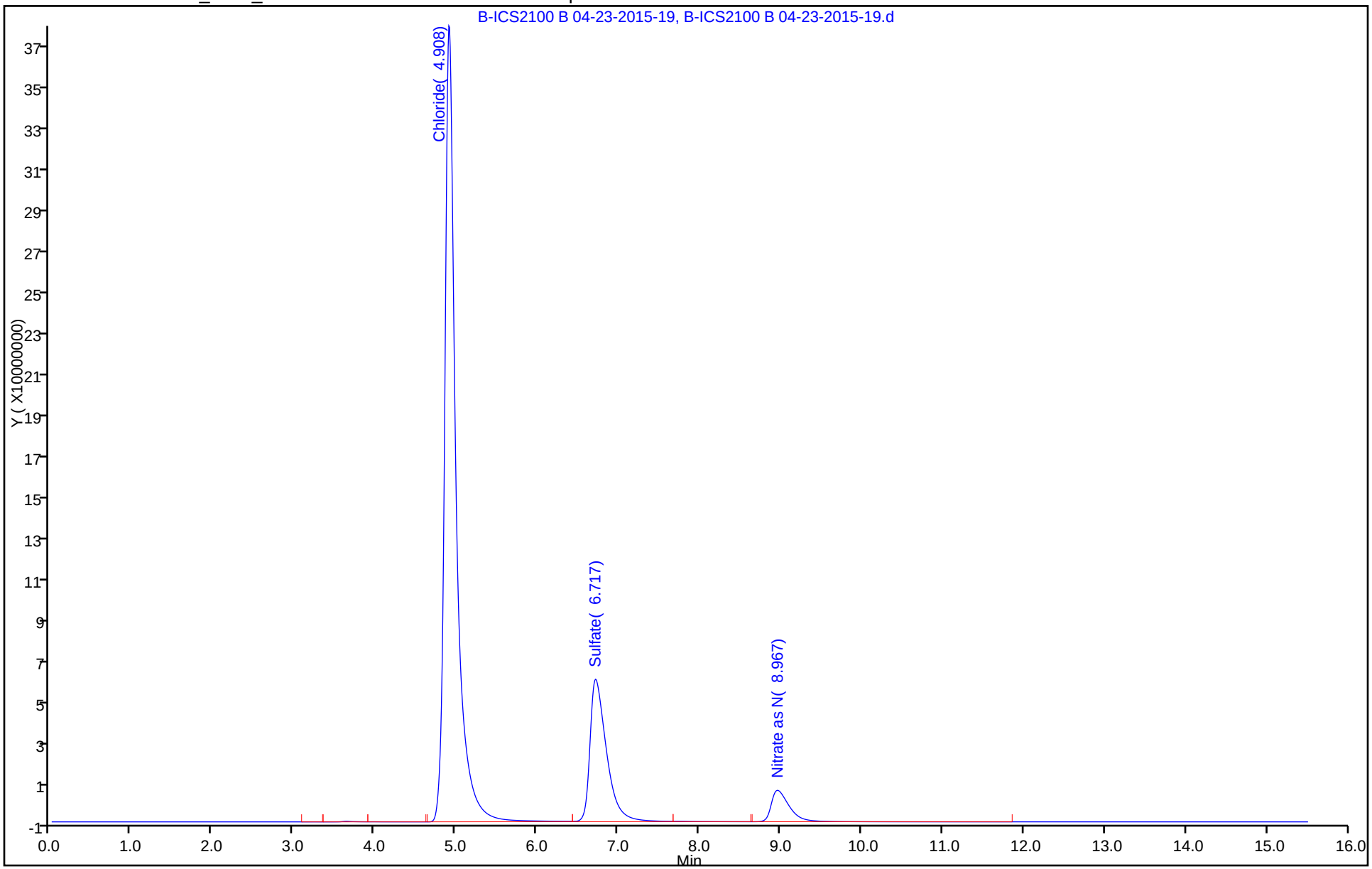
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-19.d				
Lims ID:	180-43359-A-9	Lab Sample ID:	180-43359-9		
Client ID:	HD-MW-96S-0/1-0				
Sample Type:	Client				
Inject. Date:	23-Apr-2015 18:17:00	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006605-019				
Misc. Info.:	19 180-43359-a-9				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	24-Apr-2015 14:23:40	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK005				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.933	-0.025	3658115346	137.1	
3 Sulfate	6.717	6.733	-0.016	959034853	49.0	
5 Nitrate as N	8.967	9.000	-0.033	230492075	3.49	

Report Date: 24-Apr-2015 14:23:43 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-19.d				
Injection Date:	23-Apr-2015 18:17:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-9	Lab Sample ID:	180-43359-9	Worklist Smp#:	19
Client ID:	HD-MW-96S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 | Lab Sample ID: 180-43359-10

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-18.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 10:32

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 18:00

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | 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		1.0	0.20
14808-79-8	Sulfate	44		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-18.d
Lims ID: 180-43359-A-10 Lab Sample ID: 180-43359-10
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 23-Apr-2015 18:00:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-018
Misc. Info.: 18 180-43359-a-10
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:40 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

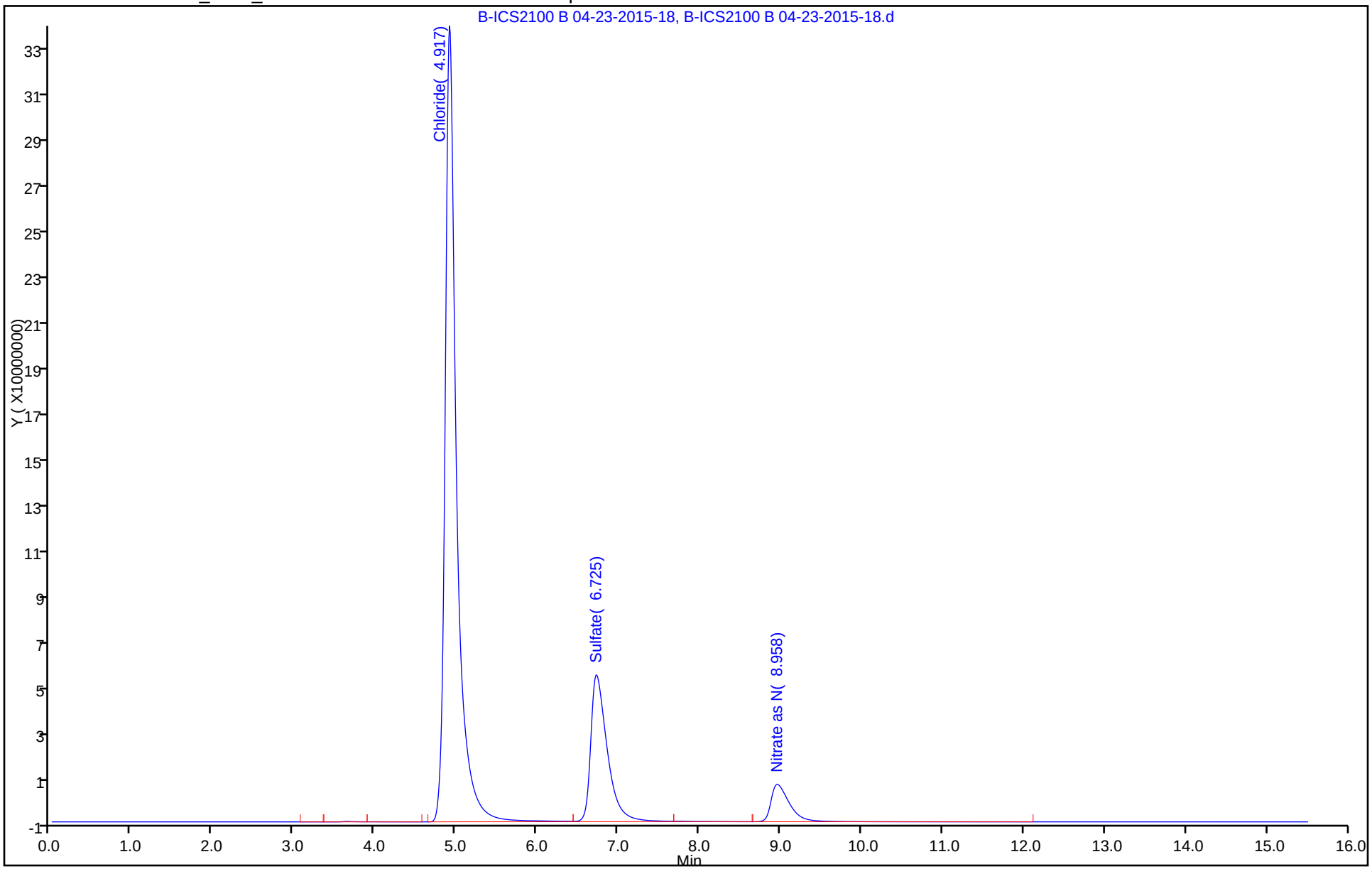
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.917	4.933	-0.016	3272866071	122.7	
3 Sulfate	6.725	6.733	-0.008	869990991	44.5	
5 Nitrate as N	8.958	9.000	-0.042	246191446	3.73	

Report Date: 24-Apr-2015 14:23:43 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-18.d				
Injection Date:	23-Apr-2015 18:00:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-10	Lab Sample ID:	180-43359-10	Worklist Smp#:	18
Client ID:	HD-MW-96D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-43359-11

Matrix: Water Lab File ID: B-ICS2100 B 04-23-2015-23.d

Analysis Method: 300.0 Date Collected: 04/22/2015 13:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/23/2015 19:27

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.12		0.10	0.0062

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-23.d
Lims ID: 180-43359-A-11 Lab Sample ID: 180-43359-11
Client ID: HD-CW-18-0/1-0
Sample Type: Client
Inject. Date: 23-Apr-2015 19:27:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-023
Misc. Info.: 23 180-43359-a-11
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:30 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.942	-0.034	6072405646	227.6	E
3 Sulfate	6.508	6.733	-0.225	5525760075	283.5	E
5 Nitrate as N	9.058	9.008	0.050	7219398	0.1176	

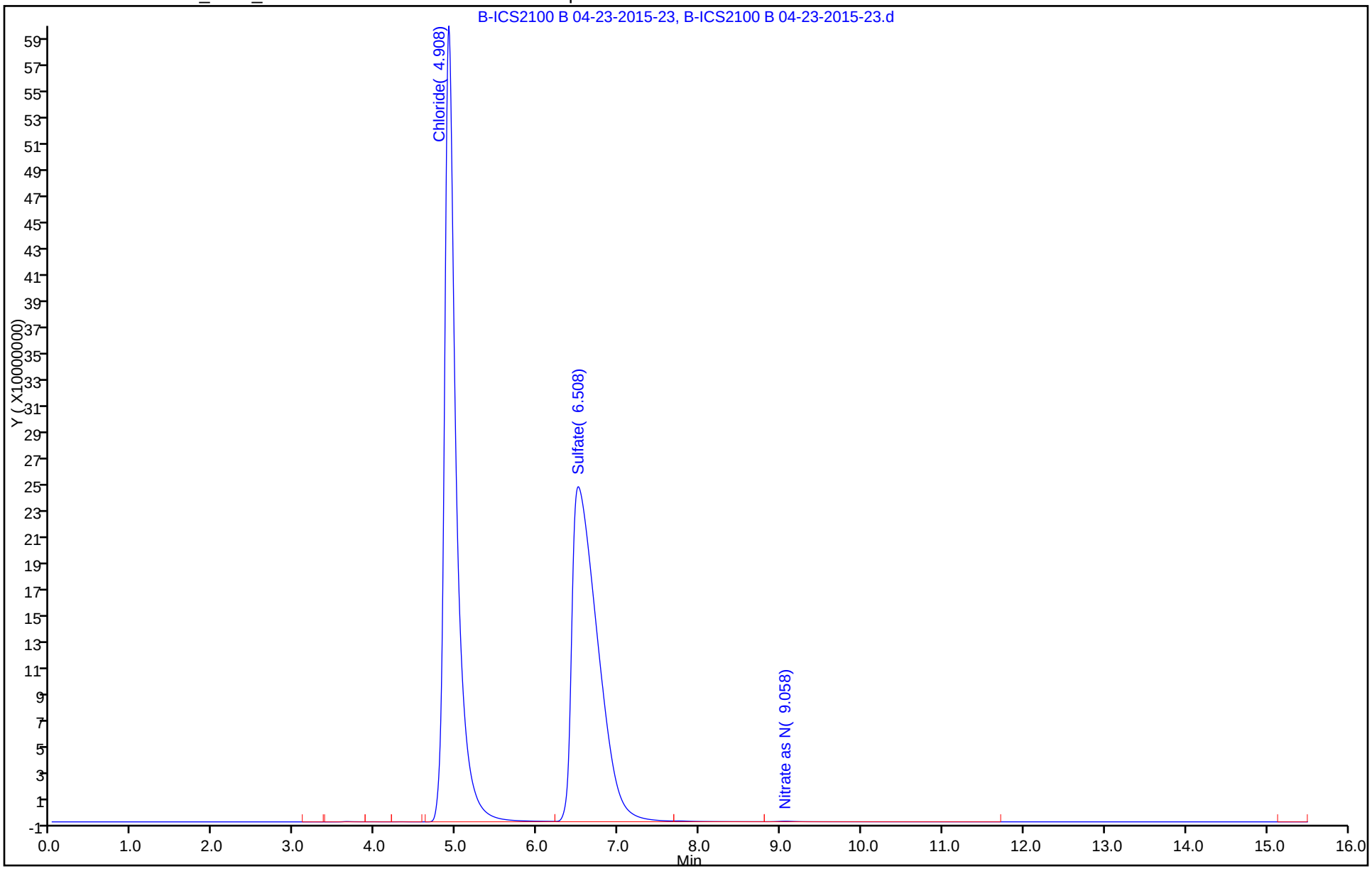
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Report Date: 24-Apr-2015 14:26:31 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-23.d				
Injection Date:	23-Apr-2015 19:27:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-11	Lab Sample ID:	180-43359-11	Worklist Smp#:	23
Client ID:	HD-CW-18-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-43359-11

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-18.d

Analysis Method: 300.0 Date Collected: 04/22/2015 13:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2015 20:52

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	230		5.0	0.98
14808-79-8	Sulfate	290		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-18.d
Lims ID: 180-43359-A-11 Lab Sample ID: 180-43359-11
Client ID: HD-CW-18-0/1-0
Sample Type: Client
Inject. Date: 24-Apr-2015 20:52:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0006629-018
Misc. Info.: 24204 180-43359-a-11 5
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:56:59 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

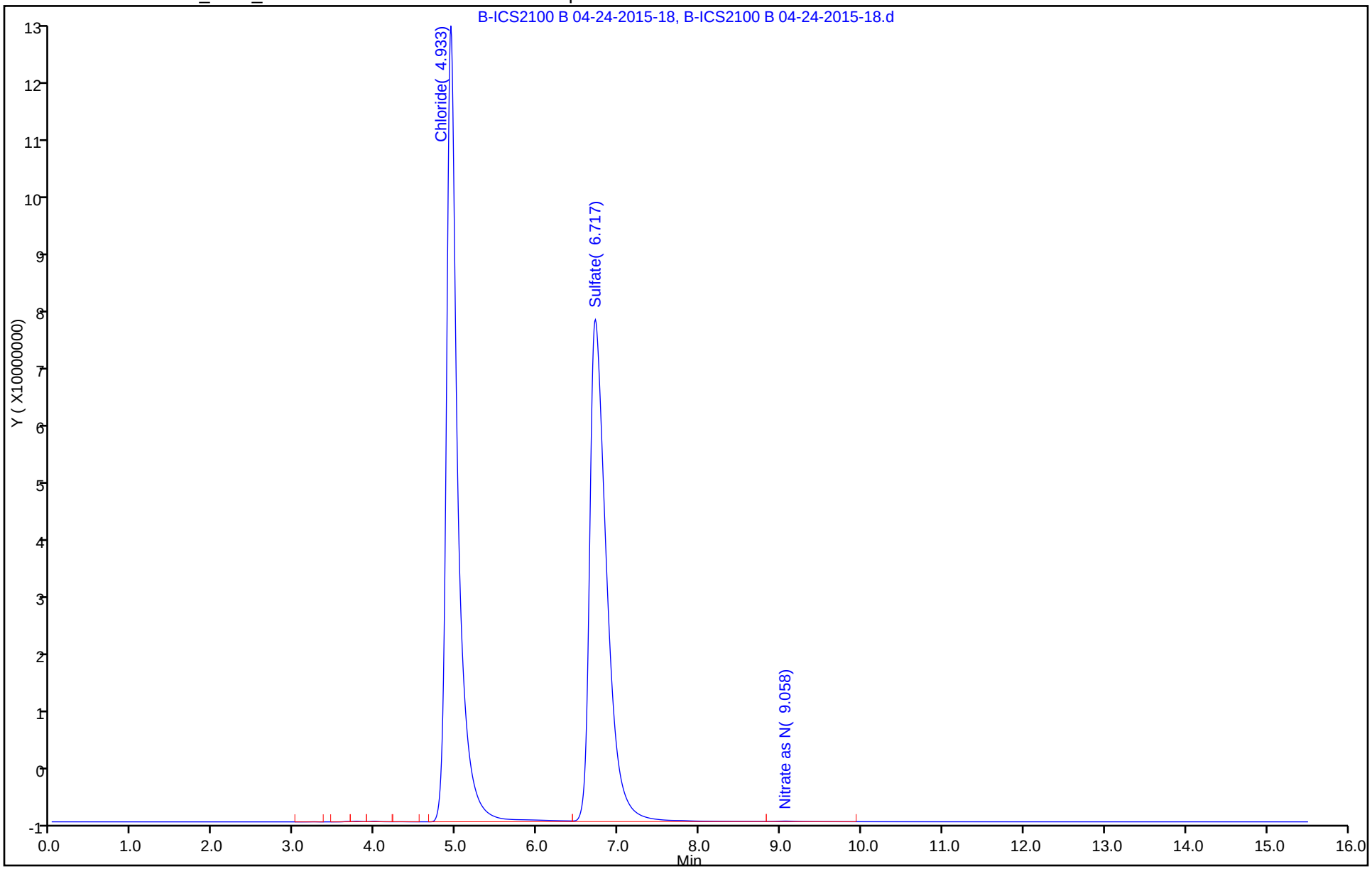
Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.933	4.933	0.000	1211065658	45.4	
3 Sulfate	6.717	6.733	-0.016	1124914327	57.6	
5 Nitrate as N	9.058	9.000	0.058	1147332	0.0260	

Report Date: 25-Apr-2015 08:57:00 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-18.d				
Injection Date:	24-Apr-2015 20:52:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-11	Lab Sample ID:	180-43359-11	Worklist Smp#:	18
Client ID:	HD-CW-18-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 | Lab Sample ID: 180-43359-12

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-10.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 10:03

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 15:41

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.017	J	0.10	0.0062
16887-00-6	Chloride	98		1.0	0.20

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-10.d
Lims ID: 180-43359-A-12 Lab Sample ID: 180-43359-12
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 23-Apr-2015 15:41:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-010
Misc. Info.: 10 180-43359-a-12
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:44 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.925	4.925	0.000	2612158273	97.9	
3 Sulfate	6.525	6.733	-0.208	4874340591	250.0	E
5 Nitrate as N	9.058	8.992	0.066	568256	0.0172	

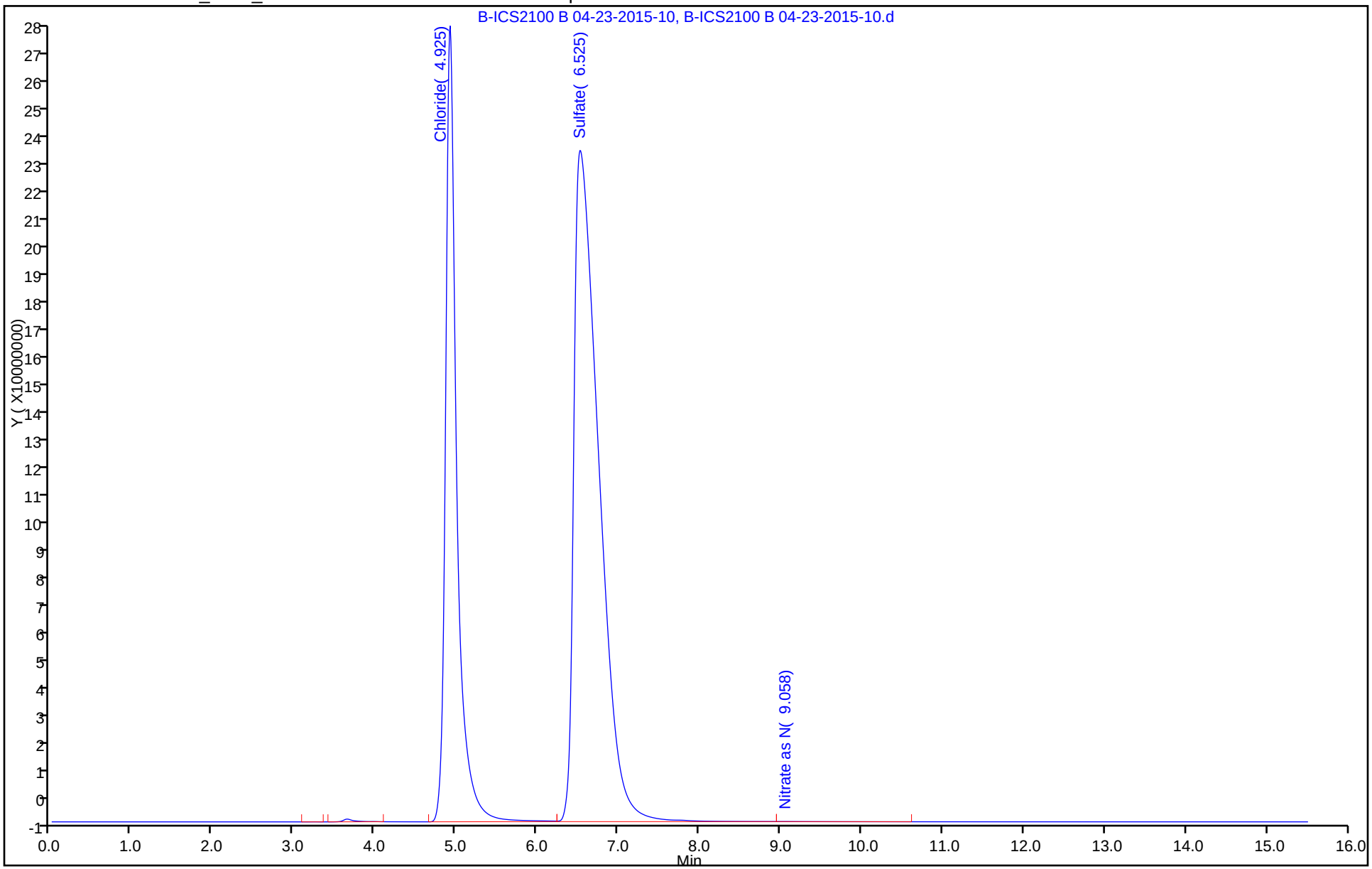
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Report Date: 24-Apr-2015 14:23:46 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-10.d				
Injection Date:	23-Apr-2015 15:41:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-12	Lab Sample ID:	180-43359-12	Worklist Smp#:	10
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-43359-12

Matrix: Water Lab File ID: B-ICS2100 B 04-27-2015-41.d

Analysis Method: 300.0 Date Collected: 04/22/2015 10:03

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/27/2015 23:32

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	270		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-41.d
Lims ID: 180-43359-A-12 Lab Sample ID: 180-43359-12
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 27-Apr-2015 23:32:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0006652-041
Misc. Info.: 10118 180-43359-a-12
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:49 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

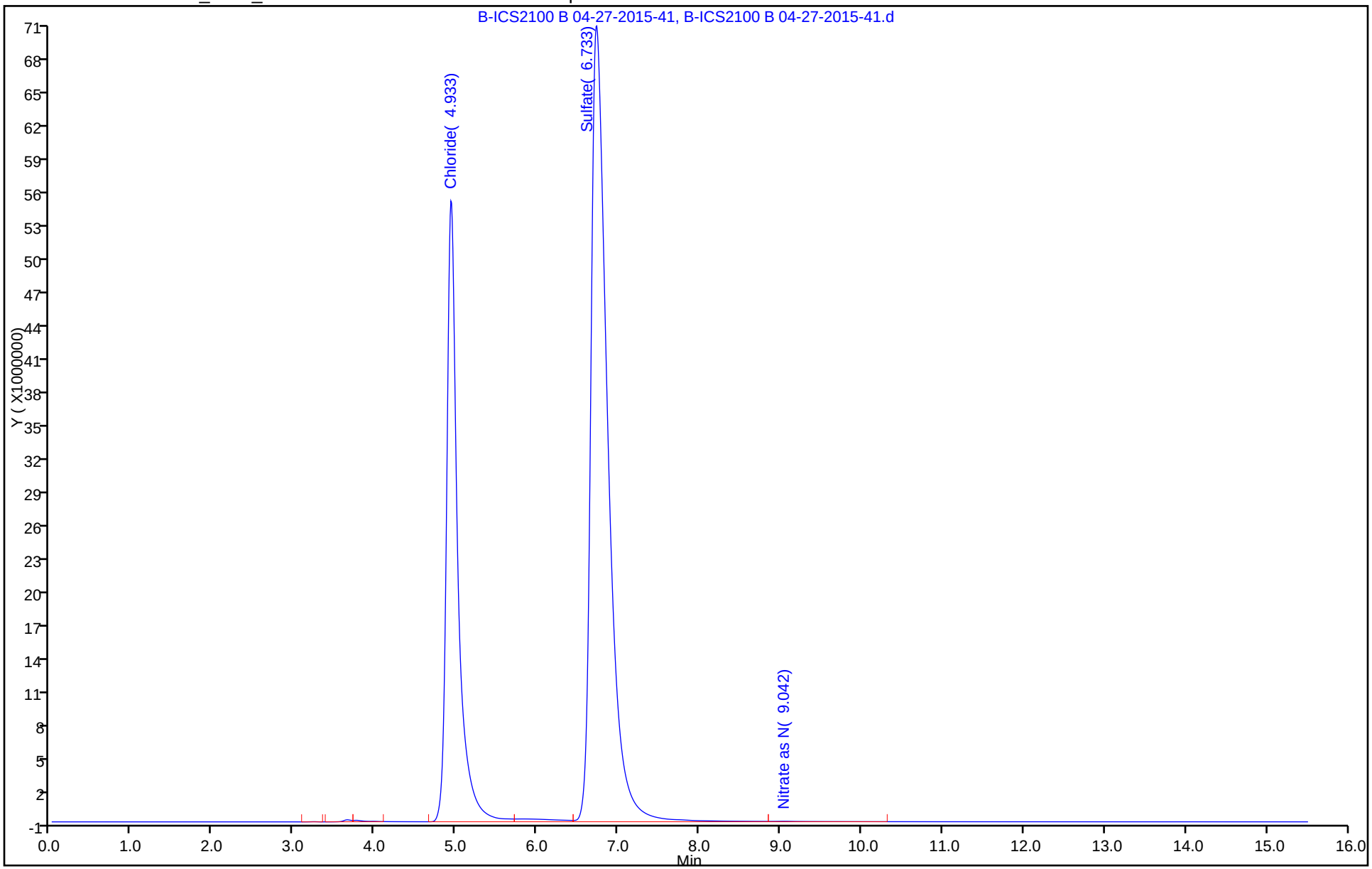
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.933	4.933	0.000	531402777	20.0	
3 Sulfate	6.733	6.733	0.000	1037538221	53.1	
5 Nitrate as N	9.042	8.983	0.059	1527826	0.0317	

Report Date: 28-Apr-2015 12:18:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-41.d				
Injection Date:	27-Apr-2015 23:32:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-12	Lab Sample ID:	180-43359-12	Worklist Smp#:	41
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 | Lab Sample ID: 180-43359-13

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-33.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 15:01

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 22:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.6		0.10	0.0062
16887-00-6	Chloride	170		1.0	0.20
14808-79-8	Sulfate	54		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-33.d
Lims ID: 180-43359-A-13 Lab Sample ID: 180-43359-13
Client ID: HD-MW-51S-0/1-0
Sample Type: Client
Inject. Date: 23-Apr-2015 22:20:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-033
Misc. Info.: 33 180-43359-a-13
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

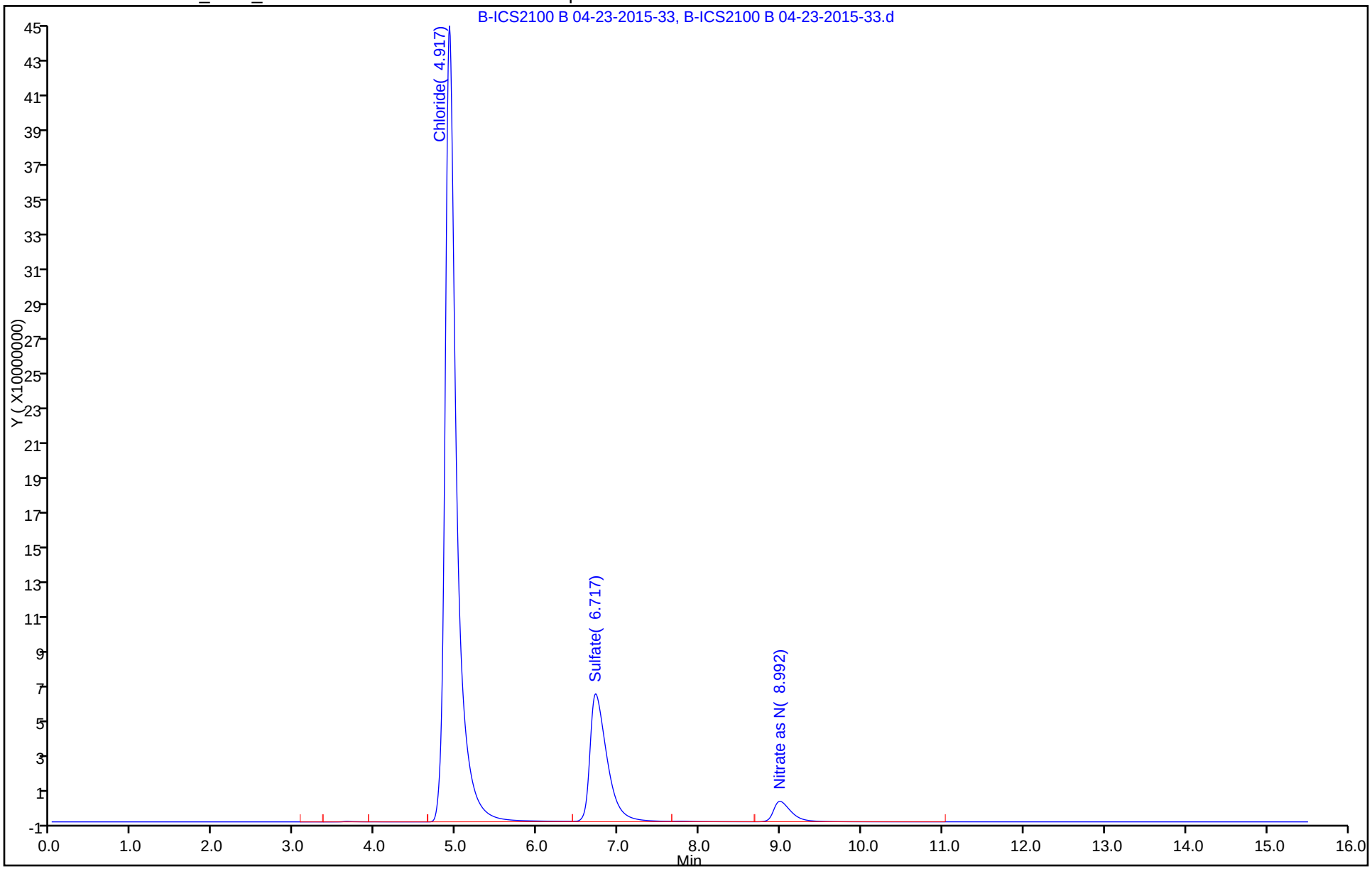
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.917	4.933	-0.016	4427321639	166.0	
3 Sulfate	6.717	6.733	-0.016	1048087768	53.6	
5 Nitrate as N	8.992	9.000	-0.008	174028079	2.64	

Report Date: 24-Apr-2015 14:26:35 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-33.d				
Injection Date:	23-Apr-2015 22:20:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-13	Lab Sample ID:	180-43359-13	Worklist Smp#:	33
Client ID:	HD-MW-51S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.658	3.658	3.658	3.667	3.667	3.667	3.667	3.675			3.308 - 4.008	3.665
Chloride	4.950	4.950	4.942	4.942	4.933	4.933	4.925	4.917			4.592 - 5.292	4.937
Nitrite as N	5.817	5.817	5.817	5.817	5.817	5.817	+++++	+++++			5.567 - 6.067	5.817
Sulfate	6.858	6.850	6.833	6.808	6.750	6.683	6.625	6.575			6.483 - 7.183	6.748
Bromide	7.817	7.817	7.808	7.808	7.783	7.767	7.733	7.717			7.458 - 8.158	7.781
Nitrate as N	9.100	9.100	9.083	9.067	9.017	8.967	8.917	8.875			8.833 - 9.333	9.016
Orthophosphate as P	+++++	+++++	12.633	12.600	12.467	12.317	12.183	12.083			12.133 - 13.133	12.381

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.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	46484040 44488770	41188952 43022992	45611308 42521689	45839580 41976790	Lin2	142149.513	43397203.3							0.9980		0.9950
Chloride	25085564 26660142	26222144 26369330	26666796 26648824	26747431 26853496	Lin2	-1610994.2	26686961.8							1.0000		0.9950
Nitrite as N	76927840 57882564	60781072 54059356	61607114 +++++	61339242 +++++	Lin2	972853.413	57624405.7							0.9980		0.9950
Sulfate	23335222 19577256	20457294 19212636	19964310 19359210	19887329 19477723	Lin2	3912770.84	19478213.4							1.0000		0.9950
Bromide	835850 915403	853785 881845	884616 868328	909169 849773	Lin2	-9816.0251	883383.993							0.9990		0.9950
Nitrate as N	55575600 66453469	60515684 66412101	63992838 67380292	65497209 68126262	Lin2	-571568.42	66232763.7							0.9990		0.9950
Orthophosphate as P	+++++ 26468473	+++++ 26383080	23630620 26946762	24921352 27192225	Lin2	-1805036.3	27076969.6							1.0000		0.9950

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.: 180-43359-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.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	2324202 215114961	10297238 318912666	22805654 419767900	45839580	111221925	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	25085564 2636933019	131110722 3997323672	266667960 5370699112	534948618	1333007108	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3846392 270296782	15195268 +++++	30803557 +++++	61339242	144706410	0.0500 5.00	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	23335222 1921263587	102286469 2903881535	199643096 3895544554	397746587	978862804	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	167170 17636894	853785 26049842	1769232 33990920	3636676	9154030	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2778780 332060506	15128921 505352191	31996419 681262618	65497209	166133672	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	+++++ 131915399	+++++ 202100715	11815310 271922248	24921352	66171182	+++++ 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\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Apr-2015 15:44:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-002
Misc. Info.: 3659 ic l2
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	2324202	0.0500	0.0503	
2 Chloride	4.950	4.942	0.008	25085564	1.00	1.00	
7 Nitrite as N	5.817	5.817	0.000	3846392	0.0500	0.0499	
3 Sulfate	6.858	6.833	0.025	23335222	1.00	1.00	
4 Bromide	7.817	7.808	0.009	167170H	0.2000	0.2004	
5 Nitrate as N	9.100	9.083	0.017	2778780	0.0500	0.0506	
6 Orthophosphate as P	12.667	12.633	0.034	870881	0.0500	0.0988	

Reagents:

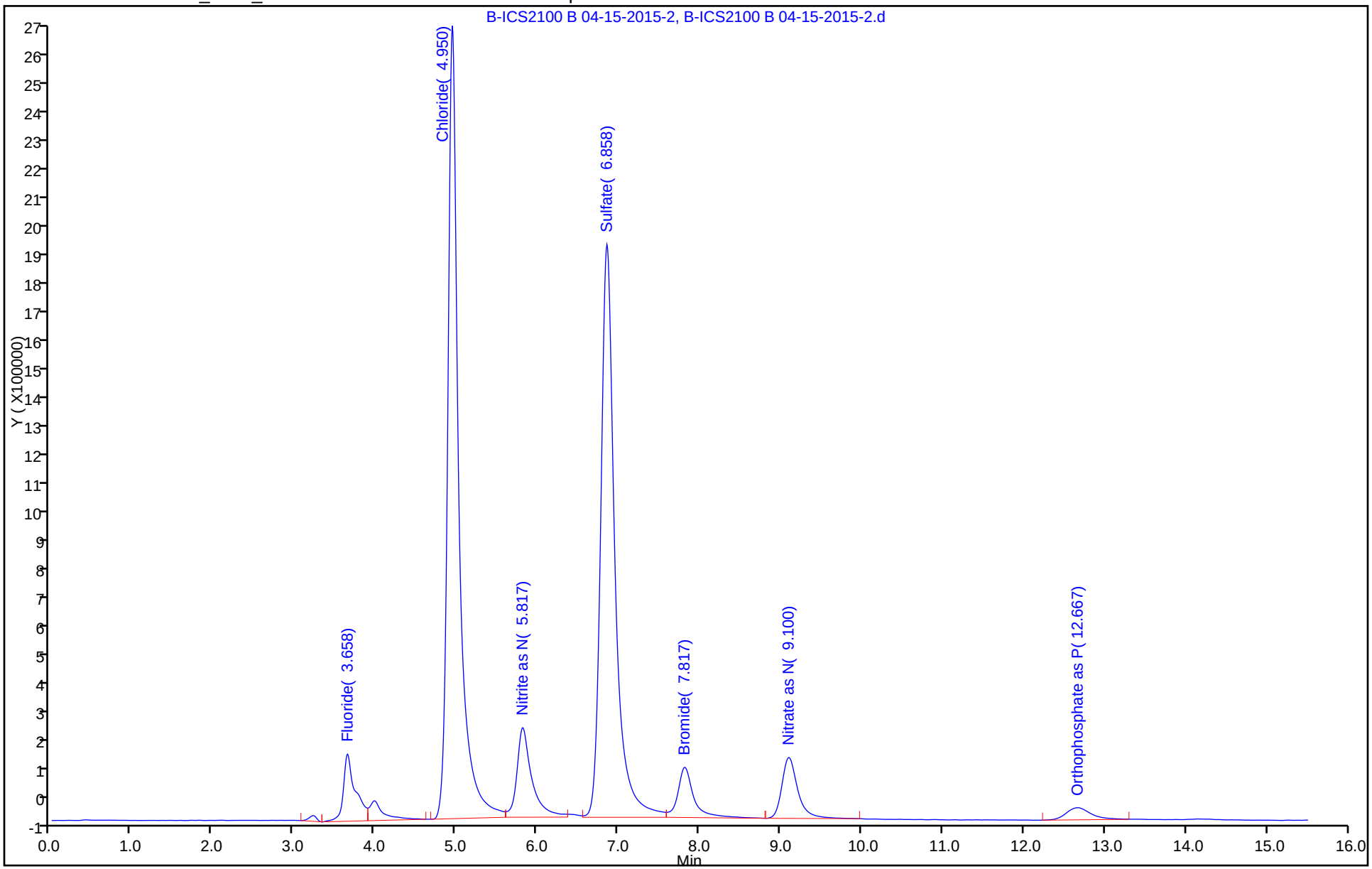
ICSTDL2_00171 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d

Injection Date:	15-Apr-2015 15:44:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Apr-2015 16:01:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-003
Misc. Info.: 27860 ic l3
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	10297238	0.2500	0.2340	
2 Chloride	4.950	4.942	0.008	131110722	5.00	4.97	
7 Nitrite as N	5.817	5.817	0.000	15195268	0.2500	0.2468	
3 Sulfate	6.850	6.833	0.017	102286469	5.00	5.05	
4 Bromide	7.817	7.808	0.009	853785H	1.00	0.9776	
5 Nitrate as N	9.100	9.083	0.017	15128921	0.2500	0.2371	
6 Orthophosphate as P	12.667	12.633	0.034	5299466	0.2500	0.2624	

Reagents:

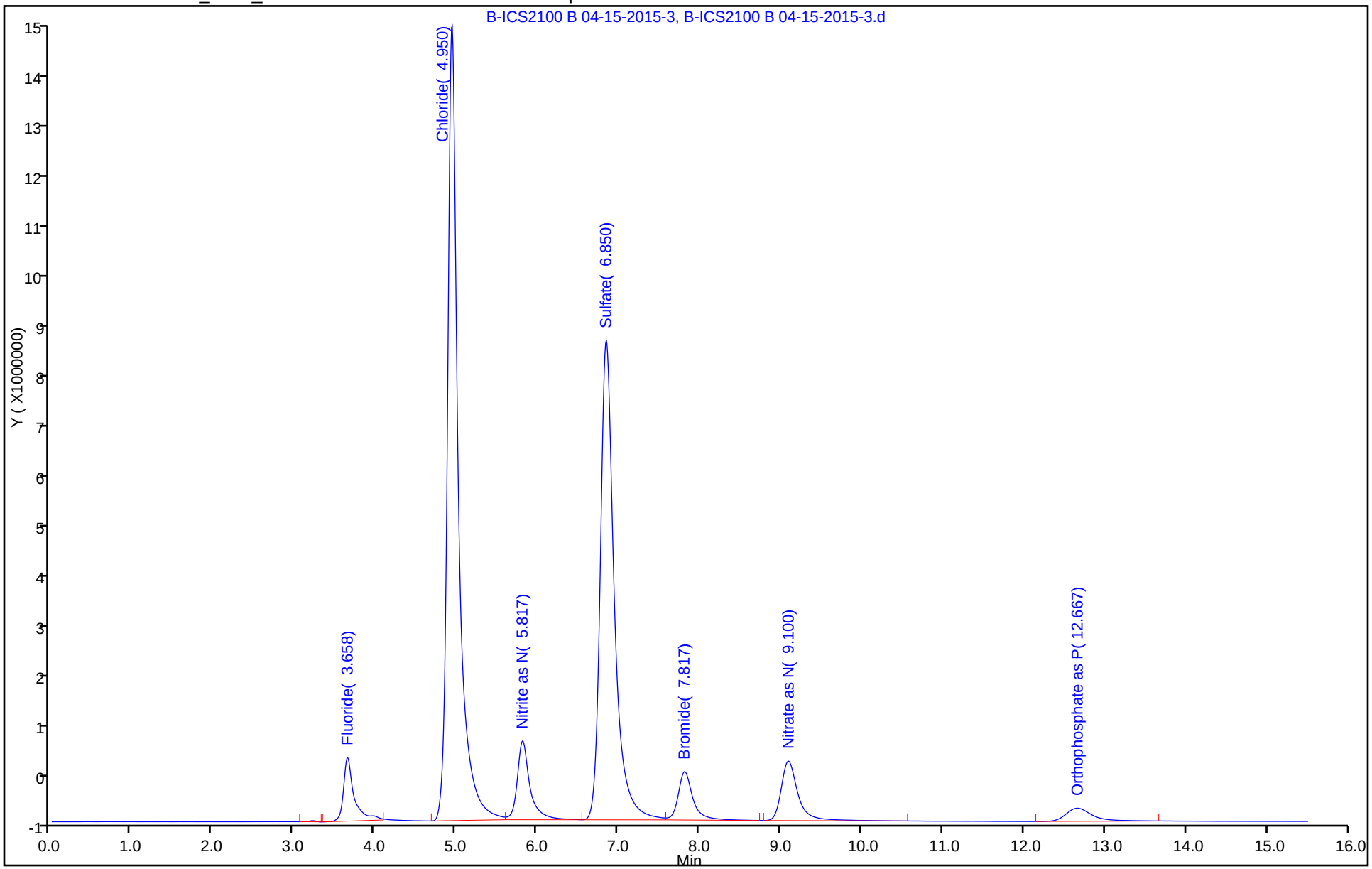
ICSTDL3_00209 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d

Injection Date:	15-Apr-2015 16:01:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 15-Apr-2015 16:19:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-004
Misc. Info.: 21504 icrt l4
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:57:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	22805654	0.5000	0.5222	
2 Chloride	4.942	4.942	0.000	266667960	10.0	10.1	
7 Nitrite as N	5.817	5.817	0.000	30803557	0.5000	0.5177	
3 Sulfate	6.833	6.833	0.000	199643096	10.0	10.0	
4 Bromide	7.808	7.808	0.000	1769232H	2.00	2.01	
5 Nitrate as N	9.083	9.083	0.000	31996419	0.5000	0.4917	
6 Orthophosphate as P	12.633	12.633	0.000	11815310	0.5000	0.5030	

Reagents:

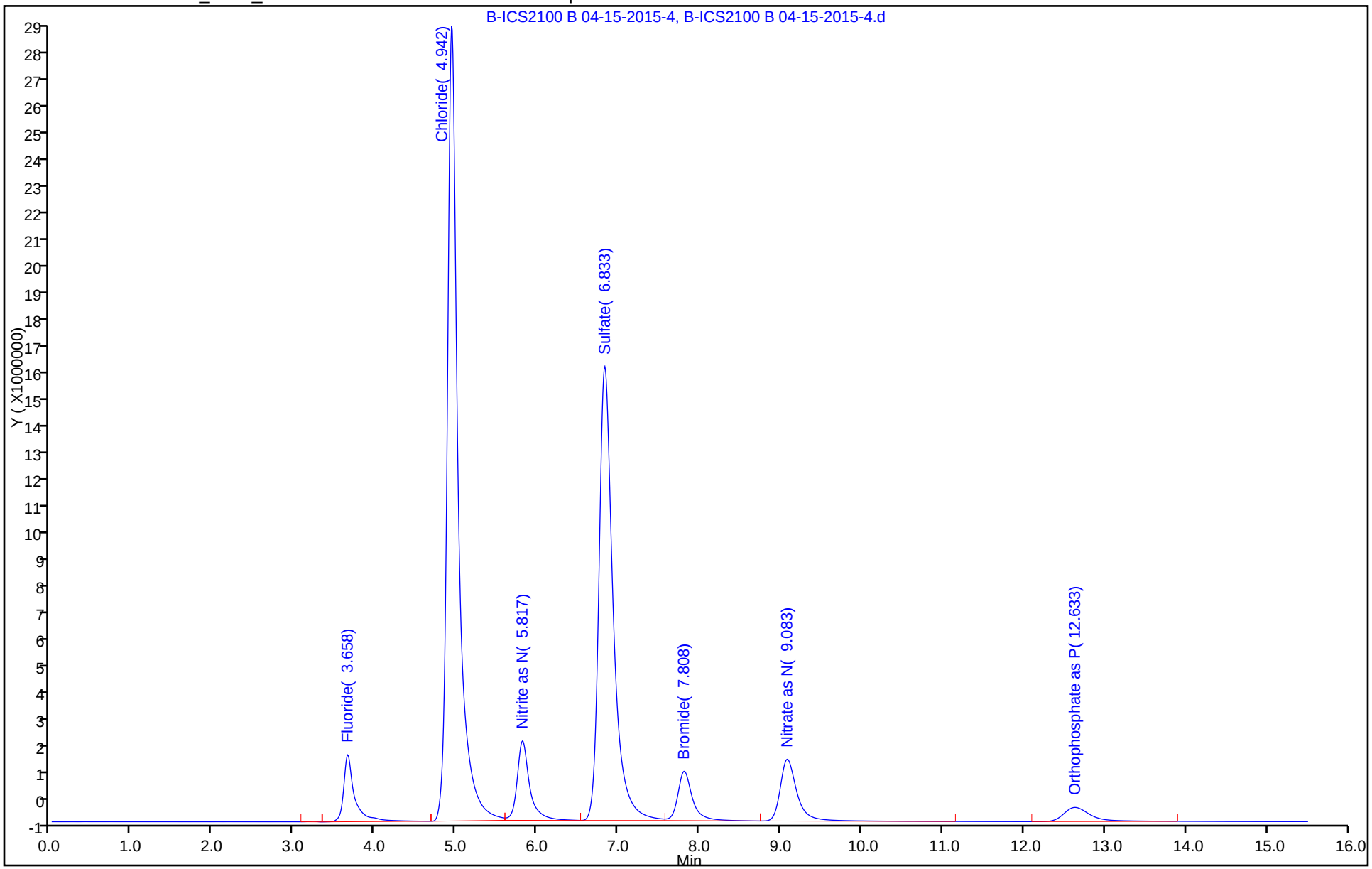
ICSTDL4_00143 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d

Injection Date:	15-Apr-2015 16:19:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Apr-2015 16:36:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-005
Misc. Info.: 13847 ic l5
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	45839580	1.00	1.05	
2 Chloride	4.942	4.942	0.000	534948618	20.0	20.1	
7 Nitrite as N	5.817	5.817	0.000	61339242	1.00	1.05	
3 Sulfate	6.808	6.833	-0.025	397746587	20.0	20.2	
4 Bromide	7.808	7.808	0.000	3636676	4.00	4.13	H
5 Nitrate as N	9.067	9.083	-0.016	65497209	1.00	1.00	
6 Orthophosphate as P	12.600	12.633	-0.033	24921352	1.00	0.9871	

Reagents:

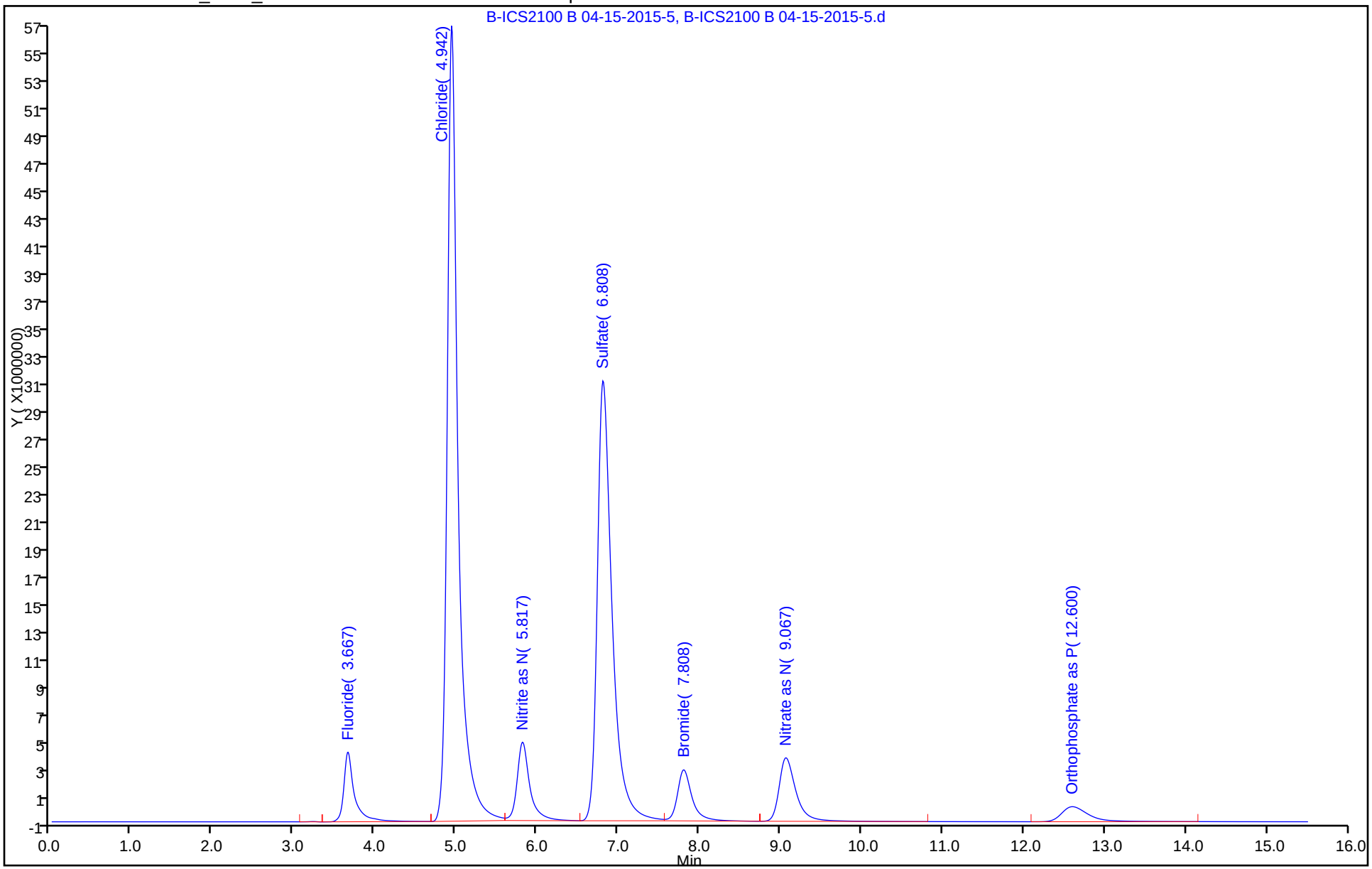
ICSTDL5_00145 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d

Injection Date:	15-Apr-2015 16:36:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Apr-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-006
Misc. Info.: 10546 ic l6
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	111221925	2.50	2.56	
2 Chloride	4.933	4.942	-0.009	1333007108	50.0	50.0	
7 Nitrite as N	5.817	5.817	0.000	144706410	2.50	2.49	
3 Sulfate	6.750	6.833	-0.083	978862804	50.0	50.1	
4 Bromide	7.783	7.808	-0.025	9154030H	10.0	10.4	
5 Nitrate as N	9.017	9.083	-0.066	166133672	2.50	2.52	
6 Orthophosphate as P	12.467	12.633	-0.166	66171182	2.50	2.51	

Reagents:

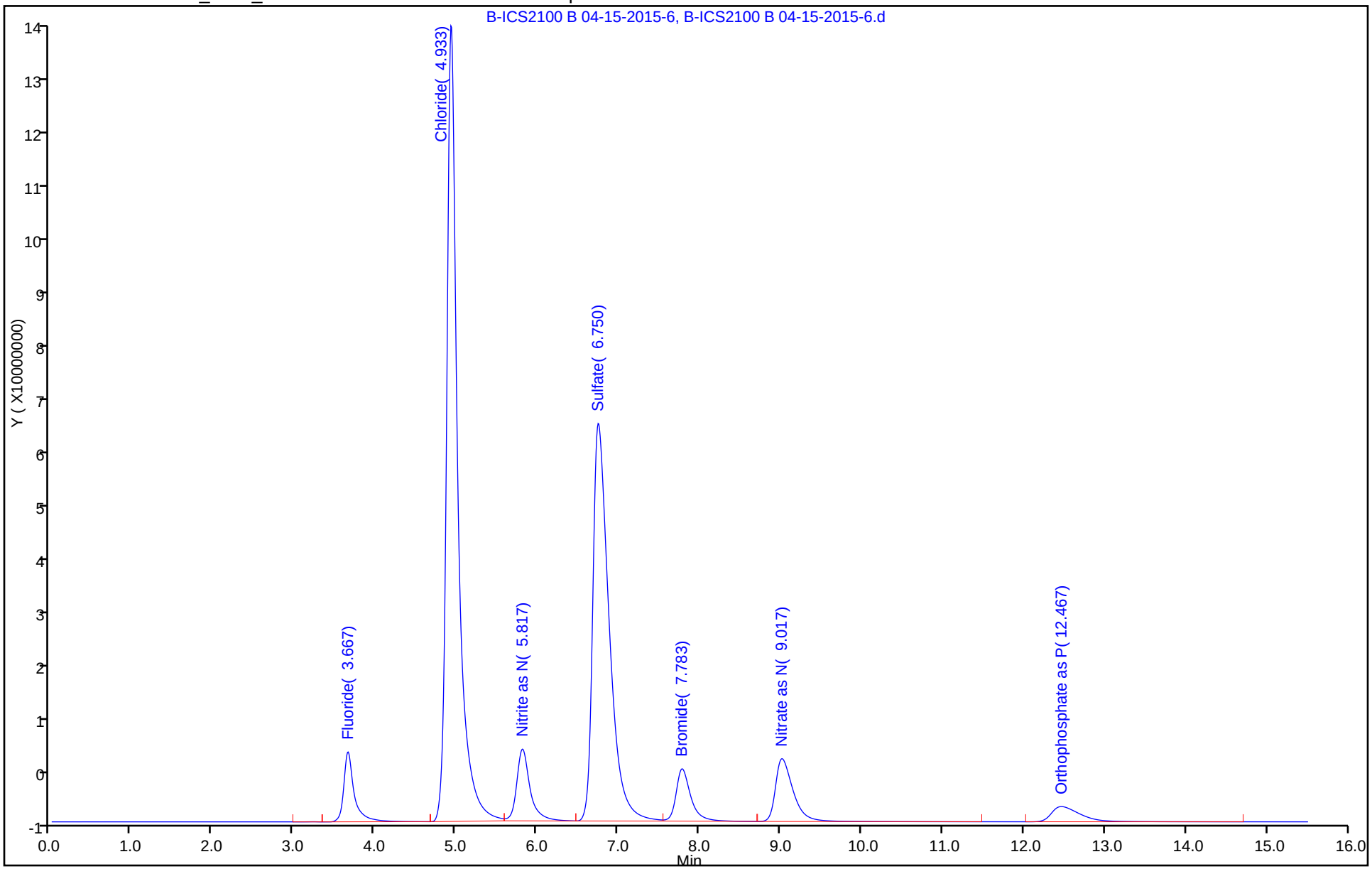
ICSTDL6_00213 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d

Injection Date:	15-Apr-2015 16:53:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Apr-2015 17:11:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-007
Misc. Info.: 9005 ic l7
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	215114961	5.00	4.95	
2 Chloride	4.933	4.942	-0.009	2636933019	100.0	98.9	
7 Nitrite as N	5.817	5.817	0.000	270296782	5.00	4.67	
3 Sulfate	6.683	6.833	-0.150	1921263587	100.0	98.4	
4 Bromide	7.767	7.808	-0.041	17636894	20.0	20.0	H
5 Nitrate as N	8.967	9.083	-0.116	332060506	5.00	5.02	
6 Orthophosphate as P	12.317	12.633	-0.316	131915399	5.00	4.94	

Reagents:

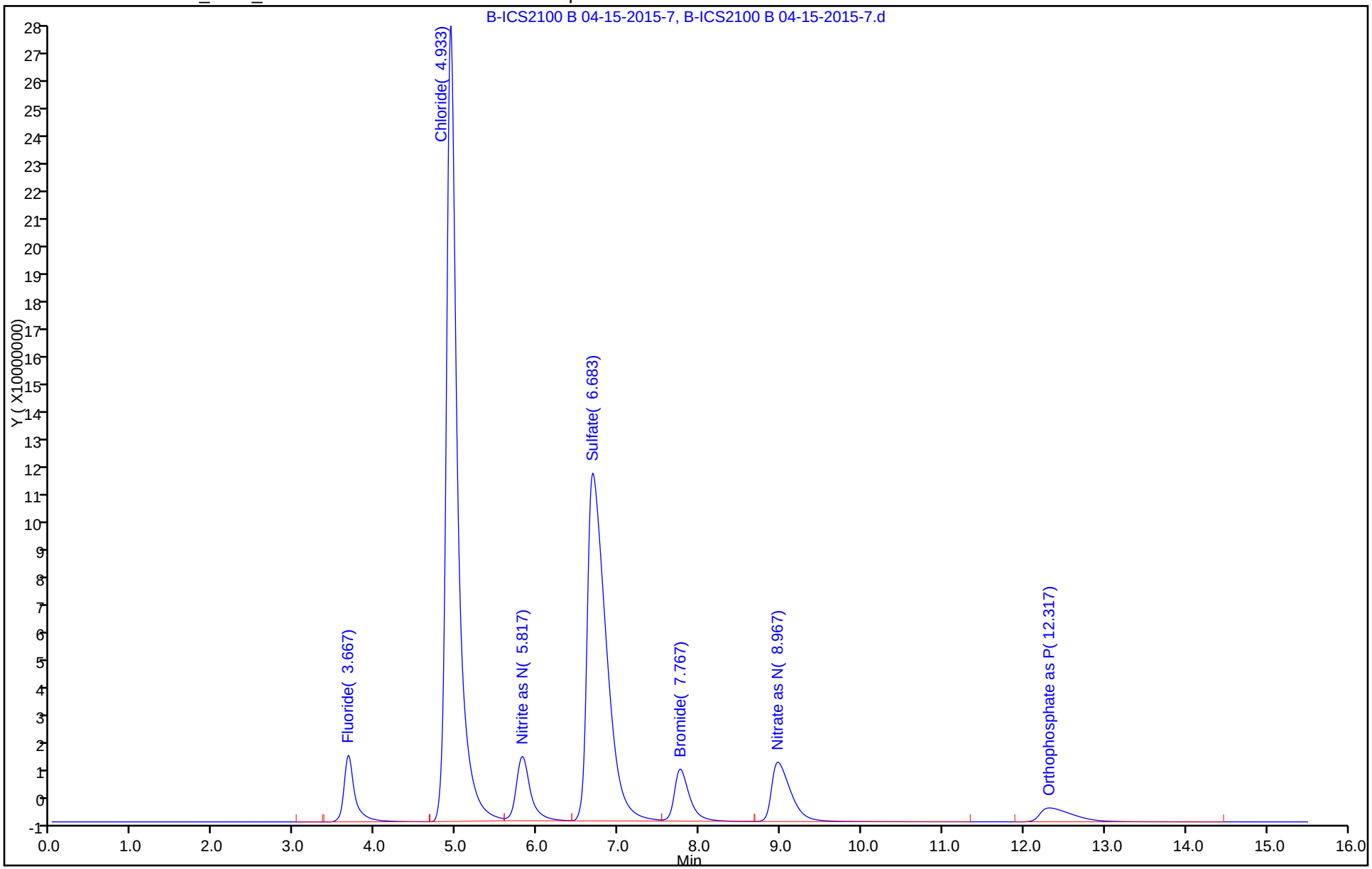
ICSTDL7_00141 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d

Injection Date:	15-Apr-2015 17:11:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 15-Apr-2015 17:28:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-008
Misc. Info.: 7430 ic l8
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 12:00:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	318912666	7.50	7.35	
2 Chloride	4.925	4.942	-0.017	3997323672	150.0	149.8	
7 Nitrite as N	5.808	5.817	-0.009	362807489	7.50	6.28	
3 Sulfate	6.625	6.833	-0.208	2903881535	150.0	148.9	
4 Bromide	7.733	7.808	-0.075	26049842H	30.0	29.5	
5 Nitrate as N	8.917	9.083	-0.166	505352191	7.50	7.64	
6 Orthophosphate as P	12.183	12.633	-0.450	202100715	7.50	7.53	

Reagents:

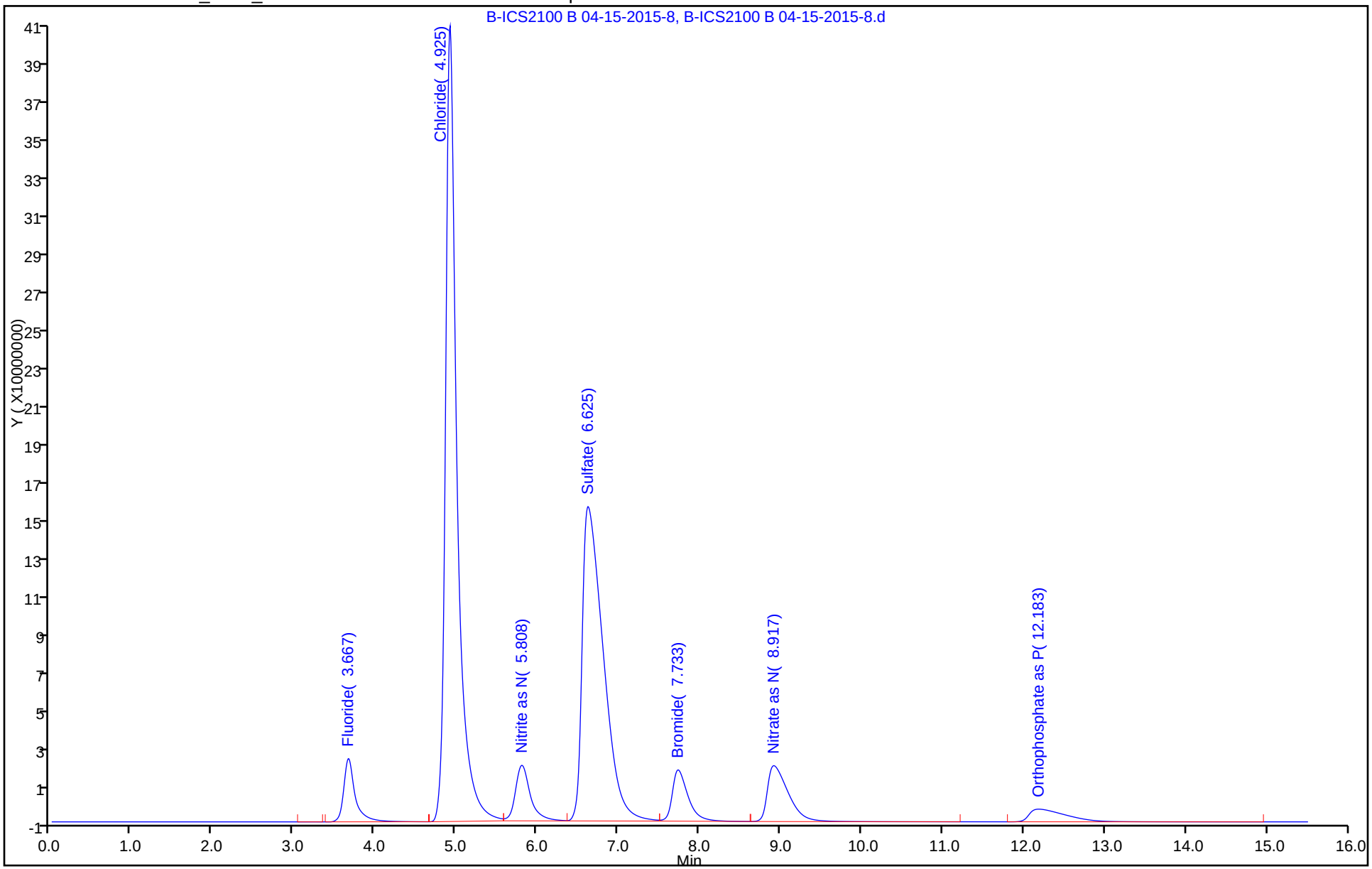
ICSTDL8_00112 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d

Injection Date:	15-Apr-2015 17:28:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 15-Apr-2015 17:45:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-009
Misc. Info.: 4878 ic l9
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:58:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.675	3.658	0.017	419767900	10.0	9.67	
2 Chloride	4.917	4.942	-0.025	5370699112	200.0	201.3	
7 Nitrite as N	5.808	5.817	-0.009	499624168	10.0	8.65	
3 Sulfate	6.575	6.833	-0.258	3895544554	200.0	199.8	
4 Bromide	7.717	7.808	-0.091	33990920H	40.0	38.5	
5 Nitrate as N	8.875	9.083	-0.208	681262618	10.0	10.3	
6 Orthophosphate as P	12.083	12.633	-0.550	271922248	10.0	10.1	

Reagents:

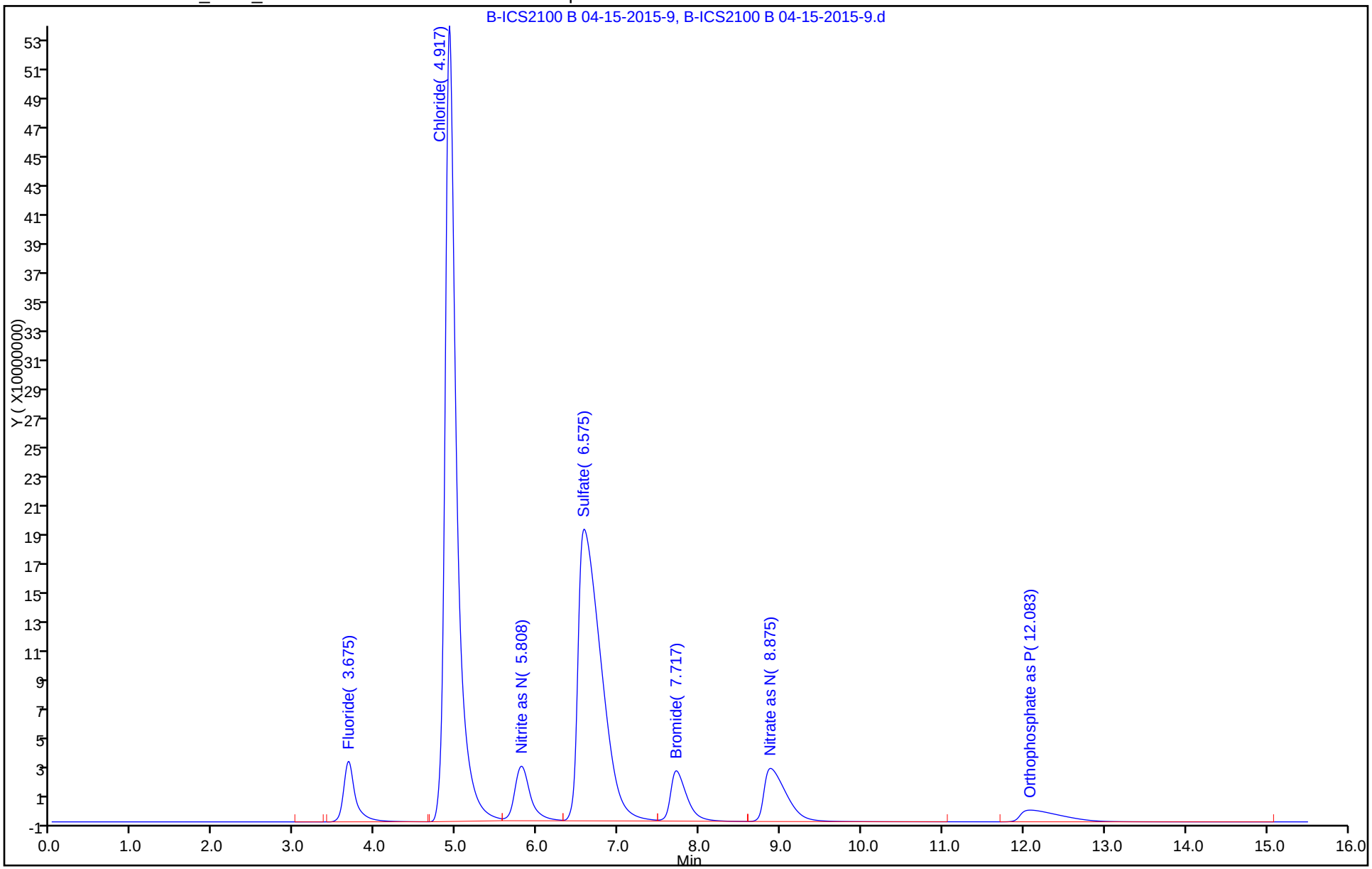
ICSTDL9_00115 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Injection Date:	15-Apr-2015 17:45:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICV 180-139449/2 Calibration Date: 04/23/2015 13:23

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		45683028		3.15	3.00	5.2	10.0
Chloride	Lin2		27082083		60.9	60.0	1.6	10.0
Nitrite as N	Lin2	62099531	58931117		3.05	3.00	1.7	10.0
Sulfate	Lin2		20018503		61.5	60.0	2.4	10.0
Bromide	Lin2		924767		12.6	12.0	4.8	10.0
Nitrate as N	Lin2		66560217		3.02	3.00	0.8	10.0
Orthophosphate as P	Lin2		25965165		2.94	3.00	-1.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICV 180-139449/2 Calibration Date: 04/23/2015 13:23

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.80	5.56	6.06
Sulfate	6.72	6.38	7.08
Bromide	7.77	7.42	8.12
Nitrate as N	8.98	8.74	9.24
Orthophosphate as P	12.31	11.84	12.84

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 23-Apr-2015 13:23:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	137049085	3.00	3.15	
2 Chloride	4.933	4.933	0.000	1624925003	60.0	60.9	
7 Nitrite as N	5.800	5.808	-0.008	176864067	3.00	3.05	
3 Sulfate	6.717	6.725	-0.008	1201110181	60.0	61.5	
4 Bromide	7.767	7.767	0.000	11097204H	12.0	12.6	
5 Nitrate as N	8.983	8.992	-0.009	199680650	3.00	3.02	
6 Orthophosphate as P	12.308	12.342	-0.034	77895495	3.00	2.94	

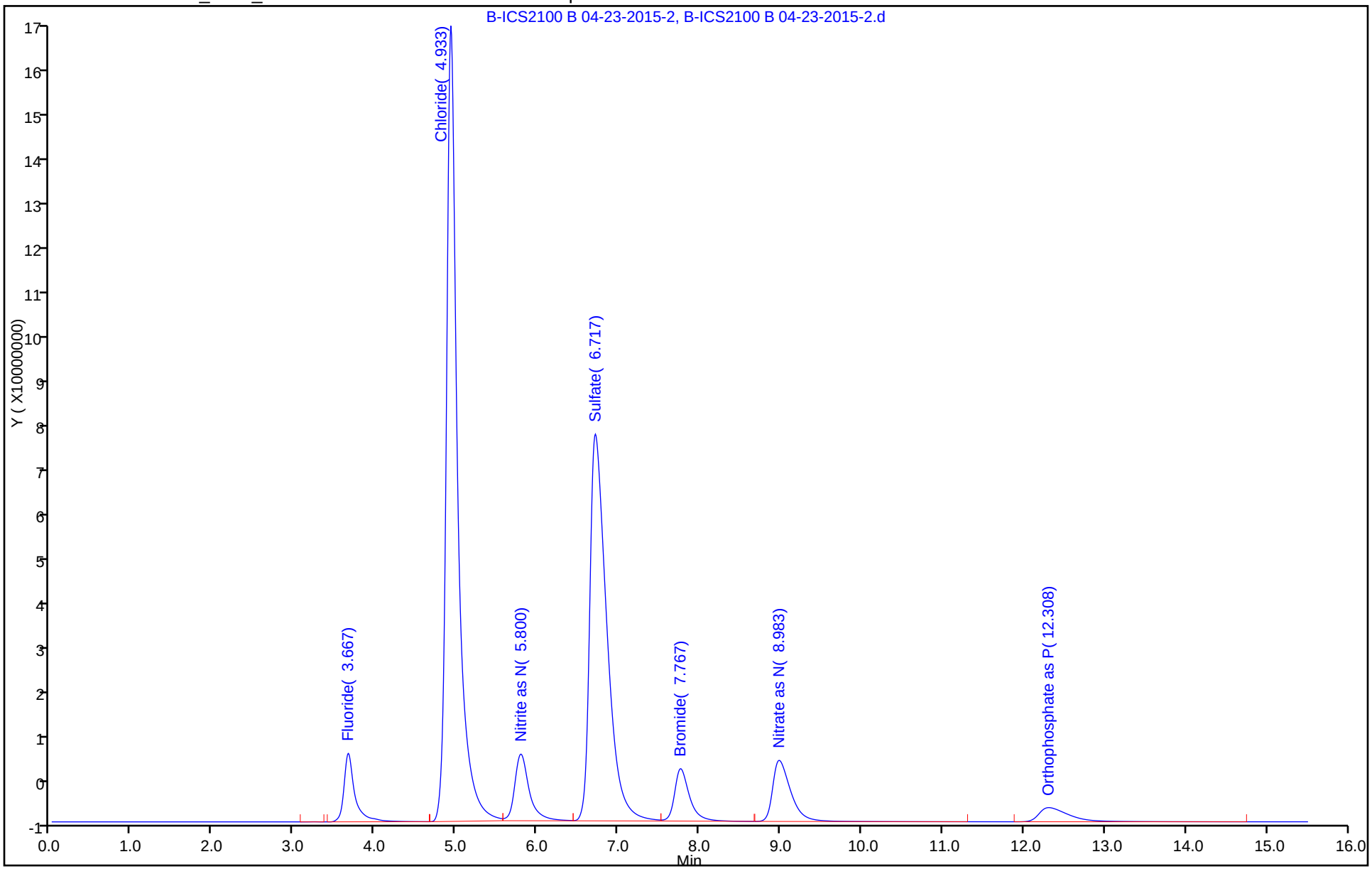
Reagents:

icicv_01250 Amount Added: 1.00 Units: mL

Report Date: 24-Apr-2015 14:23:51 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-2.d				
Injection Date:	23-Apr-2015 13:23:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/3 Calibration Date: 04/23/2015 13:40

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43357994		2.49	2.50	-0.2	10.0
Chloride	Lin2		26384381		49.5	50.0	-1.0	10.0
Nitrite as N	Lin2	62099531	57484073		2.48	2.50	-0.9	10.0
Sulfate	Lin2		19218340		49.1	50.0	-1.7	10.0
Bromide	Lin2		909193		10.3	10.0	3.0	10.0
Nitrate as N	Lin2		65718602		2.49	2.50	-0.4	10.0
Orthophosphate as P	Lin2		24774620		2.35	2.50	-5.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/3 Calibration Date: 04/23/2015 13:40

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.77	7.42	8.12
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.34	11.84	12.84

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Apr-2015 13:40:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-003
Misc. Info.: 3 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	108394984	2.50	2.49	
2 Chloride	4.933	4.933	0.000	1319219041	50.0	49.5	
7 Nitrite as N	5.808	5.808	0.000	143710183	2.50	2.48	
3 Sulfate	6.725	6.725	0.000	960917010	50.0	49.1	
4 Bromide	7.767	7.767	0.000	9091926	10.0	10.3	H
5 Nitrate as N	8.992	8.992	0.000	164296504	2.50	2.49	
6 Orthophosphate as P	12.342	12.342	0.000	61936551	2.50	2.35	

Reagents:

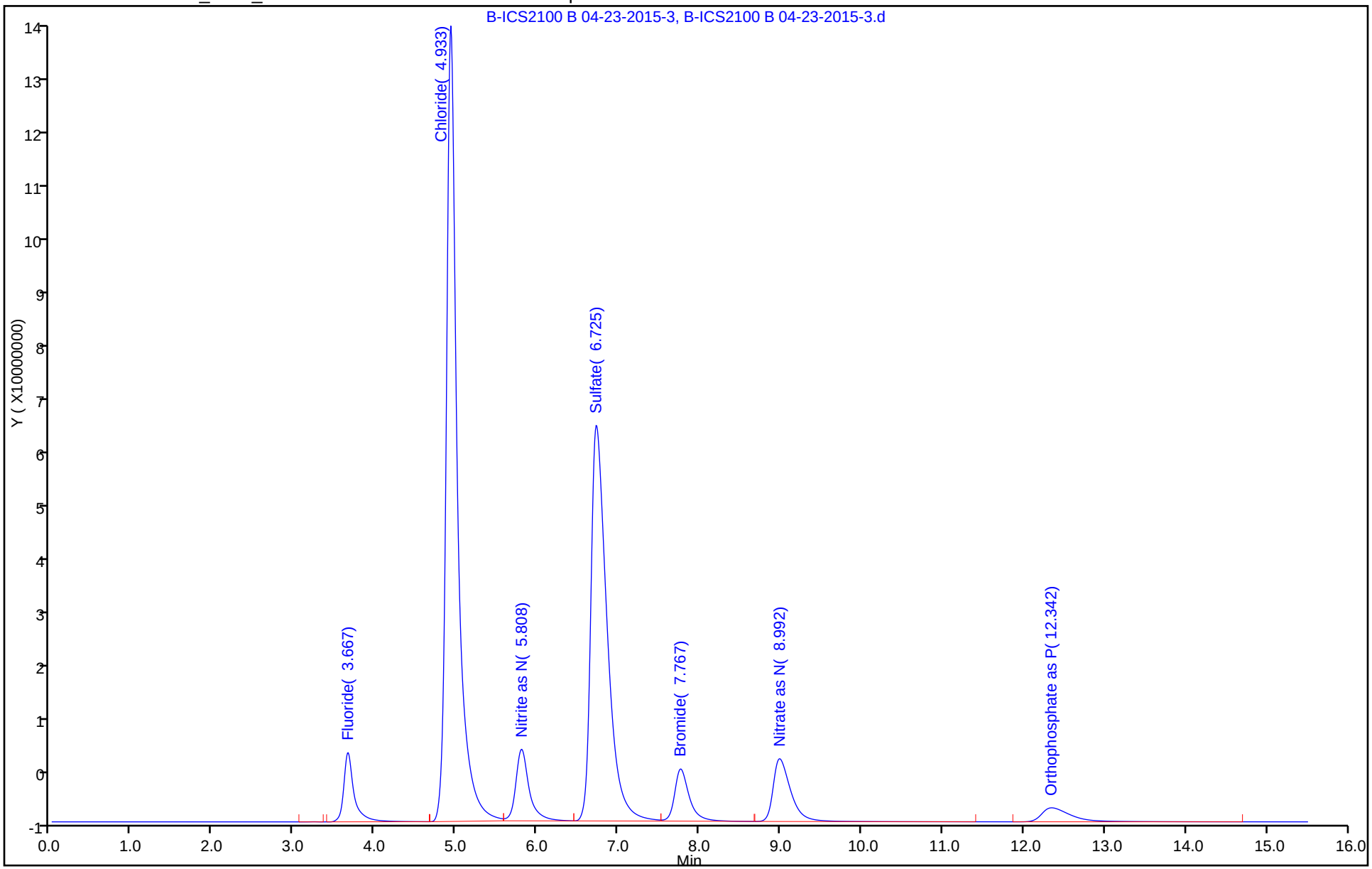
icccv_01219 Amount Added: 1.00 Units: mL

Report Date: 24-Apr-2015 14:23:51 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-3.d

Injection Date:	23-Apr-2015 13:40:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/15 Calibration Date: 04/23/2015 17:08

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		41936656		2.41	2.50	-3.5	10.0
Chloride	Lin2		26334703		49.4	50.0	-1.2	10.0
Nitrite as N	Lin2	62099531	57014379		2.46	2.50	-1.7	10.0
Sulfate	Lin2		19175535		49.0	50.0	-2.0	10.0
Bromide	Lin2		895665		10.2	10.0	1.5	10.0
Nitrate as N	Lin2		65248125		2.47	2.50	-1.1	10.0
Orthophosphate as P	Lin2		23508182		2.24	2.50	-10.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/15 Calibration Date: 04/23/2015 17:08

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.93	4.58	5.28
Nitrite as N	5.80	5.55	6.05
Sulfate	6.73	6.38	7.08
Bromide	7.77	7.42	8.12
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.34	11.84	12.84

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Apr-2015 17:08:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:44 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	104841641	2.50	2.41	
2 Chloride	4.925	4.925	0.000	1316735152	50.0	49.4	
7 Nitrite as N	5.800	5.800	0.000	142535947	2.50	2.46	
3 Sulfate	6.733	6.733	0.000	958776748	50.0	49.0	
4 Bromide	7.767	7.767	0.000	8956652	10.0	10.2	H
5 Nitrate as N	8.992	8.992	0.000	163120313	2.50	2.47	
6 Orthophosphate as P	12.342	12.342	0.000	58770456	2.50	2.24	

Reagents:

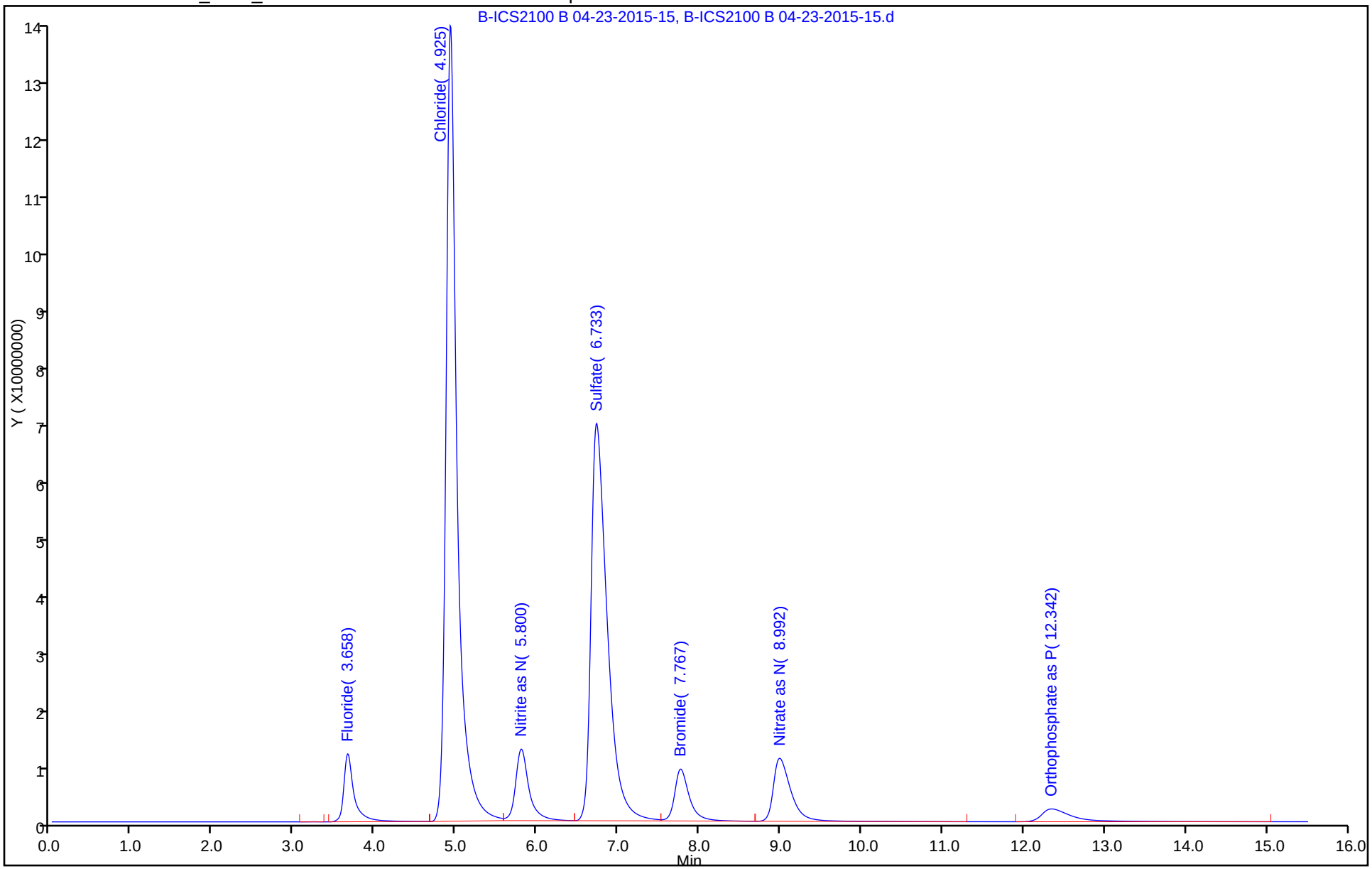
icccv_01219 Amount Added: 1.00 Units: mL

Report Date: 24-Apr-2015 14:23:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-15.d

Injection Date:	23-Apr-2015 17:08:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/27 Calibration Date: 04/23/2015 20:36

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		42283059		2.43	2.50	-2.7	10.0
Chloride	Lin2		26137653		49.0	50.0	-1.9	10.0
Nitrite as N	Lin2	62099531	56869361		2.45	2.50	-2.0	10.0
Sulfate	Lin2		19038117		48.7	50.0	-2.7	10.0
Bromide	Lin2		885512		10.0	10.0	0.4	10.0
Nitrate as N	Lin2		64706900		2.45	2.50	-2.0	10.0
Orthophosphate as P	Lin2		23345080		2.22	2.50	-11.1*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/27 Calibration Date: 04/23/2015 20:36

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.78	7.43	8.13
Nitrate as N	9.00	8.75	9.25
Orthophosphate as P	12.33	11.83	12.83

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Apr-2015 20:36:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	105707648	2.50	2.43	
2 Chloride	4.933	4.933	0.000	1306882640	50.0	49.0	
7 Nitrite as N	5.808	5.808	0.000	142173402	2.50	2.45	
3 Sulfate	6.733	6.733	0.000	951905873	50.0	48.7	
4 Bromide	7.775	7.775	0.000	8855116	10.0	10.0	H
5 Nitrate as N	9.000	9.000	0.000	161767251	2.50	2.45	
6 Orthophosphate as P	12.333	12.333	0.000	58362701	2.50	2.22	

Reagents:

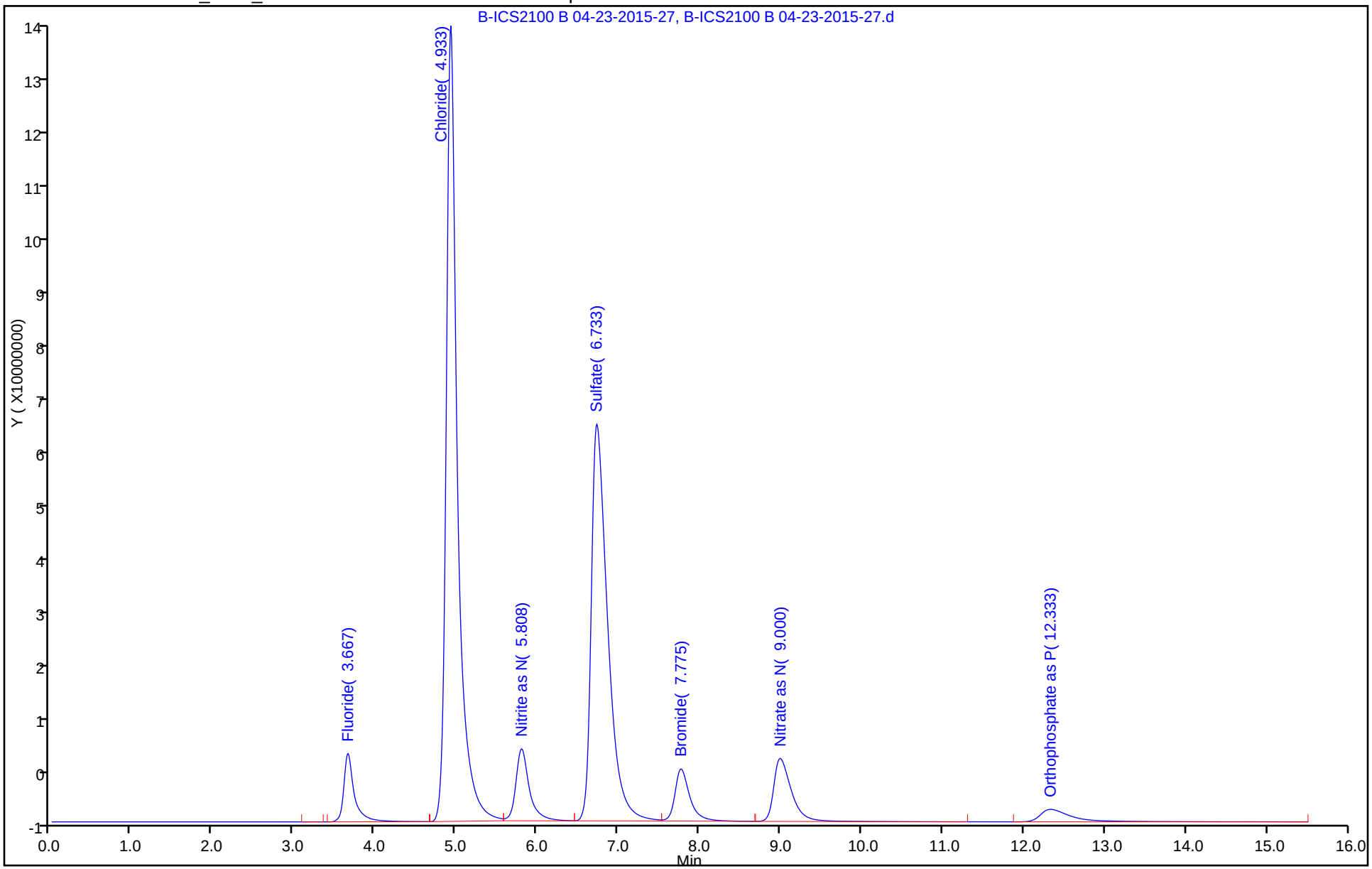
icccv_01219 Amount Added: 1.00 Units: mL

Report Date: 24-Apr-2015 14:26:33 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-27.d

Injection Date:	23-Apr-2015 20:36:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/39 Calibration Date: 04/24/2015 00:03

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-39.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43165996		2.48	2.50	-0.7	10.0
Chloride	Lin2		26640331		50.0	50.0	-0.0	10.0
Nitrite as N	Lin2	62099531	58028956		2.50	2.50	0.0	10.0
Sulfate	Lin2		19444542		49.7	50.0	-0.6	10.0
Bromide	Lin2		904224		10.2	10.0	2.5	10.0
Nitrate as N	Lin2		66027299		2.50	2.50	0.0	10.0
Orthophosphate as P	Lin2		24495158		2.33	2.50	-6.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139449/39 Calibration Date: 04/24/2015 00:03

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-23-2015-39.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.78	7.43	8.13
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.31	11.81	12.81

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-39.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 24-Apr-2015 00:03:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-039
Misc. Info.: 39 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:27:49 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	107914990	2.50	2.48	
2 Chloride	4.933	4.933	0.000	1332016559	50.0	50.0	
7 Nitrite as N	5.808	5.808	0.000	145072389	2.50	2.50	
3 Sulfate	6.733	6.733	0.000	972227082	50.0	49.7	
4 Bromide	7.775	7.775	0.000	9042237H	10.0	10.2	
5 Nitrate as N	8.992	8.992	0.000	165068247	2.50	2.50	
6 Orthophosphate as P	12.308	12.308	0.000	61237895	2.50	2.33	

Reagents:

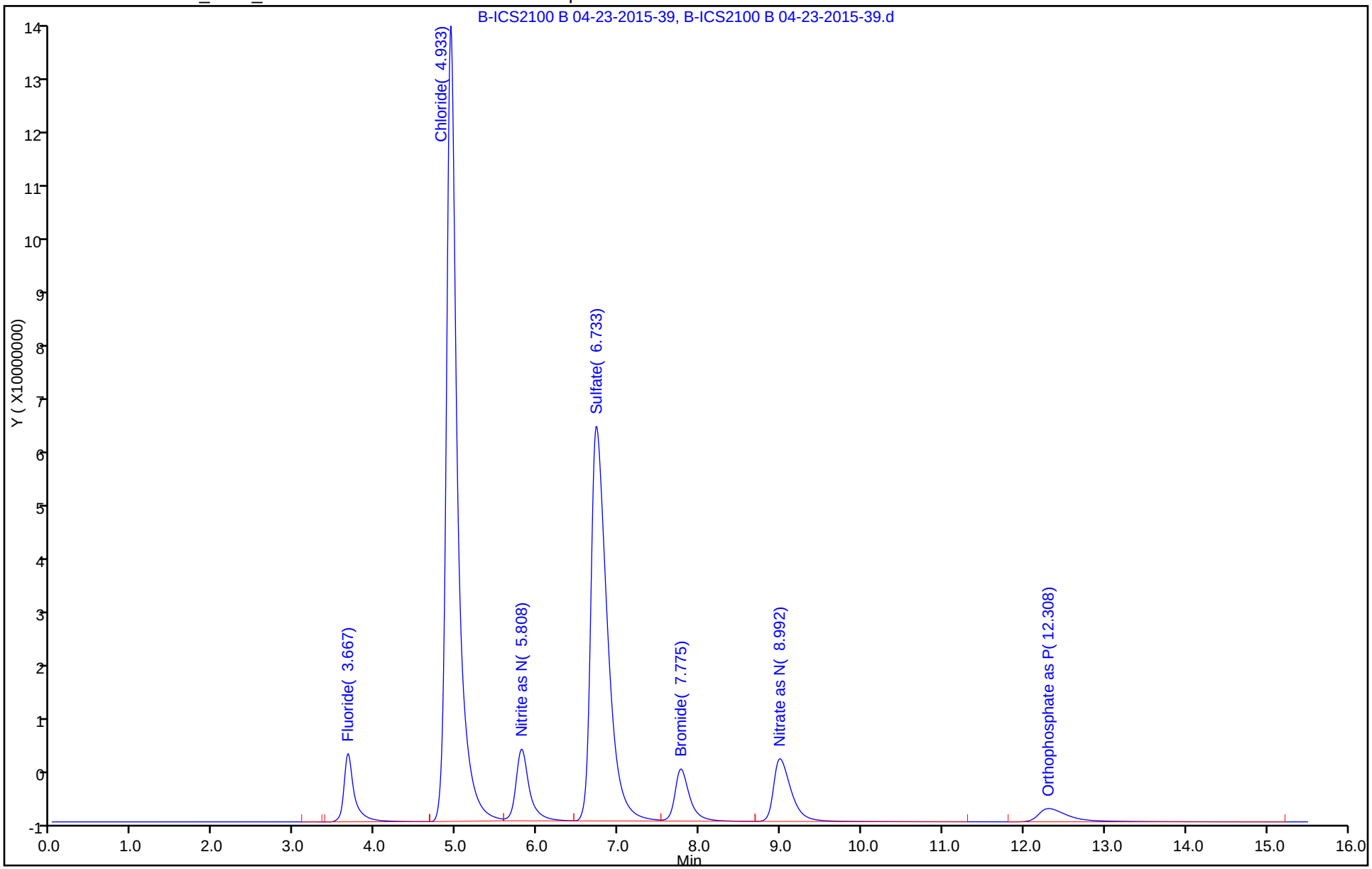
icccv_01219 Amount Added: 1.00 Units: mL

Report Date: 24-Apr-2015 14:27:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-39.d

Injection Date:	24-Apr-2015 00:03:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	39
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICV 180-139625/2 Calibration Date: 04/24/2015 15:10

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		40964266		2.83	3.00	-5.7	10.0
Chloride	Lin2		24570215		55.3	60.0	-7.8	10.0
Nitrite as N	Lin2	62099531	53920736		2.79	3.00	-7.0	10.0
Sulfate	Lin2		17926290		55.0	60.0	-8.3	10.0
Bromide	Lin2		842076		11.4	12.0	-4.6	10.0
Nitrate as N	Lin2		59903701		2.72	3.00	-9.3	10.0
Orthophosphate as P	Lin2		22886434		2.60	3.00	-13.3*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICV 180-139625/2 Calibration Date: 04/24/2015 15:10

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.31	4.01
Chloride	4.93	4.58	5.28
Nitrite as N	5.79	5.56	6.06
Sulfate	6.72	6.38	7.08
Bromide	7.77	7.43	8.13
Nitrate as N	8.98	8.74	9.24
Orthophosphate as P	12.32	11.86	12.86

Report Date: 25-Apr-2015 08:53:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 24-Apr-2015 15:10:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:53:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	122892797	3.00	2.83	
2 Chloride	4.933	4.933	0.000	1474212906	60.0	55.3	
7 Nitrite as N	5.792	5.808	-0.016	161826913	3.00	2.79	
3 Sulfate	6.717	6.733	-0.016	1075577412	60.0	55.0	
4 Bromide	7.767	7.775	-0.008	10104910H	12.0	11.4	
5 Nitrate as N	8.983	8.992	-0.009	179711104	3.00	2.72	
6 Orthophosphate as P	12.317	12.358	-0.041	68659301	3.00	2.60	

Reagents:

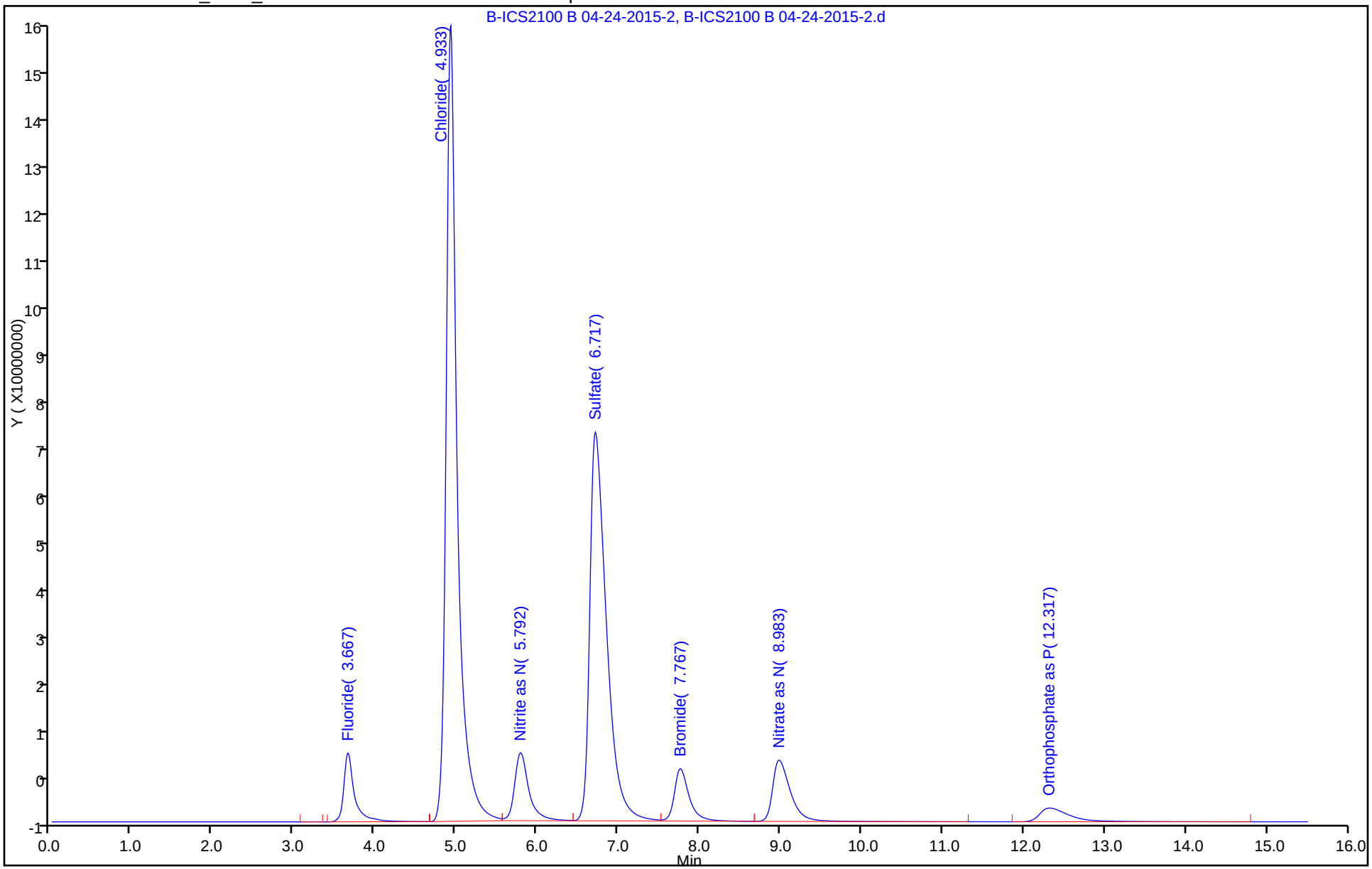
icicv_01251 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:53:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-2.d

Injection Date:	24-Apr-2015 15:10:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/3 Calibration Date: 04/24/2015 16:11

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		40105351		2.31	2.50	-7.7	10.0
Chloride	Lin2		24735984		46.4	50.0	-7.2	10.0
Nitrite as N	Lin2	62099531	54135362		2.33	2.50	-6.7	10.0
Sulfate	Lin2		17837437		45.6	50.0	-8.8	10.0
Bromide	Lin2		837844		9.50	10.0	-5.0	10.0
Nitrate as N	Lin2		61088098		2.31	2.50	-7.4	10.0
Orthophosphate as P	Lin2		22844418		2.18	2.50	-13.0*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/3 Calibration Date: 04/24/2015 16:11

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.78	7.43	8.13
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.36	11.86	12.86

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 24-Apr-2015 16:11:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-003
Misc. Info.: 3 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:53:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	100263378	2.50	2.31	
2 Chloride	4.933	4.933	0.000	1236799216	50.0	46.4	
7 Nitrite as N	5.808	5.808	0.000	135338406	2.50	2.33	
3 Sulfate	6.733	6.733	0.000	891871863	50.0	45.6	
4 Bromide	7.775	7.775	0.000	8378437	10.0	9.50	H
5 Nitrate as N	8.992	8.992	0.000	152720245	2.50	2.31	
6 Orthophosphate as P	12.358	12.358	0.000	57111045	2.50	2.18	

Reagents:

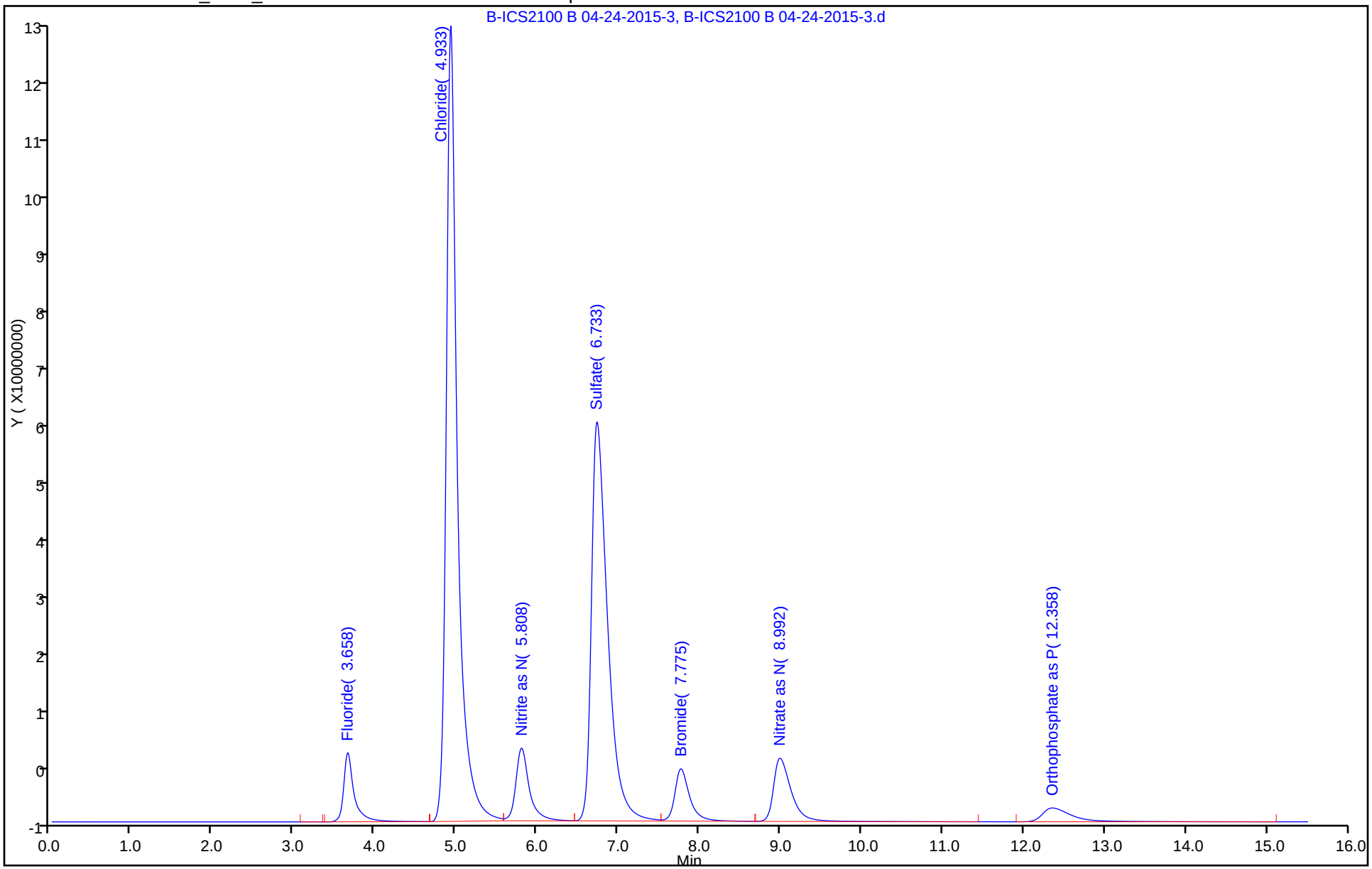
icccv_01220 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:53:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-3.d

Injection Date:	24-Apr-2015 16:11:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/15 Calibration Date: 04/24/2015 19:54

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		42453204		2.44	2.50	-2.3	10.0
Chloride	Lin2		26193791		49.1	50.0	-1.7	10.0
Nitrite as N	Lin2	62099531	57503896		2.48	2.50	-0.9	10.0
Sulfate	Lin2		19077050		48.8	50.0	-2.5	10.0
Bromide	Lin2		874496		9.91	10.0	-0.9	10.0
Nitrate as N	Lin2		64712598		2.45	2.50	-1.9	10.0
Orthophosphate as P	Lin2		23948998		2.28	2.50	-8.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/15 Calibration Date: 04/24/2015 19:54

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.78	7.43	8.13
Nitrate as N	9.00	8.75	9.25
Orthophosphate as P	12.30	11.80	12.80

Report Date: 25-Apr-2015 08:56:59 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 24-Apr-2015 19:54:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:56:59 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	106133011	2.50	2.44	
2 Chloride	4.933	4.933	0.000	1309689540	50.0	49.1	
7 Nitrite as N	5.808	5.808	0.000	143759741	2.50	2.48	
3 Sulfate	6.733	6.733	0.000	953852475	50.0	48.8	
4 Bromide	7.775	7.775	0.000	8744955	10.0	9.91	H
5 Nitrate as N	9.000	9.000	0.000	161781496	2.50	2.45	
6 Orthophosphate as P	12.300	12.300	0.000	59872494	2.50	2.28	

Reagents:

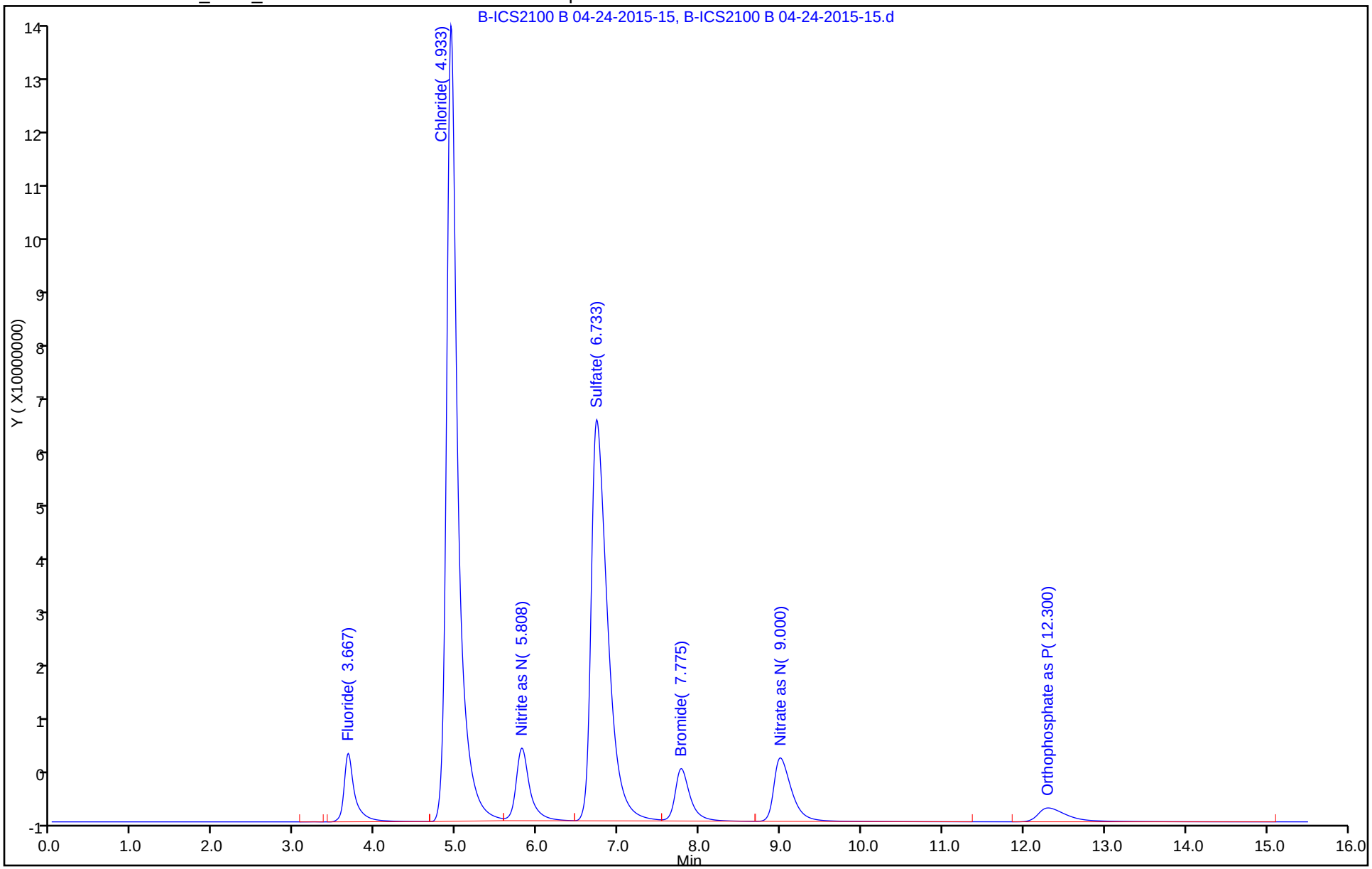
icccv_01220 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:56:59 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-15.d

Injection Date:	24-Apr-2015 19:54:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/27 Calibration Date: 04/24/2015 23:28

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43644820		2.51	2.50	0.4	10.0
Chloride	Lin2		26820749		50.3	50.0	0.6	10.0
Nitrite as N	Lin2	62099531	58613414		2.53	2.50	1.0	10.0
Sulfate	Lin2		19630182		50.2	50.0	0.4	10.0
Bromide	Lin2		905129		10.3	10.0	2.6	10.0
Nitrate as N	Lin2		66455929		2.52	2.50	0.7	10.0
Orthophosphate as P	Lin2		24904319		2.37	2.50	-5.4	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/27 Calibration Date: 04/24/2015 23:28

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.78	7.43	8.13
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.32	11.82	12.82

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 24-Apr-2015 23:28:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:57:03 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	109112049	2.50	2.51	
2 Chloride	4.933	4.933	0.000	1341037469	50.0	50.3	
7 Nitrite as N	5.808	5.808	0.000	146533534	2.50	2.53	
3 Sulfate	6.733	6.733	0.000	981509104	50.0	50.2	
4 Bromide	7.775	7.775	0.000	9051293	10.0	10.3	H
5 Nitrate as N	8.992	8.992	0.000	166139823	2.50	2.52	
6 Orthophosphate as P	12.317	12.317	0.000	62260797	2.50	2.37	

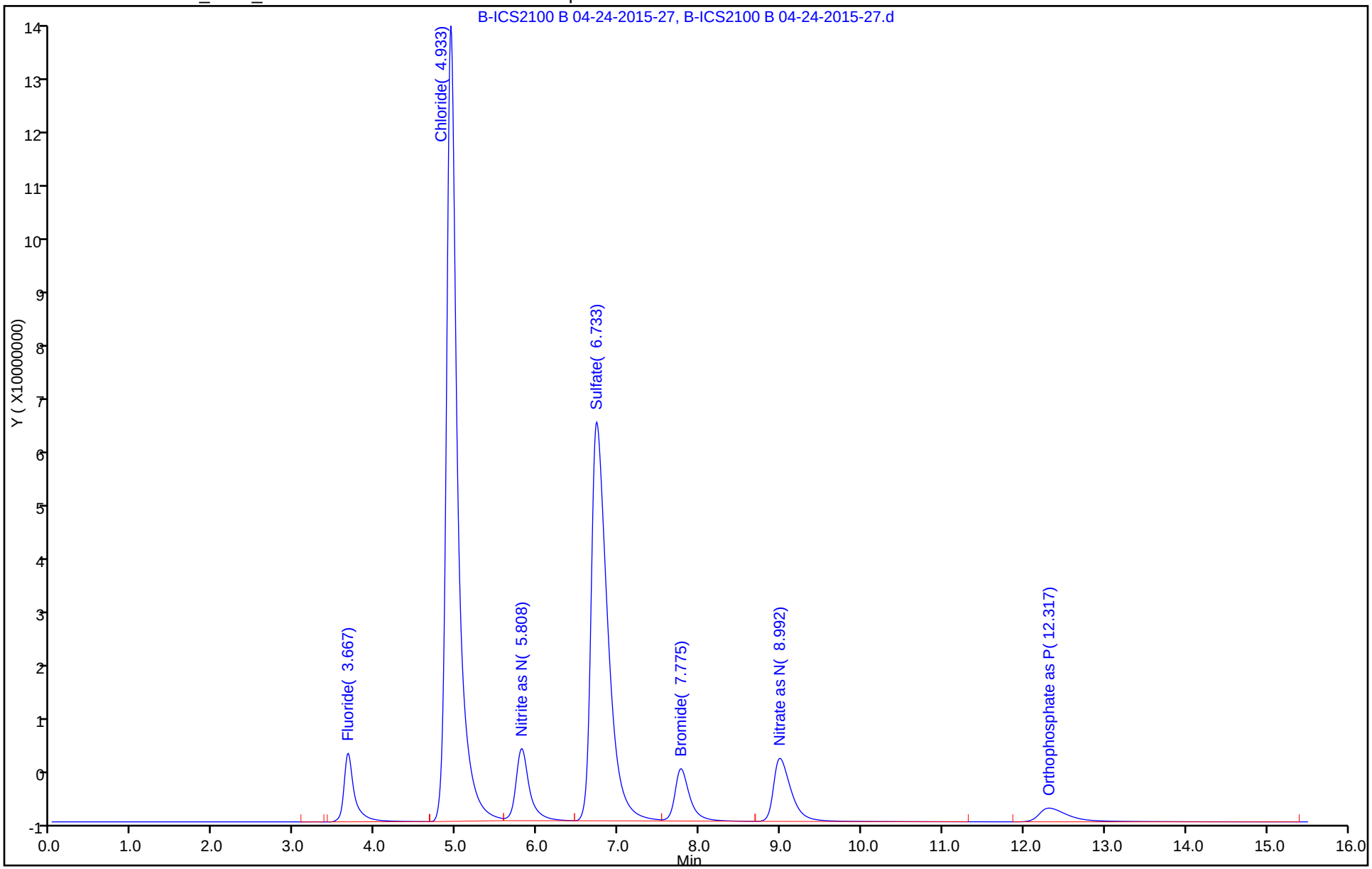
Reagents:

icccv_01220 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:57:03 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-27.d				
Injection Date:	24-Apr-2015 23:28:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/39 Calibration Date: 04/25/2015 02:56

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-39.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		39732691		2.29	2.50	-8.6	10.0
Chloride	Lin2		24609744		46.2	50.0	-7.7	10.0
Nitrite as N	Lin2	62099531	53952177		2.32	2.50	-7.0	10.0
Sulfate	Lin2		17749328		45.4	50.0	-9.3	10.0
Bromide	Lin2		836689		9.48	10.0	-5.2	10.0
Nitrate as N	Lin2		60728999		2.30	2.50	-8.0	10.0
Orthophosphate as P	Lin2		21350400		2.04	2.50	-18.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/39 Calibration Date: 04/25/2015 02:56

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-39.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.78	7.43	8.13
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.33	11.83	12.83

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-39.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 25-Apr-2015 02:56:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-039
Misc. Info.: 39 CCV
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:57:07 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	99331728	2.50	2.29	
2 Chloride	4.933	4.933	0.000	1230487181	50.0	46.2	
7 Nitrite as N	5.808	5.808	0.000	134880443	2.50	2.32	
3 Sulfate	6.733	6.733	0.000	887466390	50.0	45.4	
4 Bromide	7.775	7.775	0.000	8366888H	10.0	9.48	
5 Nitrate as N	8.992	8.992	0.000	151822498	2.50	2.30	
6 Orthophosphate as P	12.333	12.333	0.000	53375999	2.50	2.04	

Reagents:

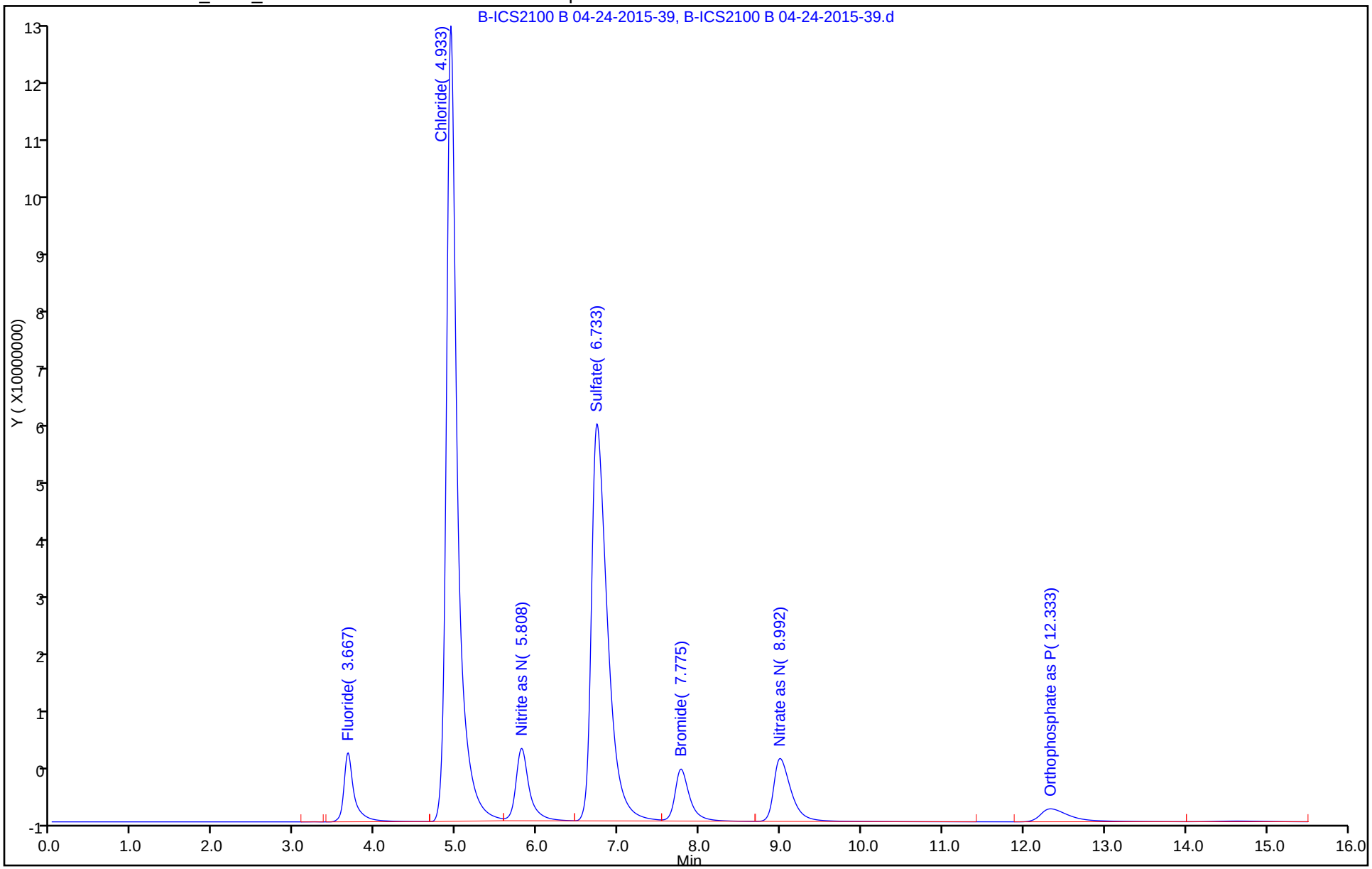
icccv_01220 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:57:07 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-39.d

Injection Date:	25-Apr-2015 02:56:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	39
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/48 Calibration Date: 04/25/2015 05:31

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-48.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43251543		2.49	2.50	-0.5	10.0
Chloride	Lin2		26369822		49.5	50.0	-1.1	10.0
Nitrite as N	Lin2	62099531	57695423		2.49	2.50	-0.6	10.0
Sulfate	Lin2		19207197		49.1	50.0	-1.8	10.0
Bromide	Lin2		896187		10.2	10.0	1.6	10.0
Nitrate as N	Lin2		65510062		2.48	2.50	-0.7	10.0
Orthophosphate as P	Lin2		24458415		2.32	2.50	-7.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139625/48 Calibration Date: 04/25/2015 05:31

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-24-2015-48.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.77	7.42	8.12
Nitrate as N	8.99	8.74	9.24
Orthophosphate as P	12.33	11.83	12.83

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-48.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 25-Apr-2015 05:31:00 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-048
Misc. Info.: 51 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:57:09 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	108128858	2.50	2.49	
2 Chloride	4.933	4.933	0.000	1318491123	50.0	49.5	
7 Nitrite as N	5.808	5.808	0.000	144238558	2.50	2.49	
3 Sulfate	6.725	6.725	0.000	960359847	50.0	49.1	
4 Bromide	7.767	7.767	0.000	8961868	10.0	10.2	H
5 Nitrate as N	8.992	8.992	0.000	163775154	2.50	2.48	
6 Orthophosphate as P	12.325	12.325	0.000	61146038	2.50	2.32	

Reagents:

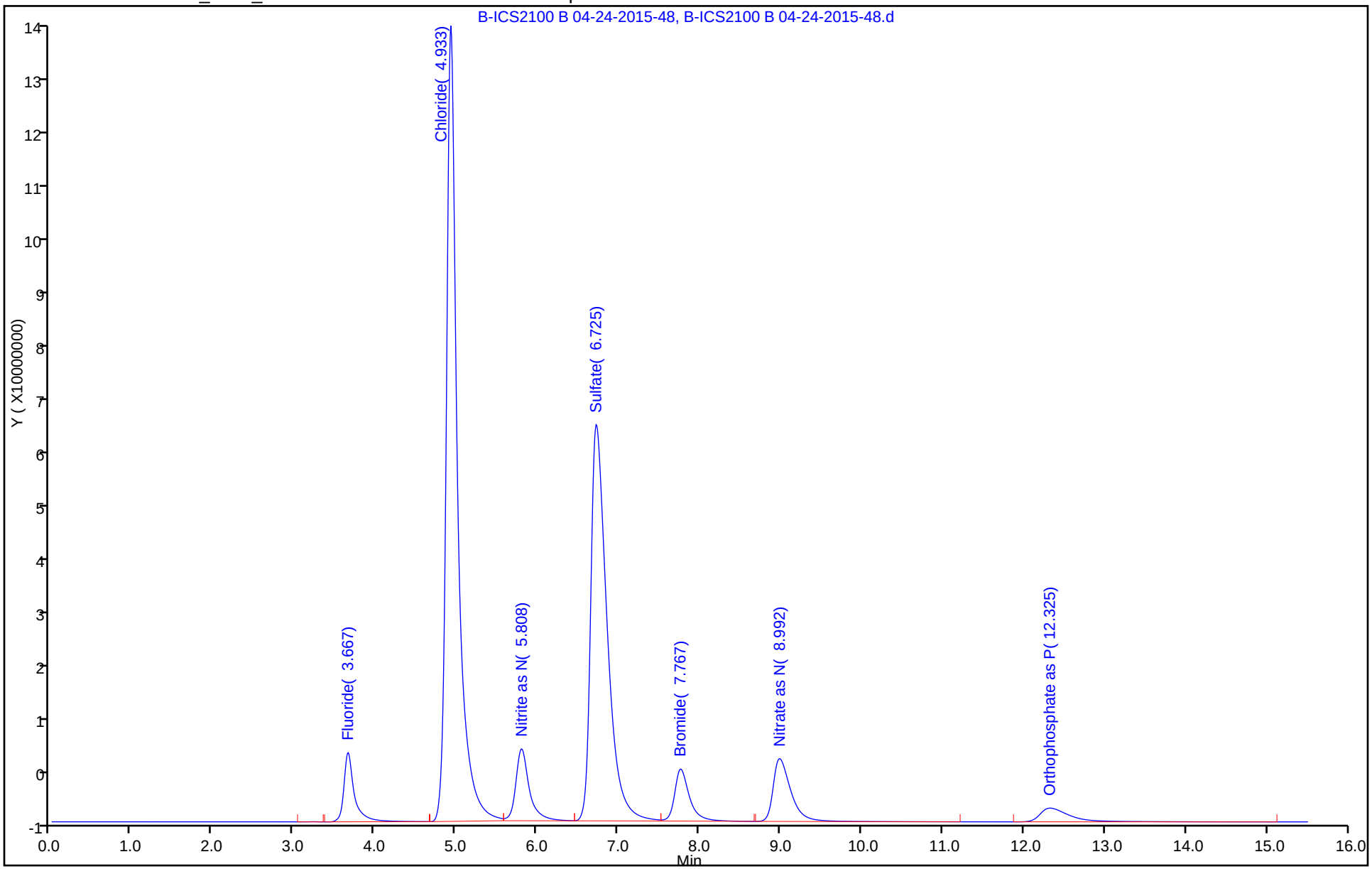
icccv_01220 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:57:09 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-48.d

Injection Date:	25-Apr-2015 05:31:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	48
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICV 180-139754/2 Calibration Date: 04/27/2015 11:27

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		46127022		3.19	3.00	6.2	10.0
Chloride	Lin2		27460262		61.8	60.0	3.0	10.0
Nitrite as N	Lin2	62099531	59936851		3.10	3.00	3.5	10.0
Sulfate	Lin2		20299555		62.3	60.0	3.9	10.0
Bromide	Lin2		932039		12.7	12.0	5.6	10.0
Nitrate as N	Lin2		67286859		3.06	3.00	1.9	10.0
Orthophosphate as P	Lin2		26196559		2.97	3.00	-1.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICV 180-139754/2 Calibration Date: 04/27/2015 11:27

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.31	4.01
Chloride	4.93	4.58	5.28
Nitrite as N	5.79	5.55	6.05
Sulfate	6.71	6.38	7.08
Bromide	7.76	7.41	8.11
Nitrate as N	8.97	8.73	9.23
Orthophosphate as P	12.30	11.82	12.82

Report Date: 28-Apr-2015 12:18:35 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Apr-2015 11:27:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 10:07:19 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

First Level Reviewer: hartmanm Date: 27-Apr-2015 12:49:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	138381067	3.00	3.19	
2 Chloride	4.925	4.925	0.000	1647615698	60.0	61.8	
7 Nitrite as N	5.792	5.800	-0.008	179882476	3.00	3.10	
3 Sulfate	6.708	6.725	-0.017	1217973271	60.0	62.3	
4 Bromide	7.758	7.758	0.000	11184473H	12.0	12.7	
5 Nitrate as N	8.967	8.975	-0.008	201860578	3.00	3.06	
6 Orthophosphate as P	12.300	12.317	-0.017	78589676	3.00	2.97	

Reagents:

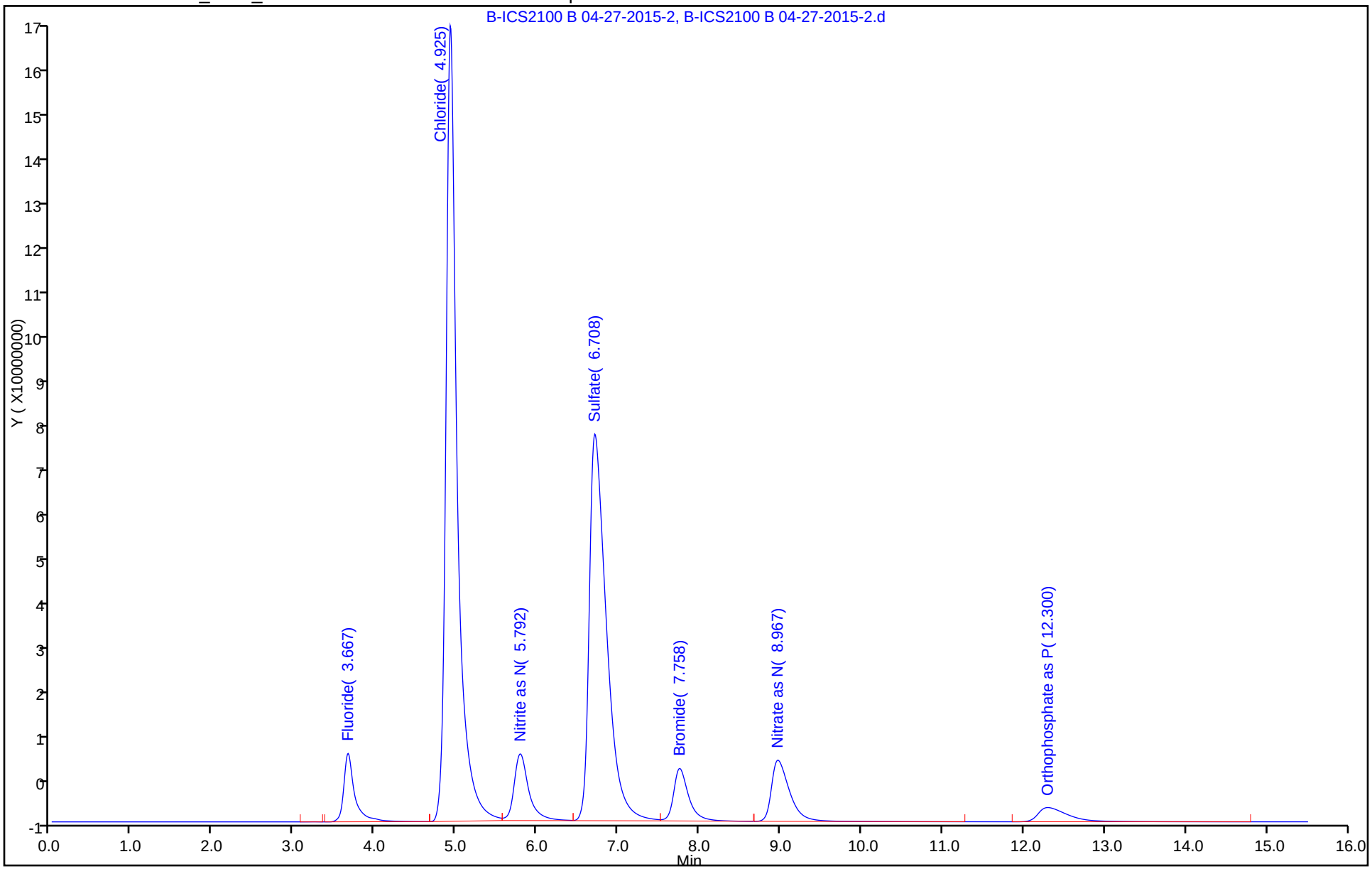
icicv_01253 Amount Added: 1.00 Units: mL

Report Date: 28-Apr-2015 12:18:35 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-2.d

Injection Date:	27-Apr-2015 11:27:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/3 Calibration Date: 04/27/2015 11:45

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		44751381		2.57	2.50	3.0	10.0
Chloride	Lin2		27426495		51.4	50.0	2.9	10.0
Nitrite as N	Lin2	62099531	59563989		2.57	2.50	2.7	10.0
Sulfate	Lin2		20039460		51.2	50.0	2.5	10.0
Bromide	Lin2		929561		10.5	10.0	5.3	10.0
Nitrate as N	Lin2		68142073		2.58	2.50	3.2	10.0
Orthophosphate as P	Lin2		25850896		2.45	2.50	-1.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/3 Calibration Date: 04/27/2015 11:45

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.81	5.56	6.06
Sulfate	6.73	6.38	7.08
Bromide	7.77	7.42	8.12
Nitrate as N	8.98	8.73	9.23
Orthophosphate as P	12.33	11.83	12.83

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Apr-2015 11:45:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-003
Misc. Info.: 3 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	111878453	2.50	2.57	
2 Chloride	4.933	4.933	0.000	1371324740	50.0	51.4	
7 Nitrite as N	5.808	5.808	0.000	148909973	2.50	2.57	
3 Sulfate	6.725	6.725	0.000	1001972980	50.0	51.2	
4 Bromide	7.767	7.767	0.000	9295609H	10.0	10.5	
5 Nitrate as N	8.983	8.983	0.000	170355183	2.50	2.58	
6 Orthophosphate as P	12.333	12.333	0.000	64627240	2.50	2.45	

Reagents:

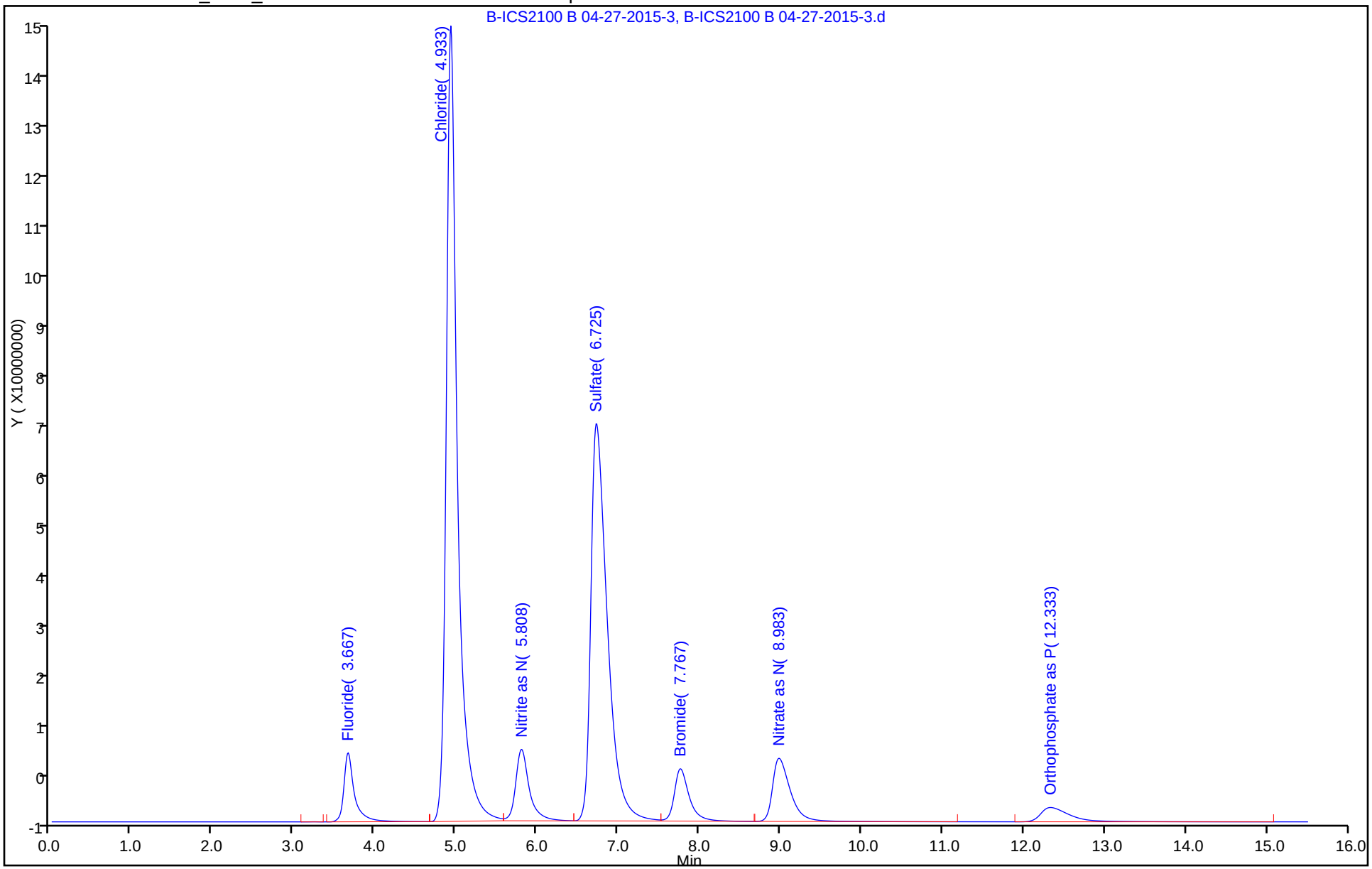
icccv_01222 Amount Added: 1.00 Units: mL

Report Date: 28-Apr-2015 12:18:35 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-3.d

Injection Date:	27-Apr-2015 11:45:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/15 Calibration Date: 04/27/2015 16:02

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		42415202		2.44	2.50	-2.4	10.0
Chloride	Lin2		25973048		48.7	50.0	-2.6	10.0
Nitrite as N	Lin2	62099531	56694671		2.44	2.50	-2.3	10.0
Sulfate	Lin2		18749943		47.9	50.0	-4.1	10.0
Bromide	Lin2		879170		9.96	10.0	-0.4	10.0
Nitrate as N	Lin2		64409932		2.44	2.50	-2.4	10.0
Orthophosphate as P	Lin2		23921925		2.28	2.50	-9.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/15 Calibration Date: 04/27/2015 16:02

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.93	4.58	5.28
Nitrite as N	5.80	5.55	6.05
Sulfate	6.73	6.38	7.08
Bromide	7.76	7.41	8.11
Nitrate as N	8.98	8.73	9.23
Orthophosphate as P	12.33	11.83	12.83

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Apr-2015 16:02:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:42 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	106038004	2.50	2.44	
2 Chloride	4.925	4.925	0.000	1298652397	50.0	48.7	
7 Nitrite as N	5.800	5.800	0.000	141736677	2.50	2.44	
3 Sulfate	6.733	6.733	0.000	937497140	50.0	47.9	
4 Bromide	7.758	7.758	0.000	8791697	10.0	9.96	H
5 Nitrate as N	8.983	8.983	0.000	161024831	2.50	2.44	
6 Orthophosphate as P	12.325	12.325	0.000	59804813	2.50	2.28	

Reagents:

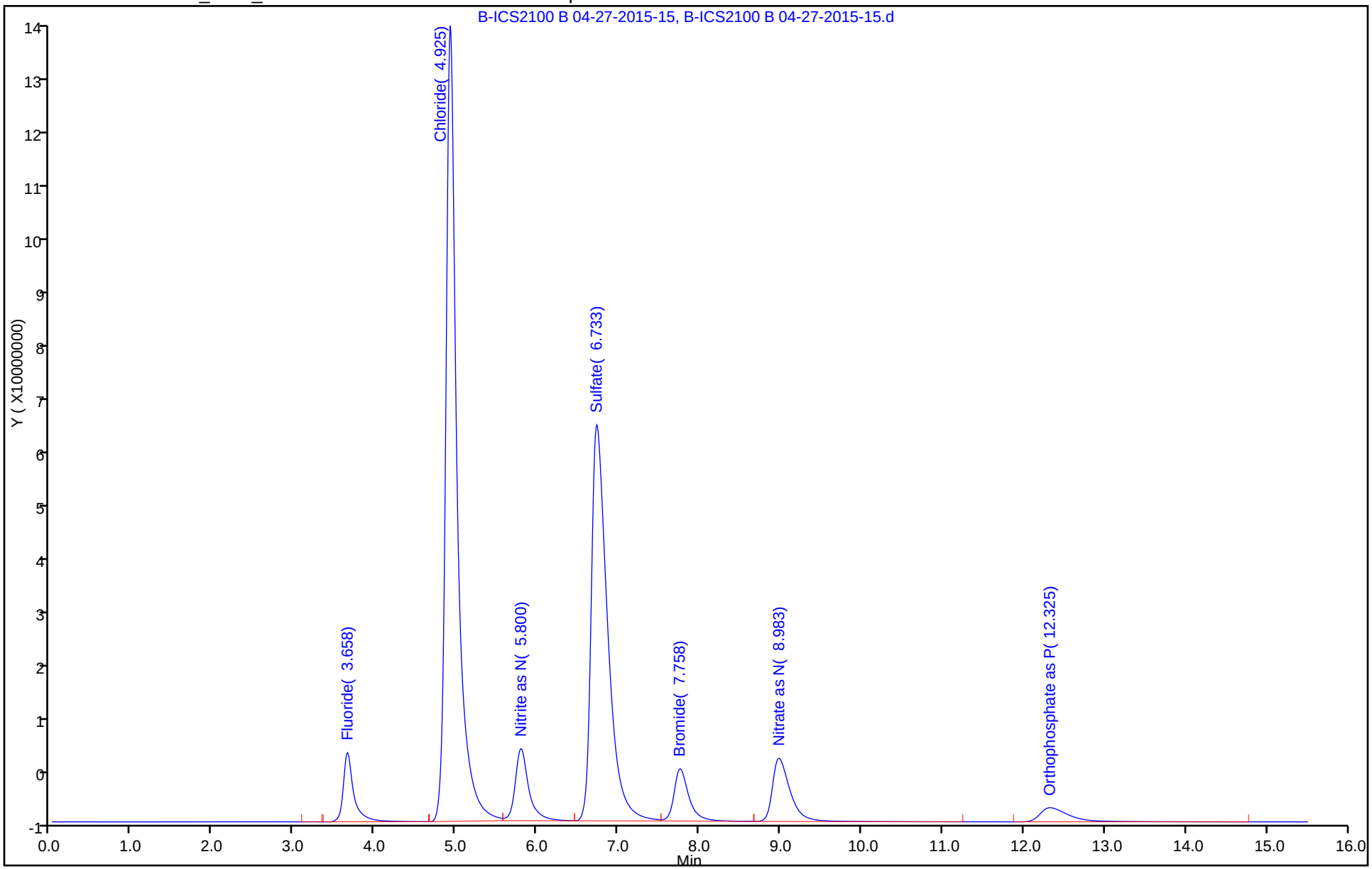
icccv_01222 Amount Added: 1.00 Units: mL

Report Date: 28-Apr-2015 12:18:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-15.d

Injection Date:	27-Apr-2015 16:02:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/39 Calibration Date: 04/27/2015 22:57

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-39.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		44218004		2.54	2.50	1.8	10.0
Chloride	Lin2		27175417		51.0	50.0	2.0	10.0
Nitrite as N	Lin2	62099531	59117869		2.55	2.50	1.9	10.0
Sulfate	Lin2		19868412		50.8	50.0	1.6	10.0
Bromide	Lin2		914630		10.4	10.0	3.6	10.0
Nitrate as N	Lin2		67526315		2.56	2.50	2.3	10.0
Orthophosphate as P	Lin2		24812962		2.36	2.50	-5.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/39 Calibration Date: 04/27/2015 22:57

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-39.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.93	4.58	5.28
Nitrite as N	5.80	5.55	6.05
Sulfate	6.73	6.38	7.08
Bromide	7.76	7.41	8.11
Nitrate as N	8.98	8.73	9.23
Orthophosphate as P	12.30	11.80	12.80

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-39.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Apr-2015 22:57:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-039
Misc. Info.: 38 CCV
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:49 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	110545011	2.50	2.54	
2 Chloride	4.933	4.933	0.000	1358770867	50.0	51.0	
7 Nitrite as N	5.800	5.800	0.000	147794673	2.50	2.55	
3 Sulfate	6.733	6.733	0.000	993420601	50.0	50.8	
4 Bromide	7.758	7.758	0.000	9146297	10.0	10.4	H
5 Nitrate as N	8.983	8.983	0.000	168815787	2.50	2.56	
6 Orthophosphate as P	12.300	12.300	0.000	62032404	2.50	2.36	

Reagents:

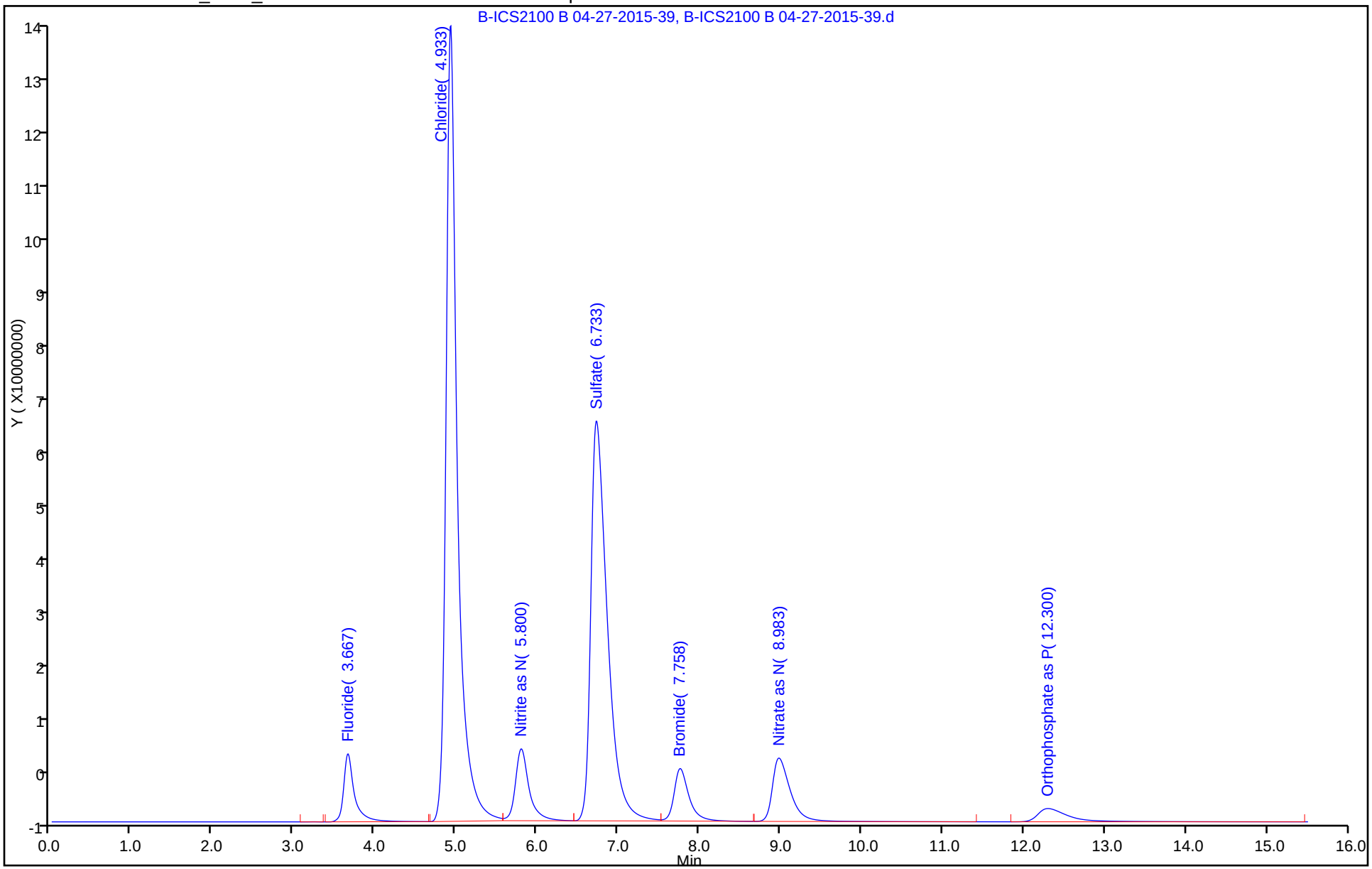
icccv_01222 Amount Added: 1.00 Units: mL

Report Date: 28-Apr-2015 12:18:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-39.d

Injection Date:	27-Apr-2015 22:57:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	39
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/51 Calibration Date: 04/28/2015 02:25

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-51.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43146968		2.48	2.50	-0.7	10.0
Chloride	Lin2		26560889		49.8	50.0	-0.4	10.0
Nitrite as N	Lin2	62099531	57839008		2.49	2.50	-0.3	10.0
Sulfate	Lin2		19317273		49.4	50.0	-1.2	10.0
Bromide	Lin2		893070		10.1	10.0	1.2	10.0
Nitrate as N	Lin2		65883510		2.50	2.50	-0.2	10.0
Orthophosphate as P	Lin2		24626829		2.34	2.50	-6.4	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: CCV 180-139754/51 Calibration Date: 04/28/2015 02:25

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 04-27-2015-51.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.93	4.58	5.28
Nitrite as N	5.80	5.55	6.05
Sulfate	6.73	6.38	7.08
Bromide	7.76	7.41	8.11
Nitrate as N	8.98	8.73	9.23
Orthophosphate as P	12.32	11.82	12.82

Report Date: 28-Apr-2015 12:19:52 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-51.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 28-Apr-2015 02:25:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-051
Misc. Info.: 50 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:19:52 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

First Level Reviewer: hartmanm Date: 28-Apr-2015 12:19:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	107867421	2.50	2.48	
2 Chloride	4.925	4.925	0.000	1328044462	50.0	49.8	
7 Nitrite as N	5.800	5.800	0.000	144597521	2.50	2.49	
3 Sulfate	6.725	6.725	0.000	965863663	50.0	49.4	
4 Bromide	7.758	7.758	0.000	8930699	10.0	10.1	H
5 Nitrate as N	8.975	8.975	0.000	164708776	2.50	2.50	
6 Orthophosphate as P	12.317	12.317	0.000	61567072	2.50	2.34	

Reagents:

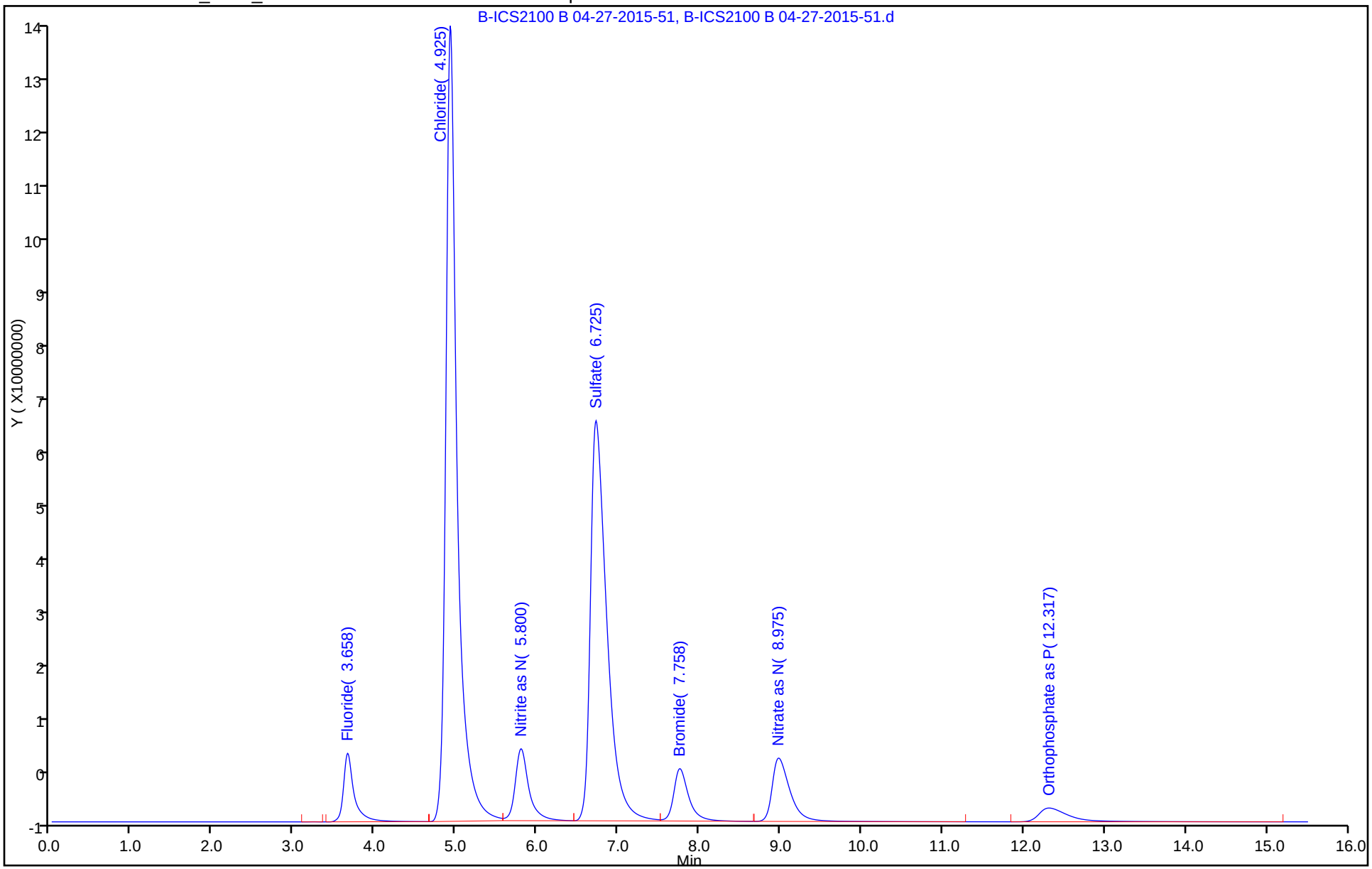
icccv_01222 Amount Added: 1.00 Units: mL

Report Date: 28-Apr-2015 12:19:52 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-51.d

Injection Date:	28-Apr-2015 02:25:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	51
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-139449/6

Matrix: Water Lab File ID: B-ICS2100 B 04-23-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/23/2015 14:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 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	1.0	U	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\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 23-Apr-2015 14:32:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:44 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

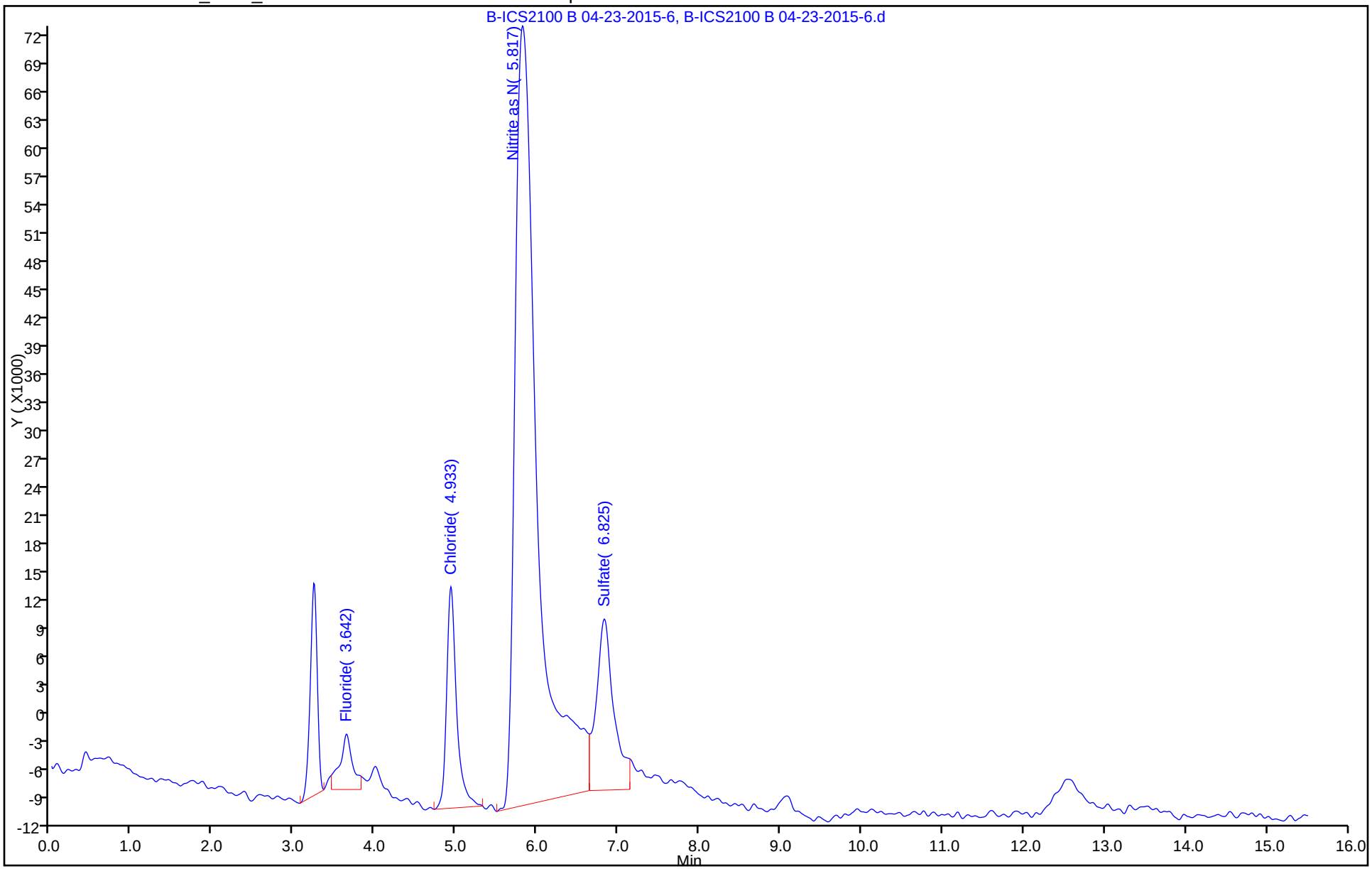
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	63730		-0.001807	
2 Chloride	4.933	4.925	0.008	199632		0.0678	
7 Nitrite as N	5.817	5.800	0.017	1582449		0.0106	
3 Sulfate	6.825	6.733	0.092	271603		-0.1869	
4 Bromide		7.767				ND	
5 Nitrate as N		8.992				ND	
6 Orthophosphate as P		12.342				ND	

Report Date: 24-Apr-2015 14:23:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-6.d

Injection Date:	23-Apr-2015 14:32:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-139625/6

Matrix: Water | Lab File ID: B-ICS2100 B 04-24-2015-6.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/24/2015 17:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 24-Apr-2015 17:17:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:53:45 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

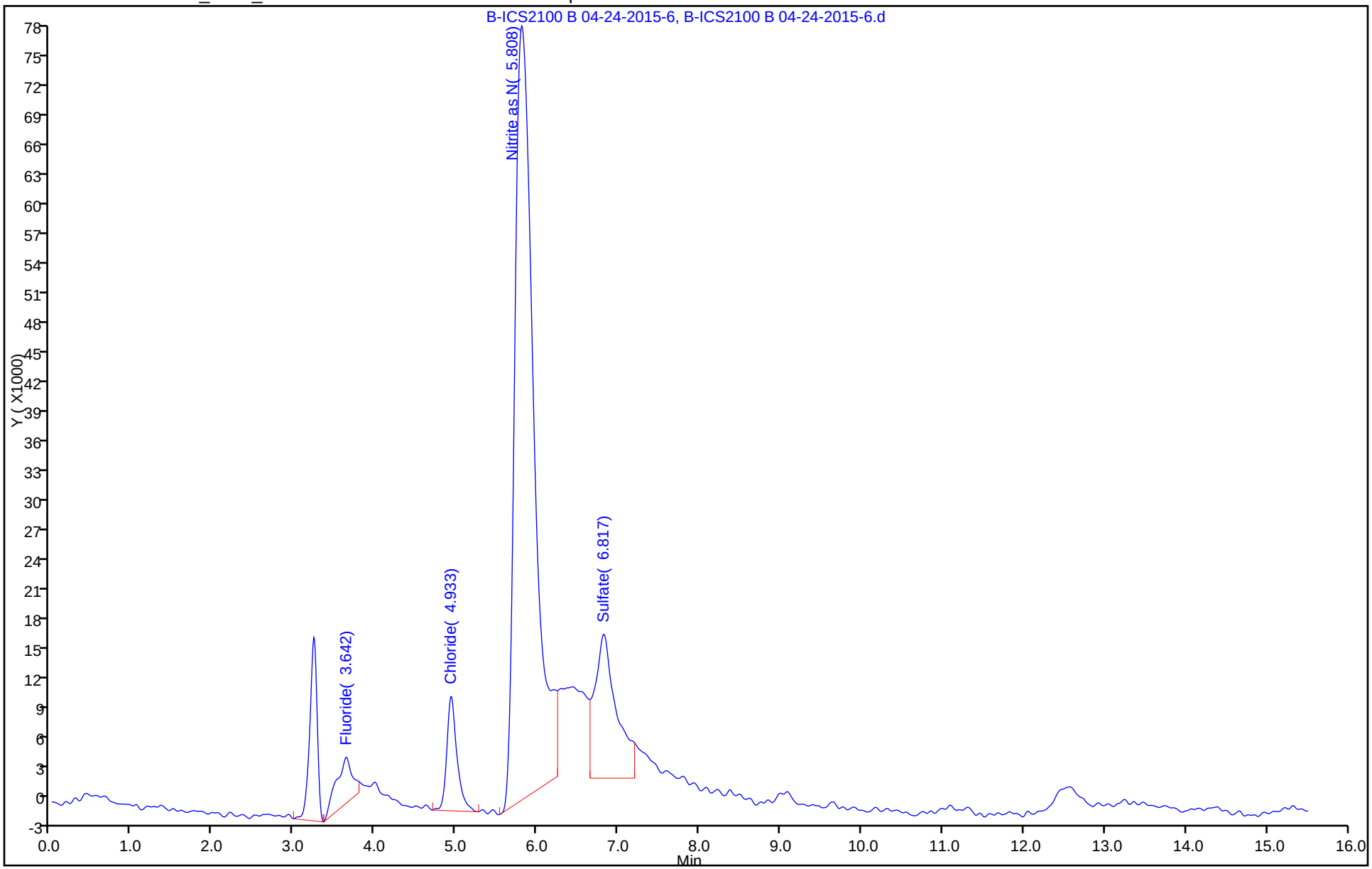
Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.667	-0.025	65836		-0.001758	
2 Chloride	4.933	4.933	0.000	101886		0.0642	
7 Nitrite as N	5.808	5.808	0.000	1283431		0.005390	
3 Sulfate	6.817	6.733	0.084	271910		-0.1869	
4 Bromide		7.775				ND	
5 Nitrate as N		9.000				ND	
6 Orthophosphate as P		12.300				ND	

Report Date: 25-Apr-2015 08:53:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-6.d				
Injection Date:	24-Apr-2015 17:17:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-139754/6

Matrix: Water Lab File ID: B-ICS2100 B 04-27-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/27/2015 13:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 27-Apr-2015 13:26:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

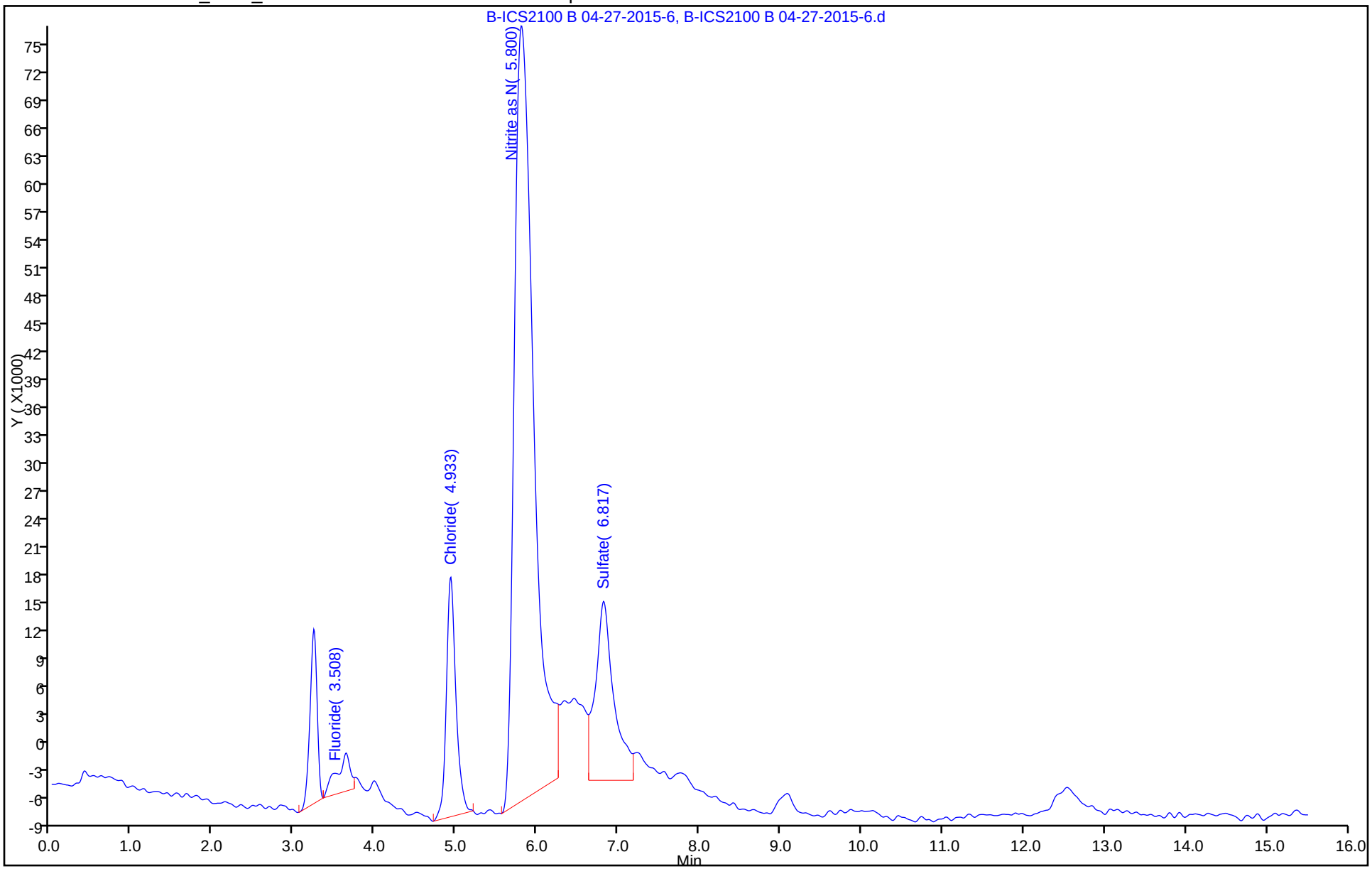
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.508	3.667	-0.159	48459		-0.002159	
2 Chloride	4.933	4.933	0.000	210949		0.0683	
7 Nitrite as N	5.800	5.808	-0.008	1376930		0.007012	
3 Sulfate	6.817	6.725	0.092	305729		-0.1852	
4 Bromide		7.767				ND	
5 Nitrate as N		8.983				ND	
6 Orthophosphate as P		12.333				ND	

Report Date: 28-Apr-2015 12:18:38 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-6.d				
Injection Date:	27-Apr-2015 13:26:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139449/4

Matrix: Water Lab File ID: B-ICS2100 B 04-23-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/23/2015 13:57

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00901	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-Apr-2015 13:57:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-004
Misc. Info.: 4 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:44 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

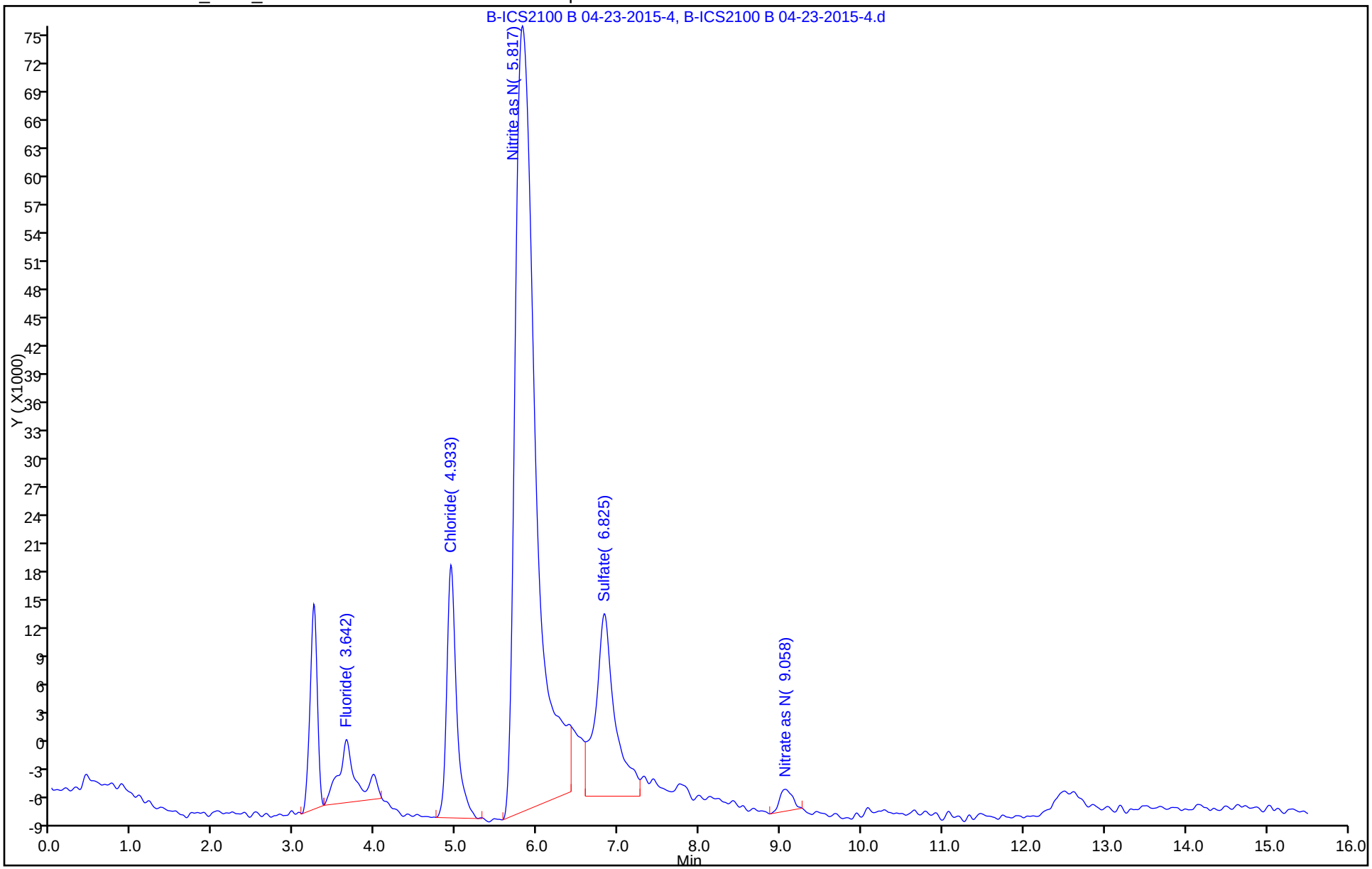
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	102601		-0.000911	
2 Chloride	4.933	4.925	0.008	223184		0.0687	
7 Nitrite as N	5.817	5.800	0.017	1462837		0.008503	
3 Sulfate	6.825	6.733	0.092	323129		-0.1843	
4 Bromide		7.767				ND	
5 Nitrate as N	9.058	8.992	0.066	25092		0.009009	
6 Orthophosphate as P		12.342				ND	

Report Date: 24-Apr-2015 14:23:50 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-4.d				
Injection Date:	23-Apr-2015 13:57:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139449/16

Matrix: Water Lab File ID: B-ICS2100 B 04-23-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/23/2015 17:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0112	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-Apr-2015 17:25:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:40 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

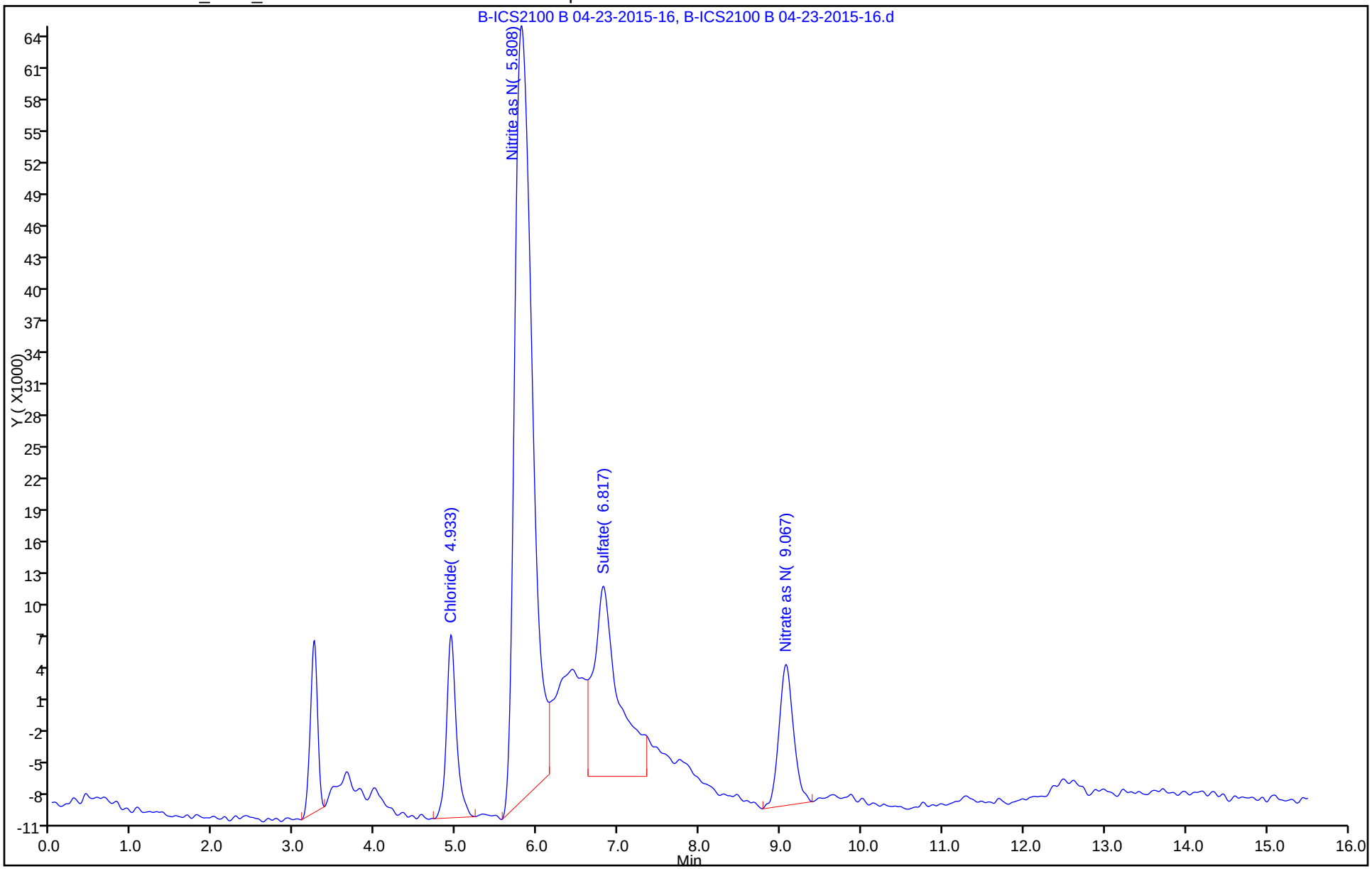
Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.667				ND	
2 Chloride	4.933	4.933	0.000	147323		0.0659	
7 Nitrite as N	5.808	5.808	0.000	1102882		0.002256	
3 Sulfate	6.817	6.733	0.084	382844		-0.1812	
4 Bromide		7.775				ND	
5 Nitrate as N	9.067	9.000	0.067	167684		0.0112	
6 Orthophosphate as P		12.333				ND	

Report Date: 24-Apr-2015 14:23:44 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-16.d				
Injection Date:	23-Apr-2015 17:25:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 180-139449/28

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-28.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 20:53

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | 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	1.0	U	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\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-Apr-2015 20:53:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

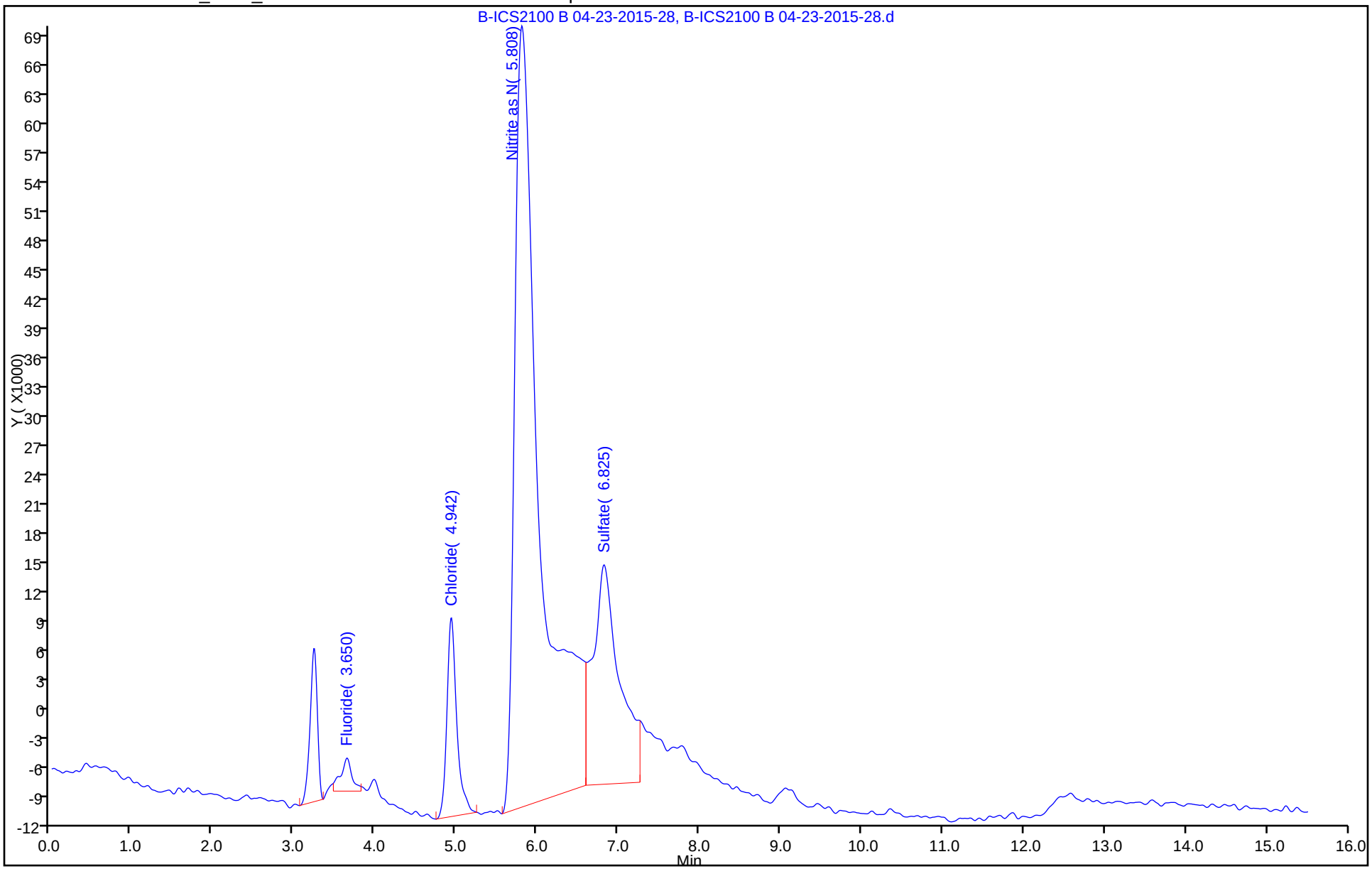
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	32939		-0.002517	
2 Chloride	4.942	4.933	0.009	171578		0.0668	
7 Nitrite as N	5.808	5.808	0.000	1729819		0.0131	
3 Sulfate	6.825	6.733	0.092	512013		-0.1746	
4 Bromide		7.775				ND	
5 Nitrate as N		9.000				ND	
6 Orthophosphate as P		12.333				ND	

Report Date: 24-Apr-2015 14:26:33 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-28.d

Injection Date:	23-Apr-2015 20:53:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139449/40

Matrix: Water Lab File ID: B-ICS2100 B 04-23-2015-40.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2015 00:21

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00991	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-40.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 24-Apr-2015 00:21:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-040
Misc. Info.: 40 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:27:48 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

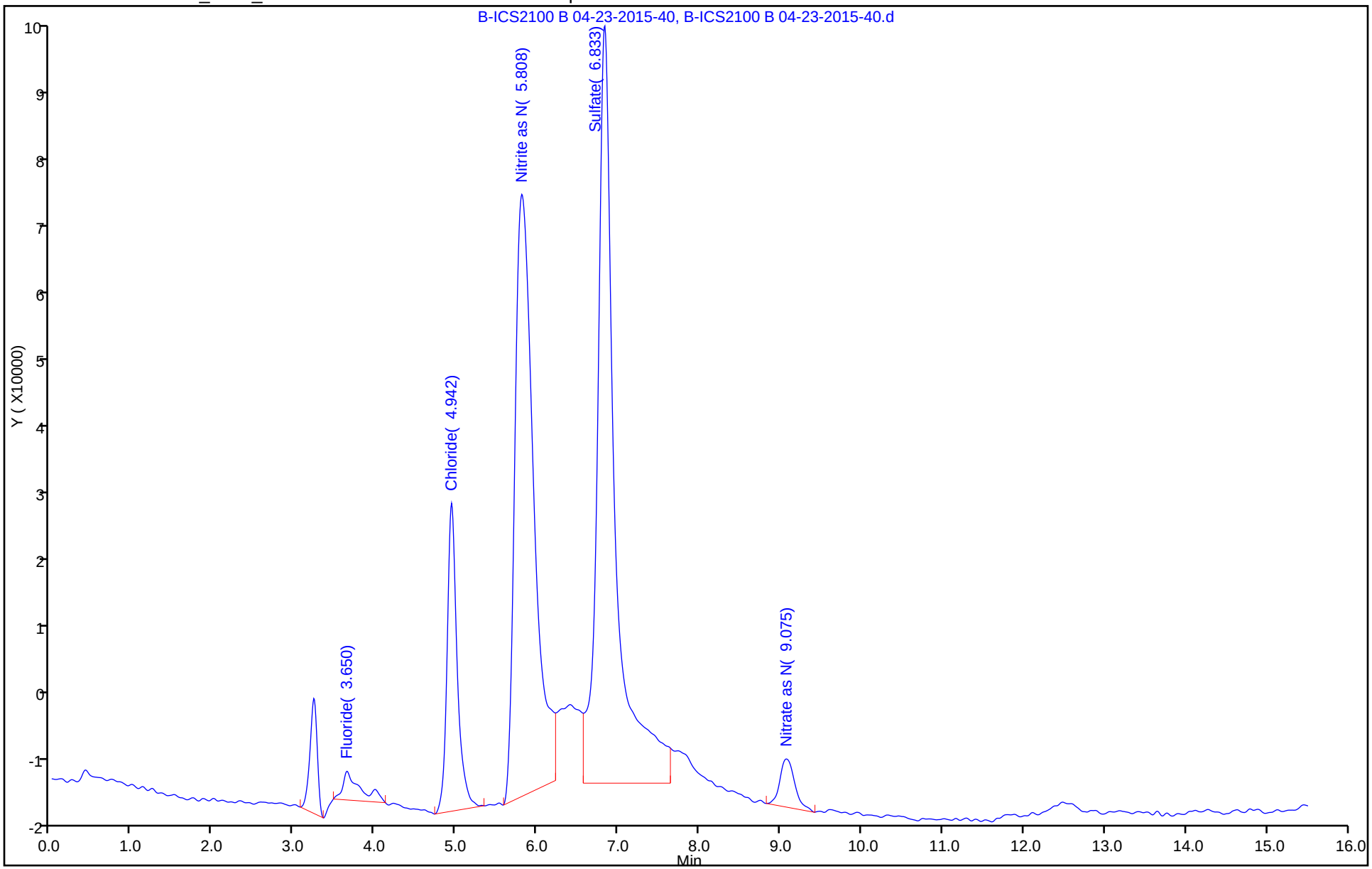
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.675	-0.025	59967		-0.001894	
2 Chloride	4.942	4.942	0.000	366311		0.0741	
7 Nitrite as N	5.808	5.817	-0.009	1339705		0.006366	
3 Sulfate	6.833	6.733	0.100	1581803		-0.1197	
4 Bromide		7.783				ND	
5 Nitrate as N	9.075	9.008	0.067	84887		0.0099	
6 Orthophosphate as P		12.283				ND	

Report Date: 24-Apr-2015 14:27:48 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-40.d

Injection Date:	24-Apr-2015 00:21:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139625/4

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2015 16:39

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 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	1.0	U	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\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 24-Apr-2015 16:39:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-004
Misc. Info.: 4 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:53:45 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

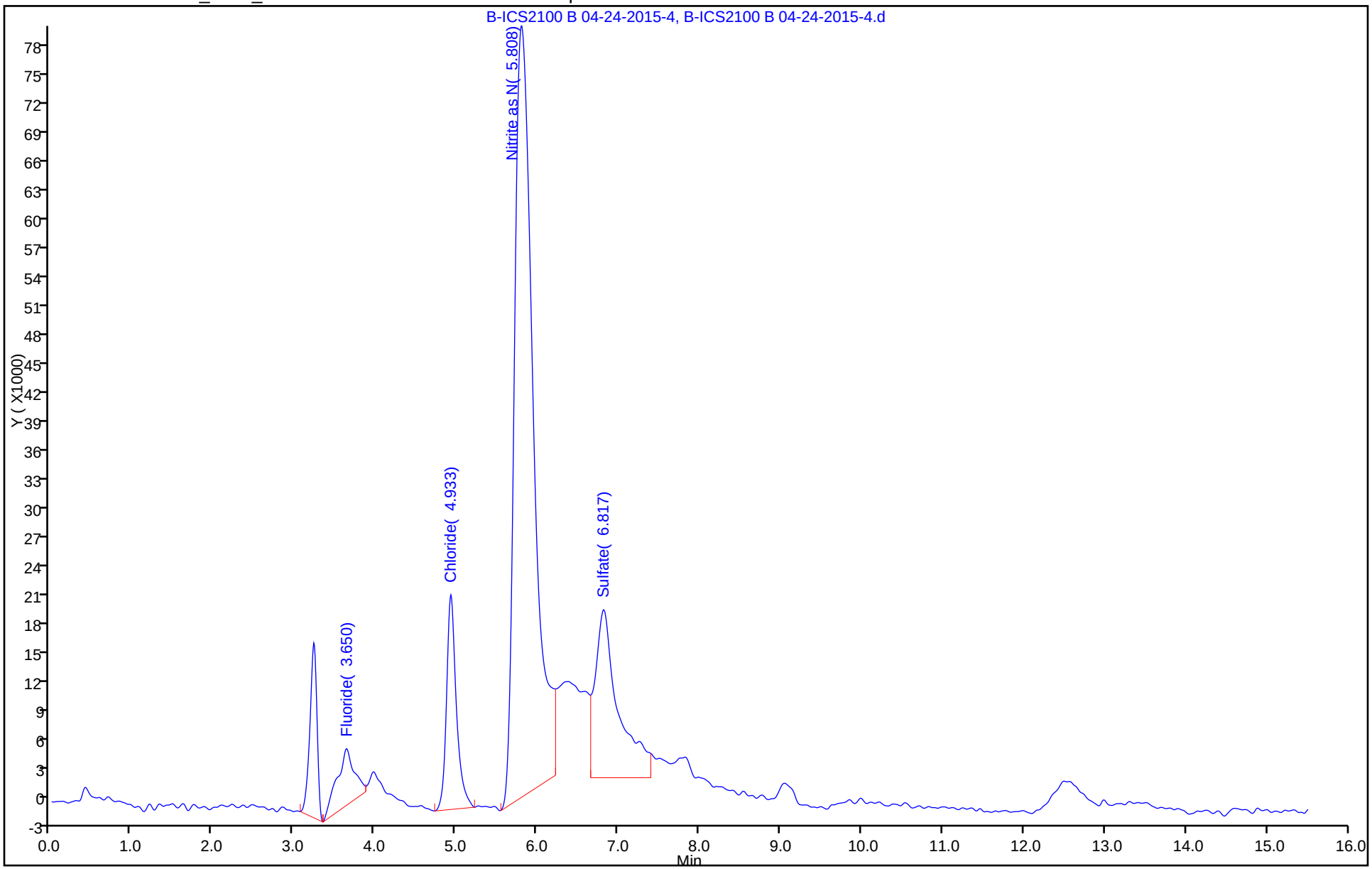
Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	88639		-0.001233	
2 Chloride	4.933	4.933	0.000	186844		0.0674	
7 Nitrite as N	5.808	5.808	0.000	1286267		0.005439	
3 Sulfate	6.817	6.733	0.084	344659		-0.1832	
4 Bromide		7.775				ND	
5 Nitrate as N		9.000				ND	
6 Orthophosphate as P		12.300				ND	

Report Date: 25-Apr-2015 08:53:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-4.d				
Injection Date:	24-Apr-2015 16:39:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139625/16

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2015 20:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 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	1.0	U	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\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 24-Apr-2015 20:12:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:56:59 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

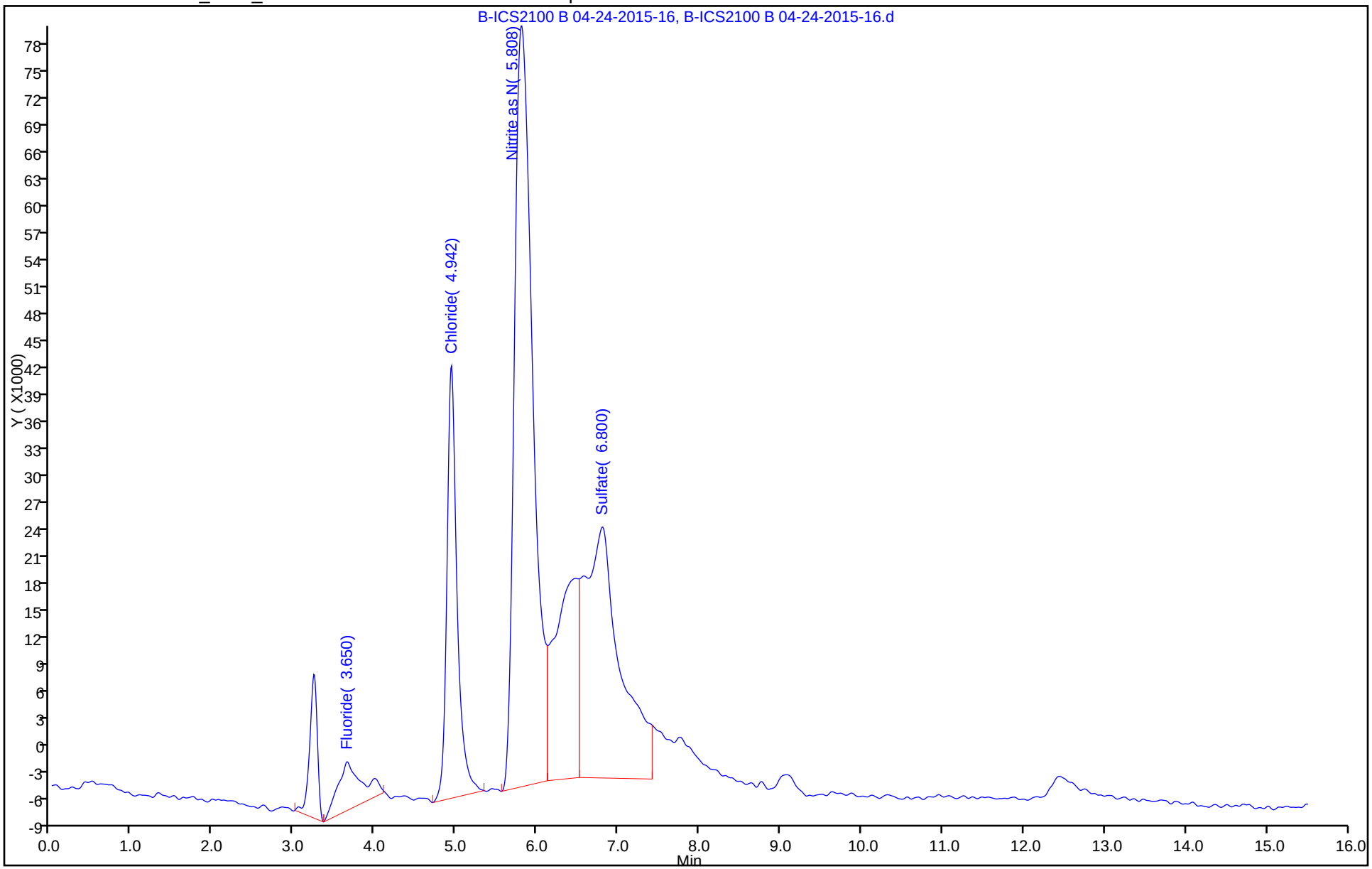
Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	111171		-0.000714	
2 Chloride	4.942	4.933	0.009	421587		0.0762	
7 Nitrite as N	5.808	5.808	0.000	1341236		0.006393	
3 Sulfate	6.800	6.733	0.067	861081		-0.1567	
4 Bromide		7.775				ND	
5 Nitrate as N		9.000				ND	
6 Orthophosphate as P		12.300				ND	

Report Date: 25-Apr-2015 08:56:59 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-16.d				
Injection Date:	24-Apr-2015 20:12:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139625/28

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2015 23:45

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0103	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 24-Apr-2015 23:45:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:57:03 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

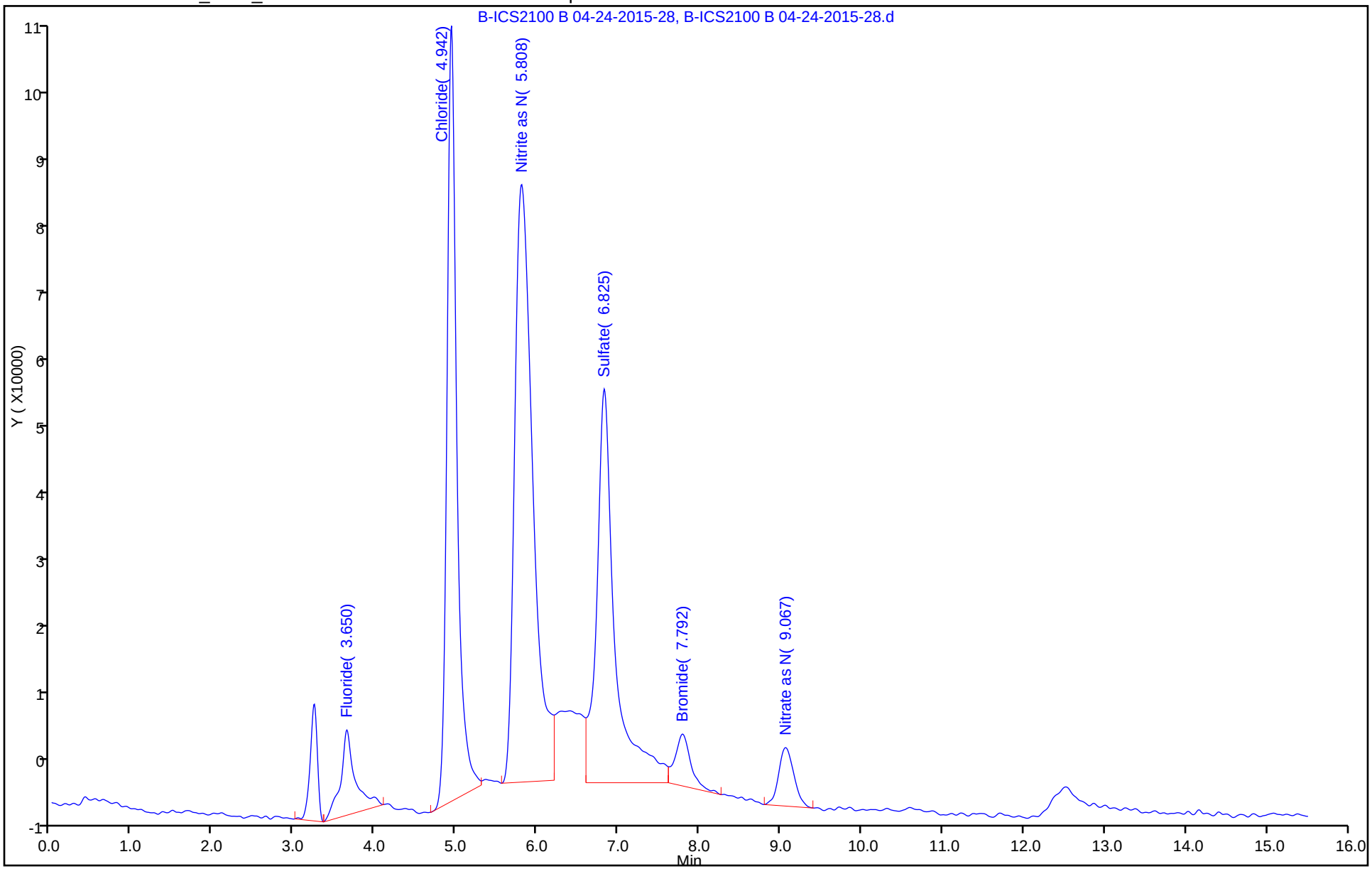
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	159709		0.000405	
2 Chloride	4.942	4.933	0.009	966390		0.0966	
7 Nitrite as N	5.808	5.808	0.000	1371928		0.006925	
3 Sulfate	6.825	6.733	0.092	908539		-0.1542	
4 Bromide	7.792	7.775	0.017	7601H		0.0197	
5 Nitrate as N	9.067	8.992	0.075	112336		0.0103	
6 Orthophosphate as P		12.317				ND	

Report Date: 25-Apr-2015 08:57:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-28.d

Injection Date:	24-Apr-2015 23:45:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139625/40

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-40.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/25/2015 03:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0119	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-40.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 25-Apr-2015 03:13:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-040
Misc. Info.: 40 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:57:07 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

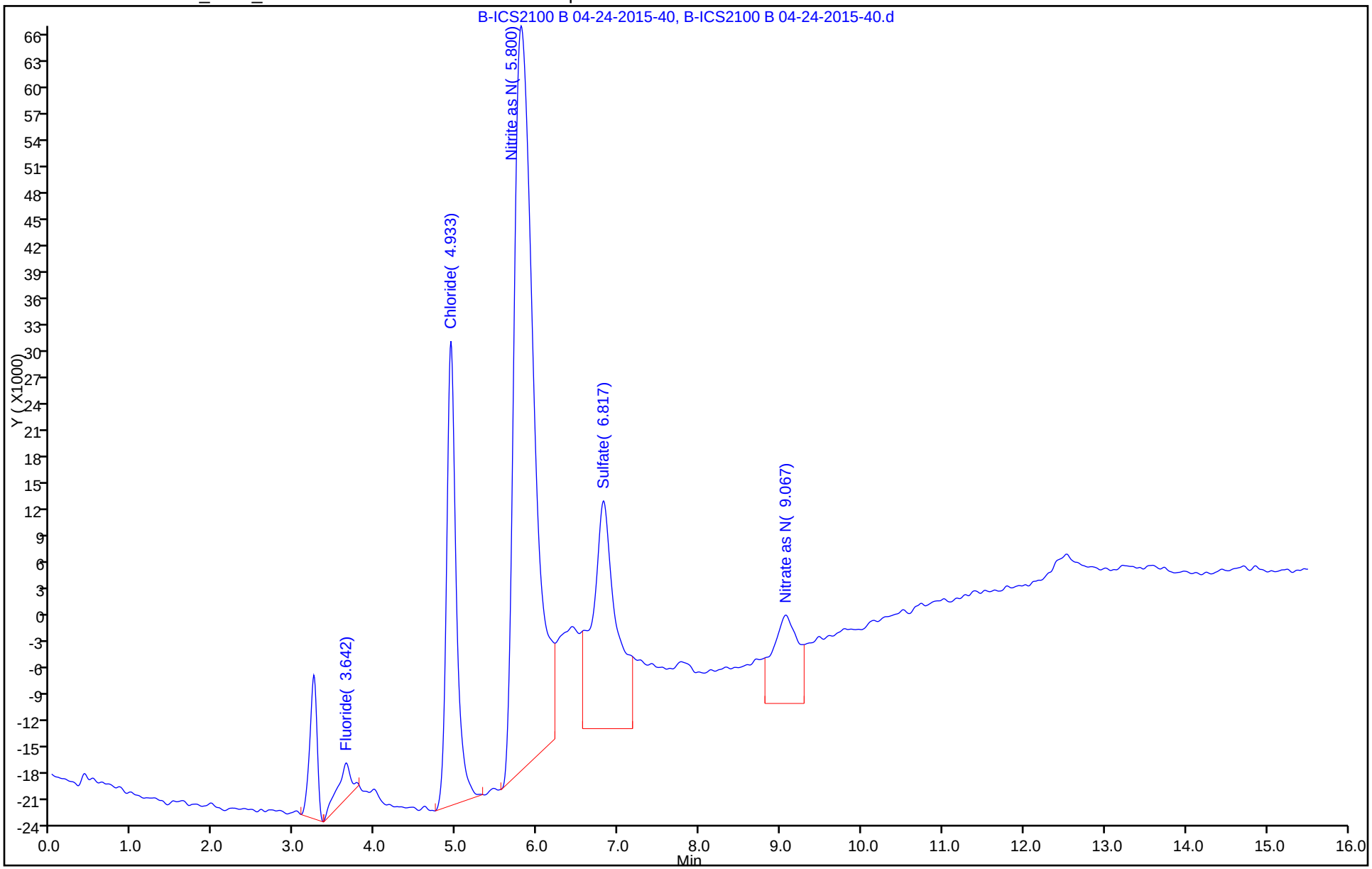
Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.667	-0.025	48069		-0.002168	
2 Chloride	4.933	4.933	0.000	435016		0.0767	
7 Nitrite as N	5.800	5.808	-0.008	1431951		0.007967	
3 Sulfate	6.817	6.733	0.084	526320		-0.1739	
4 Bromide		7.775				ND	
5 Nitrate as N	9.067	8.992	0.075	217361		0.0119	
6 Orthophosphate as P		12.333				ND	

Report Date: 25-Apr-2015 08:57:07 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-40.d				
Injection Date:	25-Apr-2015 03:13:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139625/49

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-49.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/25/2015 05:49

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 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	1.0	U	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\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-49.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 25-Apr-2015 05:49:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-049
Misc. Info.: 52 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 07:09:26 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

First Level Reviewer: hartmanm Date: 25-Apr-2015 09:27:27

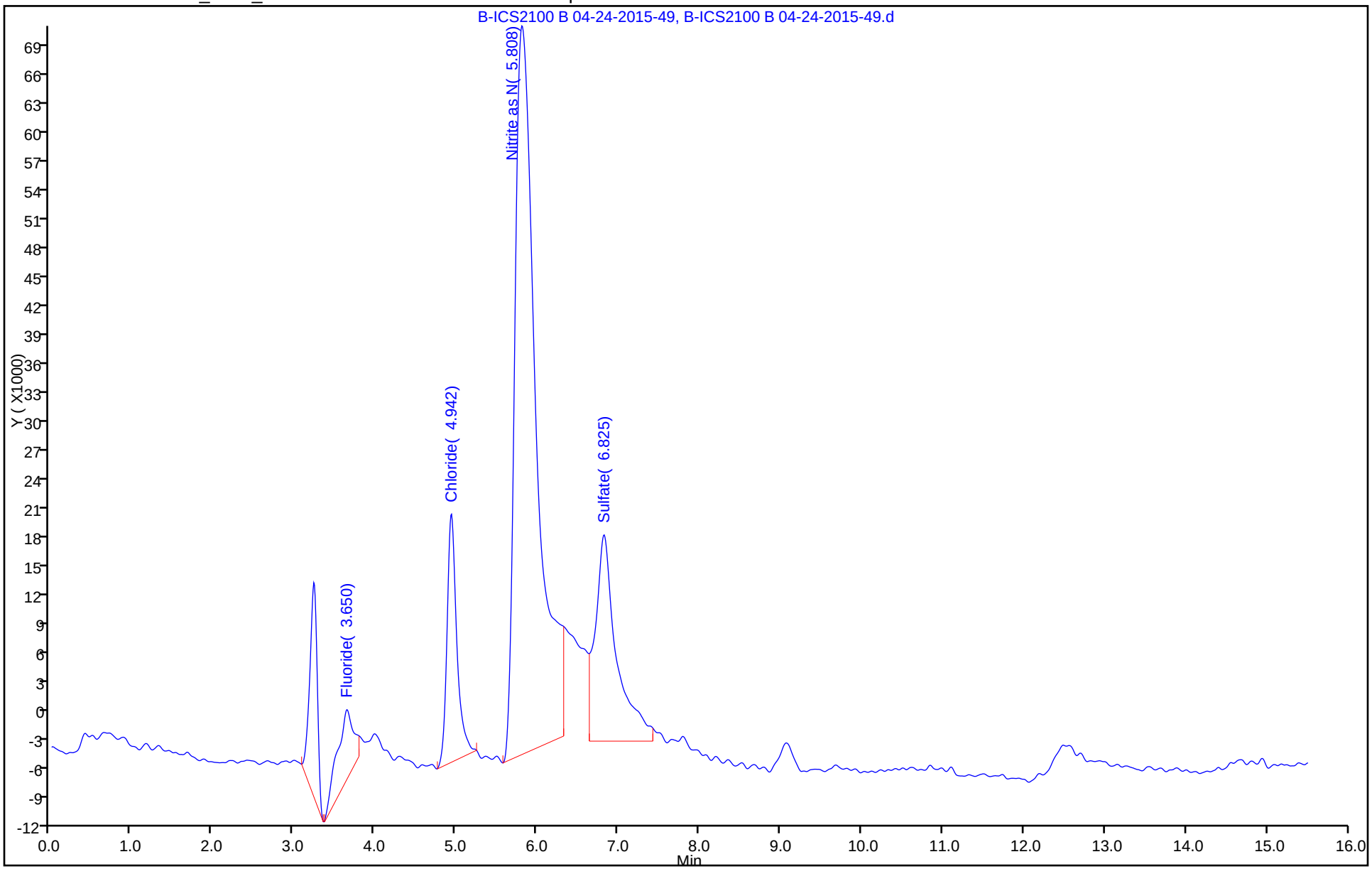
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	104225		-0.000874	
2 Chloride	4.942	4.942	0.000	218165		0.0685	
7 Nitrite as N	5.808	5.808	0.000	1397363		0.007367	
3 Sulfate	6.825	6.733	0.092	393308		-0.1807	
4 Bromide		7.775				ND	
5 Nitrate as N		9.000				ND	
6 Orthophosphate as P		12.300				ND	

Report Date: 25-Apr-2015 09:27:27 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-49.d

Injection Date:	25-Apr-2015 05:49:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	49
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139754/4

Matrix: Water Lab File ID: B-ICS2100 B 04-27-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/27/2015 12:02

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 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	1.0	U	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\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Apr-2015 12:02:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-004
Misc. Info.: 4 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

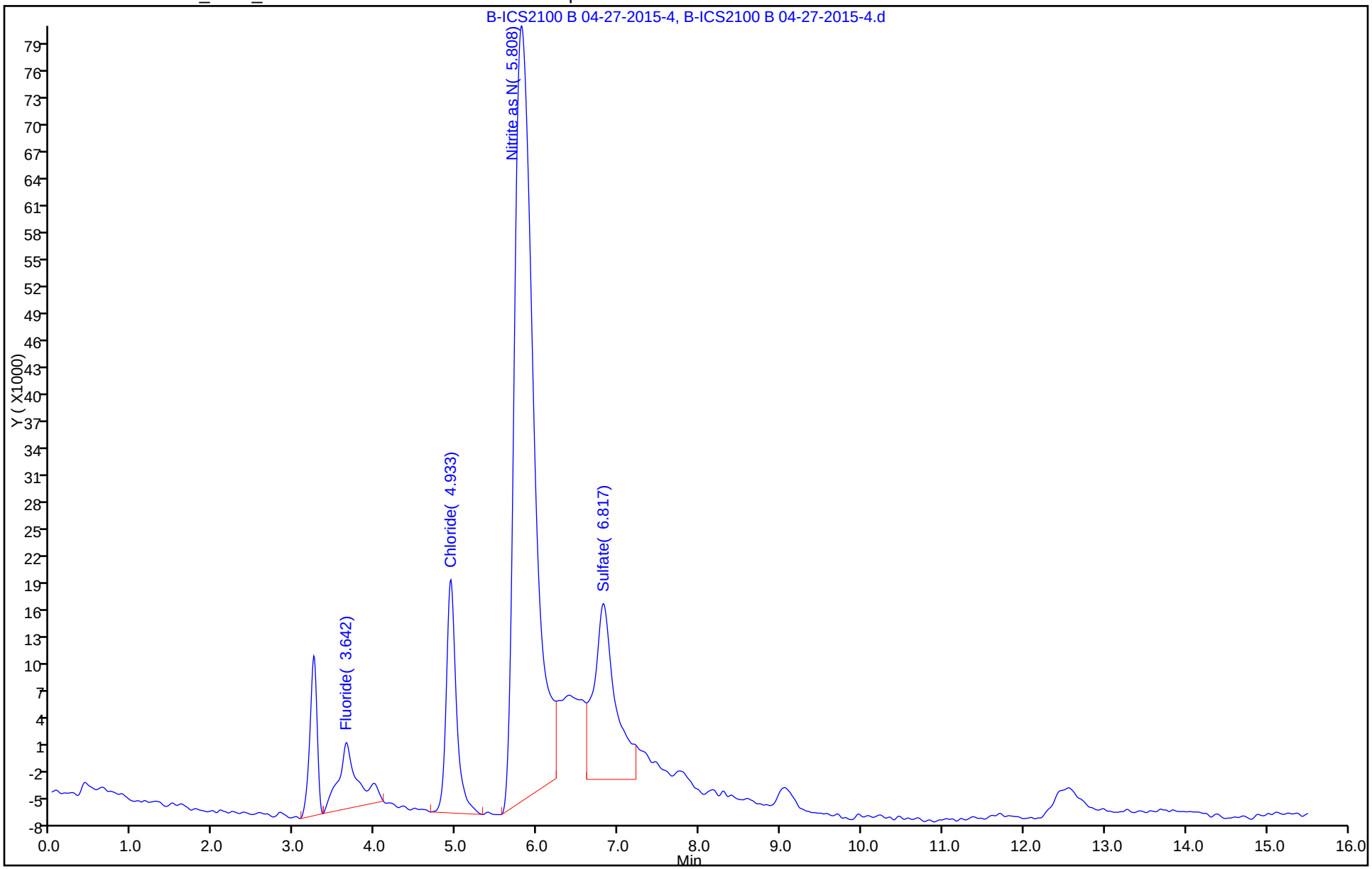
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.667	-0.025	121857		-0.000468	
2 Chloride	4.933	4.933	0.000	224364		0.0688	
7 Nitrite as N	5.808	5.808	0.000	1413038		0.007639	
3 Sulfate	6.817	6.725	0.092	358553		-0.1825	
4 Bromide		7.767				ND	
5 Nitrate as N		8.983				ND	
6 Orthophosphate as P		12.333				ND	

Report Date: 28-Apr-2015 12:18:36 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-4.d

Injection Date:	27-Apr-2015 12:02:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-139754/16

Matrix: Water Lab File ID: B-ICS2100 B 04-27-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/27/2015 16:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00904	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	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\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Apr-2015 16:19:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:42 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

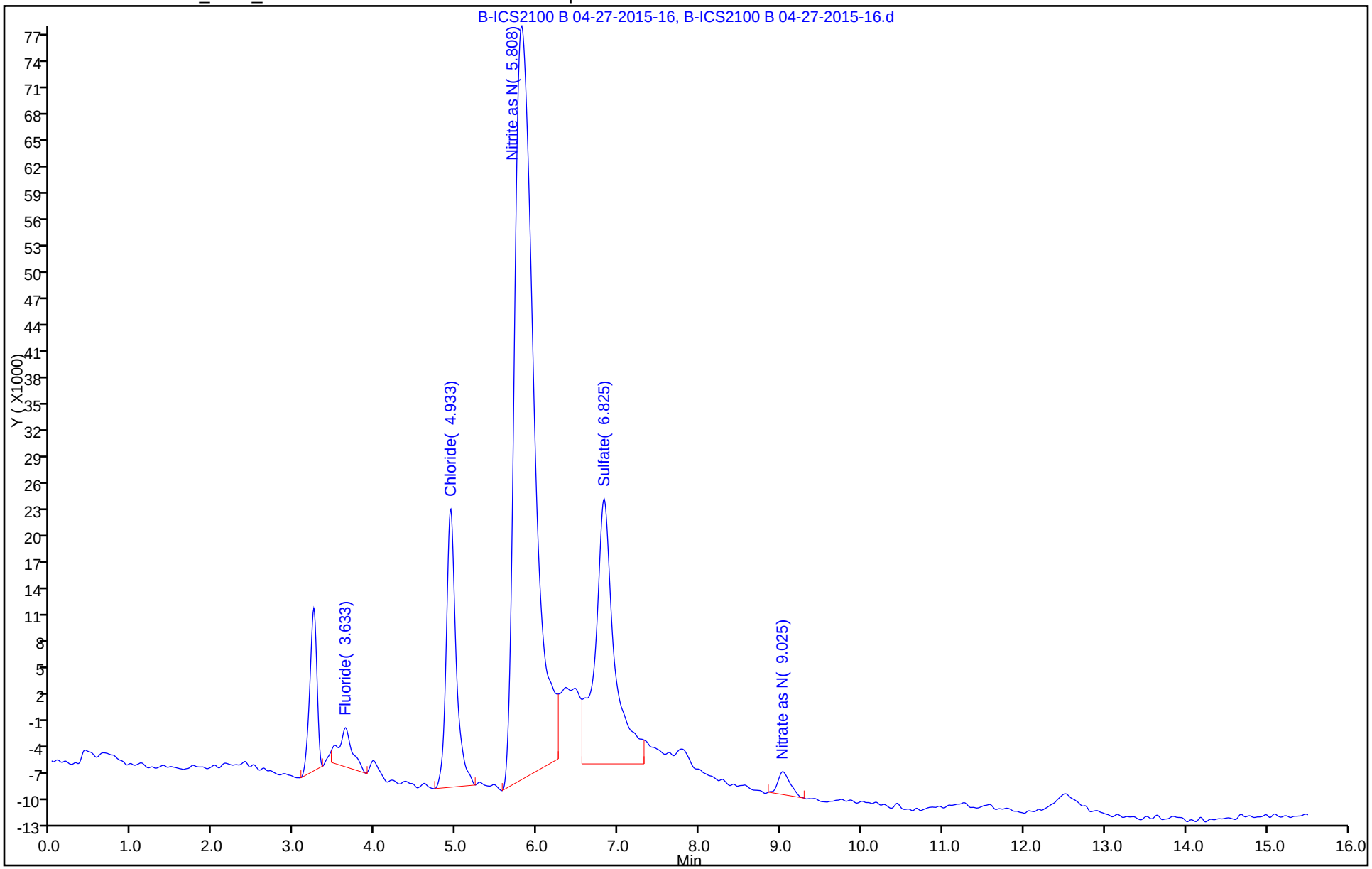
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.633	3.658	-0.025	51870		-0.002080	
2 Chloride	4.933	4.925	0.008	266770		0.0704	
7 Nitrite as N	5.808	5.800	0.008	1424291		0.007834	
3 Sulfate	6.825	6.733	0.092	500562		-0.1752	
4 Bromide		7.758				ND	
5 Nitrate as N	9.025	8.983	0.042	26966		0.009037	
6 Orthophosphate as P		12.325				ND	

Report Date: 28-Apr-2015 12:18:42 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-16.d

Injection Date:	27-Apr-2015 16:19:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 180-139754/40

Matrix: Water | Lab File ID: B-ICS2100 B 04-27-2015-40.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/27/2015 23:15

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 | 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	1.0	U	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\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-40.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Apr-2015 23:15:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-040
Misc. Info.: 39 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:49 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

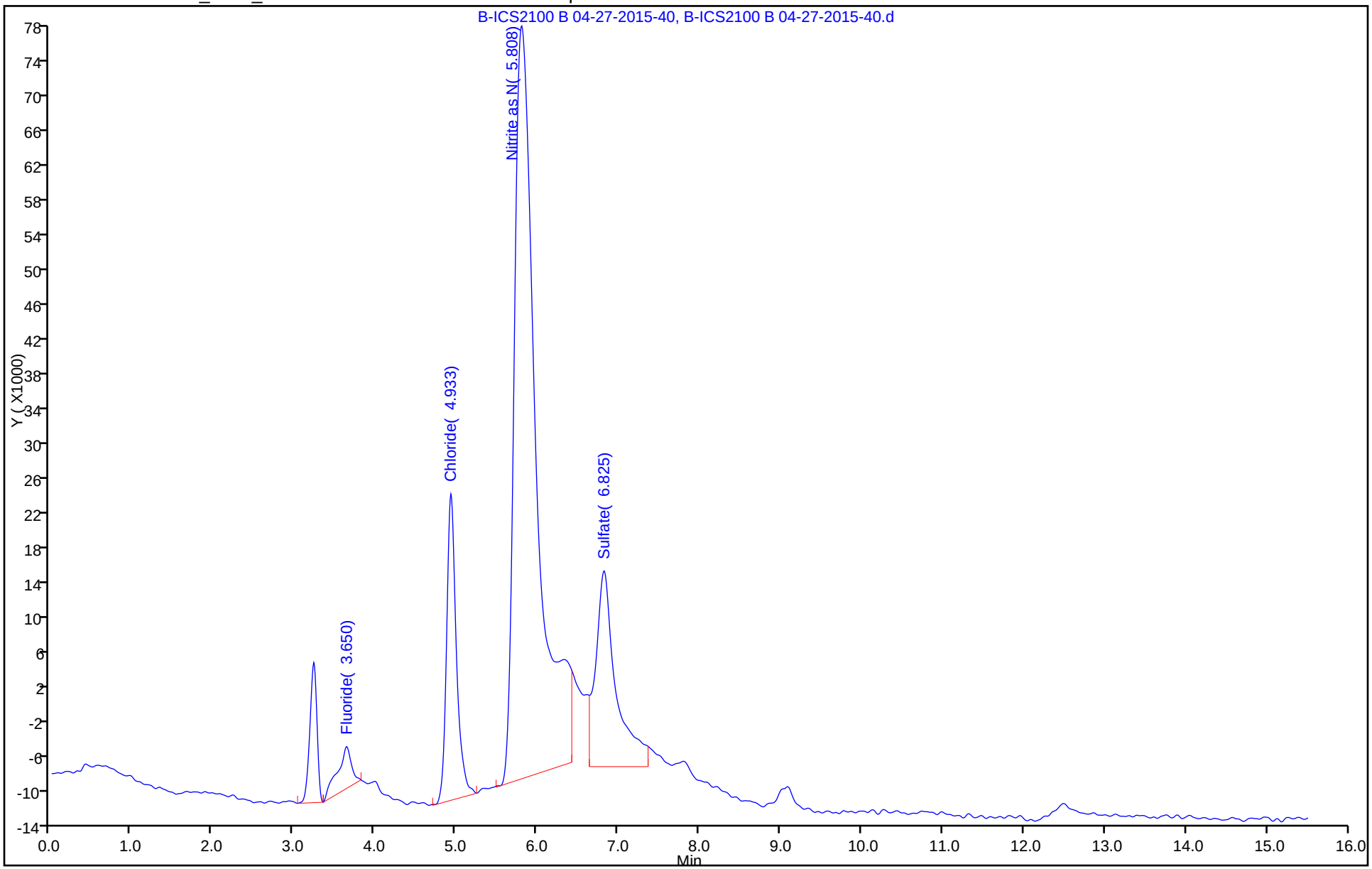
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	59016		-0.001916	
2 Chloride	4.933	4.933	0.000	294715		0.0714	
7 Nitrite as N	5.808	5.800	0.008	1634367		0.0115	
3 Sulfate	6.825	6.733	0.092	390658		-0.1808	
4 Bromide		7.758				ND	
5 Nitrate as N		8.983				ND	
6 Orthophosphate as P		12.300				ND	

Report Date: 28-Apr-2015 12:18:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-40.d

Injection Date:	27-Apr-2015 23:15:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 180-139754/52

Matrix: Water | Lab File ID: B-ICS2100 B 04-27-2015-52.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/28/2015 02:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00920	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

Report Date: 28-Apr-2015 12:19:52 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-52.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 28-Apr-2015 02:42:00 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-052
Misc. Info.: 51 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:19:52 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

First Level Reviewer: hartmanm Date: 28-Apr-2015 12:18:33

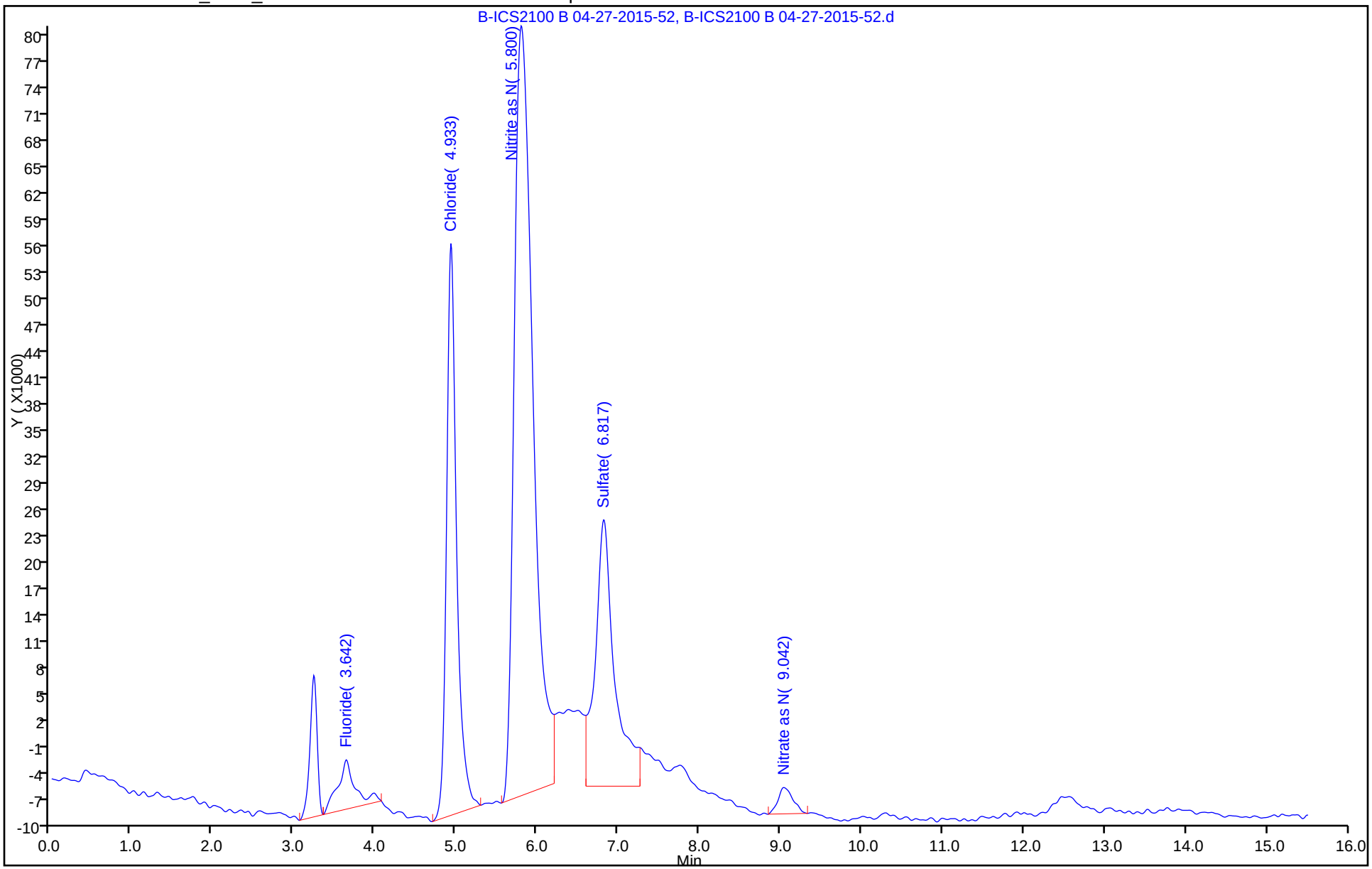
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	83899		-0.001342	
2 Chloride	4.933	4.925	0.008	558173		0.0813	
7 Nitrite as N	5.800	5.800	0.000	1402231		0.007451	
3 Sulfate	6.817	6.725	0.092	500981		-0.1752	
4 Bromide		7.758				ND	
5 Nitrate as N	9.042	8.975	0.067	37992		0.009203	
6 Orthophosphate as P		12.317				ND	

Report Date: 28-Apr-2015 12:19:53 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-52.d

Injection Date:	28-Apr-2015 02:42:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	52
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-139449/5

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-5.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 14:15

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.49		0.10	0.0062
16887-00-6	Chloride	49.6		1.0	0.20
14808-79-8	Sulfate	49.1		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 23-Apr-2015 14:15:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:23:44 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	108262365	2.50	2.49	
2 Chloride	4.933	4.925	0.008	1321248462	50.0	49.6	
7 Nitrite as N	5.808	5.800	0.008	143895813	2.50	2.48	
3 Sulfate	6.733	6.733	0.000	961243787	50.0	49.1	
4 Bromide	7.767	7.767	0.000	9020618	10.0	10.2	H
5 Nitrate as N	8.992	8.992	0.000	164438586	2.50	2.49	
6 Orthophosphate as P	12.358	12.342	0.016	62014264	2.50	2.36	

Reagents:

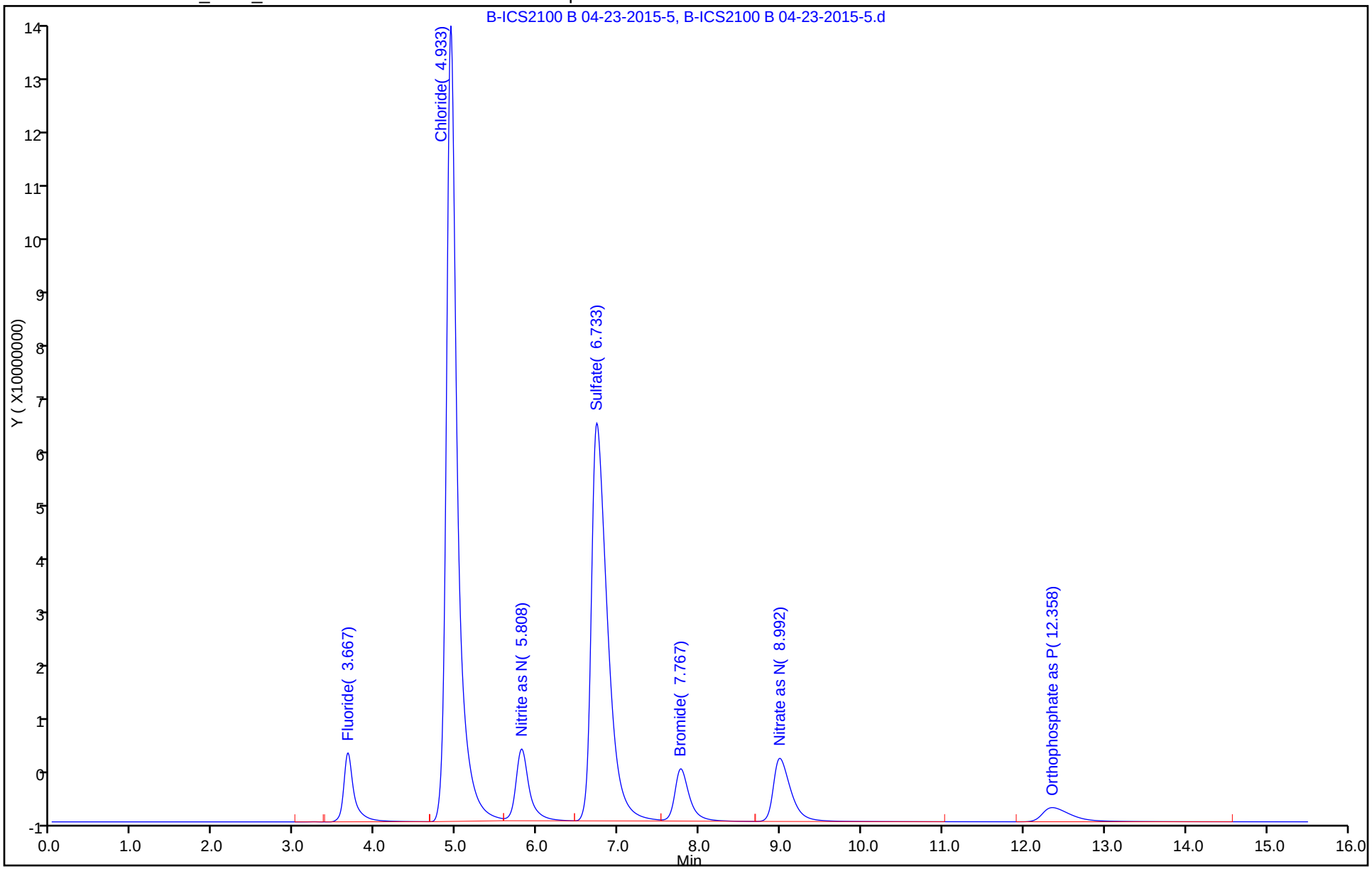
icccv_01219 Amount Added: 1.00 Units: mL

Report Date: 24-Apr-2015 14:23:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-5.d

Injection Date:	23-Apr-2015 14:15:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-139625/5

Matrix: Water Lab File ID: B-ICS2100 B 04-24-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2015 16:56

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139625 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	47.6		1.0	0.20
14808-79-8	Sulfate	47.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 24-Apr-2015 16:56:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006629-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Apr-2015 08:53:45 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK004

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	104192854	2.50	2.40	
2 Chloride	4.933	4.933	0.000	1269479437	50.0	47.6	
7 Nitrite as N	5.808	5.808	0.000	136686935	2.50	2.36	
3 Sulfate	6.733	6.733	0.000	918976889	50.0	47.0	
4 Bromide	7.775	7.775	0.000	8586809	10.0	9.73	H
5 Nitrate as N	8.992	9.000	-0.008	156906257	2.50	2.38	
6 Orthophosphate as P	12.350	12.300	0.050	59000859	2.50	2.25	

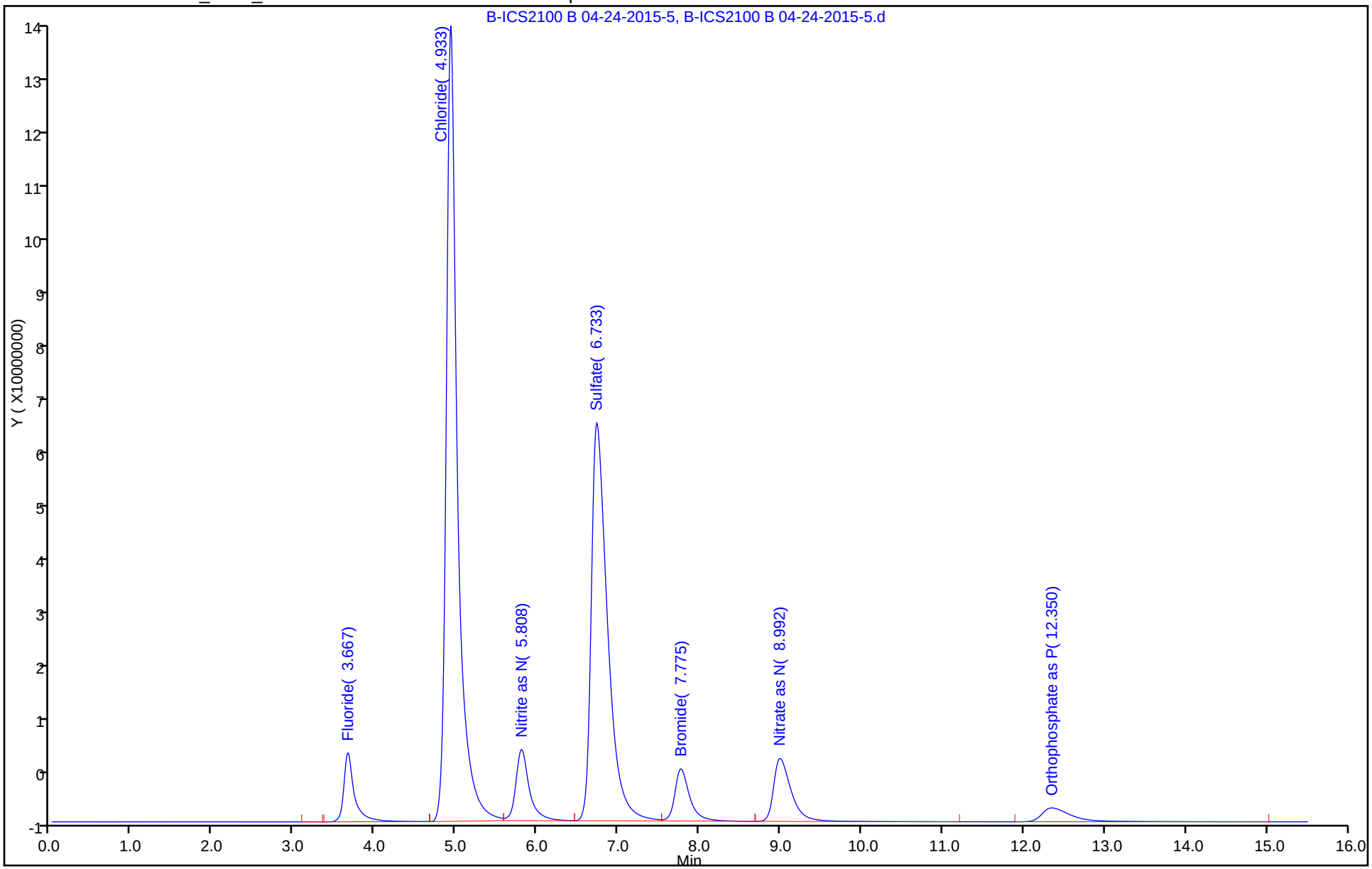
Reagents:

icccv_01220 Amount Added: 1.00 Units: mL

Report Date: 25-Apr-2015 08:53:49 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150424-6629.b\B-ICS2100 B 04-24-2015-5.d				
Injection Date:	24-Apr-2015 16:56:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-139754/5

Matrix: Water Lab File ID: B-ICS2100 B 04-27-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/27/2015 13:08

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139754 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	47.5		1.0	0.21

Report Date: 28-Apr-2015 12:18:37 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 27-Apr-2015 13:08:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006652-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Apr-2015 12:18:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.667	-0.009	104434660	2.50	2.40	
2 Chloride	4.925	4.933	-0.008	1288246849	50.0	48.3	
7 Nitrite as N	5.800	5.808	-0.008	140244698	2.50	2.42	
3 Sulfate	6.725	6.725	0.000	928483387	50.0	47.5	
4 Bromide	7.758	7.767	-0.009	8791711H	10.0	9.96	
5 Nitrate as N	8.975	8.983	-0.008	159599989	2.50	2.42	
6 Orthophosphate as P	12.342	12.333	0.009	59953478	2.50	2.28	

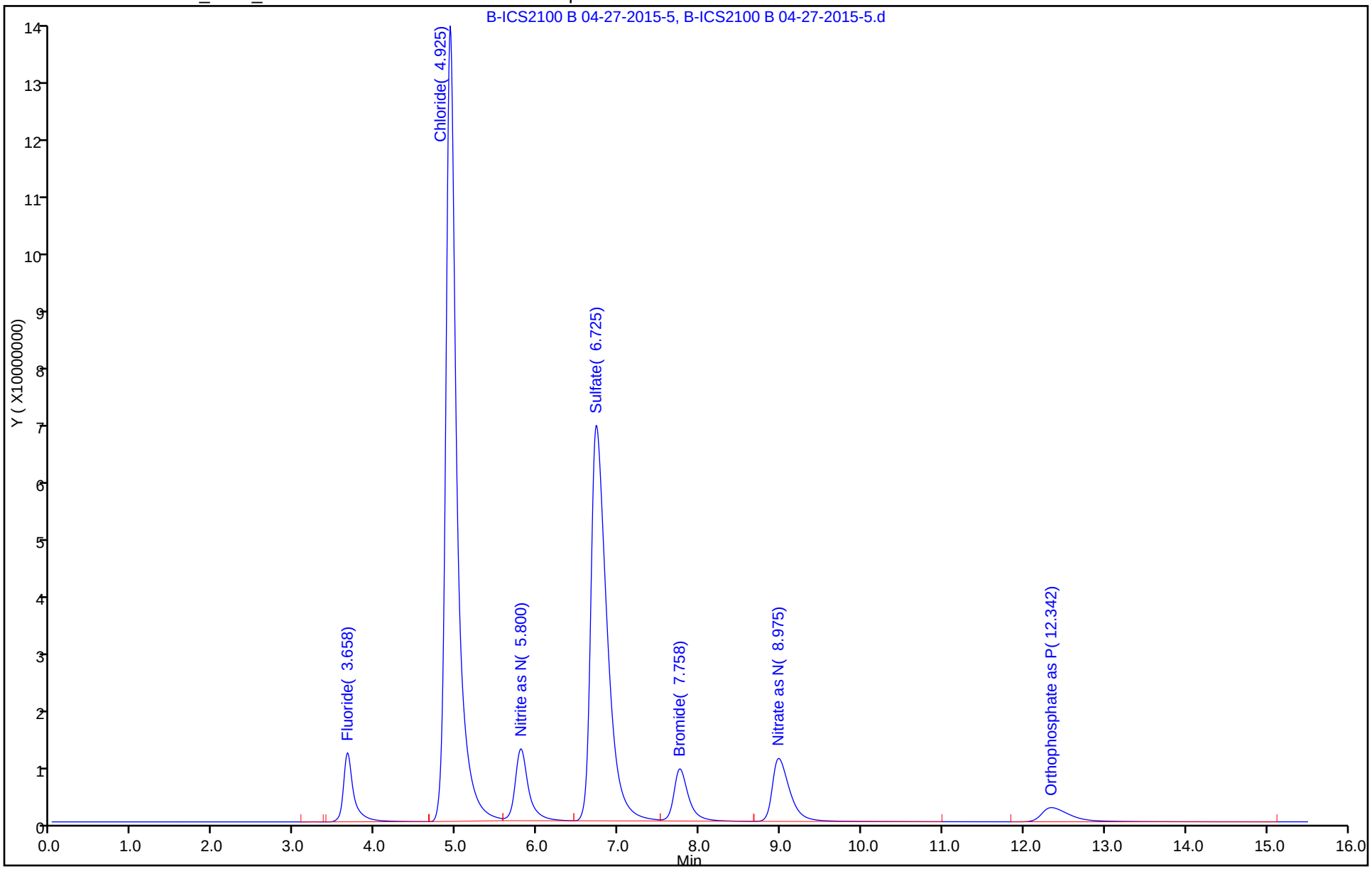
Reagents:

icccv_01222 Amount Added: 1.00 Units: mL

Report Date: 28-Apr-2015 12:18:37 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150427-6652.b\B-ICS2100 B 04-27-2015-5.d				
Injection Date:	27-Apr-2015 13:08:00	Instrument ID:	CHICS2100B	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_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS Lab Sample ID: 180-43359-8 MS

Matrix: Water Lab File ID: B-ICS2100 B 04-23-2015-21.d

Analysis Method: 300.0 Date Collected: 04/22/2015 12:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/23/2015 18:52

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.84		0.10	0.0062
16887-00-6	Chloride	73.4		1.0	0.20
14808-79-8	Sulfate	58.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-21.d
Lims ID: 180-43359-A-8 MS
Client ID: HD-MW-95-0/1-0
Sample Type: MS
Inject. Date: 23-Apr-2015 18:52:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-021
Misc. Info.: 21 180-43359-a-8 ms
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:30 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.675	-0.017	55533493	1.25	1.28	
2 Chloride	4.917	4.942	-0.025	1957234186	25.0	73.4	
7 Nitrite as N		5.817				ND	
3 Sulfate	6.708	6.733	-0.025	1147992332	25.0	58.7	
4 Bromide	7.783	7.783	0.000	4380637H	5.00	4.97	
5 Nitrate as N	9.008	9.008	0.000	121190852	1.25	1.84	
6 Orthophosphate as P	12.700	12.283	0.417	22809333	1.25	0.9091	

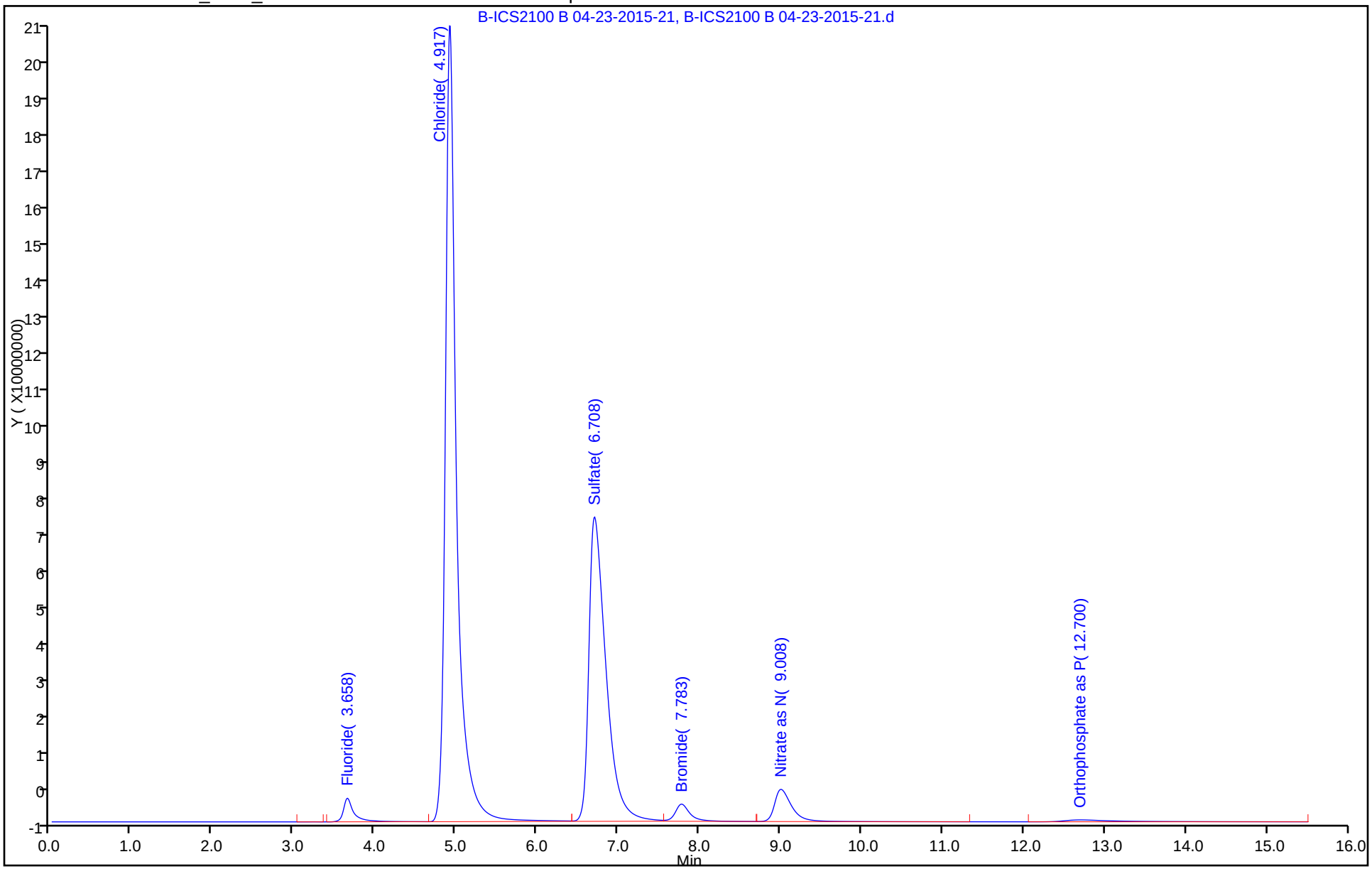
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 24-Apr-2015 14:26:31 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-21.d				
Injection Date:	23-Apr-2015 18:52:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-8 MS			Worklist Smp#:	21
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD | Lab Sample ID: 180-43359-8 MSD

Matrix: Water | Lab File ID: B-ICS2100 B 04-23-2015-22.d

Analysis Method: 300.0 | Date Collected: 04/22/2015 12:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/23/2015 19:09

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 139449 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.89		0.10	0.0062
16887-00-6	Chloride	73.8		1.0	0.20
14808-79-8	Sulfate	59.5		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-22.d
Lims ID: 180-43359-A-8 MSD
Client ID: HD-MW-95-0/1-0
Sample Type: MSD
Inject. Date: 23-Apr-2015 19:09:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006605-022
Misc. Info.: 22 180-43359-a-8 msd
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 24-Apr-2015 14:26:30 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.675	-0.017	58286789	1.25	1.34	
2 Chloride	4.925	4.942	-0.017	1968858927	25.0	73.8	
7 Nitrite as N		5.817				ND	
3 Sulfate	6.700	6.733	-0.033	1162365355	25.0	59.5	
4 Bromide	7.775	7.783	-0.008	4589179H	5.00	5.21	
5 Nitrate as N	9.008	9.008	0.000	124575504	1.25	1.89	
6 Orthophosphate as P	12.717	12.283	0.434	24134054	1.25	0.9580	

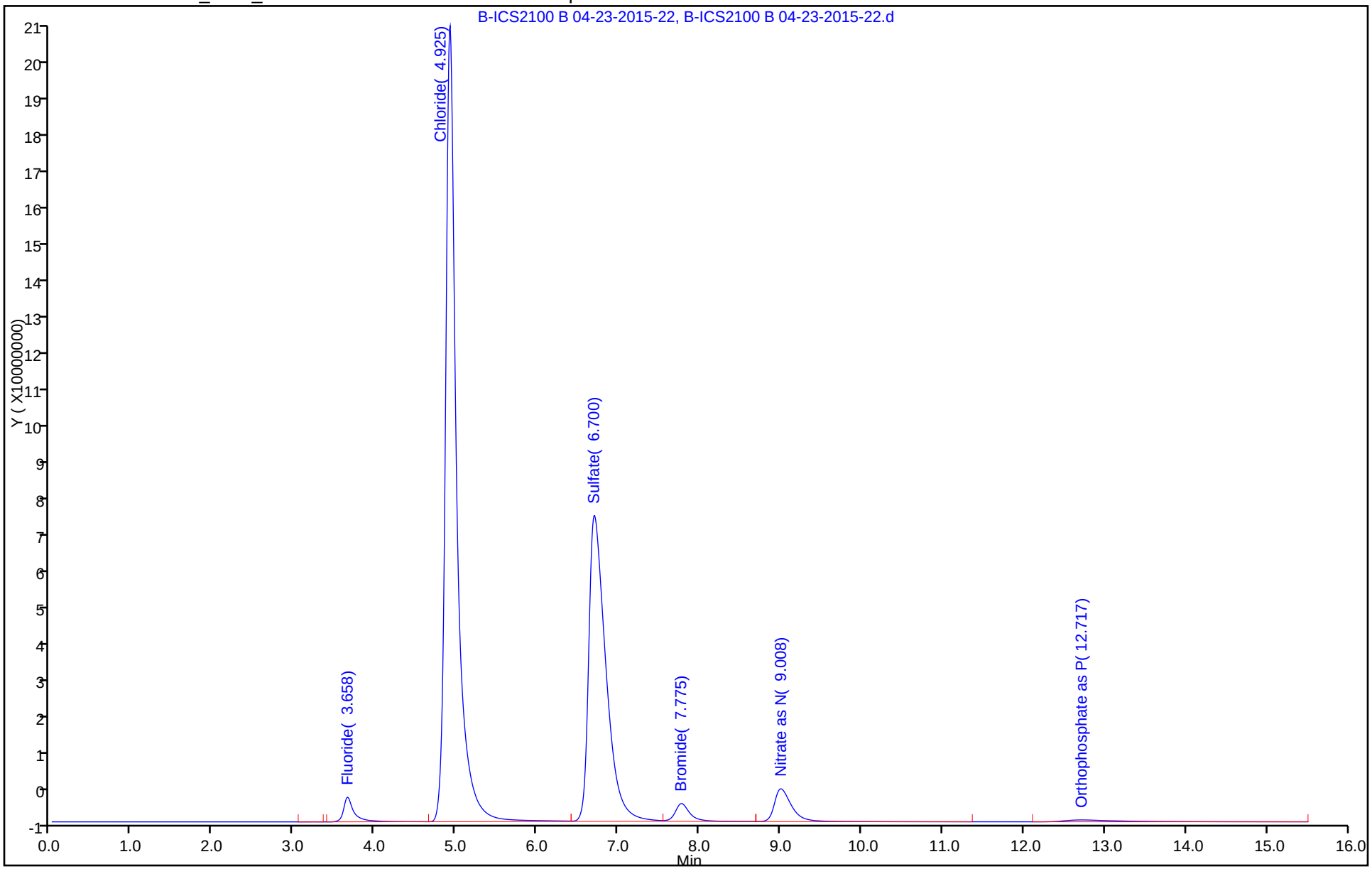
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 24-Apr-2015 14:26:31 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150423-6605.b\B-ICS2100 B 04-23-2015-22.d				
Injection Date:	23-Apr-2015 19:09:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-43359-A-8 MSD			Worklist Smp#:	22
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/15/2015 14:54

Analysis Batch Number: 138618 End Date: 04/15/2015 19:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2015 14:54	1		AS-18
IC 180-138618/2		04/15/2015 15:44	1	B-ICS2100 B 04-15-2015-2.d	AS-18
IC 180-138618/3		04/15/2015 16:01	1	B-ICS2100 B 04-15-2015-3.d	AS-18
ICRT 180-138618/4		04/15/2015 16:19	1	B-ICS2100 B 04-15-2015-4.d	AS-18
IC 180-138618/5		04/15/2015 16:36	1	B-ICS2100 B 04-15-2015-5.d	AS-18
IC 180-138618/6		04/15/2015 16:53	1	B-ICS2100 B 04-15-2015-6.d	AS-18
IC 180-138618/7		04/15/2015 17:11	1	B-ICS2100 B 04-15-2015-7.d	AS-18
IC 180-138618/8		04/15/2015 17:28	1	B-ICS2100 B 04-15-2015-8.d	AS-18
IC 180-138618/9		04/15/2015 17:45	1	B-ICS2100 B 04-15-2015-9.d	AS-18
ZZZZZ		04/15/2015 18:03	1		AS-18
ZZZZZ		04/15/2015 18:20	1		AS-18
ZZZZZ		04/15/2015 18:37	1		AS-18
ICV 180-138618/13		04/15/2015 18:55	1		AS-18
CCV 180-138618/14		04/15/2015 19:12	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/23/2015 13:06

Analysis Batch Number: 139449 End Date: 04/24/2015 11:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/23/2015 13:06	1		AS-18
ICV 180-139449/2		04/23/2015 13:23	1	B-ICS2100 B 04-23-2015-2.d	AS-18
CCV 180-139449/3		04/23/2015 13:40	1	B-ICS2100 B 04-23-2015-3.d	AS-18
CCB 180-139449/4		04/23/2015 13:57	1	B-ICS2100 B 04-23-2015-4.d	AS-18
LCS 180-139449/5		04/23/2015 14:15	1	B-ICS2100 B 04-23-2015-5.d	AS-18
MB 180-139449/6		04/23/2015 14:32	1	B-ICS2100 B 04-23-2015-6.d	AS-18
180-43359-6	HD-CW-20-0/1-0	04/23/2015 14:49	1	B-ICS2100 B 04-23-2015-7.d	AS-18
180-43359-3	HD-CW-13-0/1-0	04/23/2015 15:07	1	B-ICS2100 B 04-23-2015-8.d	AS-18
180-43359-7	HD-MW-7-0/1-0	04/23/2015 15:24	1	B-ICS2100 B 04-23-2015-9.d	AS-18
180-43359-12	HD-MW-50D-0/1-0	04/23/2015 15:41	1	B-ICS2100 B 04-23-2015-10.d	AS-18
ZZZZZ		04/23/2015 15:59	1		AS-18
ZZZZZ		04/23/2015 16:16	1		AS-18
ZZZZZ		04/23/2015 16:33	5		AS-18
ZZZZZ		04/23/2015 16:51	50		AS-18
CCV 180-139449/15		04/23/2015 17:08	1	B-ICS2100 B 04-23-2015-15.d	AS-18
CCB 180-139449/16		04/23/2015 17:25	1	B-ICS2100 B 04-23-2015-16.d	AS-18
180-43359-2	HD-CW-9-0/1-0	04/23/2015 17:43	1	B-ICS2100 B 04-23-2015-17.d	AS-18
180-43359-10	HD-MW-96D-0/1-0	04/23/2015 18:00	1	B-ICS2100 B 04-23-2015-18.d	AS-18
180-43359-9	HD-MW-96S-0/1-0	04/23/2015 18:17	1	B-ICS2100 B 04-23-2015-19.d	AS-18
180-43359-8	HD-MW-95-0/1-0	04/23/2015 18:35	1	B-ICS2100 B 04-23-2015-20.d	AS-18
180-43359-8 MS	HD-MW-95-0/1-0 MS	04/23/2015 18:52	1	B-ICS2100 B 04-23-2015-21.d	AS-18
180-43359-8 MSD	HD-MW-95-0/1-0 MSD	04/23/2015 19:09	1	B-ICS2100 B 04-23-2015-22.d	AS-18
180-43359-11	HD-CW-18-0/1-0	04/23/2015 19:27	1	B-ICS2100 B 04-23-2015-23.d	AS-18
ZZZZZ		04/23/2015 19:44	1		AS-18
ZZZZZ		04/23/2015 20:01	1		AS-18
ZZZZZ		04/23/2015 20:19	1		AS-18
CCV 180-139449/27		04/23/2015 20:36	1	B-ICS2100 B 04-23-2015-27.d	AS-18
CCB 180-139449/28		04/23/2015 20:53	1	B-ICS2100 B 04-23-2015-28.d	AS-18
ZZZZZ		04/23/2015 21:10	1		AS-18
ZZZZZ		04/23/2015 21:28	1		AS-18
ZZZZZ		04/23/2015 21:45	1		AS-18
180-43359-4	HD-CW-15A-0/1-0	04/23/2015 22:02	1	B-ICS2100 B 04-23-2015-32.d	AS-18
180-43359-13	HD-MW-51S-0/1-0	04/23/2015 22:20	1	B-ICS2100 B 04-23-2015-33.d	AS-18
180-43359-5	HD-CW-17-0/1-0	04/23/2015 22:37	1	B-ICS2100 B 04-23-2015-34.d	AS-18
ZZZZZ		04/23/2015 22:54	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/23/2015 13:06

Analysis Batch Number: 139449 End Date: 04/24/2015 11:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/23/2015 23:12	10		AS-18
ZZZZZ		04/23/2015 23:29	1		AS-18
ZZZZZ		04/23/2015 23:46	1		AS-18
CCV 180-139449/39		04/24/2015 00:03	1	B-ICS2100 B 04-23-2015-39.d	AS-18
CCB 180-139449/40		04/24/2015 00:21	1	B-ICS2100 B 04-23-2015-40.d	AS-18
ZZZZZ		04/24/2015 00:55	1		AS-18
ZZZZZ		04/24/2015 01:13	5		AS-18
ZZZZZ		04/24/2015 01:30	1		AS-18
ZZZZZ		04/24/2015 01:47	1		AS-18
ZZZZZ		04/24/2015 02:05	1		AS-18
ZZZZZ		04/24/2015 02:22	1		AS-18
ZZZZZ		04/24/2015 02:39	1		AS-18
ZZZZZ		04/24/2015 02:56	5		AS-18
ZZZZZ		04/24/2015 03:14	50		AS-18
CCV 180-139449/51		04/24/2015 03:31	1		AS-18
CCB 180-139449/52		04/24/2015 03:48	1		AS-18
CCV 180-139449/63		04/24/2015 06:59	1		AS-18
CCB 180-139449/64		04/24/2015 07:16	1		AS-18
ZZZZZ		04/24/2015 07:33	5		AS-18
ZZZZZ		04/24/2015 07:51	50		AS-18
ZZZZZ		04/24/2015 08:08	5		AS-18
ZZZZZ		04/24/2015 08:25	50		AS-18
ZZZZZ		04/24/2015 08:43	5		AS-18
ZZZZZ		04/24/2015 09:00	50		AS-18
ZZZZZ		04/24/2015 09:17	1		AS-18
ZZZZZ		04/24/2015 09:34	5		AS-18
CCV 180-139449/73		04/24/2015 09:52	1		AS-18
CCB 180-139449/74		04/24/2015 10:09	1		AS-18
ZZZZZ		04/24/2015 10:26	1		AS-18
ZZZZZ		04/24/2015 10:44	1		AS-18
ZZZZZ		04/24/2015 11:01	1		AS-18
ZZZZZ		04/24/2015 11:18	1		AS-18
CCV 180-139449/79		04/24/2015 11:36	1		AS-18
CCB 180-139449/80		04/24/2015 11:53	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/24/2015 13:57

Analysis Batch Number: 139625 End Date: 04/25/2015 08:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/24/2015 13:57	1		AS-18
ICV 180-139625/2		04/24/2015 15:10	1	B-ICS2100 B 04-24-2015-2.d	AS-18
CCV 180-139625/3		04/24/2015 16:11	1	B-ICS2100 B 04-24-2015-3.d	AS-18
CCB 180-139625/4		04/24/2015 16:39	1	B-ICS2100 B 04-24-2015-4.d	AS-18
LCS 180-139625/5		04/24/2015 16:56	1	B-ICS2100 B 04-24-2015-5.d	AS-18
MB 180-139625/6		04/24/2015 17:17	1	B-ICS2100 B 04-24-2015-6.d	AS-18
ZZZZZ		04/24/2015 17:36	10		AS-18
ZZZZZ		04/24/2015 17:53	100		AS-18
ZZZZZ		04/24/2015 18:11	10		AS-18
ZZZZZ		04/24/2015 18:28	100		AS-18
ZZZZZ		04/24/2015 18:45	10		AS-18
ZZZZZ		04/24/2015 19:03	100		AS-18
ZZZZZ		04/24/2015 19:20	10		AS-18
ZZZZZ		04/24/2015 19:37	100		AS-18
CCV 180-139625/15		04/24/2015 19:54	1	B-ICS2100 B 04-24-2015-15.d	AS-18
CCB 180-139625/16		04/24/2015 20:12	1	B-ICS2100 B 04-24-2015-16.d	AS-18
ZZZZZ		04/24/2015 20:35	10		AS-18
180-43359-11	HD-CW-18-0/1-0	04/24/2015 20:52	5	B-ICS2100 B 04-24-2015-18.d	AS-18
ZZZZZ		04/24/2015 21:09	1		AS-18
ZZZZZ		04/24/2015 21:27	5		AS-18
ZZZZZ		04/24/2015 21:44	10		AS-18
ZZZZZ		04/24/2015 22:01	100		AS-18
ZZZZZ		04/24/2015 22:19	10		AS-18
ZZZZZ		04/24/2015 22:36	100		AS-18
ZZZZZ		04/24/2015 22:53	5		AS-18
ZZZZZ		04/24/2015 23:11	50		AS-18
CCV 180-139625/27		04/24/2015 23:28	1	B-ICS2100 B 04-24-2015-27.d	AS-18
CCB 180-139625/28		04/24/2015 23:45	1	B-ICS2100 B 04-24-2015-28.d	AS-18
ZZZZZ		04/25/2015 00:03	10		AS-18
ZZZZZ		04/25/2015 00:20	10		AS-18
ZZZZZ		04/25/2015 00:37	10		AS-18
ZZZZZ		04/25/2015 00:54	100		AS-18
ZZZZZ		04/25/2015 01:12	100		AS-18
ZZZZZ		04/25/2015 01:29	100		AS-18
ZZZZZ		04/25/2015 01:46	5		AS-18
ZZZZZ		04/25/2015 02:04	50		AS-18
ZZZZZ		04/25/2015 02:21	1		AS-18
ZZZZZ		04/25/2015 02:38	1		AS-18
CCV 180-139625/39		04/25/2015 02:56	1	B-ICS2100 B 04-24-2015-39.d	AS-18
CCB 180-139625/40		04/25/2015 03:13	1	B-ICS2100 B 04-24-2015-40.d	AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/24/2015 13:57

Analysis Batch Number: 139625 End Date: 04/25/2015 08:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/25/2015 03:30	1		AS-18
ZZZZZ		04/25/2015 03:47	1		AS-18
ZZZZZ		04/25/2015 04:05	1		AS-18
ZZZZZ		04/25/2015 04:22	1		AS-18
180-43359-4	HD-CW-15A-0/1-0	04/25/2015 04:39	5	B-ICS2100 B 04-24-2015-45.d	AS-18
ZZZZZ		04/25/2015 04:57	1		AS-18
ZZZZZ		04/25/2015 05:14	250		AS-18
CCV 180-139625/48		04/25/2015 05:31	1	B-ICS2100 B 04-24-2015-48.d	AS-18
CCB 180-139625/49		04/25/2015 05:49	1	B-ICS2100 B 04-24-2015-49.d	AS-18
ZZZZZ		04/25/2015 06:06	1		AS-18
ZZZZZ		04/25/2015 06:23	1		AS-18
ZZZZZ		04/25/2015 06:40	1		AS-18
ZZZZZ		04/25/2015 06:58	10		AS-18
ZZZZZ		04/25/2015 07:15	10		AS-18
ZZZZZ		04/25/2015 07:32	10		AS-18
ZZZZZ		04/25/2015 07:50	10		AS-18
ZZZZZ		04/25/2015 08:07	10		AS-18
CCV 180-139625/58		04/25/2015 08:24	1		AS-18
CCB 180-139625/59		04/25/2015 08:42	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/27/2015 11:10

Analysis Batch Number: 139754 End Date: 04/28/2015 02:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/27/2015 11:10	1		AS-18
ICV 180-139754/2		04/27/2015 11:27	1	B-ICS2100 B 04-27-2015-2.d	AS-18
CCV 180-139754/3		04/27/2015 11:45	1	B-ICS2100 B 04-27-2015-3.d	AS-18
CCB 180-139754/4		04/27/2015 12:02	1	B-ICS2100 B 04-27-2015-4.d	AS-18
LCS 180-139754/5		04/27/2015 13:08	1	B-ICS2100 B 04-27-2015-5.d	AS-18
MB 180-139754/6		04/27/2015 13:26	1	B-ICS2100 B 04-27-2015-6.d	AS-18
ZZZZZ		04/27/2015 13:43	1		AS-18
ZZZZZ		04/27/2015 14:01	10		AS-18
ZZZZZ		04/27/2015 14:18	1		AS-18
ZZZZZ		04/27/2015 14:35	10		AS-18
ZZZZZ		04/27/2015 14:53	2.5		AS-18
ZZZZZ		04/27/2015 15:10	25		AS-18
ZZZZZ		04/27/2015 15:27	2.5		AS-18
ZZZZZ		04/27/2015 15:44	25		AS-18
CCV 180-139754/15		04/27/2015 16:02	1	B-ICS2100 B 04-27-2015-15.d	AS-18
CCB 180-139754/16		04/27/2015 16:19	1	B-ICS2100 B 04-27-2015-16.d	AS-18
ZZZZZ		04/27/2015 16:36	1		AS-18
ZZZZZ		04/27/2015 16:54	1		AS-18
ZZZZZ		04/27/2015 17:11	1		AS-18
ZZZZZ		04/27/2015 17:28	1		AS-18
ZZZZZ		04/27/2015 17:46	1		AS-18
ZZZZZ		04/27/2015 18:03	1		AS-18
ZZZZZ		04/27/2015 18:20	1		AS-18
ZZZZZ		04/27/2015 18:38	1		AS-18
ZZZZZ		04/27/2015 18:55	1		AS-18
ZZZZZ		04/27/2015 19:12	5		AS-18
CCV 180-139754/27		04/27/2015 19:30	1		AS-18
CCB 180-139754/28		04/27/2015 19:47	1		AS-18
ZZZZZ		04/27/2015 20:04	1		AS-18
ZZZZZ		04/27/2015 20:22	1		AS-18
ZZZZZ		04/27/2015 20:39	1		AS-18
ZZZZZ		04/27/2015 20:56	1		AS-18
ZZZZZ		04/27/2015 21:13	1		AS-18
ZZZZZ		04/27/2015 21:31	1		AS-18
ZZZZZ		04/27/2015 21:48	5		AS-18
ZZZZZ		04/27/2015 22:05	1		AS-18
ZZZZZ		04/27/2015 22:23	5		AS-18
ZZZZZ		04/27/2015 22:40	5		AS-18
CCV 180-139754/39		04/27/2015 22:57	1	B-ICS2100 B 04-27-2015-39.d	AS-18
CCB 180-139754/40		04/27/2015 23:15	1	B-ICS2100 B 04-27-2015-40.d	AS-18
180-43359-12	HD-MW-50D-0/1-0	04/27/2015 23:32	5	B-ICS2100 B 04-27-2015-41.d	AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/27/2015 11:10

Analysis Batch Number: 139754 End Date: 04/28/2015 02:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/27/2015 23:49	5		AS-18
ZZZZZ		04/28/2015 00:06	5		AS-18
ZZZZZ		04/28/2015 00:24	5		AS-18
ZZZZZ		04/28/2015 00:41	50		AS-18
ZZZZZ		04/28/2015 00:58	10		AS-18
ZZZZZ		04/28/2015 01:16	100		AS-18
ZZZZZ		04/28/2015 01:33	1		AS-18
ZZZZZ		04/28/2015 01:50	1		AS-18
ZZZZZ		04/28/2015 02:07	1		AS-18
CCV 180-139754/51		04/28/2015 02:25	1	B-ICS2100 B 04-27-2015-51.d	AS-18
CCB 180-139754/52		04/28/2015 02:42	1	B-ICS2100 B 04-27-2015-52.d	AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-43359-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-CW-9-0/1-0	180-43359-2
HD-CW-13-0/1-0	180-43359-3
HD-CW-15A-0/1-0	180-43359-4
HD-CW-17-0/1-0	180-43359-5
HD-CW-20-0/1-0	180-43359-6
HD-MW-7-0/1-0	180-43359-7
HD-MW-95-0/1-0	180-43359-8
HD-MW-96S-0/1-0	180-43359-9
HD-MW-96D-0/1-0	180-43359-10
HD-CW-18-0/1-0	180-43359-11
HD-MW-50D-0/1-0	180-43359-12
HD-MW-51S-0/1-0	180-43359-13

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-43359-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 02:45

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	90000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	14000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	20000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	73000	500	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: 180-43359-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 03:00

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	13000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	48000	500	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: 180-43359-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 02:40

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	180000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	12000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	20000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	77000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-43359-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 03:05

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	4800	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	10000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	32000	500	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: 180-43359-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 02:55

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	89000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	6200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	60000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-43359-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 09:15

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	93000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	26000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	10000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	46000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-43359-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 12:15

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	2600	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	7800	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	21000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-43359-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 11:20

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	7100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	55000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-43359-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 10:32

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	4700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	43000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-43359-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 13:30

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	10000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	42000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	150000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-43359-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 10:03

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	160000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	2300	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	48000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	17000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-43359-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 15:01

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	8100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	14000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	47000	500	3.8	ug/L			1	6020A

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

ICV Source: MICVX_00031 Concentration Units: ug/L

CCV Source: MCCV1X_00074

Analyte	ICV 180-140241/5 04/30/2015 12:49				CCV 180-140241/10 04/30/2015 13:07				CCV 180-140241/22 04/30/2015 13:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	40100		40000	100	53200		50000	106	51400		50000	103
Magnesium	39400		40000	99	52300		50000	105	50700		50000	101
Potassium	40100		40000	100	52800		50000	106	50900		50000	102
Sodium	39700		40000	99	52700		50000	105	50900		50000	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

ICV Source: MICVX_00031 Concentration Units: ug/L

CCV Source: MCCV1X_00074

Analyte	CCV 180-140241/34 04/30/2015 14:44				CCV 180-140241/44 04/30/2015 15:25				CCV 180-140241/54 04/30/2015 16:13			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	51500		50000	103	52200		50000	104	52400		50000	105
Magnesium	49900		50000	100	51300		50000	103	52400		50000	105
Potassium	50500		50000	101	52200		50000	104	52800		50000	106
Sodium	49700		50000	99	50200		50000	100	52700		50000	105

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.: 180-43359-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-140241/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	548		110	70-130
Potassium	500	549		110	70-130
Magnesium	500	531		106	70-130
Sodium	500	534		107	70-130

Lab Sample ID: CRI 180-140241/51 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	528		106	70-130
Potassium	500	521		104	70-130
Magnesium	500	510		102	70-130
Sodium	500	517		103	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.: 180-43359-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-140241/6 04/30/2015 12:53		CCB1 180-140241/11 04/30/2015 13:11		CCB2 180-140241/23 04/30/2015 13:59		CCB3 180-140241/35 04/30/2015 14:51	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	6.20	J	7.22	J	5.79	J	6.57	J
Magnesium	500	2.93	J	3.80	J	1.74	J	2.35	J
Potassium	500	8.39	J	13.5	J	6.71	J	5.85	J
Sodium	500	4.98	J	10.9	J	4.17	J	4.90	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB4 180-140241/45 04/30/2015 15:32		CCB5 180-140241/55 04/30/2015 16:20					
		Found	C	Found	C	Found	C	Found	C
Calcium	500	7.97	J	5.28	J				
Magnesium	500	2.97	J	2.71	J				
Potassium	500	7.48	J	6.98	J				
Sodium	500	5.35	J	5.25	J				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-139546/1-A

Instrument Code: M Batch No.: 140241

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	500	U		6020A
7440-09-7	Potassium	500	U		6020A
7439-95-4	Magnesium	500	U		6020A
7440-23-5	Sodium	500	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Lab Sample ID: ICSA 180-140241/8 Instrument ID: M

Lab File ID: M50430A.xml ICS Source: MICSAX_00065

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**113000**	**113**
Magnesium	**100000**	**107800**	**108**
Potassium	**100000**	**110200**	**110**
Sodium	**100000**	**106000**	**106**
Aluminum	*100000*	*104100*	*104*
Antimony		*0.0340*	
Arsenic		*0.0270*	
Barium		*0.103*	
Beryllium		*0.0190*	
Boron		*0.460*	
Cadmium		*0.296*	
Chromium		*0.671*	
Cobalt		*0.0700*	
Copper		*1.39*	
Iron	*100000*	*108400*	*108*
Lead		*0.204*	
Manganese		*0.504*	
Molybdenum	*2000*	*2340*	*117*
Nickel		*-0.757*	
Selenium		*0.145*	
Silicon		*39.6*	
Silver		*0.0850*	
Strontium		*0.754*	
Thallium		*0.0110*	
Tin		*0.0770*	
Titanium	*2000*	*2233*	*112*
Vanadium		*-0.356*	
Zinc		*2.53*	

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.: 180-43359-1

SDG No.:

Lab Sample ID: ICSAB 180-140241/9 Instrument ID: M

Lab File ID: M50430A.xml ICS Source: MICSABX_00069

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**100000**	**116167**	**116**
Magnesium	**100000**	**110967**	**111**
Potassium	**100000**	**112867**	**113**
Sodium	**100000**	**110300**	**110**
Aluminum	*100000*	*107500*	*108*
Antimony	*20.0*	*21.0*	*105*
Arsenic	*20.0*	*22.0*	*110*
Barium	*20.0*	*21.5*	*108*
Beryllium	*20.0*	*21.1*	*106*
Boron	*50.0*	*49.8*	*100*
Cadmium	*20.0*	*21.2*	*106*
Chromium	*20.0*	*22.2*	*111*
Cobalt	*20.0*	*21.3*	*107*
Copper	*20.0*	*22.1*	*110*
Iron	*100000*	*110400*	*110*
Lead	*20.0*	*21.8*	*109*
Manganese	*22.5*	*22.6*	*100*
Molybdenum	*2000*	*2372*	*119*
Nickel	*20.0*	*20.5*	*102*
Selenium	*50.0*	*54.8*	*110*
Silicon	*500*	*594*	*119*
Silver	*20.0*	*20.4*	*102*
Strontium	*25.0*	*23.4*	*94*
Thallium	*20.0*	*21.7*	*108*
Tin	*100*	*106*	*106*
Titanium	*2000*	*2274*	*114*
Vanadium	*20.0*	*21.2*	*106*
Zinc	*25.0*	*23.4*	*94*

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-95-0/1-0 MS | Lab ID: 180-43359-8 MS

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

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	154000		100000		50000	108	75-125		6020A
Potassium	47900		2600		50000	91	75-125		6020A
Magnesium	48700		7800		50000	82	75-125		6020A
Sodium	63300		21000		50000	85	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-95-0/1-0 MSD | Lab ID: 180-43359-8 MSD

Lab Name: TestAmerica Pittsburgh | Job No.: 180-43359-1

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	154000		50000	108	75-125	0	20		6020A
Potassium	47900		50000	90	75-125	0	20		6020A
Magnesium	48400		50000	81	75-125	0	20		6020A
Sodium	62600		50000	83	75-125	1	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-95-0/1-0 PDS Lab ID: 180-43359-8 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

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	159000		100000		50000	119	75-125		6020A
Potassium	53000		2600		50000	101	75-125		6020A
Magnesium	52800		7800		50000	90	75-125		6020A
Sodium	65300		21000		50000	89	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 180-139546/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	49900		100	80	120		6020A
Potassium	50000	47500		95	80	120		6020A
Magnesium	50000	42500		85	80	120		6020A
Sodium	50000	42700		85	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: 180-43359-8

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-43359-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	100000		105000		5.2		6020A
Potassium	2600		2770		5.4		6020A
Magnesium	7800		8060		3.7		6020A
Sodium	21000		22600		8.2		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: 180-43359-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-43359-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-43359-1

SDG No.:

Instrument ID: M 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.: 180-43359-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-139546/1-A	04/24/2015 10:05	139546		50	50
LCS 180-139546/2-A	04/24/2015 10:05	139546		50	50
180-43359-2	04/24/2015 10:05	139546		50	50
180-43359-3	04/24/2015 10:05	139546		50	50
180-43359-4	04/24/2015 10:05	139546		50	50
180-43359-5	04/24/2015 10:05	139546		50	50
180-43359-6	04/24/2015 10:05	139546		50	50
180-43359-7	04/24/2015 10:05	139546		50	50
180-43359-8	04/24/2015 10:05	139546		50	50
180-43359-8 MS	04/24/2015 10:05	139546		50	50
180-43359-8 MSD	04/24/2015 10:05	139546		50	50
180-43359-9	04/24/2015 10:05	139546		50	50
180-43359-10	04/24/2015 10:05	139546		50	50
180-43359-11	04/24/2015 10:05	139546		50	50
180-43359-12	04/24/2015 10:05	139546		50	50
180-43359-13	04/24/2015 10:05	139546		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 04/30/2015 09:57 End Date: 04/30/2015 17:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-140241/1			09:57																										
STD1 180-140241/2 IC	1		12:38	X	X	X	X																						
STD2 180-140241/3 IC	1		12:42	X	X	X	X																						
STD3 180-140241/4 IC	1		12:45	X	X	X	X																						
ICV 180-140241/5	1		12:49	X	X	X	X																						
ICB 180-140241/6	1		12:53	X	X	X	X																						
CRI 180-140241/7	1		12:56	X	X	X	X																						
ICSA 180-140241/8	1		13:00	X	X	X	X																						
ICSAB 180-140241/9	1		13:03	X	X	X	X																						
CCV 180-140241/10	1		13:07	X	X	X	X																						
CCB1 180-140241/11	1		13:11	X	X	X	X																						
ZZZZZZ			13:15																										
ZZZZZZ			13:18																										
ZZZZZZ			13:22																										
ZZZZZZ			13:26																										
ZZZZZZ			13:30																										
ZZZZZZ			13:34																										
ZZZZZZ			13:37																										
ZZZZZZ			13:41																										
ZZZZZZ			13:45																										
ZZZZZZ			13:49																										
CCV 180-140241/22	1		13:53	X	X	X	X																						
CCB2 180-140241/23	1		13:59	X	X	X	X																						
ZZZZZZ			14:03																										
ZZZZZZ			14:07																										
ZZZZZZ			14:11																										
ZZZZZZ			14:15																										
ZZZZZZ			14:18																										
MB 180-139546/1-A	1	R	14:25	X	X	X	X																						
LCS 180-139546/2-A	1	R	14:29	X	X	X	X																						
180-43359-2	1	T	14:33	X	X	X	X																						
180-43359-3	1	T	14:37	X	X	X	X																						
180-43359-4	1	T	14:40	X	X	X	X																						
CCV 180-140241/34	1		14:44	X	X	X	X																						
CCB3 180-140241/35	1		14:51	X	X	X	X																						
180-43359-5	1	T	14:55	X	X	X	X																						
180-43359-6	1	T	14:59	X	X	X	X																						
180-43359-7	1	T	15:02	X	X	X	X																						
180-43359-8	1	T	15:06	X	X	X	X																						
180-43359-8 SD	5	T	15:10	X	X	X	X																						
180-43359-8 MS	1	T	15:14	X	X	X	X																						
180-43359-8 MSD	1	T	15:18	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 04/30/2015 09:57 End Date: 04/30/2015 17:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					
180-43359-8 PDS	1	T	15:21	X	X	X	X																					
CCV 180-140241/44	1		15:25	X	X	X	X																					
CCB4 180-140241/45	1		15:32	X	X	X	X																					
180-43359-9	1	T	15:36	X	X	X	X																					
180-43359-10	1	T	15:39	X	X	X	X																					
180-43359-11	1	T	15:43	X	X	X	X																					
180-43359-12	1	T	15:47	X	X	X	X																					
180-43359-13	1	T	15:51	X	X	X	X																					
CRI 180-140241/51	1		15:58	X	X	X	X																					
ZZZZZZ			16:05																									
ZZZZZZ			16:09																									
CCV 180-140241/54	1		16:13	X	X	X	X																					
CCB5 180-140241/55	1		16:20	X	X	X	X																					
ZZZZZZ			16:23																									
ZZZZZZ			16:27																									
ZZZZZZ			16:31																									
ZZZZZZ			16:35																									
ZZZZZZ			16:39																									
ZZZZZZ			16:42																									
ZZZZZZ			16:46																									
ZZZZZZ			16:50																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									
CCV 180-140241/66			17:05																									
CCB6 180-140241/67			17:11																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									
ZZZZZZ			17:23																									
ZZZZZZ			17:26																									
ZZZZZZ			17:30																									
ZZZZZZ			17:34																									
ZZZZZZ			17:38																									
ZZZZZZ			17:42																									
ZZZZZZ			17:45																									
CCV 180-140241/77			17:49																									
CCB7 180-140241/78			17:56																									

Prep Types:
R = Total Recoverable
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 04/30/2015 End Date: 04/30/2015

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 180-140241/2 I	12:38	100		100		100		100		100	
STD2 180-140241/3 I	12:42	91		106		96		89		92	
STD3 180-140241/4 I	12:45	96		104		99		100		101	
ICV 180-140241/5	12:49	100		114		112		100		103	
ICB 180-140241/6	12:53	106		117		113		113		114	
CRI 180-140241/7	12:56	100		109		107		107		109	
ICSA 180-140241/8	13:00	66		81		80		77		86	
ICSAB 180-140241/9	13:03	63		79		81		77		87	
CCV 180-140241/10	13:07	76		96		107		96		100	
CCB1 180-140241/11	13:11	82		100		107		106		111	
CCV 180-140241/22	13:53	88		101		105		91		96	
CCB2 180-140241/23	13:59	99		107		109		108		110	
MB 180-139546/1-A	14:25	85		99		107		104		110	
LCS 180-139546/2-A	14:29	65		67		75		69		77	
180-43359-2	14:33	64		66		74		69		76	
180-43359-3	14:37	57		62		67		63		71	
180-43359-4	14:40	56		60		66		61		68	
CCV 180-140241/34	14:44	85		95		96		86		90	
CCB3 180-140241/35	14:51	95		104		103		102		104	
180-43359-5	14:55	66		64		70		66		73	
180-43359-6	14:59	58		62		68		64		71	
180-43359-7	15:02	53		58		64		60		67	
180-43359-8	15:06	54		56		62		59		67	
180-43359-8 SD	15:10	63		67		73		72		77	
180-43359-8 MS	15:14	50		54		60		56		63	
180-43359-8 MSD	15:18	47		50		59		55		62	
180-43359-8 PDS	15:21	47		52		58		54		61	
CCV 180-140241/44	15:25	83		94		96		87		95	
CCB4 180-140241/45	15:32	109		111		106		107		105	
180-43359-9	15:36	54		59		64		61		68	
180-43359-10	15:39	50		55		61		58		65	
180-43359-11	15:43	47		54		60		57		64	
180-43359-12	15:47	50		58		64		60		67	
180-43359-13	15:51	47		54		60		57		65	
CRI 180-140241/51	15:58	93		99		97		93		93	
CCV 180-140241/54	16:13	88		101		99		91		93	
CCB5 180-140241/55	16:20	110		117		109		110		107	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 04/30/2015 End Date: 04/30/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-140241/2 I	12:38	100		100		100					
STD2 180-140241/3 I	12:42	94		94		92					
STD3 180-140241/4 I	12:45	101		102		107					
ICV 180-140241/5	12:49	103		102		101					
ICB 180-140241/6	12:53	110		109		116					
CRI 180-140241/7	12:56	107		107		112					
ICSA 180-140241/8	13:00	88		87		104					
ICSAB 180-140241/9	13:03	91		90		91					
CCV 180-140241/10	13:07	106		106		98					
CCB1 180-140241/11	13:11	115		114		117					
CCV 180-140241/22	13:53	98		98		92					
CCB2 180-140241/23	13:59	109		108		111					
MB 180-139546/1-A	14:25	111		111		113					
LCS 180-139546/2-A	14:29	87		88		82					
180-43359-2	14:33	86		86		78					
180-43359-3	14:37	82		83		76					
180-43359-4	14:40	79		80		70					
CCV 180-140241/34	14:44	94		93		90					
CCB3 180-140241/35	14:51	102		101		104					
180-43359-5	14:55	82		82		77					
180-43359-6	14:59	82		83		76					
180-43359-7	15:02	78		80		76					
180-43359-8	15:06	78		79		76					
180-43359-8 SD	15:10	85		86		89					
180-43359-8 MS	15:14	76		77		68					
180-43359-8 MSD	15:18	76		77		70					
180-43359-8 PDS	15:21	74		76		67					
CCV 180-140241/44	15:25	93		92		88					
CCB4 180-140241/45	15:32	102		100		102					
180-43359-9	15:36	79		80		75					
180-43359-10	15:39	77		78		74					
180-43359-11	15:43	76		77		71					
180-43359-12	15:47	79		80		74					
180-43359-13	15:51	76		78		73					
CRI 180-140241/51	15:58	93		92		91					
CCV 180-140241/54	16:13	94		93		90					
CCB5 180-140241/55	16:20	103		101		104					

Dilution Corrected Concentrations

STD1 1542084 INT STD 4/30/2015 12:38:39 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	12:38:58	101.587%	0.005	-0.063	0.004	0.000	0.003	0.092	0.088
2	12:39:17	99.653%	0.023	0.060	0.007	0.000	-0.077	-0.030	-0.020
3	12:39:36	98.760%	-0.027	0.003	-0.010	0.000	0.074	-0.062	-0.069
x		100.000%	0.000	0.000	-0.000	0.000	0.000	0.000	0.000
σ		1.445%	0.025	0.061	0.009	0.000	0.076	0.081	0.080
%RSD		1.445	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	12:38:58	0.036	-1.600	0.000	-0.236	-0.326	-0.098	100.545%	-0.000
2	12:39:17	0.065	-3.231	0.000	0.032	-0.281	0.904	100.238%	0.009
3	12:39:36	-0.100	4.830	0.000	0.203	0.607	-0.806	99.217%	-0.009
x		0.000	0.000	0.000	0.000	-0.000	-0.000	100.000%	-0.000
σ		0.088	4.262	0.000	0.221	0.526	0.859	0.695%	0.009
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.695	0.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:58	0.010	-0.002	0.006	-0.140	0.406	-0.000	-0.013	0.001
2	12:39:17	-0.011	-0.012	0.002	0.476	0.044	0.002	0.015	-0.000
3	12:39:36	0.001	0.014	-0.007	-0.336	-0.450	-0.002	-0.002	-0.000
x		-0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.000
σ		0.011	0.013	0.007	0.423	0.429	0.002	0.014	0.000
%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	12:38:58	-0.007	-0.029	0.027	0.020	0.003	0.023	0.000	0.000
2	12:39:17	0.022	0.005	0.025	-0.015	-0.022	-0.024	0.000	0.000
3	12:39:36	-0.015	0.024	-0.051	-0.005	0.019	0.000	0.000	-0.001
x		0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.000
σ		0.020	0.027	0.045	0.018	0.021	0.024	0.000	0.000
%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	12:38:58	99.023%	0.003	-0.002	99.619%	0.002	0.005	0.012	0.004
2	12:39:17	100.196%	-0.004	0.002	99.964%	-0.005	-0.001	-0.016	-0.011
3	12:39:36	100.781%	0.001	0.000	100.417%	0.003	-0.004	0.004	0.007
x		100.000%	0.000	0.000	100.000%	0.000	0.000	0.000	-0.000
σ		0.895%	0.004	0.002	0.401%	0.004	0.004	0.015	0.010
%RSD		0.895	0.000	0.000	0.401	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	12:38:58	98.660%	-0.016	0.004	-0.004	0.005	-0.002	97.577%	98.792%
2	12:39:17	100.691%	-0.009	-0.008	0.009	0.004	-0.004	100.948%	99.985%
3	12:39:36	100.649%	0.025	0.005	-0.005	-0.009	0.006	101.475%	101.223%
x		100.000%	0.000	0.000	-0.000	0.000	0.000	100.000%	100.000%
σ		1.161%	0.022	0.007	0.008	0.008	0.005	2.115%	1.216%
%RSD		1.161	0.000	0.000	0.000	0.000	0.000	2.115	1.216
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:38:58	-0.000	0.000	0.005	0.001	0.001	98.997%		
2	12:39:17	-0.001	-0.001	-0.000	-0.004	-0.002	99.264%		
3	12:39:36	0.001	0.000	-0.005	0.003	0.001	101.739%		
x		-0.000	-0.000	-0.000	-0.000	-0.000	100.000%		
σ		0.001	0.000	0.005	0.003	0.002	1.512%		
%RSD		0.000	0.000	0.000	0.000	0.000	1.512		

STD2 1533078 4/30/2015 12:42:05 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	12:42:05	90.553%	200.500	0.150	0.100	0.000	97860.000	98940.000	98300.000
2	12:42:24	94.728%	194.900	0.229	0.168	0.000	97030.000	97270.000	99670.000
3	12:42:44	89.021%	204.600	-0.074	0.140	0.000	105100.000	103800.000	102000.000
x		91.434%	200.000	0.101	0.136	0.000	100000.000	100000.000	100000.000
σ		2.953%	4.826	0.157	0.034	0.000	4450.000	3390.000	1889.000
%RSD		3.230	2.413	154.800	24.990	0.000	4.450	3.390	1.889

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:05	985.900	26.190	0.000	97560.000	97790.000	97290.000	108.697%	0.112
2	12:42:24	987.500	22.390	0.000	100500.000	100200.000	100200.000	105.434%	0.092
3	12:42:44	1027.000	35.590	0.000	102000.000	102000.000	102600.000	103.903%	0.059
x		1000.000	28.060	0.000	100000.000	100000.000	100000.000	106.011%	0.087
σ		23.000	6.792	0.000	2245.000	2114.000	2637.000	2.449%	0.027
%RSD		2.300	24.210	0.000	2.245	2.114	2.637	2.310	30.740

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:05	196.900	196.900	976.800	48740.000	48800.000	196.500	196.300	197.000
2	12:42:24	200.500	200.200	1004.000	50250.000	50430.000	200.300	201.800	201.800
3	12:42:44	202.600	202.900	1019.000	51010.000	50760.000	203.300	201.800	201.300
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		2.857	3.000	21.430	1156.000	1050.000	3.418	3.167	2.626
%RSD		1.429	1.500	2.143	2.311	2.099	1.709	1.584	1.313

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:05	198.700	197.500	196.300	196.700	198.700	197.900	0.000	198.000
2	12:42:24	199.300	199.800	200.500	201.100	201.300	201.200	0.000	200.400
3	12:42:44	202.000	202.700	203.200	202.200	199.900	200.900	0.000	201.500
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		1.753	2.612	3.445	2.914	1.310	1.804	0.000	1.793
%RSD		0.876	1.306	1.722	1.457	0.655	0.902	0.000	0.897

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:05	94.564%	0.071	0.097	88.380%	198.900	199.800	198.200	198.200
2	12:42:24	96.247%	0.108	0.079	89.121%	199.400	200.000	201.600	200.500
3	12:42:44	97.991%	0.084	0.087	90.721%	201.700	200.200	200.100	201.400
x		96.267%	0.087	0.088	89.407%	200.000	200.000	200.000	200.000
σ		1.714%	0.019	0.009	1.197%	1.457	0.178	1.720	1.654
%RSD		1.780	21.350	10.020	1.339	0.729	0.089	0.860	0.827

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:05	90.184%	0.010	0.143	0.135	200.200	198.800	91.490%	91.835%
2	12:42:24	92.560%	0.025	0.155	0.132	199.500	199.800	94.416%	93.265%
3	12:42:44	93.971%	0.008	0.170	0.157	200.300	201.400	95.782%	95.320%
x		92.238%	0.014	0.156	0.141	200.000	200.000	93.896%	93.473%
σ		1.914%	0.009	0.014	0.013	0.428	1.334	2.193%	1.752%
%RSD		2.075	64.010	8.817	9.532	0.214	0.667	2.335	1.874

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:05	197.000	195.900	191.800	194.000	193.800	91.929%
2	12:42:24	200.200	201.100	199.100	201.100	200.600	91.960%
3	12:42:44	202.800	203.000	209.000	204.900	205.600	92.692%
x		200.000	200.000	200.000	200.000	200.000	92.194%
σ		2.928	3.653	8.642	5.542	5.924	0.432%
%RSD		1.464	1.827	4.321	2.771	2.962	0.469

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:43	97.976%	0.007	202.000	201.200	0.000	23.330	19.490	19.510
2	12:46:02	100.983%	0.038	199.100	198.000	0.000	19.400	14.880	16.670
3	12:46:21	88.366%	0.023	198.900	200.800	0.000	17.650	15.310	15.480
x		95.775%	0.023	200.000	200.000	0.000	20.130	16.560	17.220
σ		6.590%	0.016	1.757	1.740	0.000	2.911	2.544	2.071
%RSD		6.881	69.680	0.878	0.870	0.000	14.460	15.360	12.030
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:43	18.810	10010.000	0.000	19.590	19.980	77.370	109.160%	196.300
2	12:46:02	18.290	9865.000	0.000	16.990	7.612	75.950	102.901%	200.300
3	12:46:21	19.130	10120.000	0.000	16.280	17.180	67.020	98.457%	203.400
x		18.740	10000.000	0.000	17.620	14.920	73.450	103.506%	200.000
σ		0.423	129.000	0.000	1.746	6.484	5.607	5.377%	3.565
%RSD		2.258	1.290	0.000	9.908	43.450	7.634	5.195	1.783
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:43	0.035	0.046	0.282	46.320	43.350	0.042	0.125	0.032
2	12:46:02	0.044	0.040	0.249	31.210	32.460	0.032	0.137	0.011
3	12:46:21	0.034	0.050	0.244	27.340	26.410	0.025	0.108	0.020
x		0.037	0.045	0.258	34.960	34.070	0.033	0.123	0.021
σ		0.006	0.005	0.021	10.030	8.583	0.009	0.015	0.010
%RSD		14.800	10.220	7.996	28.690	25.190	26.480	11.910	48.720
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:43	0.044	2.248	2.218	0.378	0.203	0.475	0.000	0.038
2	12:46:02	0.042	2.160	2.253	0.272	0.261	0.295	0.000	0.025
3	12:46:21	0.099	2.345	2.303	0.386	0.106	0.329	0.000	0.032
x		0.061	2.251	2.258	0.345	0.190	0.366	0.000	0.032
σ		0.032	0.093	0.043	0.064	0.078	0.096	0.000	0.006
%RSD		52.570	4.125	1.899	18.440	41.250	26.120	0.000	20.360
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:43	99.640%	195.400	195.800	100.489%	0.074	0.062	0.059	-0.516
2	12:46:02	99.573%	202.000	200.700	100.056%	0.044	0.035	0.082	-0.464
3	12:46:21	98.819%	202.600	203.400	98.699%	0.050	0.067	0.129	-0.319
x		99.344%	200.000	200.000	99.748%	0.056	0.055	0.090	-0.433
σ		0.456%	4.012	3.837	0.934%	0.015	0.018	0.036	0.102
%RSD		0.459	2.006	1.919	0.936	27.520	32.110	39.410	23.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:43	100.847%	196.600	196.200	194.600	0.051	0.272	98.473%	99.020%
2	12:46:02	101.056%	201.700	201.100	202.900	0.059	0.240	101.718%	101.742%
3	12:46:21	100.104%	201.700	202.700	202.500	0.054	0.221	103.607%	104.222%
x		100.669%	200.000	200.000	200.000	0.055	0.244	101.266%	101.662%
σ		0.500%	2.959	3.372	4.670	0.004	0.026	2.597%	2.602%
%RSD		0.497	1.480	1.686	2.335	7.477	10.640	2.564	2.559
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:45:43	0.066	0.060	0.090	0.084	0.085	106.402%		
2	12:46:02	0.058	0.063	0.086	0.067	0.081	106.639%		
3	12:46:21	0.060	0.054	0.074	0.071	0.078	107.370%		
x		0.061	0.059	0.083	0.074	0.081	106.804%		
σ		0.004	0.004	0.008	0.009	0.004	0.504%		
%RSD		6.429	7.443	10.020	12.010	4.581	0.472		

ICV 1527873 4/30/2015 12:49:20 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	12:49:20	103.703%	82.170	86.680	88.350	0.000	39620.000	39060.000	38660.000
2	12:49:39	98.674%	85.860	85.670	86.650	0.000	40350.000	40470.000	40020.000
3	12:49:58	97.244%	81.680	84.590	84.840	0.000	39090.000	39960.000	39590.000
x		99.874%	104.047%	107.061%	108.268%	0.000	99.216%	99.583%	98.563%
σ		3.392%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.397	2.745	1.220	2.031	0.000	1.590	1.790	1.763
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:20	410.300	4373.000	0.000	39280.000	35460.000	38740.000	117.657%	78.980
2	12:49:39	416.300	4429.000	0.000	40620.000	37920.000	41100.000	111.088%	80.800
3	12:49:58	417.300	4491.000	0.000	40370.000	36660.000	40450.000	111.634%	79.500
x		103.658%	110.773%	0.000	100.218%	91.701%	100.243%	113.460%	99.700%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.645%	n/a
%RSD		0.918	1.325	0.000	1.770	3.351	3.034	3.213	1.179
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:20	78.550	79.420	386.200	19230.000	19310.000	79.030	82.060	82.130
2	12:49:39	82.130	83.120	402.300	20020.000	20250.000	80.410	81.940	83.880
3	12:49:58	79.830	81.020	398.300	19940.000	20050.000	80.550	83.070	82.770
x		100.212%	101.487%	98.900%	98.646%	99.338%	99.999%	102.947%	103.658%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.268	2.285	2.128	2.218	2.496	1.053	0.755	1.068
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:20	81.890	81.530	81.630	82.030	85.590	85.150	0.000	73.860
2	12:49:39	82.970	85.960	86.460	83.830	87.310	88.200	0.000	75.460
3	12:49:58	82.800	84.340	85.380	82.320	87.590	86.450	0.000	75.860
x		103.190%	104.930%	105.610%	103.411%	108.535%	108.247%	0.000	93.828%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.700	2.671	3.003	1.169	1.247	1.768	0.000	1.410
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:20	112.444%	76.660	79.080	100.368%	80.500	81.270	80.810	81.280
2	12:49:39	112.092%	79.550	81.460	100.004%	81.470	81.900	83.420	84.000
3	12:49:58	111.537%	80.560	82.240	99.762%	81.800	81.960	82.960	82.890
x		112.024%	98.654%	101.156%	100.045%	101.569%	102.134%	102.996%	103.400%
σ		0.458%	n/a	n/a	0.305%	n/a	n/a	n/a	n/a
%RSD		0.409	2.563	2.037	0.305	0.834	0.470	1.695	1.653
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:20	102.216%	78.810	79.410	78.680	79.860	79.000	102.280%	100.706%
2	12:49:39	103.442%	79.280	80.880	80.820	79.320	79.390	103.752%	102.339%
3	12:49:58	103.681%	80.520	81.240	81.290	81.030	79.550	103.366%	104.033%
x		103.113%	99.421%	100.641%	100.332%	100.089%	99.139%	103.132%	102.359%
σ		0.786%	n/a	n/a	n/a	n/a	n/a	0.764%	1.664%
%RSD		0.762	1.106	1.207	1.738	1.094	0.358	0.740	1.625
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:49:20	82.450	82.260	79.750	78.180	78.120	100.224%		
2	12:49:39	84.030	83.400	82.170	80.450	80.520	101.579%		
3	12:49:58	84.660	83.960	81.950	80.840	81.510	102.115%		
x		104.638%	104.006%	101.611%	99.777%	100.061%	101.306%		
σ		n/a	n/a	n/a	n/a	n/a	0.975%		
%RSD		1.361	1.042	1.650	1.802	2.176	0.962		

ICB 4/30/2015 12:53:00 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	12:53:00	111.290%	-0.001	0.346	0.415	0.000	6.195	4.366	4.318
2	12:53:19	104.454%	-0.022	0.270	0.376	0.000	4.799	2.878	2.775
3	12:53:38	101.522%	0.045	0.342	0.312	0.000	3.942	1.919	1.685
x		105.755%	0.007	0.320	0.368	0.000	4.979	3.054	2.926
σ		5.012%	0.034	0.043	0.052	0.000	1.137	1.233	1.323
%RSD		4.740	464.400	13.410	14.130	0.000	22.840	40.370	45.210

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:00	0.050	41.380	0.000	9.486	11.940	7.852	120.026%	0.076
2	12:53:19	0.089	62.670	0.000	8.587	3.563	6.333	115.651%	-0.022
3	12:53:38	0.071	57.830	0.000	7.104	2.376	4.428	114.612%	0.075
x		0.070	53.960	0.000	8.392	5.959	6.204	116.763%	0.043
σ		0.019	11.160	0.000	1.203	5.212	1.716	2.874%	0.056
%RSD		27.740	20.680	0.000	14.330	87.470	27.650	2.461	129.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:00	-0.010	0.003	0.043	20.800	15.820	0.008	0.005	0.047
2	12:53:19	0.012	0.018	0.033	15.010	13.070	0.005	0.007	0.030
3	12:53:38	0.001	0.017	0.027	11.430	9.449	0.001	0.009	-0.001
x		0.001	0.013	0.035	15.750	12.780	0.005	0.007	0.025
σ		0.011	0.008	0.008	4.733	3.194	0.003	0.002	0.025
%RSD		1288.000	64.920	23.610	30.050	24.990	69.470	33.150	97.920

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:00	0.061	0.016	0.098	0.051	0.204	0.050	0.000	0.008
2	12:53:19	0.008	0.076	0.044	0.077	0.127	0.158	0.000	0.002
3	12:53:38	0.031	0.095	0.135	-0.021	0.181	-0.045	0.000	-0.002
x		0.033	0.063	0.092	0.035	0.171	0.054	0.000	0.003
σ		0.027	0.041	0.045	0.051	0.040	0.102	0.000	0.005
%RSD		80.100	65.900	49.120	143.600	23.250	188.100	0.000	193.700

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:00	113.012%	0.769	0.793	113.253%	0.022	0.024	0.044	0.033
2	12:53:19	113.182%	0.650	0.639	112.395%	0.016	0.012	0.033	0.029
3	12:53:38	113.294%	0.513	0.503	112.673%	0.012	0.014	0.021	0.013
x		113.163%	0.644	0.645	112.774%	0.017	0.017	0.033	0.025
σ		0.142%	0.128	0.145	0.437%	0.005	0.006	0.012	0.011
%RSD		0.125	19.890	22.540	0.388	30.880	37.450	35.730	43.180

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:00	113.735%	0.086	0.024	-0.006	-0.008	0.014	108.195%	105.718%
2	12:53:19	113.617%	0.071	0.015	0.003	-0.015	0.010	110.219%	109.522%
3	12:53:38	115.128%	0.106	0.001	0.003	-0.007	0.007	111.747%	110.735%
x		114.160%	0.088	0.013	0.000	-0.010	0.010	110.053%	108.659%
σ		0.840%	0.017	0.012	0.005	0.004	0.004	1.782%	2.618%
%RSD		0.736	19.890	88.980	2156.000	43.290	33.620	1.619	2.409

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:00	0.026	0.028	0.013	0.011	0.012	116.210%
2	12:53:19	0.025	0.024	0.010	0.008	0.008	114.674%
3	12:53:38	0.023	0.023	0.005	0.002	0.006	117.848%
x		0.025	0.025	0.009	0.007	0.009	116.244%
σ		0.002	0.002	0.004	0.004	0.003	1.587%
%RSD		6.443	9.830	38.930	61.400	35.010	1.365

CRI 1554040 4/30/2015 12:56:40 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	12:56:40	105.561%	0.888	20.300	20.910	0.000	530.100	508.900	509.800
2	12:56:59	100.993%	1.314	20.950	21.540	0.000	539.700	533.600	544.700
3	12:57:18	93.013%	1.102	20.560	21.860	0.000	532.100	535.900	537.100
x		99.856%	110.132%	103.023%	107.178%	0.000	106.798%	105.222%	106.103%
σ		6.351%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.360	19.320	1.585	2.267	0.000	0.943	2.843	3.457
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:40	38.950	550.800	0.000	529.400	504.900	526.000	114.180%	5.638
2	12:56:59	40.990	574.600	0.000	550.900	512.900	558.000	107.041%	5.975
3	12:57:18	40.930	590.100	0.000	565.200	509.500	558.600	105.650%	5.977
x		134.296%	114.369%	0.000	109.704%	101.820%	109.507%	108.957%	117.260%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.577%	n/a
%RSD		2.885	3.458	0.000	3.284	0.792	3.413	4.200	3.330
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:40	1.230	2.255	5.898	68.080	63.250	0.574	1.196	2.390
2	12:56:59	1.330	2.313	6.031	69.620	63.700	0.586	1.215	2.478
3	12:57:18	1.352	2.372	6.014	68.290	63.350	0.558	1.093	2.403
x		130.361%	115.662%	119.624%	137.333%	126.864%	114.580%	116.786%	121.178%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.990	2.518	1.206	1.218	0.370	2.472	5.632	1.950
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:40	2.446	7.285	7.320	1.310	6.342	6.086	0.000	5.157
2	12:56:59	2.609	7.438	7.252	1.459	6.403	6.456	0.000	5.241
3	12:57:18	2.379	7.791	7.409	1.358	6.314	6.296	0.000	5.274
x		123.899%	150.092%	146.538%	137.561%	127.055%	125.592%	0.000	104.479%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.789	3.458	1.074	5.505	0.717	2.952	0.000	1.154
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:40	107.518%	5.025	4.844	107.579%	1.092	1.119	1.065	1.114
2	12:56:59	108.094%	5.032	5.077	107.606%	1.105	1.130	1.111	1.122
3	12:57:18	106.571%	5.163	5.171	105.687%	1.150	1.152	1.086	1.143
x		107.394%	101.468%	100.614%	106.957%	111.553%	113.374%	108.728%	112.657%
σ		0.769%	n/a	n/a	1.100%	n/a	n/a	n/a	n/a
%RSD		0.716	1.530	3.345	1.029	2.700	1.476	2.139	1.308
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:40	109.489%	4.861	1.994	2.002	10.240	10.340	105.476%	104.843%
2	12:56:59	108.522%	5.107	2.085	2.012	10.560	10.610	106.788%	106.303%
3	12:57:18	108.887%	4.917	2.122	2.061	10.590	10.460	109.088%	108.272%
x		108.966%	99.232%	103.365%	101.256%	104.621%	104.713%	107.117%	106.472%
σ		0.489%	n/a	n/a	n/a	n/a	n/a	1.828%	1.721%
%RSD		0.448	2.594	3.180	1.574	1.850	1.303	1.707	1.616
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:56:40	1.038	1.003	1.094	1.088	1.075	111.134%		
2	12:56:59	1.024	1.028	1.077	1.103	1.095	112.016%		
3	12:57:18	1.072	1.059	1.152	1.170	1.139	111.852%		
x		104.467%	103.005%	110.749%	112.021%	110.309%	111.668%		
σ		n/a	n/a	n/a	n/a	n/a	0.469%		
%RSD		2.341	2.724	3.544	3.925	2.955	0.420		

ICSA 1533081 4/30/2015 1:00:19 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:19	67.496%	-0.000	0.715	0.422	0.000	104100.000	105900.000	108200.000
2	13:00:38	66.890%	0.025	0.594	0.555	0.000	103300.000	104500.000	106400.000
3	13:00:57	62.170%	0.032	0.465	0.403	0.000	110600.000	109500.000	108900.000
x		65.519%	0.019	0.592	0.460	0.000	106000.000	106600.000	107800.000
σ		2.916%	0.017	0.125	0.083	0.000	3998.000	2560.000	1308.000
%RSD		4.450	88.930	21.100	18.060	0.000	3.771	2.402	1.213
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:19	104200.000	29.740	0.000	108000.000	110700.000	111000.000	83.241%	2205.000
2	13:00:38	101900.000	39.850	0.000	111300.000	112700.000	114100.000	80.241%	2245.000
3	13:00:57	106300.000	49.210	0.000	111200.000	114200.000	113900.000	78.953%	2248.000
x		104100.000	39.600	0.000	110200.000	112600.000	113000.000	80.812%	2233.000
σ		2176.000	9.736	0.000	1861.000	1764.000	1742.000	2.200%	24.310
%RSD		2.090	24.590	0.000	1.689	1.567	1.542	2.723	1.089
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:19	-0.305	0.674	0.508	107300.000	108000.000	0.069	-0.793	1.349
2	13:00:38	-0.371	0.650	0.505	109900.000	110600.000	0.076	-0.746	1.395
3	13:00:57	-0.393	0.689	0.499	107900.000	110300.000	0.065	-0.731	1.270
x		-0.356	0.671	0.504	108400.000	109700.000	0.070	-0.757	1.338
σ		0.046	0.019	0.005	1329.000	1423.000	0.006	0.033	0.063
%RSD		12.880	2.895	0.898	1.227	1.297	8.449	4.297	4.709
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:19	1.340	2.532	1.686	0.001	-0.107	-0.021	0.000	0.763
2	13:00:38	1.295	2.680	1.558	0.020	0.228	0.179	0.000	0.752
3	13:00:57	1.520	2.375	1.388	0.060	-0.008	0.277	0.000	0.748
x		1.385	2.529	1.544	0.027	0.038	0.145	0.000	0.754
σ		0.119	0.152	0.150	0.030	0.172	0.152	0.000	0.007
%RSD		8.609	6.017	9.709	111.500	457.600	104.900	0.000	0.986
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:19	79.531%	2324.000	2307.000	77.198%	0.110	0.090	0.283	0.277
2	13:00:38	78.986%	2350.000	2349.000	76.489%	0.073	0.076	0.453	0.368
3	13:00:57	80.285%	2353.000	2363.000	76.395%	0.072	0.080	0.151	0.117
x		79.600%	2342.000	2340.000	76.694%	0.085	0.082	0.296	0.254
σ		0.652%	16.280	29.430	0.439%	0.022	0.007	0.151	0.127
%RSD		0.819	0.695	1.258	0.573	25.560	9.150	51.180	49.980
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:19	84.636%	0.064	0.024	0.025	0.069	0.109	86.044%	85.184%
2	13:00:38	85.962%	0.098	0.033	0.034	0.072	0.110	88.169%	86.890%
3	13:00:57	86.978%	0.068	0.046	0.022	0.090	0.091	89.387%	89.308%
x		85.859%	0.077	0.034	0.027	0.077	0.103	87.867%	87.127%
σ		1.174%	0.018	0.011	0.006	0.011	0.011	1.692%	2.072%
%RSD		1.368	23.940	32.780	22.810	14.920	10.510	1.926	2.379
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:00:19	0.007	0.011	0.193	0.177	0.181	113.310%		
2	13:00:38	0.011	0.011	0.250	0.185	0.213	101.423%		
3	13:00:57	0.006	0.011	0.225	0.224	0.219	97.932%		
x		0.008	0.011	0.223	0.196	0.204	104.222%		
σ		0.003	0.000	0.029	0.025	0.020	8.062%		
%RSD		31.820	2.103	12.850	12.890	9.823	7.736		

ICSAB 1533082 4/30/2015 1:03:59 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	13:03:59	65.011%	21.100	51.240	50.640	0.000	110000.000	111300.000	110300.000
2	13:04:19	61.765%	21.480	51.420	48.680	0.000	111700.000	113900.000	112300.000
3	13:04:38	63.359%	20.760	48.800	50.200	0.000	109200.000	111400.000	110300.000
x		63.378%	105.566%	100.975%	99.682%	0.000	110.315%	112.182%	110.949%
σ		1.623%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.561	1.720	2.901	2.061	0.000	1.193	1.294	1.045

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:59	108900.000	586.800	0.000	112100.000	114100.000	114000.000	82.682%	2273.000
2	13:04:19	108300.000	601.100	0.000	113300.000	115600.000	117700.000	78.848%	2264.000
3	13:04:38	105300.000	593.800	0.000	113200.000	106800.000	116800.000	76.251%	2286.000
x		107.480%	118.775%	0.000	112.881%	112.149%	116.185%	79.260%	113.705%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.235%	n/a
%RSD		1.773	1.206	0.000	0.593	4.180	1.639	4.082	0.482

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:59	20.930	22.260	22.400	109600.000	110700.000	21.330	20.770	22.130
2	13:04:19	21.460	22.140	22.570	109400.000	109800.000	21.160	20.410	22.220
3	13:04:38	21.200	22.160	22.850	112200.000	113100.000	21.550	20.270	22.190
x		105.978%	110.933%	98.308%	110.380%	111.194%	106.723%	102.414%	110.898%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.242	0.295	1.002	1.428	1.555	0.921	1.267	0.205

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:59	22.730	23.560	22.560	21.590	53.530	54.090	0.000	23.200
2	13:04:19	21.670	23.100	22.580	21.390	53.900	54.230	0.000	23.330
3	13:04:38	21.790	23.520	23.150	23.100	55.230	56.010	0.000	23.660
x		110.313%	93.579%	91.052%	110.138%	108.437%	109.553%	0.000	116.977%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.650	1.090	1.457	4.239	1.648	1.948	0.000	1.006

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:59	81.062%	2353.000	2351.000	77.460%	20.560	20.110	21.340	20.310
2	13:04:19	81.178%	2366.000	2376.000	77.291%	20.280	20.140	21.140	20.740
3	13:04:38	79.733%	2382.000	2388.000	76.379%	20.280	20.310	21.170	20.340
x		80.658%	118.350%	118.598%	77.043%	101.867%	100.939%	106.082%	102.308%
σ		0.803%	n/a	n/a	0.582%	n/a	n/a	n/a	n/a
%RSD		0.996	0.607	0.794	0.755	0.814	0.543	0.524	1.181

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:59	85.873%	105.400	20.640	20.450	21.540	21.480	88.826%	87.510%
2	13:04:19	86.935%	106.800	21.350	21.230	21.230	21.630	91.081%	91.392%
3	13:04:38	88.463%	106.300	20.930	21.120	21.160	21.520	93.530%	91.640%
x		87.090%	106.150%	104.877%	104.680%	106.544%	107.724%	91.145%	90.180%
σ		1.302%	n/a	n/a	n/a	n/a	n/a	2.353%	2.316%
%RSD		1.495	0.634	1.702	2.009	0.950	0.349	2.581	2.568

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:59	19.860	20.080	20.420	20.720	20.270	96.079%
2	13:04:19	21.860	22.100	22.300	22.850	22.340	89.733%
3	13:04:38	22.790	22.830	23.130	23.150	22.860	87.856%
x		107.524%	108.343%	109.744%	111.192%	109.122%	91.223%
σ		n/a	n/a	n/a	n/a	n/a	4.309%
%RSD		6.985	6.565	6.334	5.947	6.287	4.724

CCV 1533080 4/30/2015 1:07:38 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	13:07:38	79.552%	105.400	97.640	98.970	0.000	51080.000	51090.000	50970.000
2	13:07:58	75.291%	111.000	103.400	101.600	0.000	52540.000	51890.000	51730.000
3	13:08:17	72.569%	105.600	103.900	105.800	0.000	54390.000	54150.000	54070.000
x		75.804%	107.339%	101.660%	102.109%	0.000	105.348%	104.754%	104.510%
σ		3.520%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.643	2.970	3.435	3.357	0.000	3.151	3.030	3.090
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:38	527.400	5152.000	0.000	51280.000	48130.000	51870.000	98.708%	102.000
2	13:07:58	529.300	5191.000	0.000	53040.000	49830.000	53410.000	94.804%	105.100
3	13:08:17	550.300	5334.000	0.000	54200.000	50390.000	54170.000	93.589%	104.500
x		107.132%	104.513%	0.000	105.679%	98.907%	106.300%	95.700%	103.878%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.675%	n/a
%RSD		2.374	1.836	0.000	2.783	2.379	2.207	2.795	1.569
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:38	101.200	101.100	510.200	25460.000	25340.000	99.980	101.800	101.100
2	13:07:58	101.800	102.600	525.600	26100.000	26030.000	102.100	103.900	104.000
3	13:08:17	103.400	104.200	521.200	25840.000	26000.000	99.120	99.880	102.600
x		102.126%	102.625%	103.799%	103.204%	103.166%	100.411%	101.876%	102.554%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.108	1.478	1.532	1.254	1.528	1.546	1.975	1.381
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:38	100.800	104.100	104.400	100.800	105.600	104.100	0.000	95.630
2	13:07:58	103.300	107.300	106.300	103.800	107.300	106.300	0.000	95.760
3	13:08:17	100.600	106.500	105.600	102.800	105.600	103.900	0.000	96.960
x		101.569%	105.958%	105.428%	102.503%	106.187%	104.778%	0.000	96.114%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.456	1.533	0.933	1.482	0.934	1.255	0.000	0.765
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:38	106.464%	106.600	108.300	95.670%	101.600	101.100	104.000	104.800
2	13:07:58	107.384%	106.500	109.600	95.969%	102.200	102.300	105.700	105.600
3	13:08:17	106.792%	104.700	107.500	95.061%	101.300	101.300	104.500	104.900
x		106.880%	105.925%	108.465%	95.567%	101.682%	101.570%	104.757%	105.079%
σ		0.466%	n/a	n/a	0.463%	n/a	n/a	n/a	n/a
%RSD		0.436	1.042	0.971	0.484	0.467	0.646	0.849	0.407
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:38	99.114%	99.660	101.500	101.500	100.800	101.900	104.093%	104.049%
2	13:07:58	100.182%	101.800	103.200	102.500	102.400	102.100	106.119%	105.950%
3	13:08:17	100.892%	101.100	101.700	102.700	103.500	101.400	107.553%	107.825%
x		100.063%	100.862%	102.113%	102.215%	102.229%	101.786%	105.922%	105.941%
σ		0.895%	n/a	n/a	n/a	n/a	n/a	1.738%	1.888%
%RSD		0.894	1.084	0.916	0.625	1.331	0.333	1.641	1.782
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:07:38	108.100	106.000	108.100	109.100	107.500	97.172%		
2	13:07:58	112.000	109.200	110.100	111.000	110.500	97.994%		
3	13:08:17	110.900	109.100	110.600	111.600	111.000	99.168%		
x		110.354%	108.087%	109.614%	110.590%	109.641%	98.111%		
σ		n/a	n/a	n/a	n/a	n/a	1.003%		
%RSD		1.829	1.707	1.222	1.169	1.739	1.022		

CCB1 4/30/2015 1:11:09 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:29	83.828%	0.008	0.495	0.315	0.000	12.480	4.638	4.802
2	13:11:48	82.335%	0.039	0.260	0.273	0.000	10.720	3.688	3.617
3	13:12:07	81.126%	0.010	0.375	0.302	0.000	9.574	3.056	2.987
x		82.430%	0.019	0.377	0.297	0.000	10.920	3.794	3.802
σ		1.353%	0.018	0.117	0.021	0.000	1.464	0.797	0.922
%RSD		1.642	92.600	31.190	7.167	0.000	13.410	20.990	24.240
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:29	1.178	1.788	0.000	13.700	2.608	9.108	102.506%	0.194
2	13:11:48	0.878	4.040	0.000	13.670	6.261	6.321	98.768%	0.251
3	13:12:07	0.589	-1.197	0.000	13.020	8.022	6.220	97.817%	0.152
x		0.882	1.544	0.000	13.460	5.630	7.216	99.697%	0.199
σ		0.294	2.627	0.000	0.387	2.762	1.639	2.479%	0.050
%RSD		33.390	170.200	0.000	2.874	49.050	22.710	2.486	25.100
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:29	-0.000	0.006	0.049	33.260	28.830	0.006	0.002	0.007
2	13:11:48	0.014	0.019	0.035	26.980	21.020	0.007	-0.013	0.021
3	13:12:07	-0.004	0.001	0.038	22.140	18.710	0.004	0.012	0.020
x		0.003	0.008	0.041	27.460	22.850	0.006	0.000	0.016
σ		0.009	0.009	0.007	5.575	5.304	0.001	0.013	0.008
%RSD		285.300	107.000	17.770	20.300	23.210	22.520	5295.000	50.250
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:29	0.028	0.126	0.080	0.091	0.207	0.205	0.000	0.009
2	13:11:48	0.007	0.064	0.124	0.029	0.391	0.055	0.000	0.005
3	13:12:07	0.041	0.164	0.223	0.012	0.221	0.036	0.000	0.008
x		0.025	0.118	0.142	0.044	0.273	0.099	0.000	0.007
σ		0.017	0.051	0.073	0.041	0.103	0.092	0.000	0.002
%RSD		68.120	43.110	51.270	93.120	37.580	93.500	0.000	26.180
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:29	106.743%	3.380	3.459	105.682%	0.000	-0.011	0.013	0.013
2	13:11:48	107.428%	2.719	2.822	106.558%	0.004	-0.007	-0.033	-0.024
3	13:12:07	106.708%	2.292	2.282	106.185%	0.011	-0.005	-0.027	-0.019
x		106.960%	2.797	2.854	106.141%	0.005	-0.008	-0.016	-0.010
σ		0.406%	0.548	0.589	0.440%	0.005	0.003	0.025	0.020
%RSD		0.379	19.610	20.630	0.414	107.600	43.620	156.700	200.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:29	109.450%	0.178	0.114	0.114	-0.008	0.027	112.970%	111.600%
2	13:11:48	112.475%	0.198	0.106	0.101	-0.005	0.013	116.103%	114.777%
3	13:12:07	112.143%	0.174	0.097	0.083	-0.007	0.002	116.076%	115.354%
x		111.356%	0.183	0.106	0.099	-0.007	0.014	115.050%	113.910%
σ		1.659%	0.013	0.009	0.015	0.002	0.012	1.801%	2.021%
%RSD		1.490	6.957	8.167	15.430	23.240	88.280	1.566	1.774
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:11:29	0.048	0.044	0.007	0.004	0.010	116.969%		
2	13:11:48	0.044	0.045	0.006	0.005	0.009	116.837%		
3	13:12:07	0.042	0.041	0.010	0.005	0.010	117.536%		
x		0.045	0.043	0.008	0.005	0.009	117.114%		
σ		0.003	0.002	0.002	0.001	0.001	0.372%		
%RSD		7.765	4.039	24.810	10.700	6.477	0.317		

MB 180-139984/1-A 4/30/2015 1:15:00 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	13:15:19	88.934%	0.004	-0.140	0.099	0.000	0.755	1.317	1.233
2	13:15:38	86.073%	0.025	0.171	0.065	0.000	0.408	0.684	0.802
3	13:16:02	83.353%	-0.002	0.148	0.065	0.000	0.123	0.595	0.390
x		86.120%	0.009	0.060	0.077	0.000	0.428	0.866	0.809
σ		2.791%	0.014	0.173	0.020	0.000	0.317	0.394	0.422
%RSD		3.240	155.700	290.300	25.650	0.000	73.920	45.470	52.160
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:19	-0.852	-15.290	0.000	5.071	-4.185	-7.318	102.156%	0.016
2	13:15:38	-0.848	-4.862	0.000	5.155	-4.874	-7.799	101.333%	0.143
3	13:16:02	-0.762	-8.137	0.000	4.413	-3.968	-6.961	99.532%	0.111
x		-0.821	-9.428	0.000	4.879	-4.342	-7.359	101.007%	0.090
σ		0.051	5.331	0.000	0.406	0.473	0.420	1.342%	0.066
%RSD		6.219	56.550	0.000	8.327	10.890	5.714	1.328	73.770
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:19	0.014	0.022	-0.001	8.450	6.382	0.000	-0.014	-0.165
2	13:15:38	0.000	0.006	0.001	8.686	6.209	-0.000	-0.036	-0.172
3	13:16:02	0.014	0.027	-0.004	6.544	4.079	-0.002	-0.031	-0.185
x		0.009	0.018	-0.001	7.893	5.557	-0.001	-0.027	-0.174
σ		0.008	0.011	0.002	1.175	1.282	0.001	0.011	0.010
%RSD		82.950	57.540	225.800	14.880	23.080	153.400	41.640	6.003
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:19	-0.164	-0.881	-0.821	0.037	0.142	0.123	0.000	-0.013
2	13:15:38	-0.181	-0.813	-0.900	-0.039	0.232	-0.124	0.000	-0.007
3	13:16:02	-0.177	-0.844	-0.869	0.030	0.218	0.115	0.000	-0.012
x		-0.174	-0.846	-0.863	0.009	0.198	0.038	0.000	-0.011
σ		0.009	0.034	0.040	0.042	0.048	0.140	0.000	0.004
%RSD		4.967	4.012	4.657	451.300	24.390	369.800	0.000	34.030
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:19	106.858%	0.686	0.808	106.521%	-0.017	-0.025	0.010	0.002
2	13:15:38	107.725%	0.684	0.705	105.919%	-0.015	-0.033	-0.014	-0.011
3	13:16:02	107.722%	0.754	0.736	105.602%	-0.017	-0.024	-0.016	-0.010
x		107.435%	0.708	0.750	106.014%	-0.016	-0.027	-0.007	-0.006
σ		0.500%	0.040	0.053	0.467%	0.001	0.005	0.014	0.007
%RSD		0.465	5.636	7.020	0.441	6.415	17.560	207.800	121.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:19	109.703%	0.069	0.040	0.032	-0.030	-0.003	113.173%	111.372%
2	13:15:38	111.057%	0.046	0.040	0.020	-0.042	-0.002	113.850%	112.588%
3	13:16:02	111.349%	0.078	0.021	0.020	-0.033	0.004	113.245%	112.401%
x		110.703%	0.064	0.034	0.024	-0.035	-0.001	113.423%	112.120%
σ		0.878%	0.016	0.011	0.007	0.006	0.004	0.372%	0.655%
%RSD		0.793	25.270	33.440	28.100	16.830	554.700	0.328	0.584
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:15:19	0.019	0.016	-0.010	-0.014	-0.010	117.073%		
2	13:15:38	0.020	0.017	-0.008	-0.011	-0.009	116.528%		
3	13:16:02	0.015	0.016	-0.012	-0.015	-0.011	117.111%		
x		0.018	0.016	-0.010	-0.013	-0.010	116.904%		
σ		0.002	0.001	0.002	0.002	0.001	0.326%		
%RSD		13.280	3.404	21.060	17.110	8.329	0.279		

PB 180-139874/1-B 4/30/2015 1:18:52 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	13:19:12	85.754%	-0.023	-0.034	0.122	0.000	-0.257	0.170	0.284
2	13:19:31	81.820%	0.009	0.012	0.150	0.000	-0.576	0.053	-0.009
3	13:19:50	83.494%	0.018	-0.098	0.029	0.000	-0.641	0.235	-0.122
x		83.689%	0.002	-0.040	0.101	0.000	-0.491	0.153	0.051
σ		1.974%	0.022	0.055	0.063	0.000	0.206	0.092	0.209
%RSD		2.359	1369.000	137.600	62.980	0.000	41.910	60.380	411.400

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:12	-1.356	-19.140	0.000	3.092	-8.691	-9.607	101.726%	0.052
2	13:19:31	-1.574	-11.800	0.000	1.948	-10.170	-9.375	99.282%	0.056
3	13:19:50	-1.518	-9.934	0.000	1.827	-7.779	-9.190	97.678%	-0.045
x		-1.483	-13.620	0.000	2.289	-8.880	-9.391	99.562%	0.021
σ		0.113	4.865	0.000	0.698	1.207	0.209	2.038%	0.057
%RSD		7.630	35.710	0.000	30.480	13.590	2.228	2.047	270.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:12	0.006	-0.009	-0.018	5.607	3.250	-0.002	-0.046	-0.178
2	13:19:31	0.002	0.003	-0.021	4.342	2.284	-0.003	-0.053	-0.193
3	13:19:50	-0.005	0.007	-0.020	4.522	2.022	-0.002	-0.043	-0.161
x		0.001	0.000	-0.020	4.824	2.519	-0.002	-0.047	-0.177
σ		0.005	0.008	0.002	0.684	0.647	0.001	0.005	0.016
%RSD		474.300	4014.000	9.410	14.190	25.670	31.290	11.120	9.082

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:12	-0.154	-0.951	-0.922	0.041	-0.025	0.102	0.000	-0.014
2	13:19:31	-0.185	-0.811	-0.847	-0.020	0.134	-0.105	0.000	-0.014
3	13:19:50	-0.184	-0.870	-0.777	-0.012	0.151	0.086	0.000	-0.015
x		-0.174	-0.877	-0.849	0.003	0.087	0.027	0.000	-0.014
σ		0.017	0.071	0.073	0.034	0.097	0.115	0.000	0.001
%RSD		9.950	8.037	8.559	1136.000	112.100	419.100	0.000	4.047

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:12	104.561%	0.379	0.355	104.042%	-0.012	-0.029	0.002	-0.008
2	13:19:31	106.856%	0.405	0.382	104.632%	-0.018	-0.030	0.023	0.012
3	13:19:50	105.908%	0.324	0.365	103.795%	-0.021	-0.027	-0.008	-0.008
x		105.775%	0.369	0.367	104.156%	-0.017	-0.029	0.006	-0.001
σ		1.153%	0.041	0.013	0.430%	0.005	0.002	0.016	0.012
%RSD		1.090	11.120	3.625	0.413	28.500	6.032	270.600	879.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:12	108.460%	-0.011	0.013	0.004	-0.032	-0.009	109.789%	109.839%
2	13:19:31	109.684%	0.006	0.014	-0.004	-0.035	-0.012	112.025%	111.804%
3	13:19:50	109.126%	0.019	0.014	0.001	-0.037	-0.015	113.590%	113.108%
x		109.090%	0.005	0.014	0.001	-0.035	-0.012	111.802%	111.584%
σ		0.613%	0.015	0.001	0.004	0.002	0.003	1.911%	1.646%
%RSD		0.562	311.700	4.257	709.500	6.928	22.060	1.709	1.475

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:12	0.010	0.010	-0.007	-0.017	-0.011	118.048%
2	13:19:31	0.006	0.013	-0.013	-0.015	-0.012	120.159%
3	13:19:50	0.010	0.012	-0.014	-0.016	-0.013	119.047%
x		0.009	0.012	-0.011	-0.016	-0.012	119.084%
σ		0.002	0.002	0.003	0.001	0.001	1.056%
%RSD		22.910	12.830	31.080	4.555	7.718	0.887

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:59	67.424%	48.570	878.300	872.300	0.000	44050.000	44510.000	44390.000
2	13:23:19	65.660%	46.300	837.300	880.500	0.000	44180.000	42750.000	42630.000
3	13:23:38	62.077%	48.920	889.500	877.900	0.000	43820.000	44570.000	44050.000
x		65.054%	47.930	868.400	876.900	0.000	44010.000	43950.000	43690.000
σ		2.725%	1.423	27.470	4.211	0.000	183.600	1032.000	938.100
%RSD		4.189	2.970	3.163	0.480	0.000	0.417	2.349	2.147
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:59	1796.000	8995.000	0.000	47250.000	44520.000	48250.000	80.019%	932.700
2	13:23:19	1719.000	8639.000	0.000	47060.000	45260.000	48830.000	75.249%	940.700
3	13:23:38	1752.000	8808.000	0.000	47760.000	44920.000	48770.000	74.125%	942.400
x		1756.000	8814.000	0.000	47360.000	44900.000	48620.000	76.464%	938.600
σ		38.690	178.000	0.000	359.600	369.100	320.200	3.129%	5.199
%RSD		2.204	2.019	0.000	0.759	0.822	0.659	4.092	0.554
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:59	478.600	187.300	473.600	955.200	995.900	473.600	467.100	240.700
2	13:23:19	485.200	189.300	483.700	963.400	1001.000	467.700	469.100	237.500
3	13:23:38	470.500	185.400	473.000	945.700	977.800	456.300	453.700	234.400
x		478.100	187.300	476.800	954.700	991.700	465.800	463.300	237.500
σ		7.366	1.949	6.036	8.840	12.320	8.792	8.368	3.156
%RSD		1.541	1.040	1.266	0.926	1.242	1.887	1.806	1.329
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:59	238.200	505.600	509.200	39.730	11.390	10.980	0.000	907.600
2	13:23:19	238.000	514.600	515.600	39.290	11.410	10.830	0.000	913.900
3	13:23:38	234.400	512.400	510.100	39.900	11.570	11.150	0.000	924.900
x		236.900	510.900	511.700	39.640	11.460	10.980	0.000	915.500
σ		2.160	4.653	3.465	0.314	0.097	0.161	0.000	8.795
%RSD		0.912	0.911	0.677	0.793	0.845	1.461	0.000	0.961
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:59	87.897%	934.200	945.100	83.168%	46.960	46.190	49.030	43.240
2	13:23:19	87.357%	950.300	953.300	81.701%	47.330	46.950	50.140	44.830
3	13:23:38	85.399%	953.900	964.200	80.394%	47.220	46.640	50.340	43.720
x		86.884%	946.100	954.200	81.754%	47.170	46.590	49.840	43.930
σ		1.314%	10.460	9.546	1.388%	0.188	0.383	0.707	0.820
%RSD		1.513	1.106	1.000	1.697	0.398	0.822	1.418	1.866
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:59	91.097%	1862.000	476.300	487.600	1883.000	1841.000	100.200%	101.498%
2	13:23:19	90.463%	1865.000	485.300	487.900	1862.000	1841.000	101.321%	100.658%
3	13:23:38	89.187%	1881.000	480.500	488.800	1889.000	1864.000	100.549%	101.940%
x		90.249%	1870.000	480.700	488.100	1878.000	1849.000	100.690%	101.365%
σ		0.973%	10.260	4.493	0.609	14.460	12.860	0.573%	0.651%
%RSD		1.078	0.549	0.935	0.125	0.770	0.696	0.570	0.643
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:22:59	41.590	41.760	17.120	17.140	16.890	112.126%		
2	13:23:19	43.680	44.440	18.030	18.120	17.980	107.678%		
3	13:23:38	45.230	45.680	18.590	18.540	18.370	104.420%		
x		43.500	43.960	17.910	17.930	17.750	108.075%		
σ		1.823	2.002	0.740	0.718	0.768	3.869%		
%RSD		4.191	4.555	4.128	4.002	4.328	3.580		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:49	64.972%	45.550	823.700	824.600	0.000	42140.000	42660.000	43780.000
2	13:27:08	61.897%	44.860	872.200	862.600	0.000	44200.000	43650.000	43780.000
3	13:27:28	60.712%	48.800	877.700	843.500	0.000	44640.000	44780.000	44260.000
x		62.527%	46.400	857.900	843.600	0.000	43660.000	43690.000	43940.000
σ		2.199%	2.102	29.720	18.970	0.000	1332.000	1063.000	279.800
%RSD		3.516	4.530	3.464	2.248	0.000	3.051	2.432	0.637
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:49	1723.000	8607.000	0.000	46540.000	44030.000	47840.000	77.934%	904.700
2	13:27:08	1733.000	8792.000	0.000	46660.000	44780.000	48190.000	74.321%	917.300
3	13:27:28	1715.000	8498.000	0.000	48310.000	46160.000	49920.000	70.275%	928.100
x		1724.000	8632.000	0.000	47170.000	44990.000	48650.000	74.177%	916.700
σ		8.981	148.600	0.000	990.200	1083.000	1111.000	3.831%	11.680
%RSD		0.521	1.721	0.000	2.099	2.406	2.284	5.165	1.274
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:49	465.800	181.300	464.500	936.600	958.400	452.700	448.600	230.300
2	13:27:08	464.300	181.600	462.800	928.600	959.400	444.800	440.700	226.800
3	13:27:28	485.700	189.700	486.900	977.000	1005.000	473.900	463.400	236.400
x		471.900	184.200	471.400	947.400	974.300	457.100	450.900	231.200
σ		11.960	4.765	13.500	25.950	26.620	15.010	11.530	4.887
%RSD		2.535	2.587	2.863	2.739	2.732	3.284	2.557	2.114
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:49	231.200	494.500	495.900	38.020	10.930	10.840	0.000	895.600
2	13:27:08	230.400	494.400	502.000	38.300	10.610	10.740	0.000	900.200
3	13:27:28	236.500	510.100	513.500	38.810	11.320	10.530	0.000	917.300
x		232.700	499.700	503.800	38.380	10.950	10.700	0.000	904.400
σ		3.349	9.011	8.943	0.403	0.355	0.162	0.000	11.400
%RSD		1.439	1.803	1.775	1.051	3.241	1.515	0.000	1.260
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:49	84.632%	916.000	935.600	80.412%	46.100	45.970	48.800	43.580
2	13:27:08	82.875%	930.500	941.600	78.818%	46.210	45.900	47.900	43.490
3	13:27:28	80.067%	958.900	978.900	75.732%	47.180	47.010	49.840	46.400
x		82.525%	935.100	952.000	78.321%	46.500	46.290	48.850	44.490
σ		2.303%	21.830	23.420	2.379%	0.595	0.621	0.972	1.659
%RSD		2.790	2.335	2.460	3.038	1.279	1.342	1.991	3.730
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:49	87.390%	1831.000	462.000	467.300	1832.000	1816.000	96.298%	97.113%
2	13:27:08	86.393%	1829.000	464.800	474.200	1853.000	1811.000	96.544%	98.102%
3	13:27:28	83.943%	1887.000	490.800	490.100	1888.000	1856.000	96.225%	96.959%
x		85.909%	1849.000	472.500	477.200	1858.000	1827.000	96.356%	97.391%
σ		1.774%	33.030	15.850	11.730	28.320	24.950	0.167%	0.620%
%RSD		2.065	1.786	3.355	2.458	1.524	1.365	0.173	0.637
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:26:49	42.670	42.970	17.540	18.000	17.560	103.506%		
2	13:27:08	44.140	44.830	18.130	18.530	18.120	101.142%		
3	13:27:28	47.370	48.000	19.280	19.720	19.210	95.518%		
x		44.730	45.270	18.310	18.750	18.290	100.055%		
σ		2.406	2.543	0.884	0.882	0.841	4.104%		
%RSD		5.378	5.618	4.829	4.702	4.596	4.101		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	65.740%	0.027	12.370	12.050	0.000	66660.000	6.312	5.824
2	13:30:57	60.546%	-0.007	13.470	13.200	0.000	67070.000	5.477	4.969
3	13:31:16	59.554%	0.022	12.620	13.480	0.000	64650.000	4.270	4.772
x		61.946%	0.014	12.820	12.910	0.000	66130.000	5.353	5.188
σ		3.323%	0.018	0.577	0.759	0.000	1292.000	1.027	0.560
%RSD		5.364	127.500	4.503	5.883	0.000	1.954	19.180	10.790

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	0.483	29.770	0.000	173.100	700.600	830.500	71.736%	0.231
2	13:30:57	0.536	35.410	0.000	172.400	724.000	823.400	70.219%	0.276
3	13:31:16	0.457	34.750	0.000	172.400	764.900	830.700	68.471%	0.379
x		0.492	33.310	0.000	172.700	729.800	828.200	70.142%	0.295
σ		0.040	3.081	0.000	0.391	32.560	4.155	1.634%	0.076
%RSD		8.188	9.250	0.000	0.227	4.462	0.502	2.329	25.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	0.178	0.065	0.119	12.110	12.190	0.141	0.329	0.401
2	13:30:57	-0.003	0.047	0.090	10.870	10.560	0.119	0.322	0.371
3	13:31:16	-0.219	0.050	0.093	10.020	12.190	0.127	0.329	0.379
x		-0.014	0.054	0.101	11.000	11.650	0.129	0.327	0.383
σ		0.199	0.010	0.016	1.050	0.944	0.011	0.004	0.016
%RSD		1374.000	17.690	15.490	9.548	8.102	8.594	1.262	4.143

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	-0.056	-0.055	-0.005	1.204	26.440	26.560	0.000	3.962
2	13:30:57	-0.102	-0.022	-0.086	0.859	26.040	26.540	0.000	4.045
3	13:31:16	-0.017	-0.153	-0.086	1.015	26.170	27.050	0.000	4.038
x		-0.058	-0.076	-0.059	1.026	26.220	26.710	0.000	4.015
σ		0.043	0.068	0.047	0.173	0.201	0.291	0.000	0.046
%RSD		72.880	89.190	78.950	16.860	0.768	1.090	0.000	1.143

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	79.755%	8.704	8.890	78.863%	-0.030	-0.028	-0.029	-0.010
2	13:30:57	79.437%	6.742	7.128	77.987%	-0.023	-0.032	-0.041	-0.031
3	13:31:16	79.295%	5.644	5.826	77.091%	-0.022	-0.022	-0.056	-0.041
x		79.496%	7.030	7.281	77.980%	-0.025	-0.027	-0.042	-0.027
σ		0.236%	1.550	1.538	0.886%	0.004	0.005	0.014	0.016
%RSD		0.296	22.050	21.120	1.136	16.930	19.280	32.750	57.970

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	84.888%	3.300	0.112	0.086	0.416	0.458	92.972%	94.136%
2	13:30:57	84.801%	3.046	0.098	0.082	0.407	0.421	94.590%	94.832%
3	13:31:16	84.802%	2.866	0.104	0.083	0.349	0.388	94.718%	95.717%
x		84.830%	3.071	0.105	0.084	0.391	0.422	94.093%	94.895%
σ		0.050%	0.218	0.007	0.002	0.036	0.035	0.973%	0.793%
%RSD		0.059	7.092	6.439	2.103	9.345	8.191	1.034	0.835

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:38	0.262	0.279	0.008	0.005	0.005	102.077%
2	13:30:57	0.267	0.255	0.010	-0.002	0.005	102.028%
3	13:31:16	0.244	0.233	0.014	0.009	0.012	100.970%
x		0.258	0.256	0.010	0.004	0.007	101.692%
σ		0.012	0.023	0.003	0.006	0.004	0.625%
%RSD		4.727	8.959	29.850	126.700	52.920	0.615

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:26	68.131%	-0.025	9.789	11.330	0.000	58900.000	167.000	163.700
2	13:34:47	65.201%	0.028	9.818	10.080	0.000	55880.000	153.300	155.200
3	13:35:06	63.937%	0.004	10.280	10.020	0.000	56270.000	159.800	158.600
x		65.756%	0.002	9.962	10.480	0.000	57020.000	160.100	159.200
σ		2.152%	0.026	0.276	0.740	0.000	1639.000	6.861	4.239
%RSD		3.272	1158.000	2.767	7.057	0.000	2.875	4.287	2.663
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:26	1.584	37.330	0.000	187.900	1269.000	1405.000	74.892%	0.143
2	13:34:47	1.263	38.060	0.000	184.400	1376.000	1438.000	72.676%	0.138
3	13:35:06	1.419	36.800	0.000	181.900	1288.000	1446.000	72.291%	0.202
x		1.422	37.400	0.000	184.700	1311.000	1430.000	73.286%	0.161
σ		0.160	0.635	0.000	3.013	57.510	21.590	1.404%	0.036
%RSD		11.270	1.699	0.000	1.631	4.387	1.510	1.915	22.160
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:26	-0.093	0.056	1.726	8.214	10.970	0.097	0.353	0.302
2	13:34:47	-0.017	0.070	1.773	8.176	10.430	0.097	0.367	0.281
3	13:35:06	-0.162	0.062	1.794	7.806	10.680	0.111	0.370	0.290
x		-0.091	0.063	1.764	8.065	10.690	0.102	0.364	0.291
σ		0.072	0.007	0.034	0.225	0.271	0.008	0.009	0.011
%RSD		79.800	11.640	1.954	2.794	2.531	8.102	2.501	3.648
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:26	-0.075	0.459	0.629	0.566	13.180	13.830	0.000	4.401
2	13:34:47	-0.099	0.638	0.295	0.234	13.270	13.280	0.000	4.328
3	13:35:06	-0.104	0.673	0.716	1.145	13.940	14.380	0.000	4.388
x		-0.093	0.590	0.547	0.648	13.470	13.830	0.000	4.372
σ		0.016	0.115	0.222	0.461	0.413	0.550	0.000	0.039
%RSD		16.980	19.510	40.670	71.110	3.071	3.975	0.000	0.885
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:26	81.545%	1.416	1.470	80.037%	-0.027	-0.035	-0.035	-0.037
2	13:34:47	81.837%	1.334	1.393	78.652%	-0.032	-0.039	-0.035	-0.035
3	13:35:06	81.706%	1.204	1.237	78.823%	-0.030	-0.038	-0.052	-0.043
x		81.696%	1.318	1.367	79.171%	-0.030	-0.037	-0.040	-0.038
σ		0.146%	0.107	0.119	0.755%	0.002	0.002	0.010	0.004
%RSD		0.179	8.100	8.675	0.954	8.448	4.929	24.470	10.820
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:26	85.581%	1.161	0.070	0.047	0.124	0.109	93.776%	94.093%
2	13:34:47	85.351%	1.181	0.080	0.061	0.069	0.110	95.026%	95.148%
3	13:35:06	86.942%	1.101	0.079	0.061	0.062	0.124	95.029%	96.196%
x		85.958%	1.148	0.076	0.056	0.085	0.114	94.610%	95.146%
σ		0.860%	0.041	0.006	0.008	0.034	0.008	0.723%	1.051%
%RSD		1.000	3.613	7.717	13.930	40.430	7.293	0.764	1.105
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:34:26	0.065	0.070	-0.009	-0.008	-0.005	107.400%		
2	13:34:47	0.071	0.081	-0.003	-0.011	-0.005	103.722%		
3	13:35:06	0.082	0.080	-0.004	-0.002	-0.004	101.403%		
x		0.072	0.077	-0.005	-0.007	-0.005	104.175%		
σ		0.008	0.006	0.003	0.005	0.001	3.024%		
%RSD		11.480	8.200	63.910	64.350	11.750	2.903		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:16	68.558%	-0.025	9.429	9.168	0.000	53640.000	10.010	10.090
2	13:38:36	71.848%	-0.003	9.483	9.931	0.000	52720.000	10.200	10.850
3	13:38:55	70.519%	-0.026	9.518	10.120	0.000	53890.000	9.931	9.880
x		70.308%	-0.018	9.476	9.740	0.000	53420.000	10.050	10.270
σ		1.655%	0.013	0.045	0.505	0.000	618.100	0.140	0.511
%RSD		2.355	70.380	0.472	5.181	0.000	1.157	1.398	4.972
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:16	2.639	13.160	0.000	143.200	714.100	802.100	78.680%	0.120
2	13:38:36	2.704	12.510	0.000	138.400	699.200	783.100	78.365%	0.109
3	13:38:55	2.380	12.520	0.000	141.700	764.600	817.000	75.336%	0.130
x		2.574	12.730	0.000	141.100	725.900	800.800	77.460%	0.120
σ		0.171	0.370	0.000	2.474	34.300	16.990	1.846%	0.010
%RSD		6.642	2.908	0.000	1.753	4.725	2.121	2.384	8.520
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:16	-0.003	0.048	0.181	11.460	12.470	0.138	0.308	0.252
2	13:38:36	-0.038	0.029	0.184	7.679	11.020	0.139	0.318	0.254
3	13:38:55	-0.157	0.016	0.188	8.472	12.140	0.149	0.311	0.302
x		-0.066	0.031	0.184	9.203	11.880	0.142	0.312	0.269
σ		0.081	0.016	0.003	1.992	0.756	0.006	0.005	0.028
%RSD		122.200	51.510	1.801	21.650	6.366	4.166	1.732	10.520
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:16	-0.060	0.842	1.020	0.796	21.910	22.100	0.000	3.697
2	13:38:36	-0.085	0.852	0.843	0.822	21.770	21.840	0.000	3.663
3	13:38:55	-0.093	0.944	1.092	0.817	21.630	22.630	0.000	3.836
x		-0.079	0.879	0.985	0.812	21.770	22.190	0.000	3.732
σ		0.017	0.056	0.128	0.014	0.141	0.403	0.000	0.091
%RSD		21.980	6.369	12.980	1.695	0.650	1.816	0.000	2.451
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:16	83.808%	0.595	0.582	82.094%	-0.034	-0.032	-0.052	-0.039
2	13:38:36	86.003%	0.595	0.536	83.514%	-0.031	-0.035	-0.051	-0.036
3	13:38:55	84.790%	0.551	0.571	82.389%	-0.024	-0.035	-0.011	-0.010
x		84.867%	0.580	0.563	82.666%	-0.030	-0.034	-0.038	-0.028
σ		1.100%	0.025	0.024	0.749%	0.005	0.002	0.023	0.016
%RSD		1.296	4.367	4.274	0.907	16.900	4.518	60.820	56.180
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:16	86.990%	0.679	0.027	0.005	0.339	0.333	95.372%	95.660%
2	13:38:36	89.411%	0.601	0.022	0.012	0.313	0.300	97.799%	98.389%
3	13:38:55	89.523%	0.594	0.040	0.029	0.266	0.286	98.702%	98.342%
x		88.642%	0.625	0.029	0.015	0.306	0.306	97.291%	97.464%
σ		1.431%	0.047	0.009	0.012	0.037	0.024	1.722%	1.562%
%RSD		1.614	7.541	31.920	80.800	12.020	7.828	1.770	1.603
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:38:16	0.059	0.058	0.055	0.046	0.058	103.074%		
2	13:38:36	0.055	0.065	0.060	0.045	0.059	104.431%		
3	13:38:55	0.066	0.062	0.066	0.060	0.065	101.593%		
x		0.060	0.062	0.061	0.050	0.060	103.033%		
σ		0.006	0.004	0.005	0.008	0.004	1.419%		
%RSD		9.313	5.707	9.019	16.280	6.158	1.378		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:06	75.284%	-0.017	10.090	9.631	0.000	63470.000	171.900	171.600
2	13:42:25	74.931%	-0.028	10.090	9.483	0.000	60420.000	168.800	166.100
3	13:42:44	67.801%	-0.049	9.280	9.769	0.000	60510.000	170.900	175.100
x		72.672%	-0.031	9.820	9.628	0.000	61470.000	170.500	170.900
σ		4.222%	0.016	0.467	0.143	0.000	1736.000	1.606	4.526
%RSD		5.809	51.870	4.760	1.485	0.000	2.824	0.942	2.648
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:06	0.928	20.620	0.000	196.500	1073.000	1229.000	82.830%	0.131
2	13:42:25	0.902	13.560	0.000	198.800	1143.000	1238.000	77.312%	0.136
3	13:42:44	1.286	24.840	0.000	202.400	1245.000	1252.000	77.455%	0.135
x		1.038	19.670	0.000	199.200	1153.000	1240.000	79.199%	0.134
σ		0.215	5.697	0.000	2.998	86.630	11.310	3.145%	0.002
%RSD		20.650	28.960	0.000	1.505	7.511	0.912	3.971	1.765
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:06	-0.078	0.091	1.074	13.790	16.340	0.102	0.311	0.269
2	13:42:25	-0.226	0.036	1.096	16.450	16.210	0.103	0.298	0.291
3	13:42:44	-0.170	0.063	1.152	14.670	16.080	0.103	0.293	0.286
x		-0.158	0.063	1.108	14.970	16.210	0.103	0.301	0.282
σ		0.074	0.027	0.040	1.351	0.128	0.001	0.009	0.012
%RSD		47.070	43.110	3.616	9.027	0.792	0.577	3.137	4.114
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:06	-0.060	-0.054	0.086	0.750	14.050	14.690	0.000	3.632
2	13:42:25	-0.054	0.093	-0.092	0.938	14.980	15.730	0.000	3.755
3	13:42:44	-0.055	0.066	-0.063	0.378	14.600	14.690	0.000	3.876
x		-0.056	0.035	-0.023	0.689	14.540	15.040	0.000	3.754
σ		0.004	0.078	0.096	0.285	0.466	0.603	0.000	0.122
%RSD		6.448	222.800	416.700	41.330	3.203	4.012	0.000	3.241
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:06	87.747%	0.406	0.431	85.038%	-0.030	-0.040	-0.023	-0.024
2	13:42:25	85.412%	0.508	0.422	83.624%	-0.034	-0.042	-0.051	-0.046
3	13:42:44	85.804%	0.425	0.484	83.150%	-0.028	-0.046	0.001	-0.003
x		86.321%	0.447	0.446	83.938%	-0.031	-0.043	-0.024	-0.024
σ		1.250%	0.054	0.033	0.983%	0.003	0.003	0.026	0.022
%RSD		1.449	12.170	7.510	1.171	11.030	6.954	107.200	89.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:06	89.613%	0.334	0.042	0.031	0.085	0.098	97.172%	97.383%
2	13:42:25	90.219%	0.423	0.062	0.053	0.037	0.101	96.623%	97.042%
3	13:42:44	89.747%	0.395	0.063	0.035	0.069	0.087	97.180%	97.422%
x		89.860%	0.384	0.056	0.040	0.064	0.095	96.992%	97.282%
σ		0.318%	0.046	0.012	0.011	0.024	0.007	0.319%	0.209%
%RSD		0.354	11.870	20.990	28.460	38.060	7.411	0.329	0.215
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:42:06	0.025	0.034	-0.006	-0.003	-0.004	108.030%		
2	13:42:25	0.033	0.033	-0.014	-0.007	-0.004	102.688%		
3	13:42:44	0.034	0.035	0.001	-0.008	0.000	102.354%		
x		0.031	0.034	-0.006	-0.006	-0.003	104.357%		
σ		0.005	0.001	0.007	0.003	0.003	3.185%		
%RSD		16.690	2.775	122.700	46.070	99.320	3.052		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	73.320%	-0.005	11.480	10.070	0.000	59400.000	6.148	6.331
2	13:46:15	67.872%	-0.025	9.929	10.650	0.000	59030.000	5.521	6.256
3	13:46:35	69.209%	-0.062	10.400	9.203	0.000	58230.000	6.602	5.985
x		70.134%	-0.030	10.610	9.975	0.000	58890.000	6.090	6.191
σ		2.839%	0.029	0.796	0.730	0.000	594.800	0.543	0.181
%RSD		4.048	95.530	7.502	7.320	0.000	1.010	8.916	2.932

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	-0.364	7.568	0.000	145.900	658.200	741.400	78.969%	0.038
2	13:46:15	-0.433	13.060	0.000	149.900	683.200	750.800	76.908%	0.101
3	13:46:35	-0.513	3.655	0.000	149.400	680.800	757.800	72.748%	0.075
x		-0.437	8.093	0.000	148.400	674.100	750.000	76.208%	0.071
σ		0.074	4.723	0.000	2.157	13.770	8.229	3.169%	0.032
%RSD		17.050	58.350	0.000	1.453	2.043	1.097	4.158	44.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	-0.318	0.040	0.216	21.110	19.530	0.186	0.495	0.318
2	13:46:15	-0.178	0.018	0.212	19.120	19.050	0.163	0.343	0.259
3	13:46:35	-0.102	0.009	0.221	20.190	19.490	0.153	0.405	0.333
x		-0.199	0.022	0.217	20.140	19.360	0.167	0.414	0.303
σ		0.110	0.016	0.005	0.997	0.264	0.017	0.077	0.039
%RSD		54.920	73.430	2.173	4.952	1.364	9.946	18.480	12.830

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	-0.097	0.909	0.771	1.151	26.590	26.770	0.000	3.712
2	13:46:15	-0.105	0.679	0.824	1.445	27.090	27.630	0.000	3.721
3	13:46:35	-0.055	0.919	0.638	1.348	25.880	26.550	0.000	3.700
x		-0.085	0.836	0.744	1.314	26.520	26.990	0.000	3.711
σ		0.027	0.136	0.096	0.150	0.609	0.573	0.000	0.011
%RSD		31.680	16.280	12.900	11.410	2.295	2.122	0.000	0.294

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	83.737%	0.282	0.276	81.383%	-0.033	-0.043	-0.035	-0.028
2	13:46:15	83.967%	0.259	0.251	81.431%	-0.036	-0.037	-0.025	-0.011
3	13:46:35	83.800%	0.221	0.274	80.300%	-0.033	-0.044	-0.028	-0.031
x		83.835%	0.254	0.267	81.038%	-0.034	-0.041	-0.029	-0.023
σ		0.119%	0.031	0.014	0.639%	0.002	0.004	0.005	0.010
%RSD		0.142	12.100	5.168	0.789	5.398	9.523	18.550	44.950

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	86.997%	0.346	0.041	0.032	0.347	0.350	94.019%	93.596%
2	13:46:15	87.550%	0.363	0.055	0.031	0.273	0.400	95.416%	95.600%
3	13:46:35	87.924%	0.334	0.049	0.036	0.337	0.349	96.860%	96.875%
x		87.490%	0.347	0.048	0.033	0.319	0.366	95.431%	95.357%
σ		0.466%	0.015	0.007	0.003	0.040	0.029	1.420%	1.653%
%RSD		0.533	4.209	14.570	7.734	12.660	7.880	1.488	1.734

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:56	0.035	0.036	0.010	0.002	0.012	107.288%
2	13:46:15	0.033	0.038	0.015	0.016	0.013	103.497%
3	13:46:35	0.040	0.038	0.021	0.006	0.017	100.593%
x		0.036	0.037	0.015	0.008	0.014	103.792%
σ		0.004	0.001	0.006	0.007	0.003	3.357%
%RSD		10.210	3.152	36.570	88.510	19.450	3.235

180-43474-A-4-B 4/30/2015 1:49:28 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	13:49:47	72.986%	-0.004	8.343	9.644	0.000	59340.000	197.100	202.000
2	13:50:06	75.548%	-0.017	7.549	9.533	0.000	56280.000	184.000	185.500
3	13:50:25	71.407%	0.021	8.369	8.757	0.000	55700.000	190.800	187.700
x		73.314%	-0.000	8.087	9.311	0.000	57110.000	190.700	191.700
σ		2.090%	0.019	0.466	0.483	0.000	1954.000	6.555	8.956
%RSD		2.851	5615.000	5.765	5.193	0.000	3.422	3.438	4.672

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:47	2.528	14.650	0.000	181.700	1206.000	1255.000	81.087%	0.396
2	13:50:06	2.044	10.450	0.000	178.300	1178.000	1288.000	79.084%	0.119
3	13:50:25	2.214	9.143	0.000	183.200	1217.000	1327.000	75.292%	0.202
x		2.262	11.410	0.000	181.100	1200.000	1290.000	78.487%	0.239
σ		0.246	2.875	0.000	2.481	20.050	36.150	2.943%	0.142
%RSD		10.870	25.190	0.000	1.370	1.671	2.802	3.750	59.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:47	-0.165	0.080	2.227	22.510	24.750	0.129	0.302	0.273
2	13:50:06	-0.462	0.050	2.271	22.790	23.220	0.106	0.323	0.270
3	13:50:25	0.034	0.023	2.350	26.730	24.560	0.128	0.301	0.277
x		-0.198	0.051	2.282	24.010	24.180	0.121	0.309	0.274
σ		0.250	0.028	0.062	2.362	0.837	0.013	0.012	0.004
%RSD		126.200	55.380	2.732	9.836	3.460	10.740	3.914	1.352

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:47	-0.054	0.100	0.089	0.872	15.170	15.200	0.000	4.019
2	13:50:06	-0.075	0.140	-0.070	0.943	15.230	15.660	0.000	4.123
3	13:50:25	-0.101	0.140	-0.021	0.684	15.100	15.650	0.000	4.093
x		-0.077	0.126	-0.001	0.833	15.170	15.500	0.000	4.078
σ		0.024	0.023	0.081	0.134	0.066	0.259	0.000	0.054
%RSD		31.060	18.080	10590.000	16.100	0.433	1.670	0.000	1.314

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:47	86.416%	0.260	0.230	84.551%	-0.034	-0.045	0.006	-0.001
2	13:50:06	85.548%	0.249	0.246	82.794%	-0.035	-0.044	-0.062	-0.040
3	13:50:25	85.251%	0.276	0.261	82.403%	-0.036	-0.036	-0.042	-0.040
x		85.738%	0.261	0.246	83.249%	-0.035	-0.042	-0.033	-0.027
σ		0.605%	0.014	0.016	1.144%	0.001	0.005	0.035	0.022
%RSD		0.706	5.259	6.422	1.374	2.587	11.540	106.400	83.010

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:47	88.582%	0.169	0.022	0.013	0.039	0.136	95.692%	95.504%
2	13:50:06	89.154%	0.194	0.026	0.024	0.081	0.118	96.135%	97.222%
3	13:50:25	89.874%	0.158	0.040	0.022	0.096	0.115	97.438%	98.618%
x		89.203%	0.174	0.029	0.020	0.072	0.123	96.422%	97.115%
σ		0.648%	0.018	0.010	0.006	0.029	0.011	0.908%	1.560%
%RSD		0.726	10.550	33.280	29.250	41.080	8.962	0.941	1.606

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:47	0.019	0.019	0.013	-0.001	0.009	104.324%
2	13:50:06	0.024	0.024	0.010	0.009	0.010	102.953%
3	13:50:25	0.018	0.022	0.010	0.010	0.014	100.440%
x		0.020	0.022	0.011	0.006	0.011	102.572%
σ		0.003	0.002	0.002	0.006	0.003	1.970%
%RSD		16.200	9.722	16.420	106.000	23.160	1.920

CCV 1533080 4/30/2015 1:53:25 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	91.398%	103.100	97.950	97.190	0.000	49940.000	50190.000	50110.000
2	13:53:44	87.897%	105.100	102.900	98.840	0.000	50750.000	50310.000	50480.000
3	13:54:03	83.628%	107.700	101.000	102.100	0.000	51880.000	52700.000	51540.000
x		87.641%	105.306%	100.594%	99.374%	0.000	101.709%	102.134%	101.426%
σ		3.892%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.440	2.192	2.461	2.504	0.000	1.914	2.767	1.461

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	501.800	5005.000	0.000	49070.000	45900.000	49470.000	105.800%	96.030
2	13:53:44	512.600	5088.000	0.000	51360.000	48230.000	51940.000	100.061%	103.400
3	13:54:03	533.100	5189.000	0.000	52130.000	48710.000	52860.000	97.885%	101.200
x		103.174%	101.888%	0.000	101.702%	95.230%	102.852%	101.249%	100.202%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.089%	n/a
%RSD		3.082	1.808	0.000	3.132	3.158	3.409	4.038	3.763

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	95.940	98.430	483.100	24170.000	24330.000	96.900	97.840	100.800
2	13:53:44	102.000	103.200	513.300	25230.000	25510.000	101.600	102.000	102.800
3	13:54:03	101.600	101.100	508.000	25110.000	25110.000	98.180	98.000	101.700
x		99.826%	100.914%	100.288%	99.349%	99.923%	98.891%	99.278%	101.746%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.380	2.354	3.216	2.349	2.392	2.453	2.373	1.006

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	100.500	103.000	100.900	99.740	104.500	103.600	0.000	94.550
2	13:53:44	102.800	106.000	104.500	101.600	104.900	102.600	0.000	96.010
3	13:54:03	100.300	105.000	103.500	101.100	107.100	103.700	0.000	95.800
x		101.174%	104.664%	102.982%	100.820%	105.510%	103.268%	0.000	95.454%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.364	1.479	1.795	0.952	1.346	0.586	0.000	0.830

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	103.575%	95.740	98.460	91.040%	102.200	103.500	103.100	103.100
2	13:53:44	104.594%	98.450	101.600	91.260%	104.300	103.100	104.700	104.600
3	13:54:03	105.604%	99.150	101.900	91.096%	103.800	104.600	105.800	105.100
x		104.591%	97.782%	100.649%	91.132%	103.453%	103.721%	104.540%	104.283%
σ		1.014%	n/a	n/a	0.114%	n/a	n/a	n/a	n/a
%RSD		0.970	1.840	1.890	0.125	1.069	0.718	1.263	1.002

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	94.501%	99.600	100.000	101.500	100.600	100.400	96.951%	96.362%
2	13:53:44	96.066%	100.700	102.500	102.100	101.500	102.300	97.847%	97.073%
3	13:54:03	95.987%	102.200	103.100	102.900	101.000	101.800	99.882%	99.454%
x		95.518%	100.819%	101.878%	102.142%	101.041%	101.533%	98.227%	97.630%
σ		0.882%	n/a	n/a	n/a	n/a	n/a	1.502%	1.619%
%RSD		0.923	1.288	1.614	0.711	0.479	0.978	1.529	1.659

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:25	106.100	104.500	104.300	106.400	104.900	91.009%
2	13:53:44	107.900	106.700	106.800	108.900	107.300	91.801%
3	13:54:03	110.200	109.300	109.200	112.100	110.800	91.711%
x		108.080%	106.834%	106.759%	109.136%	107.653%	91.507%
σ		n/a	n/a	n/a	n/a	n/a	0.434%
%RSD		1.920	2.247	2.321	2.633	2.768	0.474

CCB2 4/30/2015 1:59:55 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	100.967%	0.013	0.347	0.293	0.000	4.415	1.796	1.887
2	14:00:33	98.466%	-0.028	0.362	0.360	0.000	4.235	1.674	1.715
3	14:00:52	98.885%	-0.019	0.242	0.336	0.000	3.867	1.803	1.620
x		99.439%	-0.011	0.317	0.330	0.000	4.172	1.757	1.741
σ		1.340%	0.021	0.066	0.034	0.000	0.280	0.073	0.135
%RSD		1.347	189.300	20.680	10.340	0.000	6.701	4.126	7.765

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	0.589	-69.080	0.000	7.090	-1.279	6.528	110.296%	0.032
2	14:00:33	0.416	-67.100	0.000	5.882	8.938	4.171	107.830%	0.010
3	14:00:52	0.385	-67.710	0.000	7.146	6.040	6.678	103.537%	0.005
x		0.463	-67.960	0.000	6.706	4.566	5.792	107.221%	0.016
σ		0.110	1.015	0.000	0.714	5.265	1.406	3.420%	0.015
%RSD		23.660	1.493	0.000	10.650	115.300	24.270	3.190	92.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	-0.000	0.009	0.034	6.990	4.635	-0.001	0.001	0.024
2	14:00:33	-0.003	0.011	0.030	6.231	4.075	0.005	-0.003	0.025
3	14:00:52	0.016	0.001	0.031	6.107	3.791	0.002	-0.013	-0.018
x		0.004	0.007	0.032	6.442	4.167	0.002	-0.005	0.010
σ		0.010	0.006	0.002	0.478	0.429	0.003	0.007	0.025
%RSD		236.300	77.640	5.663	7.419	10.300	168.600	136.200	242.400

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	0.026	0.166	-0.048	0.025	0.252	0.046	0.000	0.002
2	14:00:33	-0.019	0.210	0.200	0.030	0.173	0.056	0.000	0.006
3	14:00:52	0.016	0.247	0.139	0.040	0.257	0.063	0.000	0.002
x		0.008	0.208	0.097	0.031	0.227	0.055	0.000	0.003
σ		0.023	0.040	0.129	0.007	0.047	0.008	0.000	0.003
%RSD		297.800	19.490	133.200	23.620	20.540	15.100	0.000	78.390

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	109.521%	0.214	0.239	108.864%	-0.018	-0.022	0.009	0.008
2	14:00:33	110.354%	0.252	0.250	109.038%	-0.012	-0.026	0.025	0.006
3	14:00:52	108.216%	0.210	0.225	106.828%	-0.012	-0.024	-0.003	-0.003
x		109.364%	0.225	0.238	108.244%	-0.014	-0.024	0.010	0.004
σ		1.078%	0.023	0.012	1.229%	0.004	0.002	0.014	0.006
%RSD		0.985	10.110	5.164	1.135	26.170	7.798	133.500	156.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	108.843%	0.117	0.038	0.012	-0.018	0.013	107.074%	105.128%
2	14:00:33	111.756%	0.121	0.025	0.022	0.001	0.005	109.756%	108.604%
3	14:00:52	109.240%	0.134	0.021	0.017	0.006	0.025	110.582%	108.984%
x		109.947%	0.124	0.028	0.017	-0.004	0.014	109.137%	107.572%
σ		1.580%	0.009	0.009	0.005	0.013	0.010	1.834%	2.125%
%RSD		1.437	7.263	30.620	28.110	319.200	67.970	1.681	1.976

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:14	0.018	0.020	0.009	0.004	0.006	112.030%
2	14:00:33	0.020	0.022	0.002	0.001	0.002	112.078%
3	14:00:52	0.026	0.023	0.005	0.005	0.004	108.447%
x		0.021	0.021	0.006	0.003	0.004	110.852%
σ		0.004	0.002	0.003	0.002	0.002	2.083%
%RSD		20.370	7.978	61.380	66.500	37.810	1.879

180-43429-A-3-B 4/30/2015 2:03:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:06	83.477%	-0.022	9.992	10.180	0.000	66830.000	1.934	1.734
2	14:04:25	81.888%	-0.041	9.890	10.050	0.000	65340.000	1.429	1.655
3	14:04:44	76.950%	0.036	10.480	9.918	0.000	64890.000	1.494	1.371
x		80.772%	-0.009	10.120	10.050	0.000	65690.000	1.619	1.587
σ		3.404%	0.040	0.313	0.130	0.000	1015.000	0.275	0.191
%RSD		4.214	445.700	3.090	1.296	0.000	1.546	16.990	12.020
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:06	-0.727	-3.809	0.000	164.400	807.600	853.100	92.572%	0.068
2	14:04:25	-0.769	-0.371	0.000	163.900	762.300	848.800	88.510%	0.002
3	14:04:44	-0.562	0.889	0.000	164.600	773.600	852.500	88.741%	0.044
x		-0.686	-1.097	0.000	164.300	781.200	851.500	89.941%	0.038
σ		0.110	2.432	0.000	0.324	23.540	2.340	2.281%	0.033
%RSD		16.010	221.600	0.000	0.197	3.014	0.275	2.537	86.930
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:06	-0.215	0.015	0.062	9.323	8.928	0.122	0.429	0.323
2	14:04:25	-0.112	-0.001	0.062	8.062	8.189	0.121	0.386	0.386
3	14:04:44	-0.116	0.038	0.059	7.783	8.894	0.136	0.451	0.333
x		-0.148	0.017	0.061	8.389	8.670	0.126	0.422	0.347
σ		0.058	0.020	0.002	0.821	0.417	0.009	0.033	0.034
%RSD		39.570	115.200	3.233	9.783	4.811	7.018	7.817	9.681
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:06	-0.111	0.600	0.490	0.834	27.440	26.590	0.000	4.066
2	14:04:25	-0.085	0.585	0.313	0.976	26.970	27.570	0.000	4.069
3	14:04:44	-0.115	0.479	0.338	1.407	26.740	27.780	0.000	4.133
x		-0.104	0.555	0.380	1.072	27.050	27.310	0.000	4.089
σ		0.016	0.066	0.096	0.299	0.358	0.631	0.000	0.038
%RSD		15.510	11.880	25.120	27.850	1.324	2.310	0.000	0.929
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:06	94.071%	0.145	0.140	92.431%	-0.026	-0.038	0.003	-0.002
2	14:04:25	94.488%	0.151	0.163	92.149%	-0.033	-0.032	-0.018	-0.016
3	14:04:44	93.356%	0.134	0.138	90.697%	-0.026	-0.032	-0.059	-0.044
x		93.972%	0.144	0.147	91.759%	-0.028	-0.034	-0.025	-0.021
σ		0.573%	0.008	0.014	0.930%	0.004	0.004	0.032	0.021
%RSD		0.610	5.913	9.525	1.014	13.890	10.640	130.100	103.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:06	96.581%	0.102	0.031	0.031	0.327	0.373	99.575%	100.175%
2	14:04:25	96.042%	0.129	0.049	0.046	0.308	0.372	101.490%	102.269%
3	14:04:44	96.554%	0.097	0.054	0.057	0.327	0.317	101.139%	101.227%
x		96.392%	0.110	0.045	0.045	0.321	0.354	100.735%	101.224%
σ		0.304%	0.017	0.012	0.013	0.011	0.032	1.020%	1.047%
%RSD		0.315	15.860	26.950	28.850	3.511	9.098	1.012	1.035
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:04:06	0.022	0.025	-0.007	-0.005	-0.006	118.737%		
2	14:04:25	0.030	0.028	-0.009	-0.004	-0.005	112.850%		
3	14:04:44	0.032	0.031	-0.004	-0.007	-0.003	110.325%		
x		0.028	0.028	-0.007	-0.005	-0.005	113.971%		
σ		0.005	0.003	0.003	0.001	0.002	4.316%		
%RSD		18.740	12.140	39.140	22.530	38.210	3.787		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	84.447%	0.008	7.886	8.833	0.000	61110.000	169.300	169.000
2	14:08:14	78.190%	-0.051	9.325	9.621	0.000	58410.000	171.100	173.100
3	14:08:33	76.064%	0.048	8.932	9.179	0.000	60390.000	172.000	170.900
x		79.567%	0.002	8.714	9.211	0.000	59970.000	170.800	171.000
σ		4.358%	0.050	0.744	0.395	0.000	1400.000	1.331	2.053
%RSD		5.477	2863.000	8.537	4.286	0.000	2.335	0.779	1.200

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	2.318	4.813	0.000	169.200	1486.000	1565.000	88.785%	0.095
2	14:08:14	2.244	1.507	0.000	171.900	1474.000	1613.000	82.957%	0.042
3	14:08:33	2.358	6.195	0.000	171.300	1517.000	1574.000	84.154%	0.029
x		2.307	4.172	0.000	170.800	1492.000	1584.000	85.299%	0.056
σ		0.058	2.409	0.000	1.387	22.050	25.510	3.078%	0.035
%RSD		2.507	57.740	0.000	0.812	1.477	1.611	3.608	62.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	-0.131	0.096	2.872	12.830	13.190	0.176	0.425	0.362
2	14:08:14	-0.168	0.077	2.872	10.380	13.650	0.150	0.412	0.339
3	14:08:33	-0.081	0.082	2.948	12.650	12.750	0.160	0.317	0.338
x		-0.127	0.085	2.897	11.950	13.200	0.162	0.385	0.346
σ		0.043	0.010	0.044	1.363	0.449	0.013	0.059	0.014
%RSD		34.240	11.310	1.507	11.400	3.404	8.023	15.380	3.926

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	-0.048	0.637	0.410	0.694	13.000	13.430	0.000	4.554
2	14:08:14	-0.045	0.696	0.451	0.698	13.350	13.960	0.000	4.618
3	14:08:33	-0.076	0.434	0.601	0.944	12.830	13.690	0.000	4.621
x		-0.056	0.589	0.487	0.778	13.060	13.690	0.000	4.597
σ		0.017	0.138	0.101	0.143	0.267	0.267	0.000	0.038
%RSD		30.870	23.360	20.640	18.370	2.041	1.946	0.000	0.828

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	91.972%	0.207	0.199	90.385%	-0.026	-0.036	-0.017	-0.014
2	14:08:14	91.560%	0.211	0.207	88.913%	-0.030	-0.040	-0.008	0.003
3	14:08:33	91.511%	0.215	0.219	88.066%	-0.033	-0.040	-0.033	-0.020
x		91.681%	0.211	0.208	89.121%	-0.030	-0.039	-0.020	-0.011
σ		0.253%	0.004	0.010	1.173%	0.003	0.003	0.013	0.012
%RSD		0.276	1.938	4.993	1.316	11.420	6.718	64.600	113.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	92.938%	0.059	0.038	0.029	0.153	0.159	99.448%	99.313%
2	14:08:14	93.837%	0.069	0.047	0.040	0.153	0.174	100.900%	101.479%
3	14:08:33	94.129%	0.063	0.053	0.040	0.163	0.182	101.435%	101.658%
x		93.635%	0.064	0.046	0.036	0.156	0.172	100.594%	100.816%
σ		0.621%	0.005	0.008	0.006	0.005	0.012	1.028%	1.305%
%RSD		0.663	7.200	17.240	17.680	3.457	6.707	1.022	1.295

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:55	0.020	0.023	0.029	0.014	0.025	111.761%
2	14:08:14	0.020	0.025	0.021	0.022	0.024	108.333%
3	14:08:33	0.025	0.028	0.034	0.026	0.029	105.214%
x		0.021	0.025	0.028	0.021	0.026	108.436%
σ		0.003	0.002	0.007	0.006	0.003	3.275%
%RSD		12.440	9.558	24.610	29.000	10.620	3.020

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:41	76.082%	0.026	3101.000	3191.000	0.000	3254.000	2248.000	2249.000
2	14:12:01	75.463%	-0.017	3115.000	3090.000	0.000	3328.000	2336.000	2325.000
3	14:12:20	71.324%	-0.038	3120.000	3291.000	0.000	3308.000	2272.000	2261.000
x		74.289%	-0.010	3112.000	3191.000	0.000	3297.000	2286.000	2278.000
σ		2.587%	0.033	9.770	100.400	0.000	38.370	45.130	40.920
%RSD		3.482	337.900	0.314	3.146	0.000	1.164	1.975	1.796
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:41	55.670	3538.000	0.000	5367.000	24070.000	25810.000	84.511%	1.603
2	14:12:01	56.740	3488.000	0.000	5521.000	25200.000	26830.000	80.277%	1.632
3	14:12:20	57.780	3580.000	0.000	5439.000	25260.000	26930.000	77.462%	1.976
x		56.730	3535.000	0.000	5442.000	24840.000	26520.000	80.750%	1.737
σ		1.054	45.730	0.000	76.830	671.900	618.800	3.548%	0.208
%RSD		1.858	1.294	0.000	1.412	2.705	2.333	4.394	11.950
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:41	0.487	2.484	327.400	272.100	293.400	0.064	0.279	4.283
2	14:12:01	0.570	2.459	328.400	272.500	299.100	0.055	0.304	4.374
3	14:12:20	0.616	2.515	336.500	280.400	298.400	0.071	0.382	4.305
x		0.558	2.486	330.800	275.000	297.000	0.063	0.322	4.320
σ		0.065	0.028	4.992	4.659	3.110	0.008	0.054	0.047
%RSD		11.690	1.130	1.509	1.694	1.047	13.250	16.650	1.095
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:41	4.519	7.021	6.994	30.390	0.196	0.309	0.000	64.060
2	14:12:01	4.152	7.006	7.214	30.090	0.205	0.303	0.000	64.350
3	14:12:20	4.539	7.668	7.159	30.880	0.337	0.387	0.000	65.220
x		4.403	7.232	7.123	30.460	0.246	0.333	0.000	64.540
σ		0.218	0.378	0.115	0.400	0.079	0.046	0.000	0.604
%RSD		4.951	5.229	1.609	1.314	32.010	13.960	0.000	0.935
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:41	88.181%	2.862	2.959	86.341%	-0.027	-0.038	0.021	0.022
2	14:12:01	88.147%	3.049	3.041	85.400%	-0.038	-0.040	-0.022	-0.003
3	14:12:20	87.451%	3.071	3.200	84.204%	-0.033	-0.047	-0.015	-0.008
x		87.927%	2.994	3.067	85.315%	-0.033	-0.042	-0.005	0.004
σ		0.412%	0.115	0.123	1.071%	0.005	0.005	0.023	0.016
%RSD		0.469	3.846	4.006	1.255	16.370	11.260	458.300	446.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:41	92.316%	0.267	0.308	0.285	9.952	9.692	97.004%	96.771%
2	14:12:01	92.408%	0.326	0.325	0.303	9.865	9.986	99.002%	98.847%
3	14:12:20	92.656%	0.320	0.331	0.331	10.010	10.020	98.587%	98.559%
x		92.460%	0.304	0.321	0.306	9.942	9.898	98.197%	98.059%
σ		0.176%	0.032	0.012	0.023	0.073	0.180	1.054%	1.125%
%RSD		0.190	10.630	3.725	7.474	0.738	1.818	1.074	1.147
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:11:41	0.012	0.012	0.196	0.179	0.193	108.771%		
2	14:12:01	0.012	0.014	0.221	0.193	0.209	107.046%		
3	14:12:20	0.009	0.014	0.230	0.198	0.212	103.319%		
x		0.011	0.014	0.216	0.190	0.205	106.379%		
σ		0.002	0.001	0.018	0.010	0.010	2.787%		
%RSD		16.940	7.481	8.160	5.020	5.104	2.620		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	56.330%	0.056	1378.000	1404.000	0.000	388600.000	87.910	88.300
2	14:15:48	54.976%	0.059	1382.000	1362.000	0.000	405000.000	86.100	84.430
3	14:16:07	52.262%	0.002	1293.000	1332.000	0.000	390800.000	84.930	87.870
x		54.523%	0.039	1351.000	1366.000	0.000	394800.000	86.320	86.870
σ		2.071%	0.032	50.570	36.340	0.000	8902.000	1.504	2.123
%RSD		3.799	83.220	3.743	2.660	0.000	2.255	1.742	2.444

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	3835.000	27200.000	0.000	6043.000	1996.000	2307.000	74.826%	8.449
2	14:15:48	3748.000	26200.000	0.000	6149.000	1997.000	2337.000	71.560%	7.962
3	14:16:07	3823.000	25850.000	0.000	6225.000	2088.000	2393.000	70.027%	8.274
x		3802.000	26420.000	0.000	6139.000	2027.000	2346.000	72.138%	8.228
σ		47.030	700.900	0.000	91.210	52.960	43.970	2.451%	0.247
%RSD		1.237	2.654	0.000	1.486	2.612	1.875	3.397	2.998

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	6.122	30.780	5.995	3552.000	3375.000	21.920	20.540	664.600
2	14:15:48	6.086	31.610	6.156	3565.000	3411.000	22.190	21.090	669.300
3	14:16:07	5.854	31.270	6.123	3567.000	3423.000	21.420	20.710	651.600
x		6.020	31.220	6.091	3561.000	3403.000	21.840	20.780	661.800
σ		0.146	0.416	0.085	7.827	24.880	0.387	0.284	9.197
%RSD		2.419	1.332	1.396	0.220	0.731	1.773	1.367	1.390

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	658.800	156.300	154.300	3.273	0.660	1.907	0.000	18.890
2	14:15:48	667.100	156.400	157.000	3.281	0.672	2.053	0.000	19.010
3	14:16:07	651.300	159.300	158.300	3.070	0.597	1.775	0.000	19.200
x		659.100	157.300	156.500	3.208	0.643	1.912	0.000	19.030
σ		7.915	1.694	2.032	0.119	0.040	0.139	0.000	0.155
%RSD		1.201	1.077	1.299	3.722	6.269	7.286	0.000	0.816

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	76.911%	178.400	184.700	70.516%	0.005	-0.000	1.567	1.246
2	14:15:48	77.353%	179.000	186.700	71.092%	0.022	0.006	1.544	1.560
3	14:16:07	77.411%	181.300	187.700	70.200%	0.021	-0.009	1.580	1.425
x		77.225%	179.600	186.400	70.603%	0.016	-0.001	1.563	1.411
σ		0.273%	1.547	1.528	0.453%	0.010	0.007	0.018	0.157
%RSD		0.354	0.862	0.820	0.641	61.380	656.600	1.158	11.150

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	78.961%	45.090	44.940	45.030	21.140	21.370	88.202%	89.228%
2	14:15:48	79.328%	44.820	45.310	45.370	21.120	21.540	90.234%	91.239%
3	14:16:07	79.418%	45.240	45.530	46.000	21.540	21.380	92.225%	92.487%
x		79.236%	45.050	45.260	45.470	21.270	21.430	90.221%	90.985%
σ		0.242%	0.212	0.299	0.489	0.241	0.095	2.012%	1.644%
%RSD		0.305	0.470	0.661	1.076	1.131	0.445	2.230	1.807

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:29	0.040	0.020	10.100	9.479	9.654	88.680%
2	14:15:48	0.047	0.030	10.760	10.070	10.270	86.298%
3	14:16:07	0.044	0.026	10.720	10.040	10.270	87.469%
x		0.044	0.025	10.530	9.863	10.060	87.482%
σ		0.003	0.005	0.368	0.333	0.355	1.191%
%RSD		7.958	19.430	3.500	3.373	3.525	1.362

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:17	72.246%	-0.027	272.500	273.400	0.000	78710.000	16.480	17.330
2	14:19:36	72.432%	-0.016	283.300	277.000	0.000	80190.000	16.900	17.500
3	14:19:55	64.044%	0.003	279.700	278.000	0.000	82180.000	17.780	16.980
x		69.574%	-0.013	278.500	276.100	0.000	80360.000	17.050	17.270
σ		4.790%	0.015	5.510	2.436	0.000	1739.000	0.665	0.263
%RSD		6.884	113.300	1.978	0.882	0.000	2.164	3.897	1.521
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:17	747.000	5086.000	0.000	1191.000	378.500	461.800	89.459%	1.673
2	14:19:36	738.500	4961.000	0.000	1215.000	434.800	461.900	85.392%	1.883
3	14:19:55	788.100	5390.000	0.000	1242.000	422.400	468.600	86.038%	1.687
x		757.900	5146.000	0.000	1216.000	411.900	464.100	86.963%	1.748
σ		26.540	220.600	0.000	25.650	29.560	3.892	2.185%	0.117
%RSD		3.502	4.287	0.000	2.110	7.175	0.839	2.513	6.706
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:17	1.105	6.413	1.274	735.800	706.400	4.711	4.427	146.300
2	14:19:36	1.376	6.491	1.259	740.800	714.700	4.712	4.601	147.800
3	14:19:55	1.199	6.554	1.243	733.200	711.600	4.524	4.406	142.300
x		1.227	6.486	1.259	736.600	710.900	4.649	4.478	145.500
σ		0.138	0.071	0.016	3.865	4.220	0.108	0.107	2.793
%RSD		11.210	1.091	1.234	0.525	0.594	2.323	2.382	1.920
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:17	147.400	33.380	32.590	0.553	0.023	0.264	0.000	3.720
2	14:19:36	149.300	33.280	33.020	0.644	-0.102	0.621	0.000	3.751
3	14:19:55	141.700	32.280	32.890	0.605	0.043	0.303	0.000	3.771
x		146.200	32.980	32.830	0.601	-0.012	0.396	0.000	3.748
σ		3.937	0.607	0.223	0.046	0.079	0.196	0.000	0.026
%RSD		2.694	1.840	0.680	7.653	653.800	49.540	0.000	0.683
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:17	92.650%	35.000	36.270	89.102%	-0.030	-0.030	0.271	0.292
2	14:19:36	92.507%	35.320	36.470	87.814%	-0.026	-0.036	0.288	0.281
3	14:19:55	93.026%	35.240	35.960	87.615%	-0.025	-0.038	0.274	0.216
x		92.728%	35.190	36.230	88.177%	-0.027	-0.034	0.278	0.263
σ		0.268%	0.166	0.258	0.807%	0.003	0.004	0.009	0.041
%RSD		0.289	0.473	0.712	0.915	10.190	12.640	3.303	15.730
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:17	95.933%	8.716	8.658	8.675	4.171	4.156	101.271%	101.467%
2	14:19:36	95.583%	8.949	8.710	8.804	4.106	4.076	102.837%	103.118%
3	14:19:55	96.527%	8.826	8.666	8.669	4.415	4.260	104.355%	105.446%
x		96.014%	8.830	8.678	8.716	4.231	4.164	102.821%	103.343%
σ		0.477%	0.117	0.028	0.076	0.163	0.092	1.542%	1.999%
%RSD		0.497	1.320	0.319	0.876	3.845	2.208	1.500	1.934
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:19:17	0.014	0.012	1.917	1.856	1.869	104.880%		
2	14:19:36	0.015	0.014	2.070	1.880	1.939	102.029%		
3	14:19:55	0.019	0.012	2.044	1.898	1.946	103.646%		
x		0.016	0.012	2.010	1.878	1.918	103.518%		
σ		0.003	0.001	0.082	0.021	0.043	1.430%		
%RSD		17.270	8.661	4.090	1.132	2.228	1.381		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	85.040%	0.007	2.556	3.007	0.000	3.754	-0.026	-0.234
2	14:26:21	83.456%	0.028	3.316	3.064	0.000	3.183	-0.197	-0.242
3	14:26:40	85.145%	0.017	2.495	2.755	0.000	2.778	-0.300	-0.261
x		84.547%	0.017	2.789	2.942	0.000	3.238	-0.174	-0.246
σ		0.946%	0.011	0.458	0.164	0.000	0.490	0.138	0.014
%RSD		1.119	61.940	16.400	5.585	0.000	15.140	79.300	5.603

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	-1.611	-86.160	0.000	0.699	-8.690	-10.100	101.736%	-0.056
2	14:26:21	-1.676	-86.170	0.000	-0.577	-9.382	-10.120	98.754%	0.029
3	14:26:40	-1.691	-86.820	0.000	-0.628	-10.150	-10.110	97.445%	-0.045
x		-1.659	-86.380	0.000	-0.169	-9.406	-10.110	99.311%	-0.024
σ		0.043	0.380	0.000	0.751	0.728	0.007	2.199%	0.046
%RSD		2.577	0.440	0.000	445.600	7.741	0.070	2.214	192.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	-0.010	0.007	-0.019	3.226	1.312	-0.003	-0.051	-0.196
2	14:26:21	0.013	0.019	-0.025	4.332	0.668	-0.003	-0.043	-0.183
3	14:26:40	0.013	0.008	-0.018	4.003	0.947	-0.004	-0.043	-0.180
x		0.005	0.011	-0.021	3.854	0.976	-0.003	-0.045	-0.186
σ		0.013	0.007	0.004	0.568	0.323	0.001	0.005	0.009
%RSD		258.600	60.510	16.940	14.750	33.120	15.550	10.050	4.653

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	-0.180	-0.786	-0.867	0.025	0.088	0.069	0.000	-0.017
2	14:26:21	-0.188	-0.900	-0.956	0.012	0.115	0.070	0.000	-0.016
3	14:26:40	-0.183	-0.836	-0.851	0.001	0.130	-0.028	0.000	-0.016
x		-0.184	-0.841	-0.891	0.013	0.111	0.037	0.000	-0.016
σ		0.004	0.057	0.057	0.012	0.021	0.056	0.000	0.000
%RSD		2.260	6.822	6.374	94.790	19.340	153.000	0.000	1.916

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	106.580%	0.150	0.156	103.956%	-0.039	-0.041	0.009	0.005
2	14:26:21	105.161%	0.129	0.144	103.188%	-0.031	-0.044	-0.052	-0.039
3	14:26:40	108.146%	0.106	0.145	104.895%	-0.031	-0.042	-0.020	-0.012
x		106.629%	0.128	0.148	104.013%	-0.034	-0.042	-0.021	-0.015
σ		1.493%	0.022	0.007	0.855%	0.004	0.002	0.031	0.022
%RSD		1.401	16.950	4.749	0.822	13.000	4.120	146.300	144.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	107.792%	-0.007	-0.009	-0.022	-0.046	-0.017	108.786%	108.289%
2	14:26:21	108.907%	-0.001	-0.014	-0.023	-0.035	-0.012	111.873%	111.406%
3	14:26:40	111.793%	-0.026	-0.011	-0.020	-0.042	-0.017	113.145%	112.884%
x		109.497%	-0.011	-0.011	-0.021	-0.041	-0.015	111.268%	110.860%
σ		2.064%	0.013	0.002	0.002	0.006	0.003	2.241%	2.346%
%RSD		1.885	118.700	20.790	7.957	13.710	18.870	2.014	2.116

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:02	0.006	0.008	-0.014	-0.020	-0.014	113.918%
2	14:26:21	0.004	0.007	-0.017	-0.018	-0.016	112.425%
3	14:26:40	0.008	0.007	-0.013	-0.017	-0.014	113.709%
x		0.006	0.007	-0.015	-0.018	-0.015	113.351%
σ		0.002	0.001	0.002	0.002	0.001	0.809%
%RSD		29.150	7.740	10.910	8.954	6.420	0.713

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	65.489%	46.170	865.100	894.400	0.000	42980.000	43210.000	42780.000
2	14:30:09	66.874%	46.420	851.900	884.400	0.000	42820.000	42600.000	42430.000
3	14:30:28	62.240%	47.680	903.400	933.300	0.000	42170.000	41690.000	42190.000
x		64.867%	46.760	873.400	904.000	0.000	42650.000	42500.000	42470.000
σ		2.379%	0.806	26.780	25.840	0.000	428.500	767.900	293.400
%RSD		3.667	1.723	3.066	2.858	0.000	1.005	1.807	0.691

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	1684.000	8427.000	0.000	49040.000	47800.000	50980.000	66.477%	963.000
2	14:30:09	1652.000	8235.000	0.000	48290.000	47330.000	49790.000	65.514%	958.500
3	14:30:28	1672.000	7924.000	0.000	45010.000	44970.000	48990.000	67.800%	901.100
x		1669.000	8195.000	0.000	47450.000	46700.000	49920.000	66.597%	940.900
σ		15.940	253.700	0.000	2142.000	1513.000	1002.000	1.148%	34.510
%RSD		0.955	3.096	0.000	4.514	3.241	2.008	1.724	3.668

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	499.800	195.000	502.200	1014.000	1031.000	491.400	477.200	241.700
2	14:30:09	491.200	188.300	490.100	982.200	1014.000	478.100	473.300	236.800
3	14:30:28	471.900	184.600	475.800	949.300	989.000	473.200	455.100	235.300
x		487.600	189.300	489.400	982.000	1011.000	480.900	468.500	237.900
σ		14.280	5.265	13.210	32.530	20.970	9.376	11.780	3.318
%RSD		2.929	2.782	2.700	3.313	2.074	1.950	2.515	1.394

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	238.900	481.000	487.700	38.040	9.863	10.420	0.000	952.200
2	14:30:09	236.600	476.900	474.900	37.320	9.829	9.983	0.000	927.900
3	14:30:28	237.300	472.900	475.600	35.140	9.611	9.816	0.000	939.700
x		237.600	476.900	479.400	36.830	9.768	10.070	0.000	939.900
σ		1.171	4.074	7.206	1.506	0.137	0.315	0.000	12.150
%RSD		0.493	0.854	1.503	4.088	1.402	3.124	0.000	1.293

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	73.649%	1023.000	1047.000	69.111%	50.150	49.790	51.250	45.160
2	14:30:09	75.739%	1018.000	1029.000	69.795%	49.340	48.920	50.540	44.520
3	14:30:28	74.927%	1010.000	1031.000	69.053%	49.510	49.100	50.520	45.930
x		74.772%	1017.000	1036.000	69.320%	49.660	49.270	50.770	45.200
σ		1.054%	6.452	9.583	0.413%	0.427	0.455	0.414	0.705
%RSD		1.409	0.634	0.925	0.595	0.860	0.924	0.816	1.559

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	75.761%	1946.000	490.900	491.800	1943.000	1903.000	86.151%	86.069%
2	14:30:09	77.318%	1904.000	483.600	484.200	1895.000	1864.000	88.165%	88.813%
3	14:30:28	76.742%	1916.000	479.900	486.800	1924.000	1891.000	87.263%	88.636%
x		76.607%	1922.000	484.800	487.600	1921.000	1886.000	87.193%	87.839%
σ		0.787%	21.340	5.607	3.902	24.450	20.040	1.009%	1.536%
%RSD		1.027	1.110	1.157	0.800	1.273	1.063	1.157	1.748

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:50	48.120	48.440	19.800	20.050	19.580	85.321%
2	14:30:09	51.450	52.070	21.030	21.080	20.970	80.436%
3	14:30:28	52.520	52.790	21.180	21.630	21.320	79.672%
x		50.700	51.100	20.670	20.920	20.620	81.810%
σ		2.294	2.333	0.753	0.802	0.919	3.065%
%RSD		4.525	4.566	3.643	3.834	4.457	3.746

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	69.352%	-0.001	45.300	44.470	0.000	71520.000	19610.000	19470.000
2	14:33:57	64.201%	-0.009	45.970	44.890	0.000	74130.000	20110.000	19710.000
3	14:34:16	58.241%	0.024	45.800	47.910	0.000	73670.000	20010.000	19490.000
x		63.931%	0.005	45.690	45.760	0.000	73110.000	19910.000	19560.000
σ		5.560%	0.017	0.346	1.877	0.000	1394.000	269.000	131.000
%RSD		8.697	365.800	0.758	4.102	0.000	1.907	1.351	0.670

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	3.992	2950.000	0.000	13620.000	83190.000	90920.000	67.618%	0.562
2	14:33:57	4.278	2922.000	0.000	13790.000	82940.000	90980.000	65.109%	0.517
3	14:34:16	4.612	2879.000	0.000	13480.000	82260.000	89180.000	65.224%	0.600
x		4.294	2917.000	0.000	13630.000	82790.000	90360.000	65.984%	0.560
σ		0.310	35.430	0.000	159.400	483.000	1021.000	1.417%	0.042
%RSD		7.217	1.215	0.000	1.170	0.583	1.129	2.147	7.433

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	-1.866	6.106	1.918	21.810	143.100	0.198	-0.077	3.081
2	14:33:57	-0.104	6.451	1.990	22.960	143.500	0.168	-0.043	2.870
3	14:34:16	-1.775	6.071	1.911	19.910	134.700	0.156	-0.045	2.947
x		-1.249	6.209	1.939	21.560	140.400	0.174	-0.055	2.966
σ		0.992	0.210	0.044	1.542	4.934	0.022	0.019	0.107
%RSD		79.450	3.384	2.254	7.152	3.513	12.580	34.880	3.594

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	2.469	40.900	41.380	-0.784	0.090	0.629	0.000	197.300
2	14:33:57	2.651	41.290	41.840	-0.398	0.238	0.591	0.000	200.100
3	14:34:16	2.720	40.310	39.990	-0.249	0.258	0.757	0.000	199.500
x		2.613	40.830	41.070	-0.477	0.195	0.659	0.000	199.000
σ		0.130	0.493	0.964	0.276	0.092	0.087	0.000	1.433
%RSD		4.957	1.207	2.346	57.940	46.890	13.220	0.000	0.720

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	74.814%	3.774	3.768	69.981%	0.010	-0.000	0.026	0.005
2	14:33:57	73.136%	3.014	3.069	68.069%	0.007	0.002	0.005	-0.005
3	14:34:16	73.101%	2.466	2.552	67.797%	0.010	-0.001	-0.005	-0.011
x		73.684%	3.085	3.130	68.616%	0.009	0.001	0.009	-0.004
σ		0.979%	0.657	0.610	1.190%	0.001	0.002	0.016	0.008
%RSD		1.329	21.300	19.500	1.735	15.750	334.500	173.700	212.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	76.312%	2.757	0.475	0.520	91.650	90.500	86.122%	86.164%
2	14:33:57	76.078%	2.366	0.494	0.475	90.790	90.190	85.909%	86.120%
3	14:34:16	76.370%	2.013	0.451	0.455	89.890	91.100	86.087%	86.840%
x		76.253%	2.379	0.473	0.483	90.780	90.600	86.039%	86.374%
σ		0.155%	0.373	0.022	0.033	0.878	0.464	0.114%	0.403%
%RSD		0.203	15.660	4.589	6.862	0.967	0.512	0.133	0.467

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:38	0.209	0.205	0.912	0.839	0.867	78.242%
2	14:33:57	0.180	0.175	0.891	0.896	0.888	77.040%
3	14:34:16	0.151	0.166	0.929	0.907	0.902	77.997%
x		0.180	0.182	0.910	0.881	0.885	77.760%
σ		0.029	0.021	0.019	0.037	0.018	0.635%
%RSD		16.110	11.250	2.094	4.163	1.987	0.817

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:27	58.898%	-0.047	52.610	52.160	0.000	49190.000	17360.000	17450.000
2	14:37:46	57.135%	-0.003	45.850	49.340	0.000	46940.000	16740.000	16730.000
3	14:38:05	55.364%	0.029	50.310	50.480	0.000	46510.000	17090.000	17060.000
x		57.132%	-0.007	49.590	50.660	0.000	47540.000	17060.000	17080.000
σ		1.767%	0.038	3.434	1.418	0.000	1442.000	315.400	358.700
%RSD		3.093	534.100	6.925	2.798	0.000	3.034	1.848	2.100
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:27	0.722	4329.000	0.000	12910.000	114200.000	124100.000	62.716%	0.673
2	14:37:46	0.478	4147.000	0.000	12290.000	110100.000	117600.000	63.339%	0.333
3	14:38:05	0.269	4224.000	0.000	12320.000	109400.000	119600.000	60.768%	0.336
x		0.490	4233.000	0.000	12510.000	111200.000	120400.000	62.274%	0.447
σ		0.227	91.570	0.000	350.900	2621.000	3307.000	1.341%	0.195
%RSD		46.380	2.163	0.000	2.805	2.356	2.745	2.154	43.680
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:27	-1.919	14.590	67.040	3.631	169.700	0.326	10.300	2.274
2	14:37:46	-0.051	13.850	65.710	1.688	151.000	0.298	9.745	2.166
3	14:38:05	-1.662	14.040	65.670	0.206	151.200	0.305	9.674	2.271
x		-1.210	14.160	66.140	1.842	157.300	0.310	9.905	2.237
σ		1.012	0.389	0.781	1.718	10.720	0.014	0.341	0.061
%RSD		83.650	2.746	1.181	93.270	6.818	4.644	3.445	2.738
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:27	1.905	17.700	17.540	-0.422	-0.046	0.513	0.000	316.100
2	14:37:46	2.270	17.160	16.950	-0.266	-0.111	0.211	0.000	314.300
3	14:38:05	2.016	16.400	16.620	-1.203	0.138	0.532	0.000	317.700
x		2.064	17.080	17.030	-0.630	-0.006	0.419	0.000	316.000
σ		0.187	0.654	0.467	0.502	0.129	0.180	0.000	1.692
%RSD		9.063	3.830	2.743	79.630	2119.000	43.030	0.000	0.535
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:27	68.227%	0.645	0.760	64.132%	-0.005	-0.011	-0.061	-0.042
2	14:37:46	66.955%	0.643	0.763	62.284%	-0.001	-0.013	-0.002	0.004
3	14:38:05	66.769%	0.583	0.690	62.280%	0.001	-0.018	-0.030	-0.033
x		67.317%	0.624	0.738	62.899%	-0.002	-0.014	-0.031	-0.024
σ		0.794%	0.036	0.041	1.068%	0.003	0.004	0.030	0.024
%RSD		1.179	5.696	5.610	1.699	192.100	26.490	95.760	102.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:27	70.935%	1.089	0.156	0.161	66.200	66.620	81.509%	81.641%
2	14:37:46	70.268%	1.211	0.169	0.166	67.380	67.670	81.779%	82.399%
3	14:38:05	70.474%	1.082	0.174	0.182	67.540	67.240	82.026%	83.336%
x		70.559%	1.127	0.166	0.170	67.040	67.180	81.771%	82.459%
σ		0.342%	0.072	0.009	0.011	0.730	0.531	0.259%	0.849%
%RSD		0.484	6.401	5.432	6.466	1.088	0.790	0.316	1.029
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:37:27	0.067	0.066	2.228	1.990	2.098	76.830%		
2	14:37:46	0.066	0.068	2.266	2.031	2.122	76.564%		
3	14:38:05	0.065	0.073	2.278	2.172	2.175	75.416%		
x		0.066	0.069	2.258	2.064	2.132	76.270%		
σ		0.001	0.003	0.026	0.095	0.039	0.752%		
%RSD		1.293	5.003	1.158	4.620	1.850	0.985		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	59.415%	-0.062	38.740	39.820	0.000	77050.000	20610.000	19970.000
2	14:41:35	55.704%	0.044	39.070	41.690	0.000	77630.000	20500.000	20630.000
3	14:41:54	53.979%	0.016	38.020	39.580	0.000	77680.000	20820.000	20680.000
x		56.366%	-0.001	38.610	40.360	0.000	77450.000	20640.000	20430.000
σ		2.778%	0.054	0.540	1.152	0.000	349.200	163.700	394.800
%RSD		4.929	7734.000	1.400	2.854	0.000	0.451	0.793	1.933

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	1.352	4054.000	0.000	12180.000	169900.000	174500.000	62.713%	0.367
2	14:41:35	1.342	4153.000	0.000	12540.000	176700.000	176500.000	59.226%	0.640
3	14:41:54	1.499	4088.000	0.000	12320.000	162400.000	175200.000	59.198%	0.688
x		1.398	4099.000	0.000	12350.000	169700.000	175400.000	60.379%	0.565
σ		0.088	50.320	0.000	185.500	7133.000	1025.000	2.021%	0.173
%RSD		6.277	1.228	0.000	1.503	4.204	0.585	3.348	30.640

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	-2.162	1.732	208.800	19.910	254.500	9.632	10.670	30.900
2	14:41:35	-1.935	1.667	211.100	17.070	243.000	9.412	11.000	30.630
3	14:41:54	-1.639	1.688	205.500	15.630	227.800	8.946	10.420	29.600
x		-1.912	1.696	208.500	17.540	241.700	9.330	10.700	30.380
σ		0.262	0.033	2.834	2.179	13.410	0.350	0.293	0.687
%RSD		13.720	1.939	1.359	12.420	5.549	3.752	2.735	2.260

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	30.560	68.450	68.290	-0.391	-0.034	1.136	0.000	349.500
2	14:41:35	30.560	67.740	68.000	0.299	0.133	0.997	0.000	348.700
3	14:41:54	30.590	68.180	67.830	-0.430	0.047	1.226	0.000	351.200
x		30.570	68.130	68.040	-0.174	0.049	1.119	0.000	349.800
σ		0.015	0.359	0.232	0.410	0.083	0.116	0.000	1.303
%RSD		0.050	0.526	0.341	235.600	171.000	10.320	0.000	0.372

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	65.565%	0.366	0.410	60.565%	-0.013	-0.013	-0.004	0.064
2	14:41:35	66.182%	0.375	0.350	60.945%	0.004	-0.013	0.034	0.030
3	14:41:54	64.759%	0.383	0.347	60.420%	-0.009	-0.013	-0.011	0.015
x		65.502%	0.375	0.369	60.643%	-0.006	-0.013	0.006	0.036
σ		0.714%	0.009	0.035	0.271%	0.009	0.000	0.024	0.025
%RSD		1.090	2.288	9.574	0.447	149.000	2.195	402.900	69.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	68.263%	0.686	0.120	0.108	90.260	89.910	79.093%	78.495%
2	14:41:35	68.308%	0.690	0.118	0.110	92.490	90.480	78.617%	79.702%
3	14:41:54	68.041%	0.729	0.129	0.108	91.820	90.740	79.469%	80.655%
x		68.204%	0.702	0.122	0.109	91.520	90.380	79.060%	79.617%
σ		0.143%	0.024	0.006	0.001	1.144	0.422	0.427%	1.082%
%RSD		0.210	3.425	4.797	0.970	1.250	0.467	0.540	1.359

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:16	0.062	0.062	1.633	1.506	1.519	69.712%
2	14:41:35	0.069	0.067	1.537	1.512	1.529	69.484%
3	14:41:54	0.073	0.065	1.530	1.497	1.519	70.749%
x		0.068	0.065	1.567	1.505	1.523	69.982%
σ		0.006	0.002	0.057	0.007	0.006	0.674%
%RSD		8.092	3.689	3.658	0.495	0.390	0.963

CCV 1533080 4/30/2015 2:44:53 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:53	90.426%	104.500	97.550	98.270	0.000	48320.000	48650.000	47770.000
2	14:45:13	83.541%	107.700	103.600	103.000	0.000	50090.000	51010.000	51050.000
3	14:45:32	81.026%	107.300	98.270	102.000	0.000	50660.000	50950.000	50940.000
x		84.998%	106.506%	99.812%	101.066%	0.000	99.383%	100.407%	99.844%
σ		4.867%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.726	1.636	3.325	2.446	0.000	2.458	2.686	3.727
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:53	493.400	4851.000	0.000	48140.000	44890.000	49020.000	99.375%	96.470
2	14:45:13	534.500	5178.000	0.000	50890.000	48060.000	52410.000	95.243%	99.430
3	14:45:32	532.200	5131.000	0.000	52460.000	48870.000	53150.000	90.376%	101.900
x		104.005%	101.068%	0.000	100.995%	94.553%	103.053%	94.998%	99.284%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.505%	n/a
%RSD		4.442	3.499	0.000	4.327	4.447	4.267	4.742	2.760
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:53	96.540	96.090	486.600	23950.000	24320.000	97.130	98.620	99.890
2	14:45:13	100.400	101.600	506.800	24760.000	25090.000	97.930	100.000	102.000
3	14:45:32	101.000	101.700	522.900	25550.000	25640.000	100.500	102.100	102.700
x		99.310%	99.791%	101.092%	99.017%	100.056%	98.512%	100.229%	101.518%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.427	3.216	3.599	3.218	2.659	1.776	1.727	1.429
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:53	100.800	102.300	101.700	100.800	105.300	103.800	0.000	96.510
2	14:45:13	102.700	106.200	105.000	103.400	107.400	107.300	0.000	99.200
3	14:45:32	103.500	108.400	108.000	103.700	109.500	106.500	0.000	98.840
x		102.348%	105.651%	104.903%	102.630%	107.404%	105.860%	0.000	98.183%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.357	2.908	3.010	1.563	1.940	1.749	0.000	1.488
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:53	95.338%	96.360	98.770	85.986%	102.900	104.100	104.100	103.200
2	14:45:13	95.196%	99.940	102.300	84.821%	104.900	105.400	105.600	106.100
3	14:45:32	96.224%	99.960	102.400	86.100%	104.400	104.000	105.400	103.900
x		95.586%	98.751%	101.162%	85.636%	104.085%	104.464%	105.044%	104.426%
σ		0.557%	n/a	n/a	0.708%	n/a	n/a	n/a	n/a
%RSD		0.582	2.098	2.050	0.827	1.025	0.762	0.803	1.420
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:53	90.228%	98.650	100.200	100.700	99.650	99.480	92.584%	90.716%
2	14:45:13	89.472%	101.900	102.700	101.400	101.400	102.100	93.130%	92.068%
3	14:45:32	90.806%	101.600	103.400	101.200	100.600	100.900	96.188%	94.845%
x		90.169%	100.715%	102.074%	101.074%	100.570%	100.800%	93.967%	92.543%
σ		0.669%	n/a	n/a	n/a	n/a	n/a	1.943%	2.105%
%RSD		0.742	1.779	1.661	0.338	0.891	1.285	2.067	2.275
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:44:53	104.000	104.500	102.500	102.500	102.300	88.158%		
2	14:45:13	106.600	106.900	106.100	107.700	106.100	89.630%		
3	14:45:32	106.200	106.500	105.900	106.900	105.700	90.578%		
x		105.614%	105.974%	104.833%	105.685%	104.700%	89.455%		
σ		n/a	n/a	n/a	n/a	n/a	1.219%		
%RSD		1.322	1.196	1.898	2.617	2.030	1.363		

CCB3 4/30/2015 2:51:23 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	95.722%	-0.018	0.564	0.922	0.000	5.229	2.537	2.421
2	14:52:01	98.056%	0.032	0.852	0.872	0.000	5.015	2.355	2.136
3	14:52:21	92.181%	0.002	0.850	0.744	0.000	4.450	2.677	2.480
x		95.319%	0.005	0.755	0.846	0.000	4.898	2.523	2.346
σ		2.958%	0.025	0.166	0.091	0.000	0.403	0.161	0.184
%RSD		3.103	467.600	21.950	10.810	0.000	8.218	6.395	7.830

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	0.979	-89.090	0.000	5.756	0.643	7.662	105.644%	0.021
2	14:52:01	0.815	-89.260	0.000	6.121	1.712	5.834	102.657%	0.051
3	14:52:21	0.935	-86.490	0.000	5.656	5.467	6.215	102.894%	-0.012
x		0.910	-88.280	0.000	5.845	2.607	6.570	103.732%	0.020
σ		0.085	1.555	0.000	0.245	2.534	0.964	1.660%	0.031
%RSD		9.385	1.762	0.000	4.184	97.160	14.680	1.600	156.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	0.025	0.006	0.087	8.957	6.029	0.006	-0.003	0.116
2	14:52:01	-0.014	-0.013	0.068	6.814	5.133	0.003	0.018	0.070
3	14:52:21	-0.003	0.001	0.069	5.478	4.211	0.002	0.000	0.063
x		0.003	-0.002	0.074	7.083	5.124	0.004	0.005	0.083
σ		0.020	0.010	0.011	1.755	0.909	0.002	0.011	0.029
%RSD		752.800	520.000	14.770	24.780	17.740	52.050	218.800	34.950

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	0.060	0.730	0.791	0.003	0.046	0.002	0.000	0.016
2	14:52:01	0.054	0.846	0.820	0.020	0.113	0.055	0.000	0.020
3	14:52:21	0.078	0.742	0.851	-0.017	0.114	-0.006	0.000	0.016
x		0.064	0.773	0.820	0.002	0.091	0.017	0.000	0.017
σ		0.013	0.064	0.030	0.018	0.039	0.033	0.000	0.002
%RSD		19.550	8.265	3.659	934.600	42.640	195.100	0.000	13.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	102.485%	0.301	0.257	102.706%	-0.020	-0.025	0.039	0.024
2	14:52:01	102.693%	0.254	0.226	101.768%	-0.021	-0.026	0.013	0.003
3	14:52:21	103.136%	0.256	0.233	101.962%	-0.020	-0.033	0.021	0.014
x		102.772%	0.270	0.239	102.145%	-0.020	-0.028	0.024	0.014
σ		0.332%	0.026	0.016	0.495%	0.000	0.004	0.013	0.010
%RSD		0.323	9.745	6.811	0.485	2.031	15.120	54.750	75.690

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	102.967%	0.014	0.020	0.040	0.018	0.028	99.698%	98.993%
2	14:52:01	103.403%	0.016	0.029	0.034	0.019	0.023	102.624%	101.061%
3	14:52:21	103.985%	0.008	0.025	0.004	-0.012	0.017	103.434%	102.158%
x		103.452%	0.013	0.025	0.026	0.008	0.022	101.919%	100.737%
σ		0.511%	0.004	0.005	0.019	0.018	0.005	1.965%	1.608%
%RSD		0.494	32.170	19.190	74.150	215.500	23.730	1.928	1.596

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:42	0.021	0.019	0.025	0.017	0.021	103.970%
2	14:52:01	0.026	0.023	0.021	0.022	0.022	103.282%
3	14:52:21	0.019	0.022	0.027	0.025	0.028	104.113%
x		0.022	0.021	0.024	0.021	0.024	103.788%
σ		0.004	0.002	0.003	0.004	0.003	0.444%
%RSD		16.190	8.534	12.680	19.730	14.580	0.428

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	66.357%	0.002	41.000	41.860	0.000	33390.000	11040.000	10860.000
2	14:55:54	66.079%	0.015	38.670	41.470	0.000	31930.000	10760.000	10530.000
3	14:56:13	65.111%	-0.036	37.700	40.470	0.000	32030.000	10270.000	10070.000
x		65.849%	-0.006	39.120	41.270	0.000	32450.000	10690.000	10490.000
σ		0.654%	0.026	1.693	0.720	0.000	811.600	388.600	396.300
%RSD		0.993	421.500	4.328	1.745	0.000	2.501	3.636	3.780
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	0.654	4181.000	0.000	4888.000	95150.000	103100.000	65.321%	0.502
2	14:55:54	0.415	3995.000	0.000	4982.000	97640.000	105400.000	63.125%	0.696
3	14:56:13	0.539	3855.000	0.000	4585.000	90900.000	97950.000	64.753%	0.408
x		0.536	4010.000	0.000	4818.000	94560.000	102100.000	64.400%	0.535
σ		0.120	163.700	0.000	207.800	3408.000	3797.000	1.140%	0.147
%RSD		22.330	4.081	0.000	4.313	3.604	3.718	1.770	27.430
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	-1.044	5.896	4.510	7.938	152.400	0.224	13.460	15.690
2	14:55:54	-0.840	6.408	4.636	9.875	155.900	0.196	14.530	16.250
3	14:56:13	-2.185	5.990	4.598	5.086	143.400	0.203	12.970	15.280
x		-1.356	6.098	4.581	7.633	150.600	0.208	13.650	15.740
σ		0.725	0.273	0.065	2.409	6.442	0.014	0.799	0.486
%RSD		53.410	4.470	1.413	31.560	4.278	6.938	5.853	3.087
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	15.030	28.370	28.460	-0.517	-0.178	0.477	0.000	186.800
2	14:55:54	15.980	28.670	28.870	0.080	0.129	0.417	0.000	188.400
3	14:56:13	15.530	28.470	27.180	-0.069	-0.221	0.352	0.000	187.500
x		15.510	28.500	28.170	-0.169	-0.090	0.415	0.000	187.600
σ		0.474	0.150	0.880	0.311	0.191	0.062	0.000	0.806
%RSD		3.056	0.527	3.123	184.400	211.600	14.950	0.000	0.430
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	70.043%	1.130	1.170	66.281%	-0.023	-0.031	-0.051	-0.035
2	14:55:54	69.984%	1.088	1.203	66.468%	-0.018	-0.027	-0.023	-0.007
3	14:56:13	70.150%	1.046	1.114	65.868%	-0.021	-0.032	-0.016	-0.007
x		70.059%	1.088	1.162	66.206%	-0.021	-0.030	-0.030	-0.016
σ		0.084%	0.042	0.045	0.307%	0.002	0.003	0.019	0.016
%RSD		0.120	3.865	3.894	0.463	10.310	8.925	62.470	100.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	72.330%	0.882	0.189	0.198	38.030	38.630	80.228%	81.691%
2	14:55:54	73.030%	0.827	0.182	0.156	38.710	38.640	81.913%	82.153%
3	14:56:13	73.442%	0.772	0.146	0.154	38.840	38.720	82.936%	83.137%
x		72.934%	0.827	0.172	0.169	38.530	38.660	81.692%	82.327%
σ		0.562%	0.055	0.023	0.025	0.436	0.051	1.368%	0.738%
%RSD		0.771	6.606	13.160	14.750	1.132	0.132	1.674	0.897
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:55:34	0.022	0.027	1.614	1.531	1.541	77.128%		
2	14:55:54	0.025	0.027	1.671	1.555	1.595	76.215%		
3	14:56:13	0.034	0.028	1.784	1.624	1.639	76.061%		
x		0.027	0.027	1.690	1.570	1.591	76.468%		
σ		0.006	0.001	0.086	0.049	0.049	0.577%		
%RSD		22.610	2.106	5.111	3.091	3.080	0.754		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	62.431%	-0.008	35.050	36.710	0.000	56940.000	17280.000	17480.000
2	14:59:43	58.080%	-0.033	38.830	40.460	0.000	59930.000	17850.000	17970.000
3	15:00:02	52.637%	-0.046	37.860	39.110	0.000	62490.000	18430.000	18750.000
x		57.716%	-0.029	37.250	38.760	0.000	59790.000	17850.000	18070.000
σ		4.907%	0.019	1.964	1.901	0.000	2780.000	573.700	639.300
%RSD		8.502	67.050	5.274	4.904	0.000	4.650	3.213	3.538

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	3.125	3330.000	0.000	6051.000	81140.000	87730.000	64.243%	0.555
2	14:59:43	3.213	3450.000	0.000	6176.000	82660.000	88900.000	62.034%	0.282
3	15:00:02	3.719	3525.000	0.000	6264.000	83660.000	91210.000	60.692%	0.351
x		3.352	3435.000	0.000	6164.000	82490.000	89280.000	62.323%	0.396
σ		0.321	98.110	0.000	107.200	1272.000	1773.000	1.793%	0.142
%RSD		9.565	2.856	0.000	1.739	1.543	1.985	2.877	35.750

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	-1.224	9.886	3.109	3.309	125.100	0.148	34.410	22.930
2	14:59:43	-0.641	9.767	2.999	-0.019	115.100	0.151	33.090	22.900
3	15:00:02	-1.465	9.969	3.116	0.636	115.400	0.133	33.420	21.680
x		-1.110	9.874	3.075	1.309	118.500	0.144	33.640	22.500
σ		0.424	0.102	0.066	1.763	5.704	0.010	0.683	0.713
%RSD		38.170	1.030	2.142	134.700	4.813	7.074	2.030	3.168

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	22.940	85.070	86.300	-0.091	-0.062	0.389	0.000	235.000
2	14:59:43	22.830	85.270	86.660	-0.492	0.040	0.737	0.000	236.700
3	15:00:02	22.010	83.390	84.700	-0.450	0.435	0.463	0.000	236.000
x		22.590	84.580	85.880	-0.344	0.138	0.530	0.000	235.900
σ		0.510	1.031	1.045	0.220	0.262	0.183	0.000	0.886
%RSD		2.259	1.220	1.217	64.000	190.700	34.590	0.000	0.376

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	68.959%	0.859	1.032	64.975%	-0.018	-0.027	-0.003	-0.007
2	14:59:43	67.963%	0.905	0.937	65.015%	-0.023	-0.040	-0.019	-0.019
3	15:00:02	67.418%	0.893	0.954	63.344%	-0.020	-0.036	-0.075	-0.039
x		68.113%	0.886	0.974	64.445%	-0.020	-0.034	-0.032	-0.022
σ		0.781%	0.024	0.051	0.953%	0.003	0.007	0.038	0.016
%RSD		1.147	2.738	5.206	1.479	13.190	19.370	115.900	74.560

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	71.145%	0.595	0.160	0.138	57.310	56.550	80.279%	81.539%
2	14:59:43	71.473%	0.597	0.111	0.193	56.740	56.930	82.627%	82.651%
3	15:00:02	71.023%	0.603	0.175	0.145	57.870	57.760	81.889%	83.219%
x		71.214%	0.598	0.149	0.159	57.300	57.080	81.598%	82.470%
σ		0.232%	0.004	0.033	0.030	0.565	0.621	1.201%	0.854%
%RSD		0.326	0.714	22.280	18.660	0.985	1.088	1.471	1.036

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:24	0.019	0.022	3.322	3.040	3.128	75.557%
2	14:59:43	0.023	0.023	3.344	3.041	3.127	76.169%
3	15:00:02	0.027	0.023	3.320	3.213	3.183	77.076%
x		0.023	0.023	3.329	3.098	3.146	76.267%
σ		0.004	0.001	0.013	0.100	0.032	0.764%
%RSD		16.990	3.086	0.393	3.214	1.008	1.002

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:14	57.088%	-0.017	41.060	47.990	0.000	44810.000	10050.000	10420.000
2	15:03:33	53.666%	-0.015	47.280	48.110	0.000	47190.000	10310.000	10350.000
3	15:03:52	49.443%	0.023	47.460	49.490	0.000	46480.000	10490.000	10400.000
x		53.399%	-0.003	45.270	48.530	0.000	46160.000	10280.000	10390.000
σ		3.829%	0.022	3.642	0.838	0.000	1219.000	222.900	35.900
%RSD		7.171	695.300	8.045	1.727	0.000	2.640	2.168	0.345
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:14	8.900	2673.000	0.000	26060.000	86610.000	94120.000	58.718%	0.632
2	15:03:33	9.087	2668.000	0.000	26200.000	84710.000	92380.000	59.585%	0.576
3	15:03:52	9.779	2670.000	0.000	25620.000	86600.000	92030.000	56.430%	0.531
x		9.255	2670.000	0.000	25960.000	85970.000	92840.000	58.244%	0.579
σ		0.463	2.484	0.000	298.800	1091.000	1119.000	1.630%	0.050
%RSD		5.006	0.093	0.000	1.151	1.269	1.205	2.799	8.704
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:14	-2.282	57.860	2.014	24.160	148.400	0.520	0.893	1.701
2	15:03:33	-0.946	55.510	1.929	21.400	142.500	0.450	0.742	1.748
3	15:03:52	-2.239	55.780	1.956	21.830	136.400	0.466	0.916	1.736
x		-1.822	56.380	1.967	22.460	142.400	0.478	0.850	1.728
σ		0.759	1.284	0.044	1.484	6.016	0.037	0.095	0.025
%RSD		41.670	2.278	2.212	6.607	4.224	7.710	11.150	1.433
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:14	1.513	5.813	6.190	-0.508	-0.089	0.268	0.000	284.300
2	15:03:33	1.546	6.081	5.941	-0.295	-0.100	0.570	0.000	285.300
3	15:03:52	1.509	5.890	5.953	-0.421	-0.200	0.491	0.000	284.300
x		1.523	5.928	6.028	-0.408	-0.129	0.443	0.000	284.600
σ		0.020	0.138	0.141	0.107	0.061	0.157	0.000	0.606
%RSD		1.318	2.326	2.331	26.240	47.210	35.350	0.000	0.213
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:14	64.269%	5.597	5.576	60.907%	-0.032	-0.044	-0.031	-0.025
2	15:03:33	62.962%	5.274	5.558	60.121%	-0.026	-0.041	-0.069	-0.049
3	15:03:52	63.251%	5.454	5.556	59.635%	-0.020	-0.039	-0.080	-0.044
x		63.494%	5.442	5.563	60.221%	-0.026	-0.041	-0.060	-0.039
σ		0.687%	0.162	0.011	0.642%	0.006	0.003	0.026	0.013
%RSD		1.081	2.972	0.195	1.065	21.560	6.104	43.150	31.860
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:14	66.712%	0.477	0.136	0.123	53.710	52.330	76.763%	78.525%
2	15:03:33	67.535%	0.437	0.117	0.152	52.050	51.770	78.781%	80.350%
3	15:03:52	67.827%	0.426	0.136	0.125	52.830	52.210	78.970%	80.119%
x		67.358%	0.447	0.130	0.134	52.870	52.100	78.171%	79.665%
σ		0.578%	0.027	0.011	0.016	0.828	0.296	1.224%	0.994%
%RSD		0.858	6.010	8.256	12.220	1.566	0.568	1.565	1.248
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:03:14	0.029	0.030	0.224	0.206	0.215	75.663%		
2	15:03:33	0.032	0.035	0.237	0.202	0.232	75.435%		
3	15:03:52	0.038	0.028	0.254	0.215	0.230	75.371%		
x		0.033	0.031	0.239	0.208	0.225	75.490%		
σ		0.004	0.004	0.015	0.007	0.009	0.153%		
%RSD		13.120	11.410	6.222	3.162	3.939	0.203		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:03	54.724%	-0.031	61.630	65.310	0.000	21210.000	7792.000	7837.000
2	15:07:22	54.155%	0.000	62.160	63.120	0.000	20600.000	7519.000	7490.000
3	15:07:41	52.668%	0.034	66.100	68.150	0.000	20930.000	7813.000	7988.000
x		53.849%	0.001	63.300	65.530	0.000	20920.000	7708.000	7771.000
σ		1.061%	0.032	2.445	2.520	0.000	303.200	163.800	255.300
%RSD		1.971	2911.000	3.863	3.845	0.000	1.450	2.125	3.285
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:03	29.480	3968.000	0.000	2644.000	93330.000	101100.000	57.704%	0.693
2	15:07:22	26.970	3812.000	0.000	2542.000	88480.000	94500.000	56.736%	0.866
3	15:07:41	27.790	3842.000	0.000	2695.000	97480.000	103600.000	54.822%	0.750
x		28.080	3874.000	0.000	2627.000	93100.000	99730.000	56.421%	0.769
σ		1.282	82.960	0.000	77.990	4503.000	4692.000	1.467%	0.088
%RSD		4.564	2.141	0.000	2.969	4.837	4.705	2.600	11.460
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:03	-2.141	1.309	351.200	115.000	240.400	0.533	0.946	0.642
2	15:07:22	-1.307	1.165	323.200	99.300	212.700	0.498	0.589	0.586
3	15:07:41	-1.109	1.259	355.800	115.300	239.800	0.462	0.611	0.645
x		-1.519	1.245	343.400	109.900	230.900	0.498	0.715	0.624
σ		0.548	0.073	17.660	9.143	15.820	0.036	0.200	0.033
%RSD		36.070	5.851	5.143	8.323	6.850	7.191	27.940	5.259
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:03	0.566	13.750	13.550	-0.552	-0.262	0.174	0.000	179.400
2	15:07:22	0.462	12.080	12.470	-0.255	-0.378	0.206	0.000	166.700
3	15:07:41	0.595	13.190	13.310	0.111	-0.215	0.209	0.000	181.900
x		0.541	13.010	13.110	-0.232	-0.285	0.196	0.000	176.000
σ		0.070	0.849	0.566	0.333	0.084	0.020	0.000	8.132
%RSD		12.870	6.528	4.318	143.200	29.500	9.968	0.000	4.620
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:03	61.880%	0.369	0.397	58.957%	-0.031	-0.046	-0.038	-0.011
2	15:07:22	63.802%	0.343	0.391	60.934%	-0.033	-0.039	-0.074	-0.027
3	15:07:41	60.633%	0.358	0.422	57.533%	-0.017	-0.037	-0.015	0.002
x		62.105%	0.357	0.403	59.141%	-0.027	-0.041	-0.042	-0.012
σ		1.596%	0.013	0.016	1.708%	0.008	0.005	0.030	0.015
%RSD		2.570	3.703	4.033	2.889	31.470	11.470	71.040	120.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:03	65.968%	0.231	0.079	0.070	38.540	37.160	75.103%	77.127%
2	15:07:22	68.390%	0.229	0.063	0.087	34.340	34.320	80.678%	81.905%
3	15:07:41	65.788%	0.279	0.071	0.067	37.230	37.950	77.462%	78.156%
x		66.715%	0.246	0.071	0.075	36.700	36.480	77.748%	79.063%
σ		1.453%	0.029	0.008	0.011	2.149	1.908	2.799%	2.515%
%RSD		2.179	11.660	11.320	14.510	5.856	5.230	3.600	3.181
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:07:03	0.007	0.012	0.231	0.208	0.218	71.043%		
2	15:07:22	0.015	0.011	0.177	0.185	0.181	83.723%		
3	15:07:41	0.020	0.012	0.207	0.196	0.213	73.770%		
x		0.014	0.012	0.205	0.196	0.204	76.179%		
σ		0.007	0.001	0.027	0.012	0.020	6.675%		
%RSD		47.020	6.856	13.240	5.919	9.916	8.762		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	68.513%	-0.025	12.750	13.780	0.000	4532.000	1619.000	1595.000
2	15:11:09	61.524%	-0.034	14.520	13.920	0.000	4456.000	1635.000	1623.000
3	15:11:28	58.920%	-0.033	13.260	13.060	0.000	4591.000	1643.000	1614.000
x		62.986%	-0.031	13.510	13.590	0.000	4526.000	1632.000	1611.000
σ		4.960%	0.005	0.912	0.460	0.000	68.070	12.190	14.640
%RSD		7.875	16.930	6.752	3.386	0.000	1.504	0.747	0.909

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	4.913	778.700	0.000	549.900	18300.000	20680.000	70.399%	0.238
2	15:11:09	4.465	826.900	0.000	546.400	19300.000	21030.000	67.359%	0.185
3	15:11:28	4.113	818.400	0.000	564.900	19920.000	21250.000	62.486%	0.133
x		4.497	808.000	0.000	553.700	19170.000	20990.000	66.748%	0.185
σ		0.401	25.760	0.000	9.828	819.400	284.900	3.992%	0.052
%RSD		8.908	3.188	0.000	1.775	4.273	1.357	5.980	28.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	-0.478	0.251	69.470	20.610	53.290	0.107	0.199	-0.024
2	15:11:09	-0.110	0.270	70.530	20.820	52.530	0.099	0.133	-0.029
3	15:11:28	-0.457	0.339	72.230	21.060	52.470	0.098	0.190	-0.009
x		-0.348	0.287	70.740	20.830	52.760	0.101	0.174	-0.021
σ		0.207	0.046	1.391	0.224	0.459	0.005	0.036	0.010
%RSD		59.390	16.120	1.966	1.075	0.870	5.243	20.440	50.910

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	-0.042	2.204	2.202	0.020	-0.269	0.108	0.000	34.970
2	15:11:09	-0.029	2.194	2.079	-0.112	-0.271	-0.028	0.000	35.270
3	15:11:28	0.091	2.102	1.998	-0.233	-0.351	-0.021	0.000	35.400
x		0.007	2.167	2.093	-0.109	-0.297	0.020	0.000	35.210
σ		0.073	0.056	0.103	0.126	0.047	0.077	0.000	0.222
%RSD		1063.000	2.583	4.915	116.200	15.810	388.900	0.000	0.630

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	73.153%	0.086	0.091	73.454%	-0.037	-0.047	-0.021	-0.013
2	15:11:09	72.688%	0.072	0.114	71.144%	-0.036	-0.049	-0.085	-0.045
3	15:11:28	71.770%	0.082	0.089	70.105%	-0.039	-0.048	-0.030	-0.026
x		72.537%	0.080	0.098	71.567%	-0.037	-0.048	-0.045	-0.028
σ		0.704%	0.007	0.014	1.714%	0.001	0.001	0.035	0.016
%RSD		0.970	9.194	14.340	2.396	3.195	1.832	76.770	58.460

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	76.510%	-0.101	-0.010	-0.003	7.308	7.330	84.935%	84.921%
2	15:11:09	77.609%	-0.077	-0.009	-0.017	7.385	7.554	84.963%	84.862%
3	15:11:28	77.094%	-0.071	-0.007	-0.018	7.125	7.428	85.984%	86.900%
x		77.071%	-0.083	-0.008	-0.013	7.272	7.437	85.294%	85.561%
σ		0.550%	0.016	0.002	0.008	0.134	0.112	0.598%	1.160%
%RSD		0.713	19.280	18.450	65.760	1.837	1.507	0.701	1.356

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:50	0.006	0.005	0.024	0.022	0.023	90.385%
2	15:11:09	0.003	0.005	0.030	0.031	0.032	87.838%
3	15:11:28	0.002	0.005	0.038	0.027	0.035	87.643%
x		0.004	0.005	0.031	0.027	0.030	88.622%
σ		0.002	0.000	0.007	0.005	0.006	1.530%
%RSD		51.820	6.463	21.690	17.200	19.320	1.726

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	52.379%	46.150	933.600	969.900	0.000	62900.000	47610.000	47340.000
2	15:14:55	50.066%	45.010	934.300	958.200	0.000	62230.000	48520.000	48210.000
3	15:15:15	46.501%	49.250	944.200	974.200	0.000	64740.000	49670.000	50450.000
x		49.648%	46.800	937.400	967.400	0.000	63290.000	48600.000	48670.000
σ		2.961%	2.194	5.940	8.289	0.000	1301.000	1033.000	1606.000
%RSD		5.964	4.687	0.634	0.857	0.000	2.055	2.125	3.300

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	1671.000	12080.000	0.000	47160.000	138900.000	150600.000	57.626%	915.000
2	15:14:55	1706.000	12190.000	0.000	48220.000	145500.000	155000.000	52.612%	910.200
3	15:15:15	1719.000	11960.000	0.000	48450.000	144700.000	156100.000	51.035%	936.700
x		1699.000	12070.000	0.000	47940.000	143000.000	153900.000	53.758%	920.600
σ		24.830	114.700	0.000	685.200	3595.000	2922.000	3.441%	14.120
%RSD		1.462	0.950	0.000	1.429	2.513	1.898	6.402	1.533

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	481.100	189.300	855.300	1070.000	1237.000	484.400	451.700	224.300
2	15:14:55	478.800	184.900	856.600	1084.000	1247.000	466.800	451.300	225.000
3	15:15:15	481.200	181.800	856.800	1059.000	1177.000	445.300	435.300	217.800
x		480.400	185.300	856.200	1071.000	1220.000	465.500	446.100	222.400
σ		1.342	3.766	0.775	12.840	37.610	19.580	9.361	3.990
%RSD		0.279	2.032	0.091	1.199	3.081	4.206	2.098	1.794

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	227.300	463.900	461.800	34.580	9.787	8.935	0.000	1150.000
2	15:14:55	225.100	465.000	468.500	36.270	9.324	9.776	0.000	1136.000
3	15:15:15	221.800	469.000	470.000	34.590	9.285	9.504	0.000	1138.000
x		224.700	466.000	466.700	35.150	9.465	9.405	0.000	1142.000
σ		2.767	2.661	4.381	0.972	0.280	0.429	0.000	7.453
%RSD		1.231	0.571	0.939	2.764	2.953	4.565	0.000	0.653

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	60.825%	1025.000	1072.000	56.768%	48.890	48.170	49.950	44.870
2	15:14:55	60.228%	1026.000	1072.000	55.387%	48.780	48.280	50.350	43.300
3	15:15:15	59.841%	1021.000	1069.000	55.056%	48.250	47.050	49.730	42.640
x		60.298%	1024.000	1071.000	55.737%	48.640	47.830	50.010	43.600
σ		0.496%	2.792	1.931	0.908%	0.341	0.678	0.311	1.145
%RSD		0.822	0.273	0.180	1.629	0.701	1.417	0.622	2.627

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	62.753%	2001.000	483.600	484.800	2030.000	1983.000	74.173%	75.787%
2	15:14:55	62.886%	1985.000	494.200	490.100	2003.000	1960.000	76.090%	77.449%
3	15:15:15	62.936%	1968.000	495.400	488.600	2004.000	1950.000	76.501%	77.975%
x		62.859%	1984.000	491.000	487.900	2012.000	1964.000	75.588%	77.070%
σ		0.095%	16.470	6.474	2.715	15.110	16.740	1.243%	1.142%
%RSD		0.151	0.830	1.318	0.556	0.751	0.852	1.644	1.482

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:36	52.910	53.110	21.670	22.110	21.800	67.499%
2	15:14:55	54.340	55.610	22.360	22.800	22.540	66.889%
3	15:15:15	54.020	54.770	22.070	22.290	22.090	68.895%
x		53.750	54.500	22.030	22.400	22.140	67.761%
σ		0.751	1.276	0.347	0.357	0.375	1.029%
%RSD		1.398	2.341	1.573	1.594	1.692	1.518

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	49.047%	48.400	937.800	963.200	0.000	63270.000	48310.000	48290.000
2	15:18:43	46.903%	47.910	950.800	969.500	0.000	62730.000	48330.000	48450.000
3	15:19:02	44.126%	47.680	990.300	1011.000	0.000	61880.000	46950.000	48570.000
x		46.692%	48.000	959.600	981.100	0.000	62630.000	47860.000	48440.000
σ		2.467%	0.368	27.330	25.670	0.000	699.800	792.500	138.100
%RSD		5.284	0.767	2.848	2.617	0.000	1.117	1.656	0.285

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	1672.000	11840.000	0.000	47800.000	140100.000	152400.000	51.828%	926.100
2	15:18:43	1654.000	11790.000	0.000	47510.000	141000.000	153600.000	50.168%	949.600
3	15:19:02	1694.000	11860.000	0.000	48220.000	143000.000	155100.000	47.841%	936.800
x		1673.000	11830.000	0.000	47850.000	141400.000	153700.000	49.946%	937.500
σ		20.000	35.300	0.000	356.800	1485.000	1343.000	2.003%	11.760
%RSD		1.196	0.298	0.000	0.746	1.050	0.874	4.010	1.254

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	479.400	184.400	868.700	1134.000	1266.000	475.700	453.300	227.700
2	15:18:43	476.400	185.200	870.800	1121.000	1263.000	464.600	451.000	228.100
3	15:19:02	479.800	188.800	877.400	1143.000	1290.000	479.600	443.100	226.300
x		478.500	186.100	872.300	1132.000	1273.000	473.300	449.100	227.400
σ		1.836	2.311	4.549	10.750	14.620	7.762	5.379	0.914
%RSD		0.384	1.242	0.521	0.950	1.148	1.640	1.198	0.402

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	224.600	470.400	470.000	35.220	9.218	9.693	0.000	1147.000
2	15:18:43	228.000	477.400	473.400	35.950	9.555	9.792	0.000	1152.000
3	15:19:02	227.300	470.000	473.300	37.120	9.641	10.230	0.000	1152.000
x		226.600	472.600	472.200	36.100	9.471	9.904	0.000	1150.000
σ		1.811	4.137	1.940	0.959	0.223	0.284	0.000	2.796
%RSD		0.799	0.875	0.411	2.656	2.359	2.863	0.000	0.243

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	59.428%	1025.000	1065.000	55.139%	48.750	48.950	51.360	44.740
2	15:18:43	59.012%	1032.000	1074.000	54.765%	48.590	48.260	50.800	44.150
3	15:19:02	58.069%	1033.000	1074.000	53.526%	48.500	48.080	50.440	43.310
x		58.837%	1030.000	1071.000	54.477%	48.620	48.430	50.870	44.070
σ		0.696%	4.029	5.491	0.845%	0.127	0.460	0.465	0.721
%RSD		1.183	0.391	0.513	1.550	0.261	0.950	0.914	1.637

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	61.544%	2013.000	503.500	495.400	2021.000	1966.000	74.912%	75.959%
2	15:18:43	62.431%	1990.000	495.100	497.000	2003.000	1963.000	75.957%	77.334%
3	15:19:02	61.940%	1983.000	497.900	493.500	1993.000	1967.000	76.463%	77.688%
x		61.971%	1995.000	498.800	495.300	2006.000	1965.000	75.778%	76.994%
σ		0.444%	15.950	4.271	1.739	14.360	2.291	0.791%	0.913%
%RSD		0.717	0.799	0.856	0.351	0.716	0.117	1.044	1.186

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:24	52.020	52.730	21.410	21.240	21.220	70.400%
2	15:18:43	53.980	54.740	22.130	22.120	22.040	69.403%
3	15:19:02	54.680	55.180	22.170	22.250	22.190	69.428%
x		53.560	54.220	21.900	21.870	21.820	69.744%
σ		1.378	1.306	0.430	0.552	0.523	0.569%
%RSD		2.574	2.408	1.965	2.526	2.396	0.815

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	48.382%	53.070	1069.000	1062.000	0.000	67850.000	54690.000	54950.000
2	15:22:31	46.007%	47.460	956.700	974.400	0.000	64380.000	52820.000	53640.000
3	15:22:50	45.912%	49.070	988.400	946.700	0.000	63610.000	50670.000	49750.000
x		46.767%	49.870	1005.000	994.200	0.000	65280.000	52730.000	52780.000
σ		1.399%	2.888	58.110	59.930	0.000	2261.000	2012.000	2703.000
%RSD		2.992	5.792	5.783	6.028	0.000	3.463	3.816	5.122

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	1810.000	13780.000	0.000	53530.000	148800.000	160300.000	53.491%	1075.000
2	15:22:31	1756.000	13370.000	0.000	54050.000	150700.000	162400.000	50.879%	1073.000
3	15:22:50	1645.000	12470.000	0.000	51300.000	142100.000	154500.000	50.028%	1063.000
x		1737.000	13210.000	0.000	52960.000	147200.000	159100.000	51.466%	1070.000
σ		84.150	669.900	0.000	1463.000	4523.000	4071.000	1.804%	6.236
%RSD		4.846	5.072	0.000	2.762	3.074	2.559	3.506	0.583

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	516.500	200.800	859.500	1136.000	1280.000	494.600	471.200	236.900
2	15:22:31	529.400	195.600	864.800	1123.000	1249.000	482.000	454.300	228.300
3	15:22:50	506.300	191.300	842.000	1109.000	1251.000	483.100	456.500	231.900
x		517.400	195.900	855.400	1122.000	1260.000	486.600	460.700	232.400
σ		11.590	4.797	11.890	13.680	17.440	6.967	9.183	4.311
%RSD		2.241	2.448	1.389	1.219	1.384	1.432	1.993	1.855

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	241.000	500.400	500.600	37.250	10.260	10.710	0.000	1227.000
2	15:22:31	226.400	487.600	494.000	37.430	10.010	9.687	0.000	1177.000
3	15:22:50	229.300	489.400	487.000	36.300	9.536	10.470	0.000	1185.000
x		232.200	492.500	493.900	36.990	9.936	10.290	0.000	1196.000
σ		7.718	6.912	6.808	0.607	0.367	0.534	0.000	26.630
%RSD		3.323	1.404	1.378	1.641	3.690	5.192	0.000	2.226

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	57.896%	1209.000	1264.000	53.963%	47.700	47.570	54.380	47.990
2	15:22:31	58.362%	1159.000	1213.000	53.635%	45.210	45.030	52.840	45.290
3	15:22:50	57.822%	1165.000	1222.000	53.276%	45.860	45.340	53.760	45.290
x		58.027%	1178.000	1233.000	53.624%	46.260	45.980	53.660	46.190
σ		0.293%	27.390	27.030	0.344%	1.289	1.387	0.777	1.559
%RSD		0.504	2.325	2.192	0.641	2.787	3.017	1.449	3.375

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	60.070%	2333.000	568.200	565.800	2175.000	2118.000	72.433%	73.522%
2	15:22:31	61.662%	2217.000	550.400	547.500	2097.000	2036.000	74.445%	76.538%
3	15:22:50	60.886%	2269.000	563.300	576.400	2100.000	2053.000	75.017%	76.939%
x		60.872%	2273.000	560.700	563.200	2124.000	2069.000	73.965%	75.666%
σ		0.796%	57.920	9.166	14.640	44.160	43.180	1.357%	1.868%
%RSD		1.307	2.548	1.635	2.599	2.079	2.087	1.835	2.469

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:12	55.740	56.380	22.240	22.470	22.310	69.412%
2	15:22:31	58.490	59.650	23.580	24.170	23.580	65.035%
3	15:22:50	58.860	59.820	23.820	24.120	23.800	65.427%
x		57.700	58.620	23.210	23.590	23.230	66.624%
σ		1.706	1.942	0.848	0.966	0.802	2.422%
%RSD		2.957	3.313	3.654	4.094	3.452	3.635

CCV 1533080 4/30/2015 3:25:49 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	88.357%	109.100	105.000	106.200	0.000	50190.000	50330.000	49900.000
2	15:26:08	81.297%	112.200	106.100	105.200	0.000	50610.000	52150.000	51570.000
3	15:26:27	79.878%	104.400	104.400	102.800	0.000	49710.000	52430.000	52520.000
x		83.177%	108.580%	105.179%	104.713%	0.000	100.343%	103.270%	102.659%
σ		4.541%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.460	3.640	0.846	1.687	0.000	0.902	2.211	2.591

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	518.200	5109.000	0.000	51030.000	46270.000	50220.000	97.215%	102.400
2	15:26:08	533.400	5189.000	0.000	52270.000	48010.000	53590.000	93.859%	105.200
3	15:26:27	535.000	5302.000	0.000	53170.000	48890.000	52880.000	92.074%	105.600
x		105.778%	104.001%	0.000	104.310%	95.446%	104.455%	94.383%	104.399%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.611%	n/a
%RSD		1.750	1.858	0.000	2.063	2.786	3.404	2.766	1.665

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	99.430	100.800	510.000	25360.000	25450.000	101.700	103.100	104.200
2	15:26:08	104.800	105.200	527.300	26530.000	26350.000	103.900	107.400	107.800
3	15:26:27	103.100	103.400	516.400	25690.000	25520.000	98.900	100.200	103.700
x		102.468%	103.092%	103.584%	103.436%	103.105%	101.502%	103.587%	105.207%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.699	2.137	1.686	2.337	1.941	2.460	3.469	2.121

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	105.000	105.600	105.600	103.700	105.700	105.300	0.000	97.190
2	15:26:08	104.800	107.600	107.400	105.200	107.300	106.200	0.000	98.040
3	15:26:27	102.400	107.000	106.200	104.700	107.300	107.400	0.000	98.170
x		104.069%	106.745%	106.403%	104.545%	106.761%	106.321%	0.000	97.800%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.380	0.939	0.871	0.719	0.875	0.994	0.000	0.544

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	95.396%	100.600	101.700	87.476%	101.300	100.400	98.920	97.650
2	15:26:08	96.213%	102.200	105.100	87.369%	102.300	101.100	101.500	100.200
3	15:26:27	96.277%	104.000	105.800	86.817%	102.600	101.100	100.700	99.440
x		95.962%	102.273%	104.192%	87.220%	102.080%	100.881%	100.376%	99.088%
σ		0.491%	n/a	n/a	0.354%	n/a	n/a	n/a	n/a
%RSD		0.512	1.632	2.069	0.406	0.679	0.384	1.324	1.307

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	95.028%	96.410	97.610	98.050	97.700	98.900	92.271%	90.222%
2	15:26:08	94.657%	97.120	99.960	100.200	99.290	99.130	92.349%	92.261%
3	15:26:27	95.368%	96.930	98.130	97.650	98.500	98.480	95.245%	94.261%
x		95.018%	96.818%	98.564%	98.620%	98.497%	98.836%	93.288%	92.248%
σ		0.355%	n/a	n/a	n/a	n/a	n/a	1.695%	2.020%
%RSD		0.374	0.378	1.254	1.376	0.808	0.336	1.817	2.190

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:49	102.500	103.500	101.400	101.600	100.700	88.111%
2	15:26:08	106.000	106.100	105.000	107.100	105.300	87.543%
3	15:26:27	107.800	107.100	106.300	107.200	105.900	88.960%
x		105.417%	105.578%	104.238%	105.327%	103.989%	88.205%
σ		n/a	n/a	n/a	n/a	n/a	0.713%
%RSD		2.560	1.764	2.443	3.061	2.739	0.808

CCB4 4/30/2015 3:32:18 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	110.109%	-0.001	2.141	1.894	0.000	5.944	2.893	3.394
2	15:32:57	110.272%	-0.001	1.573	1.732	0.000	5.173	2.724	2.905
3	15:33:16	106.989%	-0.022	1.598	1.535	0.000	4.931	2.618	2.606
x		109.123%	-0.008	1.771	1.720	0.000	5.350	2.745	2.969
σ		1.850%	0.013	0.321	0.180	0.000	0.529	0.139	0.398
%RSD		1.696	160.400	18.140	10.470	0.000	9.883	5.058	13.400

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	1.131	-96.590	0.000	7.324	9.360	9.589	112.539%	0.022
2	15:32:57	1.101	-93.550	0.000	7.115	6.124	7.347	111.432%	0.081
3	15:33:16	1.043	-96.700	0.000	8.004	2.260	6.971	109.470%	0.084
x		1.091	-95.610	0.000	7.481	5.914	7.969	111.147%	0.062
σ		0.045	1.789	0.000	0.465	3.555	1.416	1.555%	0.035
%RSD		4.090	1.871	0.000	6.217	60.100	17.760	1.399	56.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	0.021	0.011	0.091	8.893	7.174	0.012	0.028	0.192
2	15:32:57	0.025	0.006	0.089	8.975	4.924	0.007	0.024	0.174
3	15:33:16	-0.016	-0.017	0.083	9.789	5.853	0.012	0.015	0.181
x		0.010	0.000	0.088	9.219	5.984	0.010	0.022	0.183
σ		0.022	0.015	0.004	0.496	1.130	0.003	0.007	0.009
%RSD		219.300	4066.000	4.465	5.375	18.890	28.220	29.180	5.051

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	0.226	0.775	0.861	0.055	0.213	0.089	0.000	0.030
2	15:32:57	0.249	0.839	0.683	0.031	0.273	0.086	0.000	0.029
3	15:33:16	0.188	0.806	0.712	0.028	0.212	0.148	0.000	0.029
x		0.221	0.807	0.752	0.038	0.233	0.107	0.000	0.029
σ		0.031	0.032	0.096	0.015	0.035	0.035	0.000	0.001
%RSD		13.900	3.907	12.720	39.190	14.980	32.620	0.000	1.934

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	104.481%	0.631	0.633	106.328%	-0.013	-0.034	0.008	0.013
2	15:32:57	106.032%	0.540	0.523	107.465%	-0.020	-0.030	0.022	0.018
3	15:33:16	107.218%	0.563	0.532	107.328%	-0.027	-0.032	0.046	0.025
x		105.910%	0.578	0.563	107.040%	-0.020	-0.032	0.025	0.018
σ		1.373%	0.048	0.061	0.621%	0.007	0.002	0.019	0.006
%RSD		1.296	8.221	10.820	0.580	34.720	5.188	75.470	33.840

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	103.125%	0.158	0.157	0.122	0.023	0.045	99.534%	98.374%
2	15:32:57	105.428%	0.178	0.149	0.130	0.013	0.038	103.150%	101.008%
3	15:33:16	106.793%	0.165	0.129	0.112	0.017	0.051	103.909%	101.720%
x		105.115%	0.167	0.145	0.121	0.018	0.045	102.198%	100.367%
σ		1.854%	0.010	0.014	0.009	0.005	0.006	2.338%	1.763%
%RSD		1.764	5.905	9.809	7.086	25.770	14.120	2.287	1.756

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:37	0.035	0.038	0.020	0.018	0.022	103.041%
2	15:32:57	0.049	0.041	0.022	0.017	0.024	101.904%
3	15:33:16	0.036	0.041	0.030	0.016	0.025	101.261%
x		0.040	0.040	0.024	0.017	0.023	102.069%
σ		0.008	0.001	0.005	0.001	0.002	0.902%
%RSD		18.950	3.571	22.410	4.911	6.540	0.883

180-43359-B-9-A 4/30/2015 3:36:09 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	15:36:28	58.001%	-0.004	52.080	51.050	0.000	57320.000	17480.000	17430.000
2	15:36:48	52.875%	0.033	49.570	51.570	0.000	54040.000	16960.000	17030.000
3	15:37:07	51.969%	0.019	47.310	46.060	0.000	54290.000	16810.000	16970.000
x		54.282%	0.016	49.660	49.560	0.000	55210.000	17080.000	17140.000
σ		3.253%	0.018	2.385	3.039	0.000	1824.000	352.300	253.800
%RSD		5.992	115.500	4.803	6.133	0.000	3.304	2.062	1.480
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:28	36.450	4578.000	0.000	7108.000	107100.000	118700.000	60.074%	1.225
2	15:36:48	34.730	4406.000	0.000	7117.000	108700.000	118000.000	60.017%	0.998
3	15:37:07	33.610	4371.000	0.000	7145.000	107100.000	116400.000	56.787%	0.961
x		34.930	4452.000	0.000	7123.000	107600.000	117700.000	58.959%	1.061
σ		1.434	110.900	0.000	19.530	944.100	1177.000	1.882%	0.143
%RSD		4.104	2.492	0.000	0.274	0.877	1.000	3.191	13.470
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:28	-0.344	4.994	59.960	69.130	215.000	0.435	0.316	0.641
2	15:36:48	-0.126	4.832	59.440	68.390	214.300	0.393	0.399	0.670
3	15:37:07	-2.225	5.122	60.650	69.710	209.300	0.391	0.513	0.722
x		-0.898	4.983	60.020	69.080	212.900	0.407	0.409	0.678
σ		1.154	0.145	0.605	0.665	3.135	0.025	0.099	0.041
%RSD		128.500	2.916	1.008	0.963	1.473	6.119	24.200	6.025
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:28	0.512	114.900	113.800	-0.843	0.173	0.370	0.000	281.100
2	15:36:48	0.426	111.800	115.300	0.054	0.109	0.274	0.000	281.300
3	15:37:07	0.425	114.800	113.400	-0.090	0.037	0.508	0.000	281.500
x		0.454	113.800	114.100	-0.293	0.106	0.384	0.000	281.300
σ		0.050	1.778	0.992	0.482	0.068	0.117	0.000	0.201
%RSD		11.040	1.562	0.869	164.400	64.000	30.610	0.000	0.072
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:28	64.891%	1.749	1.934	62.146%	-0.035	-0.044	-0.038	-0.026
2	15:36:48	64.305%	1.849	1.867	60.906%	-0.030	-0.043	-0.040	-0.010
3	15:37:07	64.131%	1.725	1.865	60.526%	-0.032	-0.042	0.000	0.001
x		64.442%	1.774	1.888	61.193%	-0.033	-0.043	-0.026	-0.012
σ		0.398%	0.066	0.040	0.847%	0.003	0.001	0.023	0.014
%RSD		0.618	3.703	2.092	1.384	8.725	2.648	87.410	119.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:28	67.735%	1.008	0.570	0.578	53.860	54.050	78.128%	79.129%
2	15:36:48	67.809%	0.895	0.452	0.510	54.920	54.710	78.768%	79.754%
3	15:37:07	68.148%	0.782	0.472	0.463	53.520	54.060	80.086%	81.074%
x		67.897%	0.895	0.498	0.517	54.100	54.270	78.994%	79.985%
σ		0.220%	0.113	0.063	0.058	0.734	0.377	0.999%	0.993%
%RSD		0.324	12.620	12.600	11.120	1.356	0.695	1.264	1.241
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:36:28	0.064	0.062	0.200	0.188	0.189	76.185%		
2	15:36:48	0.068	0.069	0.208	0.199	0.196	75.345%		
3	15:37:07	0.067	0.060	0.215	0.182	0.196	74.146%		
x		0.067	0.064	0.208	0.190	0.194	75.225%		
σ		0.002	0.004	0.007	0.009	0.004	1.025%		
%RSD		2.891	6.970	3.424	4.559	2.100	1.362		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:17	53.492%	0.017	50.650	49.640	0.000	43360.000	16250.000	16440.000
2	15:40:36	50.154%	-0.011	45.750	49.070	0.000	42700.000	16210.000	16140.000
3	15:40:56	46.157%	0.011	48.290	49.450	0.000	44030.000	15900.000	15810.000
x		49.934%	0.005	48.230	49.390	0.000	43360.000	16120.000	16130.000
σ		3.672%	0.015	2.451	0.292	0.000	664.000	193.100	316.400
%RSD		7.354	282.900	5.082	0.592	0.000	1.531	1.198	1.962
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:17	18.490	4191.000	0.000	4749.000	105000.000	114200.000	57.911%	1.149
2	15:40:36	20.370	4086.000	0.000	4727.000	106500.000	114300.000	53.087%	0.587
3	15:40:56	19.920	4086.000	0.000	4706.000	104700.000	113000.000	53.557%	0.786
x		19.600	4121.000	0.000	4727.000	105400.000	113800.000	54.852%	0.841
σ		0.983	60.440	0.000	21.590	1000.000	706.300	2.660%	0.285
%RSD		5.015	1.467	0.000	0.457	0.949	0.621	4.850	33.890
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:17	0.024	7.993	19.470	72.230	214.800	0.321	0.333	0.760
2	15:40:36	-1.796	8.059	20.060	72.550	215.700	0.326	0.113	0.740
3	15:40:56	-0.813	7.749	19.590	65.370	198.100	0.327	0.019	0.536
x		-0.862	7.934	19.710	70.050	209.500	0.325	0.155	0.679
σ		0.911	0.163	0.313	4.058	9.909	0.004	0.161	0.124
%RSD		105.800	2.056	1.587	5.793	4.729	1.111	104.300	18.220
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:17	0.400	26.700	26.630	-1.109	0.048	0.534	0.000	242.400
2	15:40:36	0.487	27.200	26.820	-0.689	-0.191	0.299	0.000	240.600
3	15:40:56	0.460	25.280	25.620	-0.434	-0.024	0.448	0.000	240.300
x		0.449	26.390	26.350	-0.744	-0.056	0.427	0.000	241.100
σ		0.045	0.997	0.643	0.341	0.122	0.119	0.000	1.171
%RSD		9.947	3.778	2.441	45.850	219.500	27.860	0.000	0.486
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:17	61.653%	1.513	1.588	59.492%	-0.040	-0.037	-0.029	-0.030
2	15:40:36	61.757%	1.547	1.527	58.350%	-0.032	-0.037	-0.063	-0.030
3	15:40:56	60.579%	1.404	1.496	57.164%	-0.030	-0.043	-0.101	-0.060
x		61.330%	1.488	1.537	58.335%	-0.034	-0.039	-0.065	-0.040
σ		0.652%	0.075	0.047	1.164%	0.006	0.004	0.036	0.017
%RSD		1.063	5.028	3.053	1.996	16.400	9.621	55.610	43.220
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:17	64.730%	0.597	0.273	0.267	57.180	56.460	76.363%	76.918%
2	15:40:36	65.433%	0.515	0.226	0.241	57.350	56.560	77.262%	78.310%
3	15:40:56	65.015%	0.452	0.187	0.199	56.110	56.320	77.852%	79.169%
x		65.059%	0.521	0.229	0.236	56.880	56.450	77.159%	78.132%
σ		0.354%	0.073	0.043	0.035	0.674	0.119	0.750%	1.136%
%RSD		0.544	13.940	18.830	14.630	1.186	0.211	0.972	1.453
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:40:17	0.035	0.034	0.157	0.122	0.138	74.598%		
2	15:40:36	0.040	0.030	0.157	0.146	0.150	73.315%		
3	15:40:56	0.032	0.039	0.166	0.169	0.158	73.329%		
x		0.036	0.035	0.160	0.146	0.149	73.747%		
σ		0.004	0.005	0.005	0.023	0.010	0.737%		
%RSD		11.040	13.260	3.277	16.090	7.013	0.999		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	46.412%	-0.008	6981.000	7318.000	0.000	153600.000	44640.000	44400.000
2	15:44:25	46.666%	-0.008	6432.000	7230.000	0.000	145500.000	41340.000	41630.000
3	15:44:44	48.444%	-0.044	6238.000	6630.000	0.000	138500.000	40210.000	41130.000
x		47.174%	-0.020	6551.000	7060.000	0.000	145900.000	42060.000	42390.000
σ		1.107%	0.021	385.400	374.400	0.000	7596.000	2300.000	1762.000
%RSD		2.347	104.300	5.884	5.304	0.000	5.207	5.468	4.158

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	20.380	4047.000	0.000	10350.000	88830.000	98680.000	56.106%	0.927
2	15:44:25	18.830	3920.000	0.000	10270.000	91040.000	100400.000	54.001%	1.186
3	15:44:44	18.020	3734.000	0.000	10100.000	92260.000	101100.000	52.955%	1.107
x		19.080	3901.000	0.000	10240.000	90710.000	100100.000	54.354%	1.073
σ		1.202	157.200	0.000	124.400	1738.000	1251.000	1.605%	0.132
%RSD		6.299	4.030	0.000	1.215	1.916	1.250	2.952	12.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	-1.623	1.047	3870.000	4683.000	4550.000	1.627	205.000	1.070
2	15:44:25	-1.386	0.976	3905.000	4624.000	4569.000	1.597	202.900	1.010
3	15:44:44	-2.692	0.957	3877.000	4627.000	4676.000	1.584	202.900	1.097
x		-1.900	0.994	3884.000	4645.000	4598.000	1.603	203.600	1.059
σ		0.696	0.047	18.820	32.970	67.680	0.022	1.240	0.045
%RSD		36.610	4.762	0.484	0.710	1.472	1.359	0.609	4.202

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	0.253	4.441	4.248	0.036	-0.298	0.853	0.000	146.700
2	15:44:25	0.200	4.380	4.082	0.898	0.034	0.848	0.000	147.500
3	15:44:44	0.238	4.475	3.681	-0.040	-0.007	0.470	0.000	147.800
x		0.230	4.432	4.004	0.298	-0.090	0.724	0.000	147.300
σ		0.027	0.048	0.291	0.521	0.181	0.220	0.000	0.584
%RSD		11.810	1.088	7.280	174.900	200.800	30.320	0.000	0.397

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	60.377%	0.512	0.524	57.256%	-0.033	-0.029	-0.046	-0.024
2	15:44:25	60.554%	0.493	0.494	56.707%	-0.024	-0.045	-0.010	-0.014
3	15:44:44	60.061%	0.459	0.488	56.356%	-0.027	-0.046	-0.051	-0.037
x		60.331%	0.488	0.502	56.773%	-0.028	-0.040	-0.036	-0.025
σ		0.250%	0.027	0.019	0.454%	0.005	0.010	0.023	0.012
%RSD		0.414	5.468	3.824	0.799	17.420	23.810	63.230	46.170

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	62.889%	0.275	0.123	0.126	68.050	68.680	75.735%	77.101%
2	15:44:25	63.874%	0.268	0.121	0.114	67.620	68.650	76.999%	77.168%
3	15:44:44	64.838%	0.247	0.121	0.113	69.170	68.890	76.547%	77.777%
x		63.867%	0.263	0.122	0.117	68.280	68.740	76.427%	77.349%
σ		0.974%	0.015	0.001	0.007	0.800	0.131	0.641%	0.372%
%RSD		1.525	5.513	1.014	6.074	1.171	0.190	0.838	0.481

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:06	0.021	0.024	0.711	0.621	0.649	71.335%
2	15:44:25	0.023	0.021	0.731	0.657	0.679	71.084%
3	15:44:44	0.027	0.027	0.715	0.637	0.672	71.906%
x		0.024	0.024	0.719	0.638	0.667	71.442%
σ		0.003	0.003	0.010	0.018	0.015	0.421%
%RSD		13.350	11.020	1.435	2.814	2.312	0.590

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:55	52.931%	-0.046	32.340	32.810	0.000	16380.000	45010.000	47300.000
2	15:48:14	49.274%	0.023	28.920	35.480	0.000	17310.000	48580.000	48370.000
3	15:48:33	48.185%	0.008	30.760	32.390	0.000	17010.000	47330.000	47760.000
x		50.130%	-0.005	30.670	33.560	0.000	16900.000	46970.000	47810.000
σ		2.486%	0.036	1.712	1.678	0.000	474.200	1810.000	536.700
%RSD		4.959	701.200	5.582	4.998	0.000	2.806	3.853	1.122
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:55	39.270	4750.000	0.000	2319.000	141900.000	153000.000	61.569%	1.105
2	15:48:14	42.250	4910.000	0.000	2368.000	146500.000	158500.000	58.324%	1.091
3	15:48:33	38.980	4651.000	0.000	2332.000	148000.000	159900.000	54.086%	1.317
x		40.170	4770.000	0.000	2339.000	145500.000	157100.000	57.993%	1.171
σ		1.812	130.500	0.000	25.700	3200.000	3642.000	3.753%	0.126
%RSD		4.512	2.735	0.000	1.099	2.200	2.318	6.471	10.790
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:55	-2.823	2.606	174.600	543.400	714.100	0.736	1.934	0.570
2	15:48:14	-1.318	2.639	174.600	536.400	702.200	0.723	1.524	0.527
3	15:48:33	-0.642	2.827	176.200	537.600	708.100	0.691	1.738	0.523
x		-1.594	2.691	175.100	539.100	708.100	0.717	1.732	0.540
σ		1.116	0.119	0.954	3.703	5.969	0.023	0.205	0.026
%RSD		70.030	4.422	0.545	0.687	0.843	3.240	11.850	4.794
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:55	0.640	15.460	15.680	0.222	-0.218	0.262	0.000	1148.000
2	15:48:14	0.593	15.410	15.280	0.987	-0.138	0.259	0.000	1151.000
3	15:48:33	0.722	15.910	15.240	0.311	0.003	0.543	0.000	1145.000
x		0.652	15.590	15.400	0.506	-0.117	0.355	0.000	1148.000
σ		0.066	0.278	0.243	0.419	0.112	0.163	0.000	3.095
%RSD		10.060	1.780	1.577	82.700	95.380	45.940	0.000	0.270
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:55	64.881%	0.622	0.648	61.403%	-0.033	-0.043	-0.051	-0.036
2	15:48:14	64.210%	0.664	0.622	60.312%	-0.032	-0.043	-0.062	-0.021
3	15:48:33	63.315%	0.668	0.562	59.064%	-0.031	-0.040	-0.023	-0.020
x		64.135%	0.651	0.611	60.260%	-0.032	-0.042	-0.045	-0.026
σ		0.785%	0.026	0.044	1.170%	0.001	0.002	0.020	0.009
%RSD		1.224	3.935	7.249	1.942	3.536	4.942	44.160	34.550
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:55	68.385%	0.238	0.168	0.223	47.380	47.760	78.839%	80.114%
2	15:48:14	67.073%	0.212	0.163	0.180	48.420	48.290	79.216%	80.249%
3	15:48:33	66.512%	0.227	0.143	0.179	48.890	47.920	80.089%	80.643%
x		67.323%	0.226	0.158	0.194	48.230	47.990	79.381%	80.336%
σ		0.961%	0.013	0.013	0.025	0.771	0.273	0.641%	0.275%
%RSD		1.428	5.797	8.333	12.800	1.598	0.569	0.808	0.342
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:47:55	0.019	0.016	0.542	0.506	0.530	74.989%		
2	15:48:14	0.016	0.020	0.560	0.552	0.541	74.834%		
3	15:48:33	0.021	0.018	0.608	0.539	0.554	73.311%		
x		0.019	0.018	0.570	0.532	0.542	74.378%		
σ		0.003	0.002	0.034	0.023	0.012	0.927%		
%RSD		13.510	10.150	5.930	4.375	2.205	1.247		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:44	50.465%	-0.012	264.100	264.500	0.000	46030.000	13570.000	13450.000
2	15:52:03	44.958%	0.049	276.600	278.900	0.000	47350.000	14150.000	14180.000
3	15:52:23	46.497%	0.010	246.200	253.700	0.000	46860.000	13790.000	13840.000
x		47.307%	0.016	262.300	265.700	0.000	46750.000	13840.000	13820.000
σ		2.842%	0.031	15.300	12.650	0.000	666.100	295.000	364.000
%RSD		6.007	196.300	5.834	4.760	0.000	1.425	2.132	2.633
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:44	6.568	4060.000	0.000	7998.000	108700.000	117300.000	56.825%	0.560
2	15:52:03	7.136	4155.000	0.000	8226.000	111700.000	119600.000	53.144%	0.707
3	15:52:23	6.510	4083.000	0.000	8129.000	111300.000	119700.000	52.681%	0.680
x		6.738	4099.000	0.000	8117.000	110600.000	118800.000	54.217%	0.649
σ		0.346	49.670	0.000	114.300	1653.000	1343.000	2.271%	0.078
%RSD		5.132	1.212	0.000	1.409	1.495	1.130	4.189	12.060
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:44	-3.326	57.990	21.830	17.990	176.300	1.761	9.806	0.526
2	15:52:03	-2.281	58.260	22.580	17.580	164.400	1.737	9.750	0.570
3	15:52:23	-3.718	57.290	23.030	18.550	166.400	1.686	9.959	0.481
x		-3.108	57.850	22.480	18.040	169.000	1.728	9.838	0.526
σ		0.743	0.502	0.605	0.489	6.383	0.038	0.108	0.044
%RSD		23.900	0.868	2.689	2.709	3.776	2.208	1.102	8.425
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:44	0.328	5.160	4.884	0.036	-0.067	0.466	0.000	249.500
2	15:52:03	0.316	5.126	5.195	-0.174	-0.113	0.511	0.000	251.800
3	15:52:23	0.248	5.367	5.075	0.039	-0.203	0.306	0.000	249.000
x		0.297	5.218	5.051	-0.033	-0.128	0.428	0.000	250.100
σ		0.043	0.130	0.157	0.122	0.070	0.108	0.000	1.471
%RSD		14.480	2.498	3.105	369.000	54.680	25.220	0.000	0.588
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:44	60.759%	0.597	0.631	58.309%	-0.028	-0.039	0.119	0.139
2	15:52:03	60.246%	0.694	0.668	57.080%	-0.030	-0.031	0.071	0.144
3	15:52:23	59.809%	0.650	0.643	56.413%	-0.028	-0.036	0.131	0.129
x		60.271%	0.647	0.647	57.267%	-0.029	-0.035	0.107	0.137
σ		0.475%	0.048	0.019	0.962%	0.001	0.004	0.031	0.008
%RSD		0.788	7.461	2.880	1.679	3.294	11.150	29.330	5.885
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:44	65.170%	0.179	0.097	0.075	64.840	65.020	75.139%	76.843%
2	15:52:03	64.073%	0.159	0.081	0.094	65.480	64.730	76.925%	78.537%
3	15:52:23	64.646%	0.148	0.082	0.082	64.800	64.300	77.147%	78.133%
x		64.630%	0.162	0.086	0.084	65.040	64.680	76.404%	77.838%
σ		0.548%	0.016	0.009	0.010	0.383	0.361	1.101%	0.885%
%RSD		0.849	9.584	10.540	11.700	0.589	0.559	1.441	1.136
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:51:44	0.029	0.028	0.056	0.054	0.058	72.145%		
2	15:52:03	0.030	0.032	0.070	0.058	0.066	72.591%		
3	15:52:23	0.028	0.029	0.065	0.037	0.055	74.197%		
x		0.029	0.029	0.064	0.050	0.060	72.978%		
σ		0.001	0.002	0.007	0.011	0.006	1.079%		
%RSD		3.092	7.583	11.220	22.010	10.060	1.479		

CRI 1554040 4/30/2015 3:58:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:32	101.861%	1.159	25.030	24.700	0.000	490.200	473.000	494.600
2	15:58:51	88.752%	1.085	23.940	25.050	0.000	514.300	511.100	509.900
3	15:59:11	88.588%	1.126	26.160	26.190	0.000	545.000	529.400	524.600
x		93.067%	112.350%	125.217%	126.581%	0.000	103.302%	100.897%	101.940%
σ		7.616%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		8.184	3.321	4.436	3.071	0.000	5.320	5.702	2.940
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:32	37.450	389.700	0.000	504.400	484.000	509.900	101.826%	5.235
2	15:58:51	38.860	415.200	0.000	525.700	482.800	526.900	98.280%	5.943
3	15:59:11	39.590	428.100	0.000	534.100	497.100	546.300	96.482%	5.930
x		128.776%	82.198%	0.000	104.283%	97.595%	105.532%	98.862%	114.053%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.719%	n/a
%RSD		2.809	4.765	0.000	2.930	1.629	3.449	2.751	7.103
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:32	1.222	2.257	5.640	63.020	56.680	0.525	1.185	2.512
2	15:58:51	1.278	2.248	5.709	64.380	60.500	0.565	1.193	2.491
3	15:59:11	1.301	2.230	5.751	62.930	58.910	0.535	1.293	2.354
x		126.701%	112.234%	114.001%	126.885%	117.397%	108.362%	122.371%	122.621%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.209	0.607	0.979	1.278	3.268	3.817	4.947	3.487
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:32	2.416	7.395	7.128	1.202	5.978	6.054	0.000	5.070
2	15:58:51	2.494	7.328	7.331	1.338	5.905	6.159	0.000	5.068
3	15:59:11	2.386	7.527	7.104	1.379	6.107	6.362	0.000	5.043
x		121.616%	148.338%	143.750%	130.650%	119.930%	123.826%	0.000	101.207%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.294	1.368	1.734	7.107	1.707	2.529	0.000	0.289
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:32	97.259%	4.978	4.797	93.770%	1.109	1.156	1.238	1.204
2	15:58:51	96.931%	5.105	4.993	92.852%	1.185	1.141	1.106	1.140
3	15:59:11	95.965%	5.176	4.936	92.726%	1.133	1.154	1.095	1.142
x		96.718%	101.725%	98.172%	93.116%	114.205%	115.056%	114.638%	116.218%
σ		0.673%	n/a	n/a	0.570%	n/a	n/a	n/a	n/a
%RSD		0.696	1.974	2.056	0.612	3.392	0.690	6.974	3.108
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:32	92.426%	5.434	2.055	2.040	10.830	10.810	90.489%	89.663%
2	15:58:51	92.539%	5.269	2.107	2.000	10.770	10.810	92.834%	92.086%
3	15:59:11	92.444%	5.068	2.071	2.090	10.930	10.780	94.218%	93.120%
x		92.469%	105.139%	103.872%	102.165%	108.415%	108.005%	92.514%	91.623%
σ		0.061%	n/a	n/a	n/a	n/a	n/a	1.885%	1.775%
%RSD		0.066	3.485	1.297	2.203	0.764	0.181	2.038	1.937
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:58:32	1.055	1.082	1.147	1.167	1.153	90.749%		
2	15:58:51	1.126	1.090	1.194	1.225	1.201	91.769%		
3	15:59:11	1.118	1.120	1.215	1.221	1.191	91.830%		
x		109.954%	109.733%	118.552%	120.432%	118.189%	91.449%		
σ		n/a	n/a	n/a	n/a	n/a	0.607%		
%RSD		3.559	1.862	2.945	2.670	2.134	0.664		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:14	97.472%	-0.019	1.948	2.100	0.000	-2.833	0.470	0.440
2	16:06:33	95.079%	-0.017	2.043	1.982	0.000	-3.585	-0.108	0.084
3	16:06:52	91.949%	-0.016	2.350	2.131	0.000	-3.550	-0.052	-0.039
x		94.833%	-0.017	2.114	2.071	0.000	-3.323	0.103	0.162
σ		2.770%	0.001	0.210	0.079	0.000	0.424	0.319	0.249
%RSD		2.921	7.919	9.931	3.798	0.000	12.770	308.200	153.900
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:14	-1.763	-106.200	0.000	-2.167	-5.926	-7.974	105.930%	-0.040
2	16:06:33	-1.783	-105.100	0.000	-0.936	-8.633	-9.286	99.069%	-0.064
3	16:06:52	-1.793	-104.000	0.000	-0.882	-7.695	-8.681	94.974%	-0.043
x		-1.780	-105.100	0.000	-1.328	-7.418	-8.647	99.991%	-0.049
σ		0.016	1.090	0.000	0.727	1.374	0.657	5.536%	0.013
%RSD		0.872	1.038	0.000	54.720	18.530	7.595	5.536	26.590
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:14	-0.000	-0.013	-0.003	-1.747	-0.226	-0.001	-0.046	-0.193
2	16:06:33	-0.010	-0.017	-0.017	1.289	0.620	-0.001	-0.039	-0.161
3	16:06:52	-0.012	-0.006	-0.020	0.500	-0.144	-0.004	-0.036	-0.181
x		-0.007	-0.012	-0.013	0.014	0.083	-0.002	-0.040	-0.178
σ		0.006	0.006	0.009	1.575	0.466	0.002	0.005	0.016
%RSD		87.300	47.590	69.560	11330.000	559.800	88.470	12.120	8.848
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:14	-0.187	-0.590	-0.664	0.008	0.063	0.057	0.000	-0.012
2	16:06:33	-0.193	-0.552	-0.610	0.015	-0.054	0.013	0.000	-0.011
3	16:06:52	-0.163	-0.551	-0.656	-0.009	0.040	0.066	0.000	-0.009
x		-0.181	-0.564	-0.643	0.004	0.016	0.045	0.000	-0.010
σ		0.016	0.022	0.029	0.012	0.062	0.028	0.000	0.002
%RSD		8.776	3.914	4.529	285.700	377.500	62.740	0.000	15.120
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:14	94.304%	0.062	0.053	95.925%	-0.041	-0.047	0.012	0.006
2	16:06:33	94.797%	0.057	0.049	95.295%	-0.042	-0.048	-0.016	-0.009
3	16:06:52	93.978%	0.048	0.045	94.907%	-0.036	-0.049	0.029	0.019
x		94.360%	0.056	0.049	95.376%	-0.040	-0.048	0.008	0.006
σ		0.412%	0.007	0.004	0.514%	0.003	0.001	0.022	0.014
%RSD		0.437	12.340	8.793	0.539	7.833	1.495	270.100	247.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:14	94.099%	-0.071	-0.021	-0.036	-0.029	-0.011	92.842%	91.270%
2	16:06:33	95.163%	-0.091	-0.013	-0.027	-0.029	-0.014	94.503%	93.001%
3	16:06:52	95.267%	-0.081	-0.009	-0.026	-0.047	-0.016	94.446%	94.065%
x		94.843%	-0.081	-0.014	-0.030	-0.035	-0.014	93.930%	92.779%
σ		0.647%	0.010	0.006	0.006	0.011	0.002	0.943%	1.410%
%RSD		0.682	12.500	41.130	20.070	30.110	17.280	1.004	1.520
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:06:14	0.012	0.013	-0.016	-0.022	-0.016	100.238%		
2	16:06:33	0.010	0.013	-0.018	-0.016	-0.015	98.725%		
3	16:06:52	0.009	0.015	-0.016	-0.010	-0.012	99.221%		
x		0.011	0.014	-0.017	-0.016	-0.014	99.395%		
σ		0.002	0.001	0.001	0.006	0.002	0.771%		
%RSD		17.810	8.893	6.271	38.830	12.830	0.776		

LCS 180-139550/2-A 4/30/2015 4:09:42 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	16:10:01	54.626%	51.640	939.000	939.300	0.000	42080.000	42560.000	42260.000
2	16:10:20	52.221%	48.990	912.300	961.800	0.000	42810.000	42890.000	42740.000
3	16:10:40	52.719%	50.470	954.500	979.500	0.000	44510.000	44320.000	45000.000
x		53.189%	50.370	935.300	960.200	0.000	43130.000	43260.000	43340.000
σ		1.269%	1.330	21.350	20.100	0.000	1247.000	938.900	1462.000
%RSD		2.386	2.641	2.282	2.093	0.000	2.892	2.171	3.374

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:01	1720.000	8303.000	0.000	45700.000	44730.000	48670.000	61.481%	929.000
2	16:10:20	1786.000	8603.000	0.000	46030.000	45230.000	49730.000	58.833%	937.700
3	16:10:40	1719.000	8396.000	0.000	47010.000	46110.000	50270.000	56.845%	943.500
x		1742.000	8434.000	0.000	46250.000	45360.000	49560.000	59.053%	936.700
σ		38.430	153.500	0.000	682.400	699.300	814.300	2.326%	7.289
%RSD		2.206	1.820	0.000	1.476	1.542	1.643	3.939	0.778

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:01	495.400	191.700	491.300	971.500	1002.000	479.800	466.800	240.400
2	16:10:20	496.300	196.600	494.700	976.100	995.100	483.100	461.900	236.500
3	16:10:40	498.400	186.000	491.900	980.000	989.100	475.900	467.000	235.400
x		496.700	191.400	492.600	975.900	995.400	479.600	465.200	237.400
σ		1.531	5.294	1.802	4.280	6.437	3.605	2.871	2.649
%RSD		0.308	2.765	0.366	0.439	0.647	0.752	0.617	1.116

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:01	237.700	480.700	483.600	36.490	9.785	10.780	0.000	971.400
2	16:10:20	237.000	479.300	484.300	37.240	9.819	10.160	0.000	978.100
3	16:10:40	234.200	482.400	487.900	37.590	10.140	10.110	0.000	979.800
x		236.300	480.800	485.300	37.110	9.914	10.350	0.000	976.400
σ		1.865	1.575	2.320	0.564	0.195	0.374	0.000	4.455
%RSD		0.789	0.328	0.478	1.520	1.964	3.612	0.000	0.456

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:01	63.277%	1027.000	1056.000	60.181%	50.490	50.590	52.190	45.280
2	16:10:20	63.377%	1040.000	1070.000	60.129%	50.090	50.060	50.540	44.540
3	16:10:40	63.618%	1033.000	1071.000	60.455%	50.280	49.800	51.010	43.560
x		63.424%	1033.000	1065.000	60.255%	50.290	50.150	51.250	44.460
σ		0.175%	6.932	8.068	0.175%	0.200	0.404	0.851	0.862
%RSD		0.276	0.671	0.757	0.291	0.398	0.806	1.660	1.940

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:01	65.239%	1988.000	492.800	487.300	1985.000	1950.000	77.223%	77.261%
2	16:10:20	66.302%	1982.000	491.600	489.000	2001.000	1953.000	78.184%	79.447%
3	16:10:40	66.554%	1990.000	498.200	501.100	1992.000	1959.000	79.341%	80.985%
x		66.032%	1987.000	494.200	492.400	1993.000	1954.000	78.249%	79.231%
σ		0.698%	4.178	3.509	7.554	8.280	4.539	1.060%	1.871%
%RSD		1.057	0.210	0.710	1.534	0.415	0.232	1.355	2.362

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:01	50.320	50.310	20.540	21.000	20.620	74.866%
2	16:10:20	52.020	52.660	21.550	21.630	21.490	74.375%
3	16:10:40	52.220	52.840	21.780	21.790	21.610	74.939%
x		51.520	51.930	21.290	21.470	21.240	74.727%
σ		1.042	1.412	0.657	0.418	0.538	0.307%
%RSD		2.022	2.719	3.087	1.949	2.535	0.410

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	90.819%	111.300	110.000	110.800	0.000	53820.000	52730.000	52380.000
2	16:13:58	88.165%	110.200	103.700	104.000	0.000	52880.000	52560.000	52720.000
3	16:14:17	84.697%	106.800	104.700	106.800	0.000	51350.000	51030.000	52030.000
x		87.894%	109.446%	106.091%	107.201%	0.000	105.366%	104.215%	104.751%
σ		3.070%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.493	2.118	3.187	3.183	0.000	2.366	1.805	0.661

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	534.800	5384.000	0.000	52360.000	47320.000	51340.000	103.896%	101.700
2	16:13:58	538.800	5330.000	0.000	53310.000	48420.000	53250.000	99.420%	103.800
3	16:14:17	544.400	5403.000	0.000	52730.000	48100.000	52630.000	98.629%	105.400
x		107.868%	107.444%	0.000	105.597%	95.895%	104.812%	100.648%	103.612%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.840%	n/a
%RSD		0.887	0.709	0.000	0.915	1.181	1.863	2.822	1.778

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	103.500	102.400	502.700	25120.000	25100.000	100.500	103.100	104.700
2	16:13:58	103.900	104.800	521.900	25980.000	25680.000	101.500	104.100	105.500
3	16:14:17	102.500	103.100	517.400	25260.000	25710.000	101.300	102.500	103.900
x		103.297%	103.417%	102.799%	101.807%	101.990%	101.101%	103.220%	104.685%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.681	1.165	1.957	1.807	1.346	0.498	0.748	0.735

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	104.400	103.500	104.300	103.800	107.100	106.200	0.000	97.220
2	16:13:58	104.700	107.500	107.400	105.500	108.300	107.000	0.000	98.380
3	16:14:17	103.000	105.900	104.600	105.100	107.300	106.500	0.000	98.420
x		104.024%	105.659%	105.411%	104.785%	107.605%	106.556%	0.000	98.008%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.905	1.894	1.616	0.850	0.594	0.414	0.000	0.692

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	98.624%	100.800	101.600	91.500%	102.900	103.300	102.800	102.800
2	16:13:58	99.634%	100.400	103.600	90.952%	103.300	104.000	104.500	104.000
3	16:14:17	99.931%	102.700	104.700	90.884%	103.600	104.100	103.400	104.100
x		99.396%	101.290%	103.312%	91.112%	103.280%	103.835%	103.557%	103.618%
σ		0.685%	n/a	n/a	0.338%	n/a	n/a	n/a	n/a
%RSD		0.689	1.220	1.554	0.371	0.314	0.411	0.815	0.678

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	91.804%	100.500	99.590	100.600	99.890	100.800	92.548%	91.069%
2	16:13:58	92.638%	100.700	100.600	100.100	101.100	101.000	94.444%	92.121%
3	16:14:17	93.145%	102.000	102.400	101.500	101.000	102.300	95.771%	94.573%
x		92.529%	101.066%	100.879%	100.731%	100.661%	101.365%	94.254%	92.588%
σ		0.677%	n/a	n/a	n/a	n/a	n/a	1.619%	1.798%
%RSD		0.732	0.808	1.419	0.673	0.666	0.781	1.718	1.942

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:39	102.600	105.000	101.400	103.500	101.900	88.506%
2	16:13:58	102.300	104.600	102.600	103.300	102.900	90.486%
3	16:14:17	106.200	107.200	105.000	106.000	104.200	90.291%
x		103.711%	105.615%	103.009%	104.260%	103.003%	89.761%
σ		n/a	n/a	n/a	n/a	n/a	1.091%
%RSD		2.059	1.339	1.796	1.426	1.105	1.216

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	113.648%	-0.003	1.433	1.451	0.000	4.975	3.384	2.757
2	16:20:47	105.584%	0.002	1.327	1.724	0.000	5.659	2.633	2.791
3	16:21:06	109.469%	-0.016	1.145	1.492	0.000	5.106	2.713	2.584
x		109.567%	-0.006	1.302	1.556	0.000	5.247	2.910	2.711
σ		4.033%	0.009	0.145	0.147	0.000	0.363	0.413	0.111
%RSD		3.681	163.100	11.170	9.475	0.000	6.923	14.180	4.086

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	1.148	-104.100	0.000	6.273	10.040	7.340	119.774%	0.022
2	16:20:47	1.353	-102.700	0.000	7.158	5.926	3.628	117.636%	0.009
3	16:21:06	1.283	-103.100	0.000	7.511	7.042	4.873	114.332%	0.052
x		1.261	-103.300	0.000	6.981	7.669	5.280	117.247%	0.028
σ		0.104	0.707	0.000	0.638	2.127	1.889	2.742%	0.022
%RSD		8.246	0.685	0.000	9.137	27.730	35.780	2.338	79.980

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	0.016	0.033	0.093	10.650	7.226	0.009	0.004	0.530
2	16:20:47	0.006	0.025	0.092	9.016	5.715	0.008	0.037	0.454
3	16:21:06	0.005	0.015	0.092	8.748	5.306	0.007	0.021	0.521
x		0.009	0.024	0.092	9.473	6.082	0.008	0.021	0.501
σ		0.006	0.009	0.000	1.033	1.011	0.001	0.017	0.042
%RSD		66.320	36.930	0.269	10.900	16.630	15.130	80.240	8.327

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	0.542	0.912	0.688	0.004	0.277	0.023	0.000	0.039
2	16:20:47	0.498	0.982	0.855	0.025	0.252	0.167	0.000	0.027
3	16:21:06	0.518	0.911	0.806	0.029	0.194	0.054	0.000	0.030
x		0.519	0.935	0.783	0.020	0.241	0.081	0.000	0.032
σ		0.022	0.041	0.086	0.013	0.043	0.076	0.000	0.007
%RSD		4.262	4.385	10.970	67.370	17.680	93.010	0.000	20.780

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	107.724%	0.508	0.474	109.153%	-0.027	-0.028	0.016	0.015
2	16:20:47	109.081%	0.391	0.436	110.214%	-0.020	-0.037	0.053	0.043
3	16:21:06	109.441%	0.386	0.390	110.180%	-0.019	-0.037	-0.002	0.007
x		108.749%	0.428	0.434	109.849%	-0.022	-0.034	0.022	0.022
σ		0.905%	0.069	0.042	0.603%	0.004	0.005	0.028	0.019
%RSD		0.832	16.180	9.729	0.549	19.750	14.330	125.800	85.850

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	104.908%	0.202	0.044	0.025	0.005	0.036	101.243%	98.722%
2	16:20:47	106.522%	0.196	0.042	0.041	0.002	0.043	101.793%	100.337%
3	16:21:06	108.664%	0.165	0.044	0.026	0.028	0.034	104.754%	103.557%
x		106.698%	0.187	0.044	0.030	0.011	0.038	102.597%	100.872%
σ		1.884%	0.020	0.001	0.009	0.014	0.005	1.888%	2.462%
%RSD		1.766	10.570	2.796	29.320	125.700	13.150	1.840	2.440

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:28	0.041	0.043	0.028	0.028	0.028	103.566%
2	16:20:47	0.045	0.043	0.031	0.020	0.023	104.538%
3	16:21:06	0.044	0.043	0.026	0.024	0.024	103.296%
x		0.043	0.043	0.028	0.024	0.025	103.800%
σ		0.002	0.000	0.002	0.004	0.002	0.653%
%RSD		4.251	0.860	8.419	17.010	9.444	0.629

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:19	49.098%	0.397	11.900	13.920	0.000	10090.000	139400.000	136700.000
2	16:24:38	43.756%	0.488	12.480	13.350	0.000	10670.000	150000.000	147500.000
3	16:24:57	41.664%	0.616	13.370	13.280	0.000	10370.000	145800.000	143400.000
x		44.839%	0.500	12.580	13.520	0.000	10380.000	145100.000	142500.000
σ		3.834%	0.110	0.738	0.353	0.000	289.200	5335.000	5431.000
%RSD		8.550	22.040	5.864	2.610	0.000	2.788	3.678	3.810
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:19	113.000	8600.000	0.000	31390.000	304700.000	312600.000	55.301%	0.613
2	16:24:38	119.400	8935.000	0.000	33100.000	317700.000	316800.000	53.503%	0.688
3	16:24:57	121.100	8864.000	0.000	33300.000	324300.000	327800.000	49.419%	0.473
x		117.800	8800.000	0.000	32600.000	315600.000	319100.000	52.741%	0.592
σ		4.298	176.600	0.000	1050.000	9947.000	7838.000	3.014%	0.109
%RSD		3.648	2.007	0.000	3.222	3.152	2.457	5.715	18.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:19	-2.331	0.283	33030.000	297300.000	308700.000	240.400	45.930	173.300
2	16:24:38	-0.732	0.225	33450.000	298100.000	305400.000	234.700	44.490	167.200
3	16:24:57	-1.405	0.254	35100.000	315700.000	319300.000	241.800	44.340	173.000
x		-1.489	0.254	33860.000	303700.000	311100.000	239.000	44.920	171.200
σ		0.803	0.029	1092.000	10430.000	7275.000	3.740	0.881	3.447
%RSD		53.900	11.370	3.226	3.435	2.338	1.565	1.961	2.014
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:19	176.900	5554.000	5586.000	0.177	0.717	2.660	0.000	1578.000
2	16:24:38	169.500	5566.000	5593.000	-0.246	0.816	2.210	0.000	1602.000
3	16:24:57	175.800	5750.000	5750.000	-0.334	0.693	2.480	0.000	1628.000
x		174.000	5623.000	5643.000	-0.135	0.742	2.450	0.000	1602.000
σ		3.989	110.200	92.270	0.273	0.065	0.227	0.000	24.780
%RSD		2.292	1.959	1.635	203.100	8.798	9.248	0.000	1.546
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:19	0.000	0.625	0.400	56.134%	-0.022	-0.041	3.996	3.871
2	16:24:38	0.000	0.583	0.310	55.762%	-0.020	-0.034	3.816	3.762
3	16:24:57	0.000	0.429	0.322	54.591%	-0.024	-0.039	4.146	3.772
x		0.000	0.546	0.344	55.496%	-0.022	-0.038	3.986	3.802
σ		0.000	0.103	0.049	0.806%	0.002	0.003	0.165	0.060
%RSD		0.000	18.850	14.260	1.452	9.027	9.223	4.140	1.580
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:19	62.985%	0.598	0.203	0.229	35.680	35.530	81.749%	83.247%
2	16:24:38	62.899%	0.578	0.195	0.206	35.210	35.230	82.949%	85.470%
3	16:24:57	61.941%	0.427	0.185	0.223	36.070	35.450	82.480%	84.343%
x		62.608%	0.534	0.194	0.219	35.650	35.400	82.392%	84.353%
σ		0.580%	0.093	0.009	0.012	0.433	0.157	0.605%	1.111%
%RSD		0.926	17.460	4.706	5.519	1.216	0.445	0.734	1.318
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:24:19	0.163	0.168	0.087	0.112	0.103	62.822%		
2	16:24:38	0.151	0.154	0.105	0.105	0.101	66.427%		
3	16:24:57	0.173	0.167	0.093	0.092	0.100	65.071%		
x		0.162	0.163	0.095	0.103	0.101	64.773%		
σ		0.011	0.008	0.009	0.010	0.001	1.821%		
%RSD		6.659	4.626	9.959	10.160	1.479	2.811		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	55.341%	0.059	2.706	3.035	0.000	2076.000	28280.000	28130.000
2	16:28:25	49.901%	0.155	2.948	3.224	0.000	2063.000	28990.000	29120.000
3	16:28:44	48.101%	0.060	3.501	3.533	0.000	2052.000	29410.000	29390.000
x		51.114%	0.091	3.052	3.264	0.000	2063.000	28900.000	28880.000
σ		3.769%	0.055	0.408	0.252	0.000	12.090	568.400	664.300
%RSD		7.374	60.490	13.360	7.707	0.000	0.586	1.967	2.300

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	23.230	1699.000	0.000	6447.000	55680.000	61590.000	59.675%	0.098
2	16:28:25	23.820	1744.000	0.000	6564.000	57920.000	62090.000	57.290%	0.075
3	16:28:44	24.620	1751.000	0.000	6685.000	59950.000	64520.000	54.497%	0.050
x		23.890	1731.000	0.000	6565.000	57850.000	62730.000	57.154%	0.074
σ		0.699	27.940	0.000	118.800	2136.000	1566.000	2.592%	0.024
%RSD		2.924	1.614	0.000	1.809	3.692	2.496	4.535	32.660

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	-0.938	0.023	6732.000	62440.000	62670.000	50.230	9.807	38.440
2	16:28:25	-0.265	0.062	6652.000	63000.000	63120.000	49.960	9.819	38.360
3	16:28:44	-0.265	0.041	6792.000	63400.000	63850.000	50.200	9.286	38.070
x		-0.489	0.042	6725.000	62950.000	63210.000	50.130	9.637	38.290
σ		0.389	0.019	69.920	480.800	597.900	0.146	0.304	0.198
%RSD		79.460	46.130	1.040	0.764	0.946	0.291	3.159	0.517

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	38.670	1218.000	1219.000	0.264	0.155	0.658	0.000	298.200
2	16:28:25	39.160	1212.000	1223.000	0.032	0.271	0.562	0.000	300.400
3	16:28:44	38.540	1233.000	1243.000	0.018	0.170	0.420	0.000	304.700
x		38.790	1221.000	1229.000	0.105	0.199	0.546	0.000	301.100
σ		0.326	10.910	12.960	0.138	0.063	0.120	0.000	3.332
%RSD		0.839	0.893	1.055	131.700	31.780	21.890	0.000	1.107

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	0.000	0.195	0.138	66.960%	-0.042	-0.045	0.773	0.720
2	16:28:25	0.000	0.154	0.142	65.523%	-0.038	-0.049	0.648	0.702
3	16:28:44	0.000	0.201	0.133	65.002%	-0.040	-0.048	0.824	0.719
x		0.000	0.183	0.138	65.828%	-0.040	-0.047	0.748	0.714
σ		0.000	0.025	0.004	1.014%	0.002	0.002	0.091	0.010
%RSD		0.000	13.830	3.257	1.541	5.037	4.694	12.140	1.425

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	71.780%	-0.063	0.021	0.014	7.104	7.452	83.907%	84.734%
2	16:28:25	71.920%	-0.050	0.020	0.016	7.523	7.304	86.038%	87.477%
3	16:28:44	71.585%	-0.052	0.019	0.015	7.281	7.374	85.447%	87.232%
x		71.762%	-0.055	0.020	0.015	7.303	7.377	85.131%	86.481%
σ		0.168%	0.007	0.001	0.001	0.211	0.074	1.100%	1.518%
%RSD		0.235	13.340	5.353	4.727	2.884	1.005	1.292	1.756

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:06	0.036	0.044	0.004	0.014	0.011	85.599%
2	16:28:25	0.049	0.042	0.017	0.012	0.014	82.949%
3	16:28:44	0.039	0.042	0.024	0.009	0.019	83.822%
x		0.042	0.043	0.015	0.012	0.015	84.123%
σ		0.007	0.001	0.011	0.002	0.004	1.350%
%RSD		16.890	2.232	69.660	20.860	28.980	1.605

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	37.980%	44.570	827.500	863.700	0.000	51530.000	179300.000	183600.000
2	16:32:12	33.702%	47.670	838.300	828.200	0.000	53080.000	178700.000	185500.000
3	16:32:32	34.701%	47.260	847.600	844.000	0.000	54420.000	182200.000	178300.000
x		35.461%	46.500	837.800	845.300	0.000	53010.000	180100.000	182400.000
σ		2.238%	1.685	10.050	17.760	0.000	1445.000	1878.000	3709.000
%RSD		6.312	3.623	1.200	2.101	0.000	2.726	1.043	2.033

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	1887.000	16690.000	0.000	79710.000	354600.000	366600.000	48.618%	921.300
2	16:32:12	1802.000	16700.000	0.000	81970.000	361400.000	366400.000	45.262%	932.800
3	16:32:32	1813.000	16170.000	0.000	81420.000	366300.000	370100.000	42.338%	937.200
x		1834.000	16520.000	0.000	81030.000	360800.000	367700.000	45.406%	930.400
σ		45.930	302.800	0.000	1175.000	5913.000	2059.000	3.143%	8.198
%RSD		2.504	1.833	0.000	1.450	1.639	0.560	6.922	0.881

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	470.300	184.300	32480.000	291100.000	299000.000	703.400	465.400	378.600
2	16:32:12	485.200	189.000	33750.000	297100.000	304600.000	715.200	479.200	384.700
3	16:32:32	482.100	183.700	34520.000	308800.000	309900.000	731.700	503.000	395.600
x		479.200	185.600	33580.000	299000.000	304500.000	716.800	482.500	386.300
σ		7.878	2.887	1031.000	8978.000	5476.000	14.210	19.060	8.615
%RSD		1.644	1.555	3.071	3.003	1.798	1.982	3.950	2.230

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	385.100	5742.000	5769.000	38.350	11.930	14.300	0.000	2695.000
2	16:32:12	387.400	5901.000	5962.000	37.580	12.640	13.030	0.000	2776.000
3	16:32:32	407.600	6019.000	6043.000	38.680	11.490	14.180	0.000	2822.000
x		393.400	5887.000	5925.000	38.200	12.020	13.840	0.000	2765.000
σ		12.400	139.000	140.700	0.564	0.578	0.704	0.000	64.200
%RSD		3.152	2.361	2.374	1.476	4.812	5.089	0.000	2.322

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	0.000	1085.000	1135.000	51.442%	45.620	45.840	51.610	43.340
2	16:32:12	0.000	1095.000	1145.000	50.477%	46.290	45.850	51.750	44.590
3	16:32:32	0.000	1110.000	1158.000	49.917%	46.260	45.560	51.880	43.680
x		0.000	1097.000	1146.000	50.612%	46.060	45.750	51.750	43.870
σ		0.000	12.450	11.590	0.771%	0.381	0.164	0.137	0.644
%RSD		0.000	1.135	1.012	1.524	0.827	0.357	0.264	1.467

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	59.180%	1974.000	464.500	463.200	1951.000	1895.000	79.541%	81.979%
2	16:32:12	58.089%	1983.000	473.000	477.200	1957.000	1905.000	79.591%	82.665%
3	16:32:32	57.997%	2001.000	488.600	483.700	1970.000	1924.000	80.536%	83.265%
x		58.422%	1986.000	475.400	474.700	1959.000	1908.000	79.889%	82.636%
σ		0.658%	13.490	12.250	10.440	9.638	14.390	0.560%	0.644%
%RSD		1.127	0.679	2.577	2.199	0.492	0.754	0.701	0.779

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:53	52.520	53.140	21.590	22.180	21.770	61.928%
2	16:32:12	52.970	54.170	21.820	22.960	22.190	62.288%
3	16:32:32	54.110	54.850	21.830	22.620	22.070	61.809%
x		53.200	54.050	21.750	22.590	22.010	62.008%
σ		0.820	0.861	0.139	0.394	0.217	0.249%
%RSD		1.541	1.593	0.640	1.743	0.985	0.402

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	36.191%	45.930	855.000	845.700	0.000	54020.000	185100.000	181800.000
2	16:36:00	34.689%	45.570	811.800	814.500	0.000	53820.000	178100.000	174800.000
3	16:36:19	34.364%	44.850	803.700	802.100	0.000	51600.000	170600.000	173700.000
x		35.081%	45.450	823.500	820.700	0.000	53150.000	178000.000	176800.000
σ		0.975%	0.552	27.550	22.450	0.000	1343.000	7218.000	4391.000
%RSD		2.778	1.214	3.346	2.735	0.000	2.527	4.056	2.484

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	1757.000	16400.000	0.000	79020.000	355400.000	355800.000	47.488%	919.700
2	16:36:00	1776.000	16240.000	0.000	78930.000	355900.000	361800.000	45.417%	933.300
3	16:36:19	1723.000	16070.000	0.000	77290.000	349200.000	355200.000	44.249%	924.000
x		1752.000	16240.000	0.000	78410.000	353500.000	357600.000	45.718%	925.700
σ		26.530	161.300	0.000	975.100	3732.000	3641.000	1.640%	6.993
%RSD		1.514	0.994	0.000	1.244	1.056	1.018	3.588	0.755

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	478.400	183.500	33350.000	301000.000	306100.000	718.300	489.000	392.400
2	16:36:00	466.300	182.100	34060.000	300800.000	305900.000	722.800	476.400	381.200
3	16:36:19	471.400	186.200	34570.000	305200.000	312800.000	749.100	494.000	391.000
x		472.000	183.900	33990.000	302300.000	308300.000	730.100	486.500	388.200
σ		6.027	2.107	611.600	2503.000	3887.000	16.600	9.046	6.104
%RSD		1.277	1.146	1.799	0.828	1.261	2.274	1.860	1.572

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	390.500	5868.000	5913.000	38.360	12.350	14.230	0.000	2718.000
2	16:36:00	382.200	5832.000	5854.000	38.260	12.130	13.920	0.000	2764.000
3	16:36:19	396.700	5914.000	5941.000	37.820	12.170	14.080	0.000	2776.000
x		389.800	5871.000	5903.000	38.150	12.210	14.080	0.000	2753.000
σ		7.308	41.090	44.710	0.286	0.118	0.156	0.000	30.510
%RSD		1.875	0.700	0.757	0.750	0.967	1.107	0.000	1.108

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	0.000	1080.000	1125.000	51.628%	45.940	45.490	51.650	44.590
2	16:36:00	0.000	1094.000	1134.000	50.583%	45.540	45.120	52.090	44.000
3	16:36:19	0.000	1090.000	1140.000	50.135%	45.480	45.080	51.740	43.010
x		0.000	1088.000	1133.000	50.782%	45.660	45.230	51.830	43.870
σ		0.000	7.478	7.454	0.767%	0.251	0.225	0.231	0.799
%RSD		0.000	0.687	0.658	1.509	0.550	0.498	0.447	1.821

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	58.456%	1987.000	472.700	467.300	1973.000	1903.000	79.621%	82.317%
2	16:36:00	58.427%	1982.000	479.500	470.400	1977.000	1932.000	79.553%	82.783%
3	16:36:19	58.683%	1981.000	475.500	468.700	1963.000	1909.000	80.552%	83.017%
x		58.522%	1983.000	475.900	468.800	1971.000	1915.000	79.909%	82.705%
σ		0.140%	3.118	3.411	1.533	6.774	15.240	0.558%	0.357%
%RSD		0.240	0.157	0.717	0.327	0.344	0.796	0.699	0.431

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:41	51.120	51.300	20.980	21.570	21.090	63.168%
2	16:36:00	51.440	52.020	20.890	21.620	21.270	63.930%
3	16:36:19	51.340	51.970	20.940	21.270	21.090	64.712%
x		51.300	51.760	20.940	21.490	21.150	63.937%
σ		0.167	0.404	0.049	0.191	0.105	0.772%
%RSD		0.326	0.780	0.234	0.888	0.494	1.207

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	41.095%	0.060	14.180	14.280	0.000	10290.000	132300.000	133200.000
2	16:39:48	38.260%	-0.062	14.810	14.920	0.000	10230.000	132200.000	133700.000
3	16:40:07	38.337%	0.025	14.770	14.770	0.000	10120.000	136200.000	133000.000
x		39.231%	0.008	14.590	14.660	0.000	10210.000	133600.000	133300.000
σ		1.615%	0.063	0.352	0.333	0.000	84.880	2288.000	364.000
%RSD		4.117	796.200	2.417	2.274	0.000	0.831	1.713	0.273

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	3.628	674.900	0.000	31750.000	570300.000	585500.000	46.811%	0.465
2	16:39:48	3.475	673.700	0.000	32890.000	570500.000	576600.000	45.334%	0.342
3	16:40:07	3.759	657.300	0.000	32160.000	569700.000	576000.000	45.790%	0.477
x		3.621	668.600	0.000	32270.000	570200.000	579400.000	45.978%	0.428
σ		0.142	9.850	0.000	572.900	450.900	5317.000	0.756%	0.075
%RSD		3.933	1.473	0.000	1.775	0.079	0.918	1.645	17.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	-1.977	0.979	12600.000	58.000	802.900	4.211	-2.594	0.238
2	16:39:48	-0.640	0.838	12540.000	45.170	754.800	4.302	-2.742	0.310
3	16:40:07	-1.327	0.866	12390.000	34.990	728.400	4.121	-2.556	0.281
x		-1.315	0.894	12510.000	46.060	762.000	4.211	-2.631	0.276
σ		0.669	0.075	107.400	11.530	37.800	0.090	0.098	0.036
%RSD		50.880	8.359	0.858	25.030	4.960	2.141	3.727	13.030

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	1.090	4.849	3.928	-0.922	0.230	0.319	0.000	1512.000
2	16:39:48	1.027	4.839	3.828	-1.246	-0.025	0.291	0.000	1501.000
3	16:40:07	1.185	4.510	3.694	-0.607	-0.097	0.467	0.000	1525.000
x		1.100	4.733	3.817	-0.925	0.036	0.359	0.000	1513.000
σ		0.079	0.193	0.117	0.320	0.172	0.094	0.000	12.240
%RSD		7.223	4.081	3.074	34.570	475.000	26.270	0.000	0.809

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	54.273%	4.165	4.052	49.509%	-0.033	-0.047	0.063	0.065
2	16:39:48	54.022%	2.717	2.818	49.741%	-0.036	-0.039	0.075	0.075
3	16:40:07	53.986%	1.943	1.945	49.391%	-0.038	-0.049	-0.030	0.032
x		54.094%	2.942	2.938	49.547%	-0.036	-0.045	0.036	0.057
σ		0.156%	1.128	1.058	0.178%	0.002	0.005	0.058	0.023
%RSD		0.289	38.340	36.020	0.360	6.884	11.730	160.100	39.710

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	57.598%	1.310	0.148	0.181	17.970	17.660	68.844%	68.194%
2	16:39:48	57.958%	0.973	0.121	0.191	18.160	17.840	69.879%	70.262%
3	16:40:07	57.340%	0.755	0.138	0.156	17.340	17.340	69.860%	70.118%
x		57.632%	1.013	0.136	0.176	17.820	17.610	69.528%	69.525%
σ		0.311%	0.280	0.014	0.018	0.433	0.250	0.592%	1.155%
%RSD		0.539	27.640	10.270	10.190	2.427	1.420	0.852	1.661

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:29	0.339	0.331	0.044	0.024	0.036	58.842%
2	16:39:48	0.313	0.309	0.034	0.038	0.034	60.549%
3	16:40:07	0.283	0.287	0.038	0.043	0.039	60.959%
x		0.312	0.309	0.038	0.035	0.036	60.117%
σ		0.028	0.022	0.005	0.010	0.002	1.123%
%RSD		8.880	7.042	13.470	28.740	6.701	1.868

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	49.364%	0.007	4.498	5.938	0.000	1877.000	3117.000	3257.000
2	16:43:36	45.733%	-0.006	5.240	6.017	0.000	2057.000	3378.000	3396.000
3	16:43:55	41.499%	-0.021	4.906	6.023	0.000	1962.000	3289.000	3341.000
x		45.532%	-0.007	4.881	5.993	0.000	1966.000	3261.000	3332.000
σ		3.936%	0.014	0.371	0.047	0.000	90.110	133.000	70.250
%RSD		8.645	201.900	7.605	0.788	0.000	4.584	4.080	2.109

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	31.630	3276.000	0.000	1718.000	11970.000	13670.000	47.339%	0.669
2	16:43:36	32.840	3281.000	0.000	1757.000	12780.000	13730.000	46.075%	0.966
3	16:43:55	32.380	3417.000	0.000	1795.000	12880.000	13990.000	44.375%	0.678
x		32.280	3325.000	0.000	1756.000	12540.000	13800.000	45.930%	0.771
σ		0.608	79.830	0.000	38.770	500.500	171.000	1.488%	0.169
%RSD		1.883	2.401	0.000	2.207	3.990	1.240	3.239	21.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	-2.140	0.389	313.300	249.000	247.800	3.252	0.950	6.401
2	16:43:36	-0.699	0.457	319.300	256.800	242.200	3.291	0.987	6.586
3	16:43:55	-3.319	0.407	325.500	247.900	238.200	3.218	0.912	6.440
x		-2.053	0.418	319.400	251.200	242.700	3.254	0.950	6.476
σ		1.312	0.035	6.134	4.840	4.822	0.037	0.037	0.098
%RSD		63.920	8.443	1.921	1.927	1.987	1.124	3.913	1.507

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	6.638	91.240	91.550	-0.444	-0.247	0.263	0.000	41.610
2	16:43:36	6.609	91.800	91.940	-0.262	-0.283	0.094	0.000	41.750
3	16:43:55	6.559	91.110	91.270	-0.004	-0.223	0.020	0.000	41.550
x		6.602	91.380	91.590	-0.236	-0.251	0.126	0.000	41.640
σ		0.040	0.369	0.336	0.221	0.030	0.125	0.000	0.101
%RSD		0.607	0.403	0.366	93.610	11.950	99.390	0.000	0.242

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	57.768%	0.684	0.617	56.277%	-0.034	-0.050	0.067	0.106
2	16:43:36	57.384%	0.472	0.494	55.631%	-0.041	-0.045	0.092	0.108
3	16:43:55	57.039%	0.485	0.479	54.728%	-0.036	-0.046	0.077	0.078
x		57.397%	0.547	0.530	55.545%	-0.037	-0.047	0.079	0.097
σ		0.365%	0.119	0.075	0.778%	0.003	0.002	0.013	0.017
%RSD		0.636	21.730	14.230	1.400	9.127	5.228	16.340	17.170

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	61.474%	0.471	0.084	0.062	18.290	18.150	73.142%	74.238%
2	16:43:36	62.249%	0.396	0.088	0.096	18.180	18.220	75.605%	77.003%
3	16:43:55	61.904%	0.366	0.066	0.060	18.570	18.620	74.539%	75.810%
x		61.876%	0.411	0.080	0.073	18.340	18.330	74.429%	75.684%
σ		0.388%	0.054	0.012	0.020	0.202	0.255	1.235%	1.387%
%RSD		0.628	13.130	14.780	28.000	1.099	1.392	1.659	1.832

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:17	0.110	0.117	0.210	0.193	0.191	77.837%
2	16:43:36	0.114	0.118	0.216	0.216	0.214	76.233%
3	16:43:55	0.116	0.112	0.221	0.194	0.207	78.993%
x		0.114	0.116	0.215	0.201	0.204	77.688%
σ		0.003	0.003	0.005	0.013	0.012	1.386%
%RSD		2.654	2.498	2.465	6.275	5.838	1.784

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:06	41.916%	2.032	20.480	21.780	0.000	13810.000	61390.000	60970.000
2	16:47:25	37.790%	1.945	19.130	21.960	0.000	13750.000	58080.000	58650.000
3	16:47:44	35.980%	2.349	21.610	23.000	0.000	14740.000	61710.000	61480.000
x		38.562%	2.109	20.410	22.250	0.000	14100.000	60390.000	60360.000
σ		3.042%	0.213	1.239	0.662	0.000	553.400	2010.000	1508.000
%RSD		7.890	10.080	6.072	2.974	0.000	3.926	3.328	2.498
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:06	4413.000	8519.000	0.000	14450.000	127900.000	139900.000	45.117%	0.771
2	16:47:25	4411.000	8452.000	0.000	14320.000	127500.000	140300.000	42.407%	0.934
3	16:47:44	4534.000	8495.000	0.000	14760.000	131200.000	142100.000	39.915%	0.905
x		4453.000	8489.000	0.000	14510.000	128800.000	140800.000	42.480%	0.870
σ		70.500	34.000	0.000	226.000	2046.000	1162.000	2.601%	0.087
%RSD		1.583	0.401	0.000	1.558	1.588	0.826	6.124	9.966
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:06	-2.877	0.753	20160.000	105000.000	106800.000	381.900	46.080	510.500
2	16:47:25	0.406	0.753	20560.000	107500.000	107000.000	383.500	47.050	519.400
3	16:47:44	-1.367	0.728	21340.000	110200.000	108300.000	386.100	46.950	523.900
x		-1.279	0.745	20690.000	107600.000	107400.000	383.800	46.690	517.900
σ		1.644	0.014	601.800	2617.000	821.400	2.112	0.534	6.782
%RSD		128.500	1.910	2.909	2.433	0.765	0.550	1.145	1.309
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:06	511.900	14170.000	14180.000	0.457	1.674	4.541	0.000	679.300
2	16:47:25	517.300	14360.000	14520.000	0.750	1.348	4.631	0.000	704.100
3	16:47:44	529.100	14810.000	14830.000	0.168	1.615	4.896	0.000	718.000
x		519.400	14450.000	14510.000	0.458	1.546	4.690	0.000	700.500
σ		8.802	325.000	321.600	0.291	0.174	0.184	0.000	19.590
%RSD		1.694	2.250	2.216	63.490	11.250	3.932	0.000	2.797
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:06	0.000	0.448	0.329	50.683%	-0.021	-0.037	6.489	6.144
2	16:47:25	0.000	0.449	0.281	49.584%	-0.020	-0.038	6.257	6.104
3	16:47:44	0.000	0.445	0.302	49.157%	-0.030	-0.041	6.363	5.990
x		0.000	0.447	0.304	49.808%	-0.024	-0.039	6.370	6.079
σ		0.000	0.002	0.024	0.788%	0.005	0.002	0.116	0.080
%RSD		0.000	0.492	7.898	1.581	23.210	5.168	1.827	1.313
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:06	58.188%	0.240	0.072	0.090	17.540	17.070	86.802%	92.438%
2	16:47:25	58.400%	0.259	0.085	0.074	17.660	17.590	87.070%	93.405%
3	16:47:44	57.992%	0.189	0.080	0.080	17.590	17.830	87.476%	94.113%
x		58.193%	0.229	0.079	0.081	17.600	17.500	87.116%	93.319%
σ		0.204%	0.036	0.007	0.008	0.056	0.388	0.339%	0.841%
%RSD		0.351	15.850	8.487	10.260	0.319	2.216	0.390	0.901
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:47:06	0.245	0.248	18.030	16.860	17.370	70.000%		
2	16:47:25	0.230	0.253	18.390	17.000	17.550	70.240%		
3	16:47:44	0.246	0.256	19.110	17.350	18.030	68.996%		
x		0.240	0.252	18.510	17.070	17.650	69.745%		
σ		0.009	0.004	0.547	0.255	0.340	0.660%		
%RSD		3.731	1.713	2.953	1.494	1.926	0.946		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	41.205%	0.019	23.770	20.750	0.000	13090.000	46770.000	46640.000
2	16:51:13	40.814%	-0.021	19.300	17.680	0.000	12650.000	44850.000	45220.000
3	16:51:32	39.613%	-0.019	17.640	19.930	0.000	13300.000	47500.000	47490.000
x		40.544%	-0.007	20.240	19.450	0.000	13010.000	46380.000	46450.000
σ		0.830%	0.023	3.167	1.590	0.000	329.600	1368.000	1150.000
%RSD		2.046	322.800	15.650	8.174	0.000	2.533	2.949	2.476

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	30.970	1047.000	0.000	11980.000	254700.000	259400.000	49.239%	0.400
2	16:51:13	28.970	1001.000	0.000	12380.000	265800.000	266500.000	43.741%	0.232
3	16:51:32	30.990	1057.000	0.000	11990.000	245100.000	268000.000	44.475%	0.268
x		30.310	1035.000	0.000	12120.000	255200.000	264600.000	45.818%	0.300
σ		1.165	30.200	0.000	228.800	10370.000	4604.000	2.985%	0.089
%RSD		3.843	2.918	0.000	1.888	4.065	1.740	6.515	29.510

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	-1.191	0.667	7283.000	28.830	362.300	19.730	0.987	0.633
2	16:51:13	-4.429	0.680	7680.000	23.720	365.500	20.960	0.903	0.692
3	16:51:32	-2.664	0.596	7736.000	18.650	355.000	21.050	1.002	0.817
x		-2.761	0.647	7566.000	23.740	360.900	20.580	0.964	0.714
σ		1.621	0.045	246.700	5.091	5.339	0.734	0.053	0.094
%RSD		58.710	6.957	3.260	21.450	1.479	3.566	5.535	13.190

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	0.952	43.910	43.240	-1.777	0.741	1.243	0.000	572.600
2	16:51:13	1.019	45.500	44.930	-1.072	0.561	1.313	0.000	578.400
3	16:51:32	1.033	46.340	45.420	0.051	0.854	1.362	0.000	594.800
x		1.001	45.250	44.530	-0.933	0.718	1.306	0.000	581.900
σ		0.043	1.234	1.148	0.922	0.148	0.060	0.000	11.530
%RSD		4.306	2.727	2.577	98.870	20.550	4.589	0.000	1.982

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	55.399%	0.235	0.234	53.264%	-0.038	-0.048	0.116	0.188
2	16:51:13	54.551%	0.188	0.216	51.817%	-0.034	-0.052	0.224	0.163
3	16:51:32	53.179%	0.199	0.185	50.611%	-0.037	-0.050	0.135	0.179
x		54.377%	0.207	0.212	51.897%	-0.036	-0.050	0.158	0.177
σ		1.120%	0.025	0.025	1.328%	0.002	0.002	0.058	0.012
%RSD		2.060	11.900	11.640	2.560	5.868	4.633	36.540	7.052

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	59.865%	0.141	0.099	0.065	14.740	14.310	71.766%	71.912%
2	16:51:13	60.289%	0.139	0.055	0.094	14.470	14.230	72.020%	73.151%
3	16:51:32	59.234%	0.131	0.096	0.093	15.140	14.700	71.158%	71.567%
x		59.796%	0.137	0.083	0.084	14.780	14.410	71.648%	72.210%
σ		0.531%	0.005	0.025	0.017	0.339	0.248	0.443%	0.833%
%RSD		0.888	3.829	29.440	19.690	2.295	1.723	0.618	1.154

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:54	0.183	0.195	0.015	0.012	0.011	67.348%
2	16:51:13	0.193	0.185	0.007	0.009	0.010	67.312%
3	16:51:32	0.201	0.181	0.006	0.008	0.011	66.174%
x		0.192	0.187	0.009	0.010	0.011	66.945%
σ		0.009	0.007	0.005	0.002	0.000	0.668%
%RSD		4.714	3.741	54.360	18.540	4.388	0.998

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	68.361%	-0.049	0.496	0.511	0.000	-3.323	2.004	2.292
2	16:58:00	65.251%	-0.036	0.349	0.607	0.000	-3.639	1.120	1.174
3	16:58:19	68.731%	-0.049	0.281	0.433	0.000	-4.010	0.419	0.923
x		67.448%	-0.045	0.375	0.517	0.000	-3.657	1.181	1.463
σ		1.912%	0.008	0.110	0.087	0.000	0.344	0.794	0.729
%RSD		2.834	17.170	29.250	16.840	0.000	9.394	67.250	49.820

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	-1.718	-110.100	0.000	-1.662	-3.586	-1.579	75.541%	-0.053
2	16:58:00	-1.722	-109.600	0.000	-1.502	-8.569	-4.365	73.081%	-0.001
3	16:58:19	-1.756	-110.300	0.000	-1.962	-5.158	-6.074	69.901%	-0.049
x		-1.732	-110.000	0.000	-1.709	-5.771	-4.006	72.841%	-0.034
σ		0.021	0.372	0.000	0.233	2.547	2.269	2.828%	0.029
%RSD		1.209	0.339	0.000	13.640	44.140	56.650	3.882	84.690

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	0.020	-0.010	0.362	4.134	2.154	0.001	-0.032	-0.176
2	16:58:00	-0.032	-0.014	0.214	3.492	2.031	0.000	-0.048	-0.184
3	16:58:19	0.024	0.000	0.170	3.593	1.387	-0.002	-0.047	-0.169
x		0.004	-0.008	0.249	3.740	1.857	-0.000	-0.042	-0.176
σ		0.031	0.007	0.100	0.345	0.412	0.002	0.009	0.008
%RSD		743.800	94.210	40.370	9.223	22.190	2429.000	21.150	4.271

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	-0.176	-0.688	-0.763	0.002	-0.097	0.097	0.000	0.009
2	16:58:00	-0.157	-0.689	-0.816	-0.015	0.109	-0.013	0.000	0.000
3	16:58:19	-0.161	-0.758	-0.804	0.002	0.107	0.031	0.000	-0.002
x		-0.165	-0.711	-0.794	-0.004	0.040	0.038	0.000	0.003
σ		0.010	0.040	0.028	0.010	0.119	0.055	0.000	0.006
%RSD		6.182	5.656	3.486	270.500	299.300	144.000	0.000	231.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	79.833%	0.040	0.051	81.984%	-0.032	-0.050	-0.006	-0.005
2	16:58:00	79.348%	0.050	0.044	81.293%	-0.038	-0.047	-0.031	-0.020
3	16:58:19	77.850%	0.062	0.044	79.929%	-0.038	-0.048	-0.066	-0.047
x		79.010%	0.051	0.046	81.069%	-0.036	-0.049	-0.034	-0.024
σ		1.034%	0.011	0.004	1.046%	0.003	0.002	0.031	0.021
%RSD		1.309	22.000	8.721	1.290	9.611	3.374	89.160	88.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	81.639%	-0.172	-0.014	-0.036	-0.041	-0.008	86.658%	86.503%
2	16:58:00	82.662%	-0.177	-0.025	-0.032	-0.050	-0.010	88.123%	88.427%
3	16:58:19	83.149%	-0.156	-0.023	-0.033	-0.041	-0.007	89.453%	89.491%
x		82.483%	-0.168	-0.021	-0.033	-0.044	-0.008	88.078%	88.140%
σ		0.771%	0.011	0.006	0.002	0.005	0.002	1.398%	1.514%
%RSD		0.934	6.537	29.740	5.779	11.470	19.340	1.587	1.718

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:41	0.016	0.019	-0.012	-0.013	-0.012	93.050%
2	16:58:00	0.020	0.021	-0.016	-0.019	-0.014	93.818%
3	16:58:19	0.020	0.020	-0.012	-0.016	-0.014	92.230%
x		0.018	0.020	-0.013	-0.016	-0.013	93.033%
σ		0.002	0.001	0.002	0.003	0.001	0.794%
%RSD		13.070	5.840	17.720	20.880	6.223	0.853

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	50.357%	49.580	914.500	904.700	0.000	41940.000	40530.000	38930.000
2	17:01:50	46.808%	51.570	939.000	926.100	0.000	39140.000	38840.000	39500.000
3	17:02:09	46.224%	51.490	961.100	988.300	0.000	41030.000	41200.000	40960.000
x		47.796%	50.880	938.200	939.700	0.000	40700.000	40190.000	39800.000
σ		2.237%	1.127	23.310	43.430	0.000	1426.000	1218.000	1051.000
%RSD		4.681	2.215	2.484	4.622	0.000	3.502	3.031	2.641

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	1548.000	7920.000	0.000	43080.000	42050.000	45840.000	54.007%	878.200
2	17:01:50	1550.000	7667.000	0.000	44210.000	42860.000	47190.000	52.257%	882.900
3	17:02:09	1629.000	7838.000	0.000	43580.000	44120.000	47970.000	51.234%	890.300
x		1575.000	7808.000	0.000	43620.000	43010.000	47000.000	52.499%	883.800
σ		46.170	129.000	0.000	568.200	1045.000	1076.000	1.402%	6.073
%RSD		2.930	1.652	0.000	1.303	2.430	2.290	2.671	0.687

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	471.300	178.400	479.200	936.000	935.700	463.900	460.200	230.900
2	17:01:50	472.800	184.600	484.600	975.500	977.800	444.300	448.200	231.700
3	17:02:09	469.900	183.700	482.400	966.200	963.200	466.000	451.100	233.400
x		471.400	182.200	482.100	959.300	958.900	458.100	453.100	232.000
σ		1.462	3.343	2.705	20.670	21.370	11.990	6.263	1.251
%RSD		0.310	1.834	0.561	2.155	2.228	2.618	1.382	0.539

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	232.000	523.800	526.600	39.890	12.150	12.930	0.000	946.900
2	17:01:50	228.200	518.500	524.900	39.220	11.880	13.180	0.000	954.200
3	17:02:09	238.000	536.200	535.400	39.920	12.040	12.460	0.000	949.900
x		232.800	526.200	529.000	39.680	12.020	12.860	0.000	950.400
σ		4.959	9.095	5.637	0.396	0.140	0.369	0.000	3.668
%RSD		2.131	1.729	1.066	0.998	1.161	2.868	0.000	0.386

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	60.055%	959.100	989.900	57.997%	48.580	48.120	51.110	45.240
2	17:01:50	58.969%	966.600	1006.000	57.549%	48.410	48.440	52.750	46.830
3	17:02:09	59.181%	966.700	1014.000	57.289%	48.610	48.410	52.610	46.930
x		59.402%	964.100	1003.000	57.612%	48.530	48.320	52.160	46.330
σ		0.576%	4.364	12.410	0.358%	0.106	0.174	0.907	0.948
%RSD		0.969	0.453	1.236	0.622	0.218	0.359	1.739	2.047

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	63.593%	1920.000	497.100	489.900	1924.000	1890.000	75.843%	76.575%
2	17:01:50	62.946%	1909.000	497.800	496.500	1920.000	1895.000	76.511%	77.232%
3	17:02:09	63.435%	1912.000	494.900	512.600	1925.000	1889.000	77.617%	78.563%
x		63.325%	1914.000	496.600	499.700	1923.000	1891.000	76.657%	77.457%
σ		0.338%	5.986	1.525	11.640	2.662	3.146	0.896%	1.013%
%RSD		0.533	0.313	0.307	2.330	0.138	0.166	1.169	1.307

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:31	45.770	46.510	19.400	19.660	19.360	76.779%
2	17:01:50	48.270	48.700	20.010	20.500	20.190	73.964%
3	17:02:09	49.640	49.850	20.540	21.110	20.710	74.063%
x		47.890	48.350	19.990	20.420	20.090	74.936%
σ		1.966	1.693	0.571	0.730	0.679	1.598%
%RSD		4.104	3.502	2.856	3.573	3.382	2.132

CCV 1533080 4/30/2015 5:05:09 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	73.046%	110.200	102.400	104.700	0.000	51050.000	50370.000	50140.000
2	17:05:28	66.635%	106.400	103.900	107.100	0.000	50970.000	51790.000	50910.000
3	17:05:47	65.470%	105.300	104.200	103.300	0.000	49680.000	50800.000	50040.000
x		68.383%	107.292%	103.494%	105.058%	0.000	101.132%	101.970%	100.728%
σ		4.079%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.965	2.371	0.961	1.806	0.000	1.515	1.427	0.943

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	533.400	5242.000	0.000	51480.000	47480.000	52640.000	83.123%	102.200
2	17:05:28	489.700	5085.000	0.000	51760.000	48140.000	52730.000	76.714%	105.600
3	17:05:47	507.600	5057.000	0.000	52370.000	48680.000	53260.000	74.138%	105.600
x		102.042%	102.567%	0.000	103.739%	96.200%	105.754%	77.992%	104.472%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.627%	n/a
%RSD		4.302	1.946	0.000	0.879	1.253	0.626	5.932	1.854

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	101.700	101.800	509.000	25320.000	25690.000	101.600	102.000	103.300
2	17:05:28	103.000	104.500	531.400	26020.000	25930.000	101.600	103.300	105.800
3	17:05:47	104.300	104.200	546.100	26660.000	26520.000	102.100	104.500	106.400
x		102.957%	103.523%	105.765%	104.006%	104.195%	101.723%	103.277%	105.174%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.254	1.437	3.529	2.577	1.643	0.280	1.244	1.578

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	104.000	107.200	104.600	104.700	107.200	107.800	0.000	98.610
2	17:05:28	105.800	107.400	107.700	105.000	108.500	107.400	0.000	100.300
3	17:05:47	105.600	109.700	109.600	103.500	107.200	104.500	0.000	98.220
x		105.115%	108.109%	107.302%	104.376%	107.629%	106.551%	0.000	99.046%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.960	1.256	2.388	0.753	0.730	1.643	0.000	1.124

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	85.432%	103.300	104.100	80.275%	104.400	104.600	104.300	104.200
2	17:05:28	83.721%	104.000	106.300	78.367%	103.600	103.000	105.300	105.800
3	17:05:47	84.024%	104.800	105.900	78.004%	103.500	103.600	104.600	105.300
x		84.392%	104.047%	105.454%	78.882%	103.852%	103.768%	104.724%	105.082%
σ		0.913%	n/a	n/a	1.220%	n/a	n/a	n/a	n/a
%RSD		1.082	0.690	1.129	1.547	0.498	0.782	0.521	0.760

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	81.661%	102.100	101.300	101.600	102.300	103.000	85.668%	86.402%
2	17:05:28	81.892%	102.400	101.700	100.300	101.500	100.900	87.685%	87.030%
3	17:05:47	80.936%	102.600	103.500	103.500	101.800	101.500	88.994%	88.659%
x		81.496%	102.343%	102.177%	101.792%	101.849%	101.808%	87.449%	87.364%
σ		0.499%	n/a	n/a	n/a	n/a	n/a	1.675%	1.165%
%RSD		0.612	0.246	1.102	1.567	0.399	1.065	1.916	1.334

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:09	107.100	107.800	104.600	107.500	105.000	82.943%
2	17:05:28	106.400	108.800	105.800	106.700	106.100	84.928%
3	17:05:47	106.900	107.800	106.300	107.900	106.300	85.692%
x		106.771%	108.130%	105.540%	107.384%	105.789%	84.521%
σ		n/a	n/a	n/a	n/a	n/a	1.419%
%RSD		0.343	0.502	0.829	0.571	0.686	1.679

CCB6 4/30/2015 5:11:39 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:58	85.353%	-0.003	0.938	1.139	0.000	5.606	4.440	4.122
2	17:12:17	81.097%	-0.020	0.962	1.280	0.000	5.812	2.980	3.762
3	17:12:37	77.132%	0.003	0.600	1.034	0.000	5.526	3.649	3.344
x		81.194%	-0.007	0.833	1.151	0.000	5.648	3.690	3.742
σ		4.112%	0.012	0.203	0.124	0.000	0.147	0.731	0.389
%RSD		5.064	181.700	24.320	10.750	0.000	2.612	19.810	10.400
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:58	1.458	-110.300	0.000	8.156	15.010	9.834	94.902%	0.034
2	17:12:17	1.498	-109.400	0.000	7.968	10.230	9.205	91.123%	0.030
3	17:12:37	1.318	-108.500	0.000	8.562	11.340	8.289	90.267%	-0.060
x		1.425	-109.400	0.000	8.229	12.200	9.109	92.097%	0.001
σ		0.094	0.916	0.000	0.304	2.504	0.777	2.466%	0.053
%RSD		6.627	0.837	0.000	3.693	20.530	8.530	2.678	4354.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:58	0.038	0.055	0.355	16.270	9.188	0.013	0.003	0.869
2	17:12:17	0.020	0.028	0.251	13.950	6.693	0.011	0.013	0.752
3	17:12:37	0.034	0.028	0.236	15.040	5.957	0.003	-0.008	0.749
x		0.031	0.037	0.281	15.090	7.280	0.009	0.003	0.790
σ		0.009	0.016	0.065	1.160	1.694	0.005	0.011	0.069
%RSD		29.750	41.800	23.010	7.692	23.260	58.750	399.700	8.674
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:58	0.767	0.995	0.905	0.014	0.241	0.004	0.000	0.043
2	17:12:17	0.828	1.082	0.957	0.023	0.411	0.075	0.000	0.037
3	17:12:37	0.700	1.014	1.032	0.011	0.449	-0.099	0.000	0.032
x		0.765	1.030	0.964	0.016	0.367	-0.007	0.000	0.037
σ		0.064	0.046	0.064	0.006	0.111	0.088	0.000	0.006
%RSD		8.330	4.470	6.627	39.340	30.090	1328.000	0.000	14.770
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:58	95.824%	0.565	0.547	98.609%	-0.027	-0.033	0.039	0.022
2	17:12:17	96.353%	0.507	0.504	98.253%	-0.024	-0.030	-0.013	-0.010
3	17:12:37	97.865%	0.507	0.523	99.445%	-0.027	-0.040	-0.039	-0.026
x		96.681%	0.526	0.525	98.769%	-0.026	-0.034	-0.004	-0.005
σ		1.059%	0.034	0.021	0.612%	0.002	0.005	0.040	0.024
%RSD		1.096	6.419	4.078	0.620	6.593	14.380	929.100	521.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:58	99.153%	0.245	0.038	0.020	0.034	0.056	99.865%	98.105%
2	17:12:17	99.981%	0.201	0.036	0.023	0.001	0.042	100.957%	100.322%
3	17:12:37	100.967%	0.218	0.028	0.029	0.008	0.040	101.649%	101.204%
x		100.034%	0.221	0.034	0.024	0.015	0.046	100.824%	99.877%
σ		0.908%	0.022	0.005	0.005	0.017	0.009	0.899%	1.596%
%RSD		0.908	9.862	16.180	19.200	118.600	19.640	0.892	1.598
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:11:58	0.070	0.063	0.025	0.029	0.028	104.907%		
2	17:12:17	0.058	0.062	0.036	0.029	0.032	105.163%		
3	17:12:37	0.058	0.062	0.021	0.025	0.028	105.838%		
x		0.062	0.062	0.027	0.028	0.029	105.303%		
σ		0.007	0.000	0.008	0.002	0.003	0.481%		
%RSD		11.350	0.691	27.290	6.936	8.697	0.457		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	65.037%	0.003	9.788	10.390	0.000	9.474	2.409	2.852
2	17:16:09	60.609%	-0.006	10.060	11.270	0.000	9.606	2.531	1.871
3	17:16:28	60.301%	-0.006	10.080	11.990	0.000	9.240	2.199	1.961
x		61.982%	-0.003	9.975	11.220	0.000	9.440	2.380	2.228
σ		2.650%	0.005	0.162	0.801	0.000	0.185	0.168	0.542
%RSD		4.276	177.400	1.622	7.145	0.000	1.964	7.076	24.350

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	0.152	-102.100	0.000	9.373	25.430	27.880	63.727%	0.215
2	17:16:09	0.296	-102.500	0.000	9.137	21.020	25.290	63.189%	0.116
3	17:16:28	0.295	-102.700	0.000	7.629	22.380	28.590	65.283%	0.138
x		0.248	-102.400	0.000	8.713	22.940	27.250	64.066%	0.156
σ		0.083	0.341	0.000	0.946	2.259	1.736	1.087%	0.052
%RSD		33.560	0.332	0.000	10.860	9.848	6.371	1.697	33.210

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	-2.555	0.603	0.684	10.730	11.680	0.017	0.254	0.048
2	17:16:09	-0.309	0.628	0.578	9.724	9.526	0.018	0.195	0.082
3	17:16:28	-0.642	0.573	0.546	5.004	7.973	0.012	0.200	0.047
x		-1.169	0.601	0.603	8.485	9.725	0.016	0.217	0.059
σ		1.212	0.028	0.072	3.056	1.860	0.004	0.033	0.020
%RSD		103.700	4.647	11.980	36.010	19.130	23.010	15.020	33.640

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	0.018	11.030	11.140	-0.149	-0.090	0.094	0.000	0.049
2	17:16:09	0.044	10.840	10.490	-0.122	0.054	0.056	0.000	0.038
3	17:16:28	0.046	10.560	10.130	-0.167	-0.137	-0.051	0.000	0.040
x		0.036	10.810	10.590	-0.146	-0.058	0.033	0.000	0.042
σ		0.016	0.237	0.511	0.023	0.100	0.075	0.000	0.006
%RSD		44.330	2.196	4.828	15.570	173.200	225.800	0.000	13.590

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	69.425%	0.380	0.388	72.254%	-0.037	-0.047	-0.034	-0.023
2	17:16:09	68.443%	0.377	0.365	70.433%	-0.038	-0.050	-0.022	-0.022
3	17:16:28	69.051%	0.351	0.362	70.726%	-0.040	-0.044	-0.021	-0.016
x		68.973%	0.370	0.371	71.138%	-0.038	-0.047	-0.026	-0.021
σ		0.495%	0.016	0.014	0.978%	0.001	0.003	0.007	0.004
%RSD		0.718	4.298	3.787	1.374	3.680	6.567	29.160	17.470

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	72.706%	0.437	0.058	0.057	0.457	0.418	81.559%	81.145%
2	17:16:09	73.070%	0.438	0.051	0.030	0.509	0.545	81.626%	81.547%
3	17:16:28	73.179%	0.331	0.047	0.031	0.344	0.435	82.160%	82.122%
x		72.985%	0.402	0.052	0.039	0.437	0.466	81.782%	81.604%
σ		0.247%	0.062	0.006	0.015	0.084	0.069	0.329%	0.491%
%RSD		0.339	15.340	10.770	38.980	19.320	14.750	0.403	0.602

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:15:50	0.024	0.023	0.038	0.034	0.040	90.583%
2	17:16:09	0.030	0.024	0.037	0.041	0.043	86.031%
3	17:16:28	0.026	0.025	0.050	0.027	0.037	86.097%
x		0.027	0.024	0.041	0.034	0.040	87.570%
σ		0.003	0.001	0.007	0.007	0.003	2.609%
%RSD		9.970	4.158	17.390	19.370	7.436	2.979

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	47.633%	0.008	27.770	28.060	0.000	20500.000	8955.000	8822.000
2	17:20:00	51.383%	-0.013	26.080	27.200	0.000	19390.000	8238.000	8322.000
3	17:20:19	48.099%	-0.044	28.100	29.800	0.000	20710.000	9019.000	8962.000
x		49.038%	-0.016	27.320	28.350	0.000	20200.000	8737.000	8702.000
σ		2.044%	0.026	1.081	1.320	0.000	704.900	433.600	336.300
%RSD		4.168	164.000	3.959	4.654	0.000	3.490	4.963	3.864

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	0.039	9796.000	0.000	2574.000	44550.000	48400.000	54.806%	1.587
2	17:20:00	-0.188	8955.000	0.000	2495.000	45670.000	49810.000	52.487%	1.502
3	17:20:19	0.142	9179.000	0.000	2512.000	46290.000	49610.000	50.777%	1.769
x		-0.002	9310.000	0.000	2527.000	45500.000	49280.000	52.690%	1.619
σ		0.169	435.800	0.000	41.220	886.000	763.900	2.022%	0.137
%RSD		7385.000	4.681	0.000	1.631	1.947	1.550	3.838	8.431

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	-1.167	0.312	742.000	26550.000	26670.000	0.110	0.108	0.320
2	17:20:00	-1.180	0.263	776.800	27910.000	27630.000	0.102	-0.115	0.327
3	17:20:19	-0.888	0.273	752.600	27350.000	27400.000	0.089	0.009	0.391
x		-1.078	0.282	757.100	27270.000	27230.000	0.100	0.001	0.346
σ		0.165	0.026	17.850	688.000	500.100	0.011	0.112	0.039
%RSD		15.280	9.071	2.358	2.523	1.836	10.760	15180.000	11.260

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	0.262	6.748	6.773	4.852	0.026	0.279	0.000	206.100
2	17:20:00	0.179	6.820	6.395	5.236	-0.048	0.136	0.000	206.700
3	17:20:19	0.250	6.695	6.230	4.378	-0.269	0.231	0.000	205.900
x		0.231	6.754	6.466	4.822	-0.097	0.215	0.000	206.200
σ		0.045	0.062	0.278	0.430	0.153	0.072	0.000	0.423
%RSD		19.540	0.925	4.303	8.915	157.700	33.630	0.000	0.205

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	58.876%	0.936	0.912	59.176%	-0.039	-0.048	-0.074	-0.047
2	17:20:00	58.941%	0.949	0.855	58.303%	-0.043	-0.043	-0.059	-0.040
3	17:20:19	59.163%	0.829	0.932	58.426%	-0.043	-0.044	-0.088	-0.032
x		58.993%	0.905	0.900	58.635%	-0.042	-0.045	-0.074	-0.040
σ		0.151%	0.066	0.040	0.472%	0.002	0.003	0.015	0.008
%RSD		0.256	7.314	4.408	0.806	5.784	5.723	19.870	19.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	64.847%	0.196	0.072	0.055	446.900	446.500	74.509%	75.819%
2	17:20:00	65.731%	0.145	0.029	0.032	443.300	444.600	76.932%	76.915%
3	17:20:19	65.457%	0.154	0.022	0.023	446.300	448.100	76.779%	78.096%
x		65.345%	0.165	0.041	0.037	445.500	446.400	76.073%	76.943%
σ		0.453%	0.027	0.027	0.016	1.934	1.739	1.357%	1.138%
%RSD		0.692	16.420	65.180	44.800	0.434	0.390	1.784	1.480

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:41	0.015	0.016	0.006	-0.006	0.004	79.536%
2	17:20:00	0.019	0.021	0.003	0.000	0.005	77.923%
3	17:20:19	0.018	0.018	-0.001	-0.004	-0.000	77.414%
x		0.018	0.018	0.003	-0.003	0.003	78.291%
σ		0.002	0.003	0.004	0.003	0.003	1.108%
%RSD		11.650	15.230	128.900	104.200	99.950	1.415

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	51.293%	0.052	4.490	5.658	0.000	1364.000	216.400	214.200
2	17:23:49	50.863%	-0.012	5.847	4.883	0.000	1301.000	214.100	212.800
3	17:24:08	50.181%	-0.011	5.147	4.657	0.000	1290.000	201.700	212.100
x		50.779%	0.010	5.161	5.066	0.000	1318.000	210.700	213.000
σ		0.561%	0.037	0.679	0.525	0.000	39.660	7.929	1.057
%RSD		1.104	384.900	13.150	10.360	0.000	3.009	3.763	0.496

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	7.611	348.800	0.000	490.500	3892.000	4246.000	56.237%	0.208
2	17:23:49	6.553	311.800	0.000	514.500	4060.000	4350.000	52.342%	0.126
3	17:24:08	7.327	331.500	0.000	499.700	3948.000	4250.000	52.760%	0.262
x		7.164	330.700	0.000	501.600	3967.000	4282.000	53.779%	0.199
σ		0.548	18.500	0.000	12.070	85.370	58.940	2.138%	0.069
%RSD		7.644	5.595	0.000	2.407	2.152	1.376	3.976	34.680

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	-2.002	0.503	1.504	26.530	34.270	0.008	0.286	3.186
2	17:23:49	-1.113	0.566	1.360	26.210	29.530	0.014	0.364	3.270
3	17:24:08	-1.502	0.579	1.263	21.940	26.220	0.009	0.242	3.121
x		-1.539	0.549	1.376	24.890	30.010	0.010	0.297	3.193
σ		0.446	0.041	0.121	2.565	4.050	0.003	0.062	0.075
%RSD		28.980	7.437	8.788	10.300	13.500	30.740	20.840	2.343

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	3.416	37.570	37.760	-0.275	-0.157	0.213	0.000	59.300
2	17:23:49	3.301	37.000	37.310	-0.410	-0.221	0.290	0.000	59.830
3	17:24:08	3.216	36.390	36.440	-0.172	-0.123	0.156	0.000	59.100
x		3.311	36.990	37.170	-0.286	-0.167	0.220	0.000	59.410
σ		0.101	0.595	0.667	0.120	0.050	0.068	0.000	0.373
%RSD		3.035	1.608	1.795	41.860	29.960	30.810	0.000	0.628

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	61.685%	0.481	0.454	63.925%	-0.035	-0.045	-0.028	-0.029
2	17:23:49	61.774%	0.475	0.491	63.537%	-0.034	-0.041	0.014	0.007
3	17:24:08	60.965%	0.446	0.472	61.724%	-0.041	-0.050	-0.020	0.009
x		61.475%	0.467	0.472	63.062%	-0.036	-0.046	-0.012	-0.004
σ		0.444%	0.018	0.019	1.175%	0.004	0.004	0.022	0.021
%RSD		0.722	3.955	3.980	1.863	10.630	9.354	190.300	511.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	68.054%	0.148	0.276	0.283	11.860	12.450	77.272%	78.420%
2	17:23:49	68.435%	0.134	0.251	0.227	12.310	12.240	78.957%	79.446%
3	17:24:08	68.111%	0.112	0.272	0.246	11.950	12.470	79.334%	79.864%
x		68.200%	0.131	0.266	0.252	12.040	12.380	78.521%	79.243%
σ		0.206%	0.018	0.014	0.028	0.240	0.128	1.098%	0.743%
%RSD		0.302	13.990	5.121	11.220	1.995	1.031	1.398	0.937

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:30	0.013	0.015	0.116	0.110	0.115	82.528%
2	17:23:49	0.016	0.016	0.137	0.117	0.127	82.872%
3	17:24:08	0.014	0.016	0.123	0.118	0.121	83.703%
x		0.014	0.016	0.125	0.115	0.121	83.034%
σ		0.001	0.001	0.011	0.004	0.006	0.604%
%RSD		8.731	6.577	8.728	3.740	5.014	0.727

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	46.244%	0.011	35.200	41.940	0.000	13180.000	7878.000	7762.000
2	17:27:36	46.161%	-0.043	37.100	38.700	0.000	12580.000	7448.000	7390.000
3	17:27:56	43.712%	-0.042	35.750	37.310	0.000	12690.000	7424.000	7381.000
x		45.372%	-0.025	36.020	39.320	0.000	12820.000	7583.000	7511.000
σ		1.439%	0.031	0.976	2.377	0.000	317.700	255.400	217.400
%RSD		3.171	124.000	2.710	6.046	0.000	2.479	3.367	2.894

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	0.333	10090.000	0.000	2448.000	49720.000	53710.000	49.765%	1.497
2	17:27:36	0.690	9290.000	0.000	2410.000	49980.000	55590.000	46.683%	1.482
3	17:27:56	0.528	9923.000	0.000	2511.000	51530.000	54980.000	45.379%	1.406
x		0.517	9766.000	0.000	2457.000	50410.000	54760.000	47.276%	1.462
σ		0.179	420.700	0.000	51.020	979.500	957.200	2.252%	0.049
%RSD		34.600	4.308	0.000	2.077	1.943	1.748	4.763	3.352

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	-2.215	0.435	655.000	8907.000	8473.000	0.222	1.029	0.092
2	17:27:36	-1.283	0.344	651.400	8969.000	8714.000	0.219	0.738	0.163
3	17:27:56	-2.242	0.362	660.200	8541.000	8420.000	0.255	0.854	0.102
x		-1.913	0.380	655.500	8806.000	8536.000	0.232	0.874	0.119
σ		0.546	0.048	4.442	231.500	156.500	0.020	0.146	0.038
%RSD		28.530	12.630	0.678	2.629	1.833	8.666	16.770	32.160

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	0.138	6.461	6.306	8.747	-0.064	0.300	0.000	223.200
2	17:27:36	0.077	6.433	6.394	8.264	-0.136	0.218	0.000	222.500
3	17:27:56	0.110	6.426	6.130	8.732	0.012	0.127	0.000	223.100
x		0.108	6.440	6.277	8.581	-0.063	0.215	0.000	222.900
σ		0.031	0.019	0.134	0.275	0.074	0.086	0.000	0.364
%RSD		28.310	0.293	2.142	3.204	117.500	40.160	0.000	0.164

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	56.292%	1.142	1.097	56.249%	-0.035	-0.041	-0.075	-0.045
2	17:27:36	55.240%	1.036	1.077	54.606%	-0.036	-0.047	-0.090	-0.058
3	17:27:56	54.945%	1.054	1.179	54.184%	-0.039	-0.043	-0.078	-0.053
x		55.492%	1.077	1.117	55.013%	-0.037	-0.044	-0.081	-0.052
σ		0.708%	0.057	0.054	1.091%	0.002	0.003	0.008	0.007
%RSD		1.276	5.287	4.837	1.984	6.185	6.653	9.629	12.790

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	61.421%	0.086	0.033	0.042	367.700	369.200	73.816%	74.728%
2	17:27:36	60.573%	0.083	0.019	0.025	370.200	372.000	74.035%	76.093%
3	17:27:56	60.820%	0.059	0.041	0.041	367.800	369.800	74.493%	75.183%
x		60.938%	0.076	0.031	0.036	368.600	370.300	74.115%	75.335%
σ		0.436%	0.015	0.011	0.009	1.416	1.445	0.345%	0.695%
%RSD		0.716	19.570	35.760	25.990	0.384	0.390	0.466	0.922

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:17	0.006	0.012	0.015	0.009	0.014	79.401%
2	17:27:36	0.012	0.010	0.016	0.012	0.016	77.314%
3	17:27:56	0.014	0.014	0.015	0.014	0.017	78.373%
x		0.011	0.012	0.015	0.012	0.016	78.363%
σ		0.004	0.002	0.001	0.003	0.001	1.044%
%RSD		37.240	15.150	5.512	21.720	8.506	1.332

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	45.546%	-0.025	26.190	26.980	0.000	41490.000	11710.000	12100.000
2	17:31:24	41.057%	-0.041	28.050	26.820	0.000	43720.000	12150.000	12880.000
3	17:31:44	41.333%	0.019	25.870	25.490	0.000	39300.000	10830.000	11140.000
x		42.645%	-0.016	26.700	26.430	0.000	41500.000	11560.000	12040.000
σ		2.516%	0.031	1.178	0.818	0.000	2211.000	671.200	874.800
%RSD		5.899	200.400	4.410	3.095	0.000	5.327	5.805	7.266

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	3.789	10650.000	0.000	182.800	41520.000	45320.000	48.873%	0.854
2	17:31:24	3.844	10850.000	0.000	191.700	42440.000	46950.000	45.494%	0.882
3	17:31:44	3.590	10500.000	0.000	181.600	40880.000	45410.000	45.579%	1.401
x		3.741	10670.000	0.000	185.400	41610.000	45900.000	46.649%	1.046
σ		0.134	174.400	0.000	5.531	786.200	914.800	1.926%	0.309
%RSD		3.568	1.635	0.000	2.984	1.889	1.993	4.130	29.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	2.984	1.103	0.956	25.560	79.400	0.048	-0.002	2.489
2	17:31:24	3.937	1.025	0.881	22.110	79.690	0.051	-0.075	2.588
3	17:31:44	3.332	1.088	0.902	22.900	79.140	0.029	-0.047	2.496
x		3.418	1.072	0.913	23.520	79.410	0.042	-0.041	2.524
σ		0.482	0.041	0.039	1.810	0.274	0.012	0.037	0.055
%RSD		14.110	3.860	4.243	7.696	0.345	28.260	89.430	2.184

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	2.409	7.084	6.979	1.192	2.080	2.556	0.000	165.500
2	17:31:24	2.397	6.859	6.553	1.331	2.032	2.241	0.000	166.400
3	17:31:44	2.299	6.740	6.875	1.690	1.985	2.284	0.000	166.800
x		2.369	6.894	6.802	1.404	2.032	2.360	0.000	166.300
σ		0.060	0.175	0.222	0.257	0.048	0.171	0.000	0.656
%RSD		2.543	2.536	3.264	18.310	2.346	7.231	0.000	0.395

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	54.096%	4.620	4.667	54.152%	-0.043	-0.040	-0.119	-0.077
2	17:31:24	53.904%	4.582	4.756	53.309%	-0.034	-0.048	-0.084	-0.056
3	17:31:44	52.961%	4.485	4.913	51.768%	-0.036	-0.047	-0.098	-0.067
x		53.654%	4.562	4.779	53.076%	-0.037	-0.045	-0.100	-0.066
σ		0.608%	0.070	0.125	1.209%	0.005	0.004	0.018	0.010
%RSD		1.132	1.527	2.611	2.278	13.330	9.685	17.710	15.490

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	59.593%	0.075	0.323	0.348	101.200	100.700	72.530%	73.864%
2	17:31:24	59.265%	0.043	0.328	0.322	100.100	99.830	73.442%	74.449%
3	17:31:44	59.333%	0.039	0.338	0.320	100.100	99.030	72.979%	74.217%
x		59.397%	0.052	0.330	0.330	100.500	99.870	72.984%	74.177%
σ		0.173%	0.020	0.008	0.016	0.650	0.861	0.456%	0.295%
%RSD		0.292	38.090	2.292	4.720	0.647	0.862	0.625	0.397

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:05	0.008	0.010	0.088	0.087	0.088	82.194%
2	17:31:24	0.012	0.011	0.107	0.086	0.103	75.034%
3	17:31:44	0.018	0.013	0.107	0.089	0.103	74.941%
x		0.013	0.011	0.101	0.087	0.098	77.389%
σ		0.005	0.001	0.011	0.002	0.009	4.161%
%RSD		37.030	11.610	11.000	2.032	9.029	5.377

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	54.511%	-0.031	3.783	5.617	0.000	9006.000	2376.000	2426.000
2	17:35:13	49.598%	-0.011	5.996	4.858	0.000	9145.000	2499.000	2444.000
3	17:35:32	49.252%	-0.045	4.912	4.966	0.000	8940.000	2377.000	2428.000
x		51.120%	-0.029	4.897	5.147	0.000	9030.000	2417.000	2433.000
σ		2.942%	0.017	1.106	0.410	0.000	104.800	70.490	9.933
%RSD		5.754	58.130	22.590	7.975	0.000	1.161	2.916	0.408

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	-0.077	2312.000	0.000	34.150	8408.000	9374.000	58.776%	0.288
2	17:35:13	-0.033	2162.000	0.000	33.640	8329.000	9096.000	57.065%	0.156
3	17:35:32	0.124	2224.000	0.000	33.380	8249.000	9164.000	55.600%	0.178
x		0.005	2233.000	0.000	33.720	8329.000	9211.000	57.147%	0.207
σ		0.106	75.070	0.000	0.394	79.750	144.500	1.590%	0.071
%RSD		2232.000	3.362	0.000	1.168	0.958	1.569	2.782	34.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	0.695	0.334	0.333	3.946	20.260	0.004	0.141	0.374
2	17:35:13	1.134	0.280	0.244	1.745	17.330	0.006	0.104	0.424
3	17:35:32	0.639	0.241	0.221	-1.039	15.460	0.004	0.085	0.384
x		0.823	0.285	0.266	1.551	17.680	0.005	0.110	0.394
σ		0.271	0.047	0.059	2.498	2.416	0.001	0.028	0.027
%RSD		32.920	16.380	22.270	161.100	13.660	21.810	25.660	6.775

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	0.336	0.629	0.815	0.086	-0.013	0.463	0.000	31.890
2	17:35:13	0.275	0.490	0.533	0.153	0.268	0.347	0.000	32.290
3	17:35:32	0.316	0.699	0.559	0.290	0.191	0.407	0.000	31.990
x		0.309	0.606	0.636	0.176	0.149	0.406	0.000	32.060
σ		0.031	0.107	0.156	0.104	0.145	0.058	0.000	0.211
%RSD		10.090	17.580	24.550	58.920	97.740	14.320	0.000	0.659

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	64.469%	0.975	0.993	65.998%	-0.039	-0.047	-0.041	-0.030
2	17:35:13	62.752%	0.924	1.018	64.546%	-0.043	-0.049	-0.087	-0.062
3	17:35:32	62.678%	0.928	0.971	63.937%	-0.036	-0.042	-0.113	-0.079
x		63.300%	0.942	0.994	64.827%	-0.040	-0.046	-0.080	-0.057
σ		1.013%	0.028	0.023	1.059%	0.004	0.004	0.036	0.025
%RSD		1.601	3.015	2.355	1.633	9.215	8.392	44.840	43.210

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	69.159%	-0.113	0.032	0.027	19.060	19.630	78.685%	78.928%
2	17:35:13	68.753%	-0.110	0.049	0.039	19.390	19.730	79.617%	80.517%
3	17:35:32	68.758%	-0.124	0.037	0.031	19.150	19.450	80.638%	81.568%
x		68.890%	-0.115	0.039	0.033	19.200	19.600	79.646%	80.338%
σ		0.233%	0.007	0.009	0.006	0.170	0.145	0.977%	1.329%
%RSD		0.338	6.301	22.650	18.030	0.887	0.739	1.227	1.654

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:54	0.016	0.018	0.013	-0.006	0.006	83.025%
2	17:35:13	0.017	0.012	0.005	0.010	0.011	83.674%
3	17:35:32	0.014	0.017	0.014	-0.006	0.005	83.868%
x		0.016	0.016	0.011	-0.001	0.008	83.522%
σ		0.001	0.003	0.005	0.010	0.003	0.442%
%RSD		8.152	20.440	43.570	1288.000	45.300	0.529

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:42	42.311%	51.350	913.300	920.100	0.000	83100.000	51850.000	51520.000
2	17:39:01	39.333%	50.460	904.500	930.400	0.000	80660.000	49050.000	50050.000
3	17:39:20	39.309%	45.690	885.100	917.900	0.000	77580.000	48830.000	48600.000
x		40.318%	49.170	900.900	922.800	0.000	80450.000	49910.000	50060.000
σ		1.726%	3.041	14.400	6.677	0.000	2764.000	1685.000	1461.000
%RSD		4.282	6.185	1.599	0.724	0.000	3.435	3.376	2.919
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:42	1556.000	17990.000	0.000	43840.000	85980.000	94940.000	44.482%	911.200
2	17:39:01	1631.000	18810.000	0.000	44710.000	85440.000	92160.000	43.608%	910.400
3	17:39:20	1520.000	18060.000	0.000	43950.000	85750.000	93800.000	43.341%	896.800
x		1569.000	18290.000	0.000	44170.000	85720.000	93630.000	43.810%	906.100
σ		56.370	454.700	0.000	476.100	267.800	1396.000	0.597%	8.086
%RSD		3.593	2.486	0.000	1.078	0.312	1.491	1.362	0.892
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:42	472.300	183.500	498.000	1004.000	1053.000	452.600	451.400	234.800
2	17:39:01	462.900	182.300	490.400	962.900	1013.000	443.600	425.900	217.500
3	17:39:20	453.700	178.300	472.300	932.600	974.700	431.400	421.200	216.600
x		462.900	181.400	486.900	966.500	1014.000	442.500	432.800	223.000
σ		9.325	2.716	13.230	35.880	39.250	10.640	16.210	10.290
%RSD		2.014	1.498	2.718	3.713	3.873	2.404	3.745	4.616
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:42	228.300	499.300	505.400	39.940	13.270	13.480	0.000	1126.000
2	17:39:01	223.900	495.300	489.600	40.250	13.500	13.590	0.000	1118.000
3	17:39:20	216.300	484.200	483.200	38.860	13.550	13.550	0.000	1113.000
x		222.800	492.900	492.700	39.680	13.440	13.540	0.000	1119.000
σ		6.059	7.818	11.440	0.732	0.148	0.056	0.000	6.650
%RSD		2.719	1.586	2.322	1.846	1.103	0.414	0.000	0.594
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:42	53.337%	971.500	1023.000	51.306%	46.980	47.480	51.880	44.630
2	17:39:01	53.015%	979.200	1029.000	50.126%	47.560	47.190	50.780	44.120
3	17:39:20	52.142%	977.100	1022.000	49.883%	48.210	47.560	52.260	43.700
x		52.831%	975.900	1025.000	50.439%	47.590	47.410	51.640	44.150
σ		0.618%	4.012	4.046	0.761%	0.617	0.196	0.767	0.463
%RSD		1.170	0.411	0.395	1.509	1.296	0.414	1.485	1.049
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:42	56.655%	1962.000	496.800	498.100	2064.000	2025.000	70.209%	72.364%
2	17:39:01	56.349%	1937.000	490.600	480.800	2056.000	2011.000	70.243%	71.655%
3	17:39:20	56.105%	1967.000	496.700	489.300	2054.000	2012.000	71.470%	72.894%
x		56.370%	1955.000	494.700	489.400	2058.000	2016.000	70.641%	72.304%
σ		0.276%	16.060	3.554	8.648	5.495	7.893	0.718%	0.622%
%RSD		0.489	0.821	0.719	1.767	0.267	0.392	1.017	0.860
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:38:42	48.450	48.840	20.560	20.740	20.530	67.354%		
2	17:39:01	48.660	50.050	20.530	21.350	20.910	68.383%		
3	17:39:20	48.470	49.170	20.780	20.790	20.710	69.791%		
x		48.530	49.350	20.620	20.960	20.710	68.509%		
σ		0.113	0.624	0.134	0.341	0.191	1.224%		
%RSD		0.233	1.265	0.649	1.626	0.921	1.786		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:30	42.089%	47.640	891.900	890.000	0.000	78450.000	48630.000	48140.000
2	17:42:49	41.826%	47.370	866.000	883.200	0.000	77940.000	47830.000	48320.000
3	17:43:08	40.497%	49.900	977.900	951.600	0.000	80650.000	50850.000	51730.000
x		41.471%	48.300	911.900	908.300	0.000	79010.000	49100.000	49400.000
σ		0.853%	1.389	58.600	37.670	0.000	1441.000	1564.000	2027.000
%RSD		2.058	2.875	6.426	4.147	0.000	1.824	3.186	4.104
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:30	1525.000	17950.000	0.000	42490.000	81730.000	92190.000	44.687%	883.800
2	17:42:49	1503.000	17690.000	0.000	44110.000	83560.000	91100.000	43.044%	909.700
3	17:43:08	1565.000	17860.000	0.000	44760.000	85320.000	93980.000	40.346%	885.400
x		1531.000	17840.000	0.000	43790.000	83540.000	92420.000	42.693%	893.000
σ		31.550	132.800	0.000	1166.000	1796.000	1451.000	2.192%	14.550
%RSD		2.061	0.744	0.000	2.662	2.150	1.570	5.134	1.629
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:30	463.400	183.800	480.100	963.000	1009.000	466.200	445.400	224.300
2	17:42:49	458.400	183.400	496.300	977.400	1021.000	461.600	444.100	230.000
3	17:43:08	444.000	178.200	491.700	984.200	1046.000	445.500	443.200	231.900
x		455.300	181.800	489.300	974.900	1026.000	457.800	444.200	228.800
σ		10.060	3.130	8.333	10.780	18.990	10.890	1.129	3.963
%RSD		2.210	1.722	1.703	1.106	1.852	2.379	0.254	1.733
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:30	224.800	495.000	498.700	40.210	13.010	14.580	0.000	1120.000
2	17:42:49	226.100	500.200	501.100	40.660	13.660	14.050	0.000	1127.000
3	17:43:08	228.000	507.900	512.600	41.210	13.700	13.260	0.000	1129.000
x		226.300	501.000	504.100	40.690	13.460	13.970	0.000	1125.000
σ		1.626	6.481	7.422	0.503	0.385	0.662	0.000	4.338
%RSD		0.719	1.294	1.472	1.236	2.857	4.742	0.000	0.386
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:30	51.880%	980.200	1037.000	50.068%	47.700	47.370	50.990	43.380
2	17:42:49	51.099%	991.700	1040.000	48.966%	47.750	47.800	51.560	44.440
3	17:43:08	50.829%	994.000	1041.000	48.921%	47.610	47.080	50.710	44.570
x		51.269%	988.600	1040.000	49.318%	47.690	47.410	51.090	44.130
σ		0.546%	7.408	1.782	0.650%	0.072	0.361	0.436	0.654
%RSD		1.065	0.749	0.171	1.317	0.152	0.762	0.853	1.483
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:30	55.326%	1973.000	493.200	488.900	2059.000	2015.000	69.710%	69.952%
2	17:42:49	55.117%	1956.000	495.100	491.500	2047.000	2022.000	69.977%	70.900%
3	17:43:08	55.528%	1943.000	497.600	498.200	2058.000	2000.000	70.434%	71.453%
x		55.324%	1957.000	495.300	492.800	2054.000	2012.000	70.040%	70.768%
σ		0.205%	15.160	2.240	4.793	6.765	11.040	0.366%	0.759%
%RSD		0.371	0.774	0.452	0.973	0.329	0.548	0.522	1.073
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:42:30	47.150	47.640	19.640	19.790	19.650	70.655%		
2	17:42:49	49.340	50.450	20.760	21.100	20.740	68.644%		
3	17:43:08	49.970	50.660	20.820	21.070	20.870	67.914%		
x		48.820	49.580	20.410	20.650	20.420	69.071%		
σ		1.481	1.689	0.662	0.750	0.668	1.419%		
%RSD		3.034	3.406	3.245	3.633	3.273	2.055		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:18	45.975%	-0.043	37.240	39.350	0.000	11210.000	6606.000	6832.000
2	17:46:37	40.761%	0.041	42.310	42.130	0.000	12080.000	7347.000	7354.000
3	17:46:56	36.001%	-0.015	40.530	41.240	0.000	13030.000	7147.000	7307.000
x		40.912%	-0.006	40.030	40.910	0.000	12110.000	7033.000	7164.000
σ		4.989%	0.043	2.575	1.418	0.000	909.000	383.400	288.800
%RSD		12.194	770.000	6.433	3.465	0.000	7.508	5.452	4.032
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:18	-0.431	8653.000	0.000	2228.000	45770.000	50840.000	42.993%	1.216
2	17:46:37	-0.158	9614.000	0.000	2386.000	49280.000	53040.000	41.515%	1.723
3	17:46:56	-0.211	9410.000	0.000	2419.000	50050.000	54870.000	38.548%	1.482
x		-0.267	9226.000	0.000	2344.000	48370.000	52920.000	41.019%	1.474
σ		0.145	506.300	0.000	101.900	2283.000	2015.000	2.263%	0.254
%RSD		54.330	5.488	0.000	4.348	4.720	3.807	5.518	17.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:18	-2.780	0.490	628.700	8566.000	8359.000	0.251	0.921	0.090
2	17:46:37	-1.091	0.490	620.300	8349.000	8210.000	0.211	0.880	0.088
3	17:46:56	-0.694	0.446	636.800	8526.000	8185.000	0.241	0.938	0.106
x		-1.522	0.475	628.600	8480.000	8252.000	0.234	0.913	0.095
σ		1.107	0.025	8.250	115.300	94.260	0.021	0.030	0.010
%RSD		72.770	5.346	1.313	1.359	1.142	8.761	3.256	10.390
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:18	-0.033	9.031	8.829	8.144	-0.455	0.057	0.000	213.000
2	17:46:37	-0.006	8.856	9.075	7.321	-0.524	0.120	0.000	214.100
3	17:46:56	0.003	8.275	8.730	8.099	-0.152	0.030	0.000	218.300
x		-0.012	8.720	8.878	7.855	-0.377	0.069	0.000	215.100
σ		0.019	0.396	0.178	0.463	0.198	0.046	0.000	2.812
%RSD		156.900	4.537	2.001	5.891	52.570	66.910	0.000	1.307
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:18	50.081%	5.529	5.718	50.111%	-0.031	-0.048	-0.016	-0.009
2	17:46:37	48.910%	4.614	4.498	49.223%	-0.043	-0.045	-0.064	-0.043
3	17:46:56	48.085%	3.891	3.988	47.937%	-0.030	-0.046	-0.085	-0.048
x		49.025%	4.678	4.734	49.090%	-0.035	-0.047	-0.055	-0.033
σ		1.003%	0.821	0.889	1.093%	0.007	0.002	0.035	0.021
%RSD		2.045	17.550	18.780	2.226	21.130	3.893	64.130	63.640
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:18	55.825%	1.703	0.097	0.103	350.300	350.800	67.959%	69.220%
2	17:46:37	54.833%	1.288	0.091	0.106	354.400	355.000	68.343%	70.550%
3	17:46:56	55.071%	1.003	0.072	0.073	348.500	350.000	69.081%	70.350%
x		55.243%	1.331	0.087	0.094	351.100	351.900	68.461%	70.040%
σ		0.518%	0.352	0.013	0.018	3.056	2.689	0.570%	0.717%
%RSD		0.938	26.420	15.050	19.070	0.871	0.764	0.833	1.024
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:46:18	0.199	0.202	0.016	0.022	0.021	75.037%		
2	17:46:37	0.235	0.216	0.010	0.010	0.015	73.747%		
3	17:46:56	0.206	0.207	0.025	0.011	0.022	73.755%		
x		0.213	0.208	0.017	0.015	0.019	74.180%		
σ		0.019	0.007	0.007	0.006	0.004	0.742%		
%RSD		9.055	3.472	43.930	44.120	20.710	1.001		

CCV 1533080 4/30/2015 5:49:55 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	73.503%	108.000	102.100	102.600	0.000	49440.000	49920.000	48760.000
2	17:50:15	70.893%	109.900	101.000	101.600	0.000	50330.000	50220.000	50420.000
3	17:50:35	69.660%	110.700	100.800	95.550	0.000	50270.000	50590.000	49710.000
x		71.352%	109.535%	101.331%	99.916%	0.000	100.028%	100.488%	99.259%
σ		1.962%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.750	1.238	0.686	3.818	0.000	0.995	0.674	1.685

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	490.600	5064.000	0.000	49170.000	44930.000	49350.000	85.501%	97.110
2	17:50:15	508.600	5067.000	0.000	52220.000	48560.000	52280.000	79.476%	104.300
3	17:50:35	498.200	4970.000	0.000	51070.000	48110.000	53220.000	77.472%	102.500
x		99.830%	100.671%	0.000	101.639%	94.401%	103.229%	80.816%	101.287%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.179%	n/a
%RSD		1.812	1.098	0.000	3.039	4.198	3.908	5.171	3.683

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	99.800	99.730	500.400	24960.000	24760.000	97.850	100.400	102.900
2	17:50:15	103.100	103.200	522.400	25710.000	25450.000	99.940	102.000	103.400
3	17:50:35	102.400	103.700	530.500	26160.000	25970.000	102.400	105.100	107.200
x		101.766%	102.203%	103.555%	102.447%	101.562%	100.056%	102.525%	104.482%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.718	2.113	3.013	2.366	2.397	2.265	2.342	2.270

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	102.800	103.500	104.600	102.000	106.200	105.600	0.000	96.330
2	17:50:15	104.000	105.700	106.900	105.000	108.900	107.900	0.000	97.770
3	17:50:35	105.500	108.100	109.400	104.200	108.300	106.300	0.000	98.550
x		104.109%	105.748%	106.971%	103.726%	107.792%	106.576%	0.000	97.548%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.293	2.187	2.208	1.468	1.302	1.126	0.000	1.155

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	83.037%	96.130	98.780	77.739%	102.300	102.700	103.400	102.900
2	17:50:15	83.524%	99.700	102.200	77.246%	103.000	104.500	105.000	105.800
3	17:50:35	82.191%	101.500	103.100	76.899%	103.100	103.200	105.800	104.800
x		82.918%	99.124%	101.350%	77.295%	102.774%	103.464%	104.763%	104.511%
σ		0.674%	n/a	n/a	0.422%	n/a	n/a	n/a	n/a
%RSD		0.813	2.774	2.238	0.546	0.442	0.896	1.188	1.438

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	79.265%	100.000	100.000	100.400	101.500	99.660	84.040%	83.569%
2	17:50:15	79.455%	101.800	102.000	101.500	102.100	101.500	85.301%	85.234%
3	17:50:35	79.420%	102.400	103.700	103.600	102.500	102.300	85.853%	86.149%
x		79.380%	101.429%	101.910%	101.822%	102.053%	101.156%	85.065%	84.984%
σ		0.101%	n/a	n/a	n/a	n/a	n/a	0.930%	1.308%
%RSD		0.127	1.231	1.802	1.587	0.493	1.350	1.093	1.539

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:55	101.000	103.900	101.900	102.700	101.300	84.145%
2	17:50:15	105.500	106.600	104.500	106.000	104.600	84.306%
3	17:50:35	104.400	105.800	104.100	105.400	103.500	85.084%
x		103.612%	105.421%	103.496%	104.697%	103.146%	84.512%
σ		n/a	n/a	n/a	n/a	n/a	0.502%
%RSD		2.283	1.323	1.338	1.671	1.602	0.594

CCB7 4/30/2015 5:56:24 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	17:56:44	90.454%	-0.006	1.233	1.067	0.000	6.215	4.443	4.514
2	17:57:03	86.575%	-0.013	1.165	1.027	0.000	6.218	4.598	3.985
3	17:57:22	94.920%	-0.008	0.803	0.904	0.000	5.399	3.585	3.925
x		90.650%	-0.009	1.067	0.999	0.000	5.944	4.209	4.141
σ		4.176%	0.004	0.231	0.085	0.000	0.472	0.546	0.324
%RSD		4.607	39.550	21.660	8.489	0.000	7.940	12.960	7.817

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:44	1.804	-112.500	0.000	5.380	9.208	9.594	99.101%	0.048
2	17:57:03	1.759	-110.700	0.000	6.809	9.775	10.040	92.798%	0.038
3	17:57:22	1.574	-111.900	0.000	5.823	9.154	10.630	91.371%	0.020
x		1.713	-111.700	0.000	6.004	9.379	10.090	94.423%	0.035
σ		0.122	0.926	0.000	0.731	0.344	0.521	4.114%	0.014
%RSD		7.107	0.829	0.000	12.180	3.671	5.161	4.357	40.850

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:44	0.032	0.001	0.266	10.690	8.700	0.015	0.021	0.827
2	17:57:03	0.018	0.004	0.214	11.820	7.293	0.009	0.017	0.892
3	17:57:22	-0.007	0.002	0.208	10.750	7.041	0.016	0.031	0.767
x		0.014	0.002	0.229	11.090	7.678	0.014	0.023	0.829
σ		0.020	0.002	0.032	0.636	0.894	0.004	0.007	0.063
%RSD		140.000	77.150	14.010	5.740	11.640	28.950	31.940	7.568

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:44	0.796	1.334	1.280	0.032	-0.026	0.048	0.000	0.053
2	17:57:03	0.803	1.325	1.298	-0.027	0.141	-0.035	0.000	0.039
3	17:57:22	0.793	1.356	1.507	-0.007	0.281	-0.019	0.000	0.032
x		0.797	1.338	1.362	-0.001	0.132	-0.002	0.000	0.041
σ		0.005	0.016	0.126	0.030	0.154	0.044	0.000	0.010
%RSD		0.600	1.169	9.271	4075.000	116.600	2474.000	0.000	24.770

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:44	90.836%	0.486	0.436	95.241%	-0.019	-0.032	-0.010	-0.007
2	17:57:03	90.327%	0.441	0.444	93.324%	-0.023	-0.035	0.017	0.020
3	17:57:22	91.568%	0.344	0.387	94.535%	-0.021	-0.032	-0.009	0.002
x		90.910%	0.424	0.422	94.366%	-0.021	-0.033	-0.001	0.005
σ		0.624%	0.072	0.031	0.970%	0.002	0.002	0.015	0.014
%RSD		0.686	17.110	7.364	1.028	9.683	5.530	2685.000	271.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:44	91.672%	0.162	0.034	0.033	0.004	0.044	91.233%	90.625%
2	17:57:03	90.598%	0.189	0.039	0.022	0.026	0.063	90.654%	89.902%
3	17:57:22	92.336%	0.149	0.036	0.028	0.032	0.055	93.085%	92.414%
x		91.535%	0.167	0.036	0.028	0.021	0.054	91.657%	90.981%
σ		0.877%	0.020	0.002	0.006	0.015	0.010	1.270%	1.293%
%RSD		0.958	12.130	6.013	20.600	71.790	17.700	1.385	1.421

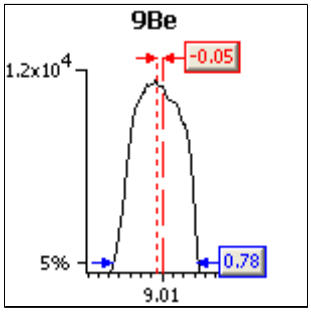
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:44	0.059	0.068	0.031	0.032	0.032	98.746%
2	17:57:03	0.070	0.071	0.035	0.034	0.035	96.205%
3	17:57:22	0.073	0.067	0.043	0.028	0.036	96.692%
x		0.067	0.069	0.036	0.031	0.034	97.214%
σ		0.008	0.002	0.006	0.003	0.002	1.349%
%RSD		11.260	2.642	16.790	8.986	5.267	1.388

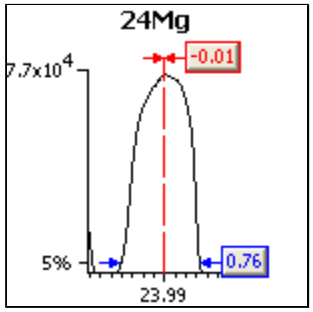
Performance Report

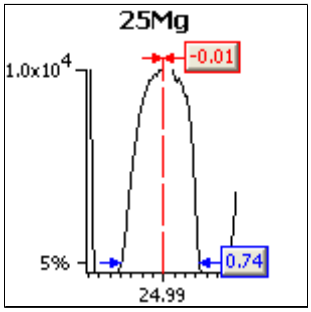
Sample details
Sample name : ITUNE
Acquired at : 4/30/2015 9:57:37 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

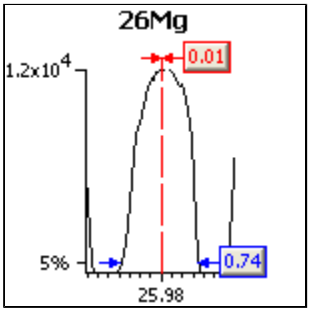
Mass Calibration verification

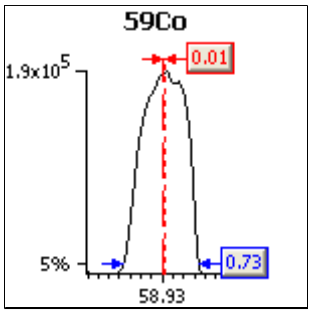
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

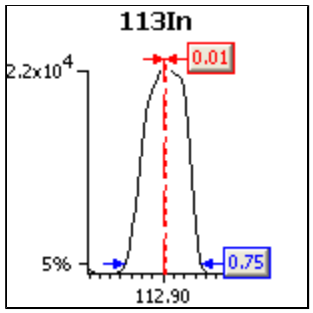


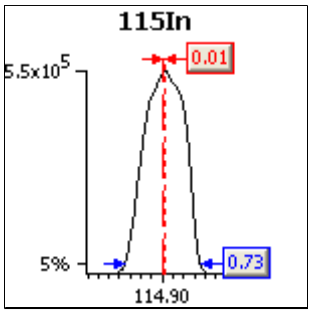


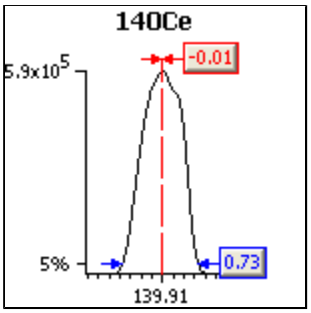


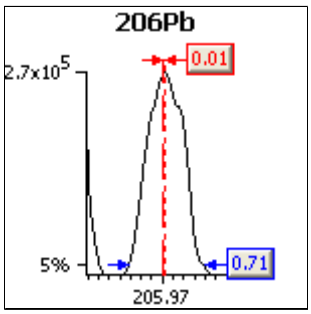


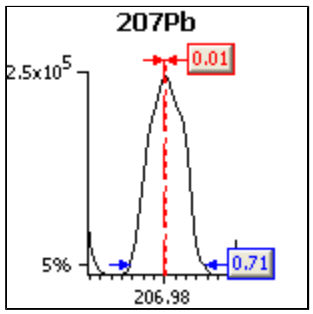


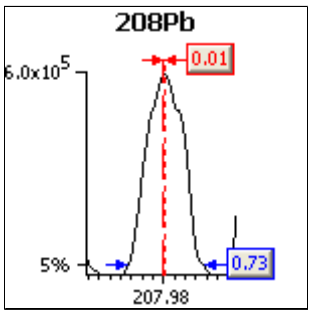












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.78	-0.05
24Mg	0.90	0.45	0.10	0.76	-0.01
25Mg	0.90	0.45	0.10	0.74	-0.01
26Mg	0.90	0.45	0.10	0.74	0.01
59Co	0.90	0.45	0.10	0.73	0.01
113In	0.90	0.45	0.10	0.75	0.01
115In	0.90	0.45	0.10	0.73	0.01
140Ce	0.90	0.45	0.10	0.73	-0.01
206Pb	0.90	0.45	0.10	0.71	0.01
207Pb	0.90	0.45	0.10	0.71	0.01
208Pb	0.90	0.45	0.10	0.73	0.01

Sample details
Sample name : ITUNE
Acquired at : 4/30/2015 9:57:37 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-137
Lens 1	3.8
Focus	27.8
D1	-37.6
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.89
Sampling Depth	200

Minor	
Lens 2	-26.7
Lens 3	-171.8
Forward power	1404
Horizontal	61
Vertical	471
D2	-160
DA	-80.0
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
He/H2	0.00
He/NH3	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
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%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	9:58:25 AM	0	10408	71100	9442	11579	482858	183657	2
2	9:59:50 AM	0	10298	70138	9299	11303	469015	181791	5
3	10:01:15 AM	0	10256	70858	9600	11558	465992	183095	7
4	10:02:40 AM	0	10472	72085	9559	11655	469771	185562	6
5	10:04:06 AM	0	10686	73099	9618	11824	472585	188534	5
x		0	10424	71456	9503	11584	472044	184528	5
σ		0.07	169.92	1153.17	133.26	188.70	6484.74	2618.13	1.98
%RSD		91.287	1.630	1.614	1.402	1.629	1.374	1.419	39.033

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
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%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	9:58:25 AM	53	0	23173	540980	5052	617279	7401	277532
2	9:59:50 AM	56	0	23340	541639	5012	621521	7529	282469
3	10:01:15 AM	57	0	23137	544396	5108	625317	7436	282917
4	10:02:40 AM	61	0	23560	547579	5009	627377	7597	284217
5	10:04:06 AM	53	0	23655	550039	4880	629359	7654	284659
x		56	0	23373	544927	5012	624171	7523	282359
σ		3.07	0.11	229.52	3867.68	84.34	4822.69	106.06	2844.69
%RSD		5.480	64.358	0.982	0.710	1.683	0.773	1.410	1.007

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	9:58:25 AM	253942	610223	0
2	9:59:50 AM	257530	617146	0
3	10:01:15 AM	259055	622101	0
4	10:02:40 AM	260734	622176	0
5	10:04:06 AM	259075	624145	0
x		258067	619158	0
σ		2569.37	5624.19	0.10
%RSD		0.996	0.908	82.402

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	9:58:25 AM	0
2	9:59:50 AM	0

3	10:01:15 AM	0
4	10:02:40 AM	0
5	10:04:06 AM	0
x		0.0121
σ		0.00
%RSD		0.9133

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Batch Number: 139546 Batch Start Date: 04/24/15 10:40 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 04/24/15 14:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-139546/1		3005A, 6020A		50 mL	50 mL				
LCS 180-139546/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-43359-B-2	HD-CW-9-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-3	HD-CW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-4	HD-CW-15A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-5	HD-CW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-6	HD-CW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-7	HD-MW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-8	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-8 MS	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-43359-B-8 MSD	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-43359-B-9	HD-MW-96S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-10	HD-MW-96D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-11	HD-CW-18-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-12	HD-MW-50D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-43359-B-13	HD-MW-51S-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.: 180-43359-1

SDG No.:

Batch Number: 139546 Batch Start Date: 04/24/15 10:40 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 04/24/15 14:40

Batch Notes	
Batch Comment	Metals D4
First End time	14:40
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
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 D3
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: 180-43359-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-CW-9-0/1-0	180-43359-2
HD-CW-13-0/1-0	180-43359-3
HD-CW-15A-0/1-0	180-43359-4
HD-CW-17-0/1-0	180-43359-5
HD-CW-20-0/1-0	180-43359-6
HD-MW-7-0/1-0	180-43359-7
HD-MW-95-0/1-0	180-43359-8
HD-MW-96S-0/1-0	180-43359-9
HD-MW-96D-0/1-0	180-43359-10
HD-CW-18-0/1-0	180-43359-11
HD-MW-50D-0/1-0	180-43359-12
HD-MW-51S-0/1-0	180-43359-13

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-43359-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 02:45

Reporting Basis: WET Date Received: 04/23/2015 08:45

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-13-0/1-0 Lab Sample ID: 180-43359-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 03:00

Reporting Basis: WET Date Received: 04/23/2015 08:45

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-15A-0/1-0 Lab Sample ID: 180-43359-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 02:40

Reporting Basis: WET Date Received: 04/23/2015 08:45

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-17-0/1-0 Lab Sample ID: 180-43359-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 03:05

Reporting Basis: WET Date Received: 04/23/2015 08:45

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: 180-43359-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 02:55

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-43359-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 09:15

Reporting Basis: WET Date Received: 04/23/2015 08:45

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-95-0/1-0 Lab Sample ID: 180-43359-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 12:15

Reporting Basis: WET Date Received: 04/23/2015 08:45

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-MW-96S-0/1-0 Lab Sample ID: 180-43359-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 11:20

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	330	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	330	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-96D-0/1-0 Lab Sample ID: 180-43359-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 10:32

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	280	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	280	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-43359-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 13:30

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	300	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	300	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-50D-0/1-0 Lab Sample ID: 180-43359-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 10:03

Reporting Basis: WET Date Received: 04/23/2015 08:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	310	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	310	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-51S-0/1-0 Lab Sample ID: 180-43359-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2015 15:01

Reporting Basis: WET Date Received: 04/23/2015 08:45

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.: 180-43359-1

SDG No.:

Analyst: CLL Batch Start Date: 05/01/2015

Reporting Units: mg/L Analytical Batch No.: 140221

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:23	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00084
14	CCB	05:23	Total Alkalinity as CaCO3 to pH 4.5	2.01				J	
			Bicarbonate Alkalinity as CaCO3	2.01				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
24	CCV	05:23	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00084
25	CCB	05:23	Total Alkalinity as CaCO3 to pH 4.5	2.01				J	
			Bicarbonate Alkalinity as CaCO3	2.01				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.: 180-43359-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 140221 Date: 05/01/2015 05:23							
SM 2320B	MB 180-140221/2	Total Alkalinity as CaCO3 to pH 4.5	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-140221/2	Bicarbonate Alkalinity as CaCO3	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-140221/2	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.: 180-43359-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 140221 Date: 05/01/2015 05:23								
SM 2320B	HD-MW-95-0/1-0	180-43359-8	Total Alkalinity as CaCO3 to pH 4.5	270	mg/L			
SM 2320B	HD-MW-95-0/1-0	180-43359-8 DU	Total Alkalinity as CaCO3 to pH 4.5	269	mg/L	0.7	20	
SM 2320B	HD-MW-95-0/1-0	180-43359-8	Bicarbonate Alkalinity as CaCO3	270	mg/L			
SM 2320B	HD-MW-95-0/1-0	180-43359-8 DU	Bicarbonate Alkalinity as CaCO3	269	mg/L	0.7	20	
SM 2320B	HD-MW-95-0/1-0	180-43359-8	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-95-0/1-0	180-43359-8 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.: 180-43359-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 140221	Date: 05/01/2015 05:23										
						LCS Source: WALK250PPMPi_00093					
SM 2320B	LCS 180-140221/1	Total Alkalinity as CaCO3 to pH 4.5	275		mg/L	250	110	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: 180-43359-1

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: 180-43359-1

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.: 180-43359-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 05/01/2015 05:23 End Date: 05/01/2015 05:23

Lab Sample Id	D/F	Type	Time	Alk	BALKCC	CarAlk
LCS 180-140221/1	1	T	05:23	X		
MB 180-140221/2	1	T	05:23	X	X	X
ZZZZZZ			05:23			
180-43359-2	1	T	05:23	X	X	X
180-43359-3	1	T	05:23	X	X	X
180-43359-4	1	T	05:23	X	X	X
180-43359-5	1	T	05:23	X	X	X
180-43359-6	1	T	05:23	X	X	X
180-43359-7	1	T	05:23	X	X	X
180-43359-8	1	T	05:23	X	X	X
180-43359-8 DU	1	T	05:23	X	X	X
180-43359-9	1	T	05:23	X	X	X
CCV 180-140221/13	1		05:23	X		
CCB 180-140221/14	1		05:23	X	X	X
180-43359-10	1	T	05:23	X	X	X
180-43359-11	1	T	05:23	X	X	X
180-43359-12	1	T	05:23	X	X	X
180-43359-13	1	T	05:23	X	X	X
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
CCV 180-140221/24	1		05:23	X		
CCB 180-140221/25	1		05:23	X	X	X
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			
CCV 180-140221/35			05:23			
CCB 180-140221/36			05:23			
ZZZZZZ			05:23			
ZZZZZZ			05:23			

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 05/01/2015 05:23 End Date: 05/01/2015 05:23

Lab Sample Id	D/F	Type	Time	Analytes																										
				Alk	BALKCC	CarAlk																								
ZZZZZZ			05:23																											
CCV 180-140221/40			05:23																											
CCB 180-140221/41			05:23																											
ZZZZZZ			05:23																											

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TA6 #050115 AK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-018

Analyst: CLahuyk
Date: 5-1-15
Reviewed By: See DRC
Date: 5/1/15
pH Meter ID: Accumet XL 54 #PA102132
AD Batch: 140221
pH 4 Start: 4.01
pH 4 End: 4.05

Job Number(s): 43311-43359-43400-43401/-43402-43418
43420-43421

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	Results	OH^-	$CO_3^{\,2}$	HCO_3
P = 0	0	0	T	P = ½T	0	2P	0
P < ½T	0	2P	T-2P	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-2015-018

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	10.82	50	7.0	13.7	.0201	275.37				
MB	5.75		0	0.1		2.01				
180-43311-1	6.58		0	20.6		414.06				
180-43359-2	7.28		0	11.6		233.16				
3	7.13		0	13.4		269.34				
4	7.19		0	12.2		245.22				
5	7.23		0	12.7		255.27				
6	7.37		0	10.9		219.09				
7	7.08		0	12.7		255.27				
8	7.13		0	13.3		267.33				
8X	7.16		0	13.4		269.34				
9	7.39		0	16.3		327.63				
CCV	10.55		2.9	6.6		132.66				
CCB	5.71		0	0.1		2.01				
180-43359-10	7.28		0	14.1		283.41				
11	7.21		0	14.8		297.48				
12	7.15		0	15.4		309.54				
13	7.19		0	11.3		227.13				
180-43402-2	7.19		0	10.7		215.07				
2X	7.17		0	10.7		215.07				
3	7.24		0	7.2		144.72				
4	7.21		0	11.9		239.19				
5	7.28		0	11.8		237.18				
CCV	10.61		3.0	6.6		132.66				
CCB	5.77		0	0.1		2.01				
LCS	10.89		6.9	13.7		275.37				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-018

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
MB	5.83	50	0	0.1	.0201	2.01				
180-43402-6	7.25	↓	0	13.7	↓	275.31				
↓ 7	7.90		0	10.2		205.02				
↓ 8	7.25		0	9.9		198.99				
180-43400-1	7.88		0	4.7		94.47				
180-43401-1	7.55		0	3.1		62.31				
180-43418-1	9.05		0.7	6.9		138.69				
↓ -1X	9.02		0.7	7.0		140.7				
CCV	10.46		3.0	6.6		132.66				
CCB	5.64		0	0.1		2.01				
180-43420-1	7.83		0	5.8		116.58				
180-43421-1	7.83		0	3.9		78.39				
↓ -1X	7.81		0	3.8		76.38				
CCV	10.59		2.9	6.6		132.66				
CCB	5.57	↓	0	0.1	↓	2.01				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-43359-1

SDG No.:

Batch Number: 140221 Batch Start Date: 05/01/15 05:23 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 180-140221/1		SM 2320B		50 mL	10.82 SU	0 mL	7.0 mL	7 mL	0 mL
MB 180-140221/2		SM 2320B		50 mL	5.75 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-2	HD-CW-9-0/1-0	SM 2320B	T	50 mL	7.28 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-3	HD-CW-13-0/1-0	SM 2320B	T	50 mL	7.13 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-4	HD-CW-15A-0/1-0	SM 2320B	T	50 mL	7.19 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-5	HD-CW-17-0/1-0	SM 2320B	T	50 mL	7.23 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-6	HD-CW-20-0/1-0	SM 2320B	T	50 mL	7.37 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-7	HD-MW-7-0/1-0	SM 2320B	T	50 mL	7.08 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-8	HD-MW-95-0/1-0	SM 2320B	T	50 mL	7.13 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-8 DU	HD-MW-95-0/1-0	SM 2320B	T	50 mL	7.16 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-9	HD-MW-96S-0/1-0	SM 2320B	T	50 mL	7.39 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-140221/13		SM 2320B		50 mL	10.55 SU	0 mL	2.9 mL	2.9 mL	0 mL
CCB 180-140221/14		SM 2320B		50 mL	5.71 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-10	HD-MW-96D-0/1-0	SM 2320B	T	50 mL	7.28 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-11	HD-CW-18-0/1-0	SM 2320B	T	50 mL	7.21 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-12	HD-MW-50D-0/1-0	SM 2320B	T	50 mL	7.15 SU	0 mL	0 mL	0 mL	0 mL
180-43359-A-13	HD-MW-51S-0/1-0	SM 2320B	T	50 mL	7.19 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-140221/24		SM 2320B		50 mL	10.61 SU	0 mL	3.0 mL	3 mL	0 mL
CCB 180-140221/25		SM 2320B		50 mL	5.77 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 180-140221/1		SM 2320B		6.7 mL	6.7 mL	Case 4	269.34 mg/L	6.0299999999999 7 mg/L	0 mg/L
MB 180-140221/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-43359-A-2	HD-CW-9-0/1-0	SM 2320B	T	11.6 mL	11.6 mL	Case 1	0 mg/L	0 mg/L	233.16 mg/L
180-43359-A-3	HD-CW-13-0/1-0	SM 2320B	T	13.4 mL	13.4 mL	Case 1	0 mg/L	0 mg/L	269.34 mg/L
180-43359-A-4	HD-CW-15A-0/1-0	SM 2320B	T	12.2 mL	12.2 mL	Case 1	0 mg/L	0 mg/L	245.22 mg/L
180-43359-A-5	HD-CW-17-0/1-0	SM 2320B	T	12.7 mL	12.7 mL	Case 1	0 mg/L	0 mg/L	255.27 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.: 180-43359-1

SDG No.:

Batch Number: 140221 Batch Start Date: 05/01/15 05:23 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
180-43359-A-6	HD-CW-20-0/1-0	SM 2320B	T	10.9 mL	10.9 mL	Case 1	0 mg/L	0 mg/L	219.09 mg/L
180-43359-A-7	HD-MW-7-0/1-0	SM 2320B	T	12.7 mL	12.7 mL	Case 1	0 mg/L	0 mg/L	255.27 mg/L
180-43359-A-8	HD-MW-95-0/1-0	SM 2320B	T	13.3 mL	13.3 mL	Case 1	0 mg/L	0 mg/L	267.33 mg/L
180-43359-A-8 DU	HD-MW-95-0/1-0	SM 2320B	T	13.4 mL	13.4 mL	Case 1	0 mg/L	0 mg/L	269.34 mg/L
180-43359-A-9	HD-MW-96S-0/1-0	SM 2320B	T	16.3 mL	16.3 mL	Case 1	0 mg/L	0 mg/L	327.63 mg/L
CCV 180-140221/13		SM 2320B		3.7 mL	3.7 mL	Case 2	116.58 mg/L	0 mg/L	16.08 mg/L
CCB 180-140221/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-43359-A-10	HD-MW-96D-0/1-0	SM 2320B	T	14.1 mL	14.1 mL	Case 1	0 mg/L	0 mg/L	283.41 mg/L
180-43359-A-11	HD-CW-18-0/1-0	SM 2320B	T	14.8 mL	14.8 mL	Case 1	0 mg/L	0 mg/L	297.48 mg/L
180-43359-A-12	HD-MW-50D-0/1-0	SM 2320B	T	15.4 mL	15.4 mL	Case 1	0 mg/L	0 mg/L	309.54 mg/L
180-43359-A-13	HD-MW-51S-0/1-0	SM 2320B	T	11.3 mL	11.3 mL	Case 1	0 mg/L	0 mg/L	227.13 mg/L
CCV 180-140221/24		SM 2320B		3.6 mL	3.6 mL	Case 2	120.6 mg/L	0 mg/L	12.06 mg/L
CCB 180-140221/25		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00084	WALK250PPMPi 00093	
LCS 180-140221/1		SM 2320B		140.7 mg/L	275.37 mg/L	50 mL		50 mL	
MB 180-140221/2		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
180-43359-A-2	HD-CW-9-0/1-0	SM 2320B	T	0 mg/L	233.16 mg/L	50 mL			
180-43359-A-3	HD-CW-13-0/1-0	SM 2320B	T	0 mg/L	269.34 mg/L	50 mL			
180-43359-A-4	HD-CW-15A-0/1-0	SM 2320B	T	0 mg/L	245.22 mg/L	50 mL			
180-43359-A-5	HD-CW-17-0/1-0	SM 2320B	T	0 mg/L	255.27 mg/L	50 mL			
180-43359-A-6	HD-CW-20-0/1-0	SM 2320B	T	0 mg/L	219.09 mg/L	50 mL			
180-43359-A-7	HD-MW-7-0/1-0	SM 2320B	T	0 mg/L	255.27 mg/L	50 mL			
180-43359-A-8	HD-MW-95-0/1-0	SM 2320B	T	0 mg/L	267.33 mg/L	50 mL			
180-43359-A-8 DU	HD-MW-95-0/1-0	SM 2320B	T	0 mg/L	269.34 mg/L	50 mL			
180-43359-A-9	HD-MW-96S-0/1-0	SM 2320B	T	0 mg/L	327.63 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.: 180-43359-1

SDG No.:

Batch Number: 140221 Batch Start Date: 05/01/15 05:23 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00084	WALK250PPMPi 00093	
CCV 180-140221/13		SM 2320B		58.29 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-140221/14		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
180-43359-A-10	HD-MW-96D-0/1-0	SM 2320B	T	0 mg/L	283.41 mg/L	50 mL			
180-43359-A-11	HD-CW-18-0/1-0	SM 2320B	T	0 mg/L	297.48 mg/L	50 mL			
180-43359-A-12	HD-MW-50D-0/1-0	SM 2320B	T	0 mg/L	309.54 mg/L	50 mL			
180-43359-A-13	HD-MW-51S-0/1-0	SM 2320B	T	0 mg/L	227.13 mg/L	50 mL			
CCV 180-140221/24		SM 2320B		60.3 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-140221/25		SM 2320B		0 mg/L	2.01 mg/L	50 mL			

Batch Notes	
Batch Comment	PH 4 START: 4.01 PH 4 END: 4.05
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1524103
pH Buffer 4 ID	1538765
pH Buffer 5 ID	1535729
Sulfuric Acid Lot Number	1543398
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0201 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 4/22/2015	COC No: TAP2015042201
Groundwater Sciences Corporation	Tel/Fax: 717-901-8181 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	1 of 1 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No. 10012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			
(717) 657-1611 FAX	■ 2 weeks			
Project Name: Dry Season Shutdown 12	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, Cl, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Sample Specific Notes:
HD-QC4-0/1-2	4/22/15	12:00	Trip Blank	Water	2	X			
HD-CW-9-0/1-0	4/22/15	2:45	Groundwater	Water	5	X	X	X	
HD-CW-13-0/1-0	4/22/15	3:00	Groundwater	Water	5	X	X	X	
HD-CW-15A-0/1-0	4/22/15	2:40	Groundwater	Water	5	X	X	X	
HD-CW-17-0/1-0	4/22/15	3:05	Groundwater	Water	5	X	X	X	
HD-CW-20-0/1-0	4/22/15	2:55	Groundwater	Water	5	X	X	X	
HD-MW-7-0/1-0	4/22/15	9:15	Groundwater	Water	5	X	X	X	
HD-MW-95-0/1-0	4/22/15	12:15	Groundwater	Water	5	X	X	X	
HD-MW-96S-0/1-0	4/22/15	11:20	Groundwater	Water	5	X	X	X	
HD-MW-96D-0/1-0	4/22/15	10:32	Groundwater	Water	5	X	X	X	
HD-CW-18-0/1-0	4/22/15	13:30	Groundwater	Water	5	X	X	X	
HD-MW-50D-0/1-0	4/22/15	10:03	Groundwater	Water	5	X	X	X	
HD-MW-51S-0/1-0	4/22/15	15:01	Groundwater	Water	5	X	X	X	
HD-MW-95-0/1-0 MS	4/22/15	12:15	Groundwater	Water	5	X	X	X	
HD-MW-95-0/1-0 MSD	4/22/15	12:15	Groundwater	Water	5	X	X	X	
Number of Containers						3	1	1	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved, 7=Zinc Acetate & NaOH						2	1	4	
Field Filter						N	N	N	

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: 4/22/15 1525	Received by:	Company: TAKP	Date/Time: 4/22/15 1525
Relinquished by:	Company: TAKP	Date/Time: 4/22/15 1700	Received by:	Company: TAP	Date/Time: 4-23-15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 8.45

180-43359 Waybill

ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 22APR15
ACTWGT: .51 A
CAD: 8

BILL R 7858 04.23

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:

FedEx Express

J151215022301uv

TRK# 0201 7734 3410 7858

THU - 23 APR AA
STANDARD OVERNIGHT

EV AGCA

15238
PA-US PIT

Uncorrected temp 4.4 °C
Thermometer ID
CF 0 Initials AB
PT-WI-SR-001 effective 7/26/13

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-43359-1

Login Number: 43359
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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	