TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-40434-1

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
1/28/2015 7:27 AM

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01/28/2015

Table of Contents

Table of Contents

Table of Contents

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-40434-1

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 01/13/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7º C and 4.3º C.

VOLATILES

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

The laboratory control sample (LCS) for batch 130711 recovered outside control limits for the following analytes:
Trans-1,3-dichloropropene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

cis-1,2-Dichloroethene and Trichloroethene failed the recovery criteria high for the MS/MSD of sample HD-MW-107-0/1-0 (180-40434-22) in batch 180-130838.

METALS

Calcium, Magnesium, Potassium and Sodium were detected in method blank MB 180-130798/1-A 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.

Calcium, Magnesium, Potassium and Sodium were detected in method blank MB 180-130801/1-A 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.

Some Internal standard (ISTDs) responses for the following samples were outside of the acceptance limits low: (180-40434-25 PDS). All instrument (CCV/CCB) and LCS/PDS recoveries were within the control limits.

GENERAL CHEMISTRY

Samples HD-COD-SW-10-0/1-0 (5), HD-COD-SW-12-0/1-0 (7)] and HD-COD-SW-20-0/1-0 (12) required dilution prior to analysis for 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 180-131272/2 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.

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-131390/2 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.

Nitrate as N was detected in method blank MB 180-130742/38 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Nitrate as N was detected in method blank MB 180-130742/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Chloride failed the recovery criteria low for the MSD of sample HD-COD-SW-26-0/1-0 (180-40434-13) in batch 180-130742. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount for Chloride and Nitrate for sample HD-MW-107-0/1-0 (180-40434-22) in batch 180-130742,

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 128329

Lab Sample ID: IC 180-128329/7 Client Sample ID:

Date Analyzed: 12/15/14 14:33 Lab File ID: 51215007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.72	Split Peak	fergusond	12/15/14 16:41
1,1-Dichloroethene	3.40	Split Peak	fergusond	12/15/14 16:41
Iodomethane	3.66	Split Peak	fergusond	12/15/14 16:41
Methylene Chloride	4.18	Split Peak	fergusond	12/15/14 16:41

Lab Sample ID: IC 180-128329/8 Client Sample ID:

Date Analyzed: 12/15/14 14:57 Lab File ID: 51215008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.29	Peak Tail	fergusond	12/15/14 16:39
1,4-Dioxane	8.09	Peak Tail	fergusond	12/16/14 08:50

Lab Sample ID: ICIS 180-128329/9 Client Sample ID:

Date Analyzed: 12/15/14 15:21 Lab File ID: 51215009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.29	Peak Tail	fergusond	12/15/14 16:37

Lab Sample ID: IC 180-128329/11 Client Sample ID:

Date Analyzed: 12/15/14 16:09 Lab File ID: 51215011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.08	Peak Tail	fergusond	12/15/14 16:48

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 130711

Lab Sample ID: MB 180-130711/4 Client Sample ID:

Date Analyzed: 01/14/15 12:17 Lab File ID: 50114004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.15	Split Peak	fergusond	01/14/15 13:04

Lab Sample ID: 180-40434-2 Client Sample ID: HD-COD-SW-7-0/1-0

Date Analyzed: 01/14/15 16:47 Lab File ID: 50114014.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	7.67	Split Peak	fergusond	01/15/15 08:20

Lab Sample ID: 180-40434-4 Client Sample ID: HD-COD-SW-9-0/1-0

Date Analyzed: 01/14/15 17:35 Lab File ID: 50114016.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	9.53	Split Peak	fergusond	01/15/15 08:23

Lab Sample ID: 180-40434-6 Client Sample ID: HD-COD-SW-11-0/1-0

Date Analyzed: 01/14/15 18:23 Lab File ID: 50114018.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Split Peak	fergusond	01/15/15 08:25
Chloroform	6.33	Split Peak	fergusond	01/15/15 08:25

Lab Sample ID: 180-40434-7 Client Sample ID: HD-COD-SW-12-0/1-0

Date Analyzed: 01/14/15 19:11 Lab File ID: 50114020.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toluene	9.00	Split Peak	fergusond	01/15/15 08:27

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 130711

Lab Sample ID: 180-40434-9 Client Sample ID: HD-COD-SW-15-0/1-0

Date Analyzed: 01/14/15 20:00 Lab File ID: 50114022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.50	Split Peak	fergusond	01/15/15 08:30
Chloroform	6.34	Split Peak	fergusond	01/15/15 08:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 130838

Lab Sample ID: 180-40434-22 Client Sample ID: HD-MW-107-0/1-0

Date Analyzed: 01/15/15 14:33 Lab File ID: 50115010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.35	Split Peak	fergusond	01/15/15 15:48

Lab Sample ID: LCS 180-130838/12 Client Sample ID:

Date Analyzed: 01/15/15 15:21 Lab File ID: 50115012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	01/15/15 15:45

Lab Sample ID: 180-40434-22 MS Client Sample ID: HD-MW-107-0/1-0 MS

Date Analyzed: 01/15/15 15:45 Lab File ID: 50115013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	01/15/15 16:15

Lab Sample ID: 180-40434-22 MSD Client Sample ID: HD-MW-107-0/1-0 MSD

Date Analyzed: 01/15/15 16:09 Lab File ID: 50115014.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	01/16/15 07:50

Lab Sample ID: 180-40434-13 Client Sample ID: HD-COD-SW-26-0/1-0

Date Analyzed: 01/15/15 18:10 Lab File ID: 50115019.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Split Peak	fergusond	01/16/15 07:57
Chloroform	6.34	Split Peak	fergusond	01/16/15 07:57
Trichloroethene	7.66	Split Peak	fergusond	01/16/15 07:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 130838

Lab Sample ID: 180-40434-14 Client Sample ID: HD-COD-SW-27-0/1-0

Date Analyzed: 01/15/15 18:34 Lab File ID: 50115020.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.39	Split Peak	fergusond	01/16/15 07:59

Lab Sample ID: 180-40434-15 Client Sample ID: HD-COD-SW-28-0/1-0

Date Analyzed: 01/15/15 18:58 Lab File ID: 50115021.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.35	Split Peak	fergusond	01/16/15 08:07
Tetrachloroethene	9.54	Split Peak	fergusond	01/16/15 08:07

Lab Sample ID: 180-40434-16 Client Sample ID: HD-COD-SW-29-0/1-0

Date Analyzed: 01/15/15 19:47 Lab File ID: 50115023.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.50	Split Peak	fergusond	01/16/15 08:11
Trichloroethene	7.68	Split Peak	fergusond	01/16/15 08:11

Lab Sample ID: 180-40434-20 Client Sample ID: HD-QC1-0/1-3

Date Analyzed: 01/15/15 20:11 Lab File ID: 50115024.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.51	Split Peak	fergusond	01/16/15 08:12

Lab Sample ID: 180-40434-21 Client Sample ID: HD-QC1-0/1-4

Date Analyzed: 01/15/15 20:35 Lab File ID: 50115025.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylbenzene	10.51	Split Peak	fergusond	01/16/15 08:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 130838

Lab Sample ID: 180-40434-25 DL Client Sample ID: HD-MW-37S-0/1-0 DL

Date Analyzed: 01/15/15 22:36 Lab File ID: 50115030.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.38	Split Peak	fergusond	01/16/15 08:28

Lab Sample ID: 180-40434-11 Client Sample ID: HD-COD-SW-17-0/1-0

Date Analyzed: 01/15/15 23:00 Lab File ID: 50115031.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.33	Split Peak	fergusond	01/16/15 08:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 130947

Lab Sample ID: CCVIS 180-130947/2 Client Sample ID:

Date Analyzed: 01/16/15 12:52 Lab File ID: 50116002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Peak Tail	fergusond	01/16/15 13:30

Lab Sample ID: 180-40434-23 DL Client Sample ID: HD-MW-93S-0/1-0 DL

Date Analyzed: 01/16/15 15:45 Lab File ID: 50116012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene	10.40	Split Peak	fergusond	01/19/15 07:32

Lab Sample ID: 180-40434-23 Client Sample ID: HD-MW-93S-0/1-0

Date Analyzed: 01/16/15 22:59 Lab File ID: 50116030.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.49	Split Peak	fergusond	01/19/15 08:21
Chloroform	6.35	Split Peak	fergusond	01/19/15 08:21

Lab Sample ID: 180-40434-25 Client Sample ID: HD-MW-37S-0/1-0

Date Analyzed: 01/16/15 23:23 Lab File ID: 50116031.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,2-Dichloroethene	4.60	Split Peak	fergusond	01/19/15 08:23

SAMPLE SUMMARY

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-40434-1	HD-COD-SW-6-0/1-0	Water	01/13/2015 1340	01/13/2015 1825
180-40434-2	HD-COD-SW-7-0/1-0	Water	01/13/2015 1150	01/13/2015 1825
180-40434-3	HD-COD-SW-8-0/1-0	Water	01/13/2015 0920	01/13/2015 1825
180-40434-4	HD-COD-SW-9-0/1-0	Water	01/13/2015 1210	01/13/2015 1825
180-40434-5	HD-COD-SW-10-0/1-0	Water	01/13/2015 0955	01/13/2015 1825
180-40434-6	HD-COD-SW-11-0/1-0	Water	01/13/2015 1240	01/13/2015 1825
180-40434-7	HD-COD-SW-12-0/1-0	Water	01/13/2015 1255	01/13/2015 1825
180-40434-8	HD-COD-SW-13-0/1-0	Water	01/13/2015 0945	01/13/2015 1825
180-40434-9	HD-COD-SW-15-0/1-0	Water	01/13/2015 1315	01/13/2015 1825
180-40434-10	HD-COD-SW-16-0/1-0	Water	01/13/2015 1015	01/13/2015 1825
180-40434-11	HD-COD-SW-17-0/1-0	Water	01/13/2015 1033	01/13/2015 1825
180-40434-12	HD-COD-SW-20-0/1-0	Water	01/13/2015 1055	01/13/2015 1825
180-40434-13	HD-COD-SW-26-0/1-0	Water	01/13/2015 1135	01/13/2015 1825
180-40434-14	HD-COD-SW-27-0/1-0	Water	01/13/2015 1325	01/13/2015 1825
180-40434-15	HD-COD-SW-28-0/1-0	Water	01/13/2015 1230	01/13/2015 1825
180-40434-16	HD-COD-SW-29-0/1-0	Water	01/13/2015 0902	01/13/2015 1825
180-40434-17	HD-QC1-0/1-2	Water	01/13/2015 1200	01/13/2015 1825
180-40434-18	HD-QC1-0/1-1	Water	01/13/2015 0800	01/13/2015 1825
180-40434-19	HD-QC2-0/1-2	Water	01/13/2015 1201	01/13/2015 1825
180-40434-20	HD-QC1-0/1-3	Water	01/13/2015 1427	01/13/2015 1825
180-40434-21	HD-QC1-0/1-4	Water	01/13/2015 1430	01/13/2015 1825
180-40434-22	HD-MW-107-0/1-0	Water	01/13/2015 1010	01/13/2015 1825
180-40434-22MS	HD-MW-107-0/1-0	Water	01/13/2015 1010	01/13/2015 1825
180-40434-22MSD	HD-MW-107-0/1-0	Water	01/13/2015 1010	01/13/2015 1825
180-40434-22DU	HD-MW-107-0/1-0	Water	01/13/2015 1010	01/13/2015 1825
180-40434-23	HD-MW-93S-0/1-0	Water	01/13/2015 1150	01/13/2015 1825
180-40434-24	HD-MW-93D-0/1-0	Water	01/13/2015 1300	01/13/2015 1825
180-40434-25	HD-MW-37S-0/1-0	Water	01/13/2015 1415	01/13/2015 1825

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-1	**HD-COD-SW-6-0/1-0**					
Calcium		43000	B	100	ug/L	6020A
Potassium		3500	B	100	ug/L	6020A
Magnesium		8500	B	100	ug/L	6020A
Sodium		95000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		91	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		91	B	5.0	mg/L	SM 2320B
Nitrate as N		2.6	B	0.10	mg/L	300.0
Chloride		190		1.0	mg/L	300.0
Sulfate		19		1.0	mg/L	300.0
180-40434-2	**HD-COD-SW-7-0/1-0**					
Calcium		33000	B	100	ug/L	6020A
Potassium		6500	B	100	ug/L	6020A
Magnesium		8100	B	100	ug/L	6020A
Sodium		56000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		95	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		95	B	5.0	mg/L	SM 2320B
Nitrate as N		3.3	B	0.10	mg/L	300.0
Chloride		88		1.0	mg/L	300.0
Sulfate		42		1.0	mg/L	300.0
180-40434-3	**HD-COD-SW-8-0/1-0**					
cis-1,2-Dichloroethene		0.40	J	1.0	ug/L	8260C
Trichloroethene		0.49	J	1.0	ug/L	8260C
Tetrachloroethene		0.82	J	1.0	ug/L	8260C
Calcium		34000	B	100	ug/L	6020A
Potassium		7700	B	100	ug/L	6020A
Magnesium		7600	B	100	ug/L	6020A
Sodium		69000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		95	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		95	B	5.0	mg/L	SM 2320B
Nitrate as N		3.1	B	0.10	mg/L	300.0
Chloride		100		1.0	mg/L	300.0
Sulfate		53		1.0	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-4	**HD-COD-SW-9-0/1-0**					
cis-1,2-Dichloroethene		0.45	J	1.0	ug/L	8260C
Trichloroethene		0.38	J	1.0	ug/L	8260C
Tetrachloroethene		0.15	J	1.0	ug/L	8260C
Calcium		43000	B	100	ug/L	6020A
Potassium		8600	B	100	ug/L	6020A
Magnesium		9400	B	100	ug/L	6020A
Sodium		72000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		130	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		130	B	5.0	mg/L	SM 2320B
Nitrate as N		4.2	B	0.10	mg/L	300.0
Chloride		120		1.0	mg/L	300.0
Sulfate		41		1.0	mg/L	300.0
180-40434-5	**HD-COD-SW-10-0/1-0**					
Calcium		45000	B	100	ug/L	6020A
Potassium		4600	B	100	ug/L	6020A
Magnesium		6800	B	100	ug/L	6020A
Sodium		100000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		99	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		99	B	5.0	mg/L	SM 2320B
Nitrate as N		1.2	B	0.10	mg/L	300.0
Chloride		210		5.0	mg/L	300.0
Sulfate		15		1.0	mg/L	300.0
180-40434-6	**HD-COD-SW-11-0/1-0**					
Calcium		64000	B	100	ug/L	6020A
Potassium		2200	B	100	ug/L	6020A
Magnesium		14000	B	100	ug/L	6020A
Sodium		36000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		180	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		170	B	5.0	mg/L	SM 2320B
Carbonate Alkalinity as CaCO3		7.9		5.0	mg/L	SM 2320B
Nitrate as N		3.2	B	0.10	mg/L	300.0
Chloride		81		1.0	mg/L	300.0
Sulfate		21		1.0	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-7	**HD-COD-SW-12-0/1-0**					
Chloroform		0.18	J	1.0	ug/L	8260C
Calcium		53000	B	100	ug/L	6020A
Potassium		15000	B	100	ug/L	6020A
Magnesium		9400	B	100	ug/L	6020A
Sodium		120000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		160	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		160	B	5.0	mg/L	SM 2320B
Nitrate as N		7.2	B	0.10	mg/L	300.0
Chloride		230		5.0	mg/L	300.0
Sulfate		42		1.0	mg/L	300.0
180-40434-8	**HD-COD-SW-13-0/1-0**					
cis-1,2-Dichloroethene		0.49	J	1.0	ug/L	8260C
Trichloroethene		0.66	J	1.0	ug/L	8260C
Tetrachloroethene		1.2		1.0	ug/L	8260C
Calcium		35000	B	100	ug/L	6020A
Potassium		7700	B	100	ug/L	6020A
Magnesium		7700	B	100	ug/L	6020A
Sodium		70000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		97	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		97	B	5.0	mg/L	SM 2320B
Nitrate as N		3.2	B	0.10	mg/L	300.0
Chloride		110		1.0	mg/L	300.0
Sulfate		54		1.0	mg/L	300.0
180-40434-9	**HD-COD-SW-15-0/1-0**					
1,1-Dichloroethene		0.98	J	1.0	ug/L	8260C
1,1-Dichloroethane		0.31	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		19		1.0	ug/L	8260C
Chloroform		0.21	J	1.0	ug/L	8260C
1,1,1-Trichloroethane		1.6		1.0	ug/L	8260C
Trichloroethene		14		1.0	ug/L	8260C
Tetrachloroethene		9.0		1.0	ug/L	8260C
Calcium		89000	B	100	ug/L	6020A
Potassium		5900	B	100	ug/L	6020A
Magnesium		16000	B	100	ug/L	6020A
Sodium		48000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		230	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		230	B	5.0	mg/L	SM 2320B
Nitrate as N		3.5	B	0.10	mg/L	300.0
Chloride		110		1.0	mg/L	300.0
Sulfate		33		1.0	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-10	**HD-COD-SW-16-0/1-0**					
cis-1,2-Dichloroethene		0.44	J	1.0	ug/L	8260C
Trichloroethene		0.72	J	1.0	ug/L	8260C
Tetrachloroethene		1.7		1.0	ug/L	8260C
Calcium		33000	B	100	ug/L	6020A
Potassium		7200	B	100	ug/L	6020A
Magnesium		7600	B	100	ug/L	6020A
Sodium		69000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		99	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		99	B	5.0	mg/L	SM 2320B
Nitrate as N		3.3	B	0.10	mg/L	300.0
Chloride		110		1.0	mg/L	300.0
Sulfate		50		1.0	mg/L	300.0
180-40434-11	**HD-COD-SW-17-0/1-0**					
1,1-Dichloroethene		4.6		2.0	ug/L	8260C
trans-1,2-Dichloroethene		0.40	J	2.0	ug/L	8260C
1,1-Dichloroethane		2.7		2.0	ug/L	8260C
cis-1,2-Dichloroethene		55		2.0	ug/L	8260C
1,1,1-Trichloroethane		27		2.0	ug/L	8260C
Trichloroethene		100		20	ug/L	8260C
Tetrachloroethene		270		20	ug/L	8260C
Calcium		93000	B	100	ug/L	6020A
Potassium		6800	B	100	ug/L	6020A
Magnesium		18000	B	100	ug/L	6020A
Sodium		52000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		240	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		240	B	5.0	mg/L	SM 2320B
Nitrate as N		3.4	B	0.10	mg/L	300.0
Chloride		130		1.0	mg/L	300.0
Sulfate		34		1.0	mg/L	300.0
180-40434-12	**HD-COD-SW-20-0/1-0**					
Calcium		45000	B	100	ug/L	6020A
Potassium		3200	B	100	ug/L	6020A
Magnesium		8600	B	100	ug/L	6020A
Sodium		110000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		93	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		93	B	5.0	mg/L	SM 2320B
Nitrate as N		2.5	B	0.10	mg/L	300.0
Chloride		220		5.0	mg/L	300.0
Sulfate		15		1.0	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-13	**HD-COD-SW-26-0/1-0**					
Trichloroethene		0.18	J	1.0	ug/L	8260C
Tetrachloroethene		0.16	J	1.0	ug/L	8260C
Calcium		42000	B	100	ug/L	6020A
Potassium		6700	B	100	ug/L	6020A
Magnesium		9900	B	100	ug/L	6020A
Sodium		66000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		120	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		120	B	5.0	mg/L	SM 2320B
Nitrate as N		3.4	B	0.10	mg/L	300.0
Chloride		110		1.0	mg/L	300.0
Sulfate		43		1.0	mg/L	300.0
180-40434-14	**HD-COD-SW-27-0/1-0**					
cis-1,2-Dichloroethene		3.5		1.0	ug/L	8260C
1,1,1-Trichloroethane		0.30	J	1.0	ug/L	8260C
Trichloroethene		2.7		1.0	ug/L	8260C
Tetrachloroethene		2.0		1.0	ug/L	8260C
Calcium		65000	B	100	ug/L	6020A
Potassium		6800	B	100	ug/L	6020A
Magnesium		14000	B	100	ug/L	6020A
Sodium		59000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		170	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		170	B	5.0	mg/L	SM 2320B
Nitrate as N		3.8	B	0.10	mg/L	300.0
Chloride		110		1.0	mg/L	300.0
Sulfate		38		1.0	mg/L	300.0
180-40434-15	**HD-COD-SW-28-0/1-0**					
cis-1,2-Dichloroethene		0.42	J	1.0	ug/L	8260C
Trichloroethene		0.33	J	1.0	ug/L	8260C
Tetrachloroethene		0.23	J	1.0	ug/L	8260C
Calcium		51000	B	100	ug/L	6020A
Potassium		8100	B	100	ug/L	6020A
Magnesium		11000	B	100	ug/L	6020A
Sodium		71000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		130	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		130	B	5.0	mg/L	SM 2320B
Nitrate as N		4.3	B	0.10	mg/L	300.0
Chloride		120		1.0	mg/L	300.0
Sulfate		36		1.0	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-16	**HD-COD-SW-29-0/1-0**					
Trichloroethene		0.32	J	1.0	ug/L	8260C
Tetrachloroethene		0.56	J	1.0	ug/L	8260C
Calcium		37000	B	100	ug/L	6020A
Potassium		8700	B	100	ug/L	6020A
Magnesium		8100	B	100	ug/L	6020A
Sodium		72000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		230	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		230	B	5.0	mg/L	SM 2320B
Nitrate as N		3.1	B	0.10	mg/L	300.0
Chloride		92		1.0	mg/L	300.0
Sulfate		56		1.0	mg/L	300.0
180-40434-18	**HD-QC1-0/1-1**					
1,1-Dichloroethene		4.2	J	8.0	ug/L	8260C
1,1-Dichloroethane		4.4	J	8.0	ug/L	8260C
cis-1,2-Dichloroethene		93		8.0	ug/L	8260C
1,1,1-Trichloroethane		18		8.0	ug/L	8260C
Trichloroethene		57		8.0	ug/L	8260C
Tetrachloroethene		270		8.0	ug/L	8260C
Calcium		97000	B	100	ug/L	6020A
Potassium		29000	B	100	ug/L	6020A
Magnesium		22000	B	100	ug/L	6020A
Sodium		66000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		270	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		270	B	5.0	mg/L	SM 2320B
Nitrate as N		3.5	B	0.10	mg/L	300.0
Chloride		170		1.0	mg/L	300.0
Sulfate		26		1.0	mg/L	300.0
180-40434-20	**HD-QC1-0/1-3**					
Benzene		0.19	J	1.0	ug/L	8260C
Toluene		0.99	J	1.0	ug/L	8260C
Xylenes, Total		0.75	J	3.0	ug/L	8260C
180-40434-21	**HD-QC1-0/1-4**					
Benzene		0.22	J	1.0	ug/L	8260C
Toluene		1.1		1.0	ug/L	8260C
Xylenes, Total		0.80	J	3.0	ug/L	8260C

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-22	**HD-MW-107-0/1-0**					
1,1-Dichloroethene		5.1		5.0	ug/L	8260C
1,1-Dichloroethane		4.9	J	5.0	ug/L	8260C
cis-1,2-Dichloroethene		110		5.0	ug/L	8260C
1,1,1-Trichloroethane		18		5.0	ug/L	8260C
Trichloroethene		51		5.0	ug/L	8260C
Tetrachloroethene		83		5.0	ug/L	8260C
Calcium		120000	B	100	ug/L	6020A
Potassium		26000	B	100	ug/L	6020A
Magnesium		29000	B	100	ug/L	6020A
Sodium		57000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		280	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		280	B	5.0	mg/L	SM 2320B
Nitrate as N		5.5	B	0.10	mg/L	300.0
Chloride		180		1.0	mg/L	300.0
Sulfate		40		1.0	mg/L	300.0
180-40434-23	**HD-MW-93S-0/1-0**					
1,1-Dichloroethene		0.34	J	1.0	ug/L	8260C
trans-1,2-Dichloroethene		0.42	J	1.0	ug/L	8260C
1,1-Dichloroethane		0.77	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		95		5.0	ug/L	8260C
1,1,1-Trichloroethane		2.3		1.0	ug/L	8260C
Trichloroethene		24		1.0	ug/L	8260C
Tetrachloroethene		40		5.0	ug/L	8260C
Chlorobenzene		0.32	J	1.0	ug/L	8260C
Calcium		73000	B	100	ug/L	6020A
Potassium		21000	B	100	ug/L	6020A
Magnesium		18000	B	100	ug/L	6020A
Sodium		71000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		200	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		200	B	5.0	mg/L	SM 2320B
Nitrate as N		2.2	B	0.10	mg/L	300.0
Chloride		140		1.0	mg/L	300.0
Sulfate		29		1.0	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-40434-24	**HD-MW-93D-0/1-0**					
Vinyl chloride		2.9	J	10	ug/L	8260C
1,1-Dichloroethene		5.8	J	10	ug/L	8260C
1,1-Dichloroethane		4.5	J	10	ug/L	8260C
cis-1,2-Dichloroethene		170		10	ug/L	8260C
1,1,1-Trichloroethane		15		10	ug/L	8260C
Trichloroethene		250		10	ug/L	8260C
Tetrachloroethene		260		10	ug/L	8260C
Calcium		81000	B	100	ug/L	6020A
Potassium		6600	B	100	ug/L	6020A
Magnesium		15000	B	100	ug/L	6020A
Sodium		41000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		190	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		190	B	5.0	mg/L	SM 2320B
Nitrate as N		0.65	B	0.10	mg/L	300.0
Chloride		100		1.0	mg/L	300.0
Sulfate		27		1.0	mg/L	300.0
180-40434-25	**HD-MW-37S-0/1-0**					
1,1-Dichloroethene		4.6		2.0	ug/L	8260C
trans-1,2-Dichloroethene		0.54	J	2.0	ug/L	8260C
1,1-Dichloroethane		4.9		2.0	ug/L	8260C
cis-1,2-Dichloroethene		100		20	ug/L	8260C
Chloroform		0.44	J	2.0	ug/L	8260C
1,1,1-Trichloroethane		24		2.0	ug/L	8260C
Trichloroethene		70		2.0	ug/L	8260C
Tetrachloroethene		260		20	ug/L	8260C
Calcium		90000	B	100	ug/L	6020A
Potassium		27000	B	100	ug/L	6020A
Magnesium		21000	B	100	ug/L	6020A
Sodium		64000	B	100	ug/L	6020A
Total Alkalinity as CaCO3 to pH 4.5		240	B	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		240	B	5.0	mg/L	SM 2320B
Nitrate as N		3.5	B	0.10	mg/L	300.0
Chloride		170		1.0	mg/L	300.0
Sulfate		25		1.0	mg/L	300.0

METHOD SUMMARY

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL PIT	SW846 8260C	
Purge and Trap	TAL PIT		SW846 5030C
Anions, Ion Chromatography	TAL PIT	MCAWW 300.0	
Metals (ICP/MS)	TAL PIT	SW846 6020A	
Preparation, Total Recoverable or Dissolved Metals	TAL PIT		SW846 3005A
Alkalinity	TAL PIT	SM SM 2320B	

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method 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.

METHOD / ANALYST SUMMARY

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method	Analyst	Analyst ID
SW846 8260C	Ferguson, Donald	DLF
SW846 6020A	Ferguson, Caitlin N	CNF
SM SM 2320B	Loheyde, Cheryl	CLL
MCAWW 300.0	Hartman, Matthew	MJH

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-6-0/1-0**

Lab Sample ID: 180-40434-1 Date Sampled: 01/13/2015 1340
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114013.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1623			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1623				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	101		70 - 118
Dibromofluoromethane (Surr)	106		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-6-0/1-0**

Lab Sample ID: 180-40434-1
Client Matrix: Water

Date Sampled: 01/13/2015 1340
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114013.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1623			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1623				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-7-0/1-0**

Lab Sample ID: 180-40434-2 Date Sampled: 01/13/2015 1150
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114014.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1647			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1647				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	99		70 - 118
Dibromofluoromethane (Surr)	110		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-7-0/1-0**

Lab Sample ID: 180-40434-2
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114014.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1647			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1647				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-8-0/1-0**

Lab Sample ID: 180-40434-3 Date Sampled: 01/13/2015 0920
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114015.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1711			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1711				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	0.40	J	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	0.49	J	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U *	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	0.82	J	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	98		70 - 118
Dibromofluoromethane (Surr)	105		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-8-0/1-0**

Lab Sample ID: 180-40434-3
Client Matrix: Water

Date Sampled: 01/13/2015 0920
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114015.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1711			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1711				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-9-0/1-0**

Lab Sample ID: 180-40434-4 Date Sampled: 01/13/2015 1210
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114016.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1735			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1735				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	0.45	J	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	0.38	J	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U *	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	0.15	J	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		64 - 135
Toluene-d8 (Surr)	96		71 - 118
4-Bromofluorobenzene (Surr)	90		70 - 118
Dibromofluoromethane (Surr)	108		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-9-0/1-0**

Lab Sample ID: 180-40434-4
Client Matrix: Water

Date Sampled: 01/13/2015 1210
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114016.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1735			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1735				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-10-0/1-0**

Lab Sample ID: 180-40434-5 Date Sampled: 01/13/2015 0955
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114017.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1759			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1759				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	110		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-10-0/1-0**

Lab Sample ID: 180-40434-5
Client Matrix: Water

Date Sampled: 01/13/2015 0955
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114017.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1759			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1759				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-11-0/1-0**

Lab Sample ID: 180-40434-6 Date Sampled: 01/13/2015 1240
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114018.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1823			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1823				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		64 - 135
Toluene-d8 (Surr)	97		71 - 118
4-Bromofluorobenzene (Surr)	101		70 - 118
Dibromofluoromethane (Surr)	111		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-11-0/1-0**

Lab Sample ID: 180-40434-6
Client Matrix: Water

Date Sampled: 01/13/2015 1240
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114018.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1823			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1823				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-12-0/1-0**

Lab Sample ID: 180-40434-7 Date Sampled: 01/13/2015 1255
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114020.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1911			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1911				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	97		70 - 118
Dibromofluoromethane (Surr)	109		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-12-0/1-0**

Lab Sample ID: 180-40434-7
Client Matrix: Water

Date Sampled: 01/13/2015 1255
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114020.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1911			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1911				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-13-0/1-0**

Lab Sample ID: 180-40434-8 Date Sampled: 01/13/2015 0945
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114021.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1936			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1936				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	0.49	J	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	0.66	J	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U *	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	1.2		0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 135
Toluene-d8 (Surr)	102		71 - 118
4-Bromofluorobenzene (Surr)	95		70 - 118
Dibromofluoromethane (Surr)	110		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-13-0/1-0**

Lab Sample ID: 180-40434-8
Client Matrix: Water

Date Sampled: 01/13/2015 0945
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114021.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1936			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1936				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-15-0/1-0**

Lab Sample ID: 180-40434-9 Date Sampled: 01/13/2015 1315
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114022.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 2000			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 2000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	0.98	J	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	0.31	J	0.12	1.0
cis-1,2-Dichloroethene	19		0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	0.21	J	0.17	1.0
1,1,1-Trichloroethane	1.6		0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	14		0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U *	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	9.0		0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 135
Toluene-d8 (Surr)	97		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	112		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-15-0/1-0**

Lab Sample ID: 180-40434-9
Client Matrix: Water

Date Sampled: 01/13/2015 1315
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114022.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 2000			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 2000				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-16-0/1-0**

Lab Sample ID: 180-40434-10 Date Sampled: 01/13/2015 1015
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114023.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 2024			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 2024				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	0.44	J	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	0.72	J	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U *	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	1.7		0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		64 - 135
Toluene-d8 (Surr)	102		71 - 118
4-Bromofluorobenzene (Surr)	102		70 - 118
Dibromofluoromethane (Surr)	111		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-16-0/1-0**

Lab Sample ID: 180-40434-10
Client Matrix: Water

Date Sampled: 01/13/2015 1015
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114023.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 2024			Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 2024				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11 Date Sampled: 01/13/2015 1033
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115031.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2300			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2300				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	2.0	U	0.57	2.0
Vinyl chloride	2.0	U	0.45	2.0
Bromomethane	2.0	U	0.63	2.0
Chloroethane	2.0	U	0.43	2.0
1,1-Dichloroethene	4.6		0.59	2.0
Acetone	10	U	5.0	10
Carbon disulfide	2.0	U	0.42	2.0
Methylene Chloride	2.0	U	0.25	2.0
trans-1,2-Dichloroethene	0.40	J	0.34	2.0
Methyl tert-butyl ether	2.0	U	0.37	2.0
1,1-Dichloroethane	2.7		0.23	2.0
cis-1,2-Dichloroethene	55		0.47	2.0
Bromochloromethane	2.0	U	0.36	2.0
2-Butanone (MEK)	10	U	1.1	10
Chloroform	2.0	U	0.34	2.0
1,1,1-Trichloroethane	27		0.57	2.0
Carbon tetrachloride	2.0	U	0.27	2.0
Benzene	2.0	U	0.21	2.0
1,2-Dichloroethane	2.0	U	0.42	2.0
Trichloroethene	120	E	0.29	2.0
1,2-Dichloropropane	2.0	U	0.19	2.0
Bromodichloromethane	2.0	U	0.26	2.0
cis-1,3-Dichloropropene	2.0	U	0.37	2.0
4-Methyl-2-pentanone (MIBK)	10	U	1.1	10
Toluene	2.0	U	0.30	2.0
trans-1,3-Dichloropropene	2.0	U	0.30	2.0
1,1,2-Trichloroethane	2.0	U	0.40	2.0
Tetrachloroethene	330	E	0.30	2.0
2-Hexanone	10	U	0.32	10
Dibromochloromethane	2.0	U	0.27	2.0
1,2-Dibromoethane (EDB)	2.0	U	0.36	2.0
Chlorobenzene	2.0	U	0.27	2.0
1,1,1,2-Tetrachloroethane	2.0	U	0.55	2.0
Ethylbenzene	2.0	U	0.45	2.0
Xylenes, Total	6.0	U	0.98	6.0
Styrene	2.0	U	0.19	2.0
Bromoform	2.0	U	0.38	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.40	2.0
Acrylonitrile	40	U	1.1	40
1,4-Dioxane	400	U	69	400

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	95		70 - 118
Dibromofluoromethane (Surr)	110		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11
Client Matrix: Water

Date Sampled: 01/13/2015 1033
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115031.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2300			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2300				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11 Date Sampled: 01/13/2015 1033
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114024.D
Dilution:	20			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 2048	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 2048				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	20	U	5.7	20
Vinyl chloride	20	U	4.5	20
Bromomethane	20	U	6.3	20
Chloroethane	20	U	4.3	20
1,1-Dichloroethene	20	U	5.9	20
Acetone	100	U	50	100
Carbon disulfide	20	U	4.2	20
Methylene Chloride	20	U	2.5	20
trans-1,2-Dichloroethene	20	U	3.4	20
Methyl tert-butyl ether	20	U	3.7	20
1,1-Dichloroethane	20	U	2.3	20
cis-1,2-Dichloroethene	51		4.7	20
Bromochloromethane	20	U	3.6	20
2-Butanone (MEK)	100	U	11	100
Chloroform	20	U	3.4	20
1,1,1-Trichloroethane	25		5.7	20
Carbon tetrachloride	20	U	2.7	20
Benzene	20	U	2.1	20
1,2-Dichloroethane	20	U	4.2	20
Trichloroethene	100		2.9	20
1,2-Dichloropropane	20	U	1.9	20
Bromodichloromethane	20	U	2.6	20
cis-1,3-Dichloropropene	20	U	3.7	20
4-Methyl-2-pentanone (MIBK)	100	U	11	100
Toluene	20	U	3.0	20
trans-1,3-Dichloropropene	20	U *	3.0	20
1,1,2-Trichloroethane	20	U	4.0	20
Tetrachloroethene	270		3.0	20
2-Hexanone	100	U	3.2	100
Dibromochloromethane	20	U	2.7	20
1,2-Dibromoethane (EDB)	20	U	3.6	20
Chlorobenzene	20	U	2.7	20
1,1,1,2-Tetrachloroethane	20	U	5.5	20
Ethylbenzene	20	U	4.5	20
Xylenes, Total	60	U	9.8	60
Styrene	20	U	1.9	20
Bromoform	20	U	3.8	20
1,1,2,2-Tetrachloroethane	20	U	4.0	20
Acrylonitrile	400	U	11	400
1,4-Dioxane	4000	U	690	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	95		70 - 118
Dibromofluoromethane (Surr)	112		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11
Client Matrix: Water

Date Sampled: 01/13/2015 1033
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50114024.D
Dilution:	20			Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 2048	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 2048				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-20-0/1-0**

Lab Sample ID: 180-40434-12 Date Sampled: 01/13/2015 1055
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115018.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1746			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1746				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 135
Toluene-d8 (Surr)	102		71 - 118
4-Bromofluorobenzene (Surr)	100		70 - 118
Dibromofluoromethane (Surr)	107		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-20-0/1-0**

Lab Sample ID: 180-40434-12
Client Matrix: Water

Date Sampled: 01/13/2015 1055
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115018.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1746			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1746				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-26-0/1-0**

Lab Sample ID: 180-40434-13 Date Sampled: 01/13/2015 1135
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115019.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1810			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1810				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		64 - 135
Toluene-d8 (Surr)	104		71 - 118
4-Bromofluorobenzene (Surr)	101		70 - 118
Dibromofluoromethane (Surr)	109		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-26-0/1-0**

Lab Sample ID: 180-40434-13
Client Matrix: Water

Date Sampled: 01/13/2015 1135
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115019.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1810			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1810				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-27-0/1-0**

Lab Sample ID: 180-40434-14 Date Sampled: 01/13/2015 1325
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115020.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1834			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1834				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	3.5		0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	0.30	J	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	2.7		0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	2.0		0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	94		70 - 118
Dibromofluoromethane (Surr)	110		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-27-0/1-0**

Lab Sample ID: 180-40434-14
Client Matrix: Water

Date Sampled: 01/13/2015 1325
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115020.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1834			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1834				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-28-0/1-0**

Lab Sample ID: 180-40434-15 Date Sampled: 01/13/2015 1230
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115021.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1858			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1858				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	0.42	J	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	0.33	J	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	0.23	J	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	93		70 - 118
Dibromofluoromethane (Surr)	111		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-28-0/1-0**

Lab Sample ID: 180-40434-15
Client Matrix: Water

Date Sampled: 01/13/2015 1230
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115021.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1858			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1858				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-29-0/1-0**

Lab Sample ID: 180-40434-16 Date Sampled: 01/13/2015 0902
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115023.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1947			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1947				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	1.0	U	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	0.32	J	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	0.56	J	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 135
Toluene-d8 (Surr)	104		71 - 118
4-Bromofluorobenzene (Surr)	95		70 - 118
Dibromofluoromethane (Surr)	114		70 - 128

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-29-0/1-0**

Lab Sample ID: 180-40434-16 Date Sampled: 01/13/2015 0902
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115023.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1947			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1947				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-2**

Lab Sample ID: 180-40434-17 Date Sampled: 01/13/2015 1200
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115011.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1457			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1457				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 135
Toluene-d8 (Surr)	99		71 - 118
4-Bromofluorobenzene (Surr)	93		70 - 118
Dibromofluoromethane (Surr)	105		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-2**

Lab Sample ID: 180-40434-17
Client Matrix: Water

Date Sampled: 01/13/2015 1200
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115011.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1457			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1457				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-1**

Lab Sample ID: 180-40434-18 Date Sampled: 01/13/2015 0800
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115022.D
Dilution:	8.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1922			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1922				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	8.0	U	2.3	8.0
Vinyl chloride	8.0	U	1.8	8.0
Bromomethane	8.0	U	2.5	8.0
Chloroethane	8.0	U	1.7	8.0
1,1-Dichloroethene	4.2	J	2.4	8.0
Acetone	40	U	20	40
Carbon disulfide	8.0	U	1.7	8.0
Methylene Chloride	8.0	U	1.0	8.0
trans-1,2-Dichloroethene	8.0	U	1.4	8.0
Methyl tert-butyl ether	8.0	U	1.5	8.0
1,1-Dichloroethane	4.4	J	0.93	8.0
cis-1,2-Dichloroethene	93		1.9	8.0
Bromochloromethane	8.0	U	1.4	8.0
2-Butanone (MEK)	40	U	4.4	40
Chloroform	8.0	U	1.4	8.0
1,1,1-Trichloroethane	18		2.3	8.0
Carbon tetrachloride	8.0	U	1.1	8.0
Benzene	8.0	U	0.84	8.0
1,2-Dichloroethane	8.0	U	1.7	8.0
Trichloroethene	57		1.1	8.0
1,2-Dichloropropane	8.0	U	0.76	8.0
Bromodichloromethane	8.0	U	1.0	8.0
cis-1,3-Dichloropropene	8.0	U	1.5	8.0
4-Methyl-2-pentanone (MIBK)	40	U	4.2	40
Toluene	8.0	U	1.2	8.0
trans-1,3-Dichloropropene	8.0	U	1.2	8.0
1,1,2-Trichloroethane	8.0	U	1.6	8.0
Tetrachloroethene	270		1.2	8.0
2-Hexanone	40	U	1.3	40
Dibromochloromethane	8.0	U	1.1	8.0
1,2-Dibromoethane (EDB)	8.0	U	1.4	8.0
Chlorobenzene	8.0	U	1.1	8.0
1,1,1,2-Tetrachloroethane	8.0	U	2.2	8.0
Ethylbenzene	8.0	U	1.8	8.0
Xylenes, Total	24	U	3.9	24
Styrene	8.0	U	0.77	8.0
Bromoform	8.0	U	1.5	8.0
1,1,2,2-Tetrachloroethane	8.0	U	1.6	8.0
Acrylonitrile	160	U	4.4	160
1,4-Dioxane	1600	U	270	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		64 - 135
Toluene-d8 (Surr)	99		71 - 118
4-Bromofluorobenzene (Surr)	98		70 - 118
Dibromofluoromethane (Surr)	108		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-1**

Lab Sample ID: 180-40434-18
Client Matrix: Water

Date Sampled: 01/13/2015 0800
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115022.D
Dilution:	8.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1922			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1922				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-QC2-0/1-2**

Lab Sample ID: 180-40434-19 Date Sampled: 01/13/2015 1201
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115026.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2059			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2059				

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

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	114		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC2-0/1-2**

Lab Sample ID: 180-40434-19
Client Matrix: Water

Date Sampled: 01/13/2015 1201
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115026.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2059			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2059				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-3**

Lab Sample ID: 180-40434-20 Date Sampled: 01/13/2015 1427
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115024.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2011			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2011				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	1.0	U	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	0.19	J	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	1.0	U	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	0.99	J	0.15	1.0
trans-1,3-Dichloropropene	1.0	U	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	1.0	U	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	0.75	J	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		64 - 135
Toluene-d8 (Surr)	101		71 - 118
4-Bromofluorobenzene (Surr)	100		70 - 118
Dibromofluoromethane (Surr)	107		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-3**

Lab Sample ID: 180-40434-20
Client Matrix: Water

Date Sampled: 01/13/2015 1427
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115024.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2011			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2011				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-4**

Lab Sample ID: 180-40434-21 Date Sampled: 01/13/2015 1430
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115025.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2035			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2035				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	1.0	U	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	1.0	U	0.12	1.0
cis-1,2-Dichloroethene	1.0	U	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	1.0	U	0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	0.22	J	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	1.0	U	0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.1		0.15	1.0
trans-1,3-Dichloropropene	1.0	U	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	1.0	U	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	1.0	U	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	0.80	J	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 135
Toluene-d8 (Surr)	97		71 - 118
4-Bromofluorobenzene (Surr)	97		70 - 118
Dibromofluoromethane (Surr)	114		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-4**

Lab Sample ID: 180-40434-21
Client Matrix: Water

Date Sampled: 01/13/2015 1430
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115025.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2035			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2035				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-MW-107-0/1-0**

Lab Sample ID: 180-40434-22 Date Sampled: 01/13/2015 1010
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115010.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1433			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1433				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	5.0	U	1.4	5.0
Vinyl chloride	5.0	U	1.1	5.0
Bromomethane	5.0	U	1.6	5.0
Chloroethane	5.0	U	1.1	5.0
1,1-Dichloroethene	5.1		1.5	5.0
Acetone	25	U	13	25
Carbon disulfide	5.0	U	1.1	5.0
Methylene Chloride	5.0	U	0.63	5.0
trans-1,2-Dichloroethene	5.0	U	0.85	5.0
Methyl tert-butyl ether	5.0	U	0.92	5.0
1,1-Dichloroethane	4.9	J	0.58	5.0
cis-1,2-Dichloroethene	110		1.2	5.0
Bromochloromethane	5.0	U	0.90	5.0
2-Butanone (MEK)	25	U	2.7	25
Chloroform	5.0	U	0.85	5.0
1,1,1-Trichloroethane	18		1.4	5.0
Carbon tetrachloride	5.0	U	0.68	5.0
Benzene	5.0	U	0.53	5.0
1,2-Dichloroethane	5.0	U	1.1	5.0
Trichloroethene	51		0.72	5.0
1,2-Dichloropropane	5.0	U	0.47	5.0
Bromodichloromethane	5.0	U	0.65	5.0
cis-1,3-Dichloropropene	5.0	U	0.93	5.0
4-Methyl-2-pentanone (MIBK)	25	U	2.6	25
Toluene	5.0	U	0.75	5.0
trans-1,3-Dichloropropene	5.0	U	0.74	5.0
1,1,2-Trichloroethane	5.0	U	1.0	5.0
Tetrachloroethene	83		0.74	5.0
2-Hexanone	25	U	0.80	25
Dibromochloromethane	5.0	U	0.68	5.0
1,2-Dibromoethane (EDB)	5.0	U	0.90	5.0
Chlorobenzene	5.0	U	0.68	5.0
1,1,1,2-Tetrachloroethane	5.0	U	1.4	5.0
Ethylbenzene	5.0	U	1.1	5.0
Xylenes, Total	15	U	2.4	15
Styrene	5.0	U	0.48	5.0
Bromoform	5.0	U	0.96	5.0
1,1,2,2-Tetrachloroethane	5.0	U	1.0	5.0
Acrylonitrile	100	U	2.7	100
1,4-Dioxane	1000	U	170	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	99		70 - 118
Dibromofluoromethane (Surr)	106		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-107-0/1-0**

Lab Sample ID: 180-40434-22
Client Matrix: Water

Date Sampled: 01/13/2015 1010
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115010.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1433			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1433				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23 Date Sampled: 01/13/2015 1150
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116030.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 2259			Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 2259				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	1.0	U	0.28	1.0
Vinyl chloride	1.0	U	0.23	1.0
Bromomethane	1.0	U	0.31	1.0
Chloroethane	1.0	U	0.21	1.0
1,1-Dichloroethene	0.34	J	0.30	1.0
Acetone	5.0	U	2.5	5.0
Carbon disulfide	1.0	U	0.21	1.0
Methylene Chloride	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	0.42	J	0.17	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
1,1-Dichloroethane	0.77	J	0.12	1.0
cis-1,2-Dichloroethene	110	E	0.24	1.0
Bromochloromethane	1.0	U	0.18	1.0
2-Butanone (MEK)	5.0	U	0.55	5.0
Chloroform	1.0	U	0.17	1.0
1,1,1-Trichloroethane	2.3		0.29	1.0
Carbon tetrachloride	1.0	U	0.14	1.0
Benzene	1.0	U	0.11	1.0
1,2-Dichloroethane	1.0	U	0.21	1.0
Trichloroethene	24		0.14	1.0
1,2-Dichloropropane	1.0	U	0.095	1.0
Bromodichloromethane	1.0	U	0.13	1.0
cis-1,3-Dichloropropene	1.0	U	0.19	1.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.53	5.0
Toluene	1.0	U	0.15	1.0
trans-1,3-Dichloropropene	1.0	U	0.15	1.0
1,1,2-Trichloroethane	1.0	U	0.20	1.0
Tetrachloroethene	48	E	0.15	1.0
2-Hexanone	5.0	U	0.16	5.0
Dibromochloromethane	1.0	U	0.14	1.0
1,2-Dibromoethane (EDB)	1.0	U	0.18	1.0
Chlorobenzene	0.32	J	0.14	1.0
1,1,1,2-Tetrachloroethane	1.0	U	0.28	1.0
Ethylbenzene	1.0	U	0.23	1.0
Xylenes, Total	3.0	U	0.49	3.0
Styrene	1.0	U	0.097	1.0
Bromoform	1.0	U	0.19	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.20	1.0
Acrylonitrile	20	U	0.55	20
1,4-Dioxane	200	U	34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		64 - 135
Toluene-d8 (Surr)	95		71 - 118
4-Bromofluorobenzene (Surr)	95		70 - 118
Dibromofluoromethane (Surr)	116		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116030.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 2259			Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 2259				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23 Date Sampled: 01/13/2015 1150
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116012.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1545	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1545				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	5.0	U	1.4	5.0
Vinyl chloride	5.0	U	1.1	5.0
Bromomethane	5.0	U	1.6	5.0
Chloroethane	5.0	U	1.1	5.0
1,1-Dichloroethene	5.0	U	1.5	5.0
Acetone	25	U	13	25
Carbon disulfide	5.0	U	1.1	5.0
Methylene Chloride	5.0	U	0.63	5.0
trans-1,2-Dichloroethene	5.0	U	0.85	5.0
Methyl tert-butyl ether	5.0	U	0.92	5.0
1,1-Dichloroethane	0.66	J	0.58	5.0
cis-1,2-Dichloroethene	95		1.2	5.0
Bromochloromethane	5.0	U	0.90	5.0
2-Butanone (MEK)	25	U	2.7	25
Chloroform	5.0	U	0.85	5.0
1,1,1-Trichloroethane	5.0	U	1.4	5.0
Carbon tetrachloride	5.0	U	0.68	5.0
Benzene	5.0	U	0.53	5.0
1,2-Dichloroethane	5.0	U	1.1	5.0
Trichloroethene	21		0.72	5.0
1,2-Dichloropropane	5.0	U	0.47	5.0
Bromodichloromethane	5.0	U	0.65	5.0
cis-1,3-Dichloropropene	5.0	U	0.93	5.0
4-Methyl-2-pentanone (MIBK)	25	U	2.6	25
Toluene	5.0	U	0.75	5.0
trans-1,3-Dichloropropene	5.0	U	0.74	5.0
1,1,2-Trichloroethane	5.0	U	1.0	5.0
Tetrachloroethene	40		0.74	5.0
2-Hexanone	25	U	0.80	25
Dibromochloromethane	5.0	U	0.68	5.0
1,2-Dibromoethane (EDB)	5.0	U	0.90	5.0
Chlorobenzene	5.0	U	0.68	5.0
1,1,1,2-Tetrachloroethane	5.0	U	1.4	5.0
Ethylbenzene	5.0	U	1.1	5.0
Xylenes, Total	15	U	2.4	15
Styrene	5.0	U	0.48	5.0
Bromoform	5.0	U	0.96	5.0
1,1,2,2-Tetrachloroethane	5.0	U	1.0	5.0
Acrylonitrile	100	U	2.7	100
1,4-Dioxane	1000	U	170	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	93		70 - 118
Dibromofluoromethane (Surr)	107		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116012.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1545	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1545				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-MW-93D-0/1-0**

Lab Sample ID: 180-40434-24 Date Sampled: 01/13/2015 1300
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116013.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1609			Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1609				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	10	U	2.8	10
Vinyl chloride	2.9	J	2.3	10
Bromomethane	10	U	3.1	10
Chloroethane	10	U	2.1	10
1,1-Dichloroethene	5.8	J	3.0	10
Acetone	50	U	25	50
Carbon disulfide	10	U	2.1	10
Methylene Chloride	10	U	1.3	10
trans-1,2-Dichloroethene	10	U	1.7	10
Methyl tert-butyl ether	10	U	1.8	10
1,1-Dichloroethane	4.5	J	1.2	10
cis-1,2-Dichloroethene	170		2.4	10
Bromochloromethane	10	U	1.8	10
2-Butanone (MEK)	50	U	5.5	50
Chloroform	10	U	1.7	10
1,1,1-Trichloroethane	15		2.9	10
Carbon tetrachloride	10	U	1.4	10
Benzene	10	U	1.1	10
1,2-Dichloroethane	10	U	2.1	10
Trichloroethene	250		1.4	10
1,2-Dichloropropane	10	U	0.95	10
Bromodichloromethane	10	U	1.3	10
cis-1,3-Dichloropropene	10	U	1.9	10
4-Methyl-2-pentanone (MIBK)	50	U	5.3	50
Toluene	10	U	1.5	10
trans-1,3-Dichloropropene	10	U	1.5	10
1,1,2-Trichloroethane	10	U	2.0	10
Tetrachloroethene	260		1.5	10
2-Hexanone	50	U	1.6	50
Dibromochloromethane	10	U	1.4	10
1,2-Dibromoethane (EDB)	10	U	1.8	10
Chlorobenzene	10	U	1.4	10
1,1,1,2-Tetrachloroethane	10	U	2.8	10
Ethylbenzene	10	U	2.3	10
Xylenes, Total	30	U	4.9	30
Styrene	10	U	0.97	10
Bromoform	10	U	1.9	10
1,1,2,2-Tetrachloroethane	10	U	2.0	10
Acrylonitrile	200	U	5.5	200
1,4-Dioxane	2000	U	340	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	93		70 - 118
Dibromofluoromethane (Surr)	105		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93D-0/1-0**

Lab Sample ID: 180-40434-24
Client Matrix: Water

Date Sampled: 01/13/2015 1300
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116013.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1609			Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1609				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

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

Lab Sample ID: 180-40434-25 Date Sampled: 01/13/2015 1415
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116031.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 2323			Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 2323				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	2.0	U	0.57	2.0
Vinyl chloride	2.0	U	0.45	2.0
Bromomethane	2.0	U	0.63	2.0
Chloroethane	2.0	U	0.43	2.0
1,1-Dichloroethene	4.6		0.59	2.0
Acetone	10	U	5.0	10
Carbon disulfide	2.0	U	0.42	2.0
Methylene Chloride	2.0	U	0.25	2.0
trans-1,2-Dichloroethene	0.54	J	0.34	2.0
Methyl tert-butyl ether	2.0	U	0.37	2.0
1,1-Dichloroethane	4.9		0.23	2.0
cis-1,2-Dichloroethene	110	E	0.47	2.0
Bromochloromethane	2.0	U	0.36	2.0
2-Butanone (MEK)	10	U	1.1	10
Chloroform	0.44	J	0.34	2.0
1,1,1-Trichloroethane	24		0.57	2.0
Carbon tetrachloride	2.0	U	0.27	2.0
Benzene	2.0	U	0.21	2.0
1,2-Dichloroethane	2.0	U	0.42	2.0
Trichloroethene	70		0.29	2.0
1,2-Dichloropropane	2.0	U	0.19	2.0
Bromodichloromethane	2.0	U	0.26	2.0
cis-1,3-Dichloropropene	2.0	U	0.37	2.0
4-Methyl-2-pentanone (MIBK)	10	U	1.1	10
Toluene	2.0	U	0.30	2.0
trans-1,3-Dichloropropene	2.0	U	0.30	2.0
1,1,2-Trichloroethane	2.0	U	0.40	2.0
Tetrachloroethene	300	E	0.30	2.0
2-Hexanone	10	U	0.32	10
Dibromochloromethane	2.0	U	0.27	2.0
1,2-Dibromoethane (EDB)	2.0	U	0.36	2.0
Chlorobenzene	2.0	U	0.27	2.0
1,1,1,2-Tetrachloroethane	2.0	U	0.55	2.0
Ethylbenzene	2.0	U	0.45	2.0
Xylenes, Total	6.0	U	0.98	6.0
Styrene	2.0	U	0.19	2.0
Bromoform	2.0	U	0.38	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.40	2.0
Acrylonitrile	40	U	1.1	40
1,4-Dioxane	400	U	69	400

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113		64 - 135
Toluene-d8 (Surr)	97		71 - 118
4-Bromofluorobenzene (Surr)	94		70 - 118
Dibromofluoromethane (Surr)	113		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

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

Lab Sample ID: 180-40434-25
Client Matrix: Water

Date Sampled: 01/13/2015 1415
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50116031.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 2323			Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 2323				

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

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

Lab Sample ID: 180-40434-25 Date Sampled: 01/13/2015 1415
Client Matrix: Water Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115030.D
Dilution:	20			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2236	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2236				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloromethane	20	U	5.7	20
Vinyl chloride	20	U	4.5	20
Bromomethane	20	U	6.3	20
Chloroethane	20	U	4.3	20
1,1-Dichloroethene	20	U	5.9	20
Acetone	100	U	50	100
Carbon disulfide	20	U	4.2	20
Methylene Chloride	5.1	J	2.5	20
trans-1,2-Dichloroethene	20	U	3.4	20
Methyl tert-butyl ether	20	U	3.7	20
1,1-Dichloroethane	5.4	J	2.3	20
cis-1,2-Dichloroethene	100		4.7	20
Bromochloromethane	20	U	3.6	20
2-Butanone (MEK)	100	U	11	100
Chloroform	20	U	3.4	20
1,1,1-Trichloroethane	16	J	5.7	20
Carbon tetrachloride	20	U	2.7	20
Benzene	20	U	2.1	20
1,2-Dichloroethane	20	U	4.2	20
Trichloroethene	60		2.9	20
1,2-Dichloropropane	20	U	1.9	20
Bromodichloromethane	20	U	2.6	20
cis-1,3-Dichloropropene	20	U	3.7	20
4-Methyl-2-pentanone (MIBK)	100	U	11	100
Toluene	20	U	3.0	20
trans-1,3-Dichloropropene	20	U	3.0	20
1,1,2-Trichloroethane	20	U	4.0	20
Tetrachloroethene	260		3.0	20
2-Hexanone	100	U	3.2	100
Dibromochloromethane	20	U	2.7	20
1,2-Dibromoethane (EDB)	20	U	3.6	20
Chlorobenzene	20	U	2.7	20
1,1,1,2-Tetrachloroethane	20	U	5.5	20
Ethylbenzene	20	U	4.5	20
Xylenes, Total	60	U	9.8	60
Styrene	20	U	1.9	20
Bromoform	20	U	3.8	20
1,1,2,2-Tetrachloroethane	20	U	4.0	20
Acrylonitrile	400	U	11	400
1,4-Dioxane	4000	U	690	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		64 - 135
Toluene-d8 (Surr)	102		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	108		70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

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

Lab Sample ID: 180-40434-25
Client Matrix: Water

Date Sampled: 01/13/2015 1415
Date Received: 01/13/2015 1825

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	50115030.D
Dilution:	20			Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 2236	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 2236				

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-6-0/1-0**

Lab Sample ID: 180-40434-1
Client Matrix: Water

Date Sampled: 01/13/2015 1340
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1504			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	2.6	B	0.0062	0.10
Chloride	190		0.20	1.0
Sulfate	19		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-7-0/1-0**

Lab Sample ID: 180-40434-2
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1519			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.3	B	0.0062	0.10
Chloride	88		0.20	1.0
Sulfate	42		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-8-0/1-0**

Lab Sample ID: 180-40434-3
Client Matrix: Water

Date Sampled: 01/13/2015 0920
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1418			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.1	B	0.0062	0.10
Chloride	100		0.20	1.0
Sulfate	53		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-9-0/1-0**

Lab Sample ID: 180-40434-4
Client Matrix: Water

Date Sampled: 01/13/2015 1210
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1722			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	4.2	B	0.0062	0.10
Chloride	120		0.20	1.0
Sulfate	41		0.21	1.0

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-10-0/1-0**

Lab Sample ID: 180-40434-5 Date Sampled: 01/13/2015 0955
Client Matrix: Water Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1347			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	1.2	B	0.0062	0.10
Sulfate	15		0.21	1.0

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-10-0/1-0**

Lab Sample ID: 180-40434-5 Date Sampled: 01/13/2015 0955
Client Matrix: Water Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	5.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2041			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	210		0.98	5.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-11-0/1-0**

Lab Sample ID: 180-40434-6
Client Matrix: Water

Date Sampled: 01/13/2015 1240
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1737			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.2	B	0.0062	0.10
Chloride	81		0.20	1.0
Sulfate	21		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-12-0/1-0**

Lab Sample ID: 180-40434-7
Client Matrix: Water

Date Sampled: 01/13/2015 1255
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1651			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	7.2	B	0.0062	0.10
Sulfate	42		0.21	1.0

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-12-0/1-0**

Lab Sample ID: 180-40434-7 Date Sampled: 01/13/2015 1255
Client Matrix: Water Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	5.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2056			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	230		0.98	5.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-13-0/1-0**

Lab Sample ID: 180-40434-8
Client Matrix: Water

Date Sampled: 01/13/2015 0945
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1433			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.2	B	0.0062	0.10
Chloride	110		0.20	1.0
Sulfate	54		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-15-0/1-0**

Lab Sample ID: 180-40434-9
Client Matrix: Water

Date Sampled: 01/13/2015 1315
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1752			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.5	B	0.0062	0.10
Chloride	110		0.20	1.0
Sulfate	33		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-16-0/1-0**

Lab Sample ID: 180-40434-10
Client Matrix: Water

Date Sampled: 01/13/2015 1015
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1808			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.3	B	0.0062	0.10
Chloride	110		0.20	1.0
Sulfate	50		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11
Client Matrix: Water

Date Sampled: 01/13/2015 1033
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1823			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.4	B	0.0062	0.10
Chloride	130		0.20	1.0
Sulfate	34		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-20-0/1-0**

Lab Sample ID: 180-40434-12
Client Matrix: Water

Date Sampled: 01/13/2015 1055
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1909			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	2.5	B	0.0062	0.10
Sulfate	15		0.21	1.0

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-20-0/1-0**

Lab Sample ID: 180-40434-12 Date Sampled: 01/13/2015 1055
Client Matrix: Water Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	5.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/15/2015 1001			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	220		0.98	5.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-26-0/1-0**

Lab Sample ID: 180-40434-13
Client Matrix: Water

Date Sampled: 01/13/2015 1135
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1924			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.4	B	0.0062	0.10
Chloride	110		0.20	1.0
Sulfate	43		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-27-0/1-0**

Lab Sample ID: 180-40434-14
Client Matrix: Water

Date Sampled: 01/13/2015 1325
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2213			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.8	B	0.0062	0.10
Chloride	110		0.20	1.0
Sulfate	38		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-28-0/1-0**

Lab Sample ID: 180-40434-15
Client Matrix: Water

Date Sampled: 01/13/2015 1230
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2228			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	4.3	B	0.0062	0.10
Chloride	120		0.20	1.0
Sulfate	36		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-29-0/1-0**

Lab Sample ID: 180-40434-16
Client Matrix: Water

Date Sampled: 01/13/2015 0902
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1449			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.1	B	0.0062	0.10
Chloride	92		0.20	1.0
Sulfate	56		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-1**

Lab Sample ID: 180-40434-18
Client Matrix: Water

Date Sampled: 01/13/2015 0800
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1403			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.5	B	0.0062	0.10
Chloride	170		0.20	1.0
Sulfate	26		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-107-0/1-0**

Lab Sample ID: 180-40434-22
Client Matrix: Water

Date Sampled: 01/13/2015 1010
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1605			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	5.5	B	0.0062	0.10
Chloride	180		0.20	1.0
Sulfate	40		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2010			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	2.2	B	0.0062	0.10
Chloride	140		0.20	1.0
Sulfate	29		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93D-0/1-0**

Lab Sample ID: 180-40434-24
Client Matrix: Water

Date Sampled: 01/13/2015 1300
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2025			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	0.65	B	0.0062	0.10
Chloride	100		0.20	1.0
Sulfate	27		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

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

Lab Sample ID: 180-40434-25
Client Matrix: Water

Date Sampled: 01/13/2015 1415
Date Received: 01/13/2015 1825

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
	N/A	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015
Dilution:	1.0			Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1706			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Nitrate as N	3.5	B	0.0062	0.10
Chloride	170		0.20	1.0
Sulfate	25		0.21	1.0

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-6-0/1-0**

Lab Sample ID: 180-40434-1
Client Matrix: Water

Date Sampled: 01/13/2015 1340
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1123			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	43000	B	2.8	100
Potassium	3500	B	5.8	100
Magnesium	8500	B	1.2	100
Sodium	95000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-7-0/1-0**

Lab Sample ID: 180-40434-2
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1128			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	33000	B	2.8	100
Potassium	6500	B	5.8	100
Magnesium	8100	B	1.2	100
Sodium	56000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-8-0/1-0**

Lab Sample ID: 180-40434-3
Client Matrix: Water

Date Sampled: 01/13/2015 0920
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1132			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	34000	B	2.8	100
Potassium	7700	B	5.8	100
Magnesium	7600	B	1.2	100
Sodium	69000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-9-0/1-0**

Lab Sample ID: 180-40434-4
Client Matrix: Water

Date Sampled: 01/13/2015 1210
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1136			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	43000	B	2.8	100
Potassium	8600	B	5.8	100
Magnesium	9400	B	1.2	100
Sodium	72000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-10-0/1-0**

Lab Sample ID: 180-40434-5
Client Matrix: Water

Date Sampled: 01/13/2015 0955
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1203			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	45000	B	2.8	100
Potassium	4600	B	5.8	100
Magnesium	6800	B	1.2	100
Sodium	100000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-11-0/1-0**

Lab Sample ID: 180-40434-6
Client Matrix: Water

Date Sampled: 01/13/2015 1240
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1208			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	64000	B	2.8	100
Potassium	2200	B	5.8	100
Magnesium	14000	B	1.2	100
Sodium	36000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-12-0/1-0**

Lab Sample ID: 180-40434-7
Client Matrix: Water

Date Sampled: 01/13/2015 1255
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1213			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	53000	B	2.8	100
Potassium	15000	B	5.8	100
Magnesium	9400	B	1.2	100
Sodium	120000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-13-0/1-0**

Lab Sample ID: 180-40434-8
Client Matrix: Water

Date Sampled: 01/13/2015 0945
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1217			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	35000	B	2.8	100
Potassium	7700	B	5.8	100
Magnesium	7700	B	1.2	100
Sodium	70000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-15-0/1-0**

Lab Sample ID: 180-40434-9
Client Matrix: Water

Date Sampled: 01/13/2015 1315
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1233			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	89000	B	2.8	100
Potassium	5900	B	5.8	100
Magnesium	16000	B	1.2	100
Sodium	48000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-16-0/1-0**

Lab Sample ID: 180-40434-10
Client Matrix: Water

Date Sampled: 01/13/2015 1015
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1237			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	33000	B	2.8	100
Potassium	7200	B	5.8	100
Magnesium	7600	B	1.2	100
Sodium	69000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11
Client Matrix: Water

Date Sampled: 01/13/2015 1033
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1241			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	93000	B	2.8	100
Potassium	6800	B	5.8	100
Magnesium	18000	B	1.2	100
Sodium	52000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-20-0/1-0**

Lab Sample ID: 180-40434-12
Client Matrix: Water

Date Sampled: 01/13/2015 1055
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1245			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	45000	B	2.8	100
Potassium	3200	B	5.8	100
Magnesium	8600	B	1.2	100
Sodium	110000	B	3.8	100

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-26-0/1-0**

Lab Sample ID: 180-40434-13 Date Sampled: 01/13/2015 1135
Client Matrix: Water Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1249			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	42000	B	2.8	100
Potassium	6700	B	5.8	100
Magnesium	9900	B	1.2	100
Sodium	66000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-27-0/1-0**

Lab Sample ID: 180-40434-14
Client Matrix: Water

Date Sampled: 01/13/2015 1325
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1254			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	65000	B	2.8	100
Potassium	6800	B	5.8	100
Magnesium	14000	B	1.2	100
Sodium	59000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-28-0/1-0**

Lab Sample ID: 180-40434-15
Client Matrix: Water

Date Sampled: 01/13/2015 1230
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1258			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	51000	B	2.8	100
Potassium	8100	B	5.8	100
Magnesium	11000	B	1.2	100
Sodium	71000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-COD-SW-29-0/1-0**

Lab Sample ID: 180-40434-16
Client Matrix: Water

Date Sampled: 01/13/2015 0902
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1302			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	37000	B	2.8	100
Potassium	8700	B	5.8	100
Magnesium	8100	B	1.2	100
Sodium	72000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-QC1-0/1-1**

Lab Sample ID: 180-40434-18
Client Matrix: Water

Date Sampled: 01/13/2015 0800
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1306			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	97000	B	2.8	100
Potassium	29000	B	5.8	100
Magnesium	22000	B	1.2	100
Sodium	66000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-107-0/1-0**

Lab Sample ID: 180-40434-22
Client Matrix: Water

Date Sampled: 01/13/2015 1010
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1326			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	120000	B	2.8	100
Potassium	26000	B	5.8	100
Magnesium	29000	B	1.2	100
Sodium	57000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23
Client Matrix: Water

Date Sampled: 01/13/2015 1150
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1310			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	73000	B	2.8	100
Potassium	21000	B	5.8	100
Magnesium	18000	B	1.2	100
Sodium	71000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Client Sample ID: **HD-MW-93D-0/1-0**

Lab Sample ID: 180-40434-24
Client Matrix: Water

Date Sampled: 01/13/2015 1300
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131561	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1347			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	81000	B	2.8	100
Potassium	6600	B	5.8	100
Magnesium	15000	B	1.2	100
Sodium	41000	B	3.8	100

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

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

Lab Sample ID: 180-40434-25
Client Matrix: Water

Date Sampled: 01/13/2015 1415
Date Received: 01/13/2015 1825

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-131403	Instrument ID:	X
Prep Method:	3005A	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1339			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	90000	B	2.8	100
Potassium	27000	B	5.8	100
Magnesium	21000	B	1.2	100
Sodium	64000	B	3.8	100

General Chemistry

Client Sample ID: **HD-COD-SW-6-0/1-0**

Lab Sample ID: 180-40434-1 Date Sampled: 01/13/2015 1340

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	91	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	91	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-7-0/1-0**

Lab Sample ID: 180-40434-2 Date Sampled: 01/13/2015 1150

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	95	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	95	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-8-0/1-0**

Lab Sample ID: 180-40434-3 Date Sampled: 01/13/2015 0920

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	95	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	95	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-9-0/1-0**

Lab Sample ID: 180-40434-4 Date Sampled: 01/13/2015 1210

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	130	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	130	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-10-0/1-0**

Lab Sample ID: 180-40434-5 Date Sampled: 01/13/2015 0955

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	99	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	99	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-11-0/1-0**

Lab Sample ID: 180-40434-6 Date Sampled: 01/13/2015 1240

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	180	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	170	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	7.9		mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-12-0/1-0**

Lab Sample ID: 180-40434-7 Date Sampled: 01/13/2015 1255

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	160	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	160	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-13-0/1-0**

Lab Sample ID: 180-40434-8 Date Sampled: 01/13/2015 0945

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	97	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Bicarbonate Alkalinity as CaCO3	97	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131272	Analysis Date: 01/21/2015 0529						

General Chemistry

Client Sample ID: **HD-COD-SW-15-0/1-0**

Lab Sample ID: 180-40434-9 Date Sampled: 01/13/2015 1315

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	230	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	230	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-16-0/1-0**

Lab Sample ID: 180-40434-10 Date Sampled: 01/13/2015 1015

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	99	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	99	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-17-0/1-0**

Lab Sample ID: 180-40434-11 Date Sampled: 01/13/2015 1033

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	240	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	240	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-20-0/1-0**

Lab Sample ID: 180-40434-12 Date Sampled: 01/13/2015 1055

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	93	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	93	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-26-0/1-0**

Lab Sample ID: 180-40434-13 Date Sampled: 01/13/2015 1135

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	120	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	120	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-27-0/1-0**

Lab Sample ID: 180-40434-14 Date Sampled: 01/13/2015 1325

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	170	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	170	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-28-0/1-0**

Lab Sample ID: 180-40434-15 Date Sampled: 01/13/2015 1230

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	130	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	130	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-COD-SW-29-0/1-0**

Lab Sample ID: 180-40434-16 Date Sampled: 01/13/2015 0902

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	230	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	230	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-QC1-0/1-1**

Lab Sample ID: 180-40434-18 Date Sampled: 01/13/2015 0800

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	270	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	270	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

General Chemistry

Client Sample ID: **HD-MW-107-0/1-0**

Lab Sample ID: 180-40434-22 Date Sampled: 01/13/2015 1010
Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	280	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	280	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-MW-93S-0/1-0**

Lab Sample ID: 180-40434-23 Date Sampled: 01/13/2015 1150

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	200	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	200	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

Client Sample ID: **HD-MW-93D-0/1-0**

Lab Sample ID: 180-40434-24 Date Sampled: 01/13/2015 1300

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	190	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	190	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

General Chemistry

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

Lab Sample ID: 180-40434-25 Date Sampled: 01/13/2015 1415

Client Matrix: Water Date Received: 01/13/2015 1825

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Alkalinity as CaCO3 to pH 4.5	240	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Bicarbonate Alkalinity as CaCO3	240	B	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	0.41	5.0	1.0	SM 2320B
Analysis Batch: 180-131390	Analysis Date: 01/22/2015 0525						

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Surrogate Recovery Report

8260C Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
180-40434-1	HD-COD-SW-6-0/1-0	106	104	98	101
180-40434-2	HD-COD-SW-7-0/1-0	110	101	98	99
180-40434-3	HD-COD-SW-8-0/1-0	105	103	98	98
180-40434-4	HD-COD-SW-9-0/1-0	108	105	96	90
180-40434-5	HD-COD-SW-10-0/1-0	110	103	100	96
180-40434-6	HD-COD-SW-11-0/1-0	111	102	97	101
180-40434-7	HD-COD-SW-12-0/1-0	109	98	100	97
180-40434-8	HD-COD-SW-13-0/1-0	110	101	102	95
180-40434-9	HD-COD-SW-15-0/1-0	112	104	97	96
180-40434-10	HD-COD-SW-16-0/1-0	111	105	102	102
180-40434-11 DL	HD-COD-SW-17-0/1-0 DL	112	102	98	95
180-40434-11	HD-COD-SW-17-0/1-0	110	104	100	95
180-40434-12	HD-COD-SW-20-0/1-0	107	103	102	100
180-40434-13	HD-COD-SW-26-0/1-0	109	108	104	101
180-40434-14	HD-COD-SW-27-0/1-0	110	106	98	94
180-40434-15	HD-COD-SW-28-0/1-0	111	104	98	93
180-40434-16	HD-COD-SW-29-0/1-0	114	103	104	95
180-40434-17	HD-QC1-0/1-2	105	101	99	93
180-40434-18	HD-QC1-0/1-1	108	108	99	98
180-40434-19	HD-QC2-0/1-2	114	104	100	96
180-40434-20	HD-QC1-0/1-3	107	108	101	100
180-40434-21	HD-QC1-0/1-4	114	101	97	97

Surrogate	Acceptance 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

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Surrogate Recovery Report

8260C Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
180-40434-22	HD-MW-107-0/1-0	106	100	98	99
180-40434-23 DL	HD-MW-93S-0/1-0 DL	107	110	98	93
180-40434-23	HD-MW-93S-0/1-0	116	105	95	95
180-40434-24	HD-MW-93D-0/1-0	105	108	100	93
180-40434-25 DL	HD-MW-37S-0/1-0 DL	108	110	102	96
180-40434-25	HD-MW-37S-0/1-0	113	113	97	94
MB 180-130711/4		105	98	98	100
MB 180-130838/8		106	103	101	94
MB 180-130947/8		110	104	101	98
LCS 180-130711/7		101	93	101	101
LCS 180-130838/12		95	92	93	93
LCS 180-130947/9		106	98	100	99
LCSD 180-130947/10		97	94	87	91
180-40434-22 MS	HD-MW-107-0/1-0 MS	97	89	94	89
180-40434-22 MSD	HD-MW-107-0/1-0 MSD	102	97	97	97

Surrogate	Acceptance 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

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-130711

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 180-130711/4	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50114004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1217	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1217				
Leach Date:	N/A				

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

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	64 - 135
Toluene-d8 (Surr)	98	71 - 118
4-Bromofluorobenzene (Surr)	100	70 - 118

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Surrogate	% Rec	Acceptance Limits
Dibromofluoromethane (Surr)	105	70 - 128

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Control Sample - Batch: 180-130711

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 180-130711/7	Analysis Batch:	180-130711	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50114007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/14/2015 1357	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/14/2015 1357				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloromethane	10.0	8.65	87	50 - 139	
Vinyl chloride	10.0	9.25	93	53 - 138	
Bromomethane	10.0	8.94	89	33 - 150	
Chloroethane	10.0	8.79	88	36 - 142	
1,1-Dichloroethene	10.0	9.00	90	65 - 136	
Acetone	20.0	16.7	83	22 - 150	
Carbon disulfide	10.0	10.9	109	54 - 132	
Methylene Chloride	10.0	9.56	96	63 - 129	
trans-1,2-Dichloroethene	10.0	10.0	100	73 - 126	
Methyl tert-butyl ether	10.0	9.96	100	64 - 123	
1,1-Dichloroethane	10.0	10.2	102	73 - 126	
cis-1,2-Dichloroethene	10.0	10.1	101	70 - 120	
Bromochloromethane	10.0	10.2	102	70 - 127	
2-Butanone (MEK)	20.0	16.9	84	39 - 138	
Chloroform	10.0	9.79	98	72 - 127	
1,1,1-Trichloroethane	10.0	11.1	111	63 - 133	
Carbon tetrachloride	10.0	11.3	113	55 - 150	
Benzene	10.0	9.83	98	80 - 120	
1,2-Dichloroethane	10.0	9.54	95	68 - 132	
Trichloroethene	10.0	10.8	108	73 - 120	
1,2-Dichloropropane	10.0	9.40	94	76 - 124	
Bromodichloromethane	10.0	10.5	105	66 - 130	
cis-1,3-Dichloropropene	10.0	11.4	114	66 - 120	
4-Methyl-2-pentanone (MIBK)	20.0	19.5	97	45 - 145	
Toluene	10.0	10.1	101	80 - 123	
trans-1,3-Dichloropropene	10.0	12.8	128	65 - 125	*
1,1,2-Trichloroethane	10.0	9.70	97	77 - 127	
Tetrachloroethene	10.0	10.1	101	70 - 135	
2-Hexanone	20.0	17.0	85	25 - 132	
Dibromochloromethane	10.0	11.1	111	60 - 140	
1,2-Dibromoethane (EDB)	10.0	10.8	108	74 - 123	
Chlorobenzene	10.0	10.7	107	80 - 120	
1,1,1,2-Tetrachloroethane	10.0	10.7	107	63 - 140	
Ethylbenzene	10.0	10.5	105	72 - 126	
Xylenes, Total	20.0	21.6	108	76 - 128	
Styrene	10.0	10.5	105	71 - 127	
Bromoform	10.0	11.7	117	46 - 150	
1,1,2,2-Tetrachloroethane	10.0	9.60	96	62 - 125	
1,4-Dioxane	200	143	72	10 - 160	J

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	64 - 135
Toluene-d8 (Surr)	101	71 - 118
4-Bromofluorobenzene (Surr)	101	70 - 118
Dibromofluoromethane (Surr)	101	70 - 128

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-130838

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 180-130838/8	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50115008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1334	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1334				
Leach Date:	N/A				

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

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	64 - 135
Toluene-d8 (Surr)	101	71 - 118
4-Bromofluorobenzene (Surr)	94	70 - 118

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Surrogate	% Rec	Acceptance Limits
Dibromofluoromethane (Surr)	106	70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Lab Control Sample - Batch: 180-130838

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 180-130838/12	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50115012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1521	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1521				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloromethane	10.0	9.14	91	50 - 139	
Vinyl chloride	10.0	9.61	96	53 - 138	
Bromomethane	10.0	9.17	92	33 - 150	
Chloroethane	10.0	9.32	93	36 - 142	
1,1-Dichloroethene	10.0	9.60	96	65 - 136	
Acetone	20.0	19.1	96	22 - 150	
Carbon disulfide	10.0	10.3	103	54 - 132	
Methylene Chloride	10.0	9.60	96	63 - 129	
trans-1,2-Dichloroethene	10.0	10.3	103	73 - 126	
Methyl tert-butyl ether	10.0	9.50	95	64 - 123	
1,1-Dichloroethane	10.0	10.4	104	73 - 126	
cis-1,2-Dichloroethene	10.0	10.2	102	70 - 120	
Bromochloromethane	10.0	10.7	107	70 - 127	
2-Butanone (MEK)	20.0	19.3	97	39 - 138	
Chloroform	10.0	9.92	99	72 - 127	
1,1,1-Trichloroethane	10.0	11.0	110	63 - 133	
Carbon tetrachloride	10.0	11.5	115	55 - 150	
Benzene	10.0	9.92	99	80 - 120	
1,2-Dichloroethane	10.0	10.1	101	68 - 132	
Trichloroethene	10.0	10.6	106	73 - 120	
1,2-Dichloropropane	10.0	9.10	91	76 - 124	
Bromodichloromethane	10.0	9.97	100	66 - 130	
cis-1,3-Dichloropropene	10.0	10.6	106	66 - 120	
4-Methyl-2-pentanone (MIBK)	20.0	18.3	91	45 - 145	
Toluene	10.0	9.96	100	80 - 123	
trans-1,3-Dichloropropene	10.0	11.8	118	65 - 125	
1,1,2-Trichloroethane	10.0	9.35	94	77 - 127	
Tetrachloroethene	10.0	9.89	99	70 - 135	
2-Hexanone	20.0	15.2	76	25 - 132	
Dibromochloromethane	10.0	10.8	108	60 - 140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	74 - 123	
Chlorobenzene	10.0	10.5	105	80 - 120	
1,1,1,2-Tetrachloroethane	10.0	10.4	104	63 - 140	
Ethylbenzene	10.0	10.4	104	72 - 126	
Xylenes, Total	20.0	21.2	106	76 - 128	
Styrene	10.0	10.0	100	71 - 127	
Bromoform	10.0	9.98	100	46 - 150	
1,1,2,2-Tetrachloroethane	10.0	9.50	95	62 - 125	
1,4-Dioxane	200	141	71	10 - 160	J

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	64 - 135
Toluene-d8 (Surr)	93	71 - 118
4-Bromofluorobenzene (Surr)	93	70 - 118
Dibromofluoromethane (Surr)	95	70 - 128

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130838

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	180-40434-22	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50115013.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1545			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1545				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	180-40434-22	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50115014.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1609			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1609				5 mL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chloromethane	87	88	50 - 139	2	35		
Vinyl chloride	96	96	53 - 138	0	35		
Bromomethane	94	106	33 - 150	12	35		
Chloroethane	89	94	36 - 142	5	35		
1,1-Dichloroethene	93	93	65 - 136	0	35		
Acetone	91	106	22 - 150	15	35		
Carbon disulfide	100	102	54 - 132	3	35		
Methylene Chloride	90	99	63 - 129	10	35		
trans-1,2-Dichloroethene	98	104	73 - 126	5	35		
Methyl tert-butyl ether	96	103	64 - 123	7	35		
1,1-Dichloroethane	102	106	73 - 126	3	35		
cis-1,2-Dichloroethene	134	159	70 - 120	7	35	F1	F1
Bromochloromethane	91	104	70 - 127	13	35		
2-Butanone (MEK)	100	109	39 - 138	9	35		
Chloroform	100	105	72 - 127	5	35		
1,1,1-Trichloroethane	114	124	63 - 133	7	35		
Carbon tetrachloride	108	112	55 - 150	3	35		
Benzene	96	101	80 - 120	5	32		
1,2-Dichloroethane	97	101	68 - 132	3	32		
Trichloroethene	130	137	73 - 120	3	35	F1	F1
1,2-Dichloropropane	88	97	76 - 124	9	34		
Bromodichloromethane	94	98	66 - 130	4	35		
cis-1,3-Dichloropropene	100	110	66 - 120	9	35		
4-Methyl-2-pentanone (MIBK)	93	102	45 - 145	10	35		
Toluene	98	100	80 - 123	3	35		
trans-1,3-Dichloropropene	116	121	65 - 125	4	35		
1,1,2-Trichloroethane	91	96	77 - 127	6	35		
Tetrachloroethene	122	134	70 - 135	4	35		
2-Hexanone	76	84	25 - 132	10	35		
Dibromochloromethane	104	104	60 - 140	1	35		
1,2-Dibromoethane (EDB)	95	104	74 - 123	9	35		
Chlorobenzene	102	107	80 - 120	5	29		
1,1,1,2-Tetrachloroethane	99	103	63 - 140	4	34		

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130838

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	180-40434-22	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50115013.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1545			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1545				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	180-40434-22	Analysis Batch:	180-130838	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50115014.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/15/2015 1609			Final Weight/Volume:	5 mL
Prep Date:	01/15/2015 1609				5 mL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ethylbenzene	104	103	72 - 126	1	33		
Xylenes, Total	102	105	76 - 128	3	32		
Styrene	97	101	71 - 127	5	34		
Bromoform	92	99	46 - 150	7	35		
1,1,2,2-Tetrachloroethane	94	101	62 - 125	7	35		
1,4-Dioxane	72	75	10 - 160	4	35	J	J

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	97	64 - 135
Toluene-d8 (Surr)	94	97	71 - 118
4-Bromofluorobenzene (Surr)	89	97	70 - 118
Dibromofluoromethane (Surr)	97	102	70 - 128

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130838

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	180-40434-22	Units:	ug/L	MSD Lab Sample ID:	180-40434-22
Client Matrix:	Water			Client Matrix:	Water
Dilution:	5.0			Dilution:	5.0
Analysis Date:	01/15/2015 1545			Analysis Date:	01/15/2015 1609
Prep Date:	01/15/2015 1545			Prep Date:	01/15/2015 1609
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Chloromethane	5.0	U	50.0	50.0	43.4		44.1	
Vinyl chloride	5.0	U	50.0	50.0	48.0		47.9	
Bromomethane	5.0	U	50.0	50.0	46.9		52.8	
Chloroethane	5.0	U	50.0	50.0	44.5		46.9	
1,1-Dichloroethene	5.1		50.0	50.0	51.5		51.4	
Acetone	25	U	100	100	91.1		106	
Carbon disulfide	5.0	U	50.0	50.0	49.8		51.2	
Methylene Chloride	5.0	U	50.0	50.0	44.8		49.7	
trans-1,2-Dichloroethene	5.0	U	50.0	50.0	49.1		51.8	
Methyl tert-butyl ether	5.0	U	50.0	50.0	47.9		51.6	
1,1-Dichloroethane	4.9	J	50.0	50.0	55.9		57.8	
cis-1,2-Dichloroethene	110		50.0	50.0	178	F1	191	F1
Bromochloromethane	5.0	U	50.0	50.0	45.3		51.8	
2-Butanone (MEK)	25	U	100	100	100		109	
Chloroform	5.0	U	50.0	50.0	49.9		52.6	
1,1,1-Trichloroethane	18		50.0	50.0	74.5		79.6	
Carbon tetrachloride	5.0	U	50.0	50.0	54.1		56.0	
Benzene	5.0	U	50.0	50.0	47.8		50.4	
1,2-Dichloroethane	5.0	U	50.0	50.0	48.7		50.3	
Trichloroethene	51		50.0	50.0	116	F1	119	F1
1,2-Dichloropropane	5.0	U	50.0	50.0	44.1		48.4	
Bromodichloromethane	5.0	U	50.0	50.0	47.2		49.2	
cis-1,3-Dichloropropene	5.0	U	50.0	50.0	50.2		54.8	
4-Methyl-2-pentanone (MIBK)	25	U	100	100	92.9		102	
Toluene	5.0	U	50.0	50.0	48.8		50.2	
trans-1,3-Dichloropropene	5.0	U	50.0	50.0	58.1		60.4	
1,1,2-Trichloroethane	5.0	U	50.0	50.0	45.3		48.2	
Tetrachloroethene	83		50.0	50.0	144		150	
2-Hexanone	25	U	100	100	76.1		84.4	
Dibromochloromethane	5.0	U	50.0	50.0	52.2		51.9	
1,2-Dibromoethane (EDB)	5.0	U	50.0	50.0	47.6		52.0	
Chlorobenzene	5.0	U	50.0	50.0	50.8		53.5	
1,1,1,2-Tetrachloroethane	5.0	U	50.0	50.0	49.4		51.6	
Ethylbenzene	5.0	U	50.0	50.0	52.0		51.4	
Xylenes, Total	15	U	100	100	102		105	
Styrene	5.0	U	50.0	50.0	48.5		50.7	
Bromoform	5.0	U	50.0	50.0	46.2		49.4	
1,1,2,2-Tetrachloroethane	5.0	U	50.0	50.0	46.9		50.4	
1,4-Dioxane	1000	U	1000	1000	722	J	749	J

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-130947

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 180-130947/8	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50116008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1356	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1356				
Leach Date:	N/A				

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

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	64 - 135
Toluene-d8 (Surr)	101	71 - 118
4-Bromofluorobenzene (Surr)	98	70 - 118

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Surrogate	% Rec	Acceptance Limits
Dibromofluoromethane (Surr)	110	70 - 128

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-130947

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 180-130947/9	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50116009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1432	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1432				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-130947/10	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50116010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1456	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1456				5 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloromethane	96	88	50 - 139	8	35		
Vinyl chloride	98	91	53 - 138	8	35		
Bromomethane	85	92	33 - 150	8	35		
Chloroethane	89	90	36 - 142	2	35		
1,1-Dichloroethene	103	96	65 - 136	7	35		
Acetone	121	120	22 - 150	1	35		
Carbon disulfide	86	87	54 - 132	1	35		
Methylene Chloride	111	103	63 - 129	8	35		
trans-1,2-Dichloroethene	110	108	73 - 126	2	35		
Methyl tert-butyl ether	102	102	64 - 123	0	35		
1,1-Dichloroethane	109	106	73 - 126	3	35		
cis-1,2-Dichloroethene	103	107	70 - 120	4	35		
Bromochloromethane	109	105	70 - 127	4	35		
2-Butanone (MEK)	105	106	39 - 138	1	35		
Chloroform	106	106	72 - 127	0	35		
1,1,1-Trichloroethane	105	109	63 - 133	4	35		
Carbon tetrachloride	111	106	55 - 150	4	35		
Benzene	107	105	80 - 120	2	32		
1,2-Dichloroethane	107	101	68 - 132	5	32		
Trichloroethene	114	107	73 - 120	6	35		
1,2-Dichloropropane	103	97	76 - 124	6	34		
Bromodichloromethane	99	95	66 - 130	4	35		
cis-1,3-Dichloropropene	106	107	66 - 120	2	35		
4-Methyl-2-pentanone (MIBK)	98	103	45 - 145	5	35		
Toluene	103	100	80 - 123	3	35		
trans-1,3-Dichloropropene	115	108	65 - 125	7	35		
1,1,2-Trichloroethane	100	94	77 - 127	6	35		
Tetrachloroethene	103	94	70 - 135	9	35		
2-Hexanone	98	98	25 - 132	0	35		
Dibromochloromethane	97	98	60 - 140	1	35		
1,2-Dibromoethane (EDB)	103	102	74 - 123	1	35		
Chlorobenzene	109	103	80 - 120	5	29		
1,1,1,2-Tetrachloroethane	100	98	63 - 140	2	34		
Ethylbenzene	108	101	72 - 126	7	33		
Xylenes, Total	108	104	76 - 128	3	32		
Styrene	103	100	71 - 127	3	34		

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-130947

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 180-130947/9	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50116009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1432	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1432				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-130947/10	Analysis Batch:	180-130947	Instrument ID:	CHHP5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	50116010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/16/2015 1456	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	01/16/2015 1456				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Bromoform	87	87	46 - 150	0	35		
1,1,2,2-Tetrachloroethane	99	96	62 - 125	4	35		
1,4-Dioxane	96	94	10 - 160	3	35	J	J

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	94	64 - 135
Toluene-d8 (Surr)	100	87	71 - 118
4-Bromofluorobenzene (Surr)	99	91	70 - 118
Dibromofluoromethane (Surr)	106	97	70 - 128

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-130947

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 180-130947/9	Units: ug/L		LCSD Lab Sample ID:	LCSD 180-130947/10
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/16/2015 1432			Analysis Date:	01/16/2015 1456
Prep Date:	01/16/2015 1432			Prep Date:	01/16/2015 1456
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chloromethane	10.0	10.0	9.57	8.81
Vinyl chloride	10.0	10.0	9.83	9.05
Bromomethane	10.0	10.0	8.53	9.24
Chloroethane	10.0	10.0	8.87	9.03
1,1-Dichloroethene	10.0	10.0	10.3	9.57
Acetone	20.0	20.0	24.2	23.9
Carbon disulfide	10.0	10.0	8.60	8.69
Methylene Chloride	10.0	10.0	11.1	10.3
trans-1,2-Dichloroethene	10.0	10.0	11.0	10.8
Methyl tert-butyl ether	10.0	10.0	10.2	10.2
1,1-Dichloroethane	10.0	10.0	10.9	10.6
cis-1,2-Dichloroethene	10.0	10.0	10.3	10.7
Bromochloromethane	10.0	10.0	10.9	10.5
2-Butanone (MEK)	20.0	20.0	21.0	21.2
Chloroform	10.0	10.0	10.6	10.6
1,1,1-Trichloroethane	10.0	10.0	10.5	10.9
Carbon tetrachloride	10.0	10.0	11.1	10.6
Benzene	10.0	10.0	10.7	10.5
1,2-Dichloroethane	10.0	10.0	10.7	10.1
Trichloroethene	10.0	10.0	11.4	10.7
1,2-Dichloropropane	10.0	10.0	10.3	9.74
Bromodichloromethane	10.0	10.0	9.85	9.49
cis-1,3-Dichloropropene	10.0	10.0	10.6	10.7
4-Methyl-2-pentanone (MIBK)	20.0	20.0	19.6	20.6
Toluene	10.0	10.0	10.3	9.98
trans-1,3-Dichloropropene	10.0	10.0	11.5	10.8
1,1,2-Trichloroethane	10.0	10.0	10.0	9.43
Tetrachloroethene	10.0	10.0	10.3	9.44
2-Hexanone	20.0	20.0	19.6	19.6
Dibromochloromethane	10.0	10.0	9.74	9.83
1,2-Dibromoethane (EDB)	10.0	10.0	10.3	10.2
Chlorobenzene	10.0	10.0	10.9	10.3
1,1,1,2-Tetrachloroethane	10.0	10.0	9.99	9.80
Ethylbenzene	10.0	10.0	10.8	10.1
Xylenes, Total	20.0	20.0	21.5	20.8
Styrene	10.0	10.0	10.3	9.98
Bromoform	10.0	10.0	8.72	8.71
1,1,2,2-Tetrachloroethane	10.0	10.0	9.92	9.56
1,4-Dioxane	200	200	193 J	188 J

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-130742

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 180-130742/6	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-1
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1140	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate as N	0.00922	J	0.0062	0.10
Chloride	1.0	U	0.20	1.0
Sulfate	1.0	U	0.21	1.0

Method Blank - Batch: 180-130742

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 180-130742/38	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-4
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2127	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate as N	0.00997	J	0.0062	0.10
Chloride	1.0	U	0.20	1.0
Sulfate	1.0	U	0.21	1.0

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Control Sample - Batch: 180-130742

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 180-130742/5	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-1
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1124	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	2.50	2.49	100	90 - 110	
Chloride	50.0	49.9	100	90 - 110	
Sulfate	50.0	49.8	100	90 - 110	

Lab Control Sample - Batch: 180-130742

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 180-130742/37	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-4
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 2111	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	2.50	2.50	100	90 - 110	
Chloride	50.0	50.1	100	90 - 110	
Sulfate	50.0	49.9	100	90 - 110	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130742

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	180-40434-22	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-2
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1620			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

MSD Lab Sample ID:	180-40434-22	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-2
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1636			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

	% Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate as N	96	97	80 - 120	0	20	4	4
Chloride	93	93	80 - 120	0	20	4	4
Sulfate	99	100	80 - 120	0	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130742

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	180-40434-13	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-4
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1940			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

MSD Lab Sample ID:	180-40434-13	Analysis Batch:	180-130742	Instrument ID:	CHIC2100A
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	A-ICS2100 A 01-14-2015-4
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	01/14/2015 1955			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

	% Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate as N	100	85	80 - 120	4	20		
Chloride	96	77	80 - 120	4	20	4	4
Sulfate	97	84	80 - 120	5	20		

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130742

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	180-40434-22	Units: mg/L	MSD Lab Sample ID:	180-40434-22	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	01/14/2015 1620		Analysis Date:	01/14/2015 1636	
Prep Date:	N/A		Prep Date:	N/A	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Nitrate as N	5.5	1.25	1.25	6.67	4	6.68	4
Chloride	180	25.0	25.0	200	4	200	4
Sulfate	40	25.0	25.0	64.7		64.7	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130742

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	180-40434-13	Units: mg/L	MSD Lab Sample ID:	180-40434-13	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	01/14/2015 1940		Analysis Date:	01/14/2015 1955	
Prep Date:	N/A		Prep Date:	N/A	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Nitrate as N	3.4	1.25	1.25	4.65		4.46	
Chloride	110	25.0	25.0	129	4	124	4
Sulfate	43	25.0	25.0	67.5		64.2	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-130798

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 180-130798/1-A	Analysis Batch:	180-131561	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1115	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Calcium	10.5	J	2.8	100
Potassium	71.9	J	5.8	100
Magnesium	2.76	J	1.2	100
Sodium	47.7	J	3.8	100

Lab Control Sample - Batch: 180-130798

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 180-130798/2-A	Analysis Batch:	180-131561	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1119	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	50000	45100	90	80 - 120	
Potassium	50000	46200	92	80 - 120	
Magnesium	50000	41200	82	80 - 120	
Sodium	50000	42200	84	80 - 120	

Post Digestion Spike - Batch: 180-130798

Method: 6020A
Preparation: 3005A

Lab Sample ID:	180-40434-22	Analysis Batch:	180-131561	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1343	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	120000	50000	173000	111	75 - 125	
Potassium	26000	50000	82800	113	75 - 125	
Magnesium	29000	50000	78900	100	75 - 125	
Sodium	57000	50000	107000	101	75 - 125	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130798

Method: 6020A
Preparation: 3005A

MS Lab Sample ID:	180-40434-22	Analysis Batch:	180-131561	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1335			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				
Leach Date:	N/A				

MSD Lab Sample ID:	180-40434-22	Analysis Batch:	180-131561	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1339			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	97	106	75 - 125	3	20		
Potassium	101	105	75 - 125	2	20		
Magnesium	89	91	75 - 125	1	20		
Sodium	91	92	75 - 125	1	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130798

Method: 6020A
Preparation: 3005A

MS Lab Sample ID:	180-40434-22	Units:	ug/L	MSD Lab Sample ID:	180-40434-22
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/22/2015 1335			Analysis Date:	01/22/2015 1339
Prep Date:	01/15/2015 0835			Prep Date:	01/15/2015 0835
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium	120000	50000	50000	166000	171000
Potassium	26000	50000	50000	76600	78400
Magnesium	29000	50000	50000	73400	74400
Sodium	57000	50000	50000	102000	103000

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Serial Dilution - Batch: 180-130798

Method: 6020A
Preparation: 3005A

Lab Sample ID:	180-40434-22	Analysis Batch:	180-131561	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130798	Lab File ID:	X50122A.xml
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 1330	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0835				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Calcium	120000	109000	7.3	10	
Potassium	26000	26500	1.8	10	
Magnesium	29000	28600	0.50	10	
Sodium	57000	58600	3.6	10	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-130801

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 180-130801/1-A	Analysis Batch:	180-131403	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1318	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Calcium	6.32	J	2.8	100
Potassium	13.1	J	5.8	100
Magnesium	1.68	J	1.2	100
Sodium	6.20	J	3.8	100

Lab Control Sample - Batch: 180-130801

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 180-130801/2-A	Analysis Batch:	180-131403	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1326	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	50000	47800	96	80 - 120	
Potassium	50000	48100	96	80 - 120	
Magnesium	50000	42300	85	80 - 120	
Sodium	50000	43900	88	80 - 120	

Post Digestion Spike - Batch: 180-130801

Method: 6020A
Preparation: 3005A

Lab Sample ID:	180-40434-25	Analysis Batch:	180-131403	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1356	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	90000	50000	146000	113	75 - 125	
Potassium	27000	50000	83000	111	75 - 125	
Magnesium	21000	50000	70900	100	75 - 125	
Sodium	64000	50000	115000	102	75 - 125	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130801

Method: 6020A
Preparation: 3005A

MS Lab Sample ID:	180-40434-25	Analysis Batch:	180-131403	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1348			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				
Leach Date:	N/A				

MSD Lab Sample ID:	180-40434-25	Analysis Batch:	180-131403	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1352			Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	104	109	75 - 125	2	20		
Potassium	100	103	75 - 125	2	20		
Magnesium	92	93	75 - 125	0	20		
Sodium	95	96	75 - 125	0	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-130801

Method: 6020A
Preparation: 3005A

MS Lab Sample ID:	180-40434-25	Units:	ug/L	MSD Lab Sample ID:	180-40434-25
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/21/2015 1348			Analysis Date:	01/21/2015 1352
Prep Date:	01/15/2015 0838			Prep Date:	01/15/2015 0838
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium	90000	50000	50000	142000	144000
Potassium	27000	50000	50000	77700	79200
Magnesium	21000	50000	50000	66700	67000
Sodium	64000	50000	50000	112000	112000

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Serial Dilution - Batch: 180-130801

Method: 6020A
Preparation: 3005A

Lab Sample ID:	180-40434-25	Analysis Batch:	180-131403	Instrument ID:	X
Client Matrix:	Water	Prep Batch:	180-130801	Lab File ID:	X50121A.xml
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 1343	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	01/15/2015 0838				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Calcium	90000	87300	2.9	10	
Potassium	27000	28000	1.8	10	
Magnesium	21000	20900	0.94	10	
Sodium	64000	66100	3.0	10	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-131272

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 180-131272/2	Analysis Batch:	180-131272	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 0529	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Alkalinity as CaCO3 to pH 4.5	3.96	J	0.41	5.0
Bicarbonate Alkalinity as CaCO3	3.96	J	0.41	5.0
Carbonate Alkalinity as CaCO3	5.0	U	0.41	5.0

Lab Control Sample - Batch: 180-131272

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCS 180-131272/1	Analysis Batch:	180-131272	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 0529	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Alkalinity as CaCO3 to pH 4.5	250	269	108	80 - 120	

Duplicate - Batch: 180-131272

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	180-40434-2	Analysis Batch:	180-131272	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/21/2015 0529	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Total Alkalinity as CaCO3 to pH 4.5	95		97.0	2	20	
Bicarbonate Alkalinity as CaCO3	95		97.0	2	20	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	20	U

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Method Blank - Batch: 180-131390

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 180-131390/2	Analysis Batch:	180-131390	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 0525	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Alkalinity as CaCO3 to pH 4.5	3.96	J	0.41	5.0
Bicarbonate Alkalinity as CaCO3	3.96	J	0.41	5.0
Carbonate Alkalinity as CaCO3	5.0	U	0.41	5.0

Lab Control Sample - Batch: 180-131390

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCS 180-131390/1	Analysis Batch:	180-131390	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 0525	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Alkalinity as CaCO3 to pH 4.5	250	269	108	80 - 120	

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Duplicate - Batch: 180-131390

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	180-40434-22	Analysis Batch:	180-131390	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 0525	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Total Alkalinity as CaCO3 to pH 4.5	280		277	1	20	
Bicarbonate Alkalinity as CaCO3	280		277	1	20	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	20	U

Duplicate - Batch: 180-131390

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	180-40434-9	Analysis Batch:	180-131390	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/22/2015 0525	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Total Alkalinity as CaCO3 to pH 4.5	230		230	2	20	
Bicarbonate Alkalinity as CaCO3	230		230	2	20	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	20	U

DATA REPORTING QUALIFIERS

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	E	Result exceeded calibration range.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
HPLC/IC		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	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.
General Chemistry		
	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.

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:180-130711					
LCS 180-130711/7	Lab Control Sample	T	Water	8260C	
MB 180-130711/4	Method Blank	T	Water	8260C	
180-40434-1	HD-COD-SW-6-0/1-0	T	Water	8260C	
180-40434-2	HD-COD-SW-7-0/1-0	T	Water	8260C	
180-40434-3	HD-COD-SW-8-0/1-0	T	Water	8260C	
180-40434-4	HD-COD-SW-9-0/1-0	T	Water	8260C	
180-40434-5	HD-COD-SW-10-0/1-0	T	Water	8260C	
180-40434-6	HD-COD-SW-11-0/1-0	T	Water	8260C	
180-40434-7	HD-COD-SW-12-0/1-0	T	Water	8260C	
180-40434-8	HD-COD-SW-13-0/1-0	T	Water	8260C	
180-40434-9	HD-COD-SW-15-0/1-0	T	Water	8260C	
180-40434-10	HD-COD-SW-16-0/1-0	T	Water	8260C	
180-40434-11DL	HD-COD-SW-17-0/1-0	T	Water	8260C	
Analysis Batch:180-130838					
LCS 180-130838/12	Lab Control Sample	T	Water	8260C	
MB 180-130838/8	Method Blank	T	Water	8260C	
180-40434-11	HD-COD-SW-17-0/1-0	T	Water	8260C	
180-40434-12	HD-COD-SW-20-0/1-0	T	Water	8260C	
180-40434-13	HD-COD-SW-26-0/1-0	T	Water	8260C	
180-40434-14	HD-COD-SW-27-0/1-0	T	Water	8260C	
180-40434-15	HD-COD-SW-28-0/1-0	T	Water	8260C	
180-40434-16	HD-COD-SW-29-0/1-0	T	Water	8260C	
180-40434-17	HD-QC1-0/1-2	T	Water	8260C	
180-40434-18	HD-QC1-0/1-1	T	Water	8260C	
180-40434-19	HD-QC2-0/1-2	T	Water	8260C	
180-40434-20	HD-QC1-0/1-3	T	Water	8260C	
180-40434-21	HD-QC1-0/1-4	T	Water	8260C	
180-40434-22	HD-MW-107-0/1-0	T	Water	8260C	
180-40434-22MS	Matrix Spike	T	Water	8260C	
180-40434-22MSD	Matrix Spike Duplicate	T	Water	8260C	
180-40434-25DL	HD-MW-37S-0/1-0	T	Water	8260C	
Analysis Batch:180-130947					
LCS 180-130947/9	Lab Control Sample	T	Water	8260C	
LCSD 180-130947/10	Lab Control Sample Duplicate	T	Water	8260C	
MB 180-130947/8	Method Blank	T	Water	8260C	
180-40434-23	HD-MW-93S-0/1-0	T	Water	8260C	
180-40434-23DL	HD-MW-93S-0/1-0	T	Water	8260C	
180-40434-24	HD-MW-93D-0/1-0	T	Water	8260C	
180-40434-25	HD-MW-37S-0/1-0	T	Water	8260C	

Report Basis
T = Total

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 180-130798					
LCS 180-130798/2-A	Lab Control Sample	R	Water	3005A	
MB 180-130798/1-A	Method Blank	R	Water	3005A	
180-40434-1	HD-COD-SW-6-0/1-0	T	Water	3005A	
180-40434-2	HD-COD-SW-7-0/1-0	T	Water	3005A	
180-40434-3	HD-COD-SW-8-0/1-0	T	Water	3005A	
180-40434-4	HD-COD-SW-9-0/1-0	T	Water	3005A	
180-40434-5	HD-COD-SW-10-0/1-0	T	Water	3005A	
180-40434-6	HD-COD-SW-11-0/1-0	T	Water	3005A	
180-40434-7	HD-COD-SW-12-0/1-0	T	Water	3005A	
180-40434-8	HD-COD-SW-13-0/1-0	T	Water	3005A	
180-40434-9	HD-COD-SW-15-0/1-0	T	Water	3005A	
180-40434-10	HD-COD-SW-16-0/1-0	T	Water	3005A	
180-40434-11	HD-COD-SW-17-0/1-0	T	Water	3005A	
180-40434-12	HD-COD-SW-20-0/1-0	T	Water	3005A	
180-40434-13	HD-COD-SW-26-0/1-0	T	Water	3005A	
180-40434-14	HD-COD-SW-27-0/1-0	T	Water	3005A	
180-40434-15	HD-COD-SW-28-0/1-0	T	Water	3005A	
180-40434-16	HD-COD-SW-29-0/1-0	T	Water	3005A	
180-40434-18	HD-QC1-0/1-1	T	Water	3005A	
180-40434-22	HD-MW-107-0/1-0	T	Water	3005A	
180-40434-22MS	Matrix Spike	T	Water	3005A	
180-40434-22MSD	Matrix Spike Duplicate	T	Water	3005A	
180-40434-23	HD-MW-93S-0/1-0	T	Water	3005A	
180-40434-24	HD-MW-93D-0/1-0	T	Water	3005A	
Prep Batch: 180-130801					
LCS 180-130801/2-A	Lab Control Sample	R	Water	3005A	
MB 180-130801/1-A	Method Blank	R	Water	3005A	
180-40434-25	HD-MW-37S-0/1-0	T	Water	3005A	
180-40434-25MS	Matrix Spike	T	Water	3005A	
180-40434-25MSD	Matrix Spike Duplicate	T	Water	3005A	
Analysis Batch:180-131403					
LCS 180-130801/2-A	Lab Control Sample	R	Water	6020A	180-130801
MB 180-130801/1-A	Method Blank	R	Water	6020A	180-130801
180-40434-25	HD-MW-37S-0/1-0	T	Water	6020A	180-130801
180-40434-25MS	Matrix Spike	T	Water	6020A	180-130801
180-40434-25MSD	Matrix Spike Duplicate	T	Water	6020A	180-130801

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:180-131561					
LCS 180-130798/2-A	Lab Control Sample	R	Water	6020A	180-130798
MB 180-130798/1-A	Method Blank	R	Water	6020A	180-130798
180-40434-1	HD-COD-SW-6-0/1-0	T	Water	6020A	180-130798
180-40434-2	HD-COD-SW-7-0/1-0	T	Water	6020A	180-130798
180-40434-3	HD-COD-SW-8-0/1-0	T	Water	6020A	180-130798
180-40434-4	HD-COD-SW-9-0/1-0	T	Water	6020A	180-130798
180-40434-5	HD-COD-SW-10-0/1-0	T	Water	6020A	180-130798
180-40434-6	HD-COD-SW-11-0/1-0	T	Water	6020A	180-130798
180-40434-7	HD-COD-SW-12-0/1-0	T	Water	6020A	180-130798
180-40434-8	HD-COD-SW-13-0/1-0	T	Water	6020A	180-130798
180-40434-9	HD-COD-SW-15-0/1-0	T	Water	6020A	180-130798
180-40434-10	HD-COD-SW-16-0/1-0	T	Water	6020A	180-130798
180-40434-11	HD-COD-SW-17-0/1-0	T	Water	6020A	180-130798
180-40434-12	HD-COD-SW-20-0/1-0	T	Water	6020A	180-130798
180-40434-13	HD-COD-SW-26-0/1-0	T	Water	6020A	180-130798
180-40434-14	HD-COD-SW-27-0/1-0	T	Water	6020A	180-130798
180-40434-15	HD-COD-SW-28-0/1-0	T	Water	6020A	180-130798
180-40434-16	HD-COD-SW-29-0/1-0	T	Water	6020A	180-130798
180-40434-18	HD-QC1-0/1-1	T	Water	6020A	180-130798
180-40434-22	HD-MW-107-0/1-0	T	Water	6020A	180-130798
180-40434-22MS	Matrix Spike	T	Water	6020A	180-130798
180-40434-22MSD	Matrix Spike Duplicate	T	Water	6020A	180-130798
180-40434-23	HD-MW-93S-0/1-0	T	Water	6020A	180-130798
180-40434-24	HD-MW-93D-0/1-0	T	Water	6020A	180-130798

Report Basis

R = Total Recoverable

T = Total

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:180-131272					
LCS 180-131272/1	Lab Control Sample	T	Water	SM 2320B	
MB 180-131272/2	Method Blank	T	Water	SM 2320B	
180-40434-1	HD-COD-SW-6-0/1-0	T	Water	SM 2320B	
180-40434-2	HD-COD-SW-7-0/1-0	T	Water	SM 2320B	
180-40434-2DU	Duplicate	T	Water	SM 2320B	
180-40434-3	HD-COD-SW-8-0/1-0	T	Water	SM 2320B	
180-40434-4	HD-COD-SW-9-0/1-0	T	Water	SM 2320B	
180-40434-5	HD-COD-SW-10-0/1-0	T	Water	SM 2320B	
180-40434-6	HD-COD-SW-11-0/1-0	T	Water	SM 2320B	
180-40434-7	HD-COD-SW-12-0/1-0	T	Water	SM 2320B	
180-40434-8	HD-COD-SW-13-0/1-0	T	Water	SM 2320B	
Analysis Batch:180-131390					
LCS 180-131390/1	Lab Control Sample	T	Water	SM 2320B	
MB 180-131390/2	Method Blank	T	Water	SM 2320B	
180-40434-9	HD-COD-SW-15-0/1-0	T	Water	SM 2320B	
180-40434-9DU	Duplicate	T	Water	SM 2320B	
180-40434-10	HD-COD-SW-16-0/1-0	T	Water	SM 2320B	
180-40434-11	HD-COD-SW-17-0/1-0	T	Water	SM 2320B	
180-40434-12	HD-COD-SW-20-0/1-0	T	Water	SM 2320B	
180-40434-13	HD-COD-SW-26-0/1-0	T	Water	SM 2320B	
180-40434-14	HD-COD-SW-27-0/1-0	T	Water	SM 2320B	
180-40434-15	HD-COD-SW-28-0/1-0	T	Water	SM 2320B	
180-40434-16	HD-COD-SW-29-0/1-0	T	Water	SM 2320B	
180-40434-18	HD-QC1-0/1-1	T	Water	SM 2320B	
180-40434-22	HD-MW-107-0/1-0	T	Water	SM 2320B	
180-40434-22DU	Duplicate	T	Water	SM 2320B	
180-40434-23	HD-MW-93S-0/1-0	T	Water	SM 2320B	
180-40434-24	HD-MW-93D-0/1-0	T	Water	SM 2320B	
180-40434-25	HD-MW-37S-0/1-0	T	Water	SM 2320B	

Report Basis
T = Total

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Analysis Batch:180-130742					
LCS 180-130742/37	Lab Control Sample	T	Water	300.0	
LCS 180-130742/5	Lab Control Sample	T	Water	300.0	
MB 180-130742/38	Method Blank	T	Water	300.0	
MB 180-130742/6	Method Blank	T	Water	300.0	
180-40434-1	HD-COD-SW-6-0/1-0	T	Water	300.0	
180-40434-2	HD-COD-SW-7-0/1-0	T	Water	300.0	
180-40434-3	HD-COD-SW-8-0/1-0	T	Water	300.0	
180-40434-4	HD-COD-SW-9-0/1-0	T	Water	300.0	
180-40434-5	HD-COD-SW-10-0/1-0	T	Water	300.0	
180-40434-6	HD-COD-SW-11-0/1-0	T	Water	300.0	
180-40434-7	HD-COD-SW-12-0/1-0	T	Water	300.0	
180-40434-8	HD-COD-SW-13-0/1-0	T	Water	300.0	
180-40434-9	HD-COD-SW-15-0/1-0	T	Water	300.0	
180-40434-10	HD-COD-SW-16-0/1-0	T	Water	300.0	
180-40434-11	HD-COD-SW-17-0/1-0	T	Water	300.0	
180-40434-12	HD-COD-SW-20-0/1-0	T	Water	300.0	
180-40434-13	HD-COD-SW-26-0/1-0	T	Water	300.0	
180-40434-13MS	Matrix Spike	T	Water	300.0	
180-40434-13MSD	Matrix Spike Duplicate	T	Water	300.0	
180-40434-14	HD-COD-SW-27-0/1-0	T	Water	300.0	
180-40434-15	HD-COD-SW-28-0/1-0	T	Water	300.0	
180-40434-16	HD-COD-SW-29-0/1-0	T	Water	300.0	
180-40434-18	HD-QC1-0/1-1	T	Water	300.0	
180-40434-22	HD-MW-107-0/1-0	T	Water	300.0	
180-40434-22MS	Matrix Spike	T	Water	300.0	
180-40434-22MSD	Matrix Spike Duplicate	T	Water	300.0	
180-40434-23	HD-MW-93S-0/1-0	T	Water	300.0	
180-40434-24	HD-MW-93D-0/1-0	T	Water	300.0	
180-40434-25	HD-MW-37S-0/1-0	T	Water	300.0	

Report Basis
T = Total

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-1 **Client ID: HD-COD-SW-6-0/1-0**

Sample Date/Time: 01/13/2015 13:40 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-1		180-130711		01/14/2015 16:23	1	TAL PIT	DLF
A:8260C	180-40434-D-1		180-130711		01/14/2015 16:23	1	TAL PIT	DLF
A:300.0	180-40434-A-1		180-130742		01/14/2015 15:04	1	TAL PIT	MJH
P:3005A	180-40434-B-1-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-1-A		180-131561	180-130798	01/22/2015 11:23	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-1		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-2 **Client ID: HD-COD-SW-7-0/1-0**

Sample Date/Time: 01/13/2015 11:50 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-2		180-130711		01/14/2015 16:47	1	TAL PIT	DLF
A:8260C	180-40434-D-2		180-130711		01/14/2015 16:47	1	TAL PIT	DLF
A:300.0	180-40434-A-2		180-130742		01/14/2015 15:19	1	TAL PIT	MJH
P:3005A	180-40434-B-2-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-2-A		180-131561	180-130798	01/22/2015 11:28	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-2		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-2 DU **Client ID: HD-COD-SW-7-0/1-0**

Sample Date/Time: 01/13/2015 11:50 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2320B	180-40434-A-2 DU		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-3 **Client ID: HD-COD-SW-8-0/1-0**

Sample Date/Time: 01/13/2015 09:20 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-3		180-130711		01/14/2015 17:11	1	TAL PIT	DLF
A:8260C	180-40434-D-3		180-130711		01/14/2015 17:11	1	TAL PIT	DLF
A:300.0	180-40434-B-3		180-130742		01/14/2015 14:18	1	TAL PIT	MJH
P:3005A	180-40434-A-3-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-A-3-A		180-131561	180-130798	01/22/2015 11:32	1	TAL PIT	CNF
A:SM 2320B	180-40434-B-3		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-4 **Client ID: HD-COD-SW-9-0/1-0**

Sample Date/Time: 01/13/2015 12:10 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-4		180-130711		01/14/2015 17:35	1	TAL PIT	DLF
A:8260C	180-40434-D-4		180-130711		01/14/2015 17:35	1	TAL PIT	DLF
A:300.0	180-40434-A-4		180-130742		01/14/2015 17:22	1	TAL PIT	MJH
P:3005A	180-40434-B-4-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-4-A		180-131561	180-130798	01/22/2015 11:36	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-4		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-5 **Client ID: HD-COD-SW-10-0/1-0**

Sample Date/Time: 01/13/2015 09:55 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-5		180-130711		01/14/2015 17:59	1	TAL PIT	DLF
A:8260C	180-40434-C-5		180-130711		01/14/2015 17:59	1	TAL PIT	DLF
A:300.0	180-40434-A-5		180-130742		01/14/2015 13:47	1	TAL PIT	MJH
A:300.0	180-40434-A-5		180-130742		01/14/2015 20:41	5	TAL PIT	MJH
P:3005A	180-40434-B-5-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-5-A		180-131561	180-130798	01/22/2015 12:03	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-5		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-6 **Client ID: HD-COD-SW-11-0/1-0**

Sample Date/Time: 01/13/2015 12:40 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-6		180-130711		01/14/2015 18:23	1	TAL PIT	DLF
A:8260C	180-40434-C-6		180-130711		01/14/2015 18:23	1	TAL PIT	DLF
A:300.0	180-40434-A-6		180-130742		01/14/2015 17:37	1	TAL PIT	MJH
P:3005A	180-40434-B-6-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-6-A		180-131561	180-130798	01/22/2015 12:08	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-6		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-7 **Client ID: HD-COD-SW-12-0/1-0**

Sample Date/Time: 01/13/2015 12:55 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-7		180-130711		01/14/2015 19:11	1	TAL PIT	DLF
A:8260C	180-40434-D-7		180-130711		01/14/2015 19:11	1	TAL PIT	DLF
A:300.0	180-40434-A-7		180-130742		01/14/2015 16:51	1	TAL PIT	MJH
A:300.0	180-40434-A-7		180-130742		01/14/2015 20:56	5	TAL PIT	MJH
P:3005A	180-40434-B-7-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-7-A		180-131561	180-130798	01/22/2015 12:13	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-7		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-8 **Client ID: HD-COD-SW-13-0/1-0**

Sample Date/Time: 01/13/2015 09:45 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-8		180-130711		01/14/2015 19:36	1	TAL PIT	DLF
A:8260C	180-40434-D-8		180-130711		01/14/2015 19:36	1	TAL PIT	DLF
A:300.0	180-40434-A-8		180-130742		01/14/2015 14:33	1	TAL PIT	MJH
P:3005A	180-40434-B-8-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-8-A		180-131561	180-130798	01/22/2015 12:17	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-8		180-131272		01/21/2015 05:29	1	TAL PIT	CLL

Lab ID: 180-40434-9 **Client ID: HD-COD-SW-15-0/1-0**

Sample Date/Time: 01/13/2015 13:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-9		180-130711		01/14/2015 20:00	1	TAL PIT	DLF
A:8260C	180-40434-D-9		180-130711		01/14/2015 20:00	1	TAL PIT	DLF
A:300.0	180-40434-A-9		180-130742		01/14/2015 17:52	1	TAL PIT	MJH
P:3005A	180-40434-B-9-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-9-A		180-131561	180-130798	01/22/2015 12:33	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-9		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-9 DU **Client ID: HD-COD-SW-15-0/1-0**

Sample Date/Time: 01/13/2015 13:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2320B	180-40434-A-9 DU		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-10 **Client ID: HD-COD-SW-16-0/1-0**

Sample Date/Time: 01/13/2015 10:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-10		180-130711		01/14/2015 20:24	1	TAL PIT	DLF
A:8260C	180-40434-D-10		180-130711		01/14/2015 20:24	1	TAL PIT	DLF
A:300.0	180-40434-A-10		180-130742		01/14/2015 18:08	1	TAL PIT	MJH
P:3005A	180-40434-B-10-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-10-A		180-131561	180-130798	01/22/2015 12:37	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-10		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-11 **Client ID: HD-COD-SW-17-0/1-0**

Sample Date/Time: 01/13/2015 10:33 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-11	DL	180-130711		01/14/2015 20:48	20	TAL PIT	DLF
A:8260C	180-40434-D-11	DL	180-130711		01/14/2015 20:48	20	TAL PIT	DLF
P:5030C	180-40434-C-11		180-130838		01/15/2015 23:00	2	TAL PIT	DLF
A:8260C	180-40434-C-11		180-130838		01/15/2015 23:00	2	TAL PIT	DLF
A:300.0	180-40434-A-11		180-130742		01/14/2015 18:23	1	TAL PIT	MJH
P:3005A	180-40434-B-11-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-11-A		180-131561	180-130798	01/22/2015 12:41	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-11		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-12 **Client ID: HD-COD-SW-20-0/1-0**

Sample Date/Time: 01/13/2015 10:55 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-12		180-130838		01/15/2015 17:46	1	TAL PIT	DLF
A:8260C	180-40434-C-12		180-130838		01/15/2015 17:46	1	TAL PIT	DLF
A:300.0	180-40434-A-12		180-130742		01/14/2015 19:09	1	TAL PIT	MJH
A:300.0	180-40434-A-12		180-130742		01/15/2015 10:01	5	TAL PIT	MJH
P:3005A	180-40434-B-12-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-12-A		180-131561	180-130798	01/22/2015 12:45	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-12		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-13 **Client ID: HD-COD-SW-26-0/1-0**

Sample Date/Time: 01/13/2015 11:35 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-13		180-130838		01/15/2015 18:10	1	TAL PIT	DLF
A:8260C	180-40434-C-13		180-130838		01/15/2015 18:10	1	TAL PIT	DLF
A:300.0	180-40434-A-13		180-130742		01/14/2015 19:24	1	TAL PIT	MJH
P:3005A	180-40434-B-13-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-13-A		180-131561	180-130798	01/22/2015 12:49	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-13		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-13 MS **Client ID: HD-COD-SW-26-0/1-0**

Sample Date/Time: 01/13/2015 11:35 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	180-40434-A-13 MS		180-130742		01/14/2015 19:40	1	TAL PIT	MJH

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-13 MSD **Client ID: HD-COD-SW-26-0/1-0**

Sample Date/Time: 01/13/2015 11:35 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	180-40434-A-13 MSD		180-130742		01/14/2015 19:55	1	TAL PIT	MJH

Lab ID: 180-40434-14 **Client ID: HD-COD-SW-27-0/1-0**

Sample Date/Time: 01/13/2015 13:25 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-14		180-130838		01/15/2015 18:34	1	TAL PIT	DLF
A:8260C	180-40434-C-14		180-130838		01/15/2015 18:34	1	TAL PIT	DLF
A:300.0	180-40434-A-14		180-130742		01/14/2015 22:13	1	TAL PIT	MJH
P:3005A	180-40434-B-14-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-14-A		180-131561	180-130798	01/22/2015 12:54	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-14		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-15 **Client ID: HD-COD-SW-28-0/1-0**

Sample Date/Time: 01/13/2015 12:30 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-E-15		180-130838		01/15/2015 18:58	1	TAL PIT	DLF
A:8260C	180-40434-E-15		180-130838		01/15/2015 18:58	1	TAL PIT	DLF
A:300.0	180-40434-A-15		180-130742		01/14/2015 22:28	1	TAL PIT	MJH
P:3005A	180-40434-B-15-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-15-A		180-131561	180-130798	01/22/2015 12:58	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-15		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-16 **Client ID: HD-COD-SW-29-0/1-0**

Sample Date/Time: 01/13/2015 09:02 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-16		180-130838		01/15/2015 19:47	1	TAL PIT	DLF
A:8260C	180-40434-C-16		180-130838		01/15/2015 19:47	1	TAL PIT	DLF
A:300.0	180-40434-A-16		180-130742		01/14/2015 14:49	1	TAL PIT	MJH
P:3005A	180-40434-B-16-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-16-A		180-131561	180-130798	01/22/2015 13:02	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-16		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-17 **Client ID: HD-QC1-0/1-2**

Sample Date/Time: 01/13/2015 12:00 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-A-17		180-130838		01/15/2015 14:57	1	TAL PIT	DLF
A:8260C	180-40434-A-17		180-130838		01/15/2015 14:57	1	TAL PIT	DLF

Lab ID: 180-40434-18 **Client ID: HD-QC1-0/1-1**

Sample Date/Time: 01/13/2015 08:00 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-18		180-130838		01/15/2015 19:22	8	TAL PIT	DLF
A:8260C	180-40434-C-18		180-130838		01/15/2015 19:22	8	TAL PIT	DLF
A:300.0	180-40434-A-18		180-130742		01/14/2015 14:03	1	TAL PIT	MJH
P:3005A	180-40434-B-18-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-18-A		180-131561	180-130798	01/22/2015 13:06	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-18		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-19 **Client ID: HD-QC2-0/1-2**

Sample Date/Time: 01/13/2015 12:01 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-A-19		180-130838		01/15/2015 20:59	1	TAL PIT	DLF
A:8260C	180-40434-A-19		180-130838		01/15/2015 20:59	1	TAL PIT	DLF

Lab ID: 180-40434-20 **Client ID: HD-QC1-0/1-3**

Sample Date/Time: 01/13/2015 14:27 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-A-20		180-130838		01/15/2015 20:11	1	TAL PIT	DLF
A:8260C	180-40434-A-20		180-130838		01/15/2015 20:11	1	TAL PIT	DLF

Lab ID: 180-40434-21 **Client ID: HD-QC1-0/1-4**

Sample Date/Time: 01/13/2015 14:30 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-B-21		180-130838		01/15/2015 20:35	1	TAL PIT	DLF
A:8260C	180-40434-B-21		180-130838		01/15/2015 20:35	1	TAL PIT	DLF

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-22 **Client ID:** HD-MW-107-0/1-0

Sample Date/Time: 01/13/2015 10:10 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-22		180-130838		01/15/2015 14:33	5	TAL PIT	DLF
A:8260C	180-40434-D-22		180-130838		01/15/2015 14:33	5	TAL PIT	DLF
A:300.0	180-40434-A-22		180-130742		01/14/2015 16:05	1	TAL PIT	MJH
P:3005A	180-40434-B-22-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-22-A		180-131561	180-130798	01/22/2015 13:26	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-22		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-22 **Client ID:** HD-MW-107-0/1-0

Sample Date/Time: 01/13/2015 10:10 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-22 MS		180-130838		01/15/2015 15:45	5	TAL PIT	DLF
A:8260C	180-40434-D-22 MS		180-130838		01/15/2015 15:45	5	TAL PIT	DLF
A:300.0	180-40434-A-22 MS		180-130742		01/14/2015 16:20	1	TAL PIT	MJH
P:3005A	180-40434-B-22-B MS		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-22-B MS		180-131561	180-130798	01/22/2015 13:35	1	TAL PIT	CNF

Lab ID: 180-40434-22 **Client ID:** HD-MW-107-0/1-0

Sample Date/Time: 01/13/2015 10:10 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-C-22 MSD		180-130838		01/15/2015 16:09	5	TAL PIT	DLF
A:8260C	180-40434-C-22 MSD		180-130838		01/15/2015 16:09	5	TAL PIT	DLF
A:300.0	180-40434-A-22 MSD		180-130742		01/14/2015 16:36	1	TAL PIT	MJH
P:3005A	180-40434-B-22-C MSD		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-22-C MSD		180-131561	180-130798	01/22/2015 13:39	1	TAL PIT	CNF

Lab ID: 180-40434-22 **Client ID:** HD-MW-107-0/1-0

Sample Date/Time: 01/13/2015 10:10 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2320B	180-40434-A-22 DU		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-22 SD **Client ID: HD-MW-107-0/1-0**

Sample Date/Time: 01/13/2015 10:10 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-40434-B-22-A SD ^5		180-131561	180-130798	01/15/2015 08:35	5	TAL PIT	AB1
A:6020A	180-40434-B-22-A SD ^5		180-131561	180-130798	01/22/2015 13:30	5	TAL PIT	CNF
P:3005A	180-40434-B-22-A PDS		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-22-A PDS		180-131561	180-130798	01/22/2015 13:43	1	TAL PIT	CNF

Lab ID: 180-40434-23 **Client ID: HD-MW-93S-0/1-0**

Sample Date/Time: 01/13/2015 11:50 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-E-23	DL	180-130947		01/16/2015 15:45	5	TAL PIT	DLF
A:8260C	180-40434-E-23	DL	180-130947		01/16/2015 15:45	5	TAL PIT	DLF
P:5030C	180-40434-D-23		180-130947		01/16/2015 22:59	1	TAL PIT	DLF
A:8260C	180-40434-D-23		180-130947		01/16/2015 22:59	1	TAL PIT	DLF
A:300.0	180-40434-A-23		180-130742		01/14/2015 20:10	1	TAL PIT	MJH
P:3005A	180-40434-B-23-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-23-A		180-131561	180-130798	01/22/2015 13:10	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-23		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-24 **Client ID: HD-MW-93D-0/1-0**

Sample Date/Time: 01/13/2015 13:00 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-D-24		180-130947		01/16/2015 16:09	10	TAL PIT	DLF
A:8260C	180-40434-D-24		180-130947		01/16/2015 16:09	10	TAL PIT	DLF
A:300.0	180-40434-A-24		180-130742		01/14/2015 20:25	1	TAL PIT	MJH
P:3005A	180-40434-B-24-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	180-40434-B-24-A		180-131561	180-130798	01/22/2015 13:47	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-24		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: 180-40434-25 **Client ID: HD-MW-37S-0/1-0**

Sample Date/Time: 01/13/2015 14:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-40434-E-25	DL	180-130838		01/15/2015 22:36	20	TAL PIT	DLF
A:8260C	180-40434-E-25	DL	180-130838		01/15/2015 22:36	20	TAL PIT	DLF
P:5030C	180-40434-C-25		180-130947		01/16/2015 23:23	2	TAL PIT	DLF
A:8260C	180-40434-C-25		180-130947		01/16/2015 23:23	2	TAL PIT	DLF
A:300.0	180-40434-A-25		180-130742		01/14/2015 17:06	1	TAL PIT	MJH
P:3005A	180-40434-B-25-A		180-131403	180-130801	01/15/2015 08:38	1	TAL PIT	AB1
A:6020A	180-40434-B-25-A		180-131403	180-130801	01/21/2015 13:39	1	TAL PIT	CNF
A:SM 2320B	180-40434-A-25		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: 180-40434-25 MS **Client ID: HD-MW-37S-0/1-0**

Sample Date/Time: 01/13/2015 14:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-40434-B-25-B MS		180-131403	180-130801	01/15/2015 08:38	1	TAL PIT	AB1
A:6020A	180-40434-B-25-B MS		180-131403	180-130801	01/21/2015 13:48	1	TAL PIT	CNF

Lab ID: 180-40434-25 MSD **Client ID: HD-MW-37S-0/1-0**

Sample Date/Time: 01/13/2015 14:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-40434-B-25-C MSD		180-131403	180-130801	01/15/2015 08:38	1	TAL PIT	AB1
A:6020A	180-40434-B-25-C MSD		180-131403	180-130801	01/21/2015 13:52	1	TAL PIT	CNF

Lab ID: 180-40434-25 SD **Client ID: HD-MW-37S-0/1-0**

Sample Date/Time: 01/13/2015 14:15 Received Date/Time: 01/13/2015 18:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-40434-B-25-A SD ^5		180-131403	180-130801	01/15/2015 08:38	5	TAL PIT	AB1
A:6020A	180-40434-B-25-A SD ^5		180-131403	180-130801	01/21/2015 13:43	5	TAL PIT	CNF
P:3005A	180-40434-B-25-A PDS		180-131403	180-130801	01/15/2015 08:38	1	TAL PIT	AB1
A:6020A	180-40434-B-25-A PDS		180-131403	180-130801	01/21/2015 13:56	1	TAL PIT	CNF

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	MB 180-130711/4		180-130711		01/14/2015 12:17	1	TAL PIT	DLF
A:8260C	MB 180-130711/4		180-130711		01/14/2015 12:17	1	TAL PIT	DLF
P:5030C	MB 180-130838/8		180-130838		01/15/2015 13:34	1	TAL PIT	DLF
A:8260C	MB 180-130838/8		180-130838		01/15/2015 13:34	1	TAL PIT	DLF
P:5030C	MB 180-130947/8		180-130947		01/16/2015 13:56	1	TAL PIT	DLF
A:8260C	MB 180-130947/8		180-130947		01/16/2015 13:56	1	TAL PIT	DLF
A:300.0	MB 180-130742/6		180-130742		01/14/2015 11:40	1	TAL PIT	MJH
A:300.0	MB 180-130742/38		180-130742		01/14/2015 21:27	1	TAL PIT	MJH
P:3005A	MB 180-130801/1-A		180-131403	180-130801	01/15/2015 08:38	1	TAL PIT	AB1
A:6020A	MB 180-130801/1-A		180-131403	180-130801	01/21/2015 13:18	1	TAL PIT	CNF
P:3005A	MB 180-130798/1-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	MB 180-130798/1-A		180-131561	180-130798	01/22/2015 11:15	1	TAL PIT	CNF
A:SM 2320B	MB 180-131272/2		180-131272		01/21/2015 05:29	1	TAL PIT	CLL
A:SM 2320B	MB 180-131390/2		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCS 180-130711/7		180-130711		01/14/2015 13:57	1	TAL PIT	DLF
A:8260C	LCS 180-130711/7		180-130711		01/14/2015 13:57	1	TAL PIT	DLF
P:5030C	LCS 180-130838/12		180-130838		01/15/2015 15:21	1	TAL PIT	DLF
A:8260C	LCS 180-130838/12		180-130838		01/15/2015 15:21	1	TAL PIT	DLF
P:5030C	LCS 180-130947/9		180-130947		01/16/2015 14:32	1	TAL PIT	DLF
A:8260C	LCS 180-130947/9		180-130947		01/16/2015 14:32	1	TAL PIT	DLF
A:300.0	LCS 180-130742/5		180-130742		01/14/2015 11:24	1	TAL PIT	MJH
A:300.0	LCS 180-130742/37		180-130742		01/14/2015 21:11	1	TAL PIT	MJH
P:3005A	LCS 180-130801/2-A		180-131403	180-130801	01/15/2015 08:38	1	TAL PIT	AB1
A:6020A	LCS 180-130801/2-A		180-131403	180-130801	01/21/2015 13:26	1	TAL PIT	CNF
P:3005A	LCS 180-130798/2-A		180-131561	180-130798	01/15/2015 08:35	1	TAL PIT	AB1
A:6020A	LCS 180-130798/2-A		180-131561	180-130798	01/22/2015 11:19	1	TAL PIT	CNF
A:SM 2320B	LCS 180-131272/1		180-131272		01/21/2015 05:29	1	TAL PIT	CLL
A:SM 2320B	LCS 180-131390/1		180-131390		01/22/2015 05:25	1	TAL PIT	CLL

Client: Groundwater Sciences Corporation Job Number: 180-40434-1

Laboratory Chronicle

Lab ID: **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCSD 180-130947/10		180-130947		01/16/2015 14:56	1	TAL PIT	DLF
A:8260C	LCSD 180-130947/10		180-130947		01/16/2015 14:56	1	TAL PIT	DLF

Lab References:
TAL PIT = TestAmerica Pittsburgh

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01143	01/15/15	01/14/15	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_01175	01/15/15	01/14/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00004	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00004	03/01/15	inorganic ventures, Lot H2-MEB512078			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00144	01/13/15	01/12/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00189	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00189	01/13/15	01/12/15	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_00182	01/13/15	01/12/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00189	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_00189	01/13/15	01/12/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00121	01/13/15	01/12/15	DI Water, Lot na	5 mL	ICSTDL7_00124	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_00124	01/13/15	01/12/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL5_00120	01/13/15	01/12/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00124	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_00124	01/13/15	01/12/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00189	01/13/15	01/12/15	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_00124	01/13/15	01/12/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL8_00095	01/13/15	01/12/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00100	01/13/15	01/12/15	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_00071	02/06/15	01/06/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00005	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00060	01/24/15	12/24/14	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00004	1 mL	Calcium	0.1 ppm
							Magnesium	0.1 ppm
							Potassium	0.1 ppm
							Sodium	0.1 ppm
.MMSCRI-1B_00004	10/01/15	Inorganic Ventures, Lot H2-MEB549023			(Purchased Reagent)		Calcium	25 ppm
							Magnesium	25 ppm
							Potassium	25 ppm
							Sodium	25 ppm
MICSABX_00065	02/24/15	12/24/14	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
.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
MICSABX_00066	02/16/15	01/16/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

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
							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
.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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Se	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00061	01/24/15	12/05/14	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
MICSAX_00062	02/16/15	01/16/15	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_00028	01/24/15	12/24/14	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_00040	01/12/15	12/12/14	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
MSTD2X_00041	02/22/15	01/22/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MTAPITTICPMS_00018	04/01/15	INORGANIC VENTURES, Lot G2-MEB506053			(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_00026	01/10/15	12/10/14	Methanol, Lot 85233	10 mL	VOA8260INTRES_00048	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260INTRES_00048	02/01/18		Restek, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00028	01/10/15	12/10/14	Methanol, Lot 85233	100 mL	VOA8260SURRES_00073	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_00073	01/31/19		Restek, Lot A0101000		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00029	01/30/15	12/30/14	Methanol, Lot 85233	100 mL	VOA8260SURRES_00075	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00075	01/31/19		Restek, Lot A0101000		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00097	01/20/15	01/13/15	Methanol, Lot 85233	8 mL	VOA8260GAS2ND_00078	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00096	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00078	11/30/15		Restek, Lot A099261		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOA2ND_00096	01/31/15	12/31/14	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00026	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_00026	02/28/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00092	12/18/14	12/11/14	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00077	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_00090	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00077	09/30/16		Restek, Lot A0105755		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00090	01/02/15	12/02/14	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00033	0.2 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00017	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00033	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00017	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00095	01/20/15	01/13/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00083	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00094	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00083	09/30/16		Restek, Lot A0105755		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00094	01/31/15	12/31/14	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00025	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00025	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOAACROPRI_00004	12/31/14	12/01/14	Methanol, Lot 34562	50 mL	VOAACRORES_00060	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00060	02/28/15		Restek, Lot A0106504		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEpri Res_00001	12/28/14	11/28/14	Methanol, Lot 85233	25 mL	VOARESEE1ST_00015	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,6-Trichlorotoluene	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_00015	02/28/15	Restek, Lot A097285			(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWket2nd Re_00001	01/29/15	12/29/14	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00036	0.125 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00036	02/28/16	Restek, Lot A0101295			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
voaWKet2ndRes_00005	12/24/14	11/24/14	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00037	0.125 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00037	02/28/16	Restek, Lot A0101295			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
voaWketPri Re_00002	01/15/15	12/15/14	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00032	0.125 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00032	02/28/16	Restek, Lot A093365			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
voaWVA pri Re_00005	12/31/14	12/01/14	Methanol, Lot 62345	20 mL	VOA8260VARES_00046	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00046	04/30/15	Restek, Lot A0106957			(Purchased Reagent)		Vinyl acetate	4000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
WALK125PPMCCV_00079	06/15/15	12/15/14	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_00089	07/20/15	01/20/15	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

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

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

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CERTIFICATE OF ANALYSIS

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fax: 540.585.3012
info@inorganicventures.com

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Ion Chromatography** **Custom Second Source Solution**

Catalog No.: TA-17

Lot Number: **H2-MEB512078**

Matrix: H2O

500 mg/L ea:
Chloride, Sulfate,

100 mg/L ea:
Bromide,

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

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

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

Certified Density: 1.002 g/mL (measured at 20 ± 1°C)

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

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

x_i = individual results

n = number of measurements

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

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

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

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

5.0 Chromatogram - N/A

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability.

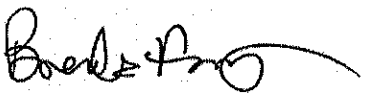
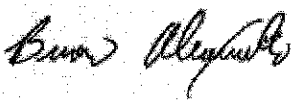
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations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

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

Certification Date: February 05, 2014

Expiration Date: EXPIRES 01 MAR 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

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

Zachary Saunders

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Allyson Guilliams

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

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CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

2 µg/mL ea:

Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

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

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

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CERTIFICATE OF ANALYSIS

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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

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

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

Description: Custom Claritas Standard

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

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

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

Instrumental Analysis by ICP Spectrometer:

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

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

SPEX CertiPrep Reference Multi: Lot# ALL 8

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

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

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

Date of Certification: NOV 2014 Certifying Officer:

Report of Certification

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

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

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

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

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

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

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

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

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

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

SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
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Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

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CERTIFICATE OF ANALYSIS

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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.

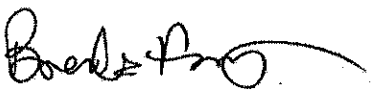
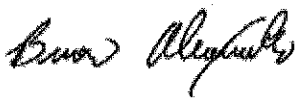
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations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

INORGANIC VENTURES™
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CERTIFICATE OF ANALYSIS

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

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

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

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

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

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

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

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 08, 2013

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician

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

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

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-MS-ICPMS

Lot Number: **G2-MEB506053**

Matrix: 0.7% HNO3(v/v)

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 ± 1.3 µg/mL	Arsenic, As	4.002 ± 0.030 µg/mL	Barium, Ba	200.0 ± 1.3 µg/mL
Beryllium, Be	5.002 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.001 ± 0.035 µg/mL
Chromium+3, Cr3	20.01 ± 0.13 µg/mL	Cobalt, Co	50.03 ± 0.25 µg/mL	Copper, Cu	25.01 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.001 ± 0.010 µg/mL	Manganese, Mn	50.03 ± 0.32 µg/mL
Nickel, Ni	50.00 ± 0.33 µg/mL	Selenium, Se	1.000 ± 0.007 µg/mL	Silver, Ag	5.002 ± 0.033 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.001 ± 0.034 µg/mL	Vanadium, V	49.99 ± 0.34 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

Certified Density: 1.005 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
B	Calculated		See Sec. 4.2
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	060531
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	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	120629
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 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).

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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

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10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
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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.

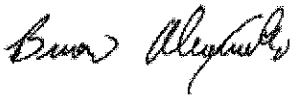
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations 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: December 04, 2013

Expiration Date: EXPIRES 01 APR 2015

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	

MATERIAL SAFETY DATA SHEET
TAPITT-MS-ICPMS

Revision Number 4, Revision Date March 04, 2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code	TAPITTMS-ICPMS
Product name	Multi-element Solution Standard in Dilute Nitric Acid
Common Name	Contains: 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 Cu; 20 µg/mL Cr3; 5 µg/mL ea: Ag, Be, Cd, Tl; 4 µg/mL As; 2 µg/mL Pb; 1 µg/mL Se
Manufacturer, importer, supplier	Inorganic Ventures 300 Technology Drive Christiansburg, VA 24073 web: www.inorganicventures.com
Emergency telephone number	800-424-9300 CHEMTREC (24 hrs)

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% Weight	ACGIH*	OSHA*
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	2 ppm TWA	2 ppm TWA; 5 mg/m3 TWA

* ACGIH - Occupational Exposure Limits - TWAs
* OSHA - Final PELs - Time Weighted Averages (TWAs)

3. HAZARDS IDENTIFICATION

Emergency Overview

- Vapours may be irritating to eyes, nose, throat, and lungs
- Corrosive

Eye contact	• Contact with eyes may cause irritation
Skin contact	• Substance may cause slight skin irritation
Inhalation	• May cause irritation of respiratory tract
Ingestion	• Harmful if swallowed

4. FIRST AID MEASURES

General advice	• Show this safety data sheet to the doctor in attendance
Skin contact	• Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes • Consult a physician if necessary
Eye contact	• Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes • Keep eye wide open while rinsing • If eye irritation persists, consult a specialist
Inhalation	• Move to fresh air in case of accidental inhalation of vapours • If breathing is difficult, give oxygen • Consult a physician if necessary
Ingestion	• Call a physician or Poison Control Centre immediately • If swallowed, seek medical advice immediately and show this container or label • If conscious, drink plenty of water

5. FIRE-FIGHTING MEASURES

Flash point	NA
Suitable extinguishing media	• Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Specific hazards	• Thermal decomposition can lead to release of irritating gases and vapours
Specific methods	• Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations
Special protective equipment for firefighters	• As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
NFPA (National Fire Protection Association)	• Health - 2 • Fire Hazard - 0 • Reactivity - 0
Under conditions giving incomplete combustion, hazardous gases produced may consist of:	• nitrogen oxides (NOx).

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	• Evacuate personnel to safe areas • Keep people away from and upwind of spill/leak • Wear personal protective equipment • Ensure adequate ventilation
Environmental precautions	• Prevent further leakage or spillage if safe to do so • Prevent product from entering drains
Methods for cleaning up	• Dam up • Neutralize with lime milk or soda and flush with plenty of water • Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container • After cleaning, flush away traces with water

7 HANDLING AND STORAGE

Handling

Technical measures/Precautions	• Use only in area provided with appropriate exhaust ventilation
Safe handling advice	• Wear personal protective equipment

Storage

Technical measures/Precautions	• Keep in properly labelled containers • Store at room temperature in the original container • Keep containers tightly closed in a dry, cool and well-ventilated place
Incompatible products	• organic materials • reducing agents

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment	
Hand protection	• impervious gloves
Eye protection	• tightly fitting safety goggles
Respiratory protection	• Ensure adequate ventilation
Skin and body protection	• Chemical resistant apron • Lab coat
Hygiene measures	• When using, do not eat, drink or smoke • Regular cleaning of equipment, work area and clothing

9 PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form liquid.

Appearance	clear
Colour	yellow tint.
Odour	None.

Important Health Safety and Environmental Information

pH	0 to 2
Boiling point/range	100°C
Flash point	N/A
Vapour pressure	NA.
Water solubility	miscible.

10. STABILITY AND REACTIVITY

Stability	• Stable under normal conditions • Hazardous polymerization does not occur
Materials to avoid	• organic materials • reducing agents
Hazardous decomposition products	• nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

CAS	Chemical Name	% Weight	LD50/oral/rat =	LD50/dermal/rat =
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	Inhalation LC50 Rat: 130 mg/kg/4H	Inhalation LC50 Rat: 130 mg/kg/4H

Product Information

Local effects	
Skin irritation	May cause skin irritation and/or dermatitis.
Eye irritation	May cause eye irritation with susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Chronic toxicity	Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Component Information

CAS	Chemical Name	% Weight	EFAD*	EFFSD*	EMD - Ecotoxicity*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	N/A	N/A

* EFAD - Ecotoxicity - Freshwater Algae Data
* EFFSD - Ecotoxicity - Freshwater Fish Species Data
* EMD - Ecotoxicity - Microtox Data

Product Information

Do not allow material to contaminate ground water or sewage system

Other information

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	• In accordance with local and national regulations
Contaminated packaging	• Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT

UN-No	UN3264 / Class 8
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
Packing group	III

IATA-DGR

UN-No	UN3264 / Class 8
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
Packing group	III

15. REGULATORY INFORMATION

U.S. INVENTORIES:

CAS	Chemical Name	% Weight	CPCL*	NJRTK*	CERCLA/SARA*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	sn 1356	1000 lb final RQ; 454 kg final RQ

* CPCL - California - Proposition 65 - Carcinogens List
* NJRTK - New Jersey - Department of Health RTK List
* CERCLA/SARA - Hazardous Substances and their Reportable Quantities

:

INTERNATIONAL INVENTORIES:

CAS	Chemical Name	% Weight	WHMIS*	EINECCS - European Union*
7732-18-5	Water	~99.3	Uncontrolled product according to WHMIS classification criteria	231-791-2
7697-37-2	Nitric Acid	~0.7	C, E (including 60%, 61.3%, 63%, 67%, 67.18%, 70%, 90%); E (10%)	231-714-2

* WHMIS - Canada - WHMIS - Classifications of Substances
* EINECCS - European Union - European inventory of Existing Commercial Chemical Substances (EINECCS)

:

16. OTHER INFORMATION

The above information is believed to be accurate and represents the best information available to us. It has been compiled from the data presented in various technical publications and our experience and should only be used as a guide for handling this product. It is the user's responsibility to determine the suitability of this information for their particular purposes. We assume that only qualified individuals, trained and familiar with procedures suitable to this product will handle this material. Inorganic Ventures, Inc. assumes no responsibility and shall not be held liable for any damage resulting from misuse of this product.

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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

rec. 11/13/14 SLB

2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

- N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

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

11.3 Expiration Date

EXPIRES
01 02 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

rec'd 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
Tl	ICP Assay	3162a	060808

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

- N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

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

11.3 Expiration Date EXPIRES 01 DEC 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

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

Description : 8260 List 1 / Std #3 Gases

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

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

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

CERTIFIED VALUES

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

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

Description : 8260 List 1 / Std #3 Gases

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

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

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

CERTIFIED VALUES

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

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

Description : 8260 List 1 / Std #3 Gases

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

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

Expiration Date : November 30, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,002.2 µg/mL	+/- 16.7616 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/- 21.2987 µg/mL	Unstressed
	Purity 99%		+/- 24.7536 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/- 15.8216 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 21.2729 µg/mL	Unstressed
	Purity 99%		+/- 24.7262 µg/mL	Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/- 14.6785 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 21.2759 µg/mL	Unstressed
	Purity 99%		+/- 24.7329 µg/mL	Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/- 16.7307 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 21.3051 µg/mL	Unstressed
	Purity 99%		+/- 24.7611 µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/- 16.2313 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 21.2671 µg/mL	Unstressed
	Purity 99%		+/- 24.7183 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/- 14.6721 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 21.2666 µg/mL	Unstressed
	Purity 99%		+/- 24.7221 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/- 15.1665 µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 21.3071 µg/mL	Unstressed
	Purity 99%		+/- 24.7678 µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/- 16.2157 µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/- 21.2894 µg/mL	Unstressed
	Purity 99%		+/- 24.7442 µg/mL	Stressed

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567649 **Lot No.:** A093504

Description : 8260 Internal Standard

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

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

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

CERTIFIED VALUES

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

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

RESTEK

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Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

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8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 567642.SEC **Lot No.:** A0101295

Description : 8260 List 1 / Std #2 Ketones

8260/624 Ketones Standard 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 28, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1.SEC (Lot 0902033) **Purity** 99%	10,015.2 µg/mL	+/- 58.6412 µg/mL +/- 533.0320 µg/mL +/- 533.6197 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3.SEC (Lot VEGGI) **Purity** 99%	10,010.0 µg/mL	+/- 58.6108 µg/mL +/- 532.7553 µg/mL +/- 533.3427 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1.SEC (Lot E29T040) **Purity** 99%	10,012.4 µg/mL	+/- 58.6248 µg/mL +/- 532.8830 µg/mL +/- 533.4706 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6.SEC (Lot ZSVCD-FF) **Purity** 99%	10,016.4 µg/mL	+/- 58.6482 µg/mL +/- 533.0959 µg/mL +/- 533.6837 µg/mL	Gravimetric Unstressed Stressed

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

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Catalog No. : 567642.SEC **Lot No.:** A0101295

Description : 8260 List 1 / Std #2 Ketones

8260/624 Ketones Standard 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 28, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	10,015.2 µg/mL	+/- 58.6412	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot 0902033)		+/- 533.0320	µg/mL	Unstressed
	Purity 99%		+/- 533.6197	µg/mL	Stressed
2	2-Butanone (MEK)	10,010.0 µg/mL	+/- 58.6108	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot VEGGI)		+/- 532.7553	µg/mL	Unstressed
	Purity 99%		+/- 533.3427	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,012.4 µg/mL	+/- 58.6248	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 532.8830	µg/mL	Unstressed
	Purity 99%		+/- 533.4706	µg/mL	Stressed
4	2-Hexanone	10,016.4 µg/mL	+/- 58.6482	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/- 533.0959	µg/mL	Unstressed
	Purity 99%		+/- 533.6837	µg/mL	Stressed

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

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Catalog No. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1			+/-	885.0582	µg/mL	Unstressed
	Purity 99%			+/-	888.6665	µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-12-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

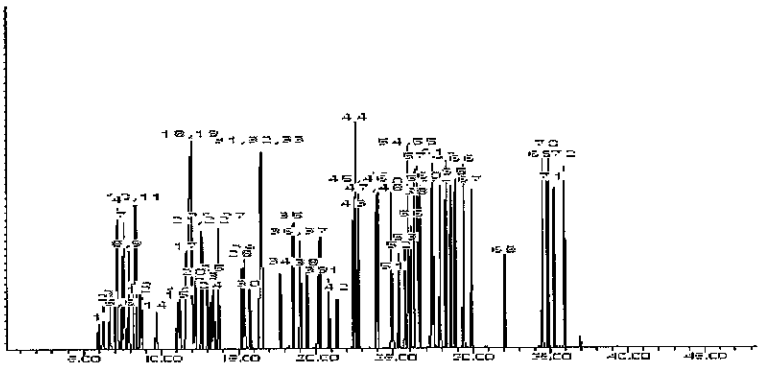
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** B251644995

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

RESTEK

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1			+/-	885.0582	µg/mL	Unstressed
	Purity 99%			+/-	888.6665	µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-12-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

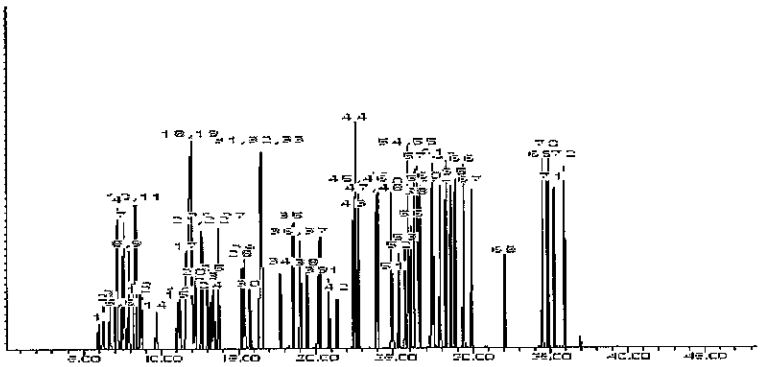
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** B251644995

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

RESTEK

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641.sec **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC **Purity** 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9.SEC **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1.SEC			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 110-54-3.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-34-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 594-20-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 156-60-5.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
17	Chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1.SEC			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9.SEC			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-82-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
23	1,1-Dichloropropene	2,010.5	µg/mL	+/-	11.6890	µg/mL	Gravimetric
	CAS # 563-58-6.SEC			+/-	44.4847	µg/mL	Unstressed
	Purity 98%			+/-	44.6661	µg/mL	Stressed
24	Carbon tetrachloride	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 56-23-5.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
25	n-Heptane (C7)	2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric
	CAS # 142-82-5.SEC			+/-	44.2553	µg/mL	Unstressed
	Purity 99%			+/-	44.4357	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 79-01-6.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed

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

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	Bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 96-18-4.SEC			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 110-57-6.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-63-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)	2,000.1	µg/mL	+/-	11.6285	µg/mL	Gravimetric
	CAS # 99-87-6.SEC			+/-	44.2545	µg/mL	Unstressed
	Purity 96%			+/-	44.4349	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 96-12-8.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

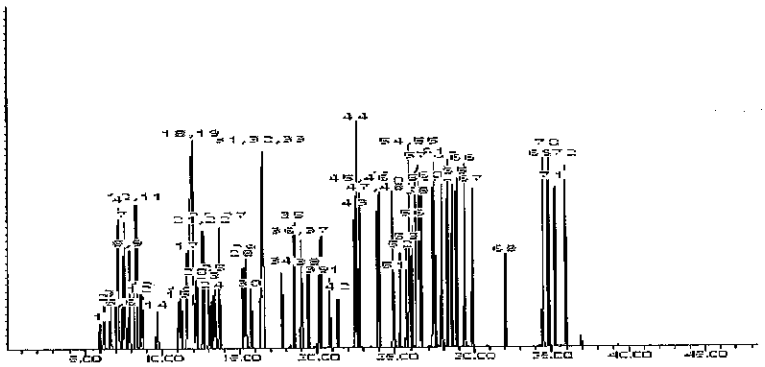
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** 1127510105

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

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Bellefonte, PA 16823-8812
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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.:** A0101000

Description : 8260 Surrogate Standard

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

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

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

CERTIFIED VALUES

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

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

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 Surrogate Standard

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

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

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

CERTIFIED VALUES

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

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

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

Description : 8260 List 1 / Std #6 Vinyl Acetate

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

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

Expiration Date : April 30, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	4,027.0 µg/mL	+/- 23.6327	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBC8935V)		+/- 214.3321	µg/mL	Unstressed
	Purity 99%		+/- 214.5684	µg/mL	Stressed

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

Tech Tips:

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

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

Description : 8260 List 1/Std #5 Acrolein High

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

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

Expiration Date : February 28, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein		19,767.0 µg/mL	+/- 115.7401	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 140903JLM)		+/- 633.7922	µg/mL	Unstressed
	Purity 99%			+/- 736.7140	µg/mL	Stressed

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

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

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

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

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

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.

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-40434-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	State Program	9	2891
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAP	4	E871008
TestAmerica Pittsburgh	Illinois	NELAP	5	002602
TestAmerica Pittsburgh	Kansas	NELAP	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAP	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAP	1	203011
TestAmerica Pittsburgh	New Jersey	NELAP	2	PA005
TestAmerica Pittsburgh	New York	NELAP	2	11182
TestAmerica Pittsburgh	North Carolina (WW/SW)	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAP	3	02-00416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014
TestAmerica Pittsburgh	Texas	NELAP	6	T104704528
TestAmerica Pittsburgh	US Fish & Wildlife	Federal		LE94312A-1
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAP	8	STLP
TestAmerica Pittsburgh	Virginia	NELAP	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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.: 180-40434-1

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-COD-SW-6-0/1-0	180-40434-1	106	104	98	101
HD-COD-SW-7-0/1-0	180-40434-2	110	101	98	99
HD-COD-SW-8-0/1-0	180-40434-3	105	103	98	98
HD-COD-SW-9-0/1-0	180-40434-4	108	105	96	90
HD-COD-SW-10-0/1-0	180-40434-5	110	103	100	96
HD-COD-SW-11-0/1-0	180-40434-6	111	102	97	101
HD-COD-SW-12-0/1-0	180-40434-7	109	98	100	97
HD-COD-SW-13-0/1-0	180-40434-8	110	101	102	95
HD-COD-SW-15-0/1-0	180-40434-9	112	104	97	96
HD-COD-SW-16-0/1-0	180-40434-10	111	105	102	102
HD-COD-SW-17-0/1-0	180-40434-11	110	104	100	95
HD-COD-SW-17-0/1-0 DL	180-40434-11 DL	112	102	98	95
HD-COD-SW-20-0/1-0	180-40434-12	107	103	102	100
HD-COD-SW-26-0/1-0	180-40434-13	109	108	104	101
HD-COD-SW-27-0/1-0	180-40434-14	110	106	98	94
HD-COD-SW-28-0/1-0	180-40434-15	111	104	98	93
HD-COD-SW-29-0/1-0	180-40434-16	114	103	104	95
HD-QC1-0/1-2	180-40434-17	105	101	99	93
HD-QC1-0/1-1	180-40434-18	108	108	99	98
HD-QC2-0/1-2	180-40434-19	114	104	100	96
HD-QC1-0/1-3	180-40434-20	107	108	101	100
HD-QC1-0/1-4	180-40434-21	114	101	97	97
HD-MW-107-0/1-0	180-40434-22	106	100	98	99
HD-MW-93S-0/1-0	180-40434-23	116	105	95	95
HD-MW-93S-0/1-0 DL	180-40434-23 DL	107	110	98	93
HD-MW-93D-0/1-0	180-40434-24	105	108	100	93
HD-MW-37S-0/1-0	180-40434-25	113	113	97	94
HD-MW-37S-0/1-0 DL	180-40434-25 DL	108	110	102	96
	MB 180-130711/4	105	98	98	100
	MB 180-130838/8	106	103	101	94
	MB 180-130947/8	110	104	101	98
	LCS 180-130711/7	101	93	101	101
	LCS 180-130838/12	95	92	93	93
	LCS 180-130947/9	106	98	100	99

	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 II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

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 #
	LCSD 180-130947/10	97	94	87	91
HD-MW-107-0/1-0 MS	180-40434-22 MS	97	89	94	89
HD-MW-107-0/1-0 MSD	180-40434-22 MSD	102	97	97	97

	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50114007.D

Lab ID: LCS 180-130711/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	8.65	87	50-139	
Vinyl chloride	10.0	9.25	93	53-138	
Bromomethane	10.0	8.94	89	33-150	
Chloroethane	10.0	8.79	88	36-142	
1,1-Dichloroethene	10.0	9.00	90	65-136	
Acetone	20.0	16.7	83	22-150	
Carbon disulfide	10.0	10.9	109	54-132	
Methylene Chloride	10.0	9.56	96	63-129	
trans-1,2-Dichloroethene	10.0	10.0	100	73-126	
Methyl tert-butyl ether	10.0	9.96	100	64-123	
1,1-Dichloroethane	10.0	10.2	102	73-126	
cis-1,2-Dichloroethene	10.0	10.1	101	70-120	
Bromochloromethane	10.0	10.2	102	70-127	
2-Butanone (MEK)	20.0	16.9	84	39-138	
Chloroform	10.0	9.79	98	72-127	
1,1,1-Trichloroethane	10.0	11.1	111	63-133	
Carbon tetrachloride	10.0	11.3	113	55-150	
Benzene	10.0	9.83	98	80-120	
1,2-Dichloroethane	10.0	9.54	95	68-132	
Trichloroethene	10.0	10.8	108	73-120	
1,2-Dichloropropane	10.0	9.40	94	76-124	
Bromodichloromethane	10.0	10.5	105	66-130	
cis-1,3-Dichloropropene	10.0	11.4	114	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.5	97	45-145	
Toluene	10.0	10.1	101	80-123	
trans-1,3-Dichloropropene	10.0	12.8	128	65-125	*
1,1,2-Trichloroethane	10.0	9.70	97	77-127	
Tetrachloroethene	10.0	10.1	101	70-135	
2-Hexanone	20.0	17.0	85	25-132	
Dibromochloromethane	10.0	11.1	111	60-140	
1,2-Dibromoethane (EDB)	10.0	10.8	108	74-123	
Chlorobenzene	10.0	10.7	107	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.7	107	63-140	
Ethylbenzene	10.0	10.5	105	72-126	
Xylenes, Total	20.0	21.6	108	76-128	
Styrene	10.0	10.5	105	71-127	
Bromoform	10.0	11.7	117	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.60	96	62-125	
1,4-Dioxane	200	143 J	72	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50115012.D

Lab ID: LCS 180-130838/12 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.14	91	50-139	
Vinyl chloride	10.0	9.61	96	53-138	
Bromomethane	10.0	9.17	92	33-150	
Chloroethane	10.0	9.32	93	36-142	
1,1-Dichloroethene	10.0	9.60	96	65-136	
Acetone	20.0	19.1	96	22-150	
Carbon disulfide	10.0	10.3	103	54-132	
Methylene Chloride	10.0	9.60	96	63-129	
trans-1,2-Dichloroethene	10.0	10.3	103	73-126	
Methyl tert-butyl ether	10.0	9.50	95	64-123	
1,1-Dichloroethane	10.0	10.4	104	73-126	
cis-1,2-Dichloroethene	10.0	10.2	102	70-120	
Bromochloromethane	10.0	10.7	107	70-127	
2-Butanone (MEK)	20.0	19.3	97	39-138	
Chloroform	10.0	9.92	99	72-127	
1,1,1-Trichloroethane	10.0	11.0	110	63-133	
Carbon tetrachloride	10.0	11.5	115	55-150	
Benzene	10.0	9.92	99	80-120	
1,2-Dichloroethane	10.0	10.1	101	68-132	
Trichloroethene	10.0	10.6	106	73-120	
1,2-Dichloropropane	10.0	9.10	91	76-124	
Bromodichloromethane	10.0	9.97	100	66-130	
cis-1,3-Dichloropropene	10.0	10.6	106	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.3	91	45-145	
Toluene	10.0	9.96	100	80-123	
trans-1,3-Dichloropropene	10.0	11.8	118	65-125	
1,1,2-Trichloroethane	10.0	9.35	94	77-127	
Tetrachloroethene	10.0	9.89	99	70-135	
2-Hexanone	20.0	15.2	76	25-132	
Dibromochloromethane	10.0	10.8	108	60-140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	74-123	
Chlorobenzene	10.0	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.4	104	63-140	
Ethylbenzene	10.0	10.4	104	72-126	
Xylenes, Total	20.0	21.2	106	76-128	
Styrene	10.0	10.0	100	71-127	
Bromoform	10.0	9.98	100	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.50	95	62-125	
1,4-Dioxane	200	141 J	71	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50116009.D

Lab ID: LCS 180-130947/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.57	96	50-139	
Vinyl chloride	10.0	9.83	98	53-138	
Bromomethane	10.0	8.53	85	33-150	
Chloroethane	10.0	8.87	89	36-142	
1,1-Dichloroethene	10.0	10.3	103	65-136	
Acetone	20.0	24.2	121	22-150	
Carbon disulfide	10.0	8.60	86	54-132	
Methylene Chloride	10.0	11.1	111	63-129	
trans-1,2-Dichloroethene	10.0	11.0	110	73-126	
Methyl tert-butyl ether	10.0	10.2	102	64-123	
1,1-Dichloroethane	10.0	10.9	109	73-126	
cis-1,2-Dichloroethene	10.0	10.3	103	70-120	
Bromochloromethane	10.0	10.9	109	70-127	
2-Butanone (MEK)	20.0	21.0	105	39-138	
Chloroform	10.0	10.6	106	72-127	
1,1,1-Trichloroethane	10.0	10.5	105	63-133	
Carbon tetrachloride	10.0	11.1	111	55-150	
Benzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.7	107	68-132	
Trichloroethene	10.0	11.4	114	73-120	
1,2-Dichloropropane	10.0	10.3	103	76-124	
Bromodichloromethane	10.0	9.85	99	66-130	
cis-1,3-Dichloropropene	10.0	10.6	106	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.6	98	45-145	
Toluene	10.0	10.3	103	80-123	
trans-1,3-Dichloropropene	10.0	11.5	115	65-125	
1,1,2-Trichloroethane	10.0	10.0	100	77-127	
Tetrachloroethene	10.0	10.3	103	70-135	
2-Hexanone	20.0	19.6	98	25-132	
Dibromochloromethane	10.0	9.74	97	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	74-123	
Chlorobenzene	10.0	10.9	109	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.99	100	63-140	
Ethylbenzene	10.0	10.8	108	72-126	
Xylenes, Total	20.0	21.5	108	76-128	
Styrene	10.0	10.3	103	71-127	
Bromoform	10.0	8.72	87	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.92	99	62-125	
1,4-Dioxane	200	193 J	96	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50116010.D

Lab ID: LCSD 180-130947/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	8.81	88	8	35	50-139	
Vinyl chloride	10.0	9.05	91	8	35	53-138	
Bromomethane	10.0	9.24	92	8	35	33-150	
Chloroethane	10.0	9.03	90	2	35	36-142	
1,1-Dichloroethene	10.0	9.57	96	7	35	65-136	
Acetone	20.0	23.9	120	1	35	22-150	
Carbon disulfide	10.0	8.69	87	1	35	54-132	
Methylene Chloride	10.0	10.3	103	8	35	63-129	
trans-1,2-Dichloroethene	10.0	10.8	108	2	35	73-126	
Methyl tert-butyl ether	10.0	10.2	102	0	35	64-123	
1,1-Dichloroethane	10.0	10.6	106	3	35	73-126	
cis-1,2-Dichloroethene	10.0	10.7	107	4	35	70-120	
Bromochloromethane	10.0	10.5	105	4	35	70-127	
2-Butanone (MEK)	20.0	21.2	106	1	35	39-138	
Chloroform	10.0	10.6	106	0	35	72-127	
1,1,1-Trichloroethane	10.0	10.9	109	4	35	63-133	
Carbon tetrachloride	10.0	10.6	106	4	35	55-150	
Benzene	10.0	10.5	105	2	32	80-120	
1,2-Dichloroethane	10.0	10.1	101	5	32	68-132	
Trichloroethene	10.0	10.7	107	6	35	73-120	
1,2-Dichloropropane	10.0	9.74	97	6	34	76-124	
Bromodichloromethane	10.0	9.49	95	4	35	66-130	
cis-1,3-Dichloropropene	10.0	10.7	107	2	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.6	103	5	35	45-145	
Toluene	10.0	9.98	100	3	35	80-123	
trans-1,3-Dichloropropene	10.0	10.8	108	7	35	65-125	
1,1,2-Trichloroethane	10.0	9.43	94	6	35	77-127	
Tetrachloroethene	10.0	9.44	94	9	35	70-135	
2-Hexanone	20.0	19.6	98	0	35	25-132	
Dibromochloromethane	10.0	9.83	98	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	1	35	74-123	
Chlorobenzene	10.0	10.3	103	5	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.80	98	2	34	63-140	
Ethylbenzene	10.0	10.1	101	7	33	72-126	
Xylenes, Total	20.0	20.8	104	3	32	76-128	
Styrene	10.0	9.98	100	3	34	71-127	
Bromoform	10.0	8.71	87	0	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.56	96	4	35	62-125	
1,4-Dioxane	200	188 J	94	3	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50115013.D

Lab ID: 180-40434-22 MS Client ID: HD-MW-107-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	50.0	5.0 U	43.4	87	50-139	
Vinyl chloride	50.0	5.0 U	48.0	96	53-138	
Bromomethane	50.0	5.0 U	46.9	94	33-150	
Chloroethane	50.0	5.0 U	44.5	89	36-142	
1,1-Dichloroethene	50.0	5.1	51.5	93	65-136	
Acetone	100	25 U	91.1	91	22-150	
Carbon disulfide	50.0	5.0 U	49.8	100	54-132	
Methylene Chloride	50.0	5.0 U	44.8	90	63-129	
trans-1,2-Dichloroethene	50.0	5.0 U	49.1	98	73-126	
Methyl tert-butyl ether	50.0	5.0 U	47.9	96	64-123	
1,1-Dichloroethane	50.0	4.9 J	55.9	102	73-126	
cis-1,2-Dichloroethene	50.0	110	178	134	70-120	F1
Bromochloromethane	50.0	5.0 U	45.3	91	70-127	
2-Butanone (MEK)	100	25 U	100	100	39-138	
Chloroform	50.0	5.0 U	49.9	100	72-127	
1,1,1-Trichloroethane	50.0	18	74.5	114	63-133	
Carbon tetrachloride	50.0	5.0 U	54.1	108	55-150	
Benzene	50.0	5.0 U	47.8	96	80-120	
1,2-Dichloroethane	50.0	5.0 U	48.7	97	68-132	
Trichloroethene	50.0	51	116	130	73-120	F1
1,2-Dichloropropane	50.0	5.0 U	44.1	88	76-124	
Bromodichloromethane	50.0	5.0 U	47.2	94	66-130	
cis-1,3-Dichloropropene	50.0	5.0 U	50.2	100	66-120	
4-Methyl-2-pentanone (MIBK)	100	25 U	92.9	93	45-145	
Toluene	50.0	5.0 U	48.8	98	80-123	
trans-1,3-Dichloropropene	50.0	5.0 U	58.1	116	65-125	
1,1,2-Trichloroethane	50.0	5.0 U	45.3	91	77-127	
Tetrachloroethene	50.0	83	144	122	70-135	
2-Hexanone	100	25 U	76.1	76	25-132	
Dibromochloromethane	50.0	5.0 U	52.2	104	60-140	
1,2-Dibromoethane (EDB)	50.0	5.0 U	47.6	95	74-123	
Chlorobenzene	50.0	5.0 U	50.8	102	80-120	
1,1,1,2-Tetrachloroethane	50.0	5.0 U	49.4	99	63-140	
Ethylbenzene	50.0	5.0 U	52.0	104	72-126	
Xylenes, Total	100	15 U	102	102	76-128	
Styrene	50.0	5.0 U	48.5	97	71-127	
Bromoform	50.0	5.0 U	46.2	92	46-150	
1,1,2,2-Tetrachloroethane	50.0	5.0 U	46.9	94	62-125	
1,4-Dioxane	1000	1000 U	722 J	72	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50115014.D

Lab ID: 180-40434-22 MSD Client ID: HD-MW-107-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	50.0	44.1	88	2	35	50-139	
Vinyl chloride	50.0	47.9	96	0	35	53-138	
Bromomethane	50.0	52.8	106	12	35	33-150	
Chloroethane	50.0	46.9	94	5	35	36-142	
1,1-Dichloroethene	50.0	51.4	93	0	35	65-136	
Acetone	100	106	106	15	35	22-150	
Carbon disulfide	50.0	51.2	102	3	35	54-132	
Methylene Chloride	50.0	49.7	99	10	35	63-129	
trans-1,2-Dichloroethene	50.0	51.8	104	5	35	73-126	
Methyl tert-butyl ether	50.0	51.6	103	7	35	64-123	
1,1-Dichloroethane	50.0	57.8	106	3	35	73-126	
cis-1,2-Dichloroethene	50.0	191	159	7	35	70-120	F1
Bromochloromethane	50.0	51.8	104	13	35	70-127	
2-Butanone (MEK)	100	109	109	9	35	39-138	
Chloroform	50.0	52.6	105	5	35	72-127	
1,1,1-Trichloroethane	50.0	79.6	124	7	35	63-133	
Carbon tetrachloride	50.0	56.0	112	3	35	55-150	
Benzene	50.0	50.4	101	5	32	80-120	
1,2-Dichloroethane	50.0	50.3	101	3	32	68-132	
Trichloroethene	50.0	119	137	3	35	73-120	F1
1,2-Dichloropropane	50.0	48.4	97	9	34	76-124	
Bromodichloromethane	50.0	49.2	98	4	35	66-130	
cis-1,3-Dichloropropene	50.0	54.8	110	9	35	66-120	
4-Methyl-2-pentanone (MIBK)	100	102	102	10	35	45-145	
Toluene	50.0	50.2	100	3	35	80-123	
trans-1,3-Dichloropropene	50.0	60.4	121	4	35	65-125	
1,1,2-Trichloroethane	50.0	48.2	96	6	35	77-127	
Tetrachloroethene	50.0	150	134	4	35	70-135	
2-Hexanone	100	84.4	84	10	35	25-132	
Dibromochloromethane	50.0	51.9	104	1	35	60-140	
1,2-Dibromoethane (EDB)	50.0	52.0	104	9	35	74-123	
Chlorobenzene	50.0	53.5	107	5	29	80-120	
1,1,1,2-Tetrachloroethane	50.0	51.6	103	4	34	63-140	
Ethylbenzene	50.0	51.4	103	1	33	72-126	
Xylenes, Total	100	105	105	3	32	76-128	
Styrene	50.0	50.7	101	5	34	71-127	
Bromoform	50.0	49.4	99	7	35	46-150	
1,1,2,2-Tetrachloroethane	50.0	50.4	101	7	35	62-125	
1,4-Dioxane	1000	749 J	75	4	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.: 180-40434-1

SDG No.:

Lab File ID: 50114004.D Lab Sample ID: MB 180-130711/4

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

Instrument ID: CHHP5 Date Analyzed: 01/14/2015 12:17

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 180-130711/7	50114007.D	01/14/2015 13:57
HD-COD-SW-6-0/1-0	180-40434-1	50114013.D	01/14/2015 16:23
HD-COD-SW-7-0/1-0	180-40434-2	50114014.D	01/14/2015 16:47
HD-COD-SW-8-0/1-0	180-40434-3	50114015.D	01/14/2015 17:11
HD-COD-SW-9-0/1-0	180-40434-4	50114016.D	01/14/2015 17:35
HD-COD-SW-10-0/1-0	180-40434-5	50114017.D	01/14/2015 17:59
HD-COD-SW-11-0/1-0	180-40434-6	50114018.D	01/14/2015 18:23
HD-COD-SW-12-0/1-0	180-40434-7	50114020.D	01/14/2015 19:11
HD-COD-SW-13-0/1-0	180-40434-8	50114021.D	01/14/2015 19:36
HD-COD-SW-15-0/1-0	180-40434-9	50114022.D	01/14/2015 20:00
HD-COD-SW-16-0/1-0	180-40434-10	50114023.D	01/14/2015 20:24
HD-COD-SW-17-0/1-0 DL	180-40434-11 DL	50114024.D	01/14/2015 20:48

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: 50115008.D Lab Sample ID: MB 180-130838/8

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

Instrument ID: CHHP5 Date Analyzed: 01/15/2015 13:34

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-107-0/1-0	180-40434-22	50115010.D	01/15/2015 14:33
HD-QC1-0/1-2	180-40434-17	50115011.D	01/15/2015 14:57
	LCS 180-130838/12	50115012.D	01/15/2015 15:21
HD-MW-107-0/1-0 MS	180-40434-22 MS	50115013.D	01/15/2015 15:45
HD-MW-107-0/1-0 MSD	180-40434-22 MSD	50115014.D	01/15/2015 16:09
HD-COD-SW-20-0/1-0	180-40434-12	50115018.D	01/15/2015 17:46
HD-COD-SW-26-0/1-0	180-40434-13	50115019.D	01/15/2015 18:10
HD-COD-SW-27-0/1-0	180-40434-14	50115020.D	01/15/2015 18:34
HD-COD-SW-28-0/1-0	180-40434-15	50115021.D	01/15/2015 18:58
HD-QC1-0/1-1	180-40434-18	50115022.D	01/15/2015 19:22
HD-COD-SW-29-0/1-0	180-40434-16	50115023.D	01/15/2015 19:47
HD-QC1-0/1-3	180-40434-20	50115024.D	01/15/2015 20:11
HD-QC1-0/1-4	180-40434-21	50115025.D	01/15/2015 20:35
HD-QC2-0/1-2	180-40434-19	50115026.D	01/15/2015 20:59
HD-MW-37S-0/1-0 DL	180-40434-25 DL	50115030.D	01/15/2015 22:36
HD-COD-SW-17-0/1-0	180-40434-11	50115031.D	01/15/2015 23:00

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: 50116008.D Lab Sample ID: MB 180-130947/8

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

Instrument ID: CHHP5 Date Analyzed: 01/16/2015 13:56

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-130947/9	50116009.D	01/16/2015 14:32
	LCSD 180-130947/10	50116010.D	01/16/2015 14:56
HD-MW-93S-0/1-0 DL	180-40434-23 DL	50116012.D	01/16/2015 15:45
HD-MW-93D-0/1-0	180-40434-24	50116013.D	01/16/2015 16:09
HD-MW-93S-0/1-0	180-40434-23	50116030.D	01/16/2015 22:59
HD-MW-37S-0/1-0	180-40434-25	50116031.D	01/16/2015 23:23

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: 51215001.D BFB Injection Date: 12/15/2014

Instrument ID: CHHP5 BFB Injection Time: 10:05

Analysis Batch No.: 128329

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	30.9	
75	30.0 - 60.0 % of mass 95	48.7	
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	0.5	(0.6)1
174	50.0 - 120.00 % of mass 95	72.5	
175	5.0 - 9.0 % of mass 174	6.4	(8.8)1
176	95.0 - 101.0 % of mass 174	71.3	(98.4)1
177	5.0 - 9.0 % of mass 176	4.0	(5.6)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-128329/7	51215007.D	12/15/2014	14:33
	IC 180-128329/8	51215008.D	12/15/2014	14:57
	ICIS 180-128329/9	51215009.D	12/15/2014	15:21
	IC 180-128329/10	51215010.D	12/15/2014	15:45
	IC 180-128329/11	51215011.D	12/15/2014	16:09
	IC 180-128329/12	51215012.D	12/15/2014	16:33
	IC 180-128329/13	51215013.D	12/15/2014	16:57

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: 50114001.D BFB Injection Date: 01/14/2015

Instrument ID: CHHP5 BFB Injection Time: 09:04

Analysis Batch No.: 130711

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	31.3	
75	30.0 - 60.0 % of mass 95	56.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	70.8	
175	5.0 - 9.0 % of mass 174	5.3	(7.5)1
176	95.0 - 101.0 % of mass 174	69.0	(97.5)1
177	5.0 - 9.0 % of mass 176	4.3	(6.2)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-130711/2	50114002.D	01/14/2015	09:55
	MB 180-130711/4	50114004.D	01/14/2015	12:17
	LCS 180-130711/7	50114007.D	01/14/2015	13:57
HD-COD-SW-6-0/1-0	180-40434-1	50114013.D	01/14/2015	16:23
HD-COD-SW-7-0/1-0	180-40434-2	50114014.D	01/14/2015	16:47
HD-COD-SW-8-0/1-0	180-40434-3	50114015.D	01/14/2015	17:11
HD-COD-SW-9-0/1-0	180-40434-4	50114016.D	01/14/2015	17:35
HD-COD-SW-10-0/1-0	180-40434-5	50114017.D	01/14/2015	17:59
HD-COD-SW-11-0/1-0	180-40434-6	50114018.D	01/14/2015	18:23
HD-COD-SW-12-0/1-0	180-40434-7	50114020.D	01/14/2015	19:11
HD-COD-SW-13-0/1-0	180-40434-8	50114021.D	01/14/2015	19:36
HD-COD-SW-15-0/1-0	180-40434-9	50114022.D	01/14/2015	20:00
HD-COD-SW-16-0/1-0	180-40434-10	50114023.D	01/14/2015	20:24
HD-COD-SW-17-0/1-0 DL	180-40434-11 DL	50114024.D	01/14/2015	20:48

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: 50115006.D BFB Injection Date: 01/15/2015

Instrument ID: CHHP5 BFB Injection Time: 11:21

Analysis Batch No.: 130838

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	30.4	
75	30.0 - 60.0 % of mass 95	49.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	74.4	
175	5.0 - 9.0 % of mass 174	6.6	(8.8)1
176	95.0 - 101.0 % of mass 174	71.4	(96.0)1
177	5.0 - 9.0 % of mass 176	4.4	(6.2)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-130838/2	50115002.D	01/15/2015	11:58
	MB 180-130838/8	50115008.D	01/15/2015	13:34
HD-MW-107-0/1-0	180-40434-22	50115010.D	01/15/2015	14:33
HD-QC1-0/1-2	180-40434-17	50115011.D	01/15/2015	14:57
	LCS 180-130838/12	50115012.D	01/15/2015	15:21
HD-MW-107-0/1-0 MS	180-40434-22 MS	50115013.D	01/15/2015	15:45
HD-MW-107-0/1-0 MSD	180-40434-22 MSD	50115014.D	01/15/2015	16:09
HD-COD-SW-20-0/1-0	180-40434-12	50115018.D	01/15/2015	17:46
HD-COD-SW-26-0/1-0	180-40434-13	50115019.D	01/15/2015	18:10
HD-COD-SW-27-0/1-0	180-40434-14	50115020.D	01/15/2015	18:34
HD-COD-SW-28-0/1-0	180-40434-15	50115021.D	01/15/2015	18:58
HD-QC1-0/1-1	180-40434-18	50115022.D	01/15/2015	19:22
HD-COD-SW-29-0/1-0	180-40434-16	50115023.D	01/15/2015	19:47
HD-QC1-0/1-3	180-40434-20	50115024.D	01/15/2015	20:11
HD-QC1-0/1-4	180-40434-21	50115025.D	01/15/2015	20:35
HD-QC2-0/1-2	180-40434-19	50115026.D	01/15/2015	20:59
HD-MW-37S-0/1-0 DL	180-40434-25 DL	50115030.D	01/15/2015	22:36
HD-COD-SW-17-0/1-0	180-40434-11	50115031.D	01/15/2015	23:00

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: 50116006.D BFB Injection Date: 01/16/2015

Instrument ID: CHHP5 BFB Injection Time: 12:21

Analysis Batch No.: 130947

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	31.5	
75	30.0 - 60.0 % of mass 95	48.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	0.7	(1.0)1
174	50.0 - 120.00 % of mass 95	67.5	
175	5.0 - 9.0 % of mass 174	5.6	(8.3)1
176	95.0 - 101.0 % of mass 174	67.4	(99.8)1
177	5.0 - 9.0 % of mass 176	4.4	(6.5)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-130947/2	50116002.D	01/16/2015	12:52
	MB 180-130947/8	50116008.D	01/16/2015	13:56
	LCS 180-130947/9	50116009.D	01/16/2015	14:32
	LCSD 180-130947/10	50116010.D	01/16/2015	14:56
HD-MW-93S-0/1-0 DL	180-40434-23 DL	50116012.D	01/16/2015	15:45
HD-MW-93D-0/1-0	180-40434-24	50116013.D	01/16/2015	16:09
HD-MW-93S-0/1-0	180-40434-23	50116030.D	01/16/2015	22:59
HD-MW-37S-0/1-0	180-40434-25	50116031.D	01/16/2015	23:23

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Sample No.: CCVIS 180-130711/2 Date Analyzed: 01/14/2015 09:55

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

Lab File ID (Standard): 50114002.D Heated Purge: (Y/N) N

Calibration ID: 20600

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		186078	4.30	536219	7.27	126828	10.36
UPPER LIMIT		372156	4.80	1072438	7.77	253656	10.86
LOWER LIMIT		93039	3.80	268110	6.77	63414	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-130711/4		243700	4.29	541712	7.27	121751	10.36
LCS 180-130711/7		197376	4.30	497810	7.27	111207	10.36
180-40434-1	HD-COD-SW-6-0/1-0	191874	4.28	532515	7.28	118678	10.37
180-40434-2	HD-COD-SW-7-0/1-0	196470	4.30	527671	7.28	115368	10.36
180-40434-3	HD-COD-SW-8-0/1-0	172859	4.29	499605	7.27	113916	10.37
180-40434-4	HD-COD-SW-9-0/1-0	188664	4.30	510863	7.27	120280	10.36
180-40434-5	HD-COD-SW-10-0/1-0	180087	4.29	518344	7.27	112097	10.36
180-40434-6	HD-COD-SW-11-0/1-0	160547	4.30	475503	7.27	106666	10.37
180-40434-7	HD-COD-SW-12-0/1-0	165053	4.29	485292	7.27	105611	10.37
180-40434-8	HD-COD-SW-13-0/1-0	189171	4.30	490766	7.28	109165	10.36
180-40434-9	HD-COD-SW-15-0/1-0	164706	4.29	471360	7.27	106433	10.36
180-40434-10	HD-COD-SW-16-0/1-0	138507	4.28	463681	7.27	101227	10.36
180-40434-11 DL	HD-COD-SW-17-0/1-0 DL	147518	4.29	485515	7.27	107288	10.36

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Sample No.: CCVIS 180-130711/2 Date Analyzed: 01/14/2015 09:55

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

Lab File ID (Standard): 50114002.D Heated Purge: (Y/N) N

Calibration ID: 20600

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		163189	12.69				
UPPER LIMIT		326378	13.19				
LOWER LIMIT		81595	12.19				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-130711/4		174539	12.69				
LCS 180-130711/7		152360	12.69				
180-40434-1	HD-COD-SW-6-0/1-0	166317	12.68				
180-40434-2	HD-COD-SW-7-0/1-0	165437	12.69				
180-40434-3	HD-COD-SW-8-0/1-0	156394	12.69				
180-40434-4	HD-COD-SW-9-0/1-0	158138	12.68				
180-40434-5	HD-COD-SW-10-0/1-0	157376	12.68				
180-40434-6	HD-COD-SW-11-0/1-0	151760	12.69				
180-40434-7	HD-COD-SW-12-0/1-0	145888	12.69				
180-40434-8	HD-COD-SW-13-0/1-0	149832	12.68				
180-40434-9	HD-COD-SW-15-0/1-0	147619	12.68				
180-40434-10	HD-COD-SW-16-0/1-0	141679	12.69				
180-40434-11 DL	HD-COD-SW-17-0/1-0 DL	139920	12.69				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Sample No.: CCVIS 180-130838/2 Date Analyzed: 01/15/2015 11:58

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

Lab File ID (Standard): 50115002.D Heated Purge: (Y/N) N

Calibration ID: 20600

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		176276	4.31	516866	7.27	115723	10.36
UPPER LIMIT		352552	4.81	1033732	7.77	231446	10.86
LOWER LIMIT		88138	3.81	258433	6.77	57862	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-130838/8		190685	4.29	498139	7.27	110119	10.36
180-40434-22	HD-MW-107-0/1-0	198040	4.28	550689	7.27	121900	10.36
180-40434-17	HD-QC1-0/1-2	174506	4.29	529190	7.28	119811	10.37
LCS 180-130838/12		157903	4.31	481242	7.28	109229	10.36
180-40434-22 MS	HD-MW-107-0/1-0 MS	182242	4.30	488879	7.28	111302	10.36
180-40434-22 MSD	HD-MW-107-0/1-0 MSD	163652	4.31	453215	7.27	104855	10.36
180-40434-12	HD-COD-SW-20-0/1-0	172888	4.29	475905	7.27	104366	10.36
180-40434-13	HD-COD-SW-26-0/1-0	152649	4.27	462267	7.27	100955	10.36
180-40434-14	HD-COD-SW-27-0/1-0	183216	4.30	481232	7.27	109077	10.36
180-40434-15	HD-COD-SW-28-0/1-0	125429	4.29	453902	7.28	104121	10.37
180-40434-18	HD-QC1-0/1-1	154350	4.30	464617	7.27	103407	10.37
180-40434-16	HD-COD-SW-29-0/1-0	160665	4.29	437861	7.27	95720	10.36
180-40434-20	HD-QC1-0/1-3	142824	4.29	453784	7.28	96990	10.36
180-40434-21	HD-QC1-0/1-4	110067	4.29	442709	7.28	100148	10.36
180-40434-19	HD-QC2-0/1-2	136175	4.29	428313	7.27	95406	10.36
180-40434-25 DL	HD-MW-37S-0/1-0 DL	154856	4.29	437707	7.27	97137	10.36
180-40434-11	HD-COD-SW-17-0/1-0	152298	4.30	449518	7.27	99217	10.36

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Sample No.: CCVIS 180-130838/2 Date Analyzed: 01/15/2015 11:58

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

Lab File ID (Standard): 50115002.D Heated Purge: (Y/N) N

Calibration ID: 20600

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		161357	12.68				
UPPER LIMIT		322714	13.18				
LOWER LIMIT		80679	12.18				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-130838/8		154329	12.68				
180-40434-22	HD-MW-107-0/1-0	168419	12.69				
180-40434-17	HD-QC1-0/1-2	164496	12.69				
LCS 180-130838/12		149793	12.69				
180-40434-22 MS	HD-MW-107-0/1-0 MS	151763	12.68				
180-40434-22 MSD	HD-MW-107-0/1-0 MSD	150194	12.69				
180-40434-12	HD-COD-SW-20-0/1-0	145861	12.69				
180-40434-13	HD-COD-SW-26-0/1-0	153801	12.69				
180-40434-14	HD-COD-SW-27-0/1-0	148991	12.69				
180-40434-15	HD-COD-SW-28-0/1-0	141878	12.69				
180-40434-18	HD-QC1-0/1-1	137369	12.69				
180-40434-16	HD-COD-SW-29-0/1-0	134746	12.69				
180-40434-20	HD-QC1-0/1-3	143810	12.69				
180-40434-21	HD-QC1-0/1-4	132157	12.69				
180-40434-19	HD-QC2-0/1-2	132118	12.69				
180-40434-25 DL	HD-MW-37S-0/1-0 DL	132068	12.68				
180-40434-11	HD-COD-SW-17-0/1-0	138899	12.69				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Sample No.: CCVIS 180-130947/2 Date Analyzed: 01/16/2015 12:52

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

Lab File ID (Standard): 50116002.D Heated Purge: (Y/N) N

Calibration ID: 20600

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		174949	4.30	507858	7.27	118302	10.36
UPPER LIMIT		349898	4.80	1015716	7.77	236604	10.86
LOWER LIMIT		87475	3.80	253929	6.77	59151	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-130947/8		215753	4.29	505374	7.27	112616	10.36
LCS 180-130947/9		180157	4.30	440975	7.27	104078	10.36
LCSD 180-130947/10		176390	4.31	454929	7.27	109311	10.36
180-40434-23 DL	HD-MW-93S-0/1-0 DL	158402	4.30	492024	7.28	111776	10.36
180-40434-24	HD-MW-93D-0/1-0	142911	4.30	480386	7.27	108642	10.36
180-40434-23	HD-MW-93S-0/1-0	145809	4.29	421505	7.27	95978	10.36
180-40434-25	HD-MW-37S-0/1-0	165375	4.28	416062	7.28	96620	10.36

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Sample No.: CCVIS 180-130947/2 Date Analyzed: 01/16/2015 12:52

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

Lab File ID (Standard): 50116002.D Heated Purge: (Y/N) N

Calibration ID: 20600

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		158394	12.69				
UPPER LIMIT		316788	13.19				
LOWER LIMIT		79197	12.19				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-130947/8		163327	12.69				
LCS 180-130947/9		143306	12.68				
LCSD 180-130947/10		145692	12.68				
180-40434-23 DL	HD-MW-93S-0/1-0 DL	149003	12.69				
180-40434-24	HD-MW-93D-0/1-0	148222	12.68				
180-40434-23	HD-MW-93S-0/1-0	130279	12.69				
180-40434-25	HD-MW-37S-0/1-0	132184	12.69				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-40434-1

Matrix: Water Lab File ID: 50114013.D

Analysis Method: 8260C Date Collected: 01/13/2015 13:40

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 16:23

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-40434-1

Matrix: Water Lab File ID: 50114013.D

Analysis Method: 8260C Date Collected: 01/13/2015 13:40

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 16:23

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114013.D
Lims ID: 180-40434-D-1 Lab Sample ID: 180-40434-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 16:23:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-1
Misc. Info.: 180-0005267-013
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:18:48 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:18:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.299	-0.018	87	191874	1000.0	
* 2 Fluorobenzene (IS)	96	7.280	7.274	0.006	97	532515	50.0	
* 3 Chlorobenzene-d5	119	10.365	10.364	0.001	91	118678	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.688	-0.005	97	166317	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.526	0.006	92	120426	53.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.897	0.006	92	193070	51.9	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	96	484646	49.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.532	0.001	84	189523	50.4	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.509	3.490	0.019	80	8027	4.81	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96	5.948	5.936	0.012	1	636	0.2003	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97		6.532				ND	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130		7.669				ND	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164		9.537				ND	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

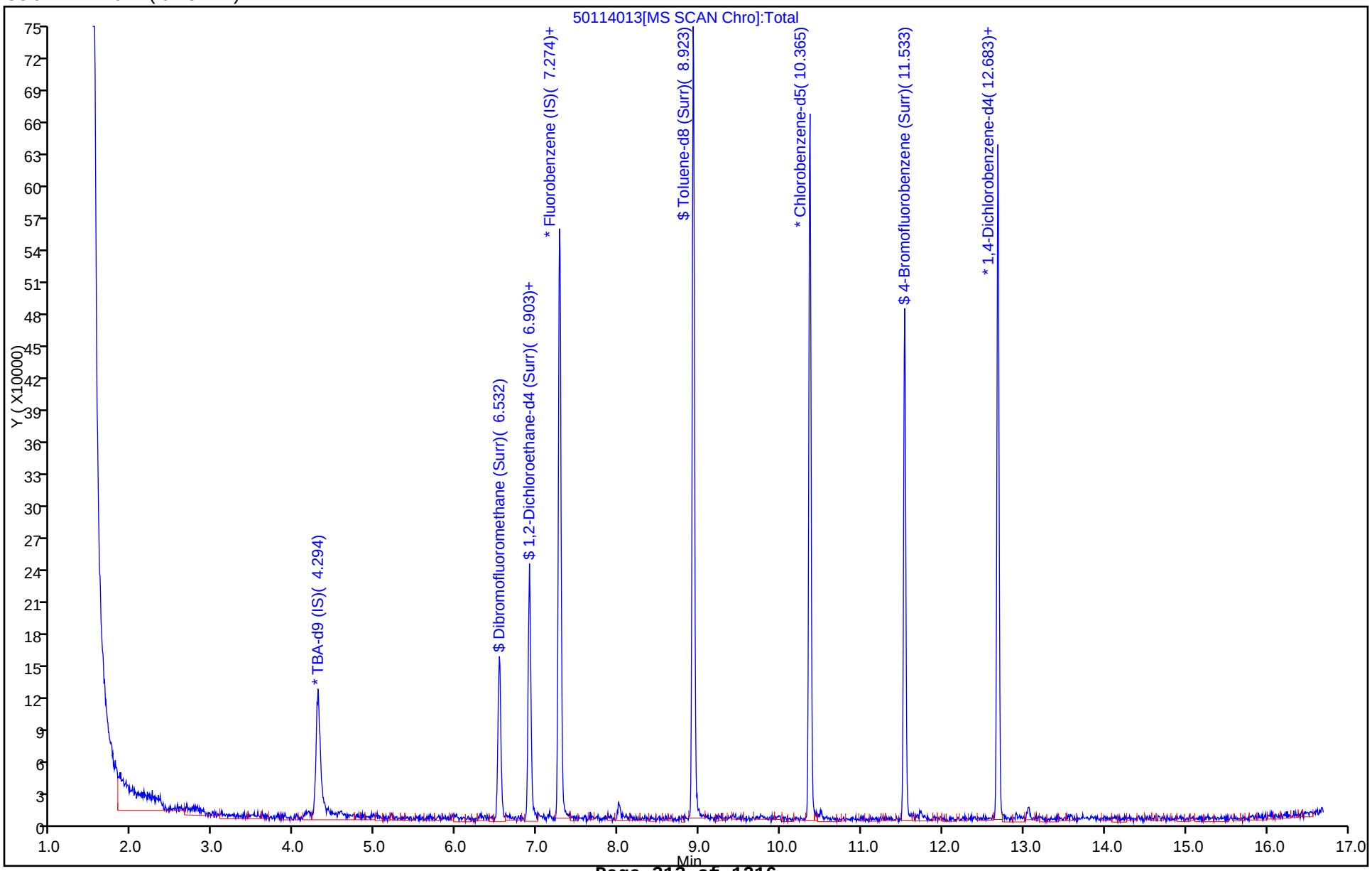
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:18:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114013.D				
Injection Date:	14-Jan-2015 16:23:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-1	Lab Sample ID:	180-40434-1	Worklist Smp#:	13
Client ID:	HD-COD-SW-6-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-40434-2

Matrix: Water Lab File ID: 50114014.D

Analysis Method: 8260C Date Collected: 01/13/2015 11:50

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 16:47

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-40434-2

Matrix: Water Lab File ID: 50114014.D

Analysis Method: 8260C Date Collected: 01/13/2015 11:50

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 16:47

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114014.D
Lims ID: 180-40434-D-2 Lab Sample ID: 180-40434-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 16:47:30 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-2
Misc. Info.: 180-0005267-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:20:05 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:20:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.297	4.299	-0.002	89	196470	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.274	0.004	96	527671	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.364	-0.002	92	115368	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.688	-0.002	97	165437	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.526	0.003	93	123500	55.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.897	0.009	92	185839	50.4	
$ 7 Toluene-d8 (Surr)	98	8.926	8.923	0.003	96	469439	48.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.532	-0.002	84	181057	49.5	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.500	3.490	0.010	72	10870	6.57	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96	5.945	5.936	0.009	17	1449	0.4606	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97		6.532				ND	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.673	7.669	0.004	43	1722	0.6164	M
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164		9.537				ND	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

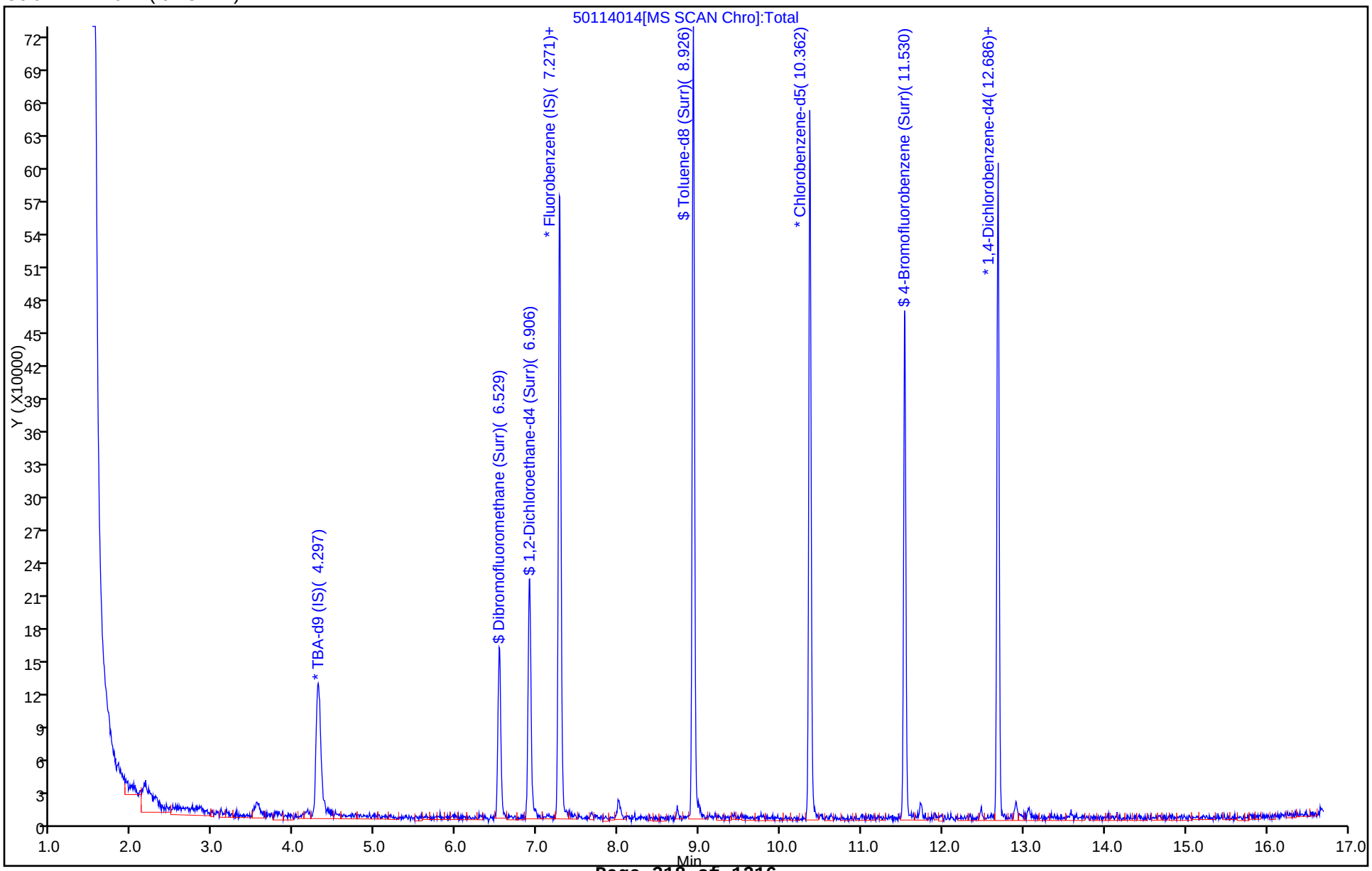
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:20:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114014.D				
Injection Date:	14-Jan-2015 16:47:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-2	Lab Sample ID:	180-40434-2	Worklist Smp#:	14
Client ID:	HD-COD-SW-7-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

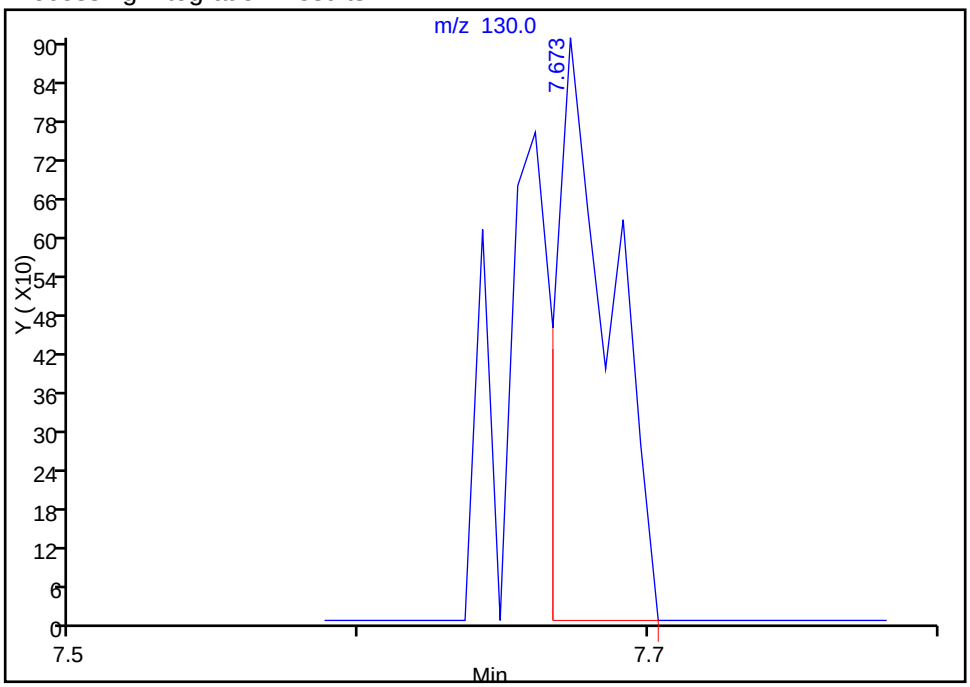
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114014.D				
Injection Date:	14-Jan-2015 16:47:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-2	Lab Sample ID:	180-40434-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	12	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

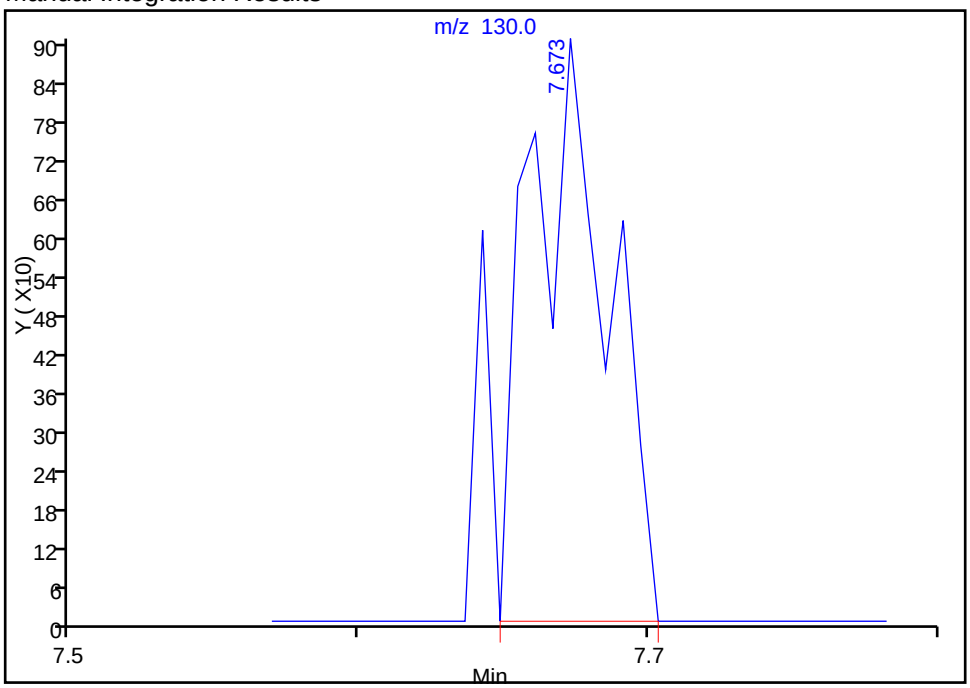
Processing Integration Results

RT: 7.67
Response: 1198
Amount: 0.428830



Manual Integration Results

RT: 7.67
Response: 1722
Amount: 0.616398



Reviewer: fergusond, 15-Jan-2015 08:20:05
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-40434-3

Matrix: Water Lab File ID: 50114015.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:20

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 17:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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	0.40	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.49	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U *	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.82	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-40434-3

Matrix: Water Lab File ID: 50114015.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:20

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 17:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114015.D
Lims ID: 180-40434-D-3 Lab Sample ID: 180-40434-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 17:11:30 ALS Bottle#: 13 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-3
Misc. Info.: 180-0005267-015
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:21:46 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:21:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.293	4.299	-0.006	83	172859	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	96	499605	50.0	
* 3 Chlorobenzene-d5	119	10.365	10.364	0.001	94	113916	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.689	12.688	0.001	96	156394	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.526	0.000	93	111420	52.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.897	0.000	94	180463	51.7	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	96	465149	49.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.532	0.001	82	176383	48.9	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.497	3.490	0.006	78	13146	8.39	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96	5.930	5.936	-0.006	23	5986	2.01	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97	6.538	6.532	0.006	35	899	0.2859	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.670	7.669	0.001	90	6526	2.47	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91	8.990	8.990	0.000	40	1919	0.1587	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164	9.543	9.537	0.006	95	9119	4.09	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

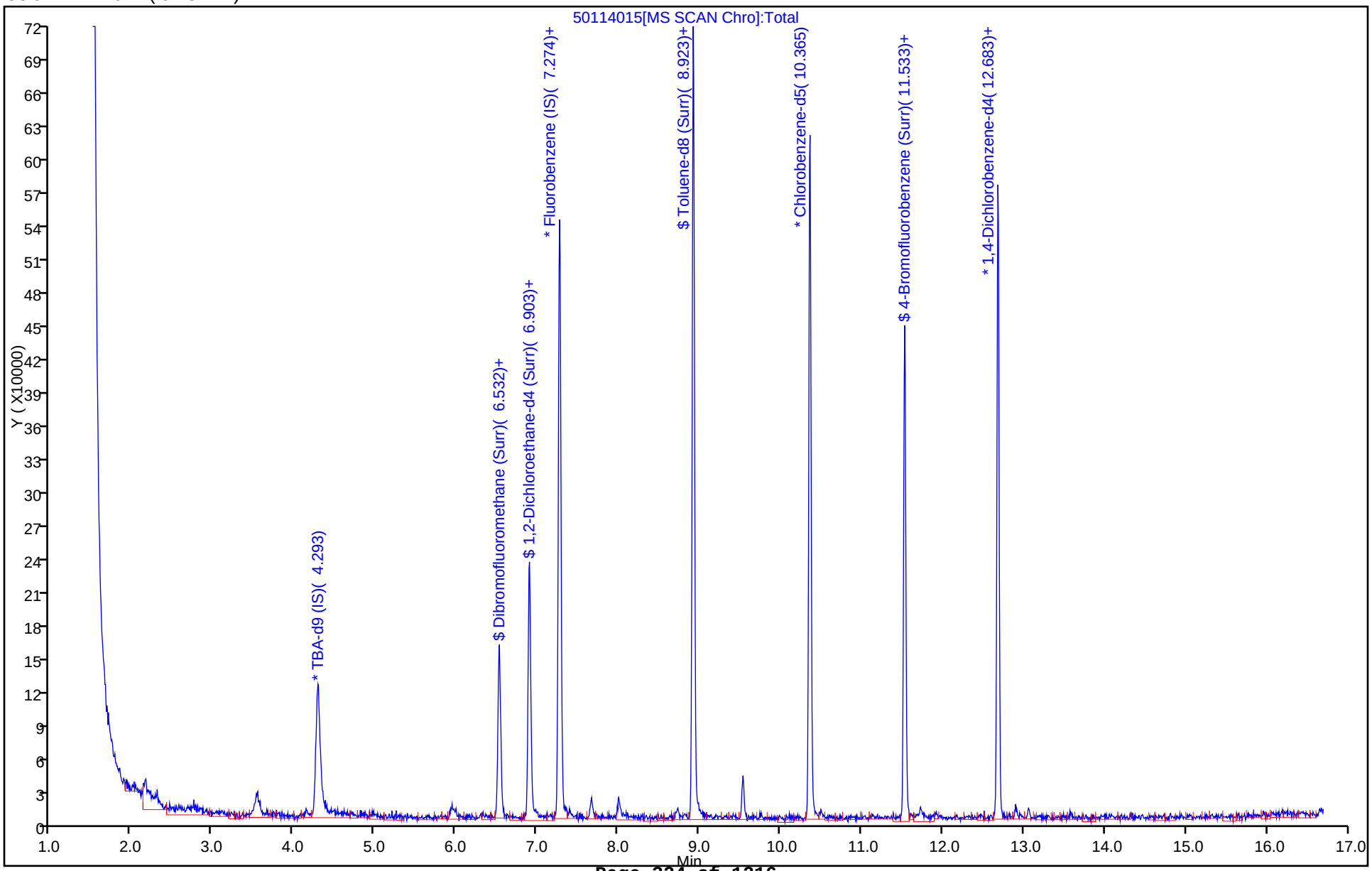
Report Date: 15-Jan-2015 08:21:46 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114015.D

Injection Date:	14-Jan-2015 17:11:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-3	Lab Sample ID:	180-40434-3	Worklist Smp#:	15
Client ID:	HD-COD-SW-8-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 15-Jan-2015 08:21:46 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114015.D

Injection Date: 14-Jan-2015 17:11:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-3 Lab Sample ID: 180-40434-3

Client ID: HD-COD-SW-8-0/1-0

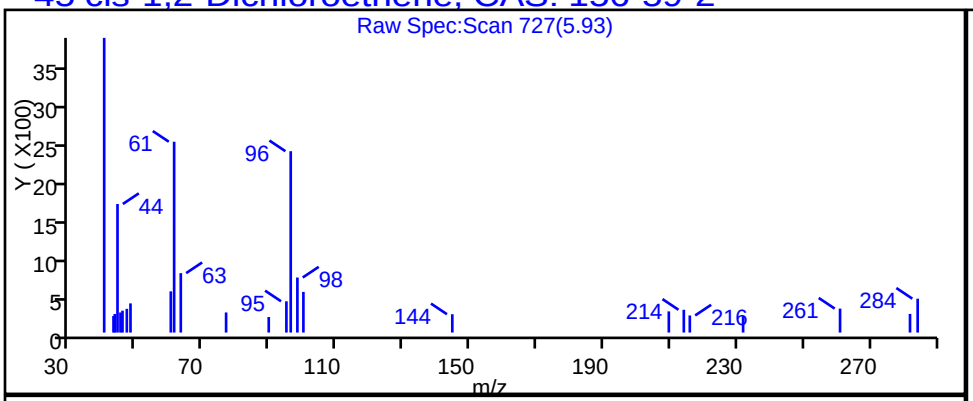
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 15

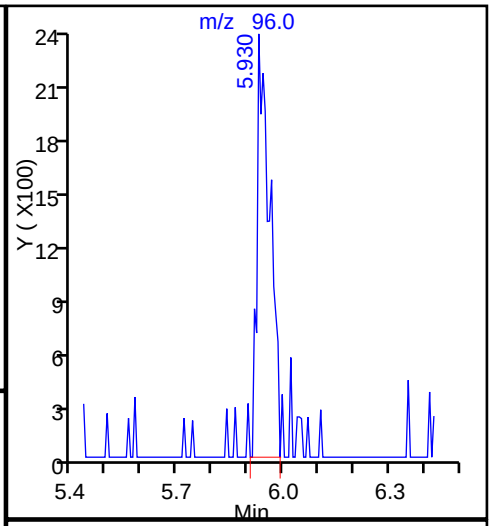
Purge Vol: 5.000 mL Dil. Factor: 1.0000

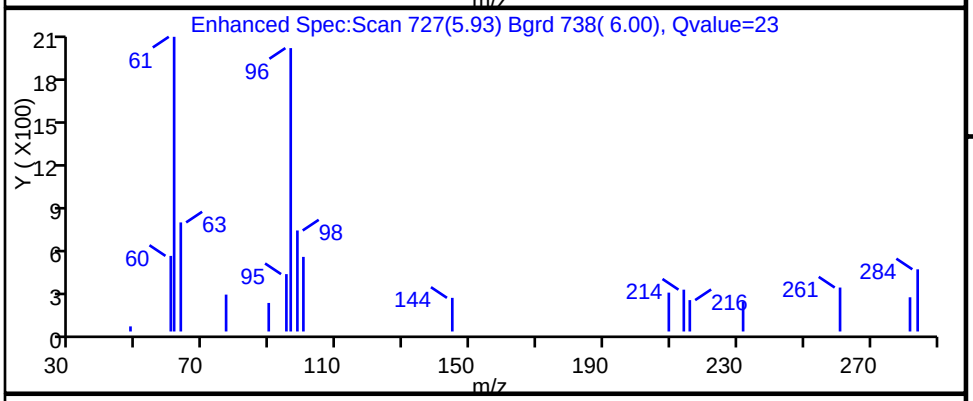
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

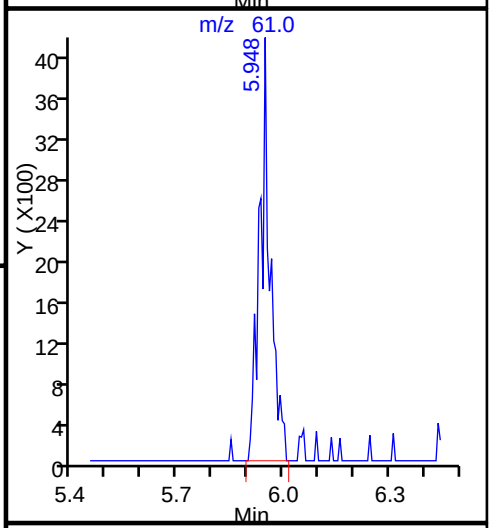
Column: DB-624 (0.18 mm) Detector MS SCAN

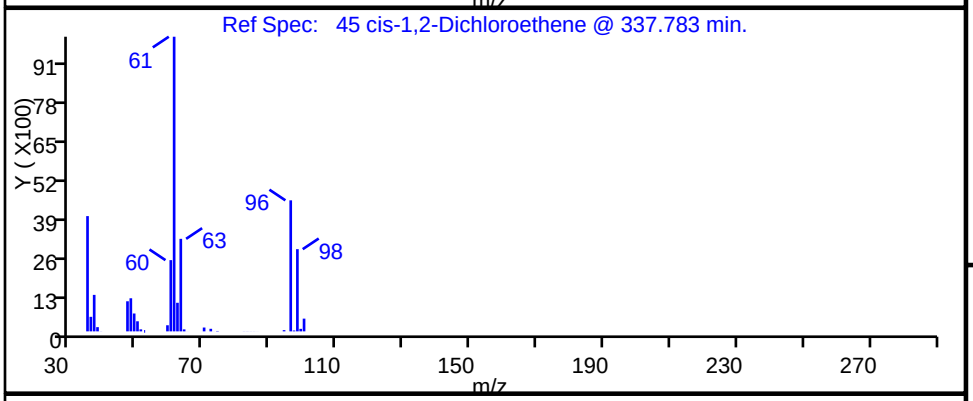
45 cis-1,2-Dichloroethene, CAS: 156-59-2

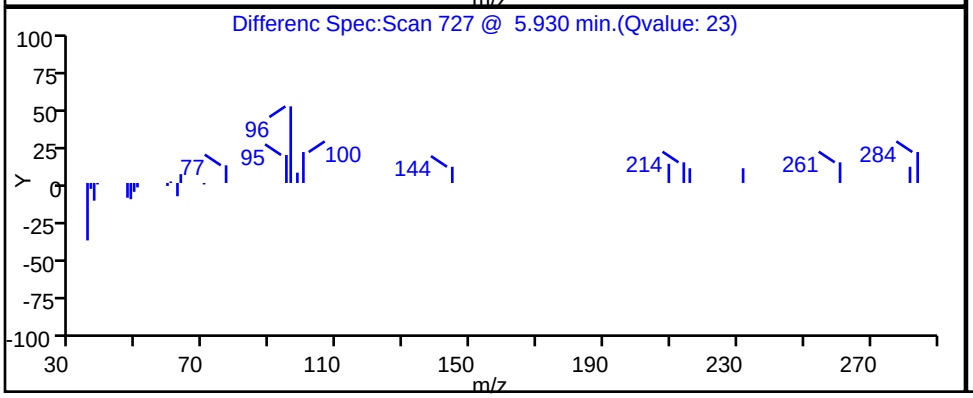


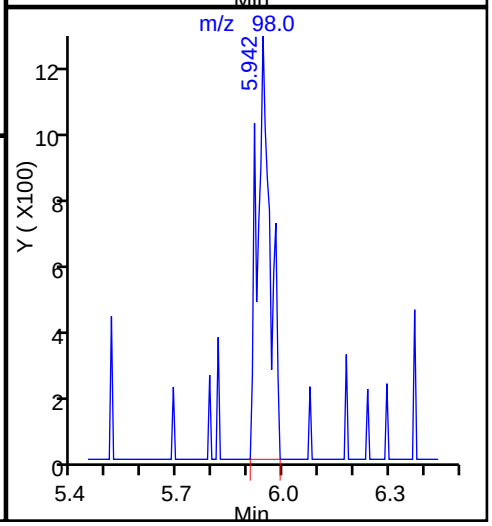












Report Date: 15-Jan-2015 08:21:46 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114015.D

Injection Date: 14-Jan-2015 17:11:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-3 Lab Sample ID: 180-40434-3

Client ID: HD-COD-SW-8-0/1-0

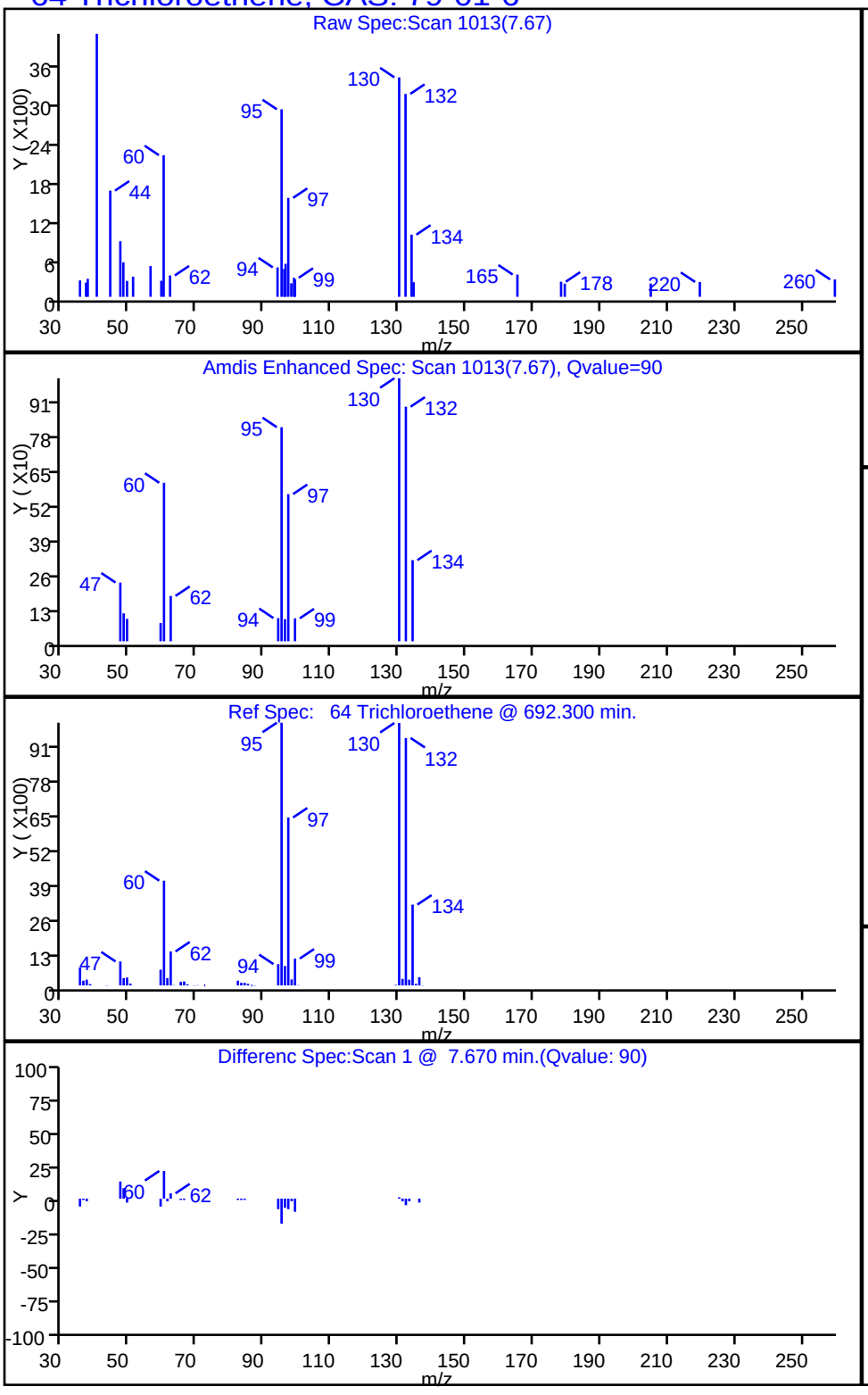
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 15

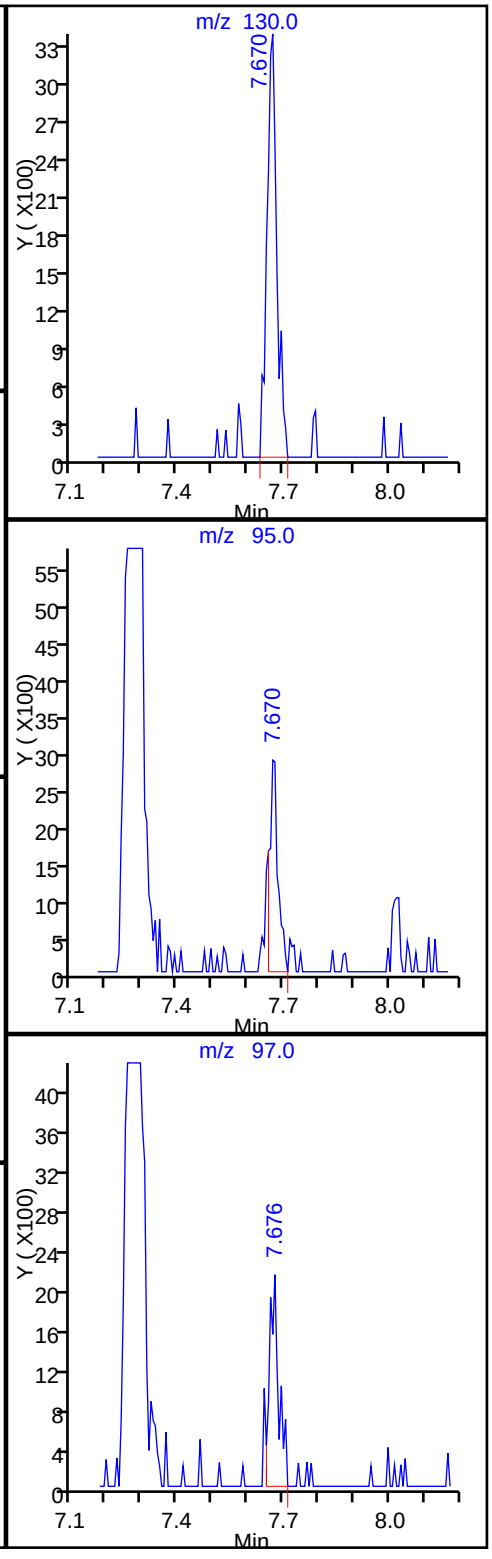
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6



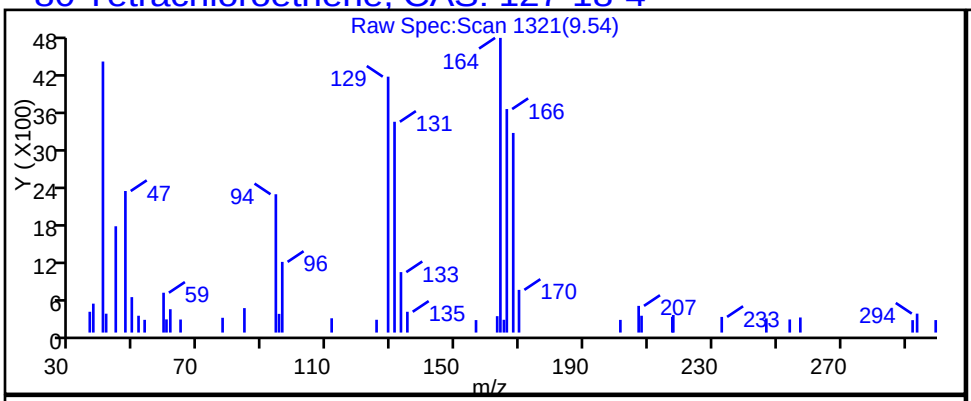


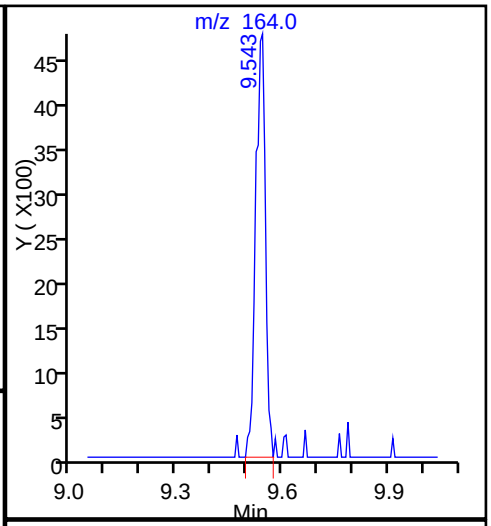
Report Date: 15-Jan-2015 08:21:46 Chrom Revision: 2.2 06-Nov-2014 14:50:32

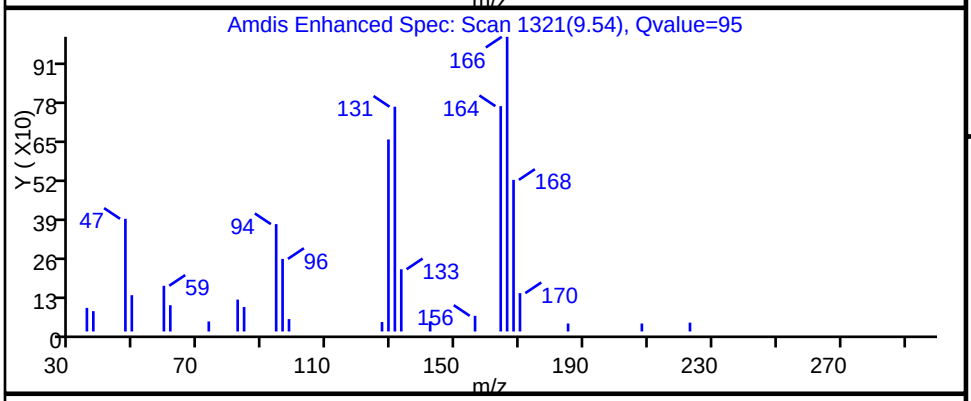
TestAmerica Pittsburgh

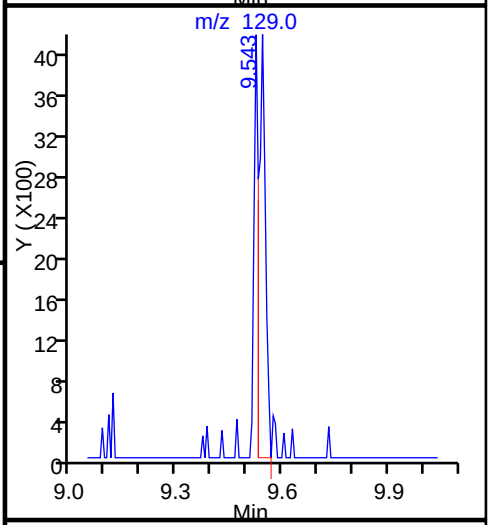
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114015.D		
Injection Date:	14-Jan-2015 17:11:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-3	Lab Sample ID:	180-40434-3
Client ID:	HD-COD-SW-8-0/1-0		
Operator ID:	001562	ALS Bottle#:	13 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

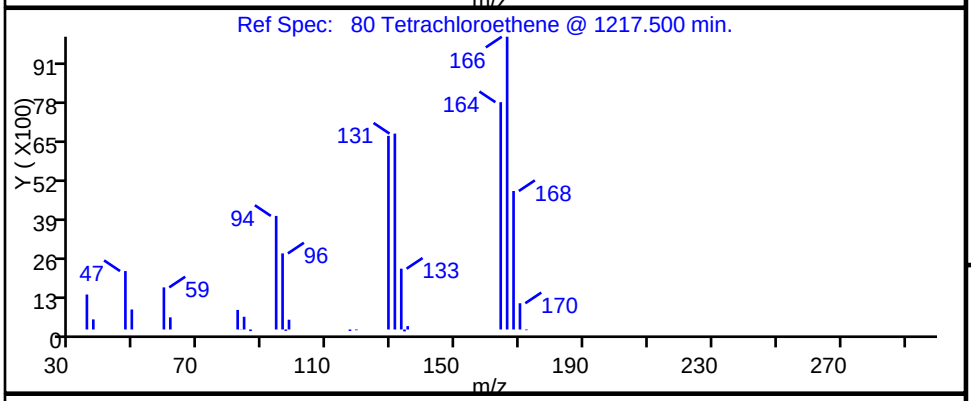
80 Tetrachloroethene, CAS: 127-18-4

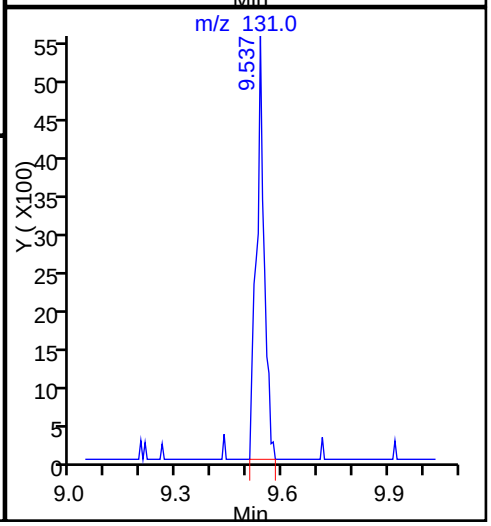


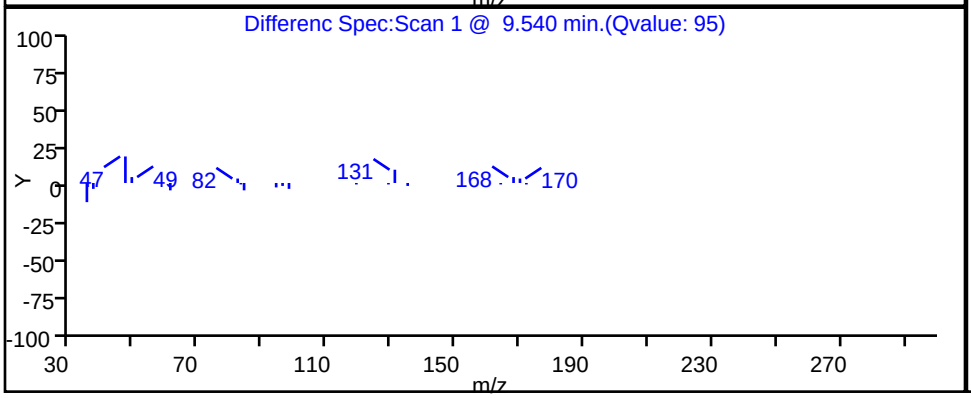












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 | Lab Sample ID: 180-40434-4

Matrix: Water | Lab File ID: 50114016.D

Analysis Method: 8260C | Date Collected: 01/13/2015 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2015 17:35

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.: 130711 | 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	0.45	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.38	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U *	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.15	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-40434-4

Matrix: Water Lab File ID: 50114016.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:10

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 17:35

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.: 130711 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)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114016.D
Lims ID: 180-40434-D-4 Lab Sample ID: 180-40434-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 17:35:30 ALS Bottle#: 14 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-4
Misc. Info.: 180-0005267-016
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:23:13 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:23:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.298	4.299	-0.001	86	188664	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.274	-0.001	96	510863	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.364	-0.001	92	120280	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.688	-0.007	97	158138	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.526	0.005	94	117188	53.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.897	0.005	92	186608	52.3	
$ 7 Toluene-d8 (Surr)	98	8.922	8.923	-0.001	95	479389	47.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.532	-0.001	84	171961	45.1	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.495	3.490	0.005	71	13207	8.24	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96	5.935	5.936	-0.001	85	6904	2.27	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83	6.348	6.343	0.005	20	1483	0.2993	
53 1,1,1-Trichloroethane	97		6.532				ND	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.668	7.669	-0.001	86	5097	1.88	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91	9.001	8.990	0.011	27	2412	0.1889	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164	9.530	9.537	-0.007	7	1825	0.7750	M
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

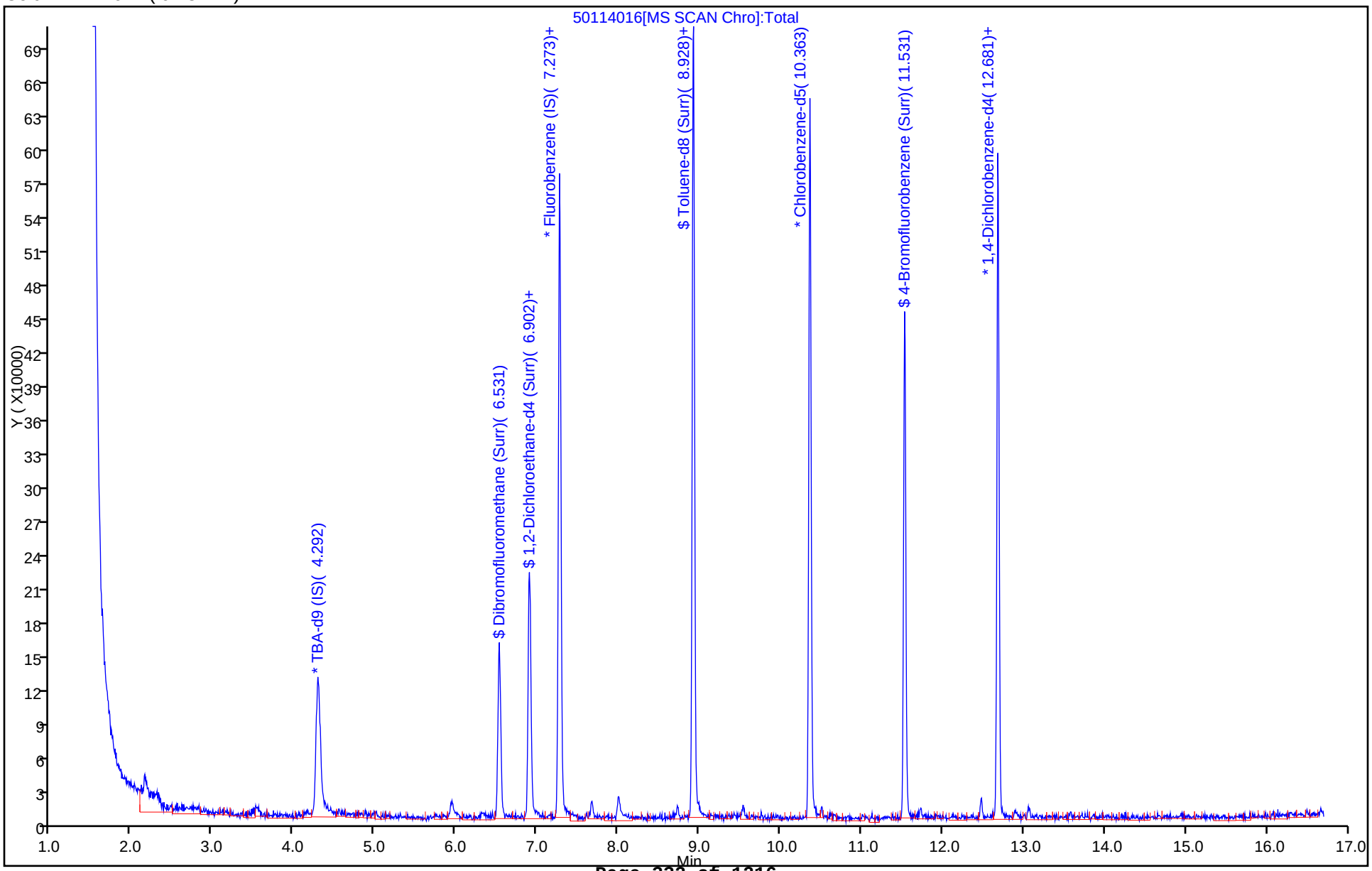
Report Date: 15-Jan-2015 08:23:13 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114016.D

Injection Date:	14-Jan-2015 17:35:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-4	Lab Sample ID:	180-40434-4	Worklist Smp#:	16
Client ID:	HD-COD-SW-9-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

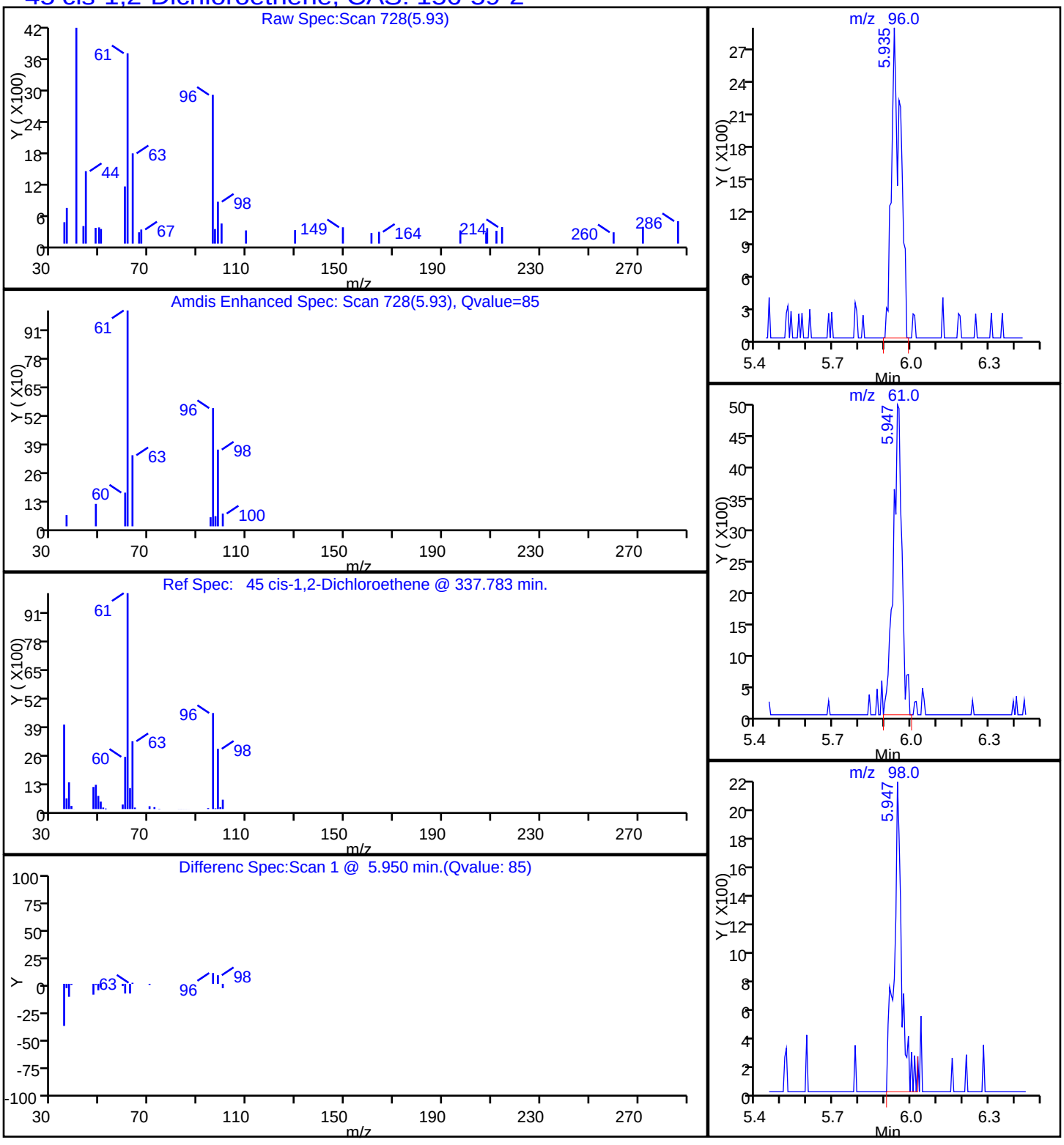


Report Date: 15-Jan-2015 08:23:13 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114016.D		
Injection Date:	14-Jan-2015 17:35:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-4	Lab Sample ID:	180-40434-4
Client ID:	HD-COD-SW-9-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

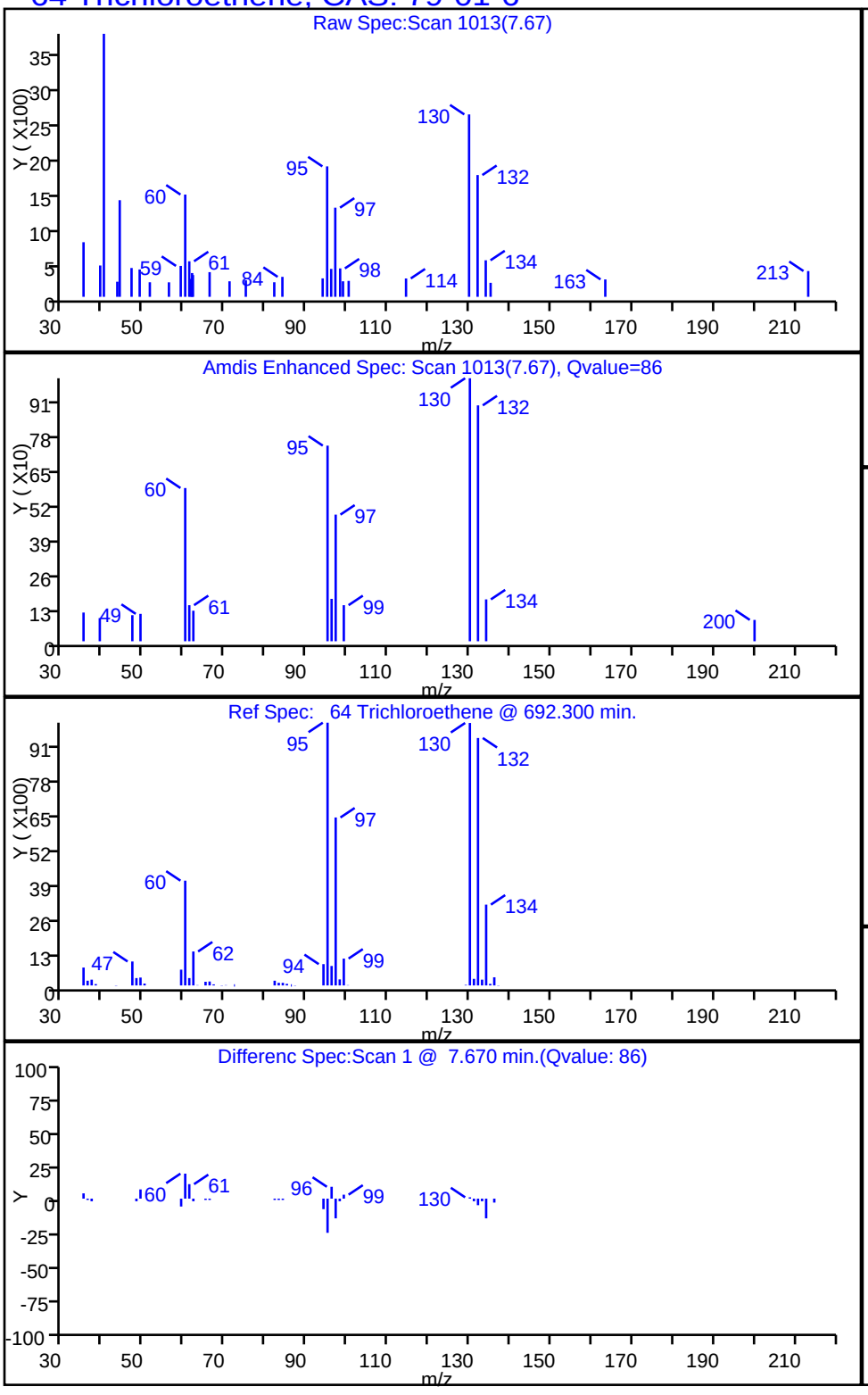


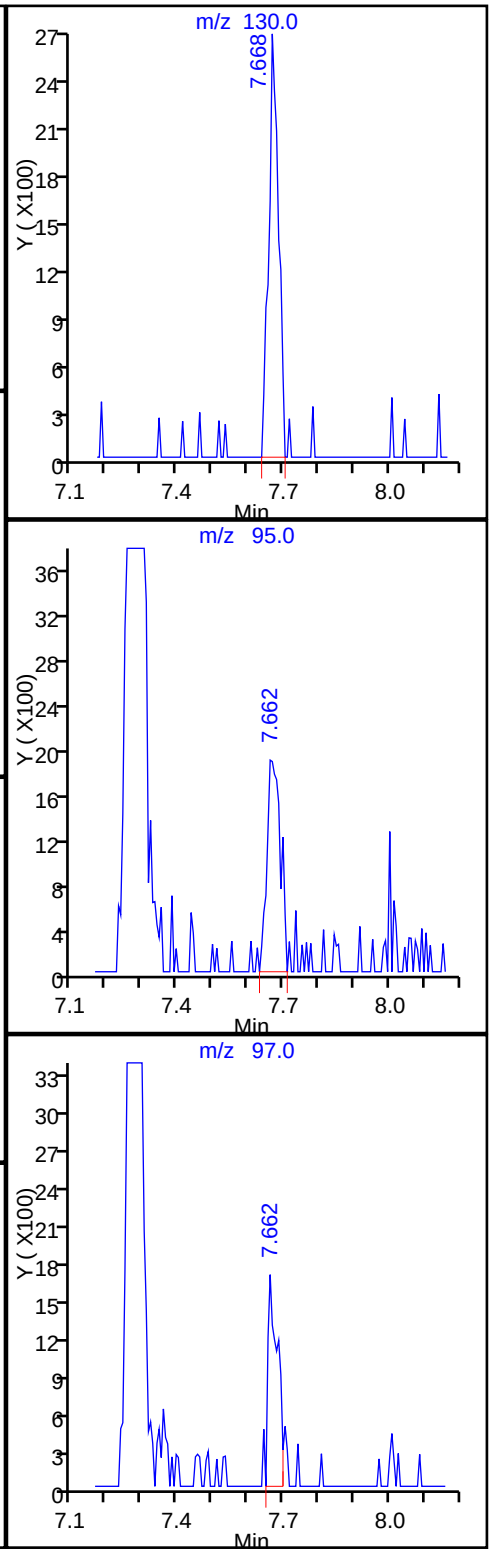
Report Date: 15-Jan-2015 08:23:13 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114016.D				
Injection Date:	14-Jan-2015 17:35:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-4	Lab Sample ID:	180-40434-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6





Report Date: 15-Jan-2015 08:23:13 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114016.D

Injection Date: 14-Jan-2015 17:35:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-4 Lab Sample ID: 180-40434-4

Client ID: HD-COD-SW-9-0/1-0

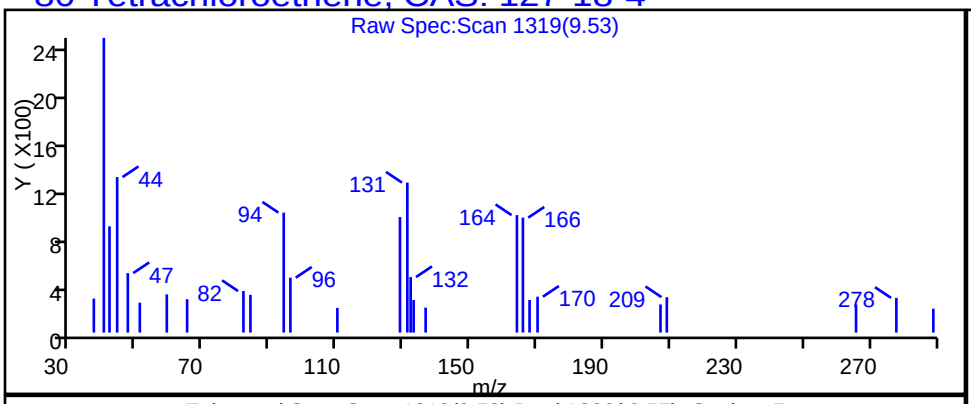
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 16

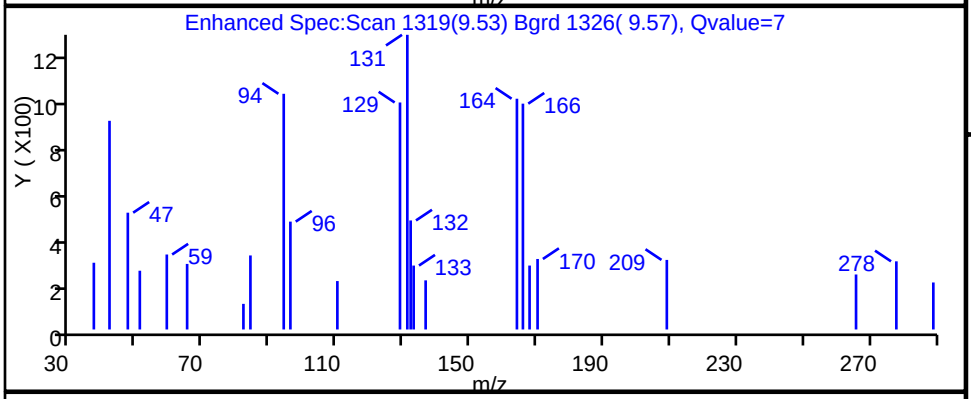
Purge Vol: 5.000 mL Dil. Factor: 1.0000

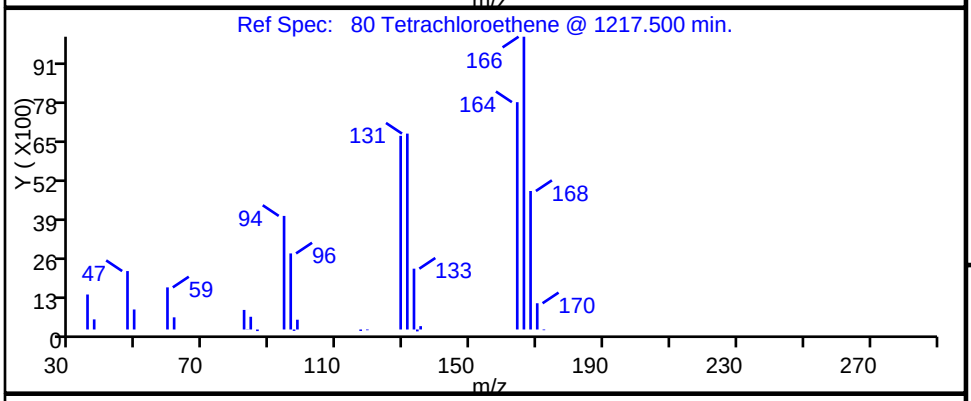
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

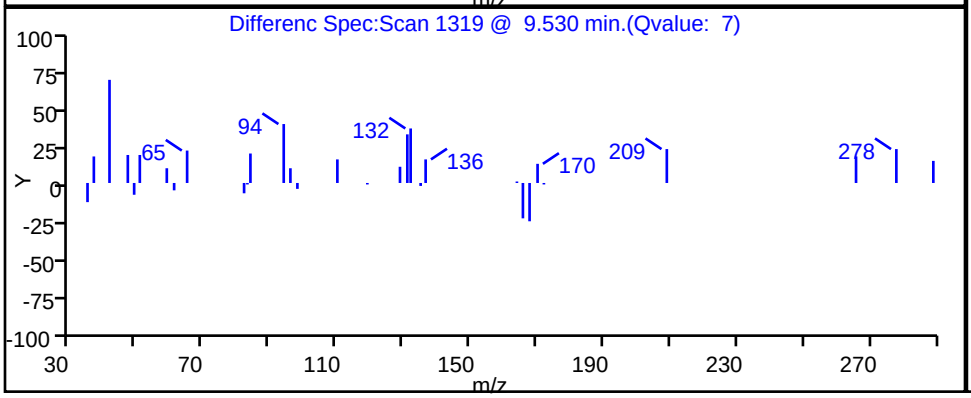
Column: DB-624 (0.18 mm) Detector MS SCAN

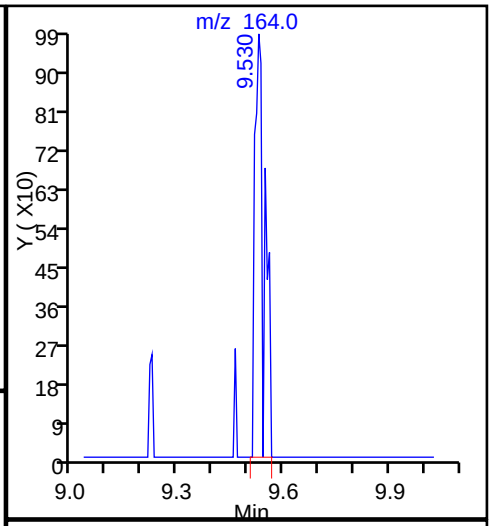
80 Tetrachloroethene, CAS: 127-18-4

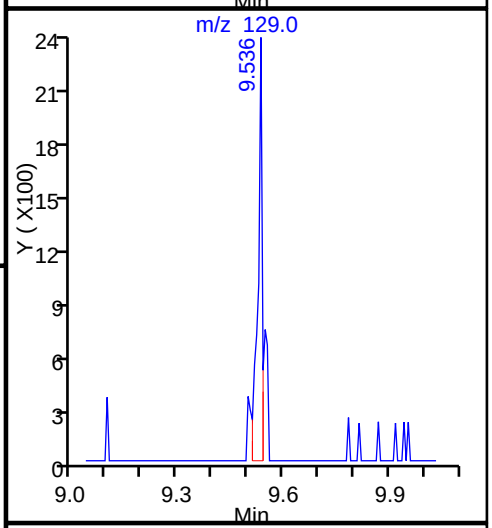


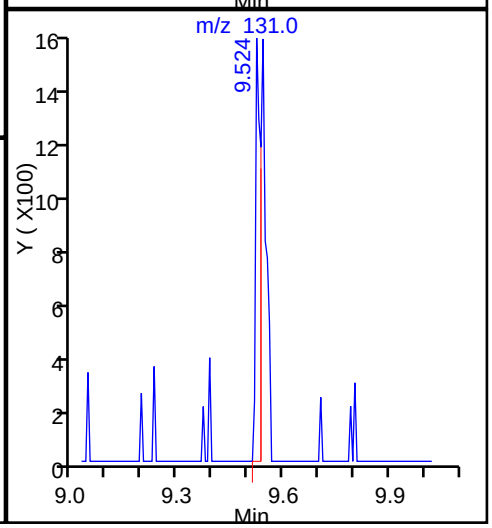












Manual Integration/User Assign Peak Report

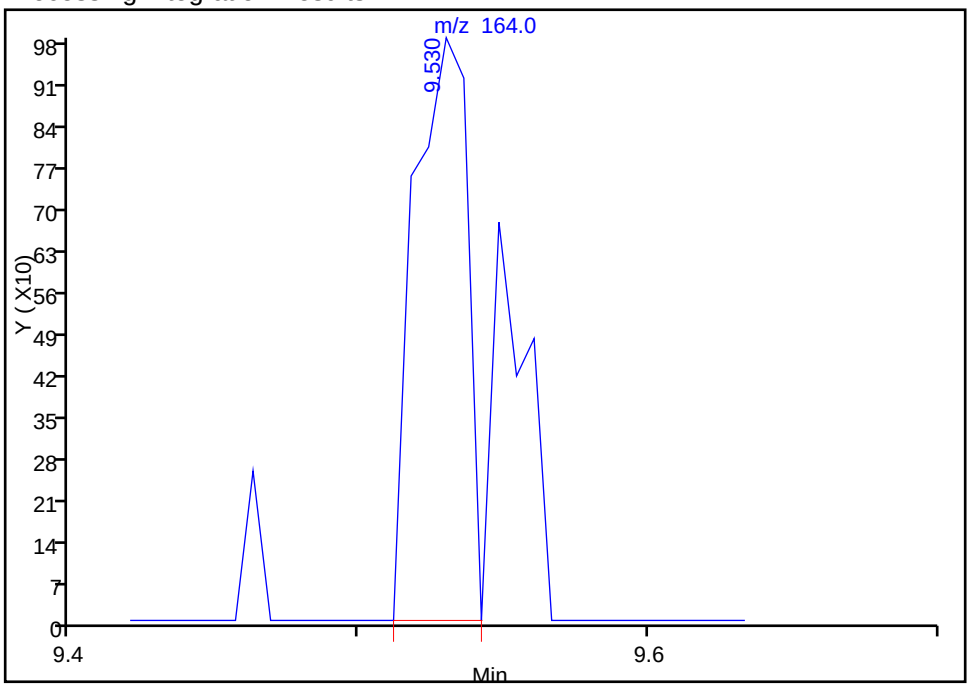
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114016.D				
Injection Date:	14-Jan-2015 17:35:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-4	Lab Sample ID:	180-40434-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4

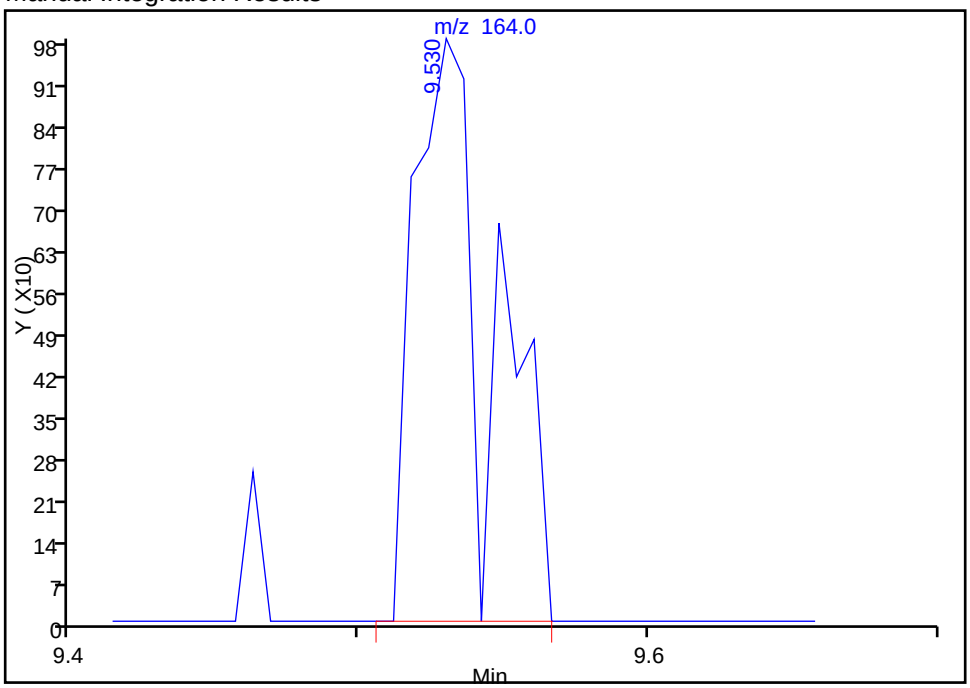
Processing Integration Results

RT: 9.53
Response: 1257
Amount: 0.533765



Manual Integration Results

RT: 9.53
Response: 1825
Amount: 0.774957



Reviewer: fergusond, 15-Jan-2015 08:23:13
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-40434-5

Matrix: Water Lab File ID: 50114017.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:55

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 17:59

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.: 130711 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-40434-5

Matrix: Water Lab File ID: 50114017.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:55

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 17:59

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.: 130711 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)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114017.D
Lims ID: 180-40434-C-5 Lab Sample ID: 180-40434-5
Client ID: HD-COD-SW-10-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 17:59:30 ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-C-5
Misc. Info.: 180-0005267-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:24:03 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:24:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.293	4.299	-0.006	85	180087	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	97	518344	50.0	
* 3 Chlorobenzene-d5	119	10.358	10.364	-0.006	93	112097	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.688	-0.006	98	157376	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.526	0.005	92	120806	54.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.897	0.005	92	185730	51.3	
$ 7 Toluene-d8 (Surr)	98	8.922	8.923	-0.001	95	465152	49.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	82	171103	48.2	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.508	3.490	0.018	79	4800	2.95	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96		5.936				ND	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97		6.532				ND	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130		7.669				ND	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164		9.537				ND	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

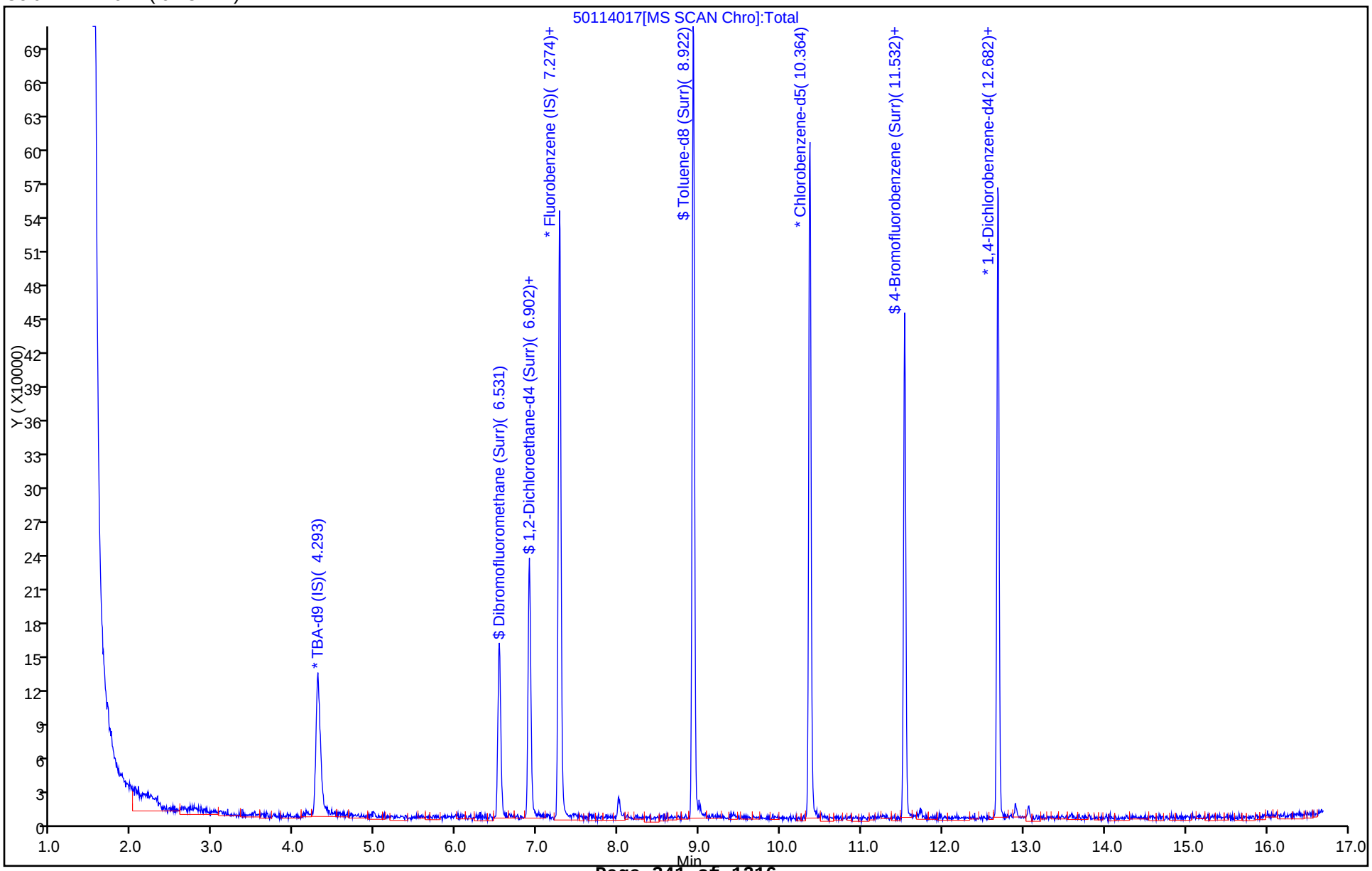
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:24:03 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114017.D				
Injection Date:	14-Jan-2015 17:59:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-5	Lab Sample ID:	180-40434-5	Worklist Smp#:	17
Client ID:	HD-COD-SW-10-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-40434-6

Matrix: Water Lab File ID: 50114018.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:40

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 18:23

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-40434-6

Matrix: Water Lab File ID: 50114018.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:40

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 18:23

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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)	102		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114018.D
Lims ID: 180-40434-C-6 Lab Sample ID: 180-40434-6
Client ID: HD-COD-SW-11-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 18:23:30 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-C-6
Misc. Info.: 180-0005267-018
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:25:33 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:25:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.300	4.299	0.001	88	160547	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	97	475503	50.0	
* 3 Chlorobenzene-d5	119	10.365	10.364	0.001	92	106666	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.689	12.688	0.001	97	151760	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.538	6.526	0.012	93	112581	55.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.897	0.006	93	169734	51.1	
$ 7 Toluene-d8 (Surr)	98	8.929	8.923	0.006	96	428202	48.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.532	0.001	83	170344	50.4	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.521	3.490	0.031	49	8796	5.90	M
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96		5.936				ND	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83	6.325	6.343	-0.018	23	2561	0.5553	M
53 1,1,1-Trichloroethane	97		6.532				ND	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130		7.669				ND	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164		9.537				ND	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

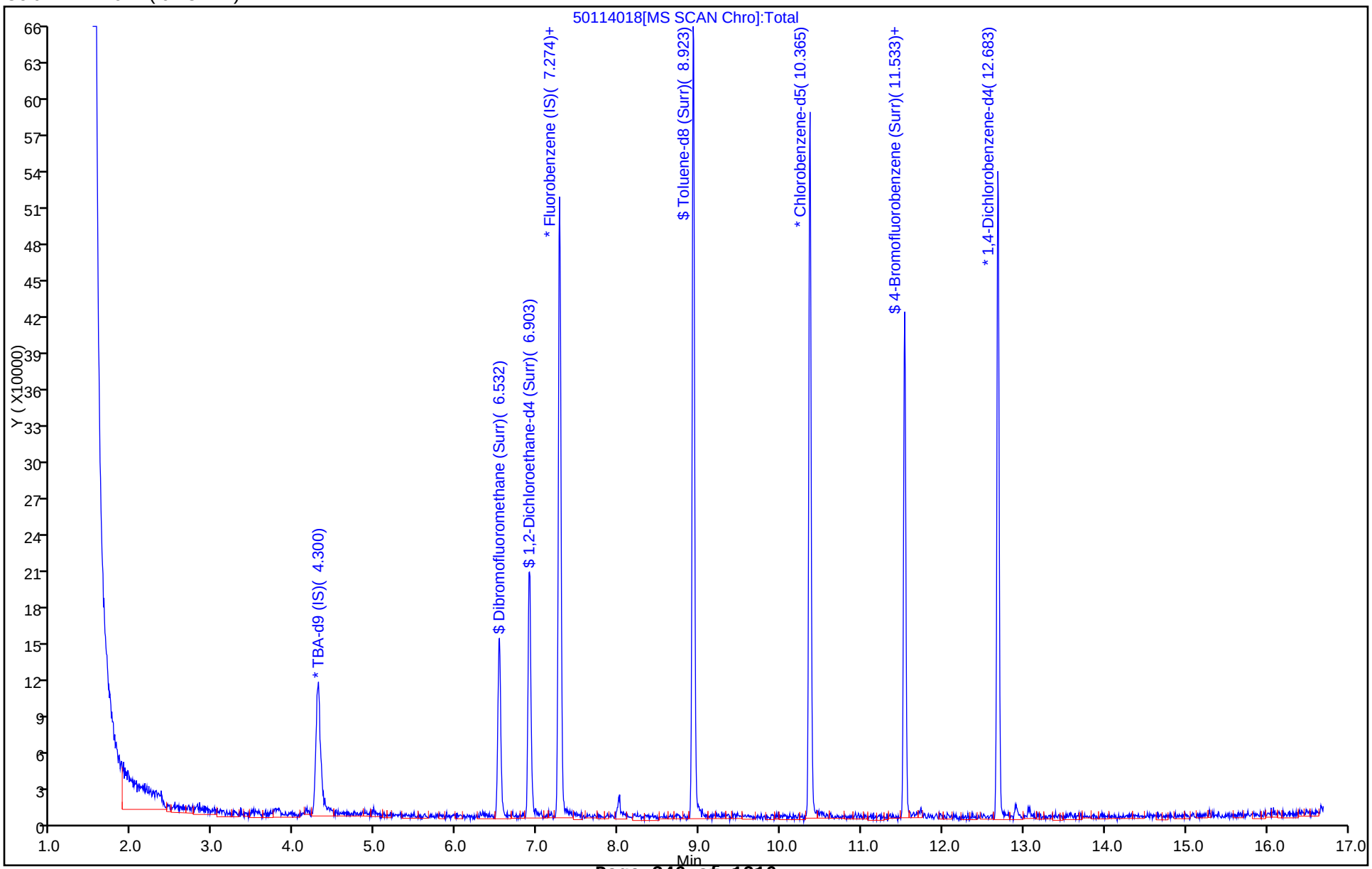
Report Date: 15-Jan-2015 08:25:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114018.D

Injection Date:	14-Jan-2015 18:23:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-6	Lab Sample ID:	180-40434-6	Worklist Smp#:	18
Client ID:	HD-COD-SW-11-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

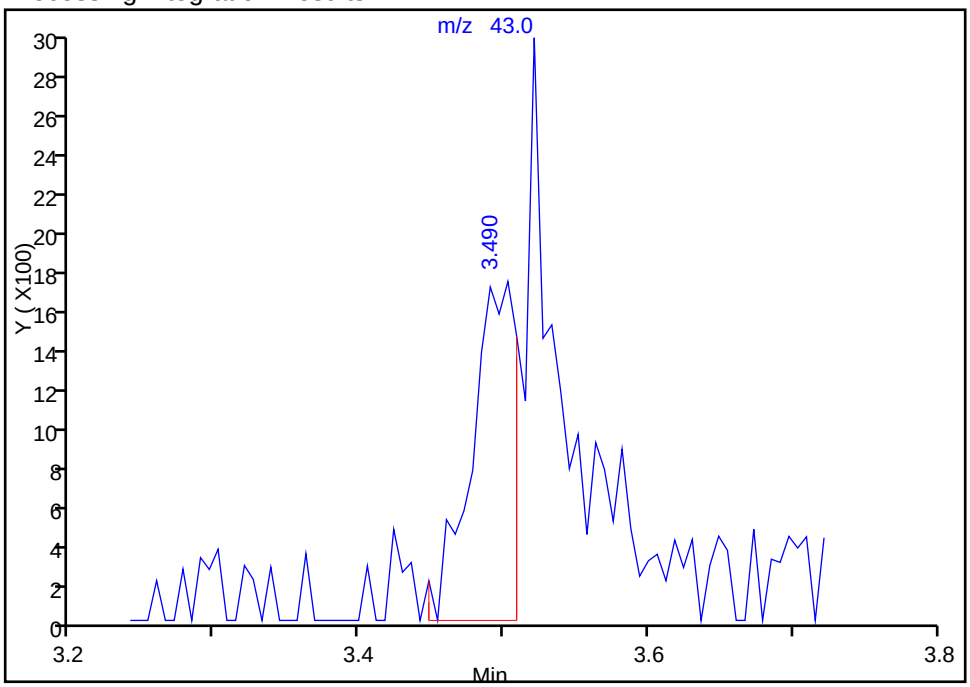
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114018.D				
Injection Date:	14-Jan-2015 18:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-6	Lab Sample ID:	180-40434-6		
Client ID:	HD-COD-SW-11-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

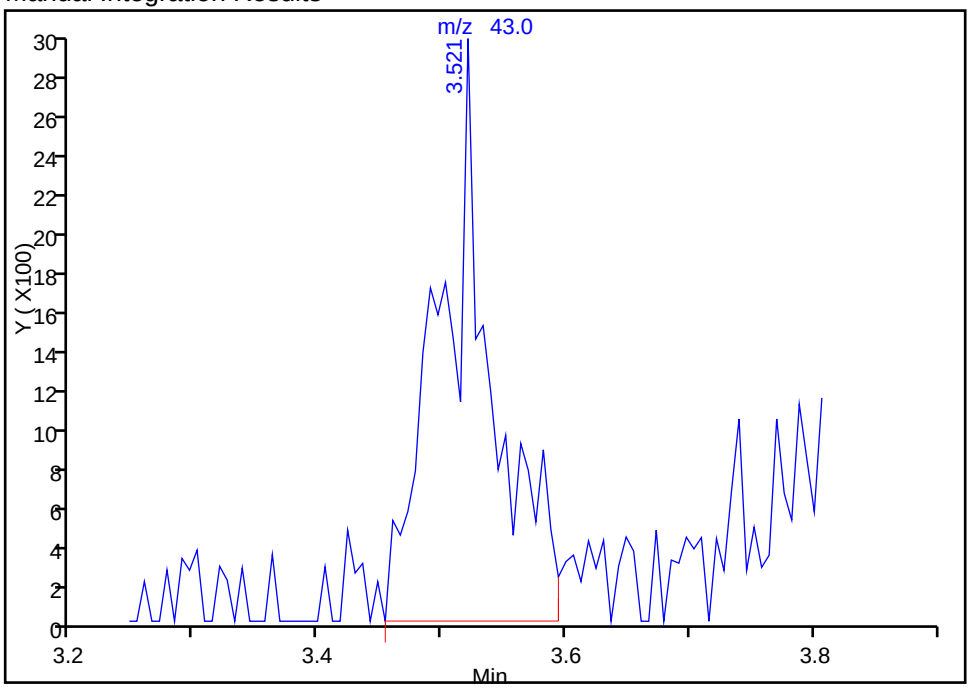
Processing Integration Results

RT: 3.49
Response: 3743
Amount: 2.510359



Manual Integration Results

RT: 3.52
Response: 8796
Amount: 5.899309



Reviewer: fergusond, 15-Jan-2015 08:25:33
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

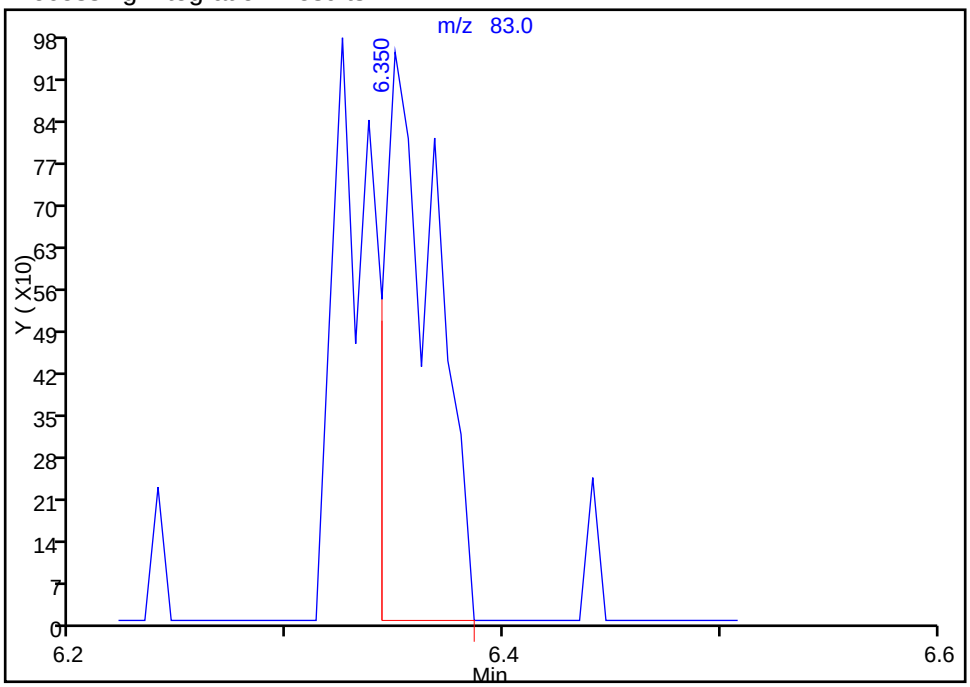
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114018.D				
Injection Date:	14-Jan-2015 18:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-6	Lab Sample ID:	180-40434-6		
Client ID:	HD-COD-SW-11-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

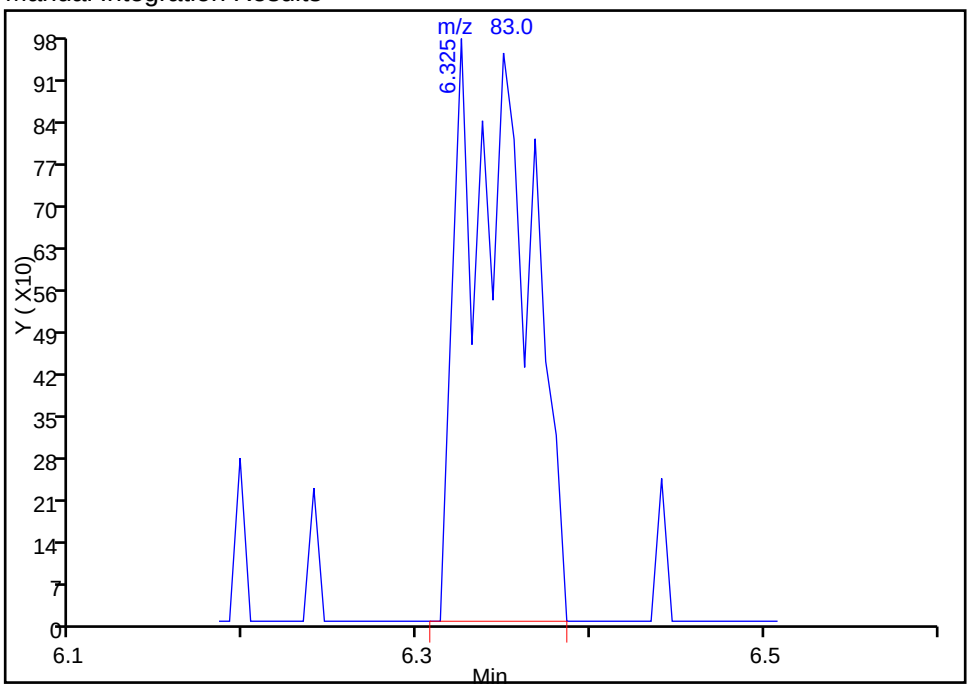
Processing Integration Results

RT: 6.35
Response: 1554
Amount: 0.336936



Manual Integration Results

RT: 6.33
Response: 2561
Amount: 0.555273



Reviewer: fergusond, 15-Jan-2015 08:25:33
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-40434-7

Matrix: Water Lab File ID: 50114020.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:55

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 19:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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	0.18	J	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-40434-7

Matrix: Water Lab File ID: 50114020.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:55

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 19:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114020.D
Lims ID: 180-40434-D-7 Lab Sample ID: 180-40434-7
Client ID: HD-COD-SW-12-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 19:11:30 ALS Bottle#: 18 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-7
Misc. Info.: 180-0005267-020
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:27:34 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:27:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.288	4.299	-0.011	86	165053	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.274	-0.006	97	485292	50.0	
* 3 Chlorobenzene-d5	119	10.365	10.364	0.001	93	105611	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.689	12.688	0.001	97	145888	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.526	0.000	93	112082	54.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.897	0.006	94	166889	49.2	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	96	437546	49.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.532	0.001	82	162074	48.4	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.497	3.490	0.007	58	12817	8.42	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96		5.936				ND	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83	6.332	6.343	-0.011	18	4173	0.8865	
53 1,1,1-Trichloroethane	97		6.532				ND	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130		7.669				ND	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91	9.002	8.990	0.012	1	2794	0.2492	M
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164		9.537				ND	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

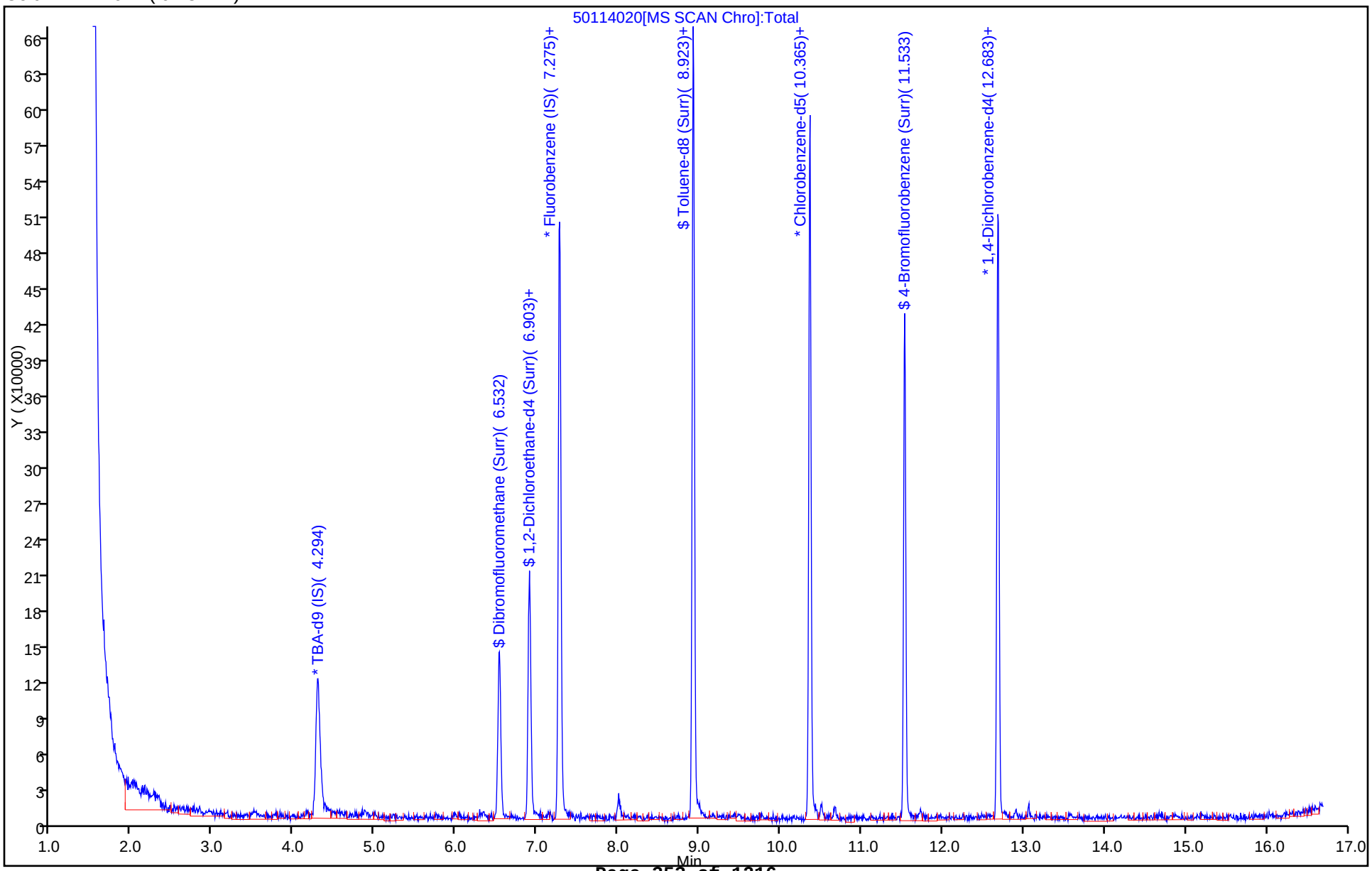
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:27:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114020.D				
Injection Date:	14-Jan-2015 19:11:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-7	Lab Sample ID:	180-40434-7	Worklist Smp#:	20
Client ID:	HD-COD-SW-12-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



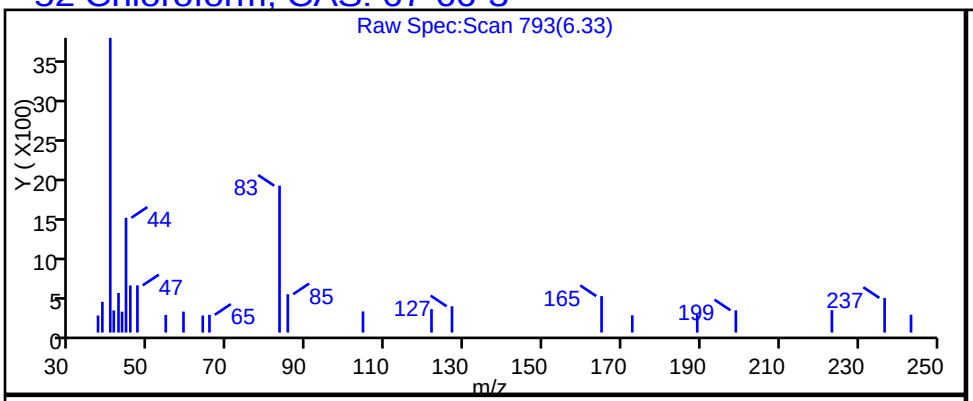
Report Date: 15-Jan-2015 08:27:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

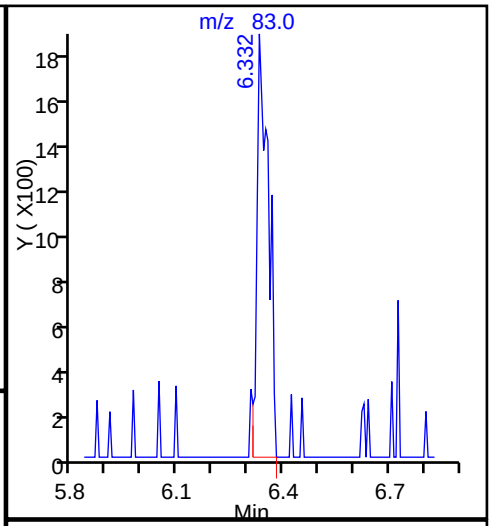
TestAmerica Pittsburgh

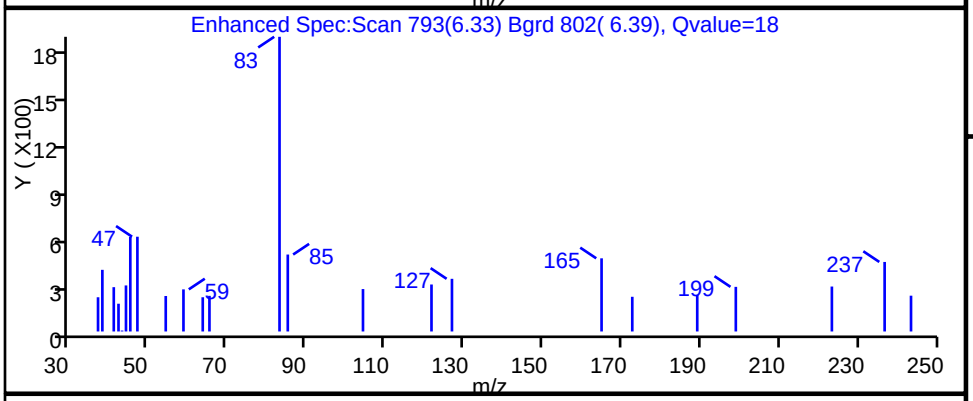
Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114020.D

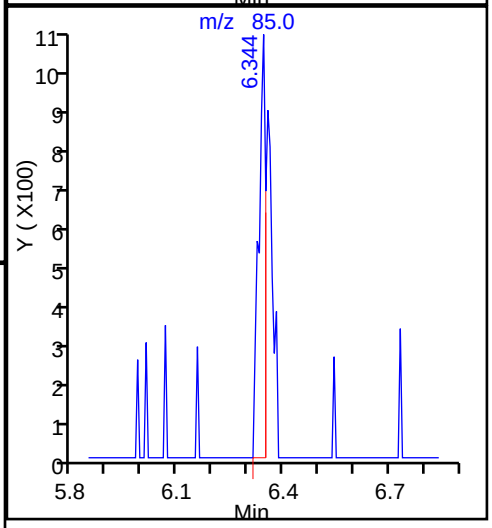
Injection Date:	14-Jan-2015 19:11:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-7	Lab Sample ID:	180-40434-7		
Client ID:	HD-COD-SW-12-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

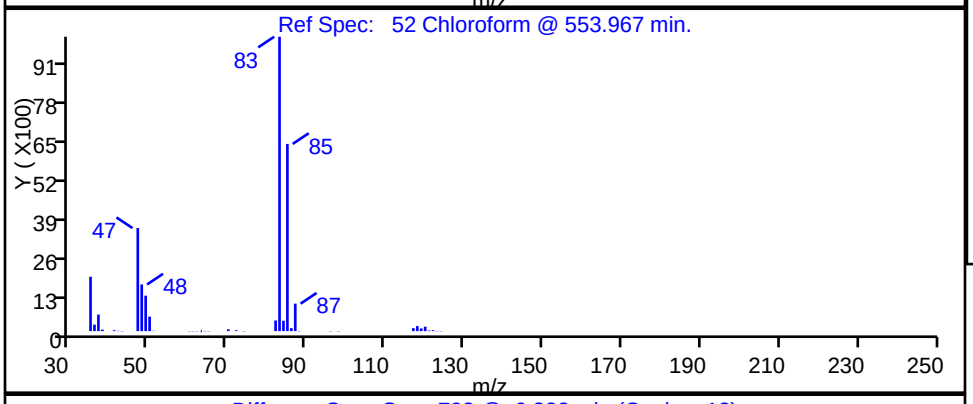
52 Chloroform, CAS: 67-66-3

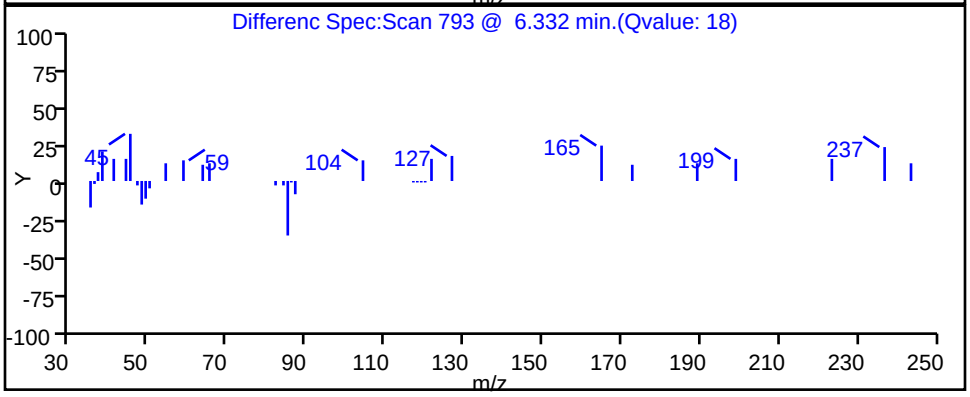












Manual Integration/User Assign Peak Report

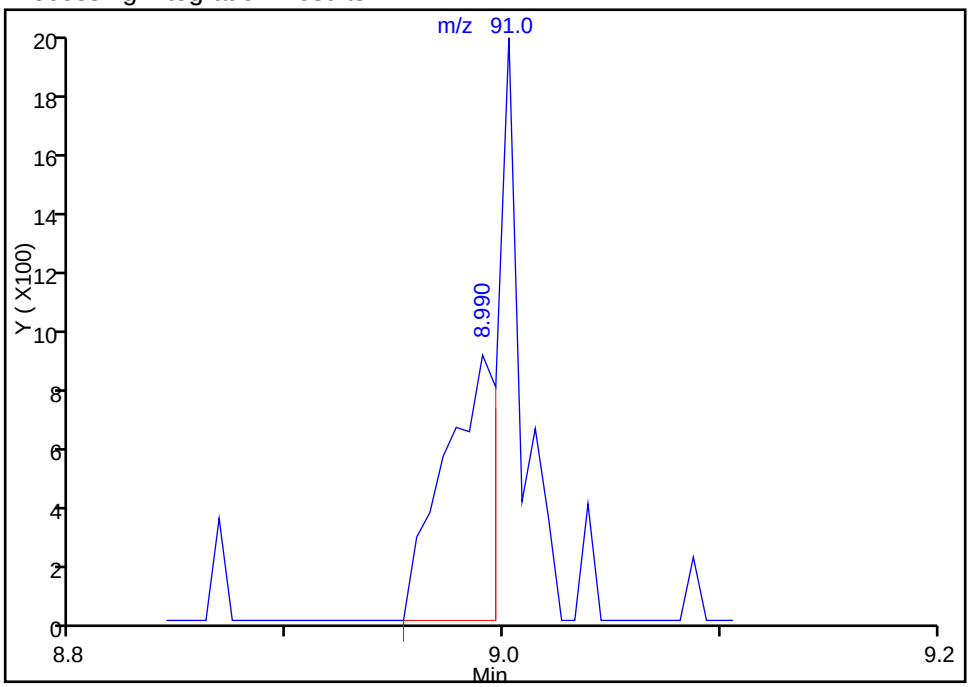
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114020.D				
Injection Date:	14-Jan-2015 19:11:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-7	Lab Sample ID:	180-40434-7		
Client ID:	HD-COD-SW-12-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

76 Toluene, CAS: 108-88-3

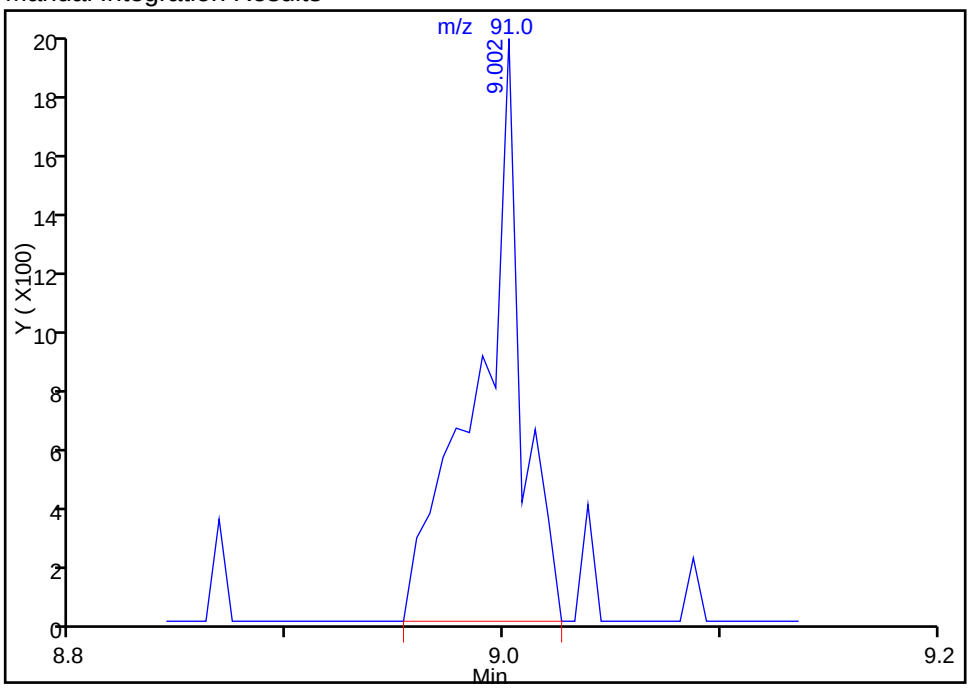
Processing Integration Results

RT: 8.99
Response: 1547
Amount: 0.137965



Manual Integration Results

RT: 9.00
Response: 2794
Amount: 0.249176



Reviewer: fergusond, 15-Jan-2015 08:27:34
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-40434-8

Matrix: Water Lab File ID: 50114021.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:45

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 19:36

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.: 130711 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	0.49	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.66	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U *	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.2		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-40434-8

Matrix: Water Lab File ID: 50114021.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:45

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 19:36

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.: 130711 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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114021.D
Lims ID: 180-40434-D-8 Lab Sample ID: 180-40434-8
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 19:36:30 ALS Bottle#: 19 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-8
Misc. Info.: 180-0005267-021
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:28:39 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:28:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.296	4.299	-0.003	85	189171	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.274	0.003	96	490766	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.364	-0.003	93	109165	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.679	12.688	-0.009	97	149832	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.526	0.003	93	114498	54.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.897	0.009	93	172705	50.4	
$ 7 Toluene-d8 (Surr)	98	8.926	8.923	0.003	96	465198	51.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.532	0.004	83	163881	47.4	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.505	3.490	0.015	73	10643	6.92	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96	5.945	5.936	0.009	81	7233	2.47	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97	6.529	6.532	-0.003	36	1853	0.5999	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.666	7.669	-0.003	88	8590	3.31	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91	8.993	8.990	0.003	20	2240	0.1933	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164	9.534	9.537	-0.003	93	12510	5.85	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

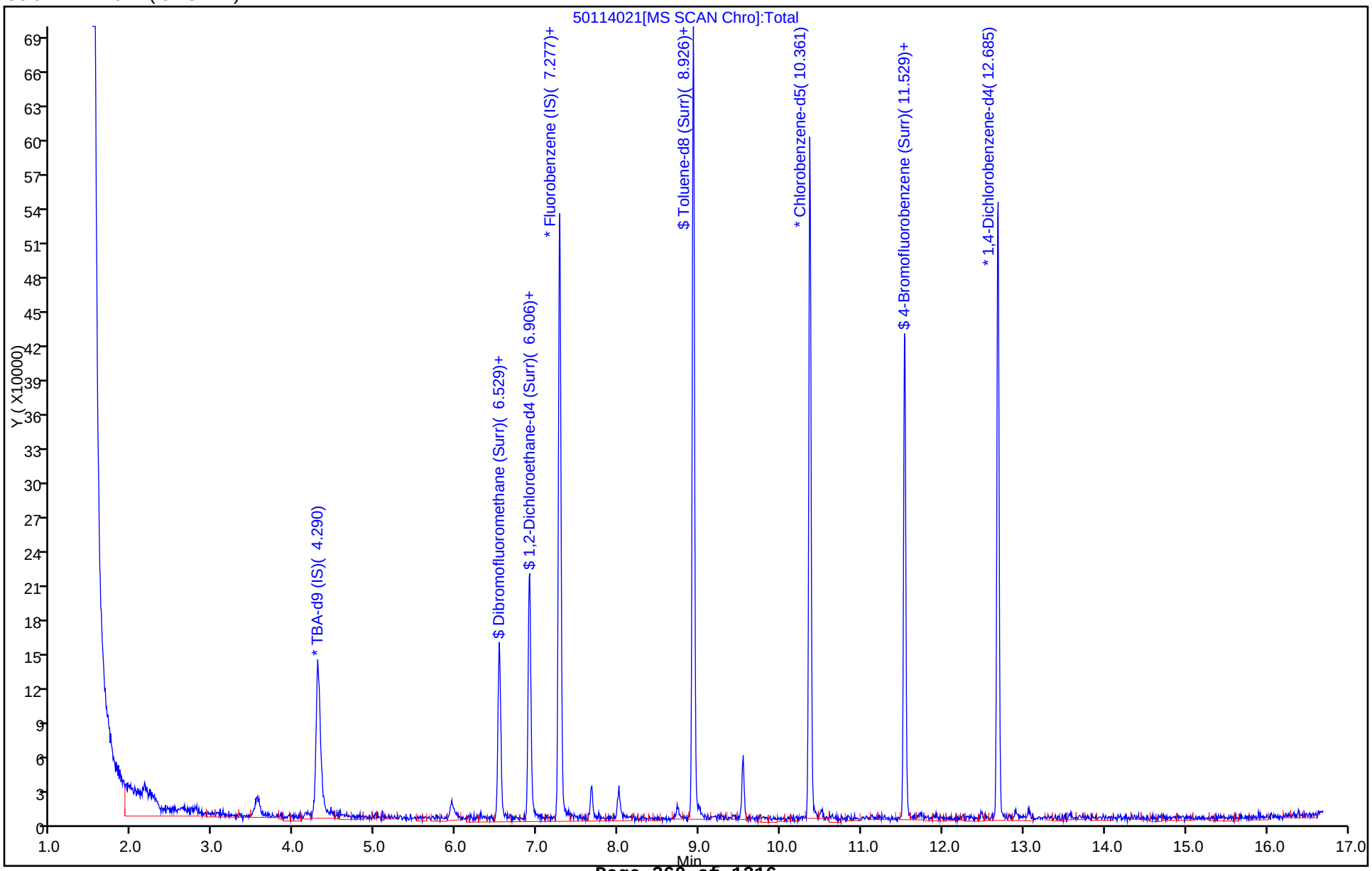
Report Date: 15-Jan-2015 08:28:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114021.D

Injection Date:	14-Jan-2015 19:36:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-8	Lab Sample ID:	180-40434-8	Worklist Smp#:	21
Client ID:	HD-COD-SW-13-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



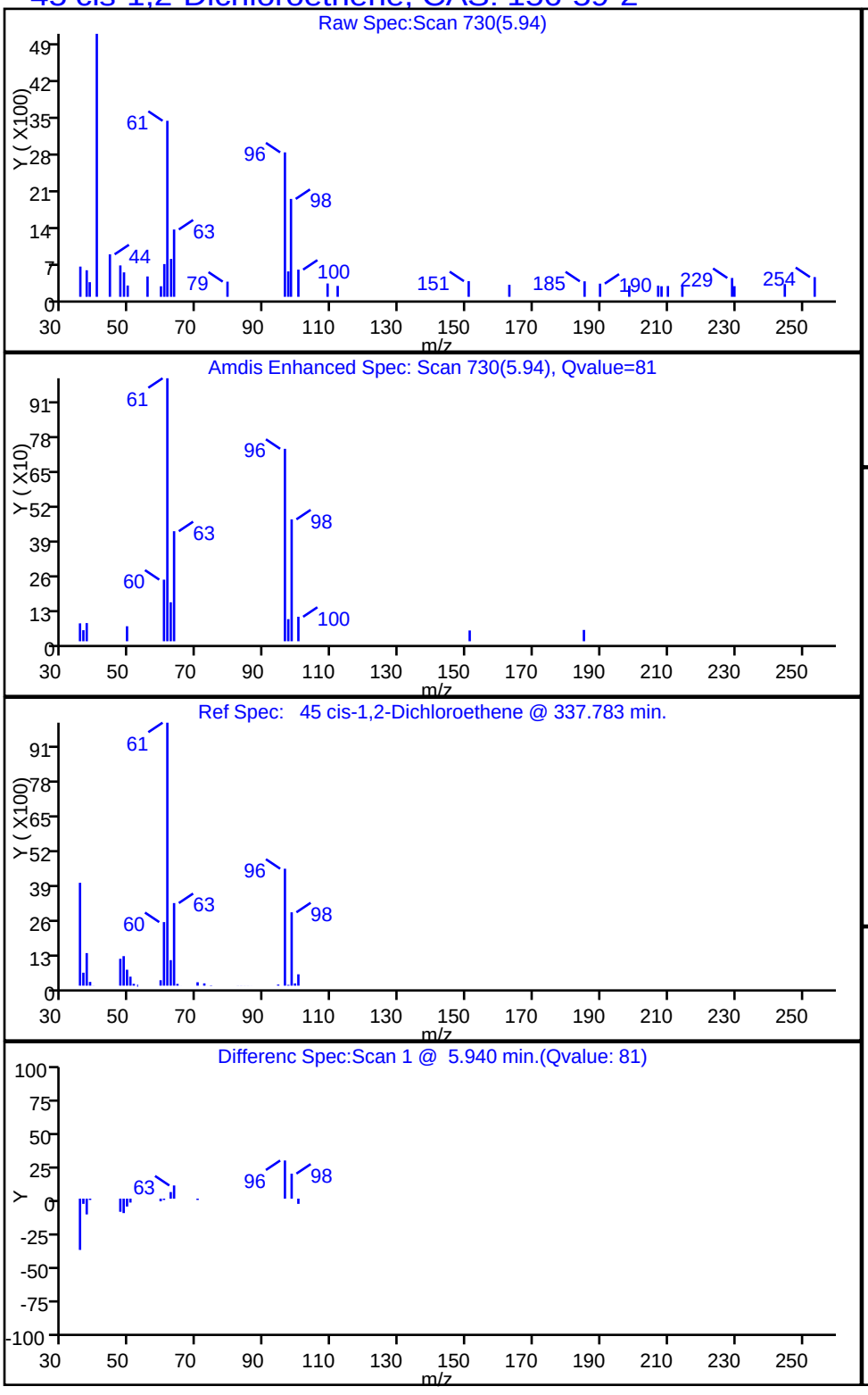
Report Date: 15-Jan-2015 08:28:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

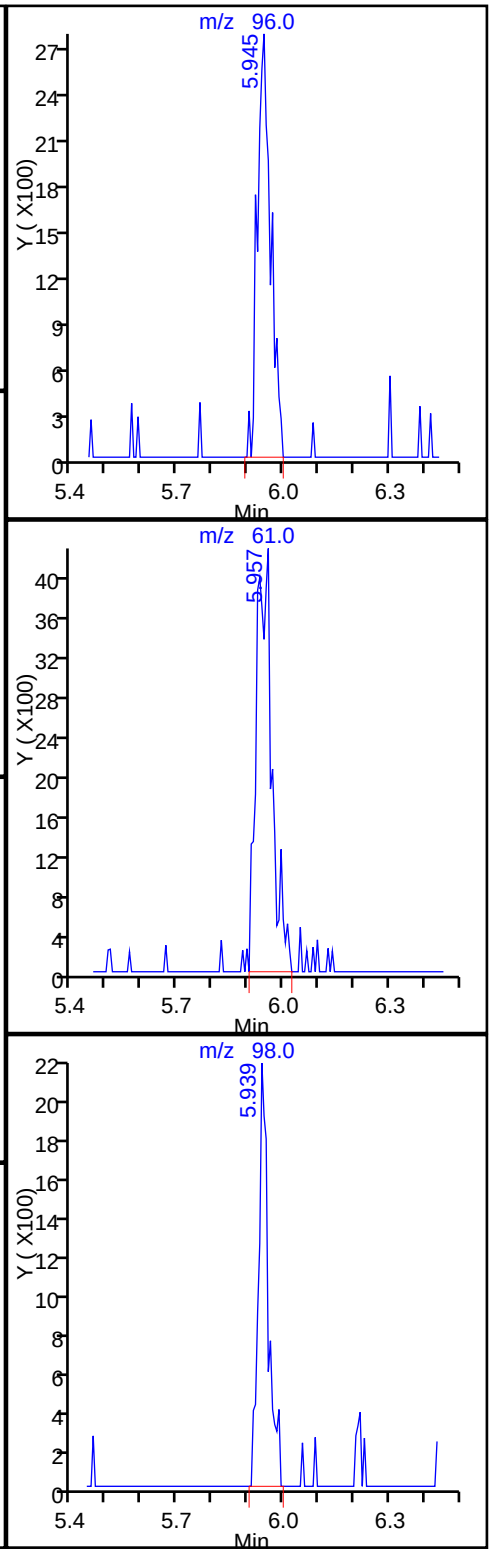
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114021.D

Injection Date:	14-Jan-2015 19:36:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-8	Lab Sample ID:	180-40434-8
Client ID:	HD-COD-SW-13-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



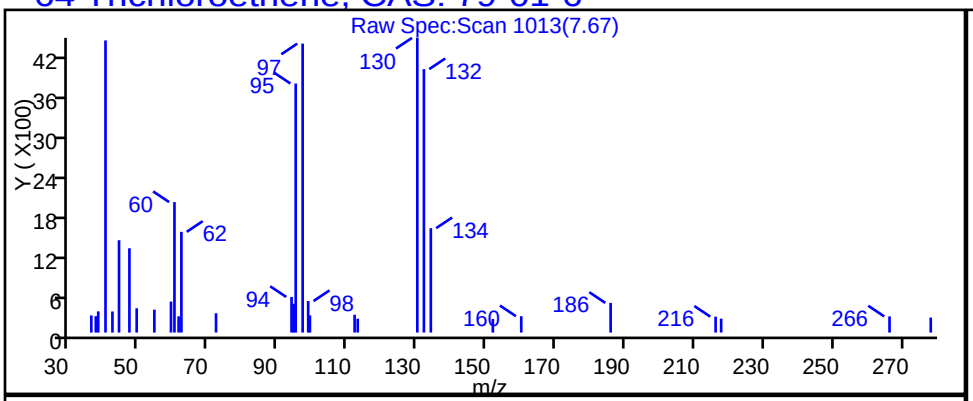


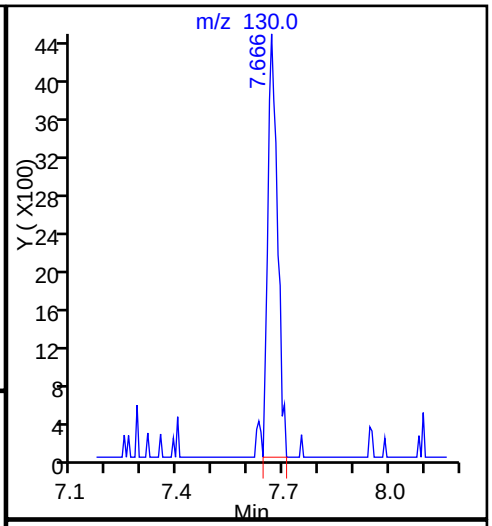
Report Date: 15-Jan-2015 08:28:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

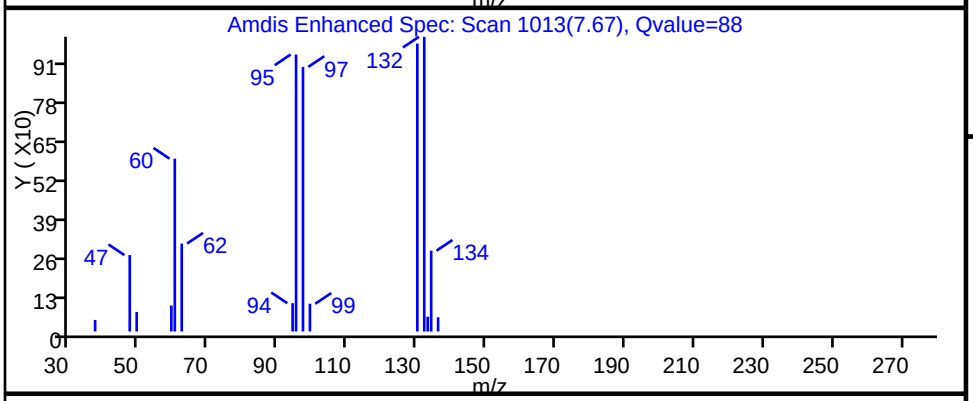
TestAmerica Pittsburgh

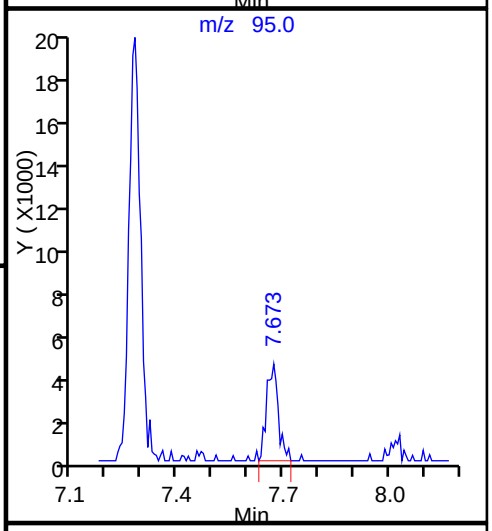
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114021.D				
Injection Date:	14-Jan-2015 19:36:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-8	Lab Sample ID:	180-40434-8		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

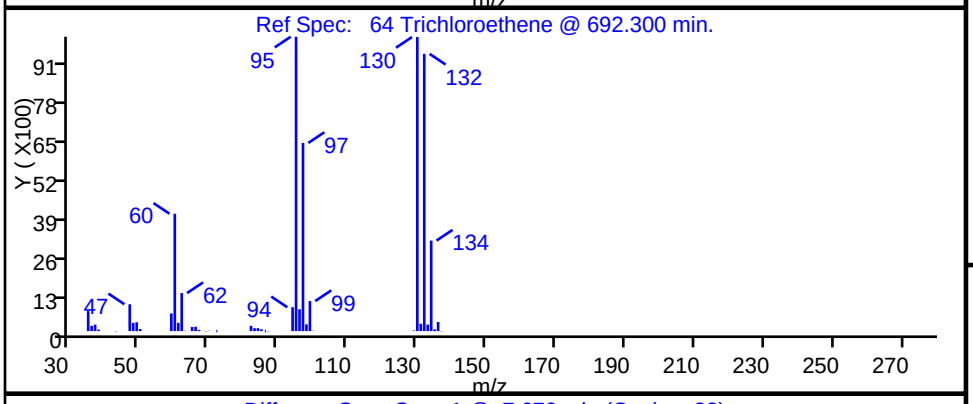
64 Trichloroethene, CAS: 79-01-6

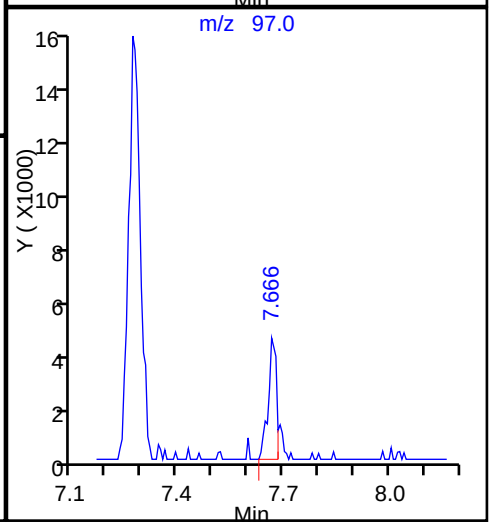


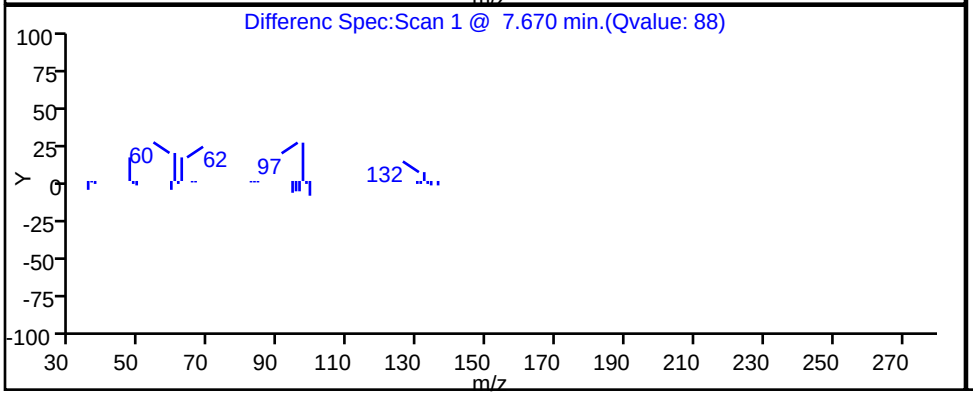












Report Date: 15-Jan-2015 08:28:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114021.D

Injection Date: 14-Jan-2015 19:36:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-8 Lab Sample ID: 180-40434-8

Client ID: HD-COD-SW-13-0/1-0

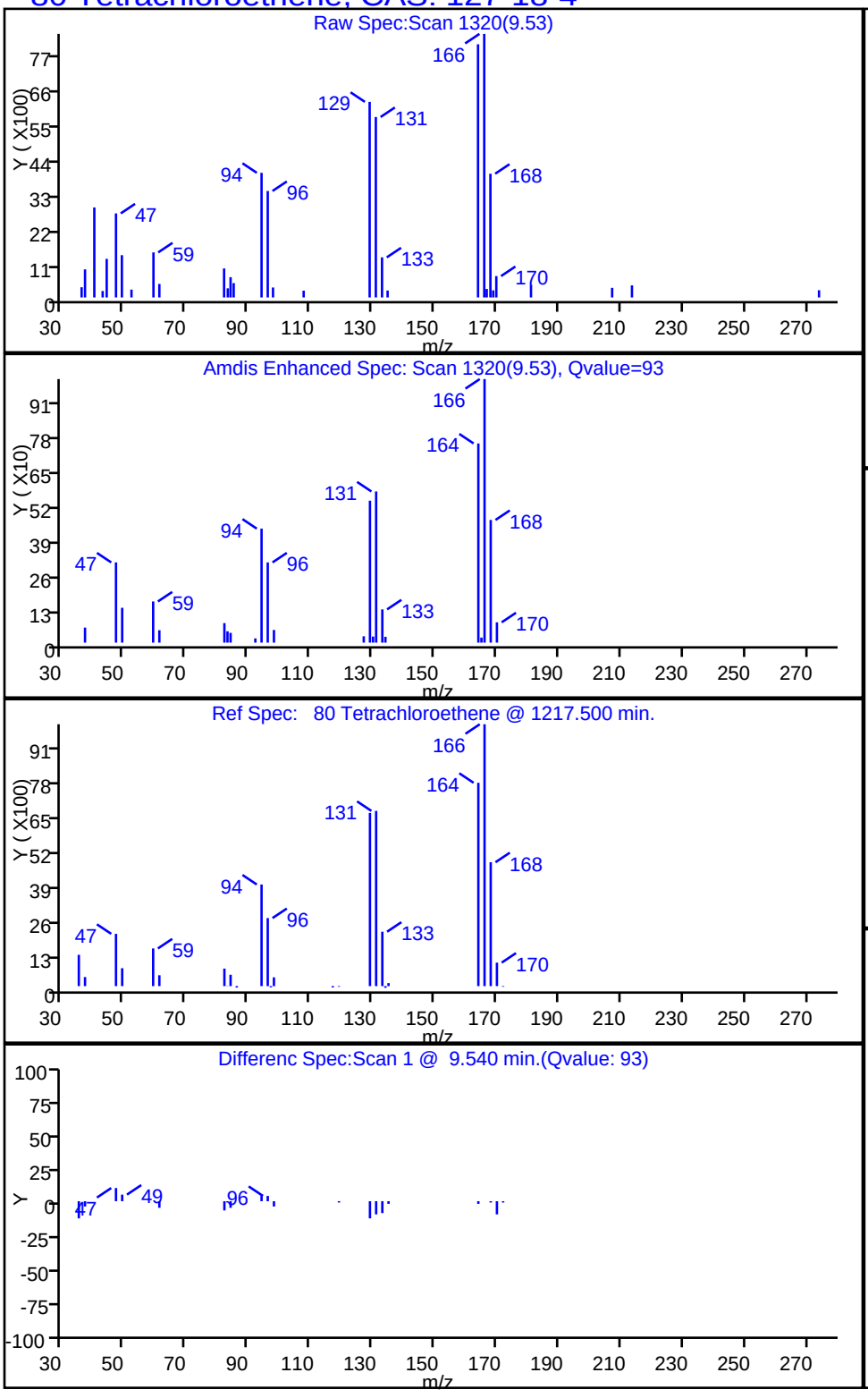
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 21

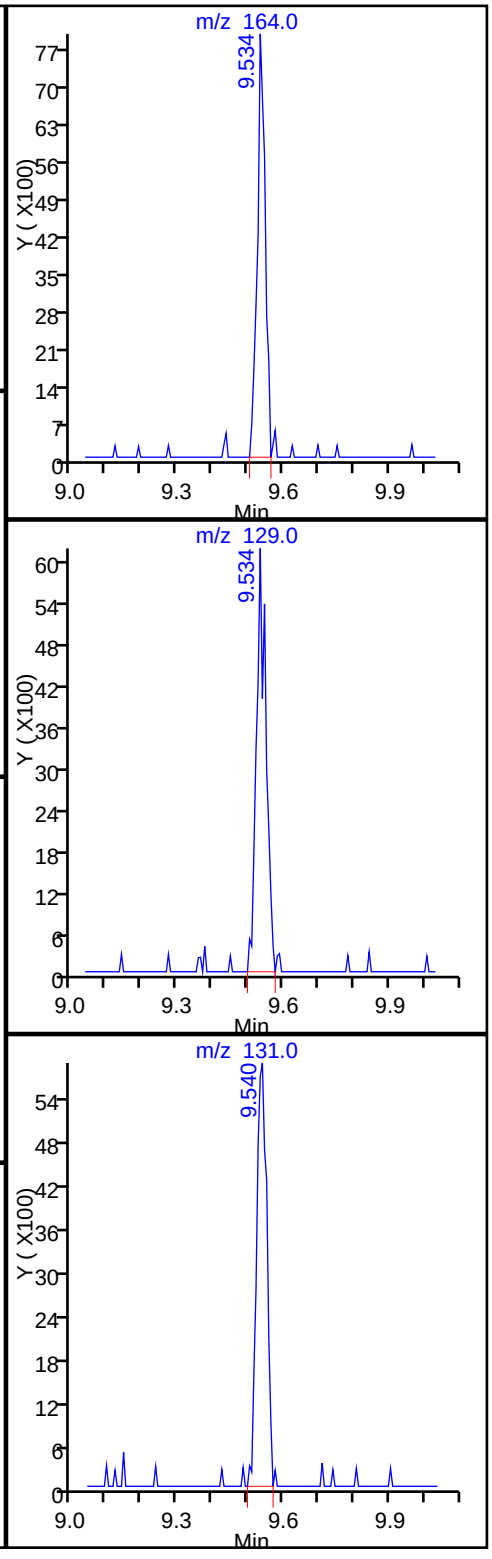
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 | Lab Sample ID: 180-40434-9

Matrix: Water | Lab File ID: 50114022.D

Analysis Method: 8260C | Date Collected: 01/13/2015 13:15

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2015 20:00

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.: 130711 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.98	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.31	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	19		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.21	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.6		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	14		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	9.0		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-40434-9

Matrix: Water Lab File ID: 50114022.D

Analysis Method: 8260C Date Collected: 01/13/2015 13:15

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 20:00

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.: 130711 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D
Lims ID: 180-40434-D-9 Lab Sample ID: 180-40434-9
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 20:00:30 ALS Bottle#: 20 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-9
Misc. Info.: 180-0005267-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:30:46 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:30:46

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.293	4.299	-0.006	84	164706	1000.0	
*	2 Fluorobenzene (IS)	96	7.274	7.274	0.000	96	471360	50.0	
*	3 Chlorobenzene-d5	119	10.364	10.364	0.000	92	106433	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.682	12.688	-0.006	96	147619	50.0	
$	5 Dibromofluoromethane (Surr	113	6.532	6.526	0.006	93	112665	56.2	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.897	0.000	91	170837	51.9	
$	7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	95	431448	48.7	
$	8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	83	162718	48.2	
	12 Chloromethane	50		1.781				ND	
	13 Vinyl chloride	62		1.908				ND	
	15 Bromomethane	94		2.255				ND	
	16 Chloroethane	64		2.401				ND	
	22 1,1-Dichloroethene	96	3.381	3.387	-0.006	88	12575	4.90	
	24 Acetone	43	3.502	3.490	0.012	70	7304	4.94	M
	26 Carbon disulfide	76		3.660				ND	
	31 Methylene Chloride	84		4.141				ND	
	33 Acrylonitrile	53		4.549				ND	
	34 trans-1,2-Dichloroethene	96		4.561				ND	
	35 Methyl tert-butyl ether	73		4.591				ND	
	37 1,1-Dichloroethane	63	5.187	5.169	0.018	1	9254	1.53	
	45 cis-1,2-Dichloroethene	96	5.942	5.936	0.006	87	260139	92.6	
	46 2-Butanone (MEK)	43		5.978				ND	
	49 Chlorobromomethane	128		6.228				ND	
	52 Chloroform	83	6.343	6.343	0.000	29	4780	1.05	M
	53 1,1,1-Trichloroethane	97	6.532	6.532	0.000	47	23052	7.77	
	56 Carbon tetrachloride	117		6.720				ND	
	58 Benzene	78		6.952				ND	
	59 1,2-Dichloroethane	62		6.982				ND	
	64 Trichloroethene	130	7.669	7.669	0.000	94	170354	68.3	
	67 1,2-Dichloropropane	63		7.901				ND	
	70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91	8.990	8.990	0.000	50	2129	0.1884	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97	9.391	9.403	-0.012	1	572	0.2580	
80 Tetrachloroethene	164	9.537	9.537	0.000	95	93863	45.0	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

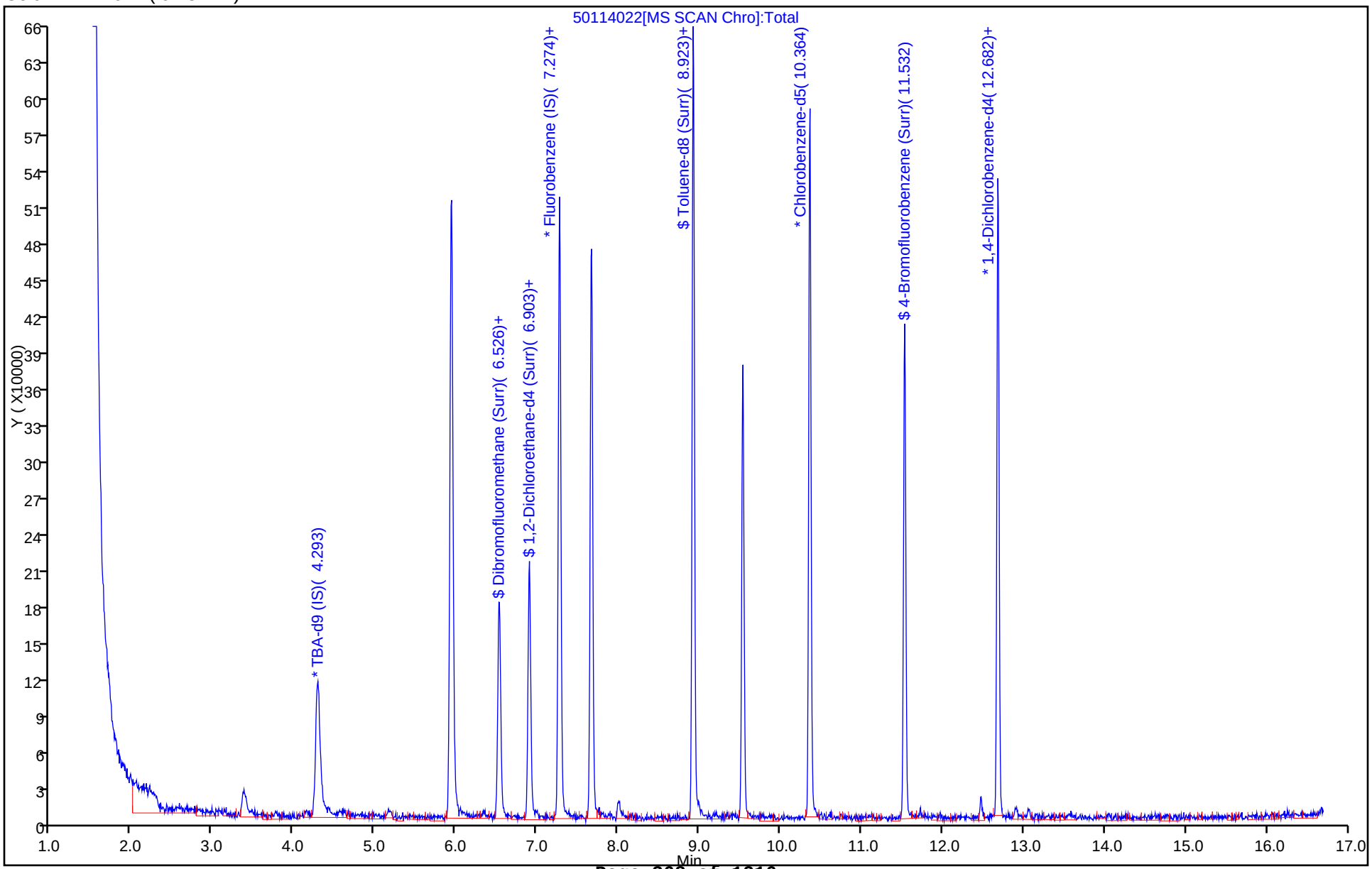
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:30:46 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D				
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9	Worklist Smp#:	22
Client ID:	HD-COD-SW-15-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

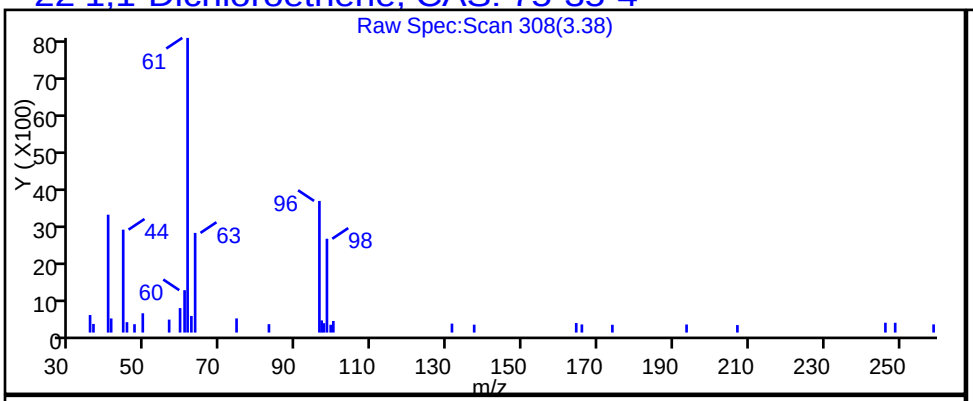


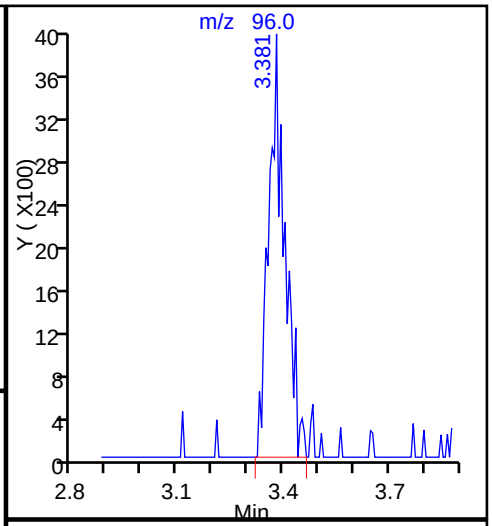
Report Date: 15-Jan-2015 08:30:46 Chrom Revision: 2.2 06-Nov-2014 14:50:32

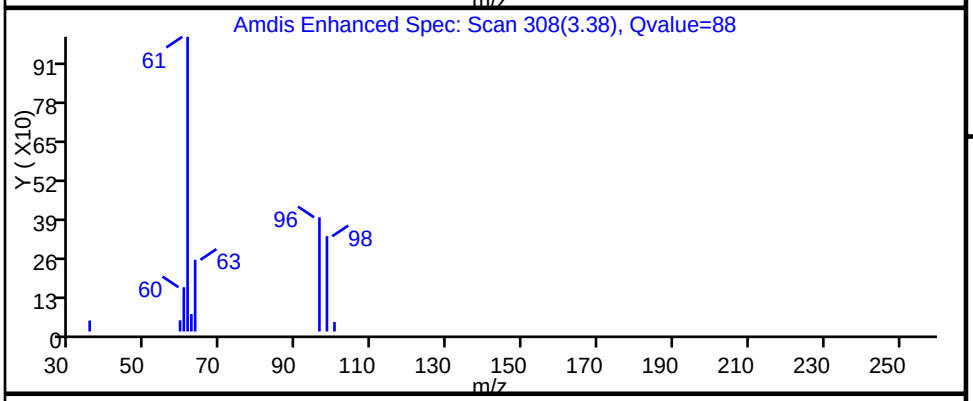
TestAmerica Pittsburgh

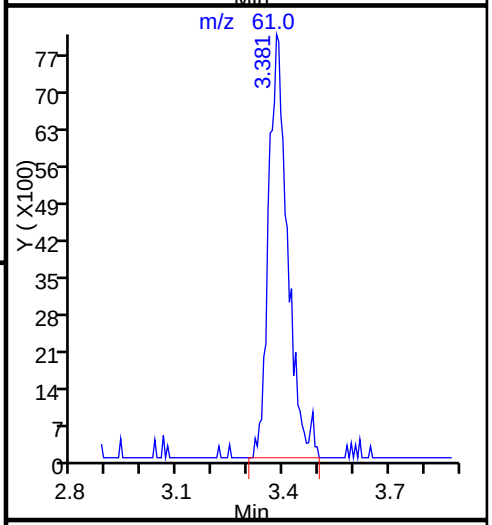
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D		
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	001562	ALS Bottle#:	20 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

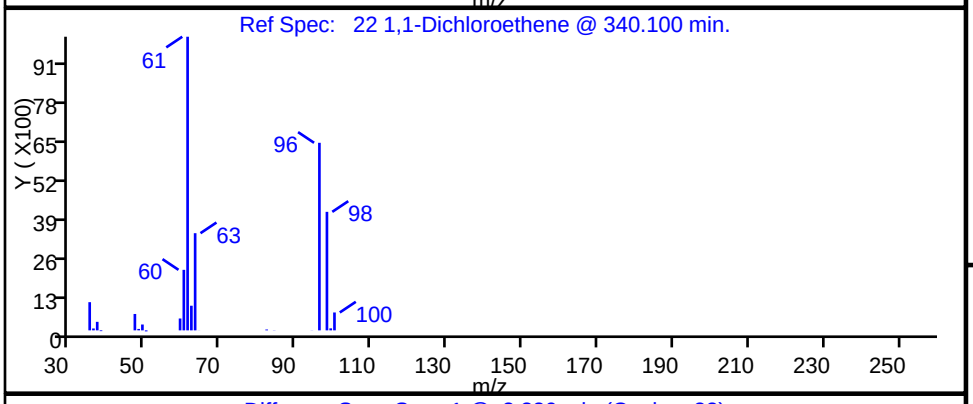
22 1,1-Dichloroethene, CAS: 75-35-4

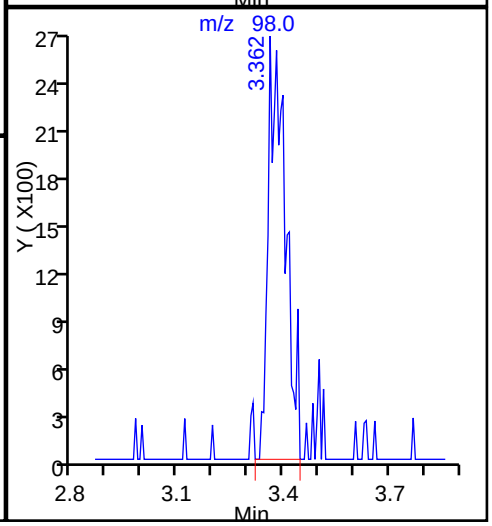


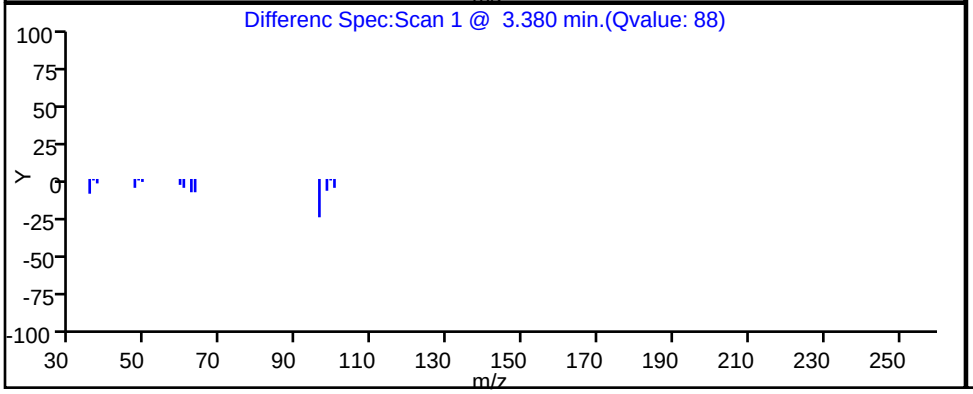












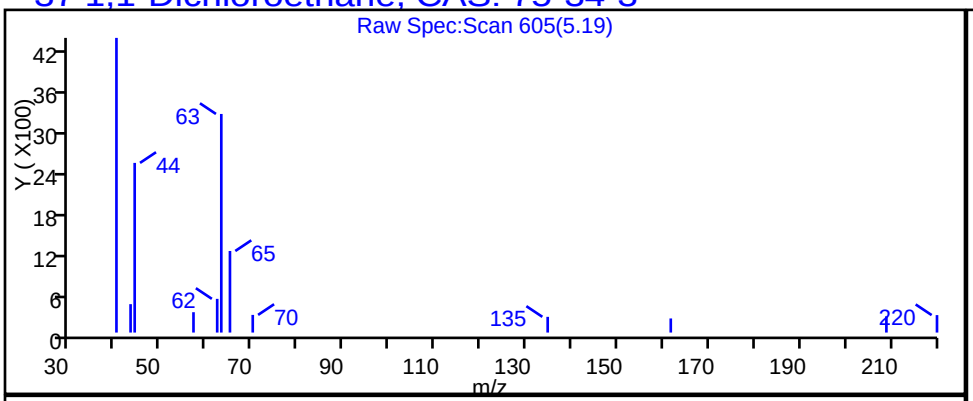
Report Date: 15-Jan-2015 08:30:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

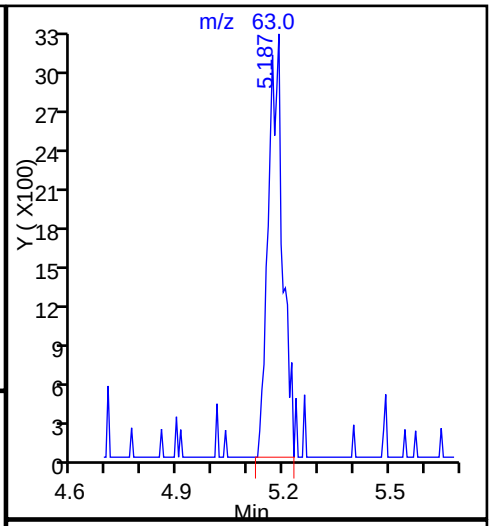
TestAmerica Pittsburgh

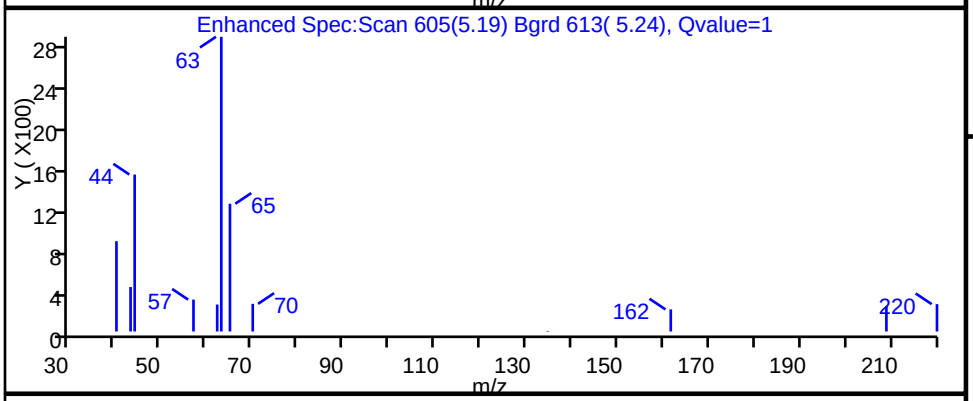
Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D

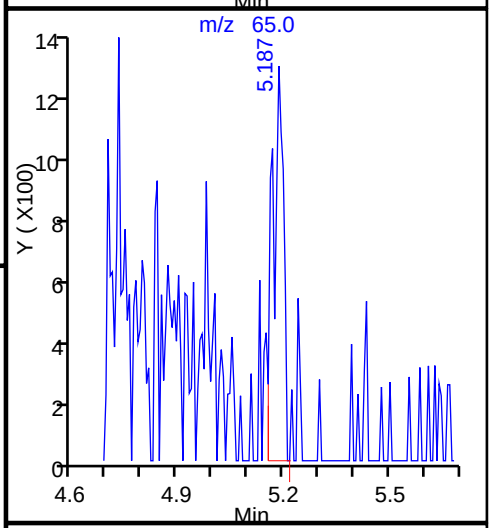
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

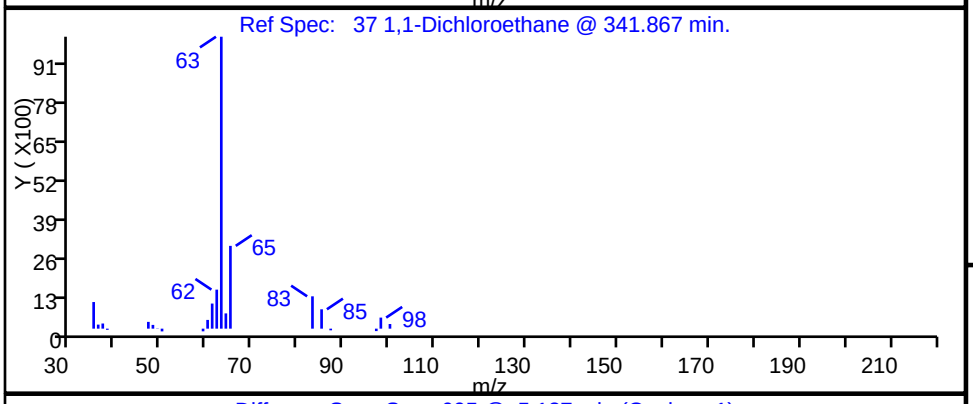
37 1,1-Dichloroethane, CAS: 75-34-3

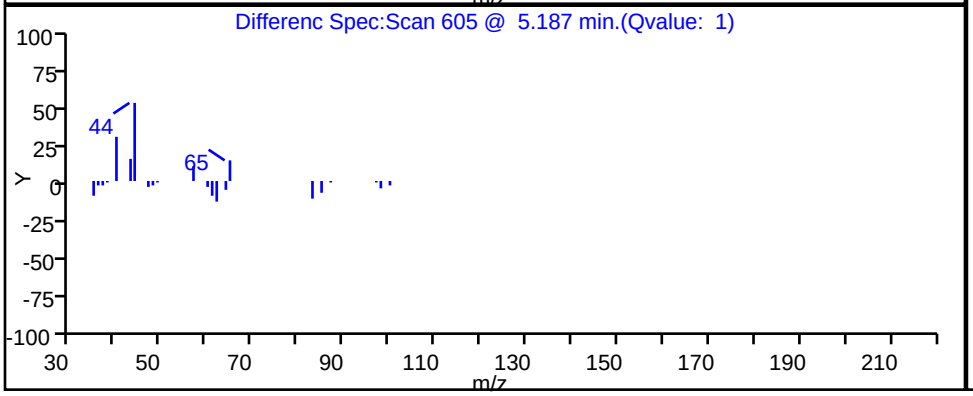


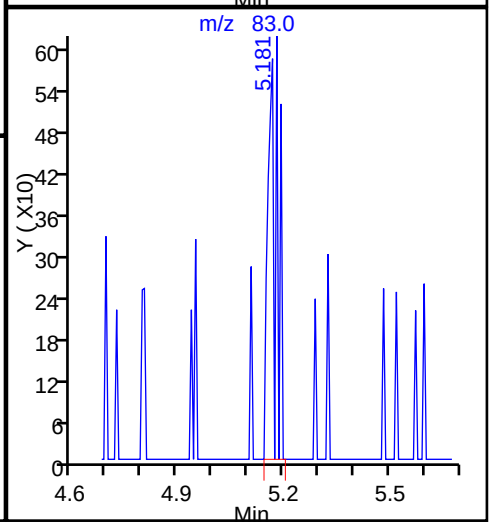










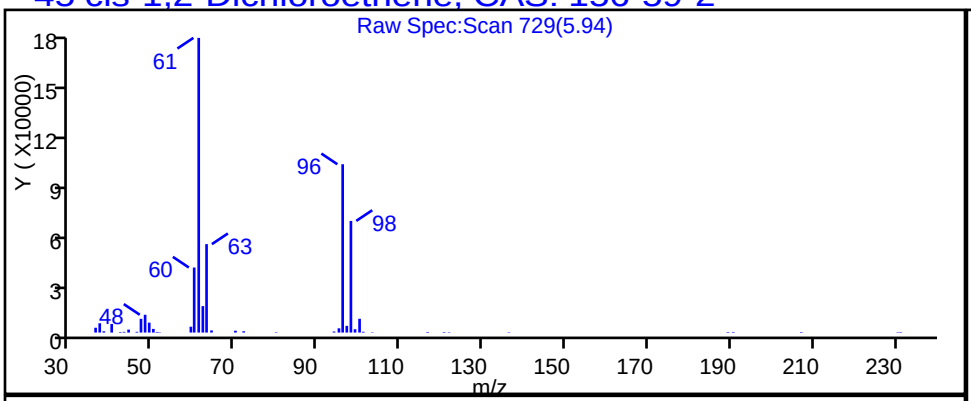


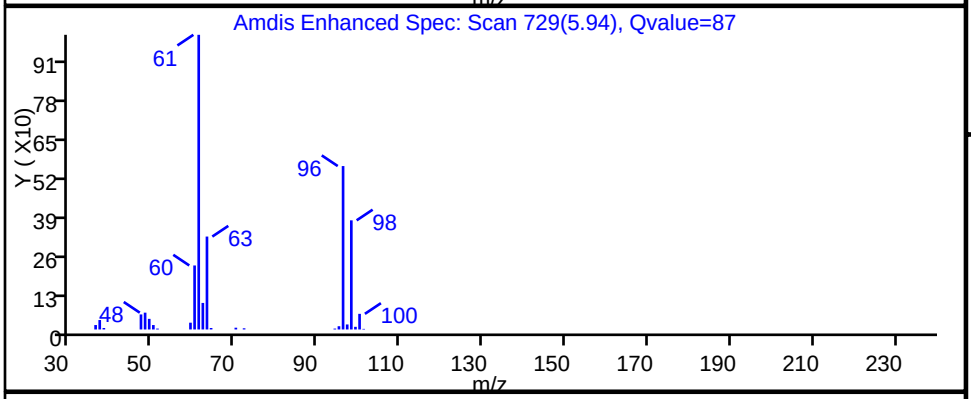
Report Date: 15-Jan-2015 08:30:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

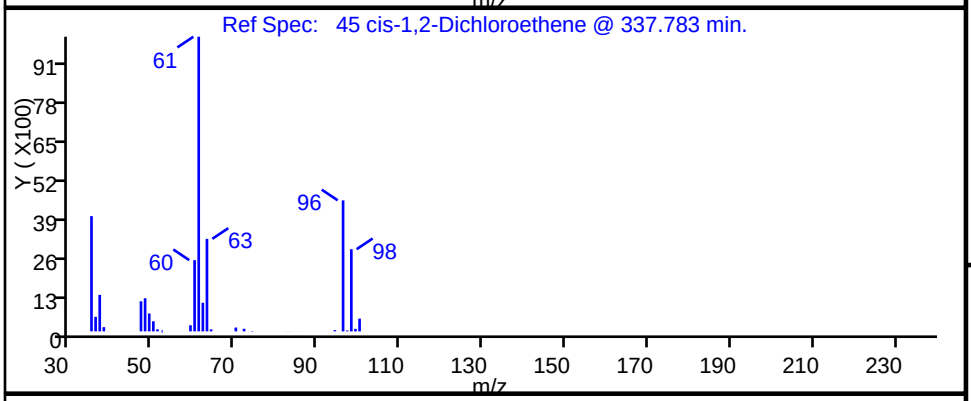
TestAmerica Pittsburgh

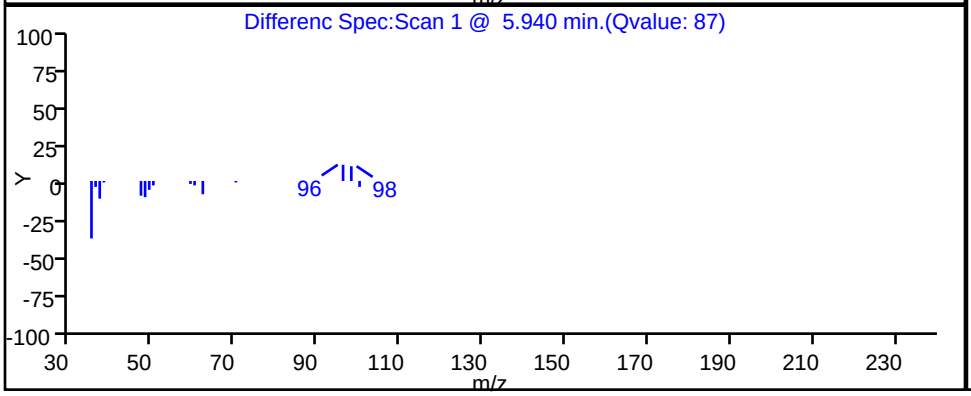
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D		
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	001562	ALS Bottle#:	20 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

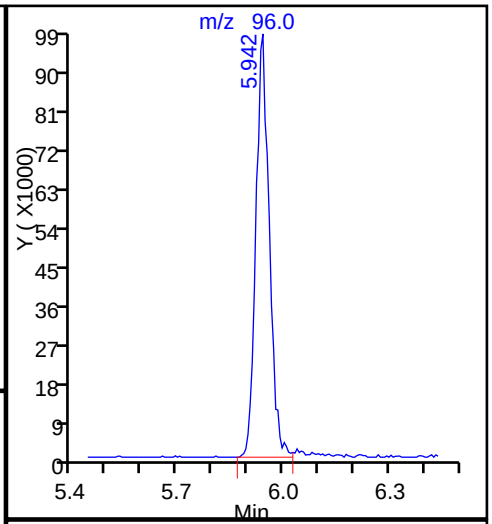
45 cis-1,2-Dichloroethene, CAS: 156-59-2

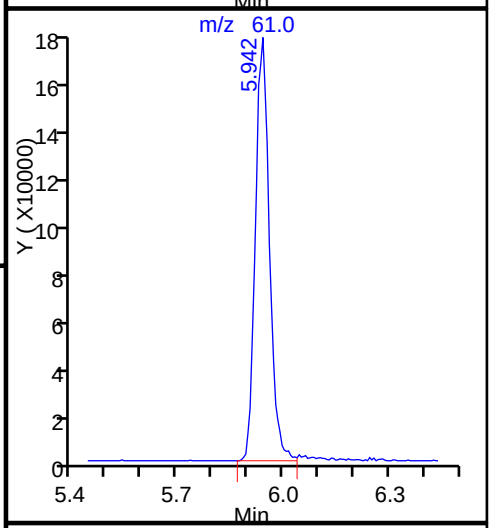


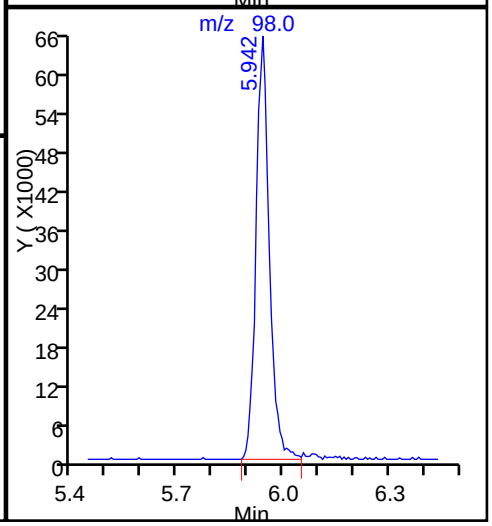












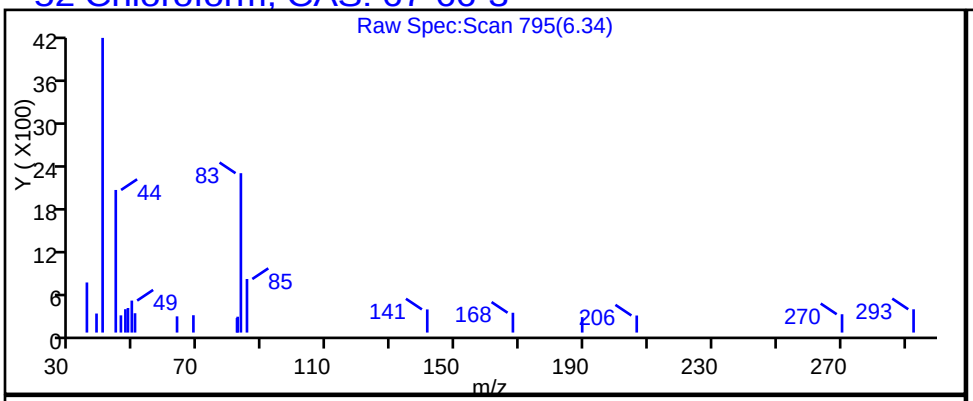
Report Date: 15-Jan-2015 08:30:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

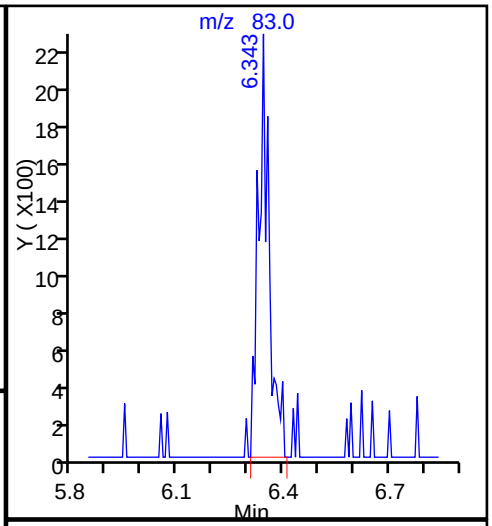
TestAmerica Pittsburgh

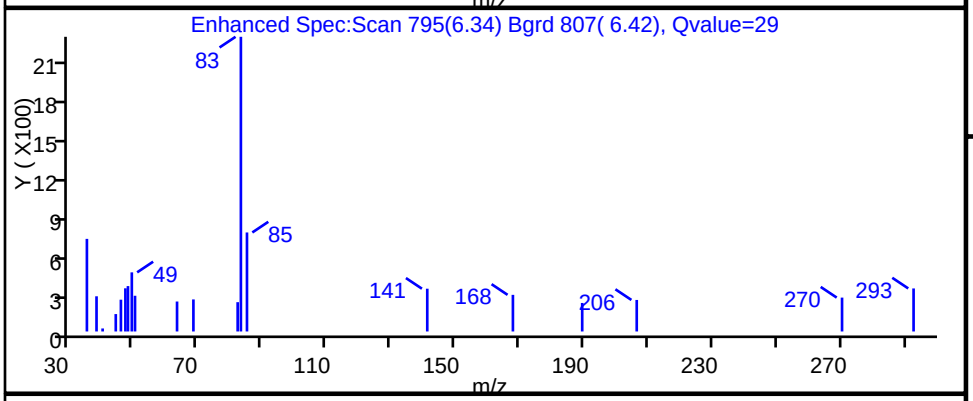
Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D

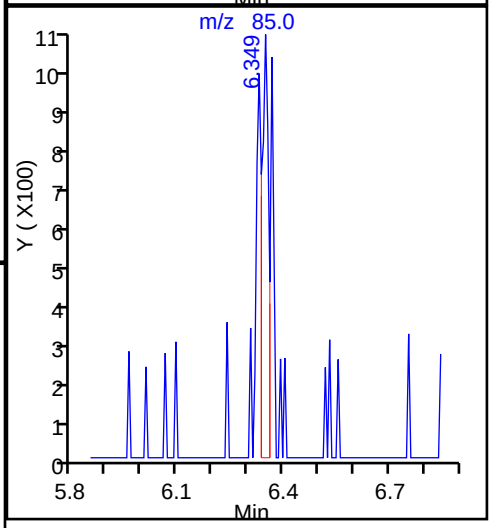
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

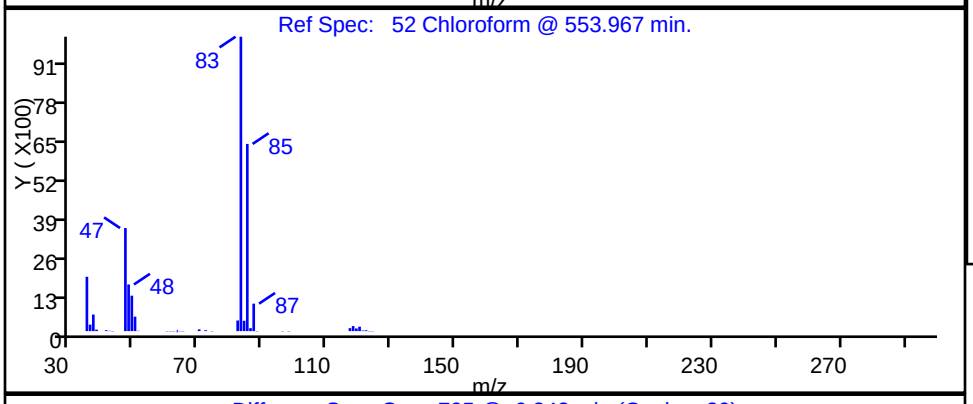
52 Chloroform, CAS: 67-66-3

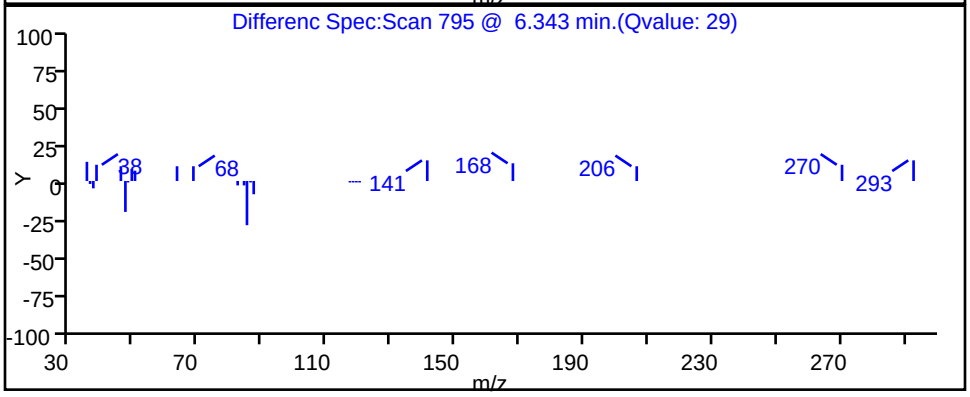










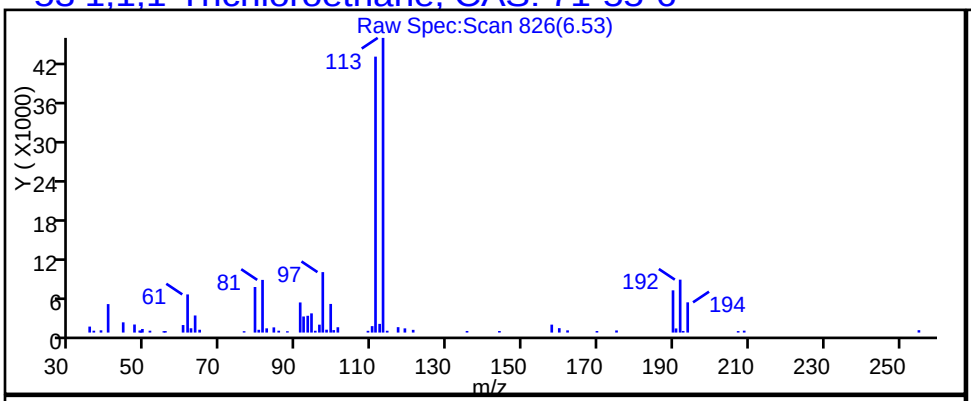


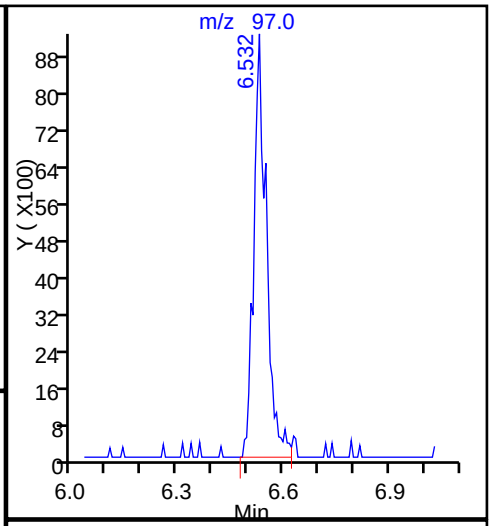
Report Date: 15-Jan-2015 08:30:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

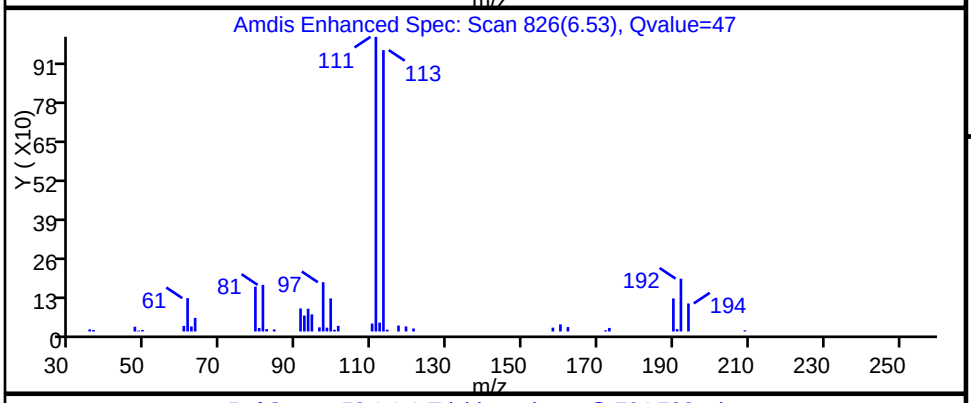
TestAmerica Pittsburgh

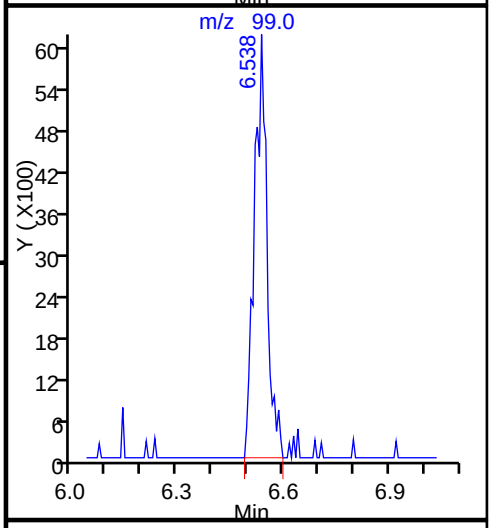
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D				
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

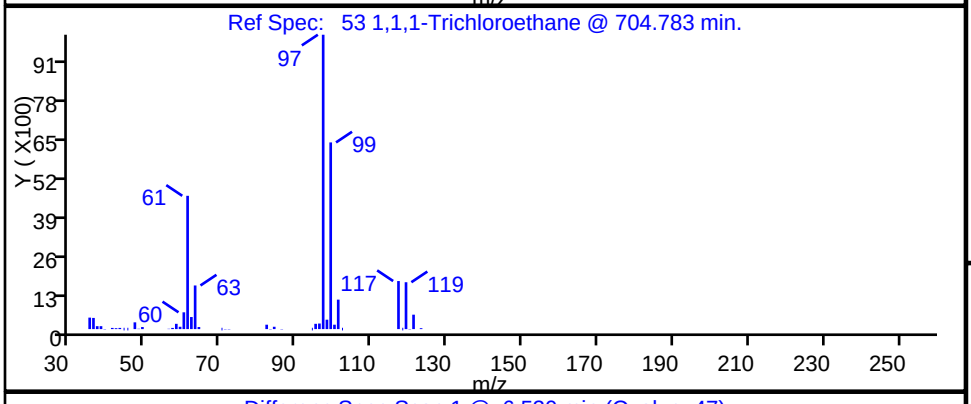
53 1,1,1-Trichloroethane, CAS: 71-55-6

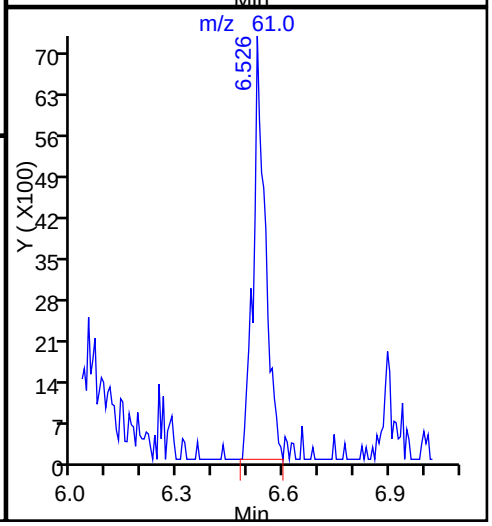


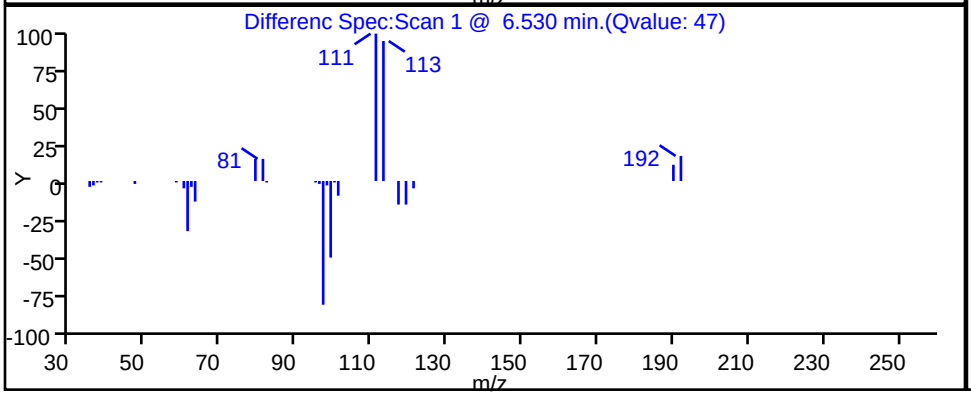












Report Date: 15-Jan-2015 08:30:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D

Injection Date: 14-Jan-2015 20:00:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-9 Lab Sample ID: 180-40434-9

Client ID: HD-COD-SW-15-0/1-0

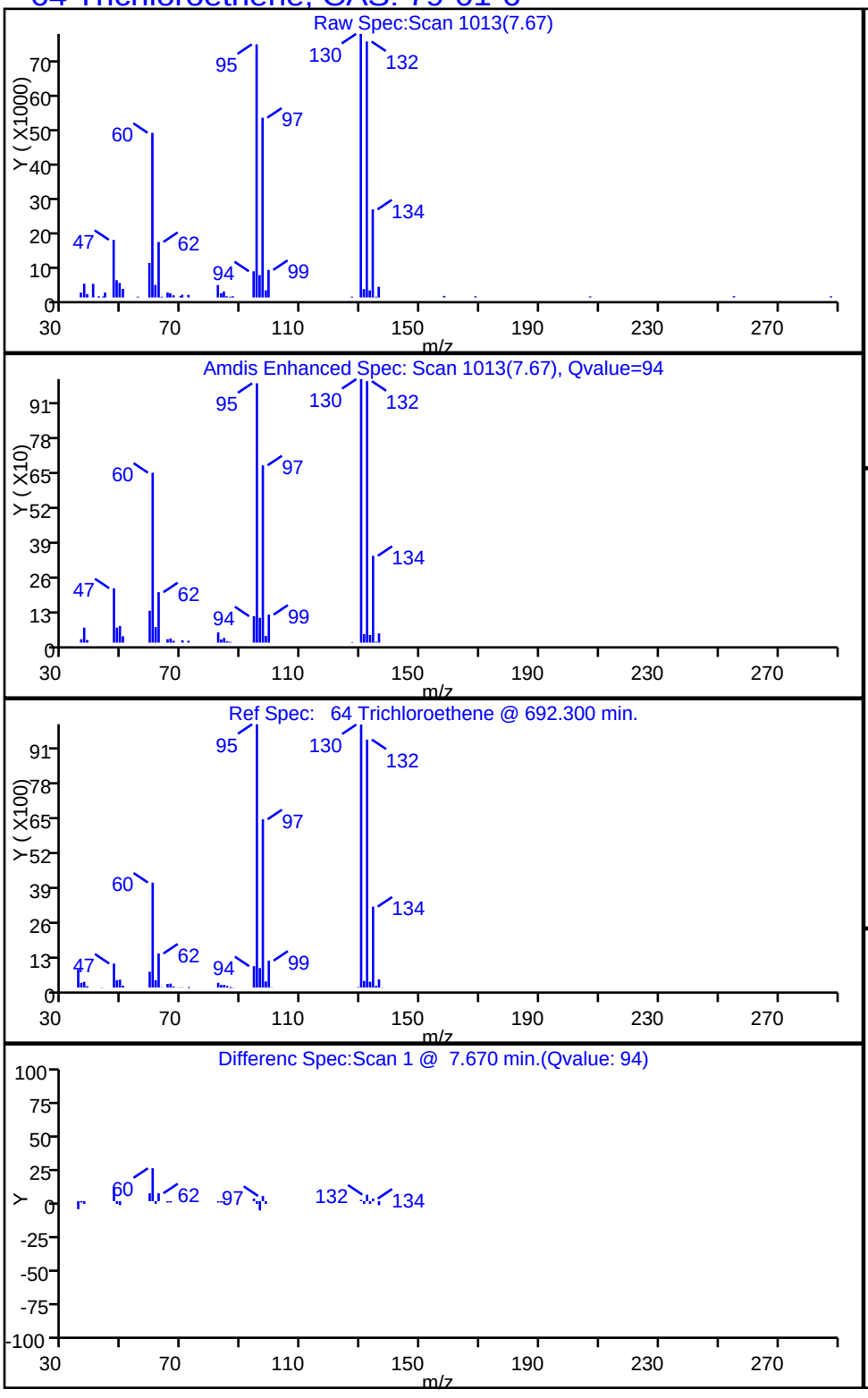
Operator ID: 001562 ALS Bottle#: 20 Worklist Smp#: 22

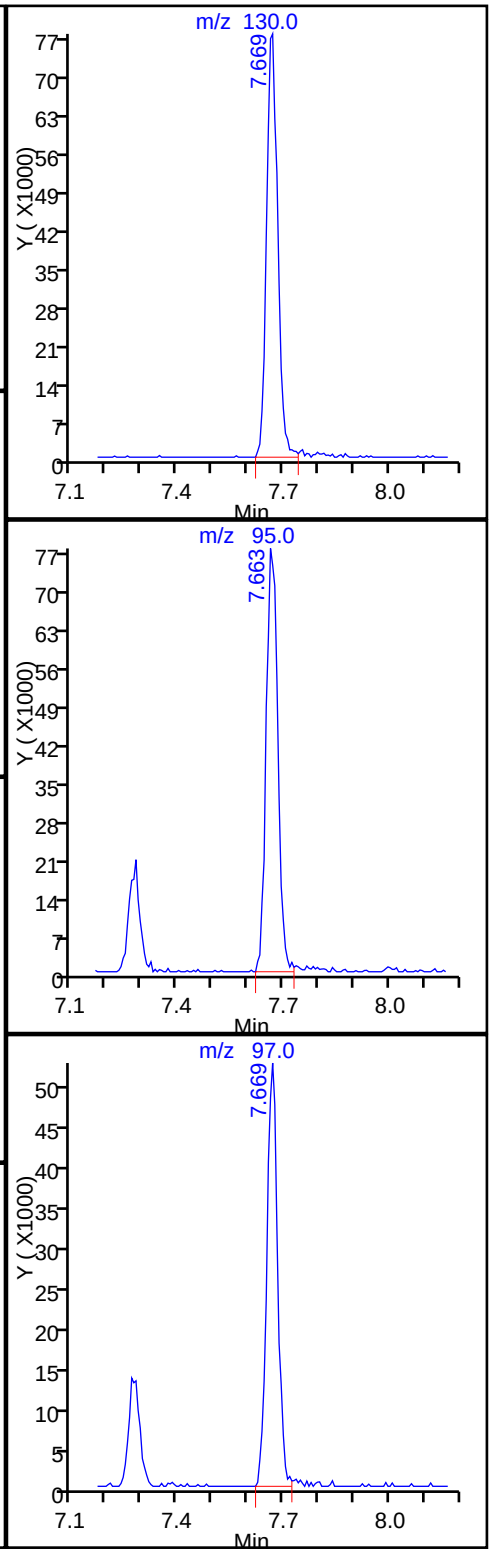
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6





Report Date: 15-Jan-2015 08:30:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D

Injection Date: 14-Jan-2015 20:00:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-9 Lab Sample ID: 180-40434-9

Client ID: HD-COD-SW-15-0/1-0

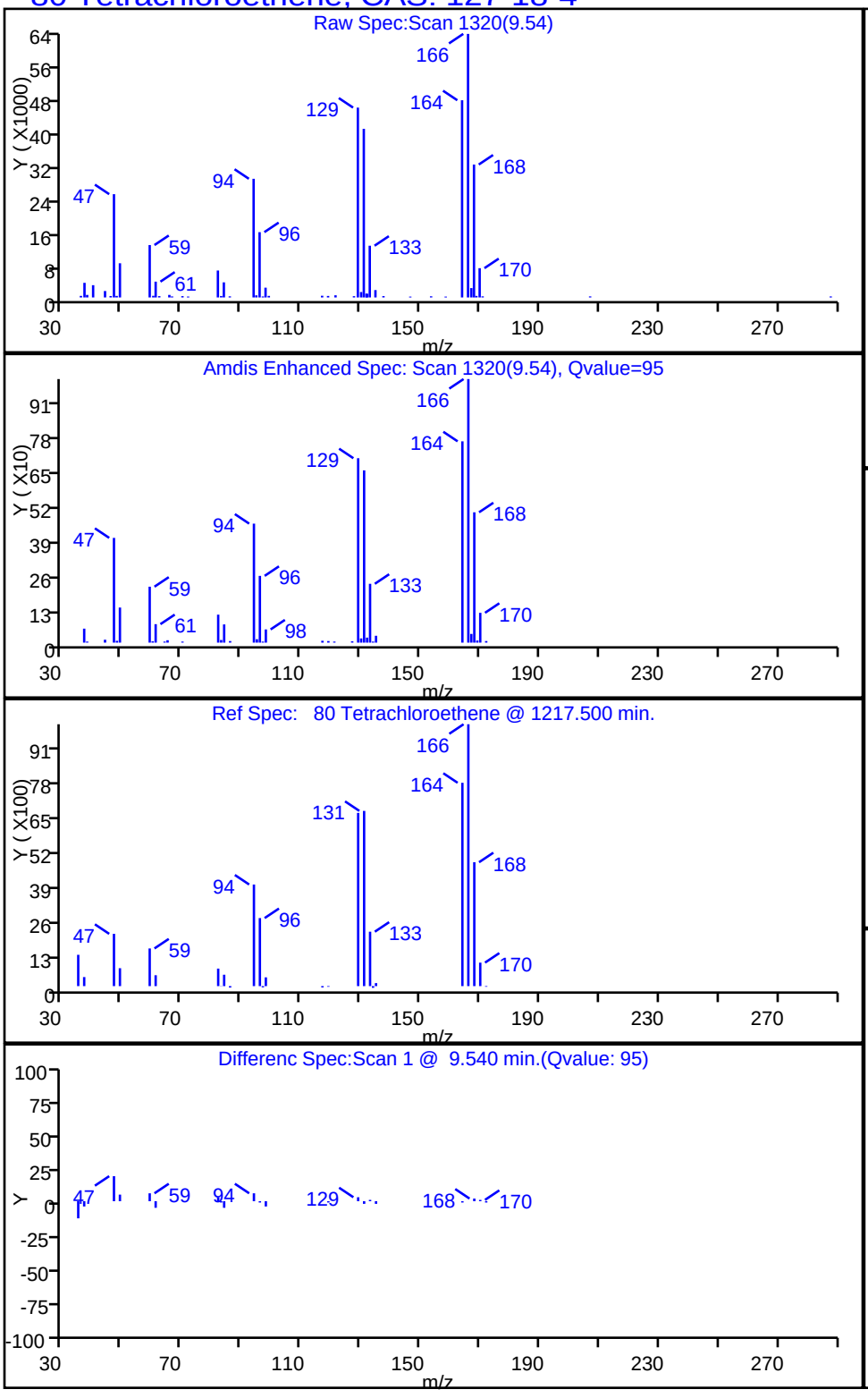
Operator ID: 001562 ALS Bottle#: 20 Worklist Smp#: 22

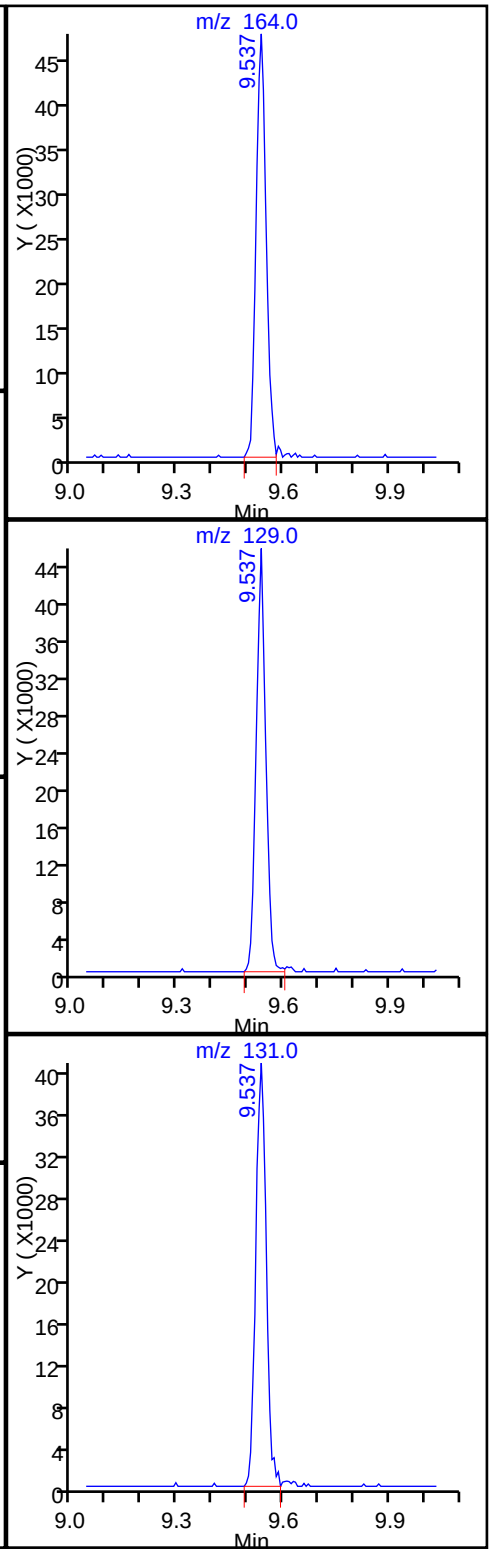
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

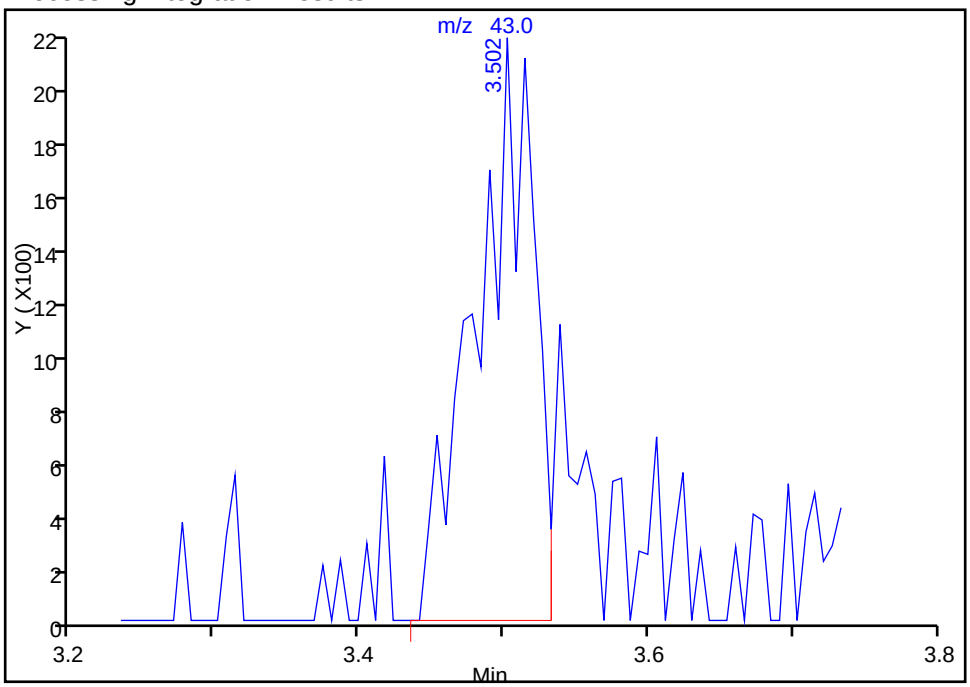
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D				
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

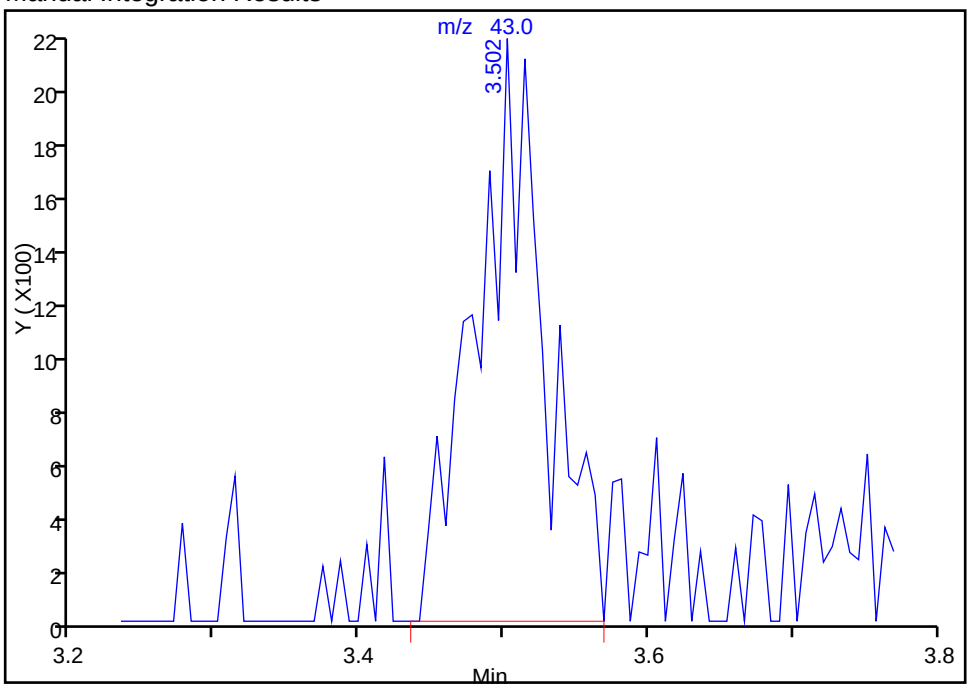
Processing Integration Results

RT: 3.50
Response: 6109
Amount: 4.133202



Manual Integration Results

RT: 3.50
Response: 7304
Amount: 4.941710



Reviewer: fergusond, 15-Jan-2015 08:30:46
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

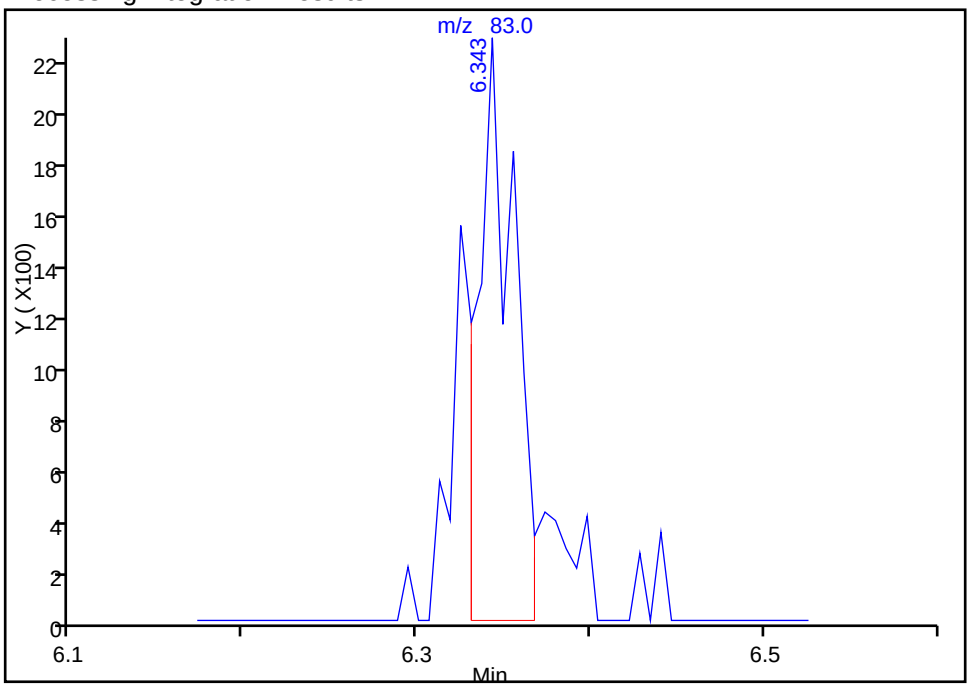
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114022.D				
Injection Date:	14-Jan-2015 20:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-9	Lab Sample ID:	180-40434-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

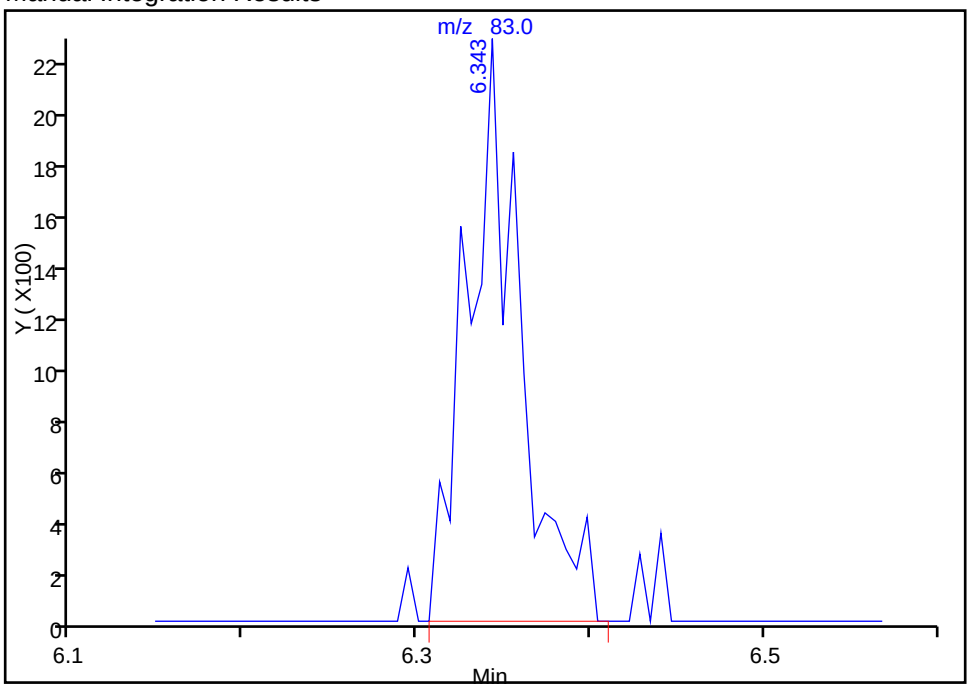
Processing Integration Results

RT: 6.34
Response: 3266
Amount: 0.714354



Manual Integration Results

RT: 6.34
Response: 4780
Amount: 1.045502



Reviewer: fergusond, 15-Jan-2015 08:30:46
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 | Lab Sample ID: 180-40434-10

Matrix: Water | Lab File ID: 50114023.D

Analysis Method: 8260C | Date Collected: 01/13/2015 10:15

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2015 20:24

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.: 130711 | 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	0.44	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.72	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U *	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.7		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-40434-10

Matrix: Water Lab File ID: 50114023.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:15

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 20:24

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.: 130711 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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114023.D
Lims ID: 180-40434-D-10 Lab Sample ID: 180-40434-10
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 20:24:30 ALS Bottle#: 21 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-10
Misc. Info.: 180-0005267-023
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:33:49 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:33:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.299	-0.015	87	138507	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.274	-0.003	96	463681	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.364	-0.002	93	101227	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.688	-0.002	96	141679	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.526	0.003	92	109454	55.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.897	0.003	93	170768	52.7	
$ 7 Toluene-d8 (Surr)	98	8.920	8.923	-0.003	96	428405	50.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.532	-0.002	84	164366	51.2	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96		3.387				ND	
24 Acetone	43	3.500	3.490	0.010	69	10817	7.44	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63		5.169				ND	
45 cis-1,2-Dichloroethene	96	5.927	5.936	-0.009	20	6039	2.18	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97	6.535	6.532	0.003	36	1796	0.6154	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.667	7.669	-0.002	90	8795	3.58	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164	9.534	9.537	-0.003	93	16782	8.47	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

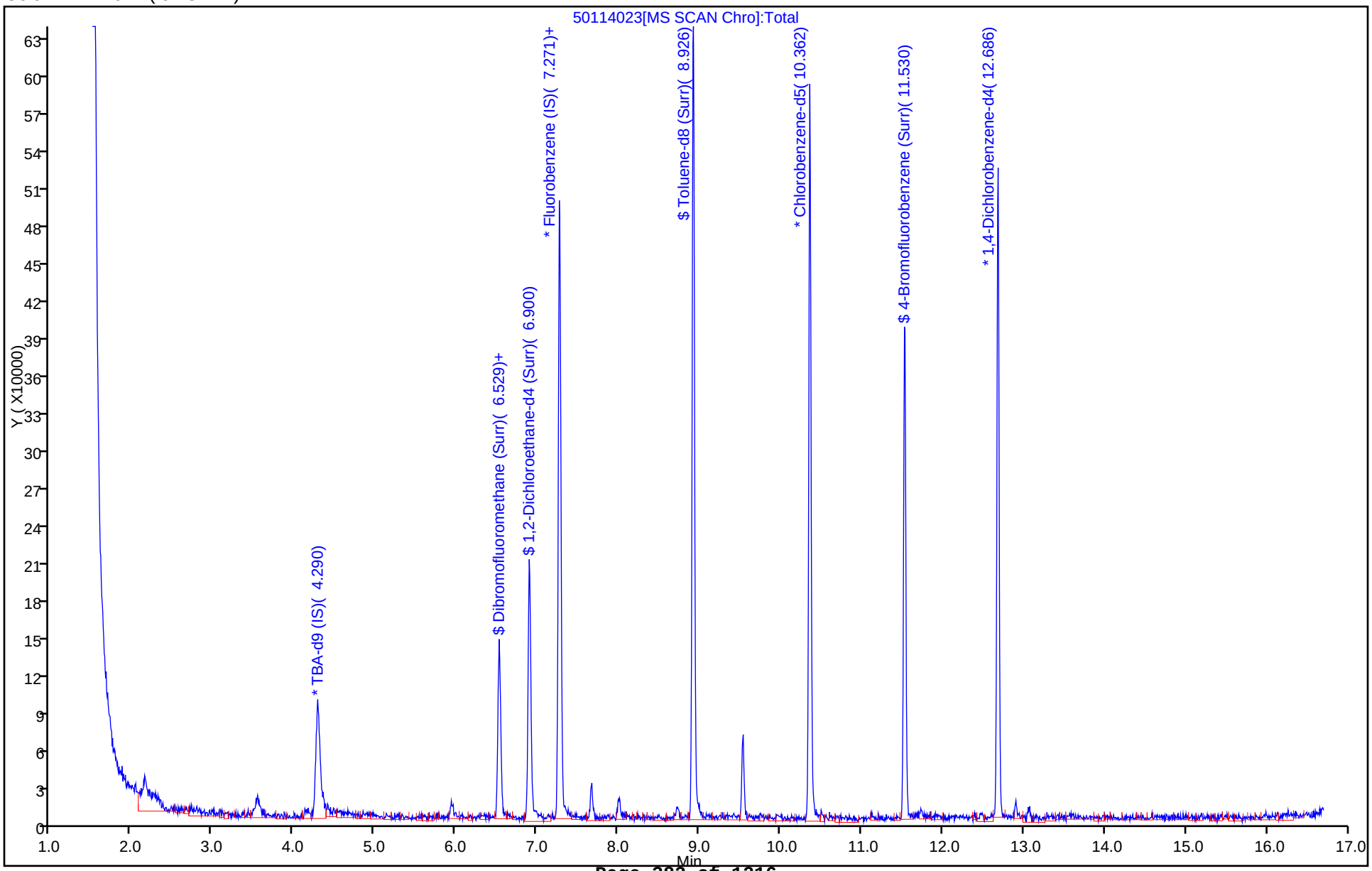
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:33:49 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114023.D				
Injection Date:	14-Jan-2015 20:24:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-10	Lab Sample ID:	180-40434-10	Worklist Smp#:	23
Client ID:	HD-COD-SW-16-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

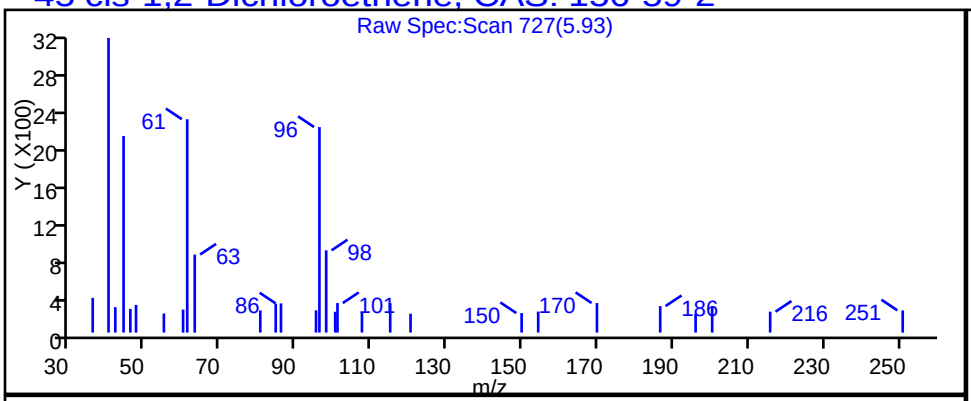


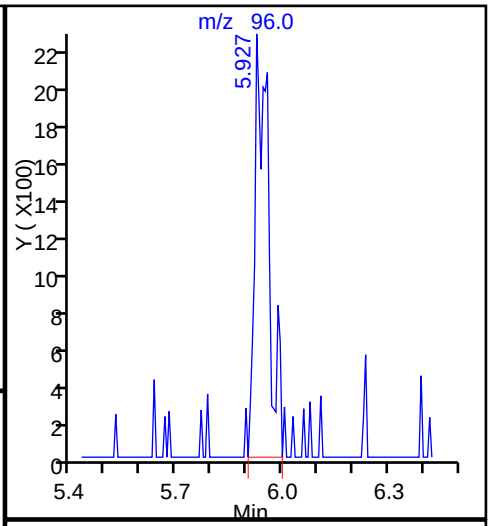
Report Date: 15-Jan-2015 08:33:49 Chrom Revision: 2.2 06-Nov-2014 14:50:32

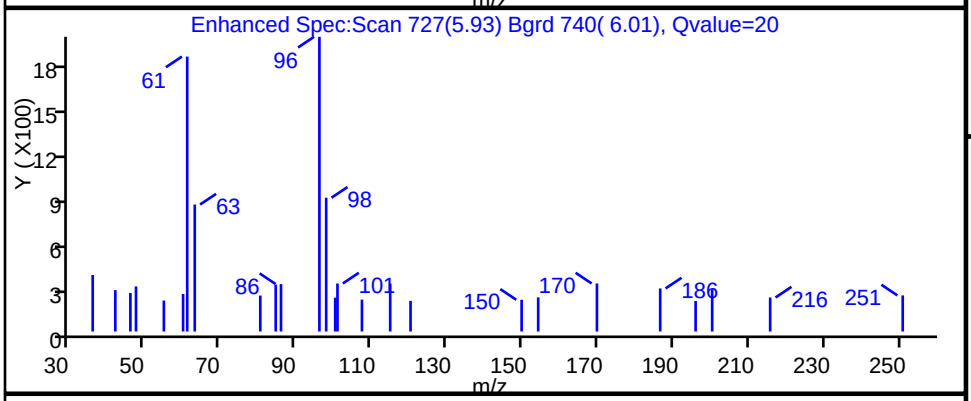
TestAmerica Pittsburgh

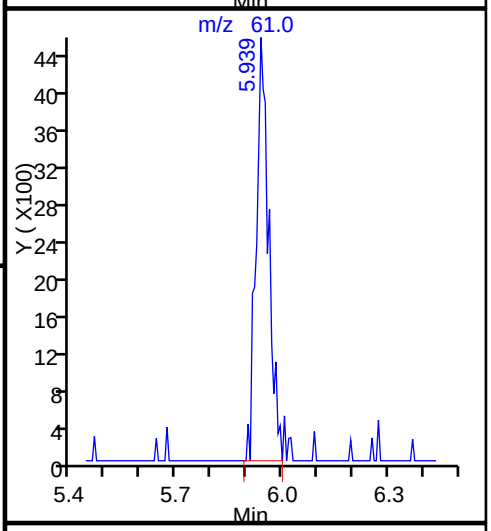
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114023.D				
Injection Date:	14-Jan-2015 20:24:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-10	Lab Sample ID:	180-40434-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

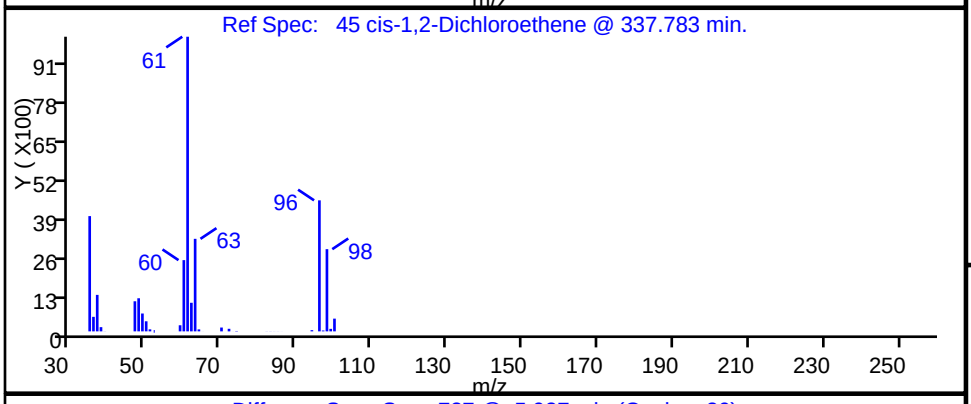
45 cis-1,2-Dichloroethene, CAS: 156-59-2

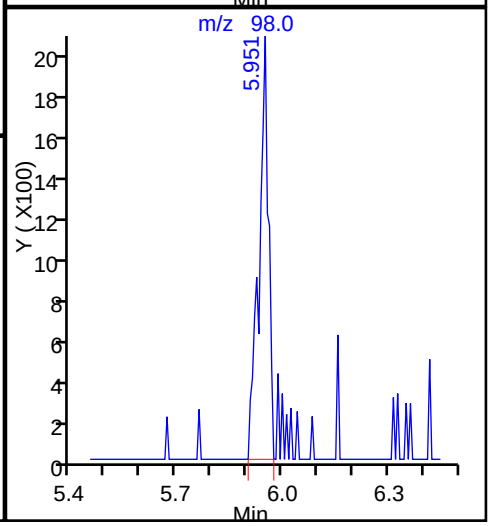


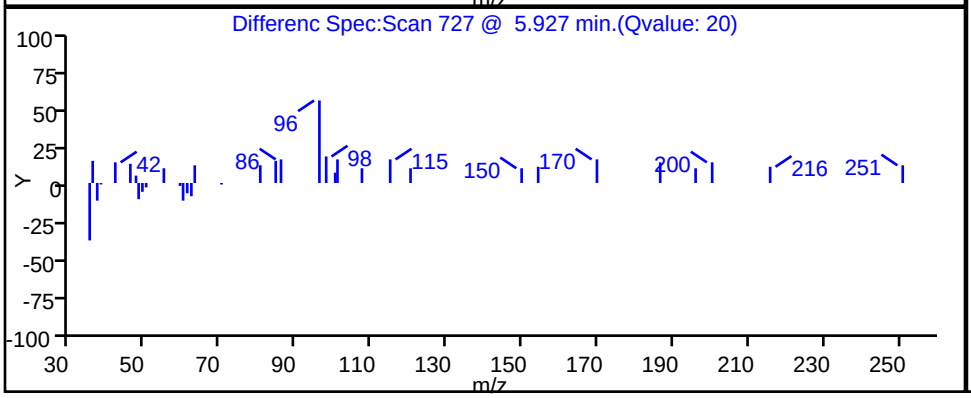












Report Date: 15-Jan-2015 08:33:49 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114023.D

Injection Date: 14-Jan-2015 20:24:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-10 Lab Sample ID: 180-40434-10

Client ID: HD-COD-SW-16-0/1-0

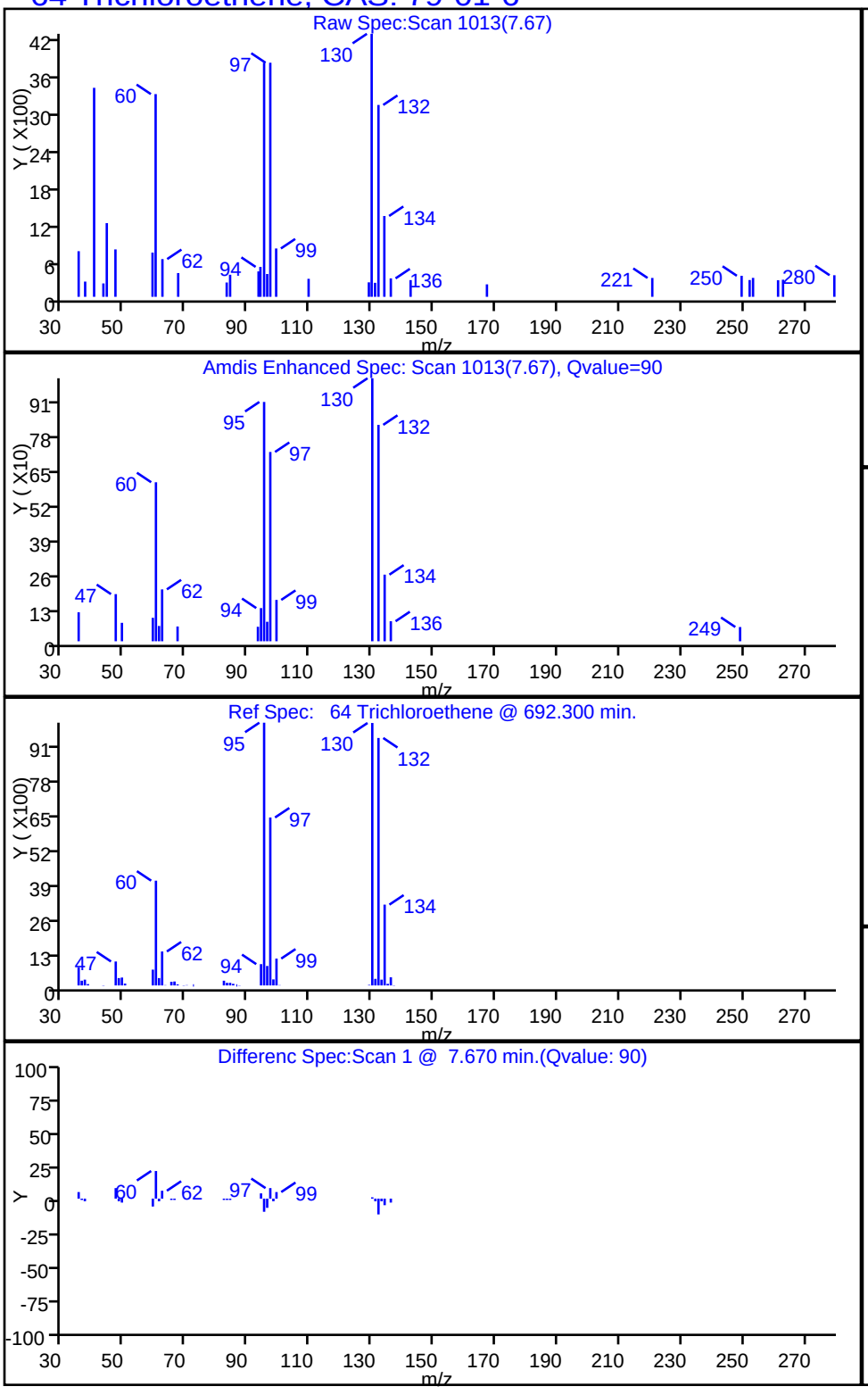
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 23

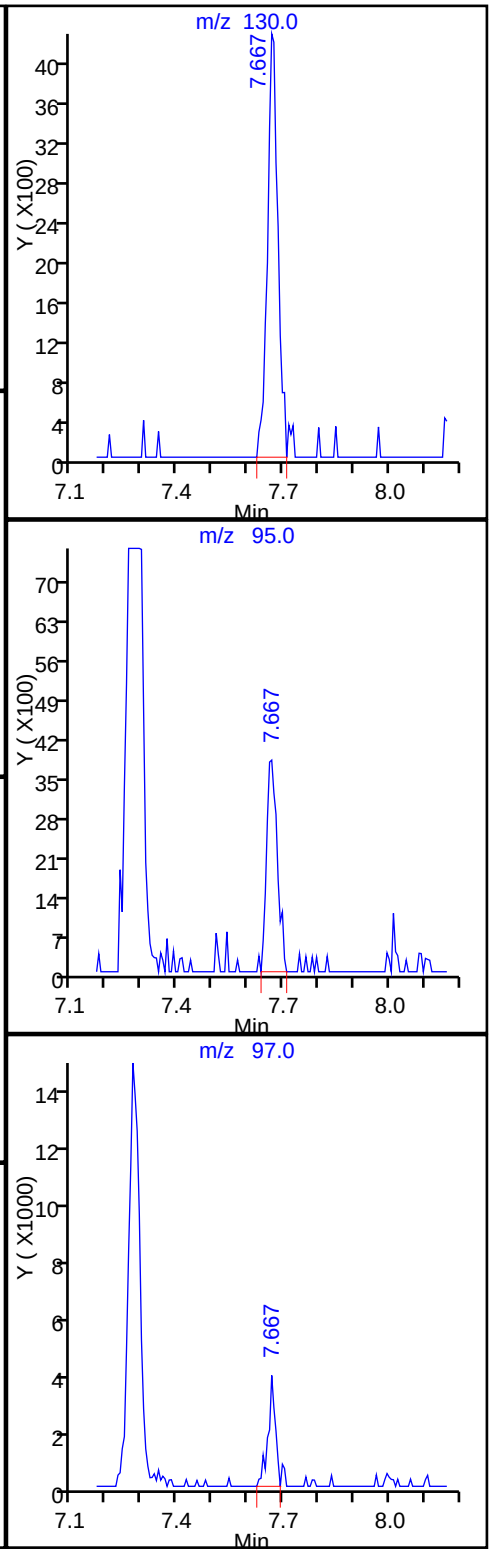
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6





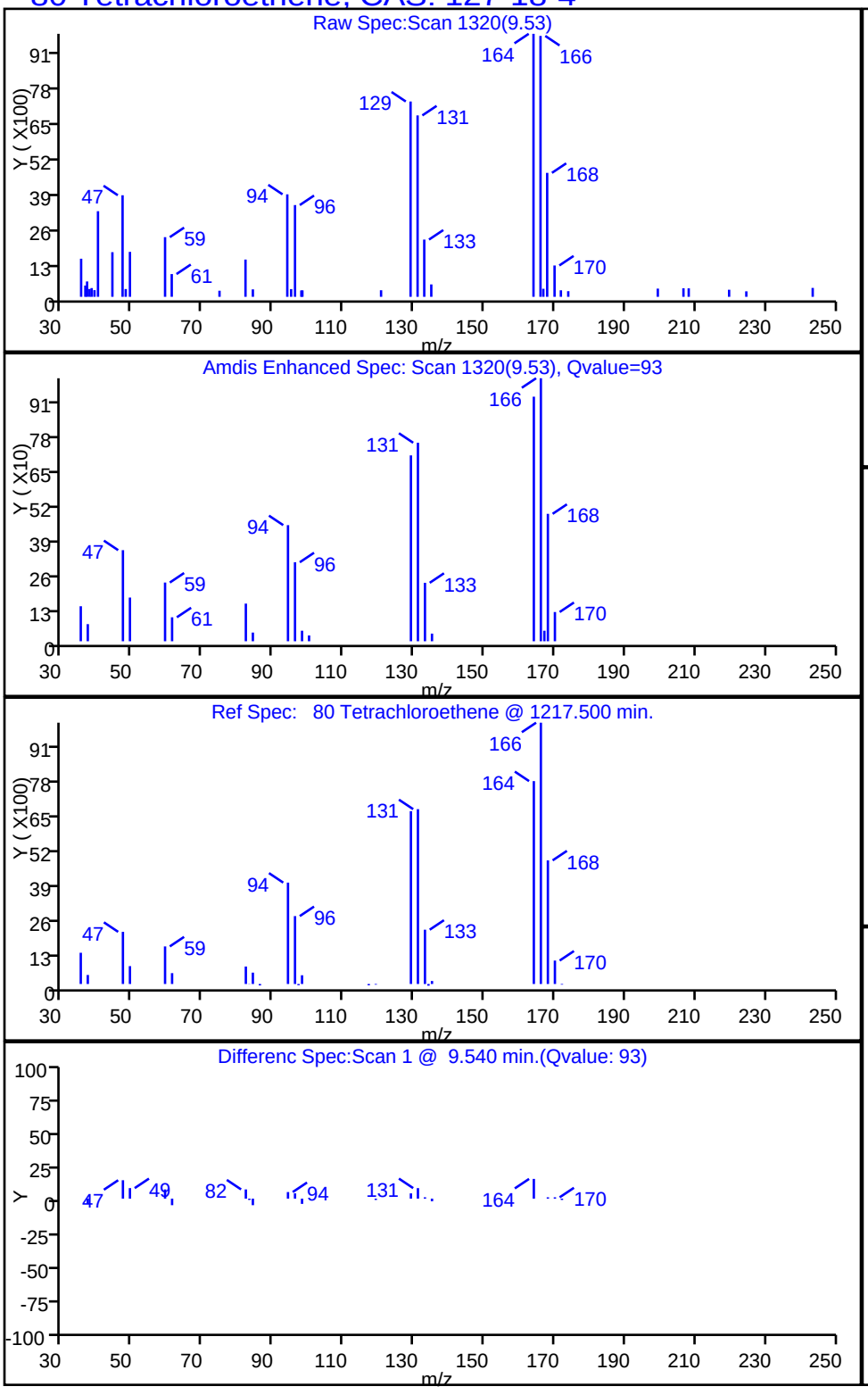
Report Date: 15-Jan-2015 08:33:49 Chrom Revision: 2.2 06-Nov-2014 14:50:32

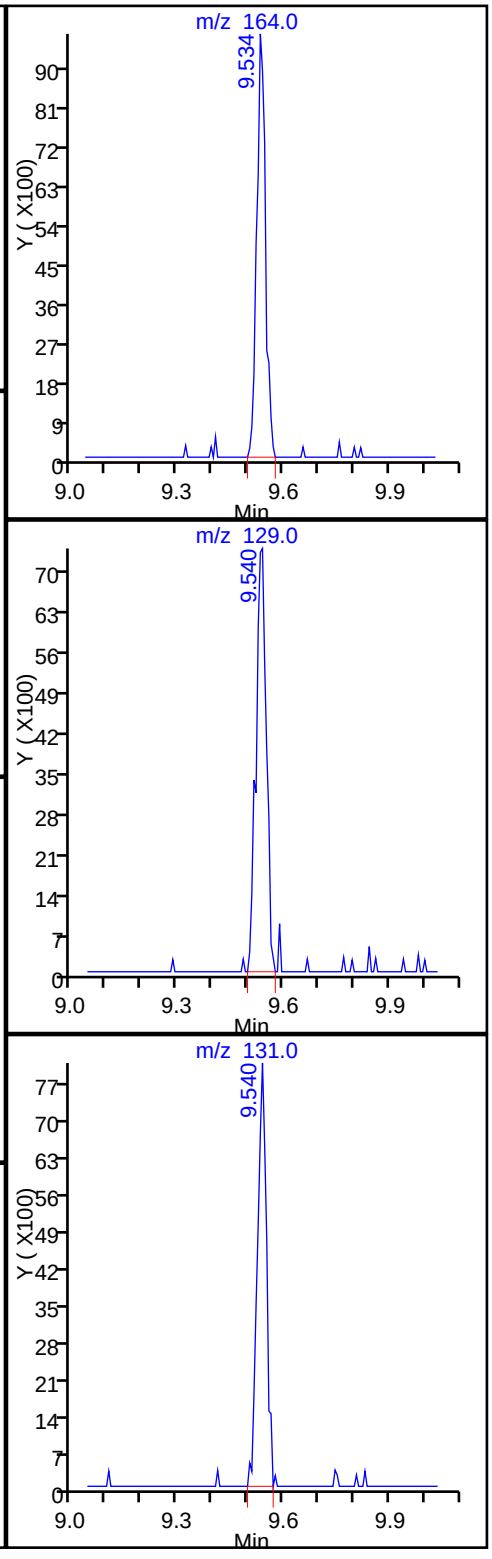
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114023.D

Injection Date:	14-Jan-2015 20:24:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-10	Lab Sample ID:	180-40434-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-40434-11

Matrix: Water Lab File ID: 50115031.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:33

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 23:00

Soil Aliquot Vol: Dilution Factor: 2

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U	2.0	0.57
75-01-4	Vinyl chloride	2.0	U	2.0	0.45
74-83-9	Bromomethane	2.0	U	2.0	0.63
75-00-3	Chloroethane	2.0	U	2.0	0.43
75-35-4	1,1-Dichloroethene	4.6		2.0	0.59
67-64-1	Acetone	10	U	10	5.0
75-15-0	Carbon disulfide	2.0	U	2.0	0.42
75-09-2	Methylene Chloride	2.0	U	2.0	0.25
156-60-5	trans-1,2-Dichloroethene	0.40	J	2.0	0.34
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	0.37
75-34-3	1,1-Dichloroethane	2.7		2.0	0.23
156-59-2	cis-1,2-Dichloroethene	55		2.0	0.47
74-97-5	Bromochloromethane	2.0	U	2.0	0.36
78-93-3	2-Butanone (MEK)	10	U	10	1.1
67-66-3	Chloroform	2.0	U	2.0	0.34
71-55-6	1,1,1-Trichloroethane	27		2.0	0.57
56-23-5	Carbon tetrachloride	2.0	U	2.0	0.27
71-43-2	Benzene	2.0	U	2.0	0.21
107-06-2	1,2-Dichloroethane	2.0	U	2.0	0.42
79-01-6	*Trichloroethene*	*120*	*E*	*2.0*	*0.29*
78-87-5	1,2-Dichloropropane	2.0	U	2.0	0.19
75-27-4	Bromodichloromethane	2.0	U	2.0	0.26
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	0.37
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	1.1
108-88-3	Toluene	2.0	U	2.0	0.30
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	0.30
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.40
127-18-4	*Tetrachloroethene*	*330*	*E*	*2.0*	*0.30*
591-78-6	2-Hexanone	10	U	10	0.32
124-48-1	Dibromochloromethane	2.0	U	2.0	0.27
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.36
108-90-7	Chlorobenzene	2.0	U	2.0	0.27
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.55
100-41-4	Ethylbenzene	2.0	U	2.0	0.45
1330-20-7	Xylenes, Total	6.0	U	6.0	0.98
100-42-5	Styrene	2.0	U	2.0	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-40434-11

Matrix: Water Lab File ID: 50115031.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:33

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 23:00

Soil Aliquot Vol: Dilution Factor: 2

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.0	U	2.0	0.38
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.40
107-13-1	Acrylonitrile	40	U	40	1.1
123-91-1	1,4-Dioxane	400	U	400	69

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D
Lims ID: 180-40434-C-11 Lab Sample ID: 180-40434-11
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 23:00:30 ALS Bottle#: 28 Worklist Smp#: 31
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 180-40434-C-11, 2x
Misc. Info.: 180-0005292-031
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:30:18 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:30:18

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.296	4.284	0.012	92	152298	1000.0	
*	2 Fluorobenzene (IS)	96	7.271	7.277	-0.006	100	449518	50.0	
*	3 Chlorobenzene-d5	119	10.362	10.362	0.000	99	99217	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.685	12.686	-0.001	97	138899	50.0	
$	5 Dibromofluoromethane (Surr	113	6.529	6.525	0.005	74	105208	55.0	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.896	0.010	92	163821	52.2	
$	7 Toluene-d8 (Surr)	98	8.926	8.921	0.005	96	412595	50.0	
$	8 4-Bromofluorobenzene (Surr	95	11.536	11.531	0.005	83	150089	47.7	
	12 Chloromethane	50		1.779				ND	
	13 Vinyl chloride	62		1.901				ND	
	15 Bromomethane	94		2.254				ND	
	16 Chloroethane	64		2.388				ND	
	22 1,1-Dichloroethene	96	3.390	3.379	0.011	82	28016	11.4	
	24 Acetone	43	3.493	3.495	-0.002	33	3166	2.25	
	26 Carbon disulfide	76		3.659				ND	
	31 Methylene Chloride	84		4.140				ND	
	33 Acrylonitrile	53		4.547				ND	
	34 trans-1,2-Dichloroethene	96	4.564	4.560	0.004	52	2468	1.00	
	35 Methyl tert-butyl ether	73		4.596				ND	
	37 1,1-Dichloroethane	63	5.166	5.174	-0.008	97	38932	6.75	
	45 cis-1,2-Dichloroethene	96	5.939	5.934	0.005	86	365828	136.5	
	46 2-Butanone (MEK)	43		5.989				ND	
	49 Chlorobromomethane	128		6.220				ND	
	52 Chloroform	83	6.328	6.342	-0.014	1	2748	0.6303	M
	53 1,1,1-Trichloroethane	97	6.535	6.531	0.004	88	189290	66.9	
	56 Carbon tetrachloride	117		6.719				ND	
	58 Benzene	78		6.956				ND	
	59 1,2-Dichloroethane	62		6.987				ND	
	64 Trichloroethene	130	7.667	7.668	-0.001	94	702042	295.0	E
	67 1,2-Dichloropropane	63		7.905				ND	
	70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.534	9.536	-0.002	91	1591729	819.4	E
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

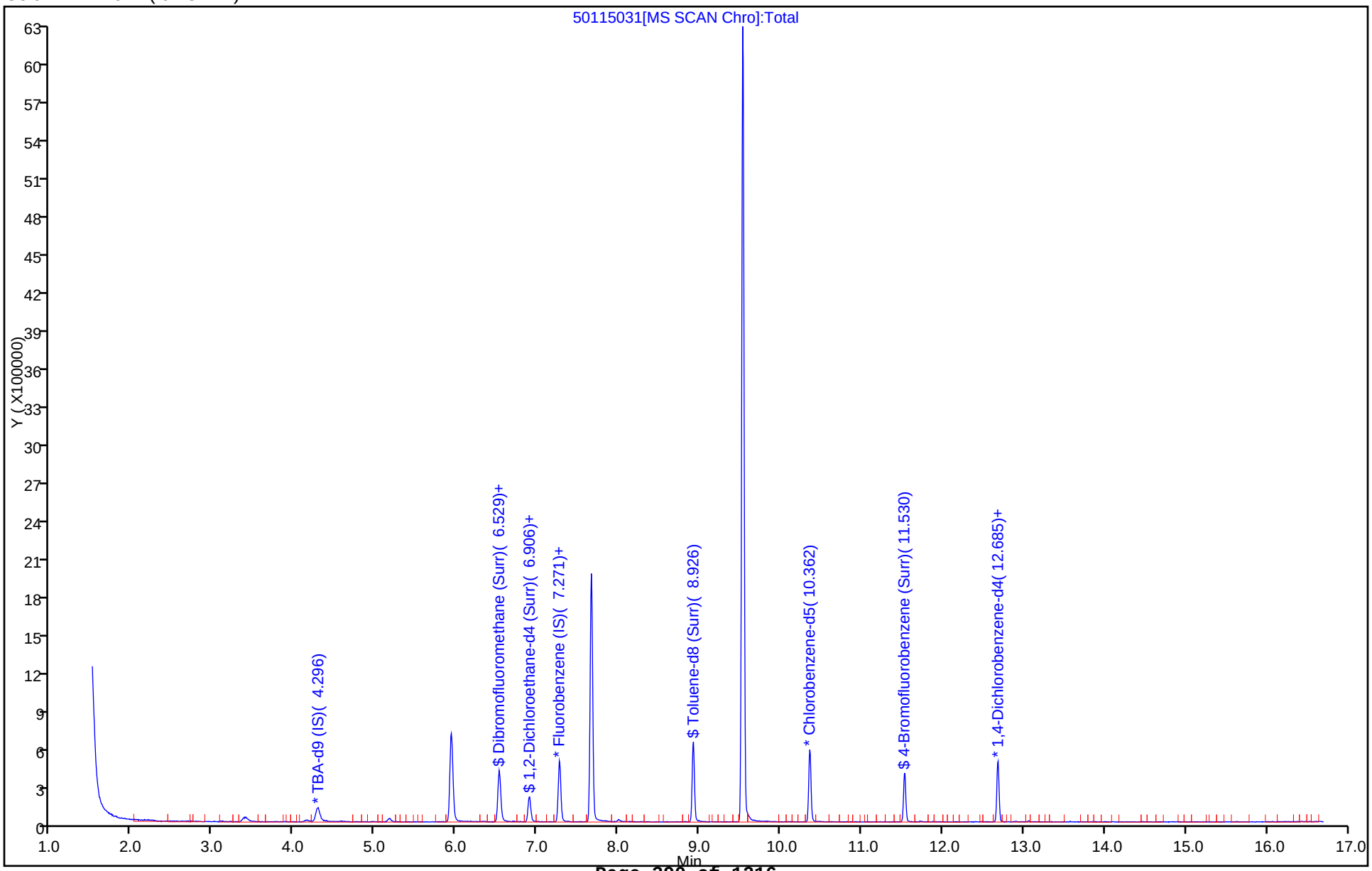
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 08:30:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11	Worklist Smp#:	31
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	28
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



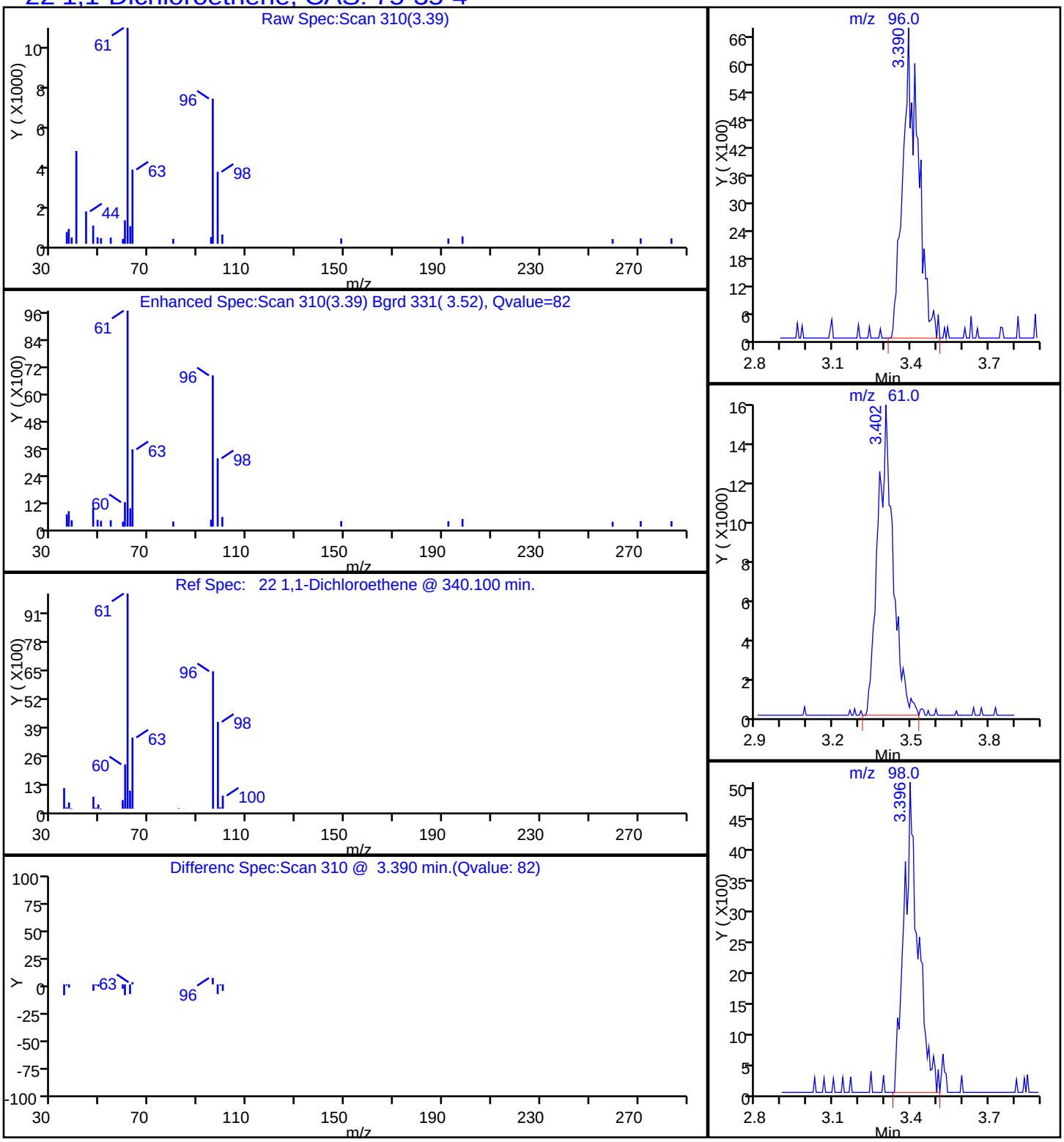
Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D

Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

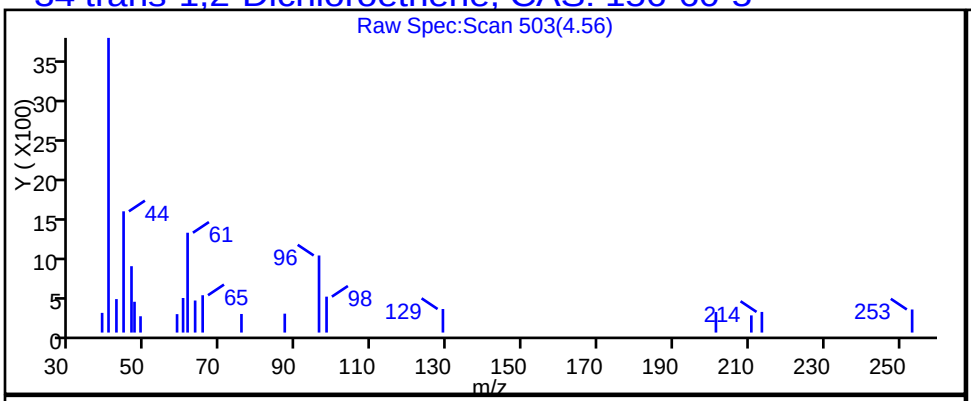


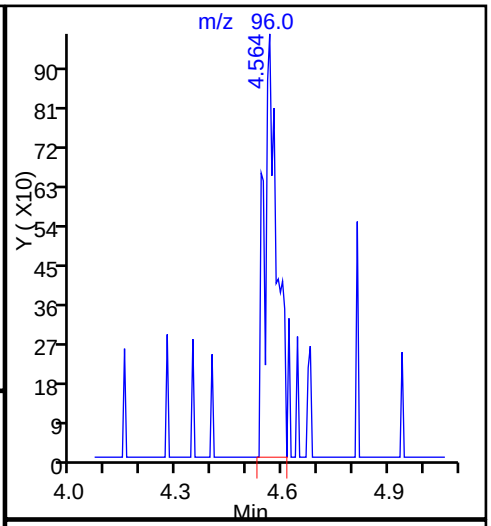
Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

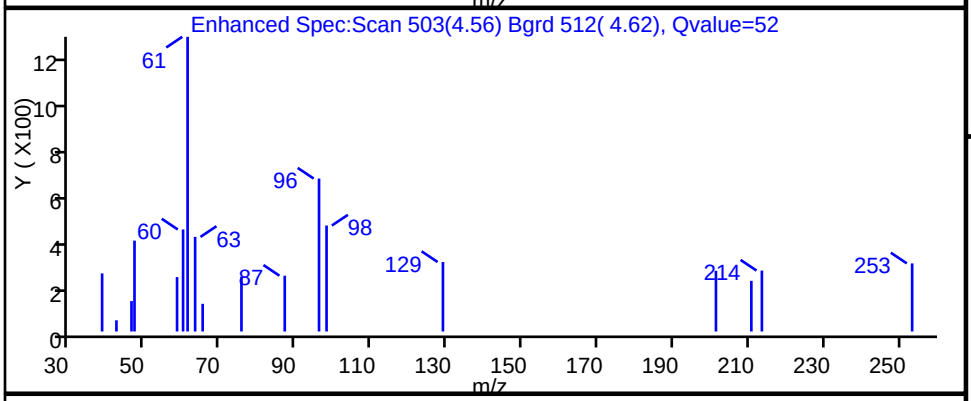
TestAmerica Pittsburgh

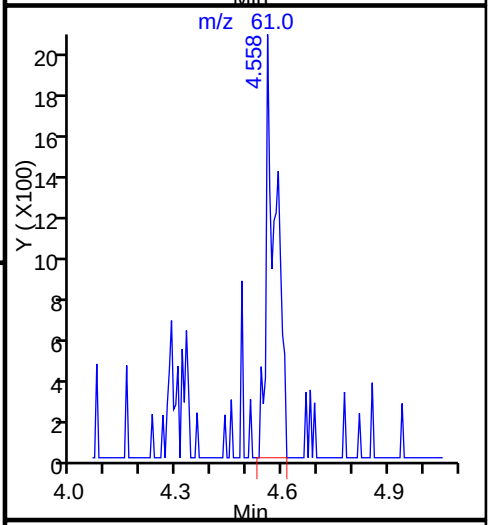
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

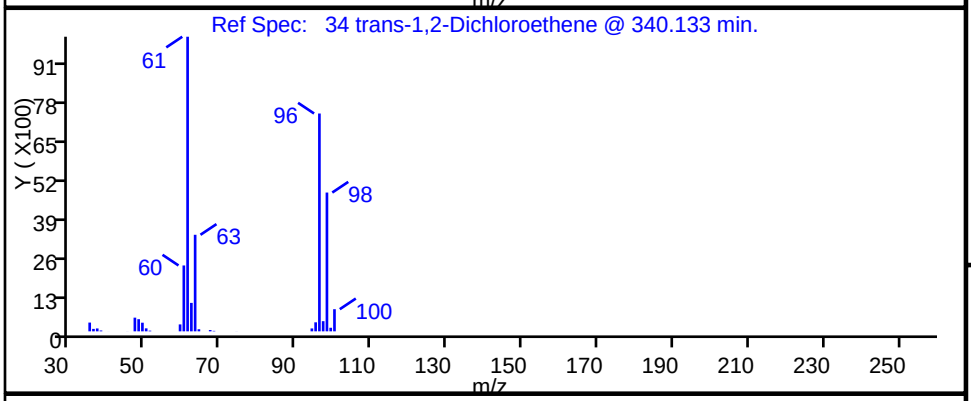
34 trans-1,2-Dichloroethene, CAS: 156-60-5

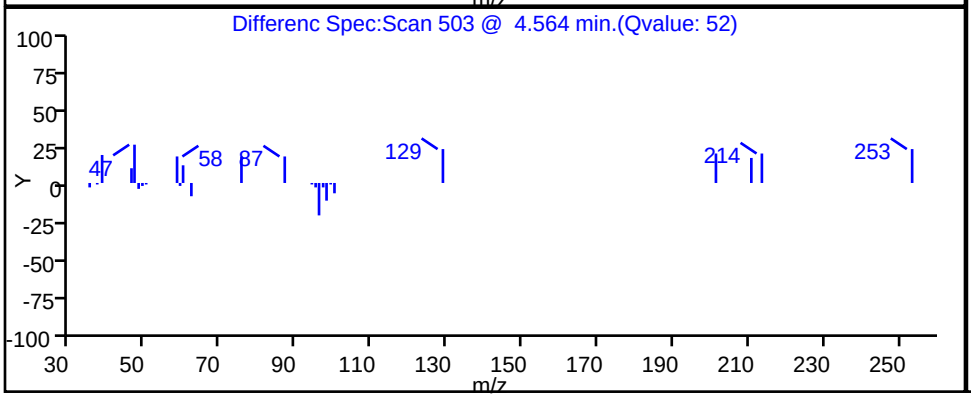


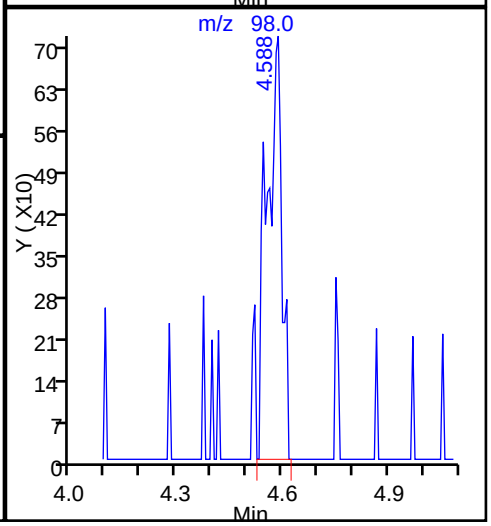










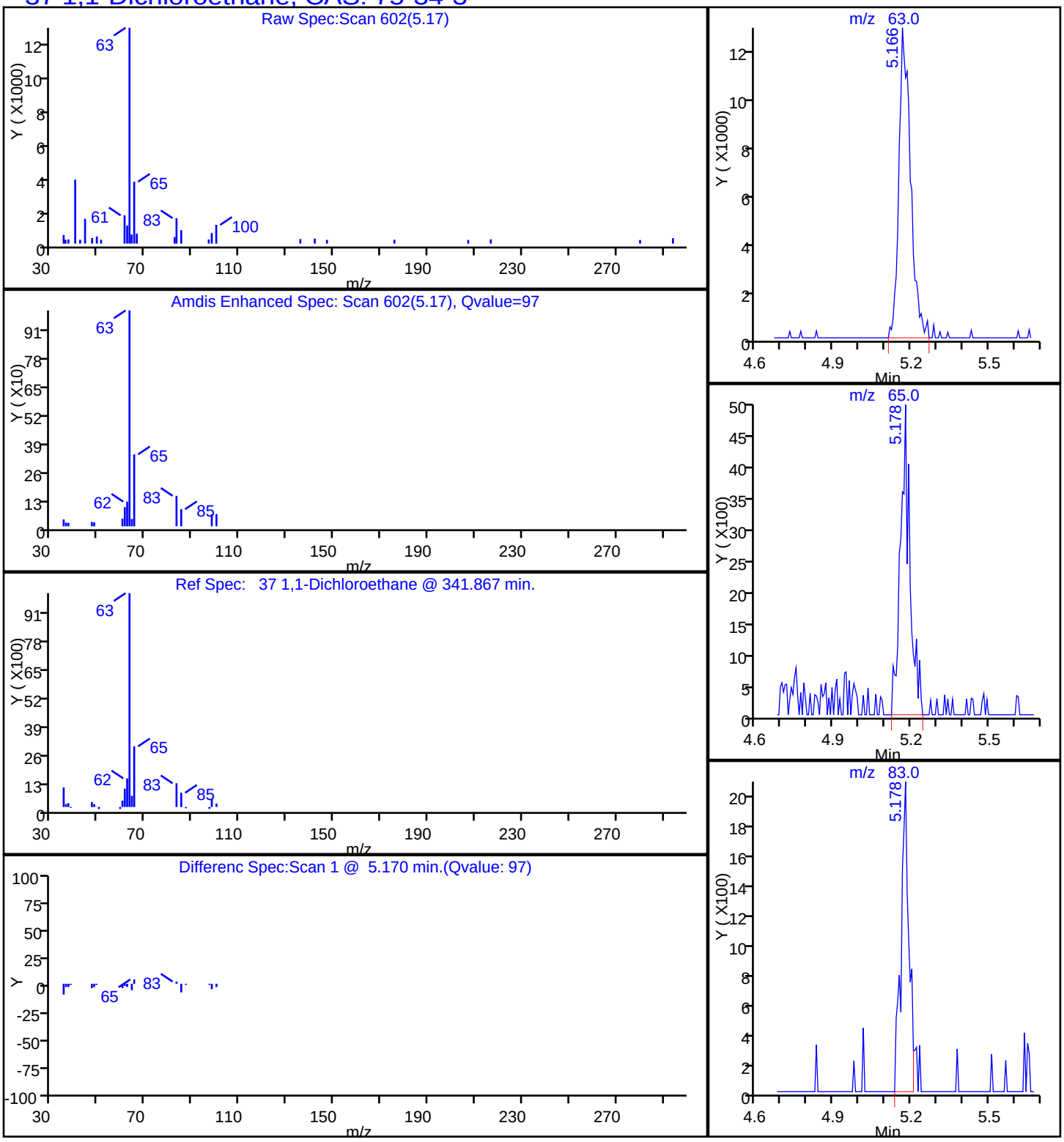


Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

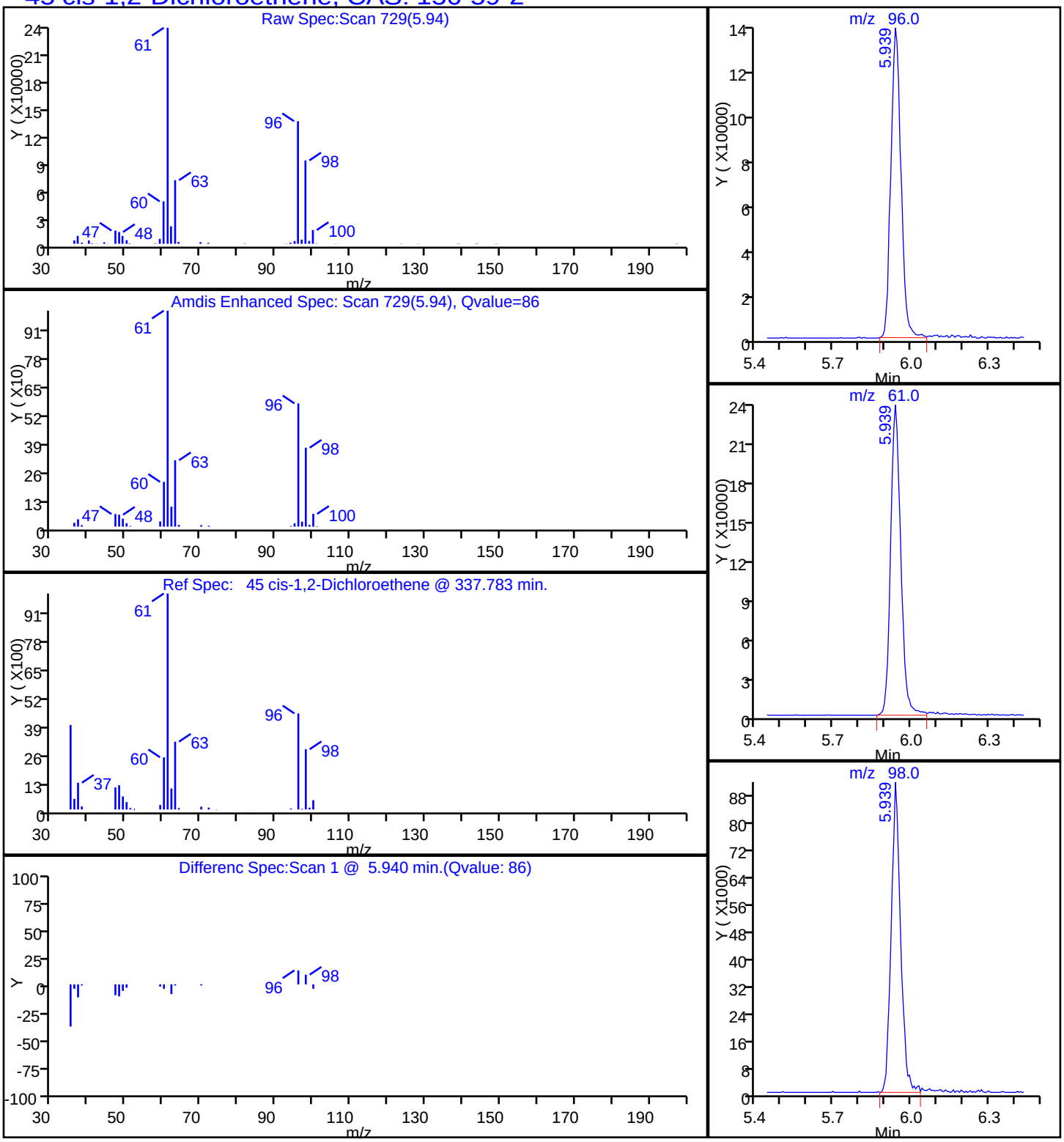


Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

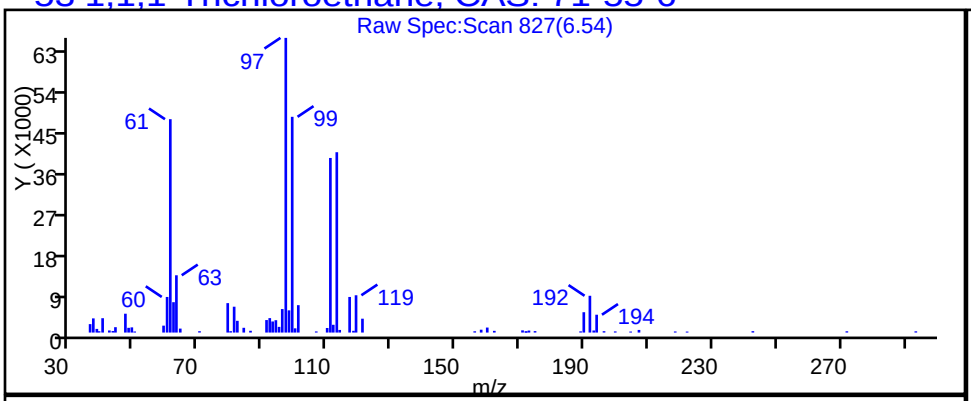


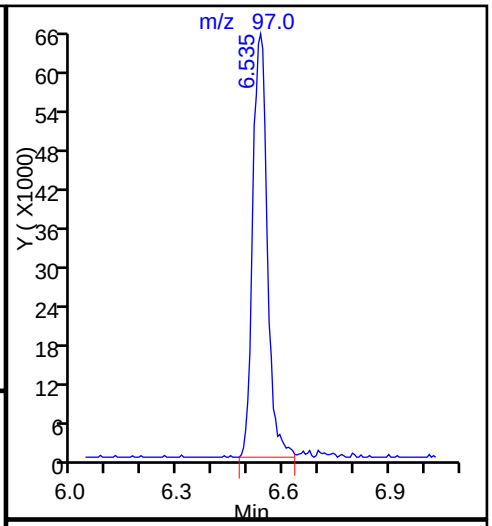
Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

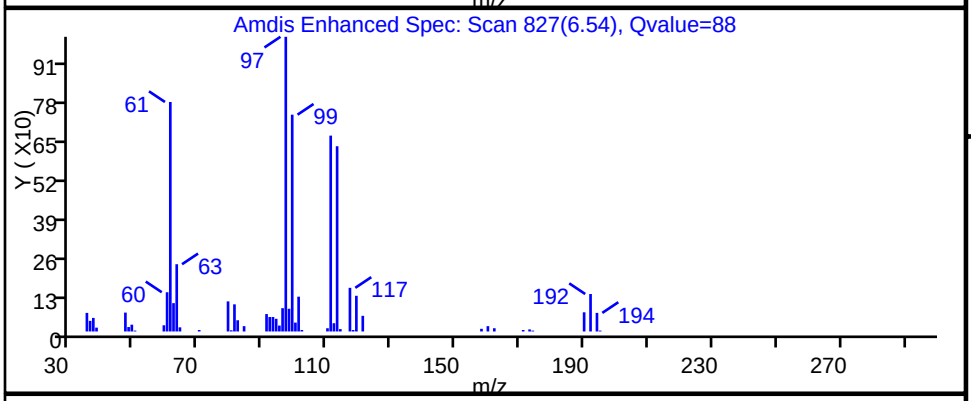
TestAmerica Pittsburgh

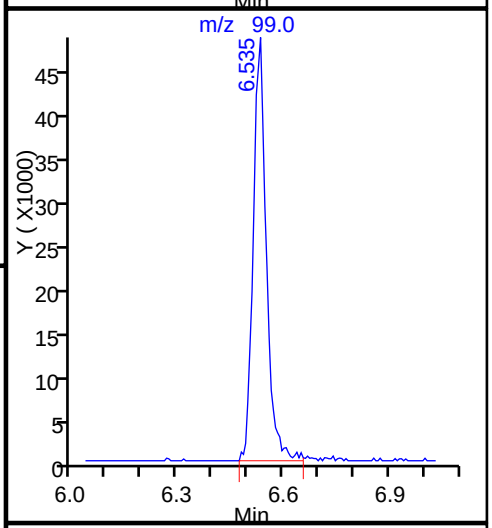
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

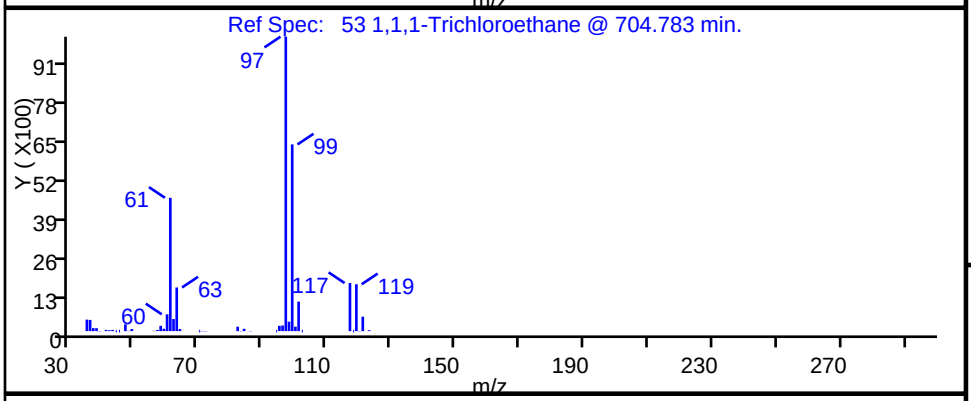
53 1,1,1-Trichloroethane, CAS: 71-55-6

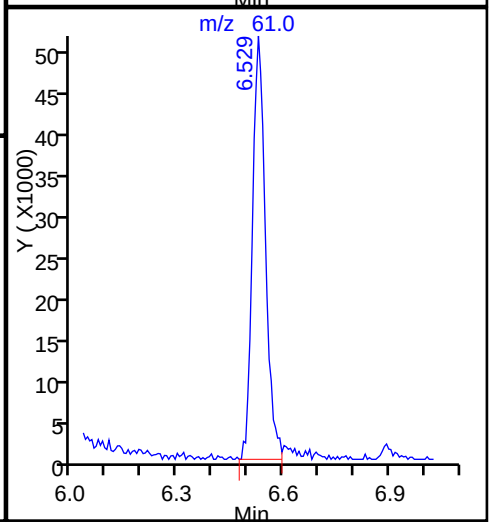


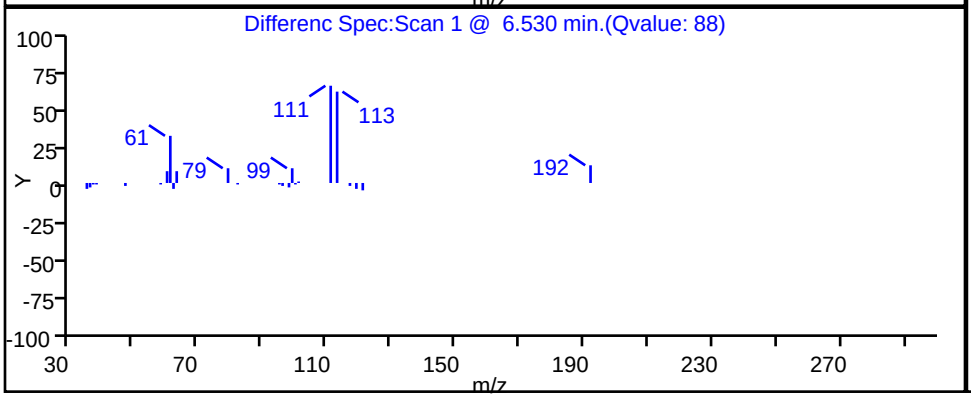












Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D

Injection Date: 15-Jan-2015 23:00:30 Instrument ID: CHHP5

Lims ID: 180-40434-C-11 Lab Sample ID: 180-40434-11

Client ID: HD-COD-SW-17-0/1-0

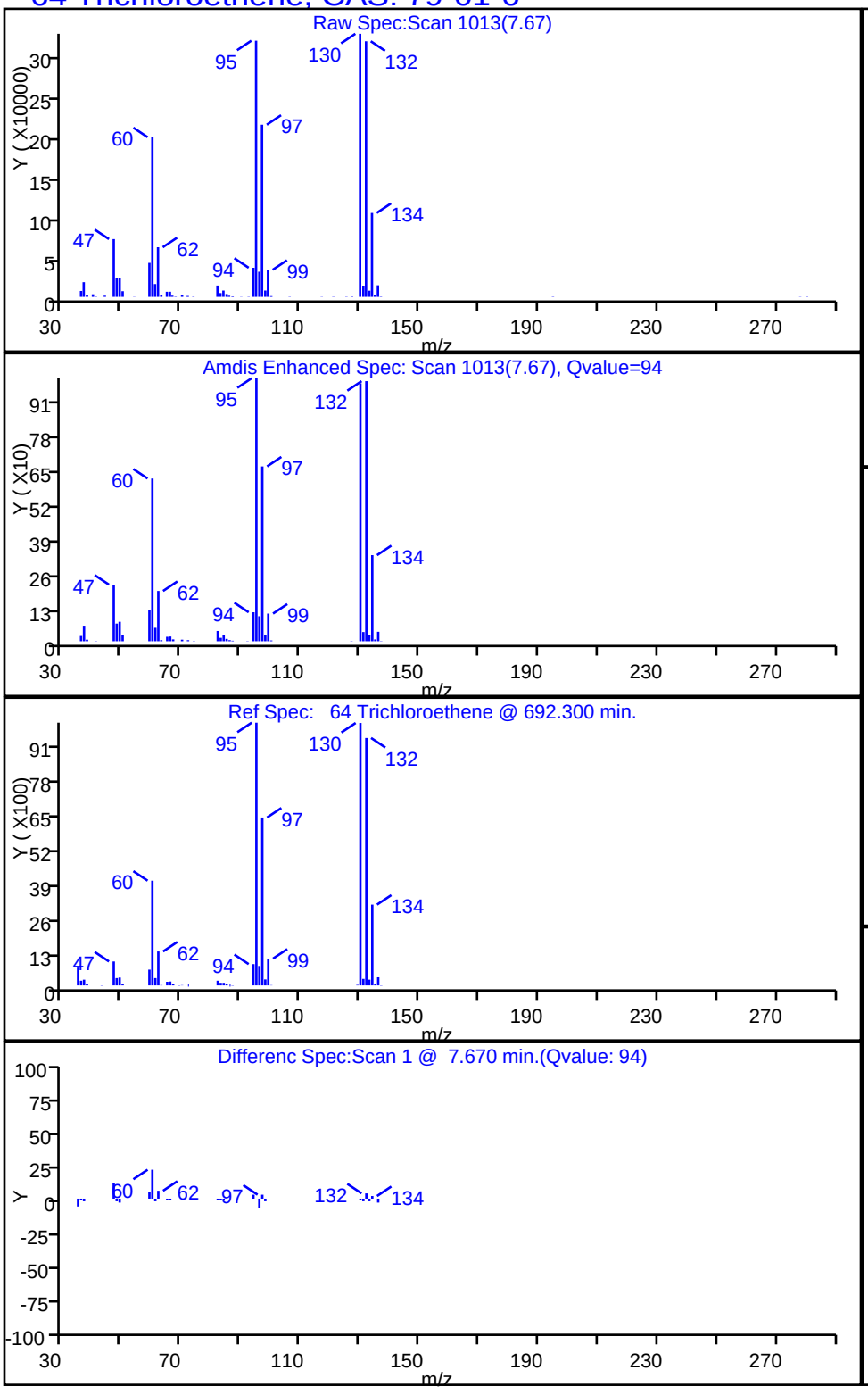
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 31

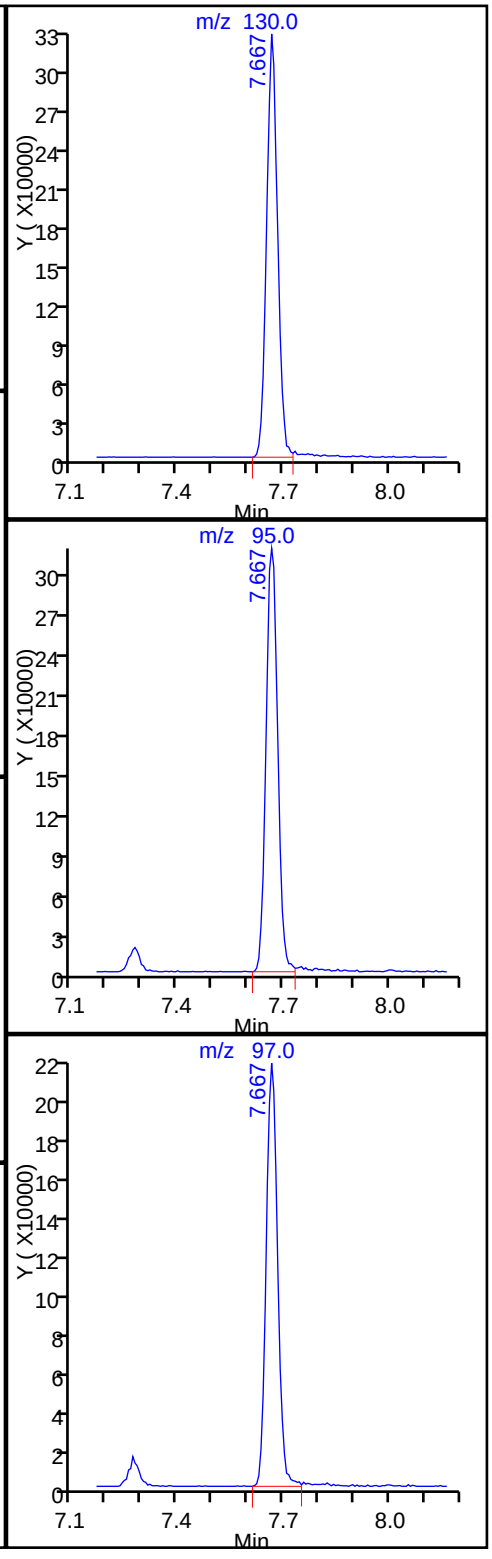
Purge Vol: 5.000 mL Dil. Factor: 2.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6



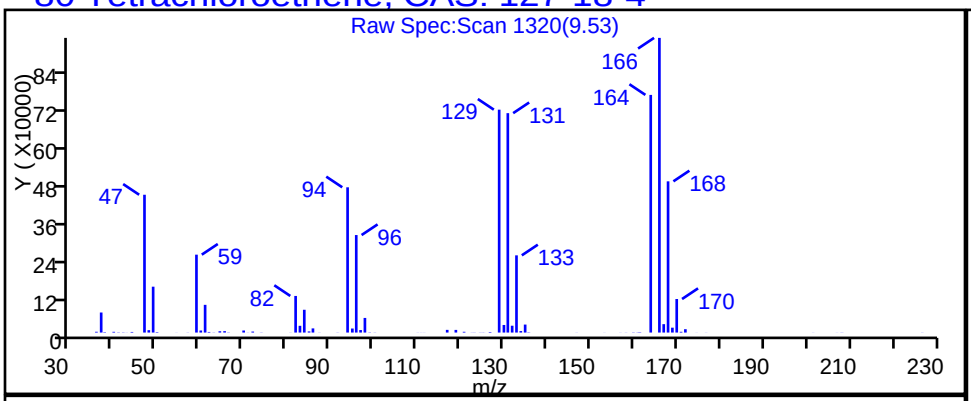


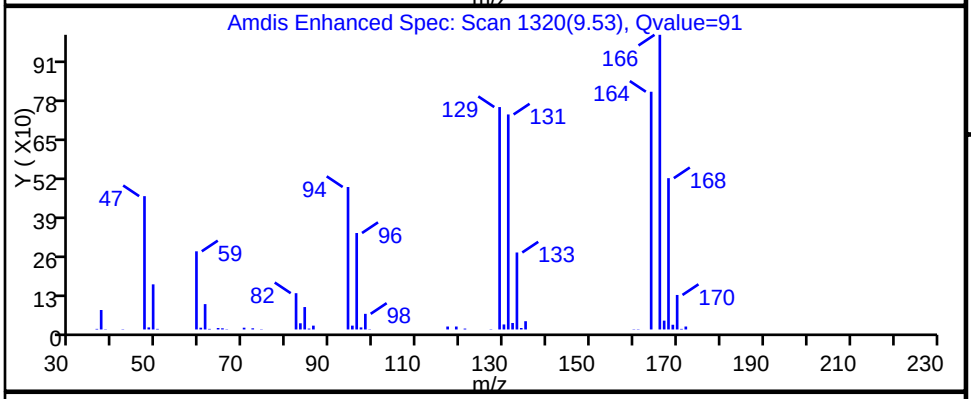
Report Date: 16-Jan-2015 08:30:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

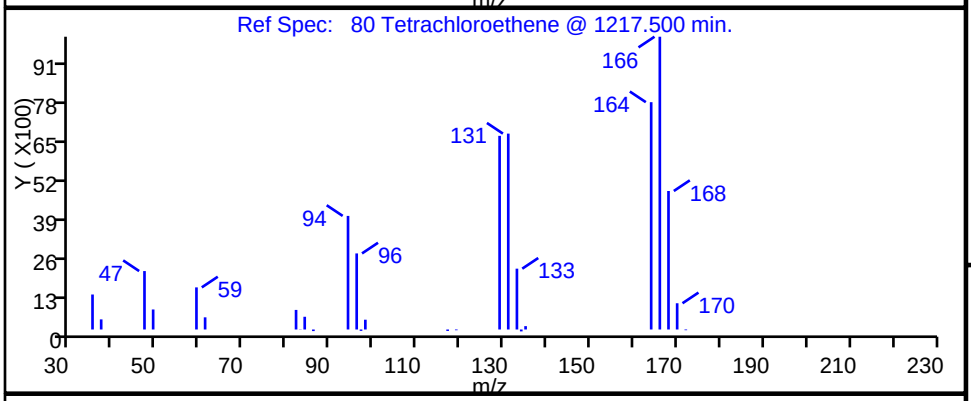
TestAmerica Pittsburgh

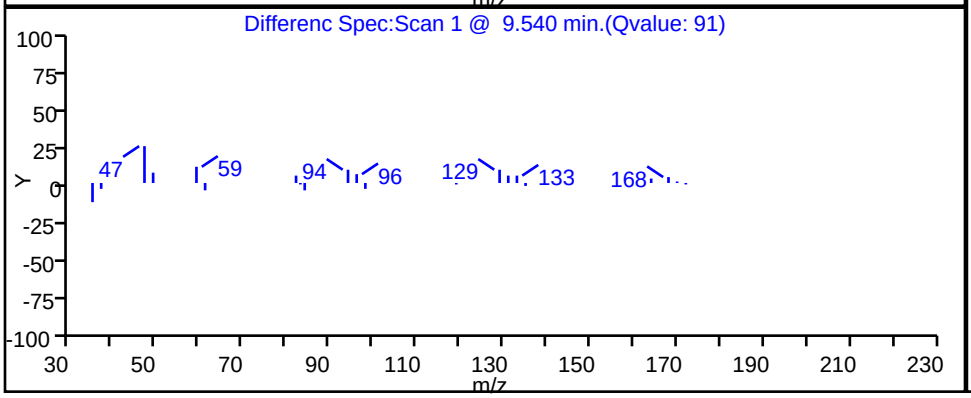
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

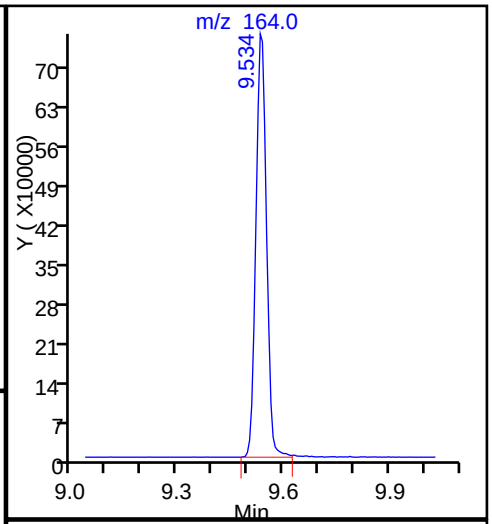
80 Tetrachloroethene, CAS: 127-18-4

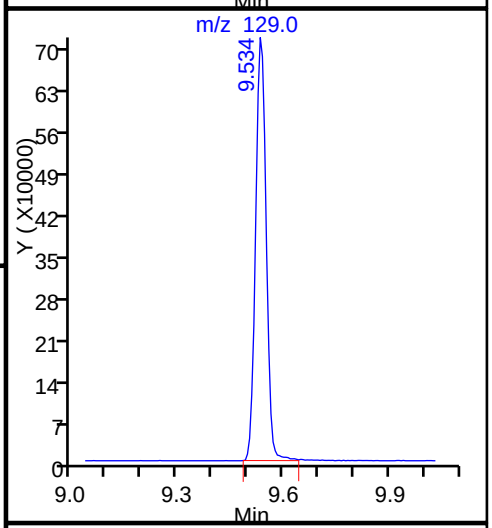


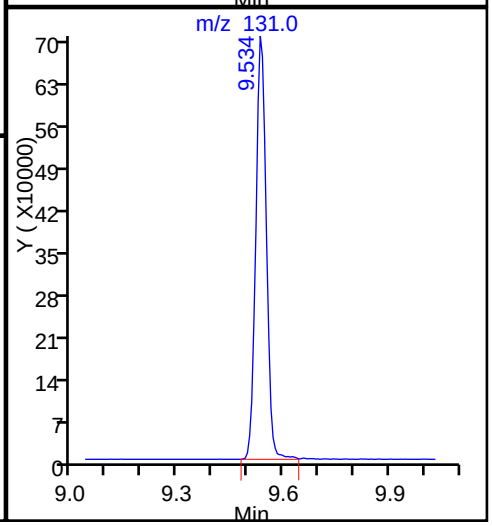












Manual Integration/User Assign Peak Report

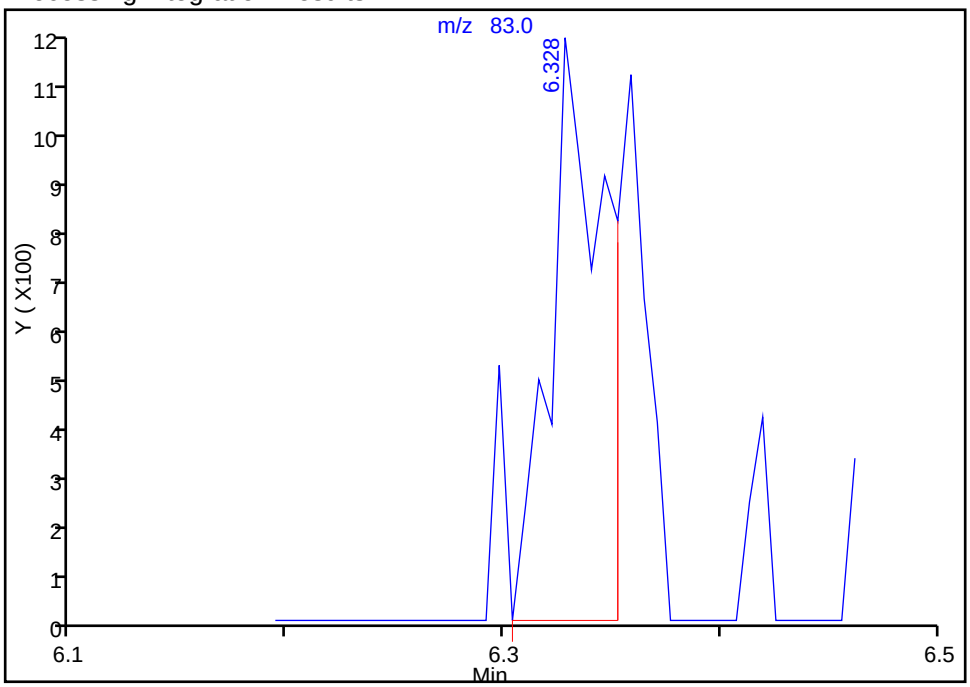
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115031.D				
Injection Date:	15-Jan-2015 23:00:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

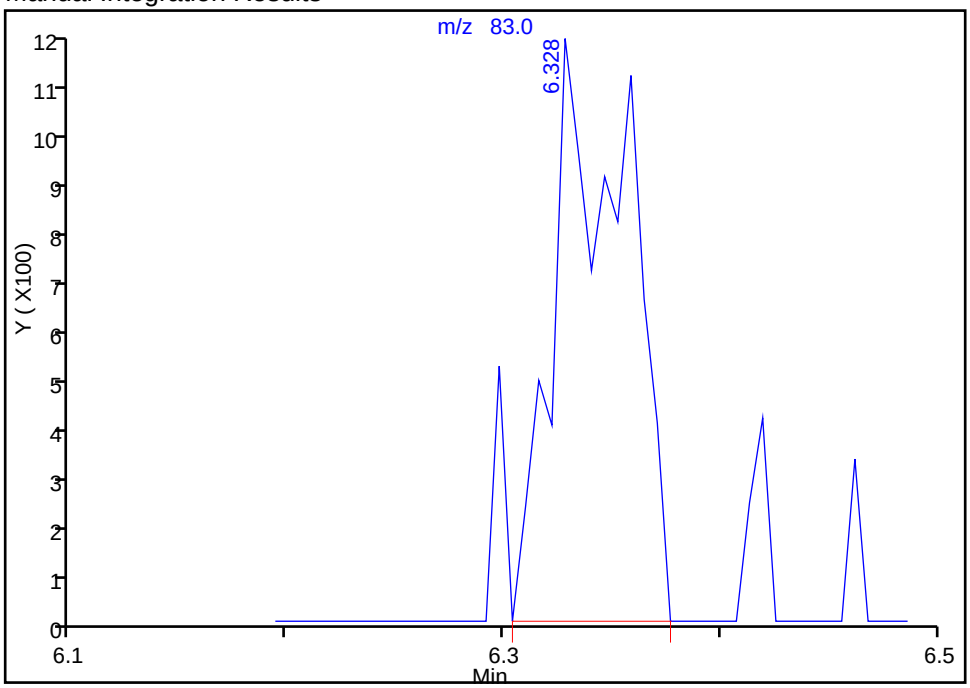
Processing Integration Results

RT: 6.33
Response: 1990
Amount: 0.456411



Manual Integration Results

RT: 6.33
Response: 2748
Amount: 0.630260



Reviewer: fergusond, 16-Jan-2015 08:30:18
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 DL | Lab Sample ID: 180-40434-11 DL

Matrix: Water | Lab File ID: 50114024.D

Analysis Method: 8260C | Date Collected: 01/13/2015 10:33

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2015 20:48

Soil Aliquot Vol: | Dilution Factor: 20

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

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

Analysis Batch No.: 130711 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	20	U	20	5.7
75-01-4	Vinyl chloride	20	U	20	4.5
74-83-9	Bromomethane	20	U	20	6.3
75-00-3	Chloroethane	20	U	20	4.3
75-35-4	1,1-Dichloroethene	20	U	20	5.9
67-64-1	Acetone	100	U	100	50
75-15-0	Carbon disulfide	20	U	20	4.2
75-09-2	Methylene Chloride	20	U	20	2.5
156-60-5	trans-1,2-Dichloroethene	20	U	20	3.4
1634-04-4	Methyl tert-butyl ether	20	U	20	3.7
75-34-3	1,1-Dichloroethane	20	U	20	2.3
156-59-2	cis-1,2-Dichloroethene	51		20	4.7
74-97-5	Bromochloromethane	20	U	20	3.6
78-93-3	2-Butanone (MEK)	100	U	100	11
67-66-3	Chloroform	20	U	20	3.4
71-55-6	1,1,1-Trichloroethane	25		20	5.7
56-23-5	Carbon tetrachloride	20	U	20	2.7
71-43-2	Benzene	20	U	20	2.1
107-06-2	1,2-Dichloroethane	20	U	20	4.2
79-01-6	Trichloroethene	100		20	2.9
78-87-5	1,2-Dichloropropane	20	U	20	1.9
75-27-4	Bromodichloromethane	20	U	20	2.6
10061-01-5	cis-1,3-Dichloropropene	20	U	20	3.7
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U	100	11
108-88-3	Toluene	20	U	20	3.0
10061-02-6	trans-1,3-Dichloropropene	20	U *	20	3.0
79-00-5	1,1,2-Trichloroethane	20	U	20	4.0
127-18-4	Tetrachloroethene	270		20	3.0
591-78-6	2-Hexanone	100	U	100	3.2
124-48-1	Dibromochloromethane	20	U	20	2.7
106-93-4	1,2-Dibromoethane (EDB)	20	U	20	3.6
108-90-7	Chlorobenzene	20	U	20	2.7
630-20-6	1,1,1,2-Tetrachloroethane	20	U	20	5.5
100-41-4	Ethylbenzene	20	U	20	4.5
1330-20-7	Xylenes, Total	60	U	60	9.8
100-42-5	Styrene	20	U	20	1.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 DL | Lab Sample ID: 180-40434-11 DL

Matrix: Water | Lab File ID: 50114024.D

Analysis Method: 8260C | Date Collected: 01/13/2015 10:33

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2015 20:48

Soil Aliquot Vol: | Dilution Factor: 20

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

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

Analysis Batch No.: 130711 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*20*	*U*	*20*	*3.8*
79-34-5	*1,1,2,2-Tetrachloroethane*	*20*	*U*	*20*	*4.0*
107-13-1	*Acrylonitrile*	*400*	*U*	*400*	*11*
123-91-1	*1,4-Dioxane*	*4000*	*U*	*4000*	*690*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114024.D
Lims ID: 180-40434-D-11 Lab Sample ID: 180-40434-11
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 20:48:30 ALS Bottle#: 22 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 180-40434-D-11, 20x
Misc. Info.: 180-0005267-024
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 08:37:05 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 08:37:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.293	4.299	-0.006	81	147518	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	96	485515	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	93	107288	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.688	0.000	97	139920	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.526	0.000	91	115801	56.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.897	0.006	93	172869	51.0	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	-0.001	96	439363	49.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	83	161393	47.5	
12 Chloromethane	50		1.781				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.255				ND	
16 Chloroethane	64		2.401				ND	
22 1,1-Dichloroethene	96	3.417	3.387	0.030	52	1829	0.6915	
24 Acetone	43		3.490				ND	
26 Carbon disulfide	76		3.660				ND	
31 Methylene Chloride	84		4.141				ND	
33 Acrylonitrile	53		4.549				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.591				ND	
37 1,1-Dichloroethane	63	5.175	5.169	0.006	1	3103	0.4982	
45 cis-1,2-Dichloroethene	96	5.948	5.936	0.012	75	36872	12.7	
46 2-Butanone (MEK)	43		5.978				ND	
49 Chlorobromomethane	128		6.228				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97	6.544	6.532	0.012	44	19003	6.22	
56 Carbon tetrachloride	117		6.720				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.669	7.669	0.000	93	64223	25.0	
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.059				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.199				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.221				ND	
79 1,1,2-Trichloroethane	97		9.403				ND	
80 Tetrachloroethene	164	9.537	9.537	0.000	93	140509	66.9	
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.793				ND	
85 Ethylene Dibromide	107		9.896				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.504				ND	
91 m-Xylene & p-Xylene	106		10.620				ND	
92 o-Xylene	106		11.015				ND	
93 Styrene	104		11.027				ND	
94 Bromoform	173		11.210				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

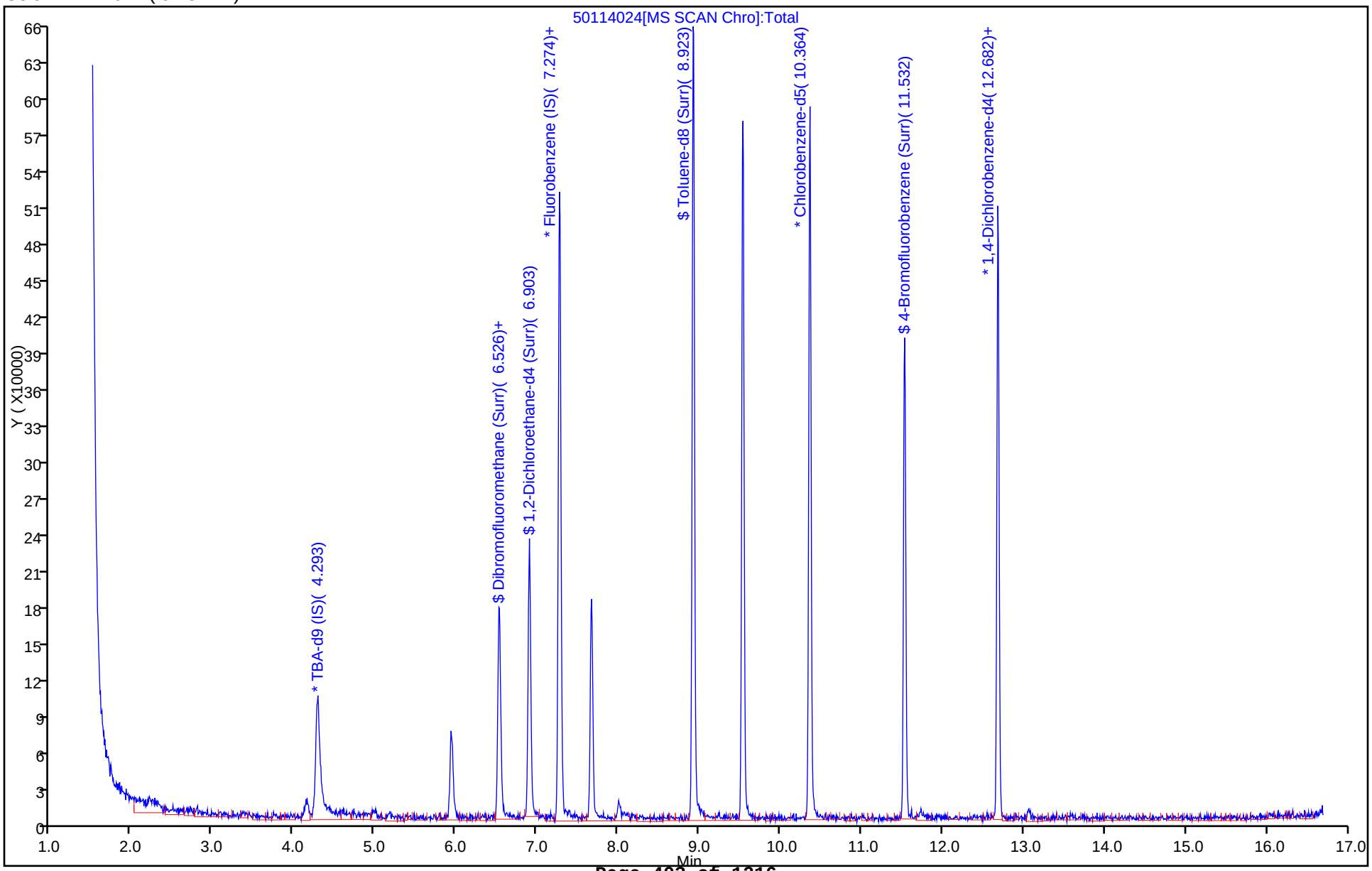
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jan-2015 08:37:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114024.D				
Injection Date:	14-Jan-2015 20:48:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-11	Lab Sample ID:	180-40434-11	Worklist Smp#:	24
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



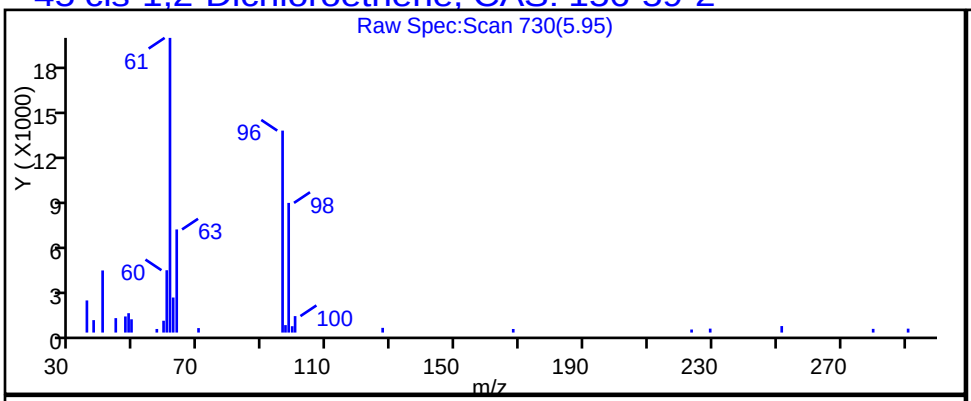
Report Date: 15-Jan-2015 08:37:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

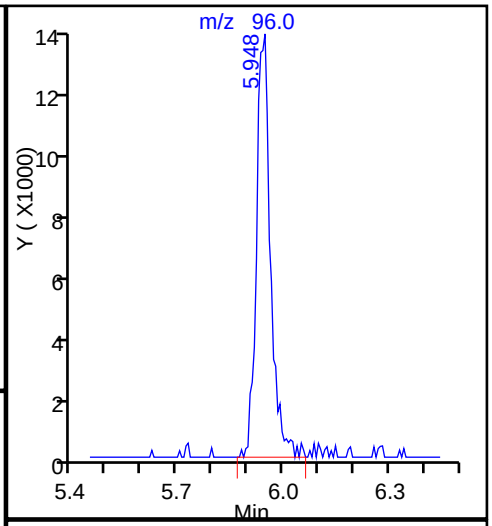
TestAmerica Pittsburgh

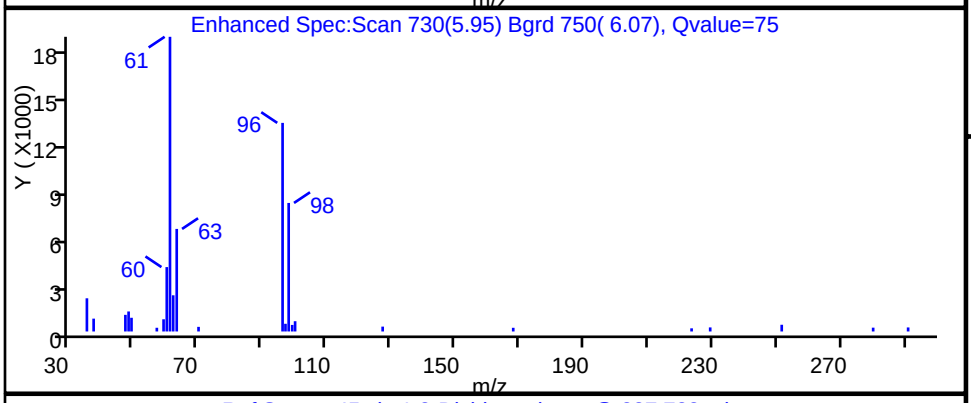
Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114024.D

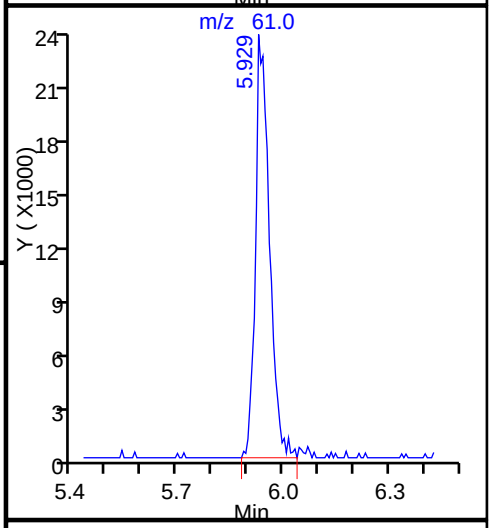
Injection Date:	14-Jan-2015 20:48:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

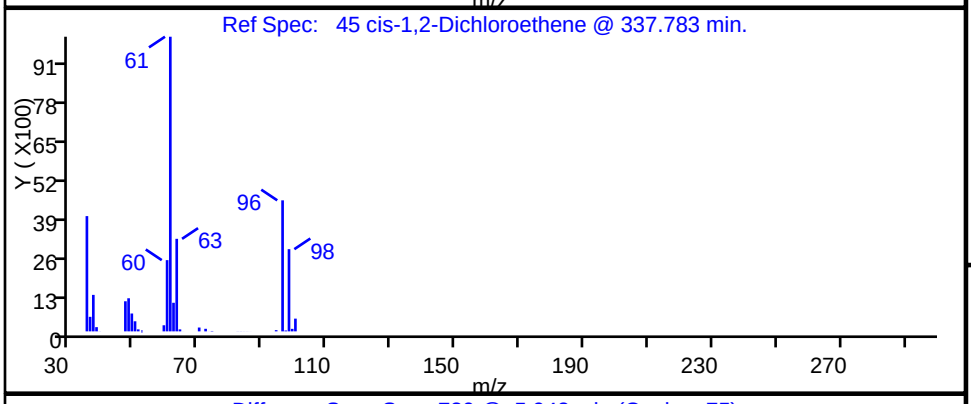
45 cis-1,2-Dichloroethene, CAS: 156-59-2

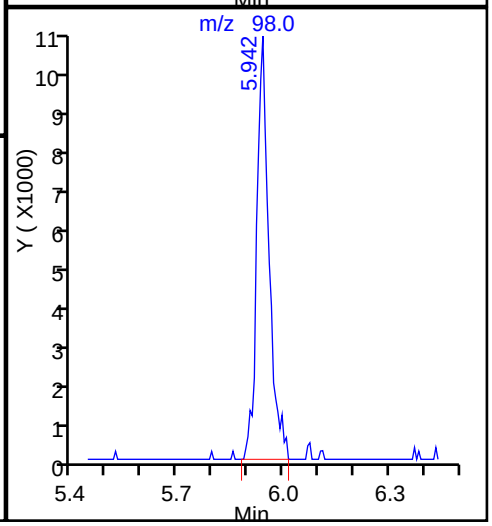


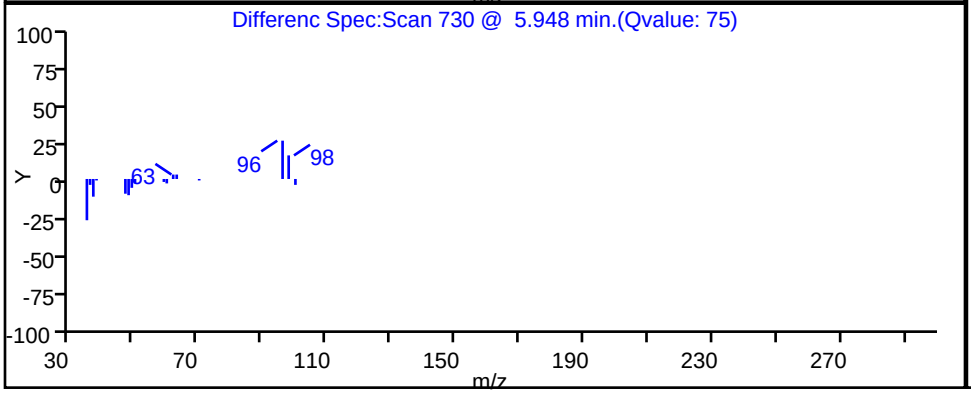










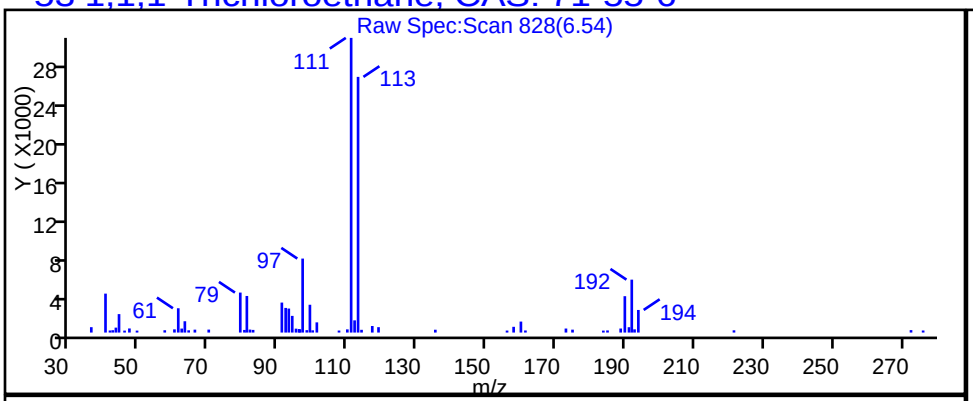


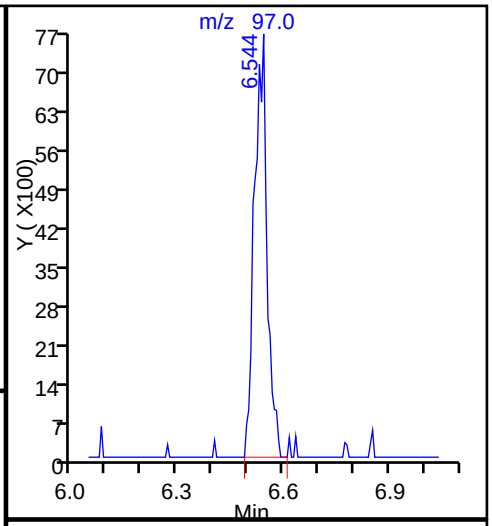
Report Date: 15-Jan-2015 08:37:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

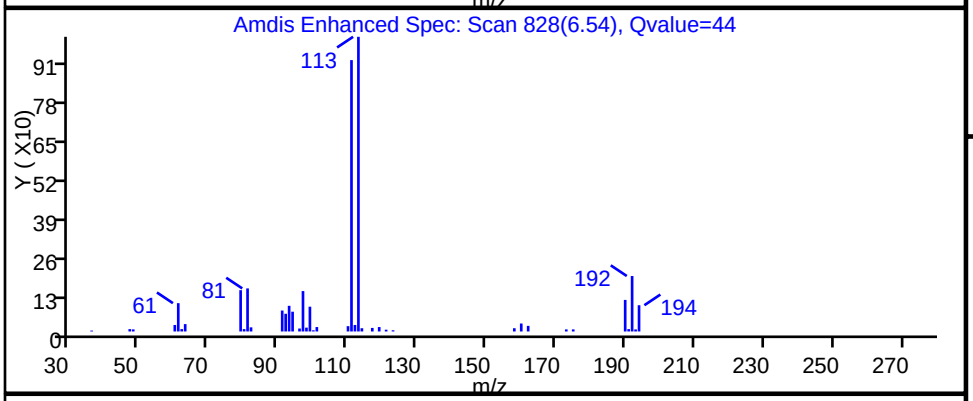
TestAmerica Pittsburgh

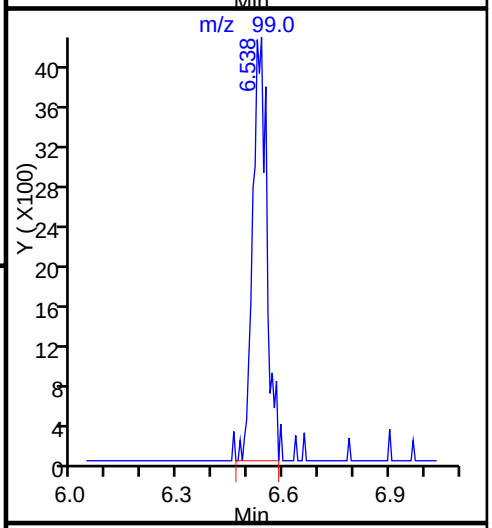
Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114024.D				
Injection Date:	14-Jan-2015 20:48:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

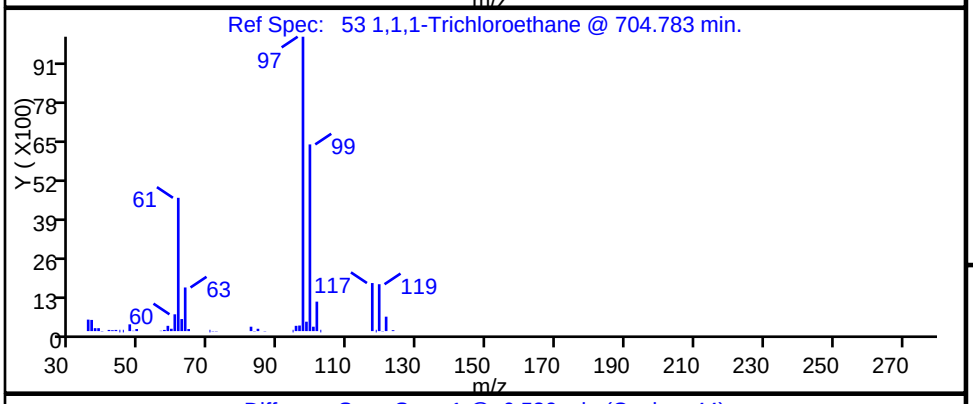
53 1,1,1-Trichloroethane, CAS: 71-55-6

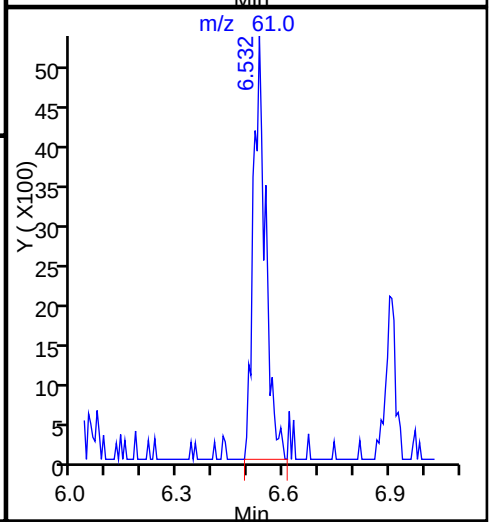


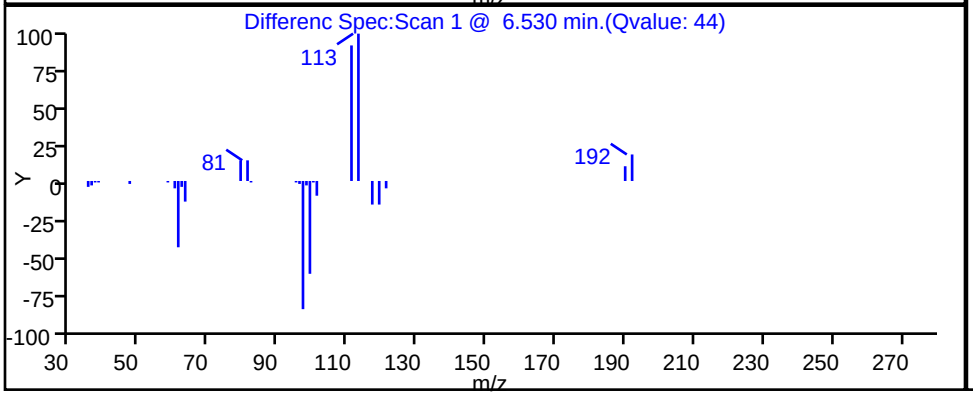










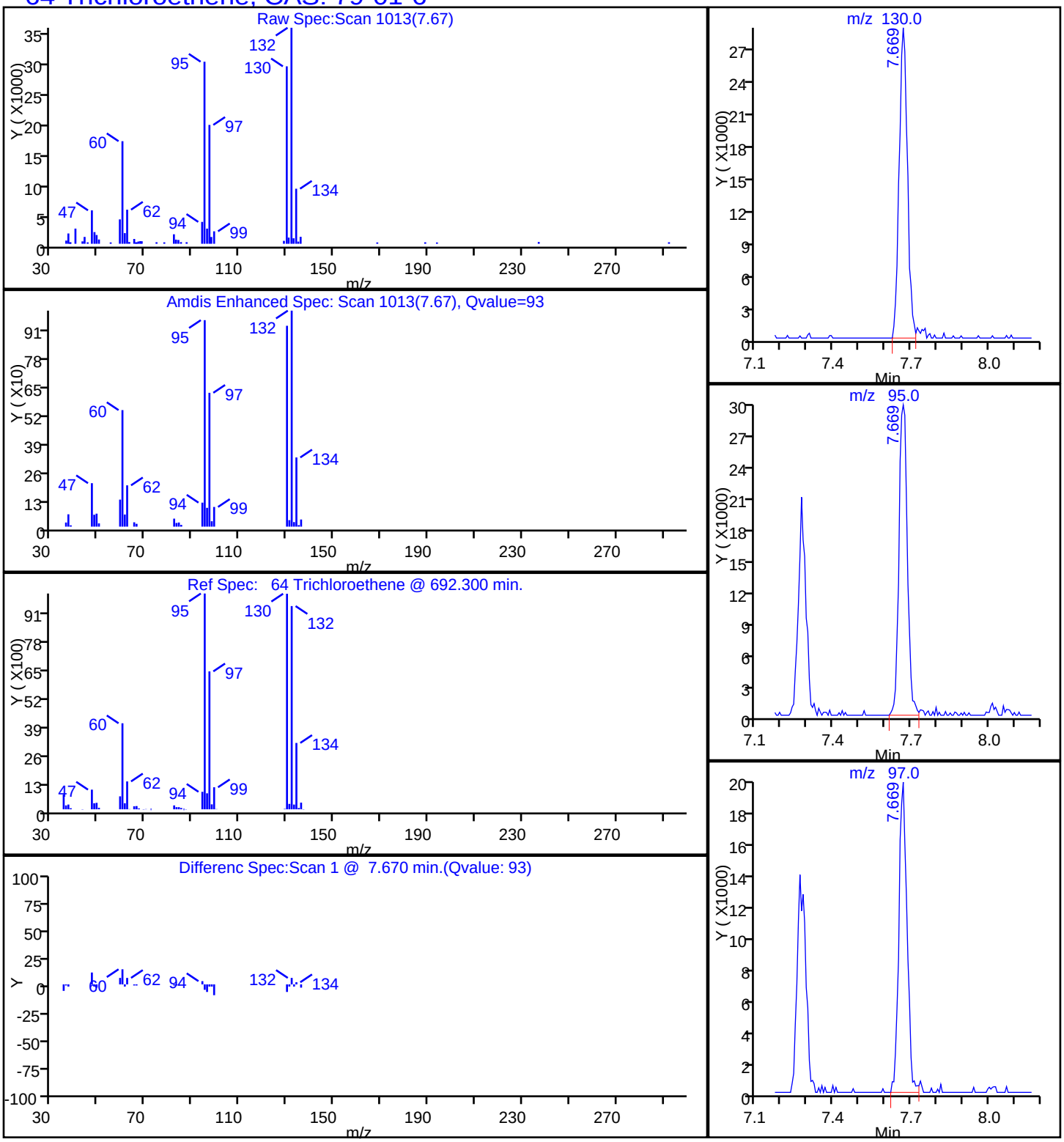


Report Date: 15-Jan-2015 08:37:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114024.D		
Injection Date:	14-Jan-2015 20:48:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-11	Lab Sample ID:	180-40434-11
Client ID:	HD-COD-SW-17-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	20.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



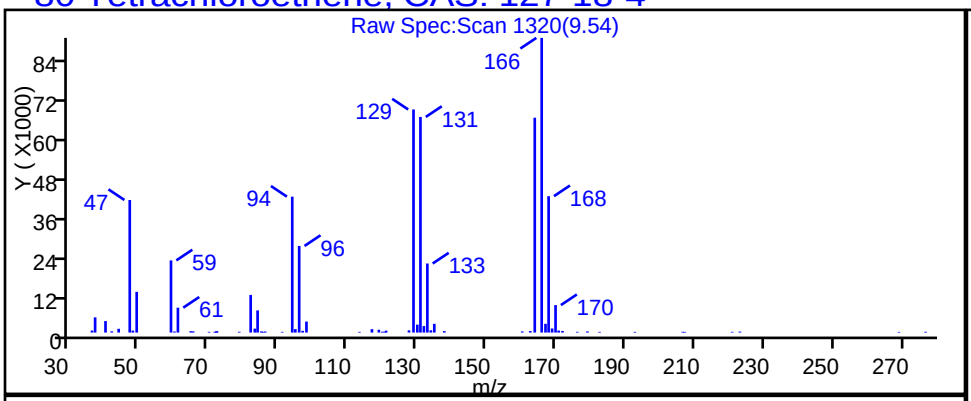
Report Date: 15-Jan-2015 08:37:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

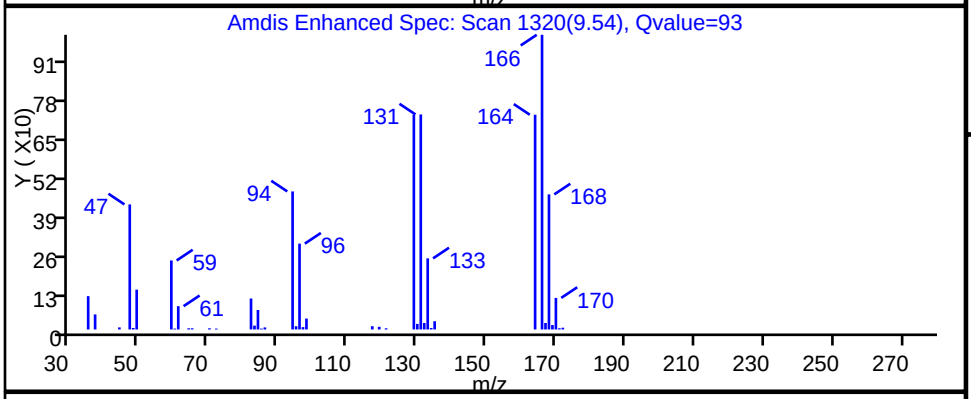
TestAmerica Pittsburgh

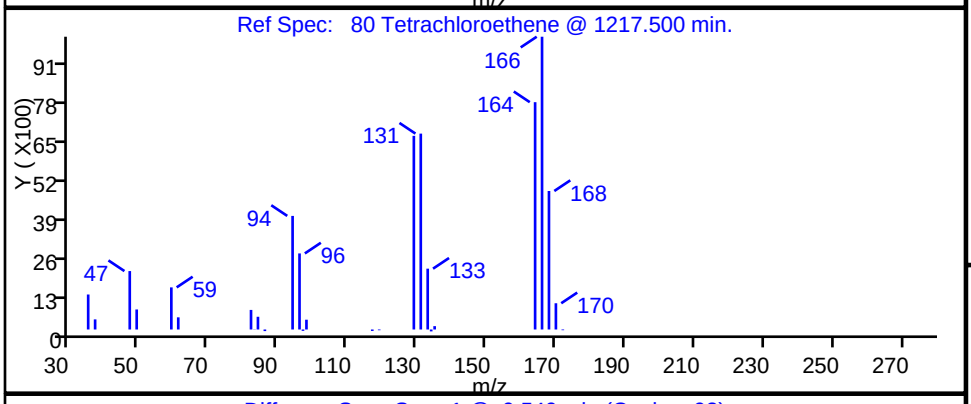
Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114024.D

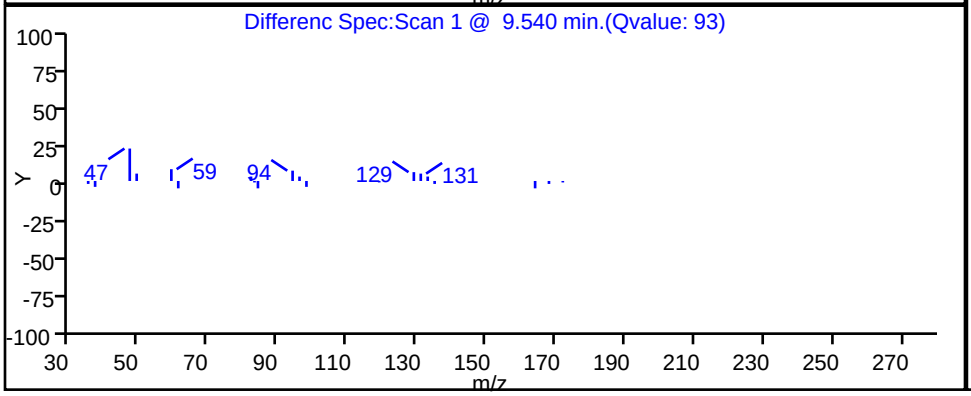
Injection Date:	14-Jan-2015 20:48:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

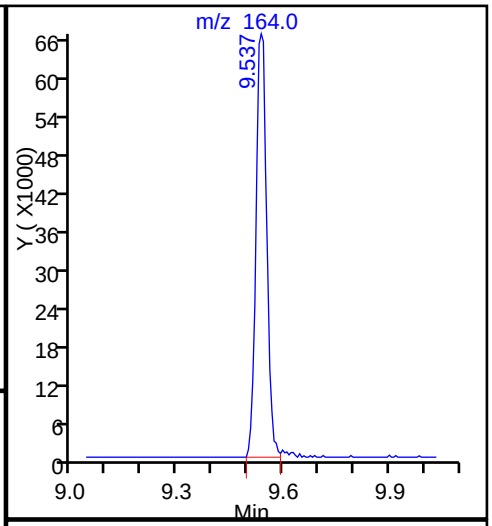
80 Tetrachloroethene, CAS: 127-18-4

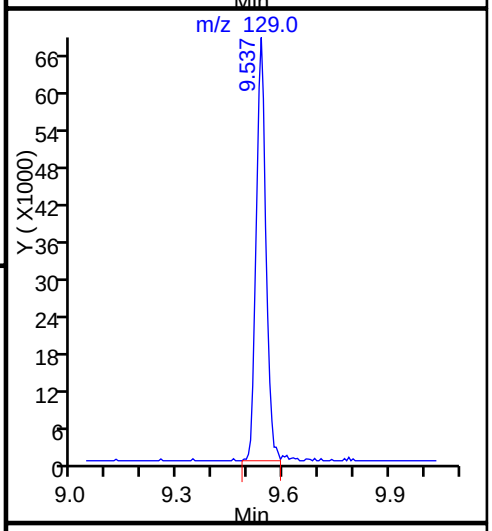


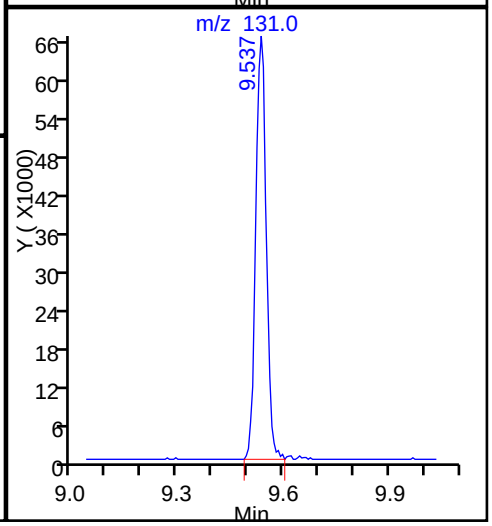












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-40434-12

Matrix: Water Lab File ID: 50115018.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:55

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 17:46

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-40434-12

Matrix: Water Lab File ID: 50115018.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:55

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 17:46

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115018.D
Lims ID: 180-40434-C-12 Lab Sample ID: 180-40434-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 17:46:30 ALS Bottle#: 15 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-C-12
Misc. Info.: 180-0005292-018
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 07:55:16 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 07:55:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.292	4.284	0.008	89	172888	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	100	475905	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	98	104366	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.687	12.686	0.001	98	145861	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.001	91	108850	53.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.908	6.896	0.012	92	171211	51.5	
$ 7 Toluene-d8 (Surr)	98	8.928	8.921	0.007	96	441128	50.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.531	0.001	82	165992	50.2	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.526	3.495	0.031	63	7869	5.27	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96	5.947	5.934	0.013	1	734	0.2587	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130		7.668				ND	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164		9.536				ND	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

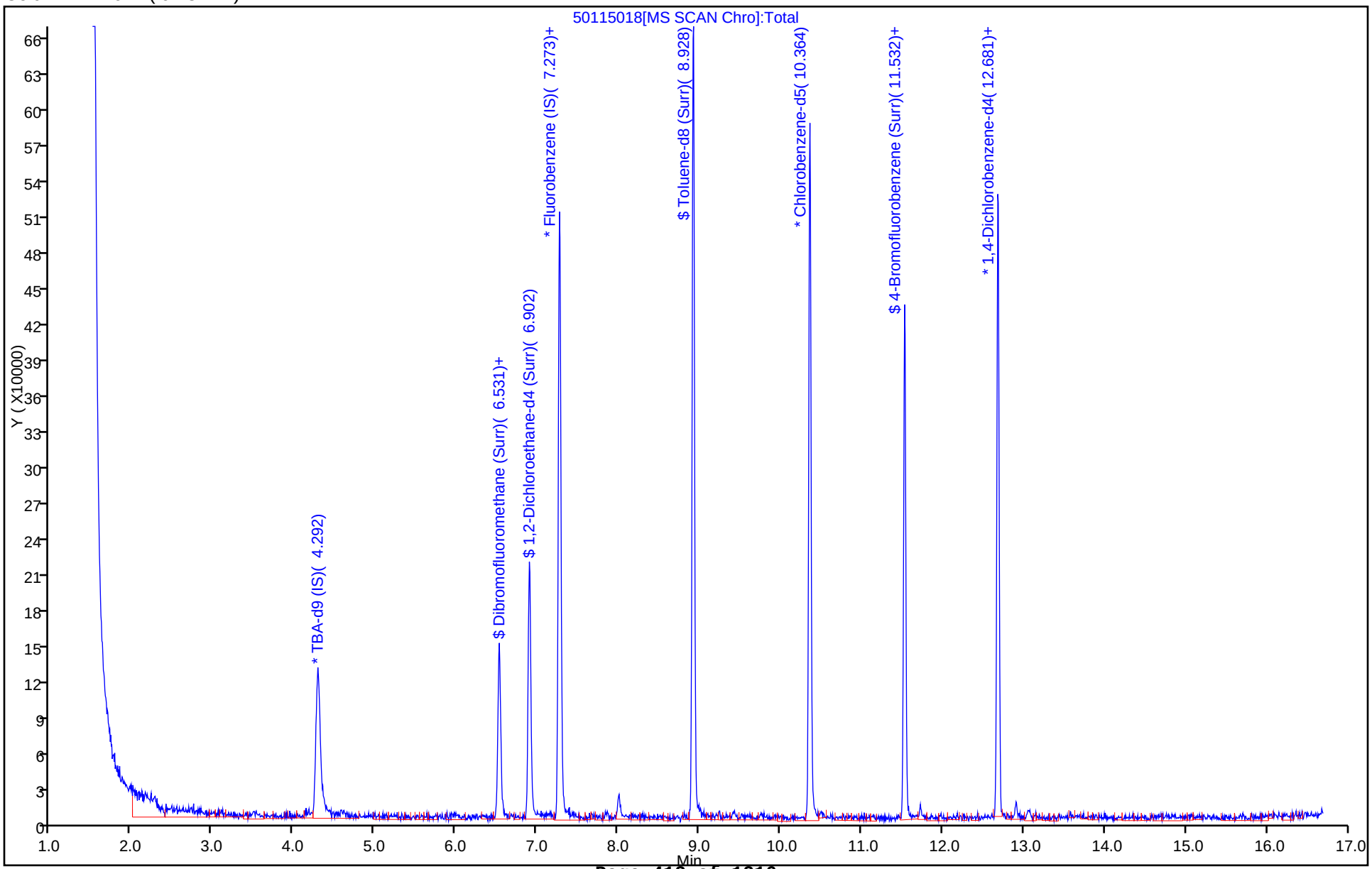
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 07:55:16 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115018.D				
Injection Date:	15-Jan-2015 17:46:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-12	Lab Sample ID:	180-40434-12	Worklist Smp#:	18
Client ID:	HD-COD-SW-20-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 | Lab Sample ID: 180-40434-13

Matrix: Water | Lab File ID: 50115019.D

Analysis Method: 8260C | Date Collected: 01/13/2015 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 18:10

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 130838 | 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	0.18	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.16	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-40434-13

Matrix: Water Lab File ID: 50115019.D

Analysis Method: 8260C Date Collected: 01/13/2015 11:35

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 18:10

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D
Lims ID: 180-40434-C-13 Lab Sample ID: 180-40434-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 18:10:30 ALS Bottle#: 16 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-C-13
Misc. Info.: 180-0005292-019
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 07:57:27 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 07:57:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.284	-0.010	89	152649	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	100	462267	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	98	100955	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.686	0.002	99	153801	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.001	90	107233	54.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.896	6.896	0.000	92	174726	54.1	
$ 7 Toluene-d8 (Surr)	98	8.922	8.921	0.001	95	438143	52.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.531	0.001	83	162305	50.7	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.520	3.495	0.025	75	10926	7.54	M
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96	5.935	5.934	0.001	1	2231	0.8096	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83	6.343	6.342	0.001	1	1446	0.3225	M
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130	7.663	7.668	-0.005	2	2229	0.9108	M
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.536	9.536	0.000	65	1567	0.7928	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

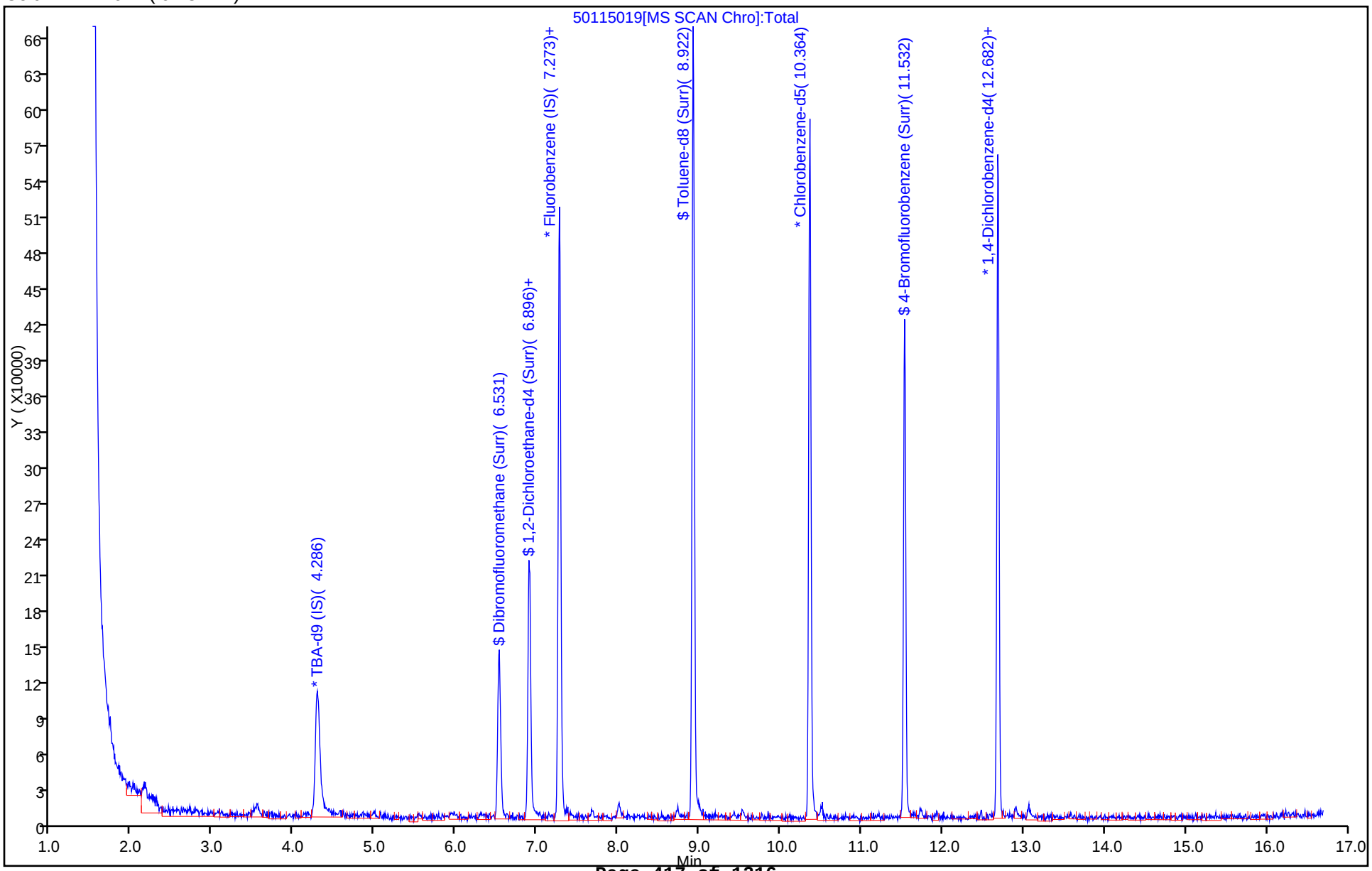
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 07:57:28 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D				
Injection Date:	15-Jan-2015 18:10:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-13	Lab Sample ID:	180-40434-13	Worklist Smp#:	19
Client ID:	HD-COD-SW-26-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 16-Jan-2015 07:57:28 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D

Injection Date: 15-Jan-2015 18:10:30 Instrument ID: CHHP5

Lims ID: 180-40434-C-13 Lab Sample ID: 180-40434-13

Client ID: HD-COD-SW-26-0/1-0

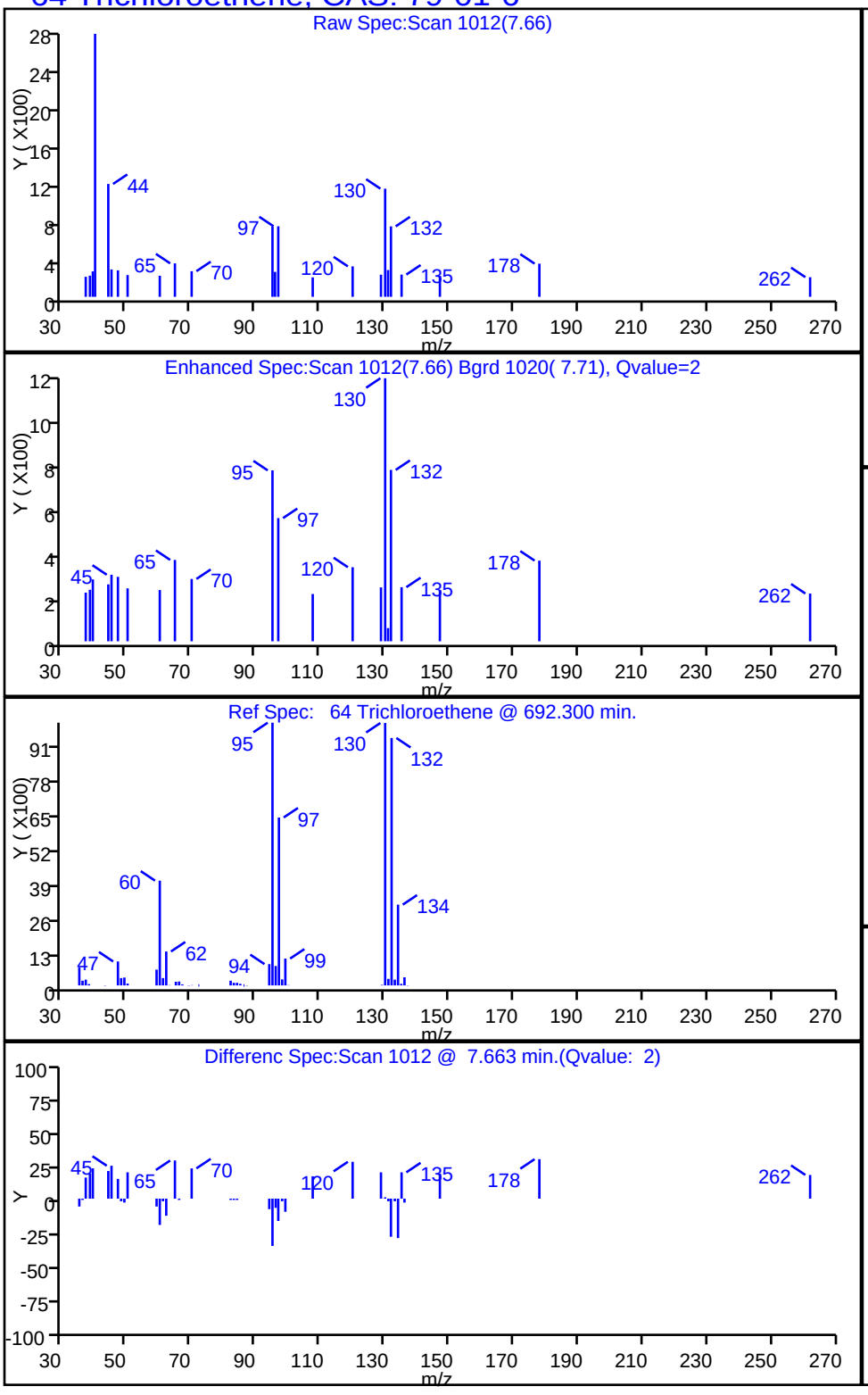
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 19

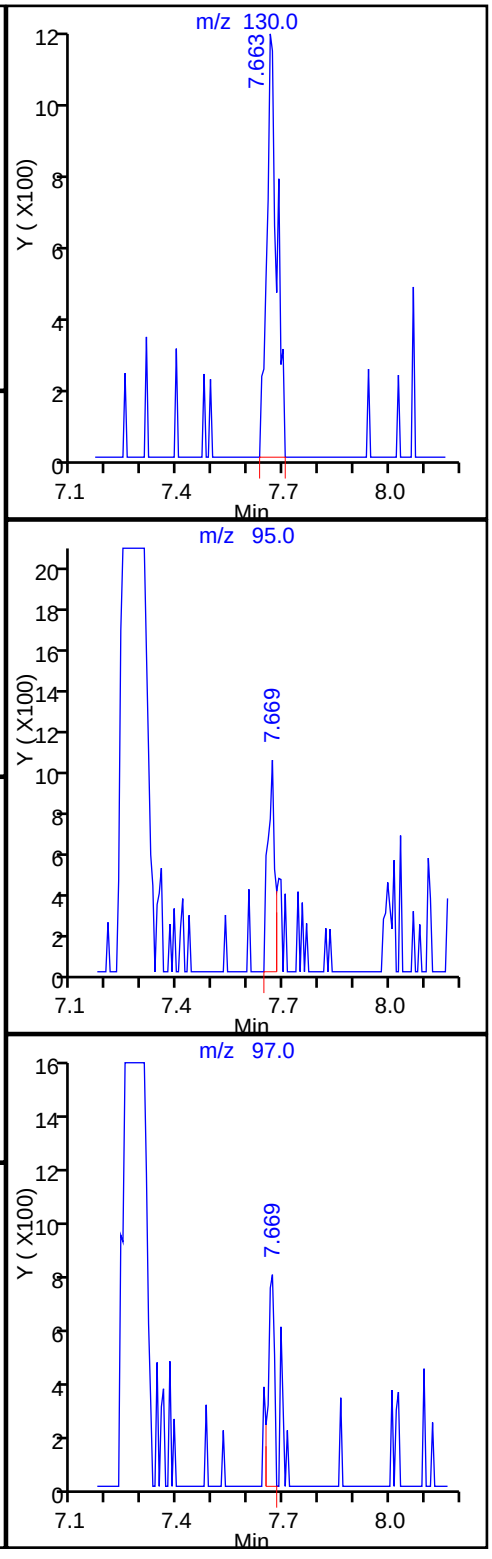
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6





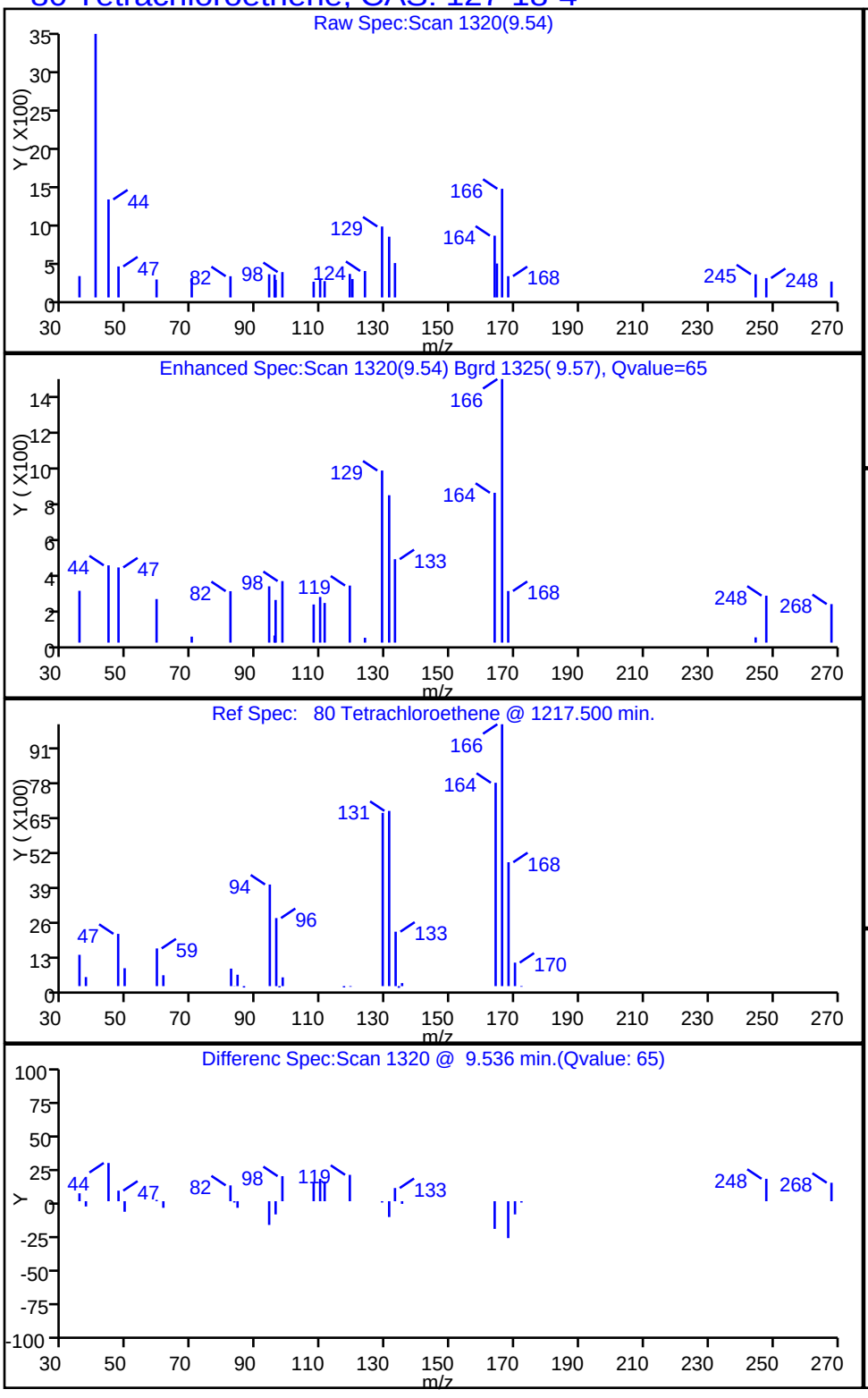
Report Date: 16-Jan-2015 07:57:28 Chrom Revision: 2.2 06-Nov-2014 14:50:32

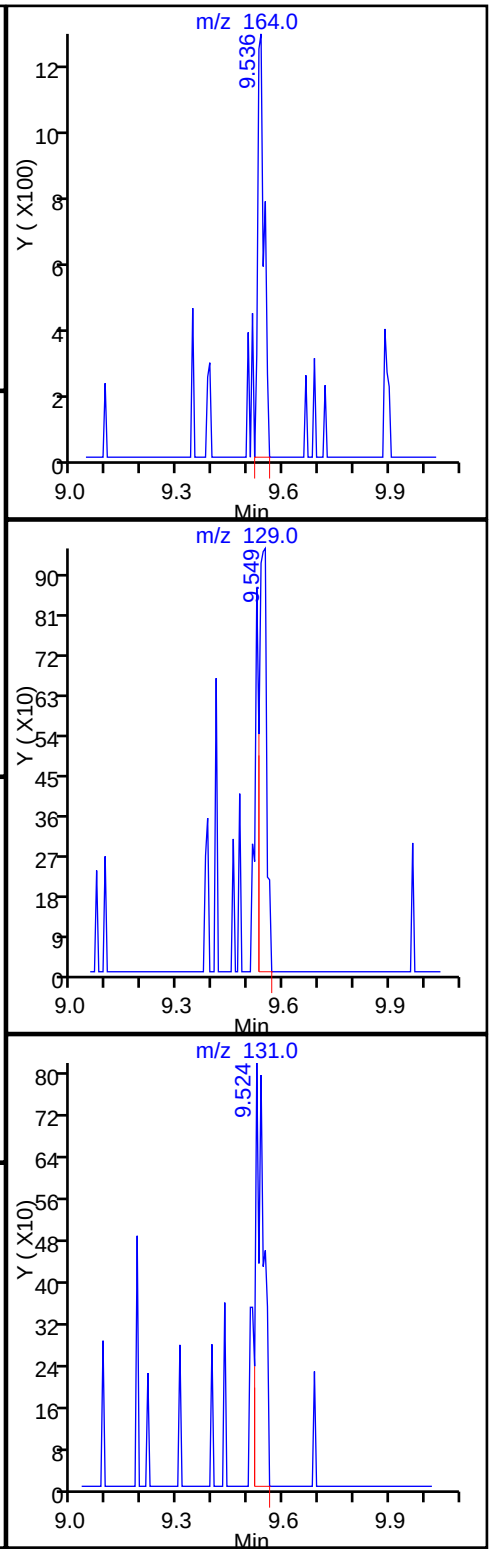
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D

Injection Date:	15-Jan-2015 18:10:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-13	Lab Sample ID:	180-40434-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

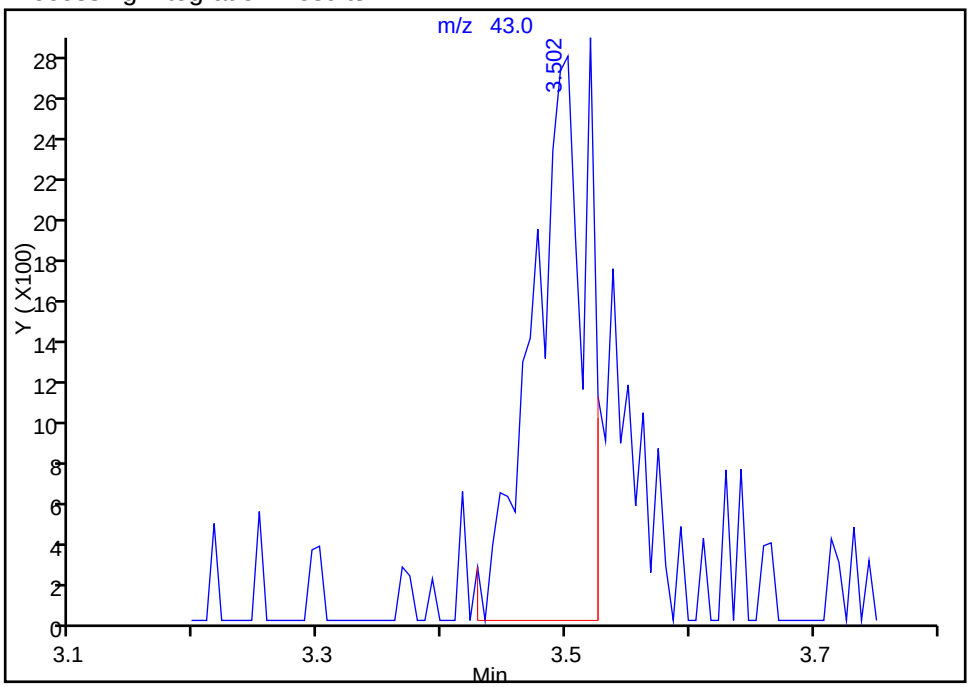
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D				
Injection Date:	15-Jan-2015 18:10:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-13	Lab Sample ID:	180-40434-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

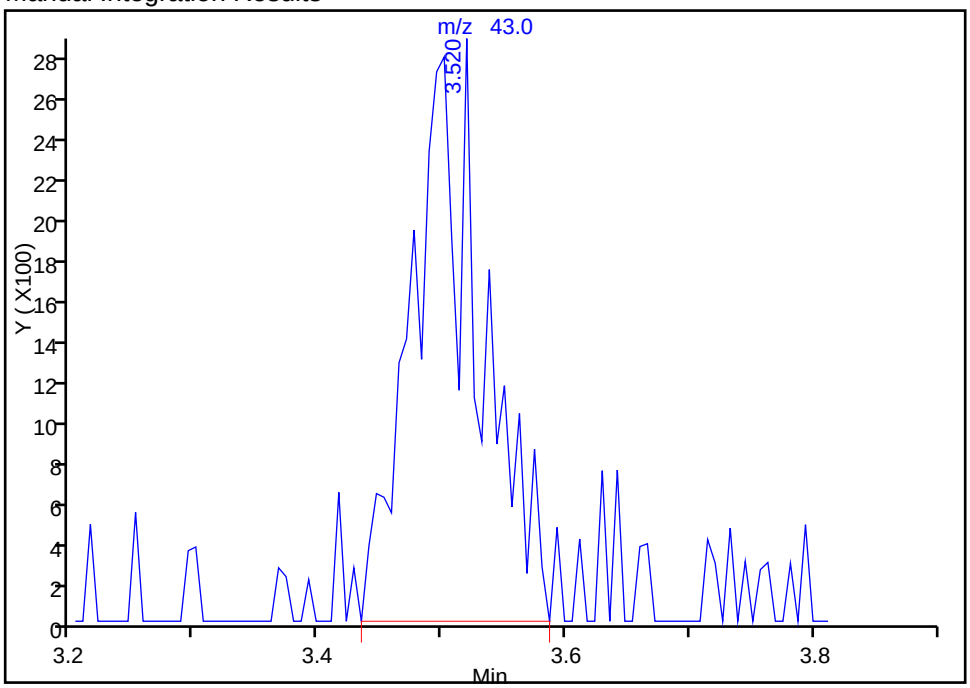
Processing Integration Results

RT: 3.50
Response: 8294
Amount: 5.721901



Manual Integration Results

RT: 3.52
Response: 10926
Amount: 7.537676



Reviewer: fergusond, 16-Jan-2015 07:57:27
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

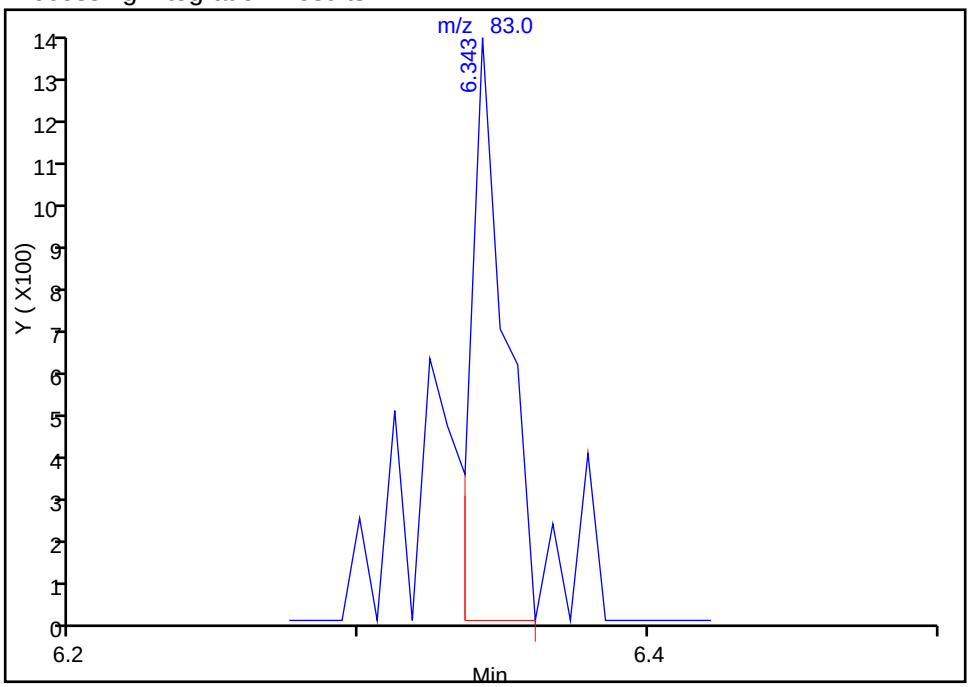
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D				
Injection Date:	15-Jan-2015 18:10:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-13	Lab Sample ID:	180-40434-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

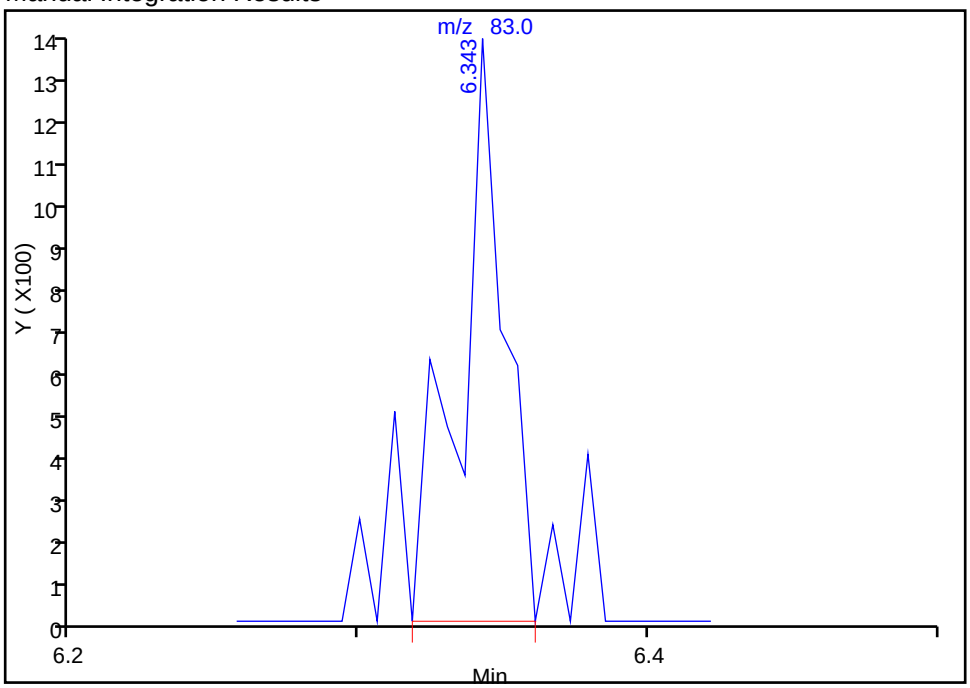
Processing Integration Results

RT: 6.34
Response: 1065
Amount: 0.237524



Manual Integration Results

RT: 6.34
Response: 1446
Amount: 0.322497



Reviewer: fergusond, 16-Jan-2015 07:57:27
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

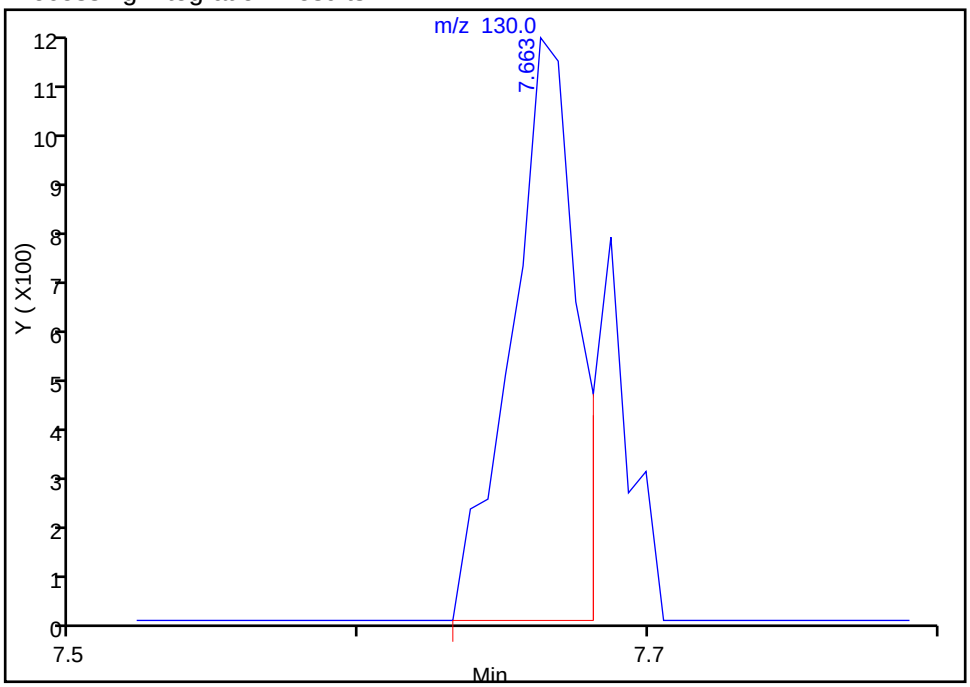
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115019.D				
Injection Date:	15-Jan-2015 18:10:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-13	Lab Sample ID:	180-40434-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

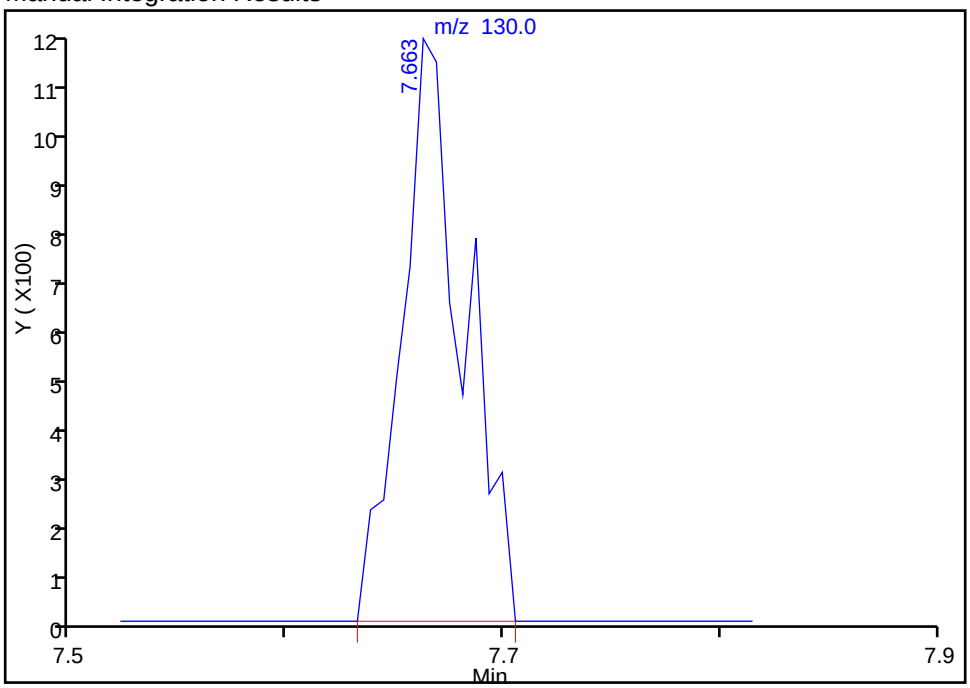
Processing Integration Results

RT: 7.66
Response: 1767
Amount: 0.721997



Manual Integration Results

RT: 7.66
Response: 2229
Amount: 0.910770



Reviewer: fergusond, 16-Jan-2015 07:57:27
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 | Lab Sample ID: 180-40434-14

Matrix: Water | Lab File ID: 50115020.D

Analysis Method: 8260C | Date Collected: 01/13/2015 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 18:34

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.: 130838 | 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	3.5		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	0.30	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	2.7		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	2.0		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-40434-14

Matrix: Water Lab File ID: 50115020.D

Analysis Method: 8260C Date Collected: 01/13/2015 13:25

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 18:34

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.: 130838 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)	106		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D
Lims ID: 180-40434-C-14 Lab Sample ID: 180-40434-14
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 18:34:30 ALS Bottle#: 17 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-C-14
Misc. Info.: 180-0005292-020
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 07:59:16 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 07:59:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.297	4.284	0.013	90	183216	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.277	-0.006	100	481232	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	98	109077	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.686	0.000	98	148991	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.525	0.011	93	112436	54.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.896	0.004	91	178536	53.1	
$ 7 Toluene-d8 (Surr)	98	8.926	8.921	0.005	97	443603	48.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.531	-0.001	83	163204	47.2	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96	3.390	3.379	0.011	10	2202	0.8400	M
24 Acetone	43	3.512	3.495	0.017	76	8584	5.69	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96	5.939	5.934	0.005	87	49710	17.3	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83	6.341	6.342	-0.001	9	1864	0.3993	
53 1,1,1-Trichloroethane	97	6.535	6.531	0.004	37	4482	1.48	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130	7.667	7.668	-0.001	94	34217	13.4	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.534	9.536	-0.002	89	21145	9.90	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

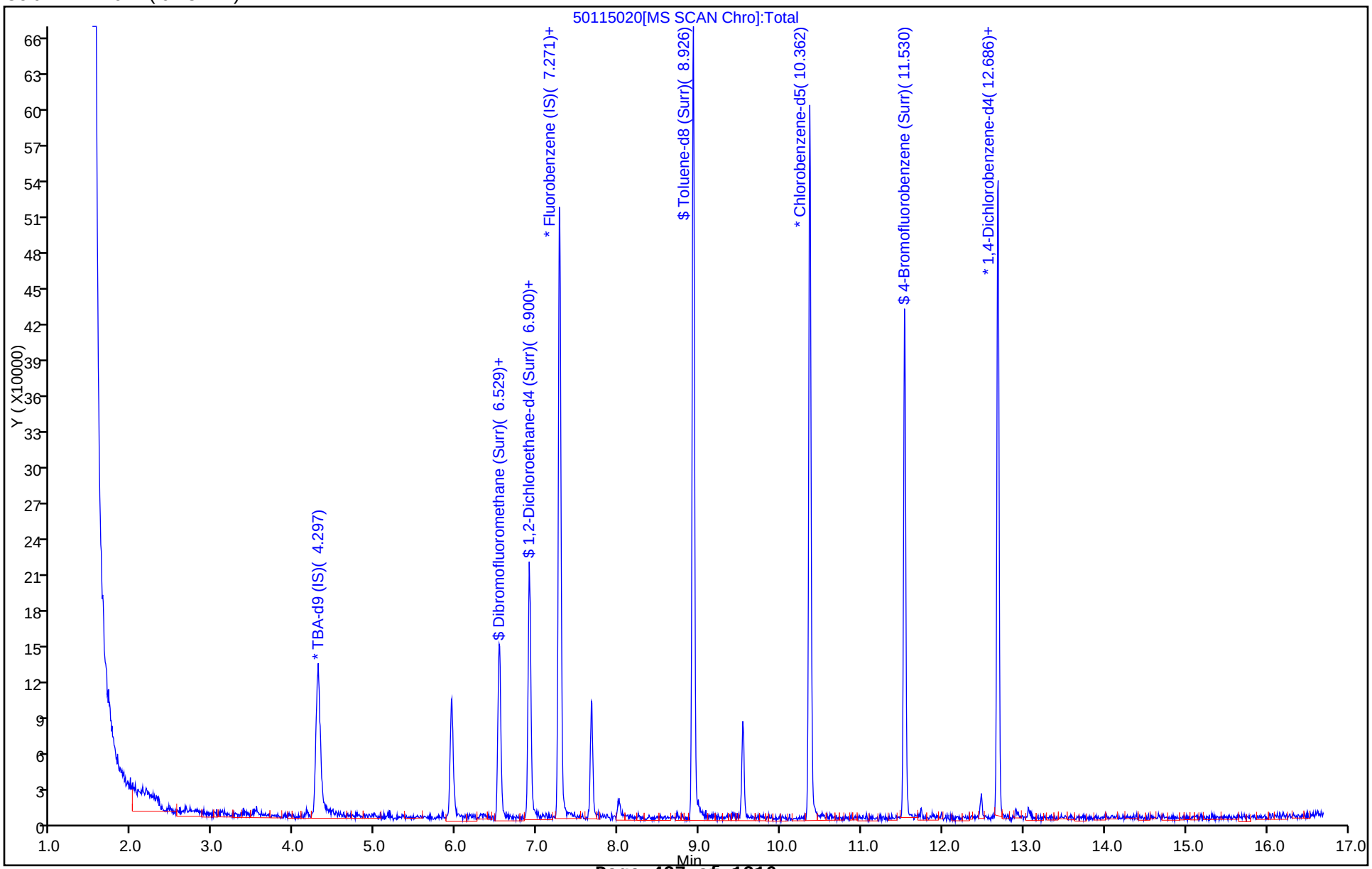
Report Date: 16-Jan-2015 07:59:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D

Injection Date:	15-Jan-2015 18:34:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-14	Lab Sample ID:	180-40434-14	Worklist Smp#:	20
Client ID:	HD-COD-SW-27-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

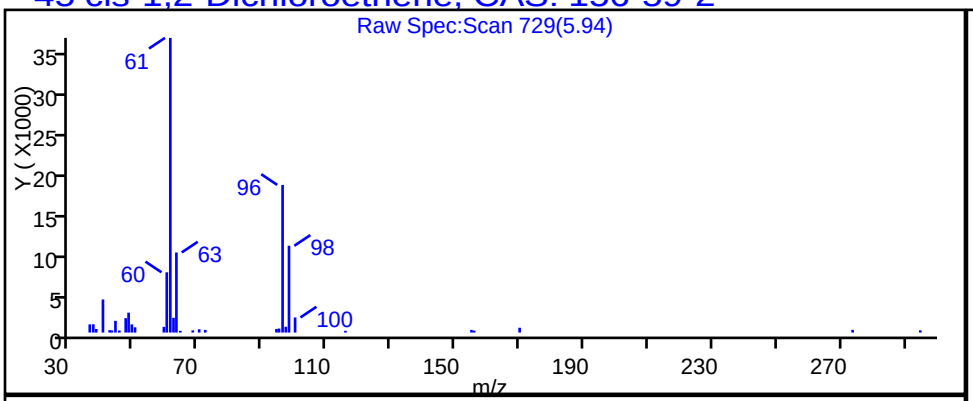


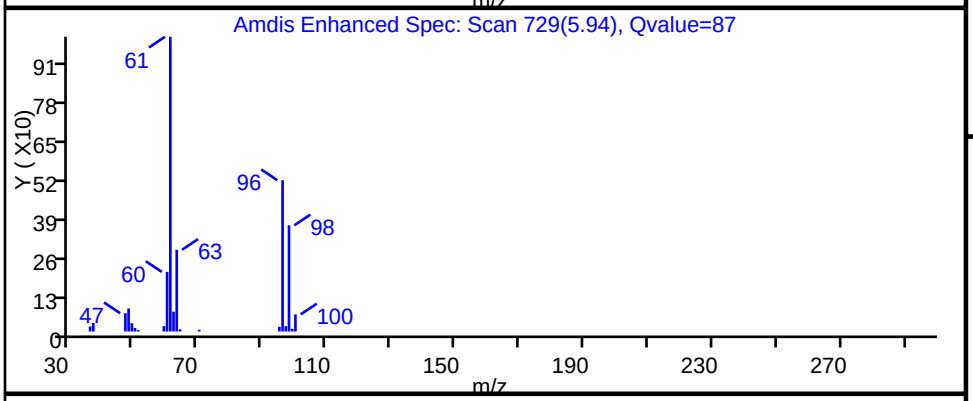
Report Date: 16-Jan-2015 07:59:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

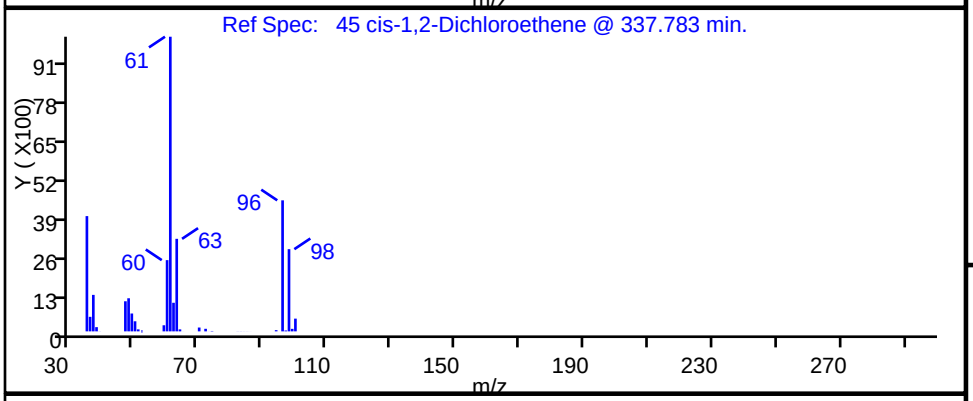
TestAmerica Pittsburgh

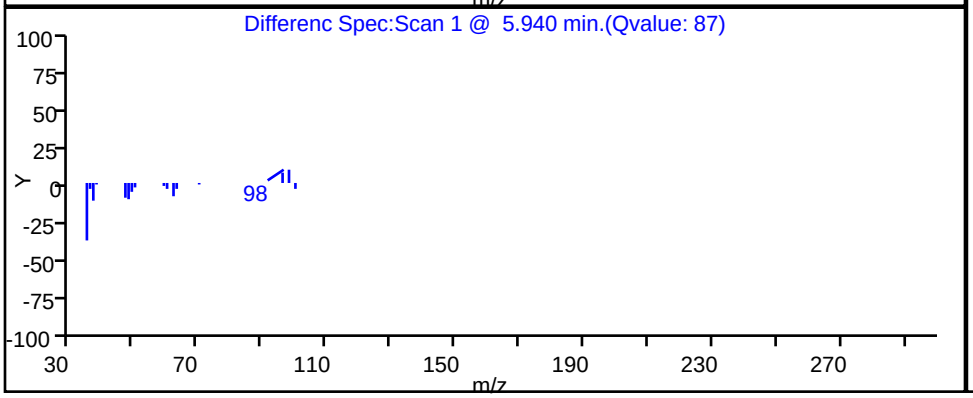
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D				
Injection Date:	15-Jan-2015 18:34:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-14	Lab Sample ID:	180-40434-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

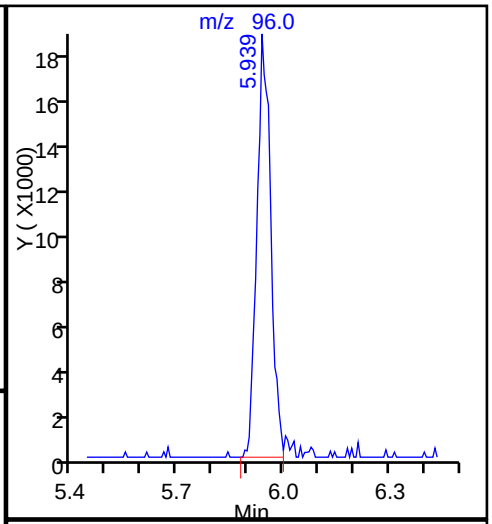
45 cis-1,2-Dichloroethene, CAS: 156-59-2

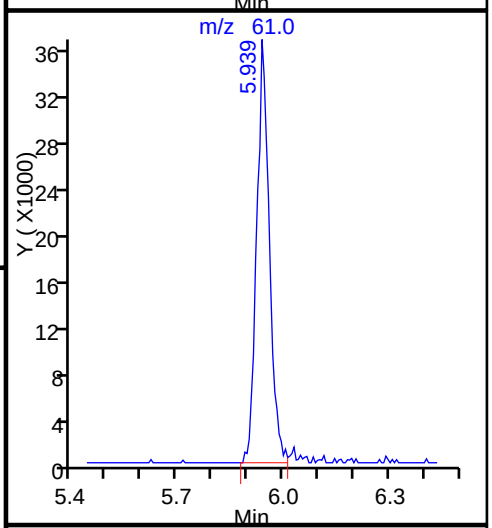


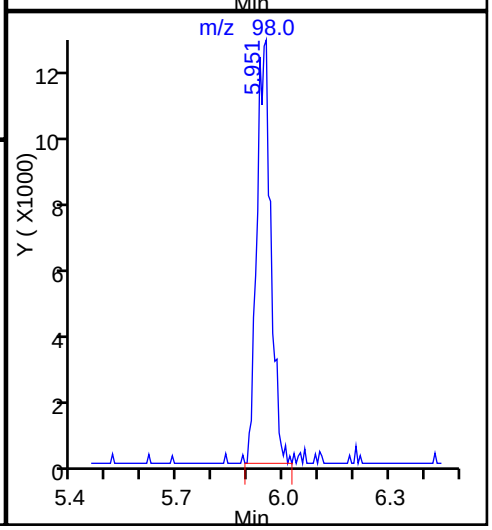












Report Date: 16-Jan-2015 07:59:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D				
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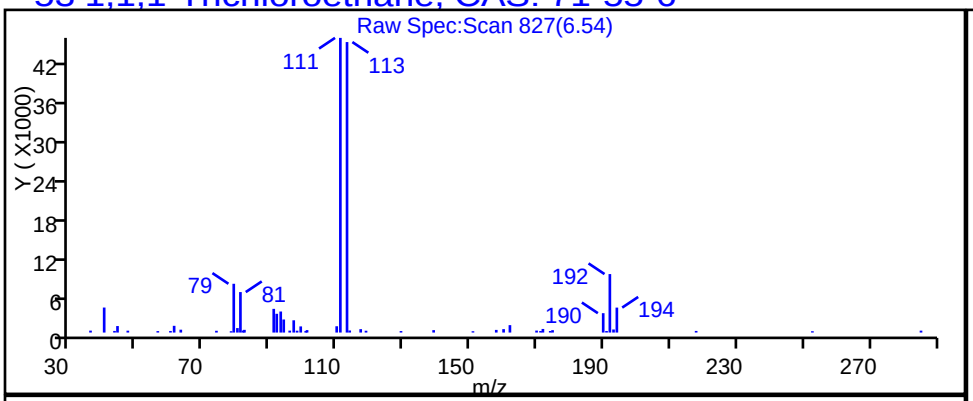
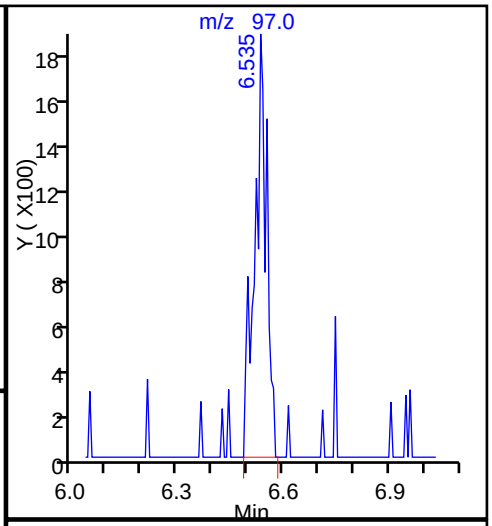
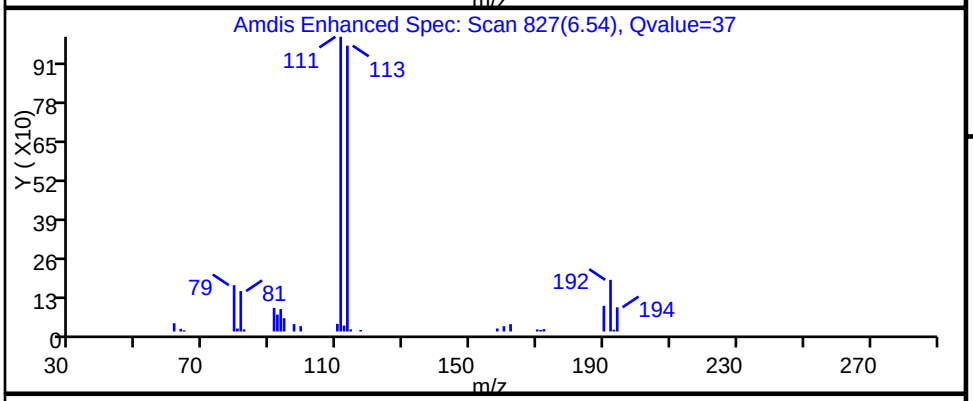
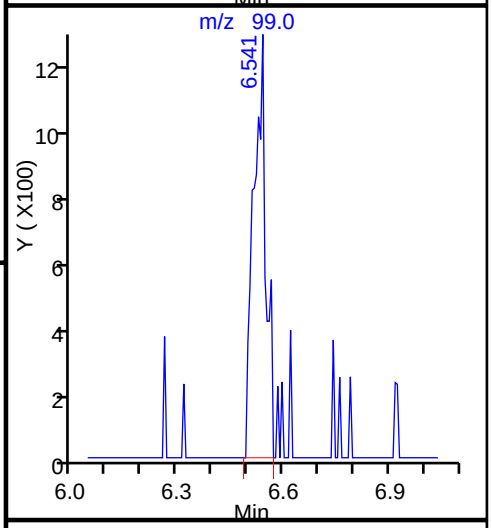
Lims ID:	180-40434-C-14	Lab Sample ID:	180-40434-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

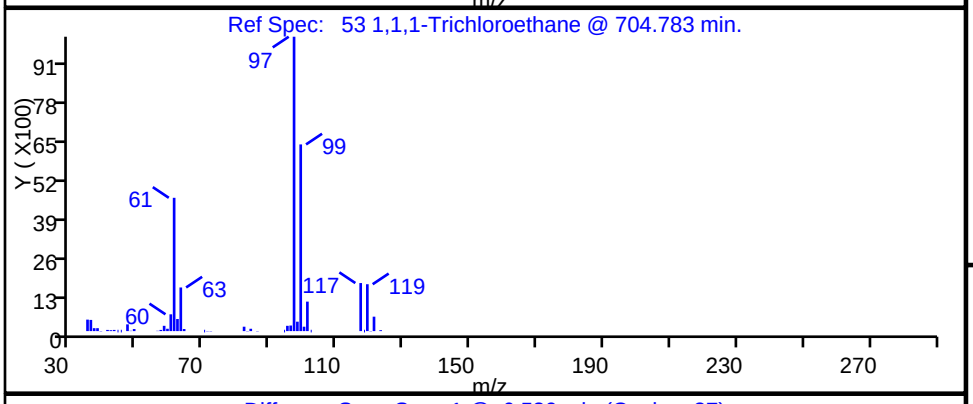
53 1,1,1-Trichloroethane, CAS: 71-55-6

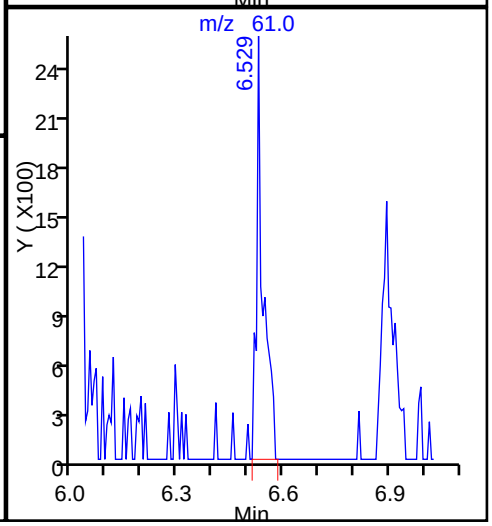


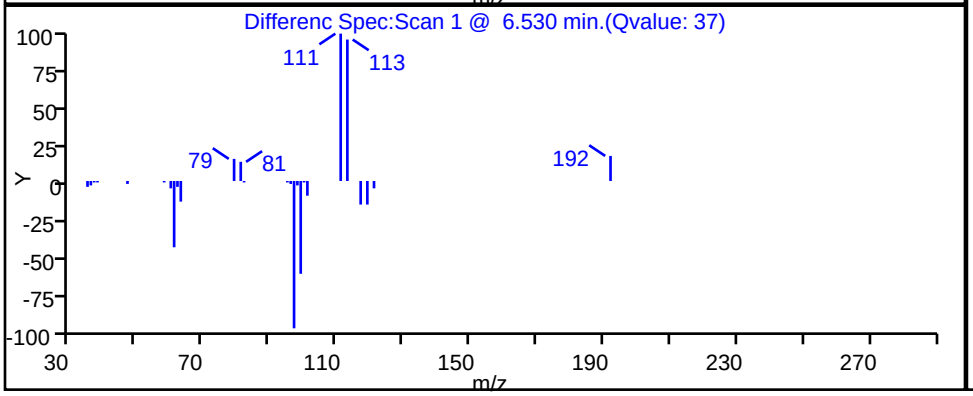










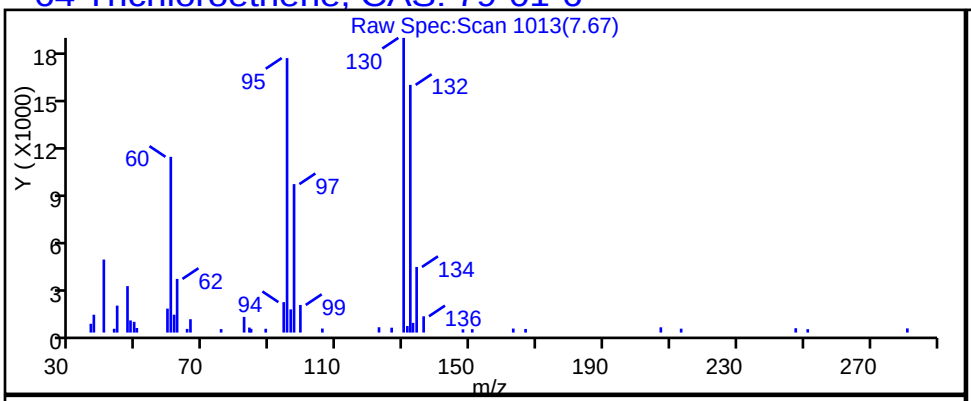


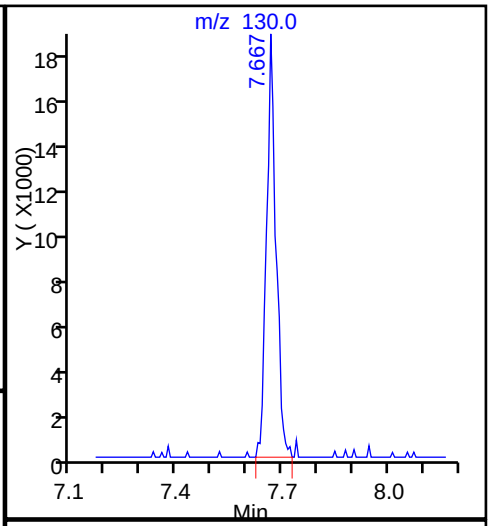
Report Date: 16-Jan-2015 07:59:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

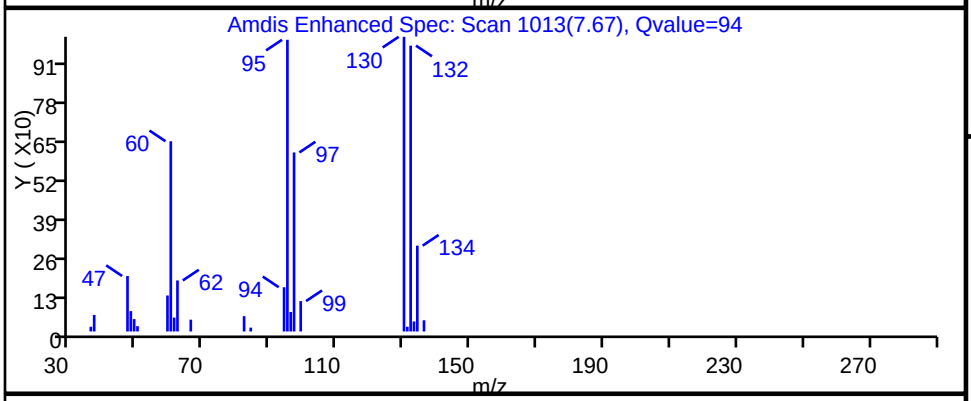
TestAmerica Pittsburgh

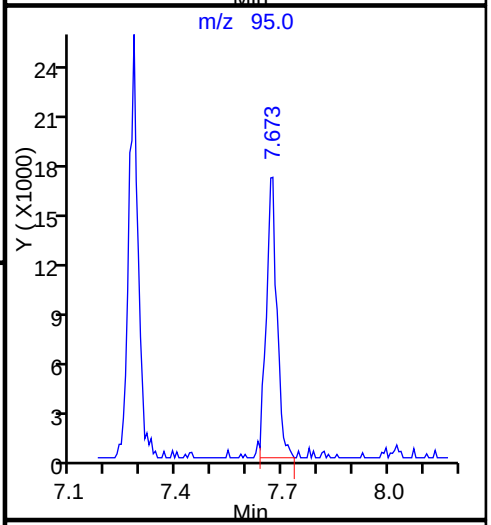
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D		
Injection Date:	15-Jan-2015 18:34:30	Instrument ID:	CHHP5
Lims ID:	180-40434-C-14	Lab Sample ID:	180-40434-14
Client ID:	HD-COD-SW-27-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

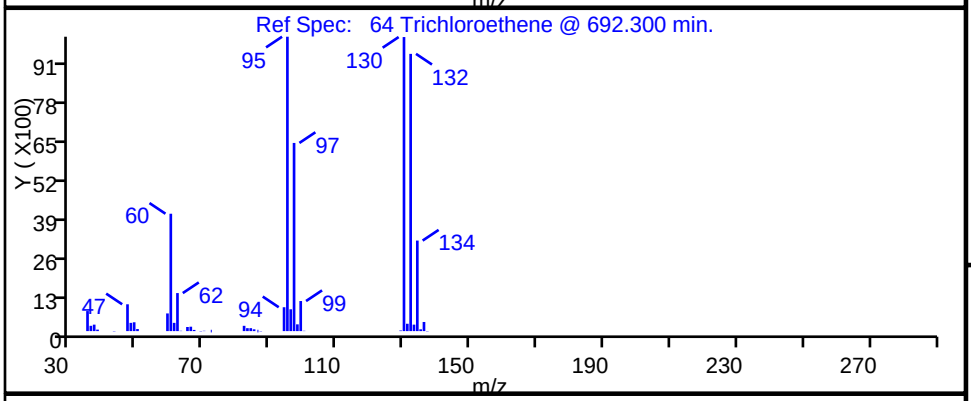
64 Trichloroethene, CAS: 79-01-6

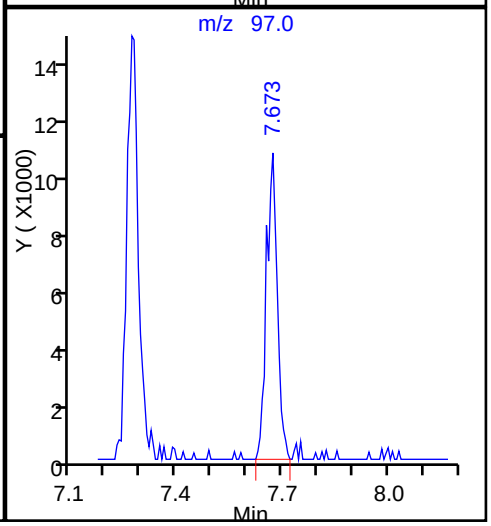


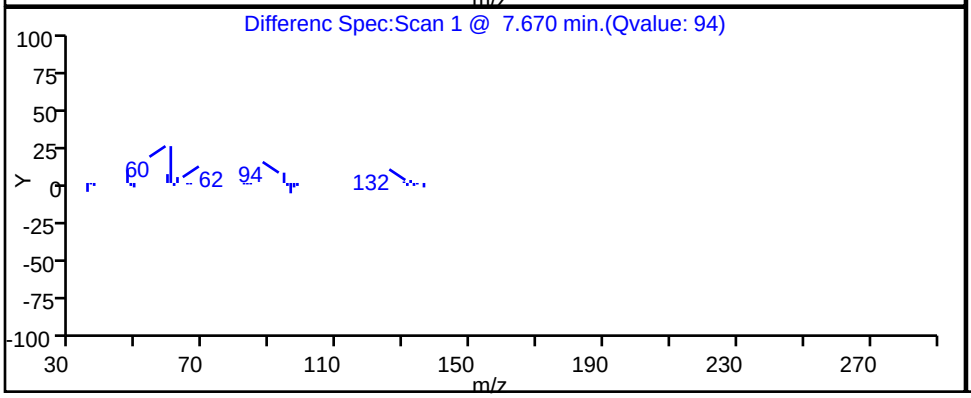










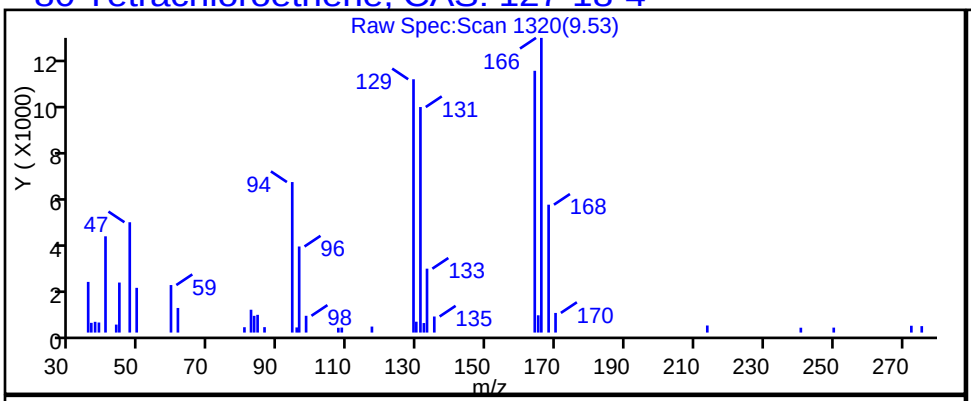


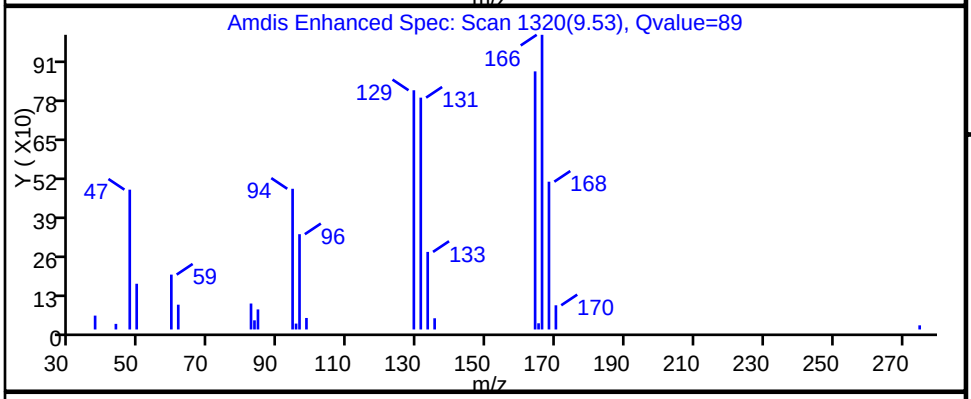
Report Date: 16-Jan-2015 07:59:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

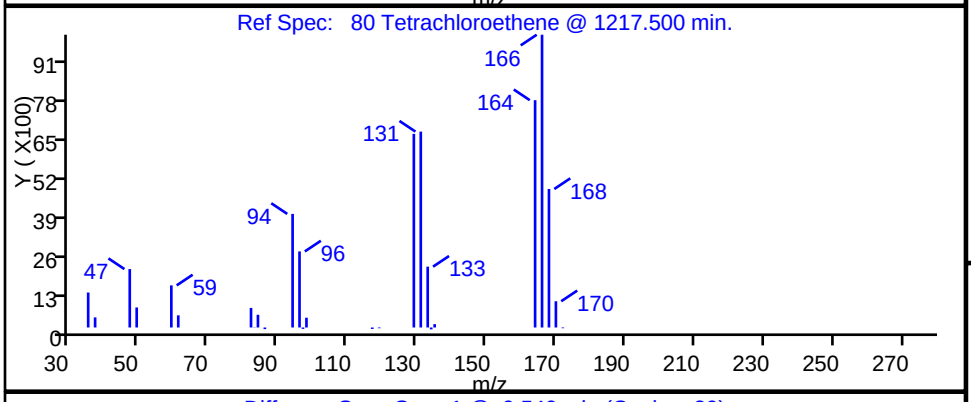
TestAmerica Pittsburgh

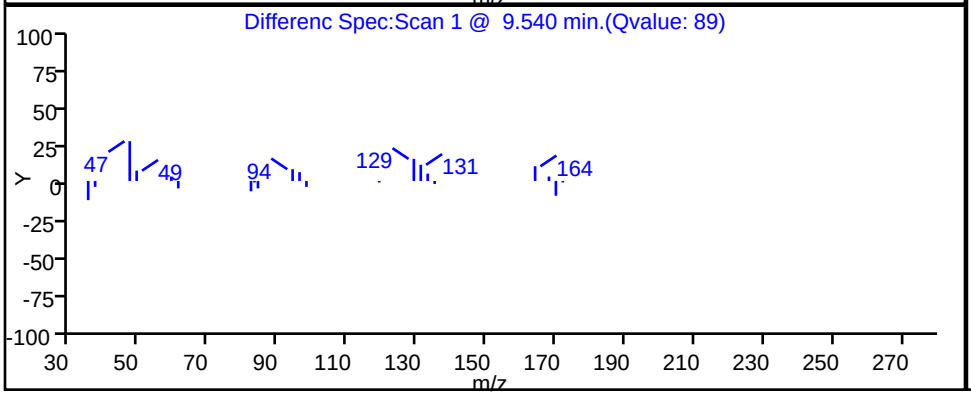
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D		
Injection Date:	15-Jan-2015 18:34:30	Instrument ID:	CHHP5
Lims ID:	180-40434-C-14	Lab Sample ID:	180-40434-14
Client ID:	HD-COD-SW-27-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

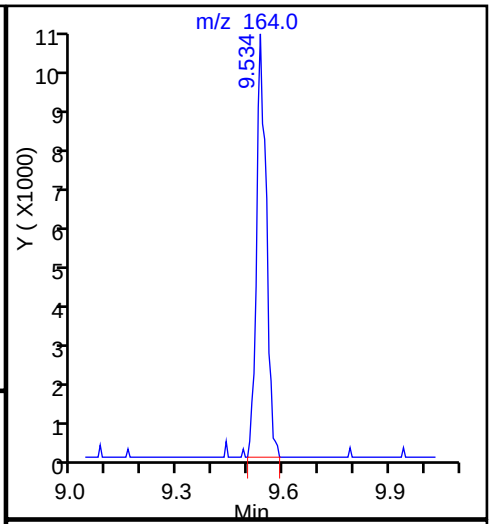
80 Tetrachloroethene, CAS: 127-18-4

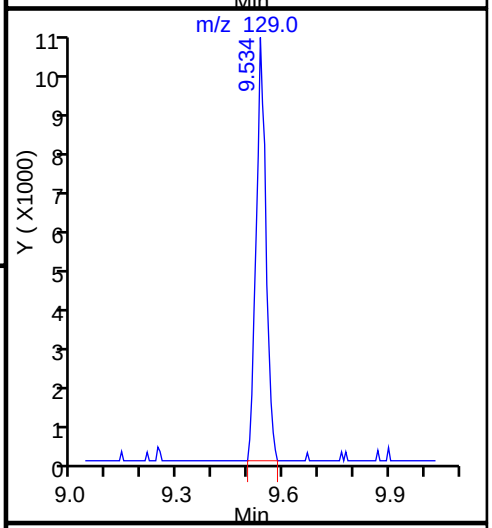


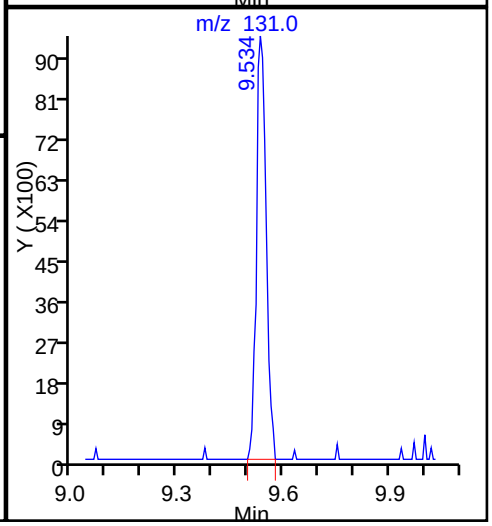












Manual Integration/User Assign Peak Report

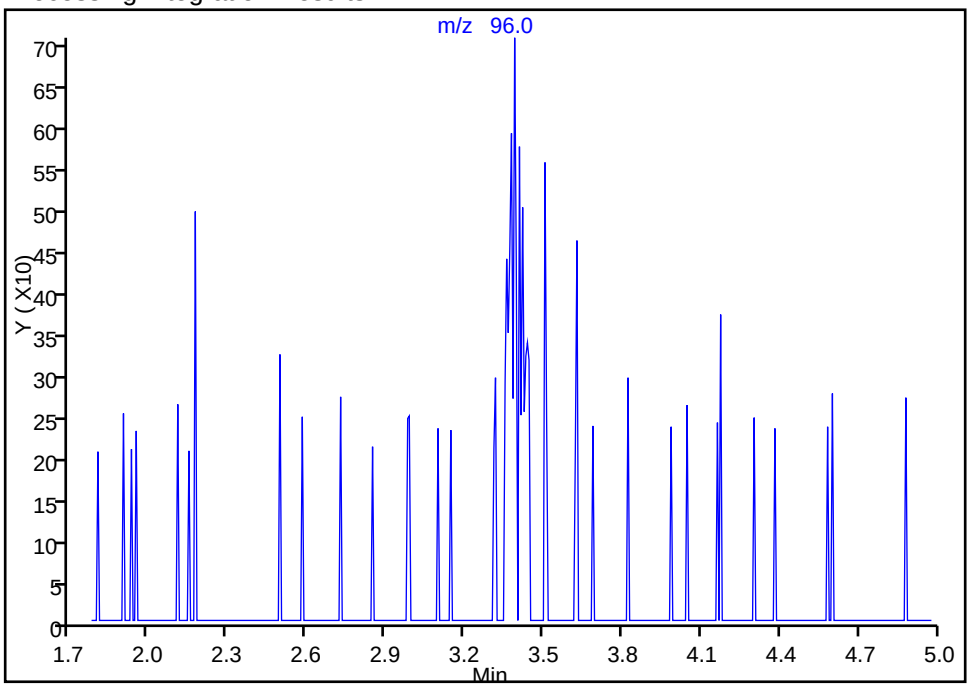
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115020.D				
Injection Date:	15-Jan-2015 18:34:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-14	Lab Sample ID:	180-40434-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

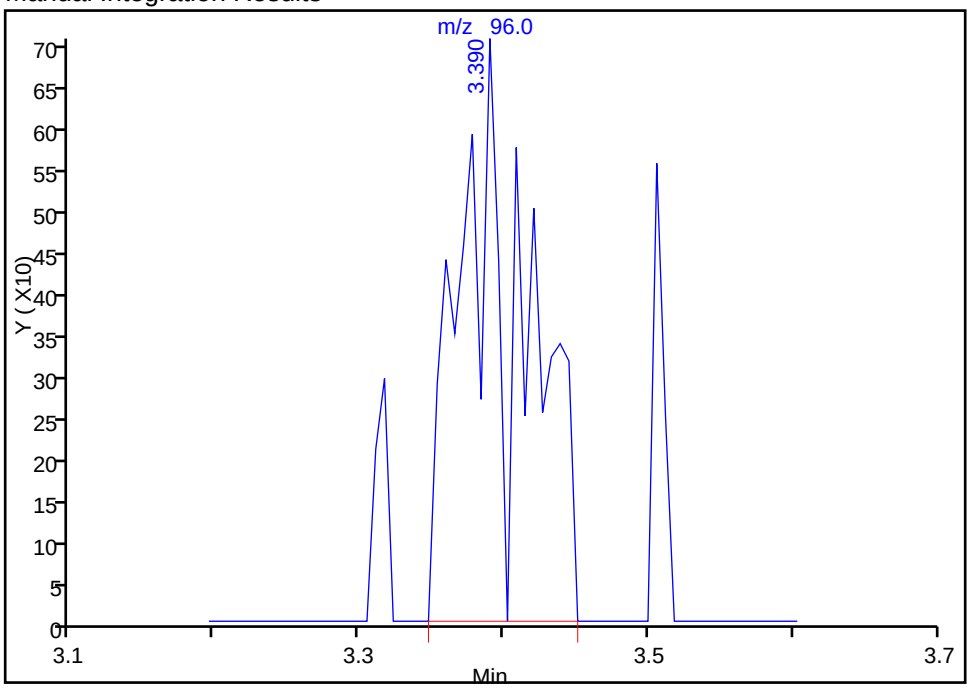
Processing Integration Results

Not Detected
Expected RT: 3.38



Manual Integration Results

RT: 3.39
Response: 2202
Amount: 0.839984



Reviewer: fergusond, 16-Jan-2015 07:59:16
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-40434-15

Matrix: Water Lab File ID: 50115021.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:30

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 18:58

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.: 130838 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	0.42	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.33	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.23	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-40434-15

Matrix: Water Lab File ID: 50115021.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:30

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 18:58

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.: 130838 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D
Lims ID: 180-40434-E-15 Lab Sample ID: 180-40434-15
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 18:58:30 ALS Bottle#: 18 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-E-15
Misc. Info.: 180-0005292-021
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:07:31 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:07:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.292	4.284	0.008	86	125429	1000.0	
* 2 Fluorobenzene (IS)	96	7.279	7.277	0.002	100	453902	50.0	
* 3 Chlorobenzene-d5	119	10.369	10.362	0.007	99	104121	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.687	12.686	0.001	98	141878	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.530	6.525	0.006	92	107110	55.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.896	0.005	93	164903	52.0	
$ 7 Toluene-d8 (Surr)	98	8.927	8.921	0.006	96	423939	48.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.531	0.000	83	154021	46.7	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.495	3.495	0.000	60	10547	7.41	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96	5.946	5.934	0.012	40	5633	2.08	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83	6.354	6.342	0.012	1	2833	0.6435	M
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130	7.680	7.668	0.012	87	3955	1.65	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91	8.982	8.988	-0.006	1	2509	0.2270	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.536	9.536	0.000	37	2393	1.17	M
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

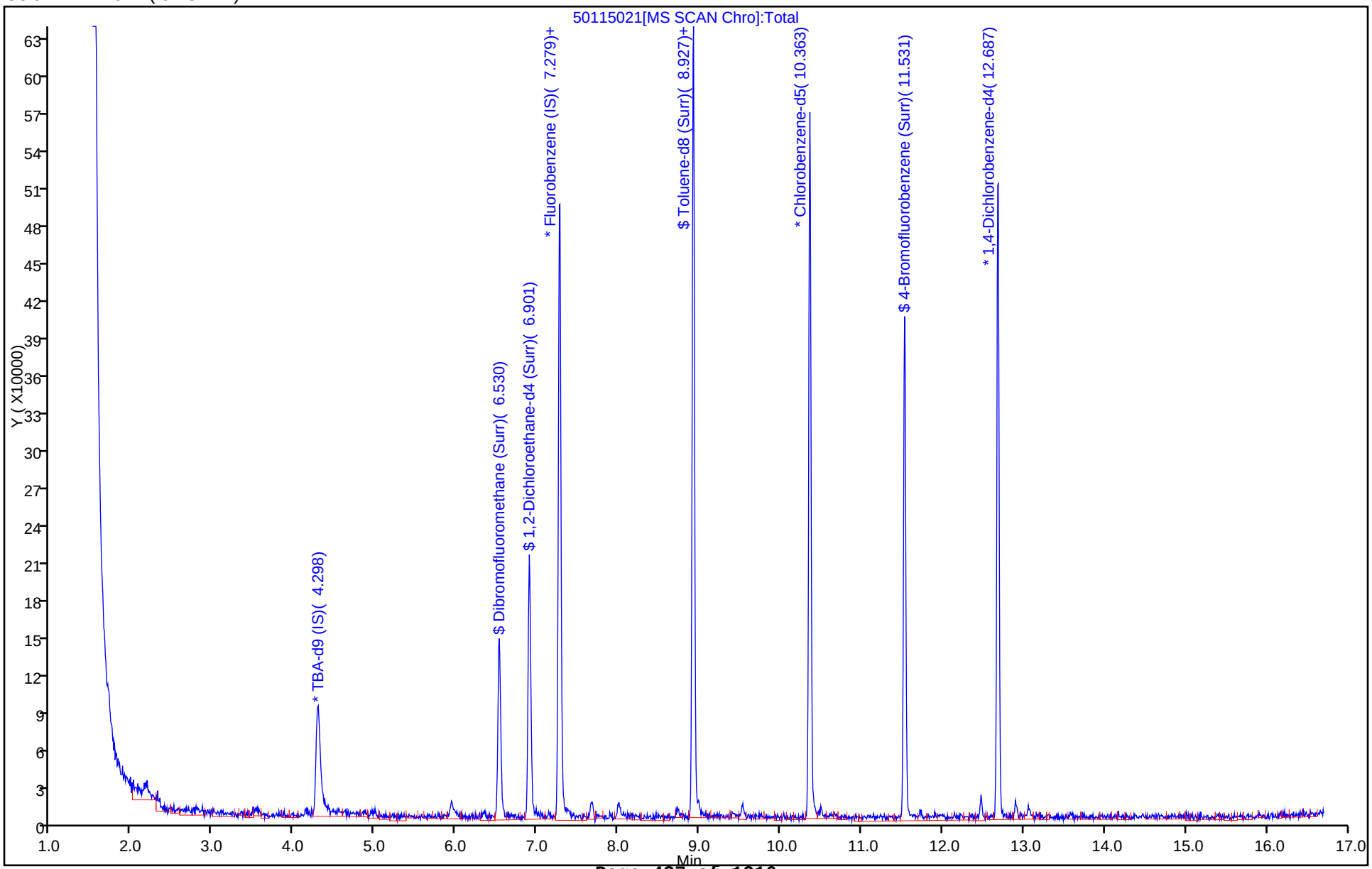
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 08:07:31 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D				
Injection Date:	15-Jan-2015 18:58:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-E-15	Lab Sample ID:	180-40434-15	Worklist Smp#:	21
Client ID:	HD-COD-SW-28-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

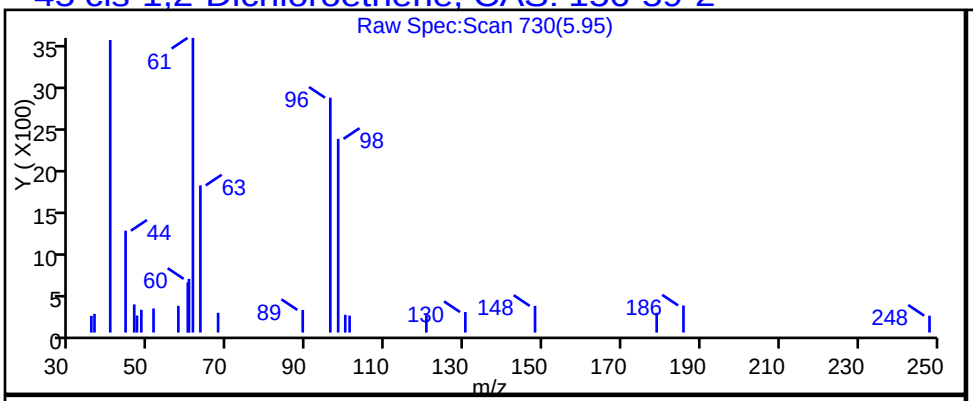


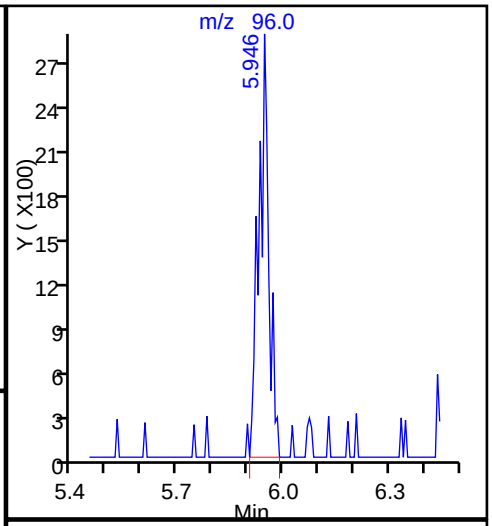
Report Date: 16-Jan-2015 08:07:31 Chrom Revision: 2.2 06-Nov-2014 14:50:32

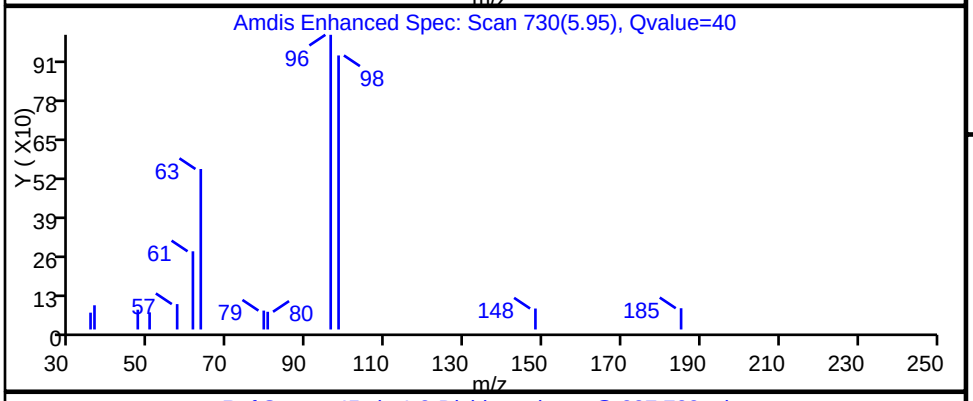
TestAmerica Pittsburgh

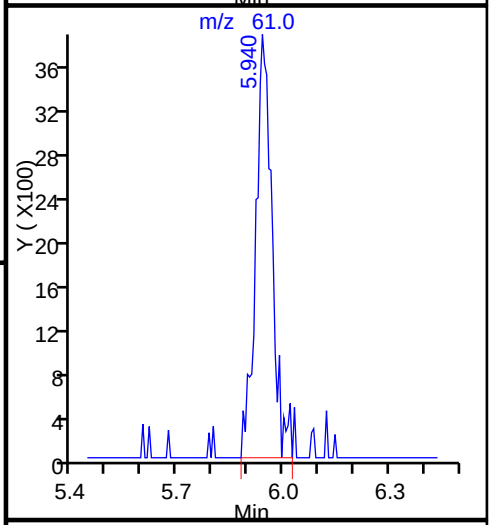
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D				
Injection Date:	15-Jan-2015 18:58:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-15	Lab Sample ID:	180-40434-15		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

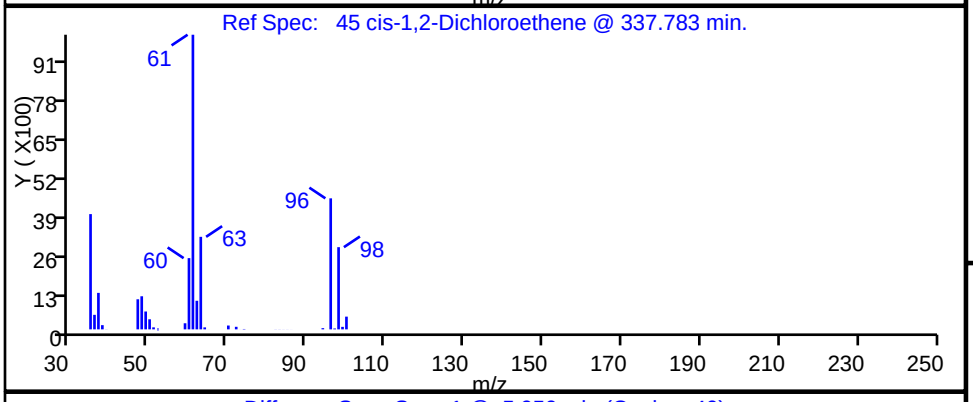
45 cis-1,2-Dichloroethene, CAS: 156-59-2

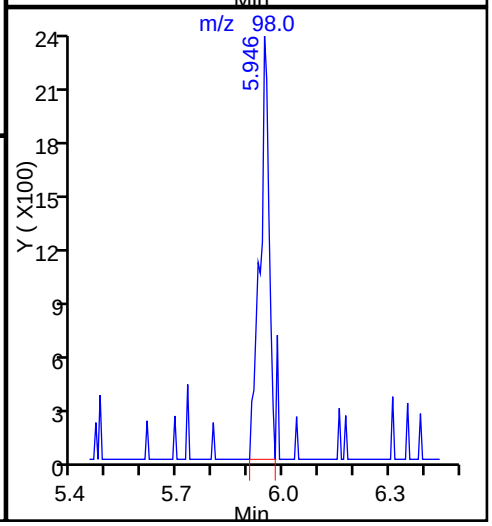


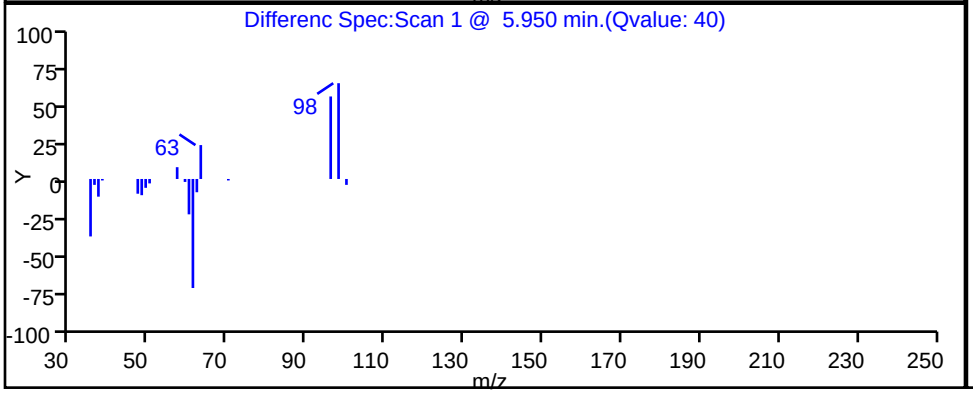










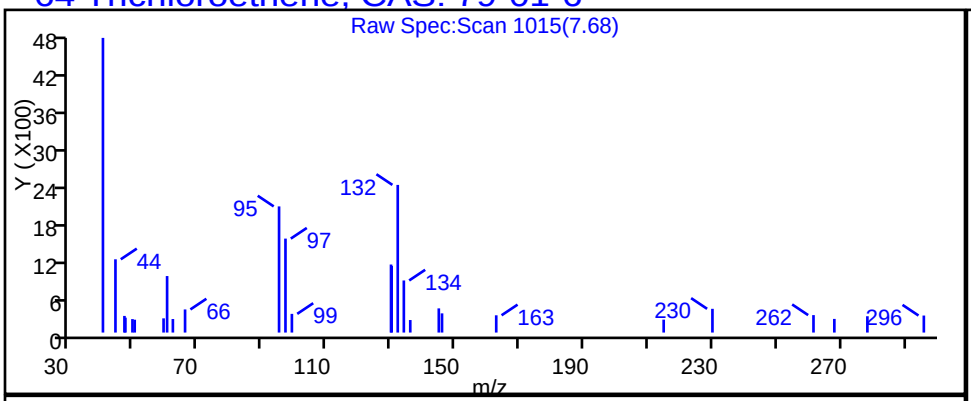


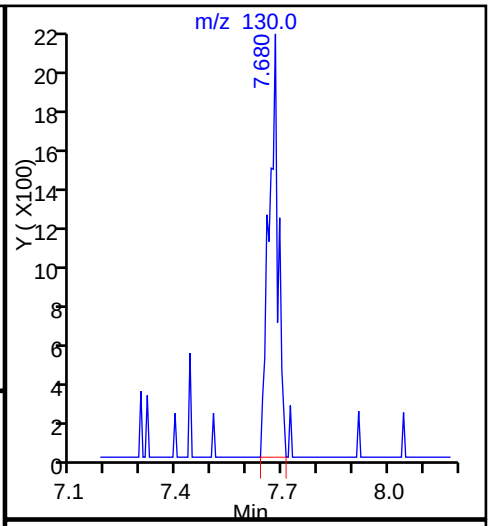
Report Date: 16-Jan-2015 08:07:31 Chrom Revision: 2.2 06-Nov-2014 14:50:32

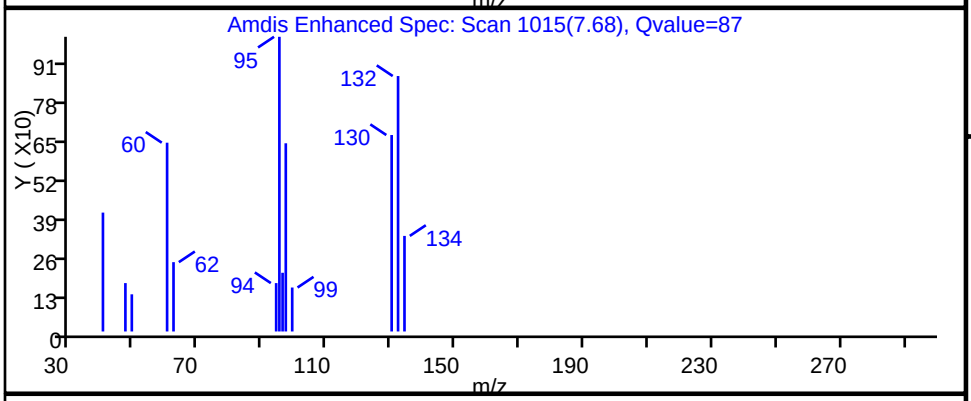
TestAmerica Pittsburgh

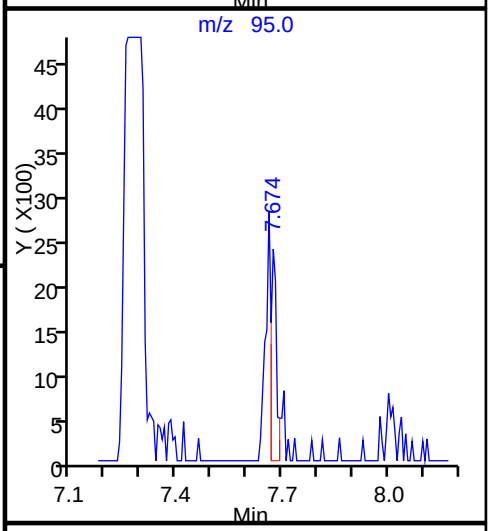
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D				
Injection Date:	15-Jan-2015 18:58:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-15	Lab Sample ID:	180-40434-15		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

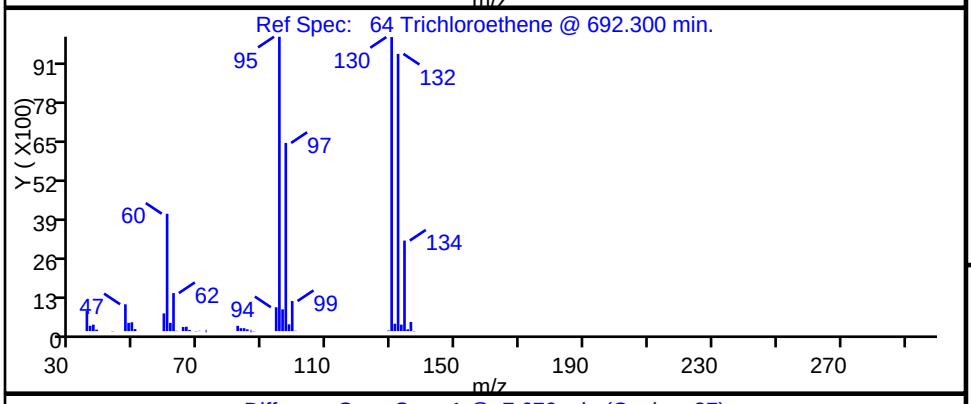
64 Trichloroethene, CAS: 79-01-6

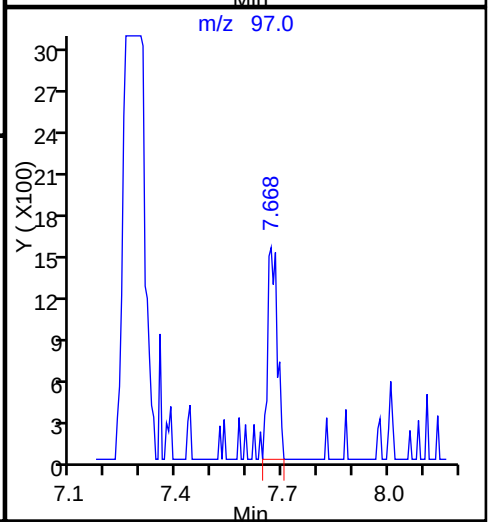


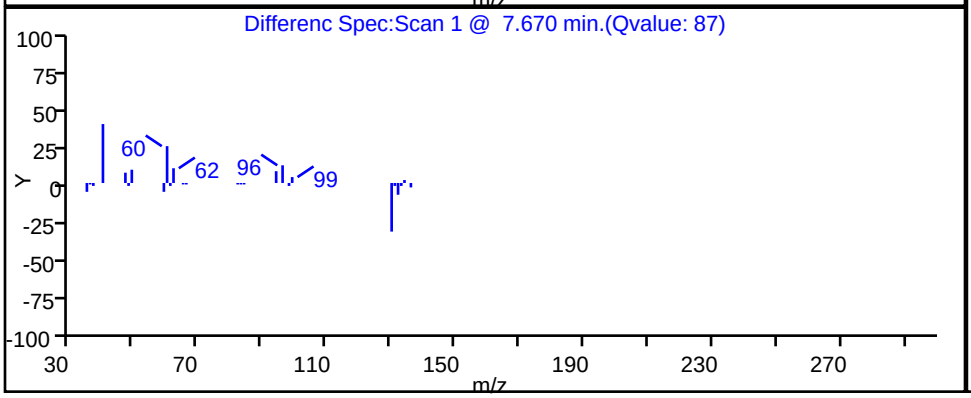












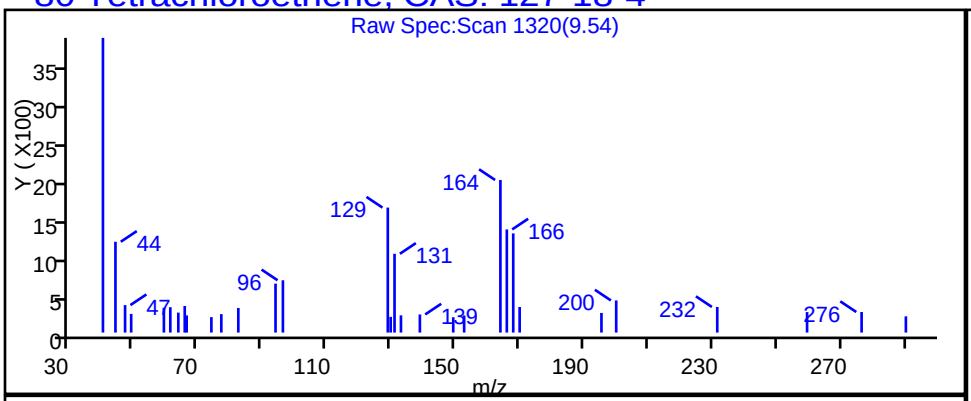
Report Date: 16-Jan-2015 08:07:31 Chrom Revision: 2.2 06-Nov-2014 14:50:32

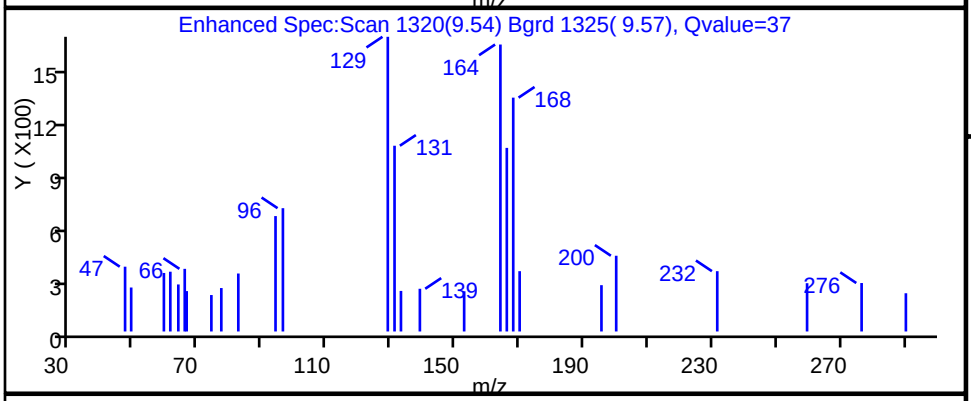
TestAmerica Pittsburgh

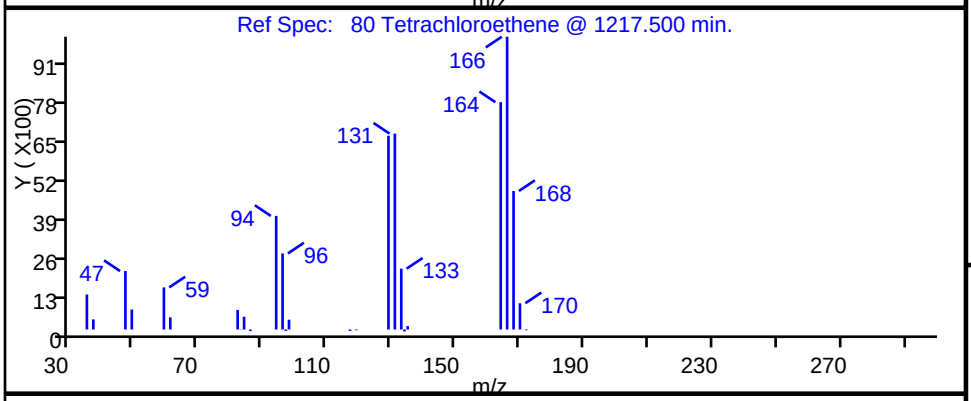
Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D

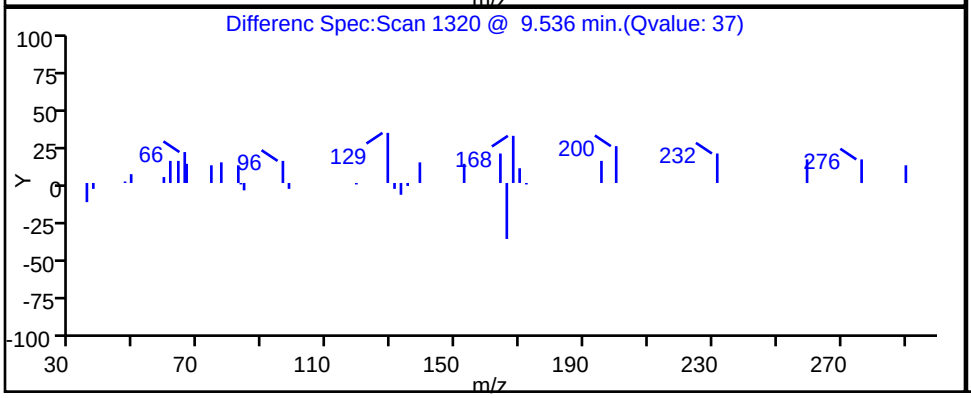
Injection Date:	15-Jan-2015 18:58:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-15	Lab Sample ID:	180-40434-15
Client ID:	HD-COD-SW-28-0/1-0		
Operator ID:	001562	ALS Bottle#:	18 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

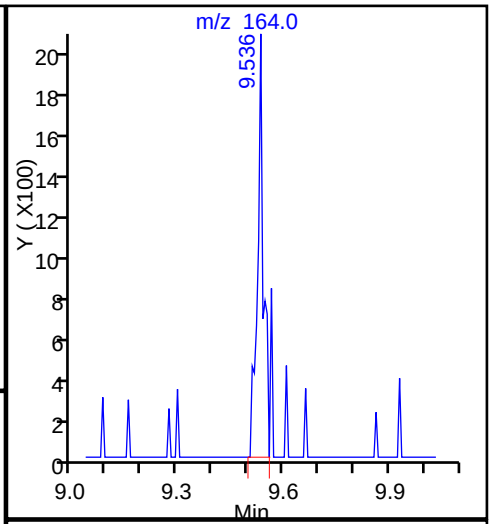
80 Tetrachloroethene, CAS: 127-18-4

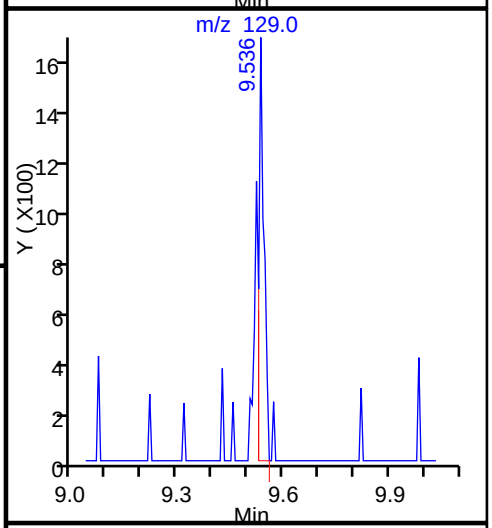


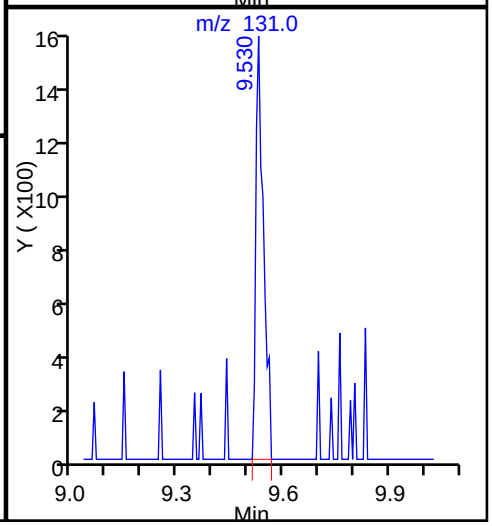












Manual Integration/User Assign Peak Report

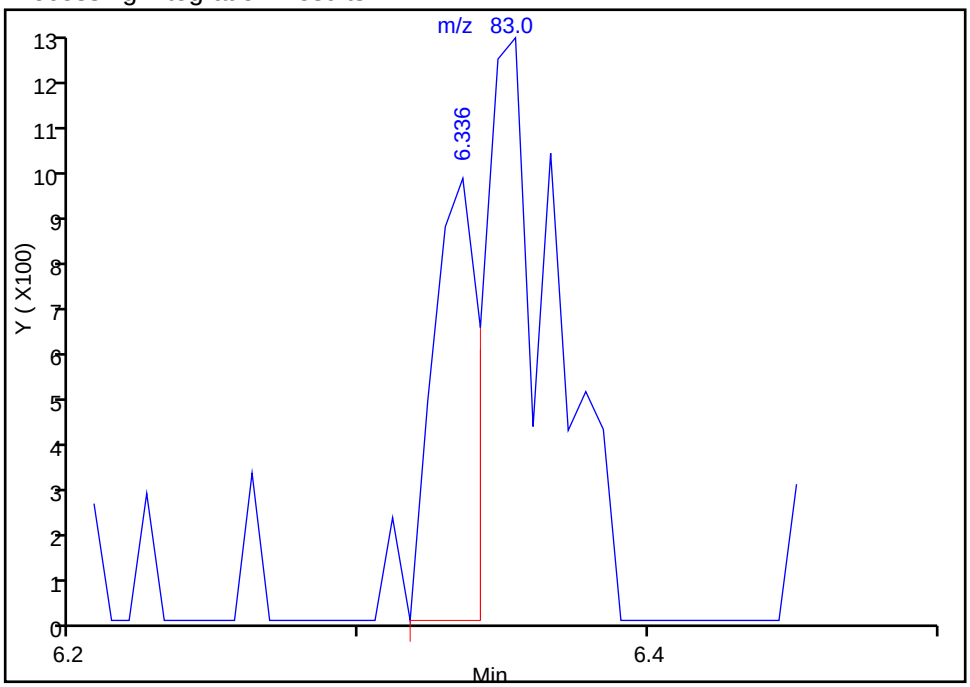
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D				
Injection Date:	15-Jan-2015 18:58:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-15	Lab Sample ID:	180-40434-15		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

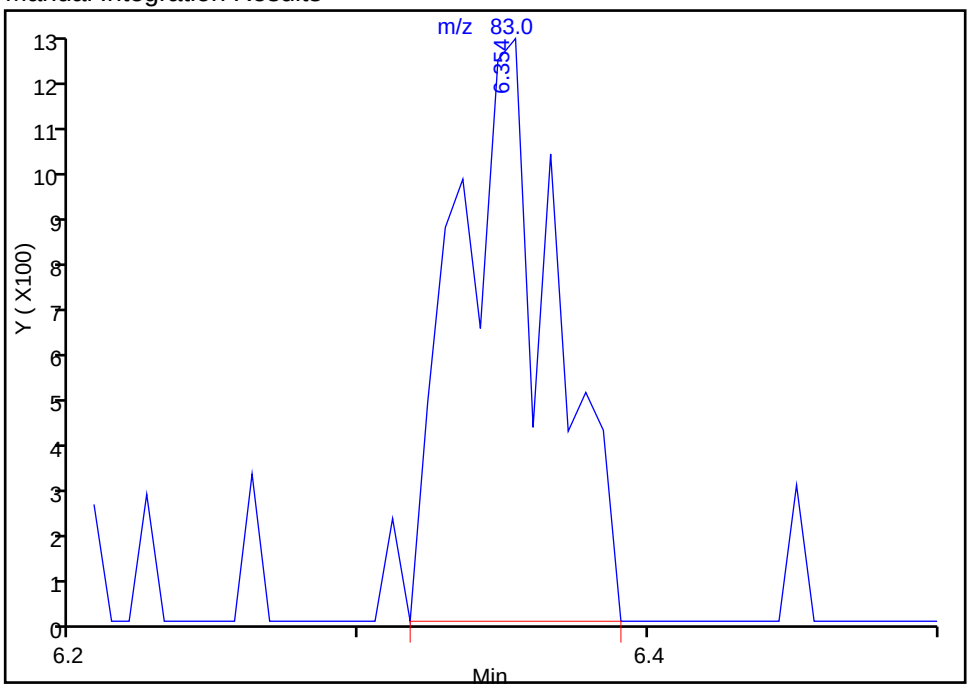
Processing Integration Results

RT: 6.34
Response: 1015
Amount: 0.230544



Manual Integration Results

RT: 6.35
Response: 2833
Amount: 0.643479



Reviewer: fergusond, 16-Jan-2015 08:07:31
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

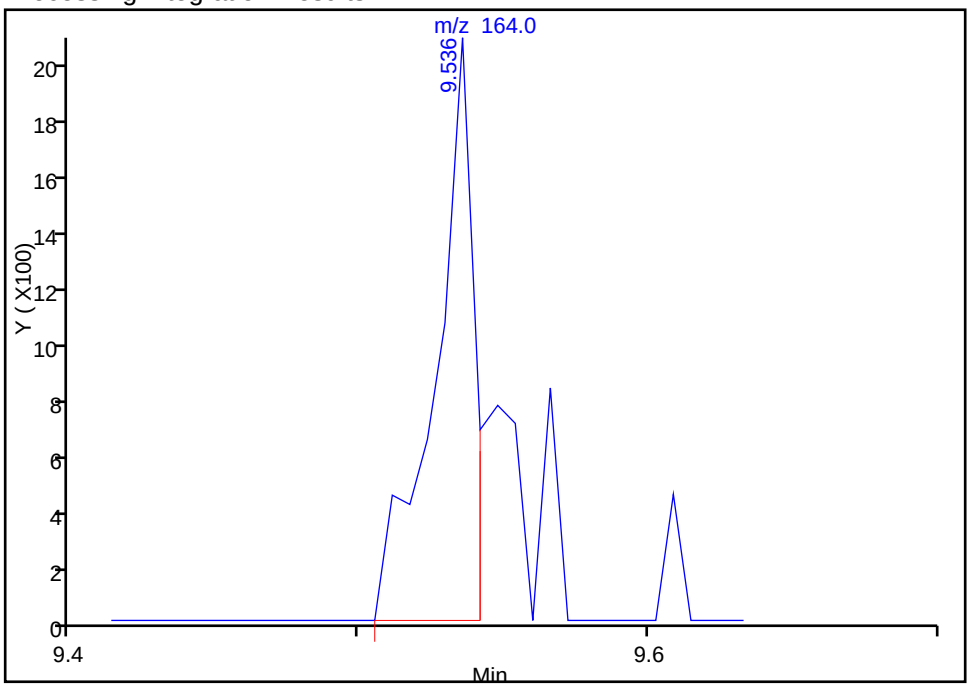
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115021.D				
Injection Date:	15-Jan-2015 18:58:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-15	Lab Sample ID:	180-40434-15		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4

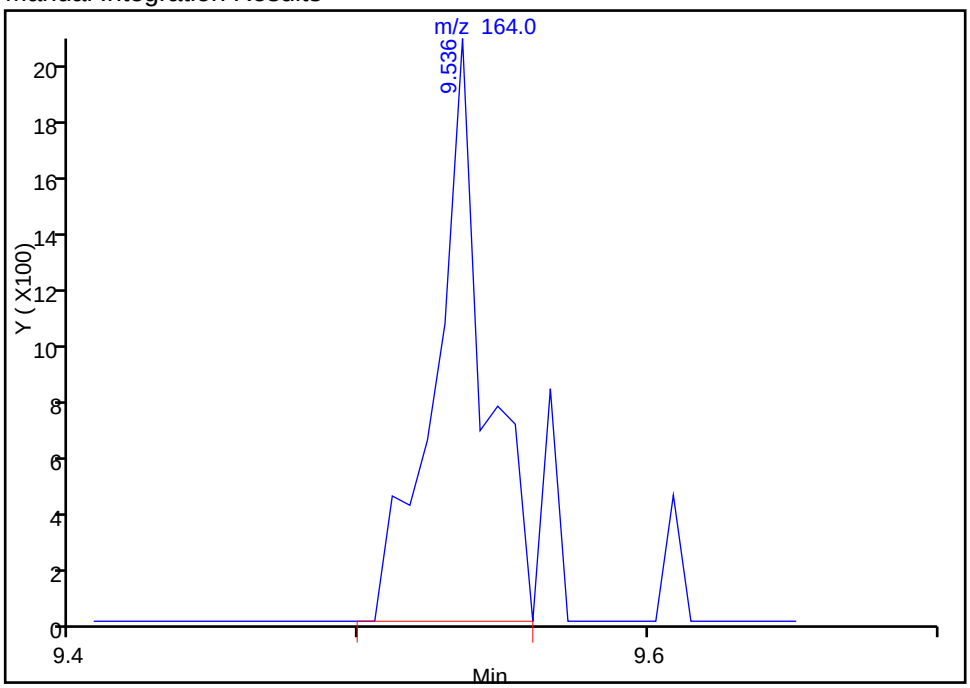
Processing Integration Results

RT: 9.54
Response: 1875
Amount: 0.919753



Manual Integration Results

RT: 9.54
Response: 2393
Amount: 1.173850



Reviewer: fergusond, 16-Jan-2015 08:07:31
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 | Lab Sample ID: 180-40434-16

Matrix: Water | Lab File ID: 50115023.D

Analysis Method: 8260C | Date Collected: 01/13/2015 09:02

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 19:47

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 130838 | 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	0.32	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.56	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-40434-16

Matrix: Water Lab File ID: 50115023.D

Analysis Method: 8260C Date Collected: 01/13/2015 09:02

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 19:47

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115023.D
Lims ID: 180-40434-C-16 Lab Sample ID: 180-40434-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 19:47:30 ALS Bottle#: 20 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-C-16
Misc. Info.: 180-0005292-023
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:11:37 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:11:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.293	4.284	0.009	88	160665	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.277	-0.003	100	437861	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	99	95720	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.686	0.002	99	134746	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.525	0.008	93	105898	56.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.896	0.007	92	158328	51.7	
$ 7 Toluene-d8 (Surr)	98	8.923	8.921	0.002	97	414178	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.531	0.001	84	144058	47.5	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.496	3.495	0.001	1	10954	7.98	M
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96	5.948	5.934	0.014	52	2972	1.14	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130	7.675	7.668	0.007	1	3750	1.62	M
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.537	9.536	0.001	91	5288	2.82	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

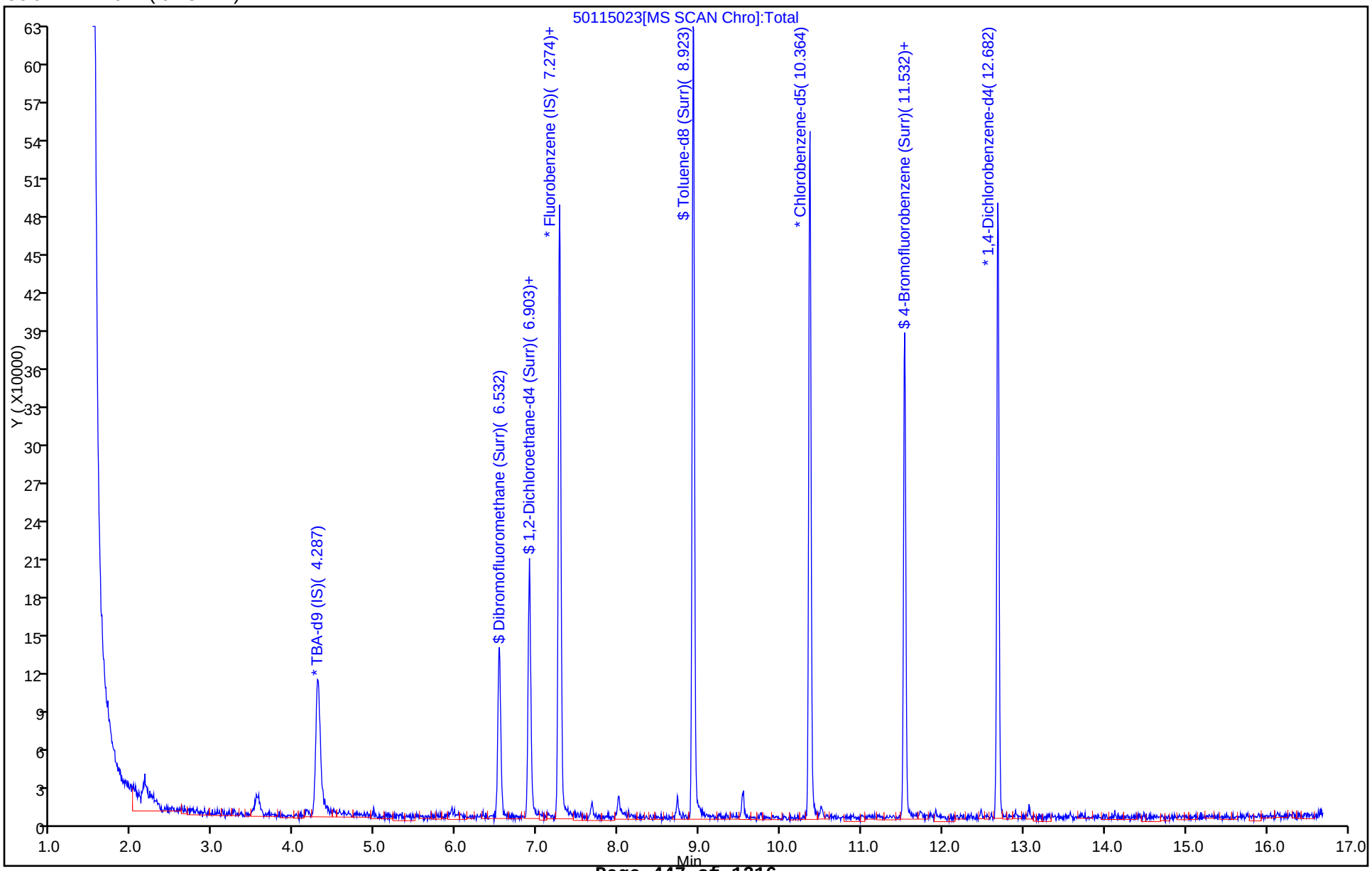
Report Date: 16-Jan-2015 08:11:37 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115023.D

Injection Date:	15-Jan-2015 19:47:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-16	Lab Sample ID:	180-40434-16	Worklist Smp#:	23
Client ID:	HD-COD-SW-29-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

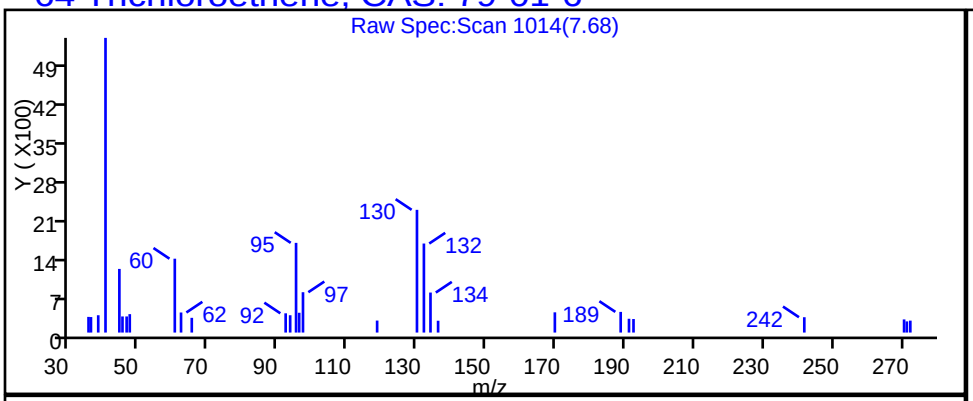


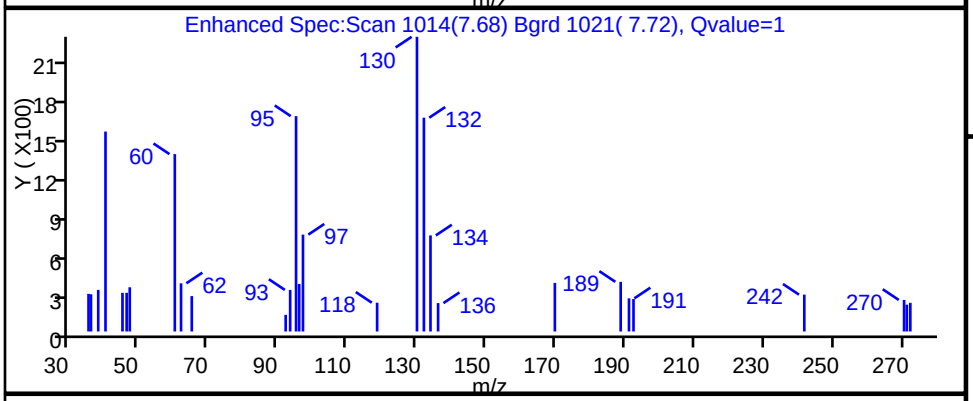
Report Date: 16-Jan-2015 08:11:37 Chrom Revision: 2.2 06-Nov-2014 14:50:32

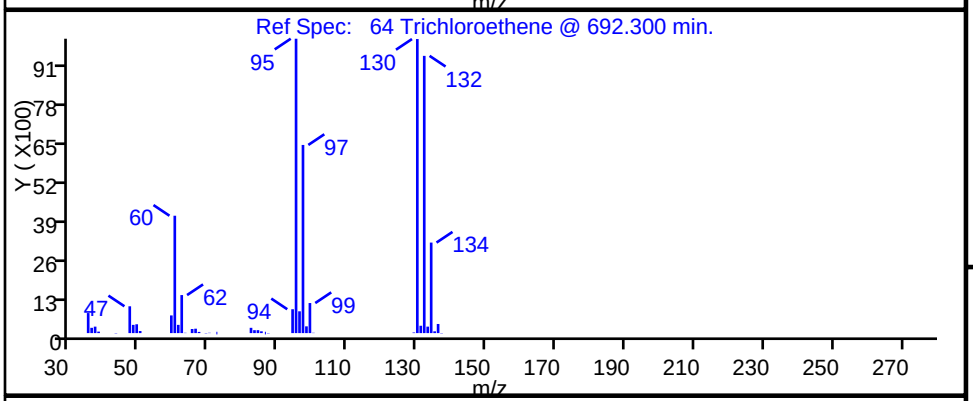
TestAmerica Pittsburgh

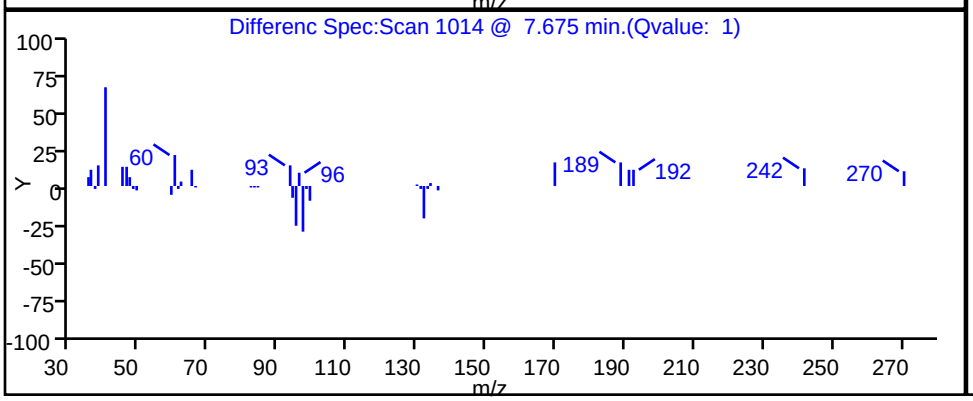
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115023.D				
Injection Date:	15-Jan-2015 19:47:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-16	Lab Sample ID:	180-40434-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

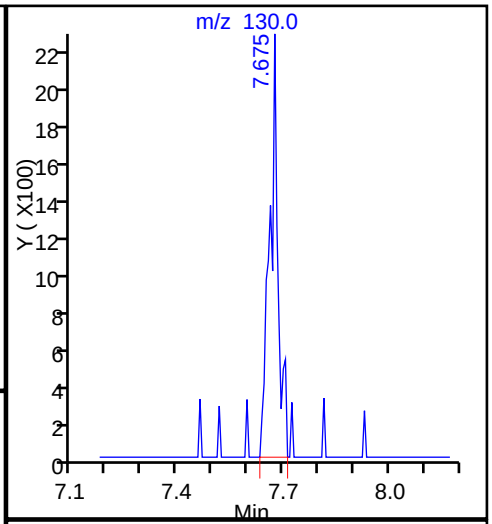
64 Trichloroethene, CAS: 79-01-6

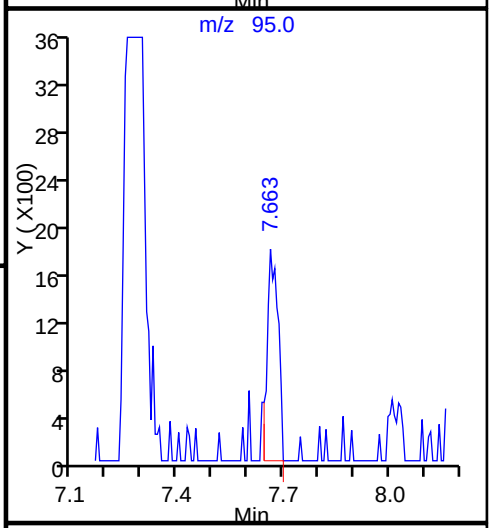


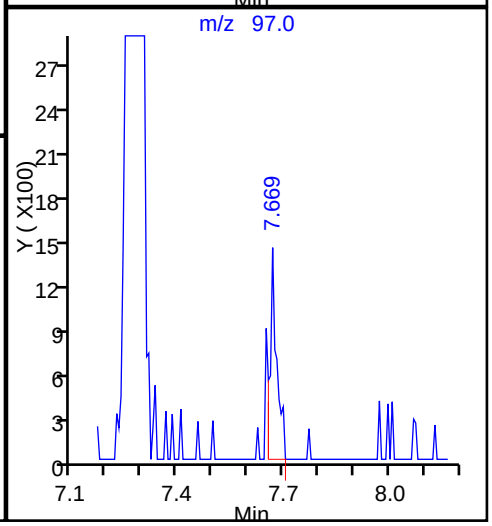










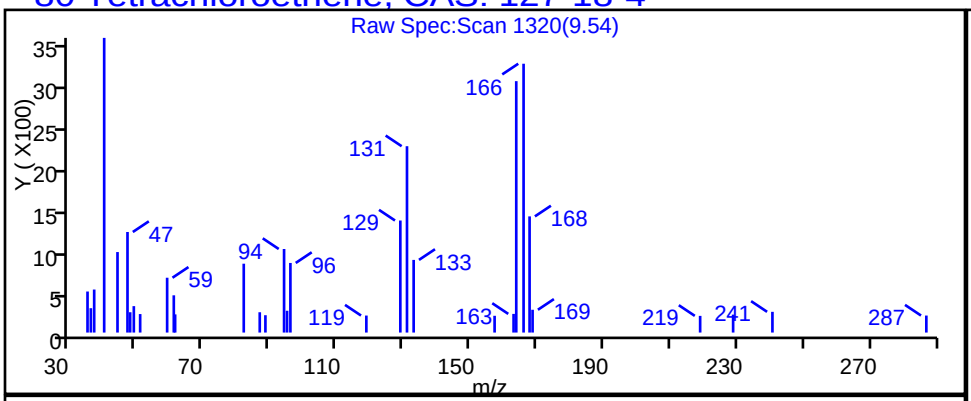


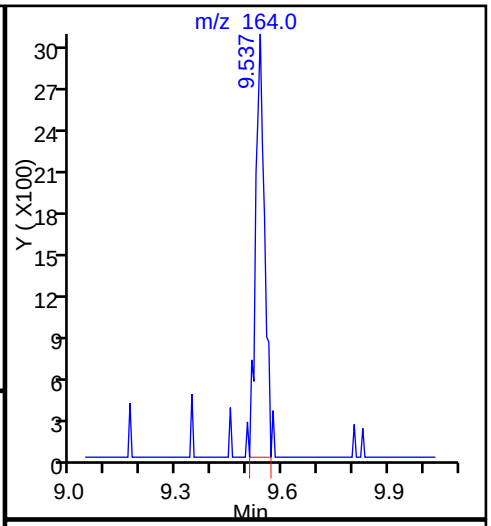
Report Date: 16-Jan-2015 08:11:37 Chrom Revision: 2.2 06-Nov-2014 14:50:32

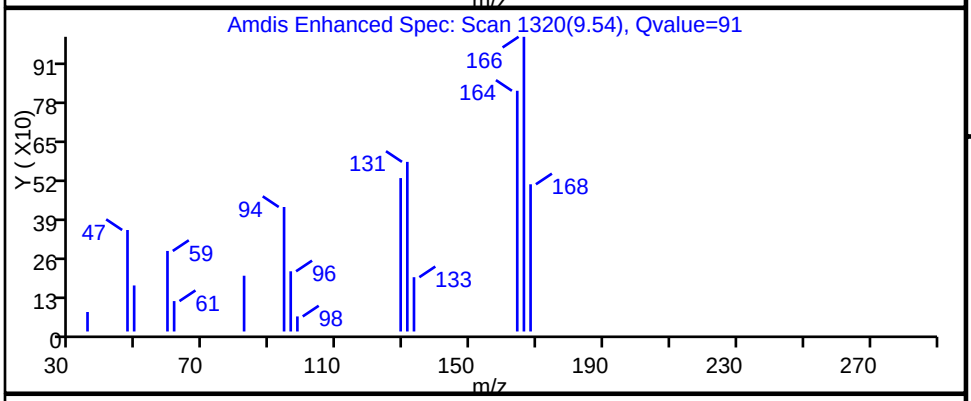
TestAmerica Pittsburgh

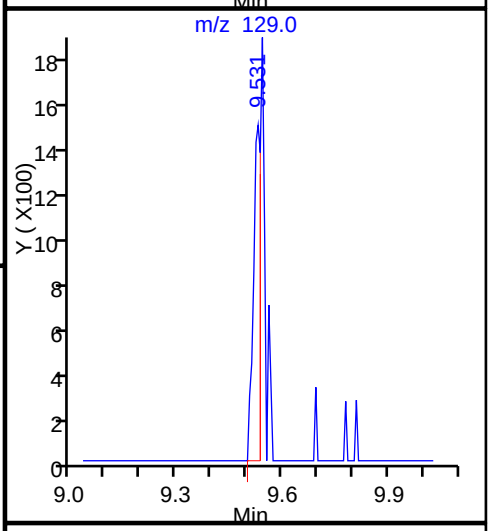
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115023.D				
Injection Date:	15-Jan-2015 19:47:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-16	Lab Sample ID:	180-40434-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

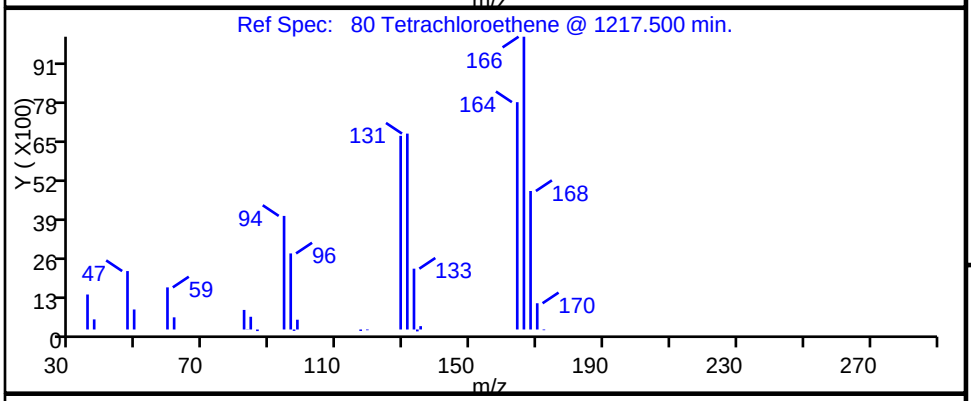
80 Tetrachloroethene, CAS: 127-18-4

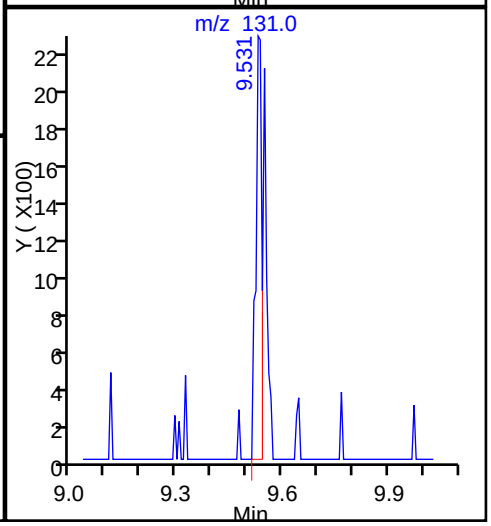


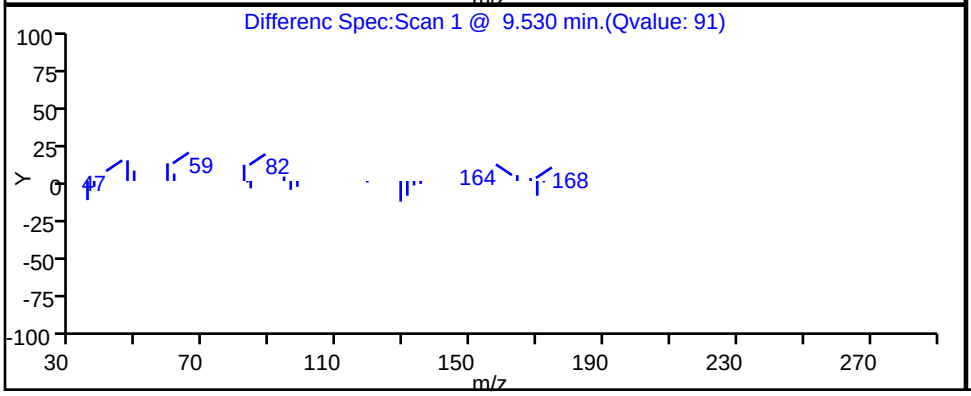












Manual Integration/User Assign Peak Report

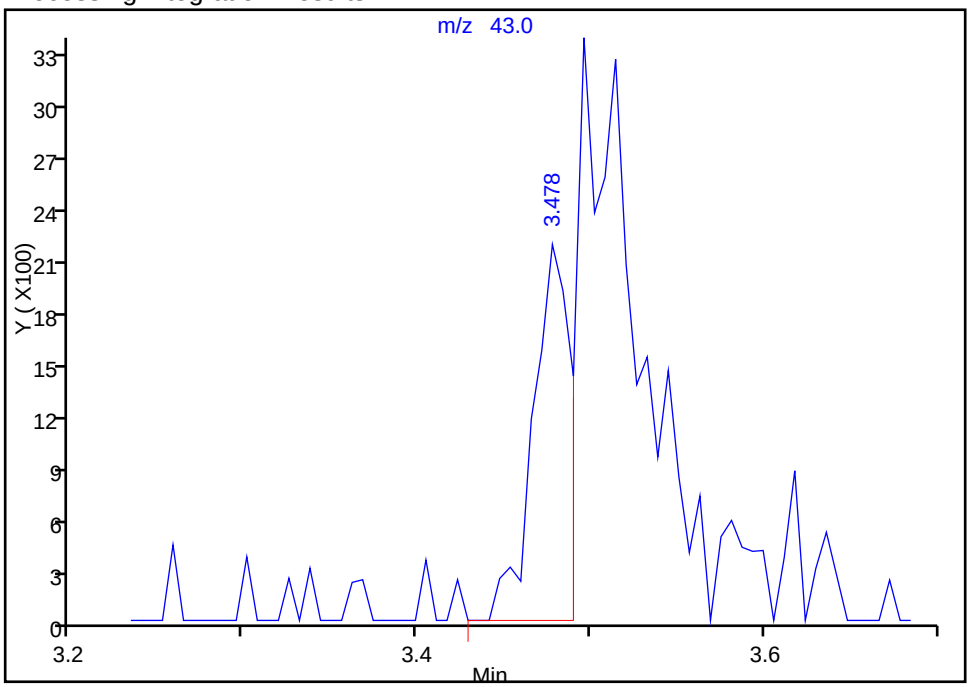
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115023.D				
Injection Date:	15-Jan-2015 19:47:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-16	Lab Sample ID:	180-40434-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

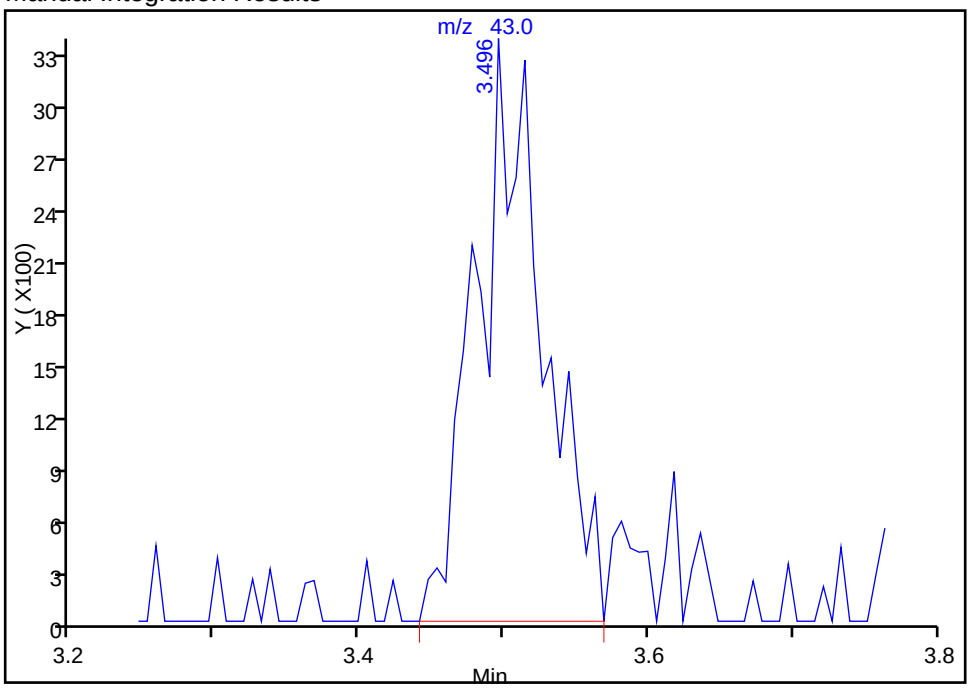
Processing Integration Results

RT: 3.48
Response: 3306
Amount: 2.407885



Manual Integration Results

RT: 3.50
Response: 10954
Amount: 7.978214



Reviewer: fergusond, 16-Jan-2015 08:11:37
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

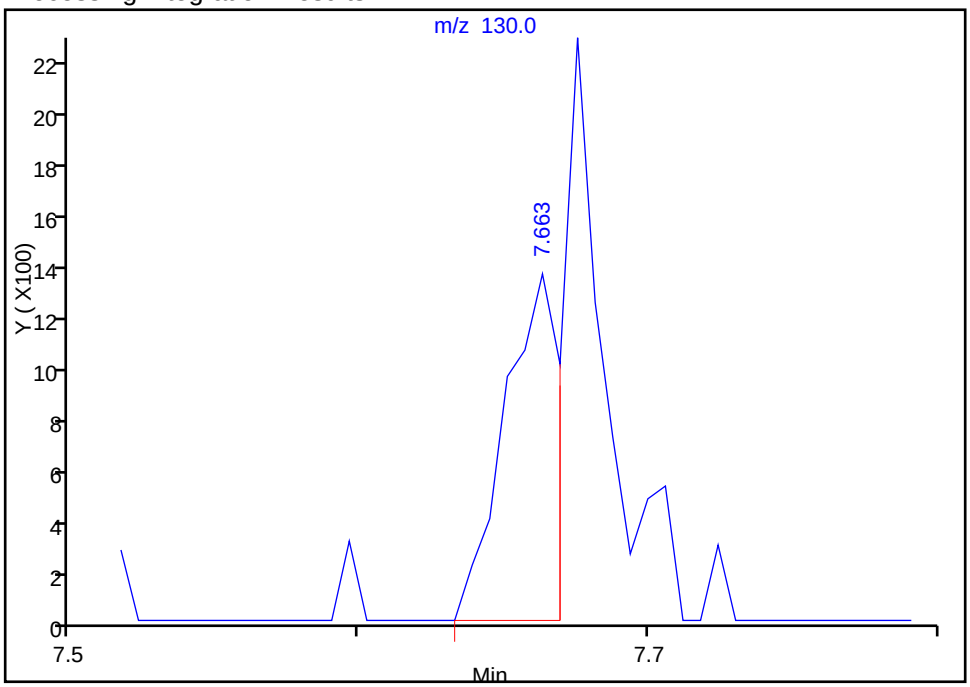
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115023.D				
Injection Date:	15-Jan-2015 19:47:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-16	Lab Sample ID:	180-40434-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

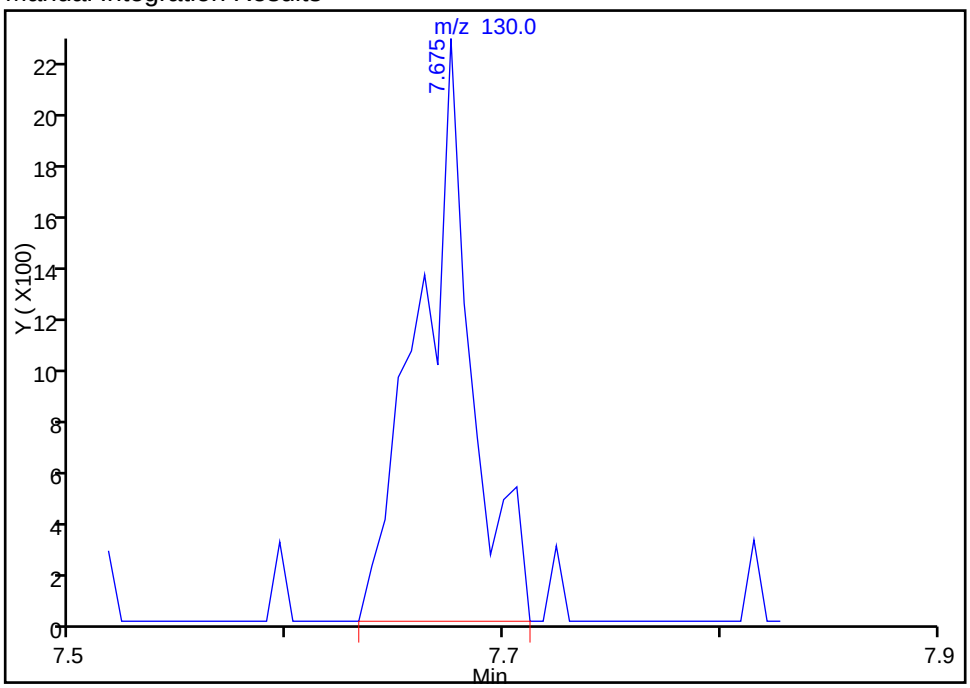
Processing Integration Results

RT: 7.66
Response: 1782
Amount: 0.768711



Manual Integration Results

RT: 7.68
Response: 3750
Amount: 1.617657



Reviewer: fergusond, 16-Jan-2015 08:11:37
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-40434-17

Matrix: Water Lab File ID: 50115011.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 14:57

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-40434-17

Matrix: Water Lab File ID: 50115011.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 14:57

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115011.D
Lims ID: 180-40434-A-17 Lab Sample ID: 180-40434-17
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 15-Jan-2015 14:57:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-A-17
Misc. Info.: 180-0005292-011
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 15:49:47 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 15:49:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.289	4.284	0.005	91	174506	1000.0	
* 2 Fluorobenzene (IS)	96	7.276	7.277	-0.001	100	529190	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.362	0.005	100	119811	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.686	-0.001	99	164496	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.525	0.004	93	118205	52.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.905	6.896	0.009	92	186225	50.4	
$ 7 Toluene-d8 (Surr)	98	8.925	8.921	0.004	96	492246	49.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.531	-0.002	84	177454	46.7	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43		3.495				ND	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96		5.934				ND	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130		7.668				ND	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.189	8.197	-0.008	1	939	0.2740	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164		9.536				ND	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

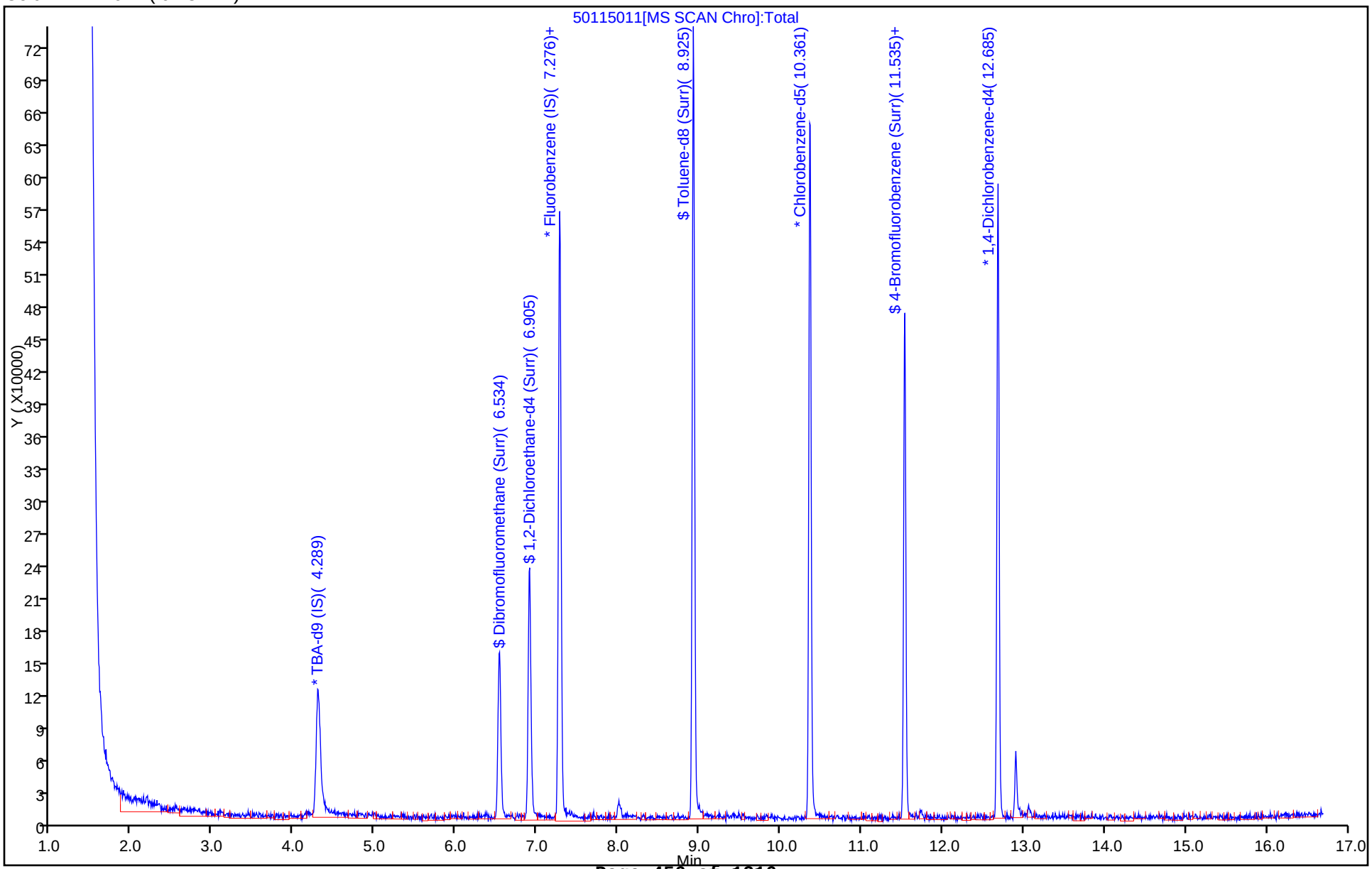
Report Date: 15-Jan-2015 15:49:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115011.D

Injection Date:	15-Jan-2015 14:57:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-A-17	Lab Sample ID:	180-40434-17	Worklist Smp#:	11
Client ID:	HD-QC1-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-40434-18

Matrix: Water Lab File ID: 50115022.D

Analysis Method: 8260C Date Collected: 01/13/2015 08:00

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 19:22

Soil Aliquot Vol: Dilution Factor: 8

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.0	U	8.0	2.3
75-01-4	Vinyl chloride	8.0	U	8.0	1.8
74-83-9	Bromomethane	8.0	U	8.0	2.5
75-00-3	Chloroethane	8.0	U	8.0	1.7
75-35-4	1,1-Dichloroethene	4.2	J	8.0	2.4
67-64-1	Acetone	40	U	40	20
75-15-0	Carbon disulfide	8.0	U	8.0	1.7
75-09-2	Methylene Chloride	8.0	U	8.0	1.0
156-60-5	trans-1,2-Dichloroethene	8.0	U	8.0	1.4
1634-04-4	Methyl tert-butyl ether	8.0	U	8.0	1.5
75-34-3	1,1-Dichloroethane	4.4	J	8.0	0.93
156-59-2	cis-1,2-Dichloroethene	93		8.0	1.9
74-97-5	Bromochloromethane	8.0	U	8.0	1.4
78-93-3	2-Butanone (MEK)	40	U	40	4.4
67-66-3	Chloroform	8.0	U	8.0	1.4
71-55-6	1,1,1-Trichloroethane	18		8.0	2.3
56-23-5	Carbon tetrachloride	8.0	U	8.0	1.1
71-43-2	Benzene	8.0	U	8.0	0.84
107-06-2	1,2-Dichloroethane	8.0	U	8.0	1.7
79-01-6	Trichloroethene	57		8.0	1.1
78-87-5	1,2-Dichloropropane	8.0	U	8.0	0.76
75-27-4	Bromodichloromethane	8.0	U	8.0	1.0
10061-01-5	cis-1,3-Dichloropropene	8.0	U	8.0	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	40	U	40	4.2
108-88-3	Toluene	8.0	U	8.0	1.2
10061-02-6	trans-1,3-Dichloropropene	8.0	U	8.0	1.2
79-00-5	1,1,2-Trichloroethane	8.0	U	8.0	1.6
127-18-4	Tetrachloroethene	270		8.0	1.2
591-78-6	2-Hexanone	40	U	40	1.3
124-48-1	Dibromochloromethane	8.0	U	8.0	1.1
106-93-4	1,2-Dibromoethane (EDB)	8.0	U	8.0	1.4
108-90-7	Chlorobenzene	8.0	U	8.0	1.1
630-20-6	1,1,1,2-Tetrachloroethane	8.0	U	8.0	2.2
100-41-4	Ethylbenzene	8.0	U	8.0	1.8
1330-20-7	Xylenes, Total	24	U	24	3.9
100-42-5	Styrene	8.0	U	8.0	0.77

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-40434-18

Matrix: Water Lab File ID: 50115022.D

Analysis Method: 8260C Date Collected: 01/13/2015 08:00

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 19:22

Soil Aliquot Vol: Dilution Factor: 8

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.0	U	8.0	1.5
79-34-5	1,1,2,2-Tetrachloroethane	8.0	U	8.0	1.6
107-13-1	Acrylonitrile	160	U	160	4.4
123-91-1	1,4-Dioxane	1600	U	1600	270

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D
Lims ID: 180-40434-C-18 Lab Sample ID: 180-40434-18
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 15-Jan-2015 19:22:30 ALS Bottle#: 19 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 8.0000
Sample Info: 180-40434-C-18, 8x
Misc. Info.: 180-0005292-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:08:42 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:08:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.296	4.284	0.012	88	154350	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.277	-0.006	100	464617	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.362	0.005	100	103407	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.686	-0.001	99	137369	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.525	0.004	93	106724	54.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.899	6.896	0.003	91	174713	53.8	
$ 7 Toluene-d8 (Surr)	98	8.925	8.921	0.004	96	427856	49.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.531	-0.002	81	160582	49.0	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96	3.383	3.379	0.004	86	6601	2.61	
24 Acetone	43	3.493	3.495	-0.002	49	3313	2.27	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63	5.178	5.174	0.004	94	16503	2.77	
45 cis-1,2-Dichloroethene	96	5.938	5.934	0.004	86	161681	58.4	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97	6.534	6.531	0.003	54	33542	11.5	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130	7.666	7.668	-0.002	94	87712	35.7	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.534	9.536	-0.002	92	343758	169.8	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

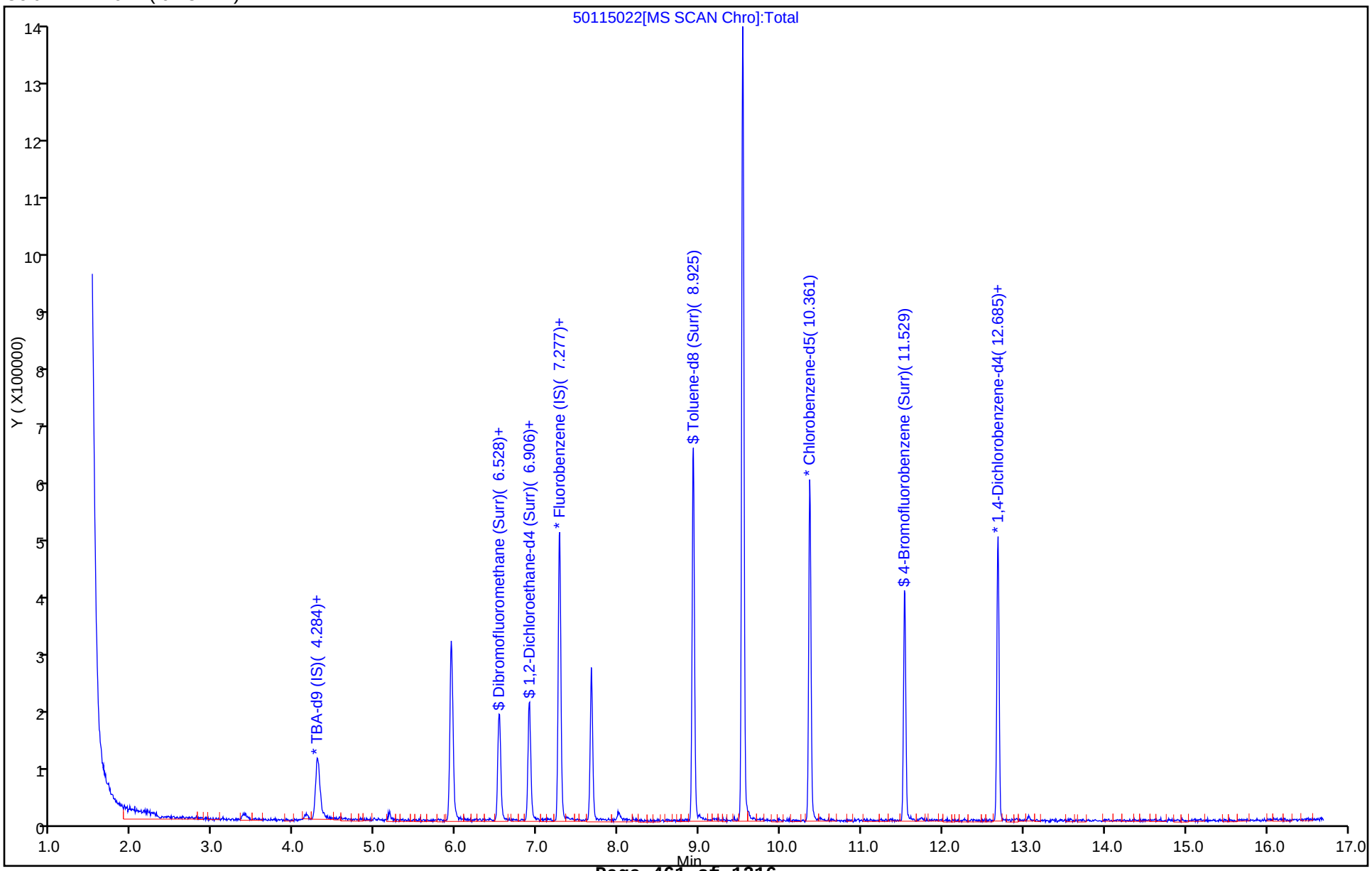
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D				
Injection Date:	15-Jan-2015 19:22:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-18	Lab Sample ID:	180-40434-18	Worklist Smp#:	22
Client ID:	HD-QC1-0/1-1				
Purge Vol:	5.000 mL	Dil. Factor:	8.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



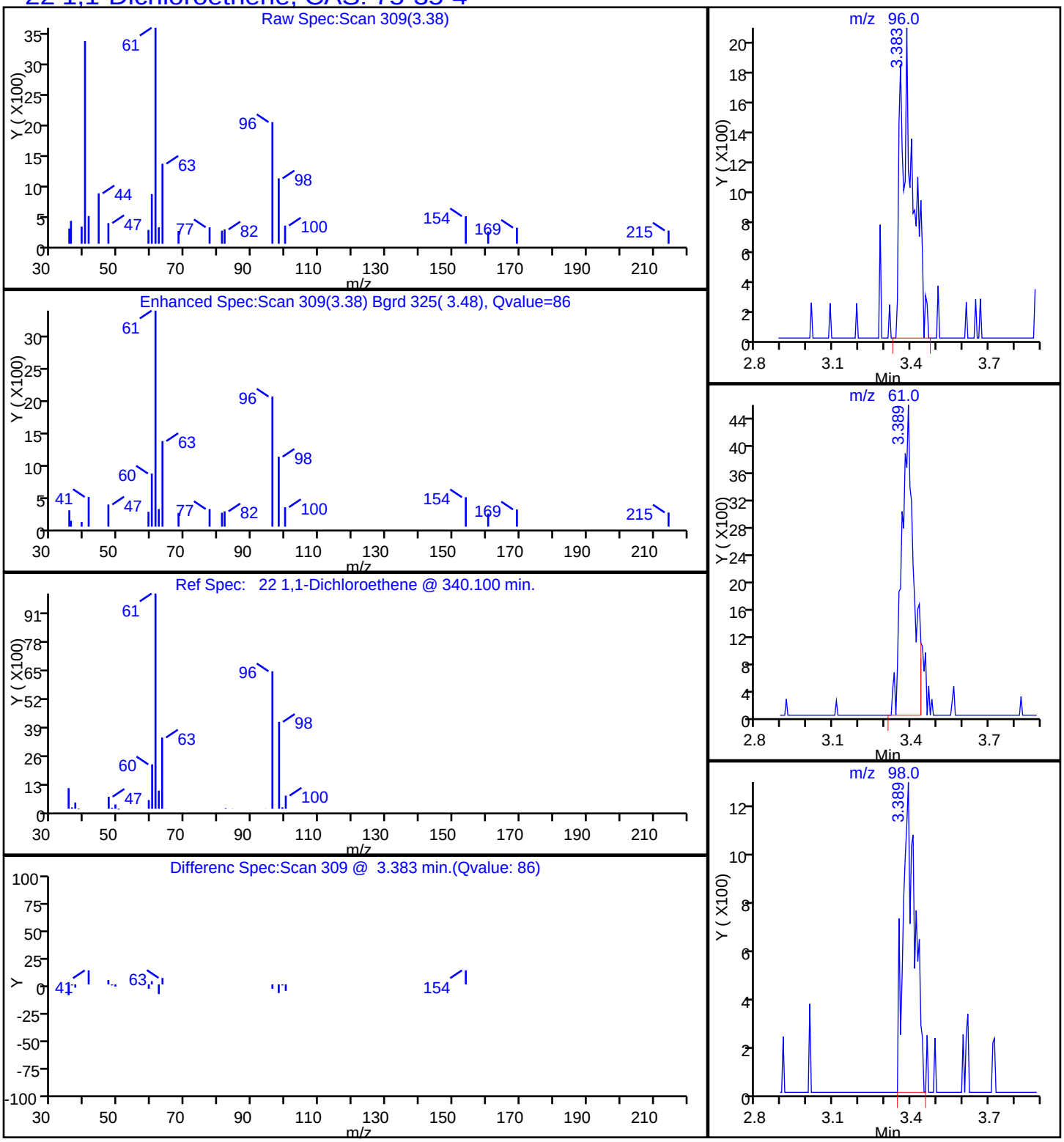
Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D

Injection Date:	15-Jan-2015 19:22:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-18	Lab Sample ID:	180-40434-18		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	8.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



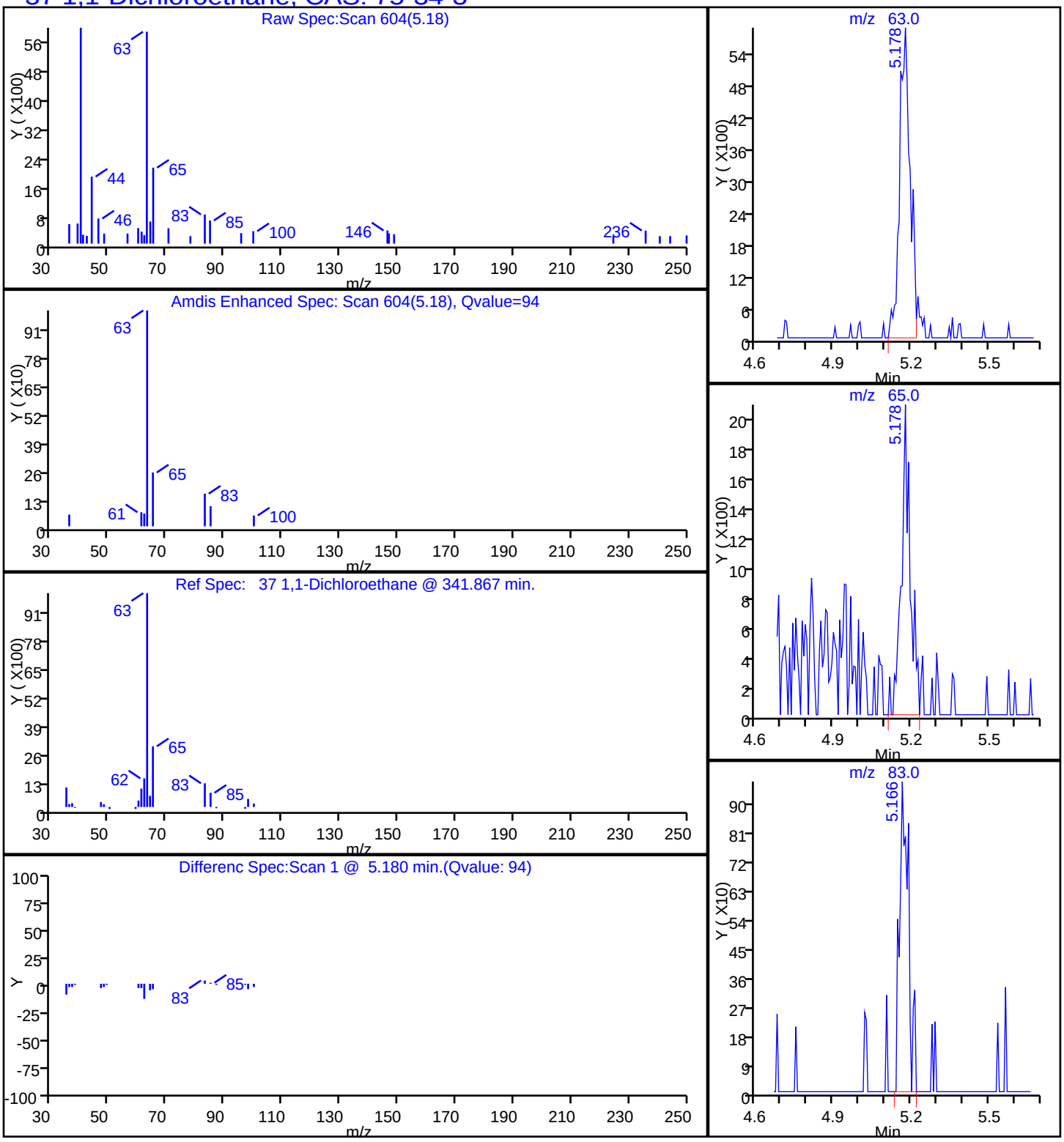
Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D

Injection Date:	15-Jan-2015 19:22:30	Instrument ID:	CHHP5
Lims ID:	180-40434-C-18	Lab Sample ID:	180-40434-18
Client ID:	HD-QC1-0/1-1		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	8.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



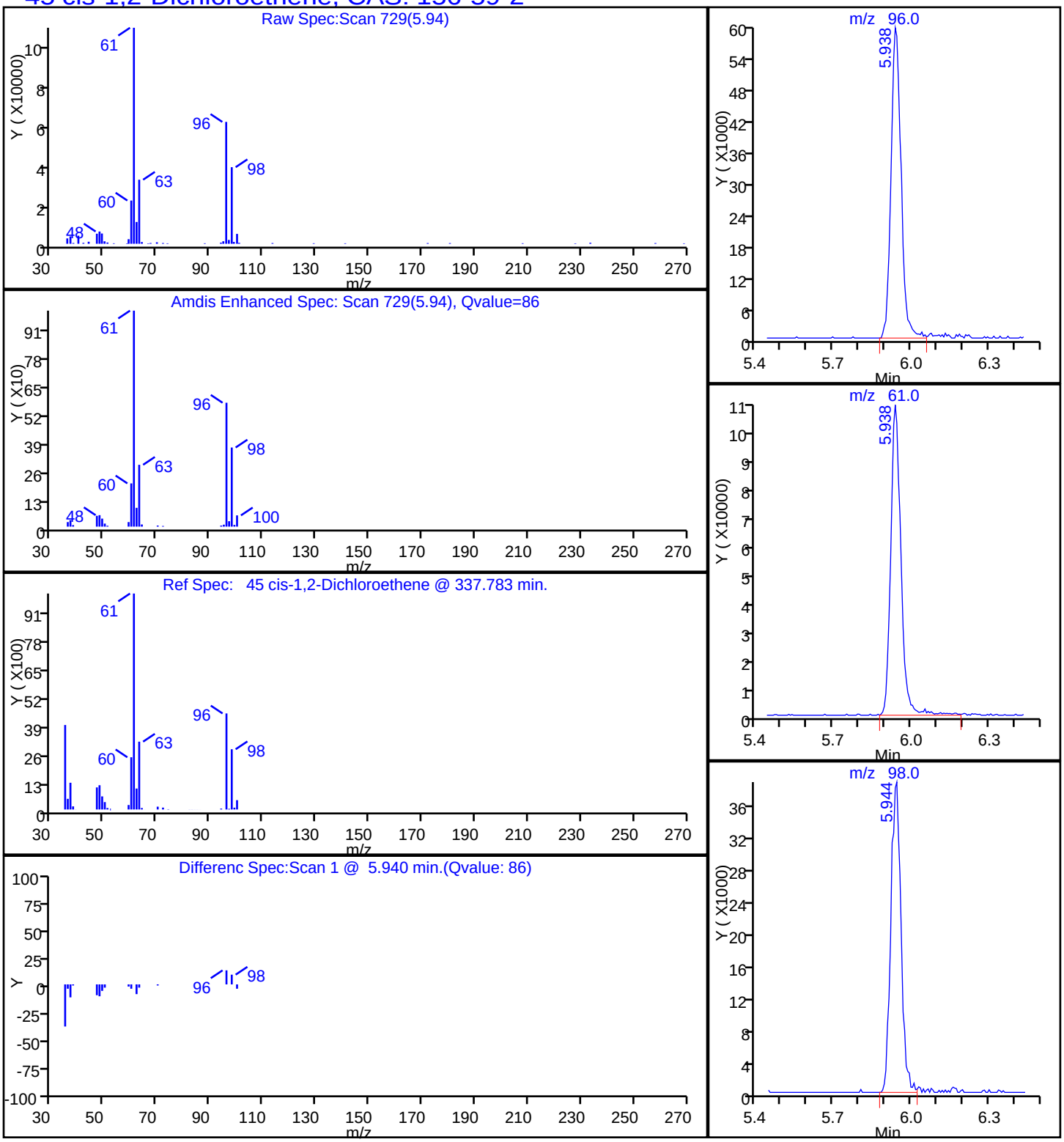
Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D

Injection Date:	15-Jan-2015 19:22:30	Instrument ID:	CHHP5
Lims ID:	180-40434-C-18	Lab Sample ID:	180-40434-18
Client ID:	HD-QC1-0/1-1		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	8.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

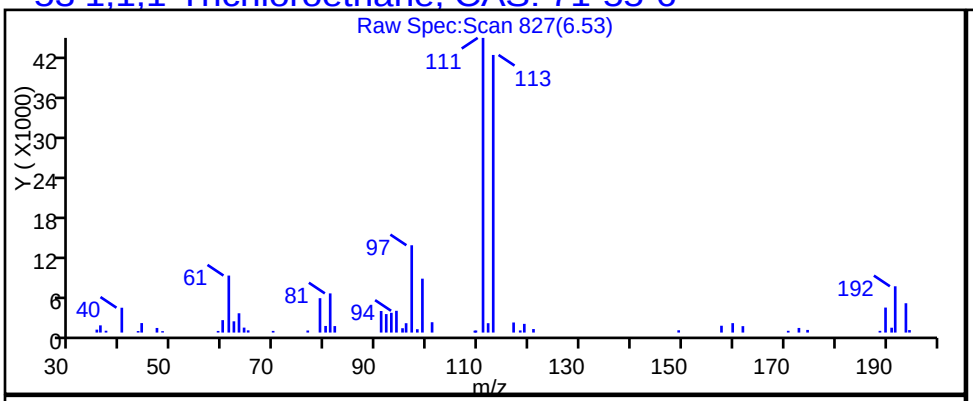


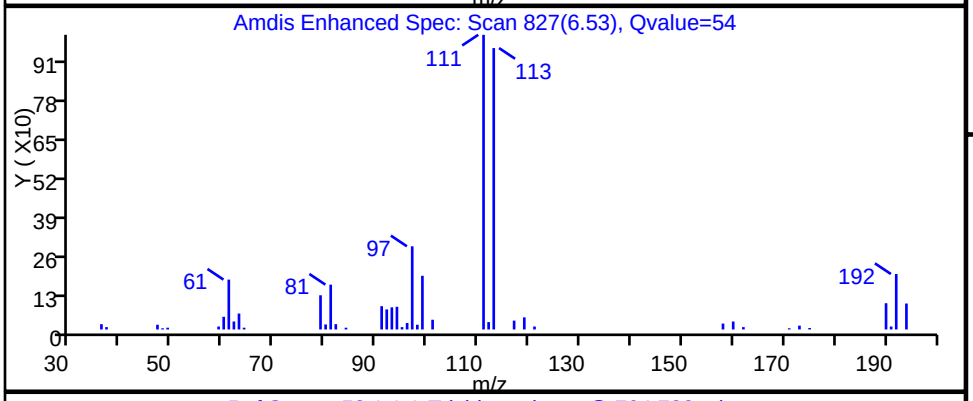
Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

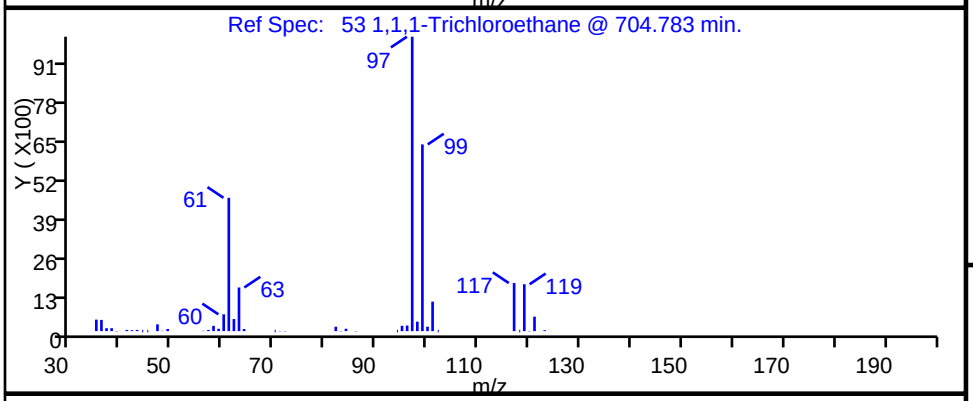
TestAmerica Pittsburgh

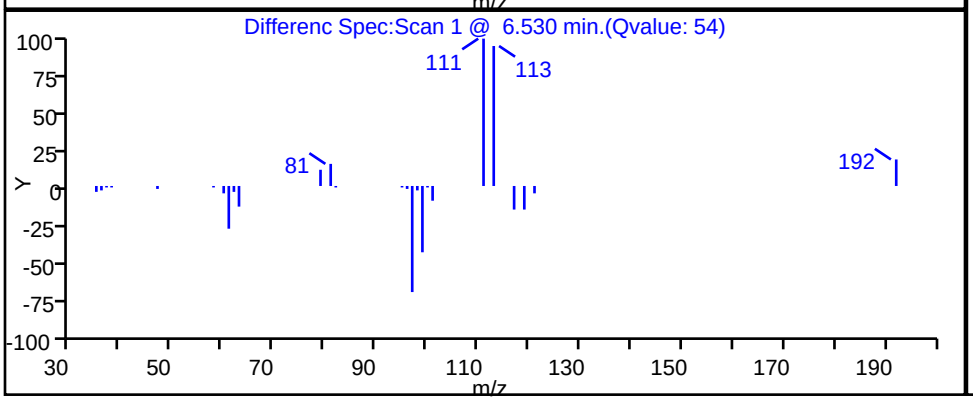
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D				
Injection Date:	15-Jan-2015 19:22:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-18	Lab Sample ID:	180-40434-18		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	8.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

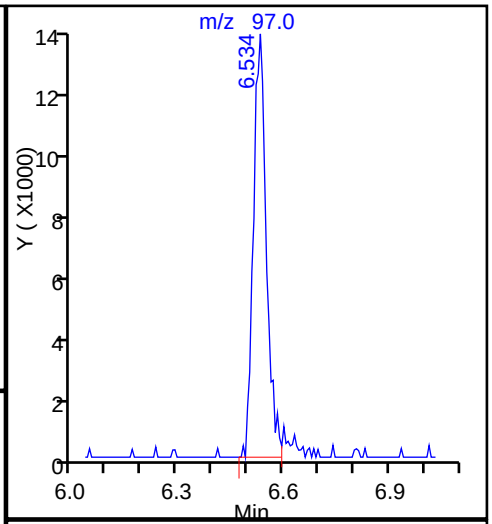
53 1,1,1-Trichloroethane, CAS: 71-55-6

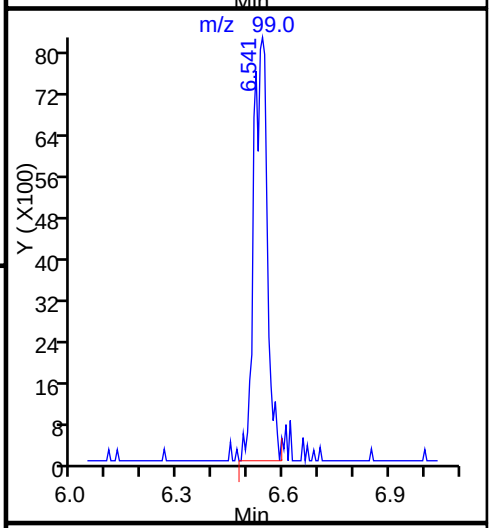


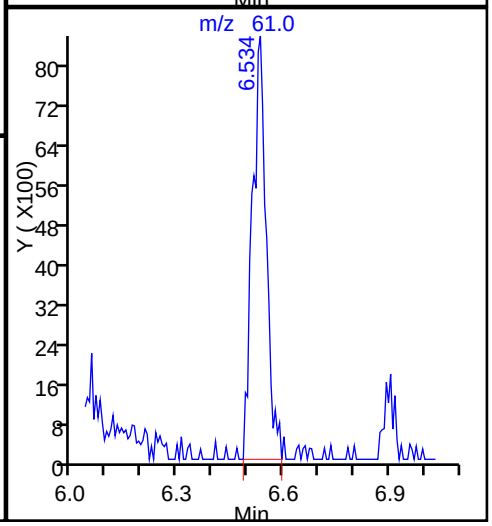










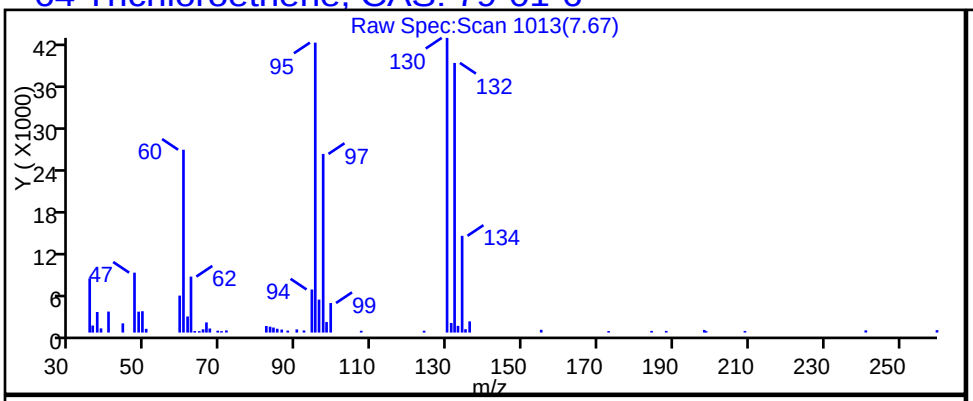


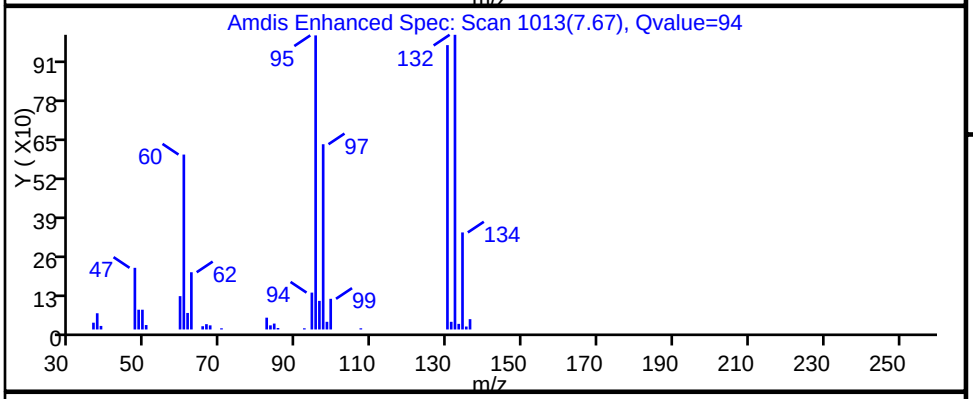
Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

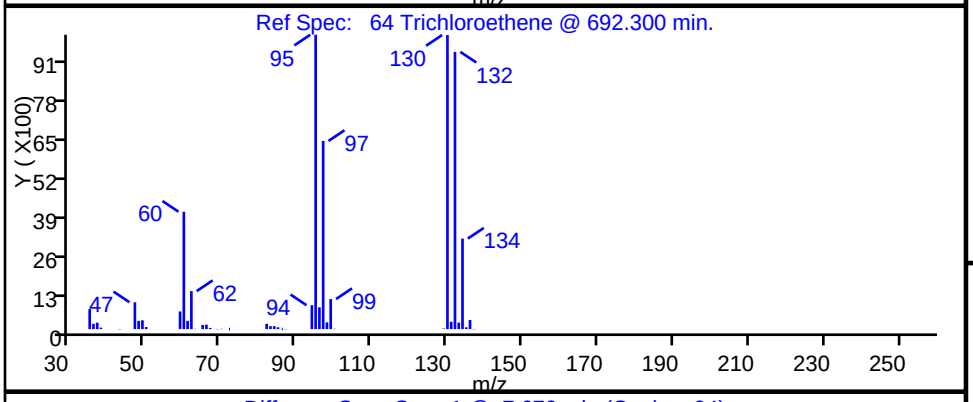
TestAmerica Pittsburgh

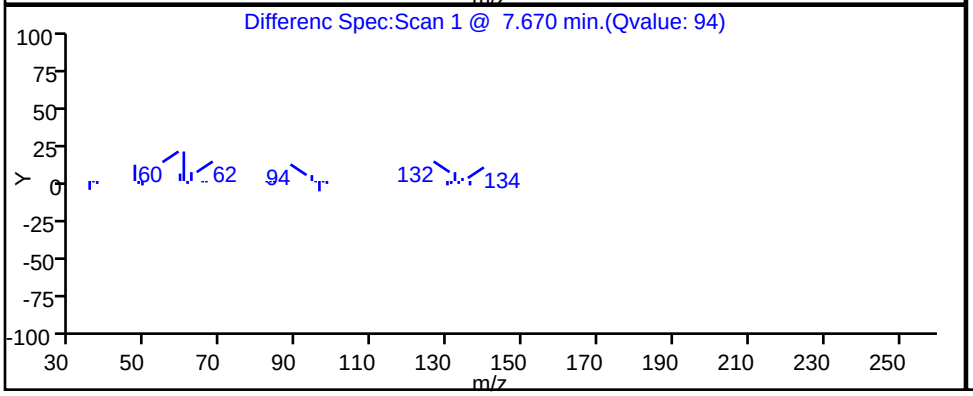
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D				
Injection Date:	15-Jan-2015 19:22:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-18	Lab Sample ID:	180-40434-18		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	8.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

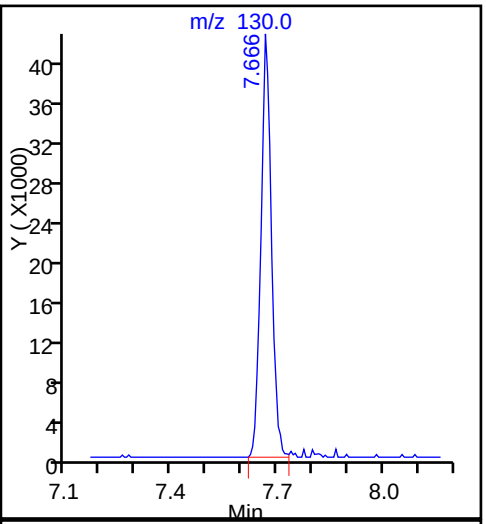
64 Trichloroethene, CAS: 79-01-6

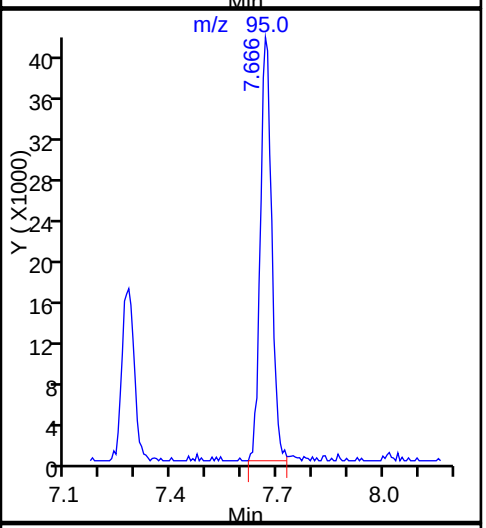


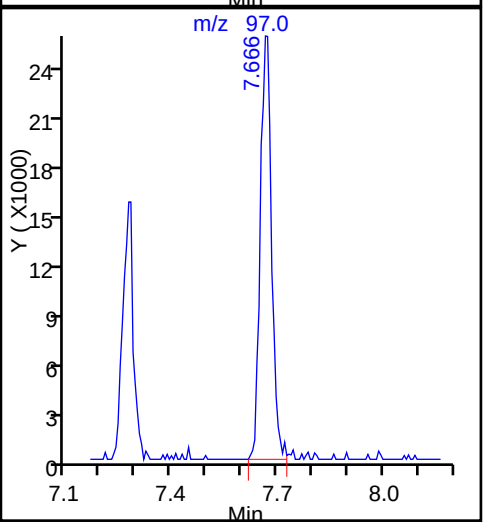












Report Date: 16-Jan-2015 08:08:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115022.D

Injection Date: 15-Jan-2015 19:22:30 Instrument ID: CHHP5

Lims ID: 180-40434-C-18 Lab Sample ID: 180-40434-18

Client ID: HD-QC1-0/1-1

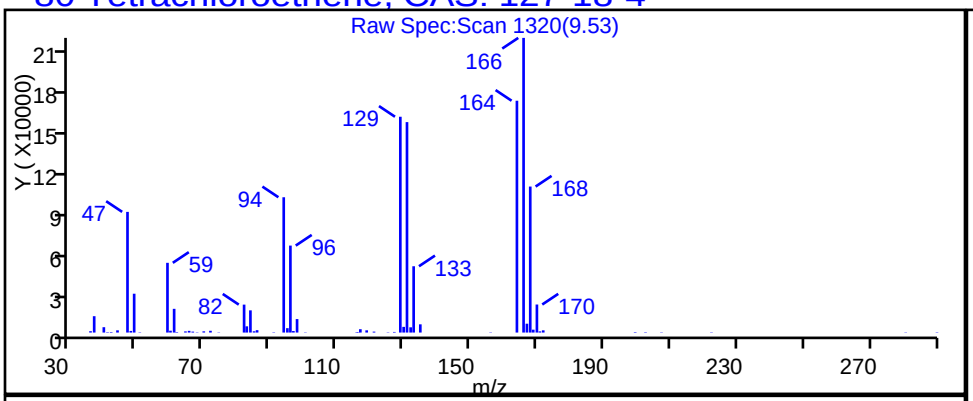
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 22

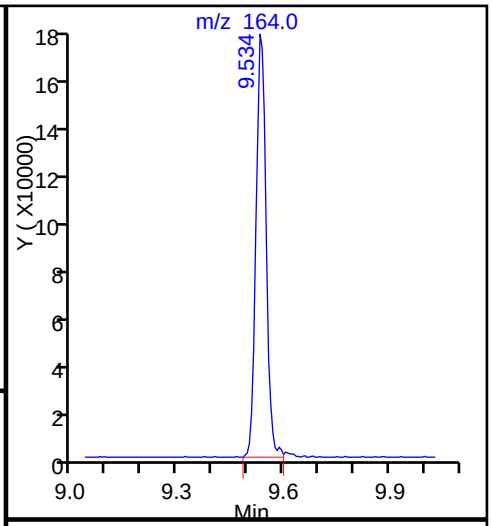
Purge Vol: 5.000 mL Dil. Factor: 8.0000

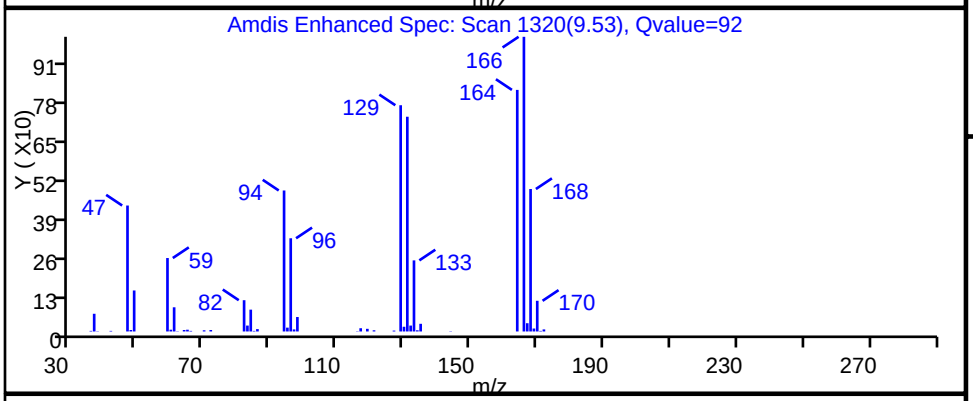
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

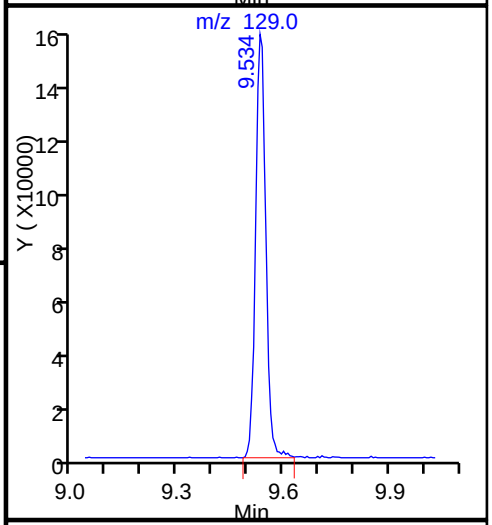
Column: DB-624 (0.18 mm) Detector MS SCAN

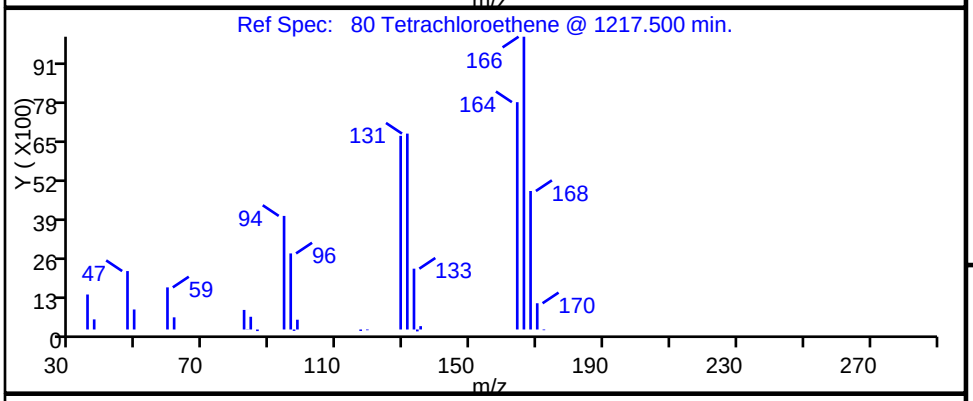
80 Tetrachloroethene, CAS: 127-18-4

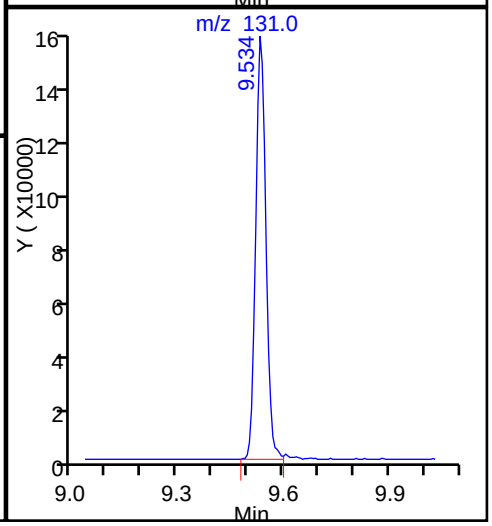


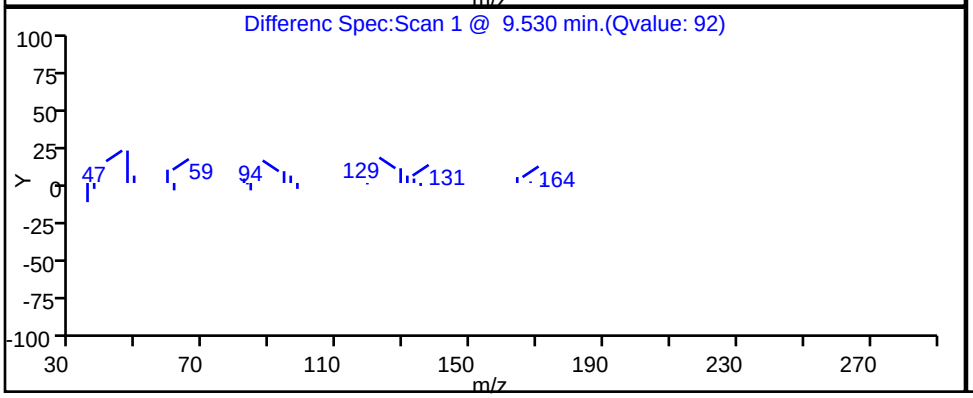












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC2-0/1-2 Lab Sample ID: 180-40434-19

Matrix: Water Lab File ID: 50115026.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:01

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 20:59

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.: 130838 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.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC2-0/1-2 Lab Sample ID: 180-40434-19

Matrix: Water Lab File ID: 50115026.D

Analysis Method: 8260C Date Collected: 01/13/2015 12:01

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 20:59

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.: 130838 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115026.D
Lims ID: 180-40434-A-19 Lab Sample ID: 180-40434-19
Client ID: HD-QC2-0/1-2
Sample Type: Client
Inject. Date: 15-Jan-2015 20:59:30 ALS Bottle#: 23 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-A-19
Misc. Info.: 180-0005292-026
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:16:47 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:16:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.284	0.002	87	136175	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	99	428313	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	99	95406	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.686	0.002	99	132118	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.525	0.007	93	103962	57.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.896	6.896	0.000	94	156279	52.2	
$ 7 Toluene-d8 (Surr)	98	8.928	8.921	0.007	97	396784	50.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.526	11.531	-0.005	85	145635	48.2	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.496	3.495	0.001	41	3393	2.53	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96		5.934				ND	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130		7.668				ND	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164		9.536				ND	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

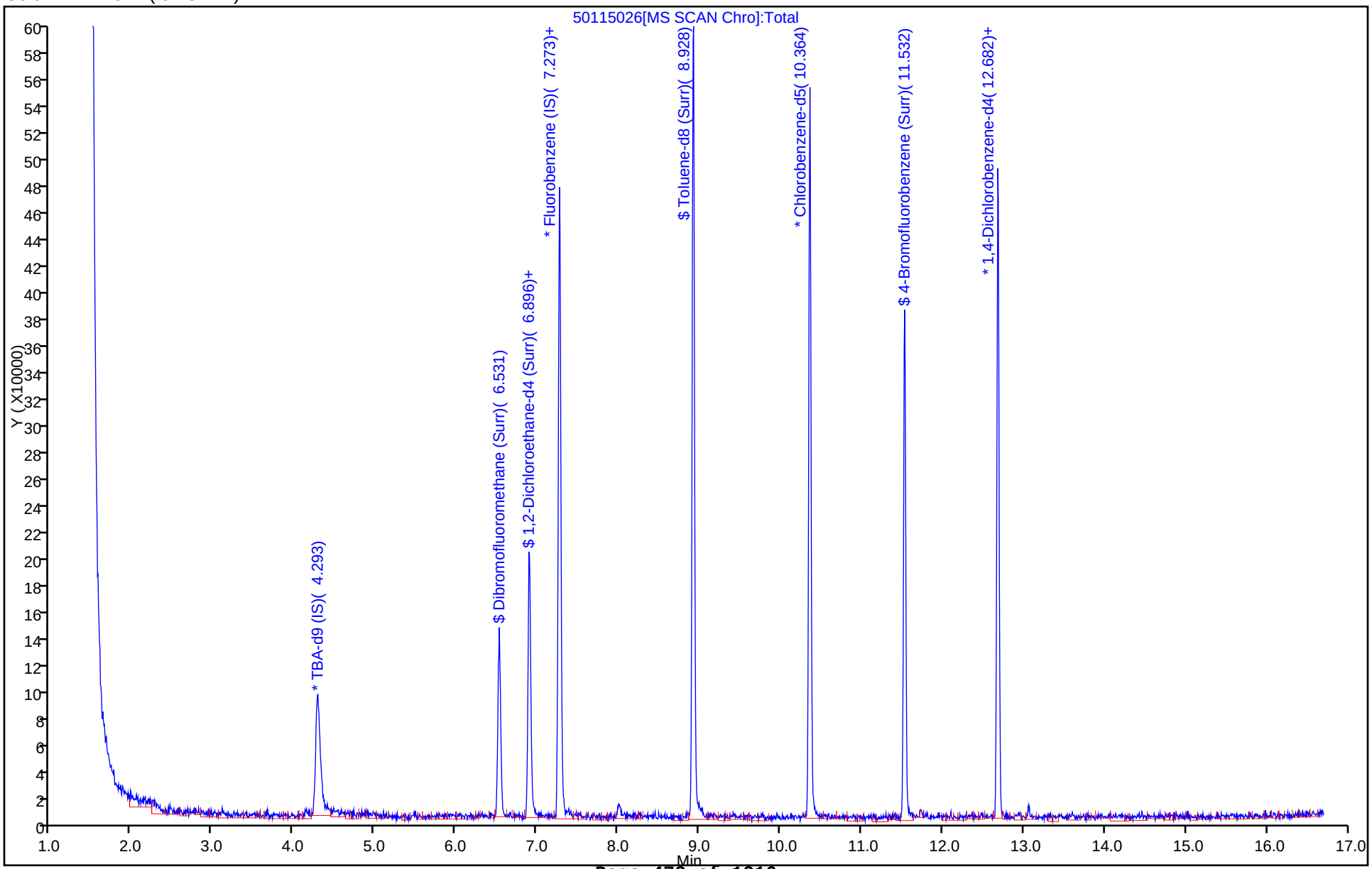
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 08:16:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115026.D				
Injection Date:	15-Jan-2015 20:59:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-A-19	Lab Sample ID:	180-40434-19	Worklist Smp#:	26
Client ID:	HD-QC2-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-3 | Lab Sample ID: 180-40434-20

Matrix: Water | Lab File ID: 50115024.D

Analysis Method: 8260C | Date Collected: 01/13/2015 14:27

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 20:11

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 130838 | 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	0.19	J	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	0.99	J	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	0.75	J	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-3 Lab Sample ID: 180-40434-20

Matrix: Water Lab File ID: 50115024.D

Analysis Method: 8260C Date Collected: 01/13/2015 14:27

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 20:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130838 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)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D
Lims ID: 180-40434-A-20 Lab Sample ID: 180-40434-20
Client ID: HD-QC1-0/1-3
Sample Type: Client
Inject. Date: 15-Jan-2015 20:11:30 ALS Bottle#: 21 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-A-20
Misc. Info.: 180-0005292-024
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:12:59 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:12:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.293	4.284	0.009	86	142824	1000.0	
* 2 Fluorobenzene (IS)	96	7.280	7.277	0.003	100	453784	50.0	
* 3 Chlorobenzene-d5	119	10.358	10.362	-0.004	97	96990	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.686	0.002	97	143810	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.525	0.008	93	103325	53.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.896	0.007	92	170892	53.9	
$ 7 Toluene-d8 (Surr)	98	8.929	8.921	0.008	96	406510	50.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.531	0.001	83	153779	50.0	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.508	3.495	0.013	61	11810	8.30	M
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96		5.934				ND	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78	6.958	6.956	0.002	79	10566	0.9416	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130		7.668				ND	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91	8.990	8.988	0.002	96	50803	4.93	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164		9.536				ND	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106	10.498	10.503	-0.005	92	1997	0.5632	
91 m-Xylene & p-Xylene	106	10.620	10.619	0.001	95	10285	2.38	
92 o-Xylene	106	11.003	11.014	-0.011	93	5636	1.34	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106				0		3.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

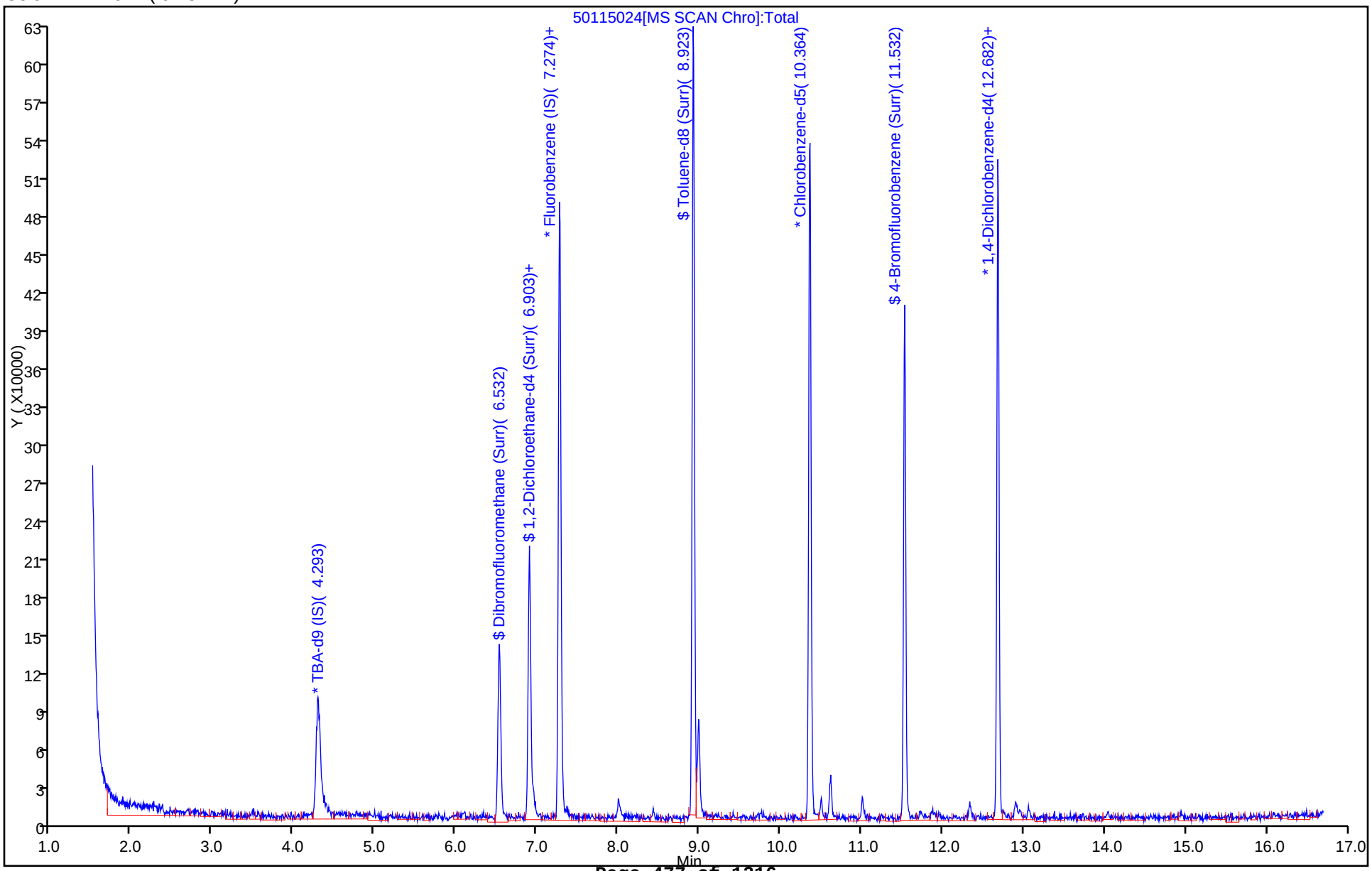
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 08:12:59 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D				
Injection Date:	15-Jan-2015 20:11:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-A-20	Lab Sample ID:	180-40434-20	Worklist Smp#:	24
Client ID:	HD-QC1-0/1-3				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



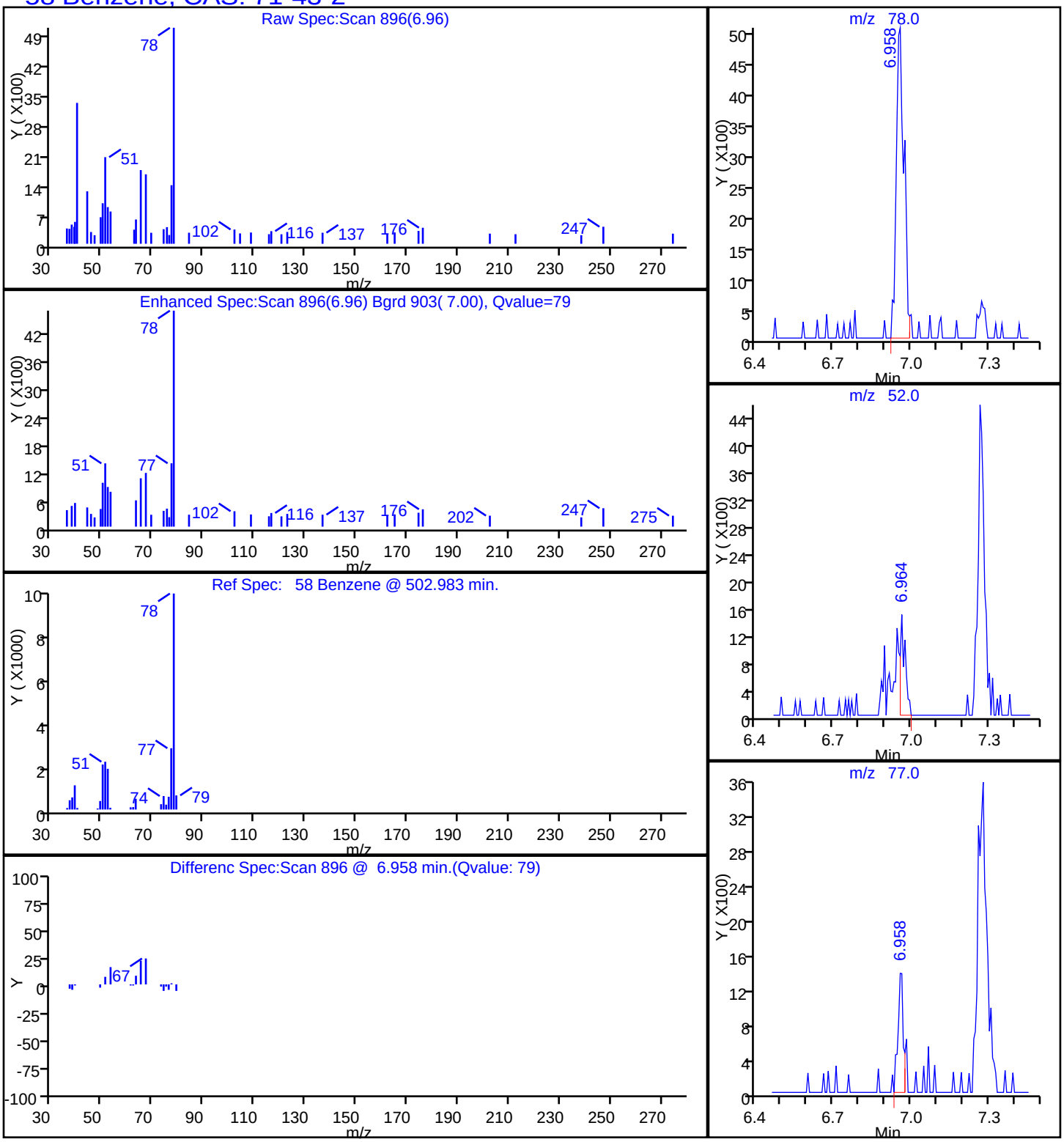
Report Date: 16-Jan-2015 08:12:59 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D

Injection Date:	15-Jan-2015 20:11:30	Instrument ID:	CHHP5
Lims ID:	180-40434-A-20	Lab Sample ID:	180-40434-20
Client ID:	HD-QC1-0/1-3		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

58 Benzene, CAS: 71-43-2



Report Date: 16-Jan-2015 08:12:59 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D

Injection Date: 15-Jan-2015 20:11:30 Instrument ID: CHHP5

Lims ID: 180-40434-A-20 Lab Sample ID: 180-40434-20

Client ID: HD-QC1-0/1-3

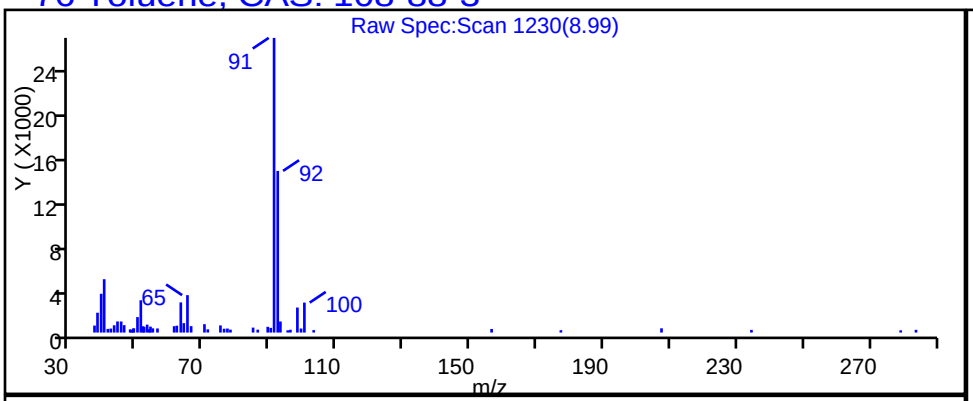
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 24

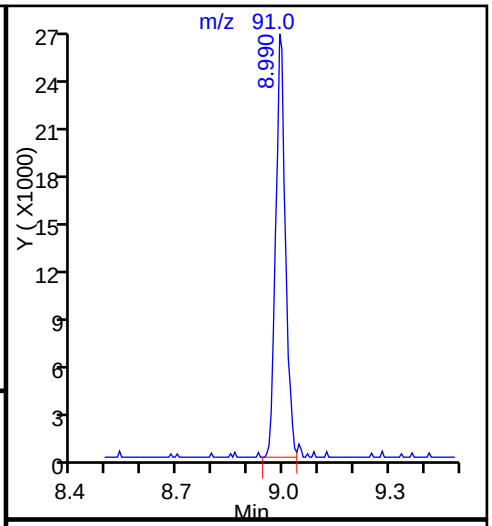
Purge Vol: 5.000 mL Dil. Factor: 1.0000

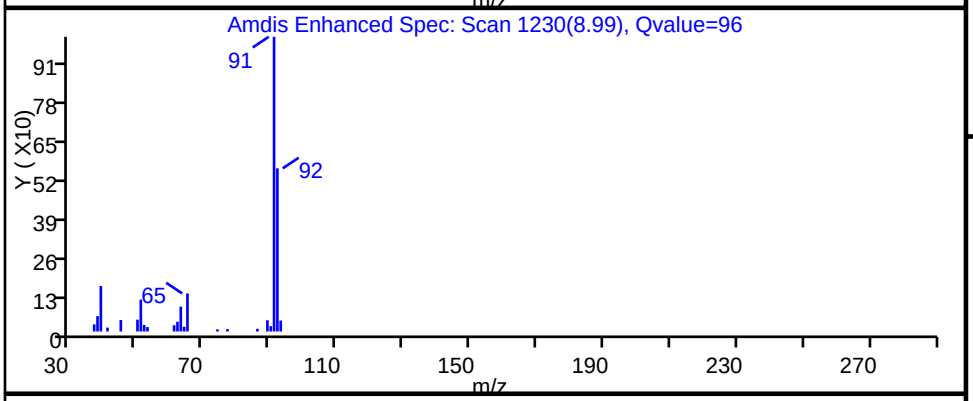
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

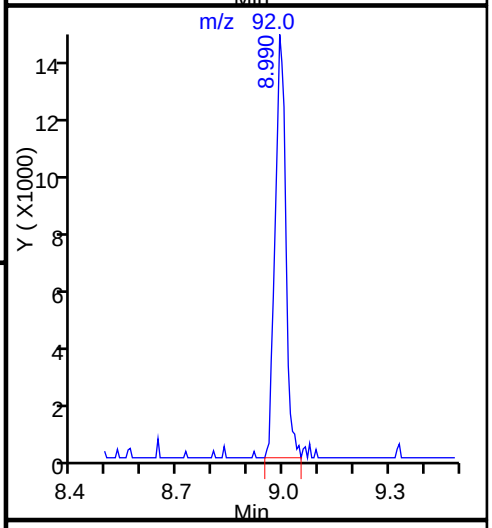
Column: DB-624 (0.18 mm) Detector MS SCAN

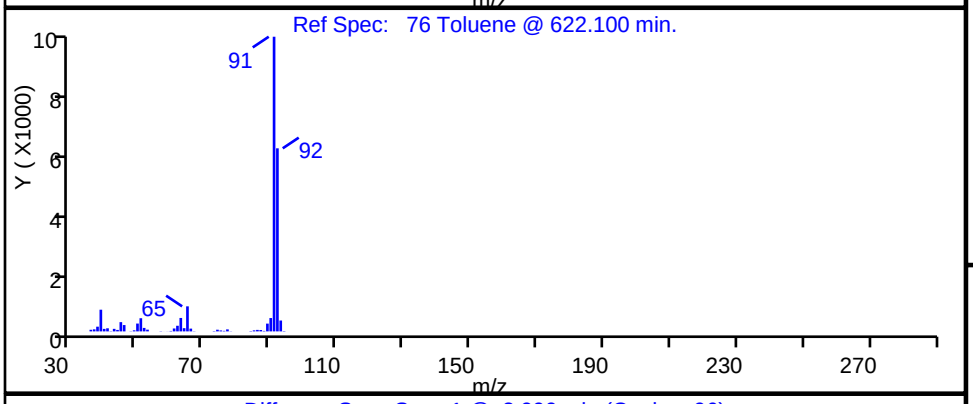
76 Toluene, CAS: 108-88-3

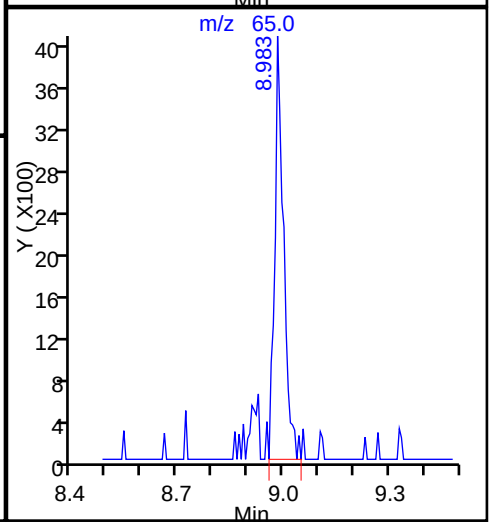


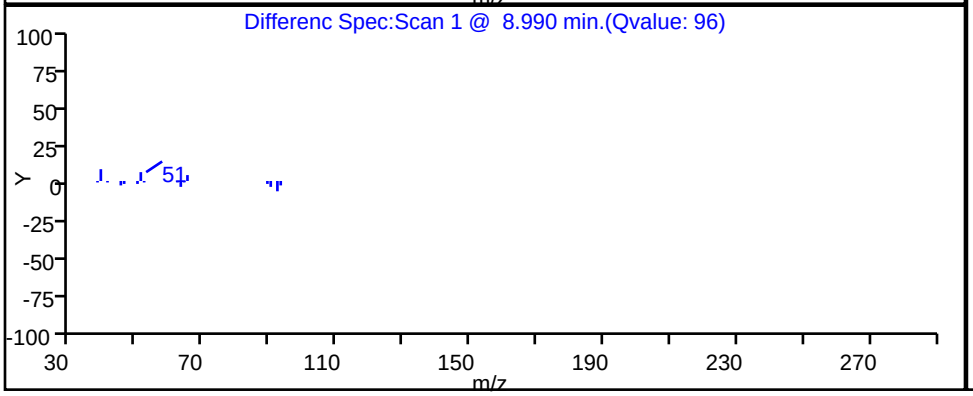










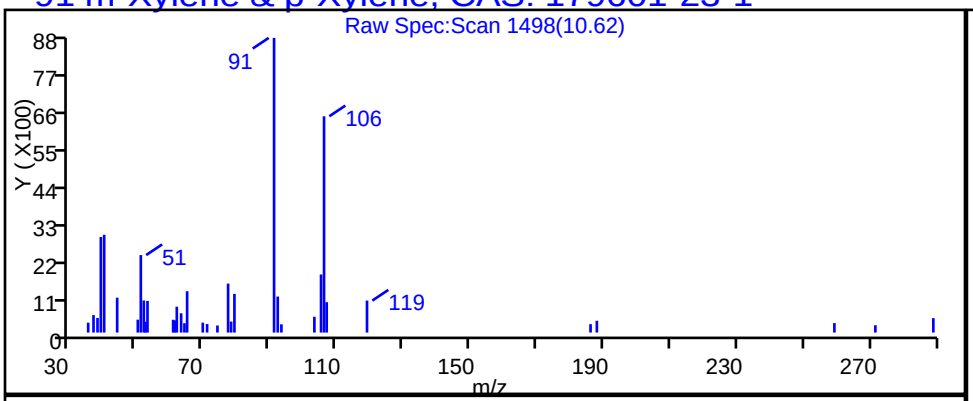


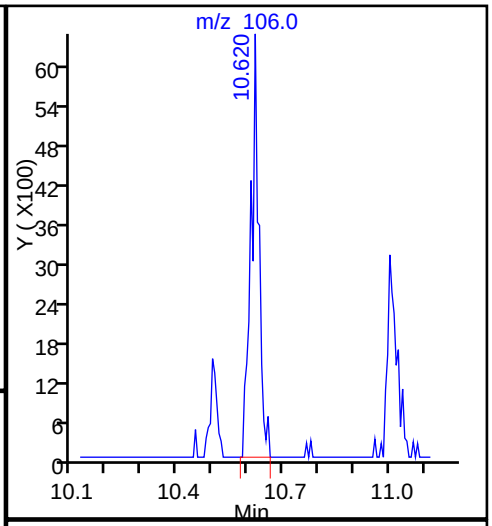
Report Date: 16-Jan-2015 08:13:00 Chrom Revision: 2.2 06-Nov-2014 14:50:32

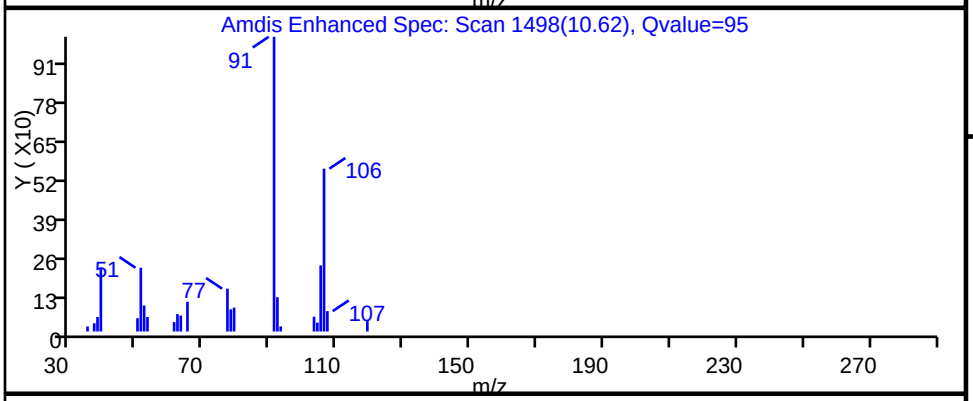
TestAmerica Pittsburgh

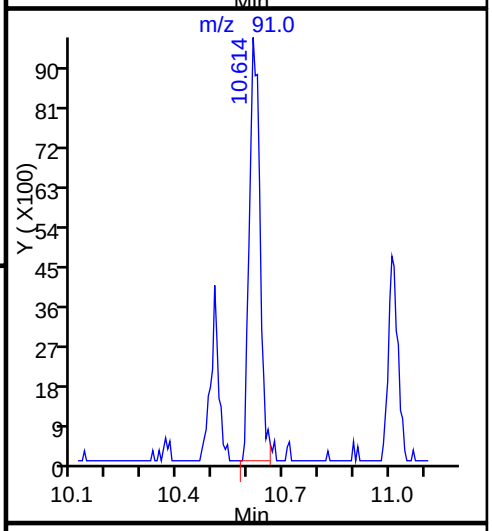
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D		
Injection Date:	15-Jan-2015 20:11:30	Instrument ID:	CHHP5
Lims ID:	180-40434-A-20	Lab Sample ID:	180-40434-20
Client ID:	HD-QC1-0/1-3		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

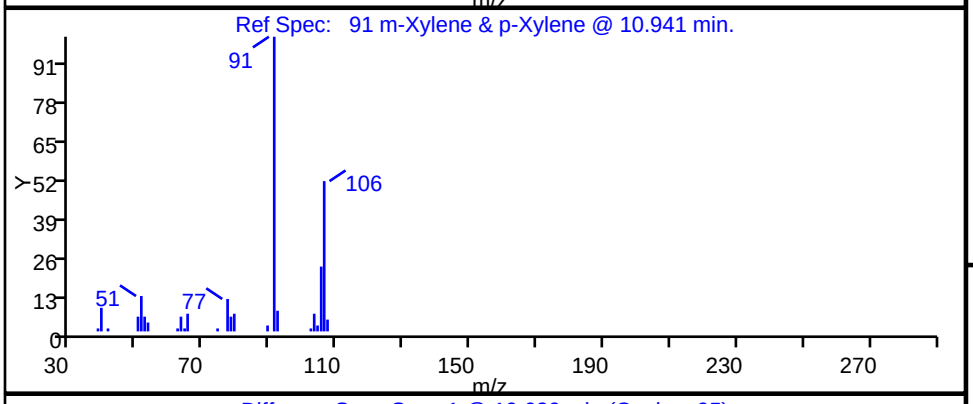
91 m-Xylene & p-Xylene, CAS: 179601-23-1

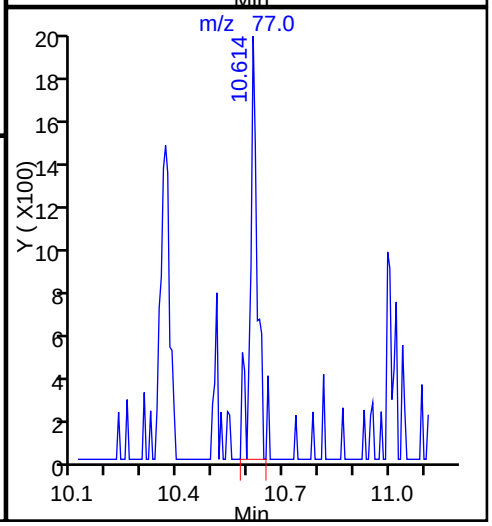


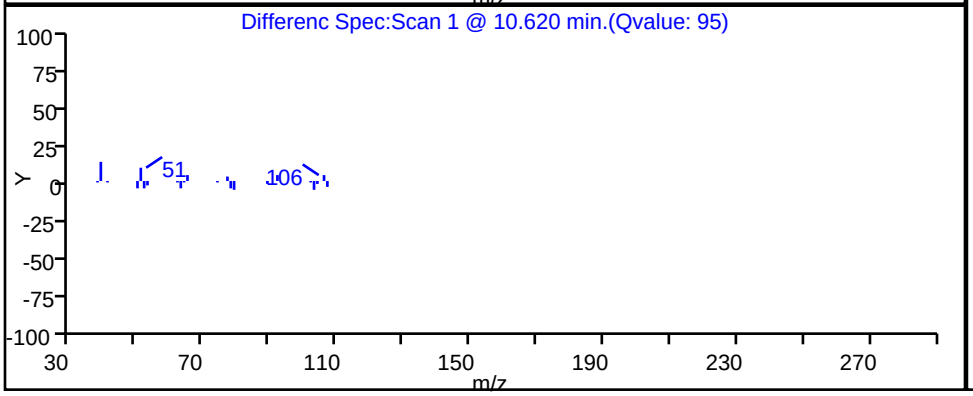












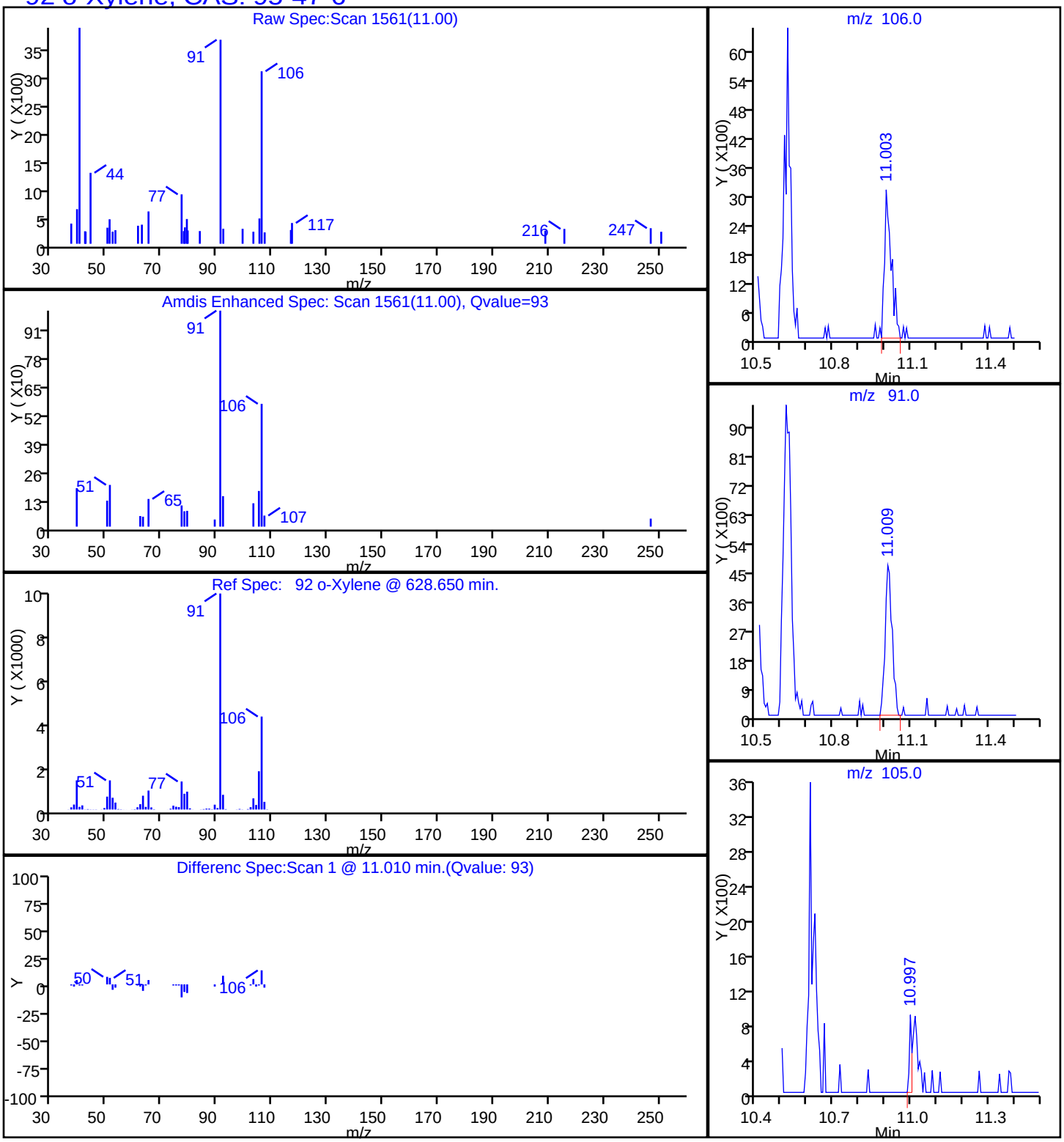
Report Date: 16-Jan-2015 08:13:00 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D

Injection Date:	15-Jan-2015 20:11:30	Instrument ID:	CHHP5
Lims ID:	180-40434-A-20	Lab Sample ID:	180-40434-20
Client ID:	HD-QC1-0/1-3		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

92 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

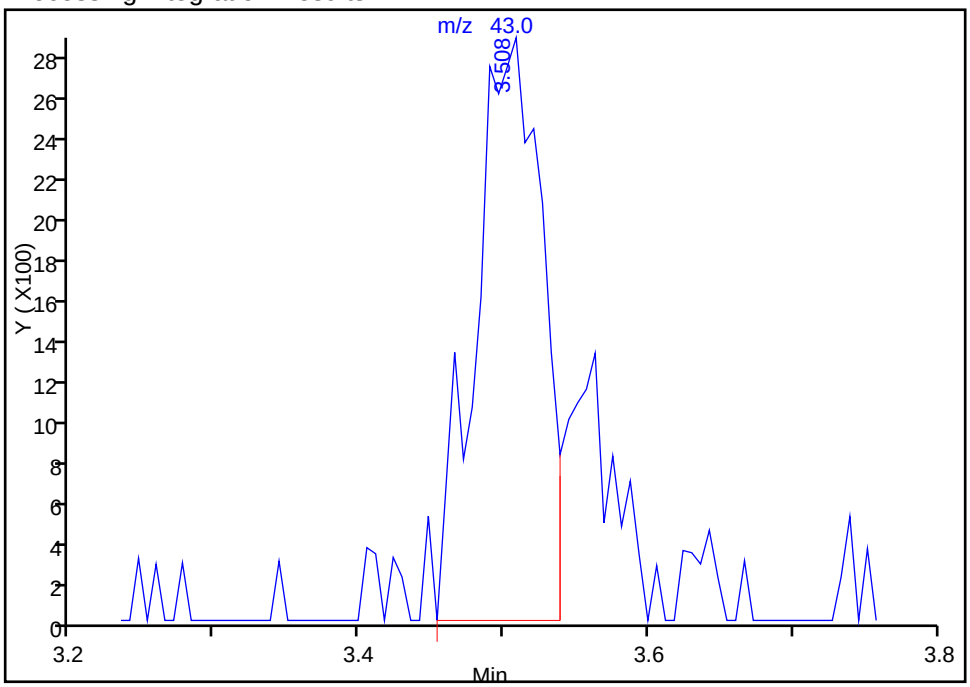
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115024.D				
Injection Date:	15-Jan-2015 20:11:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-A-20	Lab Sample ID:	180-40434-20		
Client ID:	HD-QC1-0/1-3				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

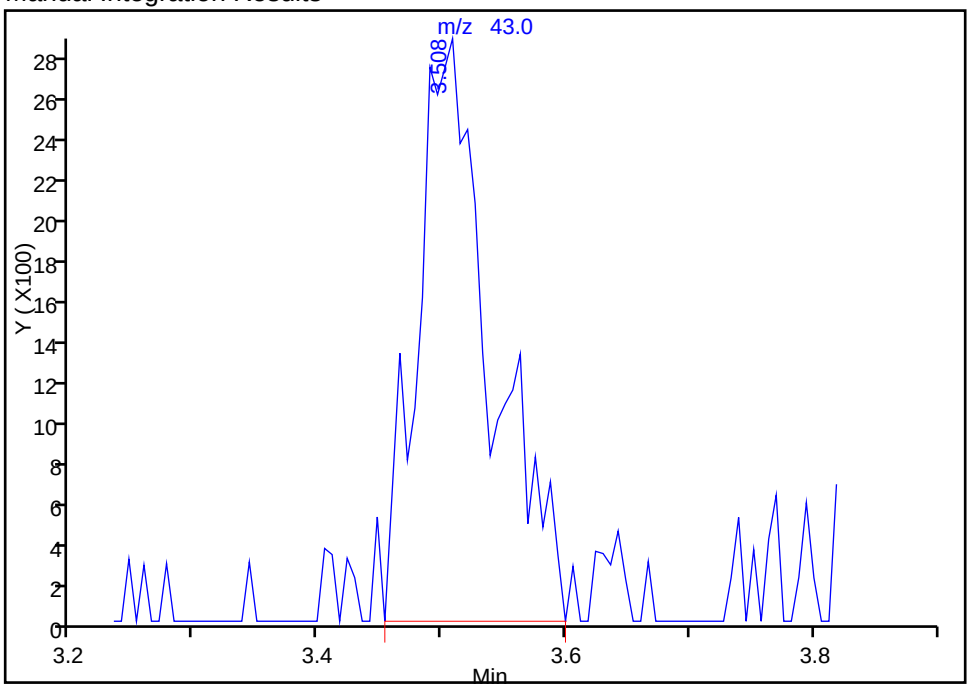
Processing Integration Results

RT: 3.51
Response: 9171
Amount: 6.445205



Manual Integration Results

RT: 3.51
Response: 11810
Amount: 8.299844



Reviewer: fergusond, 16-Jan-2015 08:12:59
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-4 | Lab Sample ID: 180-40434-21

Matrix: Water | Lab File ID: 50115025.D

Analysis Method: 8260C | Date Collected: 01/13/2015 14:30

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 20:35

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.: 130838 | 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	0.22	J	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	1.1		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	0.80	J	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-4 Lab Sample ID: 180-40434-21

Matrix: Water Lab File ID: 50115025.D

Analysis Method: 8260C Date Collected: 01/13/2015 14:30

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 20:35

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.: 130838 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)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D
Lims ID: 180-40434-B-21 Lab Sample ID: 180-40434-21
Client ID: HD-QC1-0/1-4
Sample Type: Client
Inject. Date: 15-Jan-2015 20:35:30 ALS Bottle#: 22 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-B-21
Misc. Info.: 180-0005292-025
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:15:54 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:15:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.284	0.006	89	110067	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	100	442709	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.362	-0.001	99	100148	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.686	-0.001	98	132157	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.525	0.011	92	107057	56.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.896	0.004	95	156230	50.5	
$ 7 Toluene-d8 (Surr)	98	8.920	8.921	-0.001	95	402336	48.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.531	-0.002	82	153296	48.3	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96		3.379				ND	
24 Acetone	43	3.505	3.495	0.010	64	8668	6.24	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63		5.174				ND	
45 cis-1,2-Dichloroethene	96		5.934				ND	
46 2-Butanone (MEK)	43	6.000	5.989	0.011	85	4498	2.06	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97		6.531				ND	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78	6.961	6.956	0.005	90	11877	1.08	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130		7.668				ND	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91	8.987	8.988	-0.002	97	56702	5.33	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164		9.536				ND	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106	10.507	10.503	0.004	96	2219	0.6061	M
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	97	12905	2.89	
92 o-Xylene	106	11.006	11.014	-0.008	64	4696	1.08	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106				0		3.98	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

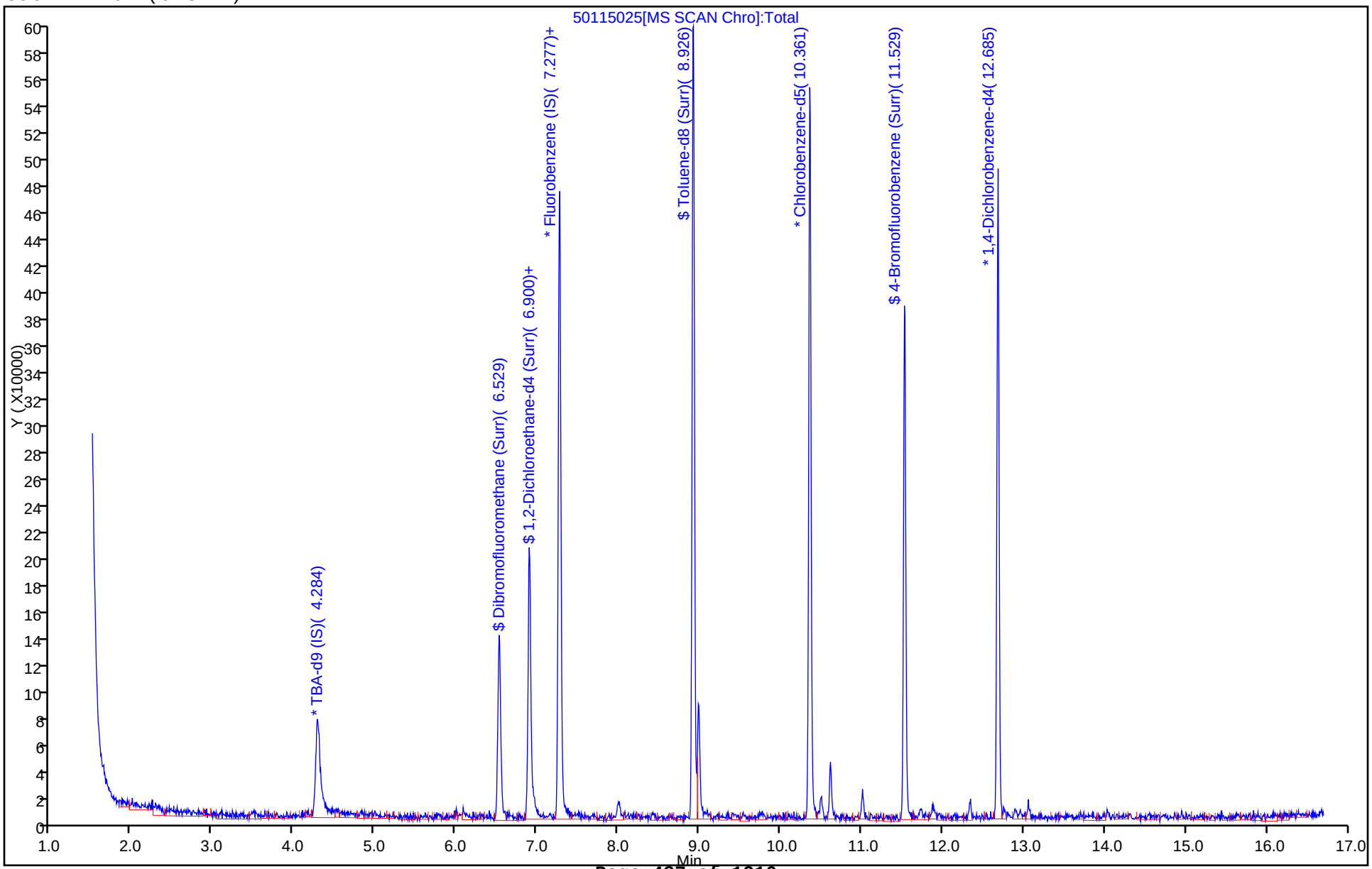
Report Date: 16-Jan-2015 08:15:54 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D

Injection Date:	15-Jan-2015 20:35:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-B-21	Lab Sample ID:	180-40434-21	Worklist Smp#:	25
Client ID:	HD-QC1-0/1-4				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



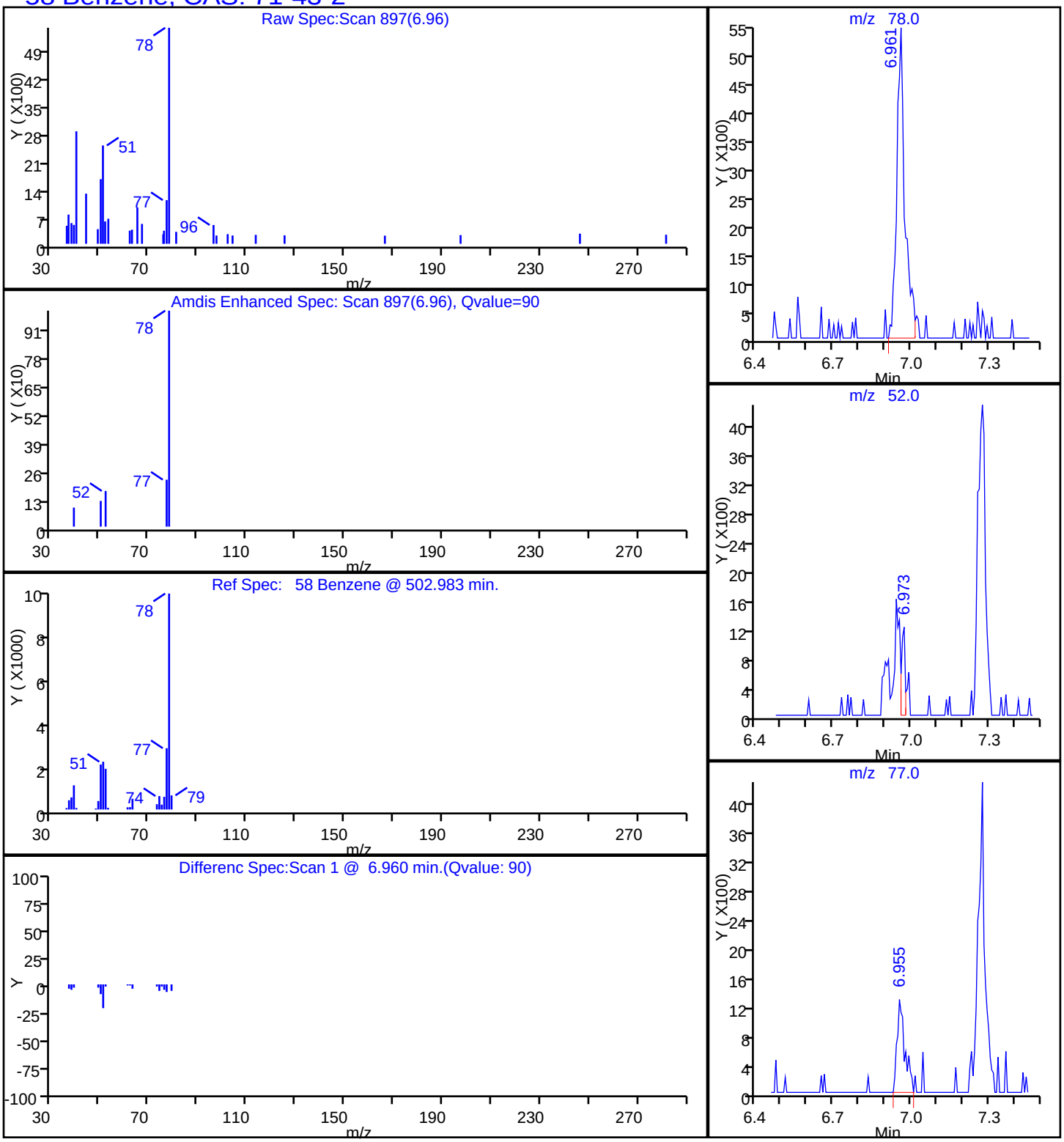
Report Date: 16-Jan-2015 08:15:54 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D

Injection Date:	15-Jan-2015 20:35:30	Instrument ID:	CHHP5
Lims ID:	180-40434-B-21	Lab Sample ID:	180-40434-21
Client ID:	HD-QC1-0/1-4		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

58 Benzene, CAS: 71-43-2



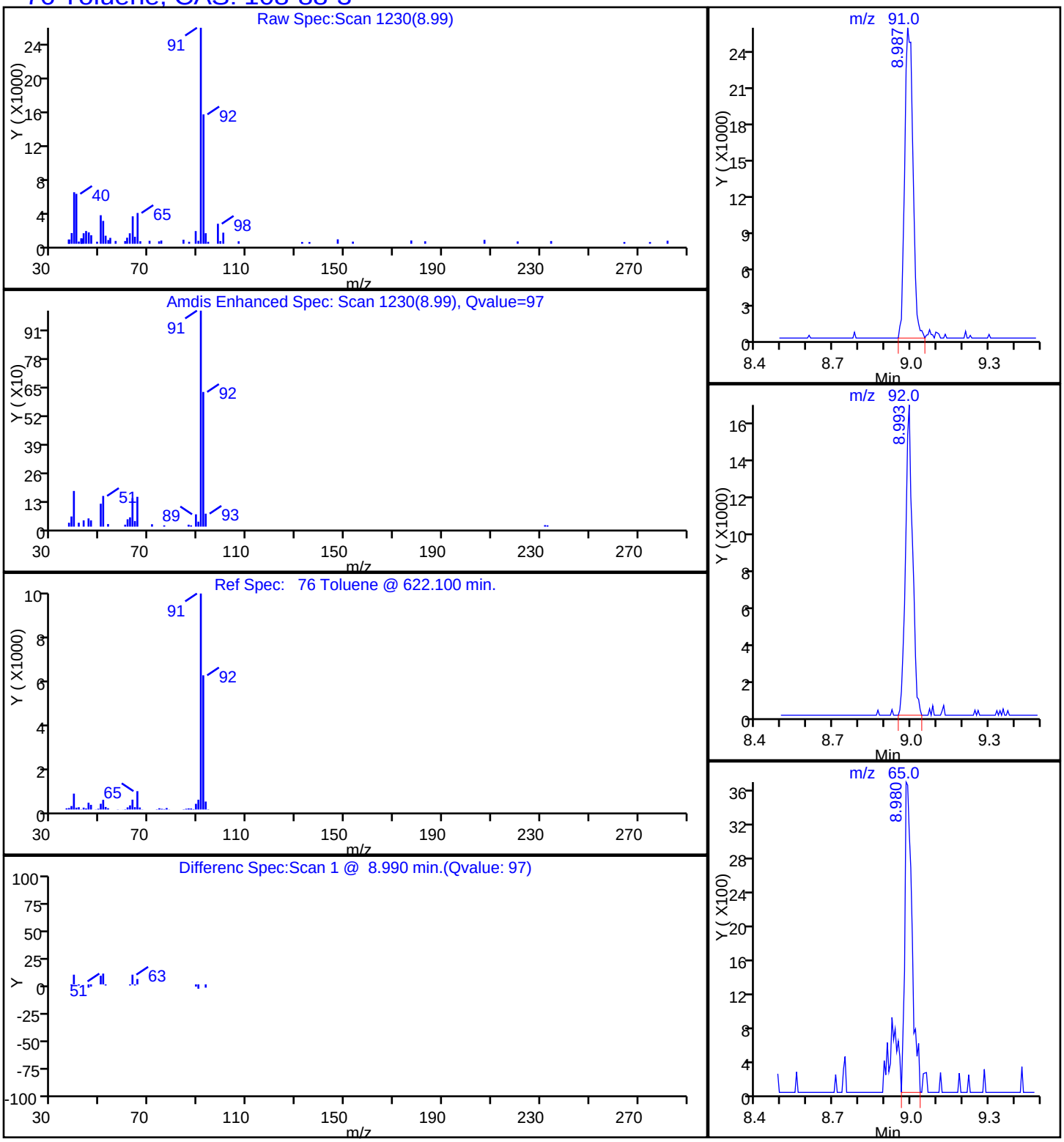
Report Date: 16-Jan-2015 08:15:54 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D

Injection Date:	15-Jan-2015 20:35:30	Instrument ID:	CHHP5
Lims ID:	180-40434-B-21	Lab Sample ID:	180-40434-21
Client ID:	HD-QC1-0/1-4		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

76 Toluene, CAS: 108-88-3

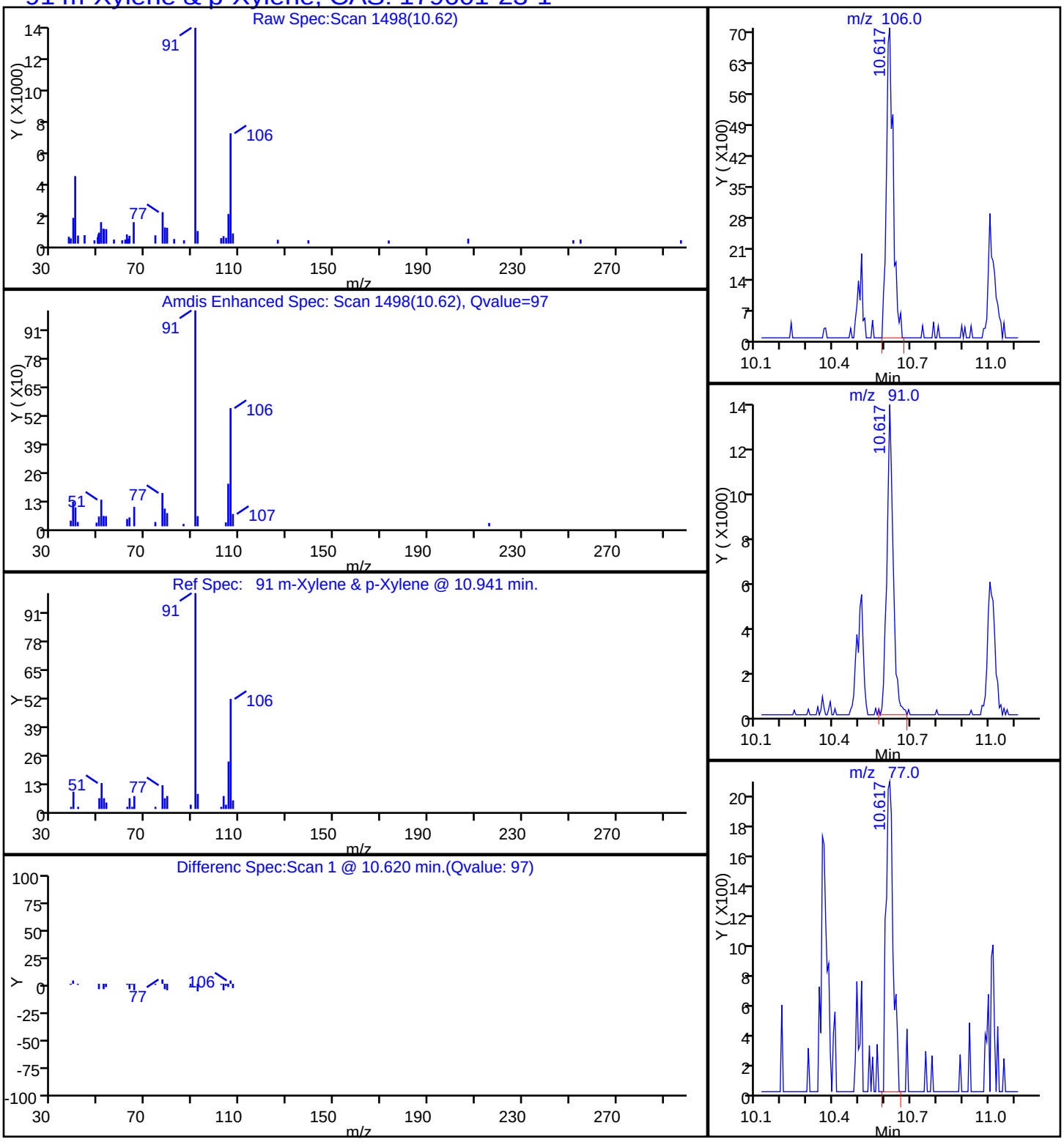


Report Date: 16-Jan-2015 08:15:55 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D				
Injection Date:	15-Jan-2015 20:35:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-B-21	Lab Sample ID:	180-40434-21		
Client ID:	HD-QC1-0/1-4				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

91 m-Xylene & p-Xylene, CAS: 179601-23-1

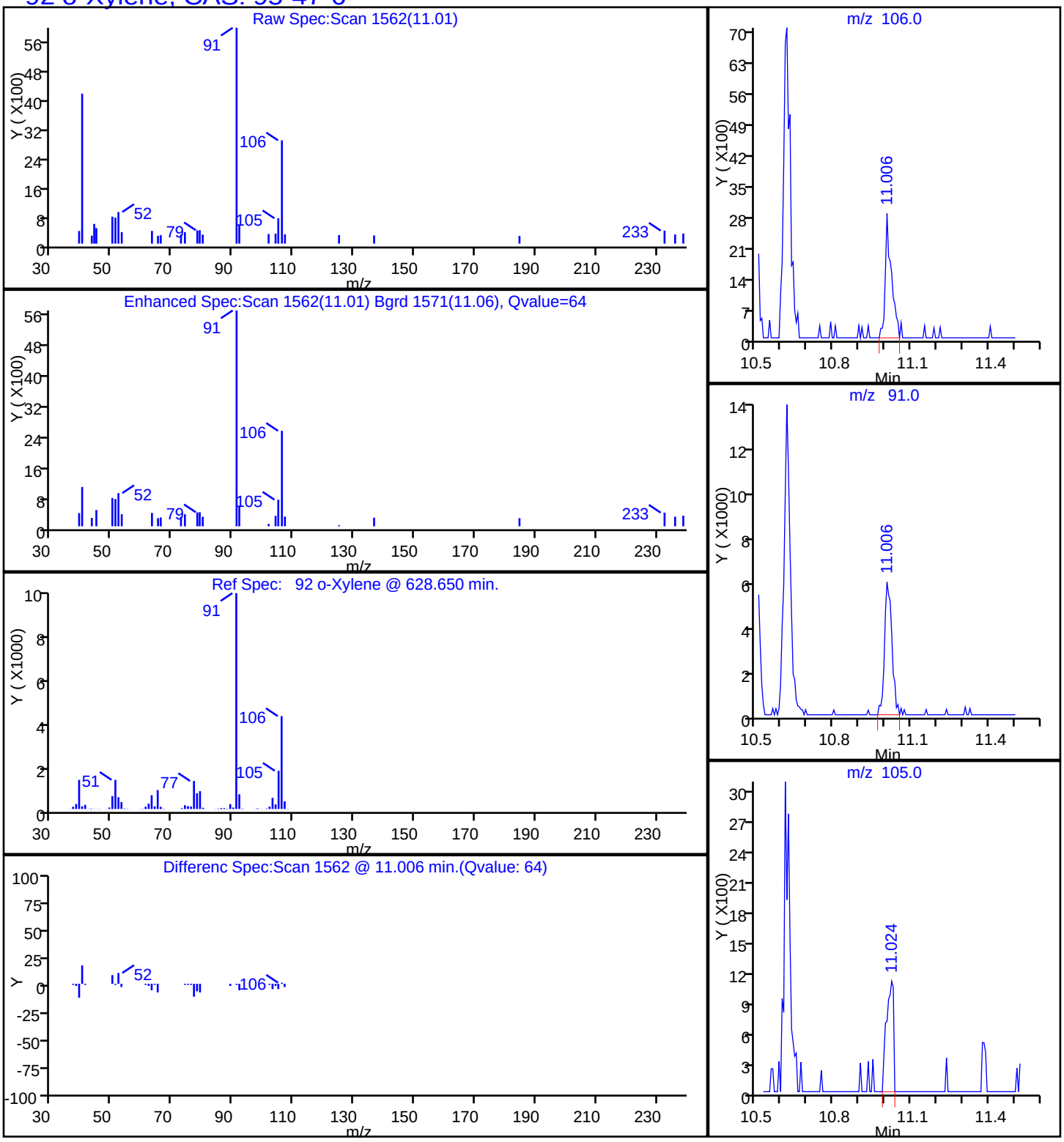


Report Date: 16-Jan-2015 08:15:55 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D		
Injection Date:	15-Jan-2015 20:35:30	Instrument ID:	CHHP5
Lims ID:	180-40434-B-21	Lab Sample ID:	180-40434-21
Client ID:	HD-QC1-0/1-4		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

92 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

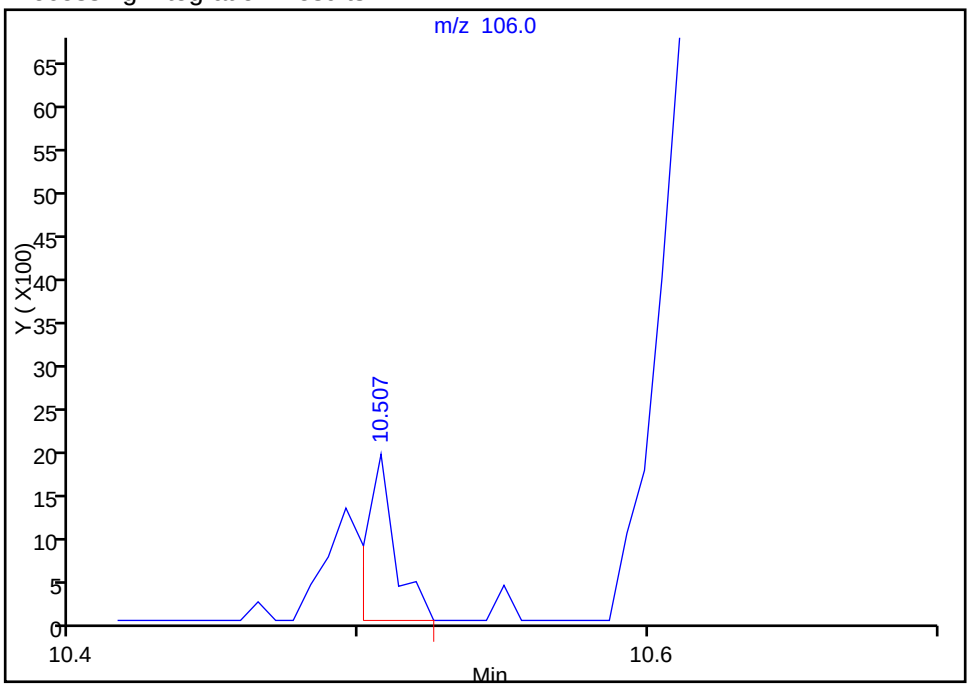
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115025.D				
Injection Date:	15-Jan-2015 20:35:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-B-21	Lab Sample ID:	180-40434-21		
Client ID:	HD-QC1-0/1-4				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

90 Ethylbenzene, CAS: 100-41-4

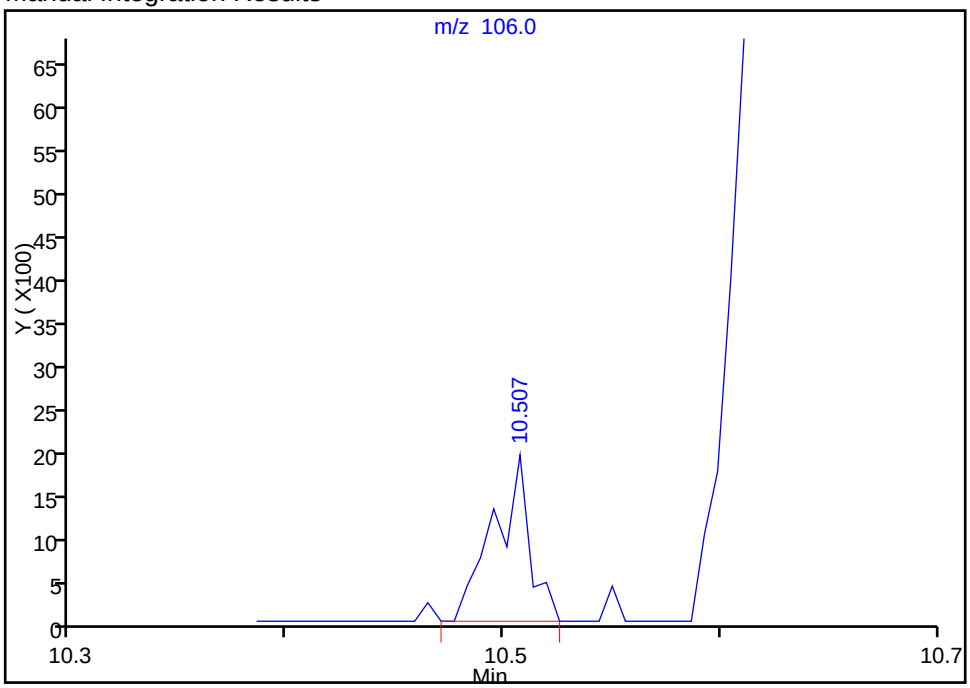
Processing Integration Results

RT: 10.51
Response: 1325
Amount: 0.361886



Manual Integration Results

RT: 10.51
Response: 2219
Amount: 0.606056



Reviewer: fergusond, 16-Jan-2015 08:15:54
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 | Lab Sample ID: 180-40434-22

Matrix: Water | Lab File ID: 50115010.D

Analysis Method: 8260C | Date Collected: 01/13/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 14:33

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.: 130838 | 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	5.1		5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.0	U	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	4.9	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	110		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	18		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	51		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	83		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 Lab Sample ID: 180-40434-22

Matrix: Water Lab File ID: 50115010.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:10

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 14:33

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.: 130838 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)	100		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D
Lims ID: 180-40434-D-22 Lab Sample ID: 180-40434-22
Client ID: HD-MW-107-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 14:33:30 ALS Bottle#: 7 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-40434-D-22, 5x
Misc. Info.: 180-0005292-010
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 15:48:52 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 15:48:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.284	0.000	90	198040	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.277	-0.006	100	550689	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.362	-0.001	100	121900	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.686	-0.001	99	168419	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.525	0.011	93	124543	53.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.896	0.004	92	193120	50.2	
$ 7 Toluene-d8 (Surr)	98	8.926	8.921	0.005	96	496905	49.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.531	-0.002	83	190976	49.4	
11 Dichlorodifluoromethane	85		1.633				ND	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
14 Butadiene	39		1.950				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
17 Dichlorofluoromethane	67		2.649				ND	
18 Trichlorofluoromethane	101		2.704				ND	
19 Ethanol	45		3.006				ND	
20 Ethyl ether	59		3.093				ND	
21 Acrolein	56		3.252				ND	
22 1,1-Dichloroethene	96	3.378	3.379	-0.001	87	15243	5.08	
23 1,1,2-Trichloro-1,2,2-trif	101		3.428				ND	
24 Acetone	43	3.524	3.495	0.029	87	3266	1.89	
25 Iodomethane	142		3.574				ND	
26 Carbon disulfide	76		3.659				ND	
27 Isopropyl alcohol	45	3.773	3.772	0.001	65	13185	93.9	
29 Acetonitrile	40		3.924				ND	
28 3-Chloro-1-propene	76		3.945				ND	
30 Methyl acetate	43		4.012				ND	
31 Methylene Chloride	84		4.140				ND	
32 2-Methyl-2-propanol	59		4.432				ND	
33 Acrylonitrile	53		4.547				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
36 Hexane	57		4.985				ND	
37 1,1-Dichloroethane	63	5.178	5.174	0.004	96	34968	4.95	
38 Vinyl acetate	43		5.290				ND	
39 2-Chloro-1,3-butadiene	53		5.305				ND	
41 Isopropyl ether	45		5.323				ND	
40 Isopropyl ether TIC	45		5.430				ND	
42 Tert-butyl ethyl ether	59		5.798				ND	
44 2,2-Dichloropropane	77		5.928				ND	
45 cis-1,2-Dichloroethene	96	5.945	5.934	0.011	87	365430	111.3	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
46 2-Butanone (MEK)	43		5.989				ND	
47 Propionitrile	54		6.060				ND	
48 Ethyl acetate	43		6.084				ND	
49 Chlorobromomethane	128		6.220				ND	
50 Methacrylonitrile	41		6.236				ND	
51 Tetrahydrofuran	42	6.310	6.287	0.023	34	4182	2.02	
52 Chloroform	83	6.352	6.342	0.010	1	3347	0.6266	M
53 1,1,1-Trichloroethane	97	6.535	6.531	0.004	66	61582	17.8	
54 Cyclohexane	56		6.585				ND	
56 Carbon tetrachloride	117		6.719				ND	
55 1,1-Dichloropropene	75		6.725				ND	
57 Isobutyl alcohol	41		6.944				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
61 Tert-amyl methyl ether	73		7.106				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.279				ND	
63 n-Butanol	56		7.653				ND	
64 Trichloroethene	130	7.666	7.668	-0.002	95	148843	51.1	
65 Ethyl acrylate	55		7.812				ND	
66 Methylcyclohexane	83		7.863				ND	
67 1,2-Dichloropropane	63		7.905				ND	
68 Dibromomethane	93		8.021				ND	
69 Methyl methacrylate	69		8.055				ND	
70 1,4-Dioxane	88		8.064				ND	
71 Dichlorobromomethane	83		8.197				ND	
72 2-Nitropropane	41		8.444				ND	
73 2-Chloroethyl vinyl ether	63		8.520				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
78 Ethyl methacrylate	69		9.317				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.534	9.536	-0.002	93	199016	83.4	
81 1,3-Dichloropropane	76		9.566				ND	
82 2-Hexanone	43		9.657				ND	
83 n-Butyl acetate	43		9.783				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.375				ND	
87 Chlorobenzene	112		10.394				ND	
88 4-Chlorobenzotrifluoride	180		10.430				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
95 Cyclohexanol	57		11.226				ND	
96 2-Chlorobenzotrifluoride	180		11.276				ND	
97 Isopropylbenzene	105		11.379				ND	
98 Cyclohexanone	55		11.474				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
100 Bromobenzene	156		11.683				ND	
101 1,2,3-Trichloropropane	110		11.720				ND	
102 trans-1,4-Dichloro-2-buten	53		11.732				ND	
103 N-Propylbenzene	120		11.787				ND	
104 2-Chlorotoluene	126		11.878				ND	
105 3-Chlorotoluene	126		11.939				ND	
106 1,3,5-Trimethylbenzene	105		11.963				ND	
107 4-Chlorotoluene	126		11.987				ND	
108 tert-Butylbenzene	119		12.292				ND	
109 Pentachloroethane	167		12.313				ND	
110 1,2,4-Trimethylbenzene	105		12.340				ND	
111 1,2-dichloro-4-(trifluorom	214		12.401				ND	
112 sec-Butylbenzene	105		12.511				ND	
113 1,3-Dichlorobenzene	146		12.620				ND	
114 4-Isopropyltoluene	119		12.657				ND	
115 1,4-Dichlorobenzene	146		12.711				ND	
116 2,4-Dichloro-1-(triflourom	214		12.760				ND	
117 1,2,3-Trimethylbenzene	105		12.764				ND	
118 2,5-Dichlorobenzotrifluori	214		12.809				ND	
119 Benzyl chloride	91		12.843				ND	
120 n-Butylbenzene	91		13.064				ND	
121 1,2-Dichlorobenzene	146		13.082				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.855				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.013				ND	
124 1,3,5-Trichlorobenzene	180		14.074				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.427				ND	
126 1,2,4-Trichlorobenzene	180		14.695				ND	
127 Hexachlorobutadiene	225		14.865				ND	
128 Naphthalene	128		14.944				ND	
129 1,2,3-Trichlorobenzene	180		15.187				ND	
131 2,4,5-Trichlorotoluene	159		15.966				ND	
130 2,3,6-Trichlorotoluene	159		16.057				ND	
132 2-Methylnaphthalene	142		16.085				ND	
150 2,6-Dichlorotoluene	1		0.000				ND	
146 2,5-Dichlorotoluene	1		0.000				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	
151 Isooctane	57		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
147 2,4-Dichlorotoluene	1		0.000				ND	
148 2,3-Dichlorotoluene	1		0.000				ND	
S 134 1,2-Dichloroethene, Total	96				0		111.3	
S 133 Xylenes, Total	106		1.000				ND	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 137 Tetrahydrofuran TIC	42		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	
T 153 1,2 Epoxybutane TIC	42		0.000				ND	
T 136 Mesityl oxide TIC	83		0.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

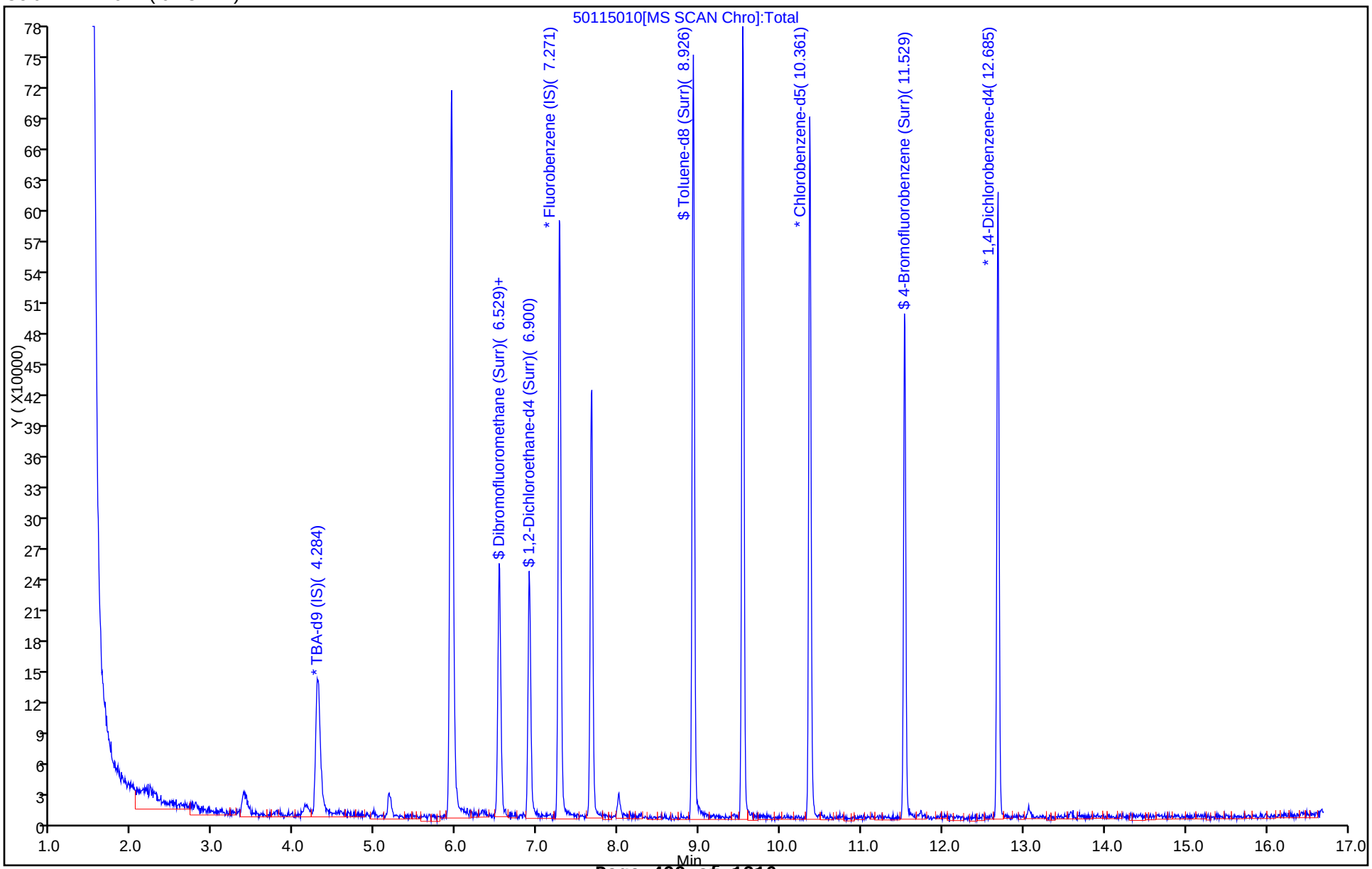
Report Date: 15-Jan-2015 15:48:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D

Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22	Worklist Smp#:	10
Client ID:	HD-MW-107-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



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TestAmerica Pittsburgh

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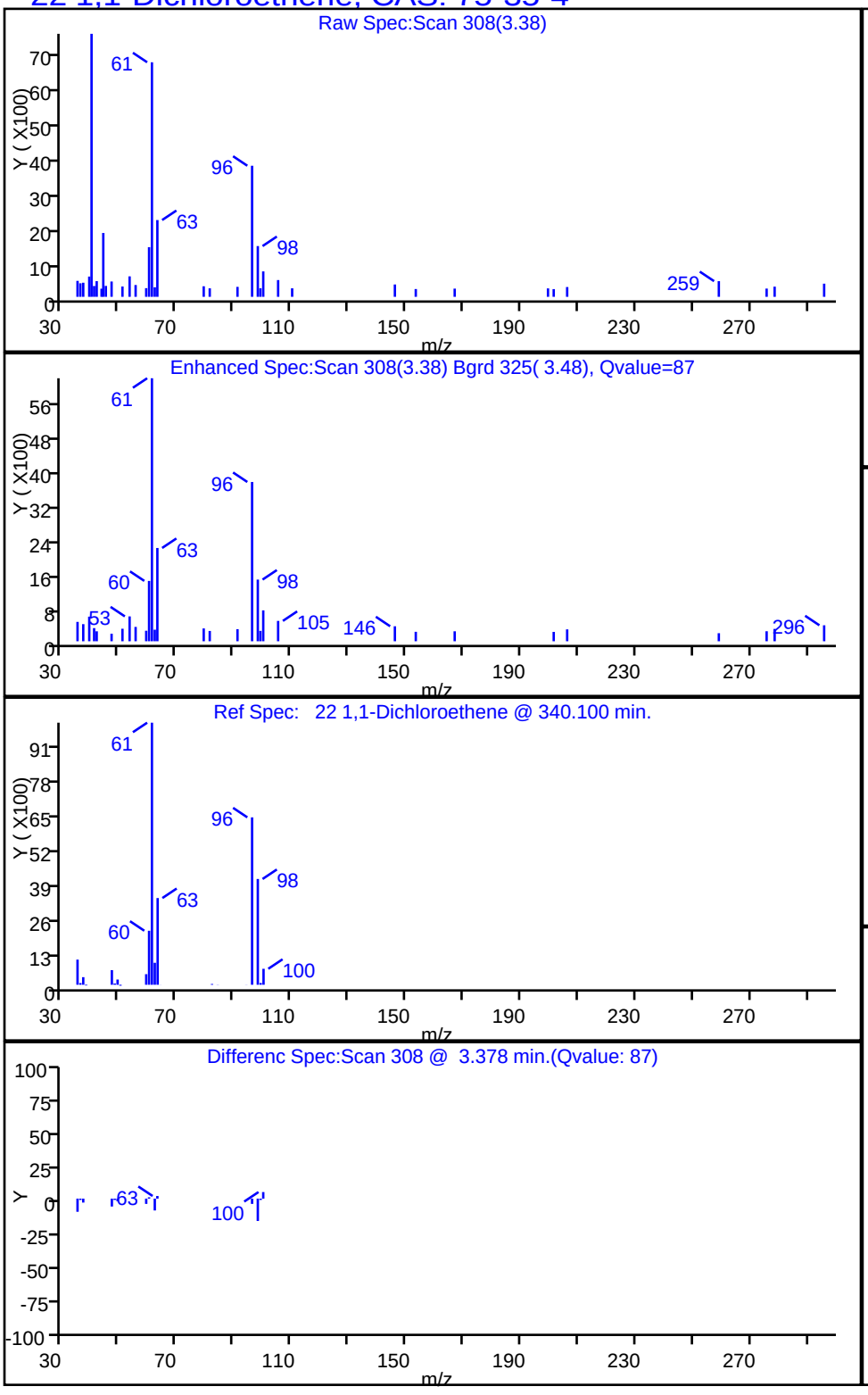
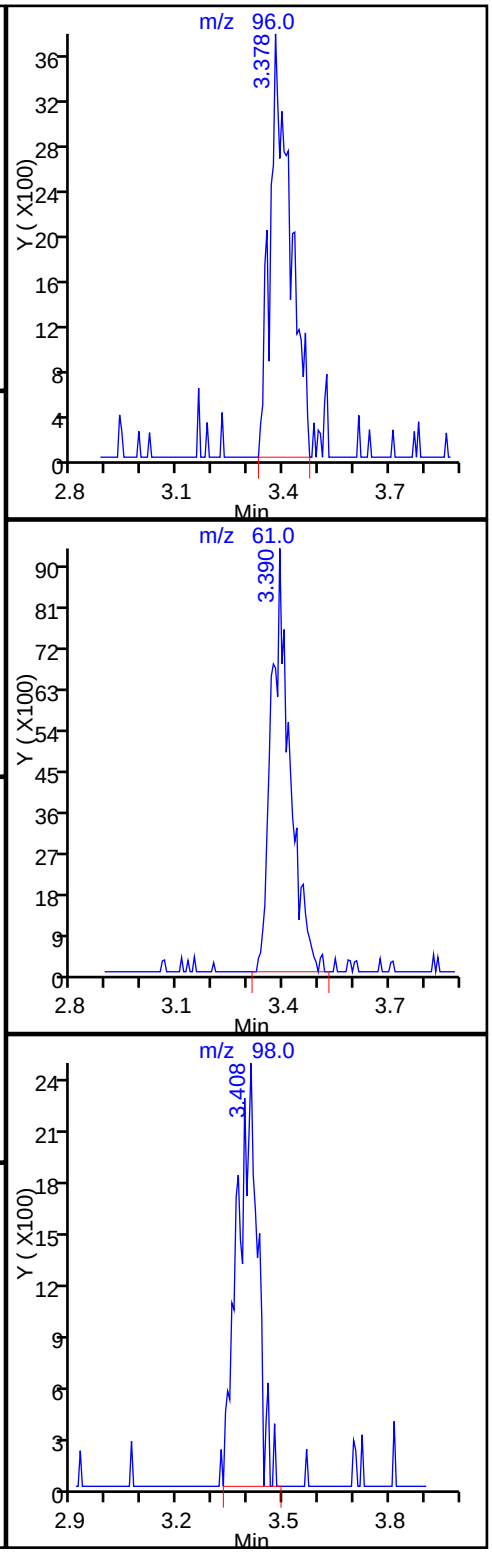
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22
Client ID:	HD-MW-107-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



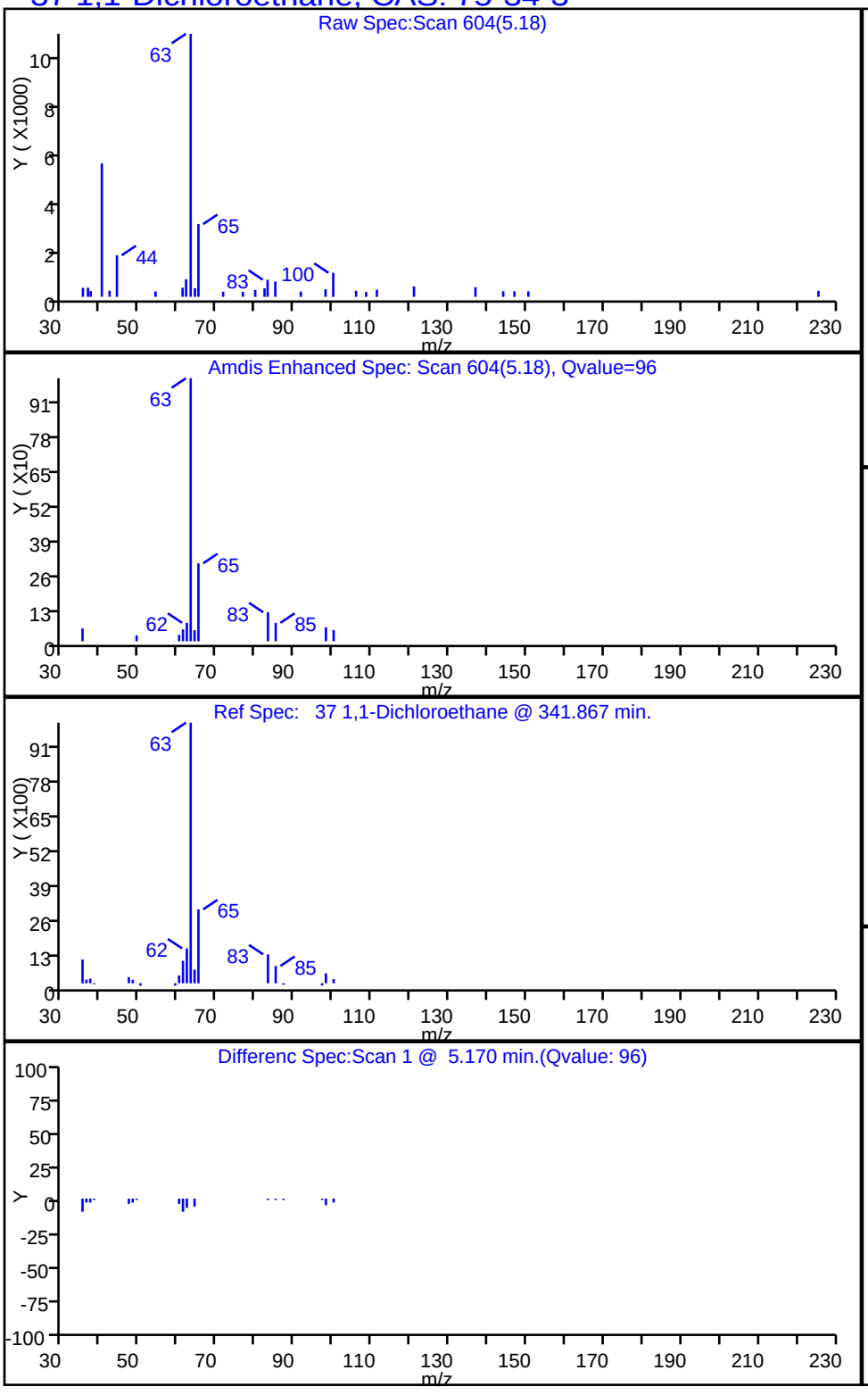


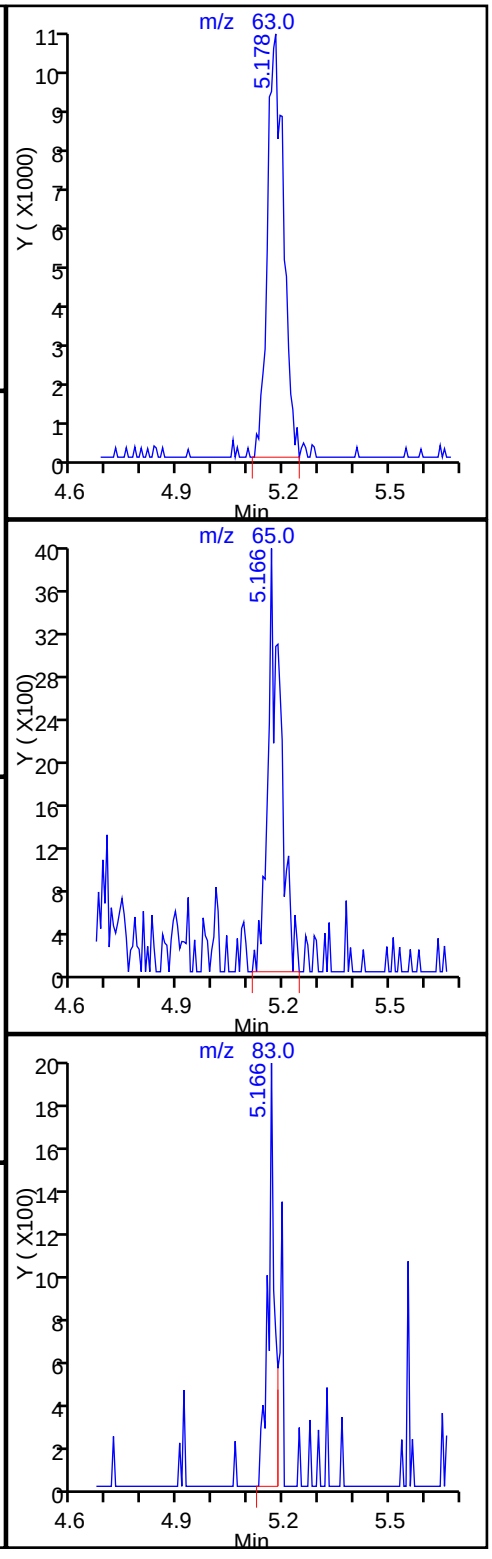
Report Date: 15-Jan-2015 15:48:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D		
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22
Client ID:	HD-MW-107-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



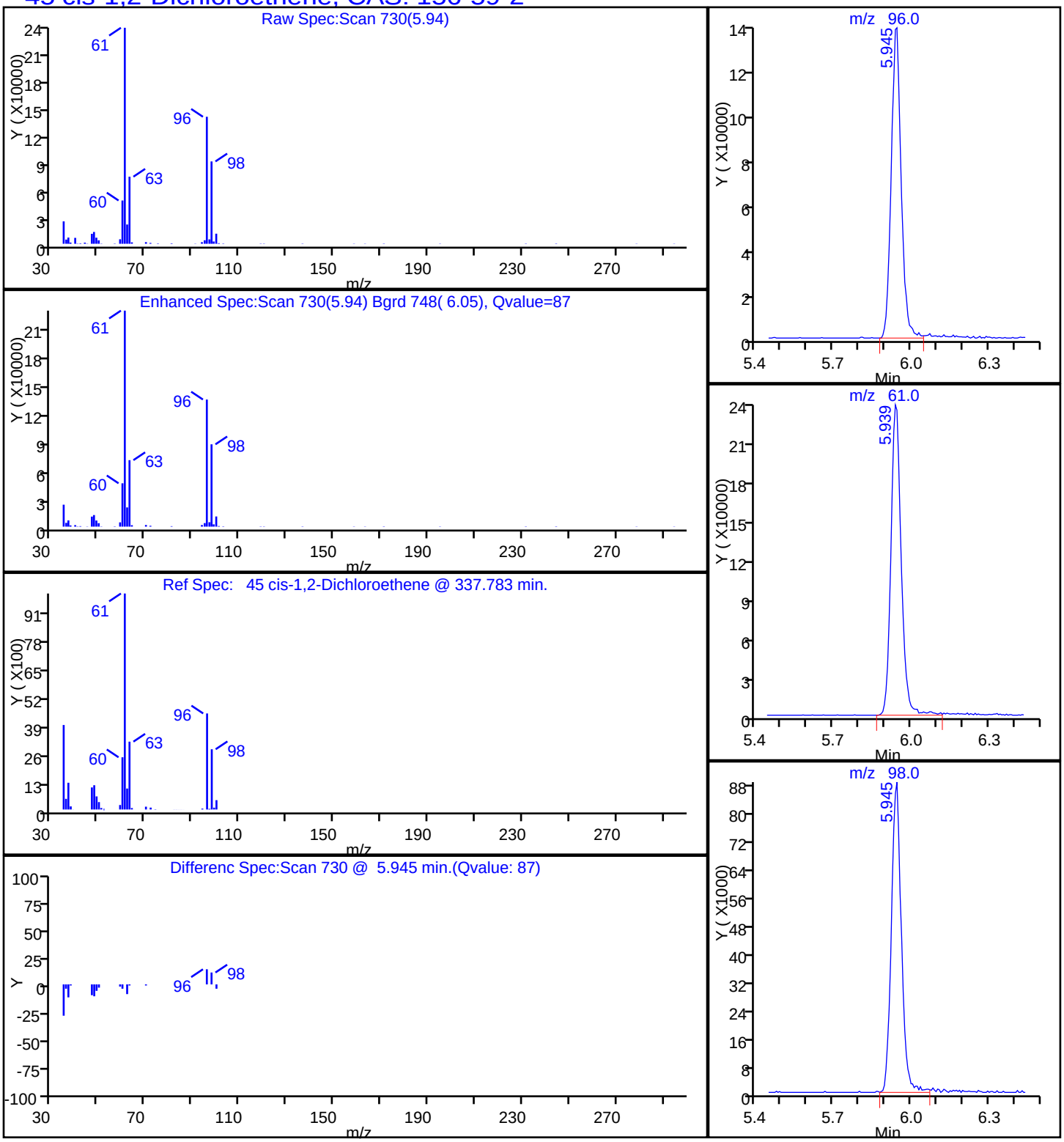


Report Date: 15-Jan-2015 15:48:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D				
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22		
Client ID:	HD-MW-107-0/1-0				
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

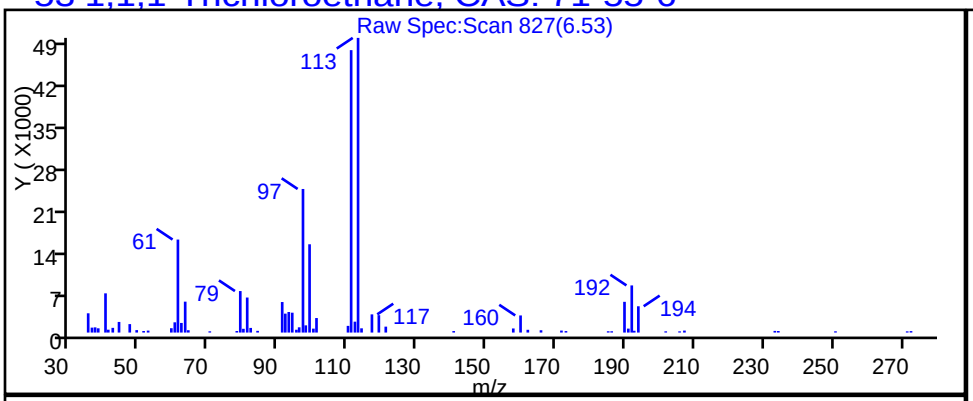


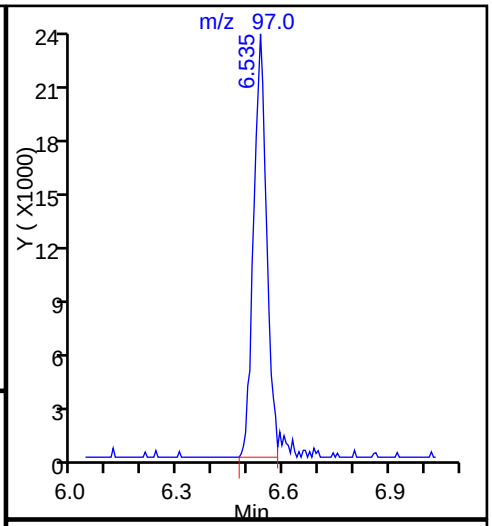
Report Date: 15-Jan-2015 15:48:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32

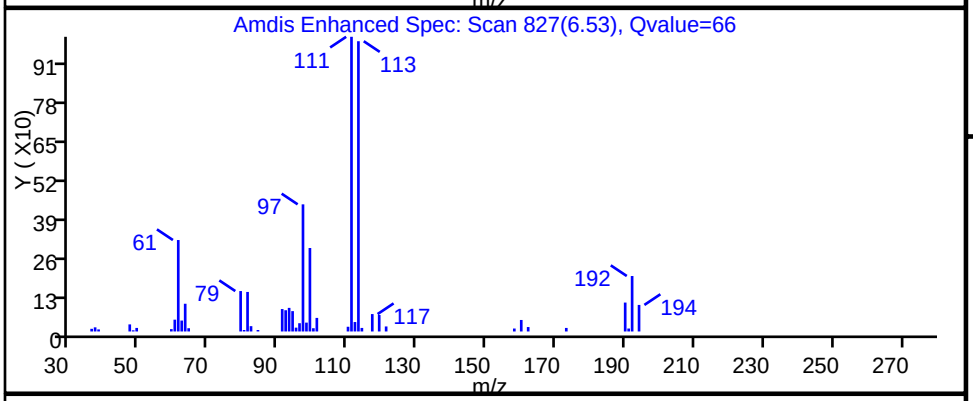
TestAmerica Pittsburgh

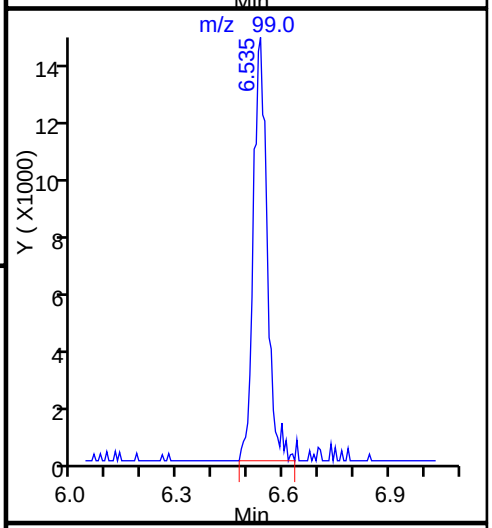
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D				
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22		
Client ID:	HD-MW-107-0/1-0				
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

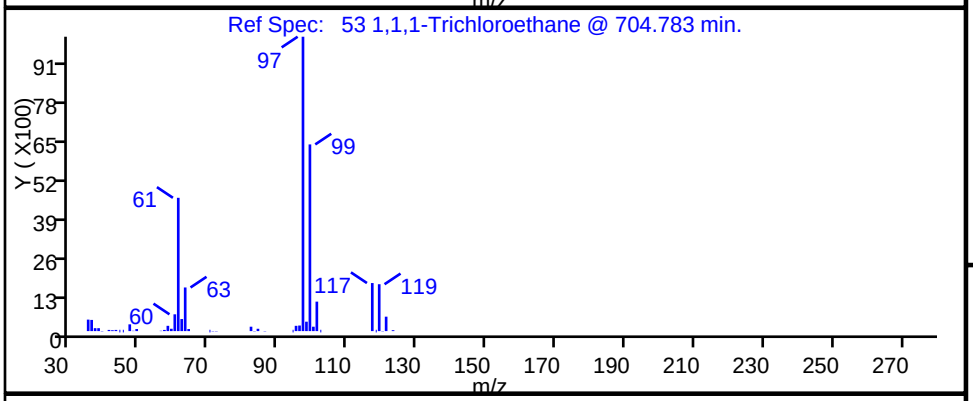
53 1,1,1-Trichloroethane, CAS: 71-55-6

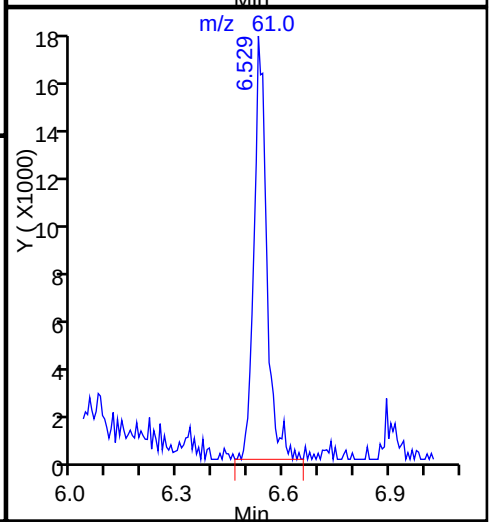


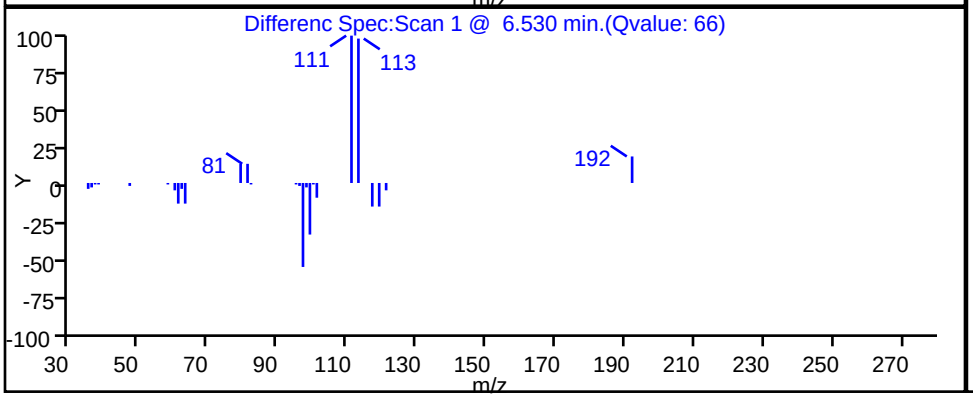










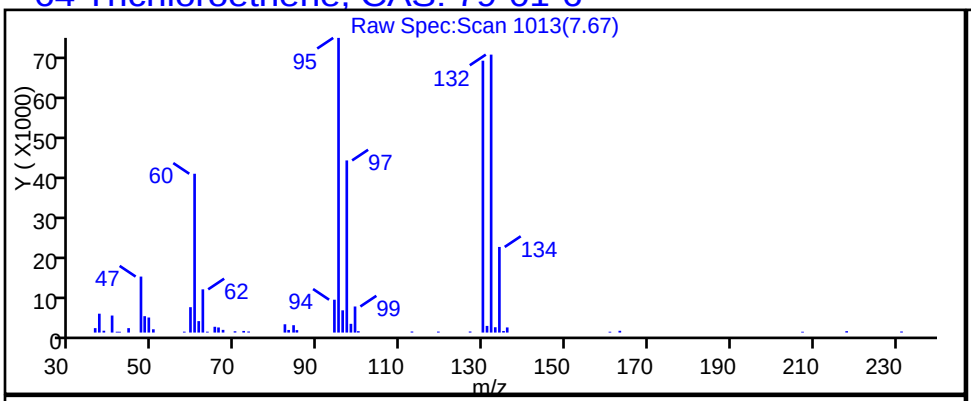


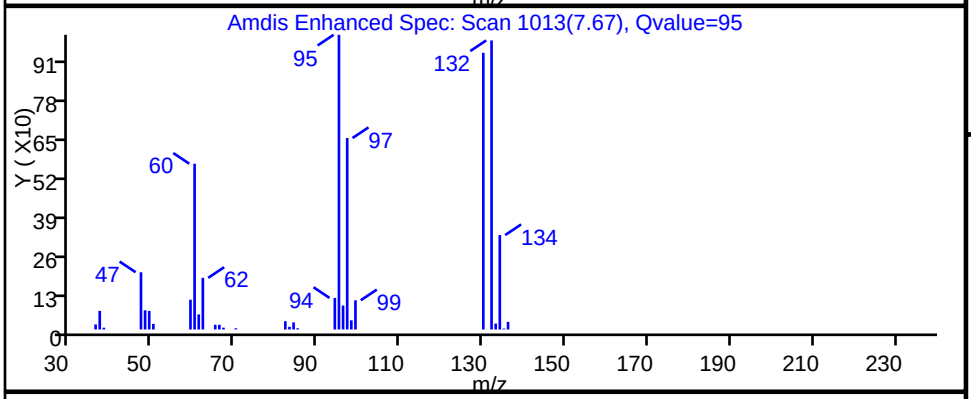
Report Date: 15-Jan-2015 15:48:53 Chrom Revision: 2.2 06-Nov-2014 14:50:32

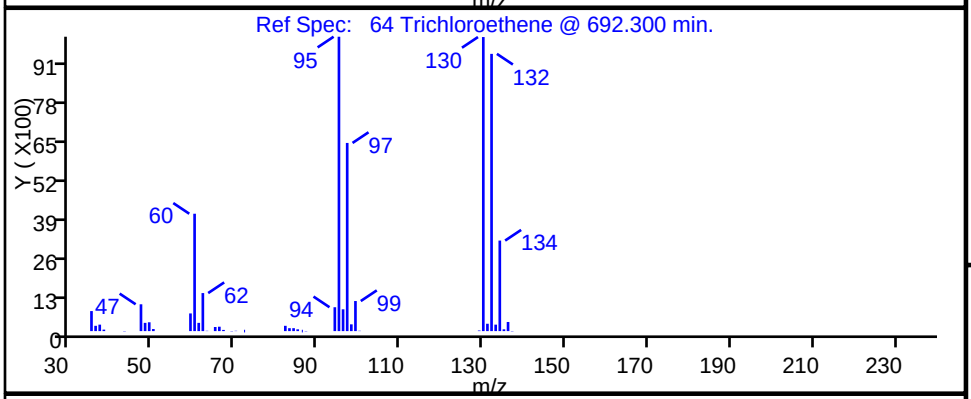
TestAmerica Pittsburgh

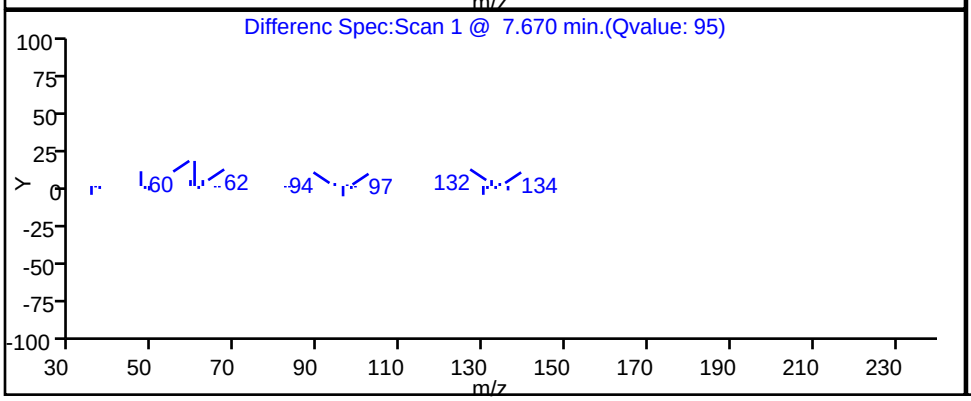
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D		
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22
Client ID:	HD-MW-107-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

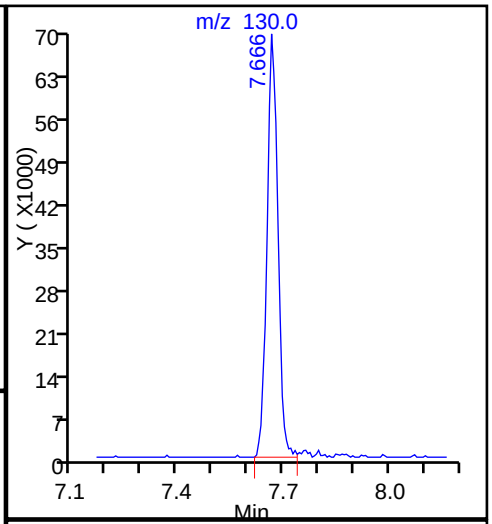
64 Trichloroethene, CAS: 79-01-6

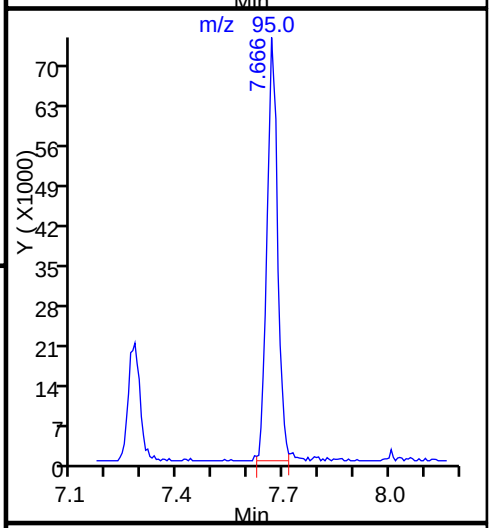


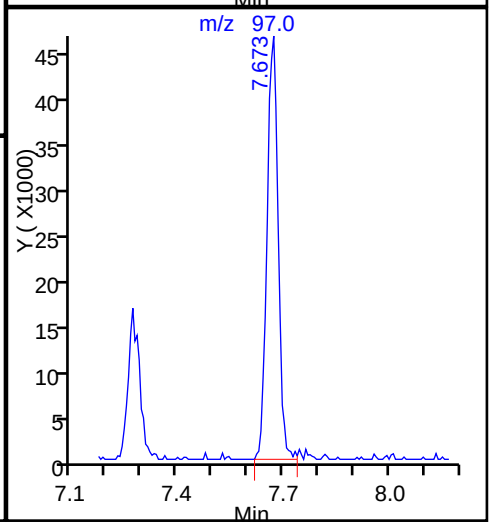










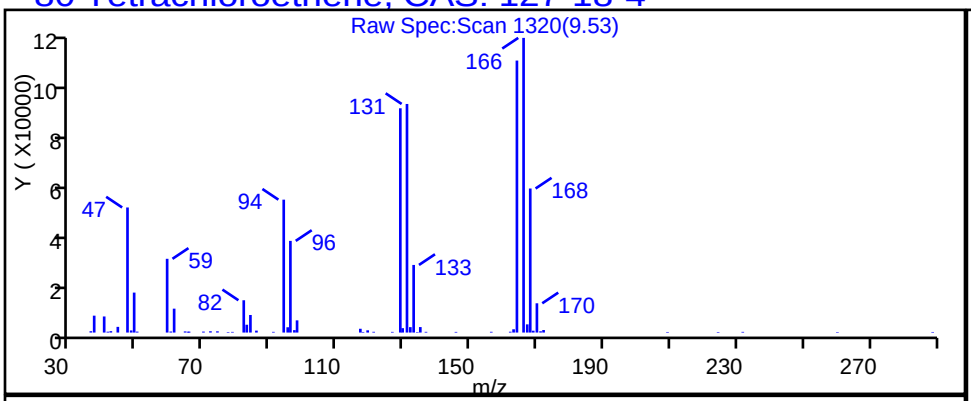


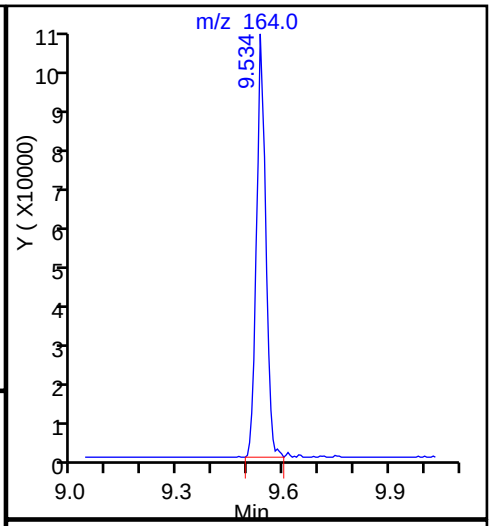
Report Date: 15-Jan-2015 15:48:53 Chrom Revision: 2.2 06-Nov-2014 14:50:32

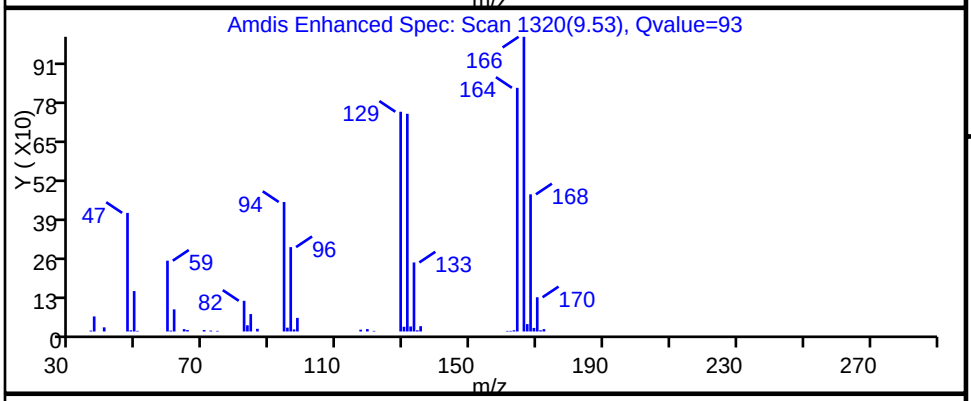
TestAmerica Pittsburgh

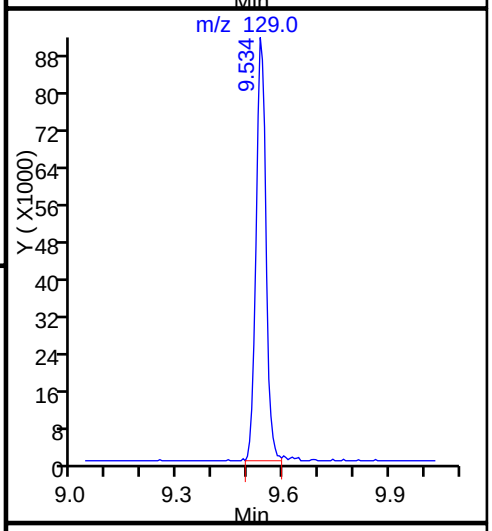
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D		
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22
Client ID:	HD-MW-107-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

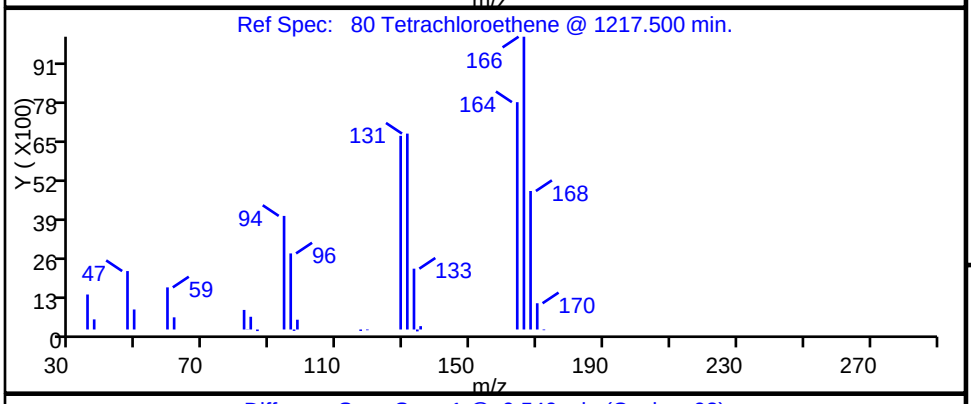
80 Tetrachloroethene, CAS: 127-18-4

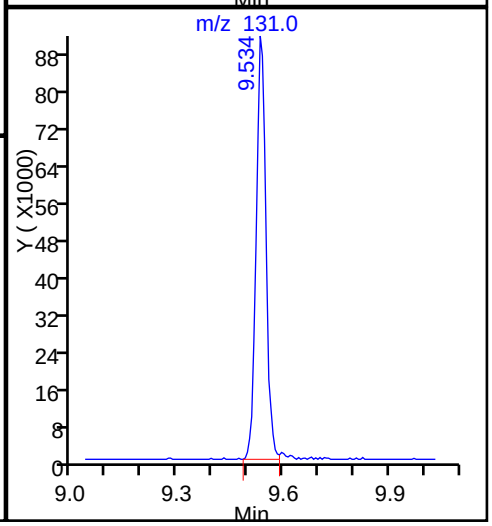


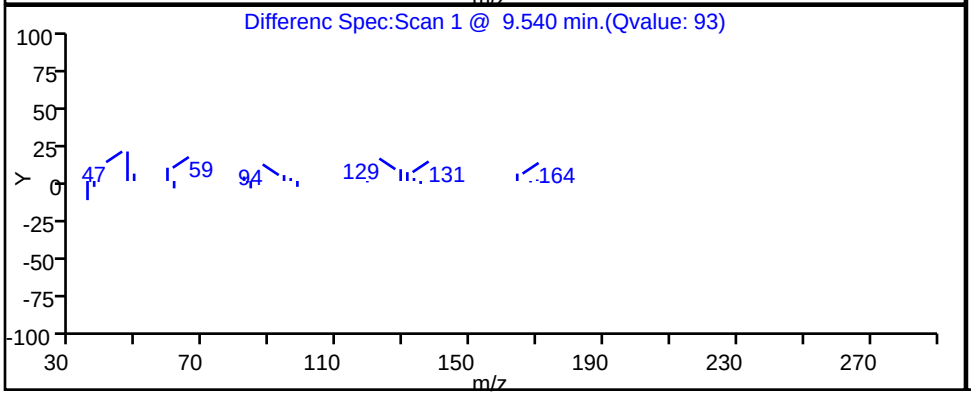












Manual Integration/User Assign Peak Report

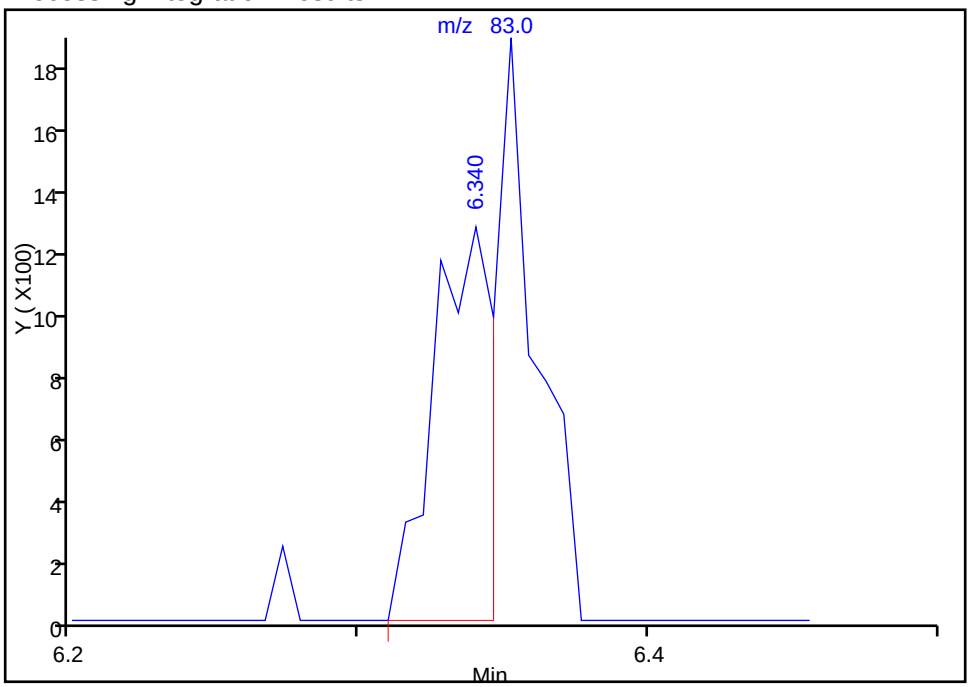
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115010.D				
Injection Date:	15-Jan-2015 14:33:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-22	Lab Sample ID:	180-40434-22		
Client ID:	HD-MW-107-0/1-0				
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

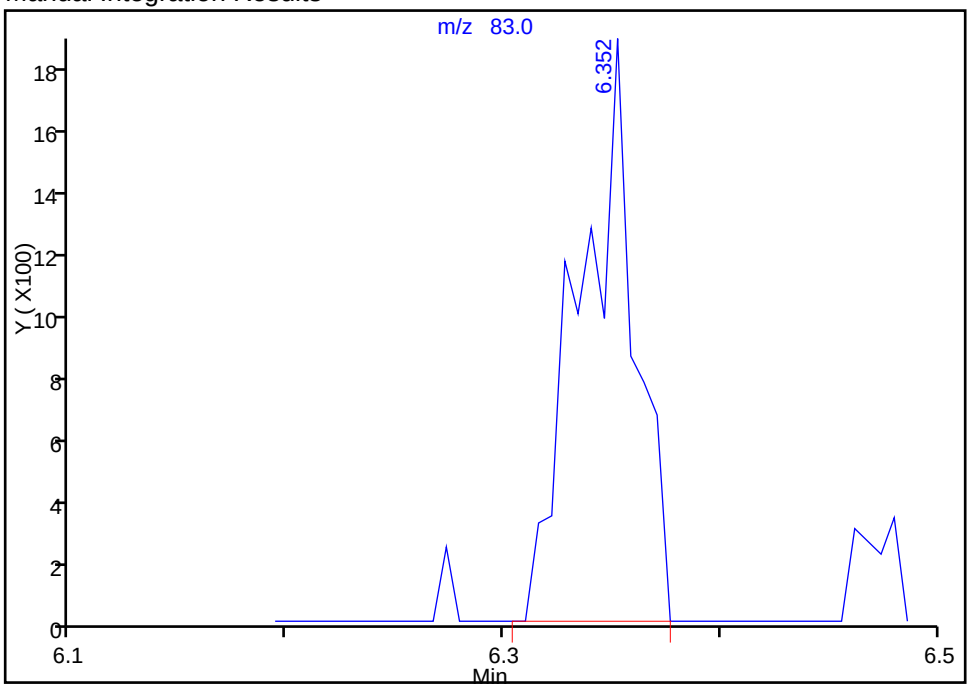
Processing Integration Results

RT: 6.34
Response: 1834
Amount: 0.343355



Manual Integration Results

RT: 6.35
Response: 3347
Amount: 0.626613



Reviewer: fergusond, 15-Jan-2015 15:48:52
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 | Lab Sample ID: 180-40434-23

Matrix: Water | Lab File ID: 50116030.D

Analysis Method: 8260C | Date Collected: 01/13/2015 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/16/2015 22:59

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.: 130947 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.34	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	0.42	J	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.77	J	1.0	0.12
156-59-2	*cis-1,2-Dichloroethene*	*110*	*E*	*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	2.3		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	24		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*	*48*	*E*	*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	0.32	J	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.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-40434-23

Matrix: Water Lab File ID: 50116030.D

Analysis Method: 8260C Date Collected: 01/13/2015 11:50

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 22:59

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.: 130947 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)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D
Lims ID: 180-40434-D-23 Lab Sample ID: 180-40434-23
Client ID: HD-MW-93S-0/1-0
Sample Type: Client
Inject. Date: 16-Jan-2015 22:59:30 ALS Bottle#: 26 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40434-D-23
Misc. Info.: 180-0005307-030
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jan-2015 08:21:26 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: fergusond Date: 19-Jan-2015 08:21:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.302	-0.012	86	145809	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	100	421505	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.361	0.001	99	95978	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	99	130279	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	92	103800	57.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	92	155307	52.7	
$ 7 Toluene-d8 (Surr)	98	8.920	8.925	-0.005	96	379702	47.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	85	144076	47.4	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62	1.918	1.905	0.013	1	1109	0.3239	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.390	3.371	0.019	45	3924	1.71	
24 Acetone	43	3.487	3.493	-0.006	1	3153	2.39	M
26 Carbon disulfide	76		3.669				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	69	4867	2.09	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.173	5.172	0.000	96	20764	3.84	
45 cis-1,2-Dichloroethene	96	5.939	5.938	0.001	86	1326369	527.8	E
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.230				ND	
52 Chloroform	83	6.347	6.346	0.001	1	1481	0.3622	M
53 1,1,1-Trichloroethane	97	6.541	6.535	0.006	53	30241	11.4	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.667	7.666	0.001	94	271598	121.7	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.049				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.534	9.534	0.000	93	448136	238.5	E
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112	10.386	10.391	-0.005	44	9908	1.60	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

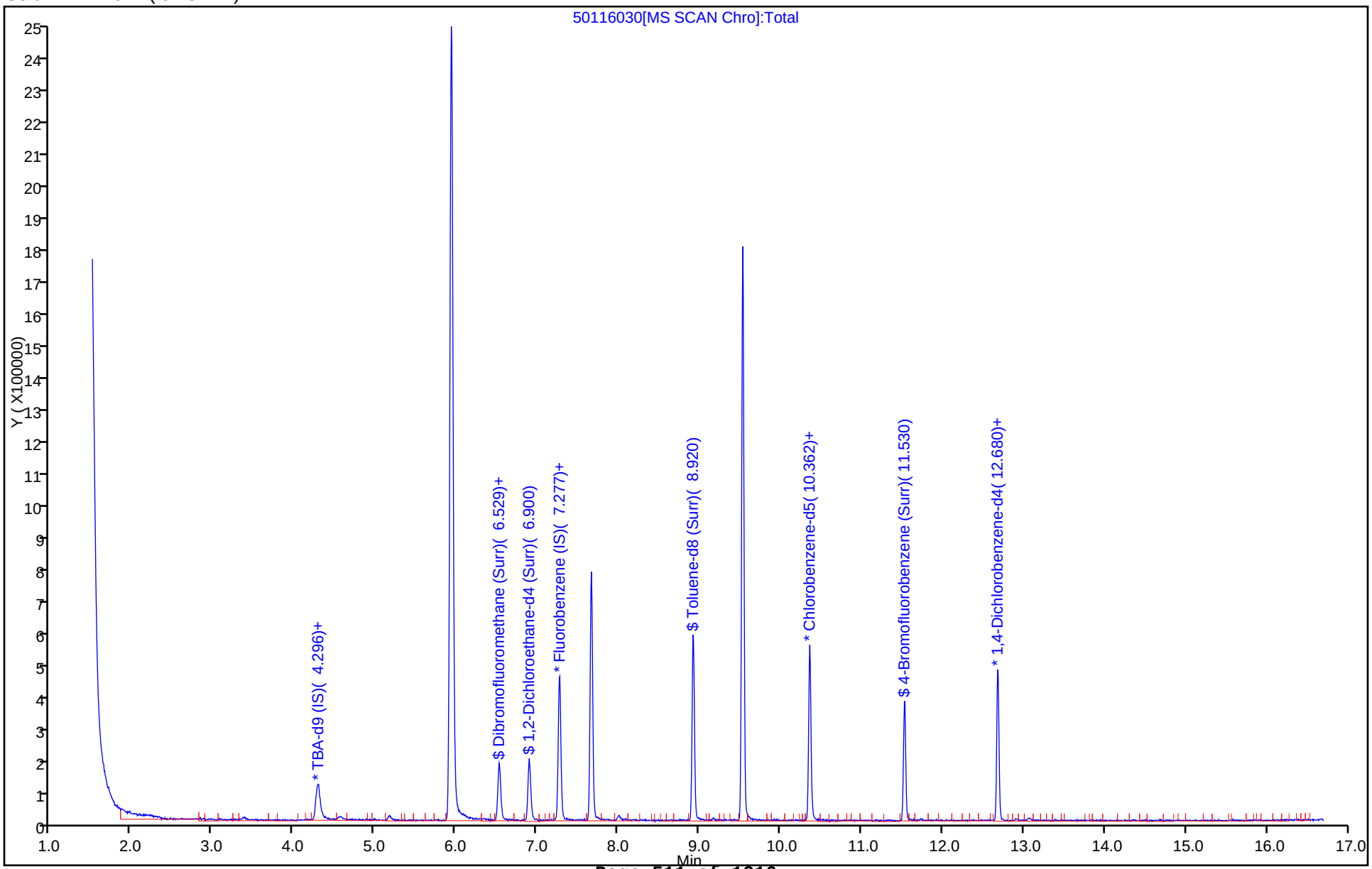
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 19-Jan-2015 08:21:26 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D				
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23	Worklist Smp#:	30
Client ID:	HD-MW-93S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



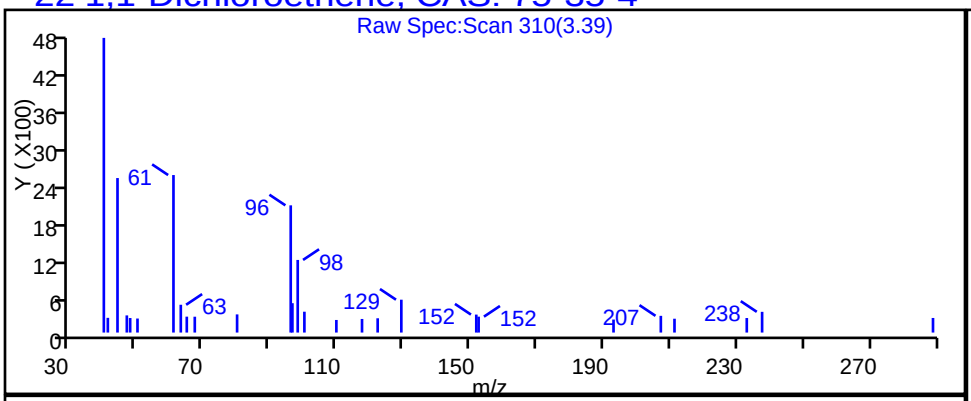
Report Date: 19-Jan-2015 08:21:26 Chrom Revision: 2.2 06-Nov-2014 14:50:32

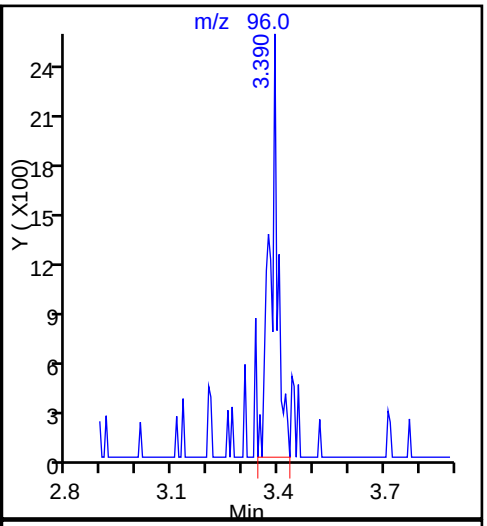
TestAmerica Pittsburgh

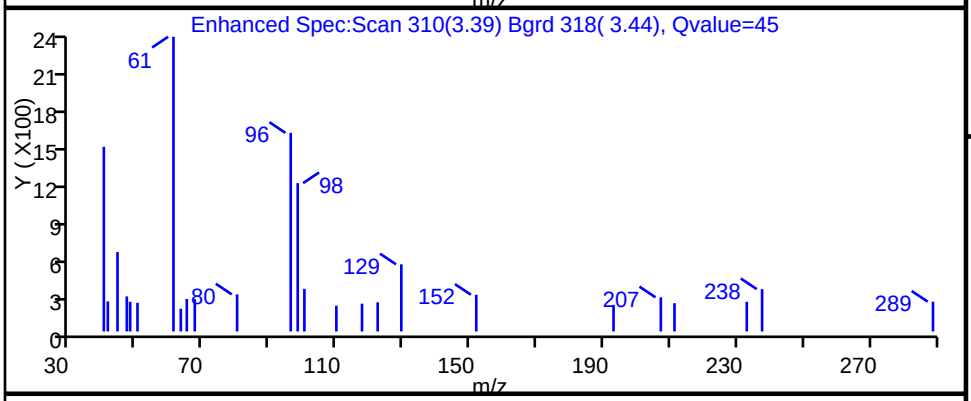
Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D

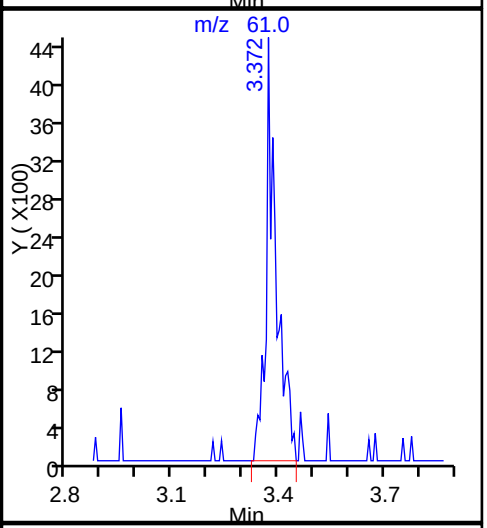
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

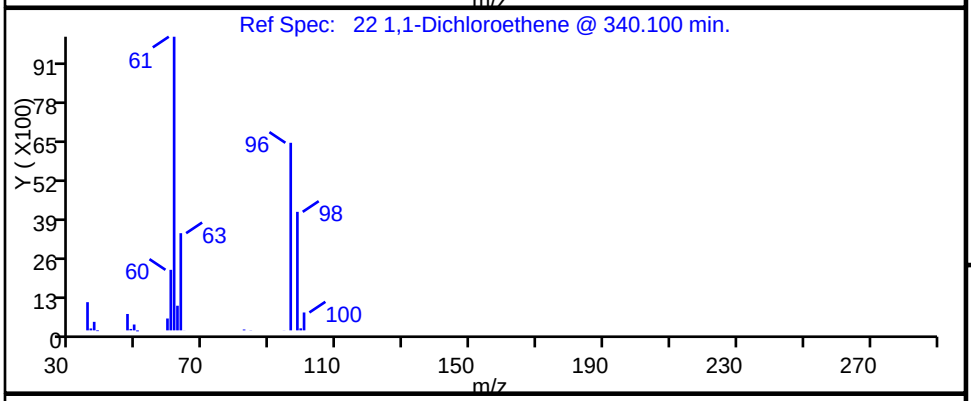
22 1,1-Dichloroethene, CAS: 75-35-4

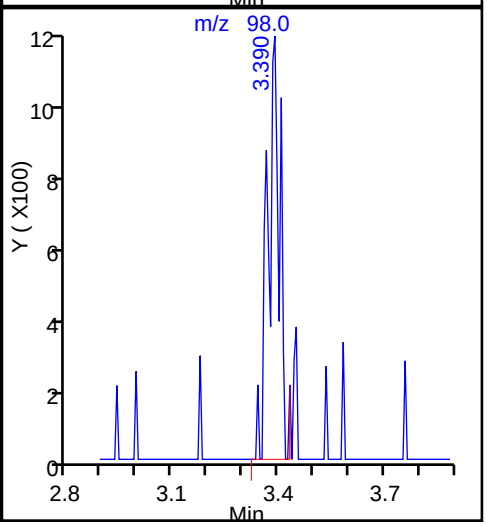


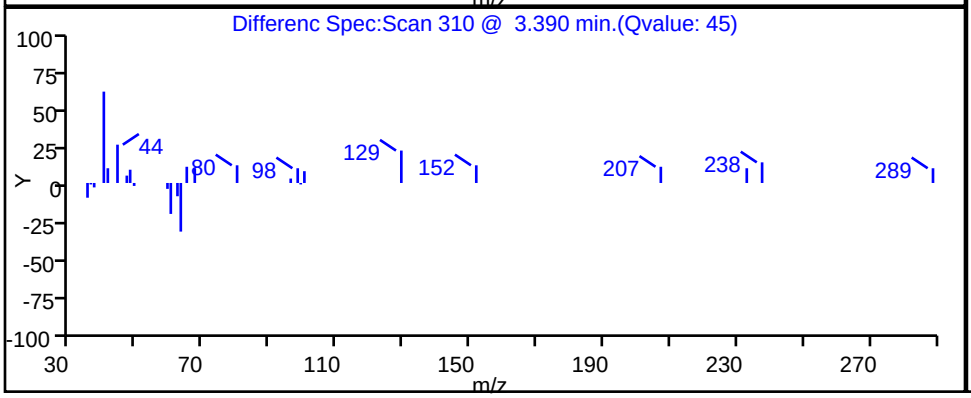










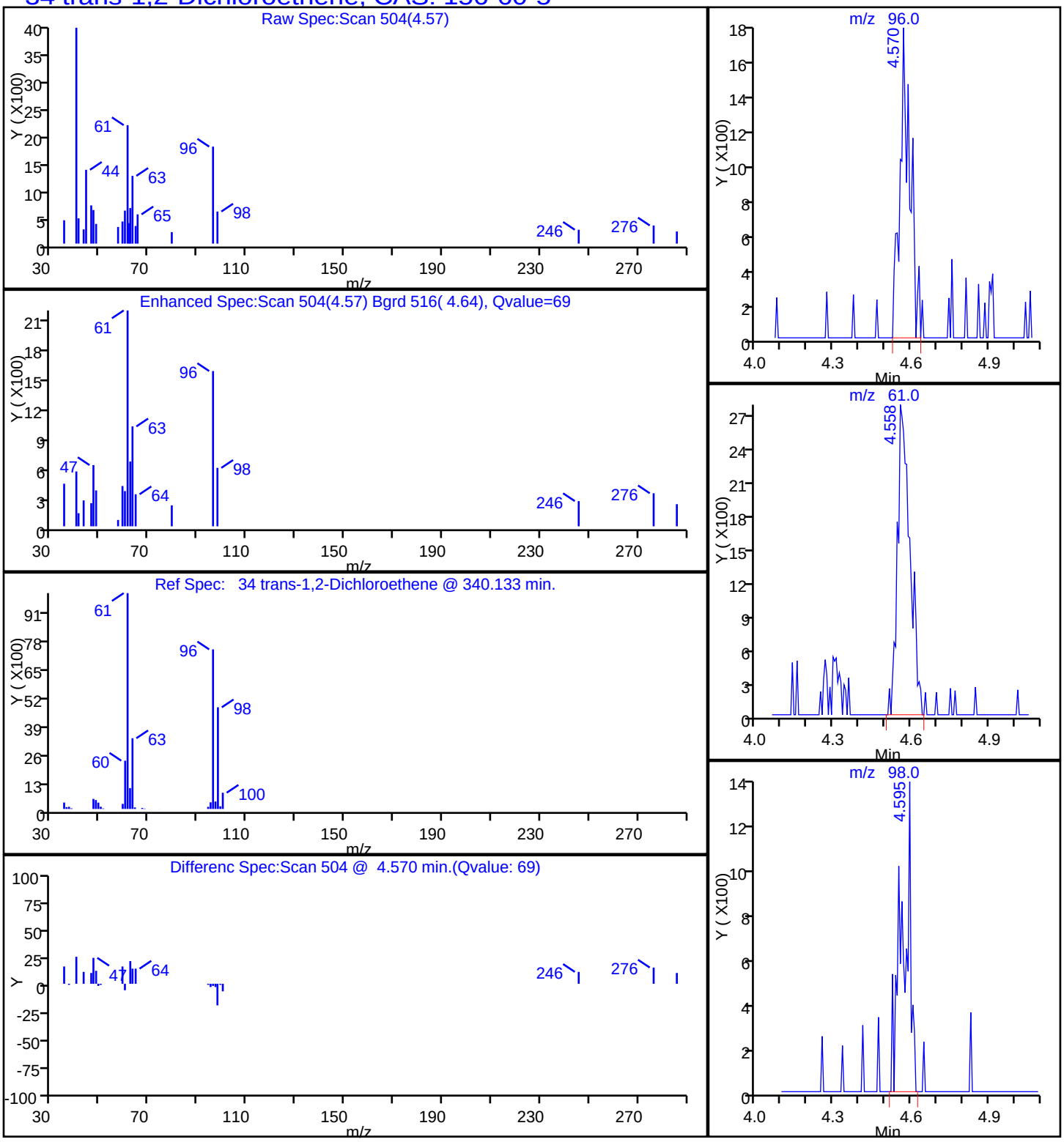


Report Date: 19-Jan-2015 08:21:26 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D				
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

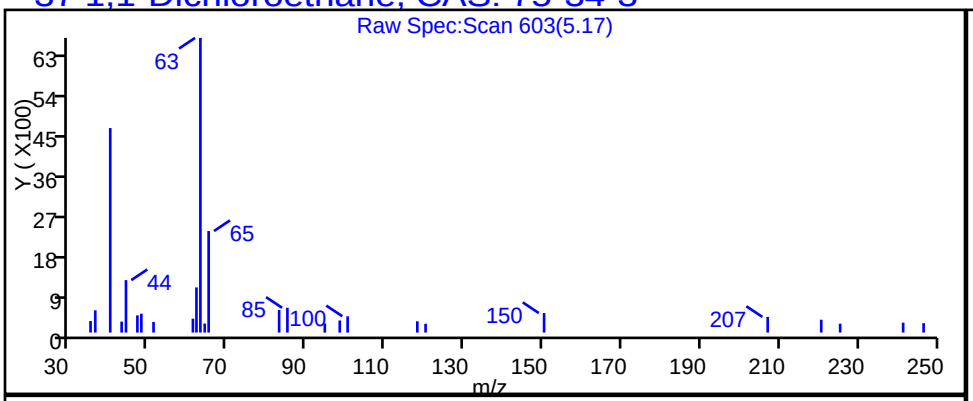


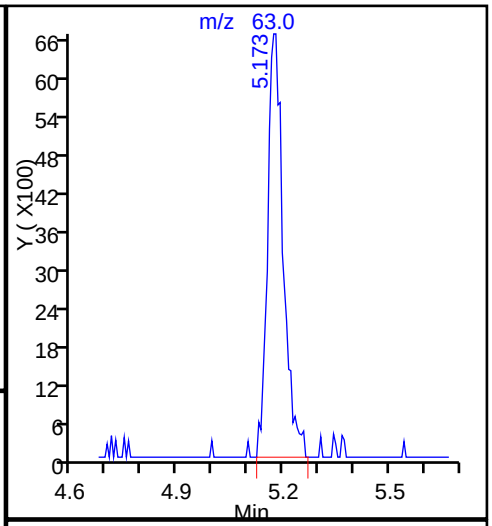
Report Date: 19-Jan-2015 08:21:26 Chrom Revision: 2.2 06-Nov-2014 14:50:32

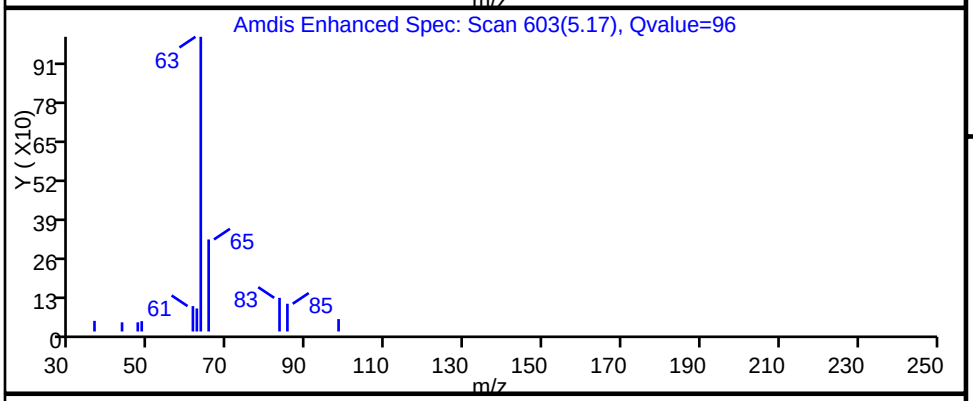
TestAmerica Pittsburgh

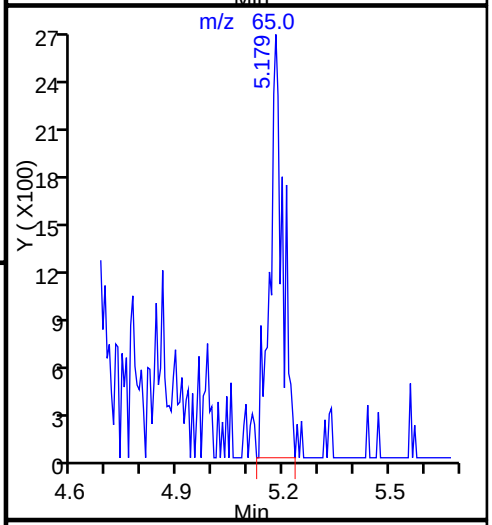
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D				
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

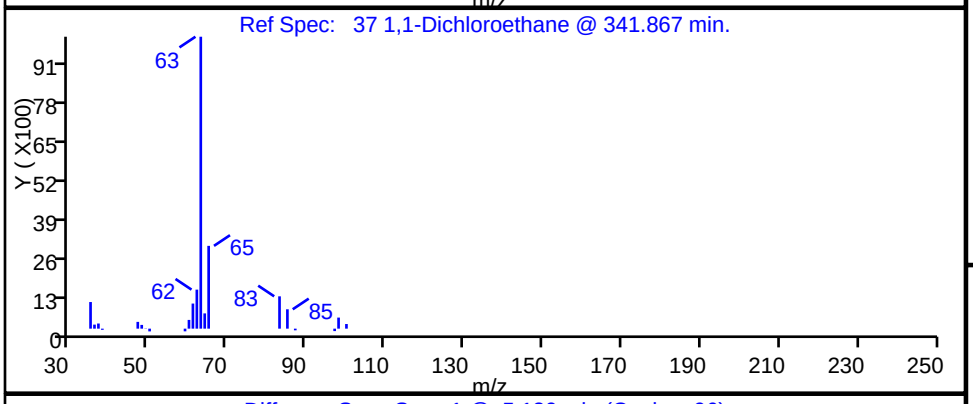
37 1,1-Dichloroethane, CAS: 75-34-3

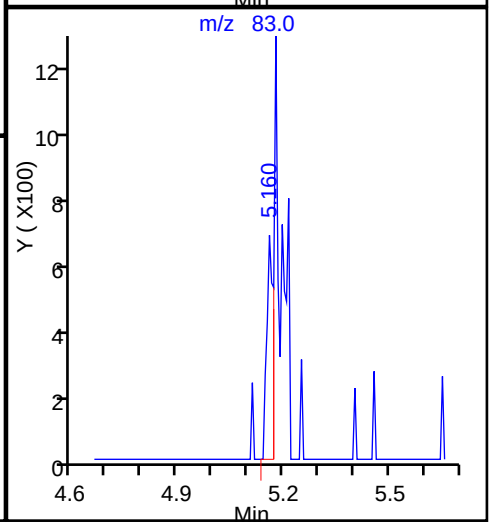


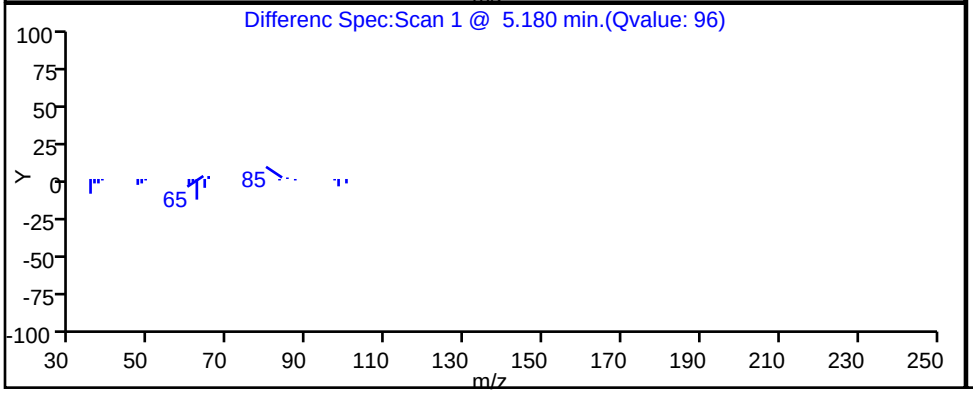










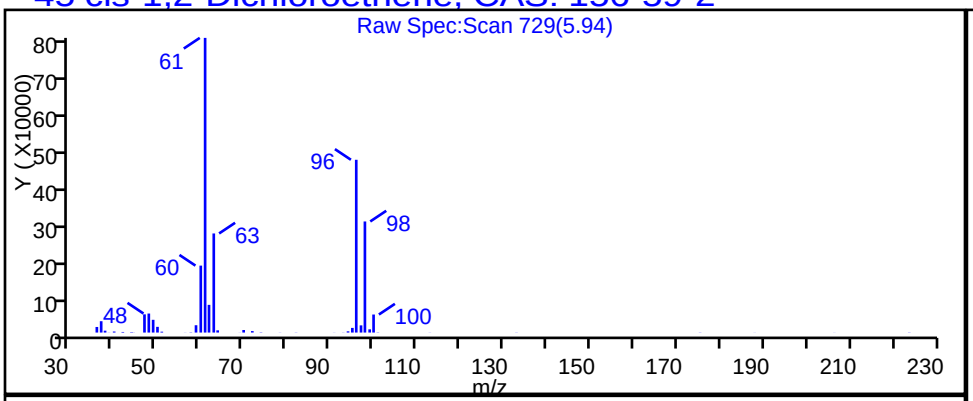


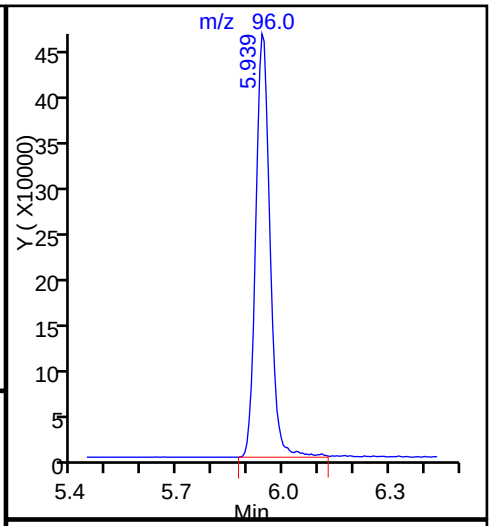
Report Date: 19-Jan-2015 08:21:26 Chrom Revision: 2.2 06-Nov-2014 14:50:32

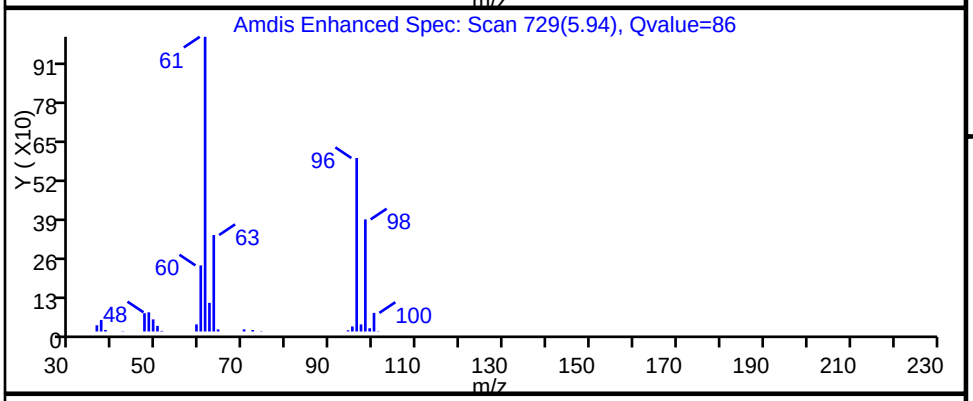
TestAmerica Pittsburgh

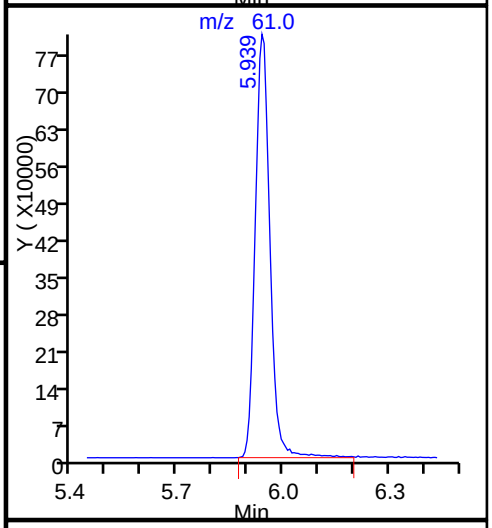
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D		
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

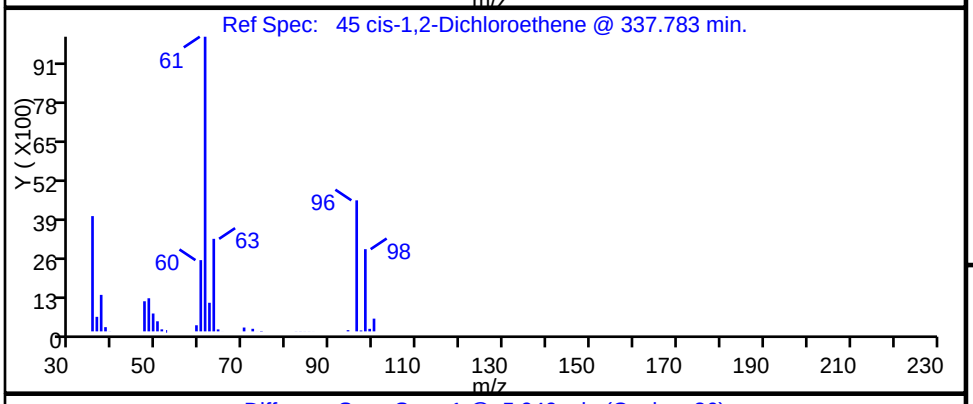
45 cis-1,2-Dichloroethene, CAS: 156-59-2

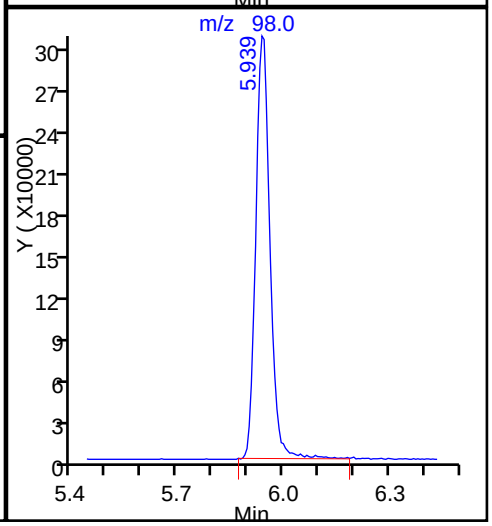


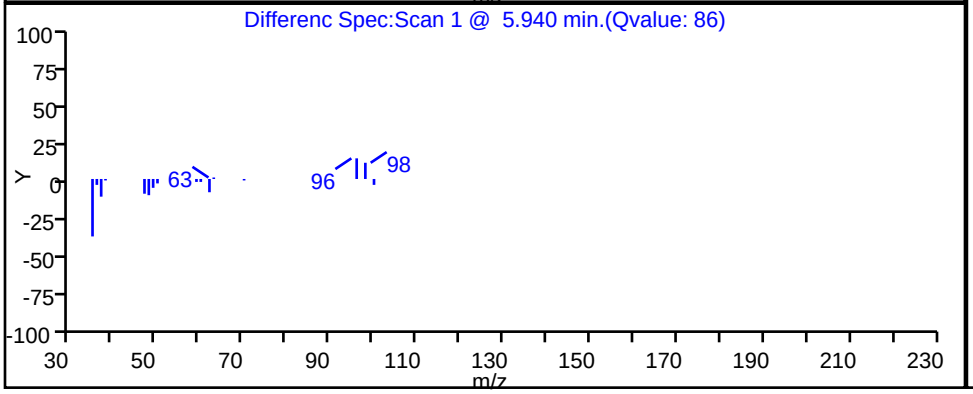










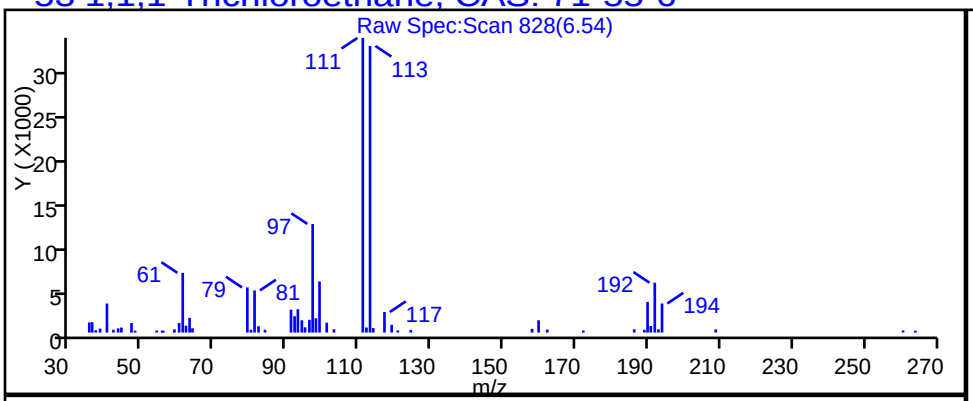


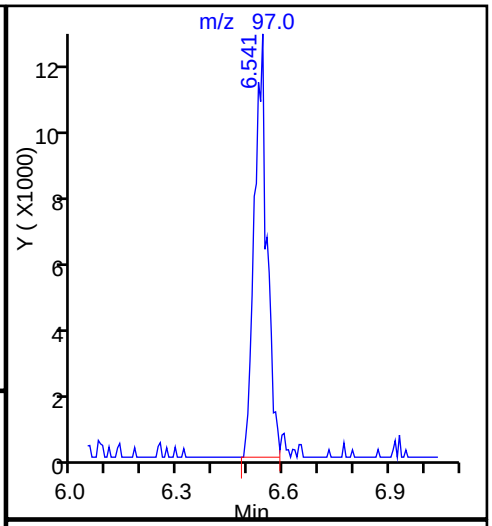
Report Date: 19-Jan-2015 08:21:26 Chrom Revision: 2.2 06-Nov-2014 14:50:32

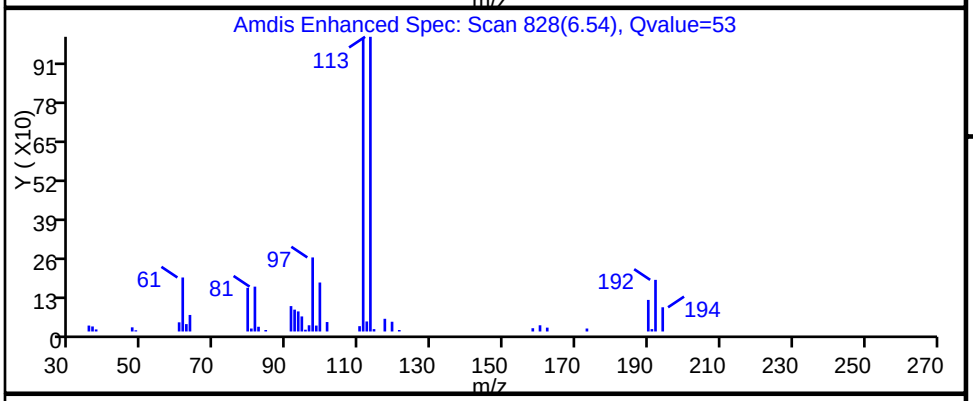
TestAmerica Pittsburgh

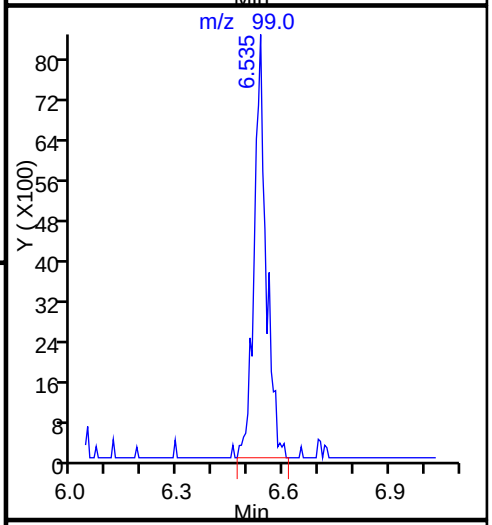
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D				
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

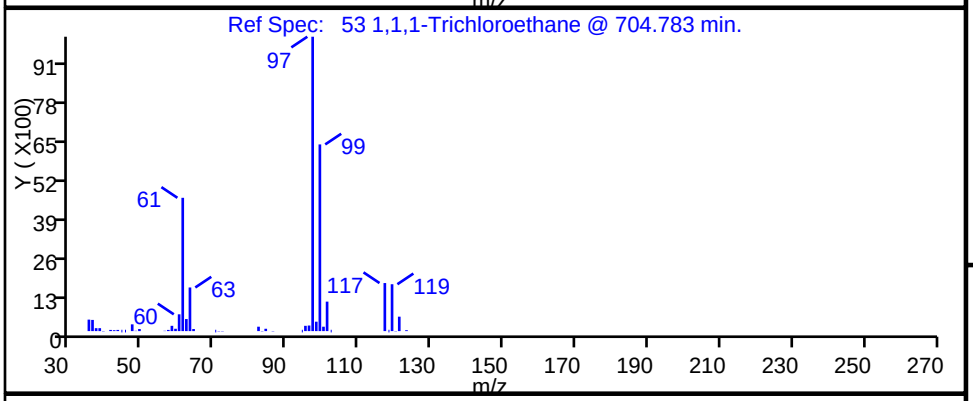
53 1,1,1-Trichloroethane, CAS: 71-55-6

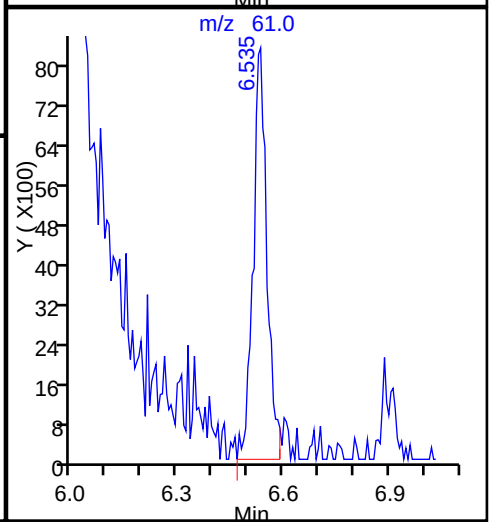


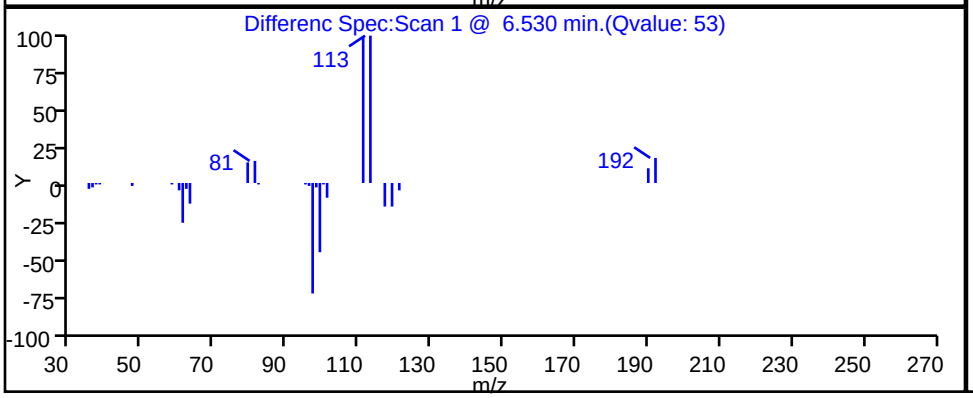










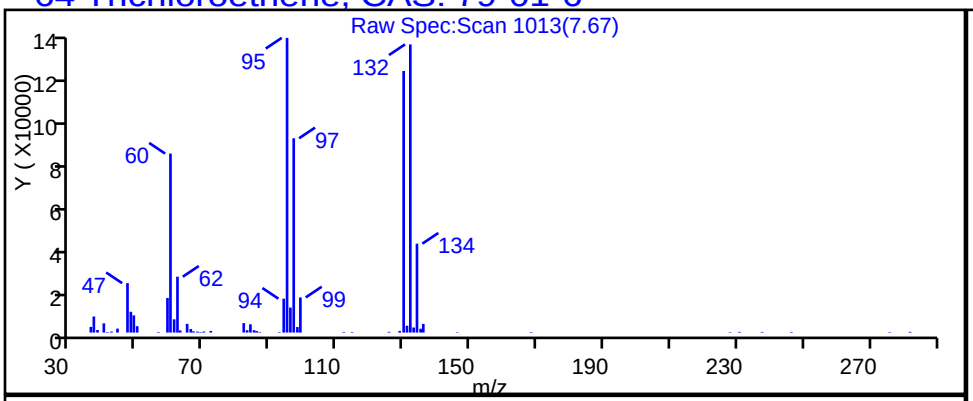


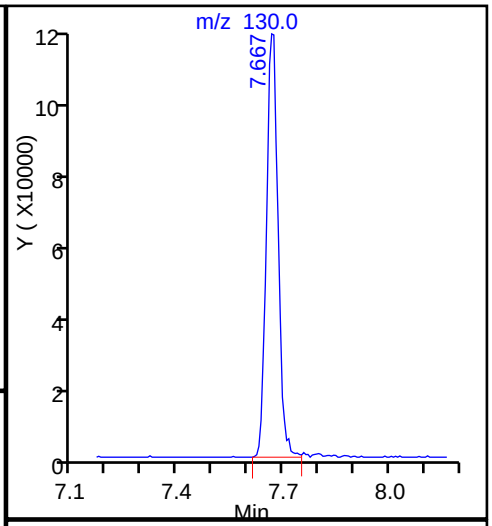
Report Date: 19-Jan-2015 08:21:27 Chrom Revision: 2.2 06-Nov-2014 14:50:32

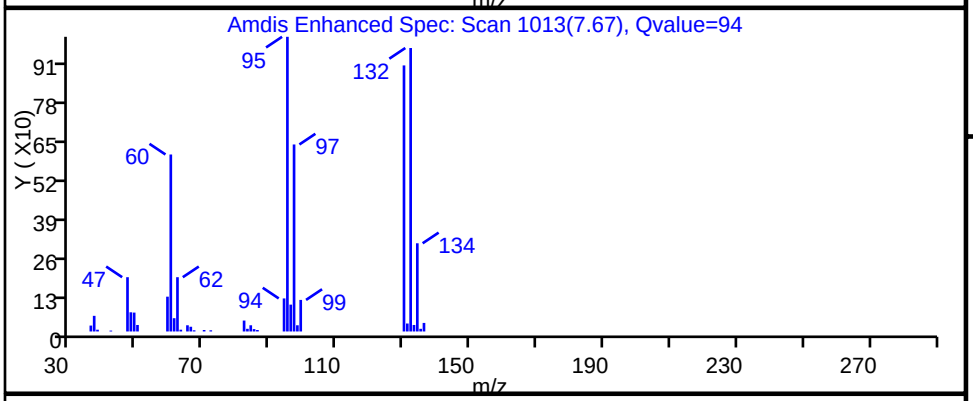
TestAmerica Pittsburgh

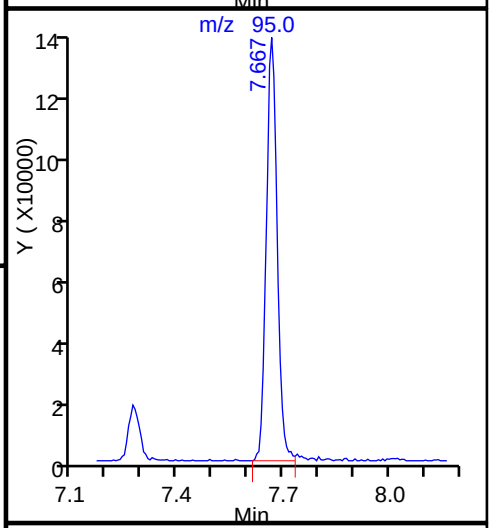
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D		
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

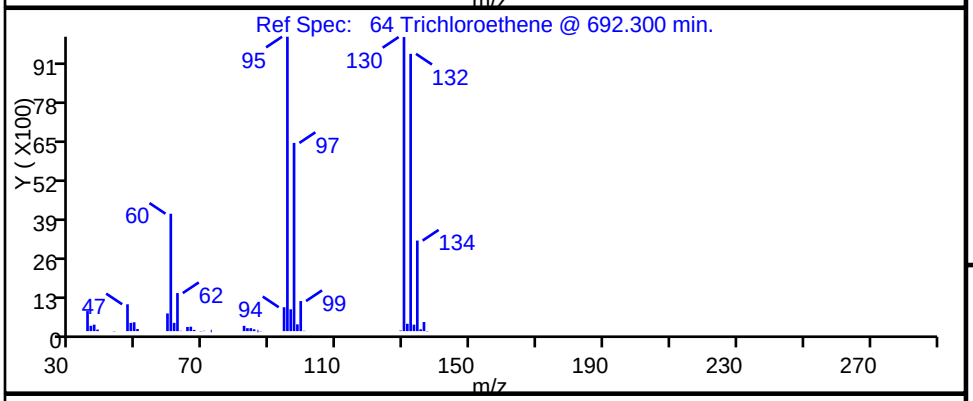
64 Trichloroethene, CAS: 79-01-6

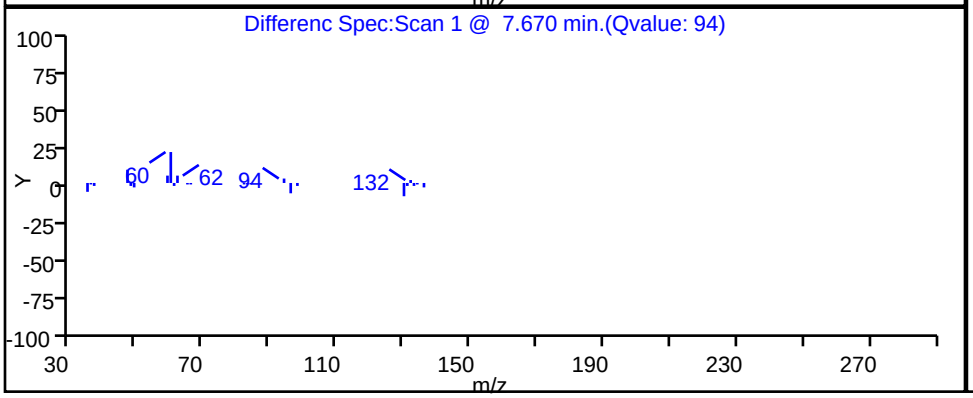


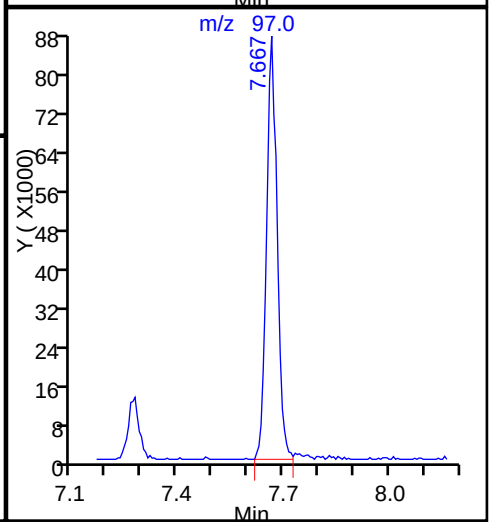












Report Date: 19-Jan-2015 08:21:27 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D

Injection Date: 16-Jan-2015 22:59:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-23 Lab Sample ID: 180-40434-23

Client ID: HD-MW-93S-0/1-0

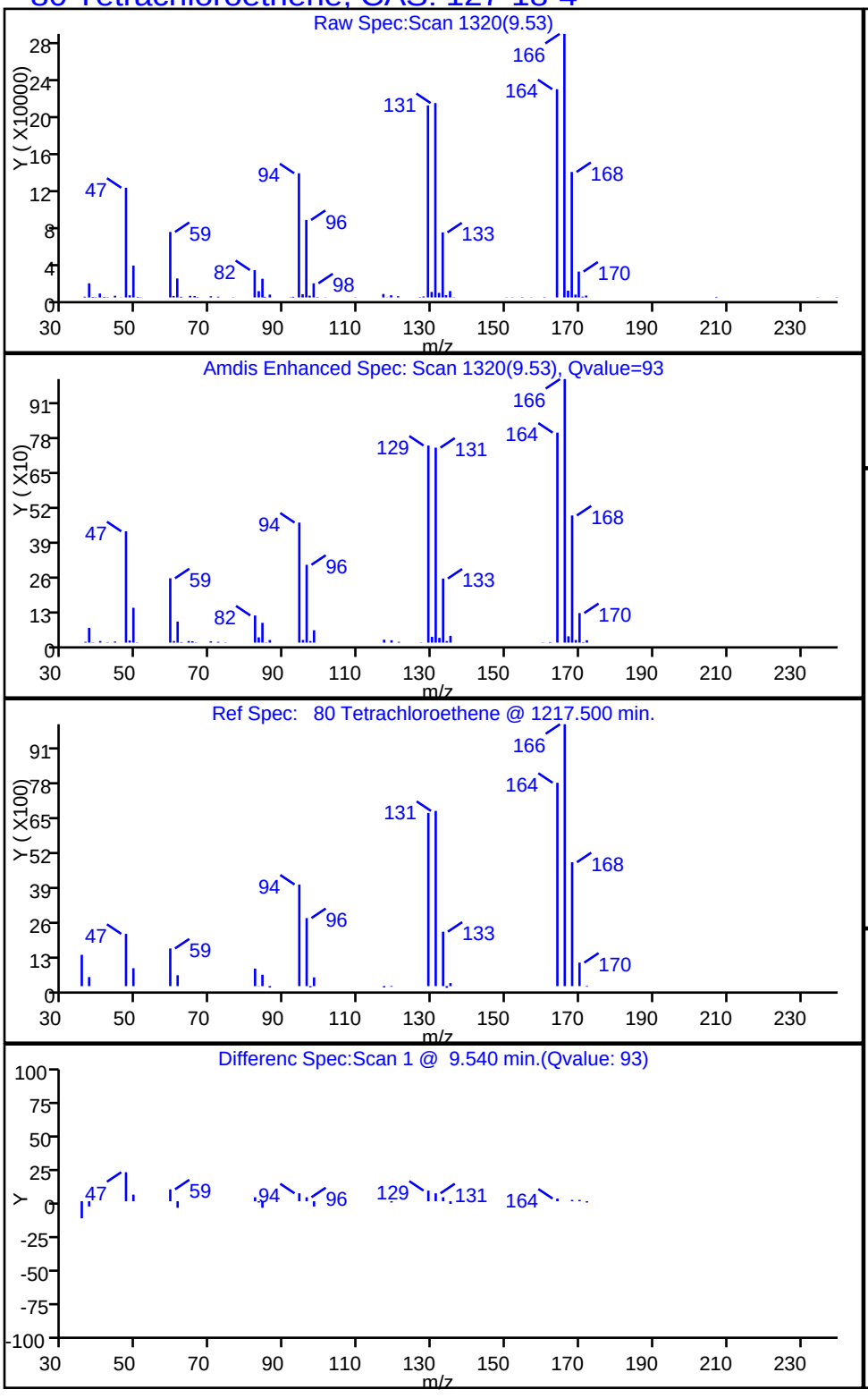
Operator ID: 001562 ALS Bottle#: 26 Worklist Smp#: 30

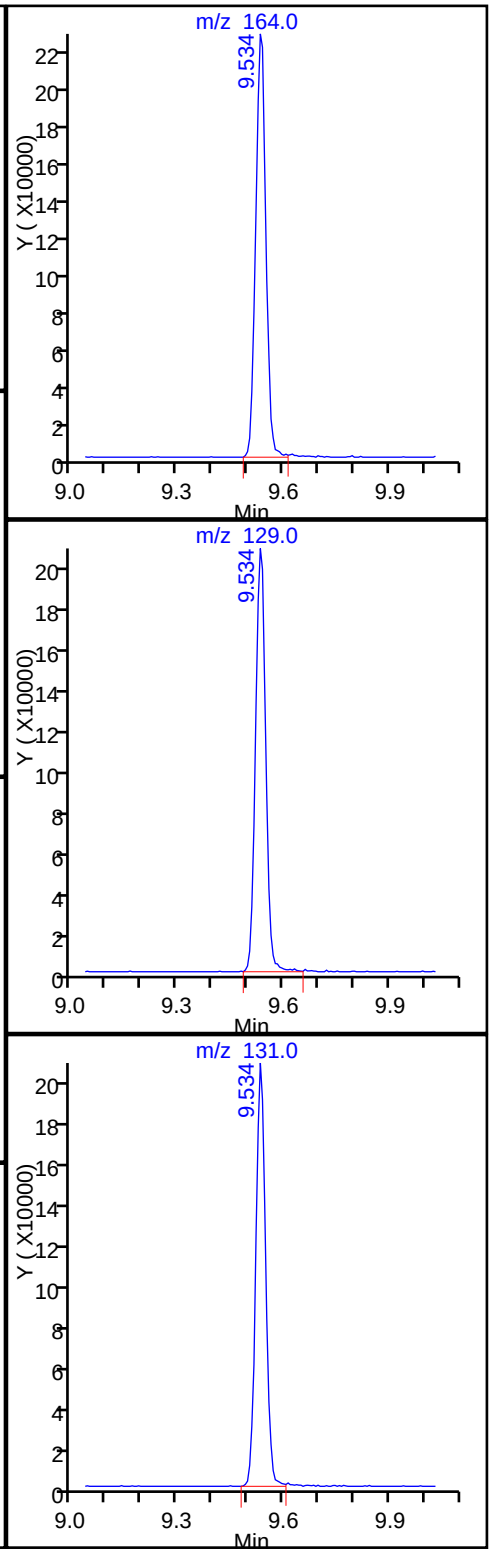
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





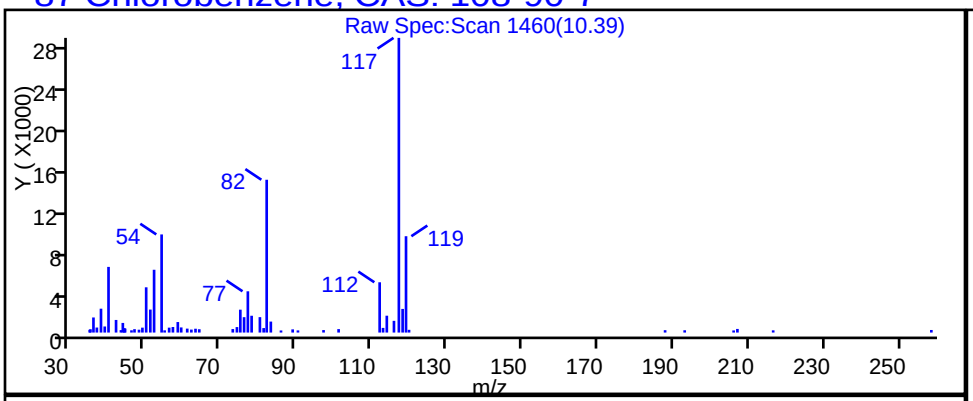
Report Date: 19-Jan-2015 08:21:27 Chrom Revision: 2.2 06-Nov-2014 14:50:32

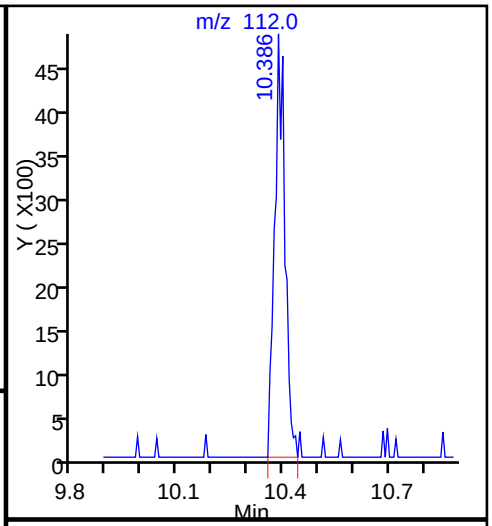
TestAmerica Pittsburgh

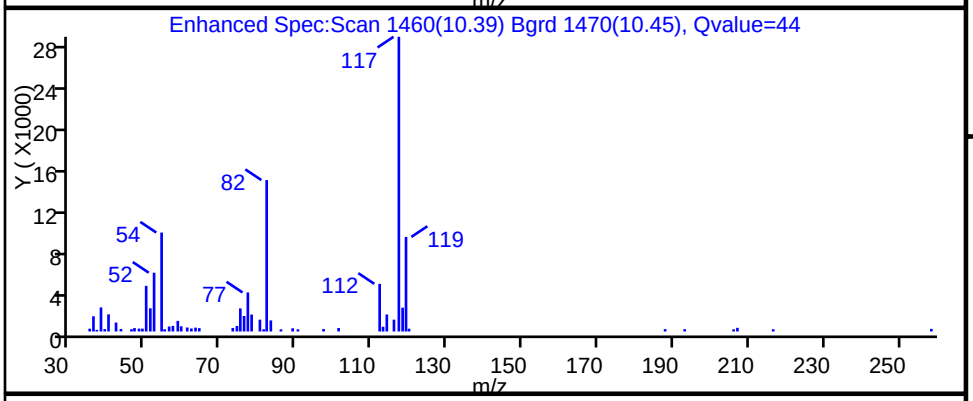
Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D

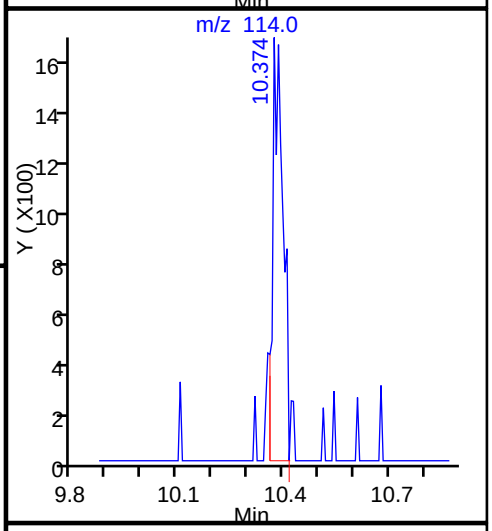
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

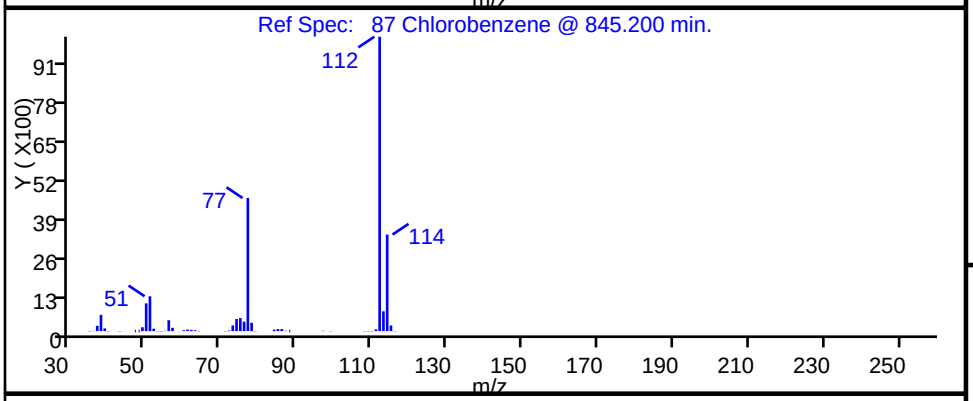
87 Chlorobenzene, CAS: 108-90-7

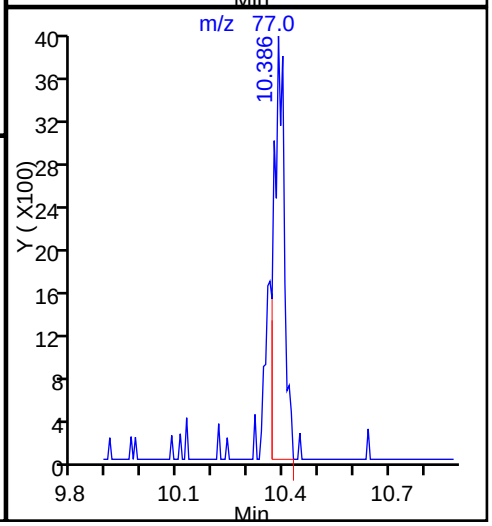


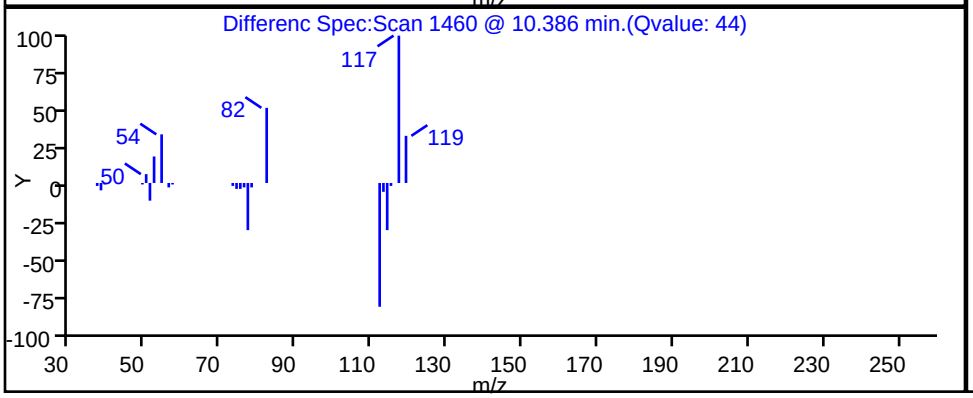












Manual Integration/User Assign Peak Report

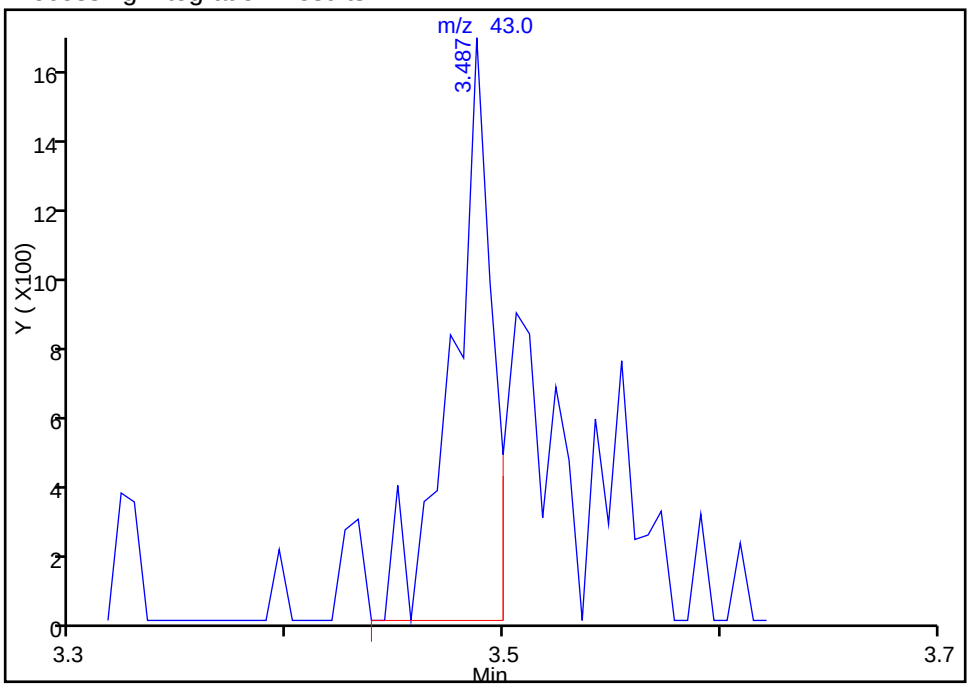
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D				
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

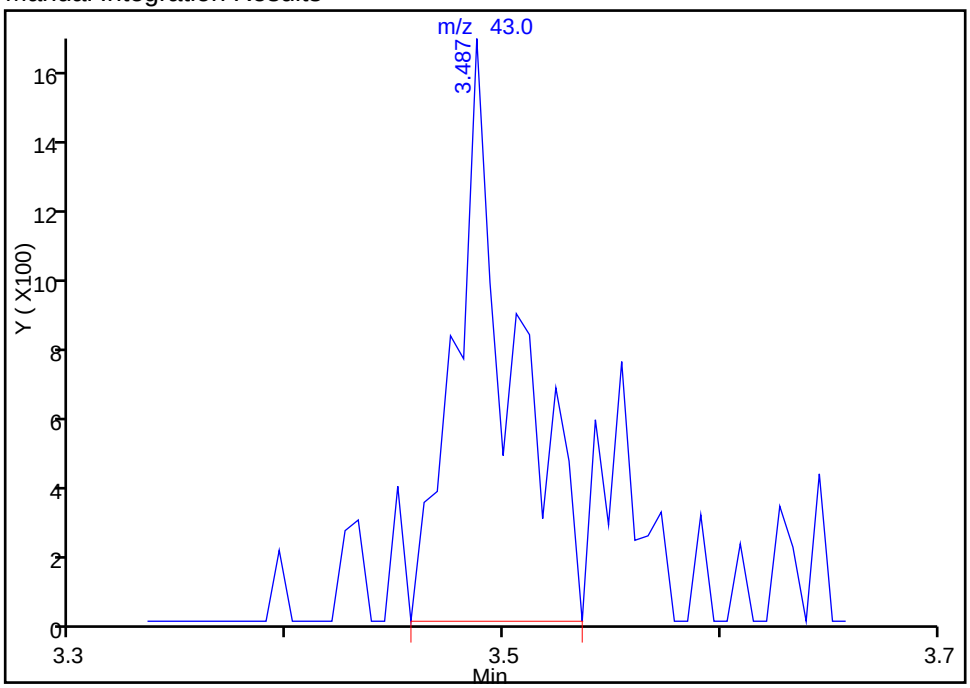
Processing Integration Results

RT: 3.49
Response: 2140
Amount: 1.619124



Manual Integration Results

RT: 3.49
Response: 3153
Amount: 2.385560



Reviewer: fergusond, 19-Jan-2015 08:21:26
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

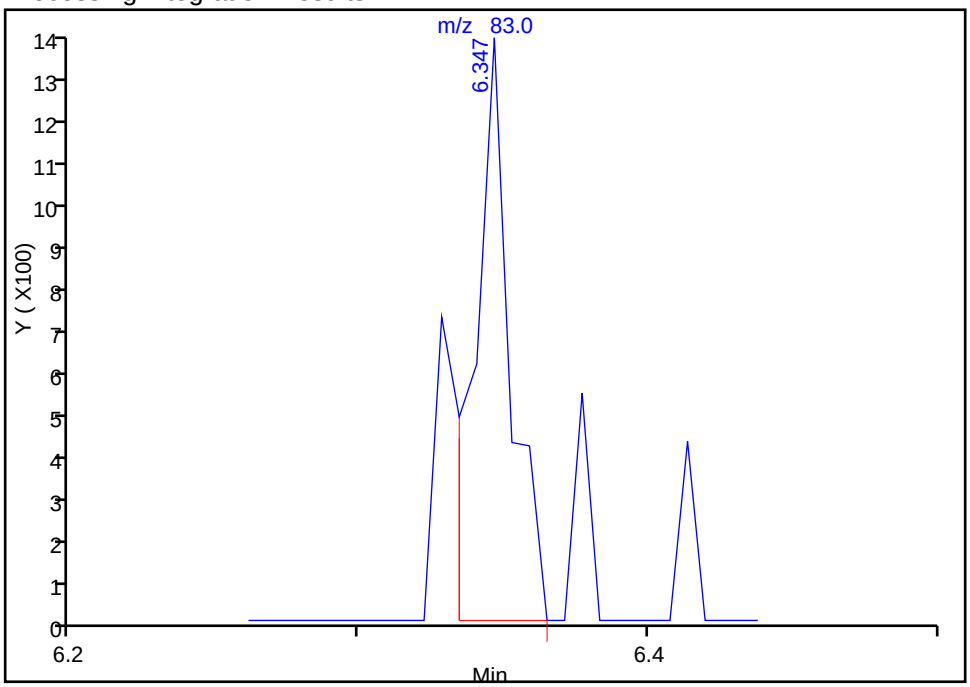
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116030.D				
Injection Date:	16-Jan-2015 22:59:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

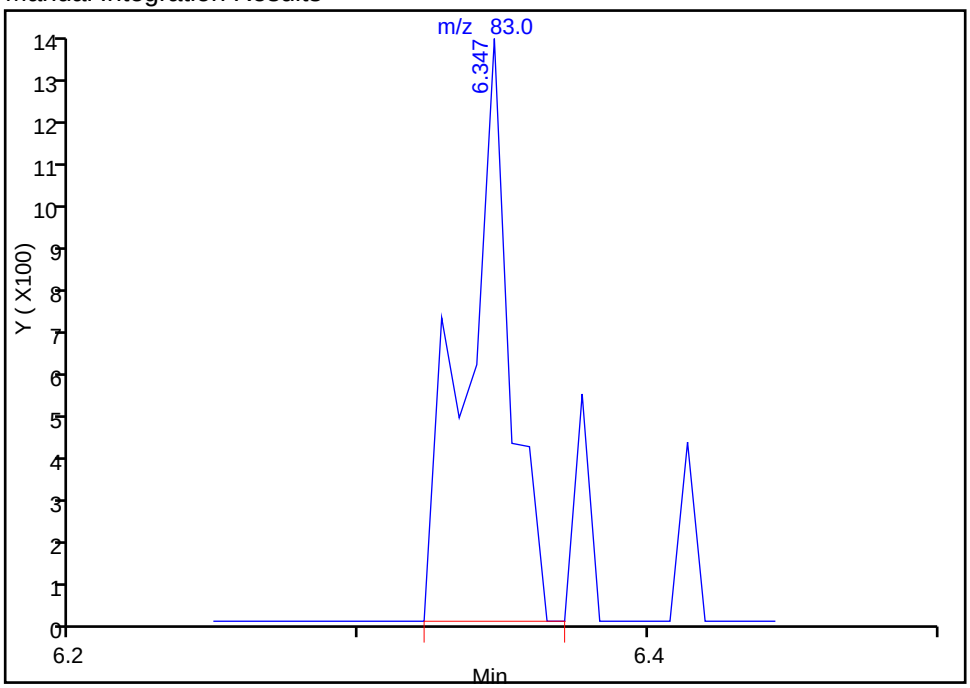
Processing Integration Results

RT: 6.35
Response: 1217
Amount: 0.297672



Manual Integration Results

RT: 6.35
Response: 1481
Amount: 0.362245



Reviewer: fergusond, 19-Jan-2015 08:21:26
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 DL | Lab Sample ID: 180-40434-23 DL

Matrix: Water | Lab File ID: 50116012.D

Analysis Method: 8260C | Date Collected: 01/13/2015 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/16/2015 15:45

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.: 130947 | 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	5.0	U	5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.0	U	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	0.66	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	95		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	5.0	U	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	21		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	40		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 DL | Lab Sample ID: 180-40434-23 DL

Matrix: Water | Lab File ID: 50116012.D

Analysis Method: 8260C | Date Collected: 01/13/2015 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/16/2015 15:45

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.: 130947 | 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)	110		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D
Lims ID: 180-40434-E-23 Lab Sample ID: 180-40434-23
Client ID: HD-MW-93S-0/1-0
Sample Type: Client
Inject. Date: 16-Jan-2015 15:45:30 ALS Bottle#: 8 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-40434-E-23, 5x
Misc. Info.: 180-0005307-012
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jan-2015 07:32:48 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: fergusond Date: 19-Jan-2015 07:32:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.302	0.000	85	158402	1000.0	
* 2 Fluorobenzene (IS)	96	7.276	7.271	0.005	100	492024	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	99	111776	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	149003	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.522	0.006	93	112553	53.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.905	6.900	0.005	92	189504	55.1	
$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	96	453806	48.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	84	164220	46.4	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96		3.371				ND	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.669				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.190	5.172	0.018	43	4154	0.6581	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	86	277748	94.7	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.230				ND	
52 Chloroform	83		6.346				ND	
53 1,1,1-Trichloroethane	97		6.535				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.672	7.666	0.006	94	53514	20.5	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.049				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.533	9.534	-0.001	95	86566	39.6	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112	10.403	10.391	0.012	1	2073	0.2872	M
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

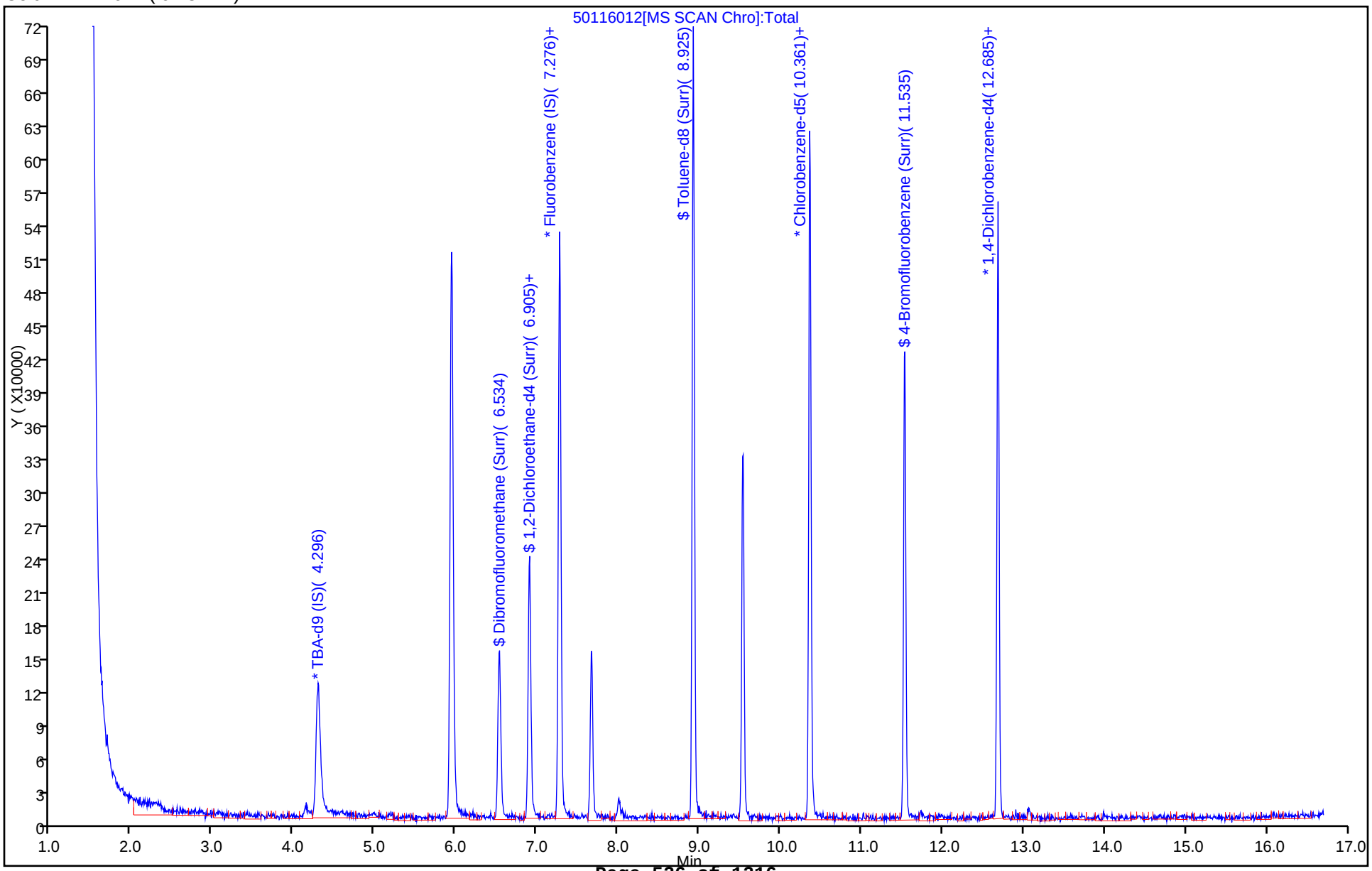
Report Date: 19-Jan-2015 07:32:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D

Injection Date:	16-Jan-2015 15:45:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-E-23	Lab Sample ID:	180-40434-23	Worklist Smp#:	12
Client ID:	HD-MW-93S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

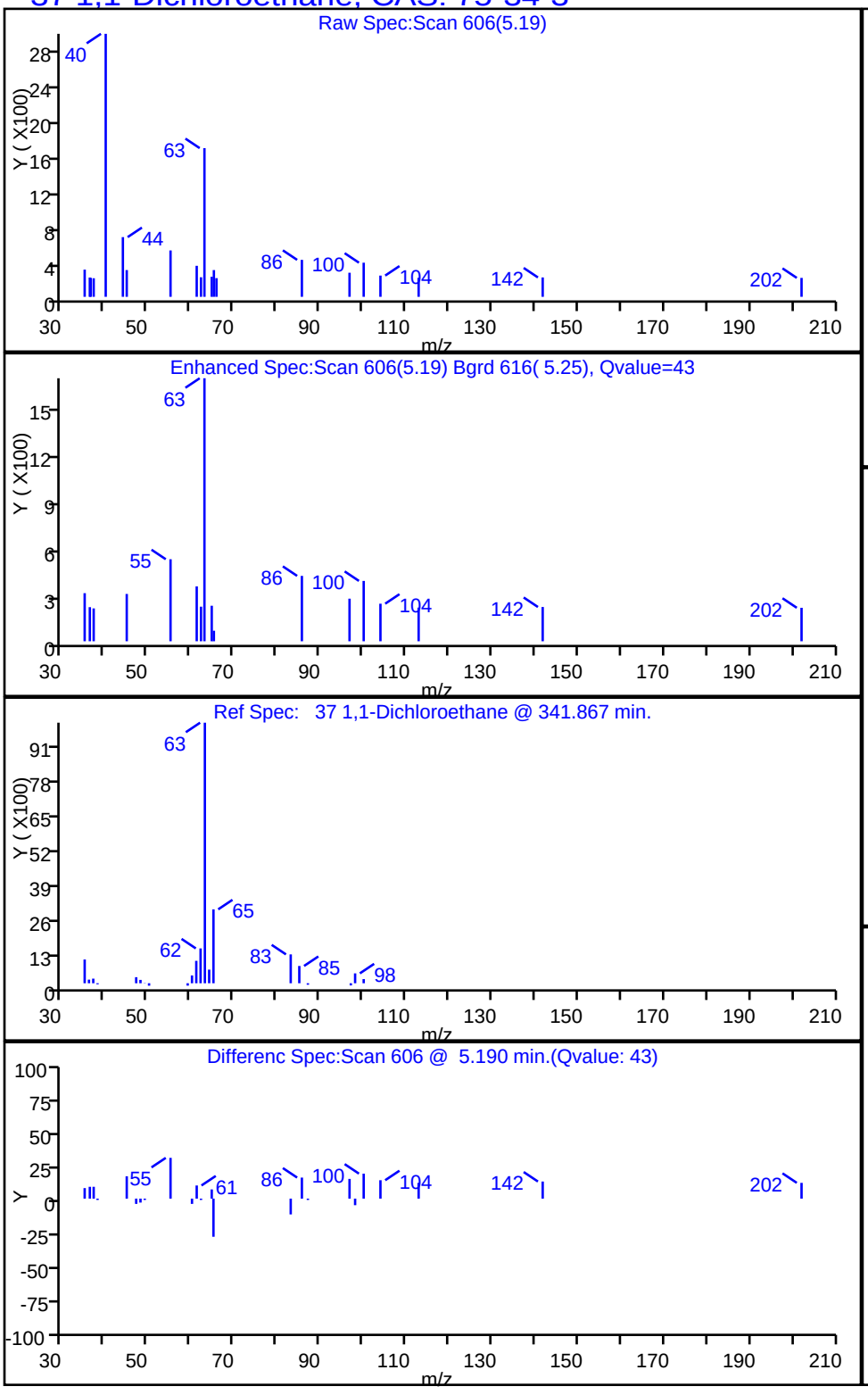


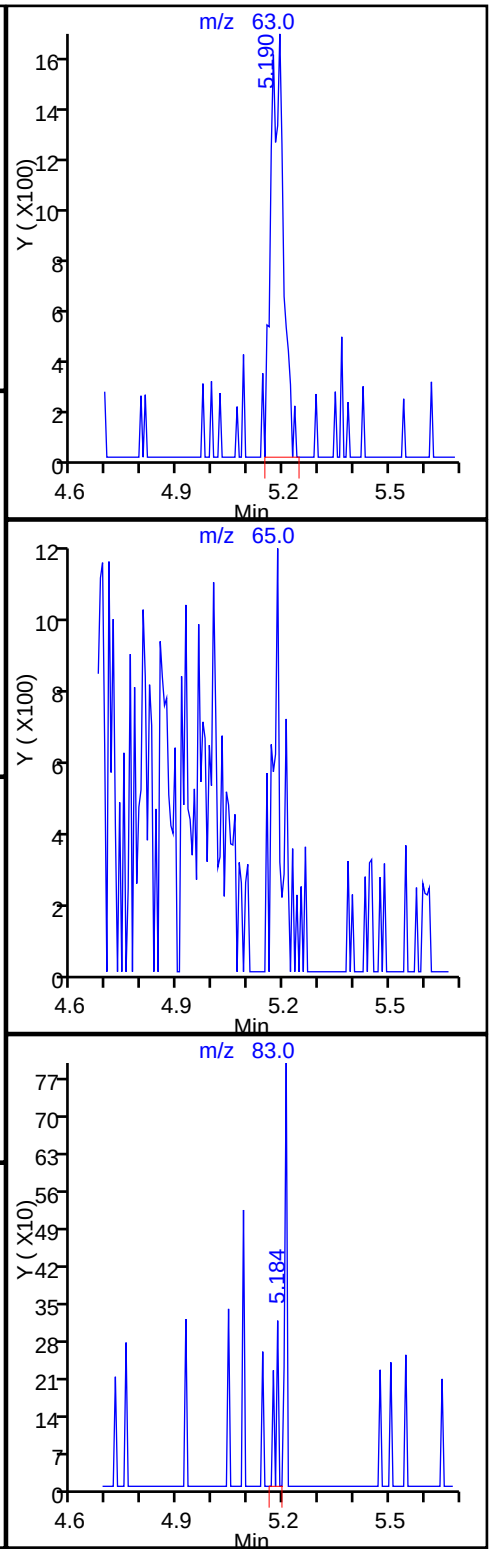
Report Date: 19-Jan-2015 07:32:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D		
Injection Date:	16-Jan-2015 15:45:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-23	Lab Sample ID:	180-40434-23
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	8 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



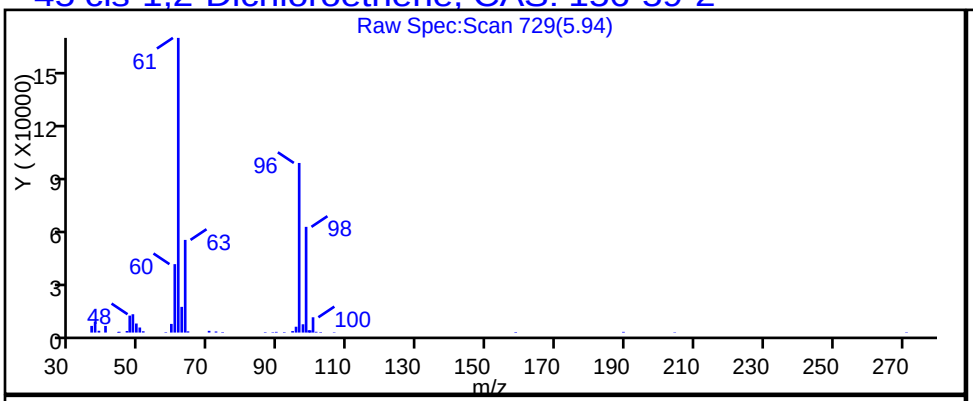


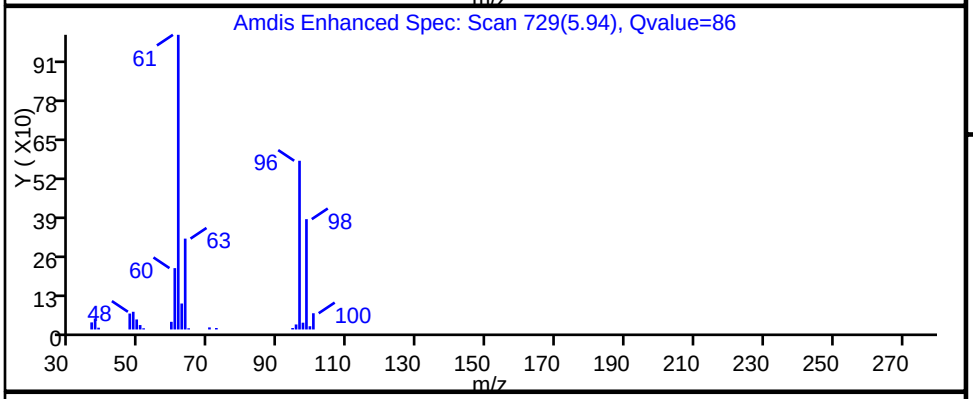
Report Date: 19-Jan-2015 07:32:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

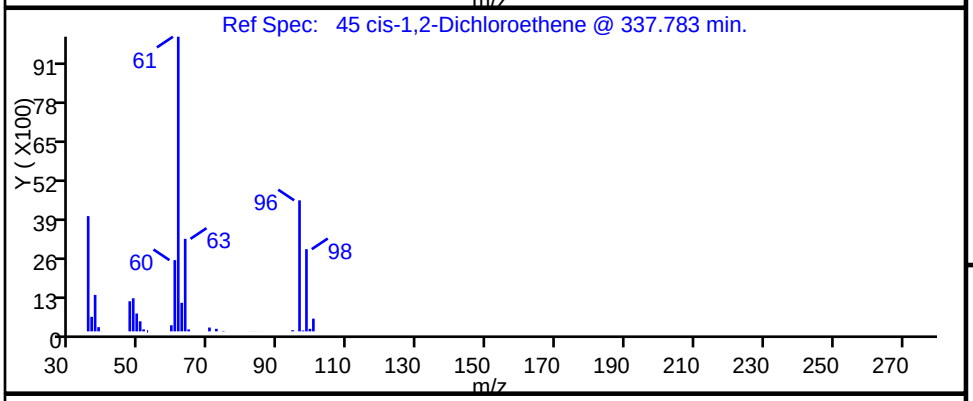
TestAmerica Pittsburgh

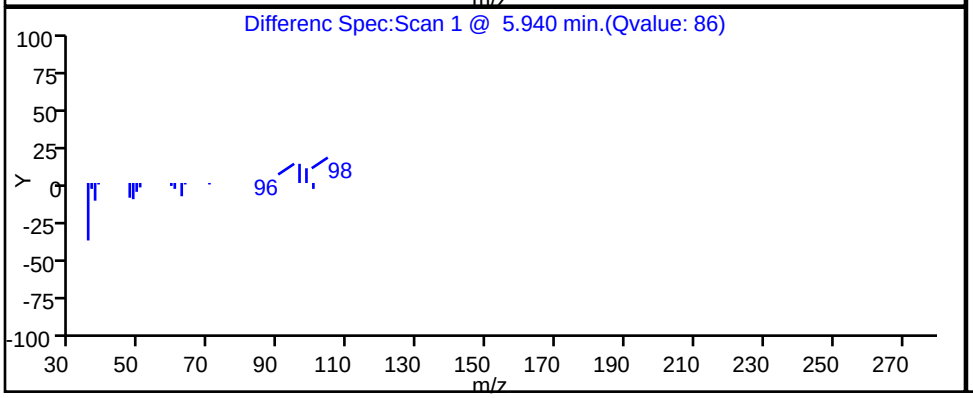
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D				
Injection Date:	16-Jan-2015 15:45:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

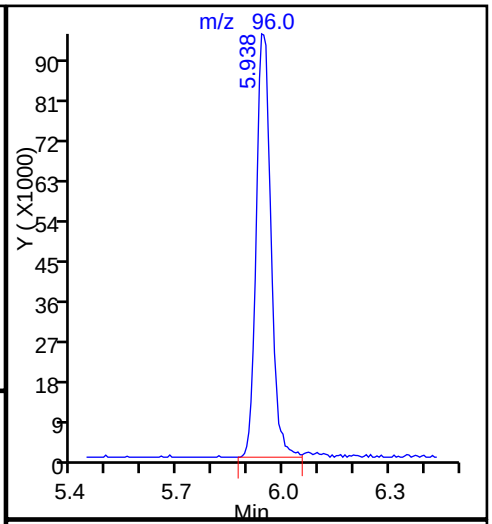
45 cis-1,2-Dichloroethene, CAS: 156-59-2

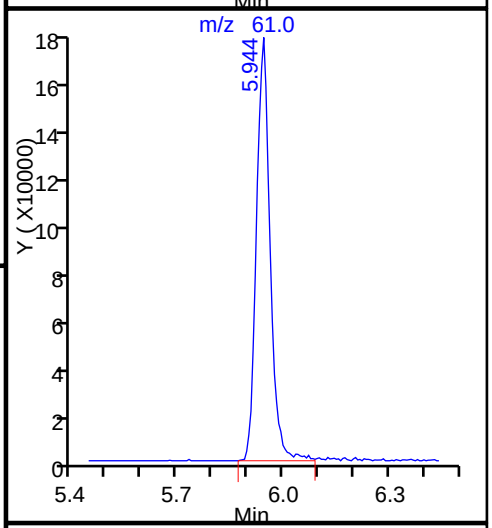


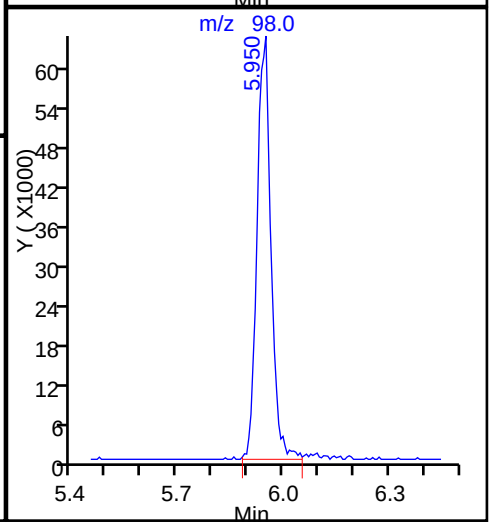










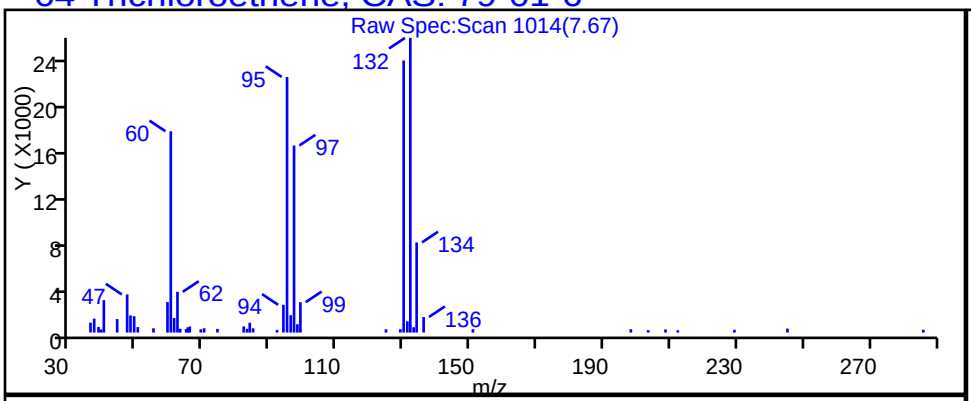


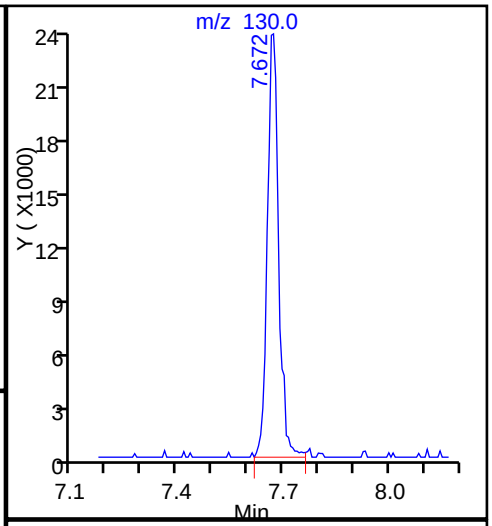
Report Date: 19-Jan-2015 07:32:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

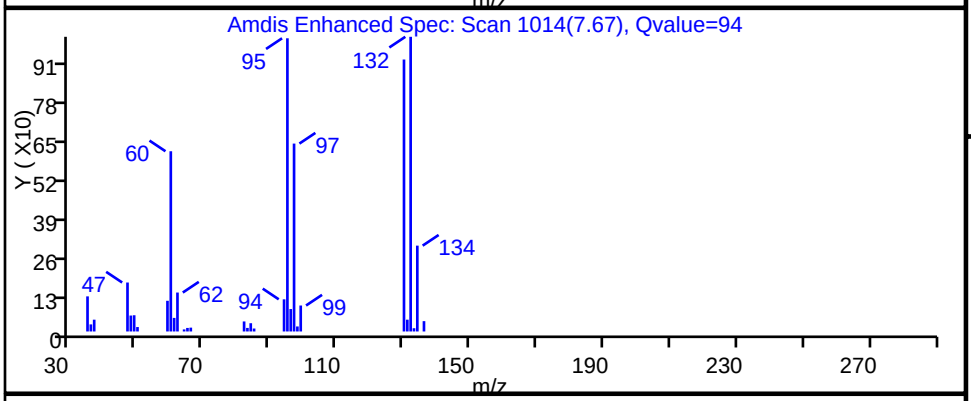
TestAmerica Pittsburgh

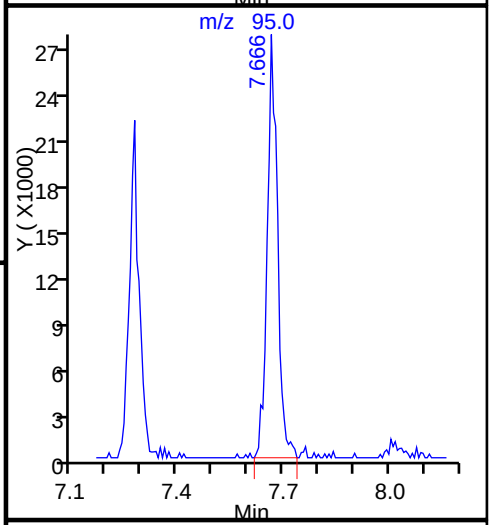
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D				
Injection Date:	16-Jan-2015 15:45:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

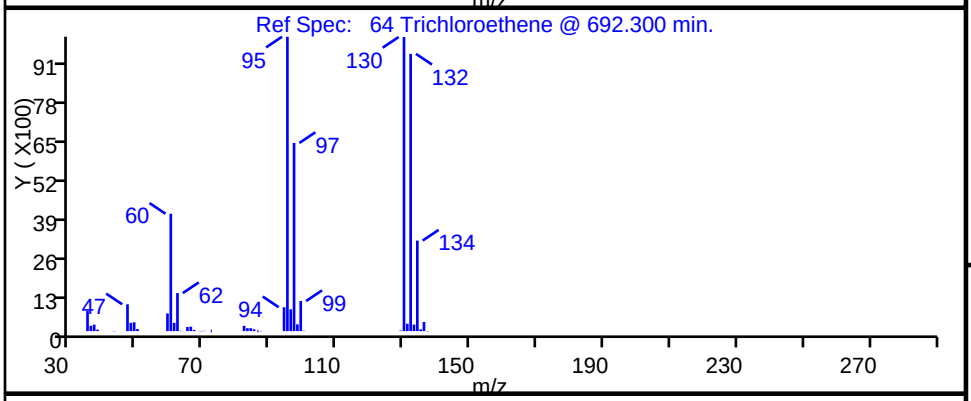
64 Trichloroethene, CAS: 79-01-6

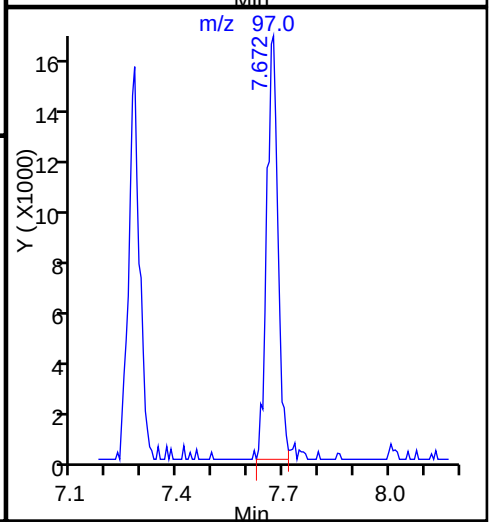


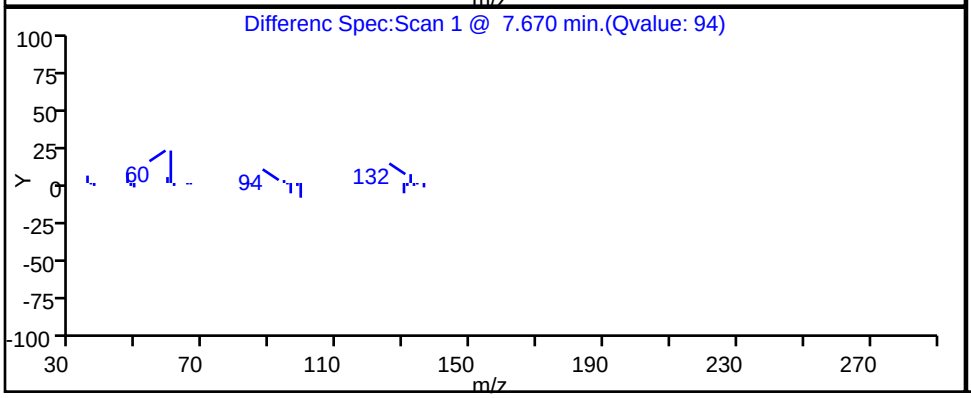










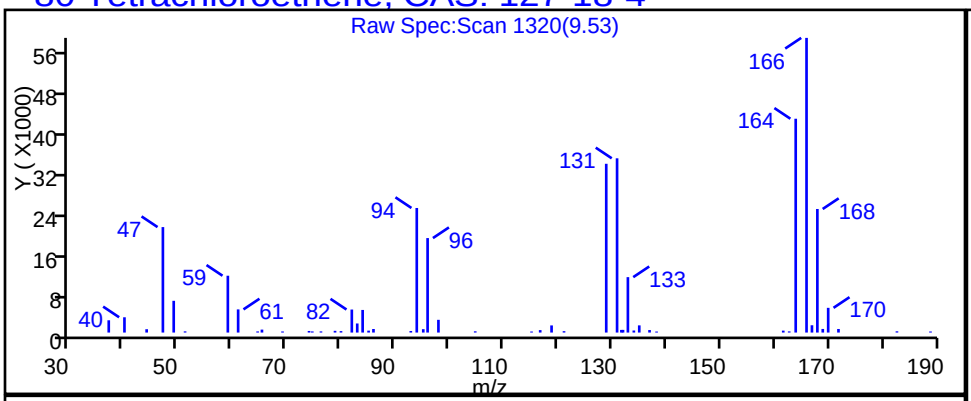


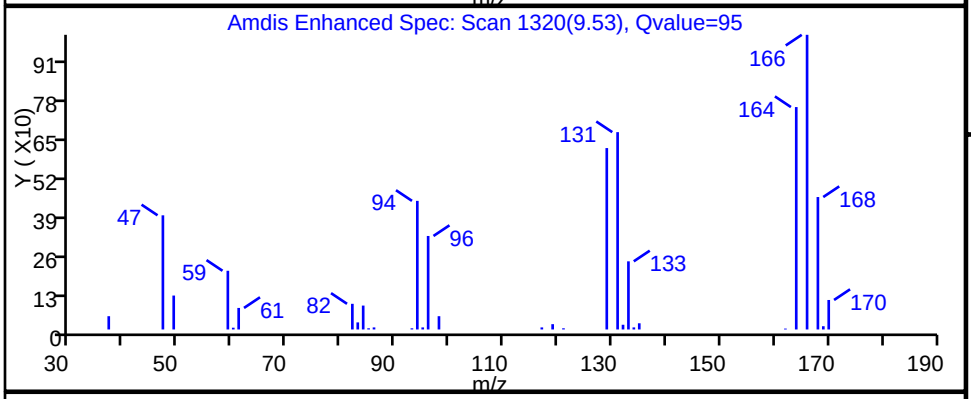
Report Date: 19-Jan-2015 07:32:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

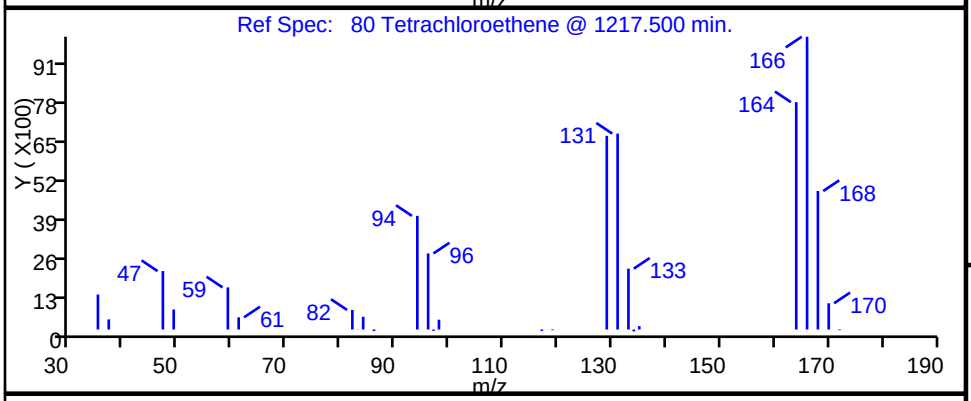
TestAmerica Pittsburgh

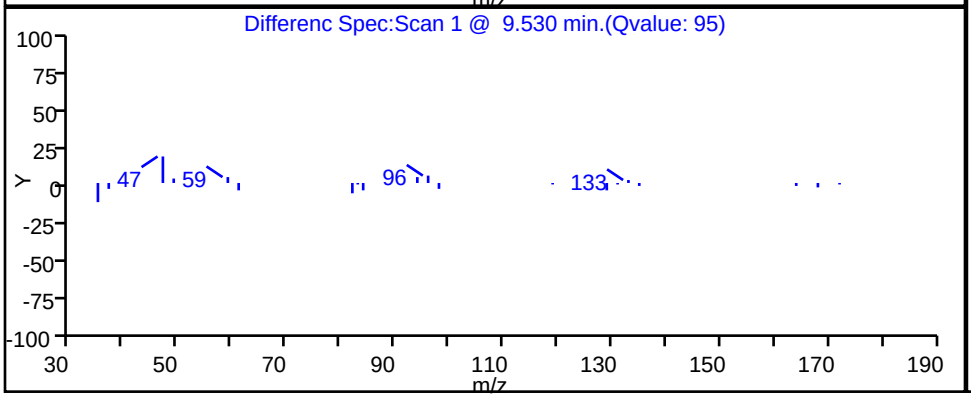
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D		
Injection Date:	16-Jan-2015 15:45:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-23	Lab Sample ID:	180-40434-23
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	8 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

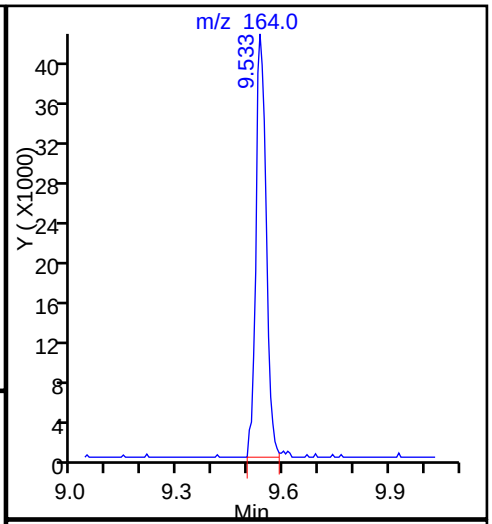
80 Tetrachloroethene, CAS: 127-18-4

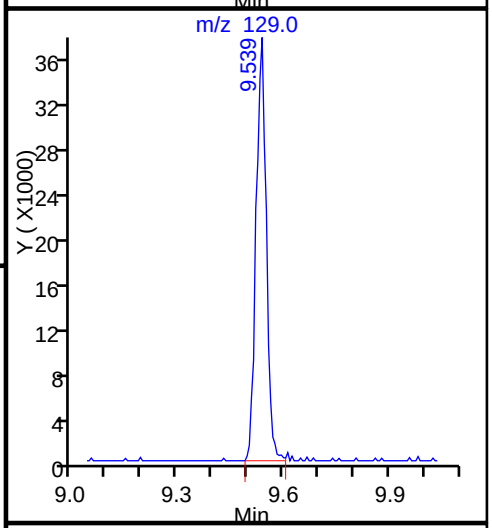


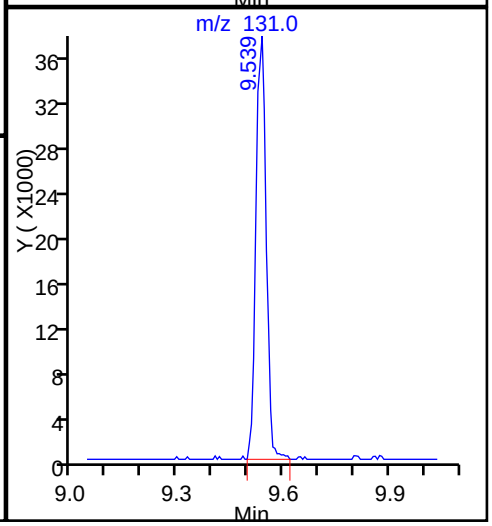












Manual Integration/User Assign Peak Report

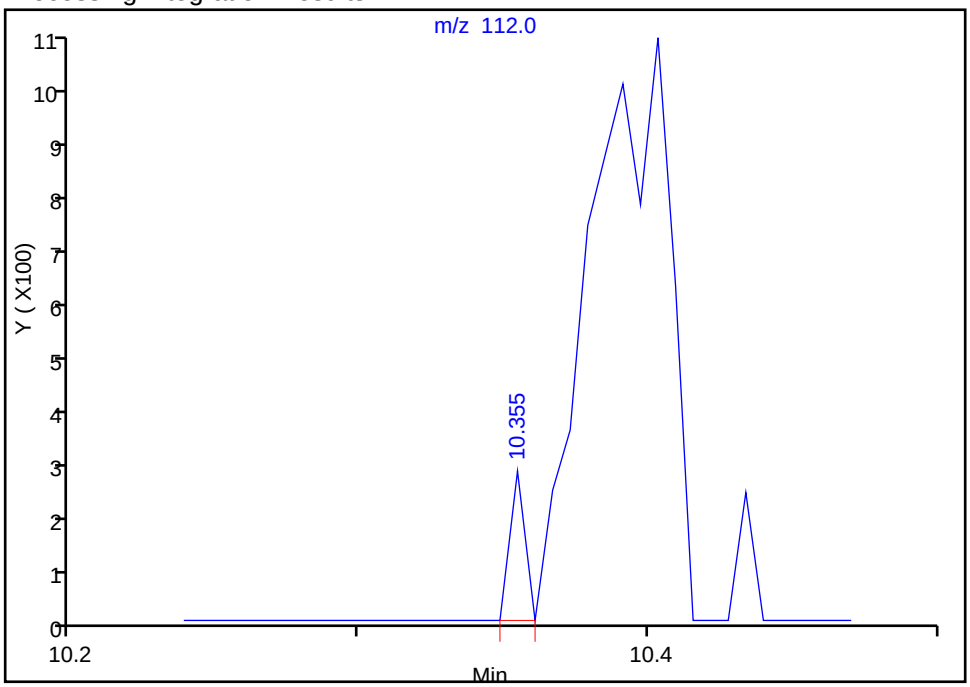
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116012.D				
Injection Date:	16-Jan-2015 15:45:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

87 Chlorobenzene, CAS: 108-90-7

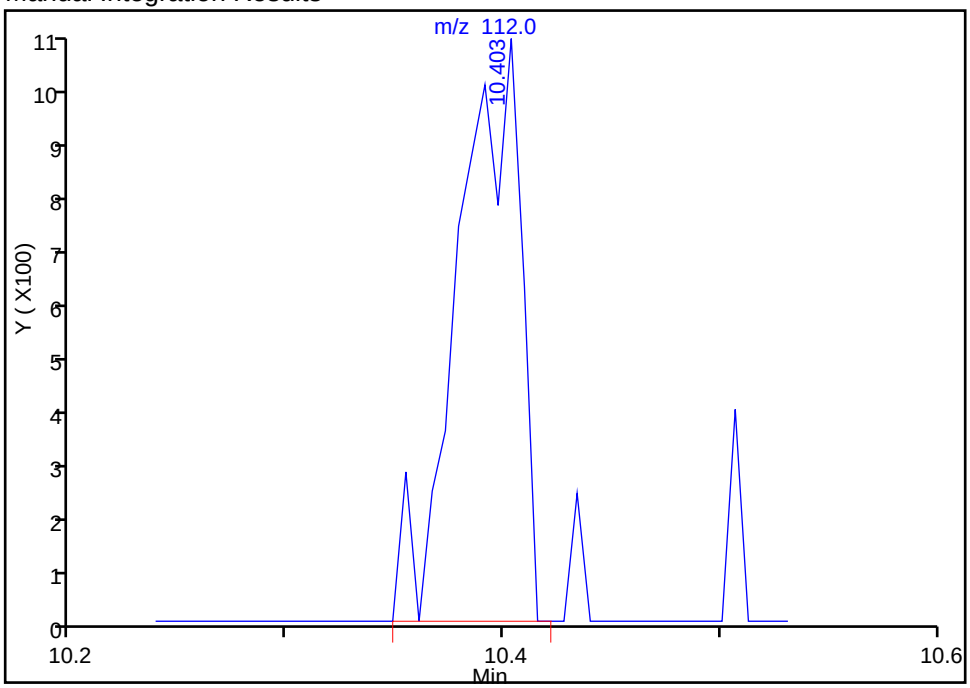
Processing Integration Results

RT: 10.35
Response: 97
Amount: 0.013438



Manual Integration Results

RT: 10.40
Response: 2073
Amount: 0.287185



Reviewer: fergusond, 19-Jan-2015 07:32:48
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-40434-24

Matrix: Water Lab File ID: 50116013.D

Analysis Method: 8260C Date Collected: 01/13/2015 13:00

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 16:09

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.: 130947 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	2.9	J	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	5.8	J	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	4.5	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	170		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	15		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	260		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.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-40434-24

Matrix: Water Lab File ID: 50116013.D

Analysis Method: 8260C Date Collected: 01/13/2015 13:00

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 16:09

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.: 130947 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)	108		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D
Lims ID: 180-40434-D-24 Lab Sample ID: 180-40434-24
Client ID: HD-MW-93D-0/1-0
Sample Type: Client
Inject. Date: 16-Jan-2015 16:09:30 ALS Bottle#: 9 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-40434-D-24, 10x
Misc. Info.: 180-0005307-013
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jan-2015 07:34:11 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: fergusond Date: 19-Jan-2015 07:34:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.299	4.302	-0.003	88	142911	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.271	0.002	100	480386	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.361	0.003	100	108642	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.685	-0.003	98	148222	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.522	0.009	93	107443	52.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.900	0.002	91	181009	53.9	
$ 7 Toluene-d8 (Surr)	98	8.922	8.925	-0.003	96	453414	50.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.529	0.003	82	160332	46.6	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62	1.896	1.905	-0.009	18	5716	1.46	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.392	3.371	0.021	56	7607	2.91	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.669				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.181	5.172	0.009	90	13741	2.23	
45 cis-1,2-Dichloroethene	96	5.941	5.938	0.003	88	248981	86.9	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.230				ND	
52 Chloroform	83	6.349	6.346	0.003	1	1075	0.2307	
53 1,1,1-Trichloroethane	97	6.531	6.535	-0.004	46	22363	7.40	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.669	7.666	0.003	94	322940	127.0	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.049				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.536	9.534	0.002	94	278929	131.1	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112	10.388	10.391	-0.003	37	4059	0.5785	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

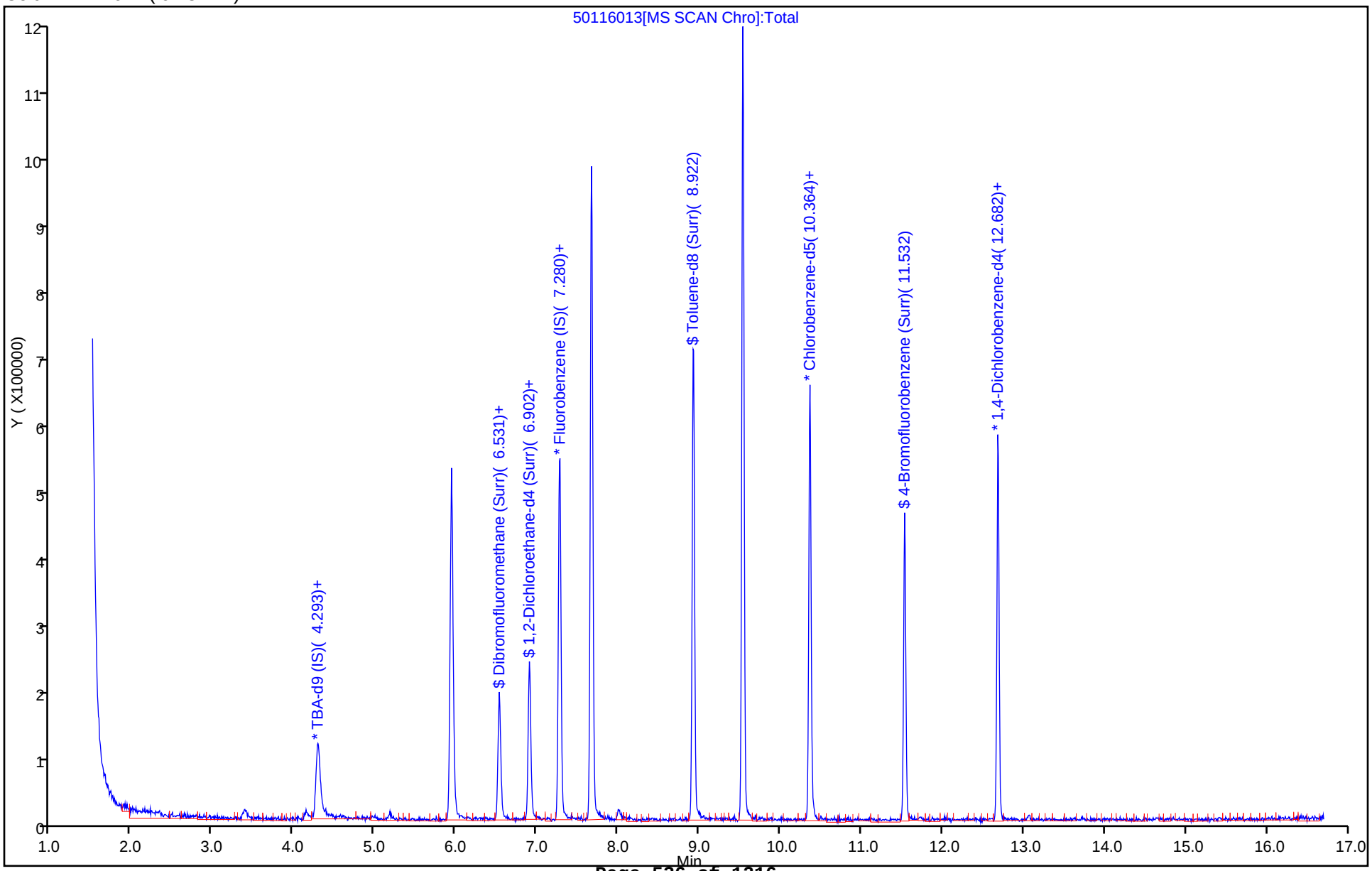
Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D

Injection Date:	16-Jan-2015 16:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-24	Lab Sample ID:	180-40434-24	Worklist Smp#:	13
Client ID:	HD-MW-93D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D

Injection Date: 16-Jan-2015 16:09:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-24 Lab Sample ID: 180-40434-24

Client ID: HD-MW-93D-0/1-0

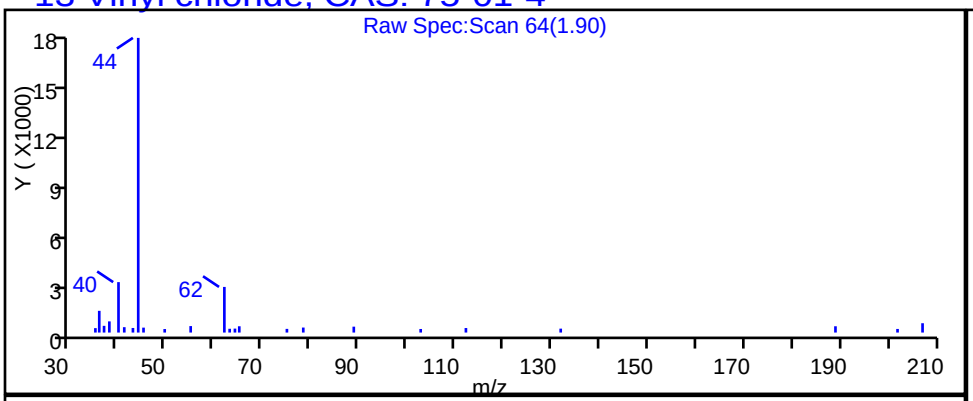
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 13

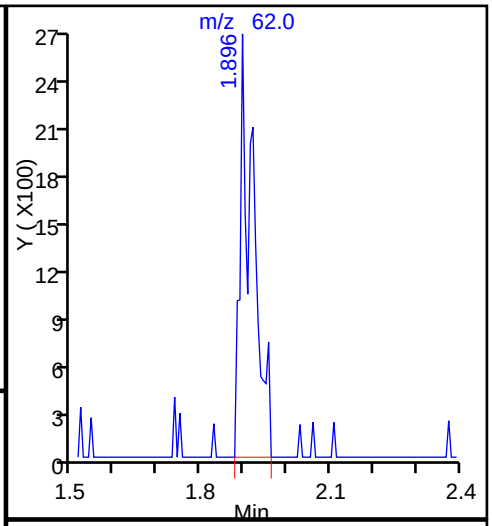
Purge Vol: 5.000 mL Dil. Factor: 10.0000

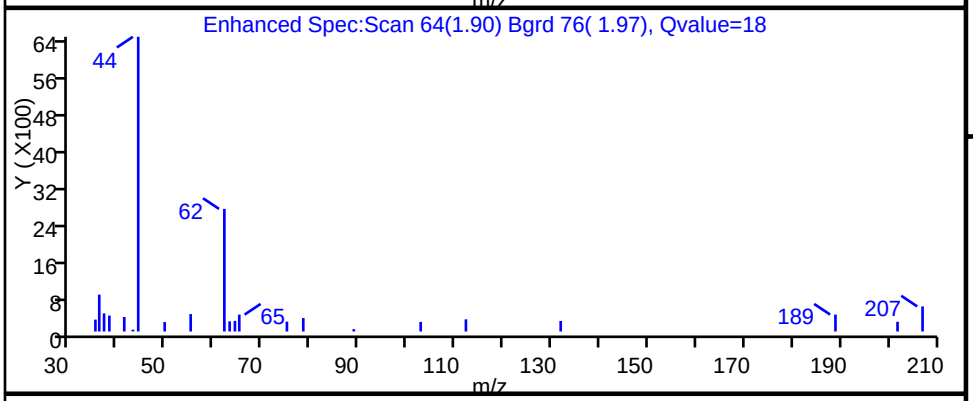
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

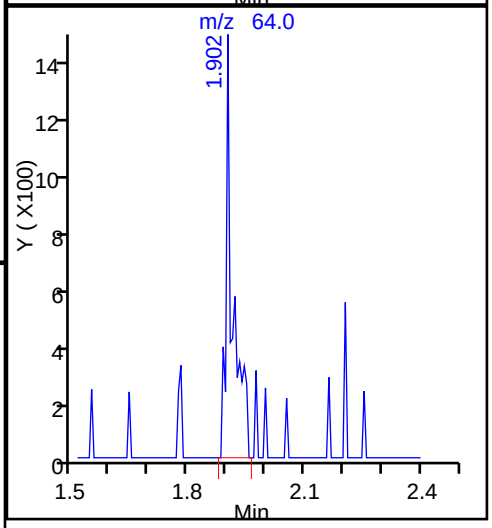
Column: DB-624 (0.18 mm) Detector MS SCAN

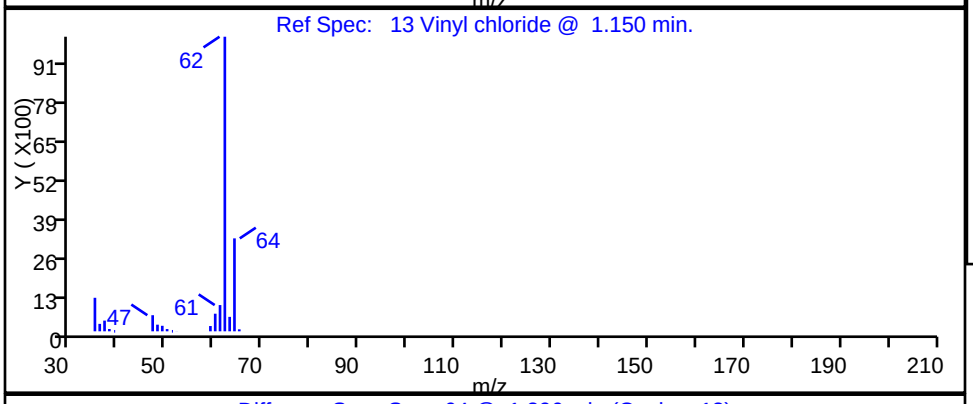
13 Vinyl chloride, CAS: 75-01-4

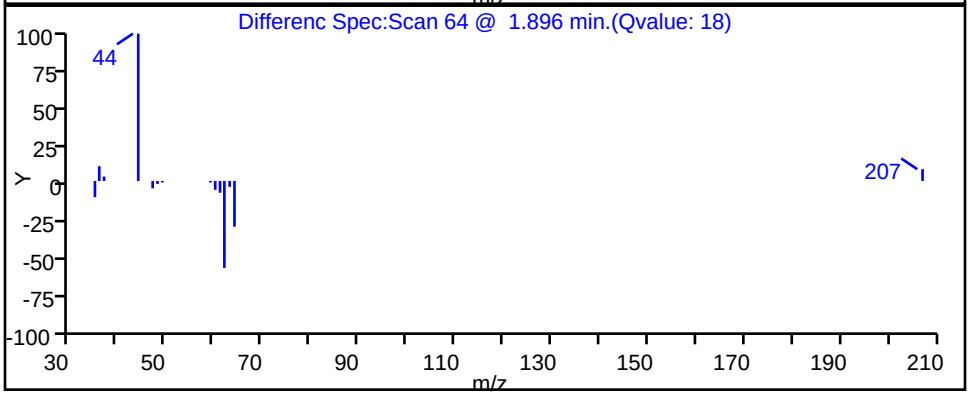












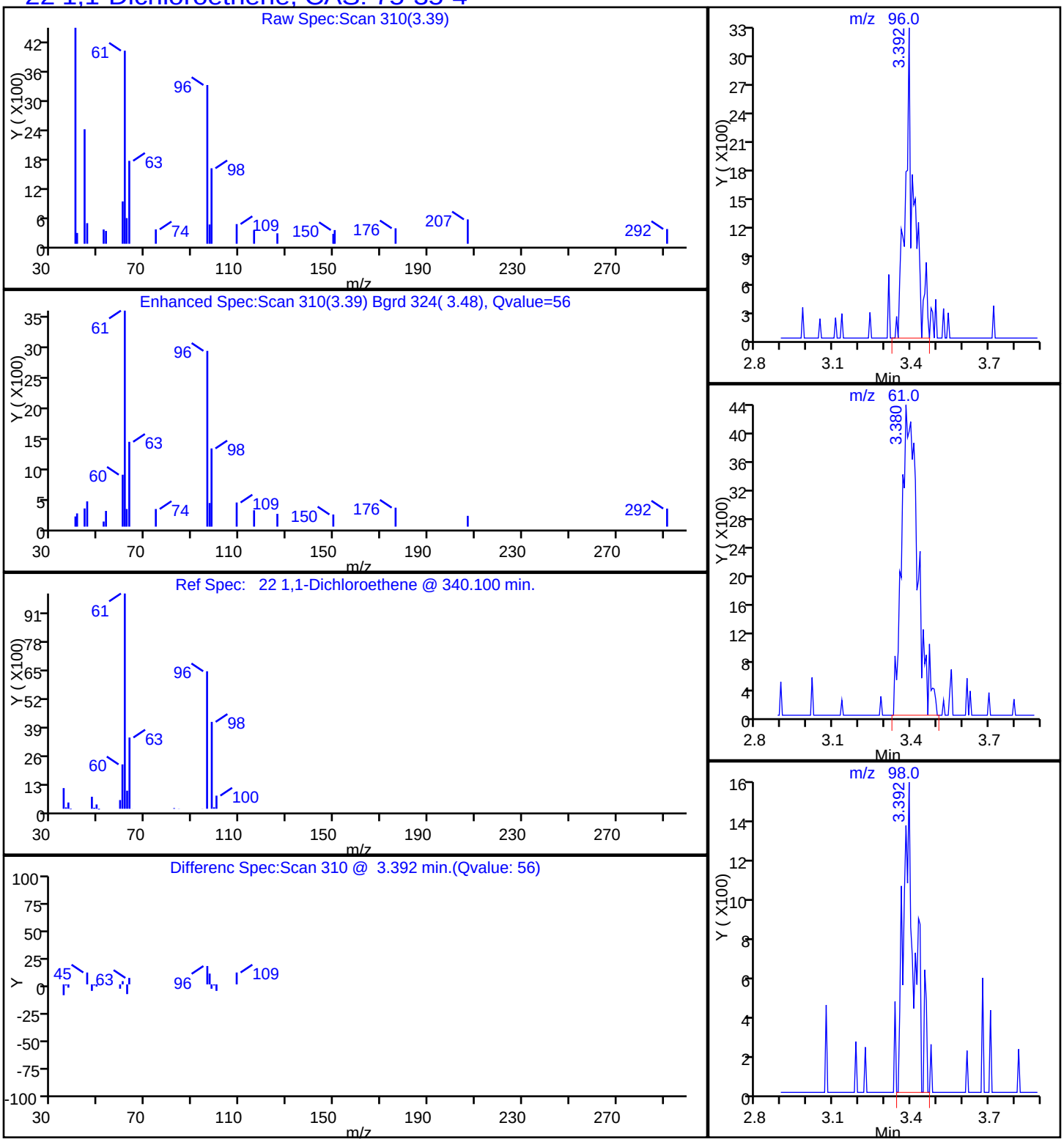
Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D

Injection Date:	16-Jan-2015 16:09:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-24	Lab Sample ID:	180-40434-24		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



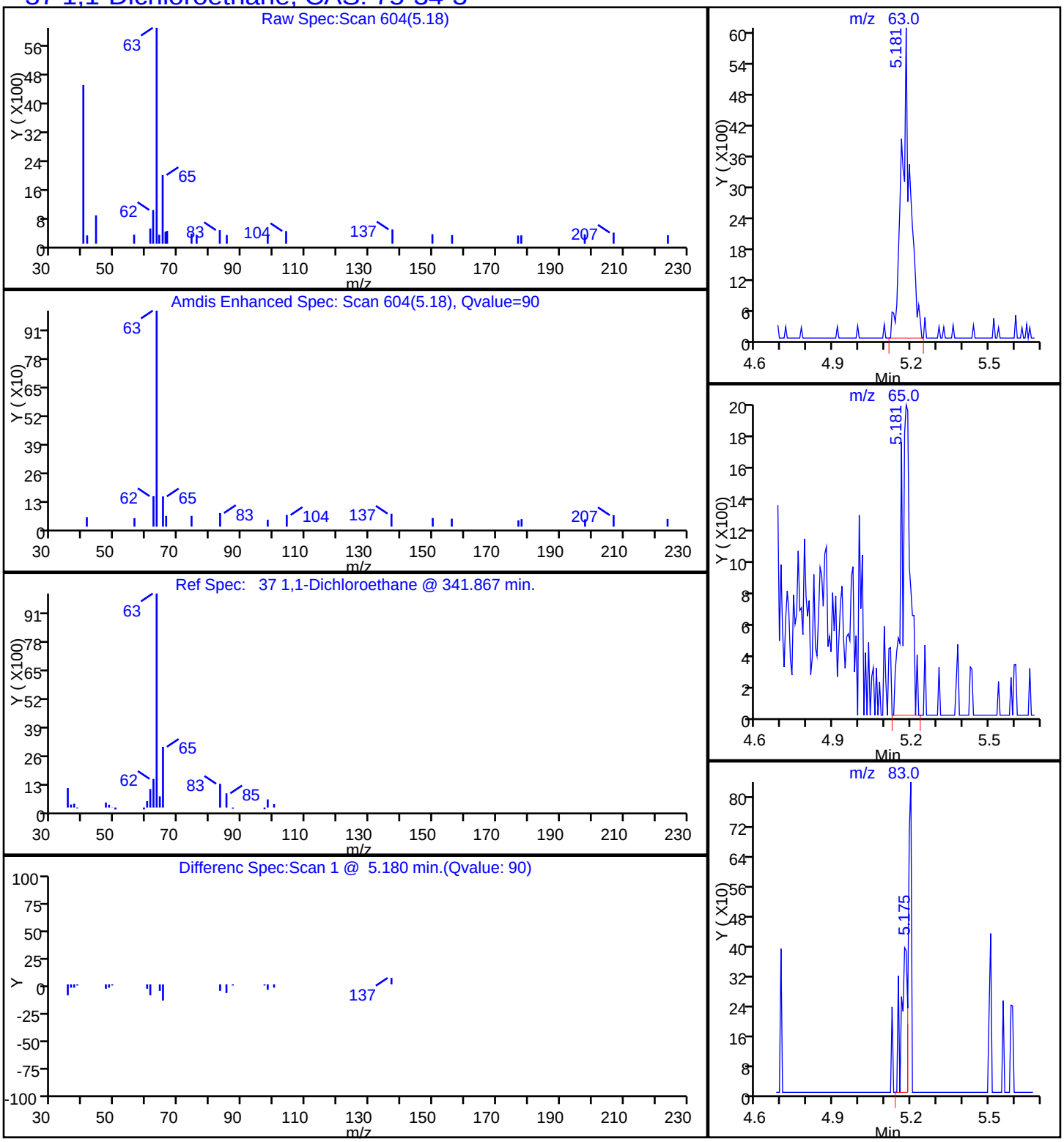
Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D

Injection Date:	16-Jan-2015 16:09:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-24	Lab Sample ID:	180-40434-24		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



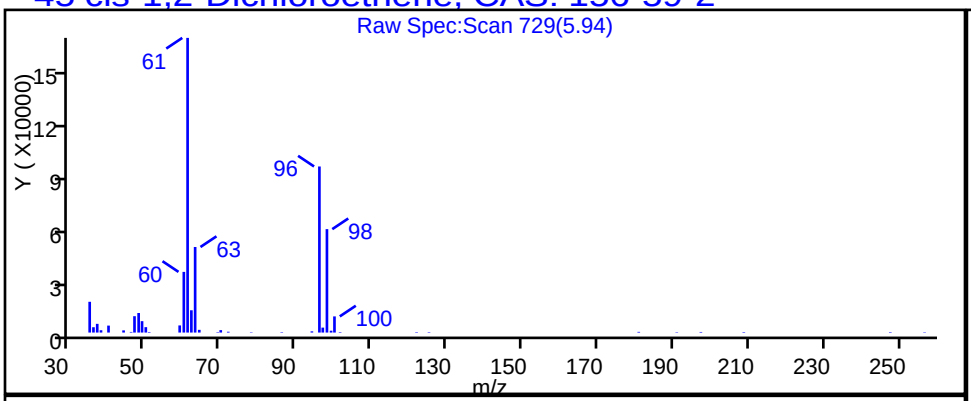
Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

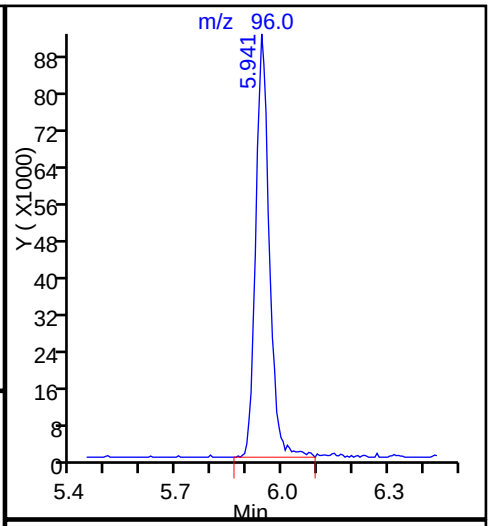
TestAmerica Pittsburgh

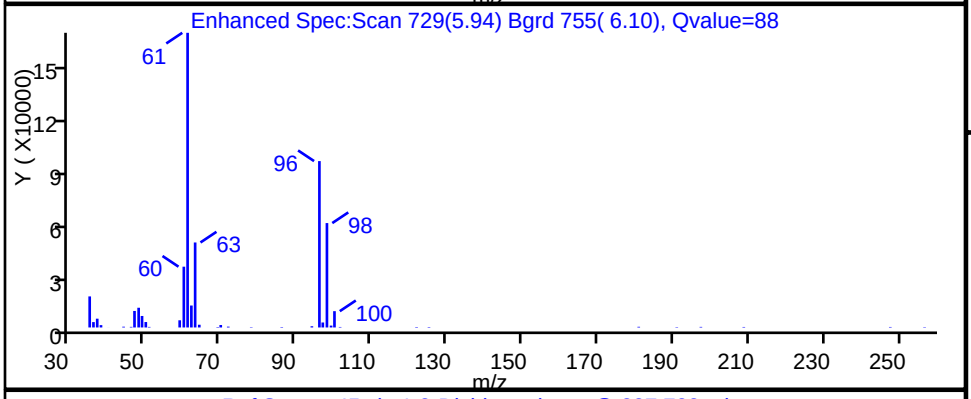
Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D

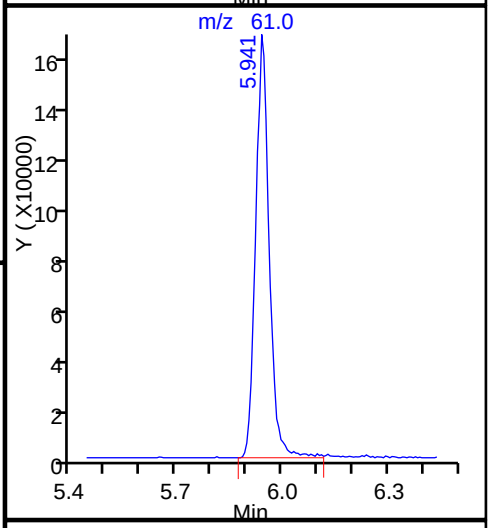
Injection Date:	16-Jan-2015 16:09:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-24	Lab Sample ID:	180-40434-24		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

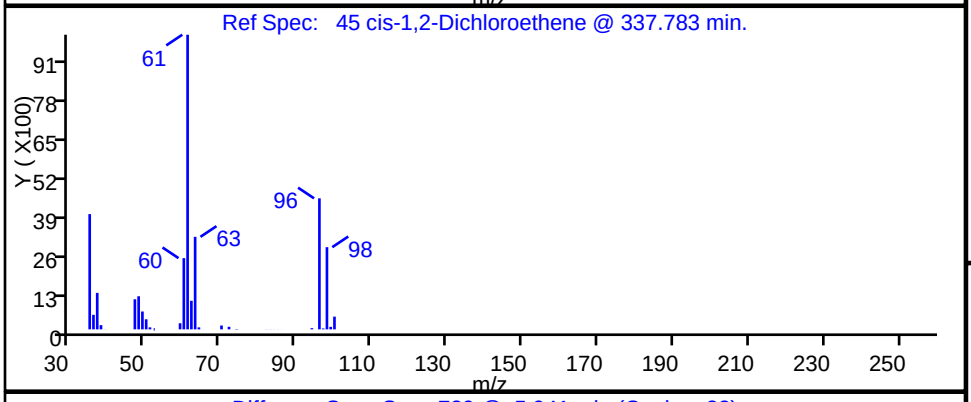
45 cis-1,2-Dichloroethene, CAS: 156-59-2

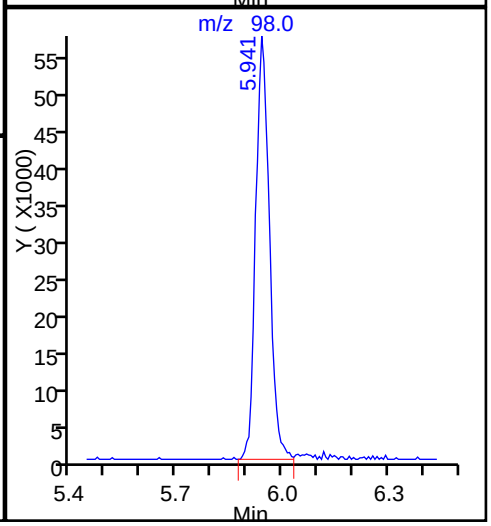


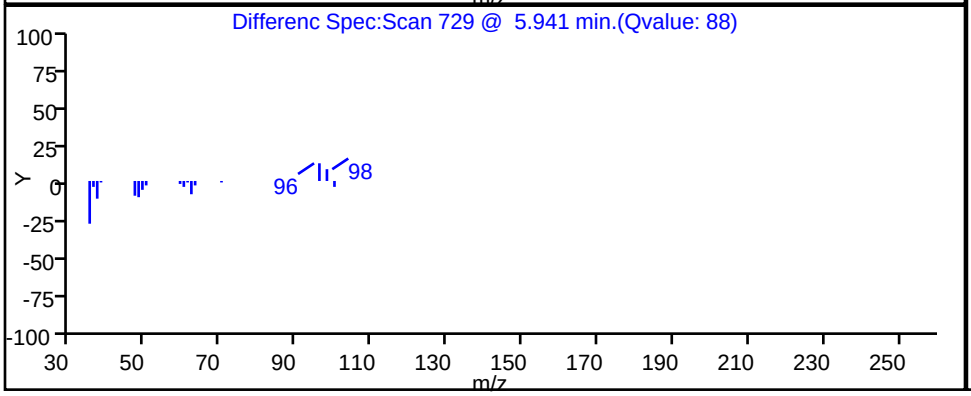










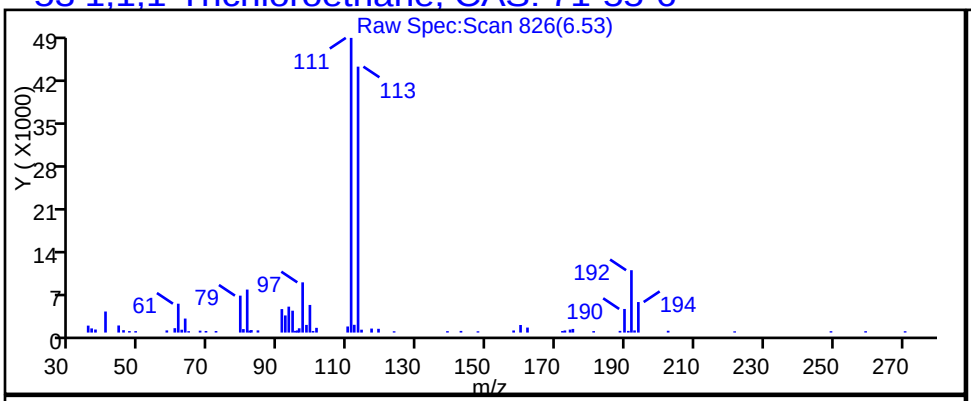


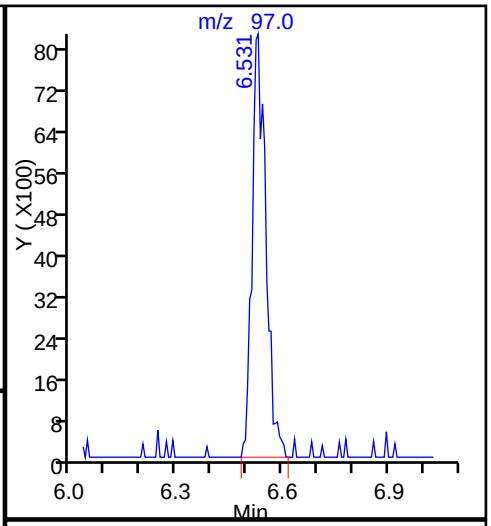
Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

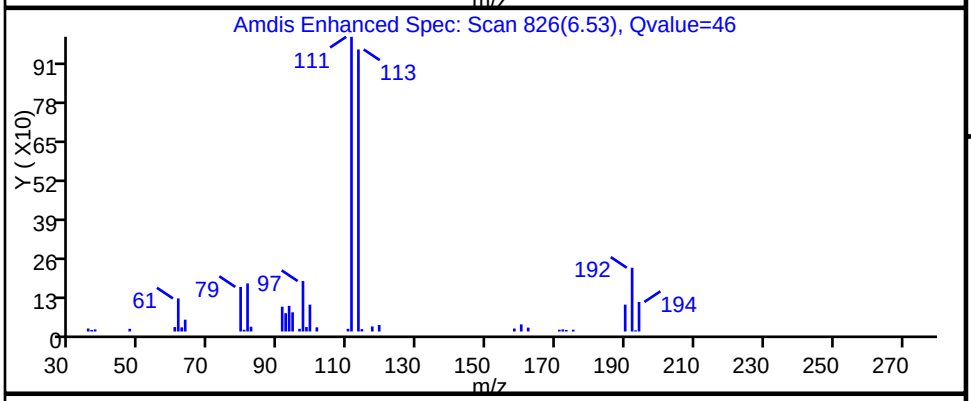
TestAmerica Pittsburgh

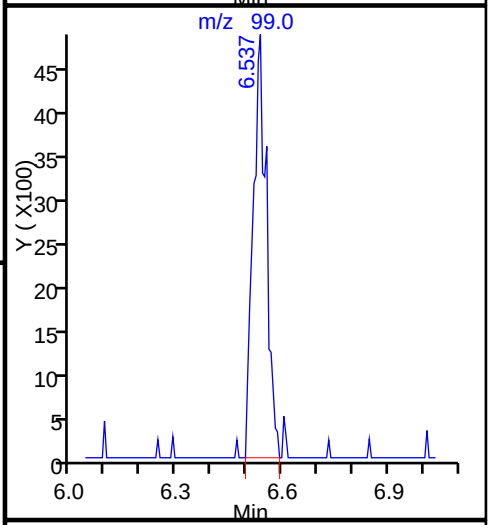
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D				
Injection Date:	16-Jan-2015 16:09:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-24	Lab Sample ID:	180-40434-24		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

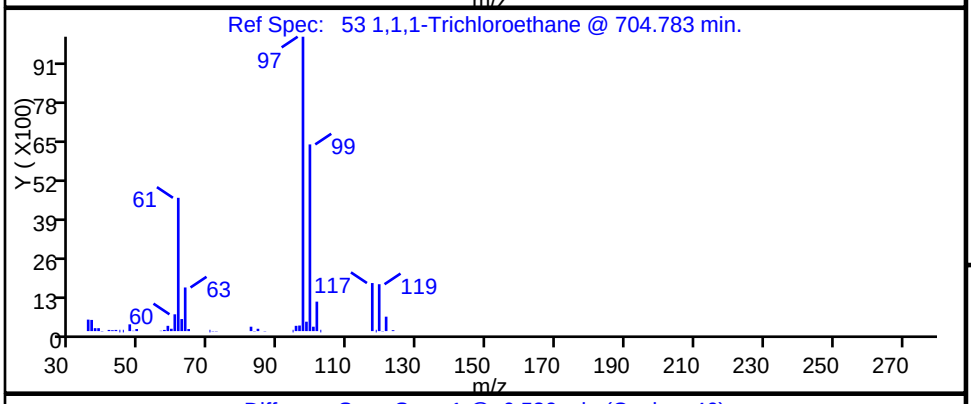
53 1,1,1-Trichloroethane, CAS: 71-55-6

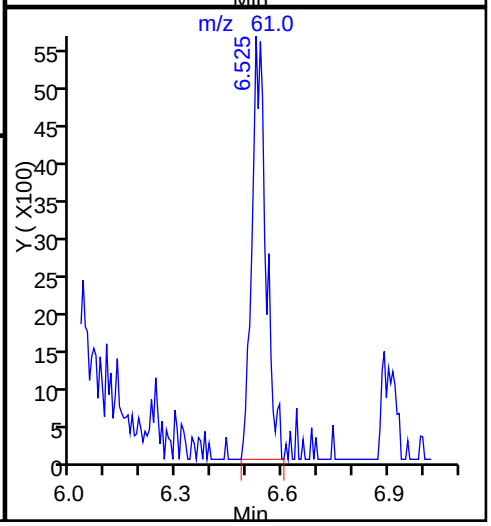


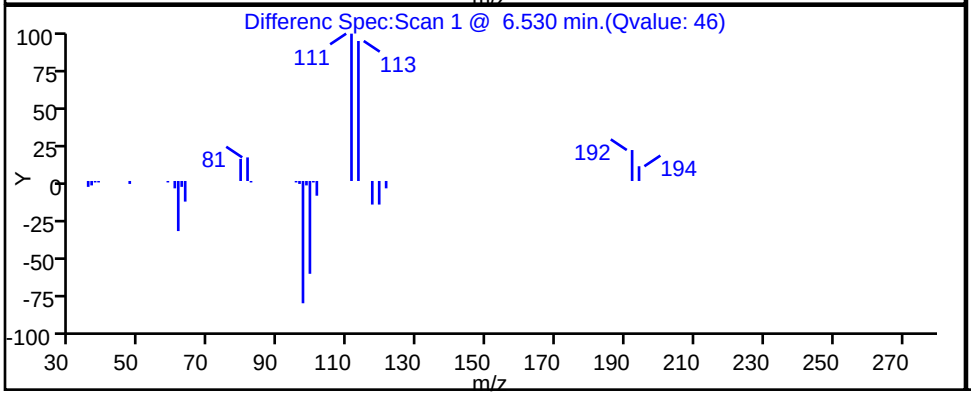










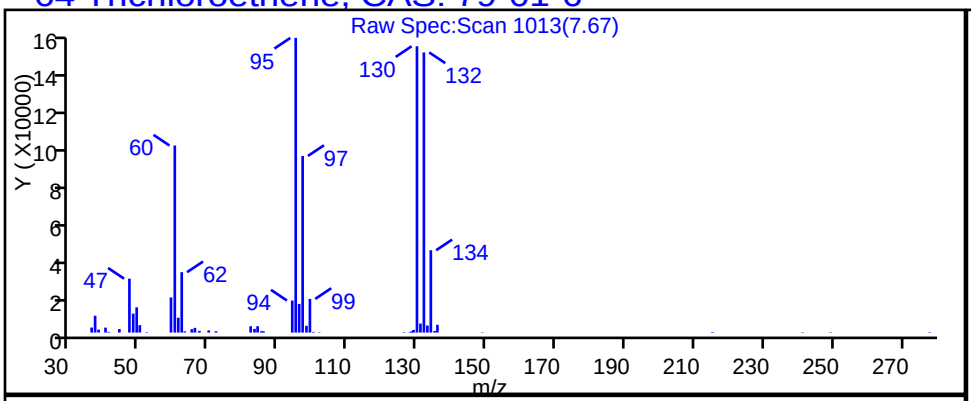


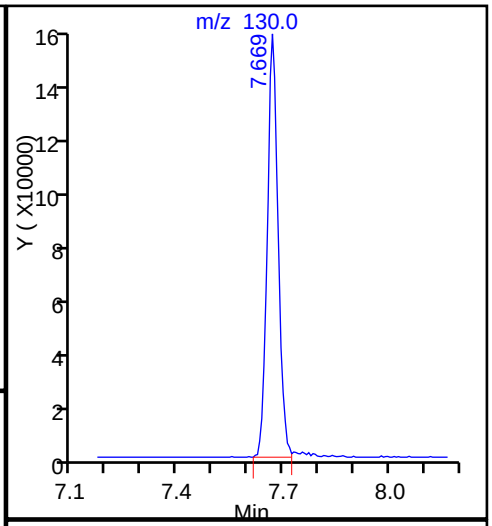
Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

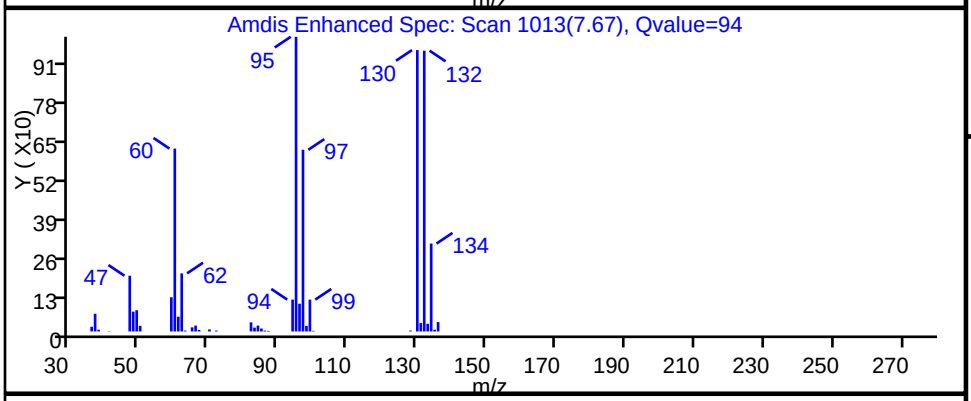
TestAmerica Pittsburgh

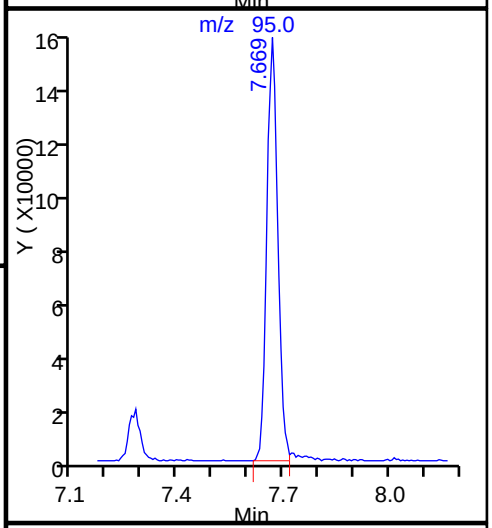
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D				
Injection Date:	16-Jan-2015 16:09:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-24	Lab Sample ID:	180-40434-24		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

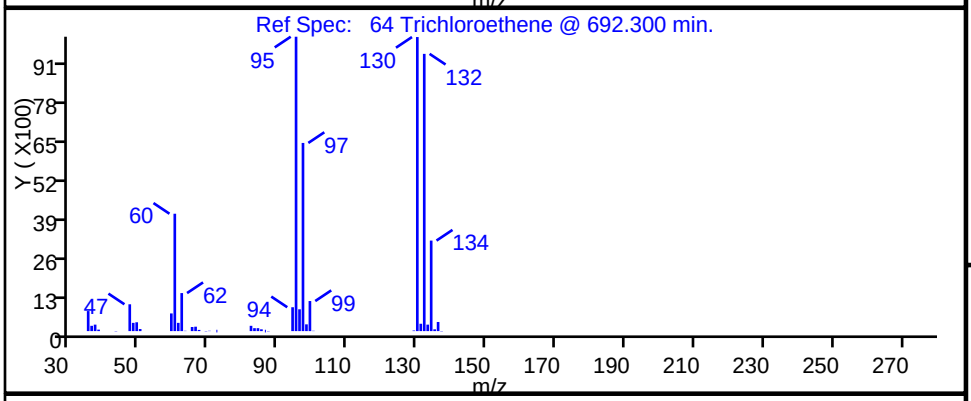
64 Trichloroethene, CAS: 79-01-6

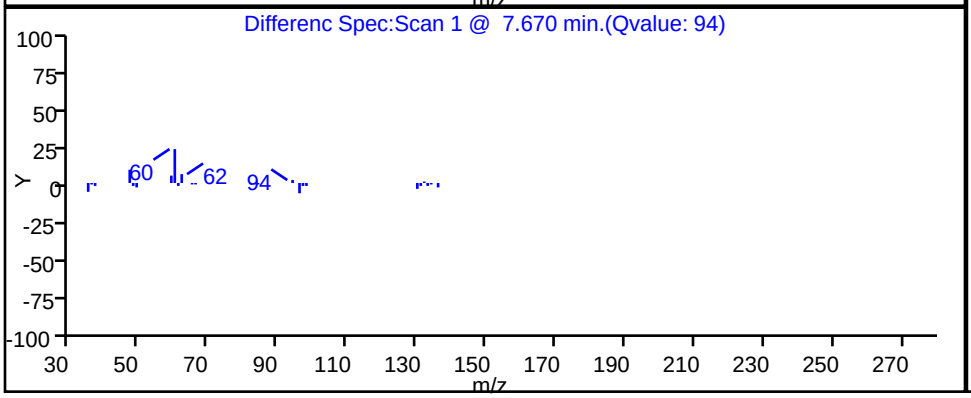


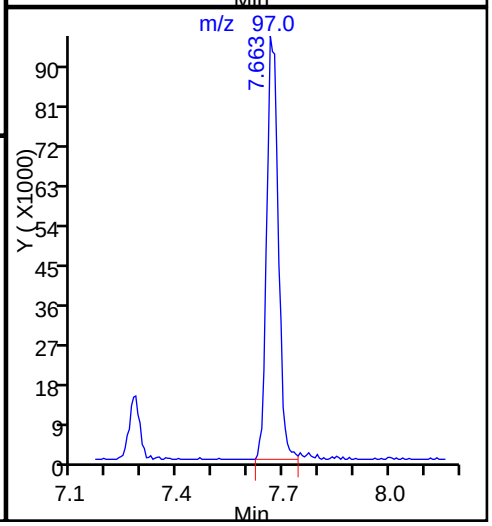












Report Date: 19-Jan-2015 07:34:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116013.D

Injection Date: 16-Jan-2015 16:09:30 Instrument ID: CHHP5

Lims ID: 180-40434-D-24 Lab Sample ID: 180-40434-24

Client ID: HD-MW-93D-0/1-0

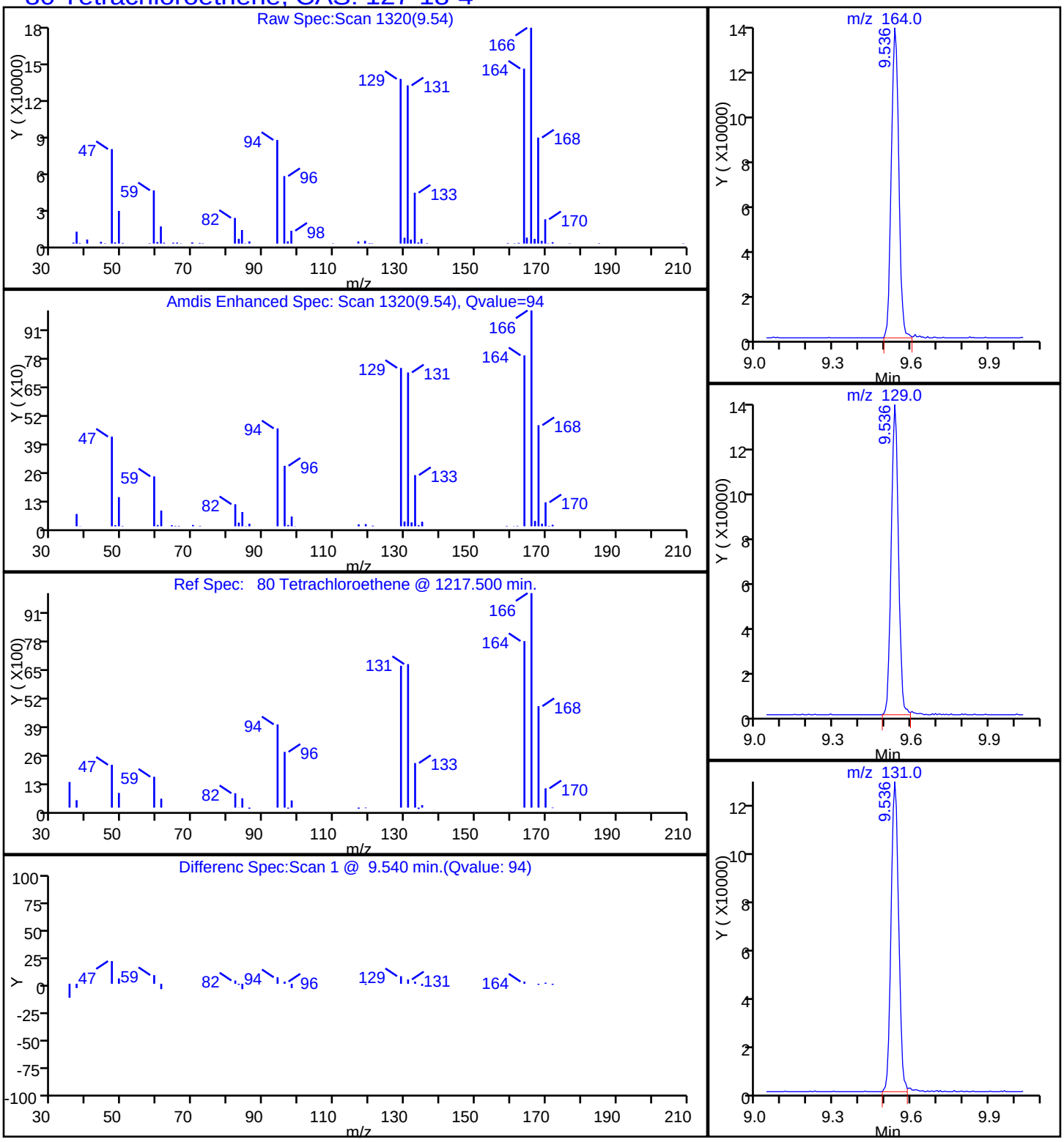
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 13

Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 | Lab Sample ID: 180-40434-25

Matrix: Water | Lab File ID: 50116031.D

Analysis Method: 8260C | Date Collected: 01/13/2015 14:15

Sample wt/vol: 5(mL) | Date Analyzed: 01/16/2015 23:23

Soil Aliquot Vol: | Dilution Factor: 2

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

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

Analysis Batch No.: 130947 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U	2.0	0.57
75-01-4	Vinyl chloride	2.0	U	2.0	0.45
74-83-9	Bromomethane	2.0	U	2.0	0.63
75-00-3	Chloroethane	2.0	U	2.0	0.43
75-35-4	1,1-Dichloroethene	4.6		2.0	0.59
67-64-1	Acetone	10	U	10	5.0
75-15-0	Carbon disulfide	2.0	U	2.0	0.42
75-09-2	Methylene Chloride	2.0	U	2.0	0.25
156-60-5	trans-1,2-Dichloroethene	0.54	J	2.0	0.34
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	0.37
75-34-3	1,1-Dichloroethane	4.9		2.0	0.23
156-59-2	*cis-1,2-Dichloroethene*	*110*	*E*	*2.0*	*0.47*
74-97-5	Bromochloromethane	2.0	U	2.0	0.36
78-93-3	2-Butanone (MEK)	10	U	10	1.1
67-66-3	Chloroform	0.44	J	2.0	0.34
71-55-6	1,1,1-Trichloroethane	24		2.0	0.57
56-23-5	Carbon tetrachloride	2.0	U	2.0	0.27
71-43-2	Benzene	2.0	U	2.0	0.21
107-06-2	1,2-Dichloroethane	2.0	U	2.0	0.42
79-01-6	Trichloroethene	70		2.0	0.29
78-87-5	1,2-Dichloropropane	2.0	U	2.0	0.19
75-27-4	Bromodichloromethane	2.0	U	2.0	0.26
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	0.37
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	1.1
108-88-3	Toluene	2.0	U	2.0	0.30
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	0.30
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.40
127-18-4	*Tetrachloroethene*	*300*	*E*	*2.0*	*0.30*
591-78-6	2-Hexanone	10	U	10	0.32
124-48-1	Dibromochloromethane	2.0	U	2.0	0.27
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.36
108-90-7	Chlorobenzene	2.0	U	2.0	0.27
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.55
100-41-4	Ethylbenzene	2.0	U	2.0	0.45
1330-20-7	Xylenes, Total	6.0	U	6.0	0.98
100-42-5	Styrene	2.0	U	2.0	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-40434-25

Matrix: Water Lab File ID: 50116031.D

Analysis Method: 8260C Date Collected: 01/13/2015 14:15

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 23:23

Soil Aliquot Vol: Dilution Factor: 2

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.0	U	2.0	0.38
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.40
107-13-1	Acrylonitrile	40	U	40	1.1
123-91-1	1,4-Dioxane	400	U	400	69

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D
Lims ID: 180-40434-C-25 Lab Sample ID: 180-40434-25
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 16-Jan-2015 23:23:30 ALS Bottle#: 27 Worklist Smp#: 31
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 180-40434-C-25, 2x
Misc. Info.: 180-0005307-031
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jan-2015 08:23:36 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: fergusond Date: 19-Jan-2015 08:23:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.302	-0.018	85	165375	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	416062	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.361	0.001	99	96620	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	99	132184	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	91	99979	56.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	91	164764	56.7	
$ 7 Toluene-d8 (Surr)	98	8.920	8.925	-0.005	96	389190	48.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	84	144568	47.2	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.390	3.371	0.019	91	25837	11.4	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.669				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96	4.595	4.570	0.025	6	3073	1.34	M
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.166	5.172	-0.006	97	65051	12.2	
45 cis-1,2-Dichloroethene	96	5.939	5.938	0.001	86	655589	264.3	E
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.230				ND	
52 Chloroform	83	6.341	6.346	-0.006	18	4476	1.11	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	94	156222	59.7	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.667	7.666	0.001	94	387110	175.7	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.049				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.534	9.534	0.000	91	1418487	749.8	E
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112	10.380	10.391	-0.011	13	1526	0.2446	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

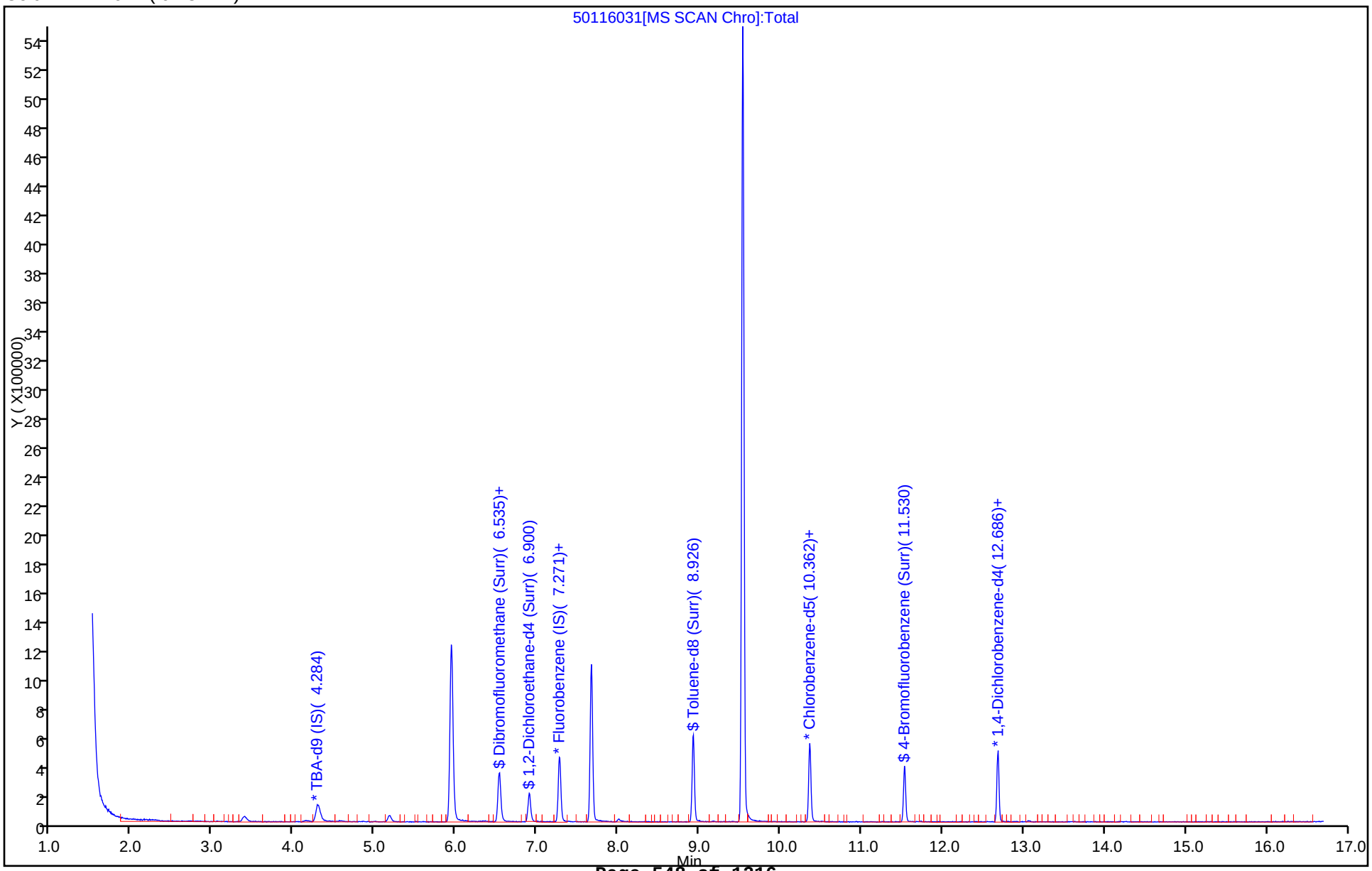
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25	Worklist Smp#:	31
Client ID:	HD-MW-37S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	27
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D

Injection Date: 16-Jan-2015 23:23:30 Instrument ID: CHHP5

Lims ID: 180-40434-C-25 Lab Sample ID: 180-40434-25

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

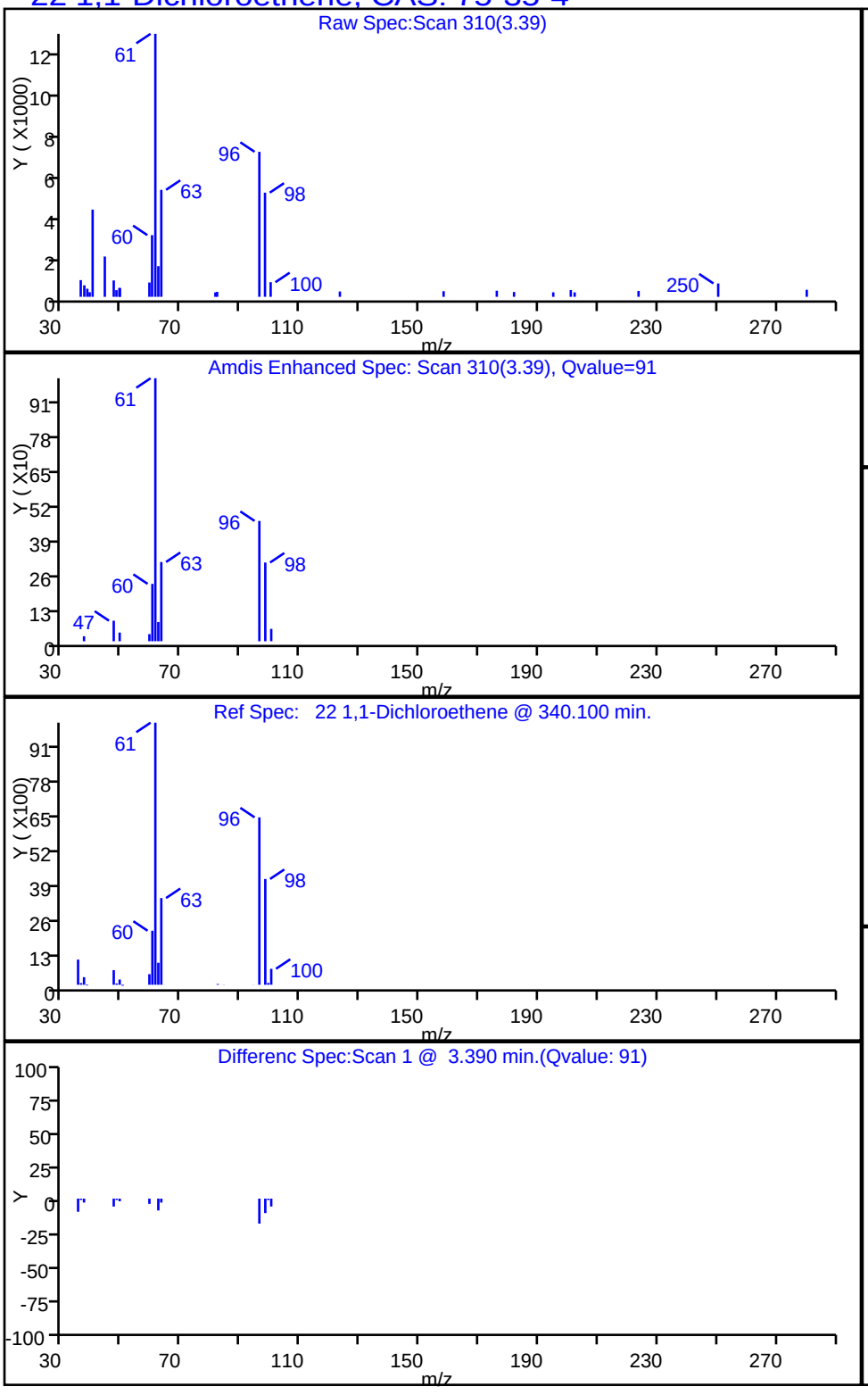
Operator ID: 001562 ALS Bottle#: 27 Worklist Smp#: 31

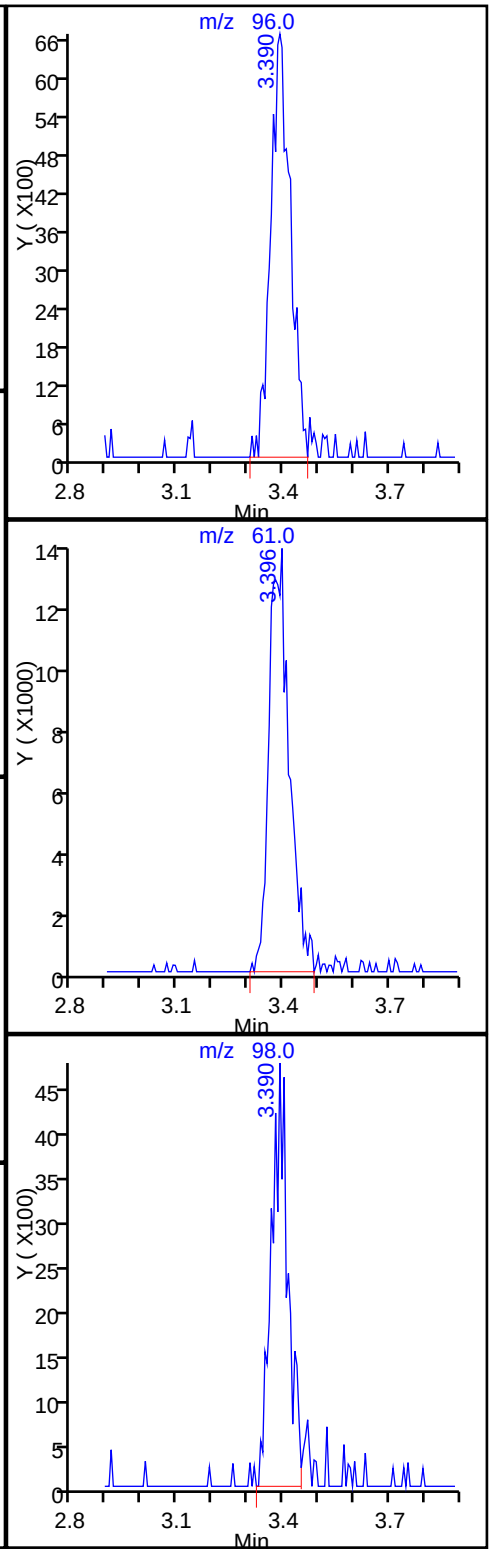
Purge Vol: 5.000 mL Dil. Factor: 2.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

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



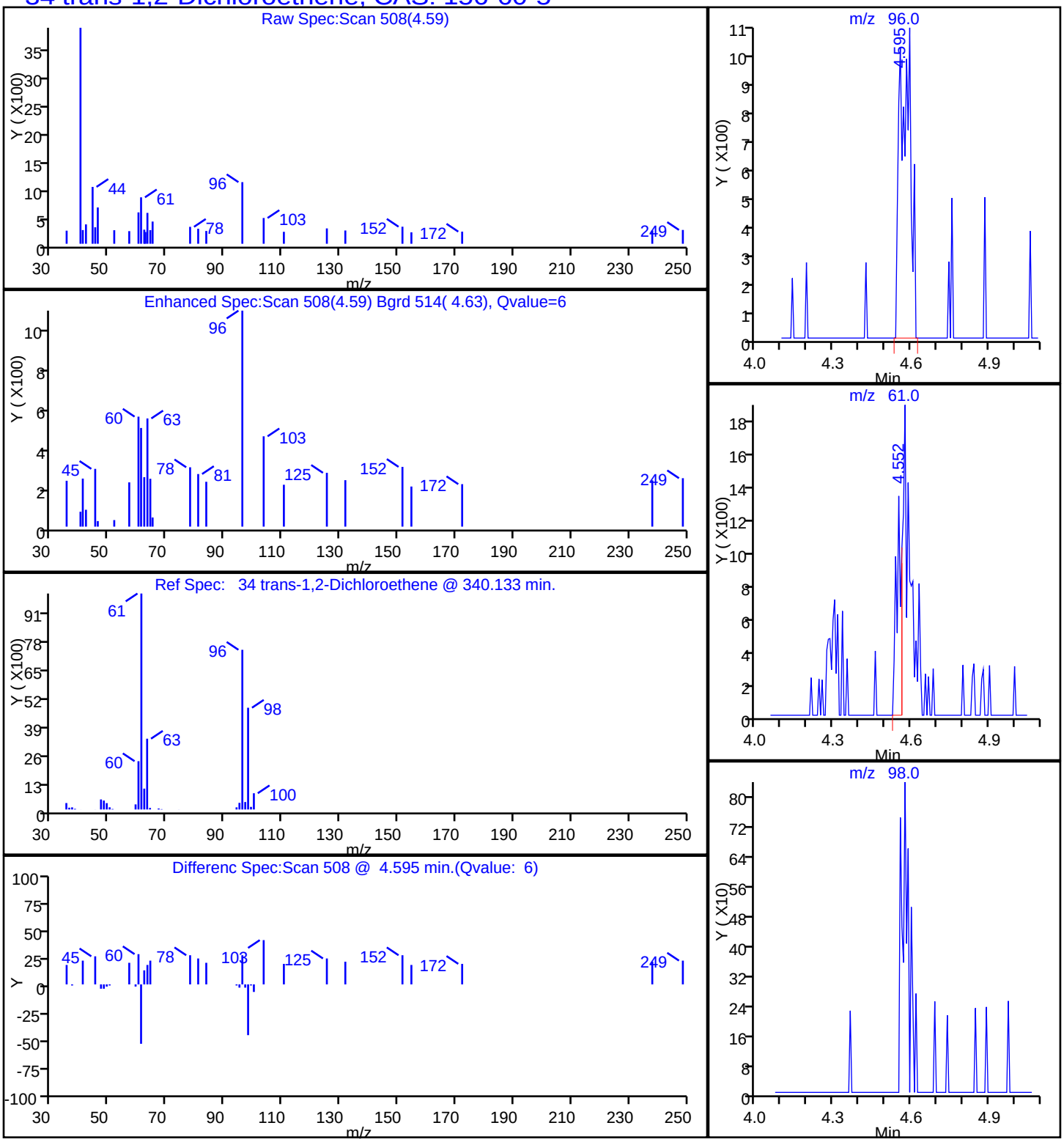


Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

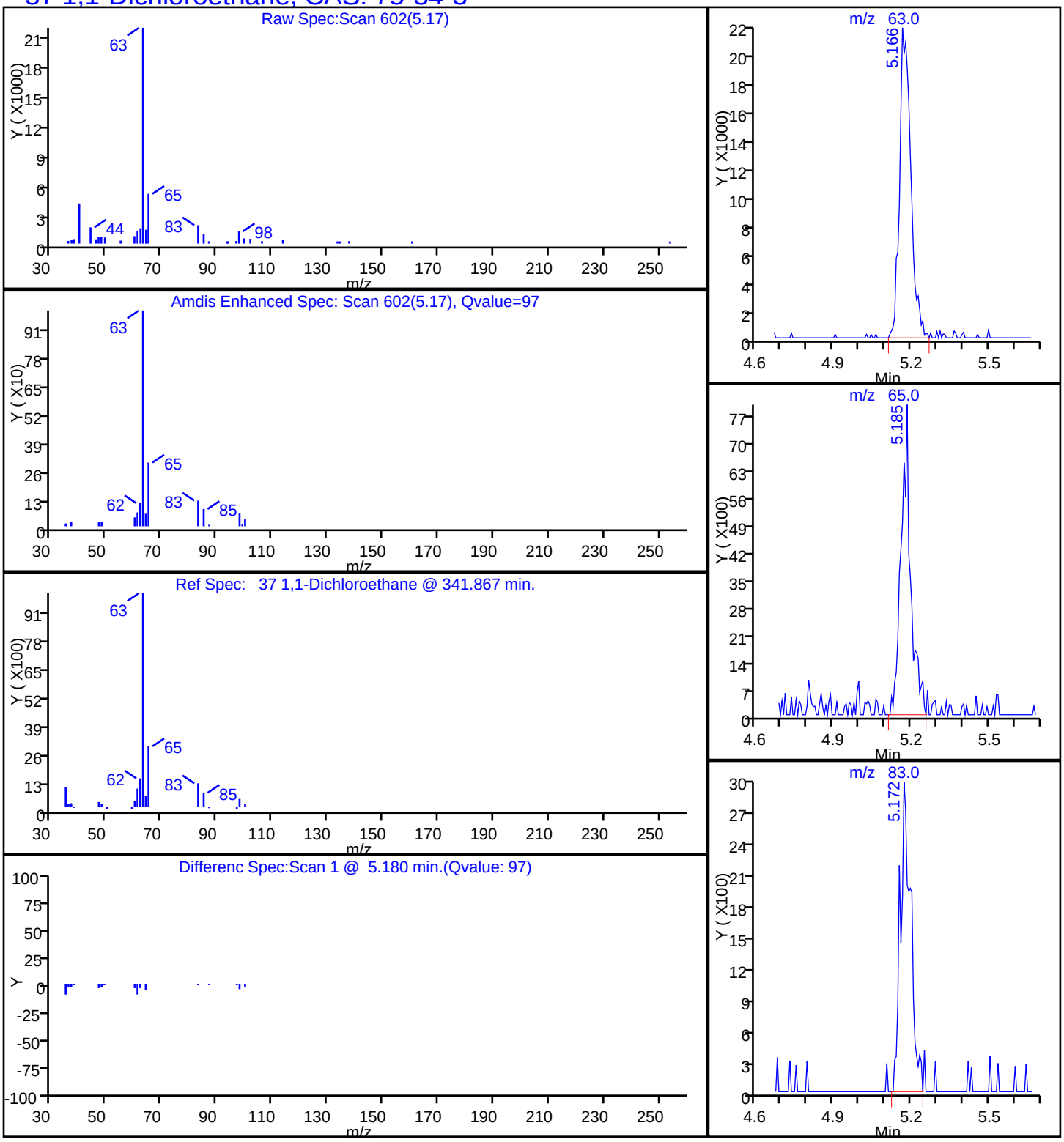


Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D		
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

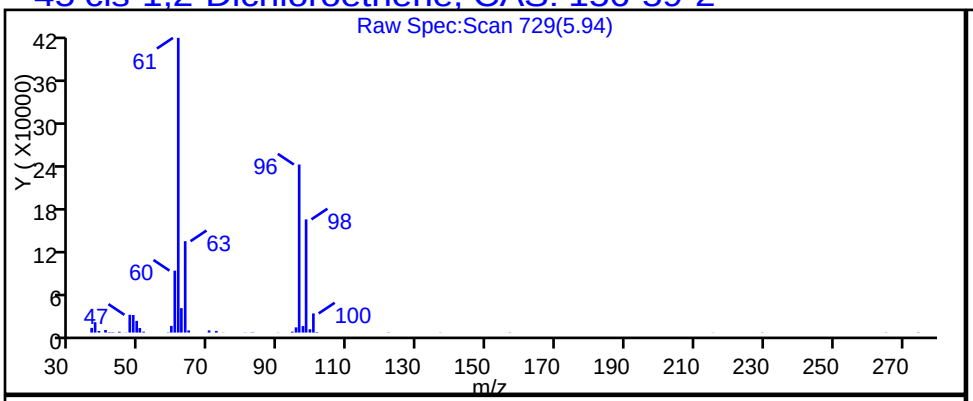


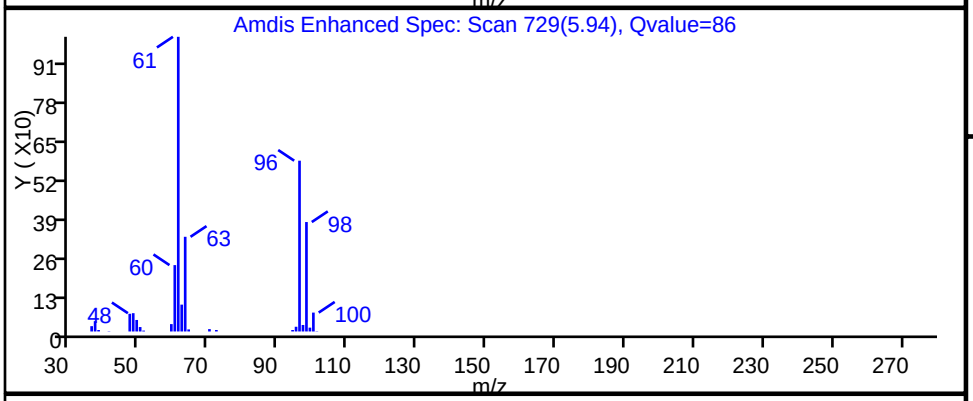
Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

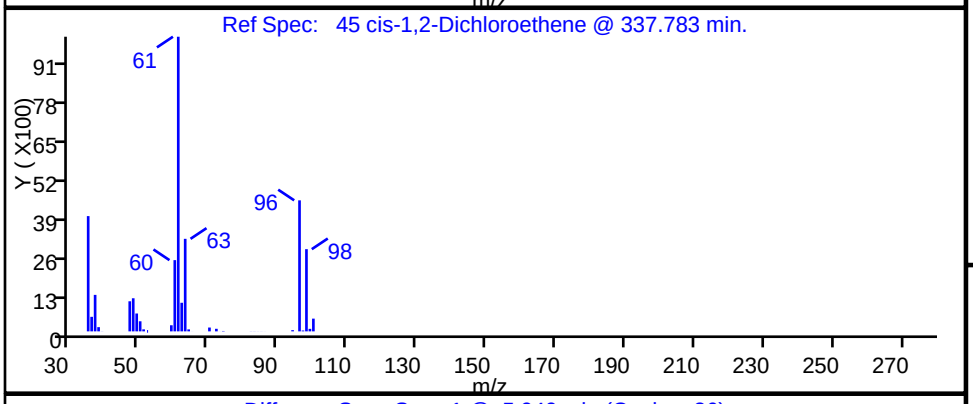
TestAmerica Pittsburgh

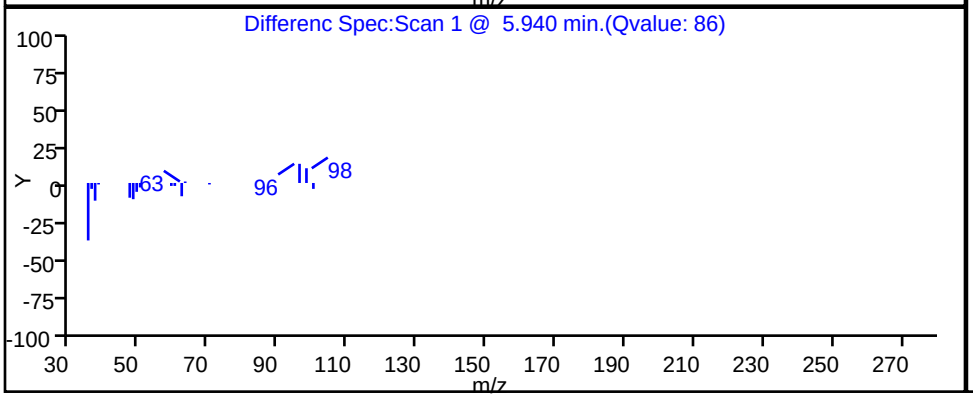
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

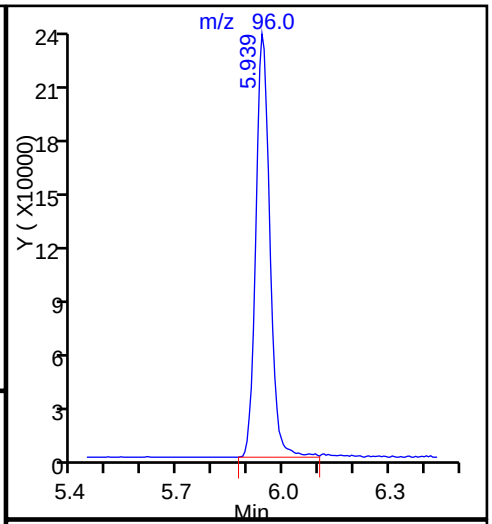
45 cis-1,2-Dichloroethene, CAS: 156-59-2

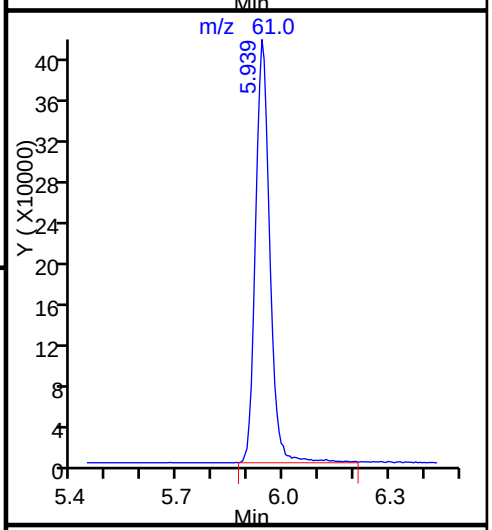


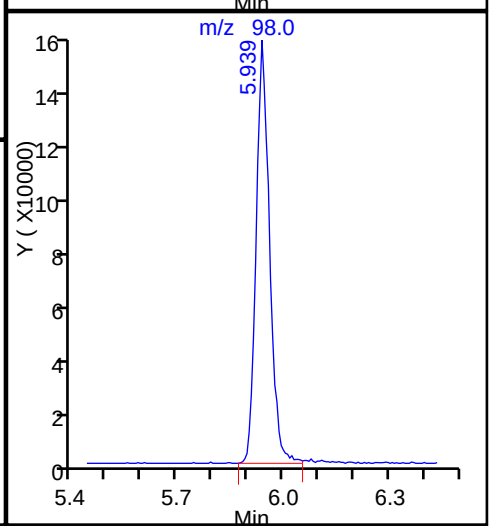












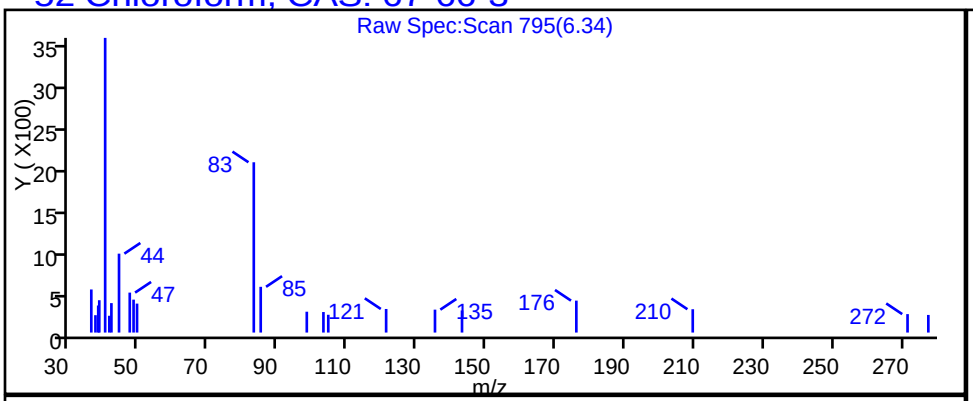
Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

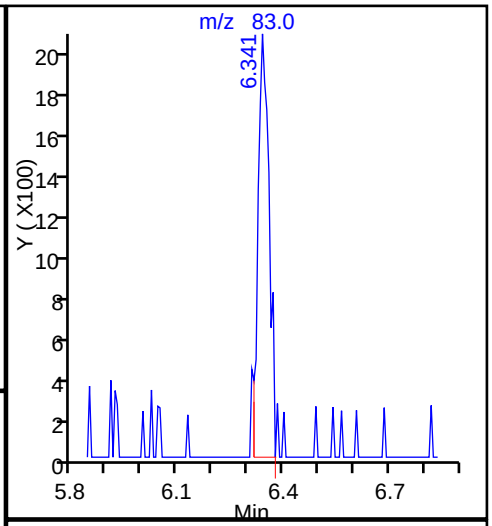
TestAmerica Pittsburgh

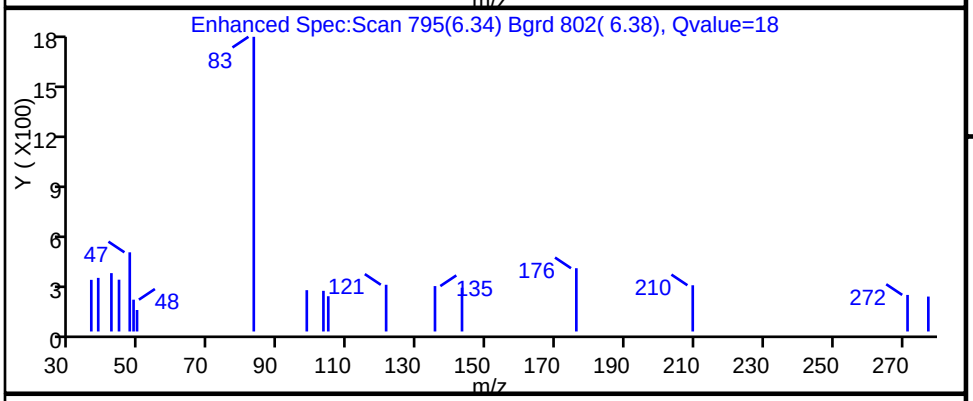
Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D

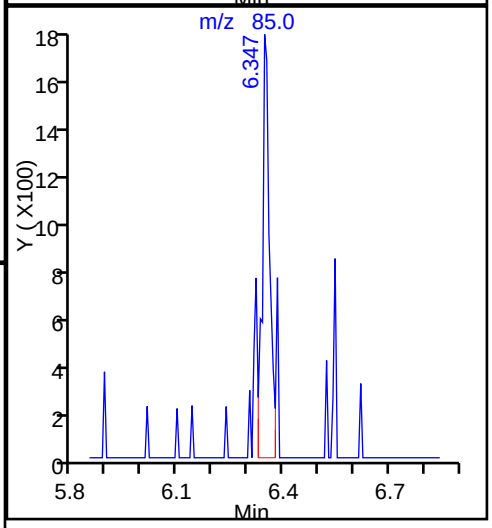
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

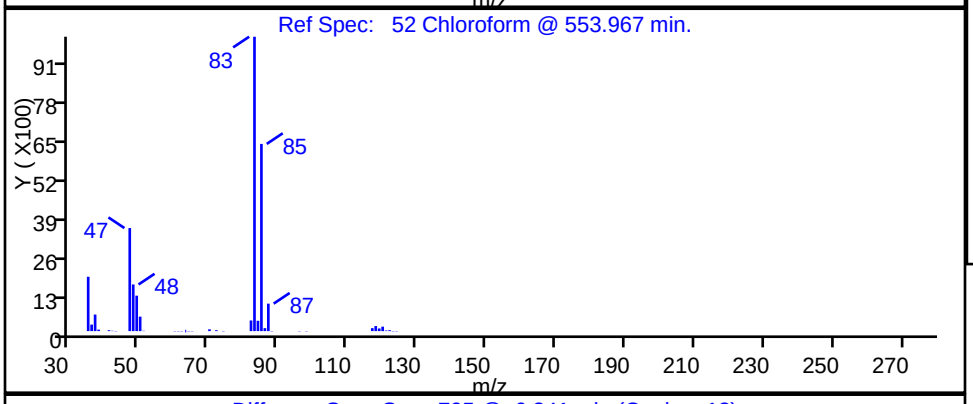
52 Chloroform, CAS: 67-66-3

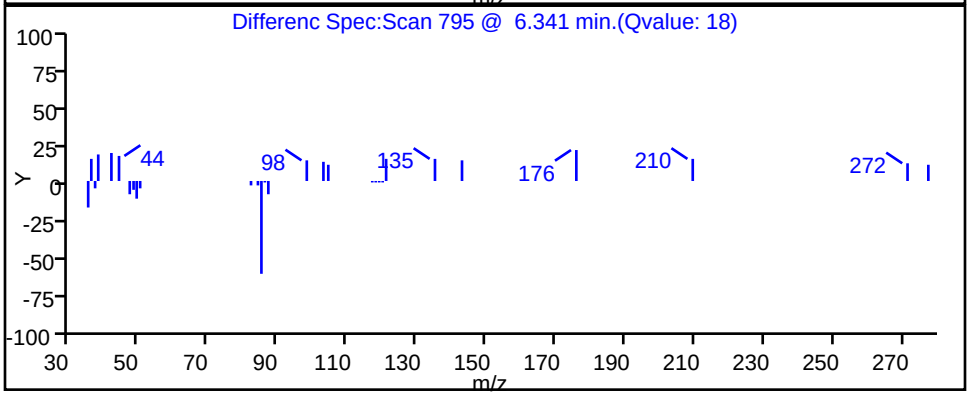










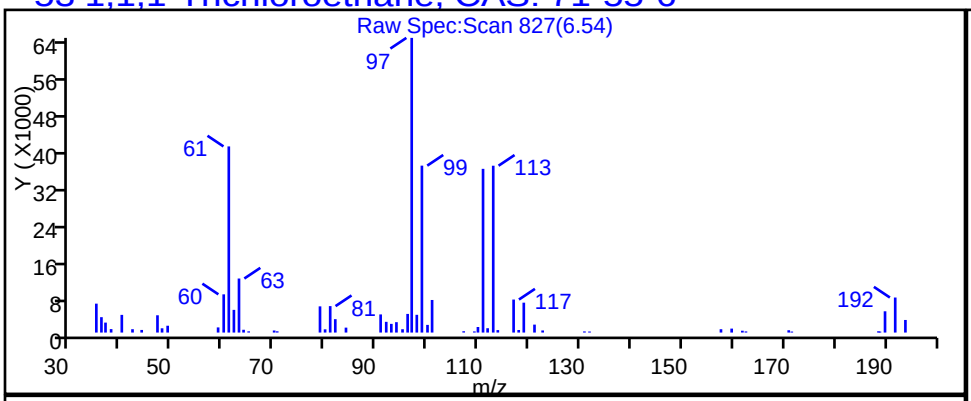


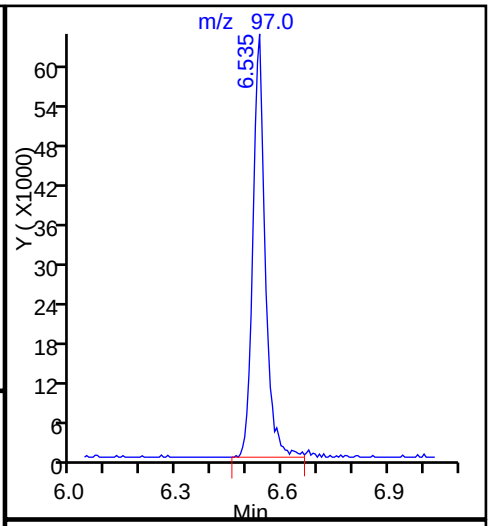
Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

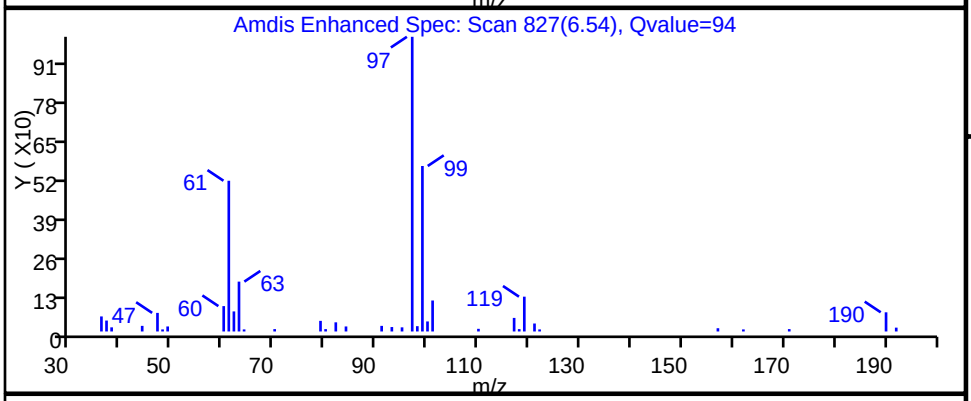
TestAmerica Pittsburgh

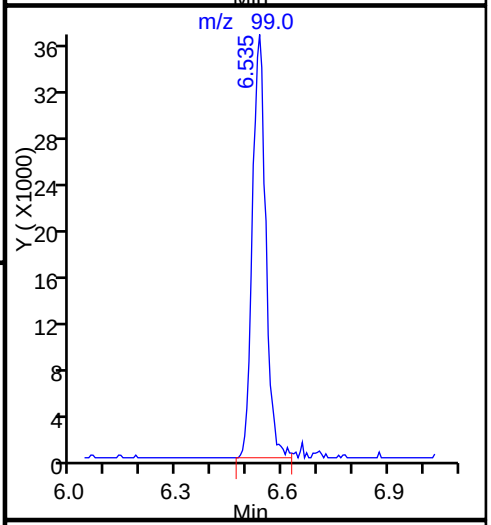
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

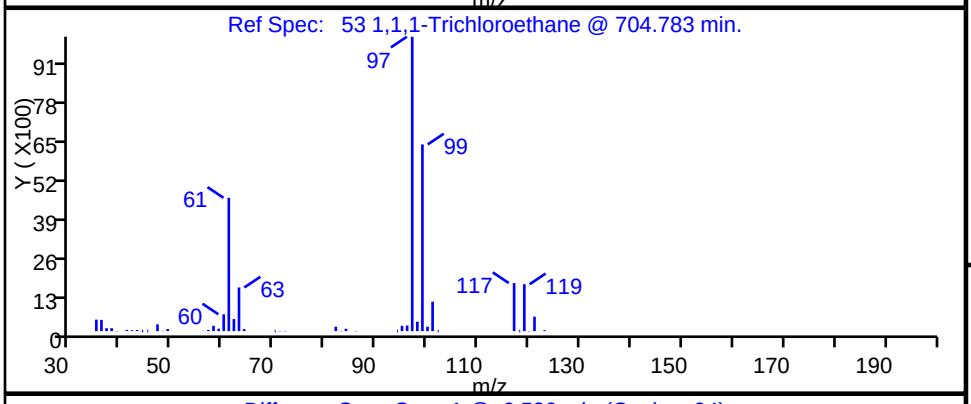
53 1,1,1-Trichloroethane, CAS: 71-55-6

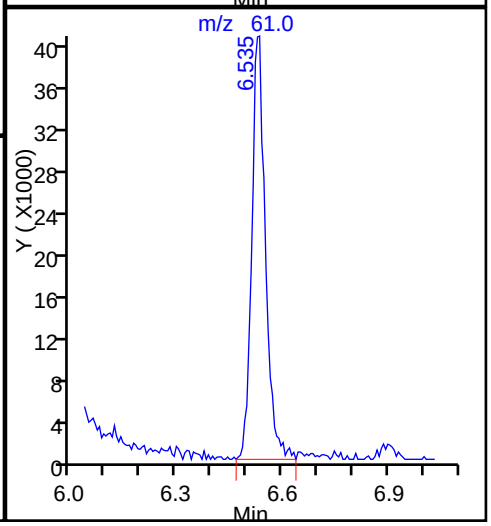


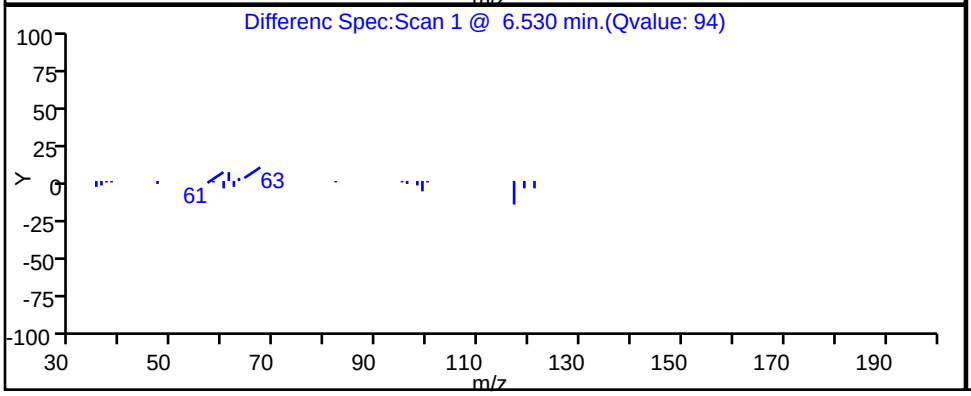










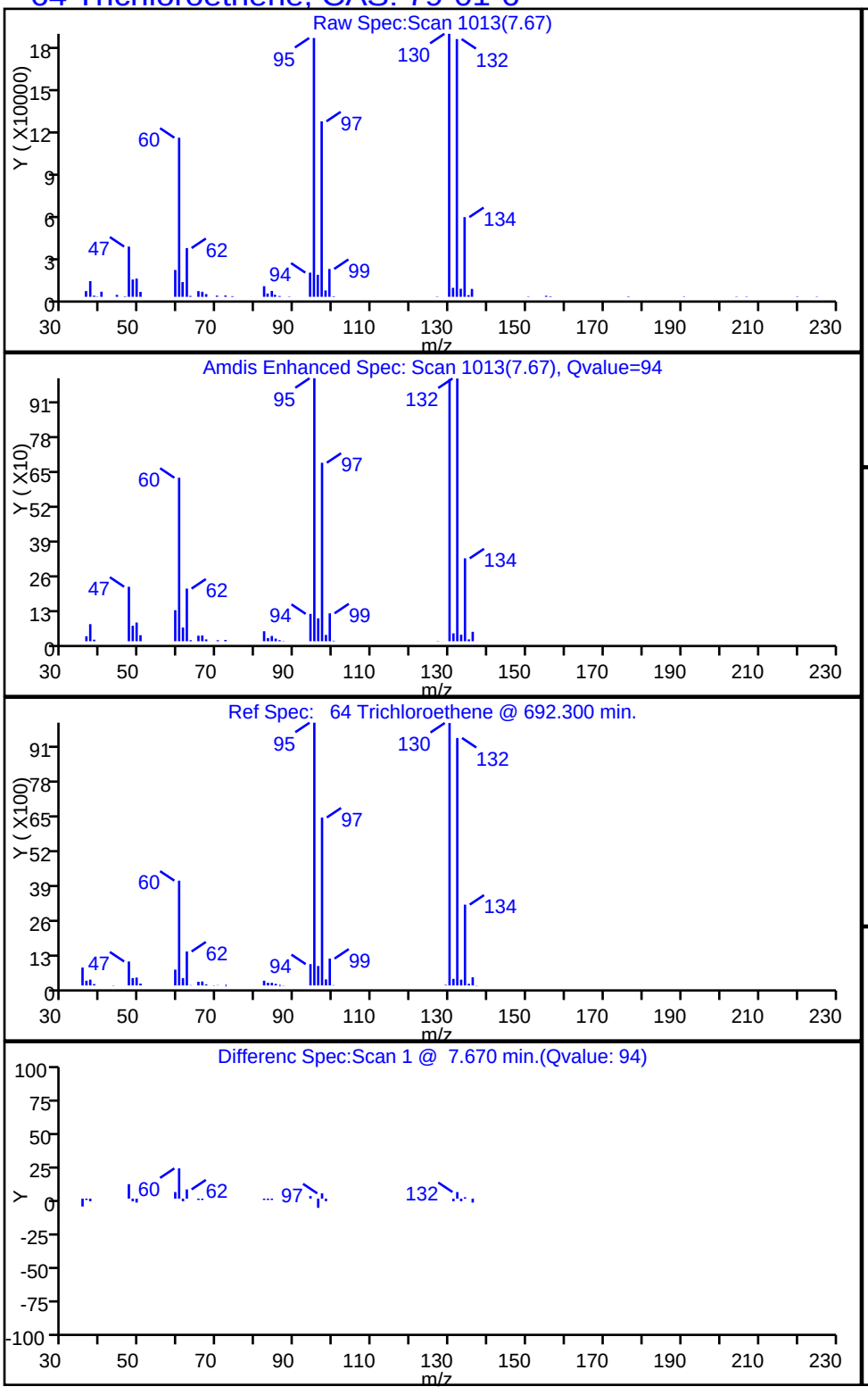


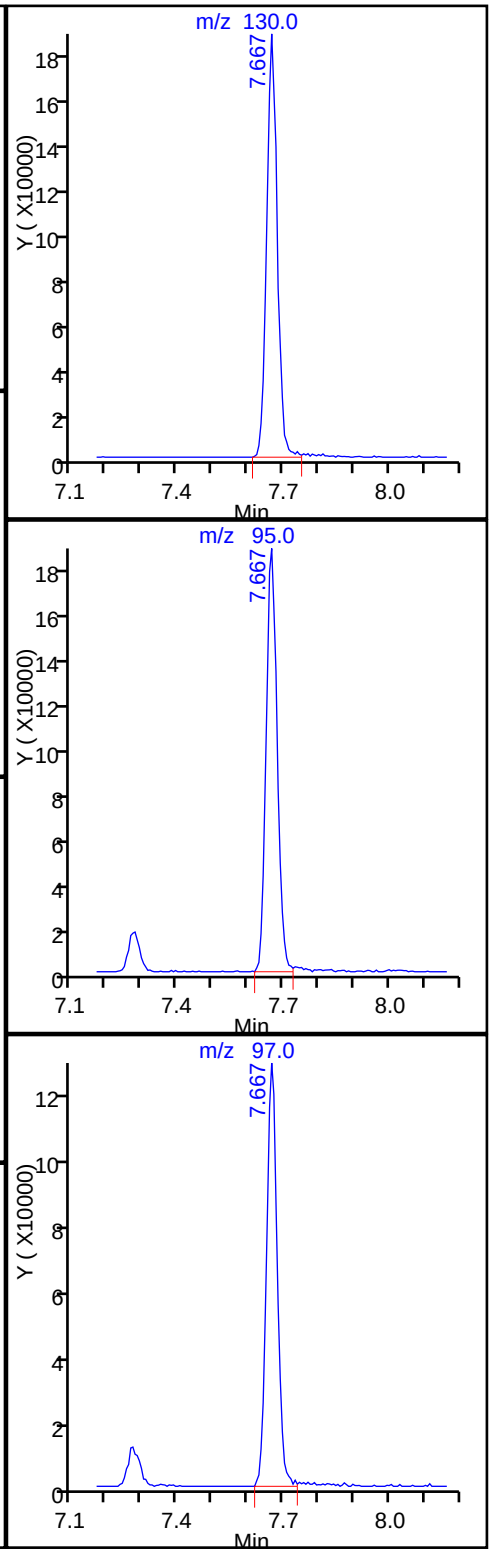
Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



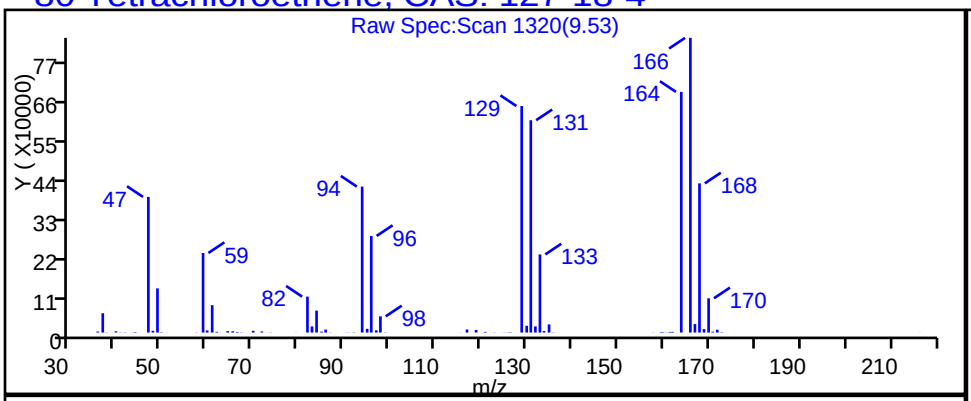


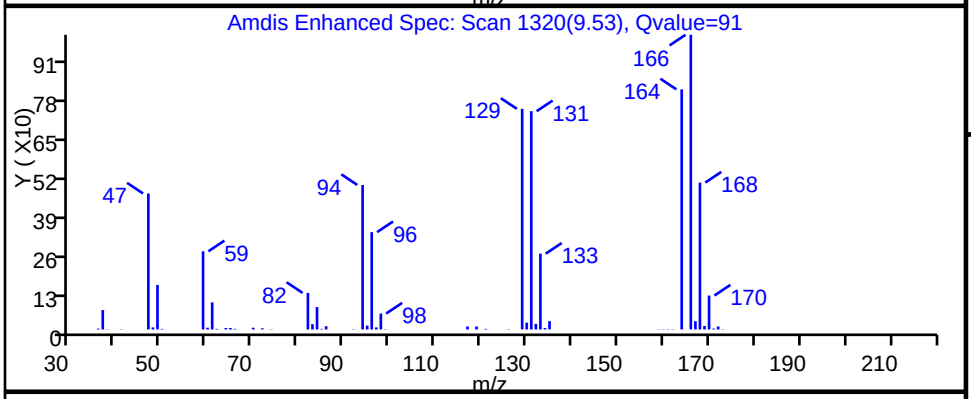
Report Date: 19-Jan-2015 08:23:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

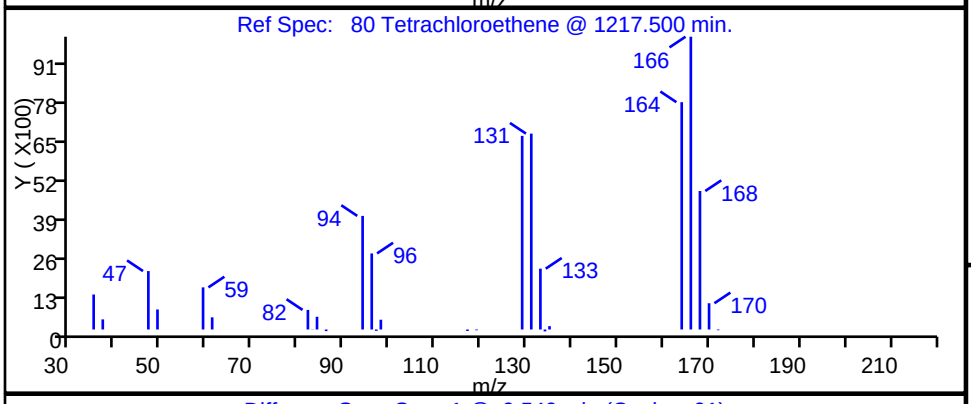
TestAmerica Pittsburgh

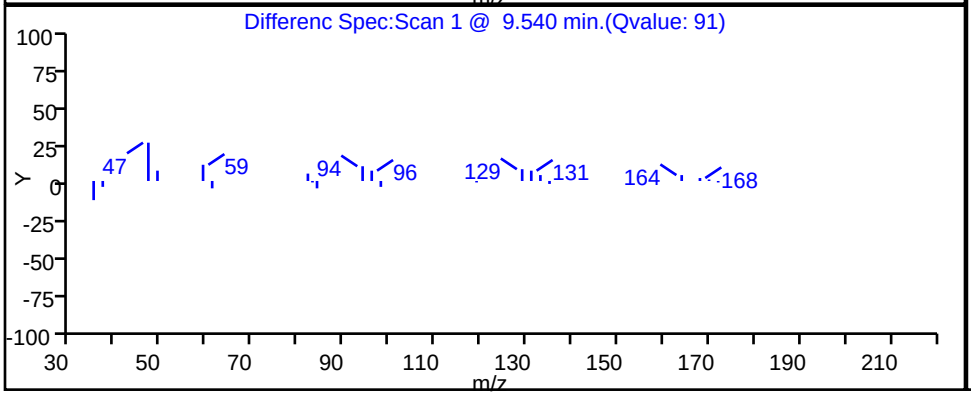
Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

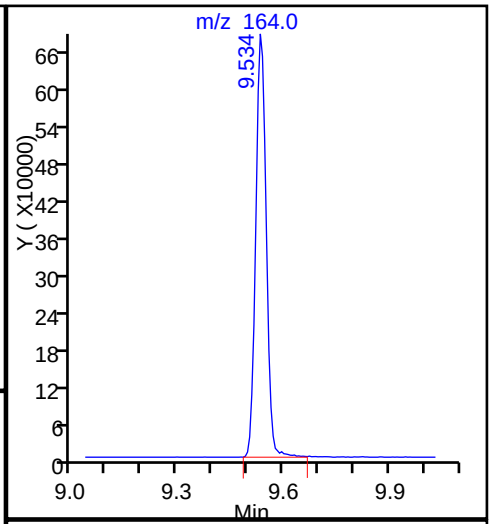
80 Tetrachloroethene, CAS: 127-18-4

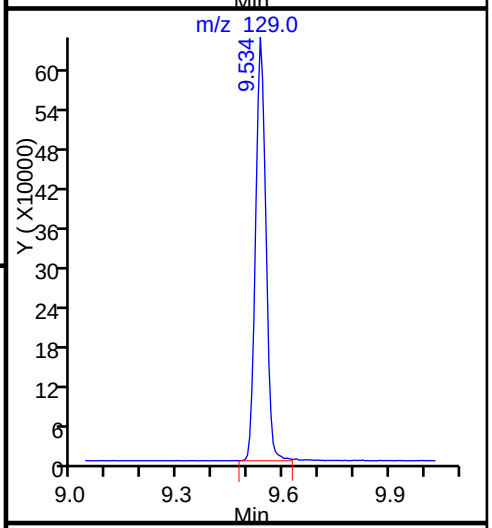


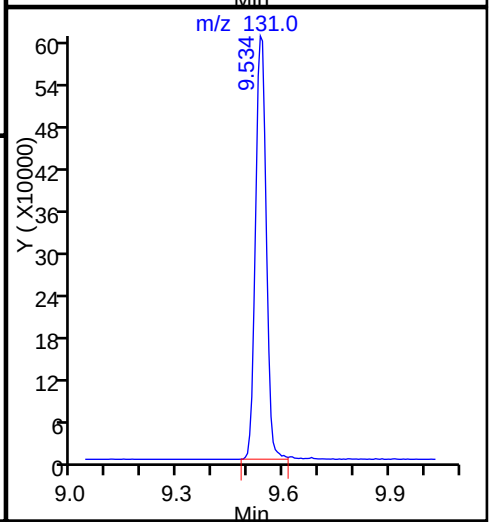












Manual Integration/User Assign Peak Report

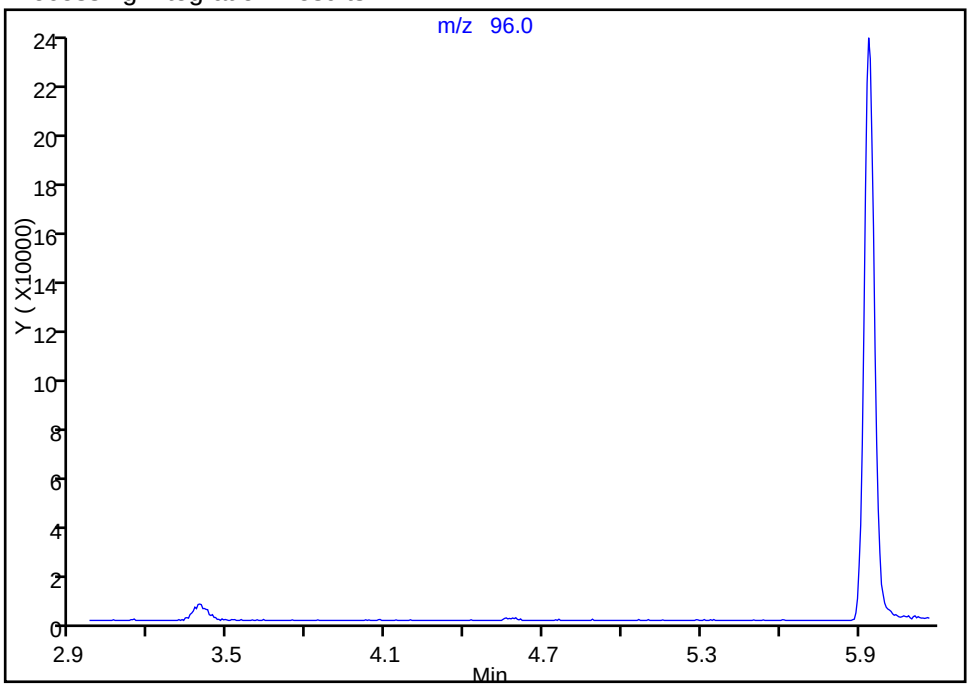
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116031.D				
Injection Date:	16-Jan-2015 23:23:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

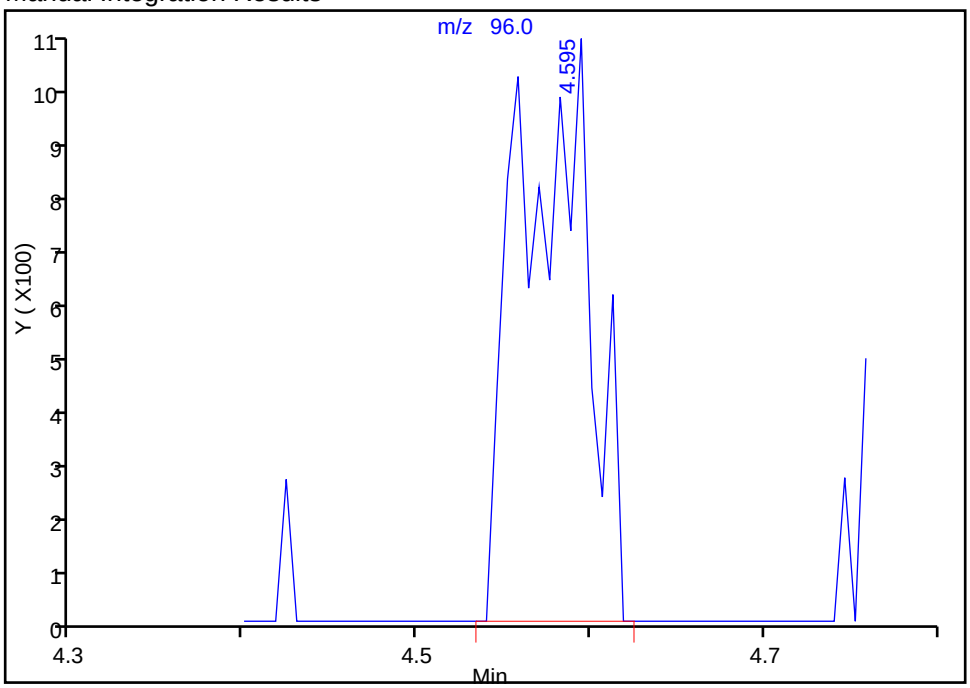
Not Detected
Expected RT: 4.57

Processing Integration Results



Manual Integration Results

RT: 4.59
Response: 3073
Amount: 1.339283



Reviewer: fergusond, 19-Jan-2015 08:23:36
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 DL | Lab Sample ID: 180-40434-25 DL

Matrix: Water | Lab File ID: 50115030.D

Analysis Method: 8260C | Date Collected: 01/13/2015 14:15

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 22:36

Soil Aliquot Vol: | Dilution Factor: 20

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

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

Analysis Batch No.: 130838 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	20	U	20	5.7
75-01-4	Vinyl chloride	20	U	20	4.5
74-83-9	Bromomethane	20	U	20	6.3
75-00-3	Chloroethane	20	U	20	4.3
75-35-4	1,1-Dichloroethene	20	U	20	5.9
67-64-1	Acetone	100	U	100	50
75-15-0	Carbon disulfide	20	U	20	4.2
75-09-2	Methylene Chloride	5.1	J	20	2.5
156-60-5	trans-1,2-Dichloroethene	20	U	20	3.4
1634-04-4	Methyl tert-butyl ether	20	U	20	3.7
75-34-3	1,1-Dichloroethane	5.4	J	20	2.3
156-59-2	cis-1,2-Dichloroethene	100		20	4.7
74-97-5	Bromochloromethane	20	U	20	3.6
78-93-3	2-Butanone (MEK)	100	U	100	11
67-66-3	Chloroform	20	U	20	3.4
71-55-6	1,1,1-Trichloroethane	16	J	20	5.7
56-23-5	Carbon tetrachloride	20	U	20	2.7
71-43-2	Benzene	20	U	20	2.1
107-06-2	1,2-Dichloroethane	20	U	20	4.2
79-01-6	Trichloroethene	60		20	2.9
78-87-5	1,2-Dichloropropane	20	U	20	1.9
75-27-4	Bromodichloromethane	20	U	20	2.6
10061-01-5	cis-1,3-Dichloropropene	20	U	20	3.7
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U	100	11
108-88-3	Toluene	20	U	20	3.0
10061-02-6	trans-1,3-Dichloropropene	20	U	20	3.0
79-00-5	1,1,2-Trichloroethane	20	U	20	4.0
127-18-4	Tetrachloroethene	260		20	3.0
591-78-6	2-Hexanone	100	U	100	3.2
124-48-1	Dibromochloromethane	20	U	20	2.7
106-93-4	1,2-Dibromoethane (EDB)	20	U	20	3.6
108-90-7	Chlorobenzene	20	U	20	2.7
630-20-6	1,1,1,2-Tetrachloroethane	20	U	20	5.5
100-41-4	Ethylbenzene	20	U	20	4.5
1330-20-7	Xylenes, Total	60	U	60	9.8
100-42-5	Styrene	20	U	20	1.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 DL | Lab Sample ID: 180-40434-25 DL

Matrix: Water | Lab File ID: 50115030.D

Analysis Method: 8260C | Date Collected: 01/13/2015 14:15

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 22:36

Soil Aliquot Vol: | Dilution Factor: 20

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

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

Analysis Batch No.: 130838 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*20*	*U*	*20*	*3.8*
79-34-5	*1,1,2,2-Tetrachloroethane*	*20*	*U*	*20*	*4.0*
107-13-1	*Acrylonitrile*	*400*	*U*	*400*	*11*
123-91-1	*1,4-Dioxane*	*4000*	*U*	*4000*	*690*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D
Lims ID: 180-40434-E-25 Lab Sample ID: 180-40434-25
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 22:36:30 ALS Bottle#: 27 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 180-40434-E-25, 20x
Misc. Info.: 180-0005292-030
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 08:28:18 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 08:28:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.293	4.284	0.009	87	154856	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	100	437707	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	99	97137	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.686	-0.004	98	132068	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.525	0.007	90	100799	54.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.896	0.006	92	168270	55.0	
$ 7 Toluene-d8 (Surr)	98	8.922	8.921	0.001	95	410417	50.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.531	0.001	83	147803	48.0	
12 Chloromethane	50		1.779				ND	
13 Vinyl chloride	62		1.901				ND	
15 Bromomethane	94		2.254				ND	
16 Chloroethane	64		2.388				ND	
22 1,1-Dichloroethene	96	3.380	3.379	0.001	10	2189	0.9181	M
24 Acetone	43		3.495				ND	
26 Carbon disulfide	76		3.659				ND	
31 Methylene Chloride	84	4.159	4.140	0.019	88	17241	1.27	
33 Acrylonitrile	53		4.547				ND	
34 trans-1,2-Dichloroethene	96		4.560				ND	
35 Methyl tert-butyl ether	73		4.596				ND	
37 1,1-Dichloroethane	63	5.181	5.174	0.007	16	7617	1.36	
45 cis-1,2-Dichloroethene	96	5.947	5.934	0.013	85	66572	25.5	
46 2-Butanone (MEK)	43		5.989				ND	
49 Chlorobromomethane	128		6.220				ND	
52 Chloroform	83		6.342				ND	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	67	11102	4.03	
56 Carbon tetrachloride	117		6.719				ND	
58 Benzene	78		6.956				ND	
59 1,2-Dichloroethane	62		6.987				ND	
64 Trichloroethene	130	7.669	7.668	0.001	95	34776	15.0	
67 1,2-Dichloropropane	63		7.905				ND	
70 1,4-Dioxane	88		8.064				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.197				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824				ND	
76 Toluene	91		8.988				ND	
77 trans-1,3-Dichloropropene	75		9.219				ND	
79 1,1,2-Trichloroethane	97		9.402				ND	
80 Tetrachloroethene	164	9.537	9.536	0.000	93	121809	64.0	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.791				ND	
85 Ethylene Dibromide	107		9.901				ND	
87 Chlorobenzene	112		10.394				ND	
89 1,1,1,2-Tetrachloroethane	131		10.479				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.619				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.026				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.671				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

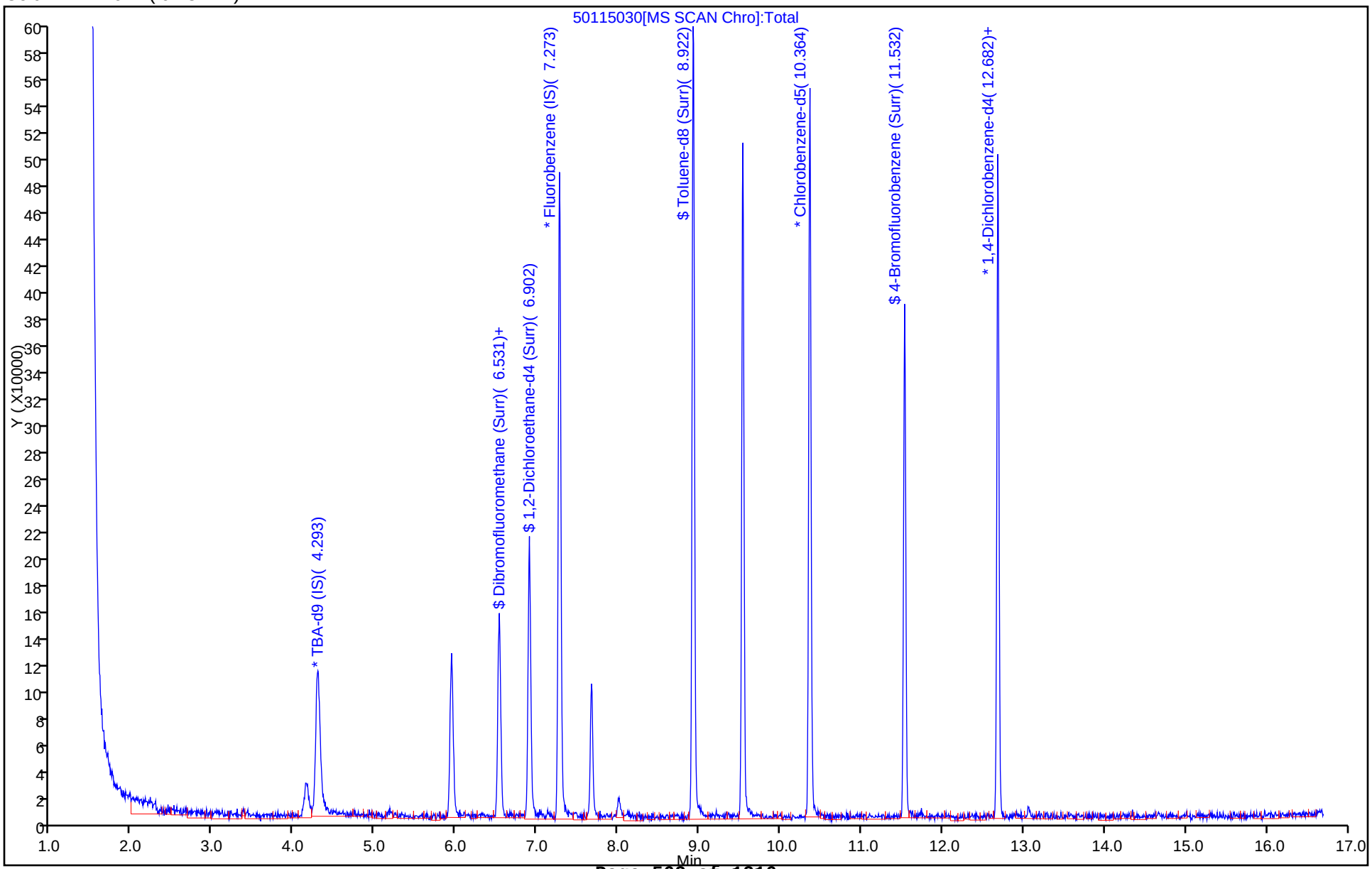
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D				
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25	Worklist Smp#:	30
Client ID:	HD-MW-37S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	27
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

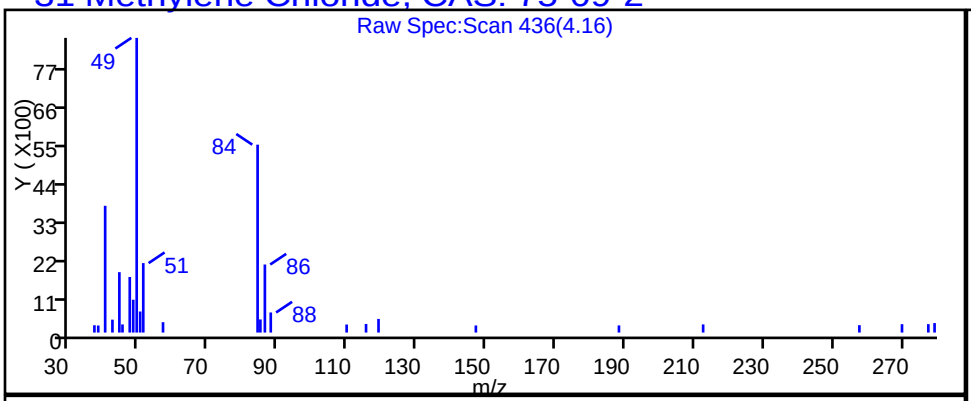


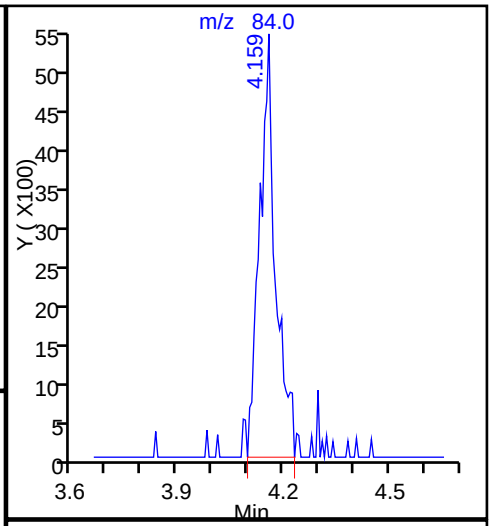
Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

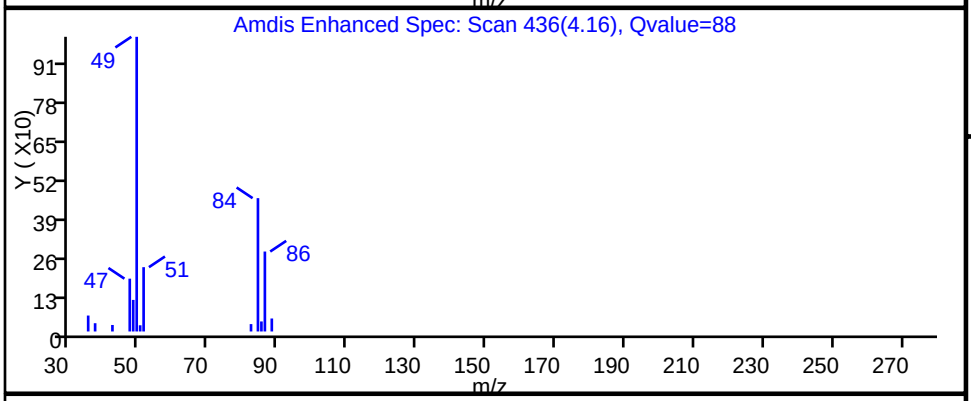
TestAmerica Pittsburgh

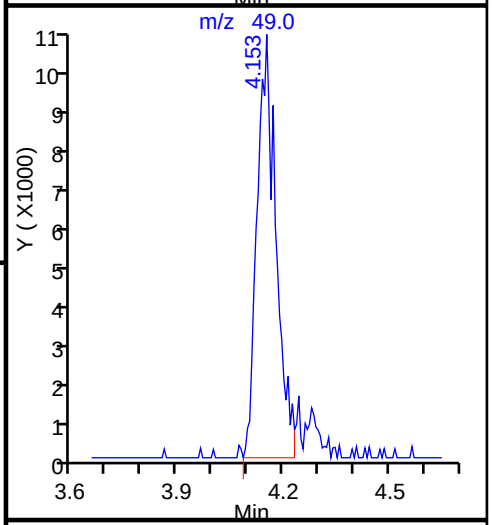
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D		
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

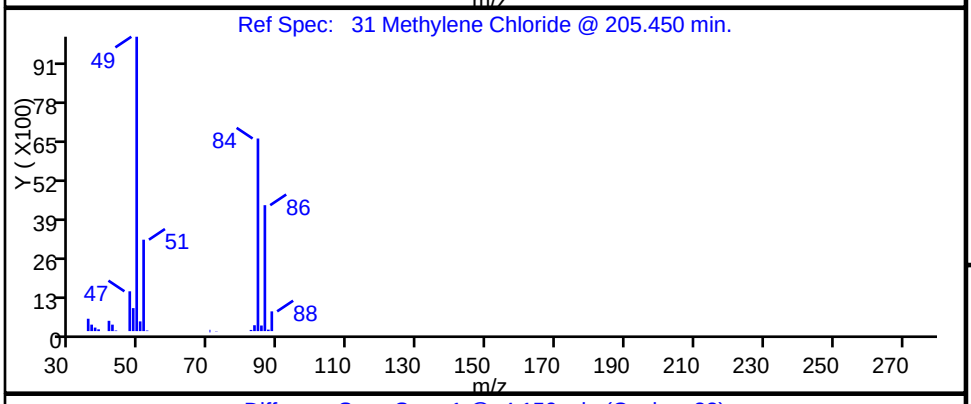
31 Methylene Chloride, CAS: 75-09-2

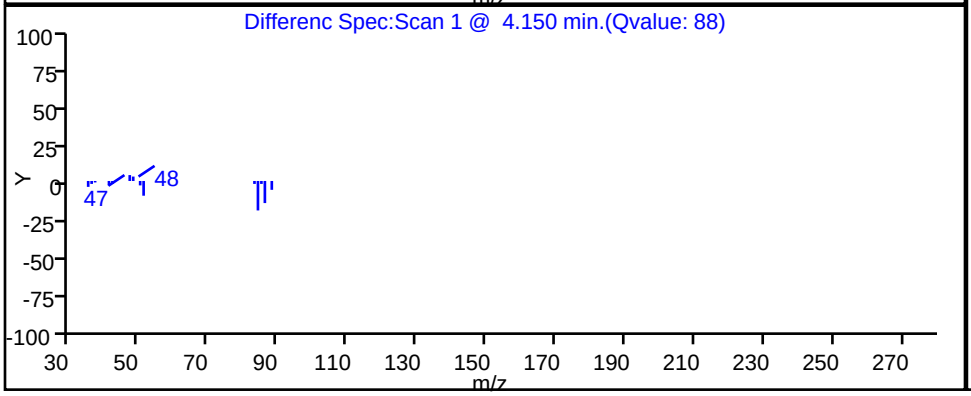


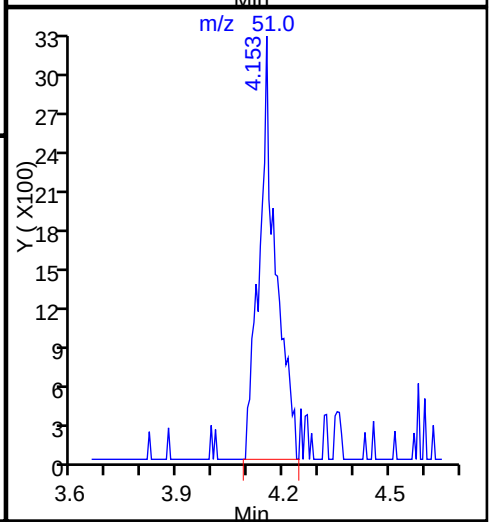












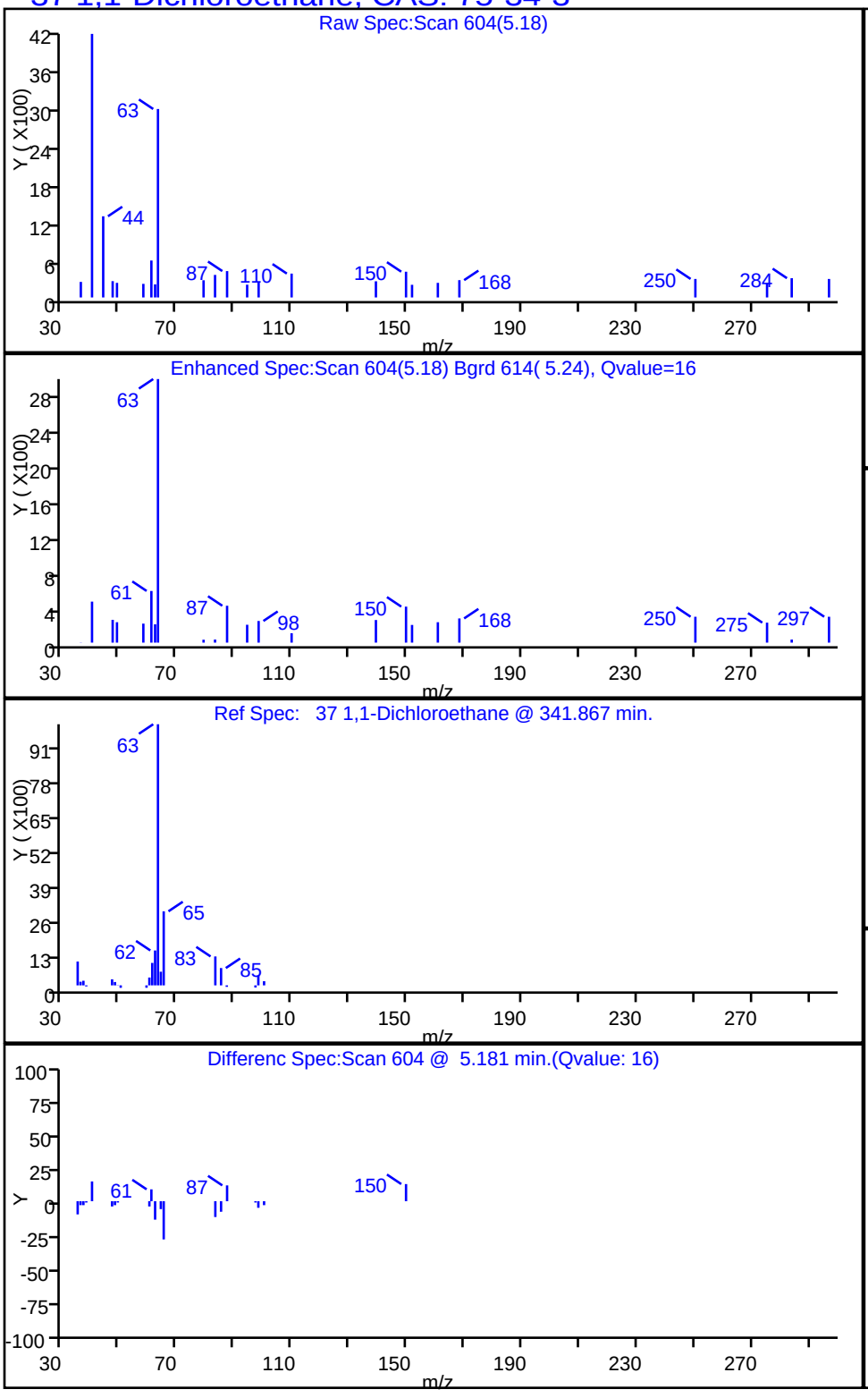
Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

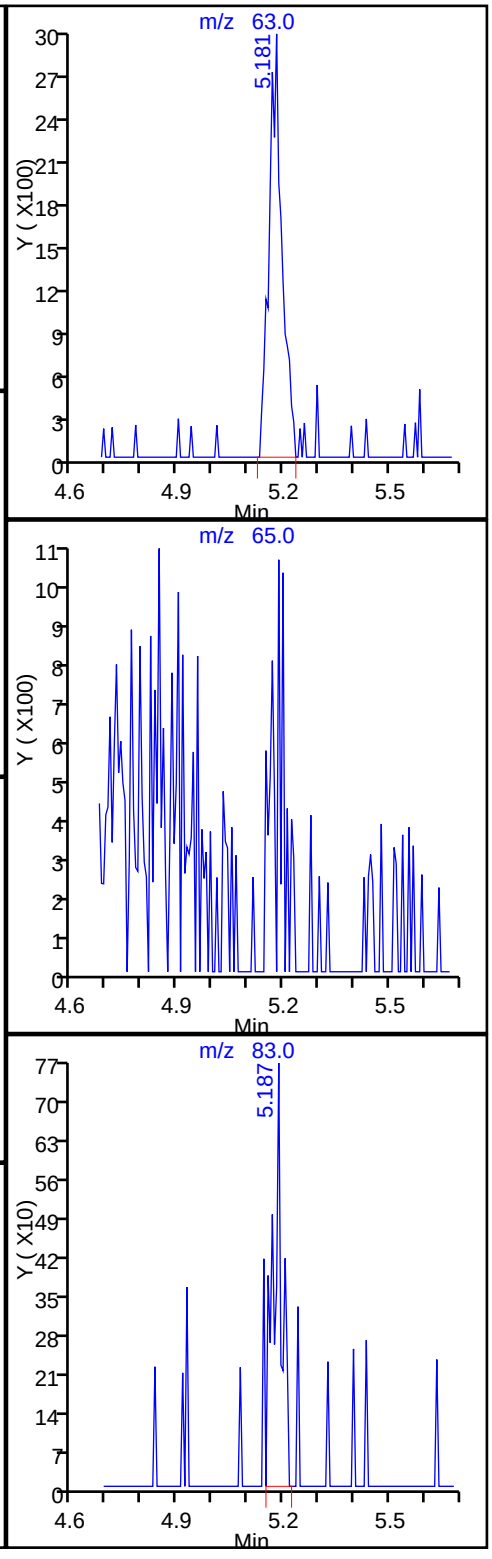
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D

Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



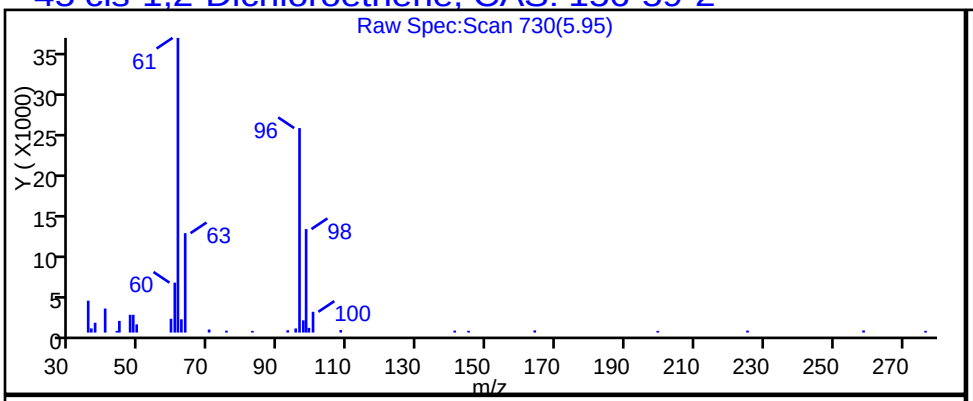


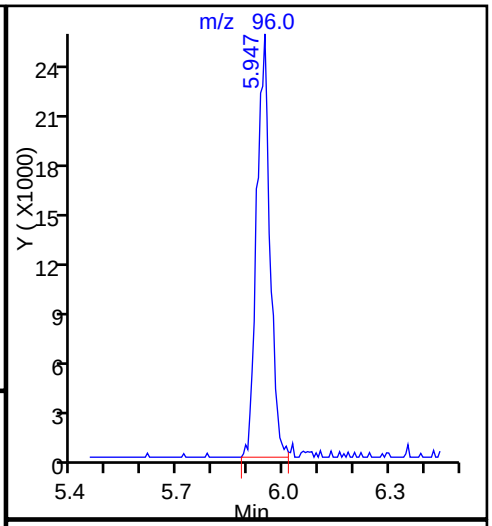
Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

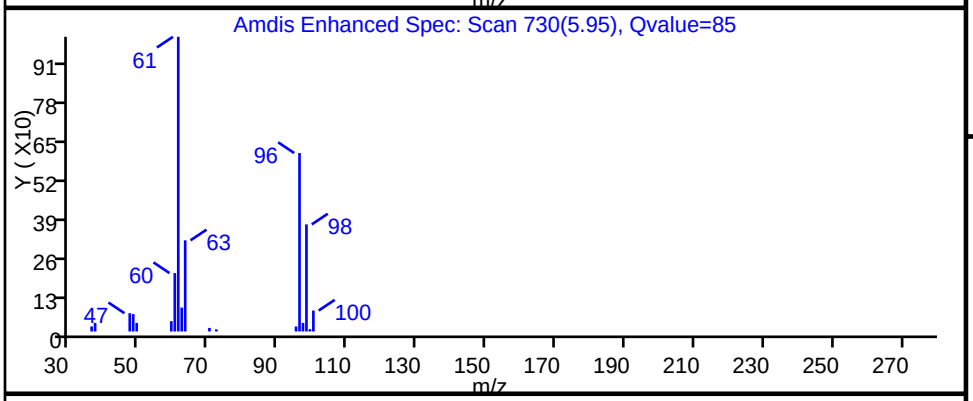
TestAmerica Pittsburgh

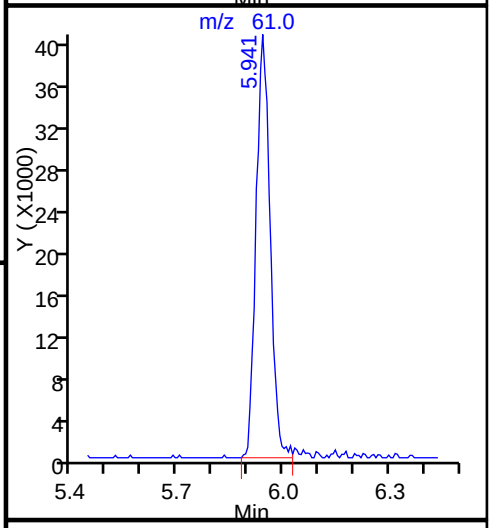
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D		
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

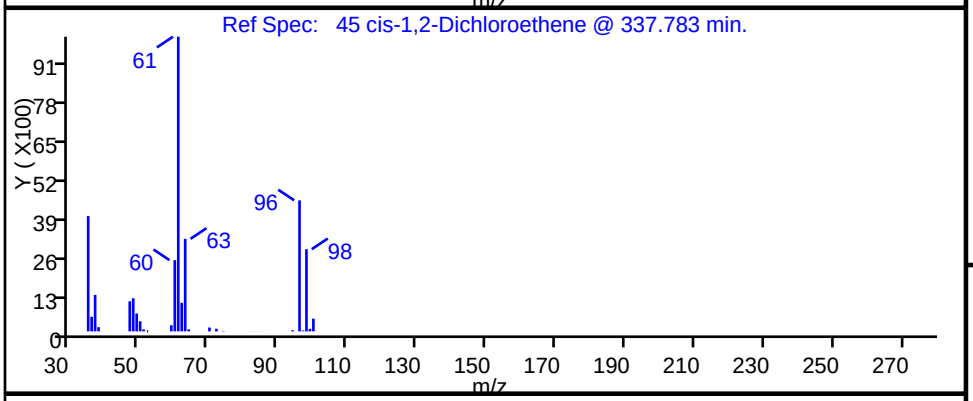
45 cis-1,2-Dichloroethene, CAS: 156-59-2

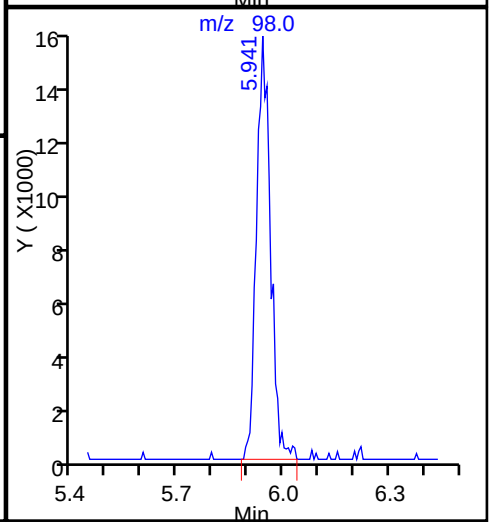


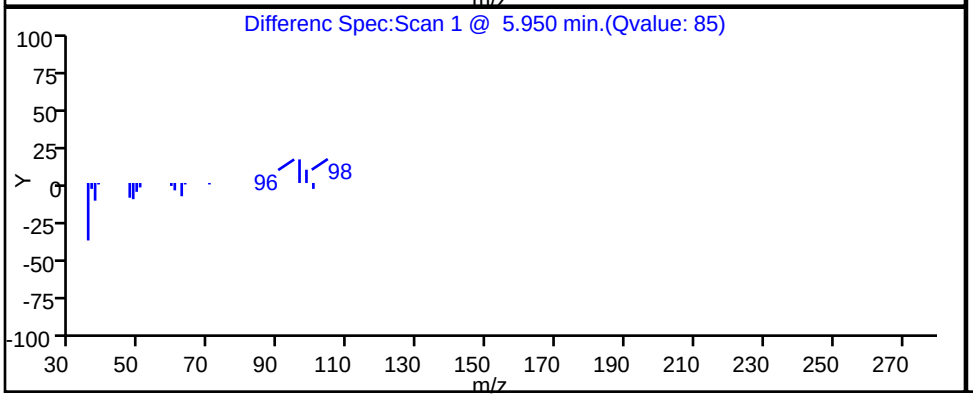










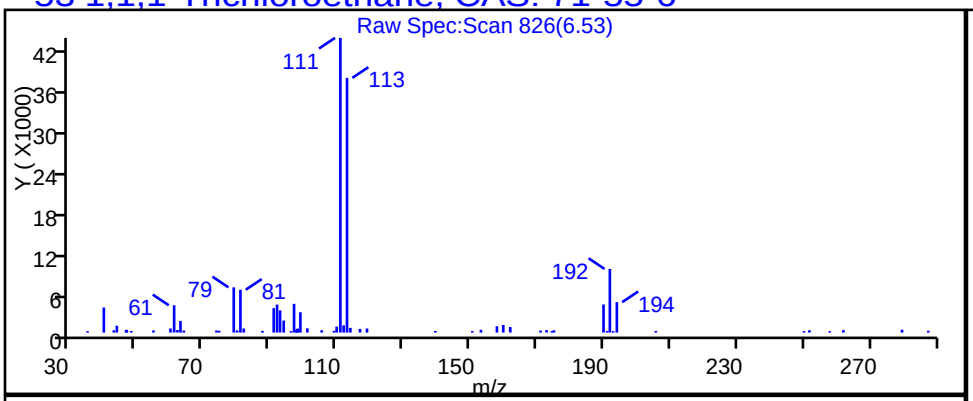


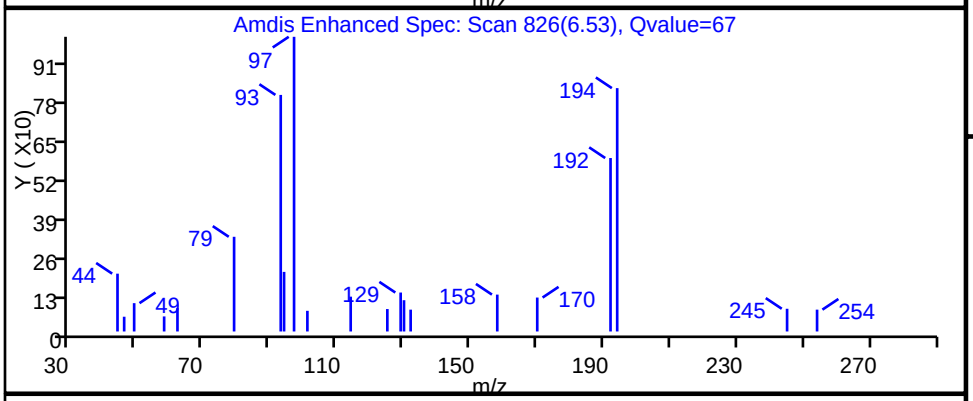
Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

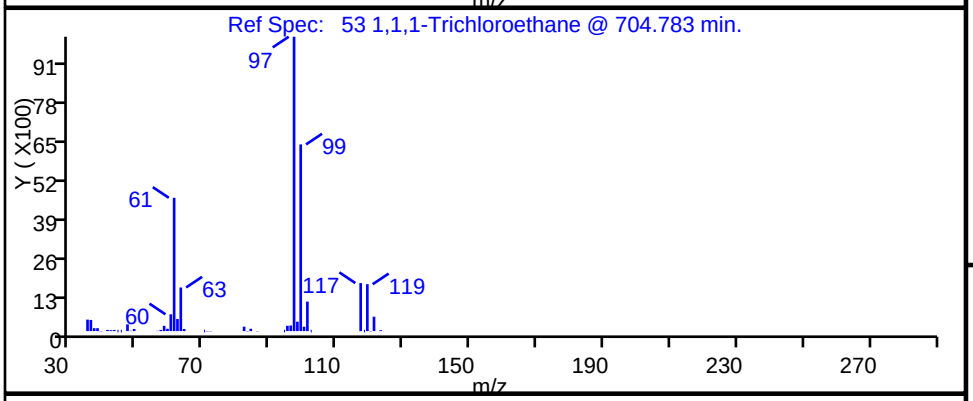
TestAmerica Pittsburgh

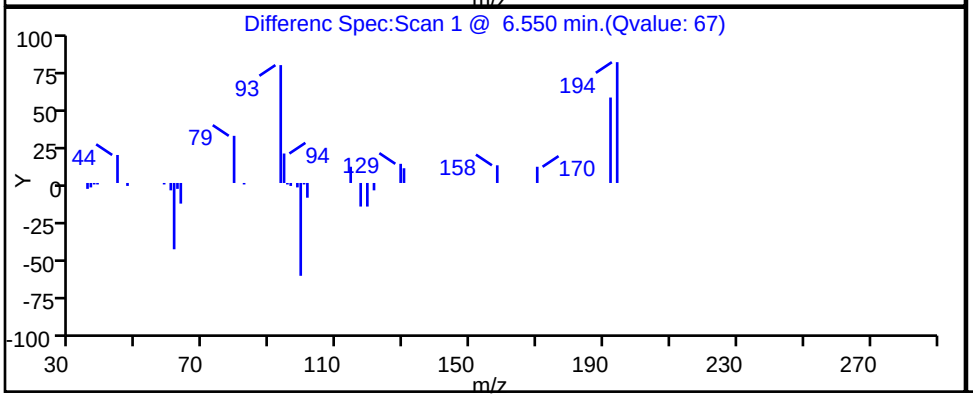
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D				
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

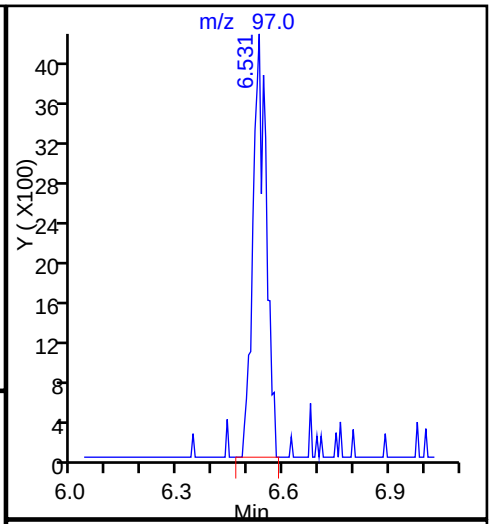
53 1,1,1-Trichloroethane, CAS: 71-55-6

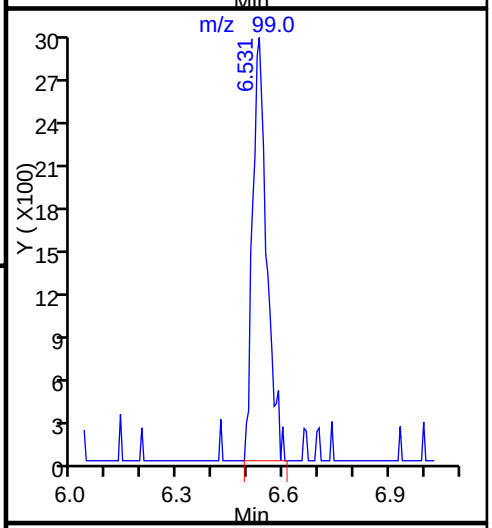


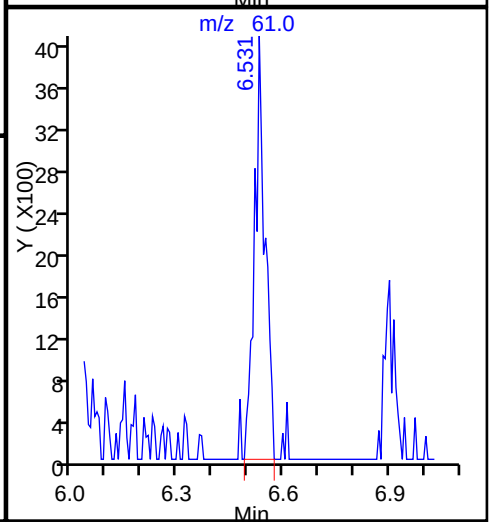










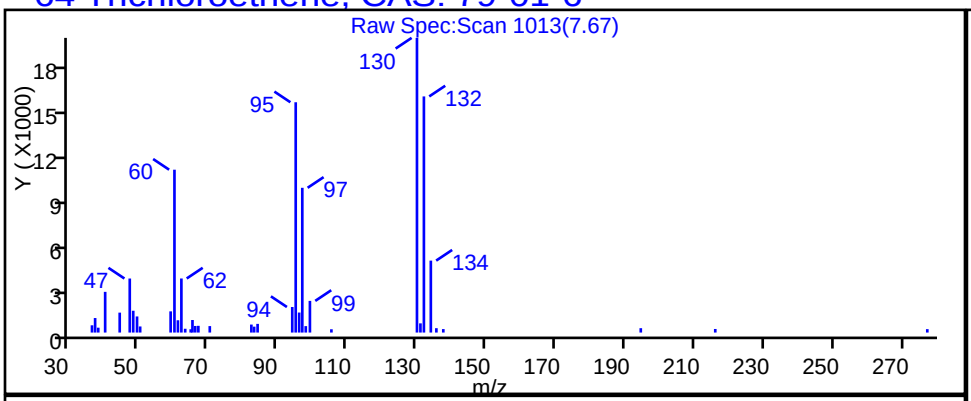


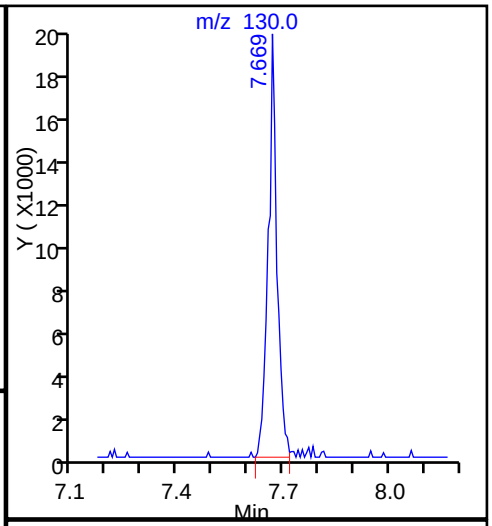
Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

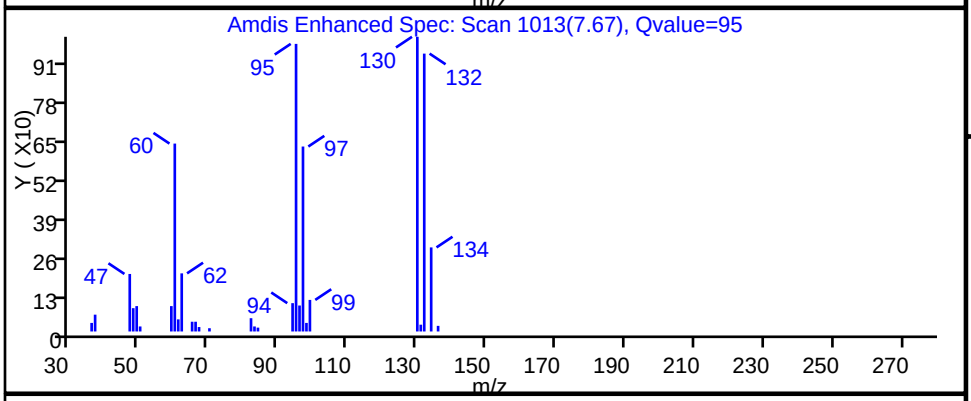
TestAmerica Pittsburgh

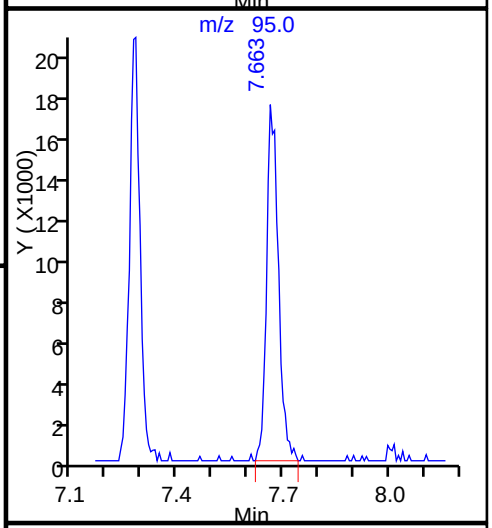
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D		
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

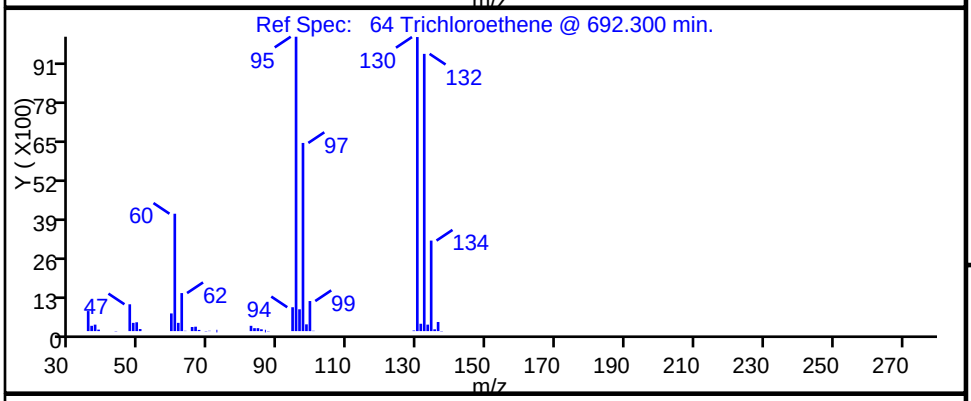
64 Trichloroethene, CAS: 79-01-6

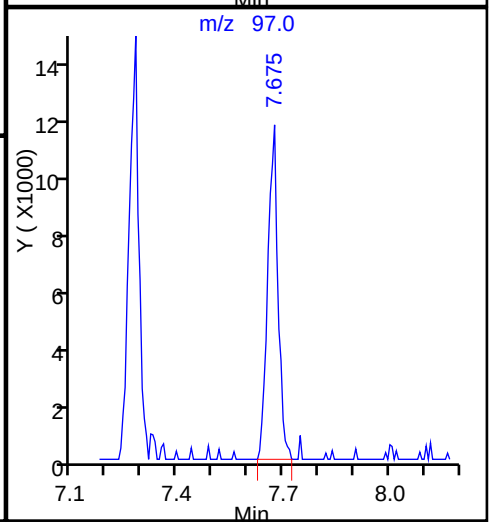


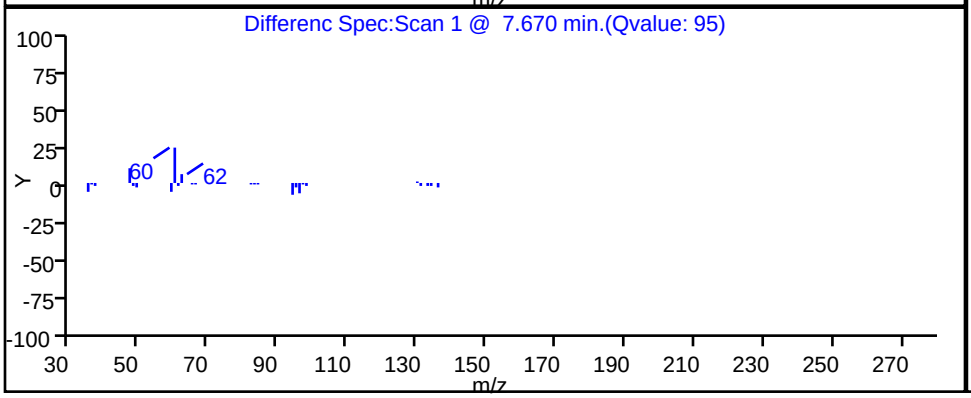










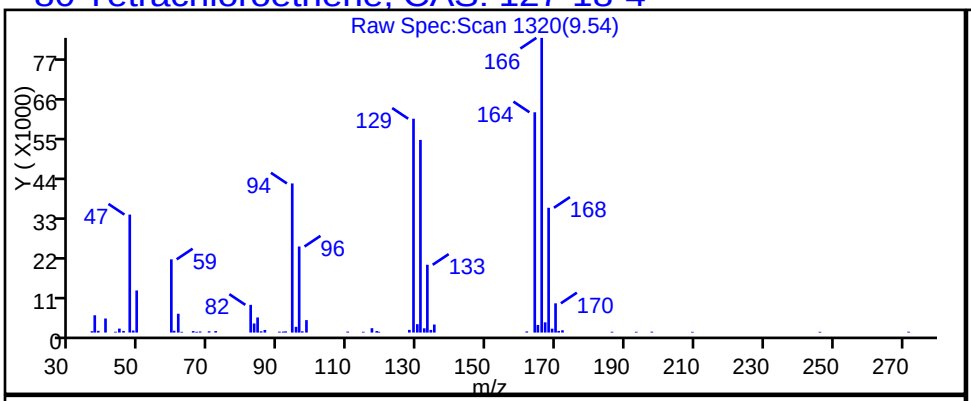


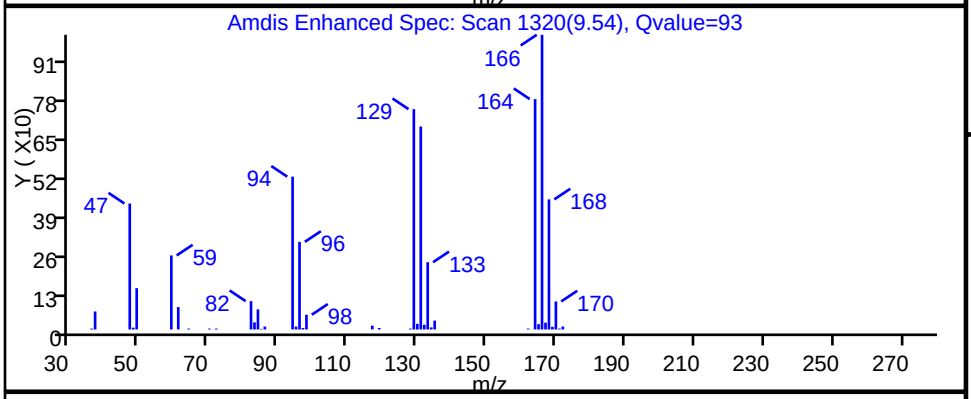
Report Date: 16-Jan-2015 08:28:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

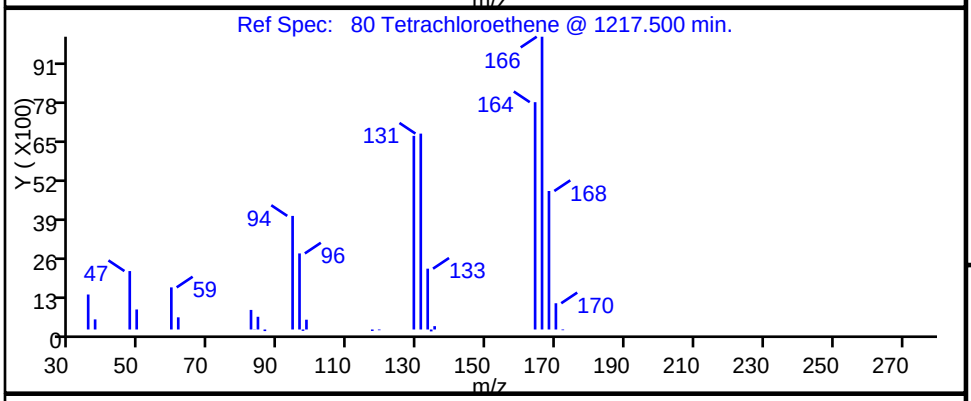
TestAmerica Pittsburgh

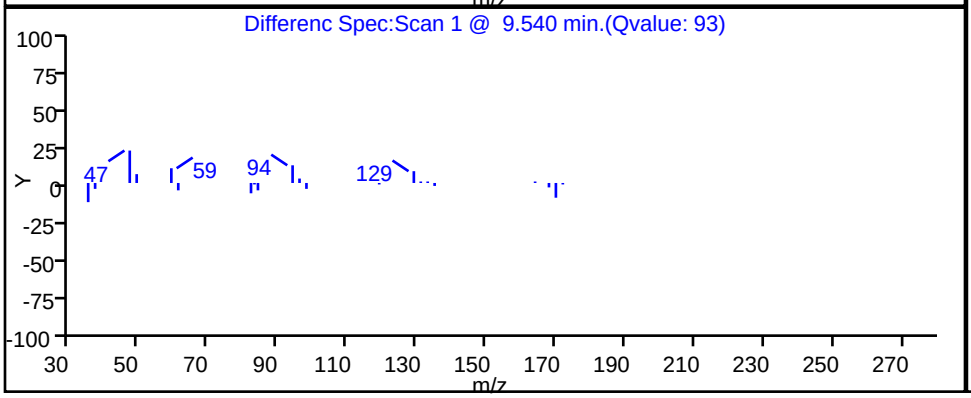
Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D		
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

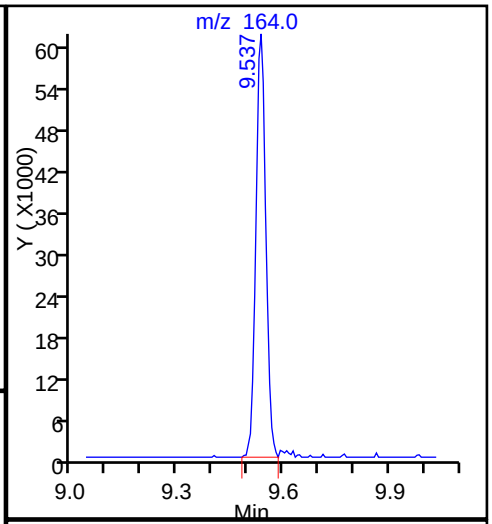
80 Tetrachloroethene, CAS: 127-18-4

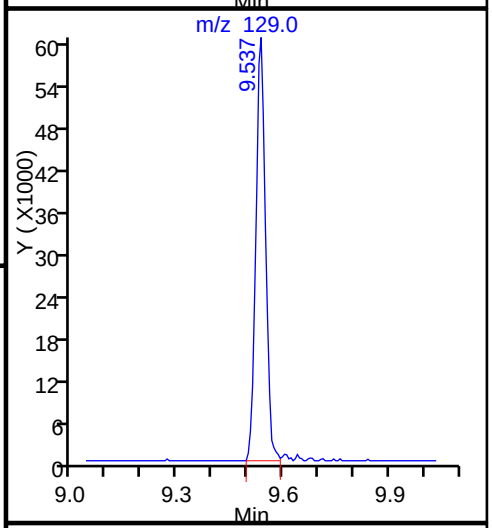


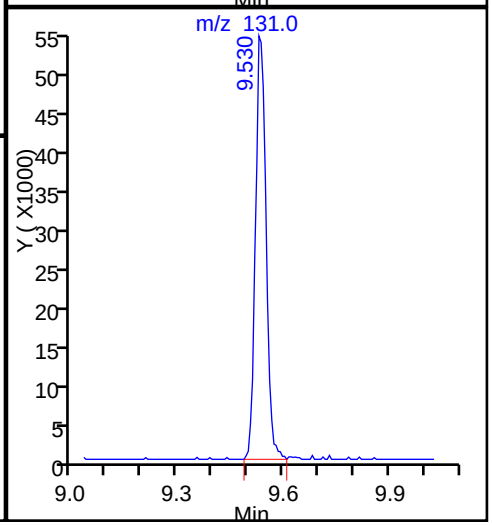












Manual Integration/User Assign Peak Report

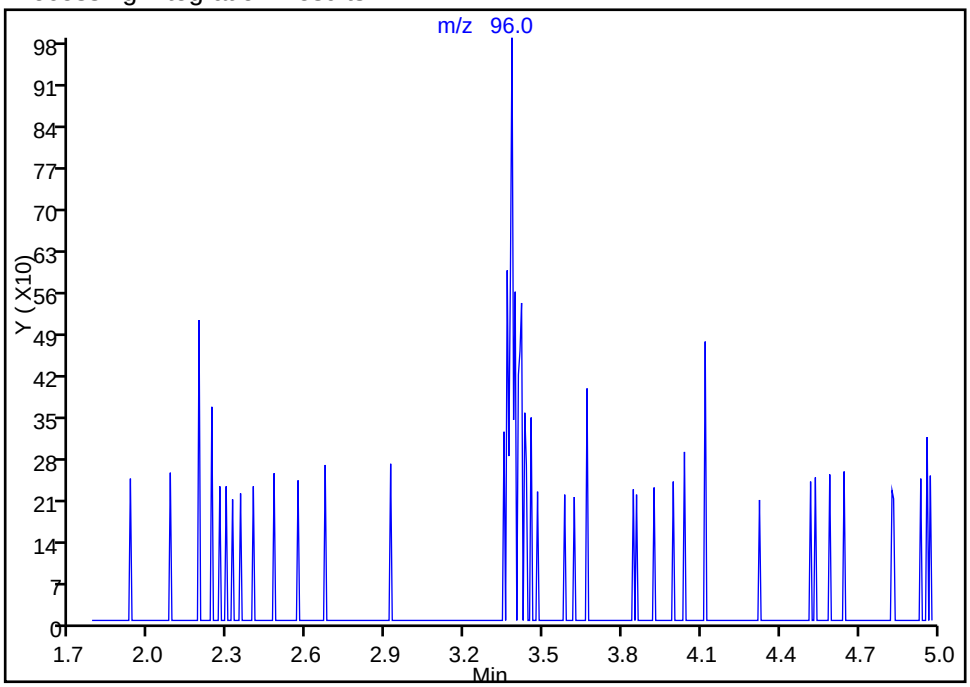
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115030.D				
Injection Date:	15-Jan-2015 22:36:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-E-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

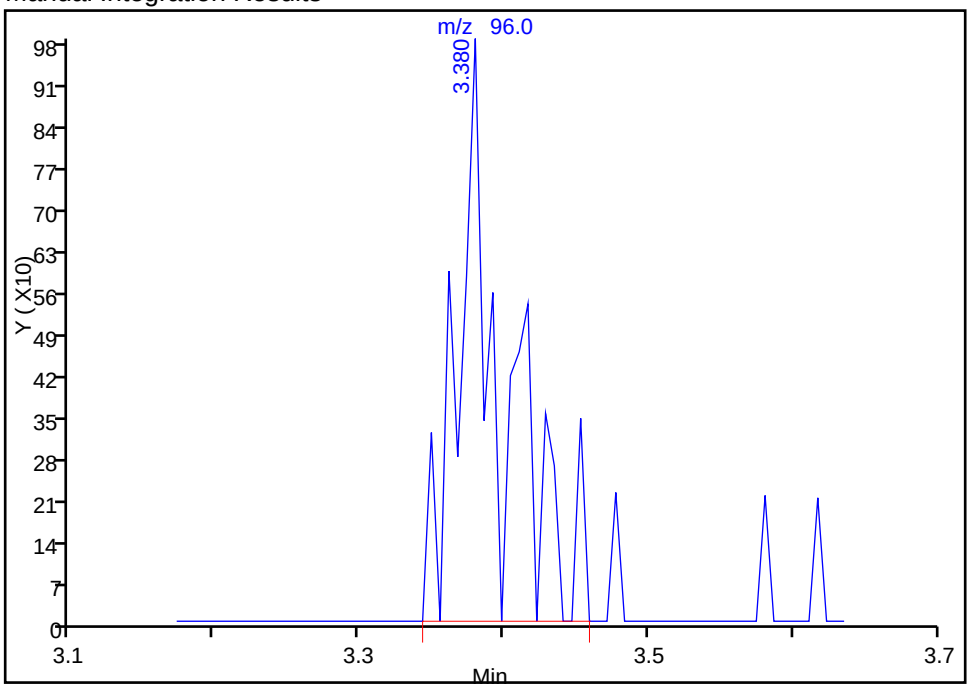
Not Detected
Expected RT: 3.38

Processing Integration Results



Manual Integration Results

RT: 3.38
Response: 2189
Amount: 0.918058



Reviewer: fergusond, 16-Jan-2015 08:28:18
Audit Action: Manually Integrated
Audit Reason: Split Peak

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-128329/7	51215007.D
Level 2	IC 180-128329/8	51215008.D
Level 3	ICIS 180-128329/9	51215009.D
Level 4	IC 180-128329/10	51215010.D
Level 5	IC 180-128329/11	51215011.D
Level 6	IC 180-128329/12	51215012.D
Level 7	IC 180-128329/13	51215013.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 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3062 0.3035	0.3007 0.2973	0.3096	0.2868	0.2945	Ave		0.2998			0.1000	2.6		20.0			
Chloromethane	0.6637 0.5790	0.6196 0.5701	0.5840	0.5592	0.5646	Ave		0.5915			0.1000	6.3		20.0			
Vinyl chloride	0.4632 0.4075	0.4060 0.3966	0.3929	0.3822	0.3944	Ave		0.4061			0.1000	6.5		20.0			
1,3-Butadiene	0.6799 0.5615	0.6016 0.5472	0.5886	0.5249	0.5423	Ave		0.5780			0.0100	9.0		20.0			
Bromomethane	0.1497 0.1101	0.1243 0.1130	0.1171	0.1203	0.1157	Ave		0.1215			0.0500	11.0		20.0			
Chloroethane	0.2297 0.1928	0.2011 0.1991	0.1998	0.1915	0.1934	Ave		0.2011			0.0500	6.6		20.0			
Dichlorofluoromethane	0.4259 0.4011	0.4197 0.3917	0.3930	0.3904	0.3776	Ave		0.3999			0.0100	4.3		20.0			
Trichlorofluoromethane	0.2464 0.2726	0.2465 0.2680	0.2432	0.2385	0.2579	Ave		0.2533			0.1000	5.2		20.0			
Ethyl ether	0.4123 0.3465	0.3799 0.3621	0.3539	0.3391	0.3271	Ave		0.3601			0.0100	7.9		20.0			
Acrolein	0.0537 0.0556	0.0508 0.0567	0.0535	0.0536	0.0532	Ave		0.0539			0.0100	3.5		20.0			
1,1-Dichloroethene	0.2959 0.2801	0.2681 0.2703	0.2749	0.2562	0.2610	Ave		0.2724			0.1000	4.8		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3093 0.2836	0.2714 0.2795	0.2696	0.2530	0.2643	Ave		0.2758			0.1000	6.5		20.0			
Acetone	0.1576 0.1595	0.1627 0.1621	0.1605	0.1483	0.1467	Ave		0.1568			0.0500	4.2		20.0			
Iodomethane	0.3546 0.3562	0.3422 0.3744	0.3464	0.3310	0.3371	Ave		0.3488			0.0100	4.1		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 CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

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 4	LVL 5		B	M1	M2								
Carbon disulfide	0.5435 0.5884	0.4817 0.6028	0.4812	0.4815	0.5166	Ave		0.5280			0.1000	9.8		20.0			
Allyl chloride	0.1418 0.1715	0.1437 0.1733	0.1474	0.1478	0.1505	Ave		0.1537			0.0100	8.5		20.0			
Methyl acetate	0.4835 0.4434	0.4663 0.4598	0.4584	0.4454	0.4301	Ave		0.4553			0.1000	3.8		20.0			
Methylene Chloride	0.6145 0.3099	0.3763 0.3145	0.3247	0.3071	0.3044	Lin2	1.5927	0.2976			0.1000				0.9990		0.9900
tert-Butyl alcohol	1.3299 1.4355	1.3352 1.3666	1.3666	1.2618	1.2625	Ave		1.3369			0.0100	4.6		20.0			
Acrylonitrile	0.2160 0.2046	0.2155 0.2150	0.2130	0.2061	0.1987	Ave		0.2098			0.0100	3.2		20.0			
trans-1,2-Dichloroethene	0.2881 0.2757	0.2830 0.2741	0.2762	0.2705	0.2626	Ave		0.2757			0.1000	3.0		20.0			
Methyl tert-butyl ether	0.7303 0.7077	0.7203 0.7970	0.6858	0.6818	0.6790	Ave		0.7145			0.1000	5.8		20.0			
Hexane	0.8242 0.6885	0.6899 0.6819	0.6853	0.6457	0.6701	Ave		0.6980			0.0100	8.3		20.0			
1,1-Dichloroethane	0.6058 0.6436	0.6659 0.6663	0.6506	0.6346	0.6232	Ave		0.6414			0.2000	3.5		20.0			
Vinyl acetate	0.5940 0.6460	0.6125 0.6680	0.5955	0.5898	0.5998	Ave		0.6151			0.0100	4.9		20.0			
2,2-Dichloropropane	0.1514 0.1792	0.1813 0.1765	0.1728	0.1600	0.1691	Ave		0.1700			0.0100	6.4		20.0			
cis-1,2-Dichloroethene	0.3032 0.3027	0.3003 0.3109	0.2942	0.2891	0.2862	Ave		0.2981			0.1000	2.9		20.0			
2-Butanone (MEK)	0.2430 0.2534	0.2496 0.2673	0.2377	0.2336	0.2418	Ave		0.2466			0.0500	4.6		20.0			
Bromochloromethane	0.1229 0.1250	0.1272 0.1313	0.1241	0.1248	0.1151	Ave		0.1243			0.0100	4.0		20.0			
Tetrahydrofuran	0.2188 0.1877	0.1834 0.1953	0.1826	0.1724	0.1728	Ave		0.1876			0.0100	8.5		20.0			
Chloroform	0.5156 0.4784	0.4964 0.4915	0.4805	0.4705	0.4620	Ave		0.4850			0.2000	3.7		20.0			
1,1,1-Trichloroethane	0.3042 0.3279	0.3143 0.3287	0.3041	0.3089	0.3147	Ave		0.3147			0.1000	3.2		20.0			
Cyclohexane	0.8681 0.9030	0.9043 0.8876	0.8981	0.8552	0.8740	Ave		0.8843			0.1000	2.1		20.0			
Carbon tetrachloride	0.2572 0.2959	0.2558 0.2959	0.2737	0.2633	0.2713	Ave		0.2733			0.1000	6.1		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 CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

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 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	0.4048 0.4058	0.4019 0.4038	0.3999	0.3729	0.3899	Ave		0.3970			0.0100	3.0		20.0			
Isobutyl alcohol	0.0138 0.0157	0.0134 0.0168	0.0127	0.0135	0.0146	Ave		0.0144			0.0100	10.0		20.0			
Benzene	1.3519 1.1913	1.3153 1.2141	1.2337	1.1932	1.1554	Ave		1.2364			0.5000	5.8		20.0			
1,2-Dichloroethane	0.4692 0.4760	0.4989 0.4961	0.4921	0.4756	0.4530	Ave		0.4801			0.1000	3.4		20.0			
n-Heptane	0.7022 0.7243	0.7478 0.7132	0.7130	0.6587	0.6959	Ave		0.7079			0.0100	3.9		20.0			
Trichloroethene	0.2608 0.2714	0.2702 0.2689	0.2744	0.2530	0.2543	Ave		0.2647			0.2000	3.3		20.0			
Methylcyclohexane	0.4718 0.5254	0.4987 0.5263	0.5179	0.4936	0.5135	Ave		0.5067			0.1000	3.9		20.0			
1,2-Dichloropropane	0.3614 0.3820	0.3824 0.3991	0.3831	0.3789	0.3761	Ave		0.3804			0.1000	2.9		20.0			
Dibromomethane	0.1574 0.1588	0.1585 0.1657	0.1560	0.1528	0.1490	Ave		0.1569			0.0100	3.3		20.0			
1,4-Dioxane	0.0018 0.0031	0.0029 0.0032	0.0030	0.0030	0.0030	Ave		0.0028		*	0.0100	17.0		20.0			
Bromodichloromethane	0.3038 0.3401	0.3260 0.3569	0.3126	0.3150	0.3123	Ave		0.3238			0.2000	5.8		20.0			
cis-1,3-Dichloropropene	0.3050 0.4061	0.3383 0.4319	0.3563	0.3735	0.3754	Ave		0.3695			0.2000	11.0		20.0			
4-Methyl-2-pentanone (MIBK)	2.0070 2.0571	2.2983 2.1625	2.1794	2.1474	2.2651	Ave		2.1596			0.1000	4.8		20.0			
Toluene	6.0359 4.7325	5.9162 4.6763	5.4579	5.1255	5.2161	Ave		5.3086			0.4000	10.0		20.0			
trans-1,3-Dichloropropene	1.1102 1.3080	1.1630 1.3468	1.1734	1.1997	1.3019	Ave		1.2290			0.1000	7.3		20.0			
Ethyl methacrylate	1.1947 1.4902	1.5172 1.6056	1.4384	1.4484	1.5508	Ave		1.4636			0.0100	9.0		20.0			
1,1,2-Trichloroethane	1.1555 0.9528	1.1466 0.9887	1.0173	1.0002	1.0303	Ave		1.0416			0.1000	7.6		20.0			
Tetrachloroethene	1.2291 0.8845	1.0292 0.8744	0.9840	0.9051	0.9464	Ave		0.9790			0.2000	13.0		20.0			
1,3-Dichloropropane	2.2033 1.8410	2.2105 1.8880	1.9789	1.9418	1.9816	Ave		2.0065			0.0100	7.3		20.0			
2-Hexanone	1.4578 1.7305	1.8196 1.8071	1.8111	1.7292	1.7458	Ave		1.7287			0.1000	7.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

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 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.6473 0.7990	0.7489 0.8288	0.7622	0.7731	0.8014	Ave		0.7658			0.1000	7.7		20.0			
1,2-Dibromoethane (EDB)	0.9405 0.9287	1.0364 0.9768	0.9830	0.9294	0.9669	Ave		0.9660			0.1000	4.0		20.0			
3-Chlorobenzotrifluoride	1.9305 1.6427	1.8876 1.6220	1.8725	1.5530	1.7078	Ave		1.7451			0.0100	8.6		20.0			
Chlorobenzene	3.5159 2.9720	3.6049 2.9950	3.2970	3.0280	3.1899	Ave		3.2289			0.5000	7.9		20.0			
4-Chlorobenzotrifluoride	1.7156 1.5705	1.7902 1.5099	1.7285	1.4987	1.6016	Ave		1.6307			0.0100	7.0		20.0			
1,1,1,2-Tetrachloroethane	1.0970 0.9306	1.0515 0.9664	0.9591	0.9304	0.9598	Ave		0.9850			0.0100	6.5		20.0			
Ethylbenzene	1.8648 1.7480	2.0129 1.7278	1.8616	1.7465	1.8341	Ave		1.8280			0.1000	5.5		20.0			
m-Xylene & p-Xylene	2.2615 2.0929	2.4124 2.1071	2.2773	2.1567	2.2774	Ave		2.2265			0.1000	5.1		20.0			
o-Xylene	2.3040 2.0200	2.3242 2.0332	2.2475	2.0639	2.1564	Ave		2.1642			0.3000	6.0		20.0			
Styrene	3.7316 3.3938	4.0109 3.4490	3.7186	3.5198	3.6725	Ave		3.6423			0.3000	5.8		20.0			
Bromoform	0.4456 0.5152	0.4839 0.5501	0.4374	0.4616	0.4945	Ave		0.4840			0.1000	8.3		20.0			
2-Chlorobenzotrifluoride	1.8418 1.5775	1.7892 1.5720	1.7719	1.4902	1.6472	Ave		1.6700			0.0100	7.9		20.0			
Isopropylbenzene	5.6536 5.0088	5.9572 4.9562	5.6220	5.1272	5.4768	Ave		5.4003			0.1000	7.0		20.0			
1,1,2,2-Tetrachloroethane	1.5283 1.3751	1.5606 1.4205	1.5222	1.3994	1.4421	Ave		1.4640			0.3000	4.9		20.0			
Bromobenzene	0.9205 0.8986	0.8841 0.9055	0.9107	0.8919	0.8850	Ave		0.8995			0.0100	1.5		20.0			
1,2,3-Trichloropropane	0.3600 0.3179	0.3372 0.3223	0.3254	0.3199	0.3067	Ave		0.3271			0.0100	5.2		20.0			
trans-1,4-Dichloro-2-butene	0.4447 0.4690	0.4309 0.4842	0.4274	0.4444	0.4435	Ave		0.4491			0.0100	4.5		20.0			
N-Propylbenzene	0.9560 1.0924	1.1066 1.0687	1.0963	1.0332	1.0802	Ave		1.0619			0.0100	4.9		20.0			
2-Chlorotoluene	0.8211 0.9168	0.9285 0.9003	0.8969	0.9069	0.9008	Ave		0.8959			0.0100	3.9		20.0			
3-Chlorotoluene	0.9239 0.9727	0.9611 0.9646	1.0262	0.8918	0.9450	Ave		0.9551			0.0100	4.4		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.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

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 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	2.8893 3.1586	3.3493 3.0976	3.4132	3.1484	3.2126	Ave		3.1813			0.0100	5.4		20.0			
4-Chlorotoluene	0.9692 0.9746	1.0581 0.9610	1.0351	1.0076	0.9634	Ave		0.9956			0.0100	3.9		20.0			
tert-Butylbenzene	2.5326 2.6058	2.6961 2.5139	2.7638	2.5398	2.6191	Ave		2.6102			0.0100	3.5		20.0			
1,2,4-Trimethylbenzene	2.9734 3.2760	3.4242 3.1725	3.4768	3.2565	3.3016	Ave		3.2687			0.0100	5.1		20.0			
3,4-Dichlorobenzotrifluoride	0.8211 0.9324	0.9362 0.8896	0.9759	0.8538	0.8958	Ave		0.9007			0.0100	5.8		20.0			
sec-Butylbenzene	3.6490 3.7139	4.0269 3.5563	3.9933	3.6596	3.7287	Ave		3.7611			0.0100	4.8		20.0			
1,3-Dichlorobenzene	1.6505 1.7094	1.8078 1.6809	1.7367	1.6350	1.6636	Ave		1.6977			0.6000	3.5		20.0			
4-Isopropyltoluene	2.5890 3.1017	3.1830 3.0029	3.1952	2.9981	3.1339	Ave		3.0291			0.0100	6.9		20.0			
1,4-Dichlorobenzene	1.8014 1.7329	1.8463 1.7160	1.8095	1.6691	1.6954	Ave		1.7529			0.5000	3.8		20.0			
2,4-Dichlorobenzotrifluoride	0.8747 0.8755	0.8388 0.8332	0.8871	0.7933	0.8139	Ave		0.8452			0.0100	4.2		20.0			
2,5-Dichlorobenzotrifluoride	0.8497 0.9920	0.9280 0.9209	1.0056	0.8587	0.8984	Ave		0.9219			0.0100	6.5		20.0			
n-Butylbenzene	2.5353 2.8684	2.8549 2.7187	2.9413	2.6282	2.8270	Ave		2.7677			0.0100	5.3		20.0			
1,2-Dichlorobenzene	1.6407 1.5644	1.6011 1.5586	1.5884	1.5314	1.5442	Ave		1.5755			0.4000	2.4		20.0			
1,2-Dibromo-3-Chloropropane	0.1163 0.1658	0.1207 0.1706	0.1479	0.1376	0.1413	Ave		0.1429			0.0500	14.0		20.0			
1,2,4-Trichlorobenzene	0.5828 0.7218	0.6250 0.7095	0.7015	0.6008	0.6337	Ave		0.6536			0.2000	8.6		20.0			
Hexachlorobutadiene	0.2994 0.3366	0.3355 0.3109	0.3203	0.2715	0.2955	Ave		0.3100			0.0100	7.5		20.0			
Naphthalene	1.3603 1.9278	1.6284 1.9822	1.8118	1.7337	1.7675	Ave		1.7445			0.0100	12.0		20.0			
1,2,3-Trichlorobenzene	0.4343 0.5624	0.5181 0.5733	0.5246	0.4787	0.4962	Ave		0.5125			0.0100	9.4		20.0			
2,4,5-Trichlorotoluene	0.1942 0.2578	0.2021 0.2596	0.2252	0.1774	0.2073	Ave		0.2177			0.0100	14.0		20.0			
2,3,6-Trichlorotoluene	0.1764 0.2369	0.1790 0.2357	0.2137	0.1716	0.1829	Ave		0.1994			0.0100	14.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

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 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.2245 0.2062	0.2288 0.2174	0.2234	0.2083	0.1810	Ave		0.2128				7.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3899 0.3406	0.3669 0.3434	0.3628	0.3333	0.3090	Ave		0.3494				7.5		20.0			
Toluene-d8 (Surr)	5.1132 3.6362	4.7853 3.6126	4.4498	3.8300	3.6860	Ave		4.1590				15.0		20.0			
4-Bromofluorobenzene (Surr)	1.8605 1.4396	1.7155 1.4844	1.6637	1.4593	1.4695	Ave		1.5846				10.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-128329/7	51215007.D
Level 2	IC 180-128329/8	51215008.D
Level 3	ICIS 180-128329/9	51215009.D
Level 4	IC 180-128329/10	51215010.D
Level 5	IC 180-128329/11	51215011.D
Level 6	IC 180-128329/12	51215012.D
Level 7	IC 180-128329/13	51215013.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13529 461200	61930 499452	131229	190564	273288	5.00 175	25.0 200	50.0	75.0	100
Chloromethane	FB	Ave	29328 879810	127605 957633	247505	371573	523947	5.00 175	25.0 200	50.0	75.0	100
Vinyl chloride	FB	Ave	20471 619242	83604 666295	166505	253937	365992	5.00 175	25.0 200	50.0	75.0	100
1,3-Butadiene	FB	Ave	30044 853165	123895 919270	249438	348720	503293	5.00 175	25.0 200	50.0	75.0	100
Bromomethane	FB	Ave	6616 167265	25599 189870	49618	79919	107362	5.00 175	25.0 200	50.0	75.0	100
Chloroethane	FB	Ave	10151 292962	41416 334503	84692	127211	179530	5.00 175	25.0 200	50.0	75.0	100
Dichlorofluoromethane	FB	Ave	18822 609495	86441 658021	166568	259364	350450	5.00 175	25.0 200	50.0	75.0	100
Trichlorofluoromethane	FB	Ave	10889 414214	50772 450195	103060	158442	239313	5.00 175	25.0 200	50.0	75.0	100
Ethyl ether	FB	Ave	18218 526502	78240 608282	149984	225291	303566	5.00 175	25.0 200	50.0	75.0	100
Acrolein	FB	Ave	47439 108540	52294 119026	67959	83110	98752	100 225	125 250	150	175	200
1,1-Dichloroethene	FB	Ave	13078 425581	55204 454023	116523	170252	242263	5.00 175	25.0 200	50.0	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	13668 430964	55892 469441	114250	168083	245306	5.00 175	25.0 200	50.0	75.0	100
Acetone	FB	Ave	34830 484655	67024 544467	136052	197095	272377	25.0 350	50.0 400	100	150	200
Iodomethane	FB	Ave	15672 541195	70477 628901	146806	219902	312818	5.00 175	25.0 200	50.0	75.0	100
Carbon disulfide	FB	Ave	24017 894088	99203 1012677	203932	319940	479421	5.00 175	25.0 200	50.0	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Ave	6268 260534	29594 291169	62463	98218	139671	5.00 175	25.0 200	50.0	75.0	100
Methyl acetate	FB	Ave	106822 3368843	480132 3862317	971398	1479687	1995763	25.0 875	125 1000	250	375	500
Methylene Chloride	FB	Lin2	27156 470925	77498 528356	137628	204036	282467	5.00 175	25.0 200	50.0	75.0	100
tert-Butyl alcohol	TBA	Ave	11568 472853	53537 542078	112567	171520	233721	50.0 1750	250 2000	500	750	1000
Acrylonitrile	FB	Ave	95445 3108626	443739 3610987	902499	1369178	1844438	50.0 1750	250 2000	500	750	1000
trans-1,2-Dichloroethene	FB	Ave	12732 418880	58272 460491	117057	179704	243743	5.00 175	25.0 200	50.0	75.0	100
Methyl tert-butyl ether	FB	Ave	32273 1075251	148333 1338818	290628	452968	630126	5.00 175	25.0 200	50.0	75.0	100
Hexane	FB	Ave	36423 1046157	142088 1145508	290414	429042	621883	5.00 175	25.0 200	50.0	75.0	100
1,1-Dichloroethane	FB	Ave	26772 977975	137137 1119222	275718	421630	578361	5.00 175	25.0 200	50.0	75.0	100
Vinyl acetate	FB	Ave	26249 981516	126129 1122187	252355	391840	556672	5.00 175	25.0 200	50.0	75.0	100
2,2-Dichloropropane	FB	Ave	6692 272347	37334 296455	73219	106300	156961	5.00 175	25.0 200	50.0	75.0	100
cis-1,2-Dichloroethene	FB	Ave	13397 459987	61838 522231	124677	192115	265573	5.00 175	25.0 200	50.0	75.0	100
2-Butanone (MEK)	FB	Ave	53686 770041	102794 898036	201478	310437	448845	25.0 350	50.0 400	100	150	200
Bromochloromethane	FB	Ave	5430 189932	26193 220532	52609	82921	106775	5.00 175	25.0 200	50.0	75.0	100
Tetrahydrofuran	FB	Ave	19338 570461	75527 656256	154760	229135	320665	10.0 350	50.0 400	100	150	200
Chloroform	FB	Ave	22786 726926	102224 825564	203645	312586	428736	5.00 175	25.0 200	50.0	75.0	100
1,1,1-Trichloroethane	FB	Ave	13443 498247	64719 552222	128898	205239	292080	5.00 175	25.0 200	50.0	75.0	100
Cyclohexane	FB	Ave	38360 1372084	186239 1491081	380610	568225	811131	5.00 175	25.0 200	50.0	75.0	100
Carbon tetrachloride	FB	Ave	11364 449549	52672 496996	115997	174921	251804	5.00 175	25.0 200	50.0	75.0	100
1,1-Dichloropropene	FB	Ave	17888 616547	82768 678270	169491	247738	361815	5.00 175	25.0 200	50.0	75.0	100
Isobutyl alcohol	FB	Ave	15202 597870	69212 703715	134692	224509	339131	125 4375	625 5000	1250	1875	2500

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	59741 1810201	270867 2039448	522828	792783	1072233	5.00 175	25.0 200	50.0	75.0	100
1,2-Dichloroethane	FB	Ave	20733 723279	102748 833342	208535	315981	420406	5.00 175	25.0 200	50.0	75.0	100
n-Heptane	FB	Ave	31030 1100542	153997 1198073	302184	437674	645815	5.00 175	25.0 200	50.0	75.0	100
Trichloroethene	FB	Ave	11525 412412	55641 451795	116274	168085	236014	5.00 175	25.0 200	50.0	75.0	100
Methylcyclohexane	FB	Ave	20849 798320	102702 884141	219487	327984	476530	5.00 175	25.0 200	50.0	75.0	100
1,2-Dichloropropane	FB	Ave	15972 580507	78759 670378	162350	251775	349012	5.00 175	25.0 200	50.0	75.0	100
Dibromomethane	FB	Ave	6955 241280	32637 278367	66098	101536	138247	5.00 175	25.0 200	50.0	75.0	100
1,4-Dioxane	FB	Ave	1571 94223	11752 107491	25491	40031	55226	100 3500	500 4000	1000	1500	2000
Bromodichloromethane	FB	Ave	13427 516759	67146 599497	132486	209313	289837	5.00 175	25.0 200	50.0	75.0	100
cis-1,3-Dichloropropene	FB	Ave	13480 617016	69677 725599	151006	248192	348436	5.00 175	25.0 200	50.0	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	91901 1587323	204955 1885405	427228	691017	949167	25.0 350	50.0 400	100	150	200
Toluene	CBZ	Ave	55276 1825825	263797 2038543	534952	824691	1092848	5.00 175	25.0 200	50.0	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	10167 504625	51858 587120	115007	193036	272778	5.00 175	25.0 200	50.0	75.0	100
Ethyl methacrylate	CBZ	Ave	10941 574920	67652 699914	140983	233054	324927	5.00 175	25.0 200	50.0	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10582 367605	51126 431008	99708	160928	215870	5.00 175	25.0 200	50.0	75.0	100
Tetrachloroethene	CBZ	Ave	11256 341247	45891 381182	96447	145626	198281	5.00 175	25.0 200	50.0	75.0	100
1,3-Dichloropropane	CBZ	Ave	20178 710288	98564 823013	193960	312441	415185	5.00 175	25.0 200	50.0	75.0	100
2-Hexanone	CBZ	Ave	66751 1335292	162269 1575531	355030	556468	731532	25.0 350	50.0 400	100	150	200
Dibromochloromethane	CBZ	Ave	5928 308265	33391 361304	74703	124399	167905	5.00 175	25.0 200	50.0	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8613 358303	46214 425795	96348	149545	202583	5.00 175	25.0 200	50.0	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	17679 633751	84167 707075	183531	249882	357810	5.00 175	25.0 200	50.0	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	32198 1146615	160738 1305587	323152	487195	668345	5.00 175	25.0 200	50.0	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15711 605917	79821 658198	169416	241146	335563	5.00 175	25.0 200	50.0	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	10046 359052	46887 421291	94003	149698	201091	5.00 175	25.0 200	50.0	75.0	100
Ethylbenzene	CBZ	Ave	17078 674389	89754 753212	182469	281017	384275	5.00 175	25.0 200	50.0	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	20711 807449	107568 918551	223210	347010	477144	5.00 175	25.0 200	50.0	75.0	100
o-Xylene	CBZ	Ave	21100 779332	103634 886345	220291	332078	451799	5.00 175	25.0 200	50.0	75.0	100
Styrene	CBZ	Ave	34174 1309347	178842 1503510	364481	566334	769446	5.00 175	25.0 200	50.0	75.0	100
Bromoform	CBZ	Ave	4081 198764	21578 239804	42875	74265	103601	5.00 175	25.0 200	50.0	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	16867 608627	79779 685270	173668	239775	345106	5.00 175	25.0 200	50.0	75.0	100
Isopropylbenzene	CBZ	Ave	51775 1932433	265627 2160550	551045	824955	1147487	5.00 175	25.0 200	50.0	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	13996 530535	69587 619241	149203	225157	302138	5.00 175	25.0 200	50.0	75.0	100
Bromobenzene	DCB	Ave	12328 454034	56843 526184	121949	188616	258939	5.00 175	25.0 200	50.0	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4822 160641	21680 187299	43578	67651	89733	5.00 175	25.0 200	50.0	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	5956 236954	27704 281348	57235	93980	129754	5.00 175	25.0 200	50.0	75.0	100
N-Propylbenzene	DCB	Ave	12803 551938	71151 621025	146805	218494	316053	5.00 175	25.0 200	50.0	75.0	100
2-Chlorotoluene	DCB	Ave	10997 463229	59697 523196	120100	191792	263552	5.00 175	25.0 200	50.0	75.0	100
3-Chlorotoluene	DCB	Ave	12374 491483	61796 560555	137425	188584	276497	5.00 175	25.0 200	50.0	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	38695 1595887	215352 1800040	457058	665788	939917	5.00 175	25.0 200	50.0	75.0	100
4-Chlorotoluene	DCB	Ave	12980 492402	68035 558467	138608	213085	281879	5.00 175	25.0 200	50.0	75.0	100
tert-Butylbenzene	DCB	Ave	33918 1316602	173354 1460867	370100	537092	766289	5.00 175	25.0 200	50.0	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	39821 1655214	220166 1843606	465575	688660	965955	5.00 175	25.0 200	50.0	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	10996 471091	60194 516955	130684	180560	262077	5.00 175	25.0 200	50.0	75.0	100
sec-Butylbenzene	DCB	Ave	48869 1876479	258920 2066631	534748	773895	1090919	5.00 175	25.0 200	50.0	75.0	100
1,3-Dichlorobenzene	DCB	Ave	22104 863694	116233 976811	232561	345748	486729	5.00 175	25.0 200	50.0	75.0	100
4-Isopropyltoluene	DCB	Ave	34674 1567173	204657 1745049	427869	634008	916889	5.00 175	25.0 200	50.0	75.0	100
1,4-Dichlorobenzene	DCB	Ave	24125 875578	118712 997200	242307	352959	496017	5.00 175	25.0 200	50.0	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	11714 442330	53932 484207	118794	167750	238127	5.00 175	25.0 200	50.0	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	11380 501230	59666 535139	134654	181592	262855	5.00 175	25.0 200	50.0	75.0	100
n-Butylbenzene	DCB	Ave	33954 1449265	183563 1579894	393872	555780	827117	5.00 175	25.0 200	50.0	75.0	100
1,2-Dichlorobenzene	DCB	Ave	21973 790430	102943 905753	212701	323846	451798	5.00 175	25.0 200	50.0	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1557 83763	7760 99113	19807	29088	41345	5.00 175	25.0 200	50.0	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	7805 364694	40187 412323	93933	127051	185414	5.00 175	25.0 200	50.0	75.0	100
Hexachlorobutadiene	DCB	Ave	4010 170084	21572 180674	42898	57408	86456	5.00 175	25.0 200	50.0	75.0	100
Naphthalene	DCB	Ave	18218 974048	104700 1151885	242621	366622	517111	5.00 175	25.0 200	50.0	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	5816 284156	33314 333142	70246	101227	145164	5.00 175	25.0 200	50.0	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	2601 130241	12992 150868	30153	37510	60662	5.00 175	25.0 200	50.0	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	2362 119691	11506 136944	28614	36291	53522	5.00 175	25.0 200	50.0	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9922 313362	47124 365236	94689	138420	167966	5.00 175	25.0 200	50.0	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	17231 517527	75553 576810	153750	221449	286774	5.00 175	25.0 200	50.0	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	46826 1402860	213372 1574848	436152	616248	772272	5.00 175	25.0 200	50.0	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	17038 555403	76492 647101	163066	234795	307884	5.00 175	25.0 200	50.0	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 128329

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2014 14:33 Calibration End Date: 12/15/2014 16:57 Calibration ID: 20600

Curve Type Legend:

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215007.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-Dec-2014 14:33:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0004875-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:51:05 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 15-Dec-2014 16:41:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.326	4.336	-0.010	87	173968	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.298	-0.003	96	441903	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.383	0.002	94	91579	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.703	12.707	-0.004	96	133926	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.546	6.556	-0.010	81	9922	5.00	5.28	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.921	0.009	92	17231	5.00	5.58	
$ 7 Toluene-d8 (Surr)	98	8.943	8.947	-0.004	94	46826	5.00	6.15	
$ 8 4-Bromofluorobenzene (Surr	95	11.541	11.551	-0.010	85	17038	5.00	5.87	
11 Dichlorodifluoromethane	85	1.631	1.629	0.002	85	13529	5.00	5.11	
12 Chloromethane	50	1.807	1.799	0.008	98	29328	5.00	5.61	
13 Vinyl chloride	62	1.935	1.927	0.008	94	20471	5.00	5.70	
14 Butadiene	39	1.972	1.975	-0.003	95	30044	5.00	5.88	
15 Bromomethane	94	2.276	2.292	-0.016	16	6616	5.00	6.16	
16 Chloroethane	64	2.440	2.438	0.002	93	10151	5.00	5.71	
17 Dichlorofluoromethane	67	2.689	2.687	0.002	94	18822	5.00	5.33	
18 Trichlorofluoromethane	101	2.720	2.736	-0.016	91	10889	5.00	4.86	M
20 Ethyl ether	59	3.115	3.113	0.002	94	18218	5.00	5.72	
21 Acrolein	56	3.292	3.289	0.003	98	47439	100.0	99.7	
22 1,1-Dichloroethene	96	3.395	3.435	-0.040	5	13078	5.00	5.43	M
23 1,1,2-Trichloro-1,2,2-trif	101	3.480	3.466	0.014	72	13668	5.00	5.61	
24 Acetone	43	3.517	3.527	-0.010	96	34830	25.0	25.1	
25 Iodomethane	142	3.657	3.667	-0.010	73	15672	5.00	5.08	M
26 Carbon disulfide	76	3.705	3.709	-0.004	87	24017	5.00	5.15	
28 3-Chloro-1-propene	76	3.973	3.971	0.002	89	6268	5.00	4.61	
30 Methyl acetate	43	4.058	4.050	0.008	99	106822	25.0	26.5	
31 Methylene Chloride	84	4.180	4.172	0.008	88	27156	5.00	4.97	M
32 2-Methyl-2-propanol	59	4.454	4.464	-0.010	78	11568	50.0	49.7	
33 Acrylonitrile	53	4.581	4.585	-0.004	100	95445	50.0	51.5	
34 trans-1,2-Dichloroethene	96	4.587	4.597	-0.010	64	12732	5.00	5.22	
35 Methyl tert-butyl ether	73	4.624	4.622	0.002	82	32273	5.00	5.11	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.013	5.017	-0.004	94	36423	5.00	5.90	
37 1,1-Dichloroethane	63	5.196	5.200	-0.004	97	26772	5.00	4.72	
38 Vinyl acetate	43	5.317	5.321	-0.004	96	26249	5.00	4.83	
44 2,2-Dichloropropane	77	5.962	5.954	0.008	49	6692	5.00	4.45	
45 cis-1,2-Dichloroethene	96	5.975	5.966	0.008	91	13397	5.00	5.09	
46 2-Butanone (MEK)	43	6.017	6.015	0.002	97	53686	25.0	24.6	
49 Chlorobromomethane	128	6.248	6.246	0.002	78	5430	5.00	4.94	
51 Tetrahydrofuran	42	6.315	6.313	0.002	91	19338	10.0	11.7	
52 Chloroform	83	6.370	6.362	0.008	95	22786	5.00	5.32	
53 1,1,1-Trichloroethane	97	6.546	6.550	-0.004	94	13443	5.00	4.83	
54 Cyclohexane	56	6.601	6.611	-0.010	90	38360	5.00	4.91	
56 Carbon tetrachloride	117	6.735	6.739	-0.004	87	11364	5.00	4.71	
55 1,1-Dichloropropene	75	6.753	6.745	0.008	81	17888	5.00	5.10	
57 Isobutyl alcohol	41	6.966	6.964	0.002	46	15202	125.0	119.8	
58 Benzene	78	6.972	6.982	-0.010	95	59741	5.00	5.47	
59 1,2-Dichloroethane	62	7.009	7.013	-0.004	95	20733	5.00	4.89	
62 n-Heptane	43	7.301	7.298	0.003	59	31030	5.00	4.96	
64 Trichloroethene	130	7.696	7.688	0.008	88	11525	5.00	4.93	
66 Methylcyclohexane	83	7.885	7.882	0.003	92	20849	5.00	4.66	
67 1,2-Dichloropropane	63	7.927	7.925	0.002	95	15972	5.00	4.75	
68 Dibromomethane	93	8.043	8.041	0.002	77	6955	5.00	5.02	
70 1,4-Dioxane	88	8.079	8.077	0.002	45	1571	100.0	62.4	
71 Dichlorobromomethane	83	8.225	8.217	0.008	93	13427	5.00	4.69	
74 cis-1,3-Dichloropropene	75	8.682	8.679	0.003	84	13480	5.00	4.13	
75 4-Methyl-2-pentanone (MIBK	43	8.846	8.844	0.002	96	91901	25.0	23.2	
76 Toluene	91	9.010	9.008	0.002	96	55276	5.00	5.68	
77 trans-1,3-Dichloropropene	75	9.247	9.239	0.008	89	10167	5.00	4.52	
78 Ethyl methacrylate	69	9.333	9.336	-0.003	84	10941	5.00	4.08	
79 1,1,2-Trichloroethane	97	9.418	9.422	-0.004	92	10582	5.00	5.55	
80 Tetrachloroethene	164	9.558	9.555	0.003	91	11256	5.00	6.28	
81 1,3-Dichloropropane	76	9.588	9.586	0.002	89	20178	5.00	5.49	
82 2-Hexanone	43	9.679	9.677	0.002	98	66751	25.0	21.1	
84 Chlorodibromomethane	129	9.807	9.811	-0.004	91	5928	5.00	4.23	
85 Ethylene Dibromide	107	9.917	9.920	-0.003	94	8613	5.00	4.87	
86 3-Chlorobenzotrifluoride	180	10.385	10.389	-0.004	55	17679	5.00	5.53	
87 Chlorobenzene	112	10.415	10.413	0.002	87	32198	5.00	5.44	
88 4-Chlorobenzotrifluoride	180	10.446	10.450	-0.004	87	15711	5.00	5.26	
89 1,1,1,2-Tetrachloroethane	131	10.495	10.492	0.003	85	10046	5.00	5.57	
90 Ethylbenzene	106	10.519	10.523	-0.004	98	17078	5.00	5.10	
91 m-Xylene & p-Xylene	106	10.641	10.638	0.003	96	20711	5.00	5.08	
92 o-Xylene	106	11.036	11.034	0.002	97	21100	5.00	5.32	
93 Styrene	104	11.042	11.046	-0.004	90	34174	5.00	5.12	
94 Bromoform	173	11.231	11.234	-0.003	55	4081	5.00	4.60	
96 2-Chlorobenzotrifluoride	180	11.291	11.295	-0.004	96	16867	5.00	5.51	
97 Isopropylbenzene	105	11.401	11.399	0.002	97	51775	5.00	5.23	
99 1,1,2,2-Tetrachloroethane	83	11.693	11.691	0.002	77	13996	5.00	5.22	
100 Bromobenzene	156	11.705	11.703	0.002	94	12328	5.00	5.12	
101 1,2,3-Trichloropropane	110	11.729	11.739	-0.010	85	4822	5.00	5.50	
102 trans-1,4-Dichloro-2-buten	53	11.754	11.752	0.002	63	5956	5.00	4.95	
103 N-Propylbenzene	120	11.809	11.806	0.003	100	12803	5.00	4.50	
104 2-Chlorotoluene	126	11.900	11.898	0.002	93	10997	5.00	4.58	
105 3-Chlorotoluene	126	11.961	11.952	0.009	97	12374	5.00	4.84	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.979	11.983	-0.004	94	38695	5.00	4.54	
107 4-Chlorotoluene	126	12.003	12.001	0.002	94	12980	5.00	4.87	
108 tert-Butylbenzene	119	12.307	12.305	0.002	96	33918	5.00	4.85	
110 1,2,4-Trimethylbenzene	105	12.356	12.354	0.002	96	39821	5.00	4.55	
111 1,2-dichloro-4-(trifluorom	214	12.423	12.421	0.002	94	10996	5.00	4.56	
112 sec-Butylbenzene	105	12.526	12.524	0.002	95	48869	5.00	4.85	
113 1,3-Dichlorobenzene	146	12.636	12.640	-0.004	95	22104	5.00	4.86	
114 4-Isopropyltoluene	119	12.672	12.670	0.002	95	34674	5.00	4.27	
115 1,4-Dichlorobenzene	146	12.721	12.725	-0.004	93	24125	5.00	5.14	
116 2,4-Dichloro-1-(triflourom	214	12.782	12.780	0.002	93	11714	5.00	5.17	
118 2,5-Dichlorobenzotrifluori	214	12.831	12.828	0.003	96	11380	5.00	4.61	
120 n-Butylbenzene	91	13.080	13.078	0.002	98	33954	5.00	4.58	
121 1,2-Dichlorobenzene	146	13.104	13.102	0.002	94	21973	5.00	5.21	
122 1,2-Dibromo-3-Chloropropan	75	13.871	13.881	-0.010	71	1557	5.00	4.07	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.023	14.027	-0.004	96	31645	15.0	11.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.449	14.447	0.002	96	22583	10.0	8.91	
126 1,2,4-Trichlorobenzene	180	14.710	14.708	0.002	93	7805	5.00	4.46	
127 Hexachlorobutadiene	225	14.887	14.885	0.002	92	4010	5.00	4.83	
128 Naphthalene	128	14.960	14.964	-0.004	97	18218	5.00	3.90	
129 1,2,3-Trichlorobenzene	180	15.209	15.207	0.002	88	5816	5.00	4.24	
131 2,4,5-Trichlorotoluene	159	15.982	15.980	0.002	92	2601	5.00	4.46	
130 2,3,6-Trichlorotoluene	159	16.079	16.077	0.002	89	2362	5.00	4.42	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.3	
S 133 Xylenes, Total	106				0		10.0	10.4	
S 135 1,3-Dichloropropene, Total	1				0		10.0	8.64	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00028	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	0.20	Units: uL	
voaWEEpri Res_00001	Amount Added:	0.20	Units: uL	
voaWVA pri Re_00005	Amount Added:	0.20	Units: uL	
voaWKet2ndRes_00005	Amount Added:	0.80	Units: uL	
VOAACROPRI_00004	Amount Added:	4.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

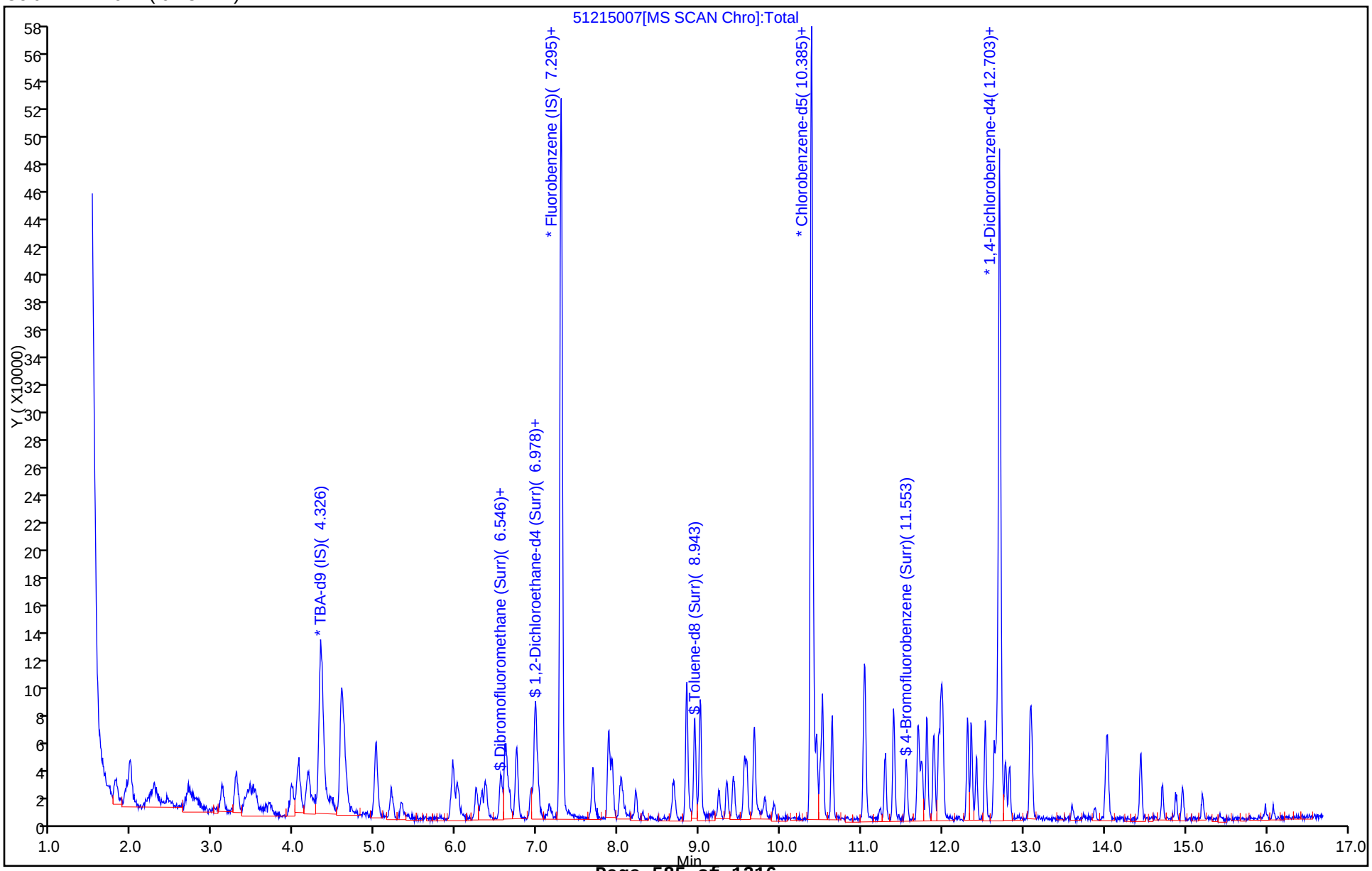
Report Date: 16-Dec-2014 08:51:06 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215007.D

Injection Date:	15-Dec-2014 14:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

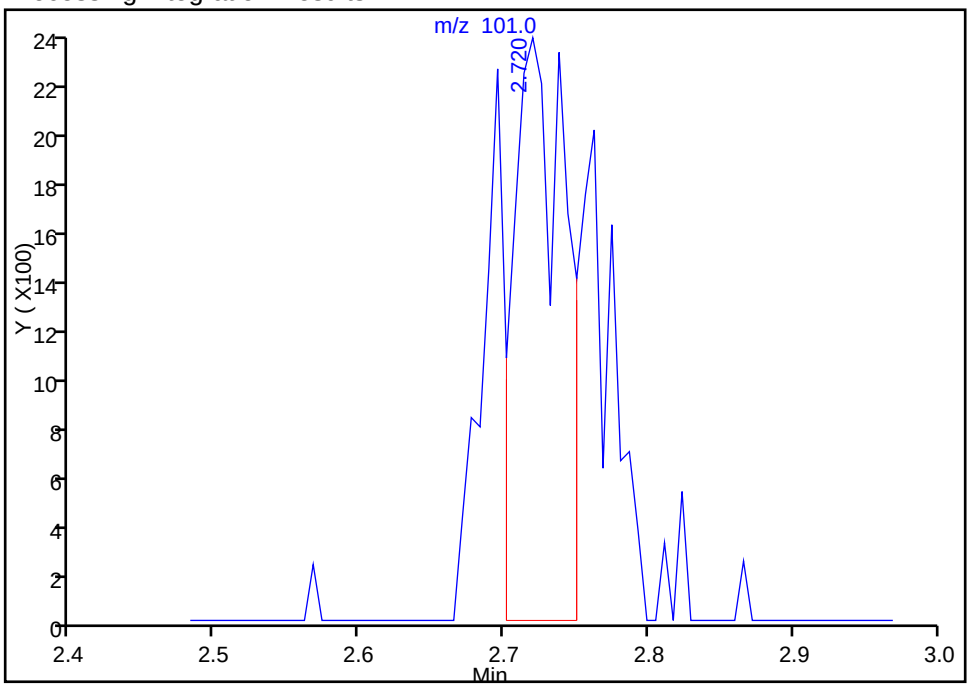
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215007.D				
Injection Date:	15-Dec-2014 14:33:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

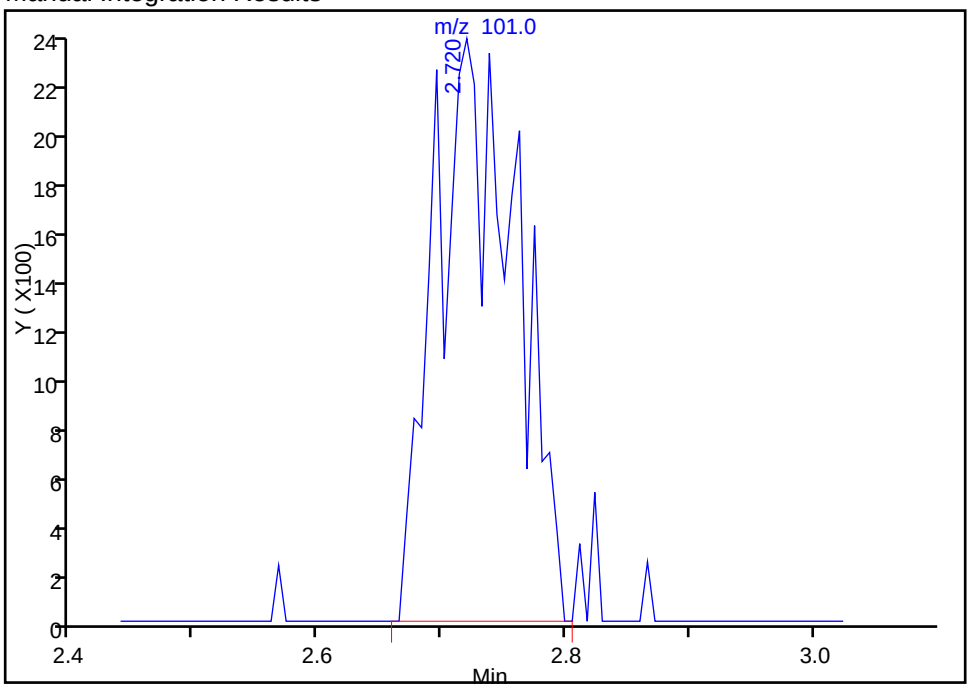
Processing Integration Results

RT: 2.72
Response: 5956
Amount: 4.970615



Manual Integration Results

RT: 2.72
Response: 10889
Amount: 4.864122



Reviewer: fergusond, 15-Dec-2014 16:41:51
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

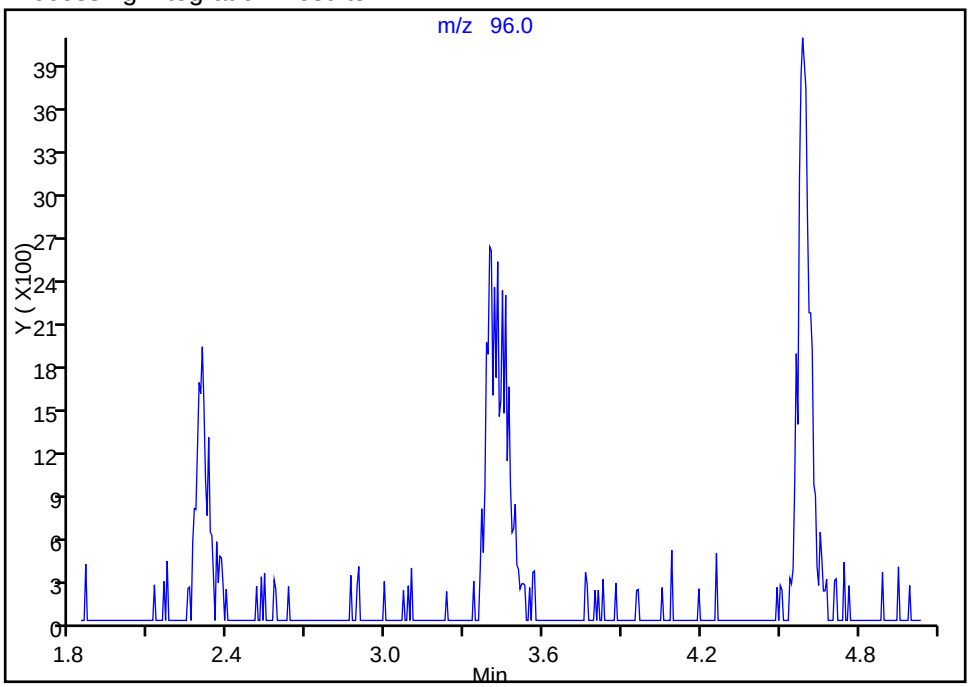
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215007.D				
Injection Date:	15-Dec-2014 14:33:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

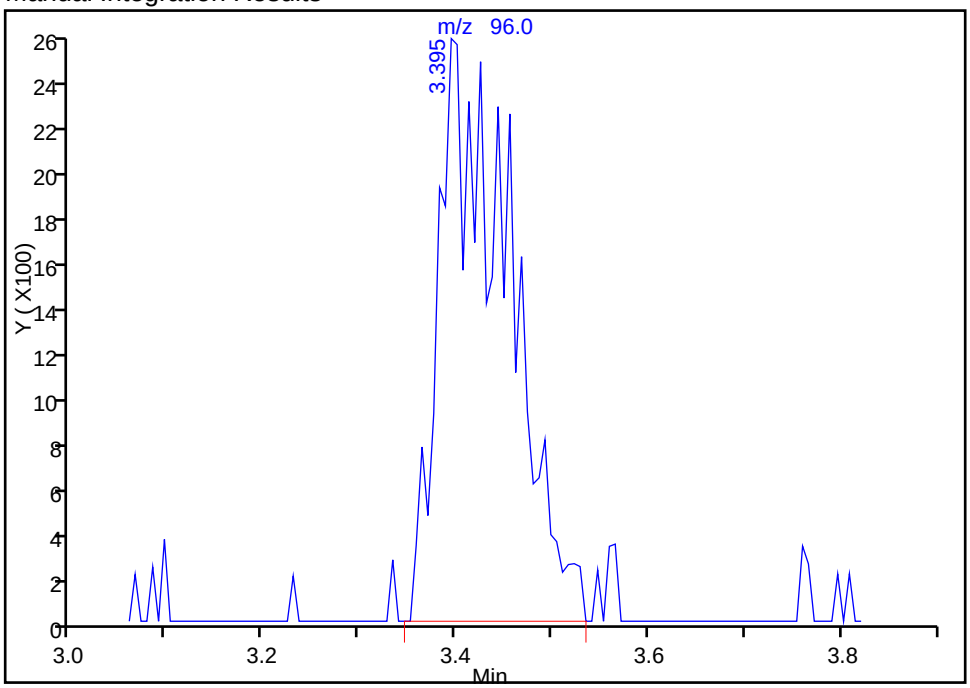
Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results

RT: 3.40
Response: 13078
Amount: 5.432783



Reviewer: fergusond, 15-Dec-2014 16:41:51
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

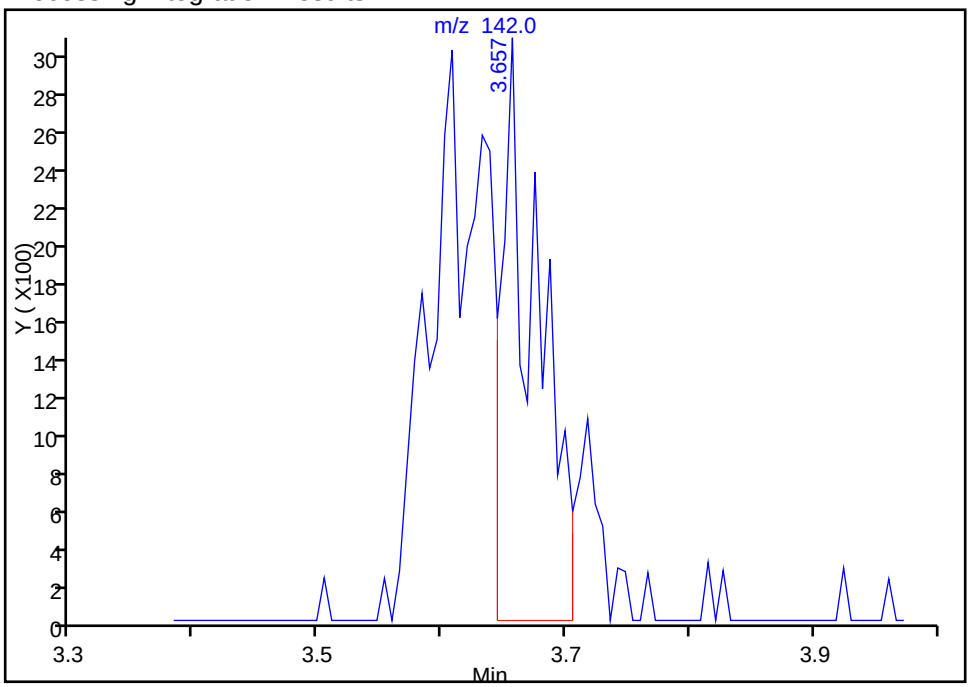
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215007.D				
Injection Date:	15-Dec-2014 14:33:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

25 Iodomethane, CAS: 74-88-4

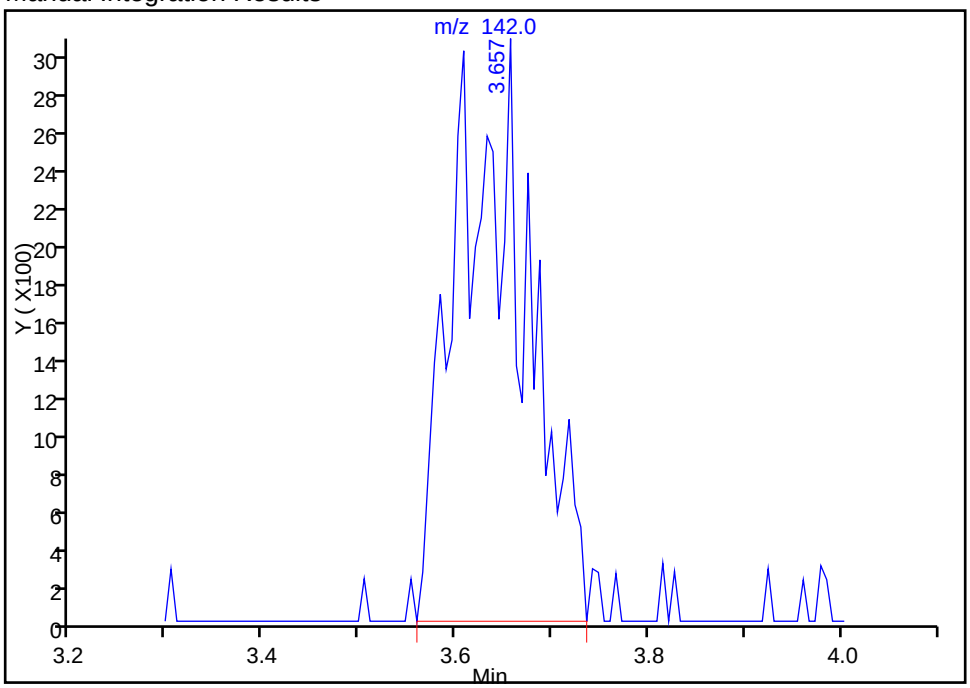
Processing Integration Results

RT: 3.66
Response: 6167
Amount: 4.943931



Manual Integration Results

RT: 3.66
Response: 15672
Amount: 5.083279



Reviewer: fergusond, 15-Dec-2014 16:41:51
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

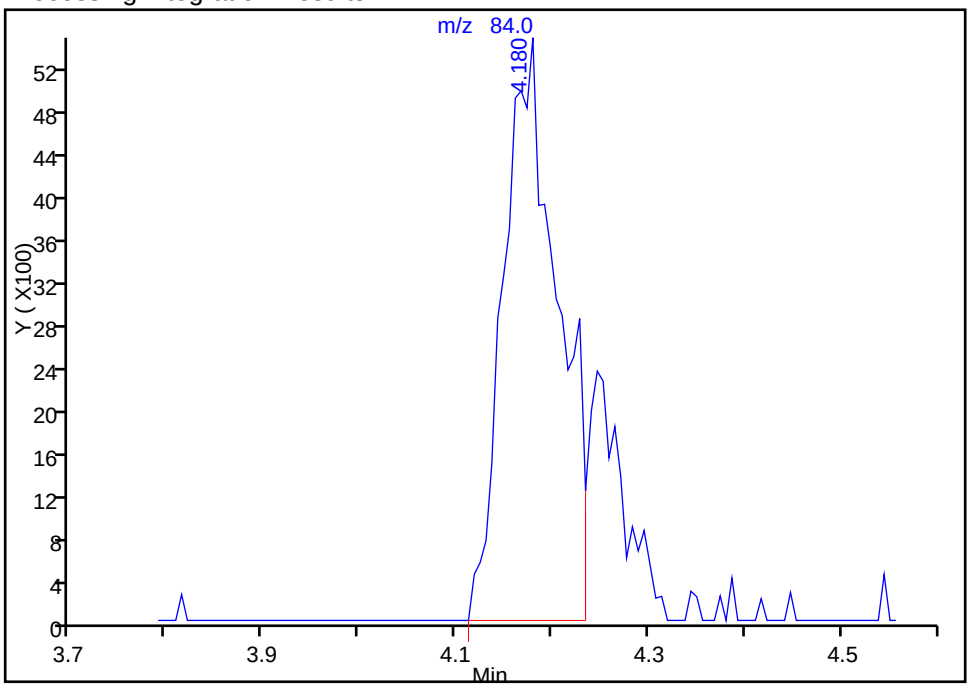
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215007.D				
Injection Date:	15-Dec-2014 14:33:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

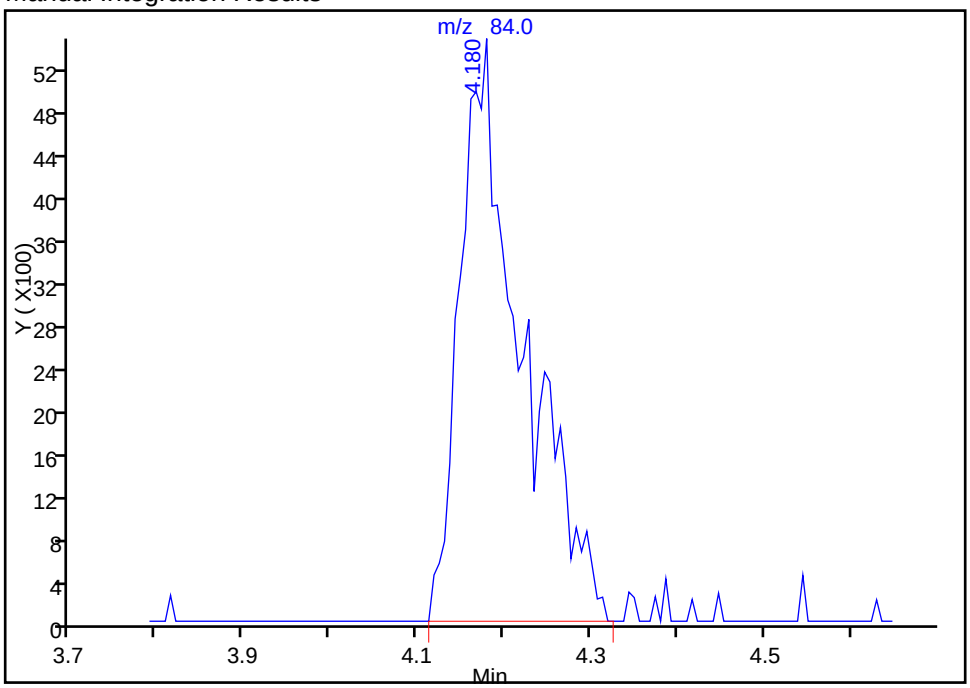
Processing Integration Results

RT: 4.18
Response: 21609
Amount: 4.924009



Manual Integration Results

RT: 4.18
Response: 27156
Amount: 4.972994



Reviewer: fergusond, 15-Dec-2014 16:41:51
Audit Action: Manually Integrated
Audit Reason: Split Peak

Report Date: 16-Dec-2014 08:51:08 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215008.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Dec-2014 14:57:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0004875-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:51:08 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 15-Dec-2014 16:39:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.332	4.336	-0.004	80	160381	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.301	7.298	0.003	95	411882	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.383	0.002	94	89178	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.703	12.707	-0.004	94	128594	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.552	6.556	-0.004	85	47124	25.0	26.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.917	6.921	-0.004	91	75553	25.0	26.2	
$ 7 Toluene-d8 (Surr)	98	8.943	8.947	-0.004	96	213372	25.0	28.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.553	11.551	0.002	83	76492	25.0	27.1	
11 Dichlorodifluoromethane	85	1.631	1.629	0.002	97	61930	25.0	25.1	
12 Chloromethane	50	1.801	1.799	0.002	99	127605	25.0	26.2	
13 Vinyl chloride	62	1.929	1.927	0.002	98	83604	25.0	25.0	
14 Butadiene	39	1.978	1.975	0.003	97	123895	25.0	26.0	
15 Bromomethane	94	2.288	2.292	-0.004	91	25599	25.0	25.6	M
16 Chloroethane	64	2.446	2.438	0.008	98	41416	25.0	25.0	
17 Dichlorofluoromethane	67	2.689	2.687	0.002	98	86441	25.0	26.2	
18 Trichlorofluoromethane	101	2.738	2.736	0.002	97	50772	25.0	24.3	
20 Ethyl ether	59	3.115	3.113	0.002	93	78240	25.0	26.4	
21 Acrolein	56	3.292	3.289	0.003	99	52294	125.0	117.9	
22 1,1-Dichloroethene	96	3.444	3.435	0.009	92	55204	25.0	24.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.474	3.466	0.008	96	55892	25.0	24.6	
24 Acetone	43	3.523	3.527	-0.004	98	67024	50.0	51.9	
25 Iodomethane	142	3.663	3.667	-0.004	96	70477	25.0	24.5	
26 Carbon disulfide	76	3.699	3.709	-0.010	100	99203	25.0	22.8	
28 3-Chloro-1-propene	76	3.967	3.971	-0.004	87	29594	25.0	23.4	
30 Methyl acetate	43	4.058	4.050	0.008	99	480132	125.0	128.0	
31 Methylene Chloride	84	4.168	4.172	-0.004	90	77498	25.0	26.3	
32 2-Methyl-2-propanol	59	4.466	4.464	0.002	82	53537	250.0	249.7	
33 Acrylonitrile	53	4.581	4.585	-0.004	97	443739	250.0	256.7	
34 trans-1,2-Dichloroethene	96	4.606	4.597	0.009	53	58272	25.0	25.7	
35 Methyl tert-butyl ether	73	4.630	4.622	0.008	89	148333	25.0	25.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.013	5.017	-0.004	95	142088	25.0	24.7	
37 1,1-Dichloroethane	63	5.196	5.200	-0.004	96	137137	25.0	26.0	
38 Vinyl acetate	43	5.330	5.321	0.009	96	126129	25.0	24.9	
44 2,2-Dichloropropane	77	5.944	5.954	-0.010	59	37334	25.0	26.7	
45 cis-1,2-Dichloroethene	96	5.968	5.966	0.002	88	61838	25.0	25.2	
46 2-Butanone (MEK)	43	6.017	6.015	0.002	96	102794	50.0	50.6	
49 Chlorobromomethane	128	6.248	6.246	0.002	80	26193	25.0	25.6	
51 Tetrahydrofuran	42	6.309	6.313	-0.004	92	75527	50.0	48.9	
52 Chloroform	83	6.364	6.362	0.002	97	102224	25.0	25.6	
53 1,1,1-Trichloroethane	97	6.559	6.550	0.009	91	64719	25.0	25.0	
54 Cyclohexane	56	6.607	6.611	-0.004	89	186239	25.0	25.6	
56 Carbon tetrachloride	117	6.735	6.739	-0.004	75	52672	25.0	23.4	
55 1,1-Dichloropropene	75	6.747	6.745	0.002	82	82768	25.0	25.3	
57 Isobutyl alcohol	41	6.966	6.964	0.002	92	69212	625.0	584.9	
58 Benzene	78	6.978	6.982	-0.004	95	270867	25.0	26.6	
59 1,2-Dichloroethane	62	7.009	7.013	-0.004	94	102748	25.0	26.0	
62 n-Heptane	43	7.301	7.298	0.003	91	153997	25.0	26.4	
64 Trichloroethene	130	7.690	7.688	0.002	93	55641	25.0	25.5	
66 Methylcyclohexane	83	7.885	7.882	0.003	93	102702	25.0	24.6	
67 1,2-Dichloropropane	63	7.927	7.925	0.002	94	78759	25.0	25.1	
68 Dibromomethane	93	8.043	8.041	0.002	96	32637	25.0	25.3	
70 1,4-Dioxane	88	8.085	8.077	0.008	86	11752	500.0	501.2	M
71 Dichlorobromomethane	83	8.219	8.217	0.002	94	67146	25.0	25.2	
74 cis-1,3-Dichloropropene	75	8.676	8.679	-0.003	84	69677	25.0	22.9	
75 4-Methyl-2-pentanone (MIBK	43	8.840	8.844	-0.004	98	204955	50.0	53.2	
76 Toluene	91	9.010	9.008	0.002	97	263797	25.0	27.9	
77 trans-1,3-Dichloropropene	75	9.241	9.239	0.002	91	51858	25.0	23.7	
78 Ethyl methacrylate	69	9.339	9.336	0.003	90	67652	25.0	25.9	
79 1,1,2-Trichloroethane	97	9.424	9.422	0.002	93	51126	25.0	27.5	
80 Tetrachloroethene	164	9.558	9.555	0.003	95	45891	25.0	26.3	
81 1,3-Dichloropropane	76	9.588	9.586	0.002	92	98564	25.0	27.5	
82 2-Hexanone	43	9.673	9.677	-0.004	97	162269	50.0	52.6	
84 Chlorodibromomethane	129	9.807	9.811	-0.004	91	33391	25.0	24.4	
85 Ethylene Dibromide	107	9.929	9.920	0.009	98	46214	25.0	26.8	
86 3-Chlorobenzotrifluoride	180	10.391	10.389	0.002	93	84167	25.0	27.0	
87 Chlorobenzene	112	10.415	10.413	0.002	89	160738	25.0	27.9	
88 4-Chlorobenzotrifluoride	180	10.446	10.450	-0.004	97	79821	25.0	27.4	
89 1,1,1,2-Tetrachloroethane	131	10.488	10.492	-0.004	87	46887	25.0	26.7	
90 Ethylbenzene	106	10.519	10.523	-0.004	98	89754	25.0	27.5	
91 m-Xylene & p-Xylene	106	10.634	10.638	-0.004	97	107568	25.0	27.1	
92 o-Xylene	106	11.030	11.034	-0.004	92	103634	25.0	26.8	
93 Styrene	104	11.042	11.046	-0.004	92	178842	25.0	27.5	
94 Bromoform	173	11.225	11.234	-0.009	94	21578	25.0	25.0	
96 2-Chlorobenzotrifluoride	180	11.291	11.295	-0.004	96	79779	25.0	26.8	
97 Isopropylbenzene	105	11.401	11.399	0.002	97	265627	25.0	27.6	
99 1,1,2,2-Tetrachloroethane	83	11.693	11.691	0.002	95	69587	25.0	26.6	
100 Bromobenzene	156	11.699	11.703	-0.004	95	56843	25.0	24.6	
101 1,2,3-Trichloropropane	110	11.742	11.739	0.003	89	21680	25.0	25.8	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.752	-0.004	64	27704	25.0	24.0	
103 N-Propylbenzene	120	11.809	11.806	0.003	99	71151	25.0	26.1	
104 2-Chlorotoluene	126	11.900	11.898	0.002	94	59697	25.0	25.9	
105 3-Chlorotoluene	126	11.955	11.952	0.003	97	61796	25.0	25.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.985	11.983	0.002	95	215352	25.0	26.3	
107 4-Chlorotoluene	126	12.003	12.001	0.002	99	68035	25.0	26.6	
108 tert-Butylbenzene	119	12.307	12.305	0.002	95	173354	25.0	25.8	
110 1,2,4-Trimethylbenzene	105	12.356	12.354	0.002	97	220166	25.0	26.2	
111 1,2-dichloro-4-(trifluorom	214	12.417	12.421	-0.004	97	60194	25.0	26.0	
112 sec-Butylbenzene	105	12.526	12.524	0.002	96	258920	25.0	26.8	
113 1,3-Dichlorobenzene	146	12.642	12.640	0.002	97	116233	25.0	26.6	
114 4-Isopropyltoluene	119	12.672	12.670	0.002	96	204657	25.0	26.3	
115 1,4-Dichlorobenzene	146	12.727	12.725	0.002	90	118712	25.0	26.3	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.780	-0.004	98	53932	25.0	24.8	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.828	-0.010	98	59666	25.0	25.2	
120 n-Butylbenzene	91	13.080	13.078	0.002	98	183563	25.0	25.8	
121 1,2-Dichlorobenzene	146	13.098	13.102	-0.004	94	102943	25.0	25.4	
122 1,2-Dibromo-3-Chloropropan	75	13.883	13.881	0.002	70	7760	25.0	21.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.029	14.027	0.002	98	193870	75.0	75.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.443	14.447	-0.004	99	118844	50.0	48.8	
126 1,2,4-Trichlorobenzene	180	14.710	14.708	0.002	93	40187	25.0	23.9	
127 Hexachlorobutadiene	225	14.875	14.885	-0.010	95	21572	25.0	27.1	
128 Naphthalene	128	14.960	14.964	-0.004	97	104700	25.0	23.3	
129 1,2,3-Trichlorobenzene	180	15.197	15.207	-0.010	92	33314	25.0	25.3	
131 2,4,5-Trichlorotoluene	159	15.982	15.980	0.002	94	12992	25.0	23.2	
130 2,3,6-Trichlorotoluene	159	16.079	16.077	0.002	93	11506	25.0	22.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		50.0	50.8	
S 133 Xylenes, Total	106				0		50.0	53.9	
S 135 1,3-Dichloropropene, Total	1				0		50.0	46.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00004	Amount Added:	5.00	Units: uL	
VOA8260SURR_00028	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	1.00	Units: uL	
voaWEEpri Res_00001	Amount Added:	1.00	Units: uL	
voaWKet2ndRes_00005	Amount Added:	1.00	Units: uL	
voaWVA pri Re_00005	Amount Added:	1.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

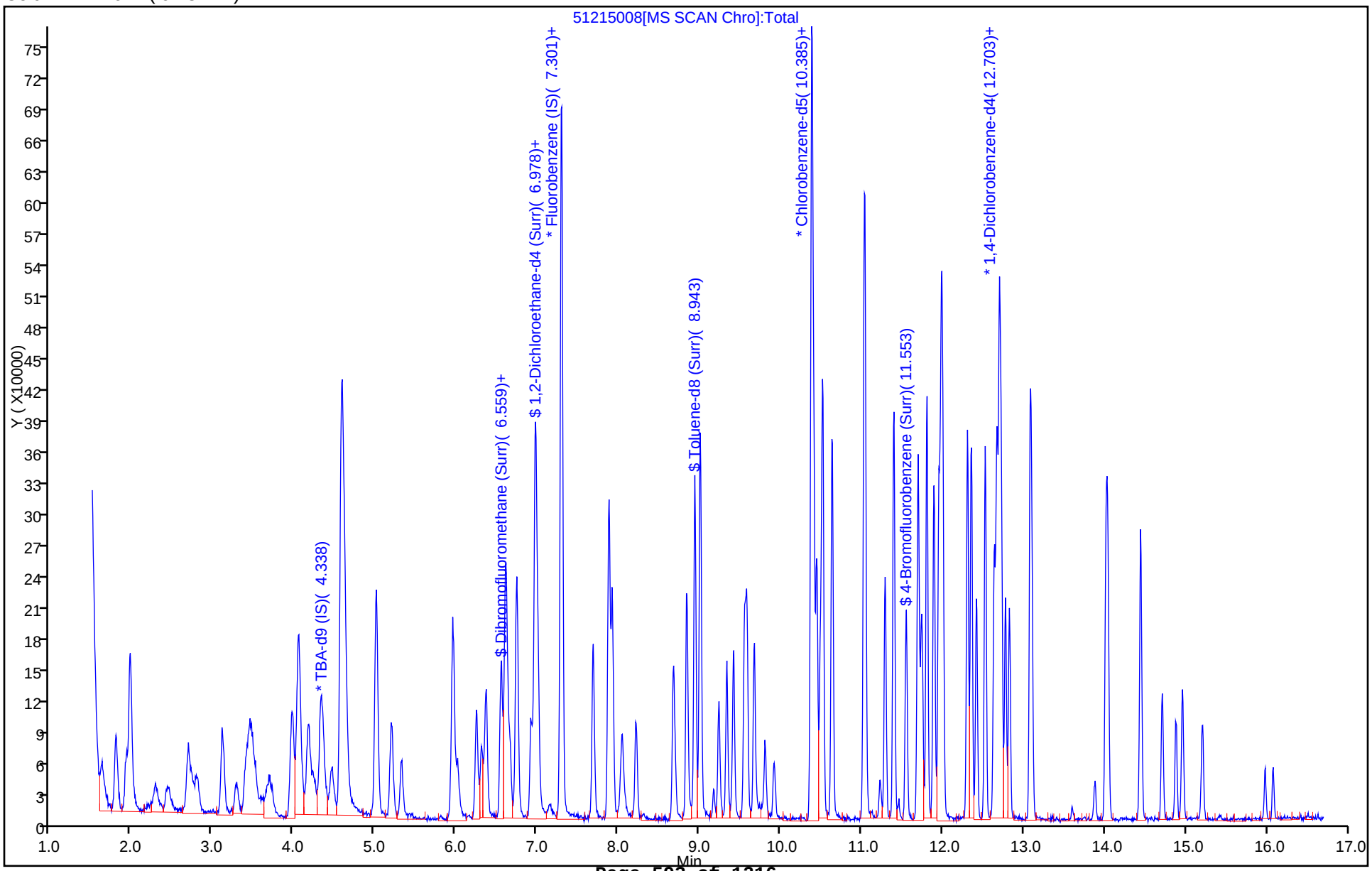
Report Date: 16-Dec-2014 08:51:08 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215008.D

Injection Date:	15-Dec-2014 14:57:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

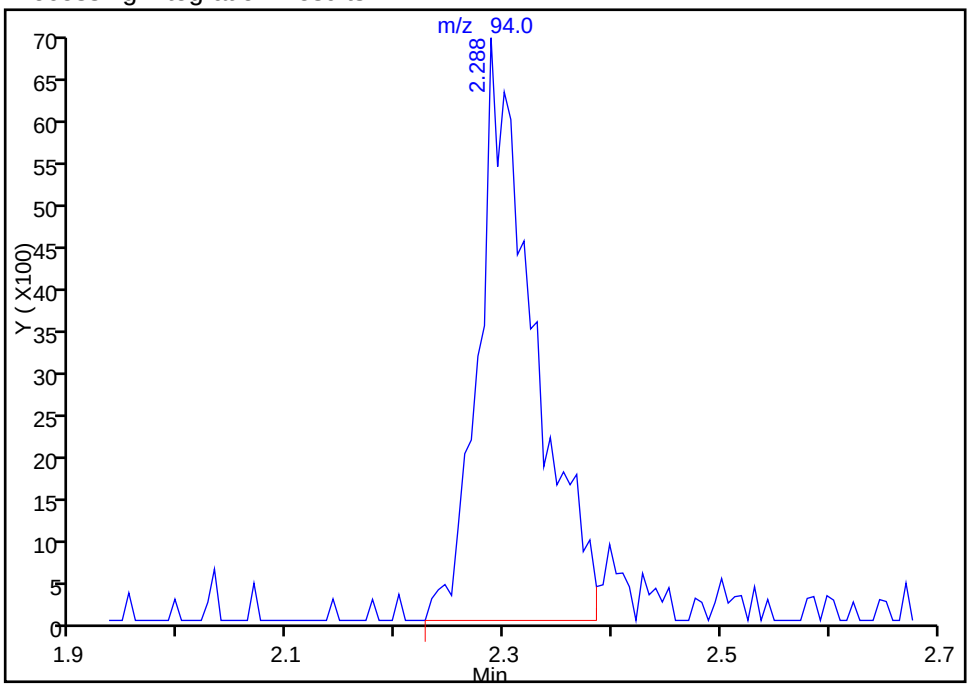
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215008.D				
Injection Date:	15-Dec-2014 14:57:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

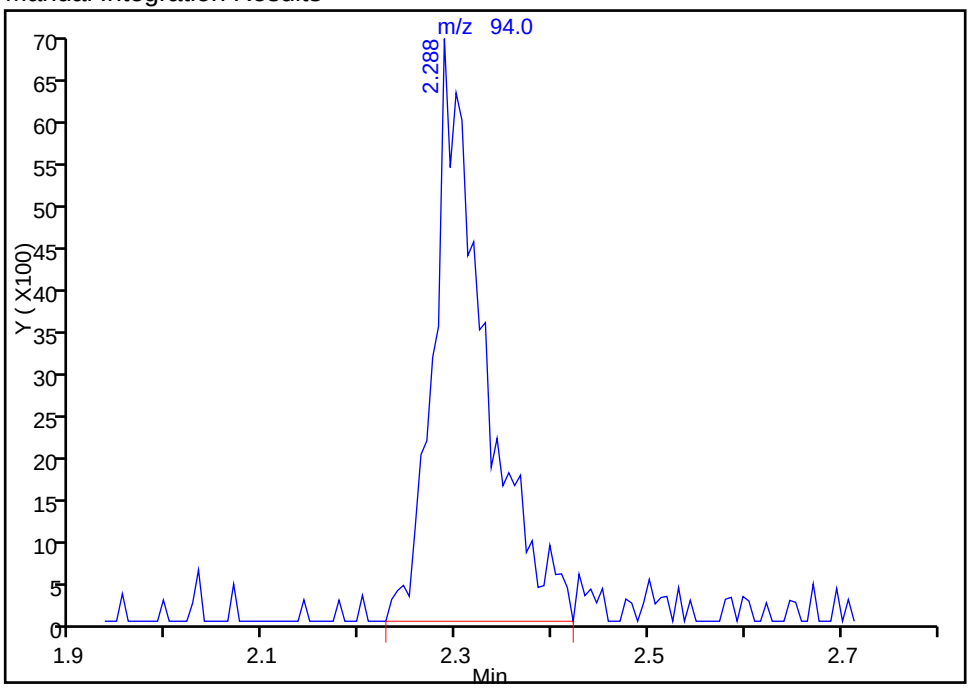
Processing Integration Results

RT: 2.29
Response: 24550
Amount: 23.957816



Manual Integration Results

RT: 2.29
Response: 25599
Amount: 25.586392



Reviewer: fergusond, 15-Dec-2014 16:39:14
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

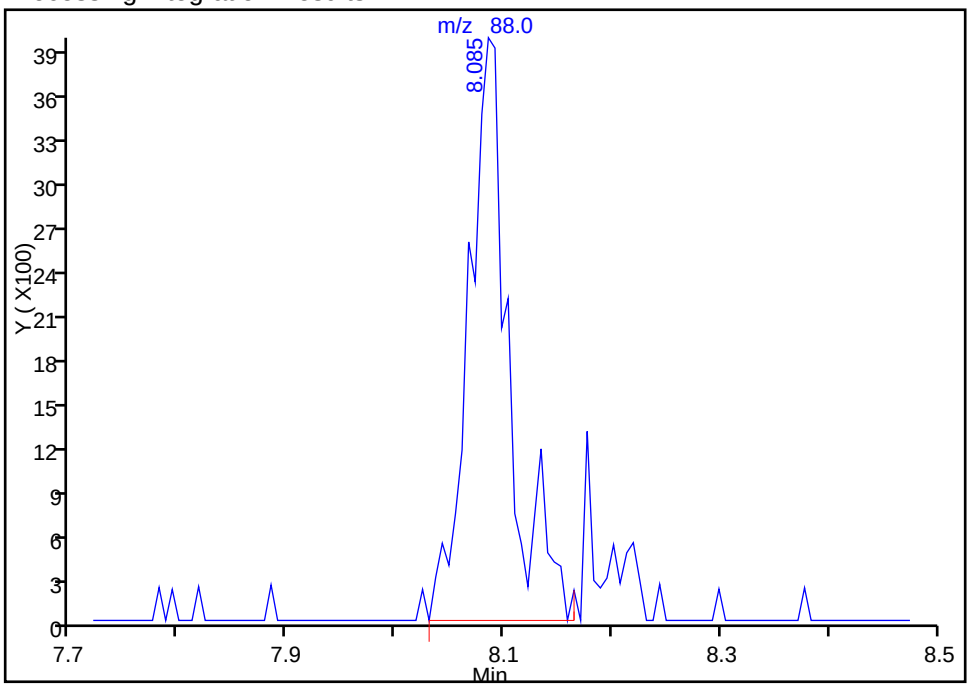
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215008.D
Injection Date: 15-Dec-2014 14:57:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

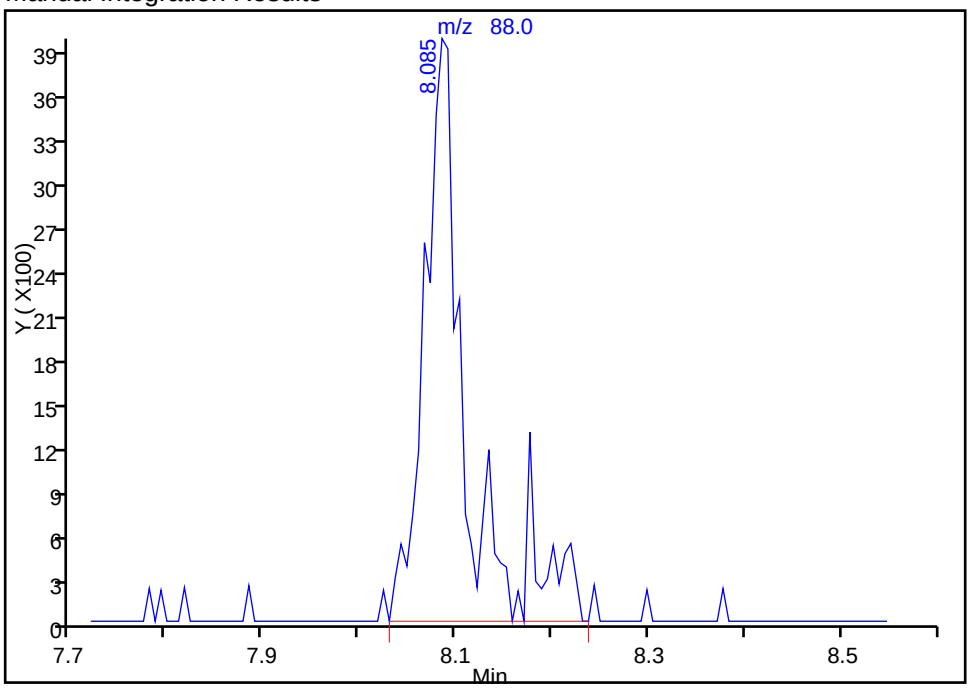
Processing Integration Results

RT: 8.09
Response: 10263
Amount: 448.5612



Manual Integration Results

RT: 8.09
Response: 11752
Amount: 501.1712



Reviewer: fergusond, 16-Dec-2014 08:50:35
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Report Date: 16-Dec-2014 09:09:30 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215009.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 15-Dec-2014 15:21:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0004875-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 09:09:29 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 16-Dec-2014 09:09:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.338	4.338	0.000	79	164744	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.295	0.000	96	423804	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	93	98015	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.709	12.709	0.000	95	133910	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.552	6.552	0.000	85	94689	50.0	52.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.924	6.924	0.000	92	153750	50.0	51.9	
$ 7 Toluene-d8 (Surr)	98	8.943	8.943	0.000	96	436152	50.0	53.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.553	11.553	0.000	84	163066	50.0	52.5	
11 Dichlorodifluoromethane	85	1.643	1.643	0.000	99	131229	50.0	51.6	
12 Chloromethane	50	1.807	1.807	0.000	99	247505	50.0	49.4	
13 Vinyl chloride	62	1.929	1.929	0.000	98	166505	50.0	48.4	
14 Butadiene	39	1.984	1.984	0.000	96	249438	50.0	50.9	
15 Bromomethane	94	2.294	2.294	0.000	92	49618	50.0	48.2	
16 Chloroethane	64	2.434	2.434	0.000	97	84692	50.0	49.7	
17 Dichlorofluoromethane	67	2.689	2.689	0.000	95	166568	50.0	49.1	
18 Trichlorofluoromethane	101	2.738	2.738	0.000	97	103060	50.0	48.0	
20 Ethyl ether	59	3.115	3.115	0.000	95	149984	50.0	49.1	
21 Acrolein	56	3.286	3.286	0.000	98	67959	150.0	148.9	M
22 1,1-Dichloroethene	96	3.444	3.444	0.000	93	116523	50.0	50.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.486	3.486	0.000	95	114250	50.0	48.9	
24 Acetone	43	3.535	3.535	0.000	97	136052	100.0	102.4	
25 Iodomethane	142	3.669	3.669	0.000	96	146806	50.0	49.7	
26 Carbon disulfide	76	3.718	3.718	0.000	99	203932	50.0	45.6	
28 3-Chloro-1-propene	76	3.979	3.979	0.000	88	62463	50.0	47.9	
30 Methyl acetate	43	4.052	4.052	0.000	100	971398	250.0	251.7	
31 Methylene Chloride	84	4.174	4.174	0.000	90	137628	50.0	49.2	
32 2-Methyl-2-propanol	59	4.466	4.466	0.000	84	112567	500.0	511.1	
33 Acrylonitrile	53	4.581	4.581	0.000	98	902499	500.0	507.5	
34 trans-1,2-Dichloroethene	96	4.594	4.594	0.000	89	117057	50.0	50.1	
35 Methyl tert-butyl ether	73	4.630	4.630	0.000	87	290628	50.0	48.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.019	5.019	0.000	97	290414	50.0	49.1	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	275718	50.0	50.7	
38 Vinyl acetate	43	5.324	5.324	0.000	97	252355	50.0	48.4	
44 2,2-Dichloropropane	77	5.956	5.956	0.000	64	73219	50.0	50.8	
45 cis-1,2-Dichloroethene	96	5.968	5.968	0.000	88	124677	50.0	49.3	
46 2-Butanone (MEK)	43	6.017	6.017	0.000	96	201478	100.0	96.4	
49 Chlorobromomethane	128	6.254	6.254	0.000	81	52609	50.0	49.9	
51 Tetrahydrofuran	42	6.309	6.309	0.000	92	154760	100.0	97.3	
52 Chloroform	83	6.370	6.370	0.000	96	203645	50.0	49.5	
53 1,1,1-Trichloroethane	97	6.559	6.559	0.000	92	128898	50.0	48.3	
54 Cyclohexane	56	6.613	6.613	0.000	91	380610	50.0	50.8	
56 Carbon tetrachloride	117	6.741	6.741	0.000	94	115997	50.0	50.1	
55 1,1-Dichloropropene	75	6.747	6.747	0.000	85	169491	50.0	50.4	
57 Isobutyl alcohol	41	6.960	6.960	0.000	75	134692	1250.0	1106.3	
58 Benzene	78	6.978	6.978	0.000	95	522828	50.0	49.9	
59 1,2-Dichloroethane	62	7.009	7.009	0.000	95	208535	50.0	51.2	
62 n-Heptane	43	7.301	7.301	0.000	96	302184	50.0	50.4	
64 Trichloroethene	130	7.690	7.690	0.000	95	116274	50.0	51.8	
66 Methylcyclohexane	83	7.885	7.885	0.000	93	219487	50.0	51.1	
67 1,2-Dichloropropane	63	7.921	7.921	0.000	95	162350	50.0	50.3	
68 Dibromomethane	93	8.043	8.043	0.000	98	66098	50.0	49.7	
70 1,4-Dioxane	88	8.085	8.085	0.000	92	25491	1000.0	1056.5	
71 Dichlorobromomethane	83	8.219	8.219	0.000	95	132486	50.0	48.3	
74 cis-1,3-Dichloropropene	75	8.682	8.682	0.000	85	151006	50.0	48.2	
75 4-Methyl-2-pentanone (MIBK	43	8.846	8.846	0.000	98	427228	100.0	100.9	
76 Toluene	91	9.010	9.010	0.000	96	534952	50.0	51.4	
77 trans-1,3-Dichloropropene	75	9.235	9.235	0.000	93	115007	50.0	47.7	
78 Ethyl methacrylate	69	9.339	9.339	0.000	89	140983	50.0	49.1	
79 1,1,2-Trichloroethane	97	9.424	9.424	0.000	94	99708	50.0	48.8	
80 Tetrachloroethene	164	9.558	9.558	0.000	94	96447	50.0	50.3	
81 1,3-Dichloropropane	76	9.588	9.588	0.000	92	193960	50.0	49.3	
82 2-Hexanone	43	9.673	9.673	0.000	96	355030	100.0	104.8	
84 Chlorodibromomethane	129	9.807	9.807	0.000	89	74703	50.0	49.8	
85 Ethylene Dibromide	107	9.923	9.923	0.000	98	96348	50.0	50.9	
86 3-Chlorobenzotrifluoride	180	10.391	10.391	0.000	93	183531	50.0	53.6	
87 Chlorobenzene	112	10.415	10.415	0.000	91	323152	50.0	51.1	
88 4-Chlorobenzotrifluoride	180	10.446	10.446	0.000	96	169416	50.0	53.0	
89 1,1,1,2-Tetrachloroethane	131	10.495	10.495	0.000	89	94003	50.0	48.7	
90 Ethylbenzene	106	10.525	10.525	0.000	98	182469	50.0	50.9	
91 m-Xylene & p-Xylene	106	10.641	10.641	0.000	97	223210	50.0	51.1	
92 o-Xylene	106	11.030	11.030	0.000	98	220291	50.0	51.9	
93 Styrene	104	11.042	11.042	0.000	91	364481	50.0	51.0	
94 Bromoform	173	11.231	11.231	0.000	95	42875	50.0	45.2	
96 2-Chlorobenzotrifluoride	180	11.291	11.291	0.000	95	173668	50.0	53.1	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	551045	50.0	52.1	
99 1,1,2,2-Tetrachloroethane	83	11.693	11.693	0.000	94	149203	50.0	52.0	
100 Bromobenzene	156	11.705	11.705	0.000	96	121949	50.0	50.6	
101 1,2,3-Trichloropropane	110	11.742	11.742	0.000	90	43578	50.0	49.7	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	65	57235	50.0	47.6	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	146805	50.0	51.6	
104 2-Chlorotoluene	126	11.894	11.894	0.000	94	120100	50.0	50.1	
105 3-Chlorotoluene	126	11.955	11.955	0.000	97	137425	50.0	53.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.985	11.985	0.000	94	457058	50.0	53.6	
107 4-Chlorotoluene	126	12.003	12.003	0.000	99	138608	50.0	52.0	
108 tert-Butylbenzene	119	12.307	12.307	0.000	95	370100	50.0	52.9	
110 1,2,4-Trimethylbenzene	105	12.356	12.356	0.000	99	465575	50.0	53.2	
111 1,2-dichloro-4-(trifluorom	214	12.417	12.417	0.000	98	130684	50.0	54.2	
112 sec-Butylbenzene	105	12.526	12.526	0.000	96	534748	50.0	53.1	
113 1,3-Dichlorobenzene	146	12.642	12.642	0.000	96	232561	50.0	51.1	
114 4-Isopropyltoluene	119	12.672	12.672	0.000	97	427869	50.0	52.7	
115 1,4-Dichlorobenzene	146	12.727	12.727	0.000	93	242307	50.0	51.6	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	98	118794	50.0	52.5	
118 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	98	134654	50.0	54.5	
120 n-Butylbenzene	91	13.080	13.080	0.000	98	393872	50.0	53.1	
121 1,2-Dichlorobenzene	146	13.104	13.104	0.000	95	212701	50.0	50.4	
122 1,2-Dibromo-3-Chloropropan	75	13.883	13.883	0.000	68	19807	50.0	51.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.029	14.029	0.000	98	444038	150.0	167.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.443	14.443	0.000	98	274221	100.0	108.1	
126 1,2,4-Trichlorobenzene	180	14.710	14.710	0.000	94	93933	50.0	53.7	
127 Hexachlorobutadiene	225	14.881	14.881	0.000	95	42898	50.0	51.7	
128 Naphthalene	128	14.960	14.960	0.000	97	242621	50.0	51.9	
129 1,2,3-Trichlorobenzene	180	15.209	15.209	0.000	93	70246	50.0	51.2	
131 2,4,5-Trichlorotoluene	159	15.982	15.982	0.000	96	30153	50.0	51.7	
130 2,3,6-Trichlorotoluene	159	16.079	16.079	0.000	95	28614	50.0	53.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.4	
S 133 Xylenes, Total	106				0		100.0	103.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00004	Amount Added:	6.00	Units: uL	
VOA8260SURR_00028	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00001	Amount Added:	2.00	Units: uL	
voaWKet2ndRes_00005	Amount Added:	2.00	Units: uL	
voaWVA pri Re_00005	Amount Added:	2.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

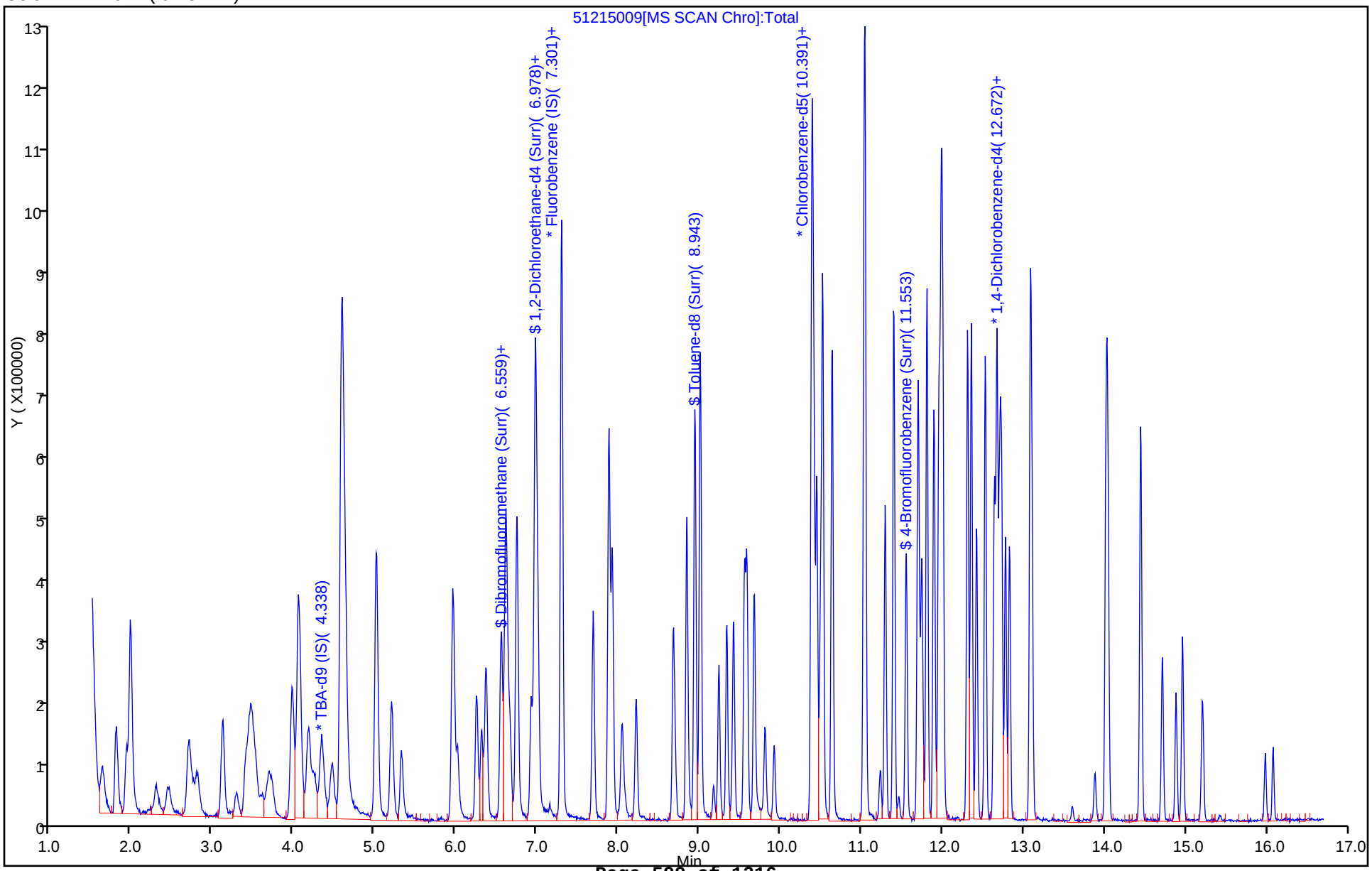
Report Date: 16-Dec-2014 09:09:30 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215009.D

Injection Date:	15-Dec-2014 15:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

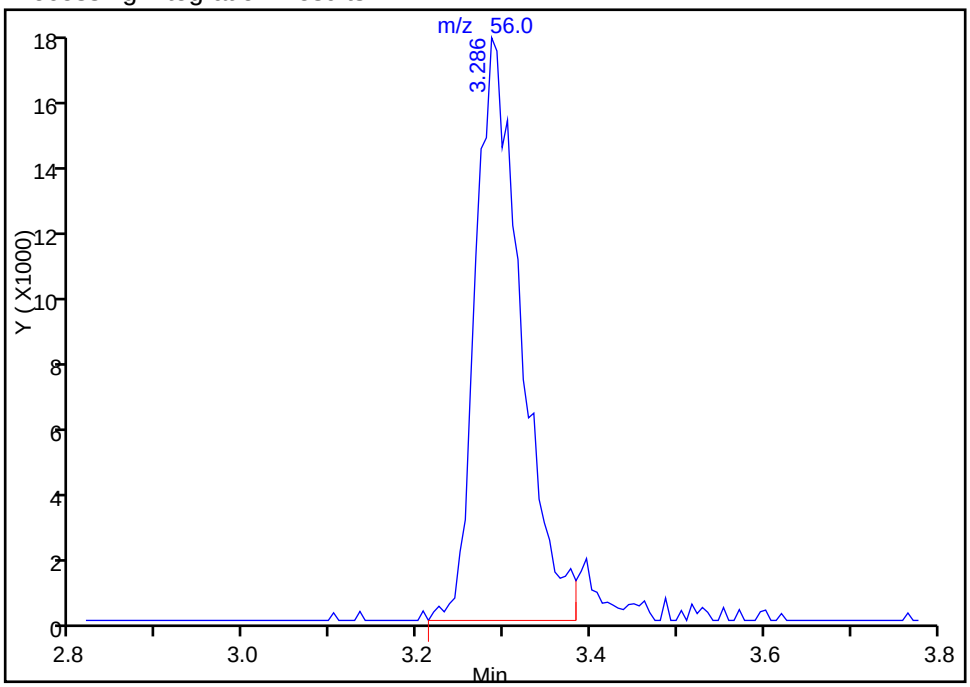
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215009.D				
Injection Date:	15-Dec-2014 15:21:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

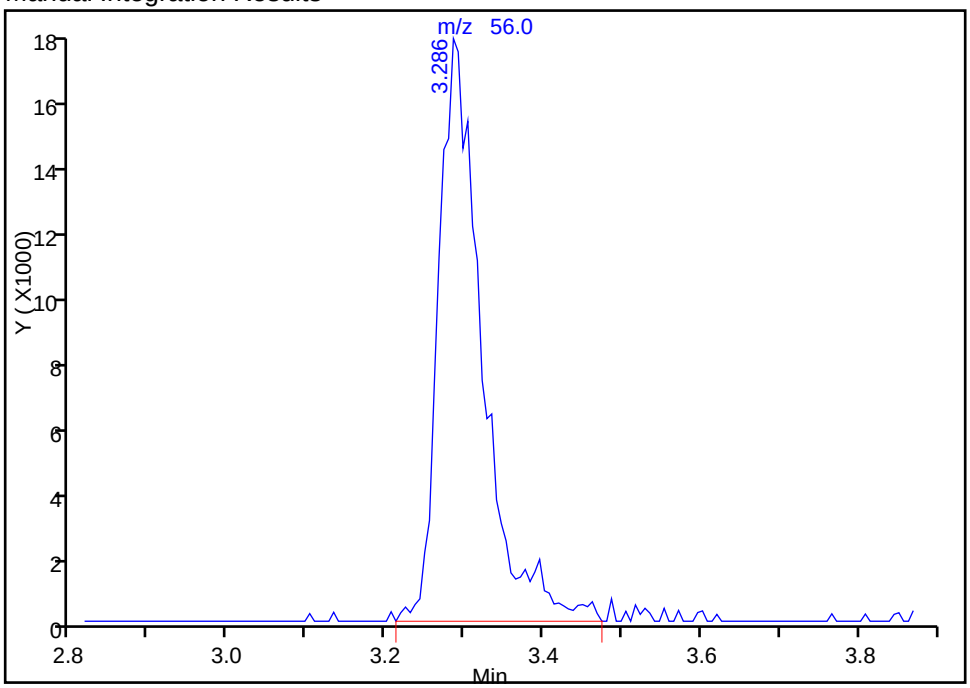
Processing Integration Results

RT: 3.29
Response: 64457
Amount: 145.1414



Manual Integration Results

RT: 3.29
Response: 67959
Amount: 148.8827



Reviewer: fergusond, 15-Dec-2014 16:37:14
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215010.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Dec-2014 15:45:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0004875-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:51:12 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 15-Dec-2014 16:42:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.336	4.336	0.000	83	181242	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	97	442943	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.383	0.000	94	107266	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.707	12.707	0.000	94	140981	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.556	0.000	82	138420	75.0	73.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.921	6.921	0.000	91	221449	75.0	71.5	
$ 7 Toluene-d8 (Surr)	98	8.947	8.947	0.000	96	616248	75.0	69.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.551	11.551	0.000	84	234795	75.0	69.1	
11 Dichlorodifluoromethane	85	1.629	1.629	0.000	98	190564	75.0	71.7	
12 Chloromethane	50	1.799	1.799	0.000	99	371573	75.0	70.9	
13 Vinyl chloride	62	1.927	1.927	0.000	97	253937	75.0	70.6	
14 Butadiene	39	1.975	1.975	0.000	99	348720	75.0	68.1	
15 Bromomethane	94	2.292	2.292	0.000	92	79919	75.0	74.3	
16 Chloroethane	64	2.438	2.438	0.000	97	127211	75.0	71.4	
17 Dichlorofluoromethane	67	2.687	2.687	0.000	97	259364	75.0	73.2	
18 Trichlorofluoromethane	101	2.736	2.736	0.000	96	158442	75.0	70.6	
20 Ethyl ether	59	3.113	3.113	0.000	95	225291	75.0	70.6	
21 Acrolein	56	3.289	3.289	0.000	99	83110	175.0	174.2	
22 1,1-Dichloroethene	96	3.435	3.435	0.000	91	170252	75.0	70.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.466	3.466	0.000	95	168083	75.0	68.8	
24 Acetone	43	3.527	3.527	0.000	98	197095	150.0	141.9	
25 Iodomethane	142	3.667	3.667	0.000	96	219902	75.0	71.2	
26 Carbon disulfide	76	3.709	3.709	0.000	100	319940	75.0	68.4	
28 3-Chloro-1-propene	76	3.971	3.971	0.000	87	98218	75.0	72.1	
30 Methyl acetate	43	4.050	4.050	0.000	100	1479687	375.0	366.9	
31 Methylene Chloride	84	4.172	4.172	0.000	90	204036	75.0	72.0	
32 2-Methyl-2-propanol	59	4.464	4.464	0.000	83	171520	750.0	707.9	
33 Acrylonitrile	53	4.585	4.585	0.000	99	1369178	750.0	736.6	
34 trans-1,2-Dichloroethene	96	4.597	4.597	0.000	92	179704	75.0	73.6	
35 Methyl tert-butyl ether	73	4.622	4.622	0.000	88	452968	75.0	71.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.017	5.017	0.000	97	429042	75.0	69.4	
37 1,1-Dichloroethane	63	5.200	5.200	0.000	97	421630	75.0	74.2	
38 Vinyl acetate	43	5.321	5.321	0.000	96	391840	75.0	71.9	
44 2,2-Dichloropropane	77	5.954	5.954	0.000	54	106300	75.0	70.6	
45 cis-1,2-Dichloroethene	96	5.966	5.966	0.000	88	192115	75.0	72.8	
46 2-Butanone (MEK)	43	6.015	6.015	0.000	96	310437	150.0	142.1	
49 Chlorobromomethane	128	6.246	6.246	0.000	82	82921	75.0	75.3	
51 Tetrahydrofuran	42	6.313	6.313	0.000	93	229135	150.0	137.9	
52 Chloroform	83	6.362	6.362	0.000	95	312586	75.0	72.8	
53 1,1,1-Trichloroethane	97	6.550	6.550	0.000	92	205239	75.0	73.6	
54 Cyclohexane	56	6.611	6.611	0.000	93	568225	75.0	72.5	
56 Carbon tetrachloride	117	6.739	6.739	0.000	91	174921	75.0	72.3	
55 1,1-Dichloropropene	75	6.745	6.745	0.000	85	247738	75.0	70.4	
57 Isobutyl alcohol	41	6.964	6.964	0.000	67	224509	1875.0	1764.4	
58 Benzene	78	6.982	6.982	0.000	94	792783	75.0	72.4	
59 1,2-Dichloroethane	62	7.013	7.013	0.000	95	315981	75.0	74.3	
62 n-Heptane	43	7.298	7.298	0.000	96	437674	75.0	69.8	
64 Trichloroethene	130	7.688	7.688	0.000	94	168085	75.0	71.7	
66 Methylcyclohexane	83	7.882	7.882	0.000	94	327984	75.0	73.1	
67 1,2-Dichloropropane	63	7.925	7.925	0.000	96	251775	75.0	74.7	
68 Dibromomethane	93	8.041	8.041	0.000	96	101536	75.0	73.1	
70 1,4-Dioxane	88	8.077	8.077	0.000	90	40031	1500.0	1587.4	
71 Dichlorobromomethane	83	8.217	8.217	0.000	94	209313	75.0	73.0	
74 cis-1,3-Dichloropropene	75	8.679	8.679	0.000	84	248192	75.0	75.8	
75 4-Methyl-2-pentanone (MIBK	43	8.844	8.844	0.000	98	691017	150.0	149.2	
76 Toluene	91	9.008	9.008	0.000	96	824691	75.0	72.4	
77 trans-1,3-Dichloropropene	75	9.239	9.239	0.000	92	193036	75.0	73.2	
78 Ethyl methacrylate	69	9.336	9.336	0.000	89	233054	75.0	74.2	
79 1,1,2-Trichloroethane	97	9.422	9.422	0.000	94	160928	75.0	72.0	
80 Tetrachloroethene	164	9.555	9.555	0.000	94	145626	75.0	69.3	
81 1,3-Dichloropropane	76	9.586	9.586	0.000	94	312441	75.0	72.6	
82 2-Hexanone	43	9.677	9.677	0.000	98	556468	150.0	150.0	
84 Chlorodibromomethane	129	9.811	9.811	0.000	88	124399	75.0	75.7	
85 Ethylene Dibromide	107	9.920	9.920	0.000	97	149545	75.0	72.2	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	94	249882	75.0	66.7	
87 Chlorobenzene	112	10.413	10.413	0.000	89	487195	75.0	70.3	
88 4-Chlorobenzotrifluoride	180	10.450	10.450	0.000	96	241146	75.0	68.9	
89 1,1,1,2-Tetrachloroethane	131	10.492	10.492	0.000	90	149698	75.0	70.8	
90 Ethylbenzene	106	10.523	10.523	0.000	98	281017	75.0	71.7	
91 m-Xylene & p-Xylene	106	10.638	10.638	0.000	97	347010	75.0	72.6	
92 o-Xylene	106	11.034	11.034	0.000	94	332078	75.0	71.5	
93 Styrene	104	11.046	11.046	0.000	86	566334	75.0	72.5	
94 Bromoform	173	11.234	11.234	0.000	95	74265	75.0	71.5	
96 2-Chlorobenzotrifluoride	180	11.295	11.295	0.000	95	239775	75.0	66.9	
97 Isopropylbenzene	105	11.399	11.399	0.000	97	824955	75.0	71.2	
99 1,1,2,2-Tetrachloroethane	83	11.691	11.691	0.000	94	225157	75.0	71.7	
100 Bromobenzene	156	11.703	11.703	0.000	96	188616	75.0	74.4	
101 1,2,3-Trichloropropane	110	11.739	11.739	0.000	91	67651	75.0	73.4	
102 trans-1,4-Dichloro-2-buten	53	11.752	11.752	0.000	72	93980	75.0	74.2	
103 N-Propylbenzene	120	11.806	11.806	0.000	99	218494	75.0	73.0	
104 2-Chlorotoluene	126	11.898	11.898	0.000	94	191792	75.0	75.9	
105 3-Chlorotoluene	126	11.952	11.952	0.000	96	188584	75.0	70.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.983	11.983	0.000	94	665788	75.0	74.2	
107 4-Chlorotoluene	126	12.001	12.001	0.000	99	213085	75.0	75.9	
108 tert-Butylbenzene	119	12.305	12.305	0.000	94	537092	75.0	73.0	
110 1,2,4-Trimethylbenzene	105	12.354	12.354	0.000	97	688660	75.0	74.7	
111 1,2-dichloro-4-(trifluorom	214	12.421	12.421	0.000	97	180560	75.0	71.1	
112 sec-Butylbenzene	105	12.524	12.524	0.000	96	773895	75.0	73.0	
113 1,3-Dichlorobenzene	146	12.640	12.640	0.000	95	345748	75.0	72.2	
114 4-Isopropyltoluene	119	12.670	12.670	0.000	97	634008	75.0	74.2	
115 1,4-Dichlorobenzene	146	12.725	12.725	0.000	91	352959	75.0	71.4	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.780	0.000	98	167750	75.0	70.4	
118 2,5-Dichlorobenzotrifluori	214	12.828	12.828	0.000	97	181592	75.0	69.9	
120 n-Butylbenzene	91	13.078	13.078	0.000	98	555780	75.0	71.2	
121 1,2-Dichlorobenzene	146	13.102	13.102	0.000	95	323846	75.0	72.9	
122 1,2-Dibromo-3-Chloropropan	75	13.881	13.881	0.000	69	29088	75.0	72.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.027	14.027	0.000	98	599364	225.0	214.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.447	14.447	0.000	98	376469	150.0	141.0	
126 1,2,4-Trichlorobenzene	180	14.708	14.708	0.000	94	127051	75.0	68.9	
127 Hexachlorobutadiene	225	14.885	14.885	0.000	95	57408	75.0	65.7	
128 Naphthalene	128	14.964	14.964	0.000	97	366622	75.0	74.5	
129 1,2,3-Trichlorobenzene	180	15.207	15.207	0.000	95	101227	75.0	70.1	
131 2,4,5-Trichlorotoluene	159	15.980	15.980	0.000	96	37510	75.0	61.1	
130 2,3,6-Trichlorotoluene	159	16.077	16.077	0.000	95	36291	75.0	64.5	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		150.0	146.3	
S 133 Xylenes, Total	106				0		150.0	144.2	
S 135 1,3-Dichloropropene, Total	1				0		150.0	149.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA pri Re_00005	Amount Added:	3.00	Units: uL	
VOA8260SURR_00028	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	3.00	Units: uL	
voaWEEpri Res_00001	Amount Added:	3.00	Units: uL	
voaWKet2ndRes_00005	Amount Added:	3.00	Units: uL	
VOAACROPRI_00004	Amount Added:	7.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

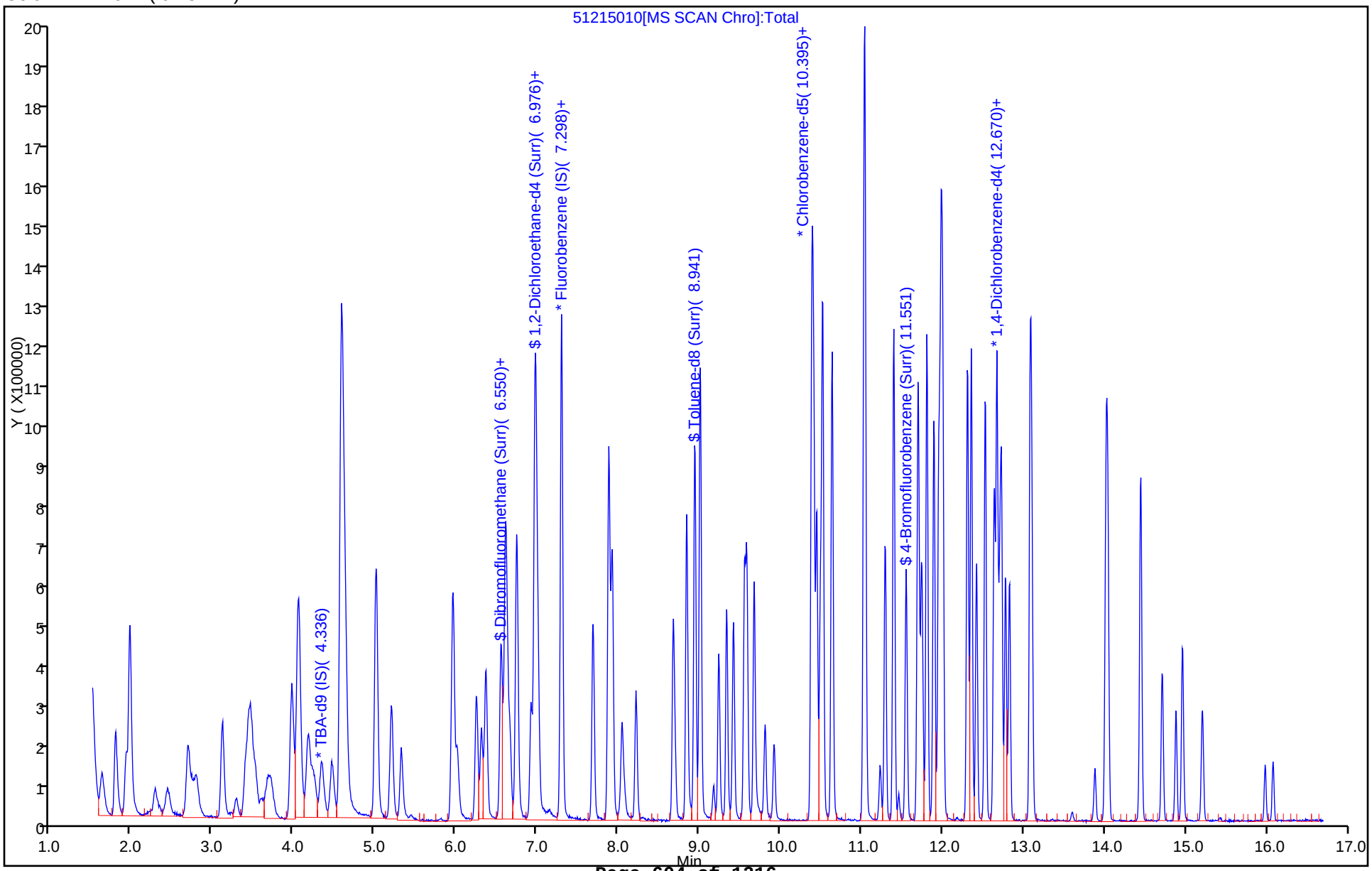
Report Date: 16-Dec-2014 08:51:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215010.D

Injection Date:	15-Dec-2014 15:45:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 16-Dec-2014 08:51:15 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215011.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Dec-2014 16:09:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0004875-011
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:51:14 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 15-Dec-2014 16:48:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.340	4.336	0.004	81	185121	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	95	464026	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.383	0.004	95	104758	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.705	12.707	-0.002	94	146287	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.556	-0.001	75	167966	100.0	85.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.920	6.921	-0.001	92	286774	100.0	88.4	
$ 7 Toluene-d8 (Surr)	98	8.945	8.947	-0.002	95	772272	100.0	88.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.549	11.551	-0.002	84	307884	100.0	92.7	
11 Dichlorodifluoromethane	85	1.633	1.629	0.004	98	273288	100.0	98.2	
12 Chloromethane	50	1.797	1.799	-0.002	99	523947	100.0	95.5	
13 Vinyl chloride	62	1.931	1.927	0.004	98	365992	100.0	97.1	
14 Butadiene	39	1.974	1.975	-0.001	96	503293	100.0	93.8	
15 Bromomethane	94	2.290	2.292	-0.002	92	107362	100.0	95.3	
16 Chloroethane	64	2.436	2.438	-0.002	96	179530	100.0	96.2	
17 Dichlorofluoromethane	67	2.679	2.687	-0.008	97	350450	100.0	94.4	
18 Trichlorofluoromethane	101	2.752	2.736	0.016	93	239313	100.0	101.8	
20 Ethyl ether	59	3.111	3.113	-0.002	94	303566	100.0	90.8	
21 Acrolein	56	3.282	3.289	-0.007	97	98752	200.0	197.6	
22 1,1-Dichloroethene	96	3.428	3.435	-0.007	91	242263	100.0	95.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.464	3.466	-0.002	95	245306	100.0	95.8	
24 Acetone	43	3.525	3.527	-0.002	97	272377	200.0	187.2	
25 Iodomethane	142	3.653	3.667	-0.014	99	312818	100.0	96.6	
26 Carbon disulfide	76	3.714	3.709	0.005	99	479421	100.0	97.8	
28 3-Chloro-1-propene	76	3.975	3.971	0.004	88	139671	100.0	97.9	
30 Methyl acetate	43	4.048	4.050	-0.002	100	1995763	500.0	472.3	
31 Methylene Chloride	84	4.170	4.172	-0.002	90	282467	100.0	96.9	
32 2-Methyl-2-propanol	59	4.468	4.464	0.004	84	233721	1000.0	944.4	
33 Acrylonitrile	53	4.584	4.585	-0.001	97	1844438	1000.0	947.2	
34 trans-1,2-Dichloroethene	96	4.596	4.597	-0.001	90	243743	100.0	95.2	
35 Methyl tert-butyl ether	73	4.626	4.622	0.004	90	630126	100.0	95.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	5.017	-0.014	97	621883	100.0	96.0	
37 1,1-Dichloroethane	63	5.204	5.200	0.004	97	578361	100.0	97.2	
38 Vinyl acetate	43	5.320	5.321	-0.001	97	556672	100.0	97.5	
44 2,2-Dichloropropane	77	5.952	5.954	-0.002	69	156961	100.0	99.5	
45 cis-1,2-Dichloroethene	96	5.965	5.966	-0.001	89	265573	100.0	96.0	
46 2-Butanone (MEK)	43	6.013	6.015	-0.002	97	448845	200.0	196.1	
49 Chlorobromomethane	128	6.244	6.246	-0.002	82	106775	100.0	92.5	
51 Tetrahydrofuran	42	6.311	6.313	-0.002	93	320665	200.0	184.2	
52 Chloroform	83	6.366	6.362	0.004	96	428736	100.0	95.3	
53 1,1,1-Trichloroethane	97	6.555	6.550	0.005	93	292080	100.0	100.0	
54 Cyclohexane	56	6.615	6.611	0.004	91	811131	100.0	98.8	
56 Carbon tetrachloride	117	6.737	6.739	-0.002	75	251804	100.0	99.3	
55 1,1-Dichloropropene	75	6.749	6.745	0.004	84	361815	100.0	98.2	
57 Isobutyl alcohol	41	6.968	6.964	0.004	93	339131	2500.0	2544.1	
58 Benzene	78	6.980	6.982	-0.002	94	1072233	100.0	93.4	
59 1,2-Dichloroethane	62	7.011	7.013	-0.002	94	420406	100.0	94.4	
62 n-Heptane	43	7.303	7.298	0.005	96	645815	100.0	98.3	
64 Trichloroethene	130	7.686	7.688	-0.002	95	236014	100.0	96.1	
66 Methylcyclohexane	83	7.887	7.882	0.005	92	476530	100.0	101.3	
67 1,2-Dichloropropane	63	7.923	7.925	-0.002	96	349012	100.0	98.9	
68 Dibromomethane	93	8.045	8.041	0.004	96	138247	100.0	95.0	
70 1,4-Dioxane	88	8.082	8.077	0.005	86	55226	2000.0	2090.5	M
71 Dichlorobromomethane	83	8.215	8.217	-0.002	95	289837	100.0	96.4	
74 cis-1,3-Dichloropropene	75	8.678	8.679	-0.001	85	348436	100.0	101.6	
75 4-Methyl-2-pentanone (MIBK	43	8.842	8.844	-0.002	98	949167	200.0	209.8	
76 Toluene	91	9.012	9.008	0.004	97	1092848	100.0	98.3	
77 trans-1,3-Dichloropropene	75	9.237	9.239	-0.002	94	272778	100.0	105.9	
78 Ethyl methacrylate	69	9.335	9.336	-0.001	88	324927	100.0	106.0	
79 1,1,2-Trichloroethane	97	9.420	9.422	-0.002	93	215870	100.0	98.9	
80 Tetrachloroethene	164	9.554	9.555	-0.001	94	198281	100.0	96.7	
81 1,3-Dichloropropane	76	9.584	9.586	-0.002	92	415185	100.0	98.8	
82 2-Hexanone	43	9.675	9.677	-0.002	97	731532	200.0	202.0	
84 Chlorodibromomethane	129	9.809	9.811	-0.002	89	167905	100.0	104.6	
85 Ethylene Dibromide	107	9.925	9.920	0.005	99	202583	100.0	100.1	
86 3-Chlorobenzotrifluoride	180	10.393	10.389	0.004	94	357810	100.0	97.9	
87 Chlorobenzene	112	10.412	10.413	-0.001	89	668345	100.0	98.8	
88 4-Chlorobenzotrifluoride	180	10.448	10.450	-0.002	96	335563	100.0	98.2	
89 1,1,1,2-Tetrachloroethane	131	10.497	10.492	0.005	91	201091	100.0	97.4	
90 Ethylbenzene	106	10.521	10.523	-0.002	98	384275	100.0	100.3	
91 m-Xylene & p-Xylene	106	10.637	10.638	-0.001	97	477144	100.0	102.3	
92 o-Xylene	106	11.032	11.034	-0.002	98	451799	100.0	99.6	
93 Styrene	104	11.044	11.046	-0.002	92	769446	100.0	100.8	
94 Bromoform	173	11.233	11.234	-0.001	94	103601	100.0	102.2	
96 2-Chlorobenzotrifluoride	180	11.294	11.295	-0.001	94	345106	100.0	98.6	
97 Isopropylbenzene	105	11.397	11.399	-0.002	97	1147487	100.0	101.4	
99 1,1,2,2-Tetrachloroethane	83	11.695	11.691	0.004	96	302138	100.0	98.5	
100 Bromobenzene	156	11.701	11.703	-0.002	97	258939	100.0	98.4	
101 1,2,3-Trichloropropane	110	11.738	11.739	-0.001	89	89733	100.0	93.8	
102 trans-1,4-Dichloro-2-buten	53	11.750	11.752	-0.002	69	129754	100.0	98.7	
103 N-Propylbenzene	120	11.805	11.806	-0.001	99	316053	100.0	101.7	
104 2-Chlorotoluene	126	11.896	11.898	-0.002	94	263552	100.0	100.5	
105 3-Chlorotoluene	126	11.957	11.952	0.005	96	276497	100.0	99.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.981	11.983	-0.002	94	939917	100.0	101.0	
107 4-Chlorotoluene	126	11.999	12.001	-0.002	99	281879	100.0	96.8	
108 tert-Butylbenzene	119	12.310	12.305	0.005	95	766289	100.0	100.3	
110 1,2,4-Trimethylbenzene	105	12.358	12.354	0.004	98	965955	100.0	101.0	
111 1,2-dichloro-4-(trifluorom	214	12.419	12.421	-0.002	98	262077	100.0	99.5	
112 sec-Butylbenzene	105	12.529	12.524	0.005	96	1090919	100.0	99.1	
113 1,3-Dichlorobenzene	146	12.638	12.640	-0.002	96	486729	100.0	98.0	
114 4-Isopropyltoluene	119	12.675	12.670	0.005	96	916889	100.0	103.5	
115 1,4-Dichlorobenzene	146	12.729	12.725	0.004	92	496017	100.0	96.7	
116 2,4-Dichloro-1-(triflourom	214	12.778	12.780	-0.002	98	238127	100.0	96.3	
118 2,5-Dichlorobenzotrifluori	214	12.827	12.828	-0.001	97	262855	100.0	97.5	
120 n-Butylbenzene	91	13.082	13.078	0.004	98	827117	100.0	102.1	
121 1,2-Dichlorobenzene	146	13.100	13.102	-0.002	95	451798	100.0	98.0	
122 1,2-Dibromo-3-Chloropropan	75	13.885	13.881	0.004	70	41345	100.0	98.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.025	14.027	-0.002	98	870798	300.0	299.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.445	14.447	-0.002	98	544526	200.0	196.6	
126 1,2,4-Trichlorobenzene	180	14.713	14.708	0.005	94	185414	100.0	97.0	
127 Hexachlorobutadiene	225	14.877	14.885	-0.008	97	86456	100.0	95.3	
128 Naphthalene	128	14.962	14.964	-0.002	97	517111	100.0	101.3	
129 1,2,3-Trichlorobenzene	180	15.205	15.207	-0.002	93	145164	100.0	96.8	
131 2,4,5-Trichlorotoluene	159	15.984	15.980	0.004	93	60662	100.0	95.3	
130 2,3,6-Trichlorotoluene	159	16.081	16.077	0.004	92	53522	100.0	91.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		200.0	191.3	
S 133 Xylenes, Total	106				0		200.0	201.9	
S 135 1,3-Dichloropropene, Total	1				0		200.0	207.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA pri Re_00005	Amount Added:	4.00	Units: uL	
VOA8260SURR_00028	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	4.00	Units: uL	
voaWEEpri Res_00001	Amount Added:	4.00	Units: uL	
voaWKet2ndRes_00005	Amount Added:	4.00	Units: uL	
VOAACROPRI_00004	Amount Added:	8.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

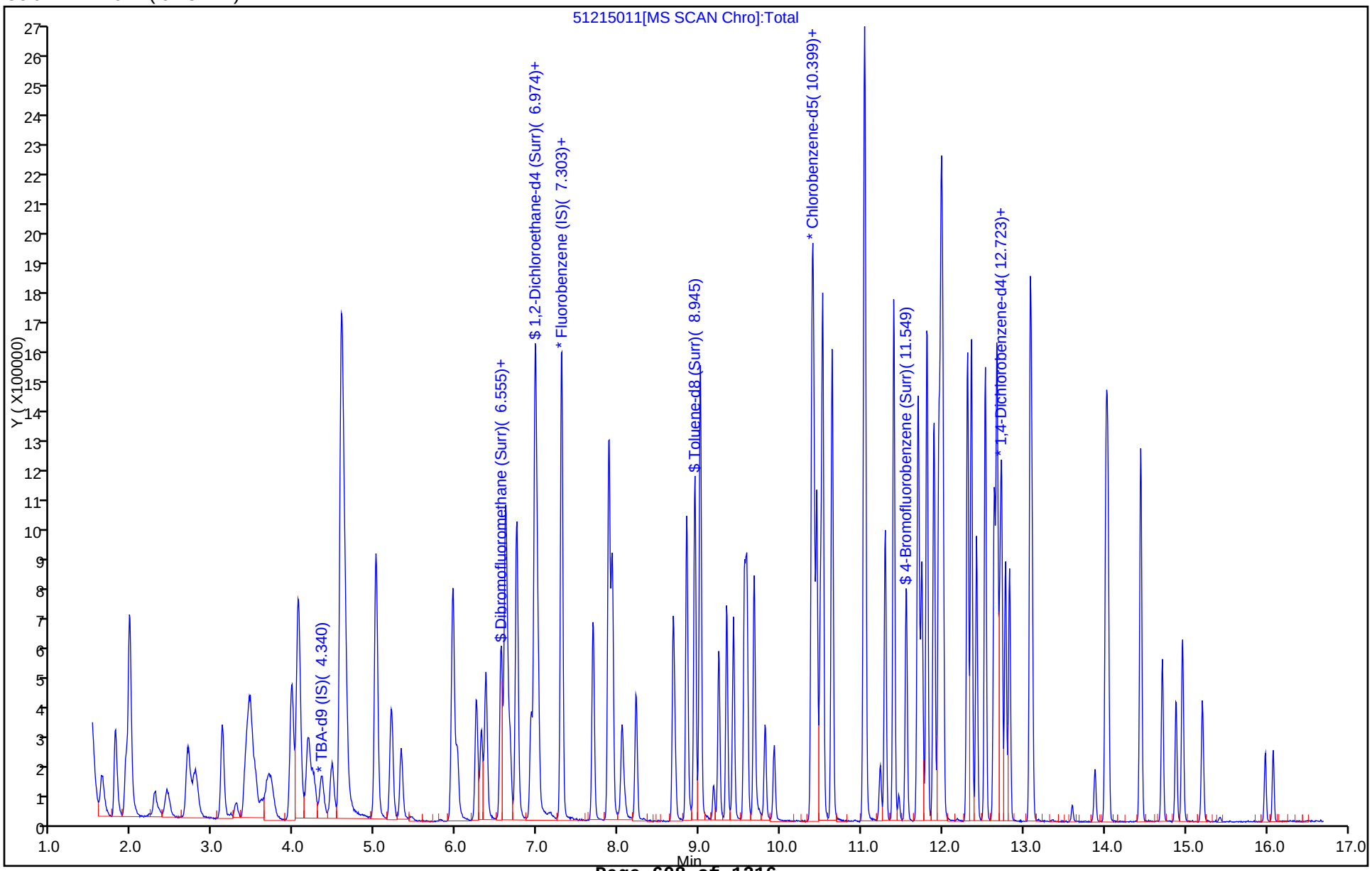
Report Date: 16-Dec-2014 08:51:15 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215011.D

Injection Date:	15-Dec-2014 16:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

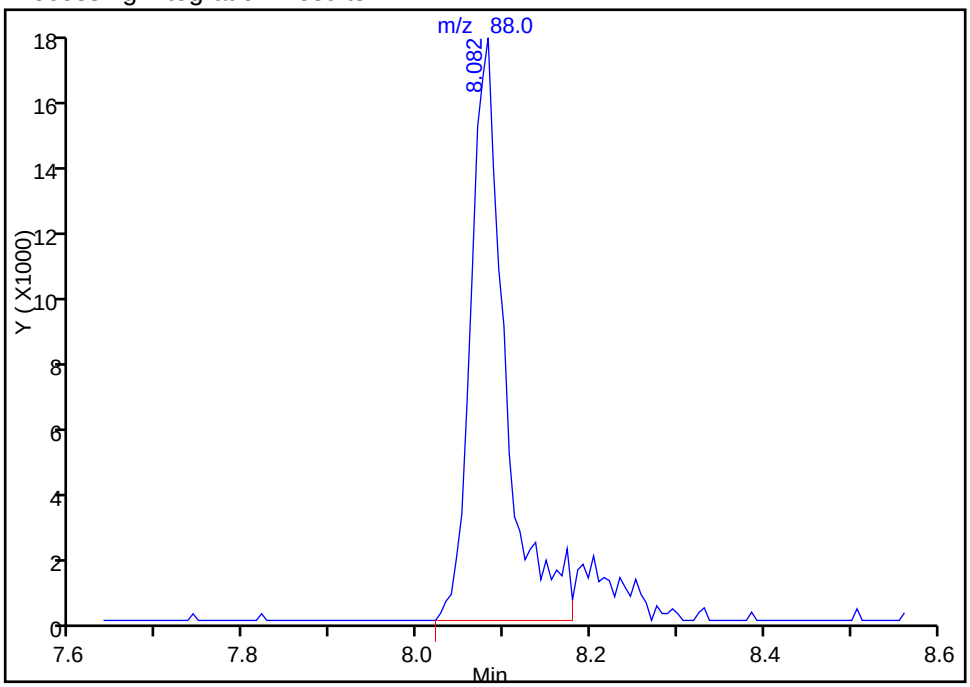
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215011.D				
Injection Date:	15-Dec-2014 16:09:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

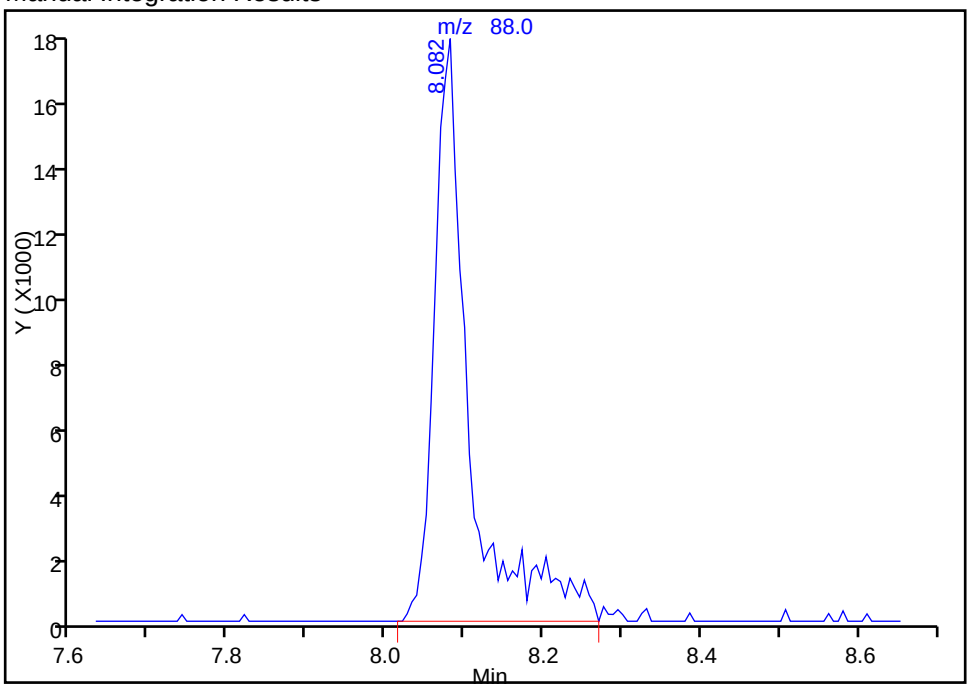
Processing Integration Results

RT: 8.08
Response: 49163
Amount: 1857.3302



Manual Integration Results

RT: 8.08
Response: 55226
Amount: 2090.4917



Reviewer: fergusond, 15-Dec-2014 16:48:16
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215012.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Dec-2014 16:33:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0004875-012
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:51:16 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 16-Dec-2014 08:38:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.345	4.336	0.009	85	188224	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.298	-0.003	97	434131	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.383	0.003	93	110231	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.704	12.707	-0.003	95	144359	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.556	-0.003	92	313362	175.0	169.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.924	6.921	0.003	92	517527	175.0	170.6	
$ 7 Toluene-d8 (Surr)	98	8.944	8.947	-0.003	95	1402860	175.0	153.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.554	11.551	0.003	87	555403	175.0	159.0	
11 Dichlorodifluoromethane	85	1.632	1.629	0.003	98	461200	175.0	177.2	
12 Chloromethane	50	1.796	1.799	-0.003	99	879810	175.0	171.3	
13 Vinyl chloride	62	1.930	1.927	0.003	98	619242	175.0	175.6	
14 Butadiene	39	1.978	1.975	0.003	95	853165	175.0	170.0	
15 Bromomethane	94	2.289	2.292	-0.003	90	167265	175.0	158.6	
16 Chloroethane	64	2.441	2.438	0.003	96	292962	175.0	167.8	
17 Dichlorofluoromethane	67	2.684	2.687	-0.003	97	609495	175.0	175.5	
18 Trichlorofluoromethane	101	2.751	2.736	0.015	96	414214	175.0	188.3	
20 Ethyl ether	59	3.116	3.113	0.003	94	526502	175.0	168.4	
21 Acrolein	56	3.293	3.289	0.004	98	108540	225.0	232.1	
22 1,1-Dichloroethene	96	3.445	3.435	0.010	91	425581	175.0	180.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.469	3.466	0.003	84	430964	175.0	180.0	
24 Acetone	43	3.530	3.527	0.003	98	484655	350.0	356.0	
25 Iodomethane	142	3.658	3.667	-0.009	98	541195	175.0	178.7	
26 Carbon disulfide	76	3.718	3.709	0.009	99	894088	175.0	195.0	
28 3-Chloro-1-propene	76	3.968	3.971	-0.003	88	260534	175.0	195.2	
30 Methyl acetate	43	4.053	4.050	0.003	100	3368843	875.0	852.2	
31 Methylene Chloride	84	4.175	4.172	0.003	91	470925	175.0	176.9	
32 2-Methyl-2-propanol	59	4.473	4.464	0.009	85	472853	1750.0	1879.1	
33 Acrylonitrile	53	4.582	4.585	-0.003	96	3108626	1750.0	1706.3	
34 trans-1,2-Dichloroethene	96	4.594	4.597	-0.003	90	418880	175.0	175.0	
35 Methyl tert-butyl ether	73	4.631	4.622	0.009	90	1075251	175.0	173.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.014	5.017	-0.003	96	1046157	175.0	172.6	
37 1,1-Dichloroethane	63	5.197	5.200	-0.003	97	977975	175.0	175.6	
38 Vinyl acetate	43	5.318	5.321	-0.003	97	981516	175.0	183.8	
44 2,2-Dichloropropane	77	5.951	5.954	-0.003	72	272347	175.0	184.5	
45 cis-1,2-Dichloroethene	96	5.963	5.966	-0.003	88	459987	175.0	177.7	
46 2-Butanone (MEK)	43	6.012	6.015	-0.003	97	770041	350.0	359.6	
49 Chlorobromomethane	128	6.249	6.246	0.003	82	189932	175.0	175.9	
51 Tetrahydrofuran	42	6.310	6.313	-0.003	93	570461	350.0	350.3	
52 Chloroform	83	6.365	6.362	0.003	97	726926	175.0	172.6	
53 1,1,1-Trichloroethane	97	6.553	6.550	0.003	93	498247	175.0	182.3	
54 Cyclohexane	56	6.614	6.611	0.003	90	1372084	175.0	178.7	
56 Carbon tetrachloride	117	6.742	6.739	0.003	94	449549	175.0	189.5	
55 1,1-Dichloropropene	75	6.748	6.745	0.003	86	616547	175.0	178.9	
57 Isobutyl alcohol	41	6.967	6.964	0.003	95	597870	4375.0	4794.0	
58 Benzene	78	6.979	6.982	-0.003	95	1810201	175.0	168.6	
59 1,2-Dichloroethane	62	7.010	7.013	-0.003	95	723279	175.0	173.5	
62 n-Heptane	43	7.302	7.298	0.004	97	1100542	175.0	179.1	
64 Trichloroethene	130	7.685	7.688	-0.003	95	412412	175.0	179.4	
66 Methylcyclohexane	83	7.886	7.882	0.004	95	798320	175.0	181.4	
67 1,2-Dichloropropane	63	7.922	7.925	-0.003	95	580507	175.0	175.7	
68 Dibromomethane	93	8.044	8.041	0.003	97	241280	175.0	177.1	
70 1,4-Dioxane	88	8.074	8.077	-0.003	87	94223	3500.0	3812.3	
71 Dichlorobromomethane	83	8.220	8.217	0.003	95	516759	175.0	183.8	
74 cis-1,3-Dichloropropene	75	8.676	8.679	-0.003	85	617016	175.0	192.3	
75 4-Methyl-2-pentanone (MIBK	43	8.841	8.844	-0.003	99	1587323	350.0	333.4	
76 Toluene	91	9.011	9.008	0.003	96	1825825	175.0	156.0	
77 trans-1,3-Dichloropropene	75	9.236	9.239	-0.003	92	504625	175.0	186.2	
78 Ethyl methacrylate	69	9.339	9.336	0.003	89	574920	175.0	178.2	
79 1,1,2-Trichloroethane	97	9.419	9.422	-0.003	95	367605	175.0	160.1	
80 Tetrachloroethene	164	9.552	9.555	-0.003	94	341247	175.0	158.1	
81 1,3-Dichloropropane	76	9.583	9.586	-0.003	92	710288	175.0	160.6	
82 2-Hexanone	43	9.674	9.677	-0.003	98	1335292	350.0	350.4	
84 Chlorodibromomethane	129	9.814	9.811	0.003	89	308265	175.0	182.6	
85 Ethylene Dibromide	107	9.917	9.920	-0.003	98	358303	175.0	168.3	
86 3-Chlorobenzotrifluoride	180	10.392	10.389	0.003	92	633751	175.0	164.7	
87 Chlorobenzene	112	10.410	10.413	-0.003	89	1146615	175.0	161.1	
88 4-Chlorobenzotrifluoride	180	10.453	10.450	0.003	95	605917	175.0	168.5	
89 1,1,1,2-Tetrachloroethane	131	10.489	10.492	-0.003	92	359052	175.0	165.3	
90 Ethylbenzene	106	10.520	10.523	-0.003	98	674389	175.0	167.3	
91 m-Xylene & p-Xylene	106	10.635	10.638	-0.003	96	807449	175.0	164.5	
92 o-Xylene	106	11.031	11.034	-0.003	97	779332	175.0	163.3	
93 Styrene	104	11.043	11.046	-0.003	86	1309347	175.0	163.1	
94 Bromoform	173	11.231	11.234	-0.003	96	198764	175.0	186.3	
96 2-Chlorobenzotrifluoride	180	11.292	11.295	-0.003	94	608627	175.0	165.3	
97 Isopropylbenzene	105	11.396	11.399	-0.003	97	1932433	175.0	162.3	
99 1,1,2,2-Tetrachloroethane	83	11.694	11.691	0.003	95	530535	175.0	164.4	
100 Bromobenzene	156	11.706	11.703	0.003	94	454034	175.0	174.8	
101 1,2,3-Trichloropropane	110	11.742	11.739	0.003	89	160641	175.0	170.1	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.752	-0.003	75	236954	175.0	182.7	
103 N-Propylbenzene	120	11.809	11.806	0.003	98	551938	175.0	180.0	
104 2-Chlorotoluene	126	11.895	11.898	-0.003	94	463229	175.0	179.1	
105 3-Chlorotoluene	126	11.955	11.952	0.003	96	491483	175.0	178.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.980	11.983	-0.003	94	1595887	175.0	173.8	
107 4-Chlorotoluene	126	12.004	12.001	0.003	99	492402	175.0	171.3	
108 tert-Butylbenzene	119	12.308	12.305	0.003	94	1316602	175.0	174.7	
110 1,2,4-Trimethylbenzene	105	12.357	12.354	0.003	98	1655214	175.0	175.4	
111 1,2-dichloro-4-(trifluorom	214	12.418	12.421	-0.003	98	471091	175.0	181.2	
112 sec-Butylbenzene	105	12.527	12.524	0.003	96	1876479	175.0	172.8	
113 1,3-Dichlorobenzene	146	12.637	12.640	-0.003	96	863694	175.0	176.2	
114 4-Isopropyltoluene	119	12.673	12.670	0.003	96	1567173	175.0	179.2	
115 1,4-Dichlorobenzene	146	12.728	12.725	0.003	91	875578	175.0	173.0	
116 2,4-Dichloro-1-(triflourom	214	12.777	12.780	-0.003	98	442330	175.0	181.3	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.828	-0.003	98	501230	175.0	188.3	
120 n-Butylbenzene	91	13.081	13.078	0.003	97	1449265	175.0	181.4	
121 1,2-Dichlorobenzene	146	13.099	13.102	-0.003	94	790430	175.0	173.8	
122 1,2-Dibromo-3-Chloropropan	75	13.884	13.881	0.003	79	83763	175.0	203.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.024	14.027	-0.003	97	1631254	525.0	569.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.444	14.447	-0.003	98	1022814	350.0	374.2	
126 1,2,4-Trichlorobenzene	180	14.711	14.708	0.003	94	364694	175.0	193.3	
127 Hexachlorobutadiene	225	14.882	14.885	-0.003	95	170084	175.0	190.1	
128 Naphthalene	128	14.961	14.964	-0.003	97	974048	175.0	193.4	
129 1,2,3-Trichlorobenzene	180	15.210	15.207	0.003	93	284156	175.0	192.0	
131 2,4,5-Trichlorotoluene	159	15.983	15.980	0.003	97	130241	175.0	207.3	
130 2,3,6-Trichlorotoluene	159	16.080	16.077	0.003	95	119691	175.0	207.9	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		350.0	352.7	
S 133 Xylenes, Total	106				0		350.0	327.8	
S 135 1,3-Dichloropropene, Total	1				0		350.0	378.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00004	Amount Added:	9.00	Units: uL	
VOA8260SURR_00028	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	7.00	Units: uL	
voaWEEpri Res_00001	Amount Added:	7.00	Units: uL	
voaWKet2ndRes_00005	Amount Added:	7.00	Units: uL	
voaWVA pri Re_00005	Amount Added:	7.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

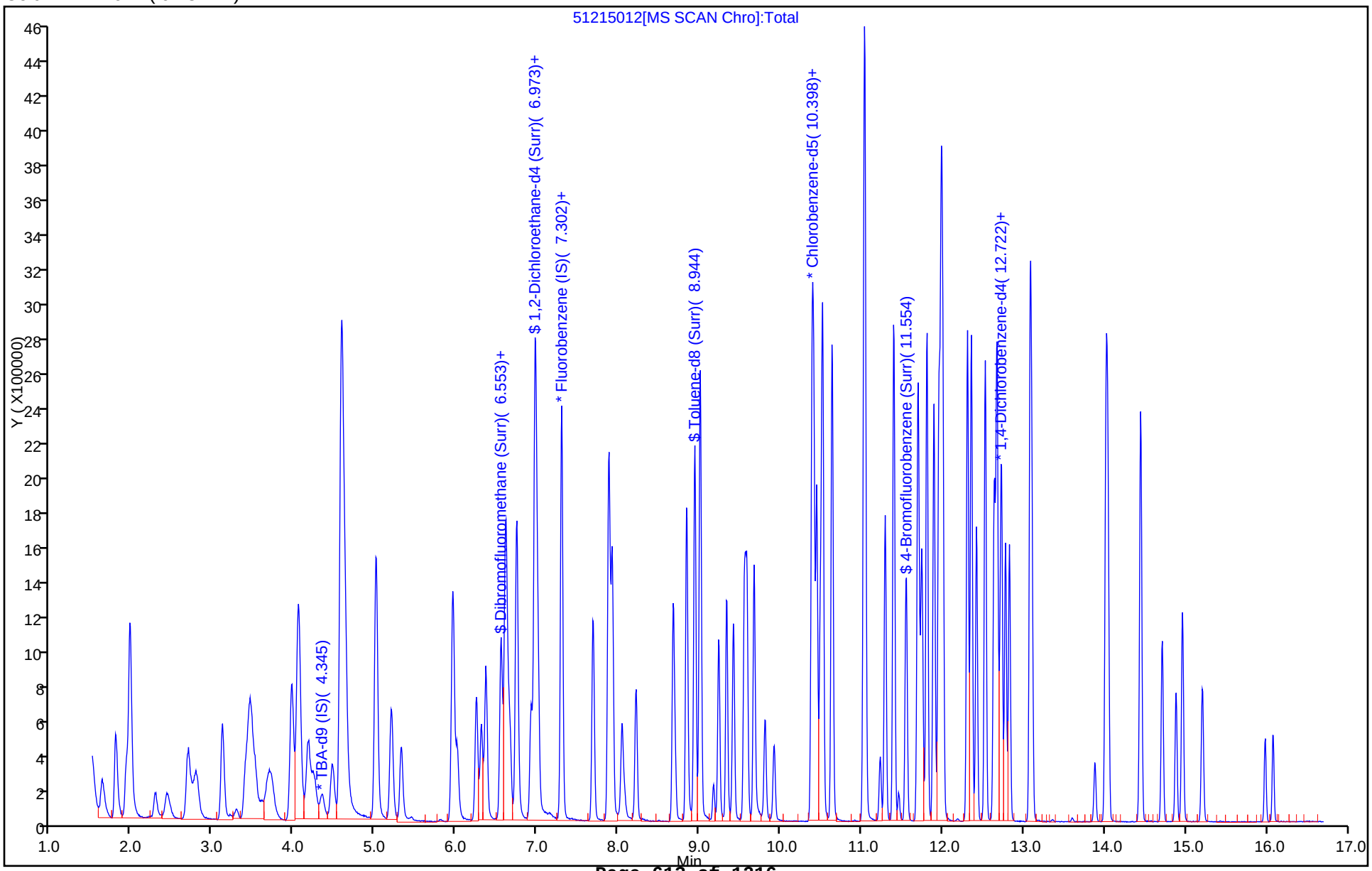
Report Date: 16-Dec-2014 08:51:16 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215012.D

Injection Date:	15-Dec-2014 16:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Dec-2014 16:57:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0004875-013
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:51:17 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 16-Dec-2014 08:47:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.352	4.336	0.016	84	198327	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.296	7.298	-0.002	97	419962	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.380	10.383	-0.003	92	108982	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.704	12.707	-0.003	96	145279	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.556	-0.002	85	365236	200.0	204.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.925	6.921	0.004	91	576810	200.0	196.5	
$ 7 Toluene-d8 (Surr)	98	8.945	8.947	-0.002	95	1574848	200.0	173.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.548	11.551	-0.003	85	647101	200.0	187.4	
11 Dichlorodifluoromethane	85	1.632	1.629	0.003	98	499452	200.0	198.3	
12 Chloromethane	50	1.797	1.799	-0.002	100	957633	200.0	192.8	
13 Vinyl chloride	62	1.930	1.927	0.003	98	666295	200.0	195.3	
14 Butadiene	39	1.979	1.975	0.004	96	919270	200.0	189.4	
15 Bromomethane	94	2.289	2.292	-0.003	90	189870	200.0	186.1	
16 Chloroethane	64	2.441	2.438	0.003	96	334503	200.0	198.1	
17 Dichlorofluoromethane	67	2.691	2.687	0.004	97	658021	200.0	195.9	
18 Trichlorofluoromethane	101	2.739	2.736	0.003	94	450195	200.0	211.6	
20 Ethyl ether	59	3.117	3.113	0.004	95	608282	200.0	201.1	
21 Acrolein	56	3.281	3.289	-0.008	98	119026	250.0	263.1	
22 1,1-Dichloroethene	96	3.427	3.435	-0.008	92	454023	200.0	198.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.482	3.466	0.016	96	469441	200.0	202.6	
24 Acetone	43	3.524	3.527	-0.003	98	544467	400.0	413.5	
25 Iodomethane	142	3.664	3.667	-0.003	99	628901	200.0	214.6	
26 Carbon disulfide	76	3.701	3.709	-0.008	99	1012677	200.0	228.4	
28 3-Chloro-1-propene	76	3.974	3.971	0.003	89	291169	200.0	225.5	
30 Methyl acetate	43	4.054	4.050	0.003	100	3862317	1000.0	1010.0	
31 Methylene Chloride	84	4.175	4.172	0.003	89	528356	200.0	206.0	
32 2-Methyl-2-propanol	59	4.473	4.464	0.009	90	542078	2000.0	2044.5	
33 Acrylonitrile	53	4.583	4.585	-0.002	97	3610987	2000.0	2048.9	
34 trans-1,2-Dichloroethene	96	4.589	4.597	-0.008	90	460491	200.0	198.8	
35 Methyl tert-butyl ether	73	4.625	4.622	0.003	90	1338818	200.0	223.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.009	5.017	-0.008	97	1145508	200.0	195.4	
37 1,1-Dichloroethane	63	5.197	5.200	-0.003	96	1119222	200.0	207.7	
38 Vinyl acetate	43	5.319	5.321	-0.002	97	1122187	200.0	217.2	
44 2,2-Dichloropropane	77	5.952	5.954	-0.002	70	296455	200.0	207.6	
45 cis-1,2-Dichloroethene	96	5.964	5.966	-0.002	89	522231	200.0	208.6	
46 2-Butanone (MEK)	43	6.012	6.015	-0.003	96	898036	400.0	433.5	
49 Chlorobromomethane	128	6.250	6.246	0.004	82	220532	200.0	211.2	
51 Tetrahydrofuran	42	6.310	6.313	-0.003	94	656256	400.0	416.5	
52 Chloroform	83	6.365	6.362	0.003	95	825564	200.0	202.7	
53 1,1,1-Trichloroethane	97	6.554	6.550	0.004	93	552222	200.0	208.9	
54 Cyclohexane	56	6.609	6.611	-0.002	91	1491081	200.0	200.7	
56 Carbon tetrachloride	117	6.736	6.739	-0.003	94	496996	200.0	216.5	
55 1,1-Dichloropropene	75	6.748	6.745	0.003	87	678270	200.0	203.4	
57 Isobutyl alcohol	41	6.967	6.964	0.003	94	703715	5000.0	5833.0	
58 Benzene	78	6.980	6.982	-0.002	94	2039448	200.0	196.4	
59 1,2-Dichloroethane	62	7.010	7.013	-0.003	95	833342	200.0	206.7	
62 n-Heptane	43	7.302	7.298	0.004	97	1198073	200.0	201.5	
64 Trichloroethene	130	7.691	7.688	0.003	93	451795	200.0	203.2	
66 Methylcyclohexane	83	7.880	7.882	-0.002	94	884141	200.0	207.7	
67 1,2-Dichloropropane	63	7.923	7.925	-0.002	95	670378	200.0	209.8	
68 Dibromomethane	93	8.044	8.041	0.003	98	278367	200.0	211.3	
70 1,4-Dioxane	88	8.081	8.077	0.004	86	107491	4000.0	4495.8	
71 Dichlorobromomethane	83	8.221	8.217	0.004	96	599497	200.0	220.4	
74 cis-1,3-Dichloropropene	75	8.677	8.679	-0.002	85	725599	200.0	233.8	
75 4-Methyl-2-pentanone (MIBK	43	8.841	8.844	-0.003	99	1885405	400.0	400.5	
76 Toluene	91	9.012	9.008	0.004	96	2038543	200.0	176.2	
77 trans-1,3-Dichloropropene	75	9.237	9.239	-0.002	92	587120	200.0	219.2	
78 Ethyl methacrylate	69	9.334	9.336	-0.002	91	699914	200.0	219.4	
79 1,1,2-Trichloroethane	97	9.419	9.422	-0.003	95	431008	200.0	189.8	
80 Tetrachloroethene	164	9.559	9.555	0.004	95	381182	200.0	178.6	
81 1,3-Dichloropropane	76	9.583	9.586	-0.003	93	823013	200.0	188.2	
82 2-Hexanone	43	9.675	9.677	-0.002	98	1575531	400.0	418.1	
84 Chlorodibromomethane	129	9.808	9.811	-0.003	88	361304	200.0	216.5	
85 Ethylene Dibromide	107	9.918	9.920	-0.002	99	425795	200.0	202.2	
86 3-Chlorobenzotrifluoride	180	10.392	10.389	0.003	93	707075	200.0	185.9	
87 Chlorobenzene	112	10.411	10.413	-0.002	88	1305587	200.0	185.5	
88 4-Chlorobenzotrifluoride	180	10.447	10.450	-0.003	95	658198	200.0	185.2	
89 1,1,1,2-Tetrachloroethane	131	10.490	10.492	-0.002	93	421291	200.0	196.2	
90 Ethylbenzene	106	10.520	10.523	-0.003	97	753212	200.0	189.0	
91 m-Xylene & p-Xylene	106	10.636	10.638	-0.002	97	918551	200.0	189.3	
92 o-Xylene	106	11.031	11.034	-0.003	94	886345	200.0	187.9	
93 Styrene	104	11.043	11.046	-0.003	86	1503510	200.0	189.4	
94 Bromoform	173	11.232	11.234	-0.002	96	239804	200.0	227.3	
96 2-Chlorobenzotrifluoride	180	11.293	11.295	-0.002	95	685270	200.0	188.3	
97 Isopropylbenzene	105	11.396	11.399	-0.003	97	2160550	200.0	183.6	
99 1,1,2,2-Tetrachloroethane	83	11.694	11.691	0.003	96	619241	200.0	194.1	
100 Bromobenzene	156	11.700	11.703	-0.003	94	526184	200.0	201.3	
101 1,2,3-Trichloropropane	110	11.743	11.739	0.004	89	187299	200.0	197.1	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.752	-0.003	75	281348	200.0	215.6	
103 N-Propylbenzene	120	11.804	11.806	-0.002	97	621025	200.0	201.3	
104 2-Chlorotoluene	126	11.895	11.898	-0.003	94	523196	200.0	201.0	
105 3-Chlorotoluene	126	11.956	11.952	0.004	96	560555	200.0	202.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.980	11.983	-0.003	95	1800040	200.0	194.7	
107 4-Chlorotoluene	126	11.999	12.001	-0.003	98	558467	200.0	193.1	
108 tert-Butylbenzene	119	12.309	12.305	0.004	94	1460867	200.0	192.6	
110 1,2,4-Trimethylbenzene	105	12.357	12.354	0.003	98	1843606	200.0	194.1	
111 1,2-dichloro-4-(trifluorom	214	12.418	12.421	-0.003	97	516955	200.0	197.5	
112 sec-Butylbenzene	105	12.528	12.524	0.004	97	2066631	200.0	189.1	
113 1,3-Dichlorobenzene	146	12.637	12.640	-0.003	95	976811	200.0	198.0	
114 4-Isopropyltoluene	119	12.668	12.670	-0.002	96	1745049	200.0	198.3	
115 1,4-Dichlorobenzene	146	12.729	12.725	0.004	90	997200	200.0	195.8	
116 2,4-Dichloro-1-(triflourom	214	12.777	12.780	-0.003	98	484207	200.0	197.2	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.828	-0.002	98	535139	200.0	199.8	
120 n-Butylbenzene	91	13.081	13.078	0.003	96	1579894	200.0	196.5	
121 1,2-Dichlorobenzene	146	13.100	13.102	-0.002	94	905753	200.0	197.9	
122 1,2-Dibromo-3-Chloropropan	75	13.878	13.881	-0.003	87	99113	200.0	238.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.024	14.027	-0.003	97	1812056	600.0	628.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.444	14.447	-0.003	97	1166096	400.0	423.9	
126 1,2,4-Trichlorobenzene	180	14.712	14.708	0.004	94	412323	200.0	217.1	
127 Hexachlorobutadiene	225	14.882	14.885	-0.003	95	180674	200.0	200.6	
128 Naphthalene	128	14.961	14.964	-0.003	97	1151885	200.0	227.2	
129 1,2,3-Trichlorobenzene	180	15.205	15.207	-0.003	94	333142	200.0	223.7	
131 2,4,5-Trichlorotoluene	159	15.983	15.980	0.003	98	150868	200.0	238.6	
130 2,3,6-Trichlorotoluene	159	16.074	16.077	-0.003	93	136944	200.0	236.3	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	407.4	
S 133 Xylenes, Total	106				0		400.0	377.2	
S 135 1,3-Dichloropropene, Total	1				0		400.0	453.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA pri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260SURR_00028	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00092	Amount Added:	8.00	Units: uL	
voaWEEpri Res_00001	Amount Added:	8.00	Units: uL	
voaWKet2ndRes_00005	Amount Added:	8.00	Units: uL	
VOAACROPRI_00004	Amount Added:	10.00	Units: uL	
VOA8260INT_00026	Amount Added:	2.00	Units: uL	Run Reagent

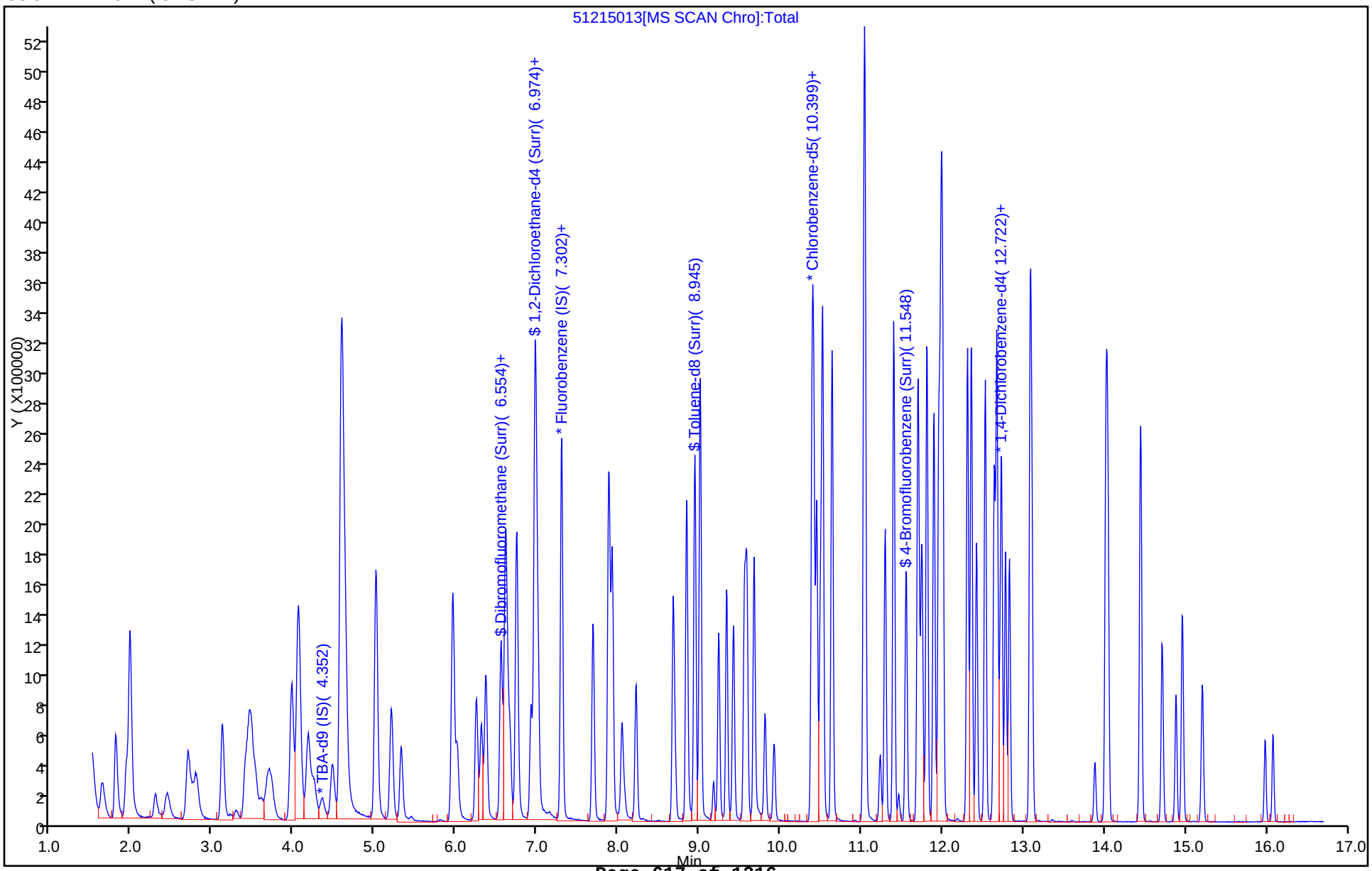
Report Date: 16-Dec-2014 08:51:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Injection Date:	15-Dec-2014 16:57:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130711/2 Calibration Date: 01/14/2015 09:55

Instrument ID: CHHP5 Calib Start Date: 11/18/2014 14:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/18/2014 16:46

Lab File ID: 50114002.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	0.1588	0.1951	0.0100	24.6	20.0	22.8*	20.0
1,3,5-Trichlorobenzene	Ave	0.9229	0.7930	0.0100	8.59	10.0	-14.1	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 14-Jan-2015 09:55:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005267-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 14-Jan-2015 15:01:08 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 14-Jan-2015 11:38:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.299	4.299	0.000	92	186078	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	97	536219	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	93	126828	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.688	0.000	95	163189	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.526	0.000	76	113181	50.0	49.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.897	0.000	92	169447	50.0	45.2	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	96	491112	50.0	46.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	85	188499	50.0	46.9	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	98	142797	50.0	44.4	
12 Chloromethane	50	1.781	1.781	0.000	98	263355	50.0	41.5	
13 Vinyl chloride	62	1.908	1.908	0.000	99	200806	50.0	46.1	
14 Butadiene	39	1.945	1.945	0.000	98	288166	50.0	46.5	
15 Bromomethane	94	2.255	2.255	0.000	91	57948	50.0	44.5	
16 Chloroethane	64	2.401	2.401	0.000	98	98480	50.0	45.7	
17 Dichlorofluoromethane	67	2.669	2.669	0.000	97	203033	50.0	47.3	
18 Trichlorofluoromethane	101	2.724	2.724	0.000	96	146493	50.0	53.9	
20 Ethyl ether	59	3.089	3.089	0.000	95	174757	50.0	45.2	
21 Acrolein	56	3.259	3.259	0.000	98	72146	150.0	124.9	
22 1,1-Dichloroethene	96	3.387	3.387	0.000	91	146917	50.0	50.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.429	0.000	94	153509	50.0	51.9	
24 Acetone	43	3.490	3.490	0.000	97	164202	100.0	97.7	
25 Iodomethane	142	3.612	3.612	0.000	100	189295	50.0	50.6	
26 Carbon disulfide	76	3.660	3.660	0.000	99	380092	50.0	67.1	
28 3-Chloro-1-propene	76	3.940	3.940	0.000	88	97987	50.0	59.4	
30 Methyl acetate	43	4.013	4.013	0.000	100	972387	250.0	199.2	
31 Methylene Chloride	84	4.141	4.141	0.000	91	171700	50.0	48.4	
32 2-Methyl-2-propanol	59	4.427	4.427	0.000	92	138471	500.0	556.6	
33 Acrylonitrile	53	4.549	4.549	0.000	98	913041	500.0	405.8	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	89	147553	50.0	49.9	
35 Methyl tert-butyl ether	73	4.591	4.591	0.000	93	367885	50.0	48.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	97	325757	50.0	43.5	
37 1,1-Dichloroethane	63	5.169	5.169	0.000	96	336012	50.0	48.8	
38 Vinyl acetate	43	5.291	5.291	0.000	97	384800	50.0	58.3	
44 2,2-Dichloropropane	77	5.923	5.923	0.000	75	128738	50.0	70.6	
45 cis-1,2-Dichloroethene	96	5.936	5.936	0.000	89	157095	50.0	49.1	
46 2-Butanone (MEK)	43	5.978	5.978	0.000	97	222527	100.0	84.1	
49 Chlorobromomethane	128	6.228	6.228	0.000	83	65824	50.0	49.4	
51 Tetrahydrofuran	42	6.282	6.282	0.000	94	151707	100.0	75.4	
52 Chloroform	83	6.343	6.343	0.000	97	261955	50.0	50.4	
53 1,1,1-Trichloroethane	97	6.532	6.532	0.000	95	187867	50.0	55.7	
54 Cyclohexane	56	6.587	6.587	0.000	94	452737	50.0	47.7	
56 Carbon tetrachloride	117	6.720	6.720	0.000	73	173877	50.0	59.3	
55 1,1-Dichloropropene	75	6.720	6.720	0.000	84	215647	50.0	50.7	
57 Isobutyl alcohol	41	6.933	6.933	0.000	93	159198	1250.0	1033.5	
58 Benzene	78	6.952	6.952	0.000	96	642670	50.0	48.5	
59 1,2-Dichloroethane	62	6.982	6.982	0.000	95	255443	50.0	49.6	
62 n-Heptane	43	7.280	7.280	0.000	97	358218	50.0	47.2	
64 Trichloroethene	130	7.669	7.669	0.000	94	139244	50.0	49.0	
66 Methylcyclohexane	83	7.858	7.858	0.000	95	268891	50.0	49.5	
67 1,2-Dichloropropane	63	7.901	7.901	0.000	95	189426	50.0	46.4	
68 Dibromomethane	93	8.016	8.016	0.000	95	79191	50.0	47.1	
70 1,4-Dioxane	88	8.059	8.059	0.000	87	22648	1000.0	741.9	
71 Dichlorobromomethane	83	8.199	8.199	0.000	96	191965	50.0	55.3	
73 2-Chloroethyl vinyl ether	63	8.515	8.515	0.000	84	209206	100.0	122.8	
74 cis-1,3-Dichloropropene	75	8.655	8.655	0.000	86	222310	50.0	56.1	
75 4-Methyl-2-pentanone (MIBK	43	8.819	8.819	0.000	98	496567	100.0	90.7	
76 Toluene	91	8.990	8.990	0.000	97	642530	50.0	47.7	
77 trans-1,3-Dichloropropene	75	9.221	9.221	0.000	94	186905	50.0	60.0	
78 Ethyl methacrylate	69	9.318	9.318	0.000	89	175887	50.0	47.4	
79 1,1,2-Trichloroethane	97	9.403	9.403	0.000	93	126416	50.0	47.8	
80 Tetrachloroethene	164	9.537	9.537	0.000	92	116061	50.0	46.7	
81 1,3-Dichloropropane	76	9.567	9.567	0.000	94	242394	50.0	47.6	
82 2-Hexanone	43	9.653	9.653	0.000	98	346267	100.0	79.0	
84 Chlorodibromomethane	129	9.793	9.793	0.000	90	112182	50.0	57.8	
85 Ethylene Dibromide	107	9.896	9.896	0.000	98	121085	50.0	49.4	
86 3-Chlorobenzotrifluoride	180	10.377	10.377	0.000	92	224428	50.0	50.7	
87 Chlorobenzene	112	10.389	10.389	0.000	91	405109	50.0	49.5	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	96	217479	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.474	0.000	92	131733	50.0	52.7	
90 Ethylbenzene	106	10.504	10.504	0.000	98	233430	50.0	50.3	
91 m-Xylene & p-Xylene	106	10.620	10.620	0.000	97	294665	50.0	52.2	
92 o-Xylene	106	11.015	11.015	0.000	98	280010	50.0	51.0	
93 Styrene	104	11.027	11.027	0.000	93	467266	50.0	50.6	
94 Bromoform	173	11.210	11.210	0.000	95	75119	50.0	61.2	
96 2-Chlorobenzotrifluoride	180	11.277	11.277	0.000	96	230660	50.0	54.5	
97 Isopropylbenzene	105	11.380	11.380	0.000	97	717248	50.0	52.4	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.672	0.000	95	168156	50.0	45.3	
100 Bromobenzene	156	11.684	11.684	0.000	95	144537	50.0	49.2	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	88	53051	50.0	49.7	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	76	78941	50.0	53.9	
103 N-Propylbenzene	120	11.788	11.788	0.000	99	194075	50.0	56.0	
104 2-Chlorotoluene	126	11.873	11.873	0.000	94	160525	50.0	54.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.934	11.934	0.000	96	176258	50.0	56.5	
106 1,3,5-Trimethylbenzene	105	11.964	11.964	0.000	94	581111	50.0	56.0	
107 4-Chlorotoluene	126	11.983	11.983	0.000	98	174674	50.0	53.8	
108 tert-Butylbenzene	119	12.293	12.293	0.000	96	463770	50.0	54.4	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	98	589709	50.0	55.3	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	98	158034	50.0	53.8	
112 sec-Butylbenzene	105	12.506	12.506	0.000	96	676098	50.0	55.1	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	96	294051	50.0	53.1	
114 4-Isopropyltoluene	119	12.652	12.652	0.000	97	553182	50.0	56.0	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	92	284817	50.0	49.8	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.761	0.000	97	143087	50.0	51.9	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.810	0.000	98	156569	50.0	52.0	
120 n-Butylbenzene	91	13.065	13.065	0.000	98	480883	50.0	53.2	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	94	255369	50.0	49.7	
122 1,2-Dibromo-3-Chloropropan	75	13.856	13.856	0.000	70	24891	50.0	53.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.014	14.014	0.000	99	559948	150.0	172.8	
124 1,3,5-Trichlorobenzene	180	14.075	14.075	0.000	94	129409	50.0	43.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	98	343681	100.0	111.2	
126 1,2,4-Trichlorobenzene	180	14.696	14.696	0.000	93	105213	50.0	49.3	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	96	51987	50.0	51.4	
128 Naphthalene	128	14.945	14.945	0.000	97	263061	50.0	46.2	
129 1,2,3-Trichlorobenzene	180	15.189	15.189	0.000	95	82364	50.0	49.2	
131 2,4,5-Trichlorotoluene	159	15.967	15.967	0.000	96	51027	50.0	71.8	
130 2,3,6-Trichlorotoluene	159	16.065	16.065	0.000	92	40844	50.0	62.7	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 133 Xylenes, Total	106				0		100.0	103.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	116.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketPri Re_00002	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00095	Amount Added:	2.00	Units: uL	
voaWEE2nd Res_00002	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00004	Amount Added:	2.00	Units: uL	
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL	
voaWAcropri R_00006	Amount Added:	6.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

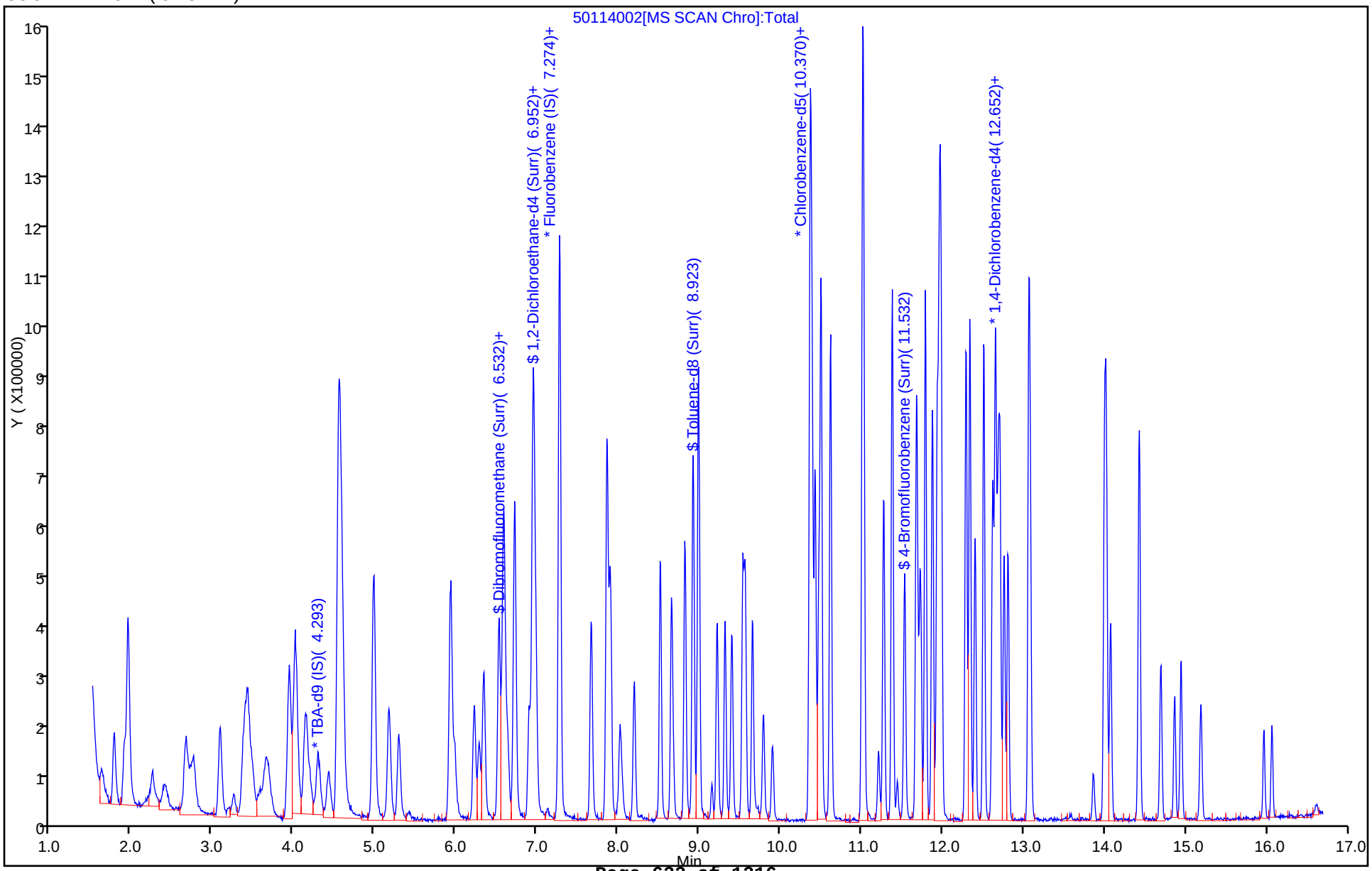
Report Date: 14-Jan-2015 15:01:10 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114002.D

Injection Date:	14-Jan-2015 09:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130711/2 Calibration Date: 01/14/2015 09:55

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50114002.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	0.2998	0.2663	0.1000	8.88	10.0	-11.2	20.0
Chloromethane	Ave	0.5915	0.4911	0.1000	8.30	10.0	-17.0	20.0
Vinyl chloride	Ave	0.4061	0.3745	0.1000	9.22	10.0	-7.8	20.0
Bromomethane	Ave	0.1215	0.1081	0.0500	8.90	10.0	-11.0	20.0
Chloroethane	Ave	0.2011	0.1837	0.0500	9.13	10.0	-8.7	20.0
Dichlorofluoromethane	Ave	0.3999	0.3786	0.0100	9.47	10.0	-5.3	20.0
Trichlorofluoromethane	Ave	0.2533	0.2732	0.1000	10.8	10.0	7.9	20.0
Ethyl ether	Ave	0.3601	0.3259	0.0100	9.05	10.0	-9.5	20.0
Acrolein	Ave	0.0539	0.0449	0.0100	25.0	30.0	-16.7	20.0
1,1-Dichloroethene	Ave	0.2724	0.2740	0.1000	10.1	10.0	0.6	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2758	0.2863	0.1000	10.4	10.0	3.8	20.0
Acetone	Ave	0.1568	0.1531	0.0500	19.5	20.0	-2.3	20.0
Iodomethane	Ave	0.3488	0.3530	0.0100	10.1	10.0	1.2	20.0
Carbon disulfide	Ave	0.5280	0.7088	0.1000	13.4	10.0	34.3*	20.0
Allyl chloride	Ave	0.1537	0.1827	0.0100	11.9	10.0	18.9	20.0
Methyl acetate	Ave	0.4553	0.3627	0.1000	39.8	50.0	-20.3*	20.0
Methylene Chloride	Lin2		0.3202	0.1000	9.69	10.0	-3.1	20.0
tert-Butyl alcohol	Ave	1.337	1.488	0.0100	111	100	11.3	20.0
Acrylonitrile	Ave	0.2098	0.1703	0.0100	81.2	100	-18.8	20.0
trans-1,2-Dichloroethene	Ave	0.2757	0.2752	0.1000	9.98	10.0	-0.2	20.0
Methyl tert-butyl ether	Ave	0.7145	0.6861	0.1000	9.60	10.0	-4.0	20.0
Hexane	Ave	0.6980	0.6075	0.0100	8.70	10.0	-13.0	20.0
1,1-Dichloroethane	Ave	0.6414	0.6266	0.2000	9.77	10.0	-2.3	20.0
Vinyl acetate	Ave	0.6151	0.7176	0.0100	11.7	10.0	16.7	20.0
2,2-Dichloropropane	Ave	0.1700	0.2401	0.0100	14.1	10.0	41.2*	20.0
cis-1,2-Dichloroethene	Ave	0.2981	0.2930	0.1000	9.83	10.0	-1.7	20.0
2-Butanone (MEK)	Ave	0.2466	0.2075	0.0500	16.8	20.0	-15.9	20.0
Bromochloromethane	Ave	0.1243	0.1228	0.0100	9.87	10.0	-1.3	20.0
Tetrahydrofuran	Ave	0.1876	0.1415	0.0100	15.1	20.0	-24.6*	20.0
Chloroform	Ave	0.4850	0.4885	0.2000	10.1	10.0	0.7	20.0
1,1,1-Trichloroethane	Ave	0.3147	0.3504	0.1000	11.1	10.0	11.3	20.0
Cyclohexane	Ave	0.8843	0.8443	0.1000	9.55	10.0	-4.5	20.0
1,1-Dichloropropene	Ave	0.3970	0.4022	0.0100	10.1	10.0	1.3	20.0
Carbon tetrachloride	Ave	0.2733	0.3243	0.1000	11.9	10.0	18.7	20.0
Isobutyl alcohol	Ave	0.0144	0.0119	0.0100	207	250	-17.3	20.0
Benzene	Ave	1.236	1.199	0.5000	9.69	10.0	-3.1	20.0
1,2-Dichloroethane	Ave	0.4801	0.4764	0.1000	9.92	10.0	-0.8	20.0
n-Heptane	Ave	0.7079	0.6680	0.0100	9.44	10.0	-5.6	20.0
Trichloroethene	Ave	0.2647	0.2597	0.2000	9.81	10.0	-1.9	20.0
Methylcyclohexane	Ave	0.5067	0.5015	0.1000	9.90	10.0	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130711/2 Calibration Date: 01/14/2015 09:55

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50114002.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	0.3804	0.3533	0.1000	9.29	10.0	-7.1	20.0
Dibromomethane	Ave	0.1569	0.1477	0.0100	9.41	10.0	-5.9	20.0
1,4-Dioxane	Ave	0.0028	0.0021*	0.0100	148	200	-25.8*	20.0
Bromodichloromethane	Ave	0.3238	0.3580	0.2000	11.1	10.0	10.6	20.0
cis-1,3-Dichloropropene	Ave	0.3695	0.4146	0.2000	11.2	10.0	12.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	2.160	1.958	0.1000	18.1	20.0	-9.3	20.0
Toluene	Ave	5.309	5.066	0.4000	9.54	10.0	-4.6	20.0
trans-1,3-Dichloropropene	Ave	1.229	1.474	0.1000	12.0	10.0	19.9	20.0
Ethyl methacrylate	Ave	1.464	1.387	0.0100	9.48	10.0	-5.2	20.0
1,1,2-Trichloroethane	Ave	1.042	0.997	0.1000	9.57	10.0	-4.3	20.0
Tetrachloroethene	Ave	0.9790	0.9151	0.2000	9.35	10.0	-6.5	20.0
1,3-Dichloropropane	Ave	2.006	1.911	0.0100	9.53	10.0	-4.7	20.0
2-Hexanone	Ave	1.729	1.365	0.1000	15.8	20.0	-21.0*	20.0
Dibromochloromethane	Ave	0.7658	0.8845	0.1000	11.6	10.0	15.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9660	0.9547	0.1000	9.88	10.0	-1.2	20.0
3-Chlorobenzotrifluoride	Ave	1.745	1.770	0.0100	10.1	10.0	1.4	20.0
Chlorobenzene	Ave	3.229	3.194	0.5000	9.89	10.0	-1.1	20.0
4-Chlorobenzotrifluoride	Ave	1.631	1.715	0.0100	10.5	10.0	5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9850	1.039	0.0100	10.5	10.0	5.5	20.0
Ethylbenzene	Ave	1.828	1.841	0.1000	10.1	10.0	0.7	20.0
m-Xylene & p-Xylene	Ave	2.226	2.323	0.1000	10.4	10.0	4.4	20.0
o-Xylene	Ave	2.164	2.208	0.3000	10.2	10.0	2.0	20.0
Styrene	Ave	3.642	3.684	0.3000	10.1	10.0	1.2	20.0
Bromoform	Ave	0.4840	0.5923	0.1000	12.2	10.0	22.4*	20.0
2-Chlorobenzotrifluoride	Ave	1.670	1.819	0.0100	10.9	10.0	8.9	20.0
Isopropylbenzene	Ave	5.400	5.655	0.1000	10.5	10.0	4.7	20.0
1,1,2,2-Tetrachloroethane	Ave	1.464	1.326	0.3000	9.06	10.0	-9.4	20.0
Bromobenzene	Ave	0.8995	0.8857	0.0100	9.85	10.0	-1.5	20.0
1,2,3-Trichloropropane	Ave	0.3271	0.3251	0.0100	9.94	10.0	-0.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4491	0.4837	0.0100	10.8	10.0	7.7	20.0
N-Propylbenzene	Ave	1.062	1.189	0.0100	11.2	10.0	12.0	20.0
2-Chlorotoluene	Ave	0.8959	0.9837	0.0100	11.0	10.0	9.8	20.0
3-Chlorotoluene	Ave	0.9551	1.080	0.0100	11.3	10.0	13.1	20.0
1,3,5-Trimethylbenzene	Ave	3.181	3.561	0.0100	11.2	10.0	11.9	20.0
4-Chlorotoluene	Ave	0.996	1.070	0.0100	10.8	10.0	7.5	20.0
tert-Butylbenzene	Ave	2.610	2.842	0.0100	10.9	10.0	8.9	20.0
1,2,4-Trimethylbenzene	Ave	3.269	3.614	0.0100	11.1	10.0	10.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9007	0.9684	0.0100	10.8	10.0	7.5	20.0
sec-Butylbenzene	Ave	3.761	4.143	0.0100	11.0	10.0	10.2	20.0
1,3-Dichlorobenzene	Ave	1.698	1.802	0.6000	10.6	10.0	6.1	20.0
4-Isopropyltoluene	Ave	3.029	3.390	0.0100	11.2	10.0	11.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130711/2 Calibration Date: 01/14/2015 09:55

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50114002.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	1.753	1.745	0.5000	9.96	10.0	-0.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8452	0.8768	0.0100	10.4	10.0	3.7	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9219	0.9594	0.0100	10.4	10.0	4.1	20.0
n-Butylbenzene	Ave	2.768	2.947	0.0100	10.6	10.0	6.5	20.0
1,2-Dichlorobenzene	Ave	1.576	1.565	0.4000	9.93	10.0	-0.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1429	0.1525	0.0500	10.7	10.0	6.8	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9929	1.144	0.0100	34.6	30.0	15.2	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.9468	1.053	0.0100	22.2	20.0	11.2	20.0
1,2,4-Trichlorobenzene	Ave	0.6536	0.6447	0.2000	9.86	10.0	-1.4	20.0
Hexachlorobutadiene	Ave	0.3100	0.3186	0.0100	10.3	10.0	2.8	20.0
Naphthalene	Ave	1.745	1.612	0.0100	9.24	10.0	-7.6	20.0
1,2,3-Trichlorobenzene	Ave	0.5125	0.5047	0.0100	9.85	10.0	-1.5	20.0
2,4,5-Trichlorotoluene	Ave	0.2177	0.3127	0.0100	14.4	10.0	43.7*	20.0
2,3,6-Trichlorotoluene	Ave	0.1994	0.2503	0.0100	12.5	10.0	25.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2128	0.2111		9.92	10.0	-0.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3494	0.3160		9.04	10.0	-9.6	20.0
Toluene-d8 (Surr)	Ave	4.159	3.872		9.31	10.0	-6.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.585	1.486		9.38	10.0	-6.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 14-Jan-2015 09:55:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005267-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 14-Jan-2015 15:01:08 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 14-Jan-2015 11:38:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.299	4.299	0.000	92	186078	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.274	0.000	97	536219	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	93	126828	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.688	0.000	95	163189	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.526	0.000	76	113181	50.0	49.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.897	0.000	92	169447	50.0	45.2	
$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	96	491112	50.0	46.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	85	188499	50.0	46.9	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	98	142797	50.0	44.4	
12 Chloromethane	50	1.781	1.781	0.000	98	263355	50.0	41.5	
13 Vinyl chloride	62	1.908	1.908	0.000	99	200806	50.0	46.1	
14 Butadiene	39	1.945	1.945	0.000	98	288166	50.0	46.5	
15 Bromomethane	94	2.255	2.255	0.000	91	57948	50.0	44.5	
16 Chloroethane	64	2.401	2.401	0.000	98	98480	50.0	45.7	
17 Dichlorofluoromethane	67	2.669	2.669	0.000	97	203033	50.0	47.3	
18 Trichlorofluoromethane	101	2.724	2.724	0.000	96	146493	50.0	53.9	
20 Ethyl ether	59	3.089	3.089	0.000	95	174757	50.0	45.2	
21 Acrolein	56	3.259	3.259	0.000	98	72146	150.0	124.9	
22 1,1-Dichloroethene	96	3.387	3.387	0.000	91	146917	50.0	50.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.429	0.000	94	153509	50.0	51.9	
24 Acetone	43	3.490	3.490	0.000	97	164202	100.0	97.7	
25 Iodomethane	142	3.612	3.612	0.000	100	189295	50.0	50.6	
26 Carbon disulfide	76	3.660	3.660	0.000	99	380092	50.0	67.1	
28 3-Chloro-1-propene	76	3.940	3.940	0.000	88	97987	50.0	59.4	
30 Methyl acetate	43	4.013	4.013	0.000	100	972387	250.0	199.2	
31 Methylene Chloride	84	4.141	4.141	0.000	91	171700	50.0	48.4	
32 2-Methyl-2-propanol	59	4.427	4.427	0.000	92	138471	500.0	556.6	
33 Acrylonitrile	53	4.549	4.549	0.000	98	913041	500.0	405.8	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	89	147553	50.0	49.9	
35 Methyl tert-butyl ether	73	4.591	4.591	0.000	93	367885	50.0	48.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	97	325757	50.0	43.5	
37 1,1-Dichloroethane	63	5.169	5.169	0.000	96	336012	50.0	48.8	
38 Vinyl acetate	43	5.291	5.291	0.000	97	384800	50.0	58.3	
44 2,2-Dichloropropane	77	5.923	5.923	0.000	75	128738	50.0	70.6	
45 cis-1,2-Dichloroethene	96	5.936	5.936	0.000	89	157095	50.0	49.1	
46 2-Butanone (MEK)	43	5.978	5.978	0.000	97	222527	100.0	84.1	
49 Chlorobromomethane	128	6.228	6.228	0.000	83	65824	50.0	49.4	
51 Tetrahydrofuran	42	6.282	6.282	0.000	94	151707	100.0	75.4	
52 Chloroform	83	6.343	6.343	0.000	97	261955	50.0	50.4	
53 1,1,1-Trichloroethane	97	6.532	6.532	0.000	95	187867	50.0	55.7	
54 Cyclohexane	56	6.587	6.587	0.000	94	452737	50.0	47.7	
56 Carbon tetrachloride	117	6.720	6.720	0.000	73	173877	50.0	59.3	
55 1,1-Dichloropropene	75	6.720	6.720	0.000	84	215647	50.0	50.7	
57 Isobutyl alcohol	41	6.933	6.933	0.000	93	159198	1250.0	1033.5	
58 Benzene	78	6.952	6.952	0.000	96	642670	50.0	48.5	
59 1,2-Dichloroethane	62	6.982	6.982	0.000	95	255443	50.0	49.6	
62 n-Heptane	43	7.280	7.280	0.000	97	358218	50.0	47.2	
64 Trichloroethene	130	7.669	7.669	0.000	94	139244	50.0	49.0	
66 Methylcyclohexane	83	7.858	7.858	0.000	95	268891	50.0	49.5	
67 1,2-Dichloropropane	63	7.901	7.901	0.000	95	189426	50.0	46.4	
68 Dibromomethane	93	8.016	8.016	0.000	95	79191	50.0	47.1	
70 1,4-Dioxane	88	8.059	8.059	0.000	87	22648	1000.0	741.9	
71 Dichlorobromomethane	83	8.199	8.199	0.000	96	191965	50.0	55.3	
73 2-Chloroethyl vinyl ether	63	8.515	8.515	0.000	84	209206	100.0	122.8	
74 cis-1,3-Dichloropropene	75	8.655	8.655	0.000	86	222310	50.0	56.1	
75 4-Methyl-2-pentanone (MIBK	43	8.819	8.819	0.000	98	496567	100.0	90.7	
76 Toluene	91	8.990	8.990	0.000	97	642530	50.0	47.7	
77 trans-1,3-Dichloropropene	75	9.221	9.221	0.000	94	186905	50.0	60.0	
78 Ethyl methacrylate	69	9.318	9.318	0.000	89	175887	50.0	47.4	
79 1,1,2-Trichloroethane	97	9.403	9.403	0.000	93	126416	50.0	47.8	
80 Tetrachloroethene	164	9.537	9.537	0.000	92	116061	50.0	46.7	
81 1,3-Dichloropropane	76	9.567	9.567	0.000	94	242394	50.0	47.6	
82 2-Hexanone	43	9.653	9.653	0.000	98	346267	100.0	79.0	
84 Chlorodibromomethane	129	9.793	9.793	0.000	90	112182	50.0	57.8	
85 Ethylene Dibromide	107	9.896	9.896	0.000	98	121085	50.0	49.4	
86 3-Chlorobenzotrifluoride	180	10.377	10.377	0.000	92	224428	50.0	50.7	
87 Chlorobenzene	112	10.389	10.389	0.000	91	405109	50.0	49.5	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	96	217479	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.474	0.000	92	131733	50.0	52.7	
90 Ethylbenzene	106	10.504	10.504	0.000	98	233430	50.0	50.3	
91 m-Xylene & p-Xylene	106	10.620	10.620	0.000	97	294665	50.0	52.2	
92 o-Xylene	106	11.015	11.015	0.000	98	280010	50.0	51.0	
93 Styrene	104	11.027	11.027	0.000	93	467266	50.0	50.6	
94 Bromoform	173	11.210	11.210	0.000	95	75119	50.0	61.2	
96 2-Chlorobenzotrifluoride	180	11.277	11.277	0.000	96	230660	50.0	54.5	
97 Isopropylbenzene	105	11.380	11.380	0.000	97	717248	50.0	52.4	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.672	0.000	95	168156	50.0	45.3	
100 Bromobenzene	156	11.684	11.684	0.000	95	144537	50.0	49.2	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	88	53051	50.0	49.7	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	76	78941	50.0	53.9	
103 N-Propylbenzene	120	11.788	11.788	0.000	99	194075	50.0	56.0	
104 2-Chlorotoluene	126	11.873	11.873	0.000	94	160525	50.0	54.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.934	11.934	0.000	96	176258	50.0	56.5	
106 1,3,5-Trimethylbenzene	105	11.964	11.964	0.000	94	581111	50.0	56.0	
107 4-Chlorotoluene	126	11.983	11.983	0.000	98	174674	50.0	53.8	
108 tert-Butylbenzene	119	12.293	12.293	0.000	96	463770	50.0	54.4	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	98	589709	50.0	55.3	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	98	158034	50.0	53.8	
112 sec-Butylbenzene	105	12.506	12.506	0.000	96	676098	50.0	55.1	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	96	294051	50.0	53.1	
114 4-Isopropyltoluene	119	12.652	12.652	0.000	97	553182	50.0	56.0	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	92	284817	50.0	49.8	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.761	0.000	97	143087	50.0	51.9	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.810	0.000	98	156569	50.0	52.0	
120 n-Butylbenzene	91	13.065	13.065	0.000	98	480883	50.0	53.2	
121 1,2-Dichlorobenzene	146	13.084	13.084	0.000	94	255369	50.0	49.7	
122 1,2-Dibromo-3-Chloropropan	75	13.856	13.856	0.000	70	24891	50.0	53.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.014	14.014	0.000	99	559948	150.0	172.8	
124 1,3,5-Trichlorobenzene	180	14.075	14.075	0.000	94	129409	50.0	43.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	98	343681	100.0	111.2	
126 1,2,4-Trichlorobenzene	180	14.696	14.696	0.000	93	105213	50.0	49.3	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	96	51987	50.0	51.4	
128 Naphthalene	128	14.945	14.945	0.000	97	263061	50.0	46.2	
129 1,2,3-Trichlorobenzene	180	15.189	15.189	0.000	95	82364	50.0	49.2	
131 2,4,5-Trichlorotoluene	159	15.967	15.967	0.000	96	51027	50.0	71.8	
130 2,3,6-Trichlorotoluene	159	16.065	16.065	0.000	92	40844	50.0	62.7	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 133 Xylenes, Total	106				0		100.0	103.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	116.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketPri Re_00002	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00095	Amount Added:	2.00	Units: uL	
voaWEE2nd Res_00002	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00004	Amount Added:	2.00	Units: uL	
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL	
voaWAcropri R_00006	Amount Added:	6.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

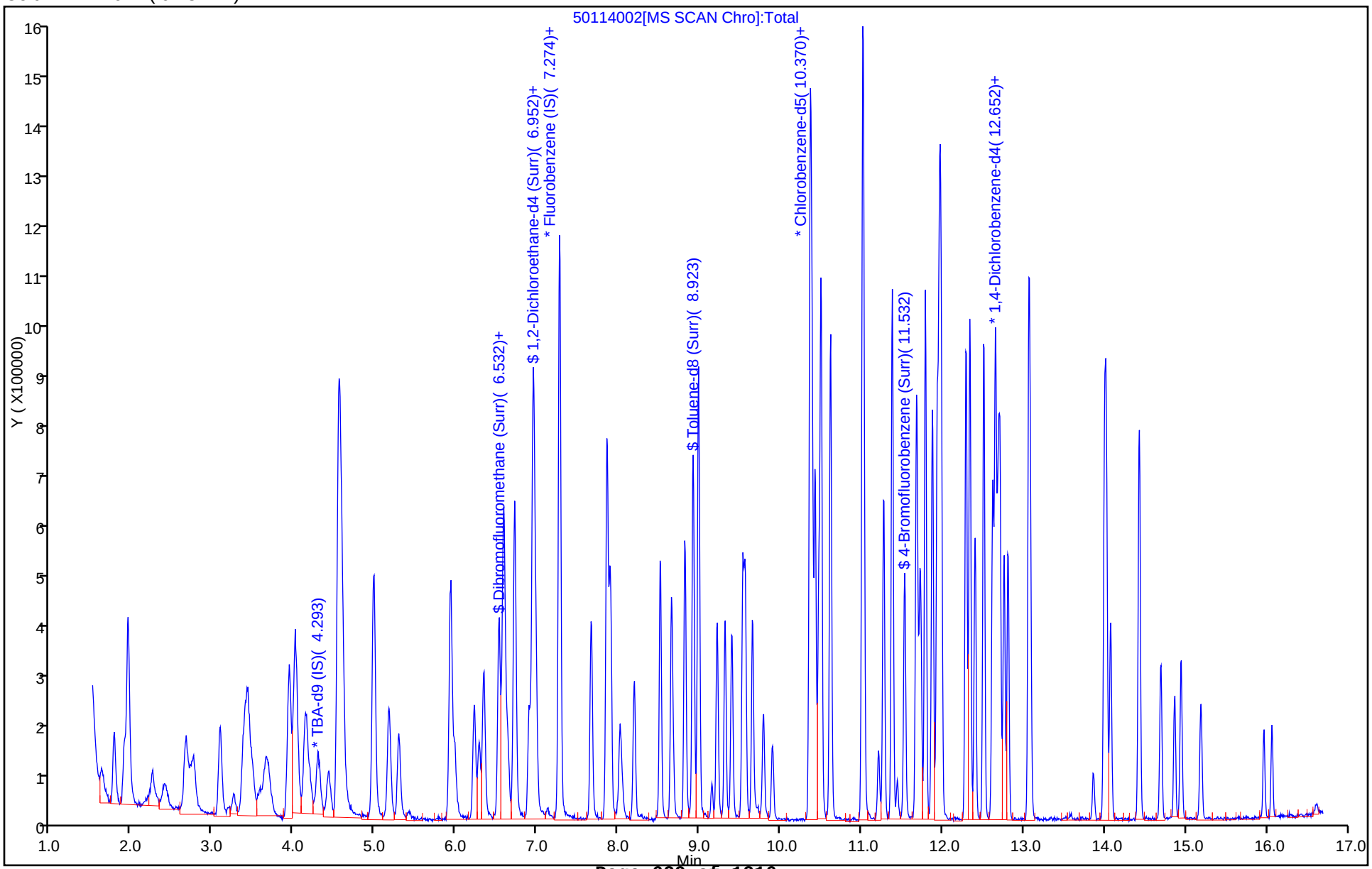
Report Date: 14-Jan-2015 15:01:10 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114002.D

Injection Date:	14-Jan-2015 09:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130838/2 Calibration Date: 01/15/2015 11:58

Instrument ID: CHHP5 Calib Start Date: 11/18/2014 14:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/18/2014 16:46

Lab File ID: 50115002.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	0.1588	0.1694	0.0100	21.3	20.0	6.6	20.0
1,3,5-Trichlorobenzene	Ave	0.9229	0.8341	0.0100	9.04	10.0	-9.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 15-Jan-2015 11:58:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005292-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 13:52:55 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 12:50:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.310	0.000	88	176276	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	99	516866	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.363	0.000	99	115723	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.681	0.000	96	161357	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	76	106689	50.0	48.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.896	6.896	0.000	93	164399	50.0	45.5	
$ 7 Toluene-d8 (Surr)	98	8.921	8.921	0.000	96	468635	50.0	48.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.531	0.000	84	172988	50.0	47.2	
11 Dichlorodifluoromethane	85	1.633	1.633	0.000	97	114391	50.0	36.9	
12 Chloromethane	50	1.779	1.779	0.000	100	240880	50.0	39.4	
13 Vinyl chloride	62	1.901	1.901	0.000	98	188989	50.0	45.0	
14 Butadiene	39	1.950	1.950	0.000	98	263773	50.0	44.1	
15 Bromomethane	94	2.254	2.254	0.000	93	50396	50.0	40.1	
16 Chloroethane	64	2.388	2.388	0.000	95	98568	50.0	47.4	
17 Dichlorofluoromethane	67	2.649	2.649	0.000	97	212386	50.0	51.4	
18 Trichlorofluoromethane	101	2.704	2.704	0.000	96	155773	50.0	59.5	
20 Ethyl ether	59	3.093	3.093	0.000	96	165771	50.0	44.5	
21 Acrolein	56	3.252	3.252	0.000	93	61347	150.0	110.2	
22 1,1-Dichloroethene	96	3.379	3.379	0.000	92	129030	50.0	45.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.428	0.000	95	154330	50.0	54.1	
24 Acetone	43	3.495	3.495	0.000	98	169218	100.0	104.4	
25 Iodomethane	142	3.574	3.574	0.000	95	183615	50.0	50.9	
26 Carbon disulfide	76	3.659	3.659	0.000	99	247853	50.0	45.4	
28 3-Chloro-1-propene	76	3.945	3.945	0.000	89	78856	50.0	49.6	
30 Methyl acetate	43	4.012	4.012	0.000	99	963237	250.0	204.7	
31 Methylene Chloride	84	4.140	4.140	0.000	91	170282	50.0	50.0	
32 2-Methyl-2-propanol	59	4.432	4.432	0.000	88	117080	500.0	496.8	
33 Acrylonitrile	53	4.547	4.547	0.000	99	914352	500.0	421.6	
34 trans-1,2-Dichloroethene	96	4.560	4.560	0.000	49	134803	50.0	47.3	
35 Methyl tert-butyl ether	73	4.596	4.596	0.000	89	333297	50.0	45.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.985	4.985	0.000	93	318624	50.0	44.2	
37 1,1-Dichloroethane	63	5.174	5.174	0.000	96	313328	50.0	47.3	
38 Vinyl acetate	43	5.290	5.290	0.000	97	301521	50.0	47.4	
44 2,2-Dichloropropane	77	5.928	5.928	0.000	70	118478	50.0	67.4	
45 cis-1,2-Dichloroethene	96	5.934	5.934	0.000	87	152316	50.0	49.4	
46 2-Butanone (MEK)	43	5.989	5.989	0.000	96	243442	100.0	95.5	
49 Chlorobromomethane	128	6.220	6.220	0.000	82	63488	50.0	49.4	
51 Tetrahydrofuran	42	6.287	6.287	0.000	93	148319	100.0	76.5	
52 Chloroform	83	6.342	6.342	0.000	96	252028	50.0	50.3	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	93	179365	50.0	55.1	
54 Cyclohexane	56	6.585	6.585	0.000	92	422091	50.0	46.2	
56 Carbon tetrachloride	117	6.719	6.719	0.000	68	147336	50.0	52.2	
55 1,1-Dichloropropene	75	6.725	6.725	0.000	84	198524	50.0	48.4	
57 Isobutyl alcohol	41	6.944	6.944	0.000	54	133302	1250.0	897.8	
58 Benzene	78	6.956	6.956	0.000	95	625160	50.0	48.9	
59 1,2-Dichloroethane	62	6.987	6.987	0.000	95	240935	50.0	48.5	
62 n-Heptane	43	7.279	7.279	0.000	95	333990	50.0	45.6	
64 Trichloroethene	130	7.668	7.668	0.000	94	137183	50.0	50.1	
66 Methylcyclohexane	83	7.863	7.863	0.000	93	257497	50.0	49.2	
67 1,2-Dichloropropane	63	7.905	7.905	0.000	93	173141	50.0	44.0	
68 Dibromomethane	93	8.021	8.021	0.000	97	73772	50.0	45.5	
70 1,4-Dioxane	88	8.064	8.064	0.000	78	24790	1000.0	842.5	
71 Dichlorobromomethane	83	8.197	8.197	0.000	94	146481	50.0	43.8	
73 2-Chloroethyl vinyl ether	63	8.520	8.520	0.000	85	175091	100.0	106.6	
74 cis-1,3-Dichloropropene	75	8.654	8.654	0.000	85	178982	50.0	46.9	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.824	0.000	98	448888	100.0	89.8	
76 Toluene	91	8.988	8.988	0.000	97	598220	50.0	48.7	
77 trans-1,3-Dichloropropene	75	9.219	9.219	0.000	95	138440	50.0	48.7	
78 Ethyl methacrylate	69	9.317	9.317	0.000	89	144820	50.0	42.8	
79 1,1,2-Trichloroethane	97	9.402	9.402	0.000	95	108092	50.0	44.8	
80 Tetrachloroethene	164	9.536	9.536	0.000	95	112790	50.0	49.8	
81 1,3-Dichloropropane	76	9.566	9.566	0.000	93	213299	50.0	45.9	
82 2-Hexanone	43	9.657	9.657	0.000	97	339699	100.0	84.9	
84 Chlorodibromomethane	129	9.791	9.791	0.000	88	82014	50.0	46.3	
85 Ethylene Dibromide	107	9.901	9.901	0.000	99	106291	50.0	47.5	
86 3-Chlorobenzotrifluoride	180	10.375	10.375	0.000	91	210809	50.0	52.2	
87 Chlorobenzene	112	10.394	10.394	0.000	91	389957	50.0	52.2	
88 4-Chlorobenzotrifluoride	180	10.430	10.430	0.000	96	211417	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.479	10.479	0.000	91	115559	50.0	50.7	
90 Ethylbenzene	106	10.503	10.503	0.000	98	222334	50.0	52.6	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	97	268125	50.0	52.0	
92 o-Xylene	106	11.014	11.014	0.000	97	257832	50.0	51.5	
93 Styrene	104	11.026	11.026	0.000	93	428271	50.0	50.8	
94 Bromoform	173	11.209	11.209	0.000	95	44844	50.0	40.0	
96 2-Chlorobenzotrifluoride	180	11.276	11.276	0.000	93	206521	50.0	53.4	
97 Isopropylbenzene	105	11.379	11.379	0.000	97	651548	50.0	52.1	
99 1,1,2,2-Tetrachloroethane	83	11.671	11.671	0.000	95	148898	50.0	43.9	
100 Bromobenzene	156	11.683	11.683	0.000	96	133591	50.0	46.0	
101 1,2,3-Trichloropropane	110	11.720	11.720	0.000	88	46040	50.0	43.6	
102 trans-1,4-Dichloro-2-buten	53	11.732	11.732	0.000	68	66864	50.0	46.1	
103 N-Propylbenzene	120	11.787	11.787	0.000	98	183256	50.0	53.5	
104 2-Chlorotoluene	126	11.878	11.878	0.000	94	142113	50.0	49.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.939	11.939	0.000	96	164542	50.0	53.4	
106 1,3,5-Trimethylbenzene	105	11.963	11.963	0.000	94	550594	50.0	53.6	
107 4-Chlorotoluene	126	11.987	11.987	0.000	99	162876	50.0	50.7	
108 tert-Butylbenzene	119	12.292	12.292	0.000	96	443773	50.0	52.7	
110 1,2,4-Trimethylbenzene	105	12.340	12.340	0.000	98	543930	50.0	51.6	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.401	0.000	96	149865	50.0	51.6	
112 sec-Butylbenzene	105	12.511	12.511	0.000	92	630085	50.0	51.9	
113 1,3-Dichlorobenzene	146	12.620	12.620	0.000	97	265711	50.0	48.5	
114 4-Isopropyltoluene	119	12.657	12.657	0.000	97	536814	50.0	54.9	
115 1,4-Dichlorobenzene	146	12.711	12.711	0.000	94	267169	50.0	47.2	
116 2,4-Dichloro-1-(triflourom	214	12.760	12.760	0.000	96	135756	50.0	49.8	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.809	0.000	97	151687	50.0	51.0	
120 n-Butylbenzene	91	13.064	13.064	0.000	99	445867	50.0	49.9	
121 1,2-Dichlorobenzene	146	13.082	13.082	0.000	93	240222	50.0	47.2	
122 1,2-Dibromo-3-Chloropropan	75	13.855	13.855	0.000	70	16651	50.0	36.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.013	14.013	0.000	99	515013	150.0	160.7	
124 1,3,5-Trichlorobenzene	180	14.074	14.074	0.000	96	134581	50.0	45.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.427	14.427	0.000	99	311142	100.0	101.8	
126 1,2,4-Trichlorobenzene	180	14.695	14.695	0.000	95	94034	50.0	44.6	
127 Hexachlorobutadiene	225	14.865	14.865	0.000	94	45842	50.0	45.8	
128 Naphthalene	128	14.944	14.944	0.000	97	231520	50.0	41.1	
129 1,2,3-Trichlorobenzene	180	15.187	15.187	0.000	92	75048	50.0	45.4	
131 2,4,5-Trichlorotoluene	159	15.966	15.966	0.000	96	39389	50.0	56.1	
130 2,3,6-Trichlorotoluene	159	16.057	16.057	0.000	93	37970	50.0	59.0	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.7	
S 133 Xylenes, Total	106				0		100.0	103.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00095	Amount Added:	2.00	Units: uL		
voaWketPri Re_00002	Amount Added:	2.00	Units: uL		
voaWeemixpri_00001	Amount Added:	2.00	Units: uL		
voaWVApri Res_00001	Amount Added:	2.00	Units: uL		
voaW2-cle pri_00004	Amount Added:	2.00	Units: uL		
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL		
voaWAcropri R_00006	Amount Added:	6.00	Units: uL		
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent	

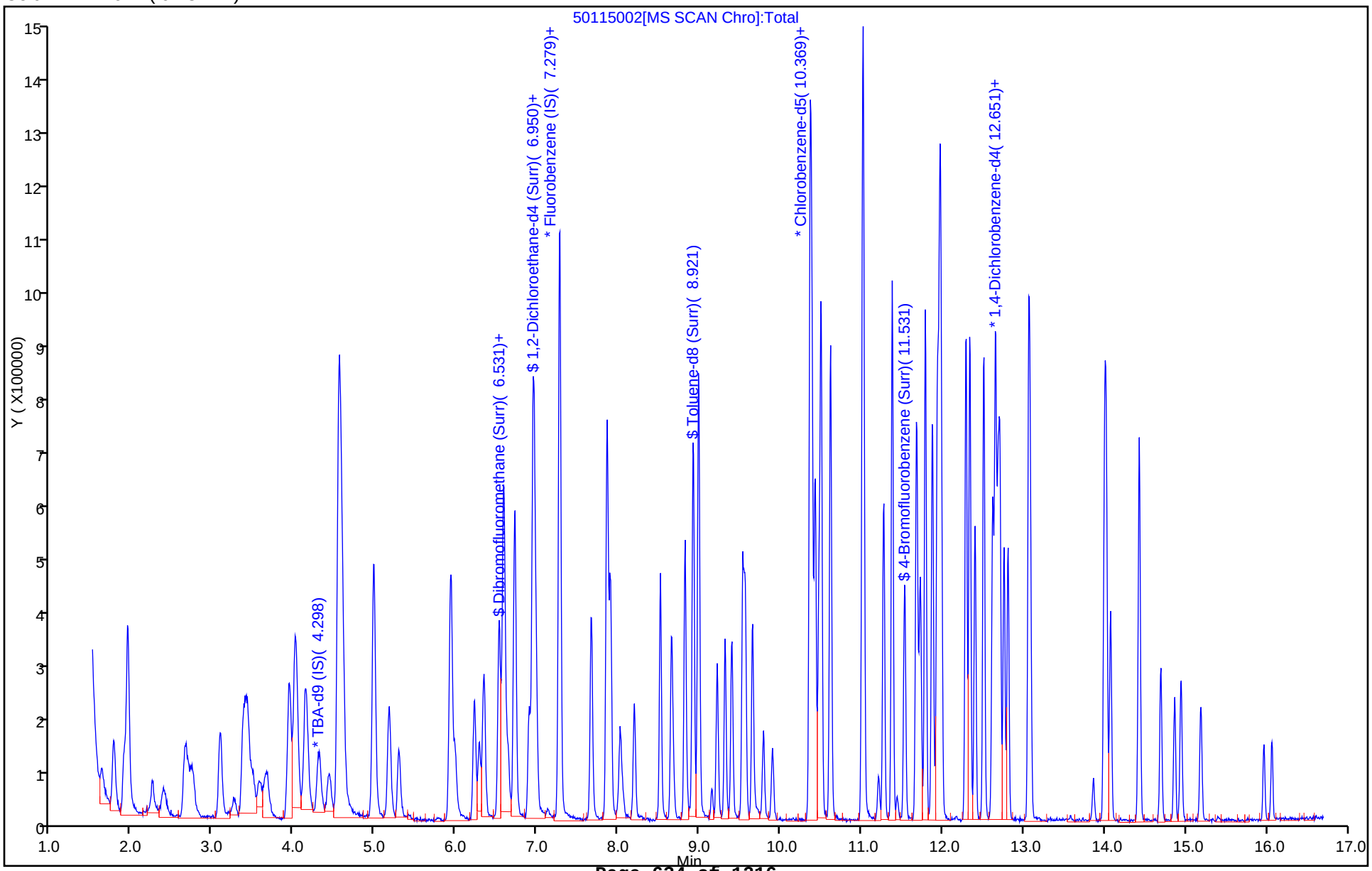
Report Date: 15-Jan-2015 13:52:56 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115002.D

Injection Date:	15-Jan-2015 11:58:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130838/2 Calibration Date: 01/15/2015 11:58

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50115002.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	0.2998	0.2213	0.1000	7.38	10.0	-26.2*	20.0
Chloromethane	Ave	0.5915	0.4660	0.1000	7.88	10.0	-21.2*	20.0
Vinyl chloride	Ave	0.4061	0.3656	0.1000	9.00	10.0	-10.0	20.0
Bromomethane	Ave	0.1215	0.0975	0.0500	8.03	10.0	-19.7	20.0
Chloroethane	Ave	0.2011	0.1907	0.0500	9.48	10.0	-5.2	20.0
Dichlorofluoromethane	Ave	0.3999	0.4109	0.0100	10.3	10.0	2.7	20.0
Trichlorofluoromethane	Ave	0.2533	0.3014	0.1000	11.9	10.0	19.0	20.0
Ethyl ether	Ave	0.3601	0.3207	0.0100	8.91	10.0	-10.9	20.0
Acrolein	Ave	0.0539	0.0396	0.0100	22.0	30.0	-26.5*	20.0
1,1-Dichloroethene	Ave	0.2724	0.2496	0.1000	9.17	10.0	-8.3	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2758	0.2986	0.1000	10.8	10.0	8.3	20.0
Acetone	Ave	0.1568	0.1637	0.0500	20.9	20.0	4.4	20.0
Iodomethane	Ave	0.3488	0.3553	0.0100	10.2	10.0	1.8	20.0
Carbon disulfide	Ave	0.5280	0.4795	0.1000	9.08	10.0	-9.2	20.0
Allyl chloride	Ave	0.1537	0.1526	0.0100	9.92	10.0	-0.8	20.0
Methyl acetate	Ave	0.4553	0.3727	0.1000	40.9	50.0	-18.1	20.0
Methylene Chloride	Lin2		0.3295	0.1000	10.0	10.0	0.0	20.0
tert-Butyl alcohol	Ave	1.337	1.328	0.0100	99.4	100	-0.6	20.0
Acrylonitrile	Ave	0.2098	0.1769	0.0100	84.3	100	-15.7	20.0
trans-1,2-Dichloroethene	Ave	0.2757	0.2608	0.1000	9.46	10.0	-5.4	20.0
Methyl tert-butyl ether	Ave	0.7145	0.6448	0.1000	9.02	10.0	-9.8	20.0
Hexane	Ave	0.6980	0.6165	0.0100	8.83	10.0	-11.7	20.0
1,1-Dichloroethane	Ave	0.6414	0.6062	0.2000	9.45	10.0	-5.5	20.0
Vinyl acetate	Ave	0.6151	0.5834	0.0100	9.48	10.0	-5.2	20.0
2,2-Dichloropropane	Ave	0.1700	0.2292	0.0100	13.5	10.0	34.8*	20.0
cis-1,2-Dichloroethene	Ave	0.2981	0.2947	0.1000	9.89	10.0	-1.1	20.0
2-Butanone (MEK)	Ave	0.2466	0.2355	0.0500	19.1	20.0	-4.5	20.0
Bromochloromethane	Ave	0.1243	0.1228	0.0100	9.88	10.0	-1.2	20.0
Tetrahydrofuran	Ave	0.1876	0.1435	0.0100	15.3	20.0	-23.5*	20.0
Chloroform	Ave	0.4850	0.4876	0.2000	10.1	10.0	0.5	20.0
1,1,1-Trichloroethane	Ave	0.3147	0.3470	0.1000	11.0	10.0	10.3	20.0
Cyclohexane	Ave	0.8843	0.8166	0.1000	9.23	10.0	-7.7	20.0
Carbon tetrachloride	Ave	0.2733	0.2851	0.1000	10.4	10.0	4.3	20.0
1,1-Dichloropropene	Ave	0.3970	0.3841	0.0100	9.68	10.0	-3.2	20.0
Isobutyl alcohol	Ave	0.0144	0.0103	0.0100	180	250	-28.2*	20.0
Benzene	Ave	1.236	1.210	0.5000	9.78	10.0	-2.2	20.0
1,2-Dichloroethane	Ave	0.4801	0.4662	0.1000	9.71	10.0	-2.9	20.0
n-Heptane	Ave	0.7079	0.6462	0.0100	9.13	10.0	-8.7	20.0
Trichloroethene	Ave	0.2647	0.2654	0.2000	10.0	10.0	0.3	20.0
Methylcyclohexane	Ave	0.5067	0.4982	0.1000	9.83	10.0	-1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130838/2 Calibration Date: 01/15/2015 11:58

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50115002.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	0.3804	0.3350	0.1000	8.81	10.0	-11.9	20.0
Dibromomethane	Ave	0.1569	0.1427	0.0100	9.10	10.0	-9.0	20.0
1,4-Dioxane	Ave	0.0028	0.0024*	0.0100	168	200	-15.8	20.0
Bromodichloromethane	Ave	0.3238	0.2834	0.2000	8.75	10.0	-12.5	20.0
cis-1,3-Dichloropropene	Ave	0.3695	0.3463	0.2000	9.37	10.0	-6.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	2.160	1.939	0.1000	18.0	20.0	-10.2	20.0
Toluene	Ave	5.309	5.169	0.4000	9.74	10.0	-2.6	20.0
trans-1,3-Dichloropropene	Ave	1.229	1.196	0.1000	9.73	10.0	-2.7	20.0
Ethyl methacrylate	Ave	1.464	1.251	0.0100	8.55	10.0	-14.5	20.0
1,1,2-Trichloroethane	Ave	1.042	0.9341	0.1000	8.97	10.0	-10.3	20.0
Tetrachloroethene	Ave	0.9790	0.9747	0.2000	9.96	10.0	-0.4	20.0
1,3-Dichloropropane	Ave	2.006	1.843	0.0100	9.19	10.0	-8.1	20.0
2-Hexanone	Ave	1.729	1.468	0.1000	17.0	20.0	-15.1	20.0
Dibromochloromethane	Ave	0.7658	0.7087	0.1000	9.25	10.0	-7.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9660	0.9185	0.1000	9.51	10.0	-4.9	20.0
3-Chlorobenzotrifluoride	Ave	1.745	1.822	0.0100	10.4	10.0	4.4	20.0
Chlorobenzene	Ave	3.229	3.370	0.5000	10.4	10.0	4.4	20.0
4-Chlorobenzotrifluoride	Ave	1.631	1.827	0.0100	11.2	10.0	12.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9850	0.999	0.0100	10.1	10.0	1.4	20.0
Ethylbenzene	Ave	1.828	1.921	0.1000	10.5	10.0	5.1	20.0
m-Xylene & p-Xylene	Ave	2.226	2.317	0.1000	10.4	10.0	4.1	20.0
o-Xylene	Ave	2.164	2.228	0.3000	10.3	10.0	2.9	20.0
Styrene	Ave	3.642	3.701	0.3000	10.2	10.0	1.6	20.0
Bromoform	Ave	0.4840	0.3875	0.1000	8.01	10.0	-19.9	20.0
2-Chlorobenzotrifluoride	Ave	1.670	1.785	0.0100	10.7	10.0	6.9	20.0
Isopropylbenzene	Ave	5.400	5.630	0.1000	10.4	10.0	4.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.464	1.287	0.3000	8.79	10.0	-12.1	20.0
Bromobenzene	Ave	0.8995	0.8279	0.0100	9.20	10.0	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.3271	0.2853	0.0100	8.72	10.0	-12.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4491	0.4144	0.0100	9.23	10.0	-7.7	20.0
N-Propylbenzene	Ave	1.062	1.136	0.0100	10.7	10.0	7.0	20.0
2-Chlorotoluene	Ave	0.8959	0.8807	0.0100	9.83	10.0	-1.7	20.0
3-Chlorotoluene	Ave	0.9551	1.020	0.0100	10.7	10.0	6.8	20.0
1,3,5-Trimethylbenzene	Ave	3.181	3.412	0.0100	10.7	10.0	7.3	20.0
4-Chlorotoluene	Ave	0.996	1.009	0.0100	10.1	10.0	1.4	20.0
tert-Butylbenzene	Ave	2.610	2.750	0.0100	10.5	10.0	5.4	20.0
1,2,4-Trimethylbenzene	Ave	3.269	3.371	0.0100	10.3	10.0	3.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9007	0.9288	0.0100	10.3	10.0	3.1	20.0
sec-Butylbenzene	Ave	3.761	3.905	0.0100	10.4	10.0	3.8	20.0
1,3-Dichlorobenzene	Ave	1.698	1.647	0.6000	9.70	10.0	-3.0	20.0
4-Isopropyltoluene	Ave	3.029	3.327	0.0100	11.0	10.0	9.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130838/2 Calibration Date: 01/15/2015 11:58

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50115002.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	1.753	1.656	0.5000	9.45	10.0	-5.5	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8452	0.8413	0.0100	9.95	10.0	-0.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9219	0.9401	0.0100	10.2	10.0	2.0	20.0
n-Butylbenzene	Ave	2.768	2.763	0.0100	9.98	10.0	-0.2	20.0
1,2-Dichlorobenzene	Ave	1.576	1.489	0.4000	9.45	10.0	-5.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1429	0.1032	0.0500	7.22	10.0	-27.8*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9929	1.064	0.0100	32.1	30.0	7.2	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.9468	0.9641	0.0100	20.4	20.0	1.8	20.0
1,2,4-Trichlorobenzene	Ave	0.6536	0.5828	0.2000	8.92	10.0	-10.8	20.0
Hexachlorobutadiene	Ave	0.3100	0.2841	0.0100	9.17	10.0	-8.3	20.0
Naphthalene	Ave	1.745	1.435	0.0100	8.22	10.0	-17.8	20.0
1,2,3-Trichlorobenzene	Ave	0.5125	0.4651	0.0100	9.08	10.0	-9.2	20.0
2,4,5-Trichlorotoluene	Ave	0.2177	0.2441	0.0100	11.2	10.0	12.2	20.0
2,3,6-Trichlorotoluene	Ave	0.1994	0.2353	0.0100	11.8	10.0	18.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2128	0.2064		9.70	10.0	-3.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3494	0.3181		9.10	10.0	-9.0	20.0
Toluene-d8 (Surr)	Ave	4.159	4.050		9.74	10.0	-2.6	20.0
4-Bromofluorobenzene (Surr)	Ave	1.585	1.495		9.43	10.0	-5.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 15-Jan-2015 11:58:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005292-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 13:52:55 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 12:50:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.310	0.000	88	176276	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	99	516866	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.363	0.000	99	115723	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.681	0.000	96	161357	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	76	106689	50.0	48.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.896	6.896	0.000	93	164399	50.0	45.5	
$ 7 Toluene-d8 (Surr)	98	8.921	8.921	0.000	96	468635	50.0	48.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.531	0.000	84	172988	50.0	47.2	
11 Dichlorodifluoromethane	85	1.633	1.633	0.000	97	114391	50.0	36.9	
12 Chloromethane	50	1.779	1.779	0.000	100	240880	50.0	39.4	
13 Vinyl chloride	62	1.901	1.901	0.000	98	188989	50.0	45.0	
14 Butadiene	39	1.950	1.950	0.000	98	263773	50.0	44.1	
15 Bromomethane	94	2.254	2.254	0.000	93	50396	50.0	40.1	
16 Chloroethane	64	2.388	2.388	0.000	95	98568	50.0	47.4	
17 Dichlorofluoromethane	67	2.649	2.649	0.000	97	212386	50.0	51.4	
18 Trichlorofluoromethane	101	2.704	2.704	0.000	96	155773	50.0	59.5	
20 Ethyl ether	59	3.093	3.093	0.000	96	165771	50.0	44.5	
21 Acrolein	56	3.252	3.252	0.000	93	61347	150.0	110.2	
22 1,1-Dichloroethene	96	3.379	3.379	0.000	92	129030	50.0	45.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.428	0.000	95	154330	50.0	54.1	
24 Acetone	43	3.495	3.495	0.000	98	169218	100.0	104.4	
25 Iodomethane	142	3.574	3.574	0.000	95	183615	50.0	50.9	
26 Carbon disulfide	76	3.659	3.659	0.000	99	247853	50.0	45.4	
28 3-Chloro-1-propene	76	3.945	3.945	0.000	89	78856	50.0	49.6	
30 Methyl acetate	43	4.012	4.012	0.000	99	963237	250.0	204.7	
31 Methylene Chloride	84	4.140	4.140	0.000	91	170282	50.0	50.0	
32 2-Methyl-2-propanol	59	4.432	4.432	0.000	88	117080	500.0	496.8	
33 Acrylonitrile	53	4.547	4.547	0.000	99	914352	500.0	421.6	
34 trans-1,2-Dichloroethene	96	4.560	4.560	0.000	49	134803	50.0	47.3	
35 Methyl tert-butyl ether	73	4.596	4.596	0.000	89	333297	50.0	45.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.985	4.985	0.000	93	318624	50.0	44.2	
37 1,1-Dichloroethane	63	5.174	5.174	0.000	96	313328	50.0	47.3	
38 Vinyl acetate	43	5.290	5.290	0.000	97	301521	50.0	47.4	
44 2,2-Dichloropropane	77	5.928	5.928	0.000	70	118478	50.0	67.4	
45 cis-1,2-Dichloroethene	96	5.934	5.934	0.000	87	152316	50.0	49.4	
46 2-Butanone (MEK)	43	5.989	5.989	0.000	96	243442	100.0	95.5	
49 Chlorobromomethane	128	6.220	6.220	0.000	82	63488	50.0	49.4	
51 Tetrahydrofuran	42	6.287	6.287	0.000	93	148319	100.0	76.5	
52 Chloroform	83	6.342	6.342	0.000	96	252028	50.0	50.3	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	93	179365	50.0	55.1	
54 Cyclohexane	56	6.585	6.585	0.000	92	422091	50.0	46.2	
56 Carbon tetrachloride	117	6.719	6.719	0.000	68	147336	50.0	52.2	
55 1,1-Dichloropropene	75	6.725	6.725	0.000	84	198524	50.0	48.4	
57 Isobutyl alcohol	41	6.944	6.944	0.000	54	133302	1250.0	897.8	
58 Benzene	78	6.956	6.956	0.000	95	625160	50.0	48.9	
59 1,2-Dichloroethane	62	6.987	6.987	0.000	95	240935	50.0	48.5	
62 n-Heptane	43	7.279	7.279	0.000	95	333990	50.0	45.6	
64 Trichloroethene	130	7.668	7.668	0.000	94	137183	50.0	50.1	
66 Methylcyclohexane	83	7.863	7.863	0.000	93	257497	50.0	49.2	
67 1,2-Dichloropropane	63	7.905	7.905	0.000	93	173141	50.0	44.0	
68 Dibromomethane	93	8.021	8.021	0.000	97	73772	50.0	45.5	
70 1,4-Dioxane	88	8.064	8.064	0.000	78	24790	1000.0	842.5	
71 Dichlorobromomethane	83	8.197	8.197	0.000	94	146481	50.0	43.8	
73 2-Chloroethyl vinyl ether	63	8.520	8.520	0.000	85	175091	100.0	106.6	
74 cis-1,3-Dichloropropene	75	8.654	8.654	0.000	85	178982	50.0	46.9	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.824	0.000	98	448888	100.0	89.8	
76 Toluene	91	8.988	8.988	0.000	97	598220	50.0	48.7	
77 trans-1,3-Dichloropropene	75	9.219	9.219	0.000	95	138440	50.0	48.7	
78 Ethyl methacrylate	69	9.317	9.317	0.000	89	144820	50.0	42.8	
79 1,1,2-Trichloroethane	97	9.402	9.402	0.000	95	108092	50.0	44.8	
80 Tetrachloroethene	164	9.536	9.536	0.000	95	112790	50.0	49.8	
81 1,3-Dichloropropane	76	9.566	9.566	0.000	93	213299	50.0	45.9	
82 2-Hexanone	43	9.657	9.657	0.000	97	339699	100.0	84.9	
84 Chlorodibromomethane	129	9.791	9.791	0.000	88	82014	50.0	46.3	
85 Ethylene Dibromide	107	9.901	9.901	0.000	99	106291	50.0	47.5	
86 3-Chlorobenzotrifluoride	180	10.375	10.375	0.000	91	210809	50.0	52.2	
87 Chlorobenzene	112	10.394	10.394	0.000	91	389957	50.0	52.2	
88 4-Chlorobenzotrifluoride	180	10.430	10.430	0.000	96	211417	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.479	10.479	0.000	91	115559	50.0	50.7	
90 Ethylbenzene	106	10.503	10.503	0.000	98	222334	50.0	52.6	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	97	268125	50.0	52.0	
92 o-Xylene	106	11.014	11.014	0.000	97	257832	50.0	51.5	
93 Styrene	104	11.026	11.026	0.000	93	428271	50.0	50.8	
94 Bromoform	173	11.209	11.209	0.000	95	44844	50.0	40.0	
96 2-Chlorobenzotrifluoride	180	11.276	11.276	0.000	93	206521	50.0	53.4	
97 Isopropylbenzene	105	11.379	11.379	0.000	97	651548	50.0	52.1	
99 1,1,2,2-Tetrachloroethane	83	11.671	11.671	0.000	95	148898	50.0	43.9	
100 Bromobenzene	156	11.683	11.683	0.000	96	133591	50.0	46.0	
101 1,2,3-Trichloropropane	110	11.720	11.720	0.000	88	46040	50.0	43.6	
102 trans-1,4-Dichloro-2-buten	53	11.732	11.732	0.000	68	66864	50.0	46.1	
103 N-Propylbenzene	120	11.787	11.787	0.000	98	183256	50.0	53.5	
104 2-Chlorotoluene	126	11.878	11.878	0.000	94	142113	50.0	49.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.939	11.939	0.000	96	164542	50.0	53.4	
106 1,3,5-Trimethylbenzene	105	11.963	11.963	0.000	94	550594	50.0	53.6	
107 4-Chlorotoluene	126	11.987	11.987	0.000	99	162876	50.0	50.7	
108 tert-Butylbenzene	119	12.292	12.292	0.000	96	443773	50.0	52.7	
110 1,2,4-Trimethylbenzene	105	12.340	12.340	0.000	98	543930	50.0	51.6	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.401	0.000	96	149865	50.0	51.6	
112 sec-Butylbenzene	105	12.511	12.511	0.000	92	630085	50.0	51.9	
113 1,3-Dichlorobenzene	146	12.620	12.620	0.000	97	265711	50.0	48.5	
114 4-Isopropyltoluene	119	12.657	12.657	0.000	97	536814	50.0	54.9	
115 1,4-Dichlorobenzene	146	12.711	12.711	0.000	94	267169	50.0	47.2	
116 2,4-Dichloro-1-(triflourom	214	12.760	12.760	0.000	96	135756	50.0	49.8	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.809	0.000	97	151687	50.0	51.0	
120 n-Butylbenzene	91	13.064	13.064	0.000	99	445867	50.0	49.9	
121 1,2-Dichlorobenzene	146	13.082	13.082	0.000	93	240222	50.0	47.2	
122 1,2-Dibromo-3-Chloropropan	75	13.855	13.855	0.000	70	16651	50.0	36.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.013	14.013	0.000	99	515013	150.0	160.7	
124 1,3,5-Trichlorobenzene	180	14.074	14.074	0.000	96	134581	50.0	45.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.427	14.427	0.000	99	311142	100.0	101.8	
126 1,2,4-Trichlorobenzene	180	14.695	14.695	0.000	95	94034	50.0	44.6	
127 Hexachlorobutadiene	225	14.865	14.865	0.000	94	45842	50.0	45.8	
128 Naphthalene	128	14.944	14.944	0.000	97	231520	50.0	41.1	
129 1,2,3-Trichlorobenzene	180	15.187	15.187	0.000	92	75048	50.0	45.4	
131 2,4,5-Trichlorotoluene	159	15.966	15.966	0.000	96	39389	50.0	56.1	
130 2,3,6-Trichlorotoluene	159	16.057	16.057	0.000	93	37970	50.0	59.0	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.7	
S 133 Xylenes, Total	106				0		100.0	103.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00095	Amount Added:	2.00	Units: uL		
voaWketPri Re_00002	Amount Added:	2.00	Units: uL		
voaWeemixpri_00001	Amount Added:	2.00	Units: uL		
voaWVApri Res_00001	Amount Added:	2.00	Units: uL		
voaW2-cle pri_00004	Amount Added:	2.00	Units: uL		
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL		
voaWAcropri R_00006	Amount Added:	6.00	Units: uL		
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent	

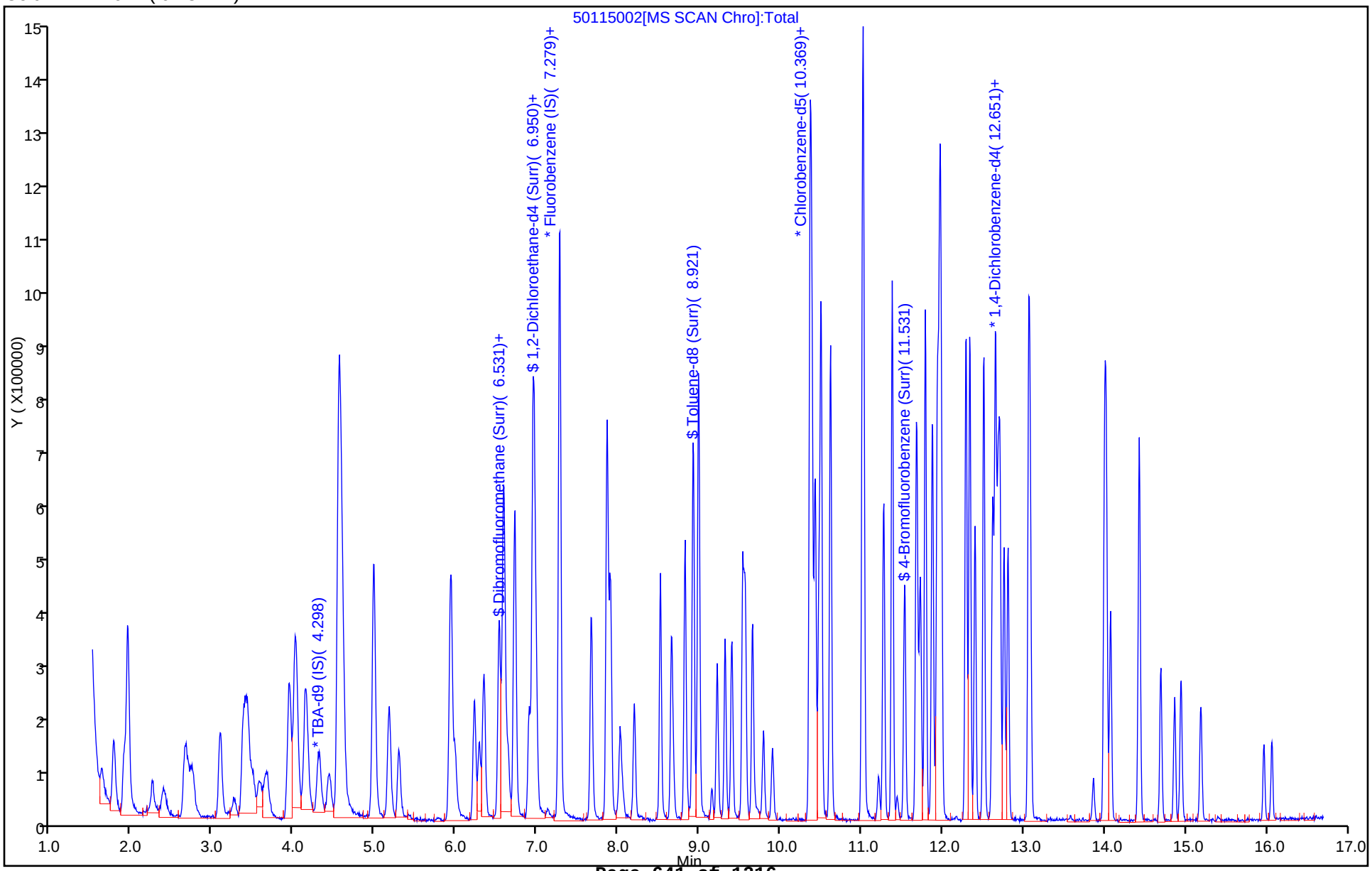
Report Date: 15-Jan-2015 13:52:56 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115002.D

Injection Date:	15-Jan-2015 11:58:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130947/2 Calibration Date: 01/16/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 11/18/2014 14:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/18/2014 16:46

Lab File ID: 50116002.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	0.1588	0.1803	0.0100	22.7	20.0	13.5	20.0
1,3,5-Trichlorobenzene	Ave	0.9229	0.8316	0.0100	9.01	10.0	-9.9	20.0

Report Date: 16-Jan-2015 15:00:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 16-Jan-2015 12:52:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005307-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 15:00:10 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 13:30:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.302	0.000	87	174949	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	507858	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	99	118302	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	158394	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.522	6.522	0.000	78	103373	50.0	47.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	92	160422	50.0	45.2	
$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	96	453635	50.0	46.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	84	167879	50.0	44.8	
11 Dichlorodifluoromethane	85	1.631	1.631	0.000	97	150442	50.0	49.4	
12 Chloromethane	50	1.777	1.777	0.000	99	270502	50.0	45.0	
13 Vinyl chloride	62	1.905	1.905	0.000	97	197152	50.0	47.8	
14 Butadiene	39	1.954	1.954	0.000	98	286259	50.0	48.8	
15 Bromomethane	94	2.252	2.252	0.000	91	44688	50.0	36.2	M
16 Chloroethane	64	2.386	2.386	0.000	95	99531	50.0	48.7	
17 Dichlorofluoromethane	67	2.653	2.653	0.000	96	196959	50.0	48.5	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	91	134135	50.0	52.1	
20 Ethyl ether	59	3.085	3.085	0.000	95	177989	50.0	48.7	
21 Acrolein	56	3.268	3.268	0.000	98	89625	150.0	163.9	
22 1,1-Dichloroethene	96	3.371	3.371	0.000	92	137565	50.0	49.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.432	0.000	95	141582	50.0	50.5	
24 Acetone	43	3.493	3.493	0.000	99	160469	100.0	100.8	
25 Iodomethane	142	3.578	3.578	0.000	96	181008	50.0	51.1	
26 Carbon disulfide	76	3.669	3.669	0.000	99	207966	50.0	38.8	
28 3-Chloro-1-propene	76	3.937	3.937	0.000	87	68172	50.0	43.7	
30 Methyl acetate	43	4.016	4.016	0.000	100	989452	250.0	214.0	
31 Methylene Chloride	84	4.150	4.150	0.000	89	165881	50.0	49.5	
32 2-Methyl-2-propanol	59	4.424	4.424	0.000	85	120040	500.0	513.2	
33 Acrylonitrile	53	4.545	4.545	0.000	100	934523	500.0	438.5	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	54	141775	50.0	50.6	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	89	333465	50.0	45.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.983	0.000	94	329368	50.0	46.5	
37 1,1-Dichloroethane	63	5.172	5.172	0.000	96	326566	50.0	50.1	
38 Vinyl acetate	43	5.293	5.293	0.000	97	245000	50.0	39.2	
44 2,2-Dichloropropane	77	5.926	5.926	0.000	58	93930	50.0	54.4	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	88	145995	50.0	48.2	
46 2-Butanone (MEK)	43	5.987	5.987	0.000	96	239216	100.0	95.5	
49 Chlorobromomethane	128	6.230	6.230	0.000	84	62818	50.0	49.7	
51 Tetrahydrofuran	42	6.285	6.285	0.000	92	149579	100.0	78.5	
52 Chloroform	83	6.346	6.346	0.000	95	243939	50.0	49.5	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	92	153272	50.0	48.0	
54 Cyclohexane	56	6.583	6.583	0.000	93	421202	50.0	46.9	
56 Carbon tetrachloride	117	6.717	6.717	0.000	65	140378	50.0	50.6	
55 1,1-Dichloropropene	75	6.723	6.723	0.000	84	207063	50.0	51.4	
57 Isobutyl alcohol	41	6.936	6.936	0.000	94	155661	1250.0	1067.0	
58 Benzene	78	6.954	6.954	0.000	95	611141	50.0	48.7	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	95	244034	50.0	50.0	
62 n-Heptane	43	7.277	7.277	0.000	97	334268	50.0	46.5	
64 Trichloroethene	130	7.666	7.666	0.000	96	139720	50.0	52.0	
66 Methylcyclohexane	83	7.861	7.861	0.000	94	254128	50.0	49.4	
67 1,2-Dichloropropane	63	7.897	7.897	0.000	94	171652	50.0	44.4	
68 Dibromomethane	93	8.019	8.019	0.000	95	75262	50.0	47.2	
70 1,4-Dioxane	88	8.049	8.049	0.000	89	26827	1000.0	927.8	
71 Dichlorobromomethane	83	8.195	8.195	0.000	96	141566	50.0	43.0	
73 2-Chloroethyl vinyl ether	63	8.518	8.518	0.000	83	183079	100.0	113.5	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	84	174417	50.0	46.5	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	98	463397	100.0	90.7	
76 Toluene	91	8.986	8.986	0.000	97	608346	50.0	48.4	
77 trans-1,3-Dichloropropene	75	9.217	9.217	0.000	91	141724	50.0	48.7	
78 Ethyl methacrylate	69	9.315	9.315	0.000	90	154339	50.0	44.6	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	94	110933	50.0	45.0	
80 Tetrachloroethene	164	9.534	9.534	0.000	93	112911	50.0	48.7	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	91	214556	50.0	45.2	
82 2-Hexanone	43	9.655	9.655	0.000	97	372446	100.0	91.1	
84 Chlorodibromomethane	129	9.789	9.789	0.000	90	76768	50.0	42.4	
85 Ethylene Dibromide	107	9.905	9.905	0.000	97	109128	50.0	47.7	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	93	209815	50.0	50.8	
87 Chlorobenzene	112	10.391	10.391	0.000	90	392052	50.0	51.3	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	97	194461	50.0	50.4	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	91	103311	50.0	44.3	
90 Ethylbenzene	106	10.501	10.501	0.000	98	220153	50.0	50.9	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	97	275174	50.0	52.2	
92 o-Xylene	106	11.012	11.012	0.000	93	256558	50.0	50.1	
93 Styrene	104	11.024	11.024	0.000	89	413525	50.0	48.0	
94 Bromoform	173	11.207	11.207	0.000	95	44137	50.0	38.5	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	96	198936	50.0	50.3	
97 Isopropylbenzene	105	11.377	11.377	0.000	97	659737	50.0	51.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	95	150239	50.0	43.4	
100 Bromobenzene	156	11.687	11.687	0.000	94	142245	50.0	49.9	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	88	53771	50.0	51.9	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.730	0.000	66	67733	50.0	47.6	
103 N-Propylbenzene	120	11.791	11.791	0.000	99	179749	50.0	53.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	94	145972	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.937	11.937	0.000	96	155006	50.0	51.2	
106 1,3,5-Trimethylbenzene	105	11.961	11.961	0.000	95	534869	50.0	53.1	
107 4-Chlorotoluene	126	11.985	11.985	0.000	98	168150	50.0	53.3	
108 tert-Butylbenzene	119	12.289	12.289	0.000	94	424903	50.0	51.4	
110 1,2,4-Trimethylbenzene	105	12.338	12.338	0.000	97	552471	50.0	53.4	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.399	0.000	97	151348	50.0	53.0	
112 sec-Butylbenzene	105	12.508	12.508	0.000	96	632963	50.0	53.1	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	95	262977	50.0	48.9	
114 4-Isopropyltoluene	119	12.654	12.654	0.000	97	512271	50.0	53.4	
115 1,4-Dichlorobenzene	146	12.709	12.709	0.000	93	277041	50.0	49.9	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	96	132161	50.0	49.4	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	97	144550	50.0	49.5	
120 n-Butylbenzene	91	13.062	13.062	0.000	98	435687	50.0	49.7	
121 1,2-Dichlorobenzene	146	13.080	13.080	0.000	94	239034	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	67	16019	50.0	35.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.005	0.000	99	485027	150.0	154.2	
124 1,3,5-Trichlorobenzene	180	14.072	14.072	0.000	95	131724	50.0	45.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	99	316923	100.0	105.7	
126 1,2,4-Trichlorobenzene	180	14.692	14.692	0.000	94	94531	50.0	45.7	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	96	48077	50.0	49.0	
128 Naphthalene	128	14.942	14.942	0.000	97	240374	50.0	43.5	
129 1,2,3-Trichlorobenzene	180	15.185	15.185	0.000	93	74315	50.0	45.8	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	96	35712	50.0	51.8	
130 2,3,6-Trichlorotoluene	159	16.061	16.061	0.000	93	34021	50.0	53.8	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.8	
S 133 Xylenes, Total	106				0		100.0	102.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00095	Amount Added:	2.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaWVApri Res_00001	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
voaWAcropri R_00006	Amount Added:	6.00	Units: uL	
VOA2CEVE2ND_00004	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

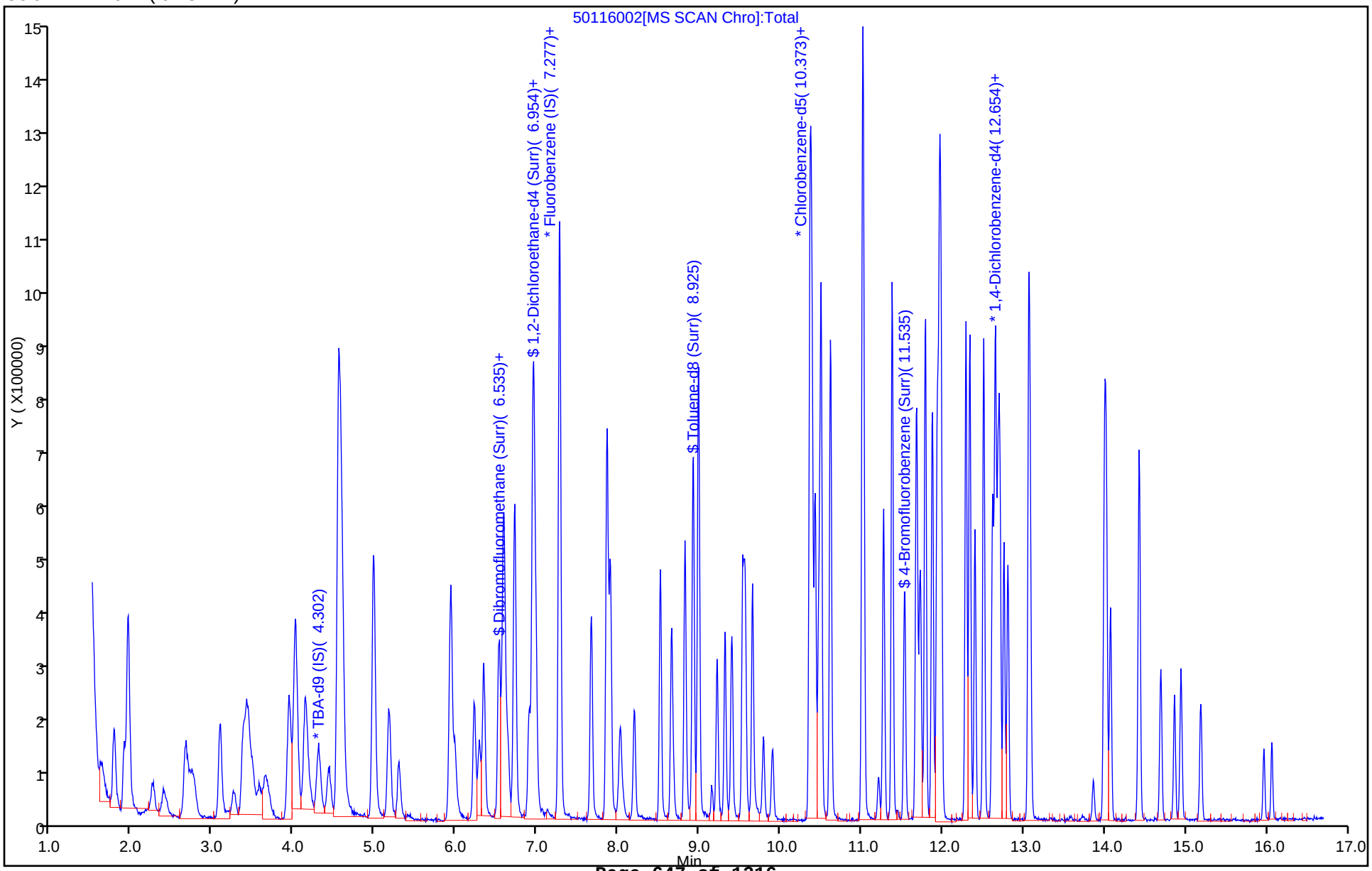
Report Date: 16-Jan-2015 15:00:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116002.D

Injection Date:	16-Jan-2015 12:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130947/2 Calibration Date: 01/16/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50116002.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	0.2998	0.2962	0.1000	9.88	10.0	-1.2	20.0
Chloromethane	Ave	0.5915	0.5326	0.1000	9.01	10.0	-9.9	20.0
Vinyl chloride	Ave	0.4061	0.3882	0.1000	9.56	10.0	-4.4	20.0
Bromomethane	Ave	0.1215	0.0880	0.0500	7.24	10.0	-27.6*	20.0
Chloroethane	Ave	0.2011	0.1960	0.0500	9.75	10.0	-2.5	20.0
Dichlorofluoromethane	Ave	0.3999	0.3878	0.0100	9.70	10.0	-3.0	20.0
Trichlorofluoromethane	Ave	0.2533	0.2641	0.1000	10.4	10.0	4.3	20.0
Ethyl ether	Ave	0.3601	0.3505	0.0100	9.73	10.0	-2.7	20.0
Acrolein	Ave	0.0539	0.0588	0.0100	32.8	30.0	9.2	20.0
1,1-Dichloroethene	Ave	0.2724	0.2709	0.1000	9.94	10.0	-0.6	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2758	0.2788	0.1000	10.1	10.0	1.1	20.0
Acetone	Ave	0.1568	0.1580	0.0500	20.2	20.0	0.8	20.0
Iodomethane	Ave	0.3488	0.3564	0.0100	10.2	10.0	2.2	20.0
Carbon disulfide	Ave	0.5280	0.4095	0.1000	7.76	10.0	-22.4*	20.0
Allyl chloride	Ave	0.1537	0.1342	0.0100	8.73	10.0	-12.7	20.0
Methyl acetate	Ave	0.4553	0.3897	0.1000	42.8	50.0	-14.4	20.0
Methylene Chloride	Lin2		0.3266	0.1000	9.91	10.0	-0.9	20.0
tert-Butyl alcohol	Ave	1.337	1.372	0.0100	103	100	2.6	20.0
Acrylonitrile	Ave	0.2098	0.1840	0.0100	87.7	100	-12.3	20.0
trans-1,2-Dichloroethene	Ave	0.2757	0.2792	0.1000	10.1	10.0	1.2	20.0
Methyl tert-butyl ether	Ave	0.7145	0.6566	0.1000	9.19	10.0	-8.1	20.0
Hexane	Ave	0.6980	0.6485	0.0100	9.29	10.0	-7.1	20.0
1,1-Dichloroethane	Ave	0.6414	0.6430	0.2000	10.0	10.0	0.2	20.0
Vinyl acetate	Ave	0.6151	0.4824	0.0100	7.84	10.0	-21.6*	20.0
2,2-Dichloropropane	Ave	0.1700	0.1850	0.0100	10.9	10.0	8.8	20.0
cis-1,2-Dichloroethene	Ave	0.2981	0.2875	0.1000	9.64	10.0	-3.6	20.0
2-Butanone (MEK)	Ave	0.2466	0.2355	0.0500	19.1	20.0	-4.5	20.0
Bromochloromethane	Ave	0.1243	0.1237	0.0100	9.95	10.0	-0.5	20.0
Tetrahydrofuran	Ave	0.1876	0.1473	0.0100	15.7	20.0	-21.5*	20.0
Chloroform	Ave	0.4850	0.4803	0.2000	9.90	10.0	-1.0	20.0
1,1,1-Trichloroethane	Ave	0.3147	0.3018	0.1000	9.59	10.0	-4.1	20.0
Cyclohexane	Ave	0.8843	0.8294	0.1000	9.38	10.0	-6.2	20.0
Carbon tetrachloride	Ave	0.2733	0.2764	0.1000	10.1	10.0	1.1	20.0
1,1-Dichloropropene	Ave	0.3970	0.4077	0.0100	10.3	10.0	2.7	20.0
Isobutyl alcohol	Ave	0.0144	0.0123	0.0100	213	250	-14.6	20.0
Benzene	Ave	1.236	1.203	0.5000	9.73	10.0	-2.7	20.0
1,2-Dichloroethane	Ave	0.4801	0.4805	0.1000	10.0	10.0	0.0	20.0
n-Heptane	Ave	0.7079	0.6582	0.0100	9.30	10.0	-7.0	20.0
Trichloroethene	Ave	0.2647	0.2751	0.2000	10.4	10.0	3.9	20.0
Methylcyclohexane	Ave	0.5067	0.5004	0.1000	9.87	10.0	-1.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130947/2 Calibration Date: 01/16/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50116002.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	0.3804	0.3380	0.1000	8.88	10.0	-11.2	20.0
Dibromomethane	Ave	0.1569	0.1482	0.0100	9.45	10.0	-5.5	20.0
1,4-Dioxane	Ave	0.0028	0.0026*	0.0100	186	200	-7.2	20.0
Bromodichloromethane	Ave	0.3238	0.2788	0.2000	8.61	10.0	-13.9	20.0
cis-1,3-Dichloropropene	Ave	0.3695	0.3434	0.2000	9.29	10.0	-7.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	2.160	1.959	0.1000	18.1	20.0	-9.3	20.0
Toluene	Ave	5.309	5.142	0.4000	9.69	10.0	-3.1	20.0
trans-1,3-Dichloropropene	Ave	1.229	1.198	0.1000	9.75	10.0	-2.5	20.0
Ethyl methacrylate	Ave	1.464	1.305	0.0100	8.91	10.0	-10.9	20.0
1,1,2-Trichloroethane	Ave	1.042	0.9377	0.1000	9.00	10.0	-10.0	20.0
Tetrachloroethene	Ave	0.9790	0.9544	0.2000	9.75	10.0	-2.5	20.0
1,3-Dichloropropane	Ave	2.006	1.814	0.0100	9.04	10.0	-9.6	20.0
2-Hexanone	Ave	1.729	1.574	0.1000	18.2	20.0	-8.9	20.0
Dibromochloromethane	Ave	0.7658	0.6489	0.1000	8.47	10.0	-15.3	20.0
1,2-Dibromoethane (EDB)	Ave	0.9660	0.9225	0.1000	9.55	10.0	-4.5	20.0
3-Chlorobenzotrifluoride	Ave	1.745	1.774	0.0100	10.2	10.0	1.6	20.0
Chlorobenzene	Ave	3.229	3.314	0.5000	10.3	10.0	2.6	20.0
4-Chlorobenzotrifluoride	Ave	1.631	1.644	0.0100	10.1	10.0	0.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9850	0.8733	0.0100	8.87	10.0	-11.3	20.0
Ethylbenzene	Ave	1.828	1.861	0.1000	10.2	10.0	1.8	20.0
m-Xylene & p-Xylene	Ave	2.226	2.326	0.1000	10.4	10.0	4.5	20.0
o-Xylene	Ave	2.164	2.169	0.3000	10.0	10.0	0.2	20.0
Styrene	Ave	3.642	3.496	0.3000	9.60	10.0	-4.0	20.0
Bromoform	Ave	0.4840	0.3731	0.1000	7.71	10.0	-22.9*	20.0
2-Chlorobenzotrifluoride	Ave	1.670	1.682	0.0100	10.1	10.0	0.7	20.0
Isopropylbenzene	Ave	5.400	5.577	0.1000	10.3	10.0	3.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.464	1.270	0.3000	8.67	10.0	-13.3	20.0
Bromobenzene	Ave	0.8995	0.8981	0.0100	9.98	10.0	-0.2	20.0
1,2,3-Trichloropropane	Ave	0.3271	0.3395	0.0100	10.4	10.0	3.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4491	0.4276	0.0100	9.52	10.0	-4.8	20.0
N-Propylbenzene	Ave	1.062	1.135	0.0100	10.7	10.0	6.9	20.0
2-Chlorotoluene	Ave	0.8959	0.9216	0.0100	10.3	10.0	2.9	20.0
3-Chlorotoluene	Ave	0.9551	0.9786	0.0100	10.2	10.0	2.5	20.0
1,3,5-Trimethylbenzene	Ave	3.181	3.377	0.0100	10.6	10.0	6.1	20.0
4-Chlorotoluene	Ave	0.996	1.062	0.0100	10.7	10.0	6.6	20.0
tert-Butylbenzene	Ave	2.610	2.683	0.0100	10.3	10.0	2.8	20.0
1,2,4-Trimethylbenzene	Ave	3.269	3.488	0.0100	10.7	10.0	6.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9007	0.9555	0.0100	10.6	10.0	6.1	20.0
sec-Butylbenzene	Ave	3.761	3.996	0.0100	10.6	10.0	6.2	20.0
1,3-Dichlorobenzene	Ave	1.698	1.660	0.6000	9.78	10.0	-2.2	20.0
4-Isopropyltoluene	Ave	3.029	3.234	0.0100	10.7	10.0	6.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCVIS 180-130947/2 Calibration Date: 01/16/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 12/15/2014 14:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/15/2014 16:57

Lab File ID: 50116002.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	1.753	1.749	0.5000	9.98	10.0	-0.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8452	0.8344	0.0100	9.87	10.0	-1.3	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9219	0.9126	0.0100	9.90	10.0	-1.0	20.0
n-Butylbenzene	Ave	2.768	2.751	0.0100	9.94	10.0	-0.6	20.0
1,2-Dichlorobenzene	Ave	1.576	1.509	0.4000	9.58	10.0	-4.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1429	0.1011	0.0500	7.08	10.0	-29.2*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9929	1.021	0.0100	30.8	30.0	2.8	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.9468	1.000	0.0100	21.1	20.0	5.7	20.0
1,2,4-Trichlorobenzene	Ave	0.6536	0.5968	0.2000	9.13	10.0	-8.7	20.0
Hexachlorobutadiene	Ave	0.3100	0.3035	0.0100	9.79	10.0	-2.1	20.0
Naphthalene	Ave	1.745	1.518	0.0100	8.70	10.0	-13.0	20.0
1,2,3-Trichlorobenzene	Ave	0.5125	0.4692	0.0100	9.15	10.0	-8.5	20.0
2,4,5-Trichlorotoluene	Ave	0.2177	0.2255	0.0100	10.4	10.0	3.6	20.0
2,3,6-Trichlorotoluene	Ave	0.1994	0.2148	0.0100	10.8	10.0	7.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2128	0.2036		9.56	10.0	-4.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3494	0.3159		9.04	10.0	-9.6	20.0
Toluene-d8 (Surr)	Ave	4.159	3.835		9.22	10.0	-7.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.585	1.419		8.96	10.0	-10.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 16-Jan-2015 12:52:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005307-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 15:00:10 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 13:30:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.302	0.000	87	174949	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	507858	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	99	118302	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	158394	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.522	6.522	0.000	78	103373	50.0	47.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	92	160422	50.0	45.2	
$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	96	453635	50.0	46.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	84	167879	50.0	44.8	
11 Dichlorodifluoromethane	85	1.631	1.631	0.000	97	150442	50.0	49.4	
12 Chloromethane	50	1.777	1.777	0.000	99	270502	50.0	45.0	
13 Vinyl chloride	62	1.905	1.905	0.000	97	197152	50.0	47.8	
14 Butadiene	39	1.954	1.954	0.000	98	286259	50.0	48.8	
15 Bromomethane	94	2.252	2.252	0.000	91	44688	50.0	36.2	M
16 Chloroethane	64	2.386	2.386	0.000	95	99531	50.0	48.7	
17 Dichlorofluoromethane	67	2.653	2.653	0.000	96	196959	50.0	48.5	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	91	134135	50.0	52.1	
20 Ethyl ether	59	3.085	3.085	0.000	95	177989	50.0	48.7	
21 Acrolein	56	3.268	3.268	0.000	98	89625	150.0	163.9	
22 1,1-Dichloroethene	96	3.371	3.371	0.000	92	137565	50.0	49.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.432	0.000	95	141582	50.0	50.5	
24 Acetone	43	3.493	3.493	0.000	99	160469	100.0	100.8	
25 Iodomethane	142	3.578	3.578	0.000	96	181008	50.0	51.1	
26 Carbon disulfide	76	3.669	3.669	0.000	99	207966	50.0	38.8	
28 3-Chloro-1-propene	76	3.937	3.937	0.000	87	68172	50.0	43.7	
30 Methyl acetate	43	4.016	4.016	0.000	100	989452	250.0	214.0	
31 Methylene Chloride	84	4.150	4.150	0.000	89	165881	50.0	49.5	
32 2-Methyl-2-propanol	59	4.424	4.424	0.000	85	120040	500.0	513.2	
33 Acrylonitrile	53	4.545	4.545	0.000	100	934523	500.0	438.5	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	54	141775	50.0	50.6	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	89	333465	50.0	45.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.983	0.000	94	329368	50.0	46.5	
37 1,1-Dichloroethane	63	5.172	5.172	0.000	96	326566	50.0	50.1	
38 Vinyl acetate	43	5.293	5.293	0.000	97	245000	50.0	39.2	
44 2,2-Dichloropropane	77	5.926	5.926	0.000	58	93930	50.0	54.4	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	88	145995	50.0	48.2	
46 2-Butanone (MEK)	43	5.987	5.987	0.000	96	239216	100.0	95.5	
49 Chlorobromomethane	128	6.230	6.230	0.000	84	62818	50.0	49.7	
51 Tetrahydrofuran	42	6.285	6.285	0.000	92	149579	100.0	78.5	
52 Chloroform	83	6.346	6.346	0.000	95	243939	50.0	49.5	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	92	153272	50.0	48.0	
54 Cyclohexane	56	6.583	6.583	0.000	93	421202	50.0	46.9	
56 Carbon tetrachloride	117	6.717	6.717	0.000	65	140378	50.0	50.6	
55 1,1-Dichloropropene	75	6.723	6.723	0.000	84	207063	50.0	51.4	
57 Isobutyl alcohol	41	6.936	6.936	0.000	94	155661	1250.0	1067.0	
58 Benzene	78	6.954	6.954	0.000	95	611141	50.0	48.7	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	95	244034	50.0	50.0	
62 n-Heptane	43	7.277	7.277	0.000	97	334268	50.0	46.5	
64 Trichloroethene	130	7.666	7.666	0.000	96	139720	50.0	52.0	
66 Methylcyclohexane	83	7.861	7.861	0.000	94	254128	50.0	49.4	
67 1,2-Dichloropropane	63	7.897	7.897	0.000	94	171652	50.0	44.4	
68 Dibromomethane	93	8.019	8.019	0.000	95	75262	50.0	47.2	
70 1,4-Dioxane	88	8.049	8.049	0.000	89	26827	1000.0	927.8	
71 Dichlorobromomethane	83	8.195	8.195	0.000	96	141566	50.0	43.0	
73 2-Chloroethyl vinyl ether	63	8.518	8.518	0.000	83	183079	100.0	113.5	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	84	174417	50.0	46.5	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	98	463397	100.0	90.7	
76 Toluene	91	8.986	8.986	0.000	97	608346	50.0	48.4	
77 trans-1,3-Dichloropropene	75	9.217	9.217	0.000	91	141724	50.0	48.7	
78 Ethyl methacrylate	69	9.315	9.315	0.000	90	154339	50.0	44.6	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	94	110933	50.0	45.0	
80 Tetrachloroethene	164	9.534	9.534	0.000	93	112911	50.0	48.7	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	91	214556	50.0	45.2	
82 2-Hexanone	43	9.655	9.655	0.000	97	372446	100.0	91.1	
84 Chlorodibromomethane	129	9.789	9.789	0.000	90	76768	50.0	42.4	
85 Ethylene Dibromide	107	9.905	9.905	0.000	97	109128	50.0	47.7	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	93	209815	50.0	50.8	
87 Chlorobenzene	112	10.391	10.391	0.000	90	392052	50.0	51.3	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	97	194461	50.0	50.4	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	91	103311	50.0	44.3	
90 Ethylbenzene	106	10.501	10.501	0.000	98	220153	50.0	50.9	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	97	275174	50.0	52.2	
92 o-Xylene	106	11.012	11.012	0.000	93	256558	50.0	50.1	
93 Styrene	104	11.024	11.024	0.000	89	413525	50.0	48.0	
94 Bromoform	173	11.207	11.207	0.000	95	44137	50.0	38.5	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	96	198936	50.0	50.3	
97 Isopropylbenzene	105	11.377	11.377	0.000	97	659737	50.0	51.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	95	150239	50.0	43.4	
100 Bromobenzene	156	11.687	11.687	0.000	94	142245	50.0	49.9	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	88	53771	50.0	51.9	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.730	0.000	66	67733	50.0	47.6	
103 N-Propylbenzene	120	11.791	11.791	0.000	99	179749	50.0	53.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	94	145972	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.937	11.937	0.000	96	155006	50.0	51.2	
106 1,3,5-Trimethylbenzene	105	11.961	11.961	0.000	95	534869	50.0	53.1	
107 4-Chlorotoluene	126	11.985	11.985	0.000	98	168150	50.0	53.3	
108 tert-Butylbenzene	119	12.289	12.289	0.000	94	424903	50.0	51.4	
110 1,2,4-Trimethylbenzene	105	12.338	12.338	0.000	97	552471	50.0	53.4	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.399	0.000	97	151348	50.0	53.0	
112 sec-Butylbenzene	105	12.508	12.508	0.000	96	632963	50.0	53.1	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	95	262977	50.0	48.9	
114 4-Isopropyltoluene	119	12.654	12.654	0.000	97	512271	50.0	53.4	
115 1,4-Dichlorobenzene	146	12.709	12.709	0.000	93	277041	50.0	49.9	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	96	132161	50.0	49.4	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	97	144550	50.0	49.5	
120 n-Butylbenzene	91	13.062	13.062	0.000	98	435687	50.0	49.7	
121 1,2-Dichlorobenzene	146	13.080	13.080	0.000	94	239034	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	67	16019	50.0	35.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.005	0.000	99	485027	150.0	154.2	
124 1,3,5-Trichlorobenzene	180	14.072	14.072	0.000	95	131724	50.0	45.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	99	316923	100.0	105.7	
126 1,2,4-Trichlorobenzene	180	14.692	14.692	0.000	94	94531	50.0	45.7	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	96	48077	50.0	49.0	
128 Naphthalene	128	14.942	14.942	0.000	97	240374	50.0	43.5	
129 1,2,3-Trichlorobenzene	180	15.185	15.185	0.000	93	74315	50.0	45.8	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	96	35712	50.0	51.8	
130 2,3,6-Trichlorotoluene	159	16.061	16.061	0.000	93	34021	50.0	53.8	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.8	
S 133 Xylenes, Total	106				0		100.0	102.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00095	Amount Added:	2.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaWVApri Res_00001	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
voaWAcropri R_00006	Amount Added:	6.00	Units: uL	
VOA2CEVE2ND_00004	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

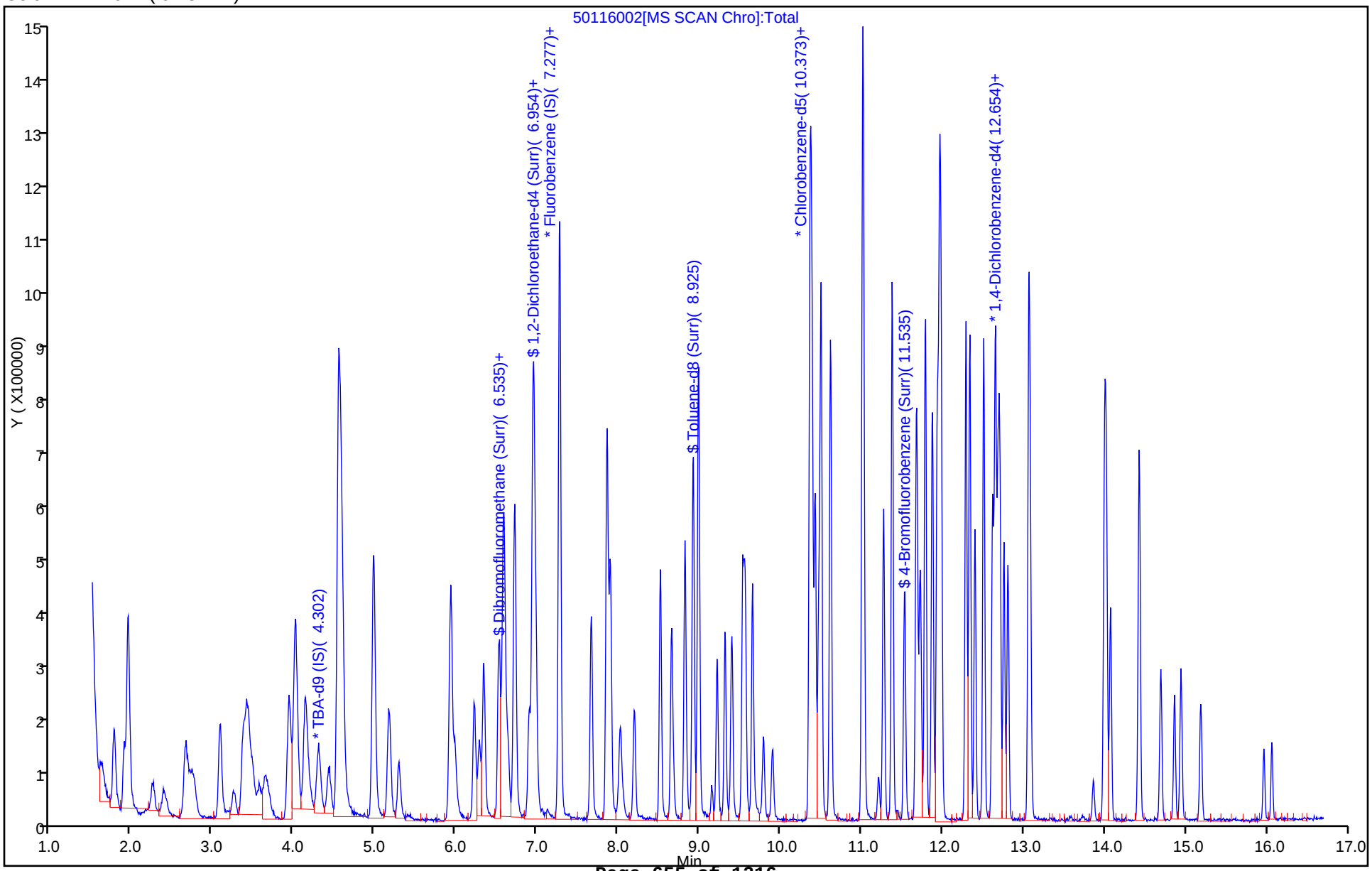
Report Date: 16-Jan-2015 15:00:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116002.D

Injection Date:	16-Jan-2015 12:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

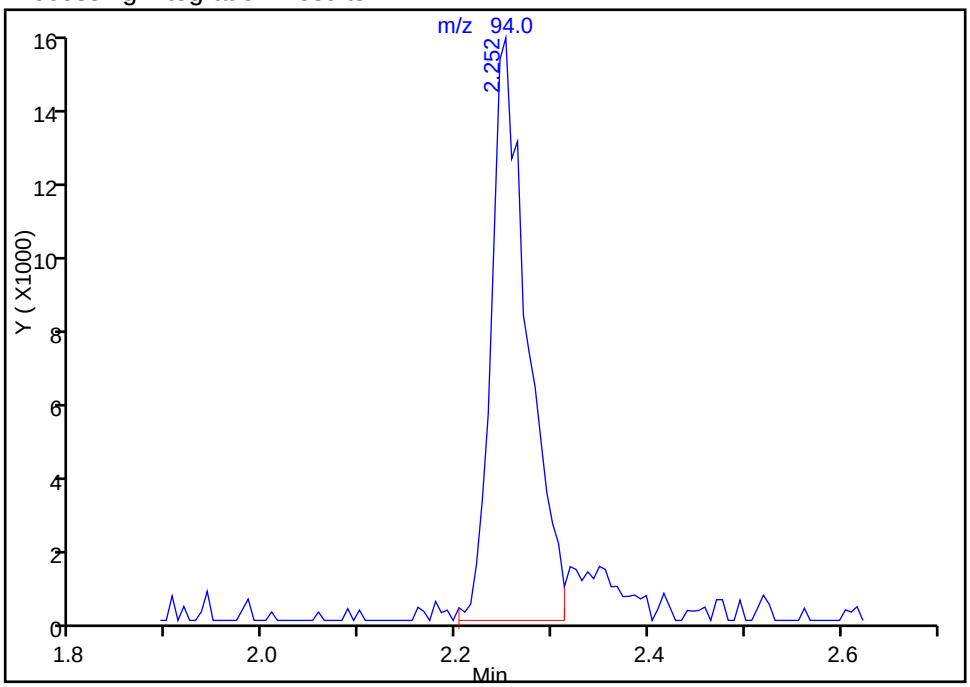
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116002.D				
Injection Date:	16-Jan-2015 12:52:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

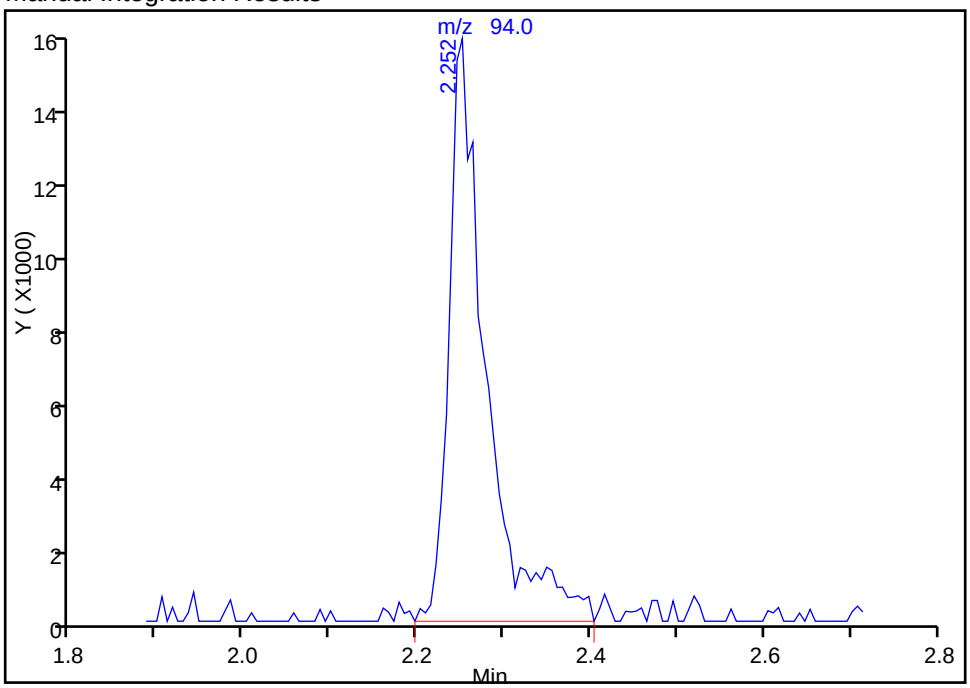
Processing Integration Results

RT: 2.25
Response: 39720
Amount: 32.197771



Manual Integration Results

RT: 2.25
Response: 44688
Amount: 36.224925



Reviewer: fergusond, 16-Jan-2015 13:30:59
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 15-Dec-2014 10:05:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0004875-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Dec-2014 08:50:57 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 15-Dec-2014 10:19:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.359	8.359	0.000	0	90620	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

VOABFB25_00056 Amount Added: 1.00 Units: uL

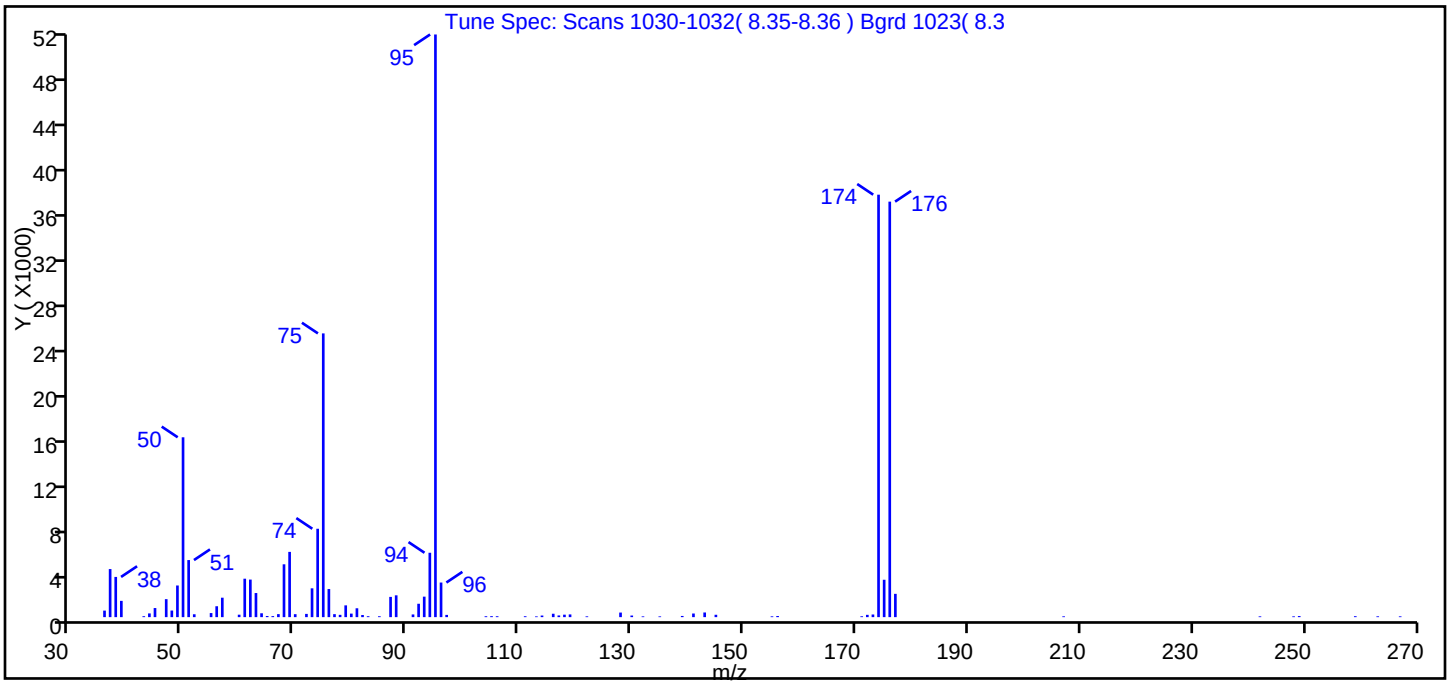
Report Date: 16-Dec-2014 08:50:57 Chrom Revision: 2.2 06-Nov-2014 14:50:32

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215001.D				
Injection Date:	15-Dec-2014 10:05:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	30.9
75	30 to 60% of m/z 95	48.7
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	72.5
175	5 to 9% of m/z 174	6.4 (8.8)
176	Greater than 95% but less than 101% of m/z 174	71.3 (98.4)
177	5 to 9% of m/z 176	4.0 (5.6)

Data File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 15-Dec-2014 10:05:30
Spectrum: Tune Spec: Scans 1030-1032(8.35-8.36) Bgrd 1023(8.3
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	579	65.00	100	91.00	239	135.00	67
37.00	4259	66.00	91	92.00	1186	139.00	106
38.00	3563	67.00	267	93.00	1816	141.00	322
39.00	1442	68.00	4681	94.00	5704	143.00	413
43.00	82	69.00	5781	95.00	51616	145.00	210
44.00	330	70.00	263	96.00	3066	155.00	71
45.00	806	72.00	288	97.00	199	156.00	100
47.00	1594	73.00	2553	104.00	79	171.00	76
48.00	585	74.00	7830	105.00	86	172.00	204
49.00	2804	75.00	25136	106.00	80	173.00	235
50.00	15933	76.00	2490	111.00	79	174.00	37424
51.00	5056	77.00	265	113.00	67	175.00	3312
52.00	256	78.00	204	114.00	142	176.00	36808
55.00	361	79.00	1043	116.00	302	177.00	2064
56.00	966	80.00	313	117.00	150	207.00	71
57.00	1723	81.00	786	118.00	219	242.00	69
60.00	217	82.00	188	119.00	241	248.00	69
61.00	3405	83.00	81	122.00	71	249.00	95
62.00	3328	85.00	79	128.00	406	259.00	83
63.00	2135	87.00	1794	130.00	142	263.00	72
64.00	343	88.00	1933	132.00	67	267.00	70

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 14-Jan-2015 09:04:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005267-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 14-Jan-2015 15:01:06 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 14-Jan-2015 09:28:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.337	8.337	0.000	0	112960	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

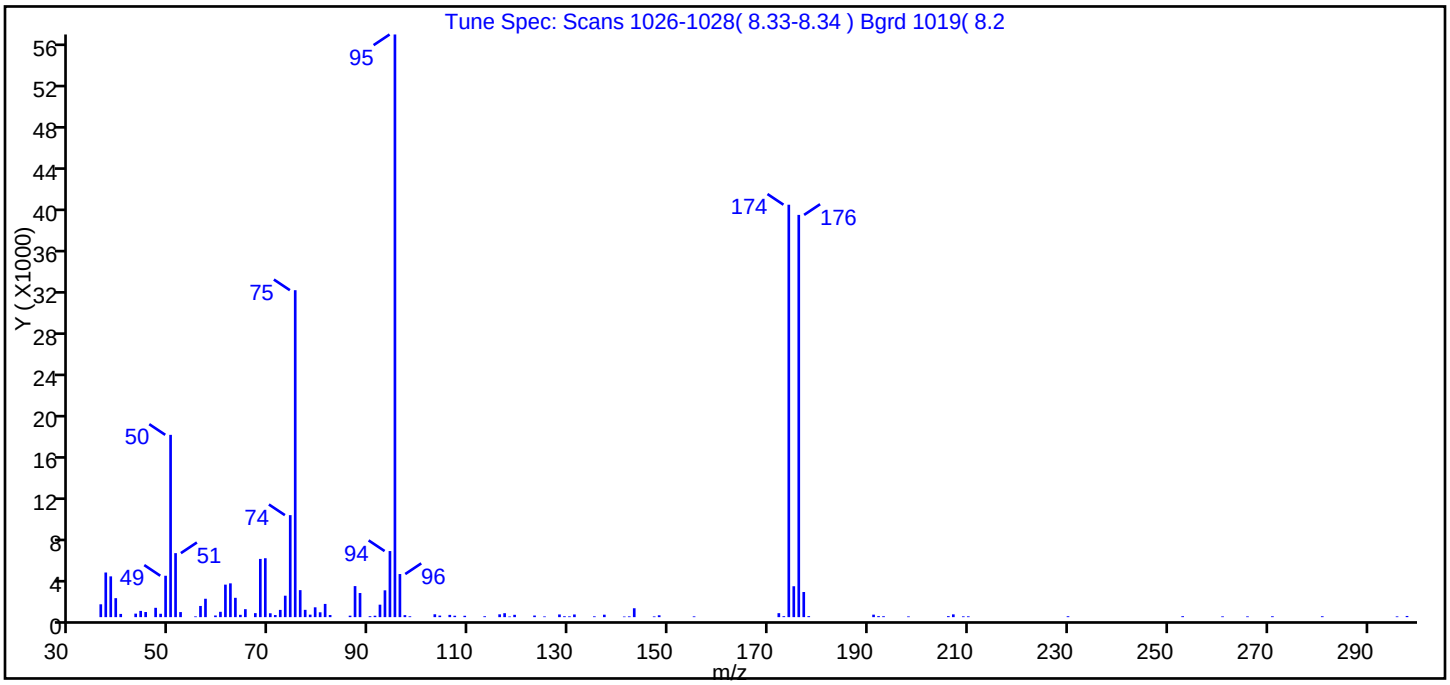
VOABFB25_00057 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114001.D				
Injection Date:	14-Jan-2015 09:04:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	31.3
75	30 to 60% of m/z 95	56.1
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	70.8
175	5 to 9% of m/z 174	5.3 (7.5)
176	Greater than 95% but less than 101% of m/z 174	69.0 (97.5)
177	5 to 9% of m/z 176	4.3 (6.2)

Report Date: 14-Jan-2015 15:01:07 Chrom Revision: 2.2 06-Nov-2014 14:50:32

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 14-Jan-2015 09:04:30
Spectrum: Tune Spec: Scans 1026-1028(8.33-8.34) Bgrd 1019(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1253	68.00	5677	97.00	196	155.00	75
37.00	4353	69.00	5744	98.00	82	172.00	388
38.00	3977	70.00	378	103.00	280	173.00	94
39.00	1851	71.00	204	104.00	152	174.00	40216
40.00	314	72.00	707	106.00	220	175.00	3013
43.00	343	73.00	2091	107.00	138	176.00	39224
44.00	609	74.00	9946	109.00	133	177.00	2451
45.00	500	75.00	31880	113.00	88	178.00	98
47.00	910	76.00	2634	116.00	274	191.00	243
48.00	329	77.00	713	117.00	385	192.00	99
49.00	4036	78.00	241	118.00	62	193.00	88
50.00	17776	79.00	958	119.00	227	198.00	70
51.00	6241	80.00	474	123.00	157	206.00	96
52.00	495	81.00	1289	125.00	70	207.00	271
55.00	75	82.00	206	128.00	262	209.00	77
56.00	1091	86.00	143	129.00	87	210.00	80
57.00	1793	87.00	3027	130.00	77	230.00	88
59.00	161	88.00	2352	131.00	261	253.00	92
60.00	521	90.00	91	135.00	80	261.00	74
61.00	3171	91.00	139	137.00	239	266.00	74
62.00	3295	92.00	1216	141.00	59	271.00	85
63.00	1884	93.00	2616	142.00	76	281.00	86
64.00	225	94.00	6444	143.00	867	296.00	74
65.00	777	95.00	56816	147.00	70	298.00	114
67.00	390	96.00	4203	148.00	181		

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115006.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 15-Jan-2015 11:21:30 ALS Bottle#: 1 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005292-005
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 13:52:53 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 11:37:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.337	8.337	0.000	0	239015	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

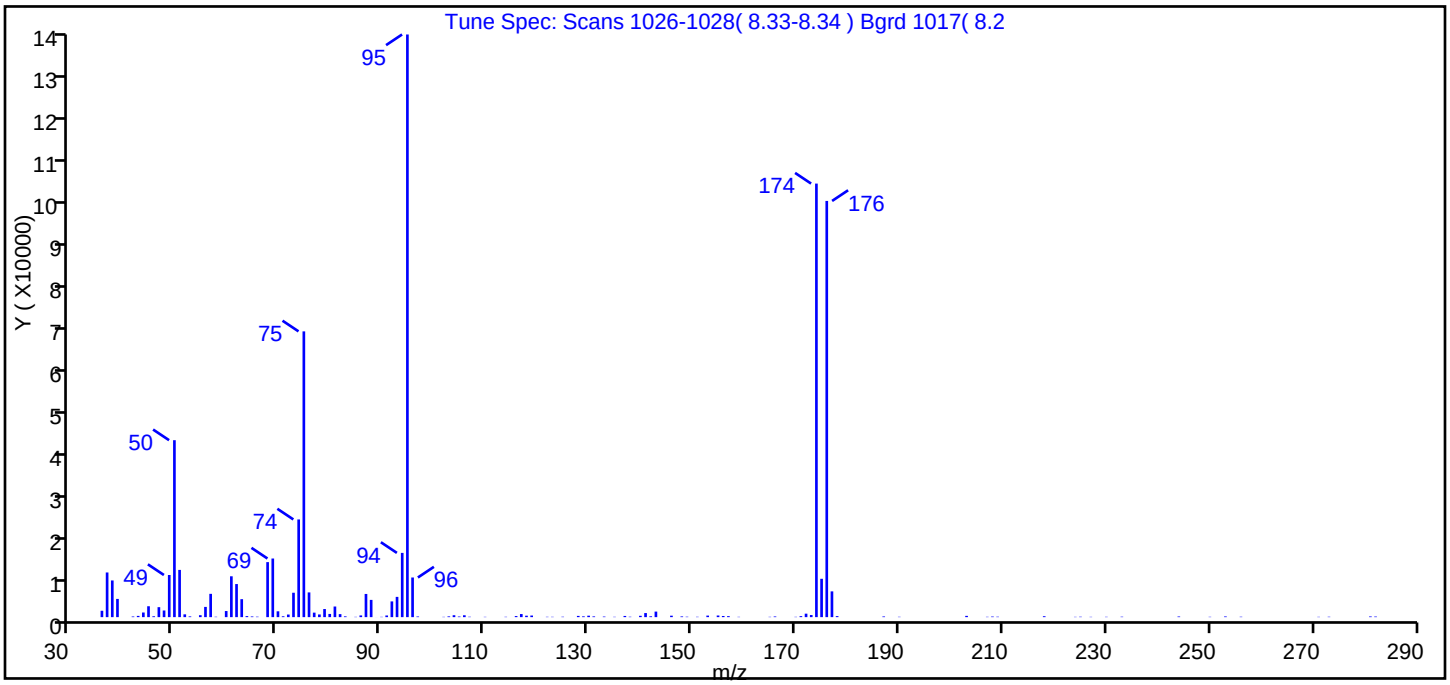
VOABFB25_00057 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115006.D				
Injection Date:	15-Jan-2015 11:21:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	30.4
75	30 to 60% of m/z 95	49.0
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	74.4
175	5 to 9% of m/z 174	6.6 (8.8)
176	Greater than 95% but less than 101% of m/z 174	71.4 (96.0)
177	5 to 9% of m/z 176	4.4 (6.2)

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 15-Jan-2015 11:21:30
Spectrum: Tune Spec: Scans 1026-1028(8.33-8.34) Bgrd 1017(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 123

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1441	72.00	589	110.00	69	166.00	153
37.00	10088	73.00	5511	114.00	79	170.00	71
38.00	8285	74.00	22064	116.00	247	171.00	227
39.00	4115	75.00	64536	117.00	698	172.00	784
42.00	146	76.00	5585	118.00	326	173.00	473
43.00	284	77.00	1016	119.00	364	174.00	97912
44.00	1048	78.00	606	122.00	78	175.00	8660
45.00	2462	79.00	1833	123.00	74	176.00	93992
46.00	198	80.00	723	125.00	93	177.00	5820
47.00	2253	81.00	2401	128.00	281	178.00	232
48.00	1503	82.00	680	129.00	179	187.00	154
49.00	9516	83.00	176	130.00	329	190.00	80
50.00	39960	85.00	66	131.00	169	203.00	287
51.00	10668	86.00	385	133.00	130	207.00	77
52.00	633	87.00	5237	135.00	74	208.00	134
53.00	164	88.00	3896	137.00	270	209.00	99
55.00	435	89.00	7	138.00	94	218.00	203
56.00	2312	90.00	69	140.00	302	224.00	68
57.00	5262	91.00	375	141.00	924	225.00	96
58.00	88	92.00	3554	142.00	193	227.00	68
60.00	1379	93.00	4576	143.00	1253	230.00	76
61.00	9226	94.00	14510	146.00	329	233.00	100
62.00	7473	95.00	131584	148.00	162	244.00	146
63.00	4060	96.00	8953	149.00	97	250.00	77
64.00	234	97.00	147	151.00	81	253.00	156
65.00	154	102.00	66	153.00	348	256.00	94
66.00	105	103.00	171	155.00	368	271.00	70
68.00	12425	104.00	433	156.00	257	273.00	92
69.00	13240	105.00	138	157.00	225	281.00	155
70.00	1319	106.00	423	159.00	70	282.00	133
71.00	192	107.00	91	165.00	73		

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116006.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-Jan-2015 12:21:30 ALS Bottle#: 1 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005307-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 15:00:09 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 12:43:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.335	8.335	0.000	0	161066	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

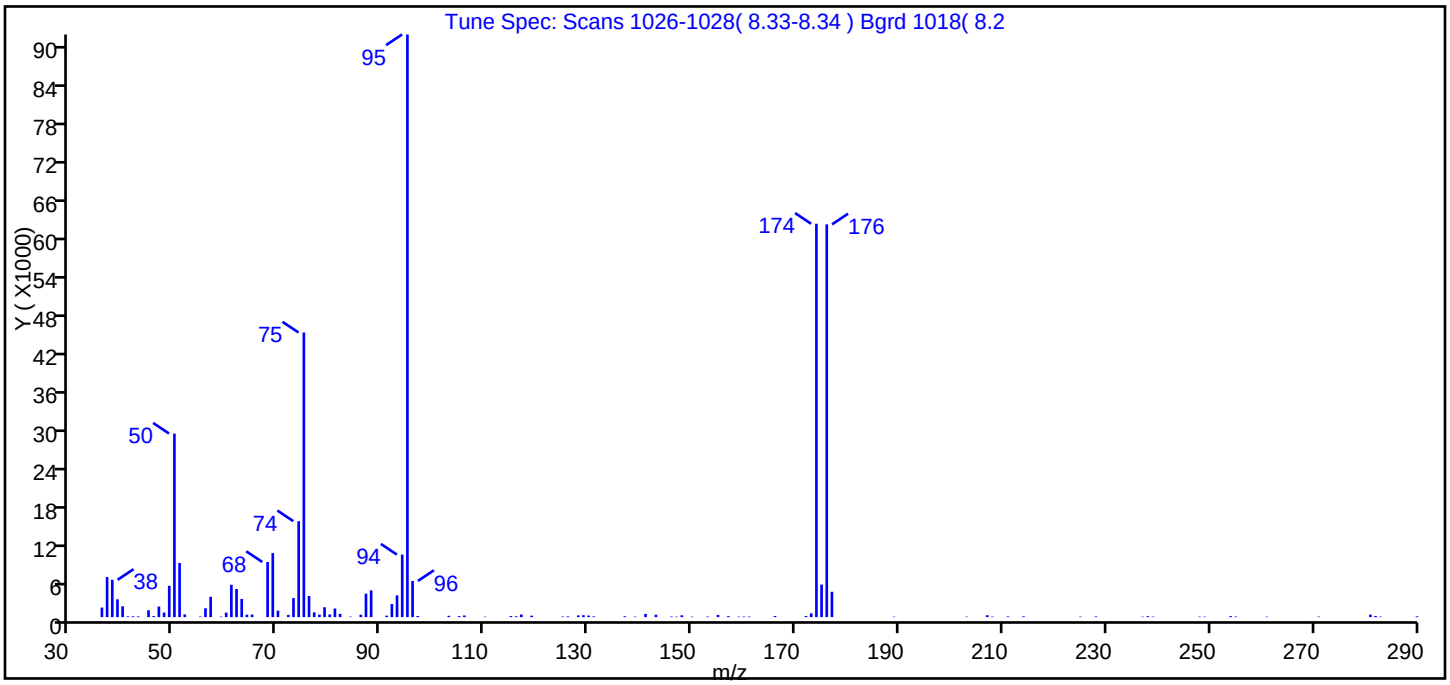
VOABFB25_00057 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116006.D				
Injection Date:	16-Jan-2015 12:21:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	31.5
75	30 to 60% of m/z 95	48.9
96	5 to 9% of m/z 95	6.2
173	Less than 2% of m/z 174	0.7 (1.0)
174	50 to 120% of m/z 95	67.5
175	5 to 9% of m/z 174	5.6 (8.3)
176	Greater than 95% but less than 101% of m/z 174	67.4 (99.8)
177	5 to 9% of m/z 176	4.4 (6.5)

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 16-Jan-2015 12:21:30
Spectrum: Tune Spec: Scans 1026-1028(8.33-8.34) Bgrd 1018(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 107

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1497	69.00	10014	110.00	69	173.00	593
37.00	6266	70.00	1011	115.00	171	174.00	61496
38.00	5839	72.00	351	116.00	139	175.00	5089
39.00	2788	73.00	2982	117.00	416	176.00	61400
40.00	1699	74.00	15000	119.00	234	177.00	3968
41.00	120	75.00	44496	125.00	92	189.00	70
42.00	127	76.00	3314	126.00	118	203.00	79
43.00	122	77.00	753	128.00	274	207.00	299
45.00	1074	78.00	394	129.00	307	208.00	83
46.00	168	79.00	1550	130.00	247	211.00	108
47.00	1657	80.00	419	131.00	119	214.00	124
48.00	716	81.00	1351	137.00	138	225.00	80
49.00	4904	82.00	513	139.00	83	228.00	108
50.00	28696	84.00	80	141.00	501	237.00	72
51.00	8459	86.00	387	143.00	380	238.00	146
52.00	431	87.00	3670	146.00	94	239.00	78
55.00	93	88.00	4185	147.00	77	248.00	79
56.00	1390	91.00	235	148.00	291	249.00	74
57.00	3178	92.00	2058	150.00	75	254.00	160
59.00	83	93.00	3402	153.00	87	255.00	93
60.00	708	94.00	9776	155.00	344	261.00	79
61.00	5058	95.00	91080	157.00	153	271.00	85
62.00	4394	96.00	5657	159.00	76	281.00	400
63.00	2842	97.00	181	160.00	90	282.00	188
64.00	380	103.00	210	161.00	89	283.00	79
65.00	410	105.00	152	166.00	179	290.00	131
68.00	8622	106.00	260	172.00	189		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130711/4

Matrix: Water Lab File ID: 50114004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 12:17

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 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.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130711/4

Matrix: Water Lab File ID: 50114004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 12:17

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114004.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 14-Jan-2015 12:17:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005267-004
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 14-Jan-2015 15:01:18 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 14-Jan-2015 15:01:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.299	-0.013	87	243700	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.274	-0.001	96	541712	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.364	-0.001	92	121751	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.687	12.688	-0.001	96	174539	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.526	0.005	92	121251	50.0	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.897	0.005	92	185934	50.0	49.1	
$ 7 Toluene-d8 (Surr)	98	8.922	8.923	-0.001	96	498051	50.0	49.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.537	11.532	0.005	82	192346	50.0	49.8	
11 Dichlorodifluoromethane	85		1.622					ND	
12 Chloromethane	50		1.781					ND	
13 Vinyl chloride	62		1.908					ND	
14 Butadiene	39	1.853	1.945	-0.092	2	687		0.1097	
15 Bromomethane	94		2.255					ND	
16 Chloroethane	64		2.401					ND	
17 Dichlorofluoromethane	67		2.669					ND	
18 Trichlorofluoromethane	101		2.724					ND	
19 Ethanol	45		3.027					ND	
20 Ethyl ether	59		3.089					ND	
21 Acrolein	56		3.259					ND	
22 1,1-Dichloroethene	96		3.387					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.429					ND	
24 Acetone	43		3.490					ND	
25 Iodomethane	142		3.612					ND	
26 Carbon disulfide	76		3.660					ND	
27 Isopropyl alcohol	45		3.805					ND	
28 3-Chloro-1-propene	76		3.940					ND	
29 Acetonitrile	40		3.964					ND	
30 Methyl acetate	43		4.013					ND	
31 Methylene Chloride	84	4.146	4.141	0.005	73	11837		-1.68	M
32 2-Methyl-2-propanol	59		4.427					ND	
33 Acrylonitrile	53		4.549					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.561					ND	
35 Methyl tert-butyl ether	73		4.591					ND	
36 Hexane	57		4.987					ND	
37 1,1-Dichloroethane	63		5.169					ND	
38 Vinyl acetate	43		5.291					ND	
39 2-Chloro-1,3-butadiene	53		5.332					ND	
41 Isopropyl ether	45		5.344					ND	
40 Isopropyl ether TIC	45		5.430					ND	
42 Tert-butyl ethyl ether	59		5.819					ND	
44 2,2-Dichloropropane	77		5.923					ND	
45 cis-1,2-Dichloroethene	96		5.936					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.978					ND	
47 Propionitrile	54		6.081					ND	
48 Ethyl acetate	43		6.111					ND	
49 Chlorobromomethane	128		6.228					ND	
50 Methacrylonitrile	41		6.257					ND	
51 Tetrahydrofuran	42	6.300	6.282	0.018	37	3618		1.78	
52 Chloroform	83		6.343					ND	
53 1,1,1-Trichloroethane	97		6.532					ND	
54 Cyclohexane	56		6.587					ND	
56 Carbon tetrachloride	117		6.720					ND	
55 1,1-Dichloropropene	75		6.720					ND	
57 Isobutyl alcohol	41		6.933					ND	
58 Benzene	78		6.952					ND	
59 1,2-Dichloroethane	62	6.975	6.982	-0.007	58	5395		1.04	
61 Tert-amyl methyl ether	73		7.127					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.280					ND	
64 Trichloroethene	130		7.669					ND	
63 n-Butanol	56		7.681					ND	
65 Ethyl acrylate	55		7.833					ND	
66 Methylcyclohexane	83		7.858					ND	
67 1,2-Dichloropropane	63		7.901					ND	
68 Dibromomethane	93		8.016					ND	
70 1,4-Dioxane	88		8.059					ND	
69 Methyl methacrylate	69		8.070					ND	
71 Dichlorobromomethane	83		8.199					ND	
72 2-Nitropropane	41		8.459					ND	
73 2-Chloroethyl vinyl ether	63		8.515					ND	
74 cis-1,3-Dichloropropene	75		8.655					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.819					ND	
76 Toluene	91		8.990					ND	
77 trans-1,3-Dichloropropene	75		9.221					ND	
78 Ethyl methacrylate	69		9.318					ND	
79 1,1,2-Trichloroethane	97		9.403					ND	
80 Tetrachloroethene	164		9.537					ND	
81 1,3-Dichloropropane	76		9.567					ND	
82 2-Hexanone	43		9.653					ND	
84 Chlorodibromomethane	129		9.793					ND	
83 n-Butyl acetate	43		9.804					ND	
85 Ethylene Dibromide	107		9.896					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.377					ND	
87 Chlorobenzene	112		10.389					ND	
88 4-Chlorobenzotrifluoride	180		10.431					ND	
89 1,1,1,2-Tetrachloroethane	131		10.474					ND	
90 Ethylbenzene	106		10.504					ND	
91 m-Xylene & p-Xylene	106		10.620					ND	
92 o-Xylene	106		11.015					ND	
93 Styrene	104		11.027					ND	
94 Bromoform	173		11.210					ND	
96 2-Chlorobenzotrifluoride	180		11.277					ND	
95 Cyclohexanol	57	11.288	11.353	-0.065	1	147			NC
97 Isopropylbenzene	105		11.380					ND	
98 Cyclohexanone	55		11.495					ND	
99 1,1,2,2-Tetrachloroethane	83		11.672					ND	
100 Bromobenzene	156		11.684					ND	
101 1,2,3-Trichloropropane	110		11.721					ND	
102 trans-1,4-Dichloro-2-buten	53		11.733					ND	
103 N-Propylbenzene	120		11.788					ND	
104 2-Chlorotoluene	126		11.873					ND	
105 3-Chlorotoluene	126		11.934					ND	
106 1,3,5-Trimethylbenzene	105		11.964					ND	
107 4-Chlorotoluene	126		11.983					ND	
108 tert-Butylbenzene	119		12.293					ND	
109 Pentachloroethane	167		12.328					ND	
110 1,2,4-Trimethylbenzene	105		12.335					ND	
111 1,2-dichloro-4-(trifluorom	214		12.402					ND	
112 sec-Butylbenzene	105		12.506					ND	
113 1,3-Dichlorobenzene	146		12.621					ND	
114 4-Isopropyltoluene	119		12.652					ND	
115 1,4-Dichlorobenzene	146		12.706					ND	
116 2,4-Dichloro-1-(triflourom	214		12.761					ND	
117 1,2,3-Trimethylbenzene	105		12.778					ND	
118 2,5-Dichlorobenzotrifluori	214		12.810					ND	
119 Benzyl chloride	91		12.864					ND	
120 n-Butylbenzene	91		13.065					ND	
121 1,2-Dichlorobenzene	146		13.084					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.856					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.014					ND	
124 1,3,5-Trichlorobenzene	180		14.075					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.428					ND	
126 1,2,4-Trichlorobenzene	180		14.696					ND	
127 Hexachlorobutadiene	225		14.866					ND	
128 Naphthalene	128		14.945					ND	
129 1,2,3-Trichlorobenzene	180		15.189					ND	
131 2,4,5-Trichlorotoluene	159		15.967					ND	
130 2,3,6-Trichlorotoluene	159		16.065					ND	
132 2-Methylnaphthalene	142		16.094					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

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

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

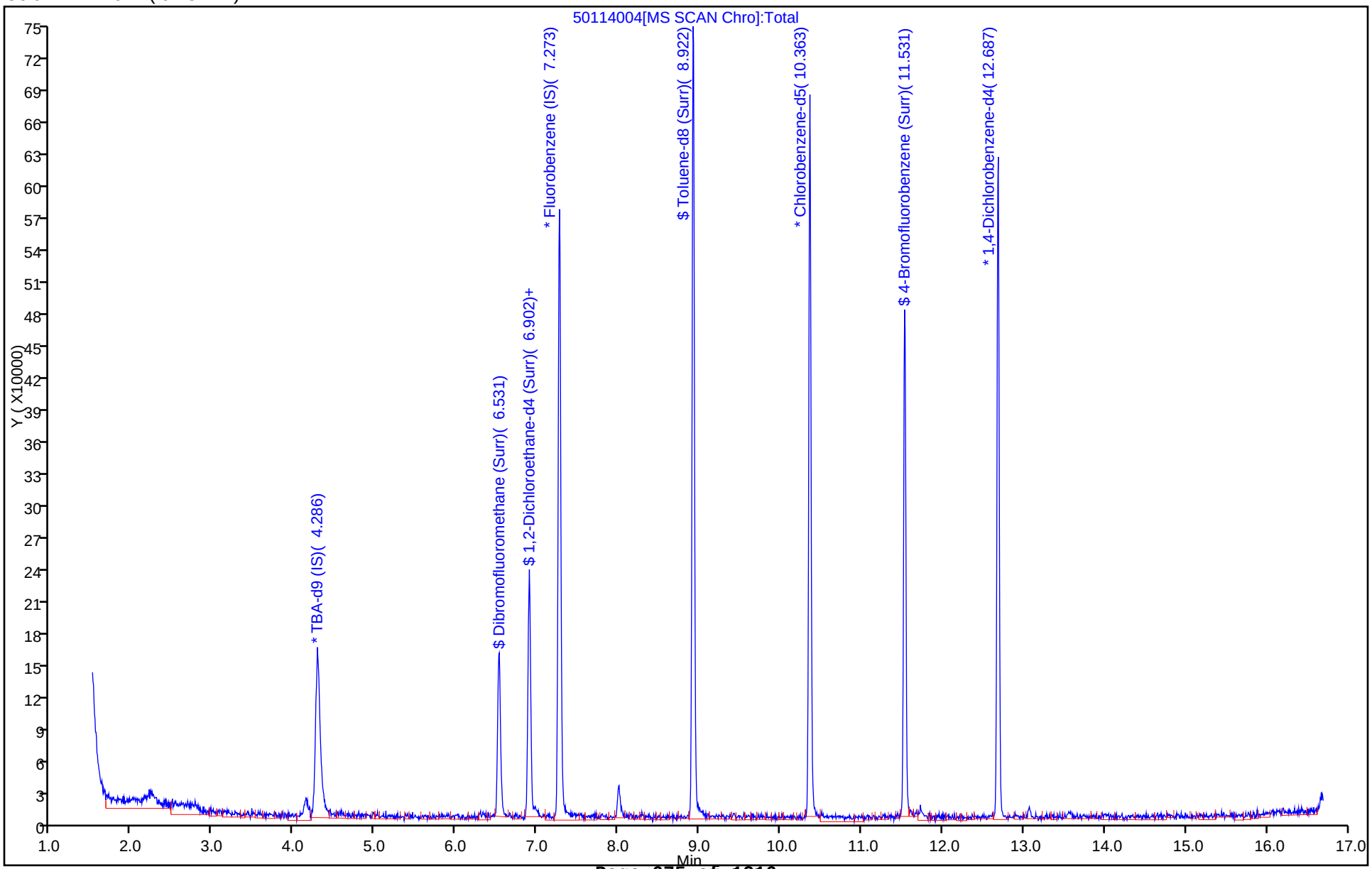
Report Date: 14-Jan-2015 15:01:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114004.D

Injection Date:	14-Jan-2015 12:17:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

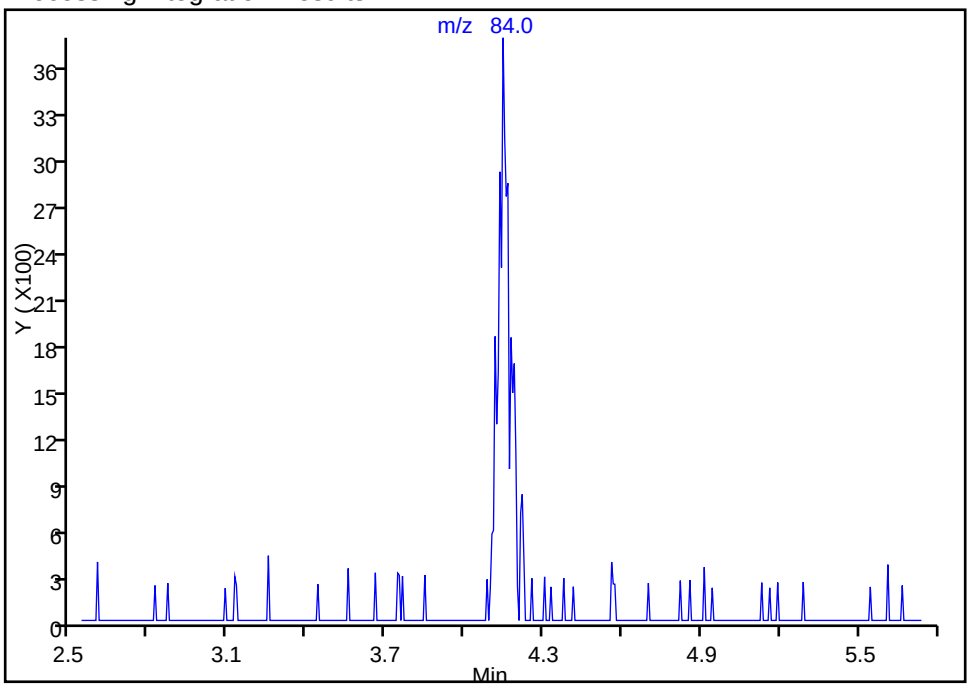
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114004.D				
Injection Date:	14-Jan-2015 12:17:30	Instrument ID:	CHHP5		
Lims ID:	MB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

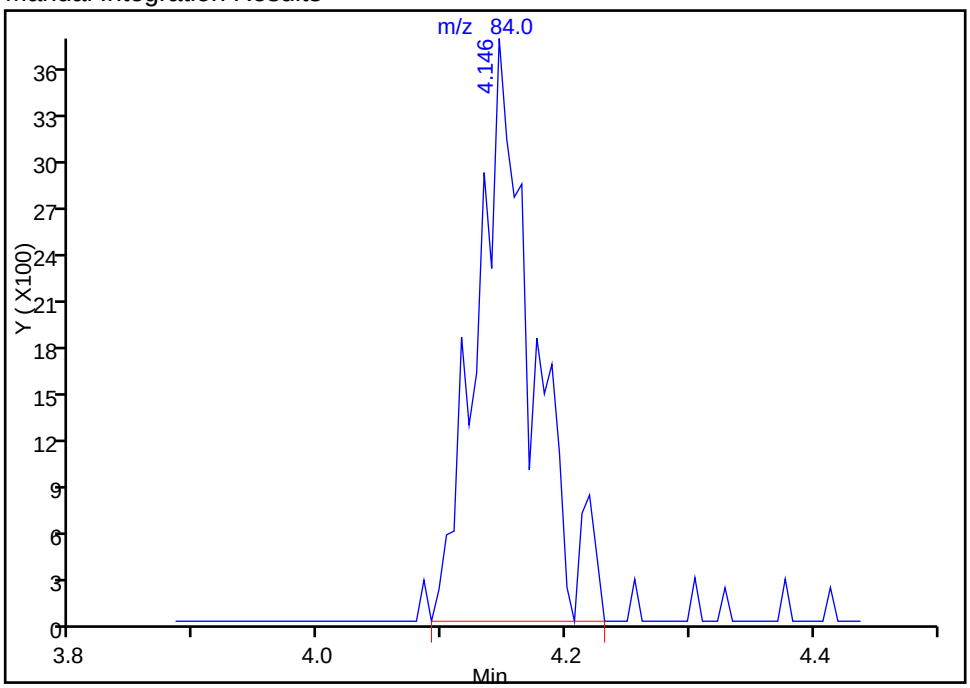
Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results

RT: 4.15
Response: 11837
Amount: -1.680549



Reviewer: fergusond, 14-Jan-2015 13:04:58
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130838/8

Matrix: Water Lab File ID: 50115008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 13:34

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.: 130838 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.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130838/8

Matrix: Water Lab File ID: 50115008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 13:34

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.: 130838 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)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115008.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 15-Jan-2015 13:34:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005292-008
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 14:10:31 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 14:10:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.284	0.003	86	190685	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.277	-0.003	100	498139	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.358	10.362	-0.004	99	110119	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.686	-0.004	98	154329	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.525	0.008	93	112868	50.0	53.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.896	0.007	93	179384	50.0	51.5	
$ 7 Toluene-d8 (Surr)	98	8.929	8.921	0.008	95	464412	50.0	50.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.538	11.531	0.007	84	163729	50.0	46.9	
11 Dichlorodifluoromethane	85		1.633					ND	
12 Chloromethane	50		1.779					ND	
13 Vinyl chloride	62		1.901					ND	
14 Butadiene	39	1.866	1.950	-0.084	1	461		0.0801	
15 Bromomethane	94		2.254					ND	
16 Chloroethane	64		2.388					ND	
17 Dichlorofluoromethane	67		2.649					ND	
18 Trichlorofluoromethane	101		2.704					ND	
19 Ethanol	45		3.006					ND	
20 Ethyl ether	59		3.093					ND	
21 Acrolein	56		3.252					ND	
22 1,1-Dichloroethene	96		3.379					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.428					ND	
24 Acetone	43	3.514	3.495	0.019	67	2641		1.69	
25 Iodomethane	142		3.574					ND	
26 Carbon disulfide	76		3.659					ND	
27 Isopropyl alcohol	45		3.772					ND	
29 Acetonitrile	40		3.924					ND	
28 3-Chloro-1-propene	76		3.945					ND	
30 Methyl acetate	43		4.012					ND	
31 Methylene Chloride	84		4.140					ND	
32 2-Methyl-2-propanol	59		4.432					ND	
33 Acrylonitrile	53		4.547					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		4.560					ND	
35 Methyl tert-butyl ether	73		4.596					ND	
36 Hexane	57		4.985					ND	
37 1,1-Dichloroethane	63		5.174					ND	
38 Vinyl acetate	43		5.290					ND	
39 2-Chloro-1,3-butadiene	53		5.305					ND	
41 Isopropyl ether	45		5.323					ND	
40 Isopropyl ether TIC	45		5.430					ND	
42 Tert-butyl ethyl ether	59		5.798					ND	
44 2,2-Dichloropropane	77		5.928					ND	
45 cis-1,2-Dichloroethene	96		5.934					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.989					ND	
47 Propionitrile	54		6.060					ND	
48 Ethyl acetate	43		6.084					ND	
49 Chlorobromomethane	128		6.220					ND	
50 Methacrylonitrile	41		6.236					ND	
51 Tetrahydrofuran	42		6.287					ND	
52 Chloroform	83		6.342					ND	
53 1,1,1-Trichloroethane	97		6.531					ND	
54 Cyclohexane	56		6.585					ND	
56 Carbon tetrachloride	117		6.719					ND	
55 1,1-Dichloropropene	75		6.725					ND	
57 Isobutyl alcohol	41		6.944					ND	
58 Benzene	78		6.956					ND	
59 1,2-Dichloroethane	62		6.987					ND	
61 Tert-amyl methyl ether	73		7.106					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.279					ND	
63 n-Butanol	56		7.653					ND	
64 Trichloroethene	130		7.668					ND	
65 Ethyl acrylate	55		7.812					ND	
66 Methylcyclohexane	83		7.863					ND	
67 1,2-Dichloropropane	63		7.905					ND	
68 Dibromomethane	93		8.021					ND	
69 Methyl methacrylate	69		8.055					ND	
70 1,4-Dioxane	88		8.064					ND	
71 Dichlorobromomethane	83		8.197					ND	
72 2-Nitropropane	41		8.444					ND	
73 2-Chloroethyl vinyl ether	63		8.520					ND	
74 cis-1,3-Dichloropropene	75		8.654					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824					ND	
76 Toluene	91		8.988					ND	
77 trans-1,3-Dichloropropene	75		9.219					ND	
78 Ethyl methacrylate	69		9.317					ND	
79 1,1,2-Trichloroethane	97		9.402					ND	
80 Tetrachloroethene	164		9.536					ND	
81 1,3-Dichloropropane	76		9.566					ND	
82 2-Hexanone	43		9.657					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.791					ND	
85 Ethylene Dibromide	107		9.901					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.375					ND	
87 Chlorobenzene	112		10.394					ND	
88 4-Chlorobenzotrifluoride	180		10.430					ND	
89 1,1,1,2-Tetrachloroethane	131		10.479					ND	
90 Ethylbenzene	106		10.503					ND	
91 m-Xylene & p-Xylene	106		10.619					ND	
92 o-Xylene	106		11.014					ND	
93 Styrene	104		11.026					ND	
94 Bromoform	173		11.209					ND	
95 Cyclohexanol	57		11.226					ND	
96 2-Chlorobenzotrifluoride	180		11.276					ND	
97 Isopropylbenzene	105		11.379					ND	
98 Cyclohexanone	55		11.474					ND	
99 1,1,2,2-Tetrachloroethane	83		11.671					ND	
100 Bromobenzene	156		11.683					ND	
101 1,2,3-Trichloropropane	110		11.720					ND	
102 trans-1,4-Dichloro-2-buten	53		11.732					ND	
103 N-Propylbenzene	120		11.787					ND	
104 2-Chlorotoluene	126		11.878					ND	
105 3-Chlorotoluene	126		11.939					ND	
106 1,3,5-Trimethylbenzene	105		11.963					ND	
107 4-Chlorotoluene	126		11.987					ND	
108 tert-Butylbenzene	119		12.292					ND	
109 Pentachloroethane	167		12.313					ND	
110 1,2,4-Trimethylbenzene	105		12.340					ND	
111 1,2-dichloro-4-(trifluorom	214		12.401					ND	
112 sec-Butylbenzene	105		12.511					ND	
113 1,3-Dichlorobenzene	146		12.620					ND	
114 4-Isopropyltoluene	119		12.657					ND	
115 1,4-Dichlorobenzene	146		12.711					ND	
116 2,4-Dichloro-1-(triflourom	214		12.760					ND	
117 1,2,3-Trimethylbenzene	105		12.764					ND	
118 2,5-Dichlorobenzotrifluori	214		12.809					ND	
119 Benzyl chloride	91		12.843					ND	
120 n-Butylbenzene	91		13.064					ND	
121 1,2-Dichlorobenzene	146		13.082					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.855					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.013					ND	
124 1,3,5-Trichlorobenzene	180		14.074					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.427					ND	
126 1,2,4-Trichlorobenzene	180		14.695					ND	
127 Hexachlorobutadiene	225		14.865					ND	
128 Naphthalene	128		14.944					ND	
129 1,2,3-Trichlorobenzene	180		15.187					ND	
131 2,4,5-Trichlorotoluene	159		15.966					ND	
130 2,3,6-Trichlorotoluene	159		16.057					ND	
132 2-Methylnaphthalene	142		16.085					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

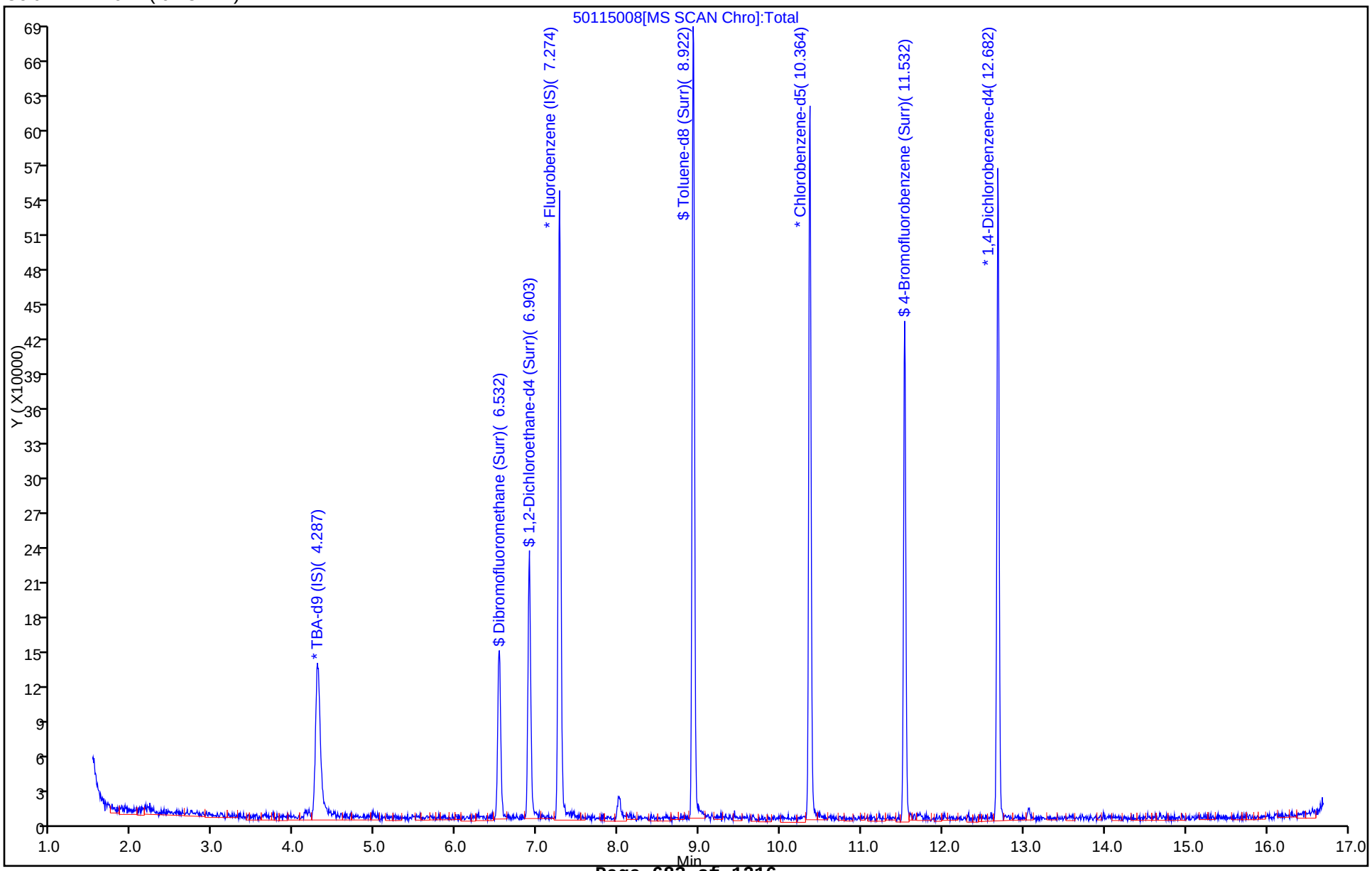
Report Date: 15-Jan-2015 14:10:42 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115008.D

Injection Date:	15-Jan-2015 13:34:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-130947/8

Matrix: Water | Lab File ID: 50116008.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/16/2015 13:56

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 130947 | 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.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130947/8

Matrix: Water Lab File ID: 50116008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 13:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130947 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116008.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 16-Jan-2015 13:56:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005307-008
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 15:00:19 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 14:21:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.302	-0.012	88	215753	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	100	505374	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.361	0.001	99	112616	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	99	163327	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.522	0.013	93	118171	50.0	54.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	92	183038	50.0	51.8	
$ 7 Toluene-d8 (Surr)	98	8.926	8.925	0.001	96	471733	50.0	50.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.529	0.007	83	174874	50.0	49.0	
11 Dichlorodifluoromethane	85		1.631					ND	
12 Chloromethane	50		1.777					ND	
13 Vinyl chloride	62		1.905					ND	
14 Butadiene	39	2.021	1.954	0.067	15	694		0.1188	
15 Bromomethane	94		2.252					ND	
16 Chloroethane	64		2.386					ND	
17 Dichlorofluoromethane	67		2.653					ND	
18 Trichlorofluoromethane	101		2.708					ND	
19 Ethanol	45		3.006					ND	
20 Ethyl ether	59		3.085					ND	
21 Acrolein	56		3.268					ND	
22 1,1-Dichloroethene	96		3.371					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.432					ND	
24 Acetone	43		3.493					ND	
25 Iodomethane	142		3.578					ND	
26 Carbon disulfide	76		3.669					ND	
27 Isopropyl alcohol	45		3.772					ND	
29 Acetonitrile	40		3.924					ND	
28 3-Chloro-1-propene	76		3.937					ND	
30 Methyl acetate	43		4.016					ND	
31 Methylene Chloride	84		4.150					ND	
32 2-Methyl-2-propanol	59		4.424					ND	
33 Acrylonitrile	53		4.545					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.570					ND	
35 Methyl tert-butyl ether	73		4.594					ND	
36 Hexane	57		4.983					ND	
37 1,1-Dichloroethane	63		5.172					ND	
38 Vinyl acetate	43		5.293					ND	
39 2-Chloro-1,3-butadiene	53		5.305					ND	
41 Isopropyl ether	45		5.323					ND	
40 Isopropyl ether TIC	45		5.430					ND	
42 Tert-butyl ethyl ether	59		5.798					ND	
44 2,2-Dichloropropane	77		5.926					ND	
45 cis-1,2-Dichloroethene	96		5.938					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.987					ND	
47 Propionitrile	54		6.060					ND	
48 Ethyl acetate	43	6.097	6.084	0.013	1	108		0.0554	
49 Chlorobromomethane	128		6.230					ND	
50 Methacrylonitrile	41		6.236					ND	
51 Tetrahydrofuran	42		6.285					ND	
52 Chloroform	83		6.346					ND	
53 1,1,1-Trichloroethane	97		6.535					ND	
54 Cyclohexane	56		6.583					ND	
56 Carbon tetrachloride	117		6.717					ND	
55 1,1-Dichloropropene	75		6.723					ND	
57 Isobutyl alcohol	41		6.936					ND	
58 Benzene	78		6.954					ND	
59 1,2-Dichloroethane	62		6.985					ND	
61 Tert-amyl methyl ether	73		7.106					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43	7.186	7.277	-0.091	1	242		0.0338	
63 n-Butanol	56		7.653					ND	
64 Trichloroethene	130		7.666					ND	
65 Ethyl acrylate	55		7.812					ND	
66 Methylcyclohexane	83		7.861					ND	
67 1,2-Dichloropropane	63		7.897					ND	
68 Dibromomethane	93		8.019					ND	
70 1,4-Dioxane	88		8.049					ND	
69 Methyl methacrylate	69		8.055					ND	
71 Dichlorobromomethane	83		8.195					ND	
72 2-Nitropropane	41		8.444					ND	
73 2-Chloroethyl vinyl ether	63		8.518					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
76 Toluene	91		8.986					ND	
77 trans-1,3-Dichloropropene	75		9.217					ND	
78 Ethyl methacrylate	69		9.315					ND	
79 1,1,2-Trichloroethane	97		9.400					ND	
80 Tetrachloroethene	164		9.534					ND	
81 1,3-Dichloropropane	76		9.564					ND	
82 2-Hexanone	43		9.655					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.789					ND	
85 Ethylene Dibromide	107		9.905					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.373					ND	
87 Chlorobenzene	112		10.391					ND	
88 4-Chlorobenzotrifluoride	180		10.428					ND	
89 1,1,1,2-Tetrachloroethane	131		10.477					ND	
90 Ethylbenzene	106		10.501					ND	
91 m-Xylene & p-Xylene	106		10.617					ND	
92 o-Xylene	106		11.012					ND	
93 Styrene	104		11.024					ND	
94 Bromoform	173		11.207					ND	
95 Cyclohexanol	57		11.226					ND	
96 2-Chlorobenzotrifluoride	180		11.274					ND	
97 Isopropylbenzene	105		11.377					ND	
98 Cyclohexanone	55		11.474					ND	
99 1,1,2,2-Tetrachloroethane	83		11.675					ND	
100 Bromobenzene	156		11.687					ND	
101 1,2,3-Trichloropropane	110		11.718					ND	
102 trans-1,4-Dichloro-2-buten	53		11.730					ND	
103 N-Propylbenzene	120		11.791					ND	
104 2-Chlorotoluene	126		11.876					ND	
105 3-Chlorotoluene	126		11.937					ND	
106 1,3,5-Trimethylbenzene	105		11.961					ND	
107 4-Chlorotoluene	126		11.985					ND	
108 tert-Butylbenzene	119		12.289					ND	
109 Pentachloroethane	167		12.313					ND	
110 1,2,4-Trimethylbenzene	105		12.338					ND	
111 1,2-dichloro-4-(trifluorom	214		12.399					ND	
112 sec-Butylbenzene	105		12.508					ND	
113 1,3-Dichlorobenzene	146		12.618					ND	
114 4-Isopropyltoluene	119		12.654					ND	
115 1,4-Dichlorobenzene	146		12.709					ND	
116 2,4-Dichloro-1-(triflourom	214		12.758					ND	
117 1,2,3-Trimethylbenzene	105		12.764					ND	
118 2,5-Dichlorobenzotrifluori	214		12.807					ND	
119 Benzyl chloride	91		12.843					ND	
120 n-Butylbenzene	91		13.062					ND	
121 1,2-Dichlorobenzene	146		13.080					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.859					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.005					ND	
124 1,3,5-Trichlorobenzene	180		14.072					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.425					ND	
126 1,2,4-Trichlorobenzene	180		14.692					ND	
127 Hexachlorobutadiene	225		14.863					ND	
128 Naphthalene	128		14.942					ND	
129 1,2,3-Trichlorobenzene	180		15.185					ND	
131 2,4,5-Trichlorotoluene	159		15.964					ND	
130 2,3,6-Trichlorotoluene	159		16.061					ND	
132 2-Methylnaphthalene	142		16.085					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

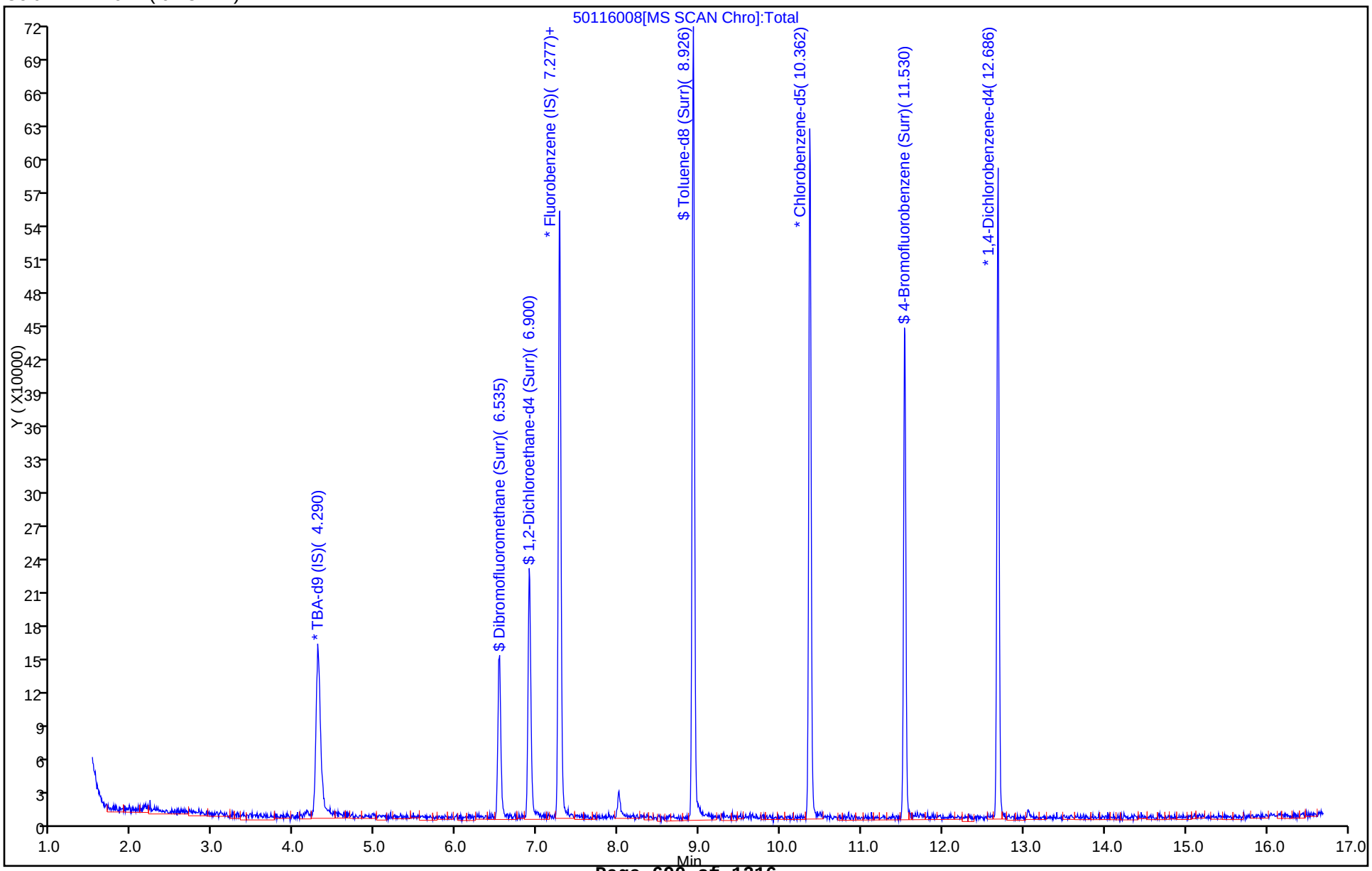
Report Date: 16-Jan-2015 15:00:20 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116008.D

Injection Date:	16-Jan-2015 13:56:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-130711/7

Matrix: Water | Lab File ID: 50114007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2015 13:57

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 130711 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.65		1.0	0.28
75-01-4	Vinyl chloride	9.25		1.0	0.23
74-83-9	Bromomethane	8.94		1.0	0.31
75-00-3	Chloroethane	8.79		1.0	0.21
75-35-4	1,1-Dichloroethene	9.00		1.0	0.30
67-64-1	Acetone	16.7		5.0	2.5
75-15-0	Carbon disulfide	10.9		1.0	0.21
75-09-2	Methylene Chloride	9.56		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.0		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.96		1.0	0.18
75-34-3	1,1-Dichloroethane	10.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.24
74-97-5	Bromochloromethane	10.2		1.0	0.18
78-93-3	2-Butanone (MEK)	16.9		5.0	0.55
67-66-3	Chloroform	9.79		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.1		1.0	0.29
56-23-5	Carbon tetrachloride	11.3		1.0	0.14
71-43-2	Benzene	9.83		1.0	0.11
107-06-2	1,2-Dichloroethane	9.54		1.0	0.21
79-01-6	Trichloroethene	10.8		1.0	0.14
78-87-5	1,2-Dichloropropane	9.40		1.0	0.095
75-27-4	Bromodichloromethane	10.5		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.4		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.5		5.0	0.53
108-88-3	Toluene	10.1		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	12.8		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.70		1.0	0.20
127-18-4	Tetrachloroethene	10.1		1.0	0.15
591-78-6	2-Hexanone	17.0		5.0	0.16
124-48-1	Dibromochloromethane	11.1		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.8		1.0	0.18
108-90-7	Chlorobenzene	10.7		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.7		1.0	0.28
100-41-4	Ethylbenzene	10.5		1.0	0.23
1330-20-7	Xylenes, Total	21.6		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.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-130711/7

Matrix: Water Lab File ID: 50114007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/14/2015 13:57

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130711 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.7		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.60		1.0	0.20
107-13-1	Acrylonitrile	86.4		20	0.55
123-91-1	1,4-Dioxane	143	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114007.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 14-Jan-2015 13:57:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-40372-B-1 MS
Misc. Info.: 180-0005267-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 14-Jan-2015 15:33:20 Calib Date: 15-Dec-2014 16:57:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20141215-4875.b\51215013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 14-Jan-2015 15:33:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.297	4.299	-0.002	87	197376	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.274	-0.002	95	497810	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.364	-0.001	92	111207	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.688	-0.002	96	152360	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.524	6.526	-0.002	77	107461	50.0	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.897	0.010	93	162147	50.0	46.6	
$ 7 Toluene-d8 (Surr)	98	8.927	8.923	0.004	94	468470	50.0	50.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.532	-0.001	84	178232	50.0	50.6	
11 Dichlorodifluoromethane	85	1.633	1.622	0.011	98	132905	50.0	44.5	
12 Chloromethane	50	1.773	1.781	-0.008	100	254728	50.0	43.3	
13 Vinyl chloride	62	1.900	1.908	-0.008	97	187046	50.0	46.3	
14 Butadiene	39	1.949	1.945	0.004	99	260884	50.0	45.3	
15 Bromomethane	94	2.253	2.255	-0.002	86	54050	50.0	44.7	
16 Chloroethane	64	2.405	2.401	0.004	97	87934	50.0	43.9	
17 Dichlorofluoromethane	67	2.661	2.669	-0.008	97	190596	50.0	47.9	
18 Trichlorofluoromethane	101	2.710	2.724	-0.014	96	135645	50.0	53.8	
20 Ethyl ether	59	3.093	3.089	0.004	93	163972	50.0	45.7	
21 Acrolein	56	3.251	3.259	-0.008	98	104925	150.0	195.7	
22 1,1-Dichloroethene	96	3.379	3.387	-0.008	91	122007	50.0	45.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.429	-0.008	95	132649	50.0	48.3	
24 Acetone	43	3.488	3.490	-0.002	100	130116	100.0	83.4	
25 Iodomethane	142	3.579	3.612	-0.033	97	184137	50.0	53.0	
26 Carbon disulfide	76	3.677	3.660	0.017	100	287502	50.0	54.7	
28 3-Chloro-1-propene	76	3.938	3.940	-0.002	89	78676	50.0	51.4	
30 Methyl acetate	43	4.018	4.013	0.005	100	1019054	250.0	224.8	
31 Methylene Chloride	84	4.139	4.141	-0.002	92	157451	50.0	47.8	
32 2-Methyl-2-propanol	59	4.425	4.427	-0.002	90	133095	500.0	504.4	
33 Acrylonitrile	53	4.553	4.549	0.004	99	902252	500.0	431.9	
34 trans-1,2-Dichloroethene	96	4.565	4.561	0.004	92	137430	50.0	50.1	
35 Methyl tert-butyl ether	73	4.595	4.591	0.004	92	354445	50.0	49.8	
36 Hexane	57	4.985	4.987	-0.002	93	298028	50.0	42.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.179	5.169	0.010	96	324605	50.0	50.8	
38 Vinyl acetate	43	5.295	5.291	0.004	96	299934	50.0	49.0	
44 2,2-Dichloropropane	77	5.928	5.923	0.005	63	114368	50.0	67.6	
45 cis-1,2-Dichloroethene	96	5.934	5.936	-0.002	89	149430	50.0	50.4	
46 2-Butanone (MEK)	43	5.989	5.978	0.011	96	206976	100.0	84.3	
49 Chlorobromomethane	128	6.220	6.228	-0.008	82	63240	50.0	51.1	
51 Tetrahydrofuran	42	6.287	6.282	0.005	93	154756	100.0	82.9	
52 Chloroform	83	6.341	6.343	-0.002	96	236239	50.0	48.9	
53 1,1,1-Trichloroethane	97	6.530	6.532	-0.002	94	174216	50.0	55.6	
54 Cyclohexane	56	6.591	6.587	0.004	92	393967	50.0	44.7	
56 Carbon tetrachloride	117	6.719	6.720	-0.001	72	154117	50.0	56.6	
55 1,1-Dichloropropene	75	6.725	6.720	0.005	86	202523	50.0	51.2	
57 Isobutyl alcohol	41	6.938	6.933	0.005	93	154652	1250.0	1081.4	
58 Benzene	78	6.956	6.952	0.004	96	604753	50.0	49.1	
59 1,2-Dichloroethane	62	6.986	6.982	0.004	95	228047	50.0	47.7	
62 n-Heptane	43	7.278	7.280	-0.002	96	305198	50.0	43.3	
64 Trichloroethene	130	7.674	7.669	0.005	95	141771	50.0	53.8	
66 Methylcyclohexane	83	7.862	7.858	0.004	94	233046	50.0	46.2	
67 1,2-Dichloropropane	63	7.905	7.901	0.004	94	177936	50.0	47.0	
68 Dibromomethane	93	8.027	8.016	0.010	97	76305	50.0	48.9	
70 1,4-Dioxane	88	8.057	8.059	-0.002	90	20308	1000.0	716.6	
71 Dichlorobromomethane	83	8.203	8.199	0.004	97	168494	50.0	52.3	
73 2-Chloroethyl vinyl ether	63	8.519	8.515	0.004	86	204786	100.0	129.5	
74 cis-1,3-Dichloropropene	75	8.659	8.655	0.004	87	209359	50.0	56.9	
75 4-Methyl-2-pentanone (MIBK	43	8.823	8.819	0.004	98	467529	100.0	97.3	
76 Toluene	91	8.988	8.990	-0.002	97	597550	50.0	50.6	
77 trans-1,3-Dichloropropene	75	9.219	9.221	-0.002	93	174996	50.0	64.0	
78 Ethyl methacrylate	69	9.316	9.318	-0.002	89	164529	50.0	50.5	
79 1,1,2-Trichloroethane	97	9.407	9.403	0.004	94	112393	50.0	48.5	
80 Tetrachloroethene	164	9.535	9.537	-0.002	91	109783	50.0	50.4	
81 1,3-Dichloropropane	76	9.566	9.567	-0.001	94	221911	50.0	49.7	
82 2-Hexanone	43	9.657	9.653	0.004	97	326204	100.0	84.8	
84 Chlorodibromomethane	129	9.797	9.793	0.005	92	94199	50.0	55.3	
85 Ethylene Dibromide	107	9.900	9.896	0.004	96	116551	50.0	54.2	
86 3-Chlorobenzotrifluoride	180	10.375	10.377	-0.002	93	201574	50.0	51.9	
87 Chlorobenzene	112	10.393	10.389	0.004	90	383942	50.0	53.5	
88 4-Chlorobenzotrifluoride	180	10.429	10.431	-0.002	94	183759	50.0	50.7	
89 1,1,1,2-Tetrachloroethane	131	10.478	10.474	0.004	93	117074	50.0	53.4	
90 Ethylbenzene	106	10.502	10.504	-0.002	98	213275	50.0	52.5	
91 m-Xylene & p-Xylene	106	10.618	10.620	-0.002	97	269291	50.0	54.4	
92 o-Xylene	106	11.013	11.015	-0.002	97	258371	50.0	53.7	
93 Styrene	104	11.026	11.027	-0.001	88	427037	50.0	52.7	
94 Bromoform	173	11.208	11.210	-0.002	94	63122	50.0	58.6	
96 2-Chlorobenzotrifluoride	180	11.275	11.277	-0.002	94	190217	50.0	51.2	
97 Isopropylbenzene	105	11.378	11.380	-0.002	97	650856	50.0	54.2	
99 1,1,2,2-Tetrachloroethane	83	11.677	11.672	0.005	93	156379	50.0	48.0	
100 Bromobenzene	156	11.683	11.684	-0.001	96	136191	50.0	49.7	
101 1,2,3-Trichloropropane	110	11.719	11.721	-0.002	88	49990	50.0	50.2	
102 trans-1,4-Dichloro-2-buten	53	11.731	11.733	-0.002	71	73987	50.0	54.1	
103 N-Propylbenzene	120	11.786	11.788	-0.002	99	170366	50.0	52.6	
104 2-Chlorotoluene	126	11.877	11.873	0.004	94	143368	50.0	52.5	
105 3-Chlorotoluene	126	11.938	11.934	0.004	96	146898	50.0	50.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.963	11.964	-0.002	95	532016	50.0	54.9	
107 4-Chlorotoluene	126	11.981	11.983	-0.002	98	168241	50.0	55.5	
108 tert-Butylbenzene	119	12.291	12.293	-0.002	95	421938	50.0	53.0	
110 1,2,4-Trimethylbenzene	105	12.340	12.335	0.005	97	523662	50.0	52.6	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.402	-0.002	98	141823	50.0	51.7	
112 sec-Butylbenzene	105	12.510	12.506	0.004	95	606390	50.0	52.9	
113 1,3-Dichlorobenzene	146	12.620	12.621	-0.001	96	260174	50.0	50.3	
114 4-Isopropyltoluene	119	12.650	12.652	-0.002	97	499882	50.0	54.2	
115 1,4-Dichlorobenzene	146	12.711	12.706	0.005	93	268851	50.0	50.3	
116 2,4-Dichloro-1-(triflourom	214	12.759	12.761	-0.002	95	116880	50.0	45.4	
118 2,5-Dichlorobenzotrifluori	214	12.808	12.810	-0.002	98	138109	50.0	49.2	
120 n-Butylbenzene	91	13.064	13.065	-0.001	98	418805	50.0	49.7	
121 1,2-Dichlorobenzene	146	13.088	13.084	0.004	95	235262	50.0	49.0	
122 1,2-Dibromo-3-Chloropropan	75	13.867	13.856	0.011	73	21634	50.0	49.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.007	14.014	-0.007	98	472463	150.0	156.2	
124 1,3,5-Trichlorobenzene	180	14.073	14.075	-0.002	95	126148	50.0	44.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.428	0.004	99	293866	100.0	101.9	
126 1,2,4-Trichlorobenzene	180	14.694	14.696	-0.002	91	93964	50.0	47.2	
127 Hexachlorobutadiene	225	14.864	14.866	-0.002	95	45179	50.0	47.8	
128 Naphthalene	128	14.943	14.945	-0.002	97	238699	50.0	44.9	
129 1,2,3-Trichlorobenzene	180	15.187	15.189	-0.002	95	74859	50.0	47.9	
131 2,4,5-Trichlorotoluene	159	15.965	15.967	-0.002	97	36091	50.0	54.4	
130 2,3,6-Trichlorotoluene	159	16.063	16.065	-0.002	92	35844	50.0	59.0	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.4	
S 133 Xylenes, Total	106				0		100.0	108.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	120.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACRO2ND_00004	Amount Added:	6.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00097	Amount Added:	2.00	Units: uL	
voaWVApri Res_00001	Amount Added:	2.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00004	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

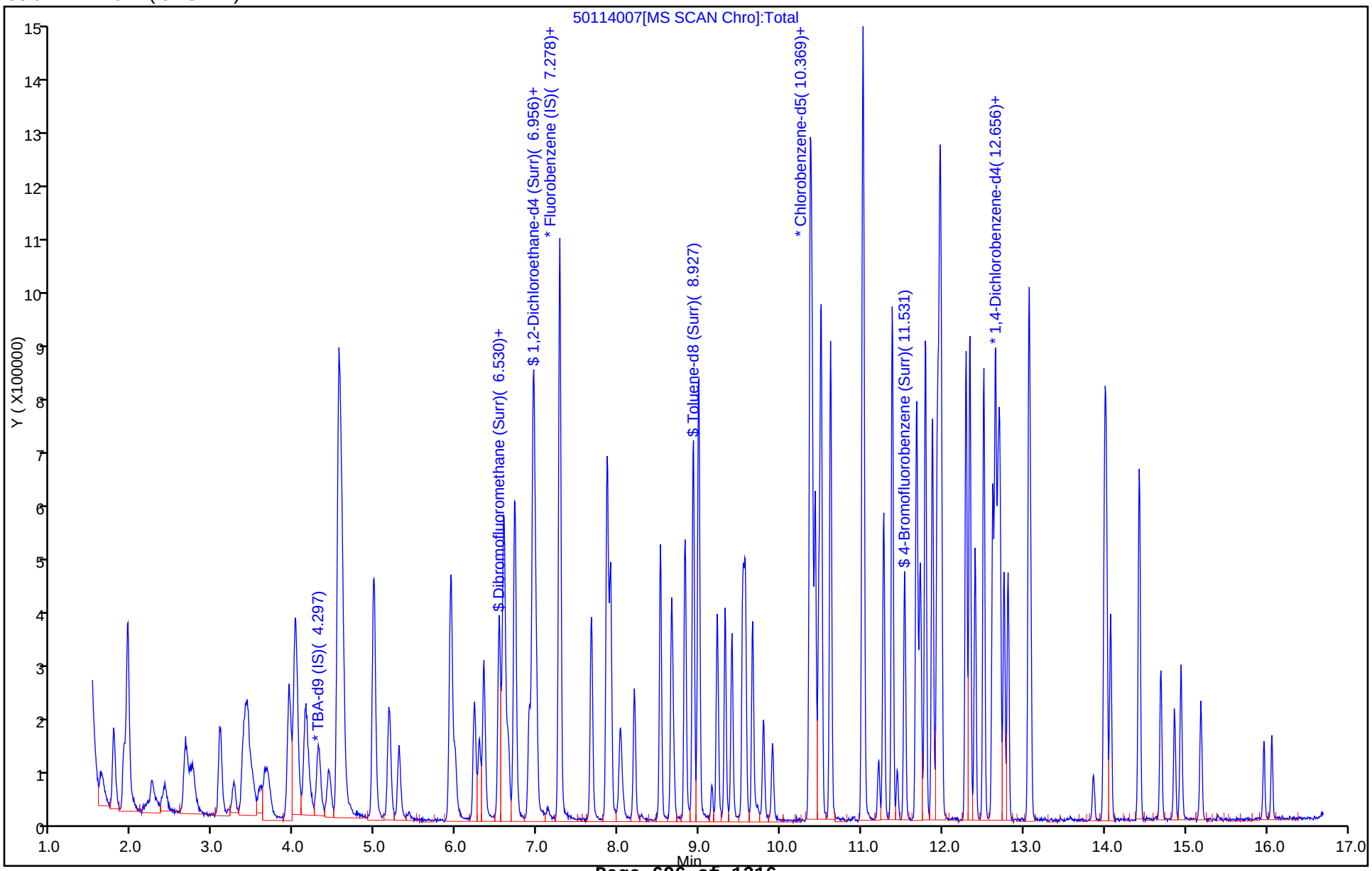
Report Date: 14-Jan-2015 15:33:21 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150114-5267.b\50114007.D

Injection Date:	14-Jan-2015 13:57:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-130838/12

Matrix: Water Lab File ID: 50115012.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 15:21

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.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.14		1.0	0.28
75-01-4	Vinyl chloride	9.61		1.0	0.23
74-83-9	Bromomethane	9.17		1.0	0.31
75-00-3	Chloroethane	9.32		1.0	0.21
75-35-4	1,1-Dichloroethene	9.60		1.0	0.30
67-64-1	Acetone	19.1		5.0	2.5
75-15-0	Carbon disulfide	10.3		1.0	0.21
75-09-2	Methylene Chloride	9.60		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.50		1.0	0.18
75-34-3	1,1-Dichloroethane	10.4		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.2		1.0	0.24
74-97-5	Bromochloromethane	10.7		1.0	0.18
78-93-3	2-Butanone (MEK)	19.3		5.0	0.55
67-66-3	Chloroform	9.92		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.0		1.0	0.29
56-23-5	Carbon tetrachloride	11.5		1.0	0.14
71-43-2	Benzene	9.92		1.0	0.11
107-06-2	1,2-Dichloroethane	10.1		1.0	0.21
79-01-6	Trichloroethene	10.6		1.0	0.14
78-87-5	1,2-Dichloropropane	9.10		1.0	0.095
75-27-4	Bromodichloromethane	9.97		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.6		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.3		5.0	0.53
108-88-3	Toluene	9.96		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	11.8		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.35		1.0	0.20
127-18-4	Tetrachloroethene	9.89		1.0	0.15
591-78-6	2-Hexanone	15.2		5.0	0.16
124-48-1	Dibromochloromethane	10.8		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.4		1.0	0.28
100-41-4	Ethylbenzene	10.4		1.0	0.23
1330-20-7	Xylenes, Total	21.2		3.0	0.49
100-42-5	Styrene	10.0		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-130838/12

Matrix: Water Lab File ID: 50115012.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 15:21

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.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.98		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.50		1.0	0.20
107-13-1	Acrylonitrile	89.3		20	0.55
123-91-1	1,4-Dioxane	141	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		64-135
2037-26-5	Toluene-d8 (Surr)	93		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115012.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 15-Jan-2015 15:21:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005292-012
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 16:15:05 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 15:45:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.308	4.284	0.024	89	157903	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	481242	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.362	-0.001	98	109229	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.686	-0.001	96	149793	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.525	0.004	74	97016	50.0	47.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.899	6.896	0.003	92	154077	50.0	45.8	
$ 7 Toluene-d8 (Surr)	98	8.925	8.921	0.004	96	423545	50.0	46.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.535	11.531	0.004	84	161385	50.0	46.6	
11 Dichlorodifluoromethane	85	1.625	1.633	-0.008	97	139971	50.0	48.5	
12 Chloromethane	50	1.777	1.779	-0.002	99	260246	50.0	45.7	
13 Vinyl chloride	62	1.905	1.901	0.004	97	187729	50.0	48.0	
14 Butadiene	39	1.947	1.950	-0.003	99	267421	50.0	48.1	
15 Bromomethane	94	2.270	2.254	0.016	91	53569	50.0	45.8	
16 Chloroethane	64	2.398	2.388	0.010	97	90147	50.0	46.6	
17 Dichlorofluoromethane	67	2.665	2.649	0.016	97	174616	50.0	45.4	
18 Trichlorofluoromethane	101	2.720	2.704	0.016	95	137540	50.0	56.4	
20 Ethyl ether	59	3.091	3.093	-0.002	95	167438	50.0	48.3	
21 Acrolein	56	3.268	3.252	0.016	98	102243	150.0	197.3	
22 1,1-Dichloroethene	96	3.383	3.379	0.004	89	125770	50.0	48.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.428	0.004	96	128162	50.0	48.3	
24 Acetone	43	3.493	3.495	-0.002	97	144179	100.0	95.5	
25 Iodomethane	142	3.608	3.574	0.034	96	182888	50.0	54.5	
26 Carbon disulfide	76	3.669	3.659	0.010	99	261401	50.0	51.4	
28 3-Chloro-1-propene	76	3.955	3.945	0.010	91	79717	50.0	53.9	
30 Methyl acetate	43	4.016	4.012	0.004	100	992264	250.0	226.4	
31 Methylene Chloride	84	4.144	4.140	0.004	90	152798	50.0	48.0	
32 2-Methyl-2-propanol	59	4.436	4.432	0.004	88	109185	500.0	517.2	
33 Acrylonitrile	53	4.557	4.547	0.010	99	901448	500.0	446.4	
34 trans-1,2-Dichloroethene	96	4.557	4.560	-0.003	88	136815	50.0	51.6	
35 Methyl tert-butyl ether	73	4.594	4.596	-0.002	90	326641	50.0	47.5	
36 Hexane	57	4.983	4.985	-0.002	94	310452	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.178	5.174	0.004	96	320795	50.0	52.0	
38 Vinyl acetate	43	5.299	5.290	0.009	97	240893	50.0	40.7	
44 2,2-Dichloropropane	77	5.920	5.928	-0.008	64	108791	50.0	66.5	
45 cis-1,2-Dichloroethene	96	5.944	5.934	0.010	88	146752	50.0	51.2	
46 2-Butanone (MEK)	43	5.987	5.989	-0.002	96	229589	100.0	96.7	
49 Chlorobromomethane	128	6.230	6.220	0.010	82	64217	50.0	53.7	
51 Tetrahydrofuran	42	6.291	6.287	0.004	96	144804	100.0	80.2	
52 Chloroform	83	6.346	6.342	0.004	96	231584	50.0	49.6	
53 1,1,1-Trichloroethane	97	6.528	6.531	-0.003	92	166481	50.0	55.0	
54 Cyclohexane	56	6.589	6.585	0.004	95	404863	50.0	47.6	
56 Carbon tetrachloride	117	6.717	6.719	-0.002	68	151069	50.0	57.4	
55 1,1-Dichloropropene	75	6.723	6.725	-0.002	83	202109	50.0	52.9	
57 Isobutyl alcohol	41	6.942	6.944	-0.002	95	134663	1250.0	974.1	
58 Benzene	78	6.954	6.956	-0.002	95	590061	50.0	49.6	
59 1,2-Dichloroethane	62	6.991	6.987	0.004	95	232370	50.0	50.3	
62 n-Heptane	43	7.277	7.279	-0.002	97	312256	50.0	45.8	
64 Trichloroethene	130	7.666	7.668	-0.002	93	134471	50.0	52.8	
66 Methylcyclohexane	83	7.861	7.863	-0.002	95	238622	50.0	48.9	
67 1,2-Dichloropropane	63	7.903	7.905	-0.002	95	166626	50.0	45.5	
68 Dibromomethane	93	8.025	8.021	0.004	96	70804	50.0	46.9	
70 1,4-Dioxane	88	8.055	8.064	-0.009	85	19358	1000.0	706.6	M
71 Dichlorobromomethane	83	8.201	8.197	0.004	94	155384	50.0	49.9	
73 2-Chloroethyl vinyl ether	63	8.518	8.520	-0.002	85	179201	100.0	117.2	
74 cis-1,3-Dichloropropene	75	8.658	8.654	0.004	86	187827	50.0	52.8	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.824	-0.002	97	430711	100.0	91.3	
76 Toluene	91	8.992	8.988	0.004	97	577704	50.0	49.8	
77 trans-1,3-Dichloropropene	75	9.223	9.219	0.004	93	158674	50.0	59.1	
78 Ethyl methacrylate	69	9.321	9.317	0.004	91	153964	50.0	48.2	
79 1,1,2-Trichloroethane	97	9.394	9.402	-0.008	93	106416	50.0	46.8	
80 Tetrachloroethene	164	9.540	9.536	0.004	94	105713	50.0	49.4	
81 1,3-Dichloropropane	76	9.564	9.566	-0.002	93	210804	50.0	48.1	
82 2-Hexanone	43	9.655	9.657	-0.002	97	287376	100.0	76.1	
84 Chlorodibromomethane	129	9.789	9.791	-0.002	87	90331	50.0	54.0	
85 Ethylene Dibromide	107	9.899	9.901	-0.002	97	108008	50.0	51.2	
86 3-Chlorobenzotrifluoride	180	10.373	10.375	-0.002	92	185070	50.0	48.5	
87 Chlorobenzene	112	10.391	10.394	-0.003	91	370418	50.0	52.5	
88 4-Chlorobenzotrifluoride	180	10.428	10.430	-0.002	95	171586	50.0	48.2	
89 1,1,1,2-Tetrachloroethane	131	10.476	10.479	-0.003	92	111738	50.0	51.9	
90 Ethylbenzene	106	10.501	10.503	-0.002	98	206986	50.0	51.8	
91 m-Xylene & p-Xylene	106	10.616	10.619	-0.003	97	256955	50.0	52.8	
92 o-Xylene	106	11.012	11.014	-0.002	99	250950	50.0	53.1	
93 Styrene	104	11.024	11.026	-0.002	91	399690	50.0	50.2	
94 Bromoform	173	11.219	11.209	0.010	95	52752	50.0	49.9	
96 2-Chlorobenzotrifluoride	180	11.273	11.276	-0.003	94	175805	50.0	48.2	
97 Isopropylbenzene	105	11.383	11.379	0.004	97	634587	50.0	53.8	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.671	0.004	95	151922	50.0	47.5	
100 Bromobenzene	156	11.681	11.683	-0.002	97	132238	50.0	49.1	
101 1,2,3-Trichloropropane	110	11.718	11.720	-0.002	88	46742	50.0	47.7	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.732	-0.002	69	70783	50.0	52.6	
103 N-Propylbenzene	120	11.784	11.787	-0.003	99	175572	50.0	55.2	
104 2-Chlorotoluene	126	11.876	11.878	-0.002	94	140136	50.0	52.2	
105 3-Chlorotoluene	126	11.937	11.939	-0.002	96	148016	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.961	11.963	-0.002	94	526742	50.0	55.3	
107 4-Chlorotoluene	126	11.985	11.987	-0.002	98	153016	50.0	51.3	
108 tert-Butylbenzene	119	12.289	12.292	-0.003	95	401926	50.0	51.4	
110 1,2,4-Trimethylbenzene	105	12.338	12.340	-0.002	98	516317	50.0	52.7	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.401	-0.002	97	127771	50.0	47.4	
112 sec-Butylbenzene	105	12.508	12.511	-0.003	96	595014	50.0	52.8	
113 1,3-Dichlorobenzene	146	12.618	12.620	-0.002	96	255918	50.0	50.3	
114 4-Isopropyltoluene	119	12.648	12.657	-0.009	97	476497	50.0	52.5	
115 1,4-Dichlorobenzene	146	12.709	12.711	-0.002	93	258934	50.0	49.3	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.760	-0.002	97	116522	50.0	46.0	
118 2,5-Dichlorobenzotrifluori	214	12.806	12.809	-0.003	98	130842	50.0	47.4	
120 n-Butylbenzene	91	13.062	13.064	-0.002	98	405601	50.0	48.9	
121 1,2-Dichlorobenzene	146	13.080	13.082	-0.002	95	227254	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.853	13.855	-0.002	70	19976	50.0	46.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.013	-0.008	98	431297	150.0	145.0	
124 1,3,5-Trichlorobenzene	180	14.072	14.074	-0.002	93	113173	50.0	40.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.427	-0.002	98	268164	100.0	94.5	
126 1,2,4-Trichlorobenzene	180	14.692	14.695	-0.003	93	87106	50.0	44.5	
127 Hexachlorobutadiene	225	14.863	14.865	-0.002	96	41020	50.0	44.2	
128 Naphthalene	128	14.942	14.944	-0.002	97	222778	50.0	42.6	
129 1,2,3-Trichlorobenzene	180	15.185	15.187	-0.002	93	70415	50.0	45.9	
131 2,4,5-Trichlorotoluene	159	15.964	15.966	-0.002	95	32757	50.0	50.2	
130 2,3,6-Trichlorotoluene	159	16.061	16.057	0.004	90	27425	50.0	45.9	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	102.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	111.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00097	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
voaWEE2nd Res_00002	Amount Added:	2.00	Units: uL	
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00004	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00004	Amount Added:	6.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

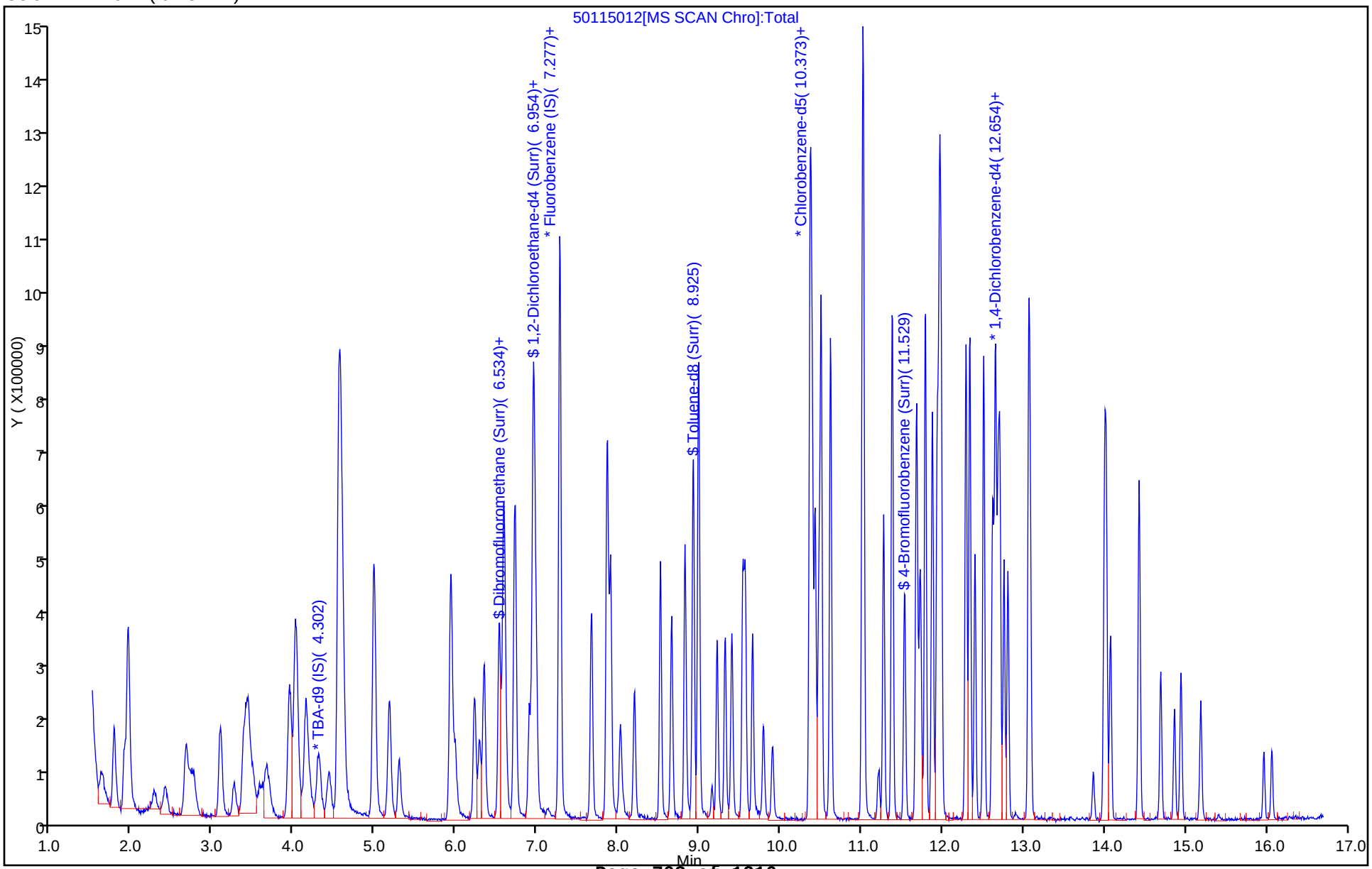
Report Date: 15-Jan-2015 16:15:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115012.D

Injection Date:	15-Jan-2015 15:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

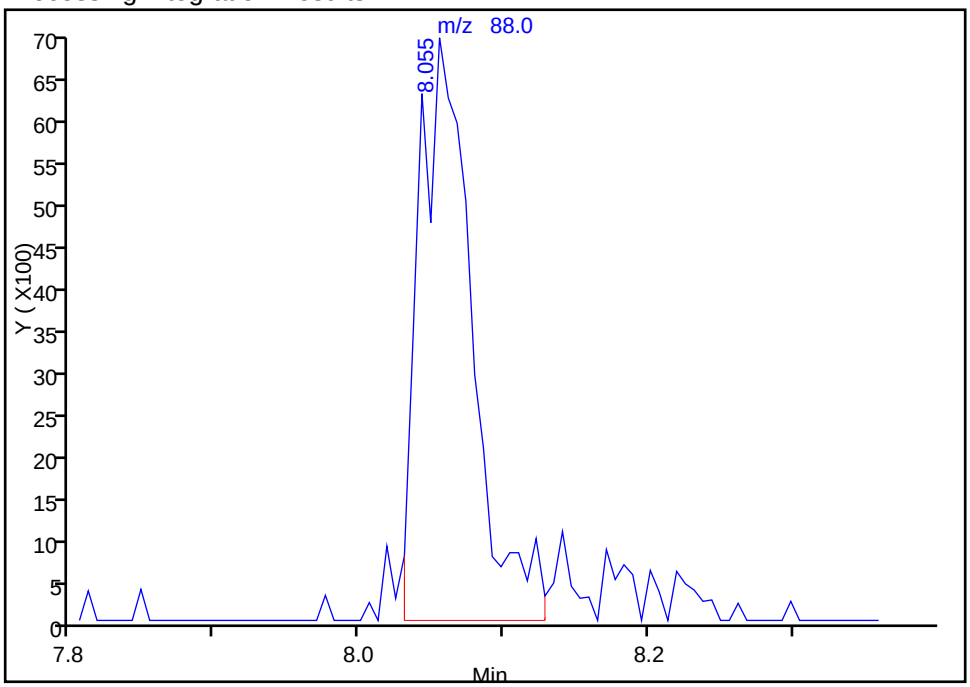
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115012.D
Injection Date: 15-Jan-2015 15:21:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

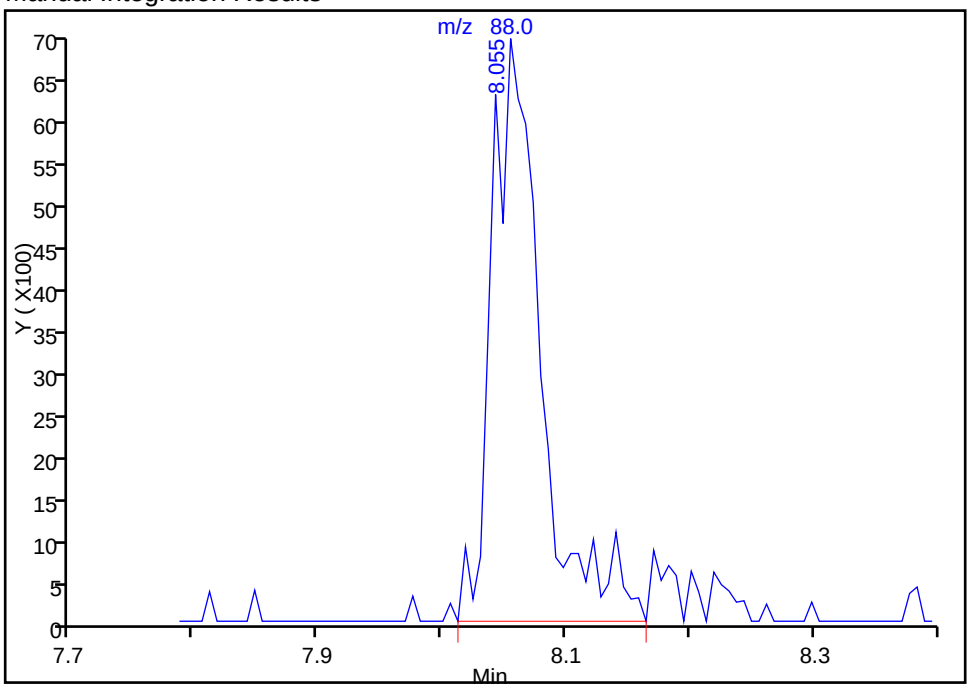
Processing Integration Results

RT: 8.06
Response: 18032
Amount: 658.1540



Manual Integration Results

RT: 8.06
Response: 19358
Amount: 706.5520



Reviewer: fergusond, 15-Jan-2015 15:45:18
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-130947/9

Matrix: Water | Lab File ID: 50116009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/16/2015 14:32

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.: 130947 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.57		1.0	0.28
75-01-4	Vinyl chloride	9.83		1.0	0.23
74-83-9	Bromomethane	8.53		1.0	0.31
75-00-3	Chloroethane	8.87		1.0	0.21
75-35-4	1,1-Dichloroethene	10.3		1.0	0.30
67-64-1	Acetone	24.2		5.0	2.5
75-15-0	Carbon disulfide	8.60		1.0	0.21
75-09-2	Methylene Chloride	11.1		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.0		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.2		1.0	0.18
75-34-3	1,1-Dichloroethane	10.9		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.3		1.0	0.24
74-97-5	Bromochloromethane	10.9		1.0	0.18
78-93-3	2-Butanone (MEK)	21.0		5.0	0.55
67-66-3	Chloroform	10.6		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.5		1.0	0.29
56-23-5	Carbon tetrachloride	11.1		1.0	0.14
71-43-2	Benzene	10.7		1.0	0.11
107-06-2	1,2-Dichloroethane	10.7		1.0	0.21
79-01-6	Trichloroethene	11.4		1.0	0.14
78-87-5	1,2-Dichloropropane	10.3		1.0	0.095
75-27-4	Bromodichloromethane	9.85		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.6		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.6		5.0	0.53
108-88-3	Toluene	10.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	11.5		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.0		1.0	0.20
127-18-4	Tetrachloroethene	10.3		1.0	0.15
591-78-6	2-Hexanone	19.6		5.0	0.16
124-48-1	Dibromochloromethane	9.74		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.9		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.99		1.0	0.28
100-41-4	Ethylbenzene	10.8		1.0	0.23
1330-20-7	Xylenes, Total	21.5		3.0	0.49
100-42-5	Styrene	10.3		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-130947/9

Matrix: Water Lab File ID: 50116009.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 14:32

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.: 130947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.72		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.92		1.0	0.20
107-13-1	Acrylonitrile	98.1		20	0.55
123-91-1	1,4-Dioxane	193	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

Report Date: 16-Jan-2015 15:02:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116009.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-Jan-2015 14:32:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005307-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 15:02:19 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 15:00:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.303	4.302	0.001	87	180157	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.271	0.001	99	440975	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.356	10.361	-0.005	99	104078	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.680	12.685	-0.005	97	143306	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.530	6.522	0.008	86	99187	50.0	52.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.895	6.900	-0.005	93	151213	50.0	49.1	
$ 7 Toluene-d8 (Surr)	98	8.921	8.925	-0.005	97	432288	50.0	49.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	84	163129	50.0	49.5	
11 Dichlorodifluoromethane	85	1.620	1.631	-0.011	98	139749	50.0	52.9	
12 Chloromethane	50	1.779	1.777	0.002	100	249532	50.0	47.8	
13 Vinyl chloride	62	1.906	1.905	0.001	98	176124	50.0	49.2	
14 Butadiene	39	1.955	1.954	0.001	98	245779	50.0	48.2	
15 Bromomethane	94	2.259	2.252	0.007	92	45685	50.0	42.6	
16 Chloroethane	64	2.411	2.386	0.025	95	78659	50.0	44.4	
17 Dichlorofluoromethane	67	2.673	2.653	0.020	97	166800	50.0	47.3	
18 Trichlorofluoromethane	101	2.721	2.708	0.013	97	122692	50.0	54.9	
20 Ethyl ether	59	3.099	3.085	0.014	92	148878	50.0	46.9	
21 Acrolein	56	3.251	3.268	-0.017	99	81338	150.0	171.3	
22 1,1-Dichloroethene	96	3.385	3.371	0.014	95	123294	50.0	51.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.432	0.001	85	132716	50.0	54.6	
24 Acetone	43	3.494	3.493	0.001	97	167345	100.0	121.0	
25 Iodomethane	142	3.567	3.578	-0.011	98	170045	50.0	55.3	
26 Carbon disulfide	76	3.664	3.669	-0.005	99	200190	50.0	43.0	
28 3-Chloro-1-propene	76	3.938	3.937	0.001	87	67918	50.0	50.1	
30 Methyl acetate	43	4.023	4.016	0.007	100	1016493	250.0	253.2	
31 Methylene Chloride	84	4.145	4.150	-0.005	92	159290	50.0	55.3	
32 2-Methyl-2-propanol	59	4.437	4.424	0.013	87	119366	500.0	495.6	
33 Acrylonitrile	53	4.553	4.545	0.008	99	907998	500.0	490.7	
34 trans-1,2-Dichloroethene	96	4.553	4.570	-0.017	43	133964	50.0	55.1	
35 Methyl tert-butyl ether	73	4.595	4.594	0.001	90	321174	50.0	51.0	
36 Hexane	57	4.985	4.983	0.001	94	302800	50.0	49.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.179	5.172	0.007	96	307602	50.0	54.4	
38 Vinyl acetate	43	5.289	5.293	-0.004	96	238004	50.0	43.9	
44 2,2-Dichloropropane	77	5.921	5.926	-0.005	62	98209	50.0	65.5	
45 cis-1,2-Dichloroethene	96	5.934	5.938	-0.004	89	135163	50.0	51.4	
46 2-Butanone (MEK)	43	5.982	5.987	-0.005	96	228691	100.0	105.1	
49 Chlorobromomethane	128	6.226	6.230	-0.004	83	59723	50.0	54.5	
51 Tetrahydrofuran	42	6.286	6.285	0.001	94	148284	100.0	89.6	
52 Chloroform	83	6.341	6.346	-0.005	95	226740	50.0	53.0	
53 1,1,1-Trichloroethane	97	6.530	6.535	-0.005	94	145444	50.0	52.4	
54 Cyclohexane	56	6.584	6.583	0.001	95	383588	50.0	49.2	
56 Carbon tetrachloride	117	6.718	6.717	0.001	71	133741	50.0	55.5	
55 1,1-Dichloropropene	75	6.724	6.723	0.001	83	191862	50.0	54.8	
57 Isobutyl alcohol	41	6.937	6.936	0.001	93	153489	1250.0	1211.6	
58 Benzene	78	6.949	6.954	-0.005	96	581525	50.0	53.3	
59 1,2-Dichloroethane	62	6.980	6.985	-0.005	96	226776	50.0	53.6	
62 n-Heptane	43	7.278	7.277	0.001	96	300648	50.0	48.2	
64 Trichloroethene	130	7.667	7.666	0.001	96	133509	50.0	57.2	
66 Methylcyclohexane	83	7.862	7.861	0.001	96	230756	50.0	51.6	
67 1,2-Dichloropropane	63	7.905	7.897	0.008	94	173320	50.0	51.7	
68 Dibromomethane	93	8.026	8.019	0.007	94	70982	50.0	51.3	
70 1,4-Dioxane	88	8.063	8.049	0.014	87	24184	1000.0	963.3	
71 Dichlorobromomethane	83	8.197	8.195	0.002	95	140681	50.0	49.3	
73 2-Chloroethyl vinyl ether	63	8.519	8.518	0.001	86	171773	100.0	122.6	
74 cis-1,3-Dichloropropene	75	8.653	8.658	-0.005	84	171986	50.0	52.8	
75 4-Methyl-2-pentanone (MIBK	43	8.823	8.822	0.001	98	439983	100.0	97.9	
76 Toluene	91	8.987	8.986	0.001	97	570909	50.0	51.7	
77 trans-1,3-Dichloropropene	75	9.219	9.217	0.002	92	147226	50.0	57.5	
78 Ethyl methacrylate	69	9.316	9.315	0.001	89	151909	50.0	49.9	
79 1,1,2-Trichloroethane	97	9.395	9.400	-0.005	94	108478	50.0	50.0	
80 Tetrachloroethene	164	9.535	9.534	0.001	94	104886	50.0	51.5	
81 1,3-Dichloropropane	76	9.565	9.564	0.001	90	203839	50.0	48.8	
82 2-Hexanone	43	9.657	9.655	0.002	98	352449	100.0	97.9	
84 Chlorodibromomethane	129	9.790	9.789	0.001	87	77638	50.0	48.7	
85 Ethylene Dibromide	107	9.894	9.905	-0.011	95	103225	50.0	51.3	
86 3-Chlorobenzotrifluoride	180	10.374	10.373	0.001	91	194839	50.0	53.6	
87 Chlorobenzene	112	10.393	10.391	0.002	90	366004	50.0	54.5	
88 4-Chlorobenzotrifluoride	180	10.429	10.428	0.001	95	186702	50.0	55.0	
89 1,1,1,2-Tetrachloroethane	131	10.472	10.477	-0.005	91	102385	50.0	49.9	
90 Ethylbenzene	106	10.502	10.501	0.001	98	205343	50.0	54.0	
91 m-Xylene & p-Xylene	106	10.618	10.617	0.001	98	249108	50.0	53.8	
92 o-Xylene	106	11.013	11.012	0.001	98	241818	50.0	53.7	
93 Styrene	104	11.025	11.024	0.001	92	391299	50.0	51.6	
94 Bromoform	173	11.208	11.207	0.001	95	43911	50.0	43.6	
96 2-Chlorobenzotrifluoride	180	11.275	11.274	0.001	97	190036	50.0	54.7	
97 Isopropylbenzene	105	11.378	11.377	0.001	97	614572	50.0	54.7	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.675	0.001	95	151173	50.0	49.6	
100 Bromobenzene	156	11.682	11.687	-0.005	98	130463	50.0	50.6	
101 1,2,3-Trichloropropane	110	11.713	11.718	-0.005	91	51159	50.0	54.6	
102 trans-1,4-Dichloro-2-buten	53	11.731	11.730	0.001	72	67732	50.0	52.6	
103 N-Propylbenzene	120	11.786	11.791	-0.005	99	159173	50.0	52.3	
104 2-Chlorotoluene	126	11.877	11.876	0.001	95	139149	50.0	54.2	
105 3-Chlorotoluene	126	11.938	11.937	0.001	96	156063	50.0	57.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.962	11.961	0.001	95	508476	50.0	55.8	
107 4-Chlorotoluene	126	11.981	11.985	-0.005	98	148944	50.0	52.2	
108 tert-Butylbenzene	119	12.291	12.289	0.002	96	403386	50.0	53.9	
110 1,2,4-Trimethylbenzene	105	12.333	12.338	-0.005	97	513913	50.0	54.9	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.399	0.001	97	137122	50.0	53.1	
112 sec-Butylbenzene	105	12.510	12.508	0.002	96	582445	50.0	54.0	
113 1,3-Dichlorobenzene	146	12.619	12.618	0.001	96	253471	50.0	52.1	
114 4-Isopropyltoluene	119	12.650	12.654	-0.004	97	475699	50.0	54.8	
115 1,4-Dichlorobenzene	146	12.711	12.709	0.001	92	258891	50.0	51.5	
116 2,4-Dichloro-1-(triflourom	214	12.759	12.758	0.001	96	126697	50.0	52.3	
118 2,5-Dichlorobenzotrifluori	214	12.808	12.807	0.001	97	133099	50.0	50.4	
120 n-Butylbenzene	91	13.057	13.062	-0.005	98	404282	50.0	51.0	
121 1,2-Dichlorobenzene	146	13.082	13.080	0.002	93	232632	50.0	51.5	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.859	0.001	66	19019	50.0	46.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.005	0.001	99	487612	150.0	171.3	
124 1,3,5-Trichlorobenzene	180	14.073	14.072	0.001	96	125463	50.0	47.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.425	0.001	99	303058	100.0	111.7	
126 1,2,4-Trichlorobenzene	180	14.694	14.692	0.002	94	96124	50.0	51.3	
127 Hexachlorobutadiene	225	14.864	14.863	0.001	96	46194	50.0	52.0	
128 Naphthalene	128	14.937	14.942	-0.005	97	253779	50.0	50.8	
129 1,2,3-Trichlorobenzene	180	15.186	15.185	0.001	93	76220	50.0	51.9	
131 2,4,5-Trichlorotoluene	159	15.965	15.964	0.001	96	36873	50.0	59.1	
130 2,3,6-Trichlorotoluene	159	16.063	16.061	0.001	92	37729	50.0	66.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	106.5	
S 133 Xylenes, Total	106				0		100.0	107.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	110.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00097	Amount Added:	2.00	Units: uL	
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOA2CEVE2ND_00004	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00004	Amount Added:	6.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

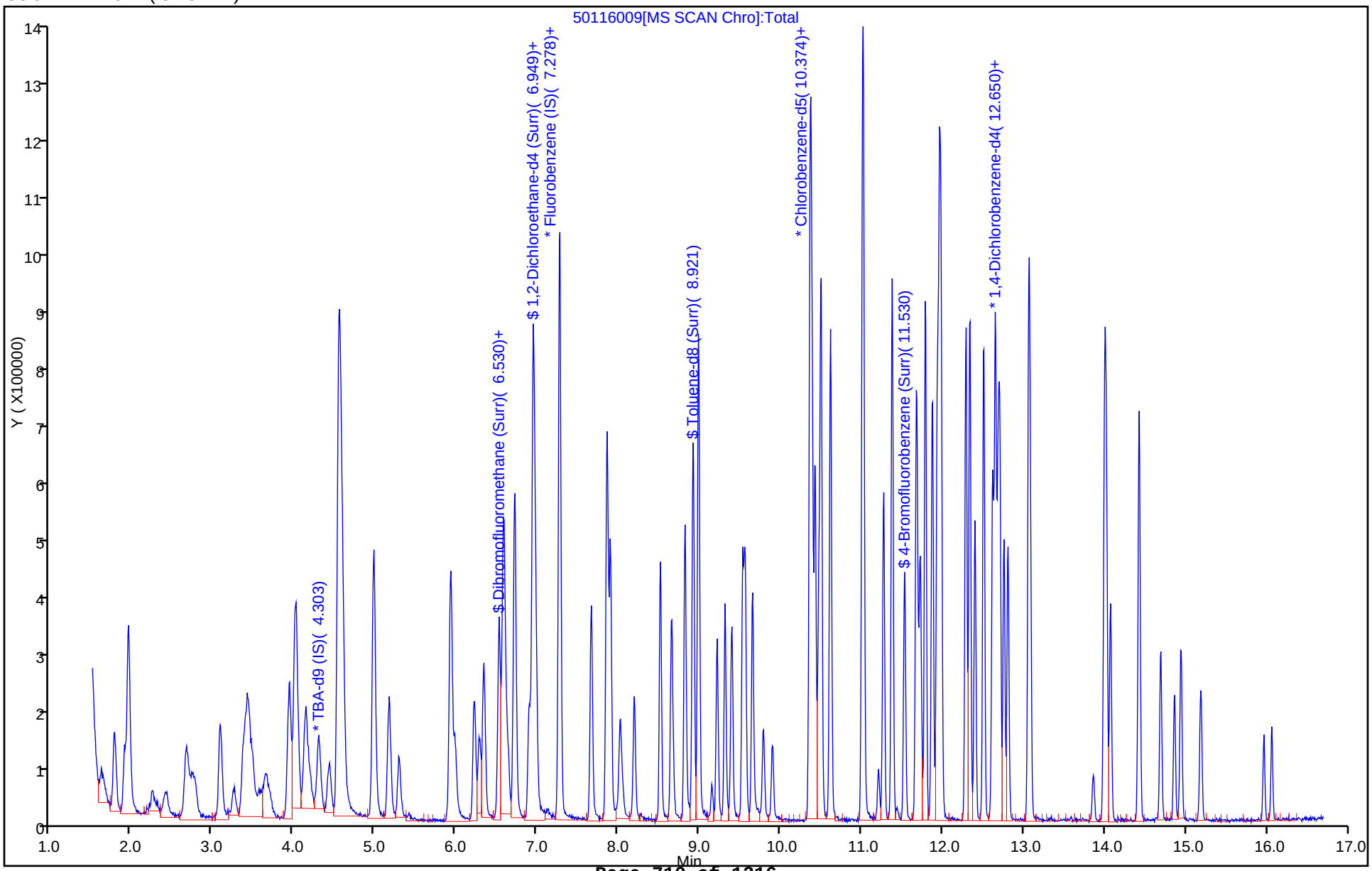
Report Date: 16-Jan-2015 15:02:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116009.D

Injection Date:	16-Jan-2015 14:32:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-130947/10

Matrix: Water Lab File ID: 50116010.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 14:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.81		1.0	0.28
75-01-4	Vinyl chloride	9.05		1.0	0.23
74-83-9	Bromomethane	9.24		1.0	0.31
75-00-3	Chloroethane	9.03		1.0	0.21
75-35-4	1,1-Dichloroethene	9.57		1.0	0.30
67-64-1	Acetone	23.9		5.0	2.5
75-15-0	Carbon disulfide	8.69		1.0	0.21
75-09-2	Methylene Chloride	10.3		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.8		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.2		1.0	0.18
75-34-3	1,1-Dichloroethane	10.6		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.7		1.0	0.24
74-97-5	Bromochloromethane	10.5		1.0	0.18
78-93-3	2-Butanone (MEK)	21.2		5.0	0.55
67-66-3	Chloroform	10.6		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.9		1.0	0.29
56-23-5	Carbon tetrachloride	10.6		1.0	0.14
71-43-2	Benzene	10.5		1.0	0.11
107-06-2	1,2-Dichloroethane	10.1		1.0	0.21
79-01-6	Trichloroethene	10.7		1.0	0.14
78-87-5	1,2-Dichloropropane	9.74		1.0	0.095
75-27-4	Bromodichloromethane	9.49		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.7		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.6		5.0	0.53
108-88-3	Toluene	9.98		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.8		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.43		1.0	0.20
127-18-4	Tetrachloroethene	9.44		1.0	0.15
591-78-6	2-Hexanone	19.6		5.0	0.16
124-48-1	Dibromochloromethane	9.83		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.80		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.8		3.0	0.49
100-42-5	Styrene	9.98		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-130947/10

Matrix: Water Lab File ID: 50116010.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 01/16/2015 14:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.71		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.56		1.0	0.20
107-13-1	Acrylonitrile	96.3		20	0.55
123-91-1	1,4-Dioxane	188	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		64-135
2037-26-5	Toluene-d8 (Surr)	87		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116010.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 16-Jan-2015 14:56:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 180-0005307-010
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 15:19:51 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 15:19:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.302	0.008	88	176390	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.271	0.002	99	454929	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.361	0.002	98	109311	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.685	-0.004	97	145692	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.522	0.009	74	94068	50.0	48.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.900	0.002	93	149125	50.0	46.9	
$ 7 Toluene-d8 (Surr)	98	8.922	8.925	-0.003	96	396938	50.0	43.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.529	0.002	82	158397	50.0	45.7	
11 Dichlorodifluoromethane	85	1.646	1.631	0.015	86	126902	50.0	46.5	
12 Chloromethane	50	1.780	1.777	0.003	99	237022	50.0	44.0	
13 Vinyl chloride	62	1.907	1.905	0.002	98	167256	50.0	45.3	
14 Butadiene	39	1.956	1.954	0.002	99	248651	50.0	47.3	
15 Bromomethane	94	2.260	2.252	0.008	93	51032	50.0	46.2	
16 Chloroethane	64	2.412	2.386	0.026	98	82632	50.0	45.2	
17 Dichlorofluoromethane	67	2.674	2.653	0.021	99	170972	50.0	47.0	
18 Trichlorofluoromethane	101	2.716	2.708	0.008	94	118407	50.0	51.4	
20 Ethyl ether	59	3.094	3.085	0.009	93	161010	50.0	49.1	
21 Acrolein	56	3.270	3.268	0.002	99	85451	150.0	174.4	
22 1,1-Dichloroethene	96	3.379	3.371	0.008	95	118530	50.0	47.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.432	0.008	95	123692	50.0	49.3	
24 Acetone	43	3.501	3.493	0.008	97	170591	100.0	119.6	
25 Iodomethane	142	3.586	3.578	0.008	99	170557	50.0	53.7	
26 Carbon disulfide	76	3.684	3.669	0.015	99	208632	50.0	43.4	
28 3-Chloro-1-propene	76	3.945	3.937	0.008	87	69791	50.0	49.9	
30 Methyl acetate	43	4.024	4.016	0.008	100	1029618	250.0	248.6	
31 Methylene Chloride	84	4.146	4.150	-0.004	90	153428	50.0	51.3	
32 2-Methyl-2-propanol	59	4.426	4.424	0.002	87	115208	500.0	488.6	
33 Acrylonitrile	53	4.554	4.545	0.009	99	919624	500.0	481.7	
34 trans-1,2-Dichloroethene	96	4.578	4.570	0.008	91	135278	50.0	53.9	
35 Methyl tert-butyl ether	73	4.602	4.594	0.008	90	330940	50.0	50.9	
36 Hexane	57	4.986	4.983	0.003	95	295824	50.0	46.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.174	5.172	0.002	97	308862	50.0	52.9	
38 Vinyl acetate	43	5.296	5.293	0.003	96	238289	50.0	42.6	
44 2,2-Dichloropropane	77	5.935	5.926	0.009	52	97757	50.0	63.2	
45 cis-1,2-Dichloroethene	96	5.941	5.938	0.003	87	144902	50.0	53.4	
46 2-Butanone (MEK)	43	5.989	5.987	0.002	97	237964	100.0	106.0	
49 Chlorobromomethane	128	6.220	6.230	-0.010	82	59371	50.0	52.5	
51 Tetrahydrofuran	42	6.287	6.285	0.002	93	155290	100.0	91.0	
52 Chloroform	83	6.348	6.346	0.002	96	234231	50.0	53.1	
53 1,1,1-Trichloroethane	97	6.531	6.535	-0.004	94	155821	50.0	54.4	
54 Cyclohexane	56	6.585	6.583	0.002	92	380330	50.0	47.3	
56 Carbon tetrachloride	117	6.719	6.717	0.002	64	132244	50.0	53.2	
55 1,1-Dichloropropene	75	6.725	6.723	0.002	83	199728	50.0	55.3	
57 Isobutyl alcohol	41	6.938	6.936	0.002	74	153293	1250.0	1173.0	
58 Benzene	78	6.957	6.954	0.003	96	590411	50.0	52.5	
59 1,2-Dichloroethane	62	6.987	6.985	0.002	94	221431	50.0	50.7	
62 n-Heptane	43	7.285	7.277	0.008	95	297996	50.0	46.3	
64 Trichloroethene	130	7.668	7.666	0.002	93	129437	50.0	53.7	
66 Methylcyclohexane	83	7.863	7.861	0.002	93	225254	50.0	48.9	
67 1,2-Dichloropropane	63	7.899	7.897	0.002	94	168539	50.0	48.7	
68 Dibromomethane	93	8.021	8.019	0.002	96	69719	50.0	48.8	
70 1,4-Dioxane	88	8.070	8.049	0.021	81	24298	1000.0	938.2	
71 Dichlorobromomethane	83	8.198	8.195	0.003	96	139868	50.0	47.5	
73 2-Chloroethyl vinyl ether	63	8.520	8.518	0.002	84	181959	100.0	125.9	
74 cis-1,3-Dichloropropene	75	8.654	8.658	-0.004	85	180366	50.0	53.6	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.822	0.002	97	485331	100.0	102.8	
76 Toluene	91	8.988	8.986	0.002	96	579090	50.0	49.9	
77 trans-1,3-Dichloropropene	75	9.220	9.217	0.003	90	144453	50.0	53.8	
78 Ethyl methacrylate	69	9.317	9.315	0.002	90	156684	50.0	49.0	
79 1,1,2-Trichloroethane	97	9.396	9.400	-0.004	95	107405	50.0	47.2	
80 Tetrachloroethene	164	9.536	9.534	0.002	94	100988	50.0	47.2	
81 1,3-Dichloropropane	76	9.566	9.564	0.002	91	208978	50.0	47.6	
82 2-Hexanone	43	9.658	9.655	0.003	97	370696	100.0	98.1	
84 Chlorodibromomethane	129	9.791	9.789	0.002	87	82251	50.0	49.1	
85 Ethylene Dibromide	107	9.901	9.905	-0.004	98	107555	50.0	50.9	
86 3-Chlorobenzotrifluoride	180	10.369	10.373	-0.004	90	184733	50.0	48.4	
87 Chlorobenzene	112	10.394	10.391	0.003	89	365125	50.0	51.7	
88 4-Chlorobenzotrifluoride	180	10.430	10.428	0.002	95	180357	50.0	50.6	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.477	-0.004	90	105491	50.0	49.0	
90 Ethylbenzene	106	10.503	10.501	0.002	98	200987	50.0	50.3	
91 m-Xylene & p-Xylene	106	10.619	10.617	0.002	97	254328	50.0	52.2	
92 o-Xylene	106	11.014	11.012	0.002	98	246415	50.0	52.1	
93 Styrene	104	11.026	11.024	0.002	92	397225	50.0	49.9	
94 Bromoform	173	11.209	11.207	0.002	95	46107	50.0	43.6	
96 2-Chlorobenzotrifluoride	180	11.276	11.274	0.002	94	177856	50.0	48.7	
97 Isopropylbenzene	105	11.379	11.377	0.002	97	613994	50.0	52.0	
99 1,1,2,2-Tetrachloroethane	83	11.671	11.675	-0.004	94	153063	50.0	47.8	
100 Bromobenzene	156	11.683	11.687	-0.004	95	132195	50.0	50.4	
101 1,2,3-Trichloropropane	110	11.720	11.718	0.002	92	49206	50.0	51.6	
102 trans-1,4-Dichloro-2-buten	53	11.732	11.730	0.002	67	68013	50.0	52.0	
103 N-Propylbenzene	120	11.793	11.791	0.002	99	164843	50.0	53.3	
104 2-Chlorotoluene	126	11.878	11.876	0.002	94	132885	50.0	50.9	
105 3-Chlorotoluene	126	11.939	11.937	0.002	68	152349	50.0	54.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.963	11.961	0.002	94	498744	50.0	53.8	
107 4-Chlorotoluene	126	11.981	11.985	-0.004	98	158587	50.0	54.7	
108 tert-Butylbenzene	119	12.292	12.289	0.003	95	403265	50.0	53.0	
110 1,2,4-Trimethylbenzene	105	12.340	12.338	0.002	96	509325	50.0	53.5	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.399	0.002	97	129733	50.0	49.4	
112 sec-Butylbenzene	105	12.511	12.508	0.003	96	574591	50.0	52.4	
113 1,3-Dichlorobenzene	146	12.620	12.618	0.002	96	252967	50.0	51.1	
114 4-Isopropyltoluene	119	12.651	12.654	-0.003	98	471610	50.0	53.4	
115 1,4-Dichlorobenzene	146	12.705	12.709	-0.004	92	265429	50.0	52.0	
116 2,4-Dichloro-1-(triflourom	214	12.760	12.758	0.002	96	115486	50.0	46.9	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.807	0.002	97	129023	50.0	48.0	
120 n-Butylbenzene	91	13.064	13.062	0.002	98	396512	50.0	49.2	
121 1,2-Dichlorobenzene	146	13.083	13.080	0.003	93	239686	50.0	52.2	
122 1,2-Dibromo-3-Chloropropan	75	13.861	13.859	0.002	72	19620	50.0	47.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.013	14.005	0.008	99	467676	150.0	161.6	
124 1,3,5-Trichlorobenzene	180	14.074	14.072	0.002	96	115294	50.0	42.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.427	14.425	0.002	99	297290	100.0	107.8	
126 1,2,4-Trichlorobenzene	180	14.695	14.692	0.003	94	96163	50.0	50.5	
127 Hexachlorobutadiene	225	14.859	14.863	-0.004	97	41050	50.0	45.4	
128 Naphthalene	128	14.938	14.942	-0.004	97	243475	50.0	47.9	
129 1,2,3-Trichlorobenzene	180	15.181	15.185	-0.004	92	75539	50.0	50.6	
131 2,4,5-Trichlorotoluene	159	15.966	15.964	0.002	96	36935	50.0	58.2	
130 2,3,6-Trichlorotoluene	159	16.064	16.061	0.003	96	36900	50.0	63.5	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	104.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	107.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	107.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACRO2ND_00004	Amount Added:	6.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOA2CEVE2ND_00004	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00097	Amount Added:	2.00	Units: uL	
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

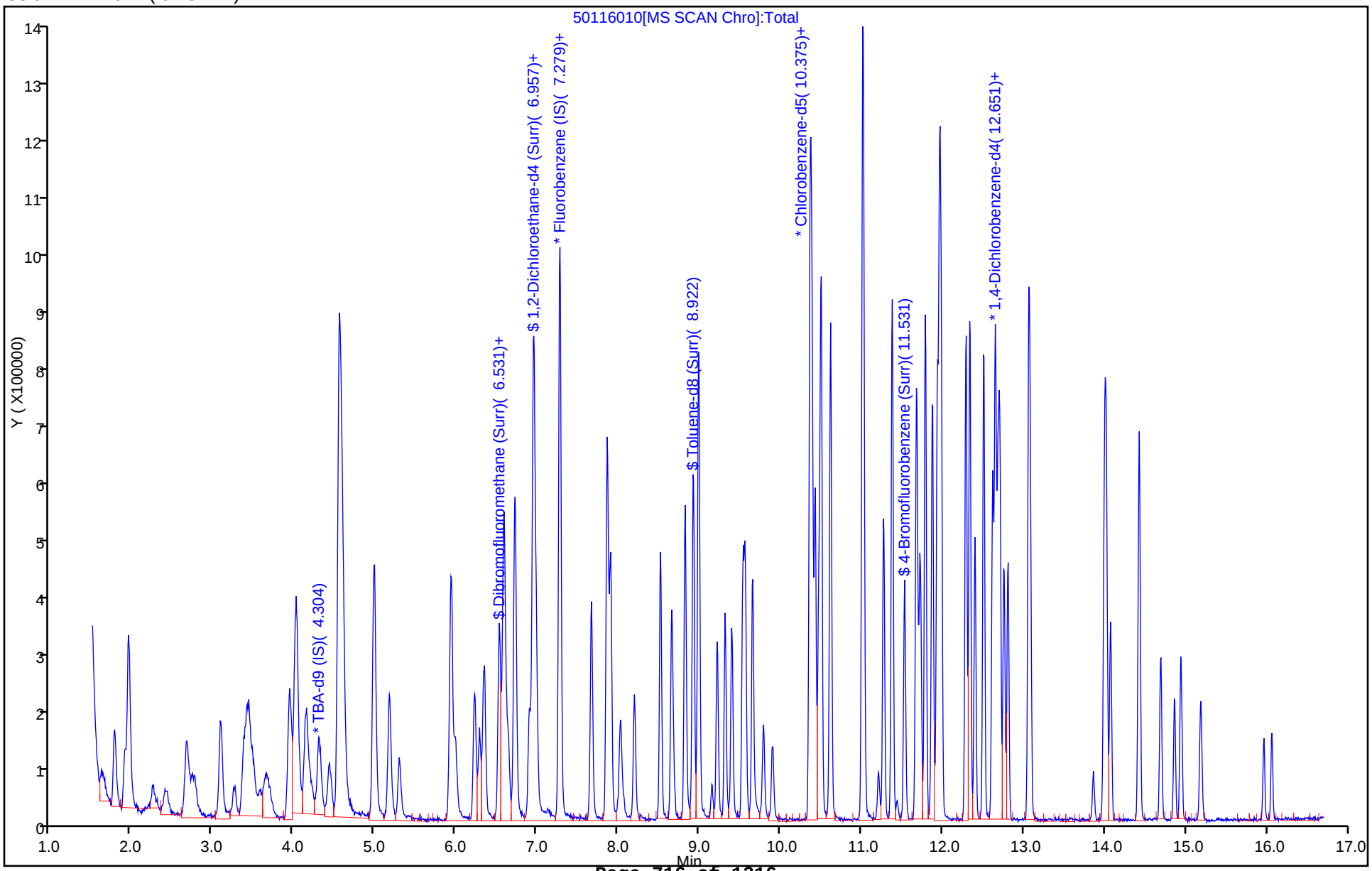
Report Date: 16-Jan-2015 15:19:51 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150116-5307.b\50116010.D

Injection Date:	16-Jan-2015 14:56:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCSD			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 MS | Lab Sample ID: 180-40434-22 MS

Matrix: Water | Lab File ID: 50115013.D

Analysis Method: 8260C | Date Collected: 01/13/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2015 15:45

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.: 130838 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	43.4		5.0	1.4
75-01-4	Vinyl chloride	48.0		5.0	1.1
74-83-9	Bromomethane	46.9		5.0	1.6
75-00-3	Chloroethane	44.5		5.0	1.1
75-35-4	1,1-Dichloroethene	51.5		5.0	1.5
67-64-1	Acetone	91.1		25	13
75-15-0	Carbon disulfide	49.8		5.0	1.1
75-09-2	Methylene Chloride	44.8		5.0	0.63
156-60-5	trans-1,2-Dichloroethene	49.1		5.0	0.85
1634-04-4	Methyl tert-butyl ether	47.9		5.0	0.92
75-34-3	1,1-Dichloroethane	55.9		5.0	0.58
156-59-2	cis-1,2-Dichloroethene	178		5.0	1.2
74-97-5	Bromochloromethane	45.3		5.0	0.90
78-93-3	2-Butanone (MEK)	100		25	2.7
67-66-3	Chloroform	49.9		5.0	0.85
71-55-6	1,1,1-Trichloroethane	74.5		5.0	1.4
56-23-5	Carbon tetrachloride	54.1		5.0	0.68
71-43-2	Benzene	47.8		5.0	0.53
107-06-2	1,2-Dichloroethane	48.7		5.0	1.1
79-01-6	Trichloroethene	116		5.0	0.72
78-87-5	1,2-Dichloropropane	44.1		5.0	0.47
75-27-4	Bromodichloromethane	47.2		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	50.2		5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	92.9		25	2.6
108-88-3	Toluene	48.8		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	58.1		5.0	0.74
79-00-5	1,1,2-Trichloroethane	45.3		5.0	1.0
127-18-4	Tetrachloroethene	144		5.0	0.74
591-78-6	2-Hexanone	76.1		25	0.80
124-48-1	Dibromochloromethane	52.2		5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	47.6		5.0	0.90
108-90-7	Chlorobenzene	50.8		5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	49.4		5.0	1.4
100-41-4	Ethylbenzene	52.0		5.0	1.1
1330-20-7	Xylenes, Total	102		15	2.4
100-42-5	Styrene	48.5		5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 MS Lab Sample ID: 180-40434-22 MS

Matrix: Water Lab File ID: 50115013.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:10

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 15:45

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.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	46.2		5.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	46.9		5.0	1.0
107-13-1	Acrylonitrile	452		100	2.7
123-91-1	1,4-Dioxane	722	J	1000	170

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115013.D
Lims ID: 180-40434-D-22 MS
Client ID: HD-MW-107-0/1-0
Sample Type: MS
Inject. Date: 15-Jan-2015 15:45:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-40434-D-22 MS, 5x
Misc. Info.: 180-0005292-013
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jan-2015 16:15:05 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: fergusond Date: 15-Jan-2015 16:15:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.284	0.018	91	182242	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	488879	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.362	-0.001	98	111302	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.679	12.686	-0.007	98	151763	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.525	0.005	65	100622	50.0	48.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.896	0.004	92	152291	50.0	44.6	
$ 7 Toluene-d8 (Surr)	98	8.926	8.921	0.005	95	433103	50.0	46.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.531	-0.002	83	157730	50.0	44.7	
11 Dichlorodifluoromethane	85	1.625	1.633	-0.008	97	131697	50.0	44.9	
12 Chloromethane	50	1.777	1.779	-0.002	99	250995	50.0	43.4	
13 Vinyl chloride	62	1.905	1.901	0.004	97	190559	50.0	48.0	
14 Butadiene	39	1.954	1.950	0.004	99	258386	50.0	45.7	
15 Bromomethane	94	2.270	2.254	0.016	91	55650	50.0	46.9	
16 Chloroethane	64	2.398	2.388	0.010	96	87427	50.0	44.5	
17 Dichlorofluoromethane	67	2.660	2.649	0.011	97	174426	50.0	44.6	
18 Trichlorofluoromethane	101	2.690	2.704	-0.014	86	130368	50.0	52.6	
20 Ethyl ether	59	3.085	3.093	-0.008	92	158299	50.0	45.0	
21 Acrolein	56	3.262	3.252	0.010	98	103046	150.0	195.7	
22 1,1-Dichloroethene	96	3.402	3.379	0.023	90	137267	50.0	51.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.428	0.004	95	131915	50.0	48.9	
24 Acetone	43	3.499	3.495	0.004	99	139708	100.0	91.1	
25 Iodomethane	142	3.609	3.574	0.035	97	171906	50.0	50.4	
26 Carbon disulfide	76	3.657	3.659	-0.002	98	256882	50.0	49.8	
28 3-Chloro-1-propene	76	3.949	3.945	0.004	88	76742	50.0	51.1	
30 Methyl acetate	43	4.022	4.012	0.010	100	1012503	250.0	227.5	
31 Methylene Chloride	84	4.156	4.140	0.016	85	145909	50.0	44.8	
32 2-Methyl-2-propanol	59	4.430	4.432	-0.002	87	112504	500.0	461.8	
33 Acrylonitrile	53	4.551	4.547	0.004	100	927983	500.0	452.3	
34 trans-1,2-Dichloroethene	96	4.570	4.560	0.010	90	132311	50.0	49.1	
35 Methyl tert-butyl ether	73	4.600	4.596	0.004	91	334894	50.0	47.9	
36 Hexane	57	4.983	4.985	-0.002	95	302910	50.0	44.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.172	5.174	-0.002	97	350392	50.0	55.9	
38 Vinyl acetate	43	5.300	5.290	0.010	97	266266	50.0	44.3	
44 2,2-Dichloropropane	77	5.932	5.928	0.004	36	108854	50.0	65.5	
45 cis-1,2-Dichloroethene	96	5.939	5.934	0.005	87	519839	50.0	178.4	
46 2-Butanone (MEK)	43	5.987	5.989	-0.002	98	241877	100.0	100.3	
49 Chlorobromomethane	128	6.231	6.220	0.011	83	55024	50.0	45.3	
51 Tetrahydrofuran	42	6.291	6.287	0.004	93	145981	100.0	79.6	
52 Chloroform	83	6.340	6.342	-0.002	96	236555	50.0	49.9	
53 1,1,1-Trichloroethane	97	6.535	6.531	0.004	93	229322	50.0	74.5	
54 Cyclohexane	56	6.583	6.585	-0.002	95	396400	50.0	45.8	
56 Carbon tetrachloride	117	6.723	6.719	0.004	74	144605	50.0	54.1	
55 1,1-Dichloropropene	75	6.723	6.725	-0.002	84	202287	50.0	52.1	
57 Isobutyl alcohol	41	6.942	6.944	-0.002	92	140626	1250.0	1001.3	
58 Benzene	78	6.954	6.956	-0.002	96	577572	50.0	47.8	
59 1,2-Dichloroethane	62	6.985	6.987	-0.002	95	228704	50.0	48.7	
62 n-Heptane	43	7.283	7.279	0.004	97	310358	50.0	44.8	
64 Trichloroethene	130	7.666	7.668	-0.002	95	300026	50.0	115.9	
66 Methylcyclohexane	83	7.861	7.863	-0.002	95	240357	50.0	48.5	
67 1,2-Dichloropropane	63	7.903	7.905	-0.002	93	164090	50.0	44.1	
68 Dibromomethane	93	8.025	8.021	0.004	96	71311	50.0	46.5	
70 1,4-Dioxane	88	8.062	8.064	-0.002	85	20102	1000.0	722.2	M
71 Dichlorobromomethane	83	8.202	8.197	0.005	96	149431	50.0	47.2	
74 cis-1,3-Dichloropropene	75	8.652	8.654	-0.002	85	181437	50.0	50.2	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.824	-0.002	98	446542	100.0	92.9	
76 Toluene	91	8.992	8.988	0.004	97	576706	50.0	48.8	
77 trans-1,3-Dichloropropene	75	9.218	9.219	-0.001	92	159011	50.0	58.1	
78 Ethyl methacrylate	69	9.321	9.317	0.004	88	153035	50.0	47.0	
79 1,1,2-Trichloroethane	97	9.400	9.402	-0.002	94	105005	50.0	45.3	
80 Tetrachloroethene	164	9.540	9.536	0.004	94	314565	50.0	144.3	
81 1,3-Dichloropropane	76	9.564	9.566	-0.002	91	211138	50.0	47.3	
82 2-Hexanone	43	9.656	9.657	-0.001	97	292793	100.0	76.1	
84 Chlorodibromomethane	129	9.795	9.791	0.004	88	88974	50.0	52.2	
85 Ethylene Dibromide	107	9.899	9.901	-0.002	99	102266	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.373	10.375	-0.002	92	198372	50.0	51.1	
87 Chlorobenzene	112	10.392	10.394	-0.002	91	364942	50.0	50.8	
88 4-Chlorobenzotrifluoride	180	10.428	10.430	-0.002	95	183360	50.0	50.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.479	-0.002	92	108325	50.0	49.4	
90 Ethylbenzene	106	10.501	10.503	-0.002	98	211576	50.0	52.0	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	97	254629	50.0	51.4	
92 o-Xylene	106	11.012	11.014	-0.002	97	244703	50.0	50.8	
93 Styrene	104	11.024	11.026	-0.002	90	393206	50.0	48.5	
94 Bromoform	173	11.213	11.209	0.004	93	49748	50.0	46.2	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	94	185198	50.0	49.8	
97 Isopropylbenzene	105	11.377	11.379	-0.002	97	620941	50.0	51.7	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.671	0.004	95	152847	50.0	46.9	
100 Bromobenzene	156	11.681	11.683	-0.002	96	129511	50.0	47.4	
101 1,2,3-Trichloropropane	110	11.724	11.720	0.004	88	49527	50.0	49.9	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.732	-0.002	68	67852	50.0	49.8	
103 N-Propylbenzene	120	11.785	11.787	-0.002	99	170171	50.0	52.8	
104 2-Chlorotoluene	126	11.876	11.878	-0.002	95	139738	50.0	51.4	
105 3-Chlorotoluene	126	11.937	11.939	-0.002	96	156953	50.0	54.1	
106 1,3,5-Trimethylbenzene	105	11.961	11.963	-0.002	95	510387	50.0	52.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.985	11.987	-0.002	98	149862	50.0	49.6	
108 tert-Butylbenzene	119	12.290	12.292	-0.002	95	407928	50.0	51.5	
110 1,2,4-Trimethylbenzene	105	12.338	12.340	-0.002	97	511281	50.0	51.5	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.401	0.004	96	135862	50.0	49.7	
112 sec-Butylbenzene	105	12.509	12.511	-0.002	95	592612	50.0	51.9	
113 1,3-Dichlorobenzene	146	12.618	12.620	-0.002	96	258955	50.0	50.3	
114 4-Isopropyltoluene	119	12.655	12.657	-0.002	98	481190	50.0	52.3	
115 1,4-Dichlorobenzene	146	12.709	12.711	-0.002	91	259611	50.0	48.8	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.760	-0.002	96	128322	50.0	50.0	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.809	-0.002	97	138989	50.0	49.7	
120 n-Butylbenzene	91	13.062	13.064	-0.002	98	408805	50.0	48.7	
121 1,2-Dichlorobenzene	146	13.081	13.082	-0.002	94	235003	50.0	49.1	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.855	0.004	69	21161	50.0	48.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.013	-0.008	98	503504	150.0	167.1	
124 1,3,5-Trichlorobenzene	180	14.072	14.074	-0.002	96	128277	50.0	45.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.427	-0.002	99	310111	100.0	107.9	
126 1,2,4-Trichlorobenzene	180	14.693	14.695	-0.002	93	97156	50.0	49.0	
127 Hexachlorobutadiene	225	14.863	14.865	-0.002	94	46795	50.0	49.7	
128 Naphthalene	128	14.942	14.944	-0.002	98	263207	50.0	49.7	
129 1,2,3-Trichlorobenzene	180	15.185	15.187	-0.002	93	81165	50.0	52.2	
131 2,4,5-Trichlorotoluene	159	15.964	15.966	-0.002	96	42282	50.0	64.0	
130 2,3,6-Trichlorotoluene	159	16.061	16.057	0.004	95	40370	50.0	66.7	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	227.4	
S 133 Xylenes, Total	106				0		100.0	102.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	108.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00097	Amount Added:	2.00	Units: uL		
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL		
voaWEE2nd Res_00002	Amount Added:	2.00	Units: uL		
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL		
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL		
VOAACRO2ND_00004	Amount Added:	6.00	Units: uL		
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent	

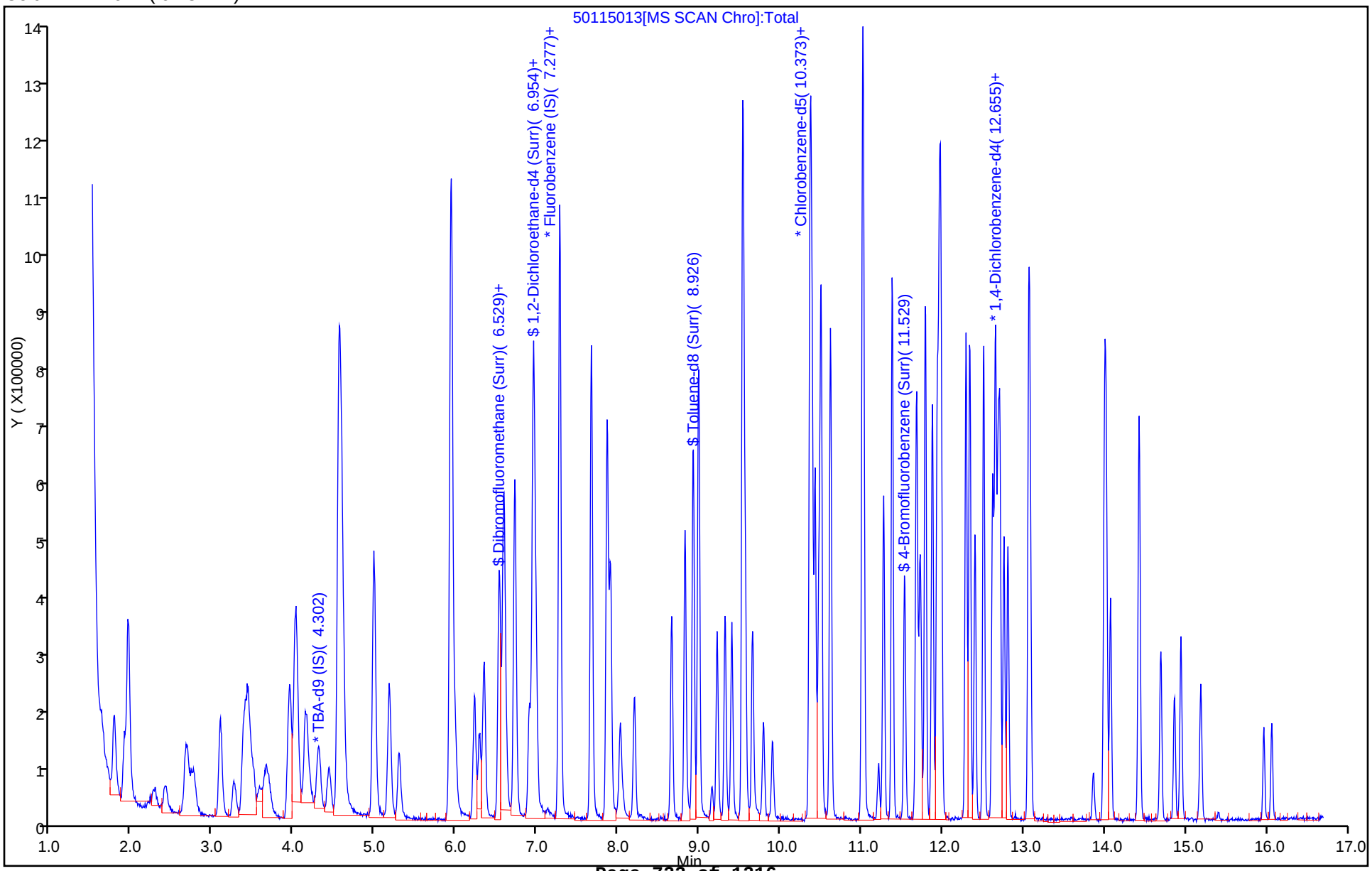
Report Date: 15-Jan-2015 16:15:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115013.D

Injection Date:	15-Jan-2015 15:45:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-D-22 MS			Worklist Smp#:	13
Client ID:	HD-MW-107-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

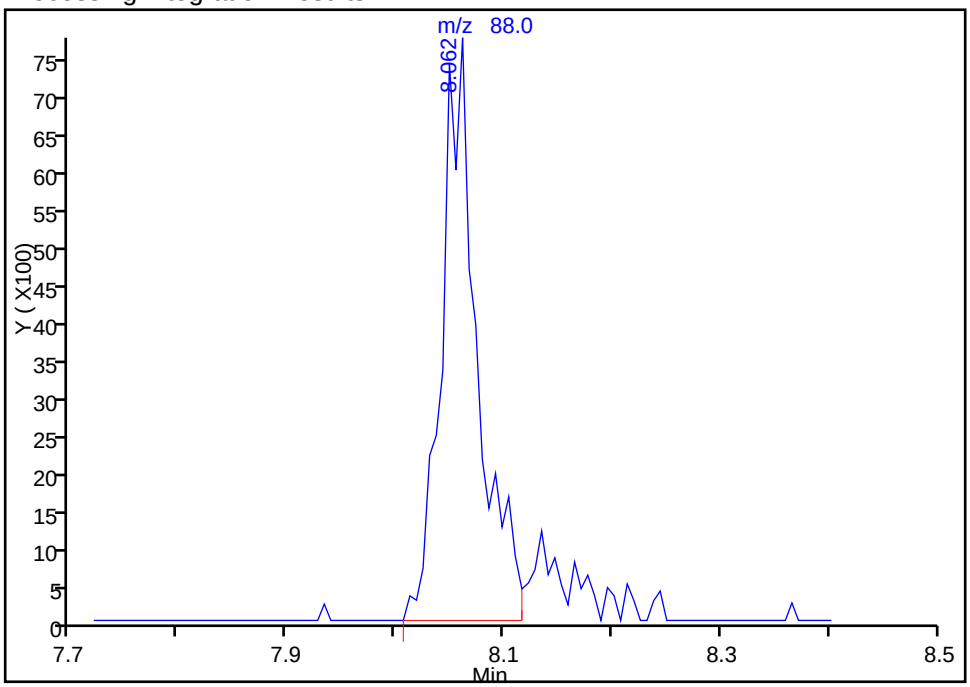
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115013.D				
Injection Date:	15-Jan-2015 15:45:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-D-22 MS				
Client ID:	HD-MW-107-0/1-0				
Operator ID:	001562	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

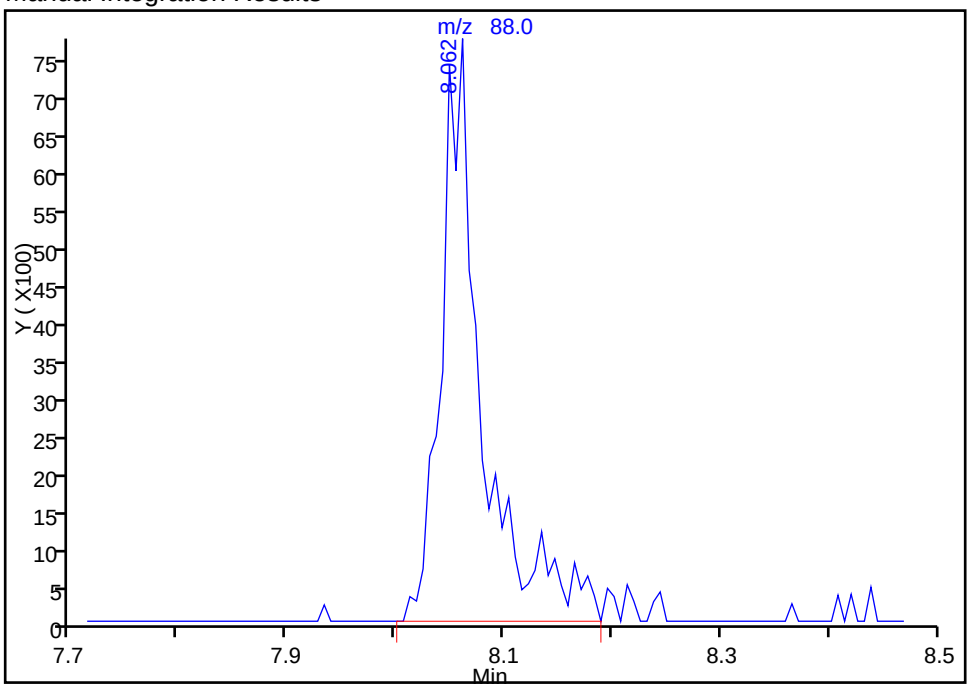
Processing Integration Results

RT: 8.06
Response: 17699
Amount: 635.9083



Manual Integration Results

RT: 8.06
Response: 20102
Amount: 722.2459



Reviewer: fergusond, 15-Jan-2015 16:15:05
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 MSD Lab Sample ID: 180-40434-22 MSD

Matrix: Water Lab File ID: 50115014.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:10

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 16:09

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.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	44.1		5.0	1.4
75-01-4	Vinyl chloride	47.9		5.0	1.1
74-83-9	Bromomethane	52.8		5.0	1.6
75-00-3	Chloroethane	46.9		5.0	1.1
75-35-4	1,1-Dichloroethene	51.4		5.0	1.5
67-64-1	Acetone	106		25	13
75-15-0	Carbon disulfide	51.2		5.0	1.1
75-09-2	Methylene Chloride	49.7		5.0	0.63
156-60-5	trans-1,2-Dichloroethene	51.8		5.0	0.85
1634-04-4	Methyl tert-butyl ether	51.6		5.0	0.92
75-34-3	1,1-Dichloroethane	57.8		5.0	0.58
156-59-2	cis-1,2-Dichloroethene	191		5.0	1.2
74-97-5	Bromochloromethane	51.8		5.0	0.90
78-93-3	2-Butanone (MEK)	109		25	2.7
67-66-3	Chloroform	52.6		5.0	0.85
71-55-6	1,1,1-Trichloroethane	79.6		5.0	1.4
56-23-5	Carbon tetrachloride	56.0		5.0	0.68
71-43-2	Benzene	50.4		5.0	0.53
107-06-2	1,2-Dichloroethane	50.3		5.0	1.1
79-01-6	Trichloroethene	119		5.0	0.72
78-87-5	1,2-Dichloropropane	48.4		5.0	0.47
75-27-4	Bromodichloromethane	49.2		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	54.8		5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	102		25	2.6
108-88-3	Toluene	50.2		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	60.4		5.0	0.74
79-00-5	1,1,2-Trichloroethane	48.2		5.0	1.0
127-18-4	Tetrachloroethene	150		5.0	0.74
591-78-6	2-Hexanone	84.4		25	0.80
124-48-1	Dibromochloromethane	51.9		5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	52.0		5.0	0.90
108-90-7	Chlorobenzene	53.5		5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	51.6		5.0	1.4
100-41-4	Ethylbenzene	51.4		5.0	1.1
1330-20-7	Xylenes, Total	105		15	2.4
100-42-5	Styrene	50.7		5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 MSD Lab Sample ID: 180-40434-22 MSD

Matrix: Water Lab File ID: 50115014.D

Analysis Method: 8260C Date Collected: 01/13/2015 10:10

Sample wt/vol: 5(mL) Date Analyzed: 01/15/2015 16:09

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.: 130838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	49.4		5.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	50.4		5.0	1.0
107-13-1	Acrylonitrile	479		100	2.7
123-91-1	1,4-Dioxane	749	J	1000	170

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

Report Date: 16-Jan-2015 07:50:44 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115014.D
Lims ID: 180-40434-C-22 MSD
Client ID: HD-MW-107-0/1-0
Sample Type: MSD
Inject. Date: 15-Jan-2015 16:09:30 ALS Bottle#: 11 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-40434-C-22 MSD, 5x
Misc. Info.: 180-0005292-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 16-Jan-2015 07:50:43 Calib Date: 15-Jan-2015 02:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150114-5278.b\50114039.D

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

First Level Reviewer: fergusond Date: 16-Jan-2015 07:50:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.284	0.021	89	163652	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.277	-0.003	99	453215	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	98	104855	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.686	0.002	96	150194	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.525	0.008	65	98546	50.0	51.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.896	0.007	93	152925	50.0	48.3	
$ 7 Toluene-d8 (Surr)	98	8.922	8.921	0.001	96	421733	50.0	48.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.531	0.001	83	161974	50.0	48.7	
11 Dichlorodifluoromethane	85	1.641	1.633	0.007	98	129094	50.0	47.5	
12 Chloromethane	50	1.780	1.779	0.001	99	236301	50.0	44.1	
13 Vinyl chloride	62	1.908	1.901	0.007	97	176247	50.0	47.9	
14 Butadiene	39	1.945	1.950	-0.005	98	251635	50.0	48.0	
15 Bromomethane	94	2.273	2.254	0.019	88	58085	50.0	52.8	
16 Chloroethane	64	2.407	2.388	0.019	95	85514	50.0	46.9	
17 Dichlorofluoromethane	67	2.669	2.649	0.020	98	186100	50.0	51.3	
18 Trichlorofluoromethane	101	2.711	2.704	0.007	96	130813	50.0	57.0	
20 Ethyl ether	59	3.082	3.093	-0.011	95	158433	50.0	48.5	
21 Acrolein	56	3.265	3.252	0.013	98	95156	150.0	194.9	
22 1,1-Dichloroethene	96	3.399	3.379	0.020	90	126969	50.0	51.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.435	3.428	0.007	95	130102	50.0	52.0	
24 Acetone	43	3.502	3.495	0.007	98	151115	100.0	106.3	
25 Iodomethane	142	3.593	3.574	0.019	97	166814	50.0	52.8	
26 Carbon disulfide	76	3.666	3.659	0.007	99	245052	50.0	51.2	
28 3-Chloro-1-propene	76	3.940	3.945	-0.005	88	70999	50.0	51.0	
30 Methyl acetate	43	4.019	4.012	0.007	100	1044359	250.0	253.1	
31 Methylene Chloride	84	4.159	4.140	0.019	90	148425	50.0	49.7	
32 2-Methyl-2-propanol	59	4.439	4.432	0.007	85	108351	500.0	495.2	
33 Acrylonitrile	53	4.548	4.547	0.001	99	910259	500.0	478.6	
34 trans-1,2-Dichloroethene	96	4.573	4.560	0.013	49	129434	50.0	51.8	
35 Methyl tert-butyl ether	73	4.597	4.596	0.001	92	333992	50.0	51.6	
36 Hexane	57	4.986	4.985	0.001	95	304212	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.175	5.174	0.001	97	336026	50.0	57.8	
38 Vinyl acetate	43	5.297	5.290	0.007	96	262976	50.0	47.2	
44 2,2-Dichloropropane	77	5.929	5.928	0.001	36	106547	50.0	69.1	
45 cis-1,2-Dichloroethene	96	5.935	5.934	0.001	87	516049	50.0	191.0	
46 2-Butanone (MEK)	43	5.990	5.989	0.001	95	244439	100.0	109.3	
49 Chlorobromomethane	128	6.227	6.220	0.007	82	58377	50.0	51.8	
51 Tetrahydrofuran	42	6.288	6.287	0.001	94	155149	100.0	91.3	
52 Chloroform	83	6.343	6.342	0.001	98	231384	50.0	52.6	
53 1,1,1-Trichloroethane	97	6.532	6.531	0.001	91	226942	50.0	79.6	
54 Cyclohexane	56	6.586	6.585	0.001	93	379484	50.0	47.3	
56 Carbon tetrachloride	117	6.714	6.719	-0.005	73	138727	50.0	56.0	
55 1,1-Dichloropropene	75	6.726	6.725	0.001	84	195447	50.0	54.3	
57 Isobutyl alcohol	41	6.939	6.944	-0.005	94	143161	1250.0	1099.6	
58 Benzene	78	6.957	6.956	0.001	96	565053	50.0	50.4	
59 1,2-Dichloroethane	62	6.982	6.987	-0.005	96	219011	50.0	50.3	
62 n-Heptane	43	7.280	7.279	0.001	93	308523	50.0	48.1	
64 Trichloroethene	130	7.663	7.668	-0.005	94	286408	50.0	119.4	
66 Methylcyclohexane	83	7.864	7.863	0.001	95	226558	50.0	49.3	
67 1,2-Dichloropropane	63	7.900	7.905	-0.005	93	166975	50.0	48.4	
68 Dibromomethane	93	8.028	8.021	0.007	96	70866	50.0	49.8	
70 1,4-Dioxane	88	8.052	8.064	-0.012	77	19326	1000.0	749.0	M
71 Dichlorobromomethane	83	8.198	8.197	0.001	96	144272	50.0	49.2	
74 cis-1,3-Dichloropropene	75	8.661	8.654	0.007	86	183578	50.0	54.8	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.824	0.001	97	462952	100.0	102.2	
76 Toluene	91	8.989	8.988	0.001	97	559366	50.0	50.2	
77 trans-1,3-Dichloropropene	75	9.221	9.219	0.002	93	155614	50.0	60.4	
78 Ethyl methacrylate	69	9.318	9.317	0.001	89	152206	50.0	49.6	
79 1,1,2-Trichloroethane	97	9.403	9.402	0.001	94	105273	50.0	48.2	
80 Tetrachloroethene	164	9.537	9.536	0.001	92	308360	50.0	150.2	
81 1,3-Dichloropropane	76	9.567	9.566	0.001	93	210455	50.0	50.0	
82 2-Hexanone	43	9.652	9.657	-0.005	97	306030	100.0	84.4	
84 Chlorodibromomethane	129	9.792	9.791	0.001	90	83291	50.0	51.9	
85 Ethylene Dibromide	107	9.902	9.901	0.001	98	105328	50.0	52.0	
86 3-Chlorobenzotrifluoride	180	10.376	10.375	0.001	91	200402	50.0	54.8	
87 Chlorobenzene	112	10.389	10.394	-0.005	91	362298	50.0	53.5	
88 4-Chlorobenzotrifluoride	180	10.431	10.430	0.001	96	193278	50.0	56.5	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.479	-0.005	92	106502	50.0	51.6	
90 Ethylbenzene	106	10.498	10.503	-0.005	98	197121	50.0	51.4	
91 m-Xylene & p-Xylene	106	10.620	10.619	0.001	98	248931	50.0	53.3	
92 o-Xylene	106	11.009	11.014	-0.005	94	234356	50.0	51.6	
93 Styrene	104	11.027	11.026	0.001	93	387602	50.0	50.7	
94 Bromoform	173	11.210	11.209	0.001	93	50112	50.0	49.4	
96 2-Chlorobenzotrifluoride	180	11.277	11.276	0.001	94	192907	50.0	55.1	
97 Isopropylbenzene	105	11.380	11.379	0.001	97	597130	50.0	52.7	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.671	0.001	94	154893	50.0	50.4	
100 Bromobenzene	156	11.684	11.683	0.001	96	129602	50.0	48.0	
101 1,2,3-Trichloropropane	110	11.721	11.720	0.001	89	49214	50.0	50.1	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.732	0.001	68	71161	50.0	52.7	
103 N-Propylbenzene	120	11.788	11.787	0.001	99	156599	50.0	49.1	
104 2-Chlorotoluene	126	11.873	11.878	-0.005	94	133378	50.0	49.6	
105 3-Chlorotoluene	126	11.940	11.939	0.001	72	159782	50.0	55.7	
106 1,3,5-Trimethylbenzene	105	11.964	11.963	0.001	94	491932	50.0	51.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.982	11.987	-0.005	99	153027	50.0	51.2	
108 tert-Butylbenzene	119	12.293	12.292	0.001	95	395158	50.0	50.4	
110 1,2,4-Trimethylbenzene	105	12.335	12.340	-0.005	95	501749	50.0	51.1	
111 1,2-dichloro-4-(trifluorom	214	12.396	12.401	-0.005	94	136332	50.0	50.4	
112 sec-Butylbenzene	105	12.512	12.511	0.001	95	582763	50.0	51.6	
113 1,3-Dichlorobenzene	146	12.615	12.620	-0.005	96	244725	50.0	48.0	
114 4-Isopropyltoluene	119	12.652	12.657	-0.005	97	469542	50.0	51.6	
115 1,4-Dichlorobenzene	146	12.706	12.711	-0.005	92	255741	50.0	48.6	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.760	0.001	96	132450	50.0	52.2	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.809	0.001	98	142287	50.0	51.4	
120 n-Butylbenzene	91	13.065	13.064	0.001	98	402404	50.0	48.4	
121 1,2-Dichlorobenzene	146	13.084	13.082	0.002	94	226398	50.0	47.8	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.855	0.007	69	21817	50.0	50.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.013	-0.005	98	509774	150.0	170.9	
124 1,3,5-Trichlorobenzene	180	14.075	14.074	0.001	97	127031	50.0	45.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.427	0.001	99	331340	100.0	116.5	
126 1,2,4-Trichlorobenzene	180	14.690	14.695	-0.005	95	97787	50.0	49.8	
127 Hexachlorobutadiene	225	14.866	14.865	0.001	96	47019	50.0	50.5	
128 Naphthalene	128	14.939	14.944	-0.005	97	256184	50.0	48.9	
129 1,2,3-Trichlorobenzene	180	15.188	15.187	0.001	95	79518	50.0	51.7	
131 2,4,5-Trichlorotoluene	159	15.967	15.966	0.001	96	45651	50.0	69.8	
130 2,3,6-Trichlorotoluene	159	16.064	16.057	0.007	96	44172	50.0	73.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	242.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	115.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRO2ND_00004	Amount Added:	6.00	Units: uL	
voaWVA 2nd Re_00008	Amount Added:	2.00	Units: uL	
voaWEE2nd Res_00002	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00001	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00097	Amount Added:	2.00	Units: uL	
voaW135tcbABS_00003	Amount Added:	2.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00029	Amount Added:	2.00	Units: uL	Run Reagent

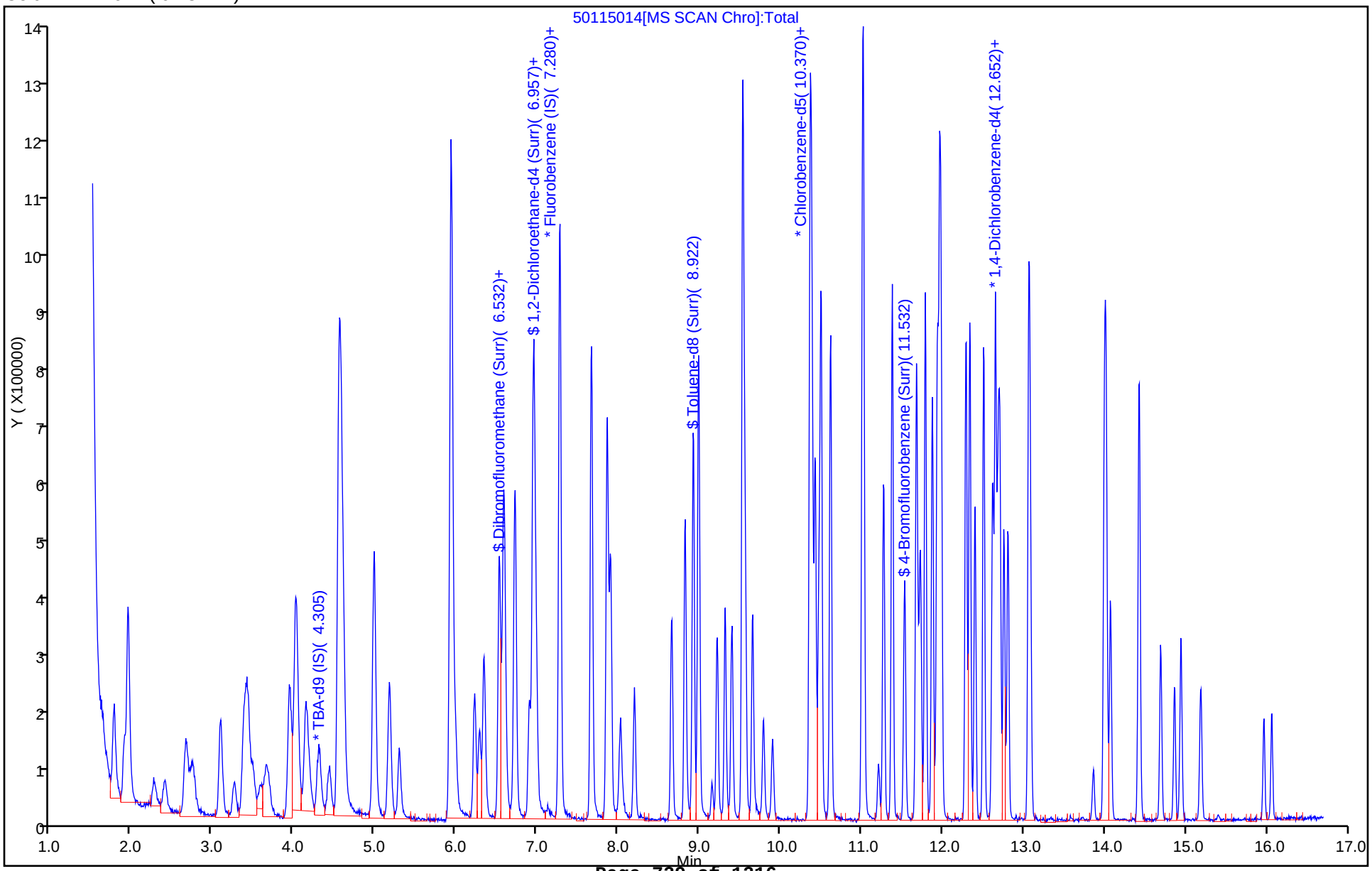
Report Date: 16-Jan-2015 07:50:44 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115014.D

Injection Date:	15-Jan-2015 16:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-40434-C-22 MSD			Worklist Smp#:	14
Client ID:	HD-MW-107-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

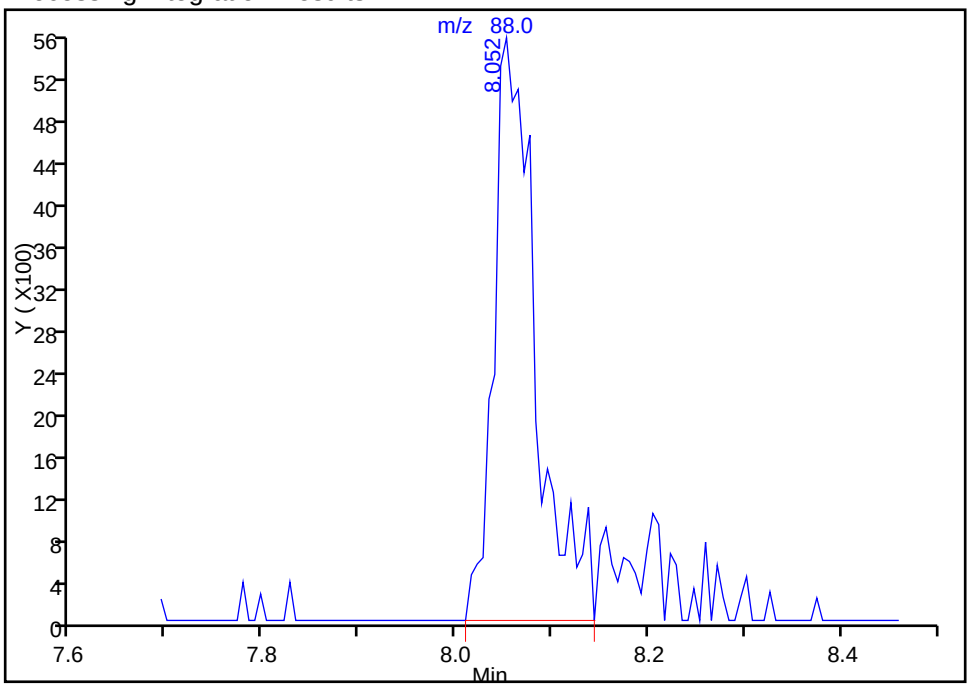
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150115-5292.b\50115014.D				
Injection Date:	15-Jan-2015 16:09:30	Instrument ID:	CHHP5		
Lims ID:	180-40434-C-22 MSD				
Client ID:	HD-MW-107-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

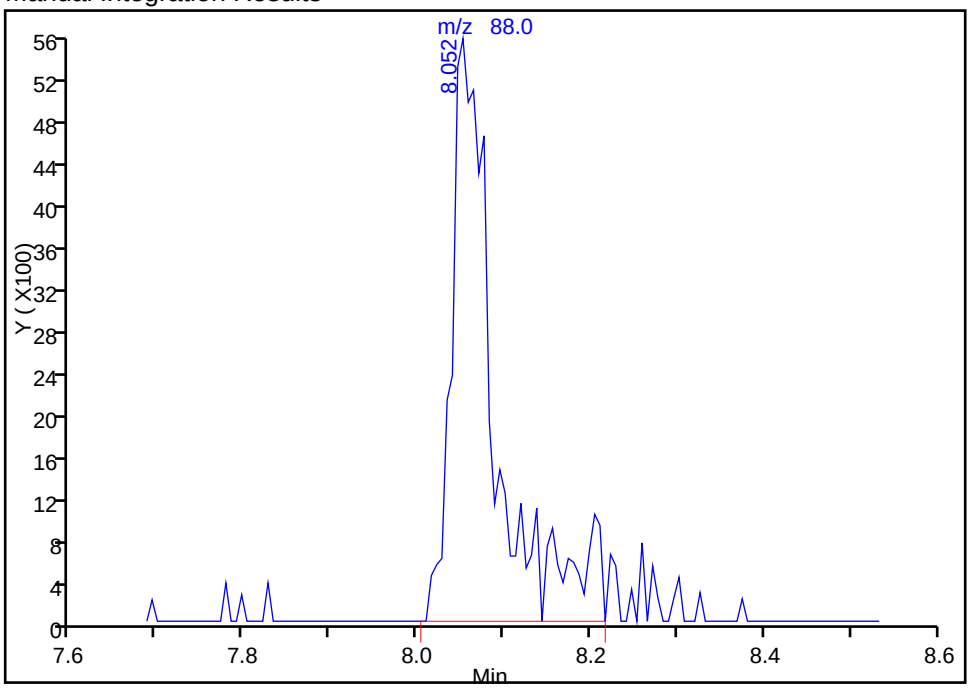
Processing Integration Results

RT: 8.05
Response: 16782
Amount: 650.4091



Manual Integration Results

RT: 8.05
Response: 19326
Amount: 749.0053



Reviewer: fergusond, 16-Jan-2015 07:50:43
Audit Action: Manually Integrated
Audit Reason: Peak Tail

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Start Date: 12/15/2014 10:05

Analysis Batch Number: 128329 End Date: 12/16/2014 10:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-128329/1		12/15/2014 10:05	1	51215001.D	DB-624 0.18(mm)
IC 180-128329/7		12/15/2014 14:33	1	51215007.D	DB-624 0.18(mm)
IC 180-128329/8		12/15/2014 14:57	1	51215008.D	DB-624 0.18(mm)
ICIS 180-128329/9		12/15/2014 15:21	1	51215009.D	DB-624 0.18(mm)
IC 180-128329/10		12/15/2014 15:45	1	51215010.D	DB-624 0.18(mm)
IC 180-128329/11		12/15/2014 16:09	1	51215011.D	DB-624 0.18(mm)
IC 180-128329/12		12/15/2014 16:33	1	51215012.D	DB-624 0.18(mm)
IC 180-128329/13		12/15/2014 16:57	1	51215013.D	DB-624 0.18(mm)
ICV 180-128329/17		12/16/2014 10:31	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Start Date: 01/14/2015 09:04

Analysis Batch Number: 130711 End Date: 01/14/2015 20:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-130711/1		01/14/2015 09:04	1	50114001.D	DB-624 0.18(mm)
CCVIS 180-130711/2		01/14/2015 09:55	1	50114002.D	DB-624 0.18(mm)
ZZZZZ		01/14/2015 09:55	1		DB-624 0.18(mm)
MB 180-130711/4		01/14/2015 12:17	1	50114004.D	DB-624 0.18(mm)
LCS 180-130711/7		01/14/2015 13:57	1	50114007.D	DB-624 0.18(mm)
180-40434-1	HD-COD-SW-6-0/1-0	01/14/2015 16:23	1	50114013.D	DB-624 0.18(mm)
180-40434-2	HD-COD-SW-7-0/1-0	01/14/2015 16:47	1	50114014.D	DB-624 0.18(mm)
180-40434-3	HD-COD-SW-8-0/1-0	01/14/2015 17:11	1	50114015.D	DB-624 0.18(mm)
180-40434-4	HD-COD-SW-9-0/1-0	01/14/2015 17:35	1	50114016.D	DB-624 0.18(mm)
180-40434-5	HD-COD-SW-10-0/1-0	01/14/2015 17:59	1	50114017.D	DB-624 0.18(mm)
180-40434-6	HD-COD-SW-11-0/1-0	01/14/2015 18:23	1	50114018.D	DB-624 0.18(mm)
180-40434-7	HD-COD-SW-12-0/1-0	01/14/2015 19:11	1	50114020.D	DB-624 0.18(mm)
180-40434-8	HD-COD-SW-13-0/1-0	01/14/2015 19:36	1	50114021.D	DB-624 0.18(mm)
180-40434-9	HD-COD-SW-15-0/1-0	01/14/2015 20:00	1	50114022.D	DB-624 0.18(mm)
180-40434-10	HD-COD-SW-16-0/1-0	01/14/2015 20:24	1	50114023.D	DB-624 0.18(mm)
180-40434-11 DL	HD-COD-SW-17-0/1-0 DL	01/14/2015 20:48	20	50114024.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Start Date: 01/15/2015 11:21

Analysis Batch Number: 130838 End Date: 01/15/2015 23:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-130838/6		01/15/2015 11:21	1	50115006.D	DB-624 0.18(mm)
CCVIS 180-130838/2		01/15/2015 11:58	1	50115002.D	DB-624 0.18(mm)
ZZZZZ		01/15/2015 11:58	1		DB-624 0.18(mm)
MB 180-130838/8		01/15/2015 13:34	1	50115008.D	DB-624 0.18(mm)
180-40434-22	HD-MW-107-0/1-0	01/15/2015 14:33	5	50115010.D	DB-624 0.18(mm)
180-40434-17	HD-QC1-0/1-2	01/15/2015 14:57	1	50115011.D	DB-624 0.18(mm)
LCS 180-130838/12		01/15/2015 15:21	1	50115012.D	DB-624 0.18(mm)
180-40434-22 MS	HD-MW-107-0/1-0 MS	01/15/2015 15:45	5	50115013.D	DB-624 0.18(mm)
180-40434-22 MSD	HD-MW-107-0/1-0 MSD	01/15/2015 16:09	5	50115014.D	DB-624 0.18(mm)
180-40434-12	HD-COD-SW-20-0/1-0	01/15/2015 17:46	1	50115018.D	DB-624 0.18(mm)
180-40434-13	HD-COD-SW-26-0/1-0	01/15/2015 18:10	1	50115019.D	DB-624 0.18(mm)
180-40434-14	HD-COD-SW-27-0/1-0	01/15/2015 18:34	1	50115020.D	DB-624 0.18(mm)
180-40434-15	HD-COD-SW-28-0/1-0	01/15/2015 18:58	1	50115021.D	DB-624 0.18(mm)
180-40434-18	HD-QC1-0/1-1	01/15/2015 19:22	8	50115022.D	DB-624 0.18(mm)
180-40434-16	HD-COD-SW-29-0/1-0	01/15/2015 19:47	1	50115023.D	DB-624 0.18(mm)
180-40434-20	HD-QC1-0/1-3	01/15/2015 20:11	1	50115024.D	DB-624 0.18(mm)
180-40434-21	HD-QC1-0/1-4	01/15/2015 20:35	1	50115025.D	DB-624 0.18(mm)
180-40434-19	HD-QC2-0/1-2	01/15/2015 20:59	1	50115026.D	DB-624 0.18(mm)
180-40434-25 DL	HD-MW-37S-0/1-0 DL	01/15/2015 22:36	20	50115030.D	DB-624 0.18(mm)
180-40434-11	HD-COD-SW-17-0/1-0	01/15/2015 23:00	2	50115031.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHHP5 Start Date: 01/16/2015 12:21

Analysis Batch Number: 130947 End Date: 01/16/2015 23:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-130947/6		01/16/2015 12:21	1	50116006.D	DB-624 0.18(mm)
CCVIS 180-130947/2		01/16/2015 12:52	1	50116002.D	DB-624 0.18(mm)
ZZZZZ		01/16/2015 12:52	1		DB-624 0.18(mm)
MB 180-130947/8		01/16/2015 13:56	1	50116008.D	DB-624 0.18(mm)
LCS 180-130947/9		01/16/2015 14:32	1	50116009.D	DB-624 0.18(mm)
LCSD 180-130947/10		01/16/2015 14:56	1	50116010.D	DB-624 0.18(mm)
180-40434-23 DL	HD-MW-93S-0/1-0 DL	01/16/2015 15:45	5	50116012.D	DB-624 0.18(mm)
180-40434-24	HD-MW-93D-0/1-0	01/16/2015 16:09	10	50116013.D	DB-624 0.18(mm)
ZZZZZ		01/16/2015 16:34	5		DB-624 0.18(mm)
ZZZZZ		01/16/2015 16:58	1		DB-624 0.18(mm)
ZZZZZ		01/16/2015 17:22	5		DB-624 0.18(mm)
ZZZZZ		01/16/2015 17:46	5		DB-624 0.18(mm)
ZZZZZ		01/16/2015 18:34	1		DB-624 0.18(mm)
ZZZZZ		01/16/2015 18:58	50		DB-624 0.18(mm)
ZZZZZ		01/16/2015 20:11	1		DB-624 0.18(mm)
ZZZZZ		01/16/2015 20:35	10		DB-624 0.18(mm)
ZZZZZ		01/16/2015 20:59	20		DB-624 0.18(mm)
ZZZZZ		01/16/2015 21:23	20		DB-624 0.18(mm)
ZZZZZ		01/16/2015 21:47	1		DB-624 0.18(mm)
ZZZZZ		01/16/2015 22:11	10000		DB-624 0.18(mm)
ZZZZZ		01/16/2015 22:35	1		DB-624 0.18(mm)
180-40434-23	HD-MW-93S-0/1-0	01/16/2015 22:59	1	50116030.D	DB-624 0.18(mm)
180-40434-25	HD-MW-37S-0/1-0	01/16/2015 23:23	2	50116031.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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 01-14-2015-14.d

Lab ID: LCS 180-130742/5 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	49.9	100	90-110	
Sulfate	50.0	49.8	100	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 01-14-2015-46.d

Lab ID: LCS 180-130742/37 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.50	100	90-110	
Chloride	50.0	50.1	100	90-110	
Sulfate	50.0	49.9	100	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.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 01-14-2015-40.d

Lab ID: 180-40434-13 MS Client ID: HD-COD-SW-26-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	3.4	4.65	100	80-120	
Chloride	25.0	110	129	96	80-120	4
Sulfate	25.0	43	67.5	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 01-14-2015-27.d

Lab ID: 180-40434-22 MS Client ID: HD-MW-107-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	5.5	6.67	96	80-120	4
Chloride	25.0	180	200	93	80-120	4
Sulfate	25.0	40	64.7	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 01-14-2015-41.d

Lab ID: 180-40434-13 MSD Client ID: HD-COD-SW-26-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	4.46	85	4	20	80-120	
Chloride	25.0	124	77	4	20	80-120	4
Sulfate	25.0	64.2	84	5	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 01-14-2015-28.d

Lab ID: 180-40434-22 MSD Client ID: HD-MW-107-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	6.68	97	0	20	80-120	4
Chloride	25.0	200	93	0	20	80-120	4
Sulfate	25.0	64.7	100	0	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: A-ICS2100 A 01-14-2015-15.d Lab Sample ID: MB 180-130742/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 01/14/2015 11:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-130742/5	A-ICS2100 A 01-14-2015-14.d	01/14/2015 11:24
HD-COD-SW-10-0/1-0	180-40434-5	A-ICS2100 A 01-14-2015-17.d	01/14/2015 13:47
HD-QC1-0/1-1	180-40434-18	A-ICS2100 A 01-14-2015-18.d	01/14/2015 14:03
HD-COD-SW-8-0/1-0	180-40434-3	A-ICS2100 A 01-14-2015-19.d	01/14/2015 14:18
HD-COD-SW-13-0/1-0	180-40434-8	A-ICS2100 A 01-14-2015-20.d	01/14/2015 14:33
HD-COD-SW-29-0/1-0	180-40434-16	A-ICS2100 A 01-14-2015-21.d	01/14/2015 14:49
HD-COD-SW-6-0/1-0	180-40434-1	A-ICS2100 A 01-14-2015-22.d	01/14/2015 15:04
HD-COD-SW-7-0/1-0	180-40434-2	A-ICS2100 A 01-14-2015-23.d	01/14/2015 15:19
HD-MW-107-0/1-0	180-40434-22	A-ICS2100 A 01-14-2015-26.d	01/14/2015 16:05
HD-MW-107-0/1-0 MS	180-40434-22 MS	A-ICS2100 A 01-14-2015-27.d	01/14/2015 16:20
HD-MW-107-0/1-0 MSD	180-40434-22 MSD	A-ICS2100 A 01-14-2015-28.d	01/14/2015 16:36
HD-COD-SW-12-0/1-0	180-40434-7	A-ICS2100 A 01-14-2015-29.d	01/14/2015 16:51
HD-MW-37S-0/1-0	180-40434-25	A-ICS2100 A 01-14-2015-30.d	01/14/2015 17:06
HD-COD-SW-9-0/1-0	180-40434-4	A-ICS2100 A 01-14-2015-31.d	01/14/2015 17:22
HD-COD-SW-11-0/1-0	180-40434-6	A-ICS2100 A 01-14-2015-32.d	01/14/2015 17:37

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: A-ICS2100 A 01-14-2015-15.d Lab Sample ID: MB 180-130742/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 01/14/2015 11:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-15-0/1-0	180-40434-9	A-ICS2100 A 01-14-2015-33.d	01/14/2015 17:52
HD-COD-SW-16-0/1-0	180-40434-10	A-ICS2100 A 01-14-2015-34.d	01/14/2015 18:08
HD-COD-SW-17-0/1-0	180-40434-11	A-ICS2100 A 01-14-2015-35.d	01/14/2015 18:23
	CCB 180-130742/28	A-ICS2100 A 01-14-2015-37.d	01/14/2015 18:54
HD-COD-SW-20-0/1-0	180-40434-12	A-ICS2100 A 01-14-2015-38.d	01/14/2015 19:09
HD-COD-SW-26-0/1-0	180-40434-13	A-ICS2100 A 01-14-2015-39.d	01/14/2015 19:24
HD-COD-SW-26-0/1-0 MS	180-40434-13 MS	A-ICS2100 A 01-14-2015-40.d	01/14/2015 19:40
HD-COD-SW-26-0/1-0 MSD	180-40434-13 MSD	A-ICS2100 A 01-14-2015-41.d	01/14/2015 19:55
HD-MW-93S-0/1-0	180-40434-23	A-ICS2100 A 01-14-2015-42.d	01/14/2015 20:10
HD-MW-93D-0/1-0	180-40434-24	A-ICS2100 A 01-14-2015-43.d	01/14/2015 20:25
HD-COD-SW-10-0/1-0	180-40434-5	A-ICS2100 A 01-14-2015-44.d	01/14/2015 20:41
HD-COD-SW-12-0/1-0	180-40434-7	A-ICS2100 A 01-14-2015-45.d	01/14/2015 20:56
	LCS 180-130742/37	A-ICS2100 A 01-14-2015-46.d	01/14/2015 21:11
	CCB 180-130742/40	A-ICS2100 A 01-14-2015-49.d	01/14/2015 21:57
	CCB 180-130742/54	A-ICS2100 A 01-14-2015-62.d	01/15/2015 10:31

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab File ID: A-ICS2100 A 01-14-2015-47.d Lab Sample ID: MB 180-130742/38

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 01/14/2015 21:27

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-130742/4	A-ICS2100 A 01-14-2015-13.d	01/14/2015 11:09
	CCB 180-130742/16	A-ICS2100 A 01-14-2015-25.d	01/14/2015 15:50
HD-COD-SW-27-0/1-0	180-40434-14	A-ICS2100 A 01-14-2015-50.d	01/14/2015 22:13
HD-COD-SW-28-0/1-0	180-40434-15	A-ICS2100 A 01-14-2015-51.d	01/14/2015 22:28
	CCB 180-130742/50	A-ICS2100 A 01-14-2015-59.d	01/15/2015 00:30
HD-COD-SW-20-0/1-0	180-40434-12	A-ICS2100 A 01-14-2015-60.d	01/15/2015 10:01

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-40434-1

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-22.d

Analysis Method: 300.0 Date Collected: 01/13/2015 13:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 15:04

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.6	B	0.10	0.0062
16887-00-6	Chloride	190		1.0	0.20
14808-79-8	Sulfate	19		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-22.d
Lims ID: 180-40434-A-1 Lab Sample ID: 180-40434-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 15:04:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-013
Misc. Info.: 22 180-40434-a-1
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

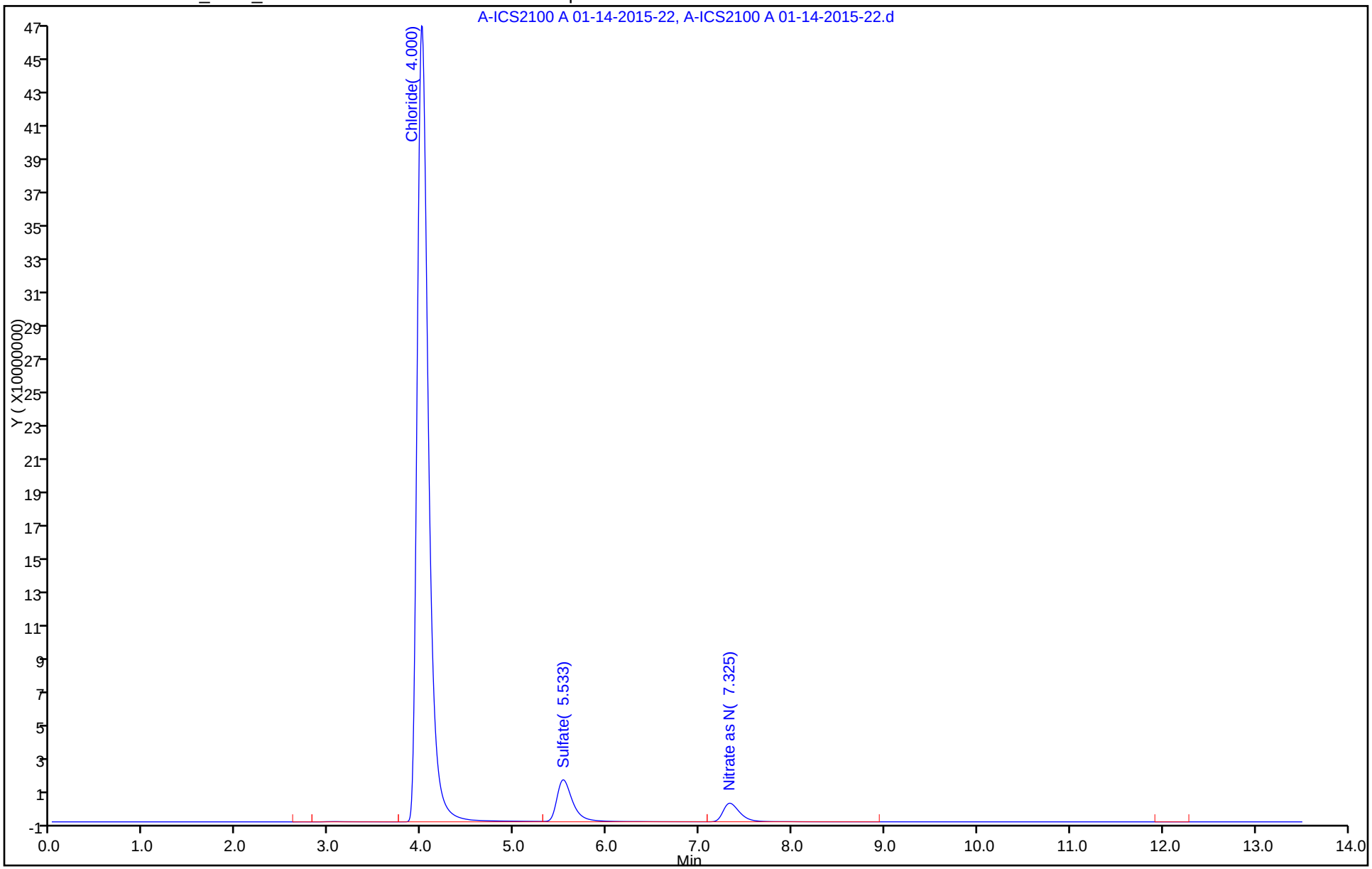
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	4007660031	188.2	
3 Sulfate	5.533	5.483	0.050	301578905	19.4	
5 Nitrate as N	7.325	7.333	-0.008	139917707	2.65	

Report Date: 14-Jan-2015 16:08:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-22.d				
Injection Date:	14-Jan-2015 15:04:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-1	Lab Sample ID:	180-40434-1	Worklist Smp#:	13
Client ID:	HD-COD-SW-6-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-40434-2

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-23.d

Analysis Method: 300.0 Date Collected: 01/13/2015 11:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 15:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3	B	0.10	0.0062
16887-00-6	Chloride	88		1.0	0.20
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-23.d
Lims ID: 180-40434-A-2 Lab Sample ID: 180-40434-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 15:19:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-014
Misc. Info.: 23 180-40434-a-2
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

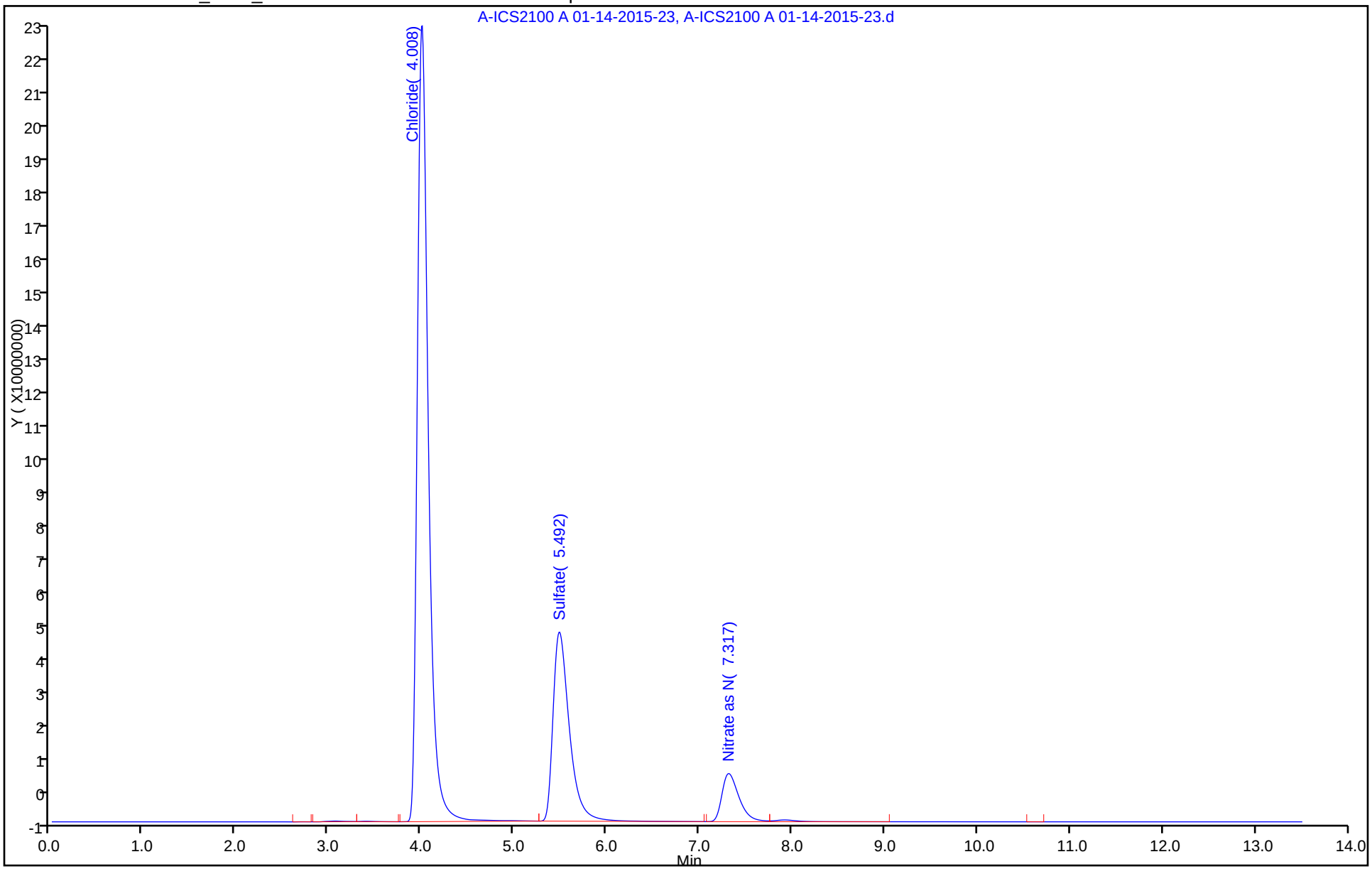
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	1864538115	87.5	
3 Sulfate	5.492	5.483	0.009	654966935	42.4	
5 Nitrate as N	7.317	7.333	-0.016	173789800	3.29	

Report Date: 14-Jan-2015 16:08:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-23.d				
Injection Date:	14-Jan-2015 15:19:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-2	Lab Sample ID:	180-40434-2	Worklist Smp#:	14
Client ID:	HD-COD-SW-7-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-40434-3

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-19.d

Analysis Method: 300.0 Date Collected: 01/13/2015 09:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 14:18

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.1	B	0.10	0.0062
16887-00-6	Chloride	100		1.0	0.20
14808-79-8	Sulfate	53		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-19.d
Lims ID: 180-40434-B-3 Lab Sample ID: 180-40434-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 14:18:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-010
Misc. Info.: 19 180-40434-b-3
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

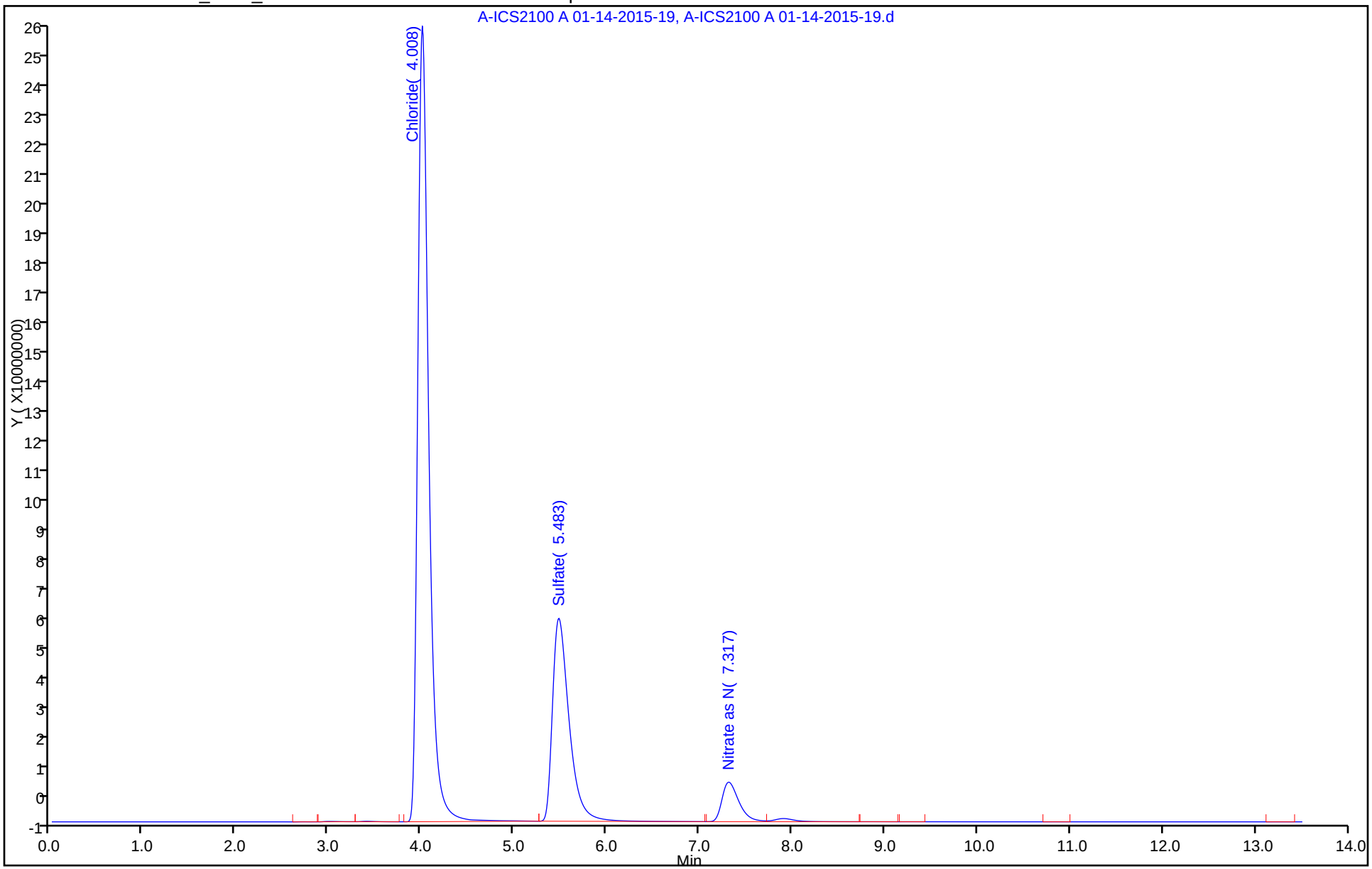
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	2134199978	100.2	
3 Sulfate	5.483	5.483	0.000	818403727	53.0	
5 Nitrate as N	7.317	7.333	-0.016	161609738	3.06	

Report Date: 14-Jan-2015 16:08:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-19.d				
Injection Date:	14-Jan-2015 14:18:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-B-3	Lab Sample ID:	180-40434-3	Worklist Smp#:	10
Client ID:	HD-COD-SW-8-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-40434-4

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-31.d

Analysis Method: 300.0 Date Collected: 01/13/2015 12:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 17:22

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.2	B	0.10	0.0062
16887-00-6	Chloride	120		1.0	0.20
14808-79-8	Sulfate	41		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-31.d
Lims ID: 180-40434-A-4 Lab Sample ID: 180-40434-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 17:22:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-022
Misc. Info.: 31 180-40434-a-4
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 07:29:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

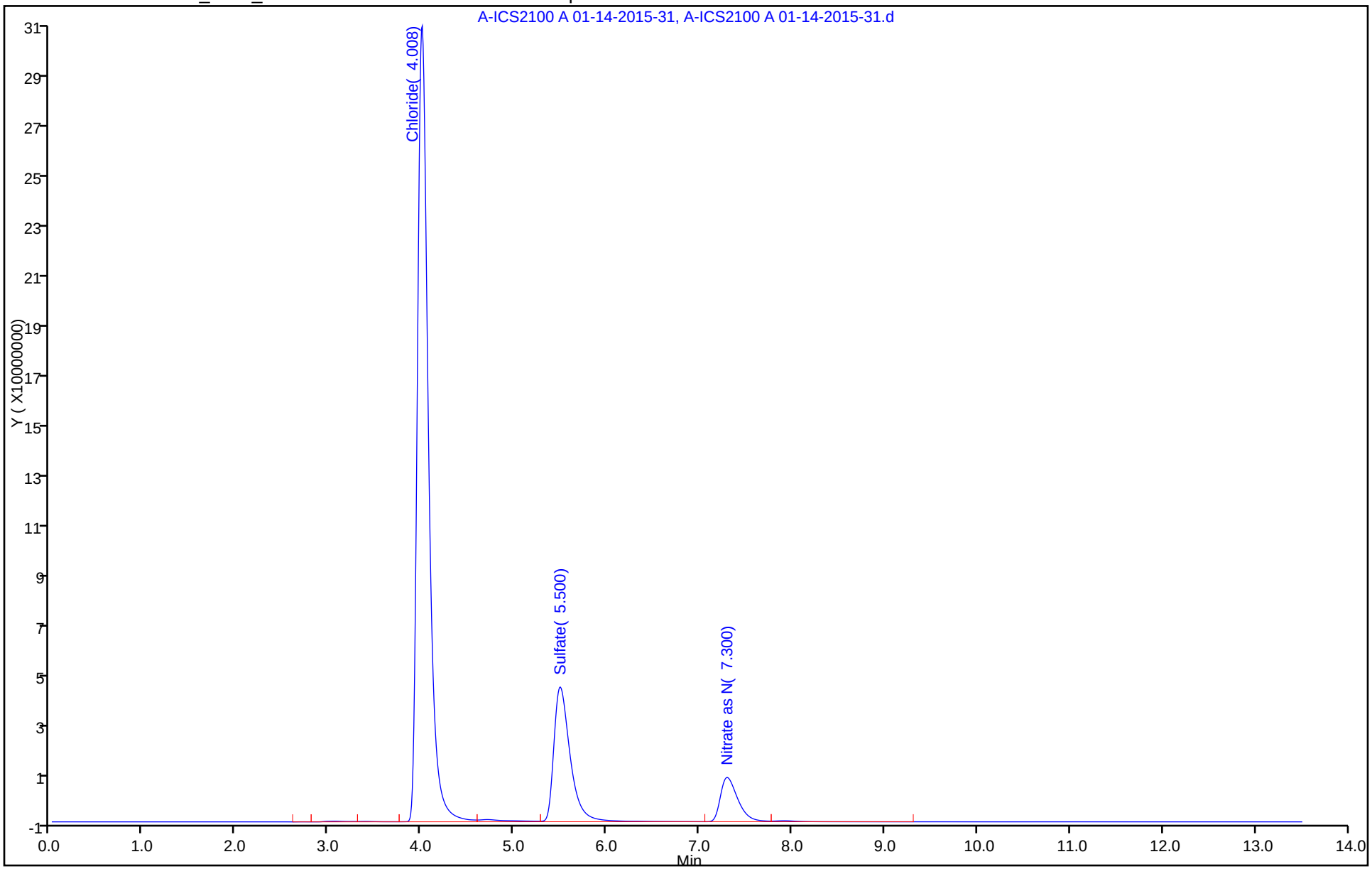
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	2538548917	119.2	
3 Sulfate	5.500	5.492	0.008	638108747	41.3	
5 Nitrate as N	7.300	7.342	-0.042	221747697	4.19	

Report Date: 15-Jan-2015 09:41:41 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-31.d

Injection Date:	14-Jan-2015 17:22:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-4	Lab Sample ID:	180-40434-4	Worklist Smp#:	22
Client ID:	HD-COD-SW-9-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-40434-5

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-17.d

Analysis Method: 300.0 Date Collected: 01/13/2015 09:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 13:47

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.2	B	0.10	0.0062
14808-79-8	Sulfate	15		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-17.d
Lims ID: 180-40434-A-5 Lab Sample ID: 180-40434-5
Client ID: HD-COD-SW-10-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 13:47:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-008
Misc. Info.: 17 180-40434-a-5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	4558998979	214.1	E
3 Sulfate	5.525	5.483	0.042	236365656	15.2	
5 Nitrate as N	7.358	7.333	0.025	63691486	1.21	

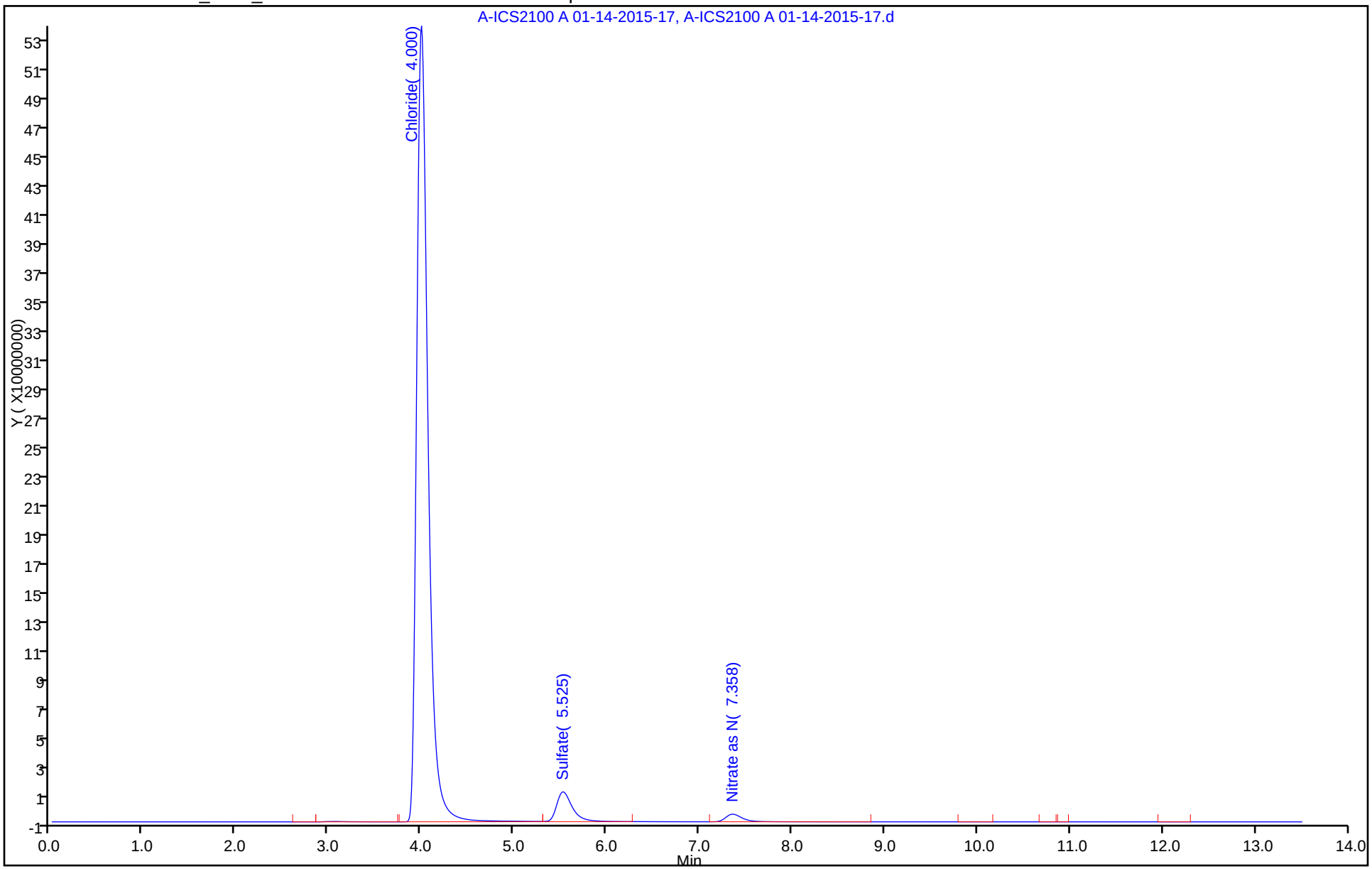
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Report Date: 14-Jan-2015 16:08:20 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-17.d				
Injection Date:	14-Jan-2015 13:47:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-5	Lab Sample ID:	180-40434-5	Worklist Smp#:	8
Client ID:	HD-COD-SW-10-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-40434-5

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-44.d

Analysis Method: 300.0 Date Collected: 01/13/2015 09:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 20:41

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	210		5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

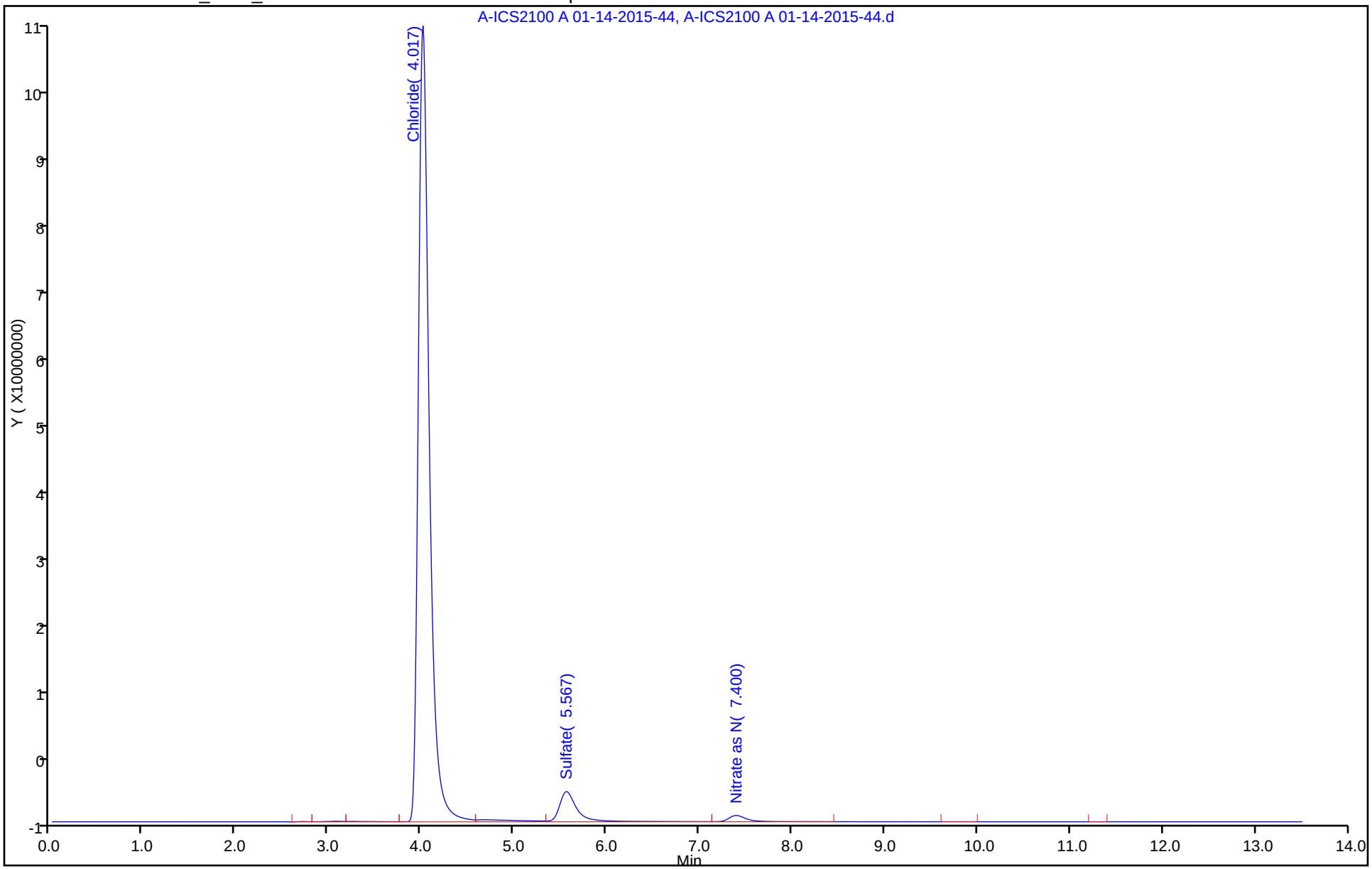
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-44.d				
Lims ID:	180-40434-A-5	Lab Sample ID:	180-40434-5		
Client ID:	HD-COD-SW-10-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 20:41:00	ALS Bottle#:	0	Worklist Smp#:	35
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0005276-035				
Misc. Info.:	17426 180-40434-a-5 5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 10:06:17	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.017	4.008	0.009	890697831	41.8	
3 Sulfate	5.567	5.483	0.084	54646469	3.38	
5 Nitrate as N	7.400	7.325	0.075	11541138	0.2260	

Report Date: 15-Jan-2015 10:06:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-44.d				
Injection Date:	14-Jan-2015 20:41:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-5	Lab Sample ID:	180-40434-5	Worklist Smp#:	35
Client ID:	HD-COD-SW-10-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-40434-6

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-32.d

Analysis Method: 300.0 Date Collected: 01/13/2015 12:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 17:37

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.2	B	0.10	0.0062
16887-00-6	Chloride	81		1.0	0.20
14808-79-8	Sulfate	21		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-32.d
Lims ID: 180-40434-A-6 Lab Sample ID: 180-40434-6
Client ID: HD-COD-SW-11-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 17:37:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-023
Misc. Info.: 32 180-40434-a-6
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 07:29:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	1733821734	81.4	
3 Sulfate	5.525	5.492	0.033	329032763	21.2	
5 Nitrate as N	7.317	7.342	-0.025	167668150	3.17	

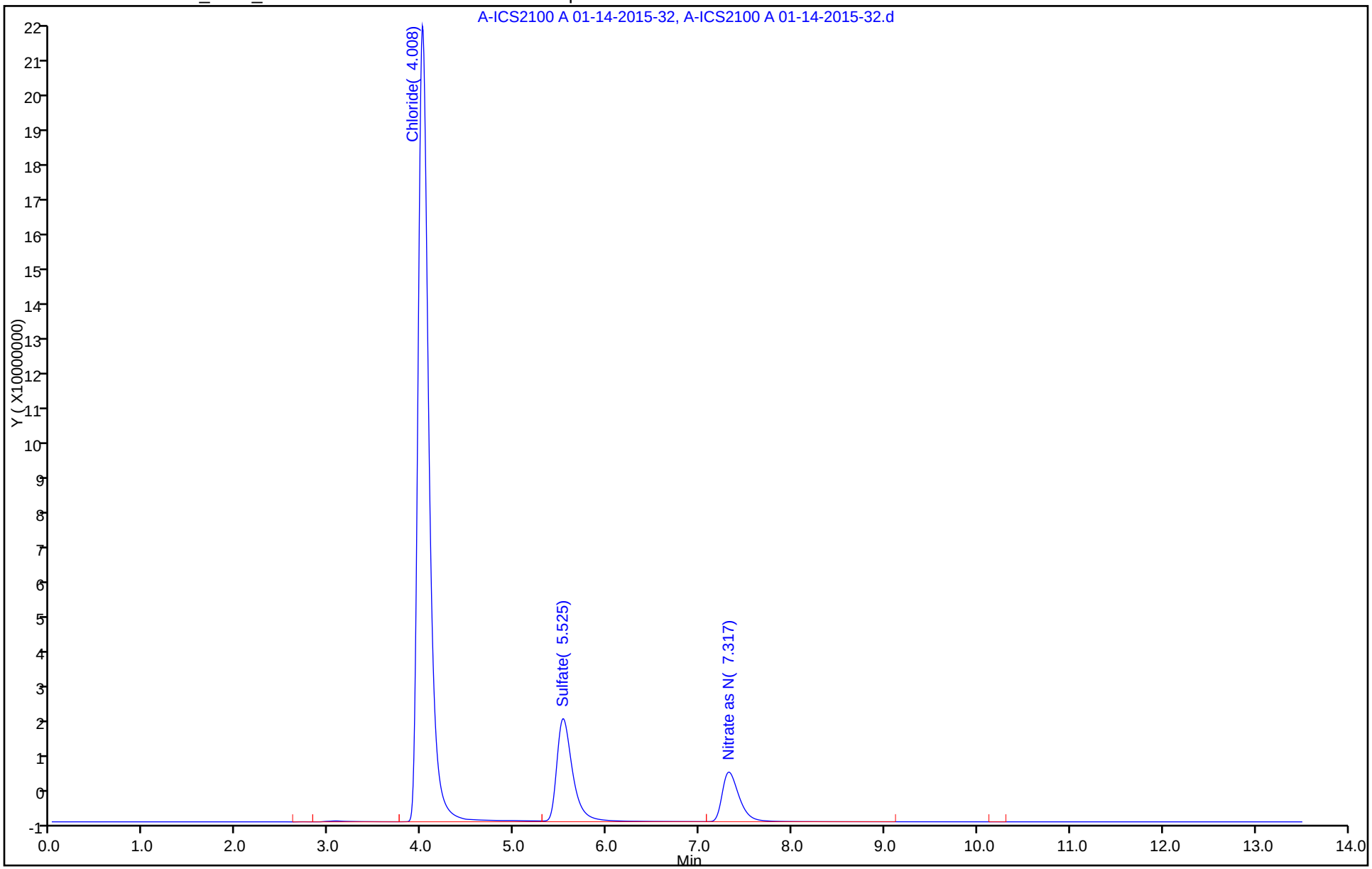
Reagents:

icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 15-Jan-2015 09:41:41 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-32.d				
Injection Date:	14-Jan-2015 17:37:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-6	Lab Sample ID:	180-40434-6	Worklist Smp#:	23
Client ID:	HD-COD-SW-11-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-40434-7

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-29.d

Analysis Method: 300.0 Date Collected: 01/13/2015 12:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 16:51

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	7.2	B	0.10	0.0062
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-29.d
Lims ID: 180-40434-A-7 Lab Sample ID: 180-40434-7
Client ID: HD-COD-SW-12-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 16:51:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-020
Misc. Info.: 29 180-40434-a-7
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 07:29:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	4816190551	226.2	E
3 Sulfate	5.483	5.492	-0.009	643525989	41.7	
5 Nitrate as N	7.258	7.342	-0.084	382670674	7.23	

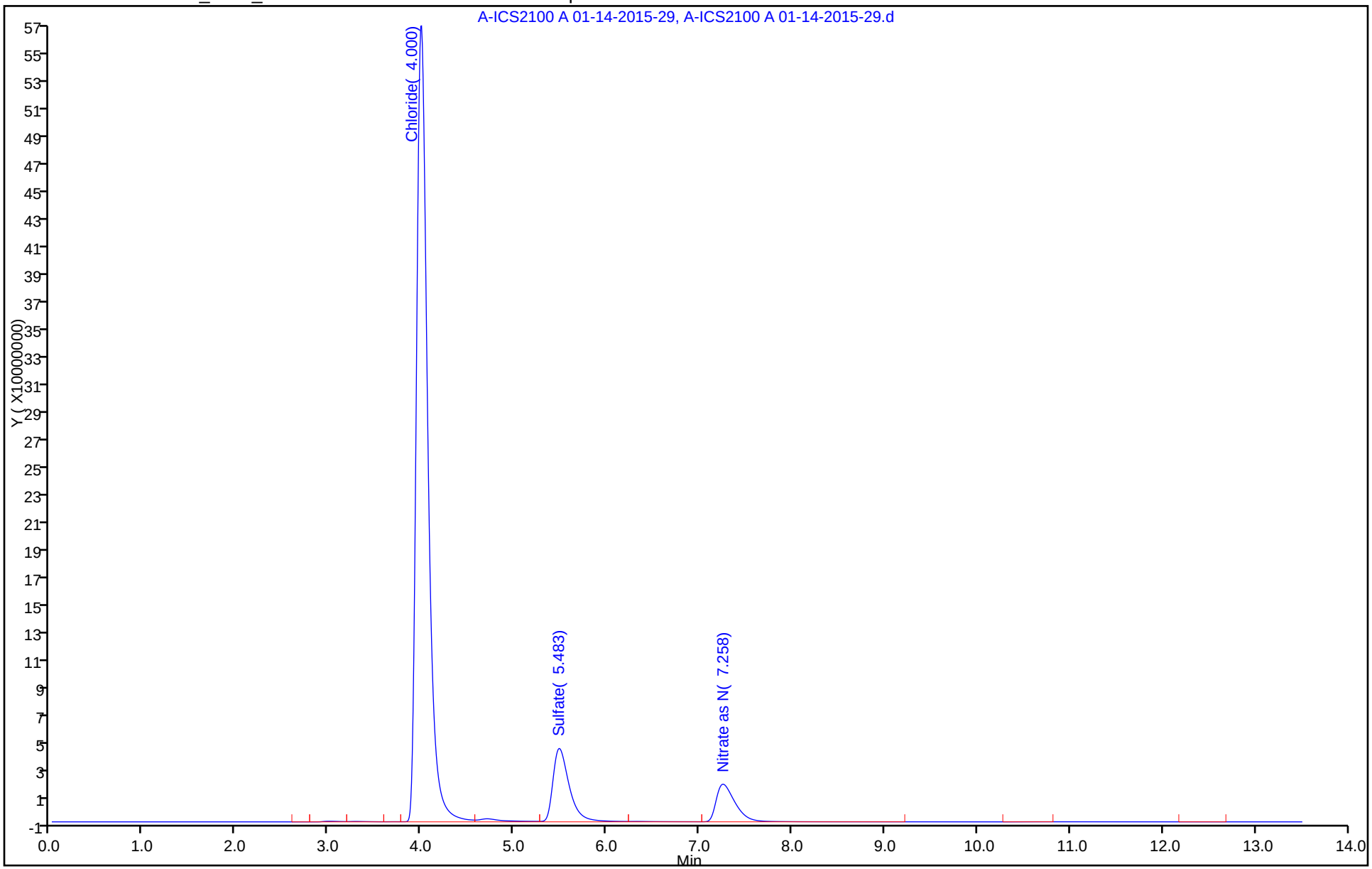
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Report Date: 15-Jan-2015 09:41:41 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-29.d				
Injection Date:	14-Jan-2015 16:51:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-7	Lab Sample ID:	180-40434-7	Worklist Smp#:	20
Client ID:	HD-COD-SW-12-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-40434-7

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-45.d

Analysis Method: 300.0 Date Collected: 01/13/2015 12:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 20:56

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	230		5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

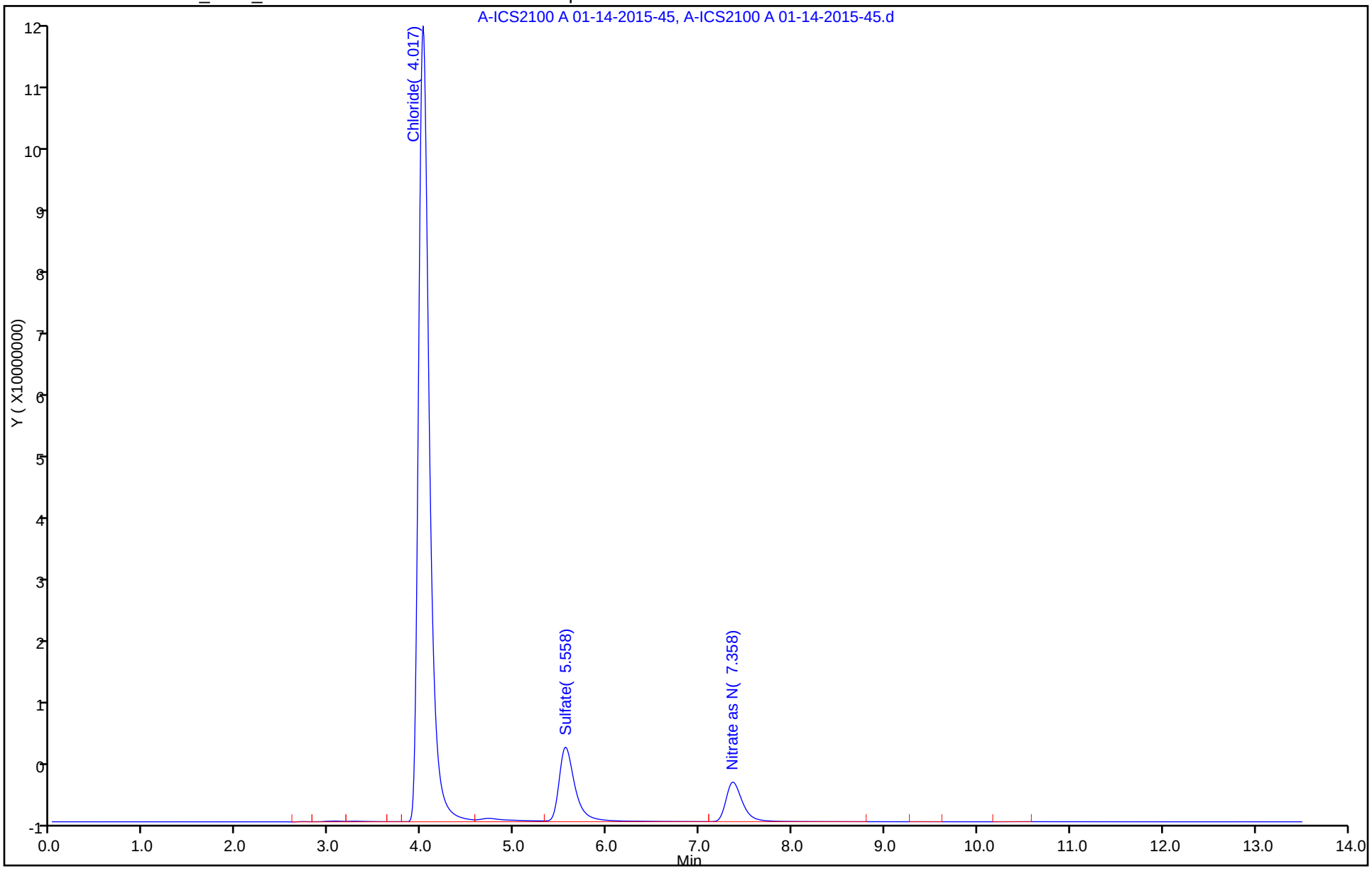
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-45.d				
Lims ID:	180-40434-A-7	Lab Sample ID:	180-40434-7		
Client ID:	HD-COD-SW-12-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 20:56:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0005276-036				
Misc. Info.:	14455 180-40434-a-7 5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 10:06:17	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.017	4.008	0.009	963944891	45.2	
3 Sulfate	5.558	5.483	0.075	134439451	8.57	
5 Nitrate as N	7.358	7.325	0.033	72816373	1.38	

Report Date: 15-Jan-2015 10:06:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-45.d				
Injection Date:	14-Jan-2015 20:56:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-7	Lab Sample ID:	180-40434-7	Worklist Smp#:	36
Client ID:	HD-COD-SW-12-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-40434-8

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-20.d

Analysis Method: 300.0 Date Collected: 01/13/2015 09:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 14:33

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.2	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	54		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-20.d
Lims ID: 180-40434-A-8 Lab Sample ID: 180-40434-8
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 14:33:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-011
Misc. Info.: 20 180-40434-a-8
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

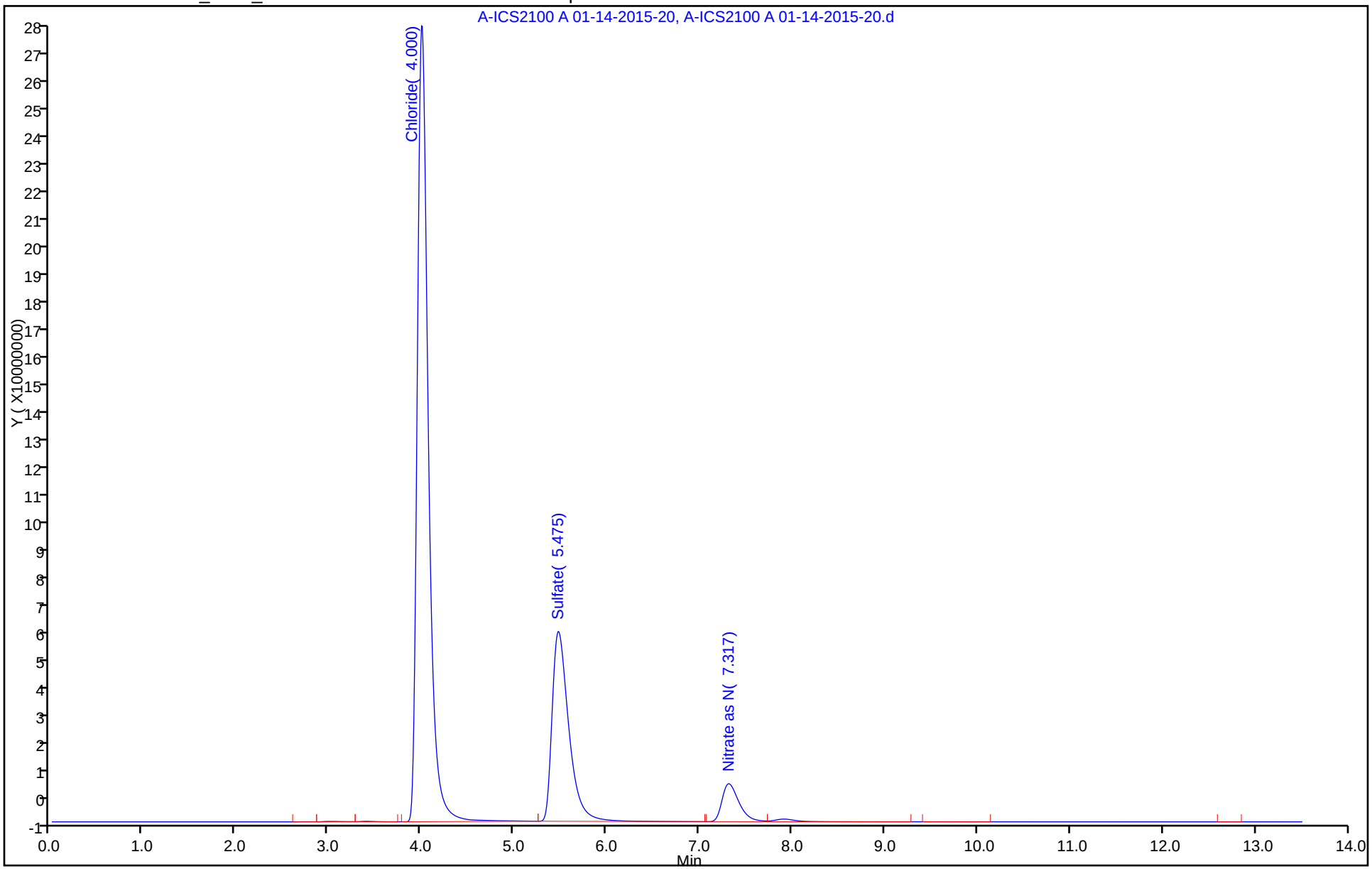
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	2310477792	108.5	
3 Sulfate	5.475	5.483	-0.008	829000992	53.7	
5 Nitrate as N	7.317	7.333	-0.016	168191969	3.18	

Report Date: 14-Jan-2015 16:08:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-20.d				
Injection Date:	14-Jan-2015 14:33:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-8	Lab Sample ID:	180-40434-8	Worklist Smp#:	11
Client ID:	HD-COD-SW-13-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-40434-9

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-33.d

Analysis Method: 300.0 Date Collected: 01/13/2015 13:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 17:52

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

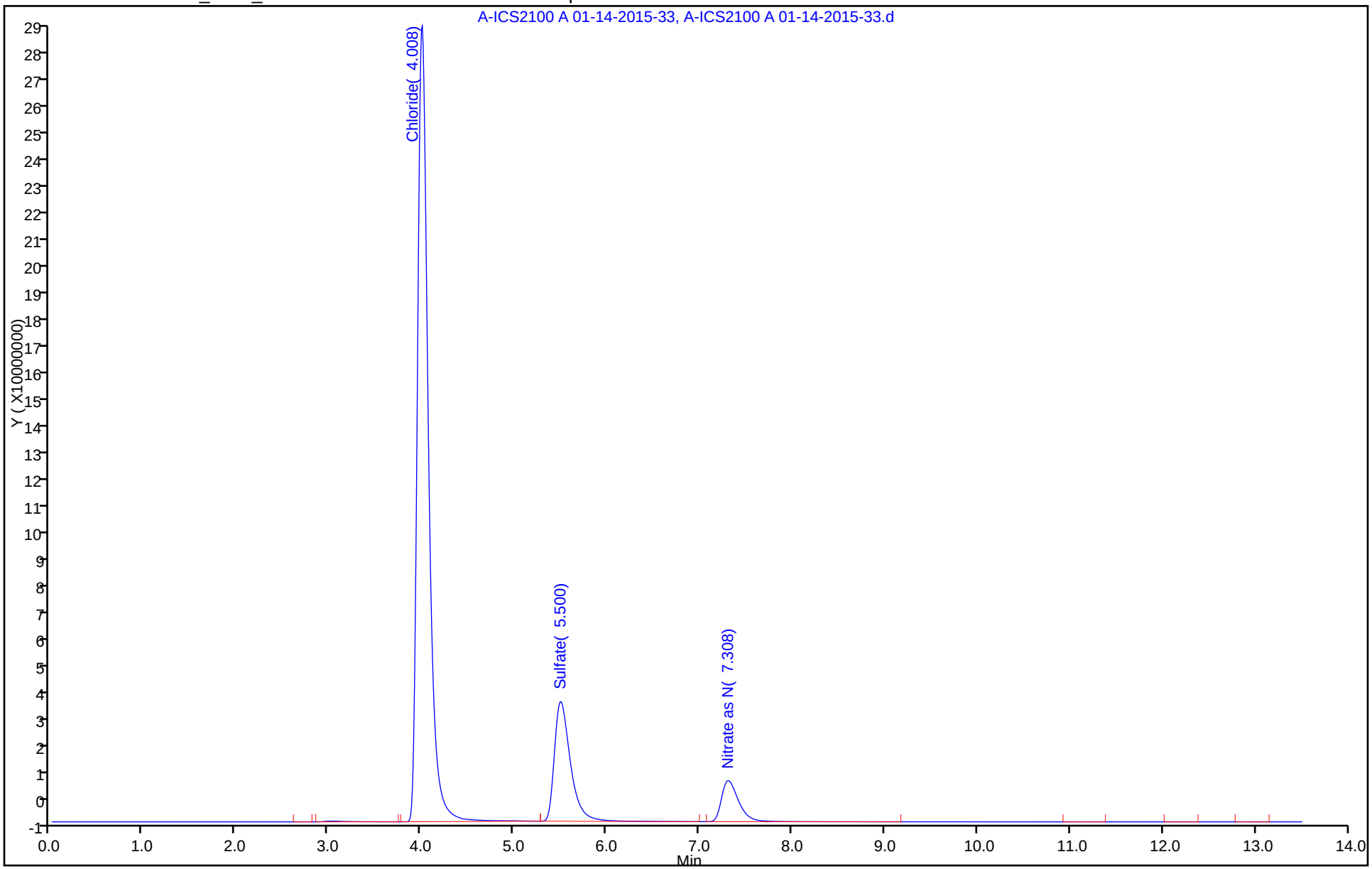
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-33.d				
Lims ID:	180-40434-A-9	Lab Sample ID:	180-40434-9		
Client ID:	HD-COD-SW-15-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 17:52:00	ALS Bottle#:	0	Worklist Smp#:	24
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-024				
Misc. Info.:	33 180-40434-a-9				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 07:29:18	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	2324227165	109.1	
3 Sulfate	5.500	5.492	0.008	512244056	33.1	
5 Nitrate as N	7.308	7.342	-0.034	186767541	3.53	

Report Date: 15-Jan-2015 09:41:42 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-33.d				
Injection Date:	14-Jan-2015 17:52:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-9	Lab Sample ID:	180-40434-9	Worklist Smp#:	24
Client ID:	HD-COD-SW-15-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-40434-10

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-34.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 18:08

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	50		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-34.d
Lims ID: 180-40434-A-10 Lab Sample ID: 180-40434-10
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 18:08:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-025
Misc. Info.: 34 180-40434-a-10
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 07:29:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

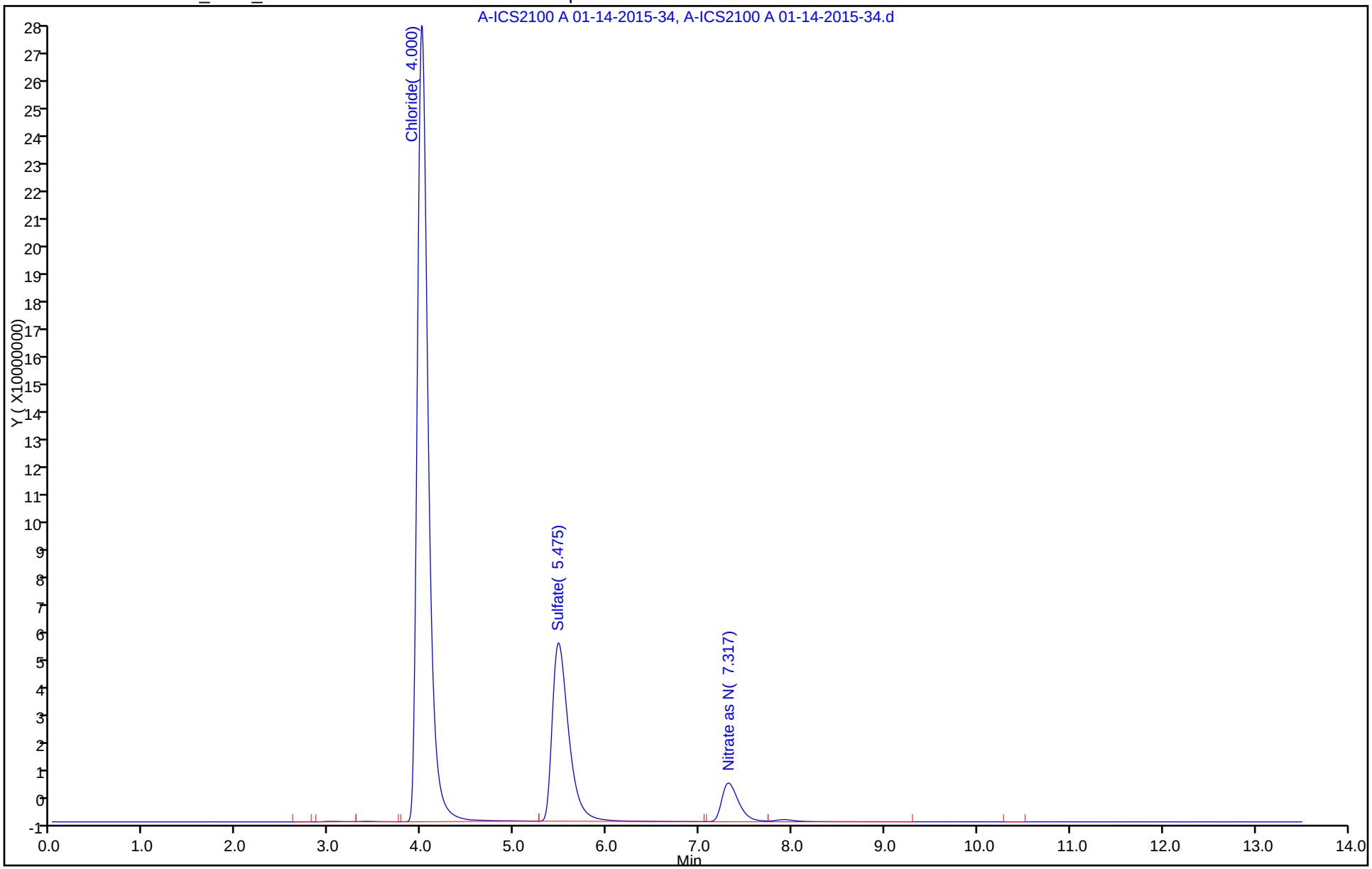
Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	2315234791	108.7	
3 Sulfate	5.475	5.492	-0.017	776298433	50.3	
5 Nitrate as N	7.317	7.342	-0.025	172250984	3.26	

Report Date: 15-Jan-2015 09:41:42 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-34.d				
Injection Date:	14-Jan-2015 18:08:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-10	Lab Sample ID:	180-40434-10	Worklist Smp#:	25
Client ID:	HD-COD-SW-16-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-40434-11

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-35.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:33

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 18:23

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.4	B	0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

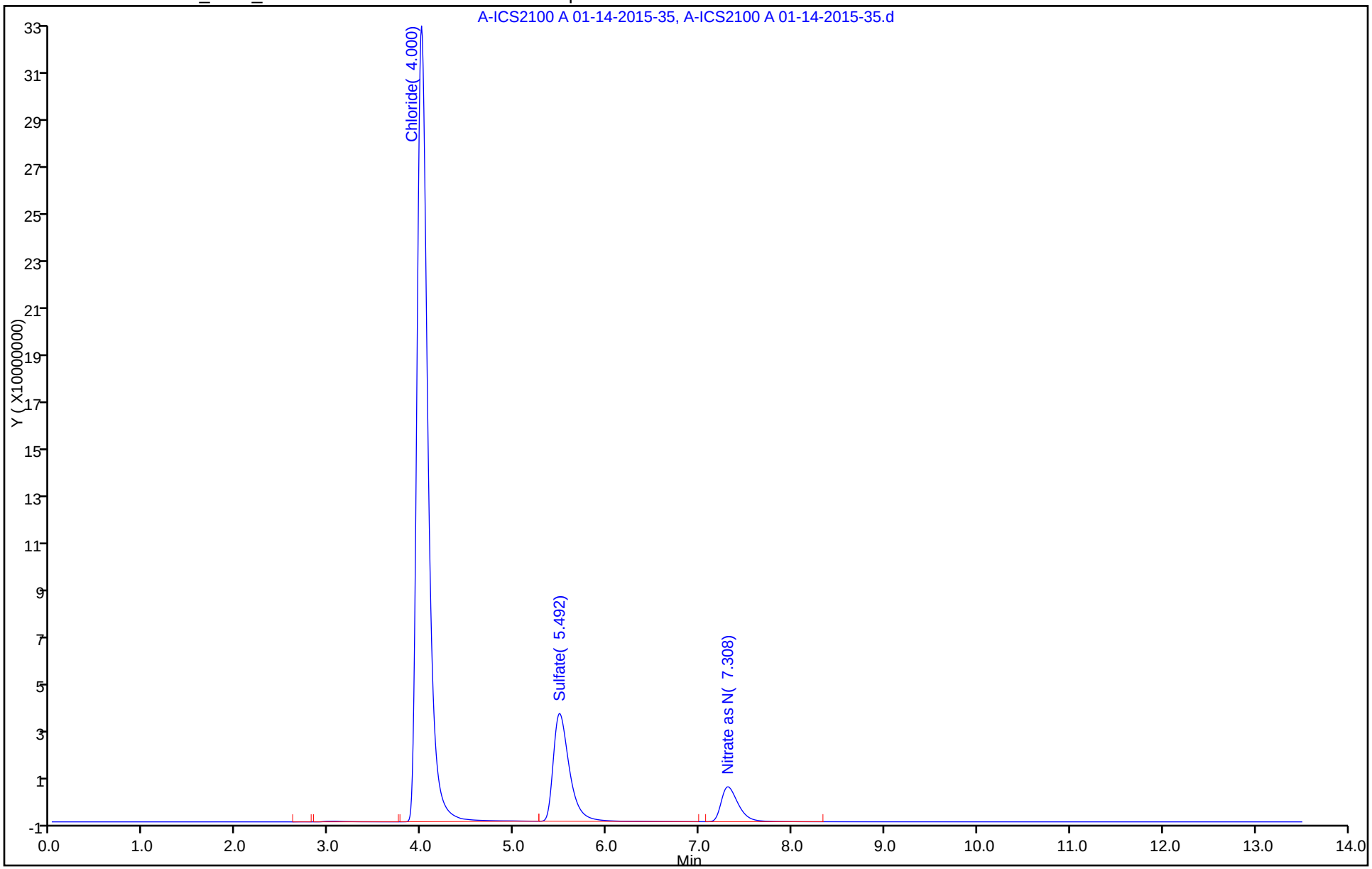
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-35.d				
Lims ID:	180-40434-A-11	Lab Sample ID:	180-40434-11		
Client ID:	HD-COD-SW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 18:23:00	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-026				
Misc. Info.:	14182 180-40434-a-11				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 07:29:18	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	2665934395	125.2	
3 Sulfate	5.492	5.492	0.000	528790288	34.2	
5 Nitrate as N	7.308	7.342	-0.034	181895348	3.44	

Report Date: 15-Jan-2015 09:41:42 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-35.d				
Injection Date:	14-Jan-2015 18:23:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-11	Lab Sample ID:	180-40434-11	Worklist Smp#:	26
Client ID:	HD-COD-SW-17-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-40434-12

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-38.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 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.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.5	B	0.10	0.0062
14808-79-8	Sulfate	15		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-38.d				
Lims ID:	180-40434-A-12	Lab Sample ID:	180-40434-12		
Client ID:	HD-COD-SW-20-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 19:09:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-029				
Misc. Info.:	15641 180-40434-a-12				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 10:06:17	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				
First Level Reviewer: hartmanm		Date:	15-Jan-2015 09:41:39		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.008	-0.008	4461967502	209.6	E
3 Sulfate	5.517	5.483	0.034	230124659	14.8	
5 Nitrate as N	7.325	7.325	0.000	129985927	2.46	

QC Flag Legend

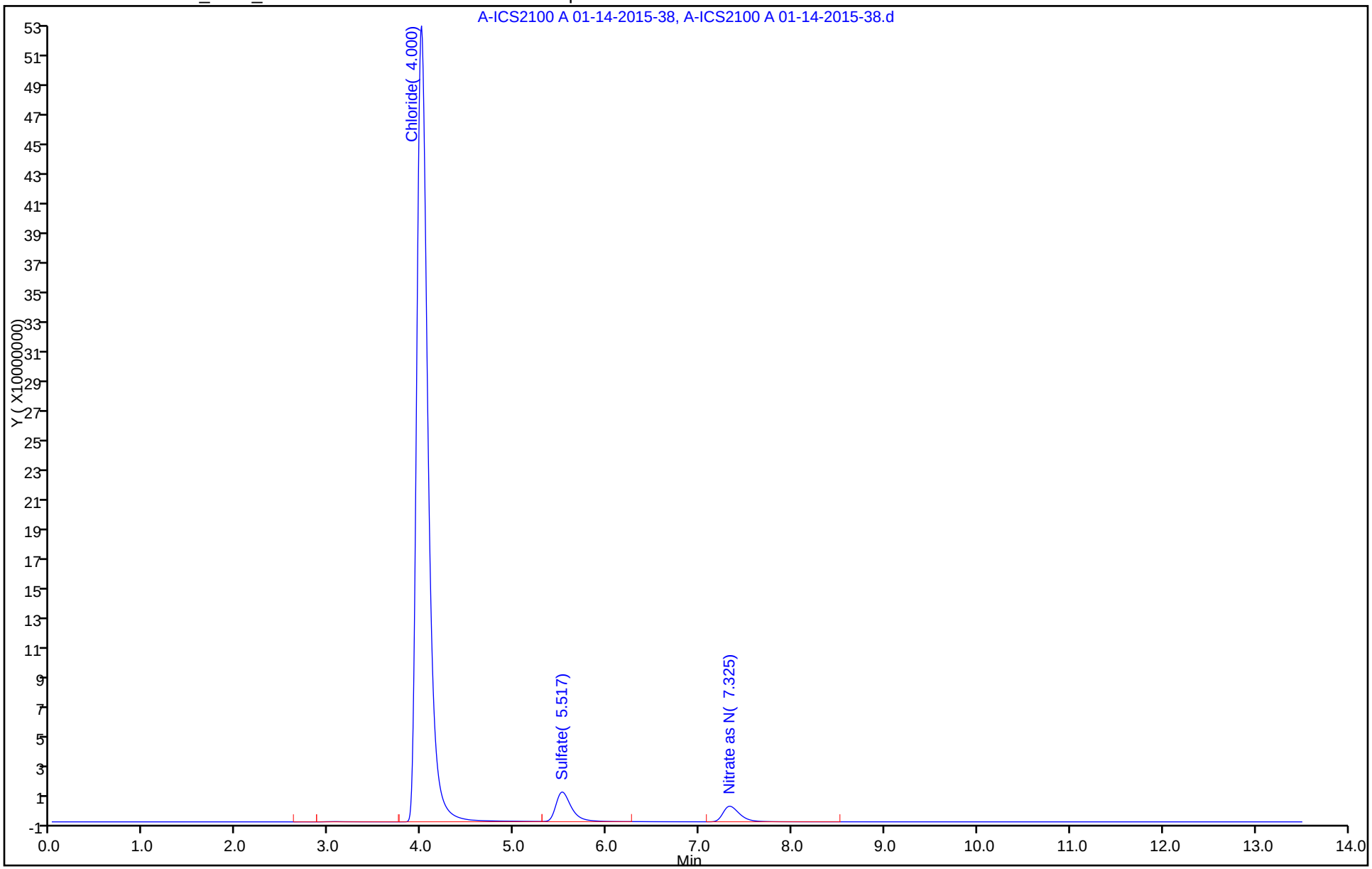
Processing Flags

E - Exceeded Maximum Amount

Report Date: 15-Jan-2015 10:06:20 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-38.d				
Injection Date:	14-Jan-2015 19:09:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-12	Lab Sample ID:	180-40434-12	Worklist Smp#:	29
Client ID:	HD-COD-SW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-40434-12

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-60.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/15/2015 10:01

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	220		5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-60.d
Lims ID: 180-40434-A-12 Lab Sample ID: 180-40434-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 15-Jan-2015 10:01:00 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0005276-029
Misc. Info.: 15641 180-40434-a-12
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:43:36 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

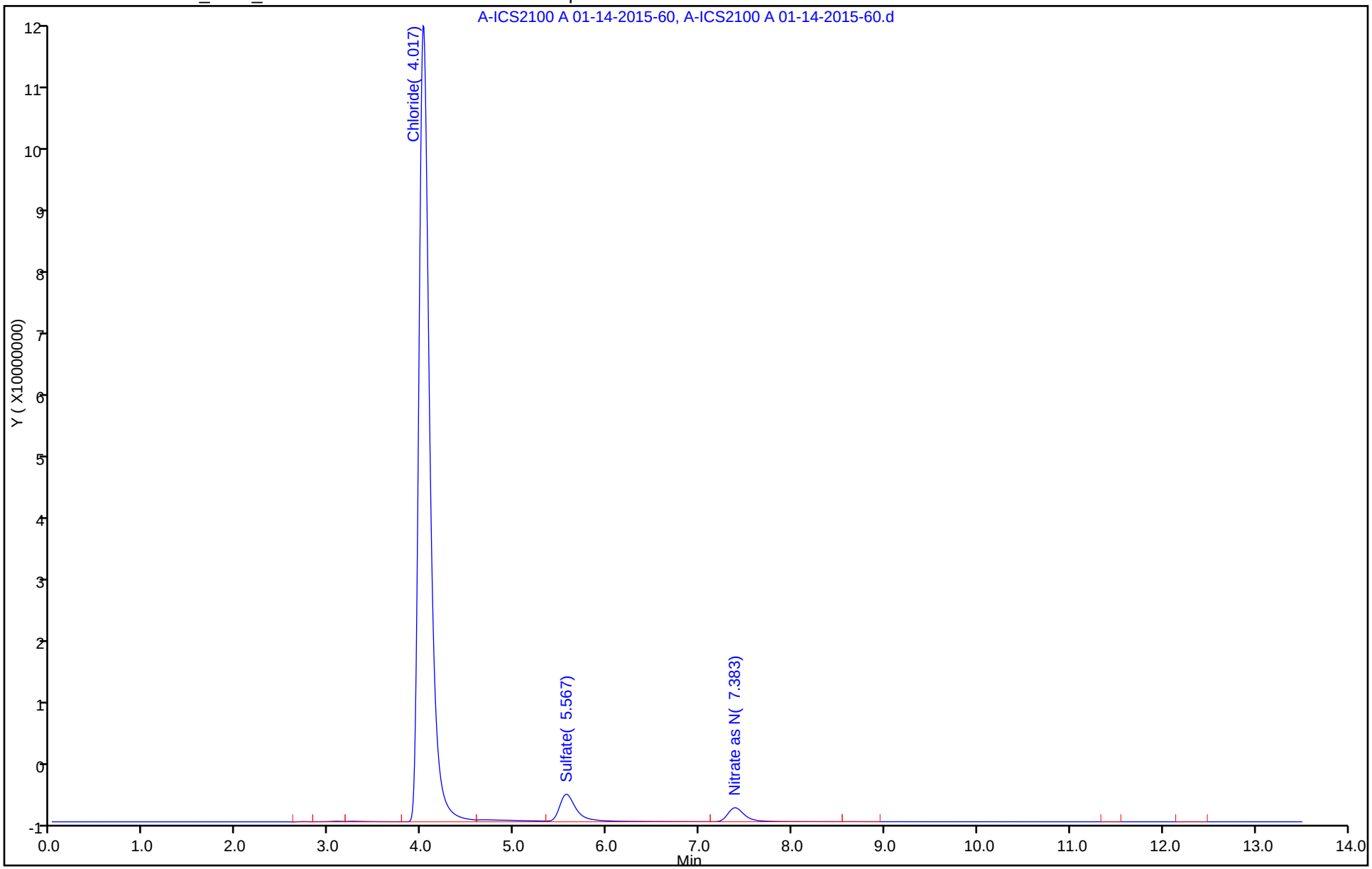
First Level Reviewer: hartmanm Date: 15-Jan-2015 10:46:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.017	4.008	0.009	945113821	44.3	
3 Sulfate	5.567	5.492	0.075	53731475	3.32	
5 Nitrate as N	7.383	7.325	0.058	26750348	0.5131	

Report Date: 15-Jan-2015 10:46:02 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-60.d				
Injection Date:	15-Jan-2015 10:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-12	Lab Sample ID:	180-40434-12	Worklist Smp#:	52
Client ID:	HD-COD-SW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-40434-13

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-39.d

Analysis Method: 300.0 Date Collected: 01/13/2015 11:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 19:24

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.4	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	43		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-39.d
Lims ID: 180-40434-A-13 Lab Sample ID: 180-40434-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 19:24:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-030
Misc. Info.: 12235 180-40434-a-13
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

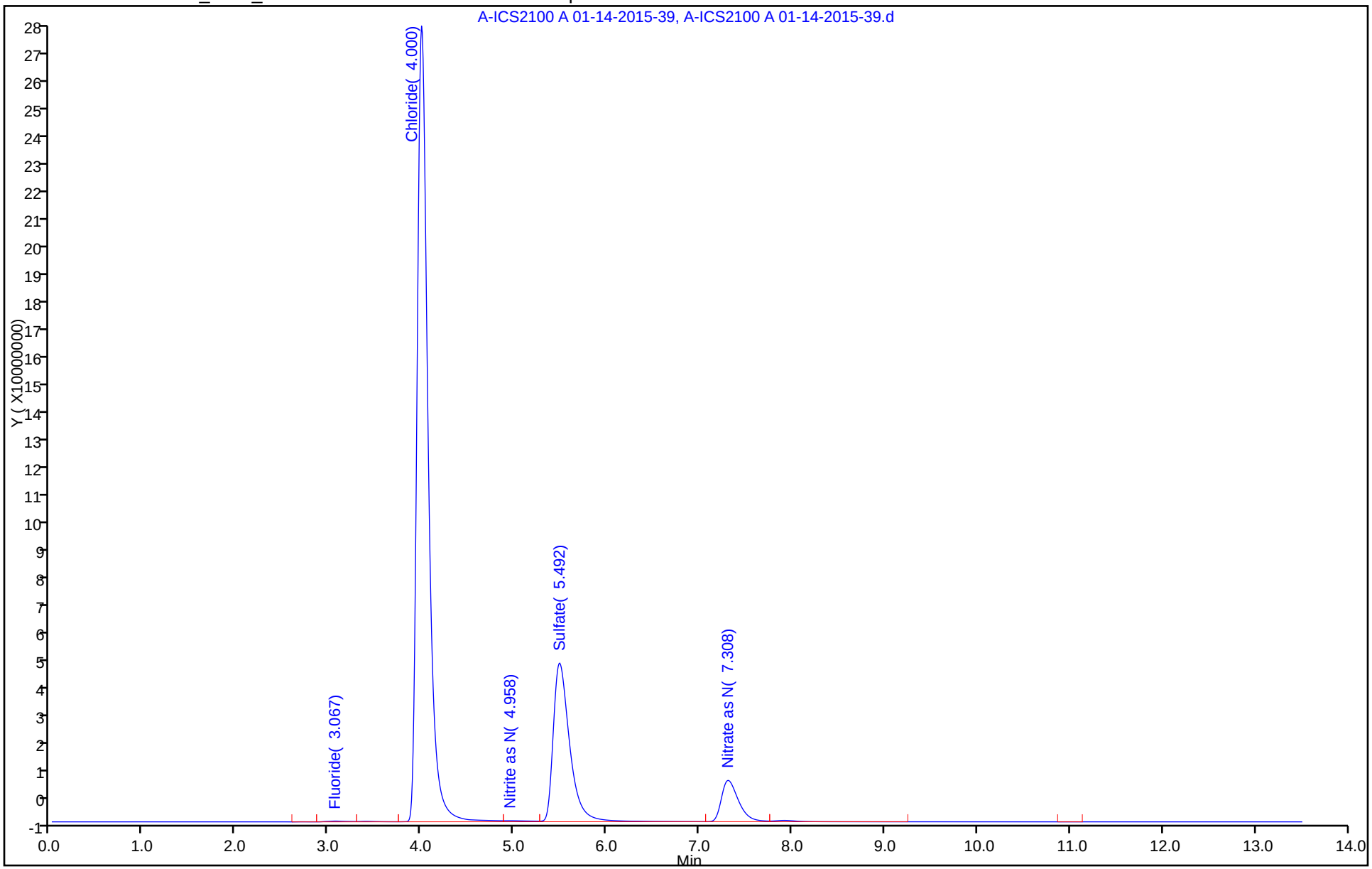
Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	2.992	0.075	264414H	0.0938	
2 Chloride	4.000	4.008	-0.008	2240999709	105.2	
7 Nitrite as N	4.958	4.725	0.233	6793425	0.1024	
3 Sulfate	5.492	5.483	0.009	667900904	43.2	
4 Bromide		6.325			ND	
5 Nitrate as N	7.308	7.325	-0.017	179734193	3.40	
6 Orthophosphate as P		10.242			ND	

Report Date: 15-Jan-2015 10:06:20 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-39.d				
Injection Date:	14-Jan-2015 19:24:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-13	Lab Sample ID:	180-40434-13	Worklist Smp#:	30
Client ID:	HD-COD-SW-26-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-40434-14

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-50.d

Analysis Method: 300.0 Date Collected: 01/13/2015 13:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 22:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	38		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-50.d
Lims ID: 180-40434-A-14 Lab Sample ID: 180-40434-14
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 22:13:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-041
Misc. Info.: 22381 180-40434-a-14
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:13 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

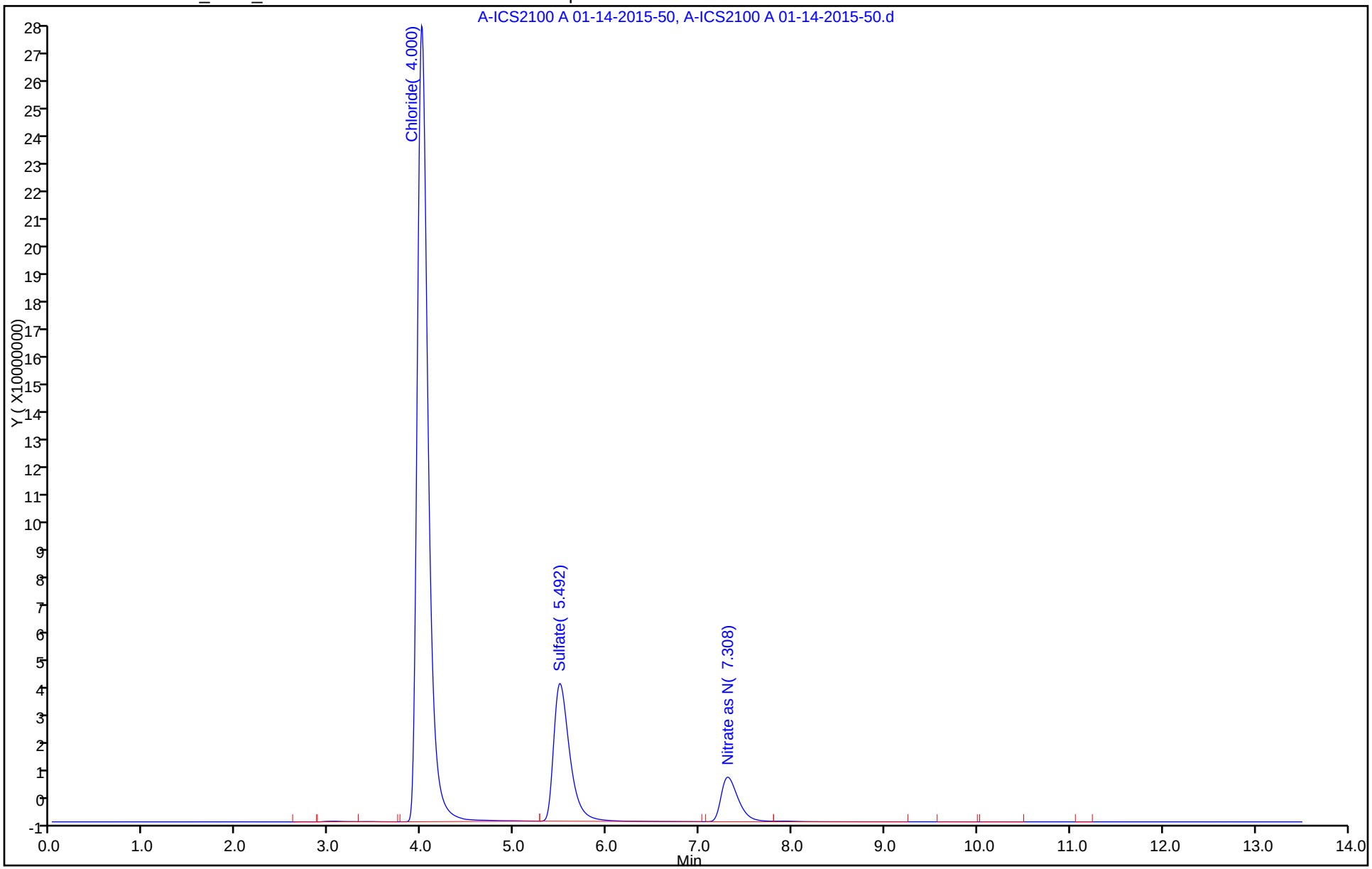
Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	2288187366	107.4	
3 Sulfate	5.492	5.492	0.000	580877066	37.6	
5 Nitrate as N	7.308	7.342	-0.034	200531577	3.79	

Report Date: 15-Jan-2015 10:06:16 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-50.d				
Injection Date:	14-Jan-2015 22:13:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-14	Lab Sample ID:	180-40434-14	Worklist Smp#:	41
Client ID:	HD-COD-SW-27-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-40434-15

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-51.d

Analysis Method: 300.0 Date Collected: 01/13/2015 12:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 22:28

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.3	B	0.10	0.0062
16887-00-6	Chloride	120		1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-51.d				
Lims ID:	180-40434-A-15	Lab Sample ID:	180-40434-15		
Client ID:	HD-COD-SW-28-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 22:28:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-042				
Misc. Info.:	31810 180-40434-a-15				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 10:06:13	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

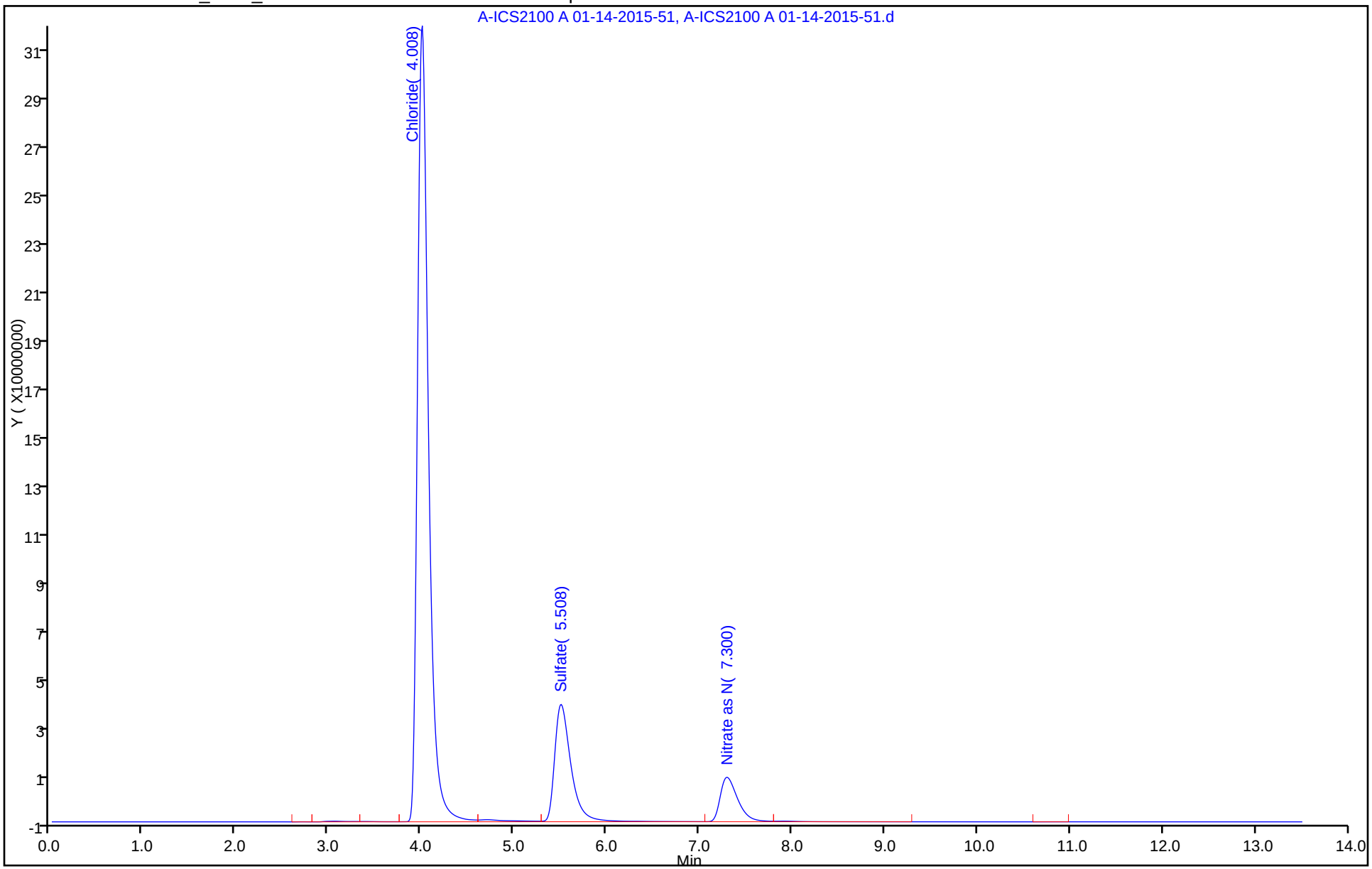
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	2569686784	120.7	
3 Sulfate	5.508	5.492	0.016	560504306	36.3	
5 Nitrate as N	7.300	7.342	-0.042	226740124	4.29	

Report Date: 15-Jan-2015 10:06:16 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-51.d

Injection Date:	14-Jan-2015 22:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-15	Lab Sample ID:	180-40434-15	Worklist Smp#:	42
Client ID:	HD-COD-SW-28-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-40434-16

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-21.d

Analysis Method: 300.0 Date Collected: 01/13/2015 09:02

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 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.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.1	B	0.10	0.0062
16887-00-6	Chloride	92		1.0	0.20
14808-79-8	Sulfate	56		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-21.d
Lims ID: 180-40434-A-16 Lab Sample ID: 180-40434-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 14:49:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-012
Misc. Info.: 21 180-40434-a-16
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

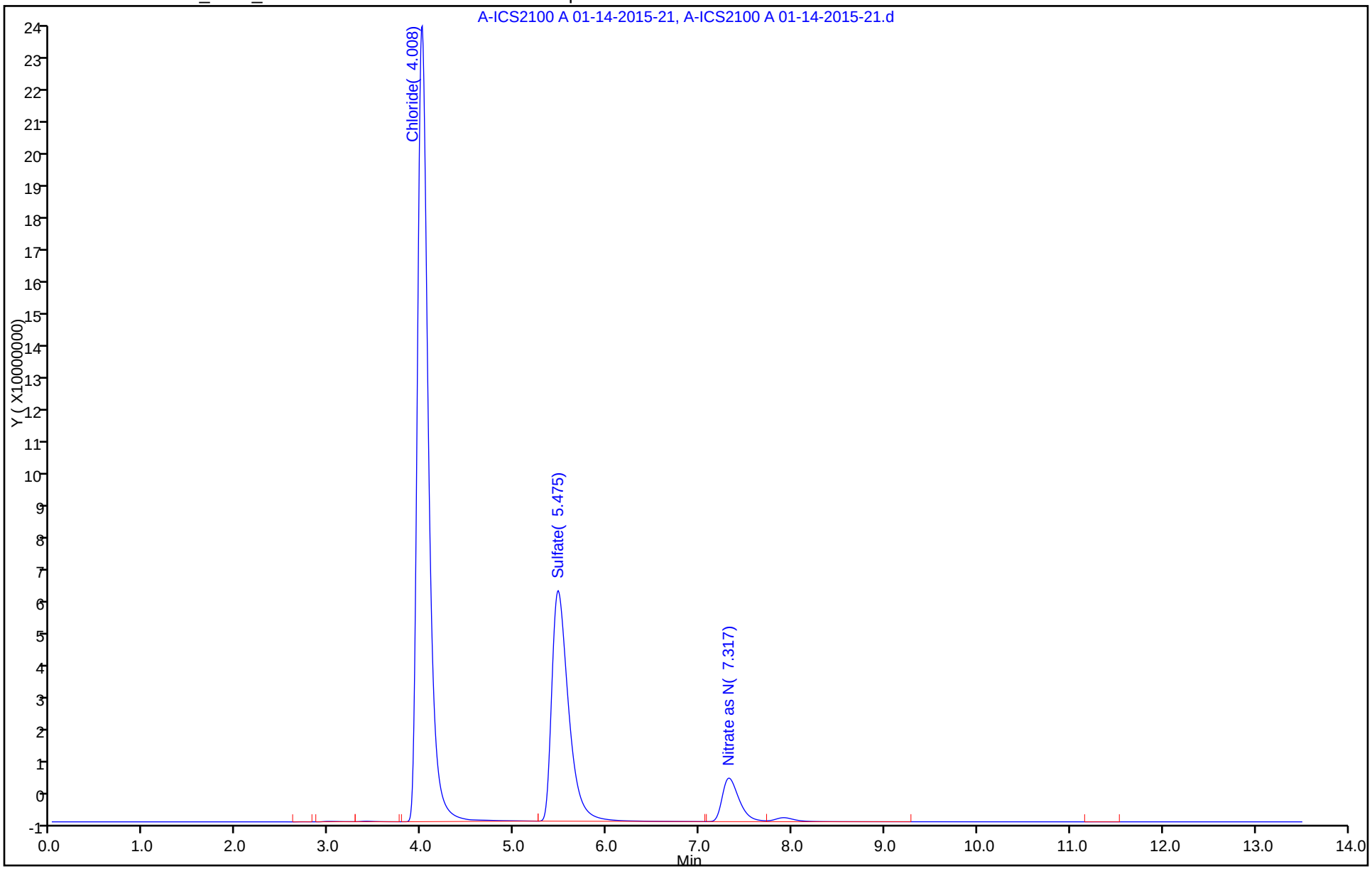
First Level Reviewer: hartmanm Date: 14-Jan-2015 15:21:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.017	-0.009	1963226210	92.2	
3 Sulfate	5.475	5.483	-0.008	863248161	55.9	
5 Nitrate as N	7.317	7.333	-0.016	163969406	3.10	

Report Date: 14-Jan-2015 16:08:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-21.d				
Injection Date:	14-Jan-2015 14:49:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-16	Lab Sample ID:	180-40434-16	Worklist Smp#:	12
Client ID:	HD-COD-SW-29-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-40434-18

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-18.d

Analysis Method: 300.0 Date Collected: 01/13/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 14:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5	B	0.10	0.0062
16887-00-6	Chloride	170		1.0	0.20
14808-79-8	Sulfate	26		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-18.d
Lims ID: 180-40434-A-18 Lab Sample ID: 180-40434-18
Client ID: HD-QCI-0/1-1
Sample Type: Client
Inject. Date: 14-Jan-2015 14:03:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-009
Misc. Info.: 18 180-40434-a-18
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

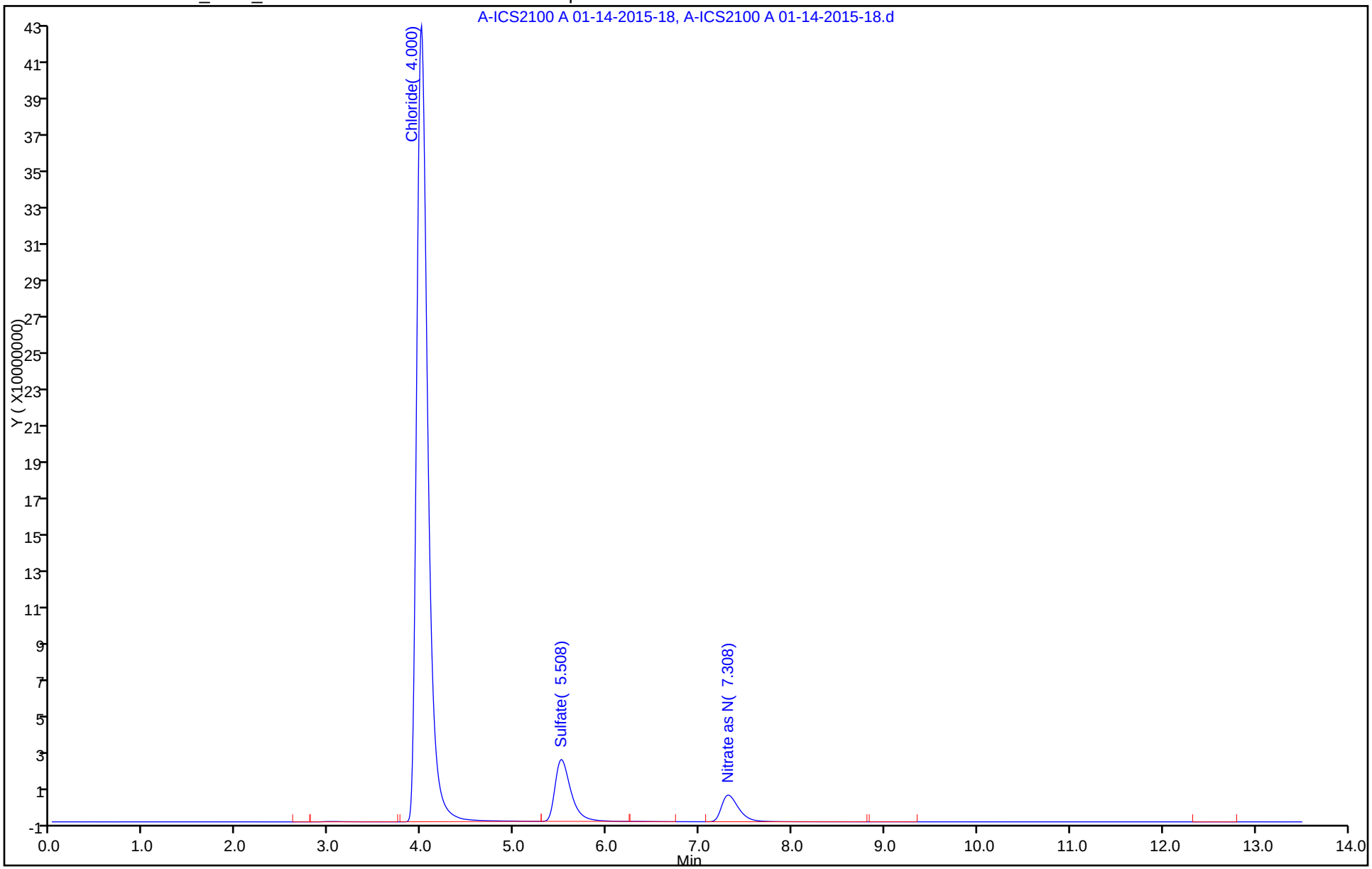
Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	3603601020	169.2	
3 Sulfate	5.508	5.483	0.025	396965452	25.6	
5 Nitrate as N	7.308	7.333	-0.025	186264907	3.52	

Report Date: 14-Jan-2015 16:08:20 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-18.d				
Injection Date:	14-Jan-2015 14:03:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-18	Lab Sample ID:	180-40434-18	Worklist Smp#:	9
Client ID:	HD-QCI-0/1-1				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 Lab Sample ID: 180-40434-22

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-26.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 16:05

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.5	B	0.10	0.0062
16887-00-6	Chloride	180		1.0	0.20
14808-79-8	Sulfate	40		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-26.d
Lims ID: 180-40434-A-22 Lab Sample ID: 180-40434-22
Client ID: HD-MW-107-0/1-0
Sample Type: Client
Inject. Date: 14-Jan-2015 16:05:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-017
Misc. Info.: 26 180-40434-a-22
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

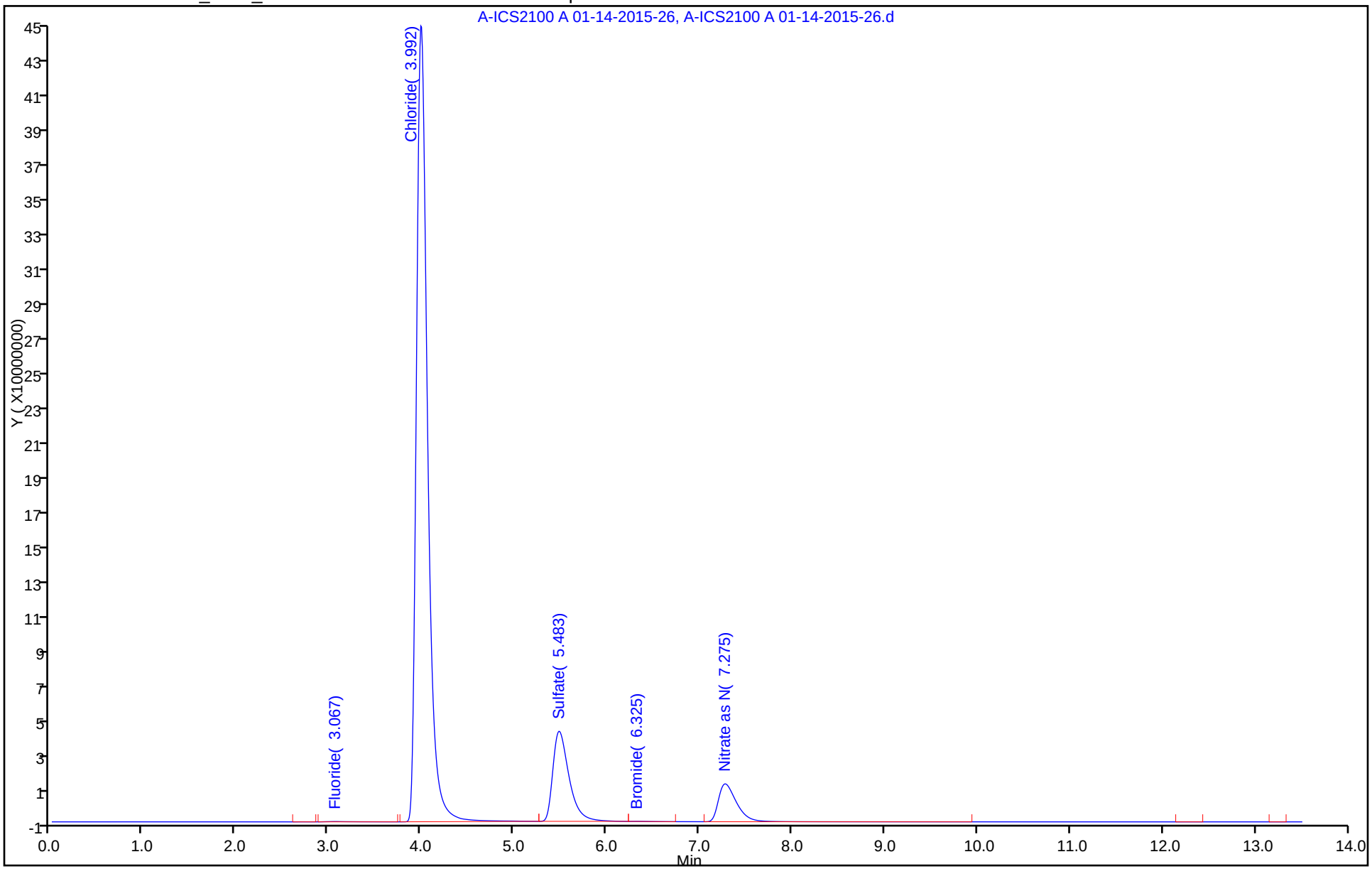
First Level Reviewer: hartmanm Date: 15-Jan-2015 10:09:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	2.992	0.075	164051H	0.0621	
2 Chloride	3.992	4.008	-0.016	3759300973	176.6	
7 Nitrite as N		4.725			ND	
3 Sulfate	5.483	5.483	0.000	615471567	39.8	
4 Bromide	6.325	6.325	0.000	686208	0.0709	
5 Nitrate as N	7.275	7.325	-0.050	289235264	5.47	
6 Orthophosphate as P		10.242			ND	

Report Date: 15-Jan-2015 10:09:01 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-26.d				
Injection Date:	14-Jan-2015 16:05:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-22	Lab Sample ID:	180-40434-22	Worklist Smp#:	17
Client ID:	HD-MW-107-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-40434-23

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-42.d

Analysis Method: 300.0 Date Collected: 01/13/2015 11:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 20:10

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.2	B	0.10	0.0062
16887-00-6	Chloride	140		1.0	0.20
14808-79-8	Sulfate	29		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

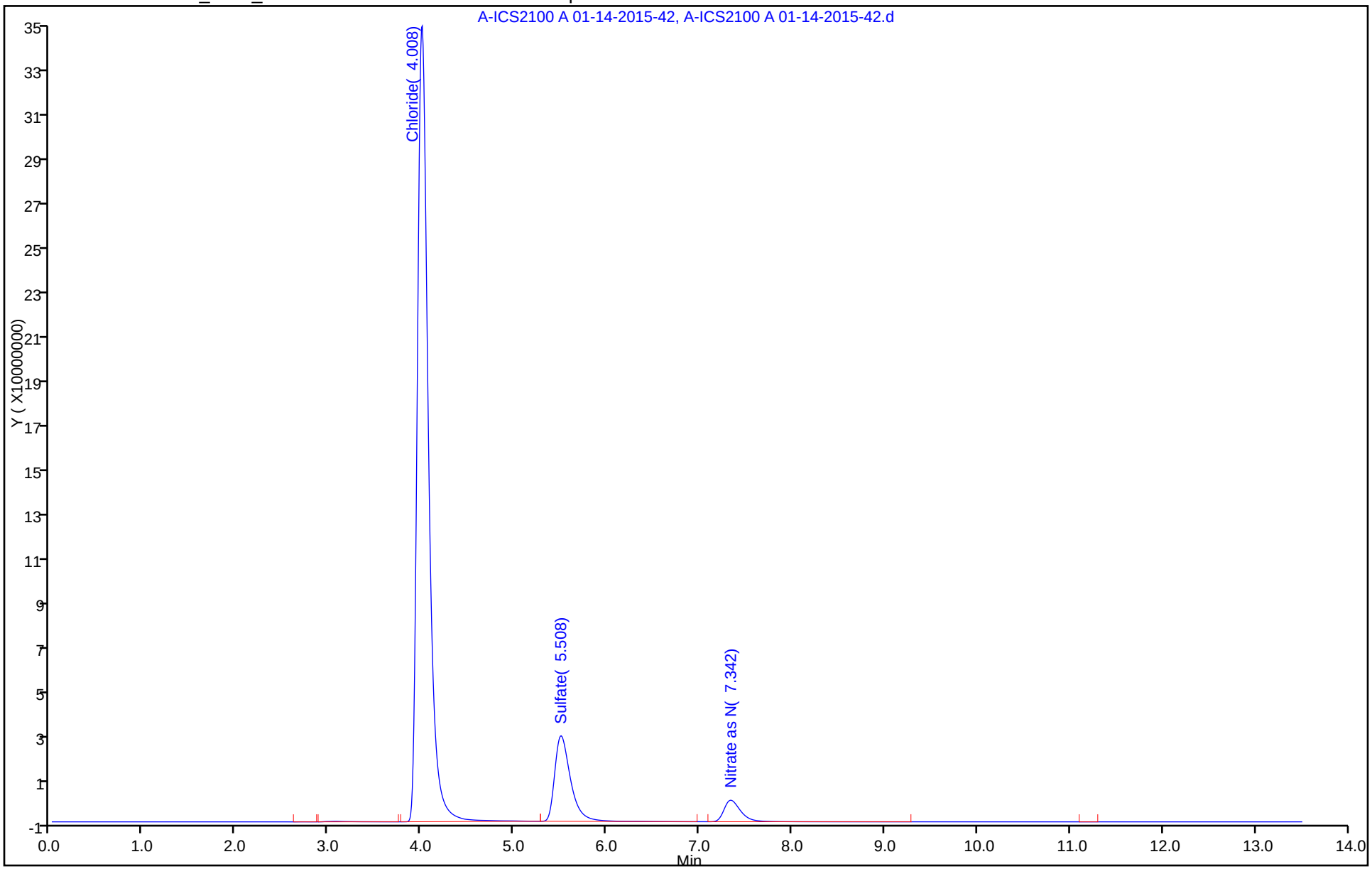
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-42.d				
Lims ID:	180-40434-A-23	Lab Sample ID:	180-40434-23		
Client ID:	HD-MW-93S-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 20:10:00	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-033				
Misc. Info.:	7829 180-40434-a-23				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 10:06:17	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.008	0.000	2879438538	135.2	
3 Sulfate	5.508	5.483	0.025	443992878	28.7	
5 Nitrate as N	7.342	7.325	0.017	118097964	2.24	

Report Date: 15-Jan-2015 10:06:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-42.d				
Injection Date:	14-Jan-2015 20:10:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-23	Lab Sample ID:	180-40434-23	Worklist Smp#:	33
Client ID:	HD-MW-93S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-40434-24

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-43.d

Analysis Method: 300.0 Date Collected: 01/13/2015 13:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 20:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.65	B	0.10	0.0062
16887-00-6	Chloride	100		1.0	0.20
14808-79-8	Sulfate	27		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

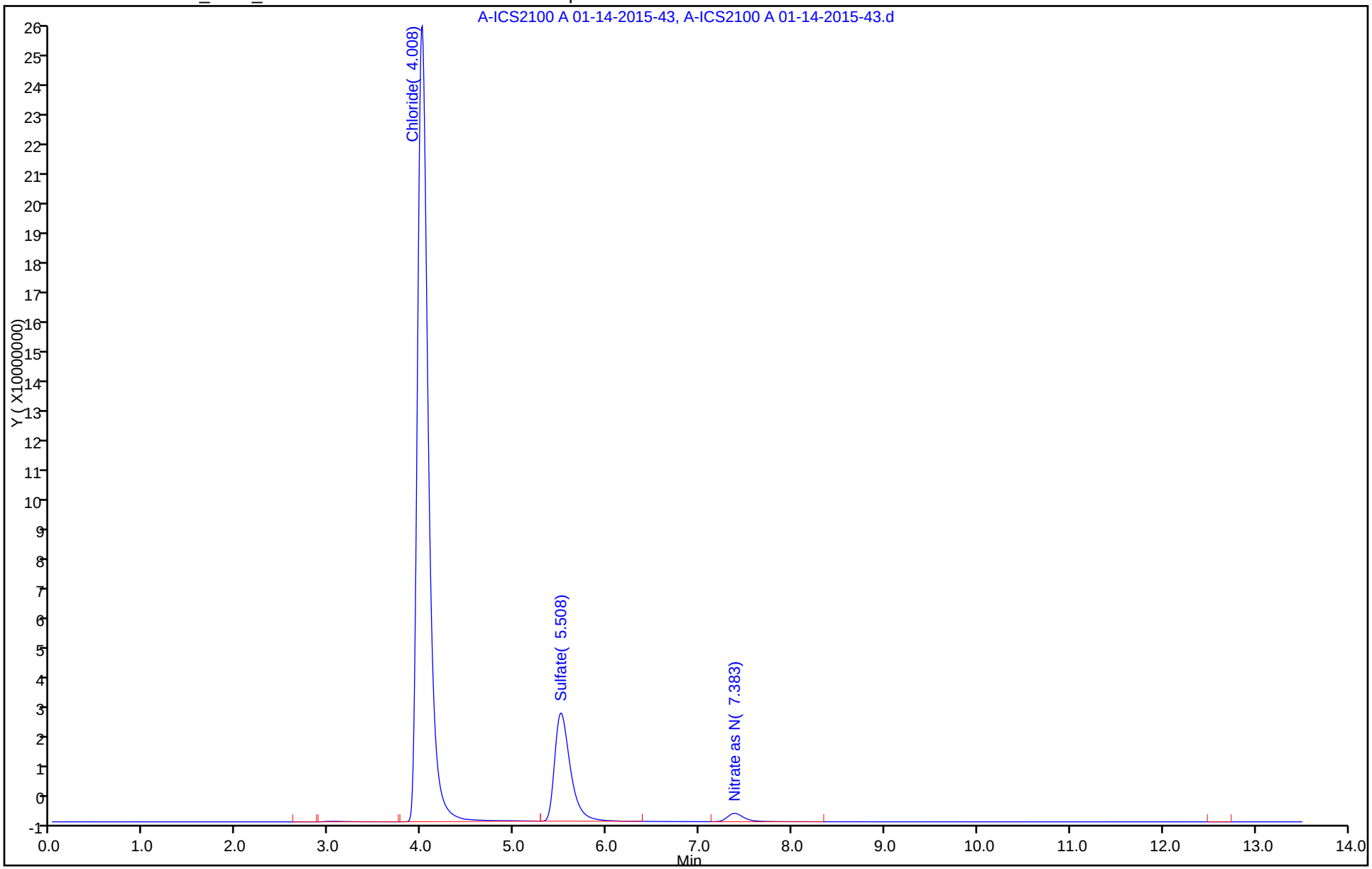
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-43.d				
Lims ID:	180-40434-A-24	Lab Sample ID:	180-40434-24		
Client ID:	HD-MW-93D-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 20:25:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-034				
Misc. Info.:	12287 180-40434-a-24				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 10:06:17	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.008	0.000	2126129275	99.8	
3 Sulfate	5.508	5.483	0.025	415690295	26.9	
5 Nitrate as N	7.383	7.325	0.058	34123057	0.6523	

Report Date: 15-Jan-2015 10:06:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-43.d				
Injection Date:	14-Jan-2015 20:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-24	Lab Sample ID:	180-40434-24	Worklist Smp#:	34
Client ID:	HD-MW-93D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-40434-25

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-30.d

Analysis Method: 300.0 Date Collected: 01/13/2015 14:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 17:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5	B	0.10	0.0062
16887-00-6	Chloride	170		1.0	0.20
14808-79-8	Sulfate	25		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

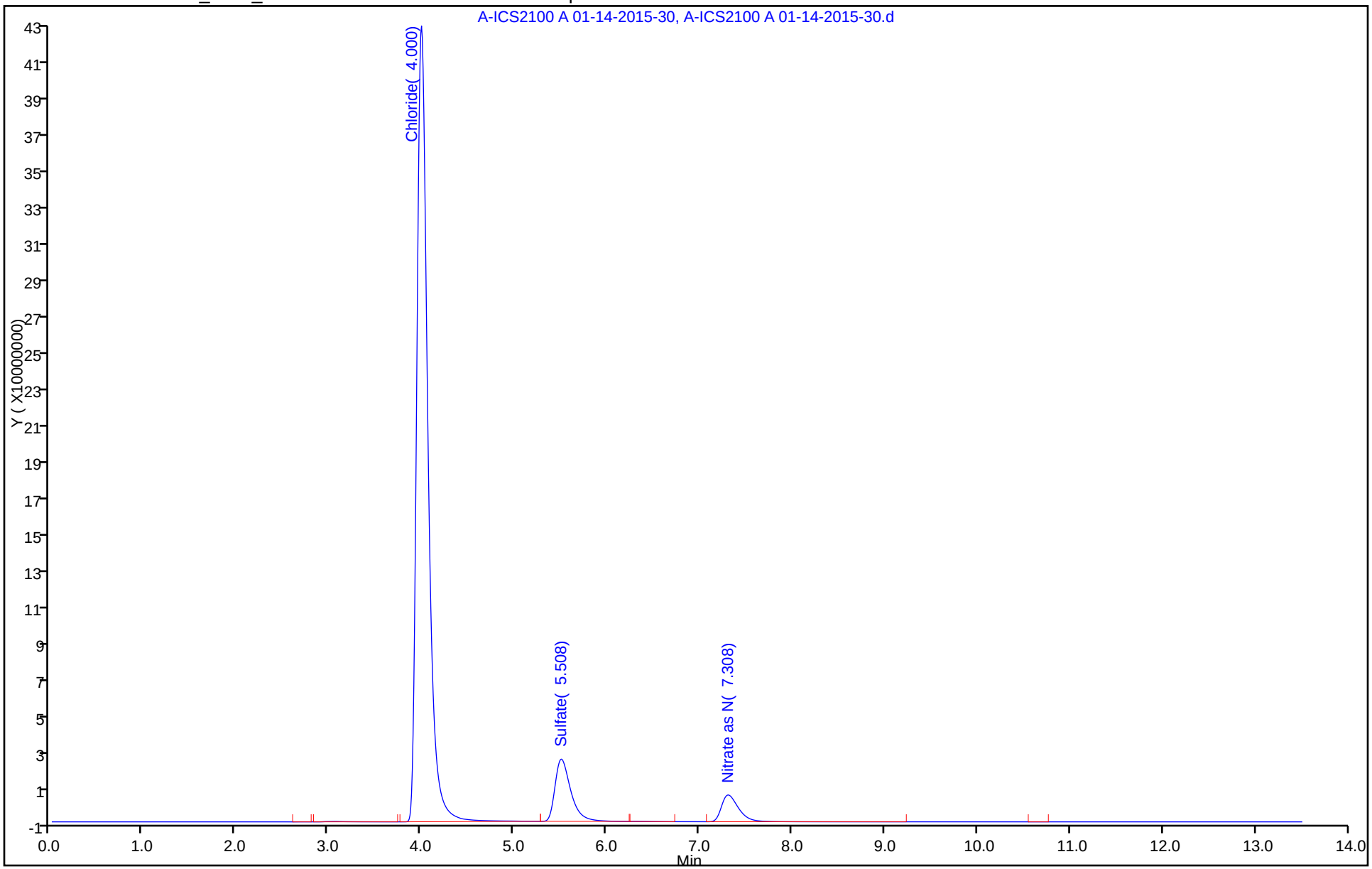
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-30.d				
Lims ID:	180-40434-A-25	Lab Sample ID:	180-40434-25		
Client ID:	HD-MW-37S-0/1-0				
Sample Type:	Client				
Inject. Date:	14-Jan-2015 17:06:00	ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005276-021				
Misc. Info.:	30 180-40434-a-25				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	15-Jan-2015 07:29:18	Calib Date:	13-Jan-2015 14:11:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK031				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.017	-0.017	3535564439	166.0	
3 Sulfate	5.508	5.492	0.016	391701457	25.3	
5 Nitrate as N	7.308	7.342	-0.034	183536744	3.47	

Report Date: 15-Jan-2015 09:41:41 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-30.d				
Injection Date:	14-Jan-2015 17:06:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-25	Lab Sample ID:	180-40434-25	Worklist Smp#:	21
Client ID:	HD-MW-37S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 130629

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 01/13/2015 12:24 Calibration End Date: 01/13/2015 14:11 Calibration ID: 21193

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-130629/2	A-ICS2100 A 01-13A-2015-
Level 2	IC 180-130629/3	A-ICS2100 A 01-13A-2015-
Level 3	ICRT 180-130629/4	A-ICS2100 A 01-13A-2015-
Level 4	IC 180-130629/5	A-ICS2100 A 01-13A-2015-
Level 5	IC 180-130629/6	A-ICS2100 A 01-13A-2015-
Level 6	IC 180-130629/7	A-ICS2100 A 01-13A-2015-
Level 7	IC 180-130629/8	A-ICS2100 A 01-13A-2015-
Level 8	IC 180-130629/9	A-ICS2100 A 01-13A-2015-

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	2.992	2.983	2.992	2.992	2.992	2.983	2.983	2.983			2.642 - 3.342	2.988
Chloride	4.033	4.025	4.017	4.017	4.008	4.000	4.000	3.992			3.667 - 4.367	4.012
Nitrite as N	4.742	4.733	4.733	4.725	4.725	4.717	4.708	4.692			4.483 - 4.983	4.722
Sulfate	5.592	5.575	5.558	5.542	5.483	5.442	5.400	5.342			5.208 - 5.908	5.492
Bromide	6.367	6.350	6.342	6.342	6.325	6.292	6.275	6.258			5.992 - 6.692	6.319
Nitrate as N	7.417	7.392	7.375	7.367	7.333	7.275	7.242	7.208			7.125 - 7.625	7.326
Orthophosphate as P	10.408	10.383	10.350	10.342	10.225	10.125	10.042	9.942			10.100 - 10.600	10.227

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 130629

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 01/13/2015 12:24 Calibration End Date: 01/13/2015 14:11 Calibration ID: 21193

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-130629/2	A-ICS2100 A 01-13A-2015-
Level 2	IC 180-130629/3	A-ICS2100 A 01-13A-2015-
Level 3	ICRT 180-130629/4	A-ICS2100 A 01-13A-2015-
Level 4	IC 180-130629/5	A-ICS2100 A 01-13A-2015-
Level 5	IC 180-130629/6	A-ICS2100 A 01-13A-2015-
Level 6	IC 180-130629/7	A-ICS2100 A 01-13A-2015-
Level 7	IC 180-130629/8	A-ICS2100 A 01-13A-2015-
Level 8	IC 180-130629/9	A-ICS2100 A 01-13A-2015-

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	2583680 3266361	2748072 3398549	2994364 3204652	3031121 3175564	Lin2	-32316.095	3162728.31							0.9970		0.9900
Chloride	22687419 20982422	21969428 21620608	22269815 20763498	20890482 21219084	Lin2	1531839.58	21283868.2							0.9990		0.9900
Nitrite as N	87713500 47138433	54620040 46703962	52785410 43221767	49057346 41927138	Lin2	2137110.99	45460584.3							0.9970		0.9900
Sulfate	17870395 15052401	16351244 15739303	16455023 14889589	15149292 15222250	Lin2	2628648.96	15383911.6							0.9990		0.9900
Bromide	9910915 9421279	10323700 9881658	10313336 9504770	9755800 9732279	LinF		9675077.71							1.0000		0.9900
Nitrate as N	44330240 51333611	50854572 54002635	54184390 52091319	51430878 53563317	Lin2	-429206.86	52967152.5							0.9990		0.9900
Orthophosphate as P	10654340 16893744	14516792 18497929	15594030 17798898	15457606 18706890	Lin2	-349118.97	17229671.9							0.9950		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1 Analy Batch No.: 130629

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 01/13/2015 12:24 Calibration End Date: 01/13/2015 14:11 Calibration ID: 21193

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-130629/2	A-ICS2100 A 01-13A-2015-
Level 2	IC 180-130629/3	A-ICS2100 A 01-13A-2015-
Level 3	ICRT 180-130629/4	A-ICS2100 A 01-13A-2015-
Level 4	IC 180-130629/5	A-ICS2100 A 01-13A-2015-
Level 5	IC 180-130629/6	A-ICS2100 A 01-13A-2015-
Level 6	IC 180-130629/7	A-ICS2100 A 01-13A-2015-
Level 7	IC 180-130629/8	A-ICS2100 A 01-13A-2015-
Level 8	IC 180-130629/9	A-ICS2100 A 01-13A-2015-

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	129184 16992744	687018 24034887	1497182 31755636	3031121	8165902	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	22687419 2162060811	109847139 3114524728	222698150 4243816805	417809637	1049121100	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	4385675 233519809	13655010 324163256	26392705 419271383	49057346	117846083	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Sulfate	Lin2	17870395 1573930251	81756219 2233438307	164550229 3044449965	302985833	752620072	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	LinF	1982183 197633159	10323700 285143086	20626672 389291171	39023201	94212788	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2216512 270013176	12713643 390684892	27092195 535633171	51430878	128334028	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	532717 92489647	3629198 133491737	7797015 187068903	15457606	42234361	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:

Lin2 = Linear 1/conc^2
LinF = Linear forced zero

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Jan-2015 12:24:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-002
Misc. Info.: 30013 ic l2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:32 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

First Level Reviewer: hartmanm Date: 13-Jan-2015 15:14:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	129184H	0.0500	0.0511	
2 Chloride	4.033	4.017	0.016	22687419	1.00	0.99	
7 Nitrite as N	4.742	4.733	0.009	4385675	0.0500	0.0495	
3 Sulfate	5.592	5.558	0.034	17870395	1.00	0.99	
4 Bromide	6.367	6.342	0.025	1982183	0.2000	0.2049	
5 Nitrate as N	7.417	7.375	0.042	2216512	0.0500	0.0500	
6 Orthophosphate as P	10.408	10.350	0.058	532717	0.0500	0.0512	

Reagents:

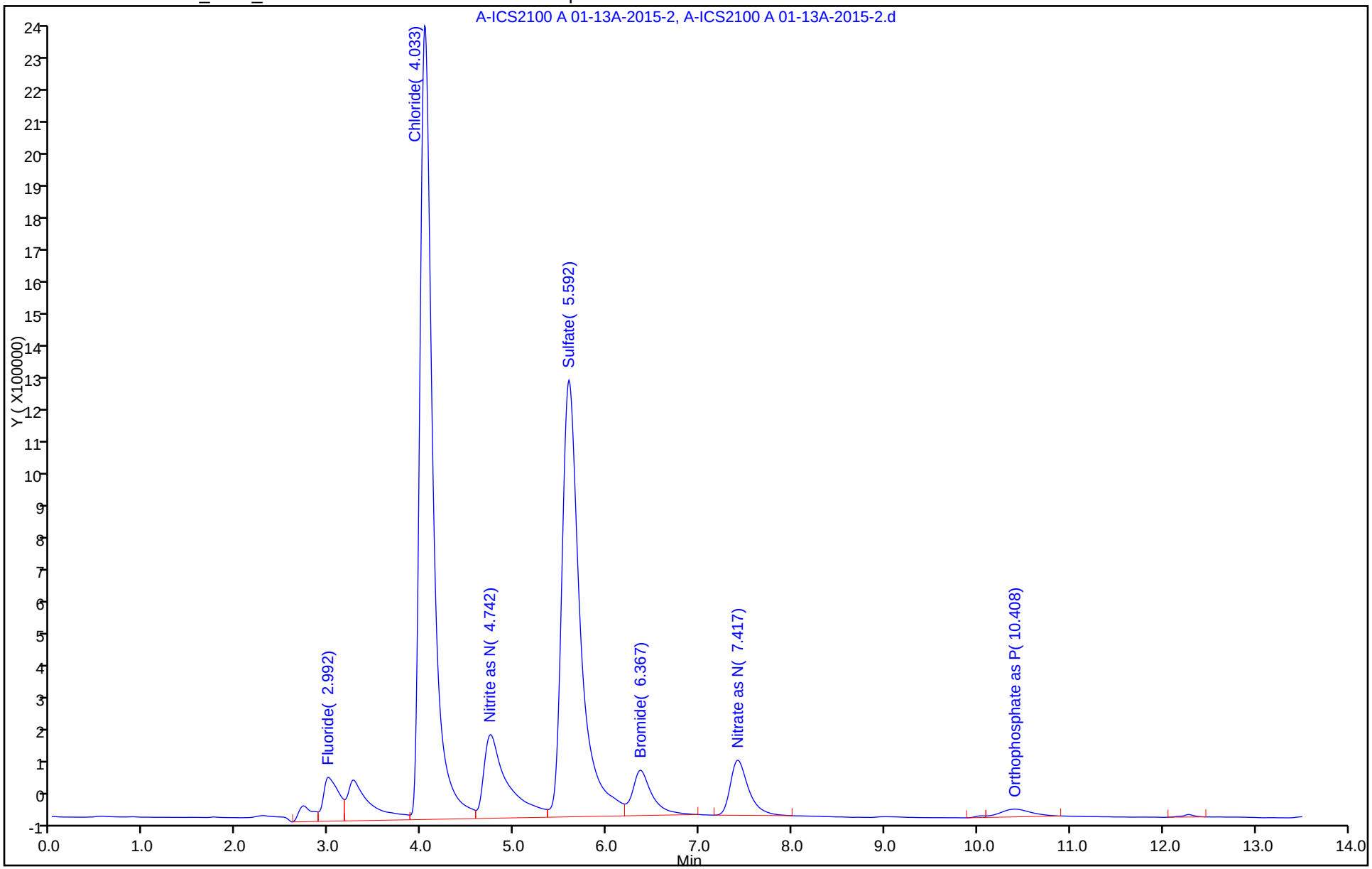
ICSTDL2_00144 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-2.d

Injection Date:	13-Jan-2015 12:24:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Jan-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-003
Misc. Info.: 14714 ic l3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:33 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	2.992	-0.009	687018H	0.2500	0.2274	
2 Chloride	4.025	4.017	0.008	109847139	5.00	5.09	
7 Nitrite as N	4.733	4.733	0.000	13655010	0.2500	0.2534	
3 Sulfate	5.575	5.558	0.017	81756219	5.00	5.14	
4 Bromide	6.350	6.342	0.008	10323700	1.00	1.07	
5 Nitrate as N	7.392	7.375	0.017	12713643	0.2500	0.2481	
6 Orthophosphate as P	10.383	10.350	0.033	3629198	0.2500	0.2309	

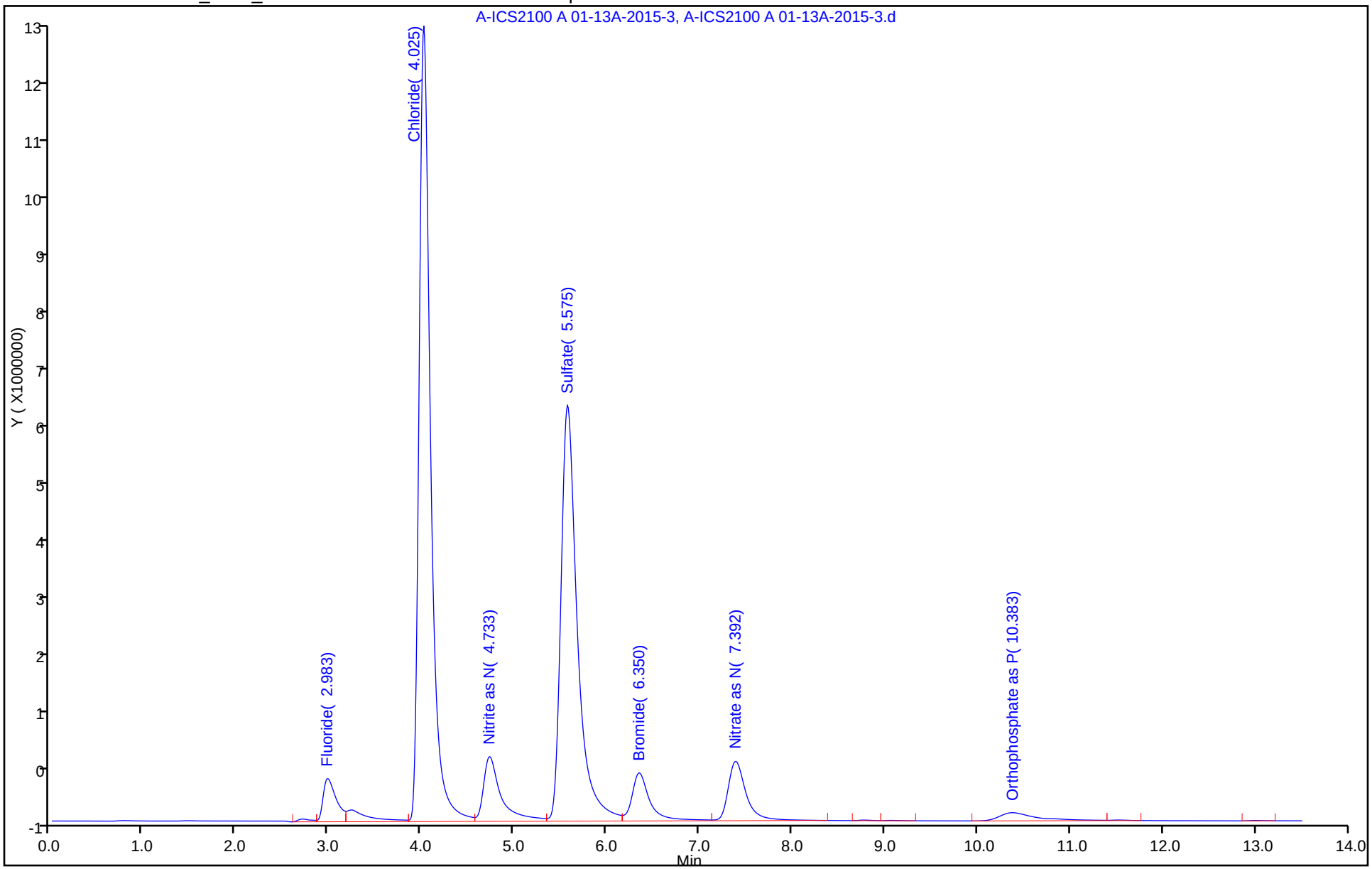
Reagents:

ICSTDL3_00182 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-3.d				
Injection Date:	13-Jan-2015 12:39:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 13-Jan-2015 12:55:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-004
Misc. Info.: 16265 icrt l4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:33 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

First Level Reviewer: hartmanm Date: 13-Jan-2015 15:08:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	1497182H	0.5000	0.4836	
2 Chloride	4.017	4.017	0.000	222698150	10.0	10.4	
7 Nitrite as N	4.733	4.733	0.000	26392705	0.5000	0.5336	
3 Sulfate	5.558	5.558	0.000	164550229	10.0	10.5	
4 Bromide	6.342	6.342	0.000	20626672	2.00	2.13	
5 Nitrate as N	7.375	7.375	0.000	27092195	0.5000	0.5196	
6 Orthophosphate as P	10.350	10.350	0.000	7797015	0.5000	0.4728	

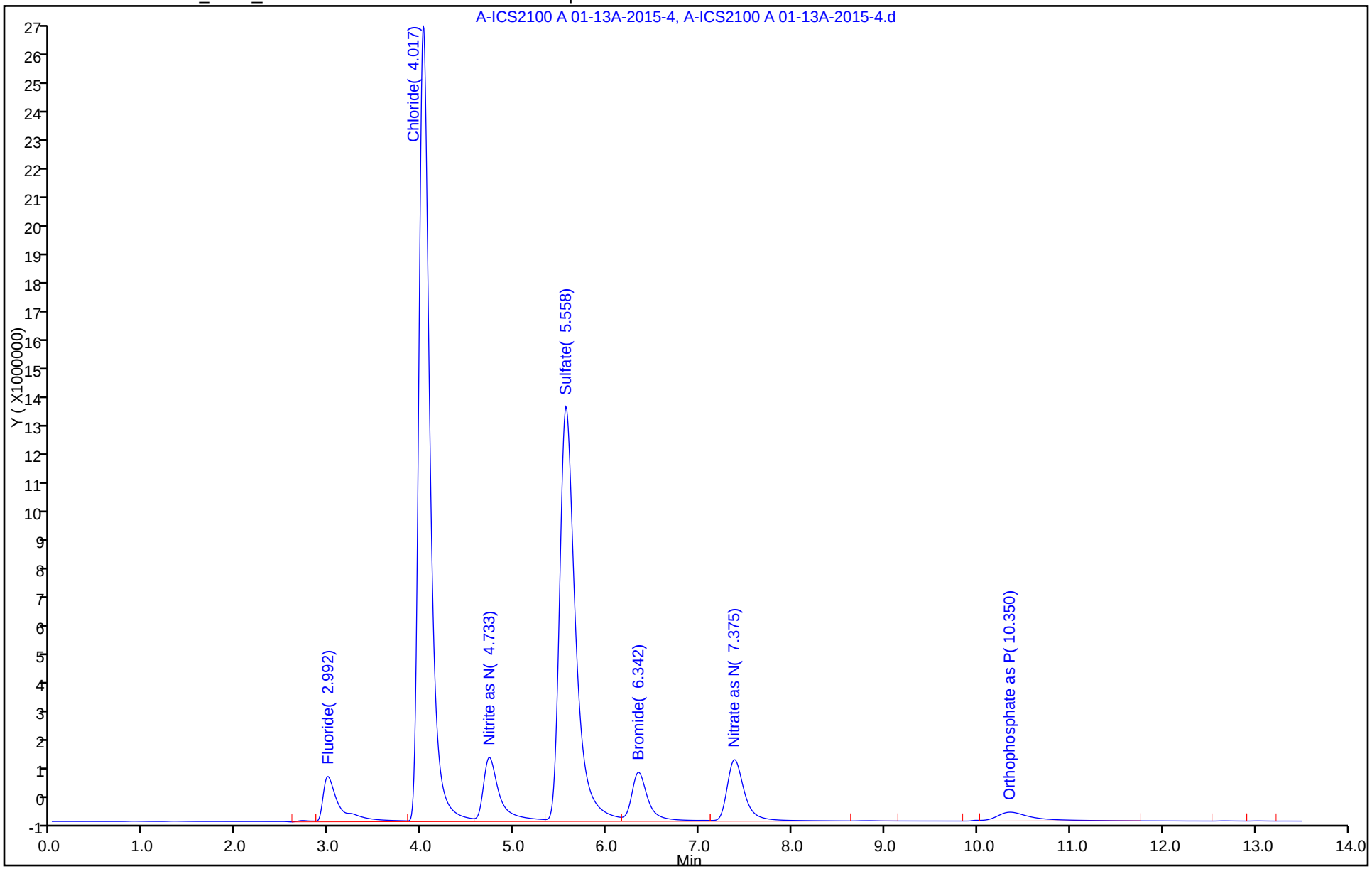
Reagents:

ICSTDL4_00121 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-4.d				
Injection Date:	13-Jan-2015 12:55:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-Jan-2015 13:10:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-005
Misc. Info.: 15679 ic l5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:34 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3031121H	1.00	0.9686	
2 Chloride	4.017	4.017	0.000	417809637	20.0	19.6	
7 Nitrite as N	4.725	4.733	-0.008	49057346	1.00	1.03	
3 Sulfate	5.542	5.558	-0.016	302985833	20.0	19.5	
4 Bromide	6.342	6.342	0.000	39023201	4.00	4.03	
5 Nitrate as N	7.367	7.375	-0.008	51430878	1.00	0.9791	
6 Orthophosphate as P	10.342	10.350	-0.008	15457606	1.00	0.9174	

Reagents:

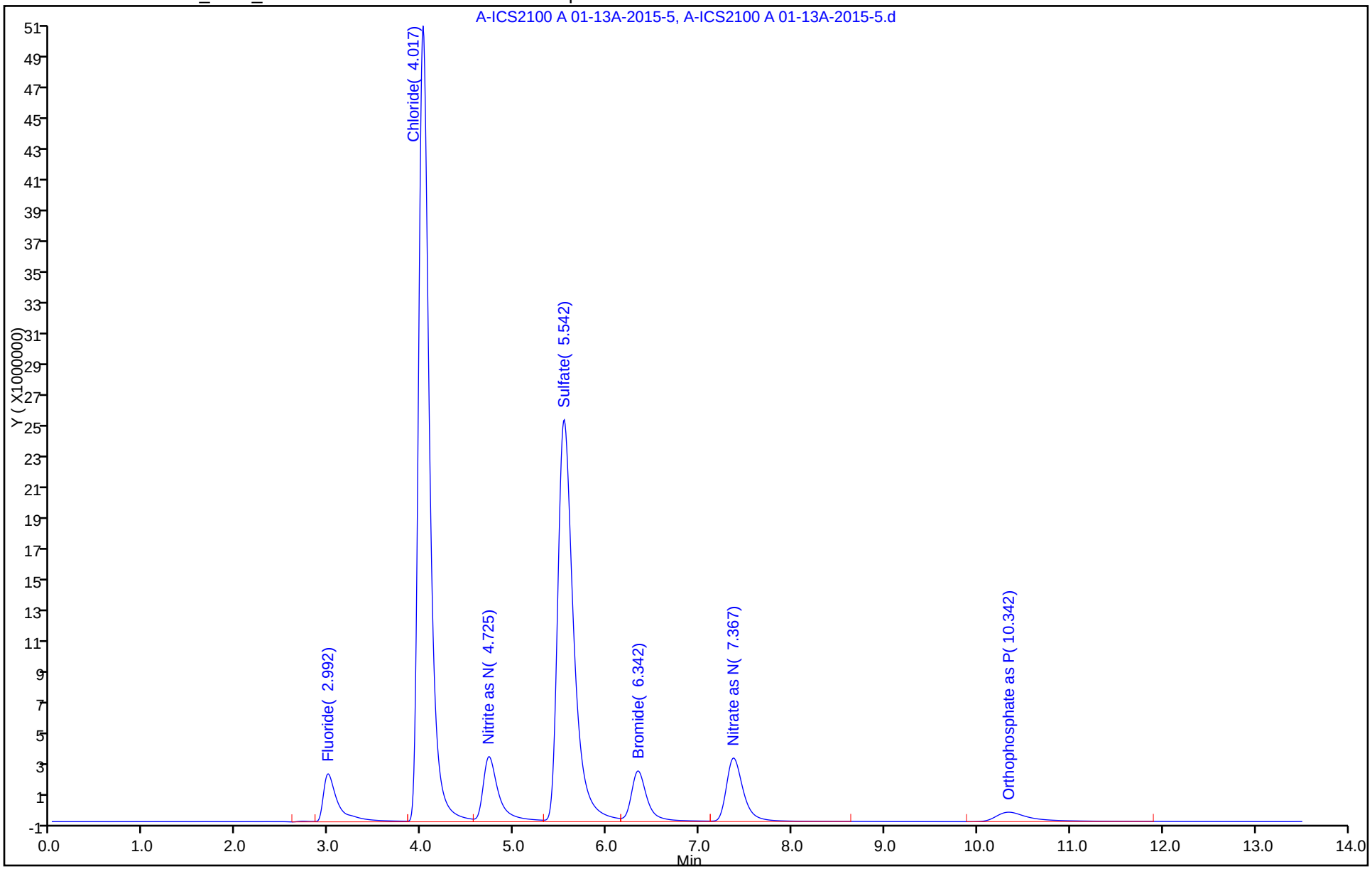
ICSTDL5_00120 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-5.d

Injection Date:	13-Jan-2015 13:10:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 13-Jan-2015 18:17:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Jan-2015 13:25:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-006
Misc. Info.: 15331 ic l6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:34 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

First Level Reviewer: hartmanm Date: 13-Jan-2015 18:17:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8165902H	2.50	2.59	
2 Chloride	4.008	4.017	-0.009	1049121100	50.0	49.2	
7 Nitrite as N	4.725	4.733	-0.008	117846083	2.50	2.55	
3 Sulfate	5.483	5.558	-0.075	752620072	50.0	48.8	
4 Bromide	6.325	6.342	-0.017	94212788	10.0	9.74	
5 Nitrate as N	7.333	7.375	-0.042	128334028	2.50	2.43	
6 Orthophosphate as P	10.225	10.350	-0.125	42234361	2.50	2.47	

Reagents:

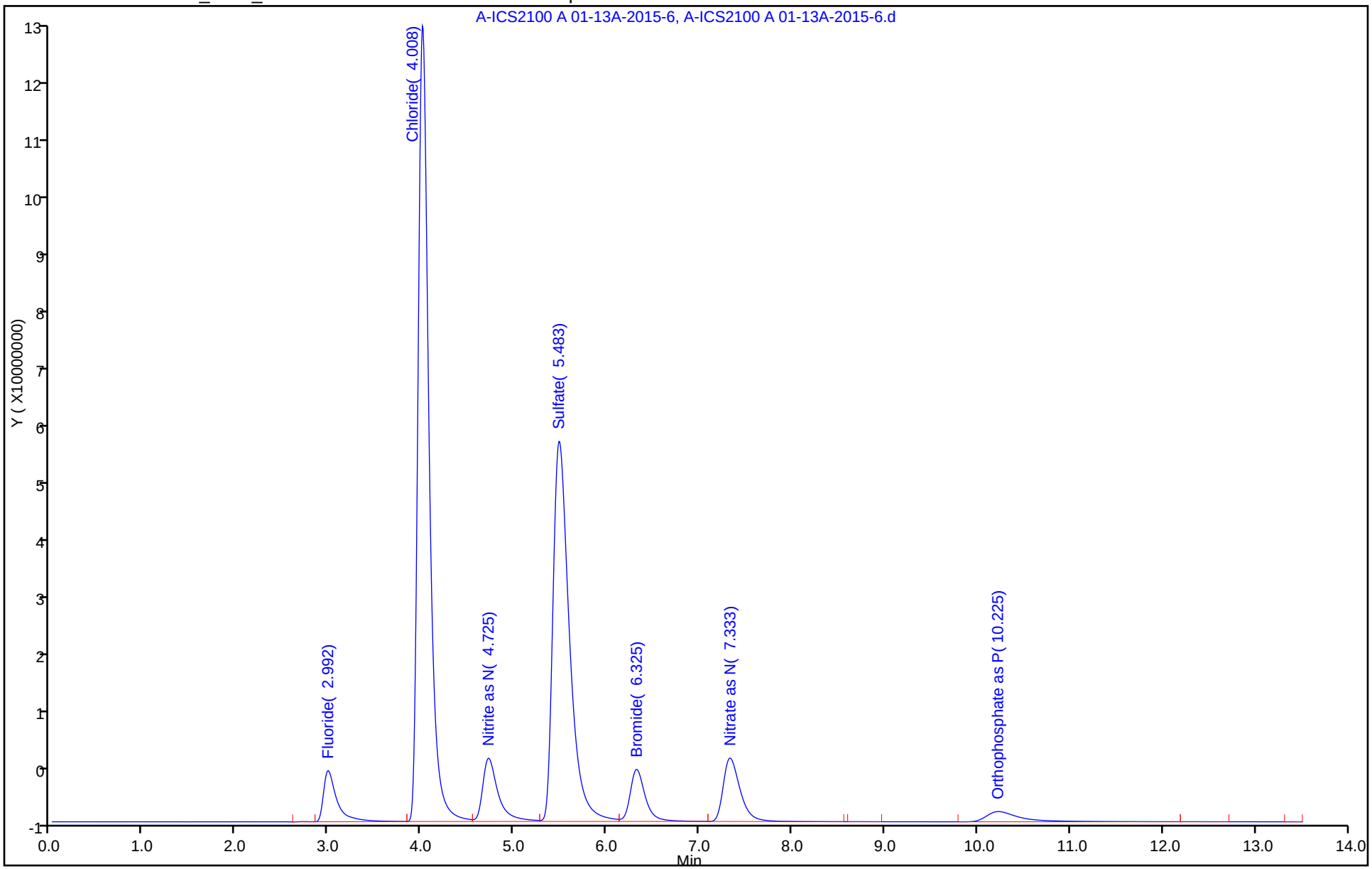
ICSTDL6_00189 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-6.d

Injection Date:	13-Jan-2015 13:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Jan-2015 13:41:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-007
Misc. Info.: 8785 ic l7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:35 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

First Level Reviewer: hartmanm Date: 13-Jan-2015 15:21:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	2.992	-0.009	16992744H	5.00	5.38	
2 Chloride	4.000	4.017	-0.017	2162060811	100.0	101.5	
7 Nitrite as N	4.717	4.733	-0.016	233519809	5.00	5.09	
3 Sulfate	5.442	5.558	-0.116	1573930251	100.0	102.1	
4 Bromide	6.292	6.342	-0.050	197633159	20.0	20.4	
5 Nitrate as N	7.275	7.375	-0.100	270013176	5.00	5.11	
6 Orthophosphate as P	10.125	10.350	-0.225	92489647	5.00	5.39	

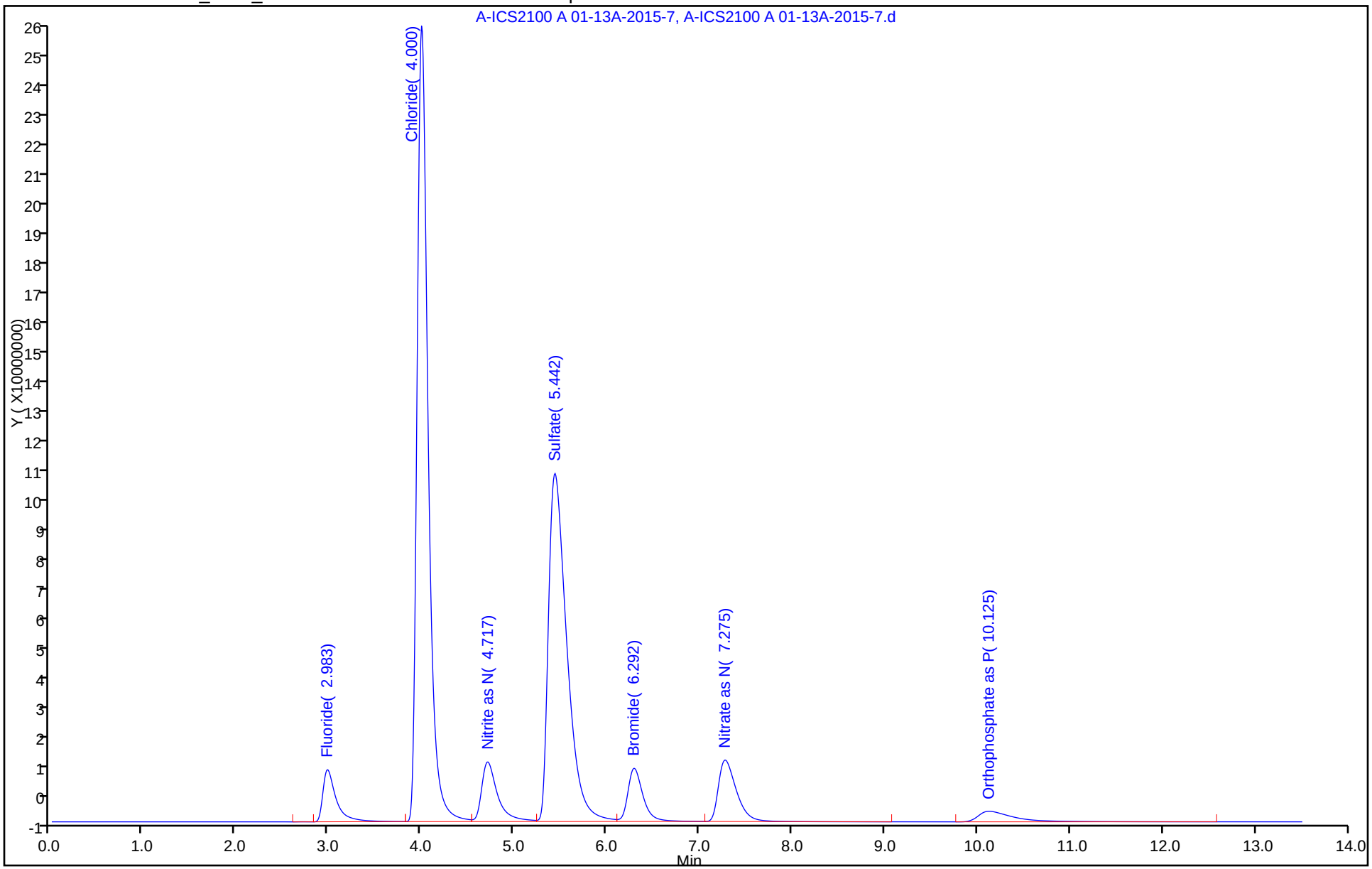
Reagents:

ICSTDL7_00124 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-7.d				
Injection Date:	13-Jan-2015 13:41:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 13-Jan-2015 18:17:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 13-Jan-2015 13:56:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-008
Misc. Info.: 10979 ic l8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:35 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

First Level Reviewer: hartmanm Date: 13-Jan-2015 15:19:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	2.992	-0.009	24034887H	7.50	7.61	
2 Chloride	4.000	4.017	-0.017	3114524728	150.0	146.3	
7 Nitrite as N	4.708	4.733	-0.025	324163256	7.50	7.08	
3 Sulfate	5.400	5.558	-0.158	2233438307	150.0	145.0	
4 Bromide	6.275	6.342	-0.067	285143086	30.0	29.5	
5 Nitrate as N	7.242	7.375	-0.133	390684892	7.50	7.38	
6 Orthophosphate as P	10.042	10.350	-0.308	133491737	7.50	7.77	

Reagents:

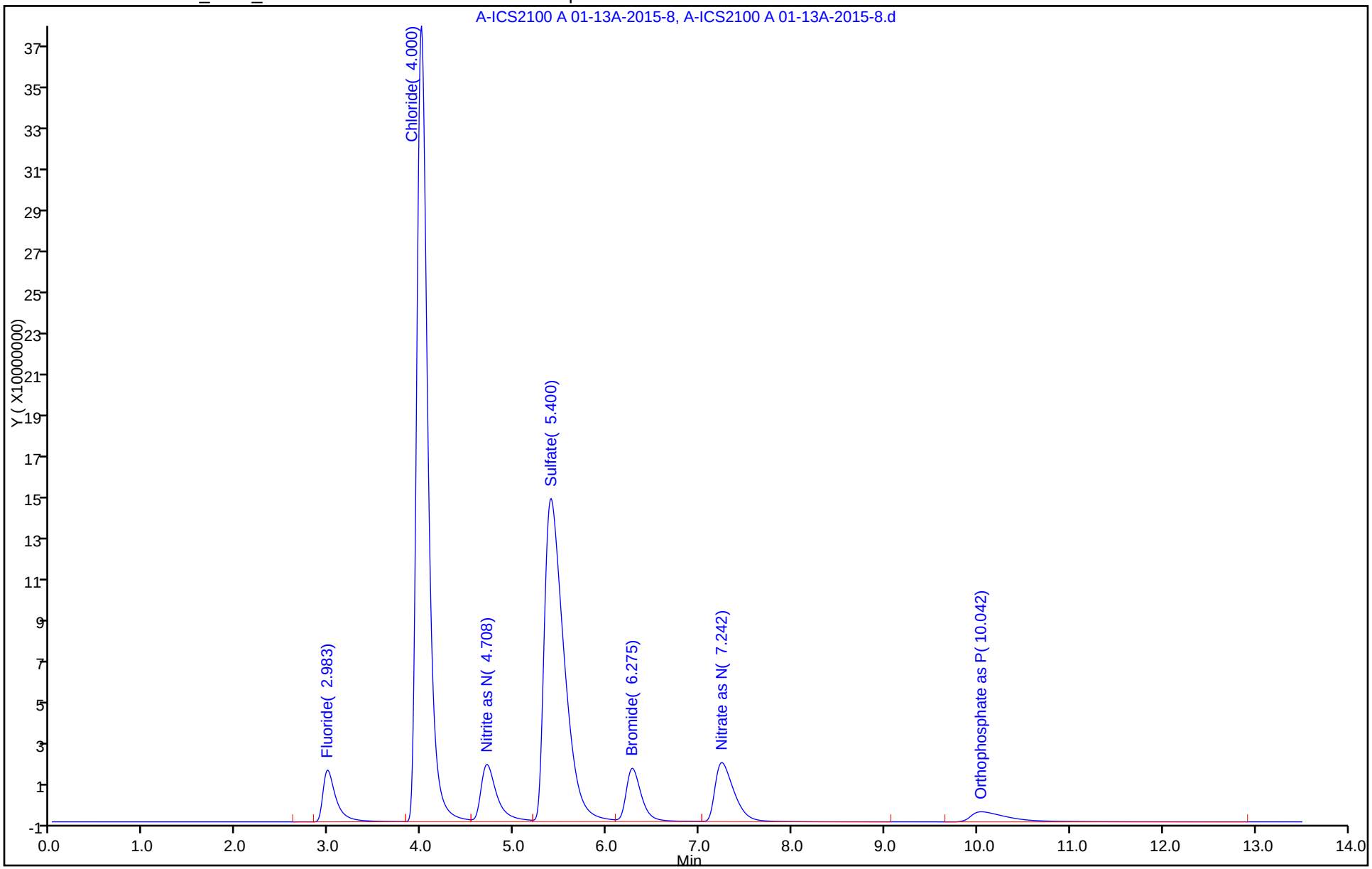
ICSTDL8_00095 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-8.d

Injection Date:	13-Jan-2015 13:56:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 13-Jan-2015 18:17:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 13-Jan-2015 14:11:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005255-009
Misc. Info.: 29899 ic l9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 13-Jan-2015 18:17:36 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK017

First Level Reviewer: hartmanm Date: 13-Jan-2015 15:18:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	2.992	-0.009	31755636H	10.0	10.1	
2 Chloride	3.992	4.017	-0.025	4243816805	200.0	199.3	
7 Nitrite as N	4.692	4.733	-0.041	419271383	10.0	9.18	
3 Sulfate	5.342	5.558	-0.216	3044449965	200.0	197.7	
4 Bromide	6.258	6.342	-0.084	389291171	40.0	40.2	
5 Nitrate as N	7.208	7.375	-0.167	535633171	10.0	10.1	
6 Orthophosphate as P	9.942	10.350	-0.408	187068903	10.0	10.9	

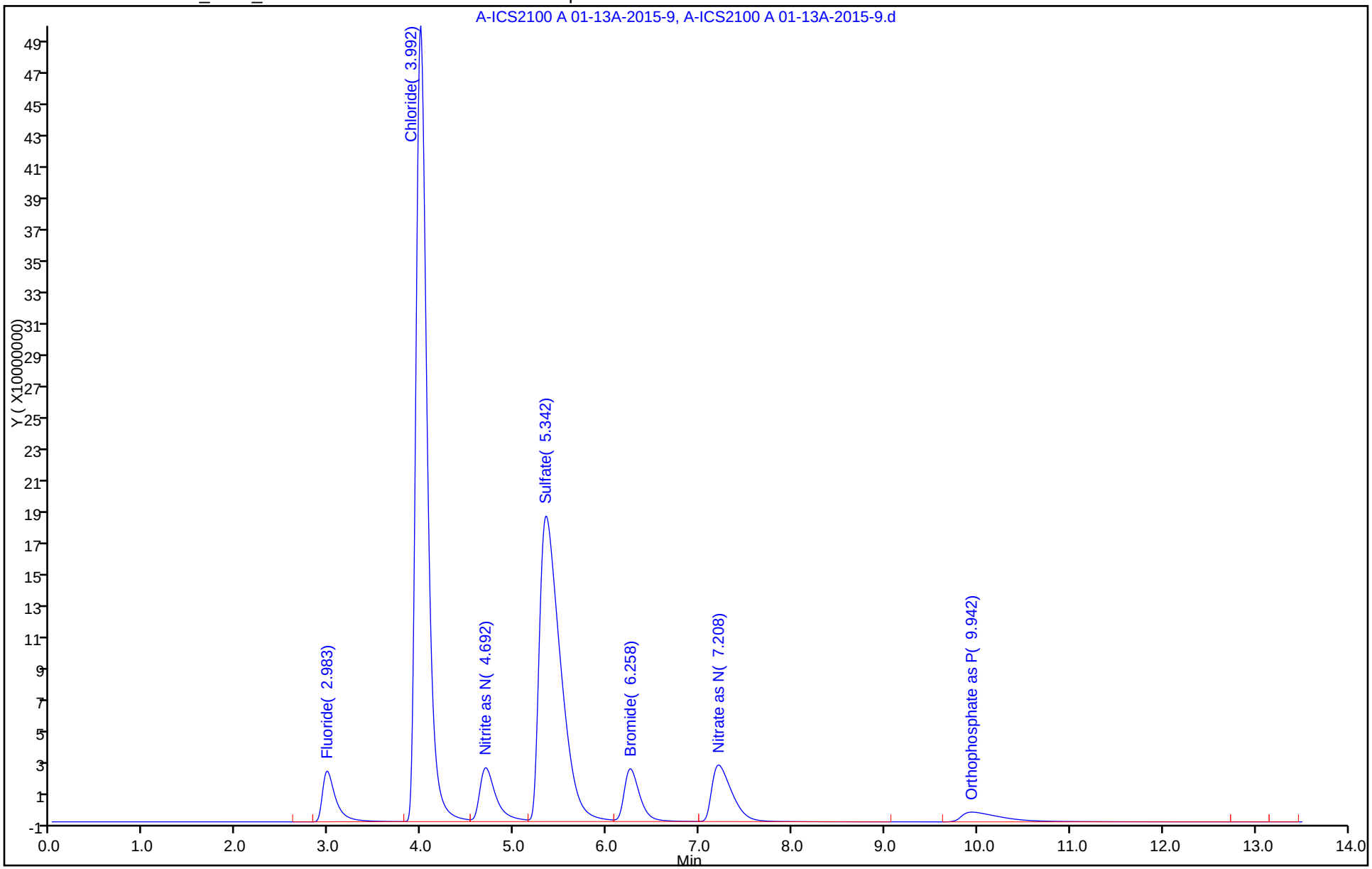
Reagents:

ICSTDL9_00100 Amount Added: 1.00 Units: mL

Report Date: 13-Jan-2015 18:17:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d				
Injection Date:	13-Jan-2015 14:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: ICV 180-130742/2 Calibration Date: 01/14/2015 10:38

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-11.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3339878		3.18	3.00	5.9	10.0
Chloride	Lin2		21299362		60.0	60.0	-0.0	10.0
Nitrite as N	Lin2		47581347		3.09	3.00	3.1	10.0
Sulfate	Lin2		15525793		60.4	60.0	0.6	10.0
Bromide	LinF		9710487		12.0	12.0	0.4	10.0
Nitrate as N	Lin2		51937734		2.95	3.00	-1.7	10.0
Orthophosphate as P	Lin2		17113327		3.00	3.00	0.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: ICV 180-130742/2 Calibration Date: 01/14/2015 10:38

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-11.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.01	3.66	4.36
Nitrite as N	4.72	4.48	4.98
Sulfate	5.48	5.14	5.84
Bromide	6.32	5.97	6.67
Nitrate as N	7.32	7.08	7.58
Orthophosphate as P	10.19	9.98	10.48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-11.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 14-Jan-2015 10:38:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-002
Misc. Info.: 11 icv
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:21 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	10019633H	3.00	3.18	
2 Chloride	4.008	4.008	0.000	1277961735	60.0	60.0	
7 Nitrite as N	4.717	4.725	-0.008	142801140	3.00	3.09	
3 Sulfate	5.475	5.492	-0.017	931547588	60.0	60.4	
4 Bromide	6.317	6.317	0.000	116525848	12.0	12.0	
5 Nitrate as N	7.317	7.325	-0.008	155813201	3.00	2.95	
6 Orthophosphate as P	10.192	10.225	-0.033	51339980	3.00	3.00	

Reagents:

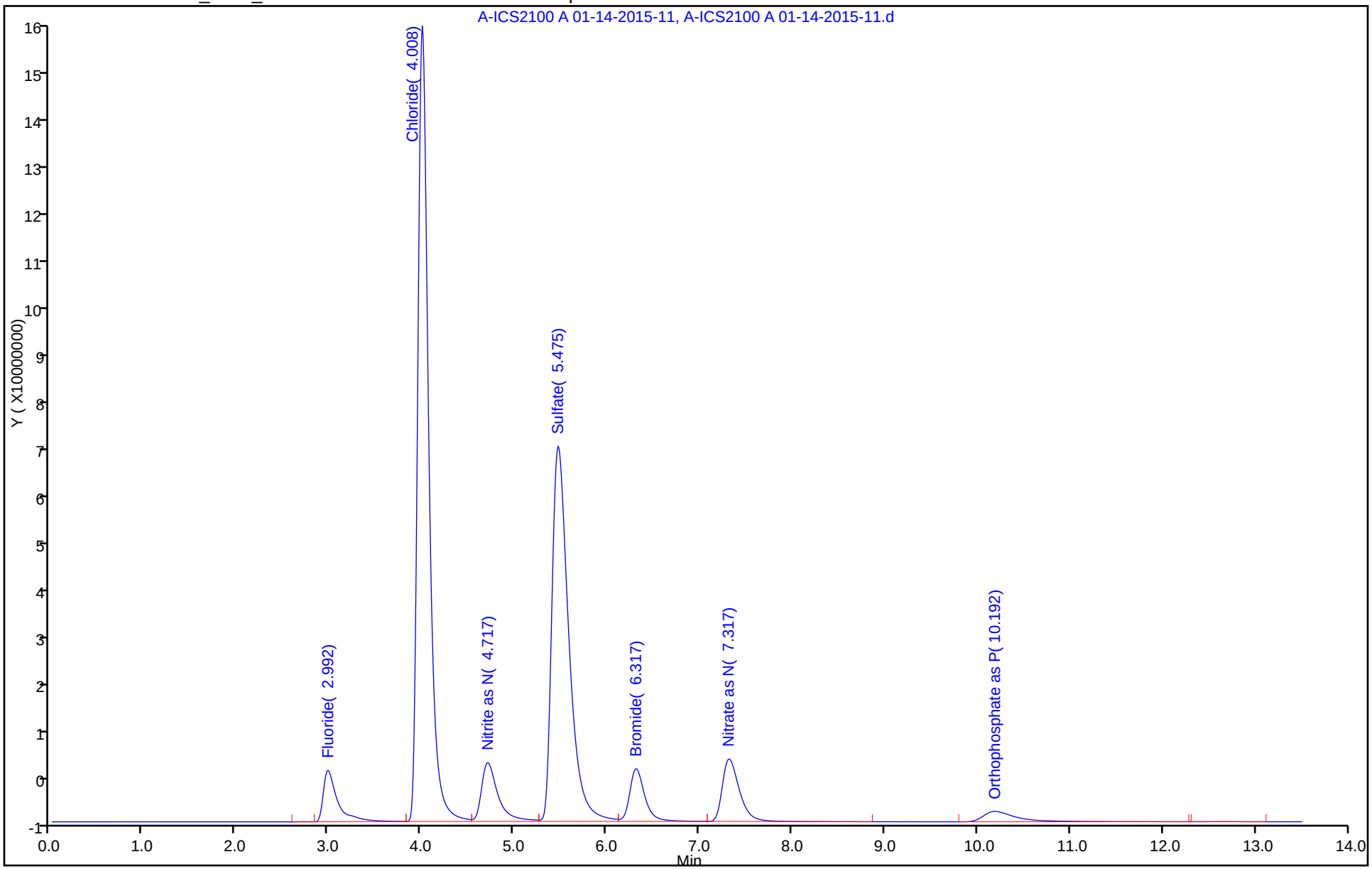
icicv_01175 Amount Added: 1.00 Units: mL

Report Date: 14-Jan-2015 16:08:22 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-11.d

Injection Date:	14-Jan-2015 10:38:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/3 Calibration Date: 01/14/2015 10:54

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-12.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3562134		2.83	2.50	13.0*	10.0
Chloride	Lin2		22248832		52.2	50.0	4.4	10.0
Nitrite as N	Lin2		49485507		2.67	2.50	7.0	10.0
Sulfate	Lin2		16246094		52.6	50.0	5.3	10.0
Bromide	LinF		10078852		10.4	10.0	4.2	10.0
Nitrate as N	Lin2		55042512		2.61	2.50	4.2	10.0
Orthophosphate as P	Lin2		18142581		2.65	2.50	6.1	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/3 Calibration Date: 01/14/2015 10:54

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-12.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.01	3.66	4.36
Nitrite as N	4.73	4.48	4.98
Sulfate	5.49	5.14	5.84
Bromide	6.32	5.97	6.67
Nitrate as N	7.33	7.08	7.58
Orthophosphate as P	10.23	9.98	10.48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-12.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 14-Jan-2015 10:54:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-003
Misc. Info.: 12 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:21 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8905335H	2.50	2.83	
2 Chloride	4.008	4.008	0.000	1112441617	50.0	52.2	
7 Nitrite as N	4.725	4.725	0.000	123713767	2.50	2.67	
3 Sulfate	5.492	5.492	0.000	812304697	50.0	52.6	
4 Bromide	6.317	6.317	0.000	100788517	10.0	10.4	
5 Nitrate as N	7.325	7.325	0.000	137606280	2.50	2.61	
6 Orthophosphate as P	10.225	10.225	0.000	45356452	2.50	2.65	

Reagents:

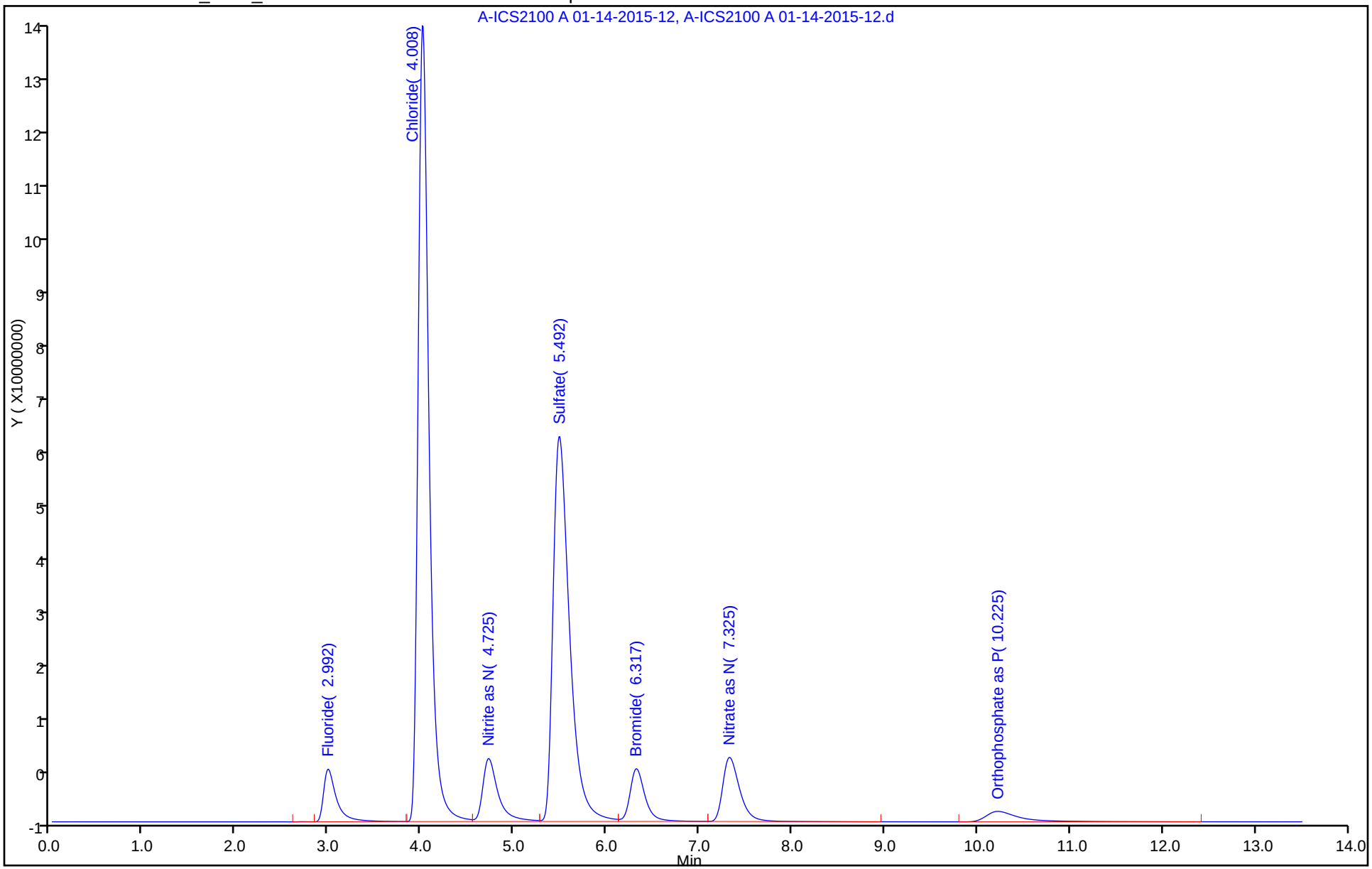
icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 14-Jan-2015 16:08:21 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-12.d

Injection Date:	14-Jan-2015 10:54:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/15 Calibration Date: 01/14/2015 15:34

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-24.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3546887		2.81	2.50	12.6*	10.0
Chloride	Lin2		22338567		52.4	50.0	4.8	10.0
Nitrite as N	Lin2		49472982		2.67	2.50	6.9	10.0
Sulfate	Lin2		16275549		52.7	50.0	5.5	10.0
Bromide	LinF		10079539		10.4	10.0	4.2	10.0
Nitrate as N	Lin2		55144362		2.61	2.50	4.4	10.0
Orthophosphate as P	Lin2		17031020		2.49	2.50	-0.3	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/15 Calibration Date: 01/14/2015 15:34

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-24.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.02	3.67	4.37
Nitrite as N	4.73	4.48	4.98
Sulfate	5.48	5.13	5.83
Bromide	6.33	5.98	6.68
Nitrate as N	7.33	7.08	7.58
Orthophosphate as P	10.20	9.95	10.45

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-24.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 14-Jan-2015 15:34:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-015
Misc. Info.: 24 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8867217H	2.50	2.81	
2 Chloride	4.017	4.017	0.000	1116928370	50.0	52.4	
7 Nitrite as N	4.725	4.725	0.000	123682456	2.50	2.67	
3 Sulfate	5.483	5.483	0.000	813777426	50.0	52.7	
4 Bromide	6.325	6.325	0.000	100795394	10.0	10.4	
5 Nitrate as N	7.333	7.333	0.000	137860904	2.50	2.61	
6 Orthophosphate as P	10.200	10.200	0.000	42577549	2.50	2.49	

Reagents:

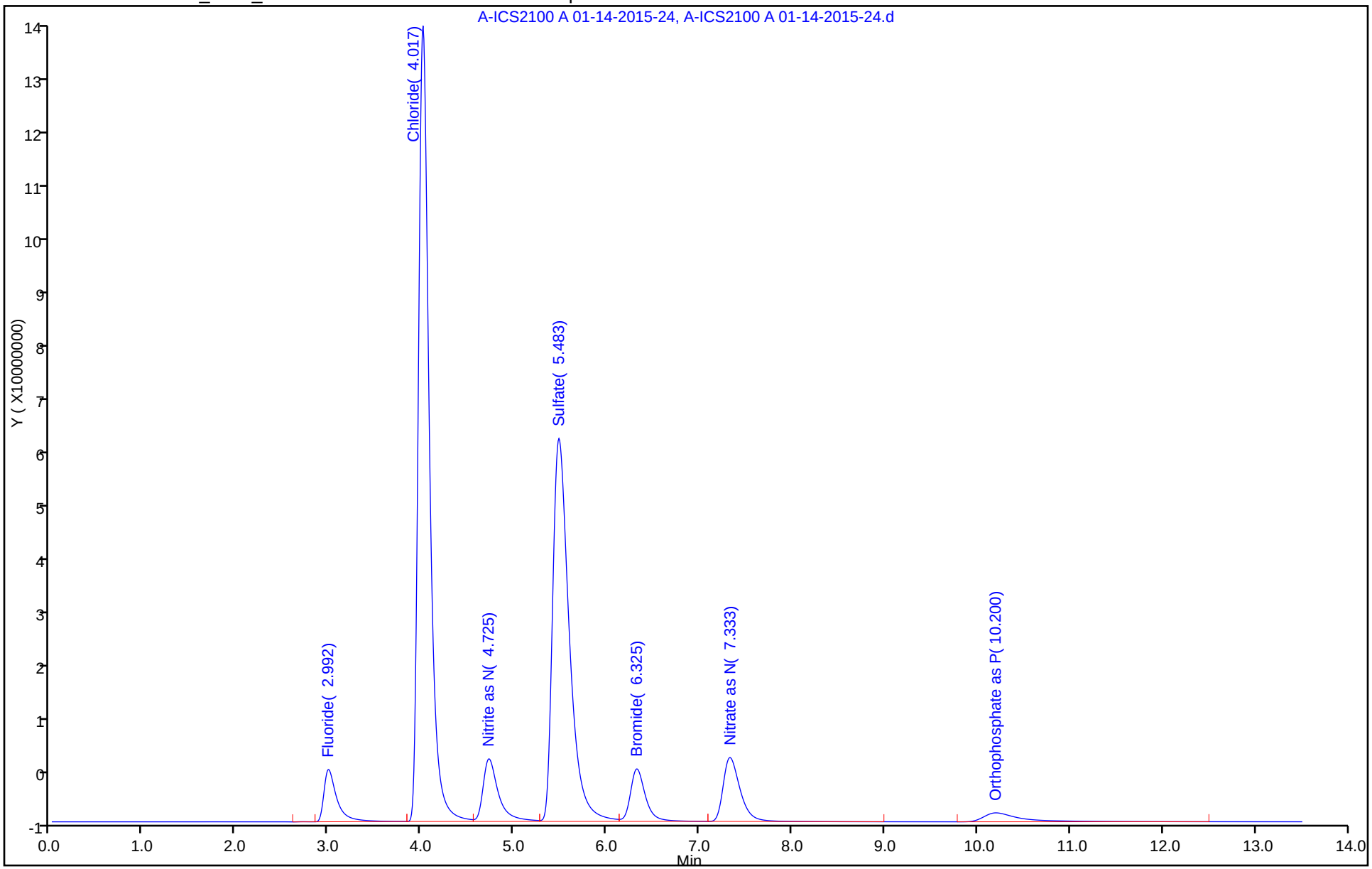
icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 14-Jan-2015 16:08:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-24.d

Injection Date:	14-Jan-2015 15:34:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/27 Calibration Date: 01/14/2015 18:38

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-36.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3414859		2.71	2.50	8.4	10.0
Chloride	Lin2		21483835		50.4	50.0	0.8	10.0
Nitrite as N	Lin2		47637060		2.57	2.50	2.9	10.0
Sulfate	Lin2		15501410		50.2	50.0	0.4	10.0
Bromide	LinF		9683774		10.0	10.0	0.0	10.0
Nitrate as N	Lin2		52994264		2.51	2.50	0.4	10.0
Orthophosphate as P	Lin2		14799595		2.17	2.50	-13.3*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/27 Calibration Date: 01/14/2015 18:38

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-36.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.01	3.66	4.36
Nitrite as N	4.73	4.48	4.98
Sulfate	5.48	5.13	5.83
Bromide	6.33	5.98	6.68
Nitrate as N	7.33	7.08	7.58
Orthophosphate as P	10.23	9.98	10.48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-36.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 14-Jan-2015 18:38:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-027
Misc. Info.: 30549 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 09:41:43 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8537147H	2.50	2.71	
2 Chloride	4.008	4.008	0.000	1074191731	50.0	50.4	
7 Nitrite as N	4.725	4.725	0.000	119092651	2.50	2.57	
3 Sulfate	5.483	5.483	0.000	775070477	50.0	50.2	
4 Bromide	6.325	6.325	0.000	96837741	10.0	10.0	
5 Nitrate as N	7.333	7.333	0.000	132485661	2.50	2.51	
6 Orthophosphate as P	10.233	10.233	0.000	36998987	2.50	2.17	

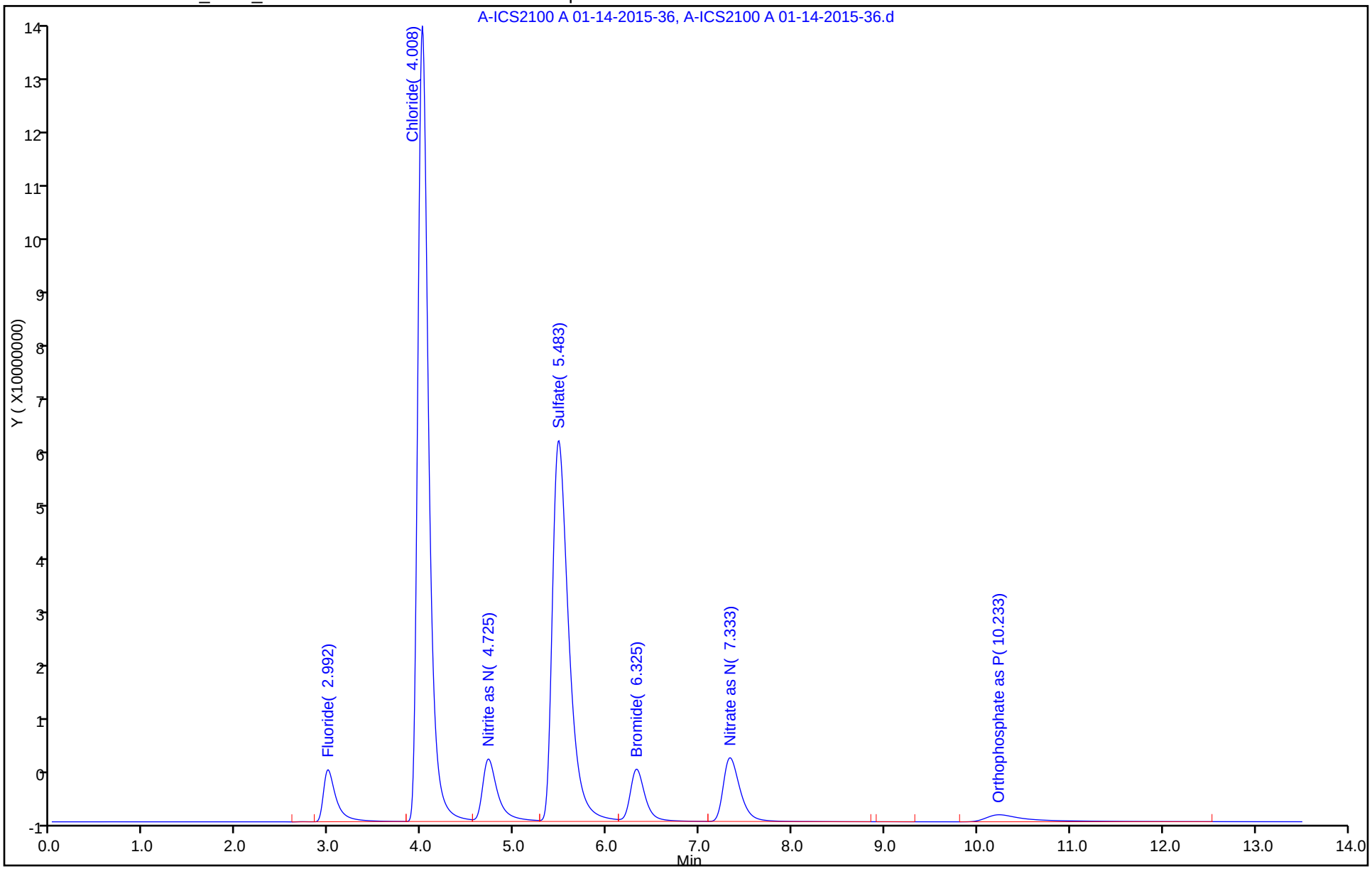
Reagents:

icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 15-Jan-2015 09:41:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-36.d				
Injection Date:	14-Jan-2015 18:38:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/39 Calibration Date: 01/14/2015 21:42

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-48.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3373746		2.68	2.50	7.1	10.0
Chloride	Lin2		21235561		49.8	50.0	-0.4	10.0
Nitrite as N	Lin2		47142826		2.55	2.50	1.8	10.0
Sulfate	Lin2		15322418		49.6	50.0	-0.7	10.0
Bromide	LinF		9579740		9.90	10.0	-1.0	10.0
Nitrate as N	Lin2		52317155		2.48	2.50	-0.9	10.0
Orthophosphate as P	Lin2		15081860		2.21	2.50	-11.7*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/39 Calibration Date: 01/14/2015 21:42

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-48.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.01	3.66	4.36
Nitrite as N	4.73	4.48	4.98
Sulfate	5.48	5.13	5.83
Bromide	6.33	5.98	6.68
Nitrate as N	7.33	7.08	7.58
Orthophosphate as P	10.24	9.99	10.49

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-48.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 14-Jan-2015 21:42:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-039
Misc. Info.: 28755 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8434364H	2.50	2.68	
2 Chloride	4.008	4.008	0.000	1061778050	50.0	49.8	
7 Nitrite as N	4.725	4.725	0.000	117857065	2.50	2.55	
3 Sulfate	5.483	5.483	0.000	766120876	50.0	49.6	
4 Bromide	6.325	6.325	0.000	95797404	10.0	9.90	
5 Nitrate as N	7.325	7.325	0.000	130792887	2.50	2.48	
6 Orthophosphate as P	10.242	10.242	0.000	37704650	2.50	2.21	

Reagents:

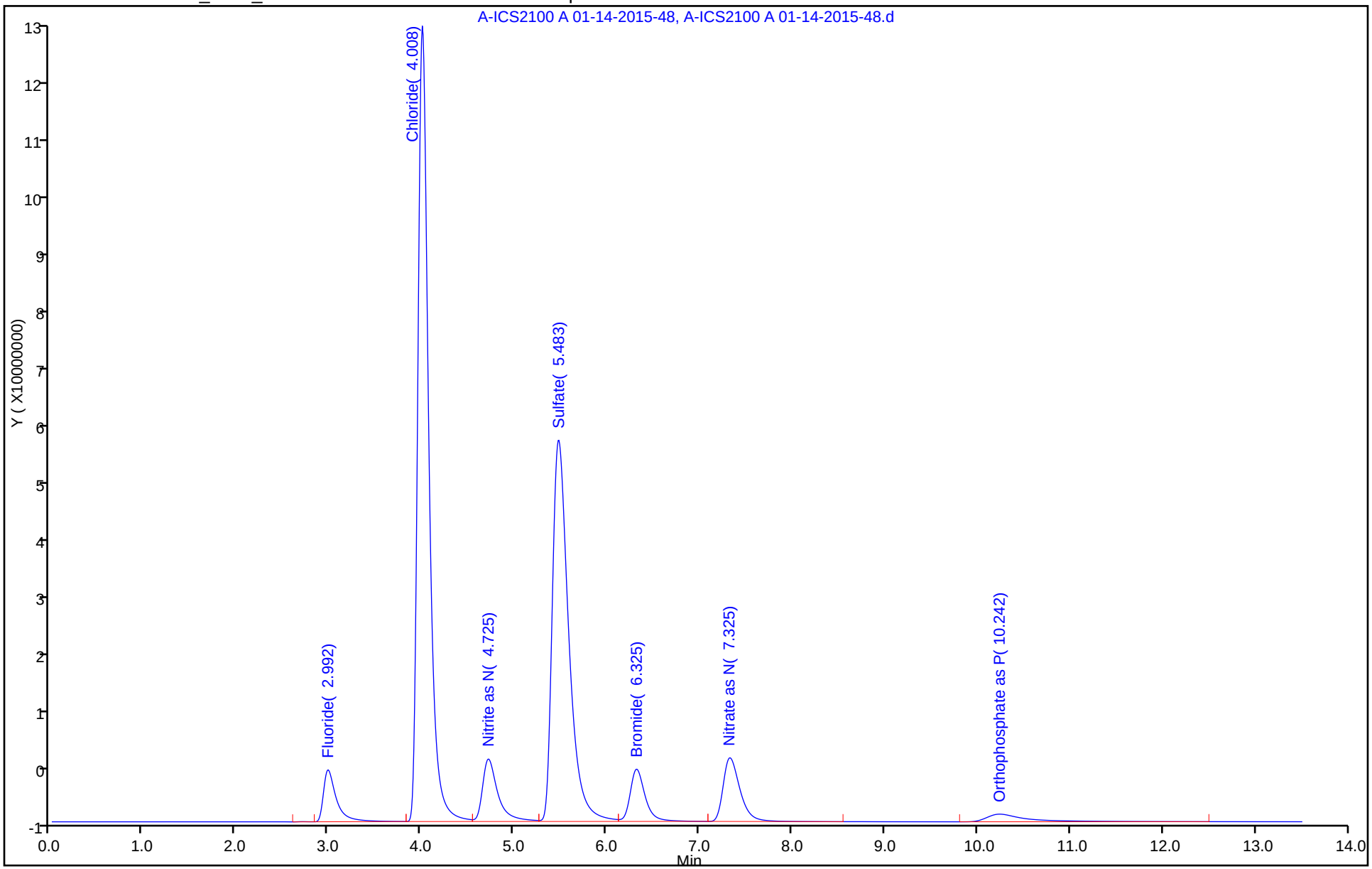
icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 15-Jan-2015 10:06:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-48.d

Injection Date:	14-Jan-2015 21:42:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	39
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/49 Calibration Date: 01/15/2015 00:15

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-58.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3374694		2.68	2.50	7.1	10.0
Chloride	Lin2		21459657		50.3	50.0	0.7	10.0
Nitrite as N	Lin2		47517040		2.57	2.50	2.6	10.0
Sulfate	Lin2		15516859		50.3	50.0	0.5	10.0
Bromide	LinF		9656177		9.98	10.0	-0.2	10.0
Nitrate as N	Lin2		52872143		2.50	2.50	0.1	10.0
Orthophosphate as P	Lin2		14559887		2.13	2.50	-14.7*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/49 Calibration Date: 01/15/2015 00:15

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-58.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.02	3.67	4.37
Nitrite as N	4.73	4.48	4.98
Sulfate	5.49	5.14	5.84
Bromide	6.33	5.98	6.68
Nitrate as N	7.34	7.09	7.59
Orthophosphate as P	10.18	9.93	10.43

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-58.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jan-2015 00:15:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-049
Misc. Info.: 35 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:13 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	8436735H	2.50	2.68	
2 Chloride	4.017	4.017	0.000	1072982865	50.0	50.3	
7 Nitrite as N	4.733	4.733	0.000	118792601	2.50	2.57	
3 Sulfate	5.492	5.492	0.000	775842938	50.0	50.3	
4 Bromide	6.333	6.333	0.000	96561769	10.0	9.98	
5 Nitrate as N	7.342	7.342	0.000	132180357	2.50	2.50	
6 Orthophosphate as P	10.175	10.175	0.000	36399718	2.50	2.13	

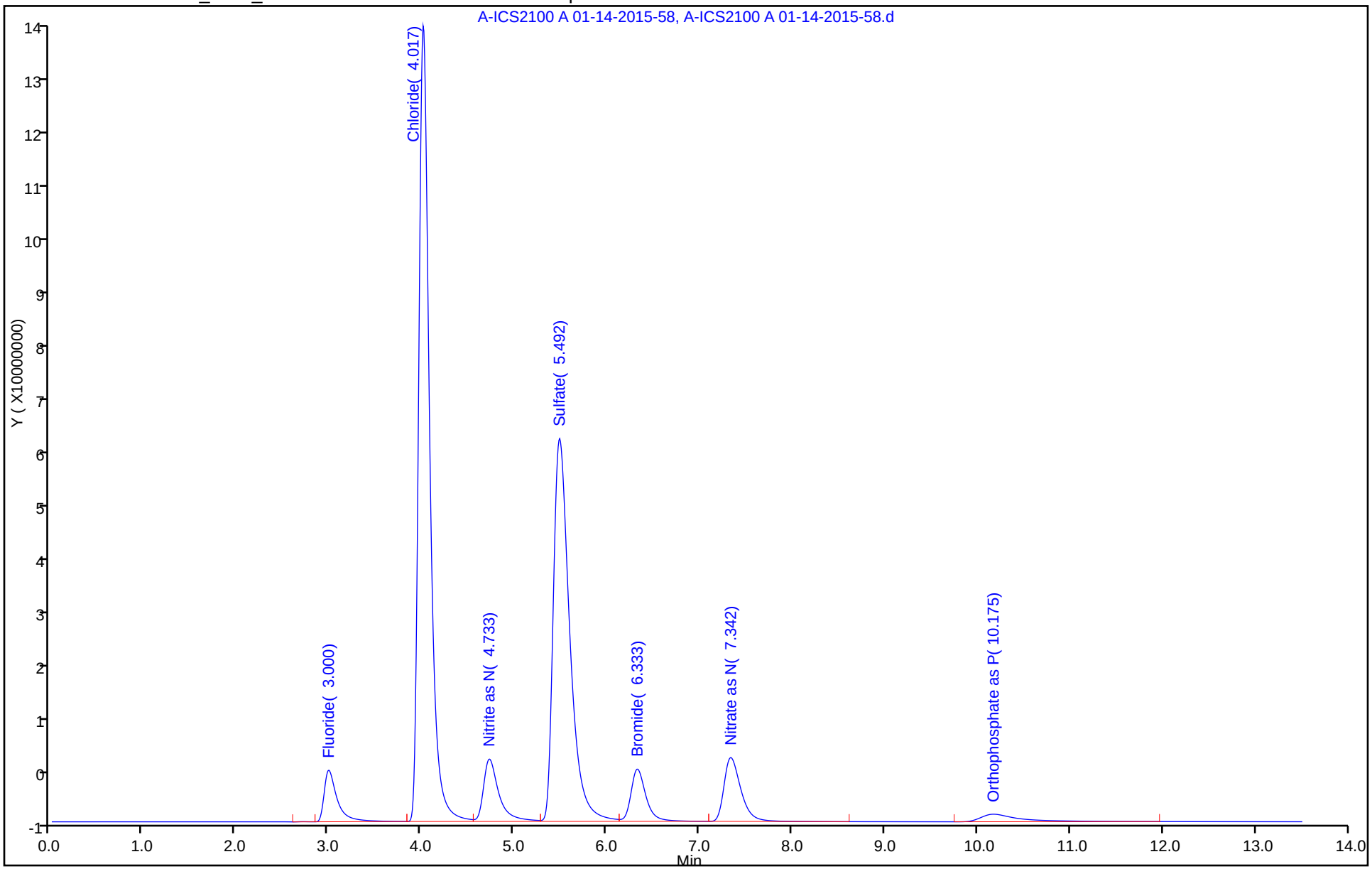
Reagents:

icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 15-Jan-2015 10:06:14 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-58.d				
Injection Date:	15-Jan-2015 00:15:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	49
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/53 Calibration Date: 01/15/2015 10:16

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-61.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3370365		2.67	2.50	7.0	10.0
Chloride	Lin2		21400012		50.2	50.0	0.4	10.0
Nitrite as N	Lin2		47527150		2.57	2.50	2.7	10.0
Sulfate	Lin2		15419234		49.9	50.0	-0.1	10.0
Bromide	LinF		9720099		10.0	10.0	0.5	10.0
Nitrate as N	Lin2		52968878		2.51	2.50	0.3	10.0
Orthophosphate as P	Lin2		16077601		2.35	2.50	-5.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: CCV 180-130742/53 Calibration Date: 01/15/2015 10:16

Instrument ID: CHIC2100A Calib Start Date: 01/13/2015 12:24

GC Column: AS-18 ID: Calib End Date: 01/13/2015 14:11

Lab File ID: A-ICS2100 A 01-14-2015-61.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.01	3.66	4.36
Nitrite as N	4.73	4.48	4.98
Sulfate	5.49	5.14	5.84
Bromide	6.32	5.97	6.67
Nitrate as N	7.33	7.08	7.58
Orthophosphate as P	10.27	10.02	10.52

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-61.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jan-2015 10:16:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-049
Misc. Info.: 35 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:51:22 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

First Level Reviewer: hartmanm Date: 15-Jan-2015 10:51:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8425913H	2.50	2.67	
2 Chloride	4.008	4.008	0.000	1070000600	50.0	50.2	
7 Nitrite as N	4.725	4.725	0.000	118817874	2.50	2.57	
3 Sulfate	5.492	5.492	0.000	770961685	50.0	49.9	
4 Bromide	6.317	6.317	0.000	97200992	10.0	10.0	
5 Nitrate as N	7.325	7.325	0.000	132422195	2.50	2.51	
6 Orthophosphate as P	10.267	10.267	0.000	40194003	2.50	2.35	

Reagents:

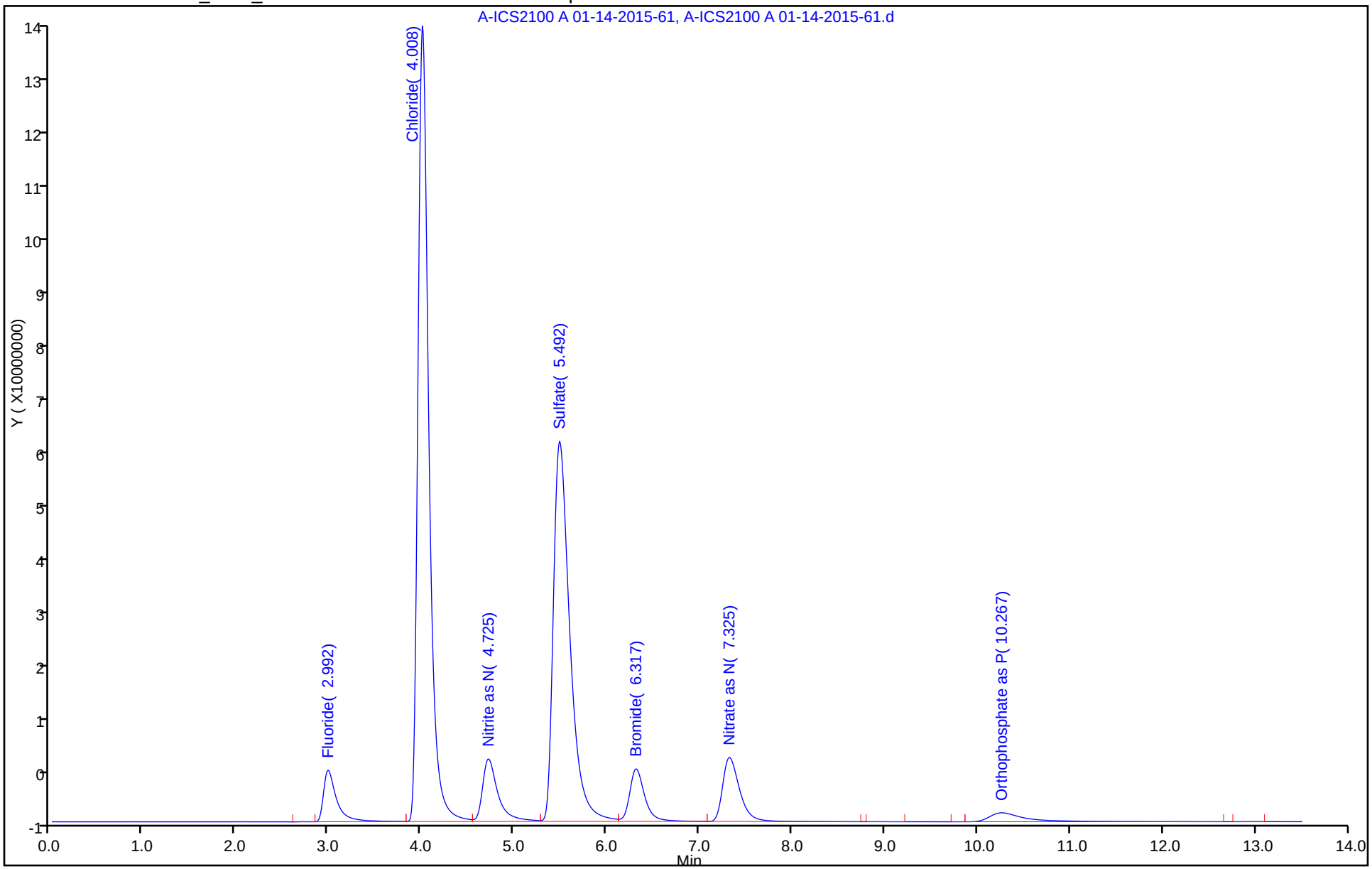
icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 15-Jan-2015 10:51:22 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-61.d

Injection Date:	15-Jan-2015 10:16:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	53
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130742/6

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-15.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 11:40

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00922	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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-15.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 14-Jan-2015 11:40:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-006
Misc. Info.: 15 mb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

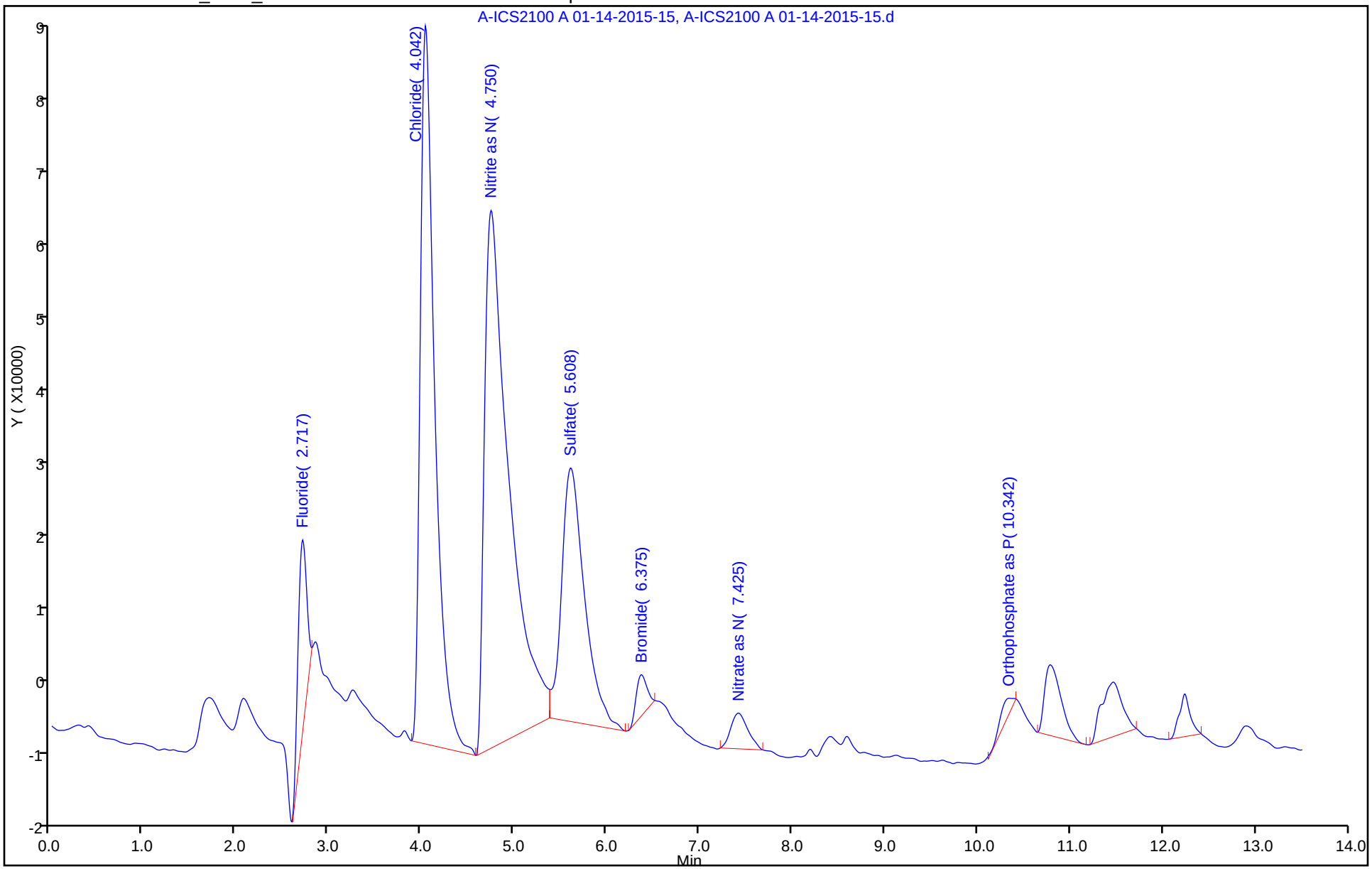
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.992	-0.275	24813H		0.0181	
2 Chloride	4.042	4.017	0.025	1020384		-0.0240	
7 Nitrite as N	4.750	4.725	0.025	1289169		-0.0187	
3 Sulfate	5.608	5.483	0.125	568250		-0.1339	
4 Bromide	6.375	6.325	0.050	42782		0.004422	
5 Nitrate as N	7.425	7.333	0.092	59365		0.009224	
6 Orthophosphate as P	10.342	10.200	0.142	23710		0.0216	

Report Date: 14-Jan-2015 16:08:21 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-15.d

Injection Date:	14-Jan-2015 11:40:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-130742/38

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-47.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 21:27

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00997	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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-47.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 14-Jan-2015 21:27:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-038
Misc. Info.: 28603 mb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

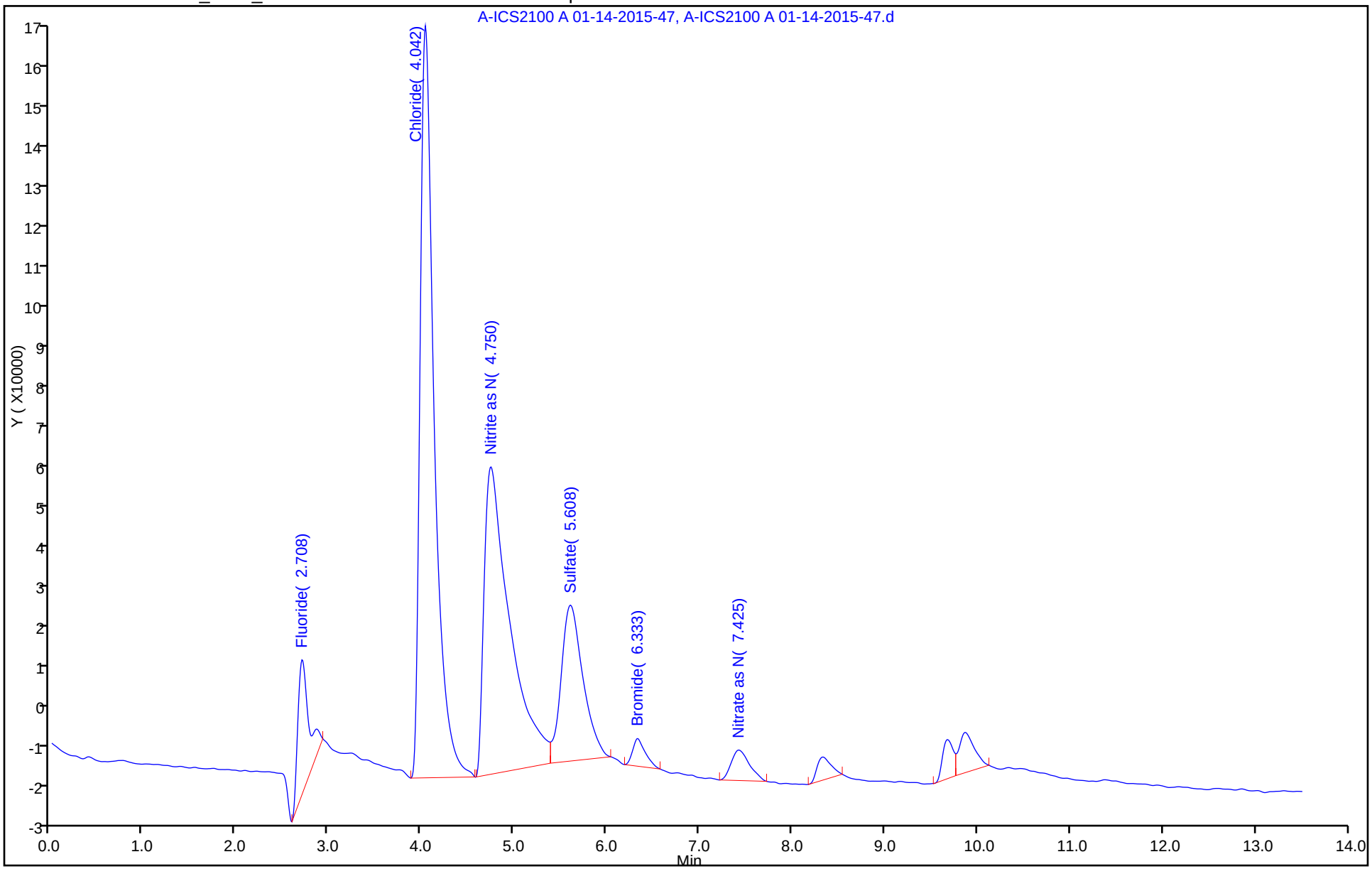
Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.708	2.992	-0.284	31970H		0.0203	
2 Chloride	4.042	4.008	0.034	1900132		0.0173	
7 Nitrite as N	4.750	4.725	0.025	1411761		-0.0160	
3 Sulfate	5.608	5.483	0.125	609148		-0.1313	
4 Bromide	6.333	6.325	0.008	62164		0.006425	
5 Nitrate as N	7.425	7.325	0.100	98901		0.0100	
6 Orthophosphate as P		10.242				ND	

Report Date: 15-Jan-2015 10:06:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-47.d				
Injection Date:	14-Jan-2015 21:27:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	38
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-130742/4

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-13.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 11:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-13.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 14-Jan-2015 11:09:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-004
Misc. Info.: 13 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

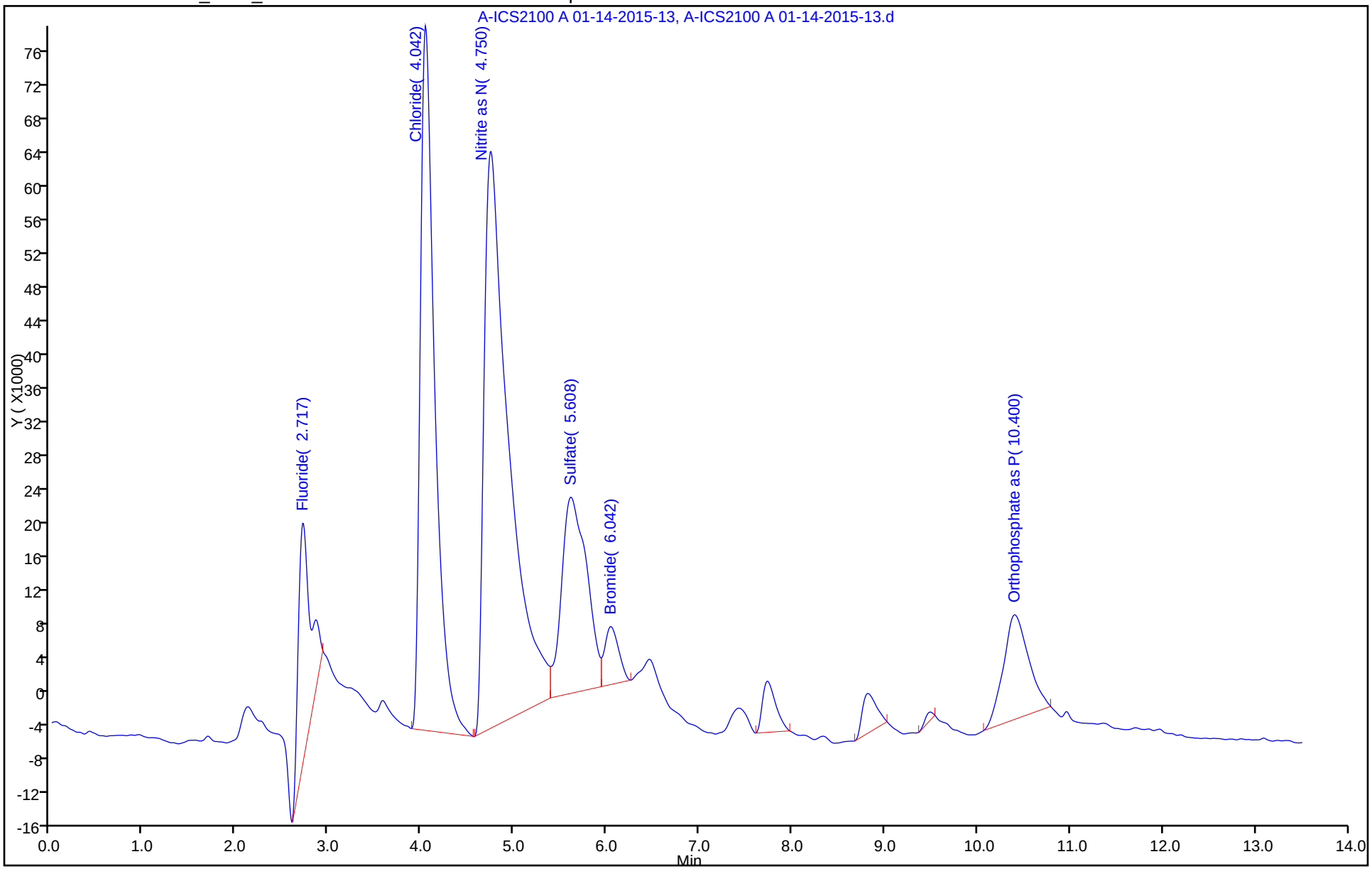
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.992	-0.275	28655H		0.0193	
2 Chloride	4.042	4.017	0.025	915897		-0.0289	
7 Nitrite as N	4.750	4.725	0.025	1274106		-0.0190	
3 Sulfate	5.608	5.483	0.125	442066		-0.1421	
4 Bromide	6.042	6.325	-0.283	72523		0.007496	
5 Nitrate as N		7.333				ND	
6 Orthophosphate as P	10.400	10.200	0.200	235914		0.0340	

Report Date: 14-Jan-2015 16:08:21 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-13.d

Injection Date:	14-Jan-2015 11:09:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-130742/16

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-25.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 15:50

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0101	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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-25.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 14-Jan-2015 15:50:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-016
Misc. Info.: 25 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 14:23:07 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

First Level Reviewer: hartmanm Date: 14-Jan-2015 16:08:17

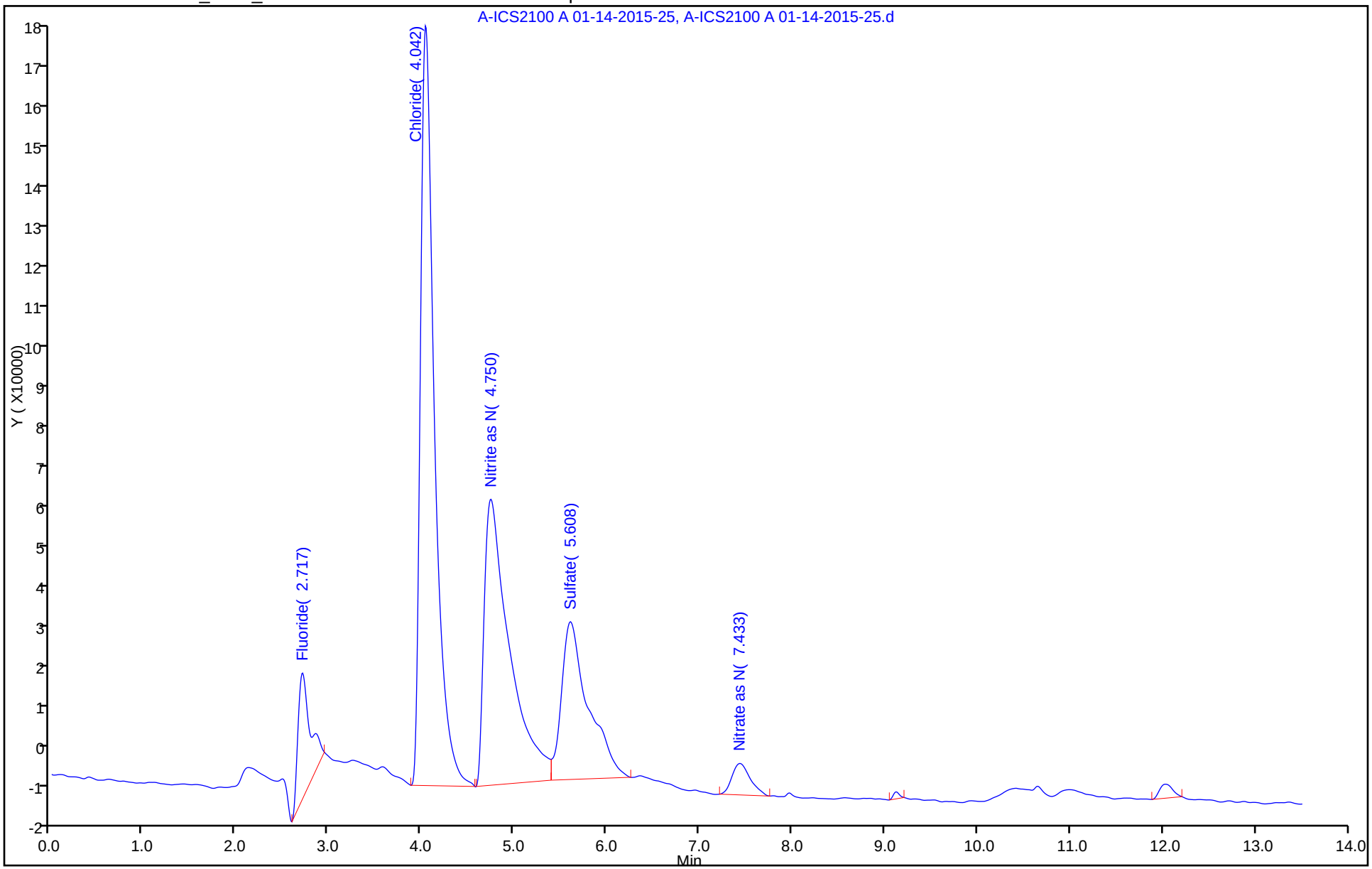
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.992	-0.275	30265H		0.0198	
2 Chloride	4.042	4.008	0.034	1947462		0.0195	
7 Nitrite as N	4.750	4.725	0.025	1316712		-0.0180	
3 Sulfate	5.608	5.492	0.116	765082		-0.1211	
4 Bromide		6.317				ND	
5 Nitrate as N	7.433	7.325	0.108	104693		0.0101	
6 Orthophosphate as P		10.225				ND	

Report Date: 14-Jan-2015 16:24:56 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-25.d

Injection Date:	14-Jan-2015 15:50:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-130742/28

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-37.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 18:54

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0104	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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-37.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 14-Jan-2015 18:54:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-028
Misc. Info.: 1024 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 09:41:43 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

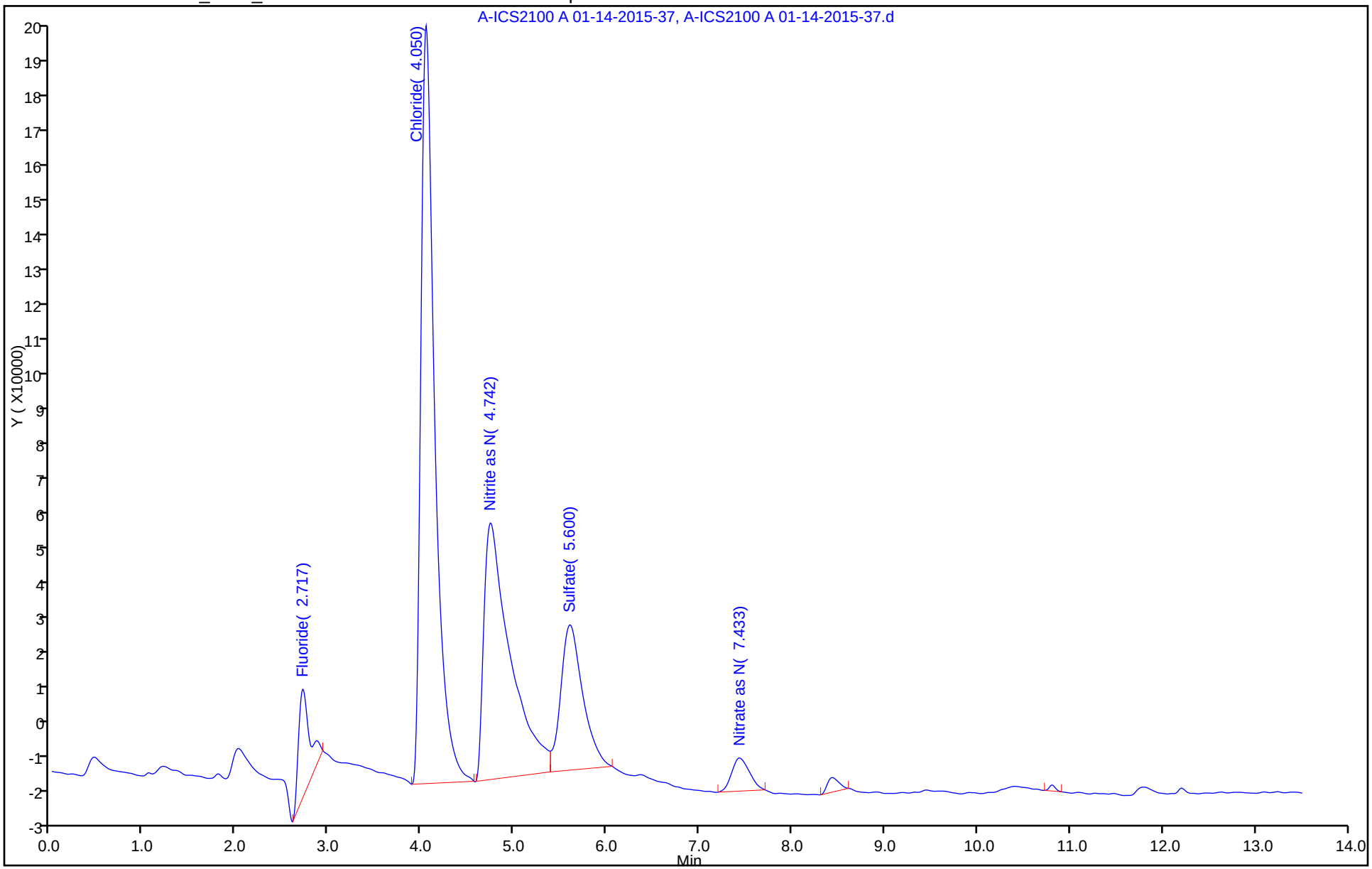
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.992	-0.275	29984H		0.0197	
2 Chloride	4.050	4.008	0.042	2201324		0.0315	
7 Nitrite as N	4.742	4.725	0.017	1402098		-0.0162	
3 Sulfate	5.600	5.483	0.117	665825		-0.1276	
4 Bromide		6.325				ND	
5 Nitrate as N	7.433	7.333	0.100	121287		0.0104	
6 Orthophosphate as P		10.233				ND	

Report Date: 15-Jan-2015 09:41:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-37.d

Injection Date:	14-Jan-2015 18:54:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-130742/40

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-49.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 21:57

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00987	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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-49.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 14-Jan-2015 21:57:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-040
Misc. Info.: 3988 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:13 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

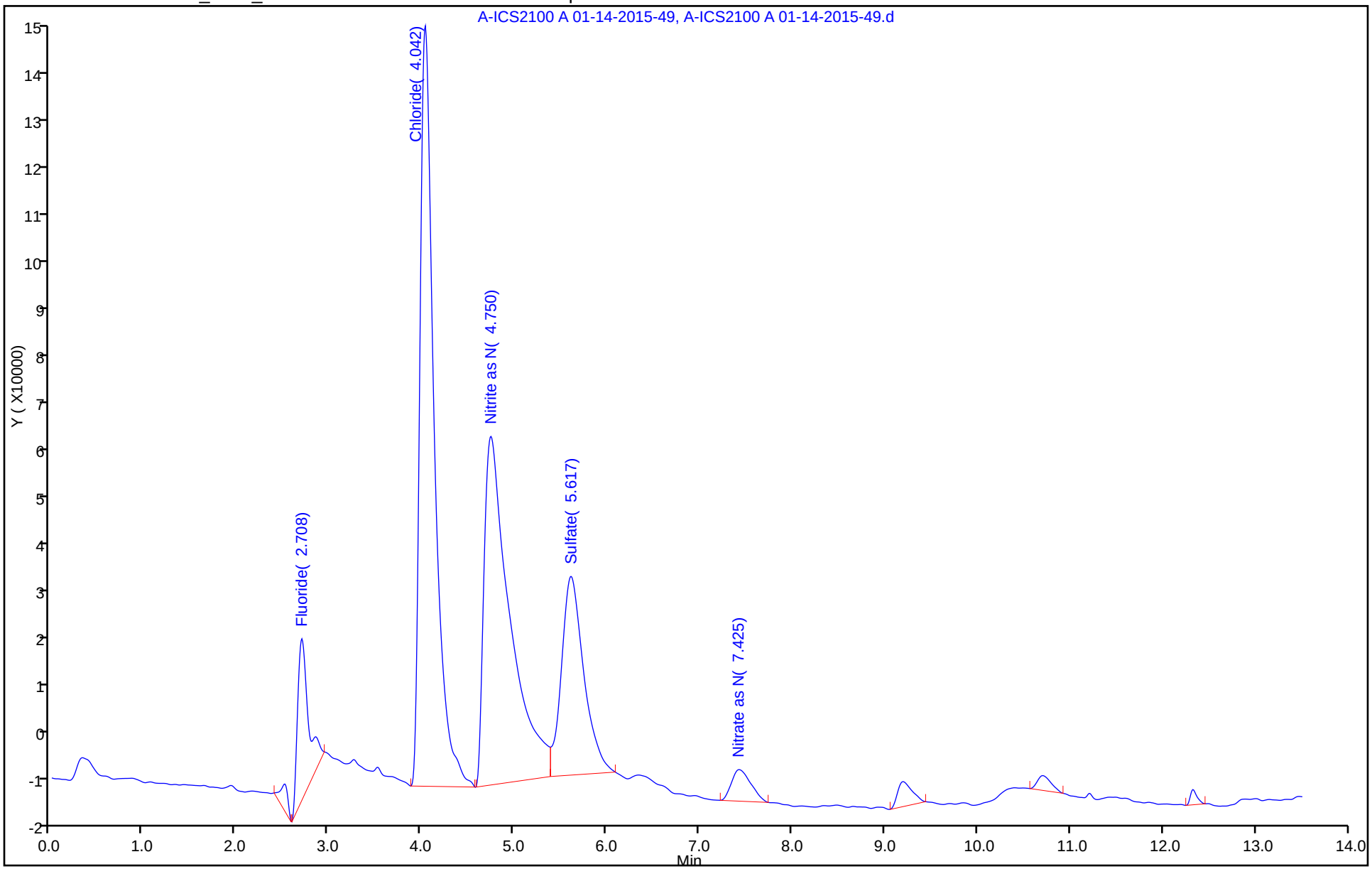
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.708	3.000	-0.292	32813H		0.0206	
2 Chloride	4.042	4.017	0.025	1671380		0.006556	
7 Nitrite as N	4.750	4.733	0.017	1381877		-0.0166	
3 Sulfate	5.617	5.492	0.125	680269		-0.1267	
4 Bromide		6.333				ND	
5 Nitrate as N	7.425	7.342	0.083	93334		0.009865	
6 Orthophosphate as P		10.175				ND	

Report Date: 15-Jan-2015 10:06:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-49.d

Injection Date:	14-Jan-2015 21:57:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-130742/50

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-59.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/15/2015 00:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0107	J	0.10	0.0062
16887-00-6	Chloride	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\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-59.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 15-Jan-2015 00:30:00 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-050
Misc. Info.: 36 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

First Level Reviewer: hartmanm Date: 15-Jan-2015 10:06:13

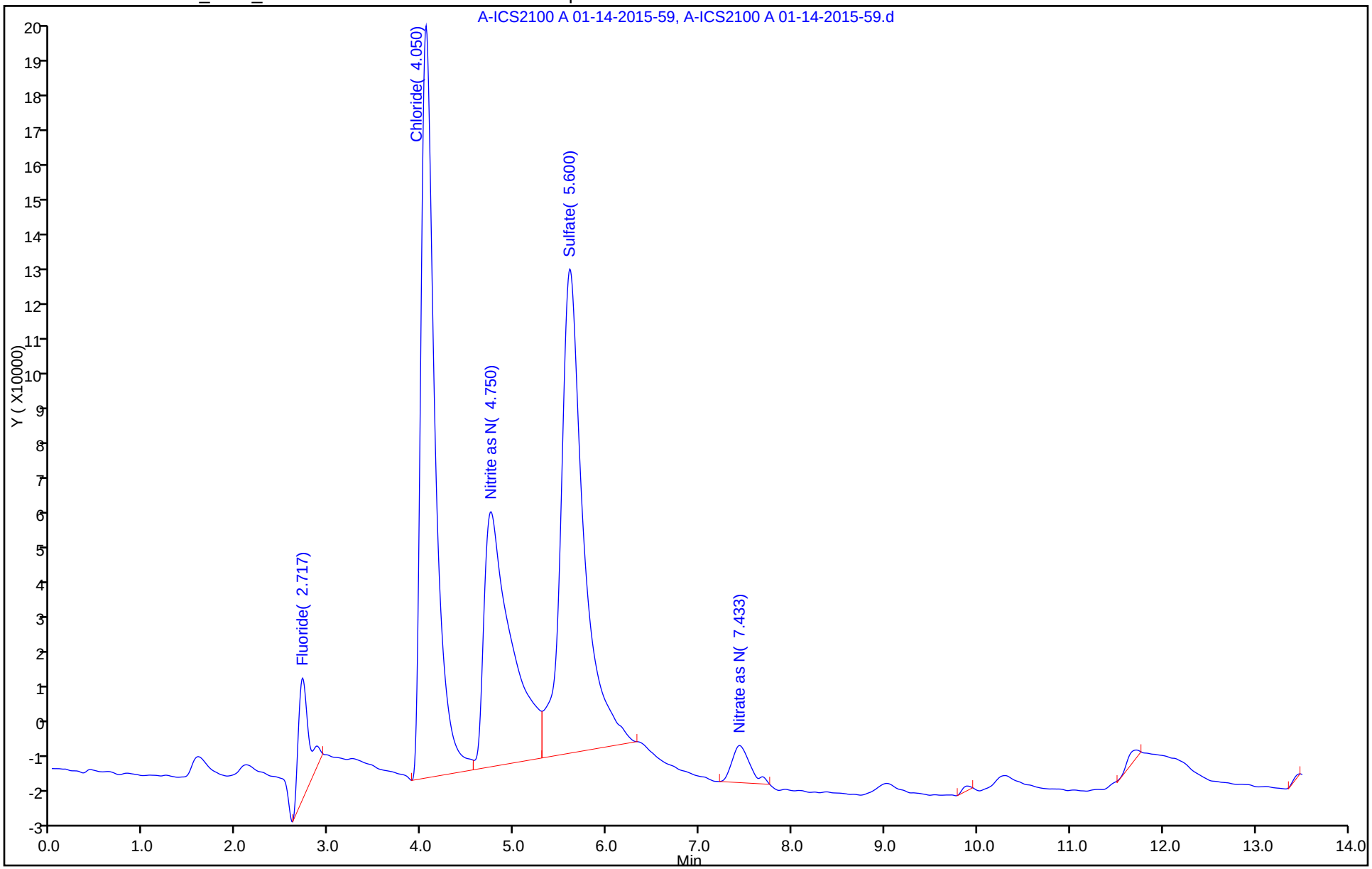
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.992	-0.275	33304H		0.0207	
2 Chloride	4.050	4.008	0.042	2213006		0.0320	
7 Nitrite as N	4.750	4.725	0.025	1446067		-0.0152	
3 Sulfate	5.600	5.483	0.117	2316803		-0.0203	
4 Bromide		6.325				ND	
5 Nitrate as N	7.433	7.325	0.108	138091		0.0107	
6 Orthophosphate as P		10.242				ND	

Report Date: 15-Jan-2015 10:09:02 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-59.d

Injection Date:	15-Jan-2015 00:30:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	50
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-130742/54

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-62.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/15/2015 10:31

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	1.0	U	1.0	0.20

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-62.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 15-Jan-2015 10:31:00 ALS Bottle#: 0 Worklist Smp#: 54
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-050
Misc. Info.: 36 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:51:22 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

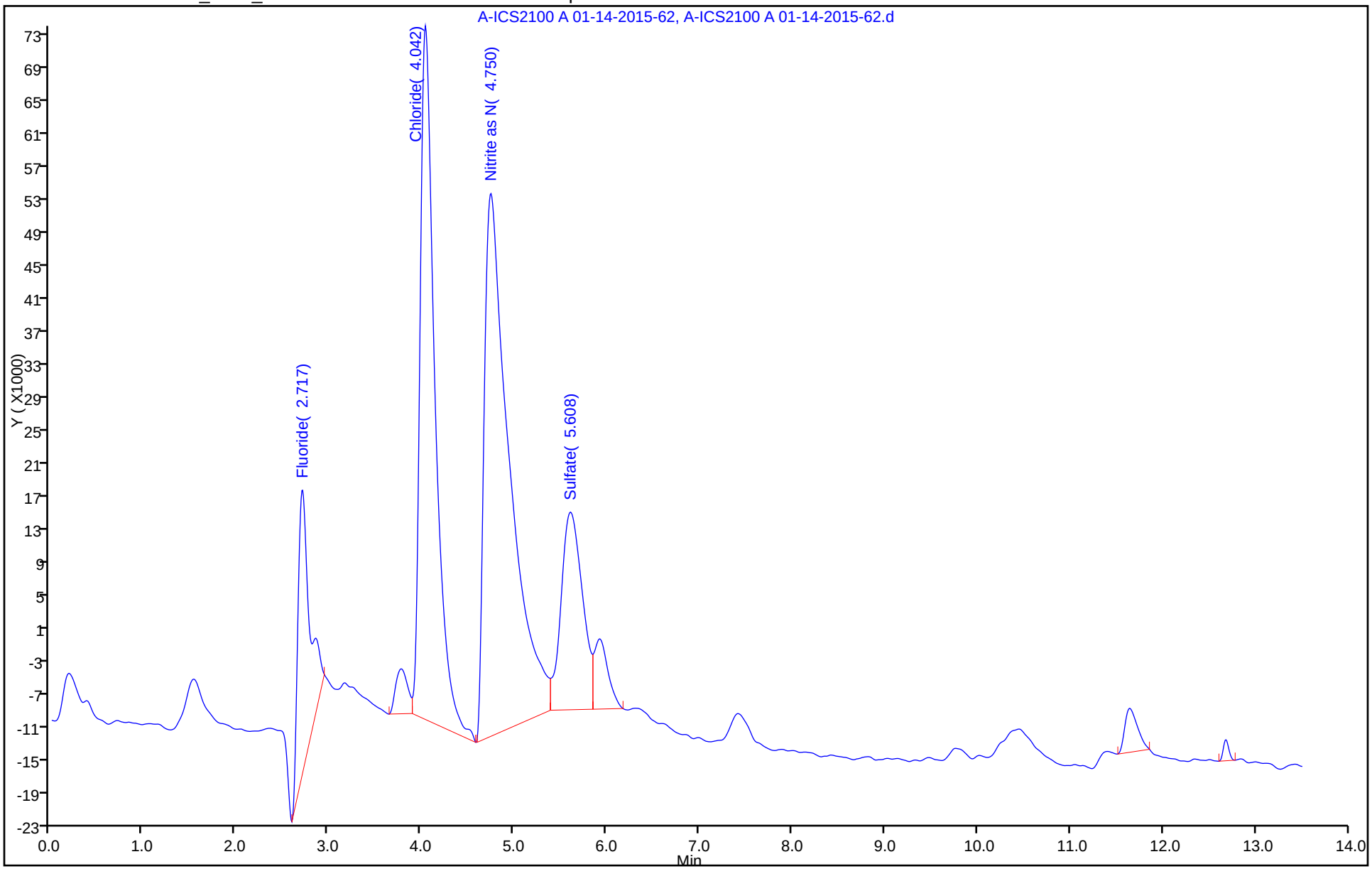
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.992	-0.275	34088H		0.0210	
2 Chloride	4.042	4.008	0.034	943455		-0.0276	
7 Nitrite as N	4.750	4.725	0.025	1249568		-0.0195	
3 Sulfate	5.608	5.492	0.116	386196		-0.1458	
4 Bromide		6.317				ND	
5 Nitrate as N		7.325				ND	
6 Orthophosphate as P		10.267				ND	

Report Date: 15-Jan-2015 10:51:22 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-62.d

Injection Date:	15-Jan-2015 10:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	54
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-130742/5

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-14.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 11:24

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 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	49.9		1.0	0.20
14808-79-8	Sulfate	49.8		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-14.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 14-Jan-2015 11:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-005
Misc. Info.: 14 lcs
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 14-Jan-2015 16:08:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK035

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8525553H	2.50	2.71	
2 Chloride	4.017	4.017	0.000	1063546038	50.0	49.9	
7 Nitrite as N	4.725	4.725	0.000	118288419	2.50	2.55	
3 Sulfate	5.492	5.483	0.009	768736198	50.0	49.8	
4 Bromide	6.325	6.325	0.000	96192366	10.0	9.94	
5 Nitrate as N	7.325	7.333	-0.008	131375756	2.50	2.49	
6 Orthophosphate as P	10.217	10.200	0.017	42968475	2.50	2.51	

Reagents:

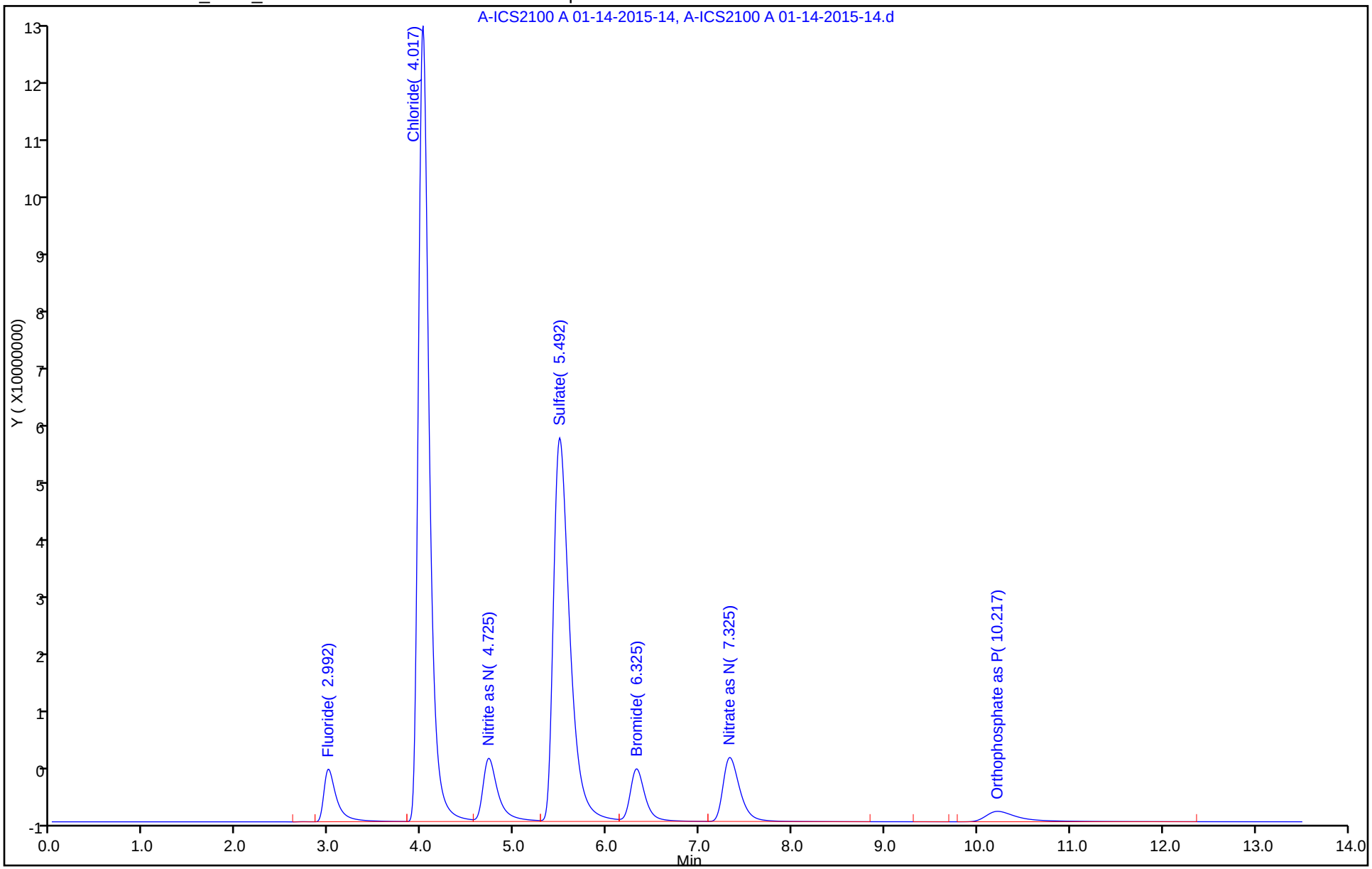
icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 14-Jan-2015 16:08:21 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-14.d

Injection Date:	14-Jan-2015 11:24:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-130742/37

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-46.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 21:11

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.50		0.10	0.0062
16887-00-6	Chloride	50.1		1.0	0.20
14808-79-8	Sulfate	49.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-46.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 14-Jan-2015 21:11:00 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-037
Misc. Info.: 14359 lcs
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:51:22 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	8452075H	2.50	2.68	
2 Chloride	4.017	4.008	0.009	1068541130	50.0	50.1	
7 Nitrite as N		4.725			ND	ND	
3 Sulfate	5.492	5.492	0.000	770851802	50.0	49.9	
4 Bromide	6.325	6.317	0.008	96457010	10.0	9.97	
5 Nitrate as N	7.333	7.325	0.008	131756096	2.50	2.50	
6 Orthophosphate as P	10.267	10.267	0.000	37164782	2.50	2.18	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

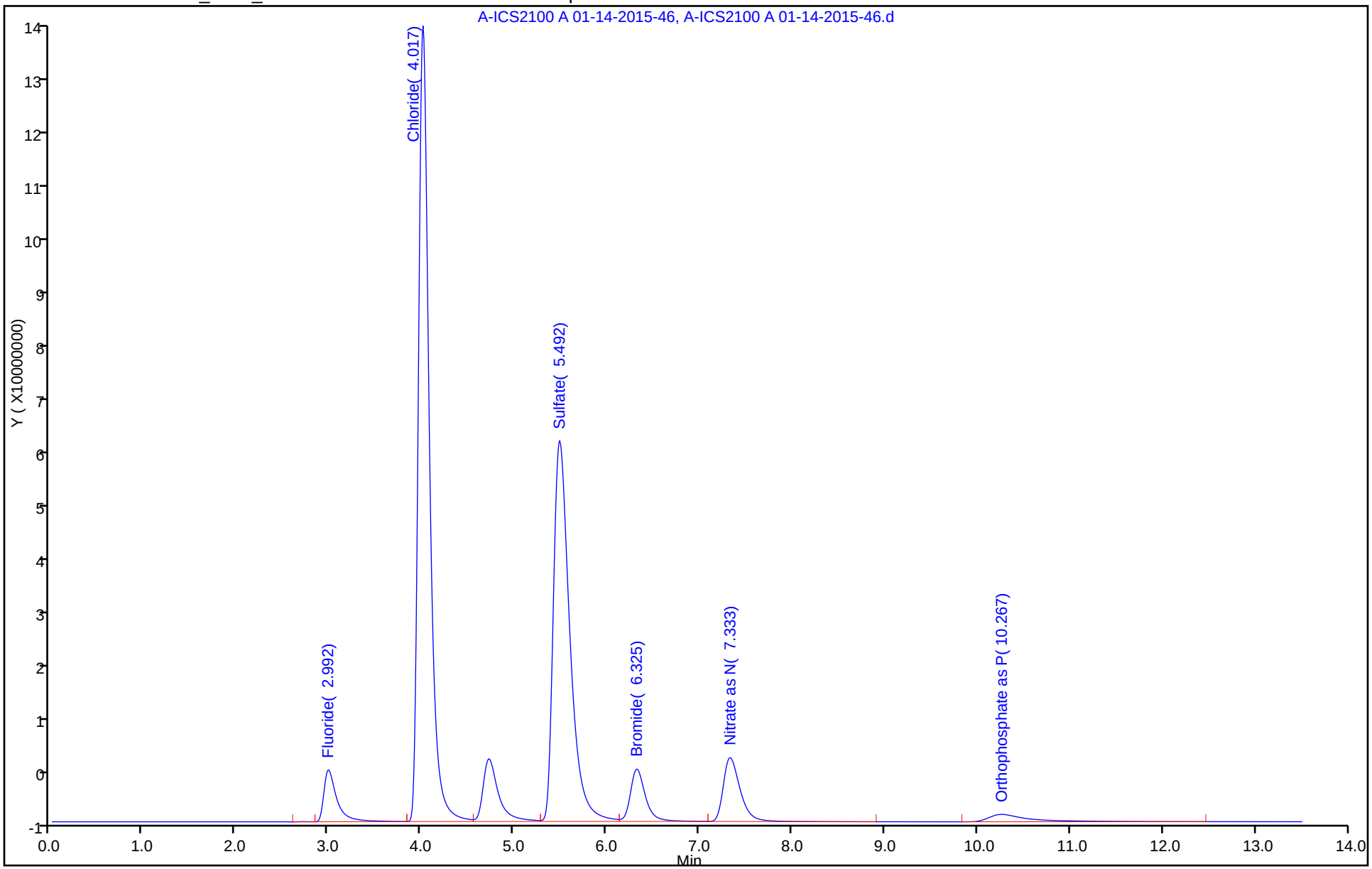
Reagents:

icccv_01143 Amount Added: 1.00 Units: mL

Report Date: 15-Jan-2015 11:11:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-46.d				
Injection Date:	14-Jan-2015 21:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	37
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 MS Lab Sample ID: 180-40434-13 MS

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-40.d

Analysis Method: 300.0 Date Collected: 01/13/2015 11:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 19:40

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.65		0.10	0.0062
16887-00-6	Chloride	129		1.0	0.20
14808-79-8	Sulfate	67.5		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-40.d
Lims ID: 180-40434-A-13 MS
Client ID:
Sample Type: MS
Inject. Date: 14-Jan-2015 19:40:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-031
Misc. Info.: 27103 180-40434-a-13 ms
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	4133857	H	1.25	1.32	
2 Chloride	4.008	4.008	0.000	2750275877		25.0	129.1	
7 Nitrite as N		4.725					ND	
3 Sulfate	5.467	5.483	-0.016	1041202933		25.0	67.5	
4 Bromide	6.342	6.325	0.017	49410855		5.00	5.11	
5 Nitrate as N	7.300	7.325	-0.025	245836487		1.25	4.65	
6 Orthophosphate as P		10.242				ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

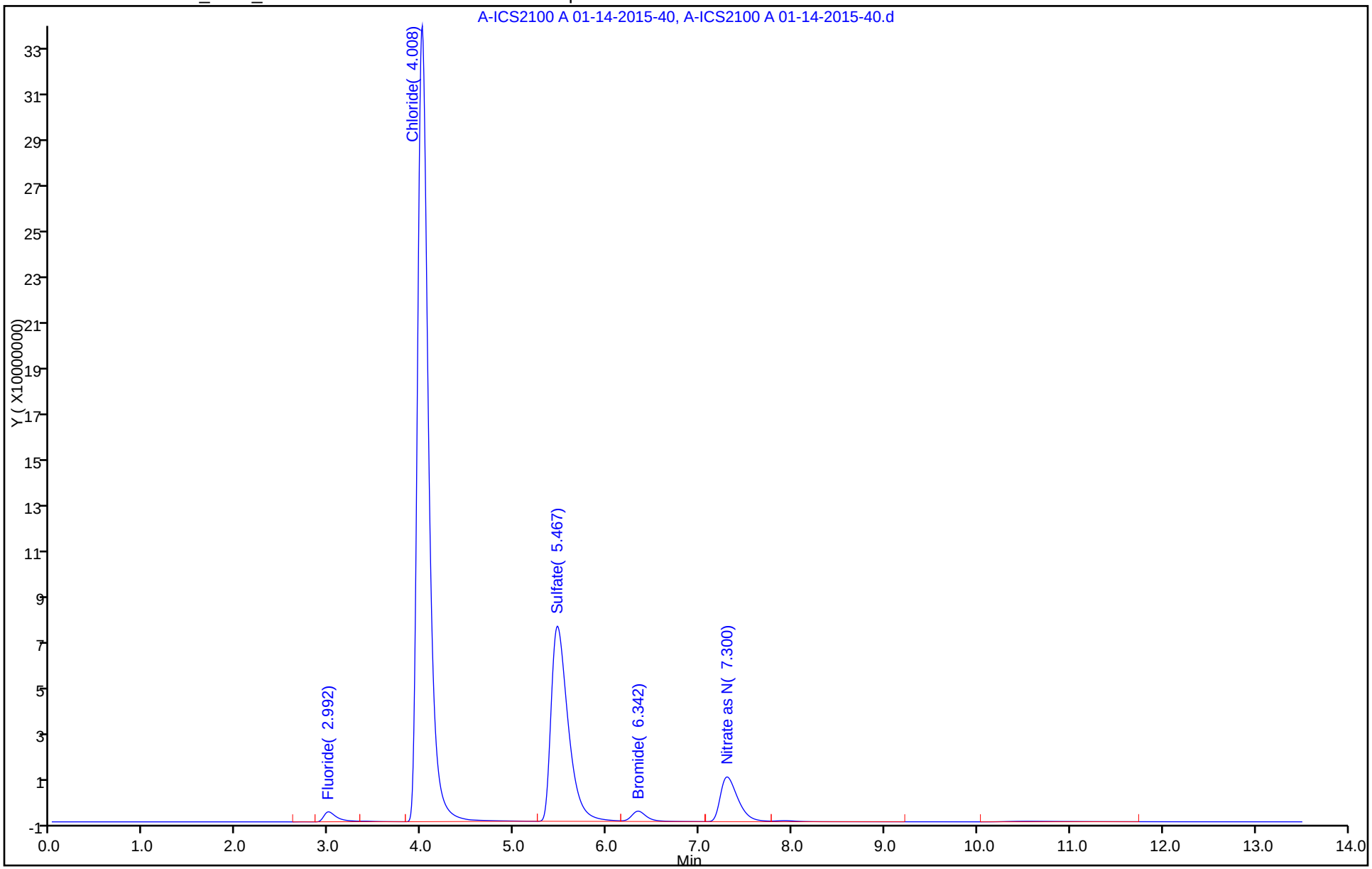
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 15-Jan-2015 10:06:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-40.d				
Injection Date:	14-Jan-2015 19:40:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-13 MS			Worklist Smp#:	31
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 MS Lab Sample ID: 180-40434-22 MS

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-27.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 16:20

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	6.67		0.10	0.0062
16887-00-6	Chloride	200		1.0	0.20
14808-79-8	Sulfate	64.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-27.d
Lims ID: 180-40434-A-22 MS
Client ID: HD-MW-107-0/1-0
Sample Type: MS
Inject. Date: 14-Jan-2015 16:20:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-018
Misc. Info.: 27 180-40434-a-22 ms
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 07:29:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	3812908	H	1.25	1.22
2 Chloride	4.000	4.017	-0.017	4256622071		25.0	199.9
7 Nitrite as N		4.733				ND	
3 Sulfate	5.467	5.492	-0.025	997490351		25.0	64.7
4 Bromide	6.333	6.333	0.000	47990387		5.00	4.96
5 Nitrate as N	7.267	7.342	-0.075	352784184		1.25	6.67
6 Orthophosphate as P		10.175				ND	ND

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

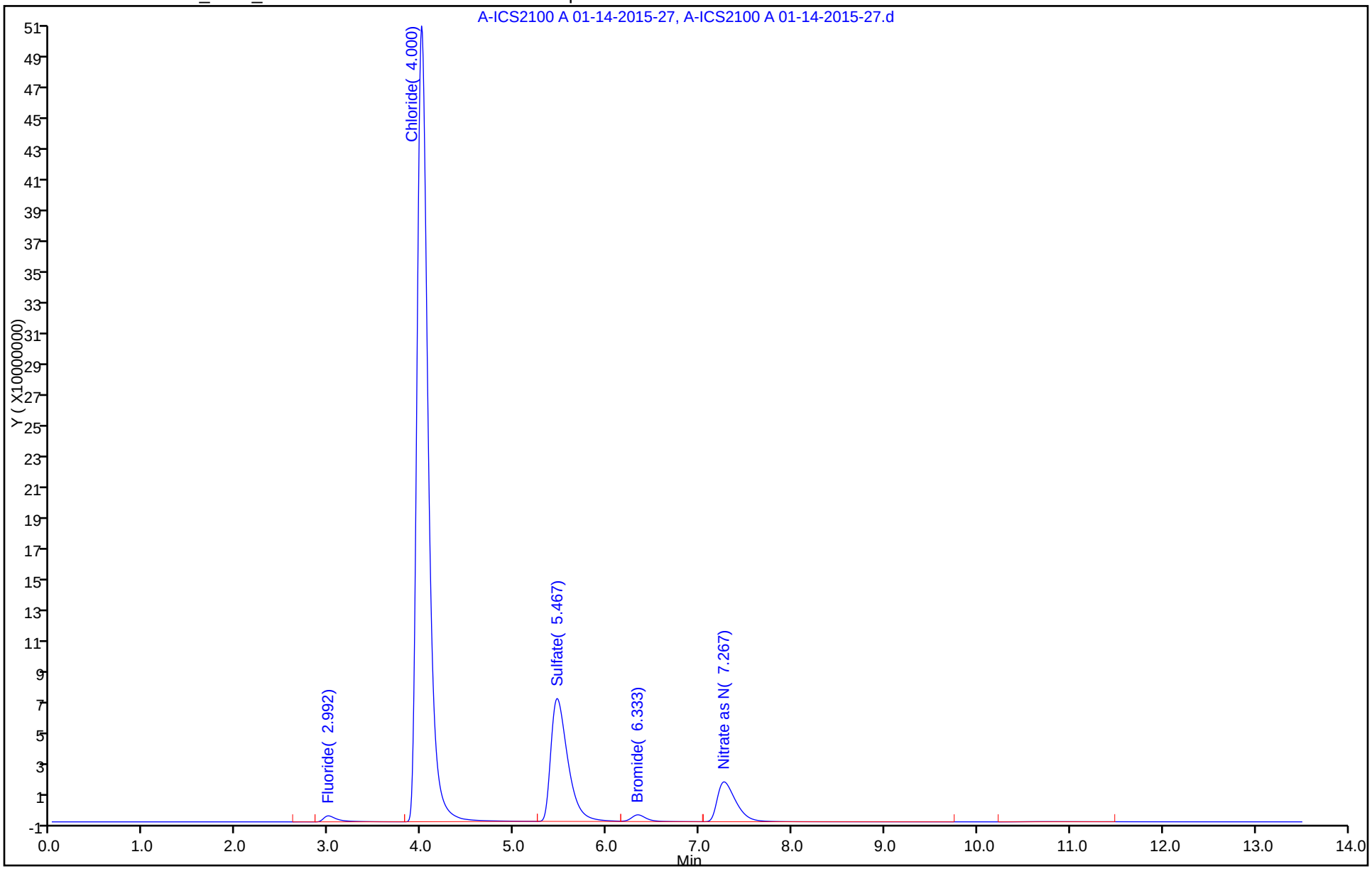
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 15-Jan-2015 09:41:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-27.d				
Injection Date:	14-Jan-2015 16:20:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-22 MS			Worklist Smp#:	18
Client ID:	HD-MW-107-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 MSD Lab Sample ID: 180-40434-13 MSD

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-41.d

Analysis Method: 300.0 Date Collected: 01/13/2015 11:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 19:55

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.46		0.10	0.0062
16887-00-6	Chloride	124		1.0	0.20
14808-79-8	Sulfate	64.2		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-41.d
Lims ID: 180-40434-A-13 MSD
Client ID:
Sample Type: MSD
Inject. Date: 14-Jan-2015 19:55:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-032
Misc. Info.: 13279 180-40434-a-13 msd
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 10:06:17 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3964919	H	1.25	1.26
2 Chloride	4.000	4.008	-0.008	2648445086		25.0	124.4
7 Nitrite as N		4.725					ND
3 Sulfate	5.475	5.483	-0.008	989668195		25.0	64.2
4 Bromide	6.333	6.325	0.008	47378908		5.00	4.90
5 Nitrate as N	7.292	7.325	-0.033	235939231		1.25	4.46
6 Orthophosphate as P		10.242				ND	ND

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

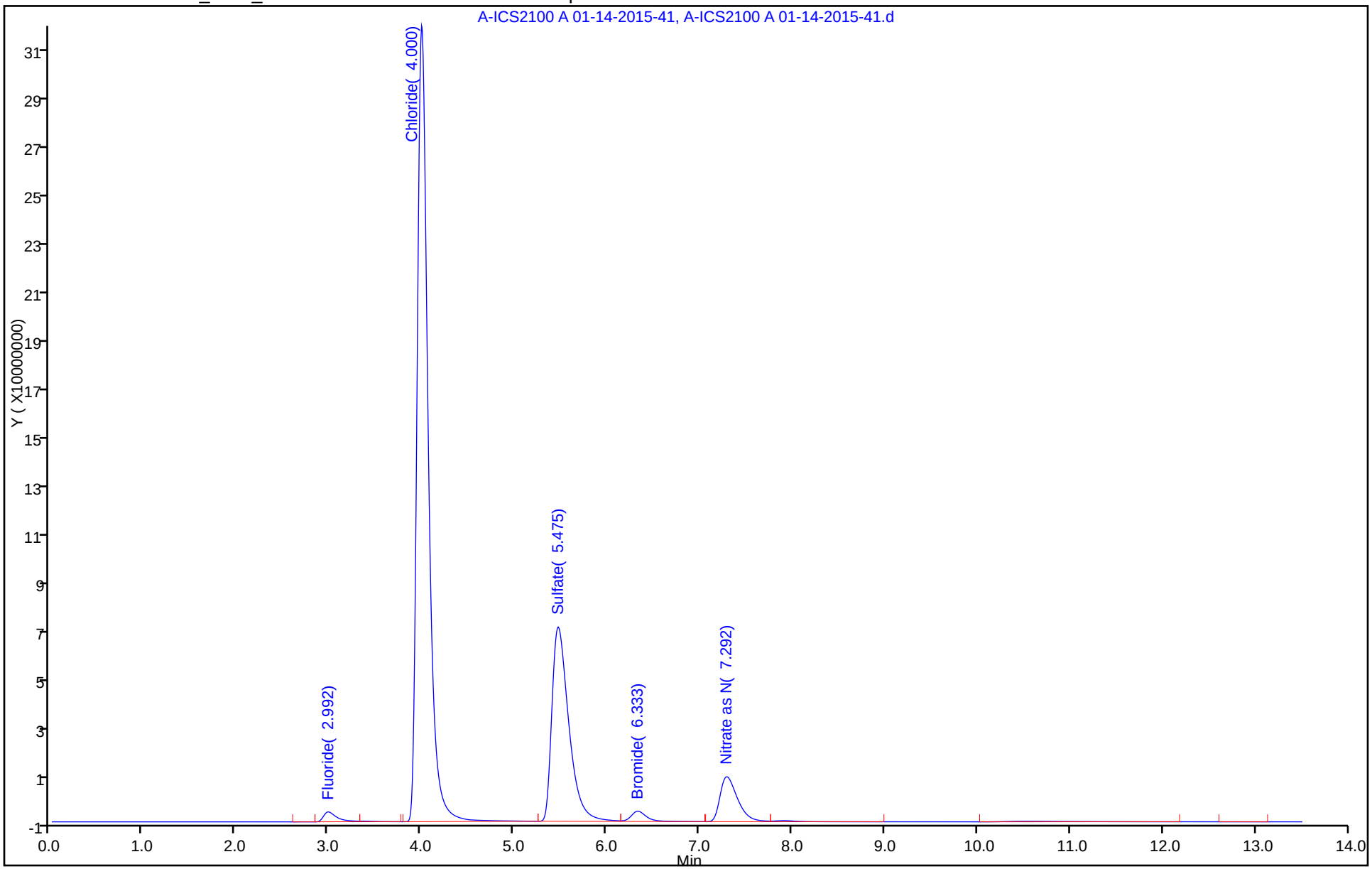
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 15-Jan-2015 10:06:19 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-41.d				
Injection Date:	14-Jan-2015 19:55:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-13 MSD			Worklist Smp#:	32
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Client Sample ID: HD-MW-107-0/1-0 MSD Lab Sample ID: 180-40434-22 MSD

Matrix: Water Lab File ID: A-ICS2100 A 01-14-2015-28.d

Analysis Method: 300.0 Date Collected: 01/13/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/14/2015 16:36

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130742 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	6.68		0.10	0.0062
16887-00-6	Chloride	200		1.0	0.20
14808-79-8	Sulfate	64.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-28.d
Lims ID: 180-40434-A-22 MSD
Client ID: HD-MW-107-0/1-0
Sample Type: MSD
Inject. Date: 14-Jan-2015 16:36:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005276-019
Misc. Info.: 28 180-40434-a-22 msd
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 15-Jan-2015 07:29:18 Calib Date: 13-Jan-2015 14:11:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150113-5255.b\A-ICS2100 A 01-13A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK031

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	3859016	H	1.25	1.23	
2 Chloride	4.000	4.017	-0.017	4255907816		25.0	199.9	
7 Nitrite as N		4.733					ND	
3 Sulfate	5.458	5.492	-0.034	998545199		25.0	64.7	
4 Bromide	6.333	6.333	0.000	48161666		5.00	4.98	
5 Nitrate as N	7.267	7.342	-0.075	353622396		1.25	6.68	
6 Orthophosphate as P		10.175				ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

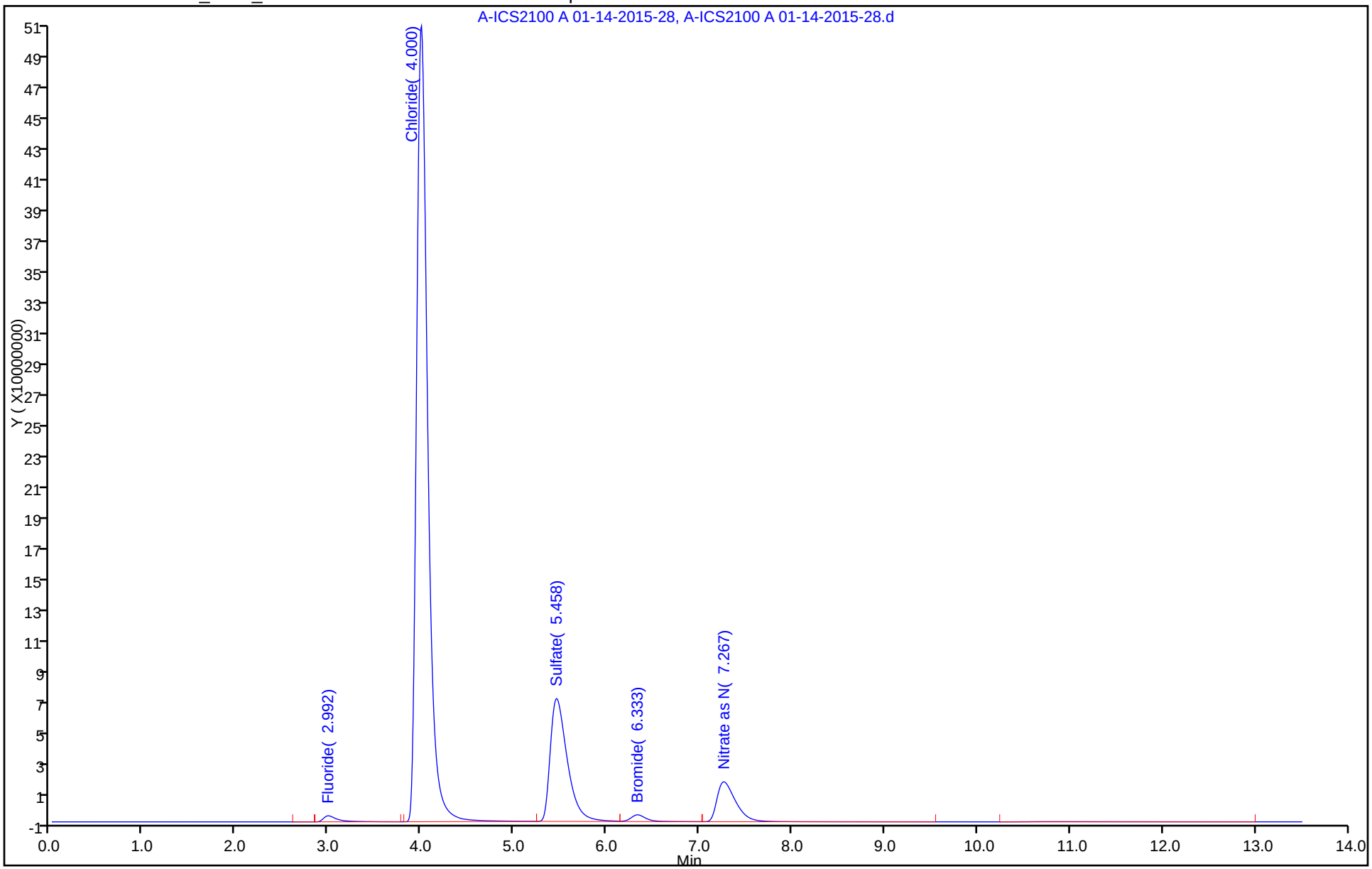
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 15-Jan-2015 09:41:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150114-5276.b\A-ICS2100 A 01-14-2015-28.d				
Injection Date:	14-Jan-2015 16:36:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-40434-A-22 MSD			Worklist Smp#:	19
Client ID:	HD-MW-107-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 01/13/2015 12:09

Analysis Batch Number: 130629 End Date: 01/13/2015 21:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		01/13/2015 12:09	1		AS-18
IC 180-130629/2		01/13/2015 12:24	1	A-ICS2100 A 01-13A-2015-2.d	AS-18
IC 180-130629/3		01/13/2015 12:39	1	A-ICS2100 A 01-13A-2015-3.d	AS-18
ICRT 180-130629/4		01/13/2015 12:55	1	A-ICS2100 A 01-13A-2015-4.d	AS-18
IC 180-130629/5		01/13/2015 13:10	1	A-ICS2100 A 01-13A-2015-5.d	AS-18
IC 180-130629/6		01/13/2015 13:25	1	A-ICS2100 A 01-13A-2015-6.d	AS-18
IC 180-130629/7		01/13/2015 13:41	1	A-ICS2100 A 01-13A-2015-7.d	AS-18
IC 180-130629/8		01/13/2015 13:56	1	A-ICS2100 A 01-13A-2015-8.d	AS-18
IC 180-130629/9		01/13/2015 14:11	1	A-ICS2100 A 01-13A-2015-9.d	AS-18
ZZZZZ		01/13/2015 14:27	1		AS-18
ZZZZZ		01/13/2015 14:54	1		AS-18
ZZZZZ		01/13/2015 15:09	1		AS-18
ICV 180-130629/13		01/13/2015 15:24	1		AS-18
CCV 180-130629/14		01/13/2015 15:40	1		AS-18
CCB 180-130629/15		01/13/2015 15:55	1		AS-18
ZZZZZ		01/13/2015 16:10	1		AS-18
ZZZZZ		01/13/2015 16:26	1		AS-18
ZZZZZ		01/13/2015 16:43	5		AS-18
ZZZZZ		01/13/2015 16:58	50		AS-18
ZZZZZ		01/13/2015 17:14	10		AS-18
ZZZZZ		01/13/2015 17:29	100		AS-18
ZZZZZ		01/13/2015 17:44	10		AS-18
ZZZZZ		01/13/2015 17:59	100		AS-18
ZZZZZ		01/13/2015 18:15	1		AS-18
ZZZZZ		01/13/2015 18:30	1		AS-18
CCV 180-130629/26		01/13/2015 18:45	1		AS-18
CCB 180-130629/27		01/13/2015 19:01	1		AS-18
ZZZZZ		01/13/2015 19:16	1		AS-18
ZZZZZ		01/13/2015 19:31	25		AS-18
ZZZZZ		01/13/2015 19:47	25		AS-18
ZZZZZ		01/13/2015 20:02	25		AS-18
ZZZZZ		01/13/2015 20:17	25		AS-18
ZZZZZ		01/13/2015 20:32	25		AS-18
ZZZZZ		01/13/2015 20:48	25		AS-18
ZZZZZ		01/13/2015 21:03	100		AS-18
ZZZZZ		01/13/2015 21:18	100		AS-18
CCV 180-130629/37		01/13/2015 21:34	1		AS-18
CCB 180-130629/38		01/13/2015 21:49	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 01/14/2015 10:23

Analysis Batch Number: 130742 End Date: 01/15/2015 10:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		01/14/2015 10:23	1		AS-18
ICV 180-130742/2		01/14/2015 10:38	1	A-ICS2100 A 01-14-2015-11.d	AS-18
CCV 180-130742/3		01/14/2015 10:54	1	A-ICS2100 A 01-14-2015-12.d	AS-18
CCB 180-130742/4		01/14/2015 11:09	1	A-ICS2100 A 01-14-2015-13.d	AS-18
LCS 180-130742/5		01/14/2015 11:24	1	A-ICS2100 A 01-14-2015-14.d	AS-18
MB 180-130742/6		01/14/2015 11:40	1	A-ICS2100 A 01-14-2015-15.d	AS-18
ZZZZZ		01/14/2015 12:13	5		AS-18
180-40434-5	HD-COD-SW-10-0/1-0	01/14/2015 13:47	1	A-ICS2100 A 01-14-2015-17.d	AS-18
180-40434-18	HD-QC1-0/1-1	01/14/2015 14:03	1	A-ICS2100 A 01-14-2015-18.d	AS-18
180-40434-3	HD-COD-SW-8-0/1-0	01/14/2015 14:18	1	A-ICS2100 A 01-14-2015-19.d	AS-18
180-40434-8	HD-COD-SW-13-0/1-0	01/14/2015 14:33	1	A-ICS2100 A 01-14-2015-20.d	AS-18
180-40434-16	HD-COD-SW-29-0/1-0	01/14/2015 14:49	1	A-ICS2100 A 01-14-2015-21.d	AS-18
180-40434-1	HD-COD-SW-6-0/1-0	01/14/2015 15:04	1	A-ICS2100 A 01-14-2015-22.d	AS-18
180-40434-2	HD-COD-SW-7-0/1-0	01/14/2015 15:19	1	A-ICS2100 A 01-14-2015-23.d	AS-18
CCV 180-130742/15		01/14/2015 15:34	1	A-ICS2100 A 01-14-2015-24.d	AS-18
CCB 180-130742/16		01/14/2015 15:50	1	A-ICS2100 A 01-14-2015-25.d	AS-18
180-40434-22	HD-MW-107-0/1-0	01/14/2015 16:05	1	A-ICS2100 A 01-14-2015-26.d	AS-18
180-40434-22 MS	HD-MW-107-0/1-0 MS	01/14/2015 16:20	1	A-ICS2100 A 01-14-2015-27.d	AS-18
180-40434-22 MSD	HD-MW-107-0/1-0 MSD	01/14/2015 16:36	1	A-ICS2100 A 01-14-2015-28.d	AS-18
180-40434-7	HD-COD-SW-12-0/1-0	01/14/2015 16:51	1	A-ICS2100 A 01-14-2015-29.d	AS-18
180-40434-25	HD-MW-37S-0/1-0	01/14/2015 17:06	1	A-ICS2100 A 01-14-2015-30.d	AS-18
180-40434-4	HD-COD-SW-9-0/1-0	01/14/2015 17:22	1	A-ICS2100 A 01-14-2015-31.d	AS-18
180-40434-6	HD-COD-SW-11-0/1-0	01/14/2015 17:37	1	A-ICS2100 A 01-14-2015-32.d	AS-18
180-40434-9	HD-COD-SW-15-0/1-0	01/14/2015 17:52	1	A-ICS2100 A 01-14-2015-33.d	AS-18
180-40434-10	HD-COD-SW-16-0/1-0	01/14/2015 18:08	1	A-ICS2100 A 01-14-2015-34.d	AS-18
180-40434-11	HD-COD-SW-17-0/1-0	01/14/2015 18:23	1	A-ICS2100 A 01-14-2015-35.d	AS-18
CCV 180-130742/27		01/14/2015 18:38	1	A-ICS2100 A 01-14-2015-36.d	AS-18
CCB 180-130742/28		01/14/2015 18:54	1	A-ICS2100 A 01-14-2015-37.d	AS-18
180-40434-12	HD-COD-SW-20-0/1-0	01/14/2015 19:09	1	A-ICS2100 A 01-14-2015-38.d	AS-18
180-40434-13	HD-COD-SW-26-0/1-0	01/14/2015 19:24	1	A-ICS2100 A 01-14-2015-39.d	AS-18
180-40434-13 MS	HD-COD-SW-26-0/1-0 MS	01/14/2015 19:40	1	A-ICS2100 A 01-14-2015-40.d	AS-18
180-40434-13 MSD	HD-COD-SW-26-0/1-0 MSD	01/14/2015 19:55	1	A-ICS2100 A 01-14-2015-41.d	AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 01/14/2015 10:23

Analysis Batch Number: 130742 End Date: 01/15/2015 10:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
180-40434-23	HD-MW-93S-0/1-0	01/14/2015 20:10	1	A-ICS2100 A 01-14-2015-42.d	AS-18
180-40434-24	HD-MW-93D-0/1-0	01/14/2015 20:25	1	A-ICS2100 A 01-14-2015-43.d	AS-18
180-40434-5	HD-COD-SW-10-0/1-0	01/14/2015 20:41	5	A-ICS2100 A 01-14-2015-44.d	AS-18
180-40434-7	HD-COD-SW-12-0/1-0	01/14/2015 20:56	5	A-ICS2100 A 01-14-2015-45.d	AS-18
LCS 180-130742/37		01/14/2015 21:11	1	A-ICS2100 A 01-14-2015-46.d	AS-18
MB 180-130742/38		01/14/2015 21:27	1	A-ICS2100 A 01-14-2015-47.d	AS-18
CCV 180-130742/39		01/14/2015 21:42	1	A-ICS2100 A 01-14-2015-48.d	AS-18
CCB 180-130742/40		01/14/2015 21:57	1	A-ICS2100 A 01-14-2015-49.d	AS-18
180-40434-14	HD-COD-SW-27-0/1-0	01/14/2015 22:13	1	A-ICS2100 A 01-14-2015-50.d	AS-18
180-40434-15	HD-COD-SW-28-0/1-0	01/14/2015 22:28	1	A-ICS2100 A 01-14-2015-51.d	AS-18
ZZZZZ		01/14/2015 22:43	1		AS-18
ZZZZZ		01/14/2015 22:58	1		AS-18
ZZZZZ		01/14/2015 23:14	1		AS-18
ZZZZZ		01/14/2015 23:29	1		AS-18
ZZZZZ		01/14/2015 23:44	5		AS-18
ZZZZZ		01/15/2015 00:00	1		AS-18
CCV 180-130742/49		01/15/2015 00:15	1	A-ICS2100 A 01-14-2015-58.d	AS-18
CCB 180-130742/50		01/15/2015 00:30	1	A-ICS2100 A 01-14-2015-59.d	AS-18
180-40434-12	HD-COD-SW-20-0/1-0	01/15/2015 10:01	5	A-ICS2100 A 01-14-2015-60.d	AS-18
CCV 180-130742/53		01/15/2015 10:16	1	A-ICS2100 A 01-14-2015-61.d	AS-18
CCB 180-130742/54		01/15/2015 10:31	1	A-ICS2100 A 01-14-2015-62.d	AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-40434-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-40434-1
HD-COD-SW-7-0/1-0	180-40434-2
HD-COD-SW-8-0/1-0	180-40434-3
HD-COD-SW-9-0/1-0	180-40434-4
HD-COD-SW-10-0/1-0	180-40434-5
HD-COD-SW-11-0/1-0	180-40434-6
HD-COD-SW-12-0/1-0	180-40434-7
HD-COD-SW-13-0/1-0	180-40434-8
HD-COD-SW-15-0/1-0	180-40434-9
HD-COD-SW-16-0/1-0	180-40434-10
HD-COD-SW-17-0/1-0	180-40434-11
HD-COD-SW-20-0/1-0	180-40434-12
HD-COD-SW-26-0/1-0	180-40434-13
HD-COD-SW-27-0/1-0	180-40434-14
HD-COD-SW-28-0/1-0	180-40434-15
HD-COD-SW-29-0/1-0	180-40434-16
HD-QC1-0/1-1	180-40434-18
HD-MW-107-0/1-0	180-40434-22
HD-MW-93S-0/1-0	180-40434-23
HD-MW-93D-0/1-0	180-40434-24
HD-MW-37S-0/1-0	180-40434-25

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-40434-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:40

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	43000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3500	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	8500	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	95000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-40434-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 11:50

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	33000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6500	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	8100	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	56000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-40434-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:20

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	34000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7700	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	7600	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	69000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-40434-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:10

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	43000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8600	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	9400	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	72000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-40434-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:55

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	45000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4600	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	6800	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	100000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-40434-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:40

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	64000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2200	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	14000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	36000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-40434-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:55

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	53000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	15000	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	9400	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	120000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-40434-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:45

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	35000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7700	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	7700	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	70000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-40434-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:15

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	89000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5900	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	16000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	48000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-40434-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:15

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	33000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7200	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	7600	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	69000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-40434-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:33

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	93000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6800	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	18000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	52000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-40434-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:55

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	45000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3200	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	8600	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	110000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-40434-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 11:35

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	42000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6700	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	9900	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	66000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-40434-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:25

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	65000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6800	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	14000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	59000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-40434-15

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:30

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	51000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8100	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	11000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	71000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-40434-16

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:02

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	37000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8700	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	8100	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	72000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-40434-18

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 08:00

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	97000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	29000	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	22000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	66000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-107-0/1-0 Lab Sample ID: 180-40434-22

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:10

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	26000	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	29000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	57000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-40434-23

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 11:50

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	73000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	21000	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	18000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	71000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-40434-24

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:00

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	81000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6600	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	15000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	41000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-40434-25

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 14:15

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	90000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	27000	100	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	21000	100	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	64000	100	3.8	ug/L		B	1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICV Source: MICVX_00028 Concentration Units: ug/L

CCV Source: MCCV1X_00071

Analyte	ICV 180-131403/5 01/21/2015 09:07				CCV 180-131403/10 01/21/2015 09:34				CCV 180-131403/56 01/21/2015 13:06			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	41200		40000	103	48100		50000	96	50800		50000	102
Magnesium	38600		40000	96	48500		50000	97	49700		50000	99
Potassium	40200		40000	101	49300		50000	99	51800		50000	104
Sodium	39300		40000	98	50100		50000	100	51300		50000	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICV Source: MICVX_00028 Concentration Units: ug/L

CCV Source: MCCV1X_00071

Analyte	CCV 180-131403/68 01/21/2015 14:00											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	52300		50000	105								
Magnesium	49100		50000	98								
Potassium	51500		50000	103								
Sodium	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.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICV Source: MICVX_00028 Concentration Units: ug/L

CCV Source: MCCV1X_00071

Analyte	ICV 180-131561/5 01/22/2015 10:36				CCV 180-131561/10 01/22/2015 11:04				CCV 180-131561/22 01/22/2015 12:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	40000		40000	100	48500		50000	97	48500		50000	97
Magnesium	38300		40000	96	48400		50000	97	46800		50000	94
Potassium	40400		40000	101	50500		50000	101	49800		50000	100
Sodium	39200		40000	98	49400		50000	99	47400		50000	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICV Source: MICVX_00028 Concentration Units: ug/L

CCV Source: MCCV1X_00071

Analyte	CCV 180-131561/34 01/22/2015 13:15				CCV 180-131561/45 01/22/2015 14:07							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	48800		50000	98	50200		50000	100				
Magnesium	47300		50000	95	48000		50000	96				
Potassium	51200		50000	102	52100		50000	104				
Sodium	47800		50000	96	48700		50000	97				

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.: 180-40434-1

SDG No.:

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-131403/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00060

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	104		104	70-130
Potassium	100	120		120	70-130
Magnesium	100	101		101	70-130
Sodium	100	122		122	70-130

Lab Sample ID: CRI 180-131403/90 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00060

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	109		109	70-130
Potassium	100	114		114	70-130
Magnesium	100	102		102	70-130
Sodium	100	104		104	70-130

Lab Sample ID: CRI 180-131561/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00060

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	101		101	70-130
Potassium	100	107		107	70-130
Magnesium	100	97.9	J	98	70-130
Sodium	100	119		119	70-130

Lab Sample ID: CRI 180-131561/42 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00060

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	107		107	70-130
Potassium	100	97.2	J	97	70-130

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

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-131561/42 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00060

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Magnesium	100	94.4	J	94	70-130
Sodium	100	84.1	J	84	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.: 180-40434-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-131403/6 01/21/2015 09:14		CCB1 180-131403/11 01/21/2015 09:41		CCB5 180-131403/57 01/21/2015 13:14		CCB6 180-131403/69 01/21/2015 14:08	
		Found	C	Found	C	Found	C	Found	C
Calcium	100	8.61	J	15.6	J	30.2	J	52.4	J
Magnesium	100	8.71	J	16.1	J	16.3	J	30.7	J
Potassium	100	18.5	J	38.5	J	19.4	J	44.3	J
Sodium	100	30.0	J	80.1	J	19.7	J	47.3	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-131561/6 01/22/2015 10:44		CCB1 180-131561/11 01/22/2015 11:11		CCB2 180-131561/23 01/22/2015 12:28		CCB3 180-131561/35 01/22/2015 13:22	
		Found	C	Found	C	Found	C	Found	C
Calcium	100	9.12	J	8.65	J	12.2	J	16.7	J
Magnesium	100	8.71	J	9.42	J	9.40	J	11.0	J
Potassium	100	12.7	J	25.3	J	9.99	J	14.6	J
Sodium	100	31.2	J	64.8	J	16.7	J	14.7	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB4 180-131561/46 01/22/2015 14:14							
		Found	C	Found	C	Found	C	Found	C
Calcium	100	17.0	J						
Magnesium	100	13.1	J						
Potassium	100	21.8	J						
Sodium	100	11.7	J						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-130801/1-A

Instrument Code: X Batch No.: 131403

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	6.32	J		6020A
7440-09-7	Potassium	13.1	J		6020A
7439-95-4	Magnesium	1.68	J		6020A
7440-23-5	Sodium	6.20	J		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-130798/1-A

Instrument Code: X Batch No.: 131561

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	10.5	J		6020A
7440-09-7	Potassium	71.9	J		6020A
7439-95-4	Magnesium	2.76	J		6020A
7440-23-5	Sodium	47.7	J		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Lab Sample ID: ICSA 180-131403/8 Instrument ID: X

Lab File ID: X50121A.xml ICS Source: MICSAX_00061

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**98680**	**99**
Magnesium	**100000**	**97950**	**98**
Potassium	**100000**	**101600**	**102**
Sodium	**100000**	**98930**	**99**
Aluminum	*100000*	*94090*	*94*
Antimony		*-0.507*	
Arsenic		*-0.204*	
Barium		*0.115*	
Beryllium		*-0.0370*	
Boron		*-0.0390*	
Cadmium		*2.30*	
Chromium		*0.144*	
Cobalt		*0.133*	
Copper		*2.24*	
Iron	*100000*	*97250*	*97*
Lead		*0.278*	
Manganese		*0.610*	
Molybdenum	*2000*	*2240*	*112*
Nickel		*-0.199*	
Selenium		*-0.401*	
Silicon		*30.6*	
Silver		*0.0180*	
Strontium		*0.694*	
Thallium		*0.0140*	
Tin		*-1.87*	
Titanium	*2000*	*2147*	*107*
Vanadium		*-0.557*	
Zinc		*3.13*	

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.: 180-40434-1

SDG No.:

Lab Sample ID: ICSAB 180-131403/9 Instrument ID: X

Lab File ID: X50121A.xml ICS Source: MICSABX_00065

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**100000**	**99823**	**100**
Magnesium	**100000**	**97770**	**98**
Potassium	**100000**	**100137**	**100**
Sodium	**100000**	**99680**	**100**
Aluminum	*100000*	*94823*	*95*
Antimony	*20.0*	*18.9*	*94*
Arsenic	*20.0*	*20.2*	*101*
Barium	*20.0*	*19.0*	*95*
Beryllium	*20.0*	*20.1*	*101*
Boron	*50.0*	*50.3*	*101*
Cadmium	*20.0*	*21.5*	*107*
Chromium	*20.0*	*18.9*	*95*
Cobalt	*20.0*	*19.1*	*95*
Copper	*20.0*	*21.9*	*109*
Iron	*100000*	*97907*	*98*
Lead	*20.0*	*20.7*	*103*
Manganese	*22.5*	*19.5*	*87*
Molybdenum	*2000*	*2250*	*113*
Nickel	*20.0*	*18.9*	*95*
Selenium	*50.0*	*51.9*	*104*
Silicon	*500*	*528*	*106*
Silver	*20.0*	*18.8*	*94*
Strontium	*25.0*	*20.1*	*80*
Thallium	*20.0*	*19.4*	*97*
Tin	*100*	*96.0*	*96*
Titanium	*2000*	*2137*	*107*
Vanadium	*20.0*	*18.1*	*90*
Zinc	*25.0*	*22.5*	*90*

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.: 180-40434-1

SDG No.:

Lab Sample ID: ICSA 180-131561/8 Instrument ID: X

Lab File ID: X50122A.xml ICS Source: MICSAX_00062

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**103700**	**104**
Magnesium	**100000**	**98650**	**99**
Potassium	**100000**	**103700**	**104**
Sodium	**100000**	**101200**	**101**
Aluminum	*100000*	*98010*	*98*
Antimony		*0.0590*	
Arsenic		*0.0270*	
Barium		*0.0990*	
Beryllium		*-0.0370*	
Boron		*0.420*	
Cadmium		*2.27*	
Chromium		*0.161*	
Cobalt		*0.115*	
Copper		*2.01*	
Iron	*100000*	*101200*	*101*
Lead		*0.199*	
Manganese		*0.532*	
Molybdenum	*2000*	*2282*	*114*
Nickel		*-0.371*	
Selenium		*0.218*	
Silicon		*28.9*	
Silver		*0.0400*	
Strontium		*0.687*	
Thallium		*0.0070*	
Tin		*0.148*	
Titanium	*2000*	*2191*	*110*
Vanadium		*-0.301*	
Zinc		*3.13*	

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.: 180-40434-1

SDG No.:

Lab Sample ID: ICSAB 180-131561/9 Instrument ID: X

Lab File ID: X50122A.xml ICS Source: MICSABX_00066

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**100000**	**104833**	**105**
Magnesium	**100000**	**98517**	**99**
Potassium	**100000**	**104033**	**104**
Sodium	**100000**	**99920**	**100**
Aluminum	*100000*	*97120*	*97*
Antimony	*20.0*	*20.6*	*103*
Arsenic	*20.0*	*21.5*	*107*
Barium	*20.0*	*19.8*	*99*
Beryllium	*20.0*	*20.2*	*101*
Boron	*50.0*	*51.3*	*103*
Cadmium	*20.0*	*22.0*	*110*
Chromium	*20.0*	*19.8*	*99*
Cobalt	*20.0*	*19.9*	*99*
Copper	*20.0*	*22.3*	*112*
Iron	*100000*	*103000*	*103*
Lead	*20.0*	*20.0*	*100*
Manganese	*22.5*	*20.3*	*90*
Molybdenum	*2000*	*2343*	*117*
Nickel	*20.0*	*19.6*	*98*
Selenium	*50.0*	*52.9*	*106*
Silicon	*500*	*524*	*105*
Silver	*20.0*	*19.0*	*95*
Strontium	*25.0*	*20.7*	*83*
Thallium	*20.0*	*19.8*	*99*
Tin	*100*	*102*	*102*
Titanium	*2000*	*2195*	*110*
Vanadium	*20.0*	*19.1*	*96*
Zinc	*25.0*	*24.0*	*96*

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-107-0/1-0 MS Lab ID: 180-40434-22 MS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

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	166000		120000		50000	97	75-125		6020A
Potassium	76600		26000		50000	101	75-125		6020A
Magnesium	73400		29000		50000	89	75-125		6020A
Sodium	102000		57000		50000	91	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 SAMPLE RECOVERY
METALS

Client ID: HD-MW-37S-0/1-0 MS
Lab ID: 180-40434-25 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-40434-1
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	142000		90000		50000	104	75-125		6020A
Potassium	77700		27000		50000	100	75-125		6020A
Magnesium	66700		21000		50000	92	75-125		6020A
Sodium	112000		64000		50000	95	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-107-0/1-0 MSD Lab ID: 180-40434-22 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

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	171000		50000	106	75-125	3	20		6020A
Potassium	78400		50000	105	75-125	2	20		6020A
Magnesium	74400		50000	91	75-125	1	20		6020A
Sodium	103000		50000	92	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

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-MW-37S-0/1-0 MSD Lab ID: 180-40434-25 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

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	144000		50000	109	75-125	2	20		6020A
Potassium	79200		50000	103	75-125	2	20		6020A
Magnesium	67000		50000	93	75-125	0	20		6020A
Sodium	112000		50000	96	75-125	0	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-107-0/1-0 PDS Lab ID: 180-40434-22 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	173000		120000		50000	111	75-125		6020A
Potassium	82800		26000		50000	113	75-125		6020A
Magnesium	78900		29000		50000	100	75-125		6020A
Sodium	107000		57000		50000	101	75-125		6020A

SSR = Spiked Sample Result

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

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-37S-0/1-0 PDS Lab ID: 180-40434-25 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

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	146000		90000		50000	113	75-125		6020A
Potassium	83000		27000		50000	111	75-125		6020A
Magnesium	70900		21000		50000	100	75-125		6020A
Sodium	115000		64000		50000	102	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 180-130801/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	47800		96	80	120		6020A
Potassium	50000	48100		96	80	120		6020A
Magnesium	50000	42300		85	80	120		6020A
Sodium	50000	43900		88	80	120		6020A

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-130798/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	45100		90	80	120		6020A
Potassium	50000	46200		92	80	120		6020A
Magnesium	50000	41200		82	80	120		6020A
Sodium	50000	42200		84	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: 180-40434-22

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-40434-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	120000		109000		7.3		6020A
Potassium	26000		26500		1.8		6020A
Magnesium	29000		28600		0.50		6020A
Sodium	57000		58600		3.6		6020A

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

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-40434-25

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-40434-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	90000		87300		2.9		6020A
Potassium	27000		28000		1.8		6020A
Magnesium	21000		20900		0.94		6020A
Sodium	64000		66100		3.0		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: 180-40434-1

SDG Number:

Matrix: Water Instrument ID: X

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	44	100	2.8374
Magnesium	26	100	1.1665
Potassium	39	100	5.823
Sodium	23	100	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-40434-1

SDG Number:

Matrix: Water Instrument ID: X

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	44	100	2.8374
Magnesium	26	100	1.1665
Potassium	39	100	5.823
Sodium	23	100	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-40434-1

SDG No.:

Instrument ID: X Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		1500000	6020A
Potassium		450000	6020A
Magnesium		1500000	6020A
Sodium		450000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-130798/1-A	01/15/2015 08:35	130798		50	50
LCS 180-130798/2-A	01/15/2015 08:35	130798		50	50
180-40434-1	01/15/2015 08:35	130798		50	50
180-40434-2	01/15/2015 08:35	130798		50	50
180-40434-3	01/15/2015 08:35	130798		50	50
180-40434-4	01/15/2015 08:35	130798		50	50
180-40434-5	01/15/2015 08:35	130798		50	50
180-40434-6	01/15/2015 08:35	130798		50	50
180-40434-7	01/15/2015 08:35	130798		50	50
180-40434-8	01/15/2015 08:35	130798		50	50
180-40434-9	01/15/2015 08:35	130798		50	50
180-40434-10	01/15/2015 08:35	130798		50	50
180-40434-11	01/15/2015 08:35	130798		50	50
180-40434-12	01/15/2015 08:35	130798		50	50
180-40434-13	01/15/2015 08:35	130798		50	50
180-40434-14	01/15/2015 08:35	130798		50	50
180-40434-15	01/15/2015 08:35	130798		50	50
180-40434-16	01/15/2015 08:35	130798		50	50
180-40434-18	01/15/2015 08:35	130798		50	50
180-40434-22	01/15/2015 08:35	130798		50	50
180-40434-22 MS	01/15/2015 08:35	130798		50	50
180-40434-22 MSD	01/15/2015 08:35	130798		50	50
180-40434-23	01/15/2015 08:35	130798		50	50
180-40434-24	01/15/2015 08:35	130798		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-130801/1-A	01/15/2015 08:38	130801		50	50
LCS 180-130801/2-A	01/15/2015 08:38	130801		50	50
180-40434-25	01/15/2015 08:38	130801		50	50
180-40434-25 MS	01/15/2015 08:38	130801		50	50
180-40434-25 MSD	01/15/2015 08:38	130801		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: X Method: 6020A

Start Date: 01/21/2015 07:43 End Date: 01/21/2015 16:35

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	K	Mg	Na																
ITUNE 180-131403/1			07:43																				
STD1 180-131403/2 IC	1		08:55	X	X	X	X																
STD2 180-131403/3 IC	1		08:58	X	X	X	X																
STD3 180-131403/4 IC	1		09:03	X	X	X	X																
ICV 180-131403/5	1		09:07	X	X	X	X																
ICB 180-131403/6	1		09:14	X	X	X	X																
CRI 180-131403/7	1		09:18	X	X	X	X																
ICSA 180-131403/8	1		09:23	X	X	X	X																
ICSAB 180-131403/9	1		09:27	X	X	X	X																
CCV 180-131403/10	1		09:34	X	X	X	X																
CCB1 180-131403/11	1		09:41	X	X	X	X																
ZZZZZZ			09:46																				
ZZZZZZ			09:50																				
ZZZZZZ			09:58																				
ZZZZZZ			10:02																				
ZZZZZZ			10:06																				
ZZZZZZ			10:11																				
ZZZZZZ			10:15																				
ZZZZZZ			10:19																				
ZZZZZZ			10:23																				
ZZZZZZ			10:30																				
CCV 180-131403/22			10:34																				
CCB2 180-131403/23			10:42																				
ZZZZZZ			10:46																				
ZZZZZZ			10:50																				
ZZZZZZ			10:54																				
ZZZZZZ			10:58																				
ZZZZZZ			11:03																				
ZZZZZZ			11:07																				
ZZZZZZ			11:11																				
ZZZZZZ			11:15																				
ZZZZZZ			11:19																				
ZZZZZZ			11:24																				
CCV 180-131403/34			11:28																				
CCB3 180-131403/35			11:35																				
ZZZZZZ			11:39																				
ZZZZZZ			11:44																				
ZZZZZZ			11:48																				
ZZZZZZ			11:52																				
ZZZZZZ			11:56																				
ZZZZZZ			12:00																				
ZZZZZZ			12:04																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: X Method: 6020A

Start Date: 01/21/2015 07:43 End Date: 01/21/2015 16:35

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	K	Mg	Na																
ZZZZZZ			12:09																				
ZZZZZZ			12:13																				
CCV 180-131403/45			12:17																				
CCB4 180-131403/46			12:24																				
ZZZZZZ			12:29																				
ZZZZZZ			12:33																				
ZZZZZZ			12:37																				
ZZZZZZ			12:41																				
ZZZZZZ			12:45																				
ZZZZZZ			12:50																				
ZZZZZZ			12:54																				
ZZZZZZ			12:58																				
ZZZZZZ			13:02																				
CCV 180-131403/56	1		13:06	X	X	X	X																
CCB5 180-131403/57	1		13:14	X	X	X	X																
MB 180-130801/1-A	1	R	13:18	X	X	X	X																
ZZZZZZ			13:22																				
LCS 180-130801/2-A	1	R	13:26	X	X	X	X																
ZZZZZZ			13:31																				
ZZZZZZ			13:35																				
180-40434-25	1	T	13:39	X	X	X	X																
180-40434-25 SD	5	T	13:43	X	X	X	X																
180-40434-25 MS	1	T	13:48	X	X	X	X																
180-40434-25 MSD	1	T	13:52	X	X	X	X																
180-40434-25 PDS	1	T	13:56	X	X	X	X																
CCV 180-131403/68	1		14:00	X	X	X	X																
CCB6 180-131403/69	1		14:08	X	X	X	X																
ZZZZZZ			14:12																				
ZZZZZZ			14:16																				
ZZZZZZ			14:20																				
ZZZZZZ			14:24																				
ZZZZZZ			14:32																				
ZZZZZZ			14:36																				
ZZZZZZ			14:40																				
ZZZZZZ			14:44																				
ZZZZZZ			14:48																				
ZZZZZZ			14:53																				
CCV 180-131403/80			14:57																				
CCB7 180-131403/81			15:04																				
ZZZZZZ			15:09																				
ZZZZZZ			15:13																				
ZZZZZZ			15:17																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: X Method: 6020A

Start Date: 01/21/2015 07:43 End Date: 01/21/2015 16:35

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	K	Mg	Na																
ZZZZZZ			15:21																				
ZZZZZZ			15:26																				
CCV 180-131403/87			15:36																				
CCB8 180-131403/88			15:45																				
ZZZZZZ			15:50																				
CRI 180-131403/90	1		15:54	X	X	X	X																
ZZZZZZ			16:02																				
ZZZZZZ			16:06																				
ZZZZZZ			16:11																				
ZZZZZZ			16:15																				
ZZZZZZ			16:19																				
ZZZZZZ			16:23																				
CCV 180-131403/97			16:27																				
CCB9 180-131403/98			16:35																				

Prep Types

R = Total Recoverable

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: X Method: 6020A

Start Date: 01/22/2015 07:48 End Date: 01/22/2015 17:45

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	K	Mg	Na																
ITUNE 180-131561/1			07:48																				
STD1 180-131561/2 IC	1		10:25	X	X	X	X																
STD2 180-131561/3 IC	1		10:28	X	X	X	X																
STD3 180-131561/4 IC	1		10:32	X	X	X	X																
ICV 180-131561/5	1		10:36	X	X	X	X																
ICB 180-131561/6	1		10:44	X	X	X	X																
CRI 180-131561/7	1		10:48	X	X	X	X																
ICSA 180-131561/8	1		10:52	X	X	X	X																
ICSAB 180-131561/9	1		10:56	X	X	X	X																
CCV 180-131561/10	1		11:04	X	X	X	X																
CCB1 180-131561/11	1		11:11	X	X	X	X																
MB 180-130798/1-A	1	R	11:15	X	X	X	X																
LCS 180-130798/2-A	1	R	11:19	X	X	X	X																
180-40434-1	1	T	11:23	X	X	X	X																
180-40434-2	1	T	11:28	X	X	X	X																
180-40434-3	1	T	11:32	X	X	X	X																
180-40434-4	1	T	11:36	X	X	X	X																
180-40434-5	1	T	12:03	X	X	X	X																
180-40434-6	1	T	12:08	X	X	X	X																
180-40434-7	1	T	12:13	X	X	X	X																
180-40434-8	1	T	12:17	X	X	X	X																
CCV 180-131561/22	1		12:21	X	X	X	X																
CCB2 180-131561/23	1		12:28	X	X	X	X																
180-40434-9	1	T	12:33	X	X	X	X																
180-40434-10	1	T	12:37	X	X	X	X																
180-40434-11	1	T	12:41	X	X	X	X																
180-40434-12	1	T	12:45	X	X	X	X																
180-40434-13	1	T	12:49	X	X	X	X																
180-40434-14	1	T	12:54	X	X	X	X																
180-40434-15	1	T	12:58	X	X	X	X																
180-40434-16	1	T	13:02	X	X	X	X																
180-40434-18	1	T	13:06	X	X	X	X																
180-40434-23	1	T	13:10	X	X	X	X																
CCV 180-131561/34	1		13:15	X	X	X	X																
CCB3 180-131561/35	1		13:22	X	X	X	X																
180-40434-22	1	T	13:26	X	X	X	X																
180-40434-22 SD	5	T	13:30	X	X	X	X																
180-40434-22 MS	1	T	13:35	X	X	X	X																
180-40434-22 MSD	1	T	13:39	X	X	X	X																
180-40434-22 PDS	1	T	13:43	X	X	X	X																
180-40434-24	1	T	13:47	X	X	X	X																
CRI 180-131561/42	1		13:54	X	X	X	X																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: X Method: 6020A

Start Date: 01/22/2015 07:48 End Date: 01/22/2015 17:45

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	K	Mg	Na																
ZZZZZZ			13:59																				
ZZZZZZ			14:03																				
CCV 180-131561/45	1		14:07	X	X	X	X																
CCB4 180-131561/46	1		14:14	X	X	X	X																
ZZZZZZ			14:19																				
ZZZZZZ			14:23																				
ZZZZZZ			14:27																				
ZZZZZZ			14:31																				
ZZZZZZ			14:35																				
ZZZZZZ			14:39																				
ZZZZZZ			14:44																				
ZZZZZZ			14:48																				
ZZZZZZ			14:52																				
ZZZZZZ			14:56																				
CCV 180-131561/57			15:00																				
CCB5 180-131561/58			15:08																				
ZZZZZZ			15:12																				
ZZZZZZ			15:16																				
ZZZZZZ			15:20																				
ZZZZZZ			15:24																				
ZZZZZZ			15:29																				
ZZZZZZ			15:33																				
ZZZZZZ			15:37																				
ZZZZZZ			15:41																				
ZZZZZZ			15:45																				
ZZZZZZ			15:50																				
CCV 180-131561/69			15:54																				
CCB6 180-131561/70			16:01																				
ZZZZZZ			16:05																				
ZZZZZZ			16:09																				
ZZZZZZ			16:14																				
ZZZZZZ			16:18																				
CRI 180-131561/75			16:25																				
ZZZZZZ			16:33																				
ZZZZZZ			16:37																				
ZZZZZZ			16:41																				
ZZZZZZ			16:46																				
CCV 180-131561/80			16:50																				
CCB7 180-131561/81			16:57																				
ZZZZZZ			17:01																				
ZZZZZZ			17:06																				
ZZZZZZ			17:13																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: X Method: 6020A

Start Date: 01/22/2015 07:48 End Date: 01/22/2015 17:45

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	K	Mg	Na																
ZZZZZZ			17:17																				
ZZZZZZ			17:21																				
ZZZZZZ			17:26																				
ZZZZZZ			17:30																				
ZZZZZZ			17:34																				
CCV 180-131561/90			17:38																				
CCB8 180-131561/91			17:45																				

Prep Types

R = Total Recoverable

T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 01/21/2015 End Date: 01/21/2015

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 180-131403/2 IC	08:55	100		100		100		100		100	
STD2 180-131403/3 IC	08:58	89		93		92		89		91	
STD3 180-131403/4 IC	09:03	94		93		93		94		94	
ICV 180-131403/5	09:07	91		93		91		89		90	
ICB 180-131403/6	09:14	96		94		93		94		95	
CRI 180-131403/7	09:18	94		95		86		95		86	
ICSA 180-131403/8	09:23	85		87		89		84		86	
ICSAB 180-131403/9	09:27	86		88		86		85		90	
CCV 180-131403/10	09:34	85		92		91		89		91	
CCB1 180-131403/11	09:41	93		95		95		96		95	
CCV 180-131403/56	13:06	78		77		76		80		76	
CCB5 180-131403/57	13:14	84		79		80		86		82	
MB 180-130801/1-A	13:18	83		75		77		84		78	
LCS 180-130801/2-A	13:26	88		74		74		77		72	
180-40434-25	13:39	86		75		75		76		74	
180-40434-25 SD	13:43	84		75		76		80		75	
180-40434-25 MS	13:48	85		73		74		73		70	
180-40434-25 MSD	13:52	85		73		75		74		71	
180-40434-25 PDS	13:56	82		70		72		71		68	*
CCV 180-131403/68	14:00	73		70		72		74		72	
CCB6 180-131403/69	14:08	77		72		73		80		75	
CRI 180-131403/90	15:54	83		79		79		85		72	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 01/21/2015 End Date: 01/21/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-131403/2 IC	08:55	100		100		100					
STD2 180-131403/3 IC	08:58	94		93		99					
STD3 180-131403/4 IC	09:03	95		94		92					
ICV 180-131403/5	09:07	94		93		92					
ICB 180-131403/6	09:14	94		93		94					
CRI 180-131403/7	09:18	90		94		98					
ICSA 180-131403/8	09:23	92		92		96					
ICSAB 180-131403/9	09:27	94		95		92					
CCV 180-131403/10	09:34	94		93		89					
CCB1 180-131403/11	09:41	95		94		94					
CCV 180-131403/56	13:06	84		84		86					
CCB5 180-131403/57	13:14	87		86		91					
MB 180-130801/1-A	13:18	85		85		95					
LCS 180-130801/2-A	13:26	83		83		77					
180-40434-25	13:39	82		83		78					
180-40434-25 SD	13:43	83		83		82					
180-40434-25 MS	13:48	81		82		75					
180-40434-25 MSD	13:52	83		83		76					
180-40434-25 PDS	13:56	80		80		74					
CCV 180-131403/68	14:00	80		79		79					
CCB6 180-131403/69	14:08	81		80		83					
CRI 180-131403/90	15:54	76		86		94					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 01/22/2015 End Date: 01/22/2015

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 180-131561/2 IC	10:25	100		100		100		100		100	
STD2 180-131561/3 IC	10:28	90		94		93		90		92	
STD3 180-131561/4 IC	10:32	91		92		93		94		94	
ICV 180-131561/5	10:36	91		92		92		92		92	
ICB 180-131561/6	10:44	95		96		97		96		98	
CRI 180-131561/7	10:48	95		97		97		97		98	
ICSA 180-131561/8	10:52	80		83		85		84		84	
ICSAB 180-131561/9	10:56	81		83		81		83		85	
CCV 180-131561/10	11:04	81		91		86		91		92	
CCB1 180-131561/11	11:11	93		94		95		95		97	
MB 180-130798/1-A	11:15	98		92		95		94		95	
LCS 180-130798/2-A	11:19	112		101		96		89		91	
180-40434-1	11:23	112		97		98		93		93	
180-40434-2	11:28	110		94		95		91		92	
180-40434-3	11:32	109		93		95		92		91	
180-40434-4	11:36	109		96		93		91		90	
180-40434-5	12:03	106		91		94		93		92	
180-40434-6	12:08	106		92		96		92		93	
180-40434-7	12:13	107		95		93		91		89	
180-40434-8	12:17	101		87		91		89		88	
CCV 180-131561/22	12:21	92		97		94		95		93	
CCB2 180-131561/23	12:28	98		96		97		97		98	
180-40434-9	12:33	107		90		91		89		88	
180-40434-10	12:37	104		90		92		90		90	
180-40434-11	12:41	103		87		92		89		87	
180-40434-12	12:45	103		88		91		89		87	
180-40434-13	12:49	102		86		90		88		87	
180-40434-14	12:54	101		86		89		87		86	
180-40434-15	12:58	99		91		88		86		85	
180-40434-16	13:02	99		83		88		85		85	
180-40434-18	13:06	101		87		90		87		87	
180-40434-23	13:10	102		86		89		87		87	
CCV 180-131561/34	13:15	86		89		88		91		88	
CCB3 180-131561/35	13:22	90		87		89		92		91	
180-40434-22	13:26	101		85		88		85		85	
180-40434-22 SD	13:30	93		85		88		91		88	
180-40434-22 MS	13:35	99		84		87		84		82	
180-40434-22 MSD	13:39	101		84		87		83		82	
180-40434-22 PDS	13:43	100		83		87		83		81	
180-40434-24	13:47	103		86		90		87		86	
CRI 180-131561/42	13:54	93		89		90		95		92	
CCV 180-131561/45	14:07	84		85		87		88		87	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 01/22/2015 End Date: 01/22/2015

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
CCB4 180-131561/46	14:14	90		87		91		94		92	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 01/22/2015 End Date: 01/22/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-131561/2 IC	10:25	100		100		100					
STD2 180-131561/3 IC	10:28	94		95		98					
STD3 180-131561/4 IC	10:32	95		96		96					
ICV 180-131561/5	10:36	94		95		99					
ICB 180-131561/6	10:44	96		97		103					
CRI 180-131561/7	10:48	97		98		107					
ICSA 180-131561/8	10:52	90		92		103					
ICSAB 180-131561/9	10:56	91		92		94					
CCV 180-131561/10	11:04	95		96		97					
CCB1 180-131561/11	11:11	96		97		102					
MB 180-130798/1-A	11:15	98		98		112					
LCS 180-130798/2-A	11:19	98		99		93					
180-40434-1	11:23	98		99		93					
180-40434-2	11:28	97		98		94					
180-40434-3	11:32	97		98		95					
180-40434-4	11:36	97		98		94					
180-40434-5	12:03	98		100		98					
180-40434-6	12:08	98		100		97					
180-40434-7	12:13	96		97		93					
180-40434-8	12:17	96		97		95					
CCV 180-131561/22	12:21	97		98		92					
CCB2 180-131561/23	12:28	98		99		104					
180-40434-9	12:33	96		95		91					
180-40434-10	12:37	95		97		95					
180-40434-11	12:41	95		96		95					
180-40434-12	12:45	94		95		93					
180-40434-13	12:49	95		95		93					
180-40434-14	12:54	95		96		93					
180-40434-15	12:58	93		94		92					
180-40434-16	13:02	93		93		92					
180-40434-18	13:06	95		96		93					
180-40434-23	13:10	93		96		93					
CCV 180-131561/34	13:15	94		95		90					
CCB3 180-131561/35	13:22	94		94		100					
180-40434-22	13:26	93		94		92					
180-40434-22 SD	13:30	94		94		95					
180-40434-22 MS	13:35	92		94		89					
180-40434-22 MSD	13:39	93		93		88					
180-40434-22 PDS	13:43	92		93		88					
180-40434-24	13:47	93		96		94					
CRI 180-131561/42	13:54	96		96		102					
CCV 180-131561/45	14:07	92		94		90					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 01/22/2015 End Date: 01/22/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
CCB4 180-131561/46	14:14	95		96		102					

FORM XV - IN

Dilution Corrected Concentrations

STD1 1456094 1/21/2015 8:55:41 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:07	97.581%	0.022	-0.069	-0.070	0.000	0.902	0.494	0.039
2	08:56:32	100.862%	0.024	0.365	0.143	0.000	-0.867	0.218	0.291
3	08:56:57	101.557%	-0.047	-0.297	-0.073	0.000	-0.034	-0.712	-0.330
x		100.000%	0.000	0.000	-0.000	0.000	0.000	0.000	0.000
σ		2.124%	0.040	0.336	0.124	0.000	0.885	0.632	0.313
%RSD		2.124	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:07	0.004	0.241	0.000	2.089	2.941	-0.950	98.994%	-0.018
2	08:56:32	-0.096	-0.091	0.000	2.462	1.324	-0.969	100.266%	-0.040
3	08:56:57	0.091	-0.150	0.000	-4.551	-4.265	1.919	100.740%	0.058
x		-0.000	-0.000	0.000	0.000	0.000	0.000	100.000%	0.000
σ		0.093	0.211	0.000	3.946	3.781	1.662	0.903%	0.051
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.903	0.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:07	0.017	-0.012	-0.026	0.503	1.612	-0.003	-0.054	0.005
2	08:56:32	-0.028	0.010	0.001	-0.003	-0.543	-0.002	0.026	0.004
3	08:56:57	0.012	0.002	0.024	-0.499	-1.068	0.005	0.029	-0.009
x		-0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000
σ		0.025	0.011	0.025	0.501	1.420	0.005	0.047	0.008
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:07	0.029	0.014	-0.017	-0.139	-0.304	-0.948	0.000	-0.001
2	08:56:32	-0.020	0.002	0.015	-0.084	-0.076	-0.432	0.000	-0.000
3	08:56:57	-0.008	-0.016	0.002	0.223	0.380	1.380	0.000	0.001
x		-0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	-0.000
σ		0.026	0.015	0.016	0.195	0.348	1.223	0.000	0.001
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:07	99.041%	-0.060	0.024	99.572%	0.003	-0.005	0.008	0.058
2	08:56:32	100.243%	0.057	-0.006	100.430%	-0.011	-0.003	-0.004	-0.039
3	08:56:57	100.716%	0.003	-0.018	99.998%	0.008	0.008	-0.004	-0.019
x		100.000%	0.000	-0.000	100.000%	0.000	0.000	0.000	0.000
σ		0.863%	0.058	0.021	0.429%	0.010	0.007	0.007	0.051
%RSD		0.863	0.000	0.000	0.429	0.000	0.000	0.000	0.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:07	99.111%	-0.484	-0.074	-0.033	0.005	-0.006	99.271%	99.084%
2	08:56:32	99.547%	0.148	0.012	-0.008	0.005	0.002	99.392%	99.892%
3	08:56:57	101.342%	0.336	0.063	0.042	-0.010	0.004	101.337%	101.024%
x		100.000%	0.000	0.000	-0.000	-0.000	0.000	100.000%	100.000%
σ		1.183%	0.429	0.069	0.038	0.008	0.005	1.159%	0.974%
%RSD		1.183	0.000	0.000	0.000	0.000	0.000	1.159	0.974
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	08:56:07	0.001	-0.000	0.007	-0.008	0.000	99.843%		
2	08:56:32	-0.002	-0.000	-0.000	-0.012	-0.005	99.913%		
3	08:56:57	0.001	0.001	-0.007	0.019	0.005	100.244%		
x		0.000	0.000	-0.000	0.000	0.000	100.000%		
σ		0.002	0.001	0.007	0.017	0.005	0.214%		
%RSD		0.000	0.000	0.000	0.000	0.000	0.214		

STD2 1438946 1/21/2015 8:58:55 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	88.834%	196.700	1.288	0.415	0.000	98280.000	98110.000	98140.000
2	08:59:46	88.947%	199.600	-0.015	0.921	0.000	100100.000	100500.000	100400.000
3	09:00:11	87.672%	203.700	0.762	1.258	0.000	101700.000	101400.000	101500.000
x		88.484%	200.000	0.678	0.865	0.000	100000.000	100000.000	100000.000
σ		0.706%	3.528	0.656	0.424	0.000	1692.000	1696.000	1709.000
%RSD		0.798	1.764	96.660	49.090	0.000	1.692	1.696	1.709

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	978.200	17.280	0.000	96430.000	96620.000	98470.000	93.252%	-0.044
2	08:59:46	1007.000	17.740	0.000	101200.000	101200.000	100000.000	93.053%	0.204
3	09:00:11	1015.000	17.920	0.000	102400.000	102200.000	101500.000	91.251%	0.156
x		1000.000	17.640	0.000	100000.000	100000.000	100000.000	92.519%	0.105
σ		19.330	0.328	0.000	3155.000	2973.000	1511.000	1.102%	0.132
%RSD		1.933	1.857	0.000	3.155	2.973	1.511	1.191	125.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	197.100	197.400	983.700	48880.000	48940.000	196.100	195.600	195.200
2	08:59:46	200.800	199.500	999.400	50260.000	50100.000	201.500	201.300	201.100
3	09:00:11	202.100	203.100	1017.000	50860.000	50960.000	202.400	203.000	203.700
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		2.617	2.908	16.620	1014.000	1012.000	3.444	3.862	4.394
%RSD		1.308	1.454	1.662	2.029	2.024	1.722	1.931	2.197

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	197.000	197.500	198.900	198.300	199.500	200.800	0.000	198.400
2	08:59:46	201.300	200.200	200.100	201.500	203.200	201.900	0.000	200.400
3	09:00:11	201.700	202.400	200.900	200.200	197.300	197.300	0.000	201.100
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		2.584	2.458	1.014	1.629	2.956	2.434	0.000	1.399
%RSD		1.292	1.229	0.507	0.814	1.478	1.217	0.000	0.699

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	90.888%	0.074	0.108	88.992%	196.800	197.700	198.100	197.600
2	08:59:46	92.151%	0.089	0.092	89.589%	201.500	201.900	201.500	200.900
3	09:00:11	92.413%	0.142	0.120	88.835%	201.700	200.500	200.300	201.500
x		91.817%	0.102	0.107	89.138%	200.000	200.000	200.000	200.000
σ		0.815%	0.036	0.014	0.398%	2.808	2.135	1.720	2.116
%RSD		0.888	35.290	13.030	0.447	1.404	1.068	0.860	1.058

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	90.893%	-0.899	0.033	0.085	197.700	199.000	92.864%	92.505%
2	08:59:46	90.749%	-0.310	0.049	0.084	201.400	199.600	94.441%	93.681%
3	09:00:11	91.653%	-0.429	0.102	0.125	200.800	201.500	93.080%	93.548%
x		91.099%	-0.546	0.062	0.098	200.000	200.000	93.461%	93.245%
σ		0.486%	0.311	0.036	0.023	1.996	1.294	0.855%	0.644%
%RSD		0.533	56.980	58.670	23.520	0.998	0.647	0.915	0.691

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:21	188.500	189.400	186.900	189.000	187.800	103.966%
2	08:59:46	203.300	201.700	203.200	201.400	201.800	98.503%
3	09:00:11	208.200	208.900	209.900	209.600	210.400	95.130%
x		200.000	200.000	200.000	200.000	200.000	99.200%
σ		10.220	9.868	11.800	10.370	11.420	4.459%
%RSD		5.109	4.934	5.899	5.186	5.711	4.495

STD3 1438947 1/21/2015 9:03:05 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	91.086%	0.224	197.200	196.300	0.000	205.400	145.600	144.400
2	09:03:55	94.695%	0.267	200.100	196.600	0.000	183.100	132.000	129.000
3	09:04:20	94.877%	0.266	202.800	207.200	0.000	176.200	118.100	118.900
x		93.553%	0.252	200.000	200.000	0.000	188.200	131.900	130.800
σ		2.138%	0.025	2.817	6.201	0.000	15.230	13.710	12.800
%RSD		2.285	9.716	1.408	3.101	0.000	8.090	10.390	9.789

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	7.330	9905.000	0.000	151.900	137.700	233.100	91.707%	194.300
2	09:03:55	6.420	10020.000	0.000	139.900	144.400	217.200	92.974%	205.300
3	09:04:20	5.765	10070.000	0.000	139.400	122.200	206.600	93.901%	200.300
x		6.505	10000.000	0.000	143.800	134.700	219.000	92.860%	200.000
σ		0.786	86.550	0.000	7.097	11.390	13.350	1.101%	5.497
%RSD		12.080	0.866	0.000	4.937	8.454	6.096	1.186	2.749

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	0.332	0.270	3.216	149.800	159.600	0.297	0.554	0.305
2	09:03:55	0.256	0.258	3.208	114.600	117.000	0.285	0.701	0.254
3	09:04:20	0.247	0.208	2.982	87.670	92.460	0.258	0.559	0.349
x		0.278	0.245	3.135	117.400	123.000	0.280	0.604	0.303
σ		0.047	0.033	0.133	31.140	33.940	0.020	0.083	0.048
%RSD		16.720	13.310	4.228	26.540	27.590	7.234	13.790	15.810

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	0.330	1.370	1.354	0.437	-0.015	0.376	0.000	0.389
2	09:03:55	0.341	1.251	1.185	0.387	0.269	0.848	0.000	0.392
3	09:04:20	0.516	1.218	1.382	0.587	0.195	1.848	0.000	0.346
x		0.395	1.279	1.307	0.470	0.149	1.024	0.000	0.376
σ		0.104	0.080	0.107	0.104	0.147	0.752	0.000	0.026
%RSD		26.400	6.251	8.156	22.180	98.630	73.400	0.000	6.805

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	91.718%	193.000	193.400	92.287%	0.260	0.251	0.470	-0.234
2	09:03:55	93.151%	201.600	202.100	94.009%	0.260	0.237	0.529	-0.495
3	09:04:20	94.092%	205.300	204.500	94.528%	0.261	0.219	0.475	-0.474
x		92.987%	200.000	200.000	93.608%	0.261	0.236	0.491	-0.401
σ		1.195%	6.319	5.880	1.173%	0.001	0.016	0.032	0.145
%RSD		1.286	3.160	2.940	1.253	0.243	6.859	6.600	36.120

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	94.991%	189.600	193.200	191.500	0.557	0.662	93.375%	92.179%
2	09:03:55	93.646%	203.600	201.800	201.900	0.434	0.734	95.801%	93.305%
3	09:04:20	93.608%	206.800	205.000	206.500	0.356	0.661	95.928%	95.019%
x		94.082%	200.000	200.000	200.000	0.449	0.686	95.035%	93.501%
σ		0.788%	9.174	6.074	7.689	0.101	0.042	1.439%	1.430%
%RSD		0.838	4.587	3.037	3.845	22.600	6.090	1.514	1.530

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:30	0.326	0.293	0.359	0.359	0.360	93.308%
2	09:03:55	0.269	0.262	0.323	0.326	0.338	91.432%
3	09:04:20	0.304	0.278	0.341	0.305	0.320	91.065%
x		0.300	0.278	0.341	0.330	0.339	91.935%
σ		0.029	0.016	0.018	0.027	0.020	1.203%
%RSD		9.565	5.661	5.330	8.284	5.795	1.309

ICV 1451360 1/21/2015 9:07:14 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:39	89.766%	76.970	79.930	84.880	0.000	38420.000	36920.000	37020.000
2	09:08:04	90.046%	83.950	88.530	89.140	0.000	39410.000	38390.000	39230.000
3	09:08:29	92.156%	80.980	92.280	87.560	0.000	39980.000	38630.000	39430.000
x		90.656%	100.793%	108.646%	108.992%	0.000	98.173%	94.951%	96.397%
σ		1.306%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.441	4.347	7.283	2.468	0.000	2.010	2.444	3.463
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:39	366.300	4377.000	0.000	38410.000	37530.000	39240.000	91.902%	78.690
2	09:08:04	383.600	4762.000	0.000	41300.000	40440.000	41990.000	92.141%	83.960
3	09:08:29	385.600	4841.000	0.000	40920.000	40100.000	42320.000	93.425%	83.930
x		94.622%	116.499%	0.000	100.533%	98.393%	102.959%	92.489%	102.746%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.819%	n/a
%RSD		2.799	5.320	0.000	3.907	4.034	4.105	0.885	3.690
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:39	74.700	76.560	391.400	18920.000	20110.000	76.600	77.130	78.030
2	09:08:04	78.340	79.950	412.500	19970.000	21290.000	79.490	80.770	80.990
3	09:08:29	78.620	80.440	417.400	20170.000	21530.000	81.200	80.590	80.390
x		96.525%	98.725%	101.768%	98.425%	104.875%	98.870%	99.370%	99.751%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.836	2.676	3.397	3.419	3.630	2.943	2.580	1.960
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:39	77.700	76.060	77.460	76.700	74.220	77.230	0.000	75.680
2	09:08:04	79.390	79.130	80.300	80.150	80.360	80.820	0.000	78.140
3	09:08:29	80.360	81.580	80.370	81.820	80.630	81.980	0.000	79.450
x		98.935%	98.652%	99.219%	99.445%	98.003%	100.011%	0.000	97.196%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.697	3.504	2.089	3.284	4.620	3.098	0.000	2.461
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:39	88.901%	83.010	82.720	88.580%	77.020	77.060	77.380	76.560
2	09:08:04	91.347%	85.710	86.860	89.031%	81.090	82.080	80.850	80.960
3	09:08:29	92.600%	86.610	87.420	90.269%	80.660	80.640	80.340	81.970
x		90.949%	106.388%	107.083%	89.293%	99.490%	99.905%	99.401%	99.792%
σ		1.881%	n/a	n/a	0.874%	n/a	n/a	n/a	n/a
%RSD		2.068	2.201	2.998	0.979	2.809	3.235	2.355	3.602
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:39	89.353%	79.530	79.870	83.130	77.550	79.250	91.344%	91.032%
2	09:08:04	89.660%	83.980	83.630	84.540	80.480	80.860	95.321%	93.502%
3	09:08:29	90.494%	85.440	84.030	84.760	81.090	81.350	95.819%	93.770%
x		89.836%	103.727%	103.141%	105.177%	99.632%	100.610%	94.162%	92.768%
σ		0.590%	n/a	n/a	n/a	n/a	n/a	2.453%	1.509%
%RSD		0.657	3.713	2.781	1.049	2.373	1.362	2.605	1.627
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:07:39	82.320	80.580	80.720	78.530	79.120	93.660%		
2	09:08:04	89.690	86.470	88.640	85.290	86.810	91.106%		
3	09:08:29	89.820	87.710	89.650	86.200	87.740	91.293%		
x		109.096%	106.151%	107.920%	104.175%	105.697%	92.020%		
σ		n/a	n/a	n/a	n/a	n/a	1.424%		
%RSD		4.919	4.486	5.663	5.030	5.598	1.547		

ICB 1/21/2015 9:14:32 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:57	92.212%	-0.048	0.226	0.473	0.000	35.750	13.450	14.160
2	09:15:22	96.662%	0.038	0.038	-0.105	0.000	27.680	5.772	5.875
3	09:15:47	98.516%	-0.038	-0.668	-0.091	0.000	26.620	6.797	6.084
x		95.796%	-0.016	-0.135	0.092	0.000	30.020	8.674	8.707
σ		3.240%	0.047	0.471	0.330	0.000	4.996	4.170	4.725
%RSD		3.382	296.800	350.500	356.600	0.000	16.650	48.080	54.270
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:57	0.435	13.660	0.000	21.810	25.190	13.130	92.394%	-0.414
2	09:15:22	-0.254	3.531	0.000	17.080	9.665	3.623	94.157%	-0.325
3	09:15:47	-0.515	3.513	0.000	16.580	15.620	9.082	93.869%	-0.279
x		-0.112	6.901	0.000	18.490	16.830	8.611	93.474%	-0.339
σ		0.491	5.852	0.000	2.886	7.833	4.770	0.946%	0.069
%RSD		440.000	84.800	0.000	15.610	46.550	55.400	1.012	20.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:57	-0.006	-0.049	0.082	11.800	17.540	0.026	0.018	-0.219
2	09:15:22	-0.014	-0.015	0.015	2.263	9.846	0.004	-0.037	-0.258
3	09:15:47	0.016	-0.017	0.018	2.058	5.035	0.009	0.059	-0.298
x		-0.001	-0.027	0.038	5.372	10.810	0.013	0.013	-0.259
σ		0.016	0.020	0.038	5.564	6.306	0.011	0.048	0.039
%RSD		1236.000	72.710	98.430	103.600	58.360	85.030	357.000	15.260
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:57	-0.177	0.300	0.246	-0.056	-0.358	-0.403	0.000	0.023
2	09:15:22	-0.294	0.027	-0.000	-0.062	-0.280	-0.099	0.000	0.011
3	09:15:47	-0.287	0.030	0.064	0.009	0.058	0.573	0.000	0.011
x		-0.253	0.119	0.103	-0.036	-0.193	0.024	0.000	0.015
σ		0.066	0.157	0.128	0.040	0.221	0.499	0.000	0.007
%RSD		25.950	131.600	123.400	109.200	114.300	2084.000	0.000	46.730
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:57	91.546%	0.249	0.219	93.073%	0.010	0.001	0.021	0.053
2	09:15:22	93.606%	0.111	0.133	93.721%	-0.027	-0.021	0.004	0.028
3	09:15:47	94.574%	0.146	0.098	93.996%	0.002	-0.017	0.008	0.008
x		93.242%	0.169	0.150	93.597%	-0.005	-0.012	0.011	0.029
σ		1.546%	0.071	0.062	0.474%	0.019	0.012	0.009	0.023
%RSD		1.658	42.410	41.320	0.506	382.300	93.080	77.130	76.590
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:57	92.848%	-1.837	-0.534	-0.506	0.003	0.027	91.436%	91.958%
2	09:15:22	95.820%	-2.141	-0.568	-0.498	-0.017	0.014	95.018%	93.908%
3	09:15:47	95.247%	-1.926	-0.538	-0.509	-0.008	0.009	95.490%	94.478%
x		94.638%	-1.968	-0.547	-0.504	-0.007	0.016	93.981%	93.448%
σ		1.577%	0.156	0.018	0.006	0.010	0.009	2.217%	1.321%
%RSD		1.666	7.947	3.379	1.133	144.400	56.200	2.359	1.414
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:14:57	0.033	0.026	0.036	0.006	0.028	94.111%		
2	09:15:22	0.016	0.015	0.017	0.001	0.007	95.049%		
3	09:15:47	0.014	0.014	0.018	-0.008	0.009	93.940%		
x		0.021	0.018	0.024	-0.000	0.015	94.367%		
σ		0.010	0.007	0.011	0.007	0.011	0.597%		
%RSD		48.790	36.450	44.810	2494.000	78.320	0.632		

CRI 1451384 1/21/2015 9:18:47 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:19:12	91.563%	0.717	4.511	5.126	0.000	124.200	101.100	101.300
2	09:19:37	95.178%	0.865	6.025	5.575	0.000	122.800	98.470	101.800
3	09:20:02	96.025%	0.927	5.267	4.622	0.000	119.700	99.340	99.540
x		94.256%	83.597%	105.354%	102.157%	0.000	152.797%	99.651%	100.908%
σ		2.370%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.514	12.920	14.370	9.331	0.000	1.897	1.363	1.201
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:19:12	29.810	486.300	0.000	123.300	115.500	104.100	93.519%	4.013
2	09:19:37	29.880	487.900	0.000	121.200	117.000	104.900	94.415%	5.160
3	09:20:02	30.030	490.900	0.000	116.400	97.860	103.600	95.709%	4.932
x		99.698%	97.675%	0.000	120.316%	110.131%	104.195%	94.547%	94.033%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.101%	n/a
%RSD		0.368	0.469	0.000	2.920	9.670	0.657	1.164	12.920
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:19:12	0.870	1.773	4.672	54.640	65.390	0.464	1.005	1.871
2	09:19:37	0.796	1.919	5.072	54.480	61.810	0.535	1.080	1.979
3	09:20:02	0.768	1.855	5.102	52.450	57.800	0.515	1.012	2.011
x		81.107%	92.437%	98.974%	107.711%	123.333%	100.964%	103.221%	97.686%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.493	3.950	4.854	2.264	6.156	7.227	3.998	3.749
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:19:12	1.933	5.468	4.979	1.241	5.206	6.810	0.000	4.953
2	09:19:37	2.154	5.250	5.597	0.623	6.161	4.922	0.000	5.203
3	09:20:02	1.952	5.654	5.950	1.052	5.483	6.002	0.000	5.182
x		100.651%	109.145%	110.171%	97.208%	112.328%	118.221%	0.000	102.246%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		6.098	3.698	8.923	32.630	8.745	16.020	0.000	2.710
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:19:12	83.918%	5.061	4.685	93.817%	0.951	0.919	0.945	4.256
2	09:19:37	86.237%	5.136	4.999	94.830%	0.934	0.994	0.977	1.021
3	09:20:02	87.195%	5.613	5.162	95.419%	0.964	0.995	1.091	1.086
x		85.783%	105.400%	98.971%	94.689%	94.974%	96.926%	100.411%	212.108%
σ		1.685%	n/a	n/a	0.810%	n/a	n/a	n/a	n/a
%RSD		1.964	5.678	4.903	0.856	1.546	4.518	7.665	87.180
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:19:12	83.667%	3.513	1.430	1.616	9.559	10.080	89.228%	92.032%
2	09:19:37	87.460%	3.591	1.524	1.566	10.470	10.400	90.178%	94.923%
3	09:20:02	88.211%	3.729	1.553	1.478	10.660	10.260	91.815%	95.525%
x		86.446%	72.221%	75.123%	77.660%	102.299%	102.461%	90.407%	94.160%
σ		2.436%	n/a	n/a	n/a	n/a	n/a	1.308%	1.867%
%RSD		2.818	3.030	4.292	4.482	5.763	1.528	1.447	1.983
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:19:12	0.913	0.945	1.074	1.009	1.013	97.994%		
2	09:19:37	1.037	0.989	1.035	0.943	0.996	97.828%		
3	09:20:02	0.973	0.965	1.070	1.025	1.031	97.808%		
x		97.417%	96.638%	105.989%	99.243%	101.315%	97.876%		
σ		n/a	n/a	n/a	n/a	n/a	0.102%		
%RSD		6.349	2.307	2.037	4.379	1.744	0.104		

ICSA 1451382 1/21/2015 9:23:02 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:28	82.424%	-0.063	-0.270	0.268	0.000	98250.000	95350.000	95470.000
2	09:23:53	85.332%	0.012	0.260	-0.246	0.000	98960.000	96670.000	98090.000
3	09:24:18	86.747%	-0.059	-0.447	-0.139	0.000	99560.000	98170.000	100300.000
x		84.834%	-0.037	-0.152	-0.039	0.000	98930.000	96730.000	97950.000
σ		2.204%	0.042	0.367	0.271	0.000	656.600	1410.000	2415.000
%RSD		2.598	115.400	241.500	693.600	0.000	0.664	1.458	2.465
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:28	91420.000	33.370	0.000	98780.000	94110.000	93010.000	87.287%	2062.000
2	09:23:53	94100.000	28.670	0.000	101900.000	101000.000	100900.000	87.293%	2147.000
3	09:24:18	96750.000	29.640	0.000	104200.000	103800.000	102200.000	86.712%	2233.000
x		94090.000	30.560	0.000	101600.000	99650.000	98680.000	87.097%	2147.000
σ		2664.000	2.480	0.000	2734.000	4993.000	4949.000	0.334%	85.320
%RSD		2.831	8.116	0.000	2.690	5.010	5.015	0.383	3.973
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:28	-0.535	0.107	0.587	92810.000	93930.000	0.140	-0.215	1.167
2	09:23:53	-0.718	0.164	0.641	98130.000	98090.000	0.141	-0.150	1.202
3	09:24:18	-0.418	0.160	0.601	100800.000	100900.000	0.119	-0.231	1.171
x		-0.557	0.144	0.610	97250.000	97630.000	0.133	-0.199	1.180
σ		0.151	0.032	0.028	4066.000	3487.000	0.012	0.043	0.019
%RSD		27.180	22.430	4.610	4.181	3.572	9.172	21.600	1.627
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:28	2.321	3.299	1.801	-0.399	0.493	-4.414	0.000	0.689
2	09:23:53	2.030	2.997	2.005	-0.520	-0.491	-1.852	0.000	0.718
3	09:24:18	2.357	3.093	2.097	0.306	-1.204	-0.965	0.000	0.675
x		2.236	3.130	1.967	-0.204	-0.401	-2.410	0.000	0.694
σ		0.180	0.154	0.151	0.446	0.852	1.791	0.000	0.022
%RSD		8.030	4.928	7.693	218.600	212.600	74.290	0.000	3.129
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:28	87.303%	2108.000	2179.000	83.798%	0.036	0.024	2.396	2.609
2	09:23:53	88.386%	2219.000	2345.000	83.363%	0.012	0.020	2.309	0.431
3	09:24:18	89.915%	2268.000	2195.000	84.953%	0.005	0.004	2.191	2.696
x		88.535%	2198.000	2240.000	84.038%	0.018	0.016	2.299	1.912
σ		1.312%	81.630	91.350	0.822%	0.016	0.011	0.103	1.283
%RSD		1.482	3.714	4.079	0.978	89.290	67.260	4.468	67.110
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:28	86.019%	-1.977	-0.501	-0.548	0.163	0.117	89.556%	90.645%
2	09:23:53	85.125%	-1.806	-0.528	-0.477	0.155	0.129	93.979%	91.786%
3	09:24:18	86.157%	-1.829	-0.490	-0.492	0.128	0.099	93.694%	93.949%
x		85.767%	-1.870	-0.507	-0.506	0.148	0.115	92.410%	92.127%
σ		0.560%	0.093	0.020	0.038	0.018	0.015	2.476%	1.678%
%RSD		0.653	4.960	3.880	7.415	12.310	12.790	2.679	1.822
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:23:28	0.014	0.012	0.293	0.233	0.256	102.777%		
2	09:23:53	0.011	0.016	0.297	0.281	0.278	95.332%		
3	09:24:18	0.006	0.014	0.301	0.302	0.299	91.146%		
x		0.010	0.014	0.297	0.272	0.278	96.418%		
σ		0.004	0.002	0.004	0.035	0.021	5.891%		
%RSD		36.950	13.920	1.299	13.030	7.694	6.110		

ICSAB 1451383 1/21/2015 9:27:14 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:39	83.357%	19.660	51.120	50.780	0.000	99480.000	95920.000	95700.000
2	09:28:04	86.260%	20.690	51.260	51.090	0.000	100200.000	98300.000	98820.000
3	09:28:29	88.645%	20.010	47.510	48.960	0.000	99360.000	97880.000	98790.000
x		86.087%	100.584%	99.930%	100.561%	0.000	99.680%	97.365%	97.772%
σ		2.649%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.077	2.600	4.258	2.288	0.000	0.453	1.302	1.834
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:39	93250.000	524.200	0.000	97610.000	94270.000	95770.000	87.210%	2080.000
2	09:28:04	95270.000	532.200	0.000	101300.000	99990.000	100400.000	88.626%	2152.000
3	09:28:29	95950.000	528.200	0.000	101500.000	101500.000	103300.000	88.569%	2180.000
x		94.825%	105.643%	0.000	100.123%	98.599%	99.822%	88.135%	106.878%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.801%	n/a
%RSD		1.480	0.752	0.000	2.174	3.880	3.798	0.909	2.420
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:39	17.790	18.440	19.120	95250.000	97520.000	18.780	18.170	19.900
2	09:28:04	18.290	19.200	19.680	98580.000	100100.000	19.020	19.120	20.850
3	09:28:29	18.170	19.060	19.670	99890.000	102000.000	19.410	19.440	20.610
x		90.424%	94.505%	97.454%	97.909%	99.875%	95.353%	94.555%	102.265%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.457	2.130	1.642	2.442	2.235	1.654	3.495	2.426
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:39	21.940	22.060	21.320	20.060	48.730	50.330	0.000	19.750
2	09:28:04	21.660	22.870	21.620	20.690	53.530	52.360	0.000	20.210
3	09:28:29	22.060	22.650	22.620	19.950	53.400	53.280	0.000	20.400
x		109.436%	90.112%	87.409%	101.166%	103.774%	103.982%	0.000	100.590%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.928	1.848	3.107	1.973	5.272	2.903	0.000	1.645
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:39	84.612%	2185.000	2264.000	84.618%	18.280	18.280	20.590	18.620
2	09:28:04	86.160%	2316.000	2224.000	85.065%	18.860	18.820	21.810	21.730
3	09:28:29	87.496%	2341.000	2263.000	85.068%	19.110	18.630	21.960	22.290
x		86.089%	114.047%	112.509%	84.917%	93.761%	92.882%	107.270%	104.387%
σ		1.443%	n/a	n/a	0.259%	n/a	n/a	n/a	n/a
%RSD		1.676	3.670	0.999	0.305	2.263	1.489	3.506	9.465
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:39	89.553%	91.890	18.180	18.240	18.820	18.660	92.024%	93.149%
2	09:28:04	89.931%	97.340	19.010	19.190	18.660	19.130	94.511%	95.202%
3	09:28:29	90.200%	98.820	19.500	19.450	19.800	19.330	95.952%	95.891%
x		89.895%	96.019%	94.478%	94.804%	95.453%	95.201%	94.162%	94.747%
σ		0.325%	n/a	n/a	n/a	n/a	n/a	1.987%	1.427%
%RSD		0.361	3.802	3.541	3.355	3.231	1.822	2.110	1.506
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:27:39	18.960	18.280	19.780	19.740	19.370	93.539%		
2	09:28:04	20.600	19.650	21.640	21.620	21.070	90.732%		
3	09:28:29	20.950	20.150	21.950	21.390	21.550	90.128%		
x		100.853%	96.800%	105.601%	104.584%	103.330%	91.466%		
σ		n/a	n/a	n/a	n/a	n/a	1.820%		
%RSD		5.259	5.019	5.555	4.889	5.546	1.990		

CCV 1455996 1/21/2015 9:34:35 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:00	82.740%	97.020	103.100	102.400	0.000	49420.000	47340.000	47790.000
2	09:35:25	85.485%	99.990	105.100	107.300	0.000	50320.000	48450.000	48820.000
3	09:35:50	87.668%	102.000	103.500	105.100	0.000	50470.000	49240.000	48860.000
x		85.298%	99.680%	103.922%	104.924%	0.000	100.134%	96.686%	96.980%
σ		2.469%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.895	2.522	0.988	2.309	0.000	1.135	1.975	1.252
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:00	524.800	5038.000	0.000	49150.000	46850.000	46000.000	90.553%	97.110
2	09:35:25	519.100	5163.000	0.000	50010.000	48670.000	48900.000	91.758%	100.800
3	09:35:50	512.000	5073.000	0.000	48880.000	48090.000	49310.000	93.452%	102.600
x		103.733%	101.833%	0.000	98.695%	95.736%	96.142%	91.921%	100.170%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.456%	n/a
%RSD		1.237	1.267	0.000	1.199	1.938	3.748	1.584	2.809
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:00	90.760	92.290	489.400	23490.000	25420.000	93.320	95.590	94.940
2	09:35:25	94.160	95.690	508.700	24410.000	26320.000	96.330	96.550	98.350
3	09:35:50	95.230	95.630	512.000	24310.000	26550.000	95.520	98.300	97.740
x		93.384%	94.538%	100.669%	96.279%	104.382%	95.059%	96.813%	97.009%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.501	2.056	2.430	2.078	2.292	1.641	1.420	1.875
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:00	93.680	93.180	93.690	95.450	98.100	95.440	0.000	92.730
2	09:35:25	97.380	96.430	95.220	96.280	96.130	99.300	0.000	95.390
3	09:35:50	98.630	100.200	97.280	96.410	95.780	97.240	0.000	96.400
x		96.560%	96.617%	95.395%	96.048%	96.673%	97.327%	0.000	94.838%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.667	3.662	1.885	0.542	1.293	1.985	0.000	1.996
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:00	89.210%	96.490	96.390	87.833%	93.450	93.410	93.710	93.260
2	09:35:25	91.985%	101.900	102.800	88.616%	96.810	96.930	97.250	96.870
3	09:35:50	93.121%	104.200	104.300	89.910%	95.970	95.520	98.210	94.580
x		91.438%	100.859%	101.164%	88.786%	95.409%	95.288%	96.388%	94.903%
σ		2.012%	n/a	n/a	1.049%	n/a	n/a	n/a	n/a
%RSD		2.200	3.930	4.156	1.181	1.830	1.862	2.462	1.925
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:00	89.286%	92.690	94.040	95.010	95.090	94.990	91.584%	91.589%
2	09:35:25	91.015%	94.930	95.310	95.950	97.010	95.010	94.703%	92.580%
3	09:35:50	93.609%	94.820	96.080	96.320	97.790	96.990	95.284%	95.521%
x		91.303%	94.147%	95.142%	95.761%	96.629%	95.664%	93.857%	93.230%
σ		2.176%	n/a	n/a	n/a	n/a	n/a	1.990%	2.045%
%RSD		2.383	1.342	1.078	0.706	1.433	1.204	2.120	2.193
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:35:00	102.300	100.300	103.200	102.600	102.100	87.619%		
2	09:35:25	105.600	103.900	106.400	107.100	106.600	88.674%		
3	09:35:50	105.700	104.800	107.300	107.800	106.700	90.458%		
x		104.536%	103.003%	105.606%	105.829%	105.120%	88.917%		
σ		n/a	n/a	n/a	n/a	n/a	1.435%		
%RSD		1.883	2.345	2.042	2.657	2.512	1.614		

CCB1 1/21/2015 9:41:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:19	89.609%	0.010	-0.035	-0.433	0.000	86.520	22.450	21.620
2	09:42:44	92.698%	-0.087	-0.263	-0.819	0.000	79.700	14.700	14.740
3	09:43:09	95.727%	-0.044	-0.779	-0.635	0.000	74.140	12.190	11.880
x		92.678%	-0.040	-0.359	-0.629	0.000	80.120	16.450	16.080
σ		3.059%	0.049	0.381	0.193	0.000	6.201	5.349	5.003
%RSD		3.301	120.400	106.200	30.680	0.000	7.739	32.520	31.120
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:19	7.445	8.087	0.000	43.750	14.040	23.010	94.705%	0.008
2	09:42:44	4.390	5.163	0.000	37.740	26.950	13.120	95.339%	-0.057
3	09:43:09	2.863	2.441	0.000	34.000	15.160	10.660	95.575%	-0.194
x		4.899	5.230	0.000	38.500	18.720	15.600	95.206%	-0.081
σ		2.333	2.824	0.000	4.920	7.154	6.538	0.450%	0.103
%RSD		47.620	53.990	0.000	12.780	38.220	41.920	0.472	127.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:19	-0.027	-0.039	0.080	27.530	31.300	0.014	-0.083	-0.294
2	09:42:44	-0.014	0.036	0.054	20.730	21.200	0.017	-0.067	-0.328
3	09:43:09	-0.013	-0.039	0.040	15.710	13.850	0.009	-0.072	-0.299
x		-0.018	-0.014	0.058	21.320	22.120	0.014	-0.074	-0.307
σ		0.008	0.044	0.020	5.930	8.764	0.004	0.008	0.019
%RSD		41.990	309.400	34.730	27.810	39.620	29.220	11.180	6.066
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:19	-0.278	0.141	0.171	-0.054	0.591	0.162	0.000	0.030
2	09:42:44	-0.299	0.068	0.102	0.196	0.516	1.964	0.000	0.018
3	09:43:09	-0.361	0.122	0.038	0.015	0.481	0.785	0.000	0.015
x		-0.313	0.110	0.104	0.052	0.529	0.970	0.000	0.021
σ		0.043	0.038	0.067	0.129	0.056	0.915	0.000	0.008
%RSD		13.840	34.270	64.370	247.400	10.560	94.310	0.000	39.060
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:19	92.788%	0.839	0.842	94.603%	-0.009	-0.025	0.041	0.012
2	09:42:44	95.140%	0.985	0.945	95.472%	-0.015	-0.035	0.004	0.102
3	09:43:09	97.476%	0.878	0.817	96.341%	-0.020	-0.024	0.000	0.019
x		95.135%	0.900	0.868	95.472%	-0.015	-0.028	0.015	0.044
σ		2.344%	0.076	0.068	0.869%	0.006	0.006	0.022	0.050
%RSD		2.464	8.398	7.860	0.910	38.260	21.260	147.900	112.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:19	93.495%	-2.575	-0.529	-0.492	0.028	0.012	92.541%	92.126%
2	09:42:44	95.612%	-2.501	-0.523	-0.532	0.035	0.019	95.389%	94.471%
3	09:43:09	96.767%	-2.526	-0.533	-0.526	-0.008	0.029	97.284%	96.074%
x		95.291%	-2.534	-0.528	-0.517	0.018	0.020	95.071%	94.224%
σ		1.659%	0.038	0.005	0.022	0.023	0.008	2.388%	1.986%
%RSD		1.741	1.482	0.950	4.216	127.400	41.130	2.511	2.107
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:42:19	0.033	0.029	0.054	0.014	0.041	93.947%		
2	09:42:44	0.023	0.026	0.030	0.024	0.026	93.396%		
3	09:43:09	0.029	0.019	0.018	0.022	0.014	93.786%		
x		0.028	0.025	0.034	0.020	0.027	93.710%		
σ		0.005	0.005	0.018	0.005	0.014	0.283%		
%RSD		18.270	21.020	54.540	26.980	51.570	0.302		

MB 180-131061/1-A 1/21/2015 9:46:05 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:46:31	91.633%	0.030	-0.074	-0.629	0.000	60.120	3.658	4.584
2	09:46:56	96.085%	-0.130	-1.160	-0.971	0.000	51.810	3.281	3.019
3	09:47:21	98.943%	-0.111	-0.898	-0.651	0.000	47.730	3.315	3.009
x		95.554%	-0.070	-0.710	-0.750	0.000	53.220	3.418	3.537
σ		3.683%	0.087	0.567	0.191	0.000	6.313	0.209	0.906
%RSD		3.855	124.600	79.780	25.520	0.000	11.860	6.102	25.620
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:46:31	1.585	7.096	0.000	64.230	17.970	12.700	91.515%	-0.365
2	09:46:56	1.319	2.997	0.000	52.710	17.130	14.590	93.892%	-0.248
3	09:47:21	1.146	2.863	0.000	47.580	3.559	13.100	95.238%	-0.359
x		1.350	4.319	0.000	54.840	12.880	13.470	93.549%	-0.324
σ		0.221	2.406	0.000	8.528	8.087	0.994	1.885%	0.066
%RSD		16.380	55.710	0.000	15.550	62.770	7.381	2.015	20.330
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:46:31	-0.415	0.749	-0.010	9.825	9.887	-0.003	-0.017	0.621
2	09:46:56	0.021	0.706	-0.024	7.020	8.794	-0.007	0.019	0.677
3	09:47:21	-0.152	0.664	-0.023	4.950	4.952	-0.007	0.019	0.729
x		-0.182	0.707	-0.019	7.265	7.878	-0.006	0.007	0.675
σ		0.219	0.042	0.008	2.446	2.592	0.003	0.021	0.054
%RSD		120.600	5.991	41.020	33.670	32.900	46.700	302.900	8.028
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:46:31	0.587	1.146	1.162	0.028	-0.178	-0.850	0.000	0.023
2	09:46:56	0.543	1.318	1.419	0.098	-0.821	1.036	0.000	0.018
3	09:47:21	0.648	1.123	1.320	-0.817	-0.076	1.023	0.000	0.024
x		0.593	1.196	1.300	-0.230	-0.358	0.403	0.000	0.022
σ		0.052	0.107	0.130	0.509	0.404	1.085	0.000	0.003
%RSD		8.848	8.914	9.973	221.400	112.800	269.300	0.000	14.640
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:46:31	90.160%	0.533	0.477	92.202%	-0.031	-0.023	0.005	0.031
2	09:46:56	93.448%	0.443	0.477	93.955%	-0.048	-0.034	0.000	0.010
3	09:47:21	96.515%	0.510	0.482	94.582%	-0.017	-0.011	-0.004	0.015
x		93.374%	0.496	0.479	93.580%	-0.032	-0.023	0.001	0.019
σ		3.178%	0.047	0.003	1.234%	0.015	0.012	0.004	0.011
%RSD		3.403	9.402	0.629	1.319	48.170	51.600	756.700	58.720
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:46:31	90.774%	-2.203	-0.577	-0.555	0.014	0.005	90.581%	89.897%
2	09:46:56	94.697%	-2.014	-0.586	-0.571	0.022	0.001	94.348%	93.736%
3	09:47:21	94.350%	-1.944	-0.547	-0.559	-0.003	0.020	95.179%	94.699%
x		93.274%	-2.054	-0.570	-0.562	0.011	0.009	93.369%	92.777%
σ		2.172%	0.134	0.021	0.009	0.012	0.010	2.450%	2.541%
%RSD		2.328	6.506	3.607	1.556	112.000	114.500	2.624	2.739
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:46:31	0.016	0.009	0.156	0.131	0.136	103.143%		
2	09:46:56	0.007	0.010	0.160	0.131	0.138	97.518%		
3	09:47:21	0.009	0.008	0.133	0.115	0.120	94.265%		
x		0.010	0.009	0.150	0.126	0.131	98.308%		
σ		0.005	0.001	0.015	0.009	0.010	4.492%		
%RSD		43.080	11.920	9.882	7.455	7.615	4.569		

LCS 180-131061/2-A 1/21/2015 9:50:15 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:50:40	102.410%	43.140	927.600	924.600	0.000	42440.000	40610.000	41270.000
2	09:51:05	107.489%	45.430	934.800	942.500	0.000	42980.000	41700.000	42440.000
3	09:51:30	110.104%	45.880	951.600	943.000	0.000	43430.000	42360.000	42850.000
x		106.668%	44.820	938.000	936.700	0.000	42950.000	41560.000	42190.000
σ		3.912%	1.473	12.290	10.480	0.000	498.200	884.700	823.200
%RSD		3.668	3.287	1.310	1.119	0.000	1.160	2.129	1.951
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:50:40	1758.000	8750.000	0.000	45670.000	44560.000	43250.000	93.443%	885.600
2	09:51:05	1659.000	8805.000	0.000	46760.000	45600.000	44910.000	95.099%	923.800
3	09:51:30	1692.000	8842.000	0.000	46560.000	47410.000	47050.000	95.194%	928.400
x		1703.000	8799.000	0.000	46330.000	45850.000	45070.000	94.579%	912.600
σ		50.490	46.460	0.000	584.000	1440.000	1901.000	0.984%	23.500
%RSD		2.965	0.528	0.000	1.261	3.141	4.218	1.041	2.575
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:50:40	449.100	175.600	451.400	890.000	1084.000	449.300	437.100	233.000
2	09:51:05	470.800	180.200	472.000	924.400	1112.000	468.300	453.000	241.800
3	09:51:30	469.200	183.500	480.600	933.200	1115.000	473.300	457.500	241.700
x		463.000	179.800	468.000	915.900	1104.000	463.600	449.200	238.800
σ		12.090	3.957	14.980	22.840	17.190	12.660	10.750	5.032
%RSD		2.612	2.201	3.200	2.493	1.557	2.730	2.394	2.107
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:50:40	230.300	441.600	434.300	36.220	8.365	9.302	0.000	876.700
2	09:51:05	238.700	456.800	454.000	36.860	7.951	8.474	0.000	915.600
3	09:51:30	238.300	464.700	461.700	38.070	8.022	9.588	0.000	908.600
x		235.800	454.300	450.000	37.050	8.113	9.121	0.000	900.300
σ		4.705	11.770	14.110	0.943	0.221	0.578	0.000	20.720
%RSD		1.996	2.591	3.136	2.544	2.726	6.341	0.000	2.301
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:50:40	90.455%	939.400	959.300	85.993%	45.670	45.710	46.110	38.450
2	09:51:05	92.771%	991.000	998.600	87.896%	47.060	46.550	49.050	43.530
3	09:51:30	95.801%	1001.000	1030.000	88.752%	46.200	45.290	48.300	41.580
x		93.009%	977.000	996.100	87.547%	46.310	45.850	47.820	41.190
σ		2.681%	32.940	35.580	1.412%	0.699	0.639	1.528	2.564
%RSD		2.883	3.371	3.572	1.613	1.509	1.393	3.195	6.225
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:50:40	86.182%	1846.000	474.400	469.900	1822.000	1897.000	92.519%	90.939%
2	09:51:05	86.555%	1945.000	492.500	492.800	1917.000	2000.000	94.094%	93.802%
3	09:51:30	90.453%	1890.000	486.700	481.200	1910.000	1957.000	96.767%	95.660%
x		87.730%	1894.000	484.600	481.300	1883.000	1951.000	94.460%	93.467%
σ		2.365%	49.260	9.251	11.450	52.940	51.990	2.148%	2.378%
%RSD		2.696	2.601	1.909	2.378	2.812	2.664	2.274	2.545
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:50:40	48.360	46.240	20.690	20.440	20.280	82.981%		
2	09:51:05	51.760	49.420	21.590	21.450	21.150	83.034%		
3	09:51:30	50.890	49.370	21.260	21.460	21.050	86.446%		
x		50.340	48.340	21.180	21.120	20.830	84.154%		
σ		1.766	1.821	0.455	0.589	0.479	1.986%		
%RSD		3.508	3.767	2.146	2.787	2.302	2.360		

180-40505-B-1-A 1/21/2015 9:58:37 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:02	103.906%	-0.028	36.340	33.740	0.000	24500.000	10260.000	10570.000
2	09:59:27	110.026%	-0.052	33.850	33.850	0.000	24850.000	10610.000	10910.000
3	09:59:52	110.461%	-0.106	35.830	34.240	0.000	25570.000	11020.000	11230.000
x		108.131%	-0.062	35.340	33.950	0.000	24970.000	10630.000	10900.000
σ		3.665%	0.040	1.312	0.263	0.000	543.200	378.100	329.500
%RSD		3.389	64.890	3.713	0.775	0.000	2.175	3.557	3.023
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:02	58.600	3922.000	0.000	3376.000	98530.000	98350.000	93.834%	2.155
2	09:59:27	59.070	4010.000	0.000	3535.000	107800.000	106100.000	93.163%	2.075
3	09:59:52	61.810	4053.000	0.000	3633.000	107900.000	106200.000	92.677%	2.089
x		59.830	3995.000	0.000	3515.000	104800.000	103600.000	93.225%	2.106
σ		1.732	66.480	0.000	129.900	5396.000	4508.000	0.581%	0.042
%RSD		2.894	1.664	0.000	3.695	5.151	4.353	0.623	2.017
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:02	1.337	5.443	7.181	330.300	769.600	0.415	0.421	11.680
2	09:59:27	0.070	5.660	7.675	351.600	791.700	0.443	0.536	11.840
3	09:59:52	-0.578	5.760	7.809	360.500	800.200	0.448	0.763	12.100
x		0.276	5.621	7.555	347.500	787.200	0.435	0.573	11.870
σ		0.974	0.162	0.331	15.500	15.790	0.018	0.174	0.214
%RSD		352.200	2.883	4.376	4.462	2.006	4.129	30.350	1.798
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:02	10.160	4.168	3.667	0.127	-1.031	-0.703	0.000	195.900
2	09:59:27	10.800	4.080	3.855	1.401	-0.670	-0.696	0.000	200.200
3	09:59:52	10.380	4.293	4.387	0.260	-0.806	-0.468	0.000	202.800
x		10.450	4.180	3.970	0.596	-0.836	-0.622	0.000	199.600
σ		0.329	0.107	0.373	0.701	0.182	0.134	0.000	3.493
%RSD		3.154	2.563	9.406	117.600	21.820	21.500	0.000	1.750
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:02	88.194%	3.848	3.732	85.513%	-0.019	-0.015	0.010	-0.036
2	09:59:27	91.847%	3.337	3.478	86.751%	-0.012	-0.034	0.027	1.210
3	09:59:52	91.912%	3.010	3.177	87.605%	-0.039	-0.021	0.018	0.012
x		90.651%	3.398	3.462	86.623%	-0.023	-0.023	0.018	0.396
σ		2.128%	0.422	0.278	1.052%	0.014	0.010	0.009	0.706
%RSD		2.348	12.430	8.018	1.214	58.180	42.780	46.760	178.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:02	87.357%	7.636	-0.171	-0.145	35.400	35.460	91.704%	91.333%
2	09:59:27	88.362%	6.504	-0.168	-0.175	36.560	36.450	94.376%	93.381%
3	09:59:52	89.819%	5.274	-0.210	-0.164	36.890	36.150	94.363%	94.611%
x		88.512%	6.471	-0.183	-0.161	36.280	36.020	93.481%	93.108%
σ		1.238%	1.182	0.023	0.015	0.783	0.507	1.539%	1.656%
%RSD		1.399	18.260	12.610	9.440	2.156	1.408	1.647	1.778
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:59:02	0.085	0.087	0.495	0.479	0.487	84.492%		
2	09:59:27	0.067	0.073	0.523	0.481	0.495	85.830%		
3	09:59:52	0.060	0.070	0.519	0.483	0.483	86.326%		
x		0.071	0.077	0.513	0.481	0.488	85.549%		
σ		0.013	0.009	0.015	0.002	0.006	0.949%		
%RSD		18.180	11.810	2.937	0.389	1.306	1.109		

180-40505-B-2-A 1/21/2015 10:02:49 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:14	103.431%	-0.038	27.640	29.000	0.000	20980.000	10640.000	10780.000
2	10:03:39	110.776%	0.021	25.590	27.710	0.000	21470.000	11000.000	11060.000
3	10:04:04	113.130%	-0.058	29.420	28.140	0.000	21590.000	11120.000	11440.000
x		109.112%	-0.025	27.550	28.280	0.000	21350.000	10920.000	11090.000
σ		5.059%	0.041	1.915	0.659	0.000	324.100	253.100	328.700
%RSD		4.637	167.400	6.952	2.331	0.000	1.518	2.317	2.963
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:14	78.840	4276.000	0.000	3153.000	93690.000	92750.000	91.674%	1.979
2	10:03:39	80.790	4298.000	0.000	3092.000	97870.000	98380.000	94.070%	2.571
3	10:04:04	81.910	4348.000	0.000	3288.000	102800.000	100900.000	93.686%	2.626
x		80.510	4307.000	0.000	3178.000	98130.000	97330.000	93.143%	2.392
σ		1.552	36.820	0.000	100.700	4574.000	4156.000	1.287%	0.359
%RSD		1.927	0.855	0.000	3.168	4.662	4.270	1.382	14.990
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:14	-0.029	5.075	39.490	333.800	729.500	0.408	0.837	9.686
2	10:03:39	0.646	5.480	41.140	347.800	746.000	0.334	0.848	10.580
3	10:04:04	1.381	5.674	41.870	358.900	755.500	0.389	0.808	9.795
x		0.666	5.410	40.840	346.800	743.700	0.377	0.831	10.020
σ		0.705	0.305	1.221	12.570	13.140	0.039	0.021	0.490
%RSD		105.800	5.644	2.990	3.624	1.767	10.230	2.520	4.887
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:14	9.346	5.201	4.737	-0.392	0.179	0.247	0.000	211.400
2	10:03:39	8.912	5.373	5.594	-0.793	-0.148	-0.127	0.000	221.200
3	10:04:04	8.913	5.165	5.591	3.138	-1.057	-0.076	0.000	219.500
x		9.057	5.246	5.307	0.651	-0.342	0.015	0.000	217.400
σ		0.250	0.111	0.494	2.163	0.640	0.203	0.000	5.249
%RSD		2.762	2.119	9.314	332.200	187.300	1379.000	0.000	2.415
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:14	88.965%	1.237	1.459	85.355%	-0.011	-0.031	0.032	0.075
2	10:03:39	92.767%	1.358	1.615	87.450%	-0.028	-0.025	0.022	-0.010
3	10:04:04	94.954%	1.400	1.513	88.498%	-0.040	-0.021	0.022	2.366
x		92.229%	1.332	1.529	87.101%	-0.026	-0.026	0.025	0.810
σ		3.031%	0.085	0.080	1.600%	0.014	0.005	0.006	1.348
%RSD		3.286	6.362	5.203	1.837	54.680	19.580	23.240	166.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:14	86.261%	-0.567	-0.222	-0.174	45.130	44.440	91.131%	92.039%
2	10:03:39	91.368%	-0.347	-0.228	-0.113	47.150	46.240	95.669%	95.661%
3	10:04:04	90.498%	-0.167	-0.158	-0.167	46.930	45.990	98.820%	96.306%
x		89.376%	-0.360	-0.203	-0.151	46.400	45.560	95.206%	94.669%
σ		2.732%	0.201	0.039	0.034	1.111	0.977	3.865%	2.300%
%RSD		3.057	55.680	19.150	22.320	2.394	2.145	4.060	2.430
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:03:14	0.042	0.038	0.557	0.499	0.515	84.130%		
2	10:03:39	0.044	0.031	0.541	0.520	0.533	88.701%		
3	10:04:04	0.029	0.035	0.557	0.546	0.541	88.187%		
x		0.038	0.035	0.551	0.522	0.530	87.006%		
σ		0.008	0.004	0.009	0.024	0.013	2.504%		
%RSD		21.550	10.520	1.659	4.550	2.461	2.878		

180-40505-B-3-A 1/21/2015 10:06:59 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	108.467%	-0.092	25.200	25.650	0.000	19120.000	11520.000	11700.000
2	10:07:49	109.789%	-0.008	28.710	25.620	0.000	19790.000	12050.000	12440.000
3	10:08:14	109.729%	0.014	25.040	26.140	0.000	20370.000	12510.000	12650.000
x		109.328%	-0.029	26.320	25.800	0.000	19760.000	12030.000	12260.000
σ		0.746%	0.056	2.072	0.295	0.000	622.400	497.800	499.000
%RSD		0.682	196.400	7.873	1.142	0.000	3.150	4.138	4.069

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	21.250	4842.000	0.000	3407.000	93950.000	92610.000	92.883%	0.749
2	10:07:49	22.020	5036.000	0.000	3623.000	98370.000	97490.000	92.242%	0.664
3	10:08:14	22.750	5118.000	0.000	3685.000	100300.000	98950.000	91.441%	0.895
x		22.010	4999.000	0.000	3572.000	97540.000	96350.000	92.189%	0.769
σ		0.749	142.000	0.000	145.600	3252.000	3317.000	0.723%	0.117
%RSD		3.405	2.841	0.000	4.078	3.334	3.442	0.784	15.180

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	1.845	6.376	5.620	72.590	473.300	0.250	0.392	10.250
2	10:07:49	-0.069	6.556	5.832	74.940	478.100	0.227	0.414	10.130
3	10:08:14	3.425	6.613	5.789	78.730	478.700	0.242	0.324	9.932
x		1.734	6.515	5.747	75.420	476.700	0.240	0.377	10.100
σ		1.749	0.124	0.112	3.098	2.981	0.011	0.047	0.160
%RSD		100.900	1.905	1.953	4.108	0.625	4.712	12.420	1.579

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	9.265	10.160	9.432	1.652	-0.972	-1.130	0.000	170.600
2	10:07:49	9.607	10.290	10.280	1.898	-0.756	-1.115	0.000	179.600
3	10:08:14	9.063	11.000	10.660	1.598	-1.190	-1.136	0.000	181.700
x		9.312	10.480	10.130	1.716	-0.973	-1.127	0.000	177.300
σ		0.275	0.449	0.631	0.160	0.217	0.011	0.000	5.893
%RSD		2.955	4.282	6.232	9.321	22.320	0.975	0.000	3.323

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	91.228%	2.099	2.248	85.800%	-0.048	-0.041	0.005	2.480
2	10:07:49	92.178%	2.200	2.350	86.413%	-0.038	-0.045	0.005	4.156
3	10:08:14	92.110%	2.223	2.337	87.790%	-0.047	-0.040	0.001	0.973
x		91.839%	2.174	2.312	86.667%	-0.044	-0.042	0.004	2.536
σ		0.530%	0.066	0.056	1.019%	0.005	0.003	0.003	1.592
%RSD		0.577	3.045	2.406	1.176	12.060	6.839	64.360	62.780

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	88.016%	-1.547	-0.488	-0.499	34.620	34.650	93.762%	94.175%
2	10:07:49	88.270%	-1.168	-0.519	-0.480	36.640	35.940	94.888%	94.545%
3	10:08:14	88.036%	-1.200	-0.465	-0.464	37.780	37.240	94.724%	95.019%
x		88.107%	-1.305	-0.491	-0.481	36.340	35.940	94.458%	94.580%
σ		0.141%	0.210	0.027	0.017	1.603	1.297	0.608%	0.423%
%RSD		0.160	16.080	5.554	3.580	4.410	3.609	0.644	0.448

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:23	0.016	0.020	0.260	0.259	0.240	86.813%
2	10:07:49	0.021	0.023	0.234	0.224	0.228	86.264%
3	10:08:14	0.022	0.018	0.269	0.205	0.232	86.718%
x		0.020	0.021	0.254	0.229	0.233	86.599%
σ		0.003	0.003	0.018	0.027	0.006	0.293%
%RSD		16.800	13.310	7.244	11.990	2.458	0.339

180-40505-B-3-A SD@5 1/21/2015 10:11:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	99.703%	-0.135	2.986	3.966	0.000	3978.000	2228.000	2239.000
2	10:12:01	102.864%	-0.094	4.048	4.537	0.000	4051.000	2306.000	2308.000
3	10:12:26	102.182%	-0.104	4.302	4.495	0.000	4146.000	2375.000	2377.000
x		101.583%	-0.111	3.779	4.333	0.000	4058.000	2303.000	2308.000
σ		1.663%	0.022	0.698	0.318	0.000	83.840	73.250	68.980
%RSD		1.637	19.390	18.480	7.345	0.000	2.066	3.180	2.989

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	4.243	1020.000	0.000	713.300	18360.000	18230.000	92.531%	-0.290
2	10:12:01	3.952	1034.000	0.000	750.000	19610.000	19240.000	93.142%	0.002
3	10:12:26	4.514	1059.000	0.000	767.500	19830.000	19390.000	93.027%	-0.106
x		4.236	1038.000	0.000	743.600	19270.000	18960.000	92.900%	-0.131
σ		0.281	19.900	0.000	27.620	793.600	630.100	0.325%	0.147
%RSD		6.639	1.918	0.000	3.715	4.118	3.324	0.349	112.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	0.378	1.306	1.041	18.210	90.450	0.054	0.060	2.126
2	10:12:01	0.658	1.379	1.128	17.140	91.050	0.060	0.113	2.199
3	10:12:26	0.401	1.345	1.131	17.550	92.160	0.053	0.036	2.105
x		0.479	1.343	1.100	17.630	91.220	0.056	0.070	2.143
σ		0.155	0.037	0.051	0.541	0.864	0.004	0.039	0.050
%RSD		32.400	2.734	4.638	3.066	0.947	6.714	56.420	2.313

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	2.024	2.064	2.086	-0.393	-0.445	-1.192	0.000	34.040
2	10:12:01	1.916	2.330	2.069	0.072	0.291	-1.011	0.000	34.980
3	10:12:26	1.740	2.313	2.352	0.145	-0.378	-0.452	0.000	35.280
x		1.893	2.236	2.169	-0.059	-0.177	-0.885	0.000	34.760
σ		0.144	0.149	0.159	0.292	0.407	0.386	0.000	0.648
%RSD		7.588	6.672	7.331	499.100	229.500	43.570	0.000	1.863

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	91.020%	0.371	0.437	89.827%	-0.050	-0.058	0.005	2.849
2	10:12:01	93.657%	0.330	0.354	91.139%	-0.050	-0.050	-0.008	0.031
3	10:12:26	94.790%	0.334	0.356	92.099%	-0.050	-0.061	-0.004	0.013
x		93.156%	0.345	0.382	91.022%	-0.050	-0.056	-0.002	0.964
σ		1.934%	0.022	0.047	1.140%	0.000	0.006	0.006	1.632
%RSD		2.076	6.518	12.430	1.253	0.519	10.660	305.600	169.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	91.699%	-2.897	-0.731	-0.722	7.229	7.212	94.613%	94.344%
2	10:12:01	92.034%	-2.925	-0.737	-0.716	7.573	7.269	97.119%	96.303%
3	10:12:26	92.925%	-2.905	-0.737	-0.728	7.361	7.055	97.890%	97.195%
x		92.219%	-2.909	-0.735	-0.722	7.388	7.179	96.541%	95.947%
σ		0.634%	0.015	0.003	0.006	0.174	0.111	1.713%	1.458%
%RSD		0.687	0.499	0.469	0.784	2.352	1.544	1.774	1.520

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:36	0.014	0.009	0.060	0.048	0.053	91.601%
2	10:12:01	0.016	0.008	0.068	0.059	0.059	92.735%
3	10:12:26	0.012	0.009	0.062	0.055	0.062	92.034%
x		0.014	0.009	0.063	0.054	0.058	92.123%
σ		0.002	0.001	0.004	0.006	0.005	0.572%
%RSD		13.300	10.680	6.542	11.230	7.793	0.621

180-40505-B-3-B MS 1/21/2015 10:15:20 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:45	103.602%	42.840	915.500	925.300	0.000	59900.000	50450.000	50970.000
2	10:16:10	106.948%	44.790	934.900	936.300	0.000	62230.000	52600.000	53390.000
3	10:16:35	104.418%	46.900	974.100	975.500	0.000	63340.000	54640.000	54580.000
x		104.989%	44.840	941.500	945.700	0.000	61820.000	52570.000	52980.000
σ		1.744%	2.031	29.860	26.360	0.000	1755.000	2095.000	1843.000
%RSD		1.662	4.530	3.171	2.787	0.000	2.839	3.985	3.478
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:45	1711.000	13050.000	0.000	49720.000	137200.000	133100.000	90.008%	862.900
2	10:16:10	1815.000	13400.000	0.000	50510.000	141900.000	140700.000	88.982%	901.000
3	10:16:35	1891.000	13560.000	0.000	51720.000	145200.000	142300.000	88.389%	918.200
x		1806.000	13340.000	0.000	50650.000	141500.000	138700.000	89.127%	894.100
σ		90.240	264.600	0.000	1006.000	4054.000	4918.000	0.819%	28.290
%RSD		4.997	1.984	0.000	1.987	2.866	3.546	0.919	3.164
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:45	434.600	169.900	447.800	940.300	1488.000	437.300	420.400	220.600
2	10:16:10	459.600	181.000	480.600	993.700	1562.000	459.800	445.800	231.700
3	10:16:35	465.600	183.600	485.300	1007.000	1581.000	466.000	453.000	234.100
x		453.300	178.200	471.200	980.400	1544.000	454.400	439.700	228.800
σ		16.440	7.261	20.440	35.390	49.410	15.110	17.150	7.209
%RSD		3.628	4.075	4.336	3.610	3.201	3.325	3.901	3.151
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:45	217.600	445.300	435.500	34.790	7.090	8.333	0.000	1035.000
2	10:16:10	230.700	470.700	463.900	36.070	9.026	7.459	0.000	1088.000
3	10:16:35	231.800	477.500	467.000	37.210	9.728	6.786	0.000	1101.000
x		226.700	464.500	455.500	36.020	8.615	7.526	0.000	1075.000
σ		7.900	16.960	17.370	1.210	1.366	0.776	0.000	34.890
%RSD		3.485	3.651	3.814	3.361	15.860	10.300	0.000	3.246
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:45	88.123%	920.900	951.200	81.739%	45.680	45.920	46.970	38.450
2	10:16:10	87.377%	993.500	1011.000	81.579%	45.630	45.850	47.670	40.340
3	10:16:35	88.438%	1010.000	1030.000	81.321%	46.450	45.890	47.580	38.960
x		87.980%	974.900	997.500	81.546%	45.920	45.880	47.410	39.250
σ		0.545%	47.550	41.330	0.211%	0.460	0.036	0.382	0.977
%RSD		0.619	4.877	4.143	0.258	1.002	0.078	0.805	2.489
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:45	81.920%	1886.000	470.400	475.000	1832.000	1913.000	92.247%	91.879%
2	10:16:10	82.570%	1927.000	487.200	483.500	1935.000	1973.000	92.584%	92.397%
3	10:16:35	84.463%	1925.000	487.300	485.200	1924.000	1996.000	91.436%	92.692%
x		82.984%	1913.000	481.600	481.200	1897.000	1960.000	92.089%	92.322%
σ		1.321%	23.490	9.758	5.453	56.280	42.730	0.590%	0.412%
%RSD		1.592	1.228	2.026	1.133	2.967	2.180	0.641	0.446
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:15:45	49.370	47.440	20.900	20.690	20.650	81.347%		
2	10:16:10	51.050	49.360	21.470	21.250	21.160	81.793%		
3	10:16:35	51.500	49.860	21.390	21.190	21.290	82.735%		
x		50.640	48.890	21.250	21.040	21.030	81.958%		
σ		1.123	1.282	0.308	0.306	0.336	0.709%		
%RSD		2.218	2.623	1.450	1.456	1.599	0.865		

180-40505-B-3-C MSD 1/21/2015 10:19:30 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:19:55	100.745%	42.400	912.900	908.100	0.000	60540.000	50310.000	50930.000
2	10:20:20	102.313%	43.740	949.500	934.400	0.000	63350.000	53690.000	53680.000
3	10:20:45	102.260%	46.090	962.000	963.300	0.000	64620.000	54620.000	55440.000
x		101.772%	44.080	941.400	935.300	0.000	62830.000	52870.000	53350.000
σ		0.890%	1.869	25.510	27.590	0.000	2087.000	2270.000	2272.000
%RSD		0.875	4.240	2.710	2.950	0.000	3.322	4.293	4.259
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:19:55	1584.000	12950.000	0.000	49030.000	134100.000	133400.000	86.085%	857.600
2	10:20:20	1685.000	13640.000	0.000	51360.000	146300.000	145100.000	85.760%	911.900
3	10:20:45	1721.000	13920.000	0.000	52140.000	148900.000	146900.000	85.777%	938.900
x		1663.000	13500.000	0.000	50840.000	143100.000	141800.000	85.874%	902.800
σ		71.450	496.200	0.000	1617.000	7918.000	7294.000	0.183%	41.430
%RSD		4.295	3.674	0.000	3.181	5.534	5.144	0.213	4.589
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:19:55	434.600	170.900	444.300	971.200	1528.000	428.700	420.000	218.300
2	10:20:20	456.000	182.400	473.400	1023.000	1620.000	455.700	442.600	231.900
3	10:20:45	471.900	185.700	483.500	1038.000	1639.000	462.800	450.400	234.400
x		454.200	179.700	467.100	1011.000	1596.000	449.100	437.700	228.200
σ		18.730	7.769	20.310	35.240	59.470	18.000	15.780	8.651
%RSD		4.124	4.324	4.349	3.486	3.728	4.008	3.605	3.791
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:19:55	217.600	438.600	435.900	36.370	8.179	7.321	0.000	1045.000
2	10:20:20	231.400	470.500	460.900	36.820	8.989	9.326	0.000	1090.000
3	10:20:45	234.500	480.700	478.300	35.570	9.010	9.813	0.000	1102.000
x		227.900	463.300	458.300	36.250	8.726	8.820	0.000	1079.000
σ		9.038	21.970	21.280	0.631	0.474	1.321	0.000	29.960
%RSD		3.967	4.743	4.644	1.741	5.432	14.970	0.000	2.777
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:19:55	84.193%	907.900	895.700	87.610%	41.980	41.960	44.380	36.940
2	10:20:20	85.059%	952.300	955.900	86.813%	43.280	43.580	46.200	38.620
3	10:20:45	85.762%	1015.000	1041.000	80.124%	45.810	45.970	48.400	39.730
x		85.005%	958.300	964.100	84.849%	43.690	43.840	46.330	38.430
σ		0.786%	53.700	72.770	4.112%	1.950	2.014	2.014	1.405
%RSD		0.924	5.604	7.548	4.846	4.462	4.595	4.347	3.655
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:19:55	81.184%	1850.000	463.000	456.200	1800.000	1848.000	88.527%	89.440%
2	10:20:20	82.042%	1915.000	486.500	478.400	1896.000	1946.000	89.574%	90.023%
3	10:20:45	82.360%	1958.000	493.100	487.400	1910.000	1980.000	90.575%	91.119%
x		81.862%	1908.000	480.900	474.000	1869.000	1925.000	89.559%	90.194%
σ		0.608%	54.780	15.810	16.080	60.160	68.580	1.024%	0.852%
%RSD		0.743	2.872	3.288	3.392	3.220	3.563	1.144	0.945
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:19:55	48.140	47.010	20.570	20.520	20.290	80.176%		
2	10:20:20	51.280	49.300	21.750	21.430	21.190	81.239%		
3	10:20:45	52.600	50.780	21.680	21.820	21.600	81.229%		
x		50.670	49.030	21.340	21.260	21.030	80.882%		
σ		2.292	1.901	0.662	0.668	0.670	0.611%		
%RSD		4.523	3.878	3.103	3.142	3.188	0.756		

180-40505-B-3-A PDS 1/21/2015 10:23:39 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:05	96.486%	49.330	1059.000	1050.000	0.000	66600.000	56970.000	57270.000
2	10:24:31	100.860%	49.550	1079.000	1061.000	0.000	68800.000	58830.000	59570.000
3	10:24:56	100.732%	52.230	1074.000	1080.000	0.000	70280.000	60640.000	61130.000
x		99.359%	50.370	1071.000	1064.000	0.000	68560.000	58810.000	59330.000
σ		2.489%	1.617	10.750	15.220	0.000	1852.000	1836.000	1946.000
%RSD		2.506	3.211	1.004	1.431	0.000	2.701	3.122	3.281
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:05	1937.000	15310.000	0.000	56070.000	139500.000	139000.000	84.251%	1080.000
2	10:24:31	1890.000	15580.000	0.000	57410.000	150800.000	150800.000	83.950%	1137.000
3	10:24:56	1933.000	15870.000	0.000	58020.000	151000.000	151700.000	83.078%	1159.000
x		1920.000	15580.000	0.000	57170.000	147100.000	147200.000	83.760%	1125.000
σ		26.180	279.800	0.000	995.100	6615.000	7088.000	0.609%	40.880
%RSD		1.363	1.795	0.000	1.741	4.497	4.816	0.727	3.633
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:05	497.200	190.600	501.800	1050.000	1641.000	487.200	473.600	243.300
2	10:24:31	520.900	202.600	534.100	1089.000	1721.000	513.300	497.600	257.700
3	10:24:56	527.500	205.500	546.600	1121.000	1736.000	523.400	506.800	259.800
x		515.200	199.600	527.500	1087.000	1699.000	508.000	492.700	253.600
σ		15.900	7.873	23.120	35.540	51.300	18.690	17.150	9.017
%RSD		3.087	3.945	4.383	3.269	3.019	3.680	3.481	3.556
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:05	243.500	498.200	489.200	39.720	9.427	8.855	0.000	1158.000
2	10:24:31	253.600	522.000	510.900	39.740	9.163	9.331	0.000	1217.000
3	10:24:56	257.300	544.900	523.600	41.390	9.330	10.700	0.000	1230.000
x		251.400	521.700	507.900	40.280	9.307	9.630	0.000	1202.000
σ		7.159	23.320	17.400	0.956	0.133	0.960	0.000	38.090
%RSD		2.847	4.470	3.426	2.373	1.433	9.972	0.000	3.169
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:05	82.353%	1156.000	1143.000	85.952%	38.250	39.050	50.220	40.160
2	10:24:31	83.807%	1225.000	1226.000	85.573%	39.530	40.370	52.410	43.440
3	10:24:56	83.601%	1248.000	1243.000	85.189%	40.140	39.740	53.130	43.450
x		83.253%	1210.000	1204.000	85.572%	39.310	39.720	51.920	42.350
σ		0.787%	48.060	53.620	0.381%	0.965	0.661	1.518	1.898
%RSD		0.945	3.973	4.454	0.446	2.455	1.665	2.924	4.481
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:05	81.265%	2259.000	575.500	576.500	2017.000	2101.000	87.598%	89.428%
2	10:24:31	80.549%	2358.000	612.600	596.800	2148.000	2181.000	89.445%	89.951%
3	10:24:56	81.817%	2356.000	614.200	603.800	2163.000	2198.000	89.067%	90.193%
x		81.210%	2325.000	600.800	592.400	2109.000	2160.000	88.703%	89.857%
σ		0.636%	56.870	21.880	14.170	80.420	51.880	0.976%	0.391%
%RSD		0.783	2.447	3.641	2.392	3.813	2.402	1.101	0.435
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:24:05	56.260	53.890	22.940	22.850	22.620	81.165%		
2	10:24:31	57.650	56.150	23.560	23.790	23.370	81.887%		
3	10:24:56	57.920	56.920	23.890	23.980	23.660	82.508%		
x		57.280	55.650	23.460	23.540	23.220	81.853%		
σ		0.894	1.576	0.484	0.602	0.533	0.672%		
%RSD		1.561	2.831	2.062	2.558	2.295	0.822		

180-40505-B-4-A 1/21/2015 10:30:39 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:04	95.401%	-0.040	44.430	42.390	0.000	41430.000	17190.000	15950.000
2	10:31:30	95.958%	-0.029	42.330	45.250	0.000	42020.000	16120.000	16410.000
3	10:31:56	100.904%	-0.065	41.980	42.640	0.000	41310.000	15900.000	15960.000
x		97.421%	-0.045	42.910	43.430	0.000	41590.000	16410.000	16100.000
σ		3.029%	0.018	1.324	1.582	0.000	378.800	692.000	262.400
%RSD		3.109	40.850	3.085	3.644	0.000	0.911	4.218	1.630
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:04	18.730	4181.000	0.000	4935.000	97920.000	97390.000	79.931%	1.342
2	10:31:30	17.860	4247.000	0.000	5021.000	99090.000	100000.000	81.232%	1.081
3	10:31:56	17.980	4163.000	0.000	5058.000	99080.000	99280.000	82.878%	1.134
x		18.190	4197.000	0.000	5005.000	98700.000	98890.000	81.347%	1.186
σ		0.470	44.020	0.000	63.080	671.400	1355.000	1.477%	0.138
%RSD		2.584	1.049	0.000	1.260	0.680	1.371	1.815	11.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:04	0.744	6.984	22.640	642.500	1042.000	1.154	1.188	7.948
2	10:31:30	-0.129	7.092	22.860	574.200	978.900	1.121	1.046	7.866
3	10:31:56	0.173	7.029	23.110	557.400	932.100	0.985	0.855	7.659
x		0.263	7.035	22.870	591.300	984.200	1.087	1.030	7.824
σ		0.443	0.054	0.232	45.110	54.910	0.090	0.167	0.149
%RSD		168.500	0.769	1.015	7.628	5.579	8.248	16.200	1.903
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:04	7.440	6.028	5.387	-0.074	-1.497	-1.914	0.000	208.200
2	10:31:30	7.869	5.468	5.980	0.524	-1.436	-1.008	0.000	210.800
3	10:31:56	7.218	5.817	5.852	0.278	-0.892	-0.885	0.000	209.800
x		7.509	5.771	5.740	0.243	-1.275	-1.269	0.000	209.600
σ		0.331	0.283	0.312	0.300	0.333	0.562	0.000	1.333
%RSD		4.406	4.902	5.435	123.800	26.110	44.300	0.000	0.636
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:04	80.475%	14.940	15.130	83.326%	0.332	0.319	0.124	0.096
2	10:31:30	81.941%	10.360	10.450	85.048%	0.314	0.296	0.025	-0.005
3	10:31:56	83.541%	8.759	8.912	86.163%	0.291	0.348	0.052	-0.020
x		81.985%	11.350	11.500	84.846%	0.312	0.321	0.067	0.024
σ		1.533%	3.207	3.237	1.429%	0.021	0.026	0.051	0.063
%RSD		1.870	28.250	28.150	1.685	6.579	8.121	76.240	265.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:04	80.087%	4.027	1.946	1.986	40.600	39.730	86.504%	87.069%
2	10:31:30	80.027%	2.320	0.916	0.925	39.940	40.560	88.522%	88.722%
3	10:31:56	81.410%	0.987	0.517	0.542	40.710	40.640	89.350%	89.492%
x		80.508%	2.445	1.126	1.151	40.420	40.310	88.126%	88.428%
σ		0.782%	1.524	0.737	0.748	0.416	0.503	1.464%	1.238%
%RSD		0.971	62.330	65.440	64.990	1.029	1.247	1.661	1.400
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:31:04	0.130	0.125	0.391	0.364	0.358	80.491%		
2	10:31:30	0.106	0.092	0.351	0.291	0.317	81.194%		
3	10:31:56	0.089	0.072	0.304	0.284	0.310	82.831%		
x		0.109	0.096	0.349	0.313	0.328	81.505%		
σ		0.021	0.027	0.043	0.044	0.026	1.200%		
%RSD		19.040	27.780	12.440	14.180	8.006	1.473		

CCV 1455996 1/21/2015 10:34:51 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	85.364%	97.360	102.300	101.500	0.000	48490.000	46650.000	47080.000
2	10:35:41	87.955%	100.200	104.500	100.600	0.000	49030.000	48090.000	48370.000
3	10:36:06	88.816%	102.700	106.500	101.600	0.000	49680.000	48200.000	48640.000
x		87.378%	100.083%	104.427%	101.235%	0.000	98.140%	95.294%	96.061%
σ		1.797%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.056	2.684	1.973	0.525	0.000	1.215	1.821	1.731

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	463.400	4896.000	0.000	48990.000	47070.000	47290.000	84.606%	95.320
2	10:35:41	477.800	4978.000	0.000	51200.000	50540.000	48630.000	85.315%	100.500
3	10:36:06	482.200	4977.000	0.000	51430.000	50950.000	50540.000	86.722%	98.830
x		94.899%	99.001%	0.000	101.083%	99.035%	97.642%	85.548%	98.219%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.077%	n/a
%RSD		2.068	0.952	0.000	2.667	4.308	3.348	1.259	2.693

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	91.180	91.760	492.100	23780.000	25390.000	93.680	94.750	94.420
2	10:35:41	94.370	94.720	511.400	24790.000	26580.000	96.510	98.420	97.870
3	10:36:06	94.390	95.620	515.600	24950.000	26870.000	97.470	97.230	98.840
x		93.315%	94.033%	101.271%	98.021%	105.120%	95.889%	96.800%	97.044%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.978	2.146	2.476	2.598	2.984	2.060	1.935	2.392

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	94.150	96.710	96.310	94.340	93.230	95.160	0.000	93.260
2	10:35:41	98.980	99.960	100.300	98.780	100.100	99.750	0.000	97.820
3	10:36:06	98.620	98.860	100.100	97.590	100.500	99.820	0.000	96.730
x		97.246%	98.511%	98.892%	96.903%	97.960%	98.241%	0.000	95.938%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.767	1.678	2.262	2.370	4.183	2.715	0.000	2.480

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	83.172%	88.800	86.140	89.019%	90.610	90.970	93.640	94.760
2	10:35:41	84.222%	98.340	96.880	82.608%	98.320	97.540	98.370	97.700
3	10:36:06	87.759%	102.200	102.900	83.465%	98.910	98.190	99.910	100.900
x		85.051%	96.430%	95.311%	85.030%	95.944%	95.569%	97.305%	97.790%
σ		2.403%	n/a	n/a	3.480%	n/a	n/a	n/a	n/a
%RSD		2.826	7.136	8.918	4.093	4.825	4.178	3.359	3.145

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	82.677%	93.790	96.450	96.070	97.040	96.070	87.924%	88.002%
2	10:35:41	84.050%	99.030	98.920	99.720	98.990	100.300	89.208%	89.379%
3	10:36:06	85.417%	100.200	101.600	100.800	98.980	99.060	93.200%	92.045%
x		84.048%	97.662%	98.979%	98.880%	98.339%	98.467%	90.111%	89.809%
σ		1.370%	n/a	n/a	n/a	n/a	n/a	2.751%	2.056%
%RSD		1.630	3.487	2.579	2.526	1.140	2.200	3.053	2.289

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:16	101.400	100.000	101.300	101.900	101.200	88.799%
2	10:35:41	107.400	104.300	107.600	107.700	107.300	87.267%
3	10:36:06	106.800	104.500	107.900	108.300	107.700	90.805%
x		105.203%	102.937%	105.602%	105.939%	105.407%	88.957%
σ		n/a	n/a	n/a	n/a	n/a	1.774%
%RSD		3.131	2.459	3.530	3.342	3.491	1.994

CCB2 1/21/2015 10:42:09 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	86.635%	0.062	1.069	0.180	0.000	31.970	19.670	20.360
2	10:43:00	90.152%	-0.223	0.701	0.011	0.000	24.290	13.940	13.540
3	10:43:25	92.739%	-0.061	0.701	0.169	0.000	21.690	10.820	10.940
x		89.842%	-0.074	0.824	0.120	0.000	25.980	14.810	14.940
σ		3.064%	0.143	0.213	0.095	0.000	5.344	4.488	4.865
%RSD		3.410	194.100	25.850	79.060	0.000	20.570	30.300	32.550

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	1.572	7.037	0.000	27.120	34.900	28.950	85.334%	-0.349
2	10:43:00	1.054	3.200	0.000	23.830	19.670	21.020	86.721%	-0.353
3	10:43:25	0.131	1.984	0.000	13.450	39.970	17.230	87.425%	-0.339
x		0.919	4.074	0.000	21.470	31.510	22.400	86.493%	-0.347
σ		0.730	2.638	0.000	7.133	10.570	5.981	1.064%	0.007
%RSD		79.440	64.750	0.000	33.230	33.530	26.700	1.230	2.151

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	-0.059	0.021	0.134	18.290	19.540	0.037	0.077	-0.285
2	10:43:00	0.045	-0.048	0.092	12.940	17.900	0.038	-0.022	-0.280
3	10:43:25	-0.057	-0.021	0.056	9.011	11.980	0.020	0.014	-0.301
x		-0.024	-0.016	0.094	13.420	16.470	0.032	0.023	-0.289
σ		0.059	0.035	0.039	4.659	3.976	0.010	0.050	0.011
%RSD		250.600	220.400	41.510	34.730	24.130	32.580	219.800	3.892

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	-0.156	0.223	0.082	-0.002	-1.050	0.222	0.000	0.095
2	10:43:00	-0.308	0.131	0.072	-0.001	-0.059	-0.228	0.000	0.044
3	10:43:25	-0.236	0.111	0.113	0.180	-0.118	0.547	0.000	0.043
x		-0.233	0.155	0.089	0.059	-0.409	0.180	0.000	0.060
σ		0.076	0.060	0.021	0.105	0.556	0.389	0.000	0.030
%RSD		32.470	38.460	24.010	177.500	135.900	215.600	0.000	49.290

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	85.037%	0.499	0.473	87.231%	-0.023	-0.017	0.041	-0.062
2	10:43:00	86.790%	0.495	0.418	88.125%	-0.027	-0.034	0.005	0.042
3	10:43:25	89.010%	0.422	0.312	89.497%	-0.019	-0.032	0.009	1.127
x		86.946%	0.472	0.401	88.284%	-0.023	-0.028	0.018	0.369
σ		1.991%	0.043	0.082	1.141%	0.004	0.009	0.019	0.658
%RSD		2.290	9.121	20.460	1.293	16.570	32.530	105.200	178.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	86.110%	-2.699	-0.525	-0.525	0.058	0.085	88.842%	88.479%
2	10:43:00	88.346%	-2.764	-0.516	-0.516	0.046	0.062	91.216%	90.871%
3	10:43:25	89.838%	-2.780	-0.536	-0.558	0.034	0.061	92.524%	92.385%
x		88.098%	-2.748	-0.526	-0.533	0.046	0.070	90.861%	90.578%
σ		1.877%	0.043	0.010	0.022	0.012	0.014	1.867%	1.969%
%RSD		2.130	1.569	1.885	4.163	26.280	19.640	2.054	2.174

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:34	0.044	0.041	0.039	0.046	0.043	92.696%
2	10:43:00	0.035	0.035	0.048	0.021	0.035	92.715%
3	10:43:25	0.039	0.026	0.016	0.012	0.021	93.480%
x		0.039	0.034	0.034	0.026	0.033	92.964%
σ		0.005	0.007	0.016	0.017	0.011	0.448%
%RSD		11.820	21.130	47.660	65.610	33.250	0.481

180-40505-B-5-A 1/21/2015 10:46:24 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:49	92.664%	-0.085	134.200	134.300	0.000	48370.000	27170.000	27510.000
2	10:47:14	96.608%	0.018	137.800	137.200	0.000	48700.000	28340.000	28460.000
3	10:47:39	100.379%	-0.017	137.000	138.200	0.000	48580.000	28170.000	28140.000
x		96.550%	-0.028	136.300	136.600	0.000	48550.000	27900.000	28040.000
σ		3.858%	0.052	1.843	2.053	0.000	169.800	634.200	483.300
%RSD		3.995	188.400	1.352	1.503	0.000	0.350	2.274	1.724
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:49	4.205	4299.000	0.000	25970.000	91880.000	92500.000	81.472%	0.423
2	10:47:14	4.126	4376.000	0.000	26300.000	96260.000	96030.000	81.754%	0.489
3	10:47:39	3.873	4397.000	0.000	26770.000	97000.000	96540.000	83.222%	0.470
x		4.068	4358.000	0.000	26340.000	95050.000	95030.000	82.149%	0.461
σ		0.174	51.650	0.000	403.900	2771.000	2199.000	0.939%	0.034
%RSD		4.269	1.185	0.000	1.533	2.915	2.314	1.144	7.384
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:49	-1.156	5.437	2.082	15.230	416.300	0.268	1.756	4.408
2	10:47:14	-0.896	5.697	2.240	13.180	409.000	0.257	1.603	4.479
3	10:47:39	-2.221	6.021	2.292	11.940	399.300	0.262	1.705	4.545
x		-1.424	5.718	2.205	13.450	408.200	0.262	1.688	4.477
σ		0.702	0.293	0.110	1.660	8.511	0.005	0.078	0.069
%RSD		49.270	5.121	4.978	12.340	2.085	2.011	4.635	1.533
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:49	4.168	2.357	2.180	2.905	-1.205	-1.442	0.000	618.700
2	10:47:14	4.223	2.502	2.499	0.635	-0.829	-0.591	0.000	635.800
3	10:47:39	4.224	2.770	2.434	0.085	-1.443	-0.817	0.000	643.700
x		4.205	2.543	2.371	1.208	-1.159	-0.950	0.000	632.700
σ		0.032	0.210	0.169	1.495	0.309	0.441	0.000	12.760
%RSD		0.763	8.250	7.125	123.700	26.680	46.450	0.000	2.017
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:49	79.949%	1.159	1.250	83.347%	-0.029	-0.041	0.035	0.059
2	10:47:14	81.703%	1.175	1.280	84.682%	-0.041	-0.044	0.020	-0.006
3	10:47:39	83.845%	1.217	1.269	86.030%	-0.033	-0.039	0.029	0.027
x		81.832%	1.184	1.266	84.687%	-0.034	-0.041	0.028	0.026
σ		1.951%	0.030	0.015	1.342%	0.006	0.002	0.007	0.032
%RSD		2.384	2.548	1.204	1.584	17.620	5.265	26.210	122.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:49	78.718%	-1.543	0.405	0.395	58.660	58.940	86.047%	86.402%
2	10:47:14	80.017%	-1.552	0.299	0.347	59.780	58.680	87.587%	87.311%
3	10:47:39	80.781%	-1.745	0.263	0.295	60.420	58.920	90.152%	90.106%
x		79.839%	-1.613	0.322	0.346	59.620	58.840	87.929%	87.940%
σ		1.043%	0.114	0.074	0.050	0.888	0.144	2.073%	1.930%
%RSD		1.306	7.060	22.820	14.540	1.490	0.246	2.358	2.195
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:46:49	0.088	0.086	0.111	0.082	0.098	80.535%		
2	10:47:14	0.096	0.084	0.107	0.093	0.087	81.359%		
3	10:47:39	0.094	0.081	0.100	0.093	0.097	83.814%		
x		0.093	0.084	0.106	0.089	0.094	81.902%		
σ		0.004	0.002	0.006	0.007	0.006	1.706%		
%RSD		4.718	2.702	5.480	7.444	5.990	2.083		

180-40505-B-6-A 1/21/2015 10:50:34 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	93.339%	-0.023	230.500	237.800	0.000	53380.000	15120.000	15290.000
2	10:51:23	97.110%	-0.142	238.800	240.400	0.000	54470.000	14740.000	14600.000
3	10:51:49	97.792%	-0.070	251.400	249.800	0.000	55900.000	16030.000	15040.000
x		96.080%	-0.079	240.200	242.700	0.000	54580.000	15300.000	14980.000
σ		2.399%	0.060	10.540	6.317	0.000	1265.000	662.400	351.100
%RSD		2.497	76.290	4.388	2.603	0.000	2.318	4.330	2.345

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	2.295	4401.000	0.000	12070.000	123700.000	121500.000	82.840%	0.145
2	10:51:23	2.460	4492.000	0.000	12250.000	126700.000	126500.000	83.213%	0.470
3	10:51:49	2.514	4501.000	0.000	12810.000	131900.000	128600.000	83.166%	0.037
x		2.423	4465.000	0.000	12380.000	127400.000	125500.000	83.073%	0.217
σ		0.114	55.420	0.000	385.800	4165.000	3622.000	0.203%	0.225
%RSD		4.704	1.241	0.000	3.117	3.268	2.885	0.245	103.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	-1.549	165.800	80.140	26.620	549.100	3.108	20.340	3.892
2	10:51:23	-4.103	173.300	83.900	26.300	540.400	3.157	22.420	3.785
3	10:51:49	-5.211	178.600	85.410	25.990	556.000	3.253	21.280	3.567
x		-3.621	172.600	83.150	26.300	548.500	3.173	21.350	3.748
σ		1.878	6.421	2.714	0.316	7.836	0.073	1.043	0.166
%RSD		51.860	3.721	3.264	1.202	1.429	2.311	4.886	4.424

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	3.729	4.547	4.098	1.818	-1.874	-1.151	0.000	245.900
2	10:51:23	3.920	4.426	4.436	-0.139	-0.929	-0.321	0.000	260.600
3	10:51:49	3.735	4.668	4.258	-1.110	-0.255	-1.359	0.000	260.200
x		3.795	4.547	4.264	0.190	-1.019	-0.944	0.000	255.600
σ		0.109	0.121	0.169	1.492	0.814	0.549	0.000	8.363
%RSD		2.872	2.662	3.968	786.000	79.830	58.200	0.000	3.272

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	81.942%	0.445	0.517	85.123%	-0.041	-0.034	0.324	0.356
2	10:51:23	83.528%	0.506	0.529	86.165%	-0.037	-0.036	0.339	0.374
3	10:51:49	85.739%	0.430	0.448	88.117%	-0.039	-0.034	0.342	0.343
x		83.736%	0.460	0.498	86.469%	-0.039	-0.035	0.335	0.358
σ		1.907%	0.041	0.044	1.520%	0.002	0.001	0.010	0.015
%RSD		2.278	8.826	8.748	1.758	4.913	3.967	2.906	4.253

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	80.045%	-2.549	-0.549	-0.516	71.160	71.660	88.428%	88.330%
2	10:51:23	82.311%	-2.440	-0.557	-0.502	73.980	73.140	89.121%	89.523%
3	10:51:49	83.647%	-2.393	-0.530	-0.509	75.250	75.230	91.879%	91.992%
x		82.001%	-2.461	-0.545	-0.509	73.460	73.340	89.809%	89.948%
σ		1.821%	0.080	0.014	0.007	2.092	1.795	1.825%	1.868%
%RSD		2.220	3.244	2.526	1.427	2.848	2.447	2.032	2.076

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:50:58	0.039	0.044	0.223	0.249	0.240	82.720%
2	10:51:23	0.029	0.041	0.278	0.218	0.233	82.525%
3	10:51:49	0.038	0.042	0.269	0.239	0.247	84.574%
x		0.035	0.042	0.257	0.235	0.240	83.273%
σ		0.006	0.001	0.029	0.016	0.007	1.131%
%RSD		16.420	3.047	11.480	6.819	2.946	1.358

180-40505-B-7-A 1/21/2015 10:54:43 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:08	91.530%	-0.108	18.580	18.440	0.000	17650.000	46160.000	46140.000
2	10:55:34	95.385%	-0.164	19.940	18.090	0.000	18200.000	48200.000	48680.000
3	10:55:59	95.259%	-0.065	17.790	19.140	0.000	18470.000	49380.000	49770.000
x		94.058%	-0.112	18.770	18.560	0.000	18110.000	47910.000	48190.000
σ		2.191%	0.050	1.086	0.536	0.000	415.500	1628.000	1863.000
%RSD		2.329	44.380	5.783	2.891	0.000	2.295	3.398	3.866
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:08	25.340	5015.000	0.000	2325.000	142700.000	143000.000	81.757%	1.002
2	10:55:34	25.350	5212.000	0.000	2516.000	154500.000	154300.000	81.256%	1.097
3	10:55:59	26.250	5302.000	0.000	2560.000	156700.000	157400.000	81.278%	0.955
x		25.650	5176.000	0.000	2467.000	151300.000	151600.000	81.430%	1.018
σ		0.526	146.500	0.000	125.300	7549.000	7589.000	0.283%	0.072
%RSD		2.052	2.830	0.000	5.079	4.990	5.006	0.347	7.107
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:08	1.659	4.695	175.500	447.900	1049.000	0.826	1.098	3.447
2	10:55:34	1.142	4.978	187.900	482.100	1115.000	0.855	1.622	3.590
3	10:55:59	1.912	5.262	189.400	489.100	1118.000	0.805	1.515	3.375
x		1.571	4.978	184.300	473.000	1094.000	0.829	1.412	3.471
σ		0.393	0.283	7.622	22.070	38.900	0.025	0.277	0.109
%RSD		24.990	5.692	4.136	4.666	3.554	3.036	19.610	3.148
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:08	3.861	7.404	6.904	3.116	-1.006	-0.610	0.000	1064.000
2	10:55:34	4.092	7.729	7.591	1.830	-0.573	-0.694	0.000	1093.000
3	10:55:59	4.033	8.090	7.762	1.446	-0.918	0.160	0.000	1109.000
x		3.995	7.741	7.419	2.131	-0.832	-0.381	0.000	1089.000
σ		0.120	0.343	0.454	0.875	0.229	0.471	0.000	22.700
%RSD		3.000	4.432	6.118	41.050	27.470	123.400	0.000	2.086
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:08	79.204%	0.493	0.377	82.039%	-0.046	-0.049	0.031	0.032
2	10:55:34	82.367%	0.383	0.397	84.597%	-0.039	-0.048	0.034	0.018
3	10:55:59	82.308%	0.401	0.374	85.026%	-0.042	-0.056	0.025	0.042
x		81.293%	0.426	0.382	83.887%	-0.042	-0.051	0.030	0.030
σ		1.809%	0.059	0.012	1.615%	0.004	0.005	0.005	0.012
%RSD		2.226	13.800	3.250	1.925	8.433	8.925	15.450	40.130
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:08	78.359%	-2.732	-0.547	-0.521	45.010	43.530	85.261%	86.375%
2	10:55:34	80.195%	-2.638	-0.544	-0.442	45.690	45.910	87.191%	88.947%
3	10:55:59	79.604%	-2.664	-0.537	-0.484	47.600	46.880	87.890%	88.691%
x		79.386%	-2.678	-0.543	-0.483	46.100	45.440	86.781%	88.004%
σ		0.937%	0.048	0.006	0.040	1.341	1.726	1.362%	1.417%
%RSD		1.181	1.808	1.018	8.204	2.908	3.798	1.569	1.610
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:55:08	0.009	0.012	0.524	0.481	0.490	82.139%		
2	10:55:34	0.016	0.012	0.592	0.480	0.509	82.879%		
3	10:55:59	0.015	0.014	0.577	0.516	0.521	83.065%		
x		0.013	0.013	0.564	0.492	0.507	82.695%		
σ		0.004	0.001	0.035	0.020	0.015	0.490%		
%RSD		30.030	11.330	6.274	4.093	3.007	0.592		

180-40505-B-8-A 1/21/2015 10:58:53 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	92.466%	-0.059	30.340	31.080	0.000	22430.000	11430.000	11470.000
2	10:59:44	96.616%	-0.117	34.100	32.900	0.000	23110.000	11920.000	12040.000
3	11:00:10	99.710%	-0.146	32.470	32.010	0.000	23120.000	12110.000	12310.000
x		96.264%	-0.107	32.300	32.000	0.000	22890.000	11820.000	11940.000
σ		3.635%	0.044	1.889	0.910	0.000	398.400	348.600	426.100
%RSD		3.776	41.410	5.849	2.843	0.000	1.741	2.949	3.569

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	82.760	4595.000	0.000	3332.000	101100.000	99920.000	81.651%	2.203
2	10:59:44	86.690	4653.000	0.000	3406.000	103500.000	102500.000	83.921%	1.887
3	11:00:10	86.690	4724.000	0.000	3570.000	109700.000	109000.000	84.813%	1.891
x		85.380	4657.000	0.000	3436.000	104800.000	103800.000	83.462%	1.994
σ		2.271	64.300	0.000	121.400	4451.000	4689.000	1.630%	0.181
%RSD		2.660	1.381	0.000	3.532	4.249	4.516	1.953	9.083

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	0.081	6.826	47.820	357.700	774.800	0.408	0.880	3.026
2	10:59:44	-0.145	7.052	50.890	373.300	798.800	0.393	0.715	3.298
3	11:00:10	0.295	7.049	51.480	383.300	798.800	0.397	0.817	3.145
x		0.077	6.976	50.060	371.400	790.800	0.399	0.804	3.156
σ		0.220	0.130	1.964	12.910	13.840	0.008	0.083	0.136
%RSD		284.300	1.859	3.922	3.477	1.751	1.902	10.380	4.311

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	3.337	4.270	4.464	1.698	-1.009	-0.491	0.000	213.300
2	10:59:44	3.150	4.941	4.379	1.556	-0.910	-2.020	0.000	228.600
3	11:00:10	3.199	4.535	4.506	1.015	-0.193	-1.554	0.000	225.200
x		3.229	4.582	4.450	1.423	-0.704	-1.355	0.000	222.400
σ		0.097	0.338	0.065	0.360	0.445	0.784	0.000	8.071
%RSD		2.996	7.377	1.450	25.310	63.240	57.850	0.000	3.629

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	80.979%	0.812	0.882	84.062%	-0.039	-0.041	0.025	0.064
2	10:59:44	82.958%	0.887	0.822	87.469%	-0.032	-0.050	-0.003	0.067
3	11:00:10	87.178%	0.756	0.954	82.385%	-0.024	-0.038	-0.003	0.013
x		83.705%	0.818	0.886	84.639%	-0.032	-0.043	0.006	0.048
σ		3.166%	0.066	0.066	2.591%	0.008	0.006	0.016	0.030
%RSD		3.783	8.047	7.462	3.061	24.870	14.700	255.700	63.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	78.864%	-2.631	-0.256	-0.279	46.360	47.880	85.280%	86.043%
2	10:59:44	81.689%	-2.632	-0.298	-0.203	50.390	49.170	87.938%	89.696%
3	11:00:10	83.120%	-2.593	-0.264	-0.245	48.570	49.670	94.870%	92.382%
x		81.224%	-2.619	-0.273	-0.242	48.440	48.900	89.363%	89.373%
σ		2.166%	0.022	0.023	0.038	2.018	0.925	4.952%	3.182%
%RSD		2.666	0.851	8.298	15.840	4.167	1.891	5.541	3.560

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:19	0.009	0.011	0.660	0.603	0.599	80.516%
2	10:59:44	0.009	0.011	0.614	0.605	0.600	83.530%
3	11:00:10	0.007	0.013	0.664	0.560	0.590	84.734%
x		0.008	0.012	0.646	0.589	0.596	82.926%
σ		0.001	0.001	0.028	0.026	0.005	2.173%
%RSD		17.030	7.001	4.335	4.332	0.919	2.620

180-40505-B-12-A 1/21/2015 11:03:05 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:30	93.572%	0.002	61.750	60.270	0.000	37490.000	18380.000	17250.000
2	11:03:55	96.235%	0.068	63.440	62.010	0.000	38680.000	18010.000	18070.000
3	11:04:21	94.216%	-0.000	59.810	65.200	0.000	40170.000	18530.000	18540.000
x		94.674%	0.023	61.670	62.500	0.000	38780.000	18310.000	17950.000
σ		1.390%	0.039	1.818	2.502	0.000	1344.000	267.500	654.900
%RSD		1.468	166.600	2.947	4.004	0.000	3.465	1.461	3.648
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:30	2415.000	6647.000	0.000	7379.000	90710.000	91420.000	81.505%	54.940
2	11:03:55	2531.000	6804.000	0.000	7566.000	94510.000	95840.000	81.938%	56.810
3	11:04:21	2628.000	6944.000	0.000	7770.000	94710.000	94080.000	82.206%	57.890
x		2525.000	6798.000	0.000	7572.000	93310.000	93780.000	81.883%	56.540
σ		106.600	148.300	0.000	195.600	2256.000	2225.000	0.354%	1.493
%RSD		4.223	2.181	0.000	2.583	2.418	2.372	0.432	2.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:30	5.567	8.292	479.100	9340.000	9795.000	3.412	5.404	7.236
2	11:03:55	5.825	8.256	511.100	9818.000	10420.000	3.562	5.544	7.368
3	11:04:21	4.728	8.038	516.100	10060.000	10610.000	3.646	5.526	6.841
x		5.374	8.195	502.100	9740.000	10270.000	3.540	5.491	7.148
σ		0.574	0.138	20.070	367.200	424.400	0.119	0.076	0.274
%RSD		10.670	1.681	3.997	3.770	4.132	3.347	1.383	3.839
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:30	6.763	43.230	41.570	1.561	-1.951	-2.644	0.000	217.900
2	11:03:55	6.562	46.910	46.190	1.680	-1.204	-2.338	0.000	230.200
3	11:04:21	7.368	47.600	46.600	3.873	-1.361	-2.477	0.000	235.700
x		6.898	45.920	44.790	2.372	-1.505	-2.487	0.000	227.900
σ		0.420	2.348	2.795	1.302	0.394	0.153	0.000	9.086
%RSD		6.087	5.113	6.241	54.890	26.180	6.163	0.000	3.986
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:30	84.034%	0.872	0.793	82.500%	0.089	0.071	0.096	0.087
2	11:03:55	85.656%	0.736	0.858	84.522%	0.045	0.065	0.052	0.098
3	11:04:21	86.875%	0.953	0.813	86.953%	0.068	0.092	0.061	0.093
x		85.522%	0.853	0.821	84.658%	0.067	0.076	0.070	0.092
σ		1.425%	0.110	0.033	2.230%	0.022	0.014	0.023	0.006
%RSD		1.667	12.870	4.077	2.634	32.050	18.760	33.560	6.137
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:30	79.543%	-2.596	-0.550	-0.536	58.220	57.710	88.837%	88.232%
2	11:03:55	81.494%	-2.468	-0.528	-0.537	60.420	59.720	89.898%	90.525%
3	11:04:21	82.179%	-2.379	-0.522	-0.538	60.940	61.660	90.672%	92.608%
x		81.072%	-2.481	-0.533	-0.537	59.860	59.700	89.802%	90.455%
σ		1.368%	0.109	0.015	0.001	1.442	1.976	0.921%	2.189%
%RSD		1.687	4.403	2.822	0.201	2.410	3.310	1.026	2.420
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:03:30	0.066	0.051	3.567	3.266	3.315	81.915%		
2	11:03:55	0.056	0.053	3.750	3.347	3.448	84.520%		
3	11:04:21	0.048	0.053	3.715	3.353	3.475	85.381%		
x		0.056	0.052	3.677	3.322	3.412	83.939%		
σ		0.009	0.001	0.097	0.048	0.086	1.805%		
%RSD		16.130	2.451	2.635	1.452	2.508	2.150		

180-40505-B-13-A 1/21/2015 11:07:17 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	90.819%	-0.067	18.780	22.430	0.000	37940.000	4494.000	4516.000
2	11:08:07	94.032%	-0.188	21.400	21.060	0.000	38700.000	4622.000	4729.000
3	11:08:33	96.531%	-0.117	21.690	22.870	0.000	38930.000	4723.000	4700.000
x		93.794%	-0.124	20.620	22.120	0.000	38530.000	4613.000	4648.000
σ		2.863%	0.060	1.603	0.949	0.000	516.200	114.800	115.400
%RSD		3.053	48.780	7.774	4.290	0.000	1.340	2.489	2.483

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	195.600	1830.000	0.000	24450.000	46670.000	47960.000	80.029%	5.052
2	11:08:07	204.700	1874.000	0.000	25380.000	49100.000	48190.000	81.089%	4.901
3	11:08:33	205.800	1854.000	0.000	24800.000	48190.000	48890.000	81.549%	4.763
x		202.000	1853.000	0.000	24880.000	47990.000	48350.000	80.889%	4.905
σ		5.610	22.020	0.000	468.300	1230.000	486.900	0.780%	0.144
%RSD		2.777	1.189	0.000	1.883	2.564	1.007	0.964	2.944

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	-0.868	28.180	5.353	296.200	495.300	0.334	1.770	6.104
2	11:08:07	0.826	30.080	5.689	299.500	502.700	0.328	1.331	6.316
3	11:08:33	1.724	30.110	5.620	294.800	496.800	0.364	1.563	6.586
x		0.561	29.460	5.554	296.800	498.300	0.342	1.555	6.336
σ		1.316	1.103	0.178	2.425	3.912	0.019	0.220	0.241
%RSD		234.700	3.746	3.203	0.817	0.785	5.647	14.150	3.811

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	5.899	6.463	6.488	1.143	-1.284	-0.892	0.000	121.600
2	11:08:07	5.769	6.930	6.670	-0.586	0.138	-1.691	0.000	125.200
3	11:08:33	6.178	6.613	6.707	3.423	-1.073	-1.921	0.000	126.200
x		5.949	6.669	6.622	1.327	-0.740	-1.502	0.000	124.300
σ		0.209	0.239	0.117	2.011	0.767	0.540	0.000	2.442
%RSD		3.515	3.578	1.773	151.600	103.700	35.970	0.000	1.964

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	78.916%	3.866	3.821	83.681%	-0.041	-0.041	0.031	0.047
2	11:08:07	81.711%	3.958	4.007	85.835%	-0.048	-0.052	0.006	0.067
3	11:08:33	82.726%	4.242	4.157	85.788%	-0.054	-0.053	0.001	0.061
x		81.117%	4.022	3.995	85.101%	-0.048	-0.049	0.013	0.058
σ		1.973%	0.196	0.168	1.230%	0.006	0.007	0.016	0.010
%RSD		2.432	4.873	4.203	1.446	12.840	14.300	121.800	17.740

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	78.072%	-2.752	-0.646	-0.585	33.660	34.020	84.772%	86.452%
2	11:08:07	79.853%	-2.650	-0.602	-0.604	35.030	35.910	87.805%	87.768%
3	11:08:33	82.483%	-2.638	-0.602	-0.573	36.050	35.840	88.663%	89.664%
x		80.136%	-2.680	-0.616	-0.588	34.920	35.260	87.080%	87.961%
σ		2.219%	0.062	0.025	0.016	1.200	1.071	2.044%	1.615%
%RSD		2.769	2.327	4.125	2.679	3.438	3.037	2.348	1.836

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:42	0.029	0.023	1.061	0.918	0.989	80.016%
2	11:08:07	0.041	0.028	1.109	1.003	1.012	81.105%
3	11:08:33	0.025	0.020	1.016	0.937	0.960	84.890%
x		0.032	0.024	1.062	0.953	0.987	82.004%
σ		0.008	0.004	0.046	0.044	0.026	2.558%
%RSD		25.930	17.490	4.370	4.660	2.599	3.120

180-40505-B-14-A 1/21/2015 11:11:29 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	88.967%	0.096	50.560	51.540	0.000	66010.000	18830.000	19080.000
2	11:12:20	94.296%	-0.138	51.470	54.660	0.000	67960.000	19660.000	19730.000
3	11:12:45	93.807%	0.014	56.220	55.140	0.000	68380.000	19930.000	20070.000
x		92.357%	-0.009	52.750	53.780	0.000	67450.000	19470.000	19630.000
σ		2.946%	0.119	3.040	1.955	0.000	1266.000	571.300	500.400
%RSD		3.189	1279.000	5.762	3.635	0.000	1.877	2.933	2.549

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	220.500	5533.000	0.000	10010.000	133800.000	131900.000	78.647%	5.110
2	11:12:20	226.900	5615.000	0.000	10430.000	138100.000	135600.000	81.270%	4.229
3	11:12:45	234.800	5668.000	0.000	10580.000	142200.000	139900.000	81.046%	5.041
x		227.400	5605.000	0.000	10340.000	138000.000	135800.000	80.321%	4.793
σ		7.141	68.250	0.000	298.900	4181.000	3985.000	1.454%	0.490
%RSD		3.140	1.218	0.000	2.891	3.029	2.934	1.810	10.220

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	1.886	10.920	114.100	486.300	1031.000	0.942	1.369	2.757
2	11:12:20	0.676	11.250	119.300	515.100	1043.000	0.942	1.349	2.777
3	11:12:45	0.916	10.970	120.300	521.000	1058.000	0.995	1.364	2.841
x		1.159	11.040	117.900	507.500	1044.000	0.959	1.361	2.792
σ		0.641	0.178	3.361	18.580	13.790	0.031	0.011	0.044
%RSD		55.280	1.612	2.851	3.661	1.321	3.195	0.784	1.583

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	2.528	134.500	129.900	-0.135	-2.178	-0.678	0.000	297.300
2	11:12:20	2.411	141.500	139.400	-1.340	-1.521	-3.114	0.000	306.800
3	11:12:45	2.710	140.400	139.400	1.198	-1.265	-1.743	0.000	312.300
x		2.550	138.800	136.200	-0.092	-1.655	-1.845	0.000	305.500
σ		0.151	3.798	5.493	1.270	0.471	1.221	0.000	7.582
%RSD		5.907	2.736	4.031	1373.000	28.480	66.180	0.000	2.482

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	78.868%	0.946	1.244	80.894%	-0.042	-0.041	0.036	0.090
2	11:12:20	83.593%	1.189	1.094	84.950%	-0.047	-0.053	0.039	0.065
3	11:12:45	83.557%	1.163	1.061	84.354%	-0.044	-0.044	0.076	0.063
x		82.006%	1.099	1.133	83.399%	-0.044	-0.046	0.050	0.073
σ		2.717%	0.134	0.097	2.190%	0.002	0.006	0.022	0.015
%RSD		3.314	12.170	8.597	2.626	5.377	13.440	44.380	20.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	78.008%	-2.706	-0.567	-0.520	60.560	60.280	85.244%	85.561%
2	11:12:20	80.538%	-2.722	-0.525	-0.513	63.800	63.420	90.737%	91.198%
3	11:12:45	81.198%	-2.676	-0.546	-0.527	63.040	64.010	89.202%	90.407%
x		79.915%	-2.701	-0.546	-0.520	62.460	62.570	88.394%	89.055%
σ		1.684%	0.023	0.021	0.007	1.695	2.001	2.834%	3.052%
%RSD		2.107	0.852	3.848	1.372	2.714	3.199	3.207	3.427

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:55	0.049	0.037	0.580	0.539	0.552	80.196%
2	11:12:20	0.053	0.046	0.622	0.563	0.575	83.528%
3	11:12:45	0.046	0.041	0.604	0.560	0.575	84.154%
x		0.049	0.041	0.602	0.554	0.568	82.626%
σ		0.003	0.005	0.021	0.013	0.013	2.128%
%RSD		7.051	11.670	3.541	2.283	2.308	2.575

180-40505-B-15-A 1/21/2015 11:15:42 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	91.072%	-0.159	67.850	66.580	0.000	55800.000	17430.000	16500.000
2	11:16:32	95.749%	0.020	66.440	66.480	0.000	56470.000	16790.000	17060.000
3	11:16:57	95.465%	-0.177	69.690	69.520	0.000	58380.000	17420.000	17520.000
x		94.095%	-0.105	67.990	67.530	0.000	56880.000	17210.000	17030.000
σ		2.623%	0.109	1.634	1.724	0.000	1342.000	367.500	512.700
%RSD		2.787	103.800	2.402	2.552	0.000	2.359	2.135	3.012

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	83.240	4698.000	0.000	7384.000	129200.000	128000.000	81.238%	1.594
2	11:16:32	80.490	4793.000	0.000	7692.000	139100.000	137800.000	81.952%	2.295
3	11:16:57	74.600	4852.000	0.000	7758.000	138500.000	135900.000	82.877%	2.000
x		79.450	4781.000	0.000	7611.000	135600.000	133900.000	82.022%	1.963
σ		4.412	77.660	0.000	199.800	5592.000	5237.000	0.822%	0.352
%RSD		5.554	1.624	0.000	2.625	4.124	3.911	1.002	17.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	-0.052	19.910	19.920	310.700	843.100	0.786	1.192	2.275
2	11:16:32	1.895	21.150	20.560	342.500	860.800	0.757	0.980	2.377
3	11:16:57	-2.179	21.240	21.050	327.500	863.200	0.726	1.076	2.465
x		-0.112	20.770	20.510	326.900	855.700	0.756	1.082	2.372
σ		2.038	0.744	0.562	15.880	10.980	0.030	0.106	0.095
%RSD		1823.000	3.584	2.739	4.859	1.283	3.966	9.804	4.001

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	2.240	12.700	12.200	1.344	-1.927	-0.009	0.000	253.000
2	11:16:32	2.500	13.320	12.760	-0.995	-0.759	-2.077	0.000	264.400
3	11:16:57	2.296	13.360	12.920	3.269	-0.599	0.145	0.000	270.500
x		2.345	13.120	12.630	1.206	-1.095	-0.647	0.000	262.600
σ		0.137	0.370	0.379	2.136	0.725	1.241	0.000	8.906
%RSD		5.842	2.817	2.999	177.100	66.200	191.800	0.000	3.391

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	82.263%	0.729	0.695	84.220%	-0.055	-0.053	0.011	0.029
2	11:16:32	83.163%	0.539	0.638	84.932%	-0.042	-0.051	0.002	0.019
3	11:16:57	86.000%	0.662	0.639	87.801%	-0.053	-0.039	0.024	0.104
x		83.809%	0.644	0.657	85.651%	-0.050	-0.047	0.012	0.051
σ		1.950%	0.096	0.033	1.896%	0.007	0.008	0.011	0.047
%RSD		2.327	14.910	5.012	2.213	13.890	16.100	92.110	91.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	79.048%	-2.817	-0.680	-0.670	66.960	66.150	89.399%	89.554%
2	11:16:32	81.416%	-2.839	-0.666	-0.651	67.790	68.750	91.587%	91.069%
3	11:16:57	81.566%	-2.805	-0.690	-0.638	71.190	70.470	91.759%	92.480%
x		80.677%	-2.821	-0.679	-0.653	68.650	68.450	90.915%	91.034%
σ		1.412%	0.017	0.012	0.016	2.240	2.176	1.316%	1.463%
%RSD		1.751	0.612	1.809	2.440	3.264	3.179	1.447	1.607

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:16:07	0.013	0.010	0.371	0.325	0.326	82.519%
2	11:16:32	0.014	0.012	0.420	0.374	0.356	84.057%
3	11:16:57	0.021	0.016	0.360	0.312	0.343	84.634%
x		0.016	0.013	0.383	0.337	0.342	83.737%
σ		0.005	0.003	0.032	0.033	0.015	1.093%
%RSD		28.420	22.460	8.310	9.707	4.343	1.305

180-40505-B-16-A 1/21/2015 11:19:54 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:20	90.060%	-0.144	171.000	166.200	0.000	28160.000	6326.000	6418.000
2	11:20:44	91.291%	-0.120	173.900	176.100	0.000	29360.000	6737.000	6810.000
3	11:21:10	92.102%	-0.096	181.700	175.700	0.000	29580.000	6859.000	6918.000
x		91.151%	-0.120	175.500	172.700	0.000	29040.000	6641.000	6715.000
σ		1.028%	0.024	5.517	5.584	0.000	762.200	278.900	263.200
%RSD		1.128	20.110	3.143	3.234	0.000	2.625	4.200	3.920
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:20	50.850	4058.000	0.000	3891.000	94100.000	95890.000	79.341%	1.177
2	11:20:44	55.550	4261.000	0.000	4145.000	102800.000	102600.000	80.126%	1.517
3	11:21:10	56.690	3922.000	0.000	4144.000	105100.000	104300.000	79.724%	1.687
x		54.370	4081.000	0.000	4060.000	100700.000	100900.000	79.730%	1.460
σ		3.096	170.400	0.000	146.300	5812.000	4437.000	0.392%	0.260
%RSD		5.695	4.176	0.000	3.604	5.773	4.396	0.492	17.810
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:20	0.084	5.457	1247.000	270.000	678.400	1.559	4.100	2.557
2	11:20:44	-1.008	5.371	1312.000	285.100	703.500	1.727	4.438	2.463
3	11:21:10	0.863	5.505	1344.000	288.100	696.400	1.757	4.516	2.716
x		-0.020	5.444	1301.000	281.100	692.700	1.681	4.351	2.579
σ		0.940	0.068	49.670	9.684	12.940	0.106	0.221	0.128
%RSD		4680.000	1.256	3.818	3.446	1.868	6.325	5.084	4.952
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:20	2.329	26.050	25.720	0.883	-2.123	-1.319	0.000	137.300
2	11:20:44	2.788	27.530	26.860	3.080	-0.817	-0.699	0.000	142.000
3	11:21:10	2.510	27.520	27.240	1.424	-0.875	-1.134	0.000	142.500
x		2.543	27.040	26.610	1.795	-1.272	-1.051	0.000	140.600
σ		0.231	0.853	0.793	1.145	0.738	0.319	0.000	2.872
%RSD		9.088	3.154	2.980	63.750	58.040	30.320	0.000	2.043
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:20	78.179%	0.305	0.341	82.020%	-0.051	-0.056	0.127	0.149
2	11:20:44	80.939%	0.258	0.263	84.258%	-0.053	-0.045	0.124	0.208
3	11:21:10	82.640%	0.311	0.307	83.937%	-0.052	-0.044	0.048	0.154
x		80.586%	0.291	0.303	83.405%	-0.052	-0.048	0.100	0.171
σ		2.251%	0.029	0.039	1.210%	0.001	0.007	0.045	0.032
%RSD		2.794	9.998	12.930	1.451	1.690	14.310	44.640	18.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:20	77.648%	-2.868	-0.693	-0.696	42.210	41.920	84.521%	85.402%
2	11:20:44	79.646%	-2.891	-0.696	-0.681	44.850	44.820	86.892%	87.628%
3	11:21:10	80.399%	-2.922	-0.728	-0.695	43.920	44.090	88.047%	87.824%
x		79.231%	-2.894	-0.706	-0.691	43.660	43.610	86.487%	86.951%
σ		1.422%	0.027	0.020	0.009	1.340	1.505	1.798%	1.346%
%RSD		1.794	0.925	2.765	1.256	3.069	3.450	2.079	1.547
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:20:20	0.023	0.018	0.330	0.356	0.338	81.163%		
2	11:20:44	0.018	0.015	0.423	0.348	0.369	81.384%		
3	11:21:10	0.017	0.018	0.413	0.346	0.382	83.167%		
x		0.019	0.017	0.389	0.350	0.363	81.904%		
σ		0.003	0.002	0.051	0.005	0.022	1.099%		
%RSD		17.610	9.615	13.130	1.523	6.186	1.341		

180-40519-G-1-A 1/21/2015 11:24:06 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:32	94.208%	-0.113	6.316	6.755	0.000	154.800	18.600	18.910
2	11:24:57	96.425%	-0.080	5.739	6.390	0.000	147.000	17.830	17.050
3	11:25:22	99.584%	-0.086	6.918	7.253	0.000	143.600	14.490	15.510
x		96.739%	-0.093	6.324	6.799	0.000	148.500	16.970	17.150
σ		2.702%	0.017	0.590	0.433	0.000	5.724	2.184	1.700
%RSD		2.793	18.770	9.326	6.367	0.000	3.855	12.870	9.911
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:32	2.850	131.200	0.000	52.570	158.400	136.700	81.719%	-0.074
2	11:24:57	2.914	135.000	0.000	58.340	127.000	101.900	83.215%	-0.188
3	11:25:22	2.826	130.600	0.000	62.790	103.000	104.100	83.683%	-0.121
x		2.863	132.200	0.000	57.900	129.500	114.200	82.872%	-0.128
σ		0.045	2.392	0.000	5.125	27.750	19.450	1.026%	0.057
%RSD		1.578	1.809	0.000	8.852	21.430	17.030	1.238	44.550
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:32	0.917	3.441	1.031	8.904	3.634	0.024	0.241	1.463
2	11:24:57	0.710	3.289	0.635	8.037	-1.056	0.029	0.206	1.471
3	11:25:22	-1.272	3.148	0.447	6.709	-2.954	0.006	0.258	1.625
x		0.118	3.293	0.704	7.883	-0.125	0.019	0.235	1.520
σ		1.209	0.147	0.298	1.105	3.391	0.012	0.027	0.091
%RSD		1021.000	4.450	42.340	14.020	2704.000	63.120	11.360	5.997
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:32	1.250	3.510	3.227	1.922	-0.812	-1.776	0.000	0.350
2	11:24:57	1.441	3.676	3.570	1.550	-1.044	-3.453	0.000	0.297
3	11:25:22	1.248	3.615	3.544	1.733	-1.199	-1.269	0.000	0.260
x		1.313	3.600	3.447	1.735	-1.018	-2.166	0.000	0.302
σ		0.111	0.084	0.191	0.186	0.195	1.143	0.000	0.045
%RSD		8.457	2.337	5.540	10.710	19.130	52.760	0.000	15.030
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:32	81.412%	-0.107	-0.116	87.173%	-0.046	-0.053	0.006	0.002
2	11:24:57	83.919%	-0.134	-0.145	83.303%	-0.064	-0.053	-0.003	1.095
3	11:25:22	85.536%	-0.135	-0.108	83.376%	-0.052	-0.048	-0.008	-0.006
x		83.622%	-0.125	-0.123	84.617%	-0.054	-0.052	-0.002	0.364
σ		2.078%	0.016	0.019	2.213%	0.009	0.003	0.007	0.633
%RSD		2.485	12.540	15.670	2.616	17.400	5.471	447.900	174.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:32	81.522%	-2.924	-0.746	-0.716	0.194	0.223	87.077%	87.283%
2	11:24:57	84.033%	-2.835	-0.757	-0.738	0.106	0.237	90.985%	89.903%
3	11:25:22	82.409%	-2.834	-0.740	-0.722	0.128	0.189	91.915%	91.110%
x		82.655%	-2.865	-0.748	-0.725	0.143	0.217	89.992%	89.432%
σ		1.273%	0.052	0.009	0.012	0.045	0.025	2.567%	1.956%
%RSD		1.540	1.802	1.148	1.599	31.830	11.520	2.852	2.187
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:24:32	0.002	0.002	0.164	0.116	0.140	87.462%		
2	11:24:57	0.003	0.004	0.154	0.105	0.140	88.163%		
3	11:25:22	0.006	0.003	0.155	0.175	0.167	87.900%		
x		0.004	0.003	0.158	0.132	0.149	87.842%		
σ		0.002	0.001	0.005	0.038	0.016	0.354%		
%RSD		62.350	36.060	3.394	28.550	10.530	0.404		

CCV 1455996 1/21/2015 11:28:18 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	80.739%	99.050	95.140	98.570	0.000	48980.000	47020.000	47090.000
2	11:29:08	84.692%	100.300	105.700	103.900	0.000	50250.000	48780.000	48530.000
3	11:29:33	84.144%	100.200	102.000	103.100	0.000	50260.000	49070.000	49250.000
x		83.192%	99.854%	100.933%	101.868%	0.000	99.658%	96.581%	96.579%
σ		2.141%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.574	0.702	5.296	2.837	0.000	1.480	2.289	2.278

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	464.000	4920.000	0.000	49400.000	47750.000	47300.000	82.724%	96.010
2	11:29:08	482.200	5051.000	0.000	51730.000	50350.000	50140.000	81.386%	101.600
3	11:29:33	487.300	5056.000	0.000	51410.000	50230.000	50280.000	83.271%	98.730
x		95.569%	100.186%	0.000	101.691%	98.887%	98.477%	82.461%	98.791%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.970%	n/a
%RSD		2.562	1.538	0.000	2.475	2.963	3.409	1.176	2.843

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	88.780	89.420	485.500	23570.000	24960.000	92.670	92.990	94.220
2	11:29:08	94.140	95.220	515.400	24960.000	26810.000	96.890	98.830	98.750
3	11:29:33	93.800	95.880	514.300	25090.000	26880.000	96.780	97.960	99.010
x		92.241%	93.506%	101.017%	98.152%	104.862%	95.446%	96.594%	97.323%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.255	3.805	3.352	3.418	4.143	2.522	3.258	2.765

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	93.780	94.880	94.940	93.730	96.250	97.170	0.000	94.900
2	11:29:08	97.640	100.800	101.100	96.690	97.970	97.800	0.000	97.120
3	11:29:33	97.720	99.890	101.000	98.840	100.800	102.700	0.000	98.910
x		96.380%	98.515%	98.998%	96.419%	98.329%	99.232%	0.000	96.978%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.339	3.227	3.553	2.660	2.313	3.070	0.000	2.070

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	79.534%	87.920	85.950	86.263%	91.470	91.110	91.980	94.430
2	11:29:08	81.656%	93.680	91.920	87.200%	92.890	92.950	96.370	98.000
3	11:29:33	82.269%	102.400	101.000	81.013%	97.810	97.120	100.000	99.320
x		81.153%	94.666%	92.962%	84.826%	94.057%	93.725%	96.118%	97.251%
σ		1.435%	n/a	n/a	3.335%	n/a	n/a	n/a	n/a
%RSD		1.769	7.699	8.157	3.931	3.539	3.281	4.176	2.602

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	80.190%	94.330	95.050	95.710	95.290	94.770	87.337%	86.861%
2	11:29:08	82.253%	97.760	98.850	98.820	97.350	98.090	87.008%	88.240%
3	11:29:33	82.566%	98.020	100.600	101.000	100.500	98.360	88.528%	89.197%
x		81.669%	96.703%	98.155%	98.494%	97.704%	97.071%	87.624%	88.100%
σ		1.291%	n/a	n/a	n/a	n/a	n/a	0.800%	1.174%
%RSD		1.581	2.133	2.877	2.677	2.673	2.062	0.913	1.333

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:43	103.500	100.200	102.600	101.800	101.800	87.352%
2	11:29:08	106.600	103.700	106.900	106.900	106.400	87.582%
3	11:29:33	107.000	104.300	109.500	108.300	107.800	87.998%
x		105.666%	102.707%	106.337%	105.664%	105.353%	87.644%
σ		n/a	n/a	n/a	n/a	n/a	0.327%
%RSD		1.810	2.140	3.306	3.265	2.976	0.374

CCB3 1/21/2015 11:35:36 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	86.370%	-0.071	-0.095	-0.825	0.000	20.610	21.250	20.980
2	11:36:27	88.695%	-0.169	-1.138	-0.368	0.000	13.850	13.310	14.500
3	11:36:52	90.391%	-0.055	-0.351	-0.628	0.000	12.110	11.250	11.960
x		88.486%	-0.098	-0.528	-0.607	0.000	15.520	15.270	15.810
σ		2.019%	0.062	0.543	0.229	0.000	4.491	5.278	4.655
%RSD		2.281	62.830	102.900	37.790	0.000	28.930	34.560	29.430

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	0.743	7.379	0.000	18.410	35.680	33.390	83.934%	-0.380
2	11:36:27	0.598	2.013	0.000	12.840	23.630	24.700	84.948%	-0.399
3	11:36:52	0.350	1.915	0.000	24.550	12.090	16.200	85.259%	-0.383
x		0.564	3.769	0.000	18.600	23.800	24.760	84.714%	-0.387
σ		0.198	3.127	0.000	5.859	11.800	8.594	0.693%	0.010
%RSD		35.200	82.960	0.000	31.500	49.580	34.710	0.818	2.692

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	0.071	0.018	0.215	16.040	22.000	0.026	-0.005	-0.172
2	11:36:27	-0.017	-0.026	0.105	10.150	13.550	0.021	0.088	-0.178
3	11:36:52	-0.100	0.023	0.085	7.594	9.236	0.010	0.084	-0.282
x		-0.015	0.005	0.135	11.260	14.930	0.019	0.056	-0.210
σ		0.085	0.027	0.070	4.332	6.492	0.008	0.053	0.062
%RSD		562.600	572.300	52.030	38.470	43.490	42.940	94.550	29.280

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	-0.274	0.125	0.222	0.979	-0.937	6.254	0.000	0.081
2	11:36:27	-0.187	0.098	0.097	0.542	-0.515	3.144	0.000	0.060
3	11:36:52	-0.320	0.123	0.113	0.479	-0.861	2.913	0.000	0.053
x		-0.260	0.115	0.144	0.667	-0.771	4.104	0.000	0.065
σ		0.067	0.015	0.068	0.273	0.225	1.865	0.000	0.014
%RSD		25.850	13.080	47.390	40.890	29.200	45.460	0.000	22.210

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	82.879%	0.269	0.272	84.892%	-0.016	-0.031	0.055	0.079
2	11:36:27	85.403%	0.153	0.201	85.906%	-0.025	-0.030	0.014	0.011
3	11:36:52	87.730%	0.230	0.256	87.166%	-0.015	-0.041	0.027	0.029
x		85.337%	0.217	0.243	85.988%	-0.019	-0.034	0.032	0.040
σ		2.426%	0.059	0.037	1.139%	0.005	0.006	0.021	0.035
%RSD		2.843	27.100	15.310	1.325	27.150	17.230	64.530	88.920

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	84.802%	-2.921	-0.562	-0.583	0.054	0.036	89.682%	89.394%
2	11:36:27	86.619%	-2.886	-0.612	-0.596	0.015	0.031	92.034%	91.514%
3	11:36:52	87.044%	-2.988	-0.571	-0.555	0.005	0.026	92.372%	92.187%
x		86.155%	-2.932	-0.582	-0.578	0.025	0.031	91.362%	91.032%
σ		1.191%	0.052	0.027	0.021	0.026	0.005	1.465%	1.458%
%RSD		1.382	1.765	4.611	3.592	104.400	16.840	1.604	1.601

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:02	0.024	0.032	0.037	0.045	0.039	93.543%
2	11:36:27	0.034	0.022	0.000	0.017	0.020	93.279%
3	11:36:52	0.028	0.023	0.016	0.004	0.013	92.752%
x		0.028	0.026	0.018	0.022	0.024	93.192%
σ		0.005	0.006	0.018	0.021	0.013	0.403%
%RSD		17.170	22.290	104.000	97.160	55.210	0.432

MB 180-130921/1-A 1/21/2015 11:39:51 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:16	85.237%	-0.095	-0.140	-0.954	0.000	9.168	4.607	3.580
2	11:40:42	86.041%	-0.083	-0.415	-0.690	0.000	4.847	2.770	2.483
3	11:41:07	87.333%	-0.167	-0.523	-0.944	0.000	2.937	1.484	2.521
x		86.204%	-0.115	-0.359	-0.863	0.000	5.651	2.954	2.861
σ		1.058%	0.045	0.197	0.150	0.000	3.192	1.569	0.623
%RSD		1.227	39.150	54.900	17.370	0.000	56.490	53.140	21.760
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:16	0.214	4.921	0.000	10.210	7.023	8.999	79.353%	-0.422
2	11:40:42	0.272	1.099	0.000	13.000	5.214	12.070	79.596%	-0.459
3	11:41:07	-0.072	-0.597	0.000	17.520	7.107	9.108	78.926%	-0.440
x		0.138	1.808	0.000	13.570	6.448	10.060	79.292%	-0.440
σ		0.184	2.827	0.000	3.687	1.070	1.740	0.339%	0.018
%RSD		133.300	156.400	0.000	27.160	16.590	17.300	0.427	4.190
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:16	-0.177	0.433	0.017	0.644	3.802	0.028	0.083	0.111
2	11:40:42	-0.149	0.339	-0.028	-0.557	-0.144	-0.009	0.003	0.039
3	11:41:07	-0.141	0.375	-0.002	-0.716	-1.746	0.006	0.038	0.013
x		-0.156	0.382	-0.004	-0.210	0.637	0.008	0.041	0.054
σ		0.019	0.047	0.023	0.744	2.855	0.019	0.040	0.051
%RSD		12.000	12.410	545.300	354.800	448.200	221.500	96.450	93.560
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:16	0.034	1.384	1.581	-0.027	-0.894	-1.872	0.000	0.023
2	11:40:42	-0.057	1.516	1.338	0.551	0.075	-0.291	0.000	0.021
3	11:41:07	0.057	1.284	1.370	0.235	-1.323	-1.050	0.000	0.012
x		0.011	1.395	1.430	0.253	-0.714	-1.071	0.000	0.019
σ		0.060	0.116	0.132	0.289	0.716	0.791	0.000	0.006
%RSD		538.100	8.345	9.231	114.300	100.300	73.820	0.000	32.570
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:16	79.184%	-0.037	-0.024	80.736%	-0.055	-0.048	0.011	0.045
2	11:40:42	82.210%	-0.070	-0.051	82.559%	-0.043	-0.046	0.006	0.010
3	11:41:07	81.190%	-0.029	-0.081	82.157%	-0.053	-0.056	-0.008	-1.395
x		80.861%	-0.045	-0.052	81.817%	-0.050	-0.050	0.003	-0.447
σ		1.540%	0.022	0.028	0.958%	0.007	0.006	0.010	0.822
%RSD		1.904	47.500	54.830	1.171	13.250	11.080	298.200	184.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:16	82.405%	-2.999	-0.645	-0.653	0.002	0.041	86.778%	86.363%
2	11:40:42	80.383%	-3.042	-0.671	-0.653	-0.009	0.008	88.990%	88.319%
3	11:41:07	79.989%	-2.993	-0.666	-0.688	-0.003	0.008	87.860%	87.305%
x		80.926%	-3.011	-0.661	-0.665	-0.003	0.019	87.876%	87.329%
σ		1.297%	0.027	0.013	0.020	0.005	0.019	1.106%	0.978%
%RSD		1.602	0.893	2.033	3.006	174.200	100.300	1.258	1.120
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:40:16	0.009	0.009	0.021	0.005	0.012	102.914%		
2	11:40:42	0.004	0.005	0.027	0.015	0.016	92.044%		
3	11:41:07	0.010	0.007	0.007	0.014	0.015	88.016%		
x		0.007	0.007	0.018	0.012	0.014	94.324%		
σ		0.003	0.002	0.010	0.006	0.002	7.706%		
%RSD		42.320	25.170	55.020	48.070	15.100	8.170		

LCS 180-130921/2-A 1/21/2015 11:44:04 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	83.551%	45.610	939.600	928.400	0.000	43630.000	41250.000	41740.000
2	11:44:54	87.600%	46.330	955.300	956.300	0.000	44810.000	42800.000	42950.000
3	11:45:19	88.070%	47.490	978.900	975.200	0.000	45580.000	43970.000	43940.000
x		86.407%	46.480	957.900	953.300	0.000	44670.000	42670.000	42880.000
σ		2.485%	0.950	19.790	23.550	0.000	981.000	1369.000	1101.000
%RSD		2.875	2.045	2.066	2.470	0.000	2.196	3.207	2.567

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	1743.000	8745.000	0.000	47190.000	45270.000	45660.000	76.877%	878.600
2	11:44:54	1814.000	8934.000	0.000	48290.000	47150.000	48690.000	78.057%	926.600
3	11:45:19	1859.000	8974.000	0.000	49180.000	48710.000	48040.000	78.032%	946.200
x		1805.000	8885.000	0.000	48220.000	47040.000	47460.000	77.655%	917.100
σ		58.530	122.700	0.000	999.000	1719.000	1593.000	0.674%	34.750
%RSD		3.242	1.381	0.000	2.072	3.654	3.356	0.868	3.789

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	440.600	170.700	450.800	964.000	1086.000	444.300	433.100	220.700
2	11:44:54	463.700	180.400	482.300	1032.000	1149.000	473.900	465.900	235.500
3	11:45:19	466.700	183.700	488.500	1053.000	1166.000	480.900	469.700	240.300
x		457.000	178.300	473.900	1016.000	1134.000	466.300	456.200	232.200
σ		14.290	6.739	20.200	46.540	41.950	19.440	20.120	10.200
%RSD		3.127	3.780	4.262	4.579	3.699	4.168	4.409	4.392

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	220.100	447.900	441.200	34.160	8.152	7.464	0.000	901.900
2	11:44:54	233.800	488.300	474.600	38.480	9.056	9.998	0.000	999.700
3	11:45:19	237.200	489.300	487.700	39.280	10.680	13.470	0.000	993.600
x		230.400	475.200	467.800	37.310	9.295	10.310	0.000	965.100
σ		9.035	23.570	23.960	2.755	1.279	3.016	0.000	54.810
%RSD		3.922	4.961	5.122	7.385	13.760	29.250	0.000	5.680

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	76.120%	930.800	912.400	80.638%	43.220	43.910	44.850	37.160
2	11:44:54	73.735%	1008.000	977.400	82.135%	43.300	43.290	46.520	39.220
3	11:45:19	75.325%	1020.000	997.400	83.294%	43.640	44.210	47.040	40.230
x		75.060%	986.100	962.400	82.022%	43.390	43.800	46.140	38.870
σ		1.214%	48.210	44.450	1.332%	0.221	0.472	1.147	1.562
%RSD		1.618	4.889	4.619	1.623	0.509	1.078	2.485	4.019

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	74.257%	1923.000	472.700	473.100	1815.000	1867.000	85.538%	85.365%
2	11:44:54	78.327%	1944.000	485.800	481.200	1874.000	1924.000	87.690%	88.021%
3	11:45:19	77.437%	1980.000	503.900	489.700	1901.000	1958.000	88.460%	90.030%
x		76.674%	1949.000	487.500	481.300	1863.000	1916.000	87.229%	87.805%
σ		2.140%	28.520	15.680	8.328	43.880	45.780	1.514%	2.340%
%RSD		2.791	1.463	3.216	1.730	2.355	2.389	1.736	2.665

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:29	51.370	48.430	21.170	21.020	20.760	78.130%
2	11:44:54	52.560	49.920	21.170	21.390	21.060	81.306%
3	11:45:19	52.470	50.780	21.610	21.550	21.450	82.023%
x		52.130	49.710	21.320	21.320	21.090	80.487%
σ		0.661	1.189	0.252	0.273	0.346	2.072%
%RSD		1.267	2.391	1.180	1.279	1.642	2.574

180-40461-B-3-B 1/21/2015 11:48:16 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	90.624%	0.063	12.840	11.130	0.000	319.800	31.160	31.540
2	11:49:06	93.811%	-0.011	9.914	11.510	0.000	315.900	17.170	17.900
3	11:49:31	96.928%	-0.092	10.020	10.500	0.000	309.600	14.760	13.020
x		93.788%	-0.013	10.920	11.050	0.000	315.100	21.030	20.820
σ		3.152%	0.078	1.659	0.513	0.000	5.156	8.852	9.599
%RSD		3.361	586.600	15.180	4.643	0.000	1.636	42.090	46.100

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	7.364	353.800	0.000	61.720	120.900	137.900	78.836%	1.099
2	11:49:06	6.974	353.900	0.000	62.110	139.500	130.300	79.986%	0.461
3	11:49:31	6.237	351.500	0.000	54.790	85.510	129.100	80.351%	0.616
x		6.858	353.100	0.000	59.540	115.300	132.500	79.724%	0.725
σ		0.572	1.378	0.000	4.118	27.440	4.797	0.791%	0.333
%RSD		8.343	0.390	0.000	6.916	23.800	3.621	0.992	45.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	0.387	3.045	0.945	9.806	4.201	0.354	0.554	1.447
2	11:49:06	-0.077	3.035	0.871	8.002	7.330	0.225	0.305	1.513
3	11:49:31	-0.904	2.975	0.793	6.778	0.259	0.139	0.239	1.463
x		-0.198	3.019	0.870	8.195	3.930	0.239	0.366	1.475
σ		0.654	0.038	0.076	1.524	3.543	0.108	0.166	0.034
%RSD		329.800	1.248	8.773	18.590	90.150	45.100	45.380	2.333

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	1.443	5.454	5.260	-0.288	-1.938	-3.567	0.000	0.744
2	11:49:06	1.354	5.826	5.213	-2.988	-1.129	-4.363	0.000	0.495
3	11:49:31	1.299	5.642	5.188	0.462	-0.936	-6.484	0.000	0.399
x		1.366	5.641	5.220	-0.938	-1.334	-4.805	0.000	0.546
σ		0.073	0.186	0.036	1.815	0.532	1.508	0.000	0.178
%RSD		5.310	3.293	0.695	193.400	39.860	31.390	0.000	32.570

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	75.312%	4.928	4.582	84.510%	-0.033	-0.036	0.011	0.082
2	11:49:06	77.366%	3.100	2.917	86.641%	-0.048	-0.047	0.006	0.046
3	11:49:31	80.127%	2.212	2.276	87.786%	-0.057	-0.044	0.015	0.079
x		77.601%	3.413	3.258	86.312%	-0.046	-0.043	0.011	0.069
σ		2.416%	1.385	1.191	1.663%	0.012	0.006	0.004	0.020
%RSD		3.113	40.570	36.540	1.926	26.950	13.460	40.970	28.390

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	78.721%	4.917	-0.346	-0.319	1.194	1.283	83.752%	84.196%
2	11:49:06	79.662%	2.034	-0.504	-0.477	0.738	0.692	87.256%	87.701%
3	11:49:31	80.959%	0.369	-0.529	-0.503	0.667	0.700	88.233%	88.269%
x		79.780%	2.440	-0.460	-0.433	0.867	0.892	86.414%	86.722%
σ		1.124%	2.301	0.099	0.100	0.286	0.339	2.356%	2.206%
%RSD		1.409	94.320	21.550	23.090	32.980	38.030	2.727	2.544

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:41	0.165	0.137	0.060	0.051	0.051	83.652%
2	11:49:06	0.098	0.088	0.046	0.033	0.038	85.029%
3	11:49:31	0.073	0.080	0.033	0.011	0.024	86.105%
x		0.112	0.101	0.046	0.032	0.038	84.929%
σ		0.047	0.031	0.013	0.020	0.013	1.229%
%RSD		42.170	30.210	28.520	63.530	35.100	1.448

180-40461-B-3-B SD@5 1/21/2015 11:52:25 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:50	87.152%	-0.113	2.578	2.599	0.000	54.700	6.965	7.861
2	11:53:15	90.651%	-0.041	1.516	1.508	0.000	52.850	3.553	4.376
3	11:53:41	91.418%	-0.056	2.376	1.970	0.000	53.450	3.244	3.373
x		89.741%	-0.070	2.157	2.026	0.000	53.660	4.587	5.204
σ		2.274%	0.038	0.564	0.548	0.000	0.944	2.065	2.356
%RSD		2.534	53.900	26.130	27.050	0.000	1.758	45.010	45.270
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:50	0.909	77.540	0.000	9.799	28.580	32.380	81.468%	-0.179
2	11:53:15	0.686	72.660	0.000	13.480	30.160	27.320	81.545%	-0.303
3	11:53:41	0.789	72.960	0.000	13.580	18.500	27.400	80.972%	-0.266
x		0.795	74.390	0.000	12.280	25.750	29.030	81.328%	-0.249
σ		0.112	2.735	0.000	2.153	6.327	2.900	0.311%	0.064
%RSD		14.050	3.676	0.000	17.530	24.570	9.989	0.383	25.620
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:50	-0.460	0.687	0.162	3.741	-1.107	0.078	0.054	0.055
2	11:53:15	0.055	0.688	0.108	2.381	-1.898	0.036	0.104	0.033
3	11:53:41	0.560	0.717	0.087	2.355	-5.493	0.028	0.079	0.085
x		0.052	0.697	0.119	2.825	-2.832	0.047	0.079	0.058
σ		0.510	0.017	0.038	0.793	2.338	0.027	0.025	0.026
%RSD		988.300	2.431	32.160	28.060	82.530	57.210	31.470	44.600
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:50	0.002	1.071	1.034	-0.886	-0.687	-3.073	0.000	0.160
2	11:53:15	0.021	1.074	1.060	0.679	-1.106	-1.037	0.000	0.114
3	11:53:41	0.004	1.040	1.137	-0.577	-1.365	-1.136	0.000	0.079
x		0.009	1.062	1.077	-0.261	-1.052	-1.749	0.000	0.117
σ		0.011	0.019	0.053	0.829	0.342	1.148	0.000	0.041
%RSD		118.300	1.777	4.945	317.100	32.510	65.630	0.000	34.710
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:50	80.458%	0.346	0.288	88.415%	-0.058	-0.046	-0.003	0.071
2	11:53:15	82.762%	0.143	0.181	88.964%	-0.049	-0.055	0.001	0.037
3	11:53:41	83.095%	0.149	0.180	89.178%	-0.049	-0.059	0.006	0.037
x		82.105%	0.213	0.216	88.853%	-0.052	-0.053	0.001	0.048
σ		1.436%	0.115	0.062	0.393%	0.006	0.007	0.005	0.020
%RSD		1.749	54.150	28.790	0.443	10.740	13.070	320.700	40.990
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:50	81.754%	-2.492	-0.696	-0.699	0.282	0.242	86.358%	87.049%
2	11:53:15	82.144%	-2.644	-0.752	-0.714	0.181	0.155	88.003%	87.464%
3	11:53:41	81.699%	-2.685	-0.735	-0.711	0.067	0.151	89.136%	87.609%
x		81.866%	-2.607	-0.727	-0.708	0.176	0.183	87.832%	87.374%
σ		0.243%	0.102	0.029	0.008	0.108	0.051	1.397%	0.290%
%RSD		0.296	3.896	3.955	1.134	60.990	28.170	1.590	0.332
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:52:50	0.026	0.023	0.014	-0.006	-0.000	90.155%		
2	11:53:15	0.031	0.020	0.005	-0.010	-0.007	87.311%		
3	11:53:41	0.014	0.017	0.004	-0.013	-0.007	87.591%		
x		0.024	0.020	0.008	-0.010	-0.005	88.352%		
σ		0.009	0.003	0.005	0.003	0.004	1.567%		
%RSD		35.930	14.440	70.770	32.940	85.050	1.774		

180-40461-B-3-E MS 1/21/2015 11:56:35 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:00	86.328%	45.220	930.300	935.200	0.000	43410.000	41210.000	41430.000
2	11:57:25	91.449%	46.870	945.600	957.900	0.000	44410.000	42180.000	42970.000
3	11:57:50	94.667%	46.530	972.000	949.100	0.000	43810.000	42300.000	42440.000
x		90.815%	46.210	949.300	947.400	0.000	43880.000	41900.000	42280.000
σ		4.206%	0.871	21.110	11.460	0.000	502.400	600.300	779.300
%RSD		4.631	1.886	2.224	1.210	0.000	1.145	1.433	1.843
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:00	1731.000	9007.000	0.000	47540.000	46050.000	46040.000	76.504%	884.800
2	11:57:25	1820.000	9241.000	0.000	49080.000	47430.000	49730.000	77.274%	940.500
3	11:57:50	1819.000	9044.000	0.000	48840.000	47570.000	47030.000	80.825%	922.800
x		1790.000	9097.000	0.000	48480.000	47020.000	47600.000	78.201%	916.000
σ		51.070	126.000	0.000	829.300	840.300	1910.000	2.305%	28.480
%RSD		2.853	1.385	0.000	1.710	1.787	4.012	2.947	3.109
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:00	433.000	170.000	445.900	938.300	1056.000	438.000	423.400	216.800
2	11:57:25	459.800	181.100	475.000	1006.000	1126.000	468.300	455.100	233.200
3	11:57:50	454.800	179.300	473.600	950.500	1099.000	466.100	450.000	230.200
x		449.200	176.800	464.800	965.000	1094.000	457.500	442.800	226.700
σ		14.270	5.923	16.400	36.290	35.170	16.860	17.050	8.712
%RSD		3.177	3.350	3.529	3.760	3.216	3.685	3.851	3.842
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:00	213.100	441.800	432.200	33.660	6.034	13.440	0.000	830.000
2	11:57:25	229.300	477.600	465.800	40.370	8.351	15.230	0.000	919.000
3	11:57:50	226.600	478.800	467.700	35.040	7.511	12.120	0.000	936.900
x		223.000	466.100	455.200	36.350	7.299	13.600	0.000	895.300
σ		8.674	21.040	19.950	3.542	1.173	1.564	0.000	57.250
%RSD		3.890	4.515	4.383	9.743	16.070	11.500	0.000	6.394
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:00	81.663%	875.900	879.100	79.406%	44.470	44.250	45.890	39.380
2	11:57:25	79.166%	953.900	958.800	80.153%	44.510	45.190	47.170	40.630
3	11:57:50	82.108%	968.800	953.600	83.837%	44.230	44.630	47.770	40.500
x		80.979%	932.900	930.500	81.132%	44.400	44.690	46.940	40.170
σ		1.586%	49.910	44.570	2.372%	0.154	0.475	0.959	0.686
%RSD		1.958	5.350	4.789	2.924	0.346	1.064	2.042	1.707
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:00	72.359%	1946.000	482.900	493.400	1836.000	1900.000	84.944%	83.727%
2	11:57:25	75.553%	1955.000	500.300	488.000	1877.000	1932.000	87.580%	86.568%
3	11:57:50	77.516%	2013.000	507.100	501.700	1899.000	1986.000	90.045%	89.536%
x		75.143%	1972.000	496.800	494.300	1870.000	1939.000	87.523%	86.610%
σ		2.603%	36.540	12.510	6.912	31.950	43.480	2.551%	2.905%
%RSD		3.463	1.853	2.518	1.398	1.708	2.242	2.915	3.354
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:57:00	50.500	48.100	21.560	20.820	20.960	77.111%		
2	11:57:25	52.080	49.750	21.660	21.240	21.460	79.730%		
3	11:57:50	52.910	51.420	21.970	21.750	21.780	81.891%		
x		51.830	49.760	21.730	21.270	21.400	79.577%		
σ		1.225	1.657	0.214	0.469	0.414	2.393%		
%RSD		2.363	3.331	0.983	2.203	1.932	3.008		

180-40461-B-3-F MSD 1/21/2015 12:00:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	85.285%	45.550	960.100	943.500	0.000	44370.000	41920.000	42090.000
2	12:01:35	88.499%	48.380	964.800	985.100	0.000	45520.000	43580.000	43740.000
3	12:02:00	89.159%	48.560	975.400	981.700	0.000	46120.000	44320.000	44250.000
x		87.648%	47.500	966.700	970.100	0.000	45340.000	43270.000	43360.000
σ		2.072%	1.690	7.836	23.120	0.000	888.800	1228.000	1127.000
%RSD		2.364	3.559	0.811	2.384	0.000	1.960	2.837	2.600

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	1765.000	9231.000	0.000	48220.000	46260.000	47370.000	74.906%	905.800
2	12:01:35	1865.000	9417.000	0.000	49790.000	48130.000	49820.000	75.937%	946.100
3	12:02:00	1888.000	9485.000	0.000	49500.000	48360.000	50410.000	76.226%	960.500
x		1839.000	9378.000	0.000	49170.000	47590.000	49200.000	75.690%	937.500
σ		65.650	131.500	0.000	834.800	1152.000	1613.000	0.694%	28.370
%RSD		3.569	1.402	0.000	1.698	2.421	3.278	0.917	3.027

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	449.800	175.400	466.300	1127.000	1297.000	454.700	444.400	226.900
2	12:01:35	467.900	182.600	488.900	1183.000	1353.000	474.700	458.800	234.600
3	12:02:00	477.700	186.300	485.900	1197.000	1372.000	478.000	463.800	236.600
x		465.100	181.500	480.400	1169.000	1341.000	469.100	455.700	232.700
σ		14.140	5.536	12.270	36.820	38.940	12.600	10.100	5.088
%RSD		3.041	3.051	2.555	3.150	2.905	2.686	2.217	2.186

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	223.800	464.100	459.400	38.770	7.212	7.900	0.000	914.200
2	12:01:35	232.800	481.400	478.500	38.490	9.034	7.546	0.000	939.300
3	12:02:00	234.100	489.800	480.900	39.460	9.747	6.896	0.000	962.400
x		230.300	478.400	472.900	38.910	8.664	7.447	0.000	938.600
σ		5.619	13.100	11.790	0.499	1.307	0.509	0.000	24.130
%RSD		2.440	2.738	2.492	1.283	15.090	6.837	0.000	2.571

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	75.000%	949.200	947.700	77.531%	44.920	44.890	45.930	39.030
2	12:01:35	76.879%	990.700	978.500	79.637%	45.290	45.350	49.460	41.500
3	12:02:00	78.008%	1005.000	990.700	80.554%	45.090	44.660	48.650	39.600
x		76.629%	981.800	972.300	79.241%	45.100	44.970	48.010	40.040
σ		1.519%	29.190	22.120	1.550%	0.185	0.352	1.849	1.294
%RSD		1.983	2.973	2.275	1.956	0.409	0.783	3.850	3.231

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	74.116%	1941.000	488.600	483.700	1838.000	1902.000	83.889%	84.028%
2	12:01:35	73.819%	2028.000	505.800	509.300	1915.000	1993.000	85.427%	86.090%
3	12:02:00	74.767%	2048.000	509.300	507.100	1923.000	2007.000	85.471%	87.485%
x		74.234%	2005.000	501.200	500.100	1892.000	1967.000	84.929%	85.868%
σ		0.484%	56.660	11.070	14.180	46.740	56.840	0.901%	1.739%
%RSD		0.653	2.825	2.209	2.835	2.470	2.889	1.061	2.025

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:10	51.540	49.350	21.300	21.100	20.980	77.741%
2	12:01:35	53.210	51.610	22.240	22.000	21.940	78.707%
3	12:02:00	52.940	50.980	21.850	21.940	21.630	80.696%
x		52.560	50.650	21.800	21.680	21.520	79.048%
σ		0.894	1.163	0.468	0.504	0.492	1.506%
%RSD		1.700	2.297	2.149	2.324	2.287	1.906

180-40461-B-3-B PDS 1/21/2015 12:04:57 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	12:05:22	83.341%	48.770	1041.000	1051.000	0.000	50480.000	47680.000	48260.000
2	12:05:47	84.675%	52.570	1077.000	1083.000	0.000	51550.000	49440.000	49700.000
3	12:06:12	88.971%	52.230	1047.000	1052.000	0.000	50720.000	48500.000	48960.000
x		85.662%	51.190	1055.000	1062.000	0.000	50920.000	48540.000	48970.000
σ		2.942%	2.101	19.360	18.220	0.000	561.700	882.200	719.400
%RSD		3.434	4.104	1.835	1.715	0.000	1.103	1.817	1.469
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:22	1968.000	11400.000	0.000	54950.000	52610.000	53880.000	71.712%	1144.000
2	12:05:47	2054.000	11570.000	0.000	55840.000	54810.000	54010.000	74.386%	1166.000
3	12:06:12	2042.000	11310.000	0.000	53740.000	54100.000	54390.000	75.570%	1146.000
x		2021.000	11430.000	0.000	54840.000	53840.000	54090.000	73.889%	1152.000
σ		46.760	134.300	0.000	1053.000	1118.000	266.000	1.976%	12.090
%RSD		2.314	1.176	0.000	1.921	2.077	0.492	2.674	1.050
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:22	493.200	193.300	505.800	1098.000	1213.000	501.700	489.600	247.900
2	12:05:47	507.700	197.500	527.100	1059.000	1363.000	517.200	498.400	253.700
3	12:06:12	506.800	200.300	532.900	1052.000	1401.000	513.900	500.800	257.200
x		502.600	197.000	521.900	1070.000	1326.000	510.900	496.300	252.900
σ		8.134	3.509	14.230	24.500	99.120	8.131	5.919	4.699
%RSD		1.618	1.781	2.726	2.290	7.476	1.591	1.193	1.858
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:22	247.500	513.400	508.400	38.690	10.230	9.067	0.000	990.200
2	12:05:47	253.000	524.400	509.900	41.140	9.743	8.922	0.000	1008.000
3	12:06:12	252.100	534.600	526.500	41.470	9.779	7.674	0.000	1046.000
x		250.800	524.200	515.000	40.440	9.917	8.554	0.000	1014.000
σ		2.942	10.610	10.060	1.516	0.271	0.766	0.000	28.340
%RSD		1.173	2.023	1.954	3.749	2.736	8.953	0.000	2.793
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:22	71.838%	1185.000	1178.000	74.394%	41.120	40.440	52.860	43.620
2	12:05:47	74.945%	1229.000	1235.000	76.318%	41.030	41.530	53.000	44.660
3	12:06:12	74.544%	1260.000	1259.000	75.951%	39.720	40.320	52.620	43.270
x		73.776%	1225.000	1224.000	75.554%	40.620	40.760	52.830	43.850
σ		1.690%	37.630	41.740	1.021%	0.784	0.665	0.188	0.722
%RSD		2.291	3.072	3.410	1.352	1.931	1.632	0.356	1.647
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:22	69.059%	2438.000	617.000	618.400	2024.000	2118.000	80.014%	80.513%
2	12:05:47	70.753%	2487.000	637.600	630.800	2109.000	2192.000	82.683%	82.336%
3	12:06:12	75.039%	2378.000	613.800	602.000	2072.000	2105.000	84.398%	83.651%
x		71.617%	2434.000	622.800	617.100	2068.000	2139.000	82.365%	82.167%
σ		3.082%	55.020	12.900	14.450	42.300	46.880	2.209%	1.576%
%RSD		4.304	2.260	2.071	2.341	2.045	2.192	2.682	1.918
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:05:22	58.920	55.780	23.820	23.590	23.500	73.349%		
2	12:05:47	59.850	58.070	24.910	24.270	24.350	74.930%		
3	12:06:12	57.170	55.560	23.610	23.450	23.190	78.696%		
x		58.650	56.470	24.120	23.770	23.680	75.658%		
σ		1.363	1.393	0.697	0.438	0.600	2.747%		
%RSD		2.325	2.467	2.891	1.843	2.533	3.630		

180-40481-B-1-A 1/21/2015 12:09:09 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:34	87.175%	-0.153	50.840	48.620	0.000	45300.000	17550.000	16820.000
2	12:09:59	89.132%	-0.076	53.130	49.300	0.000	46580.000	18560.000	17560.000
3	12:10:25	92.136%	-0.134	48.850	48.380	0.000	47500.000	17530.000	17510.000
x		89.481%	-0.121	50.940	48.770	0.000	46460.000	17880.000	17290.000
σ		2.499%	0.040	2.145	0.478	0.000	1105.000	590.100	410.500
%RSD		2.793	33.160	4.212	0.980	0.000	2.378	3.300	2.373
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:34	12.220	4587.000	0.000	4418.000	88390.000	88820.000	74.476%	1.735
2	12:09:59	11.170	4727.000	0.000	4714.000	92150.000	91310.000	75.479%	1.244
3	12:10:25	8.938	4255.000	0.000	4519.000	91320.000	93260.000	76.876%	1.135
x		10.780	4523.000	0.000	4550.000	90620.000	91130.000	75.610%	1.371
σ		1.677	242.600	0.000	150.700	1976.000	2226.000	1.205%	0.320
%RSD		15.560	5.364	0.000	3.311	2.180	2.443	1.594	23.300
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:34	-0.194	6.924	32.650	40.940	421.800	1.073	0.634	1.497
2	12:09:59	-0.507	6.810	33.490	38.820	412.900	0.948	0.584	1.347
3	12:10:25	-0.639	6.644	33.460	36.990	410.900	0.833	0.348	1.287
x		-0.447	6.792	33.200	38.920	415.200	0.951	0.522	1.377
σ		0.229	0.141	0.476	1.975	5.811	0.120	0.153	0.108
%RSD		51.200	2.075	1.435	5.075	1.400	12.620	29.230	7.836
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:34	1.327	15.930	15.680	-0.195	-1.317	-0.540	0.000	185.700
2	12:09:59	1.255	16.650	16.330	1.900	-1.038	-0.404	0.000	194.800
3	12:10:25	1.198	16.100	15.400	2.631	-1.408	-0.001	0.000	194.100
x		1.260	16.230	15.800	1.445	-1.254	-0.315	0.000	191.500
σ		0.064	0.374	0.478	1.467	0.192	0.281	0.000	5.073
%RSD		5.105	2.302	3.022	101.500	15.340	89.100	0.000	2.649
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:34	74.791%	12.590	12.450	76.760%	-0.014	-0.021	0.088	0.098
2	12:09:59	77.307%	10.070	9.951	79.576%	-0.049	-0.049	0.022	0.040
3	12:10:25	80.470%	8.500	8.219	80.618%	-0.035	-0.045	0.050	0.049
x		77.523%	10.380	10.210	78.985%	-0.033	-0.038	0.053	0.062
σ		2.846%	2.063	2.128	1.996%	0.018	0.015	0.033	0.031
%RSD		3.671	19.870	20.850	2.527	53.660	40.160	62.160	50.260
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:34	74.720%	6.599	1.958	2.053	38.680	39.040	84.315%	84.304%
2	12:09:59	74.791%	3.401	0.954	1.028	40.360	39.950	86.360%	85.524%
3	12:10:25	79.562%	1.368	0.492	0.471	39.800	38.290	89.287%	88.316%
x		76.358%	3.790	1.134	1.184	39.610	39.100	86.654%	86.048%
σ		2.775%	2.637	0.750	0.802	0.853	0.834	2.499%	2.057%
%RSD		3.634	69.590	66.070	67.760	2.153	2.132	2.884	2.390
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:09:34	0.103	0.109	0.142	0.117	0.127	80.181%		
2	12:09:59	0.080	0.077	0.116	0.105	0.125	79.614%		
3	12:10:25	0.062	0.065	0.113	0.110	0.111	83.622%		
x		0.082	0.083	0.124	0.110	0.121	81.139%		
σ		0.020	0.023	0.016	0.006	0.009	2.169%		
%RSD		24.990	27.390	13.110	5.451	7.114	2.673		

180-40481-B-2-A 1/21/2015 12:13:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	90.014%	-0.025	51.030	45.630	0.000	47040.000	17910.000	17220.000
2	12:14:12	89.516%	-0.104	49.180	51.510	0.000	50440.000	17930.000	17840.000
3	12:14:37	93.348%	-0.136	54.400	49.150	0.000	49260.000	17920.000	18120.000
x		90.959%	-0.088	51.540	48.770	0.000	48910.000	17920.000	17730.000
σ		2.084%	0.057	2.643	2.958	0.000	1728.000	13.370	458.100
%RSD		2.291	64.390	5.129	6.065	0.000	3.534	0.075	2.584

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	14.190	4676.000	0.000	4881.000	90960.000	92450.000	76.221%	0.773
2	12:14:12	11.010	4368.000	0.000	4997.000	93150.000	92120.000	77.825%	0.673
3	12:14:37	11.450	4373.000	0.000	5211.000	98040.000	96460.000	76.729%	1.157
x		12.220	4472.000	0.000	5030.000	94050.000	93680.000	76.925%	0.868
σ		1.724	176.500	0.000	167.400	3626.000	2415.000	0.820%	0.256
%RSD		14.110	3.946	0.000	3.329	3.855	2.578	1.066	29.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	-0.656	8.462	2.187	15.700	381.000	0.299	0.220	1.401
2	12:14:12	1.893	8.695	2.171	15.220	397.800	0.269	0.337	1.425
3	12:14:37	1.223	8.718	2.150	15.720	391.400	0.227	0.197	1.326
x		0.820	8.625	2.169	15.550	390.100	0.265	0.251	1.384
σ		1.321	0.142	0.019	0.281	8.477	0.036	0.075	0.052
%RSD		161.100	1.642	0.859	1.806	2.173	13.710	29.830	3.722

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	1.220	6.409	6.172	0.017	-0.976	0.088	0.000	188.900
2	12:14:12	1.404	6.617	6.336	2.154	-1.729	-1.834	0.000	200.800
3	12:14:37	1.353	6.450	6.309	2.023	-0.345	-0.923	0.000	200.300
x		1.326	6.492	6.272	1.398	-1.017	-0.890	0.000	196.700
σ		0.095	0.110	0.088	1.198	0.693	0.962	0.000	6.714
%RSD		7.179	1.697	1.407	85.670	68.170	108.100	0.000	3.414

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	78.271%	4.826	5.435	78.914%	-0.048	-0.053	0.027	0.058
2	12:14:12	78.093%	5.162	5.297	81.175%	-0.061	-0.057	0.026	0.007
3	12:14:37	79.699%	5.374	5.192	81.594%	-0.051	-0.050	0.022	0.091
x		78.688%	5.121	5.308	80.561%	-0.053	-0.053	0.025	0.052
σ		0.880%	0.276	0.122	1.441%	0.006	0.004	0.003	0.042
%RSD		1.119	5.393	2.298	1.789	12.100	7.092	10.820	81.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	77.034%	-1.519	0.033	0.125	39.500	41.390	87.564%	86.347%
2	12:14:12	78.414%	-1.719	-0.023	-0.018	41.970	43.170	86.210%	87.987%
3	12:14:37	76.041%	-1.754	-0.066	-0.044	44.110	44.500	87.487%	87.424%
x		77.163%	-1.664	-0.018	0.021	41.860	43.020	87.087%	87.252%
σ		1.191%	0.127	0.050	0.091	2.307	1.563	0.761%	0.833%
%RSD		1.544	7.636	270.000	432.600	5.510	3.634	0.874	0.955

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:47	0.048	0.051	0.127	0.084	0.107	81.991%
2	12:14:12	0.038	0.041	0.126	0.101	0.104	82.617%
3	12:14:37	0.040	0.038	0.110	0.100	0.106	80.825%
x		0.042	0.043	0.121	0.095	0.106	81.811%
σ		0.005	0.007	0.009	0.010	0.001	0.909%
%RSD		12.360	15.350	7.817	10.020	1.254	1.111

CCV 1455996 1/21/2015 12:17:33 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	12:17:58	77.521%	101.000	102.000	99.550	0.000	49650.000	47290.000	47670.000
2	12:18:23	78.996%	105.600	107.800	103.100	0.000	51280.000	49380.000	49690.000
3	12:18:48	81.242%	102.100	105.100	101.800	0.000	51290.000	49950.000	50350.000
x		79.253%	102.917%	104.994%	101.462%	0.000	101.481%	97.751%	98.472%
σ		1.874%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.365	2.335	2.765	1.753	0.000	1.863	2.869	2.836
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:58	471.600	4963.000	0.000	51790.000	49370.000	51420.000	76.457%	96.830
2	12:18:23	489.100	5074.000	0.000	53090.000	52120.000	51380.000	76.568%	104.400
3	12:18:48	493.000	5078.000	0.000	53440.000	53020.000	52270.000	76.369%	103.700
x		96.912%	100.768%	0.000	105.539%	103.005%	103.379%	76.465%	101.629%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.100%	n/a
%RSD		2.352	1.293	0.000	1.648	3.695	0.971	0.131	4.108
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:58	90.450	91.690	491.200	24230.000	25630.000	94.640	95.010	93.980
2	12:18:23	95.440	96.710	522.200	25510.000	26890.000	97.600	98.220	97.920
3	12:18:48	96.140	97.420	526.400	25890.000	27440.000	99.580	101.900	99.870
x		94.009%	95.275%	102.653%	100.834%	106.621%	97.274%	98.358%	97.257%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.295	3.282	3.753	3.448	3.482	2.560	3.482	3.082
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:58	95.930	97.480	96.530	94.980	95.740	96.750	0.000	95.580
2	12:18:23	98.830	104.800	101.600	99.350	98.140	101.900	0.000	99.450
3	12:18:48	100.600	102.700	104.800	100.300	97.980	101.400	0.000	100.400
x		98.454%	101.678%	100.980%	98.207%	97.287%	99.997%	0.000	98.467%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.395	3.726	4.147	2.883	1.381	2.823	0.000	2.577
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:58	76.165%	91.510	87.350	81.206%	93.170	93.710	94.960	97.110
2	12:18:23	77.464%	96.580	94.840	82.161%	94.550	95.940	98.660	99.700
3	12:18:48	78.824%	101.300	98.460	83.297%	93.820	94.890	99.120	100.900
x		77.485%	96.454%	93.551%	82.221%	93.847%	94.846%	97.583%	99.235%
σ		1.329%	n/a	n/a	1.047%	n/a	n/a	n/a	n/a
%RSD		1.716	5.061	6.058	1.274	0.733	1.174	2.337	1.948
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:58	77.144%	96.460	97.660	96.880	94.890	97.480	84.309%	84.885%
2	12:18:23	78.125%	98.920	99.180	100.700	99.410	98.960	86.665%	86.242%
3	12:18:48	78.262%	101.900	102.700	103.400	101.900	101.100	87.789%	87.811%
x		77.844%	99.099%	99.850%	100.322%	98.737%	99.191%	86.255%	86.313%
σ		0.610%	n/a	n/a	n/a	n/a	n/a	1.776%	1.465%
%RSD		0.783	2.764	2.597	3.261	3.603	1.847	2.059	1.697
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:17:58	105.100	103.500	106.100	106.000	105.400	85.198%		
2	12:18:23	109.000	107.200	110.400	110.200	110.000	85.758%		
3	12:18:48	110.100	108.200	110.900	111.300	110.300	85.438%		
x		108.046%	106.295%	109.132%	109.159%	108.568%	85.465%		
σ		n/a	n/a	n/a	n/a	n/a	0.281%		
%RSD		2.420	2.313	2.396	2.543	2.546	0.329		

CCB4 1/21/2015 12:24:52 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	12:25:16	78.608%	0.069	-0.053	1.295	0.000	30.020	24.140	25.540
2	12:25:41	80.116%	-0.127	0.997	0.192	0.000	23.850	16.250	17.360
3	12:26:06	82.441%	-0.075	-0.420	0.393	0.000	17.870	12.690	13.240
x		80.388%	-0.044	0.175	0.627	0.000	23.920	17.690	18.710
σ		1.931%	0.102	0.736	0.588	0.000	6.075	5.859	6.257
%RSD		2.402	229.800	421.300	93.780	0.000	25.400	33.120	33.440

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:16	0.993	8.109	0.000	28.310	32.010	34.550	75.489%	-0.242
2	12:25:41	0.541	2.893	0.000	28.980	40.410	26.510	76.569%	-0.398
3	12:26:06	0.333	1.958	0.000	13.890	14.820	21.230	77.119%	-0.250
x		0.622	4.320	0.000	23.730	29.080	27.430	76.392%	-0.297
σ		0.337	3.314	0.000	8.525	13.040	6.711	0.830%	0.088
%RSD		54.190	76.720	0.000	35.930	44.860	24.470	1.086	29.530

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:16	-0.015	0.007	0.193	15.290	22.730	0.066	0.062	-0.266
2	12:25:41	-0.100	-0.008	0.159	11.140	19.200	0.052	0.047	-0.287
3	12:26:06	-0.055	-0.024	0.093	7.550	15.330	0.034	0.033	-0.223
x		-0.057	-0.008	0.148	11.330	19.090	0.051	0.048	-0.258
σ		0.043	0.016	0.051	3.872	3.701	0.016	0.015	0.033
%RSD		74.740	192.300	34.250	34.190	19.390	32.420	31.140	12.580

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:16	-0.195	0.184	0.197	-0.189	-1.222	-0.849	0.000	0.140
2	12:25:41	-0.313	0.206	0.087	-0.064	-1.530	-0.686	0.000	0.090
3	12:26:06	-0.231	0.062	0.146	-0.551	-1.203	-1.553	0.000	0.071
x		-0.246	0.151	0.143	-0.268	-1.318	-1.029	0.000	0.101
σ		0.061	0.078	0.055	0.253	0.184	0.460	0.000	0.035
%RSD		24.640	51.480	38.450	94.270	13.950	44.720	0.000	35.230

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:16	75.779%	0.453	0.370	83.613%	-0.025	-0.025	0.031	0.074
2	12:25:41	76.659%	0.285	0.381	85.956%	-0.037	-0.031	0.007	0.044
3	12:26:06	79.021%	0.329	0.239	86.902%	-0.037	-0.042	0.024	0.021
x		77.153%	0.356	0.330	85.490%	-0.033	-0.032	0.021	0.047
σ		1.676%	0.087	0.079	1.694%	0.007	0.009	0.013	0.026
%RSD		2.173	24.490	23.980	1.981	21.270	26.850	61.250	56.740

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:16	77.014%	-2.723	-0.539	-0.521	0.151	0.159	80.922%	81.209%
2	12:25:41	78.282%	-2.751	-0.538	-0.545	0.084	0.098	84.031%	83.540%
3	12:26:06	81.343%	-2.763	-0.554	-0.588	0.042	0.083	84.184%	85.630%
x		78.880%	-2.746	-0.544	-0.551	0.092	0.113	83.045%	83.460%
σ		2.225%	0.021	0.009	0.034	0.055	0.041	1.841%	2.211%
%RSD		2.821	0.748	1.602	6.119	59.670	35.890	2.217	2.649

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:16	0.045	0.044	0.043	0.039	0.047	85.661%
2	12:25:41	0.031	0.029	0.020	0.019	0.025	86.268%
3	12:26:06	0.033	0.029	0.036	0.013	0.031	87.916%
x		0.036	0.034	0.033	0.024	0.034	86.615%
σ		0.008	0.009	0.012	0.014	0.012	1.167%
%RSD		21.420	25.370	35.260	57.950	34.490	1.347

180-40481-B-3-A 1/21/2015 12:29:04 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	12:29:29	82.835%	-0.146	40.950	43.920	0.000	42410.000	17560.000	16800.000
2	12:29:53	85.403%	-0.067	48.750	44.390	0.000	44450.000	18900.000	17700.000
3	12:30:19	87.780%	-0.180	47.270	44.040	0.000	44370.000	17850.000	17960.000
x		85.339%	-0.131	45.660	44.120	0.000	43740.000	18100.000	17490.000
σ		2.473%	0.058	4.141	0.248	0.000	1158.000	703.300	609.700
%RSD		2.898	44.340	9.069	0.562	0.000	2.647	3.886	3.486
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:29	8.962	4821.000	0.000	4225.000	85550.000	85310.000	72.243%	1.150
2	12:29:53	9.604	4964.000	0.000	4370.000	89210.000	89240.000	74.028%	1.009
3	12:30:19	13.650	4569.000	0.000	4468.000	92000.000	91110.000	74.011%	0.930
x		10.740	4785.000	0.000	4354.000	88920.000	88550.000	73.427%	1.030
σ		2.542	200.000	0.000	122.000	3232.000	2961.000	1.026%	0.112
%RSD		23.670	4.181	0.000	2.803	3.635	3.344	1.397	10.830
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:29	-0.259	4.152	41.410	19.180	394.800	0.205	0.304	2.912
2	12:29:53	-0.772	4.246	43.360	16.370	398.200	0.245	0.146	2.733
3	12:30:19	0.409	4.407	44.080	14.960	386.300	0.230	0.206	2.876
x		-0.207	4.268	42.950	16.840	393.100	0.227	0.219	2.840
σ		0.592	0.129	1.382	2.151	6.137	0.020	0.080	0.095
%RSD		285.400	3.029	3.218	12.780	1.561	8.978	36.460	3.344
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:29	2.815	14.950	14.870	0.245	-1.350	-1.580	0.000	186.200
2	12:29:53	2.653	14.840	15.380	-0.647	-1.528	-1.210	0.000	193.700
3	12:30:19	2.814	15.420	15.160	0.919	-1.387	-1.932	0.000	191.700
x		2.760	15.070	15.140	0.173	-1.422	-1.574	0.000	190.500
σ		0.093	0.311	0.256	0.785	0.094	0.361	0.000	3.901
%RSD		3.380	2.062	1.689	455.000	6.600	22.950	0.000	2.047
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:29	71.309%	2.542	2.455	75.471%	-0.058	-0.041	0.045	0.059
2	12:29:53	74.990%	2.519	2.601	77.412%	-0.048	-0.049	0.018	0.071
3	12:30:19	76.805%	2.492	2.382	79.819%	-0.053	-0.043	0.032	0.045
x		74.368%	2.518	2.479	77.567%	-0.053	-0.044	0.031	0.059
σ		2.800%	0.025	0.111	2.178%	0.005	0.004	0.014	0.013
%RSD		3.765	1.003	4.484	2.808	9.925	8.705	43.180	22.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:29	71.652%	-1.889	-0.120	-0.122	40.680	41.720	81.515%	80.463%
2	12:29:53	74.722%	-2.060	-0.194	-0.163	42.620	42.100	84.595%	84.402%
3	12:30:19	75.635%	-2.158	-0.231	-0.234	43.320	43.010	85.699%	85.573%
x		74.003%	-2.036	-0.182	-0.173	42.210	42.270	83.937%	83.479%
σ		2.087%	0.136	0.056	0.056	1.368	0.665	2.168%	2.677%
%RSD		2.820	6.677	30.990	32.590	3.242	1.573	2.583	3.207
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:29:29	0.042	0.031	0.149	0.126	0.131	78.068%		
2	12:29:53	0.031	0.027	0.148	0.141	0.131	80.314%		
3	12:30:19	0.029	0.027	0.103	0.087	0.104	81.454%		
x		0.034	0.028	0.133	0.118	0.122	79.945%		
σ		0.007	0.002	0.026	0.028	0.015	1.723%		
%RSD		21.080	7.341	19.720	23.420	12.500	2.155		

180-40481-B-4-A 1/21/2015 12:33:16 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	12:33:41	89.954%	-0.183	23.450	24.640	0.000	18420.000	12260.000	12400.000
2	12:34:07	90.436%	-0.092	26.470	26.330	0.000	19270.000	13210.000	13230.000
3	12:34:32	96.277%	-0.165	24.650	24.300	0.000	18930.000	13010.000	13280.000
x		92.222%	-0.147	24.860	25.090	0.000	18880.000	12830.000	12970.000
σ		3.520%	0.048	1.521	1.087	0.000	426.900	500.200	492.500
%RSD		3.817	32.680	6.117	4.334	0.000	2.262	3.899	3.797

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:41	4.750	4829.000	0.000	2914.000	88320.000	89300.000	77.941%	0.873
2	12:34:07	4.975	5051.000	0.000	3050.000	90560.000	90930.000	78.893%	0.691
3	12:34:32	5.199	4941.000	0.000	2918.000	90990.000	93510.000	79.913%	0.674
x		4.975	4940.000	0.000	2960.000	89960.000	91250.000	78.916%	0.746
σ		0.225	110.900	0.000	77.360	1431.000	2118.000	0.986%	0.111
%RSD		4.515	2.244	0.000	2.613	1.591	2.321	1.249	14.830

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:41	-0.649	4.413	3.912	5.434	367.100	0.223	-0.032	1.173
2	12:34:07	0.873	4.510	3.957	5.438	369.600	0.186	-0.217	1.097
3	12:34:32	3.566	4.567	4.172	4.357	360.600	0.181	-0.143	1.060
x		1.263	4.497	4.014	5.076	365.800	0.197	-0.131	1.110
σ		2.134	0.077	0.139	0.623	4.621	0.023	0.093	0.057
%RSD		169.000	1.724	3.457	12.270	1.263	11.790	71.020	5.179

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:41	1.091	13.070	12.240	0.499	-2.286	-2.227	0.000	175.000
2	12:34:07	1.091	13.770	13.650	0.394	-1.312	-0.974	0.000	183.900
3	12:34:32	1.089	13.590	14.340	-2.112	-1.914	-1.416	0.000	183.000
x		1.090	13.480	13.410	-0.406	-1.837	-1.539	0.000	180.600
σ		0.001	0.361	1.067	1.478	0.492	0.636	0.000	4.902
%RSD		0.130	2.676	7.953	363.900	26.760	41.320	0.000	2.714

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:41	79.307%	0.942	0.946	81.560%	-0.059	-0.044	0.021	0.034
2	12:34:07	81.600%	1.088	0.980	84.608%	-0.051	-0.053	0.029	0.023
3	12:34:32	83.115%	0.917	0.985	85.214%	-0.049	-0.043	0.010	0.042
x		81.341%	0.982	0.970	83.794%	-0.053	-0.047	0.020	0.033
σ		1.917%	0.092	0.021	1.958%	0.005	0.006	0.010	0.010
%RSD		2.357	9.381	2.196	2.337	10.300	11.810	46.790	29.710

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:41	77.918%	-2.617	-0.084	-0.051	26.710	26.960	88.436%	87.857%
2	12:34:07	80.891%	-2.540	-0.100	-0.094	28.380	28.710	87.715%	90.250%
3	12:34:32	83.688%	-2.579	-0.098	-0.063	27.340	27.490	92.036%	91.879%
x		80.832%	-2.579	-0.094	-0.069	27.480	27.720	89.396%	89.995%
σ		2.885%	0.039	0.009	0.022	0.844	0.895	2.315%	2.023%
%RSD		3.569	1.504	9.243	31.620	3.070	3.227	2.589	2.248

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:41	0.016	0.016	0.038	0.052	0.054	83.768%
2	12:34:07	0.013	0.016	0.070	0.037	0.065	85.852%
3	12:34:32	0.018	0.013	0.065	0.036	0.049	88.536%
x		0.016	0.015	0.057	0.042	0.056	86.052%
σ		0.003	0.002	0.017	0.009	0.008	2.390%
%RSD		16.000	11.100	30.150	21.270	14.090	2.778

180-40481-B-5-A 1/21/2015 12:37:28 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	12:37:53	88.175%	-0.154	40.880	46.080	0.000	47740.000	16750.000	17030.000
2	12:38:18	91.298%	-0.094	46.010	46.220	0.000	49620.000	17650.000	16500.000
3	12:38:43	91.965%	-0.211	47.340	47.240	0.000	49920.000	18140.000	16850.000
x		90.479%	-0.153	44.740	46.510	0.000	49090.000	17510.000	16790.000
σ		2.023%	0.059	3.411	0.637	0.000	1183.000	706.900	271.800
%RSD		2.236	38.330	7.624	1.370	0.000	2.410	4.037	1.619
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:53	3.316	4026.000	0.000	5543.000	83660.000	83440.000	76.234%	0.453
2	12:38:18	3.426	3860.000	0.000	5643.000	86600.000	88190.000	76.965%	0.349
3	12:38:43	3.354	3891.000	0.000	5750.000	89150.000	89260.000	77.624%	0.452
x		3.365	3926.000	0.000	5645.000	86470.000	86960.000	76.941%	0.418
σ		0.056	88.290	0.000	103.200	2745.000	3099.000	0.695%	0.060
%RSD		1.665	2.249	0.000	1.828	3.174	3.564	0.903	14.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:53	0.836	7.623	2.149	107.000	466.400	0.167	-0.007	1.070
2	12:38:18	1.057	7.810	2.291	113.000	470.500	0.178	-0.113	1.082
3	12:38:43	-0.662	7.873	2.283	113.900	473.900	0.197	0.119	1.200
x		0.411	7.768	2.241	111.300	470.300	0.181	-0.000	1.118
σ		0.935	0.130	0.080	3.747	3.746	0.015	0.116	0.072
%RSD		227.800	1.676	3.555	3.367	0.796	8.488	25070.000	6.448
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:53	1.009	5.920	6.102	0.609	-0.816	-1.203	0.000	171.700
2	12:38:18	1.126	6.633	6.550	0.911	-0.666	-1.508	0.000	180.500
3	12:38:43	1.146	6.411	6.849	-0.518	-0.180	-1.872	0.000	182.000
x		1.094	6.321	6.500	0.334	-0.554	-1.528	0.000	178.100
σ		0.074	0.365	0.376	0.753	0.333	0.335	0.000	5.588
%RSD		6.772	5.772	5.787	225.500	59.970	21.930	0.000	3.138
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:53	76.729%	8.633	9.134	78.482%	-0.054	-0.050	0.012	0.042
2	12:38:18	78.409%	9.126	9.073	81.085%	-0.055	-0.051	0.031	0.100
3	12:38:43	80.900%	9.281	9.129	81.875%	-0.057	-0.042	0.021	-0.021
x		78.680%	9.013	9.112	80.481%	-0.055	-0.048	0.021	0.040
σ		2.099%	0.339	0.034	1.776%	0.002	0.005	0.010	0.061
%RSD		2.668	3.757	0.369	2.206	3.107	10.630	44.470	150.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:53	75.902%	-2.829	-0.622	-0.563	35.250	34.830	84.837%	84.910%
2	12:38:18	77.237%	-2.797	-0.597	-0.559	37.260	36.620	86.590%	87.236%
3	12:38:43	79.901%	-2.786	-0.606	-0.639	35.830	36.080	88.980%	89.264%
x		77.680%	-2.804	-0.608	-0.587	36.110	35.850	86.802%	87.137%
σ		2.036%	0.022	0.013	0.045	1.035	0.916	2.080%	2.179%
%RSD		2.621	0.800	2.092	7.680	2.866	2.555	2.396	2.500
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:37:53	0.022	0.034	0.057	0.053	0.059	79.908%		
2	12:38:18	0.017	0.028	0.075	0.059	0.056	81.928%		
3	12:38:43	0.034	0.021	0.053	0.051	0.052	83.320%		
x		0.024	0.028	0.062	0.055	0.056	81.719%		
σ		0.009	0.006	0.012	0.004	0.003	1.716%		
%RSD		35.830	23.440	19.750	7.118	5.839	2.100		

180-40481-B-6-A 1/21/2015 12:41:43 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	12:42:08	90.138%	-0.170	37.190	35.280	0.000	54920.000	18670.000	18970.000
2	12:42:34	90.696%	-0.132	34.950	37.410	0.000	57510.000	19800.000	19850.000
3	12:42:59	94.620%	-0.125	32.770	36.880	0.000	56760.000	19560.000	20130.000
x		91.818%	-0.142	34.970	36.520	0.000	56390.000	19350.000	19650.000
σ		2.442%	0.024	2.212	1.109	0.000	1335.000	595.700	605.400
%RSD		2.660	17.090	6.325	3.037	0.000	2.367	3.079	3.081

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:08	68.490	3793.000	0.000	8287.000	86240.000	85890.000	77.314%	1.984
2	12:42:34	68.890	4241.000	0.000	8595.000	89670.000	90490.000	77.134%	1.523
3	12:42:59	69.850	4250.000	0.000	8875.000	93320.000	93360.000	77.730%	3.186
x		69.080	4095.000	0.000	8586.000	89740.000	89920.000	77.393%	2.231
σ		0.700	261.600	0.000	294.000	3545.000	3768.000	0.306%	0.859
%RSD		1.014	6.388	0.000	3.424	3.950	4.190	0.395	38.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:08	0.033	9.309	23.050	188.600	554.800	0.322	0.510	1.056
2	12:42:34	-1.457	9.439	23.940	197.500	570.900	0.308	0.625	1.033
3	12:42:59	1.641	10.010	24.620	199.700	562.700	0.263	0.554	0.915
x		0.072	9.586	23.870	195.300	562.800	0.297	0.563	1.001
σ		1.549	0.373	0.786	5.906	8.055	0.031	0.058	0.076
%RSD		2141.000	3.888	3.292	3.025	1.431	10.380	10.250	7.578

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:08	0.820	37.840	38.230	-0.100	-1.814	-2.416	0.000	197.100
2	12:42:34	0.914	40.180	38.690	2.506	-0.644	-0.922	0.000	207.000
3	12:42:59	0.934	40.200	39.390	-0.733	-1.326	-2.608	0.000	207.000
x		0.889	39.410	38.770	0.558	-1.261	-1.982	0.000	203.700
σ		0.061	1.356	0.586	1.717	0.588	0.923	0.000	5.679
%RSD		6.830	3.441	1.512	307.800	46.580	46.560	0.000	2.788

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:08	77.966%	0.129	0.128	79.589%	-0.061	-0.058	0.012	0.068
2	12:42:34	78.527%	0.069	0.170	80.353%	-0.055	-0.055	0.007	0.076
3	12:42:59	81.690%	0.183	0.117	81.692%	-0.056	-0.045	0.007	0.021
x		79.394%	0.127	0.138	80.545%	-0.057	-0.053	0.009	0.055
σ		2.008%	0.057	0.028	1.064%	0.004	0.007	0.003	0.030
%RSD		2.529	44.680	20.160	1.322	6.375	12.600	35.120	54.260

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:08	76.575%	-2.893	-0.666	-0.662	47.900	48.720	87.196%	86.492%
2	12:42:34	77.489%	-2.833	-0.641	-0.618	49.930	50.270	87.599%	88.192%
3	12:42:59	78.721%	-2.817	-0.634	-0.594	51.600	51.000	89.331%	88.895%
x		77.595%	-2.848	-0.647	-0.625	49.810	50.000	88.042%	87.860%
σ		1.077%	0.040	0.017	0.035	1.854	1.162	1.135%	1.235%
%RSD		1.388	1.404	2.610	5.527	3.722	2.324	1.289	1.406

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:08	0.011	0.013	0.126	0.122	0.118	81.270%
2	12:42:34	0.025	0.017	0.130	0.119	0.133	82.241%
3	12:42:59	0.014	0.020	0.144	0.110	0.130	82.798%
x		0.017	0.017	0.133	0.117	0.127	82.103%
σ		0.007	0.003	0.010	0.006	0.008	0.773%
%RSD		41.120	18.620	7.367	5.465	6.292	0.942

180-40481-B-7-A 1/21/2015 12:45:58 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	12:46:23	90.405%	-0.144	36.650	41.980	0.000	49040.000	17650.000	17860.000
2	12:46:48	96.940%	-0.141	40.890	38.550	0.000	49640.000	18010.000	18190.000
3	12:47:13	91.078%	-0.067	39.460	41.820	0.000	52050.000	19090.000	19050.000
x		92.808%	-0.118	39.000	40.790	0.000	50240.000	18250.000	18370.000
σ		3.595%	0.044	2.158	1.936	0.000	1590.000	749.100	616.400
%RSD		3.873	37.120	5.532	4.746	0.000	3.164	4.105	3.356
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:23	99.440	4522.000	0.000	6734.000	97520.000	98650.000	77.800%	2.077
2	12:46:48	102.700	4491.000	0.000	6852.000	97860.000	98960.000	79.527%	1.913
3	12:47:13	109.400	4669.000	0.000	6950.000	100400.000	101100.000	76.838%	2.335
x		103.900	4561.000	0.000	6845.000	98590.000	99560.000	78.055%	2.108
σ		5.062	95.120	0.000	108.000	1570.000	1320.000	1.362%	0.213
%RSD		4.874	2.086	0.000	1.578	1.592	1.326	1.745	10.100
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:23	-0.070	29.410	10.880	336.500	741.600	0.364	0.438	1.114
2	12:46:48	2.090	29.990	11.380	373.800	753.700	0.428	0.448	1.040
3	12:47:13	0.480	30.820	11.710	360.000	771.700	0.404	0.630	1.172
x		0.833	30.070	11.320	356.800	755.700	0.399	0.505	1.109
σ		1.122	0.710	0.419	18.830	15.130	0.032	0.108	0.066
%RSD		134.700	2.361	3.697	5.279	2.003	8.095	21.400	5.944
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:23	1.054	13.940	13.880	0.104	-1.225	-2.863	0.000	278.200
2	12:46:48	1.025	14.660	14.740	0.517	-1.062	-0.260	0.000	297.100
3	12:47:13	1.127	14.280	14.900	0.883	-1.291	-0.252	0.000	297.600
x		1.069	14.290	14.510	0.501	-1.192	-1.125	0.000	290.900
σ		0.053	0.357	0.548	0.390	0.118	1.505	0.000	11.070
%RSD		4.944	2.497	3.775	77.720	9.891	133.800	0.000	3.804
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:23	79.783%	0.063	0.074	80.299%	-0.035	-0.035	0.002	0.032
2	12:46:48	80.339%	0.159	0.073	81.758%	-0.050	-0.044	0.002	0.007
3	12:47:13	78.914%	0.103	0.112	81.344%	-0.041	-0.051	-0.008	0.006
x		79.679%	0.108	0.086	81.134%	-0.042	-0.043	-0.001	0.015
σ		0.718%	0.048	0.022	0.752%	0.008	0.008	0.006	0.015
%RSD		0.902	44.490	25.880	0.927	17.810	19.030	452.300	98.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:23	76.602%	-2.831	-0.694	-0.660	62.460	61.850	88.951%	87.391%
2	12:46:48	79.940%	-2.834	-0.702	-0.651	63.680	64.320	87.144%	89.929%
3	12:47:13	79.098%	-2.791	-0.674	-0.670	65.860	66.450	86.428%	88.070%
x		78.547%	-2.819	-0.690	-0.660	64.000	64.210	87.507%	88.463%
σ		1.736%	0.024	0.014	0.010	1.726	2.301	1.301%	1.314%
%RSD		2.210	0.841	2.045	1.491	2.697	3.584	1.486	1.486
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:46:23	0.017	0.023	0.268	0.229	0.244	82.231%		
2	12:46:48	0.017	0.015	0.265	0.231	0.249	84.300%		
3	12:47:13	0.023	0.018	0.268	0.235	0.248	83.399%		
x		0.019	0.018	0.267	0.232	0.247	83.310%		
σ		0.004	0.004	0.002	0.003	0.003	1.037%		
%RSD		18.520	21.980	0.564	1.132	1.039	1.245		

180-40481-B-8-A 1/21/2015 12:50:10 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	12:50:36	87.438%	-0.086	36.130	37.330	0.000	55890.000	20240.000	20260.000
2	12:51:00	92.735%	-0.186	36.830	36.400	0.000	56560.000	20750.000	20800.000
3	12:51:26	92.162%	-0.224	34.130	37.940	0.000	57660.000	21220.000	21430.000
x		90.778%	-0.165	35.700	37.230	0.000	56700.000	20730.000	20830.000
σ		2.907%	0.071	1.400	0.776	0.000	892.700	490.400	586.700
%RSD		3.202	43.200	3.921	2.085	0.000	1.574	2.365	2.816
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:36	314.000	4263.000	0.000	11590.000	91700.000	92470.000	76.540%	6.225
2	12:51:00	339.200	4387.000	0.000	11930.000	96390.000	95880.000	77.675%	7.156
3	12:51:26	322.800	4475.000	0.000	12080.000	96990.000	98250.000	78.076%	7.263
x		325.300	4375.000	0.000	11860.000	95030.000	95530.000	77.431%	6.881
σ		12.770	106.900	0.000	250.200	2898.000	2906.000	0.797%	0.571
%RSD		3.926	2.444	0.000	2.109	3.049	3.042	1.029	8.291
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:36	1.636	14.880	19.600	767.700	1117.000	0.480	0.535	1.099
2	12:51:00	-0.499	15.650	20.310	812.600	1151.000	0.489	0.414	1.109
3	12:51:26	0.477	15.830	21.060	829.600	1150.000	0.565	0.572	1.261
x		0.538	15.450	20.330	803.300	1139.000	0.511	0.507	1.156
σ		1.069	0.501	0.732	31.970	18.920	0.047	0.083	0.091
%RSD		198.700	3.243	3.600	3.980	1.661	9.107	16.330	7.866
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:36	1.077	8.825	8.666	1.939	-1.140	-2.568	0.000	208.200
2	12:51:00	1.054	8.951	8.819	1.057	-0.387	0.138	0.000	213.100
3	12:51:26	1.120	9.655	8.752	1.768	-1.209	-1.327	0.000	213.800
x		1.084	9.143	8.746	1.588	-0.912	-1.253	0.000	211.700
σ		0.034	0.447	0.077	0.468	0.456	1.355	0.000	3.075
%RSD		3.105	4.890	0.878	29.440	49.980	108.200	0.000	1.452
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:36	76.939%	0.092	0.109	78.326%	-0.036	-0.040	-0.008	0.044
2	12:51:00	80.034%	0.107	0.156	79.989%	-0.050	-0.052	0.007	0.020
3	12:51:26	80.587%	0.163	0.147	81.113%	-0.037	-0.047	-0.003	0.010
x		79.186%	0.121	0.137	79.809%	-0.041	-0.047	-0.001	0.025
σ		1.966%	0.037	0.025	1.402%	0.008	0.006	0.007	0.017
%RSD		2.483	30.950	18.330	1.757	18.760	12.790	631.600	69.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:36	75.272%	-2.849	-0.605	-0.577	61.060	62.200	85.430%	86.330%
2	12:51:00	77.488%	-2.892	-0.596	-0.588	62.510	63.230	88.009%	89.096%
3	12:51:26	78.152%	-2.855	-0.577	-0.563	64.780	64.220	87.955%	88.272%
x		76.971%	-2.865	-0.593	-0.576	62.780	63.220	87.131%	87.899%
σ		1.508%	0.024	0.014	0.013	1.875	1.010	1.473%	1.420%
%RSD		1.959	0.820	2.393	2.207	2.986	1.597	1.691	1.615
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:50:36	0.024	0.014	0.422	0.341	0.378	80.723%		
2	12:51:00	0.024	0.015	0.448	0.398	0.411	82.769%		
3	12:51:26	0.018	0.019	0.480	0.382	0.416	81.843%		
x		0.022	0.016	0.450	0.374	0.402	81.778%		
σ		0.004	0.002	0.029	0.030	0.021	1.025%		
%RSD		16.500	15.020	6.448	7.936	5.123	1.253		

180-40465-F-1-A 1/21/2015 12:54:20 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	12:54:45	87.710%	-0.153	50.190	50.630	0.000	22460.000	3723.000	3672.000
2	12:55:10	90.702%	-0.145	50.870	50.560	0.000	22970.000	3849.000	3843.000
3	12:55:35	90.365%	-0.223	51.120	51.740	0.000	23140.000	3906.000	3972.000
x		89.592%	-0.174	50.730	50.980	0.000	22860.000	3826.000	3829.000
σ		1.639%	0.043	0.482	0.663	0.000	354.200	93.410	150.300
%RSD		1.829	24.590	0.950	1.301	0.000	1.549	2.441	3.925

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:45	11.330	6250.000	0.000	8314.000	122100.000	122900.000	75.849%	2.765
2	12:55:10	11.750	6445.000	0.000	8639.000	130200.000	130300.000	76.739%	3.211
3	12:55:35	12.130	6617.000	0.000	8967.000	135700.000	135200.000	75.834%	2.866
x		11.740	6437.000	0.000	8640.000	129300.000	129500.000	76.141%	2.948
σ		0.399	183.600	0.000	326.400	6848.000	6173.000	0.519%	0.234
%RSD		3.402	2.852	0.000	3.778	5.296	4.767	0.681	7.937

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:45	0.118	1.323	103.200	1634.000	2107.000	0.246	-0.174	10.430
2	12:55:10	1.002	0.904	108.600	1720.000	2187.000	0.218	-0.002	10.490
3	12:55:35	1.830	0.951	112.800	1807.000	2287.000	0.234	0.011	11.470
x		0.983	1.059	108.200	1720.000	2194.000	0.232	-0.055	10.800
σ		0.856	0.229	4.844	86.480	89.960	0.014	0.103	0.584
%RSD		87.080	21.660	4.478	5.027	4.101	6.061	186.700	5.410

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:45	10.480	375.000	368.200	-1.025	-1.603	-4.136	0.000	686.200
2	12:55:10	10.890	392.700	388.400	0.338	-1.607	-5.588	0.000	713.200
3	12:55:35	11.540	424.700	412.200	0.752	-0.805	-2.931	0.000	776.400
x		10.970	397.500	389.600	0.022	-1.338	-4.218	0.000	725.300
σ		0.532	25.220	22.020	0.929	0.462	1.331	0.000	46.300
%RSD		4.846	6.344	5.651	4278.000	34.530	31.540	0.000	6.384

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:45	81.491%	2.955	2.786	77.956%	-0.047	-0.058	0.071	0.133
2	12:55:10	83.179%	3.031	3.158	79.422%	-0.058	-0.059	0.094	0.083
3	12:55:35	78.337%	3.225	3.273	79.409%	-0.057	-0.046	0.046	0.144
x		81.002%	3.070	3.072	78.929%	-0.054	-0.054	0.071	0.120
σ		2.458%	0.139	0.254	0.842%	0.006	0.007	0.024	0.033
%RSD		3.035	4.539	8.273	1.067	11.370	13.740	34.090	27.320

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:45	76.682%	-2.638	-0.655	-0.619	140.000	140.800	83.835%	84.183%
2	12:55:10	78.022%	-2.659	-0.689	-0.620	145.200	145.700	86.125%	86.811%
3	12:55:35	77.148%	-2.589	-0.641	-0.620	147.900	149.700	87.790%	87.439%
x		77.284%	-2.629	-0.661	-0.619	144.400	145.400	85.917%	86.144%
σ		0.680%	0.036	0.025	0.001	4.030	4.466	1.986%	1.728%
%RSD		0.880	1.375	3.803	0.108	2.791	3.071	2.311	2.006

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:45	0.000	0.005	1.981	1.861	1.892	82.090%
2	12:55:10	0.007	0.003	1.998	1.878	1.904	83.581%
3	12:55:35	0.005	0.001	2.117	1.868	1.986	82.289%
x		0.004	0.003	2.032	1.869	1.927	82.653%
σ		0.003	0.002	0.074	0.008	0.051	0.810%
%RSD		81.220	70.940	3.644	0.450	2.632	0.980

180-40489-O-1-A @10 1/21/2015 12:58:32 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	12:58:57	83.266%	-0.133	2.371	1.468	0.000	1917.000	842.900	836.500
2	12:59:22	85.421%	-0.082	1.662	1.082	0.000	1958.000	855.800	864.300
3	12:59:47	87.614%	-0.140	1.240	1.695	0.000	1956.000	859.700	871.200
x		85.434%	-0.118	1.758	1.415	0.000	1943.000	852.800	857.300
σ		2.174%	0.032	0.571	0.310	0.000	23.290	8.777	18.390
%RSD		2.545	26.950	32.500	21.900	0.000	1.198	1.029	2.145
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:57	114.600	434.500	0.000	286.700	2417.000	2283.000	77.711%	2.305
2	12:59:22	117.500	439.000	0.000	289.600	2489.000	2332.000	77.933%	2.330
3	12:59:47	117.500	437.900	0.000	281.400	2482.000	2353.000	77.244%	2.301
x		116.500	437.100	0.000	285.900	2462.000	2323.000	77.629%	2.312
σ		1.718	2.359	0.000	4.179	39.890	36.140	0.352%	0.016
%RSD		1.474	0.540	0.000	1.462	1.620	1.556	0.453	0.693
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:57	0.438	0.824	101.100	253.400	247.200	0.277	1.840	0.759
2	12:59:22	0.819	0.872	105.100	260.000	263.200	0.313	1.773	0.679
3	12:59:47	1.044	0.935	107.900	261.800	258.200	0.256	1.919	0.791
x		0.767	0.877	104.700	258.400	256.200	0.282	1.844	0.743
σ		0.306	0.056	3.406	4.461	8.162	0.029	0.073	0.058
%RSD		39.910	6.354	3.253	1.726	3.186	10.270	3.985	7.773
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:57	0.581	2.964	3.027	-0.699	-1.511	-2.054	0.000	10.040
2	12:59:22	0.684	3.231	2.962	0.178	-1.334	-2.096	0.000	9.735
3	12:59:47	0.769	3.087	2.922	0.090	-1.501	-3.024	0.000	10.020
x		0.678	3.094	2.970	-0.144	-1.449	-2.391	0.000	9.933
σ		0.094	0.134	0.053	0.483	0.100	0.548	0.000	0.172
%RSD		13.910	4.318	1.795	336.100	6.874	22.910	0.000	1.731
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:57	78.394%	0.085	0.028	86.046%	-0.060	-0.055	-0.008	0.060
2	12:59:22	80.535%	0.018	0.038	86.638%	-0.051	-0.050	0.006	0.050
3	12:59:47	79.629%	0.102	0.017	85.907%	-0.057	-0.062	0.002	0.020
x		79.519%	0.068	0.028	86.197%	-0.056	-0.056	0.000	0.044
σ		1.074%	0.045	0.010	0.388%	0.004	0.006	0.007	0.021
%RSD		1.351	65.330	37.770	0.450	7.887	11.330	13470.000	47.460
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:57	80.044%	-3.105	-0.754	-0.741	4.848	5.093	86.884%	87.818%
2	12:59:22	80.637%	-3.152	-0.717	-0.731	5.348	5.180	88.400%	88.163%
3	12:59:47	80.654%	-3.139	-0.727	-0.704	5.013	4.952	86.069%	87.164%
x		80.445%	-3.132	-0.733	-0.725	5.070	5.075	87.118%	87.715%
σ		0.347%	0.025	0.019	0.019	0.255	0.115	1.183%	0.507%
%RSD		0.432	0.783	2.631	2.609	5.029	2.266	1.358	0.578
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:58:57	0.001	0.003	0.443	0.399	0.418	89.149%		
2	12:59:22	0.006	0.005	0.483	0.388	0.448	87.637%		
3	12:59:47	0.004	0.005	0.497	0.376	0.434	86.312%		
x		0.004	0.004	0.474	0.388	0.433	87.699%		
σ		0.002	0.001	0.028	0.011	0.015	1.420%		
%RSD		68.270	21.560	5.974	2.959	3.384	1.619		

180-40492-L-1-A @10 1/21/2015 1:02:44 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	13:03:09	81.637%	-0.130	9.885	9.895	0.000	3563.000	3664.000	3657.000
2	13:03:34	84.695%	-0.122	8.608	9.808	0.000	3580.000	3721.000	3720.000
3	13:04:00	86.534%	-0.125	9.085	10.130	0.000	3615.000	3796.000	3813.000
x		84.289%	-0.126	9.193	9.943	0.000	3586.000	3727.000	3730.000
σ		2.474%	0.004	0.646	0.164	0.000	26.560	66.140	78.760
%RSD		2.935	3.397	7.022	1.650	0.000	0.741	1.775	2.111
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:09	87.300	1345.000	0.000	1149.000	6882.000	6671.000	77.057%	2.500
2	13:03:34	88.960	1404.000	0.000	1202.000	7221.000	6944.000	78.128%	3.008
3	13:04:00	91.000	1368.000	0.000	1227.000	7485.000	7185.000	77.740%	2.612
x		89.090	1372.000	0.000	1193.000	7196.000	6933.000	77.642%	2.707
σ		1.853	29.730	0.000	40.300	302.500	257.100	0.542%	0.267
%RSD		2.080	2.167	0.000	3.378	4.203	3.708	0.698	9.854
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:09	-0.056	0.588	224.700	213.700	235.200	0.245	1.034	0.695
2	13:03:34	0.083	0.580	231.500	220.200	235.100	0.280	1.257	0.751
3	13:04:00	0.397	0.564	238.700	223.500	242.700	0.287	1.229	0.738
x		0.141	0.577	231.600	219.200	237.700	0.270	1.174	0.728
σ		0.232	0.012	7.000	4.989	4.328	0.022	0.121	0.029
%RSD		163.900	2.133	3.023	2.276	1.821	8.316	10.320	4.002
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:09	0.719	14.210	13.550	0.375	-0.768	-1.168	0.000	35.190
2	13:03:34	0.905	14.650	13.870	0.539	-1.247	-0.113	0.000	36.730
3	13:04:00	0.799	15.130	14.100	0.449	-1.978	-1.923	0.000	36.400
x		0.808	14.660	13.840	0.454	-1.331	-1.068	0.000	36.110
σ		0.093	0.459	0.278	0.082	0.609	0.909	0.000	0.810
%RSD		11.550	3.128	2.008	18.090	45.790	85.140	0.000	2.243
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:09	76.222%	0.082	0.012	83.226%	-0.039	-0.060	0.016	0.061
2	13:03:34	78.873%	0.084	-0.011	86.084%	-0.053	-0.052	0.048	0.037
3	13:04:00	81.865%	0.075	0.014	79.746%	-0.058	-0.051	0.058	0.064
x		78.986%	0.081	0.005	83.018%	-0.050	-0.054	0.041	0.054
σ		2.823%	0.005	0.014	3.174%	0.010	0.005	0.022	0.015
%RSD		3.574	5.689	264.400	3.823	20.070	8.510	53.370	27.480
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:09	77.939%	-3.160	-0.764	-0.735	9.061	8.917	84.601%	84.471%
2	13:03:34	79.890%	-3.179	-0.753	-0.744	8.659	9.169	88.055%	87.953%
3	13:04:00	82.276%	-3.179	-0.760	-0.734	8.833	9.174	91.873%	89.187%
x		80.035%	-3.173	-0.759	-0.738	8.851	9.086	88.176%	87.204%
σ		2.172%	0.011	0.005	0.005	0.202	0.147	3.638%	2.446%
%RSD		2.714	0.347	0.724	0.708	2.277	1.618	4.125	2.805
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:03:09	0.007	0.002	0.214	0.245	0.234	91.907%		
2	13:03:34	0.009	0.003	0.295	0.278	0.280	89.898%		
3	13:04:00	0.003	0.003	0.316	0.282	0.286	90.589%		
x		0.006	0.002	0.275	0.268	0.267	90.798%		
σ		0.003	0.000	0.054	0.020	0.028	1.021%		
%RSD		45.040	8.726	19.570	7.544	10.650	1.124		

CCV 1455996 1/21/2015 1:06:57 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	75.675%	101.600	103.400	103.200	0.000	50690.000	48620.000	48210.000
2	13:07:47	78.484%	103.700	98.790	102.400	0.000	51840.000	50120.000	50780.000
3	13:08:12	80.043%	100.900	105.400	103.300	0.000	51480.000	49780.000	50020.000
x		78.067%	102.037%	102.530%	102.953%	0.000	102.675%	99.016%	99.341%
σ		2.214%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.836	1.438	3.297	0.459	0.000	1.148	1.594	2.652

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	479.000	5043.000	0.000	50160.000	46960.000	48880.000	76.512%	98.650
2	13:07:47	496.600	5225.000	0.000	53370.000	52140.000	51200.000	76.800%	101.600
3	13:08:12	499.300	5167.000	0.000	51840.000	52000.000	52290.000	76.472%	106.400
x		98.326%	102.895%	0.000	103.583%	100.733%	101.579%	76.595%	102.196%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.179%	n/a
%RSD		2.240	1.803	0.000	3.098	5.858	3.432	0.234	3.819

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	91.830	91.310	493.100	24290.000	25470.000	93.080	94.090	95.050
2	13:07:47	96.000	97.770	523.800	25780.000	27020.000	99.050	98.580	99.220
3	13:08:12	97.520	98.360	530.400	25730.000	27480.000	99.460	100.200	100.000
x		95.113%	95.818%	103.152%	101.061%	106.637%	97.198%	97.612%	98.102%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.098	4.082	3.851	3.360	3.957	3.672	3.229	2.726

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	94.420	98.260	98.260	97.070	99.920	97.960	0.000	96.870
2	13:07:47	98.390	102.600	102.500	99.530	103.200	101.100	0.000	98.730
3	13:08:12	99.630	103.800	101.200	99.780	101.200	100.900	0.000	99.050
x		97.475%	101.546%	100.667%	98.792%	101.452%	99.992%	0.000	98.218%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.792	2.868	2.175	1.519	1.652	1.764	0.000	1.199

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	73.980%	92.500	89.130	79.191%	92.590	93.060	94.920	96.450
2	13:07:47	77.148%	96.430	94.540	80.834%	95.500	96.080	98.930	101.900
3	13:08:12	77.179%	100.300	98.740	80.657%	93.720	94.210	96.890	100.600
x		76.102%	96.413%	94.138%	80.228%	93.937%	94.450%	96.915%	99.647%
σ		1.838%	n/a	n/a	0.902%	n/a	n/a	n/a	n/a
%RSD		2.415	4.050	5.117	1.124	1.562	1.617	2.065	2.848

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	75.205%	95.710	97.540	97.780	96.720	97.860	80.783%	82.383%
2	13:07:47	75.963%	101.800	101.800	102.900	99.110	100.700	85.135%	84.241%
3	13:08:12	77.633%	98.930	100.800	99.790	99.700	98.600	84.816%	83.911%
x		76.267%	98.809%	100.033%	100.171%	98.512%	99.039%	83.578%	83.512%
σ		1.242%	n/a	n/a	n/a	n/a	n/a	2.426%	0.991%
%RSD		1.629	3.076	2.216	2.599	1.603	1.466	2.902	1.187

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:22	100.000	97.280	99.870	99.990	98.830	86.592%
2	13:07:47	107.100	104.400	109.700	108.200	107.900	84.538%
3	13:08:12	104.500	102.300	106.700	106.100	105.400	86.253%
x		103.886%	101.350%	105.405%	104.769%	104.062%	85.794%
σ		n/a	n/a	n/a	n/a	n/a	1.101%
%RSD		3.454	3.627	4.762	4.085	4.509	1.283

CCB5 1/21/2015 1:14:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:42	81.713%	-0.059	-0.408	-0.710	0.000	24.590	20.020	20.130
2	13:15:08	84.013%	-0.079	-0.719	-0.773	0.000	18.850	12.960	15.720
3	13:15:33	85.086%	-0.150	-0.397	-0.715	0.000	15.590	14.650	13.010
x		83.604%	-0.096	-0.508	-0.732	0.000	19.680	15.880	16.290
σ		1.723%	0.048	0.183	0.035	0.000	4.558	3.688	3.593
%RSD		2.061	50.110	36.000	4.805	0.000	23.160	23.220	22.060
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:42	0.870	9.103	0.000	25.220	46.380	40.870	78.179%	-0.438
2	13:15:08	0.364	3.436	0.000	13.940	17.650	28.110	78.990%	-0.367
3	13:15:33	0.241	1.597	0.000	18.890	37.880	21.700	80.246%	-0.352
x		0.492	4.712	0.000	19.350	33.970	30.230	79.138%	-0.386
σ		0.333	3.912	0.000	5.652	14.760	9.759	1.041%	0.046
%RSD		67.750	83.020	0.000	29.200	43.440	32.280	1.316	11.890
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:42	-0.018	0.011	0.187	13.910	23.550	0.040	0.070	-0.339
2	13:15:08	0.033	-0.043	0.129	10.850	14.230	0.022	0.043	-0.316
3	13:15:33	-0.158	-0.094	0.107	7.484	7.041	0.021	0.045	-0.292
x		-0.048	-0.042	0.141	10.750	14.940	0.028	0.053	-0.316
σ		0.099	0.052	0.041	3.216	8.278	0.011	0.015	0.023
%RSD		207.400	124.500	29.120	29.920	55.400	38.430	28.320	7.399
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:42	-0.290	0.214	0.206	-0.138	-0.475	-0.822	0.000	0.102
2	13:15:08	-0.297	0.140	0.087	-0.182	-1.366	-1.225	0.000	0.085
3	13:15:33	-0.295	0.147	0.019	0.032	-1.672	0.145	0.000	0.066
x		-0.294	0.167	0.104	-0.096	-1.171	-0.634	0.000	0.084
σ		0.004	0.041	0.095	0.113	0.622	0.704	0.000	0.018
%RSD		1.305	24.560	91.070	118.000	53.100	111.000	0.000	21.130
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:42	78.122%	0.194	0.228	87.252%	-0.037	-0.038	0.020	0.102
2	13:15:08	81.383%	0.202	0.196	87.997%	-0.046	-0.035	0.033	0.059
3	13:15:33	81.272%	0.197	0.147	83.184%	-0.042	-0.039	0.020	0.031
x		80.259%	0.197	0.190	86.144%	-0.042	-0.038	0.024	0.064
σ		1.851%	0.004	0.041	2.591%	0.005	0.002	0.008	0.036
%RSD		2.307	2.022	21.510	3.008	11.060	5.187	31.140	56.380
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:42	80.136%	-2.937	-0.607	-0.581	0.037	0.086	85.357%	84.847%
2	13:15:08	81.997%	-2.932	-0.586	-0.587	0.094	0.068	88.255%	86.706%
3	13:15:33	82.535%	-2.968	-0.597	-0.589	0.045	0.053	87.154%	87.626%
x		81.556%	-2.946	-0.596	-0.586	0.059	0.069	86.922%	86.393%
σ		1.259%	0.020	0.011	0.004	0.031	0.017	1.463%	1.416%
%RSD		1.543	0.665	1.761	0.702	52.710	24.060	1.683	1.639
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:14:42	0.035	0.037	0.050	0.050	0.040	91.940%		
2	13:15:08	0.024	0.025	0.031	0.034	0.033	90.599%		
3	13:15:33	0.037	0.030	0.043	0.003	0.026	89.873%		
x		0.032	0.031	0.041	0.029	0.033	90.804%		
σ		0.007	0.006	0.010	0.024	0.007	1.048%		
%RSD		21.600	19.520	23.440	81.180	22.380	1.155		

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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	13:18:55	80.151%	-0.127	0.642	-0.372	0.000	8.509	2.331	2.921
2	13:19:20	82.168%	-0.116	-0.319	-0.812	0.000	6.321	1.195	1.164
3	13:19:45	86.193%	-0.042	-1.176	-0.820	0.000	3.755	1.029	0.942
x		82.837%	-0.095	-0.285	-0.668	0.000	6.195	1.518	1.676
σ		3.076%	0.046	0.909	0.257	0.000	2.379	0.708	1.084
%RSD		3.713	48.710	319.500	38.430	0.000	38.410	46.660	64.700
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:55	0.316	5.578	0.000	10.600	-0.878	7.940	74.327%	-0.431
2	13:19:20	0.208	1.221	0.000	21.400	10.080	5.975	74.953%	-0.451
3	13:19:45	-0.229	0.158	0.000	7.302	6.058	5.048	76.066%	-0.397
x		0.099	2.319	0.000	13.100	5.085	6.321	75.115%	-0.426
σ		0.288	2.872	0.000	7.372	5.542	1.477	0.881%	0.028
%RSD		292.600	123.800	0.000	56.270	109.000	23.360	1.173	6.488
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:55	0.143	0.383	0.001	-0.281	2.765	0.017	0.107	-0.192
2	13:19:20	-0.104	0.445	-0.001	-0.573	-3.605	0.005	0.011	-0.200
3	13:19:45	0.402	0.398	-0.030	-1.888	-4.098	-0.002	-0.020	-0.241
x		0.147	0.409	-0.010	-0.914	-1.646	0.006	0.033	-0.211
σ		0.253	0.032	0.017	0.856	3.828	0.010	0.066	0.026
%RSD		172.400	7.896	173.000	93.630	232.600	146.400	204.100	12.480
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:55	-0.205	0.998	0.945	0.258	-0.468	-1.569	0.000	0.033
2	13:19:20	-0.181	1.151	1.067	0.240	-1.526	-0.907	0.000	0.025
3	13:19:45	-0.276	1.085	0.950	-0.192	-0.691	-2.466	0.000	0.021
x		-0.221	1.078	0.988	0.102	-0.895	-1.647	0.000	0.026
σ		0.049	0.077	0.069	0.255	0.558	0.783	0.000	0.006
%RSD		22.390	7.130	6.998	249.800	62.300	47.520	0.000	22.400
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:55	75.138%	-0.005	-0.020	82.591%	-0.049	-0.048	0.002	0.019
2	13:19:20	77.135%	-0.046	-0.076	84.265%	-0.052	-0.059	0.002	0.012
3	13:19:45	78.579%	-0.012	-0.046	84.955%	-0.063	-0.049	-0.003	0.029
x		76.951%	-0.021	-0.048	83.937%	-0.055	-0.052	0.000	0.020
σ		1.728%	0.022	0.028	1.216%	0.008	0.006	0.003	0.009
%RSD		2.245	104.400	58.100	1.448	13.820	11.320	894.400	43.510
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:55	77.583%	-2.970	-0.669	-0.657	-0.007	-0.006	82.079%	83.456%
2	13:19:20	77.342%	-2.970	-0.670	-0.697	-0.007	0.032	85.181%	85.180%
3	13:19:45	79.471%	-3.028	-0.683	-0.706	-0.014	-0.007	87.103%	86.934%
x		78.132%	-2.989	-0.674	-0.687	-0.009	0.006	84.788%	85.190%
σ		1.166%	0.034	0.008	0.026	0.004	0.022	2.535%	1.739%
%RSD		1.492	1.128	1.207	3.800	41.650	349.400	2.990	2.041
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:18:55	0.006	0.006	0.005	0.013	0.016	101.504%		
2	13:19:20	0.002	0.005	0.015	0.001	0.013	90.573%		
3	13:19:45	0.004	0.001	0.015	0.018	0.014	91.440%		
x		0.004	0.004	0.012	0.011	0.014	94.506%		
σ		0.002	0.003	0.006	0.009	0.001	6.076%		
%RSD		58.120	62.620	50.390	83.230	8.229	6.430		

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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	13:23:05	80.384%	-0.157	-0.278	-0.885	0.000	-0.798	1.550	1.647
2	13:23:30	83.844%	-0.148	-0.530	-1.022	0.000	-2.825	1.244	1.009
3	13:23:55	85.735%	-0.150	-0.480	-0.829	0.000	-1.906	0.665	0.223
x		83.321%	-0.152	-0.429	-0.912	0.000	-1.843	1.153	0.960
σ		2.713%	0.005	0.134	0.100	0.000	1.015	0.449	0.713
%RSD		3.257	3.050	31.170	10.920	0.000	55.060	38.970	74.320
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:05	-0.463	6.165	0.000	9.572	23.220	8.083	74.552%	-0.295
2	13:23:30	-0.675	0.854	0.000	15.940	-0.976	5.287	74.752%	-0.412
3	13:23:55	-0.670	-0.503	0.000	15.200	4.562	7.483	74.704%	-0.431
x		-0.603	2.172	0.000	13.570	8.936	6.951	74.670%	-0.380
σ		0.121	3.524	0.000	3.482	12.680	1.472	0.104%	0.074
%RSD		20.040	162.300	0.000	25.660	141.900	21.170	0.140	19.390
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:05	-0.360	0.590	-0.002	2.354	6.086	-0.009	0.075	-0.167
2	13:23:30	0.368	0.629	-0.011	2.484	-2.039	-0.008	0.009	-0.117
3	13:23:55	0.381	0.592	-0.004	1.738	0.869	0.002	0.065	-0.145
x		0.130	0.604	-0.005	2.192	1.639	-0.005	0.050	-0.143
σ		0.424	0.022	0.005	0.399	4.117	0.006	0.036	0.025
%RSD		326.500	3.665	83.070	18.190	251.200	120.100	72.370	17.590
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:05	-0.157	1.453	1.476	-0.125	-1.422	-2.238	0.000	0.026
2	13:23:30	-0.260	1.434	1.407	0.640	-2.170	-1.398	0.000	0.020
3	13:23:55	-0.211	1.544	1.692	-0.004	-0.522	-2.176	0.000	0.011
x		-0.209	1.477	1.525	0.170	-1.371	-1.937	0.000	0.019
σ		0.051	0.059	0.149	0.411	0.825	0.468	0.000	0.008
%RSD		24.450	3.991	9.768	241.400	60.170	24.170	0.000	40.170
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:05	72.362%	-0.072	-0.134	78.378%	-0.051	-0.060	0.002	0.028
2	13:23:30	74.406%	-0.118	-0.145	80.935%	-0.052	-0.065	-0.008	0.033
3	13:23:55	75.309%	-0.132	-0.133	81.444%	-0.052	-0.059	0.007	0.005
x		74.026%	-0.107	-0.137	80.252%	-0.052	-0.062	0.001	0.022
σ		1.510%	0.031	0.006	1.643%	0.000	0.003	0.008	0.015
%RSD		2.040	28.970	4.656	2.047	0.684	5.297	1205.000	68.650
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:05	74.408%	-3.083	-0.742	-0.719	-0.023	-0.005	79.710%	79.584%
2	13:23:30	74.291%	-3.029	-0.719	-0.725	-0.012	-0.012	81.489%	81.137%
3	13:23:55	75.618%	-3.077	-0.721	-0.728	-0.000	0.014	82.450%	83.044%
x		74.772%	-3.063	-0.727	-0.724	-0.012	-0.001	81.216%	81.255%
σ		0.735%	0.029	0.013	0.005	0.011	0.013	1.391%	1.733%
%RSD		0.983	0.960	1.775	0.630	96.580	1410.000	1.712	2.133
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:23:05	0.004	0.003	0.027	-0.006	0.010	85.828%		
2	13:23:30	0.004	0.003	-0.004	-0.006	-0.005	83.778%		
3	13:23:55	0.004	0.002	-0.003	0.010	0.009	83.248%		
x		0.004	0.003	0.007	-0.001	0.005	84.285%		
σ		0.000	0.001	0.018	0.009	0.008	1.362%		
%RSD		2.022	23.580	262.800	1031.000	179.600	1.616		

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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	13:27:20	85.730%	42.430	915.800	897.500	0.000	43210.000	41190.000	41370.000
2	13:27:45	89.708%	43.650	934.000	923.100	0.000	43840.000	41840.000	42350.000
3	13:28:10	88.574%	45.270	948.500	941.700	0.000	44700.000	43100.000	43030.000
x		88.004%	43.780	932.800	920.800	0.000	43910.000	42040.000	42250.000
σ		2.049%	1.427	16.360	22.220	0.000	749.000	972.800	838.300
%RSD		2.328	3.260	1.754	2.413	0.000	1.706	2.314	1.984
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:20	1662.000	8651.000	0.000	47250.000	45680.000	45890.000	73.238%	886.200
2	13:27:45	1731.000	8688.000	0.000	48150.000	46430.000	48280.000	74.967%	915.800
3	13:28:10	1770.000	8866.000	0.000	48790.000	47590.000	49170.000	74.047%	940.200
x		1721.000	8735.000	0.000	48070.000	46570.000	47780.000	74.084%	914.100
σ		54.580	115.200	0.000	772.800	962.300	1693.000	0.865%	27.030
%RSD		3.172	1.318	0.000	1.608	2.067	3.544	1.168	2.957
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:20	425.800	167.100	441.700	934.000	1064.000	434.400	424.600	216.000
2	13:27:45	448.900	176.600	474.400	1003.000	1108.000	465.600	448.800	231.000
3	13:28:10	453.200	178.700	478.700	1020.000	1149.000	469.800	455.100	235.300
x		442.600	174.100	464.900	985.500	1107.000	456.600	442.900	227.400
σ		14.770	6.172	20.200	45.400	42.870	19.320	16.110	10.120
%RSD		3.337	3.544	4.344	4.607	3.872	4.232	3.639	4.448
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:20	213.900	435.800	431.000	32.200	8.536	6.715	0.000	855.500
2	13:27:45	225.900	479.900	471.400	37.600	7.177	10.930	0.000	957.500
3	13:28:10	230.400	488.700	477.500	36.840	9.012	9.500	0.000	965.400
x		223.400	468.100	459.900	35.550	8.242	9.048	0.000	926.100
σ		8.543	28.350	25.290	2.926	0.953	2.142	0.000	61.250
%RSD		3.824	6.055	5.498	8.232	11.560	23.680	0.000	6.614
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:20	76.190%	901.200	894.400	75.417%	43.850	43.090	46.770	34.790
2	13:27:45	72.582%	979.400	961.800	77.615%	43.270	43.790	45.890	38.100
3	13:28:10	71.867%	1001.000	984.800	76.697%	43.080	43.090	44.680	37.460
x		73.546%	960.700	947.000	76.576%	43.400	43.320	45.780	36.780
σ		2.317%	52.690	46.990	1.104%	0.401	0.404	1.047	1.754
%RSD		3.150	5.485	4.962	1.441	0.924	0.933	2.287	4.768
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:20	69.595%	2048.000	478.800	486.000	1777.000	1853.000	82.712%	81.908%
2	13:27:45	73.459%	1959.000	485.300	484.000	1836.000	1903.000	84.133%	84.581%
3	13:28:10	73.823%	1942.000	490.200	478.300	1853.000	1882.000	83.385%	83.844%
x		72.292%	1983.000	484.700	482.700	1822.000	1879.000	83.410%	83.445%
σ		2.343%	56.680	5.719	3.981	39.710	25.060	0.711%	1.381%
%RSD		3.241	2.858	1.180	0.825	2.179	1.334	0.852	1.655
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:27:20	49.320	46.710	20.400	20.530	20.280	75.992%		
2	13:27:45	50.590	48.780	21.270	20.670	20.650	78.103%		
3	13:28:10	51.000	49.230	21.240	20.910	20.930	77.506%		
x		50.300	48.240	20.970	20.700	20.620	77.200%		
σ		0.879	1.342	0.492	0.190	0.325	1.088%		
%RSD		1.747	2.782	2.347	0.918	1.577	1.410		

180-40489-O-1-A 1/21/2015 1:31:09 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	13:31:34	86.870%	0.093	26.220	24.990	0.000	18320.000	8218.000	8380.000
2	13:31:59	88.973%	0.230	24.780	24.360	0.000	18960.000	8705.000	8848.000
3	13:32:24	90.096%	0.211	27.870	25.770	0.000	19130.000	8772.000	8867.000
x		88.646%	0.178	26.290	25.040	0.000	18810.000	8565.000	8698.000
σ		1.637%	0.074	1.547	0.706	0.000	427.900	302.500	276.000
%RSD		1.847	41.690	5.887	2.818	0.000	2.275	3.532	3.173
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:34	1172.000	4499.000	0.000	2833.000	22960.000	22530.000	73.787%	24.060
2	13:31:59	1233.000	4279.000	0.000	2904.000	24410.000	23710.000	76.009%	26.290
3	13:32:24	1240.000	4254.000	0.000	2970.000	24610.000	23750.000	75.502%	30.460
x		1215.000	4344.000	0.000	2903.000	23990.000	23330.000	75.099%	26.940
σ		37.620	134.800	0.000	68.670	900.800	692.300	1.164%	3.253
%RSD		3.096	3.103	0.000	2.366	3.755	2.968	1.550	12.080
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:34	7.458	7.288	1015.000	2385.000	2408.000	3.112	17.780	9.308
2	13:31:59	8.134	7.166	1064.000	2505.000	2549.000	3.100	17.840	9.491
3	13:32:24	7.912	7.407	1070.000	2509.000	2560.000	3.026	18.190	9.483
x		7.835	7.287	1050.000	2466.000	2505.000	3.079	17.940	9.428
σ		0.344	0.121	30.350	70.110	84.780	0.046	0.222	0.104
%RSD		4.393	1.658	2.892	2.843	3.384	1.508	1.237	1.098
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:34	8.956	24.870	25.020	0.969	-1.567	-3.252	0.000	89.710
2	13:31:59	9.553	26.230	25.520	4.241	-1.495	-2.340	0.000	92.800
3	13:32:24	9.098	26.720	25.840	3.491	-1.177	-1.855	0.000	91.990
x		9.202	25.940	25.460	2.900	-1.413	-2.482	0.000	91.500
σ		0.312	0.957	0.414	1.714	0.208	0.709	0.000	1.603
%RSD		3.387	3.690	1.627	59.090	14.710	28.580	0.000	1.751
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:34	76.426%	6.900	7.046	76.639%	-0.010	0.012	0.125	0.100
2	13:31:59	81.213%	5.422	5.453	80.084%	-0.024	-0.014	0.124	0.142
3	13:32:24	80.931%	4.705	4.509	79.591%	-0.030	-0.014	0.122	0.175
x		79.523%	5.676	5.670	78.772%	-0.021	-0.006	0.124	0.139
σ		2.686%	1.119	1.282	1.863%	0.010	0.015	0.002	0.037
%RSD		3.378	19.720	22.620	2.365	47.480	267.500	1.392	26.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:34	73.961%	4.491	0.119	0.141	48.450	49.780	82.624%	83.069%
2	13:31:59	76.847%	2.233	-0.000	0.010	49.540	49.890	87.563%	86.767%
3	13:32:24	75.247%	0.638	-0.044	-0.009	49.360	50.720	85.379%	86.231%
x		75.351%	2.454	0.025	0.047	49.120	50.130	85.189%	85.356%
σ		1.446%	1.936	0.084	0.081	0.584	0.511	2.475%	1.998%
%RSD		1.919	78.890	342.400	172.400	1.188	1.020	2.905	2.341
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:31:34	0.212	0.202	4.469	4.136	4.233	78.788%		
2	13:31:59	0.156	0.131	4.583	4.250	4.317	82.102%		
3	13:32:24	0.114	0.110	4.684	4.211	4.397	81.038%		
x		0.160	0.148	4.578	4.199	4.316	80.643%		
σ		0.049	0.048	0.108	0.058	0.082	1.692%		
%RSD		30.690	32.540	2.351	1.388	1.907	2.098		

180-40492-L-1-A 1/21/2015 1:35:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:49	83.558%	0.008	100.600	104.100	0.000	33940.000	35960.000	36150.000
2	13:36:14	85.603%	-0.109	95.220	106.800	0.000	34750.000	37450.000	37460.000
3	13:36:39	88.781%	-0.088	97.780	105.100	0.000	34430.000	37340.000	37490.000
x		85.981%	-0.063	97.860	105.300	0.000	34380.000	36920.000	37030.000
σ		2.632%	0.062	2.678	1.338	0.000	407.100	834.000	766.000
%RSD		3.061	99.330	2.737	1.271	0.000	1.184	2.259	2.068
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:49	887.100	13040.000	0.000	11160.000	68640.000	69640.000	73.335%	28.210
2	13:36:14	909.800	13320.000	0.000	11640.000	73090.000	71300.000	73.248%	30.040
3	13:36:39	925.100	13190.000	0.000	11430.000	72490.000	73640.000	74.035%	30.040
x		907.400	13180.000	0.000	11410.000	71410.000	71530.000	73.539%	29.430
σ		19.120	138.100	0.000	237.600	2415.000	2013.000	0.431%	1.058
%RSD		2.107	1.048	0.000	2.082	3.382	2.814	0.587	3.596
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:49	2.526	4.398	2236.000	2073.000	2308.000	2.512	10.310	9.176
2	13:36:14	2.832	4.786	2305.000	2159.000	2409.000	2.536	10.630	9.409
3	13:36:39	2.853	4.545	2354.000	2200.000	2419.000	2.627	10.080	9.452
x		2.737	4.576	2298.000	2144.000	2379.000	2.559	10.340	9.346
σ		0.183	0.196	59.200	64.690	61.550	0.061	0.279	0.149
%RSD		6.691	4.282	2.576	3.017	2.588	2.377	2.698	1.591
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:49	9.235	134.100	133.100	3.493	-0.634	-0.631	0.000	358.400
2	13:36:14	10.280	138.400	137.700	5.660	-1.789	0.715	0.000	371.900
3	13:36:39	9.970	142.000	139.600	2.473	-0.886	0.898	0.000	374.300
x		9.830	138.200	136.800	3.875	-1.103	0.328	0.000	368.200
σ		0.538	3.970	3.321	1.627	0.607	0.835	0.000	8.566
%RSD		5.478	2.873	2.428	42.000	55.050	254.900	0.000	2.327
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:49	73.759%	2.247	2.381	74.854%	0.022	0.019	0.597	0.650
2	13:36:14	74.294%	2.339	2.271	76.463%	-0.004	0.017	0.540	0.615
3	13:36:39	76.395%	2.565	2.518	76.610%	0.017	-0.005	0.682	0.721
x		74.816%	2.384	2.390	75.976%	0.011	0.010	0.606	0.662
σ		1.394%	0.163	0.124	0.974%	0.014	0.014	0.071	0.054
%RSD		1.863	6.855	5.175	1.282	122.100	130.500	11.780	8.165
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:49	71.328%	-2.170	-0.246	-0.197	83.570	85.870	82.245%	82.353%
2	13:36:14	71.432%	-2.133	-0.248	-0.252	89.520	88.990	83.280%	82.978%
3	13:36:39	74.405%	-2.330	-0.262	-0.286	88.520	87.990	84.859%	85.173%
x		72.389%	-2.211	-0.252	-0.245	87.200	87.610	83.461%	83.502%
σ		1.747%	0.105	0.009	0.045	3.189	1.596	1.317%	1.481%
%RSD		2.414	4.738	3.516	18.210	3.657	1.822	1.578	1.774
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:35:49	0.082	0.062	3.080	2.856	2.891	78.114%		
2	13:36:14	0.062	0.063	3.095	2.838	2.958	77.533%		
3	13:36:39	0.039	0.052	2.984	2.935	2.914	81.438%		
x		0.061	0.059	3.053	2.876	2.921	79.028%		
σ		0.022	0.006	0.060	0.052	0.034	2.107%		
%RSD		35.640	10.080	1.973	1.800	1.173	2.666		

180-40434-B-25-A 1/21/2015 1:39:36 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:01	85.040%	-0.149	41.210	38.870	0.000	62350.000	19690.000	19800.000
2	13:40:26	86.225%	-0.165	43.350	39.980	0.000	64540.000	20650.000	21050.000
3	13:40:51	87.374%	-0.058	39.870	40.850	0.000	65590.000	21060.000	21300.000
x		86.213%	-0.124	41.480	39.900	0.000	64160.000	20470.000	20720.000
σ		1.167%	0.058	1.758	0.994	0.000	1652.000	707.700	808.300
%RSD		1.354	46.400	4.239	2.492	0.000	2.575	3.458	3.902
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:01	53.610	2827.000	0.000	26390.000	85560.000	85640.000	74.303%	1.102
2	13:40:26	56.190	2945.000	0.000	27690.000	90320.000	90630.000	75.177%	0.889
3	13:40:51	57.330	2966.000	0.000	28320.000	91460.000	93180.000	75.130%	1.043
x		55.710	2913.000	0.000	27470.000	89110.000	89820.000	74.870%	1.012
σ		1.907	74.710	0.000	983.900	3132.000	3837.000	0.492%	0.110
%RSD		3.423	2.565	0.000	3.582	3.514	4.272	0.657	10.860
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:01	-0.354	7.105	7.163	125.600	500.000	0.233	0.564	1.392
2	13:40:26	0.553	7.146	6.275	128.300	502.100	0.241	0.742	1.547
3	13:40:51	-0.698	7.365	6.049	128.500	504.000	0.262	0.681	1.692
x		-0.166	7.205	6.496	127.500	502.000	0.245	0.662	1.544
σ		0.646	0.139	0.589	1.618	1.993	0.015	0.090	0.150
%RSD		389.200	1.935	9.068	1.269	0.397	6.147	13.610	9.744
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:01	1.391	40.790	39.660	1.383	-0.894	0.604	0.000	166.700
2	13:40:26	1.454	42.320	41.700	-1.152	-1.059	-0.653	0.000	172.100
3	13:40:51	1.683	42.050	42.480	-1.932	-0.761	-0.468	0.000	178.200
x		1.509	41.720	41.280	-0.567	-0.905	-0.172	0.000	172.300
σ		0.154	0.816	1.459	1.733	0.149	0.679	0.000	5.760
%RSD		10.180	1.956	3.533	305.700	16.490	394.100	0.000	3.343
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:01	73.090%	0.538	0.426	75.026%	-0.051	-0.053	0.024	0.063
2	13:40:26	75.465%	0.491	0.449	76.932%	-0.059	-0.051	0.003	0.031
3	13:40:51	75.669%	0.417	0.475	77.223%	-0.055	-0.060	0.038	0.075
x		74.742%	0.482	0.450	76.394%	-0.055	-0.055	0.021	0.056
σ		1.434%	0.061	0.025	1.193%	0.004	0.005	0.018	0.023
%RSD		1.918	12.630	5.481	1.562	7.282	8.569	83.490	40.370
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:01	72.488%	-2.633	-0.413	-0.450	59.380	58.480	81.125%	81.857%
2	13:40:26	73.986%	-2.646	-0.404	-0.375	60.650	60.570	82.285%	83.265%
3	13:40:51	74.291%	-2.628	-0.419	-0.336	62.330	61.370	83.831%	84.451%
x		73.589%	-2.636	-0.412	-0.387	60.780	60.140	82.414%	83.191%
σ		0.965%	0.009	0.007	0.058	1.482	1.490	1.357%	1.298%
%RSD		1.311	0.350	1.786	14.970	2.438	2.477	1.647	1.561
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:40:01	0.035	0.027	0.281	0.309	0.298	76.895%		
2	13:40:26	0.032	0.034	0.355	0.296	0.332	77.767%		
3	13:40:51	0.031	0.029	0.342	0.315	0.321	77.921%		
x		0.032	0.030	0.326	0.306	0.317	77.528%		
σ		0.002	0.004	0.040	0.009	0.017	0.553%		
%RSD		6.650	12.130	12.140	3.079	5.499	0.714		

180-40434-B-25-A SD@5 1/21/2015 1:43:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:13	80.907%	-0.172	6.231	7.823	0.000	13150.000	4039.000	4066.000
2	13:44:38	86.409%	-0.138	7.084	8.217	0.000	13200.000	4156.000	4211.000
3	13:45:04	85.908%	-0.206	6.893	7.695	0.000	13320.000	4213.000	4270.000
x		84.408%	-0.172	6.736	7.912	0.000	13220.000	4136.000	4183.000
σ		3.042%	0.034	0.447	0.272	0.000	87.380	88.600	105.100
%RSD		3.604	19.680	6.640	3.434	0.000	0.661	2.142	2.512
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:13	11.450	559.000	0.000	5456.000	17430.000	16520.000	74.201%	0.036
2	13:44:38	11.910	562.500	0.000	5662.000	18610.000	17710.000	76.088%	-0.094
3	13:45:04	12.240	567.900	0.000	5654.000	18790.000	18120.000	74.872%	-0.125
x		11.860	563.100	0.000	5591.000	18270.000	17450.000	75.054%	-0.061
σ		0.396	4.480	0.000	116.600	737.700	835.300	0.956%	0.085
%RSD		3.334	0.796	0.000	2.085	4.037	4.787	1.274	140.100
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:13	0.237	1.685	1.283	30.090	99.490	0.072	0.184	0.025
2	13:44:38	-0.626	1.789	1.325	29.570	99.420	0.046	0.071	0.073
3	13:45:04	0.738	1.763	1.256	30.020	102.300	0.027	0.188	0.009
x		0.116	1.745	1.288	29.890	100.400	0.048	0.148	0.036
σ		0.690	0.054	0.035	0.283	1.647	0.023	0.067	0.033
%RSD		592.800	3.110	2.698	0.948	1.640	47.100	45.210	92.570
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:13	0.005	8.084	8.234	-0.332	-2.066	-2.025	0.000	33.060
2	13:44:38	0.026	9.162	8.635	0.121	-1.565	-1.046	0.000	34.340
3	13:45:04	0.035	8.927	8.599	0.059	-0.886	-2.309	0.000	34.200
x		0.022	8.724	8.489	-0.051	-1.506	-1.793	0.000	33.860
σ		0.015	0.567	0.222	0.246	0.592	0.662	0.000	0.702
%RSD		70.410	6.500	2.612	486.000	39.320	36.940	0.000	2.073
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:13	73.224%	-0.009	0.015	77.843%	-0.050	-0.066	-0.008	0.042
2	13:44:38	77.475%	-0.019	-0.019	81.604%	-0.060	-0.053	-0.003	0.002
3	13:45:04	77.801%	0.001	0.002	80.939%	-0.056	-0.061	-0.003	0.085
x		76.167%	-0.009	-0.001	80.129%	-0.055	-0.060	-0.004	0.043
σ		2.554%	0.010	0.017	2.007%	0.005	0.007	0.003	0.042
%RSD		3.353	113.100	2795.000	2.505	9.566	10.960	64.860	96.890
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:13	72.243%	-3.024	-0.704	-0.706	11.960	12.190	79.438%	79.887%
2	13:44:38	76.097%	-3.045	-0.724	-0.707	12.920	12.340	85.028%	85.104%
3	13:45:04	75.545%	-3.062	-0.714	-0.697	12.830	12.630	84.513%	83.813%
x		74.628%	-3.044	-0.714	-0.703	12.570	12.390	82.993%	82.935%
σ		2.084%	0.019	0.010	0.005	0.530	0.222	3.090%	2.718%
%RSD		2.792	0.626	1.425	0.732	4.216	1.789	3.723	3.277
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:44:13	0.022	0.013	0.070	0.060	0.055	81.035%		
2	13:44:38	0.009	0.012	0.072	0.039	0.054	83.378%		
3	13:45:04	0.015	0.019	0.046	0.041	0.054	81.885%		
x		0.015	0.015	0.063	0.047	0.054	82.099%		
σ		0.006	0.004	0.014	0.012	0.001	1.186%		
%RSD		40.640	26.610	22.780	25.490	1.016	1.445		

180-40434-B-25-B MS 1/21/2015 1:48:03 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:29	84.189%	47.770	1008.000	1005.000	0.000	109000.000	63580.000	64300.000
2	13:48:54	84.861%	49.250	1069.000	1062.000	0.000	113200.000	67190.000	68150.000
3	13:49:19	85.478%	47.820	1041.000	1041.000	0.000	113100.000	67450.000	67730.000
x		84.843%	48.280	1039.000	1036.000	0.000	111800.000	66070.000	66730.000
σ		0.645%	0.838	30.300	28.930	0.000	2406.000	2162.000	2112.000
%RSD		0.760	1.735	2.916	2.793	0.000	2.153	3.273	3.165
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:29	1949.000	12000.000	0.000	75190.000	135200.000	136500.000	73.661%	929.300
2	13:48:54	2070.000	12360.000	0.000	79300.000	144400.000	143600.000	73.260%	979.000
3	13:49:19	2067.000	12410.000	0.000	78610.000	145500.000	144700.000	71.098%	995.900
x		2029.000	12260.000	0.000	77700.000	141700.000	141600.000	72.673%	968.100
σ		69.130	220.100	0.000	2203.000	5694.000	4439.000	1.378%	34.610
%RSD		3.407	1.796	0.000	2.835	4.018	3.135	1.897	3.575
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:29	449.200	180.600	473.200	1066.000	1601.000	456.900	443.100	226.300
2	13:48:54	475.900	189.700	497.000	1111.000	1913.000	478.600	463.300	235.400
3	13:49:19	473.800	191.600	505.600	1135.000	1677.000	486.100	472.500	239.600
x		466.300	187.300	491.900	1104.000	1730.000	473.900	459.600	233.800
σ		14.860	5.878	16.760	35.070	162.500	15.170	15.070	6.779
%RSD		3.187	3.138	3.408	3.178	9.389	3.201	3.279	2.900
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:29	222.600	501.700	495.400	34.140	8.924	6.298	0.000	1096.000
2	13:48:54	230.800	527.800	515.400	37.680	7.833	7.894	0.000	1132.000
3	13:49:19	237.000	524.500	515.100	36.740	7.902	10.350	0.000	1157.000
x		230.100	518.000	508.600	36.190	8.220	8.179	0.000	1128.000
σ		7.216	14.210	11.480	1.831	0.611	2.039	0.000	30.400
%RSD		3.136	2.743	2.257	5.060	7.432	24.930	0.000	2.695
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:29	74.019%	978.600	969.300	73.059%	44.890	44.630	47.820	39.510
2	13:48:54	74.873%	1025.000	1010.000	74.437%	45.240	45.540	48.870	38.980
3	13:49:19	73.070%	1031.000	1030.000	72.546%	45.570	45.090	48.800	39.640
x		73.987%	1011.000	1003.000	73.348%	45.230	45.090	48.500	39.380
σ		0.902%	28.630	30.920	0.978%	0.339	0.454	0.591	0.352
%RSD		1.219	2.830	3.082	1.333	0.750	1.007	1.219	0.894
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:29	70.283%	2011.000	518.000	503.700	1939.000	1989.000	81.722%	82.141%
2	13:48:54	70.940%	2087.000	531.600	519.900	2015.000	2084.000	82.168%	82.536%
3	13:49:19	69.896%	2082.000	531.700	521.400	2022.000	2098.000	79.163%	80.743%
x		70.373%	2060.000	527.100	515.000	1992.000	2057.000	81.018%	81.806%
σ		0.528%	42.180	7.905	9.812	45.790	59.030	1.622%	0.942%
%RSD		0.750	2.048	1.500	1.905	2.298	2.870	2.002	1.151
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:48:29	51.180	49.150	21.660	21.390	21.360	75.268%		
2	13:48:54	53.280	51.760	23.080	22.500	22.430	74.638%		
3	13:49:19	52.940	51.660	22.380	22.360	22.090	74.178%		
x		52.470	50.860	22.370	22.080	21.960	74.695%		
σ		1.129	1.481	0.714	0.605	0.543	0.547%		
%RSD		2.153	2.913	3.190	2.738	2.473	0.733		

180-40434-B-25-C MSD 1/21/2015 1:52:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:43	85.504%	46.250	1001.000	996.600	0.000	108900.000	63320.000	64090.000
2	13:53:08	84.899%	48.540	1058.000	1056.000	0.000	113400.000	67480.000	67840.000
3	13:53:33	85.779%	51.490	1091.000	1073.000	0.000	114200.000	68150.000	68980.000
x		85.394%	48.760	1050.000	1042.000	0.000	112200.000	66320.000	66970.000
σ		0.450%	2.630	45.400	40.180	0.000	2892.000	2616.000	2556.000
%RSD		0.527	5.393	4.323	3.856	0.000	2.578	3.944	3.817
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:43	1943.000	11930.000	0.000	76630.000	137800.000	138500.000	72.070%	945.000
2	13:53:08	2088.000	12560.000	0.000	80250.000	146600.000	146700.000	71.951%	987.300
3	13:53:33	2108.000	12500.000	0.000	80700.000	145700.000	147100.000	73.725%	982.300
x		2046.000	12330.000	0.000	79190.000	143400.000	144100.000	72.582%	971.500
σ		90.190	348.000	0.000	2227.000	4876.000	4883.000	0.992%	23.090
%RSD		4.407	2.822	0.000	2.812	3.401	3.389	1.366	2.377
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:43	456.100	182.700	478.600	1089.000	1620.000	462.000	451.000	226.800
2	13:53:08	485.200	193.300	501.800	1145.000	1688.000	481.400	462.100	236.100
3	13:53:33	486.900	192.300	503.000	1146.000	1969.000	486.000	465.400	239.700
x		476.100	189.400	494.400	1126.000	1759.000	476.500	459.500	234.200
σ		17.320	5.838	13.750	32.700	185.400	12.760	7.537	6.678
%RSD		3.639	3.082	2.782	2.903	10.540	2.677	1.640	2.851
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:43	226.400	502.600	496.600	36.890	9.305	7.748	0.000	1114.000
2	13:53:08	236.400	526.800	514.400	37.590	9.541	9.121	0.000	1147.000
3	13:53:33	235.900	530.400	519.500	39.280	8.992	7.736	0.000	1166.000
x		232.900	519.900	510.200	37.920	9.279	8.202	0.000	1143.000
σ		5.621	15.120	12.000	1.230	0.275	0.796	0.000	26.470
%RSD		2.413	2.909	2.353	3.243	2.968	9.707	0.000	2.317
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:43	72.473%	991.500	987.700	72.536%	44.600	44.930	48.940	39.640
2	13:53:08	74.917%	1036.000	1031.000	73.385%	45.300	45.740	49.640	40.790
3	13:53:33	76.181%	1045.000	1041.000	75.294%	45.840	45.340	49.350	41.020
x		74.524%	1024.000	1020.000	73.739%	45.250	45.340	49.310	40.480
σ		1.885%	28.730	28.260	1.412%	0.623	0.406	0.348	0.740
%RSD		2.529	2.805	2.770	1.915	1.376	0.896	0.705	1.829
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:43	69.818%	2009.000	508.900	505.800	1958.000	1996.000	81.125%	81.792%
2	13:53:08	70.960%	2086.000	524.200	522.700	2015.000	2091.000	82.640%	82.970%
3	13:53:33	72.322%	2099.000	521.900	525.100	2035.000	2095.000	84.009%	83.817%
x		71.034%	2065.000	518.300	517.900	2003.000	2061.000	82.591%	82.860%
σ		1.253%	48.330	8.260	10.510	39.640	55.850	1.443%	1.017%
%RSD		1.765	2.341	1.594	2.029	1.979	2.710	1.747	1.228
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:52:43	51.310	50.020	21.710	22.090	21.630	74.860%		
2	13:53:08	53.280	52.150	22.550	22.400	22.350	75.258%		
3	13:53:33	54.050	52.370	22.780	22.910	22.600	76.924%		
x		52.880	51.510	22.350	22.460	22.200	75.681%		
σ		1.414	1.299	0.564	0.414	0.503	1.095%		
%RSD		2.675	2.522	2.525	1.843	2.268	1.447		

180-40434-B-25-A PDS 1/21/2015 1:56:33 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:59	79.091%	51.050	1094.000	1074.000	0.000	113700.000	68110.000	68810.000
2	13:57:24	82.304%	52.970	1122.000	1096.000	0.000	115900.000	70680.000	71650.000
3	13:57:49	84.622%	52.430	1085.000	1102.000	0.000	116100.000	71440.000	72100.000
x		82.006%	52.150	1100.000	1091.000	0.000	115200.000	70070.000	70850.000
σ		2.778%	0.994	19.450	14.470	0.000	1345.000	1746.000	1781.000
%RSD		3.387	1.906	1.768	1.327	0.000	1.168	2.491	2.513
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:59	1924.000	13770.000	0.000	80940.000	140100.000	140600.000	69.012%	1125.000
2	13:57:24	1979.000	14190.000	0.000	84040.000	150600.000	149300.000	69.871%	1192.000
3	13:57:49	2125.000	14150.000	0.000	84130.000	150600.000	149100.000	70.704%	1198.000
x		2009.000	14040.000	0.000	83040.000	147100.000	146300.000	69.862%	1172.000
σ		103.900	230.800	0.000	1814.000	6026.000	4942.000	0.846%	40.810
%RSD		5.173	1.644	0.000	2.185	4.098	3.378	1.211	3.484
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:59	482.000	193.300	501.600	1131.000	1687.000	487.000	474.100	239.900
2	13:57:24	514.000	202.400	529.200	1182.000	1738.000	507.400	492.700	249.500
3	13:57:49	505.300	204.300	537.200	1203.000	1760.000	512.400	496.500	249.600
x		500.400	200.000	522.700	1172.000	1729.000	502.300	487.700	246.400
σ		16.570	5.904	18.670	36.900	37.640	13.500	12.000	5.566
%RSD		3.311	2.952	3.573	3.149	2.177	2.688	2.460	2.259
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:59	241.500	532.800	531.800	37.300	8.724	9.325	0.000	1151.000
2	13:57:24	248.100	564.300	548.400	40.310	9.747	9.271	0.000	1198.000
3	13:57:49	247.000	560.600	552.300	43.140	9.958	9.386	0.000	1205.000
x		245.600	552.600	544.200	40.250	9.476	9.327	0.000	1185.000
σ		3.528	17.230	10.860	2.919	0.660	0.058	0.000	29.640
%RSD		1.437	3.119	1.996	7.252	6.966	0.617	0.000	2.503
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:59	69.827%	1200.000	1191.000	70.182%	39.660	39.050	50.850	39.470
2	13:57:24	71.510%	1247.000	1258.000	71.154%	40.680	40.360	51.840	42.740
3	13:57:49	73.107%	1267.000	1282.000	71.893%	40.660	39.840	52.780	41.630
x		71.481%	1238.000	1244.000	71.076%	40.330	39.750	51.820	41.280
σ		1.640%	34.560	46.810	0.858%	0.586	0.662	0.962	1.659
%RSD		2.295	2.792	3.764	1.207	1.452	1.665	1.856	4.020
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:59	67.399%	2418.000	601.300	605.100	2062.000	2114.000	78.263%	78.636%
2	13:57:24	68.422%	2499.000	638.500	626.900	2123.000	2210.000	80.087%	80.279%
3	13:57:49	69.370%	2534.000	637.900	630.500	2163.000	2226.000	80.907%	81.446%
x		68.397%	2484.000	625.900	620.800	2116.000	2184.000	79.752%	80.120%
σ		0.985%	59.410	21.290	13.760	50.660	60.850	1.353%	1.411%
%RSD		1.441	2.392	3.402	2.216	2.394	2.787	1.697	1.762
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:56:59	55.340	53.990	23.010	23.050	22.730	72.350%		
2	13:57:24	57.420	55.000	24.080	23.850	23.660	74.347%		
3	13:57:49	57.090	55.460	23.880	23.850	23.500	75.670%		
x		56.620	54.820	23.660	23.580	23.300	74.122%		
σ		1.116	0.752	0.566	0.466	0.497	1.671%		
%RSD		1.972	1.372	2.393	1.974	2.134	2.254		

CCV 1455996 1/21/2015 2:00:45 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	14:01:10	70.327%	99.330	108.900	105.100	0.000	50040.000	47820.000	47840.000
2	14:01:35	73.868%	102.500	104.200	107.000	0.000	50660.000	48630.000	49020.000
3	14:02:00	73.610%	107.600	114.200	107.800	0.000	52100.000	50470.000	50560.000
x		72.602%	103.139%	109.093%	106.643%	0.000	101.867%	97.949%	98.274%
σ		1.974%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.719	4.032	4.585	1.321	0.000	2.080	2.765	2.775

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:10	451.400	5433.000	0.000	50410.000	48970.000	49500.000	69.574%	100.600
2	14:01:35	467.600	5052.000	0.000	52120.000	51510.000	53020.000	70.151%	102.400
3	14:02:00	478.700	5677.000	0.000	52030.000	51110.000	54480.000	70.429%	102.700
x		93.179%	107.742%	0.000	103.037%	101.061%	104.672%	70.051%	101.879%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.436%	n/a
%RSD		2.955	5.848	0.000	1.874	2.710	4.889	0.623	1.121

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:10	90.770	90.750	486.800	24160.000	25130.000	93.890	93.880	93.060
2	14:01:35	95.720	96.290	511.800	25400.000	26690.000	98.150	97.260	98.320
3	14:02:00	95.170	96.310	522.600	25870.000	27270.000	98.250	99.770	98.070
x		93.884%	94.446%	101.412%	100.567%	105.465%	96.761%	96.968%	96.483%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.892	3.393	3.628	3.522	4.195	2.573	3.050	3.074

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:10	92.580	95.650	94.500	93.940	96.110	94.120	0.000	92.950
2	14:01:35	95.890	101.500	99.910	98.120	99.410	100.900	0.000	96.500
3	14:02:00	98.040	101.300	100.300	97.680	98.800	98.480	0.000	97.210
x		95.505%	99.461%	98.251%	96.581%	98.107%	97.827%	0.000	95.554%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.879	3.323	3.315	2.375	1.793	3.500	0.000	2.392

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:10	70.009%	95.790	93.590	72.804%	90.140	90.360	91.700	93.640
2	14:01:35	71.057%	101.400	99.650	74.304%	93.230	93.990	96.410	99.370
3	14:02:00	73.568%	102.500	102.000	74.897%	92.740	92.660	97.910	97.540
x		71.545%	99.905%	98.402%	74.002%	92.039%	92.337%	95.343%	96.846%
σ		1.829%	n/a	n/a	1.079%	n/a	n/a	n/a	n/a
%RSD		2.556	3.614	4.391	1.458	1.805	1.992	3.397	3.023

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:10	70.990%	98.910	95.560	97.310	93.450	94.500	78.030%	77.743%
2	14:01:35	71.251%	102.900	100.900	101.000	99.850	98.350	80.242%	79.477%
3	14:02:00	73.626%	100.300	100.700	100.600	97.600	97.150	81.970%	80.931%
x		71.955%	100.704%	99.068%	99.621%	96.967%	96.667%	80.080%	79.384%
σ		1.453%	n/a	n/a	n/a	n/a	n/a	1.975%	1.596%
%RSD		2.019	2.025	3.067	2.018	3.347	2.035	2.466	2.011

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:10	102.900	100.400	103.800	102.800	102.200	78.077%
2	14:01:35	106.500	104.400	108.300	108.300	107.800	78.019%
3	14:02:00	106.700	104.000	108.000	107.800	107.300	80.181%
x		105.367%	102.930%	106.711%	106.326%	105.773%	78.759%
σ		n/a	n/a	n/a	n/a	n/a	1.232%
%RSD		2.049	2.167	2.340	2.864	2.939	1.564

CCB6 1/21/2015 2:08:09 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	14:08:34	75.696%	-0.087	1.392	0.775	0.000	63.170	43.160	43.230
2	14:09:00	76.191%	-0.088	0.792	0.977	0.000	44.120	28.820	27.600
3	14:09:25	78.619%	-0.169	0.979	1.074	0.000	34.640	19.390	21.300
x		76.835%	-0.115	1.054	0.942	0.000	47.310	30.460	30.710
σ		1.564%	0.047	0.307	0.153	0.000	14.530	11.970	11.290
%RSD		2.036	40.920	29.120	16.190	0.000	30.720	39.300	36.770

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:34	1.361	10.980	0.000	57.070	65.600	69.040	71.443%	-0.001
2	14:09:00	0.732	5.947	0.000	41.860	30.350	51.120	72.005%	-0.326
3	14:09:25	0.601	4.609	0.000	34.100	43.040	37.080	72.928%	-0.290
x		0.898	7.178	0.000	44.340	46.330	52.410	72.125%	-0.206
σ		0.406	3.359	0.000	11.680	17.860	16.020	0.750%	0.178
%RSD		45.260	46.790	0.000	26.350	38.550	30.560	1.040	86.580

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:34	0.234	0.098	0.419	20.440	22.460	0.192	0.198	-0.249
2	14:09:00	-0.003	0.040	0.280	14.780	20.970	0.100	0.050	-0.291
3	14:09:25	-0.002	0.038	0.183	11.070	14.680	0.075	0.041	-0.299
x		0.076	0.058	0.294	15.430	19.370	0.123	0.096	-0.280
σ		0.137	0.034	0.119	4.717	4.130	0.061	0.088	0.027
%RSD		179.100	58.400	40.320	30.570	21.320	50.040	91.260	9.669

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:34	-0.225	0.319	0.418	-0.051	-0.871	-0.872	0.000	0.390
2	14:09:00	-0.339	0.182	0.174	-0.157	-0.855	-0.830	0.000	0.235
3	14:09:25	-0.275	0.126	0.217	0.016	-1.882	-0.213	0.000	0.190
x		-0.280	0.209	0.270	-0.064	-1.202	-0.639	0.000	0.272
σ		0.057	0.099	0.130	0.087	0.588	0.369	0.000	0.105
%RSD		20.520	47.490	48.310	136.100	48.940	57.780	0.000	38.600

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:34	72.013%	1.051	1.081	78.420%	0.016	-0.007	0.043	0.096
2	14:09:00	73.799%	0.865	0.830	80.394%	-0.025	-0.025	0.042	-0.007
3	14:09:25	74.167%	0.802	0.826	80.594%	-0.027	-0.031	0.046	0.066
x		73.326%	0.906	0.912	79.803%	-0.012	-0.021	0.044	0.052
σ		1.152%	0.130	0.146	1.201%	0.024	0.013	0.002	0.053
%RSD		1.572	14.300	16.030	1.505	201.400	60.670	5.379	102.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:34	73.189%	-1.799	-0.328	-0.283	0.434	0.663	80.022%	78.886%
2	14:09:00	75.611%	-1.998	-0.414	-0.412	0.278	0.382	80.137%	79.973%
3	14:09:25	76.182%	-2.214	-0.414	-0.441	0.233	0.209	81.425%	80.595%
x		74.994%	-2.004	-0.385	-0.378	0.315	0.418	80.528%	79.818%
σ		1.589%	0.208	0.050	0.084	0.106	0.229	0.779%	0.865%
%RSD		2.119	10.370	12.940	22.140	33.520	54.900	0.967	1.083

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:34	0.087	0.071	0.072	0.065	0.065	82.667%
2	14:09:00	0.052	0.059	0.044	0.012	0.037	83.265%
3	14:09:25	0.056	0.057	0.032	0.034	0.035	82.222%
x		0.065	0.062	0.049	0.037	0.046	82.718%
σ		0.019	0.008	0.021	0.027	0.017	0.523%
%RSD		28.820	12.430	41.490	72.230	36.330	0.632

180-40444-G-1-A 1/21/2015 2:12:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:49	79.343%	-0.065	5.891	5.610	0.000	51.640	8.584	7.502
2	14:13:14	82.459%	-0.202	5.410	5.193	0.000	45.650	7.308	6.261
3	14:13:39	86.123%	-0.095	5.806	5.137	0.000	41.150	6.428	5.339
x		82.642%	-0.121	5.702	5.313	0.000	46.150	7.440	6.367
σ		3.394%	0.072	0.257	0.258	0.000	5.263	1.084	1.085
%RSD		4.107	59.550	4.505	4.862	0.000	11.410	14.570	17.040
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:49	2.499	209.500	0.000	59.280	37.800	49.280	69.413%	0.100
2	14:13:14	2.611	205.300	0.000	71.390	51.830	46.760	71.369%	-0.081
3	14:13:39	2.379	205.200	0.000	66.570	44.000	57.100	71.344%	-0.101
x		2.496	206.700	0.000	65.740	44.540	51.040	70.709%	-0.028
σ		0.116	2.458	0.000	6.097	7.030	5.394	1.122%	0.111
%RSD		4.644	1.189	0.000	9.274	15.780	10.570	1.587	401.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:49	0.598	3.656	1.001	27.850	28.490	0.068	0.401	0.524
2	14:13:14	0.549	3.579	1.041	26.960	30.820	0.071	0.296	0.480
3	14:13:39	-0.160	3.732	1.056	26.270	26.900	0.069	0.203	0.483
x		0.329	3.655	1.032	27.020	28.730	0.069	0.300	0.496
σ		0.424	0.077	0.029	0.791	1.970	0.001	0.099	0.025
%RSD		129.000	2.096	2.767	2.928	6.858	1.670	33.020	4.997
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:49	0.415	6.520	6.491	0.714	-1.703	0.223	0.000	0.191
2	14:13:14	0.666	7.046	7.043	2.329	-0.709	-0.619	0.000	0.157
3	14:13:39	0.665	6.973	6.820	-1.415	-1.844	-1.189	0.000	0.152
x		0.582	6.846	6.785	0.543	-1.418	-0.528	0.000	0.167
σ		0.145	0.285	0.278	1.878	0.619	0.710	0.000	0.021
%RSD		24.860	4.165	4.094	346.200	43.610	134.500	0.000	12.560
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:49	68.246%	0.598	0.606	74.483%	-0.037	-0.054	0.003	0.010
2	14:13:14	71.233%	0.514	0.488	77.254%	-0.062	-0.048	0.003	0.093
3	14:13:39	72.670%	0.497	0.434	78.153%	-0.046	-0.046	0.008	-0.004
x		70.716%	0.536	0.509	76.630%	-0.049	-0.049	0.005	0.033
σ		2.257%	0.054	0.088	1.913%	0.013	0.004	0.003	0.052
%RSD		3.192	10.080	17.330	2.496	25.930	8.618	62.730	160.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:49	69.622%	-0.654	-0.145	-0.118	0.243	0.291	76.472%	77.077%
2	14:13:14	71.561%	-1.075	-0.335	-0.292	0.272	0.295	78.821%	80.002%
3	14:13:39	71.912%	-1.275	-0.352	-0.394	0.176	0.263	81.258%	80.770%
x		71.032%	-1.002	-0.277	-0.268	0.230	0.283	78.850%	79.283%
σ		1.233%	0.317	0.115	0.140	0.049	0.017	2.393%	1.949%
%RSD		1.736	31.690	41.410	52.150	21.280	6.177	3.035	2.458
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:12:49	0.039	0.027	0.044	0.039	0.042	78.729%		
2	14:13:14	0.026	0.024	0.061	0.048	0.046	79.538%		
3	14:13:39	0.016	0.021	0.048	0.052	0.048	80.493%		
x		0.027	0.024	0.051	0.046	0.045	79.587%		
σ		0.011	0.003	0.009	0.007	0.003	0.883%		
%RSD		42.340	12.190	17.950	14.820	6.356	1.110		

180-40356-K-1-B @10 1/21/2015 2:16:33 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	79.680%	-0.141	3.423	3.065	0.000	2749.000	705.200	715.200
2	14:17:23	81.186%	-0.129	2.600	3.267	0.000	2800.000	730.000	747.200
3	14:17:48	85.164%	-0.205	2.646	2.685	0.000	2788.000	735.500	740.500
x		82.010%	-0.158	2.889	3.006	0.000	2779.000	723.600	734.300
σ		2.833%	0.041	0.462	0.295	0.000	26.960	16.170	16.850
%RSD		3.455	25.940	16.000	9.829	0.000	0.970	2.234	2.294

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	22.950	347.400	0.000	335.000	2230.000	2085.000	72.935%	-0.112
2	14:17:23	23.990	350.000	0.000	354.800	2383.000	2193.000	73.416%	-0.135
3	14:17:48	24.500	348.100	0.000	358.800	2309.000	2244.000	74.406%	0.169
x		23.810	348.500	0.000	349.500	2307.000	2174.000	73.585%	-0.026
σ		0.790	1.353	0.000	12.750	76.890	81.420	0.750%	0.169
%RSD		3.316	0.388	0.000	3.649	3.332	3.745	1.019	650.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	0.632	0.566	39.870	33.250	43.050	0.084	0.241	0.126
2	14:17:23	0.322	0.478	42.120	33.800	42.650	0.067	0.273	0.166
3	14:17:48	0.660	0.513	42.420	33.560	38.050	0.068	0.197	0.110
x		0.538	0.519	41.470	33.540	41.250	0.073	0.237	0.134
σ		0.188	0.044	1.393	0.277	2.777	0.009	0.038	0.029
%RSD		34.820	8.552	3.358	0.827	6.732	12.400	16.200	21.690

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	0.240	1.123	1.264	-0.284	-0.947	-1.956	0.000	10.160
2	14:17:23	0.151	1.257	1.221	0.166	-0.698	-0.149	0.000	10.730
3	14:17:48	0.293	1.162	1.314	-0.447	-1.001	-0.145	0.000	10.540
x		0.228	1.181	1.266	-0.188	-0.882	-0.750	0.000	10.480
σ		0.072	0.069	0.046	0.317	0.162	1.045	0.000	0.290
%RSD		31.470	5.808	3.659	168.500	18.350	139.300	0.000	2.769

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	72.704%	0.322	0.222	79.612%	-0.057	-0.060	0.012	0.019
2	14:17:23	74.708%	0.260	0.191	80.703%	-0.058	-0.057	-0.003	0.017
3	14:17:48	76.476%	0.264	0.269	83.273%	-0.056	-0.054	0.007	0.029
x		74.629%	0.282	0.227	81.196%	-0.057	-0.057	0.005	0.022
σ		1.887%	0.035	0.039	1.879%	0.001	0.003	0.008	0.007
%RSD		2.529	12.230	17.370	2.315	1.727	6.011	138.900	30.450

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	75.253%	-2.877	-0.617	-0.627	5.771	5.502	80.357%	80.383%
2	14:17:23	75.736%	-2.827	-0.644	-0.603	5.616	5.659	82.232%	82.099%
3	14:17:48	76.766%	-2.883	-0.587	-0.591	5.729	5.622	86.123%	85.216%
x		75.919%	-2.862	-0.616	-0.607	5.705	5.594	82.904%	82.566%
σ		0.773%	0.030	0.028	0.018	0.080	0.082	2.941%	2.450%
%RSD		1.018	1.061	4.617	2.996	1.404	1.470	3.547	2.968

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:58	0.021	0.016	0.054	0.044	0.045	83.651%
2	14:17:23	0.017	0.015	0.073	0.045	0.054	81.838%
3	14:17:48	0.022	0.024	0.082	0.061	0.068	83.879%
x		0.020	0.018	0.070	0.050	0.056	83.123%
σ		0.003	0.005	0.014	0.010	0.011	1.118%
%RSD		14.600	26.530	20.730	19.220	20.440	1.346

180-40406-K-1-B @10 1/21/2015 2:20:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:10	79.138%	-0.095	1.970	2.443	0.000	1994.000	928.400	922.500
2	14:21:35	79.633%	-0.244	1.122	1.737	0.000	2067.000	986.400	976.100
3	14:22:01	81.835%	-0.202	2.019	2.570	0.000	2027.000	961.500	960.900
x		80.202%	-0.180	1.704	2.250	0.000	2029.000	958.800	953.200
σ		1.436%	0.076	0.504	0.449	0.000	36.850	29.110	27.630
%RSD		1.790	42.410	29.590	19.940	0.000	1.816	3.036	2.898
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:10	-0.195	285.500	0.000	291.500	2712.000	2497.000	74.018%	-0.235
2	14:21:35	-0.482	285.900	0.000	302.900	2902.000	2599.000	73.532%	-0.390
3	14:22:01	-0.595	288.700	0.000	300.900	2772.000	2720.000	74.585%	-0.431
x		-0.424	286.700	0.000	298.400	2795.000	2605.000	74.045%	-0.352
σ		0.206	1.778	0.000	6.124	97.050	111.700	0.527%	0.103
%RSD		48.550	0.620	0.000	2.052	3.472	4.288	0.712	29.350
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:10	0.071	0.366	107.000	3.923	11.620	0.153	0.333	-0.154
2	14:21:35	0.064	0.318	111.700	2.929	9.074	0.178	0.255	-0.164
3	14:22:01	-0.013	0.369	112.000	2.085	8.320	0.192	0.264	-0.182
x		0.041	0.351	110.200	2.979	9.672	0.175	0.284	-0.166
σ		0.047	0.029	2.812	0.920	1.730	0.020	0.043	0.014
%RSD		115.000	8.132	2.551	30.880	17.890	11.250	15.010	8.452
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:10	-0.118	1.013	1.164	0.285	-1.058	-0.274	0.000	11.220
2	14:21:35	-0.160	1.051	0.921	-0.186	-1.168	-1.199	0.000	11.660
3	14:22:01	-0.215	0.903	0.852	-0.395	-1.543	-1.705	0.000	11.340
x		-0.164	0.989	0.979	-0.099	-1.257	-1.059	0.000	11.400
σ		0.048	0.077	0.163	0.348	0.254	0.726	0.000	0.228
%RSD		29.520	7.773	16.690	353.100	20.240	68.490	0.000	1.998
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:10	73.552%	0.316	0.246	78.755%	-0.054	-0.052	-0.008	0.041
2	14:21:35	74.360%	0.265	0.178	80.969%	-0.064	-0.058	0.002	0.042
3	14:22:01	76.962%	0.271	0.155	81.364%	-0.059	-0.053	-0.003	-0.028
x		74.958%	0.284	0.193	80.362%	-0.059	-0.054	-0.003	0.018
σ		1.782%	0.028	0.047	1.406%	0.005	0.003	0.005	0.040
%RSD		2.377	9.858	24.550	1.749	8.383	6.208	182.500	218.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:10	74.664%	-2.944	-0.666	-0.639	5.013	4.836	79.870%	79.936%
2	14:21:35	75.011%	-2.941	-0.629	-0.611	5.002	4.933	81.970%	81.778%
3	14:22:01	76.262%	-2.939	-0.640	-0.666	5.001	5.068	84.860%	83.719%
x		75.312%	-2.942	-0.645	-0.639	5.006	4.946	82.233%	81.811%
σ		0.840%	0.003	0.019	0.028	0.007	0.117	2.505%	1.891%
%RSD		1.116	0.089	2.970	4.330	0.131	2.355	3.047	2.312
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:21:10	0.009	0.014	0.020	0.003	0.015	88.507%		
2	14:21:35	0.018	0.011	0.025	0.025	0.023	84.890%		
3	14:22:01	0.012	0.011	-0.003	0.003	0.005	84.966%		
x		0.013	0.012	0.014	0.011	0.014	86.121%		
σ		0.005	0.002	0.015	0.013	0.009	2.066%		
%RSD		37.250	16.070	108.000	121.500	60.710	2.399		

180-40246-K-1-B @10 1/21/2015 2:24:58 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	14:25:23	81.007%	-0.143	2.766	2.657	0.000	1966.000	717.900	709.500
2	14:25:48	82.363%	-0.188	2.869	2.008	0.000	1993.000	731.700	735.700
3	14:26:13	83.632%	-0.176	2.449	2.583	0.000	2009.000	747.000	749.300
x		82.334%	-0.169	2.695	2.416	0.000	1989.000	732.200	731.500
σ		1.313%	0.023	0.219	0.355	0.000	21.930	14.530	20.220
%RSD		1.594	13.680	8.131	14.700	0.000	1.102	1.984	2.764
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:23	6.226	284.800	0.000	262.100	2196.000	2024.000	76.741%	-0.210
2	14:25:48	6.368	286.600	0.000	296.400	2264.000	2090.000	76.563%	-0.134
3	14:26:13	6.667	288.000	0.000	275.200	2281.000	2139.000	76.441%	-0.228
x		6.421	286.500	0.000	277.900	2247.000	2084.000	76.582%	-0.191
σ		0.225	1.641	0.000	17.310	44.870	57.940	0.151%	0.050
%RSD		3.507	0.573	0.000	6.229	1.997	2.780	0.197	26.140
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:23	0.057	0.338	45.810	12.410	22.570	0.051	0.201	0.097
2	14:25:48	0.031	0.353	46.900	14.620	16.250	0.058	0.178	0.045
3	14:26:13	0.229	0.356	47.730	12.970	19.660	0.059	0.183	-0.072
x		0.106	0.349	46.810	13.330	19.490	0.056	0.187	0.024
σ		0.108	0.010	0.965	1.147	3.165	0.004	0.012	0.087
%RSD		102.200	2.862	2.061	8.605	16.240	7.997	6.419	366.800
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:23	0.008	1.159	1.243	-0.112	-1.134	-1.009	0.000	9.204
2	14:25:48	0.063	1.250	1.476	-0.870	-1.433	-1.143	0.000	9.529
3	14:26:13	0.070	1.282	0.949	0.440	-0.738	-0.227	0.000	9.794
x		0.047	1.230	1.222	-0.181	-1.102	-0.793	0.000	9.509
σ		0.034	0.064	0.264	0.657	0.349	0.495	0.000	0.296
%RSD		72.630	5.202	21.620	363.400	31.640	62.410	0.000	3.109
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:23	76.205%	0.105	0.113	81.884%	-0.051	-0.061	-0.003	0.038
2	14:25:48	76.141%	0.118	0.127	83.976%	-0.057	-0.055	0.007	0.035
3	14:26:13	77.036%	0.109	0.128	82.912%	-0.059	-0.068	0.021	0.019
x		76.461%	0.111	0.123	82.924%	-0.056	-0.061	0.008	0.031
σ		0.499%	0.007	0.009	1.046%	0.004	0.007	0.012	0.010
%RSD		0.653	6.001	7.013	1.261	6.936	10.910	143.200	32.220
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:23	77.657%	-3.053	-0.688	-0.675	4.991	4.441	83.930%	84.008%
2	14:25:48	76.144%	-2.976	-0.685	-0.646	4.612	4.738	83.062%	83.953%
3	14:26:13	79.205%	-3.010	-0.674	-0.653	4.624	4.595	82.826%	84.130%
x		77.669%	-3.013	-0.682	-0.658	4.742	4.592	83.273%	84.030%
σ		1.531%	0.039	0.008	0.015	0.215	0.149	0.581%	0.090%
%RSD		1.971	1.286	1.121	2.312	4.540	3.234	0.698	0.108
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:25:23	0.009	0.009	0.055	0.047	0.044	93.854%		
2	14:25:48	0.007	0.012	0.079	0.054	0.064	87.146%		
3	14:26:13	0.005	0.011	0.052	0.049	0.049	87.645%		
x		0.007	0.011	0.062	0.050	0.052	89.548%		
σ		0.002	0.001	0.015	0.004	0.010	3.738%		
%RSD		29.760	10.120	23.780	7.286	20.020	4.174		

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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	14:32:38	79.307%	-0.126	0.382	0.126	0.000	-5.749	1.076	1.127
2	14:33:03	82.431%	-0.089	-0.156	-0.597	0.000	-6.782	0.746	0.390
3	14:33:28	83.071%	-0.246	-0.345	-0.259	0.000	-5.276	0.916	-0.092
x		81.603%	-0.154	-0.040	-0.243	0.000	-5.936	0.913	0.475
σ		2.014%	0.082	0.377	0.362	0.000	0.771	0.165	0.614
%RSD		2.468	53.330	952.100	148.700	0.000	12.980	18.040	129.200
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:38	-0.807	6.035	0.000	0.611	2.220	4.052	77.409%	-0.474
2	14:33:03	-0.652	1.393	0.000	0.718	16.440	6.409	77.596%	-0.474
3	14:33:28	-0.831	0.001	0.000	2.748	-1.303	5.896	76.823%	-0.398
x		-0.763	2.476	0.000	1.359	5.784	5.452	77.276%	-0.449
σ		0.097	3.160	0.000	1.204	9.391	1.240	0.404%	0.044
%RSD		12.740	127.600	0.000	88.580	162.400	22.740	0.522	9.735
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:38	0.240	0.106	0.044	1.109	1.149	0.009	0.052	-0.338
2	14:33:03	-0.127	0.079	-0.002	1.454	-2.819	-0.004	0.092	-0.360
3	14:33:28	0.169	0.148	0.013	0.731	-2.762	-0.004	0.027	-0.377
x		0.094	0.111	0.018	1.098	-1.477	0.001	0.057	-0.358
σ		0.195	0.035	0.024	0.362	2.274	0.008	0.033	0.019
%RSD		207.500	31.370	128.000	32.920	154.000	1206.000	57.020	5.390
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:38	-0.373	1.115	1.121	0.037	-0.999	-0.498	0.000	0.017
2	14:33:03	-0.344	1.185	1.066	-0.038	-1.655	-0.605	0.000	0.010
3	14:33:28	-0.314	1.194	1.014	0.153	-1.531	-0.757	0.000	0.017
x		-0.343	1.165	1.067	0.051	-1.395	-0.620	0.000	0.015
σ		0.029	0.043	0.054	0.096	0.348	0.130	0.000	0.004
%RSD		8.561	3.690	5.016	190.200	24.950	20.990	0.000	25.130
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:38	76.004%	-0.137	-0.132	83.555%	-0.065	-0.058	-0.008	0.035
2	14:33:03	79.289%	-0.105	-0.096	86.184%	-0.060	-0.054	-0.008	0.026
3	14:33:28	79.711%	-0.150	-0.131	79.905%	-0.060	-0.066	-0.003	0.049
x		78.335%	-0.130	-0.120	83.215%	-0.062	-0.059	-0.006	0.037
σ		2.029%	0.023	0.021	3.153%	0.003	0.006	0.003	0.012
%RSD		2.591	17.770	17.430	3.790	4.740	9.644	45.740	32.150
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:38	76.970%	-3.125	-0.782	-0.780	-0.018	0.016	84.179%	82.903%
2	14:33:03	79.835%	-3.126	-0.775	-0.763	0.008	0.005	87.799%	85.694%
3	14:33:28	79.278%	-3.105	-0.772	-0.776	-0.030	0.005	87.995%	86.930%
x		78.694%	-3.119	-0.776	-0.773	-0.014	0.009	86.657%	85.176%
σ		1.519%	0.012	0.005	0.009	0.020	0.006	2.149%	2.063%
%RSD		1.930	0.380	0.664	1.152	146.200	71.210	2.479	2.422
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:32:38	0.007	0.007	0.042	0.027	0.032	93.398%		
2	14:33:03	0.005	0.008	0.042	0.018	0.035	91.686%		
3	14:33:28	0.012	0.002	0.033	0.043	0.038	88.896%		
x		0.008	0.006	0.039	0.029	0.035	91.327%		
σ		0.004	0.003	0.005	0.013	0.003	2.272%		
%RSD		47.740	52.200	13.380	43.820	7.285	2.488		

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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	14:36:47	77.290%	45.210	918.900	895.300	0.000	45100.000	42760.000	42750.000
2	14:37:13	78.958%	47.330	929.700	915.400	0.000	46410.000	44570.000	44370.000
3	14:37:38	78.910%	46.760	938.200	946.200	0.000	46370.000	44610.000	45090.000
x		78.386%	46.430	928.900	919.000	0.000	45960.000	43980.000	44070.000
σ		0.950%	1.095	9.701	25.600	0.000	747.200	1056.000	1198.000
%RSD		1.212	2.358	1.044	2.786	0.000	1.626	2.401	2.719
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:47	1753.000	8982.000	0.000	46590.000	43490.000	45490.000	73.359%	891.600
2	14:37:13	1842.000	9296.000	0.000	48650.000	47660.000	49210.000	72.089%	946.900
3	14:37:38	1850.000	9295.000	0.000	49240.000	47340.000	49000.000	72.375%	956.000
x		1815.000	9191.000	0.000	48160.000	46160.000	47900.000	72.608%	931.500
σ		53.400	181.100	0.000	1390.000	2319.000	2091.000	0.666%	34.880
%RSD		2.942	1.971	0.000	2.887	5.022	4.364	0.918	3.744
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:47	427.600	166.100	441.900	919.800	1046.000	432.300	424.100	213.000
2	14:37:13	457.500	178.800	477.100	1007.000	1135.000	466.900	456.900	229.500
3	14:37:38	460.200	180.200	481.800	1017.000	1129.000	469.100	458.800	229.400
x		448.400	175.100	466.900	981.000	1103.000	456.100	446.600	223.900
σ		18.110	7.746	21.840	53.340	49.610	20.660	19.490	9.457
%RSD		4.038	4.425	4.677	5.437	4.496	4.531	4.364	4.223
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:47	211.300	442.300	428.600	33.060	7.599	5.119	0.000	845.200
2	14:37:13	228.600	477.500	472.900	35.470	8.829	8.779	0.000	934.300
3	14:37:38	229.700	485.800	483.700	36.530	8.165	8.808	0.000	950.500
x		223.200	468.500	461.700	35.020	8.198	7.568	0.000	910.000
σ		10.300	23.100	29.200	1.779	0.616	2.122	0.000	56.710
%RSD		4.613	4.931	6.324	5.081	7.511	28.030	0.000	6.232
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:47	77.410%	823.500	824.700	74.993%	42.990	43.500	46.280	37.710
2	14:37:13	72.747%	919.300	914.800	75.170%	43.570	43.570	46.480	38.710
3	14:37:38	73.003%	956.500	943.500	75.513%	44.100	44.520	48.600	40.140
x		74.386%	899.800	894.300	75.226%	43.550	43.860	47.120	38.850
σ		2.621%	68.620	61.990	0.265%	0.557	0.566	1.283	1.219
%RSD		3.524	7.626	6.931	0.352	1.279	1.291	2.722	3.139
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:47	71.082%	1961.000	505.600	485.700	1838.000	1901.000	80.528%	79.960%
2	14:37:13	72.454%	1998.000	502.200	498.700	1912.000	1950.000	80.235%	81.281%
3	14:37:38	71.307%	2053.000	509.200	514.000	1905.000	1993.000	82.020%	82.018%
x		71.614%	2004.000	505.600	499.500	1885.000	1948.000	80.928%	81.086%
σ		0.736%	46.340	3.489	14.140	40.750	46.310	0.958%	1.043%
%RSD		1.028	2.312	0.690	2.831	2.161	2.378	1.183	1.286
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:36:47	41.740	40.050	17.610	17.740	17.440	88.938%		
2	14:37:13	47.390	45.340	19.370	19.410	19.140	82.948%		
3	14:37:38	49.980	47.600	20.660	20.460	20.430	79.758%		
x		46.370	44.330	19.210	19.200	19.000	83.881%		
σ		4.211	3.877	1.533	1.373	1.499	4.660%		
%RSD		9.081	8.746	7.979	7.148	7.888	5.556		

LCSD 180-130703/3-A 1/21/2015 2:40:32 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	14:40:58	73.526%	44.820	906.100	911.700	0.000	46030.000	43340.000	43560.000
2	14:41:23	77.988%	46.190	932.300	922.800	0.000	46290.000	44170.000	44090.000
3	14:41:48	77.904%	48.950	928.900	932.600	0.000	47040.000	45260.000	45160.000
x		76.473%	46.650	922.500	922.400	0.000	46450.000	44260.000	44270.000
σ		2.552%	2.103	14.260	10.480	0.000	528.200	965.400	813.500
%RSD		3.338	4.508	1.546	1.136	0.000	1.137	2.181	1.838
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:58	1774.000	9138.000	0.000	46840.000	44500.000	45870.000	69.924%	890.900
2	14:41:23	1806.000	9120.000	0.000	49190.000	47880.000	48750.000	70.834%	931.300
3	14:41:48	1841.000	9208.000	0.000	49240.000	48030.000	49250.000	70.406%	965.700
x		1807.000	9155.000	0.000	48420.000	46800.000	47960.000	70.388%	929.300
σ		33.430	46.440	0.000	1372.000	2000.000	1827.000	0.455%	37.440
%RSD		1.850	0.507	0.000	2.834	4.274	3.810	0.647	4.029
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:58	431.000	168.700	448.800	940.600	1078.000	440.300	431.100	216.600
2	14:41:23	449.800	176.200	471.800	999.800	1117.000	464.400	455.200	229.300
3	14:41:48	461.100	179.400	476.400	1020.000	1132.000	464.700	460.200	228.500
x		447.300	174.800	465.700	986.700	1109.000	456.400	448.800	224.800
σ		15.190	5.482	14.800	41.220	27.720	14.000	15.540	7.093
%RSD		3.396	3.137	3.179	4.177	2.499	3.068	3.462	3.155
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:58	215.800	453.700	449.500	34.520	7.154	8.892	0.000	894.600
2	14:41:23	225.300	483.200	469.800	36.660	8.343	10.500	0.000	932.300
3	14:41:48	230.800	487.100	475.400	36.390	7.819	8.305	0.000	930.200
x		224.000	474.700	464.900	35.850	7.772	9.232	0.000	919.000
σ		7.601	18.250	13.590	1.164	0.596	1.137	0.000	21.160
%RSD		3.394	3.844	2.923	3.248	7.662	12.310	0.000	2.303
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:58	70.274%	842.600	835.500	72.958%	42.240	43.370	45.300	32.690
2	14:41:23	71.509%	918.000	903.700	74.857%	43.570	43.950	46.630	38.250
3	14:41:48	73.158%	953.900	925.200	75.581%	43.310	43.340	47.120	37.270
x		71.647%	904.800	888.100	74.466%	43.040	43.550	46.350	36.070
σ		1.447%	56.830	46.860	1.355%	0.707	0.341	0.941	2.970
%RSD		2.019	6.280	5.276	1.819	1.643	0.783	2.030	8.235
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:58	69.024%	2068.000	488.000	482.000	1812.000	1849.000	79.348%	79.154%
2	14:41:23	70.915%	2034.000	502.300	500.200	1898.000	1950.000	81.067%	81.879%
3	14:41:48	72.159%	2041.000	519.300	501.900	1898.000	1954.000	81.893%	82.538%
x		70.699%	2048.000	503.200	494.700	1869.000	1918.000	80.769%	81.191%
σ		1.578%	18.180	15.630	11.060	49.300	59.470	1.299%	1.794%
%RSD		2.233	0.888	3.107	2.235	2.637	3.101	1.608	2.210
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:40:58	43.270	41.330	18.240	17.920	17.840	83.199%		
2	14:41:23	47.460	45.600	19.950	19.940	19.680	81.648%		
3	14:41:48	48.900	46.910	20.200	20.300	19.900	80.942%		
x		46.540	44.620	19.460	19.390	19.140	81.930%		
σ		2.924	2.918	1.064	1.285	1.135	1.154%		
%RSD		6.282	6.540	5.468	6.630	5.931	1.409		

180-40384-A-1-A 1/21/2015 2:44:44 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	14:45:10	79.233%	-0.035	12.310	12.250	0.000	3232.000	11910.000	12120.000
2	14:45:35	80.470%	-0.112	11.360	11.680	0.000	3280.000	12510.000	12760.000
3	14:46:00	81.588%	-0.144	10.090	11.870	0.000	3316.000	12590.000	12650.000
x		80.430%	-0.097	11.250	11.930	0.000	3276.000	12340.000	12510.000
σ		1.178%	0.056	1.112	0.293	0.000	41.970	371.900	343.300
%RSD		1.465	57.510	9.882	2.456	0.000	1.281	3.015	2.744

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:10	2.955	4701.000	0.000	1126.000	27920.000	28030.000	69.671%	1.107
2	14:45:35	2.051	4864.000	0.000	1177.000	30130.000	29800.000	70.321%	1.540
3	14:46:00	2.044	4817.000	0.000	1144.000	29430.000	29530.000	71.148%	0.809
x		2.350	4794.000	0.000	1149.000	29160.000	29120.000	70.380%	1.152
σ		0.524	83.770	0.000	26.010	1131.000	954.400	0.740%	0.368
%RSD		22.290	1.747	0.000	2.264	3.879	3.277	1.052	31.920

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:10	0.249	1.994	235.600	203.300	320.700	0.693	1.925	0.263
2	14:45:35	-0.035	1.981	247.300	210.100	323.200	0.518	1.558	0.334
3	14:46:00	0.348	1.955	247.300	205.500	316.500	0.525	1.492	0.172
x		0.187	1.977	243.400	206.300	320.100	0.578	1.659	0.256
σ		0.199	0.020	6.767	3.452	3.370	0.099	0.234	0.081
%RSD		106.300	1.023	2.780	1.673	1.053	17.100	14.080	31.680

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:10	0.389	6.700	7.047	-0.675	-0.673	-1.999	0.000	124.100
2	14:45:35	0.327	6.631	6.632	0.716	-0.257	-0.616	0.000	128.300
3	14:46:00	0.424	6.699	6.166	-0.120	-2.038	-1.125	0.000	130.600
x		0.380	6.677	6.615	-0.026	-0.990	-1.247	0.000	127.700
σ		0.049	0.040	0.440	0.701	0.932	0.700	0.000	3.311
%RSD		12.880	0.597	6.658	2650.000	94.130	56.120	0.000	2.593

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:10	71.832%	17.930	18.110	74.860%	-0.006	0.000	0.081	0.097
2	14:45:35	73.435%	14.800	14.830	76.609%	-0.024	-0.033	0.069	0.032
3	14:46:00	73.723%	12.410	11.990	76.763%	-0.020	-0.035	0.038	0.045
x		72.997%	15.050	14.980	76.077%	-0.017	-0.023	0.062	0.058
σ		1.019%	2.767	3.064	1.057%	0.009	0.020	0.022	0.034
%RSD		1.396	18.390	20.460	1.390	54.650	87.620	35.440	59.240

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:10	72.746%	8.970	-0.290	-0.271	59.830	59.480	81.614%	80.664%
2	14:45:35	73.426%	6.711	-0.455	-0.433	61.290	60.740	82.928%	81.694%
3	14:46:00	74.853%	5.464	-0.515	-0.480	60.240	61.520	81.547%	82.133%
x		73.675%	7.048	-0.420	-0.395	60.450	60.580	82.029%	81.497%
σ		1.075%	1.777	0.117	0.110	0.752	1.028	0.779%	0.754%
%RSD		1.460	25.220	27.720	27.870	1.245	1.696	0.950	0.925

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:10	0.245	0.242	0.074	0.058	0.065	91.889%
2	14:45:35	0.202	0.193	0.070	0.066	0.073	87.353%
3	14:46:00	0.176	0.140	0.095	0.061	0.067	85.026%
x		0.208	0.192	0.080	0.062	0.068	88.089%
σ		0.035	0.051	0.014	0.004	0.004	3.490%
%RSD		16.820	26.790	17.110	6.125	5.896	3.962

180-40384-A-3-B 1/21/2015 2:48:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:24	76.005%	-0.087	7.920	8.767	0.000	3157.000	11780.000	12000.000
2	14:49:49	79.765%	-0.096	8.960	8.952	0.000	3196.000	12150.000	12220.000
3	14:50:14	80.569%	-0.157	9.494	7.871	0.000	3190.000	12110.000	12310.000
x		78.780%	-0.113	8.791	8.530	0.000	3181.000	12020.000	12170.000
σ		2.436%	0.038	0.800	0.578	0.000	21.210	202.800	160.000
%RSD		3.093	33.130	9.103	6.778	0.000	0.667	1.688	1.315
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:24	39.030	4599.000	0.000	1086.000	27030.000	26480.000	71.130%	0.974
2	14:49:49	40.850	4335.000	0.000	1127.000	27820.000	27810.000	71.240%	0.869
3	14:50:14	40.160	4668.000	0.000	1102.000	28110.000	28420.000	71.518%	1.043
x		40.010	4534.000	0.000	1105.000	27650.000	27570.000	71.296%	0.962
σ		0.918	175.800	0.000	20.530	555.000	989.100	0.200%	0.088
%RSD		2.293	3.878	0.000	1.858	2.007	3.588	0.280	9.132
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:24	0.036	2.206	209.000	287.700	394.200	0.446	1.612	0.587
2	14:49:49	-0.261	2.186	221.600	302.400	406.400	0.442	1.732	0.528
3	14:50:14	-0.208	2.086	221.700	306.200	407.200	0.431	1.782	0.454
x		-0.145	2.160	217.400	298.800	402.600	0.440	1.709	0.523
σ		0.159	0.064	7.293	9.780	7.304	0.007	0.088	0.067
%RSD		109.700	2.972	3.354	3.273	1.814	1.704	5.122	12.740
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:24	0.659	6.553	6.635	-0.345	-0.836	0.296	0.000	121.500
2	14:49:49	0.658	6.642	6.065	0.655	-1.075	-0.193	0.000	124.400
3	14:50:14	0.697	7.186	6.435	0.500	-0.384	-0.416	0.000	124.300
x		0.671	6.794	6.378	0.270	-0.765	-0.104	0.000	123.400
σ		0.022	0.342	0.290	0.538	0.351	0.364	0.000	1.648
%RSD		3.329	5.038	4.539	199.500	45.870	349.000	0.000	1.335
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:24	71.035%	2.369	2.142	75.374%	-0.020	-0.031	0.040	0.017
2	14:49:49	73.044%	2.250	2.143	76.612%	-0.029	-0.034	0.028	0.055
3	14:50:14	74.339%	2.175	2.077	76.167%	-0.034	-0.047	0.038	0.053
x		72.806%	2.265	2.120	76.051%	-0.028	-0.038	0.035	0.042
σ		1.665%	0.098	0.038	0.627%	0.007	0.009	0.006	0.022
%RSD		2.287	4.319	1.788	0.825	24.990	23.230	17.560	51.590
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:24	71.286%	-0.221	-0.562	-0.594	60.610	60.570	79.512%	79.363%
2	14:49:49	73.515%	-0.320	-0.629	-0.633	61.930	60.670	81.342%	80.532%
3	14:50:14	74.803%	-0.448	-0.636	-0.626	60.490	59.820	82.401%	81.294%
x		73.201%	-0.330	-0.609	-0.618	61.010	60.350	81.085%	80.397%
σ		1.779%	0.114	0.041	0.021	0.797	0.467	1.461%	0.973%
%RSD		2.431	34.580	6.752	3.437	1.306	0.773	1.802	1.210
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:49:24	0.094	0.072	0.188	0.151	0.174	86.654%		
2	14:49:49	0.081	0.078	0.168	0.180	0.171	83.356%		
3	14:50:14	0.052	0.057	0.193	0.187	0.182	83.434%		
x		0.076	0.069	0.183	0.173	0.176	84.481%		
σ		0.021	0.011	0.013	0.019	0.005	1.882%		
%RSD		28.100	15.850	7.158	10.950	3.106	2.227		

180-40384-A-5-B 1/21/2015 2:53:14 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	14:53:39	75.860%	-0.087	49.790	51.710	0.000	34920.000	8677.000	8839.000
2	14:54:04	77.281%	-0.212	53.890	51.740	0.000	36110.000	9144.000	9238.000
3	14:54:29	81.410%	-0.201	46.690	54.190	0.000	35410.000	9066.000	9118.000
x		78.184%	-0.167	50.120	52.550	0.000	35480.000	8962.000	9065.000
σ		2.883%	0.069	3.611	1.426	0.000	598.900	250.600	204.900
%RSD		3.687	41.430	7.203	2.713	0.000	1.688	2.797	2.260
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:53:39	1.361	3735.000	0.000	4299.000	57300.000	56330.000	71.932%	0.436
2	14:54:04	2.101	3811.000	0.000	4415.000	60030.000	58980.000	72.659%	0.465
3	14:54:29	0.974	3797.000	0.000	4488.000	60140.000	59960.000	73.306%	0.102
x		1.479	3781.000	0.000	4401.000	59160.000	58420.000	72.632%	0.335
σ		0.573	40.620	0.000	95.040	1609.000	1878.000	0.688%	0.202
%RSD		38.760	1.074	0.000	2.160	2.720	3.214	0.947	60.340
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:53:39	0.476	1.024	378.400	287.700	525.300	0.226	0.320	-0.120
2	14:54:04	-0.780	0.924	400.100	302.600	546.200	0.196	-0.009	-0.088
3	14:54:29	-0.535	0.919	404.300	308.200	550.800	0.161	0.215	-0.077
x		-0.280	0.956	394.300	299.500	540.800	0.194	0.175	-0.095
σ		0.665	0.060	13.870	10.630	13.580	0.033	0.168	0.022
%RSD		237.900	6.229	3.517	3.548	2.510	16.880	95.770	23.730
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:53:39	-0.007	4.719	4.276	-1.338	-1.054	-1.574	0.000	413.900
2	14:54:04	-0.033	5.065	4.142	-0.153	-1.223	0.414	0.000	429.100
3	14:54:29	-0.033	4.634	4.076	0.251	-1.959	-0.501	0.000	434.800
x		-0.024	4.806	4.164	-0.413	-1.412	-0.554	0.000	425.900
σ		0.015	0.228	0.102	0.826	0.481	0.995	0.000	10.850
%RSD		62.850	4.750	2.446	199.800	34.080	179.700	0.000	2.548
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:53:39	70.753%	1.080	0.991	73.103%	-0.055	-0.065	-0.002	0.009
2	14:54:04	72.643%	1.155	0.983	75.066%	-0.056	-0.052	0.008	0.058
3	14:54:29	73.498%	1.163	0.944	75.611%	-0.055	-0.056	-0.008	-0.016
x		72.298%	1.132	0.973	74.593%	-0.055	-0.058	-0.001	0.017
σ		1.405%	0.046	0.025	1.320%	0.001	0.007	0.008	0.038
%RSD		1.943	4.054	2.617	1.769	0.924	11.500	1185.000	217.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:53:39	71.843%	-1.404	-0.698	-0.689	399.800	404.500	78.471%	78.590%
2	14:54:04	72.017%	-1.327	-0.733	-0.722	418.300	418.600	81.963%	81.079%
3	14:54:29	73.765%	-1.351	-0.709	-0.714	421.600	421.900	80.661%	81.171%
x		72.542%	-1.361	-0.714	-0.708	413.300	415.000	80.365%	80.280%
σ		1.063%	0.040	0.018	0.017	11.750	9.201	1.764%	1.465%
%RSD		1.465	2.912	2.515	2.452	2.842	2.217	2.195	1.824
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:53:39	0.035	0.040	0.036	0.022	0.024	84.760%		
2	14:54:04	0.051	0.042	0.017	0.005	0.020	81.741%		
3	14:54:29	0.040	0.035	0.032	0.003	0.014	80.894%		
x		0.042	0.039	0.028	0.010	0.019	82.465%		
σ		0.008	0.004	0.010	0.010	0.005	2.032%		
%RSD		19.930	9.682	36.630	102.000	25.250	2.464		

CCV 1455996 1/21/2015 2:57:26 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	14:57:51	71.654%	97.080	101.400	99.100	0.000	49060.000	46580.000	46610.000
2	14:58:16	72.833%	99.640	108.200	102.400	0.000	50220.000	48090.000	48420.000
3	14:58:41	73.438%	100.100	101.300	103.700	0.000	50840.000	49000.000	49170.000
x		72.642%	98.940%	103.608%	101.736%	0.000	100.080%	95.773%	96.125%
σ		0.908%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.249	1.644	3.815	2.330	0.000	1.803	2.551	2.738

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:51	446.300	5369.000	0.000	49320.000	46960.000	48360.000	71.022%	93.260
2	14:58:16	461.300	5518.000	0.000	50300.000	48540.000	50930.000	71.667%	99.260
3	14:58:41	469.900	5578.000	0.000	51800.000	49960.000	51880.000	71.929%	102.100
x		91.834%	109.761%	0.000	100.948%	96.973%	100.776%	71.540%	98.214%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.467%	n/a
%RSD		2.610	1.958	0.000	2.479	3.099	3.618	0.652	4.601

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:51	89.660	89.220	477.200	23560.000	24690.000	90.670	92.590	92.540
2	14:58:16	92.570	92.950	500.100	24780.000	26030.000	95.090	95.430	94.470
3	14:58:41	91.910	94.180	505.000	25200.000	26460.000	95.700	95.310	96.790
x		91.381%	92.116%	98.825%	98.054%	102.896%	93.820%	94.445%	94.601%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.670	2.803	3.001	3.486	3.594	2.928	1.705	2.253

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:51	91.450	94.130	94.910	92.750	93.980	93.200	0.000	91.860
2	14:58:16	94.300	98.760	98.360	96.760	99.370	98.070	0.000	95.940
3	14:58:41	95.610	99.570	97.610	96.870	96.610	98.870	0.000	96.380
x		93.786%	97.486%	96.957%	95.458%	96.656%	96.714%	0.000	94.727%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.272	3.011	1.872	2.459	2.788	3.170	0.000	2.628

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:51	70.083%	89.340	87.500	73.656%	90.170	90.450	91.540	94.420
2	14:58:16	71.529%	94.450	93.810	74.553%	91.400	92.030	95.930	97.230
3	14:58:41	72.878%	97.330	95.450	76.271%	91.610	91.370	96.940	96.910
x		71.497%	93.705%	92.255%	74.827%	91.062%	91.285%	94.803%	96.187%
σ		1.398%	n/a	n/a	1.329%	n/a	n/a	n/a	n/a
%RSD		1.955	4.318	4.547	1.776	0.852	0.868	3.027	1.603

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:51	70.582%	93.820	94.350	96.040	93.240	94.460	78.718%	78.737%
2	14:58:16	72.166%	97.240	97.250	98.820	98.150	97.060	80.198%	79.177%
3	14:58:41	73.637%	97.380	98.590	99.000	97.930	97.420	80.333%	80.919%
x		72.128%	96.146%	96.731%	97.954%	96.440%	96.311%	79.750%	79.611%
σ		1.528%	n/a	n/a	n/a	n/a	n/a	0.896%	1.154%
%RSD		2.118	2.096	2.239	1.695	2.874	1.676	1.123	1.450

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:51	103.900	100.500	103.900	104.200	103.200	76.460%
2	14:58:16	107.200	104.800	108.800	108.700	108.000	77.354%
3	14:58:41	108.900	106.100	111.000	110.700	110.700	76.633%
x		106.652%	103.811%	107.899%	107.878%	107.305%	76.816%
σ		n/a	n/a	n/a	n/a	n/a	0.474%
%RSD		2.367	2.793	3.353	3.070	3.530	0.617

CCB7 1/21/2015 3:04:50 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	15:05:15	76.055%	-0.103	0.508	-0.111	0.000	29.480	16.280	17.310
2	15:05:40	80.043%	-0.127	1.378	-0.262	0.000	23.390	11.670	11.570
3	15:06:05	79.263%	-0.111	-0.069	0.051	0.000	21.360	8.506	8.650
x		78.454%	-0.114	0.606	-0.107	0.000	24.740	12.150	12.510
σ		2.113%	0.012	0.729	0.157	0.000	4.226	3.910	4.408
%RSD		2.694	10.570	120.300	145.900	0.000	17.080	32.180	35.230

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:15	-0.252	7.147	0.000	19.410	22.570	30.280	72.170%	-0.386
2	15:05:40	-0.663	2.046	0.000	14.800	30.960	16.260	74.028%	-0.313
3	15:06:05	-0.797	1.219	0.000	16.150	28.440	13.600	75.261%	-0.413
x		-0.571	3.471	0.000	16.790	27.320	20.050	73.820%	-0.371
σ		0.284	3.210	0.000	2.367	4.305	8.963	1.556%	0.052
%RSD		49.790	92.510	0.000	14.100	15.750	44.710	2.108	13.940

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:15	0.074	0.017	0.216	11.370	20.010	0.031	0.032	-0.388
2	15:05:40	0.070	0.008	0.102	6.721	14.060	0.025	-0.038	-0.411
3	15:06:05	-0.011	-0.021	0.118	4.145	7.398	0.023	-0.000	-0.422
x		0.044	0.001	0.145	7.411	13.820	0.027	-0.002	-0.407
σ		0.048	0.020	0.062	3.660	6.310	0.004	0.035	0.017
%RSD		108.900	1471.000	42.330	49.390	45.650	15.930	1602.000	4.187

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:15	-0.366	0.100	0.136	0.131	-0.229	0.921	0.000	0.105
2	15:05:40	-0.356	0.092	-0.012	-0.004	-0.000	0.603	0.000	0.088
3	15:06:05	-0.424	0.093	0.090	-0.441	-1.558	-1.586	0.000	0.065
x		-0.382	0.095	0.071	-0.105	-0.596	-0.021	0.000	0.086
σ		0.037	0.004	0.076	0.299	0.841	1.365	0.000	0.020
%RSD		9.666	4.302	106.500	286.200	141.200	6631.000	0.000	23.760

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:15	73.902%	0.431	0.399	80.622%	-0.037	-0.028	-0.003	0.051
2	15:05:40	75.482%	0.381	0.303	82.090%	-0.044	-0.050	0.021	0.011
3	15:06:05	76.366%	0.313	0.285	83.186%	-0.039	-0.049	0.011	0.052
x		75.250%	0.375	0.329	81.966%	-0.040	-0.042	0.010	0.038
σ		1.248%	0.059	0.062	1.286%	0.004	0.012	0.012	0.023
%RSD		1.659	15.770	18.690	1.569	9.816	28.630	121.100	60.540

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:15	75.611%	-2.536	-0.589	-0.570	0.152	0.138	81.637%	81.434%
2	15:05:40	77.120%	-2.497	-0.621	-0.625	0.114	0.132	82.612%	82.483%
3	15:06:05	79.018%	-2.519	-0.628	-0.646	0.072	0.095	82.715%	84.465%
x		77.250%	-2.517	-0.613	-0.614	0.113	0.121	82.321%	82.794%
σ		1.707%	0.020	0.021	0.039	0.040	0.023	0.595%	1.539%
%RSD		2.210	0.782	3.442	6.360	35.310	19.080	0.723	1.859

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:15	0.038	0.040	0.050	0.031	0.037	87.888%
2	15:05:40	0.029	0.034	0.034	0.021	0.027	87.863%
3	15:06:05	0.035	0.028	0.017	0.020	0.025	86.626%
x		0.034	0.034	0.034	0.024	0.030	87.459%
σ		0.005	0.006	0.017	0.006	0.007	0.721%
%RSD		13.320	17.840	48.930	25.520	22.840	0.825

180-40356-K-1-B 1/21/2015 3:09:07 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	15:09:33	82.792%	-0.146	31.200	28.300	0.000	25130.000	6664.000	6713.000
2	15:09:58	86.386%	-0.124	30.140	30.150	0.000	26060.000	6979.000	7044.000
3	15:10:23	88.746%	-0.168	28.930	29.600	0.000	26260.000	7208.000	7245.000
x		85.974%	-0.146	30.090	29.350	0.000	25810.000	6950.000	7001.000
σ		2.998%	0.022	1.136	0.949	0.000	603.400	273.300	268.100
%RSD		3.487	15.140	3.774	3.234	0.000	2.337	3.932	3.830
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:33	218.200	3333.000	0.000	3147.000	20620.000	19990.000	71.916%	3.941
2	15:09:58	231.600	3416.000	0.000	3230.000	21950.000	21600.000	73.412%	4.588
3	15:10:23	253.000	3468.000	0.000	3385.000	22410.000	22210.000	74.043%	4.771
x		234.300	3406.000	0.000	3254.000	21660.000	21270.000	73.124%	4.433
σ		17.510	68.220	0.000	121.200	927.900	1144.000	1.093%	0.436
%RSD		7.475	2.003	0.000	3.724	4.285	5.380	1.494	9.833
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:33	3.383	3.450	382.400	291.100	385.600	0.603	2.160	4.466
2	15:09:58	4.081	3.510	407.700	303.000	391.000	0.664	1.886	4.187
3	15:10:23	2.135	3.560	412.600	307.800	393.500	0.707	1.947	4.342
x		3.200	3.507	400.900	300.600	390.000	0.658	1.997	4.332
σ		0.986	0.055	16.210	8.591	4.047	0.053	0.144	0.140
%RSD		30.810	1.566	4.043	2.858	1.038	7.979	7.211	3.229
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:33	4.220	10.160	10.140	2.084	-0.756	0.198	0.000	96.520
2	15:09:58	4.205	10.580	10.540	2.488	-1.094	-2.357	0.000	100.200
3	15:10:23	4.393	10.850	10.440	2.625	-1.486	-1.190	0.000	99.590
x		4.273	10.530	10.380	2.399	-1.112	-1.116	0.000	98.780
σ		0.104	0.350	0.208	0.282	0.365	1.279	0.000	1.992
%RSD		2.439	3.323	2.005	11.740	32.850	114.600	0.000	2.017
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:33	71.759%	2.599	2.420	75.698%	-0.034	-0.042	0.096	0.106
2	15:09:58	75.494%	2.586	2.393	77.818%	-0.049	-0.031	0.103	0.068
3	15:10:23	77.978%	2.438	2.467	79.368%	-0.041	-0.054	0.071	0.097
x		75.077%	2.541	2.427	77.628%	-0.042	-0.042	0.090	0.090
σ		3.130%	0.089	0.038	1.842%	0.007	0.012	0.017	0.020
%RSD		4.169	3.522	1.546	2.373	17.610	27.270	18.840	22.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:33	72.348%	1.208	0.492	0.579	50.010	50.400	79.608%	81.465%
2	15:09:58	75.177%	0.786	0.423	0.503	51.270	51.890	84.507%	84.977%
3	15:10:23	77.193%	0.116	0.459	0.487	52.220	52.510	86.010%	86.537%
x		74.906%	0.703	0.458	0.523	51.160	51.600	83.375%	84.326%
σ		2.434%	0.551	0.035	0.049	1.111	1.082	3.348%	2.598%
%RSD		3.249	78.320	7.563	9.394	2.171	2.096	4.015	3.081
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:09:33	0.038	0.042	0.638	0.592	0.635	81.068%		
2	15:09:58	0.042	0.034	0.642	0.600	0.597	84.001%		
3	15:10:23	0.044	0.039	0.668	0.585	0.590	83.787%		
x		0.041	0.038	0.649	0.592	0.607	82.952%		
σ		0.003	0.004	0.017	0.007	0.025	1.635%		
%RSD		7.248	9.389	2.560	1.243	4.041	1.971		

180-40406-K-1-B 1/21/2015 3:13:22 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	15:13:47	83.423%	-0.076	18.710	19.230	0.000	18420.000	8707.000	8840.000
2	15:14:12	88.921%	-0.155	19.260	20.080	0.000	18480.000	8971.000	9198.000
3	15:14:37	89.896%	-0.196	21.780	20.250	0.000	18660.000	9212.000	9369.000
x		87.413%	-0.142	19.910	19.850	0.000	18520.000	8963.000	9136.000
σ		3.490%	0.061	1.637	0.548	0.000	127.200	252.600	270.300
%RSD		3.993	42.710	8.222	2.759	0.000	0.687	2.819	2.958

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:47	4.092	2743.000	0.000	2805.000	24830.000	24750.000	73.757%	0.430
2	15:14:12	3.644	2768.000	0.000	2899.000	26520.000	26070.000	75.027%	0.182
3	15:14:37	3.997	2817.000	0.000	2991.000	27210.000	26580.000	74.859%	0.164
x		3.911	2776.000	0.000	2898.000	26190.000	25800.000	74.547%	0.258
σ		0.236	37.650	0.000	92.880	1225.000	944.200	0.690%	0.149
%RSD		6.032	1.356	0.000	3.205	4.677	3.660	0.925	57.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:47	0.264	2.497	1013.000	23.720	110.900	1.580	2.100	1.374
2	15:14:12	0.067	2.504	1058.000	5.333	111.200	1.689	2.118	1.455
3	15:14:37	-0.114	2.503	1094.000	5.606	106.700	1.725	2.455	1.568
x		0.072	2.502	1055.000	11.550	109.600	1.665	2.224	1.466
σ		0.189	0.004	40.370	10.540	2.492	0.076	0.200	0.098
%RSD		261.700	0.153	3.827	91.220	2.273	4.544	8.983	6.662

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:47	1.319	7.287	7.329	2.287	-1.757	-0.497	0.000	104.000
2	15:14:12	1.535	7.636	7.269	2.111	-2.496	-3.085	0.000	106.600
3	15:14:37	1.692	8.023	7.448	2.237	-0.892	-0.763	0.000	108.700
x		1.515	7.649	7.349	2.212	-1.715	-1.448	0.000	106.400
σ		0.187	0.368	0.091	0.091	0.802	1.424	0.000	2.351
%RSD		12.370	4.818	1.239	4.101	46.790	98.340	0.000	2.210

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:47	74.174%	2.366	2.435	77.133%	-0.057	-0.060	0.003	0.064
2	15:14:12	76.820%	2.417	2.469	79.257%	-0.055	-0.058	0.017	0.060
3	15:14:37	77.909%	2.538	2.534	80.453%	-0.054	-0.053	0.002	-0.001
x		76.301%	2.440	2.479	78.947%	-0.056	-0.057	0.007	0.041
σ		1.921%	0.088	0.050	1.682%	0.001	0.004	0.009	0.036
%RSD		2.517	3.618	2.023	2.130	2.666	6.262	116.200	88.610

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:47	73.018%	-1.933	0.099	0.120	43.730	43.630	83.080%	83.187%
2	15:14:12	75.204%	-1.910	0.048	0.116	45.320	46.130	85.819%	85.850%
3	15:14:37	75.344%	-1.742	0.100	0.170	47.400	46.610	86.788%	86.222%
x		74.522%	-1.862	0.082	0.135	45.490	45.460	85.229%	85.086%
σ		1.304%	0.104	0.030	0.030	1.838	1.602	1.923%	1.655%
%RSD		1.750	5.597	36.030	22.290	4.042	3.525	2.257	1.945

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:47	0.025	0.022	0.076	0.064	0.060	80.635%
2	15:14:12	0.022	0.021	0.064	0.042	0.057	80.775%
3	15:14:37	0.009	0.016	0.048	0.025	0.039	81.691%
x		0.019	0.020	0.063	0.044	0.052	81.034%
σ		0.009	0.003	0.014	0.020	0.011	0.574%
%RSD		46.610	17.570	21.850	45.660	21.490	0.708

180-40246-K-1-B 1/21/2015 3:17:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	87.922%	-0.181	24.400	25.270	0.000	18720.000	7028.000	7056.000
2	15:18:27	88.860%	-0.142	28.970	27.700	0.000	19560.000	7473.000	7510.000
3	15:18:52	93.067%	-0.122	26.120	26.420	0.000	19430.000	7473.000	7539.000
x		89.950%	-0.148	26.500	26.460	0.000	19230.000	7324.000	7368.000
σ		2.740%	0.030	2.310	1.214	0.000	454.100	257.100	270.400
%RSD		3.046	20.040	8.719	4.587	0.000	2.361	3.511	3.670

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	66.960	2844.000	0.000	2797.000	21030.000	20910.000	75.819%	1.904
2	15:18:27	71.160	2977.000	0.000	2921.000	22600.000	22150.000	75.784%	1.790
3	15:18:52	70.830	2958.000	0.000	2906.000	22820.000	22900.000	75.870%	2.221
x		69.650	2926.000	0.000	2875.000	22150.000	21990.000	75.824%	1.972
σ		2.333	72.210	0.000	67.680	973.400	1006.000	0.043%	0.224
%RSD		3.349	2.467	0.000	2.354	4.394	4.575	0.057	11.350

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	1.775	3.093	468.400	127.400	224.000	0.566	1.885	3.132
2	15:18:27	-0.182	2.868	494.200	135.500	224.300	0.550	2.035	3.273
3	15:18:52	2.187	2.983	512.400	139.700	230.200	0.514	1.915	3.427
x		1.260	2.981	491.600	134.200	226.200	0.543	1.945	3.277
σ		1.265	0.112	22.090	6.285	3.474	0.027	0.080	0.148
%RSD		100.400	3.771	4.492	4.683	1.536	4.979	4.091	4.508

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	2.975	11.270	11.010	1.374	-1.931	-0.731	0.000	91.250
2	15:18:27	3.249	12.060	12.470	1.761	-0.807	-1.307	0.000	97.210
3	15:18:52	3.453	12.250	11.860	0.023	-0.284	-0.762	0.000	97.230
x		3.225	11.860	11.780	1.052	-1.007	-0.933	0.000	95.230
σ		0.240	0.522	0.736	0.913	0.842	0.324	0.000	3.442
%RSD		7.432	4.405	6.248	86.700	83.550	34.700	0.000	3.614

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	75.471%	1.984	2.045	77.693%	-0.065	-0.055	0.104	0.126
2	15:18:27	76.179%	2.059	1.948	79.423%	-0.061	-0.054	0.042	0.086
3	15:18:52	77.506%	2.205	1.977	80.021%	-0.057	-0.053	0.080	0.095
x		76.386%	2.083	1.990	79.046%	-0.061	-0.054	0.075	0.102
σ		1.033%	0.113	0.050	1.209%	0.004	0.001	0.031	0.021
%RSD		1.352	5.408	2.506	1.530	6.548	1.667	41.310	20.870

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	73.754%	-2.259	0.060	0.061	44.310	43.750	82.062%	82.668%
2	15:18:27	74.951%	-2.178	0.055	0.178	44.950	45.560	84.966%	84.880%
3	15:18:52	77.092%	-2.168	0.035	0.154	45.510	45.920	85.002%	87.099%
x		75.266%	-2.202	0.050	0.131	44.920	45.080	84.010%	84.883%
σ		1.691%	0.050	0.014	0.062	0.598	1.164	1.687%	2.215%
%RSD		2.247	2.263	27.010	47.240	1.331	2.583	2.008	2.610

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:02	0.027	0.028	0.452	0.421	0.433	80.433%
2	15:18:27	0.024	0.022	0.470	0.479	0.463	80.661%
3	15:18:52	0.027	0.020	0.454	0.416	0.450	83.919%
x		0.026	0.023	0.459	0.439	0.449	81.671%
σ		0.002	0.004	0.010	0.035	0.015	1.950%
%RSD		6.452	18.740	2.198	7.965	3.292	2.388

180-40384-A-7-B 1/21/2015 3:21:52 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	15:22:17	79.987%	-0.112	45.030	44.640	0.000	30580.000	8114.000	8304.000
2	15:22:42	82.726%	-0.217	43.090	46.020	0.000	31350.000	8618.000	8700.000
3	15:23:07	82.710%	-0.146	42.020	47.010	0.000	31820.000	8874.000	8869.000
x		81.808%	-0.158	43.380	45.890	0.000	31250.000	8535.000	8624.000
σ		1.577%	0.053	1.526	1.186	0.000	625.300	386.500	290.100
%RSD		1.928	33.760	3.519	2.584	0.000	2.001	4.528	3.364

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:17	27.740	3605.000	0.000	3987.000	55160.000	55210.000	75.396%	0.332
2	15:22:42	28.800	3702.000	0.000	4147.000	59130.000	59010.000	74.281%	0.614
3	15:23:07	29.120	3716.000	0.000	4084.000	58400.000	58900.000	74.404%	0.439
x		28.550	3674.000	0.000	4073.000	57560.000	57710.000	74.693%	0.462
σ		0.719	60.360	0.000	80.350	2115.000	2163.000	0.611%	0.143
%RSD		2.518	1.643	0.000	1.973	3.675	3.748	0.818	30.950

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:17	-0.575	1.007	402.000	395.700	621.900	0.225	0.464	-0.073
2	15:22:42	0.046	0.989	432.500	430.100	667.800	0.273	0.344	0.062
3	15:23:07	-0.897	1.108	440.100	439.700	665.100	0.286	0.512	-0.005
x		-0.476	1.034	424.900	421.900	651.600	0.261	0.440	-0.005
σ		0.480	0.064	20.140	23.140	25.760	0.033	0.087	0.068
%RSD		100.900	6.181	4.740	5.485	3.954	12.460	19.710	1331.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:17	0.002	4.485	3.970	-0.129	-2.260	-1.475	0.000	383.600
2	15:22:42	0.198	4.447	3.862	1.056	-0.315	-1.565	0.000	402.100
3	15:23:07	0.069	4.334	4.637	-0.049	-1.315	-0.307	0.000	410.400
x		0.090	4.422	4.156	0.293	-1.296	-1.116	0.000	398.700
σ		0.100	0.079	0.420	0.662	0.973	0.702	0.000	13.700
%RSD		110.900	1.780	10.100	226.400	75.040	62.930	0.000	3.435

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:17	75.309%	0.101	0.053	77.936%	-0.059	-0.052	-0.008	0.003
2	15:22:42	77.509%	0.105	0.037	79.734%	-0.058	-0.061	-0.003	0.060
3	15:23:07	77.189%	0.118	0.019	80.004%	-0.056	-0.066	-0.003	0.003
x		76.669%	0.108	0.036	79.225%	-0.058	-0.059	-0.004	0.022
σ		1.189%	0.009	0.017	1.124%	0.002	0.007	0.003	0.033
%RSD		1.551	8.018	47.470	1.419	2.710	12.060	63.400	148.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:17	75.401%	-3.007	-0.780	-0.764	380.900	386.000	84.657%	82.252%
2	15:22:42	77.010%	-3.026	-0.773	-0.763	403.400	405.300	86.010%	85.310%
3	15:23:07	78.898%	-3.082	-0.774	-0.776	402.400	405.900	84.149%	85.552%
x		77.103%	-3.038	-0.776	-0.768	395.500	399.100	84.939%	84.371%
σ		1.750%	0.039	0.004	0.007	12.690	11.310	0.962%	1.839%
%RSD		2.270	1.280	0.460	0.931	3.209	2.835	1.132	2.180

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:17	0.007	0.008	0.132	0.115	0.131	81.669%
2	15:22:42	0.010	0.010	0.152	0.145	0.144	81.675%
3	15:23:07	0.013	0.008	0.125	0.130	0.129	82.287%
x		0.010	0.009	0.136	0.130	0.135	81.877%
σ		0.003	0.001	0.014	0.015	0.008	0.355%
%RSD		29.070	15.860	10.200	11.460	6.281	0.433

180-40384-A-7-B SD@5 1/21/2015 3:26:07 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	15:26:32	82.851%	-0.217	6.991	8.595	0.000	5965.000	1547.000	1553.000
2	15:26:57	86.207%	-0.206	8.592	7.943	0.000	6063.000	1595.000	1595.000
3	15:27:22	86.296%	-0.234	9.076	8.371	0.000	6095.000	1618.000	1610.000
x		85.118%	-0.219	8.220	8.303	0.000	6041.000	1586.000	1586.000
σ		1.964%	0.014	1.091	0.331	0.000	67.480	35.920	29.600
%RSD		2.307	6.285	13.270	3.986	0.000	1.117	2.264	1.866

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:32	4.187	652.400	0.000	787.400	10440.000	10050.000	76.790%	-0.304
2	15:26:57	4.350	656.800	0.000	797.100	11070.000	10530.000	79.083%	-0.294
3	15:27:22	4.558	657.300	0.000	798.300	11260.000	10520.000	80.014%	-0.334
x		4.365	655.500	0.000	794.200	10920.000	10370.000	78.629%	-0.311
σ		0.186	2.696	0.000	5.974	426.400	274.500	1.659%	0.021
%RSD		4.255	0.411	0.000	0.752	3.904	2.648	2.110	6.595

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:32	-0.106	0.236	75.710	83.790	125.200	0.038	0.134	-0.324
2	15:26:57	-0.154	0.184	78.630	84.730	124.000	0.022	0.031	-0.347
3	15:27:22	-0.143	0.208	79.720	83.490	122.300	0.046	0.019	-0.365
x		-0.134	0.209	78.020	84.000	123.900	0.035	0.061	-0.345
σ		0.025	0.026	2.075	0.649	1.461	0.012	0.063	0.020
%RSD		18.760	12.340	2.660	0.772	1.180	34.640	103.300	5.914

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:32	-0.218	0.906	0.869	-0.573	-0.370	-1.919	0.000	70.570
2	15:26:57	-0.268	0.931	0.849	0.049	-1.221	-1.047	0.000	73.950
3	15:27:22	-0.268	1.151	0.907	0.048	-1.928	-1.254	0.000	74.020
x		-0.251	0.996	0.875	-0.158	-1.173	-1.407	0.000	72.850
σ		0.029	0.134	0.030	0.359	0.780	0.456	0.000	1.968
%RSD		11.370	13.480	3.393	226.500	66.470	32.410	0.000	2.702

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:32	77.999%	-0.039	-0.107	83.976%	-0.062	-0.065	0.002	0.062
2	15:26:57	80.454%	-0.095	-0.088	87.105%	-0.057	-0.060	-0.008	0.063
3	15:27:22	82.018%	-0.057	-0.100	81.169%	-0.062	-0.065	-0.003	0.025
x		80.157%	-0.063	-0.098	84.083%	-0.060	-0.063	-0.003	0.050
σ		2.026%	0.029	0.010	2.969%	0.003	0.003	0.005	0.021
%RSD		2.527	45.120	9.814	3.532	4.888	4.035	160.800	42.830

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:32	78.957%	-3.090	-0.799	-0.795	75.320	74.690	85.630%	84.832%
2	15:26:57	80.231%	-3.100	-0.791	-0.795	78.270	77.060	88.755%	88.554%
3	15:27:22	82.015%	-3.066	-0.800	-0.788	78.000	77.230	88.548%	88.772%
x		80.401%	-3.085	-0.797	-0.793	77.200	76.330	87.644%	87.386%
σ		1.536%	0.018	0.005	0.004	1.630	1.418	1.748%	2.214%
%RSD		1.911	0.572	0.672	0.514	2.112	1.858	1.994	2.534

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:32	0.004	0.008	0.036	0.036	0.028	84.266%
2	15:26:57	0.009	0.008	0.040	0.028	0.031	86.030%
3	15:27:22	0.006	0.006	0.019	0.037	0.025	86.020%
x		0.006	0.007	0.032	0.034	0.028	85.438%
σ		0.003	0.001	0.011	0.005	0.003	1.016%
%RSD		44.700	17.670	34.200	15.870	9.894	1.189

CCV 1455996 1/21/2015 3:36:38 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	15:37:04	78.521%	99.520	105.500	99.450	0.000	50180.000	48700.000	48170.000
2	15:37:29	79.122%	101.100	99.730	99.180	0.000	51020.000	49660.000	50010.000
3	15:37:54	79.069%	102.500	98.340	102.500	0.000	51350.000	49880.000	50450.000
x		78.904%	101.054%	101.191%	100.360%	0.000	101.704%	98.825%	99.092%
σ		0.333%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.422	1.478	3.760	1.812	0.000	1.181	1.270	2.442

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:04	464.300	4962.000	0.000	50180.000	47420.000	50370.000	78.096%	99.720
2	15:37:29	474.500	5158.000	0.000	52490.000	51840.000	53850.000	75.427%	104.500
3	15:37:54	483.200	5167.000	0.000	52830.000	51890.000	51560.000	75.904%	101.800
x		94.801%	101.912%	0.000	103.665%	100.763%	103.850%	76.475%	102.030%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.423%	n/a
%RSD		1.991	2.269	0.000	2.781	5.090	3.408	1.861	2.372

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:04	91.870	92.240	500.600	24550.000	25910.000	94.290	96.770	94.470
2	15:37:29	94.810	97.230	519.700	25610.000	27100.000	98.930	97.910	98.640
3	15:37:54	96.260	97.240	520.900	25710.000	27110.000	98.050	97.950	97.610
x		94.314%	95.570%	102.747%	101.156%	106.829%	97.089%	97.545%	96.907%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.373	3.015	2.220	2.549	2.584	2.537	0.686	2.245

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:04	95.660	96.470	99.490	96.990	96.070	99.740	0.000	97.660
2	15:37:29	98.670	102.900	101.800	98.860	100.500	98.060	0.000	97.750
3	15:37:54	99.100	101.500	99.690	98.710	100.800	99.730	0.000	97.910
x		97.807%	100.287%	100.309%	98.187%	99.115%	99.178%	0.000	97.772%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.916	3.378	1.248	1.057	2.661	0.973	0.000	0.127

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:04	75.676%	92.090	87.920	79.964%	90.600	90.080	95.710	96.030
2	15:37:29	75.852%	95.740	92.920	79.357%	92.360	92.950	98.090	99.610
3	15:37:54	76.126%	98.440	95.730	79.405%	93.090	93.300	96.970	99.300
x		75.885%	95.423%	92.191%	79.575%	92.016%	92.110%	96.924%	98.314%
σ		0.227%	n/a	n/a	0.337%	n/a	n/a	n/a	n/a
%RSD		0.299	3.338	4.287	0.424	1.395	1.919	1.226	2.020

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:04	76.792%	96.350	97.310	97.660	98.540	97.060	80.873%	82.639%
2	15:37:29	74.882%	99.480	100.200	101.400	99.480	98.370	83.373%	82.287%
3	15:37:54	75.882%	99.030	98.730	99.630	97.570	97.980	83.115%	82.755%
x		75.852%	98.283%	98.740%	99.548%	98.527%	97.806%	82.454%	82.560%
σ		0.955%	n/a	n/a	n/a	n/a	n/a	1.375%	0.244%
%RSD		1.260	1.722	1.447	1.857	0.967	0.689	1.668	0.295

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:04	96.320	93.240	97.310	97.170	96.110	90.369%
2	15:37:29	101.400	98.400	103.300	103.200	103.000	85.435%
3	15:37:54	103.900	100.600	106.200	105.400	104.900	84.078%
x		100.517%	97.422%	102.262%	101.902%	101.347%	86.627%
σ		n/a	n/a	n/a	n/a	n/a	3.311%
%RSD		3.817	3.895	4.435	4.158	4.578	3.822

CCB8 1/21/2015 3:45:43 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	15:46:08	84.756%	-0.108	-0.130	-0.807	0.000	20.170	13.910	13.560
2	15:46:34	83.515%	-0.092	-0.711	-1.029	0.000	18.120	11.270	10.670
3	15:47:00	87.965%	-0.101	-0.786	-0.509	0.000	13.960	8.504	8.425
x		85.412%	-0.100	-0.542	-0.782	0.000	17.420	11.230	10.890
σ		2.296%	0.008	0.359	0.261	0.000	3.162	2.704	2.577
%RSD		2.689	8.252	66.240	33.420	0.000	18.150	24.080	23.670

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:08	-0.095	2.346	0.000	16.000	15.660	22.860	79.627%	-0.423
2	15:46:34	-0.516	2.321	0.000	14.550	15.770	17.670	79.384%	-0.441
3	15:47:00	-0.602	0.628	0.000	14.370	13.930	17.110	79.447%	-0.386
x		-0.404	1.765	0.000	14.970	15.120	19.210	79.486%	-0.417
σ		0.271	0.985	0.000	0.895	1.031	3.172	0.126%	0.028
%RSD		67.120	55.790	0.000	5.976	6.816	16.510	0.159	6.626

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:08	0.036	-0.038	0.153	19.370	22.190	0.013	-0.021	-0.399
2	15:46:34	-0.061	-0.023	0.146	16.650	19.620	0.035	0.016	-0.418
3	15:47:00	0.081	-0.023	0.090	6.960	7.466	0.018	-0.023	-0.376
x		0.019	-0.028	0.130	14.330	16.420	0.022	-0.009	-0.397
σ		0.072	0.009	0.035	6.525	7.863	0.011	0.022	0.021
%RSD		387.500	30.860	26.780	45.530	47.880	50.780	241.100	5.368

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:08	-0.336	0.048	0.162	0.192	-0.954	1.203	0.000	0.069
2	15:46:34	-0.334	0.120	0.037	-0.007	0.311	1.908	0.000	0.086
3	15:47:00	-0.406	0.112	0.128	-0.051	-0.912	-0.328	0.000	0.043
x		-0.359	0.093	0.109	0.045	-0.518	0.928	0.000	0.066
σ		0.041	0.040	0.064	0.129	0.718	1.143	0.000	0.022
%RSD		11.400	42.640	59.070	288.500	138.600	123.200	0.000	33.100

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:08	78.435%	0.240	0.160	85.452%	-0.041	-0.039	0.011	0.007
2	15:46:34	80.209%	0.140	0.148	88.319%	-0.054	-0.045	0.015	0.009
3	15:47:00	81.141%	0.101	0.070	86.840%	-0.043	-0.048	0.029	0.030
x		79.928%	0.160	0.126	86.870%	-0.046	-0.044	0.018	0.015
σ		1.374%	0.072	0.049	1.434%	0.007	0.004	0.009	0.012
%RSD		1.720	44.790	38.970	1.651	15.160	10.100	50.840	79.780

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:08	80.206%	-2.833	-0.607	-0.612	0.081	0.080	85.501%	85.317%
2	15:46:34	80.401%	-2.834	-0.627	-0.640	0.131	0.079	85.677%	86.028%
3	15:47:00	81.761%	-2.922	-0.666	-0.650	0.073	0.035	87.458%	85.865%
x		80.789%	-2.863	-0.633	-0.634	0.095	0.065	86.212%	85.737%
σ		0.847%	0.051	0.030	0.020	0.031	0.026	1.083%	0.372%
%RSD		1.049	1.782	4.724	3.109	32.910	39.710	1.256	0.434

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:08	0.034	0.030	0.046	0.049	0.043	94.256%
2	15:46:34	0.015	0.025	0.009	0.031	0.026	91.143%
3	15:47:00	0.028	0.020	0.018	0.022	0.020	91.291%
x		0.026	0.025	0.024	0.034	0.030	92.230%
σ		0.010	0.005	0.019	0.014	0.012	1.756%
%RSD		37.180	20.790	78.540	40.580	38.610	1.904

MB 180-129974/1-A 1/21/2015 3:50:00 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	15:50:26	81.525%	-0.173	-1.031	-0.729	0.000	474.800	6.486	6.667
2	15:50:51	84.327%	-0.177	-0.985	-0.618	0.000	481.800	5.896	6.552
3	15:51:16	84.711%	-0.164	-0.820	-0.748	0.000	481.400	4.717	5.644
x		83.521%	-0.171	-0.945	-0.698	0.000	479.300	5.700	6.288
σ		1.739%	0.007	0.111	0.070	0.000	3.909	0.901	0.560
%RSD		2.082	4.016	11.760	10.010	0.000	0.816	15.800	8.907

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:26	3.902	3.721	0.000	9.617	31.840	13.640	78.829%	-0.458
2	15:50:51	3.824	1.587	0.000	9.135	17.520	11.280	79.327%	-0.404
3	15:51:16	3.765	0.990	0.000	14.070	27.630	12.130	80.039%	-0.478
x		3.830	2.099	0.000	10.940	25.660	12.350	79.399%	-0.446
σ		0.069	1.436	0.000	2.719	7.360	1.196	0.608%	0.038
%RSD		1.790	68.400	0.000	24.850	28.680	9.684	0.766	8.521

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:26	0.013	-0.047	0.040	1.825	5.271	0.031	0.041	-0.257
2	15:50:51	-0.020	-0.046	0.034	1.480	5.715	0.012	0.016	-0.283
3	15:51:16	-0.092	-0.012	0.100	1.056	4.656	0.022	0.137	-0.246
x		-0.033	-0.035	0.058	1.454	5.214	0.021	0.065	-0.262
σ		0.054	0.020	0.037	0.385	0.532	0.009	0.064	0.019
%RSD		164.700	56.560	63.230	26.490	10.200	44.350	98.200	7.317

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:26	-0.180	0.436	0.381	0.017	-0.171	0.475	0.000	0.048
2	15:50:51	-0.234	0.457	0.630	-0.233	0.001	-0.266	0.000	0.036
3	15:51:16	-0.243	0.518	0.317	-0.178	-0.343	-0.415	0.000	0.041
x		-0.219	0.470	0.443	-0.131	-0.171	-0.069	0.000	0.041
σ		0.034	0.043	0.165	0.131	0.172	0.477	0.000	0.006
%RSD		15.530	9.096	37.340	99.830	100.500	691.000	0.000	14.240

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:26	77.835%	-0.091	-0.030	85.775%	-0.042	-0.043	0.002	0.012
2	15:50:51	80.012%	0.041	-0.065	87.266%	-0.042	-0.048	-0.003	0.027
3	15:51:16	81.101%	-0.051	-0.034	89.372%	-0.036	-0.038	0.010	-0.003
x		79.649%	-0.034	-0.043	87.471%	-0.040	-0.043	0.003	0.012
σ		1.663%	0.068	0.019	1.807%	0.004	0.005	0.007	0.015
%RSD		2.088	201.600	44.170	2.066	8.995	11.490	229.600	122.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:26	80.261%	-3.010	-0.742	-0.737	0.031	0.040	83.889%	84.910%
2	15:50:51	82.053%	-3.070	-0.704	-0.722	0.002	0.054	85.915%	86.287%
3	15:51:16	82.112%	-3.008	-0.716	-0.736	0.008	0.011	87.040%	86.693%
x		81.475%	-3.030	-0.721	-0.731	0.014	0.035	85.615%	85.963%
σ		1.052%	0.035	0.019	0.009	0.015	0.022	1.597%	0.935%
%RSD		1.291	1.164	2.677	1.168	111.700	62.790	1.866	1.087

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:26	0.012	0.013	0.041	0.026	0.035	91.835%
2	15:50:51	0.015	0.009	0.037	0.027	0.029	90.888%
3	15:51:16	0.016	0.008	0.029	0.033	0.029	88.968%
x		0.014	0.010	0.036	0.028	0.031	90.564%
σ		0.002	0.003	0.006	0.004	0.003	1.461%
%RSD		12.590	25.830	17.280	12.580	11.040	1.613

CRI 1451384 1/21/2015 3:54:13 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	15:54:38	81.333%	0.762	5.068	4.251	0.000	101.600	98.510	100.500
2	15:55:03	83.648%	0.945	4.875	4.283	0.000	104.600	101.700	102.500
3	15:55:28	83.768%	0.915	3.470	4.618	0.000	104.900	101.800	101.700
x		82.916%	87.375%	89.421%	87.682%	0.000	129.587%	100.661%	101.582%
σ		1.372%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.655	11.200	19.520	4.626	0.000	1.758	1.852	0.982

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:38	28.390	488.100	0.000	110.700	121.100	105.700	78.072%	4.657
2	15:55:03	30.190	498.500	0.000	119.000	105.400	113.800	78.988%	4.628
3	15:55:28	29.750	500.400	0.000	113.000	119.100	108.000	79.154%	4.760
x		98.154%	99.131%	0.000	114.250%	115.196%	109.143%	78.738%	93.640%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.582%	n/a
%RSD		3.184	1.340	0.000	3.759	7.432	3.814	0.740	1.477

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:38	0.826	1.822	4.984	50.670	52.920	0.514	0.998	1.712
2	15:55:03	0.942	1.889	5.034	50.580	54.790	0.528	1.118	1.717
3	15:55:28	0.944	1.883	5.165	50.790	58.010	0.556	1.022	1.623
x		90.412%	93.223%	101.221%	101.358%	110.474%	106.495%	104.582%	84.183%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		7.503	1.974	1.846	0.210	4.661	4.006	6.052	3.149

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:38	1.705	5.280	5.356	1.080	5.077	5.284	0.000	4.748
2	15:55:03	1.720	4.864	5.529	1.036	3.777	5.791	0.000	4.957
3	15:55:28	1.797	5.416	5.262	0.959	4.106	4.751	0.000	4.909
x		87.040%	103.730%	107.647%	102.477%	86.405%	105.506%	0.000	97.424%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.818	5.541	2.521	5.967	15.640	9.860	0.000	2.249

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:38	76.977%	4.561	4.399	84.978%	0.886	0.867	1.006	1.174
2	15:55:03	79.430%	4.815	4.610	87.612%	0.861	0.821	1.153	1.165
3	15:55:28	80.595%	5.017	4.782	81.169%	0.953	0.940	0.826	1.110
x		79.001%	95.957%	91.941%	84.586%	89.989%	87.603%	99.511%	114.969%
σ		1.847%	n/a	n/a	3.240%	n/a	n/a	n/a	n/a
%RSD		2.338	4.759	4.179	3.830	5.268	6.871	16.500	3.048

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:38	70.530%	2.559	1.289	1.360	10.490	10.900	73.769%	84.005%
2	15:55:03	71.855%	2.722	1.460	1.416	10.790	10.620	76.172%	86.092%
3	15:55:28	72.846%	2.882	1.495	1.427	11.680	11.140	77.106%	86.715%
x		71.744%	54.418%	70.736%	70.045%	109.889%	108.843%	75.682%	85.604%
σ		1.162%	n/a	n/a	n/a	n/a	n/a	1.721%	1.420%
%RSD		1.620	5.941	7.790	2.552	5.602	2.399	2.275	1.658

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:38	0.951	0.881	1.006	0.926	0.943	95.854%
2	15:55:03	0.986	0.981	1.045	0.990	0.999	93.306%
3	15:55:28	1.055	0.970	1.074	0.990	1.023	91.456%
x		99.726%	94.395%	104.159%	96.850%	98.831%	93.539%
σ		n/a	n/a	n/a	n/a	n/a	2.208%
%RSD		5.274	5.802	3.280	3.798	4.181	2.361

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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	16:03:08	80.545%	-0.171	-0.553	-0.782	0.000	26.880	0.744	0.788
2	16:03:33	83.879%	-0.162	-0.885	-1.331	0.000	24.980	0.915	0.327
3	16:03:58	84.194%	-0.232	-0.978	-0.952	0.000	24.550	0.234	-0.127
x		82.872%	-0.189	-0.805	-1.022	0.000	25.470	0.631	0.329
σ		2.022%	0.038	0.223	0.282	0.000	1.238	0.354	0.458
%RSD		2.440	20.230	27.730	27.550	0.000	4.859	56.130	138.900

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:08	-0.481	2.160	0.000	10.200	14.020	2.263	74.321%	-0.527
2	16:03:33	-0.324	0.467	0.000	13.140	2.435	4.841	76.123%	-0.472
3	16:03:58	-0.627	-0.002	0.000	17.030	14.880	4.861	76.872%	-0.492
x		-0.477	0.875	0.000	13.460	10.440	3.989	75.772%	-0.497
σ		0.152	1.138	0.000	3.429	6.949	1.494	1.311%	0.028
%RSD		31.730	130.000	0.000	25.480	66.540	37.460	1.731	5.627

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:08	-0.225	0.002	0.003	1.303	6.655	-0.003	-0.009	-0.343
2	16:03:33	0.083	0.046	0.035	-0.891	0.280	-0.002	0.069	-0.381
3	16:03:58	0.154	0.056	0.025	-0.665	-1.826	0.002	-0.006	-0.336
x		0.004	0.035	0.021	-0.084	1.703	-0.001	0.018	-0.353
σ		0.201	0.029	0.016	1.207	4.416	0.003	0.044	0.024
%RSD		4992.000	84.110	78.060	1429.000	259.300	268.800	243.100	6.907

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:08	-0.250	1.478	1.314	-0.041	-0.563	-0.942	0.000	0.036
2	16:03:33	-0.306	1.389	1.303	-0.187	-1.114	-0.046	0.000	0.025
3	16:03:58	-0.308	1.378	1.403	0.295	-1.344	0.772	0.000	0.008
x		-0.288	1.415	1.340	0.022	-1.007	-0.072	0.000	0.023
σ		0.033	0.055	0.055	0.247	0.402	0.857	0.000	0.014
%RSD		11.540	3.901	4.090	1103.000	39.880	1194.000	0.000	60.090

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:08	74.995%	-0.094	-0.138	81.188%	-0.056	-0.058	0.002	0.024
2	16:03:33	78.974%	-0.123	-0.130	84.667%	-0.059	-0.058	0.006	0.012
3	16:03:58	79.273%	-0.113	-0.111	87.578%	-0.058	-0.060	-0.003	-0.020
x		77.747%	-0.110	-0.126	84.478%	-0.058	-0.059	0.002	0.005
σ		2.388%	0.015	0.014	3.199%	0.002	0.001	0.005	0.023
%RSD		3.071	13.590	10.870	3.787	2.671	2.271	257.900	424.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:08	77.120%	-2.972	-0.777	-0.755	-0.030	0.036	82.017%	80.798%
2	16:03:33	79.492%	-3.039	-0.781	-0.776	-0.002	0.021	84.840%	84.346%
3	16:03:58	79.580%	-2.972	-0.777	-0.764	-0.008	-0.006	83.517%	84.928%
x		78.731%	-2.994	-0.778	-0.765	-0.013	0.017	83.458%	83.358%
σ		1.395%	0.038	0.002	0.010	0.015	0.022	1.413%	2.235%
%RSD		1.772	1.284	0.289	1.363	111.700	126.700	1.693	2.682

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:08	0.005	0.004	0.057	0.050	0.048	93.025%
2	16:03:33	0.005	0.005	0.057	0.032	0.043	92.257%
3	16:03:58	0.009	0.003	0.064	0.033	0.052	89.947%
x		0.006	0.004	0.059	0.038	0.048	91.743%
σ		0.002	0.001	0.004	0.010	0.005	1.602%
%RSD		34.640	18.060	7.315	26.440	9.733	1.747

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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	16:07:20	78.054%	47.910	946.400	923.600	0.000	47040.000	44780.000	44370.000
2	16:07:45	79.010%	48.420	976.500	959.400	0.000	48200.000	46410.000	46640.000
3	16:08:10	79.945%	50.830	972.000	949.200	0.000	48250.000	46330.000	46670.000
x		79.003%	49.050	965.000	944.100	0.000	47830.000	45840.000	45900.000
σ		0.946%	1.558	16.220	18.450	0.000	683.500	917.000	1319.000
%RSD		1.197	3.175	1.681	1.954	0.000	1.429	2.000	2.874

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:20	1859.000	9549.000	0.000	49880.000	48230.000	49450.000	73.442%	967.000
2	16:07:45	1956.000	9835.000	0.000	51960.000	50620.000	52040.000	73.038%	1005.000
3	16:08:10	1954.000	9767.000	0.000	51590.000	50690.000	52990.000	72.811%	1008.000
x		1923.000	9717.000	0.000	51140.000	49850.000	51490.000	73.097%	993.200
σ		55.210	149.400	0.000	1108.000	1399.000	1833.000	0.320%	22.780
%RSD		2.871	1.538	0.000	2.167	2.807	3.559	0.437	2.294

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:20	458.800	179.200	474.800	996.700	1137.000	468.900	460.200	232.600
2	16:07:45	479.400	184.300	495.800	1055.000	1192.000	487.200	473.500	239.500
3	16:08:10	478.800	186.800	499.800	1070.000	1188.000	488.900	480.100	240.200
x		472.300	183.400	490.200	1041.000	1172.000	481.600	471.300	237.400
σ		11.720	3.886	13.440	38.690	30.630	11.050	10.110	4.215
%RSD		2.482	2.118	2.742	3.718	2.613	2.294	2.145	1.775

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:20	231.700	485.500	480.400	35.720	9.018	9.996	0.000	954.300
2	16:07:45	238.000	499.500	494.200	36.930	8.599	8.370	0.000	979.400
3	16:08:10	236.600	505.100	494.000	37.630	8.363	9.110	0.000	981.300
x		235.400	496.700	489.500	36.760	8.660	9.159	0.000	971.700
σ		3.276	10.090	7.872	0.970	0.332	0.814	0.000	15.110
%RSD		1.392	2.031	1.608	2.638	3.831	8.888	0.000	1.555

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:20	73.090%	912.200	904.900	76.426%	45.180	45.650	47.280	40.020
2	16:07:45	74.959%	969.000	957.800	77.512%	45.770	45.480	49.890	40.300
3	16:08:10	75.440%	1000.000	995.100	77.394%	46.190	46.310	49.730	40.680
x		74.496%	960.400	952.600	77.110%	45.710	45.810	48.970	40.330
σ		1.242%	44.600	45.320	0.596%	0.506	0.442	1.462	0.331
%RSD		1.667	4.644	4.758	0.773	1.106	0.964	2.985	0.821

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:20	72.790%	2085.000	533.700	518.700	1967.000	2018.000	80.788%	81.813%
2	16:07:45	73.731%	2137.000	534.500	527.100	2003.000	2069.000	83.237%	83.390%
3	16:08:10	73.611%	2159.000	538.600	536.100	2016.000	2084.000	83.916%	84.357%
x		73.377%	2127.000	535.600	527.300	1995.000	2057.000	82.647%	83.187%
σ		0.512%	37.970	2.624	8.688	25.290	34.680	1.646%	1.284%
%RSD		0.698	1.785	0.490	1.648	1.267	1.686	1.991	1.544

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:20	44.560	42.810	18.680	18.330	18.300	91.212%
2	16:07:45	49.340	47.110	20.180	20.000	19.830	86.187%
3	16:08:10	51.010	49.090	21.200	21.190	20.700	83.986%
x		48.300	46.330	20.020	19.840	19.610	87.128%
σ		3.344	3.211	1.268	1.435	1.218	3.704%
%RSD		6.922	6.930	6.333	7.232	6.209	4.251

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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	16:11:32	71.284%	48.940	944.400	935.100	0.000	47690.000	45250.000	45330.000
2	16:11:57	75.872%	46.400	924.900	919.300	0.000	47590.000	45480.000	45740.000
3	16:12:22	76.742%	48.130	918.500	930.100	0.000	47470.000	45300.000	45860.000
x		74.633%	47.820	929.300	928.100	0.000	47590.000	45350.000	45640.000
σ		2.933%	1.298	13.460	8.077	0.000	108.300	121.500	279.200
%RSD		3.930	2.714	1.449	0.870	0.000	0.228	0.268	0.612
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:32	1835.000	9555.000	0.000	50600.000	47920.000	47800.000	69.886%	941.500
2	16:11:57	1863.000	9458.000	0.000	48790.000	48770.000	50640.000	71.264%	962.900
3	16:12:22	1874.000	9554.000	0.000	51050.000	50120.000	51720.000	69.954%	996.000
x		1857.000	9522.000	0.000	50150.000	48940.000	50050.000	70.368%	966.800
σ		20.030	55.500	0.000	1200.000	1108.000	2025.000	0.777%	27.440
%RSD		1.078	0.583	0.000	2.393	2.263	4.047	1.104	2.838
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:32	443.500	173.000	453.500	965.000	1103.000	446.200	443.500	221.100
2	16:11:57	458.000	180.600	482.900	1017.000	1156.000	469.400	465.800	233.300
3	16:12:22	467.200	184.200	492.400	1041.000	1161.000	483.200	472.300	240.900
x		456.200	179.300	476.300	1008.000	1140.000	466.300	460.500	231.800
σ		11.980	5.703	20.280	38.960	31.960	18.710	15.120	10.000
%RSD		2.625	3.181	4.259	3.866	2.803	4.012	3.284	4.316
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:32	219.800	457.700	446.900	34.380	9.101	8.420	0.000	887.400
2	16:11:57	232.800	494.000	482.500	36.990	8.646	8.925	0.000	988.500
3	16:12:22	235.400	503.500	489.600	36.840	8.653	9.659	0.000	991.800
x		229.300	485.100	473.000	36.070	8.800	9.001	0.000	955.900
σ		8.353	24.140	22.880	1.463	0.261	0.623	0.000	59.310
%RSD		3.642	4.977	4.837	4.056	2.961	6.922	0.000	6.205
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:32	73.395%	873.500	868.000	73.890%	42.960	43.790	46.030	37.210
2	16:11:57	69.329%	983.900	961.900	74.366%	43.420	43.300	47.560	36.950
3	16:12:22	68.836%	1003.000	996.500	74.441%	44.390	44.860	47.290	40.520
x		70.520%	953.500	942.100	74.232%	43.590	43.980	46.960	38.230
σ		2.502%	69.890	66.470	0.299%	0.731	0.797	0.815	1.990
%RSD		3.548	7.331	7.056	0.403	1.677	1.812	1.735	5.205
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:32	68.579%	2063.000	524.500	510.400	1876.000	1962.000	79.002%	78.468%
2	16:11:57	73.114%	2015.000	506.100	500.100	1914.000	1949.000	82.226%	82.005%
3	16:12:22	70.717%	2085.000	527.600	511.300	1922.000	1991.000	81.402%	80.780%
x		70.803%	2054.000	519.400	507.200	1904.000	1967.000	80.877%	80.418%
σ		2.269%	36.180	11.630	6.227	24.520	21.710	1.675%	1.796%
%RSD		3.204	1.761	2.239	1.228	1.288	1.103	2.071	2.234
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:11:32	45.320	43.560	19.430	18.760	18.780	81.924%		
2	16:11:57	47.550	46.340	19.740	19.740	19.370	82.535%		
3	16:12:22	49.980	48.370	20.840	20.380	20.570	78.950%		
x		47.620	46.090	20.000	19.630	19.570	81.136%		
σ		2.328	2.411	0.744	0.813	0.913	1.918%		
%RSD		4.889	5.232	3.720	4.141	4.664	2.363		

180-40398-K-1-B 1/21/2015 4:15:16 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	16:15:41	73.769%	-0.209	483.500	467.300	0.000	14880.000	16910.000	17240.000
2	16:16:07	76.841%	-0.089	481.300	481.300	0.000	15040.000	17440.000	17560.000
3	16:16:32	77.395%	-0.151	485.100	485.800	0.000	15220.000	17780.000	17130.000
x		76.002%	-0.150	483.300	478.100	0.000	15040.000	17380.000	17310.000
σ		1.953%	0.060	1.889	9.655	0.000	172.300	439.300	222.600
%RSD		2.570	39.870	0.391	2.020	0.000	1.145	2.528	1.286
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:41	3.436	6876.000	0.000	6365.000	107200.000	105300.000	68.139%	1.970
2	16:16:07	2.607	6871.000	0.000	6165.000	107000.000	110400.000	69.795%	1.373
3	16:16:32	2.557	7008.000	0.000	6547.000	112400.000	111900.000	69.567%	1.357
x		2.866	6918.000	0.000	6359.000	108800.000	109200.000	69.167%	1.567
σ		0.494	77.570	0.000	190.900	3037.000	3483.000	0.897%	0.350
%RSD		17.220	1.121	0.000	3.002	2.790	3.190	1.297	22.320
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:41	0.221	0.643	631.300	3472.000	3792.000	0.941	1.412	0.400
2	16:16:07	0.263	0.566	649.500	3535.000	3971.000	0.732	0.942	0.287
3	16:16:32	0.247	0.430	669.800	3666.000	4014.000	0.694	0.820	0.217
x		0.244	0.546	650.200	3558.000	3926.000	0.789	1.058	0.301
σ		0.021	0.108	19.290	99.140	117.700	0.133	0.313	0.092
%RSD		8.707	19.740	2.966	2.787	2.999	16.870	29.540	30.560
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:41	0.605	12.850	13.020	0.655	-1.097	1.510	0.000	462.800
2	16:16:07	0.375	13.040	13.520	0.843	-0.649	-1.059	0.000	484.100
3	16:16:32	0.406	13.720	13.340	0.123	-0.949	-1.024	0.000	487.100
x		0.462	13.200	13.290	0.540	-0.898	-0.191	0.000	478.000
σ		0.125	0.457	0.256	0.373	0.229	1.473	0.000	13.230
%RSD		27.040	3.459	1.928	69.030	25.440	771.000	0.000	2.768
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:41	69.253%	22.730	21.770	72.420%	-0.014	-0.029	0.057	-0.016
2	16:16:07	71.422%	19.530	18.700	73.730%	-0.041	-0.043	0.034	-0.051
3	16:16:32	72.760%	17.740	17.070	74.494%	-0.047	-0.049	0.050	0.014
x		71.145%	20.000	19.180	73.548%	-0.034	-0.040	0.047	-0.018
σ		1.770%	2.530	2.391	1.049%	0.017	0.010	0.012	0.033
%RSD		2.488	12.650	12.470	1.426	50.900	24.860	25.210	182.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:41	69.412%	8.851	-0.209	-0.228	75.860	76.650	78.474%	77.653%
2	16:16:07	72.659%	6.241	-0.513	-0.459	76.930	77.400	79.639%	81.235%
3	16:16:32	71.208%	5.078	-0.527	-0.567	78.160	79.000	81.045%	80.855%
x		71.093%	6.723	-0.416	-0.418	76.980	77.690	79.719%	79.914%
σ		1.627%	1.932	0.179	0.173	1.148	1.197	1.288%	1.968%
%RSD		2.288	28.740	43.090	41.440	1.492	1.541	1.615	2.462
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:15:41	0.269	0.243	0.084	0.056	0.071	86.055%		
2	16:16:07	0.213	0.175	0.082	0.057	0.066	85.414%		
3	16:16:32	0.163	0.141	0.056	0.035	0.048	81.239%		
x		0.215	0.186	0.074	0.049	0.062	84.236%		
σ		0.053	0.052	0.016	0.013	0.012	2.615%		
%RSD		24.690	27.830	21.410	25.710	19.600	3.104		

180-40398-K-2-B 1/21/2015 4:19:29 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	16:19:54	72.843%	-0.208	494.900	502.900	0.000	15480.000	18050.000	18420.000
2	16:20:19	76.755%	-0.242	506.300	504.300	0.000	15350.000	18260.000	18590.000
3	16:20:44	77.794%	-0.182	511.900	500.000	0.000	15490.000	18470.000	18680.000
x		75.797%	-0.211	504.400	502.400	0.000	15440.000	18260.000	18560.000
σ		2.611%	0.030	8.698	2.175	0.000	80.090	207.800	135.700
%RSD		3.444	14.300	1.724	0.433	0.000	0.519	1.138	0.731
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:54	2.934	7059.000	0.000	6533.000	109600.000	108400.000	69.695%	0.778
2	16:20:19	2.597	7061.000	0.000	6711.000	114500.000	113500.000	69.808%	0.775
3	16:20:44	2.362	7151.000	0.000	6738.000	118000.000	118700.000	69.036%	0.497
x		2.631	7090.000	0.000	6660.000	114000.000	113500.000	69.513%	0.683
σ		0.287	52.450	0.000	111.200	4215.000	5150.000	0.417%	0.161
%RSD		10.920	0.740	0.000	1.670	3.697	4.537	0.599	23.570
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:54	0.074	0.435	636.400	2653.000	3024.000	0.655	1.196	0.733
2	16:20:19	-0.053	0.374	674.800	2800.000	3172.000	0.599	0.885	0.686
3	16:20:44	-0.114	0.262	687.200	2811.000	3229.000	0.695	1.053	0.571
x		-0.031	0.357	666.200	2755.000	3142.000	0.650	1.044	0.663
σ		0.096	0.088	26.480	87.920	105.800	0.048	0.156	0.084
%RSD		311.600	24.660	3.975	3.192	3.367	7.454	14.910	12.610
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:54	0.908	13.900	13.950	0.465	-0.067	0.339	0.000	490.700
2	16:20:19	1.002	14.420	14.470	0.675	-1.182	-1.416	0.000	498.900
3	16:20:44	1.101	15.000	14.600	0.623	-1.432	1.459	0.000	500.900
x		1.004	14.440	14.340	0.588	-0.894	0.128	0.000	496.800
σ		0.097	0.550	0.341	0.110	0.727	1.449	0.000	5.404
%RSD		9.621	3.811	2.376	18.640	81.310	1136.000	0.000	1.088
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:54	70.015%	8.818	8.111	73.874%	-0.053	-0.057	0.019	-0.026
2	16:20:19	71.766%	8.607	8.167	74.711%	-0.063	-0.062	0.008	0.005
3	16:20:44	71.954%	8.446	8.607	73.341%	-0.055	-0.060	0.008	-0.011
x		71.245%	8.623	8.295	73.975%	-0.057	-0.060	0.012	-0.011
σ		1.069%	0.187	0.272	0.691%	0.005	0.003	0.006	0.015
%RSD		1.501	2.163	3.273	0.934	9.514	4.570	52.830	140.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:54	70.454%	-0.579	-0.628	-0.619	74.490	74.670	77.944%	79.844%
2	16:20:19	71.005%	-0.681	-0.663	-0.630	76.420	76.510	80.824%	80.638%
3	16:20:44	71.544%	-0.707	-0.674	-0.680	77.080	75.440	81.893%	80.073%
x		71.001%	-0.656	-0.655	-0.643	76.000	75.540	80.220%	80.185%
σ		0.545%	0.068	0.024	0.033	1.342	0.925	2.043%	0.409%
%RSD		0.767	10.320	3.666	5.087	1.766	1.224	2.546	0.510
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:19:54	0.067	0.060	0.101	0.095	0.090	84.608%		
2	16:20:19	0.061	0.053	0.076	0.087	0.087	81.490%		
3	16:20:44	0.057	0.053	0.095	0.088	0.093	79.673%		
x		0.062	0.055	0.090	0.090	0.090	81.924%		
σ		0.005	0.004	0.013	0.005	0.003	2.496%		
%RSD		7.680	7.365	14.380	5.086	3.583	3.047		

180-40398-K-2-B SD@5 1/21/2015 4:23:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:06	76.793%	-0.166	100.700	97.460	0.000	3021.000	3299.000	3299.000
2	16:24:31	76.239%	-0.181	106.000	100.700	0.000	3140.000	3442.000	3427.000
3	16:24:56	79.315%	-0.125	97.630	101.800	0.000	3100.000	3420.000	3410.000
x		77.449%	-0.157	101.400	99.960	0.000	3087.000	3387.000	3379.000
σ		1.640%	0.029	4.210	2.240	0.000	60.610	76.690	69.390
%RSD		2.117	18.170	4.150	2.241	0.000	1.963	2.264	2.054
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:06	-0.238	1384.000	0.000	1294.000	21400.000	20660.000	73.233%	-0.074
2	16:24:31	-0.089	1425.000	0.000	1319.000	21750.000	21610.000	73.448%	-0.233
3	16:24:56	-0.362	1414.000	0.000	1323.000	21810.000	21690.000	74.412%	-0.276
x		-0.230	1408.000	0.000	1312.000	21650.000	21320.000	73.698%	-0.194
σ		0.137	20.860	0.000	15.960	224.000	571.400	0.628%	0.106
%RSD		59.560	1.482	0.000	1.217	1.034	2.680	0.852	54.680
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:06	-0.041	0.077	120.300	547.200	619.200	0.149	0.218	-0.217
2	16:24:31	-0.070	0.049	126.200	567.300	636.500	0.148	0.269	-0.197
3	16:24:56	0.102	0.031	126.300	567.400	643.300	0.120	0.142	-0.235
x		-0.003	0.052	124.300	560.600	633.000	0.139	0.210	-0.217
σ		0.092	0.023	3.440	11.650	12.410	0.016	0.064	0.019
%RSD		2794.000	44.300	2.768	2.078	1.961	11.850	30.590	8.746
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:06	-0.099	3.104	2.778	0.119	-1.199	1.011	0.000	91.840
2	16:24:31	-0.142	3.059	2.420	0.276	-0.847	0.562	0.000	93.110
3	16:24:56	-0.099	2.988	2.924	-0.346	-0.304	-1.018	0.000	94.410
x		-0.113	3.051	2.707	0.016	-0.783	0.185	0.000	93.120
σ		0.025	0.058	0.259	0.323	0.451	1.065	0.000	1.283
%RSD		21.970	1.914	9.579	1962.000	57.530	576.000	0.000	1.377
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:06	73.225%	2.271	2.086	78.663%	-0.064	-0.054	0.007	0.005
2	16:24:31	73.736%	2.146	2.054	78.674%	-0.067	-0.064	0.007	0.011
3	16:24:56	75.247%	2.240	2.103	80.613%	-0.062	-0.060	0.012	0.016
x		74.070%	2.219	2.081	79.317%	-0.064	-0.059	0.009	0.011
σ		1.051%	0.065	0.025	1.123%	0.003	0.005	0.002	0.006
%RSD		1.420	2.926	1.184	1.415	4.461	8.465	28.730	54.590
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:06	75.596%	-2.164	-0.728	-0.737	14.210	14.570	81.981%	81.391%
2	16:24:31	76.074%	-1.916	-0.749	-0.749	15.220	14.640	81.058%	80.662%
3	16:24:56	78.694%	-1.979	-0.748	-0.780	14.440	14.790	83.266%	82.973%
x		76.788%	-2.020	-0.742	-0.755	14.620	14.670	82.102%	81.675%
σ		1.668%	0.128	0.012	0.022	0.530	0.117	1.109%	1.182%
%RSD		2.172	6.359	1.572	2.891	3.625	0.794	1.351	1.447
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:24:06	0.032	0.036	0.041	0.032	0.037	85.138%		
2	16:24:31	0.045	0.025	0.035	0.027	0.035	82.973%		
3	16:24:56	0.031	0.034	0.023	0.034	0.032	84.808%		
x		0.036	0.031	0.033	0.031	0.035	84.306%		
σ		0.008	0.006	0.009	0.004	0.003	1.166%		
%RSD		21.650	18.730	28.440	11.780	8.183	1.383		

CCV 1455996 1/21/2015 4:27:53 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	16:28:18	70.855%	102.000	102.300	103.800	0.000	50710.000	48370.000	48460.000
2	16:28:44	74.378%	100.900	104.900	104.000	0.000	51450.000	49610.000	49830.000
3	16:29:09	75.354%	101.800	108.400	105.800	0.000	51750.000	50380.000	50630.000
x		73.529%	101.574%	105.202%	104.510%	0.000	102.606%	98.907%	99.277%
σ		2.367%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.219	0.553	2.895	1.050	0.000	1.045	2.051	2.205
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:18	465.500	5554.000	0.000	50660.000	46840.000	48750.000	73.767%	95.130
2	16:28:44	475.000	5143.000	0.000	52270.000	50470.000	52640.000	74.058%	101.900
3	16:29:09	486.100	5194.000	0.000	54020.000	51500.000	53730.000	74.332%	103.900
x		95.104%	105.943%	0.000	104.630%	99.210%	103.413%	74.052%	100.315%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.283%	n/a
%RSD		2.162	4.235	0.000	3.215	4.931	5.062	0.382	4.597
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:18	90.100	90.120	480.000	23970.000	24860.000	92.010	93.650	92.610
2	16:28:44	94.250	94.880	509.200	25220.000	26560.000	96.890	97.720	97.250
3	16:29:09	95.160	96.910	515.200	25490.000	26800.000	97.840	97.120	97.680
x		93.167%	93.970%	100.298%	99.577%	104.296%	95.577%	96.165%	95.849%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.896	3.708	3.752	3.266	4.063	3.272	2.283	2.937
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:18	92.520	97.280	96.450	94.660	98.350	98.390	0.000	94.630
2	16:28:44	96.370	101.700	99.290	99.160	100.300	98.970	0.000	97.610
3	16:29:09	97.910	102.900	102.100	99.070	102.400	100.400	0.000	97.690
x		95.599%	100.626%	99.275%	97.628%	100.352%	99.259%	0.000	96.643%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.905	2.940	2.839	2.632	2.034	1.045	0.000	1.808
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:18	72.023%	90.890	87.010	76.473%	91.040	92.360	95.510	95.710
2	16:28:44	74.001%	97.770	93.960	78.300%	92.820	93.960	96.860	98.820
3	16:29:09	75.345%	98.500	97.100	79.933%	92.590	93.360	96.740	99.060
x		73.789%	95.720%	92.691%	78.235%	92.151%	93.225%	96.368%	97.863%
σ		1.671%	n/a	n/a	1.731%	n/a	n/a	n/a	n/a
%RSD		2.265	4.390	5.568	2.212	1.053	0.869	0.776	1.907
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:18	72.855%	95.810	95.830	96.460	96.230	97.210	79.145%	81.101%
2	16:28:44	74.493%	98.510	99.390	100.500	98.500	98.340	83.173%	82.216%
3	16:29:09	75.951%	100.000	99.970	101.100	98.610	99.000	83.085%	82.854%
x		74.433%	98.117%	98.397%	99.326%	97.779%	98.184%	81.801%	82.057%
σ		1.549%	n/a	n/a	n/a	n/a	n/a	2.301%	0.887%
%RSD		2.081	2.177	2.278	2.518	1.371	0.919	2.813	1.081
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:28:18	102.700	98.330	100.500	101.100	100.000	82.405%		
2	16:28:44	106.700	103.400	107.700	107.700	106.700	82.390%		
3	16:29:09	107.400	104.500	109.500	109.500	109.300	81.870%		
x		105.581%	102.099%	105.906%	106.109%	105.346%	82.222%		
σ		n/a	n/a	n/a	n/a	n/a	0.305%		
%RSD		2.415	3.244	4.535	4.144	4.557	0.370		

CCB9 1/21/2015 4:35:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

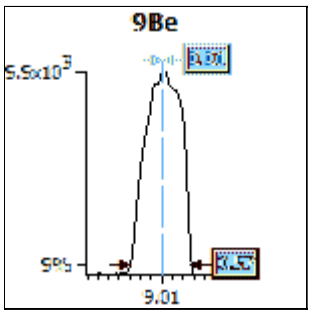
Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:42	75.991%	-0.119	0.120	0.795	0.000	31.390	19.680	18.200
2	16:36:07	77.731%	-0.168	-0.122	0.965	0.000	26.060	14.580	13.130
3	16:36:32	80.403%	-0.186	0.538	0.316	0.000	23.930	10.960	10.900
x		78.042%	-0.158	0.179	0.692	0.000	27.130	15.070	14.080
σ		2.222%	0.035	0.334	0.336	0.000	3.846	4.383	3.738
%RSD		2.847	22.040	186.900	48.620	0.000	14.180	29.080	26.550
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:42	-0.417	7.691	0.000	33.340	23.680	29.850	73.813%	-0.469
2	16:36:07	-0.757	3.331	0.000	22.340	21.190	22.630	75.083%	-0.279
3	16:36:32	-0.633	2.609	0.000	30.870	24.680	19.670	75.358%	-0.433
x		-0.602	4.544	0.000	28.850	23.180	24.050	74.751%	-0.393
σ		0.172	2.750	0.000	5.770	1.801	5.232	0.824%	0.101
%RSD		28.630	60.520	0.000	20.000	7.767	21.750	1.103	25.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:42	0.026	-0.013	0.183	12.460	18.700	0.054	0.005	-0.451
2	16:36:07	0.037	-0.049	0.144	9.340	9.581	0.025	0.007	-0.441
3	16:36:32	-0.072	-0.036	0.099	6.693	8.770	0.018	0.022	-0.406
x		-0.003	-0.033	0.142	9.499	12.350	0.032	0.011	-0.433
σ		0.060	0.019	0.042	2.889	5.513	0.019	0.010	0.024
%RSD		1997.000	57.060	29.480	30.410	44.640	58.630	84.740	5.538
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:42	-0.399	0.102	0.108	-0.072	-0.073	0.452	0.000	0.132
2	16:36:07	-0.428	0.073	0.101	-0.156	-0.371	-0.506	0.000	0.072
3	16:36:32	-0.419	0.037	0.101	0.004	-0.943	1.215	0.000	0.079
x		-0.415	0.070	0.103	-0.075	-0.463	0.387	0.000	0.094
σ		0.015	0.033	0.004	0.080	0.442	0.862	0.000	0.033
%RSD		3.610	46.350	4.073	107.000	95.570	222.900	0.000	34.660
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:42	73.639%	0.392	0.291	80.268%	-0.036	-0.048	0.042	0.038
2	16:36:07	75.497%	0.343	0.329	82.460%	-0.045	-0.039	0.007	-0.012
3	16:36:32	76.321%	0.423	0.296	83.300%	-0.049	-0.053	0.021	0.035
x		75.153%	0.386	0.305	82.009%	-0.043	-0.047	0.023	0.021
σ		1.374%	0.040	0.021	1.566%	0.007	0.007	0.018	0.028
%RSD		1.828	10.350	6.766	1.909	15.080	14.480	76.480	137.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:42	74.859%	-2.524	-0.603	-0.579	0.114	0.117	79.592%	79.662%
2	16:36:07	78.220%	-2.514	-0.624	-0.604	0.068	0.106	81.164%	82.233%
3	16:36:32	78.083%	-2.447	-0.641	-0.633	0.114	0.103	81.597%	83.253%
x		77.054%	-2.495	-0.623	-0.605	0.099	0.109	80.785%	81.716%
σ		1.902%	0.042	0.019	0.027	0.026	0.008	1.055%	1.850%
%RSD		2.469	1.679	2.999	4.501	26.720	6.979	1.306	2.264
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:35:42	0.050	0.039	0.052	0.039	0.034	85.516%		
2	16:36:07	0.029	0.030	0.033	0.031	0.033	85.401%		
3	16:36:32	0.038	0.036	0.033	0.016	0.017	85.955%		
x		0.039	0.035	0.039	0.029	0.028	85.624%		
σ		0.010	0.005	0.011	0.012	0.009	0.292%		
%RSD		26.780	13.480	27.510	42.010	33.740	0.341		

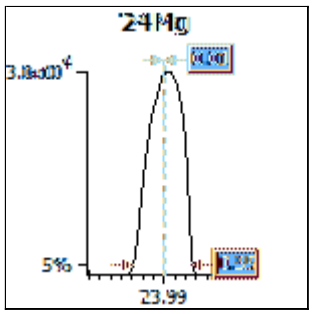
Performance Report

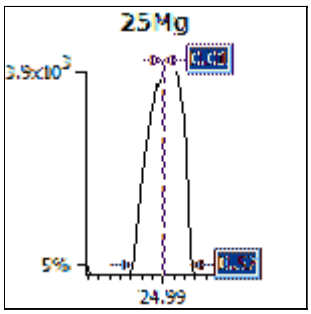
Sample details
Sample name : ITUNE
Acquired at : 1/21/2015 7:43:47 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

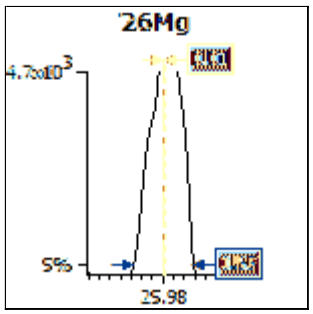
Mass Calibration verification

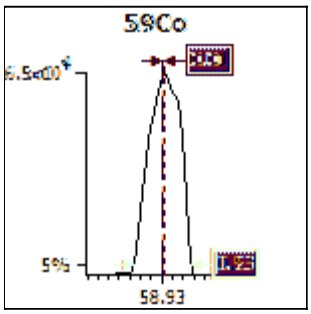
Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

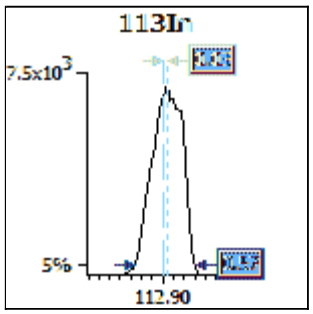


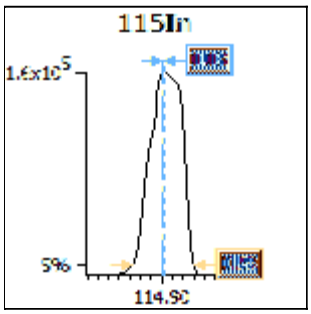


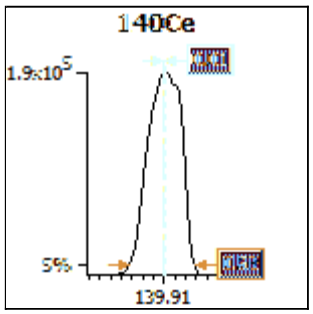


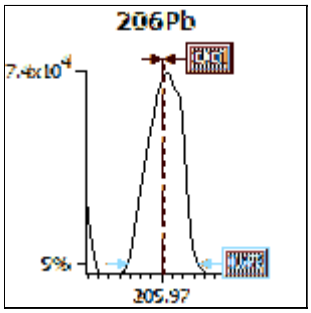


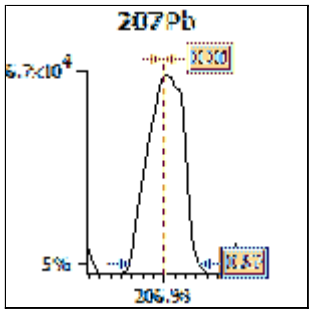


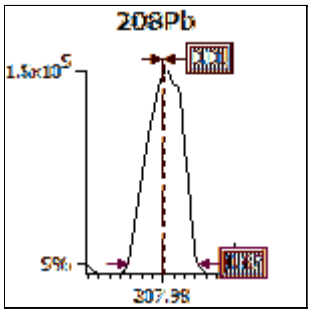












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.57	0.01
24Mg	0.90	0.40	0.10	0.55	0.01
25Mg	0.90	0.40	0.10	0.57	0.01
26Mg	0.90	0.40	0.10	0.57	0.01
59Co	0.90	0.40	0.10	0.53	0.01
113In	0.90	0.40	0.10	0.57	0.03
115In	0.90	0.40	0.10	0.59	0.03
140Ce	0.90	0.40	0.10	0.63	0.01
206Pb	0.90	0.40	0.10	0.69	0.01
207Pb	0.90	0.40	0.10	0.67	0.01
208Pb	0.90	0.40	0.10	0.67	0.01

Sample details
Sample name : ITUNE
Acquired at : 1/21/2015 7:43:47 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-200
Lens 1	4.7
Focus	20.8
D1	-29.0
Pole Bias	-0.0
Hexapole Bias	-3.4
Nebuliser	0.84
Sampling Depth	200

Minor	
Lens 2	-47.8
Lens 3	-170.2
Forward power	1404
Horizontal	31
Vertical	435
D2	-121
DA	-80.0
Cool	14.0
Auxiliary	0.80

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT1	0.00
CCT2	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	-	>100	>500	>150	>150	>500	>500	>10000
1	7:44:33 AM	0	5188	30491	4183	5069	66476	6722	154133
2	7:45:45 AM	1	5283	31070	4325	5154	67105	6704	154021
3	7:46:57 AM	0	5265	31240	4196	5098	66047	6560	151337
4	7:48:08 AM	1	5346	31268	4196	5121	66023	6654	150109
5	7:49:20 AM	0	5432	31372	4326	5096	66125	6415	148712
x		0	5303	31088	4245	5107	66355	6611	151662
σ		0.20	91.41	351.04	73.56	31.84	456.77	126.25	2392.05
%RSD		52.489	1.724	1.129	1.733	0.623	0.688	1.910	1.577

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	5.0%	-	5.0%	5.0%	5.0%	-
	Countrate	>10000	-	>1000	>1000	>5000	-
1	7:44:33 AM	194178	3464	70980	64829	154068	0
2	7:45:45 AM	193831	3381	71015	64510	153030	0
3	7:46:57 AM	190543	3267	69385	63507	150331	0
4	7:48:08 AM	189568	3297	68752	62462	148800	0
5	7:49:20 AM	186842	3208	68069	62098	146121	0
x		190992	3324	69640	63481	150470	0
σ		3068.55	100.54	1323.46	1206.98	3210.16	0.05
%RSD		1.607	3.025	1.900	1.901	2.133	29.881

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	7:44:33 AM	0
2	7:45:45 AM	0
3	7:46:57 AM	0
4	7:48:08 AM	0
5	7:49:20 AM	0
x		0.0174
σ		0.00
%RSD		1.6112

Result : The performance report passed.

Dilution Corrected Concentrations

STD1 1456094 1/22/2015 10:25:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:25:36	98.256%	-0.023	0.275	0.033	0.000	-0.134	-0.133	0.156
2	10:26:02	99.980%	0.012	-0.362	0.052	0.000	0.371	0.102	0.015
3	10:26:27	101.764%	0.010	0.087	-0.085	0.000	-0.237	0.032	-0.171
x		100.000%	0.000	0.000	0.000	0.000	0.000	0.000	-0.000
σ		1.754%	0.020	0.327	0.074	0.000	0.326	0.121	0.164
%RSD		1.754	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	10:25:36	-0.056	0.925	0.000	1.709	-2.872	0.187	99.401%	-0.040
2	10:26:02	0.055	-0.381	0.000	2.507	1.324	-0.025	101.156%	-0.043
3	10:26:27	0.002	-0.544	0.000	-4.216	1.549	-0.162	99.443%	0.083
x		0.000	0.000	0.000	-0.000	-0.000	-0.000	100.000%	-0.000
σ		0.055	0.805	0.000	3.673	2.490	0.175	1.001%	0.072
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.001	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:25:36	0.057	-0.011	-0.012	-0.410	0.465	-0.003	-0.033	0.036
2	10:26:02	-0.049	-0.003	-0.001	-0.021	0.096	-0.000	0.036	0.001
3	10:26:27	-0.008	0.014	0.013	0.431	-0.561	0.003	-0.003	-0.037
x		0.000	-0.000	0.000	0.000	0.000	0.000	-0.000	0.000
σ		0.054	0.012	0.013	0.421	0.520	0.003	0.034	0.036
%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	10:25:36	-0.008	0.011	-0.025	0.022	-0.179	0.806	0.000	0.002
2	10:26:02	0.015	0.008	0.060	0.427	-0.264	2.301	0.000	0.000
3	10:26:27	-0.007	-0.019	-0.035	-0.449	0.442	-3.108	0.000	-0.003
x		0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000
σ		0.013	0.017	0.052	0.438	0.385	2.793	0.000	0.003
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:25:36	97.520%	0.002	0.015	98.535%	-0.006	0.002	0.008	-0.282
2	10:26:02	101.276%	0.016	-0.015	101.403%	-0.002	0.006	-0.004	0.784
3	10:26:27	101.204%	-0.018	0.000	100.062%	0.008	-0.008	-0.004	-0.502
x		100.000%	-0.000	-0.000	100.000%	-0.000	0.000	0.000	0.000
σ		2.148%	0.017	0.015	1.435%	0.007	0.007	0.007	0.688
%RSD		2.148	0.000	0.000	1.435	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	10:25:36	99.788%	0.010	0.001	0.007	0.005	-0.003	96.128%	98.140%
2	10:26:02	100.136%	0.009	-0.005	-0.000	-0.019	0.001	102.759%	101.108%
3	10:26:27	100.077%	-0.019	0.003	-0.007	0.014	0.002	101.113%	100.752%
x		100.000%	0.000	-0.000	0.000	0.000	0.000	100.000%	100.000%
σ		0.186%	0.017	0.004	0.007	0.017	0.003	3.453%	1.620%
%RSD		0.186	0.000	0.000	0.000	0.000	0.000	3.453	1.620

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:25:36	0.001	-0.001	0.004	0.001	-0.001	100.393%
2	10:26:02	0.001	0.000	-0.008	-0.003	0.001	100.951%
3	10:26:27	-0.002	0.001	0.004	0.001	0.001	98.656%
x		-0.000	-0.000	0.000	-0.000	0.000	100.000%
σ		0.002	0.001	0.007	0.002	0.001	1.197%
%RSD		0.000	0.000	0.000	0.000	0.000	1.197

STD2 1467881 1/22/2015 10:28:22 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	88.371%	195.600	0.836	0.118	0.000	99040.000	99180.000	99440.000
2	10:29:12	90.504%	201.300	0.880	0.488	0.000	99940.000	99980.000	99670.000
3	10:29:37	89.894%	203.000	0.550	0.339	0.000	101000.000	100800.000	100900.000
x		89.590%	200.000	0.755	0.315	0.000	100000.000	100000.000	100000.000
σ		1.098%	3.900	0.179	0.186	0.000	992.600	831.500	780.400
%RSD		1.226	1.950	23.670	59.050	0.000	0.993	0.832	0.780

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	993.900	18.790	0.000	99350.000	98870.000	99560.000	92.729%	0.168
2	10:29:12	997.500	19.780	0.000	99790.000	99390.000	98930.000	94.851%	0.160
3	10:29:37	1009.000	20.240	0.000	100900.000	101700.000	101500.000	94.245%	0.178
x		1000.000	19.600	0.000	100000.000	100000.000	100000.000	93.942%	0.169
σ		7.601	0.741	0.000	777.000	1522.000	1348.000	1.093%	0.009
%RSD		0.760	3.779	0.000	0.777	1.522	1.348	1.164	5.418

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	199.800	198.200	994.900	49740.000	49480.000	199.100	199.200	199.700
2	10:29:12	200.000	199.700	999.100	49910.000	50240.000	201.200	201.000	198.600
3	10:29:37	200.200	202.000	1006.000	50350.000	50270.000	199.700	199.800	201.700
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		0.247	1.914	5.624	314.300	446.700	1.089	0.916	1.545
%RSD		0.124	0.957	0.562	0.629	0.893	0.545	0.458	0.772

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	197.900	196.800	199.000	199.500	200.000	199.000	0.000	199.700
2	10:29:12	200.900	201.800	199.200	199.900	206.400	196.600	0.000	200.700
3	10:29:37	201.100	201.400	201.700	200.600	193.500	204.400	0.000	199.600
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		1.787	2.818	1.506	0.529	6.439	4.011	0.000	0.627
%RSD		0.894	1.409	0.753	0.265	3.219	2.005	0.000	0.313

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	91.419%	0.088	0.085	88.685%	198.800	198.800	197.800	198.500
2	10:29:12	93.877%	0.046	0.098	89.926%	201.500	201.300	202.100	200.200
3	10:29:37	94.600%	0.120	0.118	90.009%	199.600	199.900	200.100	201.200
x		93.299%	0.085	0.101	89.540%	200.000	200.000	200.000	200.000
σ		1.668%	0.037	0.017	0.742%	1.384	1.240	2.143	1.383
%RSD		1.788	43.860	16.560	0.828	0.692	0.620	1.072	0.691

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	90.357%	0.063	0.186	0.184	199.000	200.800	93.144%	92.976%
2	10:29:12	92.575%	0.062	0.193	0.133	201.200	200.500	94.842%	95.082%
3	10:29:37	93.873%	0.047	0.180	0.137	199.800	198.800	94.322%	96.244%
x		92.269%	0.057	0.186	0.151	200.000	200.000	94.103%	94.767%
σ		1.778%	0.009	0.007	0.028	1.138	1.078	0.870%	1.656%
%RSD		1.927	15.800	3.579	18.680	0.569	0.539	0.924	1.748

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:47	197.100	194.700	195.500	196.200	195.300	98.896%
2	10:29:12	201.400	202.000	202.000	202.000	201.700	97.961%
3	10:29:37	201.400	203.300	202.600	201.700	203.000	97.686%
x		200.000	200.000	200.000	200.000	200.000	98.181%
σ		2.474	4.624	3.930	3.282	4.136	0.634%
%RSD		1.237	2.312	1.965	1.641	2.068	0.646

STD3 1467882 1/22/2015 10:32:31 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:57	88.817%	0.150	200.700	202.000	0.000	123.800	64.600	67.240
2	10:33:22	90.775%	0.251	197.600	201.300	0.000	116.000	66.030	66.310
3	10:33:47	91.865%	0.168	201.800	196.700	0.000	113.700	68.040	63.770
x		90.486%	0.190	200.000	200.000	0.000	117.800	66.220	65.770
σ		1.544%	0.054	2.172	2.873	0.000	5.301	1.726	1.797
%RSD		1.706	28.350	1.086	1.436	0.000	4.500	2.606	2.733
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:57	5.232	10110.000	0.000	73.340	94.210	152.600	89.211%	198.700
2	10:33:22	5.060	9979.000	0.000	70.140	77.420	142.500	92.795%	199.800
3	10:33:47	4.943	9909.000	0.000	63.090	83.420	145.000	93.106%	201.600
x		5.078	10000.000	0.000	68.850	85.020	146.700	91.704%	200.000
σ		0.145	103.300	0.000	5.245	8.505	5.235	2.164%	1.483
%RSD		2.863	1.033	0.000	7.618	10.000	3.568	2.360	0.741
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:57	0.232	0.138	1.772	91.030	96.420	0.163	0.425	0.253
2	10:33:22	0.154	0.122	1.648	67.450	67.580	0.141	0.381	0.226
3	10:33:47	0.146	0.110	1.778	53.240	55.390	0.125	0.268	0.204
x		0.177	0.123	1.733	70.570	73.130	0.143	0.358	0.227
σ		0.048	0.014	0.074	19.090	21.070	0.019	0.081	0.025
%RSD		26.800	11.260	4.251	27.050	28.810	13.430	22.610	10.880
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:57	0.325	0.837	0.847	0.912	0.997	5.212	0.000	0.235
2	10:33:22	0.172	0.864	0.981	0.456	0.463	2.611	0.000	0.210
3	10:33:47	0.472	0.835	0.998	-0.187	-0.261	-1.235	0.000	0.197
x		0.323	0.845	0.942	0.394	0.400	2.196	0.000	0.214
σ		0.150	0.016	0.083	0.552	0.631	3.243	0.000	0.020
%RSD		46.510	1.942	8.779	140.200	157.900	147.700	0.000	9.112
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:57	90.232%	195.800	196.100	92.810%	0.131	0.156	0.357	-1.017
2	10:33:22	94.031%	201.900	202.000	93.773%	0.161	0.148	0.349	-0.563
3	10:33:47	94.493%	202.200	202.000	94.685%	0.132	0.141	0.317	-1.255
x		92.919%	200.000	200.000	93.756%	0.141	0.148	0.341	-0.945
σ		2.338%	3.598	3.405	0.938%	0.017	0.007	0.021	0.352
%RSD		2.516	1.799	1.702	1.000	12.140	5.040	6.292	37.220
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:57	91.957%	197.100	197.800	199.300	0.179	0.463	93.851%	93.962%
2	10:33:22	94.792%	201.900	201.500	200.700	0.240	0.497	95.348%	96.269%
3	10:33:47	95.219%	201.000	200.600	200.000	0.222	0.448	96.651%	98.044%
x		93.989%	200.000	200.000	200.000	0.214	0.469	95.284%	96.091%
σ		1.773%	2.554	1.927	0.706	0.032	0.025	1.401%	2.047%
%RSD		1.887	1.277	0.964	0.353	14.780	5.421	1.470	2.130
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:32:57	0.148	0.141	0.130	0.174	0.166	94.228%		
2	10:33:22	0.129	0.136	0.174	0.169	0.160	95.679%		
3	10:33:47	0.157	0.130	0.147	0.153	0.147	96.578%		
x		0.145	0.136	0.150	0.166	0.158	95.495%		
σ		0.014	0.006	0.022	0.011	0.010	1.186%		
%RSD		9.798	4.052	14.960	6.579	6.102	1.242		

ICV 1451360 1/22/2015 10:36:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:07	89.500%	75.010	84.950	85.680	0.000	38720.000	37820.000	37550.000
2	10:37:32	90.297%	78.560	88.260	89.060	0.000	39410.000	38400.000	38620.000
3	10:37:57	93.564%	78.500	86.720	87.530	0.000	39460.000	38560.000	38710.000
x		91.120%	96.695%	108.303%	109.281%	0.000	97.999%	95.653%	95.740%
σ		2.153%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.363	2.629	1.915	1.939	0.000	1.050	1.013	1.681
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:07	372.000	4748.000	0.000	39950.000	38560.000	38900.000	90.911%	79.780
2	10:37:32	380.700	4682.000	0.000	40610.000	39530.000	40050.000	92.809%	83.040
3	10:37:57	384.200	4621.000	0.000	40740.000	40270.000	41170.000	93.396%	84.940
x		94.744%	117.089%	0.000	101.086%	98.641%	100.096%	92.372%	103.237%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.299%	n/a
%RSD		1.648	1.356	0.000	1.042	2.172	2.840	1.406	3.162
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:07	78.080	78.880	397.900	19540.000	19930.000	78.520	80.050	79.220
2	10:37:32	79.710	80.340	414.100	20040.000	20600.000	79.740	80.870	82.300
3	10:37:57	79.340	80.770	415.500	20340.000	20940.000	81.070	81.760	82.360
x		98.802%	99.994%	102.300%	99.885%	102.440%	99.723%	101.119%	101.615%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.080	1.240	2.391	2.022	2.514	1.599	1.060	2.212
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:07	79.980	79.880	80.660	80.860	76.610	86.320	0.000	77.350
2	10:37:32	80.420	79.890	81.640	81.870	81.940	86.440	0.000	79.470
3	10:37:57	81.760	81.890	81.210	81.820	85.430	83.220	0.000	79.670
x		100.899%	100.690%	101.464%	101.900%	101.659%	106.656%	0.000	98.532%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.150	1.438	0.604	0.697	5.463	2.142	0.000	1.631
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:07	89.589%	81.410	79.980	94.661%	75.540	77.290	76.120	77.580
2	10:37:32	91.899%	86.360	86.580	89.740%	81.070	80.120	81.700	80.430
3	10:37:57	94.168%	89.980	87.860	90.510%	80.580	79.970	81.270	80.310
x		91.885%	107.398%	106.011%	91.637%	98.829%	98.908%	99.620%	99.303%
σ		2.290%	n/a	n/a	2.647%	n/a	n/a	n/a	n/a
%RSD		2.492	5.004	4.988	2.888	3.868	2.017	3.893	2.029
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:07	90.082%	81.860	82.640	82.380	80.600	79.800	92.508%	92.945%
2	10:37:32	92.287%	82.370	83.170	82.600	80.400	80.230	93.826%	94.053%
3	10:37:57	93.753%	82.750	83.460	82.920	80.520	81.690	96.699%	97.043%
x		92.041%	102.908%	103.863%	103.293%	100.635%	100.720%	94.344%	94.680%
σ		1.848%	n/a	n/a	n/a	n/a	n/a	2.143%	2.120%
%RSD		2.008	0.544	0.497	0.329	0.126	1.228	2.272	2.239
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:37:07	80.920	78.150	78.690	75.170	76.410	98.791%		
2	10:37:32	83.220	80.930	82.810	79.410	80.040	99.053%		
3	10:37:57	84.680	81.910	83.680	81.030	81.910	98.277%		
x		103.676%	100.411%	102.161%	98.172%	99.315%	98.707%		
σ		n/a	n/a	n/a	n/a	n/a	0.395%		
%RSD		2.284	2.431	3.261	3.851	3.524	0.400		

ICB 1/22/2015 10:44:02 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	93.010%	0.074	-0.321	0.398	0.000	33.150	9.627	9.641
2	10:44:52	96.081%	-0.021	0.304	0.095	0.000	30.240	8.897	8.418
3	10:45:17	96.937%	0.004	0.371	0.251	0.000	30.240	7.626	8.061
x		95.342%	0.019	0.118	0.248	0.000	31.210	8.717	8.707
σ		2.065%	0.049	0.382	0.152	0.000	1.682	1.012	0.829
%RSD		2.166	259.600	323.900	61.080	0.000	5.389	11.610	9.516

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	0.475	7.981	0.000	15.720	10.290	12.640	93.973%	0.049
2	10:44:52	0.352	5.227	0.000	14.140	12.950	6.867	95.611%	-0.004
3	10:45:17	0.352	3.721	0.000	8.276	4.849	7.855	97.746%	-0.086
x		0.393	5.643	0.000	12.710	9.362	9.120	95.777%	-0.014
σ		0.071	2.160	0.000	3.921	4.129	3.086	1.892%	0.068
%RSD		18.070	38.280	0.000	30.850	44.110	33.840	1.975	499.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	-0.080	0.024	0.048	10.640	13.270	0.004	0.016	-0.014
2	10:44:52	0.061	0.006	0.032	9.021	10.630	0.023	0.017	-0.020
3	10:45:17	0.095	-0.002	0.042	8.081	7.376	0.010	-0.040	-0.030
x		0.025	0.010	0.041	9.247	10.420	0.013	-0.002	-0.021
σ		0.093	0.013	0.008	1.295	2.953	0.010	0.033	0.009
%RSD		368.700	137.600	20.650	14.000	28.330	76.800	1631.000	40.110

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	-0.018	-0.004	0.065	0.483	0.329	3.105	0.000	0.035
2	10:44:52	-0.038	0.015	0.150	0.552	-0.007	3.381	0.000	0.032
3	10:45:17	-0.044	0.033	0.070	0.370	0.343	2.981	0.000	0.028
x		-0.033	0.015	0.095	0.468	0.222	3.156	0.000	0.032
σ		0.013	0.018	0.048	0.092	0.198	0.205	0.000	0.004
%RSD		40.570	124.400	50.390	19.620	89.330	6.498	0.000	11.440

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	93.307%	0.198	0.224	94.789%	0.016	0.011	0.013	-0.578
2	10:44:52	98.233%	0.202	0.254	96.403%	0.027	0.013	0.000	-0.503
3	10:45:17	98.056%	0.256	0.167	98.006%	0.008	0.013	0.029	-0.546
x		96.532%	0.219	0.215	96.400%	0.017	0.012	0.014	-0.542
σ		2.794%	0.033	0.045	1.608%	0.009	0.001	0.014	0.038
%RSD		2.895	14.920	20.730	1.668	53.070	8.942	102.100	7.003

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	95.228%	0.133	0.044	0.022	0.026	0.034	95.500%	95.296%
2	10:44:52	98.346%	0.104	0.055	0.040	0.050	0.053	95.632%	97.380%
3	10:45:17	99.103%	0.119	0.061	0.053	0.059	0.038	96.851%	98.902%
x		97.559%	0.119	0.053	0.038	0.045	0.042	95.994%	97.193%
σ		2.054%	0.015	0.009	0.015	0.017	0.010	0.745%	1.810%
%RSD		2.106	12.200	15.990	40.360	37.610	23.340	0.776	1.862

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:27	0.020	0.019	0.005	0.023	0.013	102.232%
2	10:44:52	0.014	0.014	0.016	0.012	0.012	102.989%
3	10:45:17	0.009	0.014	0.007	-0.005	0.008	103.441%
x		0.015	0.016	0.009	0.010	0.011	102.888%
σ		0.006	0.003	0.006	0.014	0.003	0.611%
%RSD		37.950	16.730	64.830	145.300	26.810	0.594

CRI 1451384 1/22/2015 10:48:14 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:39	91.999%	1.101	4.607	5.368	0.000	117.300	97.850	97.950
2	10:49:04	96.006%	0.953	5.438	5.279	0.000	119.300	99.080	96.620
3	10:49:29	96.584%	0.796	6.041	4.221	0.000	119.700	98.830	99.170
x		94.863%	94.988%	107.247%	99.126%	0.000	148.448%	98.589%	97.911%
σ		2.497%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.632	16.080	13.430	12.870	0.000	1.077	0.660	1.301
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:39	30.500	489.200	0.000	102.800	105.500	98.740	95.814%	5.261
2	10:49:04	30.560	482.700	0.000	109.300	96.540	97.960	96.738%	5.222
3	10:49:29	30.910	488.600	0.000	107.500	111.600	105.500	96.892%	5.386
x		102.190%	97.372%	0.000	106.541%	104.536%	100.726%	96.481%	105.794%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.583%	n/a
%RSD		0.727	0.735	0.000	3.180	7.231	4.101	0.605	1.624
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:39	0.910	1.950	4.909	54.130	53.500	0.502	1.001	2.050
2	10:49:04	0.985	1.944	5.031	55.310	55.080	0.538	0.867	2.107
3	10:49:29	1.079	2.065	5.031	53.930	50.880	0.498	0.998	2.139
x		99.137%	99.321%	99.799%	108.916%	106.310%	102.547%	95.536%	104.930%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		8.553	3.425	1.411	1.365	3.988	4.335	8.041	2.156
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:39	2.007	4.860	5.339	1.043	5.468	4.411	0.000	4.787
2	10:49:04	2.079	4.942	5.067	0.894	5.858	3.563	0.000	4.933
3	10:49:29	2.086	5.217	5.354	1.588	6.016	7.993	0.000	4.917
x		102.869%	100.125%	105.065%	117.504%	115.611%	106.442%	0.000	97.582%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.109	3.728	3.073	31.070	4.883	44.190	0.000	1.648
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:39	94.898%	4.849	4.904	95.620%	1.044	0.963	0.948	0.148
2	10:49:04	97.060%	5.021	5.108	95.894%	1.005	0.948	0.980	0.286
3	10:49:29	97.807%	5.487	4.987	98.505%	0.994	0.967	0.949	-0.712
x		96.589%	102.380%	99.996%	96.673%	101.451%	95.922%	95.886%	-9.280%
σ		1.511%	n/a	n/a	1.593%	n/a	n/a	n/a	n/a
%RSD		1.565	6.446	2.049	1.647	2.614	1.047	1.928	583.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:39	96.849%	5.000	1.833	1.848	9.640	10.070	94.575%	95.350%
2	10:49:04	98.162%	5.234	1.956	2.074	9.849	9.772	98.206%	97.704%
3	10:49:29	98.502%	5.376	2.007	1.985	9.775	9.938	99.540%	99.382%
x		97.838%	104.059%	96.610%	98.447%	97.548%	99.285%	97.440%	97.479%
σ		0.873%	n/a	n/a	n/a	n/a	n/a	2.569%	2.025%
%RSD		0.892	3.649	4.633	5.790	1.084	1.525	2.637	2.078
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:48:39	0.909	0.871	0.997	0.922	0.945	108.580%		
2	10:49:04	0.913	0.899	1.021	0.952	0.976	106.064%		
3	10:49:29	0.960	0.929	1.067	0.984	1.023	106.598%		
x		92.692%	89.942%	102.843%	95.256%	98.130%	107.081%		
σ		n/a	n/a	n/a	n/a	n/a	1.326%		
%RSD		3.047	3.219	3.483	3.273	3.981	1.238		

ICSA 1462866 1/22/2015 10:52:29 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:54	77.518%	0.016	0.385	0.635	0.000	101500.000	99370.000	97920.000
2	10:53:20	81.892%	-0.079	0.133	0.186	0.000	100500.000	98210.000	98160.000
3	10:53:46	79.641%	-0.048	0.642	0.439	0.000	101400.000	100300.000	99880.000
x		79.683%	-0.037	0.386	0.420	0.000	101200.000	99290.000	98650.000
σ		2.187%	0.048	0.254	0.225	0.000	535.300	1034.000	1067.000
%RSD		2.745	129.700	65.840	53.670	0.000	0.529	1.041	1.082
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:54	97880.000	30.510	0.000	102200.000	99430.000	100400.000	82.352%	2163.000
2	10:53:20	97380.000	27.600	0.000	103400.000	104400.000	106500.000	83.431%	2215.000
3	10:53:46	98780.000	28.530	0.000	105400.000	104700.000	104300.000	82.964%	2195.000
x		98010.000	28.880	0.000	103700.000	102900.000	103700.000	82.916%	2191.000
σ		710.300	1.487	0.000	1573.000	2975.000	3088.000	0.541%	26.560
%RSD		0.725	5.148	0.000	1.517	2.892	2.977	0.652	1.212
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:54	-0.443	0.100	0.522	100100.000	100600.000	0.127	-0.389	1.152
2	10:53:20	-0.254	0.272	0.552	101700.000	103600.000	0.118	-0.430	1.080
3	10:53:46	-0.205	0.113	0.521	101900.000	101800.000	0.102	-0.296	1.131
x		-0.301	0.161	0.532	101200.000	102000.000	0.115	-0.371	1.121
σ		0.126	0.096	0.018	990.800	1487.000	0.013	0.069	0.037
%RSD		41.740	59.290	3.331	0.979	1.458	10.900	18.480	3.277
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:54	2.039	3.024	2.208	0.164	0.317	0.495	0.000	0.675
2	10:53:20	1.986	3.269	1.953	-0.107	0.053	-0.688	0.000	0.688
3	10:53:46	2.010	3.082	2.034	0.025	0.283	0.797	0.000	0.697
x		2.012	3.125	2.065	0.027	0.218	0.202	0.000	0.687
σ		0.026	0.128	0.130	0.135	0.143	0.785	0.000	0.011
%RSD		1.306	4.099	6.317	493.300	65.840	389.500	0.000	1.588
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:54	83.088%	2219.000	2243.000	83.550%	0.040	0.053	2.337	-0.117
2	10:53:20	86.149%	2278.000	2389.000	84.484%	0.041	0.048	2.295	-0.311
3	10:53:46	86.368%	2278.000	2214.000	84.485%	0.040	0.039	2.168	-0.210
x		85.201%	2259.000	2282.000	84.173%	0.040	0.047	2.267	-0.213
σ		1.834%	33.900	93.860	0.539%	0.000	0.007	0.088	0.097
%RSD		2.152	1.501	4.113	0.641	1.049	15.310	3.895	45.730
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:54	83.946%	0.145	0.054	0.060	0.144	0.107	88.193%	90.154%
2	10:53:20	85.251%	0.135	0.056	0.046	0.107	0.087	92.807%	92.455%
3	10:53:46	84.036%	0.165	0.066	0.071	0.098	0.102	90.237%	92.443%
x		84.411%	0.148	0.059	0.059	0.116	0.099	90.412%	91.684%
σ		0.729%	0.016	0.006	0.012	0.025	0.010	2.312%	1.325%
%RSD		0.863	10.570	10.810	20.880	21.180	10.280	2.557	1.445
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:52:54	0.004	0.006	0.192	0.159	0.182	109.489%		
2	10:53:20	0.008	0.006	0.214	0.216	0.202	104.528%		
3	10:53:46	0.010	0.007	0.240	0.188	0.213	96.123%		
x		0.007	0.006	0.215	0.188	0.199	103.380%		
σ		0.003	0.001	0.024	0.029	0.016	6.757%		
%RSD		44.570	9.742	11.240	15.270	7.891	6.536		

ICSAB 1462867 1/22/2015 10:56:44 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:09	78.182%	19.790	50.760	50.460	0.000	99580.000	97160.000	97750.000
2	10:57:34	81.197%	20.690	53.700	52.060	0.000	100300.000	98420.000	99020.000
3	10:57:59	82.734%	20.220	54.130	51.350	0.000	99880.000	98520.000	98780.000
x		80.704%	101.163%	105.726%	102.578%	0.000	99.909%	98.034%	98.519%
σ		2.315%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.869	2.213	3.473	1.570	0.000	0.348	0.775	0.688
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:09	95710.000	522.600	0.000	102600.000	101200.000	102100.000	81.452%	2143.000
2	10:57:34	97970.000	528.200	0.000	105500.000	104500.000	105800.000	82.547%	2215.000
3	10:57:59	97680.000	519.900	0.000	104000.000	104500.000	106600.000	83.429%	2227.000
x		97.121%	104.711%	0.000	104.059%	103.404%	104.828%	82.476%	109.740%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.991%	n/a
%RSD		1.265	0.811	0.000	1.418	1.847	2.273	1.201	2.067
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:09	18.900	19.400	20.040	100500.000	101900.000	19.410	18.660	20.700
2	10:57:34	19.020	19.850	20.390	103500.000	104900.000	20.040	19.860	21.150
3	10:57:59	19.490	20.230	20.370	105000.000	106900.000	20.170	20.130	21.330
x		95.697%	99.120%	101.330%	102.996%	104.546%	99.366%	97.748%	105.291%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.631	2.100	0.978	2.240	2.414	2.052	3.997	1.546
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:09	21.650	23.310	22.180	21.100	53.580	50.630	0.000	20.250
2	10:57:34	22.190	23.960	22.330	21.480	52.120	54.780	0.000	20.680
3	10:57:59	23.200	24.750	22.210	21.860	52.900	56.590	0.000	21.290
x		111.724%	96.033%	88.962%	107.386%	105.732%	108.005%	0.000	103.712%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.541	3.002	0.358	1.774	1.386	5.656	0.000	2.509
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:09	79.247%	2257.000	2312.000	81.301%	19.070	18.910	22.170	19.470
2	10:57:34	82.507%	2345.000	2396.000	84.452%	19.060	19.120	21.610	19.740
3	10:57:59	81.986%	2372.000	2320.000	84.329%	18.840	18.590	22.360	19.020
x		81.247%	116.233%	117.127%	83.361%	94.953%	94.372%	110.230%	97.038%
σ		1.752%	n/a	n/a	1.785%	n/a	n/a	n/a	n/a
%RSD		2.156	2.573	1.983	2.141	0.695	1.406	1.780	1.884
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:09	82.058%	100.900	20.480	20.710	19.460	19.770	88.744%	89.732%
2	10:57:34	85.169%	103.600	21.050	20.280	19.810	20.130	92.208%	92.475%
3	10:57:59	87.948%	101.300	20.390	20.230	18.780	19.450	92.680%	93.369%
x		85.058%	101.928%	103.201%	102.030%	96.744%	98.905%	91.211%	91.858%
σ		2.947%	n/a	n/a	n/a	n/a	n/a	2.149%	1.896%
%RSD		3.464	1.440	1.716	1.290	2.716	1.714	2.357	2.064
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:57:09	18.930	18.120	19.790	19.480	19.220	94.105%		
2	10:57:34	20.380	18.950	20.810	20.220	20.320	93.290%		
3	10:57:59	20.000	19.120	20.720	20.700	20.340	94.611%		
x		98.860%	93.659%	102.189%	100.659%	99.786%	94.002%		
σ		n/a	n/a	n/a	n/a	n/a	0.667%		
%RSD		3.811	2.851	2.768	3.054	3.212	0.709		

CCV 1455996 1/22/2015 11:04:02 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:27	79.449%	97.350	104.300	104.100	0.000	48860.000	47570.000	47550.000
2	11:04:52	82.018%	101.700	103.800	103.300	0.000	49320.000	48550.000	48520.000
3	11:05:17	82.282%	105.300	109.600	105.500	0.000	49920.000	49180.000	49270.000
x		81.250%	101.460%	105.905%	104.320%	0.000	98.734%	96.866%	96.891%
σ		1.565%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.927	3.934	3.044	1.038	0.000	1.076	1.665	1.775
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:27	462.900	5071.000	0.000	50630.000	47600.000	47580.000	88.552%	95.520
2	11:04:52	474.100	5117.000	0.000	50470.000	49700.000	49020.000	91.458%	97.230
3	11:05:17	483.900	5151.000	0.000	50430.000	48530.000	49040.000	91.811%	99.040
x		94.725%	102.263%	0.000	101.025%	97.219%	97.093%	90.607%	97.265%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.789%	n/a
%RSD		2.216	0.794	0.000	0.211	2.160	1.725	1.974	1.808
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:27	93.060	94.190	497.700	24240.000	25200.000	95.730	95.780	97.420
2	11:04:52	93.890	95.430	509.100	24820.000	25660.000	97.060	97.450	98.840
3	11:05:17	96.050	97.240	517.600	25350.000	26110.000	97.820	98.260	100.000
x		94.333%	95.617%	101.626%	99.224%	102.628%	96.871%	97.164%	98.762%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.634	1.605	1.969	2.236	1.764	1.089	1.303	1.321
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:27	97.450	98.780	101.300	101.800	106.800	109.300	0.000	101.400
2	11:04:52	98.960	101.000	101.400	101.600	102.900	105.000	0.000	101.400
3	11:05:17	100.200	102.400	102.400	102.800	104.600	100.800	0.000	103.500
x		98.874%	100.734%	101.687%	102.052%	104.759%	105.050%	0.000	102.089%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.397	1.829	0.603	0.679	1.876	4.026	0.000	1.195
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:27	83.077%	98.720	95.190	92.083%	92.640	93.760	94.890	96.850
2	11:04:52	86.992%	104.000	103.600	89.845%	96.210	96.090	97.690	96.200
3	11:05:17	87.175%	108.500	105.800	89.791%	96.610	96.620	99.590	96.930
x		85.748%	103.717%	101.547%	90.573%	95.152%	95.489%	97.389%	96.657%
σ		2.315%	n/a	n/a	1.308%	n/a	n/a	n/a	n/a
%RSD		2.700	4.706	5.522	1.444	2.298	1.595	2.427	0.413
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:27	89.178%	97.150	97.800	97.980	96.530	96.910	93.264%	94.364%
2	11:04:52	92.881%	98.780	98.480	97.850	95.850	98.160	95.842%	97.007%
3	11:05:17	94.061%	99.060	98.380	99.100	98.270	97.820	96.667%	97.113%
x		92.040%	98.331%	98.219%	98.309%	96.884%	97.629%	95.258%	96.161%
σ		2.548%	n/a	n/a	n/a	n/a	n/a	1.775%	1.557%
%RSD		2.768	1.053	0.376	0.701	1.287	0.662	1.863	1.619
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:04:27	97.420	94.610	97.100	96.810	96.270	96.632%		
2	11:04:52	100.300	97.330	100.800	99.920	99.560	97.296%		
3	11:05:17	101.800	98.710	103.400	103.300	102.500	96.620%		
x		99.860%	96.883%	100.454%	100.008%	99.455%	96.849%		
σ		n/a	n/a	n/a	n/a	n/a	0.387%		
%RSD		2.243	2.149	3.159	3.246	3.154	0.400		

CCB1 1/22/2015 11:11:20 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:45	91.869%	0.036	-0.062	0.319	0.000	66.050	9.266	9.450
2	11:12:10	91.316%	-0.030	0.109	0.242	0.000	64.310	9.474	9.857
3	11:12:35	94.992%	-0.007	0.316	-0.008	0.000	63.950	9.665	8.956
x		92.726%	-0.000	0.121	0.184	0.000	64.770	9.468	9.421
σ		1.982%	0.033	0.189	0.171	0.000	1.122	0.200	0.451
%RSD		2.138	53620.000	156.200	92.890	0.000	1.732	2.111	4.787
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:45	1.284	5.290	0.000	24.620	12.380	12.460	92.002%	0.070
2	11:12:10	0.823	1.654	0.000	27.850	11.700	6.173	94.709%	0.112
3	11:12:35	0.832	1.822	0.000	23.460	22.100	7.297	95.965%	0.092
x		0.980	2.922	0.000	25.310	15.390	8.645	94.225%	0.091
σ		0.263	2.053	0.000	2.276	5.817	3.355	2.025%	0.021
%RSD		26.880	70.250	0.000	8.991	37.790	38.810	2.149	23.020
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:45	0.033	0.014	-0.006	18.120	11.320	0.018	-0.059	-0.057
2	11:12:10	0.083	0.013	-0.000	16.890	8.450	0.028	-0.037	-0.052
3	11:12:35	0.080	0.083	0.006	14.920	9.794	0.018	-0.043	0.008
x		0.065	0.037	0.000	16.640	9.853	0.021	-0.046	-0.034
σ		0.028	0.040	0.006	1.618	1.434	0.006	0.012	0.036
%RSD		43.240	108.400	3584.000	9.724	14.550	28.240	25.200	108.200
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:45	-0.067	0.060	0.157	0.221	1.523	2.126	0.000	0.033
2	11:12:10	-0.033	0.102	0.215	0.014	0.746	0.015	0.000	0.027
3	11:12:35	-0.077	0.026	0.072	-0.121	0.727	-0.368	0.000	0.041
x		-0.059	0.063	0.148	0.038	0.999	0.591	0.000	0.034
σ		0.023	0.038	0.072	0.172	0.454	1.343	0.000	0.007
%RSD		38.370	60.550	48.720	454.200	45.490	227.300	0.000	20.730
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:45	91.394%	0.825	0.772	92.978%	0.009	0.011	0.005	-0.541
2	11:12:10	94.830%	0.904	0.812	95.481%	0.016	0.025	0.009	-0.611
3	11:12:35	99.080%	0.890	0.784	96.370%	0.010	0.017	0.017	-0.570
x		95.101%	0.873	0.789	94.943%	0.012	0.017	0.010	-0.574
σ		3.850%	0.042	0.021	1.759%	0.004	0.007	0.006	0.035
%RSD		4.048	4.858	2.640	1.853	30.380	39.030	61.840	6.144
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:45	96.918%	0.153	0.123	0.106	0.021	0.034	93.509%	94.904%
2	11:12:10	96.377%	0.154	0.138	0.133	0.026	0.045	94.800%	96.571%
3	11:12:35	98.070%	0.138	0.143	0.139	0.035	0.032	99.113%	99.114%
x		97.122%	0.148	0.135	0.126	0.027	0.037	95.807%	96.863%
σ		0.864%	0.009	0.011	0.017	0.007	0.007	2.935%	2.120%
%RSD		0.890	6.003	7.807	13.740	24.410	18.850	3.063	2.189
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:11:45	0.015	0.014	-0.010	-0.007	-0.002	103.027%		
2	11:12:10	0.015	0.016	0.003	0.005	0.010	100.348%		
3	11:12:35	0.019	0.015	0.009	0.011	0.010	102.107%		
x		0.016	0.015	0.001	0.003	0.006	101.827%		
σ		0.002	0.001	0.010	0.009	0.007	1.361%		
%RSD		13.890	6.653	1497.000	306.600	111.800	1.337		

MB 180-130798/1-A 1/22/2015 11:15:32 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:57	94.196%	0.033	0.664	0.162	0.000	54.190	3.514	2.969
2	11:16:22	98.292%	-0.010	0.363	0.006	0.000	46.550	3.400	2.380
3	11:16:47	101.150%	-0.000	0.405	0.159	0.000	42.200	3.384	2.922
x		97.880%	0.008	0.477	0.109	0.000	47.650	3.433	2.757
σ		3.495%	0.023	0.163	0.089	0.000	6.072	0.071	0.327
%RSD		3.571	294.200	34.160	81.820	0.000	12.740	2.057	11.870
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:57	0.617	3.396	0.000	76.360	16.510	8.520	88.885%	0.078
2	11:16:22	0.794	1.000	0.000	70.020	28.290	10.490	91.978%	0.103
3	11:16:47	0.540	0.904	0.000	69.370	16.310	12.530	94.407%	-0.018
x		0.651	1.767	0.000	71.920	20.370	10.510	91.756%	0.054
σ		0.130	1.412	0.000	3.862	6.855	2.006	2.768%	0.064
%RSD		20.030	79.900	0.000	5.370	33.650	19.080	3.016	117.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:57	-0.171	0.677	-0.071	10.980	2.718	-0.005	0.008	0.133
2	11:16:22	-0.372	0.700	-0.092	9.349	-2.114	0.003	0.075	0.174
3	11:16:47	-0.181	0.604	-0.060	9.419	-1.140	0.003	-0.010	0.244
x		-0.241	0.660	-0.074	9.916	-0.179	0.000	0.024	0.184
σ		0.113	0.050	0.016	0.922	2.555	0.005	0.045	0.056
%RSD		46.900	7.609	21.590	9.302	1429.000	1255.000	183.700	30.630
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:57	0.117	1.047	1.268	0.555	0.511	0.682	0.000	0.009
2	11:16:22	0.164	0.990	1.125	0.803	0.787	0.918	0.000	0.003
3	11:16:47	0.184	1.123	1.207	-0.154	-0.309	1.077	0.000	0.003
x		0.155	1.053	1.200	0.402	0.330	0.892	0.000	0.005
σ		0.035	0.067	0.072	0.497	0.570	0.199	0.000	0.003
%RSD		22.440	6.365	5.984	123.700	173.100	22.300	0.000	73.090
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:57	92.262%	0.474	0.429	92.294%	0.003	0.007	0.005	-0.603
2	11:16:22	94.478%	0.473	0.591	93.984%	-0.002	0.016	0.000	-0.569
3	11:16:47	98.920%	0.596	0.465	96.763%	0.012	0.002	-0.004	-0.560
x		95.220%	0.514	0.495	94.347%	0.004	0.008	0.001	-0.578
σ		3.390%	0.071	0.085	2.256%	0.007	0.007	0.005	0.023
%RSD		3.560	13.770	17.220	2.392	171.800	87.810	846.100	3.911
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:57	91.202%	0.143	0.056	0.067	0.038	0.004	96.161%	95.434%
2	11:16:22	94.778%	0.143	0.063	0.069	-0.014	-0.006	97.843%	97.627%
3	11:16:47	97.853%	0.146	0.040	0.057	0.015	0.005	100.303%	100.584%
x		94.611%	0.144	0.053	0.064	0.013	0.001	98.102%	97.882%
σ		3.329%	0.002	0.012	0.006	0.026	0.006	2.083%	2.585%
%RSD		3.519	1.062	22.100	10.130	203.500	580.500	2.123	2.640
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:15:57	0.007	0.004	0.032	0.070	0.053	115.392%		
2	11:16:22	0.004	0.002	0.059	0.043	0.057	110.494%		
3	11:16:47	0.002	0.002	0.051	0.050	0.050	109.158%		
x		0.004	0.002	0.048	0.054	0.053	111.681%		
σ		0.002	0.001	0.014	0.014	0.004	3.282%		
%RSD		60.140	37.280	28.940	26.230	6.912	2.939		

LCS 180-130798/2-A 1/22/2015 11:19:42 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:07	106.797%	45.210	951.800	925.400	0.000	41980.000	40370.000	40370.000
2	11:20:32	113.890%	44.940	940.600	931.900	0.000	42270.000	41420.000	41530.000
3	11:20:57	115.237%	45.270	952.900	935.900	0.000	42280.000	41630.000	41590.000
x		111.975%	45.140	948.400	931.100	0.000	42180.000	41140.000	41160.000
σ		4.535%	0.173	6.835	5.311	0.000	172.300	678.100	685.000
%RSD		4.050	0.382	0.721	0.570	0.000	0.409	1.648	1.664
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:07	1747.000	8666.000	0.000	45870.000	43700.000	43920.000	99.693%	873.100
2	11:20:32	1667.000	8776.000	0.000	46040.000	45550.000	45350.000	101.852%	900.400
3	11:20:57	1651.000	8784.000	0.000	46650.000	46030.000	45940.000	102.279%	918.300
x		1688.000	8742.000	0.000	46190.000	45090.000	45070.000	101.275%	897.300
σ		51.210	65.990	0.000	413.100	1231.000	1039.000	1.386%	22.770
%RSD		3.033	0.755	0.000	0.894	2.729	2.305	1.369	2.538
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:07	449.800	174.700	454.200	906.400	1030.000	455.100	442.100	228.500
2	11:20:32	464.800	180.600	474.400	944.900	1076.000	468.300	453.400	233.200
3	11:20:57	471.400	181.900	474.100	951.200	1059.000	473.100	459.500	233.800
x		462.000	179.000	467.600	934.200	1055.000	465.500	451.700	231.900
σ		11.040	3.847	11.590	24.220	23.110	9.286	8.838	2.880
%RSD		2.390	2.149	2.478	2.593	2.191	1.995	1.957	1.242
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:07	224.200	457.100	461.000	35.830	8.976	12.000	0.000	930.200
2	11:20:32	231.900	473.500	470.500	38.090	8.941	9.575	0.000	963.100
3	11:20:57	231.500	480.700	474.500	34.540	11.120	12.500	0.000	961.700
x		229.200	470.400	468.700	36.150	9.679	11.360	0.000	951.700
σ		4.321	12.130	6.934	1.800	1.249	1.566	0.000	18.630
%RSD		1.885	2.579	1.480	4.979	12.900	13.780	0.000	1.958
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:07	93.332%	1022.000	1030.000	88.078%	48.030	47.260	48.850	40.600
2	11:20:32	97.322%	1056.000	1079.000	89.353%	47.870	47.700	50.250	41.180
3	11:20:57	97.716%	1070.000	1092.000	90.078%	47.650	47.790	49.690	40.860
x		96.124%	1049.000	1067.000	89.169%	47.850	47.580	49.600	40.880
σ		2.426%	24.400	32.310	1.013%	0.191	0.286	0.706	0.291
%RSD		2.523	2.325	3.028	1.136	0.398	0.601	1.423	0.712
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:07	88.493%	1981.000	517.700	506.100	1938.000	2018.000	96.211%	97.047%
2	11:20:32	92.380%	1982.000	510.600	509.400	1949.000	2038.000	99.165%	99.100%
3	11:20:57	91.681%	2019.000	523.000	516.200	1971.000	2079.000	99.050%	99.842%
x		90.851%	1994.000	517.100	510.600	1953.000	2045.000	98.142%	98.663%
σ		2.072%	21.760	6.216	5.143	16.740	31.330	1.674%	1.448%
%RSD		2.281	1.091	1.202	1.007	0.857	1.532	1.705	1.467
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:20:07	48.730	46.450	20.050	20.120	19.700	92.114%		
2	11:20:32	50.670	48.640	20.650	20.580	20.390	92.594%		
3	11:20:57	50.570	48.900	20.350	20.920	20.410	93.102%		
x		49.990	48.000	20.350	20.540	20.170	92.604%		
σ		1.091	1.349	0.300	0.400	0.399	0.494%		
%RSD		2.182	2.811	1.476	1.946	1.980	0.533		

180-40434-B-1-A 1/22/2015 11:23:51 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:17	108.555%	0.049	15.060	16.730	0.000	94490.000	8239.000	8276.000
2	11:24:42	112.203%	0.077	16.270	16.180	0.000	95950.000	8549.000	8635.000
3	11:25:07	115.020%	0.019	16.500	15.460	0.000	95470.000	8569.000	8600.000
x		111.926%	0.048	15.940	16.120	0.000	95300.000	8452.000	8504.000
σ		3.242%	0.029	0.773	0.640	0.000	743.100	185.000	197.800
%RSD		2.896	59.620	4.850	3.969	0.000	0.780	2.189	2.326
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:17	83.950	1976.000	0.000	3428.000	40980.000	41100.000	96.892%	2.837
2	11:24:42	74.590	2014.000	0.000	3528.000	43720.000	43730.000	97.282%	2.219
3	11:25:07	75.610	1990.000	0.000	3489.000	43020.000	43130.000	97.774%	2.083
x		78.050	1993.000	0.000	3482.000	42570.000	42650.000	97.316%	2.380
σ		5.130	19.040	0.000	50.380	1421.000	1381.000	0.442%	0.402
%RSD		6.572	0.955	0.000	1.447	3.339	3.238	0.454	16.890
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:17	0.216	4.680	12.570	166.000	305.300	0.306	0.923	3.351
2	11:24:42	-1.307	4.742	12.960	171.300	316.600	0.303	0.872	3.212
3	11:25:07	-1.293	4.473	13.080	171.800	318.100	0.291	0.627	3.284
x		-0.795	4.632	12.870	169.700	313.300	0.300	0.807	3.282
σ		0.876	0.141	0.263	3.228	6.983	0.008	0.158	0.069
%RSD		110.200	3.046	2.040	1.902	2.229	2.710	19.620	2.104
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:17	2.975	13.660	13.150	0.365	0.695	-0.222	0.000	129.300
2	11:24:42	2.926	13.620	14.200	-1.017	-0.756	0.342	0.000	130.800
3	11:25:07	2.880	14.150	14.680	0.766	-0.020	1.906	0.000	135.900
x		2.927	13.810	14.010	0.038	-0.027	0.675	0.000	132.000
σ		0.048	0.293	0.782	0.935	0.726	1.102	0.000	3.438
%RSD		1.629	2.121	5.578	2452.000	2712.000	163.200	0.000	2.605
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:17	95.019%	6.443	6.106	95.706%	0.010	0.013	0.035	-0.579
2	11:24:42	99.535%	4.741	5.012	91.025%	0.004	0.016	0.032	-0.542
3	11:25:07	98.981%	4.236	4.102	92.259%	0.003	0.003	0.048	1.165
x		97.845%	5.140	5.073	92.997%	0.006	0.011	0.038	0.015
σ		2.463%	1.157	1.004	2.426%	0.004	0.007	0.009	0.996
%RSD		2.517	22.500	19.780	2.609	71.710	63.130	22.820	6766.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:17	92.135%	6.143	0.381	0.384	38.410	38.460	95.559%	97.139%
2	11:24:42	92.283%	4.567	0.432	0.454	40.230	40.070	99.019%	98.966%
3	11:25:07	94.006%	3.417	0.385	0.423	41.050	39.920	98.034%	99.669%
x		92.808%	4.709	0.400	0.420	39.900	39.480	97.537%	98.591%
σ		1.040%	1.369	0.028	0.035	1.352	0.888	1.783%	1.306%
%RSD		1.121	29.060	7.064	8.324	3.388	2.248	1.828	1.325
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:24:17	0.122	0.113	0.397	0.397	0.383	91.763%		
2	11:24:42	0.106	0.083	0.415	0.407	0.420	92.293%		
3	11:25:07	0.066	0.071	0.444	0.383	0.393	94.320%		
x		0.098	0.089	0.419	0.396	0.399	92.792%		
σ		0.029	0.021	0.024	0.012	0.019	1.349%		
%RSD		29.730	23.950	5.630	3.076	4.804	1.454		

180-40434-B-2-A 1/22/2015 11:28:01 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	106.431%	0.087	16.090	18.030	0.000	55320.000	7861.000	7913.000
2	11:28:51	110.961%	0.046	18.140	17.680	0.000	56150.000	8048.000	8138.000
3	11:29:16	113.519%	0.043	16.210	16.560	0.000	56480.000	8211.000	8280.000
x		110.304%	0.059	16.810	17.420	0.000	55990.000	8040.000	8110.000
σ		3.589%	0.025	1.149	0.767	0.000	596.500	175.200	185.100
%RSD		3.254	41.860	6.835	4.399	0.000	1.065	2.179	2.283

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	449.500	2558.000	0.000	6368.000	32350.000	31840.000	92.671%	7.586
2	11:28:51	463.000	2607.000	0.000	6514.000	34080.000	33910.000	93.944%	8.075
3	11:29:16	470.100	2624.000	0.000	6699.000	35130.000	34270.000	94.884%	8.997
x		460.900	2597.000	0.000	6527.000	33860.000	33340.000	93.833%	8.219
σ		10.450	34.440	0.000	165.900	1408.000	1308.000	1.111%	0.717
%RSD		2.268	1.326	0.000	2.541	4.158	3.922	1.184	8.722

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	1.509	5.076	45.790	754.900	822.000	0.559	1.277	3.266
2	11:28:51	5.584	4.999	48.570	790.300	849.400	0.527	1.390	3.571
3	11:29:16	2.029	4.996	49.120	813.600	862.300	0.543	1.134	3.290
x		3.040	5.023	47.830	786.300	844.600	0.543	1.267	3.376
σ		2.218	0.045	1.786	29.550	20.570	0.016	0.128	0.170
%RSD		72.940	0.904	3.733	3.758	2.435	2.951	10.130	5.020

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	2.997	13.010	12.710	2.575	-0.465	2.231	0.000	91.410
2	11:28:51	3.373	13.140	13.790	-0.428	0.605	2.444	0.000	94.270
3	11:29:16	3.450	13.920	13.670	-0.779	0.217	-0.260	0.000	95.510
x		3.273	13.360	13.390	0.456	0.119	1.472	0.000	93.730
σ		0.242	0.493	0.594	1.843	0.542	1.503	0.000	2.104
%RSD		7.397	3.687	4.439	404.400	455.800	102.100	0.000	2.244

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	91.892%	1.506	1.591	92.191%	-0.003	-0.010	0.023	-0.491
2	11:28:51	96.031%	1.700	1.541	89.374%	0.005	0.001	0.045	-0.529
3	11:29:16	96.899%	1.631	1.732	90.747%	0.001	0.017	0.023	0.025
x		94.940%	1.612	1.621	90.771%	0.001	0.003	0.030	-0.332
σ		2.676%	0.098	0.099	1.409%	0.004	0.014	0.013	0.310
%RSD		2.818	6.103	6.102	1.552	506.600	494.100	41.770	93.290

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	89.390%	1.042	0.225	0.199	37.520	39.020	94.343%	94.454%
2	11:28:51	92.722%	1.069	0.219	0.237	38.850	39.000	97.448%	99.330%
3	11:29:16	92.332%	1.088	0.215	0.237	38.990	39.030	99.452%	99.455%
x		91.481%	1.066	0.220	0.224	38.450	39.020	97.081%	97.746%
σ		1.822%	0.023	0.005	0.021	0.811	0.015	2.574%	2.852%
%RSD		1.991	2.173	2.288	9.566	2.108	0.039	2.652	2.917

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:26	0.042	0.034	1.714	1.473	1.566	91.464%
2	11:28:51	0.038	0.027	1.679	1.539	1.571	95.673%
3	11:29:16	0.037	0.032	1.695	1.626	1.631	94.213%
x		0.039	0.031	1.696	1.546	1.589	93.783%
σ		0.003	0.004	0.018	0.077	0.036	2.137%
%RSD		8.016	11.990	1.041	4.971	2.259	2.279

180-40434-A-3-A 1/22/2015 11:32:13 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	106.554%	0.052	16.220	17.960	0.000	67990.000	7363.000	7459.000
2	11:33:04	109.269%	0.037	18.410	17.490	0.000	69510.000	7620.000	7650.000
3	11:33:29	110.730%	-0.031	16.400	17.980	0.000	69110.000	7684.000	7742.000
x		108.851%	0.019	17.010	17.810	0.000	68870.000	7556.000	7617.000
σ		2.119%	0.045	1.216	0.281	0.000	787.200	170.000	144.100
%RSD		1.947	229.400	7.146	1.575	0.000	1.143	2.251	1.892

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	462.000	2626.000	0.000	7655.000	33720.000	33060.000	92.515%	7.581
2	11:33:04	453.600	2650.000	0.000	7711.000	35330.000	34060.000	93.387%	7.995
3	11:33:29	459.700	2651.000	0.000	7814.000	35320.000	34580.000	93.871%	8.225
x		458.400	2642.000	0.000	7726.000	34790.000	33900.000	93.258%	7.934
σ		4.327	13.890	0.000	80.650	927.100	773.400	0.687%	0.327
%RSD		0.944	0.526	0.000	1.044	2.665	2.281	0.736	4.115

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	1.569	4.571	50.450	747.500	823.900	0.549	1.281	3.570
2	11:33:04	1.298	4.585	52.300	771.500	839.000	0.564	1.135	3.717
3	11:33:29	3.996	4.640	53.310	788.300	846.900	0.575	1.221	3.797
x		2.287	4.599	52.020	769.100	836.600	0.562	1.212	3.695
σ		1.486	0.036	1.448	20.470	11.690	0.013	0.073	0.116
%RSD		64.950	0.792	2.784	2.662	1.398	2.324	6.018	3.127

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	3.779	15.140	15.590	2.163	0.729	0.761	0.000	103.800
2	11:33:04	3.380	15.790	15.740	2.007	-0.067	1.419	0.000	106.200
3	11:33:29	3.509	16.590	16.060	-0.412	-0.419	0.127	0.000	106.000
x		3.556	15.840	15.800	1.253	0.081	0.769	0.000	105.300
σ		0.204	0.724	0.240	1.444	0.588	0.646	0.000	1.330
%RSD		5.724	4.569	1.517	115.300	726.900	84.000	0.000	1.262

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	92.091%	1.241	1.286	92.247%	-0.011	0.010	0.050	-0.502
2	11:33:04	94.743%	1.298	1.344	94.290%	0.006	0.002	0.067	-0.529
3	11:33:29	96.995%	1.428	1.278	89.750%	0.002	0.017	0.058	-0.535
x		94.610%	1.322	1.303	92.096%	-0.001	0.010	0.058	-0.522
σ		2.455%	0.096	0.036	2.274%	0.009	0.008	0.008	0.018
%RSD		2.594	7.271	2.777	2.469	829.100	79.020	14.130	3.445

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	89.968%	0.520	0.183	0.190	44.090	43.360	94.978%	96.319%
2	11:33:04	91.575%	0.570	0.200	0.157	45.330	43.970	98.230%	98.863%
3	11:33:29	92.726%	0.590	0.197	0.228	44.650	45.150	97.985%	99.172%
x		91.423%	0.560	0.193	0.192	44.690	44.160	97.065%	98.118%
σ		1.385%	0.036	0.009	0.035	0.621	0.909	1.811%	1.565%
%RSD		1.515	6.464	4.710	18.490	1.390	2.059	1.866	1.595

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:39	0.024	0.017	1.791	1.599	1.675	93.004%
2	11:33:04	0.020	0.016	1.790	1.647	1.683	96.113%
3	11:33:29	0.023	0.013	1.847	1.656	1.729	94.872%
x		0.022	0.015	1.810	1.634	1.696	94.663%
σ		0.002	0.002	0.033	0.031	0.029	1.565%
%RSD		8.431	12.520	1.813	1.870	1.723	1.653

180-40434-B-4-A 1/22/2015 11:36:23 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	104.910%	0.020	44.370	43.670	0.000	72620.000	9307.000	9324.000
2	11:37:13	109.464%	0.081	45.170	43.440	0.000	71220.000	9180.000	9303.000
3	11:37:38	111.066%	-0.032	44.950	43.380	0.000	71440.000	9385.000	9501.000
x		108.480%	0.023	44.830	43.500	0.000	71760.000	9291.000	9376.000
σ		3.194%	0.056	0.413	0.154	0.000	753.500	103.300	108.500
%RSD		2.944	245.700	0.922	0.354	0.000	1.050	1.111	1.158

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	274.100	2921.000	0.000	8901.000	44030.000	43730.000	90.462%	5.530
2	11:37:13	288.400	2806.000	0.000	8351.000	42450.000	42840.000	99.027%	5.905
3	11:37:38	273.900	2846.000	0.000	8507.000	43580.000	43350.000	98.571%	4.851
x		278.800	2858.000	0.000	8586.000	43350.000	43310.000	96.020%	5.428
σ		8.317	58.410	0.000	283.200	814.000	449.300	4.819%	0.534
%RSD		2.983	2.044	0.000	3.298	1.878	1.038	5.018	9.842

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	1.943	5.225	34.690	486.300	621.700	0.555	0.953	3.822
2	11:37:13	2.111	4.731	34.010	475.600	600.700	0.519	0.953	3.524
3	11:37:38	1.667	4.797	34.120	479.800	608.600	0.487	1.104	3.695
x		1.907	4.918	34.270	480.500	610.400	0.520	1.003	3.680
σ		0.224	0.268	0.366	5.385	10.620	0.034	0.087	0.149
%RSD		11.750	5.459	1.067	1.121	1.740	6.597	8.711	4.054

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	3.552	21.810	21.510	1.804	-1.411	-1.540	0.000	114.800
2	11:37:13	3.426	20.910	20.600	1.861	-0.892	0.575	0.000	115.700
3	11:37:38	3.372	21.740	21.920	-1.429	-0.244	2.365	0.000	118.500
x		3.450	21.490	21.340	0.745	-0.849	0.467	0.000	116.300
σ		0.093	0.500	0.673	1.883	0.585	1.954	0.000	1.902
%RSD		2.684	2.327	3.151	252.700	68.840	418.700	0.000	1.635

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	90.044%	9.674	9.443	90.535%	-0.006	0.029	0.079	-0.535
2	11:37:13	93.939%	9.836	10.020	93.788%	0.007	-0.003	0.103	-0.513
3	11:37:38	94.858%	10.430	10.220	88.980%	-0.001	0.001	0.032	-0.513
x		92.947%	9.979	9.895	91.101%	0.000	0.009	0.071	-0.520
σ		2.556%	0.397	0.404	2.454%	0.007	0.018	0.036	0.013
%RSD		2.750	3.980	4.081	2.693	5697.000	197.000	50.780	2.502

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	87.857%	0.476	0.241	0.222	34.660	34.480	94.339%	95.457%
2	11:37:13	89.695%	0.515	0.201	0.200	35.120	35.190	97.319%	98.755%
3	11:37:38	92.036%	0.534	0.266	0.272	34.530	35.400	98.222%	99.567%
x		89.863%	0.509	0.236	0.232	34.770	35.020	96.626%	97.926%
σ		2.095%	0.030	0.033	0.037	0.311	0.478	2.032%	2.176%
%RSD		2.331	5.829	14.030	16.010	0.896	1.364	2.103	2.222

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:48	0.012	0.013	1.330	1.235	1.233	91.629%
2	11:37:13	0.015	0.013	1.313	1.277	1.283	95.276%
3	11:37:38	0.015	0.012	1.326	1.187	1.232	95.502%
x		0.014	0.013	1.323	1.233	1.250	94.136%
σ		0.002	0.001	0.009	0.045	0.029	2.174%
%RSD		11.340	5.728	0.648	3.650	2.339	2.309

180-40434-B-5-A 1/22/2015 12:03:20 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	12:03:44	102.631%	-0.037	10.910	11.690	0.000	102300.000	6706.000	6689.000
2	12:04:10	106.765%	-0.028	10.710	10.570	0.000	102300.000	6799.000	6803.000
3	12:04:35	108.649%	-0.041	9.584	10.450	0.000	102700.000	6845.000	6886.000
x		106.015%	-0.036	10.400	10.900	0.000	102500.000	6783.000	6793.000
σ		3.078%	0.006	0.717	0.681	0.000	230.600	70.870	98.560
%RSD		2.904	18.250	6.890	6.243	0.000	0.225	1.045	1.451

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:44	138.700	2170.000	0.000	4519.000	43380.000	43980.000	89.724%	3.517
2	12:04:10	140.800	2193.000	0.000	4551.000	44280.000	45450.000	91.095%	3.356
3	12:04:35	141.600	2190.000	0.000	4689.000	45130.000	44830.000	91.687%	3.935
x		140.300	2185.000	0.000	4586.000	44260.000	44750.000	90.835%	3.603
σ		1.475	12.790	0.000	90.160	874.700	735.700	1.007%	0.299
%RSD		1.051	0.585	0.000	1.966	1.976	1.644	1.108	8.294

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:44	3.182	4.234	16.020	270.900	443.300	0.217	5.602	2.931
2	12:04:10	0.984	4.285	16.650	275.500	439.700	0.225	5.856	3.015
3	12:04:35	0.164	4.130	16.840	281.900	437.800	0.212	5.801	2.844
x		1.443	4.216	16.500	276.100	440.200	0.218	5.753	2.930
σ		1.561	0.079	0.430	5.569	2.807	0.006	0.134	0.086
%RSD		108.100	1.871	2.608	2.017	0.638	2.906	2.327	2.925

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:44	2.611	27.550	28.230	0.968	-0.186	-0.147	0.000	130.000
2	12:04:10	2.531	27.460	27.230	0.580	-0.696	-2.367	0.000	131.200
3	12:04:35	2.766	26.600	28.230	1.179	0.804	3.102	0.000	132.900
x		2.636	27.200	27.890	0.909	-0.026	0.196	0.000	131.300
σ		0.119	0.522	0.578	0.304	0.763	2.751	0.000	1.476
%RSD		4.526	1.920	2.070	33.420	2914.000	1404.000	0.000	1.124

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:44	90.986%	1.168	1.228	91.379%	-0.001	-0.002	2.749	2.358
2	12:04:10	94.806%	1.235	1.222	94.372%	-0.006	-0.004	3.003	2.269
3	12:04:35	95.916%	1.249	1.215	91.893%	-0.006	-0.009	2.822	2.390
x		93.903%	1.217	1.222	92.548%	-0.004	-0.005	2.858	2.339
σ		2.586%	0.043	0.007	1.600%	0.003	0.004	0.131	0.063
%RSD		2.754	3.556	0.546	1.729	67.650	79.550	4.588	2.686

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:44	89.803%	0.280	0.203	0.277	42.460	43.620	94.827%	97.123%
2	12:04:10	93.430%	0.221	0.213	0.239	41.290	41.980	99.070%	100.371%
3	12:04:35	93.340%	0.284	0.185	0.205	43.020	43.530	99.625%	101.004%
x		92.191%	0.261	0.201	0.240	42.260	43.050	97.841%	99.499%
σ		2.069%	0.035	0.014	0.036	0.884	0.921	2.625%	2.082%
%RSD		2.244	13.490	7.138	15.090	2.091	2.140	2.683	2.093

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:44	0.007	0.005	0.311	0.286	0.289	96.993%
2	12:04:10	0.004	0.010	0.334	0.268	0.301	98.768%
3	12:04:35	0.006	0.009	0.355	0.337	0.322	98.219%
x		0.006	0.008	0.333	0.297	0.304	97.993%
σ		0.001	0.003	0.022	0.036	0.017	0.908%
%RSD		26.170	32.410	6.555	12.020	5.608	0.927

180-40434-B-6-A 1/22/2015 12:08:52 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	12:09:17	103.200%	0.022	10.550	9.680	0.000	35310.000	14190.000	14300.000
2	12:09:42	106.895%	-0.006	9.662	10.030	0.000	36400.000	14640.000	14800.000
3	12:10:07	109.123%	-0.008	9.012	9.985	0.000	36360.000	14730.000	14030.000
x		106.406%	0.003	9.740	9.898	0.000	36020.000	14520.000	14380.000
σ		2.992%	0.016	0.770	0.190	0.000	615.400	289.400	390.500
%RSD		2.812	580.200	7.910	1.917	0.000	1.708	1.993	2.716

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:17	142.200	3097.000	0.000	2161.000	62760.000	62750.000	90.208%	4.072
2	12:09:42	147.000	3175.000	0.000	2200.000	64000.000	64680.000	91.691%	4.037
3	12:10:07	149.700	3188.000	0.000	2198.000	66950.000	66050.000	93.864%	3.986
x		146.300	3153.000	0.000	2186.000	64570.000	64490.000	91.921%	4.032
σ		3.781	49.220	0.000	21.690	2149.000	1662.000	1.839%	0.044
%RSD		2.584	1.561	0.000	0.992	3.329	2.576	2.000	1.082

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:17	0.230	3.465	7.701	218.800	464.900	0.216	0.182	8.068
2	12:09:42	-1.001	3.653	7.627	192.800	445.600	0.168	0.272	8.445
3	12:10:07	-0.983	3.825	7.864	192.100	432.800	0.198	0.121	8.505
x		-0.585	3.648	7.731	201.200	447.800	0.194	0.192	8.340
σ		0.706	0.180	0.121	15.210	16.170	0.025	0.076	0.237
%RSD		120.700	4.934	1.566	7.559	3.611	12.640	39.680	2.842

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:17	7.973	8.946	9.437	-1.694	0.643	3.313	0.000	112.100
2	12:09:42	8.585	9.457	9.122	-0.150	-1.161	5.183	0.000	114.600
3	12:10:07	8.368	8.958	9.372	0.080	-0.972	3.755	0.000	113.400
x		8.309	9.120	9.311	-0.588	-0.497	4.084	0.000	113.300
σ		0.310	0.292	0.166	0.964	0.991	0.978	0.000	1.279
%RSD		3.732	3.197	1.787	164.000	199.600	23.940	0.000	1.128

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:17	93.315%	0.299	0.228	94.048%	-0.007	0.006	0.040	-0.570
2	12:09:42	94.872%	0.304	0.336	89.598%	0.002	-0.003	0.009	-0.522
3	12:10:07	98.977%	0.320	0.293	91.383%	-0.004	-0.004	0.014	1.299
x		95.721%	0.307	0.286	91.676%	-0.003	-0.001	0.021	0.069
σ		2.925%	0.011	0.054	2.240%	0.005	0.005	0.017	1.065
%RSD		3.056	3.557	19.020	2.443	163.600	799.400	79.020	1544.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:17	91.480%	0.213	0.043	0.092	29.510	29.750	97.596%	97.903%
2	12:09:42	94.628%	0.172	0.072	0.073	30.920	31.140	98.305%	100.550%
3	12:10:07	92.996%	0.182	0.058	0.101	31.160	31.350	99.419%	100.649%
x		93.034%	0.189	0.058	0.089	30.530	30.750	98.440%	99.701%
σ		1.574%	0.021	0.015	0.014	0.888	0.865	0.919%	1.558%
%RSD		1.692	11.270	25.560	15.630	2.910	2.812	0.934	1.562

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:17	0.008	0.003	0.469	0.438	0.436	95.801%
2	12:09:42	0.006	0.007	0.469	0.437	0.435	97.213%
3	12:10:07	0.004	0.006	0.464	0.455	0.443	97.473%
x		0.006	0.005	0.467	0.444	0.438	96.829%
σ		0.002	0.002	0.003	0.010	0.005	0.900%
%RSD		29.870	32.330	0.660	2.277	1.039	0.929

180-40434-B-7-A 1/22/2015 12:13:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:29	105.521%	0.007	104.400	104.700	0.000	111500.000	8881.000	8942.000
2	12:13:54	104.934%	-0.028	112.400	109.700	0.000	116700.000	9457.000	9478.000
3	12:14:19	109.904%	-0.064	108.700	108.400	0.000	120400.000	9853.000	9861.000
x		106.786%	-0.028	108.500	107.600	0.000	116200.000	9397.000	9427.000
σ		2.716%	0.036	4.012	2.595	0.000	4480.000	488.800	461.600
%RSD		2.543	125.200	3.697	2.411	0.000	3.855	5.201	4.897
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:29	9.669	2935.000	0.000	14140.000	49340.000	49200.000	96.589%	2.041
2	12:13:54	10.390	3078.000	0.000	14490.000	50650.000	51630.000	97.755%	2.199
3	12:14:19	10.900	3188.000	0.000	15740.000	56420.000	57340.000	91.049%	2.430
x		10.320	3067.000	0.000	14790.000	52140.000	52720.000	95.131%	2.223
σ		0.620	127.200	0.000	845.200	3769.000	4183.000	3.583%	0.196
%RSD		6.012	4.149	0.000	5.714	7.230	7.933	3.766	8.807
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:29	-1.012	3.266	16.070	55.220	254.900	0.526	1.037	5.381
2	12:13:54	-1.321	3.431	17.050	55.060	239.200	0.549	1.328	5.323
3	12:14:19	-0.089	3.525	18.230	61.080	260.800	0.605	1.427	5.618
x		-0.807	3.407	17.120	57.120	251.600	0.560	1.264	5.441
σ		0.641	0.131	1.080	3.427	11.160	0.040	0.203	0.156
%RSD		79.370	3.841	6.312	6.000	4.438	7.194	16.050	2.871
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:29	5.045	44.810	45.350	-0.996	-0.003	2.373	0.000	144.700
2	12:13:54	5.236	44.820	45.530	2.263	-0.250	0.425	0.000	145.700
3	12:14:19	5.527	49.060	46.560	2.376	-0.769	2.189	0.000	147.000
x		5.269	46.230	45.810	1.215	-0.341	1.662	0.000	145.800
σ		0.243	2.449	0.653	1.915	0.391	1.075	0.000	1.160
%RSD		4.604	5.298	1.424	157.700	114.700	64.690	0.000	0.796
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:29	88.935%	31.410	30.740	89.553%	0.021	0.014	0.052	-0.512
2	12:13:54	94.009%	31.400	31.040	90.956%	0.003	0.004	0.064	-0.532
3	12:14:19	95.822%	31.860	31.960	92.616%	0.014	0.007	0.076	-0.532
x		92.922%	31.560	31.250	91.042%	0.013	0.009	0.064	-0.525
σ		3.570%	0.265	0.632	1.533%	0.009	0.005	0.012	0.011
%RSD		3.842	0.839	2.023	1.684	74.860	59.210	19.410	2.177
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:29	87.983%	0.533	0.398	0.383	21.530	21.730	94.460%	95.095%
2	12:13:54	89.019%	0.534	0.403	0.437	21.650	22.380	95.944%	96.801%
3	12:14:19	90.644%	0.542	0.410	0.372	22.140	22.210	97.936%	98.600%
x		89.216%	0.536	0.403	0.397	21.780	22.110	96.113%	96.832%
σ		1.341%	0.005	0.006	0.035	0.325	0.339	1.744%	1.753%
%RSD		1.503	0.908	1.418	8.740	1.490	1.533	1.815	1.810
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:13:29	0.008	0.001	0.954	0.944	0.939	91.595%		
2	12:13:54	0.007	0.001	0.978	0.911	0.931	93.019%		
3	12:14:19	0.010	0.001	0.984	0.895	0.925	94.937%		
x		0.008	0.001	0.972	0.917	0.931	93.184%		
σ		0.001	0.000	0.016	0.025	0.007	1.677%		
%RSD		16.580	37.500	1.648	2.758	0.767	1.800		

180-40434-B-8-A 1/22/2015 12:17:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	95.871%	-0.058	19.040	18.800	0.000	69810.000	7548.000	7681.000
2	12:18:09	102.840%	0.070	17.420	17.940	0.000	70390.000	7725.000	7748.000
3	12:18:34	103.815%	-0.050	17.760	17.420	0.000	70470.000	7729.000	7737.000
x		100.842%	-0.012	18.070	18.060	0.000	70220.000	7667.000	7722.000
σ		4.332%	0.072	0.854	0.695	0.000	362.100	103.500	35.590
%RSD		4.296	576.700	4.725	3.850	0.000	0.516	1.350	0.461

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	793.800	3102.000	0.000	7727.000	35090.000	34050.000	85.763%	13.670
2	12:18:09	798.600	3082.000	0.000	7670.000	35620.000	35450.000	87.309%	14.510
3	12:18:34	808.200	3075.000	0.000	7727.000	36000.000	35550.000	88.811%	15.630
x		800.200	3087.000	0.000	7708.000	35570.000	35020.000	87.294%	14.600
σ		7.310	14.060	0.000	32.940	457.900	838.200	1.524%	0.981
%RSD		0.914	0.456	0.000	0.427	1.287	2.394	1.746	6.713

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	0.008	4.354	55.600	1162.000	1223.000	0.678	1.396	5.224
2	12:18:09	3.957	4.398	58.270	1176.000	1254.000	0.755	1.522	5.339
3	12:18:34	2.582	4.279	58.070	1183.000	1258.000	0.771	1.643	5.287
x		2.182	4.344	57.310	1173.000	1245.000	0.734	1.520	5.284
σ		2.005	0.060	1.490	10.490	18.670	0.049	0.124	0.058
%RSD		91.870	1.386	2.600	0.894	1.500	6.739	8.144	1.092

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	4.762	25.190	25.440	-0.227	-0.728	1.771	0.000	102.500
2	12:18:09	5.007	26.120	25.500	-1.256	-0.513	1.147	0.000	106.500
3	12:18:34	4.855	25.100	25.080	-3.258	-0.163	2.473	0.000	105.600
x		4.875	25.470	25.340	-1.580	-0.468	1.797	0.000	104.900
σ		0.124	0.562	0.228	1.541	0.285	0.664	0.000	2.079
%RSD		2.534	2.207	0.899	97.530	61.000	36.930	0.000	1.982

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	88.450%	1.106	1.237	88.371%	-0.001	0.002	0.091	-0.417
2	12:18:09	90.785%	1.095	1.149	89.120%	-0.009	-0.009	0.133	-0.438
3	12:18:34	92.717%	1.130	1.152	90.435%	-0.009	-0.014	0.073	-0.426
x		90.651%	1.110	1.179	89.309%	-0.006	-0.007	0.099	-0.427
σ		2.137%	0.018	0.050	1.045%	0.005	0.008	0.031	0.011
%RSD		2.357	1.616	4.250	1.170	78.600	120.000	31.250	2.499

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	84.690%	0.503	0.243	0.237	45.640	46.840	93.407%	94.601%
2	12:18:09	89.061%	0.453	0.283	0.274	47.190	47.080	95.311%	97.217%
3	12:18:34	90.222%	0.570	0.234	0.276	46.840	47.060	97.837%	98.085%
x		87.991%	0.509	0.253	0.262	46.560	47.000	95.518%	96.635%
σ		2.917%	0.059	0.026	0.022	0.816	0.135	2.222%	1.814%
%RSD		3.316	11.540	10.320	8.380	1.752	0.288	2.327	1.877

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:44	0.015	0.015	3.002	2.707	2.830	91.016%
2	12:18:09	0.017	0.016	2.972	2.848	2.810	95.711%
3	12:18:34	0.017	0.015	2.859	2.632	2.740	97.531%
x		0.016	0.015	2.944	2.729	2.793	94.753%
σ		0.001	0.001	0.076	0.110	0.048	3.362%
%RSD		8.361	5.711	2.565	4.020	1.703	3.548

CCV 1455996 1/22/2015 12:21:31 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	12:21:56	89.848%	98.760	105.800	98.130	0.000	47360.000	46390.000	46350.000
2	12:22:21	93.093%	99.060	96.970	97.730	0.000	46890.000	46510.000	46680.000
3	12:22:46	93.232%	98.620	100.700	101.700	0.000	47820.000	47510.000	47220.000
x		92.058%	98.812%	101.143%	99.180%	0.000	94.720%	93.606%	93.496%
σ		1.915%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.081	0.225	4.380	2.195	0.000	0.986	1.312	0.937
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:56	451.900	4936.000	0.000	49300.000	46530.000	47330.000	95.730%	93.050
2	12:22:21	451.300	4962.000	0.000	49690.000	48670.000	48690.000	95.830%	96.020
3	12:22:46	461.100	4976.000	0.000	50270.000	48570.000	49360.000	97.878%	95.710
x		90.959%	99.155%	0.000	99.511%	95.847%	96.919%	96.479%	94.925%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.212%	n/a
%RSD		1.211	0.409	0.000	0.987	2.513	2.138	1.257	1.723
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:56	90.030	90.420	485.100	23740.000	24420.000	92.120	93.950	93.910
2	12:22:21	93.240	94.580	501.600	24540.000	25180.000	94.880	95.300	96.190
3	12:22:46	91.690	92.960	501.800	24650.000	25320.000	94.150	95.470	96.220
x		91.652%	92.655%	99.240%	97.231%	99.885%	93.720%	94.907%	95.441%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.747	2.262	1.930	2.039	1.943	1.526	0.882	1.385
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:56	93.700	96.970	97.030	97.050	96.600	97.820	0.000	95.430
2	12:22:21	96.830	99.080	99.210	98.610	99.560	99.300	0.000	97.320
3	12:22:46	95.500	97.260	99.270	97.950	96.950	99.650	0.000	97.090
x		95.340%	97.770%	98.501%	97.868%	97.706%	98.925%	0.000	96.613%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.648	1.171	1.292	0.804	1.654	0.982	0.000	1.066
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:56	92.129%	90.860	89.000	95.395%	92.330	92.110	93.670	94.160
2	12:22:21	93.588%	96.540	94.750	96.195%	93.550	95.070	97.830	99.740
3	12:22:46	96.107%	102.100	101.900	91.989%	98.170	97.840	100.800	98.260
x		93.941%	96.486%	95.232%	94.526%	94.684%	95.005%	97.448%	97.386%
σ		2.012%	n/a	n/a	2.234%	n/a	n/a	n/a	n/a
%RSD		2.142	5.806	6.807	2.363	3.250	3.016	3.695	2.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:56	93.040%	96.590	97.180	96.990	96.770	96.200	96.214%	97.557%
2	12:22:21	91.122%	99.610	101.100	100.800	99.750	101.200	97.691%	97.559%
3	12:22:46	94.339%	100.700	101.500	99.520	98.600	99.070	98.392%	99.533%
x		92.834%	98.952%	99.923%	99.089%	98.372%	98.823%	97.432%	98.216%
σ		1.619%	n/a	n/a	n/a	n/a	n/a	1.111%	1.140%
%RSD		1.744	2.131	2.388	1.937	1.524	2.540	1.141	1.161
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:21:56	107.400	104.500	106.400	106.200	105.800	91.791%		
2	12:22:21	110.200	106.600	110.400	111.200	109.500	90.736%		
3	12:22:46	107.700	105.300	109.200	108.100	108.600	94.073%		
x		108.451%	105.464%	108.687%	108.479%	107.962%	92.200%		
σ		n/a	n/a	n/a	n/a	n/a	1.706%		
%RSD		1.428	1.013	1.861	2.298	1.794	1.850		

CCB2 1/22/2015 12:28:52 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	12:29:17	95.045%	0.095	0.073	0.201	0.000	18.950	9.472	9.076
2	12:29:42	99.490%	0.038	0.811	0.064	0.000	14.790	11.270	9.296
3	12:30:07	99.464%	-0.048	-0.046	-0.156	0.000	16.300	11.000	9.813
x		98.000%	0.028	0.279	0.036	0.000	16.680	10.580	9.395
σ		2.559%	0.072	0.464	0.180	0.000	2.108	0.968	0.378
%RSD		2.611	254.000	166.200	497.800	0.000	12.640	9.148	4.026
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:17	0.811	4.493	0.000	12.220	10.040	15.920	94.928%	-0.018
2	12:29:42	0.874	0.893	0.000	11.390	0.565	10.350	95.798%	0.108
3	12:30:07	0.748	0.956	0.000	6.343	15.530	10.310	97.191%	0.026
x		0.811	2.114	0.000	9.986	8.711	12.200	95.972%	0.039
σ		0.063	2.061	0.000	3.183	7.571	3.228	1.141%	0.064
%RSD		7.799	97.470	0.000	31.870	86.910	26.470	1.189	167.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:17	0.050	0.008	0.060	9.817	8.191	0.032	0.013	0.040
2	12:29:42	0.013	0.026	0.080	9.497	12.590	0.027	0.106	0.028
3	12:30:07	0.128	0.021	0.021	8.560	6.893	0.020	-0.034	0.104
x		0.064	0.018	0.054	9.292	9.224	0.026	0.028	0.058
σ		0.059	0.009	0.030	0.654	2.984	0.006	0.071	0.041
%RSD		91.910	49.430	56.220	7.033	32.350	23.580	252.100	71.120
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:17	0.096	0.052	0.009	-0.455	0.104	-2.352	0.000	0.048
2	12:29:42	0.031	0.040	0.152	0.250	-0.813	1.857	0.000	0.049
3	12:30:07	0.037	0.101	0.113	0.046	0.548	-0.441	0.000	0.050
x		0.055	0.064	0.091	-0.053	-0.054	-0.312	0.000	0.049
σ		0.036	0.032	0.074	0.363	0.694	2.107	0.000	0.001
%RSD		65.300	49.830	81.190	684.000	1293.000	675.900	0.000	1.858
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:17	95.016%	0.256	0.352	95.486%	0.010	0.019	0.034	2.725
2	12:29:42	97.263%	0.302	0.341	97.267%	0.022	0.016	0.033	-0.171
3	12:30:07	97.644%	0.331	0.289	98.417%	0.024	0.021	0.021	-0.560
x		96.641%	0.296	0.327	97.056%	0.018	0.019	0.029	0.665
σ		1.420%	0.038	0.033	1.477%	0.008	0.003	0.007	1.795
%RSD		1.470	12.730	10.190	1.522	41.410	13.870	25.450	270.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:17	96.554%	0.158	0.135	0.108	0.021	0.050	96.688%	97.425%
2	12:29:42	99.486%	0.132	0.153	0.129	0.019	0.043	99.215%	99.294%
3	12:30:07	98.754%	0.170	0.155	0.138	0.049	0.035	99.224%	99.565%
x		98.265%	0.153	0.148	0.125	0.030	0.043	98.376%	98.761%
σ		1.526%	0.020	0.011	0.015	0.017	0.008	1.462%	1.165%
%RSD		1.553	12.810	7.675	12.130	56.030	18.120	1.486	1.180
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:29:17	0.015	0.014	-0.001	-0.006	0.007	105.267%		
2	12:29:42	0.026	0.021	0.011	0.027	0.014	103.717%		
3	12:30:07	0.019	0.018	0.010	-0.001	0.009	104.201%		
x		0.020	0.018	0.006	0.006	0.010	104.395%		
σ		0.006	0.004	0.007	0.018	0.004	0.793%		
%RSD		27.260	20.440	107.400	273.300	36.080	0.760		

180-40434-B-9-A 1/22/2015 12:33:07 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	12:33:32	101.400%	-0.036	46.970	46.390	0.000	48110.000	17190.000	16360.000
2	12:33:57	110.522%	0.014	46.590	47.880	0.000	48180.000	16140.000	16170.000
3	12:34:22	107.961%	0.062	45.940	48.820	0.000	48870.000	16450.000	16650.000
x		106.627%	0.013	46.500	47.700	0.000	48390.000	16590.000	16400.000
σ		4.705%	0.049	0.518	1.225	0.000	418.400	542.200	243.000
%RSD		4.413	374.400	1.115	2.569	0.000	0.865	3.268	1.482
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:32	9.625	4065.000	0.000	5832.000	84650.000	85820.000	88.176%	0.935
2	12:33:57	9.769	3831.000	0.000	5941.000	88470.000	89560.000	89.864%	1.135
3	12:34:22	11.030	4091.000	0.000	6013.000	89330.000	90800.000	91.475%	1.162
x		10.140	3996.000	0.000	5929.000	87480.000	88720.000	89.838%	1.077
σ		0.771	143.000	0.000	91.290	2491.000	2590.000	1.650%	0.124
%RSD		7.601	3.578	0.000	1.540	2.847	2.919	1.836	11.530
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:32	0.508	8.352	7.590	30.280	347.400	0.189	0.253	1.708
2	12:33:57	1.706	8.900	7.945	29.370	350.200	0.194	0.004	1.678
3	12:34:22	-1.254	9.049	7.905	27.100	342.400	0.190	-0.047	1.647
x		0.320	8.767	7.813	28.920	346.600	0.191	0.070	1.678
σ		1.489	0.367	0.195	1.640	3.945	0.003	0.160	0.031
%RSD		465.200	4.182	2.490	5.671	1.138	1.510	229.600	1.832
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:32	1.545	6.531	6.460	-0.958	-0.464	-0.405	0.000	181.300
2	12:33:57	1.547	6.981	6.696	-0.822	0.099	2.952	0.000	186.400
3	12:34:22	1.447	7.123	6.978	0.627	-0.384	0.383	0.000	186.500
x		1.513	6.879	6.711	-0.384	-0.250	0.977	0.000	184.800
σ		0.057	0.309	0.259	0.879	0.305	1.756	0.000	2.953
%RSD		3.767	4.493	3.862	228.600	122.200	179.800	0.000	1.598
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:32	87.509%	10.810	10.090	86.872%	0.036	0.025	0.039	-0.489
2	12:33:57	91.460%	10.960	10.750	89.651%	0.005	0.006	0.029	-0.513
3	12:34:22	93.821%	10.830	10.790	90.571%	-0.001	0.021	0.019	-0.478
x		90.930%	10.870	10.550	89.031%	0.013	0.017	0.029	-0.494
σ		3.189%	0.079	0.394	1.926%	0.019	0.010	0.010	0.018
%RSD		3.507	0.725	3.738	2.163	144.700	57.950	34.610	3.599
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:32	85.503%	0.659	0.313	0.369	39.380	39.510	93.016%	93.363%
2	12:33:57	88.015%	0.548	0.298	0.276	40.350	40.870	95.985%	94.866%
3	12:34:22	88.887%	0.433	0.232	0.227	39.820	40.570	98.360%	97.283%
x		87.468%	0.546	0.281	0.290	39.850	40.310	95.787%	95.171%
σ		1.757%	0.113	0.043	0.072	0.487	0.714	2.677%	1.978%
%RSD		2.009	20.680	15.380	24.850	1.223	1.772	2.795	2.078
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:33:32	0.012	0.007	0.109	0.068	0.089	89.808%		
2	12:33:57	0.008	0.009	0.118	0.080	0.091	91.802%		
3	12:34:22	0.006	0.010	0.088	0.074	0.082	92.329%		
x		0.009	0.009	0.105	0.074	0.087	91.313%		
σ		0.003	0.002	0.015	0.006	0.005	1.330%		
%RSD		35.780	21.950	14.600	7.905	5.379	1.456		

180-40434-B-10-A 1/22/2015 12:37:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:44	99.562%	0.039	15.710	16.810	0.000	67960.000	7393.000	7480.000
2	12:38:10	107.177%	0.086	17.360	16.400	0.000	67530.000	7467.000	7457.000
3	12:38:35	104.408%	0.009	18.760	18.260	0.000	70240.000	7802.000	7829.000
x		103.716%	0.044	17.280	17.160	0.000	68580.000	7554.000	7589.000
σ		3.854%	0.039	1.529	0.978	0.000	1457.000	218.200	208.900
%RSD		3.716	88.130	8.848	5.699	0.000	2.125	2.889	2.753
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:44	509.600	2649.000	0.000	7242.000	33750.000	32010.000	89.457%	8.957
2	12:38:10	513.500	2635.000	0.000	6994.000	33650.000	34010.000	89.893%	8.910
3	12:38:35	532.900	2707.000	0.000	7299.000	34670.000	33900.000	90.176%	8.752
x		518.700	2664.000	0.000	7178.000	34020.000	33310.000	89.842%	8.873
σ		12.490	38.360	0.000	162.000	560.100	1122.000	0.363%	0.107
%RSD		2.407	1.440	0.000	2.256	1.646	3.369	0.404	1.208
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:44	0.988	4.495	51.150	896.400	932.900	0.599	1.405	4.302
2	12:38:10	2.149	4.565	54.230	928.200	977.100	0.637	1.369	4.435
3	12:38:35	0.099	4.356	54.450	933.700	992.400	0.600	1.373	4.275
x		1.078	4.472	53.280	919.500	967.500	0.612	1.383	4.338
σ		1.028	0.107	1.845	20.160	30.900	0.022	0.020	0.086
%RSD		95.320	2.385	3.463	2.192	3.194	3.562	1.424	1.975
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:44	3.942	19.720	19.660	2.362	-0.774	2.266	0.000	102.200
2	12:38:10	4.283	20.450	20.060	2.660	0.133	0.253	0.000	103.300
3	12:38:35	4.077	20.520	20.340	3.387	-0.856	2.427	0.000	105.000
x		4.100	20.230	20.020	2.803	-0.499	1.649	0.000	103.500
σ		0.172	0.442	0.341	0.527	0.549	1.212	0.000	1.420
%RSD		4.184	2.185	1.701	18.810	110.100	73.490	0.000	1.372
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:44	90.227%	0.942	0.999	90.557%	-0.002	-0.017	0.042	-0.533
2	12:38:10	91.398%	1.027	1.116	90.931%	-0.003	-0.009	0.077	-0.506
3	12:38:35	93.927%	1.016	1.040	88.381%	-0.012	0.008	0.114	-0.492
x		91.851%	0.995	1.052	89.956%	-0.005	-0.006	0.078	-0.510
σ		1.891%	0.047	0.060	1.377%	0.005	0.013	0.036	0.021
%RSD		2.059	4.674	5.666	1.531	97.830	217.800	46.150	4.107
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:44	87.484%	0.321	0.205	0.232	42.600	43.290	92.110%	94.064%
2	12:38:10	91.048%	0.349	0.214	0.189	42.910	42.850	95.811%	97.301%
3	12:38:35	90.501%	0.353	0.181	0.198	44.150	43.620	96.721%	98.550%
x		89.678%	0.341	0.200	0.206	43.220	43.260	94.881%	96.638%
σ		1.919%	0.017	0.017	0.023	0.818	0.385	2.442%	2.315%
%RSD		2.140	5.013	8.514	11.110	1.892	0.891	2.574	2.396
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:37:44	0.009	0.006	2.137	1.887	2.040	90.902%		
2	12:38:10	0.014	0.008	2.131	1.974	2.004	97.339%		
3	12:38:35	0.008	0.013	2.252	2.051	2.095	96.060%		
x		0.010	0.009	2.173	1.970	2.046	94.767%		
σ		0.003	0.004	0.068	0.082	0.046	3.408%		
%RSD		28.410	40.790	3.129	4.160	2.242	3.596		

180-40434-B-11-A 1/22/2015 12:41:31 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	12:41:56	101.864%	0.084	48.490	46.750	0.000	51520.000	17150.000	17290.000
2	12:42:21	103.922%	-0.014	45.150	47.020	0.000	52710.000	17660.000	17790.000
3	12:42:46	103.692%	0.069	49.180	49.390	0.000	52930.000	18020.000	18110.000
x		103.159%	0.046	47.610	47.720	0.000	52390.000	17610.000	17730.000
σ		1.128%	0.053	2.155	1.450	0.000	758.000	438.300	409.700
%RSD		1.093	114.500	4.527	3.039	0.000	1.447	2.489	2.311

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:56	1232.000	5116.000	0.000	6687.000	88770.000	91300.000	86.741%	22.210
2	12:42:21	1281.000	5200.000	0.000	6929.000	90850.000	93020.000	87.536%	23.500
3	12:42:46	1276.000	5279.000	0.000	6899.000	91750.000	94550.000	87.513%	24.120
x		1263.000	5198.000	0.000	6838.000	90450.000	92950.000	87.263%	23.280
σ		26.960	81.340	0.000	131.900	1529.000	1624.000	0.452%	0.976
%RSD		2.135	1.565	0.000	1.929	1.690	1.747	0.518	4.192

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:56	0.004	10.360	54.830	2360.000	2554.000	1.266	1.706	6.499
2	12:42:21	0.422	10.470	56.420	2433.000	2616.000	1.290	1.563	6.392
3	12:42:46	2.219	10.530	57.880	2465.000	2654.000	1.339	1.626	6.511
x		0.882	10.450	56.380	2419.000	2608.000	1.298	1.632	6.467
σ		1.177	0.088	1.525	54.040	50.260	0.037	0.071	0.066
%RSD		133.500	0.842	2.704	2.234	1.927	2.863	4.376	1.014

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:56	5.951	33.440	33.430	-1.649	-0.391	0.106	0.000	188.000
2	12:42:21	6.433	35.440	34.920	0.898	-0.073	2.678	0.000	189.800
3	12:42:46	6.913	35.510	34.440	2.006	0.316	1.633	0.000	195.000
x		6.432	34.800	34.260	0.418	-0.049	1.472	0.000	190.900
σ		0.481	1.176	0.762	1.874	0.354	1.293	0.000	3.609
%RSD		7.476	3.380	2.223	448.100	721.000	87.860	0.000	1.890

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:56	89.770%	6.068	5.748	87.571%	0.007	0.010	0.095	-0.411
2	12:42:21	93.247%	5.922	5.890	88.976%	0.014	0.013	0.084	-0.463
3	12:42:46	91.747%	6.223	6.298	89.682%	0.020	0.012	0.089	-0.409
x		91.588%	6.071	5.979	88.743%	0.014	0.012	0.089	-0.428
σ		1.744%	0.151	0.286	1.075%	0.006	0.002	0.005	0.031
%RSD		1.904	2.481	4.783	1.211	46.330	12.760	5.774	7.149

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:56	86.554%	0.547	0.318	0.322	52.840	52.170	94.532%	94.915%
2	12:42:21	87.151%	0.520	0.295	0.334	54.260	54.410	96.181%	96.762%
3	12:42:46	87.243%	0.598	0.314	0.343	54.050	53.660	95.591%	97.077%
x		86.982%	0.555	0.309	0.333	53.720	53.410	95.435%	96.251%
σ		0.374%	0.040	0.012	0.011	0.766	1.143	0.836%	1.168%
%RSD		0.430	7.201	3.892	3.196	1.426	2.140	0.875	1.213

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:56	0.027	0.027	6.186	5.976	5.947	94.842%
2	12:42:21	0.026	0.020	6.498	5.968	6.134	94.726%
3	12:42:46	0.022	0.024	6.586	5.820	6.152	94.440%
x		0.025	0.024	6.423	5.922	6.078	94.670%
σ		0.003	0.003	0.210	0.088	0.114	0.207%
%RSD		10.500	13.970	3.270	1.484	1.872	0.219

180-40434-B-12-A 1/22/2015 12:45:43 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	12:46:08	99.930%	0.075	13.530	13.810	0.000	106200.000	8443.000	8512.000
2	12:46:33	104.245%	-0.015	12.050	14.450	0.000	107900.000	8532.000	8543.000
3	12:46:58	105.347%	0.089	11.160	13.580	0.000	109100.000	8735.000	8864.000
x		103.174%	0.050	12.250	13.950	0.000	107800.000	8570.000	8640.000
σ		2.863%	0.057	1.198	0.447	0.000	1432.000	149.400	194.900
%RSD		2.775	112.800	9.784	3.208	0.000	1.329	1.744	2.256
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	71.720	1981.000	0.000	3260.000	44980.000	44470.000	85.801%	2.450
2	12:46:33	73.280	1976.000	0.000	3151.000	44490.000	45260.000	88.864%	1.961
3	12:46:58	73.310	1981.000	0.000	3219.000	45460.000	45340.000	89.898%	2.310
x		72.770	1979.000	0.000	3210.000	44980.000	45030.000	88.188%	2.240
σ		0.908	3.122	0.000	55.100	481.600	479.500	2.130%	0.252
%RSD		1.248	0.158	0.000	1.716	1.071	1.065	2.416	11.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	-0.379	4.530	11.740	153.200	316.600	0.196	0.802	3.287
2	12:46:33	0.040	4.247	11.940	153.100	309.300	0.185	0.803	3.108
3	12:46:58	-0.677	4.377	11.730	152.400	309.900	0.160	0.776	3.281
x		-0.339	4.385	11.800	152.900	311.900	0.180	0.794	3.226
σ		0.360	0.142	0.117	0.431	4.068	0.018	0.016	0.102
%RSD		106.300	3.233	0.993	0.282	1.304	10.130	1.958	3.149
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	2.715	18.400	18.210	-0.114	-0.751	0.978	0.000	135.300
2	12:46:33	2.819	18.370	19.060	-2.095	-0.215	-2.810	0.000	138.700
3	12:46:58	2.903	19.190	18.070	2.388	0.185	1.286	0.000	138.200
x		2.812	18.650	18.450	0.060	-0.260	-0.182	0.000	137.400
σ		0.094	0.464	0.536	2.246	0.469	2.281	0.000	1.832
%RSD		3.347	2.488	2.906	3756.000	180.500	1254.000	0.000	1.334
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	86.838%	0.477	0.556	86.948%	-0.005	-0.011	0.045	-0.503
2	12:46:33	91.228%	0.473	0.525	89.744%	-0.005	-0.015	0.052	-0.513
3	12:46:58	93.974%	0.477	0.549	91.558%	-0.013	-0.007	0.041	-0.511
x		90.680%	0.476	0.543	89.417%	-0.008	-0.011	0.046	-0.509
σ		3.599%	0.003	0.017	2.322%	0.005	0.004	0.005	0.005
%RSD		3.969	0.529	3.038	2.597	64.870	34.400	11.860	0.947
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	83.797%	0.121	0.164	0.193	41.380	41.950	92.110%	92.664%
2	12:46:33	87.407%	0.149	0.213	0.191	41.860	41.290	94.439%	95.568%
3	12:46:58	90.307%	0.136	0.156	0.173	41.840	42.140	96.347%	97.843%
x		87.170%	0.135	0.178	0.186	41.700	41.790	94.299%	95.358%
σ		3.261%	0.014	0.030	0.011	0.272	0.446	2.122%	2.596%
%RSD		3.742	10.390	17.140	6.161	0.653	1.067	2.251	2.722
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:46:08	0.003	0.002	0.377	0.335	0.370	89.086%		
2	12:46:33	0.001	0.005	0.355	0.357	0.344	94.520%		
3	12:46:58	0.011	0.004	0.380	0.344	0.360	94.485%		
x		0.005	0.004	0.371	0.345	0.358	92.697%		
σ		0.005	0.001	0.014	0.011	0.013	3.127%		
%RSD		113.100	41.230	3.667	3.301	3.667	3.374		

180-40434-B-13-A 1/22/2015 12:49:56 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	12:50:21	99.756%	0.076	15.080	18.370	0.000	65100.000	9604.000	9779.000
2	12:50:46	101.247%	-0.024	16.230	18.230	0.000	65660.000	9904.000	10020.000
3	12:51:11	104.856%	0.102	16.640	17.720	0.000	65770.000	9864.000	9957.000
x		101.953%	0.051	15.980	18.100	0.000	65510.000	9791.000	9917.000
σ		2.622%	0.067	0.809	0.344	0.000	360.900	163.000	123.000
%RSD		2.572	129.600	5.063	1.899	0.000	0.551	1.664	1.240
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:21	815.200	3334.000	0.000	6779.000	42340.000	41630.000	84.416%	14.550
2	12:50:46	842.900	3372.000	0.000	6739.000	42810.000	42560.000	86.253%	14.730
3	12:51:11	860.900	3280.000	0.000	6635.000	41650.000	42700.000	87.985%	14.260
x		839.700	3329.000	0.000	6718.000	42260.000	42290.000	86.218%	14.510
σ		23.020	46.060	0.000	74.840	584.400	580.100	1.785%	0.238
%RSD		2.742	1.384	0.000	1.114	1.383	1.372	2.070	1.641
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:21	1.488	5.390	60.430	1335.000	1417.000	0.843	1.564	3.959
2	12:50:46	1.133	5.243	60.660	1364.000	1459.000	0.828	1.216	4.229
3	12:51:11	0.607	4.990	61.870	1355.000	1447.000	0.844	1.419	4.065
x		1.076	5.208	60.990	1351.000	1441.000	0.838	1.400	4.084
σ		0.444	0.202	0.770	15.040	21.460	0.009	0.175	0.136
%RSD		41.210	3.881	1.262	1.113	1.489	1.078	12.510	3.326
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:21	4.031	17.950	17.010	-2.459	-0.697	-1.932	0.000	104.000
2	12:50:46	3.880	18.170	18.590	-0.131	-0.151	1.314	0.000	106.600
3	12:51:11	3.971	19.200	18.670	1.420	0.074	2.709	0.000	107.800
x		3.961	18.440	18.090	-0.390	-0.258	0.697	0.000	106.100
σ		0.076	0.668	0.937	1.953	0.396	2.381	0.000	1.907
%RSD		1.912	3.623	5.177	500.900	153.900	341.700	0.000	1.796
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:21	86.878%	0.711	0.763	85.386%	-0.015	-0.007	0.011	-0.475
2	12:50:46	89.619%	0.800	0.674	89.562%	-0.017	-0.014	0.024	-0.479
3	12:51:11	92.009%	0.892	0.868	89.898%	-0.013	-0.013	0.037	-0.502
x		89.502%	0.801	0.768	88.282%	-0.015	-0.011	0.024	-0.485
σ		2.567%	0.090	0.097	2.514%	0.002	0.004	0.013	0.015
%RSD		2.868	11.300	12.650	2.847	14.530	34.620	54.170	3.002
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:21	83.450%	0.222	0.145	0.158	42.330	44.660	93.016%	92.783%
2	12:50:46	87.795%	0.232	0.137	0.161	45.800	44.710	94.122%	96.185%
3	12:51:11	88.873%	0.217	0.153	0.195	44.440	44.050	96.275%	96.757%
x		86.706%	0.224	0.145	0.171	44.190	44.470	94.471%	95.242%
σ		2.871%	0.007	0.008	0.020	1.746	0.372	1.657%	2.149%
%RSD		3.311	3.315	5.573	11.950	3.950	0.836	1.754	2.256
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:50:21	0.014	0.010	2.923	2.702	2.793	89.518%		
2	12:50:46	0.016	0.010	2.861	2.599	2.677	93.354%		
3	12:51:11	0.013	0.012	2.823	2.631	2.688	95.251%		
x		0.015	0.011	2.869	2.644	2.719	92.708%		
σ		0.002	0.001	0.051	0.053	0.064	2.921%		
%RSD		11.440	12.460	1.769	2.001	2.340	3.150		

180-40434-B-14-A 1/22/2015 12:54:05 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	12:54:31	98.445%	0.053	32.420	34.070	0.000	58410.000	13580.000	13830.000
2	12:54:56	101.011%	-0.012	33.290	34.920	0.000	59720.000	14160.000	14420.000
3	12:55:22	104.024%	-0.062	32.270	33.940	0.000	59620.000	14150.000	14430.000
x		101.160%	-0.007	32.660	34.310	0.000	59250.000	13960.000	14220.000
σ		2.793%	0.058	0.554	0.531	0.000	728.500	329.400	342.700
%RSD		2.761	855.000	1.696	1.547	0.000	1.229	2.359	2.409

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:31	469.800	3657.000	0.000	6711.000	62100.000	63390.000	85.626%	8.842
2	12:54:56	492.000	3642.000	0.000	6842.000	65080.000	65710.000	85.852%	9.004
3	12:55:22	492.300	3754.000	0.000	6904.000	65380.000	66190.000	85.896%	9.871
x		484.700	3685.000	0.000	6819.000	64190.000	65100.000	85.791%	9.239
σ		12.870	60.790	0.000	98.380	1814.000	1500.000	0.145%	0.553
%RSD		2.656	1.650	0.000	1.443	2.826	2.304	0.169	5.991

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:31	2.839	5.898	33.510	806.500	982.200	0.649	1.363	4.049
2	12:54:56	1.900	6.329	35.260	850.900	1033.000	0.709	1.189	4.158
3	12:55:22	0.846	6.037	35.880	863.000	1034.000	0.720	1.336	4.104
x		1.862	6.088	34.890	840.200	1016.000	0.693	1.296	4.104
σ		0.997	0.220	1.228	29.760	29.670	0.038	0.094	0.055
%RSD		53.550	3.618	3.521	3.542	2.918	5.512	7.231	1.332

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:31	4.029	16.920	17.000	-0.952	-0.458	1.727	0.000	136.800
2	12:54:56	3.702	17.080	17.420	2.428	-0.467	2.634	0.000	139.800
3	12:55:22	3.800	17.730	16.690	0.018	-0.437	1.005	0.000	142.400
x		3.844	17.240	17.040	0.498	-0.454	1.789	0.000	139.600
σ		0.168	0.428	0.363	1.741	0.015	0.816	0.000	2.780
%RSD		4.371	2.483	2.131	349.600	3.336	45.620	0.000	1.991

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:31	86.948%	5.474	5.219	85.682%	0.045	0.040	0.049	-0.462
2	12:54:56	89.690%	5.462	5.312	87.696%	0.028	0.041	0.062	-0.468
3	12:55:22	90.387%	5.494	5.473	88.501%	0.043	0.037	0.047	-0.477
x		89.008%	5.477	5.335	87.293%	0.039	0.039	0.053	-0.469
σ		1.818%	0.016	0.128	1.452%	0.009	0.002	0.008	0.007
%RSD		2.043	0.287	2.406	1.663	24.340	5.099	14.560	1.598

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:31	84.022%	0.193	0.120	0.111	41.070	41.050	94.027%	94.380%
2	12:54:56	86.989%	0.219	0.107	0.139	41.930	42.260	94.901%	96.108%
3	12:55:22	87.211%	0.225	0.129	0.161	42.440	41.490	95.693%	96.551%
x		86.074%	0.213	0.119	0.137	41.810	41.600	94.873%	95.680%
σ		1.781%	0.017	0.011	0.025	0.695	0.612	0.833%	1.147%
%RSD		2.069	7.997	9.596	18.170	1.661	1.472	0.878	1.199

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:31	0.011	0.013	2.431	2.424	2.413	91.178%
2	12:54:56	0.031	0.011	2.614	2.337	2.422	93.256%
3	12:55:22	0.013	0.011	2.635	2.282	2.442	93.605%
x		0.018	0.012	2.560	2.348	2.426	92.679%
σ		0.011	0.001	0.112	0.072	0.015	1.312%
%RSD		61.960	10.790	4.390	3.055	0.617	1.416

180-40434-B-15-A 1/22/2015 12:58:17 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	12:58:42	96.670%	0.030	41.930	44.480	0.000	69420.000	10790.000	10890.000
2	12:59:07	98.504%	0.065	44.860	45.850	0.000	70860.000	11140.000	11200.000
3	12:59:32	100.512%	0.037	42.960	43.710	0.000	71500.000	11140.000	11390.000
x		98.562%	0.044	43.250	44.680	0.000	70590.000	11020.000	11160.000
σ		1.922%	0.018	1.482	1.080	0.000	1066.000	204.400	249.800
%RSD		1.950	42.240	3.427	2.417	0.000	1.510	1.854	2.238

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:42	819.100	3639.000	0.000	7843.000	48600.000	49620.000	91.558%	13.170
2	12:59:07	846.700	3689.000	0.000	8107.000	51170.000	51420.000	90.052%	14.610
3	12:59:32	853.100	3810.000	0.000	8215.000	51840.000	51330.000	91.351%	15.590
x		839.600	3713.000	0.000	8055.000	50540.000	50790.000	90.987%	14.460
σ		18.050	87.800	0.000	191.700	1709.000	1014.000	0.817%	1.214
%RSD		2.149	2.365	0.000	2.380	3.381	1.996	0.897	8.397

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:42	1.396	5.317	64.750	1468.000	1554.000	1.041	1.640	5.275
2	12:59:07	1.266	5.593	68.500	1536.000	1634.000	1.037	1.676	5.265
3	12:59:32	0.692	5.480	68.170	1548.000	1647.000	1.150	1.694	5.370
x		1.118	5.463	67.140	1517.000	1612.000	1.076	1.670	5.304
σ		0.375	0.139	2.079	43.100	50.190	0.064	0.028	0.058
%RSD		33.510	2.535	3.096	2.840	3.114	5.968	1.652	1.095

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:42	5.003	27.630	29.330	0.202	-0.088	3.285	0.000	122.300
2	12:59:07	4.814	28.810	29.480	-0.470	-0.093	0.858	0.000	125.600
3	12:59:32	4.883	29.480	29.380	-4.496	-0.740	-0.378	0.000	126.000
x		4.900	28.640	29.400	-1.588	-0.307	1.255	0.000	124.700
σ		0.096	0.936	0.077	2.541	0.375	1.863	0.000	2.025
%RSD		1.950	3.269	0.261	160.000	122.100	148.500	0.000	1.625

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:42	86.106%	9.241	9.265	84.702%	0.021	-0.002	0.059	-0.511
2	12:59:07	87.237%	9.818	9.563	85.042%	0.005	0.025	0.068	-0.517
3	12:59:32	89.547%	10.010	9.470	86.660%	0.028	0.008	0.095	-0.499
x		87.630%	9.689	9.433	85.468%	0.018	0.010	0.074	-0.509
σ		1.754%	0.400	0.153	1.046%	0.012	0.013	0.019	0.009
%RSD		2.001	4.131	1.619	1.224	65.150	129.200	25.520	1.819

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:42	84.675%	0.278	0.203	0.214	38.980	39.020	92.204%	92.476%
2	12:59:07	85.220%	0.318	0.203	0.216	39.750	39.810	92.645%	94.045%
3	12:59:32	86.117%	0.306	0.221	0.234	41.390	41.080	94.496%	95.648%
x		85.338%	0.301	0.209	0.221	40.040	39.970	93.115%	94.056%
σ		0.728%	0.020	0.011	0.011	1.228	1.041	1.216%	1.586%
%RSD		0.853	6.791	5.123	4.902	3.067	2.604	1.306	1.686

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:42	0.005	0.011	3.830	3.546	3.629	91.809%
2	12:59:07	0.013	0.009	3.864	3.614	3.695	91.403%
3	12:59:32	0.013	0.009	3.950	3.751	3.744	92.243%
x		0.010	0.010	3.881	3.637	3.689	91.818%
σ		0.004	0.001	0.062	0.105	0.058	0.420%
%RSD		41.320	12.280	1.595	2.876	1.566	0.457

180-40434-B-16-A 1/22/2015 1:02:27 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	13:02:52	97.147%	-0.033	18.560	18.760	0.000	70320.000	7761.000	7882.000
2	13:03:17	99.354%	0.015	19.460	19.190	0.000	72700.000	8201.000	8141.000
3	13:03:42	99.534%	-0.010	19.370	19.570	0.000	72730.000	8290.000	8290.000
x		98.678%	-0.009	19.130	19.170	0.000	71920.000	8084.000	8104.000
σ		1.329%	0.024	0.499	0.407	0.000	1382.000	283.500	206.300
%RSD		1.347	255.700	2.607	2.122	0.000	1.922	3.506	2.546
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:52	518.300	2840.000	0.000	8565.000	36440.000	35410.000	83.151%	9.030
2	13:03:17	538.600	2894.000	0.000	8683.000	37230.000	37180.000	82.536%	8.845
3	13:03:42	542.800	2919.000	0.000	8824.000	38210.000	37270.000	84.350%	8.998
x		533.300	2884.000	0.000	8691.000	37300.000	36620.000	83.346%	8.958
σ		13.100	40.810	0.000	129.800	883.000	1050.000	0.923%	0.099
%RSD		2.457	1.415	0.000	1.493	2.368	2.867	1.107	1.103
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:52	4.253	4.612	70.800	946.400	1004.000	0.635	1.254	3.921
2	13:03:17	3.126	4.745	74.480	1002.000	1061.000	0.639	1.361	3.781
3	13:03:42	2.081	4.799	74.260	990.100	1052.000	0.677	1.398	3.865
x		3.153	4.718	73.180	979.400	1039.000	0.650	1.338	3.856
σ		1.086	0.096	2.060	29.170	30.600	0.023	0.075	0.071
%RSD		34.440	2.045	2.815	2.978	2.944	3.572	5.572	1.837
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:52	3.605	17.730	17.160	0.917	-0.119	0.811	0.000	107.400
2	13:03:17	3.879	17.920	18.020	3.701	-0.472	3.128	0.000	109.600
3	13:03:42	3.856	18.090	18.250	-1.157	-0.296	1.238	0.000	110.300
x		3.780	17.910	17.810	1.154	-0.296	1.726	0.000	109.100
σ		0.152	0.181	0.572	2.437	0.176	1.233	0.000	1.557
%RSD		4.012	1.008	3.209	211.300	59.660	71.450	0.000	1.427
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:52	85.740%	1.058	1.236	83.133%	-0.006	-0.006	0.051	-0.509
2	13:03:17	87.673%	1.148	1.206	85.090%	-0.014	0.004	0.059	-0.484
3	13:03:42	89.382%	1.237	1.224	86.228%	-0.012	-0.010	0.072	-0.438
x		87.598%	1.147	1.222	84.817%	-0.011	-0.004	0.061	-0.477
σ		1.822%	0.090	0.015	1.565%	0.004	0.007	0.011	0.036
%RSD		2.080	7.822	1.250	1.846	38.570	180.400	18.120	7.583
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:52	82.770%	0.149	0.105	0.157	46.610	46.920	91.524%	92.179%
2	13:03:17	85.340%	0.129	0.171	0.157	48.200	48.500	91.684%	93.138%
3	13:03:42	85.610%	0.118	0.160	0.198	48.450	47.520	94.806%	94.728%
x		84.573%	0.132	0.146	0.171	47.750	47.650	92.671%	93.348%
σ		1.568%	0.016	0.035	0.024	1.000	0.800	1.851%	1.287%
%RSD		1.854	12.120	24.190	13.950	2.094	1.680	1.997	1.379
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:02:52	0.012	0.007	2.162	2.080	2.079	90.804%		
2	13:03:17	0.014	0.009	2.140	2.057	2.078	92.763%		
3	13:03:42	0.009	0.013	2.189	2.051	2.138	92.376%		
x		0.012	0.009	2.164	2.063	2.098	91.981%		
σ		0.003	0.003	0.024	0.015	0.034	1.038%		
%RSD		21.990	30.650	1.127	0.743	1.636	1.128		

180-40434-B-18-A 1/22/2015 1:06:39 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	13:07:05	97.815%	0.042	45.750	43.740	0.000	65700.000	21060.000	21390.000
2	13:07:30	101.358%	-0.061	43.320	43.200	0.000	66560.000	21850.000	21960.000
3	13:07:55	104.877%	-0.003	44.120	41.960	0.000	67000.000	21900.000	22010.000
x		101.350%	-0.007	44.400	42.960	0.000	66420.000	21600.000	21790.000
σ		3.531%	0.051	1.236	0.911	0.000	661.800	472.900	343.600
%RSD		3.484	687.600	2.785	2.120	0.000	0.997	2.189	1.577

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:05	53.770	2963.000	0.000	28390.000	93260.000	94200.000	85.284%	1.312
2	13:07:30	58.430	3038.000	0.000	28800.000	95320.000	98550.000	87.439%	1.468
3	13:07:55	56.650	2993.000	0.000	28880.000	96850.000	99110.000	87.343%	1.469
x		56.280	2998.000	0.000	28690.000	95140.000	97290.000	86.689%	1.417
σ		2.352	38.000	0.000	264.500	1804.000	2688.000	1.217%	0.090
%RSD		4.178	1.267	0.000	0.922	1.897	2.763	1.404	6.383

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:05	1.163	8.452	4.560	103.800	449.900	0.225	0.455	1.778
2	13:07:30	-2.236	8.386	4.687	106.400	442.700	0.205	0.751	1.804
3	13:07:55	1.294	8.535	4.765	111.500	453.300	0.239	0.634	1.800
x		0.074	8.458	4.670	107.200	448.600	0.223	0.613	1.794
σ		2.002	0.075	0.103	3.913	5.392	0.017	0.149	0.014
%RSD		2721.000	0.883	2.212	3.649	1.202	7.753	24.270	0.782

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:05	1.799	40.040	38.480	-0.873	0.543	2.902	0.000	182.600
2	13:07:30	1.730	39.780	41.230	0.950	-0.409	2.988	0.000	189.100
3	13:07:55	1.651	42.190	42.420	-2.008	0.162	1.040	0.000	190.500
x		1.726	40.670	40.710	-0.644	0.099	2.310	0.000	187.400
σ		0.074	1.324	2.018	1.492	0.479	1.101	0.000	4.232
%RSD		4.273	3.256	4.956	231.900	484.600	47.660	0.000	2.259

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:05	87.329%	0.402	0.344	84.650%	-0.010	-0.015	0.006	-0.490
2	13:07:30	90.546%	0.391	0.378	87.925%	-0.007	-0.006	0.010	-0.597
3	13:07:55	91.158%	0.342	0.417	88.497%	-0.016	-0.004	-0.004	-0.560
x		89.678%	0.378	0.379	87.024%	-0.011	-0.009	0.004	-0.549
σ		2.057%	0.032	0.037	2.076%	0.005	0.006	0.007	0.055
%RSD		2.293	8.451	9.668	2.385	42.870	67.240	163.900	9.956

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:05	84.645%	0.039	0.345	0.326	63.230	63.430	93.257%	93.844%
2	13:07:30	87.687%	0.059	0.303	0.365	63.200	65.650	95.679%	96.531%
3	13:07:55	87.906%	0.086	0.352	0.347	64.320	65.200	95.690%	97.858%
x		86.746%	0.061	0.333	0.346	63.580	64.760	94.875%	96.077%
σ		1.823%	0.024	0.027	0.020	0.639	1.173	1.402%	2.045%
%RSD		2.101	38.530	8.023	5.741	1.004	1.812	1.477	2.128

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:05	0.012	0.006	0.237	0.165	0.204	91.202%
2	13:07:30	0.012	0.010	0.194	0.189	0.199	93.320%
3	13:07:55	0.011	0.006	0.224	0.199	0.199	94.821%
x		0.012	0.007	0.218	0.184	0.201	93.114%
σ		0.000	0.002	0.022	0.017	0.003	1.818%
%RSD		4.113	27.440	9.962	9.466	1.625	1.953

180-40434-B-23-A 1/22/2015 1:10:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:17	100.263%	-0.048	61.540	60.570	0.000	69890.000	17170.000	17280.000
2	13:11:42	101.479%	0.012	57.980	61.190	0.000	71530.000	17800.000	17810.000
3	13:12:07	103.543%	0.022	66.830	66.020	0.000	71850.000	17760.000	18010.000
x		101.762%	-0.005	62.120	62.590	0.000	71090.000	17570.000	17700.000
σ		1.658%	0.038	4.453	2.985	0.000	1055.000	350.500	376.700
%RSD		1.629	817.400	7.169	4.769	0.000	1.483	1.995	2.128
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:17	20.880	5074.000	0.000	20570.000	70850.000	71180.000	84.732%	0.887
2	13:11:42	22.130	5178.000	0.000	20730.000	73330.000	74310.000	86.093%	1.012
3	13:12:07	22.160	5121.000	0.000	21010.000	74440.000	73740.000	87.708%	1.007
x		21.720	5124.000	0.000	20770.000	72870.000	73070.000	86.178%	0.969
σ		0.728	51.720	0.000	226.400	1842.000	1667.000	1.490%	0.071
%RSD		3.352	1.009	0.000	1.090	2.527	2.281	1.729	7.289
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:17	-0.057	44.610	1.477	35.310	286.500	0.212	0.634	2.411
2	13:11:42	2.104	44.880	1.563	35.650	284.900	0.196	0.792	2.441
3	13:12:07	4.482	45.110	1.567	34.780	283.000	0.211	0.632	2.454
x		2.176	44.870	1.536	35.250	284.800	0.206	0.686	2.435
σ		2.270	0.247	0.051	0.438	1.769	0.009	0.092	0.022
%RSD		104.300	0.550	3.293	1.244	0.621	4.258	13.350	0.895
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:17	2.004	11.100	10.830	-0.112	1.701	1.731	0.000	173.200
2	13:11:42	2.378	11.580	11.240	-1.088	0.794	-0.297	0.000	175.900
3	13:12:07	2.435	11.560	12.200	2.348	-0.720	0.274	0.000	174.700
x		2.272	11.410	11.420	0.383	0.592	0.570	0.000	174.600
σ		0.234	0.270	0.707	1.771	1.223	1.046	0.000	1.352
%RSD		10.310	2.369	6.190	462.700	206.600	183.600	0.000	0.774
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:17	85.890%	1.016	0.976	85.196%	-0.016	0.002	-0.008	-0.556
2	13:11:42	89.931%	0.943	0.972	86.948%	-0.007	-0.005	0.015	-0.565
3	13:12:07	92.417%	1.120	1.051	89.329%	-0.010	-0.003	0.010	-0.571
x		89.413%	1.026	1.000	87.158%	-0.011	-0.002	0.006	-0.564
σ		3.294%	0.089	0.044	2.074%	0.004	0.003	0.012	0.007
%RSD		3.684	8.684	4.440	2.380	39.720	152.900	213.100	1.291
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:17	85.388%	0.029	0.767	0.804	52.580	52.490	90.688%	93.790%
2	13:11:42	86.864%	0.059	0.752	0.804	53.010	53.960	93.790%	96.020%
3	13:12:07	87.701%	0.015	0.799	0.790	54.940	54.610	95.027%	98.194%
x		86.651%	0.034	0.773	0.799	53.510	53.680	93.168%	96.001%
σ		1.171%	0.023	0.024	0.008	1.254	1.087	2.236%	2.202%
%RSD		1.352	66.070	3.110	1.011	2.343	2.025	2.400	2.293
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:11:17	0.002	0.000	0.140	0.142	0.151	91.974%		
2	13:11:42	0.005	0.003	0.158	0.149	0.154	93.319%		
3	13:12:07	0.003	0.001	0.175	0.152	0.153	94.463%		
x		0.003	0.001	0.158	0.148	0.152	93.252%		
σ		0.001	0.001	0.017	0.005	0.002	1.246%		
%RSD		33.020	113.400	10.970	3.370	1.066	1.336		

CCV 1455996 1/22/2015 1:15:01 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	13:15:26	84.223%	97.890	98.880	96.070	0.000	46680.000	45830.000	45950.000
2	13:15:51	86.405%	100.000	98.850	99.940	0.000	48810.000	48290.000	48380.000
3	13:16:16	86.751%	103.400	104.800	101.400	0.000	48050.000	47470.000	47670.000
x		85.793%	100.427%	100.832%	99.129%	0.000	95.696%	94.391%	94.667%
σ		1.371%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.598	2.749	3.382	2.771	0.000	2.254	2.646	2.645
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:26	438.300	4817.000	0.000	49360.000	46780.000	46450.000	90.841%	93.160
2	13:15:51	468.500	5078.000	0.000	53490.000	51170.000	51420.000	85.102%	102.000
3	13:16:16	456.700	4939.000	0.000	50810.000	48750.000	48500.000	91.384%	92.040
x		90.901%	98.890%	0.000	102.445%	97.798%	97.581%	89.109%	95.746%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.481%	n/a
%RSD		3.352	2.643	0.000	4.089	4.502	5.124	3.906	5.723
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:26	87.940	87.970	470.600	23270.000	23620.000	90.150	90.650	91.210
2	13:15:51	96.020	96.730	518.000	25710.000	26010.000	97.270	97.260	97.910
3	13:16:16	90.960	92.030	491.700	24650.000	25080.000	93.580	95.390	96.320
x		91.641%	92.241%	98.684%	98.170%	99.615%	93.668%	94.436%	95.147%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.460	4.753	4.810	4.977	4.844	3.801	3.608	3.677
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:26	91.820	92.480	94.100	93.620	94.580	95.680	0.000	94.020
2	13:15:51	98.400	102.900	100.400	98.310	100.400	100.500	0.000	97.450
3	13:16:16	95.540	98.340	98.950	97.420	100.300	99.440	0.000	97.430
x		95.255%	97.892%	97.814%	96.450%	98.435%	98.549%	0.000	96.300%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.463	5.317	3.375	2.583	3.396	2.582	0.000	2.052
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:26	86.937%	89.530	88.640	90.271%	93.160	93.690	94.460	97.030
2	13:15:51	88.845%	96.030	93.860	91.572%	95.170	94.920	98.590	98.170
3	13:16:16	89.297%	100.100	95.970	92.287%	94.210	95.290	98.680	98.550
x		88.359%	95.220%	92.824%	91.377%	94.180%	94.634%	97.243%	97.919%
σ		1.253%	n/a	n/a	1.022%	n/a	n/a	n/a	n/a
%RSD		1.418	5.601	4.067	1.119	1.070	0.886	2.480	0.806
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:26	86.051%	97.940	97.870	99.730	94.850	97.170	92.438%	93.703%
2	13:15:51	87.908%	99.710	100.300	100.400	98.950	98.960	93.404%	95.280%
3	13:16:16	89.111%	99.470	100.700	100.800	96.200	97.610	96.040%	97.043%
x		87.690%	99.042%	99.640%	100.299%	96.666%	97.915%	93.961%	95.342%
σ		1.542%	n/a	n/a	n/a	n/a	n/a	1.864%	1.671%
%RSD		1.758	0.968	1.548	0.531	2.167	0.950	1.984	1.753
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:15:26	108.400	104.300	108.100	108.700	108.400	88.046%		
2	13:15:51	109.000	105.300	110.200	109.100	109.100	90.710%		
3	13:16:16	110.600	107.000	111.800	111.200	110.700	89.898%		
x		109.332%	105.528%	110.023%	109.669%	109.384%	89.552%		
σ		n/a	n/a	n/a	n/a	n/a	1.365%		
%RSD		1.052	1.313	1.650	1.203	1.097	1.525		

CCB3 1/22/2015 1:22:22 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:47	86.310%	0.003	0.350	-0.203	0.000	16.570	11.690	11.390
2	13:23:12	89.952%	0.013	-0.040	-0.029	0.000	14.410	11.490	10.500
3	13:23:37	92.627%	0.009	0.186	0.042	0.000	13.050	11.290	11.140
x		89.630%	0.009	0.166	-0.063	0.000	14.670	11.490	11.010
σ		3.171%	0.005	0.196	0.126	0.000	1.779	0.202	0.458
%RSD		3.538	55.150	118.300	198.900	0.000	12.120	1.761	4.155
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:47	1.283	5.621	0.000	16.290	14.190	16.400	85.938%	0.086
2	13:23:12	1.040	1.804	0.000	15.200	19.130	15.940	86.328%	0.049
3	13:23:37	0.651	1.910	0.000	12.310	19.900	17.880	88.737%	0.043
x		0.991	3.112	0.000	14.600	17.740	16.740	87.001%	0.060
σ		0.319	2.174	0.000	2.059	3.100	1.016	1.516%	0.023
%RSD		32.170	69.860	0.000	14.100	17.480	6.071	1.743	39.040
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:47	-0.050	0.031	0.073	9.665	16.520	0.019	0.028	0.046
2	13:23:12	-0.082	-0.003	0.048	7.450	11.900	0.015	0.022	0.016
3	13:23:37	0.124	0.045	0.123	6.097	6.758	0.027	0.010	-0.002
x		-0.003	0.024	0.081	7.737	11.730	0.020	0.020	0.020
σ		0.111	0.025	0.038	1.801	4.884	0.006	0.009	0.024
%RSD		4129.000	102.000	46.710	23.280	41.660	32.150	46.830	121.400
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:47	0.006	0.090	0.172	0.336	0.283	3.419	0.000	0.037
2	13:23:12	-0.010	0.019	0.044	-0.356	0.534	-1.902	0.000	0.066
3	13:23:37	0.018	0.066	0.048	-0.010	-0.306	0.174	0.000	0.050
x		0.005	0.058	0.088	-0.010	0.171	0.563	0.000	0.051
σ		0.014	0.036	0.072	0.346	0.431	2.682	0.000	0.014
%RSD		292.600	62.350	82.350	3433.000	252.800	476.100	0.000	28.210
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:47	85.917%	0.321	0.330	92.823%	0.015	0.026	0.019	-0.533
2	13:23:12	90.495%	0.282	0.247	90.514%	0.024	0.015	0.023	-0.519
3	13:23:37	91.210%	0.350	0.278	91.813%	0.018	0.026	0.014	-0.550
x		89.207%	0.318	0.285	91.717%	0.019	0.022	0.019	-0.534
σ		2.872%	0.034	0.042	1.157%	0.005	0.006	0.005	0.015
%RSD		3.219	10.720	14.760	1.262	24.380	27.170	24.890	2.887
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:47	88.889%	0.142	0.130	0.153	0.067	0.065	90.765%	90.233%
2	13:23:12	91.778%	0.141	0.134	0.126	0.023	0.033	94.010%	94.212%
3	13:23:37	93.124%	0.143	0.140	0.138	0.037	0.026	96.148%	97.180%
x		91.264%	0.142	0.135	0.139	0.042	0.041	93.641%	93.875%
σ		2.164%	0.001	0.005	0.013	0.023	0.021	2.710%	3.486%
%RSD		2.371	0.925	3.741	9.589	53.820	50.090	2.894	3.713
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:22:47	0.022	0.022	0.014	0.002	0.010	97.779%		
2	13:23:12	0.022	0.014	0.010	0.008	0.008	100.092%		
3	13:23:37	0.013	0.020	0.013	0.018	0.020	100.687%		
x		0.019	0.019	0.012	0.009	0.013	99.519%		
σ		0.005	0.004	0.002	0.008	0.007	1.536%		
%RSD		26.040	20.610	13.630	86.670	51.250	1.544		

180-40434-B-22-A 1/22/2015 1:26:39 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	13:27:05	97.932%	-0.034	34.390	36.110	0.000	55680.000	28020.000	28030.000
2	13:27:31	101.681%	0.012	34.670	37.450	0.000	56930.000	28950.000	28890.000
3	13:27:56	103.882%	-0.002	34.120	37.480	0.000	57170.000	29080.000	29410.000
x		101.165%	-0.008	34.390	37.010	0.000	56590.000	28680.000	28780.000
σ		3.008%	0.023	0.275	0.784	0.000	801.200	578.100	693.500
%RSD		2.974	291.900	0.798	2.119	0.000	1.416	2.016	2.410

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:05	2.945	3800.000	0.000	25710.000	112100.000	115700.000	82.848%	1.004
2	13:27:31	3.068	3990.000	0.000	26180.000	116000.000	117700.000	86.738%	0.862
3	13:27:56	3.245	4012.000	0.000	26290.000	118100.000	119800.000	85.927%	0.853
x		3.086	3934.000	0.000	26060.000	115400.000	117700.000	85.171%	0.906
σ		0.150	116.900	0.000	311.600	3036.000	2078.000	2.052%	0.084
%RSD		4.873	2.971	0.000	1.195	2.630	1.765	2.410	9.291

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:05	1.014	9.222	0.308	11.570	445.400	0.192	-0.160	1.588
2	13:27:31	2.296	9.267	0.299	10.080	432.800	0.215	-0.171	1.600
3	13:27:56	-3.481	9.691	0.315	10.630	423.400	0.196	0.106	1.742
x		-0.057	9.393	0.307	10.760	433.900	0.201	-0.075	1.644
σ		3.034	0.259	0.008	0.750	11.020	0.012	0.157	0.086
%RSD		5295.000	2.752	2.578	6.970	2.540	6.092	208.900	5.224

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:05	1.634	6.762	6.852	1.033	0.044	0.871	0.000	224.900
2	13:27:31	1.686	7.164	7.188	2.453	-0.364	1.345	0.000	230.300
3	13:27:56	1.371	7.306	7.536	2.928	0.889	5.724	0.000	230.600
x		1.563	7.077	7.192	2.138	0.190	2.647	0.000	228.600
σ		0.169	0.282	0.342	0.986	0.639	2.676	0.000	3.230
%RSD		10.820	3.986	4.756	46.130	336.800	101.100	0.000	1.413

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:05	84.710%	0.367	0.397	82.477%	0.018	0.016	0.026	-0.578
2	13:27:31	89.229%	0.287	0.305	85.640%	0.015	-0.003	0.025	-0.480
3	13:27:56	90.003%	0.181	0.303	86.817%	-0.004	0.007	0.025	-0.526
x		87.981%	0.278	0.335	84.978%	0.010	0.007	0.025	-0.528
σ		2.859%	0.093	0.053	2.244%	0.012	0.010	0.001	0.049
%RSD		3.249	33.520	15.950	2.641	121.600	150.000	3.346	9.320

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:05	82.694%	0.574	0.306	0.342	88.310	89.720	90.535%	91.189%
2	13:27:31	86.117%	0.463	0.239	0.291	88.850	89.350	94.667%	95.243%
3	13:27:56	86.444%	0.342	0.235	0.297	88.670	89.330	93.258%	95.192%
x		85.085%	0.460	0.260	0.310	88.610	89.470	92.820%	93.875%
σ		2.077%	0.116	0.040	0.028	0.275	0.220	2.101%	2.326%
%RSD		2.441	25.320	15.470	9.036	0.311	0.246	2.263	2.478

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:05	0.003	0.010	0.034	0.038	0.041	89.785%
2	13:27:31	0.009	0.010	0.041	0.047	0.040	92.878%
3	13:27:56	0.007	0.004	0.035	0.035	0.035	92.150%
x		0.006	0.008	0.037	0.040	0.039	91.604%
σ		0.003	0.004	0.004	0.006	0.003	1.617%
%RSD		45.170	45.710	9.627	16.000	8.504	1.765

180-40434-B-22-A SD@5 1/22/2015 1:30:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	91.564%	0.038	6.061	6.947	0.000	11640.000	5608.000	5600.000
2	13:31:44	92.721%	-0.004	6.227	7.498	0.000	11730.000	5737.000	5722.000
3	13:32:09	94.802%	0.007	6.005	7.355	0.000	11800.000	5870.000	5858.000
x		93.029%	0.014	6.098	7.267	0.000	11720.000	5738.000	5727.000
σ		1.641%	0.021	0.116	0.286	0.000	81.640	130.900	128.800
%RSD		1.764	156.400	1.896	3.932	0.000	0.697	2.282	2.249

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	0.850	750.000	0.000	5294.000	22250.000	21290.000	84.640%	0.144
2	13:31:44	0.752	750.500	0.000	5280.000	22940.000	21800.000	85.558%	0.123
3	13:32:09	0.797	759.000	0.000	5346.000	23540.000	22410.000	85.674%	0.051
x		0.800	753.200	0.000	5307.000	22910.000	21830.000	85.291%	0.106
σ		0.049	5.041	0.000	34.880	644.500	563.200	0.567%	0.049
%RSD		6.113	0.669	0.000	0.657	2.813	2.580	0.664	46.320

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	0.657	2.185	-0.036	10.860	83.610	0.039	0.158	0.289
2	13:31:44	-0.360	2.108	0.005	11.700	86.750	0.036	0.068	0.376
3	13:32:09	0.516	2.339	-0.018	11.660	85.200	0.040	0.030	0.346
x		0.271	2.211	-0.016	11.400	85.190	0.038	0.085	0.337
σ		0.551	0.118	0.021	0.475	1.572	0.002	0.066	0.044
%RSD		203.300	5.322	126.100	4.169	1.846	5.726	77.320	13.030

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	0.378	1.747	1.980	1.097	1.003	1.216	0.000	43.890
2	13:31:44	0.268	1.513	1.680	0.536	0.193	2.902	0.000	44.520
3	13:32:09	0.329	1.960	1.544	0.439	-0.098	0.850	0.000	44.530
x		0.325	1.740	1.735	0.691	0.366	1.656	0.000	44.320
σ		0.055	0.223	0.223	0.355	0.571	1.095	0.000	0.367
%RSD		16.950	12.840	12.850	51.440	156.000	66.090	0.000	0.827

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	85.952%	-0.001	-0.024	89.354%	-0.010	-0.009	0.006	-0.539
2	13:31:44	88.247%	-0.011	-0.014	90.481%	-0.005	-0.020	0.001	-0.514
3	13:32:09	90.057%	-0.013	-0.039	91.890%	-0.015	-0.012	-0.004	-0.570
x		88.085%	-0.008	-0.026	90.575%	-0.010	-0.013	0.001	-0.541
σ		2.057%	0.006	0.012	1.271%	0.005	0.006	0.005	0.028
%RSD		2.335	73.460	48.170	1.403	51.600	41.040	452.400	5.155

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	86.607%	0.001	0.002	-0.019	18.370	17.680	92.494%	93.561%
2	13:31:44	87.603%	-0.019	-0.012	-0.014	18.060	18.030	92.372%	93.670%
3	13:32:09	90.050%	0.003	-0.013	-0.002	17.630	17.780	96.042%	95.130%
x		88.087%	-0.005	-0.008	-0.012	18.020	17.830	93.636%	94.120%
σ		1.772%	0.012	0.008	0.009	0.372	0.177	2.085%	0.876%
%RSD		2.011	243.700	109.600	76.460	2.061	0.991	2.226	0.931

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:19	0.001	-0.001	0.005	-0.015	-0.002	94.515%
2	13:31:44	-0.001	-0.000	-0.004	0.001	0.002	95.139%
3	13:32:09	0.003	0.001	-0.005	0.014	0.001	96.272%
x		0.001	-0.000	-0.001	-0.000	0.000	95.309%
σ		0.002	0.001	0.005	0.015	0.002	0.891%
%RSD		166.800	1834.000	388.600	1456000.000	1098.000	0.934

180-40434-B-22-B MS 1/22/2015 1:35:06 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	13:35:32	94.295%	46.950	1020.000	1033.000	0.000	100100.000	71480.000	71350.000
2	13:35:57	99.758%	47.800	1005.000	1030.000	0.000	103000.000	73400.000	73900.000
3	13:36:22	101.569%	48.300	1041.000	1048.000	0.000	103100.000	74930.000	74970.000
x		98.541%	47.680	1022.000	1037.000	0.000	102000.000	73270.000	73410.000
σ		3.787%	0.681	18.010	9.913	0.000	1660.000	1731.000	1859.000
%RSD		3.843	1.427	1.762	0.956	0.000	1.626	2.363	2.532
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:32	1842.000	12940.000	0.000	75560.000	159100.000	161400.000	83.506%	933.600
2	13:35:57	1918.000	13170.000	0.000	76920.000	166700.000	167000.000	83.795%	979.600
3	13:36:22	1926.000	13150.000	0.000	77380.000	167600.000	169900.000	84.983%	980.900
x		1895.000	13090.000	0.000	76620.000	164500.000	166100.000	84.095%	964.700
σ		46.440	127.800	0.000	945.400	4687.000	4314.000	0.782%	26.960
%RSD		2.450	0.977	0.000	1.234	2.850	2.597	0.930	2.795
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:32	471.200	190.900	489.900	996.000	1530.000	475.400	456.600	232.000
2	13:35:57	495.700	198.700	511.300	1030.000	1541.000	491.100	478.700	240.900
3	13:36:22	500.900	199.900	512.800	1046.000	1576.000	497.100	475.800	243.500
x		489.200	196.500	504.700	1024.000	1549.000	487.800	470.400	238.800
σ		15.870	4.839	12.790	25.740	24.100	11.210	12.050	6.065
%RSD		3.244	2.463	2.534	2.513	1.556	2.297	2.562	2.540
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:32	229.900	481.500	481.100	37.160	8.892	11.830	0.000	1208.000
2	13:35:57	242.400	496.100	493.000	42.880	9.885	13.940	0.000	1220.000
3	13:36:22	239.500	501.900	493.300	34.670	10.600	10.610	0.000	1256.000
x		237.200	493.200	489.200	38.240	9.793	12.130	0.000	1228.000
σ		6.566	10.480	6.936	4.212	0.860	1.683	0.000	25.000
%RSD		2.767	2.125	1.418	11.010	8.778	13.880	0.000	2.035
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:32	84.114%	1041.000	1044.000	81.775%	47.150	47.440	49.120	39.450
2	13:35:57	87.482%	1068.000	1064.000	84.206%	47.210	46.940	50.130	39.870
3	13:36:22	87.990%	1079.000	1090.000	84.541%	47.120	47.150	50.530	40.080
x		86.529%	1063.000	1066.000	83.507%	47.160	47.180	49.920	39.800
σ		2.107%	19.960	22.800	1.509%	0.042	0.250	0.726	0.321
%RSD		2.435	1.878	2.139	1.808	0.090	0.530	1.454	0.806
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:32	79.888%	2090.000	527.100	520.900	2036.000	2122.000	90.298%	91.434%
2	13:35:57	82.578%	2099.000	533.600	528.100	2088.000	2170.000	92.153%	94.608%
3	13:36:22	84.139%	2113.000	534.000	525.700	2073.000	2189.000	94.060%	94.694%
x		82.202%	2101.000	531.600	524.900	2066.000	2160.000	92.170%	93.579%
σ		2.150%	11.740	3.866	3.705	26.870	34.190	1.881%	1.858%
%RSD		2.616	0.559	0.727	0.706	1.301	1.583	2.041	1.985
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:35:32	50.420	47.970	20.610	20.520	20.420	87.644%		
2	13:35:57	51.610	48.900	20.740	20.950	20.530	89.974%		
3	13:36:22	51.330	49.120	20.600	20.670	20.520	90.581%		
x		51.120	48.660	20.650	20.720	20.490	89.400%		
σ		0.622	0.610	0.077	0.218	0.058	1.550%		
%RSD		1.217	1.254	0.374	1.050	0.283	1.734		

180-40434-B-22-C MSD 1/22/2015 1:39:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	100.391%	45.680	1014.000	1023.000	0.000	101300.000	72580.000	72630.000
2	13:40:11	104.122%	46.600	1025.000	1032.000	0.000	101800.000	73620.000	74410.000
3	13:40:36	98.526%	50.520	1065.000	1081.000	0.000	104600.000	76380.000	76180.000
x		101.013%	47.600	1035.000	1045.000	0.000	102600.000	74190.000	74400.000
σ		2.849%	2.570	26.800	31.250	0.000	1814.000	1964.000	1774.000
%RSD		2.821	5.398	2.590	2.989	0.000	1.769	2.647	2.384

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	1894.000	13170.000	0.000	77710.000	166200.000	168900.000	83.564%	980.600
2	13:40:11	1926.000	13330.000	0.000	79270.000	173600.000	175100.000	84.263%	1007.000
3	13:40:36	1960.000	13480.000	0.000	78290.000	166100.000	168800.000	83.839%	986.500
x		1927.000	13330.000	0.000	78420.000	168600.000	170900.000	83.888%	991.500
σ		32.830	157.000	0.000	791.200	4324.000	3615.000	0.352%	13.970
%RSD		1.704	1.178	0.000	1.009	2.564	2.115	0.420	1.409

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	493.600	197.200	504.600	1030.000	1565.000	488.400	468.700	237.900
2	13:40:11	505.500	202.300	518.400	1063.000	1559.000	500.300	475.400	242.800
3	13:40:36	501.300	203.500	519.600	1063.000	1600.000	503.100	484.700	244.200
x		500.200	201.000	514.200	1052.000	1574.000	497.300	476.300	241.600
σ		6.005	3.385	8.363	19.150	22.120	7.800	8.062	3.331
%RSD		1.201	1.684	1.626	1.820	1.405	1.568	1.693	1.378

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	236.200	489.000	496.900	33.330	9.888	9.243	0.000	1232.000
2	13:40:11	240.100	510.900	507.900	39.790	11.580	7.535	0.000	1237.000
3	13:40:36	241.300	509.300	502.600	38.900	11.280	12.920	0.000	1265.000
x		239.200	503.100	502.500	37.340	10.910	9.898	0.000	1245.000
σ		2.657	12.210	5.503	3.504	0.902	2.749	0.000	17.700
%RSD		1.111	2.428	1.095	9.385	8.263	27.780	0.000	1.422

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	85.871%	1050.000	1066.000	81.608%	47.100	47.550	50.480	40.720
2	13:40:11	89.120%	1076.000	1089.000	83.540%	47.940	48.560	50.520	42.560
3	13:40:36	86.942%	1091.000	1098.000	82.660%	47.960	47.170	51.990	40.190
x		87.311%	1072.000	1084.000	82.603%	47.670	47.760	51.000	41.160
σ		1.656%	20.850	16.670	0.967%	0.494	0.720	0.862	1.245
%RSD		1.897	1.945	1.537	1.171	1.036	1.508	1.690	3.025

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	81.147%	2117.000	532.600	527.200	2062.000	2127.000	92.505%	91.562%
2	13:40:11	82.502%	2137.000	538.900	535.600	2099.000	2212.000	93.824%	93.693%
3	13:40:36	82.767%	2142.000	540.500	533.700	2114.000	2205.000	91.745%	92.800%
x		82.139%	2132.000	537.300	532.200	2092.000	2182.000	92.692%	92.685%
σ		0.869%	13.090	4.200	4.387	26.940	47.070	1.052%	1.070%
%RSD		1.058	0.614	0.782	0.824	1.288	2.157	1.135	1.155

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:46	50.660	48.660	20.940	21.040	20.700	86.729%
2	13:40:11	52.100	50.110	21.610	21.410	21.310	88.166%
3	13:40:36	52.380	49.580	21.250	21.130	20.860	88.128%
x		51.710	49.450	21.270	21.200	20.960	87.674%
σ		0.919	0.736	0.333	0.193	0.315	0.819%
%RSD		1.777	1.489	1.566	0.909	1.505	0.934

180-40434-B-22-A PDS 1/22/2015 1:43:33 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:59	97.804%	51.860	1133.000	1148.000	0.000	106100.000	77260.000	78480.000
2	13:44:24	100.340%	51.860	1143.000	1163.000	0.000	107200.000	78040.000	79320.000
3	13:44:49	100.577%	53.930	1119.000	1171.000	0.000	107300.000	78000.000	78770.000
x		99.574%	52.550	1132.000	1161.000	0.000	106900.000	77770.000	78860.000
σ		1.537%	1.195	12.160	11.610	0.000	641.100	442.000	430.300
%RSD		1.544	2.274	1.075	1.000	0.000	0.600	0.568	0.546
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:59	1974.000	15160.000	0.000	81660.000	166400.000	171100.000	82.128%	1188.000
2	13:44:24	2015.000	15340.000	0.000	84010.000	171400.000	173500.000	83.418%	1210.000
3	13:44:49	2007.000	15290.000	0.000	82720.000	171000.000	174300.000	83.947%	1209.000
x		1999.000	15260.000	0.000	82800.000	169600.000	173000.000	83.164%	1203.000
σ		21.730	94.250	0.000	1177.000	2764.000	1673.000	0.936%	12.760
%RSD		1.087	0.618	0.000	1.421	1.629	0.968	1.125	1.061
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:59	547.400	218.400	556.600	1137.000	1661.000	537.500	517.800	260.500
2	13:44:24	551.500	219.300	558.800	1141.000	1663.000	542.200	520.300	265.900
3	13:44:49	552.500	221.100	561.700	1130.000	1660.000	541.300	517.100	262.300
x		550.500	219.600	559.000	1136.000	1661.000	540.300	518.400	262.900
σ		2.669	1.353	2.572	5.202	1.614	2.524	1.643	2.707
%RSD		0.485	0.616	0.460	0.458	0.097	0.467	0.317	1.030
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:59	258.600	553.400	551.700	45.400	11.270	12.370	0.000	1315.000
2	13:44:24	259.800	559.000	555.100	38.530	10.320	11.690	0.000	1338.000
3	13:44:49	256.300	561.700	550.700	36.460	11.400	11.370	0.000	1326.000
x		258.200	558.000	552.500	40.130	11.000	11.810	0.000	1326.000
σ		1.773	4.213	2.309	4.683	0.592	0.510	0.000	11.540
%RSD		0.687	0.755	0.418	11.670	5.384	4.320	0.000	0.870
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:59	84.294%	1299.000	1298.000	81.791%	41.960	42.400	55.550	44.380
2	13:44:24	87.114%	1315.000	1324.000	83.008%	42.130	41.750	55.350	43.490
3	13:44:49	88.039%	1314.000	1323.000	83.402%	42.940	41.760	55.780	43.950
x		86.482%	1309.000	1315.000	82.734%	42.340	41.970	55.560	43.940
σ		1.950%	8.685	14.740	0.840%	0.526	0.370	0.213	0.445
%RSD		2.255	0.663	1.121	1.015	1.243	0.882	0.384	1.013
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:59	80.363%	2505.000	648.300	639.200	2263.000	2346.000	90.680%	91.218%
2	13:44:24	81.892%	2535.000	654.700	648.700	2280.000	2372.000	93.209%	93.505%
3	13:44:49	81.649%	2557.000	661.900	654.800	2289.000	2418.000	92.040%	93.117%
x		81.302%	2532.000	655.000	647.600	2277.000	2378.000	91.976%	92.613%
σ		0.822%	26.050	6.808	7.861	12.820	36.450	1.266%	1.224%
%RSD		1.010	1.029	1.039	1.214	0.563	1.532	1.376	1.321
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:43:59	55.980	53.470	22.270	22.480	22.250	87.786%		
2	13:44:24	56.920	54.550	23.430	23.150	22.890	87.728%		
3	13:44:49	56.970	54.740	22.930	22.930	22.650	89.058%		
x		56.620	54.250	22.880	22.850	22.600	88.191%		
σ		0.556	0.683	0.581	0.338	0.324	0.752%		
%RSD		0.982	1.260	2.539	1.480	1.435	0.853		

180-40434-B-24-A 1/22/2015 1:47:43 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:08	100.588%	0.111	63.870	62.360	0.000	40830.000	15060.000	14790.000
2	13:48:33	100.827%	0.050	68.590	63.300	0.000	41890.000	16640.000	15800.000
3	13:48:58	107.870%	0.074	58.630	63.200	0.000	41160.000	16290.000	15300.000
x		103.095%	0.078	63.700	62.950	0.000	41290.000	16000.000	15300.000
σ		4.137%	0.031	4.979	0.516	0.000	542.500	826.400	501.000
%RSD		4.013	39.730	7.818	0.819	0.000	1.314	5.166	3.275
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:08	60.300	4143.000	0.000	6545.000	75870.000	77130.000	84.720%	2.664
2	13:48:33	64.420	4339.000	0.000	6733.000	81600.000	83160.000	86.149%	2.791
3	13:48:58	63.010	3957.000	0.000	6479.000	78840.000	82640.000	88.021%	1.997
x		62.570	4146.000	0.000	6586.000	78770.000	80970.000	86.296%	2.484
σ		2.096	191.000	0.000	131.500	2869.000	3342.000	1.655%	0.426
%RSD		3.349	4.606	0.000	1.997	3.642	4.127	1.918	17.160
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:08	2.573	6.904	370.500	265.900	524.700	0.543	0.916	2.809
2	13:48:33	0.865	6.666	383.900	275.900	545.500	0.590	0.731	2.722
3	13:48:58	0.842	6.714	390.400	274.800	557.300	0.583	0.793	2.740
x		1.427	6.761	381.600	272.200	542.500	0.572	0.813	2.757
σ		0.993	0.126	10.150	5.477	16.490	0.025	0.094	0.046
%RSD		69.590	1.867	2.660	2.012	3.040	4.383	11.550	1.661
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:08	2.754	9.022	9.003	1.276	-1.017	0.960	0.000	187.400
2	13:48:33	2.706	9.016	8.666	-2.313	-0.365	1.975	0.000	187.900
3	13:48:58	2.829	9.049	9.581	-0.983	-0.251	-0.705	0.000	195.700
x		2.763	9.029	9.083	-0.673	-0.544	0.744	0.000	190.300
σ		0.062	0.018	0.462	1.814	0.413	1.353	0.000	4.666
%RSD		2.231	0.196	5.090	269.400	75.900	182.000	0.000	2.451
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:08	86.577%	7.726	7.551	86.105%	-0.012	-0.001	0.040	-0.502
2	13:48:33	90.768%	5.487	5.490	87.017%	-0.014	-0.001	0.025	-0.591
3	13:48:58	91.633%	4.280	4.375	89.210%	-0.021	-0.006	0.051	-0.522
x		89.659%	5.831	5.805	87.444%	-0.015	-0.003	0.039	-0.538
σ		2.704%	1.748	1.611	1.596%	0.005	0.003	0.013	0.047
%RSD		3.016	29.990	27.750	1.825	30.010	110.900	33.540	8.702
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:08	83.875%	6.696	1.778	1.893	48.130	49.080	90.368%	92.854%
2	13:48:33	84.652%	4.953	1.289	1.290	48.120	50.410	93.824%	95.451%
3	13:48:58	89.351%	3.501	0.949	1.078	49.020	49.680	95.302%	98.378%
x		85.960%	5.050	1.338	1.420	48.420	49.720	93.165%	95.561%
σ		2.963%	1.600	0.417	0.423	0.515	0.667	2.532%	2.763%
%RSD		3.447	31.680	31.130	29.770	1.064	1.341	2.718	2.892
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:48:08	0.076	0.074	0.126	0.150	0.128	91.768%		
2	13:48:33	0.095	0.066	0.124	0.117	0.124	91.895%		
3	13:48:58	0.080	0.069	0.117	0.123	0.121	96.899%		
x		0.084	0.070	0.123	0.130	0.124	93.521%		
σ		0.010	0.004	0.005	0.017	0.003	2.927%		
%RSD		11.620	5.465	3.706	13.450	2.594	3.130		

CRI 1451384 1/22/2015 1:54:59 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	13:55:23	91.659%	0.887	6.447	6.167	0.000	84.600	92.350	94.030
2	13:55:48	92.208%	0.987	5.817	5.734	0.000	83.150	95.410	95.000
3	13:56:14	94.177%	1.107	6.585	5.829	0.000	84.610	96.230	94.070
x		92.681%	99.395%	125.656%	118.205%	0.000	105.153%	94.662%	94.370%
σ		1.324%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.429	11.070	6.518	3.853	0.000	1.000	2.162	0.582
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:23	28.320	456.700	0.000	95.290	133.700	108.000	88.107%	4.617
2	13:55:48	29.550	471.500	0.000	101.500	113.100	110.900	88.508%	4.832
3	13:56:14	29.380	458.100	0.000	94.940	116.000	102.600	89.941%	4.531
x		96.953%	92.415%	0.000	97.227%	120.939%	107.178%	88.852%	93.194%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.964%	n/a
%RSD		2.298	1.764	0.000	3.769	9.242	3.959	1.085	3.325
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:23	0.846	2.038	4.747	62.980	46.470	0.520	0.967	2.159
2	13:55:48	1.159	2.089	4.823	63.620	47.820	0.493	1.091	2.194
3	13:56:14	0.834	2.090	4.993	61.980	49.070	0.534	1.029	2.003
x		94.635%	103.604%	97.088%	125.721%	95.580%	103.133%	102.868%	105.930%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		19.470	1.426	2.595	1.320	2.720	4.010	6.044	4.806
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:23	1.957	4.845	5.011	0.926	5.684	5.743	0.000	4.828
2	13:55:48	2.188	5.441	5.361	0.295	5.680	3.905	0.000	4.914
3	13:56:14	2.041	5.367	4.849	0.941	4.466	6.779	0.000	4.814
x		103.100%	104.357%	101.476%	72.064%	105.530%	109.513%	0.000	97.042%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.672	6.231	5.149	51.160	13.300	26.580	0.000	1.118
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:23	87.908%	4.863	5.005	94.146%	0.886	0.940	0.997	0.379
2	13:55:48	90.990%	5.317	5.055	96.630%	0.882	0.902	1.039	0.345
3	13:56:14	92.135%	5.564	5.324	93.258%	0.934	0.971	0.936	0.571
x		90.344%	104.959%	102.562%	94.678%	90.086%	93.778%	99.072%	43.142%
σ		2.186%	n/a	n/a	1.748%	n/a	n/a	n/a	n/a
%RSD		2.420	6.773	3.351	1.846	3.215	3.707	5.239	28.210
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:23	91.204%	5.340	1.907	1.877	9.385	9.495	93.763%	94.311%
2	13:55:48	93.053%	5.340	1.912	2.002	9.689	9.789	97.171%	97.184%
3	13:56:14	92.735%	5.203	1.971	1.990	9.930	9.856	97.548%	97.781%
x		92.331%	105.889%	96.494%	97.826%	96.677%	97.137%	96.160%	96.425%
σ		0.988%	n/a	n/a	n/a	n/a	n/a	2.085%	1.855%
%RSD		1.070	1.492	1.840	3.524	2.825	1.977	2.168	1.924
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:55:23	0.997	0.909	1.007	0.910	0.961	102.092%		
2	13:55:48	0.996	0.932	1.070	0.909	0.990	102.542%		
3	13:56:14	1.013	0.969	1.103	0.943	1.021	101.323%		
x		100.211%	93.655%	105.994%	92.092%	99.057%	101.986%		
σ		n/a	n/a	n/a	n/a	n/a	0.616%		
%RSD		0.983	3.239	4.616	2.085	3.041	0.604		

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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	13:59:36	94.654%	-0.018	0.831	0.994	0.000	-7.136	1.721	1.153
2	14:00:01	97.573%	0.017	1.743	0.471	0.000	-7.543	1.175	1.173
3	14:00:26	99.067%	-0.022	0.835	1.023	0.000	-8.545	1.051	1.172
x		97.098%	-0.008	1.136	0.830	0.000	-7.741	1.315	1.166
σ		2.244%	0.021	0.525	0.311	0.000	0.725	0.356	0.011
%RSD		2.311	265.700	46.230	37.450	0.000	9.365	27.090	0.959

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:36	0.458	3.000	0.000	-2.656	24.850	10.410	84.670%	0.017
2	14:00:01	0.158	0.273	0.000	5.412	19.100	10.340	86.042%	0.121
3	14:00:26	0.395	-0.368	0.000	1.913	20.360	10.550	87.180%	-0.006
x		0.337	0.969	0.000	1.556	21.440	10.430	85.964%	0.044
σ		0.158	1.788	0.000	4.046	3.019	0.104	1.257%	0.068
%RSD		47.010	184.700	0.000	260.000	14.080	0.996	1.462	153.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:36	-1.097	1.430	-0.043	13.560	-2.545	0.008	0.178	0.068
2	14:00:01	0.710	1.373	-0.028	12.720	-3.984	0.010	0.056	0.103
3	14:00:26	-0.514	1.480	-0.051	11.690	-3.255	-0.000	-0.024	0.119
x		-0.300	1.428	-0.041	12.660	-3.261	0.006	0.070	0.097
σ		0.922	0.054	0.012	0.936	0.719	0.006	0.102	0.026
%RSD		307.400	3.778	29.090	7.397	22.060	92.290	145.500	26.570

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:36	0.048	0.263	0.330	-1.061	-0.580	0.489	0.000	0.017
2	14:00:01	0.109	0.427	0.476	0.381	-0.331	2.557	0.000	0.009
3	14:00:26	0.043	0.355	0.422	0.017	0.487	5.148	0.000	0.015
x		0.067	0.348	0.409	-0.221	-0.141	2.731	0.000	0.014
σ		0.037	0.082	0.073	0.750	0.558	2.334	0.000	0.004
%RSD		54.820	23.630	17.920	339.500	394.800	85.470	0.000	29.640

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:36	87.766%	0.170	0.186	92.433%	-0.015	-0.008	-0.008	-0.575
2	14:00:01	89.454%	0.207	0.144	91.326%	-0.013	-0.011	-0.004	-0.521
3	14:00:26	91.615%	0.169	0.184	91.062%	-0.011	-0.014	-0.008	2.846
x		89.611%	0.182	0.171	91.607%	-0.013	-0.011	-0.007	0.584
σ		1.929%	0.022	0.024	0.727%	0.002	0.003	0.003	1.960
%RSD		2.153	11.870	13.830	0.794	16.520	26.240	38.520	335.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:36	88.970%	0.300	0.045	0.028	0.007	-0.007	94.283%	94.141%
2	14:00:01	91.317%	0.303	0.028	0.057	0.038	0.015	96.145%	96.511%
3	14:00:26	91.805%	0.278	0.034	0.037	0.017	0.035	96.748%	97.512%
x		90.697%	0.294	0.036	0.041	0.021	0.014	95.725%	96.055%
σ		1.516%	0.014	0.009	0.015	0.015	0.021	1.285%	1.731%
%RSD		1.671	4.722	24.470	36.430	74.860	149.300	1.343	1.802

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:36	0.009	0.004	0.005	-0.008	-0.003	110.587%
2	14:00:01	0.003	0.010	-0.002	-0.006	-0.003	106.257%
3	14:00:26	0.011	0.007	-0.010	0.002	-0.002	105.027%
x		0.008	0.007	-0.002	-0.004	-0.003	107.290%
σ		0.004	0.003	0.008	0.005	0.001	2.921%
%RSD		59.460	43.300	322.600	135.700	23.970	2.722

LCS 180-131321/2-A 1/22/2015 2:03:20 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	14:03:46	97.749%	44.300	945.100	957.800	0.000	43440.000	41640.000	41640.000
2	14:04:11	102.190%	46.290	952.500	972.100	0.000	44470.000	42910.000	43510.000
3	14:04:36	104.637%	45.070	948.400	966.700	0.000	44500.000	44030.000	44020.000
x		101.525%	45.220	948.600	965.500	0.000	44140.000	42860.000	43060.000
σ		3.492%	1.003	3.704	7.197	0.000	605.700	1200.000	1256.000
%RSD		3.439	2.218	0.390	0.745	0.000	1.372	2.799	2.917
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:46	1754.000	8852.000	0.000	47930.000	46210.000	45740.000	84.317%	887.900
2	14:04:11	1828.000	8983.000	0.000	49800.000	48070.000	48890.000	84.559%	938.100
3	14:04:36	1861.000	8986.000	0.000	50500.000	49840.000	49570.000	85.344%	941.100
x		1814.000	8940.000	0.000	49410.000	48040.000	48070.000	84.740%	922.400
σ		54.840	76.220	0.000	1328.000	1816.000	2046.000	0.537%	29.880
%RSD		3.022	0.853	0.000	2.687	3.780	4.257	0.633	3.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:46	454.000	179.800	473.700	986.600	1077.000	462.300	444.800	227.600
2	14:04:11	481.400	189.400	499.000	1012.000	1107.000	482.900	466.000	237.200
3	14:04:36	486.200	192.100	507.000	1029.000	1141.000	486.500	475.900	240.100
x		473.900	187.100	493.200	1009.000	1108.000	477.200	462.200	234.900
σ		17.360	6.440	17.410	21.330	31.980	13.030	15.860	6.553
%RSD		3.663	3.442	3.529	2.114	2.885	2.730	3.432	2.789
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:46	224.800	469.400	468.100	35.350	11.040	6.769	0.000	957.200
2	14:04:11	236.100	494.400	488.600	37.380	10.610	10.840	0.000	987.300
3	14:04:36	237.900	501.700	495.900	39.320	9.027	12.790	0.000	977.400
x		232.900	488.500	484.200	37.350	10.230	10.130	0.000	974.000
σ		7.094	16.940	14.430	1.982	1.060	3.071	0.000	15.330
%RSD		3.046	3.469	2.981	5.307	10.360	30.310	0.000	1.573
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:46	84.828%	977.300	958.100	83.059%	45.740	45.760	47.920	36.610
2	14:04:11	87.414%	1006.000	1005.000	85.349%	45.650	46.150	48.340	39.910
3	14:04:36	89.988%	1017.000	1019.000	86.918%	46.040	46.560	50.620	39.790
x		87.410%	999.900	993.900	85.108%	45.810	46.160	48.960	38.770
σ		2.580%	20.300	31.910	1.941%	0.203	0.396	1.451	1.872
%RSD		2.951	2.031	3.210	2.280	0.443	0.859	2.964	4.827
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:46	82.332%	1973.000	507.800	491.200	1855.000	1929.000	91.710%	91.892%
2	14:04:11	83.380%	2010.000	507.400	503.000	1942.000	2035.000	92.830%	94.085%
3	14:04:36	84.758%	2035.000	517.500	504.400	1945.000	2011.000	96.091%	95.876%
x		83.490%	2006.000	510.900	499.500	1914.000	1992.000	93.544%	93.951%
σ		1.217%	30.950	5.693	7.280	51.090	55.440	2.276%	1.996%
%RSD		1.457	1.543	1.114	1.457	2.669	2.784	2.433	2.124
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:03:46	47.630	45.480	19.420	19.670	19.360	90.086%		
2	14:04:11	49.850	47.640	20.560	20.270	20.140	90.158%		
3	14:04:36	50.250	48.140	20.510	20.440	20.110	92.497%		
x		49.240	47.090	20.160	20.130	19.870	90.913%		
σ		1.413	1.415	0.641	0.405	0.439	1.372%		
%RSD		2.869	3.005	3.179	2.012	2.211	1.509		

CCV 1455996 1/22/2015 2:07:33 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	14:07:57	82.775%	96.480	104.100	100.700	0.000	48230.000	46890.000	46650.000
2	14:08:22	85.056%	98.590	104.000	102.400	0.000	48720.000	48130.000	48400.000
3	14:08:47	84.033%	103.300	108.300	109.600	0.000	49190.000	48690.000	48870.000
x		83.955%	99.461%	105.478%	104.229%	0.000	97.419%	95.807%	95.944%
σ		1.143%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.361	3.519	2.340	4.496	0.000	0.988	1.923	2.435
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:57	445.200	4906.000	0.000	50900.000	48310.000	48790.000	83.440%	98.010
2	14:08:22	461.500	5020.000	0.000	53050.000	51340.000	51030.000	84.916%	100.900
3	14:08:47	464.300	5075.000	0.000	52480.000	49820.000	50650.000	85.216%	99.620
x		91.404%	100.008%	0.000	104.291%	99.647%	100.314%	84.524%	99.516%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.950%	n/a
%RSD		2.259	1.727	0.000	2.132	3.036	2.387	1.124	1.468
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:57	92.790	92.640	495.500	24640.000	24810.000	93.690	93.770	94.110
2	14:08:22	94.380	95.570	508.400	25320.000	25640.000	96.790	96.740	96.870
3	14:08:47	93.720	94.490	510.000	25550.000	26230.000	96.570	97.390	97.940
x		93.628%	94.232%	100.928%	100.675%	102.233%	95.682%	95.969%	96.306%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.851	1.573	1.575	1.875	2.777	1.810	2.008	2.055
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:57	95.410	98.960	97.850	96.810	99.880	97.270	0.000	95.020
2	14:08:22	96.450	99.080	100.700	96.860	99.860	102.100	0.000	96.600
3	14:08:47	96.860	103.000	101.600	99.770	101.900	101.900	0.000	97.010
x		96.242%	100.334%	100.065%	97.813%	100.547%	100.438%	0.000	96.210%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.779	2.276	1.973	1.729	1.162	2.736	0.000	1.092
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:57	84.259%	96.930	94.650	86.552%	93.380	92.930	95.370	94.120
2	14:08:22	87.917%	100.300	97.900	89.253%	94.660	94.050	97.380	96.770
3	14:08:47	87.800%	103.500	102.100	89.151%	94.050	94.160	96.840	97.510
x		86.659%	100.244%	98.226%	88.319%	94.028%	93.712%	96.533%	96.135%
σ		2.079%	n/a	n/a	1.531%	n/a	n/a	n/a	n/a
%RSD		2.399	3.265	3.817	1.733	0.681	0.727	1.076	1.852
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:57	86.532%	99.650	96.790	96.390	94.910	95.310	90.085%	93.143%
2	14:08:22	87.352%	102.800	99.700	101.100	96.330	99.200	93.519%	94.083%
3	14:08:47	88.363%	102.200	100.200	99.400	96.100	98.000	93.420%	95.661%
x		87.416%	101.555%	98.910%	98.951%	95.781%	97.501%	92.341%	94.296%
σ		0.917%	n/a	n/a	n/a	n/a	n/a	1.955%	1.272%
%RSD		1.049	1.658	1.874	2.390	0.795	2.043	2.117	1.349
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:07:57	106.000	103.200	105.300	106.200	104.900	89.304%		
2	14:08:22	110.200	105.700	110.300	109.500	109.400	88.544%		
3	14:08:47	106.200	103.700	108.900	107.600	106.900	92.132%		
x		107.474%	104.180%	108.171%	107.786%	107.073%	89.993%		
σ		n/a	n/a	n/a	n/a	n/a	1.891%		
%RSD		2.194	1.291	2.418	1.540	2.130	2.101		

CCB4 1/22/2015 2:14:51 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	14:15:16	87.041%	0.003	1.405	1.447	0.000	13.380	14.530	13.660
2	14:15:41	91.745%	-0.069	1.717	1.236	0.000	10.900	13.920	12.670
3	14:16:06	91.190%	-0.042	1.729	1.483	0.000	10.900	11.930	12.930
x		89.992%	-0.036	1.617	1.388	0.000	11.730	13.460	13.090
σ		2.571%	0.036	0.184	0.133	0.000	1.437	1.356	0.514
%RSD		2.857	99.900	11.370	9.600	0.000	12.260	10.080	3.926

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:16	0.767	6.516	0.000	24.590	19.260	16.330	86.097%	0.014
2	14:15:41	1.026	3.154	0.000	19.580	18.680	17.540	87.494%	0.117
3	14:16:06	1.007	2.887	0.000	21.110	18.430	17.070	88.260%	0.131
x		0.934	4.186	0.000	21.760	18.790	16.980	87.284%	0.087
σ		0.144	2.023	0.000	2.565	0.426	0.607	1.097%	0.064
%RSD		15.460	48.320	0.000	11.790	2.268	3.573	1.257	73.070

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:16	0.044	0.015	0.109	8.362	8.888	0.040	0.052	0.034
2	14:15:41	0.072	0.004	0.082	8.229	11.350	0.032	0.019	0.013
3	14:16:06	-0.001	-0.000	0.086	6.694	5.907	0.037	0.030	0.019
x		0.039	0.006	0.092	7.762	8.715	0.036	0.034	0.022
σ		0.037	0.008	0.015	0.927	2.726	0.004	0.017	0.010
%RSD		95.180	126.600	15.850	11.940	31.280	10.770	50.000	47.670

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:16	0.012	0.170	0.118	0.503	0.002	2.834	0.000	0.065
2	14:15:41	0.030	-0.006	0.107	0.028	0.398	-0.186	0.000	0.049
3	14:16:06	-0.019	0.089	0.031	0.330	0.131	1.737	0.000	0.066
x		0.007	0.084	0.085	0.287	0.177	1.462	0.000	0.060
σ		0.025	0.088	0.048	0.240	0.202	1.528	0.000	0.009
%RSD		330.500	104.500	55.660	83.740	114.300	104.600	0.000	15.800

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:16	88.600%	0.653	0.660	93.195%	0.023	0.015	0.023	-0.534
2	14:15:41	90.815%	0.687	0.672	91.369%	0.015	0.020	0.010	-0.544
3	14:16:06	92.626%	0.619	0.563	96.775%	0.021	0.030	0.022	-0.527
x		90.680%	0.653	0.632	93.780%	0.020	0.021	0.018	-0.535
σ		2.017%	0.034	0.060	2.750%	0.004	0.007	0.007	0.009
%RSD		2.224	5.205	9.423	2.933	19.880	34.510	41.100	1.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:16	89.632%	0.482	0.169	0.208	0.092	0.092	94.346%	94.004%
2	14:15:41	91.542%	0.564	0.189	0.174	0.059	0.073	95.212%	95.711%
3	14:16:06	93.460%	0.474	0.145	0.172	0.067	0.069	96.689%	97.341%
x		91.545%	0.506	0.168	0.185	0.072	0.078	95.416%	95.685%
σ		1.914%	0.050	0.022	0.020	0.017	0.013	1.185%	1.669%
%RSD		2.091	9.783	13.080	10.810	23.520	16.140	1.242	1.744

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:16	0.036	0.037	0.013	0.011	0.011	101.652%
2	14:15:41	0.041	0.033	0.016	0.011	0.017	100.901%
3	14:16:06	0.038	0.039	0.003	0.019	0.014	101.837%
x		0.038	0.036	0.011	0.014	0.014	101.464%
σ		0.002	0.003	0.007	0.005	0.003	0.496%
%RSD		5.815	8.445	60.580	32.840	20.550	0.489

180-40507-C-19-A 1/22/2015 2:19:03 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:28	101.371%	-0.012	60.450	61.650	0.000	167.400	18.470	17.660
2	14:19:53	104.814%	0.009	62.750	65.910	0.000	167.900	17.800	17.700
3	14:20:18	106.310%	0.042	63.930	66.820	0.000	165.400	18.380	18.060
x		104.165%	0.013	62.380	64.790	0.000	166.900	18.220	17.800
σ		2.533%	0.027	1.772	2.758	0.000	1.316	0.366	0.222
%RSD		2.432	210.800	2.841	4.257	0.000	0.789	2.007	1.245
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:28	40.870	190.200	0.000	64.840	150.100	129.300	85.078%	1.839
2	14:19:53	43.880	193.600	0.000	66.670	160.400	138.400	86.684%	1.783
3	14:20:18	44.190	196.100	0.000	61.800	138.200	136.100	87.832%	1.477
x		42.980	193.300	0.000	64.440	149.500	134.600	86.531%	1.699
σ		1.837	2.940	0.000	2.459	11.130	4.780	1.384%	0.195
%RSD		4.274	1.521	0.000	3.817	7.444	3.551	1.599	11.470
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:28	1.841	3.513	2.513	61.180	58.080	0.030	0.395	2.679
2	14:19:53	-0.308	3.487	2.639	62.290	54.600	0.048	0.319	2.775
3	14:20:18	0.247	3.717	2.609	62.500	57.240	0.058	0.282	2.769
x		0.593	3.572	2.587	61.990	56.640	0.046	0.332	2.741
σ		1.116	0.126	0.066	0.708	1.813	0.014	0.057	0.054
%RSD		188.000	3.534	2.540	1.142	3.202	31.240	17.290	1.956
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:28	2.664	3.350	3.212	1.108	-0.369	1.808	0.000	0.313
2	14:19:53	2.671	3.480	3.565	0.374	-0.492	0.024	0.000	0.321
3	14:20:18	2.462	3.219	3.147	1.784	-0.529	2.697	0.000	0.313
x		2.599	3.349	3.308	1.088	-0.464	1.509	0.000	0.316
σ		0.119	0.131	0.225	0.705	0.084	1.361	0.000	0.005
%RSD		4.564	3.900	6.799	64.800	18.090	90.180	0.000	1.517
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:28	87.329%	0.588	0.585	88.779%	0.037	0.023	0.039	-0.508
2	14:19:53	90.572%	0.536	0.611	92.482%	0.013	0.012	0.037	-0.515
3	14:20:18	92.974%	0.540	0.529	90.556%	0.011	0.018	0.023	-0.522
x		90.292%	0.555	0.575	90.606%	0.020	0.018	0.033	-0.515
σ		2.833%	0.029	0.042	1.852%	0.014	0.006	0.008	0.007
%RSD		3.137	5.269	7.341	2.044	69.700	31.680	25.500	1.394
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:28	85.726%	1.838	0.323	0.341	1.619	1.580	93.196%	93.840%
2	14:19:53	89.005%	1.622	0.262	0.278	1.701	1.635	95.924%	95.410%
3	14:20:18	90.241%	1.479	0.298	0.289	1.780	1.704	96.704%	98.428%
x		88.324%	1.647	0.295	0.303	1.700	1.640	95.275%	95.892%
σ		2.333%	0.181	0.031	0.034	0.080	0.062	1.842%	2.332%
%RSD		2.642	10.980	10.450	11.230	4.733	3.789	1.934	2.432
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:19:28	0.023	0.016	4.799	4.536	4.565	98.646%		
2	14:19:53	0.014	0.010	4.801	4.674	4.647	99.052%		
3	14:20:18	0.023	0.009	5.006	4.752	4.732	100.402%		
x		0.020	0.012	4.868	4.654	4.648	99.367%		
σ		0.005	0.003	0.119	0.109	0.084	0.919%		
%RSD		25.910	28.750	2.452	2.343	1.804	0.925		

180-40507-C-19-A SD@5 1/22/2015 2:23:12 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	14:23:37	94.087%	0.008	15.160	14.070	0.000	18.170	3.860	3.687
2	14:24:03	98.332%	-0.034	12.820	13.390	0.000	18.650	3.217	3.606
3	14:24:28	97.556%	0.016	14.440	13.180	0.000	19.770	4.592	4.672
x		96.659%	-0.003	14.140	13.550	0.000	18.860	3.890	3.988
σ		2.260%	0.027	1.199	0.467	0.000	0.825	0.688	0.593
%RSD		2.338	811.800	8.478	3.444	0.000	4.372	17.680	14.870
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:37	8.725	42.690	0.000	15.330	15.880	31.760	85.627%	0.696
2	14:24:03	8.254	38.170	0.000	15.620	23.200	35.930	88.513%	0.217
3	14:24:28	8.694	40.390	0.000	14.360	35.040	32.320	88.098%	0.306
x		8.558	40.420	0.000	15.100	24.710	33.330	87.412%	0.406
σ		0.264	2.259	0.000	0.661	9.668	2.262	1.560%	0.255
%RSD		3.080	5.590	0.000	4.379	39.130	6.787	1.785	62.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:37	0.389	0.960	0.419	16.500	8.046	0.002	0.025	0.549
2	14:24:03	-0.175	0.965	0.466	15.060	4.399	0.012	0.014	0.542
3	14:24:28	-0.171	0.965	0.418	14.820	6.282	0.011	0.046	0.571
x		0.014	0.963	0.435	15.460	6.242	0.008	0.028	0.554
σ		0.324	0.003	0.027	0.912	1.824	0.005	0.016	0.015
%RSD		2258.000	0.278	6.305	5.899	29.220	62.700	55.870	2.684
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:37	0.501	1.009	1.088	1.588	-0.017	1.219	0.000	0.060
2	14:24:03	0.445	0.809	0.898	1.381	-0.045	2.371	0.000	0.076
3	14:24:28	0.457	1.001	0.849	1.107	-0.306	2.466	0.000	0.062
x		0.467	0.939	0.945	1.359	-0.123	2.019	0.000	0.066
σ		0.030	0.113	0.126	0.241	0.159	0.694	0.000	0.009
%RSD		6.348	12.070	13.370	17.740	130.000	34.370	0.000	12.890
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:37	89.114%	0.090	0.079	93.391%	-0.009	0.004	0.005	-0.547
2	14:24:03	92.335%	0.090	0.107	92.882%	-0.012	-0.004	-0.008	-0.520
3	14:24:28	93.378%	0.131	0.113	92.382%	-0.015	-0.003	-0.004	-0.536
x		91.609%	0.104	0.099	92.885%	-0.012	-0.001	-0.002	-0.534
σ		2.223%	0.023	0.018	0.504%	0.003	0.005	0.007	0.014
%RSD		2.426	22.470	18.530	0.543	23.570	355.200	312.600	2.623
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:37	88.990%	0.168	0.013	0.005	0.338	0.338	95.669%	94.911%
2	14:24:03	91.250%	0.161	0.024	0.021	0.341	0.357	96.980%	97.775%
3	14:24:28	93.137%	0.198	0.026	0.006	0.369	0.338	98.907%	98.490%
x		91.126%	0.176	0.021	0.011	0.350	0.344	97.185%	97.059%
σ		2.076%	0.019	0.007	0.009	0.017	0.011	1.629%	1.894%
%RSD		2.278	10.970	32.930	82.630	4.907	3.160	1.676	1.951
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:23:37	0.013	0.006	0.889	0.910	0.914	97.706%		
2	14:24:03	0.006	0.006	0.951	0.897	0.916	99.108%		
3	14:24:28	0.011	0.005	0.914	0.924	0.907	100.619%		
x		0.010	0.006	0.918	0.910	0.913	99.144%		
σ		0.003	0.001	0.032	0.014	0.005	1.457%		
%RSD		33.470	10.430	3.443	1.527	0.508	1.470		

180-40507-C-19-B MS 1/22/2015 2:27:22 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	14:27:48	99.081%	45.510	1002.000	1019.000	0.000	43540.000	42150.000	42590.000
2	14:28:13	103.879%	46.260	997.600	1036.000	0.000	45120.000	44200.000	44290.000
3	14:28:38	105.243%	45.500	1021.000	1047.000	0.000	43880.000	43070.000	42990.000
x		102.734%	45.760	1007.000	1034.000	0.000	44180.000	43140.000	43290.000
σ		3.237%	0.436	12.530	14.420	0.000	832.800	1027.000	885.800
%RSD		3.151	0.954	1.244	1.395	0.000	1.885	2.381	2.046
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:48	1852.000	8915.000	0.000	49230.000	47240.000	46720.000	86.602%	879.900
2	14:28:13	1841.000	9132.000	0.000	50850.000	49870.000	50160.000	87.584%	937.800
3	14:28:38	1764.000	8686.000	0.000	48140.000	46620.000	46760.000	95.971%	864.000
x		1819.000	8911.000	0.000	49410.000	47910.000	47880.000	90.052%	893.900
σ		48.020	223.100	0.000	1368.000	1726.000	1976.000	5.150%	38.820
%RSD		2.640	2.504	0.000	2.769	3.603	4.127	5.718	4.342
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:48	456.300	179.500	474.500	1004.000	1116.000	464.300	456.400	231.000
2	14:28:13	484.100	190.100	511.100	1062.000	1182.000	493.200	477.000	244.300
3	14:28:38	457.600	179.900	483.400	1015.000	1114.000	469.500	458.500	231.700
x		466.000	183.200	489.700	1027.000	1137.000	475.700	463.900	235.600
σ		15.720	6.043	19.060	30.820	38.610	15.430	11.330	7.463
%RSD		3.372	3.299	3.892	3.001	3.395	3.244	2.443	3.167
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:48	232.300	471.900	472.000	34.880	11.090	8.244	0.000	968.100
2	14:28:13	239.600	496.000	495.500	37.140	10.660	9.982	0.000	1005.000
3	14:28:38	225.900	483.800	482.600	36.640	8.610	12.400	0.000	1004.000
x		232.600	483.900	483.400	36.220	10.120	10.210	0.000	992.100
σ		6.851	12.080	11.740	1.184	1.326	2.087	0.000	20.870
%RSD		2.946	2.496	2.429	3.269	13.110	20.450	0.000	2.104
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:48	87.859%	958.000	963.300	86.823%	45.980	46.730	48.590	38.900
2	14:28:13	91.678%	993.900	988.400	90.116%	46.450	46.620	49.970	38.890
3	14:28:38	94.028%	1006.000	996.800	91.962%	46.190	45.270	49.180	40.170
x		91.188%	985.900	982.800	89.634%	46.210	46.210	49.250	39.320
σ		3.113%	24.870	17.400	2.603%	0.233	0.814	0.693	0.734
%RSD		3.414	2.522	1.771	2.904	0.505	1.762	1.408	1.866
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:48	84.586%	1954.000	494.600	490.900	1921.000	2003.000	94.012%	94.458%
2	14:28:13	87.708%	1989.000	507.400	499.500	1980.000	2042.000	98.457%	99.313%
3	14:28:38	89.827%	1989.000	506.700	497.600	1967.000	2083.000	98.124%	99.861%
x		87.374%	1977.000	502.900	496.000	1956.000	2043.000	96.865%	97.877%
σ		2.636%	20.240	7.217	4.535	31.330	40.120	2.476%	2.974%
%RSD		3.017	1.024	1.435	0.914	1.602	1.964	2.556	3.039
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:27:48	47.690	45.750	24.240	24.830	24.120	93.177%		
2	14:28:13	50.420	48.180	25.530	25.190	24.940	95.504%		
3	14:28:38	49.930	47.840	25.090	25.170	24.750	97.291%		
x		49.340	47.260	24.950	25.060	24.610	95.324%		
σ		1.454	1.313	0.652	0.203	0.429	2.063%		
%RSD		2.947	2.778	2.613	0.808	1.745	2.164		

180-40507-C-19-C MSD 1/22/2015 2:31:34 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	14:31:59	99.879%	47.760	1047.000	1036.000	0.000	44540.000	43140.000	43590.000
2	14:32:24	103.789%	45.430	1046.000	1060.000	0.000	45880.000	44250.000	44560.000
3	14:32:49	103.719%	49.390	1027.000	1071.000	0.000	44750.000	43150.000	43550.000
x		102.463%	47.530	1040.000	1056.000	0.000	45050.000	43510.000	43900.000
σ		2.238%	1.993	11.510	17.580	0.000	719.900	637.200	572.800
%RSD		2.184	4.195	1.107	1.665	0.000	1.598	1.465	1.305
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:59	1940.000	9489.000	0.000	50700.000	48520.000	49730.000	84.044%	959.500
2	14:32:24	1860.000	9423.000	0.000	50900.000	49600.000	51240.000	85.680%	966.700
3	14:32:49	1946.000	9112.000	0.000	49100.000	47570.000	47960.000	93.340%	909.900
x		1916.000	9341.000	0.000	50230.000	48560.000	49640.000	87.688%	945.400
σ		47.890	201.200	0.000	989.300	1016.000	1640.000	4.963%	30.950
%RSD		2.500	2.154	0.000	1.970	2.091	3.304	5.659	3.274
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:59	498.500	193.000	508.000	1071.000	1350.000	488.800	473.800	243.400
2	14:32:24	503.000	197.600	518.800	1096.000	1218.000	504.100	488.000	248.100
3	14:32:49	474.900	185.300	498.900	1058.000	1141.000	480.200	464.700	235.900
x		492.100	192.000	508.600	1075.000	1236.000	491.000	475.500	242.500
σ		15.080	6.216	9.986	19.020	105.500	12.130	11.760	6.148
%RSD		3.064	3.238	1.964	1.769	8.536	2.470	2.474	2.535
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:59	241.300	499.400	495.100	38.890	9.742	14.890	0.000	1003.000
2	14:32:24	246.900	509.700	500.600	38.850	10.150	10.810	0.000	1024.000
3	14:32:49	233.700	497.200	493.900	35.770	8.596	8.043	0.000	1024.000
x		240.600	502.100	496.500	37.830	9.496	11.250	0.000	1017.000
σ		6.591	6.630	3.557	1.789	0.805	3.442	0.000	12.250
%RSD		2.739	1.320	0.716	4.728	8.474	30.610	0.000	1.205
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:59	86.753%	1025.000	1032.000	85.265%	47.520	46.540	49.380	39.820
2	14:32:24	90.562%	1058.000	1054.000	87.280%	47.560	47.150	51.080	40.240
3	14:32:49	91.707%	1062.000	1062.000	88.523%	47.970	48.290	51.250	42.410
x		89.674%	1048.000	1049.000	87.023%	47.680	47.330	50.570	40.820
σ		2.594%	20.710	15.810	1.644%	0.251	0.885	1.031	1.388
%RSD		2.892	1.975	1.506	1.890	0.527	1.869	2.038	3.399
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:59	85.584%	2011.000	510.300	500.400	1952.000	2010.000	93.557%	94.723%
2	14:32:24	86.548%	2061.000	524.800	514.300	1997.000	2084.000	96.273%	97.248%
3	14:32:49	85.557%	2122.000	535.000	537.000	2043.000	2145.000	96.075%	97.307%
x		85.896%	2065.000	523.400	517.200	1997.000	2080.000	95.302%	96.426%
σ		0.565%	55.810	12.440	18.460	45.660	67.630	1.515%	1.475%
%RSD		0.657	2.703	2.377	3.569	2.286	3.251	1.589	1.530
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:31:59	49.550	47.850	25.400	25.380	24.970	93.583%		
2	14:32:24	50.650	49.180	25.710	25.740	25.350	95.036%		
3	14:32:49	52.550	50.440	27.000	26.490	26.400	92.565%		
x		50.920	49.160	26.040	25.870	25.570	93.728%		
σ		1.518	1.292	0.850	0.568	0.743	1.242%		
%RSD		2.982	2.629	3.263	2.195	2.904	1.325		

180-40507-C-19-A PDS 1/22/2015 2:35:44 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	14:36:09	100.783%	47.830	1092.000	1111.000	0.000	50130.000	47790.000	47750.000
2	14:36:34	98.371%	51.280	1123.000	1152.000	0.000	51370.000	50300.000	50410.000
3	14:36:59	102.117%	51.990	1125.000	1148.000	0.000	52120.000	50810.000	51160.000
x		100.424%	50.370	1113.000	1137.000	0.000	51210.000	49640.000	49780.000
σ		1.898%	2.223	18.430	23.020	0.000	1005.000	1616.000	1792.000
%RSD		1.890	4.414	1.655	2.024	0.000	1.963	3.255	3.600
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:09	1919.000	11500.000	0.000	56410.000	53990.000	54340.000	84.225%	1160.000
2	14:36:34	2025.000	11900.000	0.000	57500.000	55420.000	57320.000	83.551%	1205.000
3	14:36:59	2045.000	11980.000	0.000	58290.000	56750.000	57010.000	86.111%	1219.000
x		1997.000	11790.000	0.000	57400.000	55390.000	56220.000	84.629%	1195.000
σ		67.770	258.300	0.000	946.400	1380.000	1640.000	1.327%	31.200
%RSD		3.394	2.191	0.000	1.649	2.492	2.917	1.568	2.611
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:09	516.800	201.300	532.400	1112.000	1243.000	514.700	502.500	255.800
2	14:36:34	537.600	207.400	551.300	1170.000	1302.000	532.300	515.000	263.900
3	14:36:59	540.100	210.700	566.500	1201.000	1348.000	543.800	520.300	267.600
x		531.500	206.500	550.100	1161.000	1298.000	530.200	512.600	262.400
σ		12.820	4.764	17.070	45.240	52.550	14.640	9.113	6.022
%RSD		2.411	2.307	3.103	3.898	4.049	2.761	1.778	2.295
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:09	253.100	530.000	528.100	39.490	11.270	8.532	0.000	1068.000
2	14:36:34	261.400	550.800	547.500	41.280	11.590	7.621	0.000	1088.000
3	14:36:59	265.200	555.000	553.100	39.010	10.850	10.480	0.000	1116.000
x		259.900	545.300	542.900	39.930	11.240	8.878	0.000	1091.000
σ		6.197	13.390	13.130	1.198	0.373	1.462	0.000	24.330
%RSD		2.384	2.455	2.419	3.000	3.321	16.470	0.000	2.231
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:09	86.201%	1275.000	1280.000	84.037%	41.340	40.410	53.580	43.610
2	14:36:34	86.487%	1318.000	1318.000	83.892%	41.150	40.890	54.580	41.790
3	14:36:59	89.950%	1343.000	1345.000	87.513%	41.150	40.730	54.930	42.420
x		87.546%	1312.000	1315.000	85.147%	41.210	40.680	54.360	42.610
σ		2.087%	34.330	32.430	2.050%	0.110	0.243	0.703	0.925
%RSD		2.384	2.616	2.467	2.408	0.266	0.597	1.292	2.171
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:09	82.869%	2469.000	647.000	639.300	2112.000	2195.000	91.630%	92.361%
2	14:36:34	82.790%	2558.000	662.800	646.900	2152.000	2253.000	90.117%	92.025%
3	14:36:59	86.138%	2569.000	670.700	658.300	2174.000	2286.000	94.468%	97.219%
x		83.932%	2532.000	660.100	648.200	2146.000	2245.000	92.072%	93.868%
σ		1.911%	54.830	12.060	9.551	31.720	45.980	2.209%	2.907%
%RSD		2.276	2.165	1.826	1.474	1.478	2.048	2.399	3.096
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:36:09	54.380	51.940	26.320	26.150	25.970	90.186%		
2	14:36:34	54.660	52.930	26.900	26.880	26.450	90.866%		
3	14:36:59	55.220	52.990	26.820	27.130	26.570	93.545%		
x		54.750	52.620	26.680	26.720	26.330	91.533%		
σ		0.430	0.587	0.316	0.506	0.317	1.776%		
%RSD		0.785	1.116	1.183	1.892	1.205	1.940		

180-40542-C-6-A 1/22/2015 2:39:56 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	14:40:21	105.938%	-0.016	38.350	39.080	0.000	75.030	34.660	36.350
2	14:40:47	110.862%	0.025	39.220	40.440	0.000	77.240	36.960	36.280
3	14:41:12	113.334%	0.011	39.610	40.320	0.000	74.540	36.520	36.330
x		110.045%	0.006	39.060	39.940	0.000	75.600	36.050	36.320
σ		3.765%	0.021	0.645	0.754	0.000	1.438	1.221	0.034
%RSD		3.422	317.800	1.650	1.888	0.000	1.902	3.386	0.094
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:21	51.270	151.300	0.000	56.190	285.200	280.400	87.652%	2.200
2	14:40:47	52.100	148.700	0.000	46.930	292.900	297.800	90.680%	2.846
3	14:41:12	52.690	147.300	0.000	38.970	326.300	285.400	92.497%	2.703
x		52.020	149.100	0.000	47.360	301.500	287.800	90.276%	2.583
σ		0.712	2.030	0.000	8.616	21.840	8.968	2.448%	0.340
%RSD		1.368	1.361	0.000	18.190	7.245	3.116	2.711	13.140
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:21	-2.168	5.508	4.927	84.940	73.940	0.136	0.435	3.402
2	14:40:47	2.480	5.279	5.151	85.290	72.420	0.098	0.395	3.469
3	14:41:12	2.788	5.201	5.169	83.660	75.220	0.092	0.395	3.549
x		1.033	5.329	5.082	84.630	73.860	0.109	0.408	3.473
σ		2.777	0.160	0.135	0.859	1.402	0.024	0.023	0.073
%RSD		268.700	2.997	2.658	1.015	1.899	21.890	5.618	2.114
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:21	3.310	4.540	4.849	2.552	-0.580	0.656	0.000	0.633
2	14:40:47	3.459	4.698	4.817	3.608	-0.367	4.333	0.000	0.572
3	14:41:12	3.455	4.840	5.137	-1.546	-0.548	1.246	0.000	0.606
x		3.408	4.692	4.935	1.538	-0.498	2.078	0.000	0.604
σ		0.085	0.150	0.176	2.723	0.115	1.975	0.000	0.031
%RSD		2.491	3.191	3.562	177.000	23.050	95.020	0.000	5.094
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:21	90.745%	8.104	7.995	93.363%	0.002	0.012	0.032	-0.504
2	14:40:47	95.692%	5.949	5.970	93.368%	0.000	0.001	0.053	-0.542
3	14:41:12	98.426%	4.414	4.407	95.217%	-0.010	-0.003	0.030	-0.561
x		94.954%	6.156	6.124	93.983%	-0.003	0.003	0.038	-0.535
σ		3.893%	1.854	1.799	1.069%	0.007	0.008	0.013	0.029
%RSD		4.100	30.120	29.380	1.138	243.200	254.800	33.150	5.405
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:21	88.619%	7.700	2.066	2.080	1.755	1.587	96.259%	95.655%
2	14:40:47	93.204%	5.453	1.334	1.335	1.668	1.557	100.551%	100.388%
3	14:41:12	97.762%	4.253	1.019	0.994	1.647	1.592	101.957%	102.241%
x		93.195%	5.802	1.473	1.470	1.690	1.579	99.589%	99.428%
σ		4.571%	1.750	0.537	0.555	0.057	0.019	2.968%	3.396%
%RSD		4.905	30.160	36.470	37.770	3.401	1.195	2.981	3.416
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:40:21	0.051	0.048	4.959	4.797	4.865	97.515%		
2	14:40:47	0.046	0.043	4.936	4.807	4.809	103.288%		
3	14:41:12	0.044	0.034	4.881	4.928	4.751	106.183%		
x		0.047	0.042	4.926	4.844	4.808	102.329%		
σ		0.003	0.007	0.040	0.073	0.057	4.413%		
%RSD		7.311	17.310	0.809	1.509	1.185	4.313		

180-40536-E-1-A 1/22/2015 2:44:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	92.469%	0.210	490.100	516.400	0.000	190900.000	24180.000	23960.000
2	14:44:59	95.093%	0.279	495.000	529.500	0.000	191700.000	24580.000	24900.000
3	14:45:24	94.911%	0.137	492.900	533.100	0.000	195900.000	25020.000	25130.000
x		94.158%	0.208	492.700	526.300	0.000	192800.000	24590.000	24660.000
σ		1.466%	0.071	2.411	8.798	0.000	2665.000	419.800	619.500
%RSD		1.557	34.050	0.490	1.672	0.000	1.382	1.707	2.512

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	755.700	12290.000	0.000	1812.000	24040.000	22810.000	80.192%	12.870
2	14:44:59	790.300	12510.000	0.000	1904.000	29170.000	24020.000	81.957%	13.650
3	14:45:24	843.400	12580.000	0.000	1866.000	28680.000	23950.000	82.458%	12.830
x		796.400	12460.000	0.000	1861.000	27300.000	23600.000	81.536%	13.110
σ		44.200	152.600	0.000	46.340	2831.000	677.000	1.190%	0.462
%RSD		5.549	1.225	0.000	2.491	10.370	2.869	1.460	3.526

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	1.287	4.013	1076.000	57470.000	57700.000	29.490	30.780	2.755
2	14:44:59	0.668	3.831	1118.000	60340.000	59270.000	30.960	31.870	2.999
3	14:45:24	2.216	3.537	1131.000	61370.000	60890.000	31.010	33.720	3.029
x		1.390	3.794	1108.000	59730.000	59290.000	30.490	32.130	2.928
σ		0.779	0.240	28.540	2021.000	1593.000	0.866	1.485	0.150
%RSD		56.050	6.321	2.574	3.383	2.687	2.841	4.621	5.142

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	3.295	120.100	120.000	21.280	-0.143	1.605	0.000	148.800
2	14:44:59	3.118	121.500	123.200	24.640	0.443	1.681	0.000	151.300
3	14:45:24	3.182	123.400	124.700	21.000	-0.077	0.606	0.000	156.300
x		3.198	121.700	122.600	22.300	0.074	1.297	0.000	152.200
σ		0.089	1.651	2.416	2.026	0.321	0.600	0.000	3.839
%RSD		2.796	1.358	1.970	9.082	433.600	46.240	0.000	2.523

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	86.668%	1.043	1.016	81.036%	-0.007	-0.002	0.051	-0.500
2	14:44:59	92.143%	0.960	0.976	84.757%	-0.010	0.000	0.083	-0.481
3	14:45:24	91.529%	0.908	0.950	84.895%	-0.016	-0.005	0.110	-0.440
x		90.113%	0.970	0.981	83.563%	-0.011	-0.002	0.081	-0.474
σ		2.999%	0.068	0.033	2.189%	0.005	0.003	0.030	0.031
%RSD		3.328	7.021	3.380	2.620	43.010	118.600	36.530	6.487

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	84.174%	1.054	0.393	0.359	16.810	17.140	90.146%	91.482%
2	14:44:59	85.106%	0.978	0.369	0.382	17.570	17.800	95.077%	95.850%
3	14:45:24	87.012%	0.973	0.336	0.363	17.450	17.690	95.262%	96.719%
x		85.431%	1.001	0.366	0.368	17.280	17.540	93.495%	94.684%
σ		1.447%	0.045	0.029	0.012	0.411	0.352	2.902%	2.807%
%RSD		1.693	4.533	7.894	3.279	2.379	2.007	3.103	2.964

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:34	0.075	0.061	0.787	0.721	0.756	92.898%
2	14:44:59	0.080	0.066	0.847	0.785	0.792	94.534%
3	14:45:24	0.082	0.057	0.833	0.744	0.769	97.834%
x		0.079	0.061	0.823	0.750	0.772	95.089%
σ		0.004	0.005	0.031	0.032	0.019	2.515%
%RSD		4.898	7.932	3.817	4.276	2.420	2.644

180-40536-D-1-A 1/22/2015 2:48:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	93.452%	0.114	521.600	538.300	0.000	197800.000	25230.000	25410.000
2	14:49:10	92.885%	0.287	519.400	566.200	0.000	204700.000	26530.000	26450.000
3	14:49:36	96.688%	0.146	501.000	556.300	0.000	203000.000	26270.000	26460.000
x		94.342%	0.182	514.000	553.600	0.000	201800.000	26010.000	26110.000
σ		2.052%	0.092	11.340	14.110	0.000	3632.000	688.600	604.900
%RSD		2.175	50.530	2.206	2.550	0.000	1.800	2.648	2.317

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	785.200	12950.000	0.000	1960.000	25170.000	24440.000	82.381%	12.650
2	14:49:10	819.000	13240.000	0.000	2018.000	26980.000	25320.000	82.506%	13.750
3	14:49:36	811.400	13190.000	0.000	2005.000	27130.000	25690.000	82.006%	14.150
x		805.200	13130.000	0.000	1994.000	26430.000	25150.000	82.298%	13.520
σ		17.730	156.600	0.000	30.450	1094.000	642.300	0.260%	0.781
%RSD		2.202	1.192	0.000	1.527	4.139	2.554	0.316	5.777

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	0.226	3.331	1134.000	61060.000	60630.000	31.280	33.030	2.809
2	14:49:10	0.464	3.153	1185.000	63500.000	63000.000	31.970	33.820	2.970
3	14:49:36	0.832	3.352	1197.000	64390.000	64430.000	32.680	33.660	3.084
x		0.507	3.279	1172.000	62980.000	62690.000	31.980	33.500	2.954
σ		0.305	0.109	33.400	1726.000	1919.000	0.699	0.418	0.139
%RSD		60.130	3.326	2.849	2.740	3.061	2.184	1.248	4.690

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	2.941	81.030	78.980	22.710	-0.598	1.174	0.000	156.800
2	14:49:10	3.325	85.090	82.950	23.240	0.099	0.543	0.000	161.000
3	14:49:36	3.382	84.030	82.270	20.670	0.063	1.299	0.000	159.100
x		3.216	83.380	81.400	22.210	-0.145	1.005	0.000	159.000
σ		0.240	2.105	2.125	1.357	0.393	0.405	0.000	2.138
%RSD		7.464	2.525	2.610	6.110	270.200	40.290	0.000	1.345

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	89.706%	0.550	0.575	83.213%	-0.001	-0.009	0.085	-0.391
2	14:49:10	91.177%	0.523	0.601	84.592%	0.004	-0.012	0.117	-0.463
3	14:49:36	93.354%	0.569	0.556	84.729%	-0.016	-0.013	0.125	-0.451
x		91.412%	0.547	0.577	84.178%	-0.004	-0.011	0.109	-0.435
σ		1.835%	0.023	0.023	0.839%	0.011	0.002	0.021	0.038
%RSD		2.008	4.188	3.907	0.996	238.200	19.830	19.330	8.807

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	82.365%	0.711	0.276	0.333	18.480	18.110	91.925%	93.813%
2	14:49:10	84.545%	0.764	0.297	0.307	18.160	18.530	94.006%	95.246%
3	14:49:36	85.514%	0.680	0.288	0.330	18.510	17.950	95.203%	95.430%
x		84.141%	0.718	0.287	0.323	18.380	18.190	93.711%	94.830%
σ		1.613%	0.042	0.010	0.014	0.195	0.301	1.659%	0.885%
%RSD		1.917	5.895	3.581	4.389	1.060	1.653	1.770	0.933

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:45	0.066	0.063	0.719	0.723	0.733	92.248%
2	14:49:10	0.063	0.066	0.770	0.693	0.743	92.577%
3	14:49:36	0.066	0.061	0.869	0.766	0.788	92.730%
x		0.065	0.063	0.786	0.728	0.755	92.518%
σ		0.002	0.002	0.076	0.037	0.029	0.246%
%RSD		2.417	3.826	9.670	5.042	3.859	0.266

180-40536-E-2-A 1/22/2015 2:52:30 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	14:52:55	94.480%	0.449	45.680	48.680	0.000	127200.000	16610.000	16540.000
2	14:53:21	94.457%	0.462	48.340	50.230	0.000	130900.000	17090.000	17100.000
3	14:53:46	97.694%	0.280	45.910	50.650	0.000	131500.000	17300.000	17360.000
x		95.543%	0.397	46.640	49.850	0.000	129800.000	17000.000	17000.000
σ		1.862%	0.101	1.471	1.038	0.000	2304.000	350.600	418.900
%RSD		1.949	25.530	3.154	2.083	0.000	1.775	2.062	2.464
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:55	1272.000	20040.000	0.000	1912.000	19480.000	18220.000	83.221%	22.410
2	14:53:21	1317.000	20590.000	0.000	1993.000	20040.000	19140.000	84.498%	22.690
3	14:53:46	1341.000	20430.000	0.000	1963.000	20490.000	19370.000	85.998%	22.760
x		1310.000	20350.000	0.000	1956.000	20000.000	18910.000	84.572%	22.620
σ		34.810	286.400	0.000	40.820	505.400	607.800	1.390%	0.188
%RSD		2.657	1.407	0.000	2.087	2.527	3.214	1.643	0.832
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:55	2.063	4.739	287.400	18260.000	17750.000	33.720	47.370	3.592
2	14:53:21	3.155	5.043	294.600	18830.000	18460.000	34.480	48.760	3.406
3	14:53:46	4.043	4.975	300.800	19210.000	18850.000	34.780	49.110	3.505
x		3.087	4.919	294.200	18760.000	18350.000	34.330	48.410	3.501
σ		0.992	0.160	6.719	480.500	557.500	0.548	0.921	0.093
%RSD		32.140	3.246	2.284	2.561	3.038	1.598	1.901	2.657
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:55	3.822	72.080	70.170	10.650	-1.369	4.036	0.000	58.520
2	14:53:21	3.760	74.410	73.350	12.240	-0.572	2.242	0.000	58.810
3	14:53:46	3.679	74.000	73.280	11.720	-0.435	1.093	0.000	59.730
x		3.753	73.500	72.270	11.540	-0.792	2.457	0.000	59.020
σ		0.072	1.243	1.813	0.809	0.505	1.484	0.000	0.632
%RSD		1.911	1.691	2.509	7.011	63.710	60.380	0.000	1.071
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:55	90.036%	0.292	0.319	84.111%	-0.010	-0.015	0.134	-0.423
2	14:53:21	92.456%	0.307	0.280	86.907%	0.003	-0.012	0.133	-0.459
3	14:53:46	94.994%	0.292	0.269	88.023%	-0.020	-0.020	0.120	-0.360
x		92.495%	0.297	0.289	86.347%	-0.009	-0.016	0.129	-0.414
σ		2.479%	0.009	0.026	2.015%	0.012	0.004	0.008	0.050
%RSD		2.681	3.064	9.089	2.333	128.600	23.930	6.088	12.060
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:55	86.135%	0.397	0.119	0.142	26.220	26.230	93.112%	93.944%
2	14:53:21	85.967%	0.532	0.128	0.146	26.880	27.470	95.250%	96.285%
3	14:53:46	88.915%	0.455	0.119	0.125	27.440	27.380	97.890%	98.790%
x		87.006%	0.461	0.122	0.138	26.850	27.030	95.417%	96.340%
σ		1.655%	0.067	0.005	0.011	0.608	0.694	2.393%	2.423%
%RSD		1.903	14.630	4.300	8.301	2.266	2.567	2.508	2.515
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:52:55	0.078	0.078	1.266	1.148	1.227	95.200%		
2	14:53:21	0.092	0.086	1.435	1.239	1.314	94.922%		
3	14:53:46	0.092	0.095	1.319	1.332	1.291	98.427%		
x		0.087	0.086	1.340	1.240	1.277	96.183%		
σ		0.008	0.008	0.087	0.092	0.045	1.949%		
%RSD		9.199	9.643	6.456	7.413	3.544	2.026		

180-40536-D-2-A 1/22/2015 2:56:40 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	14:57:05	93.110%	0.483	46.180	49.920	0.000	127000.000	17170.000	16340.000
2	14:57:31	98.834%	0.389	47.660	49.320	0.000	128300.000	16540.000	16630.000
3	14:57:57	98.314%	0.378	49.110	52.030	0.000	129700.000	16750.000	17010.000
x		96.752%	0.416	47.650	50.420	0.000	128300.000	16820.000	16660.000
σ		3.166%	0.058	1.467	1.427	0.000	1341.000	319.000	337.500
%RSD		3.272	13.900	3.078	2.830	0.000	1.045	1.897	2.025

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:05	1361.000	20340.000	0.000	1957.000	21820.000	17880.000	83.616%	28.080
2	14:57:31	1386.000	20450.000	0.000	2010.000	20210.000	18650.000	84.761%	24.690
3	14:57:57	1411.000	20450.000	0.000	1984.000	19670.000	18650.000	86.608%	23.270
x		1386.000	20410.000	0.000	1984.000	20570.000	18390.000	84.995%	25.350
σ		24.630	62.620	0.000	26.070	1122.000	441.200	1.510%	2.470
%RSD		1.777	0.307	0.000	1.314	5.457	2.399	1.776	9.747

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:05	2.813	5.213	278.200	18040.000	17620.000	33.510	47.680	3.100
2	14:57:31	2.294	5.116	286.600	18520.000	18390.000	34.490	49.040	3.075
3	14:57:57	3.401	4.926	290.400	18820.000	18680.000	34.450	47.840	3.280
x		2.836	5.085	285.100	18460.000	18230.000	34.150	48.190	3.152
σ		0.554	0.146	6.229	394.300	548.500	0.552	0.741	0.112
%RSD		19.520	2.876	2.185	2.136	3.008	1.615	1.537	3.542

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:05	3.189	71.600	70.470	11.480	-0.585	5.576	0.000	57.490
2	14:57:31	3.532	73.480	73.670	9.652	-0.021	3.456	0.000	58.990
3	14:57:57	3.387	73.680	75.640	10.050	-0.858	0.994	0.000	59.770
x		3.369	72.920	73.260	10.390	-0.488	3.342	0.000	58.750
σ		0.172	1.149	2.608	0.962	0.426	2.293	0.000	1.156
%RSD		5.097	1.576	3.560	9.258	87.400	68.620	0.000	1.967

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:05	90.306%	0.229	0.263	85.486%	-0.012	-0.002	0.077	-0.387
2	14:57:31	93.925%	0.157	0.197	88.098%	-0.015	-0.011	0.125	-0.459
3	14:57:57	96.058%	0.241	0.306	89.701%	-0.017	-0.013	0.127	-0.412
x		93.430%	0.209	0.256	87.762%	-0.015	-0.009	0.110	-0.420
σ		2.908%	0.045	0.055	2.127%	0.003	0.006	0.028	0.037
%RSD		3.112	21.690	21.570	2.424	19.770	66.090	25.610	8.713

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:05	85.403%	0.262	0.069	0.121	26.840	26.490	93.824%	95.519%
2	14:57:31	88.262%	0.367	0.114	0.098	25.560	26.770	97.325%	98.829%
3	14:57:57	90.418%	0.396	0.108	0.111	27.360	27.100	97.463%	100.426%
x		88.027%	0.342	0.097	0.110	26.590	26.790	96.204%	98.258%
σ		2.516%	0.070	0.024	0.011	0.927	0.304	2.062%	2.503%
%RSD		2.858	20.580	24.840	10.250	3.485	1.136	2.143	2.547

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:05	0.101	0.076	1.424	1.347	1.319	95.526%
2	14:57:31	0.099	0.089	1.439	1.312	1.333	98.387%
3	14:57:57	0.087	0.078	1.370	1.322	1.337	99.732%
x		0.096	0.081	1.411	1.327	1.330	97.882%
σ		0.007	0.007	0.036	0.018	0.009	2.148%
%RSD		7.657	8.843	2.585	1.361	0.699	2.195

CCV 1455996 1/22/2015 3:00:52 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	15:01:17	84.789%	99.750	103.100	100.800	0.000	48390.000	47520.000	47570.000
2	15:01:42	88.243%	101.500	107.100	102.600	0.000	46880.000	46040.000	46240.000
3	15:02:07	91.076%	99.220	97.760	100.900	0.000	48210.000	47960.000	47800.000
x		88.036%	100.151%	102.661%	101.403%	0.000	95.649%	94.346%	94.408%
σ		3.149%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.577	1.183	4.560	0.984	0.000	1.722	2.134	1.787
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:01:17	456.300	5055.000	0.000	52600.000	48670.000	49120.000	88.607%	96.080
2	15:01:42	440.400	4852.000	0.000	49540.000	47420.000	47850.000	97.590%	89.560
3	15:02:07	458.100	5032.000	0.000	52250.000	50330.000	51740.000	90.114%	96.290
x		90.321%	99.592%	0.000	102.924%	97.616%	99.141%	92.104%	93.974%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.811%	n/a
%RSD		2.158	2.226	0.000	3.259	2.995	4.003	5.223	4.071
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:01:17	92.290	92.050	493.400	24740.000	24890.000	93.870	95.010	95.210
2	15:01:42	86.670	88.470	477.300	23850.000	23960.000	90.240	89.060	91.890
3	15:02:07	93.880	94.910	515.700	25750.000	26250.000	97.150	97.300	96.780
x		90.945%	91.809%	99.093%	99.113%	100.127%	93.749%	93.792%	94.624%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.160	3.513	3.900	3.855	4.595	3.687	4.534	2.640
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:01:17	95.160	96.710	96.960	97.500	100.100	97.810	0.000	94.970
2	15:01:42	92.560	97.750	95.510	95.470	99.330	98.700	0.000	96.450
3	15:02:07	96.620	100.600	102.300	99.260	101.500	102.600	0.000	98.610
x		94.782%	98.348%	98.243%	97.410%	100.308%	99.715%	0.000	96.675%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.169	2.039	3.617	1.944	1.077	2.577	0.000	1.893
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:01:17	89.791%	92.060	88.930	93.410%	93.000	93.200	94.870	95.820
2	15:01:42	92.578%	96.940	95.010	94.510%	94.260	94.990	95.610	98.670
3	15:02:07	93.647%	100.300	97.990	95.686%	92.190	93.130	98.800	96.340
x		92.005%	96.449%	93.976%	94.535%	93.150%	93.773%	96.427%	96.946%
σ		1.991%	n/a	n/a	1.138%	n/a	n/a	n/a	n/a
%RSD		2.164	4.316	4.913	1.204	1.118	1.120	2.169	1.562
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:01:17	90.445%	96.520	96.920	97.880	97.020	96.110	94.762%	97.100%
2	15:01:42	91.937%	99.050	99.020	100.500	96.480	98.080	99.722%	99.560%
3	15:02:07	93.927%	98.580	101.000	98.590	98.030	97.350	99.648%	100.809%
x		92.103%	98.051%	98.969%	98.984%	97.179%	97.179%	98.044%	99.157%
σ		1.747%	n/a	n/a	n/a	n/a	n/a	2.843%	1.887%
%RSD		1.897	1.377	2.051	1.364	0.812	1.023	2.900	1.903
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:01:17	106.000	102.900	106.500	105.300	104.900	93.733%		
2	15:01:42	108.100	106.200	110.100	109.100	109.600	93.712%		
3	15:02:07	105.100	104.100	105.700	107.200	105.600	97.802%		
x		106.409%	104.390%	107.448%	107.188%	106.708%	95.082%		
σ		n/a	n/a	n/a	n/a	n/a	2.355%		
%RSD		1.414	1.596	2.181	1.768	2.385	2.477		

CCB5 1/22/2015 3:08:10 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:35	89.312%	0.040	2.552	1.966	0.000	24.460	15.130	15.390
2	15:09:00	93.121%	0.021	1.919	1.718	0.000	22.400	14.680	14.260
3	15:09:25	91.878%	0.076	1.787	1.555	0.000	21.650	13.110	14.480
x		91.437%	0.046	2.086	1.747	0.000	22.830	14.300	14.710
σ		1.942%	0.028	0.409	0.207	0.000	1.457	1.060	0.602
%RSD		2.124	60.260	19.590	11.840	0.000	6.383	7.412	4.090
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:35	0.846	6.529	0.000	16.400	37.900	21.040	89.357%	0.111
2	15:09:00	0.811	3.535	0.000	10.650	27.020	19.990	91.434%	-0.013
3	15:09:25	1.034	3.324	0.000	16.530	35.380	20.660	90.904%	0.055
x		0.897	4.462	0.000	14.530	33.430	20.560	90.565%	0.051
σ		0.120	1.792	0.000	3.358	5.694	0.532	1.080%	0.062
%RSD		13.420	40.170	0.000	23.110	17.030	2.586	1.192	121.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:35	0.018	0.086	0.093	8.592	13.530	0.039	0.020	0.039
2	15:09:00	0.125	0.013	0.073	7.027	7.910	0.038	0.043	0.001
3	15:09:25	-0.071	-0.006	0.106	7.015	7.976	0.044	0.091	0.063
x		0.024	0.031	0.090	7.545	9.806	0.040	0.051	0.034
σ		0.098	0.048	0.017	0.907	3.226	0.003	0.036	0.031
%RSD		407.900	158.100	18.420	12.020	32.900	7.412	71.120	92.170
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:35	0.000	0.127	0.125	-0.078	0.292	0.992	0.000	0.096
2	15:09:00	0.021	0.062	0.055	0.543	0.352	4.113	0.000	0.056
3	15:09:25	-0.005	0.125	0.241	-0.463	-0.012	-3.056	0.000	0.073
x		0.005	0.105	0.140	0.001	0.211	0.683	0.000	0.075
σ		0.014	0.037	0.094	0.508	0.195	3.594	0.000	0.020
%RSD		248.900	34.960	66.860	87180.000	92.860	526.200	0.000	26.610
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:35	90.382%	0.383	0.300	93.244%	0.017	0.015	0.023	-0.483
2	15:09:00	93.155%	0.388	0.308	93.969%	0.011	0.029	0.017	-0.498
3	15:09:25	92.676%	0.367	0.321	94.222%	0.021	0.028	0.005	-0.570
x		92.071%	0.380	0.310	93.812%	0.016	0.024	0.015	-0.517
σ		1.482%	0.011	0.011	0.508%	0.005	0.008	0.009	0.046
%RSD		1.610	2.949	3.421	0.541	30.410	33.400	61.060	8.988
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:35	91.329%	0.247	0.147	0.182	0.074	0.091	95.311%	94.042%
2	15:09:00	95.862%	0.220	0.162	0.172	0.091	0.087	96.758%	97.362%
3	15:09:25	93.073%	0.272	0.155	0.172	0.112	0.107	98.998%	97.258%
x		93.421%	0.246	0.155	0.175	0.092	0.095	97.023%	96.221%
σ		2.286%	0.026	0.008	0.006	0.019	0.011	1.858%	1.887%
%RSD		2.447	10.670	4.870	3.324	20.430	11.300	1.915	1.962
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:08:35	0.034	0.026	0.007	0.014	0.011	101.396%		
2	15:09:00	0.025	0.023	0.000	0.003	0.007	105.160%		
3	15:09:25	0.034	0.025	0.017	0.014	0.018	99.591%		
x		0.031	0.024	0.008	0.010	0.012	102.049%		
σ		0.005	0.001	0.008	0.006	0.006	2.842%		
%RSD		17.700	6.026	103.000	62.570	47.600	2.785		

180-40536-E-3-A 1/22/2015 3:12:22 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	15:12:47	95.980%	0.121	168.100	171.600	0.000	3855.000	16770.000	16880.000
2	15:13:12	100.009%	-0.023	163.000	173.400	0.000	3899.000	17290.000	17480.000
3	15:13:37	99.136%	0.052	177.900	183.800	0.000	4003.000	17680.000	17680.000
x		98.375%	0.050	169.600	176.300	0.000	3919.000	17250.000	17350.000
σ		2.120%	0.072	7.590	6.575	0.000	75.630	453.900	419.700
%RSD		2.155	143.800	4.474	3.730	0.000	1.930	2.631	2.420

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:47	68.290	14370.000	0.000	5291.000	59150.000	59790.000	84.247%	3.263
2	15:13:12	79.720	14520.000	0.000	5324.000	62780.000	65420.000	84.395%	6.630
3	15:13:37	72.190	14810.000	0.000	5496.000	63110.000	63370.000	85.857%	2.927
x		73.400	14570.000	0.000	5370.000	61680.000	62860.000	84.833%	4.273
σ		5.814	225.700	0.000	110.200	2196.000	2851.000	0.890%	2.048
%RSD		7.922	1.549	0.000	2.051	3.560	4.536	1.049	47.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:47	21.920	167.100	2.144	46.660	264.800	0.114	2.758	4.609
2	15:13:12	22.920	177.000	2.238	47.280	268.700	0.116	3.024	4.904
3	15:13:37	24.520	177.900	2.217	47.470	266.000	0.157	3.127	4.877
x		23.120	174.000	2.199	47.140	266.500	0.129	2.970	4.797
σ		1.312	5.982	0.050	0.425	1.993	0.024	0.190	0.163
%RSD		5.675	3.438	2.252	0.902	0.748	18.770	6.407	3.393

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:47	4.726	2.187	2.299	0.462	3.450	4.579	0.000	215.500
2	15:13:12	4.908	2.201	2.351	0.965	3.591	3.119	0.000	220.600
3	15:13:37	4.911	2.291	2.337	1.390	4.064	2.443	0.000	225.100
x		4.848	2.226	2.329	0.939	3.702	3.380	0.000	220.400
σ		0.106	0.057	0.026	0.465	0.322	1.092	0.000	4.800
%RSD		2.184	2.543	1.135	49.510	8.691	32.300	0.000	2.178

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:47	86.173%	204.900	200.100	85.828%	0.019	0.018	0.220	-0.463
2	15:13:12	89.535%	207.000	208.200	87.482%	0.014	0.016	0.226	-0.522
3	15:13:37	89.862%	214.500	208.500	88.240%	-0.005	0.000	0.194	-0.514
x		88.523%	208.800	205.600	87.183%	0.010	0.012	0.213	-0.500
σ		2.042%	5.058	4.730	1.233%	0.012	0.010	0.017	0.032
%RSD		2.307	2.423	2.300	1.415	129.500	84.430	8.002	6.417

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:47	85.102%	0.774	0.824	0.874	39.200	39.570	91.833%	94.252%
2	15:13:12	86.467%	0.565	0.770	0.757	39.800	40.680	97.081%	96.097%
3	15:13:37	88.573%	0.578	0.686	0.749	40.690	41.810	94.720%	98.385%
x		86.714%	0.639	0.760	0.793	39.900	40.690	94.545%	96.245%
σ		1.749%	0.117	0.070	0.070	0.748	1.118	2.629%	2.071%
%RSD		2.017	18.280	9.168	8.860	1.875	2.749	2.780	2.151

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:47	0.013	0.010	0.149	0.107	0.130	96.337%
2	15:13:12	0.007	0.008	0.157	0.134	0.143	98.142%
3	15:13:37	0.011	0.009	0.133	0.141	0.139	98.775%
x		0.010	0.009	0.146	0.127	0.137	97.752%
σ		0.003	0.001	0.012	0.018	0.006	1.265%
%RSD		29.080	12.700	8.102	14.100	4.598	1.294

180-40536-D-3-A 1/22/2015 3:16:35 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	15:16:59	99.500%	-0.060	174.400	178.600	0.000	3862.000	16940.000	17180.000
2	15:17:25	104.032%	-0.026	175.100	182.800	0.000	3915.000	17130.000	17520.000
3	15:17:50	105.638%	0.031	167.800	183.800	0.000	3981.000	17650.000	17730.000
x		103.057%	-0.018	172.400	181.700	0.000	3919.000	17240.000	17480.000
σ		3.183%	0.046	4.013	2.745	0.000	59.190	370.500	278.900
%RSD		3.089	250.100	2.328	1.511	0.000	1.510	2.149	1.596
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:59	61.630	14450.000	0.000	5341.000	60710.000	61860.000	85.652%	2.576
2	15:17:25	73.090	14450.000	0.000	5360.000	62820.000	64800.000	87.280%	2.155
3	15:17:50	72.050	14550.000	0.000	5435.000	62510.000	64820.000	88.297%	2.351
x		68.930	14480.000	0.000	5379.000	62010.000	63820.000	87.077%	2.361
σ		6.338	56.590	0.000	49.420	1138.000	1701.000	1.334%	0.211
%RSD		9.195	0.391	0.000	0.919	1.835	2.665	1.532	8.927
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:59	23.640	171.100	2.157	38.280	259.200	0.138	3.397	4.491
2	15:17:25	23.610	178.500	2.249	40.490	256.700	0.137	2.983	4.690
3	15:17:50	23.710	178.500	2.249	40.370	250.100	0.139	2.992	4.538
x		23.650	176.000	2.218	39.710	255.300	0.138	3.124	4.573
σ		0.051	4.250	0.054	1.243	4.735	0.001	0.236	0.104
%RSD		0.214	2.415	2.415	3.131	1.854	1.031	7.566	2.272
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:59	4.274	2.273	2.362	-3.285	3.264	3.434	0.000	215.400
2	15:17:25	4.794	2.509	2.165	2.186	3.641	3.574	0.000	220.200
3	15:17:50	4.832	2.259	2.292	1.661	4.504	2.706	0.000	223.300
x		4.633	2.347	2.273	0.187	3.803	3.238	0.000	219.600
σ		0.312	0.140	0.100	3.018	0.636	0.466	0.000	3.999
%RSD		6.723	5.981	4.382	1612.000	16.710	14.390	0.000	1.821
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:59	89.942%	201.400	198.500	89.163%	-0.009	0.001	0.235	-0.514
2	15:17:25	92.555%	207.000	203.700	91.980%	-0.008	0.001	0.212	-0.567
3	15:17:50	95.538%	209.500	204.900	94.278%	-0.005	-0.005	0.185	-0.516
x		92.678%	206.000	202.400	91.807%	-0.007	-0.001	0.211	-0.532
σ		2.800%	4.123	3.379	2.562%	0.002	0.003	0.025	0.030
%RSD		3.022	2.002	1.670	2.791	27.310	401.700	11.950	5.658
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:59	87.994%	0.181	0.516	0.557	39.530	40.020	96.315%	96.738%
2	15:17:25	89.470%	0.218	0.588	0.582	40.170	41.270	99.855%	99.260%
3	15:17:50	91.618%	0.193	0.589	0.522	40.440	41.200	99.392%	101.680%
x		89.694%	0.197	0.564	0.553	40.050	40.830	98.521%	99.226%
σ		1.823%	0.019	0.042	0.030	0.466	0.704	1.924%	2.471%
%RSD		2.032	9.495	7.423	5.440	1.163	1.725	1.953	2.491
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:16:59	0.009	0.010	0.138	0.146	0.132	100.258%		
2	15:17:25	0.010	0.006	0.138	0.096	0.112	102.239%		
3	15:17:50	0.007	0.007	0.135	0.121	0.125	102.775%		
x		0.009	0.007	0.137	0.121	0.123	101.757%		
σ		0.001	0.002	0.002	0.025	0.010	1.326%		
%RSD		15.850	27.460	1.309	20.760	8.216	1.303		

180-40536-E-4-A 1/22/2015 3:20:44 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	15:21:09	89.805%	0.354	118.000	125.600	0.000	272300.000	84740.000	84960.000
2	15:21:34	93.913%	0.348	114.800	126.000	0.000	281500.000	87970.000	88020.000
3	15:21:59	93.501%	0.323	126.200	127.900	0.000	286400.000	89870.000	90010.000
x		92.406%	0.342	119.700	126.500	0.000	280000.000	87530.000	87660.000
σ		2.262%	0.016	5.867	1.254	0.000	7171.000	2592.000	2545.000
%RSD		2.448	4.788	4.903	0.991	0.000	2.561	2.961	2.904
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:09	5513.000	20640.000	0.000	11740.000	164200.000	168000.000	82.297%	138.900
2	15:21:34	5755.000	21150.000	0.000	12070.000	176200.000	177800.000	83.379%	142.700
3	15:21:59	5808.000	21320.000	0.000	11920.000	172300.000	178300.000	84.440%	145.200
x		5692.000	21040.000	0.000	11910.000	170900.000	174700.000	83.372%	142.300
σ		157.500	351.400	0.000	166.800	6110.000	5815.000	1.071%	3.175
%RSD		2.766	1.670	0.000	1.401	3.575	3.328	1.285	2.232
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:09	10.500	11.540	2140.000	79470.000	79720.000	25.250	22.760	5.185
2	15:21:34	12.320	11.700	2241.000	83450.000	83850.000	26.120	23.700	5.606
3	15:21:59	11.690	11.800	2267.000	83900.000	86050.000	26.760	24.050	5.672
x		11.500	11.680	2216.000	82280.000	83210.000	26.040	23.500	5.488
σ		0.921	0.129	66.870	2437.000	3210.000	0.758	0.664	0.264
%RSD		8.008	1.103	3.018	2.962	3.858	2.909	2.827	4.815
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:09	7.172	45.720	46.060	10.850	0.704	1.317	0.000	804.200
2	15:21:34	6.633	47.680	46.580	13.310	-0.249	0.611	0.000	819.000
3	15:21:59	7.097	48.730	47.730	16.630	0.299	6.578	0.000	831.700
x		6.967	47.380	46.790	13.600	0.251	2.835	0.000	818.300
σ		0.292	1.530	0.857	2.901	0.478	3.260	0.000	13.740
%RSD		4.192	3.229	1.831	21.330	190.200	115.000	0.000	1.679
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:09	100.091%	1.871	2.008	81.799%	0.012	0.009	0.046	-0.457
2	15:21:34	105.779%	1.694	1.660	83.472%	0.009	0.001	0.060	-0.396
3	15:21:59	105.141%	1.570	1.787	84.394%	0.000	0.006	0.016	-0.464
x		103.670%	1.712	1.818	83.222%	0.007	0.006	0.041	-0.439
σ		3.116%	0.151	0.176	1.316%	0.006	0.004	0.023	0.037
%RSD		3.006	8.820	9.689	1.581	84.120	74.900	56.010	8.492
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:09	81.839%	0.498	0.434	0.433	48.830	48.300	92.155%	92.646%
2	15:21:34	83.431%	0.518	0.395	0.497	49.230	49.590	94.603%	96.703%
3	15:21:59	86.324%	0.522	0.434	0.514	49.380	49.780	95.658%	97.419%
x		83.864%	0.513	0.421	0.481	49.150	49.220	94.139%	95.589%
σ		2.273%	0.013	0.023	0.043	0.281	0.808	1.797%	2.574%
%RSD		2.711	2.527	5.349	8.836	0.572	1.641	1.909	2.693
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:21:09	0.052	0.049	5.029	4.624	4.754	89.981%		
2	15:21:34	0.058	0.053	5.123	4.718	4.901	91.510%		
3	15:21:59	0.062	0.057	5.056	4.787	4.882	93.978%		
x		0.058	0.053	5.069	4.710	4.846	91.823%		
σ		0.005	0.004	0.048	0.081	0.080	2.017%		
%RSD		8.790	7.582	0.951	1.728	1.650	2.197		

180-40536-D-4-A 1/22/2015 3:24:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:19	89.254%	0.466	118.500	123.800	0.000	285800.000	87780.000	88000.000
2	15:25:44	90.260%	0.297	121.800	126.800	0.000	291000.000	90830.000	92020.000
3	15:26:09	89.507%	0.232	127.900	133.900	0.000	300000.000	93800.000	93490.000
x		89.674%	0.332	122.700	128.200	0.000	292300.000	90800.000	91170.000
σ		0.523%	0.121	4.754	5.225	0.000	7198.000	3010.000	2841.000
%RSD		0.583	36.440	3.873	4.077	0.000	2.463	3.315	3.116
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:19	5003.000	20540.000	0.000	11930.000	170400.000	173900.000	82.086%	118.900
2	15:25:44	5347.000	21030.000	0.000	12130.000	173100.000	180300.000	83.031%	113.700
3	15:26:09	5325.000	21090.000	0.000	12270.000	176500.000	180200.000	83.581%	120.900
x		5225.000	20880.000	0.000	12110.000	173300.000	178100.000	82.899%	117.800
σ		192.400	298.900	0.000	173.700	3055.000	3709.000	0.756%	3.739
%RSD		3.681	1.431	0.000	1.435	1.763	2.082	0.912	3.173
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:19	11.240	11.260	2215.000	82530.000	82620.000	26.250	23.620	4.872
2	15:25:44	11.310	11.450	2293.000	85890.000	87030.000	27.230	23.900	5.013
3	15:26:09	10.760	11.230	2321.000	87010.000	88010.000	27.300	24.280	5.256
x		11.100	11.310	2276.000	85140.000	85890.000	26.930	23.930	5.047
σ		0.301	0.121	54.630	2330.000	2873.000	0.589	0.333	0.195
%RSD		2.708	1.072	2.400	2.737	3.345	2.188	1.391	3.854
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:19	6.132	47.010	44.940	13.590	0.837	2.004	0.000	833.400
2	15:25:44	6.633	48.260	48.070	14.840	0.965	5.076	0.000	849.300
3	15:26:09	6.897	48.990	48.130	15.820	1.118	3.599	0.000	862.200
x		6.554	48.090	47.050	14.750	0.973	3.560	0.000	848.300
σ		0.389	1.001	1.827	1.120	0.141	1.536	0.000	14.390
%RSD		5.930	2.081	3.883	7.594	14.440	43.160	0.000	1.696
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:19	99.931%	1.127	1.072	81.552%	0.008	0.001	0.027	-0.480
2	15:25:44	104.559%	1.084	1.090	84.140%	0.003	0.013	0.050	-0.442
3	15:26:09	104.684%	1.085	1.100	85.450%	-0.006	-0.002	0.016	-0.500
x		103.058%	1.099	1.087	83.714%	0.002	0.004	0.031	-0.474
σ		2.709%	0.024	0.014	1.984%	0.007	0.008	0.017	0.029
%RSD		2.628	2.210	1.287	2.370	376.600	206.700	56.060	6.221
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:19	81.820%	0.427	0.405	0.481	48.730	48.030	91.591%	93.734%
2	15:25:44	84.640%	0.432	0.423	0.523	49.260	48.290	92.962%	96.227%
3	15:26:09	84.125%	0.439	0.436	0.578	48.920	50.920	94.414%	97.579%
x		83.528%	0.433	0.421	0.527	48.970	49.080	92.989%	95.846%
σ		1.501%	0.006	0.016	0.048	0.268	1.599	1.412%	1.950%
%RSD		1.798	1.350	3.791	9.170	0.548	3.259	1.518	2.035
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:25:19	0.050	0.043	4.939	4.605	4.710	90.216%		
2	15:25:44	0.043	0.055	4.960	4.587	4.692	93.724%		
3	15:26:09	0.055	0.047	5.058	4.813	4.786	93.489%		
x		0.049	0.048	4.986	4.669	4.729	92.476%		
σ		0.006	0.006	0.064	0.126	0.050	1.961%		
%RSD		12.080	13.310	1.277	2.692	1.052	2.120		

180-40536-E-5-A 1/22/2015 3:29:06 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	15:29:31	85.862%	0.117	44.440	47.480	0.000	324600.000	47800.000	48360.000
2	15:29:56	85.494%	0.177	52.350	49.390	0.000	350200.000	52440.000	52800.000
3	15:30:21	88.292%	0.141	49.730	48.240	0.000	351000.000	52620.000	53030.000
x		86.549%	0.145	48.840	48.370	0.000	342000.000	50950.000	51400.000
σ		1.520%	0.030	4.032	0.963	0.000	15020.000	2735.000	2629.000
%RSD		1.757	20.800	8.255	1.991	0.000	4.393	5.367	5.116

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:31	1106.000	11230.000	0.000	1902.000	56190.000	58610.000	87.710%	51.410
2	15:29:56	1195.000	12140.000	0.000	2142.000	64190.000	67150.000	79.556%	30.350
3	15:30:21	1211.000	12220.000	0.000	2113.000	65170.000	69120.000	79.085%	30.520
x		1171.000	11860.000	0.000	2052.000	61850.000	64960.000	82.117%	37.430
σ		56.380	549.500	0.000	131.100	4926.000	5586.000	4.849%	12.110
%RSD		4.816	4.631	0.000	6.386	7.964	8.599	5.905	32.350

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:31	8.433	4.034	7804.000	190100.000	195400.000	17.550	12.010	3.346
2	15:29:56	11.560	4.231	8767.000	214400.000	217300.000	18.830	12.980	3.636
3	15:30:21	10.710	4.246	8985.000	219300.000	223200.000	19.630	13.230	3.555
x		10.230	4.170	8519.000	207900.000	211900.000	18.670	12.740	3.512
σ		1.617	0.118	628.600	15640.000	14620.000	1.051	0.641	0.150
%RSD		15.800	2.834	7.379	7.524	6.897	5.629	5.032	4.268

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:31	4.941	45.600	43.010	8.122	-0.572	1.200	0.000	217.700
2	15:29:56	5.476	49.580	48.680	9.402	-0.165	-2.062	0.000	229.600
3	15:30:21	5.238	49.200	48.600	10.220	0.254	1.216	0.000	229.000
x		5.219	48.130	46.770	9.248	-0.161	0.118	0.000	225.400
σ		0.268	2.197	3.248	1.058	0.413	1.888	0.000	6.695
%RSD		5.132	4.565	6.946	11.440	256.200	1600.000	0.000	2.970

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:31	85.913%	0.583	0.550	80.653%	-0.004	-0.001	0.038	-0.566
2	15:29:56	87.339%	0.518	0.466	82.177%	-0.008	-0.002	0.022	-0.499
3	15:30:21	88.407%	0.562	0.543	82.409%	-0.005	-0.019	0.061	-0.534
x		87.220%	0.554	0.520	81.747%	-0.005	-0.007	0.040	-0.533
σ		1.251%	0.033	0.047	0.954%	0.002	0.010	0.020	0.033
%RSD		1.435	5.954	9.003	1.167	42.330	131.500	49.180	6.277

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:31	79.635%	0.416	0.244	0.282	16.530	16.260	88.368%	89.926%
2	15:29:56	81.928%	0.504	0.219	0.223	16.730	16.320	89.308%	91.541%
3	15:30:21	82.849%	0.484	0.243	0.268	17.190	16.490	91.510%	92.683%
x		81.471%	0.468	0.235	0.258	16.820	16.360	89.729%	91.384%
σ		1.655%	0.046	0.014	0.031	0.342	0.115	1.613%	1.386%
%RSD		2.031	9.878	6.019	12.000	2.034	0.702	1.797	1.516

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:31	0.024	0.016	5.024	4.879	4.878	89.181%
2	15:29:56	0.025	0.022	5.209	5.019	5.010	90.813%
3	15:30:21	0.019	0.019	5.177	4.905	4.909	94.340%
x		0.022	0.019	5.137	4.934	4.932	91.445%
σ		0.004	0.003	0.099	0.074	0.069	2.637%
%RSD		15.710	15.400	1.927	1.509	1.401	2.883

180-40536-D-5-A 1/22/2015 3:33:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	85.380%	0.077	48.210	46.530	0.000	344900.000	51290.000	51250.000
2	15:34:08	86.374%	0.132	49.240	46.380	0.000	346400.000	52030.000	53050.000
3	15:34:33	84.573%	0.137	48.100	50.250	0.000	360800.000	54110.000	54820.000
x		85.442%	0.115	48.510	47.720	0.000	350700.000	52480.000	53040.000
σ		0.902%	0.033	0.633	2.193	0.000	8787.000	1467.000	1788.000
%RSD		1.055	28.640	1.304	4.595	0.000	2.505	2.795	3.371

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	1431.000	12380.000	0.000	2158.000	62950.000	65460.000	77.271%	48.690
2	15:34:08	1500.000	12680.000	0.000	2219.000	65020.000	69000.000	78.482%	33.510
3	15:34:33	1540.000	12980.000	0.000	2263.000	66540.000	69230.000	76.899%	33.590
x		1491.000	12680.000	0.000	2214.000	64840.000	67900.000	77.551%	38.600
σ		55.120	299.600	0.000	52.710	1802.000	2115.000	0.828%	8.744
%RSD		3.698	2.363	0.000	2.381	2.779	3.115	1.067	22.650

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	12.450	5.073	8609.000	210900.000	215300.000	19.530	14.370	3.923
2	15:34:08	12.950	5.010	8895.000	220000.000	223200.000	20.030	13.950	4.121
3	15:34:33	12.080	5.037	9024.000	225100.000	227800.000	19.890	13.440	4.119
x		12.500	5.040	8843.000	218700.000	222100.000	19.820	13.920	4.054
σ		0.437	0.031	212.200	7165.000	6321.000	0.257	0.466	0.114
%RSD		3.493	0.624	2.400	3.277	2.846	1.299	3.345	2.806

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	5.890	63.040	64.380	9.275	-0.859	-0.751	0.000	221.100
2	15:34:08	5.860	67.780	66.510	12.400	0.388	0.018	0.000	226.600
3	15:34:33	5.856	66.810	66.540	7.059	0.585	-1.643	0.000	230.400
x		5.869	65.880	65.810	9.577	0.038	-0.792	0.000	226.000
σ		0.019	2.504	1.240	2.681	0.783	0.831	0.000	4.659
%RSD		0.317	3.800	1.884	28.000	2052.000	105.000	0.000	2.061

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	85.951%	0.665	0.439	80.905%	0.003	-0.001	0.064	-0.486
2	15:34:08	86.817%	0.453	0.556	81.663%	-0.009	-0.004	0.107	-0.444
3	15:34:33	86.967%	0.454	0.463	82.506%	0.005	0.004	0.092	-0.461
x		86.578%	0.524	0.486	81.691%	-0.000	-0.000	0.088	-0.464
σ		0.548%	0.122	0.062	0.801%	0.008	0.004	0.022	0.021
%RSD		0.633	23.340	12.690	0.980	2474.000	1118.000	25.430	4.555

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	78.597%	1.892	0.295	0.246	17.460	17.520	88.150%	89.494%
2	15:34:08	80.394%	1.963	0.268	0.279	17.920	17.520	89.550%	91.495%
3	15:34:33	80.522%	1.894	0.293	0.298	18.100	17.700	90.231%	92.061%
x		79.838%	1.916	0.285	0.274	17.820	17.580	89.310%	91.017%
σ		1.076%	0.041	0.015	0.026	0.330	0.105	1.061%	1.349%
%RSD		1.348	2.120	5.122	9.633	1.850	0.595	1.188	1.482

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:43	0.024	0.017	5.875	5.585	5.704	89.707%
2	15:34:08	0.019	0.020	6.121	5.855	5.912	91.678%
3	15:34:33	0.021	0.022	6.253	5.919	5.942	90.542%
x		0.021	0.020	6.083	5.786	5.853	90.642%
σ		0.003	0.003	0.192	0.177	0.130	0.989%
%RSD		12.130	13.190	3.161	3.061	2.220	1.091

180-40536-E-6-A 1/22/2015 3:37:28 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	15:37:53	82.954%	0.304	123.500	129.300	0.000	281100.000	86550.000	88040.000
2	15:38:18	84.519%	0.340	128.000	135.600	0.000	291200.000	90740.000	91050.000
3	15:38:43	86.137%	0.261	123.000	131.200	0.000	291200.000	91830.000	91480.000
x		84.537%	0.302	124.800	132.000	0.000	287800.000	89710.000	90190.000
σ		1.592%	0.040	2.752	3.206	0.000	5828.000	2790.000	1874.000
%RSD		1.883	13.140	2.204	2.428	0.000	2.025	3.110	2.078
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:53	5539.000	21750.000	0.000	11990.000	171600.000	178300.000	74.676%	211.900
2	15:38:18	5787.000	21880.000	0.000	12440.000	178100.000	186100.000	75.683%	175.200
3	15:38:43	5827.000	21910.000	0.000	12430.000	179600.000	186700.000	76.278%	128.300
x		5718.000	21850.000	0.000	12290.000	176400.000	183700.000	75.546%	171.800
σ		156.000	85.610	0.000	258.200	4255.000	4651.000	0.810%	41.900
%RSD		2.727	0.392	0.000	2.102	2.412	2.532	1.072	24.390
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:53	11.550	11.800	2214.000	81670.000	82980.000	25.740	24.530	4.951
2	15:38:18	13.520	12.230	2315.000	85790.000	87160.000	27.110	25.280	5.145
3	15:38:43	14.110	11.650	2323.000	86840.000	87750.000	27.160	24.630	5.419
x		13.060	11.890	2284.000	84770.000	85960.000	26.670	24.810	5.171
σ		1.342	0.305	60.910	2737.000	2602.000	0.809	0.404	0.235
%RSD		10.270	2.563	2.667	3.229	3.026	3.035	1.626	4.551
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:53	6.342	53.570	52.710	13.850	-0.203	5.113	0.000	815.600
2	15:38:18	6.684	55.580	53.650	12.760	0.042	4.240	0.000	840.400
3	15:38:43	6.418	56.620	55.660	13.520	-0.348	3.773	0.000	847.200
x		6.481	55.250	54.010	13.380	-0.170	4.375	0.000	834.400
σ		0.179	1.551	1.508	0.557	0.197	0.680	0.000	16.630
%RSD		2.766	2.807	2.791	4.161	116.000	15.540	0.000	1.993
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:53	93.049%	0.920	0.897	74.681%	0.012	0.002	0.057	-0.440
2	15:38:18	96.196%	0.856	0.889	76.974%	0.016	0.001	0.049	-0.499
3	15:38:43	98.321%	0.839	0.906	78.036%	0.005	-0.011	0.048	-0.479
x		95.855%	0.871	0.897	76.564%	0.011	-0.003	0.052	-0.473
σ		2.652%	0.043	0.008	1.715%	0.006	0.007	0.005	0.030
%RSD		2.767	4.887	0.937	2.240	51.350	268.200	8.995	6.359
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:53	75.126%	0.554	0.423	0.487	48.570	48.950	86.221%	88.248%
2	15:38:18	78.308%	0.568	0.407	0.526	50.350	48.880	88.130%	89.582%
3	15:38:43	79.335%	0.579	0.425	0.499	50.130	49.670	89.696%	91.576%
x		77.590%	0.567	0.419	0.504	49.690	49.170	88.016%	89.802%
σ		2.195%	0.013	0.010	0.020	0.970	0.436	1.740%	1.675%
%RSD		2.829	2.229	2.310	4.008	1.952	0.887	1.977	1.865
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:37:53	0.068	0.052	5.146	4.627	4.794	85.769%		
2	15:38:18	0.046	0.061	5.161	4.763	4.890	88.441%		
3	15:38:43	0.048	0.062	5.229	4.965	5.008	89.094%		
x		0.054	0.058	5.179	4.785	4.897	87.768%		
σ		0.012	0.006	0.045	0.170	0.107	1.761%		
%RSD		22.580	9.870	0.861	3.548	2.181	2.007		

180-40536-D-6-A 1/22/2015 3:41:40 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	15:42:05	78.630%	0.465	131.600	132.600	0.000	287900.000	88730.000	89690.000
2	15:42:30	82.157%	0.337	135.800	134.000	0.000	294100.000	91660.000	91860.000
3	15:42:55	81.982%	0.383	133.300	136.100	0.000	301600.000	93040.000	92870.000
x		80.923%	0.395	133.600	134.200	0.000	294600.000	91140.000	91470.000
σ		1.987%	0.065	2.135	1.784	0.000	6857.000	2202.000	1623.000
%RSD		2.456	16.390	1.598	1.329	0.000	2.328	2.416	1.774
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:42:05	5833.000	22370.000	0.000	12430.000	175800.000	181900.000	73.783%	142.600
2	15:42:30	6057.000	22240.000	0.000	12300.000	178300.000	185800.000	75.161%	169.000
3	15:42:55	6063.000	22580.000	0.000	12630.000	180500.000	186300.000	75.936%	141.200
x		5984.000	22400.000	0.000	12450.000	178200.000	184700.000	74.960%	150.900
σ		131.200	173.200	0.000	162.500	2309.000	2401.000	1.091%	15.640
%RSD		2.193	0.773	0.000	1.305	1.296	1.300	1.455	10.360
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:42:05	11.820	11.990	2238.000	82810.000	82860.000	26.230	23.430	5.327
2	15:42:30	13.480	12.110	2302.000	85220.000	86150.000	26.640	23.840	5.403
3	15:42:55	13.650	12.610	2310.000	86730.000	87840.000	26.930	24.500	5.523
x		12.980	12.240	2283.000	84920.000	85620.000	26.600	23.920	5.418
σ		1.012	0.327	39.680	1977.000	2532.000	0.350	0.541	0.099
%RSD		7.792	2.669	1.738	2.328	2.958	1.316	2.261	1.821
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:42:05	6.740	53.910	54.030	15.280	-0.204	1.221	0.000	836.100
2	15:42:30	6.689	56.170	54.660	15.220	0.350	4.582	0.000	854.200
3	15:42:55	7.138	55.890	54.580	15.230	-0.056	3.421	0.000	868.500
x		6.855	55.320	54.420	15.250	0.030	3.075	0.000	853.000
σ		0.246	1.232	0.340	0.033	0.287	1.707	0.000	16.240
%RSD		3.586	2.228	0.625	0.214	957.600	55.520	0.000	1.903
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:42:05	92.125%	1.118	1.025	75.338%	0.015	0.005	0.041	-0.475
2	15:42:30	95.314%	0.996	1.010	76.453%	0.003	0.005	0.039	-0.472
3	15:42:55	97.529%	1.026	1.021	77.670%	0.008	0.001	0.039	-0.477
x		94.989%	1.047	1.019	76.487%	0.008	0.004	0.039	-0.475
σ		2.717%	0.064	0.008	1.166%	0.006	0.002	0.001	0.002
%RSD		2.860	6.080	0.769	1.525	71.330	68.310	3.302	0.496
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:42:05	73.995%	0.483	0.372	0.439	50.910	50.740	85.541%	87.166%
2	15:42:30	78.712%	0.426	0.392	0.409	52.040	50.800	87.775%	90.474%
3	15:42:55	78.312%	0.420	0.342	0.439	50.600	50.890	88.876%	91.965%
x		77.006%	0.443	0.369	0.429	51.180	50.810	87.397%	89.868%
σ		2.615%	0.035	0.025	0.017	0.761	0.074	1.699%	2.456%
%RSD		3.396	7.896	6.823	3.999	1.486	0.146	1.944	2.733
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:42:05	0.054	0.054	5.450	4.969	5.087	84.653%		
2	15:42:30	0.054	0.048	5.129	4.750	4.923	90.058%		
3	15:42:55	0.053	0.051	5.244	4.827	4.977	90.705%		
x		0.054	0.051	5.274	4.849	4.996	88.472%		
σ		0.000	0.003	0.162	0.111	0.083	3.323%		
%RSD		0.581	5.862	3.079	2.294	1.669	3.756		

180-40536-E-7-A 1/22/2015 3:45:55 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	15:46:21	91.781%	-0.002	36.100	35.960	0.000	124.200	10.800	10.770
2	15:46:46	93.821%	-0.031	34.300	35.260	0.000	109.900	8.946	8.624
3	15:47:11	93.591%	-0.004	33.450	36.070	0.000	101.100	8.631	7.879
x		93.065%	-0.012	34.620	35.760	0.000	111.700	9.460	9.091
σ		1.117%	0.016	1.355	0.439	0.000	11.700	1.174	1.500
%RSD		1.201	129.400	3.914	1.227	0.000	10.470	12.410	16.500

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:21	12.790	94.960	0.000	15.340	30.660	28.310	80.059%	1.368
2	15:46:46	11.310	91.910	0.000	12.500	40.490	28.160	81.761%	0.398
3	15:47:11	11.850	92.290	0.000	22.160	35.020	26.590	81.942%	0.303
x		11.990	93.050	0.000	16.670	35.390	27.680	81.254%	0.690
σ		0.750	1.661	0.000	4.965	4.928	0.954	1.039%	0.589
%RSD		6.253	1.785	0.000	29.790	13.930	3.445	1.279	85.430

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:21	0.238	2.182	0.345	62.640	56.920	-0.004	0.571	0.540
2	15:46:46	-0.363	2.082	0.289	34.430	34.270	0.010	0.691	0.626
3	15:47:11	-0.552	2.176	0.261	24.920	12.110	0.002	0.695	0.521
x		-0.226	2.146	0.298	40.660	34.430	0.003	0.653	0.562
σ		0.412	0.056	0.043	19.620	22.400	0.007	0.070	0.056
%RSD		182.500	2.610	14.460	48.240	65.070	269.600	10.800	9.922

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:21	0.686	1.265	1.195	1.090	-1.187	1.921	0.000	0.119
2	15:46:46	0.766	1.195	1.122	0.656	-0.338	4.435	0.000	0.089
3	15:47:11	0.752	1.355	1.044	-1.167	1.211	1.062	0.000	0.069
x		0.735	1.272	1.120	0.193	-0.105	2.473	0.000	0.092
σ		0.042	0.081	0.076	1.197	1.216	1.753	0.000	0.025
%RSD		5.761	6.335	6.765	620.500	1160.000	70.890	0.000	27.110

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:21	84.588%	0.021	0.001	87.498%	-0.021	-0.012	0.001	-0.576
2	15:46:46	87.276%	-0.038	0.027	90.378%	-0.018	-0.014	0.001	-0.585
3	15:47:11	88.870%	0.041	0.024	92.400%	-0.016	-0.015	-0.004	-0.523
x		86.911%	0.008	0.017	90.092%	-0.019	-0.014	-0.000	-0.561
σ		2.164%	0.041	0.014	2.464%	0.002	0.002	0.003	0.033
%RSD		2.490	509.800	79.710	2.735	13.170	11.570	731.400	5.896

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:21	83.677%	0.063	-0.024	-0.020	0.121	0.090	90.188%	92.319%
2	15:46:46	88.308%	0.050	-0.012	-0.018	0.125	0.079	93.859%	94.539%
3	15:47:11	85.487%	0.020	-0.002	0.002	0.079	0.111	93.104%	94.448%
x		85.824%	0.044	-0.013	-0.012	0.108	0.093	92.383%	93.769%
σ		2.334%	0.022	0.011	0.013	0.025	0.016	1.938%	1.257%
%RSD		2.720	49.570	84.060	104.300	23.390	17.680	2.098	1.340

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:21	0.002	0.001	0.013	0.008	0.006	98.200%
2	15:46:46	-0.001	-0.001	0.003	0.018	0.005	101.392%
3	15:47:11	0.001	0.001	-0.001	-0.003	-0.003	97.914%
x		0.001	0.000	0.005	0.008	0.003	99.168%
σ		0.002	0.001	0.007	0.010	0.005	1.931%
%RSD		150.200	290.000	138.900	135.700	192.000	1.947

180-40536-D-7-A 1/22/2015 3:50:07 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	15:50:32	87.875%	-0.053	26.570	26.280	0.000	62.810	7.284	6.831
2	15:50:57	92.342%	0.024	25.580	26.220	0.000	56.900	6.386	6.373
3	15:51:22	91.327%	-0.055	28.370	27.260	0.000	52.730	5.764	5.556
x		90.515%	-0.028	26.840	26.590	0.000	57.480	6.478	6.253
σ		2.342%	0.045	1.411	0.586	0.000	5.063	0.765	0.646
%RSD		2.587	160.500	5.257	2.205	0.000	8.808	11.800	10.330
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:32	9.719	84.070	0.000	22.710	32.020	23.020	77.699%	0.250
2	15:50:57	8.758	84.050	0.000	19.720	29.140	22.850	79.420%	0.338
3	15:51:22	9.310	78.160	0.000	20.040	28.590	20.310	80.551%	0.140
x		9.263	82.090	0.000	20.820	29.910	22.060	79.223%	0.243
σ		0.482	3.407	0.000	1.644	1.842	1.518	1.437%	0.099
%RSD		5.205	4.150	0.000	7.896	6.156	6.882	1.813	40.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:32	-0.366	2.257	0.238	16.650	10.010	0.003	0.379	0.582
2	15:50:57	-0.402	2.117	0.183	13.460	6.914	0.013	0.330	0.562
3	15:51:22	-0.727	2.016	0.182	10.160	4.546	0.014	0.318	0.556
x		-0.499	2.130	0.201	13.420	7.156	0.010	0.342	0.567
σ		0.199	0.121	0.032	3.247	2.738	0.006	0.032	0.014
%RSD		39.840	5.683	16.100	24.190	38.270	63.130	9.420	2.394
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:32	0.748	1.357	1.259	0.098	0.581	3.514	0.000	0.048
2	15:50:57	0.667	1.515	1.391	1.121	-1.173	2.214	0.000	0.062
3	15:51:22	0.644	1.348	1.268	-0.517	-0.535	-1.214	0.000	0.050
x		0.686	1.407	1.306	0.234	-0.376	1.505	0.000	0.053
σ		0.055	0.094	0.074	0.828	0.888	2.442	0.000	0.007
%RSD		7.984	6.672	5.633	353.600	236.400	162.300	0.000	13.760
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:32	81.537%	-0.012	0.026	84.080%	-0.018	-0.019	-0.003	-0.577
2	15:50:57	85.296%	-0.040	-0.028	87.011%	-0.016	-0.012	-0.008	-0.516
3	15:51:22	85.664%	-0.020	-0.006	86.855%	-0.021	-0.022	0.001	-0.535
x		84.166%	-0.024	-0.003	85.982%	-0.019	-0.017	-0.003	-0.542
σ		2.284%	0.014	0.027	1.649%	0.002	0.005	0.005	0.031
%RSD		2.713	59.110	1014.000	1.918	12.740	28.600	142.100	5.762
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:32	81.446%	0.049	-0.026	-0.011	0.114	0.167	87.511%	88.378%
2	15:50:57	84.419%	0.052	-0.019	-0.014	0.225	0.148	90.854%	90.974%
3	15:51:22	84.944%	0.094	-0.012	-0.001	0.130	0.147	90.557%	91.304%
x		83.603%	0.065	-0.019	-0.009	0.156	0.154	89.641%	90.219%
σ		1.887%	0.025	0.007	0.007	0.060	0.011	1.850%	1.602%
%RSD		2.257	38.320	36.440	79.260	38.380	7.274	2.064	1.776
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:50:32	0.000	0.001	-0.001	0.002	-0.002	92.649%		
2	15:50:57	0.002	0.001	-0.018	-0.016	-0.006	96.301%		
3	15:51:22	0.003	0.000	-0.001	0.002	0.003	97.746%		
x		0.002	0.001	-0.007	-0.004	-0.002	95.565%		
σ		0.001	0.001	0.009	0.010	0.004	2.627%		
%RSD		79.530	68.790	138.700	245.100	268.900	2.749		

CCV 1455996 1/22/2015 3:54:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:42	78.913%	100.800	106.700	99.880	0.000	48870.000	47640.000	47600.000
2	15:55:07	82.164%	96.460	101.500	100.400	0.000	49030.000	48030.000	47930.000
3	15:55:32	81.524%	99.250	105.100	100.800	0.000	49390.000	48530.000	48640.000
x		80.867%	98.834%	104.437%	100.358%	0.000	98.191%	96.131%	96.111%
σ		1.722%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.129	2.228	2.547	0.458	0.000	0.538	0.936	1.105
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:42	447.200	5057.000	0.000	53240.000	48880.000	48570.000	80.832%	98.390
2	15:55:07	458.000	4992.000	0.000	51390.000	49010.000	50700.000	81.973%	94.910
3	15:55:32	462.200	5121.000	0.000	53430.000	50770.000	52510.000	82.631%	98.140
x		91.158%	101.133%	0.000	105.369%	99.101%	101.192%	81.812%	97.147%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.910%	n/a
%RSD		1.696	1.273	0.000	2.138	2.128	3.900	1.112	1.996
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:42	92.760	93.460	495.600	25220.000	24970.000	94.870	94.360	96.480
2	15:55:07	94.080	94.560	507.600	25510.000	25860.000	96.270	99.310	98.370
3	15:55:32	95.020	95.760	513.000	25860.000	26020.000	96.970	97.590	98.430
x		93.952%	94.592%	101.083%	102.109%	102.457%	96.037%	97.086%	97.757%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.210	1.213	1.757	1.254	2.217	1.111	2.591	1.135
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:42	97.070	101.500	99.270	98.970	100.300	102.000	0.000	96.030
2	15:55:07	97.720	100.000	101.500	98.570	100.400	100.700	0.000	97.420
3	15:55:32	99.370	100.900	101.100	98.190	103.700	100.300	0.000	96.890
x		98.053%	100.809%	100.648%	98.575%	101.467%	100.968%	0.000	96.780%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.208	0.723	1.203	0.395	1.942	0.885	0.000	0.726
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:42	81.775%	92.260	89.570	84.575%	93.360	93.090	96.660	96.190
2	15:55:07	84.006%	97.810	95.250	85.102%	93.890	92.810	97.380	96.010
3	15:55:32	86.144%	98.670	97.380	86.715%	93.480	93.930	97.610	98.150
x		83.975%	96.249%	94.065%	85.464%	93.575%	93.274%	97.215%	96.783%
σ		2.185%	n/a	n/a	1.115%	n/a	n/a	n/a	n/a
%RSD		2.602	3.613	4.290	1.305	0.299	0.627	0.507	1.228
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:42	83.067%	97.600	97.930	98.660	96.780	97.320	88.487%	90.653%
2	15:55:07	85.194%	97.650	99.080	98.090	96.670	96.340	91.618%	91.104%
3	15:55:32	85.850%	100.200	100.800	100.500	98.030	98.100	92.340%	93.062%
x		84.704%	98.477%	99.254%	99.082%	97.158%	97.252%	90.815%	91.607%
σ		1.455%	n/a	n/a	n/a	n/a	n/a	2.048%	1.281%
%RSD		1.718	1.501	1.431	1.275	0.776	0.908	2.256	1.398
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:54:42	106.800	102.800	105.400	105.100	104.500	86.891%		
2	15:55:07	104.800	103.300	105.600	106.900	105.200	88.923%		
3	15:55:32	105.400	103.300	106.600	106.900	106.600	90.100%		
x		105.686%	103.125%	105.846%	106.290%	105.443%	88.638%		
σ		n/a	n/a	n/a	n/a	n/a	1.624%		
%RSD		0.959	0.253	0.627	1.004	1.020	1.832		

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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	16:02:00	83.915%	-0.022	1.401	0.916	0.000	29.630	19.560	19.300
2	16:02:25	85.060%	-0.052	0.822	0.505	0.000	25.330	16.790	17.630
3	16:02:50	87.610%	0.071	1.394	0.509	0.000	24.010	18.140	17.210
x		85.528%	-0.001	1.205	0.643	0.000	26.320	18.160	18.050
σ		1.892%	0.064	0.332	0.236	0.000	2.938	1.384	1.105
%RSD		2.212	7178.000	27.570	36.680	0.000	11.160	7.621	6.123
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:00	1.154	8.317	0.000	16.020	38.680	28.710	82.242%	0.023
2	16:02:25	1.448	3.578	0.000	13.370	44.020	24.420	84.954%	0.053
3	16:02:50	1.121	4.145	0.000	9.394	35.070	25.370	85.307%	0.087
x		1.241	5.347	0.000	12.930	39.260	26.170	84.168%	0.054
σ		0.180	2.588	0.000	3.337	4.499	2.255	1.677%	0.032
%RSD		14.490	48.400	0.000	25.810	11.460	8.616	1.993	59.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:00	0.011	0.053	0.238	14.610	18.810	0.034	0.034	0.017
2	16:02:25	0.101	0.023	0.218	11.420	15.510	0.039	-0.015	0.013
3	16:02:50	0.019	0.026	0.178	10.360	13.560	0.040	0.128	0.033
x		0.044	0.034	0.211	12.130	15.960	0.038	0.049	0.021
σ		0.050	0.017	0.030	2.215	2.651	0.003	0.073	0.011
%RSD		114.400	49.130	14.410	18.260	16.610	8.393	148.600	52.650
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:00	-0.006	0.037	0.168	0.303	-1.398	1.559	0.000	0.111
2	16:02:25	-0.009	0.115	0.262	-0.006	0.020	0.311	0.000	0.095
3	16:02:50	0.025	0.142	0.086	0.261	-0.414	1.592	0.000	0.108
x		0.003	0.098	0.172	0.186	-0.597	1.154	0.000	0.104
σ		0.019	0.054	0.088	0.168	0.727	0.730	0.000	0.008
%RSD		557.500	55.630	51.180	90.170	121.600	63.280	0.000	8.090
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:00	83.970%	0.270	0.313	90.920%	0.053	0.068	0.001	-0.562
2	16:02:25	87.446%	0.300	0.286	93.646%	0.049	0.041	0.027	-0.544
3	16:02:50	90.108%	0.336	0.306	94.690%	0.030	0.037	0.009	-0.565
x		87.175%	0.302	0.302	93.086%	0.044	0.048	0.013	-0.557
σ		3.078%	0.033	0.014	1.946%	0.012	0.017	0.013	0.011
%RSD		3.531	10.880	4.739	2.091	28.070	35.010	106.700	2.045
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:00	86.940%	0.207	0.150	0.168	0.085	0.097	90.321%	91.603%
2	16:02:25	90.284%	0.198	0.196	0.192	0.082	0.108	92.391%	94.898%
3	16:02:50	91.510%	0.228	0.146	0.147	0.121	0.085	94.605%	95.838%
x		89.578%	0.211	0.164	0.169	0.096	0.097	92.439%	94.113%
σ		2.366%	0.016	0.028	0.022	0.022	0.011	2.142%	2.224%
%RSD		2.641	7.353	16.910	13.190	22.940	11.780	2.317	2.363
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:02:00	0.024	0.027	0.028	0.008	0.019	100.556%		
2	16:02:25	0.024	0.020	0.009	0.010	0.011	103.375%		
3	16:02:50	0.021	0.029	0.006	0.010	0.014	104.502%		
x		0.023	0.026	0.015	0.009	0.014	102.811%		
σ		0.002	0.005	0.012	0.001	0.004	2.032%		
%RSD		8.468	19.330	80.950	13.560	29.060	1.977		

180-40536-E-8-A 1/22/2015 4:05:47 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	16:06:12	91.568%	1.583	51.420	52.540	0.000	49070.000	24790.000	24760.000
2	16:06:37	89.446%	1.823	58.630	59.850	0.000	50810.000	25740.000	26180.000
3	16:07:02	91.169%	1.585	55.220	58.610	0.000	50980.000	26510.000	26530.000
x		90.727%	1.664	55.090	57.000	0.000	50280.000	25680.000	25830.000
σ		1.128%	0.138	3.607	3.915	0.000	1059.000	863.700	936.200
%RSD		1.243	8.285	6.547	6.868	0.000	2.106	3.363	3.625

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:12	460.800	17110.000	0.000	2082.000	22150.000	21520.000	78.584%	2.838
2	16:06:37	449.000	17830.000	0.000	2163.000	23300.000	21750.000	79.672%	3.568
3	16:07:02	455.800	17880.000	0.000	2217.000	23430.000	22210.000	80.781%	3.227
x		455.200	17610.000	0.000	2154.000	22960.000	21830.000	79.679%	3.211
σ		5.945	429.700	0.000	68.090	701.800	350.400	1.099%	0.365
%RSD		1.306	2.440	0.000	3.161	3.056	1.605	1.379	11.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:12	-0.781	2.810	3386.000	2401.000	2327.000	57.930	64.880	4.164
2	16:06:37	-0.094	2.798	3487.000	2519.000	2412.000	59.650	65.410	4.109
3	16:07:02	-2.013	2.870	3502.000	2563.000	2433.000	59.990	66.230	4.267
x		-0.963	2.826	3459.000	2494.000	2391.000	59.190	65.500	4.180
σ		0.972	0.039	63.090	83.850	55.920	1.102	0.678	0.080
%RSD		101.000	1.372	1.824	3.362	2.339	1.862	1.036	1.925

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:12	4.252	170.000	167.800	0.482	-1.230	1.346	0.000	137.700
2	16:06:37	4.666	175.100	172.900	0.173	-0.535	-0.851	0.000	141.700
3	16:07:02	4.201	171.800	174.100	1.870	-1.562	2.528	0.000	140.600
x		4.373	172.300	171.600	0.842	-1.109	1.008	0.000	140.000
σ		0.255	2.629	3.377	0.904	0.524	1.715	0.000	2.051
%RSD		5.825	1.526	1.968	107.400	47.290	170.200	0.000	1.465

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:12	84.576%	0.204	0.164	80.866%	0.046	0.054	0.448	-0.174
2	16:06:37	85.306%	0.155	0.181	82.273%	0.021	0.021	0.484	-0.047
3	16:07:02	89.332%	0.093	0.126	85.292%	-0.003	0.007	0.547	-0.045
x		86.405%	0.151	0.157	82.810%	0.021	0.027	0.493	-0.089
σ		2.561%	0.056	0.028	2.261%	0.024	0.024	0.050	0.074
%RSD		2.964	36.830	17.930	2.731	113.900	89.120	10.120	83.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:12	81.038%	0.494	0.286	0.280	136.800	135.300	88.755%	90.025%
2	16:06:37	81.422%	0.555	0.194	0.220	136.500	140.500	89.788%	91.264%
3	16:07:02	82.537%	0.418	0.219	0.211	137.600	142.400	92.497%	93.849%
x		81.666%	0.489	0.233	0.237	137.000	139.400	90.347%	91.713%
σ		0.778%	0.069	0.047	0.037	0.556	3.678	1.933%	1.951%
%RSD		0.953	14.010	20.280	15.710	0.406	2.638	2.140	2.128

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:12	0.025	0.021	0.888	0.776	0.823	94.162%
2	16:06:37	0.029	0.026	0.923	0.868	0.864	94.401%
3	16:07:02	0.025	0.027	0.931	0.815	0.872	93.423%
x		0.026	0.025	0.914	0.819	0.853	93.995%
σ		0.002	0.004	0.023	0.046	0.026	0.510%
%RSD		8.742	14.540	2.474	5.645	3.096	0.543

180-40536-D-8-A 1/22/2015 4:09:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:25	89.980%	1.295	44.550	44.440	0.000	48440.000	24560.000	24500.000
2	16:10:50	94.062%	1.446	47.030	45.210	0.000	49040.000	25050.000	25170.000
3	16:11:15	90.964%	1.642	46.200	46.610	0.000	50010.000	25630.000	25680.000
x		91.669%	1.461	45.930	45.420	0.000	49160.000	25080.000	25110.000
σ		2.130%	0.174	1.262	1.104	0.000	790.900	537.000	595.300
%RSD		2.324	11.890	2.748	2.430	0.000	1.609	2.141	2.370
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:25	420.000	16990.000	0.000	2092.000	26820.000	21250.000	79.050%	3.206
2	16:10:50	476.800	17260.000	0.000	2125.000	23070.000	22330.000	80.781%	2.772
3	16:11:15	450.300	17470.000	0.000	2127.000	22760.000	21750.000	81.239%	2.550
x		449.000	17240.000	0.000	2114.000	24220.000	21780.000	80.357%	2.843
σ		28.420	241.600	0.000	19.740	2258.000	540.800	1.155%	0.334
%RSD		6.330	1.401	0.000	0.934	9.325	2.483	1.437	11.740
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:25	-0.862	2.766	3275.000	2473.000	2379.000	58.100	65.620	5.918
2	16:10:50	-0.347	2.915	3388.000	2561.000	2439.000	59.910	66.770	6.236
3	16:11:15	0.882	2.921	3398.000	2580.000	2451.000	59.620	67.580	6.326
x		-0.109	2.868	3354.000	2538.000	2423.000	59.210	66.650	6.160
σ		0.896	0.088	68.430	57.490	38.210	0.975	0.986	0.215
%RSD		821.600	3.072	2.041	2.265	1.577	1.647	1.479	3.482
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:25	6.228	169.600	170.900	1.158	-1.126	1.087	0.000	132.700
2	16:10:50	6.200	177.100	175.000	0.503	-0.140	1.769	0.000	137.600
3	16:11:15	5.935	175.100	179.400	-1.815	-0.283	2.717	0.000	142.600
x		6.121	173.900	175.100	-0.051	-0.516	1.858	0.000	137.600
σ		0.162	3.856	4.255	1.562	0.533	0.818	0.000	4.940
%RSD		2.638	2.217	2.430	3049.000	103.300	44.060	0.000	3.589
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:25	86.675%	-0.043	0.025	81.694%	-0.009	-0.008	0.451	-0.143
2	16:10:50	89.592%	-0.005	-0.003	84.285%	-0.005	-0.014	0.435	-0.030
3	16:11:15	88.998%	-0.017	0.038	85.239%	0.002	-0.010	0.506	-0.125
x		88.422%	-0.022	0.020	83.739%	-0.004	-0.011	0.464	-0.099
σ		1.542%	0.019	0.021	1.834%	0.006	0.003	0.037	0.060
%RSD		1.743	88.890	104.600	2.191	145.900	27.470	8.034	60.840
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:25	82.616%	0.139	0.035	0.065	133.400	132.100	91.571%	90.963%
2	16:10:50	84.245%	0.118	0.056	0.055	136.800	137.000	95.150%	95.257%
3	16:11:15	86.487%	0.074	0.035	0.071	135.600	138.000	93.661%	95.230%
x		84.449%	0.110	0.042	0.064	135.300	135.700	93.461%	93.817%
σ		1.944%	0.033	0.013	0.008	1.770	3.187	1.798%	2.471%
%RSD		2.302	30.070	30.110	12.850	1.308	2.348	1.924	2.634
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:10:25	0.032	0.023	0.869	0.780	0.812	96.679%		
2	16:10:50	0.027	0.021	0.901	0.887	0.874	97.998%		
3	16:11:15	0.021	0.022	0.958	0.809	0.848	99.285%		
x		0.027	0.022	0.909	0.825	0.845	97.987%		
σ		0.005	0.001	0.045	0.055	0.031	1.303%		
%RSD		20.290	4.704	4.960	6.725	3.659	1.330		

180-40536-E-10-A 1/22/2015 4:14:11 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	16:14:37	96.238%	-0.020	20.300	22.180	0.000	49.620	5.050	5.232
2	16:15:03	96.952%	-0.008	22.300	23.980	0.000	49.290	5.263	5.126
3	16:15:28	99.912%	0.026	20.750	21.890	0.000	46.040	5.860	5.120
x		97.701%	-0.001	21.120	22.680	0.000	48.320	5.391	5.160
σ		1.948%	0.024	1.048	1.131	0.000	1.978	0.420	0.063
%RSD		1.994	4612.000	4.965	4.986	0.000	4.094	7.795	1.220
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:37	11.120	83.320	0.000	28.330	35.180	29.000	84.705%	0.506
2	16:15:03	12.880	80.820	0.000	34.850	32.720	34.570	86.089%	0.459
3	16:15:28	12.610	80.310	0.000	34.640	58.170	31.810	86.094%	0.423
x		12.200	81.480	0.000	32.610	42.020	31.790	85.629%	0.463
σ		0.946	1.615	0.000	3.703	14.030	2.785	0.801%	0.042
%RSD		7.749	1.982	0.000	11.360	33.400	8.760	0.935	8.990
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:37	-2.515	3.279	0.521	24.920	16.750	0.031	0.345	0.582
2	16:15:03	-1.271	3.313	0.447	23.990	13.690	0.012	0.339	0.656
3	16:15:28	-1.366	3.130	0.448	21.910	11.380	0.011	0.306	0.606
x		-1.718	3.241	0.472	23.610	13.940	0.018	0.330	0.615
σ		0.692	0.098	0.042	1.544	2.691	0.011	0.021	0.038
%RSD		40.310	3.013	8.957	6.539	19.310	62.480	6.380	6.153
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:37	0.606	2.070	1.838	-1.428	-0.983	1.596	0.000	0.106
2	16:15:03	0.586	2.155	1.793	0.558	0.107	0.577	0.000	0.102
3	16:15:28	0.585	1.877	1.827	0.659	-0.926	0.416	0.000	0.115
x		0.592	2.034	1.820	-0.071	-0.601	0.863	0.000	0.108
σ		0.012	0.142	0.024	1.177	0.613	0.640	0.000	0.007
%RSD		2.072	7.003	1.295	1666.000	102.100	74.140	0.000	6.144
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:37	88.736%	0.004	0.018	91.103%	-0.023	-0.021	0.083	-0.522
2	16:15:03	90.860%	-0.003	0.011	93.691%	-0.021	-0.013	0.077	-0.461
3	16:15:28	93.488%	0.000	0.011	92.377%	-0.022	-0.017	0.107	-0.467
x		91.028%	0.000	0.013	92.390%	-0.022	-0.017	0.089	-0.483
σ		2.380%	0.003	0.004	1.294%	0.001	0.004	0.016	0.034
%RSD		2.615	744.700	33.640	1.401	4.113	22.620	18.180	6.982
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:37	87.999%	0.218	0.006	0.048	0.258	0.275	94.081%	94.682%
2	16:15:03	89.757%	0.109	0.007	0.046	0.210	0.204	96.278%	98.277%
3	16:15:28	90.990%	0.079	0.002	-0.005	0.197	0.196	97.037%	97.972%
x		89.582%	0.135	0.005	0.030	0.222	0.225	95.799%	96.977%
σ		1.503%	0.073	0.003	0.030	0.032	0.043	1.535%	1.993%
%RSD		1.678	53.790	54.680	100.600	14.370	19.170	1.602	2.055
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:14:37	0.003	0.001	0.056	0.040	0.051	102.197%		
2	16:15:03	0.003	0.001	0.062	0.058	0.056	103.136%		
3	16:15:28	0.001	0.002	0.070	0.071	0.059	104.816%		
x		0.002	0.001	0.063	0.056	0.055	103.383%		
σ		0.001	0.001	0.007	0.015	0.004	1.327%		
%RSD		60.530	57.360	10.960	27.470	7.335	1.283		

180-40536-D-10-A 1/22/2015 4:18:26 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	95.719%	-0.007	16.820	19.030	0.000	26.330	2.976	2.950
2	16:19:17	100.458%	0.038	17.670	18.400	0.000	26.010	3.485	3.342
3	16:19:42	100.772%	-0.011	19.020	19.160	0.000	27.470	3.411	3.591
x		98.983%	0.007	17.840	18.870	0.000	26.600	3.291	3.294
σ		2.831%	0.027	1.111	0.405	0.000	0.769	0.275	0.323
%RSD		2.860	412.100	6.226	2.148	0.000	2.890	8.358	9.808

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	7.161	60.470	0.000	32.270	26.740	27.410	84.269%	0.309
2	16:19:17	9.123	55.420	0.000	20.360	34.130	27.370	86.512%	0.172
3	16:19:42	8.402	59.260	0.000	32.220	29.150	19.710	86.273%	0.333
x		8.228	58.380	0.000	28.280	30.010	24.830	85.685%	0.271
σ		0.992	2.638	0.000	6.860	3.767	4.434	1.232%	0.087
%RSD		12.060	4.519	0.000	24.250	12.550	17.860	1.437	31.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	0.094	2.642	0.196	12.280	-0.145	0.005	0.248	0.499
2	16:19:17	0.333	2.478	0.215	10.410	2.347	0.009	0.289	0.488
3	16:19:42	-0.325	2.525	0.241	11.140	2.180	0.004	0.258	0.480
x		0.034	2.548	0.218	11.270	1.460	0.006	0.265	0.489
σ		0.333	0.084	0.023	0.943	1.393	0.002	0.021	0.010
%RSD		979.100	3.311	10.380	8.361	95.400	41.090	8.058	1.990

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	0.356	3.339	3.212	1.847	0.140	1.565	0.000	0.066
2	16:19:17	0.473	3.253	3.100	0.280	-0.551	-0.381	0.000	0.058
3	16:19:42	0.575	3.347	3.693	-0.805	0.158	1.509	0.000	0.068
x		0.468	3.313	3.335	0.441	-0.084	0.898	0.000	0.064
σ		0.110	0.052	0.315	1.334	0.405	1.108	0.000	0.005
%RSD		23.420	1.569	9.456	302.800	480.500	123.400	0.000	8.133

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	89.083%	-0.008	-0.010	91.274%	-0.023	-0.008	0.029	-0.554
2	16:19:17	93.273%	0.003	-0.024	93.987%	-0.013	-0.019	0.045	-0.518
3	16:19:42	93.450%	-0.009	0.008	96.001%	-0.012	-0.009	0.027	-0.530
x		91.935%	-0.005	-0.009	93.754%	-0.016	-0.012	0.033	-0.534
σ		2.472%	0.007	0.016	2.372%	0.006	0.006	0.010	0.018
%RSD		2.689	147.600	183.100	2.530	38.630	49.540	29.600	3.393

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	87.363%	0.039	0.002	0.001	0.050	0.111	95.297%	95.305%
2	16:19:17	91.682%	0.030	-0.015	0.007	0.129	0.095	97.782%	98.044%
3	16:19:42	91.964%	0.033	0.002	-0.006	0.104	0.133	96.300%	99.350%
x		90.336%	0.034	-0.004	0.001	0.095	0.113	96.460%	97.566%
σ		2.579%	0.005	0.010	0.007	0.040	0.019	1.250%	2.064%
%RSD		2.855	13.130	282.400	1190.000	42.730	16.900	1.296	2.116

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:51	0.002	0.001	0.015	0.007	0.012	99.129%
2	16:19:17	0.003	0.000	0.009	0.000	0.007	104.928%
3	16:19:42	0.002	-0.001	0.013	0.013	0.013	103.293%
x		0.002	0.000	0.013	0.007	0.011	102.450%
σ		0.000	0.001	0.003	0.006	0.003	2.990%
%RSD		14.280	458.900	24.150	94.580	27.110	2.919

CRI 1451384 1/22/2015 4:25:42 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:07	89.031%	1.009	6.283	5.710	0.000	80.370	99.170	97.070
2	16:26:32	92.373%	1.010	5.124	5.982	0.000	78.440	94.450	99.100
3	16:26:57	92.651%	0.902	5.607	5.221	0.000	82.480	96.660	98.960
x		91.352%	97.367%	113.428%	112.751%	0.000	100.534%	96.761%	98.376%
σ		2.015%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.206	6.381	10.260	6.839	0.000	2.512	2.442	1.152
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:07	29.970	474.300	0.000	105.700	117.000	103.900	89.439%	4.623
2	16:26:32	30.110	479.300	0.000	102.000	114.300	105.800	90.047%	5.268
3	16:26:57	30.320	468.400	0.000	106.600	104.200	117.300	90.303%	5.015
x		100.446%	94.795%	0.000	104.758%	111.835%	109.008%	89.930%	99.371%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.444%	n/a
%RSD		0.588	1.151	0.000	2.292	6.062	6.607	0.493	6.538
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:07	1.040	1.951	4.948	53.500	48.590	0.470	1.135	2.126
2	16:26:32	1.152	2.007	5.048	55.880	46.500	0.515	1.141	2.044
3	16:26:57	0.851	2.024	5.030	56.170	43.510	0.545	1.019	2.128
x		101.436%	99.701%	100.176%	110.364%	92.405%	101.970%	109.849%	104.990%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		15.000	1.914	1.070	2.657	5.526	7.422	6.248	2.282
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:07	2.004	5.195	5.426	1.025	4.302	5.403	0.000	4.737
2	16:26:32	2.117	5.421	5.255	1.298	5.559	7.372	0.000	4.690
3	16:26:57	2.167	5.367	5.328	1.240	6.632	7.469	0.000	4.793
x		104.796%	106.557%	106.728%	118.804%	109.952%	134.961%	0.000	94.800%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.963	2.212	1.615	12.100	21.220	17.280	0.000	1.084
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:07	92.787%	4.804	4.710	94.572%	0.889	0.943	0.966	0.393
2	16:26:32	95.273%	5.087	5.006	94.461%	0.898	0.888	0.908	0.564
3	16:26:57	95.639%	5.307	4.936	97.075%	0.991	0.919	1.100	0.067
x		94.566%	101.318%	97.679%	95.369%	92.579%	91.656%	99.146%	34.113%
σ		1.552%	n/a	n/a	1.478%	n/a	n/a	n/a	n/a
%RSD		1.641	4.974	3.169	1.550	6.098	3.021	9.966	74.050
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:07	92.796%	4.716	1.835	1.838	9.527	9.810	95.276%	96.087%
2	16:26:32	93.786%	5.167	1.891	1.879	9.717	9.754	98.774%	97.791%
3	16:26:57	94.372%	5.242	1.893	1.961	9.748	10.390	97.082%	99.415%
x		93.651%	100.831%	93.655%	94.632%	96.642%	99.855%	97.044%	97.764%
σ		0.797%	n/a	n/a	n/a	n/a	n/a	1.749%	1.664%
%RSD		0.851	5.644	1.780	3.304	1.240	3.546	1.803	1.703
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:26:07	0.981	0.921	1.043	0.995	0.968	105.758%		
2	16:26:32	1.018	0.979	1.118	0.987	1.012	103.899%		
3	16:26:57	1.022	0.959	1.133	1.024	1.032	104.442%		
x		100.705%	95.314%	109.816%	100.207%	100.378%	104.700%		
σ		n/a	n/a	n/a	n/a	n/a	0.956%		
%RSD		2.275	3.102	4.384	1.932	3.261	0.913		

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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	16:33:51	95.828%	0.031	0.071	0.144	0.000	-16.470	1.424	1.433
2	16:34:16	96.930%	-0.034	0.782	0.563	0.000	-16.910	1.058	0.522
3	16:34:42	98.388%	-0.059	0.365	0.101	0.000	-16.980	1.192	0.514
x		97.049%	-0.021	0.406	0.269	0.000	-16.790	1.225	0.823
σ		1.284%	0.047	0.357	0.255	0.000	0.279	0.185	0.529
%RSD		1.323	225.500	87.900	94.790	0.000	1.663	15.100	64.230

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:51	1.466	3.905	0.000	-5.103	16.170	12.640	89.910%	-0.011
2	16:34:16	0.878	1.685	0.000	-7.790	1.351	9.584	90.507%	-0.029
3	16:34:42	1.203	1.313	0.000	-6.037	21.050	12.470	89.838%	-0.028
x		1.182	2.301	0.000	-6.310	12.860	11.560	90.085%	-0.022
σ		0.295	1.402	0.000	1.364	10.260	1.718	0.367%	0.010
%RSD		24.910	60.920	0.000	21.620	79.800	14.850	0.408	45.430

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:51	-0.018	0.079	0.051	5.141	-0.830	0.006	0.175	0.067
2	16:34:16	-0.173	0.064	0.039	4.733	-3.252	0.001	0.158	0.062
3	16:34:42	-0.012	0.077	0.036	4.966	-3.217	-0.005	0.105	0.069
x		-0.068	0.073	0.042	4.947	-2.433	0.001	0.146	0.066
σ		0.092	0.008	0.008	0.205	1.388	0.005	0.036	0.004
%RSD		135.600	11.000	18.710	4.137	57.060	789.400	24.820	5.587

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:51	0.112	0.982	1.064	0.405	0.684	0.379	0.000	0.018
2	16:34:16	-0.001	0.983	0.872	0.542	-0.267	0.245	0.000	0.023
3	16:34:42	0.016	0.651	0.965	-0.103	-0.077	0.758	0.000	0.011
x		0.042	0.872	0.967	0.281	0.113	0.461	0.000	0.018
σ		0.061	0.192	0.096	0.340	0.503	0.266	0.000	0.006
%RSD		143.200	21.990	9.975	120.800	443.700	57.680	0.000	33.950

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:51	93.784%	0.133	0.107	96.595%	0.012	0.011	-0.008	0.283
2	16:34:16	93.612%	0.054	0.024	95.328%	-0.005	0.004	0.005	-0.577
3	16:34:42	95.618%	0.034	0.014	95.253%	0.005	-0.000	0.005	-0.620
x		94.338%	0.073	0.048	95.726%	0.004	0.005	0.000	-0.305
σ		1.112%	0.052	0.051	0.754%	0.008	0.005	0.007	0.509
%RSD		1.178	71.350	105.300	0.788	220.100	106.900	2222.000	167.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:51	95.711%	0.111	-0.022	-0.013	0.050	0.028	98.718%	100.421%
2	16:34:16	95.586%	0.089	-0.040	-0.018	0.010	0.022	99.494%	100.670%
3	16:34:42	96.513%	0.075	-0.034	-0.031	0.020	0.027	100.990%	100.429%
x		95.937%	0.092	-0.032	-0.021	0.027	0.025	99.734%	100.507%
σ		0.503%	0.018	0.009	0.009	0.021	0.003	1.155%	0.142%
%RSD		0.524	20.030	29.630	45.200	77.490	12.140	1.158	0.141

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:51	0.007	0.002	0.025	0.012	0.021	118.906%
2	16:34:16	0.002	0.002	0.018	0.017	0.016	115.500%
3	16:34:42	0.004	0.001	0.012	-0.001	0.005	112.977%
x		0.004	0.002	0.018	0.010	0.014	115.794%
σ		0.003	0.001	0.006	0.009	0.008	2.975%
%RSD		66.630	52.830	34.440	95.230	56.830	2.569

LCS 180-131314/2-A 1/22/2015 4:37:39 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	16:38:04	82.571%	45.140	889.300	864.100	0.000	43400.000	42040.000	42230.000
2	16:38:29	84.867%	44.680	896.900	883.800	0.000	43880.000	42750.000	43130.000
3	16:38:54	87.863%	44.800	885.700	879.500	0.000	43500.000	42540.000	42730.000
x		85.101%	44.870	890.600	875.800	0.000	43590.000	42440.000	42700.000
σ		2.654%	0.236	5.742	10.390	0.000	249.300	362.600	453.100
%RSD		3.118	0.526	0.645	1.186	0.000	0.572	0.854	1.061
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:04	1732.000	9016.000	0.000	47900.000	44750.000	44580.000	81.887%	866.600
2	16:38:29	1783.000	9147.000	0.000	48710.000	46240.000	46320.000	81.599%	892.900
3	16:38:54	1783.000	8960.000	0.000	48490.000	46660.000	47220.000	82.613%	900.000
x		1766.000	9041.000	0.000	48360.000	45880.000	46040.000	82.033%	886.500
σ		29.310	96.430	0.000	420.300	1004.000	1346.000	0.523%	17.600
%RSD		1.660	1.067	0.000	0.869	2.189	2.923	0.637	1.985
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:04	432.500	169.400	442.800	914.700	1009.000	443.100	437.000	221.500
2	16:38:29	444.200	175.100	460.300	954.000	1055.000	454.700	447.400	226.800
3	16:38:54	446.500	174.300	465.000	968.500	1061.000	456.400	448.800	226.500
x		441.100	172.900	456.100	945.700	1042.000	451.400	444.400	224.900
σ		7.486	3.058	11.700	27.810	28.340	7.208	6.449	3.005
%RSD		1.697	1.768	2.566	2.940	2.721	1.597	1.451	1.336
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:04	221.400	460.200	456.200	35.020	8.752	9.264	0.000	929.700
2	16:38:29	220.100	471.200	470.300	34.730	9.565	7.981	0.000	935.000
3	16:38:54	222.900	478.400	470.700	36.620	9.523	12.850	0.000	948.000
x		221.500	469.900	465.700	35.460	9.280	10.030	0.000	937.600
σ		1.385	9.190	8.261	1.017	0.458	2.523	0.000	9.425
%RSD		0.625	1.956	1.774	2.868	4.930	25.150	0.000	1.005
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:04	82.418%	851.200	843.900	84.800%	42.820	43.030	45.790	34.710
2	16:38:29	85.534%	897.800	890.800	86.521%	43.280	44.010	46.550	36.200
3	16:38:54	86.203%	928.100	934.900	86.426%	43.290	43.120	46.340	36.410
x		84.718%	892.300	889.900	85.916%	43.130	43.390	46.230	35.770
σ		2.020%	38.720	45.510	0.967%	0.272	0.540	0.388	0.925
%RSD		2.385	4.339	5.114	1.126	0.629	1.246	0.840	2.587
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:04	83.259%	1922.000	480.500	479.200	1816.000	1900.000	89.876%	87.529%
2	16:38:29	82.780%	2016.000	502.500	501.600	1886.000	1950.000	92.829%	89.122%
3	16:38:54	86.750%	1936.000	489.300	482.100	1856.000	1913.000	94.412%	90.760%
x		84.263%	1958.000	490.800	487.600	1853.000	1921.000	92.372%	89.137%
σ		2.167%	50.640	11.080	12.180	35.210	25.780	2.302%	1.615%
%RSD		2.571	2.587	2.259	2.497	1.900	1.342	2.492	1.812
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:38:04	44.980	42.630	18.160	18.110	17.760	95.380%		
2	16:38:29	47.300	45.400	19.160	19.180	18.950	93.217%		
3	16:38:54	46.800	45.120	19.000	19.020	18.720	95.942%		
x		46.360	44.380	18.770	18.770	18.480	94.846%		
σ		1.225	1.528	0.539	0.580	0.631	1.438%		
%RSD		2.642	3.443	2.869	3.092	3.416	1.516		

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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	16:42:19	81.262%	46.850	948.300	935.200	0.000	46330.000	44430.000	45150.000
2	16:42:44	81.752%	50.280	959.400	949.700	0.000	46570.000	45790.000	46220.000
3	16:43:09	85.567%	47.730	958.300	943.000	0.000	46320.000	45140.000	45070.000
x		82.860%	48.290	955.300	942.600	0.000	46410.000	45120.000	45480.000
σ		2.357%	1.782	6.087	7.243	0.000	143.700	677.200	642.800
%RSD		2.844	3.690	0.637	0.768	0.000	0.310	1.501	1.413
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:19	1854.000	9642.000	0.000	52380.000	48700.000	49100.000	79.342%	939.700
2	16:42:44	1898.000	9652.000	0.000	52910.000	49610.000	49570.000	80.114%	960.300
3	16:43:09	1872.000	9532.000	0.000	52190.000	50060.000	50830.000	80.910%	956.000
x		1875.000	9609.000	0.000	52490.000	49460.000	49830.000	80.122%	952.000
σ		22.140	66.700	0.000	372.800	693.900	894.900	0.784%	10.860
%RSD		1.181	0.694	0.000	0.710	1.403	1.796	0.979	1.141
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:19	459.400	180.900	477.900	988.300	1092.000	473.500	465.800	236.400
2	16:42:44	472.500	184.200	494.700	1027.000	1112.000	480.200	472.700	239.200
3	16:43:09	475.400	188.200	494.700	1027.000	1121.000	484.300	472.800	236.900
x		469.100	184.400	489.100	1014.000	1108.000	479.300	470.400	237.500
σ		8.560	3.683	9.713	22.360	14.630	5.473	4.051	1.500
%RSD		1.825	1.997	1.986	2.205	1.320	1.142	0.861	0.632
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:19	230.700	492.200	483.600	36.840	8.072	6.678	0.000	967.600
2	16:42:44	236.300	500.000	497.200	38.250	9.611	11.130	0.000	992.400
3	16:43:09	234.600	503.000	496.500	36.920	11.110	11.820	0.000	1002.000
x		233.900	498.400	492.400	37.340	9.599	9.877	0.000	987.300
σ		2.859	5.593	7.702	0.794	1.521	2.792	0.000	17.690
%RSD		1.222	1.122	1.564	2.126	15.850	28.270	0.000	1.791
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:19	83.512%	926.300	932.100	83.752%	45.850	46.360	47.870	39.070
2	16:42:44	84.772%	971.700	971.400	85.667%	46.840	46.550	50.810	39.450
3	16:43:09	85.993%	1000.000	1004.000	85.911%	46.480	46.750	50.300	41.230
x		84.759%	966.100	969.200	85.110%	46.390	46.550	49.660	39.920
σ		1.241%	37.410	35.980	1.183%	0.499	0.194	1.569	1.150
%RSD		1.464	3.872	3.713	1.389	1.075	0.416	3.160	2.882
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:19	81.548%	2083.000	522.300	512.400	1934.000	2042.000	92.050%	91.420%
2	16:42:44	81.728%	2148.000	529.300	524.300	1986.000	2098.000	93.402%	92.623%
3	16:43:09	83.863%	2114.000	531.000	520.500	1964.000	2065.000	94.442%	94.619%
x		82.380%	2115.000	527.500	519.100	1961.000	2068.000	93.298%	92.887%
σ		1.288%	32.560	4.570	6.109	25.890	28.110	1.200%	1.616%
%RSD		1.564	1.539	0.866	1.177	1.320	1.359	1.286	1.740
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:42:19	47.040	44.990	19.180	19.030	18.960	96.338%		
2	16:42:44	50.080	47.170	20.380	19.860	19.710	95.239%		
3	16:43:09	49.120	47.180	20.190	19.870	19.740	97.043%		
x		48.740	46.450	19.920	19.590	19.470	96.207%		
σ		1.555	1.258	0.647	0.478	0.443	0.909%		
%RSD		3.190	2.709	3.249	2.440	2.277	0.945		

180-40559-A-1-A 1/22/2015 4:46:06 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	16:46:31	82.883%	0.082	15.410	13.140	0.000	9812.000	11530.000	11770.000
2	16:46:56	85.703%	0.048	15.420	12.620	0.000	10000.000	11940.000	11980.000
3	16:47:21	88.053%	-0.012	13.410	12.380	0.000	9850.000	12000.000	12080.000
x		85.547%	0.039	14.750	12.710	0.000	9887.000	11820.000	11940.000
σ		2.588%	0.048	1.156	0.389	0.000	99.240	256.600	158.200
%RSD		3.026	121.100	7.835	3.060	0.000	1.004	2.170	1.325

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	1.634	6567.000	0.000	1556.000	27830.000	26050.000	77.078%	1.665
2	16:46:56	3.164	6547.000	0.000	1513.000	27410.000	26530.000	79.405%	1.070
3	16:47:21	1.718	6497.000	0.000	1519.000	27710.000	26700.000	80.764%	1.353
x		2.172	6537.000	0.000	1530.000	27650.000	26430.000	79.082%	1.363
σ		0.860	36.210	0.000	23.350	215.400	336.600	1.864%	0.297
%RSD		39.600	0.554	0.000	1.527	0.779	1.274	2.357	21.810

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	0.163	2.388	0.929	18.870	120.300	0.177	2.857	2.308
2	16:46:56	-0.167	2.508	0.912	14.570	108.300	0.209	2.759	2.160
3	16:47:21	-0.033	2.380	0.981	12.730	97.120	0.200	2.447	2.229
x		-0.012	2.425	0.941	15.390	108.600	0.195	2.688	2.232
σ		0.166	0.072	0.036	3.152	11.590	0.016	0.214	0.074
%RSD		1355.000	2.950	3.799	20.480	10.670	8.387	7.963	3.326

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	2.427	5.096	4.761	0.643	2.172	3.213	0.000	137.100
2	16:46:56	2.312	5.271	5.203	-0.058	0.269	0.791	0.000	141.100
3	16:47:21	2.126	5.556	5.331	0.388	1.245	1.727	0.000	141.800
x		2.288	5.308	5.098	0.324	1.229	1.910	0.000	140.000
σ		0.152	0.232	0.299	0.355	0.951	1.221	0.000	2.539
%RSD		6.634	4.374	5.869	109.300	77.430	63.930	0.000	1.814

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	83.099%	15.110	14.990	86.370%	0.018	0.036	0.045	-0.511
2	16:46:56	86.166%	13.210	12.810	88.037%	0.005	0.010	0.097	-0.473
3	16:47:21	87.737%	11.190	11.040	88.657%	0.003	0.009	0.060	-0.514
x		85.668%	13.170	12.950	87.688%	0.008	0.018	0.067	-0.500
σ		2.359%	1.960	1.979	1.183%	0.008	0.015	0.027	0.023
%RSD		2.753	14.890	15.280	1.349	94.520	82.680	40.250	4.548

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	84.080%	7.452	0.298	0.305	39.670	40.570	91.657%	92.631%
2	16:46:56	88.995%	6.706	0.257	0.269	39.870	40.040	93.957%	95.477%
3	16:47:21	89.670%	6.145	0.189	0.183	40.830	40.780	95.443%	97.305%
x		87.581%	6.768	0.248	0.252	40.120	40.460	93.686%	95.138%
σ		3.051%	0.656	0.056	0.063	0.621	0.381	1.907%	2.355%
%RSD		3.484	9.689	22.390	24.800	1.547	0.941	2.036	2.476

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	0.082	0.065	0.089	0.072	0.075	104.190%
2	16:46:56	0.048	0.047	0.066	0.075	0.074	107.762%
3	16:47:21	0.042	0.034	0.068	0.061	0.070	107.719%
x		0.057	0.049	0.074	0.069	0.073	106.557%
σ		0.022	0.016	0.013	0.007	0.003	2.050%
%RSD		38.490	31.730	17.120	10.640	4.056	1.924

CCV 1455996 1/22/2015 4:50:18 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	16:50:44	79.969%	98.410	101.400	100.400	0.000	48410.000	47270.000	47240.000
2	16:51:09	80.073%	103.200	108.300	105.300	0.000	49780.000	49210.000	49150.000
3	16:51:34	82.583%	100.100	107.300	101.500	0.000	47640.000	46780.000	46780.000
x		80.875%	100.587%	105.665%	102.385%	0.000	97.221%	95.511%	95.446%
σ		1.480%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.830	2.431	3.533	2.496	0.000	2.232	2.693	2.636

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:44	446.000	5033.000	0.000	52590.000	48940.000	50840.000	82.332%	97.810
2	16:51:09	463.500	5199.000	0.000	54030.000	51380.000	51870.000	82.901%	100.700
3	16:51:34	442.200	4901.000	0.000	49970.000	47180.000	47760.000	91.147%	91.240
x		90.114%	100.889%	0.000	104.395%	98.330%	100.317%	85.460%	96.575%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.934%	n/a
%RSD		2.523	2.955	0.000	3.935	4.289	4.261	5.773	5.014

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:44	91.950	91.930	493.800	24710.000	24810.000	93.890	94.460	94.060
2	16:51:09	95.150	95.220	504.600	25810.000	25630.000	95.470	96.620	97.050
3	16:51:34	87.400	89.830	480.400	24400.000	24480.000	90.720	91.470	93.240
x		91.498%	92.323%	98.581%	99.892%	99.881%	93.360%	94.183%	94.784%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.253	2.943	2.457	2.964	2.372	2.591	2.745	2.119

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:44	92.870	97.650	97.870	95.890	98.710	96.090	0.000	92.680
2	16:51:09	96.230	99.560	99.030	98.850	98.830	97.370	0.000	94.830
3	16:51:34	91.840	97.690	96.440	93.970	97.920	94.270	0.000	94.460
x		93.647%	98.298%	97.778%	96.238%	98.489%	95.909%	0.000	93.987%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.450	1.109	1.326	2.550	0.501	1.625	0.000	1.223

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:44	86.246%	93.110	92.120	85.478%	91.790	91.290	92.500	92.010
2	16:51:09	88.572%	98.390	97.240	87.463%	93.410	93.280	94.600	94.520
3	16:51:34	88.936%	100.800	100.400	87.937%	93.180	93.320	96.080	94.550
x		87.918%	97.438%	96.574%	86.959%	92.792%	92.630%	94.395%	93.695%
σ		1.459%	n/a	n/a	1.305%	n/a	n/a	n/a	n/a
%RSD		1.660	4.046	4.309	1.500	0.944	1.254	1.906	1.553

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:44	89.844%	94.910	92.510	93.240	90.840	92.510	95.562%	96.878%
2	16:51:09	90.916%	96.620	96.090	96.190	92.950	94.120	97.374%	98.082%
3	16:51:34	91.526%	96.080	95.790	95.820	91.870	93.240	98.912%	99.394%
x		90.762%	95.872%	94.799%	95.082%	91.887%	93.289%	97.283%	98.118%
σ		0.851%	n/a	n/a	n/a	n/a	n/a	1.677%	1.259%
%RSD		0.938	0.912	2.097	1.686	1.144	0.864	1.724	1.283

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:44	95.600	93.200	95.990	95.350	95.030	100.690%
2	16:51:09	98.730	95.390	100.200	99.120	98.960	99.400%
3	16:51:34	98.780	95.410	99.460	99.120	98.880	99.263%
x		97.705%	94.669%	98.557%	97.864%	97.624%	99.784%
σ		n/a	n/a	n/a	n/a	n/a	0.788%
%RSD		1.865	1.342	2.289	2.229	2.301	0.789

CCB7 1/22/2015 4:57:39 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	16:58:04	90.765%	0.051	1.393	1.543	0.000	5.980	6.265	5.741
2	16:58:29	92.867%	0.022	0.928	1.529	0.000	5.398	5.102	5.117
3	16:58:54	93.759%	-0.005	1.406	1.681	0.000	5.231	4.946	5.215
x		92.464%	0.023	1.242	1.584	0.000	5.536	5.437	5.358
σ		1.537%	0.028	0.272	0.084	0.000	0.393	0.721	0.336
%RSD		1.662	125.600	21.930	5.287	0.000	7.102	13.260	6.270
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:04	-0.298	3.954	0.000	2.473	4.622	8.500	90.695%	0.005
2	16:58:29	-0.371	0.461	0.000	1.752	9.194	9.140	91.883%	-0.014
3	16:58:54	-0.167	0.515	0.000	-5.652	20.340	6.790	92.085%	0.069
x		-0.279	1.643	0.000	-0.476	11.380	8.143	91.554%	0.020
σ		0.103	2.001	0.000	4.498	8.083	1.215	0.751%	0.043
%RSD		36.940	121.800	0.000	945.200	71.000	14.920	0.820	216.500
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:04	0.071	-0.001	0.017	2.400	4.697	0.019	-0.100	-0.040
2	16:58:29	0.095	-0.001	-0.013	1.998	3.664	0.013	-0.083	-0.060
3	16:58:54	0.006	-0.013	0.023	0.751	0.528	0.019	-0.024	-0.064
x		0.057	-0.005	0.009	1.716	2.963	0.017	-0.069	-0.055
σ		0.046	0.007	0.019	0.860	2.171	0.003	0.040	0.013
%RSD		79.540	150.400	209.300	50.080	73.270	20.700	57.360	22.980
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:04	-0.045	-0.050	-0.049	-0.018	0.384	0.544	0.000	0.017
2	16:58:29	-0.009	-0.101	-0.008	0.749	0.198	4.914	0.000	0.033
3	16:58:54	-0.037	-0.023	-0.145	-0.099	-0.300	0.260	0.000	0.018
x		-0.031	-0.058	-0.067	0.211	0.094	1.906	0.000	0.023
σ		0.019	0.040	0.070	0.468	0.354	2.609	0.000	0.009
%RSD		61.500	68.930	104.600	222.100	376.400	136.900	0.000	39.410
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:04	93.393%	0.571	0.629	97.064%	0.017	0.024	0.013	0.271
2	16:58:29	95.976%	0.732	0.684	98.196%	0.019	0.005	0.017	2.366
3	16:58:54	97.630%	0.616	0.585	98.806%	-0.009	-0.001	0.000	-0.560
x		95.666%	0.639	0.632	98.022%	0.009	0.009	0.010	0.692
σ		2.135%	0.083	0.049	0.884%	0.015	0.013	0.009	1.508
%RSD		2.232	13.010	7.786	0.902	174.900	142.300	87.740	217.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:04	95.811%	0.746	0.149	0.125	0.055	0.024	100.888%	100.719%
2	16:58:29	97.726%	0.710	0.134	0.145	0.019	0.029	101.367%	101.698%
3	16:58:54	98.112%	0.758	0.094	0.114	0.024	0.029	102.425%	103.701%
x		97.216%	0.738	0.126	0.128	0.033	0.027	101.560%	102.039%
σ		1.232%	0.025	0.028	0.016	0.019	0.003	0.787%	1.520%
%RSD		1.267	3.416	22.320	12.320	58.300	9.782	0.775	1.490
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:58:04	0.011	0.010	-0.007	0.002	-0.002	111.656%		
2	16:58:29	0.012	0.011	-0.009	-0.000	-0.004	111.771%		
3	16:58:54	0.013	0.014	-0.008	0.007	0.000	111.849%		
x		0.012	0.012	-0.008	0.003	-0.002	111.758%		
σ		0.001	0.002	0.001	0.004	0.002	0.097%		
%RSD		10.630	17.740	9.953	131.900	101.100	0.087		

180-40559-A-3-A 1/22/2015 5:01:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	88.336%	0.002	9.302	8.196	0.000	8475.000	9920.000	10040.000
2	17:02:43	90.791%	-0.001	6.715	7.949	0.000	8526.000	10050.000	10170.000
3	17:03:09	93.507%	0.035	8.337	8.117	0.000	8431.000	10120.000	10180.000
x		90.878%	0.012	8.118	8.087	0.000	8478.000	10030.000	10130.000
σ		2.586%	0.020	1.307	0.126	0.000	47.460	103.100	77.820
%RSD		2.846	173.500	16.100	1.560	0.000	0.560	1.027	0.768

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	69.450	5864.000	0.000	1331.000	24040.000	22440.000	82.131%	2.690
2	17:02:43	90.460	5811.000	0.000	1308.000	23170.000	22380.000	84.390%	2.233
3	17:03:09	69.210	5765.000	0.000	1276.000	23450.000	22600.000	85.635%	1.411
x		76.370	5813.000	0.000	1305.000	23550.000	22470.000	84.052%	2.111
σ		12.200	49.600	0.000	27.460	441.900	115.900	1.776%	0.648
%RSD		15.970	0.853	0.000	2.104	1.876	0.516	2.113	30.710

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	0.222	2.370	15.150	146.900	240.300	0.460	4.429	2.300
2	17:02:43	0.048	2.490	15.470	151.400	236.700	0.412	4.520	2.351
3	17:03:09	-0.124	2.448	15.510	154.200	237.700	0.460	4.650	2.463
x		0.048	2.436	15.380	150.800	238.300	0.444	4.533	2.371
σ		0.173	0.061	0.196	3.704	1.878	0.028	0.111	0.083
%RSD		357.400	2.485	1.274	2.456	0.788	6.233	2.451	3.512

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	2.349	5.592	5.304	0.232	1.700	4.180	0.000	116.200
2	17:02:43	2.668	5.501	5.393	0.638	0.568	2.333	0.000	119.300
3	17:03:09	2.502	5.389	5.362	-0.230	1.318	0.948	0.000	120.900
x		2.506	5.494	5.353	0.214	1.196	2.487	0.000	118.800
σ		0.159	0.102	0.045	0.434	0.576	1.622	0.000	2.353
%RSD		6.357	1.850	0.846	203.300	48.170	65.200	0.000	1.980

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	88.299%	0.447	0.459	90.189%	0.328	0.377	0.047	-0.519
2	17:02:43	90.611%	0.573	0.469	93.957%	0.288	0.300	0.036	-0.484
3	17:03:09	91.429%	0.540	0.592	93.709%	0.275	0.245	0.044	-0.516
x		90.113%	0.520	0.507	92.618%	0.297	0.307	0.042	-0.506
σ		1.623%	0.065	0.074	2.107%	0.027	0.066	0.005	0.020
%RSD		1.801	12.520	14.540	2.275	9.203	21.570	12.990	3.885

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	87.489%	0.569	0.120	0.112	37.310	37.280	96.318%	96.033%
2	17:02:43	90.292%	0.540	0.134	0.135	37.830	37.760	95.952%	98.565%
3	17:03:09	94.571%	0.691	0.130	0.146	35.760	36.740	99.461%	100.589%
x		90.784%	0.600	0.128	0.131	36.970	37.260	97.244%	98.396%
σ		3.566%	0.080	0.007	0.017	1.075	0.510	1.929%	2.283%
%RSD		3.928	13.320	5.475	13.150	2.908	1.370	1.984	2.320

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:19	0.009	0.008	0.316	0.335	0.319	114.740%
2	17:02:43	0.010	0.008	0.346	0.315	0.341	112.747%
3	17:03:09	0.008	0.005	0.376	0.312	0.335	113.855%
x		0.009	0.007	0.346	0.321	0.332	113.781%
σ		0.001	0.002	0.030	0.012	0.011	0.999%
%RSD		14.350	28.270	8.649	3.865	3.330	0.878

180-40559-A-3-A SD@5 1/22/2015 5:06:06 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	17:06:31	89.647%	-0.055	2.196	2.659	0.000	1653.000	1895.000	1881.000
2	17:06:57	93.825%	-0.005	1.911	2.351	0.000	1669.000	1917.000	1926.000
3	17:07:22	94.154%	-0.031	2.061	2.217	0.000	1666.000	1926.000	1926.000
x		92.542%	-0.030	2.056	2.409	0.000	1663.000	1913.000	1911.000
σ		2.512%	0.025	0.143	0.227	0.000	8.573	15.960	26.170
%RSD		2.715	81.830	6.937	9.415	0.000	0.516	0.834	1.370
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:31	21.190	1077.000	0.000	217.400	4327.000	4058.000	89.324%	0.352
2	17:06:57	13.280	1086.000	0.000	237.200	4707.000	4260.000	88.227%	0.496
3	17:07:22	14.140	1084.000	0.000	237.300	4609.000	4256.000	89.979%	0.415
x		16.200	1082.000	0.000	230.700	4548.000	4192.000	89.177%	0.421
σ		4.340	4.673	0.000	11.480	197.500	115.600	0.885%	0.072
%RSD		26.790	0.432	0.000	4.979	4.344	2.759	0.993	17.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:31	-0.022	0.455	2.899	29.520	45.870	0.069	0.669	0.436
2	17:06:57	0.178	0.515	3.008	30.270	39.730	0.093	0.894	0.365
3	17:07:22	0.005	0.488	3.037	28.930	40.620	0.086	0.652	0.436
x		0.054	0.486	2.981	29.570	42.070	0.083	0.738	0.412
σ		0.109	0.030	0.072	0.676	3.317	0.012	0.135	0.041
%RSD		202.000	6.151	2.431	2.286	7.884	15.020	18.310	9.965
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:31	0.384	1.169	1.004	0.328	-0.027	3.368	0.000	23.050
2	17:06:57	0.525	1.223	0.981	-0.594	-0.048	-3.702	0.000	23.160
3	17:07:22	0.397	1.121	1.201	0.305	-1.053	3.089	0.000	23.270
x		0.435	1.171	1.062	0.013	-0.376	0.919	0.000	23.160
σ		0.078	0.051	0.121	0.526	0.587	4.004	0.000	0.112
%RSD		17.980	4.343	11.350	4055.000	156.000	435.800	0.000	0.485
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:31	90.457%	0.222	0.178	92.381%	0.026	0.027	0.001	-0.517
2	17:06:57	93.112%	0.245	0.228	93.294%	0.027	0.032	0.009	-0.559
3	17:07:22	94.334%	0.274	0.208	94.442%	0.027	0.041	-0.008	-0.552
x		92.634%	0.247	0.205	93.373%	0.027	0.033	0.001	-0.543
σ		1.982%	0.026	0.025	1.033%	0.000	0.007	0.009	0.023
%RSD		2.140	10.500	12.270	1.106	1.374	21.240	1547.000	4.158
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:31	93.223%	0.261	0.026	0.011	7.122	7.685	96.838%	98.381%
2	17:06:57	93.455%	0.346	0.007	0.030	7.548	7.467	100.305%	99.843%
3	17:07:22	95.548%	0.424	0.016	0.034	7.170	7.516	101.006%	100.745%
x		94.075%	0.344	0.016	0.025	7.280	7.556	99.383%	99.656%
σ		1.280%	0.082	0.010	0.012	0.233	0.115	2.232%	1.193%
%RSD		1.361	23.800	59.590	48.760	3.204	1.517	2.246	1.197
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:06:31	0.005	0.001	0.100	0.076	0.085	106.219%		
2	17:06:57	0.001	0.001	0.077	0.089	0.083	103.764%		
3	17:07:22	0.005	0.003	0.080	0.070	0.086	105.118%		
x		0.004	0.002	0.086	0.078	0.085	105.034%		
σ		0.002	0.001	0.013	0.009	0.002	1.230%		
%RSD		57.060	55.980	14.730	12.100	1.812	1.171		

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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	17:13:52	89.917%	0.012	0.555	0.644	0.000	-7.992	0.804	1.575
2	17:14:17	92.715%	-0.070	0.765	0.484	0.000	-8.127	1.681	0.989
3	17:14:42	95.338%	0.031	1.126	0.333	0.000	-8.227	0.896	1.089
x		92.657%	-0.009	0.816	0.487	0.000	-8.115	1.127	1.218
σ		2.711%	0.054	0.289	0.156	0.000	0.118	0.482	0.313
%RSD		2.926	616.500	35.420	31.910	0.000	1.449	42.760	25.710
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:52	0.190	1.401	0.000	-14.210	6.234	2.669	90.809%	0.038
2	17:14:17	-0.081	-1.722	0.000	-5.585	-0.364	1.825	91.389%	-0.047
3	17:14:42	-0.026	-1.089	0.000	-10.190	7.353	2.923	92.864%	-0.082
x		0.028	-0.470	0.000	-9.997	4.408	2.473	91.687%	-0.030
σ		0.144	1.651	0.000	4.318	4.170	0.575	1.060%	0.062
%RSD		516.200	351.400	0.000	43.190	94.610	23.240	1.156	203.500
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:52	-0.056	0.061	-0.068	-0.505	-7.325	0.006	0.001	0.132
2	17:14:17	0.011	0.041	-0.066	-0.971	-9.929	0.007	0.001	0.148
3	17:14:42	-0.013	0.075	-0.042	-1.618	-7.401	-0.004	0.002	0.162
x		-0.019	0.059	-0.059	-1.031	-8.218	0.003	0.001	0.147
σ		0.034	0.017	0.015	0.559	1.482	0.006	0.001	0.015
%RSD		172.700	28.900	25.030	54.220	18.030	182.500	46.040	10.190
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:52	0.186	0.355	0.385	0.800	-0.801	3.117	0.000	0.003
2	17:14:17	0.072	0.486	0.322	0.299	-0.602	1.280	0.000	-0.001
3	17:14:42	0.122	0.458	0.471	0.785	-0.710	3.685	0.000	0.006
x		0.127	0.433	0.392	0.628	-0.704	2.694	0.000	0.003
σ		0.057	0.069	0.075	0.285	0.100	1.257	0.000	0.004
%RSD		44.730	15.880	19.080	45.360	14.180	46.660	0.000	132.800
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:52	100.980%	0.067	0.041	96.696%	-0.019	-0.017	-0.004	-0.567
2	17:14:17	104.348%	0.023	0.045	97.544%	-0.025	-0.020	-0.008	-3.028
3	17:14:42	105.775%	0.072	0.048	98.170%	-0.021	-0.025	-0.004	-0.556
x		103.701%	0.054	0.045	97.470%	-0.022	-0.021	-0.005	-1.384
σ		2.462%	0.027	0.003	0.740%	0.003	0.004	0.002	1.424
%RSD		2.374	50.520	7.754	0.759	14.710	19.000	44.880	102.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:52	96.397%	0.208	-0.010	-0.015	0.095	0.075	98.159%	100.251%
2	17:14:17	96.175%	0.185	-0.025	-0.015	0.084	0.093	101.186%	102.250%
3	17:14:42	98.230%	0.217	-0.011	-0.012	0.062	0.063	102.854%	102.893%
x		96.934%	0.203	-0.015	-0.014	0.080	0.077	100.733%	101.798%
σ		1.128%	0.017	0.008	0.001	0.017	0.015	2.380%	1.378%
%RSD		1.163	8.161	54.440	10.400	20.570	19.050	2.363	1.353
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:13:52	0.000	-0.000	0.019	0.003	0.017	116.456%		
2	17:14:17	-0.000	0.000	0.036	0.019	0.023	112.004%		
3	17:14:42	0.002	-0.000	0.003	0.006	0.011	113.481%		
x		0.001	-0.000	0.019	0.009	0.017	113.980%		
σ		0.001	0.000	0.017	0.009	0.006	2.268%		
%RSD		157.900	428.000	86.810	92.820	36.370	1.990		

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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	17:18:04	82.536%	46.550	884.700	899.100	0.000	44980.000	43330.000	43410.000
2	17:18:29	81.740%	48.660	918.300	940.200	0.000	46890.000	45570.000	45290.000
3	17:18:54	86.525%	46.540	904.500	910.200	0.000	45910.000	44620.000	45110.000
x		83.600%	47.250	902.500	916.500	0.000	45930.000	44510.000	44600.000
σ		2.564%	1.223	16.870	21.260	0.000	957.400	1125.000	1038.000
%RSD		3.067	2.588	1.870	2.320	0.000	2.085	2.529	2.328

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:04	1736.000	9153.000	0.000	50470.000	48110.000	47870.000	83.003%	889.600
2	17:18:29	1813.000	9352.000	0.000	50620.000	48020.000	47920.000	84.030%	904.900
3	17:18:54	1793.000	9235.000	0.000	50810.000	49480.000	49960.000	83.585%	923.100
x		1781.000	9247.000	0.000	50630.000	48540.000	48590.000	83.539%	905.900
σ		40.050	99.750	0.000	169.000	819.200	1194.000	0.515%	16.750
%RSD		2.249	1.079	0.000	0.334	1.688	2.458	0.616	1.849

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:04	438.200	171.700	446.500	918.500	1003.000	440.900	430.100	218.700
2	17:18:29	453.900	174.000	462.600	954.300	1059.000	451.500	452.400	224.300
3	17:18:54	451.400	179.000	467.800	969.500	1075.000	455.800	447.600	225.500
x		447.800	174.900	459.000	947.500	1046.000	449.400	443.400	222.800
σ		8.458	3.761	11.100	26.190	37.520	7.675	11.770	3.608
%RSD		1.889	2.150	2.418	2.764	3.588	1.708	2.654	1.619

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:04	216.600	453.700	452.400	35.450	7.772	10.350	0.000	902.600
2	17:18:29	224.700	475.500	470.300	36.050	10.290	9.624	0.000	942.500
3	17:18:54	222.500	479.400	469.300	35.570	8.797	10.060	0.000	935.100
x		221.200	469.500	464.000	35.690	8.953	10.010	0.000	926.700
σ		4.181	13.800	10.040	0.318	1.268	0.365	0.000	21.210
%RSD		1.890	2.939	2.163	0.891	14.160	3.645	0.000	2.289

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:04	87.053%	853.800	869.000	85.213%	43.780	43.130	45.390	35.890
2	17:18:29	87.301%	925.300	917.900	87.217%	43.180	43.460	45.530	35.090
3	17:18:54	90.188%	954.200	982.300	83.441%	44.220	44.380	48.300	37.250
x		88.181%	911.100	923.100	85.290%	43.730	43.650	46.400	36.070
σ		1.743%	51.700	56.830	1.889%	0.524	0.648	1.644	1.094
%RSD		1.976	5.675	6.157	2.215	1.198	1.485	3.543	3.032

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:04	84.985%	1942.000	500.600	474.400	1800.000	1873.000	97.123%	92.842%
2	17:18:29	87.582%	1966.000	485.800	490.100	1840.000	1933.000	97.761%	95.355%
3	17:18:54	88.746%	1950.000	488.000	475.500	1829.000	1900.000	101.363%	96.471%
x		87.104%	1953.000	491.400	480.000	1823.000	1902.000	98.749%	94.890%
σ		1.926%	12.020	8.003	8.781	20.880	30.250	2.287%	1.859%
%RSD		2.211	0.615	1.628	1.829	1.146	1.590	2.316	1.959

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:04	43.030	41.260	17.530	17.440	17.220	101.513%
2	17:18:29	45.080	42.770	18.060	18.110	17.670	101.655%
3	17:18:54	45.420	43.750	18.390	18.220	18.160	101.146%
x		44.510	42.590	17.990	17.920	17.680	101.438%
σ		1.293	1.254	0.437	0.422	0.468	0.263%
%RSD		2.905	2.945	2.428	2.352	2.647	0.259

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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	17:22:13	78.143%	44.990	883.400	872.200	0.000	44490.000	43050.000	42960.000
2	17:22:39	81.438%	44.210	857.700	881.600	0.000	44280.000	43050.000	43060.000
3	17:23:05	82.286%	45.190	871.900	903.800	0.000	44590.000	43430.000	43380.000
x		80.622%	44.800	871.000	885.800	0.000	44450.000	43180.000	43130.000
σ		2.189%	0.516	12.880	16.240	0.000	158.400	216.700	220.700
%RSD		2.715	1.152	1.479	1.833	0.000	0.356	0.502	0.512
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:13	1731.000	9164.000	0.000	48950.000	46180.000	45410.000	76.452%	891.100
2	17:22:39	1759.000	9080.000	0.000	49760.000	46600.000	47350.000	78.371%	905.400
3	17:23:05	1777.000	9175.000	0.000	49570.000	48090.000	47030.000	78.656%	916.500
x		1756.000	9140.000	0.000	49430.000	46960.000	46590.000	77.826%	904.400
σ		23.220	52.210	0.000	421.400	1006.000	1040.000	1.198%	12.740
%RSD		1.323	0.571	0.000	0.853	2.142	2.231	1.540	1.409
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:13	436.400	170.500	443.900	916.400	1027.000	441.400	439.300	218.500
2	17:22:39	445.800	173.900	458.200	946.900	1040.000	445.500	437.900	223.000
3	17:23:05	448.500	175.800	466.700	980.600	1073.000	453.200	447.200	224.300
x		443.600	173.400	456.300	948.000	1047.000	446.700	441.400	221.900
σ		6.346	2.698	11.500	32.120	23.640	5.958	4.981	3.048
%RSD		1.431	1.556	2.521	3.388	2.258	1.334	1.128	1.373
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:13	219.200	460.800	460.300	35.290	11.110	11.820	0.000	913.600
2	17:22:39	220.000	468.200	465.100	36.340	9.548	11.540	0.000	922.500
3	17:23:05	221.800	468.300	459.900	35.570	10.380	9.973	0.000	922.800
x		220.300	465.800	461.700	35.730	10.340	11.110	0.000	919.600
σ		1.356	4.329	2.876	0.544	0.780	0.995	0.000	5.231
%RSD		0.615	0.929	0.623	1.522	7.536	8.956	0.000	0.569
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:13	80.761%	862.500	858.100	81.811%	42.460	41.550	42.970	32.480
2	17:22:39	84.654%	913.900	912.400	82.798%	42.120	41.670	44.080	33.660
3	17:23:05	85.899%	958.100	964.600	81.824%	43.320	42.590	44.810	32.720
x		83.771%	911.500	911.700	82.144%	42.630	41.940	43.950	32.950
σ		2.680%	47.860	53.280	0.566%	0.616	0.569	0.925	0.626
%RSD		3.199	5.250	5.844	0.689	1.445	1.357	2.105	1.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:13	86.087%	1824.000	447.200	443.300	1694.000	1740.000	96.001%	93.707%
2	17:22:39	88.240%	1873.000	463.800	451.400	1707.000	1781.000	99.698%	96.213%
3	17:23:05	89.591%	1863.000	457.400	450.100	1703.000	1765.000	101.656%	98.106%
x		87.973%	1853.000	456.100	448.300	1701.000	1762.000	99.119%	96.009%
σ		1.768%	26.080	8.343	4.397	6.834	20.440	2.872%	2.207%
%RSD		2.009	1.407	1.829	0.981	0.402	1.160	2.897	2.298
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:22:13	43.410	41.030	16.950	17.300	16.890	96.747%		
2	17:22:39	44.620	42.680	18.100	18.230	17.980	96.683%		
3	17:23:05	44.540	42.740	17.910	18.270	17.820	99.059%		
x		44.190	42.150	17.650	17.930	17.560	97.497%		
σ		0.676	0.973	0.612	0.546	0.585	1.354%		
%RSD		1.530	2.308	3.465	3.044	3.332	1.388		

180-40608-A-1-A 1/22/2015 5:26:01 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	17:26:26	90.312%	-0.029	47.750	50.870	0.000	32130.000	7591.000	7746.000
2	17:26:51	91.831%	-0.056	50.990	50.570	0.000	32160.000	7710.000	7910.000
3	17:27:16	95.035%	0.019	46.720	50.160	0.000	33310.000	8077.000	8146.000
x		92.393%	-0.022	48.490	50.540	0.000	32530.000	7793.000	7934.000
σ		2.411%	0.038	2.230	0.357	0.000	670.900	253.200	201.300
%RSD		2.610	175.900	4.600	0.707	0.000	2.062	3.249	2.538

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:26	1.172	3110.000	0.000	4130.000	52020.000	52650.000	92.026%	0.989
2	17:26:51	1.139	3123.000	0.000	4066.000	52570.000	54360.000	93.227%	0.941
3	17:27:16	1.231	3223.000	0.000	4287.000	55550.000	57880.000	87.819%	0.988
x		1.181	3152.000	0.000	4161.000	53380.000	54960.000	91.024%	0.973
σ		0.046	61.850	0.000	113.600	1902.000	2664.000	2.840%	0.028
%RSD		3.926	1.963	0.000	2.731	3.563	4.847	3.120	2.852

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:26	0.100	0.898	282.600	102.500	279.400	0.128	0.350	0.153
2	17:26:51	-0.435	0.851	288.900	102.200	292.900	0.118	0.570	0.246
3	17:27:16	0.492	1.014	308.800	111.100	310.400	0.152	0.572	0.199
x		0.052	0.921	293.400	105.300	294.200	0.133	0.497	0.200
σ		0.465	0.084	13.670	5.057	15.520	0.018	0.128	0.047
%RSD		889.200	9.083	4.659	4.803	5.275	13.220	25.640	23.300

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:26	0.257	2.946	2.969	-0.403	-0.513	-0.833	0.000	391.900
2	17:26:51	0.198	2.903	2.789	-0.235	0.006	-0.683	0.000	396.400
3	17:27:16	0.257	3.300	2.920	0.025	0.267	1.539	0.000	407.200
x		0.237	3.050	2.893	-0.204	-0.080	0.008	0.000	398.500
σ		0.034	0.218	0.093	0.215	0.397	1.329	0.000	7.858
%RSD		14.270	7.149	3.226	105.500	495.700	17260.000	0.000	1.972

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:26	90.503%	13.750	13.710	91.019%	0.001	0.029	0.036	-0.550
2	17:26:51	93.342%	11.710	11.270	94.125%	-0.010	-0.004	0.018	-0.514
3	17:27:16	93.749%	10.260	10.390	92.680%	-0.001	-0.009	0.017	-0.515
x		92.531%	11.910	11.790	92.608%	-0.003	0.005	0.024	-0.526
σ		1.768%	1.752	1.720	1.554%	0.006	0.020	0.011	0.021
%RSD		1.911	14.710	14.590	1.678	174.100	391.400	44.390	3.968

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:26	91.951%	6.870	0.246	0.235	299.800	306.100	99.014%	100.055%
2	17:26:51	92.264%	6.395	0.212	0.191	308.400	311.200	100.687%	100.005%
3	17:27:16	96.270%	5.640	0.182	0.179	305.600	307.000	99.642%	102.128%
x		93.495%	6.301	0.213	0.202	304.600	308.100	99.781%	100.729%
σ		2.408%	0.620	0.032	0.030	4.380	2.689	0.845%	1.211%
%RSD		2.576	9.844	14.960	14.610	1.438	0.873	0.847	1.203

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:26	0.049	0.049	0.021	0.041	0.031	113.722%
2	17:26:51	0.037	0.023	0.020	0.012	0.019	111.613%
3	17:27:16	0.025	0.024	0.021	0.027	0.024	114.042%
x		0.037	0.032	0.020	0.027	0.024	113.125%
σ		0.012	0.015	0.001	0.015	0.006	1.320%
%RSD		32.750	45.870	2.707	55.340	25.600	1.167

180-40608-A-3-A 1/22/2015 5:30:13 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	17:30:38	92.280%	0.036	48.320	50.160	0.000	33780.000	8126.000	8144.000
2	17:31:03	93.318%	0.022	51.350	50.090	0.000	34520.000	8393.000	8362.000
3	17:31:28	92.565%	0.036	46.870	51.970	0.000	35040.000	8429.000	8548.000
x		92.721%	0.031	48.850	50.740	0.000	34450.000	8316.000	8352.000
σ		0.536%	0.008	2.284	1.064	0.000	632.600	165.400	202.300
%RSD		0.578	26.630	4.676	2.096	0.000	1.836	1.989	2.422
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:38	45.450	3446.000	0.000	4318.000	54990.000	57670.000	86.314%	1.649
2	17:31:03	43.500	3454.000	0.000	4371.000	56580.000	59180.000	87.375%	1.135
3	17:31:28	46.040	3475.000	0.000	4573.000	58880.000	59600.000	87.283%	1.503
x		45.000	3458.000	0.000	4421.000	56820.000	58810.000	86.990%	1.429
σ		1.326	14.810	0.000	134.600	1958.000	1016.000	0.588%	0.265
%RSD		2.948	0.428	0.000	3.044	3.446	1.727	0.676	18.560
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:38	-0.001	1.414	311.100	86.010	285.900	0.147	1.040	0.456
2	17:31:03	0.010	1.242	319.700	87.810	291.900	0.194	0.915	0.480
3	17:31:28	0.069	1.328	323.500	89.170	286.800	0.159	1.088	0.495
x		0.026	1.328	318.100	87.660	288.200	0.167	1.014	0.477
σ		0.038	0.086	6.349	1.582	3.260	0.024	0.089	0.020
%RSD		146.300	6.468	1.996	1.805	1.131	14.490	8.804	4.140
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:38	0.541	3.585	2.878	-0.351	-0.549	2.617	0.000	405.600
2	17:31:03	0.592	3.577	3.263	0.810	-0.114	3.144	0.000	412.000
3	17:31:28	0.524	3.677	3.575	-0.487	0.229	-2.367	0.000	405.800
x		0.552	3.613	3.239	-0.009	-0.145	1.131	0.000	407.800
σ		0.035	0.055	0.349	0.713	0.390	3.041	0.000	3.654
%RSD		6.368	1.529	10.770	7766.000	270.000	268.800	0.000	0.896
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:38	89.904%	1.958	1.838	91.692%	-0.006	0.005	0.009	-0.573
2	17:31:03	92.248%	1.912	1.900	93.383%	-0.004	-0.004	0.013	-0.551
3	17:31:28	94.696%	1.757	1.911	92.048%	-0.009	-0.004	0.005	-0.546
x		92.282%	1.876	1.883	92.375%	-0.006	-0.001	0.009	-0.557
σ		2.396%	0.105	0.040	0.892%	0.002	0.005	0.004	0.014
%RSD		2.596	5.595	2.105	0.965	38.770	421.500	45.030	2.516
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:38	92.518%	2.135	0.046	0.052	304.300	309.100	97.832%	98.876%
2	17:31:03	94.946%	2.081	0.043	0.058	306.600	307.100	99.951%	100.241%
3	17:31:28	92.865%	2.195	0.062	0.046	310.700	315.600	101.517%	100.740%
x		93.443%	2.137	0.050	0.052	307.200	310.600	99.767%	99.952%
σ		1.313%	0.057	0.010	0.006	3.251	4.405	1.849%	0.965%
%RSD		1.405	2.654	20.380	12.160	1.058	1.418	1.853	0.965
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:30:38	0.014	0.013	0.131	0.126	0.130	110.563%		
2	17:31:03	0.007	0.011	0.156	0.165	0.152	110.551%		
3	17:31:28	0.014	0.012	0.187	0.181	0.168	106.516%		
x		0.012	0.012	0.158	0.157	0.150	109.210%		
σ		0.004	0.001	0.028	0.028	0.019	2.333%		
%RSD		32.240	9.084	17.860	17.750	12.980	2.136		

180-40608-A-3-A SD@5 1/22/2015 5:34:23 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	17:34:48	91.487%	-0.003	10.480	11.930	0.000	6840.000	1553.000	1555.000
2	17:35:13	90.636%	-0.029	9.800	10.570	0.000	7015.000	1613.000	1625.000
3	17:35:38	92.024%	-0.017	10.570	11.310	0.000	6996.000	1615.000	1605.000
x		91.383%	-0.016	10.280	11.270	0.000	6950.000	1594.000	1595.000
σ		0.700%	0.013	0.420	0.681	0.000	96.020	35.030	36.090
%RSD		0.766	80.300	4.088	6.040	0.000	1.381	2.198	2.263
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:48	7.633	624.900	0.000	881.100	10390.000	9978.000	90.984%	0.072
2	17:35:13	11.610	642.800	0.000	864.500	11130.000	10290.000	92.063%	0.102
3	17:35:38	9.563	631.800	0.000	862.700	11220.000	10280.000	92.828%	0.447
x		9.601	633.200	0.000	869.500	10910.000	10180.000	91.958%	0.207
σ		1.986	9.035	0.000	10.170	454.700	176.300	0.926%	0.208
%RSD		20.690	1.427	0.000	1.170	4.166	1.732	1.007	100.500
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:48	-0.133	0.312	59.150	22.110	50.490	0.050	0.004	-0.001
2	17:35:13	-0.018	0.270	60.830	23.090	51.710	0.035	0.150	0.011
3	17:35:38	0.184	0.298	60.930	21.620	49.870	0.036	-0.022	0.057
x		0.011	0.293	60.300	22.270	50.690	0.040	0.044	0.022
σ		0.161	0.022	1.003	0.749	0.935	0.008	0.092	0.031
%RSD		1470.000	7.391	1.663	3.361	1.845	21.010	209.000	138.500
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:48	0.043	0.768	0.845	-0.017	0.279	-0.881	0.000	75.390
2	17:35:13	-0.001	0.743	0.839	-0.113	-0.690	-3.105	0.000	77.820
3	17:35:38	-0.029	0.694	0.706	0.256	0.697	3.348	0.000	77.130
x		0.004	0.735	0.796	0.042	0.095	-0.213	0.000	76.780
σ		0.037	0.038	0.079	0.192	0.712	3.278	0.000	1.253
%RSD		871.000	5.139	9.859	454.200	746.800	1542.000	0.000	1.632
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:48	93.549%	0.621	0.693	94.886%	-0.023	-0.022	-0.004	-0.559
2	17:35:13	96.394%	0.828	0.676	96.938%	-0.017	-0.019	-0.008	-1.468
3	17:35:38	97.468%	0.690	0.701	99.067%	-0.019	-0.015	-0.004	-2.217
x		95.803%	0.713	0.690	96.963%	-0.020	-0.018	-0.005	-1.414
σ		2.025%	0.105	0.013	2.090%	0.003	0.004	0.002	0.830
%RSD		2.114	14.790	1.847	2.156	15.170	19.370	45.140	58.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:48	96.246%	0.908	-0.014	-0.016	60.350	60.170	100.535%	100.151%
2	17:35:13	98.060%	0.948	-0.011	-0.000	61.280	61.800	102.485%	104.243%
3	17:35:38	97.803%	1.046	-0.008	0.008	61.190	62.750	102.476%	104.312%
x		97.370%	0.967	-0.011	-0.003	60.940	61.570	101.832%	102.902%
σ		0.981%	0.071	0.003	0.012	0.513	1.309	1.123%	2.383%
%RSD		1.008	7.310	25.510	417.600	0.842	2.126	1.103	2.315
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:34:48	0.005	0.004	0.024	0.038	0.033	112.964%		
2	17:35:13	0.004	0.004	0.034	0.050	0.043	111.578%		
3	17:35:38	0.004	0.004	0.048	0.059	0.043	110.403%		
x		0.004	0.004	0.035	0.049	0.040	111.648%		
σ		0.001	0.000	0.012	0.011	0.006	1.282%		
%RSD		20.750	10.940	32.860	21.480	15.460	1.148		

CCV 1455996 1/22/2015 5:38:35 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:00	76.755%	102.600	112.200	105.200	0.000	50730.000	49420.000	49620.000
2	17:39:25	79.131%	104.100	109.200	104.600	0.000	49480.000	48300.000	48220.000
3	17:39:50	79.599%	107.100	111.900	106.400	0.000	49980.000	48730.000	48520.000
x		78.495%	104.628%	111.088%	105.394%	0.000	100.128%	97.631%	97.570%
σ		1.525%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.942	2.187	1.509	0.880	0.000	1.260	1.151	1.506
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:00	466.200	5298.000	0.000	53200.000	49450.000	50150.000	84.103%	96.330
2	17:39:25	454.400	5079.000	0.000	51550.000	47520.000	48320.000	92.110%	94.960
3	17:39:50	458.400	5113.000	0.000	51080.000	47430.000	49280.000	93.097%	92.730
x		91.931%	103.271%	0.000	103.888%	96.266%	98.506%	89.770%	94.671%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.933%	n/a
%RSD		1.302	2.284	0.000	2.135	2.371	1.859	5.495	1.916
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:00	93.530	94.090	496.800	24870.000	24930.000	94.030	94.940	95.850
2	17:39:25	89.410	89.420	479.400	24100.000	24330.000	91.730	93.000	92.460
3	17:39:50	89.740	89.830	482.400	24450.000	24520.000	90.990	91.330	93.060
x		90.895%	91.115%	97.234%	97.900%	98.389%	92.254%	93.092%	93.792%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.522	2.839	1.912	1.585	1.244	1.718	1.941	1.929
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:00	93.790	98.840	97.630	96.300	98.110	99.330	0.000	93.820
2	17:39:25	92.030	95.690	96.920	95.320	99.280	97.840	0.000	95.620
3	17:39:50	93.030	96.370	93.850	96.620	95.860	100.100	0.000	95.790
x		92.950%	96.965%	96.132%	96.077%	97.750%	99.106%	0.000	95.077%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.951	1.713	2.089	0.707	1.775	1.179	0.000	1.147
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:00	87.759%	89.800	88.440	90.502%	90.810	90.430	91.580	92.840
2	17:39:25	90.168%	98.110	96.060	88.733%	94.010	93.700	95.630	93.950
3	17:39:50	91.280%	100.000	99.350	89.108%	93.820	92.350	95.290	92.730
x		89.736%	95.973%	94.615%	89.448%	92.880%	92.157%	94.166%	93.171%
σ		1.800%	n/a	n/a	0.932%	n/a	n/a	n/a	n/a
%RSD		2.006	5.653	5.917	1.042	1.931	1.782	2.388	0.726
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:00	92.269%	92.940	92.620	93.330	91.910	92.130	97.915%	98.944%
2	17:39:25	92.366%	96.320	96.630	96.020	93.790	94.180	100.287%	100.287%
3	17:39:50	94.684%	94.300	95.000	95.220	92.490	93.050	102.339%	101.437%
x		93.106%	94.522%	94.750%	94.854%	92.729%	93.121%	100.180%	100.223%
σ		1.367%	n/a	n/a	n/a	n/a	n/a	2.214%	1.248%
%RSD		1.468	1.799	2.131	1.457	1.039	1.103	2.210	1.245
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:39:00	92.750	90.050	91.560	91.660	90.510	106.183%		
2	17:39:25	93.610	90.760	94.500	94.450	93.560	106.432%		
3	17:39:50	95.430	91.900	95.540	95.250	94.590	105.424%		
x		93.932%	90.905%	93.866%	93.787%	92.888%	106.013%		
σ		n/a	n/a	n/a	n/a	n/a	0.525%		
%RSD		1.454	1.026	2.203	2.010	2.287	0.495		

CCB8 1/22/2015 5:45:58 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

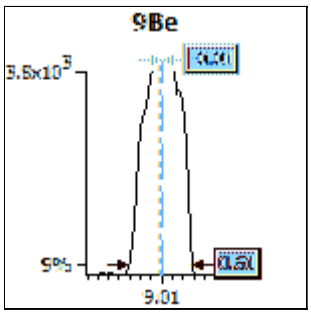
Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:23	94.376%	0.007	0.898	0.745	0.000	14.370	6.228	6.088
2	17:46:48	96.653%	0.054	1.810	1.167	0.000	11.920	6.538	5.641
3	17:47:13	96.886%	0.004	1.249	1.053	0.000	12.940	6.526	6.023
x		95.972%	0.022	1.319	0.988	0.000	13.080	6.431	5.918
σ		1.387%	0.028	0.460	0.218	0.000	1.234	0.176	0.242
%RSD		1.445	131.100	34.860	22.100	0.000	9.434	2.730	4.080
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:23	-0.255	3.276	0.000	1.792	8.821	7.844	93.437%	-0.033
2	17:46:48	-0.331	0.371	0.000	1.433	12.580	8.200	97.032%	0.057
3	17:47:13	-0.227	1.620	0.000	5.542	15.840	6.710	96.248%	0.011
x		-0.271	1.756	0.000	2.922	12.410	7.585	95.572%	0.012
σ		0.054	1.457	0.000	2.276	3.511	0.778	1.890%	0.045
%RSD		19.840	83.000	0.000	77.890	28.290	10.260	1.978	376.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:23	0.058	0.022	-0.008	1.790	7.980	0.016	0.005	-0.051
2	17:46:48	0.097	0.027	0.005	1.153	0.417	0.013	-0.039	-0.079
3	17:47:13	-0.104	-0.019	0.015	1.720	0.525	0.027	-0.141	-0.054
x		0.017	0.010	0.004	1.554	2.974	0.018	-0.058	-0.062
σ		0.107	0.025	0.012	0.350	4.336	0.007	0.075	0.015
%RSD		629.400	256.000	274.100	22.490	145.800	40.540	128.600	24.550
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:23	-0.081	-0.065	-0.031	0.056	-0.318	0.751	0.000	0.038
2	17:46:48	-0.052	-0.041	-0.024	0.274	0.078	1.571	0.000	0.028
3	17:47:13	-0.053	-0.113	-0.086	0.113	0.228	0.779	0.000	0.032
x		-0.062	-0.073	-0.047	0.148	-0.004	1.034	0.000	0.033
σ		0.016	0.037	0.034	0.113	0.282	0.466	0.000	0.005
%RSD		26.260	50.540	71.890	76.640	6796.000	45.030	0.000	14.270
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:23	95.580%	0.355	0.374	98.076%	0.018	0.005	0.013	-0.546
2	17:46:48	98.397%	0.450	0.371	102.194%	0.006	0.013	-0.008	-0.610
3	17:47:13	100.933%	0.380	0.465	102.666%	0.019	0.013	-0.000	-0.532
x		98.304%	0.395	0.404	100.979%	0.014	0.010	0.001	-0.563
σ		2.678%	0.050	0.054	2.525%	0.007	0.005	0.010	0.042
%RSD		2.724	12.540	13.270	2.500	51.290	48.300	719.700	7.374
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:23	97.553%	0.511	0.129	0.110	0.034	0.018	101.168%	99.963%
2	17:46:48	102.090%	0.543	0.120	0.115	0.051	0.033	102.952%	105.210%
3	17:47:13	100.324%	0.562	0.129	0.124	0.028	0.035	105.294%	105.622%
x		99.989%	0.538	0.126	0.116	0.038	0.029	103.138%	103.598%
σ		2.287%	0.026	0.005	0.007	0.012	0.009	2.069%	3.155%
%RSD		2.287	4.798	4.331	6.208	32.310	31.780	2.006	3.045
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:46:23	0.008	0.010	-0.013	-0.006	-0.002	115.209%		
2	17:46:48	0.009	0.011	0.001	-0.000	0.000	116.435%		
3	17:47:13	0.011	0.010	-0.003	-0.011	-0.004	115.868%		
x		0.009	0.010	-0.005	-0.006	-0.002	115.837%		
σ		0.002	0.001	0.007	0.005	0.002	0.614%		
%RSD		19.420	8.476	137.100	89.030	102.000	0.530		

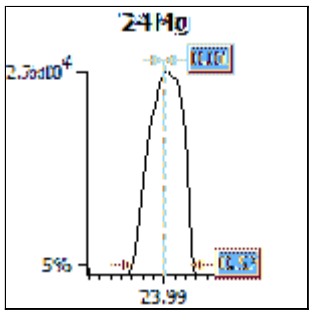
Performance Report

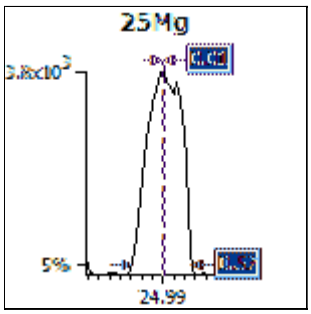
Sample details
Sample name : ITUNE
Acquired at : 1/22/2015 7:48:13 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

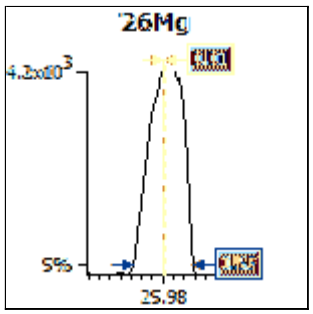
Mass Calibration verification

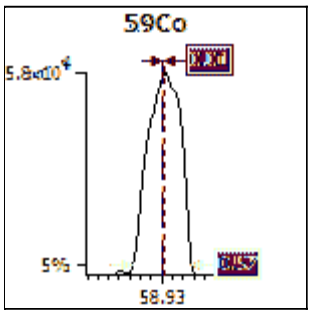
Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

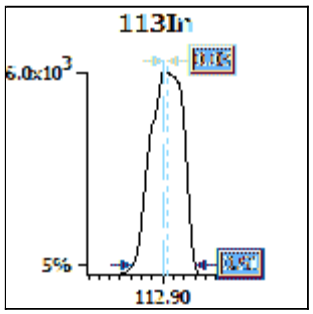


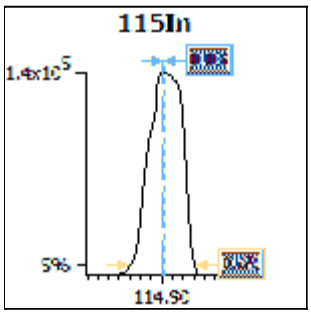


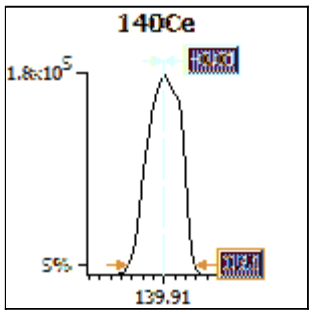


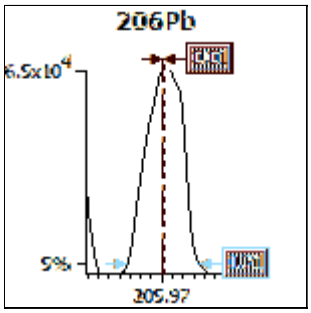


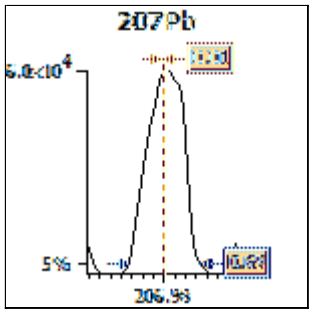


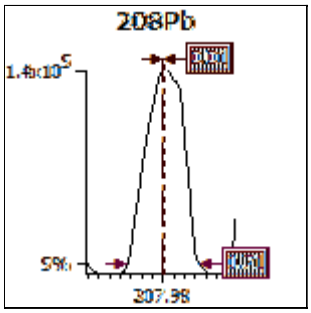












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.61	-0.01
24Mg	0.90	0.40	0.10	0.57	0.01
25Mg	0.90	0.40	0.10	0.57	0.01
26Mg	0.90	0.40	0.10	0.57	0.01
59Co	0.90	0.40	0.10	0.57	0.01
113In	0.90	0.40	0.10	0.61	0.03
115In	0.90	0.40	0.10	0.65	0.03
140Ce	0.90	0.40	0.10	0.65	-0.01
206Pb	0.90	0.40	0.10	0.71	0.01
207Pb	0.90	0.40	0.10	0.69	0.01
208Pb	0.90	0.40	0.10	0.71	0.01

Sample details
Sample name : ITUNE
Acquired at : 1/22/2015 7:48:13 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-200
Lens 1	4.7
Focus	20.8
D1	-29.0
Pole Bias	-0.0
Hexapole Bias	-3.4
Nebuliser	0.84
Sampling Depth	200

Minor	
Lens 2	-47.8
Lens 3	-170.2
Forward power	1404
Horizontal	31
Vertical	435
D2	-121
DA	-80.0
Cool	14.0
Auxiliary	0.80

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT1	0.00
CCT2	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	-	>100	>500	>150	>150	>500	>500	>10000
1	7:49:00 AM	0	4168	27044	3655	4421	59739	5955	141378
2	7:50:11 AM	0	4161	27255	3707	4420	59096	5954	140458
3	7:51:23 AM	0	4263	27515	3664	4467	59745	5951	141055
4	7:52:35 AM	1	4151	27434	3783	4454	59672	5949	140356
5	7:53:47 AM	0	4221	28025	3869	4436	60070	6112	141123
x		0	4193	27455	3735	4439	59664	5984	140874
σ		0.18	47.85	366.76	90.35	20.54	353.36	71.29	444.22
%RSD		56.398	1.141	1.336	2.419	0.463	0.592	1.191	0.315

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	5.0%	-	5.0%	5.0%	5.0%	-
	Countrate	>10000	-	>1000	>1000	>5000	-
1	7:49:00 AM	177928	3077	65951	60645	143396	0
2	7:50:11 AM	178342	3086	65993	59889	143167	0
3	7:51:23 AM	178593	3080	66291	60830	143337	0
4	7:52:35 AM	178458	3072	66133	60576	143455	0
5	7:53:47 AM	178633	3063	66078	60207	143612	0
x		178391	3075	66089	60430	143393	0
σ		283.15	8.46	133.24	377.32	162.96	0.06
%RSD		0.159	0.275	0.202	0.624	0.114	33.333

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	7:49:00 AM	0
2	7:50:11 AM	0
3	7:51:23 AM	0
4	7:52:35 AM	0
5	7:53:47 AM	0
x		0.0172
σ		0.00
%RSD		0.3662

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Batch Number: 130798 Batch Start Date: 01/15/15 10:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 01/15/15 14:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00018	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-130798/1		3005A, 6020A		50 mL	50 mL				
LCS 180-130798/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-40434-B-1	HD-COD-SW-6-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-2	HD-COD-SW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-A-3	HD-COD-SW-8-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-4	HD-COD-SW-9-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-5	HD-COD-SW-10-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-6	HD-COD-SW-11-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-7	HD-COD-SW-12-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-8	HD-COD-SW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-9	HD-COD-SW-15-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-10	HD-COD-SW-16-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-11	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-12	HD-COD-SW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-13	HD-COD-SW-26-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-14	HD-COD-SW-27-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-15	HD-COD-SW-28-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-16	HD-COD-SW-29-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-18	HD-QC1-0/1-1	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-22	HD-MW-107-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-22 MS	HD-MW-107-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-40434-B-22 MSD	HD-MW-107-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 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.: 180-40434-1

SDG No.:

Batch Number: 130798 Batch Start Date: 01/15/15 10:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 01/15/15 14:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00018	MTAPITTMSA 00023	MTAPITTMSC 00029	
180-40434-B-23	HD-MW-93S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-24	HD-MW-93D-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals B5
First End time	14:15
Lot # of hydrochloric acid	2.5 ml 1452455
Lot # of Nitric Acid	1.0 ml 1459659
Hot Block ID number	#3
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	10:15
ID number of the thermometer	IP2-14 CF=0.0 D5
Digestion Tube/Cup Lot #	1406020
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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Batch Number: 130801 Batch Start Date: 01/15/15 10:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 01/15/15 14:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00018	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-130801/1		3005A, 6020A		50 mL	50 mL				
LCS 180-130801/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-40434-B-25	HD-MW-37S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-40434-B-25 MS	HD-MW-37S-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-40434-B-25 MSD	HD-MW-37S-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	

Batch Notes	
Batch Comment	Metals B5
First End time	14:15
Lot # of hydrochloric acid	2.5 ml 1452455
Lot # of Nitric Acid	1.0 ml 1459659
Hot Block ID number	#3
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	10:15
ID number of the thermometer	IP2-14 CF=0.0 D5
Digestion Tube/Cup Lot #	1406020
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: 180-40434-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-40434-1
HD-COD-SW-7-0/1-0	180-40434-2
HD-COD-SW-8-0/1-0	180-40434-3
HD-COD-SW-9-0/1-0	180-40434-4
HD-COD-SW-10-0/1-0	180-40434-5
HD-COD-SW-11-0/1-0	180-40434-6
HD-COD-SW-12-0/1-0	180-40434-7
HD-COD-SW-13-0/1-0	180-40434-8
HD-COD-SW-15-0/1-0	180-40434-9
HD-COD-SW-16-0/1-0	180-40434-10
HD-COD-SW-17-0/1-0	180-40434-11
HD-COD-SW-20-0/1-0	180-40434-12
HD-COD-SW-26-0/1-0	180-40434-13
HD-COD-SW-27-0/1-0	180-40434-14
HD-COD-SW-28-0/1-0	180-40434-15
HD-COD-SW-29-0/1-0	180-40434-16
HD-QC1-0/1-1	180-40434-18
HD-MW-107-0/1-0	180-40434-22
HD-MW-93S-0/1-0	180-40434-23
HD-MW-93D-0/1-0	180-40434-24
HD-MW-37S-0/1-0	180-40434-25

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-40434-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:40

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	91	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	91	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-COD-SW-7-0/1-0 Lab Sample ID: 180-40434-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 11:50

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	95	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	95	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-COD-SW-8-0/1-0 Lab Sample ID: 180-40434-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:20

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	95	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	95	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-COD-SW-9-0/1-0 Lab Sample ID: 180-40434-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:10

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	130	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	130	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-COD-SW-10-0/1-0 Lab Sample ID: 180-40434-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:55

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	99	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	99	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-COD-SW-11-0/1-0 Lab Sample ID: 180-40434-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:40

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	180	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	170	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	7.9	5.0	0.41	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-40434-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:55

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	160	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	160	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-COD-SW-13-0/1-0 Lab Sample ID: 180-40434-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:45

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	97	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	97	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-COD-SW-15-0/1-0 Lab Sample ID: 180-40434-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:15

Reporting Basis: WET Date Received: 01/13/2015 18:25

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-COD-SW-16-0/1-0 Lab Sample ID: 180-40434-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:15

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	99	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	99	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-COD-SW-17-0/1-0 Lab Sample ID: 180-40434-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:33

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-40434-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:55

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	93	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	93	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-COD-SW-26-0/1-0 Lab Sample ID: 180-40434-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 11:35

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	120	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	120	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-COD-SW-27-0/1-0 Lab Sample ID: 180-40434-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:25

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	170	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	170	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-COD-SW-28-0/1-0 Lab Sample ID: 180-40434-15

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 12:30

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	130	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	130	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-COD-SW-29-0/1-0 Lab Sample ID: 180-40434-16

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 09:02

Reporting Basis: WET Date Received: 01/13/2015 18:25

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-QC1-0/1-1 Lab Sample ID: 180-40434-18

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 08:00

Reporting Basis: WET Date Received: 01/13/2015 18:25

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-107-0/1-0 Lab Sample ID: 180-40434-22

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 10:10

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	280	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	280	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-40434-23

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 11:50

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	200	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	200	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-93D-0/1-0 Lab Sample ID: 180-40434-24

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 13:00

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	190	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	190	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-40434-25

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG ID.:

Matrix: Water Date Sampled: 01/13/2015 14:15

Reporting Basis: WET Date Received: 01/13/2015 18:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Analyst: CLL Batch Start Date: 01/21/2015

Reporting Units: mg/L Analytical Batch No.: 131272

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:29	Total Alkalinity as CaCO3 to pH 4.5	135	125	108	80-120		WALK125PPMCCV_00079
14	CCB	05:29	Total Alkalinity as CaCO3 to pH 4.5	3.96				J	
			Bicarbonate Alkalinity as CaCO3	3.96				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

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Analyst: CLL Batch Start Date: 01/22/2015

Reporting Units: mg/L Analytical Batch No.: 131390

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	CCV	05:25	Total Alkalinity as CaCO3 to pH 4.5	135	125	108	80-120		WALK125PPMCCV_00079
13	CCB	05:25	Total Alkalinity as CaCO3 to pH 4.5	3.96				J	
			Bicarbonate Alkalinity as CaCO3	3.96				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
20	CCV	05:25	Total Alkalinity as CaCO3 to pH 4.5	135	125	108	80-120		WALK125PPMCCV_00079
21	CCB	05:25	Total Alkalinity as CaCO3 to pH 4.5	3.96				J	
			Bicarbonate Alkalinity as CaCO3	3.96				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.: 180-40434-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 131272	Date: 01/21/2015 05:29						
SM 2320B	MB 180-131272/2	Total Alkalinity as CaCO3 to pH 4.5	3.96	J	mg/L	5.0	1
SM 2320B	MB 180-131272/2	Bicarbonate Alkalinity as CaCO3	3.96	J	mg/L	5.0	1
SM 2320B	MB 180-131272/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
Batch ID: 131390	Date: 01/22/2015 05:25						
SM 2320B	MB 180-131390/2	Total Alkalinity as CaCO3 to pH 4.5	3.96	J	mg/L	5.0	1
SM 2320B	MB 180-131390/2	Bicarbonate Alkalinity as CaCO3	3.96	J	mg/L	5.0	1
SM 2320B	MB 180-131390/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 131272 Date: 01/21/2015 05:29								
SM 2320B	HD-COD-SW-7-0/1-0	180-40434-2	Total Alkalinity as CaCO3 to pH 4.5	95	mg/L			
SM 2320B	HD-COD-SW-7-0/1-0	180-40434-2 DU	Total Alkalinity as CaCO3 to pH 4.5	97.0	mg/L	2	20	
SM 2320B	HD-COD-SW-7-0/1-0	180-40434-2	Bicarbonate Alkalinity as CaCO3	95	mg/L			
SM 2320B	HD-COD-SW-7-0/1-0	180-40434-2 DU	Bicarbonate Alkalinity as CaCO3	97.0	mg/L	2	20	
SM 2320B	HD-COD-SW-7-0/1-0	180-40434-2	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-COD-SW-7-0/1-0	180-40434-2 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 131390 Date: 01/22/2015 05:25								
SM 2320B	HD-COD-SW-15-0/1-0	180-40434-9	Total Alkalinity as CaCO3 to pH 4.5	230	mg/L			
SM 2320B	HD-COD-SW-15-0/1-0	180-40434-9 DU	Total Alkalinity as CaCO3 to pH 4.5	230	mg/L	2	20	
SM 2320B	HD-COD-SW-15-0/1-0	180-40434-9	Bicarbonate Alkalinity as CaCO3	230	mg/L			
SM 2320B	HD-COD-SW-15-0/1-0	180-40434-9 DU	Bicarbonate Alkalinity as CaCO3	230	mg/L	2	20	
SM 2320B	HD-COD-SW-15-0/1-0	180-40434-9	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-COD-SW-15-0/1-0	180-40434-9 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 131390 Date: 01/22/2015 05:25								
SM 2320B	HD-MW-107-0/1-0	180-40434-22	Total Alkalinity as CaCO3 to pH 4.5	280	mg/L			
SM 2320B	HD-MW-107-0/1-0	180-40434-22 DU	Total Alkalinity as CaCO3 to pH 4.5	277	mg/L	1	20	
SM 2320B	HD-MW-107-0/1-0	180-40434-22	Bicarbonate Alkalinity as CaCO3	280	mg/L			
SM 2320B	HD-MW-107-0/1-0	180-40434-22 DU	Bicarbonate Alkalinity as CaCO3	277	mg/L	1	20	
SM 2320B	HD-MW-107-0/1-0	180-40434-22	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-107-0/1-0	180-40434-22 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.: 180-40434-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 131272	Date: 01/21/2015 05:29										
						LCS Source:	WALK250PPMPi_00089				
SM 2320B	LCS 180-131272/1	Total Alkalinity as CaCO3 to pH 4.5	269		mg/L	250	108	80-120			
Batch ID: 131390	Date: 01/22/2015 05:25										
						LCS Source:	WALK250PPMPi_00089				
SM 2320B	LCS 180-131390/1	Total Alkalinity as CaCO3 to pH 4.5	269		mg/L	250	108	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: 180-40434-1

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: 180-40434-1

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.: 180-40434-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2320B

Start Date: 01/21/2015 05:29 End Date: 01/21/2015 05:29

Lab Sample ID	D / F	Type	Time	Analytes																				
				Alk	BALKCC	CarAlk																		
LCS 180-131272/1	1	T	05:29	X																				
MB 180-131272/2	1	T	05:29	X	X	X																		
180-40434-1	1	T	05:29	X	X	X																		
180-40434-2	1	T	05:29	X	X	X																		
180-40434-2 DU	1	T	05:29	X	X	X																		
180-40434-3	1	T	05:29	X	X	X																		
180-40434-4	1	T	05:29	X	X	X																		
180-40434-5	1	T	05:29	X	X	X																		
180-40434-6	1	T	05:29	X	X	X																		
180-40434-7	1	T	05:29	X	X	X																		
180-40434-8	1	T	05:29	X	X	X																		
ZZZZZZ			05:29																					
CCV 180-131272/13	1		05:29	X																				
CCB 180-131272/14	1		05:29	X	X	X																		

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2320B

Start Date: 01/22/2015 05:25 End Date: 01/22/2015 05:25

Lab Sample ID	D / F	Type	Time	Analytes																				
				Alk	BALKCC	CarAlk																		
LCS 180-131390/1	1	T	05:25	X																				
MB 180-131390/2	1	T	05:25	X	X	X																		
180-40434-9	1	T	05:25	X	X	X																		
180-40434-9 DU	1	T	05:25	X	X	X																		
180-40434-10	1	T	05:25	X	X	X																		
180-40434-11	1	T	05:25	X	X	X																		
180-40434-12	1	T	05:25	X	X	X																		
180-40434-13	1	T	05:25	X	X	X																		
180-40434-14	1	T	05:25	X	X	X																		
180-40434-15	1	T	05:25	X	X	X																		
180-40434-16	1	T	05:25	X	X	X																		
CCV 180-131390/12	1		05:25	X																				
CCB 180-131390/13	1		05:25	X	X	X																		
180-40434-18	1	T	05:25	X	X	X																		
180-40434-22	1	T	05:25	X	X	X																		
180-40434-22 DU	1	T	05:25	X	X	X																		
180-40434-23	1	T	05:25	X	X	X																		
180-40434-24	1	T	05:25	X	X	X																		
180-40434-25	1	T	05:25	X	X	X																		
CCV 180-131390/20	1		05:25	X																				
CCB 180-131390/21	1		05:25	X	X	X																		

Prep Types

T = Total/NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B

LI6#012115AK

Analyst: CLohrey **Date:** 1-21-15
Reviewed By: See DRC **Date:** 01-21-15
pH Meter ID: Accumet XL S/N#94102132 **AD Batch:** 131272
pH 4 Start: 4.00 **pH 4 End:** 4.03

Job Number(s): 40434 – 40500

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{\text{(mL of } H_2SO_4\text{) (N)(50,000)}}{\text{mL of Sample}}$$

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-2014-051

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	11.05	50	6.8	13.6	.0198	269.28				
MB	5.44		0	0.2		3.96				
180-40434-1	7.84		0	4.6		91.08				
2	7.51		0	4.8		95.04				
2X	7.51		0	4.9		97.02				
3	7.66		0	4.8		95.04				
4	7.63		0	6.7		132.66				
5	7.67		0	5.0		99				
6	8.66		0.2	9.1		180.18				
7	7.61		0	7.9		156.42				
8	7.55		0	4.9		97.02				
180-40500-1	6.33		0	9.6		190.08				
CCV	10.53		3.4	6.8		134.64				
CCB	5.56	↓	0	0.2	↓	3.96				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B

Analyst: CLVanheyde **Date:** 1-22-15
Reviewed By: See DRC **Date:** ~~Oct 22 15~~
pH Meter ID: Accumet XL Sn#94102132 **AD Batch:** 131390
pH 4 Start: 4.01 **pH 4 End:** 4.04

Job Number(s): 40434

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{\text{(mL of } H_2SO_4\text{) (N)(50,000)}}{\text{mL of Sample}}$$

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-2014-051

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	11.00	50	6.8	13.6	.0198	269.28				
MB	5.61		0	0.2		3.96				
180-40434-9	7.29		0	11.4		225.72				
-9X	7.26		0	11.6		229.68				
10	7.53		0	5.0		99				
11	7.33		0	11.9		235.62				
12	7.93		0	4.7		93.06				
13	7.63		0	6.1		120.78				
14	7.73		0	8.7		172.26				
15	8.03		0	~~6.4~~ 6.4		126.72				
16	7.59		0	11.5		227.7				
CCV	10.61		3.3	6.8		134.64				
CCB	5.64		0	0.2		3.96				
180-40434-18	7.41		0	13.6		269.28				
22	7.33		0	14.2		281.16				
22X	7.30		0	14.0		277.2				
23	8.09		0	9.9		~~798.0~~	196.02			
24	7.78		0	9.4		186.12				
25	7.51		0	12.3		243.54				
CCV	10.72		3.4	6.8		134.64				
CCB	5.57	4	0	0.2	1	3.96				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Batch Number: 131272 Batch Start Date: 01/21/15 05:29 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-131272/1		SM 2320B		50 mL	11.05 SU	0 mL	6.8 mL	6.8 mL	0 mL
MB 180-131272/2		SM 2320B		50 mL	5.44 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	7.84 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	50 mL	7.51 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-2 DU	HD-COD-SW-7-0/1-0	SM 2320B	T	50 mL	7.51 SU	0 mL	0 mL	0 mL	0 mL
180-40434-B-3	HD-COD-SW-8-0/1-0	SM 2320B	T	50 mL	7.66 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	50 mL	7.63 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	50 mL	7.67 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	50 mL	8.66 SU	0 mL	0.2 mL	0.2 mL	0 mL
180-40434-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	50 mL	7.61 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	50 mL	7.55 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-131272/13		SM 2320B		50 mL	10.53 SU	0 mL	3.4 mL	3.4 mL	0 mL
CCB 180-131272/14		SM 2320B		50 mL	5.56 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 180-131272/1		SM 2320B		6.8 mL	6.8 mL	Case 3	269.28 mg/L	0 mg/L	0 mg/L
MB 180-131272/2		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	3.96 mg/L
180-40434-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	4.6 mL	4.6 mL	Case 1	0 mg/L	0 mg/L	91.08 mg/L
180-40434-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	4.8 mL	4.8 mL	Case 1	0 mg/L	0 mg/L	95.04 mg/L
180-40434-A-2 DU	HD-COD-SW-7-0/1-0	SM 2320B	T	4.9 mL	4.9 mL	Case 1	0 mg/L	0 mg/L	97.02 mg/L
180-40434-B-3	HD-COD-SW-8-0/1-0	SM 2320B	T	4.8 mL	4.8 mL	Case 1	0 mg/L	0 mg/L	95.04 mg/L
180-40434-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	6.7 mL	6.7 mL	Case 1	0 mg/L	0 mg/L	132.66 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.: 180-40434-1

SDG No.:

Batch Number: 131272 Batch Start Date: 01/21/15 05:29 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-40434-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	5.0 mL	5 mL	Case 1	0 mg/L	0 mg/L	99 mg/L
180-40434-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	8.9 mL	8.9 mL	Case 2	7.92 mg/L	0 mg/L	172.26 mg/L
180-40434-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	7.9 mL	7.9 mL	Case 1	0 mg/L	0 mg/L	156.42 mg/L
180-40434-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	4.9 mL	4.9 mL	Case 1	0 mg/L	0 mg/L	97.02 mg/L
CCV 180-131272/13		SM 2320B		3.4 mL	3.4 mL	Case 3	134.64 mg/L	0 mg/L	0 mg/L
CCB 180-131272/14		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	3.96 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00079	WALK250PPMPi 00089	
LCS 180-131272/1		SM 2320B		134.64 mg/L	269.28 mg/L	50 mL		50 mL	
MB 180-131272/2		SM 2320B		0 mg/L	3.96 mg/L	50 mL			
180-40434-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	0 mg/L	91.08 mg/L	50 mL			
180-40434-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	0 mg/L	95.04 mg/L	50 mL			
180-40434-A-2 DU	HD-COD-SW-7-0/1-0	SM 2320B	T	0 mg/L	97.02 mg/L	50 mL			
180-40434-B-3	HD-COD-SW-8-0/1-0	SM 2320B	T	0 mg/L	95.04 mg/L	50 mL			
180-40434-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	0 mg/L	132.66 mg/L	50 mL			
180-40434-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	0 mg/L	99 mg/L	50 mL			
180-40434-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	3.96 mg/L	180.18 mg/L	50 mL			
180-40434-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	0 mg/L	156.42 mg/L	50 mL			
180-40434-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	0 mg/L	97.02 mg/L	50 mL			
CCV 180-131272/13		SM 2320B		67.32 mg/L	134.64 mg/L	50 mL	50 mL		
CCB 180-131272/14		SM 2320B		0 mg/L	3.96 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.: 180-40434-1

SDG No.:

Batch Number: 131272 Batch Start Date: 01/21/15 05:29 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.00 PH 4 END: 4.03
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1393069
pH Buffer 4 ID	1233635
pH Buffer 5 ID	1179928
Sulfuric Acid Lot Number	1443293
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0198 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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-40434-1

SDG No.:

Batch Number: 131390 Batch Start Date: 01/22/15 05:25 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 180-131390/1		SM 2320B		50 mL	11.00 SU	0 mL	6.8 mL	6.8 mL	0 mL
MB 180-131390/2		SM 2320B		50 mL	5.61 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	50 mL	7.29 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-9 DU	HD-COD-SW-15-0/1-0	SM 2320B	T	50 mL	7.26 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	50 mL	7.53 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	50 mL	7.33 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	50 mL	7.93 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	50 mL	7.63 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	50 mL	7.73 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	50 mL	8.03 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	50 mL	7.59 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-131390/12		SM 2320B		50 mL	10.61 SU	0 mL	3.3 mL	3.3 mL	0 mL
CCB 180-131390/13		SM 2320B		50 mL	5.64 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-18	HD-QC1-0/1-1	SM 2320B	T	50 mL	7.41 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-22	HD-MW-107-0/1-0	SM 2320B	T	50 mL	7.33 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-22 DU	HD-MW-107-0/1-0	SM 2320B	T	50 mL	7.30 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-23	HD-MW-93S-0/1-0	SM 2320B	T	50 mL	8.09 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-24	HD-MW-93D-0/1-0	SM 2320B	T	50 mL	7.78 SU	0 mL	0 mL	0 mL	0 mL
180-40434-A-25	HD-MW-37S-0/1-0	SM 2320B	T	50 mL	7.51 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-131390/20		SM 2320B		50 mL	10.72 SU	0 mL	3.4 mL	3.4 mL	0 mL
CCB 180-131390/21		SM 2320B		50 mL	5.57 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb

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.: 180-40434-1

SDG No.:

Batch Number: 131390 Batch Start Date: 01/22/15 05:25 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
LCS 180-131390/1		SM 2320B		6.8 mL	6.8 mL	Case 3	269.28 mg/L	0 mg/L	0 mg/L
MB 180-131390/2		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	3.96 mg/L
180-40434-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	11.4 mL	11.4 mL	Case 1	0 mg/L	0 mg/L	225.72 mg/L
180-40434-A-9 DU	HD-COD-SW-15-0/1-0	SM 2320B	T	11.6 mL	11.6 mL	Case 1	0 mg/L	0 mg/L	229.68 mg/L
180-40434-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	5.0 mL	5 mL	Case 1	0 mg/L	0 mg/L	99 mg/L
180-40434-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	11.9 mL	11.9 mL	Case 1	0 mg/L	0 mg/L	235.62 mg/L
180-40434-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	4.7 mL	4.7 mL	Case 1	0 mg/L	0 mg/L	93.06 mg/L
180-40434-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	6.1 mL	6.1 mL	Case 1	0 mg/L	0 mg/L	120.78 mg/L
180-40434-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	8.7 mL	8.7 mL	Case 1	0 mg/L	0 mg/L	172.26 mg/L
180-40434-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	6.4 mL	6.4 mL	Case 1	0 mg/L	0 mg/L	126.72 mg/L
180-40434-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	11.5 mL	11.5 mL	Case 1	0 mg/L	0 mg/L	227.7 mg/L
CCV 180-131390/12		SM 2320B		3.5 mL	3.5 mL	Case 2	130.68 mg/L	0 mg/L	3.9599999999998 mg/L
CCB 180-131390/13		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	3.96 mg/L
180-40434-A-18	HD-QC1-0/1-1	SM 2320B	T	13.6 mL	13.6 mL	Case 1	0 mg/L	0 mg/L	269.28 mg/L
180-40434-A-22	HD-MW-107-0/1-0	SM 2320B	T	14.2 mL	14.2 mL	Case 1	0 mg/L	0 mg/L	281.16 mg/L
180-40434-A-22 DU	HD-MW-107-0/1-0	SM 2320B	T	14.0 mL	14 mL	Case 1	0 mg/L	0 mg/L	277.2 mg/L
180-40434-A-23	HD-MW-93S-0/1-0	SM 2320B	T	9.9 mL	9.9 mL	Case 1	0 mg/L	0 mg/L	196.02 mg/L
180-40434-A-24	HD-MW-93D-0/1-0	SM 2320B	T	9.4 mL	9.4 mL	Case 1	0 mg/L	0 mg/L	186.12 mg/L
180-40434-A-25	HD-MW-37S-0/1-0	SM 2320B	T	12.3 mL	12.3 mL	Case 1	0 mg/L	0 mg/L	243.54 mg/L
CCV 180-131390/20		SM 2320B		3.4 mL	3.4 mL	Case 3	134.64 mg/L	0 mg/L	0 mg/L
CCB 180-131390/21		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	3.96 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00079	WALK250PPMPi 00089	

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.: 180-40434-1

SDG No.:

Batch Number: 131390 Batch Start Date: 01/22/15 05:25 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00079	WALK250PPMPi 00089	
LCS 180-131390/1		SM 2320B		134.64 mg/L	269.28 mg/L	50 mL		50 mL	
MB 180-131390/2		SM 2320B		0 mg/L	3.96 mg/L	50 mL			
180-40434-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	0 mg/L	225.72 mg/L	50 mL			
180-40434-A-9 DU	HD-COD-SW-15-0/1-0	SM 2320B	T	0 mg/L	229.68 mg/L	50 mL			
180-40434-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	0 mg/L	99 mg/L	50 mL			
180-40434-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	0 mg/L	235.62 mg/L	50 mL			
180-40434-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	0 mg/L	93.06 mg/L	50 mL			
180-40434-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	0 mg/L	120.78 mg/L	50 mL			
180-40434-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	0 mg/L	172.26 mg/L	50 mL			
180-40434-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	0 mg/L	126.72 mg/L	50 mL			
180-40434-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	0 mg/L	227.7 mg/L	50 mL			
CCV 180-131390/12		SM 2320B		65.34 mg/L	134.64 mg/L	50 mL	50 mL		
CCB 180-131390/13		SM 2320B		0 mg/L	3.96 mg/L	50 mL			
180-40434-A-18	HD-QC1-0/1-1	SM 2320B	T	0 mg/L	269.28 mg/L	50 mL			
180-40434-A-22	HD-MW-107-0/1-0	SM 2320B	T	0 mg/L	281.16 mg/L	50 mL			
180-40434-A-22 DU	HD-MW-107-0/1-0	SM 2320B	T	0 mg/L	277.2 mg/L	50 mL			
180-40434-A-23	HD-MW-93S-0/1-0	SM 2320B	T	0 mg/L	196.02 mg/L	50 mL			
180-40434-A-24	HD-MW-93D-0/1-0	SM 2320B	T	0 mg/L	186.12 mg/L	50 mL			
180-40434-A-25	HD-MW-37S-0/1-0	SM 2320B	T	0 mg/L	243.54 mg/L	50 mL			
CCV 180-131390/20		SM 2320B		67.32 mg/L	134.64 mg/L	50 mL	50 mL		
CCB 180-131390/21		SM 2320B		0 mg/L	3.96 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.: 180-40434-1

SDG No.:

Batch Number: 131390 Batch Start Date: 01/22/15 05:25 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.01 PH 4 END: 4.04
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1393069
pH Buffer 4 ID	1233635
pH Buffer 5 ID	1179928
Sulfuric Acid Lot Number	1443293
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0198 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

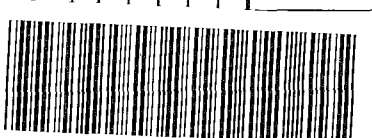
Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 1/13/2015	COC No: TAP2015011301
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. 10012.16.004
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			Container No. 1
(717) 657-1611 FAX	■ 2 weeks			SDG No.
Project Name: Dry Season Shutdown	☐ 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-COD-SW-6-0/1-0	1/13/15	13:40	Surface Water	Water	5	X	X	X	
HD-COD-SW-7-0/1-0	1/13/15	11:50	Surface Water	Water	5	X	X	X	
HD-COD-SW-8-0/1-0	1/13/15	9:20	Surface Water	Water	5	X	X	X	
HD-COD-SW-9-0/1-0	1/13/15	12:10	Surface Water	Water	5	X	X	X	
HD-COD-SW-10-0/1-0	1/13/15	9:55	Surface Water	Water	5	X	X	X	
HD-COD-SW-11-0/1-0	1/13/15	12:40	Surface Water	Water	5	X	X	X	
HD-COD-SW-12-0/1-0	1/13/15	12:55	Surface Water	Water	5	X	X	X	
HD-COD-SW-13-0/1-0	1/13/15	9:45	Surface Water	Water	5	X	X	X	
HD-COD-SW-15-0/1-0	1/13/15	13:15	Surface Water	Water	5	X	X	X	
HD-COD-SW-16-0/1-0	1/13/15	10:15	Surface Water	Water	5	X	X	X	
HD-COD-SW-17-0/1-0	1/13/15	10:33	Surface Water	Water	5	X	X	X	
HD-COD-SW-20-0/1-0	1/13/15	10:55	Surface Water	Water	5	X	X	X	
HD-COD-SW-26-0/1-0	1/13/15	11:35	Surface Water	Water	5	X	X	X	
HD-COD-SW-27-0/1-0	1/13/15	13:25	Surface Water	Water	5	X	X	X	
HD-COD-SW-28-0/1-0	1/13/15	12:30	Surface Water	Water	5	X	X	X	
HD-COD-SW-29-0/1-0	1/13/15	9:02	Surface Water	Water	5	X	X	X	
HD-QC1-0/1-2	1/13/15	12:00	Trip Blank	Water	2	X			
					Number of Containers	3	1	1	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved 7=Na2S2O3						2	1	4	
					Field Filter	N	N	N	



Possible Hazard Identification
■ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 1/13/15 1500	Received by:	Company: TAKOP	Date/Time: 01/13/15 1505	
Relinquished by:	Company: TA	Date/Time: 1/13/15 1717	Received by:	Company: TAKOP	Date/Time: 1/14/15 0415	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 1/13/2015	COC No: TAP2015011302
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. 1001216.004
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			Container No. 2
(717) 657-1611 FAX	■ 2 weeks			SDG No.
Project Name: Dry Season Shutdown Event 9	☐ 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-QC1-0/1-1	1/13/15	8:00	Groundwater	Water	5	X	X	X	
HD-QC2-0/1-2	1/13/15	12:01	Trip Blank	Water	2	X			
HD-QC1-0/1-3	1/13/15	14:27	Rinse Blank	Water	3	X			
HD-QC1-0/1-4	1/13/15	14:30	Field Blank	Water	3	X			
HD-MW-107-0/1-0	1/13/15	10:10	Groundwater	Water	5	X	X	X	
HD-MW-107-0/1-0 MS	1/13/15	10:10	Groundwater	Water	5	X	X	X	
HD-MW-107-0/1-0 MSD	1/13/15	10:10	Groundwater	Water	5	X	X	X	
HD-MW-93S-0/1-0	1/13/15	11:50	Groundwater	Water	5	X	X	X	
HD-MW-93D-0/1-0	1/13/15	13:00	Groundwater	Water	5	X	X	X	
HD-MW-37S-0/1-0	1/13/14	14:15	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- Na2S2O3						2	1	4	
Field Filter						N	N	N	

Possible Hazard Identification
■ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables**

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 1/13/15 1500	Received by:	Company: TAKOP	Date/Time: 01/13/15 1505
Relinquished by:	Company: TA	Date/Time: 1/13/15 1710	Received by:	Company: TA PGH	Date/Time: 1/14/15 915
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

180-40434 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: 13JAN15
ACTWGT: 50.0 LB
CAD: 8490299/INET3550

BILL RECIPIENT

TO SAMPLE RECEIPT
TEST AMERICA - PITT
301 ALPHA DR

PITTSBURGH PA 1523(

(412) [illegible] REF:
INV:
PO:

King of Prussia

450

FedE
Expre

1 of 2

TRK# 0201 7725 6850 7886

WED - 14 JAN A
STANDARD OVERNIGH

MASTER

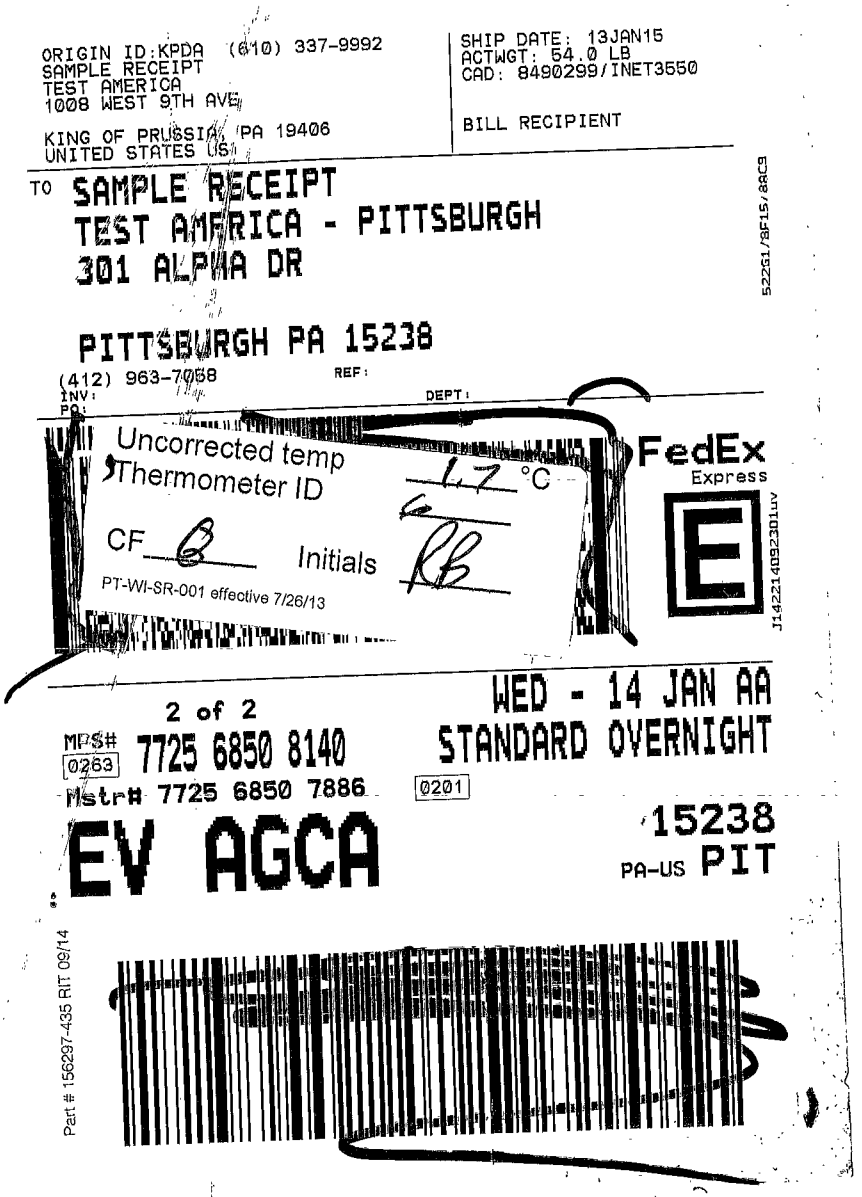
EV AGCA

1523
PA-US PI

Uncorrected temp 4.3 °C
Thermometer ID
CF 0 Initials

PT-WI-SR-001 effective 7/26/13

Part # 156297-435 RIT 09/14



ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE

KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 13JAN15
ACTWGT: 54.0 LB
CAD: 8490299/INET3550

BILL RECIPIENT

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV: DEPT:
PO:

52251/8F15/88C9

Uncorrected temp 1.7 °C
Thermometer ID
CF 0 Initials RB
PT-WI-SR-001 effective 7/26/13

FedEx Express

J142214093201uv

2 of 2

MPS# 0263 7725 6850 8140
Mstr# 7725 6850 7886 0201

WED - 14 JAN AA
STANDARD OVERNIGHT

EV AGCA

15238
PA-US PIT

Part # 156297-435 RIT 09/14

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-40434-1

Login Number: 40434

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	