TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-45088-1

Job Description: Harley Davidson

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

Attention: Allan Miller

Approved for release.
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Project Management Assistant I
6/29/2015 3:29 PM

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06/29/2015

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^c	CCV Recovery is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
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

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-45088-1

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 6/17/2015 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.9º C and 2.0º C.

8260C
Cis-1,2-Dichloroethene, Tetrachloroethene and Trichloroethene failed the recovery criteria high for the MS/MSD of sample HD-COD-SW-17-0/1-0 (180-45088-11) in batch 180-145689. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Calcium, Magnesium and Sodium were detected in method blank MB 180-145252/1-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 was detected in method blank MB 180-145430/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

ALKALINITY
Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-146209/2 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. Refer to the QC report for details.

300
The several samples were received outside of holding time for Nitrate analysis.

Chloride and Nitrate as N were detected in method blank MB 180-145170/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Chloride and Nitrate as N were detected in method blank MB 180-145223/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

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

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

Client Sample ID: HD-COD-SW-6-0/1-0 — Lab Sample ID: 180-45088-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.7	J	5.0	2.5	ug/L	1		8260C	Total/NA
Nitrate as N	2.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	19		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	56000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	9600		500	1.2	ug/L	1		6020A	Total/NA
Sodium	41000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-7-0/1-0 — Lab Sample ID: 180-45088-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.6	J	5.0	2.5	ug/L	1		8260C	Total/NA
Trichloroethene	0.30	J	1.0	0.14	ug/L	1		8260C	Total/NA
Nitrate as N	2.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	43	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	40000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5400		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8700	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	27000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-8-0/1-0 — Lab Sample ID: 180-45088-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.25	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.30	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.17	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.9	H B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	51	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	26		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	40000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	4800		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	7900		500	1.2	ug/L	1		6020A	Total/NA
Sodium	26000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-9-0/1-0 — Lab Sample ID: 180-45088-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.7	J	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.31	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.24	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.15	J	1.0	0.15	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-9-0/1-0 (Continued) — Lab Sample ID: 180-45088-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	5.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	78	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	31		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	53000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	9700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	9600		500	1.2	ug/L	1		6020A	Total/NA
Sodium	36000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	7.9		5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-10-0/1-0 — Lab Sample ID: 180-45088-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.31	J	1.0	0.24	ug/L	1		8260C	Total/NA
Nitrate as N	2.8	H B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	31		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8900		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	50000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-11-0/1-0 — Lab Sample ID: 180-45088-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.23	J	1.0	0.17	ug/L	1		8260C	Total/NA
Nitrate as N	4.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	73	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	19		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	83000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	2300		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	29000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	16		5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-12-0/1-0 — Lab Sample ID: 180-45088-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.3	J	5.0	2.5	ug/L	1		8260C	Total/NA
Nitrate as N	7.5		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	40		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	72000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	18000		500	5.8	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-12-0/1-0 (Continued) — Lab Sample ID: 180-45088-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	12000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	56000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	160	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-13-0/1-0 — Lab Sample ID: 180-45088-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.33	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.33	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.30	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.8	H	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	55		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	47000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5500		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8700	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	28000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-15-0/1-0 — Lab Sample ID: 180-45088-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.50	J	1.0	0.30	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	11		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.26	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.47	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	9.3		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	6.2		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.7		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	37		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	91000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	55000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	7.9		5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-16-0/1-0 — Lab Sample ID: 180-45088-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.31	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.36	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.42	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.8	H	0.10	0.0062	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-16-0/1-0 (Continued) — Lab Sample ID: 180-45088-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	54		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	44000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8400	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	28000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-17-0/1-0 — Lab Sample ID: 180-45088-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.26	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	8.3	F1	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.17	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.3		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	9.3	F1	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	20	F1	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.5	H B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5900		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	60000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	7.9		5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-20-0/1-0 — Lab Sample ID: 180-45088-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.3	J	5.0	2.5	ug/L	1		8260C	Total/NA
Nitrate as N	2.2	H	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	65000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	49000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-26-0/1-0 — Lab Sample ID: 180-45088-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.7	J	5.0	2.5	ug/L	1		8260C	Total/NA
Trichloroethene	0.24	J	1.0	0.14	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-26-0/1-0 (Continued) — Lab Sample ID: 180-45088-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.30	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.0		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	57		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	26		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	46000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8700	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	29000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-27-0/1-0 — Lab Sample ID: 180-45088-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.0		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.54	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	0.94	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.49	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	56	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	26		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	45000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	4900		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	9300		500	1.2	ug/L	1		6020A	Total/NA
Sodium	28000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-28-0/1-0 — Lab Sample ID: 180-45088-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.25	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.27	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.16	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	5.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	90	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	69000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	13000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	45000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	160	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-29-0/1-0 — Lab Sample ID: 180-45088-16

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-29-0/1-0 (Continued) — Lab Sample ID: 180-45088-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.21	J	1.0	0.14	ug/L	1		8260C	Total/NA
Nitrate as N	3.0	H	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	55		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	27		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	44000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5800		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8600	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	28000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC1-0/1-1 — Lab Sample ID: 180-45088-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.49	J	1.0	0.30	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	11		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.25	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.53	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	9.5		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	6.1		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.5	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	60000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC1-0/1-2 — Lab Sample ID: 180-45088-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.17	J	1.0	0.17	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 06/15/15 10:35
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/18/15 21:45	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/18/15 21:45	1
Bromomethane	ND		1.0	0.31	ug/L			06/18/15 21:45	1
Chloroethane	ND		1.0	0.21	ug/L			06/18/15 21:45	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/18/15 21:45	1
Acetone	**2.7**	**J**	5.0	2.5	ug/L			06/18/15 21:45	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/18/15 21:45	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/18/15 21:45	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/18/15 21:45	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/18/15 21:45	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/18/15 21:45	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/18/15 21:45	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/18/15 21:45	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/18/15 21:45	1
Chloroform	ND		1.0	0.17	ug/L			06/18/15 21:45	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/18/15 21:45	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/18/15 21:45	1
Benzene	ND		1.0	0.11	ug/L			06/18/15 21:45	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/18/15 21:45	1
Trichloroethene	ND		1.0	0.14	ug/L			06/18/15 21:45	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/18/15 21:45	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/18/15 21:45	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/18/15 21:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/18/15 21:45	1
Toluene	ND		1.0	0.15	ug/L			06/18/15 21:45	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/18/15 21:45	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/18/15 21:45	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/18/15 21:45	1
2-Hexanone	ND		5.0	0.16	ug/L			06/18/15 21:45	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/18/15 21:45	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/18/15 21:45	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/18/15 21:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/18/15 21:45	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/18/15 21:45	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/18/15 21:45	1
Styrene	ND		1.0	0.097	ug/L			06/18/15 21:45	1
Bromoform	ND		1.0	0.19	ug/L			06/18/15 21:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/18/15 21:45	1
Acrylonitrile	ND		20	0.55	ug/L			06/18/15 21:45	1
1,4-Dioxane	ND		200	34	ug/L			06/18/15 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*06/18/15 21:45*	*1*
Toluene-d8 (Surr)	*93*		*71 - 118*		*06/18/15 21:45*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*06/18/15 21:45*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 128*		*06/18/15 21:45*	*1*

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

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 06/15/15 11:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/18/15 22:09	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/18/15 22:09	1
Bromomethane	ND		1.0	0.31	ug/L			06/18/15 22:09	1
Chloroethane	ND		1.0	0.21	ug/L			06/18/15 22:09	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/18/15 22:09	1
Acetone	**3.6**	**J**	5.0	2.5	ug/L			06/18/15 22:09	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/18/15 22:09	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/18/15 22:09	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/18/15 22:09	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/18/15 22:09	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/18/15 22:09	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/18/15 22:09	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/18/15 22:09	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/18/15 22:09	1
Chloroform	ND		1.0	0.17	ug/L			06/18/15 22:09	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/18/15 22:09	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/18/15 22:09	1
Benzene	ND		1.0	0.11	ug/L			06/18/15 22:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/18/15 22:09	1
Trichloroethene	**0.30**	**J**	1.0	0.14	ug/L			06/18/15 22:09	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/18/15 22:09	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/18/15 22:09	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/18/15 22:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/18/15 22:09	1
Toluene	ND		1.0	0.15	ug/L			06/18/15 22:09	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/18/15 22:09	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/18/15 22:09	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/18/15 22:09	1
2-Hexanone	ND		5.0	0.16	ug/L			06/18/15 22:09	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/18/15 22:09	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/18/15 22:09	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/18/15 22:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/18/15 22:09	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/18/15 22:09	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/18/15 22:09	1
Styrene	ND		1.0	0.097	ug/L			06/18/15 22:09	1
Bromoform	ND		1.0	0.19	ug/L			06/18/15 22:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/18/15 22:09	1
Acrylonitrile	ND		20	0.55	ug/L			06/18/15 22:09	1
1,4-Dioxane	ND		200	34	ug/L			06/18/15 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*06/18/15 22:09*	*1*
Toluene-d8 (Surr)	*94*		*71 - 118*		*06/18/15 22:09*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 118*		*06/18/15 22:09*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 128*		*06/18/15 22:09*	*1*

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

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 06/15/15 08:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/18/15 22:33	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/18/15 22:33	1
Bromomethane	ND		1.0	0.31	ug/L			06/18/15 22:33	1
Chloroethane	ND		1.0	0.21	ug/L			06/18/15 22:33	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/18/15 22:33	1
Acetone	ND		5.0	2.5	ug/L			06/18/15 22:33	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/18/15 22:33	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/18/15 22:33	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/18/15 22:33	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/18/15 22:33	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/18/15 22:33	1
cis-1,2-Dichloroethene	**0.25**	**J**	1.0	0.24	ug/L			06/18/15 22:33	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/18/15 22:33	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/18/15 22:33	1
Chloroform	ND		1.0	0.17	ug/L			06/18/15 22:33	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/18/15 22:33	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/18/15 22:33	1
Benzene	ND		1.0	0.11	ug/L			06/18/15 22:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/18/15 22:33	1
Trichloroethene	**0.30**	**J**	1.0	0.14	ug/L			06/18/15 22:33	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/18/15 22:33	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/18/15 22:33	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/18/15 22:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/18/15 22:33	1
Toluene	ND		1.0	0.15	ug/L			06/18/15 22:33	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/18/15 22:33	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/18/15 22:33	1
Tetrachloroethene	**0.17**	**J**	1.0	0.15	ug/L			06/18/15 22:33	1
2-Hexanone	ND		5.0	0.16	ug/L			06/18/15 22:33	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/18/15 22:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/18/15 22:33	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/18/15 22:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/18/15 22:33	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/18/15 22:33	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/18/15 22:33	1
Styrene	ND		1.0	0.097	ug/L			06/18/15 22:33	1
Bromoform	ND		1.0	0.19	ug/L			06/18/15 22:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/18/15 22:33	1
Acrylonitrile	ND		20	0.55	ug/L			06/18/15 22:33	1
1,4-Dioxane	ND		200	34	ug/L			06/18/15 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*64 - 135*		*06/18/15 22:33*	*1*
Toluene-d8 (Surr)	*94*		*71 - 118*		*06/18/15 22:33*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 118*		*06/18/15 22:33*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 128*		*06/18/15 22:33*	*1*

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

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 06/15/15 12:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/18/15 22:56	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/18/15 22:56	1
Bromomethane	ND		1.0	0.31	ug/L			06/18/15 22:56	1
Chloroethane	ND		1.0	0.21	ug/L			06/18/15 22:56	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/18/15 22:56	1
Acetone	**2.7**	**J**	5.0	2.5	ug/L			06/18/15 22:56	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/18/15 22:56	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/18/15 22:56	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/18/15 22:56	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/18/15 22:56	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/18/15 22:56	1
cis-1,2-Dichloroethene	**0.31**	**J**	1.0	0.24	ug/L			06/18/15 22:56	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/18/15 22:56	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/18/15 22:56	1
Chloroform	ND		1.0	0.17	ug/L			06/18/15 22:56	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/18/15 22:56	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/18/15 22:56	1
Benzene	ND		1.0	0.11	ug/L			06/18/15 22:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/18/15 22:56	1
Trichloroethene	**0.24**	**J**	1.0	0.14	ug/L			06/18/15 22:56	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/18/15 22:56	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/18/15 22:56	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/18/15 22:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/18/15 22:56	1
Toluene	ND		1.0	0.15	ug/L			06/18/15 22:56	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/18/15 22:56	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/18/15 22:56	1
Tetrachloroethene	**0.15**	**J**	1.0	0.15	ug/L			06/18/15 22:56	1
2-Hexanone	ND		5.0	0.16	ug/L			06/18/15 22:56	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/18/15 22:56	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/18/15 22:56	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/18/15 22:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/18/15 22:56	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/18/15 22:56	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/18/15 22:56	1
Styrene	ND		1.0	0.097	ug/L			06/18/15 22:56	1
Bromoform	ND		1.0	0.19	ug/L			06/18/15 22:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/18/15 22:56	1
Acrylonitrile	ND		20	0.55	ug/L			06/18/15 22:56	1
1,4-Dioxane	ND		200	34	ug/L			06/18/15 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*06/18/15 22:56*	*1*
Toluene-d8 (Surr)	*96*		*71 - 118*		*06/18/15 22:56*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*		*06/18/15 22:56*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*06/18/15 22:56*	*1*

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

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 06/15/15 09:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/18/15 23:20	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/18/15 23:20	1
Bromomethane	ND		1.0	0.31	ug/L			06/18/15 23:20	1
Chloroethane	ND		1.0	0.21	ug/L			06/18/15 23:20	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/18/15 23:20	1
Acetone	ND		5.0	2.5	ug/L			06/18/15 23:20	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/18/15 23:20	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/18/15 23:20	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/18/15 23:20	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/18/15 23:20	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/18/15 23:20	1
cis-1,2-Dichloroethene	**0.31**	**J**	1.0	0.24	ug/L			06/18/15 23:20	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/18/15 23:20	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/18/15 23:20	1
Chloroform	ND		1.0	0.17	ug/L			06/18/15 23:20	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/18/15 23:20	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/18/15 23:20	1
Benzene	ND		1.0	0.11	ug/L			06/18/15 23:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/18/15 23:20	1
Trichloroethene	ND		1.0	0.14	ug/L			06/18/15 23:20	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/18/15 23:20	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/18/15 23:20	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/18/15 23:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/18/15 23:20	1
Toluene	ND		1.0	0.15	ug/L			06/18/15 23:20	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/18/15 23:20	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/18/15 23:20	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/18/15 23:20	1
2-Hexanone	ND		5.0	0.16	ug/L			06/18/15 23:20	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/18/15 23:20	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/18/15 23:20	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/18/15 23:20	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/18/15 23:20	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/18/15 23:20	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/18/15 23:20	1
Styrene	ND		1.0	0.097	ug/L			06/18/15 23:20	1
Bromoform	ND		1.0	0.19	ug/L			06/18/15 23:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/18/15 23:20	1
Acrylonitrile	ND		20	0.55	ug/L			06/18/15 23:20	1
1,4-Dioxane	ND		200	34	ug/L			06/18/15 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 135*		*06/18/15 23:20*	*1*
Toluene-d8 (Surr)	*94*		*71 - 118*		*06/18/15 23:20*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 118*		*06/18/15 23:20*	*1*
Dibromofluoromethane (Surr)	*116*		*70 - 128*		*06/18/15 23:20*	*1*

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

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 06/15/15 13:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 19:21	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 19:21	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 19:21	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 19:21	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 19:21	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 19:21	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 19:21	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 19:21	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 19:21	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 19:21	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 19:21	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/19/15 19:21	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 19:21	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 19:21	1
Chloroform	**0.23**	**J**	1.0	0.17	ug/L			06/19/15 19:21	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 19:21	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 19:21	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 19:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 19:21	1
Trichloroethene	ND		1.0	0.14	ug/L			06/19/15 19:21	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 19:21	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 19:21	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 19:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 19:21	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 19:21	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 19:21	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 19:21	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/19/15 19:21	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 19:21	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 19:21	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 19:21	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 19:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 19:21	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 19:21	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 19:21	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 19:21	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 19:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 19:21	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 19:21	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 135*		*06/19/15 19:21*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/19/15 19:21*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*06/19/15 19:21*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*06/19/15 19:21*	*1*

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

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 06/15/15 13:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 19:45	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 19:45	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 19:45	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 19:45	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 19:45	1
Acetone	**3.3**	**J**	5.0	2.5	ug/L			06/19/15 19:45	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 19:45	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 19:45	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 19:45	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 19:45	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 19:45	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/19/15 19:45	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 19:45	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 19:45	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 19:45	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 19:45	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 19:45	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 19:45	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 19:45	1
Trichloroethene	ND		1.0	0.14	ug/L			06/19/15 19:45	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 19:45	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 19:45	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 19:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 19:45	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 19:45	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 19:45	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 19:45	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/19/15 19:45	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 19:45	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 19:45	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 19:45	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 19:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 19:45	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 19:45	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 19:45	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 19:45	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 19:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 19:45	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 19:45	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*06/19/15 19:45*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/19/15 19:45*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*06/19/15 19:45*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*06/19/15 19:45*	*1*

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

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 06/15/15 09:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 20:09	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 20:09	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 20:09	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 20:09	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 20:09	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 20:09	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 20:09	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 20:09	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 20:09	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 20:09	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 20:09	1
cis-1,2-Dichloroethene	**0.33**	**J**	1.0	0.24	ug/L			06/19/15 20:09	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 20:09	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 20:09	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 20:09	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 20:09	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 20:09	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 20:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 20:09	1
Trichloroethene	**0.33**	**J**	1.0	0.14	ug/L			06/19/15 20:09	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 20:09	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 20:09	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 20:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 20:09	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 20:09	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 20:09	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 20:09	1
Tetrachloroethene	**0.30**	**J**	1.0	0.15	ug/L			06/19/15 20:09	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 20:09	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 20:09	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 20:09	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 20:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 20:09	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 20:09	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 20:09	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 20:09	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 20:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 20:09	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 20:09	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*06/19/15 20:09*	*1*
Toluene-d8 (Surr)	*97*		*71 - 118*		*06/19/15 20:09*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*		*06/19/15 20:09*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*06/19/15 20:09*	*1*

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

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 06/15/15 13:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 20:33	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 20:33	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 20:33	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 20:33	1
1,1-Dichloroethene	**0.50**	**J**	1.0	0.30	ug/L			06/19/15 20:33	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 20:33	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 20:33	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 20:33	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 20:33	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 20:33	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 20:33	1
cis-1,2-Dichloroethene	**11**		1.0	0.24	ug/L			06/19/15 20:33	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 20:33	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 20:33	1
Chloroform	**0.26**	**J**	1.0	0.17	ug/L			06/19/15 20:33	1
1,1,1-Trichloroethane	**0.47**	**J**	1.0	0.29	ug/L			06/19/15 20:33	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 20:33	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 20:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 20:33	1
Trichloroethene	**9.3**		1.0	0.14	ug/L			06/19/15 20:33	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 20:33	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 20:33	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 20:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 20:33	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 20:33	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 20:33	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 20:33	1
Tetrachloroethene	**6.2**		1.0	0.15	ug/L			06/19/15 20:33	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 20:33	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 20:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 20:33	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 20:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 20:33	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 20:33	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 20:33	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 20:33	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 20:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 20:33	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 20:33	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 135*		*06/19/15 20:33*	*1*
Toluene-d8 (Surr)	*95*		*71 - 118*		*06/19/15 20:33*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*06/19/15 20:33*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/19/15 20:33*	*1*

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

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 06/15/15 09:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 20:57	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 20:57	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 20:57	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 20:57	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 20:57	1
Acetone	**3.0**	**J**	5.0	2.5	ug/L			06/19/15 20:57	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 20:57	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 20:57	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 20:57	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 20:57	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 20:57	1
cis-1,2-Dichloroethene	**0.31**	**J**	1.0	0.24	ug/L			06/19/15 20:57	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 20:57	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 20:57	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 20:57	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 20:57	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 20:57	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 20:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 20:57	1
Trichloroethene	**0.36**	**J**	1.0	0.14	ug/L			06/19/15 20:57	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 20:57	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 20:57	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 20:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 20:57	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 20:57	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 20:57	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 20:57	1
Tetrachloroethene	**0.42**	**J**	1.0	0.15	ug/L			06/19/15 20:57	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 20:57	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 20:57	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 20:57	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 20:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 20:57	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 20:57	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 20:57	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 20:57	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 20:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 20:57	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 20:57	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 135*		*06/19/15 20:57*	*1*
Toluene-d8 (Surr)	*97*		*71 - 118*		*06/19/15 20:57*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*06/19/15 20:57*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 128*		*06/19/15 20:57*	*1*

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

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 06/15/15 10:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/22/15 16:40	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/22/15 16:40	1
Bromomethane	ND		1.0	0.31	ug/L			06/22/15 16:40	1
Chloroethane	ND		1.0	0.21	ug/L			06/22/15 16:40	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/22/15 16:40	1
Acetone	ND		5.0	2.5	ug/L			06/22/15 16:40	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/22/15 16:40	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/22/15 16:40	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/22/15 16:40	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/22/15 16:40	1
1,1-Dichloroethane	**0.26**	**J**	1.0	0.12	ug/L			06/22/15 16:40	1
cis-1,2-Dichloroethene	**8.3**	**F1**	1.0	0.24	ug/L			06/22/15 16:40	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/22/15 16:40	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/22/15 16:40	1
Chloroform	**0.17**	**J**	1.0	0.17	ug/L			06/22/15 16:40	1
1,1,1-Trichloroethane	**1.3**		1.0	0.29	ug/L			06/22/15 16:40	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/22/15 16:40	1
Benzene	ND		1.0	0.11	ug/L			06/22/15 16:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/22/15 16:40	1
Trichloroethene	**9.3**	**F1**	1.0	0.14	ug/L			06/22/15 16:40	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/22/15 16:40	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/22/15 16:40	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/22/15 16:40	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.53	ug/L			06/22/15 16:40	1
Toluene	ND		1.0	0.15	ug/L			06/22/15 16:40	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/22/15 16:40	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/22/15 16:40	1
Tetrachloroethene	**20**	**F1**	1.0	0.15	ug/L			06/22/15 16:40	1
2-Hexanone	ND		5.0	0.16	ug/L			06/22/15 16:40	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/22/15 16:40	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/22/15 16:40	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/22/15 16:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/22/15 16:40	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/22/15 16:40	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/22/15 16:40	1
Styrene	ND		1.0	0.097	ug/L			06/22/15 16:40	1
Bromoform	ND		1.0	0.19	ug/L			06/22/15 16:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/22/15 16:40	1
Acrylonitrile	ND		20	0.55	ug/L			06/22/15 16:40	1
1,4-Dioxane	ND		200	34	ug/L			06/22/15 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 135*		*06/22/15 16:40*	*1*
Toluene-d8 (Surr)	*94*		*71 - 118*		*06/22/15 16:40*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*		*06/22/15 16:40*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*06/22/15 16:40*	*1*

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

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 06/15/15 10:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 21:21	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 21:21	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 21:21	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 21:21	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 21:21	1
Acetone	**4.3**	**J**	5.0	2.5	ug/L			06/19/15 21:21	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 21:21	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 21:21	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 21:21	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 21:21	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 21:21	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/19/15 21:21	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 21:21	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 21:21	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 21:21	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 21:21	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 21:21	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 21:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 21:21	1
Trichloroethene	ND		1.0	0.14	ug/L			06/19/15 21:21	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 21:21	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 21:21	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 21:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 21:21	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 21:21	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 21:21	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 21:21	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/19/15 21:21	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 21:21	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 21:21	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 21:21	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 21:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 21:21	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 21:21	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 21:21	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 21:21	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 21:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 21:21	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 21:21	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*06/19/15 21:21*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/19/15 21:21*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*		*06/19/15 21:21*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*06/19/15 21:21*	*1*

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

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 06/15/15 11:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 21:44	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 21:44	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 21:44	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 21:44	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 21:44	1
Acetone	**2.7**	**J**	5.0	2.5	ug/L			06/19/15 21:44	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 21:44	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 21:44	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 21:44	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 21:44	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 21:44	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/19/15 21:44	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 21:44	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 21:44	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 21:44	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 21:44	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 21:44	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 21:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 21:44	1
Trichloroethene	**0.24**	**J**	1.0	0.14	ug/L			06/19/15 21:44	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 21:44	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 21:44	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 21:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 21:44	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 21:44	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 21:44	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 21:44	1
Tetrachloroethene	**0.30**	**J**	1.0	0.15	ug/L			06/19/15 21:44	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 21:44	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 21:44	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 21:44	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 21:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 21:44	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 21:44	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 21:44	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 21:44	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 21:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 21:44	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 21:44	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 135*		*06/19/15 21:44*	*1*
Toluene-d8 (Surr)	*95*		*71 - 118*		*06/19/15 21:44*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*		*06/19/15 21:44*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*06/19/15 21:44*	*1*

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

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 06/15/15 13:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 22:08	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 22:08	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 22:08	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 22:08	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 22:08	1
Acetone	**3.0**	**J**	5.0	2.5	ug/L			06/19/15 22:08	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 22:08	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 22:08	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 22:08	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 22:08	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 22:08	1
cis-1,2-Dichloroethene	**1.0**		1.0	0.24	ug/L			06/19/15 22:08	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 22:08	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 22:08	1
Chloroform	**0.54**	**J**	1.0	0.17	ug/L			06/19/15 22:08	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 22:08	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 22:08	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 22:08	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 22:08	1
Trichloroethene	**0.94**	**J**	1.0	0.14	ug/L			06/19/15 22:08	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 22:08	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 22:08	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 22:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 22:08	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 22:08	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 22:08	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 22:08	1
Tetrachloroethene	**0.49**	**J**	1.0	0.15	ug/L			06/19/15 22:08	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 22:08	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 22:08	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 22:08	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 22:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 22:08	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 22:08	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 22:08	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 22:08	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 22:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 22:08	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 22:08	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*06/19/15 22:08*	*1*
Toluene-d8 (Surr)	*94*		*71 - 118*		*06/19/15 22:08*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 118*		*06/19/15 22:08*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 128*		*06/19/15 22:08*	*1*

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

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 06/15/15 13:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 22:33	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 22:33	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 22:33	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 22:33	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 22:33	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 22:33	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 22:33	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 22:33	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 22:33	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 22:33	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 22:33	1
cis-1,2-Dichloroethene	**0.25**	**J**	1.0	0.24	ug/L			06/19/15 22:33	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 22:33	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 22:33	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 22:33	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 22:33	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 22:33	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 22:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 22:33	1
Trichloroethene	**0.27**	**J**	1.0	0.14	ug/L			06/19/15 22:33	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 22:33	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 22:33	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 22:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 22:33	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 22:33	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 22:33	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 22:33	1
Tetrachloroethene	**0.16**	**J**	1.0	0.15	ug/L			06/19/15 22:33	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 22:33	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 22:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 22:33	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 22:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 22:33	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 22:33	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 22:33	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 22:33	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 22:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 22:33	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 22:33	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 135*		*06/19/15 22:33*	*1*
Toluene-d8 (Surr)	*95*		*71 - 118*		*06/19/15 22:33*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 118*		*06/19/15 22:33*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 128*		*06/19/15 22:33*	*1*

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

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 06/15/15 08:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 22:56	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 22:56	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 22:56	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 22:56	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 22:56	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 22:56	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 22:56	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 22:56	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 22:56	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 22:56	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 22:56	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/19/15 22:56	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 22:56	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 22:56	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 22:56	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 22:56	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 22:56	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 22:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 22:56	1
Trichloroethene	**0.21**	**J**	1.0	0.14	ug/L			06/19/15 22:56	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 22:56	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 22:56	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 22:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 22:56	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 22:56	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 22:56	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 22:56	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/19/15 22:56	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 22:56	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 22:56	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 22:56	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 22:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 22:56	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 22:56	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 22:56	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 22:56	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 22:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 22:56	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 22:56	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 135*		*06/19/15 22:56*	*1*
Toluene-d8 (Surr)	*90*		*71 - 118*		*06/19/15 22:56*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 118*		*06/19/15 22:56*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 128*		*06/19/15 22:56*	*1*

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

Client Sample ID: HD-QC1-0/1-1
Date Collected: 06/15/15 08:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 23:20	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 23:20	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 23:20	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 23:20	1
1,1-Dichloroethene	**0.49**	**J**	1.0	0.30	ug/L			06/19/15 23:20	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 23:20	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 23:20	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 23:20	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 23:20	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 23:20	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 23:20	1
cis-1,2-Dichloroethene	**11**		1.0	0.24	ug/L			06/19/15 23:20	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 23:20	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 23:20	1
Chloroform	**0.25**	**J**	1.0	0.17	ug/L			06/19/15 23:20	1
1,1,1-Trichloroethane	**0.53**	**J**	1.0	0.29	ug/L			06/19/15 23:20	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 23:20	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 23:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 23:20	1
Trichloroethene	**9.5**		1.0	0.14	ug/L			06/19/15 23:20	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 23:20	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 23:20	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 23:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 23:20	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 23:20	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 23:20	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 23:20	1
Tetrachloroethene	**6.1**		1.0	0.15	ug/L			06/19/15 23:20	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			06/19/15 23:20	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 23:20	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 23:20	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 23:20	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 23:20	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 23:20	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 23:20	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 23:20	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 23:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 23:20	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 23:20	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*06/19/15 23:20*	*1*
Toluene-d8 (Surr)	*96*		*71 - 118*		*06/19/15 23:20*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*		*06/19/15 23:20*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/19/15 23:20*	*1*

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

Client Sample ID: HD-QC1-0/1-2
Date Collected: 06/15/15 12:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/22/15 13:06	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/22/15 13:06	1
Bromomethane	ND		1.0	0.31	ug/L			06/22/15 13:06	1
Chloroethane	ND		1.0	0.21	ug/L			06/22/15 13:06	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/22/15 13:06	1
Acetone	ND		5.0	2.5	ug/L			06/22/15 13:06	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/22/15 13:06	1
Methylene Chloride	ND	^c	1.0	0.13	ug/L			06/22/15 13:06	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/22/15 13:06	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/22/15 13:06	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/22/15 13:06	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/22/15 13:06	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/22/15 13:06	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/22/15 13:06	1
Chloroform	**0.17**	**J**	1.0	0.17	ug/L			06/22/15 13:06	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/22/15 13:06	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/22/15 13:06	1
Benzene	ND		1.0	0.11	ug/L			06/22/15 13:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/22/15 13:06	1
Trichloroethene	ND		1.0	0.14	ug/L			06/22/15 13:06	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/22/15 13:06	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/22/15 13:06	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/22/15 13:06	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.53	ug/L			06/22/15 13:06	1
Toluene	ND		1.0	0.15	ug/L			06/22/15 13:06	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/22/15 13:06	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/22/15 13:06	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/22/15 13:06	1
2-Hexanone	ND		5.0	0.16	ug/L			06/22/15 13:06	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/22/15 13:06	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/22/15 13:06	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/22/15 13:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/22/15 13:06	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/22/15 13:06	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/22/15 13:06	1
Styrene	ND		1.0	0.097	ug/L			06/22/15 13:06	1
Bromoform	ND		1.0	0.19	ug/L			06/22/15 13:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/22/15 13:06	1
Acrylonitrile	ND		20	0.55	ug/L			06/22/15 13:06	1
1,4-Dioxane	ND		200	34	ug/L			06/22/15 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*06/22/15 13:06*	*1*
Toluene-d8 (Surr)	*94*		*71 - 118*		*06/22/15 13:06*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 118*		*06/22/15 13:06*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/22/15 13:06*	*1*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 06/15/15 10:35
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3	B	0.10	0.0062	mg/L			06/16/15 13:47	1
Chloride	110	B	1.0	0.20	mg/L			06/16/15 13:47	1
Sulfate	19		1.0	0.21	mg/L			06/16/15 13:47	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 06/15/15 11:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9	B	0.10	0.0062	mg/L			06/16/15 15:08	1
Chloride	43	B	1.0	0.20	mg/L			06/16/15 15:08	1
Sulfate	25		1.0	0.21	mg/L			06/16/15 15:08	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 06/15/15 08:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9	H B	0.10	0.0062	mg/L			06/17/15 11:45	1
Chloride	51	B	1.0	0.20	mg/L			06/17/15 11:45	1
Sulfate	26		1.0	0.21	mg/L			06/17/15 11:45	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 06/15/15 12:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	5.1	B	0.10	0.0062	mg/L			06/16/15 14:02	1
Chloride	78	B	1.0	0.20	mg/L			06/16/15 14:02	1
Sulfate	31		1.0	0.21	mg/L			06/16/15 14:02	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 06/15/15 09:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.8	H B	0.10	0.0062	mg/L			06/17/15 12:02	1
Chloride	130	B	1.0	0.20	mg/L			06/17/15 12:02	1
Sulfate	31		1.0	0.21	mg/L			06/17/15 12:02	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 06/15/15 13:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.4	B	0.10	0.0062	mg/L			06/16/15 14:17	1
Chloride	73	B	1.0	0.20	mg/L			06/16/15 14:17	1
Sulfate	19		1.0	0.21	mg/L			06/16/15 14:17	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 06/15/15 13:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**7.5**		0.10	0.0062	mg/L			06/17/15 11:25	1
Chloride	**110**		1.0	0.20	mg/L			06/17/15 11:25	1
Sulfate	**40**		1.0	0.21	mg/L			06/17/15 11:25	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 06/15/15 09:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**2.8**	**H**	0.10	0.0062	mg/L			06/17/15 12:00	1
Chloride	**55**		1.0	0.20	mg/L			06/17/15 12:00	1
Sulfate	**25**		1.0	0.21	mg/L			06/17/15 12:00	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 06/15/15 13:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.7		0.10	0.0062	mg/L			06/17/15 11:42	1
Chloride	140		1.0	0.20	mg/L			06/17/15 11:42	1
Sulfate	37		1.0	0.21	mg/L			06/17/15 11:42	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 06/15/15 09:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.8	H	0.10	0.0062	mg/L			06/17/15 12:17	1
Chloride	54		1.0	0.20	mg/L			06/17/15 12:17	1
Sulfate	25		1.0	0.21	mg/L			06/17/15 12:17	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 06/15/15 10:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.5	H B	0.10	0.0062	mg/L			06/17/15 12:20	1
Chloride	140	B	1.0	0.20	mg/L			06/17/15 12:20	1
Sulfate	34		1.0	0.21	mg/L			06/17/15 12:20	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 06/15/15 10:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.2	H	0.10	0.0062	mg/L			06/17/15 14:18	1
Chloride	120		1.0	0.20	mg/L			06/17/15 14:18	1
Sulfate	16		1.0	0.21	mg/L			06/17/15 14:18	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 06/15/15 11:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.0		0.10	0.0062	mg/L			06/17/15 11:07	1
Chloride	57		1.0	0.20	mg/L			06/17/15 11:07	1
Sulfate	26		1.0	0.21	mg/L			06/17/15 11:07	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 06/15/15 13:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9	B	0.10	0.0062	mg/L			06/16/15 14:33	1
Chloride	56	B	1.0	0.20	mg/L			06/16/15 14:33	1
Sulfate	26		1.0	0.21	mg/L			06/16/15 14:33	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 06/15/15 13:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	5.8	B	0.10	0.0062	mg/L			06/16/15 14:51	1
Chloride	90	B	1.0	0.20	mg/L			06/16/15 14:51	1
Sulfate	33		1.0	0.21	mg/L			06/16/15 14:51	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 06/15/15 08:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.0	H	0.10	0.0062	mg/L			06/17/15 14:36	1
Chloride	55		1.0	0.20	mg/L			06/17/15 14:36	1
Sulfate	27		1.0	0.21	mg/L			06/17/15 14:36	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-QC1-0/1-1
Date Collected: 06/15/15 08:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.5	B	0.10	0.0062	mg/L			06/16/15 16:35	1
Chloride	140	B	1.0	0.20	mg/L			06/16/15 16:35	1
Sulfate	34		1.0	0.21	mg/L			06/16/15 16:35	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 06/15/15 10:35
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	56000	B	500	2.8	ug/L		06/18/15 10:29	06/25/15 16:16	1
Potassium	3200		500	5.8	ug/L		06/18/15 10:29	06/25/15 16:16	1
Magnesium	9600		500	1.2	ug/L		06/18/15 10:29	06/25/15 16:16	1
Sodium	41000		500	3.8	ug/L		06/18/15 10:29	06/25/15 16:16	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 06/15/15 11:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	40000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:02	1
Potassium	5400		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:02	1
Magnesium	8700	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:02	1
Sodium	27000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:02	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 06/15/15 08:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	40000	B	500	2.8	ug/L		06/18/15 10:29	06/25/15 16:20	1
Potassium	4800		500	5.8	ug/L		06/18/15 10:29	06/25/15 16:20	1
Magnesium	7900		500	1.2	ug/L		06/18/15 10:29	06/25/15 16:20	1
Sodium	26000		500	3.8	ug/L		06/18/15 10:29	06/25/15 16:20	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 06/15/15 12:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	53000	B	500	2.8	ug/L		06/18/15 10:29	06/25/15 16:24	1
Potassium	9700		500	5.8	ug/L		06/18/15 10:29	06/25/15 16:24	1
Magnesium	9600		500	1.2	ug/L		06/18/15 10:29	06/25/15 16:24	1
Sodium	36000		500	3.8	ug/L		06/18/15 10:29	06/25/15 16:24	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 06/15/15 09:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:06	1
Potassium	8900		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:06	1
Magnesium	17000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:06	1
Sodium	50000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:06	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 06/15/15 13:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	83000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:09	1
Potassium	2300		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:09	1
Magnesium	17000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:09	1
Sodium	29000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:09	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 06/15/15 13:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	72000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:13	1
Potassium	18000		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:13	1
Magnesium	12000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:13	1
Sodium	56000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:13	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 06/15/15 09:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:17	1
Potassium	5500		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:17	1
Magnesium	8700	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:17	1
Sodium	28000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:17	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 06/15/15 13:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	91000	B	500	2.8	ug/L		06/18/15 10:29	06/25/15 16:28	1
Potassium	5200		500	5.8	ug/L		06/18/15 10:29	06/25/15 16:28	1
Magnesium	16000		500	1.2	ug/L		06/18/15 10:29	06/25/15 16:28	1
Sodium	55000		500	3.8	ug/L		06/18/15 10:29	06/25/15 16:28	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 06/15/15 09:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:21	1
Potassium	5000		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:21	1
Magnesium	8400	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:21	1
Sodium	28000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:21	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 06/15/15 10:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:35	1
Potassium	5900		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:35	1
Magnesium	19000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:35	1
Sodium	60000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:35	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 06/15/15 10:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	65000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:54	1
Potassium	3000		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:54	1
Magnesium	11000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:54	1
Sodium	49000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:54	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 06/15/15 11:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	46000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 11:58	1
Potassium	5000		500	5.8	ug/L		06/17/15 08:47	06/19/15 11:58	1
Magnesium	8700	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 11:58	1
Sodium	29000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 11:58	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 06/15/15 13:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	45000	B	500	2.8	ug/L		06/18/15 10:29	06/25/15 16:31	1
Potassium	4900		500	5.8	ug/L		06/18/15 10:29	06/25/15 16:31	1
Magnesium	9300		500	1.2	ug/L		06/18/15 10:29	06/25/15 16:31	1
Sodium	28000		500	3.8	ug/L		06/18/15 10:29	06/25/15 16:31	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 06/15/15 13:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	69000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 12:02	1
Potassium	13000		500	5.8	ug/L		06/17/15 08:47	06/19/15 12:02	1
Magnesium	13000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 12:02	1
Sodium	45000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 12:02	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 06/15/15 08:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 12:06	1
Potassium	5800		500	5.8	ug/L		06/17/15 08:47	06/19/15 12:06	1
Magnesium	8600	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 12:06	1
Sodium	28000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 12:06	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-QC1-0/1-1
Date Collected: 06/15/15 08:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	500	2.8	ug/L		06/17/15 08:47	06/19/15 12:09	1
Potassium	6000		500	5.8	ug/L		06/17/15 08:47	06/19/15 12:09	1
Magnesium	17000	B	500	1.2	ug/L		06/17/15 08:47	06/19/15 12:09	1
Sodium	60000	B	500	3.8	ug/L		06/17/15 08:47	06/19/15 12:09	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

General Chemistry

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 06/15/15 10:35
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 06/15/15 11:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 06/15/15 08:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 06/15/15 12:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	7.9		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 06/15/15 09:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 06/15/15 13:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	16		5.0	0.41	mg/L			06/26/15 09:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

General Chemistry

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 06/15/15 13:25
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	160	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

General Chemistry

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 06/15/15 09:15
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 06/15/15 13:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	7.9		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 06/15/15 09:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	110	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	100	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 06/15/15 10:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	7.9		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 06/15/15 10:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 06/15/15 11:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 06/15/15 13:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	120	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 06/15/15 13:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	160	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 06/15/15 08:30
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	**110**	**B**	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			06/26/15 09:33	1

General Chemistry

Client Sample ID: HD-QC1-0/1-1
Date Collected: 06/15/15 08:00
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	4.0	J	5.0	0.41	mg/L			06/26/15 09:33	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

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

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

Method: 300.0 - Anions, Ion Chromatography

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

Method: 6020A - Metals (ICP/MS)

Analyte	RL	MDL	Units	Method
Calcium	500	2.8	ug/L	6020A

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

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

Analyte	RL	MDL	Units	Method
Magnesium	500	1.2	ug/L	6020A
Potassium	500	5.8	ug/L	6020A
Sodium	500	3.8	ug/L	6020A

General Chemistry

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

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(64-135)	(71-118)	(70-118)	(70-128)
180-45088-1	HD-COD-SW-6-0/1-0	111	93	86	113
180-45088-2	HD-COD-SW-7-0/1-0	108	94	85	111
180-45088-3	HD-COD-SW-8-0/1-0	113	94	87	113
180-45088-4	HD-COD-SW-9-0/1-0	111	96	88	112
180-45088-5	HD-COD-SW-10-0/1-0	114	94	84	116
180-45088-6	HD-COD-SW-11-0/1-0	107	98	91	105
180-45088-7	HD-COD-SW-12-0/1-0	108	98	86	103
180-45088-8	HD-COD-SW-13-0/1-0	109	97	88	105
180-45088-9	HD-COD-SW-15-0/1-0	106	95	86	106
180-45088-10	HD-COD-SW-16-0/1-0	107	97	86	109
180-45088-11	HD-COD-SW-17-0/1-0	103	94	92	101
180-45088-11 MS	HD-COD-SW-17-0/1-0	89	97	97	91
180-45088-11 MSD	HD-COD-SW-17-0/1-0	86	96	97	91
180-45088-12	HD-COD-SW-20-0/1-0	108	98	88	105
180-45088-13	HD-COD-SW-26-0/1-0	110	95	88	107
180-45088-14	HD-COD-SW-27-0/1-0	111	94	87	110
180-45088-15	HD-COD-SW-28-0/1-0	112	95	84	113
180-45088-16	HD-COD-SW-29-0/1-0	112	90	85	109
180-45088-17	HD-QC1-0/1-1	109	96	89	106
180-45088-18	HD-QC1-0/1-2	101	94	110	106
LCS 180-145455/8	Lab Control Sample	89	98	94	92
LCS 180-145590/6	Lab Control Sample	90	98	91	91
LCS 180-145689/16	Lab Control Sample	92	91	92	90
LCSD 180-145455/9	Lab Control Sample Dup	89	94	93	88
LCSD 180-145590/7	Lab Control Sample Dup	91	95	94	93
MB 180-145455/7	Method Blank	104	98	90	101
MB 180-145590/5	Method Blank	108	102	86	105
MB 180-145689/5	Method Blank	96	98	85	95

Surrogate Legend

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

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

Lab Sample ID: MB 180-145455/7
Matrix: Water
Analysis Batch: 145455

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/18/15 15:11	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/18/15 15:11	1
Bromomethane	ND		1.0	0.31	ug/L			06/18/15 15:11	1
Chloroethane	ND		1.0	0.21	ug/L			06/18/15 15:11	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/18/15 15:11	1
Acetone	ND		5.0	2.5	ug/L			06/18/15 15:11	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/18/15 15:11	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/18/15 15:11	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/18/15 15:11	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/18/15 15:11	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/18/15 15:11	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/18/15 15:11	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/18/15 15:11	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/18/15 15:11	1
Chloroform	ND		1.0	0.17	ug/L			06/18/15 15:11	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/18/15 15:11	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/18/15 15:11	1
Benzene	ND		1.0	0.11	ug/L			06/18/15 15:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/18/15 15:11	1
Trichloroethene	ND		1.0	0.14	ug/L			06/18/15 15:11	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/18/15 15:11	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/18/15 15:11	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/18/15 15:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/18/15 15:11	1
Toluene	ND		1.0	0.15	ug/L			06/18/15 15:11	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/18/15 15:11	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/18/15 15:11	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/18/15 15:11	1
2-Hexanone	ND		5.0	0.16	ug/L			06/18/15 15:11	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/18/15 15:11	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/18/15 15:11	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/18/15 15:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/18/15 15:11	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/18/15 15:11	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/18/15 15:11	1
Styrene	ND		1.0	0.097	ug/L			06/18/15 15:11	1
Bromoform	ND		1.0	0.19	ug/L			06/18/15 15:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/18/15 15:11	1
Acrylonitrile	ND		20	0.55	ug/L			06/18/15 15:11	1
1,4-Dioxane	ND		200	34	ug/L			06/18/15 15:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*		*06/18/15 15:11*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/18/15 15:11*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*06/18/15 15:11*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*06/18/15 15:11*	*1*

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

Lab Sample ID: LCS 180-145455/8
Matrix: Water
Analysis Batch: 145455

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.20		ug/L		92	50 - 139
Vinyl chloride	10.0	9.35		ug/L		93	53 - 138
Bromomethane	10.0	9.44		ug/L		94	33 - 150
Chloroethane	10.0	9.17		ug/L		92	36 - 142
1,1-Dichloroethene	10.0	8.99		ug/L		90	65 - 136
Acetone	20.0	17.6		ug/L		88	22 - 150
Carbon disulfide	10.0	9.02		ug/L		90	54 - 132
Methylene Chloride	10.0	7.80		ug/L		78	63 - 129
trans-1,2-Dichloroethene	10.0	9.31		ug/L		93	73 - 126
Methyl tert-butyl ether	10.0	8.60		ug/L		86	64 - 123
1,1-Dichloroethane	10.0	8.73		ug/L		87	73 - 126
cis-1,2-Dichloroethene	10.0	8.67		ug/L		87	70 - 120
Bromochloromethane	10.0	8.89		ug/L		89	70 - 127
2-Butanone (MEK)	20.0	18.8		ug/L		94	39 - 138
Chloroform	10.0	9.20		ug/L		92	72 - 127
1,1,1-Trichloroethane	10.0	9.03		ug/L		90	63 - 133
Carbon tetrachloride	10.0	9.17		ug/L		92	55 - 150
Benzene	10.0	9.28		ug/L		93	80 - 120
1,2-Dichloroethane	10.0	9.06		ug/L		91	68 - 132
Trichloroethene	10.0	8.92		ug/L		89	73 - 120
1,2-Dichloropropane	10.0	9.21		ug/L		92	76 - 124
Bromodichloromethane	10.0	8.92		ug/L		89	66 - 130
cis-1,3-Dichloropropene	10.0	9.34		ug/L		93	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	18.3		ug/L		91	45 - 145
Toluene	10.0	9.78		ug/L		98	80 - 123
trans-1,3-Dichloropropene	10.0	9.26		ug/L		93	65 - 125
1,1,2-Trichloroethane	10.0	9.33		ug/L		93	77 - 127
Tetrachloroethene	10.0	9.65		ug/L		97	70 - 135
2-Hexanone	20.0	17.8		ug/L		89	25 - 132
Dibromochloromethane	10.0	9.27		ug/L		93	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.73		ug/L		97	74 - 123
Chlorobenzene	10.0	9.47		ug/L		95	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.61		ug/L		96	63 - 140
Ethylbenzene	10.0	9.57		ug/L		96	72 - 126
Xylenes, Total	20.0	19.2		ug/L		96	76 - 128
Styrene	10.0	9.97		ug/L		100	71 - 127
Bromoform	10.0	9.89		ug/L		99	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.88		ug/L		99	62 - 125
Acrylonitrile	100	91.7		ug/L		92	30 - 140
1,4-Dioxane	200	183	J	ug/L		91	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 135*
Toluene-d8 (Surr)	*98*		*71 - 118*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*
Dibromofluoromethane (Surr)	*92*		*70 - 128*

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

Lab Sample ID: LCSD 180-145455/9
Matrix: Water
Analysis Batch: 145455

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane			10.0	8.75		ug/L		87	50 - 139	5	35
Vinyl chloride			10.0	8.30		ug/L		83	53 - 138	12	35
Bromomethane			10.0	8.53		ug/L		85	33 - 150	10	35
Chloroethane			10.0	8.49		ug/L		85	36 - 142	8	35
1,1-Dichloroethene			10.0	8.37		ug/L		84	65 - 136	7	35
Acetone			20.0	16.8		ug/L		84	22 - 150	5	35
Carbon disulfide			10.0	8.01		ug/L		80	54 - 132	12	35
Methylene Chloride			10.0	8.11		ug/L		81	63 - 129	4	35
trans-1,2-Dichloroethene			10.0	8.54		ug/L		85	73 - 126	9	35
Methyl tert-butyl ether			10.0	8.80		ug/L		88	64 - 123	2	35
1,1-Dichloroethane			10.0	8.46		ug/L		85	73 - 126	3	35
cis-1,2-Dichloroethene			10.0	8.67		ug/L		87	70 - 120	0	35
Bromochloromethane			10.0	9.07		ug/L		91	70 - 127	2	35
2-Butanone (MEK)			20.0	18.7		ug/L		93	39 - 138	1	35
Chloroform			10.0	8.91		ug/L		89	72 - 127	3	35
1,1,1-Trichloroethane			10.0	8.30		ug/L		83	63 - 133	8	35
Carbon tetrachloride			10.0	8.20		ug/L		82	55 - 150	11	35
Benzene			10.0	8.87		ug/L		89	80 - 120	4	32
1,2-Dichloroethane			10.0	8.93		ug/L		89	68 - 132	1	32
Trichloroethene			10.0	8.47		ug/L		85	73 - 120	5	35
1,2-Dichloropropane			10.0	8.79		ug/L		88	76 - 124	5	34
Bromodichloromethane			10.0	8.61		ug/L		86	66 - 130	4	35
cis-1,3-Dichloropropene			10.0	9.06		ug/L		91	66 - 120	3	35
4-Methyl-2-pentanone (MIBK)			20.0	18.2		ug/L		91	45 - 145	0	35
Toluene			10.0	9.23		ug/L		92	80 - 123	6	35
trans-1,3-Dichloropropene			10.0	9.03		ug/L		90	65 - 125	2	35
1,1,2-Trichloroethane			10.0	9.26		ug/L		93	77 - 127	1	35
Tetrachloroethene			10.0	8.65		ug/L		87	70 - 135	11	35
2-Hexanone			20.0	18.4		ug/L		92	25 - 132	3	35
Dibromochloromethane			10.0	8.98		ug/L		90	60 - 140	3	35
1,2-Dibromoethane (EDB)			10.0	9.53		ug/L		95	74 - 123	2	35
Chlorobenzene			10.0	9.28		ug/L		93	80 - 120	2	29
1,1,1,2-Tetrachloroethane			10.0	9.02		ug/L		90	63 - 140	6	34
Ethylbenzene			10.0	9.15		ug/L		92	72 - 126	4	33
Xylenes, Total			20.0	18.1		ug/L		90	76 - 128	6	32
Styrene			10.0	9.62		ug/L		96	71 - 127	4	34
Bromoform			10.0	9.76		ug/L		98	46 - 150	1	35
1,1,2,2-Tetrachloroethane			10.0	9.66		ug/L		97	62 - 125	2	35
Acrylonitrile			100	91.6		ug/L		92	30 - 140	0	35
1,4-Dioxane			200	157	J	ug/L		78	10 - 160	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 135*
Toluene-d8 (Surr)	*94*		*71 - 118*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*
Dibromofluoromethane (Surr)	*88*		*70 - 128*

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

Lab Sample ID: MB 180-145590/5
Matrix: Water
Analysis Batch: 145590

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/19/15 14:18	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/19/15 14:18	1
Bromomethane	ND		1.0	0.31	ug/L			06/19/15 14:18	1
Chloroethane	ND		1.0	0.21	ug/L			06/19/15 14:18	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/19/15 14:18	1
Acetone	ND		5.0	2.5	ug/L			06/19/15 14:18	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/19/15 14:18	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/19/15 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/19/15 14:18	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/19/15 14:18	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/19/15 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/19/15 14:18	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/19/15 14:18	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/19/15 14:18	1
Chloroform	ND		1.0	0.17	ug/L			06/19/15 14:18	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/19/15 14:18	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/19/15 14:18	1
Benzene	ND		1.0	0.11	ug/L			06/19/15 14:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 14:18	1
Trichloroethene	ND		1.0	0.14	ug/L			06/19/15 14:18	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/19/15 14:18	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/19/15 14:18	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/19/15 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/19/15 14:18	1
Toluene	ND		1.0	0.15	ug/L			06/19/15 14:18	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/19/15 14:18	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/19/15 14:18	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/19/15 14:18	1
2-Hexanone	ND		5.0	0.16	ug/L			06/19/15 14:18	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/19/15 14:18	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/19/15 14:18	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/19/15 14:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/19/15 14:18	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/19/15 14:18	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/19/15 14:18	1
Styrene	ND		1.0	0.097	ug/L			06/19/15 14:18	1
Bromoform	ND		1.0	0.19	ug/L			06/19/15 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/19/15 14:18	1
Acrylonitrile	ND		20	0.55	ug/L			06/19/15 14:18	1
1,4-Dioxane	ND		200	34	ug/L			06/19/15 14:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*		*06/19/15 14:18*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*06/19/15 14:18*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*06/19/15 14:18*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*06/19/15 14:18*	*1*

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

Lab Sample ID: LCS 180-145590/6
Matrix: Water
Analysis Batch: 145590

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.18		ug/L		92	50 - 139
Vinyl chloride	10.0	9.07		ug/L		91	53 - 138
Bromomethane	10.0	9.37		ug/L		94	33 - 150
Chloroethane	10.0	9.12		ug/L		91	36 - 142
1,1-Dichloroethene	10.0	8.84		ug/L		88	65 - 136
Acetone	20.0	21.4		ug/L		107	22 - 150
Carbon disulfide	10.0	9.27		ug/L		93	54 - 132
Methylene Chloride	10.0	8.11		ug/L		81	63 - 129
trans-1,2-Dichloroethene	10.0	9.33		ug/L		93	73 - 126
Methyl tert-butyl ether	10.0	8.53		ug/L		85	64 - 123
1,1-Dichloroethane	10.0	8.84		ug/L		88	73 - 126
cis-1,2-Dichloroethene	10.0	8.94		ug/L		89	70 - 120
Bromochloromethane	10.0	9.05		ug/L		90	70 - 127
2-Butanone (MEK)	20.0	20.2		ug/L		101	39 - 138
Chloroform	10.0	9.34		ug/L		93	72 - 127
1,1,1-Trichloroethane	10.0	9.07		ug/L		91	63 - 133
Carbon tetrachloride	10.0	9.45		ug/L		94	55 - 150
Benzene	10.0	9.52		ug/L		95	80 - 120
1,2-Dichloroethane	10.0	9.06		ug/L		91	68 - 132
Trichloroethene	10.0	8.86		ug/L		89	73 - 120
1,2-Dichloropropane	10.0	9.47		ug/L		95	76 - 124
Bromodichloromethane	10.0	9.22		ug/L		92	66 - 130
cis-1,3-Dichloropropene	10.0	9.24		ug/L		92	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	18.4		ug/L		92	45 - 145
Toluene	10.0	9.92		ug/L		99	80 - 123
trans-1,3-Dichloropropene	10.0	8.97		ug/L		90	65 - 125
1,1,2-Trichloroethane	10.0	9.65		ug/L		97	77 - 127
Tetrachloroethene	10.0	9.23		ug/L		92	70 - 135
2-Hexanone	20.0	21.5		ug/L		107	25 - 132
Dibromochloromethane	10.0	9.68		ug/L		97	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.85		ug/L		99	74 - 123
Chlorobenzene	10.0	9.54		ug/L		95	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.72		ug/L		97	63 - 140
Ethylbenzene	10.0	9.53		ug/L		95	72 - 126
Xylenes, Total	20.0	19.0		ug/L		95	76 - 128
Styrene	10.0	10.1		ug/L		101	71 - 127
Bromoform	10.0	10.3		ug/L		103	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.90		ug/L		99	62 - 125
Acrylonitrile	100	94.2		ug/L		94	30 - 140
1,4-Dioxane	200	190	J	ug/L		95	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*64 - 135*
Toluene-d8 (Surr)	*98*		*71 - 118*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*
Dibromofluoromethane (Surr)	*91*		*70 - 128*

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

Lab Sample ID: LCSD 180-145590/7
Matrix: Water
Analysis Batch: 145590

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane			10.0	8.92		ug/L		89	50 - 139	3	35
Vinyl chloride			10.0	8.67		ug/L		87	53 - 138	5	35
Bromomethane			10.0	9.01		ug/L		90	33 - 150	4	35
Chloroethane			10.0	9.15		ug/L		91	36 - 142	0	35
1,1-Dichloroethene			10.0	8.59		ug/L		86	65 - 136	3	35
Acetone			20.0	20.3		ug/L		102	22 - 150	5	35
Carbon disulfide			10.0	8.89		ug/L		89	54 - 132	4	35
Methylene Chloride			10.0	8.73		ug/L		87	63 - 129	7	35
trans-1,2-Dichloroethene			10.0	9.26		ug/L		93	73 - 126	1	35
Methyl tert-butyl ether			10.0	8.94		ug/L		89	64 - 123	5	35
1,1-Dichloroethane			10.0	8.91		ug/L		89	73 - 126	1	35
cis-1,2-Dichloroethene			10.0	8.82		ug/L		88	70 - 120	1	35
Bromochloromethane			10.0	9.79		ug/L		98	70 - 127	8	35
2-Butanone (MEK)			20.0	20.8		ug/L		104	39 - 138	3	35
Chloroform			10.0	9.41		ug/L		94	72 - 127	1	35
1,1,1-Trichloroethane			10.0	8.78		ug/L		88	63 - 133	3	35
Carbon tetrachloride			10.0	8.90		ug/L		89	55 - 150	6	35
Benzene			10.0	9.44		ug/L		94	80 - 120	1	32
1,2-Dichloroethane			10.0	9.53		ug/L		95	68 - 132	5	32
Trichloroethene			10.0	9.10		ug/L		91	73 - 120	3	35
1,2-Dichloropropane			10.0	9.52		ug/L		95	76 - 124	0	34
Bromodichloromethane			10.0	9.49		ug/L		95	66 - 130	3	35
cis-1,3-Dichloropropene			10.0	9.37		ug/L		94	66 - 120	1	35
4-Methyl-2-pentanone (MIBK)			20.0	18.3		ug/L		92	45 - 145	0	35
Toluene			10.0	9.96		ug/L		100	80 - 123	0	35
trans-1,3-Dichloropropene			10.0	9.12		ug/L		91	65 - 125	2	35
1,1,2-Trichloroethane			10.0	9.60		ug/L		96	77 - 127	1	35
Tetrachloroethene			10.0	9.26		ug/L		93	70 - 135	0	35
2-Hexanone			20.0	21.1		ug/L		106	25 - 132	2	35
Dibromochloromethane			10.0	9.64		ug/L		96	60 - 140	0	35
1,2-Dibromoethane (EDB)			10.0	10.3		ug/L		103	74 - 123	4	35
Chlorobenzene			10.0	9.66		ug/L		97	80 - 120	1	29
1,1,1,2-Tetrachloroethane			10.0	9.72		ug/L		97	63 - 140	0	34
Ethylbenzene			10.0	9.43		ug/L		94	72 - 126	1	33
Xylenes, Total			20.0	19.4		ug/L		97	76 - 128	2	32
Styrene			10.0	10.1		ug/L		101	71 - 127	0	34
Bromoform			10.0	10.2		ug/L		102	46 - 150	0	35
1,1,2,2-Tetrachloroethane			10.0	10.2		ug/L		102	62 - 125	3	35
Acrylonitrile			100	97.6		ug/L		98	30 - 140	4	35
1,4-Dioxane			200	174	J	ug/L		87	10 - 160	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 135*
Toluene-d8 (Surr)	*95*		*71 - 118*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*
Dibromofluoromethane (Surr)	*93*		*70 - 128*

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

Lab Sample ID: MB 180-145689/5
Matrix: Water
Analysis Batch: 145689

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			06/22/15 11:12	1
Vinyl chloride	ND		1.0	0.23	ug/L			06/22/15 11:12	1
Bromomethane	ND		1.0	0.31	ug/L			06/22/15 11:12	1
Chloroethane	ND		1.0	0.21	ug/L			06/22/15 11:12	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			06/22/15 11:12	1
Acetone	ND		5.0	2.5	ug/L			06/22/15 11:12	1
Carbon disulfide	ND		1.0	0.21	ug/L			06/22/15 11:12	1
Methylene Chloride	ND		1.0	0.13	ug/L			06/22/15 11:12	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			06/22/15 11:12	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			06/22/15 11:12	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			06/22/15 11:12	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			06/22/15 11:12	1
Bromochloromethane	ND		1.0	0.18	ug/L			06/22/15 11:12	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			06/22/15 11:12	1
Chloroform	ND		1.0	0.17	ug/L			06/22/15 11:12	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			06/22/15 11:12	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			06/22/15 11:12	1
Benzene	ND		1.0	0.11	ug/L			06/22/15 11:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/22/15 11:12	1
Trichloroethene	ND		1.0	0.14	ug/L			06/22/15 11:12	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			06/22/15 11:12	1
Bromodichloromethane	ND		1.0	0.13	ug/L			06/22/15 11:12	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			06/22/15 11:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			06/22/15 11:12	1
Toluene	ND		1.0	0.15	ug/L			06/22/15 11:12	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			06/22/15 11:12	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			06/22/15 11:12	1
Tetrachloroethene	ND		1.0	0.15	ug/L			06/22/15 11:12	1
2-Hexanone	ND		5.0	0.16	ug/L			06/22/15 11:12	1
Dibromochloromethane	ND		1.0	0.14	ug/L			06/22/15 11:12	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			06/22/15 11:12	1
Chlorobenzene	ND		1.0	0.14	ug/L			06/22/15 11:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			06/22/15 11:12	1
Ethylbenzene	ND		1.0	0.23	ug/L			06/22/15 11:12	1
Xylenes, Total	ND		3.0	0.49	ug/L			06/22/15 11:12	1
Styrene	ND		1.0	0.097	ug/L			06/22/15 11:12	1
Bromoform	ND		1.0	0.19	ug/L			06/22/15 11:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			06/22/15 11:12	1
Acrylonitrile	ND		20	0.55	ug/L			06/22/15 11:12	1
1,4-Dioxane	ND		200	34	ug/L			06/22/15 11:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 135*		*06/22/15 11:12*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/22/15 11:12*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 118*		*06/22/15 11:12*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 128*		*06/22/15 11:12*	*1*

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

Lab Sample ID: LCS 180-145689/16
Matrix: Water
Analysis Batch: 145689

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	8.84		ug/L		88	50 - 139
Vinyl chloride	10.0	8.32		ug/L		83	53 - 138
Bromomethane	10.0	9.56		ug/L		96	33 - 150
Chloroethane	10.0	9.18		ug/L		92	36 - 142
1,1-Dichloroethene	10.0	8.16		ug/L		82	65 - 136
Acetone	20.0	19.8		ug/L		99	22 - 150
Carbon disulfide	10.0	8.73		ug/L		87	54 - 132
Methylene Chloride	10.0	9.15		ug/L		91	63 - 129
trans-1,2-Dichloroethene	10.0	8.83		ug/L		88	73 - 126
Methyl tert-butyl ether	10.0	9.69		ug/L		97	64 - 123
1,1-Dichloroethane	10.0	9.12		ug/L		91	73 - 126
cis-1,2-Dichloroethene	10.0	9.10		ug/L		91	70 - 120
Bromochloromethane	10.0	9.72		ug/L		97	70 - 127
2-Butanone (MEK)	20.0	18.1		ug/L		90	39 - 138
Chloroform	10.0	9.45		ug/L		95	72 - 127
1,1,1-Trichloroethane	10.0	8.72		ug/L		87	63 - 133
Carbon tetrachloride	10.0	8.04		ug/L		80	55 - 150
Benzene	10.0	9.34		ug/L		93	80 - 120
1,2-Dichloroethane	10.0	9.96		ug/L		100	68 - 132
Trichloroethene	10.0	9.12		ug/L		91	73 - 120
1,2-Dichloropropane	10.0	9.18		ug/L		92	76 - 124
Bromodichloromethane	10.0	9.41		ug/L		94	66 - 130
cis-1,3-Dichloropropene	10.0	9.07		ug/L		91	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	14.3		ug/L		71	45 - 145
Toluene	10.0	9.57		ug/L		96	80 - 123
trans-1,3-Dichloropropene	10.0	8.90		ug/L		89	65 - 125
1,1,2-Trichloroethane	10.0	9.38		ug/L		94	77 - 127
Tetrachloroethene	10.0	9.01		ug/L		90	70 - 135
2-Hexanone	20.0	14.9		ug/L		75	25 - 132
Dibromochloromethane	10.0	9.65		ug/L		96	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.96		ug/L		100	74 - 123
Chlorobenzene	10.0	9.45		ug/L		94	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.79		ug/L		98	63 - 140
Ethylbenzene	10.0	9.13		ug/L		91	72 - 126
Xylenes, Total	20.0	18.8		ug/L		94	76 - 128
Styrene	10.0	9.66		ug/L		97	71 - 127
Bromoform	10.0	9.85		ug/L		99	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	62 - 125
Acrylonitrile	100	105		ug/L		105	30 - 140
1,4-Dioxane	200	213		ug/L		106	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*64 - 135*
Toluene-d8 (Surr)	*91*		*71 - 118*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*
Dibromofluoromethane (Surr)	*90*		*70 - 128*

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

Lab Sample ID: 180-45088-11 MS
Matrix: Water
Analysis Batch: 145689

Client Sample ID: HD-COD-SW-17-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	ND		10.0	9.57		ug/L		96	50 - 139
Vinyl chloride	ND		10.0	9.68		ug/L		97	53 - 138
Bromomethane	ND		10.0	9.55		ug/L		96	33 - 150
Chloroethane	ND		10.0	9.57		ug/L		96	36 - 142
1,1-Dichloroethene	ND		10.0	10.1		ug/L		101	65 - 136
Acetone	ND		20.0	21.4		ug/L		107	22 - 150
Carbon disulfide	ND		10.0	10.3		ug/L		103	54 - 132
Methylene Chloride	ND	^c	10.0	7.70		ug/L		77	63 - 129
trans-1,2-Dichloroethene	ND		10.0	9.33		ug/L		93	73 - 126
Methyl tert-butyl ether	ND		10.0	9.08		ug/L		91	64 - 123
1,1-Dichloroethane	0.26	J	10.0	9.61		ug/L		93	73 - 126
cis-1,2-Dichloroethene	8.3	F1	10.0	20.9	F1	ug/L		125	70 - 120
Bromochloromethane	ND		10.0	9.09		ug/L		91	70 - 127
2-Butanone (MEK)	ND		20.0	19.4		ug/L		97	39 - 138
Chloroform	0.17	J	10.0	9.39		ug/L		94	72 - 127
1,1,1-Trichloroethane	1.3		10.0	11.5		ug/L		102	63 - 133
Carbon tetrachloride	ND		10.0	9.67		ug/L		97	55 - 150
Benzene	ND		10.0	9.53		ug/L		95	80 - 120
1,2-Dichloroethane	ND		10.0	9.18		ug/L		92	68 - 132
Trichloroethene	9.3	F1	10.0	22.6	F1	ug/L		133	73 - 120
1,2-Dichloropropane	ND		10.0	9.28		ug/L		93	76 - 124
Bromodichloromethane	ND		10.0	9.37		ug/L		94	66 - 130
cis-1,3-Dichloropropene	ND		10.0	9.12		ug/L		91	66 - 120
4-Methyl-2-pentanone (MIBK)	ND	^c	20.0	14.7		ug/L		74	45 - 145
Toluene	ND		10.0	9.98		ug/L		100	80 - 123
trans-1,3-Dichloropropene	ND		10.0	9.41		ug/L		94	65 - 125
1,1,2-Trichloroethane	ND		10.0	9.33		ug/L		93	77 - 127
Tetrachloroethene	20	F1	10.0	39.9	F1	ug/L		201	70 - 135
2-Hexanone	ND		20.0	16.7		ug/L		83	25 - 132
Dibromochloromethane	ND		10.0	9.65		ug/L		97	60 - 140
1,2-Dibromoethane (EDB)	ND		10.0	9.52		ug/L		95	74 - 123
Chlorobenzene	ND		10.0	9.62		ug/L		96	80 - 120
1,1,1,2-Tetrachloroethane	ND		10.0	9.89		ug/L		99	63 - 140
Ethylbenzene	ND		10.0	10.1		ug/L		101	72 - 126
Xylenes, Total	ND		20.0	20.2		ug/L		101	76 - 128
Styrene	ND		10.0	10.1		ug/L		101	71 - 127
Bromoform	ND		10.0	9.84		ug/L		98	46 - 150
1,1,2,2-Tetrachloroethane	ND		10.0	9.85		ug/L		99	62 - 125
Acrylonitrile	ND		100	95.9		ug/L		96	30 - 140
1,4-Dioxane	ND		200	179	J	ug/L		89	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 135*
Toluene-d8 (Surr)	*97*		*71 - 118*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*
Dibromofluoromethane (Surr)	*91*		*70 - 128*

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

Lab Sample ID: 180-45088-11 MSD
Matrix: Water
Analysis Batch: 145689

Client Sample ID: HD-COD-SW-17-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	ND		10.0	9.90		ug/L		99	50 - 139	3	35
Vinyl chloride	ND		10.0	9.81		ug/L		98	53 - 138	1	35
Bromomethane	ND		10.0	9.61		ug/L		96	33 - 150	1	35
Chloroethane	ND		10.0	9.49		ug/L		95	36 - 142	1	35
1,1-Dichloroethene	ND		10.0	9.97		ug/L		100	65 - 136	1	35
Acetone	ND		20.0	20.2		ug/L		101	22 - 150	6	35
Carbon disulfide	ND		10.0	9.95		ug/L		99	54 - 132	3	35
Methylene Chloride	ND	^c	10.0	7.80		ug/L		78	63 - 129	1	35
trans-1,2-Dichloroethene	ND		10.0	9.36		ug/L		94	73 - 126	0	35
Methyl tert-butyl ether	ND		10.0	9.13		ug/L		91	64 - 123	0	35
1,1-Dichloroethane	0.26	J	10.0	9.65		ug/L		94	73 - 126	0	35
cis-1,2-Dichloroethene	8.3	F1	10.0	20.8	F1	ug/L		124	70 - 120	1	35
Bromochloromethane	ND		10.0	8.89		ug/L		89	70 - 127	2	35
2-Butanone (MEK)	ND		20.0	18.6		ug/L		93	39 - 138	4	35
Chloroform	0.17	J	10.0	9.32		ug/L		93	72 - 127	1	35
1,1,1-Trichloroethane	1.3		10.0	11.8		ug/L		105	63 - 133	2	35
Carbon tetrachloride	ND		10.0	9.65		ug/L		97	55 - 150	0	35
Benzene	ND		10.0	9.28		ug/L		93	80 - 120	3	32
1,2-Dichloroethane	ND		10.0	9.05		ug/L		90	68 - 132	1	32
Trichloroethene	9.3	F1	10.0	22.4	F1	ug/L		131	73 - 120	1	35
1,2-Dichloropropane	ND		10.0	9.11		ug/L		91	76 - 124	2	34
Bromodichloromethane	ND		10.0	8.91		ug/L		89	66 - 130	5	35
cis-1,3-Dichloropropene	ND		10.0	8.81		ug/L		88	66 - 120	3	35
4-Methyl-2-pentanone (MIBK)	ND	^c	20.0	15.0		ug/L		75	45 - 145	2	35
Toluene	ND		10.0	9.81		ug/L		98	80 - 123	2	35
trans-1,3-Dichloropropene	ND		10.0	9.03		ug/L		90	65 - 125	4	35
1,1,2-Trichloroethane	ND		10.0	9.09		ug/L		91	77 - 127	3	35
Tetrachloroethene	20	F1	10.0	39.6	F1	ug/L		198	70 - 135	1	35
2-Hexanone	ND		20.0	16.9		ug/L		84	25 - 132	1	35
Dibromochloromethane	ND		10.0	9.39		ug/L		94	60 - 140	3	35
1,2-Dibromoethane (EDB)	ND		10.0	9.73		ug/L		97	74 - 123	2	35
Chlorobenzene	ND		10.0	9.73		ug/L		97	80 - 120	1	29
1,1,1,2-Tetrachloroethane	ND		10.0	9.69		ug/L		97	63 - 140	2	34
Ethylbenzene	ND		10.0	10.0		ug/L		100	72 - 126	1	33
Xylenes, Total	ND		20.0	20.3		ug/L		102	76 - 128	0	32
Styrene	ND		10.0	10.1		ug/L		101	71 - 127	0	34
Bromoform	ND		10.0	9.76		ug/L		98	46 - 150	1	35
1,1,2,2-Tetrachloroethane	ND		10.0	10.2		ug/L		102	62 - 125	4	35
Acrylonitrile	ND		100	95.9		ug/L		96	30 - 140	0	35
1,4-Dioxane	ND		200	189	J	ug/L		95	10 - 160	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*64 - 135*
Toluene-d8 (Surr)	*96*		*71 - 118*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*
Dibromofluoromethane (Surr)	*91*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-145170/6
Matrix: Water
Analysis Batch: 145170

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0136	J	0.10	0.0062	mg/L			06/16/15 13:28	1
Chloride	0.257	J	1.0	0.20	mg/L			06/16/15 13:28	1
Sulfate	ND		1.0	0.21	mg/L			06/16/15 13:28	1

Lab Sample ID: LCS 180-145170/5
Matrix: Water
Analysis Batch: 145170

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.57		mg/L		103	90 - 110
Chloride	50.0	51.4		mg/L		103	90 - 110
Sulfate	50.0	50.7		mg/L		101	90 - 110

Lab Sample ID: 180-45088-2 MS
Matrix: Water
Analysis Batch: 145170

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.9	B	1.25	4.16		mg/L		98	80 - 120
Chloride	43	B	25.0	66.8		mg/L		94	80 - 120
Sulfate	25		25.0	48.9		mg/L		94	80 - 120

Lab Sample ID: 180-45088-2 MSD
Matrix: Water
Analysis Batch: 145170

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.9	B	1.25	4.15		mg/L		97	80 - 120	0	20
Chloride	43	B	25.0	66.7		mg/L		94	80 - 120	0	20
Sulfate	25		25.0	48.6		mg/L		93	80 - 120	1	20

Lab Sample ID: MB 180-145223/6
Matrix: Water
Analysis Batch: 145223

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0142	J	0.10	0.0062	mg/L			06/17/15 07:33	1
Chloride	0.280	J	1.0	0.20	mg/L			06/17/15 07:33	1
Sulfate	ND		1.0	0.21	mg/L			06/17/15 07:33	1

Lab Sample ID: LCS 180-145223/5
Matrix: Water
Analysis Batch: 145223

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.52		mg/L		101	90 - 110
Chloride	50.0	50.5		mg/L		101	90 - 110
Sulfate	50.0	49.8		mg/L		100	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-45088-11 MS — **Client Sample ID: HD-COD-SW-17-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	3.5	H B	1.25	4.67	H	mg/L		94	80 - 120
Chloride	140	B	25.0	157	4	mg/L		88	80 - 120
Sulfate	34		25.0	57.0		mg/L		92	80 - 120

Lab Sample ID: 180-45088-11 MSD — **Client Sample ID: HD-COD-SW-17-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	3.5	H B	1.25	4.72	H	mg/L		98	80 - 120	1	20
Chloride	140	B	25.0	158	4	mg/L		93	80 - 120	1	20
Sulfate	34		25.0	58.0		mg/L		96	80 - 120	2	20

Lab Sample ID: MB 180-145224/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10	0.0062	mg/L			06/17/15 07:46	1
Chloride	ND		1.0	0.20	mg/L			06/17/15 07:46	1
Sulfate	ND		1.0	0.21	mg/L			06/17/15 07:46	1

Lab Sample ID: LCS 180-145224/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.54		mg/L		102	90 - 110
Chloride	50.0	50.6		mg/L		101	90 - 110
Sulfate	50.0	50.4		mg/L		101	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-45088-11 MS — **Client Sample ID: HD-COD-SW-17-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145681 — **Prep Batch: 145252**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	100000	B	50000	156000		ug/L		106	75 - 125
Potassium	5900		50000	55700		ug/L		99	75 - 125
Magnesium	19000	B	50000	63700		ug/L		90	75 - 125
Sodium	60000	B	50000	107000		ug/L		94	75 - 125

Lab Sample ID: 180-45088-11 MSD — **Client Sample ID: HD-COD-SW-17-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145681 — **Prep Batch: 145252**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	100000	B	50000	159000		ug/L		112	75 - 125	2	20

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

Lab Sample ID: 180-45088-11 MSD
Matrix: Water
Analysis Batch: 145681

Client Sample ID: HD-COD-SW-17-0/1-0
Prep Type: Total/NA
Prep Batch: 145252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	5900		50000	55900		ug/L		100	75 - 125	0	20
Magnesium	19000	B	50000	61800		ug/L		86	75 - 125	3	20
Sodium	60000	B	50000	103000		ug/L		85	75 - 125	4	20

Lab Sample ID: MB 180-145252/1-A
Matrix: Water
Analysis Batch: 145681

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 145252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	11.6	J	500	2.8	ug/L		06/17/15 08:47	06/19/15 10:54	1
Potassium	ND		500	5.8	ug/L		06/17/15 08:47	06/19/15 10:54	1
Magnesium	1.87	J	500	1.2	ug/L		06/17/15 08:47	06/19/15 10:54	1
Sodium	4.58	J	500	3.8	ug/L		06/17/15 08:47	06/19/15 10:54	1

Lab Sample ID: LCS 180-145252/2-A
Matrix: Water
Analysis Batch: 145681

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 145252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	55400		ug/L		111	80 - 120
Potassium	50000	51300		ug/L		103	80 - 120
Magnesium	50000	46300		ug/L		93	80 - 120
Sodium	50000	45000		ug/L		90	80 - 120

Lab Sample ID: MB 180-145430/1-A
Matrix: Water
Analysis Batch: 146255

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 145430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	6.11	J	500	2.8	ug/L		06/18/15 10:29	06/25/15 16:09	1
Potassium	ND		500	5.8	ug/L		06/18/15 10:29	06/25/15 16:09	1
Magnesium	ND		500	1.2	ug/L		06/18/15 10:29	06/25/15 16:09	1
Sodium	ND		500	3.8	ug/L		06/18/15 10:29	06/25/15 16:09	1

Lab Sample ID: LCS 180-145430/2-A
Matrix: Water
Analysis Batch: 146255

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 145430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	48400		ug/L		97	80 - 120
Potassium	50000	44400		ug/L		89	80 - 120
Magnesium	50000	41600		ug/L		83	80 - 120
Sodium	50000	42400		ug/L		85	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-146209/2
Matrix: Water
Analysis Batch: 146209

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	1.98	J	5.0	0.41	mg/L			06/26/15 09:33	1
Bicarbonate Alkalinity as CaCO3	1.98	J	5.0	0.41	mg/L			06/26/15 09:33	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			06/26/15 09:33	1

Lab Sample ID: LCS 180-146209/1
Matrix: Water
Analysis Batch: 146209

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	261		mg/L		105	80 - 120

Lab Sample ID: 180-45088-1 DU
Matrix: Water
Analysis Batch: 146209

Client Sample ID: HD-COD-SW-6-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	140	B	139		mg/L		0	20
Bicarbonate Alkalinity as CaCO3	130	B	139		mg/L		3	20
Carbonate Alkalinity as CaCO3	4.0	J	ND		mg/L		NC	20

Lab Sample ID: 180-45088-11 DU
Matrix: Water
Analysis Batch: 146209

Client Sample ID: HD-COD-SW-17-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	240	B	244		mg/L		0.8	20
Bicarbonate Alkalinity as CaCO3	230	B	236		mg/L		0.8	20
Carbonate Alkalinity as CaCO3	7.9		7.92		mg/L		0	20

GC/MS VOA

Analysis Batch: 145455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-45088-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260C	
180-45088-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260C	
180-45088-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260C	
180-45088-5	HD-COD-SW-10-0/1-0	Total/NA	Water	8260C	
LCS 180-145455/8	Lab Control Sample	Total/NA	Water	8260C	
LCSD 180-145455/9	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 180-145455/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 145590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-6	HD-COD-SW-11-0/1-0	Total/NA	Water	8260C	
180-45088-7	HD-COD-SW-12-0/1-0	Total/NA	Water	8260C	
180-45088-8	HD-COD-SW-13-0/1-0	Total/NA	Water	8260C	
180-45088-9	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C	
180-45088-10	HD-COD-SW-16-0/1-0	Total/NA	Water	8260C	
180-45088-12	HD-COD-SW-20-0/1-0	Total/NA	Water	8260C	
180-45088-13	HD-COD-SW-26-0/1-0	Total/NA	Water	8260C	
180-45088-14	HD-COD-SW-27-0/1-0	Total/NA	Water	8260C	
180-45088-15	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C	
180-45088-16	HD-COD-SW-29-0/1-0	Total/NA	Water	8260C	
180-45088-17	HD-QC1-0/1-1	Total/NA	Water	8260C	
LCS 180-145590/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 180-145590/7	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 180-145590/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 145689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-11	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-45088-11 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-45088-11 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-45088-18	HD-QC1-0/1-2	Total/NA	Water	8260C	
LCS 180-145689/16	Lab Control Sample	Total/NA	Water	8260C	
MB 180-145689/5	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 145170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-1	HD-COD-SW-6-0/1-0	Total/NA	Water	300.0	
180-45088-2	HD-COD-SW-7-0/1-0	Total/NA	Water	300.0	
180-45088-2 MS	HD-COD-SW-7-0/1-0	Total/NA	Water	300.0	
180-45088-2 MSD	HD-COD-SW-7-0/1-0	Total/NA	Water	300.0	
180-45088-4	HD-COD-SW-9-0/1-0	Total/NA	Water	300.0	
180-45088-6	HD-COD-SW-11-0/1-0	Total/NA	Water	300.0	
180-45088-14	HD-COD-SW-27-0/1-0	Total/NA	Water	300.0	
180-45088-15	HD-COD-SW-28-0/1-0	Total/NA	Water	300.0	
180-45088-17	HD-QC1-0/1-1	Total/NA	Water	300.0	
LCS 180-145170/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-145170/6	Method Blank	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 145223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-3	HD-COD-SW-8-0/1-0	Total/NA	Water	300.0	
180-45088-5	HD-COD-SW-10-0/1-0	Total/NA	Water	300.0	
180-45088-11	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
180-45088-11 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
180-45088-11 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
LCS 180-145223/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-145223/6	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 145224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-7	HD-COD-SW-12-0/1-0	Total/NA	Water	300.0	
180-45088-8	HD-COD-SW-13-0/1-0	Total/NA	Water	300.0	
180-45088-9	HD-COD-SW-15-0/1-0	Total/NA	Water	300.0	
180-45088-10	HD-COD-SW-16-0/1-0	Total/NA	Water	300.0	
180-45088-12	HD-COD-SW-20-0/1-0	Total/NA	Water	300.0	
180-45088-13	HD-COD-SW-26-0/1-0	Total/NA	Water	300.0	
180-45088-16	HD-COD-SW-29-0/1-0	Total/NA	Water	300.0	
LCS 180-145224/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-145224/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 145252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-2	HD-COD-SW-7-0/1-0	Total/NA	Water	3005A	
180-45088-5	HD-COD-SW-10-0/1-0	Total/NA	Water	3005A	
180-45088-6	HD-COD-SW-11-0/1-0	Total/NA	Water	3005A	
180-45088-7	HD-COD-SW-12-0/1-0	Total/NA	Water	3005A	
180-45088-8	HD-COD-SW-13-0/1-0	Total/NA	Water	3005A	
180-45088-10	HD-COD-SW-16-0/1-0	Total/NA	Water	3005A	
180-45088-11	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-45088-11 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-45088-11 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-45088-11 PDS	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-45088-11 SD	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-45088-12	HD-COD-SW-20-0/1-0	Total/NA	Water	3005A	
180-45088-13	HD-COD-SW-26-0/1-0	Total/NA	Water	3005A	
180-45088-15	HD-COD-SW-28-0/1-0	Total/NA	Water	3005A	
180-45088-16	HD-COD-SW-29-0/1-0	Total/NA	Water	3005A	
180-45088-17	HD-QC1-0/1-1	Total/NA	Water	3005A	
LCS 180-145252/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-145252/1-A	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 145430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-1	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-45088-3	HD-COD-SW-8-0/1-0	Total/NA	Water	3005A	
180-45088-4	HD-COD-SW-9-0/1-0	Total/NA	Water	3005A	
180-45088-9	HD-COD-SW-15-0/1-0	Total/NA	Water	3005A	
180-45088-14	HD-COD-SW-27-0/1-0	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 145430 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-145430/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-145430/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 145681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-2	HD-COD-SW-7-0/1-0	Total/NA	Water	6020A	145252
180-45088-5	HD-COD-SW-10-0/1-0	Total/NA	Water	6020A	145252
180-45088-6	HD-COD-SW-11-0/1-0	Total/NA	Water	6020A	145252
180-45088-7	HD-COD-SW-12-0/1-0	Total/NA	Water	6020A	145252
180-45088-8	HD-COD-SW-13-0/1-0	Total/NA	Water	6020A	145252
180-45088-10	HD-COD-SW-16-0/1-0	Total/NA	Water	6020A	145252
180-45088-11	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	145252
180-45088-11 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	145252
180-45088-11 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	145252
180-45088-11 PDS	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	145252
180-45088-11 SD	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	145252
180-45088-12	HD-COD-SW-20-0/1-0	Total/NA	Water	6020A	145252
180-45088-13	HD-COD-SW-26-0/1-0	Total/NA	Water	6020A	145252
180-45088-15	HD-COD-SW-28-0/1-0	Total/NA	Water	6020A	145252
180-45088-16	HD-COD-SW-29-0/1-0	Total/NA	Water	6020A	145252
180-45088-17	HD-QC1-0/1-1	Total/NA	Water	6020A	145252
CRI 180-145681/65	DL		Water	6020A	
CRI 180-145681/7	DL		Water	6020A	
ICSA 180-145681/8	ICS		Water	6020A	
ICSAB 180-145681/9	ICS		Water	6020A	
LCS 180-145252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	145252
MB 180-145252/1-A	Method Blank	Total Recoverable	Water	6020A	145252

Analysis Batch: 146255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-1	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	145430
180-45088-3	HD-COD-SW-8-0/1-0	Total/NA	Water	6020A	145430
180-45088-4	HD-COD-SW-9-0/1-0	Total/NA	Water	6020A	145430
180-45088-9	HD-COD-SW-15-0/1-0	Total/NA	Water	6020A	145430
180-45088-14	HD-COD-SW-27-0/1-0	Total/NA	Water	6020A	145430
CRI 180-146255/56	DL		Water	6020A	
CRI 180-146255/7	DL		Water	6020A	
ICSA 180-146255/8	ICS		Water	6020A	
ICSAB 180-146255/9	ICS		Water	6020A	
LCS 180-145430/2-A	Lab Control Sample	Total Recoverable	Water	6020A	145430
MB 180-145430/1-A	Method Blank	Total Recoverable	Water	6020A	145430

General Chemistry

Analysis Batch: 146209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-1	HD-COD-SW-6-0/1-0	Total/NA	Water	SM 2320B	
180-45088-1 DU	HD-COD-SW-6-0/1-0	Total/NA	Water	SM 2320B	
180-45088-2	HD-COD-SW-7-0/1-0	Total/NA	Water	SM 2320B	
180-45088-3	HD-COD-SW-8-0/1-0	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 146209 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-45088-4	HD-COD-SW-9-0/1-0	Total/NA	Water	SM 2320B	
180-45088-5	HD-COD-SW-10-0/1-0	Total/NA	Water	SM 2320B	
180-45088-6	HD-COD-SW-11-0/1-0	Total/NA	Water	SM 2320B	
180-45088-7	HD-COD-SW-12-0/1-0	Total/NA	Water	SM 2320B	
180-45088-8	HD-COD-SW-13-0/1-0	Total/NA	Water	SM 2320B	
180-45088-9	HD-COD-SW-15-0/1-0	Total/NA	Water	SM 2320B	
180-45088-10	HD-COD-SW-16-0/1-0	Total/NA	Water	SM 2320B	
180-45088-11	HD-COD-SW-17-0/1-0	Total/NA	Water	SM 2320B	
180-45088-11 DU	HD-COD-SW-17-0/1-0	Total/NA	Water	SM 2320B	
180-45088-12	HD-COD-SW-20-0/1-0	Total/NA	Water	SM 2320B	
180-45088-13	HD-COD-SW-26-0/1-0	Total/NA	Water	SM 2320B	
180-45088-14	HD-COD-SW-27-0/1-0	Total/NA	Water	SM 2320B	
180-45088-15	HD-COD-SW-28-0/1-0	Total/NA	Water	SM 2320B	
180-45088-16	HD-COD-SW-29-0/1-0	Total/NA	Water	SM 2320B	
180-45088-17	HD-QC1-0/1-1	Total/NA	Water	SM 2320B	
LCS 180-146209/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-146209/2	Method Blank	Total/NA	Water	SM 2320B	

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

Lab Sample ID: 180-45088-1

Date Collected: 06/15/15 10:35

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145455	06/18/15 21:45	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 13:47	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145430	06/18/15 10:29	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	146255	06/25/15 16:16	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-2

Date Collected: 06/15/15 11:25

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145455	06/18/15 22:09	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 15:08	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:02	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-3

Date Collected: 06/15/15 08:45

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145455	06/18/15 22:33	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145223	06/17/15 11:45	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145430	06/18/15 10:29	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	146255	06/25/15 16:20	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-4

Date Collected: 06/15/15 12:30

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145455	06/18/15 22:56	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 14:02	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145430	06/18/15 10:29	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	146255	06/25/15 16:24	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-5

Date Collected: 06/15/15 09:25

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145455	06/18/15 23:20	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145223	06/17/15 12:02	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:06	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-6

Date Collected: 06/15/15 13:15

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 19:21	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 14:17	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:09	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-7

Date Collected: 06/15/15 13:25

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 19:45	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 11:25	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:13	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-8

Date Collected: 06/15/15 09:15

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 20:09	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 12:00	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:17	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-9

Date Collected: 06/15/15 13:40

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 20:33	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 11:42	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145430	06/18/15 10:29	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	146255	06/25/15 16:28	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Date Collected: 06/15/15 09:45
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 20:57	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 12:17	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:21	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Date Collected: 06/15/15 10:10
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145689	06/22/15 16:40	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145223	06/17/15 12:20	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:35	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Date Collected: 06/15/15 10:40
Date Received: 06/17/15 10:15

Lab Sample ID: 180-45088-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 21:21	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 14:18	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:54	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-13

Date Collected: 06/15/15 11:10

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 21:44	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 11:07	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 11:58	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-14

Date Collected: 06/15/15 13:45

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 22:08	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 14:33	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145430	06/18/15 10:29	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	146255	06/25/15 16:31	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-15

Date Collected: 06/15/15 13:00

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 22:33	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 14:51	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 12:02	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-16

Date Collected: 06/15/15 08:30

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 22:56	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145224	06/17/15 14:36	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 12:06	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-17

Date Collected: 06/15/15 08:00

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145590	06/19/15 23:20	PJJ	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		145170	06/16/15 16:35	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	145252	06/17/15 08:47	BMH	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	145681	06/19/15 12:09	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	146209	06/26/15 09:33	PGJ	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-45088-18

Date Collected: 06/15/15 12:00

Matrix: Water

Date Received: 06/17/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	145689	06/22/15 13:06	PJJ	TAL PIT
	Instrument ID: CHHP5									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

AB1 = Ashwin Baikadi

BMH = Bobbi Hartsock

Batch Type: Analysis

CNF = Caitlin Ferguson

DLF = Donald Ferguson

MJH = Matthew Hartman

PGJ = Paul Johnson

PJJ = Patrick Journet

WTR = Bill Reinheimer

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

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

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

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

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-45088-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-45088-1	HD-COD-SW-6-0/1-0	Water	06/15/15 10:35	06/17/15 10:15
180-45088-2	HD-COD-SW-7-0/1-0	Water	06/15/15 11:25	06/17/15 10:15
180-45088-3	HD-COD-SW-8-0/1-0	Water	06/15/15 08:45	06/17/15 10:15
180-45088-4	HD-COD-SW-9-0/1-0	Water	06/15/15 12:30	06/17/15 10:15
180-45088-5	HD-COD-SW-10-0/1-0	Water	06/15/15 09:25	06/17/15 10:15
180-45088-6	HD-COD-SW-11-0/1-0	Water	06/15/15 13:15	06/17/15 10:15
180-45088-7	HD-COD-SW-12-0/1-0	Water	06/15/15 13:25	06/17/15 10:15
180-45088-8	HD-COD-SW-13-0/1-0	Water	06/15/15 09:15	06/17/15 10:15
180-45088-9	HD-COD-SW-15-0/1-0	Water	06/15/15 13:40	06/17/15 10:15
180-45088-10	HD-COD-SW-16-0/1-0	Water	06/15/15 09:45	06/17/15 10:15
180-45088-11	HD-COD-SW-17-0/1-0	Water	06/15/15 10:10	06/17/15 10:15
180-45088-12	HD-COD-SW-20-0/1-0	Water	06/15/15 10:40	06/17/15 10:15
180-45088-13	HD-COD-SW-26-0/1-0	Water	06/15/15 11:10	06/17/15 10:15
180-45088-14	HD-COD-SW-27-0/1-0	Water	06/15/15 13:45	06/17/15 10:15
180-45088-15	HD-COD-SW-28-0/1-0	Water	06/15/15 13:00	06/17/15 10:15
180-45088-16	HD-COD-SW-29-0/1-0	Water	06/15/15 08:30	06/17/15 10:15
180-45088-17	HD-QC1-0/1-1	Water	06/15/15 08:00	06/17/15 10:15
180-45088-18	HD-QC1-0/1-2	Water	06/15/15 12:00	06/17/15 10:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 145277

Lab Sample ID: IC 180-145277/6 Client Sample ID:

Date Analyzed: 06/17/15 14:07 Lab File ID: 50617006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.24	Peak Tail	fergusond	06/18/15 09:47

Lab Sample ID: IC 180-145277/8 Client Sample ID:

Date Analyzed: 06/17/15 14:54 Lab File ID: 50617008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Peak Tail	fergusond	06/18/15 08:49

Lab Sample ID: IC 180-145277/9 Client Sample ID:

Date Analyzed: 06/17/15 15:18 Lab File ID: 50617009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.93	Peak Tail	fergusond	06/18/15 08:50

Lab Sample ID: IC 180-145277/17 Client Sample ID:

Date Analyzed: 06/17/15 18:04 Lab File ID: 50617017.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.93	Peak Tail	fergusond	06/18/15 09:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 145455

Lab Sample ID: LCS 180-145455/8 Client Sample ID:

Date Analyzed: 06/18/15 15:48 Lab File ID: 50618008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	06/18/15 16:06

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 145590

Lab Sample ID: 180-45088-10 Client Sample ID: HD-COD-SW-16-0/1-0

Date Analyzed: 06/19/15 20:57 Lab File ID: 50619021.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	7.68	Poor chromatography	journetp	06/21/15 14:31

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01256	06/16/15	06/15/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00006	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
icccv_01257	06/18/15	06/17/15	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_01288	06/16/15	06/15/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00006	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00006	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
icicv_01289	06/18/15	06/17/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00006	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00006	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00171	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL2_00179	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00228	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_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00209	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL
							Nitrate as N	0.25 ug/mL
							Orthophosphate as P	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00225	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00228	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	0.25 ug/mL
							Orthophosphate as P	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL
.ICSTDL6_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL4_00143	04/16/15	04/15/15	DI Water, Lot na	5 mL	ICSTDL7_00141	0.5 mL	Bromide	2 ug/mL
							Chloride	10 ug/mL
							Fluoride	0.5 ug/mL
							Nitrate as N	0.5 ug/mL
							Orthophosphate as P	0.5 ug/mL
							Sulfate	10 ug/mL
							Nitrite as N	0.5 ug/mL
.ICSTDL7_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							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
ICSTDL4_00150	05/20/15	05/19/15	DI Water, Lot na	5 mL	ICSTDL7_00149	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_00149	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00145	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00141	1 mL	Bromide	4 ug/mL
							Chloride	20 ug/mL
							Fluoride	1 ug/mL
							Nitrate as N	1 ug/mL
							Orthophosphate as P	1 ug/mL
							Sulfate	20 ug/mL
							Nitrite as N	1 ug/mL
.ICSTDL7_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL5_00156	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00149	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_00149	05/20/15	05/19/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00149	05/20/15	05/19/15	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_00112	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.6 mL	Bromide	30 ug/mL
							Chloride	150 ug/mL
							Fluoride	7.5 ug/mL
							Nitrate as N	7.5 ug/mL
							Orthophosphate as P	7.5 ug/mL
							Sulfate	150 ug/mL
					ICPRIMARYSTDB_00008	0.6 mL	Nitrite as N	7.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL8_00118	05/20/15	05/19/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.6 mL	Bromide	30 ug/mL
							Chloride	150 ug/mL
							Fluoride	7.5 ug/mL
							Nitrate as N	7.5 ug/mL
							Orthophosphate as P	7.5 ug/mL
							Sulfate	150 ug/mL
					ICPRIMARYSTDB_00008	0.6 mL	Nitrite as N	7.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00115	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00119	05/20/15	05/19/15	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_00076	07/01/15	05/31/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00006	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00066	05/29/15	04/29/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00005	1 mL	Calcium	0.5 ppm
							Magnesium	0.5 ppm
							Potassium	0.5 ppm
							Sodium	0.5 ppm
.MMSCRI-1B_00005	04/01/16	Inorganic Ventures, Lot J2-MEB572092			(Purchased Reagent)		Calcium	125 ppm
							Magnesium	125 ppm
							Potassium	125 ppm
							Sodium	125 ppm
MICSABX_00072	07/19/15	06/19/15	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Ag	0.02 ppm
							As	0.02 ppm
							Cd	0.02 ppm
							Co	0.02 ppm
							Cr	0.02 ppm
							Cu	0.02 ppm
							Mn	0.0225 ppm
							Ni	0.02 ppm
							Zn	0.025 ppm
					MMSICSAB-1_00008	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_00007	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_00008	06/01/16	Inorganic Ventures, Lot J2-MEB575125			(Purchased Reagent)		Ba	10 ppm
							Be	10 ppm
							Pb	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							V	10 ppm
.MMSICSAB-2_00007	06/01/16	Inorganic Ventures, Lot J2-MEB575126			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm
							Se	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00068	07/19/15	06/19/15	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_00033	07/17/15	06/17/15	2% Nitric Acid, Lot 25106	250 mg/L	MICPMSICV_00018	10 mg/L	Calcium	40 mg/L
							Magnesium	40 mg/L
							Potassium	40 mg/L
							Sodium	40 mg/L
.MICPMSICV_00018	11/30/15	SPEX CertiPrep, Lot 7-230WL			(Purchased Reagent)		Calcium	1000 ppm
							Magnesium	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
MSTD2X_00047	07/01/15	05/31/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00006	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MTAPITTICPMS_00022	05/01/16	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

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
MTAPITTMSA_00024	04/01/16		INORGANIC VENTURES, Lot H2-MEB532044		(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSC_00030	04/01/16		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_00038	07/09/15	06/09/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00041	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00041	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_00038	07/09/15	06/09/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00091	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_00091	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00128	06/23/15	06/16/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00100	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00127	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00100	01/31/18		Restek, Lot A0108226		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00127	07/12/15	06/12/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00033	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00033	01/31/17		Restek, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00125	06/23/15	06/16/15	Methanol, Lot 85233	10 mL	VOA 8260VOAPR_00001	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							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

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
					VOA8260GAS1ST_00105	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
.VOA 8260VOAPR_00001	07/12/15	06/12/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00045	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00029	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

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	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00045	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00029	02/28/16		Restek, Lot A0108166		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.VOA8260GAS1ST_00105	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VOA8260VOAPRI_00125	06/23/15	06/16/15	Methanol, Lot 85233	10 mL	VOA 8260VOAPR_00001	1 mL	Xylenes, Total	50 ug/mL
.VOA 8260VOAPR_00001	07/12/15	06/12/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00029	1 mL	Xylenes, Total	500 ug/mL
..VOA8260MEGA1_00029	02/28/16		Restek, Lot A0108166		(Purchased Reagent)		Xylenes, Total	5000 ug/mL
VOAACRLOEINPR_00001	06/22/15	05/22/15	Methanol, Lot 85233	100 mL	VOAACRORES_00071	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00071	07/31/15		Restek, Lot A0109948		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1st_00002	07/16/15	06/16/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00022	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00022	09/30/16		Restek, Lot A0109701		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							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_00002	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00047	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00047	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWketmix1Re_00001	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00043	0.1 mL	2-Butanone (MEK)	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00043	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	12500 ug/mL
voaWketmix1Re_00001	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00043	0.1 mL	2-Hexanone	25 ug/mL
.VOA8260KET1ST_00043	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Hexanone	12500 ug/mL
voaWVA2nd Res_00007	07/01/15	06/01/15	Methanol, Lot 85233	25 mL	VOA8260VARES2_00051	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES2_00051	07/31/15		Restek, Lot A0108224		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WALK125PPMCCV_00087	12/25/15	06/25/15	DI Water, Lot SUPERQ	1000 mL	WNa2CO3P_00007	0.125 g	Total Alkalinity as CaCO3 to pH 4.5	125 mg/L
.WNa2CO3P_00007	07/09/18		Fisher Scientific, Lot 138124		(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g
WALK250PPMPi_00095	12/05/15	06/05/15	DI Water, Lot Super Q	1000 mL	WNa2CO3P_00007	0.25 g	Total Alkalinity as CaCO3 to pH 4.5	250 mg/L
.WNa2CO3P_00007	07/09/18		Fisher Scientific, Lot 138124		(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g

Reagent

ICPRIMARYSTA_00006

HIGH-PURITY STANDARDS
www.highpuritystandards.com

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

Certificate of Analysis

Product Description:

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

Certified Values:

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

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

Preparation Information:

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

Traceability Information:

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

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

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

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

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

Packaging and Storage Conditions:

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

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

Expiration Information:

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

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

Quality Information:

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

Angel Sellers,
Quality Manager

Reagent

ICPRIMARYSTDB_00008

HIGH-PURITY STANDARDS
www.highpuritystandards.com

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

Certificate of Analysis

Product Description:

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

Certified Value:

NO_2 as N 125.00 µg/mL ± 1.25 µg/mL

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

Preparation Information:

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

Traceability Information:

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

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

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

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

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

Packaging and Storage Conditions:

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

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

Expiration Information:

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

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

Quality Information:

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

Angel Sellers,
Quality Manager

Reagent

M6020ICS-0A_00005

INORGANIC VENTURES™

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Christiansburg, VA 24073 USA
inorganicventures.com

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

CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

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

Catalog No.: 6020ICS-0A

Lot Number: **G2-MEB476152MCA**

Matrix: 1.4% HNO3(v/v)

10,000 µg/mL ea:
Chloride,

2,000 µg/mL ea:
C,

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

20 µg/mL ea:
Mo, Ti

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

4.1 ASSAY INFORMATION

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

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

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

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: July 12, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0B_00006

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 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

2 µg/mL ea:

Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

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

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MCALSPECAREV_00006

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-CAL-SPECA-REV
Lot Number:	J2-MEB575123
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	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

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	25.01 ± 0.13 µg/mL	Arsenic, As	5.000 ± 0.032 µg/mL
Barium, Ba	4.997 ± 0.028 µg/mL	Beryllium, Be	5.003 ± 0.032 µg/mL
Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2 500 ± 11 µg/mL
Chromium+3, Cr3	4.999 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.025 µg/mL
Copper, Cu	4.998 ± 0.032 µg/mL	Iron, Fe	1 250 ± 6 µg/mL
Lead, Pb	4.999 ± 0.025 µg/mL	Magnesium, Mg	2 500 ± 12 µg/mL
Manganese, Mn	24.99 ± 0.12 µg/mL	Nickel, Ni	4.998 ± 0.028 µg/mL
Potassium, K	2 500 ± 11 µg/mL	Selenium, Se	4.998 ± 0.028 µg/mL
Silver, Ag	4.998 ± 0.036 µg/mL	Sodium, Na	2 500 ± 11 µg/mL
Strontium, Sr	5.002 ± 0.032 µg/mL	Thallium, Tl	4.999 ± 0.040 µg/mL
Vanadium, V	5.002 ± 0.032 µg/mL	Zinc, Zn	5.001 ± 0.028 µg/mL

Certified Density: 1.048 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	060502
As	EDTA		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
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	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
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	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MICPMSICV_00018

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

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

Description: Custom Claritas Standard

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

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

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

Instrumental Analysis by ICP Spectrometer:

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

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

SPEX CertiPrep Reference Multi: Lot# ALL 8

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

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

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

Date of Certification: NOV 2014 Certifying Officer:

Report of Certification

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

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

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

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

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

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

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

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

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

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

SPEX CertiPrep®
Your Science is Our Passion.®

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Reagent

MMSCRI-1B_00005

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CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030
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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 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	892707
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

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

Certified Value $(\bar{X}) = \frac{\Sigma X_i}{n}$ ($\bar{X}$) = mean

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 20, 2015

11.2 Expiration Date

EXPIRES
01 APR 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-1_00008

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CERTIFICATE OF ANALYSIS

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSICSAB-1
Lot Number:	J2-MEB575125
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Ba, Be, Pb,
Sr, Tl, V

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.00 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL
Lead, Pb	10.00 ± 0.05 µg/mL	Strontium, Sr	10.00 ± 0.06 µg/mL
Thallium, Tl	10.00 ± 0.08 µg/mL	Vanadium, V	10.00 ± 0.06 µg/mL

Certified Density: 1.013 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	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 (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$ 2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JAN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-2_00007

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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

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSICSAB-2
Lot Number:	J2-MEB575126
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	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

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	25.01 ± 0.17 µg/mL
Selenium, Se	25.00 ± 0.17 µg/mL	Silicon, Si	250.0 ± 1.9 µg/mL
Tin, Sn	50.01 ± 0.23 µg/mL		

Certified Density: 1.016 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	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	100901
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTICPMS_00022

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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

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

1551024
ID: MTAPITTICPMS_00022
Exp: 05/01/16 Prpd: AB1
TAPITT-MS-ICPMS SPIKE

1551023
ID: MTAPITTICPMS_00022
Exp: 05/01/16 Prpd: AB1
TAPITT-MS-ICPMS SPIKE

Rec 04/28/15
AB

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
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	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2014

11.2 Expiration Date

EXPIRES
1 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Donna Senn

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

Reagent

MTAPITTMSA_00023

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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 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSA_00024

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

Recd 3/19/15
a B

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	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 22 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Sodium, Na	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 $(\bar{x}) = \frac{\Sigma x_i}{n}$ ($\bar{x}$) = mean
x_i = individual results
n = number of measurements

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

4.0 TRACEABILITY TO NIST

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

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

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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 Expiration Date

EXPIRES
1 APR 2016

11.3 Period of Validity

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

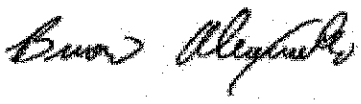
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

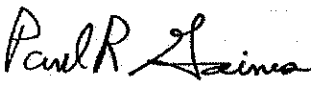
Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MTAPITTMSC_00030

ISO 7793, ISO 7794

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300 Technology Drive
Christiansburg, VA 24073 • USA
inorganicventures.com
tel: 800.669.6799 • 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	H2-MEB532046
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Si, 200 µg/mL ea: Sn, 100 µg/mL ea: Mo, Ti, 50 µg/mL ea: Sb

Recd 3/19/15
QB

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	49.98 ± 0.38 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL	Silicon, Si	1 000 ± 7 µg/mL
Tin, Sn	200.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.7 µg/mL		

Certified Density: 1.017 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

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

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

Uncertainty (±) = 2 [$\Sigma(s_i)^2$]^{½} 2 = the coverage factor.
[$\Sigma(s_i)^2$]^{½} = 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

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

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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 Expiration Date

EXPIRES
1 APR 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

VOA8260GAS1ST_00105

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Reference Material Producer
Certificate #3222.01

Certificate of Analysis

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0110070

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

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,499.9 µg/mL	+/- 17.9502 µg/mL +/- 30.0934 µg/mL +/- 34.1055 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,500.1 µg/mL	+/- 17.2963 µg/mL +/- 29.7101 µg/mL +/- 33.7686 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,500.2 µg/mL	+/- 16.5642 µg/mL +/- 29.2906 µg/mL +/- 33.4004 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.0 µg/mL	+/- 17.0072 µg/mL +/- 29.5416 µg/mL +/- 33.6200 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,499.8 µg/mL	+/- 18.9451 µg/mL +/- 30.6969 µg/mL +/- 34.6391 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 17.6395 µg/mL +/- 29.9122 µg/mL +/- 33.9470 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.2 µg/mL	+/- 16.7318 µg/mL +/- 29.3854 µg/mL +/- 33.4835 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,500.3	µg/mL	+/-	16.5866	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBD5121V)			+/-	29.3037	µg/mL	Unstressed
	Purity 99%				+/-	33.4120	µg/mL	Stressed

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

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

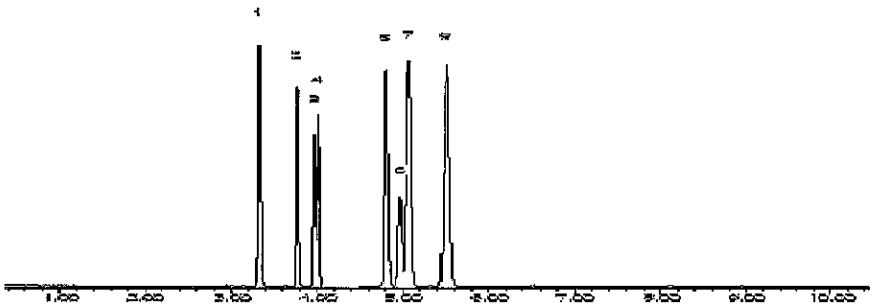
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

Date Mixed: 02-Apr-2015 **Balance:** B251644995

Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

Reagent

VOA8260GAS2ND_00100

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CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

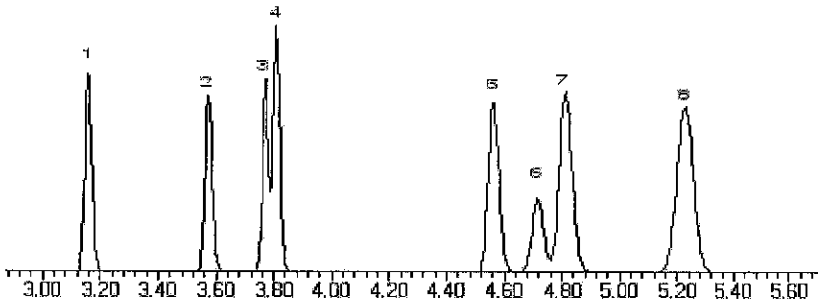
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

Jennifer L. Pollino - QC Analyst

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

Date Passed: 14-Jan-2015

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

Reagent

VOA8260INTRES_00041

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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%

Reagent

VOA8260KET1ST_00043

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CERTIFIED REFERENCE MATERIAL

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Reference Material Producer
Certificate #3222.01

Certificate of Analysis

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0110400

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

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

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,506.8 µg/mL	+/- 73.2301 µg/mL +/- 665.6407 µg/mL +/- 666.3747 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,504.8 µg/mL	+/- 73.2184 µg/mL +/- 665.5343 µg/mL +/- 666.2681 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,509.2 µg/mL	+/- 73.2441 µg/mL +/- 665.7684 µg/mL +/- 666.5025 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBN7380V) **Purity** 99%	12,501.6 µg/mL	+/- 73.1996 µg/mL +/- 665.3640 µg/mL +/- 666.0976 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00045

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0110400

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

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

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,506.8 µg/mL	+/- 73.2301 µg/mL +/- 665.6407 µg/mL +/- 666.3747 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,504.8 µg/mL	+/- 73.2184 µg/mL +/- 665.5343 µg/mL +/- 666.2681 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,509.2 µg/mL	+/- 73.2441 µg/mL +/- 665.7684 µg/mL +/- 666.5025 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBN7380V) **Purity** 99%	12,501.6 µg/mL	+/- 73.1996 µg/mL +/- 665.3640 µg/mL +/- 666.0976 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET2ND_00047

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CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721.SEC **Lot No.:** A0108157

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone		12,504.0	µg/mL	+/- 73.2137	µg/mL	Gravimetric
	CAS # 67-64-1.SEC	(Lot 0902033)			+/- 665.4917	µg/mL	Unstressed
	Purity 99%				+/- 666.2255	µg/mL	Stressed
2	2-Butanone (MEK)		12,506.0	µg/mL	+/- 73.2254	µg/mL	Gravimetric
	CAS # 78-93-3.SEC	(Lot VEGGI)			+/- 665.5981	µg/mL	Unstressed
	Purity 99%				+/- 666.3320	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,537.3	µg/mL	+/- 73.4088	µg/mL	Gravimetric
	CAS # 108-10-1.SEC	(Lot E29T040)			+/- 667.2658	µg/mL	Unstressed
	Purity 99%				+/- 668.0015	µg/mL	Stressed
4	2-Hexanone		12,508.7	µg/mL	+/- 73.2410	µg/mL	Gravimetric
	CAS # 591-78-6.SEC	(Lot ZSVCD-FF)			+/- 665.7401	µg/mL	Unstressed
	Purity 99%				+/- 666.4741	µg/mL	Stressed

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

Reagent

VOA8260MEGA1_00029

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Catalog No. : 569720 **Lot No.:** A0108166

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : January 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBF3466V) **Purity** 99%	2,521.3 µg/mL	+/- 14.6588 µg/mL +/- 134.1754 µg/mL +/- 134.3233 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00001135) **Purity** 99%	2,522.5 µg/mL	+/- 14.6660 µg/mL +/- 134.2419 µg/mL +/- 134.3899 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethane **CAS #** 75-34-3 (Lot Q179-33) **Purity** 98%	2,499.5 µg/mL	+/- 14.5323 µg/mL +/- 133.0173 µg/mL +/- 133.1640 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBC6893V) **Purity** 99%	25,002.4 µg/mL	+/- 145.3584 µg/mL +/- 1,330.5704 µg/mL +/- 1,332.0378 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBC7288V) **Purity** 99%	2,510.0 µg/mL	+/- 14.5934 µg/mL +/- 133.5767 µg/mL +/- 133.7240 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9 (Lot SHBD7134V) **Purity** 98%	12,505.4 µg/mL	+/- 72.7037 µg/mL +/- 665.5101 µg/mL +/- 666.2440 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot MKBG5777V) **Purity** 99%	2,500.0 µg/mL	+/- 19.2743 µg/mL +/- 133.6453 µg/mL +/- 133.7914 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	Purity 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	Purity 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	Purity 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	Purity 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	Purity 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	Purity 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	Purity 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	Purity 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	Purity 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	Purity 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	Purity 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	Purity 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	Purity 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	Purity 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	Purity 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	Purity 99%				+/-	133.4709	µg/mL	Stressed

24	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBF2321V)	2,501.4	µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBC6595V)	2,501.6	µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBD4617V)	2,509.1	µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBF0943V)	2,504.8	µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane **CAS #** 108-87-2 **Purity** 99%	(Lot 50996APV)	2,502.5	µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,502.4	µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane **CAS #** 75-27-4 **Purity** 98%	(Lot MKBL1617V)	2,507.9	µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBF2002V)	50,001.4	µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 99%	(Lot 10169264)	2,508.1	µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 20936)	2,507.0	µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBF2730V)	2,502.4	µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot 69796APV)	2,500.9	µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C363110)	2,502.1	µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,507.5	µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,505.3	µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD2073V)	2,506.5	µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,503.2	µg/mL	+/-	14.5536	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBP0459V)			+/-	133.2129	µg/mL	Unstressed
	Purity 98%				+/-	133.3598	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,504.3	µg/mL	+/-	14.5599	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	133.2707	µg/mL	Unstressed
	Purity 99%				+/-	133.4176	µg/mL	Stressed
42	Chlorobenzene		2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBD3200V)			+/-	133.6166	µg/mL	Unstressed
	Purity 99%				+/-	133.7639	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	133.1975	µg/mL	Unstressed
	Purity 99%				+/-	133.3444	µg/mL	Stressed
44	Ethylbenzene		2,509.6	µg/mL	+/-	14.5912	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBC9001V)			+/-	133.5567	µg/mL	Unstressed
	Purity 99%				+/-	133.7040	µg/mL	Stressed
45	m-Xylene		1,252.6	µg/mL	+/-	7.2829	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF1720V)			+/-	66.6619	µg/mL	Unstressed
	Purity 99%				+/-	66.7355	µg/mL	Stressed
46	o-Xylene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBC8668V)			+/-	133.2390	µg/mL	Unstressed
	Purity 98%				+/-	133.3859	µg/mL	Stressed
47	p-Xylene		1,253.3	µg/mL	+/-	7.2865	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	66.6952	µg/mL	Unstressed
	Purity 99%				+/-	66.7688	µg/mL	Stressed
48	Styrene		2,503.5	µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot 10182421)			+/-	133.2307	µg/mL	Unstressed
	Purity 99%				+/-	133.3777	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10169400)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
50	bromoform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	133.4569	µg/mL	Unstressed
	Purity 99%				+/-	133.6041	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,510.3	µg/mL	+/-	14.5948	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)			+/-	133.5900	µg/mL	Unstressed
	Purity 99%				+/-	133.7373	µg/mL	Stressed
52	chloroform		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBB7498V)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 1428739V)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.5	µg/mL	+/-	14.5322	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP5371V)			+/-	133.0168	µg/mL	Unstressed
	Purity 96%				+/-	133.1635	µg/mL	Stressed
55	n-Propylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBQ8049V)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot MKBD4032V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ1732V)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBH8892V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBB7205V)	2,506.4 µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot S52237V)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBJ3305V)	2,503.1 µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBK3151V)	2,504.0 µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBK4439V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBC1891V)	2,506.1 µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBL3891V)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09418JJV)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot 68996CMV)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	2,505.9 µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot 26896BM)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 98%	(Lot K22W009)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBH4351V)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	µg/mL	Stressed

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

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

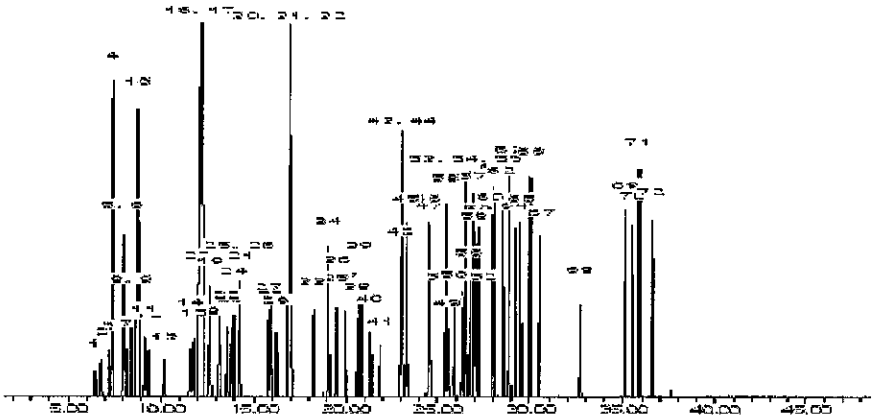
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

Date Mixed: 07-Jan-2015 **Balance:** 1125113331

Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260MEGA2_00033

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110 Benner Circle
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720.sec **Lot No.:** A0108163

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : January 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 133.1044 µg/mL +/- 133.2511 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 133.1044 µg/mL +/- 133.2511 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 903000) **Purity** 99%	2,502.8 µg/mL	+/- 14.5512 µg/mL +/- 133.1908 µg/mL +/- 133.3377 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.5 µg/mL	+/- 145.3477 µg/mL +/- 1,330.4725 µg/mL +/- 1,331.9397 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot A13Y016) **Purity** 97%	2,500.5 µg/mL	+/- 14.5383 µg/mL +/- 133.0732 µg/mL +/- 133.2199 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9.SEC (Lot YDGVD) **Purity** 99%	12,500.6 µg/mL	+/- 72.6759 µg/mL +/- 665.2553 µg/mL +/- 665.9889 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot 5MNOA-DQ) **Purity** 99%	2,501.3 µg/mL	+/- 14.5425 µg/mL +/- 133.1110 µg/mL +/- 133.2578 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	133.1177	µg/mL	Unstressed
	Purity 99%				+/-	133.2645	µg/mL	Stressed
9	Carbon disulfide		2,501.2	µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	133.1086	µg/mL	Unstressed
	Purity 98%				+/-	133.2554	µg/mL	Stressed
10	Acrylonitrile		25,002.1	µg/mL	+/-	145.3569	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot CCFKL)			+/-	1,330.5571	µg/mL	Unstressed
	Purity 99%				+/-	1,332.0244	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed
12	n-Hexane (C6)		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot K24W001)			+/-	133.0499	µg/mL	Unstressed
	Purity 98%				+/-	133.1967	µg/mL	Stressed
13	1,1-Dichloroethane		2,503.0	µg/mL	+/-	14.5527	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 2663100)			+/-	133.2041	µg/mL	Unstressed
	Purity 99%				+/-	133.3510	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot GI01)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	133.0538	µg/mL	Unstressed
	Purity 97%				+/-	133.2005	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,501.3	µg/mL	+/-	363.3687	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot PH2XK)			+/-	3,326.1766	µg/mL	Unstressed
	Purity 99%				+/-	3,329.8447	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	133.0711	µg/mL	Unstressed
	Purity 99%				+/-	133.2178	µg/mL	Stressed
18	Bromochloromethane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 345600)			+/-	133.0777	µg/mL	Unstressed
	Purity 99%				+/-	133.2245	µg/mL	Stressed
19	Tetrahydrofuran		5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot XWFLA)			+/-	266.2087	µg/mL	Unstressed
	Purity 99%				+/-	266.5023	µg/mL	Stressed
20	1,1,1-Trichloroethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot 1103200)			+/-	133.1443	µg/mL	Unstressed
	Purity 99%				+/-	133.2911	µg/mL	Stressed
21	Cyclohexane		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
22	1,1-Dichloropropene		2,501.1	µg/mL	+/-	14.5419	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 2028500)			+/-	133.1054	µg/mL	Unstressed
	Purity 97%				+/-	133.2522	µg/mL	Stressed
23	Carbon tetrachloride		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	133.1477	µg/mL	Unstressed
	Purity 98%				+/-	133.2946	µg/mL	Stressed

24	n-Heptane (C7)		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot OGM01)			+/-	133.0644	µg/mL	Unstressed
	Purity 99%				+/-	133.2112	µg/mL	Stressed
25	1,2-Dichloroethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	133.1443	µg/mL	Unstressed
	Purity 99%				+/-	133.2911	µg/mL	Stressed
26	Benzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	133.0911	µg/mL	Unstressed
	Purity 99%				+/-	133.2378	µg/mL	Stressed
27	Trichloroethene		2,500.6	µg/mL	+/-	14.5387	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	133.0760	µg/mL	Unstressed
	Purity 98%				+/-	133.2228	µg/mL	Stressed
28	Methylcyclohexane		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot 24MSD-CD)			+/-	133.0711	µg/mL	Unstressed
	Purity 99%				+/-	133.2178	µg/mL	Stressed
29	1,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot OGG01)			+/-	133.0445	µg/mL	Unstressed
	Purity 99%				+/-	133.1912	µg/mL	Stressed
30	Bromodichloromethane		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 10171168)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
31	1,4-Dioxane		50,000.8	µg/mL	+/-	290.6935	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot CHA4A)			+/-	2,660.9280	µg/mL	Unstressed
	Purity 99%				+/-	2,663.8624	µg/mL	Stressed
32	Dibromomethane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	133.0777	µg/mL	Unstressed
	Purity 99%				+/-	133.2245	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 7ZLXJ-TJ)			+/-	133.0977	µg/mL	Unstressed
	Purity 99%				+/-	133.2445	µg/mL	Stressed
34	Toluene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	133.0511	µg/mL	Unstressed
	Purity 99%				+/-	133.1979	µg/mL	Stressed
35	Ethyl methacrylate		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,501.6	µg/mL	+/-	14.5444	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot 2ECIC-NM)			+/-	133.1282	µg/mL	Unstressed
	Purity 98%				+/-	133.2750	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 732700)			+/-	133.0977	µg/mL	Unstressed
	Purity 99%				+/-	133.2445	µg/mL	Stressed
38	1,3-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
39	Tetrachloroethene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	133.0445	µg/mL	Unstressed
	Purity 99%				+/-	133.1912	µg/mL	Stressed

40	Dibromochloromethane		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot I13W021)			+/-	133.1377	µg/mL	Unstressed
	Purity 97%				+/-	133.2845	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,502.1	µg/mL	+/-	14.5472	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 1368400)			+/-	133.1542	µg/mL	Unstressed
	Purity 98%				+/-	133.3011	µg/mL	Stressed
42	Chlorobenzene		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	133.1310	µg/mL	Unstressed
	Purity 99%				+/-	133.2778	µg/mL	Stressed
43	1,1,1,2-Tetrachloroethane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01-QSHR)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
44	Ethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE-GR)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed
45	m-Xylene		1,250.4	µg/mL	+/-	7.2698	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	66.5422	µg/mL	Unstressed
	Purity 99%				+/-	66.6156	µg/mL	Stressed
46	o-Xylene		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01-KTPK)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
47	p-Xylene		1,251.6	µg/mL	+/-	7.2771	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	66.6087	µg/mL	Unstressed
	Purity 99%				+/-	66.6822	µg/mL	Stressed
48	Styrene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)			+/-	133.0911	µg/mL	Unstressed
	Purity 99%				+/-	133.2378	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
50	Bromoform		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 1039300)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
51	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	133.1975	µg/mL	Unstressed
	Purity 99%				+/-	133.3444	µg/mL	Stressed
52	Chloroform		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 67-66-3.SEC	(Lot 1297547)			+/-	133.1310	µg/mL	Unstressed
	Purity 99%				+/-	133.2778	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)			+/-	133.1477	µg/mL	Unstressed
	Purity 98%				+/-	133.2946	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,502.7	µg/mL	+/-	14.5510	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-2)			+/-	133.1893	µg/mL	Unstressed
	Purity 97%				+/-	133.3362	µg/mL	Stressed
55	n-Propylbenzene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC-IT)			+/-	133.0445	µg/mL	Unstressed
	Purity 99%				+/-	133.1912	µg/mL	Stressed

56	Bromobenzene **CAS #** 108-86-1.SEC **Purity** 99%	(Lot 2FUHG-EM)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene **CAS #** 95-63-6.SEC **Purity** 99%	(Lot SC7LO-QA)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8.SEC **Purity** 99%	(Lot SW8QG-AO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4.SEC **Purity** 99%	(Lot P4XHJ-AO)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6.SEC **Purity** 99%	(Lot OGN01)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene **CAS #** 108-67-8.SEC **Purity** 99%	(Lot FGH02-CMLN)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8.SEC **Purity** 99%	(Lot OGN01)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) **CAS #** 99-87-6.SEC **Purity** 99%	(Lot 1721700)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1.SEC **Purity** 99%	(Lot FMDFD-KA)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7.SEC **Purity** 99%	(Lot YWKDC-MK)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8.SEC **Purity** 99%	(Lot OGN01)	2,500.6 µg/mL	+/- 14.5388 +/- 133.0777 +/- 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1.SEC **Purity** 99%	(Lot 4NRGF-OT)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8.SEC **Purity** 97%	(Lot LC00408V)	2,500.5 µg/mL	+/- 14.5383 +/- 133.0732 +/- 133.2199	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1.SEC **Purity** 99%	(Lot OGO01)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3.SEC **Purity** 97%	(Lot 2009400)	2,501.0 µg/mL	+/- 14.5412 +/- 133.0990 +/- 133.2458	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3.SEC **Purity** 99%	(Lot 4KW3H-OO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.4	µg/mL	+/-	14.5490	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/-	133.1709	µg/mL	Unstressed
	Purity 99%				+/-	133.3177	µg/mL	Stressed

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

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

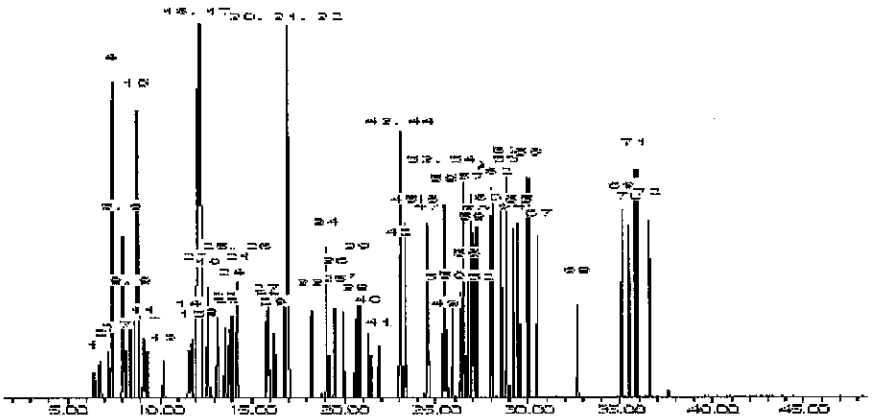
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Tyler Brown - QA Analyst

Date Mixed: 07-Jan-2015 **Balance:** 1127510105

Date Passed: 14-Jan-2015

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

Reagent

VOA8260SURRES_00091

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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.:** A0102817

Description : 8260 Surrogate Standard

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

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

Expiration Date : April 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 022012) **Purity** 99%	2,503.8 µg/mL	+/- 14.5573 +/- 28.2339 +/- 32.4891	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 13I-483) **Purity** 99%	2,502.4 µg/mL	+/- 14.5492 +/- 28.2182 +/- 32.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 28.1911 +/- 32.4398	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,503.6 µg/mL	+/- 14.5561 +/- 28.2317 +/- 32.4865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260VARES2_00051

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00071

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0109948

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 : July 31, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,756.0 µg/mL	+/- 115.6757	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 150115JLM)		+/- 633.4395	µg/mL	Unstressed
	Purity 99%		+/- 736.3041	µg/mL	Stressed

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

Reagent

VOARESEE1ST_00022

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

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

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

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

Reagent

WNa2CO3P_00007

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S263**	**Quality Test / Release Date**	**4/8/2014**
Lot Number	**138124**		
Description	**SODIUM CARBONATE, ANHYDROUS, CERTIFIED A.C.S.**		
Country of Origin	**China**	*** Suggested Retest Date**	**Apr-2019**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White granular powder
ASSAY	%	>= 99.5	100.3
CALCIUM	%	<= 0.03	0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
LOSS ON HEATING @ 285 DEG C	%	<= 1.0	0.1
MAGNESIUM	%	<= 0.005	<0.001
PHOSPHATE (PO4)	%	<= 0.001	0.0010
POTASSIUM (K)	%	<= 0.005	0.001
SILICA (SiO2)	%	<= 0.005	0.005
SULFUR COMPOUNDS	%	<= 0.003	<0.0030

Lab Manager Fair Lawn

1243950
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243948
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243949
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243947
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Method 8260C Low Level

Volatile Organic Compounds (GC/MS) by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

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	180-45088-1	113	111	93	86
HD-COD-SW-7-0/1-0	180-45088-2	111	108	94	85
HD-COD-SW-8-0/1-0	180-45088-3	113	113	94	87
HD-COD-SW-9-0/1-0	180-45088-4	112	111	96	88
HD-COD-SW-10-0/1-0	180-45088-5	116	114	94	84
HD-COD-SW-11-0/1-0	180-45088-6	105	107	98	91
HD-COD-SW-12-0/1-0	180-45088-7	103	108	98	86
HD-COD-SW-13-0/1-0	180-45088-8	105	109	97	88
HD-COD-SW-15-0/1-0	180-45088-9	106	106	95	86
HD-COD-SW-16-0/1-0	180-45088-10	109	107	97	86
HD-COD-SW-17-0/1-0	180-45088-11	101	103	94	92
HD-COD-SW-20-0/1-0	180-45088-12	105	108	98	88
HD-COD-SW-26-0/1-0	180-45088-13	107	110	95	88
HD-COD-SW-27-0/1-0	180-45088-14	110	111	94	87
HD-COD-SW-28-0/1-0	180-45088-15	113	112	95	84
HD-COD-SW-29-0/1-0	180-45088-16	109	112	90	85
HD-QC1-0/1-1	180-45088-17	106	109	96	89
HD-QC1-0/1-2	180-45088-18	106	101	94	110
	MB 180-145455/7	101	104	98	90
	MB 180-145590/5	105	108	102	86
	MB 180-145689/5	95	96	98	85
	LCS 180-145455/8	92	89	98	94
	LCS 180-145590/6	91	90	98	91
	LCS 180-145689/16	90	92	91	92
	LCSD 180-145455/9	88	89	94	93
	LCSD 180-145590/7	93	91	95	94
HD-COD-SW-17-0/1-0 MS	180-45088-11 MS	91	89	97	97
HD-COD-SW-17-0/1-0 MSD	180-45088-11 MSD	91	86	96	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50618008.D

Lab ID: LCS 180-145455/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.20	92	50-139	
Vinyl chloride	10.0	9.35	93	53-138	
Bromomethane	10.0	9.44	94	33-150	
Chloroethane	10.0	9.17	92	36-142	
1,1-Dichloroethene	10.0	8.99	90	65-136	
Acetone	20.0	17.6	88	22-150	
Carbon disulfide	10.0	9.02	90	54-132	
Methylene Chloride	10.0	7.80	78	63-129	
trans-1,2-Dichloroethene	10.0	9.31	93	73-126	
Methyl tert-butyl ether	10.0	8.60	86	64-123	
1,1-Dichloroethane	10.0	8.73	87	73-126	
cis-1,2-Dichloroethene	10.0	8.67	87	70-120	
Bromochloromethane	10.0	8.89	89	70-127	
2-Butanone (MEK)	20.0	18.8	94	39-138	
Chloroform	10.0	9.20	92	72-127	
1,1,1-Trichloroethane	10.0	9.03	90	63-133	
Carbon tetrachloride	10.0	9.17	92	55-150	
Benzene	10.0	9.28	93	80-120	
1,2-Dichloroethane	10.0	9.06	91	68-132	
Trichloroethene	10.0	8.92	89	73-120	
1,2-Dichloropropane	10.0	9.21	92	76-124	
Bromodichloromethane	10.0	8.92	89	66-130	
cis-1,3-Dichloropropene	10.0	9.34	93	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.3	91	45-145	
Toluene	10.0	9.78	98	80-123	
trans-1,3-Dichloropropene	10.0	9.26	93	65-125	
1,1,2-Trichloroethane	10.0	9.33	93	77-127	
Tetrachloroethene	10.0	9.65	97	70-135	
2-Hexanone	20.0	17.8	89	25-132	
Dibromochloromethane	10.0	9.27	93	60-140	
1,2-Dibromoethane (EDB)	10.0	9.73	97	74-123	
Chlorobenzene	10.0	9.47	95	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.61	96	63-140	
Ethylbenzene	10.0	9.57	96	72-126	
Xylenes, Total	20.0	19.2	96	76-128	
Styrene	10.0	9.97	100	71-127	
Bromoform	10.0	9.89	99	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.88	99	62-125	
Acrylonitrile	100	91.7	92	30-140	
1,4-Dioxane	200	183 J	91	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50619006.D

Lab ID: LCS 180-145590/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.18	92	50-139	
Vinyl chloride	10.0	9.07	91	53-138	
Bromomethane	10.0	9.37	94	33-150	
Chloroethane	10.0	9.12	91	36-142	
1,1-Dichloroethene	10.0	8.84	88	65-136	
Acetone	20.0	21.4	107	22-150	
Carbon disulfide	10.0	9.27	93	54-132	
Methylene Chloride	10.0	8.11	81	63-129	
trans-1,2-Dichloroethene	10.0	9.33	93	73-126	
Methyl tert-butyl ether	10.0	8.53	85	64-123	
1,1-Dichloroethane	10.0	8.84	88	73-126	
cis-1,2-Dichloroethene	10.0	8.94	89	70-120	
Bromochloromethane	10.0	9.05	90	70-127	
2-Butanone (MEK)	20.0	20.2	101	39-138	
Chloroform	10.0	9.34	93	72-127	
1,1,1-Trichloroethane	10.0	9.07	91	63-133	
Carbon tetrachloride	10.0	9.45	94	55-150	
Benzene	10.0	9.52	95	80-120	
1,2-Dichloroethane	10.0	9.06	91	68-132	
Trichloroethene	10.0	8.86	89	73-120	
1,2-Dichloropropane	10.0	9.47	95	76-124	
Bromodichloromethane	10.0	9.22	92	66-130	
cis-1,3-Dichloropropene	10.0	9.24	92	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.4	92	45-145	
Toluene	10.0	9.92	99	80-123	
trans-1,3-Dichloropropene	10.0	8.97	90	65-125	
1,1,2-Trichloroethane	10.0	9.65	97	77-127	
Tetrachloroethene	10.0	9.23	92	70-135	
2-Hexanone	20.0	21.5	107	25-132	
Dibromochloromethane	10.0	9.68	97	60-140	
1,2-Dibromoethane (EDB)	10.0	9.85	99	74-123	
Chlorobenzene	10.0	9.54	95	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.72	97	63-140	
Ethylbenzene	10.0	9.53	95	72-126	
Xylenes, Total	20.0	19.0	95	76-128	
Styrene	10.0	10.1	101	71-127	
Bromoform	10.0	10.3	103	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.90	99	62-125	
Acrylonitrile	100	94.2	94	30-140	
1,4-Dioxane	200	190 J	95	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50629016.D

Lab ID: LCS 180-145689/16 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	8.84	88	50-139	
Vinyl chloride	10.0	8.32	83	53-138	
Bromomethane	10.0	9.56	96	33-150	
Chloroethane	10.0	9.18	92	36-142	
1,1-Dichloroethene	10.0	8.16	82	65-136	
Acetone	20.0	19.8	99	22-150	
Carbon disulfide	10.0	8.73	87	54-132	
Methylene Chloride	10.0	9.15	91	63-129	
trans-1,2-Dichloroethene	10.0	8.83	88	73-126	
Methyl tert-butyl ether	10.0	9.69	97	64-123	
1,1-Dichloroethane	10.0	9.12	91	73-126	
cis-1,2-Dichloroethene	10.0	9.10	91	70-120	
Bromochloromethane	10.0	9.72	97	70-127	
2-Butanone (MEK)	20.0	18.1	90	39-138	
Chloroform	10.0	9.45	95	72-127	
1,1,1-Trichloroethane	10.0	8.72	87	63-133	
Carbon tetrachloride	10.0	8.04	80	55-150	
Benzene	10.0	9.34	93	80-120	
1,2-Dichloroethane	10.0	9.96	100	68-132	
Trichloroethene	10.0	9.12	91	73-120	
1,2-Dichloropropane	10.0	9.18	92	76-124	
Bromodichloromethane	10.0	9.41	94	66-130	
cis-1,3-Dichloropropene	10.0	9.07	91	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	14.3	71	45-145	
Toluene	10.0	9.57	96	80-123	
trans-1,3-Dichloropropene	10.0	8.90	89	65-125	
1,1,2-Trichloroethane	10.0	9.38	94	77-127	
Tetrachloroethene	10.0	9.01	90	70-135	
2-Hexanone	20.0	14.9	75	25-132	
Dibromochloromethane	10.0	9.65	96	60-140	
1,2-Dibromoethane (EDB)	10.0	9.96	100	74-123	
Chlorobenzene	10.0	9.45	94	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.79	98	63-140	
Ethylbenzene	10.0	9.13	91	72-126	
Xylenes, Total	20.0	18.8	94	76-128	
Styrene	10.0	9.66	97	71-127	
Bromoform	10.0	9.85	99	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.3	103	62-125	
Acrylonitrile	100	105	105	30-140	
1,4-Dioxane	200	213	106	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50618009.D

Lab ID: LCSD 180-145455/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	8.75	87	5	35	50-139	
Vinyl chloride	10.0	8.30	83	12	35	53-138	
Bromomethane	10.0	8.53	85	10	35	33-150	
Chloroethane	10.0	8.49	85	8	35	36-142	
1,1-Dichloroethene	10.0	8.37	84	7	35	65-136	
Acetone	20.0	16.8	84	5	35	22-150	
Carbon disulfide	10.0	8.01	80	12	35	54-132	
Methylene Chloride	10.0	8.11	81	4	35	63-129	
trans-1,2-Dichloroethene	10.0	8.54	85	9	35	73-126	
Methyl tert-butyl ether	10.0	8.80	88	2	35	64-123	
1,1-Dichloroethane	10.0	8.46	85	3	35	73-126	
cis-1,2-Dichloroethene	10.0	8.67	87	0	35	70-120	
Bromochloromethane	10.0	9.07	91	2	35	70-127	
2-Butanone (MEK)	20.0	18.7	93	1	35	39-138	
Chloroform	10.0	8.91	89	3	35	72-127	
1,1,1-Trichloroethane	10.0	8.30	83	8	35	63-133	
Carbon tetrachloride	10.0	8.20	82	11	35	55-150	
Benzene	10.0	8.87	89	4	32	80-120	
1,2-Dichloroethane	10.0	8.93	89	1	32	68-132	
Trichloroethene	10.0	8.47	85	5	35	73-120	
1,2-Dichloropropane	10.0	8.79	88	5	34	76-124	
Bromodichloromethane	10.0	8.61	86	4	35	66-130	
cis-1,3-Dichloropropene	10.0	9.06	91	3	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.2	91	0	35	45-145	
Toluene	10.0	9.23	92	6	35	80-123	
trans-1,3-Dichloropropene	10.0	9.03	90	2	35	65-125	
1,1,2-Trichloroethane	10.0	9.26	93	1	35	77-127	
Tetrachloroethene	10.0	8.65	87	11	35	70-135	
2-Hexanone	20.0	18.4	92	3	35	25-132	
Dibromochloromethane	10.0	8.98	90	3	35	60-140	
1,2-Dibromoethane (EDB)	10.0	9.53	95	2	35	74-123	
Chlorobenzene	10.0	9.28	93	2	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.02	90	6	34	63-140	
Ethylbenzene	10.0	9.15	92	4	33	72-126	
Xylenes, Total	20.0	18.1	90	6	32	76-128	
Styrene	10.0	9.62	96	4	34	71-127	
Bromoform	10.0	9.76	98	1	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.66	97	2	35	62-125	
Acrylonitrile	100	91.6	92	0	35	30-140	
1,4-Dioxane	200	157 J	78	15	35	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50619007.D

Lab ID: LCSD 180-145590/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	8.92	89	3	35	50-139	
Vinyl chloride	10.0	8.67	87	5	35	53-138	
Bromomethane	10.0	9.01	90	4	35	33-150	
Chloroethane	10.0	9.15	91	0	35	36-142	
1,1-Dichloroethene	10.0	8.59	86	3	35	65-136	
Acetone	20.0	20.3	102	5	35	22-150	
Carbon disulfide	10.0	8.89	89	4	35	54-132	
Methylene Chloride	10.0	8.73	87	7	35	63-129	
trans-1,2-Dichloroethene	10.0	9.26	93	1	35	73-126	
Methyl tert-butyl ether	10.0	8.94	89	5	35	64-123	
1,1-Dichloroethane	10.0	8.91	89	1	35	73-126	
cis-1,2-Dichloroethene	10.0	8.82	88	1	35	70-120	
Bromochloromethane	10.0	9.79	98	8	35	70-127	
2-Butanone (MEK)	20.0	20.8	104	3	35	39-138	
Chloroform	10.0	9.41	94	1	35	72-127	
1,1,1-Trichloroethane	10.0	8.78	88	3	35	63-133	
Carbon tetrachloride	10.0	8.90	89	6	35	55-150	
Benzene	10.0	9.44	94	1	32	80-120	
1,2-Dichloroethane	10.0	9.53	95	5	32	68-132	
Trichloroethene	10.0	9.10	91	3	35	73-120	
1,2-Dichloropropane	10.0	9.52	95	0	34	76-124	
Bromodichloromethane	10.0	9.49	95	3	35	66-130	
cis-1,3-Dichloropropene	10.0	9.37	94	1	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.3	92	0	35	45-145	
Toluene	10.0	9.96	100	0	35	80-123	
trans-1,3-Dichloropropene	10.0	9.12	91	2	35	65-125	
1,1,2-Trichloroethane	10.0	9.60	96	1	35	77-127	
Tetrachloroethene	10.0	9.26	93	0	35	70-135	
2-Hexanone	20.0	21.1	106	2	35	25-132	
Dibromochloromethane	10.0	9.64	96	0	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	4	35	74-123	
Chlorobenzene	10.0	9.66	97	1	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.72	97	0	34	63-140	
Ethylbenzene	10.0	9.43	94	1	33	72-126	
Xylenes, Total	20.0	19.4	97	2	32	76-128	
Styrene	10.0	10.1	101	0	34	71-127	
Bromoform	10.0	10.2	102	0	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	3	35	62-125	
Acrylonitrile	100	97.6	98	4	35	30-140	
1,4-Dioxane	200	174 J	87	9	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50629014.D

Lab ID: 180-45088-11 MS Client ID: HD-COD-SW-17-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	ND	9.57	96	50-139	
Vinyl chloride	10.0	ND	9.68	97	53-138	
Bromomethane	10.0	ND	9.55	96	33-150	
Chloroethane	10.0	ND	9.57	96	36-142	
1,1-Dichloroethene	10.0	ND	10.1	101	65-136	
Acetone	20.0	ND	21.4	107	22-150	
Carbon disulfide	10.0	ND	10.3	103	54-132	
Methylene Chloride	10.0	ND	7.70	77	63-129	
trans-1,2-Dichloroethene	10.0	ND	9.33	93	73-126	
Methyl tert-butyl ether	10.0	ND	9.08	91	64-123	
1,1-Dichloroethane	10.0	0.26 J	9.61	93	73-126	
cis-1,2-Dichloroethene	10.0	8.3	20.9	125	70-120	F1
Bromochloromethane	10.0	ND	9.09	91	70-127	
2-Butanone (MEK)	20.0	ND	19.4	97	39-138	
Chloroform	10.0	0.17 J	9.39	94	72-127	
1,1,1-Trichloroethane	10.0	1.3	11.5	102	63-133	
Carbon tetrachloride	10.0	ND	9.67	97	55-150	
Benzene	10.0	ND	9.53	95	80-120	
1,2-Dichloroethane	10.0	ND	9.18	92	68-132	
Trichloroethene	10.0	9.3	22.6	133	73-120	F1
1,2-Dichloropropane	10.0	ND	9.28	93	76-124	
Bromodichloromethane	10.0	ND	9.37	94	66-130	
cis-1,3-Dichloropropene	10.0	ND	9.12	91	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	ND	14.7	74	45-145	
Toluene	10.0	ND	9.98	100	80-123	
trans-1,3-Dichloropropene	10.0	ND	9.41	94	65-125	
1,1,2-Trichloroethane	10.0	ND	9.33	93	77-127	
Tetrachloroethene	10.0	20	39.9	201	70-135	F1
2-Hexanone	20.0	ND	16.7	83	25-132	
Dibromochloromethane	10.0	ND	9.65	97	60-140	
1,2-Dibromoethane (EDB)	10.0	ND	9.52	95	74-123	
Chlorobenzene	10.0	ND	9.62	96	80-120	
1,1,1,2-Tetrachloroethane	10.0	ND	9.89	99	63-140	
Ethylbenzene	10.0	ND	10.1	101	72-126	
Xylenes, Total	20.0	ND	20.2	101	76-128	
Styrene	10.0	ND	10.1	101	71-127	
Bromoform	10.0	ND	9.84	98	46-150	
1,1,2,2-Tetrachloroethane	10.0	ND	9.85	99	62-125	
Acrylonitrile	100	ND	95.9	96	30-140	
1,4-Dioxane	200	ND	179 J	89	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50629015.D

Lab ID: 180-45088-11 MSD Client ID: HD-COD-SW-17-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	9.90	99	3	35	50-139	
Vinyl chloride	10.0	9.81	98	1	35	53-138	
Bromomethane	10.0	9.61	96	1	35	33-150	
Chloroethane	10.0	9.49	95	1	35	36-142	
1,1-Dichloroethene	10.0	9.97	100	1	35	65-136	
Acetone	20.0	20.2	101	6	35	22-150	
Carbon disulfide	10.0	9.95	99	3	35	54-132	
Methylene Chloride	10.0	7.80	78	1	35	63-129	
trans-1,2-Dichloroethene	10.0	9.36	94	0	35	73-126	
Methyl tert-butyl ether	10.0	9.13	91	0	35	64-123	
1,1-Dichloroethane	10.0	9.65	94	0	35	73-126	
cis-1,2-Dichloroethene	10.0	20.8	124	1	35	70-120	F1
Bromochloromethane	10.0	8.89	89	2	35	70-127	
2-Butanone (MEK)	20.0	18.6	93	4	35	39-138	
Chloroform	10.0	9.32	93	1	35	72-127	
1,1,1-Trichloroethane	10.0	11.8	105	2	35	63-133	
Carbon tetrachloride	10.0	9.65	97	0	35	55-150	
Benzene	10.0	9.28	93	3	32	80-120	
1,2-Dichloroethane	10.0	9.05	90	1	32	68-132	
Trichloroethene	10.0	22.4	131	1	35	73-120	F1
1,2-Dichloropropane	10.0	9.11	91	2	34	76-124	
Bromodichloromethane	10.0	8.91	89	5	35	66-130	
cis-1,3-Dichloropropene	10.0	8.81	88	3	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	15.0	75	2	35	45-145	
Toluene	10.0	9.81	98	2	35	80-123	
trans-1,3-Dichloropropene	10.0	9.03	90	4	35	65-125	
1,1,2-Trichloroethane	10.0	9.09	91	3	35	77-127	
Tetrachloroethene	10.0	39.6	198	1	35	70-135	F1
2-Hexanone	20.0	16.9	84	1	35	25-132	
Dibromochloromethane	10.0	9.39	94	3	35	60-140	
1,2-Dibromoethane (EDB)	10.0	9.73	97	2	35	74-123	
Chlorobenzene	10.0	9.73	97	1	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.69	97	2	34	63-140	
Ethylbenzene	10.0	10.0	100	1	33	72-126	
Xylenes, Total	20.0	20.3	102	0	32	76-128	
Styrene	10.0	10.1	101	0	34	71-127	
Bromoform	10.0	9.76	98	1	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	4	35	62-125	
Acrylonitrile	100	95.9	96	0	35	30-140	
1,4-Dioxane	200	189 J	95	6	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.: 180-45088-1

SDG No.:

Lab File ID: 50618007.D Lab Sample ID: MB 180-145455/7

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

Instrument ID: CHHP5 Date Analyzed: 06/18/2015 15:11

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-145455/8	50618008.D	06/18/2015 15:48
	LCSD 180-145455/9	50618009.D	06/18/2015 16:12
HD-COD-SW-6-0/1-0	180-45088-1	50618023.D	06/18/2015 21:45
HD-COD-SW-7-0/1-0	180-45088-2	50618024.D	06/18/2015 22:09
HD-COD-SW-8-0/1-0	180-45088-3	50618025.D	06/18/2015 22:33
HD-COD-SW-9-0/1-0	180-45088-4	50618026.D	06/18/2015 22:56
HD-COD-SW-10-0/1-0	180-45088-5	50618027.D	06/18/2015 23:20

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: 50619005.D Lab Sample ID: MB 180-145590/5

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

Instrument ID: CHHP5 Date Analyzed: 06/19/2015 14:18

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 180-145590/6	50619006.D	06/19/2015 14:55
	LCSD 180-145590/7	50619007.D	06/19/2015 15:19
HD-COD-SW-11-0/1-0	180-45088-6	50619017.D	06/19/2015 19:21
HD-COD-SW-12-0/1-0	180-45088-7	50619018.D	06/19/2015 19:45
HD-COD-SW-13-0/1-0	180-45088-8	50619019.D	06/19/2015 20:09
HD-COD-SW-15-0/1-0	180-45088-9	50619020.D	06/19/2015 20:33
HD-COD-SW-16-0/1-0	180-45088-10	50619021.D	06/19/2015 20:57
HD-COD-SW-20-0/1-0	180-45088-12	50619022.D	06/19/2015 21:21
HD-COD-SW-26-0/1-0	180-45088-13	50619023.D	06/19/2015 21:44
HD-COD-SW-27-0/1-0	180-45088-14	50619024.D	06/19/2015 22:08
HD-COD-SW-28-0/1-0	180-45088-15	50619025.D	06/19/2015 22:33
HD-COD-SW-29-0/1-0	180-45088-16	50619026.D	06/19/2015 22:56
HD-QC1-0/1-1	180-45088-17	50619027.D	06/19/2015 23:20

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: 50629005.D Lab Sample ID: MB 180-145689/5

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

Instrument ID: CHHP5 Date Analyzed: 06/22/2015 11:12

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-QC1-0/1-2	180-45088-18	50629009.D	06/22/2015 13:06
HD-COD-SW-17-0/1-0 MS	180-45088-11 MS	50629014.D	06/22/2015 15:04
HD-COD-SW-17-0/1-0 MSD	180-45088-11 MSD	50629015.D	06/22/2015 15:27
	LCS 180-145689/16	50629016.D	06/22/2015 15:51
HD-COD-SW-17-0/1-0	180-45088-11	50629018.D	06/22/2015 16:40

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: 50617016.D BFB Injection Date: 06/17/2015

Instrument ID: CHHP5 BFB Injection Time: 11:58

Analysis Batch No.: 145277

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.8	
75	30.0 - 60.0 % of mass 95	54.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.6	(0.8)1
174	50.0 - 120.00 % of mass 95	72.3	
175	5.0 - 9.0 % of mass 174	5.6	(7.7)1
176	95.0 - 101.0 % of mass 174	72.9	(100.7)1
177	5.0 - 9.0 % of mass 176	4.6	(6.3)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-145277/6	50617006.D	06/17/2015	14:07
	ICIS 180-145277/7	50617007.D	06/17/2015	14:30
	IC 180-145277/8	50617008.D	06/17/2015	14:54
	IC 180-145277/9	50617009.D	06/17/2015	15:18
	IC 180-145277/10	50617010.D	06/17/2015	15:42
	IC 180-145277/11	50617011.D	06/17/2015	16:06
	IC 180-145277/12	50617012.D	06/17/2015	16:29
	IC 180-145277/17	50617017.D	06/17/2015	18:04

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: 50618004.D BFB Injection Date: 06/18/2015

Instrument ID: CHHP5 BFB Injection Time: 12:42

Analysis Batch No.: 145455

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.6	
75	30.0 - 60.0 % of mass 95	50.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.5	(0.7)1
174	50.0 - 120.00 % of mass 95	70.1	
175	5.0 - 9.0 % of mass 174	5.7	(8.1)1
176	95.0 - 101.0 % of mass 174	67.3	(96.1)1
177	5.0 - 9.0 % of mass 176	4.3	(6.4)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-145455/2	50618002.D	06/18/2015	13:28
	CCV 180-145455/3	50618003.D	06/18/2015	13:52
	MB 180-145455/7	50618007.D	06/18/2015	15:11
	LCS 180-145455/8	50618008.D	06/18/2015	15:48
	LCSD 180-145455/9	50618009.D	06/18/2015	16:12
HD-COD-SW-6-0/1-0	180-45088-1	50618023.D	06/18/2015	21:45
HD-COD-SW-7-0/1-0	180-45088-2	50618024.D	06/18/2015	22:09
HD-COD-SW-8-0/1-0	180-45088-3	50618025.D	06/18/2015	22:33
HD-COD-SW-9-0/1-0	180-45088-4	50618026.D	06/18/2015	22:56
HD-COD-SW-10-0/1-0	180-45088-5	50618027.D	06/18/2015	23:20

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: 50619001.D BFB Injection Date: 06/19/2015

Instrument ID: CHHP5 BFB Injection Time: 12:09

Analysis Batch No.: 145590

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.5	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	1.1	(1.5)1
174	50.0 - 120.00 % of mass 95	72.6	
175	5.0 - 9.0 % of mass 174	5.1	(7.0)1
176	95.0 - 101.0 % of mass 174	70.8	(97.6)1
177	5.0 - 9.0 % of mass 176	4.8	(6.7)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-145590/2	50619002.D	06/19/2015	12:52
	CCV 180-145590/3	50619003.D	06/19/2015	13:16
	MB 180-145590/5	50619005.D	06/19/2015	14:18
	LCS 180-145590/6	50619006.D	06/19/2015	14:55
	LCSD 180-145590/7	50619007.D	06/19/2015	15:19
HD-COD-SW-11-0/1-0	180-45088-6	50619017.D	06/19/2015	19:21
HD-COD-SW-12-0/1-0	180-45088-7	50619018.D	06/19/2015	19:45
HD-COD-SW-13-0/1-0	180-45088-8	50619019.D	06/19/2015	20:09
HD-COD-SW-15-0/1-0	180-45088-9	50619020.D	06/19/2015	20:33
HD-COD-SW-16-0/1-0	180-45088-10	50619021.D	06/19/2015	20:57
HD-COD-SW-20-0/1-0	180-45088-12	50619022.D	06/19/2015	21:21
HD-COD-SW-26-0/1-0	180-45088-13	50619023.D	06/19/2015	21:44
HD-COD-SW-27-0/1-0	180-45088-14	50619024.D	06/19/2015	22:08
HD-COD-SW-28-0/1-0	180-45088-15	50619025.D	06/19/2015	22:33
HD-COD-SW-29-0/1-0	180-45088-16	50619026.D	06/19/2015	22:56
HD-QC1-0/1-1	180-45088-17	50619027.D	06/19/2015	23:20

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: 50622001.D BFB Injection Date: 06/22/2015

Instrument ID: CHHP5 BFB Injection Time: 08:36

Analysis Batch No.: 145689

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.9	
75	30.0 - 60.0 % of mass 95	52.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	71.4	
175	5.0 - 9.0 % of mass 174	5.9	(8.2)1
176	95.0 - 101.0 % of mass 174	68.7	(96.3)1
177	5.0 - 9.0 % of mass 176	4.8	(7.0)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-145689/2	50622002.D	06/22/2015	09:10
	MB 180-145689/5	50629005.D	06/22/2015	11:12
HD-QC1-0/1-2	180-45088-18	50629009.D	06/22/2015	13:06
HD-COD-SW-17-0/1-0 MS	180-45088-11 MS	50629014.D	06/22/2015	15:04
HD-COD-SW-17-0/1-0 MSD	180-45088-11 MSD	50629015.D	06/22/2015	15:27
	LCS 180-145689/16	50629016.D	06/22/2015	15:51
HD-COD-SW-17-0/1-0	180-45088-11	50629018.D	06/22/2015	16:40

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Sample No.: CCVIS 180-145455/2 Date Analyzed: 06/18/2015 13:28

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

Lab File ID (Standard): 50618002.D Heated Purge: (Y/N) N

Calibration ID: 24418

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		125702	4.27	403865	7.29	89831	10.39
UPPER LIMIT		251404	4.77	807730	7.79	179662	10.89
LOWER LIMIT		62851	3.77	201933	6.79	44916	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-145455/3		123722	4.27	402381	7.29	84981	10.39
MB 180-145455/7		121294	4.26	373487	7.29	82435	10.39
LCS 180-145455/8		111116	4.27	414505	7.29	91380	10.39
LCSD 180-145455/9		108899	4.28	415930	7.29	92882	10.39
180-45088-1	HD-COD-SW-6-0/1-0	109726	4.27	336284	7.29	76170	10.39
180-45088-2	HD-COD-SW-7-0/1-0	112869	4.26	332658	7.29	75481	10.39
180-45088-3	HD-COD-SW-8-0/1-0	93512	4.27	321472	7.29	72360	10.39
180-45088-4	HD-COD-SW-9-0/1-0	86752	4.26	324464	7.29	71143	10.39
180-45088-5	HD-COD-SW-10-0/1-0	99387	4.26	314127	7.29	71122	10.39

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.: 180-45088-1

SDG No.:

Sample No.: CCVIS 180-145455/2 Date Analyzed: 06/18/2015 13:28

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

Lab File ID (Standard): 50618002.D Heated Purge: (Y/N) N

Calibration ID: 24418

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		121753	12.73				
UPPER LIMIT		243506	13.23				
LOWER LIMIT		60877	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-145455/3		102067	12.73				
MB 180-145455/7		106964	12.73				
LCS 180-145455/8		124001	12.73				
LCSD 180-145455/9		125655	12.73				
180-45088-1	HD-COD-SW-6-0/1-0	95320	12.73				
180-45088-2	HD-COD-SW-7-0/1-0	91103	12.73				
180-45088-3	HD-COD-SW-8-0/1-0	91818	12.73				
180-45088-4	HD-COD-SW-9-0/1-0	88320	12.73				
180-45088-5	HD-COD-SW-10-0/1-0	87557	12.73				

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.: 180-45088-1

SDG No.:

Sample No.: CCVIS 180-145590/2 Date Analyzed: 06/19/2015 12:52

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

Lab File ID (Standard): 50619002.D Heated Purge: (Y/N) N

Calibration ID: 24418

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		118869	4.27	371894	7.29	80483	10.39
UPPER LIMIT		237738	4.77	743788	7.79	160966	10.89
LOWER LIMIT		59435	3.77	185947	6.79	40242	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-145590/3		124844	4.26	379552	7.29	78998	10.38
MB 180-145590/5		138449	4.26	351891	7.29	76944	10.39
LCS 180-145590/6		120623	4.27	404901	7.29	90362	10.39
LCSD 180-145590/7		121422	4.27	393758	7.29	87651	10.39
180-45088-6	HD-COD-SW-11-0/1-0	126314	4.26	348307	7.29	76462	10.39
180-45088-7	HD-COD-SW-12-0/1-0	130107	4.26	357638	7.29	81141	10.39
180-45088-8	HD-COD-SW-13-0/1-0	135991	4.26	348715	7.29	77004	10.39
180-45088-9	HD-COD-SW-15-0/1-0	134671	4.26	343984	7.29	78549	10.39
180-45088-10	HD-COD-SW-16-0/1-0	109257	4.26	336027	7.29	76426	10.39
180-45088-12	HD-COD-SW-20-0/1-0	129011	4.27	327093	7.30	72059	10.39
180-45088-13	HD-COD-SW-26-0/1-0	120878	4.27	329682	7.29	76130	10.39
180-45088-14	HD-COD-SW-27-0/1-0	105924	4.26	323186	7.29	74064	10.38
180-45088-15	HD-COD-SW-28-0/1-0	111352	4.26	320821	7.29	74963	10.38
180-45088-16	HD-COD-SW-29-0/1-0	103543	4.26	334780	7.29	79463	10.39
180-45088-17	HD-QC1-0/1-1	122716	4.27	322294	7.29	71927	10.39

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.: 180-45088-1

SDG No.:

Sample No.: CCVIS 180-145590/2 Date Analyzed: 06/19/2015 12:52

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

Lab File ID (Standard): 50619002.D Heated Purge: (Y/N) N

Calibration ID: 24418

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		107351	12.73				
UPPER LIMIT		214702	13.23				
LOWER LIMIT		53676	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-145590/3		79932	12.73				
MB 180-145590/5		89892	12.73				
LCS 180-145590/6		116707	12.73				
LCSD 180-145590/7		121326	12.73				
180-45088-6	HD-COD-SW-11-0/1-0	103402	12.73				
180-45088-7	HD-COD-SW-12-0/1-0	102057	12.73				
180-45088-8	HD-COD-SW-13-0/1-0	99441	12.73				
180-45088-9	HD-COD-SW-15-0/1-0	101008	12.73				
180-45088-10	HD-COD-SW-16-0/1-0	94992	12.73				
180-45088-12	HD-COD-SW-20-0/1-0	87329	12.73				
180-45088-13	HD-COD-SW-26-0/1-0	101546	12.73				
180-45088-14	HD-COD-SW-27-0/1-0	87803	12.73				
180-45088-15	HD-COD-SW-28-0/1-0	91021	12.72				
180-45088-16	HD-COD-SW-29-0/1-0	101305	12.73				
180-45088-17	HD-QC1-0/1-1	97625	12.73				

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.: 180-45088-1

SDG No.:

Sample No.: CCVIS 180-145689/2 Date Analyzed: 06/22/2015 09:10

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

Lab File ID (Standard): 50622002.D Heated Purge: (Y/N) N

Calibration ID: 24418

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		130220	4.27	422450	7.29	92152	10.39
UPPER LIMIT		260440	4.77	844900	7.79	184304	10.89
LOWER LIMIT		65110	3.77	211225	6.79	46076	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-145689/5		154716	4.27	460973	7.29	98017	10.39
180-45088-18	HD-QC1-0/1-2	137125	4.27	403833	7.29	88444	10.39
180-45088-11 MS	HD-COD-SW-17-0/1-0 MS	166507	4.27	506004	7.29	115017	10.39
180-45088-11 MSD	HD-COD-SW-17-0/1-0 MSD	148448	4.28	489211	7.29	109819	10.39
LCS 180-145689/16		101770	4.27	306351	7.29	68692	10.39
180-45088-11	HD-COD-SW-17-0/1-0	116518	4.26	379893	7.29	90525	10.39

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.: 180-45088-1

SDG No.:

Sample No.: CCVIS 180-145689/2 Date Analyzed: 06/22/2015 09:10

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

Lab File ID (Standard): 50622002.D Heated Purge: (Y/N) N

Calibration ID: 24418

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		133541	12.73				
UPPER LIMIT		267082	13.23				
LOWER LIMIT		66771	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-145689/5		110313	12.73				
180-45088-18	HD-QC1-0/1-2	95610	12.73				
180-45088-11 MS	HD-COD-SW-17-0/1-0 MS	160985	12.73				
180-45088-11 MSD	HD-COD-SW-17-0/1-0 MSD	161872	12.73				
LCS 180-145689/16		98348	12.73				
180-45088-11	HD-COD-SW-17-0/1-0	132270	12.73				

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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 | Lab Sample ID: 180-45088-1

Matrix: Water | Lab File ID: 50618023.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 21:45

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	2.7	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 | Lab Sample ID: 180-45088-1

Matrix: Water | Lab File ID: 50618023.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 21:45

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145455 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	93		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618023.D
Lims ID: 180-45088-E-1 Lab Sample ID: 180-45088-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 18-Jun-2015 21:45:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-E-1
Misc. Info.: 180-0007459-023
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 08:20:58 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 08:20:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.268	-0.002	0	109726	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.292	-0.003	98	336284	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	90	76170	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	99	95320	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.566	-0.007	93	88377	56.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	125308	55.4	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	295328	46.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	84	100008	43.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.398				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.445	3.439	0.006	81	7563	13.6	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.138				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96		5.951				ND	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83		6.383				ND	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130		7.679				ND	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164		9.516				ND	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

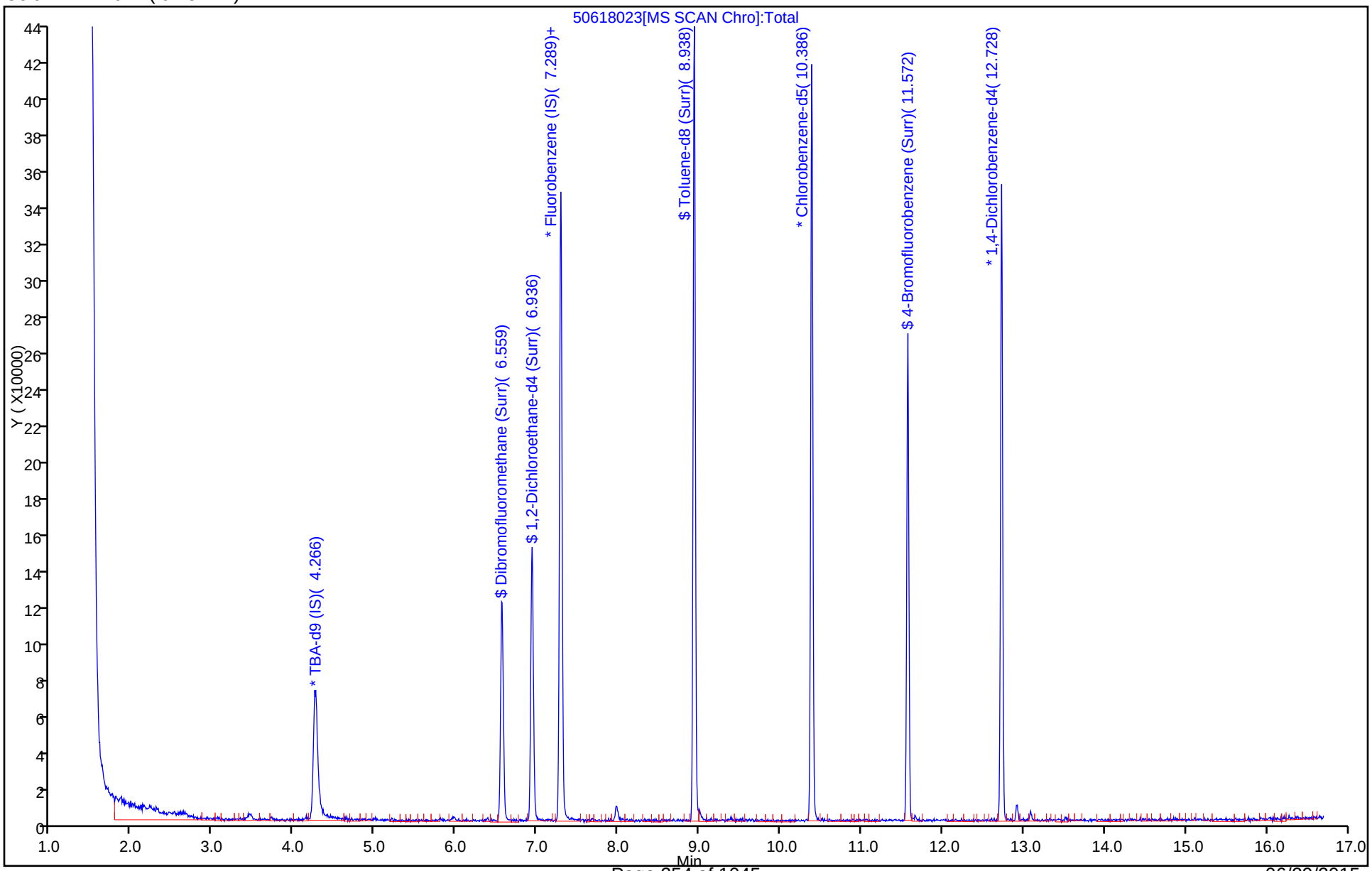
Report Date: 19-Jun-2015 08:20:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618023.D

Injection Date:	18-Jun-2015 21:45:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-E-1	Lab Sample ID:	180-45088-1	Worklist Smp#:	23
Client ID:	HD-COD-SW-6-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

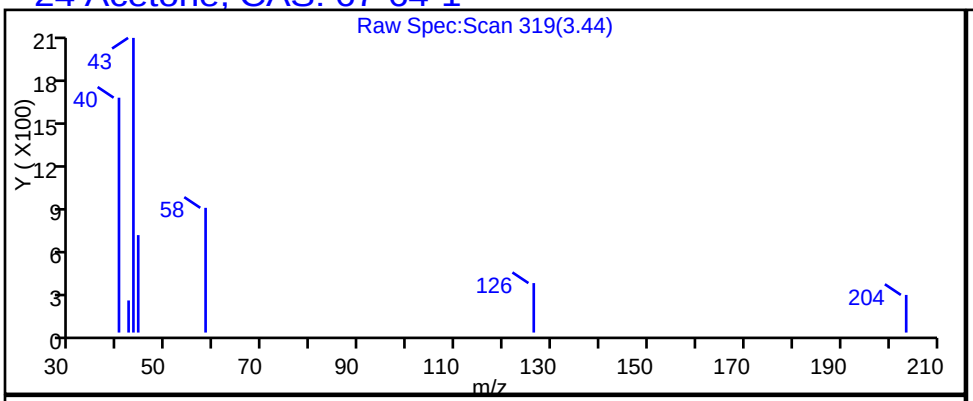
Column: DB-624 (0.18 mm)

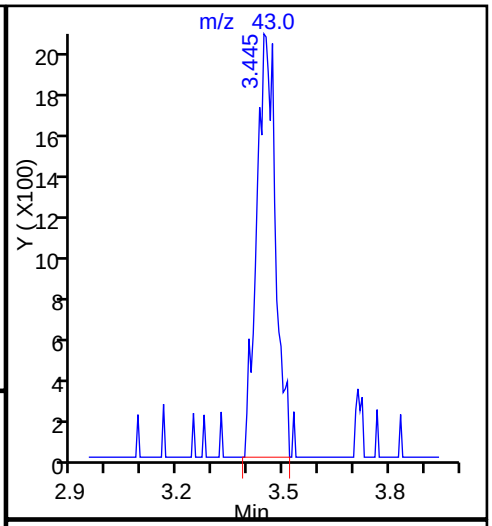


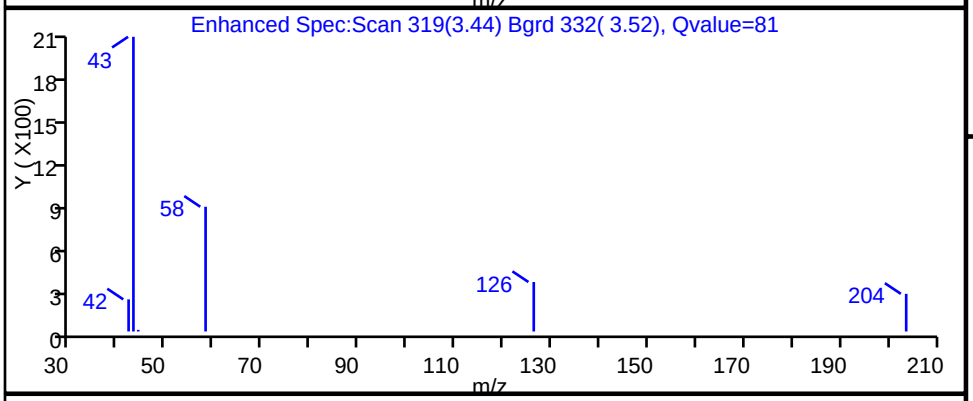
TestAmerica Pittsburgh

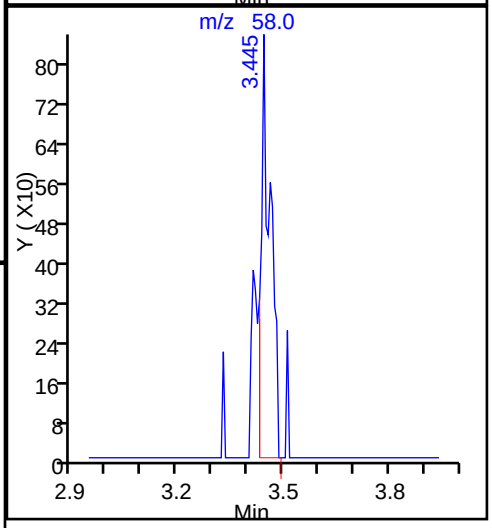
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618023.D				
Injection Date:	18-Jun-2015 21:45:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-1	Lab Sample ID:	180-45088-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

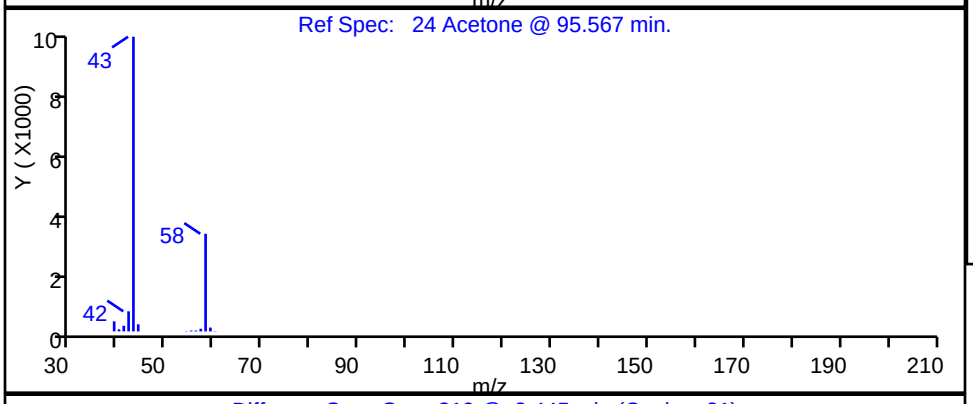
24 Acetone, CAS: 67-64-1

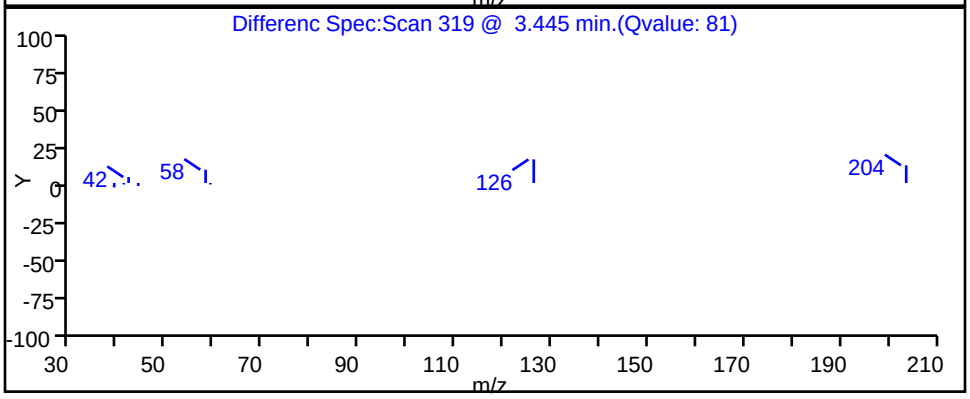












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 | Lab Sample ID: 180-45088-2

Matrix: Water | Lab File ID: 50618024.D

Analysis Method: 8260C | Date Collected: 06/15/2015 11:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 22:09

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	3.6	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.30	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 | Lab Sample ID: 180-45088-2

Matrix: Water | Lab File ID: 50618024.D

Analysis Method: 8260C | Date Collected: 06/15/2015 11:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 22:09

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	85		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618024.D
Lims ID: 180-45088-D-2 Lab Sample ID: 180-45088-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 18-Jun-2015 22:09:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-2
Misc. Info.: 180-0007459-024
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 08:21:41 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 08:21:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.268	-0.009	0	112869	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.292	-0.003	98	332658	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.388	-0.003	89	75481	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	98	91103	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.566	-0.001	93	85927	55.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.937	-0.007	0	121080	54.1	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	293683	46.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	85	97717	42.4	
12 Chloromethane	50	1.771	1.766	0.005	32	2245	0.8895	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.398				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.444	3.439	0.005	86	9885	17.9	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.138				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.963	5.951	0.012	77	2172	1.02	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83	6.389	6.383	0.006	5	1292	0.3669	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.672	7.679	-0.007	92	3002	1.52	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91	8.998	9.005	-0.007	87	2295	0.2829	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164		9.516				ND	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

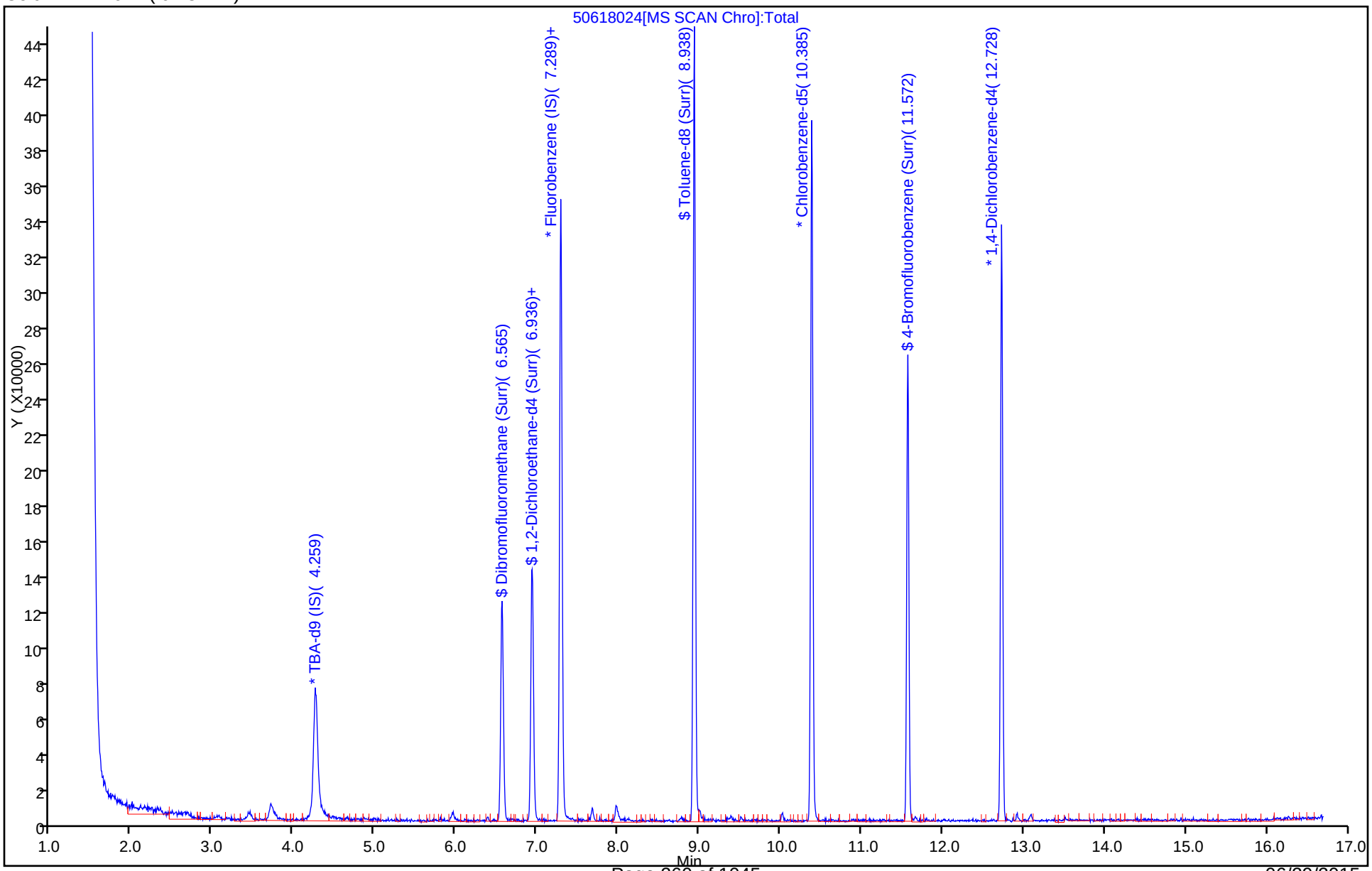
Report Date: 19-Jun-2015 08:21:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618024.D

Injection Date:	18-Jun-2015 22:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-2	Lab Sample ID:	180-45088-2	Worklist Smp#:	24
Client ID:	HD-COD-SW-7-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

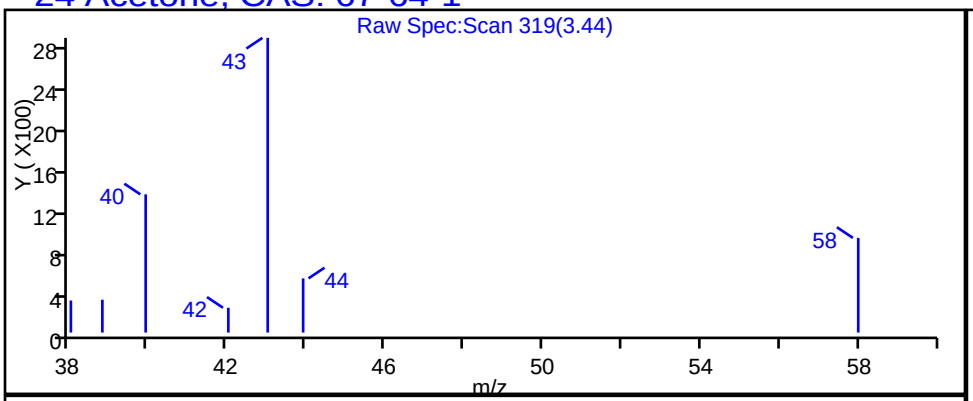
Column: DB-624 (0.18 mm)

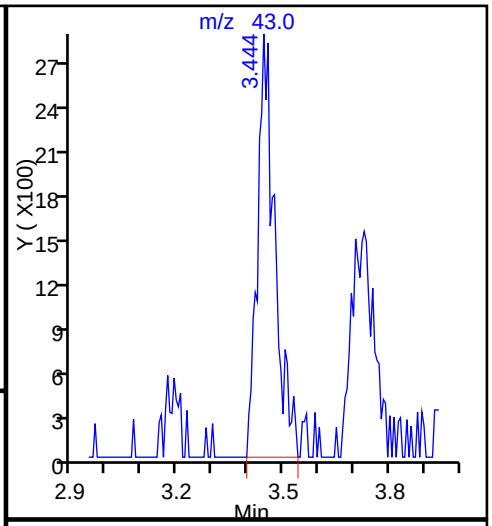


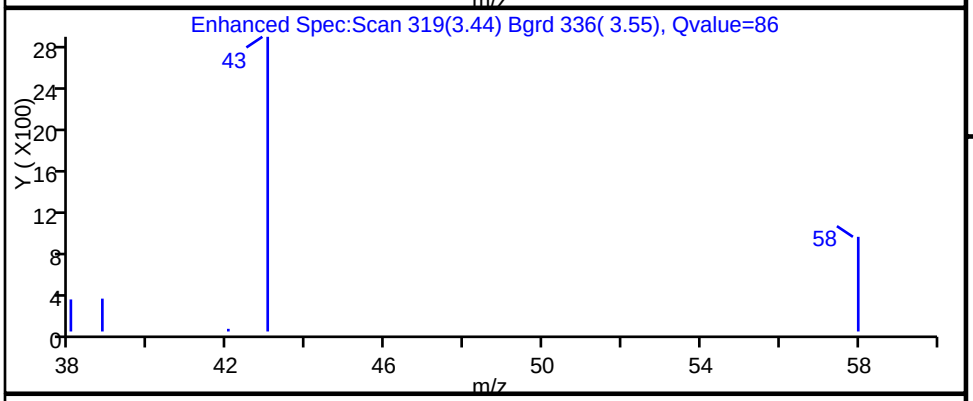
TestAmerica Pittsburgh

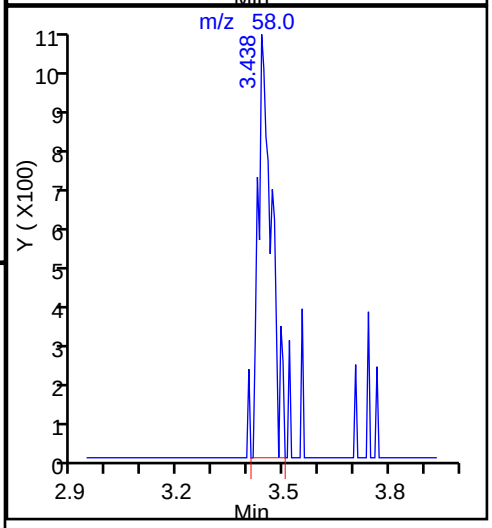
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618024.D				
Injection Date:	18-Jun-2015 22:09:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-2	Lab Sample ID:	180-45088-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

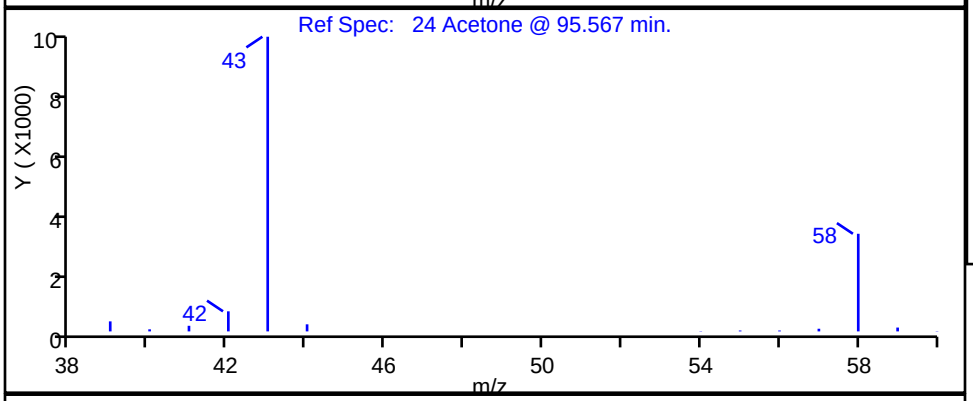
24 Acetone, CAS: 67-64-1

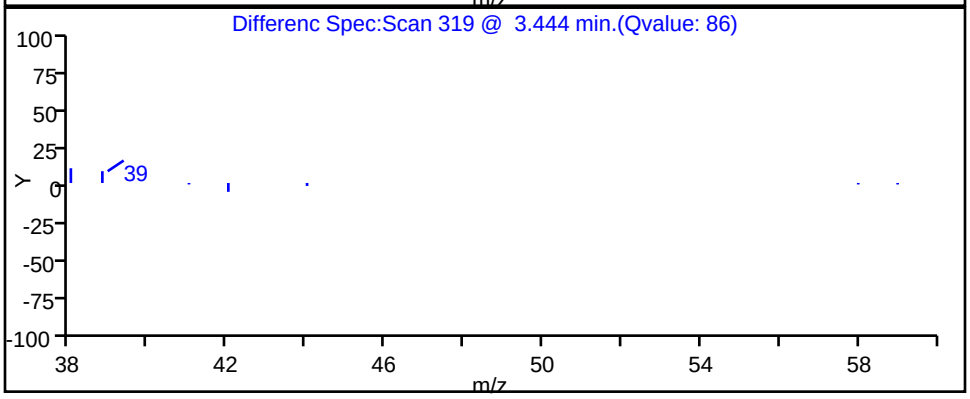








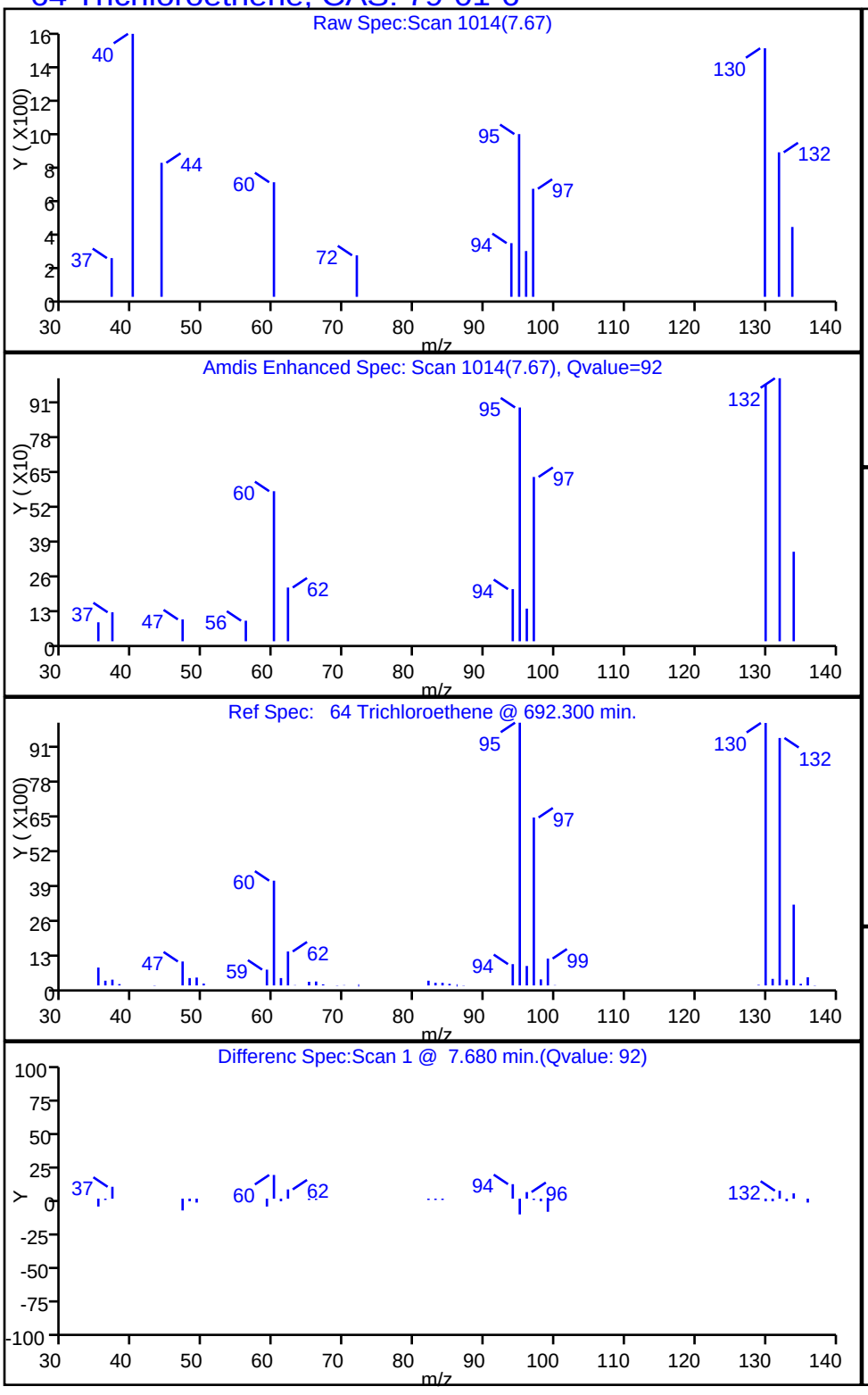


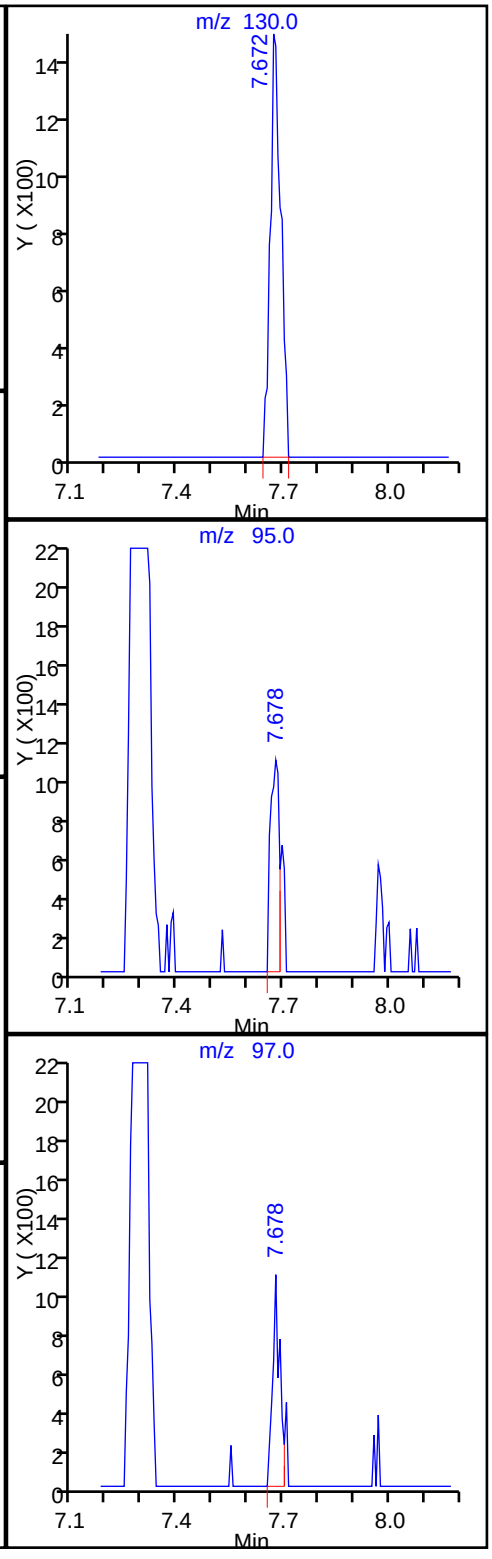


TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618024.D				
Injection Date:	18-Jun-2015 22:09:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-2	Lab Sample ID:	180-45088-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	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		

64 Trichloroethene, CAS: 79-01-6





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 | Lab Sample ID: 180-45088-3

Matrix: Water | Lab File ID: 50618025.D

Analysis Method: 8260C | Date Collected: 06/15/2015 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 22:33

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.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.25	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.30	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.17	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-45088-3

Matrix: Water Lab File ID: 50618025.D

Analysis Method: 8260C Date Collected: 06/15/2015 08:45

Sample wt/vol: 5(mL) Date Analyzed: 06/18/2015 22:33

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.: 145455 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	87		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618025.D
Lims ID: 180-45088-E-3 Lab Sample ID: 180-45088-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 18-Jun-2015 22:33:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-E-3
Misc. Info.: 180-0007459-025
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 08:22:34 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 08:22:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.267	4.268	-0.001	0	93512	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.292	-0.002	98	321472	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.388	-0.001	89	72360	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.730	-0.001	98	91818	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.567	6.566	0.001	92	84585	56.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.937	0.001	0	122425	56.6	
$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	94	281916	46.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.572	-0.005	84	95569	43.3	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.398				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.446	3.439	0.007	74	6231	11.7	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.138				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.958	5.951	0.007	82	2596	1.27	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83		6.383				ND	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.686	7.679	0.007	89	2823	1.48	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.517	9.516	0.001	90	1264	0.8544	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

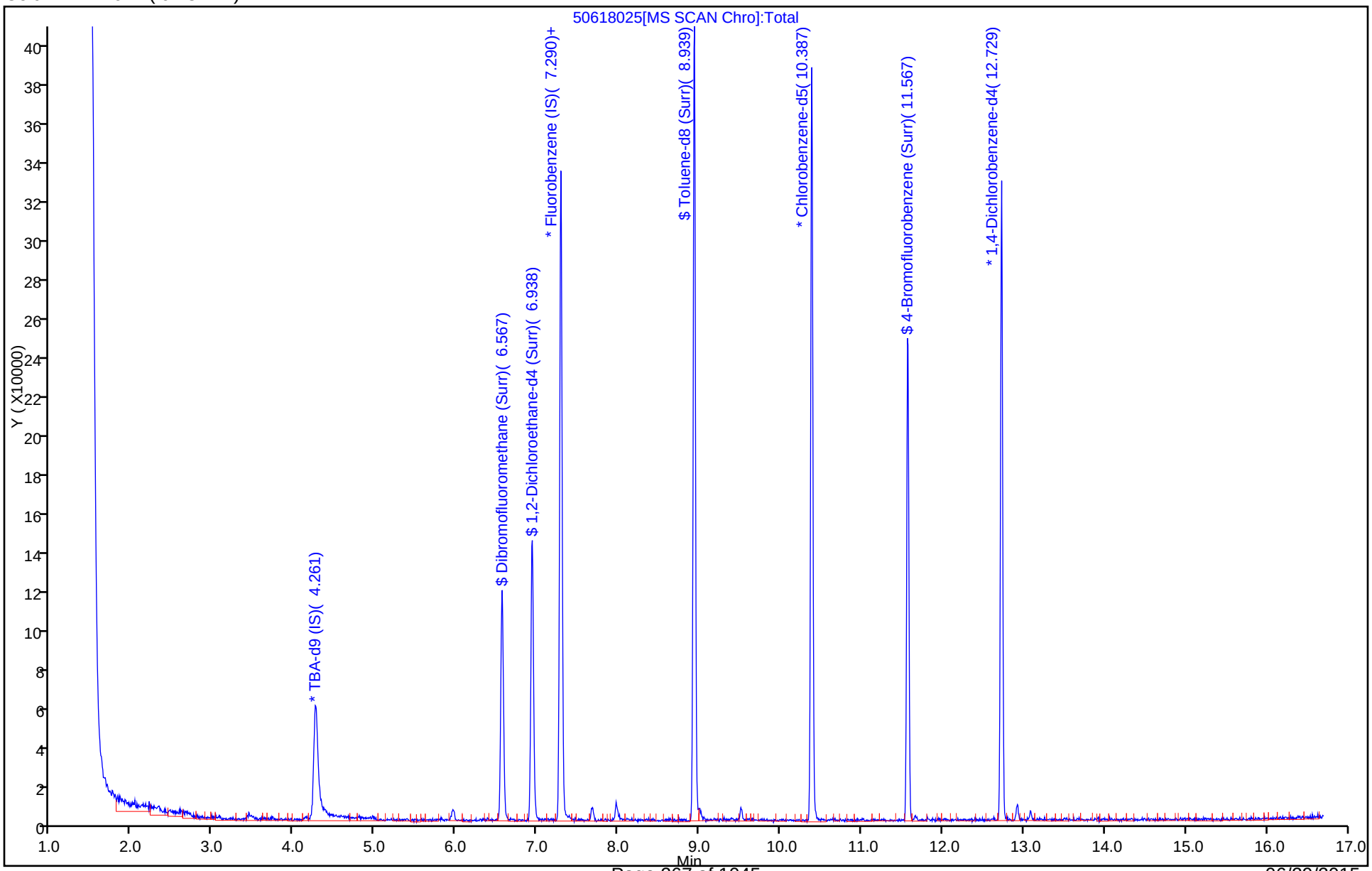
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 19-Jun-2015 08:22:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618025.D				
Injection Date:	18-Jun-2015 22:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-E-3	Lab Sample ID:	180-45088-3	Worklist Smp#:	25
Client ID:	HD-COD-SW-8-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

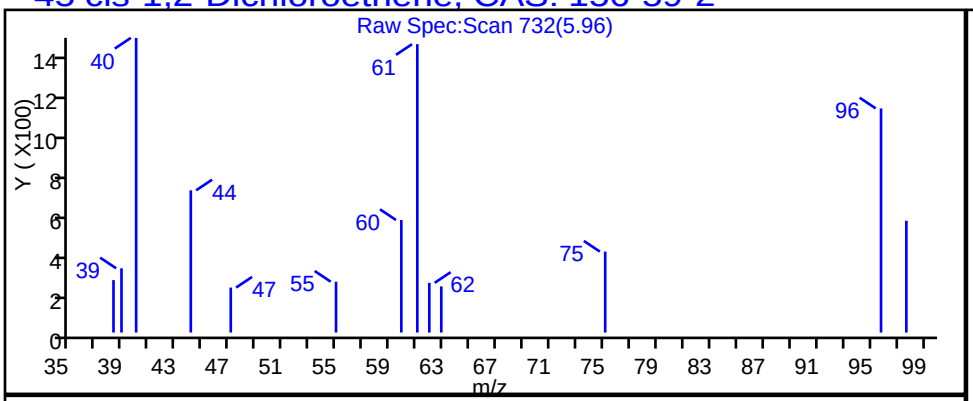
Column: DB-624 (0.18 mm)

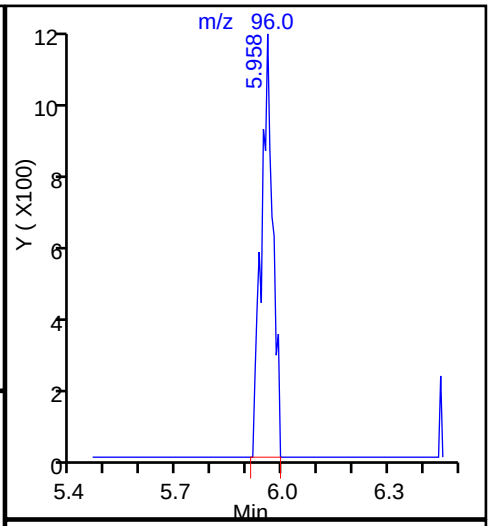


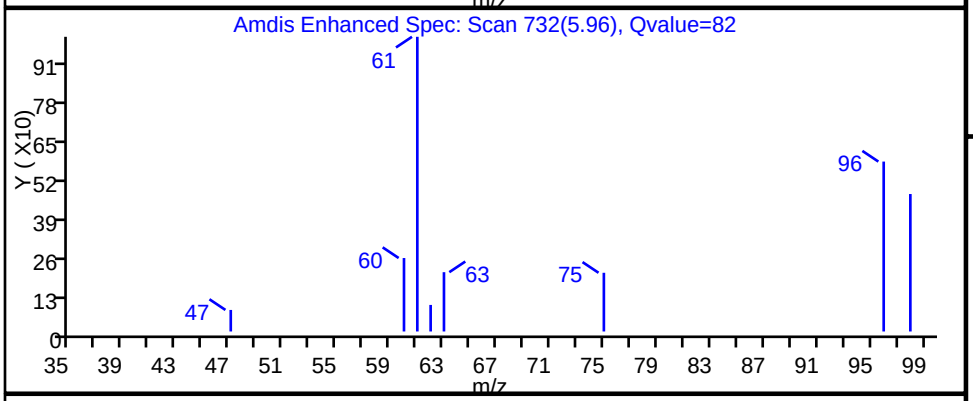
TestAmerica Pittsburgh

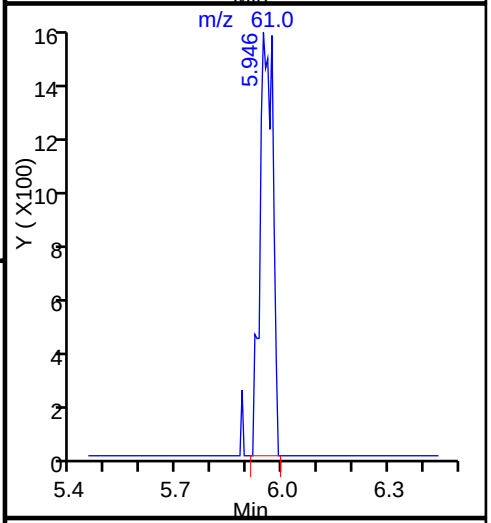
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618025.D				
Injection Date:	18-Jun-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-3	Lab Sample ID:	180-45088-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

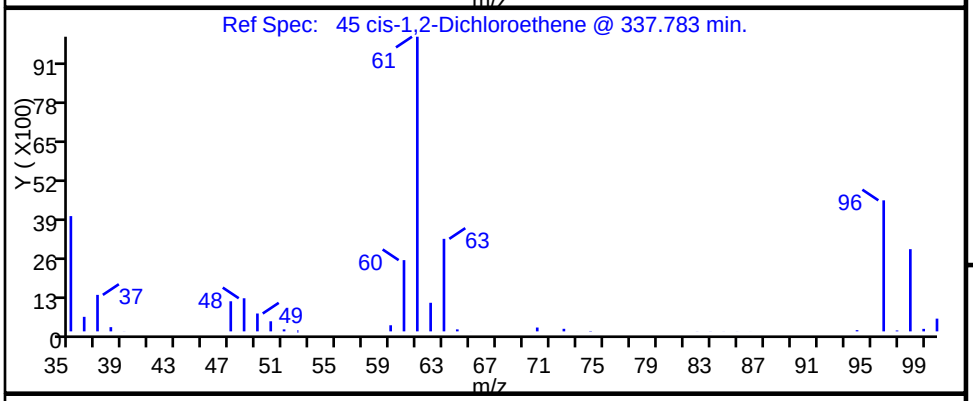
45 cis-1,2-Dichloroethene, CAS: 156-59-2

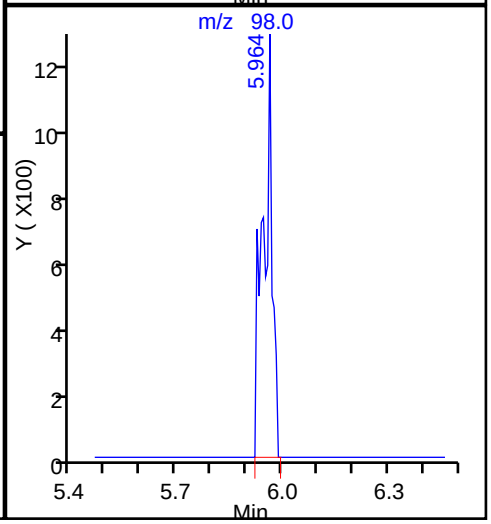


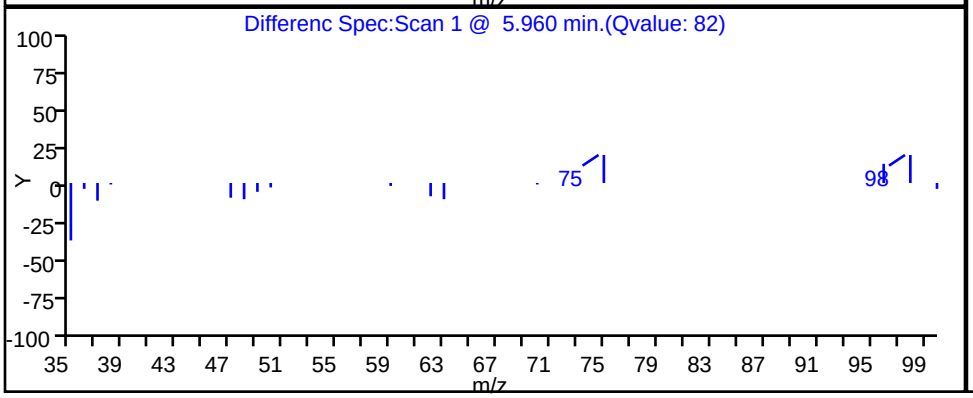








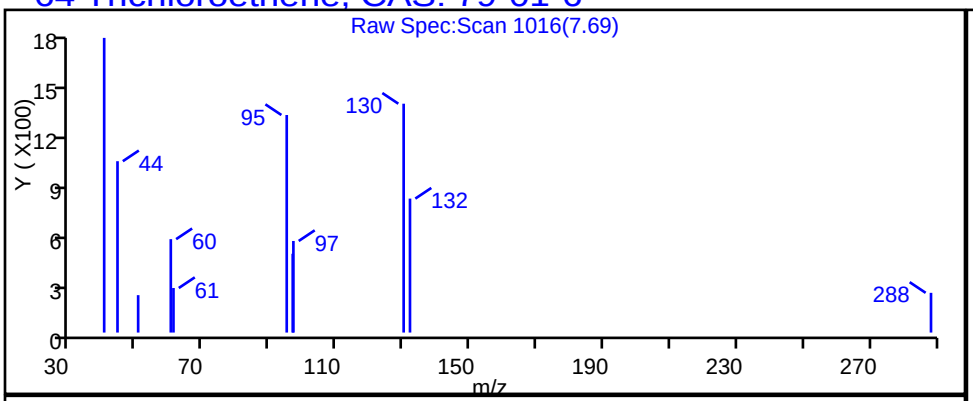


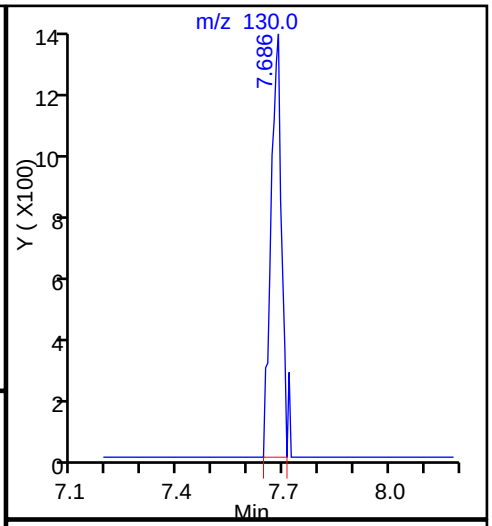


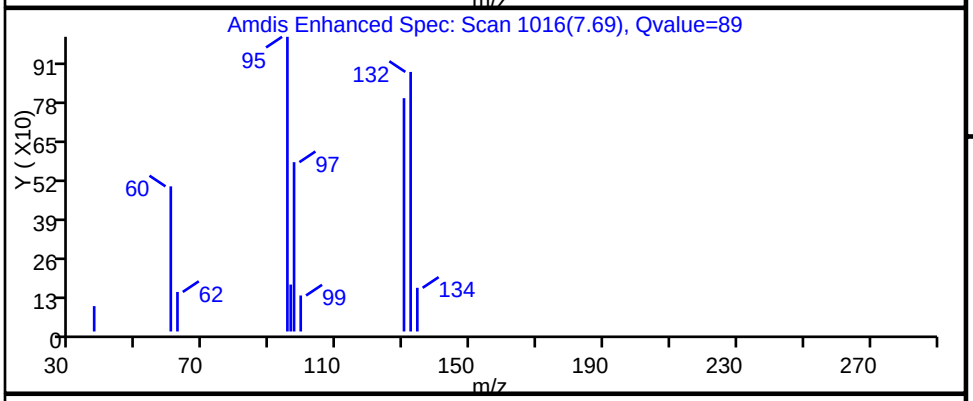
TestAmerica Pittsburgh

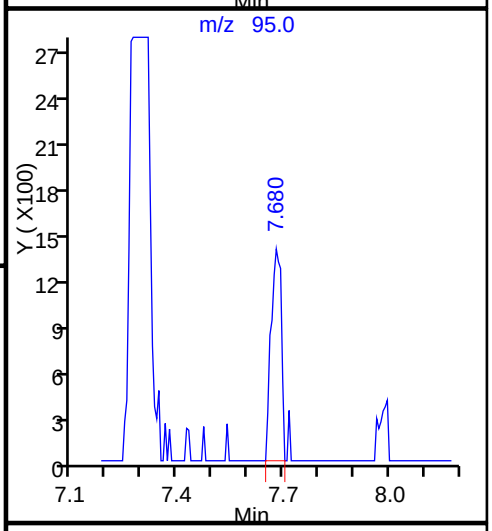
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618025.D		
Injection Date:	18-Jun-2015 22:33:30	Instrument ID:	CHHP5
Lims ID:	180-45088-E-3	Lab Sample ID:	180-45088-3
Client ID:	HD-COD-SW-8-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

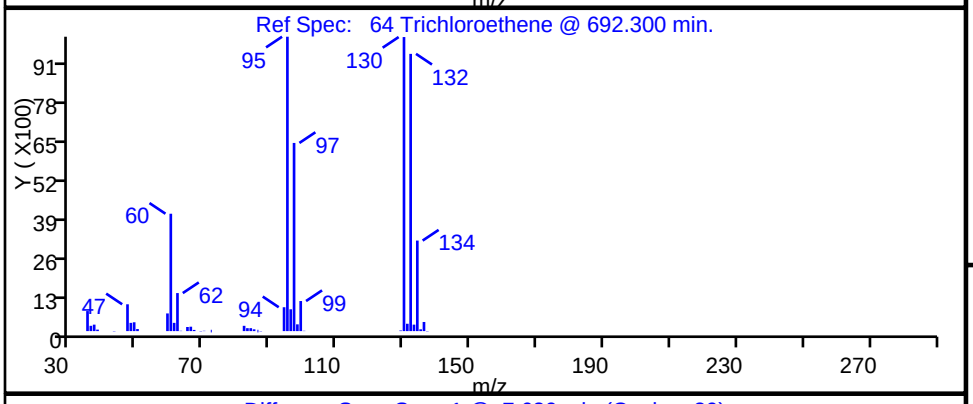
64 Trichloroethene, CAS: 79-01-6

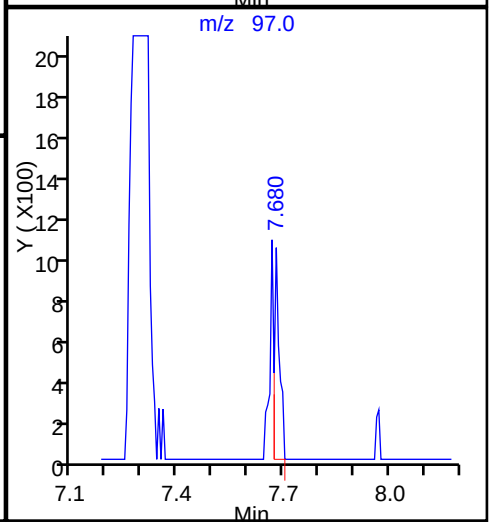


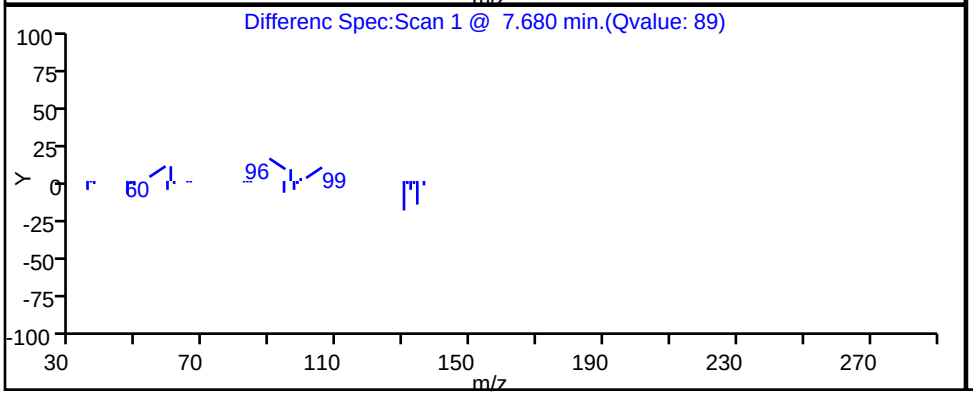








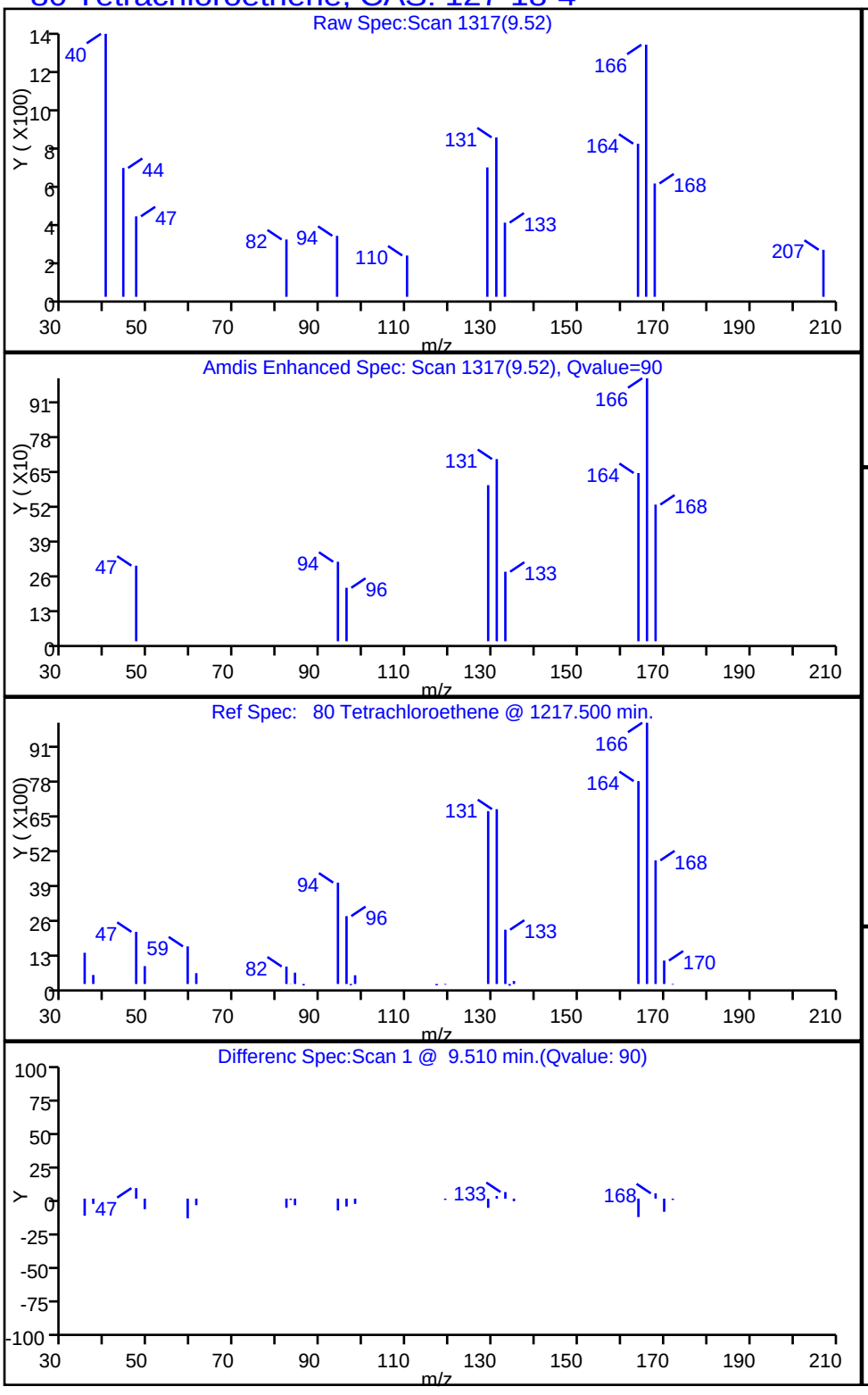


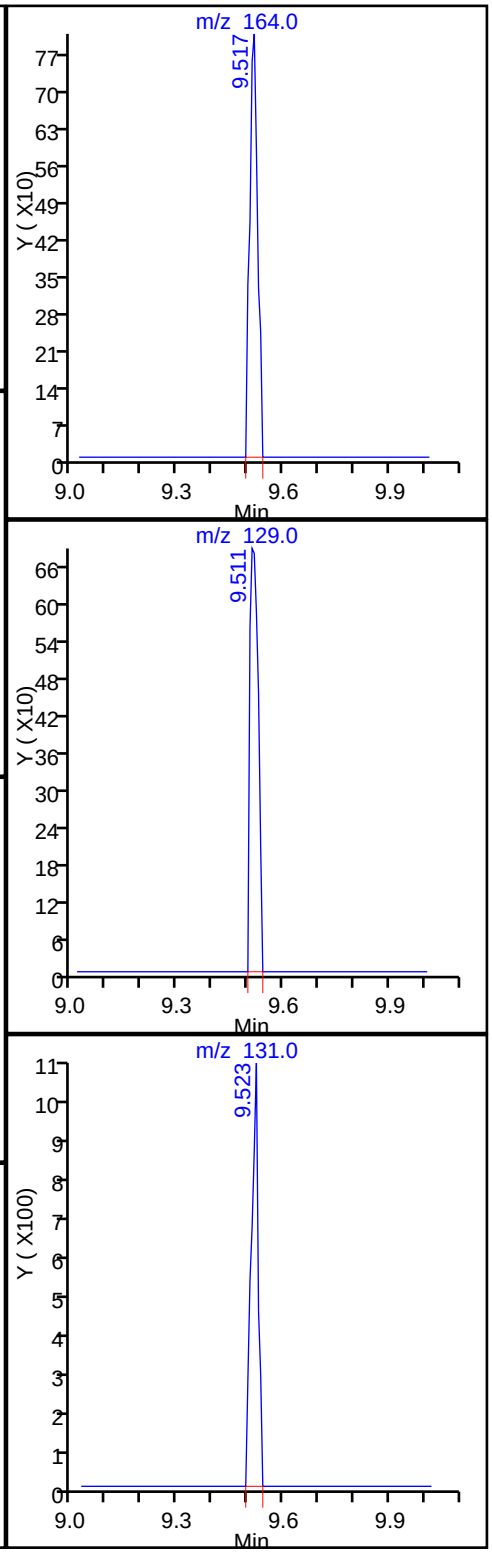


TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618025.D				
Injection Date:	18-Jun-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-3	Lab Sample ID:	180-45088-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 | Lab Sample ID: 180-45088-4

Matrix: Water | Lab File ID: 50618026.D

Analysis Method: 8260C | Date Collected: 06/15/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 22:56

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.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	2.7	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.31	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.24	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.15	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 | Lab Sample ID: 180-45088-4

Matrix: Water | Lab File ID: 50618026.D

Analysis Method: 8260C | Date Collected: 06/15/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 22:56

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.: 145455 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618026.D
Lims ID: 180-45088-D-4 Lab Sample ID: 180-45088-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 18-Jun-2015 22:56:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-4
Misc. Info.: 180-0007459-026
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 08:23:22 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 08:23:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.268	-0.006	0	86752	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	98	324464	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	89	71143	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	98	88320	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.566	0.002	93	84695	56.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.937	-0.004	0	120813	55.3	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	94	282853	47.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	85	95368	43.9	
12 Chloromethane	50	1.768	1.766	0.002	6	2423	0.9843	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.398				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.453	3.439	0.014	75	7377	13.7	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.138				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.959	5.951	0.008	81	3163	1.53	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83	6.391	6.383	0.008	87	2251	0.6554	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.675	7.679	-0.004	64	2358	1.22	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91	9.007	9.005	0.002	33	2552	0.3338	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.512	9.516	-0.004	90	1071	0.7363	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

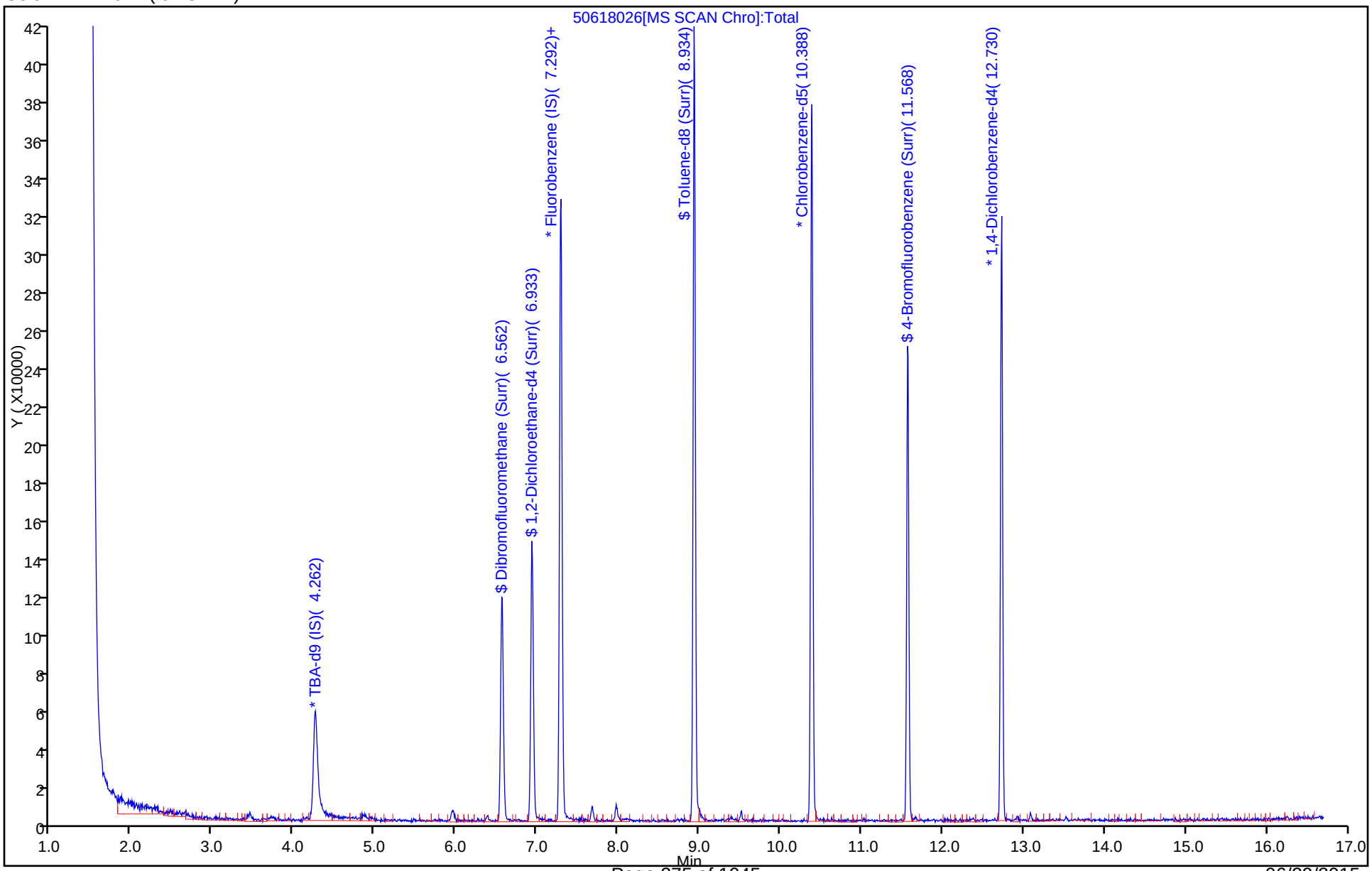
Report Date: 19-Jun-2015 08:23:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618026.D

Injection Date:	18-Jun-2015 22:56:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-4	Lab Sample ID:	180-45088-4	Worklist Smp#:	26
Client ID:	HD-COD-SW-9-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

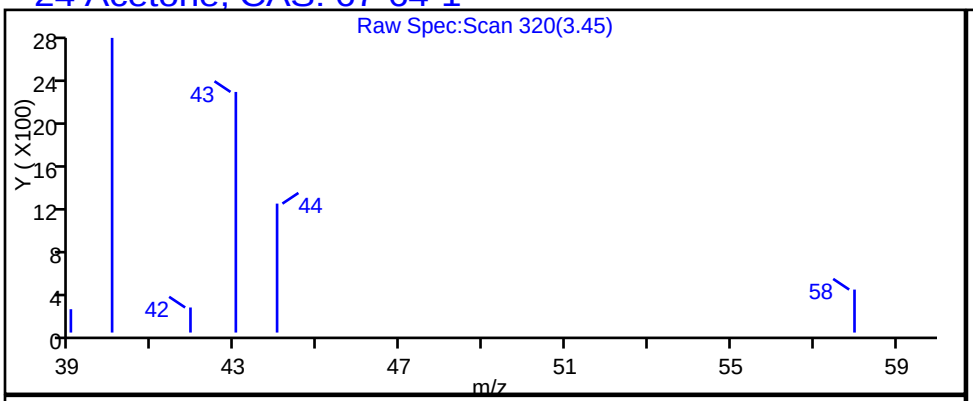
Column: DB-624 (0.18 mm)

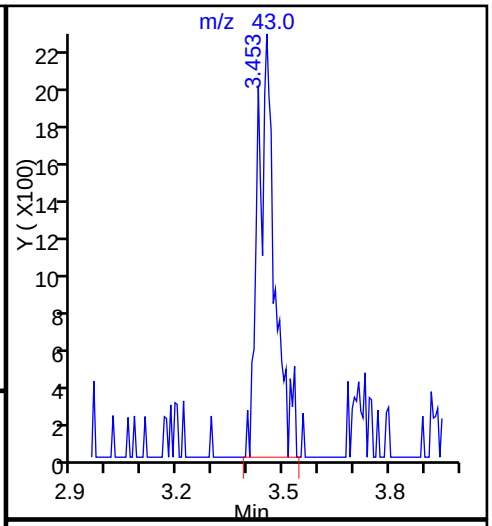


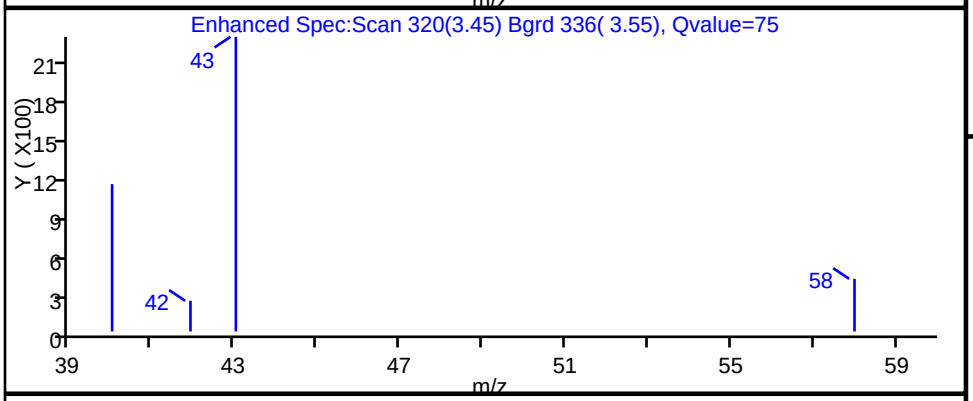
TestAmerica Pittsburgh

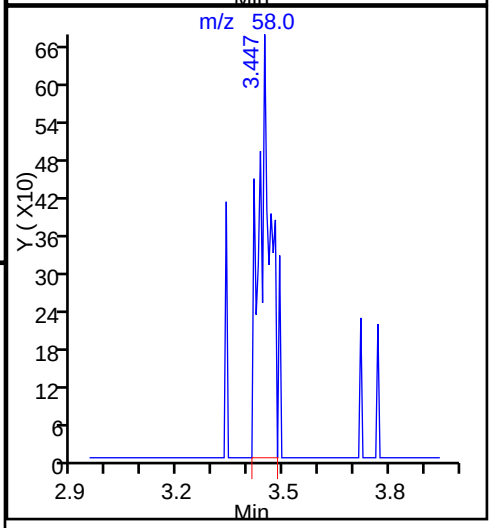
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618026.D				
Injection Date:	18-Jun-2015 22:56:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-4	Lab Sample ID:	180-45088-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

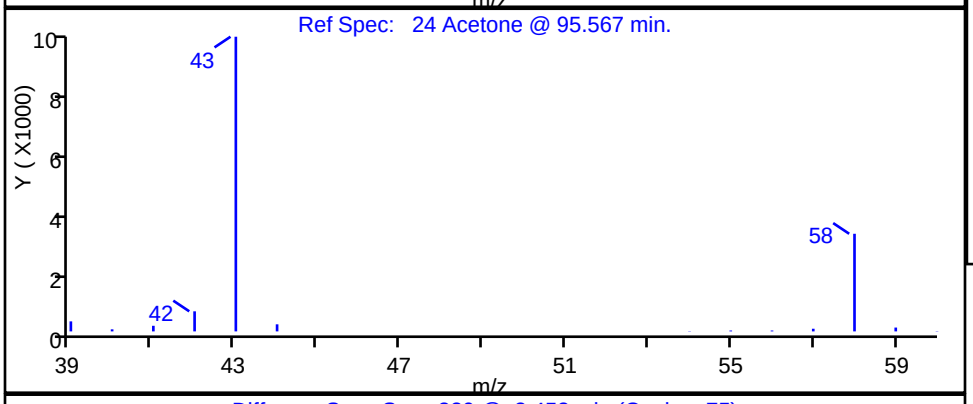
24 Acetone, CAS: 67-64-1

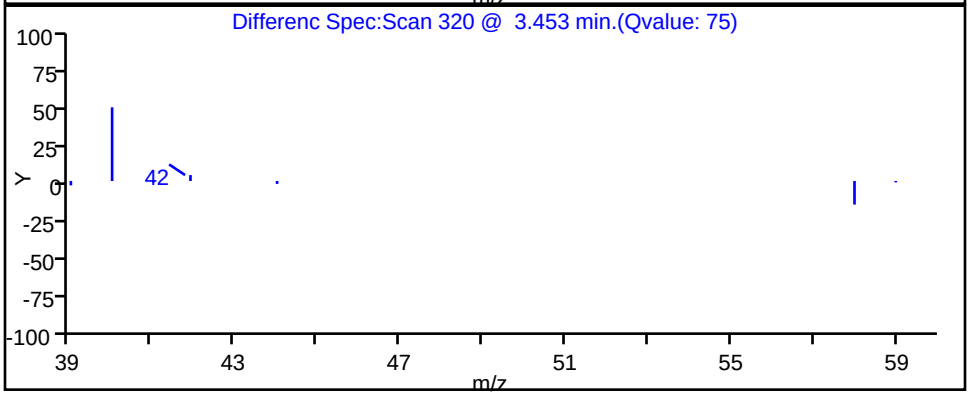








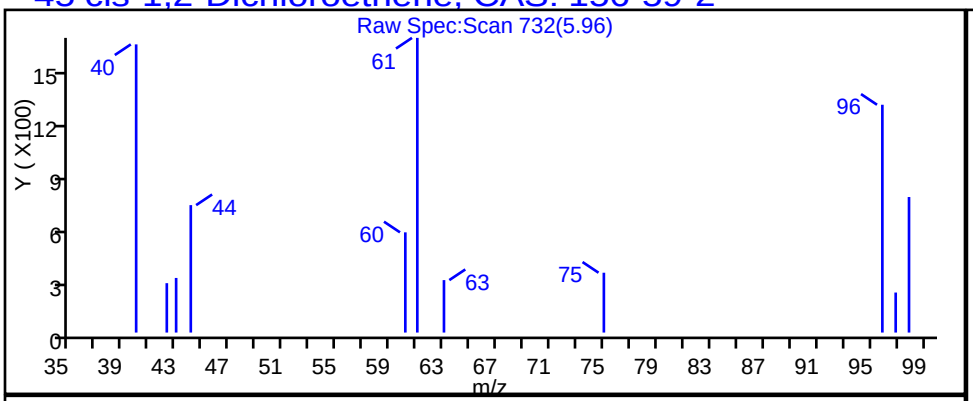


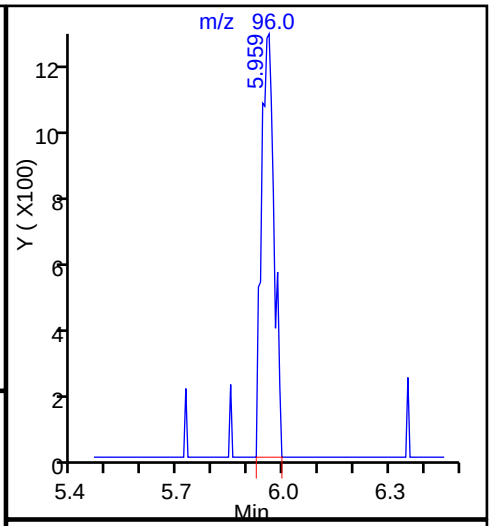


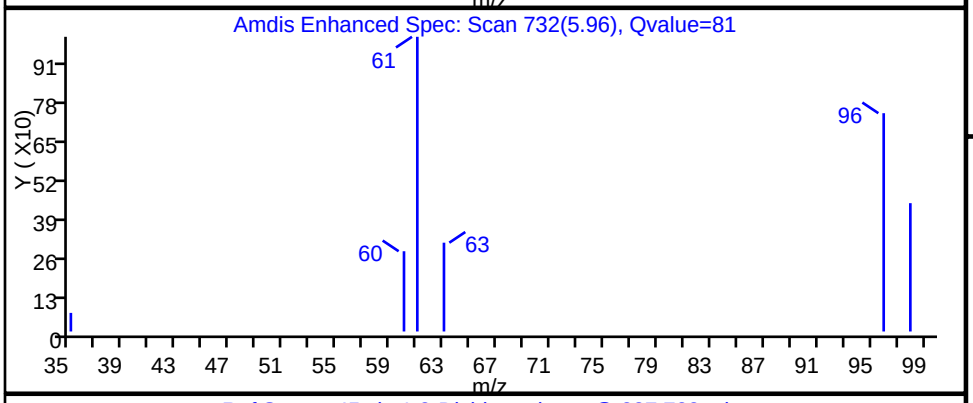
TestAmerica Pittsburgh

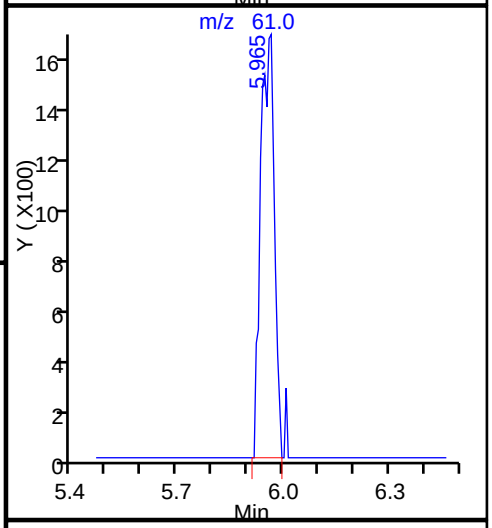
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618026.D				
Injection Date:	18-Jun-2015 22:56:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-4	Lab Sample ID:	180-45088-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

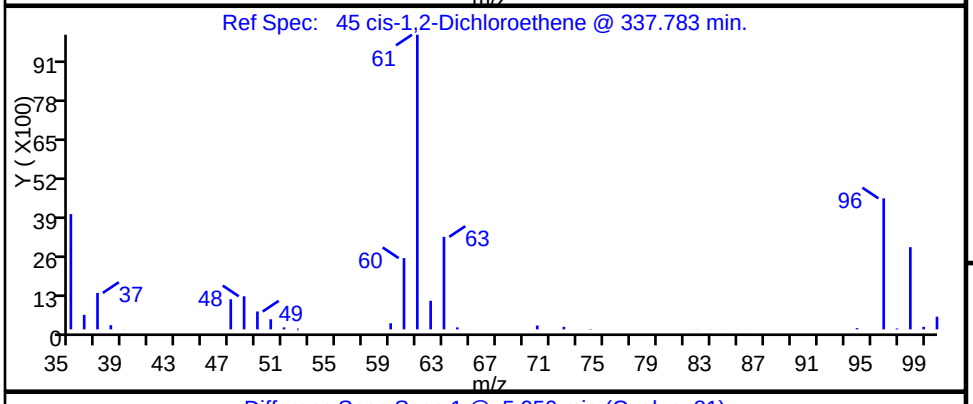
45 cis-1,2-Dichloroethene, CAS: 156-59-2

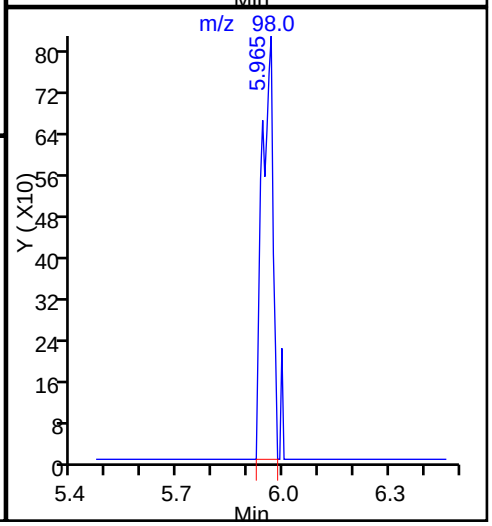


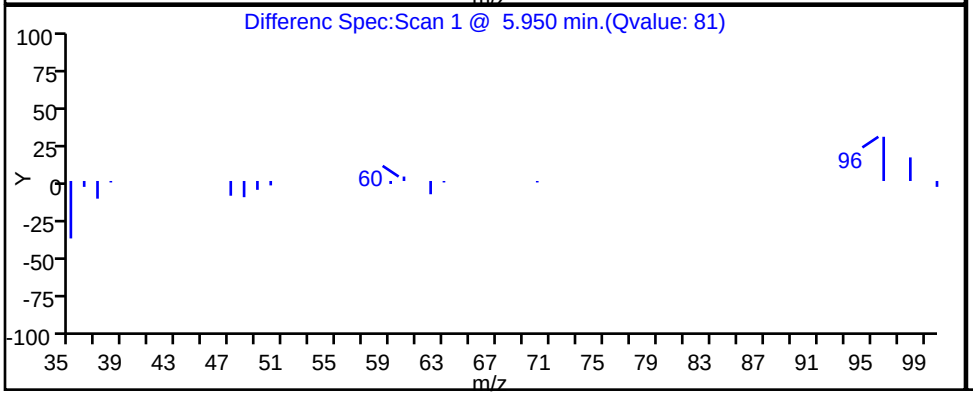








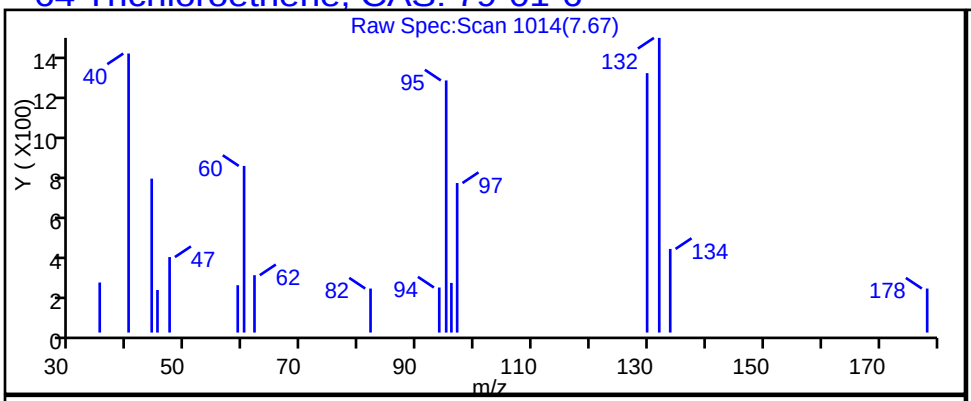


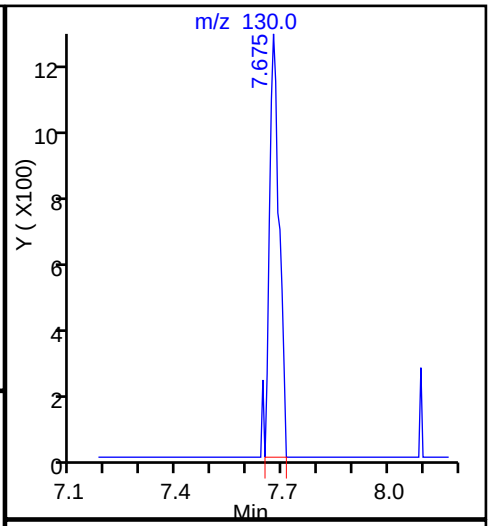


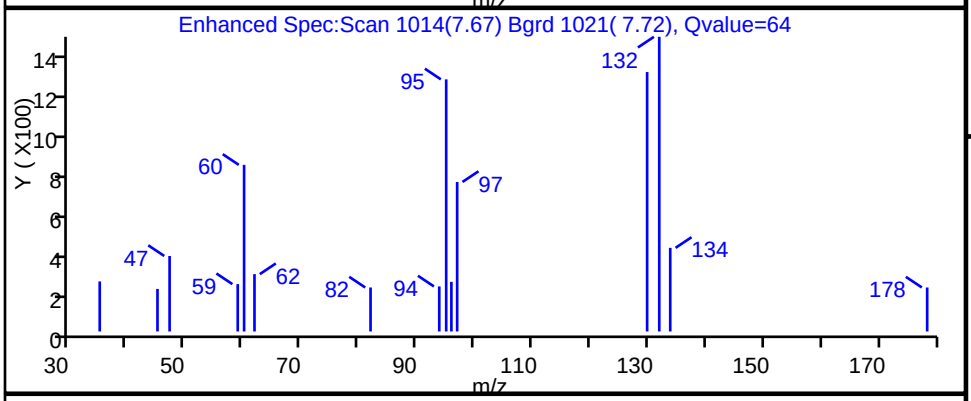
TestAmerica Pittsburgh

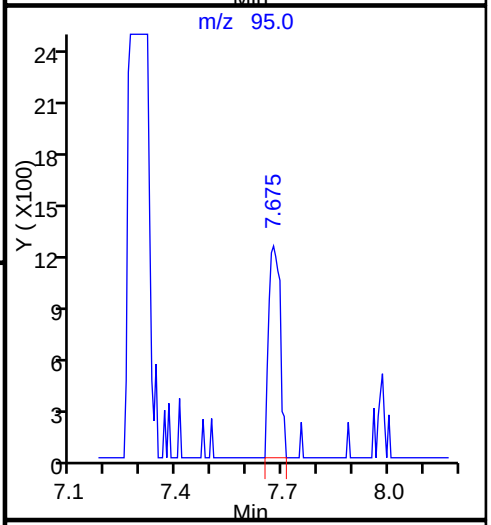
Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618026.D				
Injection Date:	18-Jun-2015 22:56:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-4	Lab Sample ID:	180-45088-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

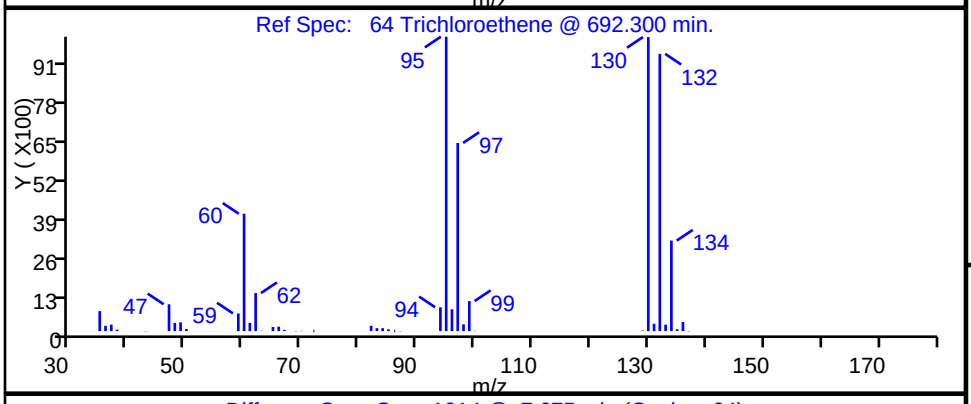
64 Trichloroethene, CAS: 79-01-6

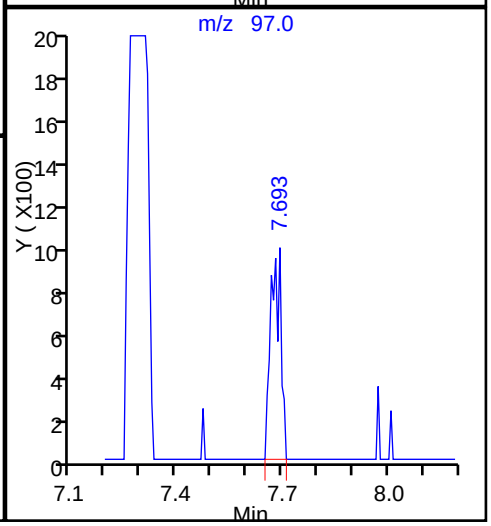


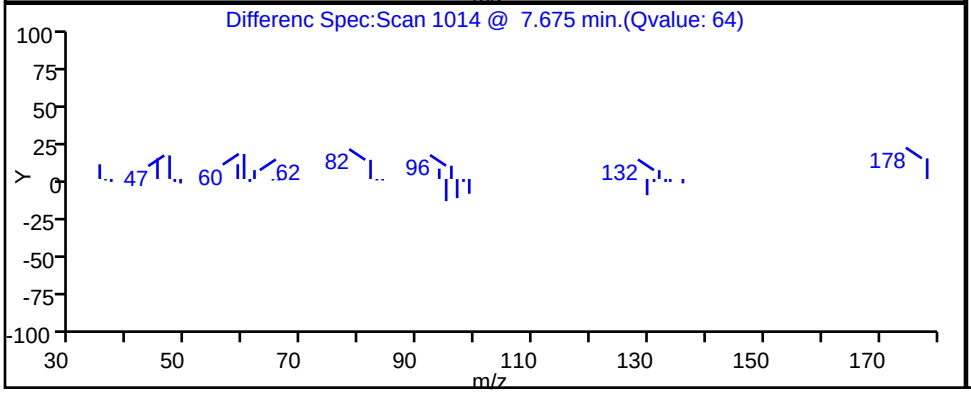












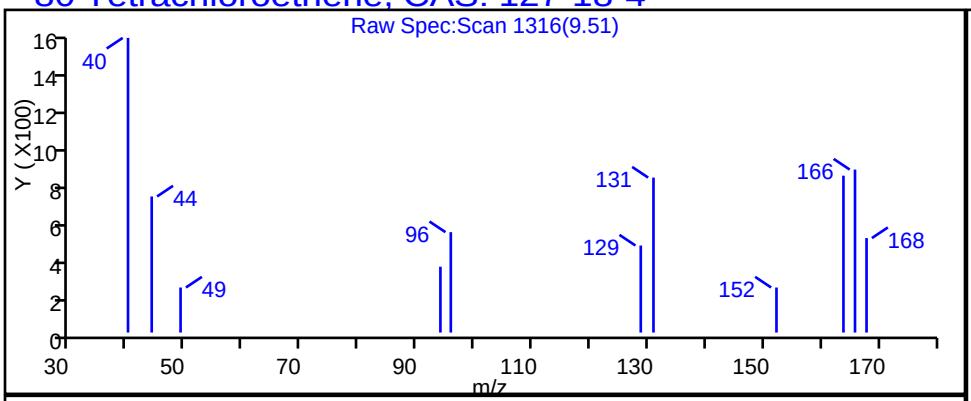
Report Date: 19-Jun-2015 08:23:23 Chrom Revision: 2.2 05-May-2015 11:39:10

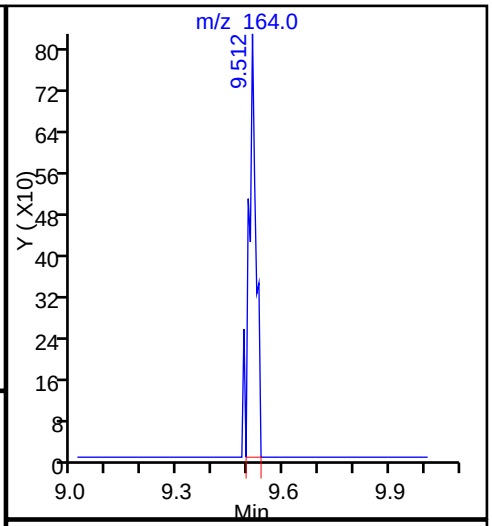
TestAmerica Pittsburgh

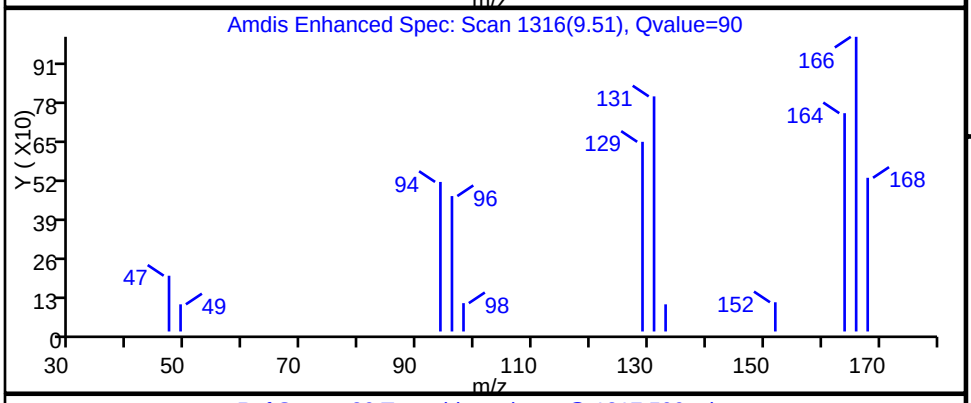
Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618026.D

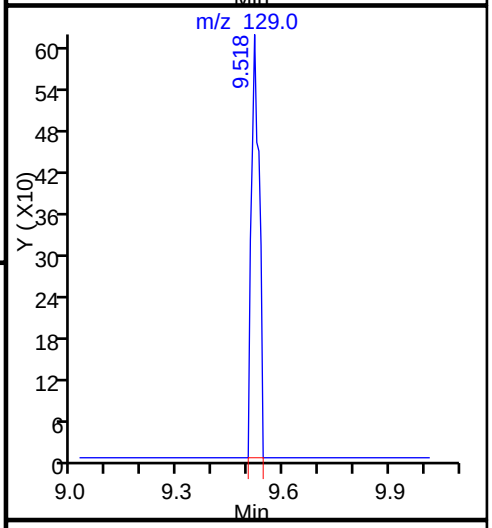
Injection Date:	18-Jun-2015 22:56:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-4	Lab Sample ID:	180-45088-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

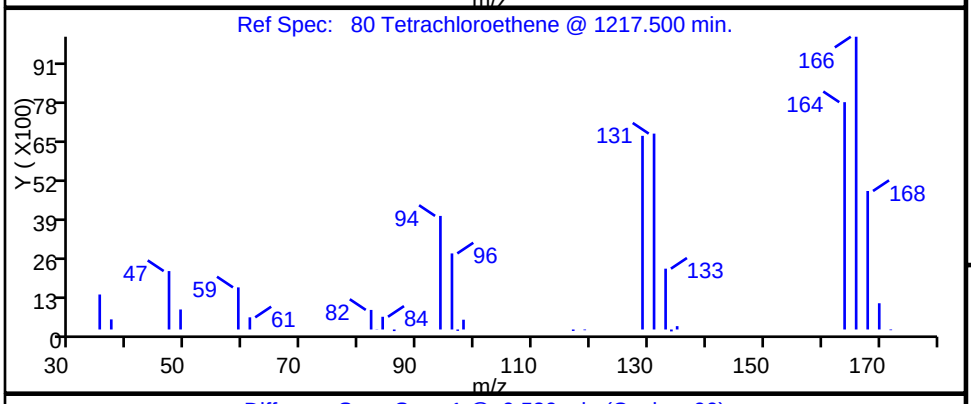
80 Tetrachloroethene, CAS: 127-18-4

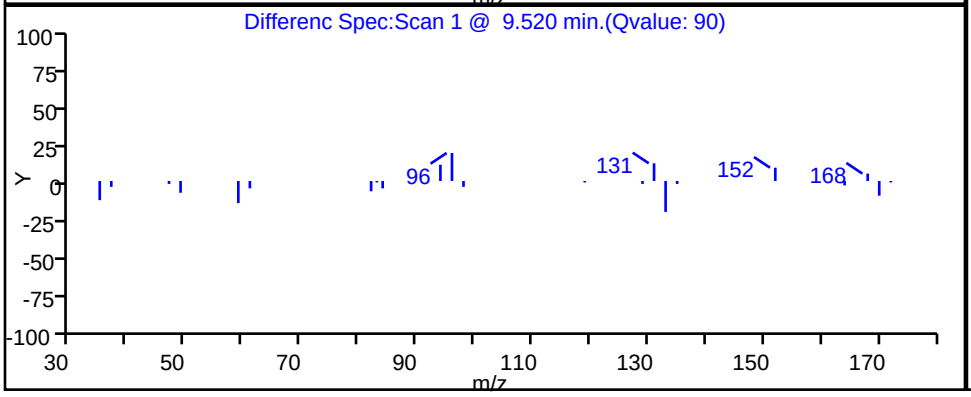


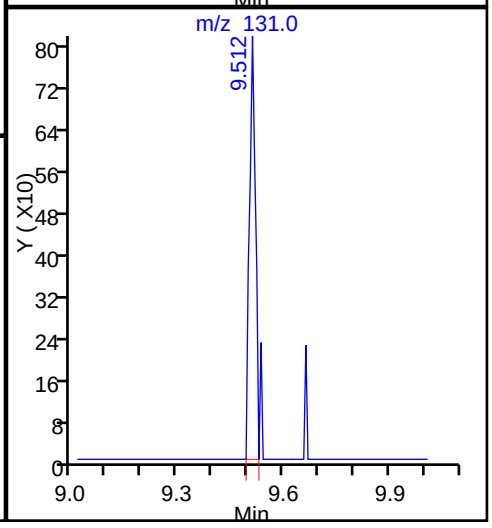












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 | Lab Sample ID: 180-45088-5

Matrix: Water | Lab File ID: 50618027.D

Analysis Method: 8260C | Date Collected: 06/15/2015 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 23:20

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.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.31	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 | Lab Sample ID: 180-45088-5

Matrix: Water | Lab File ID: 50618027.D

Analysis Method: 8260C | Date Collected: 06/15/2015 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 23:20

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.: 145455 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	84		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618027.D
Lims ID: 180-45088-D-5 Lab Sample ID: 180-45088-5
Client ID: HD-COD-SW-10-0/1-0
Sample Type: Client
Inject. Date: 18-Jun-2015 23:20:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-5
Misc. Info.: 180-0007459-027
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 08:24:04 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 08:24:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.256	4.268	-0.012	0	99387	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.292	-0.001	97	314127	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	89	71122	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	98	87557	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.567	6.566	0.001	93	84777	57.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.937	-0.005	0	120534	57.0	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	95	277889	47.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.572	0.002	86	91046	41.9	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.258				ND	
16 Chloroethane	64		2.398				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.453	3.439	0.014	62	4820	9.26	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.138				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.947	5.951	-0.004	82	3126	1.56	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83		6.383				ND	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130		7.679				ND	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164		9.516				ND	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

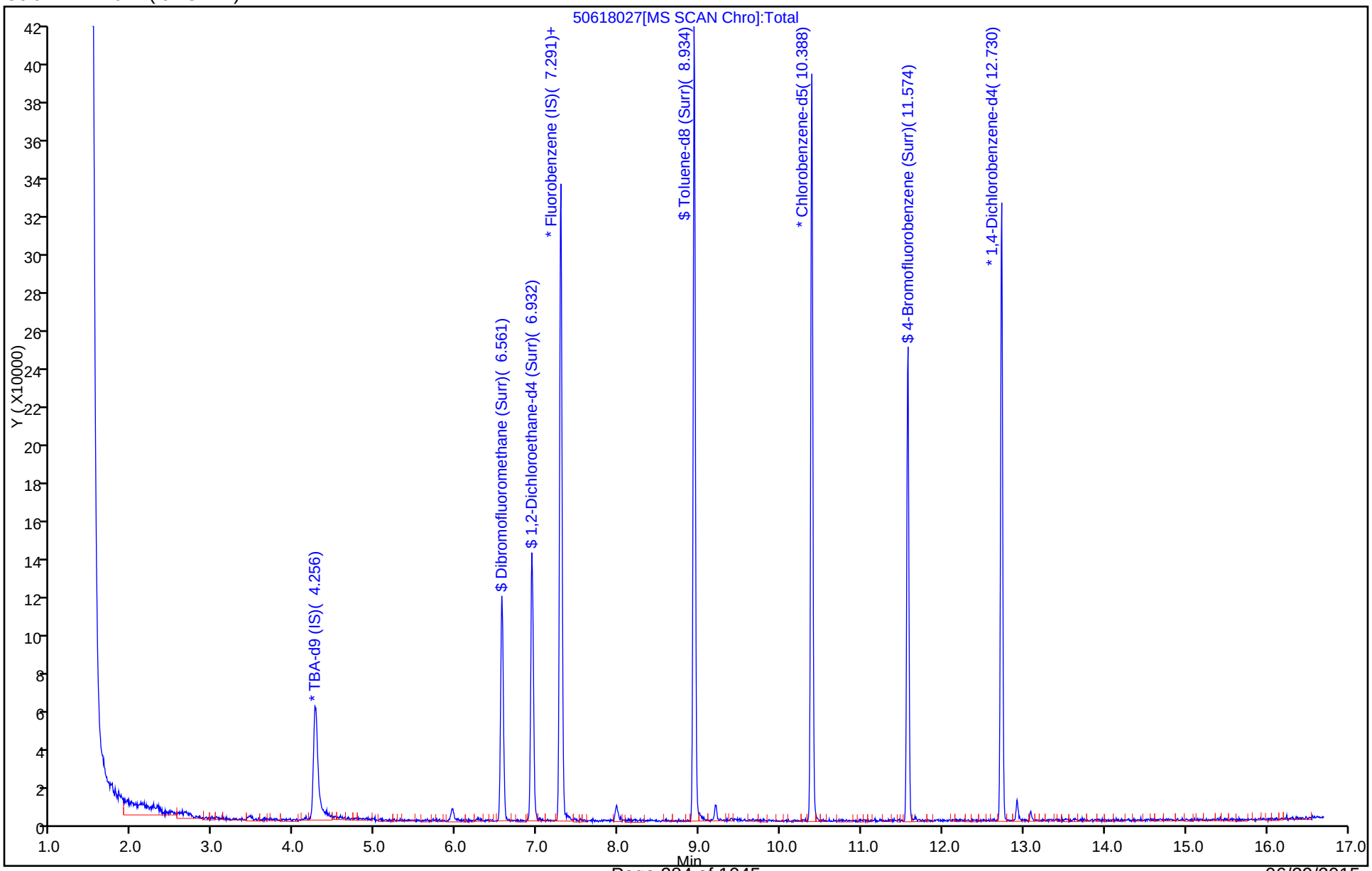
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 19-Jun-2015 08:24:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618027.D				
Injection Date:	18-Jun-2015 23:20:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-5	Lab Sample ID:	180-45088-5	Worklist Smp#:	27
Client ID:	HD-COD-SW-10-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

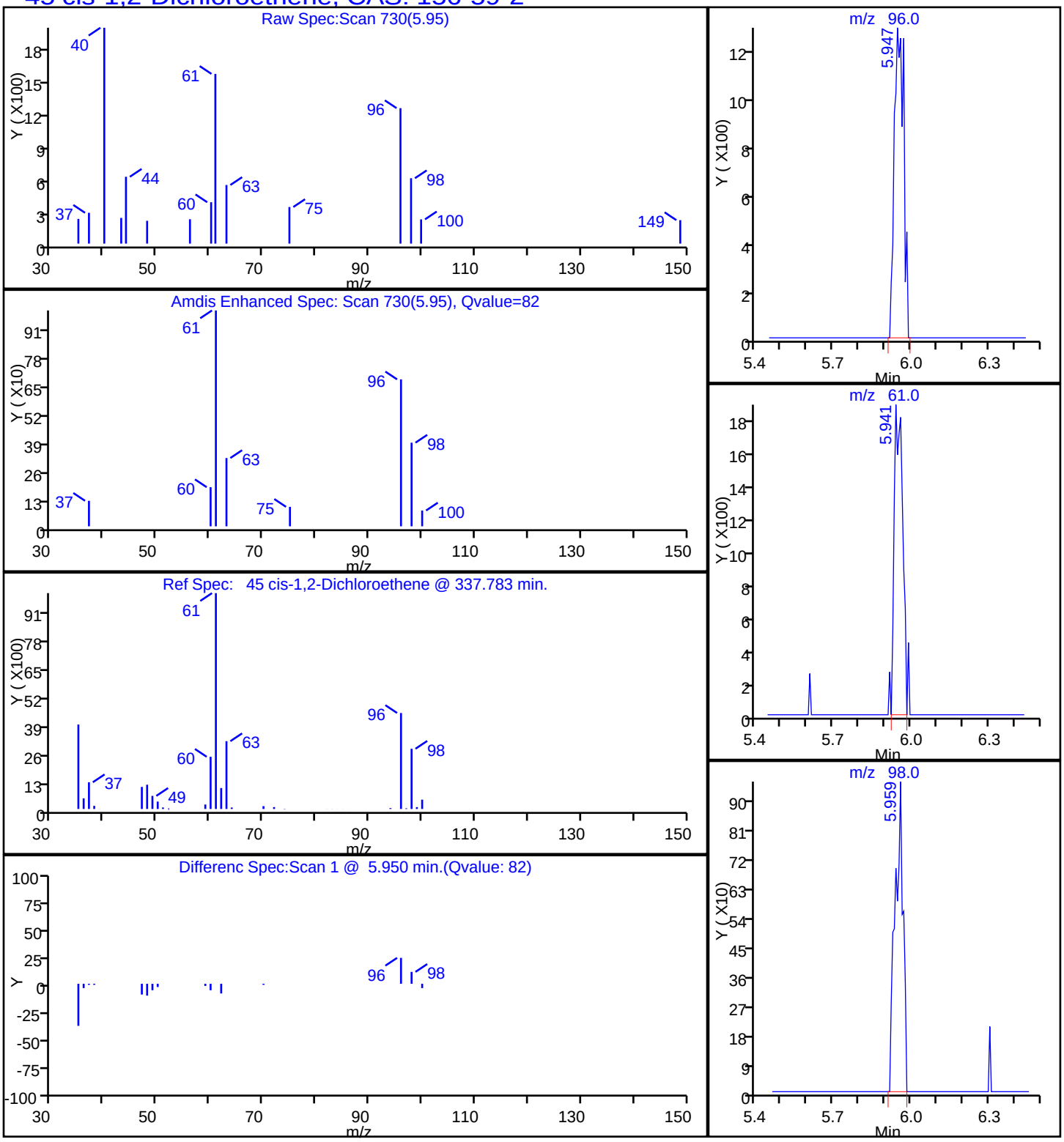
Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618027.D				
Injection Date:	18-Jun-2015 23:20:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-5	Lab Sample ID:	180-45088-5		
Client ID:	HD-COD-SW-10-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	27
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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 | Lab Sample ID: 180-45088-6

Matrix: Water | Lab File ID: 50619017.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 19:21

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.23	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 | Lab Sample ID: 180-45088-6

Matrix: Water | Lab File ID: 50619017.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 19:21

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.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619017.D
Lims ID: 180-45088-D-6 Lab Sample ID: 180-45088-6
Client ID: HD-COD-SW-11-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 19:21:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-6
Misc. Info.: 180-0007474-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 20-Jun-2015 12:41:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.265	-0.003	0	126314	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.289	0.002	98	348307	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.385	0.003	90	76462	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.727	0.003	97	103402	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.559	0.002	93	85670	52.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.930	0.002	0	125080	53.4	
$ 7 Toluene-d8 (Surr)	98	8.934	8.931	0.003	94	310611	48.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	86	106673	45.7	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.459	3.438	0.021	65	3992	6.92	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96		5.944				ND	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.379	6.376	0.003	91	4236	1.15	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130		7.672				ND	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164		9.515				ND	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

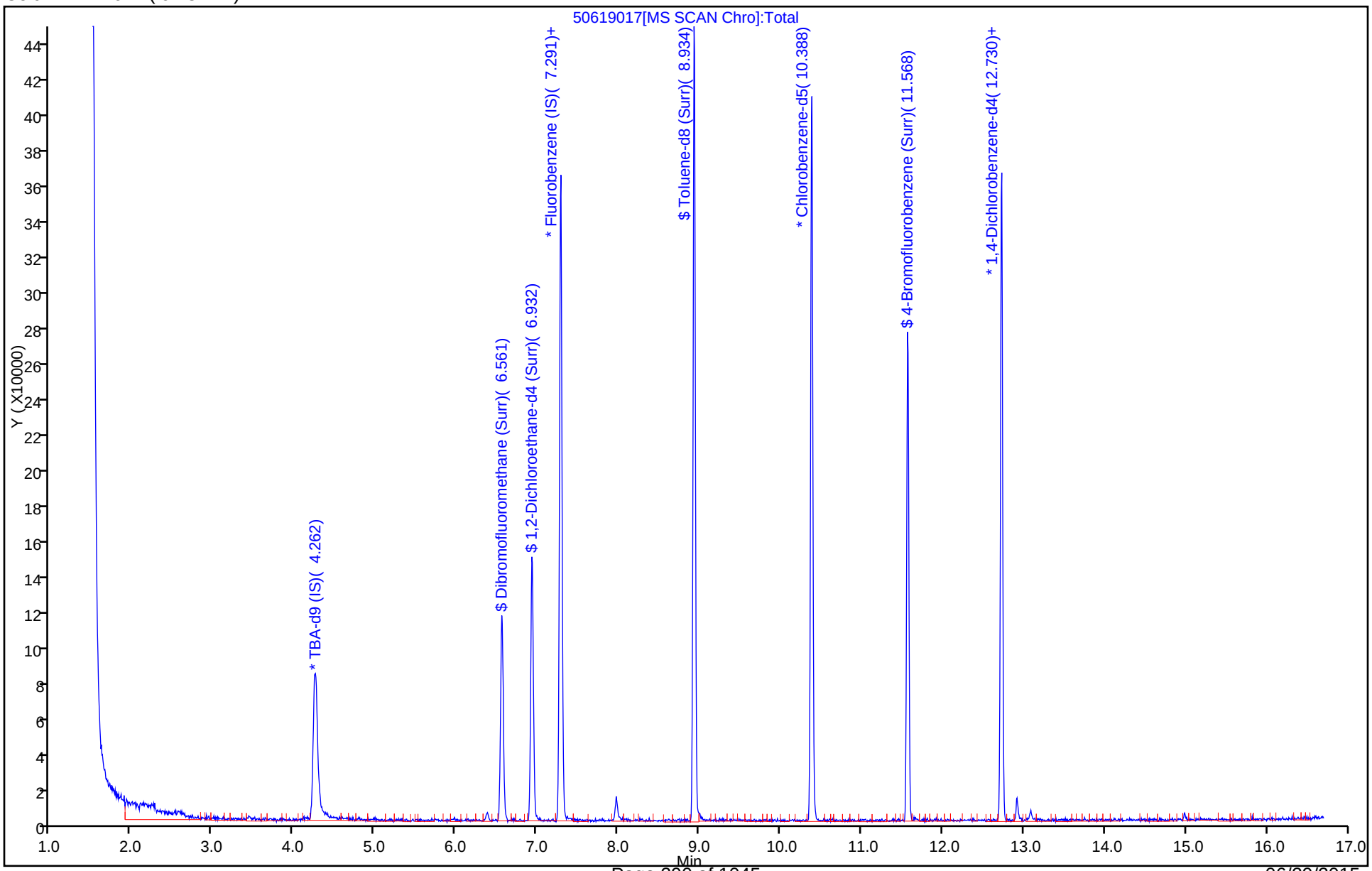
Report Date: 21-Jun-2015 15:05:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619017.D

Injection Date:	19-Jun-2015 19:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-6	Lab Sample ID:	180-45088-6	Worklist Smp#:	17
Client ID:	HD-COD-SW-11-0/1-0				
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)



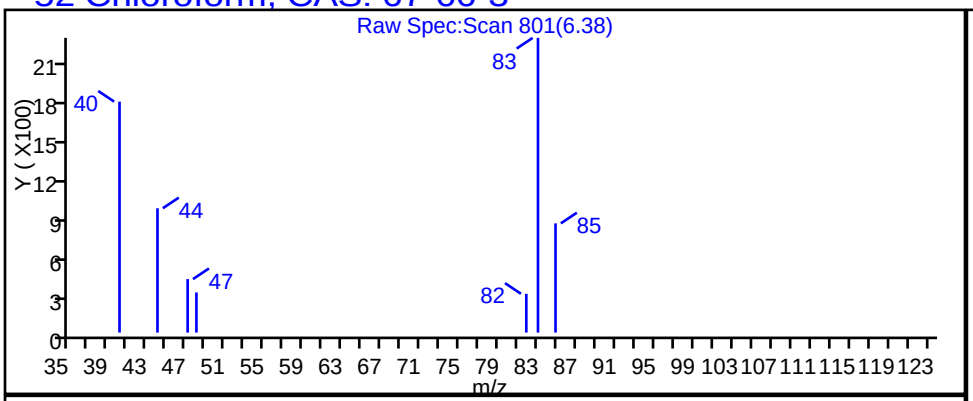
Report Date: 21-Jun-2015 15:05:23 Chrom Revision: 2.2 05-May-2015 11:39:10

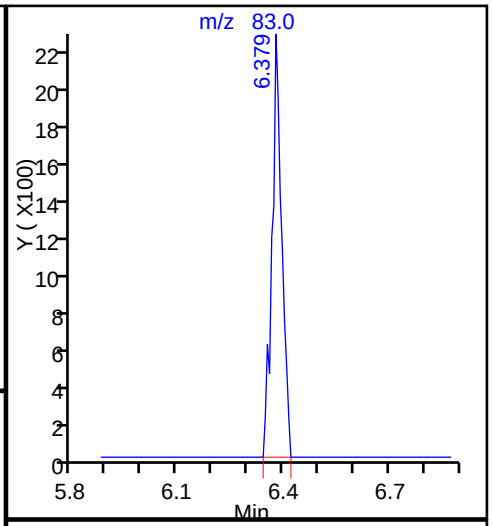
TestAmerica Pittsburgh

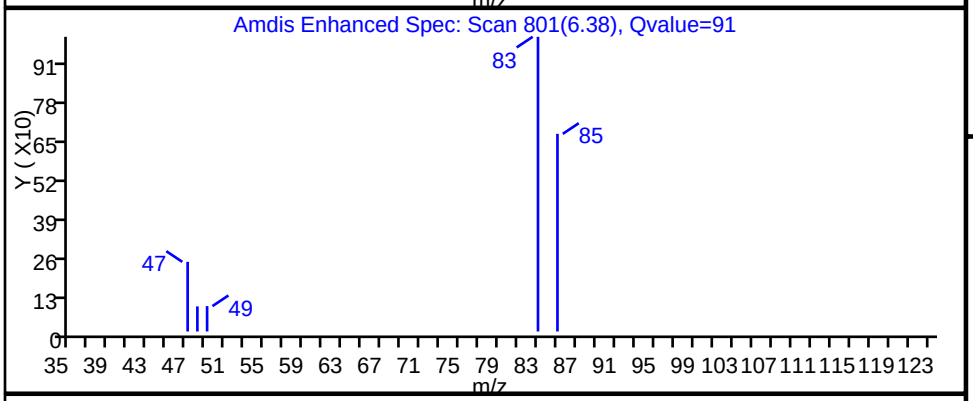
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619017.D

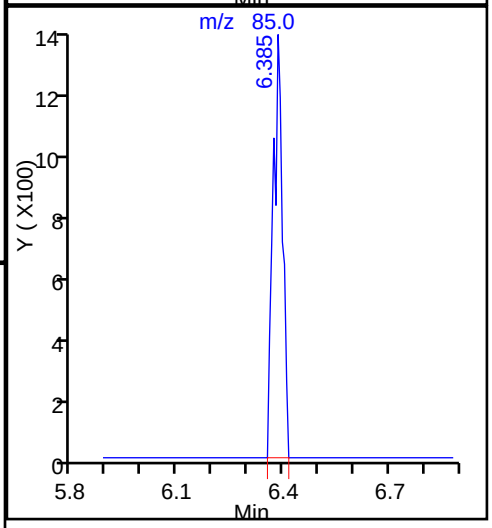
Injection Date:	19-Jun-2015 19:21:30	Instrument ID:	CHHP5
Lims ID:	180-45088-D-6	Lab Sample ID:	180-45088-6
Client ID:	HD-COD-SW-11-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

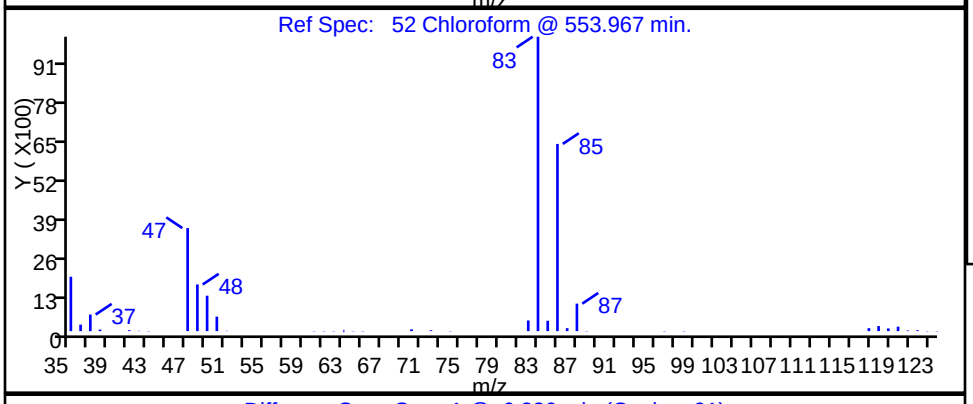
52 Chloroform, CAS: 67-66-3

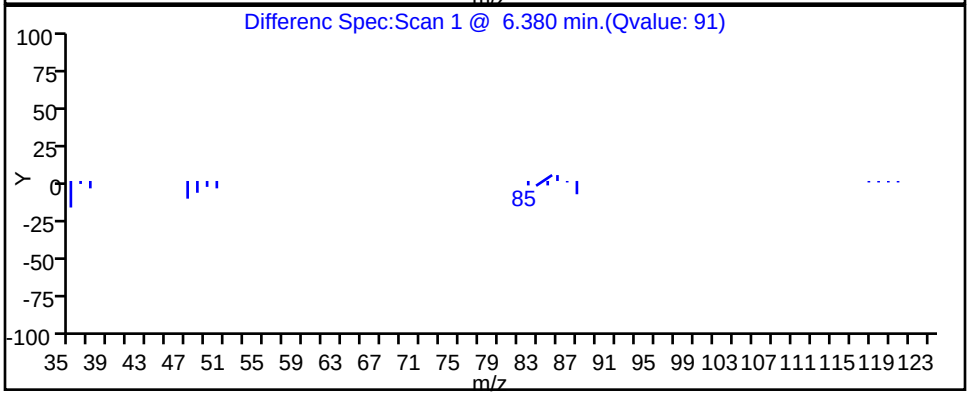












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 | Lab Sample ID: 180-45088-7

Matrix: Water | Lab File ID: 50619018.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 19:45

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	3.3	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 | Lab Sample ID: 180-45088-7

Matrix: Water | Lab File ID: 50619018.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 19:45

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619018.D
Lims ID: 180-45088-E-7 Lab Sample ID: 180-45088-7
Client ID: HD-COD-SW-12-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 19:45:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-E-7
Misc. Info.: 180-0007474-018
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 20-Jun-2015 12:47:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.261	4.265	-0.004	0	130107	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.289	0.001	98	357638	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.385	0.002	89	81141	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.727	0.002	98	102057	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.559	0.001	92	85513	51.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.930	0.001	0	129928	54.0	
$ 7 Toluene-d8 (Surr)	98	8.939	8.931	0.008	95	331324	49.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.572	-0.005	86	107012	43.2	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.433	3.438	-0.005	99	9743	16.4	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96		5.944				ND	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.384	6.376	0.008	31	2151	0.5682	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130		7.672				ND	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164		9.515				ND	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

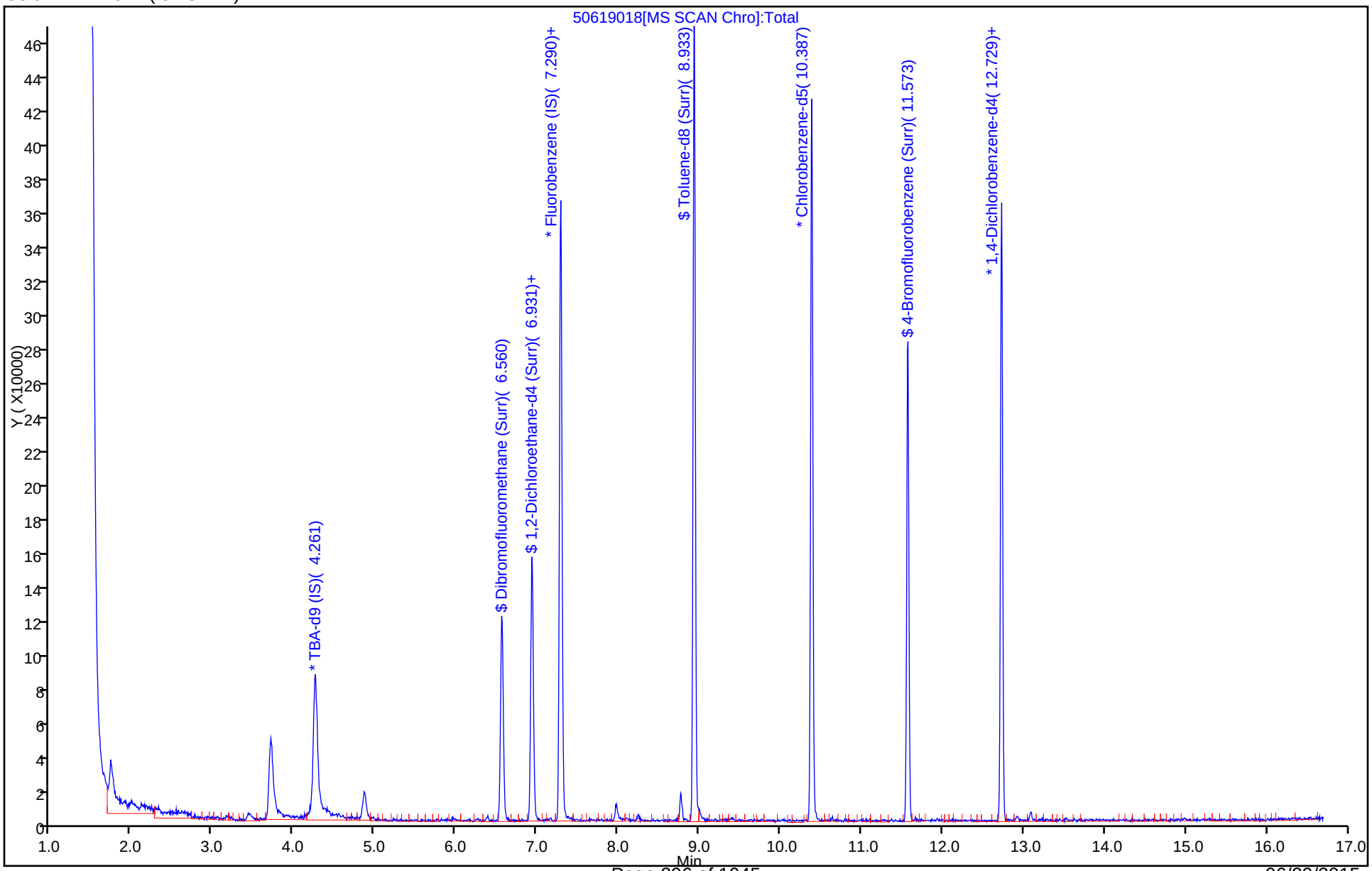
Report Date: 21-Jun-2015 15:05:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619018.D

Injection Date:	19-Jun-2015 19:45:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-E-7	Lab Sample ID:	180-45088-7	Worklist Smp#:	18
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		

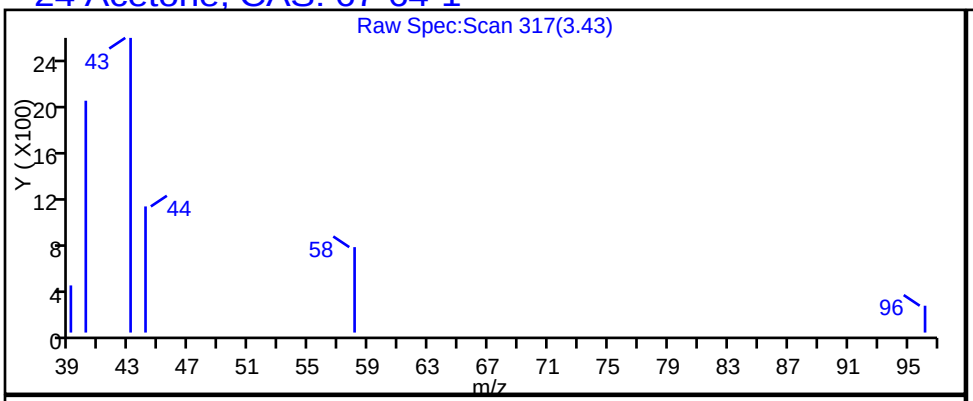
Column: DB-624 (0.18 mm)

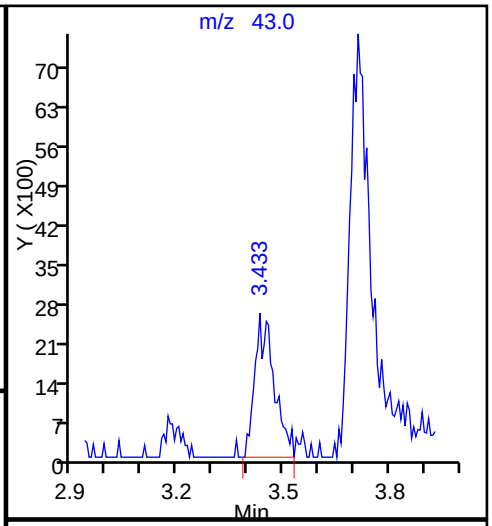


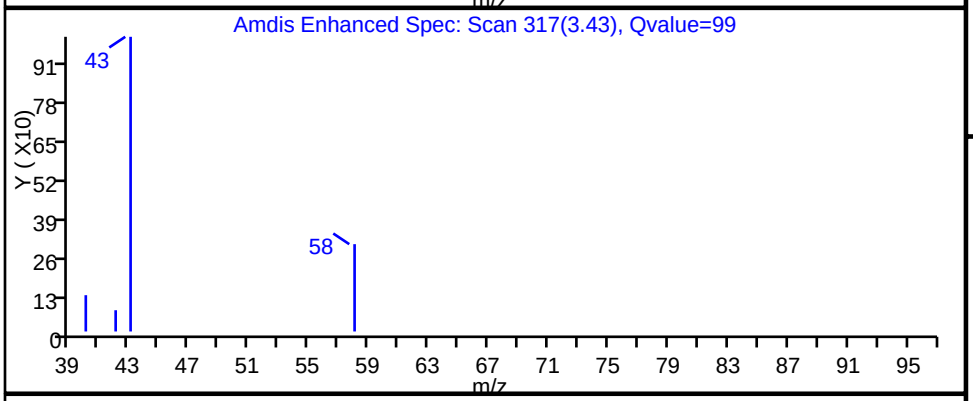
TestAmerica Pittsburgh

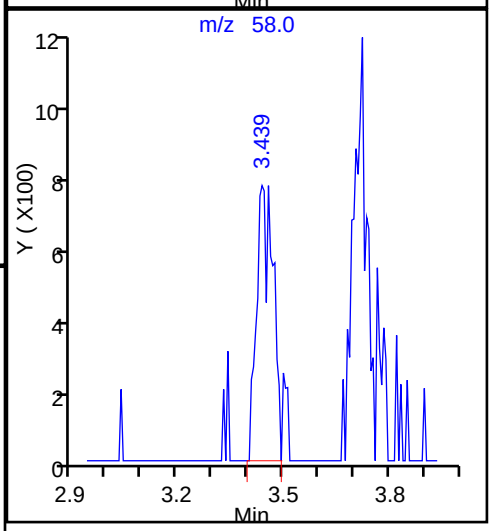
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619018.D				
Injection Date:	19-Jun-2015 19:45:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-7	Lab Sample ID:	180-45088-7		
Client ID:	HD-COD-SW-12-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

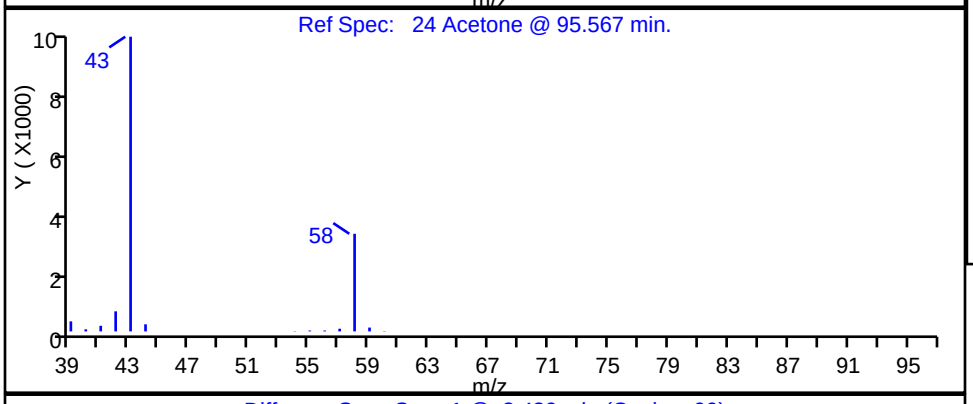
24 Acetone, CAS: 67-64-1

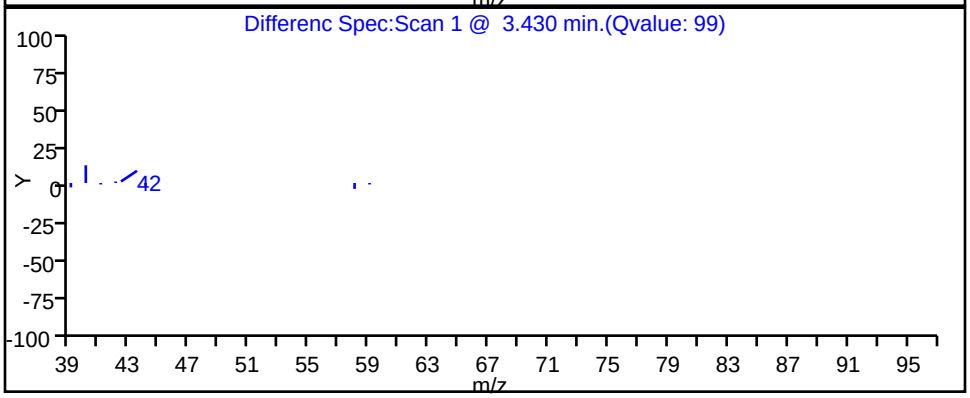












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 | Lab Sample ID: 180-45088-8

Matrix: Water | Lab File ID: 50619019.D

Analysis Method: 8260C | Date Collected: 06/15/2015 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 20:09

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.33	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.33	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.30	J	1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 | Lab Sample ID: 180-45088-8

Matrix: Water | Lab File ID: 50619019.D

Analysis Method: 8260C | Date Collected: 06/15/2015 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 20:09

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619019.D
Lims ID: 180-45088-D-8 Lab Sample ID: 180-45088-8
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 20:09:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-8
Misc. Info.: 180-0007474-019
Operator ID: 001562 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 11:37:17 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: journetp Date: 21-Jun-2015 14:21:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.265	-0.003	0	135991	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.289	0.002	98	348715	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.385	0.003	89	77004	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.727	0.003	98	99441	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.559	0.009	92	85591	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	0	128162	54.6	
$ 7 Toluene-d8 (Surr)	98	8.934	8.931	0.003	94	308839	48.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	84	103579	44.1	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.453	3.438	0.015	66	6377	11.0	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.947	5.944	0.003	78	3624	1.63	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83		6.376				ND	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.669	7.672	-0.003	92	3378	1.63	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91	9.001	9.004	-0.003	92	3148	0.3804	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.512	9.515	-0.003	88	2383	1.51	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

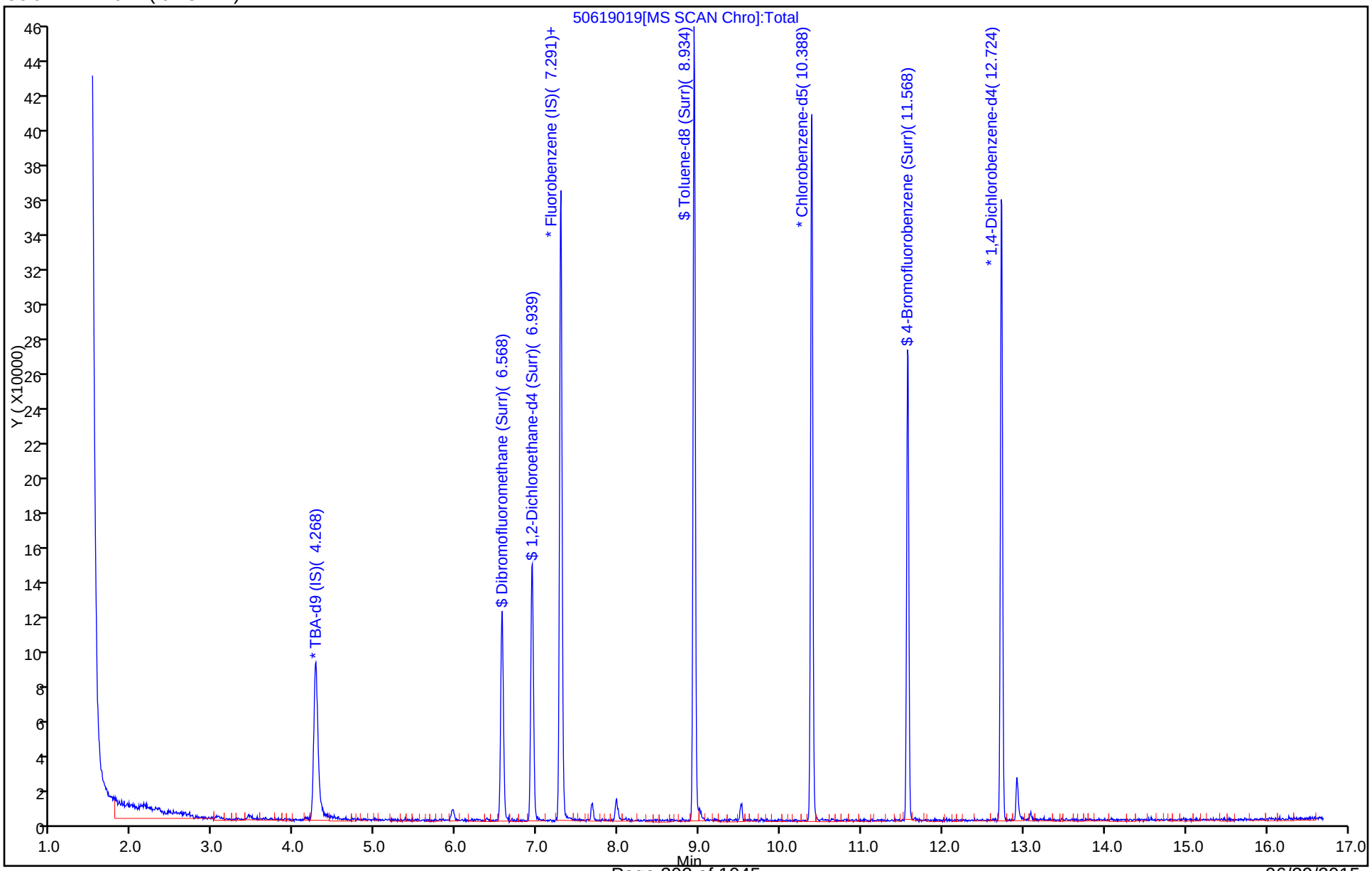
Report Date: 22-Jun-2015 11:37:18 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619019.D

Injection Date:	19-Jun-2015 20:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-8	Lab Sample ID:	180-45088-8	Worklist Smp#:	19
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		

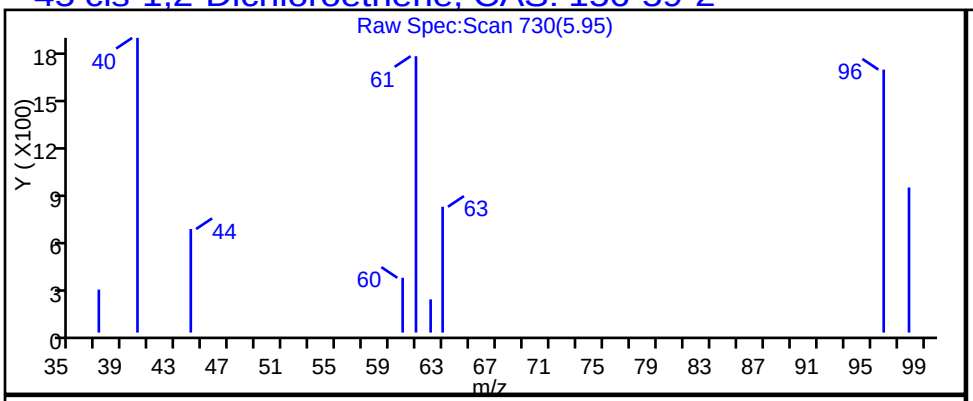
Column: DB-624 (0.18 mm)

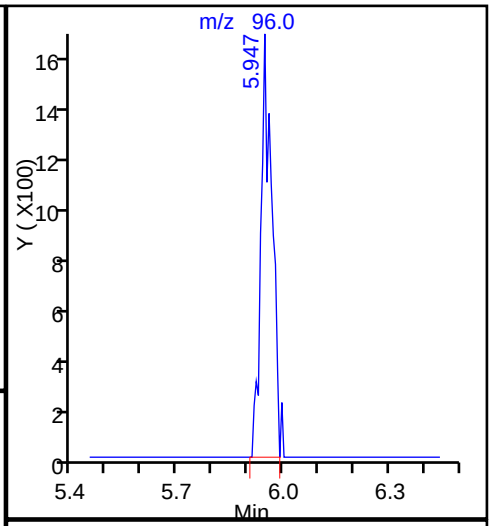


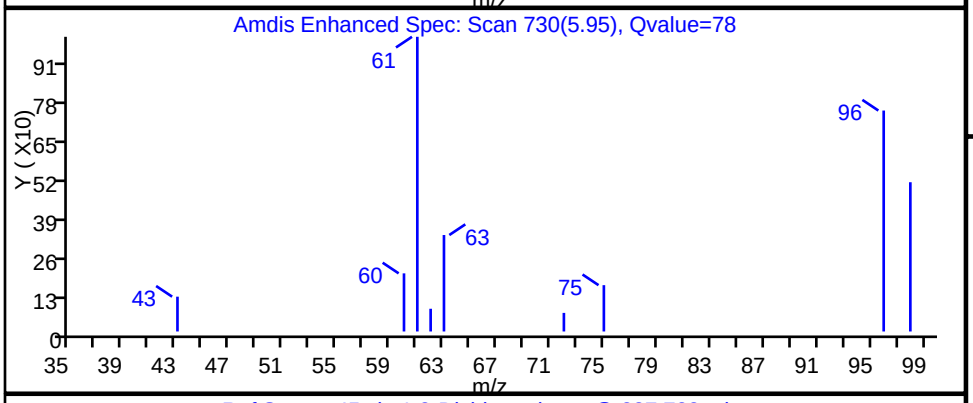
TestAmerica Pittsburgh

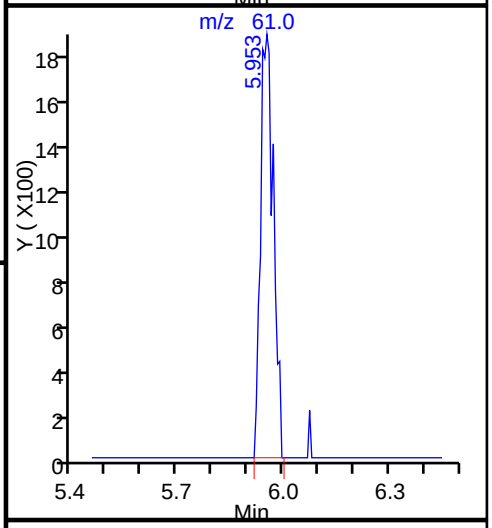
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619019.D				
Injection Date:	19-Jun-2015 20:09:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-8	Lab Sample ID:	180-45088-8		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

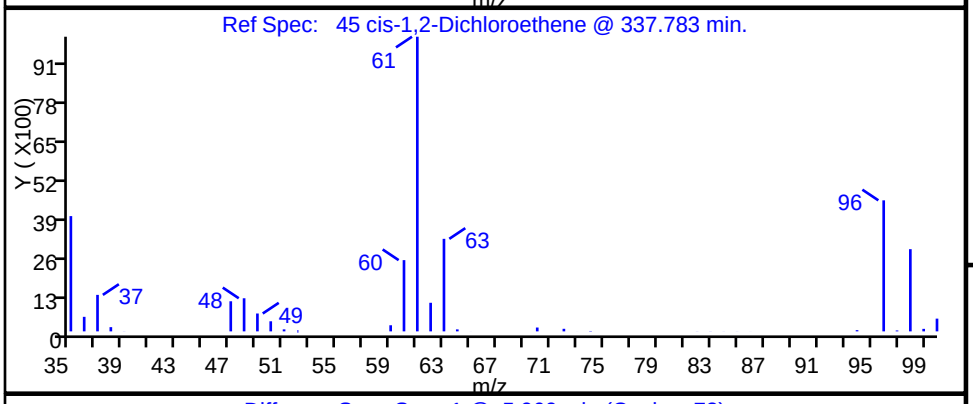
45 cis-1,2-Dichloroethene, CAS: 156-59-2

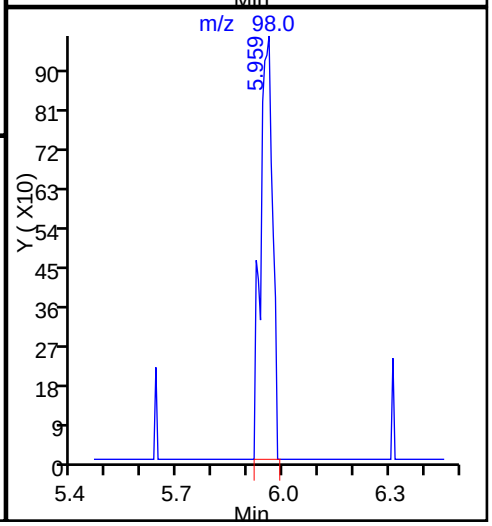


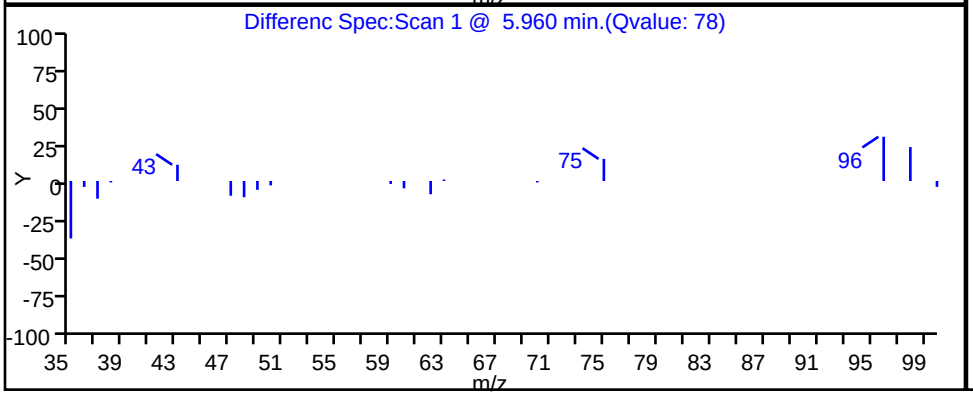








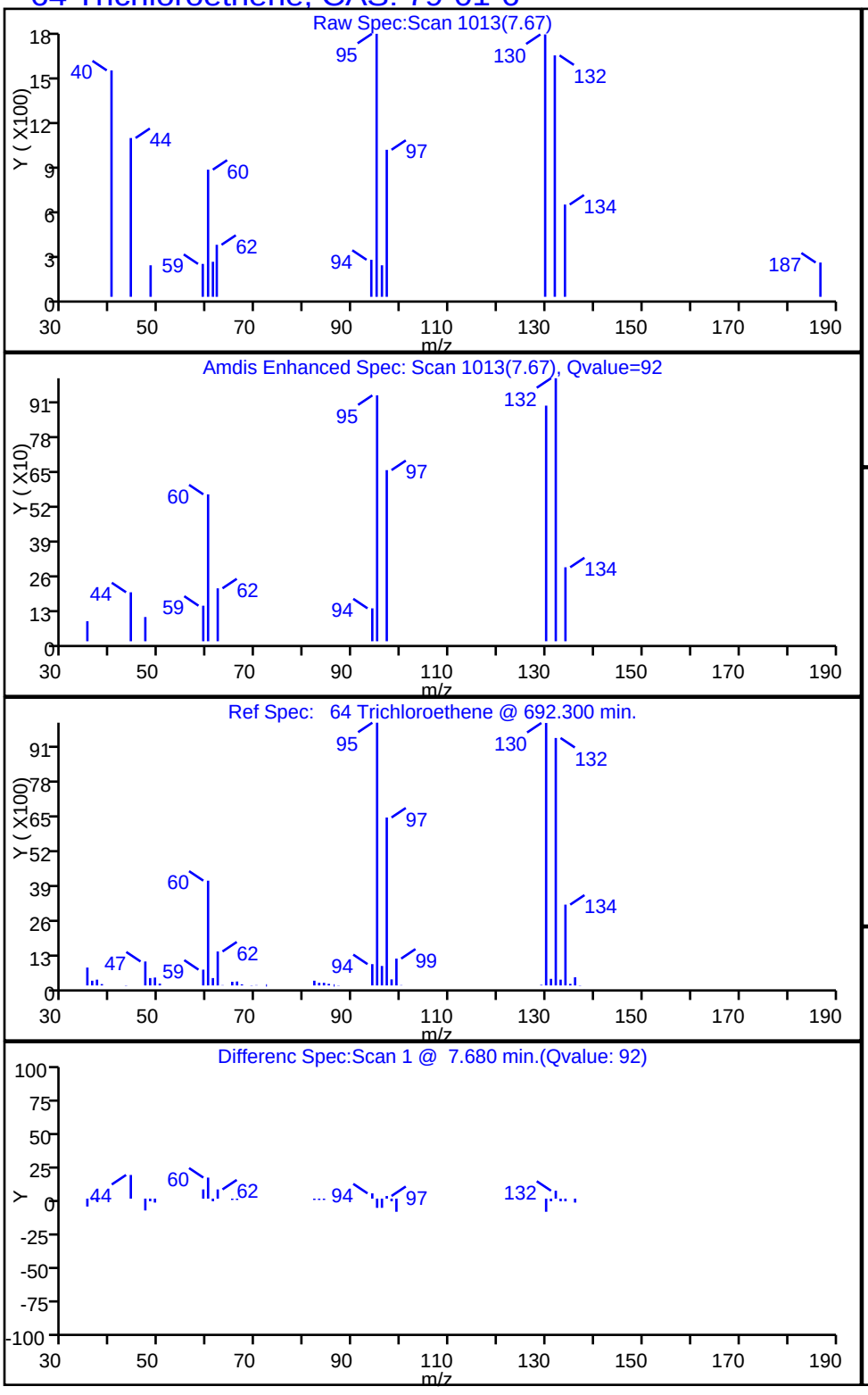


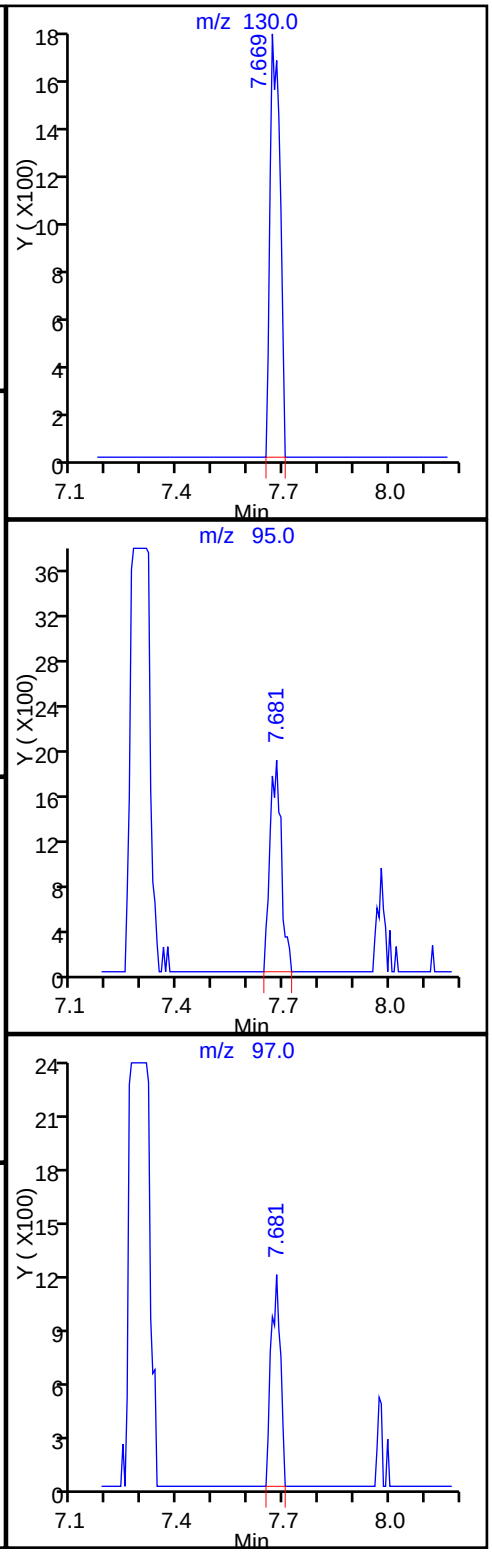


TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619019.D		
Injection Date:	19-Jun-2015 20:09:30	Instrument ID:	CHHP5
Lims ID:	180-45088-D-8	Lab Sample ID:	180-45088-8
Client ID:	HD-COD-SW-13-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 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





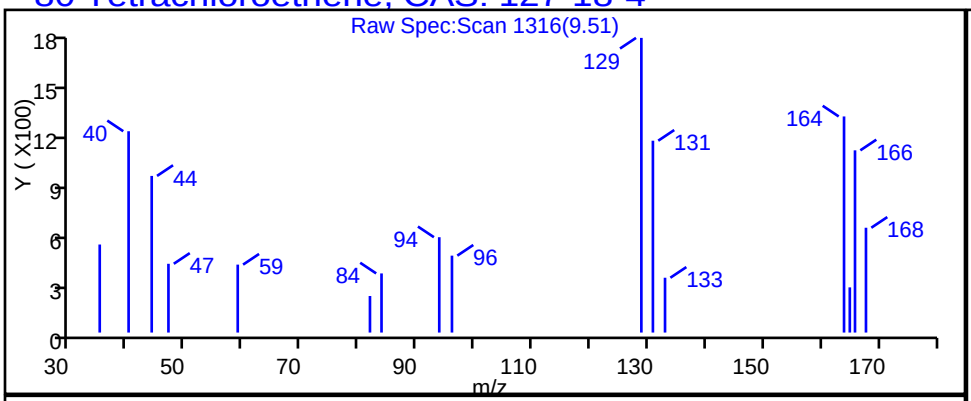
Report Date: 22-Jun-2015 11:37:18 Chrom Revision: 2.2 14-May-2015 11:41:56

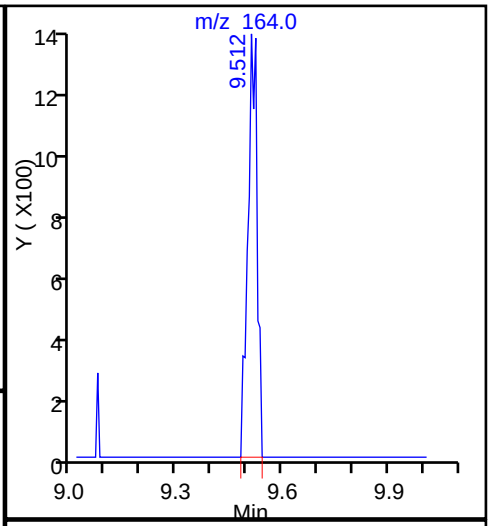
TestAmerica Pittsburgh

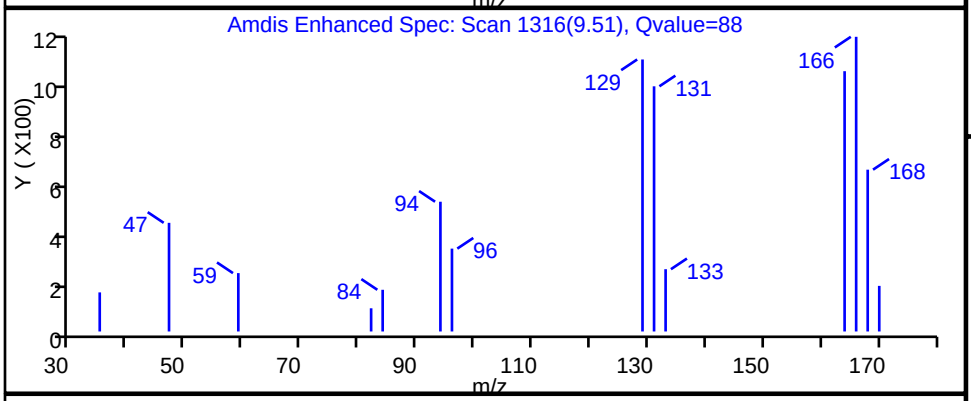
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619019.D

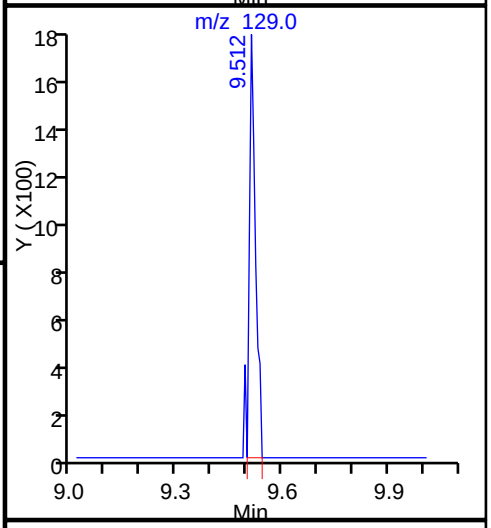
Injection Date:	19-Jun-2015 20:09:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-8	Lab Sample ID:	180-45088-8		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

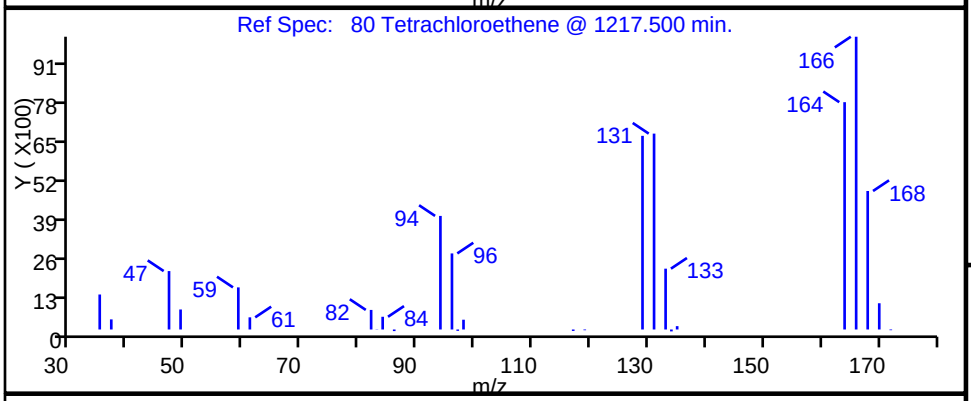
80 Tetrachloroethene, CAS: 127-18-4

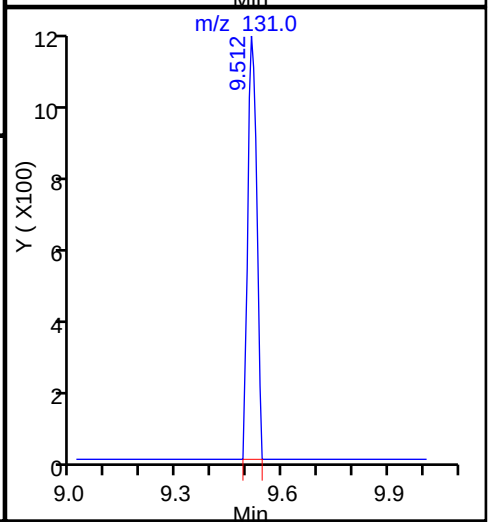


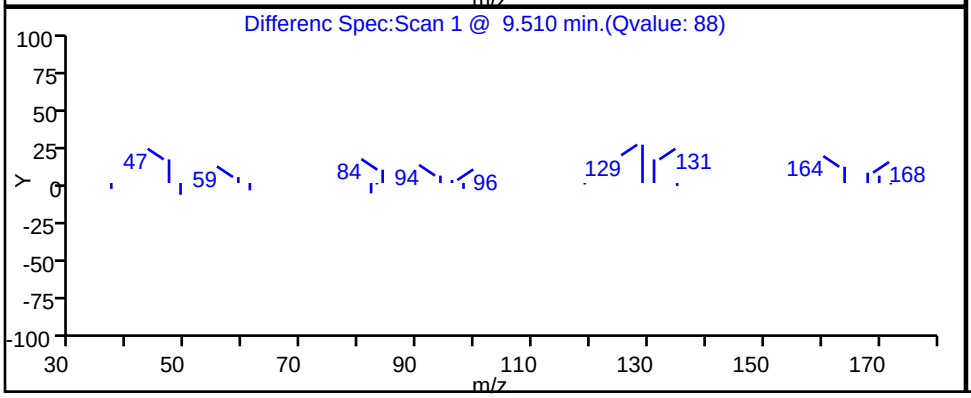












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 | Lab Sample ID: 180-45088-9

Matrix: Water | Lab File ID: 50619020.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 20:33

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	0.50	J	1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.26	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.47	J	1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	9.3		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	6.2		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 | Lab Sample ID: 180-45088-9

Matrix: Water | Lab File ID: 50619020.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 20:33

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D
Lims ID: 180-45088-E-9 Lab Sample ID: 180-45088-9
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 20:33:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-E-9
Misc. Info.: 180-0007474-020
Operator ID: 001562 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 11:37:52 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: journetp Date: 21-Jun-2015 14:30:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.265	-0.005	0	134671	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	343984	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.385	0.007	89	78549	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.727	0.001	97	101008	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	92	85165	53.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	0	123017	53.1	
$ 7 Toluene-d8 (Surr)	98	8.938	8.931	0.007	95	308517	47.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	85	102641	42.8	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96	3.353	3.347	0.006	96	4839	2.48	
24 Acetone	43	3.438	3.438	0.000	71	4877	8.56	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73	4.588	4.576	0.012	18	1129	0.2210	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.944	0.007	82	120441	54.9	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.389	6.376	0.013	92	4652	1.28	
53 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	35	6421	2.35	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.678	7.672	0.006	97	95116	46.5	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.516	9.515	0.001	93	49429	30.8	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

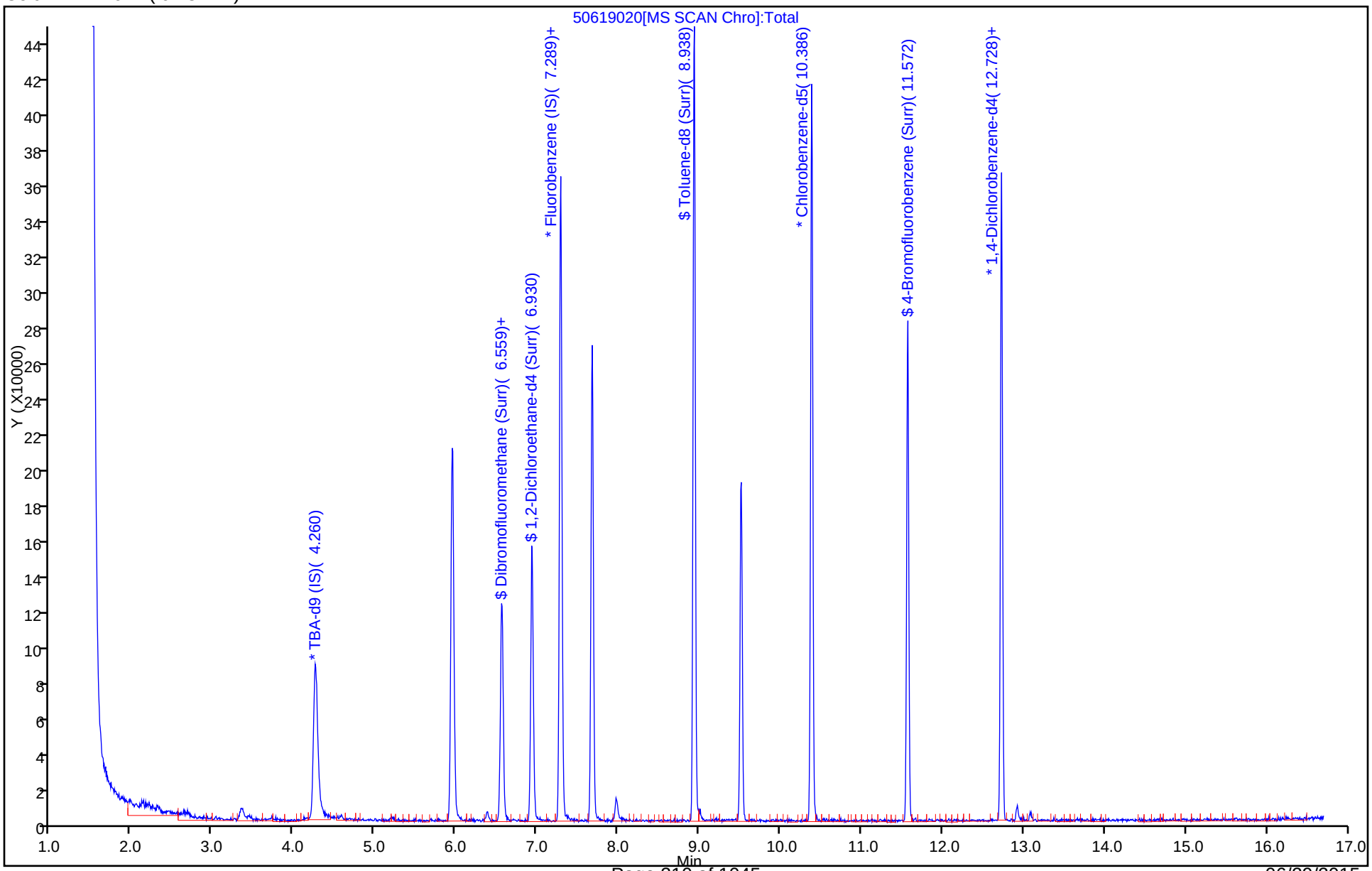
Report Date: 22-Jun-2015 11:37:53 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D

Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9	Worklist Smp#:	20
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		

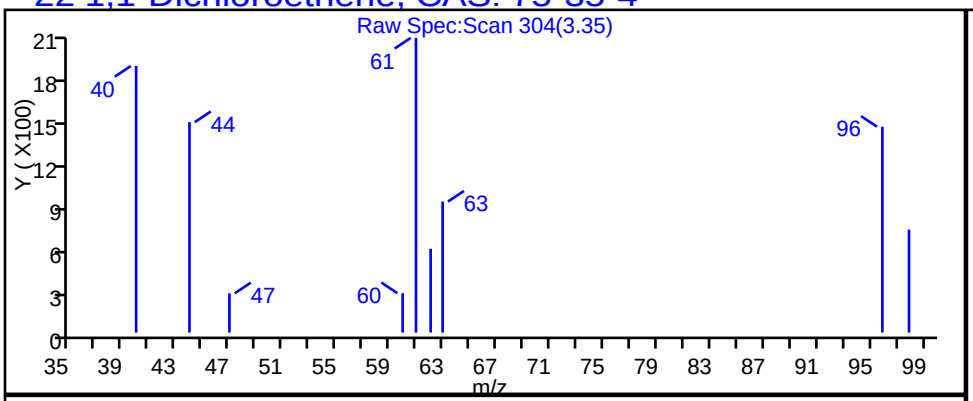
Column: DB-624 (0.18 mm)

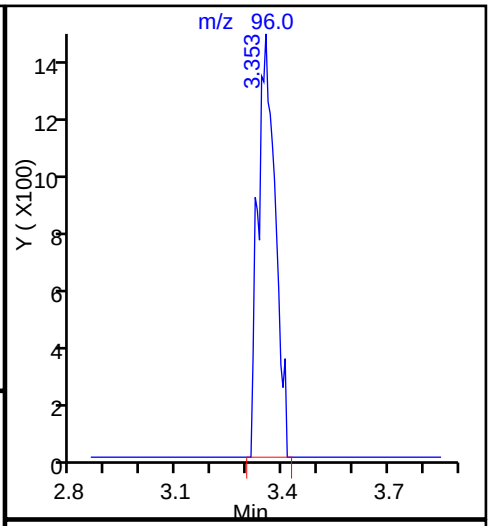


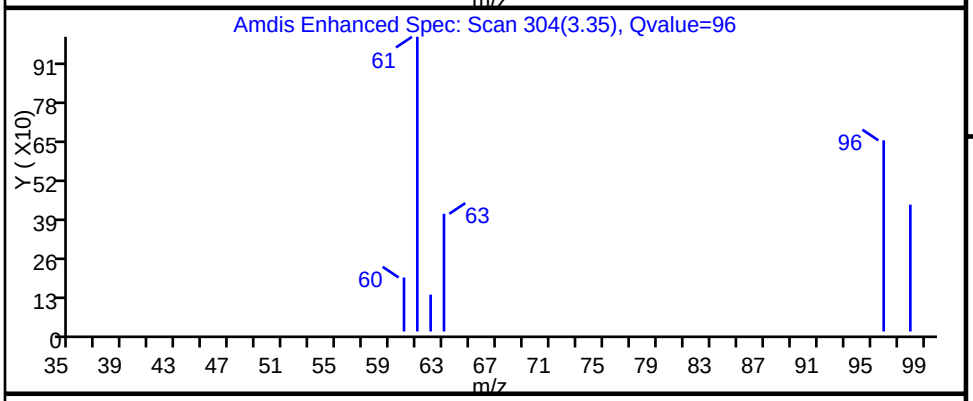
TestAmerica Pittsburgh

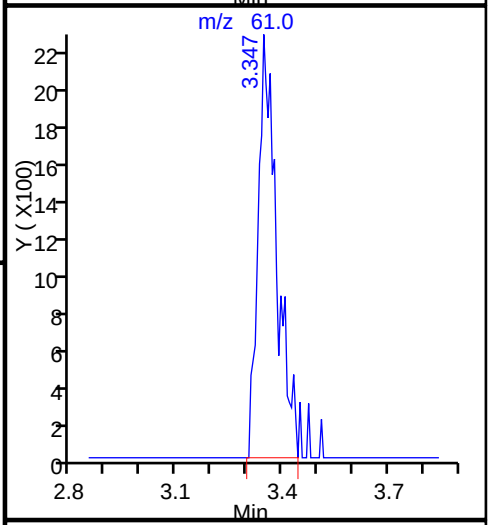
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D				
Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

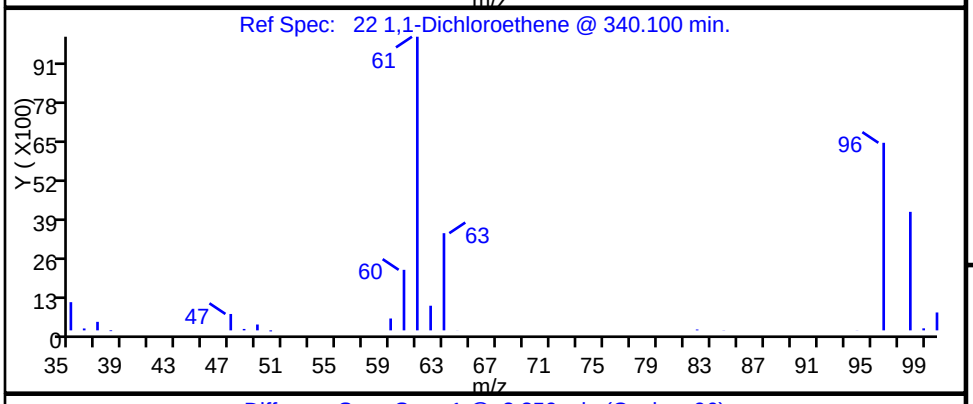
22 1,1-Dichloroethene, CAS: 75-35-4

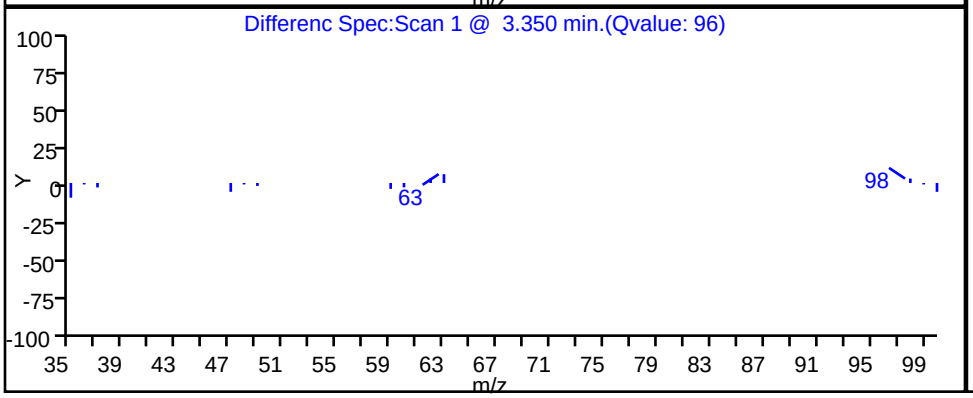


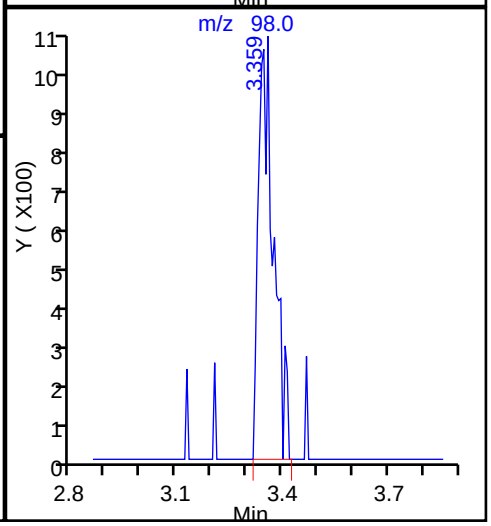








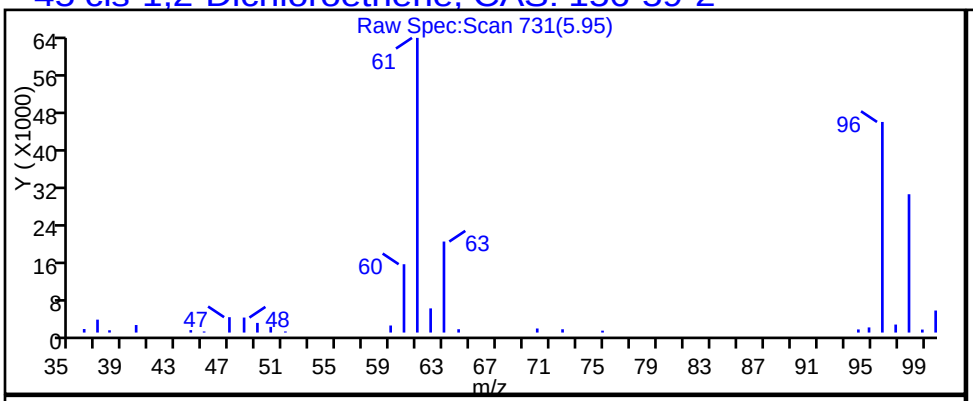


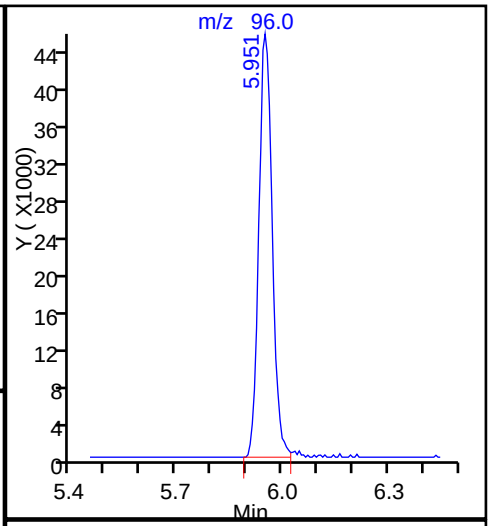


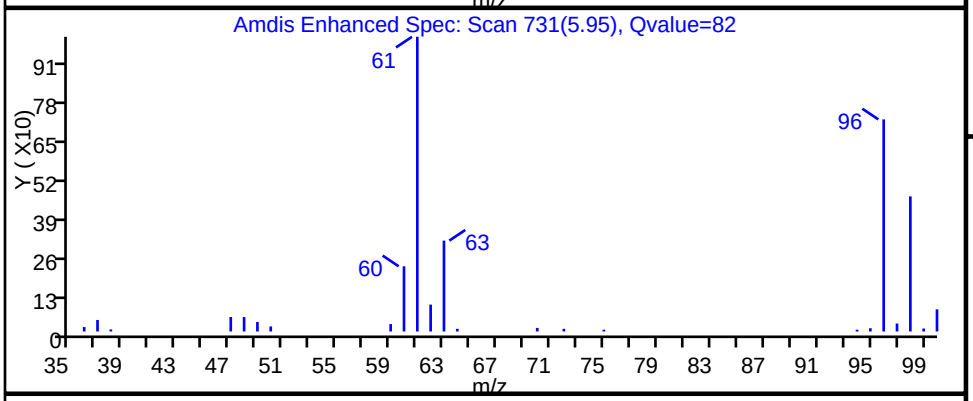
TestAmerica Pittsburgh

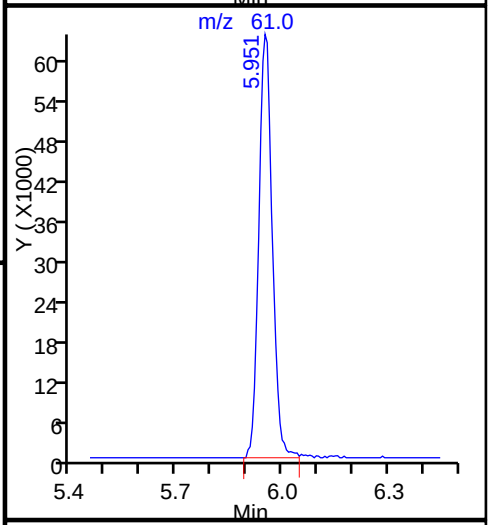
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D				
Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

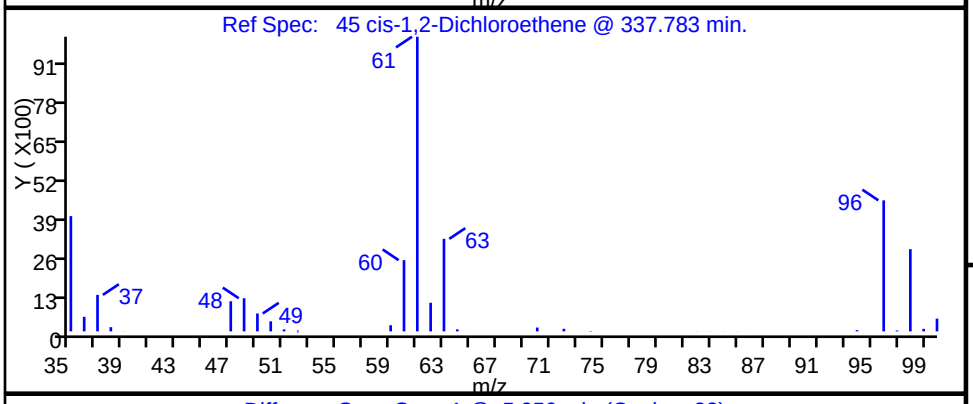
45 cis-1,2-Dichloroethene, CAS: 156-59-2

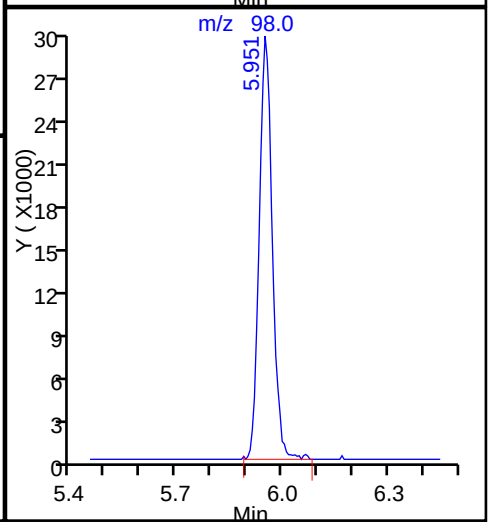


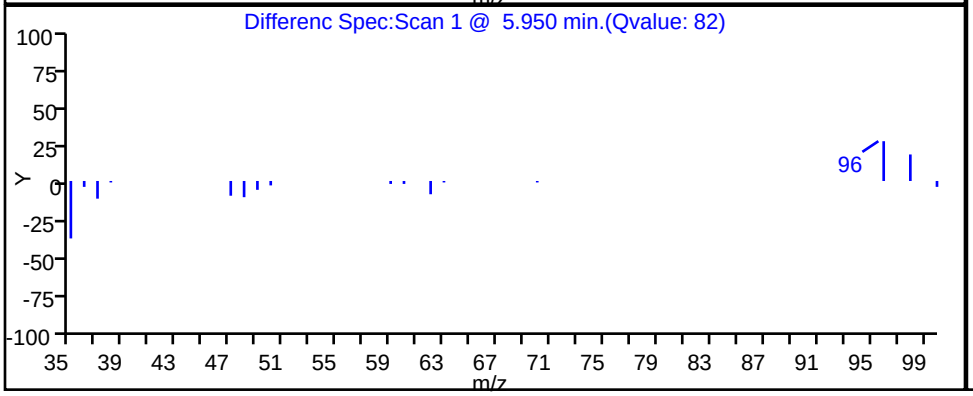








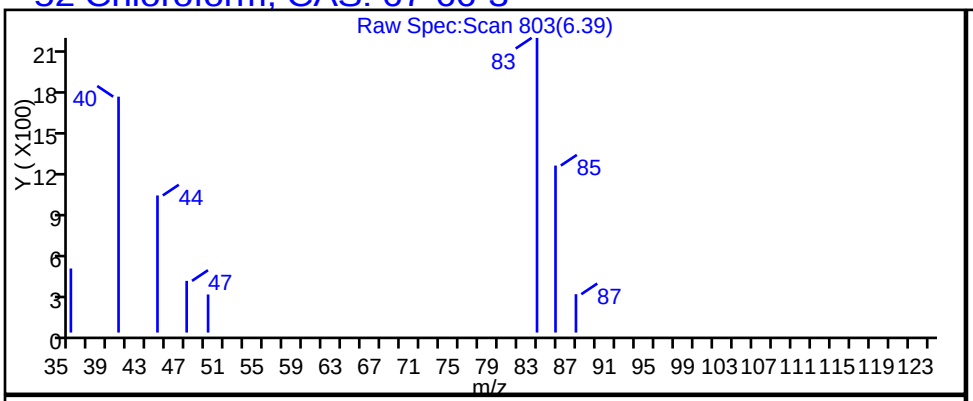


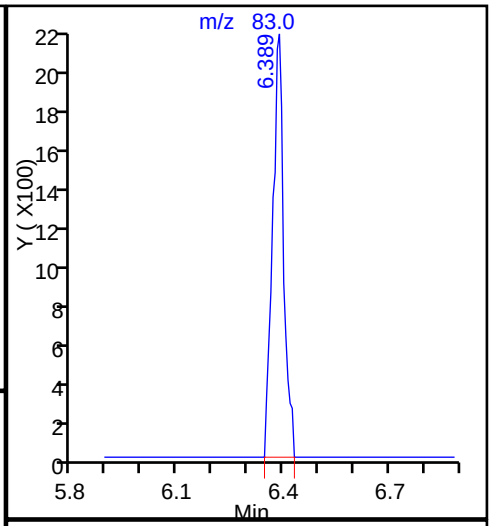


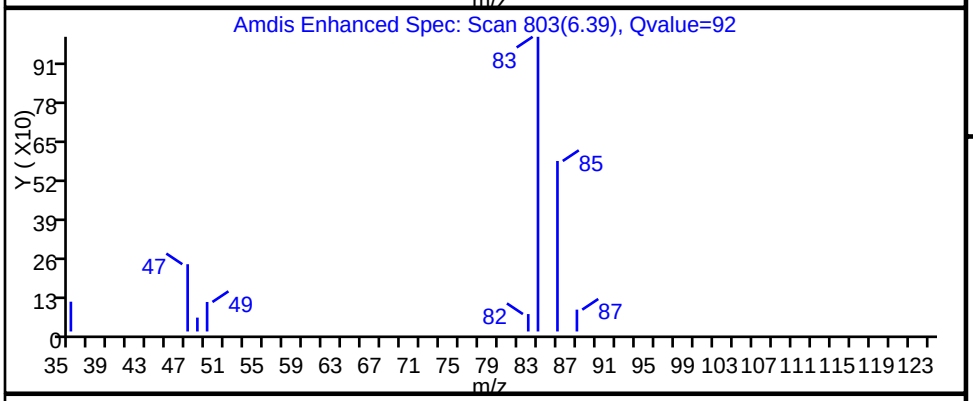
TestAmerica Pittsburgh

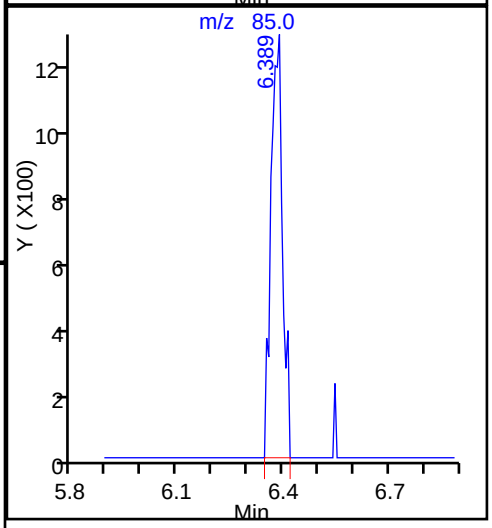
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D				
Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

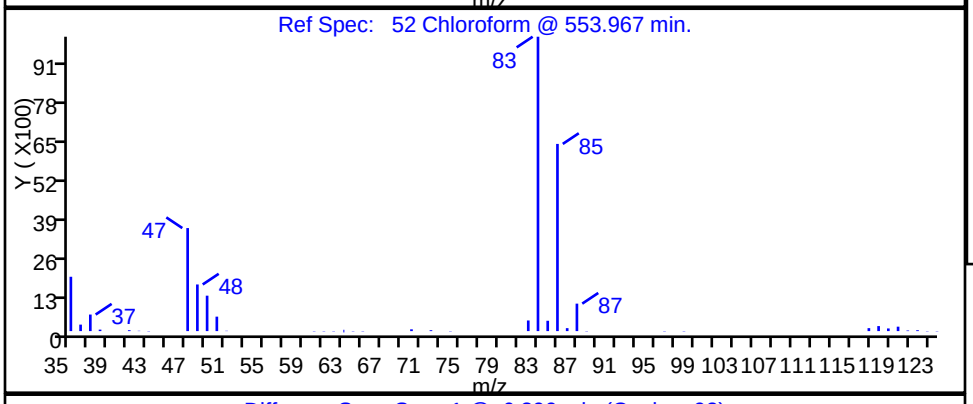
52 Chloroform, CAS: 67-66-3

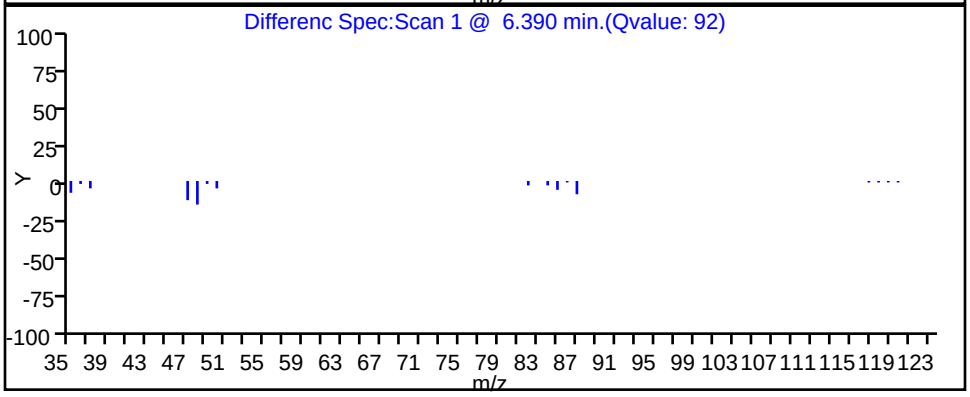








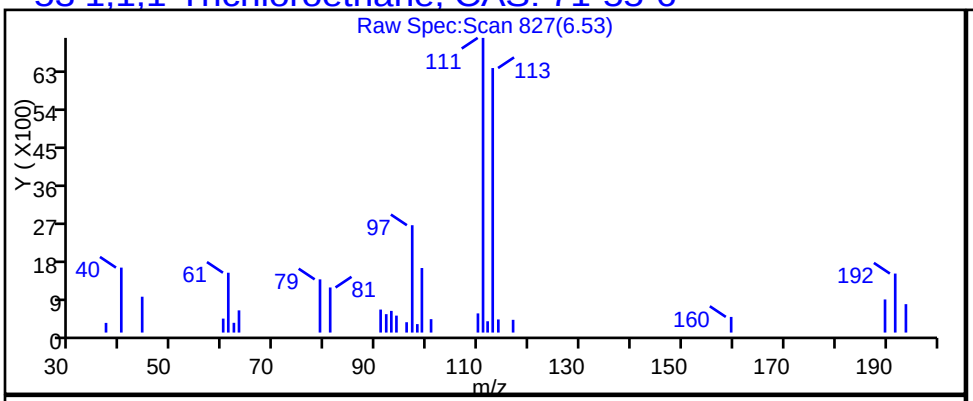


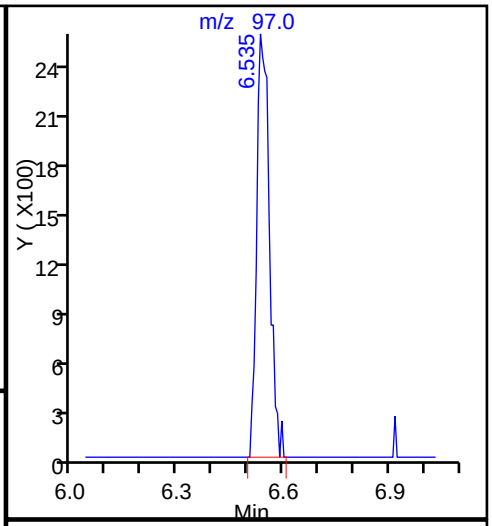


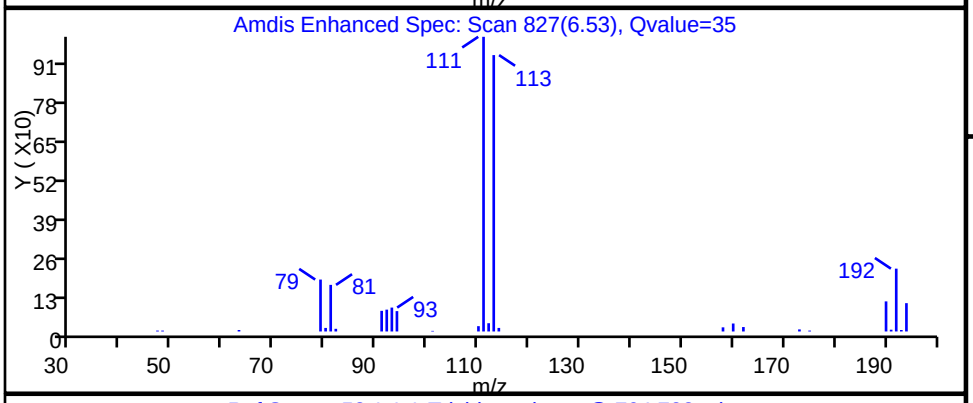
TestAmerica Pittsburgh

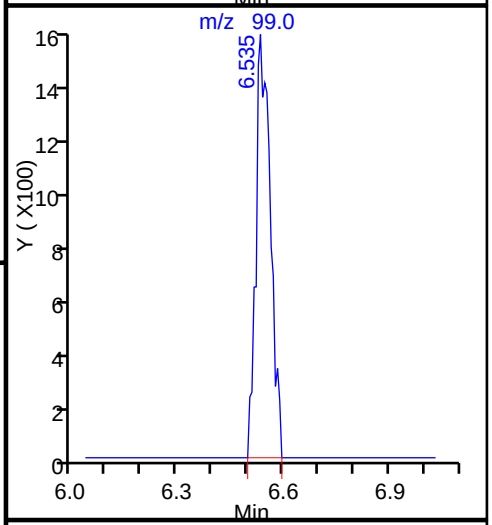
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D				
Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

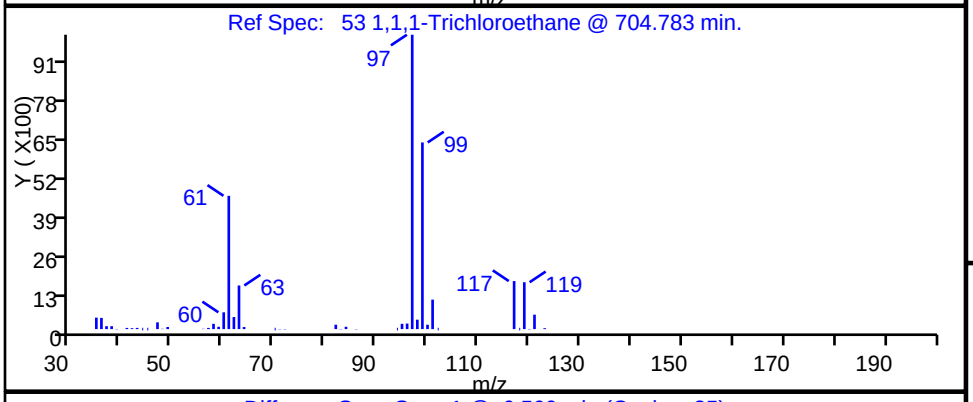
53 1,1,1-Trichloroethane, CAS: 71-55-6

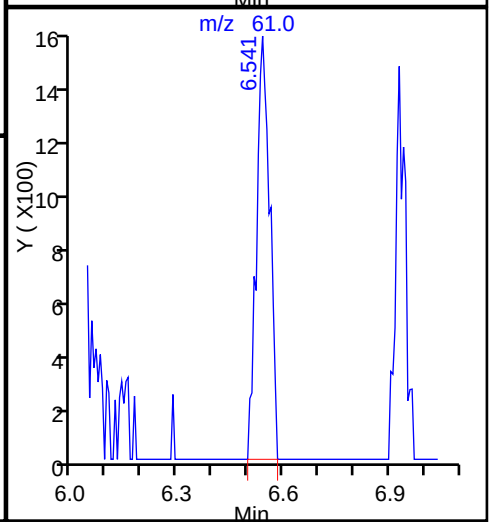


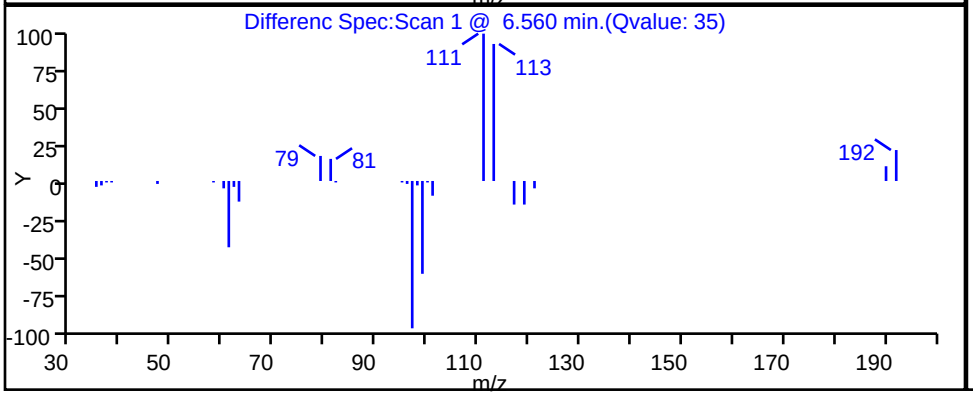












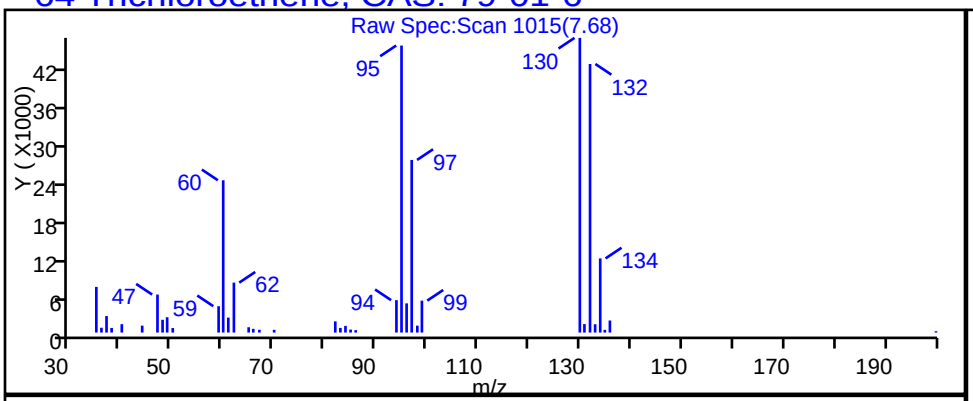
Report Date: 22-Jun-2015 11:37:53 Chrom Revision: 2.2 14-May-2015 11:41:56

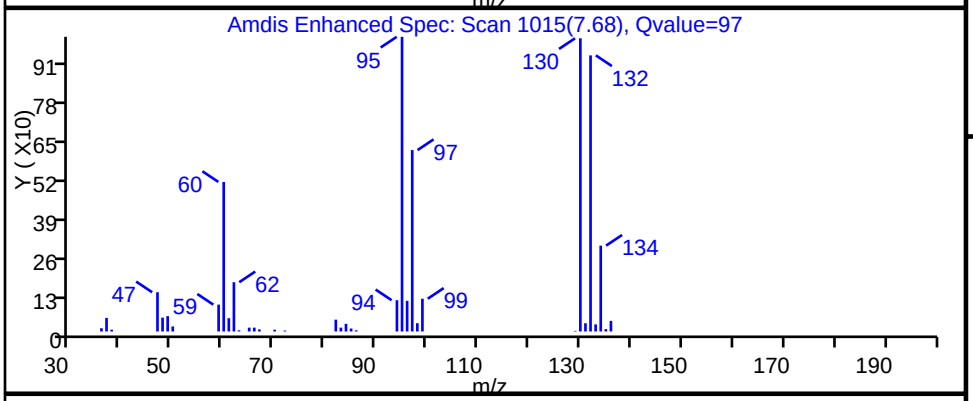
TestAmerica Pittsburgh

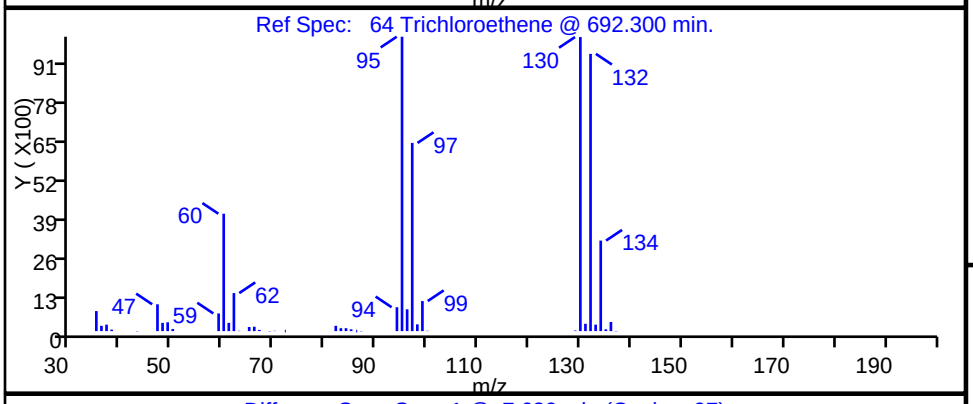
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D

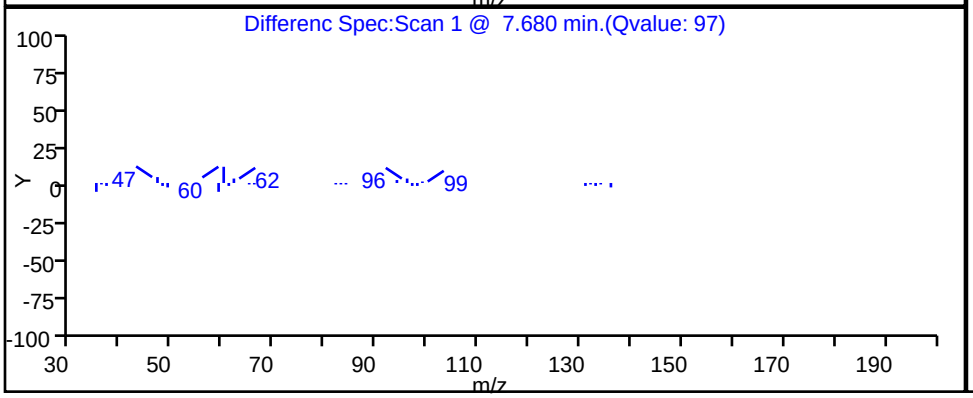
Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

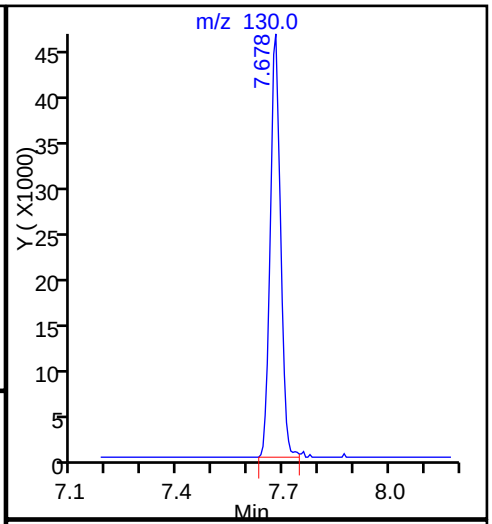
64 Trichloroethene, CAS: 79-01-6

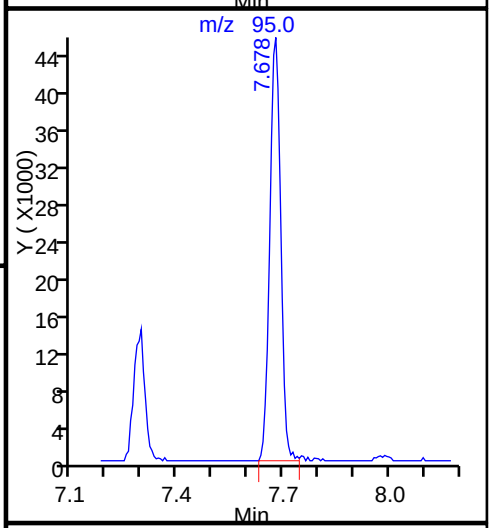


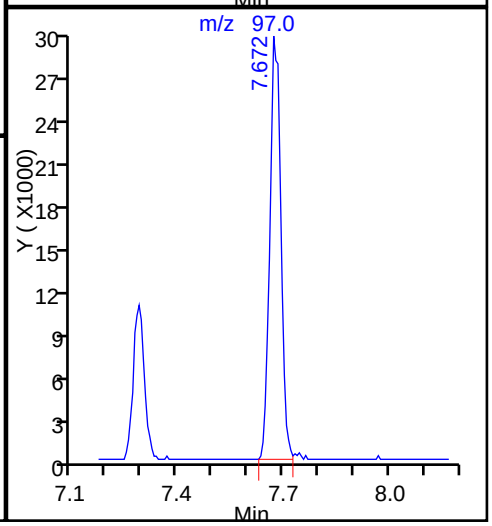








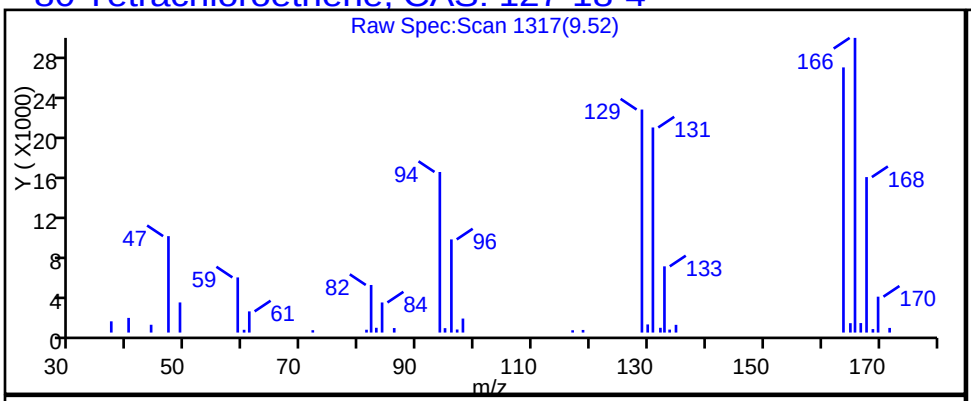


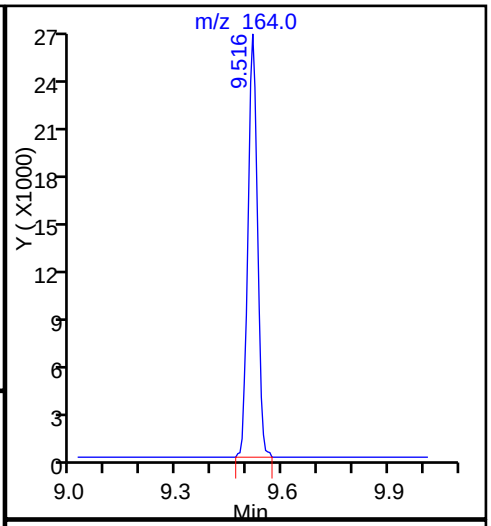


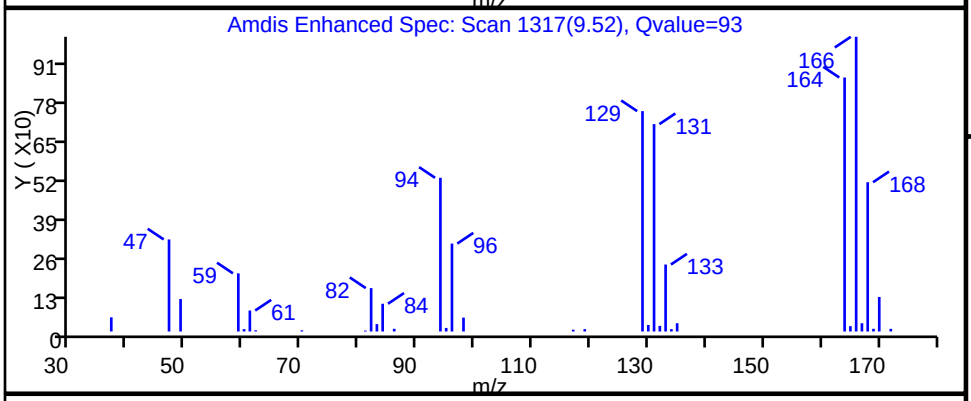
TestAmerica Pittsburgh

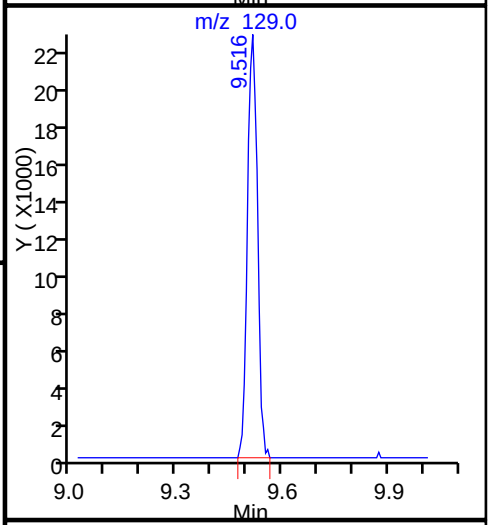
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150619-7474.b\50619020.D				
Injection Date:	19-Jun-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-9	Lab Sample ID:	180-45088-9		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	001562	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

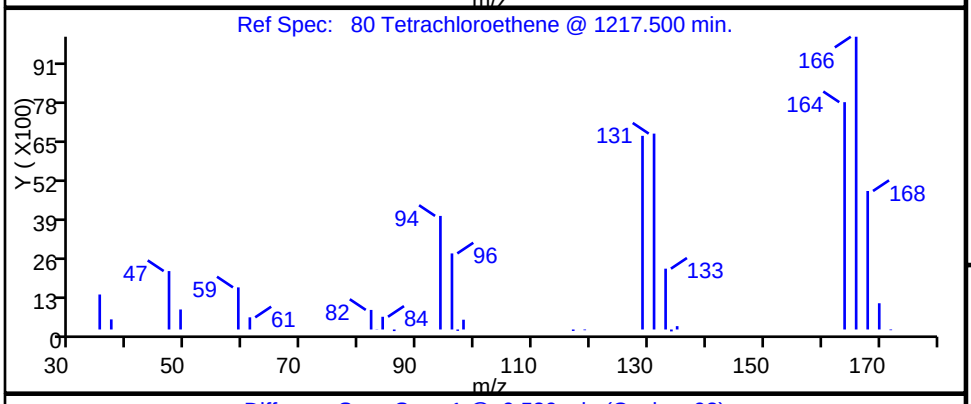
80 Tetrachloroethene, CAS: 127-18-4

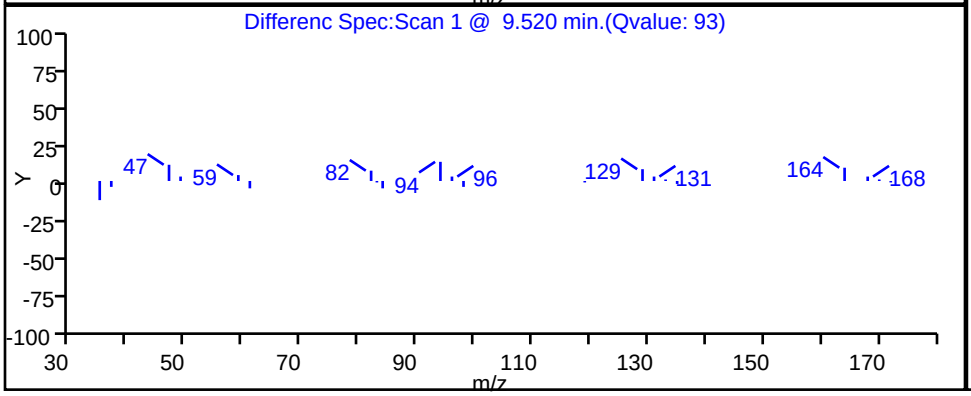


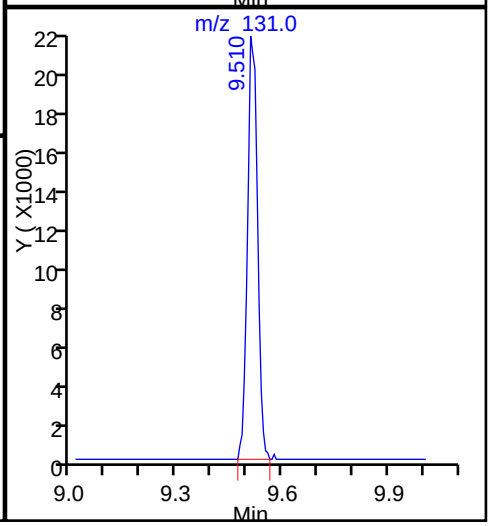












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 | Lab Sample ID: 180-45088-10

Matrix: Water | Lab File ID: 50619021.D

Analysis Method: 8260C | Date Collected: 06/15/2015 09:45

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 20:57

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	3.0	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.31	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.36	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.42	J	1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 | Lab Sample ID: 180-45088-10

Matrix: Water | Lab File ID: 50619021.D

Analysis Method: 8260C | Date Collected: 06/15/2015 09:45

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 20:57

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.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D
Lims ID: 180-45088-D-10 Lab Sample ID: 180-45088-10
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 20:57:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-10
Misc. Info.: 180-0007474-021
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:31:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.265	-0.006	0	109257	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	336027	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	89	76426	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	98	94992	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	93	85570	54.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	0	121139	53.6	
$ 7 Toluene-d8 (Surr)	98	8.937	8.931	0.006	94	308774	48.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	84	100452	43.1	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.456	3.438	0.018	99	8299	14.9	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.944	5.944	0.000	63	3351	1.56	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.382	6.376	0.006	1	940	0.2643	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.678	7.672	0.006	90	3639	1.82	M
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91	8.998	9.004	-0.006	41	2212	0.2693	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.509	9.515	-0.006	93	3264	2.09	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

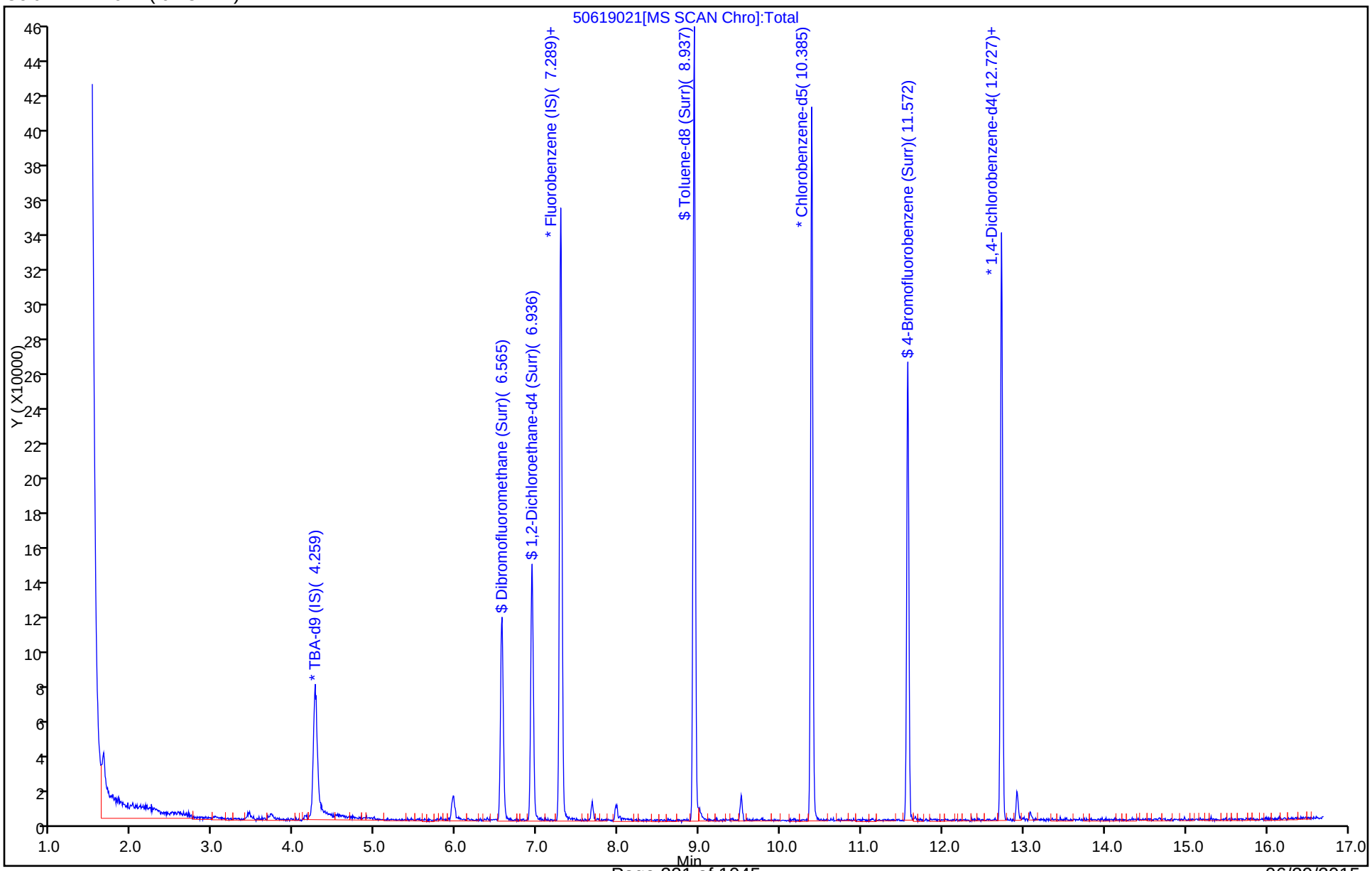
Report Date: 21-Jun-2015 15:05:20 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D

Injection Date:	19-Jun-2015 20:57:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-10	Lab Sample ID:	180-45088-10	Worklist Smp#:	21
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		

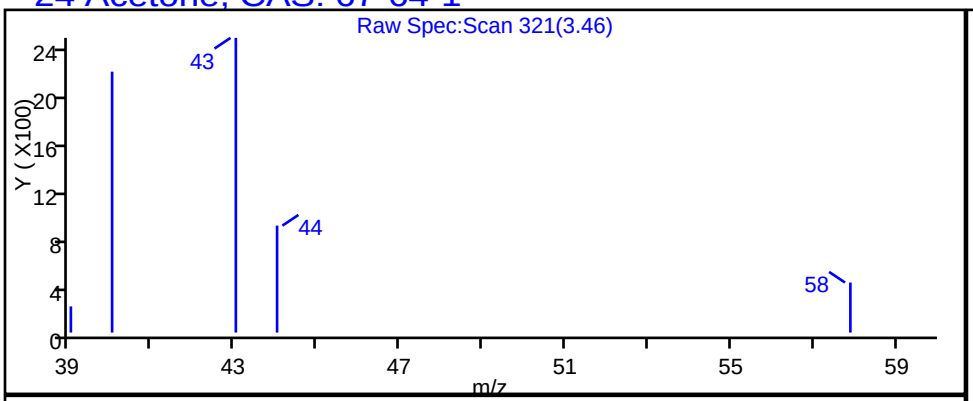
Column: DB-624 (0.18 mm)

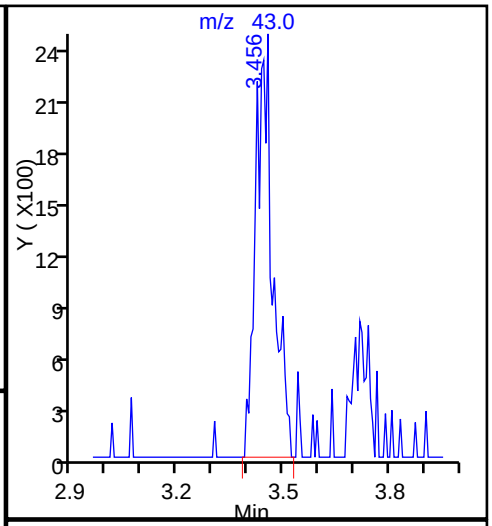


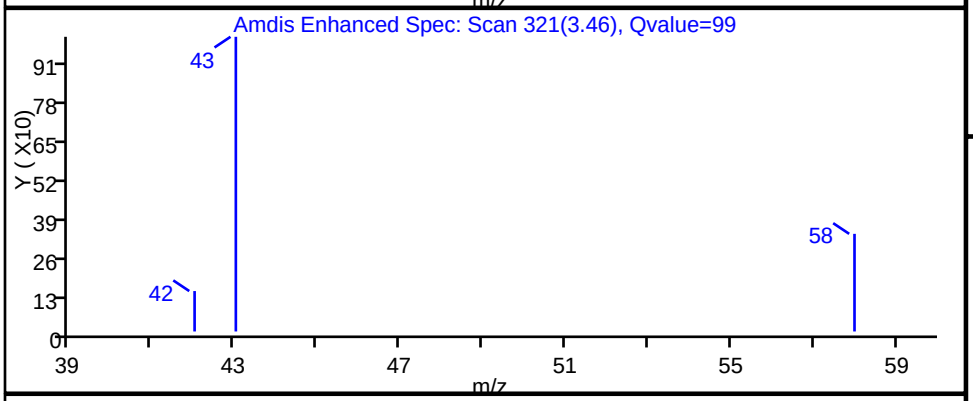
TestAmerica Pittsburgh

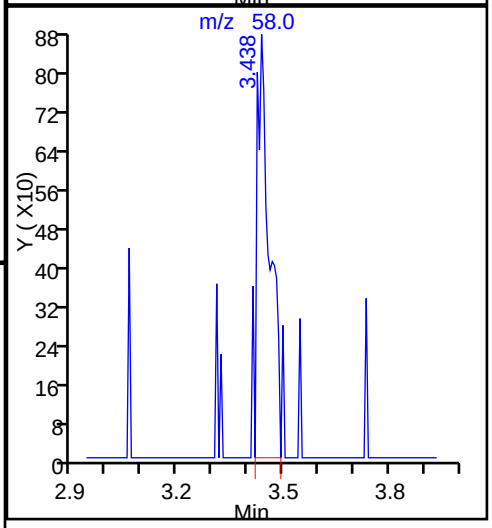
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D				
Injection Date:	19-Jun-2015 20:57:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-10	Lab Sample ID:	180-45088-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

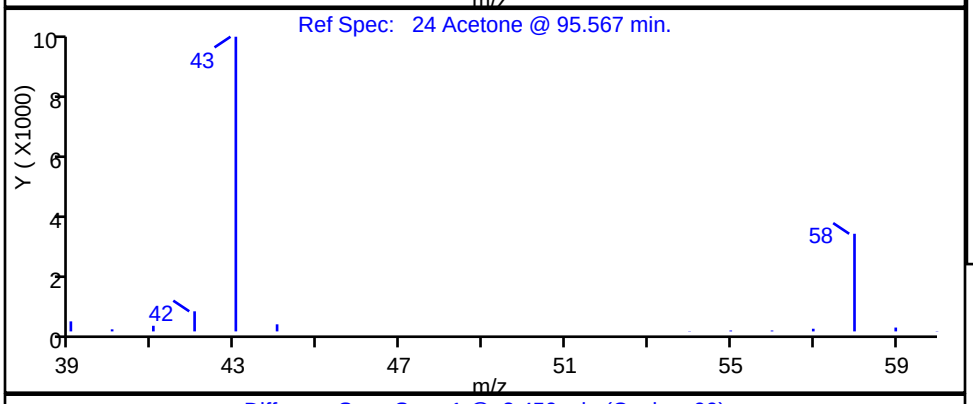
24 Acetone, CAS: 67-64-1

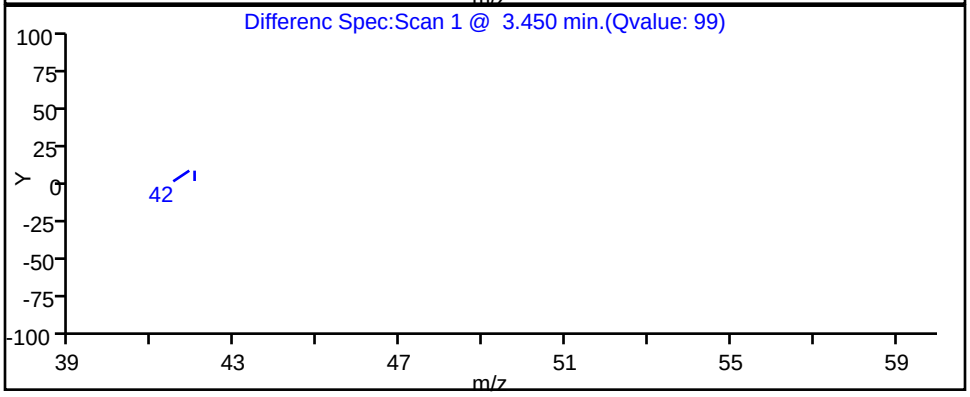








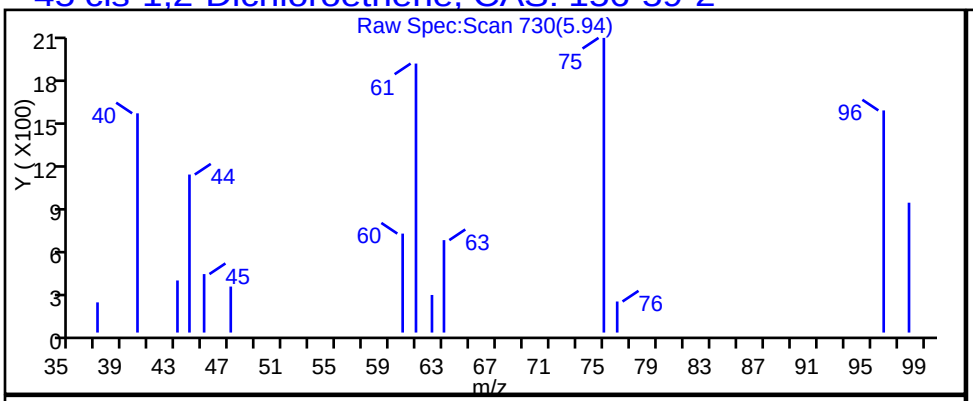


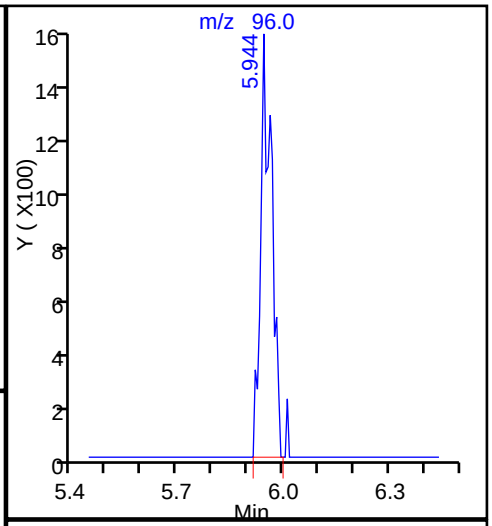


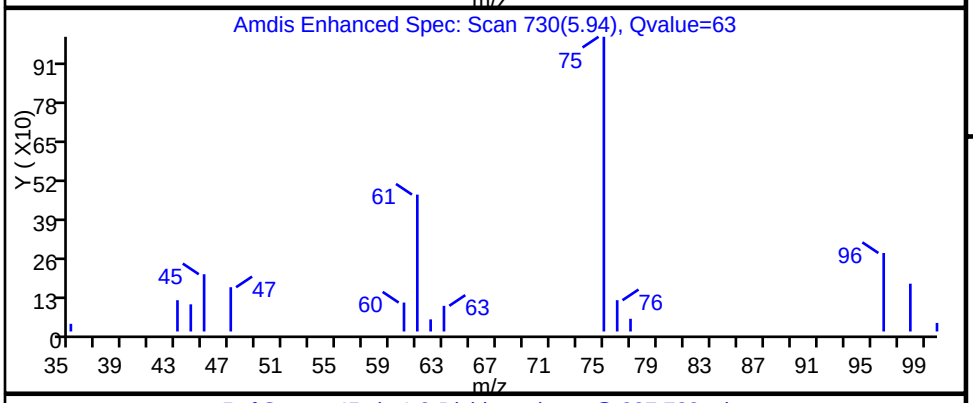
TestAmerica Pittsburgh

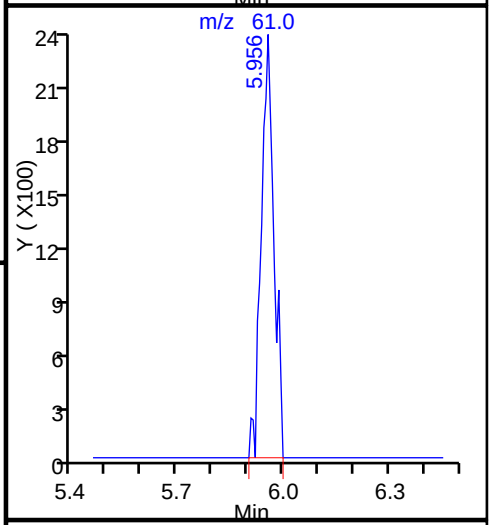
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D				
Injection Date:	19-Jun-2015 20:57:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-10	Lab Sample ID:	180-45088-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

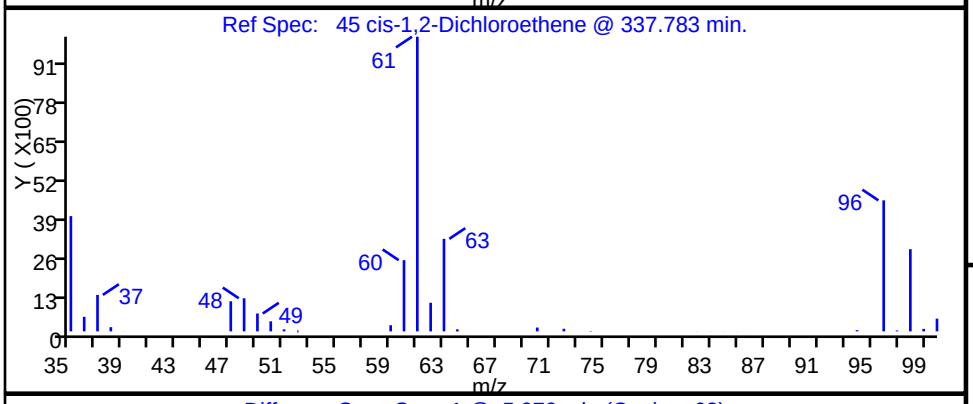
45 cis-1,2-Dichloroethene, CAS: 156-59-2

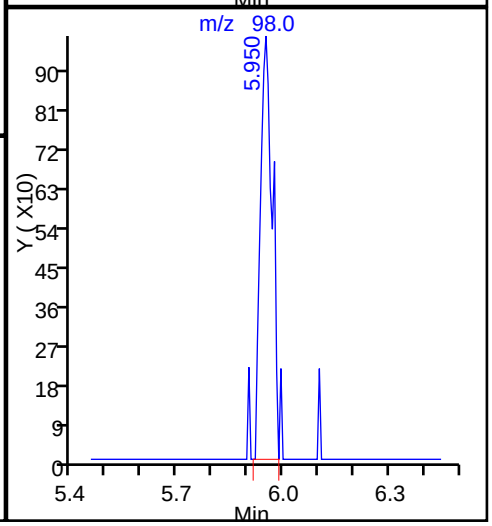


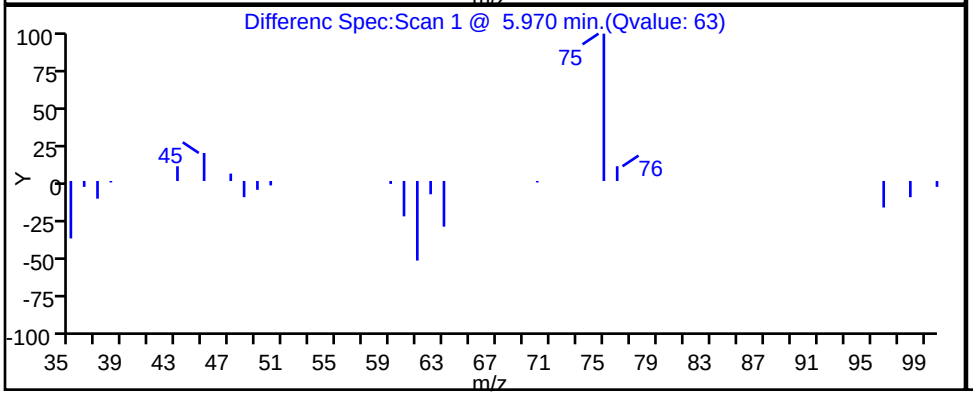








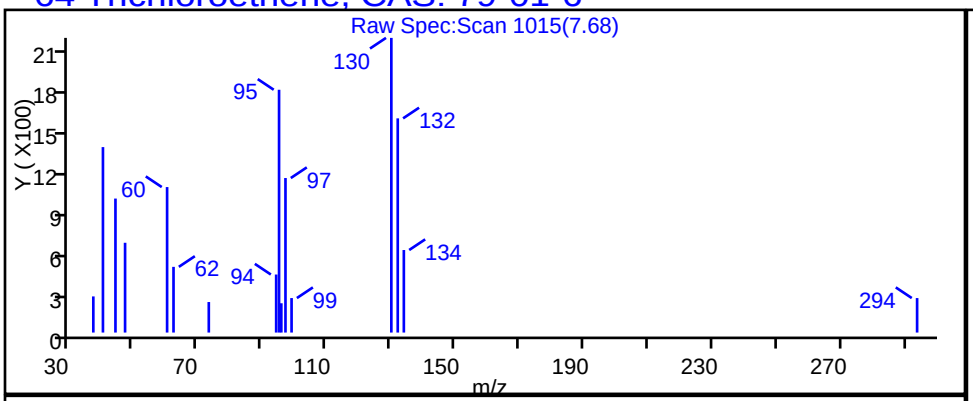


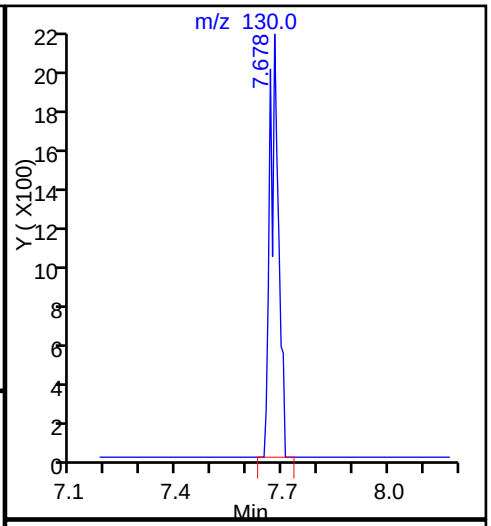


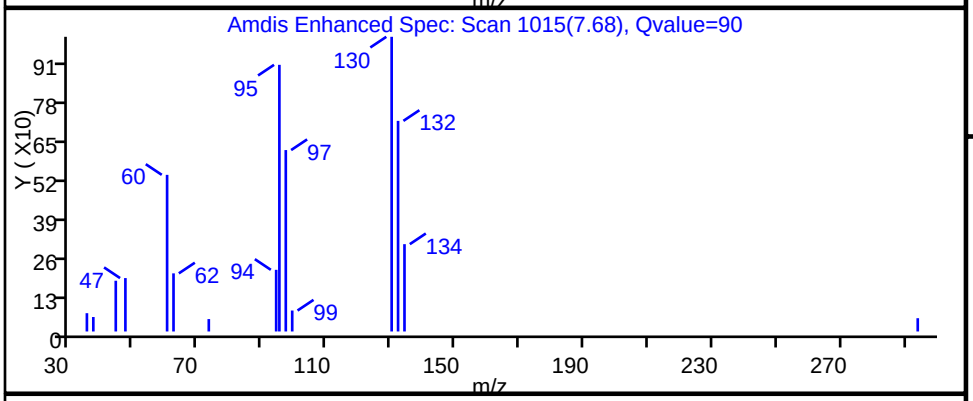
TestAmerica Pittsburgh

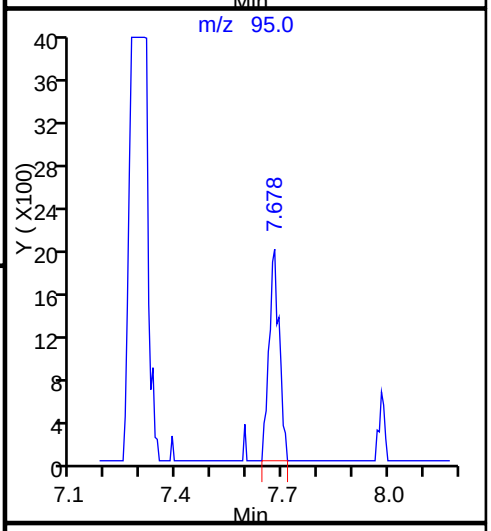
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D				
Injection Date:	19-Jun-2015 20:57:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-10	Lab Sample ID:	180-45088-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

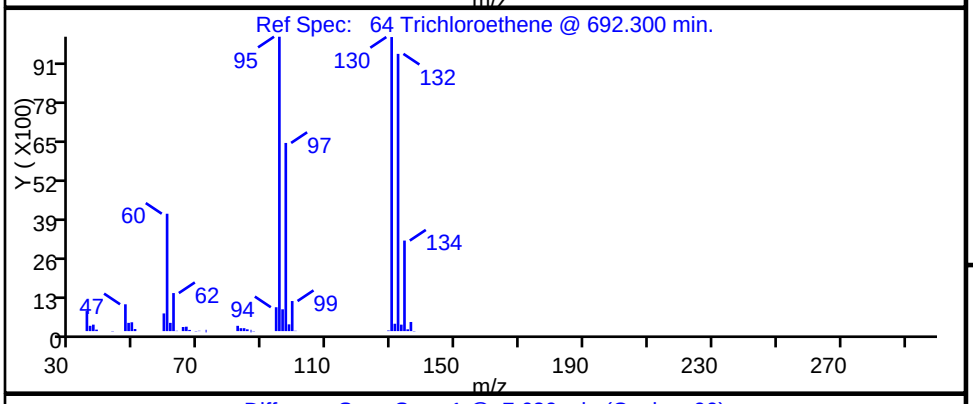
64 Trichloroethene, CAS: 79-01-6

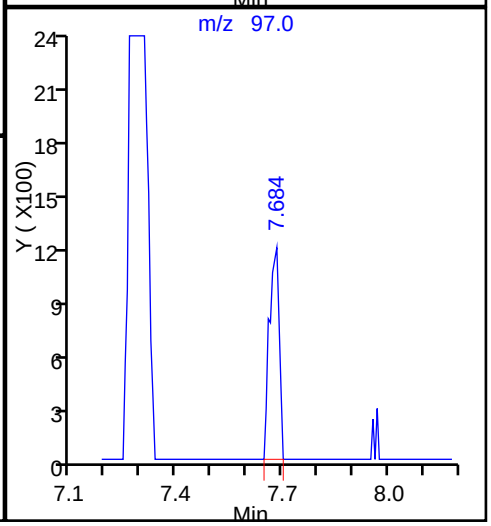


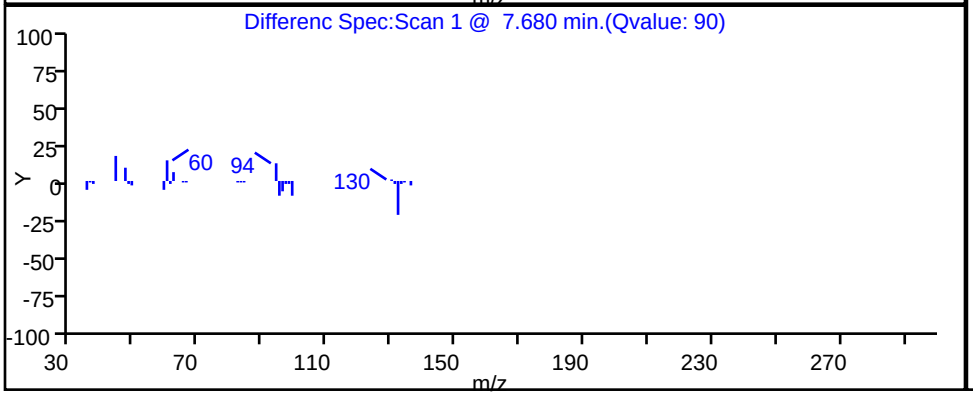








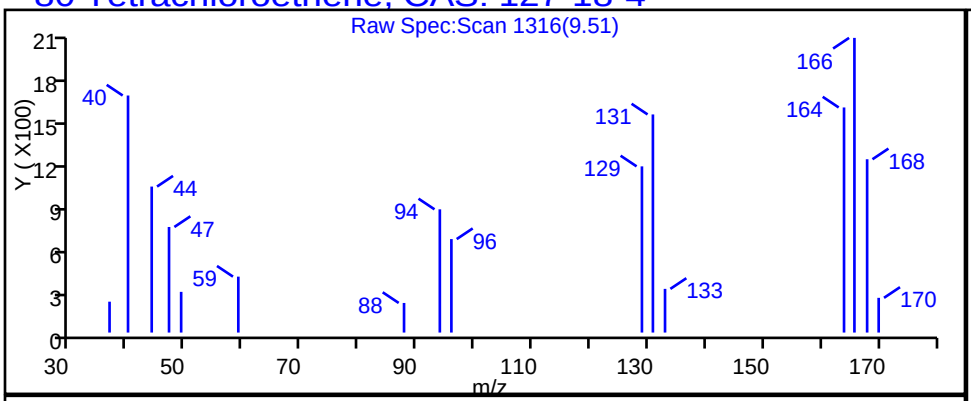


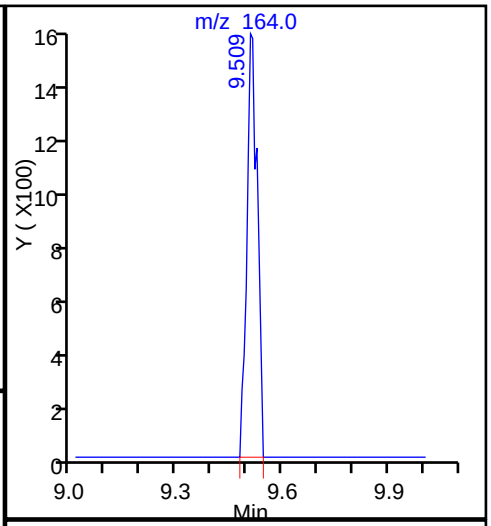


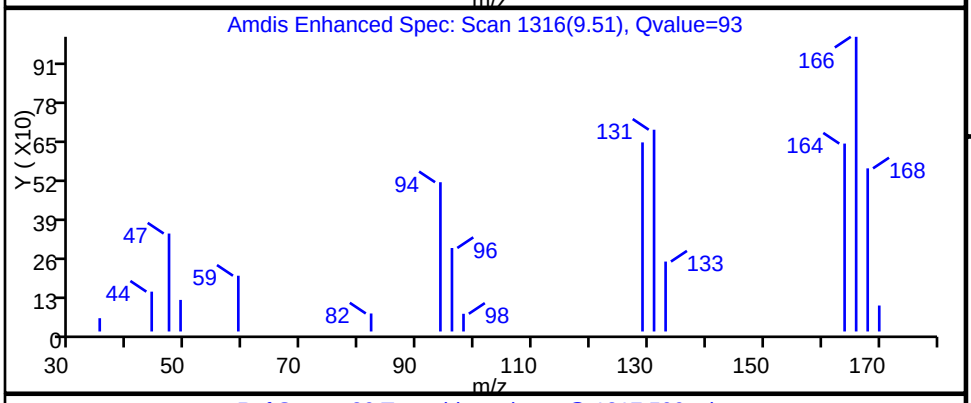
TestAmerica Pittsburgh

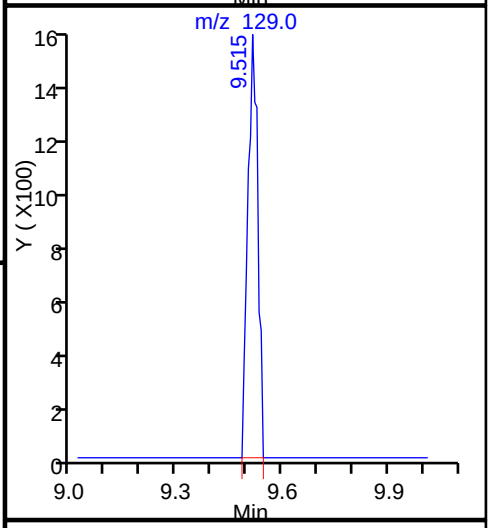
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D				
Injection Date:	19-Jun-2015 20:57:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-10	Lab Sample ID:	180-45088-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

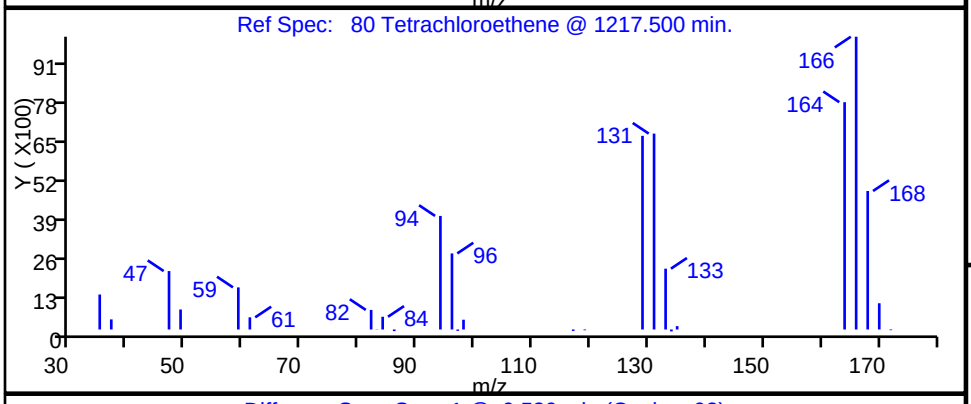
80 Tetrachloroethene, CAS: 127-18-4

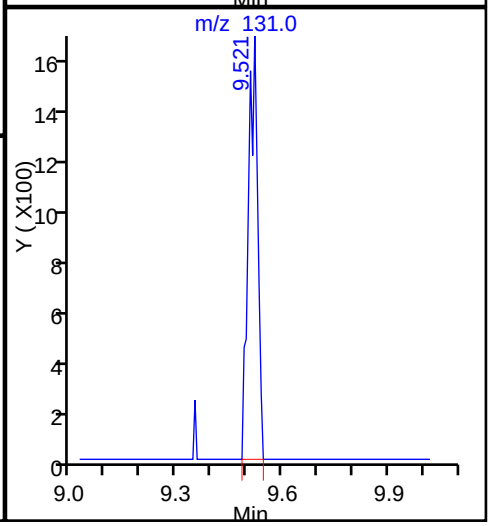


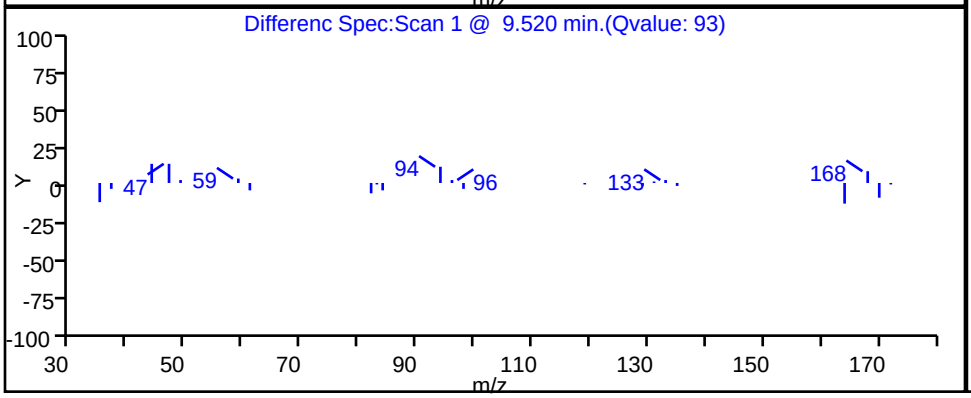












Manual Integration/User Assign Peak Report

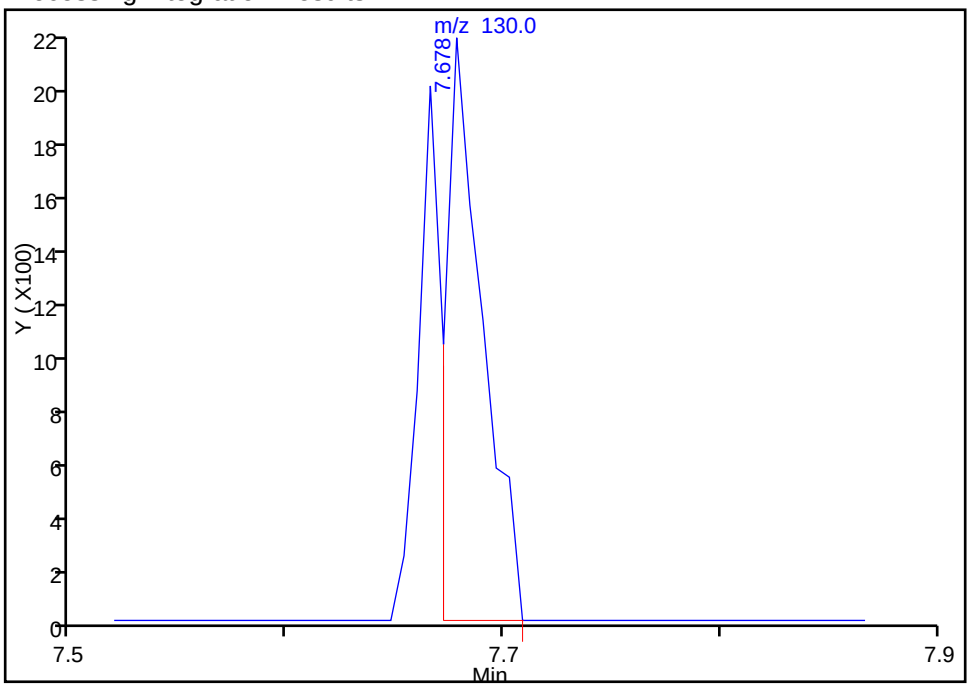
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619021.D				
Injection Date:	19-Jun-2015 20:57:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-10	Lab Sample ID:	180-45088-10		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

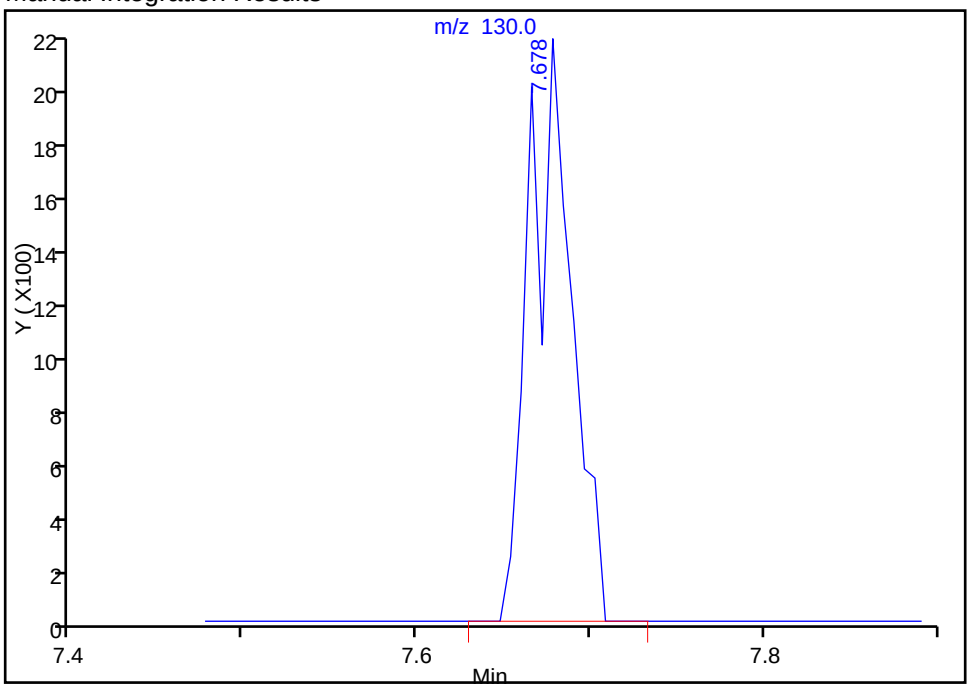
Processing Integration Results

RT: 7.68
Area: 2521
Amount: 1.260699
Amount Units: ng



Manual Integration Results

RT: 7.68
Area: 3639
Amount: 1.819788
Amount Units: ng



Reviewer: journetp, 21-Jun-2015 14:31:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 | Lab Sample ID: 180-45088-11

Matrix: Water | Lab File ID: 50629018.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 16:40

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.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	0.26	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.3	F1	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.17	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.3		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	9.3	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	20	F1	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 | Lab Sample ID: 180-45088-11

Matrix: Water | Lab File ID: 50629018.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 16:40

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.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D
Lims ID: 180-45088-C-11 Lab Sample ID: 180-45088-11
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 22-Jun-2015 16:40:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-C-11
Misc. Info.: 180-0007492-018
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 16:57:39 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 16:57:39

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.263	4.248	0.015	0	116518	1000.0	
*	2 Fluorobenzene (IS)	96	7.292	7.290	0.002	98	379893	50.0	
*	3 Chlorobenzene-d5	119	10.389	10.387	0.002	89	90525	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.731	12.729	0.002	98	132270	50.0	
$	5 Dibromofluoromethane (Surr	113	6.562	6.560	0.002	92	89337	50.4	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.937	0.002	0	131450	51.4	
$	7 Toluene-d8 (Surr)	98	8.935	8.938	-0.003	95	353096	47.0	
$	8 4-Bromofluorobenzene (Surr	95	11.569	11.573	-0.004	84	127578	46.2	
	11 Dichlorodifluoromethane	85		1.620				ND	
	12 Chloromethane	50		1.766				ND	
	13 Vinyl chloride	62		1.900				ND	
	14 Butadiene	39		1.936				ND	
	15 Bromomethane	94		2.241				ND	
	16 Chloroethane	64		2.387				ND	
	17 Dichlorofluoromethane	67		2.666				ND	
	18 Trichlorofluoromethane	101		2.703				ND	
	19 Ethanol	45		2.941				ND	
	20 Ethyl ether	59		3.044				ND	
	21 Acrolein	56		3.232				ND	
	22 1,1-Dichloroethene	96	3.356	3.342	0.014	94	2989	1.39	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.415				ND	
	24 Acetone	43	3.453	3.439	0.014	78	6252	9.93	
	25 Iodomethane	142		3.536				ND	
	26 Carbon disulfide	76		3.628				ND	
	27 Isopropyl alcohol	45	3.733	3.713	0.020	51	3409	39.3	
	29 Acetonitrile	40		3.865				ND	
	28 3-Chloro-1-propene	76		3.920				ND	
	30 Methyl acetate	43		3.938				ND	
	31 Methylene Chloride	84		4.139				ND	
	32 2-Methyl-2-propanol	59		4.400				ND	
	33 Acrylonitrile	53		4.516				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
36 Hexane	57		4.984				ND	
37 1,1-Dichloroethane	63	5.212	5.197	0.015	94	5718	1.31	
38 Vinyl acetate	43		5.246				ND	
39 2-Chloro-1,3-butadiene	53		5.295				ND	
41 Isopropyl ether	45		5.301				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.769				ND	
45 cis-1,2-Dichloroethene	96	5.954	5.945	0.009	82	101005	41.7	
44 2,2-Dichloropropane	77		5.945				ND	
46 2-Butanone (MEK)	43		5.958				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
47 Propionitrile	54		6.025				ND	
48 Ethyl acetate	43		6.037				ND	
50 Methacrylonitrile	41		6.207				ND	
49 Chlorobromomethane	128		6.237				ND	
51 Tetrahydrofuran	42		6.250				ND	
52 Chloroform	83	6.380	6.383	-0.003	86	3408	0.8475	
53 1,1,1-Trichloroethane	97	6.544	6.536	0.008	93	19620	6.49	
54 Cyclohexane	56		6.615				ND	
56 Carbon tetrachloride	117		6.712				ND	
55 1,1-Dichloropropene	75		6.730				ND	
57 Isobutyl alcohol	41		6.931				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
61 Tert-amyl methyl ether	73		7.126				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.308				ND	
63 n-Butanol	56		7.631				ND	
64 Trichloroethene	130	7.681	7.679	0.002	96	105390	46.6	
65 Ethyl acrylate	55		7.795				ND	
66 Methylcyclohexane	83		7.916				ND	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.032				ND	
69 Methyl methacrylate	69		8.032				ND	
68 Dibromomethane	93		8.038				ND	
71 Dichlorobromomethane	83		8.227				ND	
72 2-Nitropropane	41		8.452				ND	
73 2-Chloroethyl vinyl ether	63		8.531				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.249				ND	
78 Ethyl methacrylate	69		9.310				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.519	9.516	0.003	94	183306	99.0	
81 1,3-Dichloropropane	76		9.602				ND	
82 2-Hexanone	43		9.656				ND	
83 n-Butyl acetate	43		9.778				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.930				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.386				ND	
87 Chlorobenzene	112		10.417				ND	
88 4-Chlorobenzotrifluoride	180		10.478				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
95 Cyclohexanol	57		11.246				ND	
96 2-Chlorobenzotrifluoride	180		11.299				ND	
97 Isopropylbenzene	105		11.396				ND	
98 Cyclohexanone	55		11.488				ND	
99 1,1,2,2-Tetrachloroethane	83		11.713				ND	
100 Bromobenzene	156		11.713				ND	
102 trans-1,4-Dichloro-2-buten	53		11.743				ND	
101 1,2,3-Trichloropropane	110		11.761				ND	
103 N-Propylbenzene	120		11.816				ND	
104 2-Chlorotoluene	126		11.901				ND	
105 3-Chlorotoluene	126		11.968				ND	
106 1,3,5-Trimethylbenzene	105		11.992				ND	
107 4-Chlorotoluene	126		12.023				ND	
108 tert-Butylbenzene	119		12.309				ND	
109 Pentachloroethane	167		12.339				ND	
110 1,2,4-Trimethylbenzene	105		12.370				ND	
111 1,2-dichloro-4-(trifluorom	214		12.412				ND	
112 sec-Butylbenzene	105		12.534				ND	
113 1,3-Dichlorobenzene	146		12.649				ND	
114 4-Isopropyltoluene	119		12.686				ND	
115 1,4-Dichlorobenzene	146	12.749	12.753	-0.004	10	1072	0.2252	
116 2,4-Dichloro-1-(triflourom	214		12.777				ND	
117 1,2,3-Trimethylbenzene	105		12.784				ND	
118 2,5-Dichlorobenzotrifluori	214		12.820				ND	
119 Benzyl chloride	91		12.869				ND	
120 n-Butylbenzene	91		13.100				ND	
121 1,2-Dichlorobenzene	146	13.108	13.112	-0.004	36	492	0.1187	
122 1,2-Dibromo-3-Chloropropan	75		13.903				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.043				ND	
124 1,3,5-Trichlorobenzene	180		14.092				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.462				ND	
126 1,2,4-Trichlorobenzene	180		14.724				ND	
127 Hexachlorobutadiene	225		14.870				ND	
128 Naphthalene	128	14.988	14.992	-0.004	1	599	0.1562	
129 1,2,3-Trichlorobenzene	180		15.217				ND	
131 2,4,5-Trichlorotoluene	159		15.995				ND	
130 2,3,6-Trichlorotoluene	159		16.093				ND	
132 2-Methylnaphthalene	142		16.136				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	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				0		41.7	
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_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

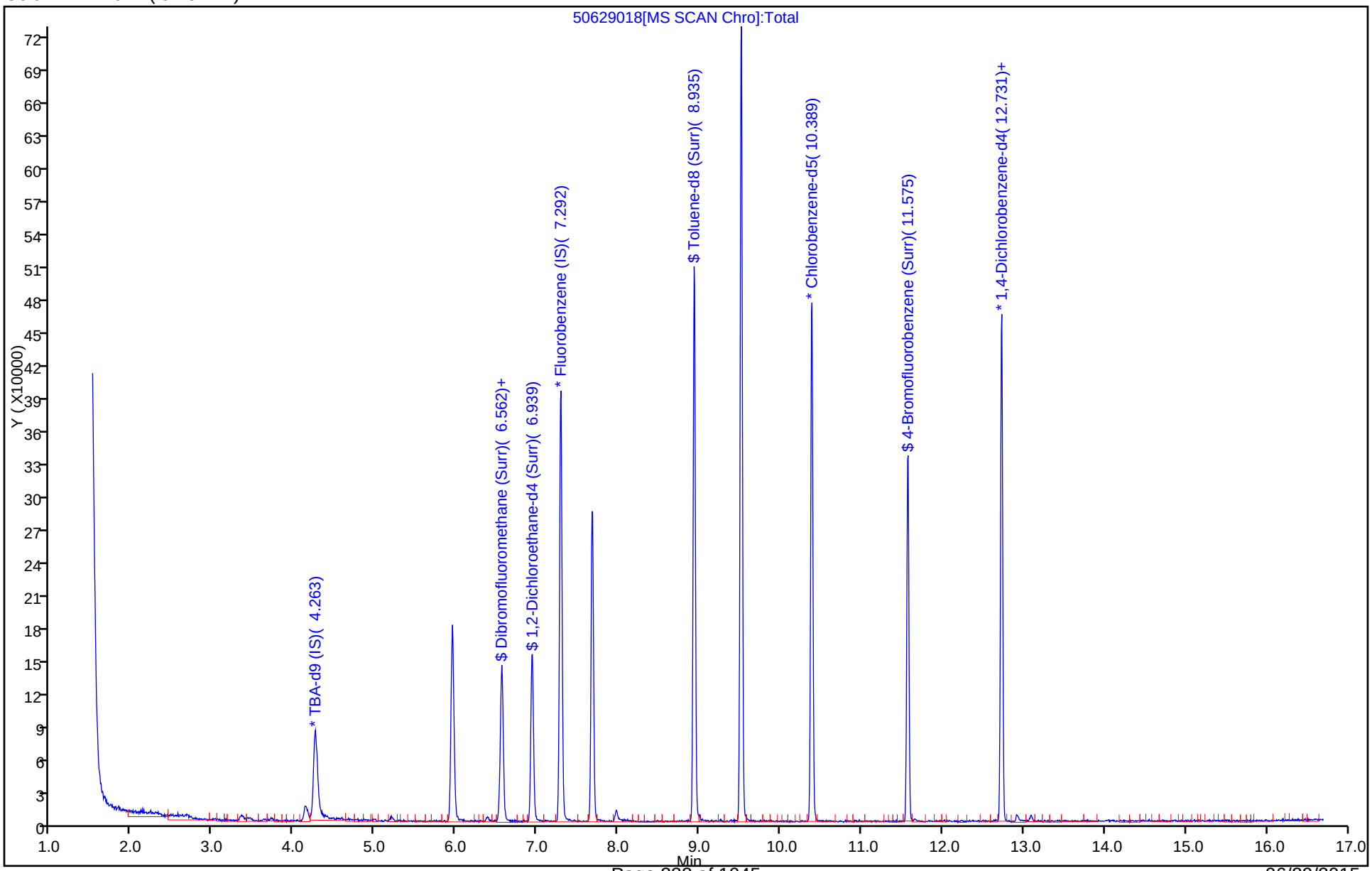
Report Date: 22-Jun-2015 16:57:48 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D

Injection Date:	22-Jun-2015 16:40:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-45088-C-11	Lab Sample ID:	180-45088-11	Worklist Smp#:	18
Client ID:	HD-COD-SW-17-0/1-0				
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)



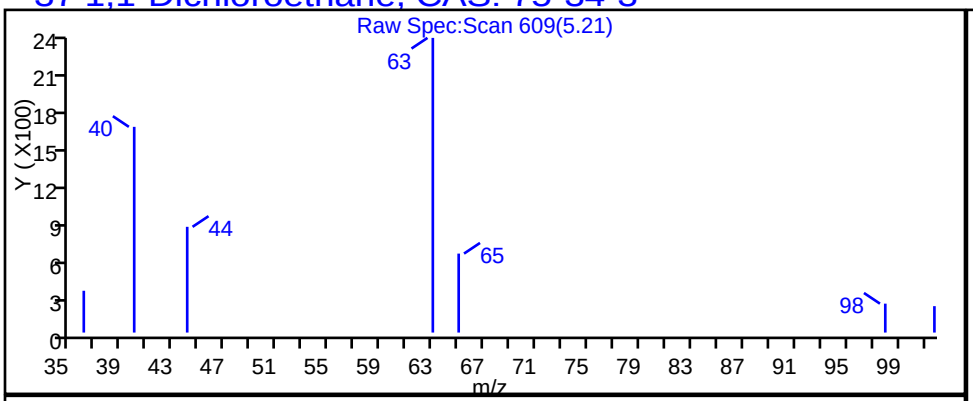
Report Date: 22-Jun-2015 16:57:49 Chrom Revision: 2.2 14-May-2015 11:41:56

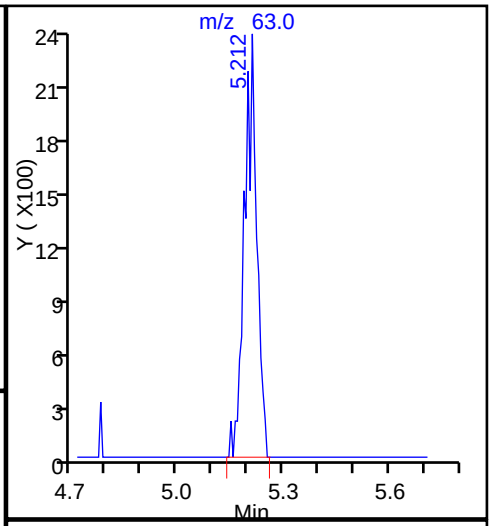
TestAmerica Pittsburgh

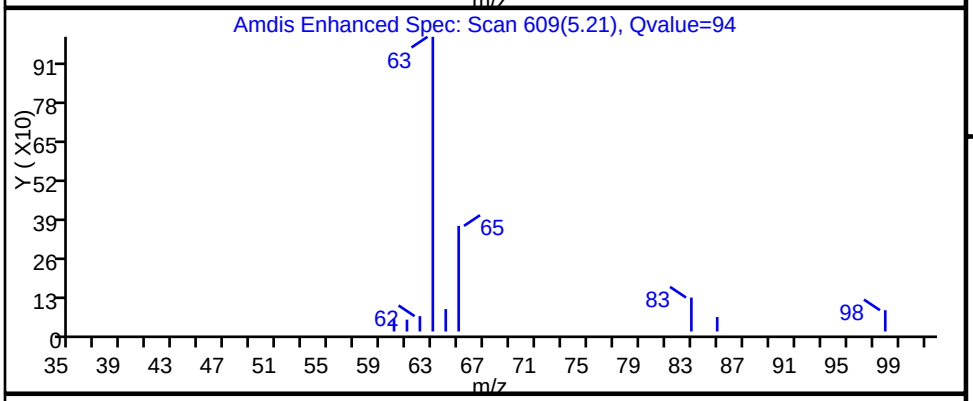
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D

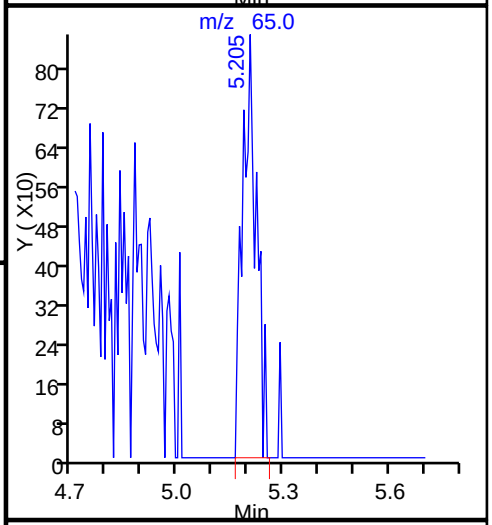
Injection Date:	22-Jun-2015 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-11	Lab Sample ID:	180-45088-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

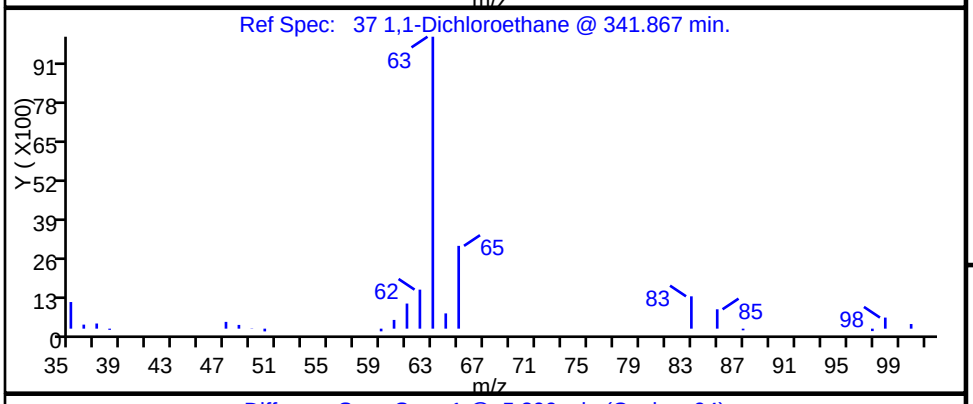
37 1,1-Dichloroethane, CAS: 75-34-3

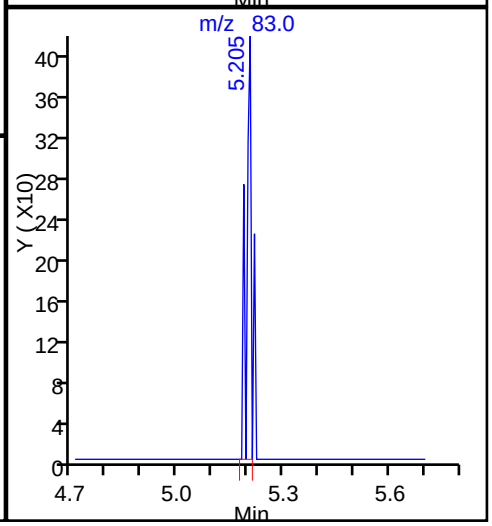


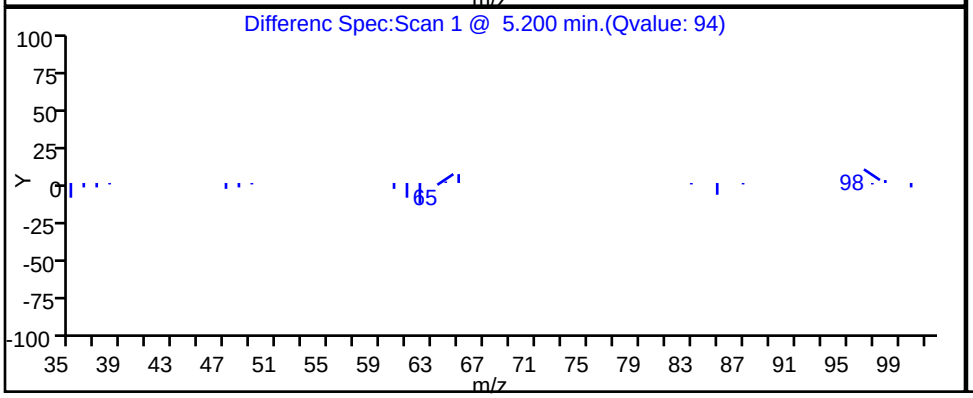












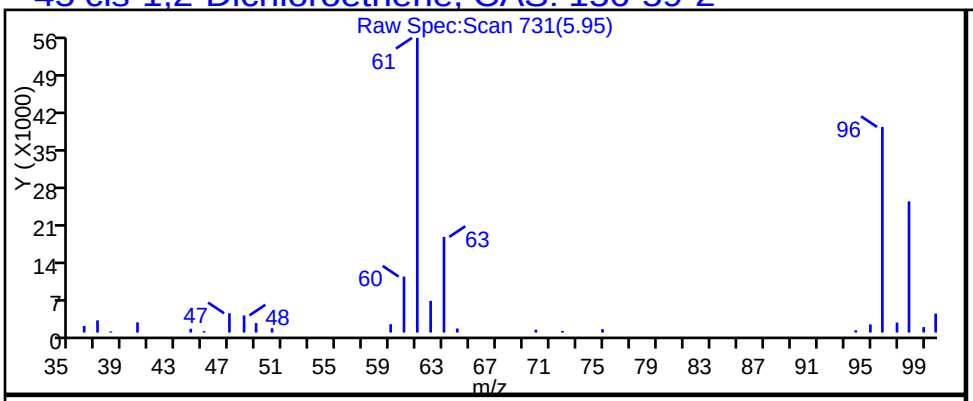
Report Date: 22-Jun-2015 16:57:49 Chrom Revision: 2.2 14-May-2015 11:41:56

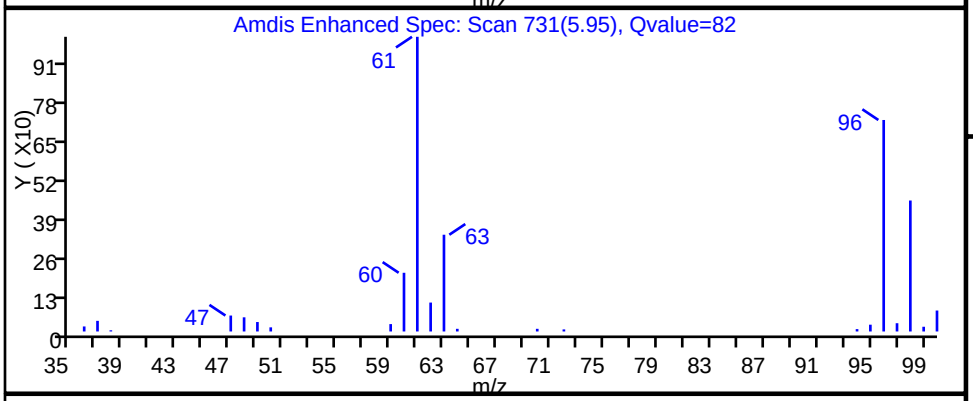
TestAmerica Pittsburgh

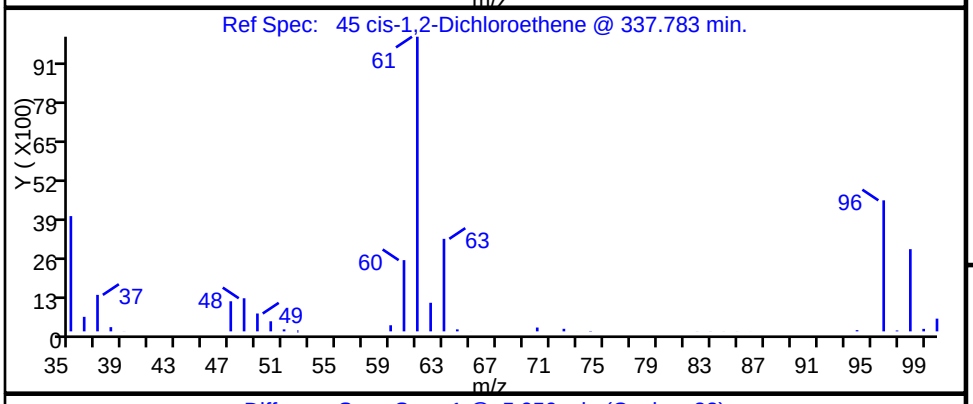
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D

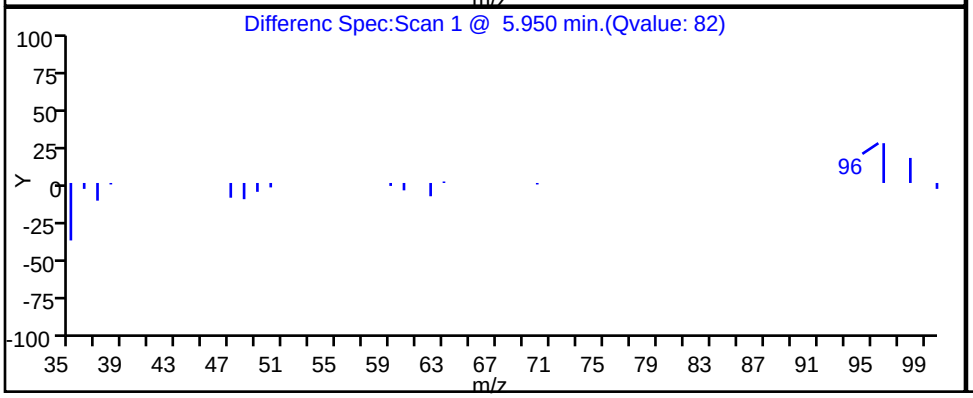
Injection Date:	22-Jun-2015 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-11	Lab Sample ID:	180-45088-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

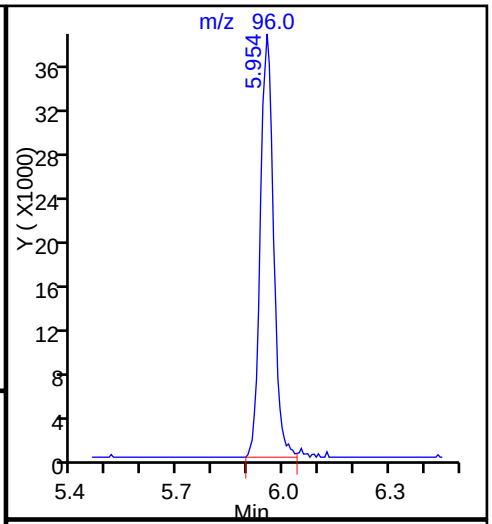
45 cis-1,2-Dichloroethene, CAS: 156-59-2

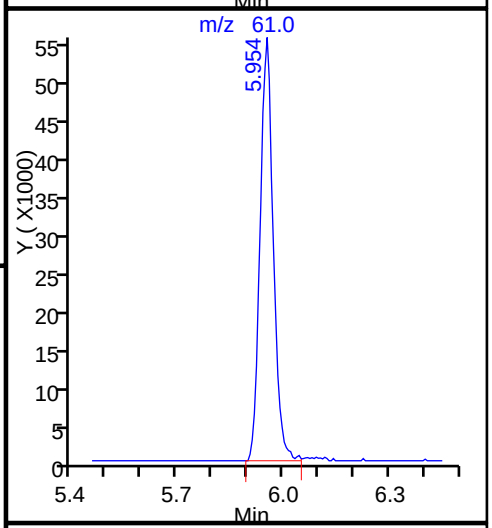


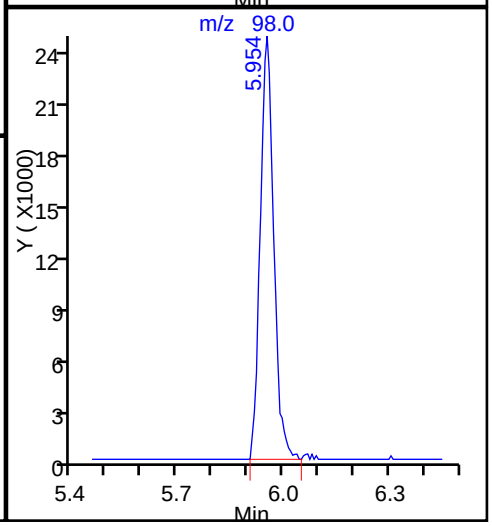












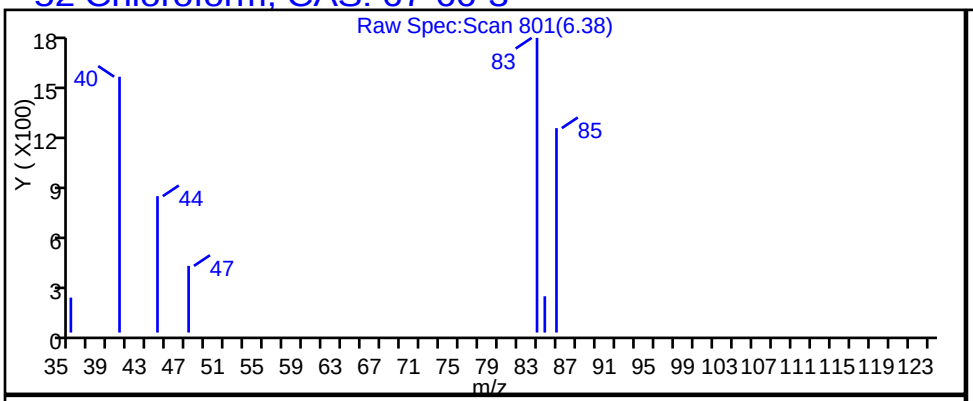
Report Date: 22-Jun-2015 16:57:49 Chrom Revision: 2.2 14-May-2015 11:41:56

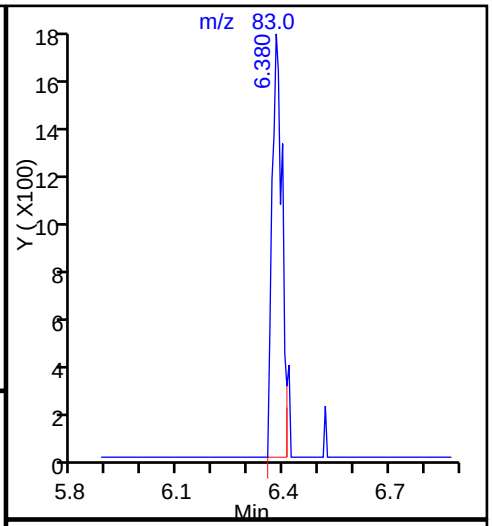
TestAmerica Pittsburgh

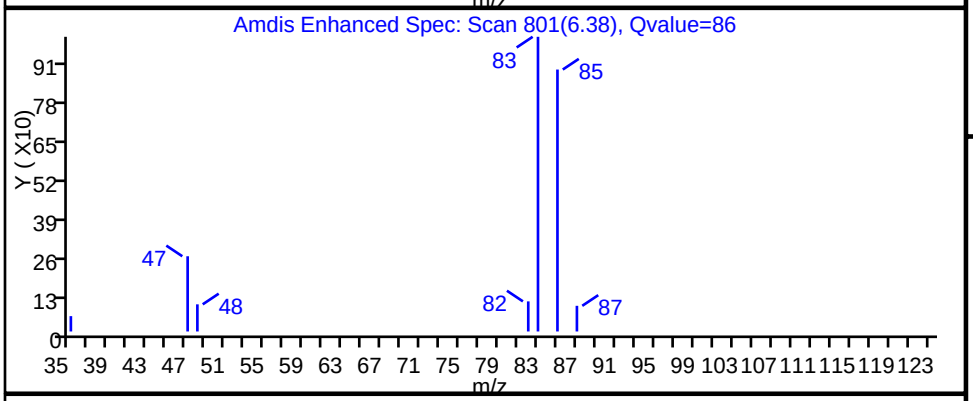
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D

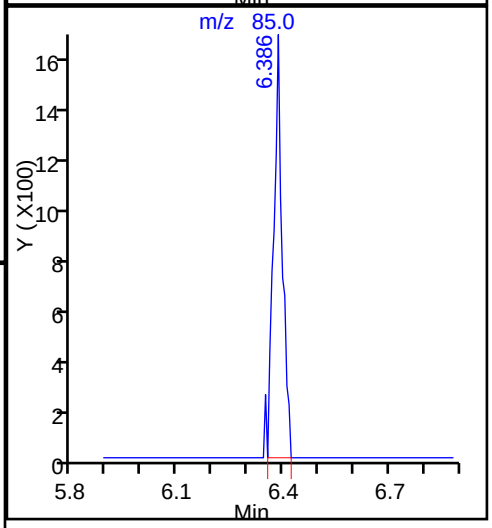
Injection Date:	22-Jun-2015 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-11	Lab Sample ID:	180-45088-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

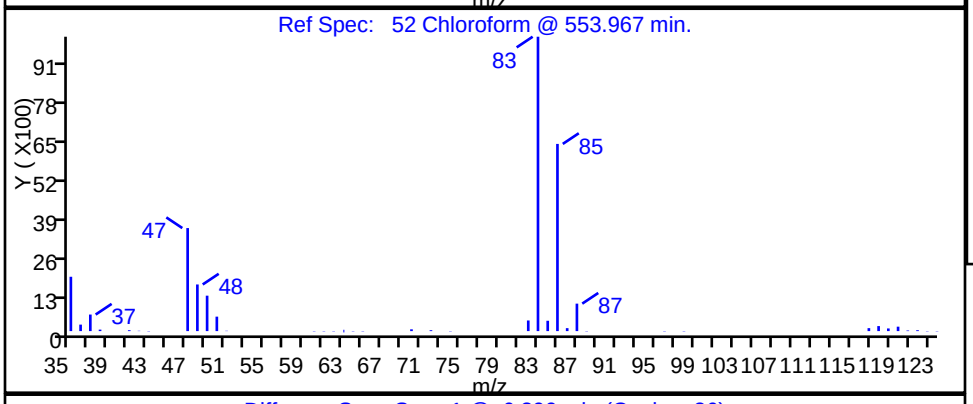
52 Chloroform, CAS: 67-66-3

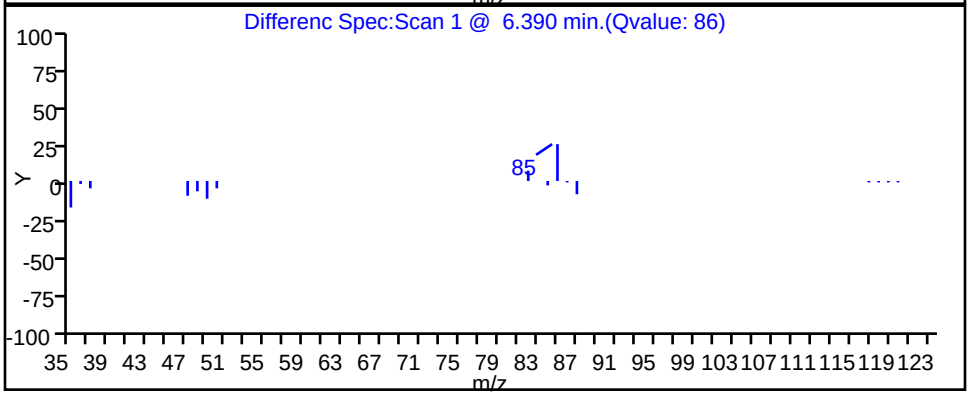








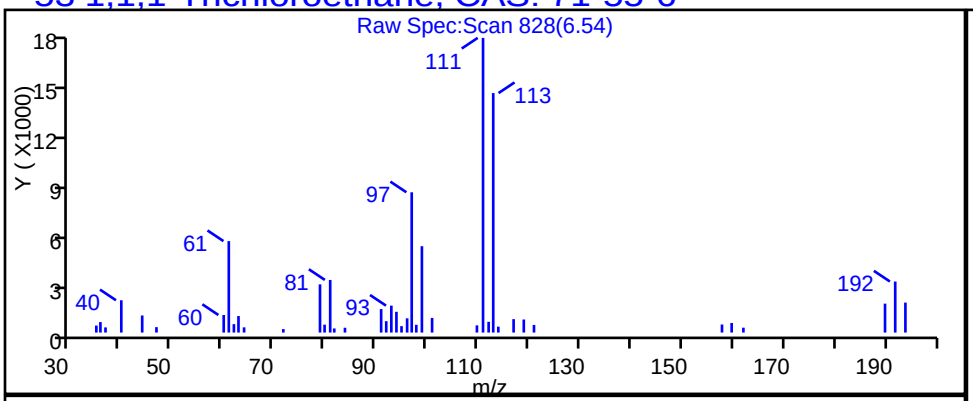


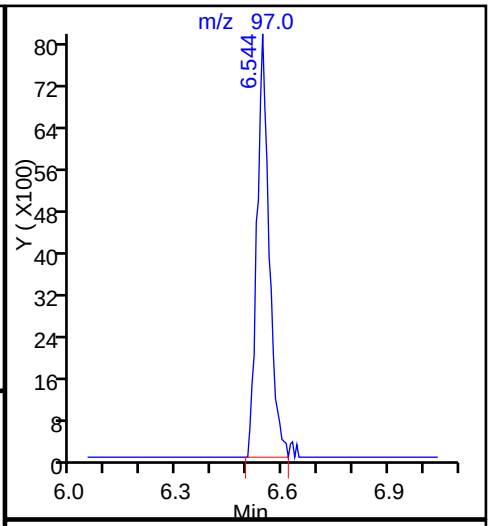


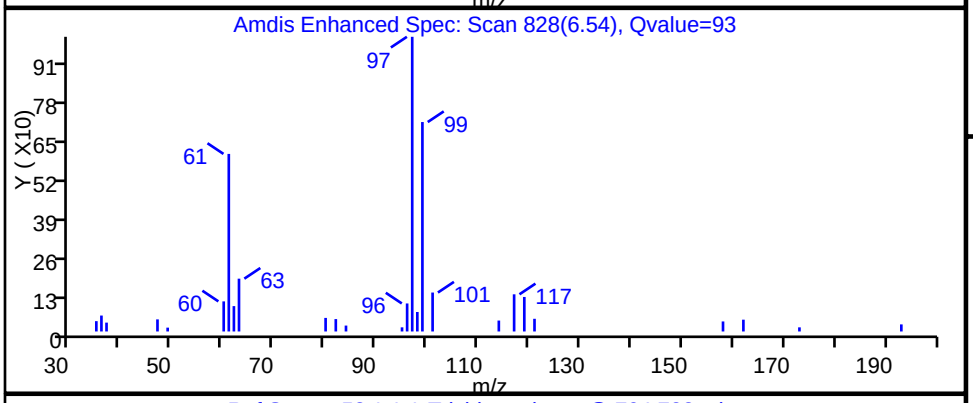
TestAmerica Pittsburgh

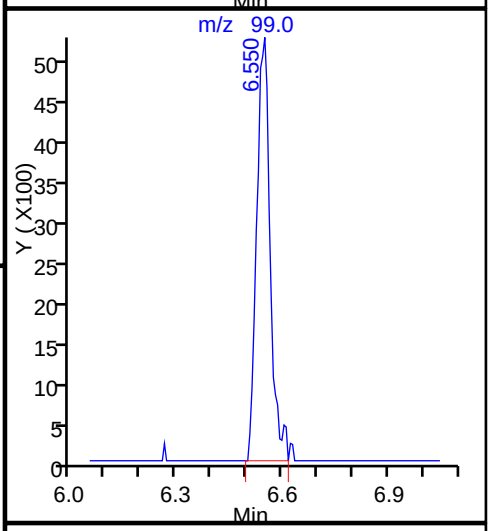
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D				
Injection Date:	22-Jun-2015 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-11	Lab Sample ID:	180-45088-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

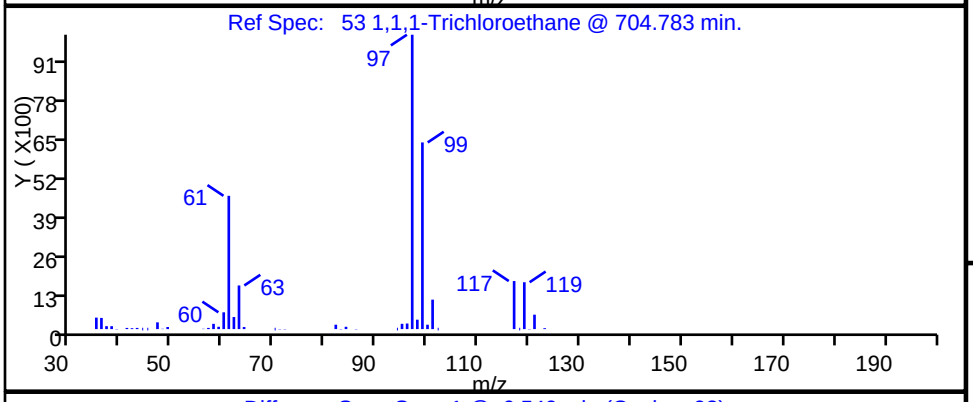
53 1,1,1-Trichloroethane, CAS: 71-55-6

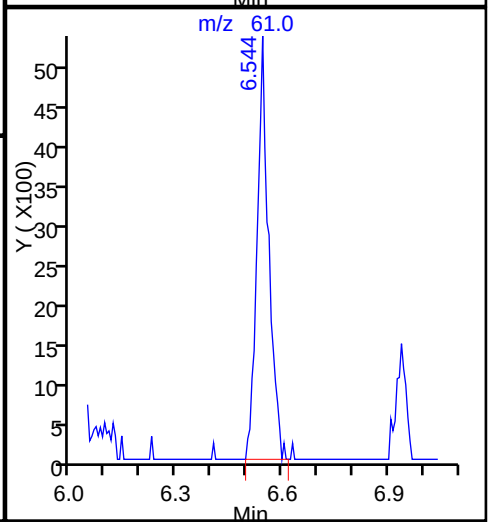


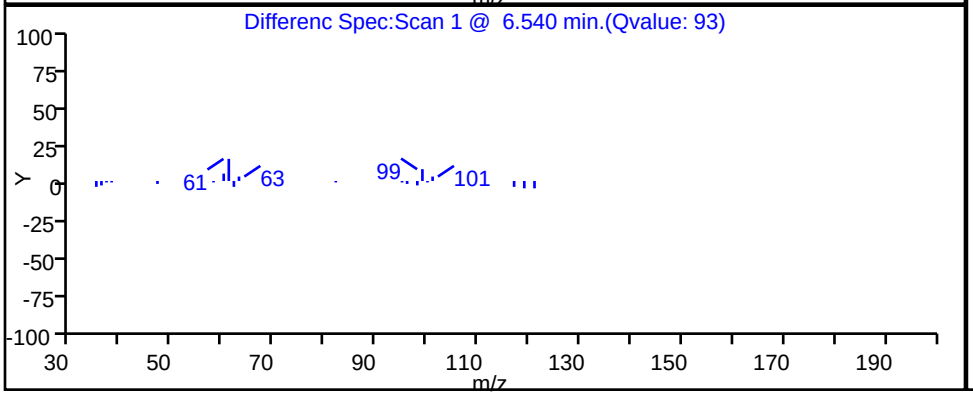








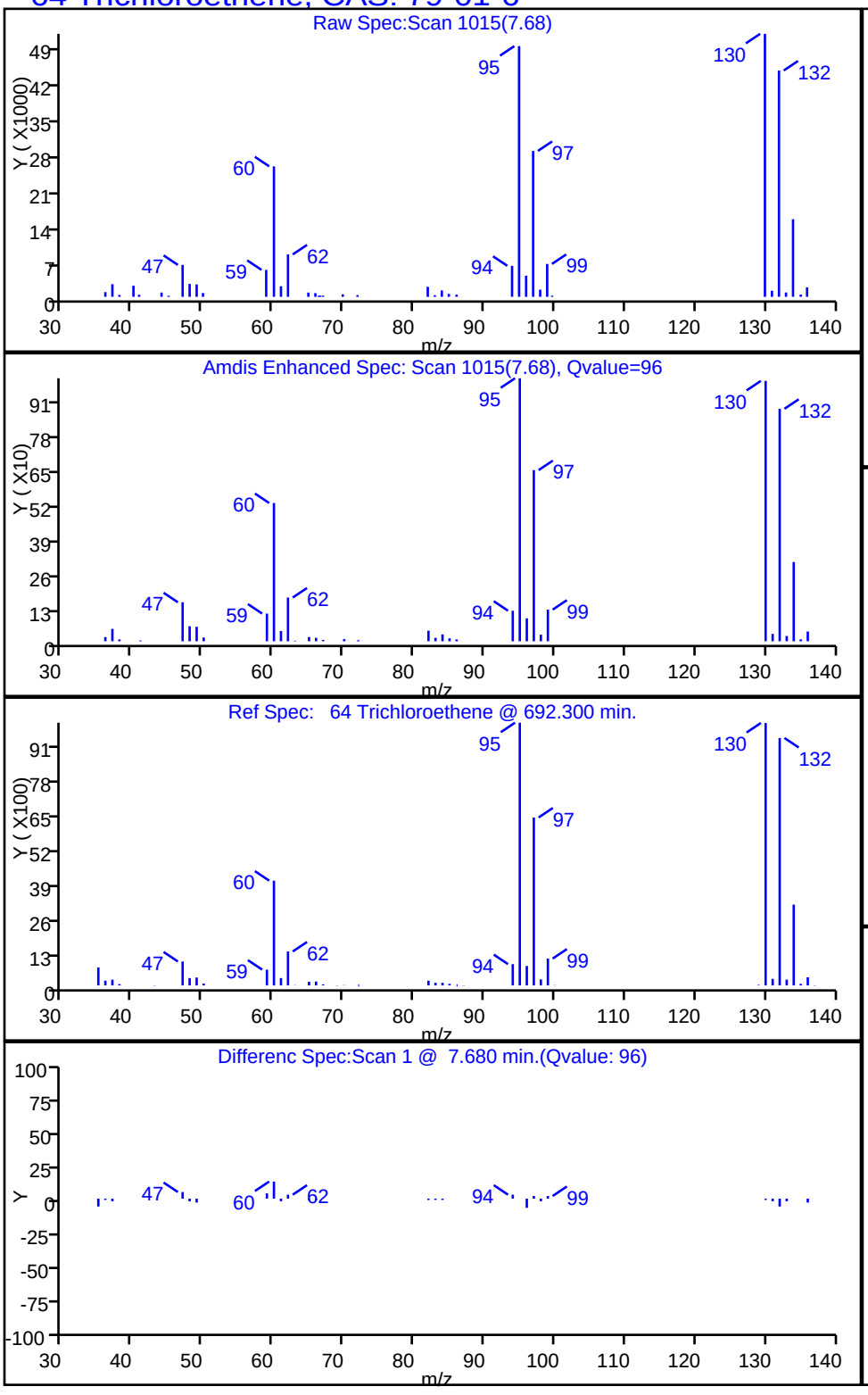


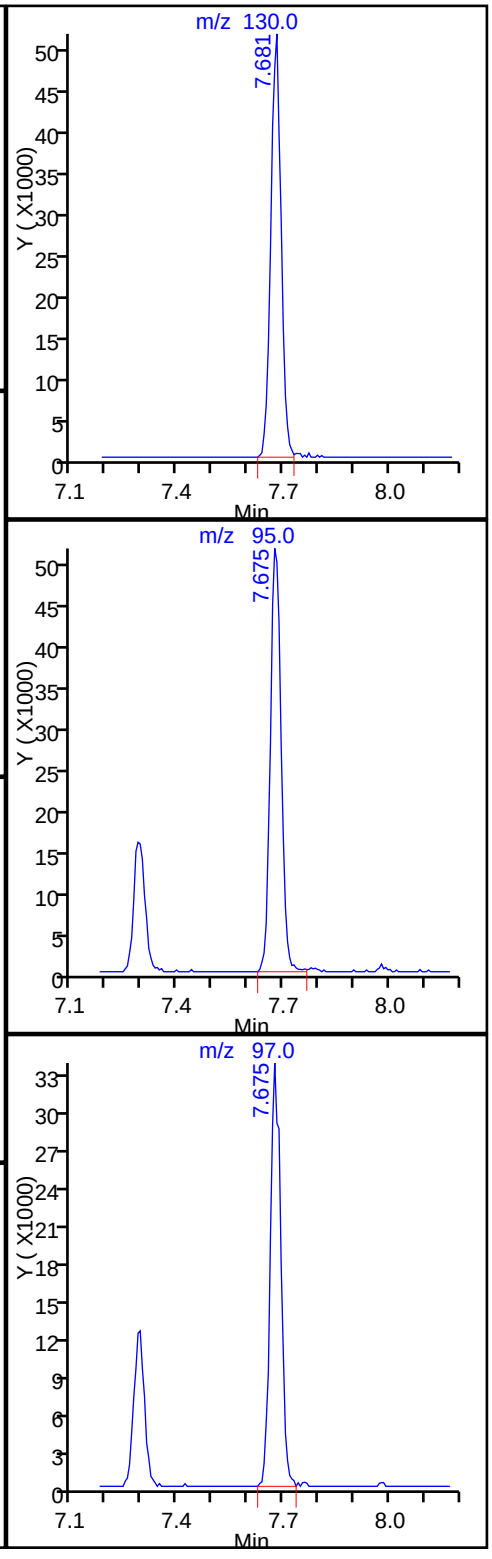


TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D				
Injection Date:	22-Jun-2015 16:40:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-11	Lab Sample ID:	180-45088-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	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		

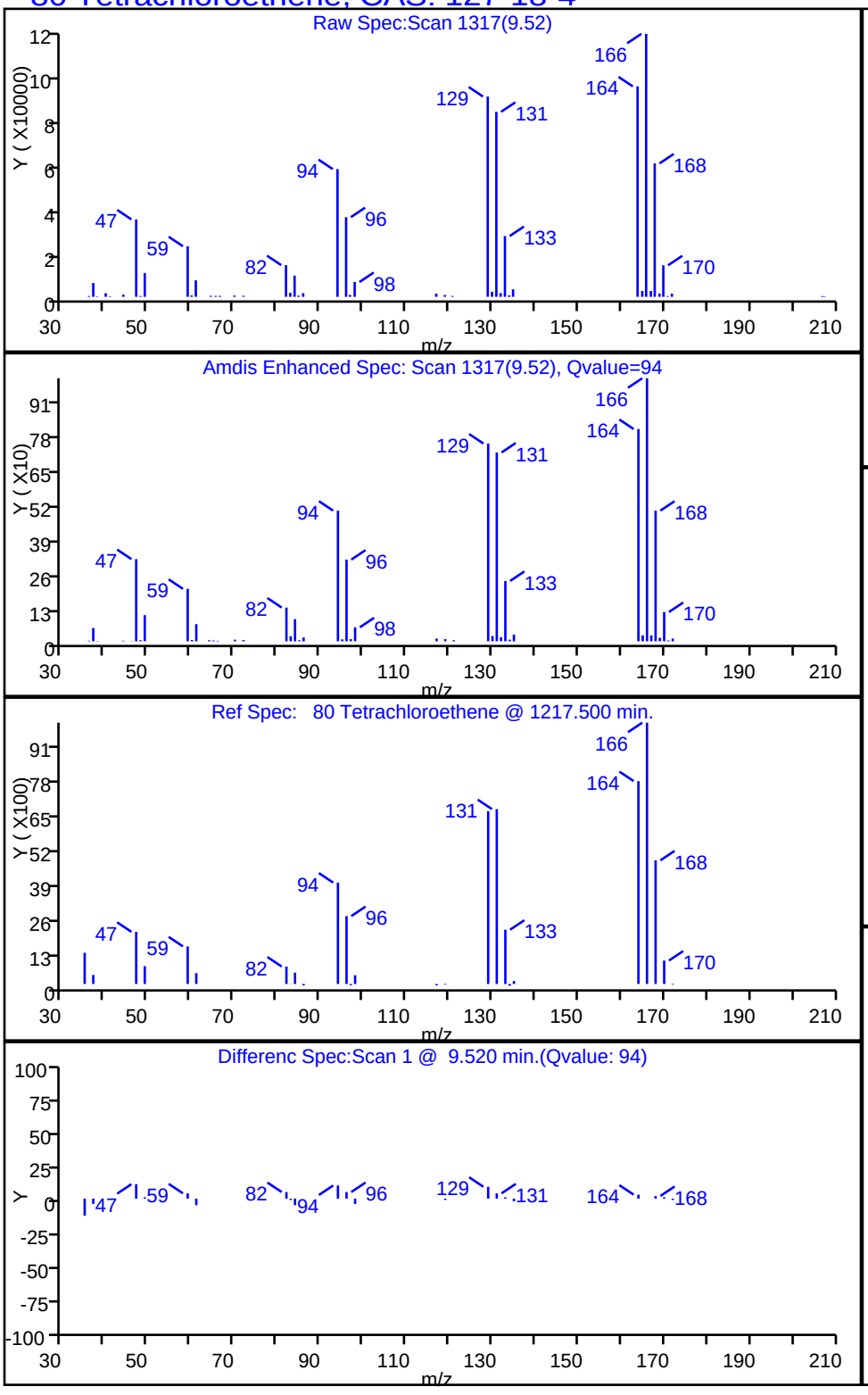
64 Trichloroethene, CAS: 79-01-6

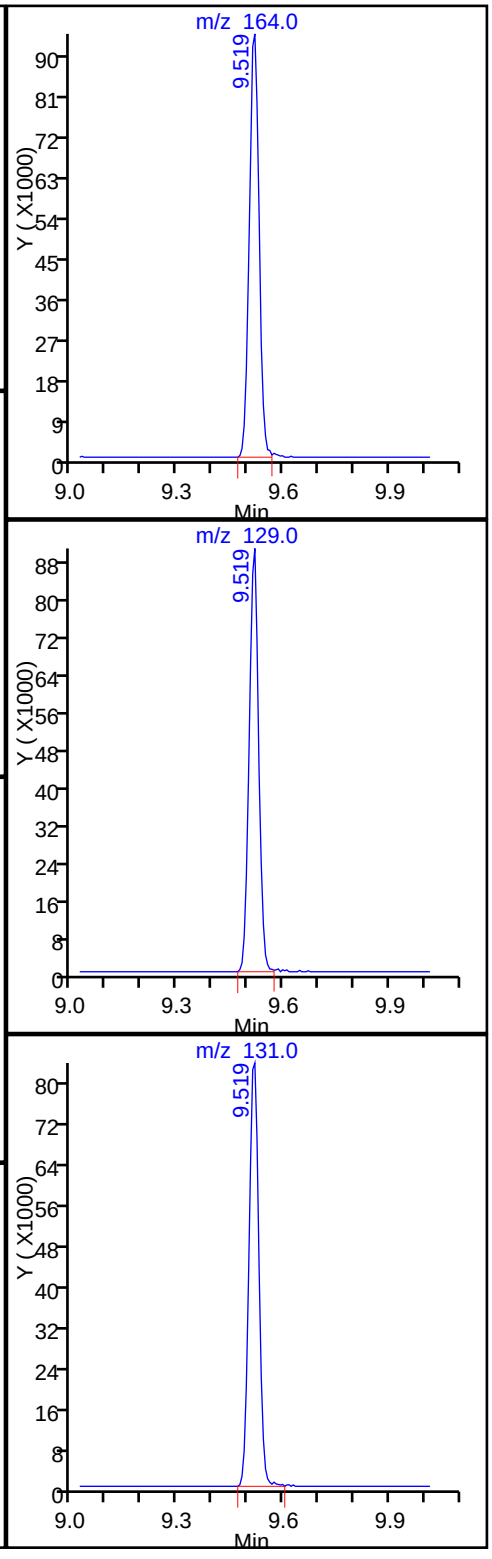




Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629018.D
Injection Date: 22-Jun-2015 16:40:30 Instrument ID: CHHP5
Lims ID: 180-45088-C-11 Lab Sample ID: 180-45088-11
Client ID: HD-COD-SW-17-0/1-0
Operator ID: 034635 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 | Lab Sample ID: 180-45088-12

Matrix: Water | Lab File ID: 50619022.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 21:21

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	4.3	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 | Lab Sample ID: 180-45088-12

Matrix: Water | Lab File ID: 50619022.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 21:21

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619022.D
Lims ID: 180-45088-E-12 Lab Sample ID: 180-45088-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 21:21:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-E-12
Misc. Info.: 180-0007474-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:31:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.265	0.006	0	129011	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.289	0.006	98	327093	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.385	0.006	90	72059	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	98	87329	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	91	80198	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	0	118779	54.0	
$ 7 Toluene-d8 (Surr)	98	8.937	8.931	0.006	94	294486	49.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.572	-0.001	84	96466	43.9	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.438	3.438	0.000	99	11670	21.5	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96		5.944				ND	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.382	6.376	0.006	1	736	0.2126	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130		7.672				ND	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164		9.515				ND	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

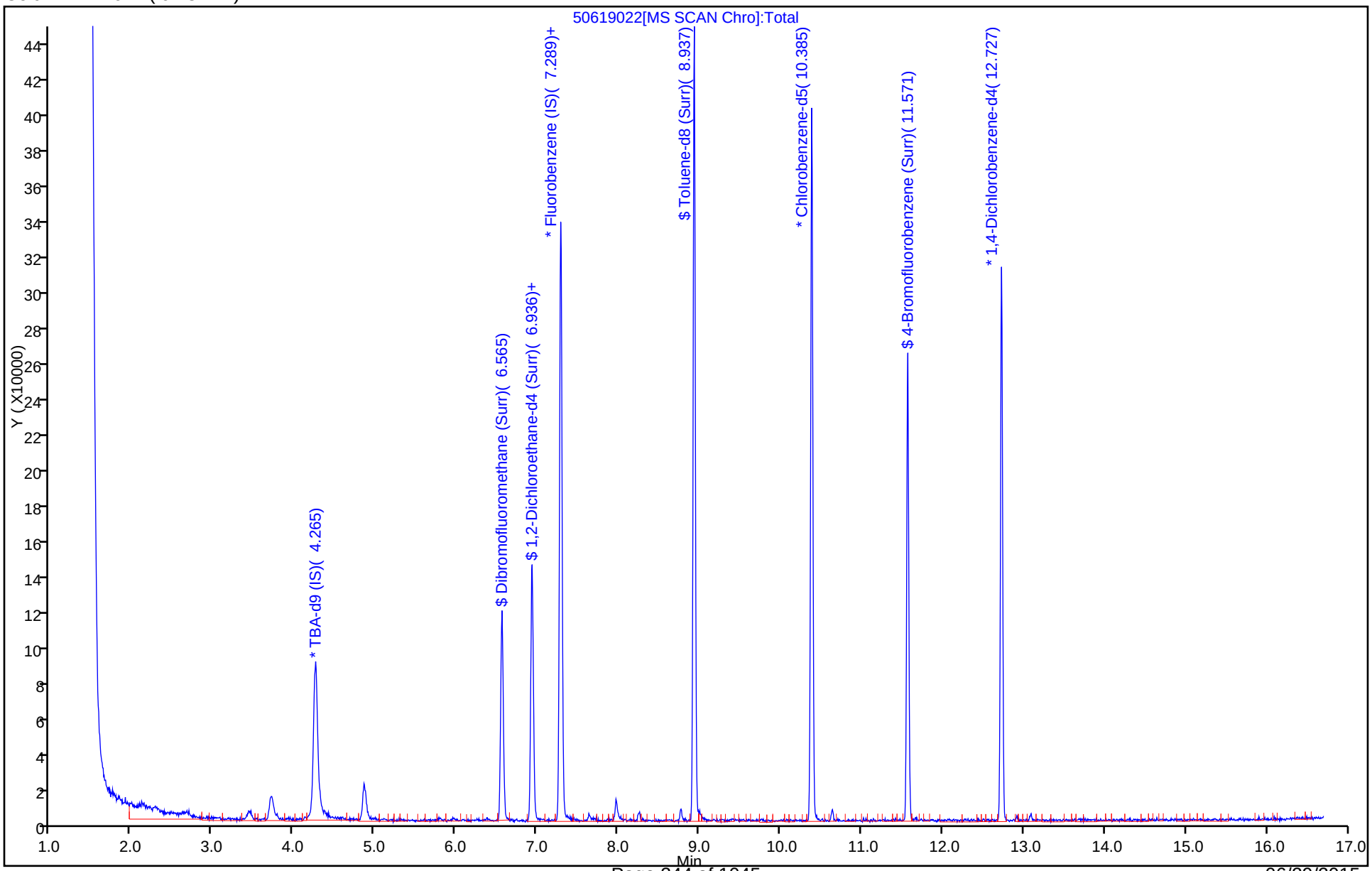
Report Date: 21-Jun-2015 15:05:19 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619022.D

Injection Date:	19-Jun-2015 21:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-E-12	Lab Sample ID:	180-45088-12	Worklist Smp#:	22
Client ID:	HD-COD-SW-20-0/1-0				
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)



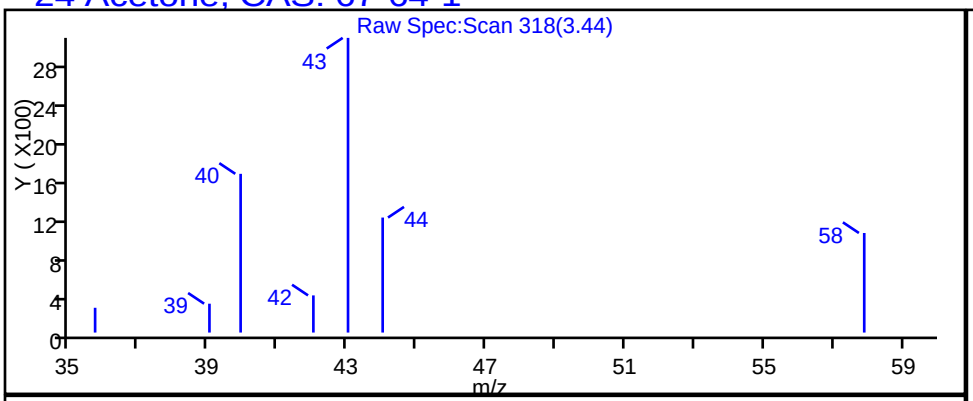
Report Date: 21-Jun-2015 15:05:19 Chrom Revision: 2.2 05-May-2015 11:39:10

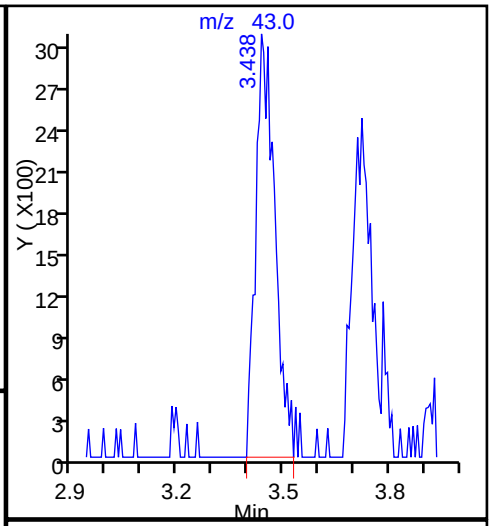
TestAmerica Pittsburgh

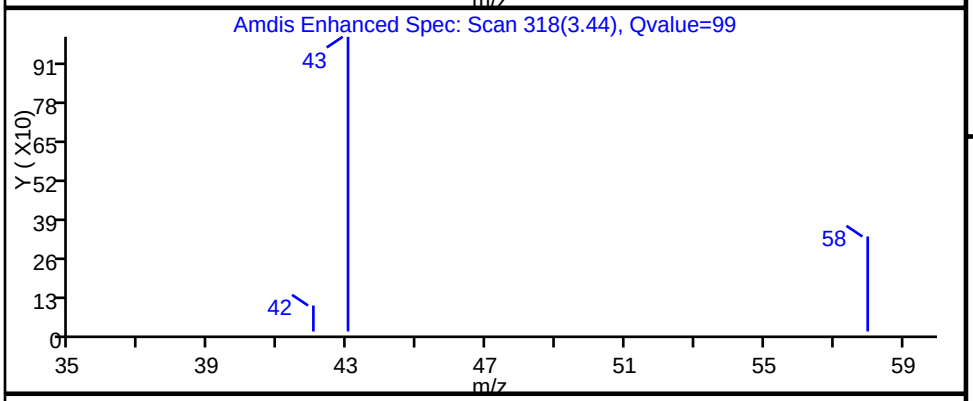
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619022.D

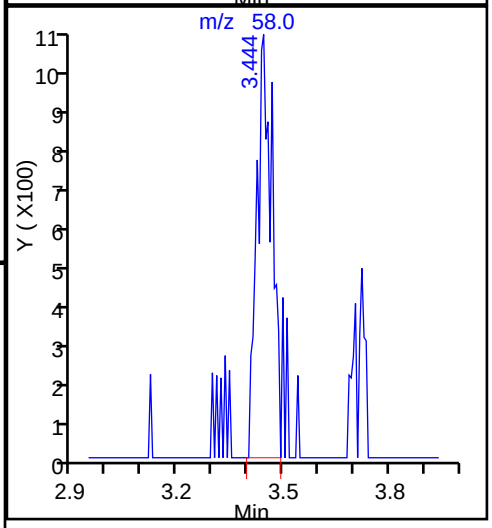
Injection Date:	19-Jun-2015 21:21:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-E-12	Lab Sample ID:	180-45088-12		
Client ID:	HD-COD-SW-20-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

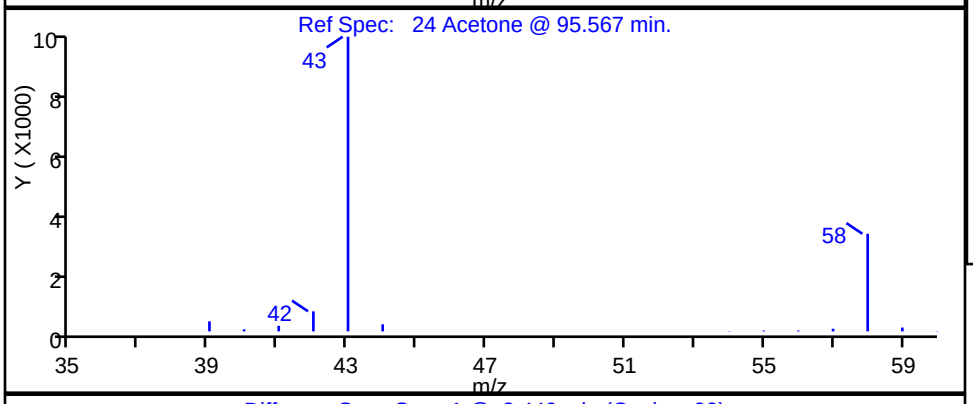
24 Acetone, CAS: 67-64-1

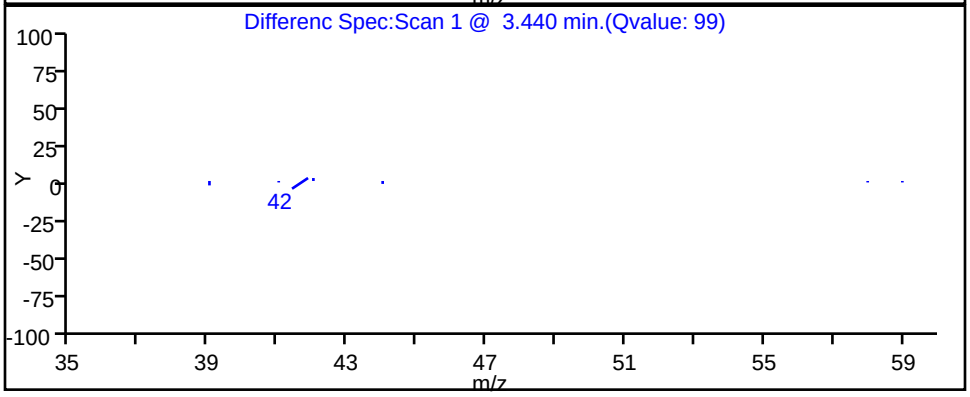












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 | Lab Sample ID: 180-45088-13

Matrix: Water | Lab File ID: 50619023.D

Analysis Method: 8260C | Date Collected: 06/15/2015 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 21:44

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	2.7	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.24	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.30	J	1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 | Lab Sample ID: 180-45088-13

Matrix: Water | Lab File ID: 50619023.D

Analysis Method: 8260C | Date Collected: 06/15/2015 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 21:44

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-135
2037-26-5	Toluene-d8 (Surr)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619023.D
Lims ID: 180-45088-D-13 Lab Sample ID: 180-45088-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 21:44:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-D-13
Misc. Info.: 180-0007474-023
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:32:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.269	4.265	0.004	0	120878	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	98	329682	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.385	0.004	90	76130	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.727	0.004	96	101546	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.559	0.009	92	82608	53.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	0	121817	54.9	
$ 7 Toluene-d8 (Surr)	98	8.935	8.931	0.004	94	298778	47.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	85	102560	44.1	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.447	3.438	0.009	66	7247	13.3	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.960	5.944	0.016	76	1584	0.7532	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.386	6.376	0.010	42	1821	0.5218	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.675	7.672	0.003	94	2380	1.21	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91	9.008	9.004	0.004	95	3364	0.4111	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.513	9.515	-0.002	90	2365	1.52	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

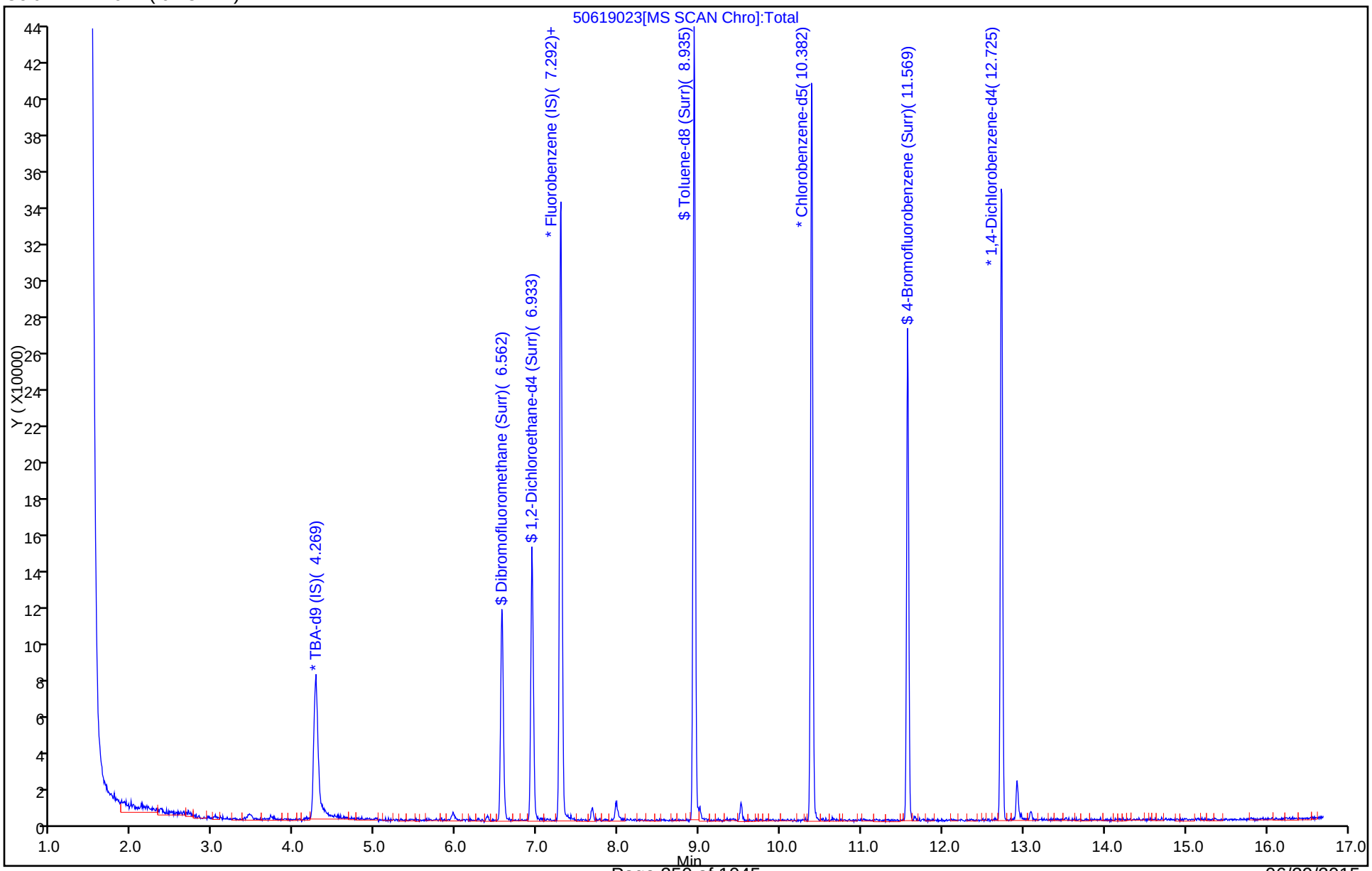
Report Date: 21-Jun-2015 15:05:18 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619023.D

Injection Date:	19-Jun-2015 21:44:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-D-13	Lab Sample ID:	180-45088-13	Worklist Smp#:	23
Client ID:	HD-COD-SW-26-0/1-0				
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)

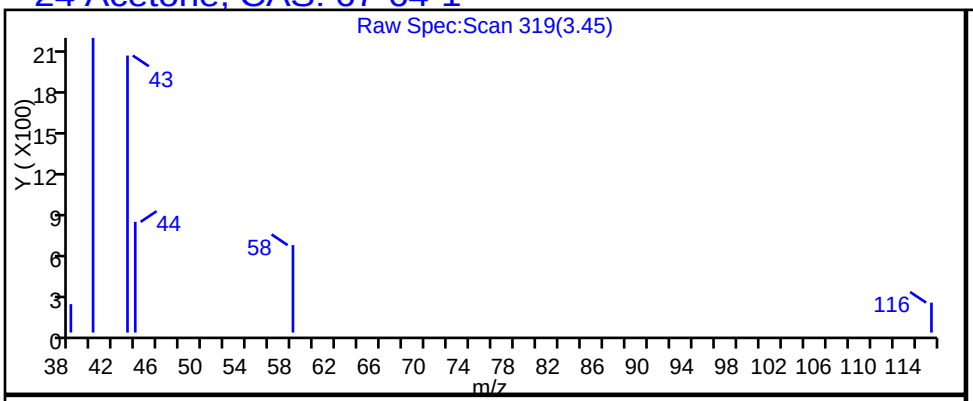


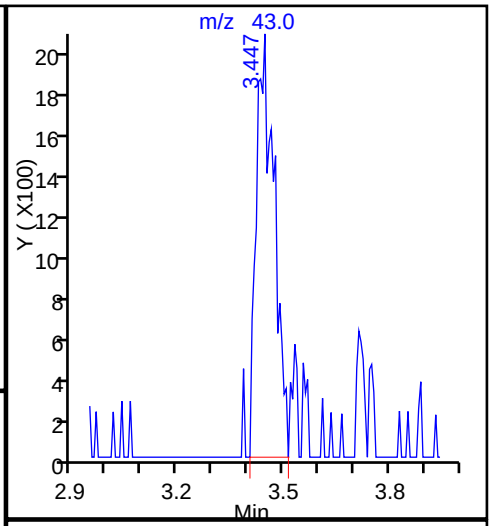
Report Date: 21-Jun-2015 15:05:18 Chrom Revision: 2.2 05-May-2015 11:39:10

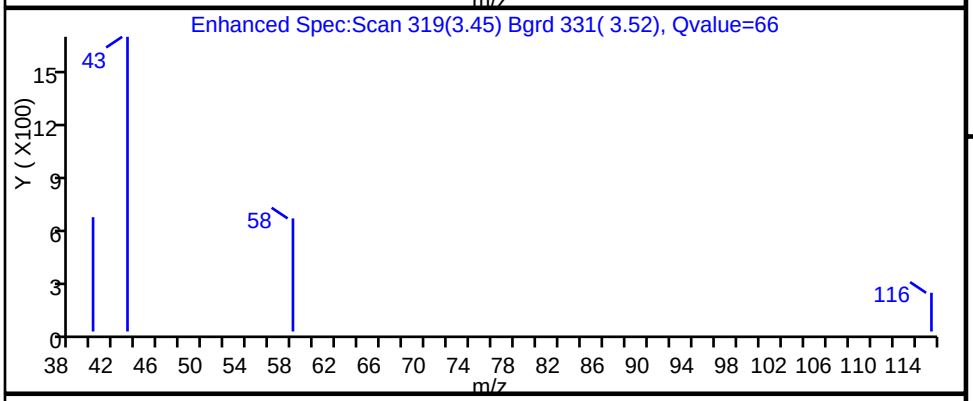
TestAmerica Pittsburgh

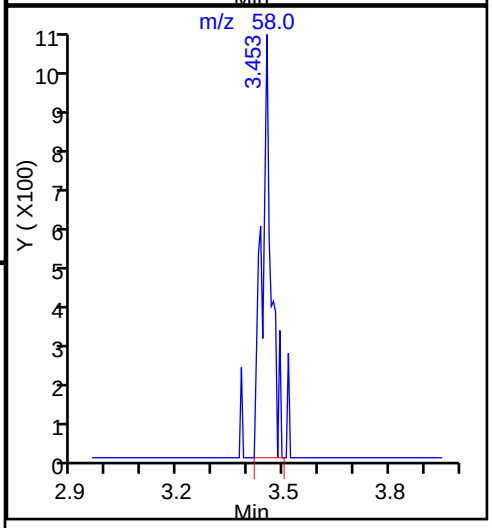
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619023.D				
Injection Date:	19-Jun-2015 21:44:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-13	Lab Sample ID:	180-45088-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

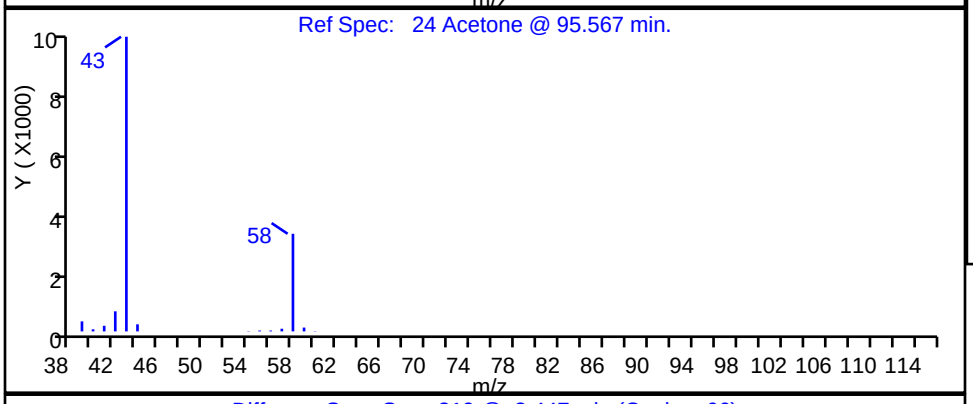
24 Acetone, CAS: 67-64-1

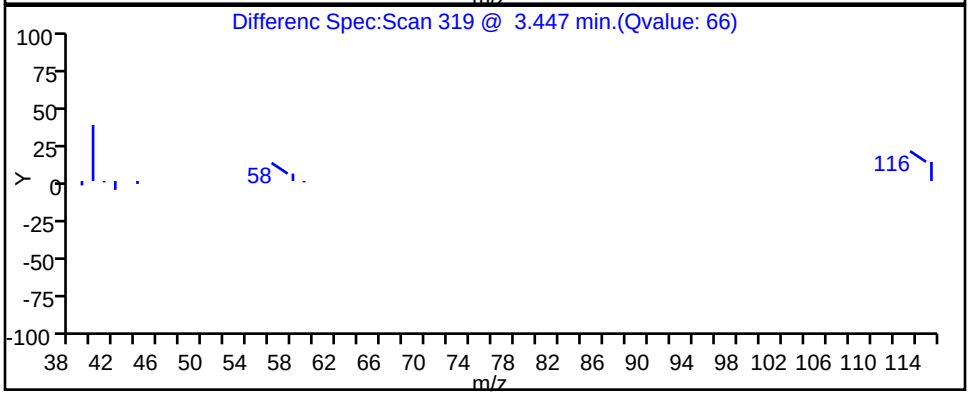








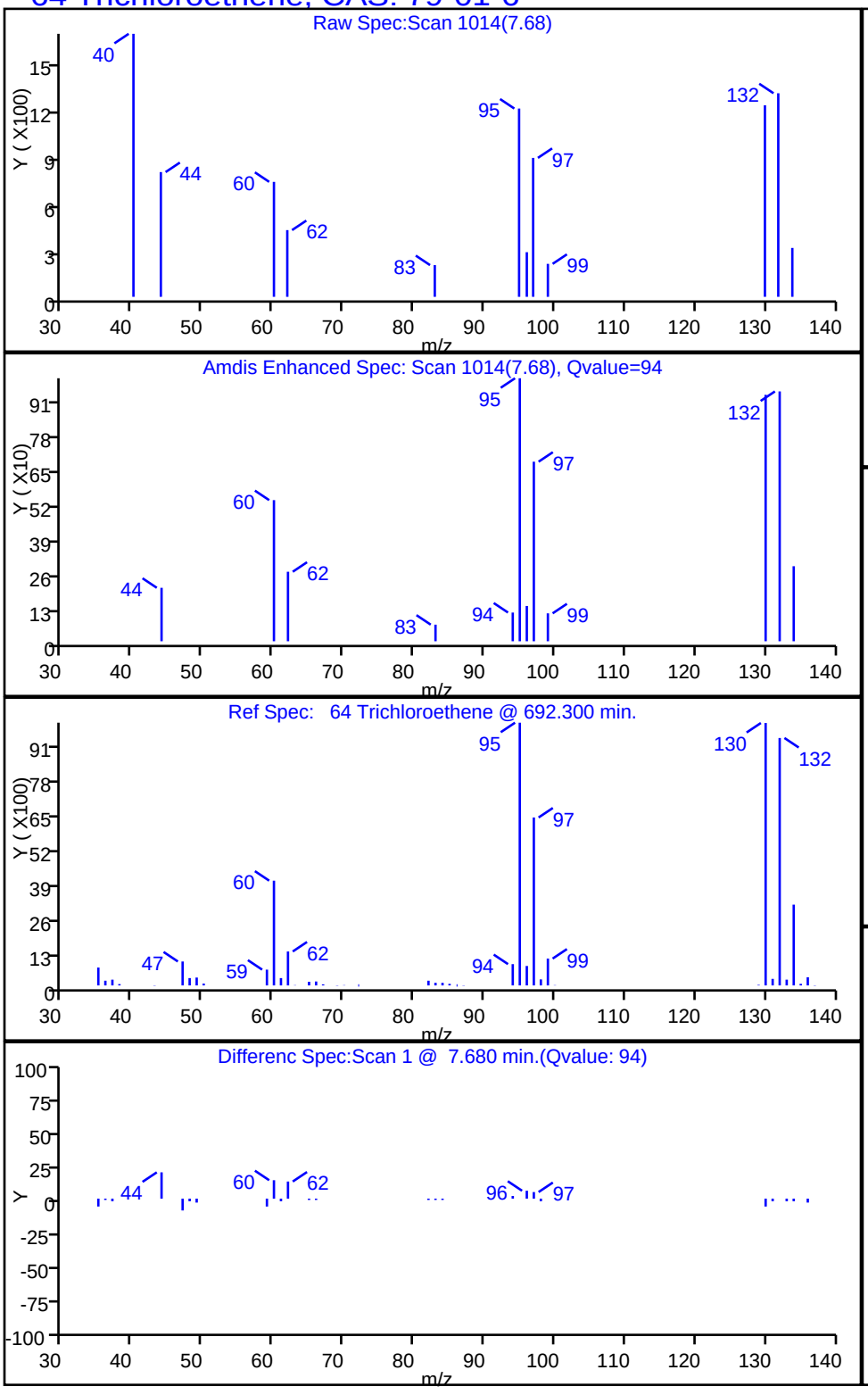


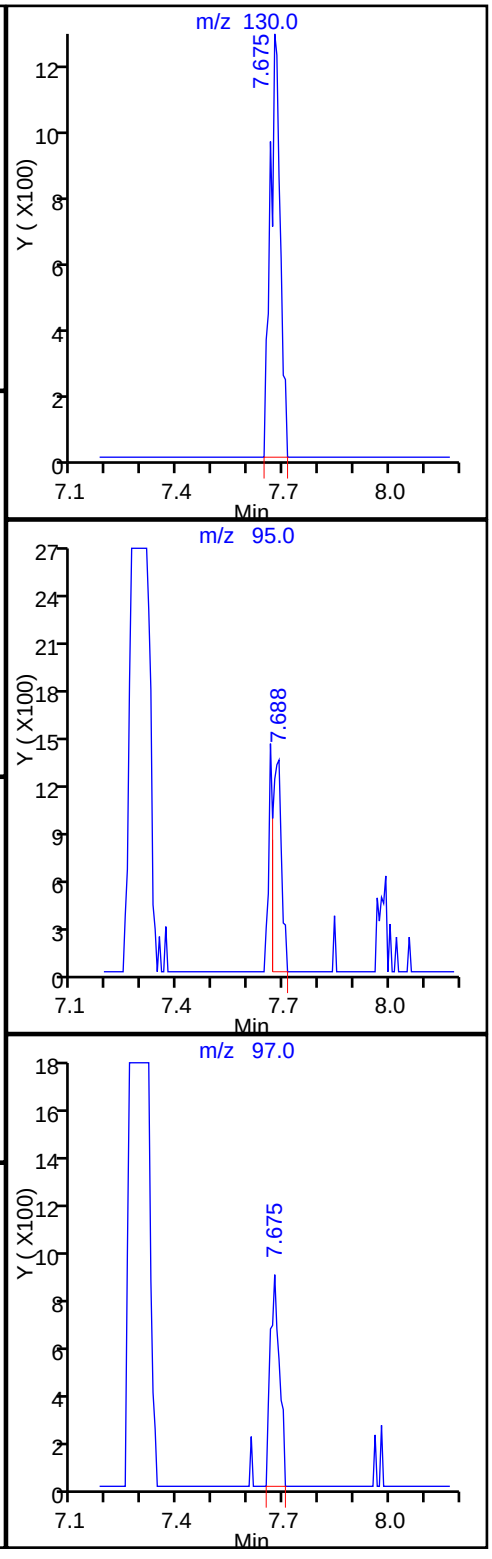


TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619023.D				
Injection Date:	19-Jun-2015 21:44:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-13	Lab Sample ID:	180-45088-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	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

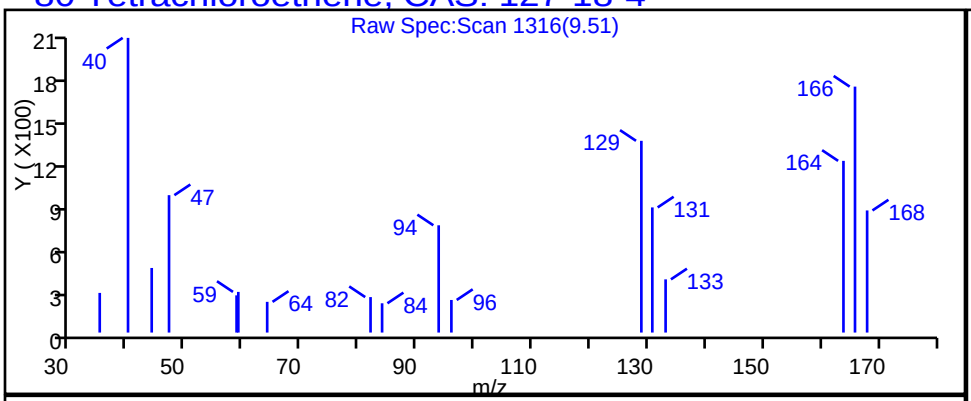


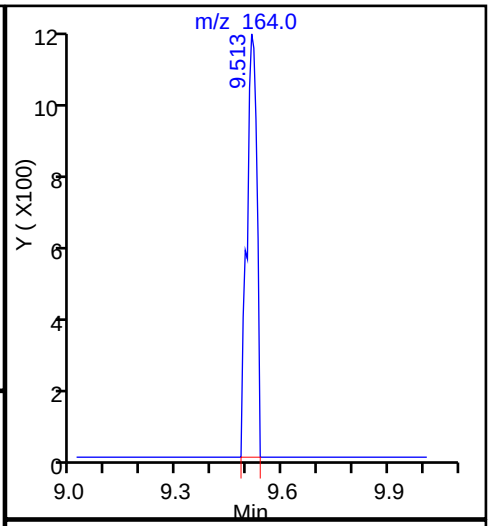


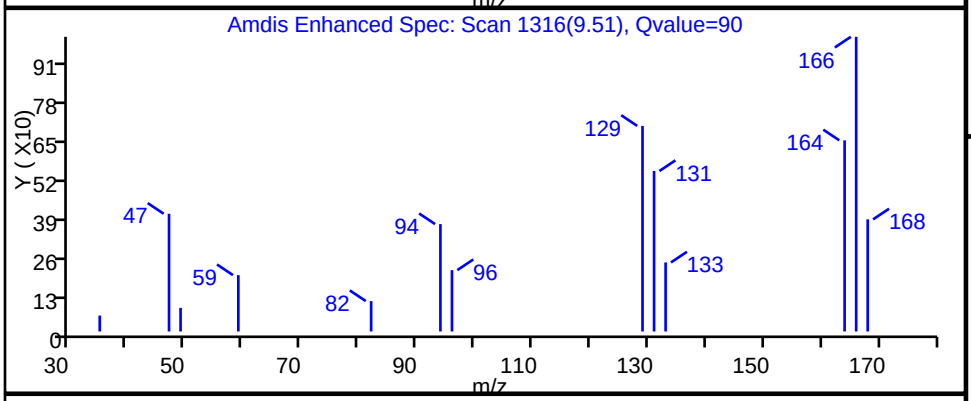
TestAmerica Pittsburgh

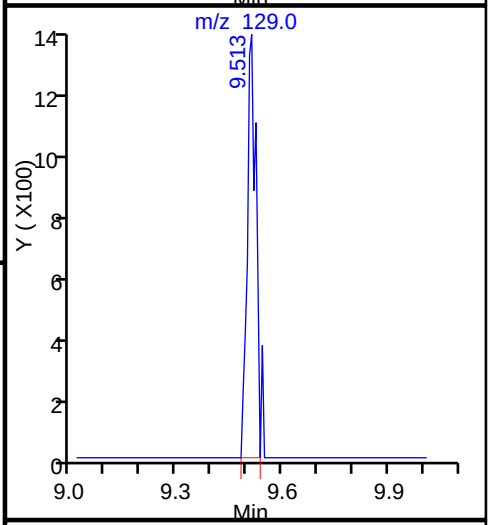
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619023.D				
Injection Date:	19-Jun-2015 21:44:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-D-13	Lab Sample ID:	180-45088-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

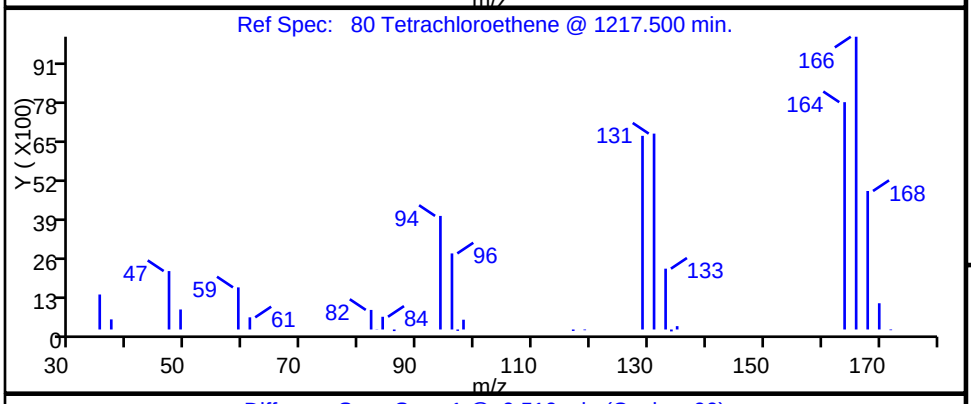
80 Tetrachloroethene, CAS: 127-18-4

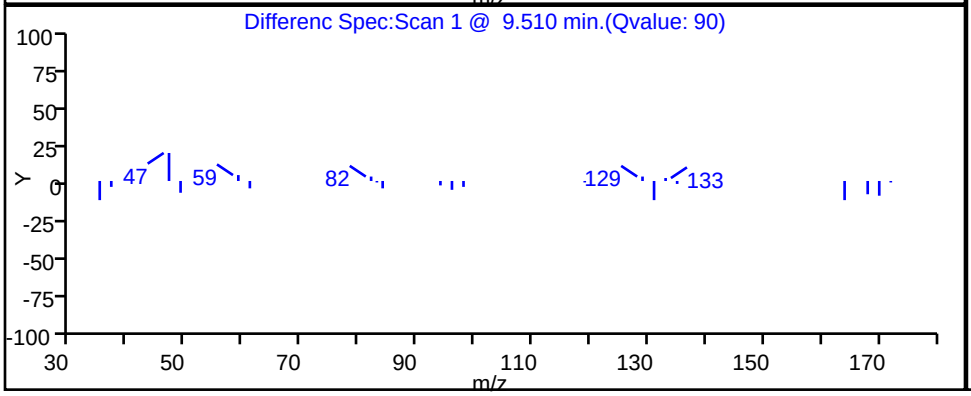


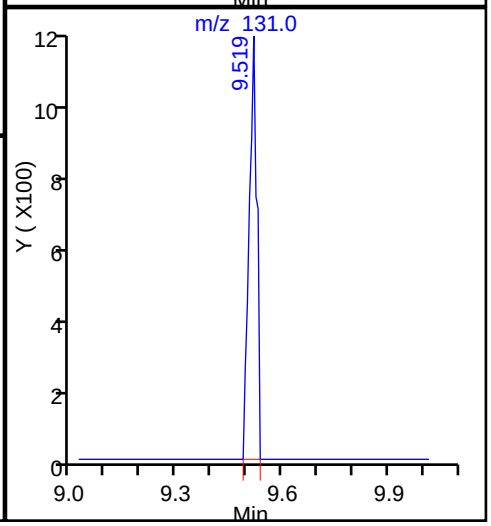












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 | Lab Sample ID: 180-45088-14

Matrix: Water | Lab File ID: 50619024.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 22:08

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	3.0	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.54	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.94	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.49	J	1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 | Lab Sample ID: 180-45088-14

Matrix: Water | Lab File ID: 50619024.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 22:08

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	87		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D
Lims ID: 180-45088-C-14 Lab Sample ID: 180-45088-14
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 22:08:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-C-14
Misc. Info.: 180-0007474-024
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:32:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.257	4.265	-0.008	0	105924	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.289	-0.002	98	323186	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.385	-0.002	89	74064	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.727	-0.002	99	87803	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.563	6.559	0.004	92	82595	54.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.930	0.004	0	121115	55.7	
$ 7 Toluene-d8 (Surr)	98	8.935	8.931	0.004	95	289257	47.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	84	98230	43.5	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.442	3.438	0.004	73	8016	15.0	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.954	5.944	0.010	83	10727	5.20	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.380	6.376	0.004	95	9238	2.70	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.676	7.672	0.004	95	9026	4.69	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91	9.008	9.004	0.004	85	3331	0.4185	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.513	9.515	-0.002	96	3732	2.46	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

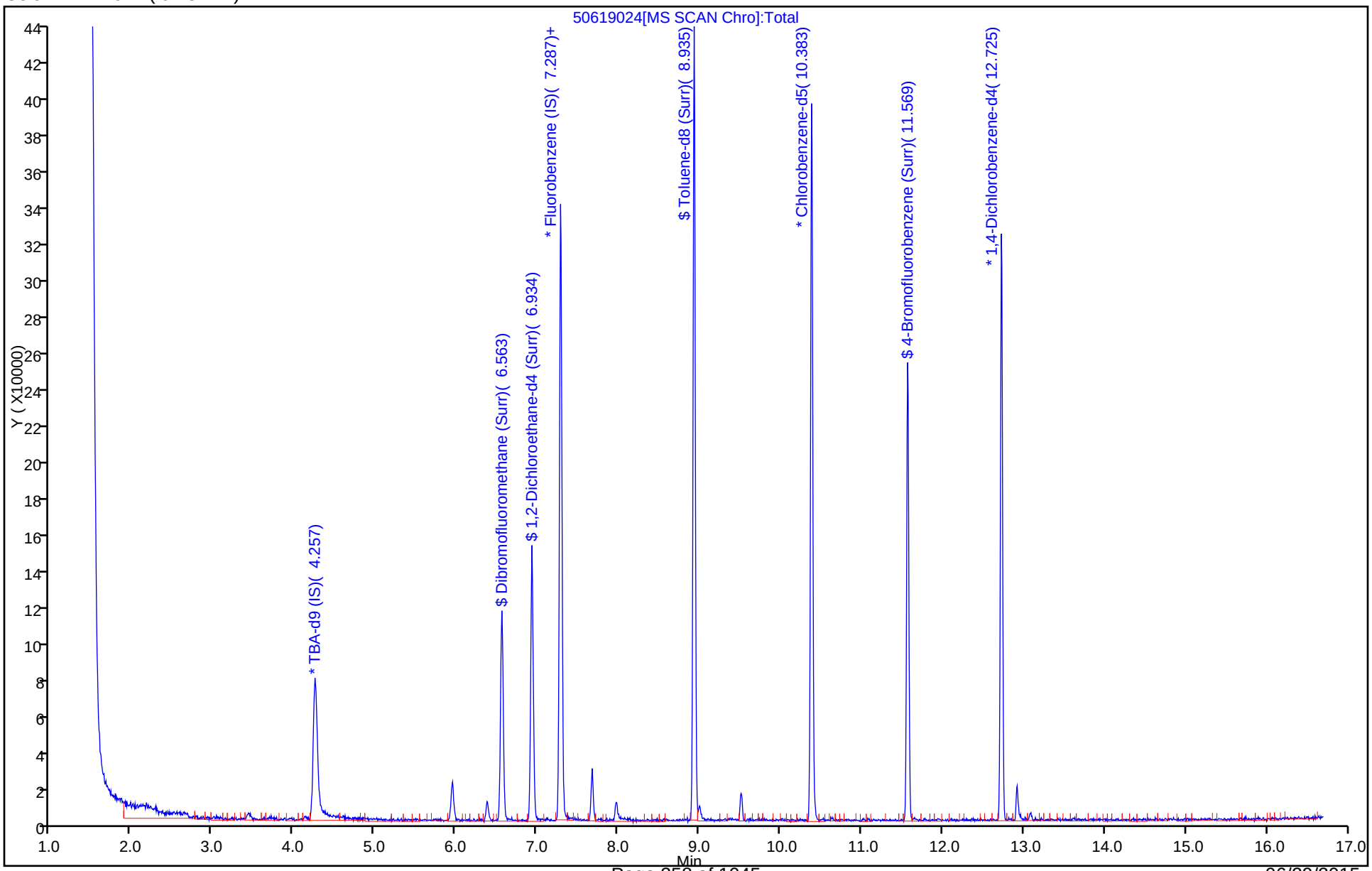
Report Date: 21-Jun-2015 15:05:17 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D

Injection Date:	19-Jun-2015 22:08:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-C-14	Lab Sample ID:	180-45088-14	Worklist Smp#:	24
Client ID:	HD-COD-SW-27-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



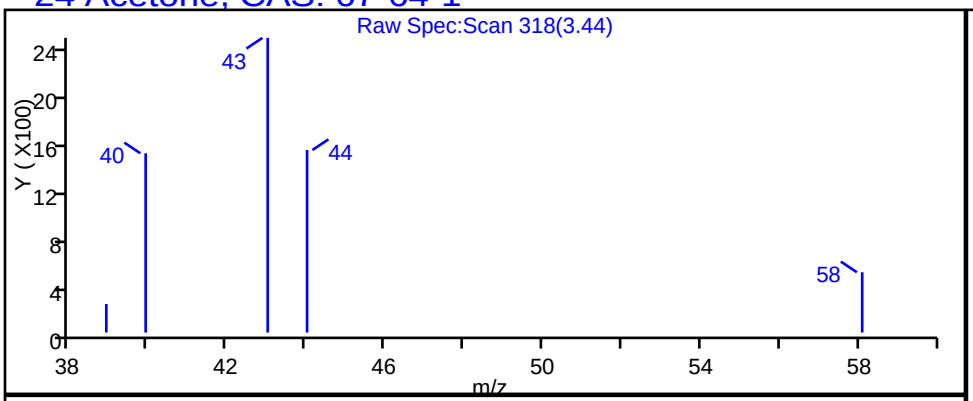
Report Date: 21-Jun-2015 15:05:17 Chrom Revision: 2.2 05-May-2015 11:39:10

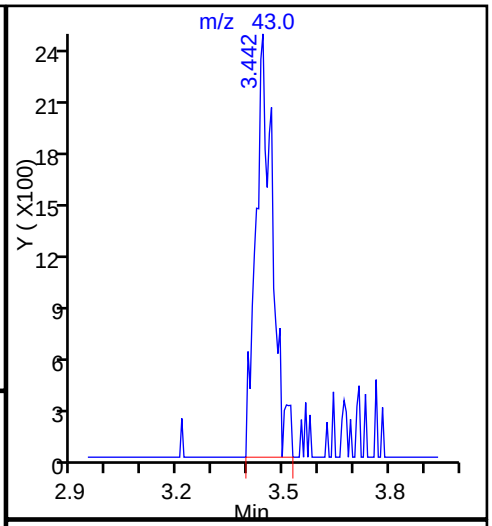
TestAmerica Pittsburgh

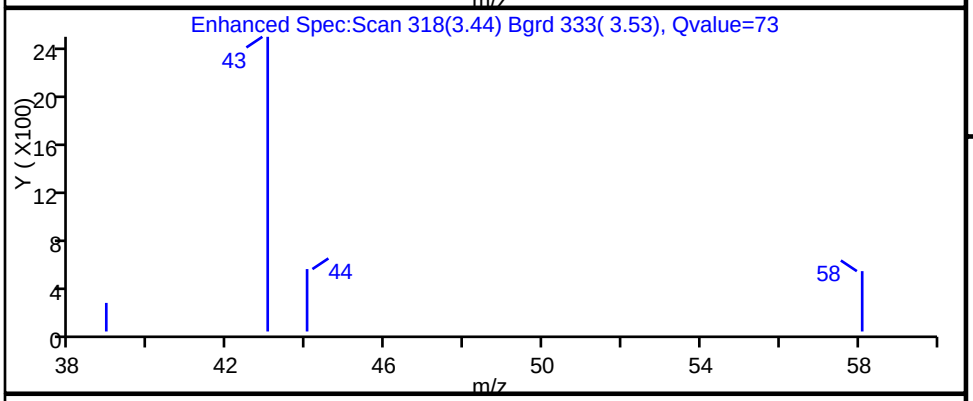
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D

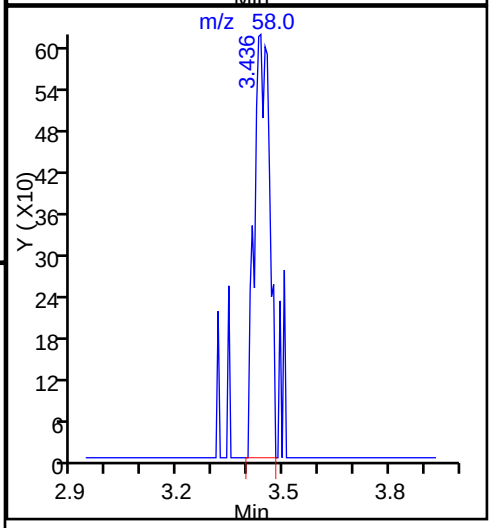
Injection Date:	19-Jun-2015 22:08:30	Instrument ID:	CHHP5
Lims ID:	180-45088-C-14	Lab Sample ID:	180-45088-14
Client ID:	HD-COD-SW-27-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

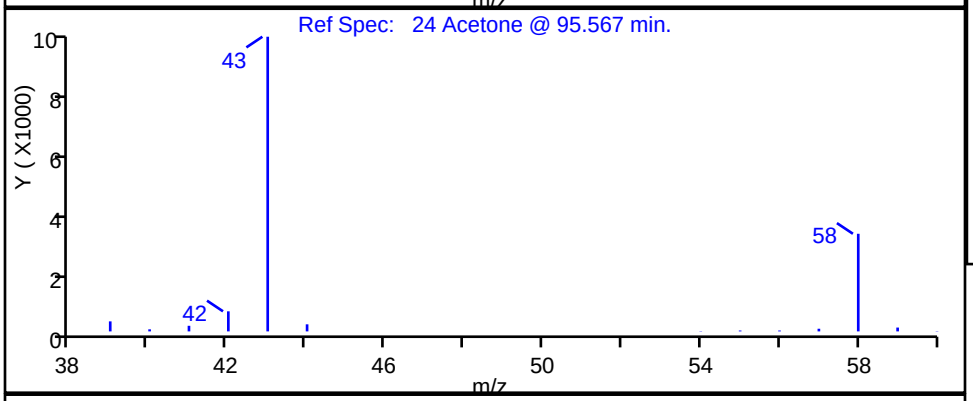
24 Acetone, CAS: 67-64-1

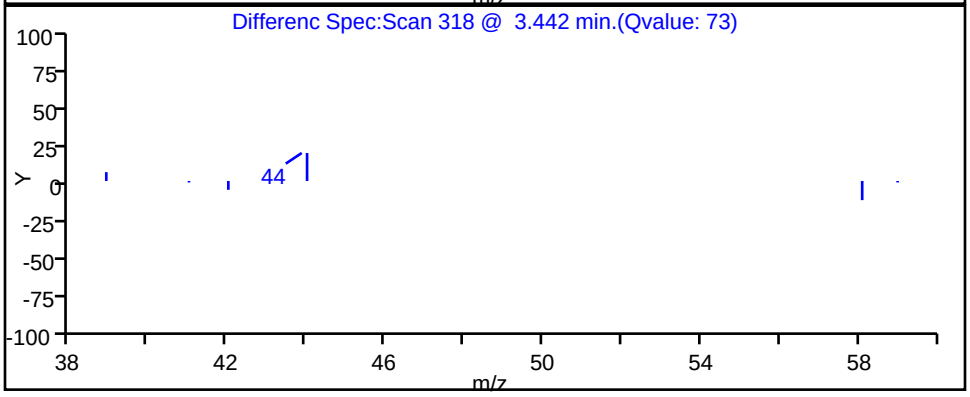








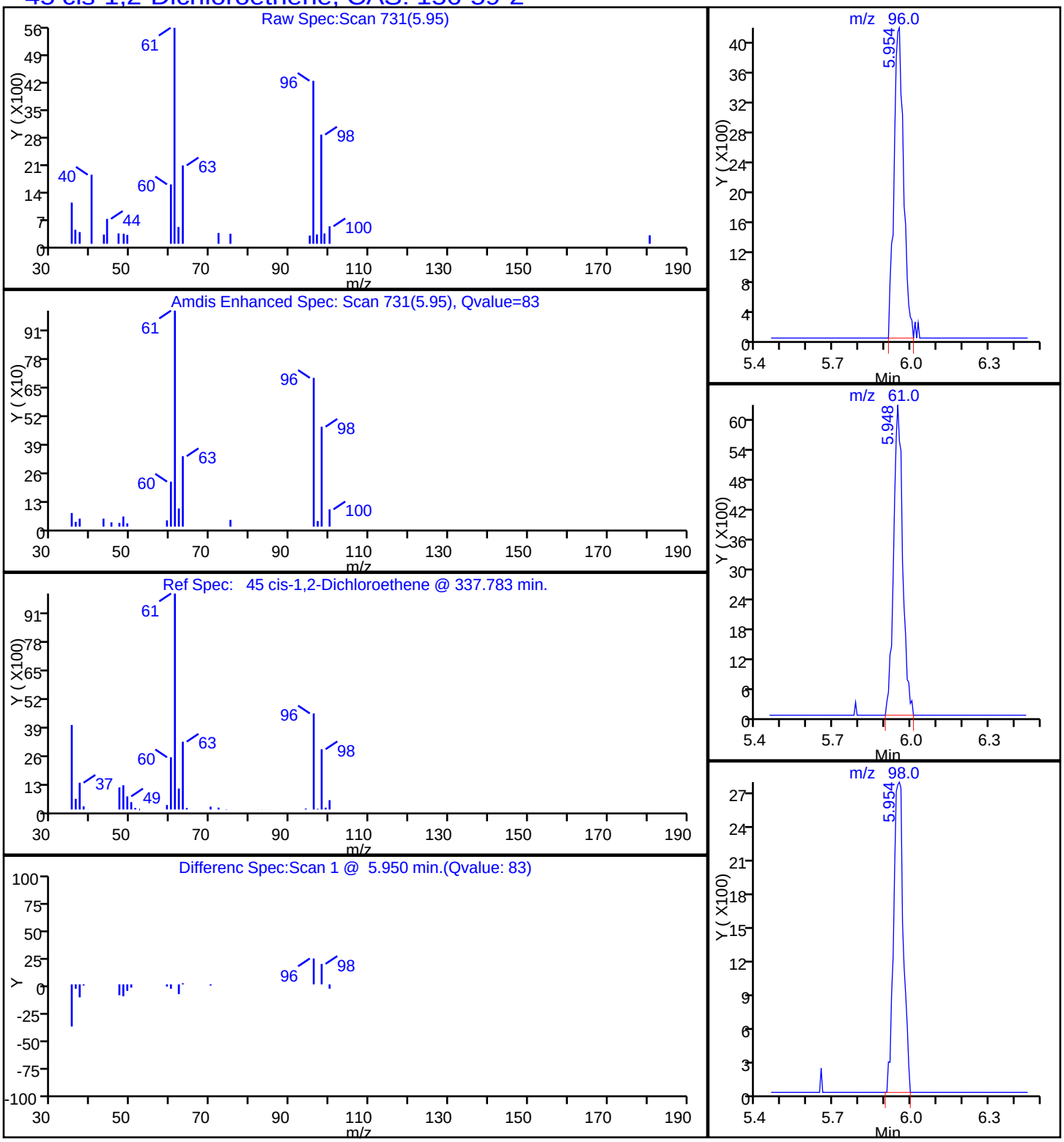




TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D				
Injection Date:	19-Jun-2015 22:08:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-14	Lab Sample ID:	180-45088-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	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		

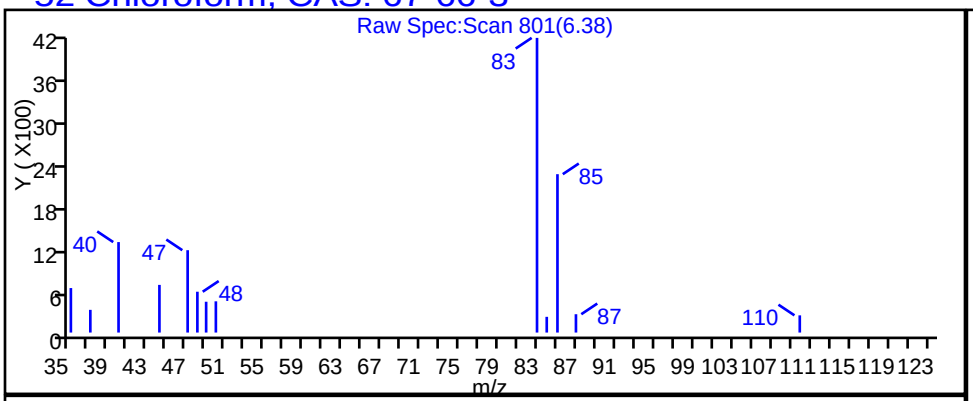
45 cis-1,2-Dichloroethene, CAS: 156-59-2

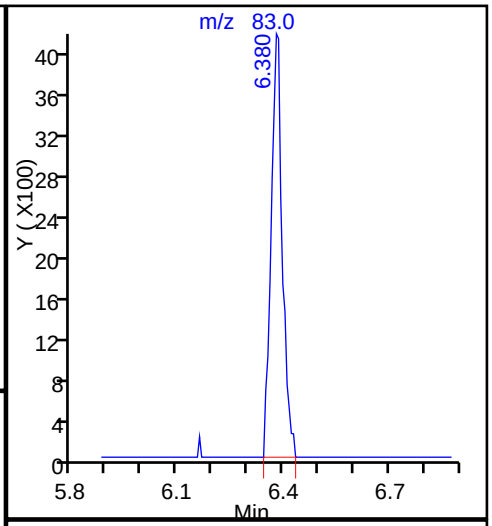


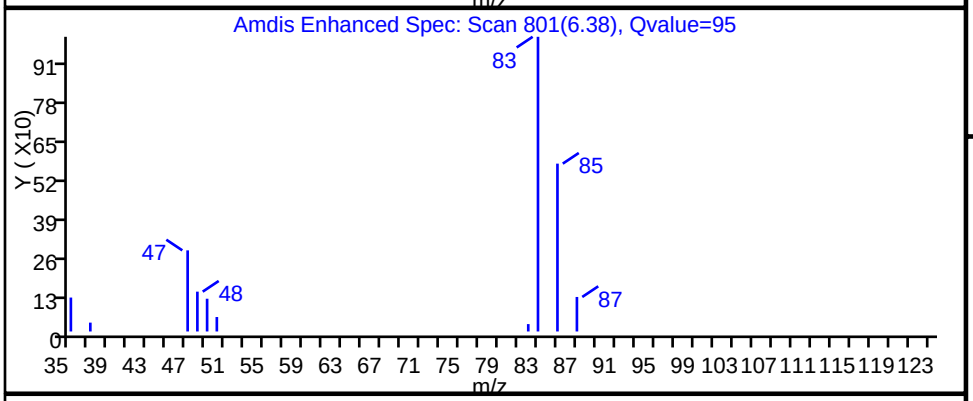
TestAmerica Pittsburgh

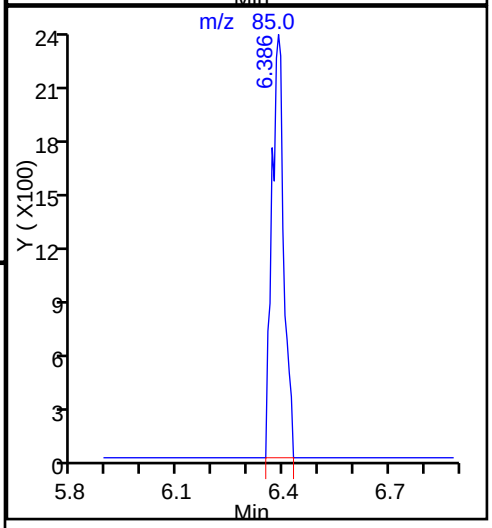
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D				
Injection Date:	19-Jun-2015 22:08:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-14	Lab Sample ID:	180-45088-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

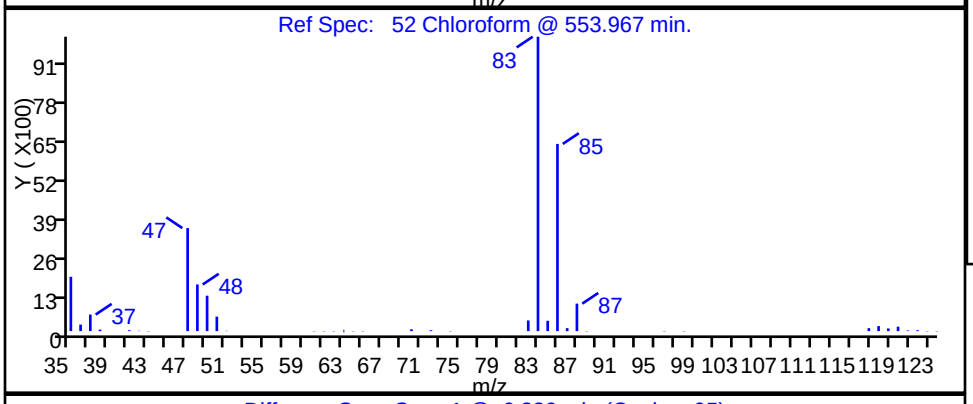
52 Chloroform, CAS: 67-66-3

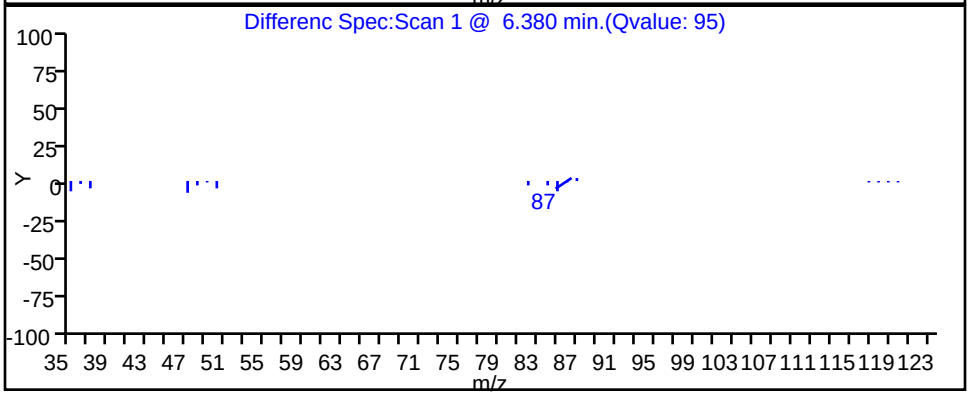










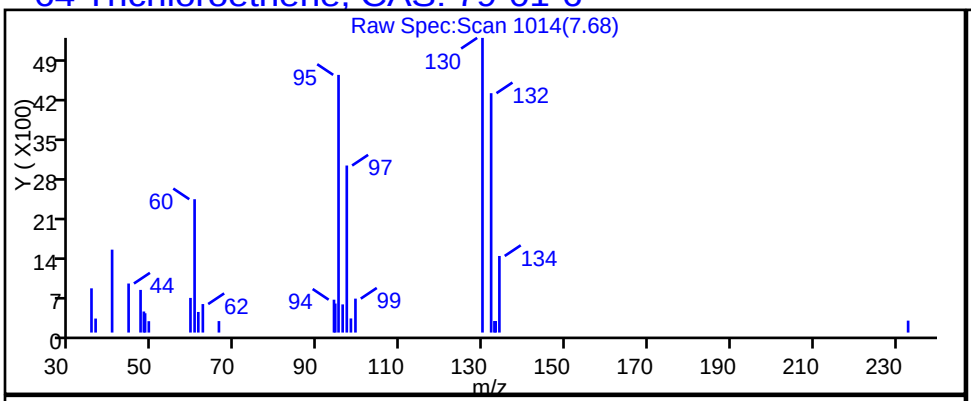


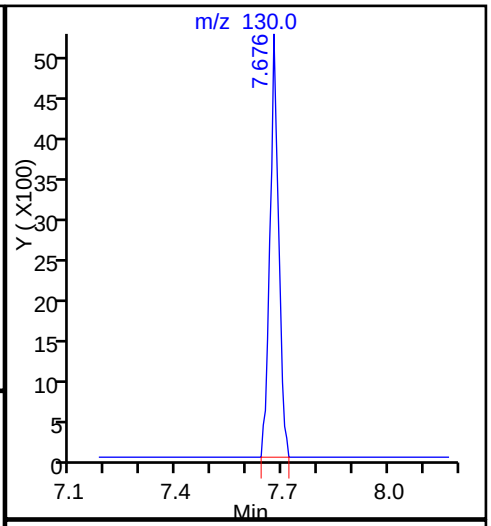
TestAmerica Pittsburgh

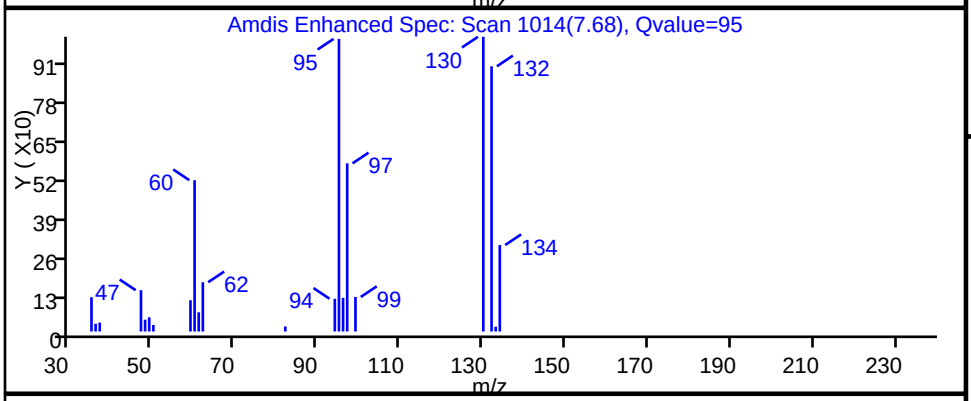
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D

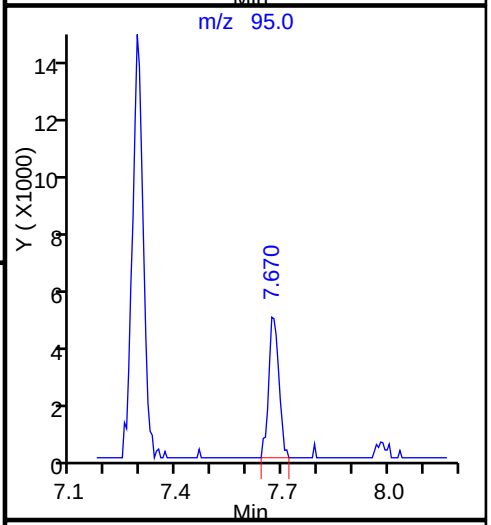
Injection Date:	19-Jun-2015 22:08:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-14	Lab Sample ID:	180-45088-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

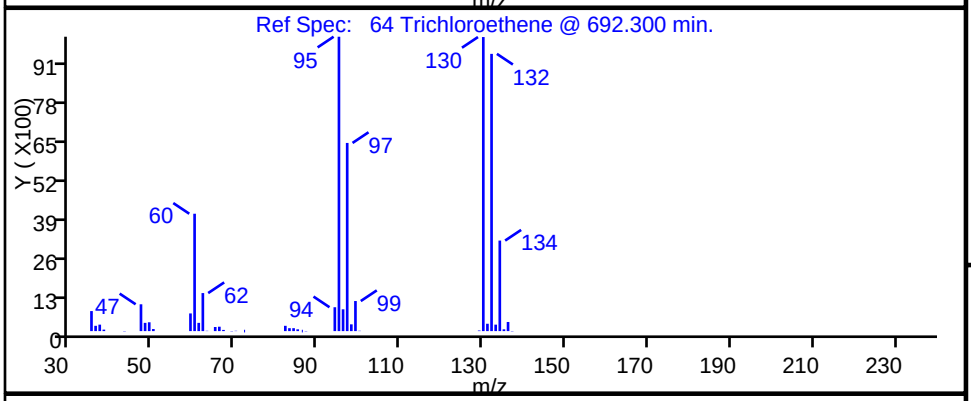
64 Trichloroethene, CAS: 79-01-6

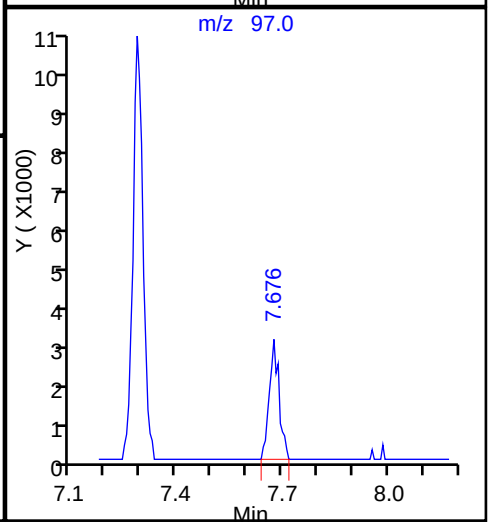


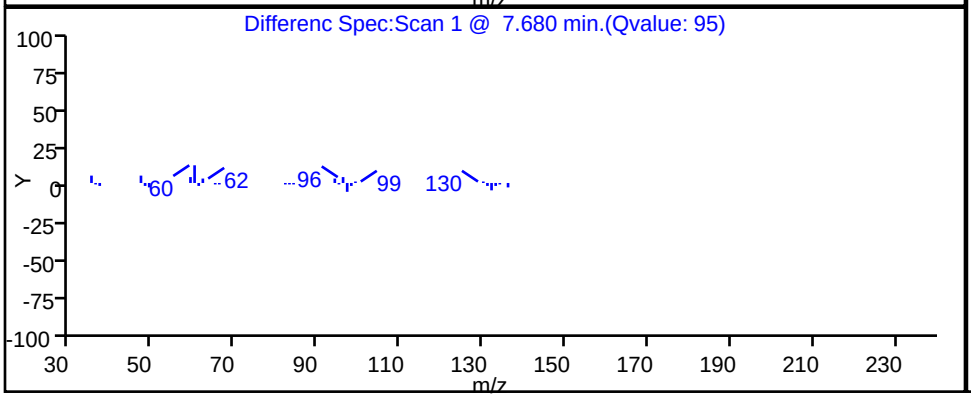








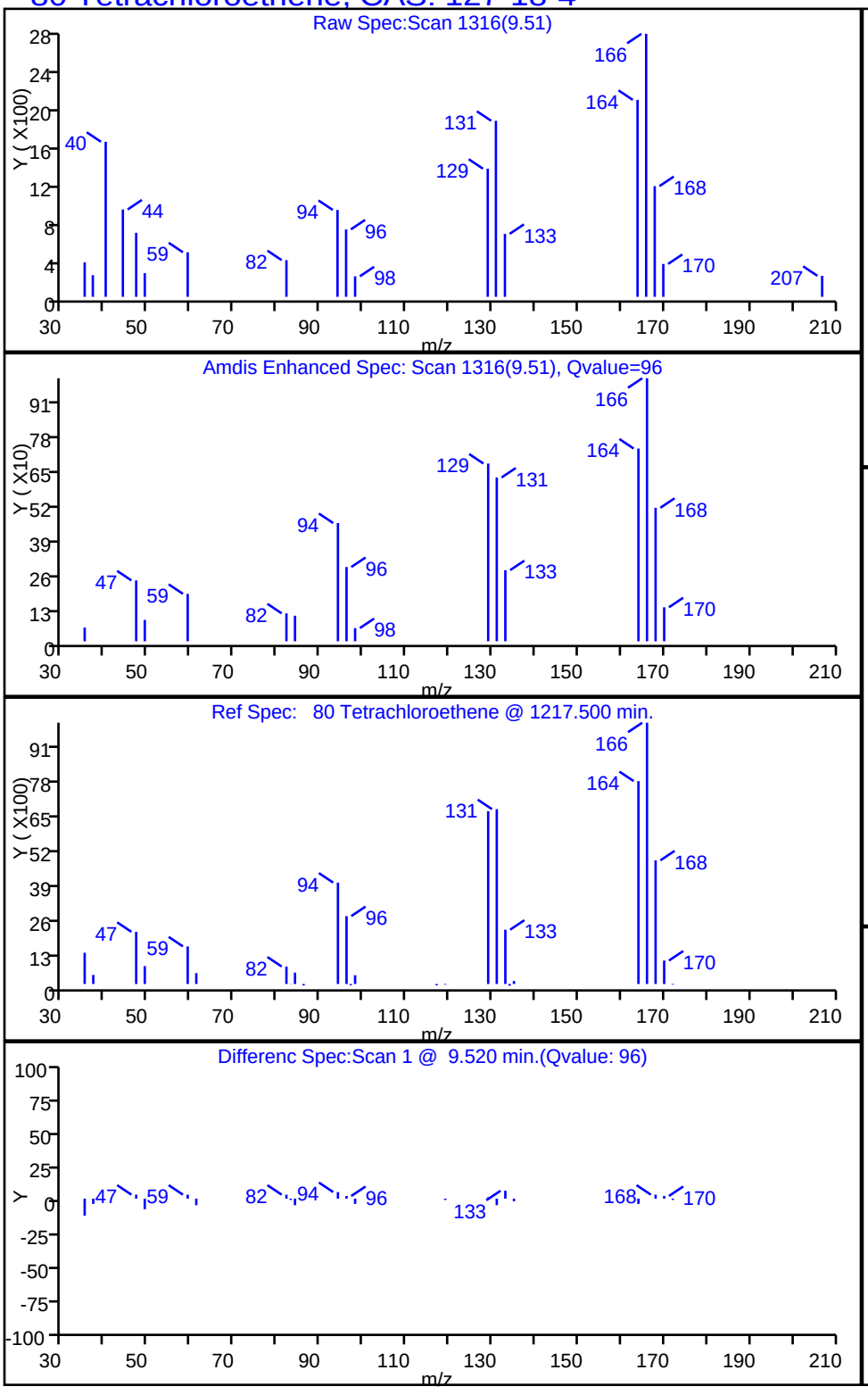


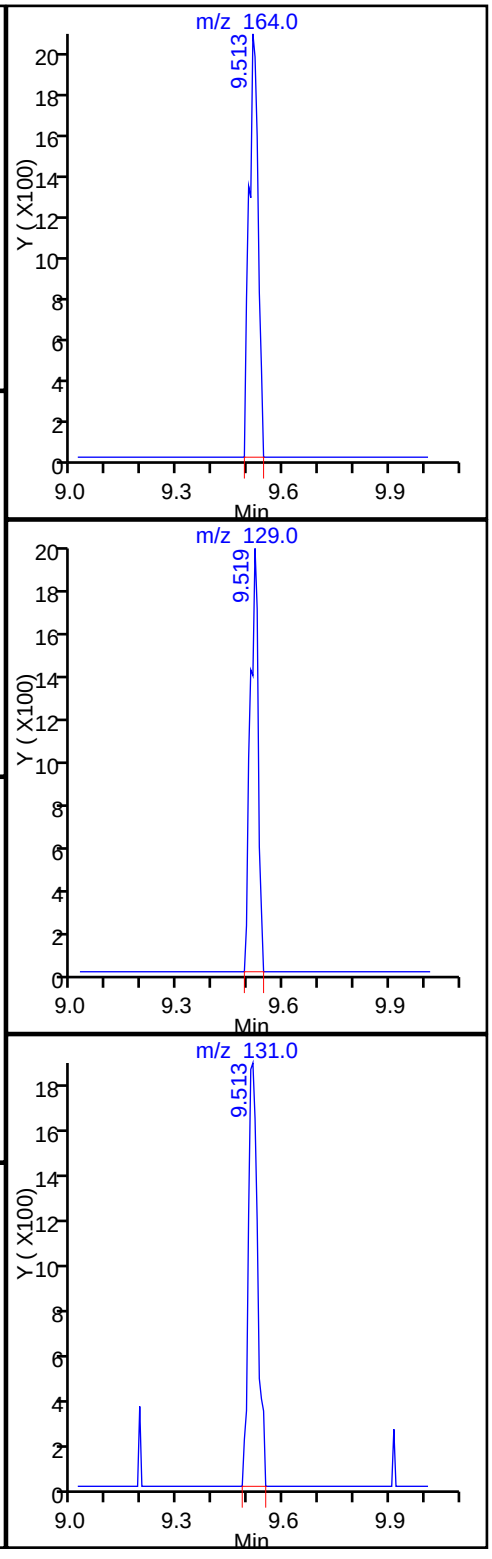


TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619024.D				
Injection Date:	19-Jun-2015 22:08:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-14	Lab Sample ID:	180-45088-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	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		

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 | Lab Sample ID: 180-45088-15

Matrix: Water | Lab File ID: 50619025.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 22:33

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.25	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.27	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.16	J	1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 | Lab Sample ID: 180-45088-15

Matrix: Water | Lab File ID: 50619025.D

Analysis Method: 8260C | Date Collected: 06/15/2015 13:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 22:33

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.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	84		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619025.D
Lims ID: 180-45088-C-15 Lab Sample ID: 180-45088-15
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 22:33:30 ALS Bottle#: 25 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-C-15
Misc. Info.: 180-0007474-025
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:33:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.265	-0.003	0	111352	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	98	320821	50.0	
* 3 Chlorobenzene-d5	119	10.382	10.385	-0.003	89	74963	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.724	12.727	-0.003	98	91021	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.559	0.003	92	84699	56.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	0	120827	56.0	
$ 7 Toluene-d8 (Surr)	98	8.934	8.931	0.003	94	295028	47.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	85	96246	42.1	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.435	3.438	-0.003	75	6140	11.6	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.959	5.944	0.015	76	2583	1.26	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.379	6.376	0.003	34	2547	0.7500	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.675	7.672	0.003	85	2566	1.34	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91	8.995	9.004	-0.009	44	2629	0.3263	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.506	9.515	-0.009	80	1218	0.7947	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

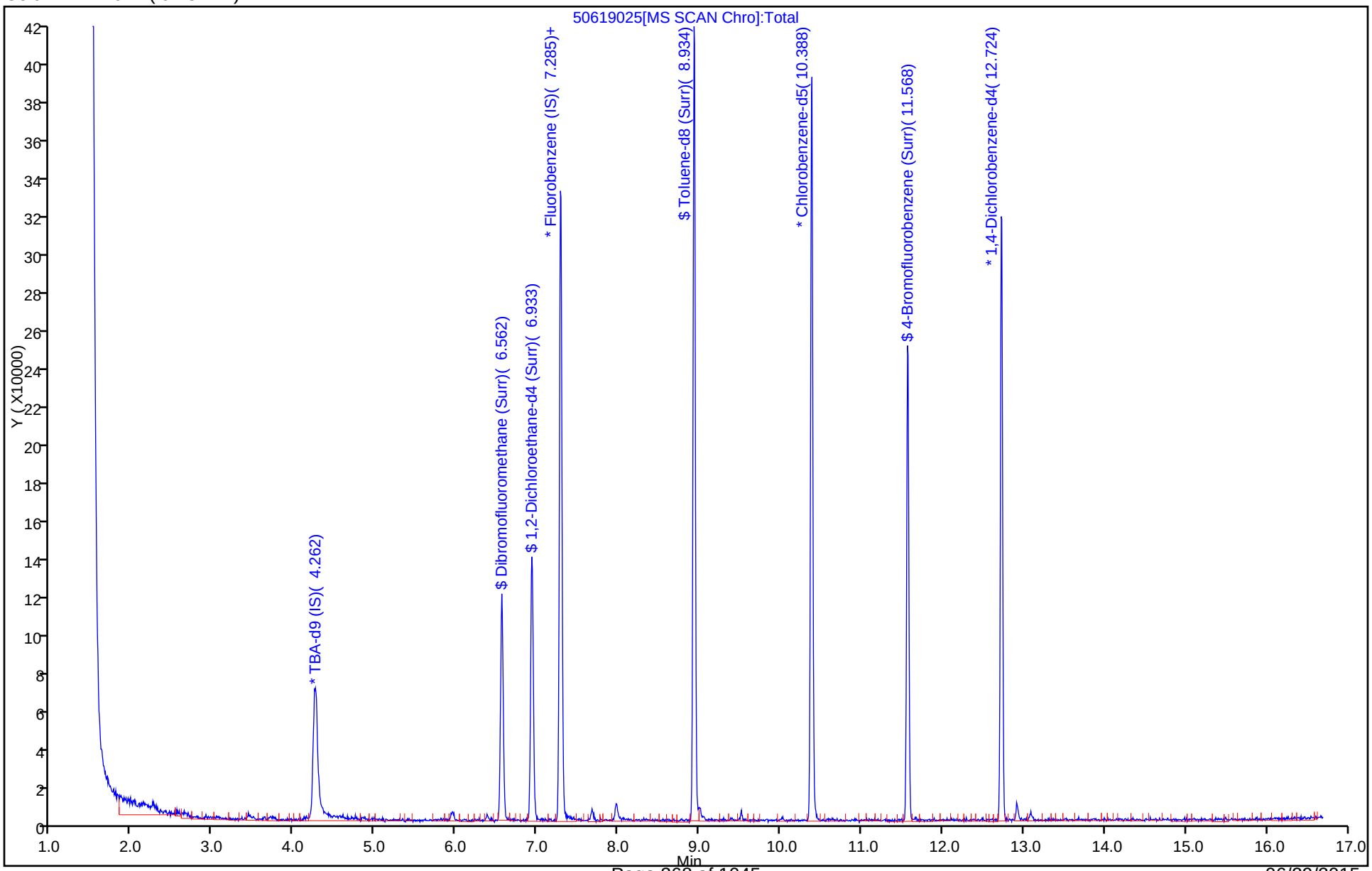
Report Date: 21-Jun-2015 15:05:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619025.D

Injection Date:	19-Jun-2015 22:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-C-15	Lab Sample ID:	180-45088-15	Worklist Smp#:	25
Client ID:	HD-COD-SW-28-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

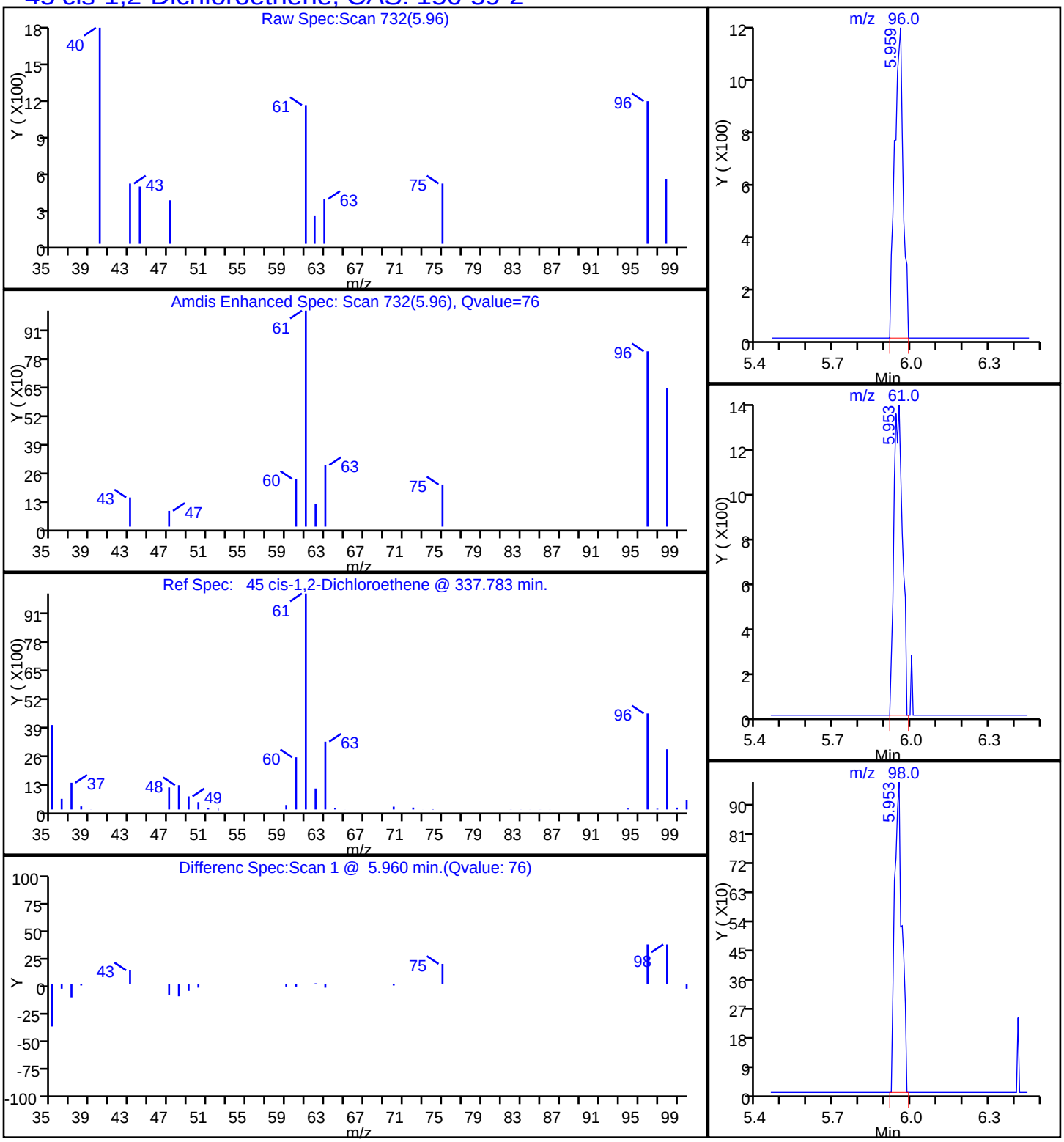
Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619025.D				
Injection Date:	19-Jun-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-15	Lab Sample ID:	180-45088-15		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	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		

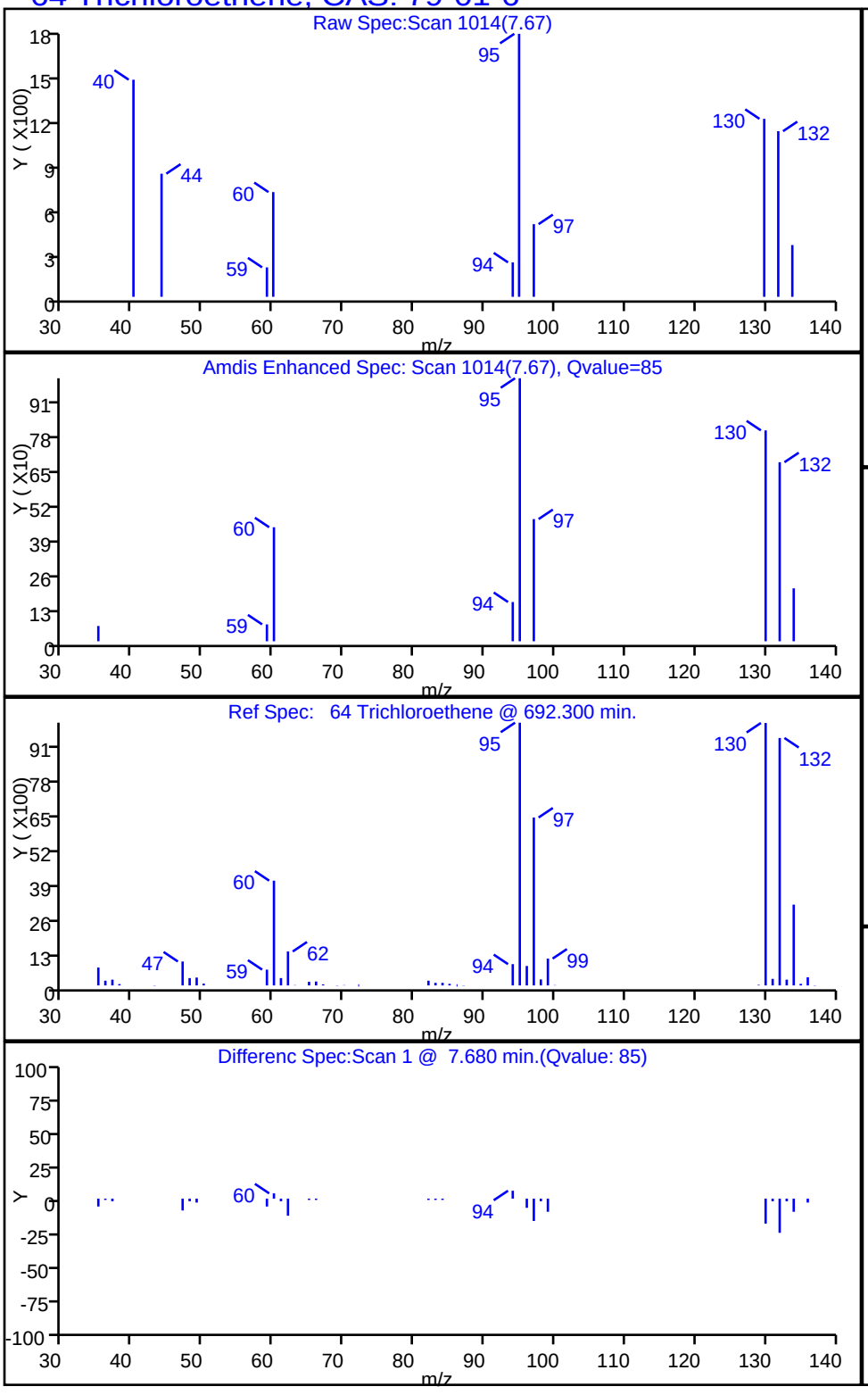
45 cis-1,2-Dichloroethene, CAS: 156-59-2

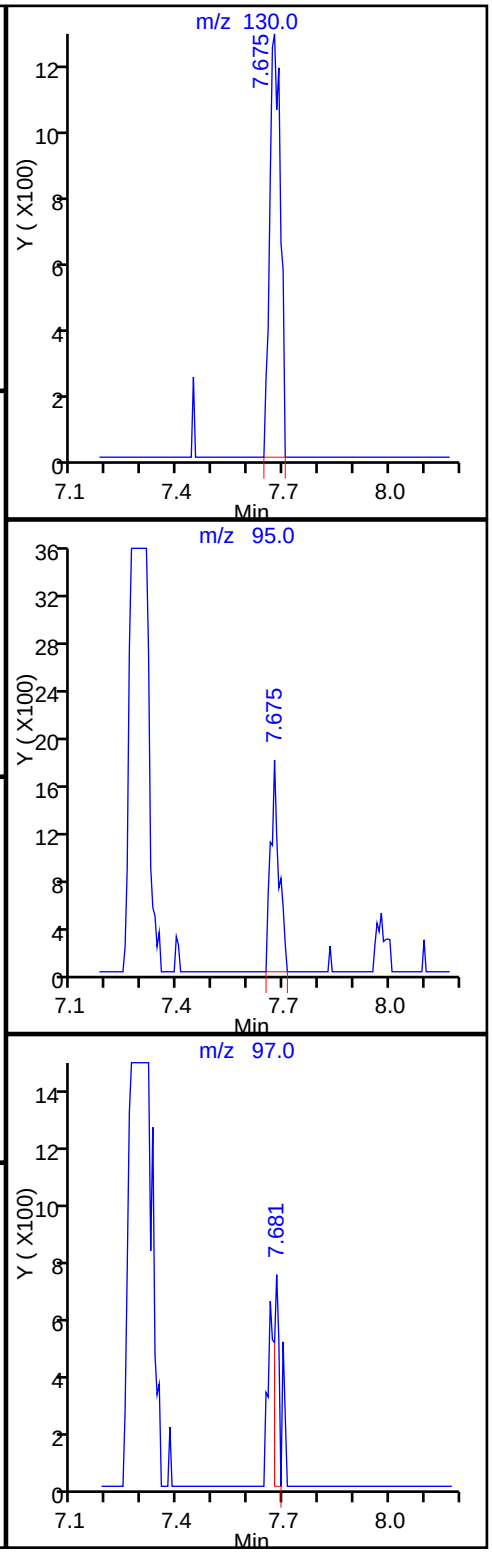


TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619025.D				
Injection Date:	19-Jun-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-15	Lab Sample ID:	180-45088-15		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6





Report Date: 21-Jun-2015 15:05:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619025.D

Injection Date: 19-Jun-2015 22:33:30 Instrument ID: CHHP5

Lims ID: 180-45088-C-15 Lab Sample ID: 180-45088-15

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

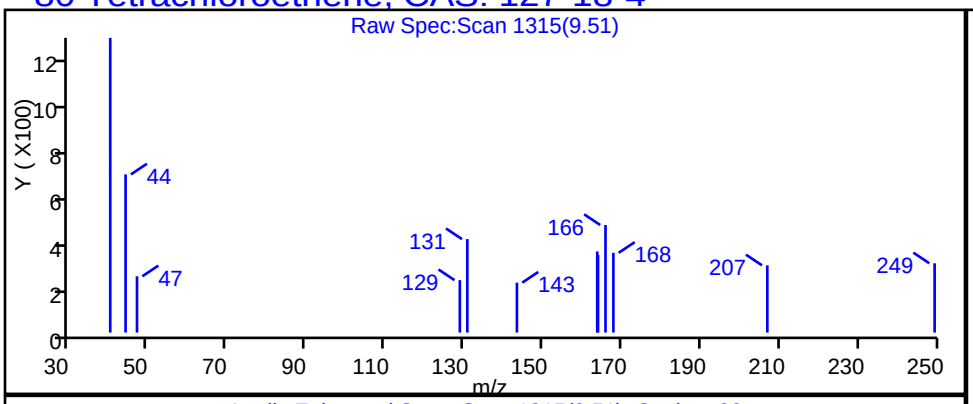
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 25

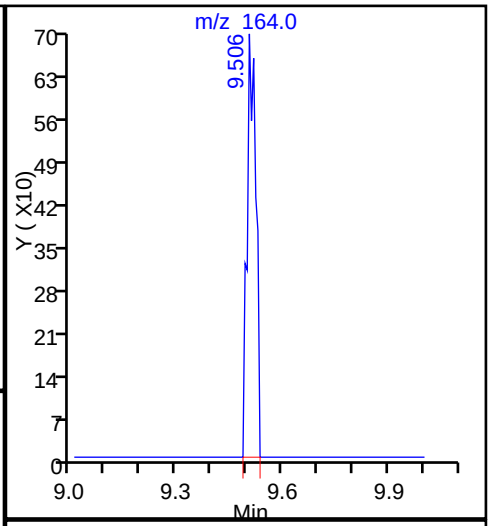
Purge Vol: 5.000 mL Dil. Factor: 1.0000

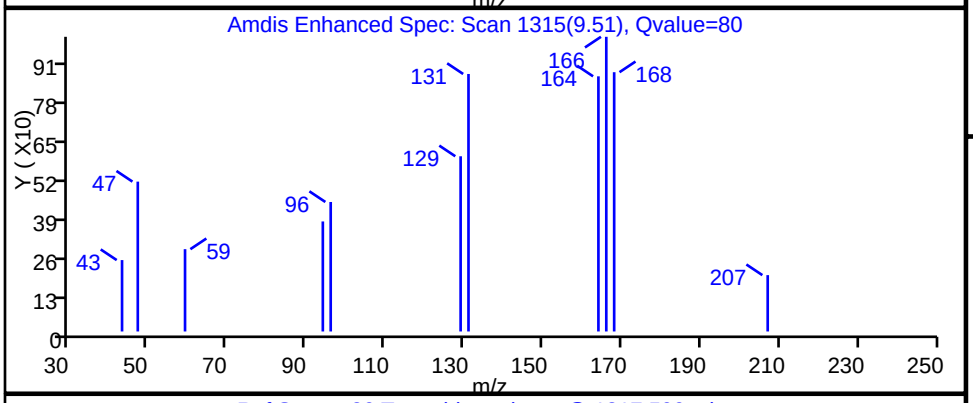
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

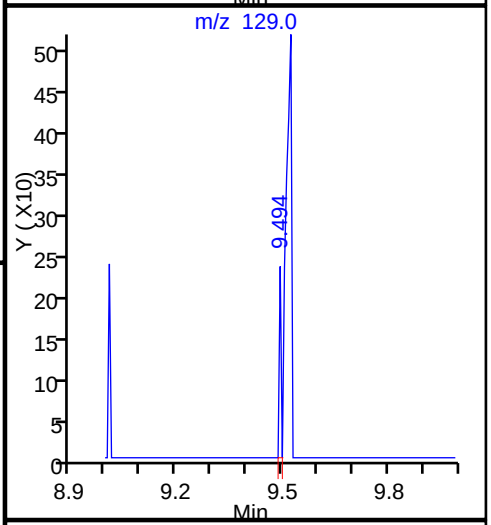
Column: DB-624 (0.18 mm) Detector MS SCAN

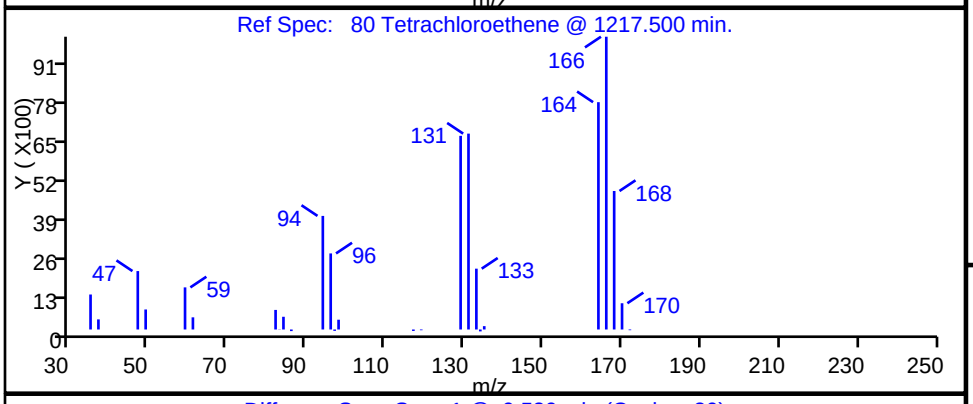
80 Tetrachloroethene, CAS: 127-18-4

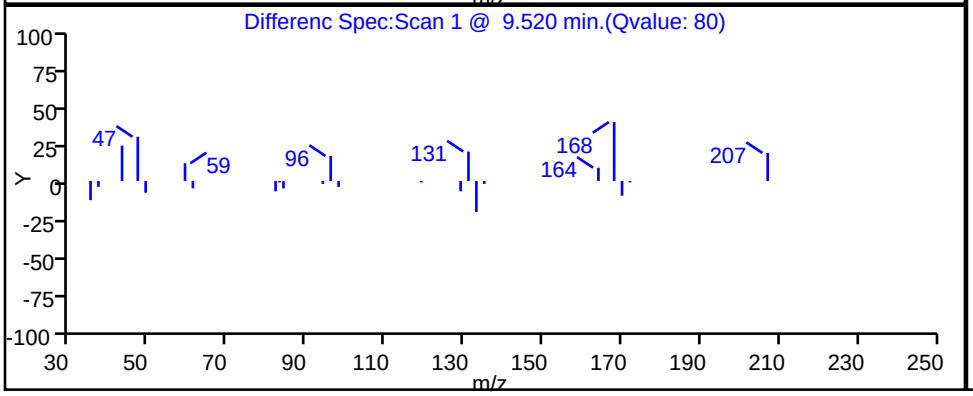


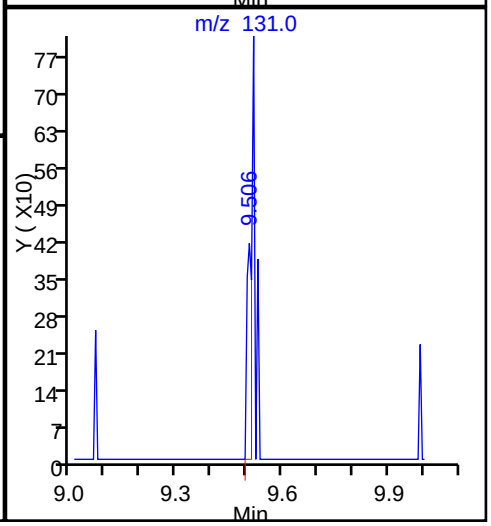












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 | Lab Sample ID: 180-45088-16

Matrix: Water | Lab File ID: 50619026.D

Analysis Method: 8260C | Date Collected: 06/15/2015 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 22:56

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.21	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 | Lab Sample ID: 180-45088-16

Matrix: Water | Lab File ID: 50619026.D

Analysis Method: 8260C | Date Collected: 06/15/2015 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 22:56

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.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	90		71-118
460-00-4	4-Bromofluorobenzene (Surr)	85		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619026.D
Lims ID: 180-45088-C-16 Lab Sample ID: 180-45088-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 19-Jun-2015 22:56:30 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-C-16
Misc. Info.: 180-0007474-026
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:34:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.265	-0.002	0	103543	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.289	-0.002	98	334780	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.385	0.004	89	79463	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.727	-0.002	99	101305	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.563	6.559	0.004	92	85129	54.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.930	0.004	0	126701	56.2	
$ 7 Toluene-d8 (Surr)	98	8.935	8.931	0.004	94	297789	45.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.570	11.572	-0.002	87	103111	42.5	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.454	3.438	0.016	96	6183	11.1	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.955	5.944	0.011	74	2300	1.08	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.374	6.376	-0.002	1	703	0.1984	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.676	7.672	0.004	92	2062	1.04	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.513	9.515	-0.002	78	649	0.3995	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

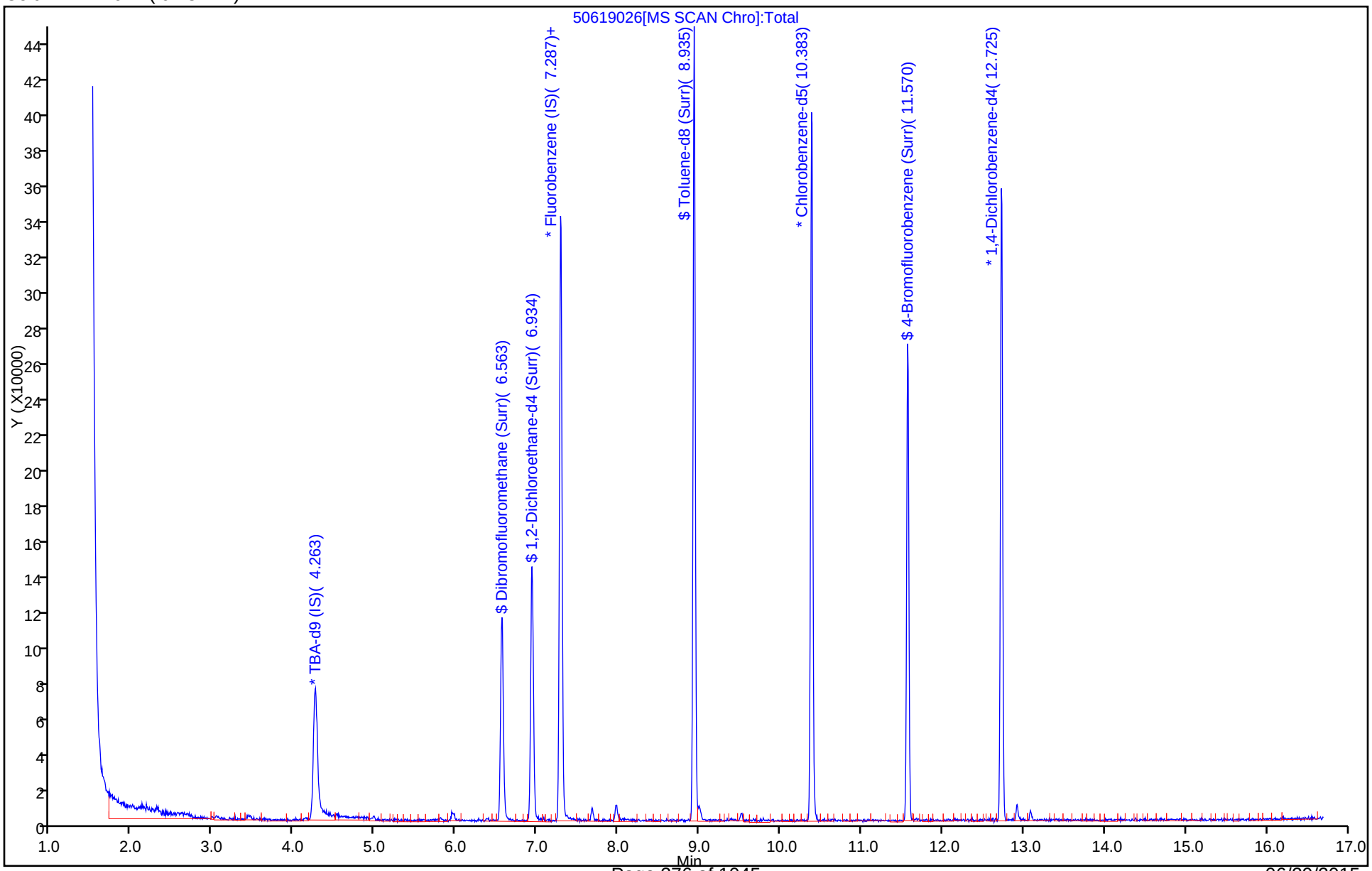
Report Date: 21-Jun-2015 15:05:15 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619026.D

Injection Date:	19-Jun-2015 22:56:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-C-16	Lab Sample ID:	180-45088-16	Worklist Smp#:	26
Client ID:	HD-COD-SW-29-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

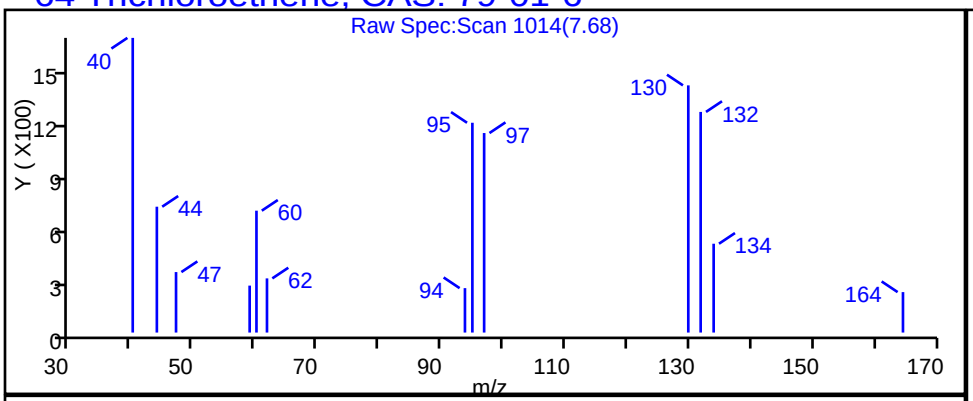
Column: DB-624 (0.18 mm)

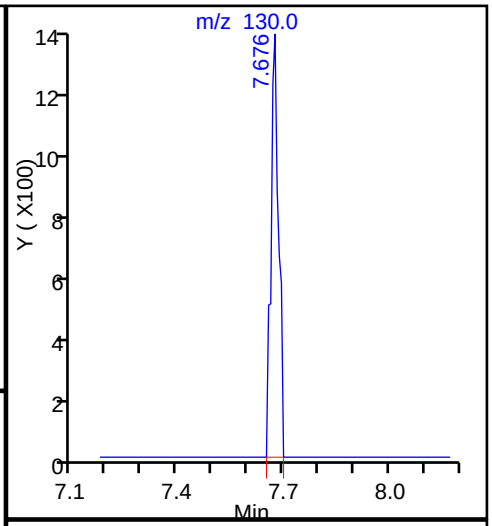


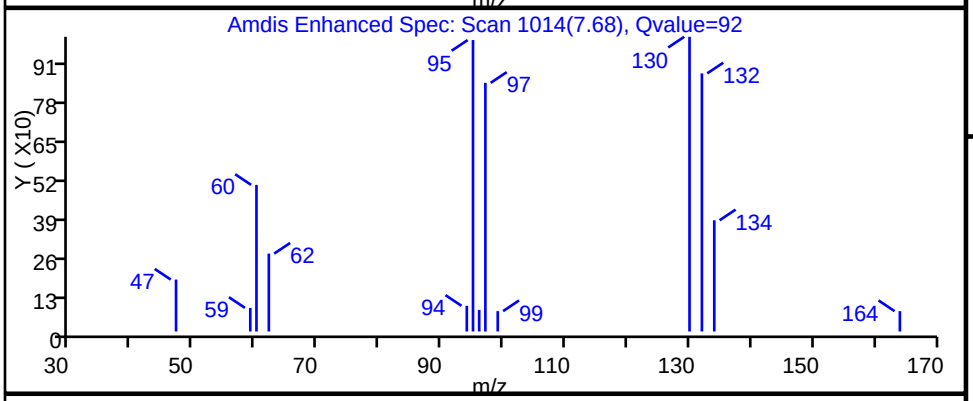
TestAmerica Pittsburgh

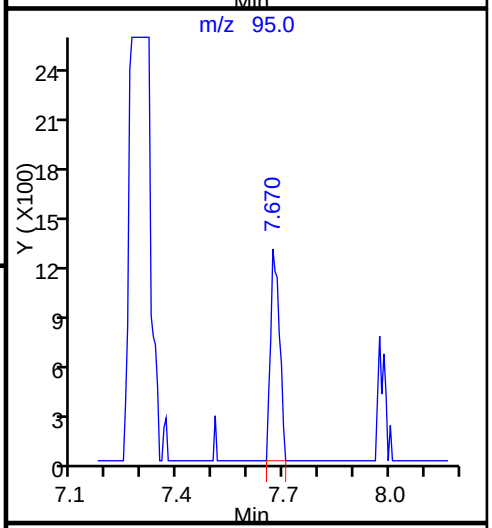
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619026.D
Injection Date: 19-Jun-2015 22:56:30 Instrument ID: CHHP5
Lims ID: 180-45088-C-16 Lab Sample ID: 180-45088-16
Client ID: HD-COD-SW-29-0/1-0
Operator ID: 001562 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

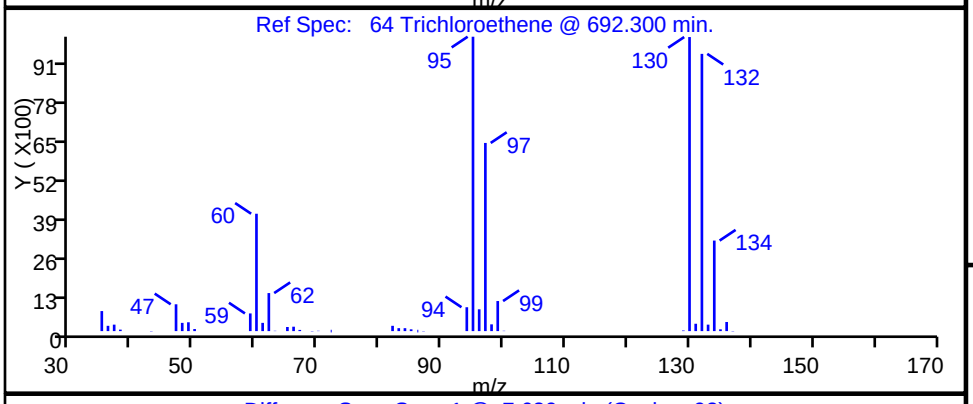
64 Trichloroethene, CAS: 79-01-6

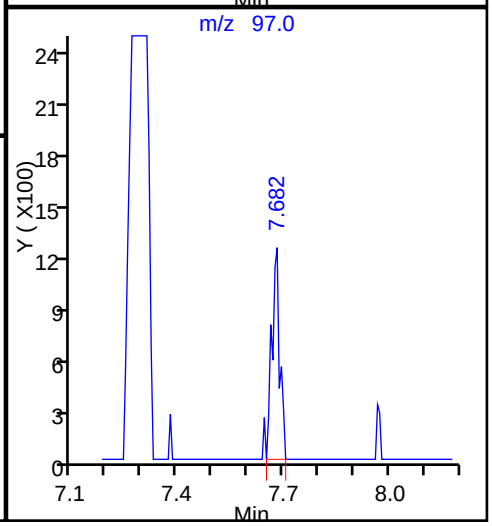


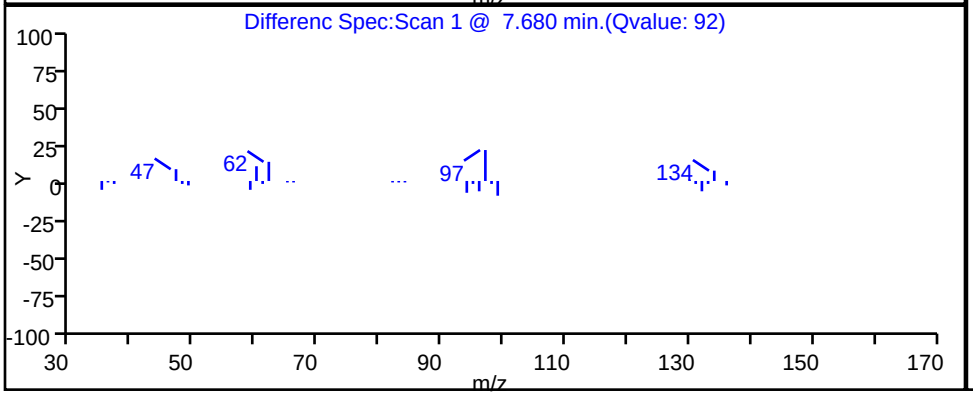












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 | Lab Sample ID: 180-45088-17

Matrix: Water | Lab File ID: 50619027.D

Analysis Method: 8260C | Date Collected: 06/15/2015 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 23:20

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.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	0.49	J	1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.25	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.53	J	1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	9.5		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	6.1		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 | Lab Sample ID: 180-45088-17

Matrix: Water | Lab File ID: 50619027.D

Analysis Method: 8260C | Date Collected: 06/15/2015 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 23:20

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.: 145590 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D
Lims ID: 180-45088-C-17 Lab Sample ID: 180-45088-17
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 19-Jun-2015 23:20:30 ALS Bottle#: 27 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-C-17
Misc. Info.: 180-0007474-027
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 15:02:25 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:35:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.269	4.265	0.004	0	122716	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	98	322294	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.385	0.004	85	71927	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.727	-0.002	98	97625	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.559	0.003	93	79796	53.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.930	-0.003	0	118239	54.5	
$ 7 Toluene-d8 (Surr)	98	8.935	8.931	0.004	94	286898	48.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	85	97558	44.4	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.893				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.392				ND	
22 1,1-Dichloroethene	96	3.350	3.347	0.003	93	4446	2.44	
24 Acetone	43	3.447	3.438	0.009	86	6479	12.1	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.515				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96	5.954	5.944	0.010	83	114258	55.6	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.386	6.376	0.010	90	4217	1.24	
53 1,1,1-Trichloroethane	97	6.538	6.541	-0.003	66	6747	2.63	
56 Carbon tetrachloride	117		6.711				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130	7.682	7.672	0.010	97	91077	47.5	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.442				ND	
80 Tetrachloroethene	164	9.513	9.515	-0.002	95	45091	30.7	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.507				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.647				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

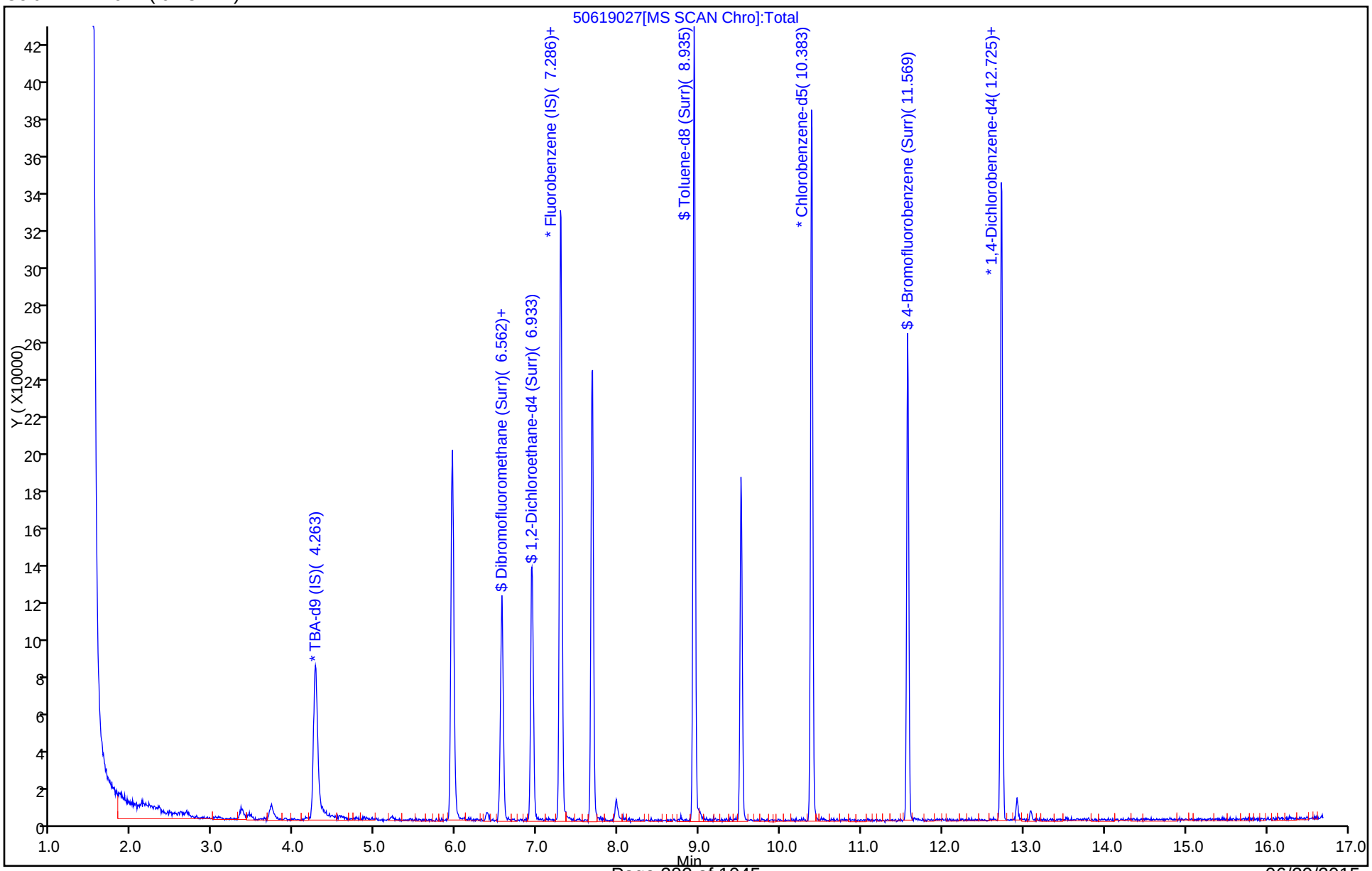
Report Date: 21-Jun-2015 15:05:14 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D

Injection Date:	19-Jun-2015 23:20:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-45088-C-17	Lab Sample ID:	180-45088-17	Worklist Smp#:	27
Client ID:	HD-QC1-0/1-1				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



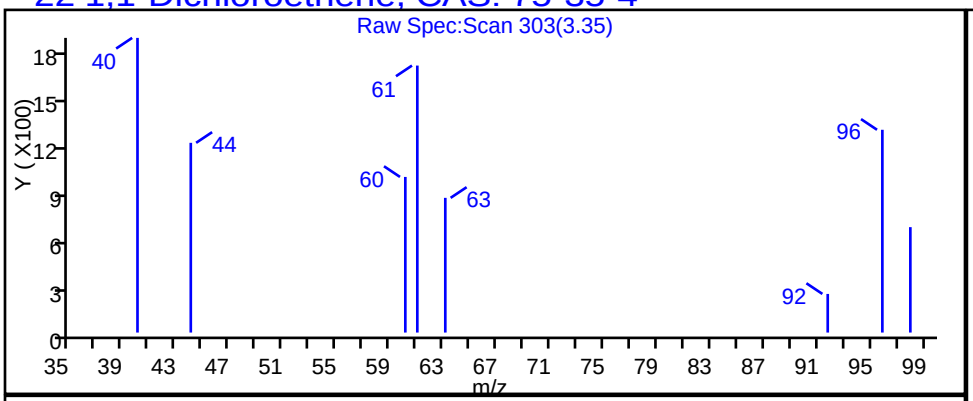
Report Date: 21-Jun-2015 15:05:15 Chrom Revision: 2.2 05-May-2015 11:39:10

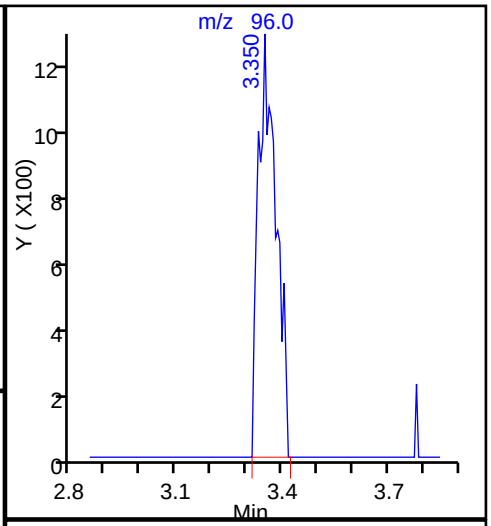
TestAmerica Pittsburgh

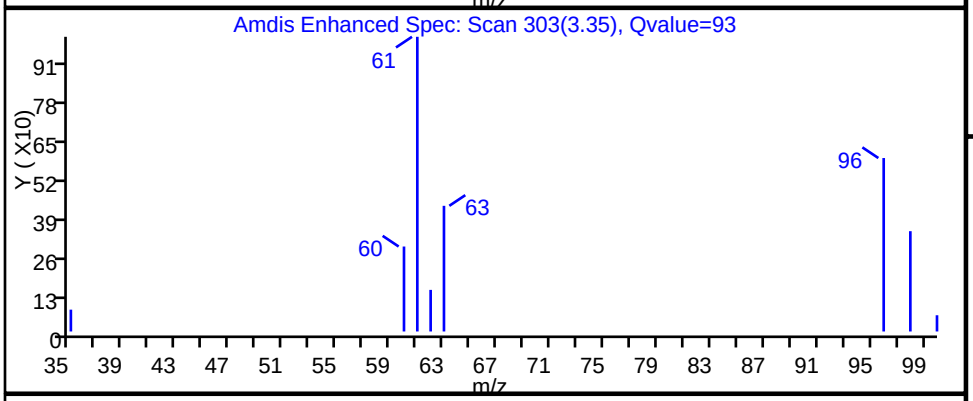
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D

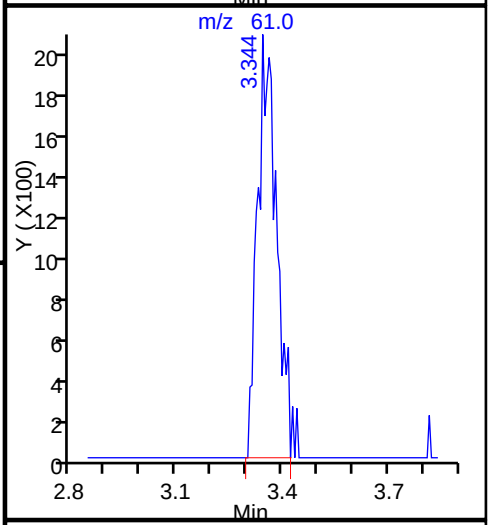
Injection Date:	19-Jun-2015 23:20:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-17	Lab Sample ID:	180-45088-17		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

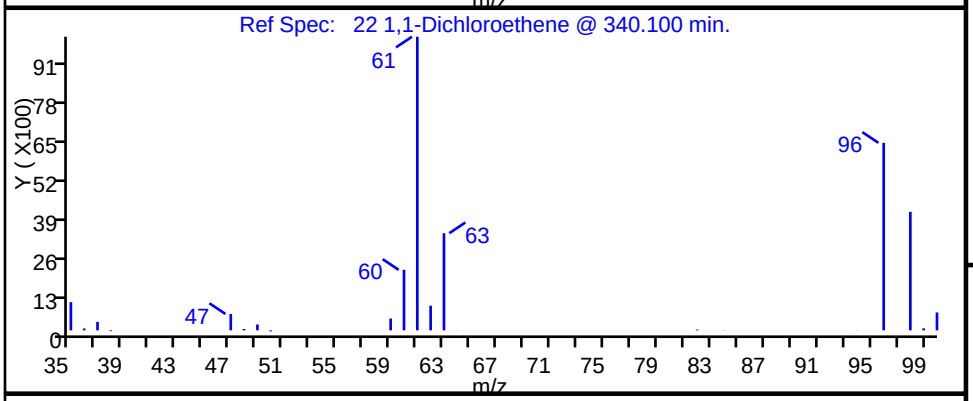
22 1,1-Dichloroethene, CAS: 75-35-4

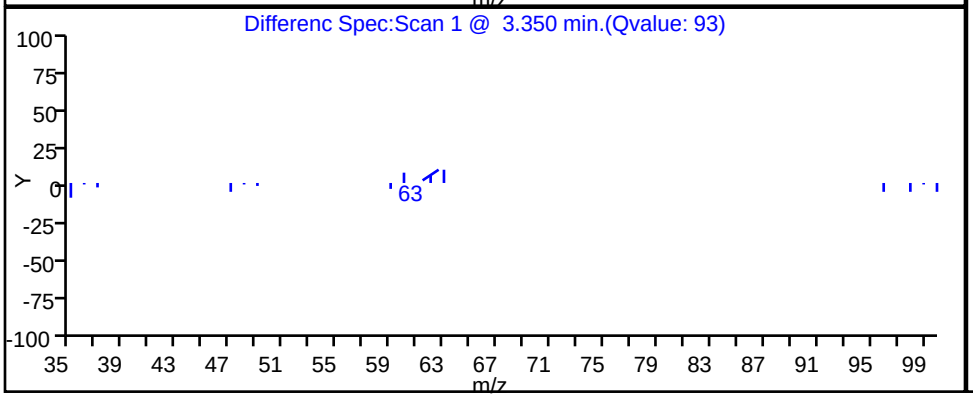


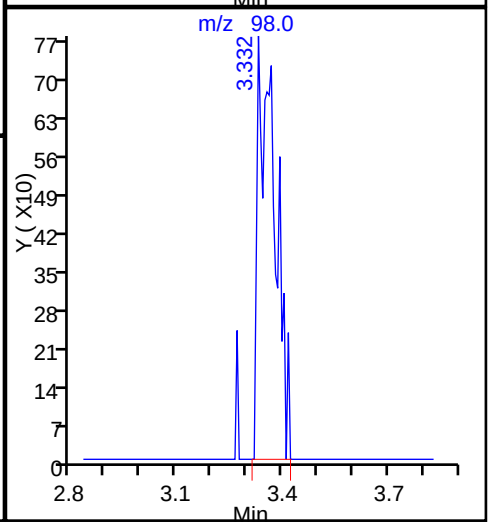












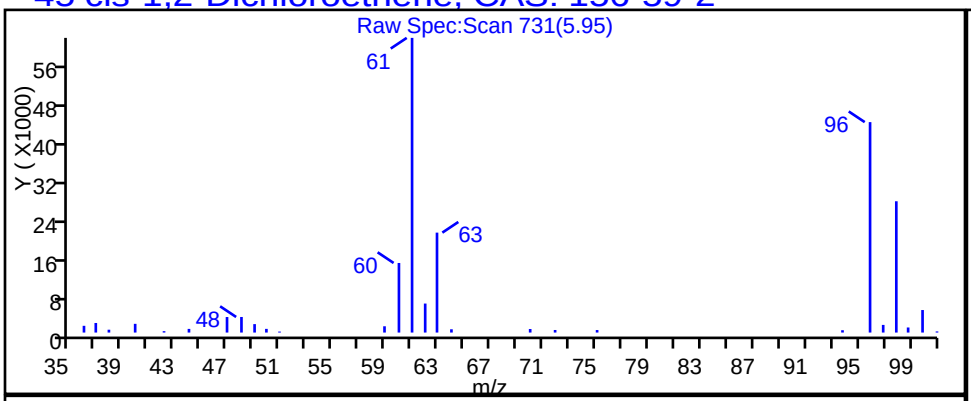
Report Date: 21-Jun-2015 15:05:15 Chrom Revision: 2.2 05-May-2015 11:39:10

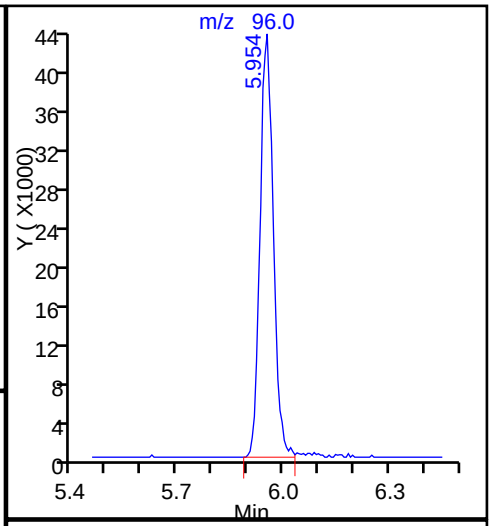
TestAmerica Pittsburgh

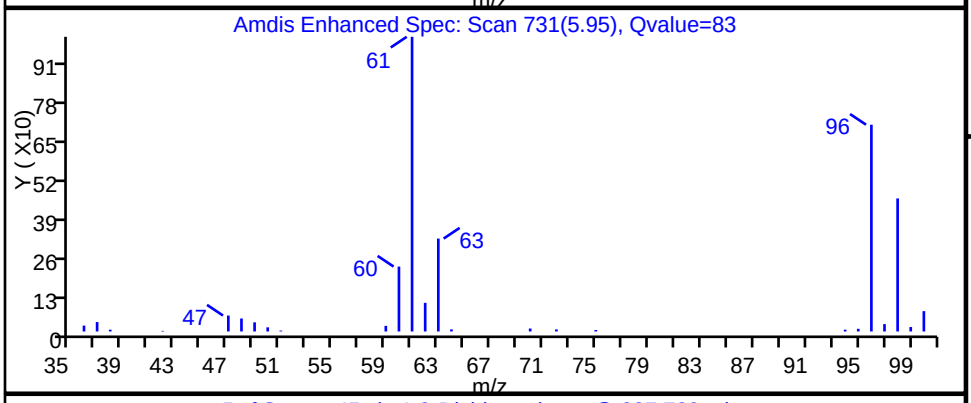
Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D

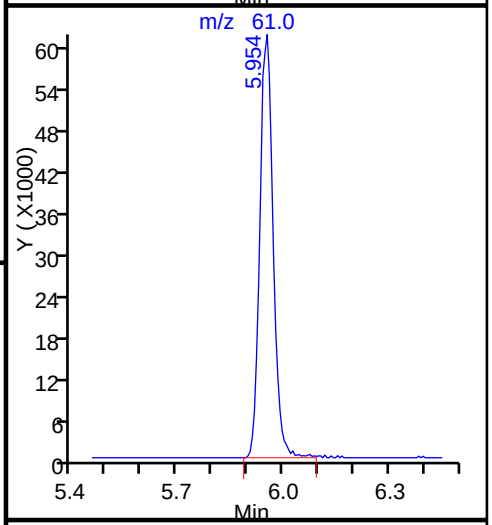
Injection Date:	19-Jun-2015 23:20:30	Instrument ID:	CHHP5
Lims ID:	180-45088-C-17	Lab Sample ID:	180-45088-17
Client ID:	HD-QC1-0/1-1		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

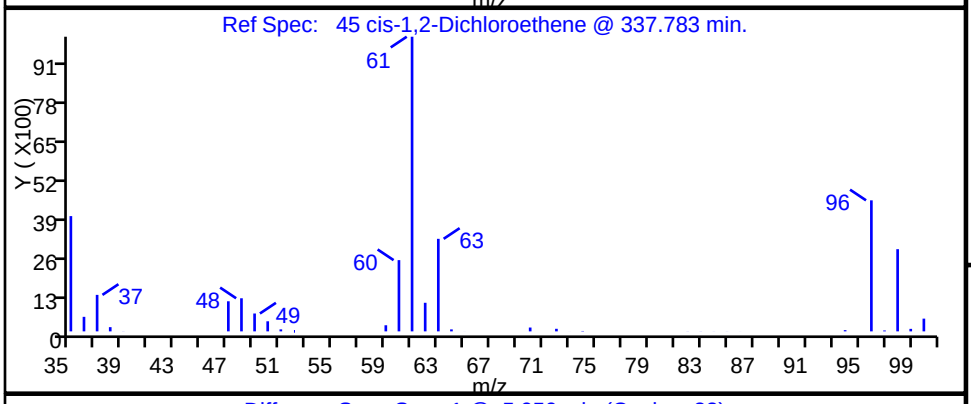
45 cis-1,2-Dichloroethene, CAS: 156-59-2

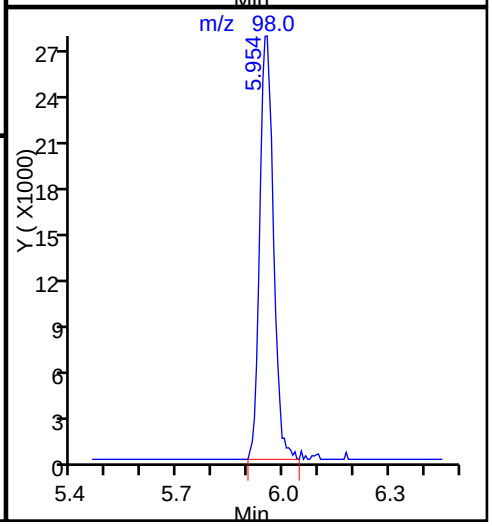


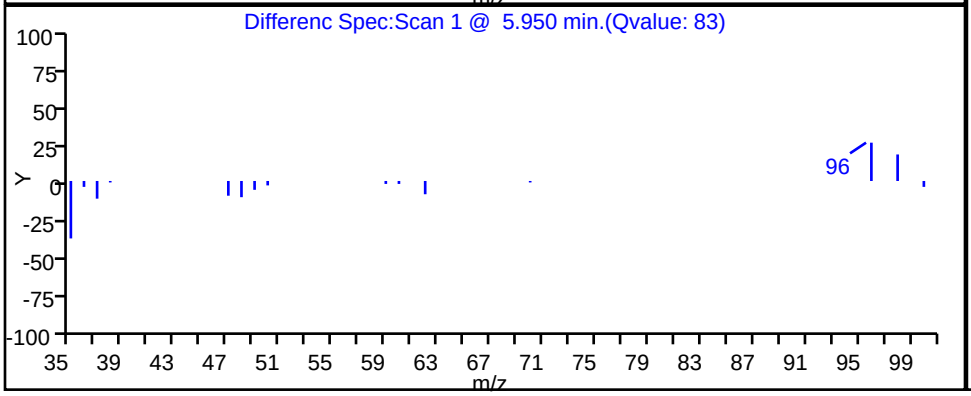








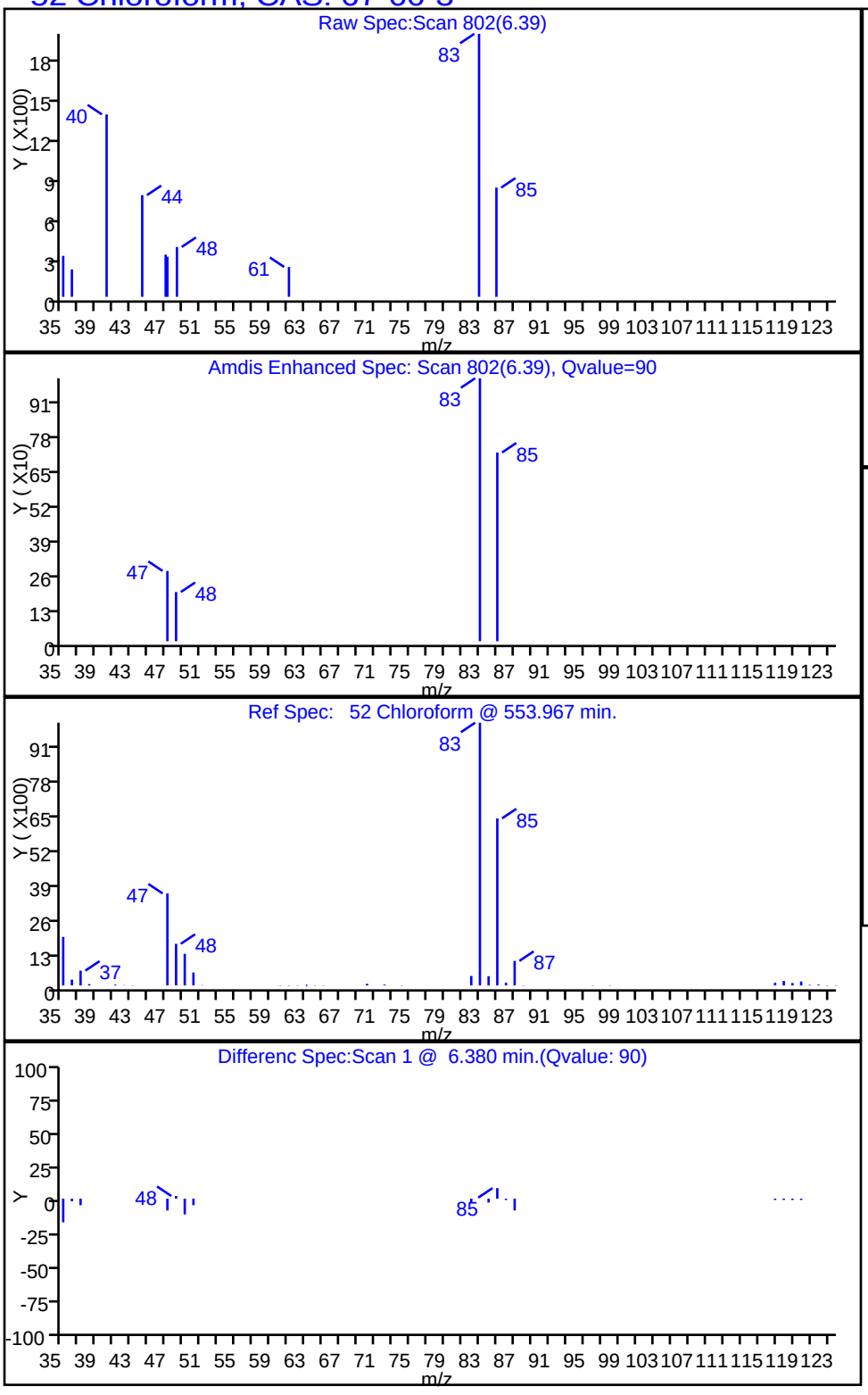


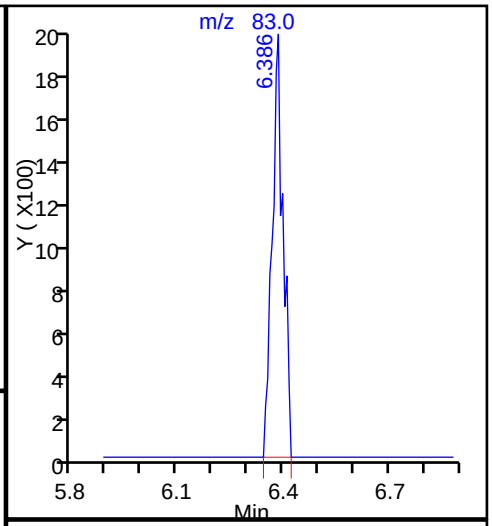


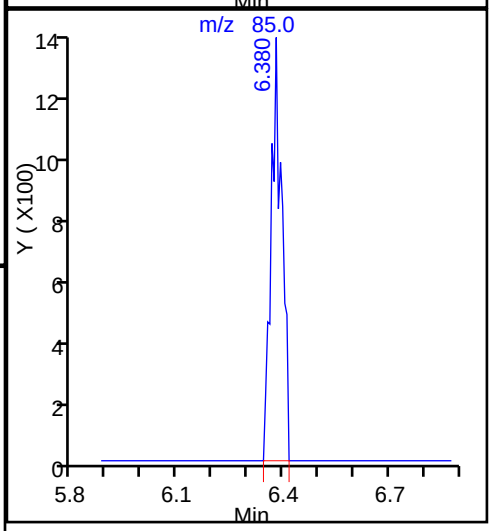
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D				
Injection Date:	19-Jun-2015 23:20:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-17	Lab Sample ID:	180-45088-17		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
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



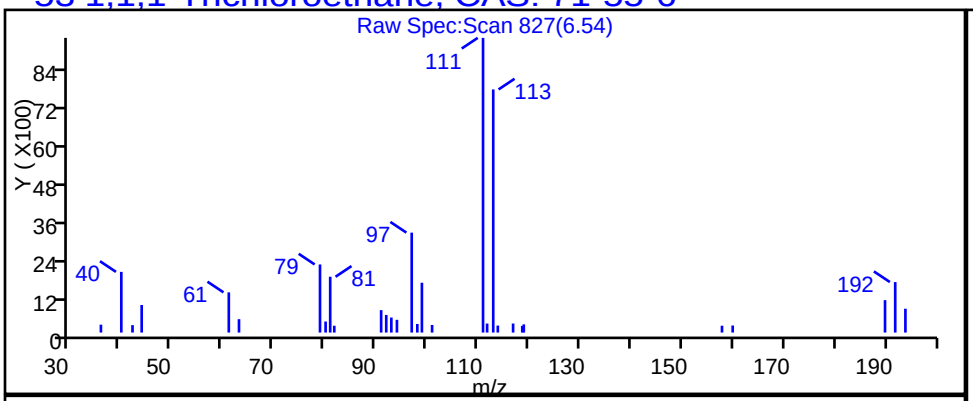


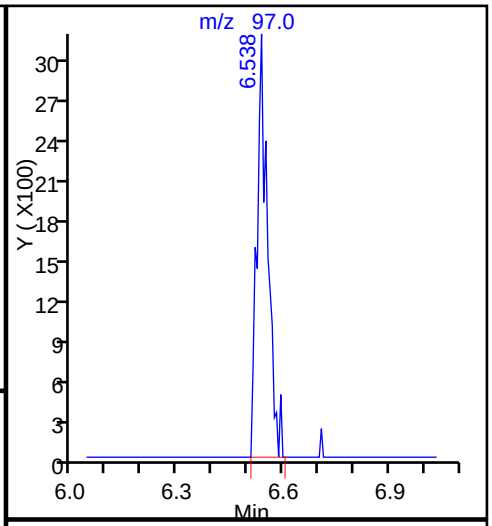


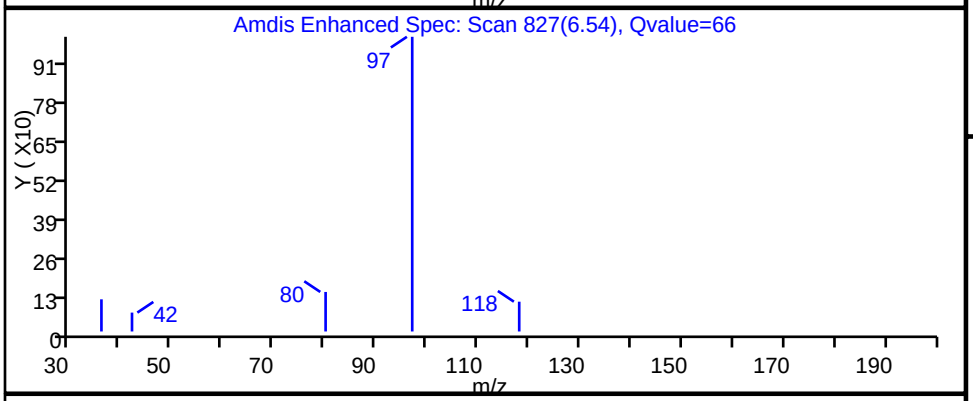
TestAmerica Pittsburgh

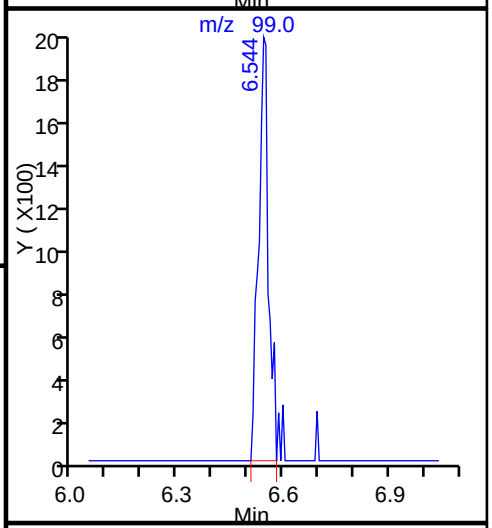
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D				
Injection Date:	19-Jun-2015 23:20:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-17	Lab Sample ID:	180-45088-17		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

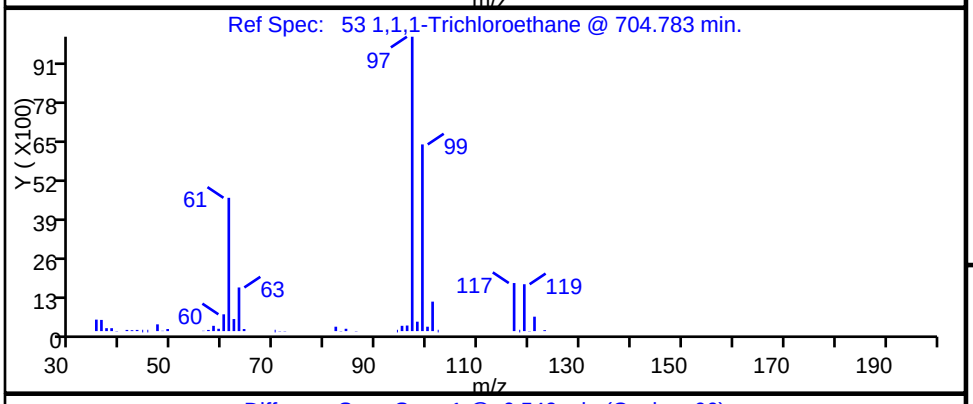
53 1,1,1-Trichloroethane, CAS: 71-55-6

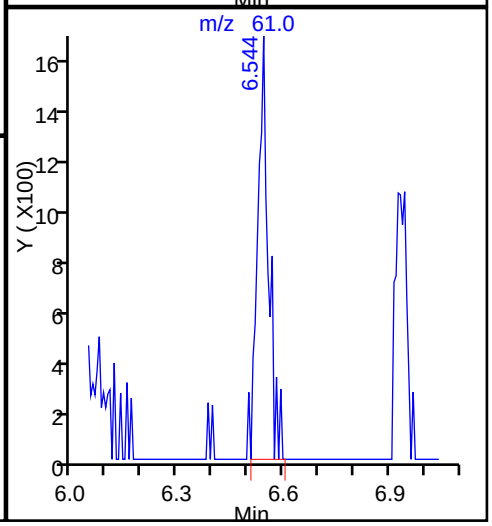


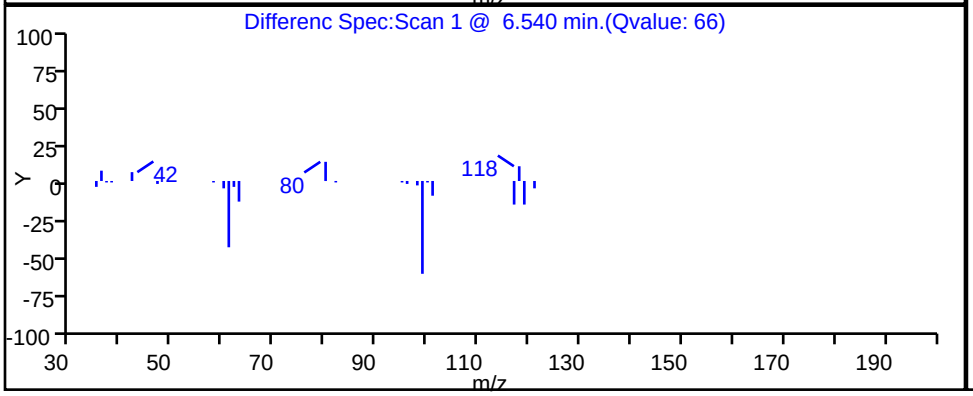












Report Date: 21-Jun-2015 15:05:15 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D

Injection Date: 19-Jun-2015 23:20:30 Instrument ID: CHHP5

Lims ID: 180-45088-C-17 Lab Sample ID: 180-45088-17

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

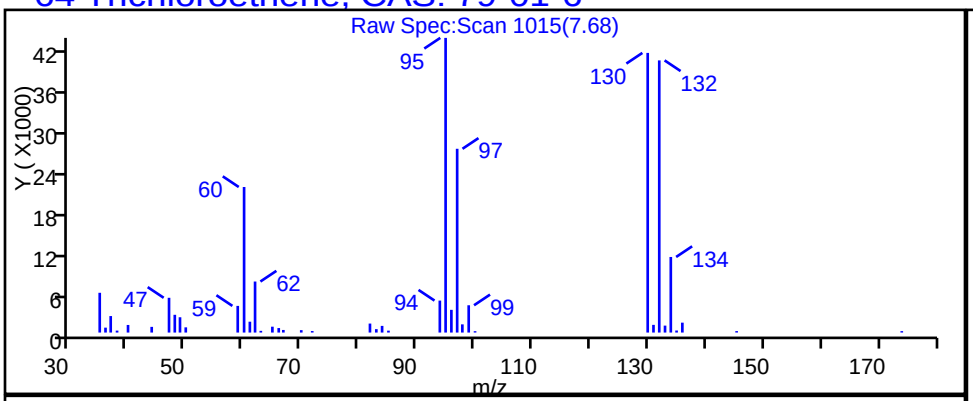
Operator ID: 001562 ALS Bottle#: 27 Worklist Smp#: 27

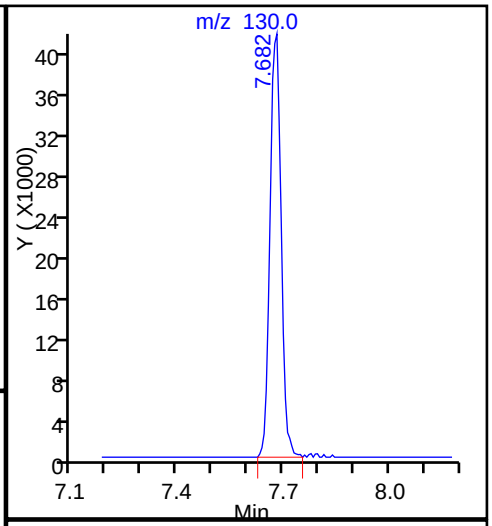
Purge Vol: 5.000 mL Dil. Factor: 1.0000

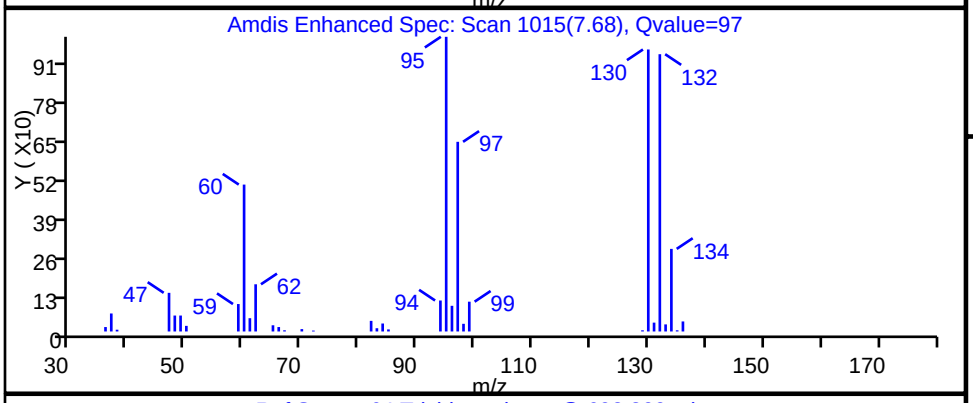
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

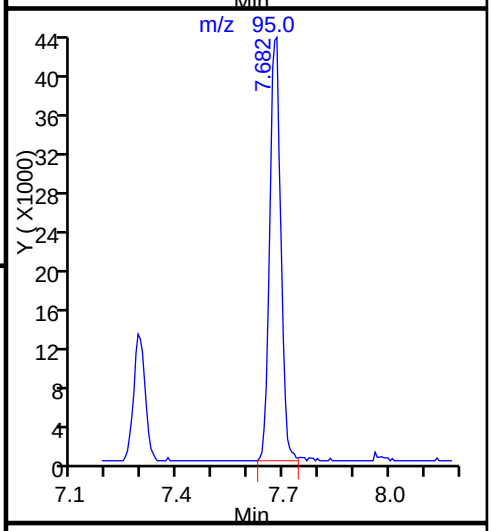
Column: DB-624 (0.18 mm) Detector MS SCAN

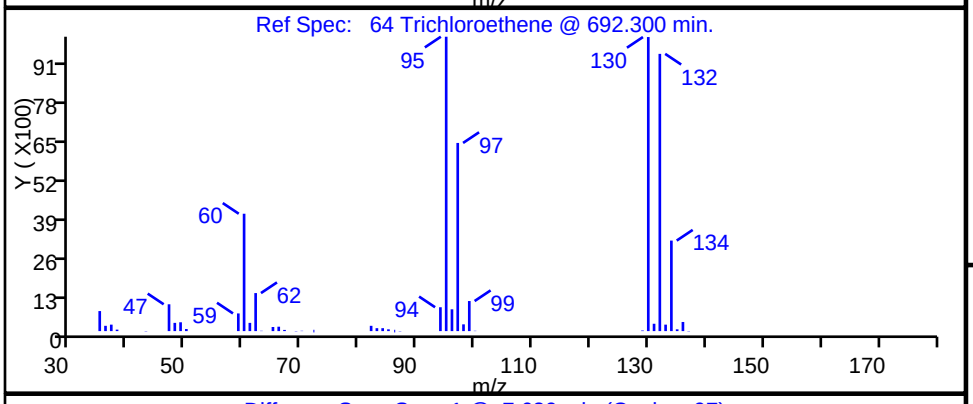
64 Trichloroethene, CAS: 79-01-6

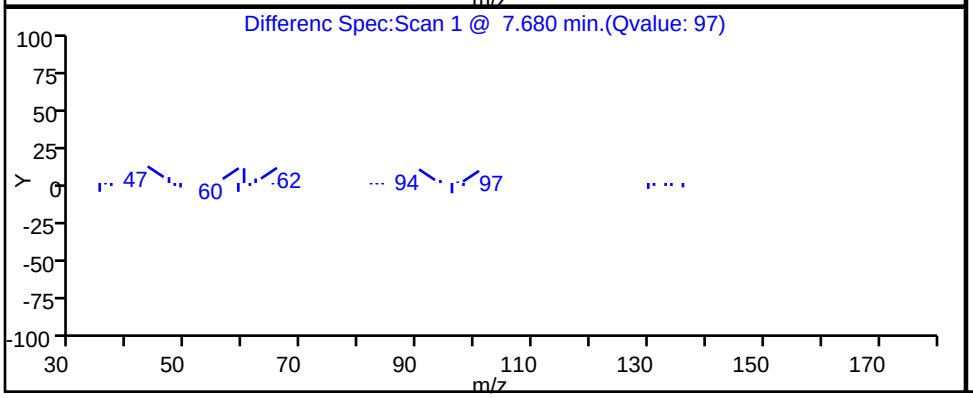


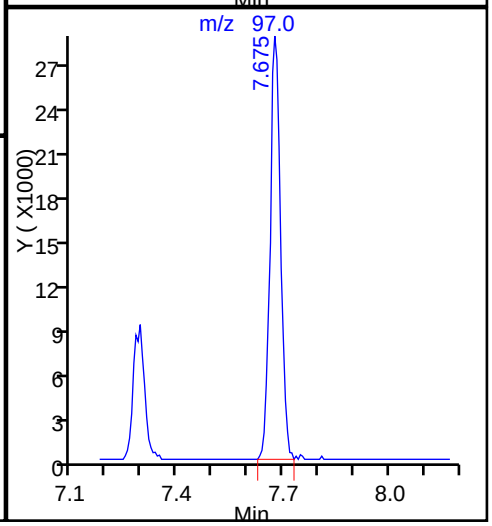








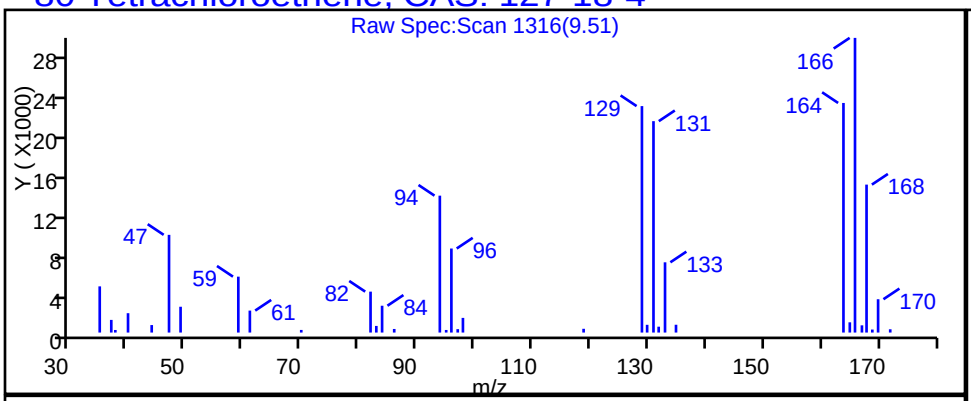


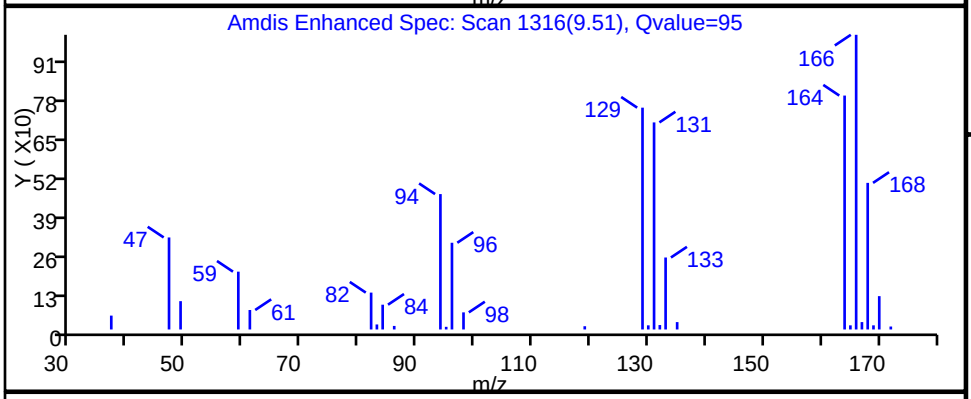


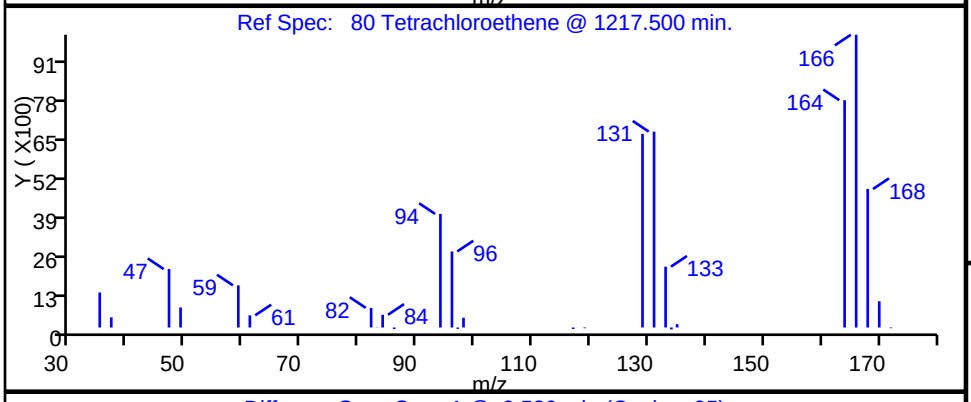
TestAmerica Pittsburgh

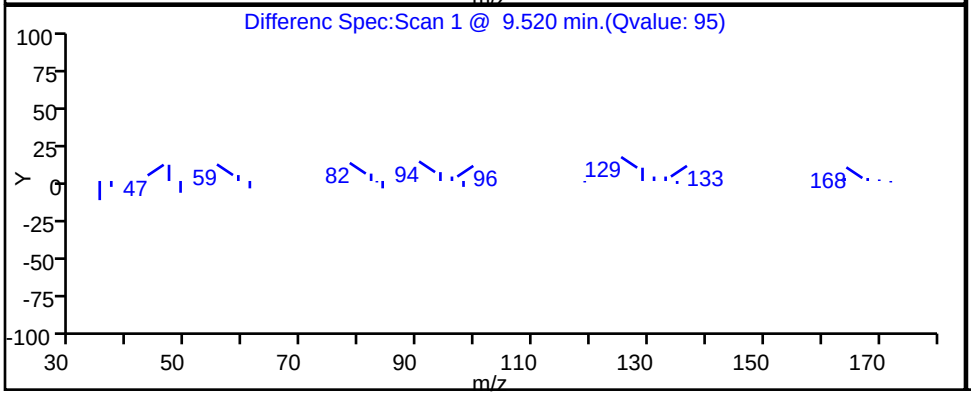
Data File:	\\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619027.D				
Injection Date:	19-Jun-2015 23:20:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-C-17	Lab Sample ID:	180-45088-17		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

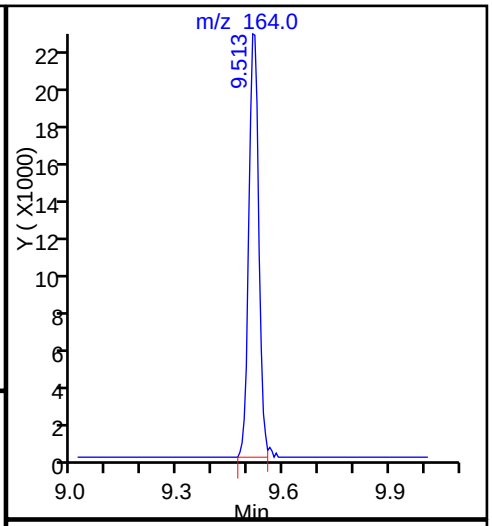
80 Tetrachloroethene, CAS: 127-18-4

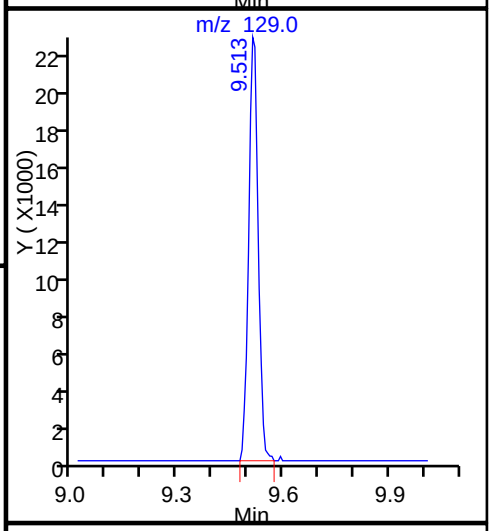


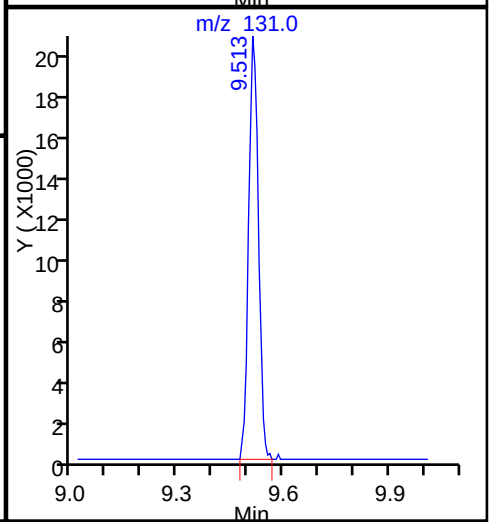












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 | Lab Sample ID: 180-45088-18

Matrix: Water | Lab File ID: 50629009.D

Analysis Method: 8260C | Date Collected: 06/15/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 13:06

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND	^c	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.17	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 | Lab Sample ID: 180-45088-18

Matrix: Water | Lab File ID: 50629009.D

Analysis Method: 8260C | Date Collected: 06/15/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 13:06

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	110		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629009.D
Lims ID: 180-45088-B-18 Lab Sample ID: 180-45088-18
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 22-Jun-2015 13:06:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-B-18
Misc. Info.: 180-0007492-009
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 16:15:01 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 16:15:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.248	0.026	0	137125	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	97	403833	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.387	0.001	89	88444	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.729	0.001	97	95610	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.560	0.008	93	99379	52.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.937	0.002	0	136629	50.3	
$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	95	343914	46.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.573	-0.005	87	148463	55.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.241				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.197				ND	
45 cis-1,2-Dichloroethene	96		5.945				ND	
46 2-Butanone (MEK)	43		5.958				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83	6.385	6.383	0.002	91	3734	0.8735	
53 1,1,1-Trichloroethane	97		6.536				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130		7.679				ND	
67 1,2-Dichloropropane	63		7.953				ND	
70 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.227				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.249				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164		9.516				ND	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.814				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.417				ND	
90 Ethylbenzene	106		10.514				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

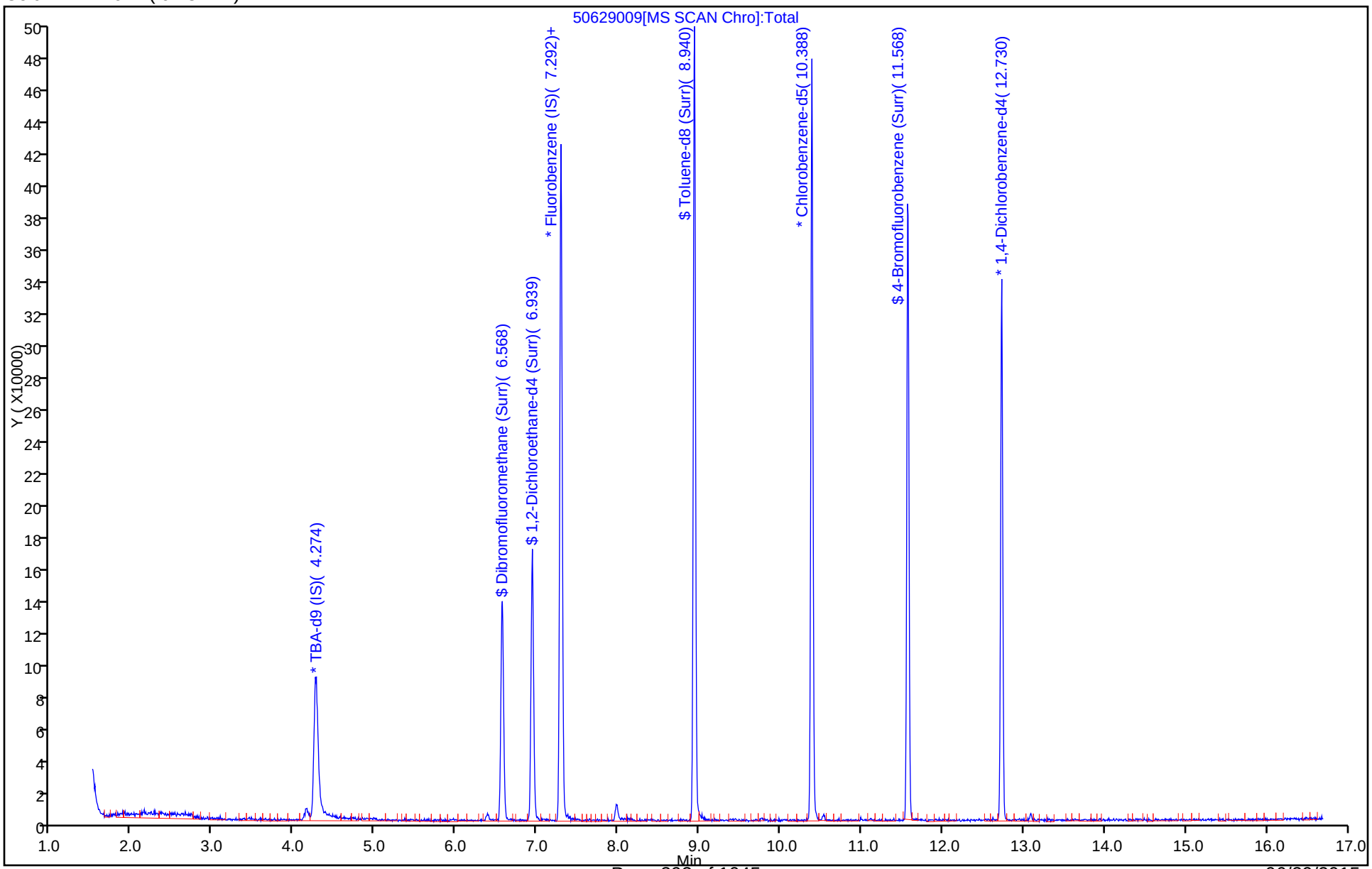
Report Date: 22-Jun-2015 16:16:18 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629009.D

Injection Date:	22-Jun-2015 13:06:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-45088-B-18	Lab Sample ID:	180-45088-18	Worklist Smp#:	9
Client ID:	HD-QC1-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

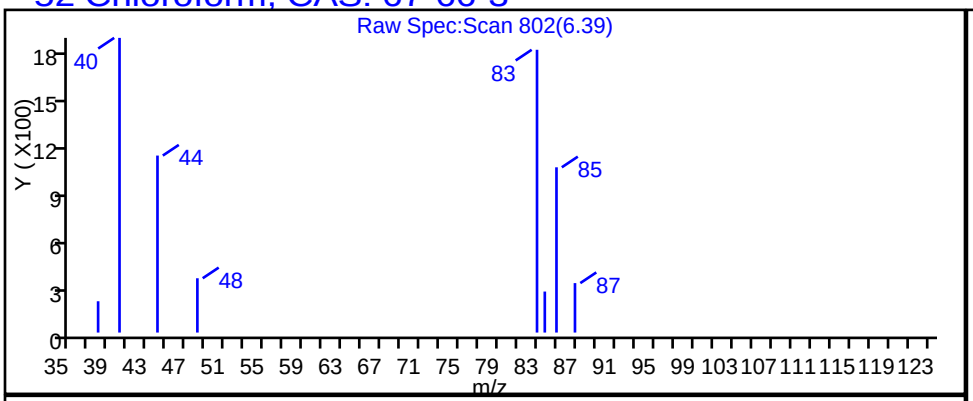
Column: DB-624 (0.18 mm)

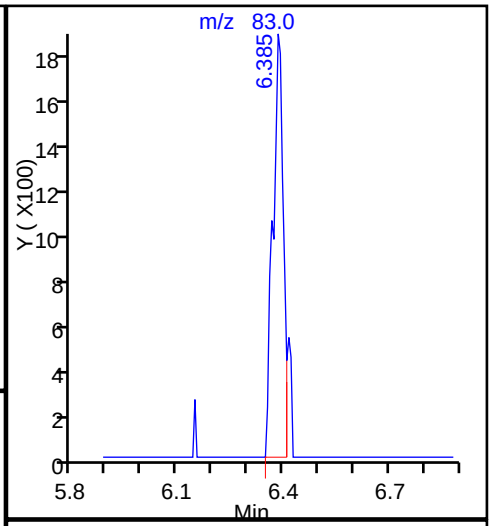


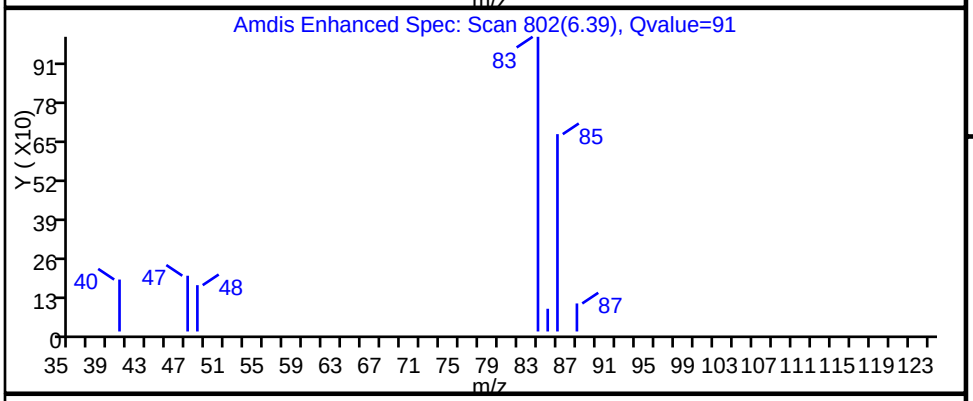
TestAmerica Pittsburgh

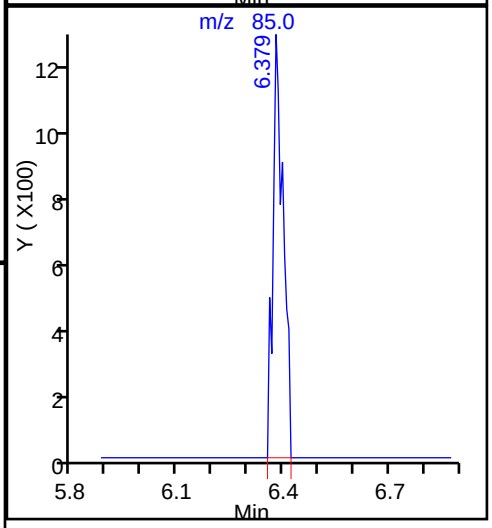
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629009.D				
Injection Date:	22-Jun-2015 13:06:30	Instrument ID:	CHHP5		
Lims ID:	180-45088-B-18	Lab Sample ID:	180-45088-18		
Client ID:	HD-QC1-0/1-2				
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

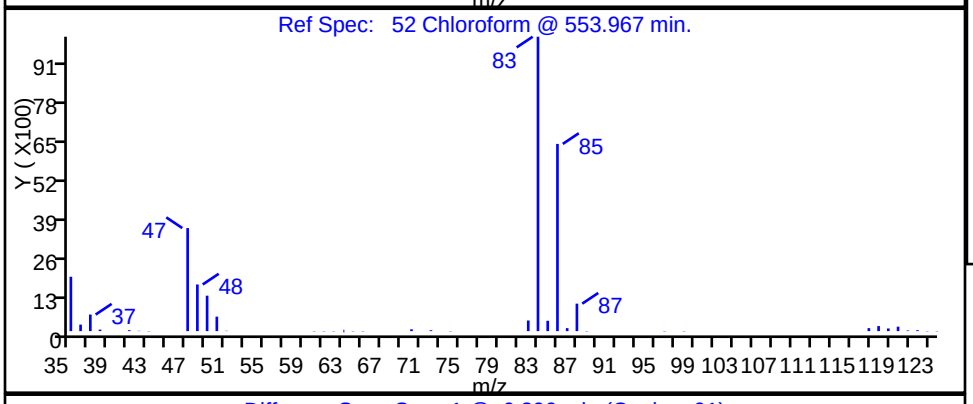
52 Chloroform, CAS: 67-66-3

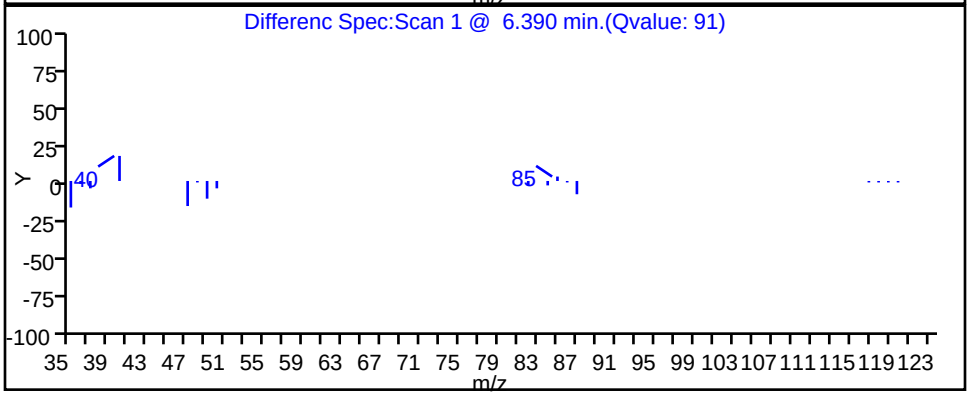












FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-145277/17	50617017.D
Level 2	IC 180-145277/6	50617006.D
Level 3	ICIS 180-145277/7	50617007.D
Level 4	IC 180-145277/8	50617008.D
Level 5	IC 180-145277/9	50617009.D
Level 6	IC 180-145277/10	50617010.D
Level 7	IC 180-145277/11	50617011.D
Level 8	IC 180-145277/12	50617012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3789 0.3100	0.3397 0.3123	0.3567 0.3214	0.3386	0.3381	Ave		0.3369			0.1000	6.9		20.0			
Chloromethane	0.4464 0.3589	0.3920 0.3334	0.3998 0.3567	0.3687	0.3787	Ave		0.3794			0.1000	9.0		20.0			
Vinyl chloride	0.4461 0.3532	0.3931 0.3424	0.3978 0.3601	0.3760	0.3935	Ave		0.3828			0.1000	8.6		20.0			
1,3-Butadiene	0.4750 0.3768	0.4405 0.3575	0.4465 0.3761	0.3985	0.4119	Ave		0.4104			0.0100	9.9		20.0			
Bromomethane	0.2589 0.1745	0.1921 0.1584	0.1857 0.1604	0.1817	0.1776	Ave		0.1862			0.0500	17.0		20.0			
Chloroethane	0.2728 0.2170	0.2356 0.2014	0.2388 0.2148	0.2266	0.2370	Ave		0.2305			0.0500	9.3		20.0			
Dichlorofluoromethane	0.6038 0.4745	0.5399 0.4570	0.5300 0.4671	0.4963	0.5114	Ave		0.5100			0.0100	9.4		20.0			
Trichlorofluoromethane	0.4417 0.4024	0.4212 0.3824	0.4475 0.3856	0.4183	0.4311	Ave		0.4163			0.1000	5.9		20.0			
Ethyl ether	0.3314 0.2827	0.2975 0.2744	0.2827 0.2725	0.2796	0.2814	Ave		0.2878			0.0100	6.7		20.0			
Acrolein	0.0551 0.0570	0.0549 0.0581	0.0537 0.0554	0.0548	0.0526	Ave		0.0552			0.0100	3.1		20.0			
1,1-Dichloroethene	0.3231 0.2711	0.2838 0.2613	0.2843 0.2742	0.2732	0.2942	Ave		0.2832			0.1000	6.7		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3364 0.2866	0.2910 0.2741	0.3113 0.2914	0.2934	0.3073	Ave		0.2989			0.1000	6.4		20.0			
Acetone	0.1145 0.0795	0.0822 0.0801	0.0809 0.0733	0.0788	0.0733	Ave		0.0828			0.0500	16.0		20.0			
Iodomethane	0.4382 0.3770	0.3846 0.3686	0.3914 0.3901	0.3883	0.3926	Ave		0.3913			0.0100	5.3		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.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.6643 0.6500	0.5328 0.6371	0.5875 0.6914	0.5922	0.6592	Ave		0.6268			0.1000	8.3		20.0			
Allyl chloride	0.1551 0.1643	0.1420 0.1563	0.1469 0.1715	0.1556	0.1615	Ave		0.1566			0.0100	6.0		20.0			
Methyl acetate	0.3016 0.2565	0.2520 0.2509	0.2534 0.2417	0.2527	0.2464	Ave		0.2569			0.1000	7.3		20.0			
Methylene Chloride	1.1481 0.3180	0.4132 0.2970	0.3604 0.3060	0.3326	0.3405	Lin2	4.3118	0.2788			0.1000				0.9950		0.9900
tert-Butyl alcohol	1.2085 1.1797	1.2289 1.1027	1.1180 1.0836	1.1179	1.0962	Ave		1.1419			0.0100	4.9		20.0			
Acrylonitrile	0.1374 0.1269	0.1198 0.1216	0.1243 0.1190	0.1245	0.1225	Ave		0.1245			0.0100	4.7		20.0			
trans-1,2-Dichloroethene	0.3481 0.2912	0.2974 0.2797	0.3074 0.2913	0.2940	0.2992	Ave		0.3011			0.1000	6.8		20.0			
Methyl tert-butyl ether	0.8363 0.7490	0.6973 0.7498	0.6947 0.7699	0.7170	0.7276	Ave		0.7427			0.1000	6.2		20.0			
Hexane	0.4948 0.4614	0.4247 0.4478	0.4768 0.4797	0.4614	0.4797	Ave		0.4658			0.0100	4.7		20.0			
1,1-Dichloroethane	0.6697 0.5568	0.5598 0.5354	0.5720 0.5622	0.5690	0.5776	Ave		0.5753			0.2000	7.0		20.0			
Vinyl acetate	0.4540 0.5520	0.4510 0.5211	0.4730 0.5116	0.4621	0.5145	Ave		0.4924			0.0100	7.6		20.0			
2,2-Dichloropropane	0.2515 0.2430	0.2465 0.2366	0.2461 0.2470	0.2450	0.2508	Ave		0.2458			0.0100	1.9		20.0			
cis-1,2-Dichloroethene	0.3618 0.3150	0.3087 0.3035	0.3142 0.3141	0.3158	0.3185	Ave		0.3190			0.1000	5.6		20.0			
2-Butanone (MEK)	0.1390 0.1278	0.1161 0.1216	0.1169 0.1208	0.1151	0.1148	Ave		0.1215			0.0500	6.8		20.0			
Bromochloromethane	0.1398 0.1350	0.1346 0.1314	0.1367 0.1329	0.1320	0.1344	Ave		0.1346			0.0100	2.0		20.0			
Tetrahydrofuran	0.1213 0.1033	0.0856 0.1036	0.0911 0.1016	0.0986	0.0939	Ave		0.0999			0.0100	10.7		20.0			
Chloroform	0.6349 0.5063	0.5307 0.4874	0.5304 0.5025	0.5272	0.5147	Ave		0.5292			0.2000	8.6		20.0			
1,1,1-Trichloroethane	0.4164 0.3978	0.3758 0.3819	0.4000 0.4030	0.3980	0.4087	Ave		0.3977			0.1000	3.3		20.0			
Cyclohexane	0.6342 0.5844	0.5521 0.5673	0.6004 0.6119	0.5855	0.6264	Ave		0.5953			0.1000	4.8		20.0			
Carbon tetrachloride	0.3694 0.3413	0.3245 0.3309	0.3538 0.3573	0.3366	0.3542	Ave		0.3460			0.1000	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.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	0.4631 0.4305	0.4088 0.4124	0.4498 0.4373	0.4352	0.4542	Ave		0.4364			0.0100	4.4		20.0			
Isobutyl alcohol	0.0084 0.0091	0.0077 0.0080	0.0075 0.0088	0.0091	0.0080	Ave		0.0083		*	0.0100	7.4		20.0			
Benzene	1.4578 1.2027	1.2781 1.1470	1.2961 1.1714	1.2614	1.2669	Ave		1.2602			0.5000	7.6		20.0			
1,2-Dichloroethane	0.4977 0.4237	0.4381 0.4081	0.4219 0.4172	0.4185	0.4236	Ave		0.4311			0.1000	6.5		20.0			
n-Heptane	0.4395 0.4078	0.3789 0.3903	0.4254 0.4187	0.4071	0.4261	Ave		0.4117			0.0100	4.8		20.0			
Trichloroethene	0.3418 0.2891	0.2897 0.2789	0.2938 0.2956	0.2919	0.2998	Ave		0.2975			0.2000	6.3		20.0			
Methylcyclohexane	0.4650 0.5078	0.4471 0.4904	0.5134 0.5215	0.5030	0.5286	Ave		0.4971			0.1000	5.7		20.0			
1,2-Dichloropropane	0.3518 0.3050	0.2946 0.2951	0.2984 0.3102	0.2994	0.3017	Ave		0.3070			0.1000	6.1		20.0			
1,4-Dioxane	0.0016 0.0023	0.0018 0.0023	0.0022 0.0023	0.0023	0.0022	Ave		0.0021		*	0.0100	13.1		20.0			
Dibromomethane	0.1902 0.1636	0.1678 0.1603	0.1590 0.1661	0.1633	0.1584	Ave		0.1661			0.0100	6.2		20.0			
Bromodichloromethane	0.3597 0.3499	0.3058 0.3357	0.3110 0.3536	0.3279	0.3383	Ave		0.3352			0.2000	5.8		20.0			
cis-1,3-Dichloropropene	0.3478 0.4260	0.3263 0.4222	0.3601 0.4405	0.3829	0.3970	Ave		0.3878			0.2000	10.5		20.0			
4-Methyl-2-pentanone (MIBK)	1.2534 1.2472	1.0304 1.1594	1.1832 1.1879	1.2130	1.1943	Ave		1.1836			0.1000	5.9		20.0			
Toluene	6.1711 4.9176	5.6697 4.5402	5.8197 4.6853	5.6108	5.5761	Ave		5.3738			0.4000	10.9		20.0			
trans-1,3-Dichloropropene	1.4210 1.5246	1.2766 1.4456	1.3940 1.5462	1.4629	1.5014	Ave		1.4465			0.1000	5.9		20.0			
Ethyl methacrylate	1.1779 1.5078	1.1627 1.4334	1.3515 1.4923	1.4216	1.4730	Ave		1.3775			0.0100	9.9		20.0			
1,1,2-Trichloroethane	1.2519 0.9795	1.0938 0.9118	1.0632 0.9429	1.0682	1.0298	Ave		1.0426			0.1000	10.2		20.0			
Tetrachloroethene	1.1721 0.9414	1.0602 0.8734	1.0692 0.9362	1.0486	1.0769	Ave		1.0222			0.2000	9.5		20.0			
1,3-Dichloropropane	2.1871 1.8289	1.9483 1.6861	1.9806 1.7783	1.9302	1.9129	Ave		1.9065			0.0100	7.9		20.0			
2-Hexanone	0.8242 0.8130	0.6781 0.7394	0.7654 0.7638	0.7481	0.7513	Ave		0.7604			0.1000	5.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.9056 0.8758	0.7668 0.8290	0.8046 0.8931	0.8428	0.8760	Ave		0.8492			0.1000	5.6		20.0			
1,2-Dibromoethane (EDB)	1.0369 0.9639	0.9543 0.9083	0.9943 0.9466	0.9944	0.9954	Ave		0.9743			0.1000	4.0		20.0			
3-Chlorobenzotrifluoride	2.0552 1.6732	1.8669 1.5578	1.8134 1.5255	1.7644	1.8271	Ave		1.7604			0.0100	9.8		20.0			
Chlorobenzene	4.1242 3.0932	3.4839 2.8830	3.5109 3.0138	3.3752	3.3640	Ave		3.3560			0.5000	11.5		20.0			
4-Chlorobenzotrifluoride	1.9609 1.5902	1.6374 1.5004	1.7439 1.4520	1.6528	1.7330	Ave		1.6588			0.0100	9.6		20.0			
1,1,1,2-Tetrachloroethane	1.0740 1.0321	1.0143 0.9696	1.0442 1.0099	1.0652	1.0783	Ave		1.0359			0.0100	3.6		20.0			
Ethylbenzene	1.8940 1.7932	1.8209 1.6586	1.9452 1.7684	1.9264	1.9579	Ave		1.8456			0.1000	5.6		20.0			
m-Xylene & p-Xylene	2.1452 2.1725	2.2094 2.0526	2.3572 2.1434	2.3587	2.3848	Ave		2.2280			0.1000	5.5		20.0			
o-Xylene	2.0743 2.0931	2.0859 1.9776	2.2674 2.0624	2.2610	2.2898	Ave		2.1390			0.3000	5.5		20.0			
Styrene	3.1100 3.4473	3.5127 3.2256	3.7596 3.3888	3.7510	3.7561	Ave		3.4939			0.3000	7.2		20.0			
Bromoform	0.4373 0.4827	0.4096 0.4651	0.4124 0.5080	0.4357	0.4557	Ave		0.4508			0.1000	7.5		20.0			
2-Chlorobenzotrifluoride	1.9344 1.5826	1.6798 1.5159	1.6733 1.4688	1.6701	1.7509	Ave		1.6595			0.0100	8.7		20.0			
Isopropylbenzene	5.0800 4.9867	5.2319 4.6988	5.7705 4.8646	5.5778	5.7052	Ave		5.2394			0.1000	7.7		20.0			
1,1,2,2-Tetrachloroethane	1.5224 1.2588	1.4149 1.1942	1.3347 1.2264	1.3061	1.2909	Ave		1.3186			0.3000	8.1		20.0			
Bromobenzene	1.0611 0.9637	0.9226 0.9042	0.9693 0.9883	0.9765	1.0017	Ave		0.9734			0.0100	4.9		20.0			
trans-1,4-Dichloro-2-butene	0.2997 0.3606	0.2725 0.3450	0.3143 0.3740	0.3328	0.3335	Ave		0.3290			0.0100	10.0		20.0			
1,2,3-Trichloropropane	0.4003 0.3444	0.3299 0.3268	0.3434 0.3469	0.3290	0.3378	Ave		0.3448			0.0100	6.9		20.0			
N-Propylbenzene	1.0305 1.1769	1.0496 1.1095	1.1892 1.2189	1.1958	1.2262	Ave		1.1496			0.0100	6.7		20.0			
2-Chlorotoluene	1.0850 0.9772	0.9205 0.9428	0.9967 1.0081	0.9868	1.0223	Ave		0.9924			0.0100	5.1		20.0			
3-Chlorotoluene	1.0331 1.0523	0.9837 1.0029	1.0324 1.0130	1.0268	1.0735	Ave		1.0272			0.0100	2.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.0237 3.3111	3.3245 3.1136	3.6197 3.3043	3.5081	3.5504	Ave		3.3444			0.0100	6.2		20.0			
4-Chlorotoluene	1.1654 1.0667	1.0510 0.9893	1.1054 1.0809	1.0606	1.0825	Ave		1.0752			0.0100	4.6		20.0			
tert-Butylbenzene	2.4388 2.6754	2.4315 2.5569	2.8015 2.7285	2.7900	2.8591	Ave		2.6602			0.0100	6.2		20.0			
1,2,4-Trimethylbenzene	2.9527 3.3087	3.1796 3.1218	3.5446 3.2815	3.4454	3.5129	Ave		3.2934			0.0100	6.2		20.0			
3,4-Dichlorobenzotrifluoride	1.1480 0.9438	0.9539 0.9099	0.9578 0.8947	0.9350	0.9711	Ave		0.9643			0.0100	8.1		20.0			
sec-Butylbenzene	3.5996 3.7756	3.6982 3.5744	4.0948 3.7960	4.0177	4.1302	Ave		3.8358			0.0100	5.7		20.0			
1,3-Dichlorobenzene	2.1265 1.7032	1.7173 1.6225	1.7467 1.7233	1.7425	1.7720	Ave		1.7693			0.6000	8.5		20.0			
4-Isopropyltoluene	2.7083 3.1020	2.9124 2.9631	3.2839 3.1471	3.2465	3.3452	Ave		3.0886			0.0100	7.0		20.0			
1,4-Dichlorobenzene	2.0878 1.7387	1.7885 1.6329	1.7957 1.7617	1.7898	1.8027	Ave		1.7997			0.5000	7.2		20.0			
2,4-Dichlorobenzotrifluoride	1.0106 0.8739	0.8677 0.8114	0.8733 0.8001	0.8877	0.8840	Ave		0.8761			0.0100	7.3		20.0			
2,5-Dichlorobenzotrifluoride	1.0822 0.9166	0.9278 0.9195	0.9011 0.9098	0.9207	1.0029	Ave		0.9476			0.0100	6.6		20.0			
n-Butylbenzene	2.2811 2.6842	2.4658 2.5552	2.7112 2.7456	2.8171	2.8649	Ave		2.6406			0.0100	7.4		20.0			
1,2-Dichlorobenzene	1.8093 1.5224	1.5492 1.4342	1.5338 1.5226	1.5907	1.5720	Ave		1.5668			0.4000	6.9		20.0			
1,2-Dibromo-3-Chloropropane	0.1739 0.1365	0.1114 0.1317	0.1158 0.1489	0.1272	0.1307	Ave		0.1345			0.0500	14.7		20.0			
1,2,4-Trichlorobenzene	0.5005 0.5904	0.5296 0.5558	0.4902 0.6255	0.5887	0.5957	Ave		0.5596			0.2000	8.7		20.0			
Hexachlorobutadiene	0.4072 0.2861	0.3242 0.2658	0.2903 0.2960	0.3094	0.3064	Ave		0.3107			0.0100	13.7		20.0			
Naphthalene	1.2108 1.6342	1.1808 1.5586	1.1819 1.7463	1.5144	1.5675	Ave		1.4493			0.0100	15.5		20.0			
1,2,3-Trichlorobenzene	0.4529 0.4667	0.4561 0.4485	0.3657 0.5042	0.4843	0.4660	Ave		0.4556			0.0100	8.9		20.0			
2,4,5-Trichlorotoluene	0.1816 0.1880	0.1236 0.2085	0.1215 0.2320	0.1644	0.1667	Qua	0.2667	0.1098	0.0004799		0.0100				0.9990		0.9900
2,3,6-Trichlorotoluene	0.1758 +++++	0.1419 +++++	0.1144 +++++	0.1621	0.1679	Qua	0.2057	0.1127	0.0004750		0.0100				0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.2623 0.2320	0.2273 0.2231	0.2360 0.2248	0.2360	0.2236	Ave		0.2331				5.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4097 0.3261	0.3392 0.3141	0.3317 0.3173	0.3375	0.3163	Ave		0.3365				9.2		20.0			
Toluene-d8 (Surr)	4.9751 3.8804	4.3178 3.6003	4.5129 3.5692	4.3426	4.0028	Ave		4.1502				11.6		20.0			
4-Bromofluorobenzene (Surr)	1.7358 1.4589	1.5710 1.3944	1.5724 1.4413	1.5656	1.4690	Ave		1.5261				7.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-145277/17	50617017.D
Level 2	IC 180-145277/6	50617006.D
Level 3	ICIS 180-145277/7	50617007.D
Level 4	IC 180-145277/8	50617008.D
Level 5	IC 180-145277/9	50617009.D
Level 6	IC 180-145277/10	50617010.D
Level 7	IC 180-145277/11	50617011.D
Level 8	IC 180-145277/12	50617012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13985 406279	61850 490752	131293 633416	190707	258891	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	16479 470358	71382 523991	147191 703080	207710	290013	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	16468 462809	71583 538171	146437 709759	211773	301311	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	17534 493792	80205 561800	164375 741355	224490	315376	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	9558 228703	34976 248868	68351 316164	102333	135973	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	10069 284353	42901 316475	87910 423350	127616	181501	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	22288 621763	98310 718183	195088 920746	279582	391592	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	16306 527308	76687 600930	164743 760123	235615	330063	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	12234 370505	54177 431207	104081 537080	157481	215472	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	40673 96004	49960 114067	59325 120047	72042	80592	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11927 355250	51665 410599	104659 540491	153911	225297	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	12416 375509	52979 430718	114588 574450	165277	235316	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	21142 208479	29930 251920	59535 288844	88741	112327	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	16174 494039	70032 579231	144076 768838	218721	300629	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	24523 851784	97009 1001334	216284 1362874	333568	504737	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Allyl chloride	FB	Ave	5725 215345	25848 245584	54063 337990	87643	123678	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	55670 1680625	229444 1971351	466467 2382208	711636	943344	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	42380 416721	75234 466826	132678 603105	187350	260743	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	5750 226221	29086 269586	55749 308656	92171	122036	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	50704 1662395	218071 1910483	457488 2346331	701092	938260	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	12851 381648	54149 439641	113174 574249	165608	229120	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	30869 981534	126963 1178416	255720 1517466	403865	557161	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	18266 604571	77336 703743	175506 945438	259892	367307	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	24720 729616	101924 841498	210563 1108115	320495	442302	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	16760 723334	82115 819004	174104 1008331	260276	393966	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9285 318442	44890 371771	90602 486802	137988	192057	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	13356 412793	56211 476914	115658 619117	177912	243856	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	25657 335015	42291 382226	86075 476377	129631	175815	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5160 176872	24506 206501	50339 261865	74378	102910	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	8952 270631	31179 325712	67105 400339	111135	143767	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	23436 663409	96620 766034	195248 990455	296949	394079	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15369 521331	68417 600207	147248 794369	224170	312928	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	23411 765785	100526 891635	221024 1206014	329815	479657	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	13635 447259	59080 520097	130225 704165	189615	271218	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	17095 564179	74440 648085	165562 861875	245133	347816	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	7732 299025	35170 315367	69370 431449	128711	152861	125 4375	625 5000	1250 6250	1875	2500

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	53813 1576107	232716 1802599	477132 2308789	710542	970078	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	18373 555180	79766 641336	155314 822349	235728	324383	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16224 534358	68983 613406	156586 825317	229309	326259	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	12617 378840	52740 438244	108145 582600	164400	229535	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	17166 665394	81408 770738	188978 1027848	283358	404786	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	12987 399628	53633 463847	109841 611506	168672	231010	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1168 60747	6452 72079	16354 89366	25534	32972	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	7021 214398	30549 251996	58547 327328	91973	121298	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	13279 458579	55672 527553	114470 696885	184708	259051	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	12838 558268	59408 663516	132564 868238	215665	304012	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	49926 808801	82393 927073	194304 1183396	307905	416339	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	49160 1594574	226679 1815140	477853 2333889	712142	971897	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	11320 494360	51041 577958	114458 770190	185676	261694	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	9383 488926	46485 573048	110969 743353	180438	256749	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	9973 317622	43730 364522	87301 469658	135577	179495	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	9337 305258	42386 349165	87791 466332	133093	187697	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	17423 593034	77894 674090	162627 885819	244987	333410	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	32828 527235	54222 591225	125695 760964	189893	261891	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7214 283987	30659 331408	66065 444869	106966	152688	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8260 312538	38153 363127	81646 471517	126213	173491	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	16372 542554	74638 622777	148897 759876	223941	318462	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	32854 1002990	139289 1152586	288276 1501256	428389	586338	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15621 515650	65463 599843	143190 723279	209779	302059	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8556 334679	40551 387650	85737 503057	135194	187943	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	15088 581465	72799 663092	159720 880883	244510	341262	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	17089 704459	88332 820612	193548 1067701	299376	415658	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	16524 678709	83396 790630	186179 1027331	286981	399112	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	24775 1117800	140441 1289578	308704 1688053	476097	654687	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	3484 156513	16378 185935	33865 253044	55299	79426	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	15410 513173	67161 606064	137397 731650	211979	305182	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	40468 1616980	209172 1878555	473817 2423171	707962	994404	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	12128 408165	56570 477417	109592 610898	165776	225004	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	10764 380076	50918 442468	103286 586242	161084	223666	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3040 142204	15042 168794	33494 221836	54904	74465	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4061 135814	18208 159888	36596 205782	54278	75422	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	10453 464167	57927 542910	126725 723043	197258	273796	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11006 385419	50806 461338	106205 598001	162789	228249	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	10480 415021	54294 490765	110015 600892	169380	239692	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	30672 1305913	183486 1523592	385709 1960117	578714	792740	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	11822 420730	58008 484074	117792 641189	174953	241693	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	24739 1055188	134199 1251164	298526 1618547	460243	638390	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	29952 1304956	175487 1527586	377713 1946593	568369	784367	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	11645 372233	52646 445231	102057 530743	154242	216824	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	36514 1489124	204111 1749050	436333 2251780	662774	922192	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	21571 671741	94781 793952	186128 1022265	287457	395663	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	27473 1223451	160740 1449933	349926 1866871	535559	746924	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	21178 685744	98711 799016	191352 1045055	295251	402496	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	10251 344654	47888 397020	93053 474617	146435	197387	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	10978 361493	51205 449922	96025 539686	151889	223938	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	23139 1058649	136090 1250309	288901 1628698	464713	639686	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	18353 600426	85501 701795	163440 903210	262407	351002	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1764 53852	6148 64433	12341 88331	20984	29188	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	5077 232870	29232 271980	52233 371041	97122	133002	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	4131 112857	17896 130058	30937 175617	51045	68407	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	12282 644555	65173 762683	125945 1035925	249815	349999	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	4594 184060	25174 219483	38967 299099	79889	104055	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Qua	1842 74150	6820 102047	12944 137650	27113	37231	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Qua	1783 +++++	7830 +++++	12194 +++++	26738	37479	5.00 +++++	25.0 +++++	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9682 304086	41380 350611	86872 443187	132928	171222	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	15123 427373	61757 493641	122115 625499	190096	242219	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	39633 1258264	172629 1439382	370552 1777930	551180	697675	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	13828 473052	62811 557463	129109 717948	198709	256052	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 145277

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617006.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-Jun-2015 14:07:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0007443-006
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:45 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 08:36:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.265	0.007	0	94671	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	364154	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.385	0.001	89	79961	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.727	0.001	97	110384	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	92	41380	25.0	24.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	0	61757	25.0	25.2	
$ 7 Toluene-d8 (Surr)	98	8.932	8.937	-0.005	94	172629	25.0	26.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	83	62811	25.0	25.7	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	100	61850	25.0	25.2	
12 Chloromethane	50	1.765	1.765	0.000	99	71382	25.0	25.8	
13 Vinyl chloride	62	1.899	1.893	0.006	98	71583	25.0	25.7	
14 Butadiene	39	1.942	1.941	0.001	98	80205	25.0	26.8	
15 Bromomethane	94	2.264	2.258	0.006	90	34976	25.0	25.8	
16 Chloroethane	64	2.392	2.392	0.000	99	42901	25.0	25.6	
17 Dichlorofluoromethane	67	2.666	2.671	-0.005	97	98310	25.0	26.5	
18 Trichlorofluoromethane	101	2.714	2.702	0.012	95	76687	25.0	25.3	
20 Ethyl ether	59	3.049	3.049	0.000	96	54177	25.0	25.8	
21 Acrolein	56	3.237	3.225	0.012	98	49960	125.0	124.3	M
22 1,1-Dichloroethene	96	3.347	3.347	0.000	94	51665	25.0	25.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	92	52979	25.0	24.3	
24 Acetone	43	3.438	3.444	-0.006	99	29930	50.0	49.6	
25 Iodomethane	142	3.542	3.535	0.007	99	70032	25.0	24.6	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	97009	25.0	21.2	
28 3-Chloro-1-propene	76	3.925	3.931	-0.006	87	25848	25.0	22.7	
30 Methyl acetate	43	3.937	3.943	-0.006	99	229444	125.0	122.6	
31 Methylene Chloride	84	4.150	4.137	0.013	91	75234	25.0	21.6	
32 2-Methyl-2-propanol	59	4.406	4.399	0.007	89	29086	250.0	269.0	
33 Acrylonitrile	53	4.521	4.521	0.000	99	218071	250.0	240.5	
34 trans-1,2-Dichloroethene	96	4.570	4.569	0.001	95	54149	25.0	24.7	
35 Methyl tert-butyl ether	73	4.576	4.575	0.001	96	126963	25.0	23.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.989	0.001	93	77336	25.0	22.8	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	101924	25.0	24.3	
38 Vinyl acetate	43	5.245	5.251	-0.006	98	82115	25.0	22.9	
44 2,2-Dichloropropane	77	5.945	5.944	0.001	65	44890	25.0	25.1	
45 cis-1,2-Dichloroethene	96	5.951	5.950	0.001	83	56211	25.0	24.2	
46 2-Butanone (MEK)	43	5.957	5.963	-0.005	52	42291	50.0	47.8	
49 Chlorobromomethane	128	6.231	6.236	-0.005	94	24506	25.0	25.0	
51 Tetrahydrofuran	42	6.255	6.255	0.001	87	31179	50.0	42.9	
52 Chloroform	83	6.383	6.382	0.001	94	96620	25.0	25.1	
53 1,1,1-Trichloroethane	97	6.541	6.547	-0.006	96	68417	25.0	23.6	
54 Cyclohexane	56	6.620	6.613	0.007	93	100526	25.0	23.2	
56 Carbon tetrachloride	117	6.717	6.717	0.000	96	59080	25.0	23.4	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	92	74440	25.0	23.4	
57 Isobutyl alcohol	41	6.924	6.930	-0.006	71	35170	625.0	579.4	
58 Benzene	78	6.942	6.942	0.000	97	232716	25.0	25.4	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	98	79766	25.0	25.4	
62 n-Heptane	43	7.307	7.307	0.000	93	68983	25.0	23.0	
64 Trichloroethene	130	7.678	7.678	0.000	98	52740	25.0	24.3	
66 Methylcyclohexane	83	7.916	7.915	0.001	95	81408	25.0	22.5	
67 1,2-Dichloropropane	63	7.946	7.952	-0.006	94	53633	25.0	24.0	
70 1,4-Dioxane	88	8.025	8.025	0.000	38	6452	500.0	420.0	
68 Dibromomethane	93	8.037	8.037	0.000	94	30549	25.0	25.3	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	55672	25.0	22.8	
74 cis-1,3-Dichloropropene	75	8.670	8.676	-0.006	91	59408	25.0	21.0	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	98	82393	50.0	43.5	
76 Toluene	91	9.005	9.004	0.001	97	226679	25.0	26.4	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	99	51041	25.0	22.1	
78 Ethyl methacrylate	69	9.309	9.308	0.001	92	46485	25.0	21.1	
79 1,1,2-Trichloroethane	97	9.449	9.442	0.007	94	43730	25.0	26.2	
80 Tetrachloroethene	164	9.522	9.521	0.001	96	42386	25.0	25.9	
81 1,3-Dichloropropane	76	9.601	9.600	0.001	96	77894	25.0	25.5	
82 2-Hexanone	43	9.656	9.655	0.001	99	54222	50.0	44.6	
84 Chlorodibromomethane	129	9.814	9.813	0.001	91	30659	25.0	22.6	
85 Ethylene Dibromide	107	9.929	9.929	0.000	98	38153	25.0	24.5	
86 3-Chlorobenzotrifluoride	180	10.392	10.385	0.007	88	74638	25.0	26.5	
87 Chlorobenzene	112	10.416	10.416	0.000	92	139289	25.0	26.0	
88 4-Chlorobenzotrifluoride	180	10.477	10.476	0.001	96	65463	25.0	24.7	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	88	40551	25.0	24.5	
90 Ethylbenzene	106	10.513	10.519	-0.006	99	72799	25.0	24.7	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	88332	25.0	24.8	
92 o-Xylene	106	11.024	11.024	0.000	98	83396	25.0	24.4	
93 Styrene	104	11.049	11.048	0.001	96	140441	25.0	25.1	
94 Bromoform	173	11.231	11.231	0.000	96	16378	25.0	22.7	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	92	67161	25.0	25.3	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	209172	25.0	25.0	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.705	0.001	78	56570	25.0	26.8	
100 Bromobenzene	156	11.706	11.711	-0.005	97	50918	25.0	23.7	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	76	15042	25.0	20.7	
101 1,2,3-Trichloropropane	110	11.766	11.760	0.006	87	18208	25.0	23.9	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	57927	25.0	22.8	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	50806	25.0	23.2	
105 3-Chlorotoluene	126	11.967	11.967	0.000	96	54294	25.0	23.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.998	11.997	0.001	93	183486	25.0	24.9	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	58008	25.0	24.4	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	134199	25.0	22.9	
110 1,2,4-Trimethylbenzene	105	12.369	12.368	0.001	98	175487	25.0	24.1	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	52646	25.0	24.7	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	204111	25.0	24.1	
113 1,3-Dichlorobenzene	146	12.649	12.648	0.001	96	94781	25.0	24.3	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	97	160740	25.0	23.6	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	93	98711	25.0	24.8	
116 2,4-Dichloro-1-(triflourom	214	12.782	12.776	0.006	96	47888	25.0	24.8	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	51205	25.0	24.5	
120 n-Butylbenzene	91	13.099	13.098	0.001	98	136090	25.0	23.3	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	95	85501	25.0	24.7	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.901	0.001	71	6148	25.0	20.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.041	0.001	0	131762	75.0	67.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.461	-0.006	0	79928	50.0	44.4	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	92	29232	25.0	23.7	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	96	17896	25.0	26.1	
128 Naphthalene	128	14.991	14.990	0.001	98	65173	25.0	20.4	
129 1,2,3-Trichlorobenzene	180	15.216	15.215	0.001	95	25174	25.0	25.0	
131 2,4,5-Trichlorotoluene	159	15.995	15.988	0.006	0	6820	25.0	23.3	
130 2,3,6-Trichlorotoluene	159	16.092	16.091	0.001	96	7830	25.0	26.6	
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		50.0	49.2	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.9	
S 135 1,3-Dichloropropene, Total	1				0		50.0	43.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRLOEINPR_00001	Amount Added:	5.00	Units: uL	
voaWketmix1Re_00001	Amount Added:	1.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	1.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	1.00	Units: uL	
VOA8260SURR_00038	Amount Added:	1.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

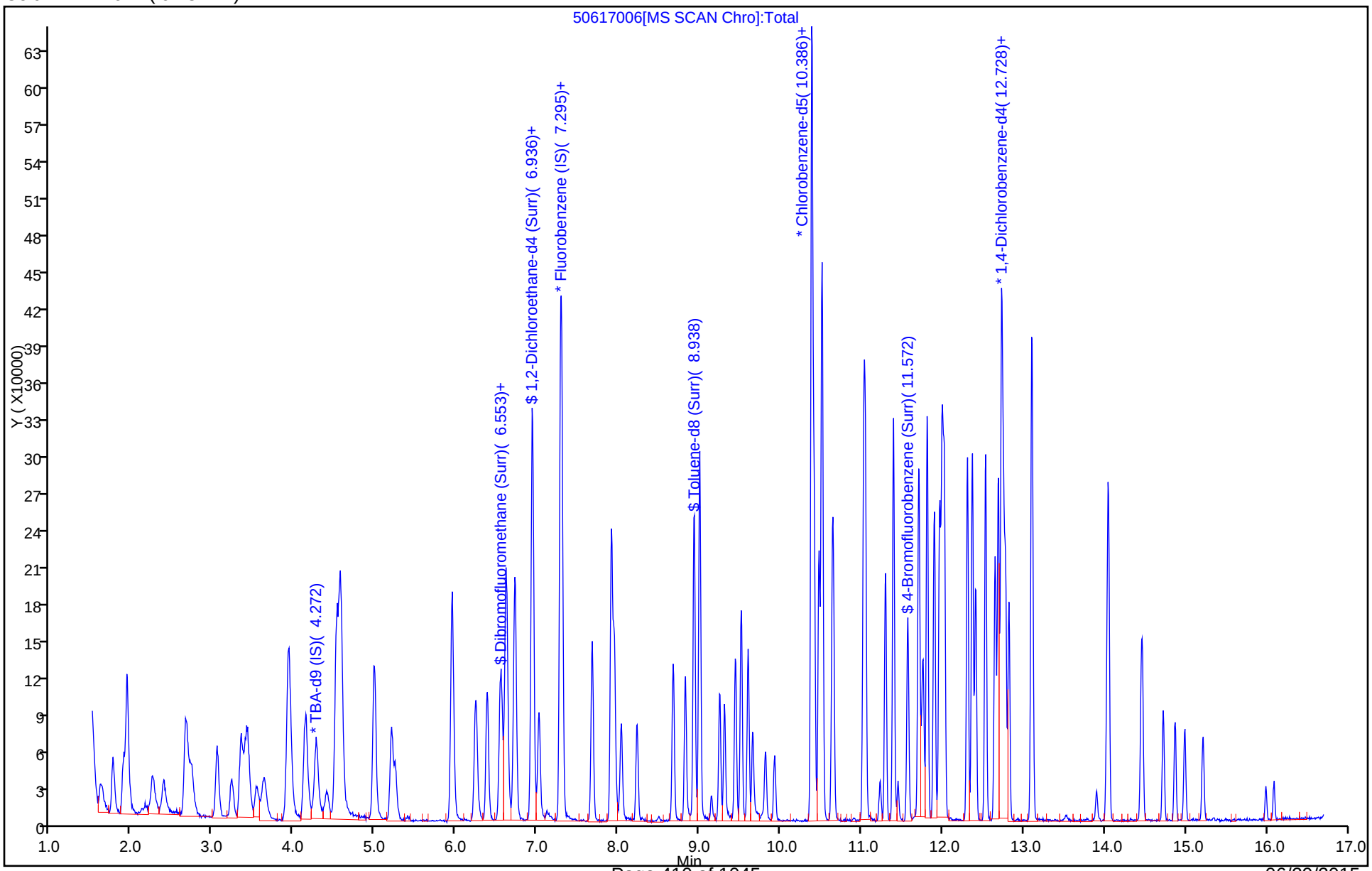
Report Date: 18-Jun-2015 11:19:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617006.D

Injection Date:	17-Jun-2015 14:07:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

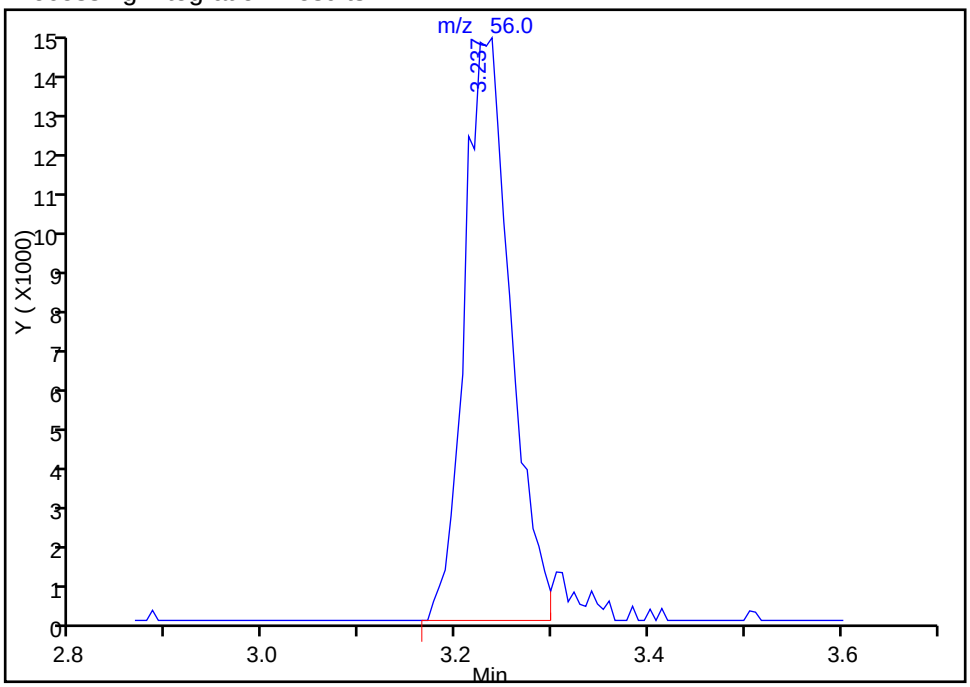
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617006.D				
Injection Date:	17-Jun-2015 14:07:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

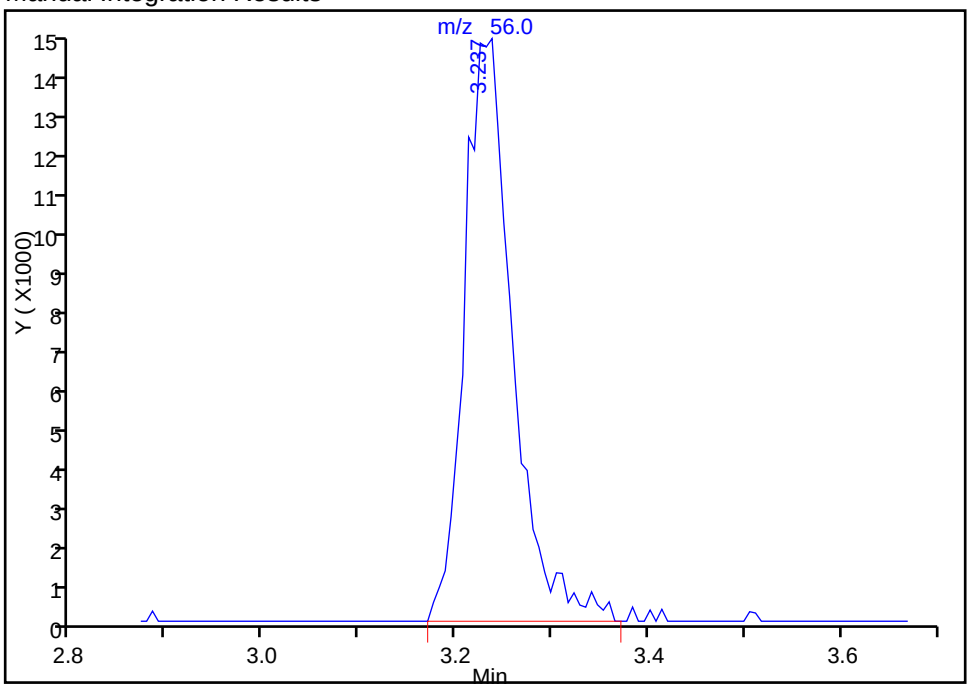
Processing Integration Results

RT: 3.24
Area: 47722
Amount: 118.6567
Amount Units: ng



Manual Integration Results

RT: 3.24
Area: 49960
Amount: 124.2873
Amount Units: ng



Reviewer: fergusond, 18-Jun-2015 09:47:59
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617007.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 17-Jun-2015 14:30:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0007443-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:47:50 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 11:31:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.265	0.000	0	99728	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	368117	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	88	82110	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	96	106559	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	93	86872	50.0	50.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	0	122115	50.0	49.3	
$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	94	370552	50.0	54.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	85	129109	50.0	51.5	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	100	131293	50.0	52.9	
12 Chloromethane	50	1.765	1.765	0.000	99	147191	50.0	52.7	
13 Vinyl chloride	62	1.893	1.893	0.000	98	146437	50.0	52.0	
14 Butadiene	39	1.941	1.941	0.000	96	164375	50.0	54.4	
15 Bromomethane	94	2.258	2.258	0.000	90	68351	50.0	49.9	
16 Chloroethane	64	2.392	2.392	0.000	100	87910	50.0	51.8	
17 Dichlorofluoromethane	67	2.671	2.671	0.000	97	195088	50.0	52.0	
18 Trichlorofluoromethane	101	2.702	2.702	0.000	98	164743	50.0	53.8	
20 Ethyl ether	59	3.049	3.049	0.000	96	104081	50.0	49.1	
21 Acrolein	56	3.225	3.225	0.000	97	59325	150.0	146.0	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	94	104659	50.0	50.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	95	114588	50.0	52.1	
24 Acetone	43	3.444	3.444	0.000	99	59535	100.0	97.6	
25 Iodomethane	142	3.535	3.535	0.000	100	144076	50.0	50.0	
26 Carbon disulfide	76	3.633	3.633	0.000	100	216284	50.0	46.9	
28 3-Chloro-1-propene	76	3.931	3.931	0.000	88	54063	50.0	46.9	
30 Methyl acetate	43	3.943	3.943	0.000	98	466467	250.0	246.6	
31 Methylene Chloride	84	4.137	4.137	0.000	97	132678	50.0	49.2	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	87	55749	500.0	489.5	
33 Acrylonitrile	53	4.521	4.521	0.000	98	457488	500.0	499.2	
34 trans-1,2-Dichloroethene	96	4.569	4.569	0.000	96	113174	50.0	51.1	
35 Methyl tert-butyl ether	73	4.575	4.575	0.000	96	255720	50.0	46.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.989	0.000	95	175506	50.0	51.2	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	210563	50.0	49.7	
38 Vinyl acetate	43	5.251	5.251	0.000	98	174104	50.0	48.0	
44 2,2-Dichloropropane	77	5.944	5.944	0.000	60	90602	50.0	50.1	
45 cis-1,2-Dichloroethene	96	5.950	5.950	0.000	84	115658	50.0	49.3	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	66	86075	100.0	96.2	
49 Chlorobromomethane	128	6.236	6.236	0.000	94	50339	50.0	50.8	
51 Tetrahydrofuran	42	6.255	6.255	0.000	88	67105	100.0	91.3	
52 Chloroform	83	6.382	6.382	0.000	96	195248	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.547	6.547	0.000	96	147248	50.0	50.3	
54 Cyclohexane	56	6.613	6.613	0.000	92	221024	50.0	50.4	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	130225	50.0	51.1	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	93	165562	50.0	51.5	
57 Isobutyl alcohol	41	6.930	6.930	0.000	89	69370	1250.0	1130.5	
58 Benzene	78	6.942	6.942	0.000	98	477132	50.0	51.4	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	97	155314	50.0	48.9	
62 n-Heptane	43	7.307	7.307	0.000	92	156586	50.0	51.7	
64 Trichloroethene	130	7.678	7.678	0.000	97	108145	50.0	49.4	
66 Methylcyclohexane	83	7.915	7.915	0.000	94	188978	50.0	51.6	
67 1,2-Dichloropropane	63	7.952	7.952	0.000	93	109841	50.0	48.6	
70 1,4-Dioxane	88	8.025	8.025	0.000	38	16354	1000.0	1053.2	
68 Dibromomethane	93	8.037	8.037	0.000	96	58547	50.0	47.9	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	114470	50.0	46.4	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	132564	50.0	46.4	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	99	194304	100.0	100.0	
76 Toluene	91	9.004	9.004	0.000	98	477853	50.0	54.1	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	97	114458	50.0	48.2	
78 Ethyl methacrylate	69	9.308	9.308	0.000	91	110969	50.0	49.1	
79 1,1,2-Trichloroethane	97	9.442	9.442	0.000	93	87301	50.0	51.0	
80 Tetrachloroethene	164	9.521	9.521	0.000	96	87791	50.0	52.3	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	95	162627	50.0	51.9	
82 2-Hexanone	43	9.655	9.655	0.000	99	125695	100.0	100.7	
84 Chlorodibromomethane	129	9.813	9.813	0.000	91	66065	50.0	47.4	
85 Ethylene Dibromide	107	9.929	9.929	0.000	97	81646	50.0	51.0	
86 3-Chlorobenzotrifluoride	180	10.385	10.385	0.000	88	148897	50.0	51.5	
87 Chlorobenzene	112	10.416	10.416	0.000	93	288276	50.0	52.3	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	96	143190	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	91	85737	50.0	50.4	
90 Ethylbenzene	106	10.519	10.519	0.000	99	159720	50.0	52.7	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	193548	50.0	52.9	
92 o-Xylene	106	11.024	11.024	0.000	97	186179	50.0	53.0	
93 Styrene	104	11.048	11.048	0.000	94	308704	50.0	53.8	
94 Bromoform	173	11.231	11.231	0.000	94	33865	50.0	45.7	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	137397	50.0	50.4	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	473817	50.0	55.1	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	92	109592	50.0	50.6	
100 Bromobenzene	156	11.711	11.711	0.000	97	103286	50.0	49.8	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	70	33494	50.0	47.8	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	86	36596	50.0	49.8	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	126725	50.0	51.7	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	106205	50.0	50.2	
105 3-Chlorotoluene	126	11.967	11.967	0.000	96	110015	50.0	50.3	

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	11.997	11.997	0.000	95	385709	50.0	54.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	117792	50.0	51.4	
108 tert-Butylbenzene	119	12.308	12.308	0.000	93	298526	50.0	52.7	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	98	377713	50.0	53.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	102057	50.0	49.7	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	436333	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	186128	50.0	49.4	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	96	349926	50.0	53.2	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	93	191352	50.0	49.9	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	95	93053	50.0	49.8	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	96025	50.0	47.5	
120 n-Butylbenzene	91	13.098	13.098	0.000	99	288901	50.0	51.3	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	93	163440	50.0	48.9	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	74	12341	50.0	43.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.041	0.000	0	261552	150.0	137.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	148094	100.0	85.3	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	94	52233	50.0	43.8	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	96	30937	50.0	46.7	
128 Naphthalene	128	14.990	14.990	0.000	98	125945	50.0	40.8	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	94	38967	50.0	40.1	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	12944	50.0	44.3	
130 2,3,6-Trichlorotoluene	159	16.091	16.091	0.000	91	12194	50.0	41.6	
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	105.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00038	Amount Added:	2.00	Units: uL	
voaWketmix1Re_00001	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

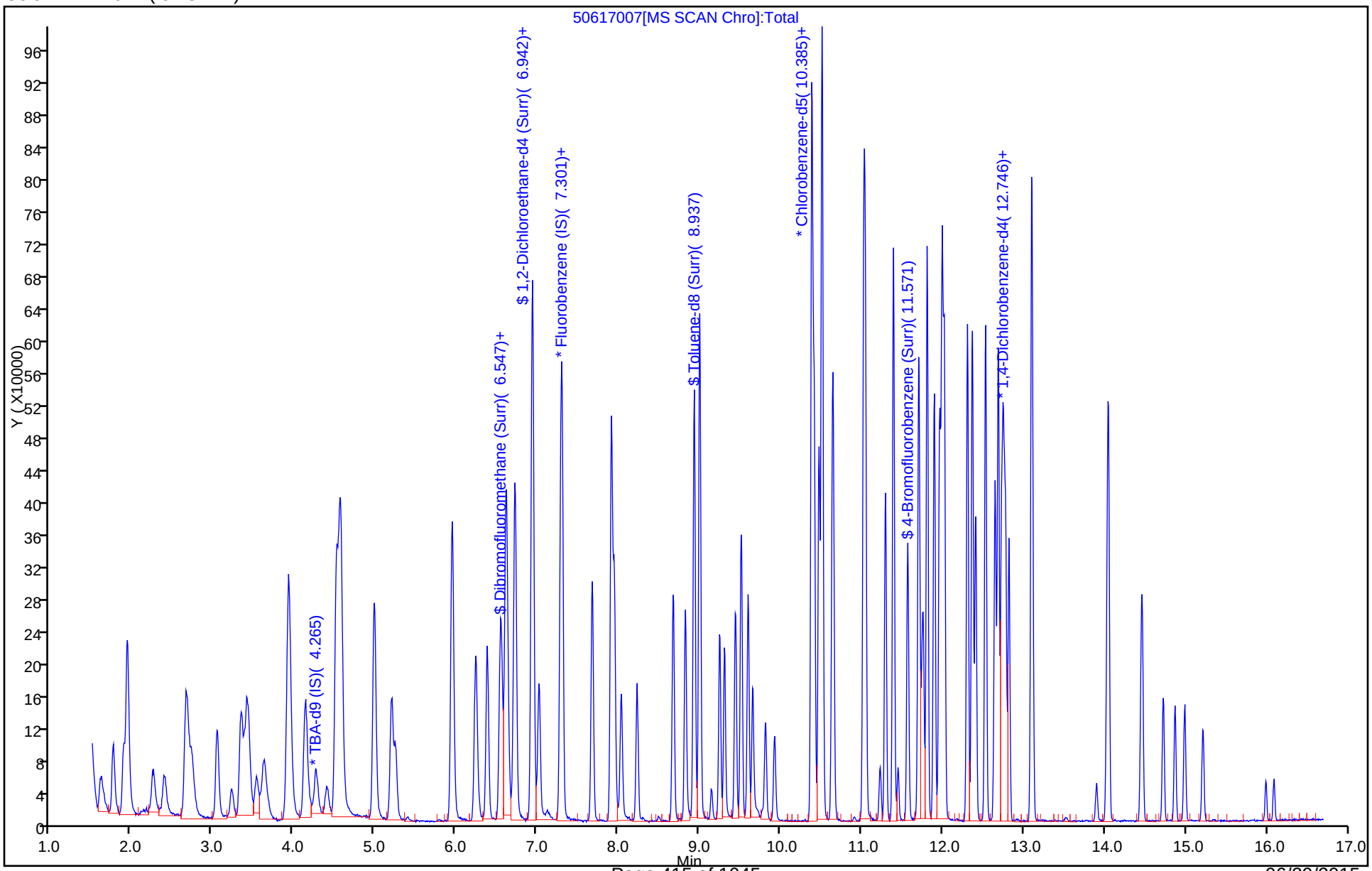
Report Date: 18-Jun-2015 11:47:51 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617007.D

Injection Date:	17-Jun-2015 14:30:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617008.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Jun-2015 14:54:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0007443-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:48 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 08:49:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	109934	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	95	375524	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	87	84616	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	84	109976	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	61	132928	75.0	75.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	190096	75.0	75.2	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	79	551180	75.0	78.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	84	198709	75.0	76.9	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	64	190707	75.0	75.4	
12 Chloromethane	50	1.771	1.771	0.000	89	207710	75.0	72.9	
13 Vinyl chloride	62	1.899	1.899	0.000	83	211773	75.0	73.7	
14 Butadiene	39	1.942	1.942	0.000	92	224490	75.0	72.8	
15 Bromomethane	94	2.258	2.258	0.000	89	102333	75.0	73.2	
16 Chloroethane	64	2.398	2.398	0.000	94	127616	75.0	73.7	
17 Dichlorofluoromethane	67	2.672	2.672	0.000	97	279582	75.0	73.0	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	83	235615	75.0	75.4	
20 Ethyl ether	59	3.049	3.049	0.000	91	157481	75.0	72.9	
21 Acrolein	56	3.225	3.225	0.000	91	72042	175.0	173.8	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	89	153911	75.0	72.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	95	165277	75.0	73.6	
24 Acetone	43	3.444	3.444	0.000	86	88741	150.0	142.6	
25 Iodomethane	142	3.542	3.542	0.000	98	218721	75.0	74.4	
26 Carbon disulfide	76	3.633	3.633	0.000	100	333568	75.0	70.9	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	79	87643	75.0	74.5	
30 Methyl acetate	43	3.943	3.943	0.000	98	711636	375.0	368.8	
31 Methylene Chloride	84	4.138	4.138	0.000	88	187350	75.0	74.0	
32 2-Methyl-2-propanol	59	4.406	4.406	0.000	85	92171	750.0	734.2	
33 Acrylonitrile	53	4.521	4.521	0.000	98	701092	750.0	749.9	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	89	165608	75.0	73.2	
35 Methyl tert-butyl ether	73	4.582	4.582	0.000	91	403865	75.0	72.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	95	259892	75.0	74.3	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	85	320495	75.0	74.2	
38 Vinyl acetate	43	5.251	5.251	0.000	97	260276	75.0	70.4	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	59	137988	75.0	74.7	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	73	177912	75.0	74.3	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	65	129631	150.0	142.0	
49 Chlorobromomethane	128	6.231	6.231	0.000	90	74378	75.0	73.6	
51 Tetrahydrofuran	42	6.255	6.255	0.000	91	111135	150.0	148.2	
52 Chloroform	83	6.383	6.383	0.000	83	296949	75.0	74.7	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	54	224170	75.0	75.1	
54 Cyclohexane	56	6.614	6.614	0.000	94	329815	75.0	73.8	
56 Carbon tetrachloride	117	6.717	6.717	0.000	81	189615	75.0	73.0	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	90	245133	75.0	74.8	
57 Isobutyl alcohol	41	6.930	6.930	0.000	49	128711	1875.0	2056.2	
58 Benzene	78	6.942	6.942	0.000	98	710542	75.0	75.1	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	91	235728	75.0	72.8	
62 n-Heptane	43	7.307	7.307	0.000	91	229309	75.0	74.2	
64 Trichloroethene	130	7.678	7.678	0.000	97	164400	75.0	73.6	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	283358	75.0	75.9	
67 1,2-Dichloropropane	63	7.952	7.952	0.000	85	168672	75.0	73.1	
70 1,4-Dioxane	88	8.037	8.037	0.000	37	25534	1500.0	1612.0	M
68 Dibromomethane	93	8.037	8.037	0.000	92	91973	75.0	73.7	
71 Dichlorobromomethane	83	8.232	8.232	0.000	92	184708	75.0	73.4	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	86	215665	75.0	74.0	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	97	307905	150.0	153.7	
76 Toluene	91	9.005	9.005	0.000	96	712142	75.0	78.3	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	95	185676	75.0	75.8	
78 Ethyl methacrylate	69	9.309	9.309	0.000	91	180438	75.0	77.4	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	90	135577	75.0	76.8	
80 Tetrachloroethene	164	9.516	9.516	0.000	91	133093	75.0	76.9	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	96	244987	75.0	75.9	
82 2-Hexanone	43	9.656	9.656	0.000	98	189893	150.0	147.6	
84 Chlorodibromomethane	129	9.814	9.814	0.000	90	106966	75.0	74.4	
85 Ethylene Dibromide	107	9.929	9.929	0.000	96	126213	75.0	76.6	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	91	223941	75.0	75.2	
87 Chlorobenzene	112	10.416	10.416	0.000	89	428389	75.0	75.4	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	92	209779	75.0	74.7	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.513	0.000	37	135194	75.0	77.1	
90 Ethylbenzene	106	10.513	10.513	0.000	99	244510	75.0	78.3	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	299376	75.0	79.4	
92 o-Xylene	106	11.024	11.024	0.000	97	286981	75.0	79.3	
93 Styrene	104	11.049	11.049	0.000	94	476097	75.0	80.5	
94 Bromoform	173	11.231	11.231	0.000	92	55299	75.0	72.5	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	211979	75.0	75.5	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	707962	75.0	79.8	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	41	165776	75.0	74.3	
100 Bromobenzene	156	11.712	11.712	0.000	74	161084	75.0	75.2	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	78	54904	75.0	75.9	
101 1,2,3-Trichloropropane	110	11.767	11.767	0.000	71	54278	75.0	71.6	
103 N-Propylbenzene	120	11.809	11.809	0.000	97	197258	75.0	78.0	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	162789	75.0	74.6	
105 3-Chlorotoluene	126	11.961	11.961	0.000	75	169380	75.0	75.0	

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	11.992	11.992	0.000	93	578714	75.0	78.7	
107 4-Chlorotoluene	126	12.022	12.022	0.000	98	174953	75.0	74.0	
108 tert-Butylbenzene	119	12.308	12.308	0.000	81	460243	75.0	78.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	568369	75.0	78.5	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	154242	75.0	72.7	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	662774	75.0	78.6	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	93	287457	75.0	73.9	
114 4-Isopropyltoluene	119	12.685	12.685	0.000	83	535559	75.0	78.8	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	295251	75.0	74.6	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	85	146435	75.0	76.0	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	151889	75.0	72.9	
120 n-Butylbenzene	91	13.099	13.099	0.000	97	464713	75.0	80.0	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	94	262407	75.0	76.1	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.896	0.000	63	20984	75.0	70.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	472818	225.0	241.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	288213	150.0	160.8	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	93	97122	75.0	78.9	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	93	51045	75.0	74.7	
128 Naphthalene	128	14.991	14.991	0.000	97	249815	75.0	78.4	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	93	79889	75.0	79.7	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	27113	75.0	81.1	
130 2,3,6-Trichlorotoluene	159	16.086	16.086	0.000	90	26738	75.0	79.4	
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		150.0	158.7	
S 134 1,2-Dichloroethene, Total	96				0		150.0	147.5	
S 135 1,3-Dichloropropene, Total	1				0		150.0	149.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRLOEINPR_00001	Amount Added:	7.00	Units: uL	
voaWketmix1Re_00001	Amount Added:	3.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	3.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	3.00	Units: uL	
VOA8260SURR_00038	Amount Added:	3.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

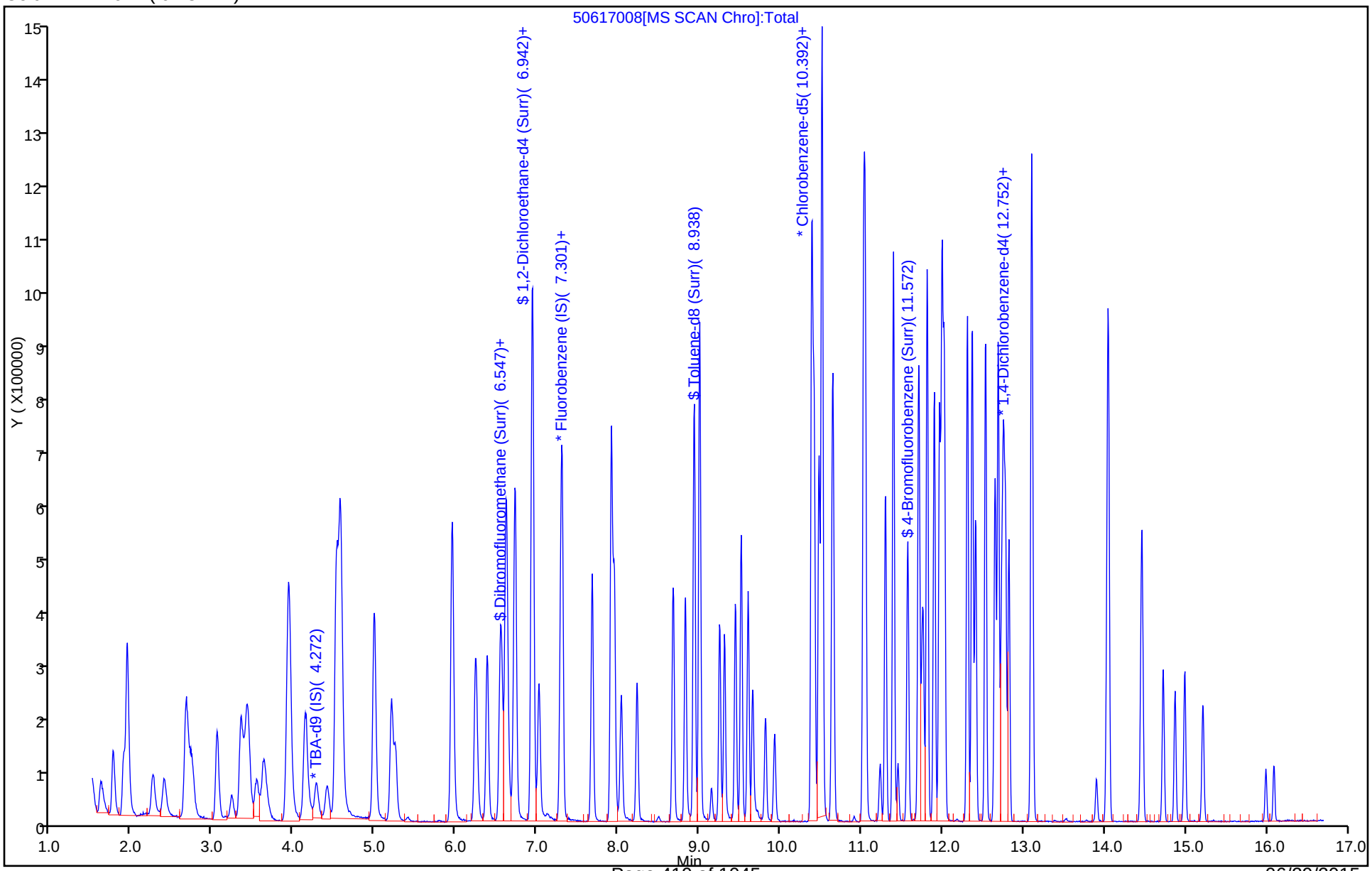
Report Date: 18-Jun-2015 11:19:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617008.D

Injection Date:	17-Jun-2015 14:54:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

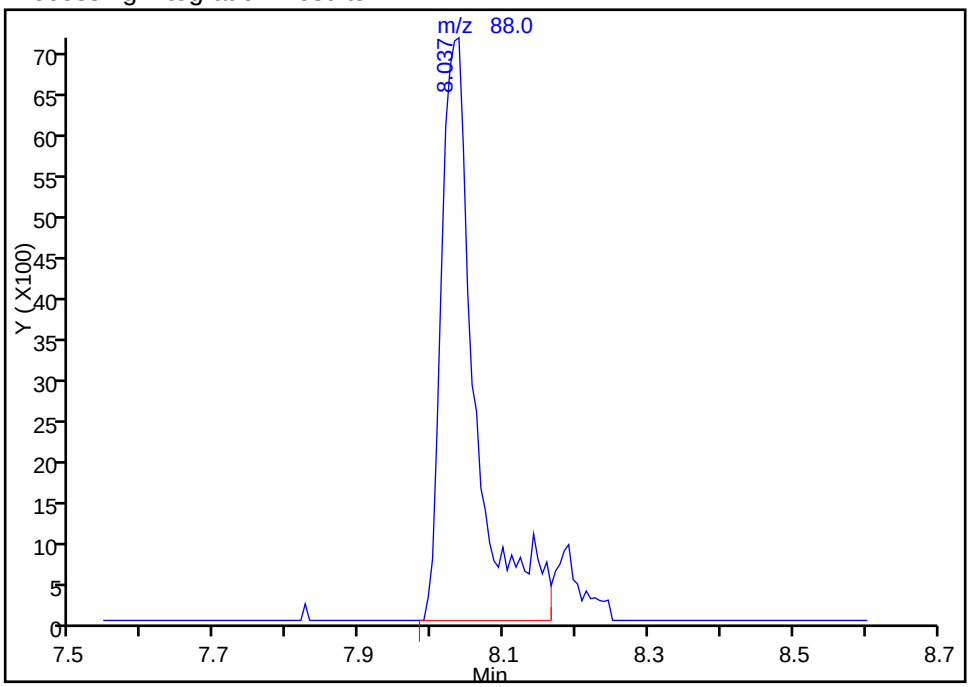
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617008.D
Injection Date: 17-Jun-2015 14:54:30 Instrument ID: CHHP5
Lims ID: IC VSTD15
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

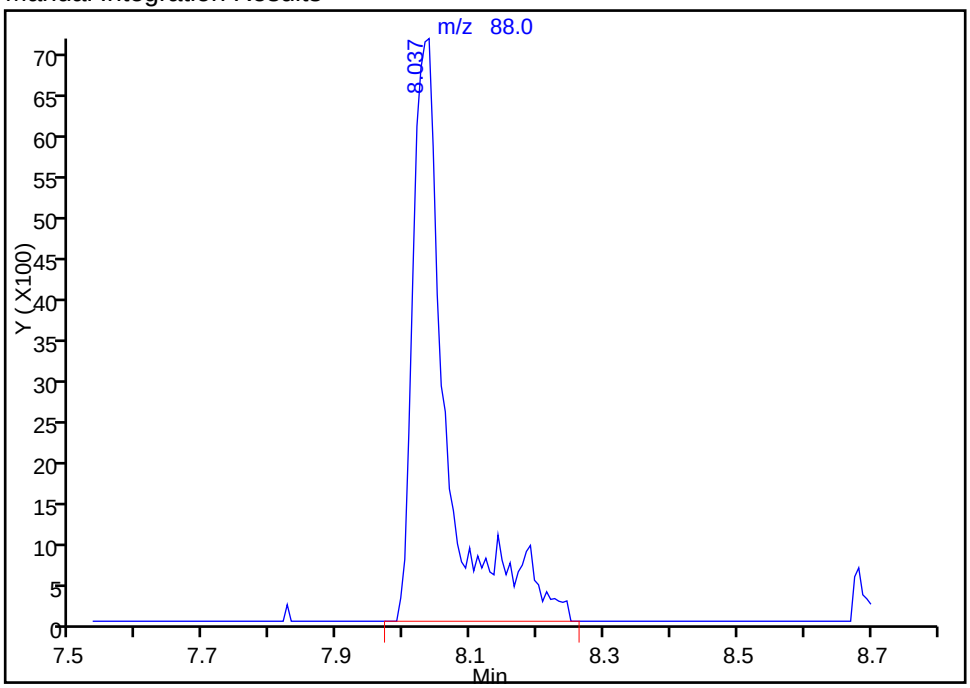
Processing Integration Results

RT: 8.04
Area: 23368
Amount: 1488.6474
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 25534
Amount: 1611.9735
Amount Units: ng



Reviewer: fergusond, 18-Jun-2015 08:49:04
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617009.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Jun-2015 15:18:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0007443-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:50 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 08:50:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.272	0.002	0	111324	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	94	382859	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.382	10.386	-0.004	81	87149	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.728	0.002	91	111640	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.565	-0.003	59	171222	100.0	95.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.936	0.003	0	242219	100.0	94.0	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	79	697675	100.0	96.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	84	256052	100.0	96.3	
11 Dichlorodifluoromethane	85	1.622	1.619	0.003	88	258891	100.0	100.3	
12 Chloromethane	50	1.768	1.771	-0.003	89	290013	100.0	99.8	
13 Vinyl chloride	62	1.902	1.899	0.003	84	301311	100.0	102.8	
14 Butadiene	39	1.944	1.942	0.002	93	315376	100.0	100.4	
15 Bromomethane	94	2.255	2.258	-0.003	89	135973	100.0	95.4	
16 Chloroethane	64	2.401	2.398	0.003	76	181501	100.0	102.8	
17 Dichlorofluoromethane	67	2.674	2.672	0.002	82	391592	100.0	100.3	
18 Trichlorofluoromethane	101	2.705	2.708	-0.003	84	330063	100.0	103.5	
20 Ethyl ether	59	3.052	3.049	0.003	93	215472	100.0	97.8	
21 Acrolein	56	3.234	3.225	0.009	84	80592	200.0	190.7	
22 1,1-Dichloroethene	96	3.350	3.347	0.003	89	225297	100.0	103.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.417	3.420	-0.003	86	235316	100.0	102.8	
24 Acetone	43	3.447	3.444	0.003	87	112327	200.0	177.1	
25 Iodomethane	142	3.544	3.542	0.002	100	300629	100.0	100.3	
26 Carbon disulfide	76	3.636	3.633	0.003	100	504737	100.0	105.2	
28 3-Chloro-1-propene	76	3.928	3.919	0.009	74	123678	100.0	103.1	
30 Methyl acetate	43	3.940	3.943	-0.003	97	943344	500.0	479.5	
31 Methylene Chloride	84	4.141	4.138	0.003	89	260743	100.0	106.7	
32 2-Methyl-2-propanol	59	4.402	4.406	-0.004	74	122036	1000.0	960.0	
33 Acrylonitrile	53	4.524	4.521	0.003	97	938260	1000.0	984.3	
34 trans-1,2-Dichloroethene	96	4.572	4.564	0.008	76	229120	100.0	99.4	
35 Methyl tert-butyl ether	73	4.585	4.582	0.003	92	557161	100.0	98.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	95	367307	100.0	103.0	
37 1,1-Dichloroethane	63	5.205	5.203	0.003	85	442302	100.0	100.4	
38 Vinyl acetate	43	5.254	5.251	0.003	97	393966	100.0	104.5	
44 2,2-Dichloropropane	77	5.947	5.945	0.002	59	192057	100.0	102.0	
45 cis-1,2-Dichloroethene	96	5.947	5.951	-0.004	73	243856	100.0	99.8	
46 2-Butanone (MEK)	43	5.966	5.963	0.003	70	175815	200.0	188.9	
49 Chlorobromomethane	128	6.239	6.231	0.008	78	102910	100.0	99.9	
51 Tetrahydrofuran	42	6.252	6.255	-0.003	88	143767	200.0	188.0	
52 Chloroform	83	6.385	6.383	0.002	83	394079	100.0	97.2	
53 1,1,1-Trichloroethane	97	6.544	6.541	0.003	58	312928	100.0	102.8	
54 Cyclohexane	56	6.617	6.614	0.002	95	479657	100.0	105.2	
56 Carbon tetrachloride	117	6.714	6.717	-0.003	81	271218	100.0	102.4	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	90	347816	100.0	104.1	
57 Isobutyl alcohol	41	6.927	6.930	-0.003	55	152861	2500.0	2395.2	M
58 Benzene	78	6.945	6.942	0.003	97	970078	100.0	100.5	
59 1,2-Dichloroethane	62	7.024	7.021	0.003	90	324383	100.0	98.3	
62 n-Heptane	43	7.310	7.307	0.003	92	326259	100.0	103.5	
64 Trichloroethene	130	7.675	7.678	-0.003	94	229535	100.0	100.7	
66 Methylcyclohexane	83	7.912	7.916	-0.004	94	404786	100.0	106.3	
67 1,2-Dichloropropane	63	7.949	7.952	-0.003	86	231010	100.0	98.3	
70 1,4-Dioxane	88	8.034	8.037	-0.003	30	32972	2000.0	2041.7	
68 Dibromomethane	93	8.034	8.037	-0.003	92	121298	100.0	95.4	
71 Dichlorobromomethane	83	8.235	8.232	0.003	93	259051	100.0	100.9	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	86	304012	100.0	102.4	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.828	-0.003	96	416339	200.0	201.8	
76 Toluene	91	9.001	9.005	-0.004	98	971897	100.0	103.8	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	93	261694	100.0	103.8	
78 Ethyl methacrylate	69	9.311	9.309	0.002	90	256749	100.0	106.9	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	82	179495	100.0	98.8	
80 Tetrachloroethene	164	9.518	9.516	0.002	91	187697	100.0	105.3	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	94	333410	100.0	100.3	
82 2-Hexanone	43	9.658	9.656	0.002	74	261891	200.0	197.6	
84 Chlorodibromomethane	129	9.816	9.814	0.002	87	152688	100.0	103.2	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	97	173491	100.0	102.2	
86 3-Chlorobenzotrifluoride	180	10.388	10.386	0.002	93	318462	100.0	103.8	
87 Chlorobenzene	112	10.419	10.416	0.003	89	586338	100.0	100.2	
88 4-Chlorobenzotrifluoride	180	10.473	10.477	-0.004	85	302059	100.0	104.5	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.513	-0.003	39	187943	100.0	104.1	
90 Ethylbenzene	106	10.516	10.513	0.003	99	341262	100.0	106.1	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	415658	100.0	107.0	
92 o-Xylene	106	11.027	11.024	0.003	95	399112	100.0	107.1	
93 Styrene	104	11.045	11.049	-0.004	92	654687	100.0	107.5	
94 Bromoform	173	11.228	11.231	-0.003	92	79426	100.0	101.1	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	94	305182	100.0	105.5	
97 Isopropylbenzene	105	11.392	11.395	-0.003	97	994404	100.0	108.9	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.706	0.002	49	225004	100.0	97.9	
100 Bromobenzene	156	11.708	11.712	-0.004	93	223666	100.0	102.9	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.742	0.003	66	74465	100.0	101.4	
101 1,2,3-Trichloropropane	110	11.763	11.767	-0.004	54	75422	100.0	98.0	
103 N-Propylbenzene	120	11.812	11.809	0.003	97	273796	100.0	106.7	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	228249	100.0	103.0	
105 3-Chlorotoluene	126	11.964	11.961	0.003	75	239692	100.0	104.5	

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	11.994	11.992	0.002	94	792740	100.0	106.2	
107 4-Chlorotoluene	126	12.025	12.022	0.003	98	241693	100.0	100.7	
108 tert-Butylbenzene	119	12.305	12.308	-0.003	78	638390	100.0	107.5	
110 1,2,4-Trimethylbenzene	105	12.365	12.369	-0.004	99	784367	100.0	106.7	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	97	216824	100.0	100.7	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	89	922192	100.0	107.7	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	95	395663	100.0	100.2	
114 4-Isopropyltoluene	119	12.688	12.685	0.003	88	746924	100.0	108.3	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	91	402496	100.0	100.2	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.776	0.003	91	197387	100.0	100.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	223938	100.0	105.8	
120 n-Butylbenzene	91	13.095	13.099	-0.004	95	639686	100.0	108.5	
121 1,2-Dichlorobenzene	146	13.108	13.111	-0.003	86	351002	100.0	100.3	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.896	0.008	66	29188	100.0	97.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.038	14.042	-0.004	0	660651	300.0	332.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.462	-0.004	0	401024	200.0	220.3	
126 1,2,4-Trichlorobenzene	180	14.726	14.723	0.003	94	133002	100.0	106.5	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	94	68407	100.0	98.6	
128 Naphthalene	128	14.987	14.991	-0.004	98	349999	100.0	108.2	
129 1,2,3-Trichlorobenzene	180	15.212	15.210	0.002	92	104055	100.0	102.3	
131 2,4,5-Trichlorotoluene	159	15.991	15.988	0.003	0	37231	100.0	103.0	
130 2,3,6-Trichlorotoluene	159	16.088	16.086	0.002	90	37479	100.0	102.7	
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		200.0	214.1	
S 134 1,2-Dichloroethene, Total	96				0		200.0	199.2	
S 135 1,3-Dichloropropene, Total	1				0		200.0	206.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00038	Amount Added:	4.00	Units: uL	
voaWketmix1Re_00001	Amount Added:	4.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	4.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	4.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	8.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

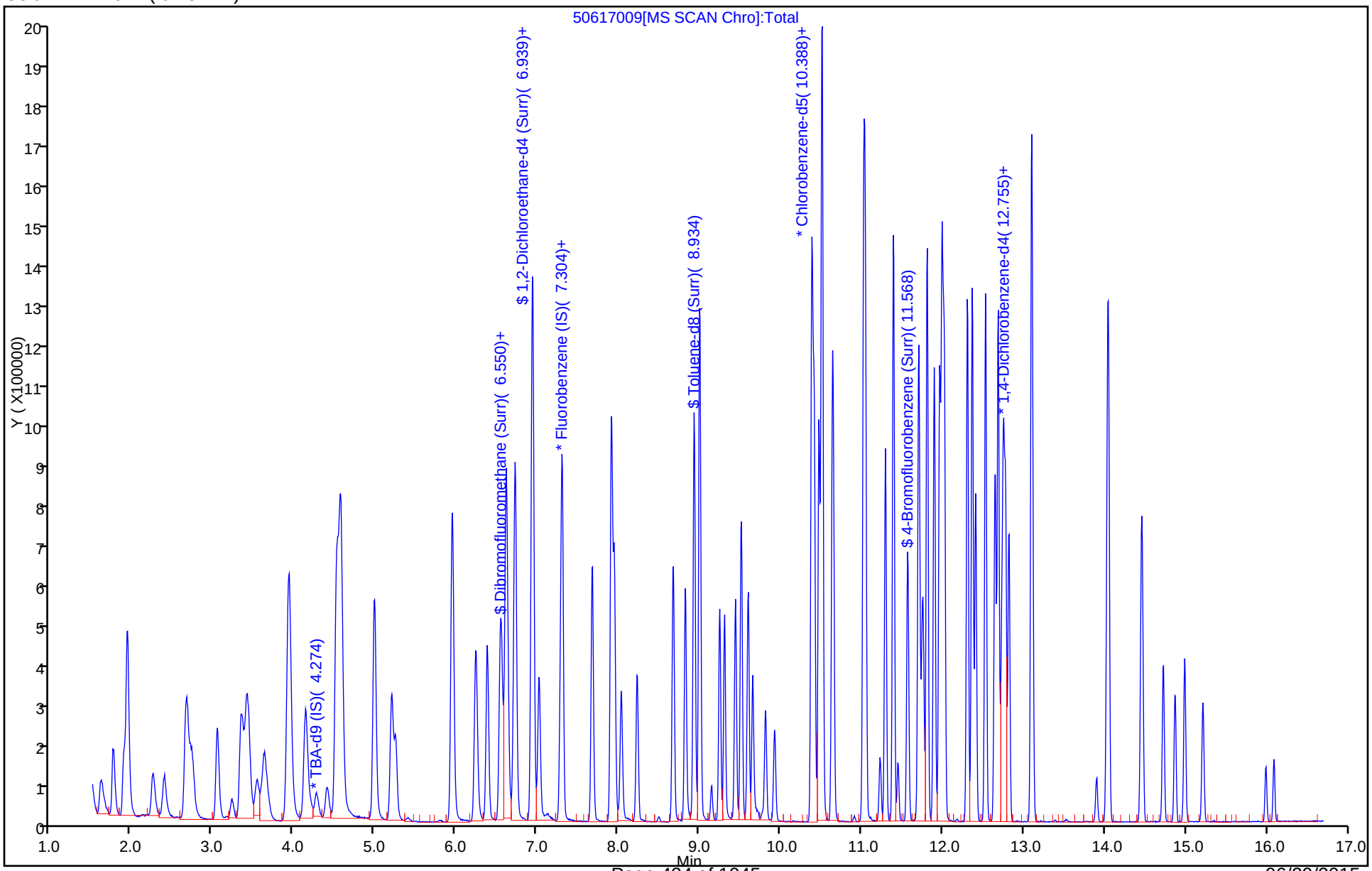
Report Date: 18-Jun-2015 11:19:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617009.D

Injection Date:	17-Jun-2015 15:18:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

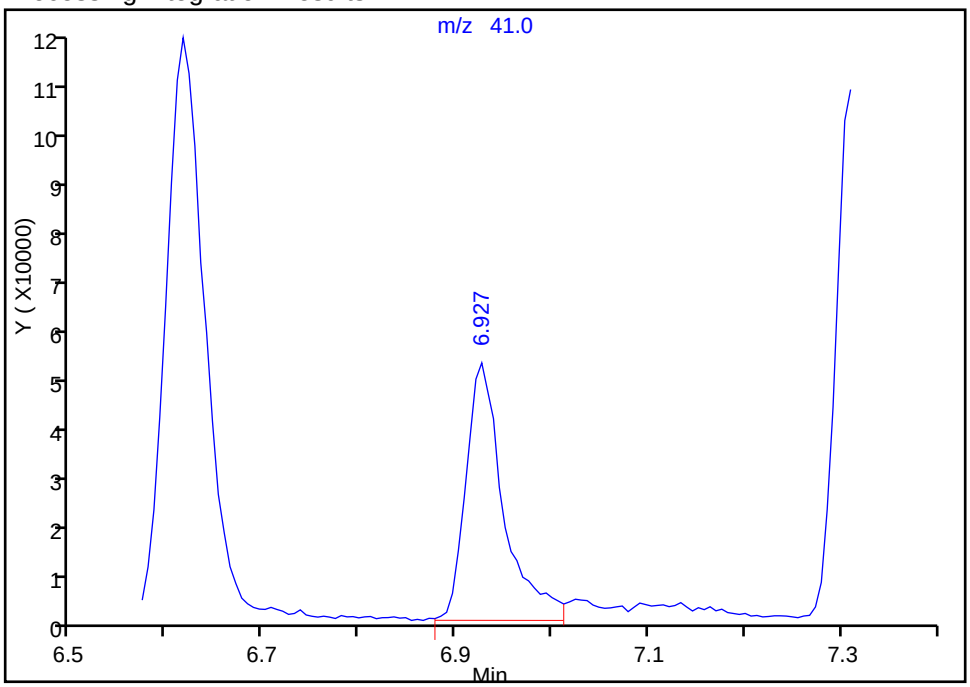
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617009.D
Injection Date: 17-Jun-2015 15:18:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

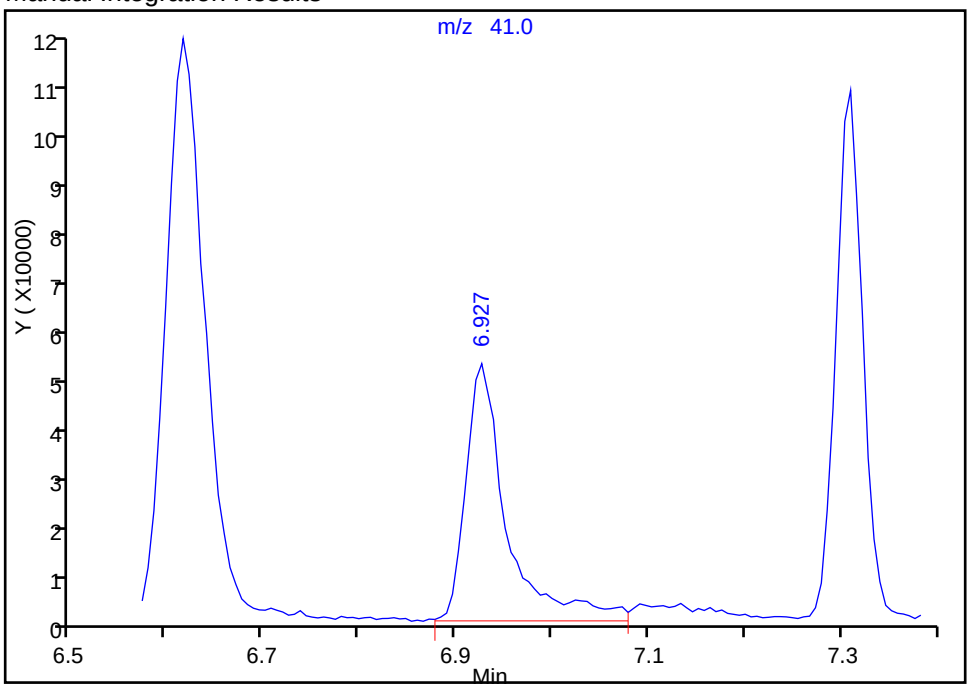
Processing Integration Results

RT: 6.93
Area: 141188
Amount: 2192.4652
Amount Units: ng



Manual Integration Results

RT: 6.93
Area: 152861
Amount: 2395.1695
Amount Units: ng



Reviewer: fergusond, 18-Jun-2015 08:50:54
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617010.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Jun-2015 15:42:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0007443-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:51 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 09:32:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.272	0.006	0	109577	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	92	374410	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	56	92645	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	75	112687	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	57	304086	175.0	174.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.936	-0.006	0	427373	175.0	169.6	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	1258264	175.0	163.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	85	473052	175.0	167.3	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	98	406279	175.0	161.0	
12 Chloromethane	50	1.771	1.771	0.000	85	470358	175.0	165.6	
13 Vinyl chloride	62	1.905	1.899	0.006	83	462809	175.0	161.5	
14 Butadiene	39	1.942	1.942	0.000	94	493792	175.0	160.7	
15 Bromomethane	94	2.258	2.258	0.000	84	228703	175.0	164.1	
16 Chloroethane	64	2.404	2.398	0.006	95	284353	175.0	164.7	
17 Dichlorofluoromethane	67	2.672	2.672	0.000	98	621763	175.0	162.8	
18 Trichlorofluoromethane	101	2.714	2.708	0.006	98	527308	175.0	169.2	
20 Ethyl ether	59	3.049	3.049	0.000	93	370505	175.0	171.9	
21 Acrolein	56	3.231	3.225	0.006	88	96004	225.0	232.3	
22 1,1-Dichloroethene	96	3.341	3.347	-0.006	88	355250	175.0	167.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	86	375509	175.0	167.8	
24 Acetone	43	3.444	3.444	0.000	93	208479	350.0	336.1	
25 Iodomethane	142	3.542	3.542	0.000	98	494039	175.0	168.6	
26 Carbon disulfide	76	3.633	3.633	0.000	100	851784	175.0	181.5	
28 3-Chloro-1-propene	76	3.925	3.919	0.006	61	215345	175.0	183.6	
30 Methyl acetate	43	3.943	3.943	0.000	97	1680625	875.0	873.6	
31 Methylene Chloride	84	4.144	4.138	0.006	92	416721	175.0	184.1	
32 2-Methyl-2-propanol	59	4.406	4.406	0.000	84	226221	1750.0	1807.9	
33 Acrylonitrile	53	4.527	4.521	0.006	99	1662395	1750.0	1783.4	
34 trans-1,2-Dichloroethene	96	4.570	4.564	0.006	76	381648	175.0	169.3	
35 Methyl tert-butyl ether	73	4.582	4.582	0.000	92	981534	175.0	176.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	95	604571	175.0	173.3	
37 1,1-Dichloroethane	63	5.202	5.203	0.000	85	729616	175.0	169.4	
38 Vinyl acetate	43	5.251	5.251	0.000	97	723334	175.0	196.2	
44 2,2-Dichloropropane	77	5.951	5.945	0.006	57	318442	175.0	173.0	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	71	412793	175.0	172.8	
46 2-Butanone (MEK)	43	5.957	5.963	-0.006	64	335015	350.0	368.1	
49 Chlorobromomethane	128	6.237	6.231	0.006	79	176872	175.0	175.5	
51 Tetrahydrofuran	42	6.249	6.255	-0.006	87	270631	350.0	361.9	
52 Chloroform	83	6.383	6.383	0.000	83	663409	175.0	167.4	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	51	521331	175.0	175.1	
54 Cyclohexane	56	6.614	6.614	0.000	77	765785	175.0	171.8	
56 Carbon tetrachloride	117	6.711	6.717	-0.006	84	447259	175.0	172.6	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	91	564179	175.0	172.6	
57 Isobutyl alcohol	41	6.930	6.930	0.000	52	299025	4375.0	4791.1	
58 Benzene	78	6.942	6.942	0.000	96	1576107	175.0	167.0	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	91	555180	175.0	172.0	
62 n-Heptane	43	7.307	7.307	0.000	93	534358	175.0	173.3	
64 Trichloroethene	130	7.672	7.678	-0.006	93	378840	175.0	170.0	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	665394	175.0	178.8	
67 1,2-Dichloropropane	63	7.952	7.952	0.000	88	399628	175.0	173.8	
68 Dibromomethane	93	8.037	8.037	0.000	95	214398	175.0	172.4	
70 1,4-Dioxane	88	8.031	8.037	-0.006	40	60747	3500.0	3846.4	
71 Dichlorobromomethane	83	8.232	8.232	0.000	99	458579	175.0	182.7	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	89	558268	175.0	192.2	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	95	808801	350.0	368.8	
76 Toluene	91	9.005	9.005	0.000	97	1594574	175.0	160.1	
77 trans-1,3-Dichloropropene	75	9.254	9.248	0.006	94	494360	175.0	184.4	
78 Ethyl methacrylate	69	9.309	9.309	0.000	75	488926	175.0	191.6	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	88	317622	175.0	164.4	
80 Tetrachloroethene	164	9.516	9.516	0.000	89	305258	175.0	161.2	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	94	593034	175.0	167.9	
82 2-Hexanone	43	9.656	9.656	0.000	97	527235	350.0	374.2	
84 Chlorodibromomethane	129	9.814	9.814	0.000	89	283987	175.0	180.5	
85 Ethylene Dibromide	107	9.923	9.929	-0.006	97	312538	175.0	173.1	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	91	542554	175.0	166.3	
87 Chlorobenzene	112	10.416	10.416	0.000	91	1002990	175.0	161.3	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	96	515650	175.0	167.8	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.513	-0.006	41	334679	175.0	174.4	
90 Ethylbenzene	106	10.513	10.513	0.000	98	581465	175.0	170.0	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	704459	175.0	170.6	
92 o-Xylene	106	11.024	11.024	0.000	96	678709	175.0	171.3	
93 Styrene	104	11.049	11.049	0.000	93	1117800	175.0	172.7	
94 Bromoform	173	11.231	11.231	0.000	94	156513	175.0	187.4	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	96	513173	175.0	166.9	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	1616980	175.0	166.6	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	52	408165	175.0	167.1	
100 Bromobenzene	156	11.706	11.712	-0.006	82	380076	175.0	173.2	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	74	142204	175.0	191.8	
101 1,2,3-Trichloropropane	110	11.760	11.767	-0.007	82	135814	175.0	174.8	
103 N-Propylbenzene	120	11.809	11.809	0.000	86	464167	175.0	179.2	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	385419	175.0	172.3	
105 3-Chlorotoluene	126	11.961	11.961	0.000	74	415021	175.0	179.3	

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	11.992	11.992	0.000	93	1305913	175.0	173.3	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	420730	175.0	173.6	
108 tert-Butylbenzene	119	12.308	12.308	0.000	90	1055188	175.0	176.0	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	1304956	175.0	175.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	372233	175.0	171.3	
112 sec-Butylbenzene	105	12.527	12.533	-0.006	83	1489124	175.0	172.3	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	94	671741	175.0	168.5	
114 4-Isopropyltoluene	119	12.685	12.685	0.000	90	1223451	175.0	175.8	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	91	685744	175.0	169.1	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	87	344654	175.0	174.6	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	361493	175.0	169.3	
120 n-Butylbenzene	91	13.099	13.099	0.000	95	1058649	175.0	177.9	
121 1,2-Dichlorobenzene	146	13.105	13.111	-0.006	82	600426	175.0	170.0	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.896	0.000	71	53852	175.0	177.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	1122389	525.0	559.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.462	-0.001	0	697008	350.0	379.4	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	92	232870	175.0	184.7	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	94	112857	175.0	161.2	
128 Naphthalene	128	14.991	14.991	0.000	98	644555	175.0	197.3	
129 1,2,3-Trichlorobenzene	180	15.216	15.210	0.006	95	184060	175.0	179.3	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	74150	175.0	170.3	
130 2,3,6-Trichlorotoluene	159	16.092	16.086	0.006	95	76853	175.0	173.1	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	341.9	
S 134 1,2-Dichloroethene, Total	96				0		350.0	342.1	
S 135 1,3-Dichloropropene, Total	1				0		350.0	376.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACRLOEINPR_00001	Amount Added:	9.00	Units: uL	
VOA8260SURR_00038	Amount Added:	7.00	Units: uL	
voaWketmix1Re_00001	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	7.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	7.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	7.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

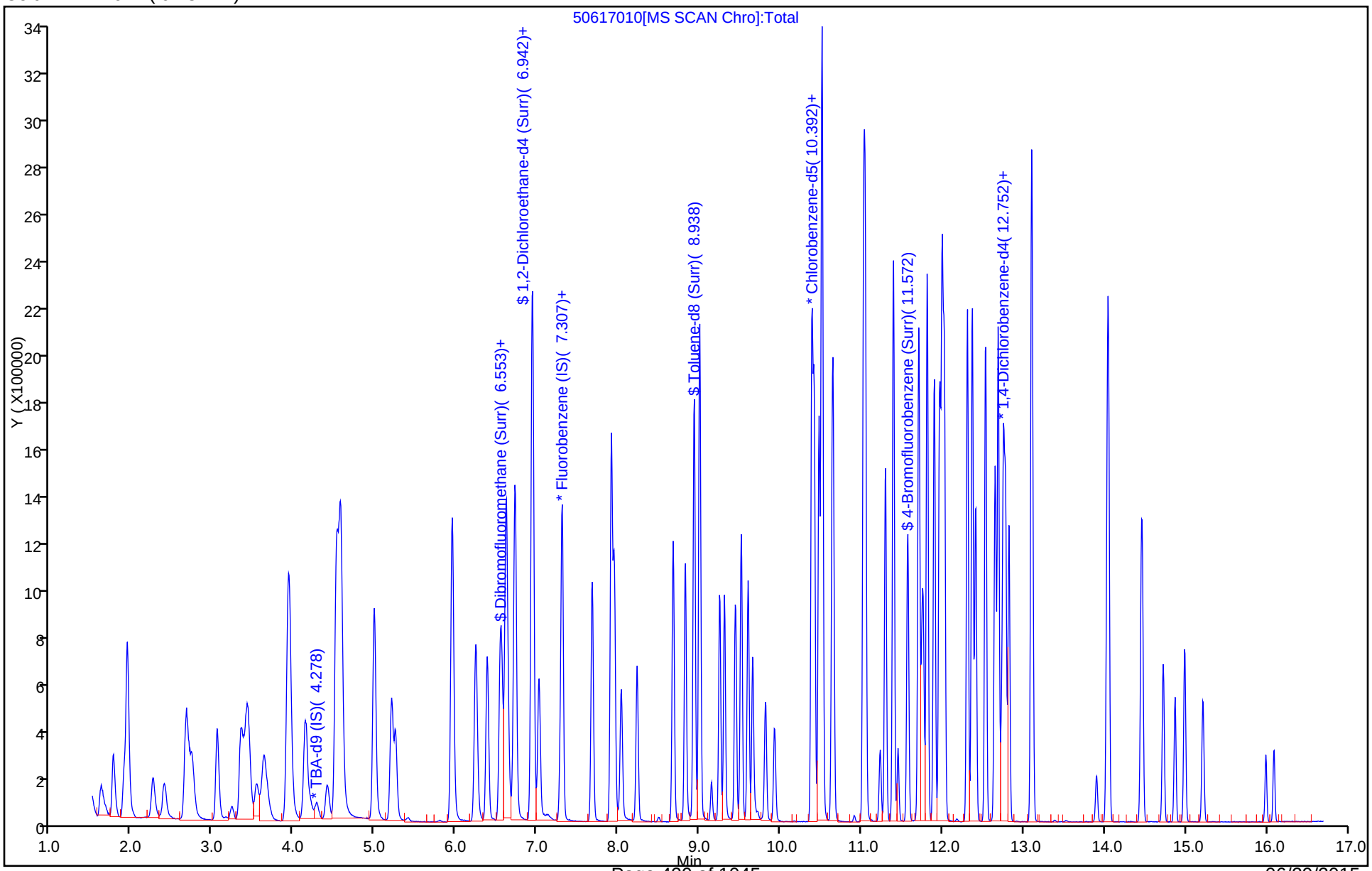
Report Date: 18-Jun-2015 11:19:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617010.D

Injection Date:	17-Jun-2015 15:42:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617011.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 17-Jun-2015 16:06:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0007443-011
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:53 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 09:35:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.272	-0.004	0	122239	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.289	-0.003	98	392901	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.386	0.002	57	99948	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.728	0.003	92	122332	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.565	-0.003	93	350611	200.0	191.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.936	-0.003	0	493641	200.0	186.7	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	94	1439382	200.0	173.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	90	557463	200.0	182.7	
11 Dichlorodifluoromethane	85	1.616	1.619	-0.003	99	490752	200.0	185.4	
12 Chloromethane	50	1.768	1.771	-0.003	100	523991	200.0	175.8	
13 Vinyl chloride	62	1.902	1.899	0.003	98	538171	200.0	178.9	
14 Butadiene	39	1.938	1.942	-0.004	93	561800	200.0	174.2	
15 Bromomethane	94	2.255	2.258	-0.003	91	248868	200.0	170.1	
16 Chloroethane	64	2.389	2.398	-0.009	100	316475	200.0	174.7	
17 Dichlorofluoromethane	67	2.668	2.672	-0.004	97	718183	200.0	179.2	
18 Trichlorofluoromethane	101	2.699	2.708	-0.009	99	600930	200.0	183.7	
20 Ethyl ether	59	3.046	3.049	-0.003	94	431207	200.0	190.7	
21 Acrolein	56	3.228	3.225	0.003	98	114067	250.0	263.0	
22 1,1-Dichloroethene	96	3.338	3.347	-0.009	95	410599	200.0	184.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.417	3.420	-0.003	95	430718	200.0	183.4	
24 Acetone	43	3.435	3.444	-0.009	99	251920	400.0	387.0	
25 Iodomethane	142	3.532	3.542	-0.010	100	579231	200.0	188.4	
26 Carbon disulfide	76	3.630	3.633	-0.003	100	1001334	200.0	203.3	
28 3-Chloro-1-propene	76	3.916	3.919	-0.003	89	245584	200.0	199.5	
30 Methyl acetate	43	3.940	3.943	-0.003	98	1971351	1000.0	976.5	
31 Methylene Chloride	84	4.141	4.138	0.003	96	466826	200.0	197.6	
32 2-Methyl-2-propanol	59	4.408	4.406	0.002	91	269586	2000.0	1931.3	
33 Acrylonitrile	53	4.524	4.521	0.003	97	1910483	2000.0	1953.1	
34 trans-1,2-Dichloroethene	96	4.560	4.564	-0.004	96	439641	200.0	185.8	
35 Methyl tert-butyl ether	73	4.579	4.582	-0.003	98	1178416	200.0	201.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	95	703743	200.0	192.3	
37 1,1-Dichloroethane	63	5.205	5.203	0.003	97	841498	200.0	186.1	
38 Vinyl acetate	43	5.248	5.251	-0.003	98	819004	200.0	211.7	
44 2,2-Dichloropropane	77	5.947	5.945	0.002	88	371771	200.0	192.5	
45 cis-1,2-Dichloroethene	96	5.954	5.951	0.003	84	476914	200.0	190.3	
46 2-Butanone (MEK)	43	5.960	5.963	-0.003	100	382226	400.0	400.3	
49 Chlorobromomethane	128	6.239	6.231	0.008	96	206501	200.0	195.2	
51 Tetrahydrofuran	42	6.252	6.255	-0.003	88	325712	400.0	415.0	
52 Chloroform	83	6.379	6.383	-0.004	95	766034	200.0	184.2	
53 1,1,1-Trichloroethane	97	6.538	6.541	-0.003	97	600207	200.0	192.1	
54 Cyclohexane	56	6.617	6.614	0.003	94	891635	200.0	190.6	
56 Carbon tetrachloride	117	6.714	6.717	-0.003	94	520097	200.0	191.3	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	92	648085	200.0	189.0	
57 Isobutyl alcohol	41	6.927	6.930	-0.003	94	315367	5000.0	4815.2	
58 Benzene	78	6.945	6.942	0.003	98	1802599	200.0	182.0	
59 1,2-Dichloroethane	62	7.018	7.021	-0.003	98	641336	200.0	189.3	
62 n-Heptane	43	7.310	7.307	0.003	94	613406	200.0	189.6	
64 Trichloroethene	130	7.675	7.678	-0.003	97	438244	200.0	187.4	
66 Methylcyclohexane	83	7.912	7.916	-0.004	94	770738	200.0	197.3	
67 1,2-Dichloropropane	63	7.949	7.952	-0.003	94	463847	200.0	192.3	
68 Dibromomethane	93	8.034	8.037	-0.003	97	251996	200.0	193.1	
70 1,4-Dioxane	88	8.028	8.037	-0.009	42	72079	4000.0	4349.1	
71 Dichlorobromomethane	83	8.229	8.232	-0.003	99	527553	200.0	200.3	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	91	663516	200.0	217.7	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.828	-0.003	97	927073	400.0	391.8	
76 Toluene	91	9.001	9.005	-0.004	98	1815140	200.0	169.0	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	98	577958	200.0	199.9	
78 Ethyl methacrylate	69	9.312	9.309	0.003	91	573048	200.0	208.1	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	93	364522	200.0	174.9	
80 Tetrachloroethene	164	9.518	9.516	0.002	95	349165	200.0	170.9	
81 1,3-Dichloropropane	76	9.604	9.601	0.003	95	674090	200.0	176.9	
82 2-Hexanone	43	9.658	9.656	0.002	98	591225	400.0	389.0	
84 Chlorodibromomethane	129	9.817	9.814	0.003	91	331408	200.0	195.2	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	98	363127	200.0	186.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.386	0.002	91	622777	200.0	177.0	
87 Chlorobenzene	112	10.419	10.416	0.003	91	1152586	200.0	171.8	
88 4-Chlorobenzotrifluoride	180	10.474	10.477	-0.003	97	599843	200.0	180.9	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.513	-0.003	93	387650	200.0	187.2	
90 Ethylbenzene	106	10.516	10.513	0.003	98	663092	200.0	179.7	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	820612	200.0	184.3	
92 o-Xylene	106	11.027	11.024	0.003	97	790630	200.0	184.9	
93 Styrene	104	11.045	11.049	-0.004	94	1289578	200.0	184.6	
94 Bromoform	173	11.228	11.231	-0.003	95	185935	200.0	206.3	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	94	606064	200.0	182.7	
97 Isopropylbenzene	105	11.392	11.395	-0.003	98	1878555	200.0	179.4	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.706	0.002	77	477417	200.0	181.1	
100 Bromobenzene	156	11.709	11.712	-0.004	96	442468	200.0	185.8	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.742	0.003	79	168794	200.0	209.7	
101 1,2,3-Trichloropropane	110	11.763	11.767	-0.004	86	159888	200.0	189.5	
103 N-Propylbenzene	120	11.812	11.809	0.003	98	542910	200.0	193.0	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	461338	200.0	190.0	
105 3-Chlorotoluene	126	11.964	11.961	0.003	95	490765	200.0	195.3	

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	11.994	11.992	0.002	95	1523592	200.0	186.2	
107 4-Chlorotoluene	126	12.025	12.022	0.003	98	484074	200.0	184.0	
108 tert-Butylbenzene	119	12.305	12.308	-0.003	93	1251164	200.0	192.2	
110 1,2,4-Trimethylbenzene	105	12.366	12.369	-0.003	99	1527586	200.0	189.6	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	98	445231	200.0	188.7	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	96	1749050	200.0	186.4	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	96	793952	200.0	183.4	
114 4-Isopropyltoluene	119	12.688	12.685	0.003	96	1449933	200.0	191.9	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	93	799016	200.0	181.5	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.776	0.003	96	397020	200.0	185.2	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	449922	200.0	194.1	
120 n-Butylbenzene	91	13.096	13.099	-0.003	97	1250309	200.0	193.5	
121 1,2-Dichlorobenzene	146	13.108	13.111	-0.003	94	701795	200.0	183.1	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.896	0.003	77	64433	200.0	195.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.042	0.003	0	1312774	600.0	602.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.462	-0.004	0	813548	400.0	407.9	
126 1,2,4-Trichlorobenzene	180	14.720	14.723	-0.003	95	271980	200.0	198.7	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	96	130058	200.0	171.1	
128 Naphthalene	128	14.988	14.991	-0.003	98	762683	200.0	215.1	
129 1,2,3-Trichlorobenzene	180	15.213	15.210	0.003	94	219483	200.0	196.9	
131 2,4,5-Trichlorotoluene	159	15.991	15.988	0.003	0	102047	200.0	200.9	
130 2,3,6-Trichlorotoluene	159	16.089	16.086	0.003	96	101530	200.0	198.8	
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		400.0	369.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	376.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	417.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00038	Amount Added:	8.00	Units: uL	
voaWketmix1Re_00001	Amount Added:	8.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	8.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	8.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	10.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

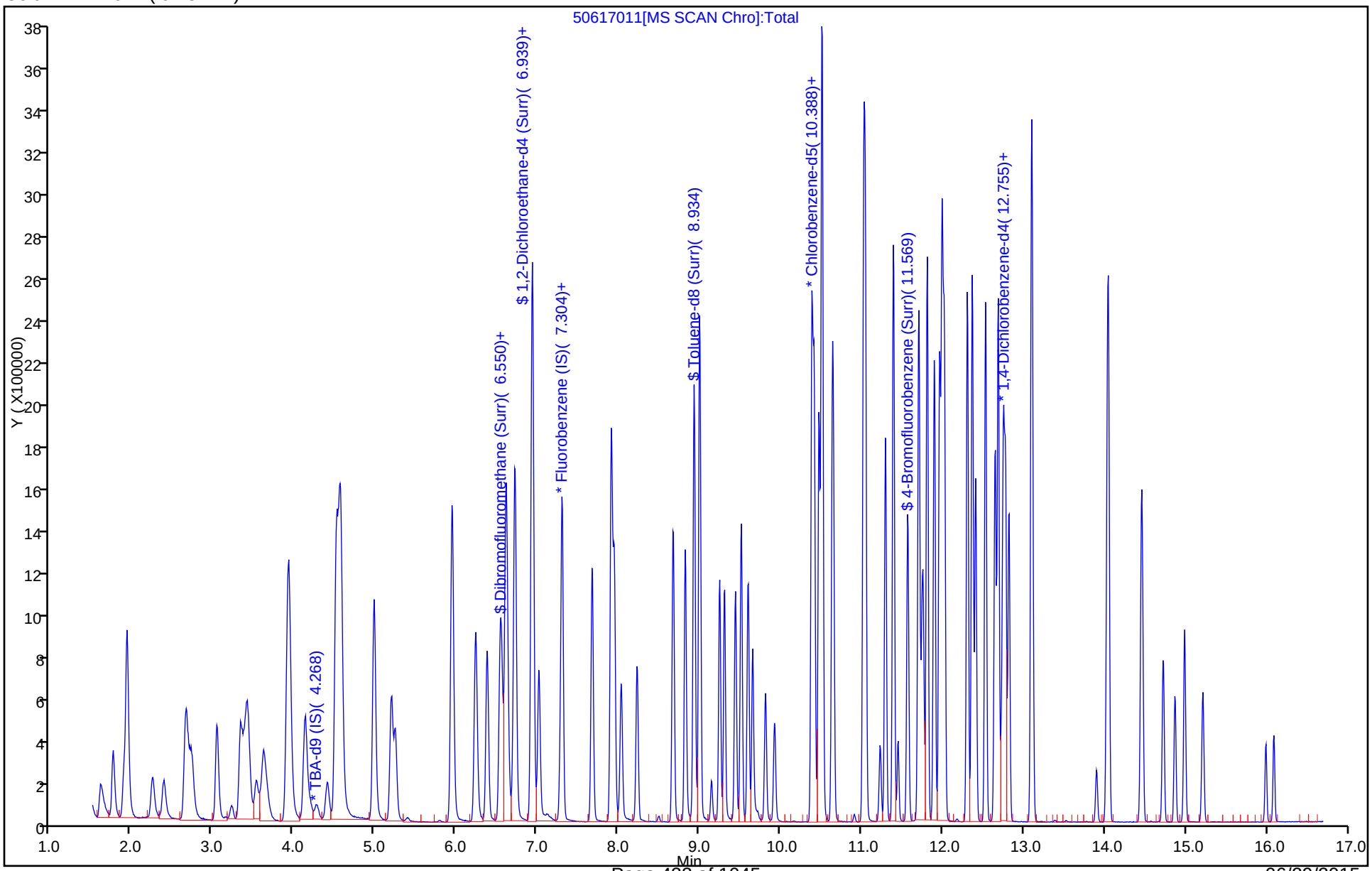
Report Date: 18-Jun-2015 11:19:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617011.D

Injection Date:	17-Jun-2015 16:06:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617012.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-Jun-2015 16:29:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0007443-012
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:54 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 09:42:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.272	0.015	0	113940	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.289	-0.003	98	394209	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.386	0.003	53	99625	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.728	-0.003	96	118641	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.565	-0.003	93	443187	250.0	241.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.936	-0.003	0	625499	250.0	235.8	
$ 7 Toluene-d8 (Surr)	98	8.935	8.938	-0.003	94	1777930	250.0	215.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	85	717948	250.0	236.1	
11 Dichlorodifluoromethane	85	1.616	1.619	-0.003	99	633416	250.0	238.4	
12 Chloromethane	50	1.762	1.771	-0.009	99	703080	250.0	235.1	
13 Vinyl chloride	62	1.908	1.899	0.009	98	709759	250.0	235.2	
14 Butadiene	39	1.939	1.942	-0.003	94	741355	250.0	229.1	
15 Bromomethane	94	2.243	2.258	-0.015	90	316164	250.0	215.4	
16 Chloroethane	64	2.389	2.398	-0.009	100	423350	250.0	233.0	
17 Dichlorofluoromethane	67	2.663	2.672	-0.009	97	920746	250.0	229.0	
18 Trichlorofluoromethane	101	2.711	2.708	0.003	98	760123	250.0	231.6	
20 Ethyl ether	59	3.046	3.049	-0.003	93	537080	250.0	236.7	
21 Acrolein	56	3.222	3.225	-0.003	99	120047	275.0	275.9	
22 1,1-Dichloroethene	96	3.338	3.347	-0.009	96	540491	250.0	242.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.420	-0.009	95	574450	250.0	243.7	
24 Acetone	43	3.441	3.444	-0.003	99	288844	500.0	442.3	
25 Iodomethane	142	3.533	3.542	-0.009	99	768838	250.0	249.2	
26 Carbon disulfide	76	3.630	3.633	-0.003	100	1362874	250.0	275.8	
28 3-Chloro-1-propene	76	3.916	3.919	-0.003	89	337990	250.0	273.7	
30 Methyl acetate	43	3.940	3.943	-0.003	98	2382208	1250.0	1176.1	
31 Methylene Chloride	84	4.135	4.138	-0.003	97	603105	250.0	258.9	
32 2-Methyl-2-propanol	59	4.421	4.406	0.015	91	308656	2500.0	2372.2	
33 Acrylonitrile	53	4.524	4.521	0.003	98	2346331	2500.0	2390.7	
34 trans-1,2-Dichloroethene	96	4.561	4.564	-0.003	97	574249	250.0	241.9	
35 Methyl tert-butyl ether	73	4.579	4.582	-0.003	98	1517466	250.0	259.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.990	-0.003	95	945438	250.0	257.5	
37 1,1-Dichloroethane	63	5.200	5.203	-0.002	97	1108115	250.0	244.3	
38 Vinyl acetate	43	5.248	5.251	-0.003	98	1008331	250.0	259.7	
44 2,2-Dichloropropane	77	5.948	5.945	0.003	86	486802	250.0	251.2	
45 cis-1,2-Dichloroethene	96	5.948	5.951	-0.003	83	619117	250.0	246.2	
46 2-Butanone (MEK)	43	5.960	5.963	-0.003	100	476377	500.0	497.2	
49 Chlorobromomethane	128	6.234	6.231	0.003	96	261865	250.0	246.8	
51 Tetrahydrofuran	42	6.252	6.255	-0.003	89	400339	500.0	508.4	
52 Chloroform	83	6.380	6.383	-0.003	95	990455	250.0	237.4	
53 1,1,1-Trichloroethane	97	6.544	6.541	0.003	97	794369	250.0	253.4	
54 Cyclohexane	56	6.611	6.614	-0.003	97	1206014	250.0	257.0	
56 Carbon tetrachloride	117	6.714	6.717	-0.003	94	704165	250.0	258.1	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	92	861875	250.0	250.5	
57 Isobutyl alcohol	41	6.927	6.930	-0.003	93	431449	6250.0	6565.7	
58 Benzene	78	6.939	6.942	-0.003	98	2308789	250.0	232.4	
59 1,2-Dichloroethane	62	7.018	7.021	-0.003	97	822349	250.0	241.9	
62 n-Heptane	43	7.310	7.307	0.003	93	825317	250.0	254.3	
64 Trichloroethene	130	7.676	7.678	-0.002	97	582600	250.0	248.3	
66 Methylcyclohexane	83	7.913	7.916	-0.003	95	1027848	250.0	262.3	
67 1,2-Dichloropropane	63	7.949	7.952	-0.003	94	611506	250.0	252.6	
68 Dibromomethane	93	8.034	8.037	-0.003	97	327328	250.0	250.0	
70 1,4-Dioxane	88	8.028	8.037	-0.009	41	89366	5000.0	5374.3	
71 Dichlorobromomethane	83	8.229	8.232	-0.003	98	696885	250.0	263.7	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	92	868238	250.0	283.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.828	-0.003	97	1183396	500.0	501.8	
76 Toluene	91	9.002	9.005	-0.003	97	2333889	250.0	218.0	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	98	770190	250.0	267.2	
78 Ethyl methacrylate	69	9.312	9.309	0.003	91	743353	250.0	270.8	
79 1,1,2-Trichloroethane	97	9.446	9.443	0.003	93	469658	250.0	226.1	
80 Tetrachloroethene	164	9.519	9.516	0.003	95	466332	250.0	229.0	
81 1,3-Dichloropropane	76	9.604	9.601	0.003	95	885819	250.0	233.2	
82 2-Hexanone	43	9.659	9.656	0.003	97	760964	500.0	502.2	
84 Chlorodibromomethane	129	9.817	9.814	0.003	92	444869	250.0	262.9	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	99	471517	250.0	242.9	
86 3-Chlorobenzotrifluoride	180	10.389	10.386	0.003	92	759876	250.0	216.6	
87 Chlorobenzene	112	10.413	10.416	-0.003	94	1501256	250.0	224.5	
88 4-Chlorobenzotrifluoride	180	10.474	10.477	-0.003	96	723279	250.0	218.8	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.513	-0.003	92	503057	250.0	243.7	
90 Ethylbenzene	106	10.516	10.513	0.003	98	880883	250.0	239.5	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	1067701	250.0	240.5	
92 o-Xylene	106	11.027	11.024	0.003	95	1027331	250.0	241.1	
93 Styrene	104	11.046	11.049	-0.003	92	1688053	250.0	242.5	
94 Bromoform	173	11.228	11.231	-0.003	95	253044	250.0	281.7	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	95	731650	250.0	221.3	
97 Isopropylbenzene	105	11.393	11.395	-0.003	98	2423171	250.0	232.1	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.706	0.003	75	610898	250.0	232.5	
100 Bromobenzene	156	11.709	11.712	-0.003	96	586242	250.0	253.8	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.742	-0.003	84	221836	250.0	284.1	
101 1,2,3-Trichloropropane	110	11.758	11.767	-0.009	86	205782	250.0	251.5	
103 N-Propylbenzene	120	11.812	11.809	0.003	97	723043	250.0	265.1	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	598001	250.0	253.9	
105 3-Chlorotoluene	126	11.964	11.961	0.003	95	600892	250.0	246.5	

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	11.995	11.992	0.003	94	1960117	250.0	247.0	
107 4-Chlorotoluene	126	12.019	12.022	-0.003	98	641189	250.0	251.3	
108 tert-Butylbenzene	119	12.305	12.308	-0.003	93	1618547	250.0	256.4	
110 1,2,4-Trimethylbenzene	105	12.366	12.369	-0.003	98	1946593	250.0	249.1	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	98	530743	250.0	232.0	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	96	2251780	250.0	247.4	
113 1,3-Dichlorobenzene	146	12.652	12.649	0.003	96	1022265	250.0	243.5	
114 4-Isopropyltoluene	119	12.688	12.685	0.003	95	1866871	250.0	254.7	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	92	1045055	250.0	244.7	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.776	0.004	96	474617	250.0	228.3	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	539686	250.0	240.0	
120 n-Butylbenzene	91	13.096	13.099	-0.003	97	1628698	250.0	259.9	
121 1,2-Dichlorobenzene	146	13.108	13.111	-0.003	94	903210	250.0	243.0	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.896	0.003	78	88331	250.0	276.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.039	14.042	-0.003	0	1629871	750.0	771.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.462	-0.003	0	1030679	500.0	532.9	
126 1,2,4-Trichlorobenzene	180	14.726	14.723	0.003	95	371041	250.0	279.5	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	97	175617	250.0	238.2	
128 Naphthalene	128	14.988	14.991	-0.003	98	1035925	250.0	301.2	
129 1,2,3-Trichlorobenzene	180	15.213	15.210	0.003	94	299099	250.0	276.7	
131 2,4,5-Trichlorotoluene	159	15.992	15.988	0.004	0	137650	250.0	250.8	
130 2,3,6-Trichlorotoluene	159	16.089	16.086	0.003	95	138350	250.0	350.5	
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		500.0	481.6	
S 134 1,2-Dichloroethene, Total	96				0		500.0	488.1	
S 135 1,3-Dichloropropene, Total	1				0		500.0	551.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACRLOEINPR_00001	Amount Added: 11.00	Units: uL	
VOA8260SURR_00038	Amount Added: 10.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 10.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 10.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 10.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

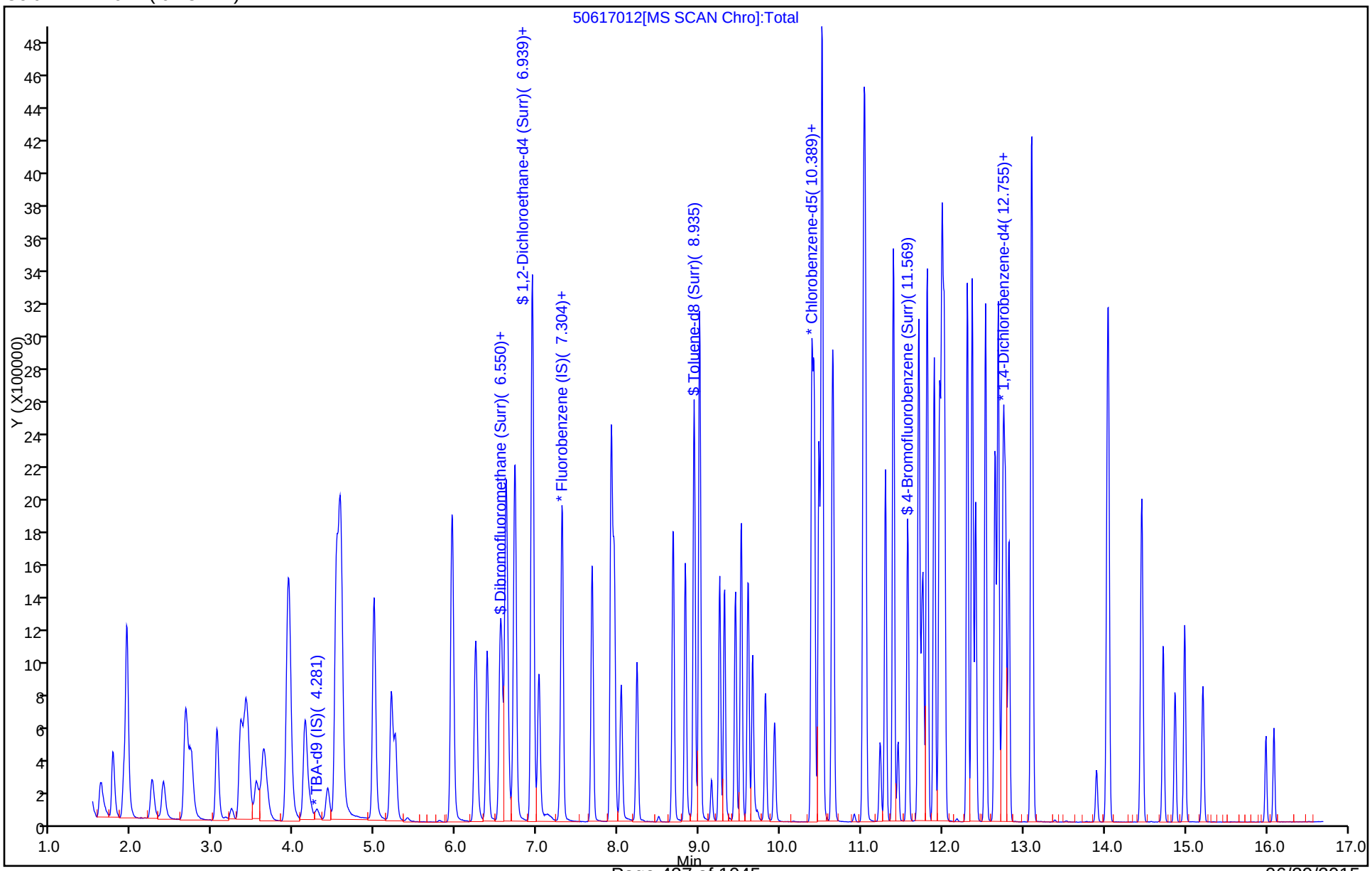
Report Date: 18-Jun-2015 11:19:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617012.D

Injection Date:	17-Jun-2015 16:29:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-Jun-2015 18:04:30 ALS Bottle#: 14 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0007443-017
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:55 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 09:50:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.272	0.005	0	95161	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.288	7.289	-0.001	98	369135	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.386	-0.001	89	79662	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.728	-0.001	97	101439	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.558	6.565	-0.007	90	9682	5.00	5.63	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	15123	5.00	6.09	
$ 7 Toluene-d8 (Surr)	98	8.931	8.938	-0.007	94	39633	5.00	5.99	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.572	-0.001	83	13828	5.00	5.69	
11 Dichlorodifluoromethane	85	1.637	1.619	0.018	92	13985	5.00	5.62	
12 Chloromethane	50	1.771	1.771	0.000	98	16479	5.00	5.88	
13 Vinyl chloride	62	1.892	1.899	-0.007	97	16468	5.00	5.83	
14 Butadiene	39	1.953	1.942	0.011	97	17534	5.00	5.79	
15 Bromomethane	94	2.251	2.258	-0.007	87	9558	5.00	6.95	
16 Chloroethane	64	2.403	2.398	0.005	73	10069	5.00	5.92	
17 Dichlorofluoromethane	67	2.671	2.672	-0.001	98	22288	5.00	5.92	
18 Trichlorofluoromethane	101	2.665	2.708	-0.043	53	16306	5.00	5.31	
20 Ethyl ether	59	3.054	3.049	0.005	92	12234	5.00	5.76	
21 Acrolein	56	3.231	3.225	0.006	99	40673	100.0	99.8	
22 1,1-Dichloroethene	96	3.346	3.347	-0.001	94	11927	5.00	5.71	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.420	0.012	95	12416	5.00	5.63	
24 Acetone	43	3.450	3.444	0.006	98	21142	25.0	34.6	
25 Iodomethane	142	3.541	3.542	-0.001	99	16174	5.00	5.60	
26 Carbon disulfide	76	3.632	3.633	-0.001	98	24523	5.00	5.30	
28 3-Chloro-1-propene	76	3.924	3.919	0.005	78	5725	5.00	4.95	
30 Methyl acetate	43	3.949	3.943	0.006	99	55670	25.0	29.4	
31 Methylene Chloride	84	4.143	4.138	0.005	99	42380	5.00	5.12	
32 2-Methyl-2-propanol	59	4.405	4.406	-0.001	58	5750	50.0	52.9	
33 Acrylonitrile	53	4.533	4.521	0.012	99	50704	50.0	55.2	
34 trans-1,2-Dichloroethene	96	4.569	4.564	0.005	82	12851	5.00	5.78	
35 Methyl tert-butyl ether	73	4.575	4.582	-0.007	96	30869	5.00	5.63	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.990	-0.001	95	18266	5.00	5.31	
37 1,1-Dichloroethane	63	5.208	5.203	0.006	96	24720	5.00	5.82	
38 Vinyl acetate	43	5.257	5.251	0.006	96	16760	5.00	4.61	
44 2,2-Dichloropropane	77	5.938	5.945	-0.007	54	9285	5.00	5.12	
45 cis-1,2-Dichloroethene	96	5.944	5.951	-0.007	87	13356	5.00	5.67	
46 2-Butanone (MEK)	43	5.968	5.963	0.005	94	25657	25.0	28.6	
49 Chlorobromomethane	128	6.242	6.231	0.011	96	5160	5.00	5.19	
51 Tetrahydrofuran	42	6.260	6.255	0.005	88	8952	10.0	12.1	
52 Chloroform	83	6.388	6.383	0.005	95	23436	5.00	6.00	
53 1,1,1-Trichloroethane	97	6.540	6.541	-0.001	96	15369	5.00	5.23	
54 Cyclohexane	56	6.619	6.614	0.005	96	23411	5.00	5.33	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	13635	5.00	5.34	
55 1,1-Dichloropropene	75	6.723	6.729	-0.006	90	17095	5.00	5.31	
57 Isobutyl alcohol	41	6.930	6.930	0.000	80	7732	125.0	125.7	M
58 Benzene	78	6.942	6.942	0.000	97	53813	5.00	5.78	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	97	18373	5.00	5.77	
62 n-Heptane	43	7.307	7.307	0.000	93	16224	5.00	5.34	
64 Trichloroethene	130	7.678	7.678	0.000	97	12617	5.00	5.74	
66 Methylcyclohexane	83	7.915	7.916	-0.001	91	17166	5.00	4.68	
67 1,2-Dichloropropane	63	7.958	7.952	0.006	92	12987	5.00	5.73	
68 Dibromomethane	93	8.043	8.037	0.006	92	7021	5.00	5.73	
70 1,4-Dioxane	88	8.025	8.037	-0.012	36	1168	100.0	75.0	
71 Dichlorobromomethane	83	8.231	8.232	-0.001	97	13279	5.00	5.37	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	12838	5.00	4.48	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	99	49926	25.0	26.5	
76 Toluene	91	9.004	9.005	-0.001	98	49160	5.00	5.74	
77 trans-1,3-Dichloropropene	75	9.247	9.248	-0.001	98	11320	5.00	4.91	
78 Ethyl methacrylate	69	9.308	9.309	-0.001	90	9383	5.00	4.28	
79 1,1,2-Trichloroethane	97	9.448	9.443	0.005	92	9973	5.00	6.00	
80 Tetrachloroethene	164	9.515	9.516	-0.001	96	9337	5.00	5.73	
81 1,3-Dichloropropane	76	9.600	9.601	-0.001	99	17423	5.00	5.74	
82 2-Hexanone	43	9.655	9.656	-0.001	98	32828	25.0	27.1	
84 Chlorodibromomethane	129	9.813	9.814	-0.001	88	7214	5.00	5.33	
85 Ethylene Dibromide	107	9.929	9.929	0.000	98	8260	5.00	5.32	
86 3-Chlorobenzotrifluoride	180	10.391	10.386	0.005	56	16372	5.00	5.84	
87 Chlorobenzene	112	10.415	10.416	-0.001	92	32854	5.00	6.14	
88 4-Chlorobenzotrifluoride	180	10.476	10.477	-0.001	94	15621	5.00	5.91	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.513	-0.006	42	8556	5.00	5.18	
90 Ethylbenzene	106	10.513	10.513	0.000	99	15088	5.00	5.13	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	17089	5.00	4.81	
92 o-Xylene	106	11.030	11.024	0.006	98	16524	5.00	4.85	
93 Styrene	104	11.048	11.049	-0.001	93	24775	5.00	4.45	
94 Bromoform	173	11.231	11.231	0.000	94	3484	5.00	4.85	
96 2-Chlorobenzotrifluoride	180	11.297	11.298	-0.001	91	15410	5.00	5.83	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	40468	5.00	4.85	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.706	-0.001	81	12128	5.00	5.77	
100 Bromobenzene	156	11.711	11.712	-0.001	95	10764	5.00	5.45	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.742	0.006	28	3040	5.00	4.55	
101 1,2,3-Trichloropropane	110	11.766	11.767	-0.001	85	4061	5.00	5.81	
103 N-Propylbenzene	120	11.808	11.809	-0.001	99	10453	5.00	4.48	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	11006	5.00	5.47	
105 3-Chlorotoluene	126	11.967	11.961	0.006	97	10480	5.00	5.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.991	11.992	-0.001	96	30672	5.00	4.52	
107 4-Chlorotoluene	126	12.021	12.022	-0.001	99	11822	5.00	5.42	
108 tert-Butylbenzene	119	12.307	12.308	-0.001	94	24739	5.00	4.58	
110 1,2,4-Trimethylbenzene	105	12.368	12.369	-0.001	98	29952	5.00	4.48	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	95	11645	5.00	5.95	
112 sec-Butylbenzene	105	12.532	12.533	-0.001	96	36514	5.00	4.69	
113 1,3-Dichlorobenzene	146	12.648	12.649	-0.001	96	21571	5.00	6.01	
114 4-Isopropyltoluene	119	12.691	12.685	0.006	95	27473	5.00	4.38	
115 1,4-Dichlorobenzene	146	12.751	12.752	-0.001	94	21178	5.00	5.80	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	92	10251	5.00	5.77	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.819	-0.001	0	10978	5.00	5.71	
120 n-Butylbenzene	91	13.098	13.099	-0.001	97	23139	5.00	4.32	
121 1,2-Dichlorobenzene	146	13.110	13.111	-0.001	95	18353	5.00	5.77	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.896	0.005	69	1764	5.00	6.46	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.042	-0.001	0	24591	15.0	13.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.462	-0.007	0	15149	10.0	9.16	
126 1,2,4-Trichlorobenzene	180	14.722	14.723	-0.001	91	5077	5.00	4.47	
127 Hexachlorobutadiene	225	14.868	14.869	-0.001	92	4131	5.00	6.55	
128 Naphthalene	128	14.984	14.991	-0.007	97	12282	5.00	4.18	
129 1,2,3-Trichlorobenzene	180	15.209	15.210	-0.001	94	4594	5.00	4.97	
131 2,4,5-Trichlorotoluene	159	15.994	15.988	0.006	0	1842	5.00	5.70	
130 2,3,6-Trichlorotoluene	159	16.097	16.086	0.011	88	1783	5.00	5.83	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.66	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.5	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.40	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00038	Amount Added:	0.20	Units: uL	
voaWVA2nd Res_00007	Amount Added:	0.20	Units: uL	
voaWEEmix1st_00002	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	0.20	Units: uL	
voaWketmix1Re_00001	Amount Added:	0.80	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	4.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent

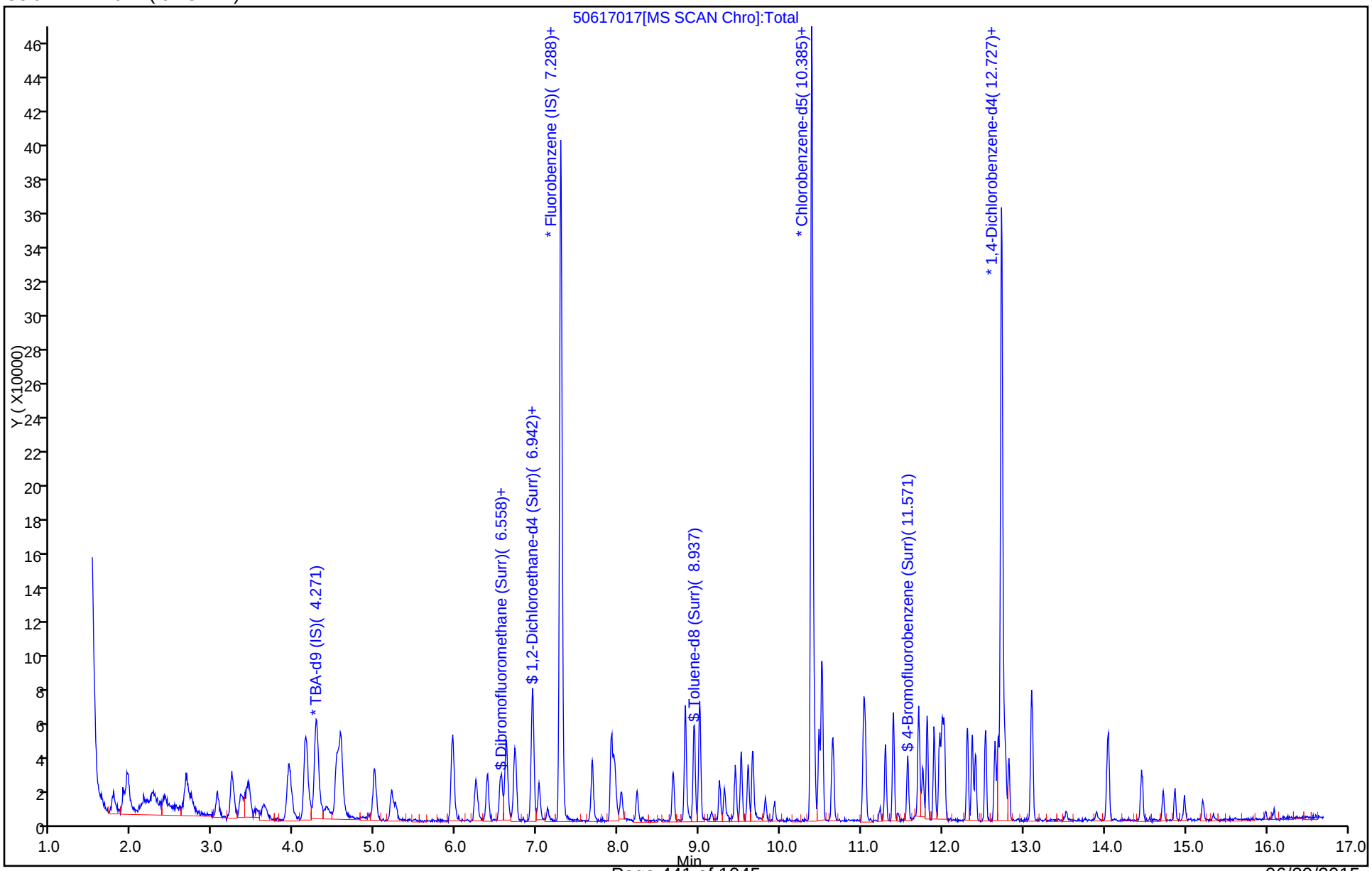
Report Date: 18-Jun-2015 11:19:56 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Injection Date:	17-Jun-2015 18:04:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	17
Client ID:					
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)



Manual Integration/User Assign Peak Report

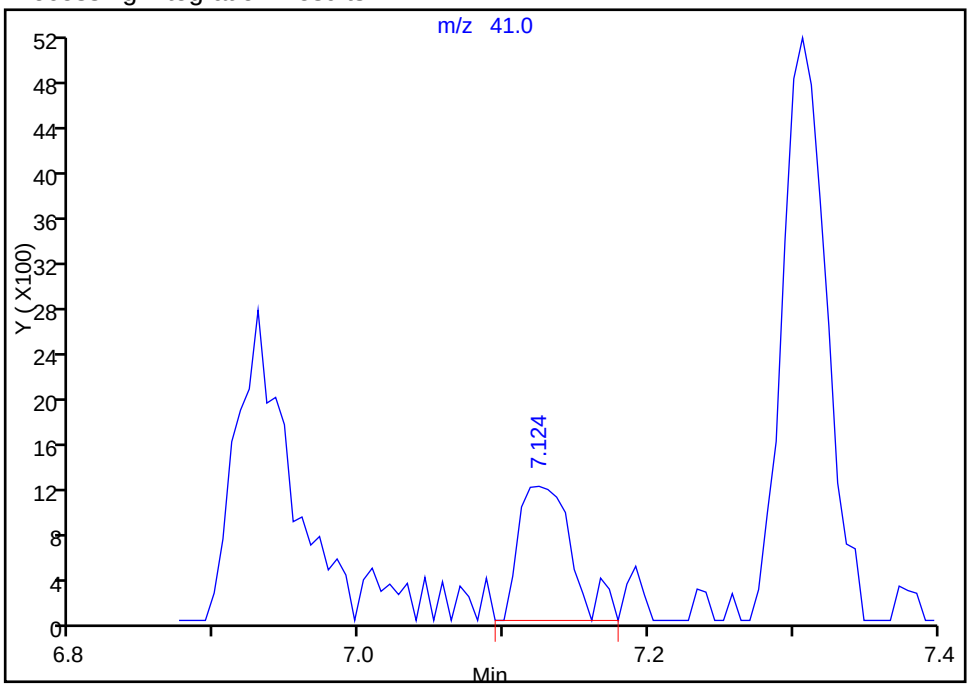
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D				
Injection Date:	17-Jun-2015 18:04:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

57 Isobutyl alcohol, CAS: 78-83-1

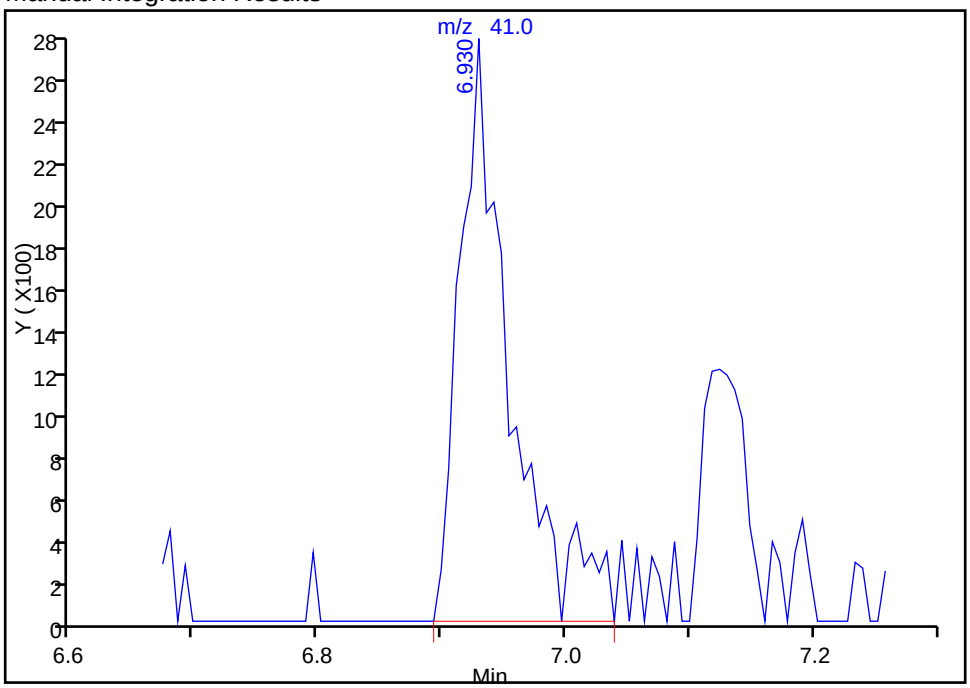
Processing Integration Results

RT: 7.12
Area: 3003
Amount: 47.931992
Amount Units: ng



Manual Integration Results

RT: 6.93
Area: 7732
Amount: 125.6565
Amount Units: ng



Reviewer: fergusond, 18-Jun-2015 09:50:05
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145455/2 Calibration Date: 06/18/2015 13:28

Instrument ID: CHHP5 Calib Start Date: 03/18/2015 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2015 16:19

Lab File ID: 50618002.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	0.1652	0.1456	0.0100	17.6	20.0	-11.9	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 18-Jun-2015 13:28:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007459-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 15:25:32 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 13:51:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	125702	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	96	403865	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	86	89831	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	94	121753	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	57	83533	50.0	44.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	119280	50.0	43.9	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	357146	50.0	47.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	82	131481	50.0	48.0	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	80	123420	50.0	45.3	
12 Chloromethane	50	1.766	1.766	0.000	100	139293	50.0	45.5	
13 Vinyl chloride	62	1.900	1.900	0.000	95	141146	50.0	45.7	
14 Butadiene	39	1.936	1.936	0.000	97	149138	50.0	45.0	
15 Bromomethane	94	2.258	2.258	0.000	86	66897	50.0	44.5	
16 Chloroethane	64	2.398	2.398	0.000	92	82887	50.0	44.5	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	97	187790	50.0	45.6	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	95	145852	50.0	43.4	
20 Ethyl ether	59	3.043	3.043	0.000	90	100748	50.0	43.3	
21 Acrolein	56	3.232	3.232	0.000	92	59985	150.0	134.6	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	88	98358	50.0	43.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	84	104430	50.0	43.3	
24 Acetone	43	3.439	3.439	0.000	84	56825	100.0	84.9	
25 Iodomethane	142	3.536	3.536	0.000	97	142069	50.0	44.9	
26 Carbon disulfide	76	3.633	3.633	0.000	99	215782	50.0	42.6	
28 3-Chloro-1-propene	76	3.913	3.913	0.000	83	57315	50.0	45.3	
30 Methyl acetate	43	3.937	3.937	0.000	98	474823	250.0	228.8	
31 Methylene Chloride	84	4.138	4.138	0.000	93	123850	50.0	39.5	
32 2-Methyl-2-propanol	59	4.400	4.400	0.000	81	67780	500.0	472.2	
33 Acrylonitrile	53	4.521	4.521	0.000	100	462296	500.0	459.8	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	96	109265	50.0	44.9	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	91	265151	50.0	44.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	167035	50.0	44.4	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	86	203346	50.0	43.8	
38 Vinyl acetate	43	5.245	5.245	0.000	98	180160	50.0	45.3	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	73	112293	50.0	43.6	
44 2,2-Dichloropropane	77	5.951	5.951	0.000	56	90631	50.0	45.6	
46 2-Butanone (MEK)	43	5.957	5.957	0.000	61	86147	100.0	87.8	
49 Chlorobromomethane	128	6.237	6.237	0.000	93	47304	50.0	43.5	
51 Tetrahydrofuran	42	6.255	6.255	0.000	90	68699	100.0	85.2	
52 Chloroform	83	6.383	6.383	0.000	82	190698	50.0	44.6	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	55	143022	50.0	44.5	
54 Cyclohexane	56	6.614	6.614	0.000	94	209685	50.0	43.6	
56 Carbon tetrachloride	117	6.718	6.718	0.000	74	121743	50.0	43.6	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	90	154069	50.0	43.7	
57 Isobutyl alcohol	41	6.924	6.924	0.000	60	69847	1250.0	1037.5	
58 Benzene	78	6.943	6.943	0.000	90	455919	50.0	44.8	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	91	157540	50.0	45.2	
62 n-Heptane	43	7.308	7.308	0.000	92	151281	50.0	45.5	
64 Trichloroethene	130	7.679	7.679	0.000	91	101593	50.0	42.3	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	177416	50.0	44.2	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	88	110203	50.0	44.4	
70 1,4-Dioxane	88	8.026	8.026	0.000	30	16755	1000.0	983.5	
68 Dibromomethane	93	8.032	8.032	0.000	86	59713	50.0	44.5	
71 Dichlorobromomethane	83	8.226	8.226	0.000	92	115387	50.0	42.6	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	91	117577	100.0	88.1	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	87	142745	50.0	45.6	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	66	193637	100.0	91.1	
76 Toluene	91	9.005	9.005	0.000	98	462837	50.0	47.9	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	99	116015	50.0	44.6	
78 Ethyl methacrylate	69	9.309	9.309	0.000	90	112101	50.0	45.3	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	78	86289	50.0	46.1	
80 Tetrachloroethene	164	9.516	9.516	0.000	95	85381	50.0	46.5	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	96	161454	50.0	47.1	
82 2-Hexanone	43	9.662	9.662	0.000	96	119393	100.0	87.4	
84 Chlorodibromomethane	129	9.820	9.820	0.000	86	66641	50.0	43.7	
85 Ethylene Dibromide	107	9.930	9.930	0.000	96	79732	50.0	45.6	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	86	147928	50.0	46.8	
87 Chlorobenzene	112	10.416	10.416	0.000	89	285152	50.0	47.3	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	94	140564	50.0	47.2	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	37	85937	50.0	46.2	
90 Ethylbenzene	106	10.514	10.514	0.000	99	154664	50.0	46.6	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	192137	50.0	48.0	
92 o-Xylene	106	11.031	11.031	0.000	96	182997	50.0	47.6	
93 Styrene	104	11.049	11.049	0.000	94	299989	50.0	47.8	
94 Bromoform	173	11.232	11.232	0.000	89	35740	50.0	44.1	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	94	142180	50.0	47.7	
97 Isopropylbenzene	105	11.396	11.396	0.000	95	455905	50.0	48.4	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	40	111756	50.0	47.2	
100 Bromobenzene	156	11.712	11.712	0.000	79	104071	50.0	43.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	73	35009	50.0	43.7	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	46	38406	50.0	45.7	
103 N-Propylbenzene	120	11.809	11.809	0.000	97	128054	50.0	45.7	
104 2-Chlorotoluene	126	11.901	11.901	0.000	94	104887	50.0	43.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.962	11.962	0.000	75	113126	50.0	45.2	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	93	383577	50.0	47.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	118105	50.0	45.1	
108 tert-Butylbenzene	119	12.308	12.308	0.000	82	295829	50.0	45.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	99	377718	50.0	47.1	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	95	106570	50.0	45.4	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	443156	50.0	47.4	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	93	191977	50.0	44.6	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	85	355087	50.0	47.2	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	91	197471	50.0	45.1	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.783	0.000	85	99642	50.0	46.7	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.825	0.000	0	109466	50.0	47.4	
120 n-Butylbenzene	91	13.099	13.099	0.000	95	302450	50.0	47.0	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	94	176012	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.908	13.908	0.000	58	14144	50.0	43.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	321391	150.0	148.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	193973	100.0	97.7	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	88	65186	50.0	47.8	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	92	34618	50.0	45.8	
128 Naphthalene	128	14.991	14.991	0.000	97	150874	50.0	42.8	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	94	51775	50.0	46.7	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	17474	50.0	51.4	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	88	18676	50.0	53.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	95.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	88.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketmix1Re_00001	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL	
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

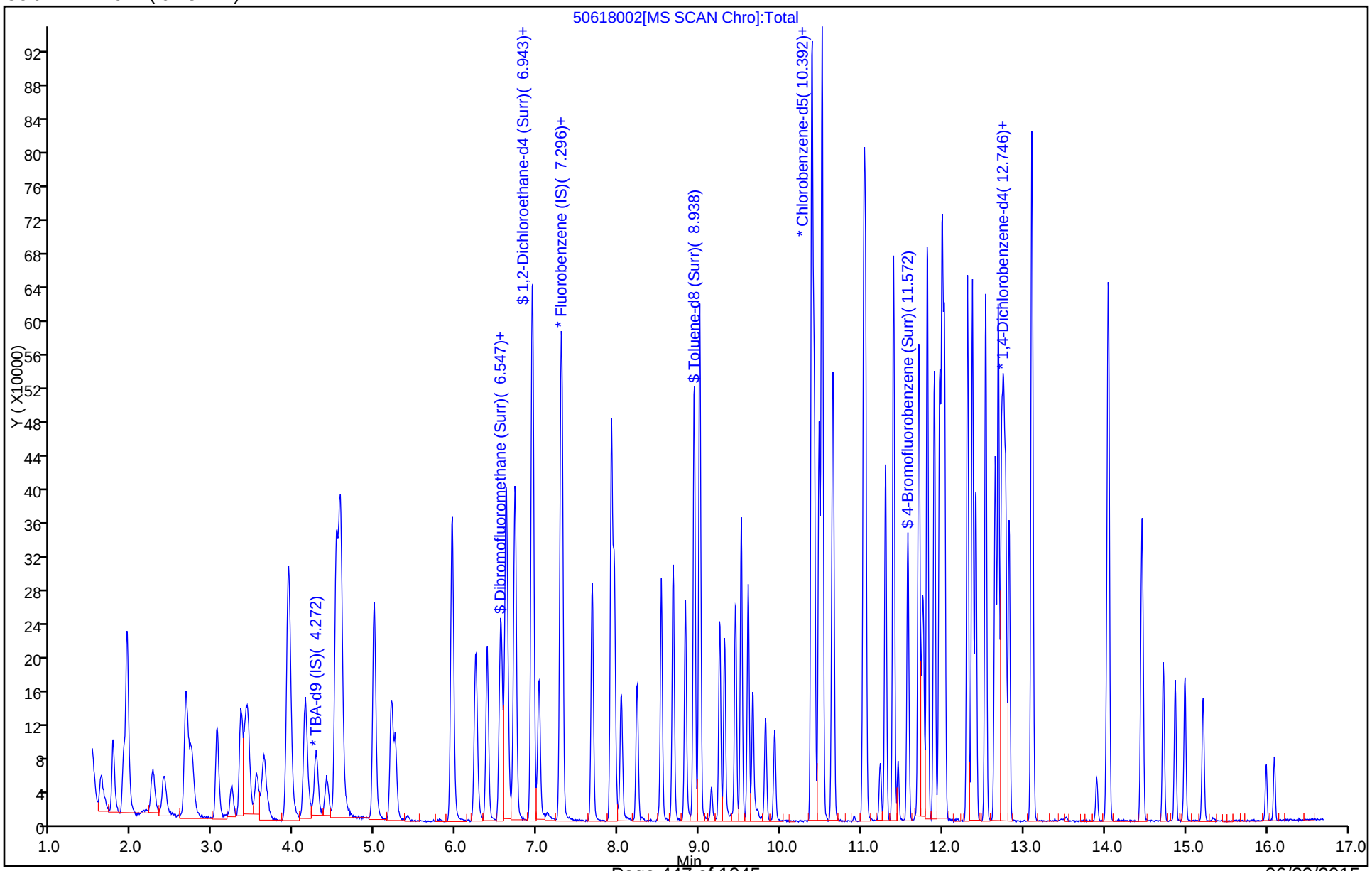
Report Date: 18-Jun-2015 15:25:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618002.D

Injection Date:	18-Jun-2015 13:28:30	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145455/2 Calibration Date: 06/18/2015 13:28

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50618002.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	0.3369	0.3056	0.1000	9.07	10.0	-9.3	20.0
Chloromethane	Ave	0.3794	0.3449	0.1000	9.09	10.0	-9.1	20.0
Vinyl chloride	Ave	0.3828	0.3495	0.1000	9.13	10.0	-8.7	20.0
Bromomethane	Ave	0.1862	0.1656	0.0500	8.90	10.0	-11.0	20.0
Chloroethane	Ave	0.2305	0.2052	0.0500	8.90	10.0	-11.0	20.0
Dichlorofluoromethane	Ave	0.5100	0.4650	0.0100	9.12	10.0	-8.8	20.0
Trichlorofluoromethane	Ave	0.4163	0.3611	0.1000	8.68	10.0	-13.2	20.0
Ethyl ether	Ave	0.2878	0.2495	0.0100	8.67	10.0	-13.3	20.0
Acrolein	Ave	0.0552	0.0495	0.0100	26.9	30.0	-10.3	20.0
1,1-Dichloroethene	Ave	0.2832	0.2435	0.1000	8.60	10.0	-14.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2989	0.2586	0.1000	8.65	10.0	-13.5	20.0
Acetone	Ave	0.0828	0.0704	0.0500	17.0	20.0	-15.1	20.0
Iodomethane	Ave	0.3913	0.3518	0.0100	8.99	10.0	-10.1	20.0
Carbon disulfide	Ave	0.6268	0.5343	0.1000	8.52	10.0	-14.8	20.0
Allyl chloride	Ave	0.1566	0.1419	0.0100	9.06	10.0	-9.4	20.0
Methyl acetate	Ave	0.2569	0.2351	0.1000	45.8	50.0	-8.5	20.0
Methylene Chloride	Lin2		0.3067	0.1000	7.91	10.0	-20.9*	20.0
tert-Butyl alcohol	Ave	1.142	1.078	0.0100	94.4	100	-5.6	20.0
Acrylonitrile	Ave	0.1245	0.1145	0.0100	92.0	100	-8.0	20.0
trans-1,2-Dichloroethene	Ave	0.3011	0.2706	0.1000	8.99	10.0	-10.1	20.0
Methyl tert-butyl ether	Ave	0.7427	0.6565	0.1000	8.84	10.0	-11.6	20.0
Hexane	Ave	0.4658	0.4136	0.0100	8.88	10.0	-11.2	20.0
1,1-Dichloroethane	Ave	0.5753	0.5035	0.2000	8.75	10.0	-12.5	20.0
Vinyl acetate	Ave	0.4924	0.4461	0.0100	9.06	10.0	-9.4	20.0
2,2-Dichloropropane	Ave	0.2458	0.2244	0.0100	9.13	10.0	-8.7	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2781	0.1000	8.72	10.0	-12.8	20.0
2-Butanone (MEK)	Ave	0.1215	0.1067	0.0500	17.6	20.0	-12.2	20.0
Bromochloromethane	Ave	0.1346	0.1171	0.0100	8.70	10.0	-13.0	20.0
Tetrahydrofuran	Ave	0.0999	0.0851	0.0100	17.0	20.0	-14.8	20.0
Chloroform	Ave	0.5292	0.4722	0.2000	8.92	10.0	-10.8	20.0
1,1,1-Trichloroethane	Ave	0.3977	0.3541	0.1000	8.90	10.0	-11.0	20.0
Cyclohexane	Ave	0.5953	0.5192	0.1000	8.72	10.0	-12.8	20.0
Carbon tetrachloride	Ave	0.3460	0.3014	0.1000	8.71	10.0	-12.9	20.0
1,1-Dichloropropene	Ave	0.4364	0.3815	0.0100	8.74	10.0	-12.6	20.0
Isobutyl alcohol	Ave	0.0083	0.0069*	0.0100	208	250	-17.0	20.0
Benzene	Ave	1.260	1.129	0.5000	8.96	10.0	-10.4	20.0
1,2-Dichloroethane	Ave	0.4311	0.3901	0.1000	9.05	10.0	-9.5	20.0
n-Heptane	Ave	0.4117	0.3746	0.0100	9.10	10.0	-9.0	20.0
Trichloroethene	Ave	0.2975	0.2516	0.2000	8.45	10.0	-15.5	20.0
Methylcyclohexane	Ave	0.4971	0.4393	0.1000	8.84	10.0	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145455/2 Calibration Date: 06/18/2015 13:28

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50618002.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	0.3070	0.2729	0.1000	8.89	10.0	-11.1	20.0
1,4-Dioxane	Ave	0.0021	0.0021*	0.0100	197	200	-1.6	20.0
Dibromomethane	Ave	0.1661	0.1479	0.0100	8.90	10.0	-11.0	20.0
Bromodichloromethane	Ave	0.3352	0.2857	0.2000	8.52	10.0	-14.8	20.0
cis-1,3-Dichloropropene	Ave	0.3878	0.3535	0.2000	9.11	10.0	-8.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.184	1.078	0.1000	18.2	20.0	-8.9	20.0
Toluene	Ave	5.374	5.152	0.4000	9.59	10.0	-4.1	20.0
trans-1,3-Dichloropropene	Ave	1.447	1.291	0.1000	8.93	10.0	-10.7	20.0
Ethyl methacrylate	Ave	1.378	1.248	0.0100	9.06	10.0	-9.4	20.0
1,1,2-Trichloroethane	Ave	1.043	0.9606	0.1000	9.21	10.0	-7.9	20.0
Tetrachloroethene	Ave	1.022	0.9505	0.2000	9.30	10.0	-7.0	20.0
1,3-Dichloropropane	Ave	1.907	1.797	0.0100	9.43	10.0	-5.7	20.0
2-Hexanone	Ave	0.7604	0.6645	0.1000	17.5	20.0	-12.6	20.0
Dibromochloromethane	Ave	0.8492	0.7419	0.1000	8.74	10.0	-12.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.9743	0.8876	0.1000	9.11	10.0	-8.9	20.0
3-Chlorobenzotrifluoride	Ave	1.760	1.647	0.0100	9.35	10.0	-6.5	20.0
Chlorobenzene	Ave	3.356	3.174	0.5000	9.46	10.0	-5.4	20.0
4-Chlorobenzotrifluoride	Ave	1.659	1.565	0.0100	9.43	10.0	-5.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	0.9567	0.0100	9.23	10.0	-7.7	20.0
Ethylbenzene	Ave	1.846	1.722	0.1000	9.33	10.0	-6.7	20.0
m-Xylene & p-Xylene	Ave	2.228	2.139	0.1000	9.60	10.0	-4.0	20.0
o-Xylene	Ave	2.139	2.037	0.3000	9.52	10.0	-4.8	20.0
Styrene	Ave	3.494	3.339	0.3000	9.56	10.0	-4.4	20.0
Bromoform	Ave	0.4508	0.3979	0.1000	8.83	10.0	-11.7	20.0
2-Chlorobenzotrifluoride	Ave	1.660	1.583	0.0100	9.54	10.0	-4.6	20.0
Isopropylbenzene	Ave	5.239	5.075	0.1000	9.69	10.0	-3.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.319	1.244	0.3000	9.44	10.0	-5.6	20.0
Bromobenzene	Ave	0.9734	0.8548	0.0100	8.78	10.0	-12.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3290	0.2875	0.0100	8.74	10.0	-12.6	20.0
1,2,3-Trichloropropane	Ave	0.3448	0.3154	0.0100	9.15	10.0	-8.5	20.0
N-Propylbenzene	Ave	1.150	1.052	0.0100	9.15	10.0	-8.5	20.0
2-Chlorotoluene	Ave	0.9924	0.8615	0.0100	8.68	10.0	-13.2	20.0
3-Chlorotoluene	Ave	1.027	0.9291	0.0100	9.05	10.0	-9.5	20.0
1,3,5-Trimethylbenzene	Ave	3.344	3.150	0.0100	9.42	10.0	-5.8	20.0
4-Chlorotoluene	Ave	1.075	0.9700	0.0100	9.02	10.0	-9.8	20.0
tert-Butylbenzene	Ave	2.660	2.430	0.0100	9.13	10.0	-8.7	20.0
1,2,4-Trimethylbenzene	Ave	3.293	3.102	0.0100	9.42	10.0	-5.8	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9643	0.8753	0.0100	9.08	10.0	-9.2	20.0
sec-Butylbenzene	Ave	3.836	3.640	0.0100	9.49	10.0	-5.1	20.0
1,3-Dichlorobenzene	Ave	1.769	1.577	0.6000	8.91	10.0	-10.9	20.0
4-Isopropyltoluene	Ave	3.089	2.916	0.0100	9.44	10.0	-5.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145455/2 Calibration Date: 06/18/2015 13:28

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50618002.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	1.800	1.622	0.5000	9.01	10.0	-9.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8761	0.8184	0.0100	9.34	10.0	-6.6	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9476	0.8991	0.0100	9.49	10.0	-5.1	20.0
n-Butylbenzene	Ave	2.641	2.484	0.0100	9.41	10.0	-5.9	20.0
1,2-Dichlorobenzene	Ave	1.567	1.446	0.4000	9.23	10.0	-7.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1345	0.1162	0.0500	8.64	10.0	-13.6	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8903	0.8799	0.0100	29.6	30.0	-1.2	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8151	0.7966	0.0100	19.5	20.0	-2.3	20.0
1,2,4-Trichlorobenzene	Ave	0.5596	0.5354	0.2000	9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.3107	0.2843	0.0100	9.15	10.0	-8.5	20.0
Naphthalene	Ave	1.449	1.239	0.0100	8.55	10.0	-14.5	20.0
1,2,3-Trichlorobenzene	Ave	0.4556	0.4253	0.0100	9.33	10.0	-6.7	20.0
2,4,5-Trichlorotoluene	Qua		0.1435	0.0100	10.3	10.0	2.7	20.0
2,3,6-Trichlorotoluene	Qua		0.1534	0.0100	10.8	10.0	7.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2331	0.2068		8.87	10.0	-11.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3365	0.2954		8.78	10.0	-12.2	20.0
Toluene-d8 (Surr)	Ave	4.150	3.976		9.58	10.0	-4.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.526	1.464		9.59	10.0	-4.1	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 18-Jun-2015 13:28:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007459-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 15:25:32 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 13:51:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	125702	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	96	403865	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	86	89831	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	94	121753	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	57	83533	50.0	44.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	119280	50.0	43.9	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	357146	50.0	47.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	82	131481	50.0	48.0	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	80	123420	50.0	45.3	
12 Chloromethane	50	1.766	1.766	0.000	100	139293	50.0	45.5	
13 Vinyl chloride	62	1.900	1.900	0.000	95	141146	50.0	45.7	
14 Butadiene	39	1.936	1.936	0.000	97	149138	50.0	45.0	
15 Bromomethane	94	2.258	2.258	0.000	86	66897	50.0	44.5	
16 Chloroethane	64	2.398	2.398	0.000	92	82887	50.0	44.5	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	97	187790	50.0	45.6	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	95	145852	50.0	43.4	
20 Ethyl ether	59	3.043	3.043	0.000	90	100748	50.0	43.3	
21 Acrolein	56	3.232	3.232	0.000	92	59985	150.0	134.6	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	88	98358	50.0	43.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	84	104430	50.0	43.3	
24 Acetone	43	3.439	3.439	0.000	84	56825	100.0	84.9	
25 Iodomethane	142	3.536	3.536	0.000	97	142069	50.0	44.9	
26 Carbon disulfide	76	3.633	3.633	0.000	99	215782	50.0	42.6	
28 3-Chloro-1-propene	76	3.913	3.913	0.000	83	57315	50.0	45.3	
30 Methyl acetate	43	3.937	3.937	0.000	98	474823	250.0	228.8	
31 Methylene Chloride	84	4.138	4.138	0.000	93	123850	50.0	39.5	
32 2-Methyl-2-propanol	59	4.400	4.400	0.000	81	67780	500.0	472.2	
33 Acrylonitrile	53	4.521	4.521	0.000	100	462296	500.0	459.8	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	96	109265	50.0	44.9	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	91	265151	50.0	44.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	167035	50.0	44.4	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	86	203346	50.0	43.8	
38 Vinyl acetate	43	5.245	5.245	0.000	98	180160	50.0	45.3	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	73	112293	50.0	43.6	
44 2,2-Dichloropropane	77	5.951	5.951	0.000	56	90631	50.0	45.6	
46 2-Butanone (MEK)	43	5.957	5.957	0.000	61	86147	100.0	87.8	
49 Chlorobromomethane	128	6.237	6.237	0.000	93	47304	50.0	43.5	
51 Tetrahydrofuran	42	6.255	6.255	0.000	90	68699	100.0	85.2	
52 Chloroform	83	6.383	6.383	0.000	82	190698	50.0	44.6	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	55	143022	50.0	44.5	
54 Cyclohexane	56	6.614	6.614	0.000	94	209685	50.0	43.6	
56 Carbon tetrachloride	117	6.718	6.718	0.000	74	121743	50.0	43.6	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	90	154069	50.0	43.7	
57 Isobutyl alcohol	41	6.924	6.924	0.000	60	69847	1250.0	1037.5	
58 Benzene	78	6.943	6.943	0.000	90	455919	50.0	44.8	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	91	157540	50.0	45.2	
62 n-Heptane	43	7.308	7.308	0.000	92	151281	50.0	45.5	
64 Trichloroethene	130	7.679	7.679	0.000	91	101593	50.0	42.3	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	177416	50.0	44.2	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	88	110203	50.0	44.4	
70 1,4-Dioxane	88	8.026	8.026	0.000	30	16755	1000.0	983.5	
68 Dibromomethane	93	8.032	8.032	0.000	86	59713	50.0	44.5	
71 Dichlorobromomethane	83	8.226	8.226	0.000	92	115387	50.0	42.6	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	91	117577	100.0	88.1	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	87	142745	50.0	45.6	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	66	193637	100.0	91.1	
76 Toluene	91	9.005	9.005	0.000	98	462837	50.0	47.9	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	99	116015	50.0	44.6	
78 Ethyl methacrylate	69	9.309	9.309	0.000	90	112101	50.0	45.3	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	78	86289	50.0	46.1	
80 Tetrachloroethene	164	9.516	9.516	0.000	95	85381	50.0	46.5	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	96	161454	50.0	47.1	
82 2-Hexanone	43	9.662	9.662	0.000	96	119393	100.0	87.4	
84 Chlorodibromomethane	129	9.820	9.820	0.000	86	66641	50.0	43.7	
85 Ethylene Dibromide	107	9.930	9.930	0.000	96	79732	50.0	45.6	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	86	147928	50.0	46.8	
87 Chlorobenzene	112	10.416	10.416	0.000	89	285152	50.0	47.3	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	94	140564	50.0	47.2	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	37	85937	50.0	46.2	
90 Ethylbenzene	106	10.514	10.514	0.000	99	154664	50.0	46.6	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	192137	50.0	48.0	
92 o-Xylene	106	11.031	11.031	0.000	96	182997	50.0	47.6	
93 Styrene	104	11.049	11.049	0.000	94	299989	50.0	47.8	
94 Bromoform	173	11.232	11.232	0.000	89	35740	50.0	44.1	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	94	142180	50.0	47.7	
97 Isopropylbenzene	105	11.396	11.396	0.000	95	455905	50.0	48.4	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	40	111756	50.0	47.2	
100 Bromobenzene	156	11.712	11.712	0.000	79	104071	50.0	43.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	73	35009	50.0	43.7	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	46	38406	50.0	45.7	
103 N-Propylbenzene	120	11.809	11.809	0.000	97	128054	50.0	45.7	
104 2-Chlorotoluene	126	11.901	11.901	0.000	94	104887	50.0	43.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.962	11.962	0.000	75	113126	50.0	45.2	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	93	383577	50.0	47.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	118105	50.0	45.1	
108 tert-Butylbenzene	119	12.308	12.308	0.000	82	295829	50.0	45.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	99	377718	50.0	47.1	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	95	106570	50.0	45.4	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	443156	50.0	47.4	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	93	191977	50.0	44.6	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	85	355087	50.0	47.2	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	91	197471	50.0	45.1	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.783	0.000	85	99642	50.0	46.7	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.825	0.000	0	109466	50.0	47.4	
120 n-Butylbenzene	91	13.099	13.099	0.000	95	302450	50.0	47.0	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	94	176012	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.908	13.908	0.000	58	14144	50.0	43.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	321391	150.0	148.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	193973	100.0	97.7	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	88	65186	50.0	47.8	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	92	34618	50.0	45.8	
128 Naphthalene	128	14.991	14.991	0.000	97	150874	50.0	42.8	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	94	51775	50.0	46.7	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	17474	50.0	51.4	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	88	18676	50.0	53.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	95.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	88.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketmix1Re_00001	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL		
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL		
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL		
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

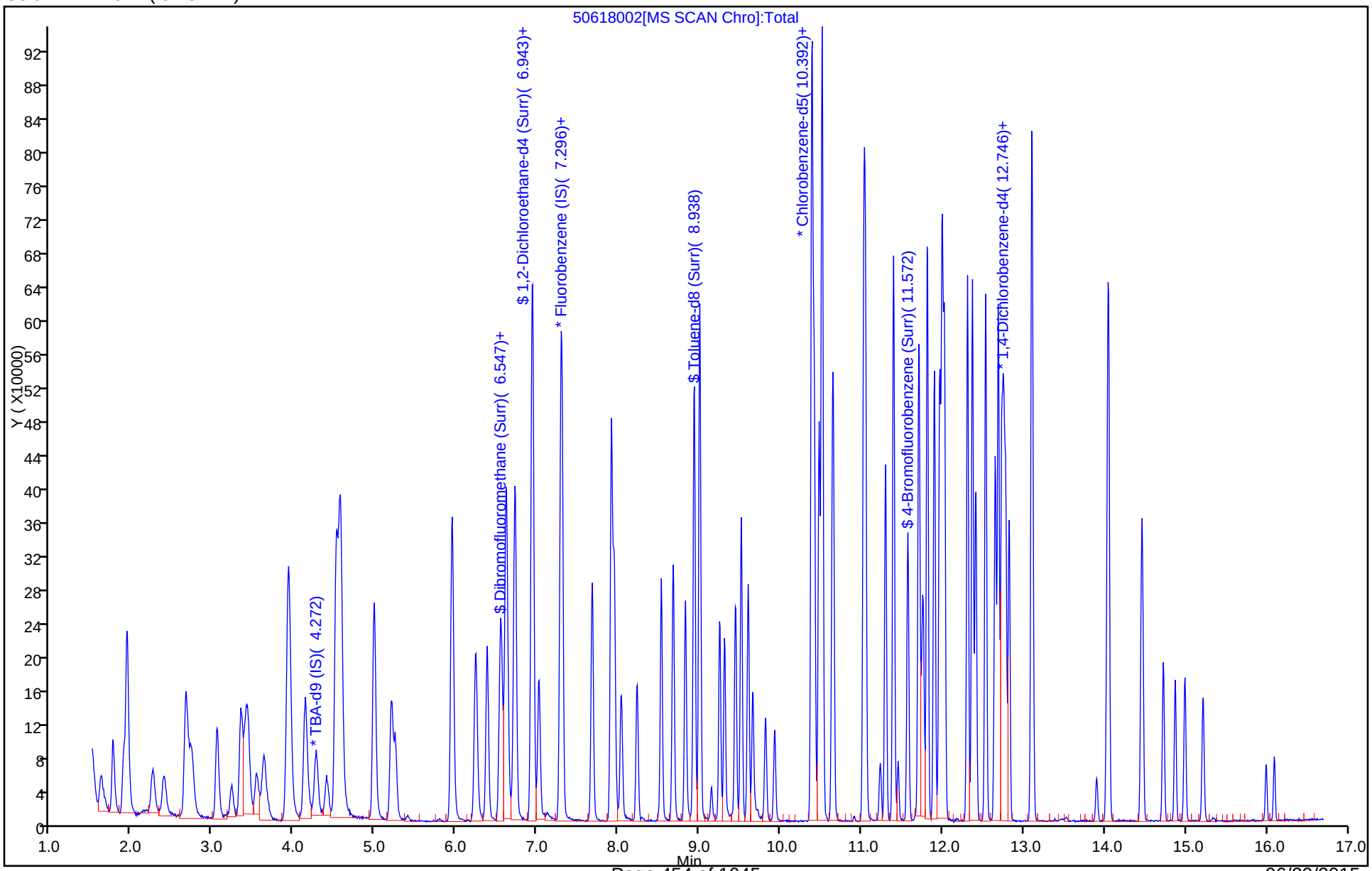
Report Date: 18-Jun-2015 15:25:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618002.D

Injection Date:	18-Jun-2015 13:28:30	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145590/2 Calibration Date: 06/19/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 03/18/2015 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2015 16:19

Lab File ID: 50619002.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	0.1652	0.1439	0.0100	17.4	20.0	-12.9	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Jun-2015 12:52:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007474-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 14:48:46 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:48:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.265	0.000	0	118869	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	371894	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	92	80483	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	95	107351	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	93	82740	50.0	47.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	0	113371	50.0	45.3	
$ 7 Toluene-d8 (Surr)	98	8.931	8.931	0.000	94	338329	50.0	50.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	83	114297	50.0	46.5	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	99	127424	50.0	50.8	
12 Chloromethane	50	1.765	1.765	0.000	99	146807	50.0	52.0	
13 Vinyl chloride	62	1.893	1.893	0.000	99	140002	50.0	49.2	
14 Butadiene	39	1.942	1.942	0.000	96	156295	50.0	51.2	
15 Bromomethane	94	2.246	2.246	0.000	90	69590	50.0	50.3	
16 Chloroethane	64	2.392	2.392	0.000	99	87337	50.0	50.9	
17 Dichlorofluoromethane	67	2.665	2.665	0.000	97	182486	50.0	48.1	
18 Trichlorofluoromethane	101	2.702	2.702	0.000	98	151364	50.0	48.9	
20 Ethyl ether	59	3.055	3.055	0.000	94	104178	50.0	48.7	
21 Acrolein	56	3.231	3.231	0.000	99	53351	150.0	130.0	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	96	97349	50.0	46.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	95	105909	50.0	47.6	
24 Acetone	43	3.438	3.438	0.000	98	70855	100.0	115.0	
25 Iodomethane	142	3.541	3.541	0.000	99	136938	50.0	47.0	
26 Carbon disulfide	76	3.633	3.633	0.000	100	250374	50.0	53.7	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	89	55060	50.0	47.3	
30 Methyl acetate	43	3.937	3.937	0.000	98	469484	250.0	245.7	
31 Methylene Chloride	84	4.144	4.144	0.000	97	129826	50.0	47.1	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	89	65834	500.0	485.0	
33 Acrylonitrile	53	4.515	4.515	0.000	99	464076	500.0	501.2	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	96	107212	50.0	47.9	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	96	239561	50.0	43.4	

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	159556	50.0	46.1	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	198221	50.0	46.3	
38 Vinyl acetate	43	5.245	5.245	0.000	97	145332	50.0	39.7	
45 cis-1,2-Dichloroethene	96	5.944	5.944	0.000	84	110977	50.0	46.8	
44 2,2-Dichloropropane	77	5.944	5.944	0.000	59	85321	50.0	46.7	
46 2-Butanone (MEK)	43	5.957	5.957	0.000	76	102193	100.0	113.1	
49 Chlorobromomethane	128	6.236	6.236	0.000	94	48316	50.0	48.3	
51 Tetrahydrofuran	42	6.249	6.249	0.000	89	69239	100.0	93.2	
52 Chloroform	83	6.376	6.376	0.000	95	186810	50.0	47.5	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	96	139037	50.0	47.0	
54 Cyclohexane	56	6.614	6.614	0.000	94	197522	50.0	44.6	
56 Carbon tetrachloride	117	6.711	6.711	0.000	95	121840	50.0	47.3	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	91	149173	50.0	46.0	
57 Isobutyl alcohol	41	6.924	6.924	0.000	86	79380	1250.0	1280.5	
58 Benzene	78	6.942	6.942	0.000	98	458144	50.0	48.9	
59 1,2-Dichloroethane	62	7.015	7.015	0.000	97	147813	50.0	46.1	
62 n-Heptane	43	7.307	7.307	0.000	93	148700	50.0	48.6	
64 Trichloroethene	130	7.672	7.672	0.000	96	97677	50.0	44.1	
66 Methylcyclohexane	83	7.915	7.915	0.000	94	167448	50.0	45.3	
67 1,2-Dichloropropane	63	7.946	7.946	0.000	93	105562	50.0	46.2	
70 1,4-Dioxane	88	8.025	8.025	0.000	39	14222	1000.0	906.6	
68 Dibromomethane	93	8.037	8.037	0.000	95	57913	50.0	46.9	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	122323	50.0	49.1	
73 2-Chloroethyl vinyl ether	63	8.530	8.530	0.000	94	107064	100.0	87.1	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	133869	50.0	46.4	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	99	186939	100.0	98.1	
76 Toluene	91	9.004	9.004	0.000	98	449670	50.0	52.0	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	98	107746	50.0	46.3	
78 Ethyl methacrylate	69	9.309	9.309	0.000	92	103766	50.0	46.8	
79 1,1,2-Trichloroethane	97	9.442	9.442	0.000	93	83437	50.0	49.7	
80 Tetrachloroethene	164	9.515	9.515	0.000	96	84520	50.0	51.4	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	97	154947	50.0	50.5	
82 2-Hexanone	43	9.655	9.655	0.000	99	151029	100.0	123.4	
84 Chlorodibromomethane	129	9.814	9.814	0.000	91	70490	50.0	51.6	
85 Ethylene Dibromide	107	9.929	9.929	0.000	99	77539	50.0	49.4	
86 3-Chlorobenzotrifluoride	180	10.385	10.385	0.000	92	142644	50.0	50.3	
87 Chlorobenzene	112	10.416	10.416	0.000	93	268885	50.0	49.8	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	97	130095	50.0	48.7	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	92	86413	50.0	51.8	
90 Ethylbenzene	106	10.513	10.513	0.000	99	148840	50.0	50.1	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	184018	50.0	51.3	
92 o-Xylene	106	11.030	11.030	0.000	97	167296	50.0	48.6	
93 Styrene	104	11.048	11.048	0.000	95	293963	50.0	52.3	
94 Bromoform	173	11.237	11.237	0.000	95	39299	50.0	54.2	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	132076	50.0	49.4	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	424274	50.0	50.3	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	78	109624	50.0	51.7	
100 Bromobenzene	156	11.705	11.705	0.000	96	97488	50.0	46.6	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	78	31666	50.0	44.8	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	87	35493	50.0	47.9	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	116570	50.0	47.2	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	99921	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.961	11.961	0.000	96	104053	50.0	47.2	
106 1,3,5-Trimethylbenzene	105	11.991	11.991	0.000	94	358602	50.0	49.9	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	110594	50.0	47.9	
108 tert-Butylbenzene	119	12.308	12.308	0.000	94	272546	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	352258	50.0	49.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	100553	50.0	48.6	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	407544	50.0	49.5	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	179340	50.0	47.2	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	97	327439	50.0	49.4	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	95	182311	50.0	47.2	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	96	94070	50.0	50.0	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	98878	50.0	48.6	
120 n-Butylbenzene	91	13.099	13.099	0.000	99	273838	50.0	48.3	
121 1,2-Dichlorobenzene	146	13.105	13.105	0.000	94	162046	50.0	48.2	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	75	13030	50.0	45.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	267921	150.0	140.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	155039	100.0	88.6	
126 1,2,4-Trichlorobenzene	180	14.729	14.729	0.000	95	56663	50.0	47.2	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	97	32741	50.0	49.1	
128 Naphthalene	128	14.991	14.991	0.000	98	125904	50.0	40.5	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	94	44096	50.0	45.1	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	14172	50.0	47.7	
130 2,3,6-Trichlorotoluene	159	16.098	16.098	0.000	91	12338	50.0	41.8	
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	99.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketmix1Re_00001	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL	
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

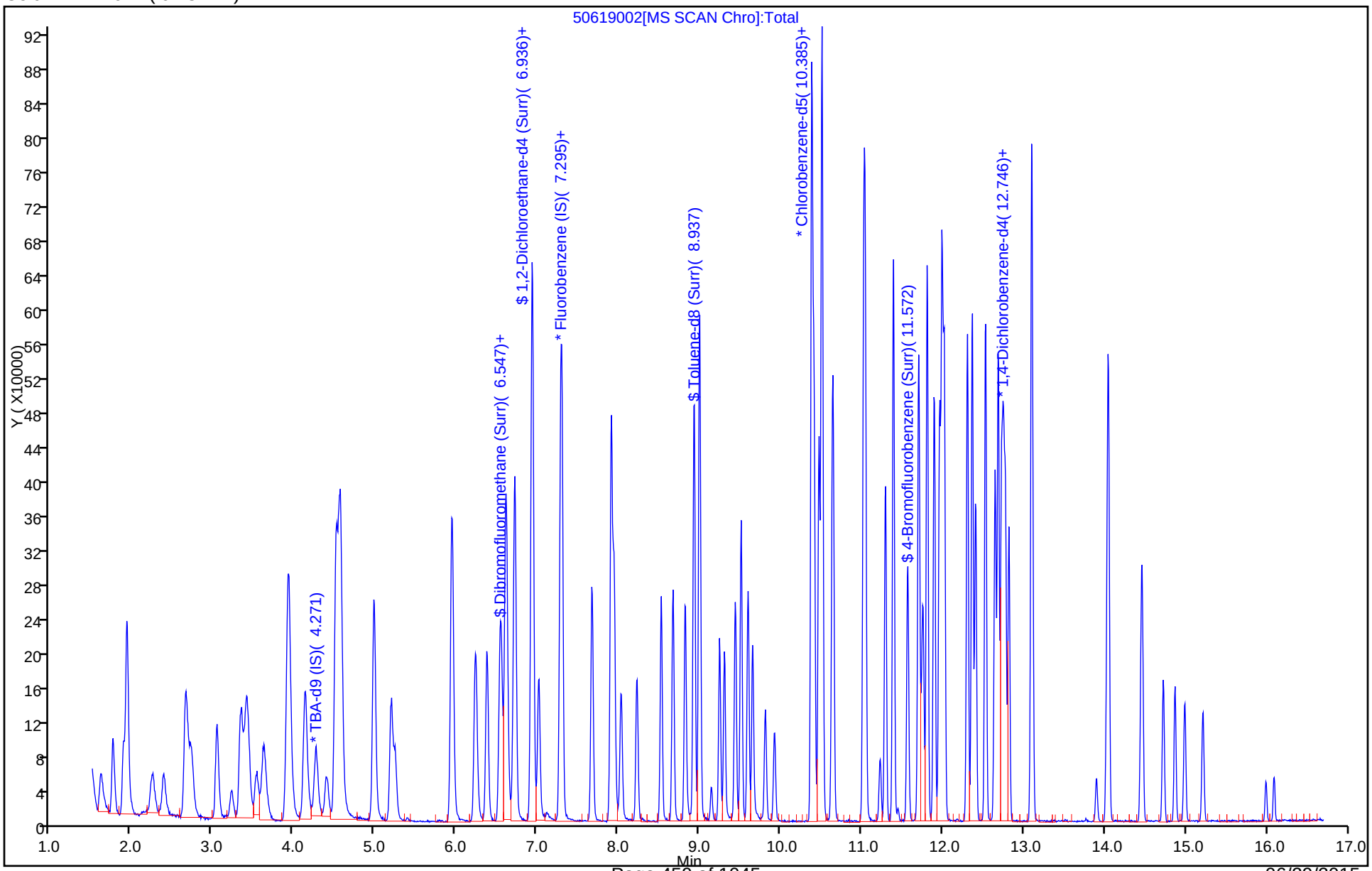
Report Date: 21-Jun-2015 14:48:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619002.D

Injection Date:	19-Jun-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.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145590/2 Calibration Date: 06/19/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50619002.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	0.3369	0.3426	0.1000	10.2	10.0	1.7	20.0
Chloromethane	Ave	0.3794	0.3948	0.1000	10.4	10.0	4.1	20.0
Vinyl chloride	Ave	0.3828	0.3765	0.1000	9.83	10.0	-1.7	20.0
Bromomethane	Ave	0.1862	0.1871	0.0500	10.1	10.0	0.5	20.0
Chloroethane	Ave	0.2305	0.2348	0.0500	10.2	10.0	1.9	20.0
Dichlorofluoromethane	Ave	0.5100	0.4907	0.0100	9.62	10.0	-3.8	20.0
Trichlorofluoromethane	Ave	0.4163	0.4070	0.1000	9.78	10.0	-2.2	20.0
Ethyl ether	Ave	0.2878	0.2801	0.0100	9.73	10.0	-2.7	20.0
Acrolein	Ave	0.0552	0.0478	0.0100	26.0	30.0	-13.4	20.0
1,1-Dichloroethene	Ave	0.2832	0.2618	0.1000	9.24	10.0	-7.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2989	0.2848	0.1000	9.53	10.0	-4.7	20.0
Acetone	Ave	0.0828	0.0953	0.0500	23.0	20.0	15.0	20.0
Iodomethane	Ave	0.3913	0.3682	0.0100	9.41	10.0	-5.9	20.0
Carbon disulfide	Ave	0.6268	0.6732	0.1000	10.7	10.0	7.4	20.0
Allyl chloride	Ave	0.1566	0.1481	0.0100	9.45	10.0	-5.5	20.0
Methyl acetate	Ave	0.2569	0.2525	0.1000	49.1	50.0	-1.7	20.0
Methylene Chloride	Lin2		0.3491	0.1000	9.43	10.0	-5.7	20.0
tert-Butyl alcohol	Ave	1.142	1.108	0.0100	97.0	100	-3.0	20.0
Acrylonitrile	Ave	0.1245	0.1248	0.0100	100	100	0.2	20.0
trans-1,2-Dichloroethene	Ave	0.3011	0.2883	0.1000	9.58	10.0	-4.2	20.0
Methyl tert-butyl ether	Ave	0.7427	0.6442	0.1000	8.67	10.0	-13.3	20.0
Hexane	Ave	0.4658	0.4290	0.0100	9.21	10.0	-7.9	20.0
1,1-Dichloroethane	Ave	0.5753	0.5330	0.2000	9.26	10.0	-7.4	20.0
Vinyl acetate	Ave	0.4924	0.3908	0.0100	7.94	10.0	-20.6*	20.0
2,2-Dichloropropane	Ave	0.2458	0.2294	0.0100	9.33	10.0	-6.7	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2984	0.1000	9.36	10.0	-6.4	20.0
2-Butanone (MEK)	Ave	0.1215	0.1374	0.0500	22.6	20.0	13.1	20.0
Bromochloromethane	Ave	0.1346	0.1299	0.0100	9.65	10.0	-3.5	20.0
Tetrahydrofuran	Ave	0.0999	0.0931	0.0100	18.6	20.0	-6.8	20.0
Chloroform	Ave	0.5292	0.5023	0.2000	9.49	10.0	-5.1	20.0
1,1,1-Trichloroethane	Ave	0.3977	0.3739	0.1000	9.40	10.0	-6.0	20.0
Cyclohexane	Ave	0.5953	0.5311	0.1000	8.92	10.0	-10.8	20.0
Carbon tetrachloride	Ave	0.3460	0.3276	0.1000	9.47	10.0	-5.3	20.0
1,1-Dichloropropene	Ave	0.4364	0.4011	0.0100	9.19	10.0	-8.1	20.0
Isobutyl alcohol	Ave	0.0083	0.0085*	0.0100	256	250	2.4	20.0
Benzene	Ave	1.260	1.232	0.5000	9.78	10.0	-2.2	20.0
1,2-Dichloroethane	Ave	0.4311	0.3975	0.1000	9.22	10.0	-7.8	20.0
n-Heptane	Ave	0.4117	0.3999	0.0100	9.71	10.0	-2.9	20.0
Trichloroethene	Ave	0.2975	0.2627	0.2000	8.83	10.0	-11.7	20.0
Methylcyclohexane	Ave	0.4971	0.4503	0.1000	9.06	10.0	-9.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145590/2 Calibration Date: 06/19/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50619002.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	0.3070	0.2839	0.1000	9.24	10.0	-7.6	20.0
1,4-Dioxane	Ave	0.0021	0.0019*	0.0100	181	200	-9.3	20.0
Dibromomethane	Ave	0.1661	0.1557	0.0100	9.38	10.0	-6.2	20.0
Bromodichloromethane	Ave	0.3352	0.3289	0.2000	9.81	10.0	-1.9	20.0
cis-1,3-Dichloropropene	Ave	0.3878	0.3600	0.2000	9.28	10.0	-7.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.184	1.161	0.1000	19.6	20.0	-1.9	20.0
Toluene	Ave	5.374	5.587	0.4000	10.4	10.0	4.0	20.0
trans-1,3-Dichloropropene	Ave	1.447	1.339	0.1000	9.25	10.0	-7.5	20.0
Ethyl methacrylate	Ave	1.378	1.289	0.0100	9.36	10.0	-6.4	20.0
1,1,2-Trichloroethane	Ave	1.043	1.037	0.1000	9.94	10.0	-0.6	20.0
Tetrachloroethene	Ave	1.022	1.050	0.2000	10.3	10.0	2.7	20.0
1,3-Dichloropropane	Ave	1.907	1.925	0.0100	10.1	10.0	1.0	20.0
2-Hexanone	Ave	0.7604	0.9383	0.1000	24.7	20.0	23.4*	20.0
Dibromochloromethane	Ave	0.8492	0.8758	0.1000	10.3	10.0	3.1	20.0
1,2-Dibromoethane (EDB)	Ave	0.9743	0.9634	0.1000	9.89	10.0	-1.1	20.0
3-Chlorobenzotrifluoride	Ave	1.760	1.772	0.0100	10.1	10.0	0.7	20.0
Chlorobenzene	Ave	3.356	3.341	0.5000	9.95	10.0	-0.5	20.0
4-Chlorobenzotrifluoride	Ave	1.659	1.616	0.0100	9.74	10.0	-2.6	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.074	0.0100	10.4	10.0	3.6	20.0
Ethylbenzene	Ave	1.846	1.849	0.1000	10.0	10.0	0.2	20.0
m-Xylene & p-Xylene	Ave	2.228	2.286	0.1000	10.3	10.0	2.6	20.0
o-Xylene	Ave	2.139	2.079	0.3000	9.72	10.0	-2.8	20.0
Styrene	Ave	3.494	3.652	0.3000	10.5	10.0	4.5	20.0
Bromoform	Ave	0.4508	0.4883	0.1000	10.8	10.0	8.3	20.0
2-Chlorobenzotrifluoride	Ave	1.660	1.641	0.0100	9.89	10.0	-1.1	20.0
Isopropylbenzene	Ave	5.239	5.272	0.1000	10.1	10.0	0.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.319	1.362	0.3000	10.3	10.0	3.3	20.0
Bromobenzene	Ave	0.9734	0.9081	0.0100	9.33	10.0	-6.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3290	0.2950	0.0100	8.96	10.0	-10.4	20.0
1,2,3-Trichloropropane	Ave	0.3448	0.3306	0.0100	9.59	10.0	-4.1	20.0
N-Propylbenzene	Ave	1.150	1.086	0.0100	9.45	10.0	-5.5	20.0
2-Chlorotoluene	Ave	0.9924	0.9308	0.0100	9.38	10.0	-6.2	20.0
3-Chlorotoluene	Ave	1.027	0.9693	0.0100	9.44	10.0	-5.6	20.0
1,3,5-Trimethylbenzene	Ave	3.344	3.340	0.0100	9.99	10.0	-0.1	20.0
4-Chlorotoluene	Ave	1.075	1.030	0.0100	9.58	10.0	-4.2	20.0
tert-Butylbenzene	Ave	2.660	2.539	0.0100	9.54	10.0	-4.6	20.0
1,2,4-Trimethylbenzene	Ave	3.293	3.281	0.0100	9.96	10.0	-0.4	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9643	0.9367	0.0100	9.71	10.0	-2.9	20.0
sec-Butylbenzene	Ave	3.836	3.796	0.0100	9.90	10.0	-1.0	20.0
1,3-Dichlorobenzene	Ave	1.769	1.671	0.6000	9.44	10.0	-5.6	20.0
4-Isopropyltoluene	Ave	3.089	3.050	0.0100	9.88	10.0	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145590/2 Calibration Date: 06/19/2015 12:52

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50619002.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	1.800	1.698	0.5000	9.44	10.0	-5.6	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8761	0.8763	0.0100	10.0	10.0	0.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9476	0.9211	0.0100	9.72	10.0	-2.8	20.0
n-Butylbenzene	Ave	2.641	2.551	0.0100	9.66	10.0	-3.4	20.0
1,2-Dichlorobenzene	Ave	1.567	1.510	0.4000	9.63	10.0	-3.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1345	0.1214	0.0500	9.02	10.0	-9.8	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8903	0.8319	0.0100	28.0	30.0	-6.6	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8151	0.7221	0.0100	17.7	20.0	-11.4	20.0
1,2,4-Trichlorobenzene	Ave	0.5596	0.5278	0.2000	9.43	10.0	-5.7	20.0
Hexachlorobutadiene	Ave	0.3107	0.3050	0.0100	9.82	10.0	-1.8	20.0
Naphthalene	Ave	1.449	1.173	0.0100	8.09	10.0	-19.1	20.0
1,2,3-Trichlorobenzene	Ave	0.4556	0.4108	0.0100	9.02	10.0	-9.8	20.0
2,4,5-Trichlorotoluene	Qua		0.1320	0.0100	9.54	10.0	-4.6	20.0
2,3,6-Trichlorotoluene	Qua		0.1149	0.0100	8.36	10.0	-16.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2331	0.2225		9.54	10.0	-4.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3365	0.3049		9.06	10.0	-9.4	20.0
Toluene-d8 (Surr)	Ave	4.150	4.204		10.1	10.0	1.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.526	1.420		9.31	10.0	-6.9	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Jun-2015 12:52:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007474-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 21-Jun-2015 14:48:46 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: journetp Date: 21-Jun-2015 14:48:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.265	0.000	0	118869	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	371894	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	92	80483	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	95	107351	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	93	82740	50.0	47.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	0	113371	50.0	45.3	
$ 7 Toluene-d8 (Surr)	98	8.931	8.931	0.000	94	338329	50.0	50.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	83	114297	50.0	46.5	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	99	127424	50.0	50.8	
12 Chloromethane	50	1.765	1.765	0.000	99	146807	50.0	52.0	
13 Vinyl chloride	62	1.893	1.893	0.000	99	140002	50.0	49.2	
14 Butadiene	39	1.942	1.942	0.000	96	156295	50.0	51.2	
15 Bromomethane	94	2.246	2.246	0.000	90	69590	50.0	50.3	
16 Chloroethane	64	2.392	2.392	0.000	99	87337	50.0	50.9	
17 Dichlorofluoromethane	67	2.665	2.665	0.000	97	182486	50.0	48.1	
18 Trichlorofluoromethane	101	2.702	2.702	0.000	98	151364	50.0	48.9	
20 Ethyl ether	59	3.055	3.055	0.000	94	104178	50.0	48.7	
21 Acrolein	56	3.231	3.231	0.000	99	53351	150.0	130.0	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	96	97349	50.0	46.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	95	105909	50.0	47.6	
24 Acetone	43	3.438	3.438	0.000	98	70855	100.0	115.0	
25 Iodomethane	142	3.541	3.541	0.000	99	136938	50.0	47.0	
26 Carbon disulfide	76	3.633	3.633	0.000	100	250374	50.0	53.7	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	89	55060	50.0	47.3	
30 Methyl acetate	43	3.937	3.937	0.000	98	469484	250.0	245.7	
31 Methylene Chloride	84	4.144	4.144	0.000	97	129826	50.0	47.1	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	89	65834	500.0	485.0	
33 Acrylonitrile	53	4.515	4.515	0.000	99	464076	500.0	501.2	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	96	107212	50.0	47.9	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	96	239561	50.0	43.4	

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	159556	50.0	46.1	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	198221	50.0	46.3	
38 Vinyl acetate	43	5.245	5.245	0.000	97	145332	50.0	39.7	
45 cis-1,2-Dichloroethene	96	5.944	5.944	0.000	84	110977	50.0	46.8	
44 2,2-Dichloropropane	77	5.944	5.944	0.000	59	85321	50.0	46.7	
46 2-Butanone (MEK)	43	5.957	5.957	0.000	76	102193	100.0	113.1	
49 Chlorobromomethane	128	6.236	6.236	0.000	94	48316	50.0	48.3	
51 Tetrahydrofuran	42	6.249	6.249	0.000	89	69239	100.0	93.2	
52 Chloroform	83	6.376	6.376	0.000	95	186810	50.0	47.5	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	96	139037	50.0	47.0	
54 Cyclohexane	56	6.614	6.614	0.000	94	197522	50.0	44.6	
56 Carbon tetrachloride	117	6.711	6.711	0.000	95	121840	50.0	47.3	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	91	149173	50.0	46.0	
57 Isobutyl alcohol	41	6.924	6.924	0.000	86	79380	1250.0	1280.5	
58 Benzene	78	6.942	6.942	0.000	98	458144	50.0	48.9	
59 1,2-Dichloroethane	62	7.015	7.015	0.000	97	147813	50.0	46.1	
62 n-Heptane	43	7.307	7.307	0.000	93	148700	50.0	48.6	
64 Trichloroethene	130	7.672	7.672	0.000	96	97677	50.0	44.1	
66 Methylcyclohexane	83	7.915	7.915	0.000	94	167448	50.0	45.3	
67 1,2-Dichloropropane	63	7.946	7.946	0.000	93	105562	50.0	46.2	
70 1,4-Dioxane	88	8.025	8.025	0.000	39	14222	1000.0	906.6	
68 Dibromomethane	93	8.037	8.037	0.000	95	57913	50.0	46.9	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	122323	50.0	49.1	
73 2-Chloroethyl vinyl ether	63	8.530	8.530	0.000	94	107064	100.0	87.1	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	133869	50.0	46.4	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	99	186939	100.0	98.1	
76 Toluene	91	9.004	9.004	0.000	98	449670	50.0	52.0	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	98	107746	50.0	46.3	
78 Ethyl methacrylate	69	9.309	9.309	0.000	92	103766	50.0	46.8	
79 1,1,2-Trichloroethane	97	9.442	9.442	0.000	93	83437	50.0	49.7	
80 Tetrachloroethene	164	9.515	9.515	0.000	96	84520	50.0	51.4	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	97	154947	50.0	50.5	
82 2-Hexanone	43	9.655	9.655	0.000	99	151029	100.0	123.4	
84 Chlorodibromomethane	129	9.814	9.814	0.000	91	70490	50.0	51.6	
85 Ethylene Dibromide	107	9.929	9.929	0.000	99	77539	50.0	49.4	
86 3-Chlorobenzotrifluoride	180	10.385	10.385	0.000	92	142644	50.0	50.3	
87 Chlorobenzene	112	10.416	10.416	0.000	93	268885	50.0	49.8	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	97	130095	50.0	48.7	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	92	86413	50.0	51.8	
90 Ethylbenzene	106	10.513	10.513	0.000	99	148840	50.0	50.1	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	184018	50.0	51.3	
92 o-Xylene	106	11.030	11.030	0.000	97	167296	50.0	48.6	
93 Styrene	104	11.048	11.048	0.000	95	293963	50.0	52.3	
94 Bromoform	173	11.237	11.237	0.000	95	39299	50.0	54.2	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	132076	50.0	49.4	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	424274	50.0	50.3	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	78	109624	50.0	51.7	
100 Bromobenzene	156	11.705	11.705	0.000	96	97488	50.0	46.6	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	78	31666	50.0	44.8	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	87	35493	50.0	47.9	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	116570	50.0	47.2	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	99921	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.961	11.961	0.000	96	104053	50.0	47.2	
106 1,3,5-Trimethylbenzene	105	11.991	11.991	0.000	94	358602	50.0	49.9	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	110594	50.0	47.9	
108 tert-Butylbenzene	119	12.308	12.308	0.000	94	272546	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	352258	50.0	49.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	100553	50.0	48.6	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	407544	50.0	49.5	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	179340	50.0	47.2	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	97	327439	50.0	49.4	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	95	182311	50.0	47.2	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	96	94070	50.0	50.0	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	98878	50.0	48.6	
120 n-Butylbenzene	91	13.099	13.099	0.000	99	273838	50.0	48.3	
121 1,2-Dichlorobenzene	146	13.105	13.105	0.000	94	162046	50.0	48.2	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	75	13030	50.0	45.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	267921	150.0	140.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	155039	100.0	88.6	
126 1,2,4-Trichlorobenzene	180	14.729	14.729	0.000	95	56663	50.0	47.2	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	97	32741	50.0	49.1	
128 Naphthalene	128	14.991	14.991	0.000	98	125904	50.0	40.5	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	94	44096	50.0	45.1	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	14172	50.0	47.7	
130 2,3,6-Trichlorotoluene	159	16.098	16.098	0.000	91	12338	50.0	41.8	
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	99.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketmix1Re_00001	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL	
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

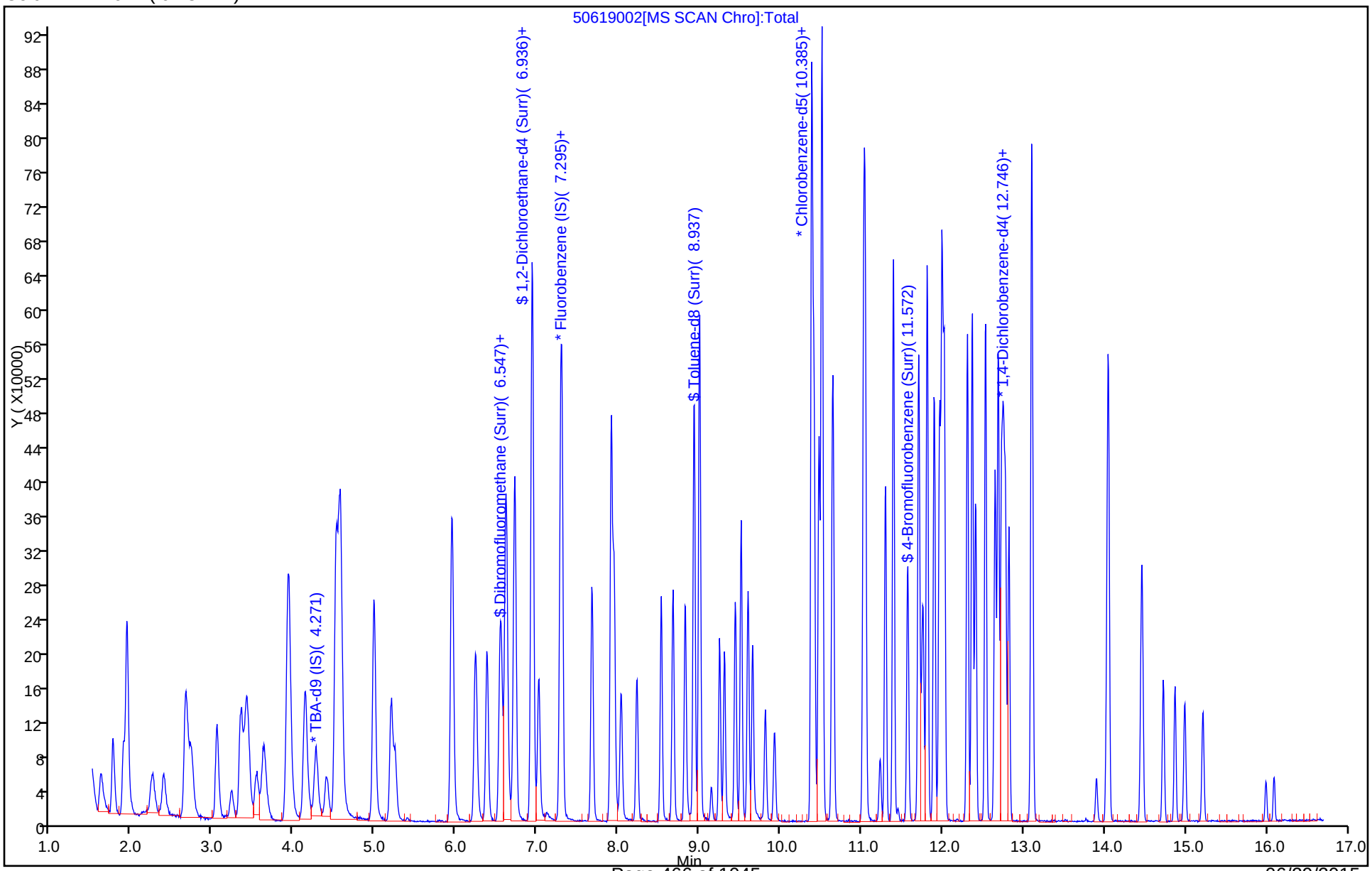
Report Date: 21-Jun-2015 14:48:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619002.D

Injection Date:	19-Jun-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.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145689/2 Calibration Date: 06/22/2015 09:10

Instrument ID: CHHP5 Calib Start Date: 03/18/2015 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2015 16:19

Lab File ID: 50622002.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	0.1652	0.1461	0.0100	17.7	20.0	-11.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Jun-2015 09:10:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007492-002
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 15:46:52 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 10:06:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	130220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	422450	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	92152	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	97	133541	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	93	85610	50.0	43.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	119642	50.0	42.1	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	370638	50.0	48.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	85	156824	50.0	55.8	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	99	133672	50.0	47.0	
12 Chloromethane	50	1.766	1.766	0.000	99	153131	50.0	47.8	
13 Vinyl chloride	62	1.900	1.900	0.000	97	153484	50.0	47.5	
14 Butadiene	39	1.936	1.936	0.000	96	163462	50.0	47.1	
15 Bromomethane	94	2.241	2.241	0.000	89	67325	50.0	42.8	
16 Chloroethane	64	2.387	2.387	0.000	100	84174	50.0	43.2	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	99	192823	50.0	44.7	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	85	161487	50.0	45.9	
20 Ethyl ether	59	3.044	3.044	0.000	94	101590	50.0	41.8	
21 Acrolein	56	3.232	3.232	0.000	99	48605	150.0	104.2	
22 1,1-Dichloroethene	96	3.342	3.342	0.000	95	103722	50.0	43.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.415	0.000	95	115115	50.0	45.6	
24 Acetone	43	3.439	3.439	0.000	99	65562	100.0	93.7	
25 Iodomethane	142	3.536	3.536	0.000	98	144091	50.0	43.6	
26 Carbon disulfide	76	3.628	3.628	0.000	100	274534	50.0	51.8	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	88	57994	50.0	43.8	
30 Methyl acetate	43	3.938	3.938	0.000	99	466211	250.0	214.8	
31 Methylene Chloride	84	4.139	4.139	0.000	97	121795	50.0	36.2	
32 2-Methyl-2-propanol	59	4.400	4.400	0.000	89	71937	500.0	483.8	
33 Acrylonitrile	53	4.516	4.516	0.000	99	443840	500.0	422.0	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	98	111452	50.0	43.8	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	96	252768	50.0	40.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	95	189718	50.0	48.2	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	207445	50.0	42.7	
38 Vinyl acetate	43	5.246	5.246	0.000	98	184364	50.0	44.3	
45 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	84	112462	50.0	41.7	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	83	96782	50.0	46.6	
46 2-Butanone (MEK)	43	5.958	5.958	0.000	66	96095	100.0	93.6	
49 Chlorobromomethane	128	6.237	6.237	0.000	95	47494	50.0	41.8	
51 Tetrahydrofuran	42	6.250	6.250	0.000	89	65550	100.0	77.7	
52 Chloroform	83	6.383	6.383	0.000	95	191950	50.0	42.9	
53 1,1,1-Trichloroethane	97	6.536	6.536	0.000	95	152220	50.0	45.3	
54 Cyclohexane	56	6.615	6.615	0.000	95	228523	50.0	45.4	
56 Carbon tetrachloride	117	6.712	6.712	0.000	97	131890	50.0	45.1	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	92	163889	50.0	44.4	
57 Isobutyl alcohol	41	6.931	6.931	0.000	87	73372	1250.0	1041.9	
58 Benzene	78	6.943	6.943	0.000	98	474294	50.0	44.5	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	149526	50.0	41.1	
62 n-Heptane	43	7.308	7.308	0.000	93	177059	50.0	50.9	
64 Trichloroethene	130	7.679	7.679	0.000	97	107048	50.0	42.6	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	195856	50.0	46.6	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	93	109772	50.0	42.3	
70 1,4-Dioxane	88	8.032	8.032	0.000	41	16245	1000.0	911.6	
68 Dibromomethane	93	8.038	8.038	0.000	95	57355	50.0	40.9	
71 Dichlorobromomethane	83	8.227	8.227	0.000	98	119571	50.0	42.2	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	94	123471	100.0	88.5	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	92	138476	50.0	42.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	173702	100.0	79.6	
76 Toluene	91	9.005	9.005	0.000	98	473362	50.0	47.8	
77 trans-1,3-Dichloropropene	75	9.249	9.249	0.000	98	117009	50.0	43.9	
78 Ethyl methacrylate	69	9.310	9.310	0.000	91	107353	50.0	42.3	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	94	85499	50.0	44.5	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	89224	50.0	47.4	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	96	156858	50.0	44.6	
82 2-Hexanone	43	9.656	9.656	0.000	99	114773	100.0	81.9	
84 Chlorodibromomethane	129	9.814	9.814	0.000	92	71998	50.0	46.0	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	80993	50.0	45.1	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	88	168095	50.0	51.8	
87 Chlorobenzene	112	10.417	10.417	0.000	92	281280	50.0	45.5	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	96	156288	50.0	51.1	
90 Ethylbenzene	106	10.514	10.514	0.000	99	161480	50.0	47.5	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	92	89658	50.0	47.0	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	197373	50.0	48.1	
92 o-Xylene	106	11.025	11.025	0.000	97	188263	50.0	47.8	
93 Styrene	104	11.049	11.049	0.000	95	307911	50.0	47.8	
94 Bromoform	173	11.232	11.232	0.000	95	39078	50.0	47.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	162147	50.0	53.0	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	490653	50.0	50.8	
99 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	75	112255	50.0	46.2	
100 Bromobenzene	156	11.713	11.713	0.000	97	106378	50.0	40.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	76	35366	50.0	40.2	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	87	36473	50.0	39.6	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	137600	50.0	44.8	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	113654	50.0	42.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	125659	50.0	45.8	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	95	411601	50.0	46.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	124580	50.0	43.4	
108 tert-Butylbenzene	119	12.309	12.309	0.000	93	321025	50.0	45.2	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	412346	50.0	46.9	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	124242	50.0	48.2	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	493791	50.0	48.2	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	210881	50.0	44.6	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	406743	50.0	49.3	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	94	210041	50.0	43.7	
116 2,4-Dichloro-1-(triflourom	214	12.777	12.777	0.000	97	119077	50.0	50.9	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	127038	50.0	50.2	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	353364	50.0	50.1	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	94	192710	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.903	0.000	74	16550	50.0	46.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.043	0.000	0	426879	150.0	179.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	272288	100.0	125.1	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	92006	50.0	61.6	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	96	49900	50.0	60.1	
128 Naphthalene	128	14.992	14.992	0.000	98	210235	50.0	54.3	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	94	78850	50.0	64.8	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	34094	50.0	83.4	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	95	38226	50.0	90.6	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	85.5	
S 133 Xylenes, Total	106				0		100.0	95.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	86.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketmix1Re_00001	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL		
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL		
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00002	Amount Added:	2.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

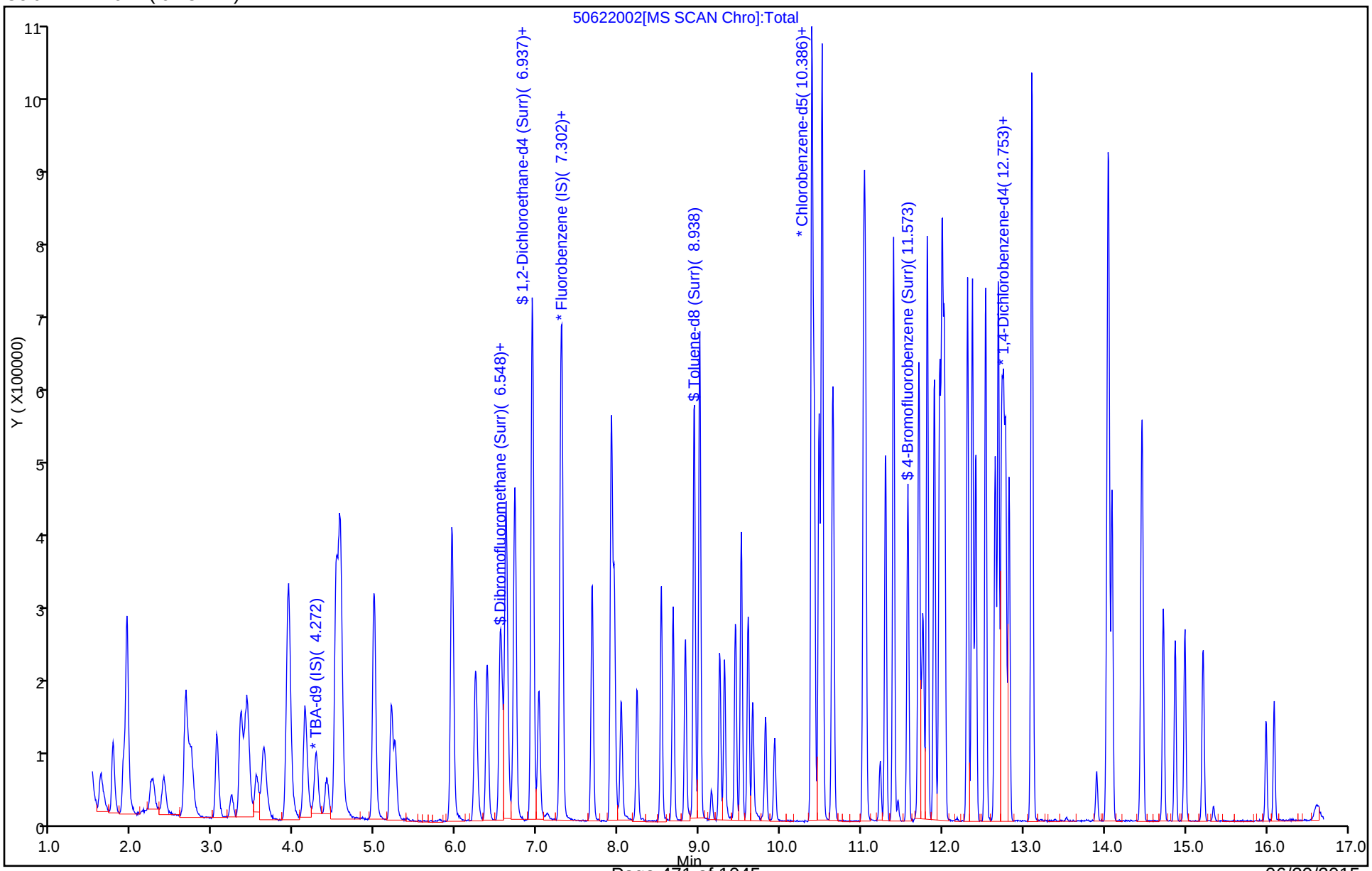
Report Date: 22-Jun-2015 15:46:53 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622002.D

Injection Date:	22-Jun-2015 09:10:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145689/2 Calibration Date: 06/22/2015 09:10

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50622002.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	0.3369	0.3164	0.1000	9.39	10.0	-6.1	20.0
Chloromethane	Ave	0.3794	0.3625	0.1000	9.56	10.0	-4.4	20.0
Vinyl chloride	Ave	0.3828	0.3633	0.1000	9.49	10.0	-5.1	20.0
Bromomethane	Ave	0.1862	0.1594	0.0500	8.56	10.0	-14.4	20.0
Chloroethane	Ave	0.2305	0.1993	0.0500	8.64	10.0	-13.6	20.0
Dichlorofluoromethane	Ave	0.5100	0.4564	0.0100	8.95	10.0	-10.5	20.0
Trichlorofluoromethane	Ave	0.4163	0.3823	0.1000	9.18	10.0	-8.2	20.0
Ethyl ether	Ave	0.2878	0.2405	0.0100	8.36	10.0	-16.4	20.0
Acrolein	Ave	0.0552	0.0384	0.0100	20.8	30.0	-30.5*	20.0
1,1-Dichloroethene	Ave	0.2832	0.2455	0.1000	8.67	10.0	-13.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2989	0.2725	0.1000	9.12	10.0	-8.8	20.0
Acetone	Ave	0.0828	0.0776	0.0500	18.7	20.0	-6.3	20.0
Iodomethane	Ave	0.3913	0.3411	0.0100	8.72	10.0	-12.8	20.0
Carbon disulfide	Ave	0.6268	0.6499	0.1000	10.4	10.0	3.7	20.0
Allyl chloride	Ave	0.1566	0.1373	0.0100	8.76	10.0	-12.4	20.0
Methyl acetate	Ave	0.2569	0.2207	0.1000	43.0	50.0	-14.1	20.0
Methylene Chloride	Lin2		0.2883	0.1000	7.25	10.0	-27.5*	20.0
tert-Butyl alcohol	Ave	1.142	1.105	0.0100	96.8	100	-3.2	20.0
Acrylonitrile	Ave	0.1245	0.1051	0.0100	84.4	100	-15.6	20.0
trans-1,2-Dichloroethene	Ave	0.3011	0.2638	0.1000	8.76	10.0	-12.4	20.0
Methyl tert-butyl ether	Ave	0.7427	0.5983	0.1000	8.06	10.0	-19.4	20.0
Hexane	Ave	0.4658	0.4491	0.0100	9.64	10.0	-3.6	20.0
1,1-Dichloroethane	Ave	0.5753	0.4911	0.2000	8.54	10.0	-14.6	20.0
Vinyl acetate	Ave	0.4924	0.4364	0.0100	8.86	10.0	-11.4	20.0
2,2-Dichloropropane	Ave	0.2458	0.2291	0.0100	9.32	10.0	-6.8	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2662	0.1000	8.35	10.0	-16.5	20.0
2-Butanone (MEK)	Ave	0.1215	0.1137	0.0500	18.7	20.0	-6.4	20.0
Bromochloromethane	Ave	0.1346	0.1124	0.0100	8.35	10.0	-16.5	20.0
Tetrahydrofuran	Ave	0.0999	0.0776	0.0100	15.5	20.0	-22.3*	20.0
Chloroform	Ave	0.5292	0.4544	0.2000	8.59	10.0	-14.1	20.0
1,1,1-Trichloroethane	Ave	0.3977	0.3603	0.1000	9.06	10.0	-9.4	20.0
Cyclohexane	Ave	0.5953	0.5410	0.1000	9.09	10.0	-9.1	20.0
Carbon tetrachloride	Ave	0.3460	0.3122	0.1000	9.02	10.0	-9.8	20.0
1,1-Dichloropropene	Ave	0.4364	0.3880	0.0100	8.89	10.0	-11.1	20.0
Isobutyl alcohol	Ave	0.0083	0.0070*	0.0100	208	250	-16.6	20.0
Benzene	Ave	1.260	1.123	0.5000	8.91	10.0	-10.9	20.0
1,2-Dichloroethane	Ave	0.4311	0.3540	0.1000	8.21	10.0	-17.9	20.0
n-Heptane	Ave	0.4117	0.4191	0.0100	10.2	10.0	1.8	20.0
Trichloroethene	Ave	0.2975	0.2534	0.2000	8.52	10.0	-14.8	20.0
Methylcyclohexane	Ave	0.4971	0.4636	0.1000	9.33	10.0	-6.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145689/2 Calibration Date: 06/22/2015 09:10

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50622002.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	0.3070	0.2599	0.1000	8.46	10.0	-15.4	20.0
1,4-Dioxane	Ave	0.0021	0.0019*	0.0100	182	200	-8.8	20.0
Dibromomethane	Ave	0.1661	0.1358	0.0100	8.17	10.0	-18.3	20.0
Bromodichloromethane	Ave	0.3352	0.2830	0.2000	8.44	10.0	-15.6	20.0
cis-1,3-Dichloropropene	Ave	0.3878	0.3278	0.2000	8.45	10.0	-15.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.184	0.9425	0.1000	15.9	20.0	-20.4*	20.0
Toluene	Ave	5.374	5.137	0.4000	9.56	10.0	-4.4	20.0
trans-1,3-Dichloropropene	Ave	1.447	1.270	0.1000	8.78	10.0	-12.2	20.0
Ethyl methacrylate	Ave	1.378	1.165	0.0100	8.46	10.0	-15.4	20.0
1,1,2-Trichloroethane	Ave	1.043	0.9278	0.1000	8.90	10.0	-11.0	20.0
Tetrachloroethene	Ave	1.022	0.9682	0.2000	9.47	10.0	-5.3	20.0
1,3-Dichloropropane	Ave	1.907	1.702	0.0100	8.93	10.0	-10.7	20.0
2-Hexanone	Ave	0.7604	0.6227	0.1000	16.4	20.0	-18.1	20.0
Dibromochloromethane	Ave	0.8492	0.7813	0.1000	9.20	10.0	-8.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.9743	0.8789	0.1000	9.02	10.0	-9.8	20.0
3-Chlorobenzotrifluoride	Ave	1.760	1.824	0.0100	10.4	10.0	3.6	20.0
Chlorobenzene	Ave	3.356	3.052	0.5000	9.10	10.0	-9.0	20.0
4-Chlorobenzotrifluoride	Ave	1.659	1.696	0.0100	10.2	10.0	2.2	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	0.9729	0.0100	9.39	10.0	-6.1	20.0
Ethylbenzene	Ave	1.846	1.752	0.1000	9.49	10.0	-5.1	20.0
m-Xylene & p-Xylene	Ave	2.228	2.142	0.1000	9.61	10.0	-3.9	20.0
o-Xylene	Ave	2.139	2.043	0.3000	9.55	10.0	-4.5	20.0
Styrene	Ave	3.494	3.341	0.3000	9.56	10.0	-4.4	20.0
Bromoform	Ave	0.4508	0.4241	0.1000	9.41	10.0	-5.9	20.0
2-Chlorobenzotrifluoride	Ave	1.660	1.760	0.0100	10.6	10.0	6.0	20.0
Isopropylbenzene	Ave	5.239	5.324	0.1000	10.2	10.0	1.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.319	1.218	0.3000	9.24	10.0	-7.6	20.0
Bromobenzene	Ave	0.9734	0.7966	0.0100	8.18	10.0	-18.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3290	0.2648	0.0100	8.05	10.0	-19.5	20.0
1,2,3-Trichloropropane	Ave	0.3448	0.2731	0.0100	7.92	10.0	-20.8*	20.0
N-Propylbenzene	Ave	1.150	1.030	0.0100	8.96	10.0	-10.4	20.0
2-Chlorotoluene	Ave	0.9924	0.8511	0.0100	8.58	10.0	-14.2	20.0
3-Chlorotoluene	Ave	1.027	0.9410	0.0100	9.16	10.0	-8.4	20.0
1,3,5-Trimethylbenzene	Ave	3.344	3.082	0.0100	9.22	10.0	-7.8	20.0
4-Chlorotoluene	Ave	1.075	0.9329	0.0100	8.68	10.0	-13.2	20.0
tert-Butylbenzene	Ave	2.660	2.404	0.0100	9.04	10.0	-9.6	20.0
1,2,4-Trimethylbenzene	Ave	3.293	3.088	0.0100	9.38	10.0	-6.2	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9643	0.9304	0.0100	9.65	10.0	-3.5	20.0
sec-Butylbenzene	Ave	3.836	3.698	0.0100	9.64	10.0	-3.6	20.0
1,3-Dichlorobenzene	Ave	1.769	1.579	0.6000	8.93	10.0	-10.7	20.0
4-Isopropyltoluene	Ave	3.089	3.046	0.0100	9.86	10.0	-1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCVIS 180-145689/2 Calibration Date: 06/22/2015 09:10

Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/17/2015 18:04

Lab File ID: 50622002.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	1.800	1.573	0.5000	8.74	10.0	-12.6	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8761	0.8917	0.0100	10.2	10.0	1.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9476	0.9513	0.0100	10.0	10.0	0.4	20.0
n-Butylbenzene	Ave	2.641	2.646	0.0100	10.0	10.0	0.2	20.0
1,2-Dichlorobenzene	Ave	1.567	1.443	0.4000	9.21	10.0	-7.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1345	0.1239	0.0500	9.21	10.0	-7.9	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8903	1.066	0.0100	35.9	30.0	19.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8151	1.019	0.0100	25.0	20.0	25.1*	20.0
1,2,4-Trichlorobenzene	Ave	0.5596	0.6890	0.2000	12.3	10.0	23.1*	20.0
Hexachlorobutadiene	Ave	0.3107	0.3737	0.0100	12.0	10.0	20.3*	20.0
Naphthalene	Ave	1.449	1.574	0.0100	10.9	10.0	8.6	20.0
1,2,3-Trichlorobenzene	Ave	0.4556	0.5905	0.0100	13.0	10.0	29.6*	20.0
2,4,5-Trichlorotoluene	Qua		0.2553	0.0100	16.7	10.0	66.8*	20.0
2,3,6-Trichlorotoluene	Qua		0.2863	0.0100	18.1	10.0	81.1*	20.0
Dibromofluoromethane (Surr)	Ave	0.2331	0.2027		8.69	10.0	-13.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3365	0.2832		8.42	10.0	-15.8	20.0
Toluene-d8 (Surr)	Ave	4.150	4.022		9.69	10.0	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.526	1.702		11.2	10.0	11.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Jun-2015 09:10:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007492-002
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 15:46:52 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 10:06:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	130220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	422450	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	92152	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	97	133541	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	93	85610	50.0	43.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	119642	50.0	42.1	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	370638	50.0	48.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	85	156824	50.0	55.8	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	99	133672	50.0	47.0	
12 Chloromethane	50	1.766	1.766	0.000	99	153131	50.0	47.8	
13 Vinyl chloride	62	1.900	1.900	0.000	97	153484	50.0	47.5	
14 Butadiene	39	1.936	1.936	0.000	96	163462	50.0	47.1	
15 Bromomethane	94	2.241	2.241	0.000	89	67325	50.0	42.8	
16 Chloroethane	64	2.387	2.387	0.000	100	84174	50.0	43.2	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	99	192823	50.0	44.7	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	85	161487	50.0	45.9	
20 Ethyl ether	59	3.044	3.044	0.000	94	101590	50.0	41.8	
21 Acrolein	56	3.232	3.232	0.000	99	48605	150.0	104.2	
22 1,1-Dichloroethene	96	3.342	3.342	0.000	95	103722	50.0	43.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.415	0.000	95	115115	50.0	45.6	
24 Acetone	43	3.439	3.439	0.000	99	65562	100.0	93.7	
25 Iodomethane	142	3.536	3.536	0.000	98	144091	50.0	43.6	
26 Carbon disulfide	76	3.628	3.628	0.000	100	274534	50.0	51.8	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	88	57994	50.0	43.8	
30 Methyl acetate	43	3.938	3.938	0.000	99	466211	250.0	214.8	
31 Methylene Chloride	84	4.139	4.139	0.000	97	121795	50.0	36.2	
32 2-Methyl-2-propanol	59	4.400	4.400	0.000	89	71937	500.0	483.8	
33 Acrylonitrile	53	4.516	4.516	0.000	99	443840	500.0	422.0	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	98	111452	50.0	43.8	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	96	252768	50.0	40.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	95	189718	50.0	48.2	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	207445	50.0	42.7	
38 Vinyl acetate	43	5.246	5.246	0.000	98	184364	50.0	44.3	
45 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	84	112462	50.0	41.7	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	83	96782	50.0	46.6	
46 2-Butanone (MEK)	43	5.958	5.958	0.000	66	96095	100.0	93.6	
49 Chlorobromomethane	128	6.237	6.237	0.000	95	47494	50.0	41.8	
51 Tetrahydrofuran	42	6.250	6.250	0.000	89	65550	100.0	77.7	
52 Chloroform	83	6.383	6.383	0.000	95	191950	50.0	42.9	
53 1,1,1-Trichloroethane	97	6.536	6.536	0.000	95	152220	50.0	45.3	
54 Cyclohexane	56	6.615	6.615	0.000	95	228523	50.0	45.4	
56 Carbon tetrachloride	117	6.712	6.712	0.000	97	131890	50.0	45.1	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	92	163889	50.0	44.4	
57 Isobutyl alcohol	41	6.931	6.931	0.000	87	73372	1250.0	1041.9	
58 Benzene	78	6.943	6.943	0.000	98	474294	50.0	44.5	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	149526	50.0	41.1	
62 n-Heptane	43	7.308	7.308	0.000	93	177059	50.0	50.9	
64 Trichloroethene	130	7.679	7.679	0.000	97	107048	50.0	42.6	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	195856	50.0	46.6	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	93	109772	50.0	42.3	
70 1,4-Dioxane	88	8.032	8.032	0.000	41	16245	1000.0	911.6	
68 Dibromomethane	93	8.038	8.038	0.000	95	57355	50.0	40.9	
71 Dichlorobromomethane	83	8.227	8.227	0.000	98	119571	50.0	42.2	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	94	123471	100.0	88.5	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	92	138476	50.0	42.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	173702	100.0	79.6	
76 Toluene	91	9.005	9.005	0.000	98	473362	50.0	47.8	
77 trans-1,3-Dichloropropene	75	9.249	9.249	0.000	98	117009	50.0	43.9	
78 Ethyl methacrylate	69	9.310	9.310	0.000	91	107353	50.0	42.3	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	94	85499	50.0	44.5	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	89224	50.0	47.4	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	96	156858	50.0	44.6	
82 2-Hexanone	43	9.656	9.656	0.000	99	114773	100.0	81.9	
84 Chlorodibromomethane	129	9.814	9.814	0.000	92	71998	50.0	46.0	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	80993	50.0	45.1	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	88	168095	50.0	51.8	
87 Chlorobenzene	112	10.417	10.417	0.000	92	281280	50.0	45.5	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	96	156288	50.0	51.1	
90 Ethylbenzene	106	10.514	10.514	0.000	99	161480	50.0	47.5	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	92	89658	50.0	47.0	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	197373	50.0	48.1	
92 o-Xylene	106	11.025	11.025	0.000	97	188263	50.0	47.8	
93 Styrene	104	11.049	11.049	0.000	95	307911	50.0	47.8	
94 Bromoform	173	11.232	11.232	0.000	95	39078	50.0	47.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	162147	50.0	53.0	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	490653	50.0	50.8	
99 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	75	112255	50.0	46.2	
100 Bromobenzene	156	11.713	11.713	0.000	97	106378	50.0	40.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	76	35366	50.0	40.2	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	87	36473	50.0	39.6	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	137600	50.0	44.8	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	113654	50.0	42.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	125659	50.0	45.8	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	95	411601	50.0	46.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	124580	50.0	43.4	
108 tert-Butylbenzene	119	12.309	12.309	0.000	93	321025	50.0	45.2	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	412346	50.0	46.9	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	124242	50.0	48.2	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	493791	50.0	48.2	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	210881	50.0	44.6	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	406743	50.0	49.3	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	94	210041	50.0	43.7	
116 2,4-Dichloro-1-(triflourom	214	12.777	12.777	0.000	97	119077	50.0	50.9	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	127038	50.0	50.2	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	353364	50.0	50.1	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	94	192710	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.903	0.000	74	16550	50.0	46.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.043	0.000	0	426879	150.0	179.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	272288	100.0	125.1	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	92006	50.0	61.6	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	96	49900	50.0	60.1	
128 Naphthalene	128	14.992	14.992	0.000	98	210235	50.0	54.3	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	94	78850	50.0	64.8	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	34094	50.0	83.4	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	95	38226	50.0	90.6	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	85.5	
S 133 Xylenes, Total	106				0		100.0	95.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	86.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketmix1Re_00001	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00002	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00125	Amount Added:	2.00	Units: uL		
VOAACRLOEINPR_00001	Amount Added:	6.00	Units: uL		
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00002	Amount Added:	2.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

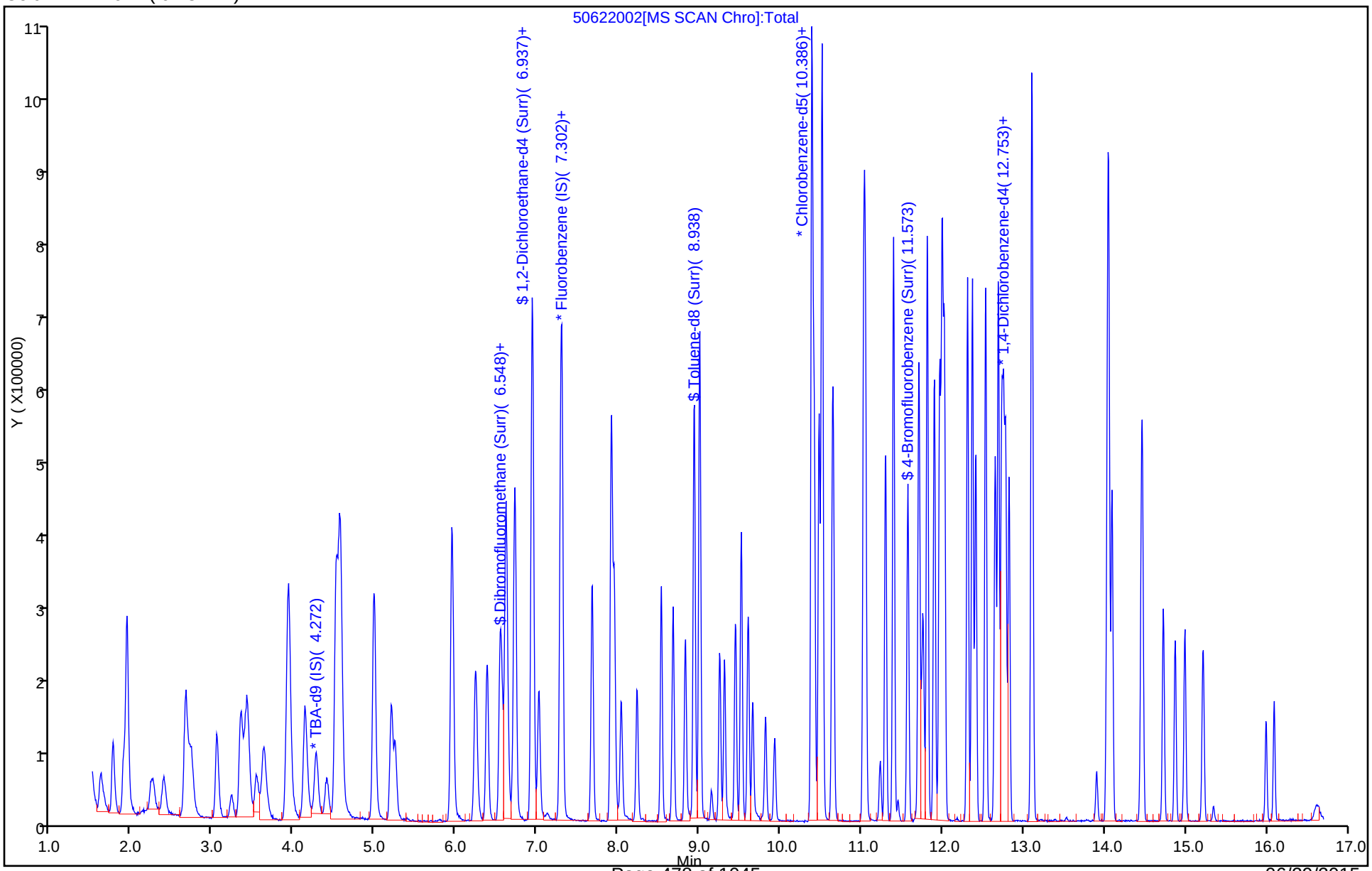
Report Date: 22-Jun-2015 15:46:53 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622002.D

Injection Date:	22-Jun-2015 09:10:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 17-Jun-2015 11:58:30 ALS Bottle#: 1 Worklist Smp#: 16
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0007443-016
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 11:19:44 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 17-Jun-2015 12:09:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.361	8.361	0.000	0	64329	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

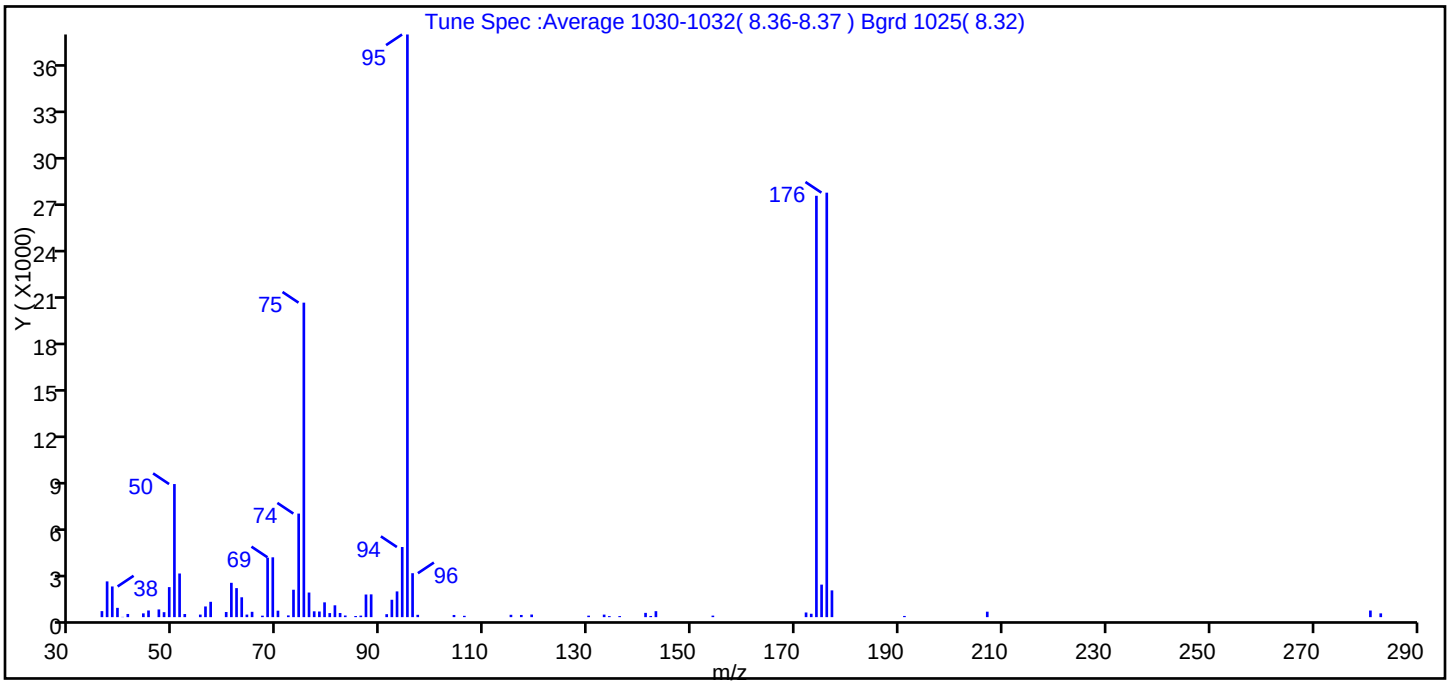
VOABFB25_00063 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D
Injection Date: 17-Jun-2015 11:58:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 16
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	22.8
75	30 to 60% of m/z 95	54.0
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	72.3
175	5 to 9% of m/z 174	5.6 (7.7)
176	Greater than 95% but less than 101% of m/z 174	72.9 (100.7)
177	5 to 9% of m/z 176	4.6 (6.3)

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 17-Jun-2015 11:58:30
Spectrum: Tune Spec :Average 1030-1032(8.36-8.37) Bgrd 1025(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 73

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	386	62.00	1860	83.00	104	134.00	66
37.00	2291	63.00	1273	85.00	73	136.00	68
38.00	1966	64.00	164	86.00	98	141.00	274
39.00	595	65.00	342	87.00	1450	142.00	75
40.00	16	67.00	94	88.00	1460	143.00	383
41.00	204	68.00	3811	91.00	190	154.00	97
44.00	242	69.00	3834	92.00	1114	172.00	299
45.00	426	70.00	414	93.00	1649	173.00	217
47.00	493	72.00	111	94.00	4493	174.00	27000
48.00	318	73.00	1757	95.00	37336	175.00	2084
49.00	1924	74.00	6636	96.00	2815	176.00	27200
50.00	8528	75.00	20152	97.00	149	177.00	1715
51.00	2797	76.00	1577	104.00	139	191.00	76
52.00	200	77.00	374	106.00	85	207.00	350
55.00	163	78.00	362	115.00	151	281.00	424
56.00	685	79.00	948	117.00	140	283.00	243
57.00	983	80.00	260	119.00	167		
60.00	330	81.00	758	130.00	95		
61.00	2200	82.00	266	133.00	163		

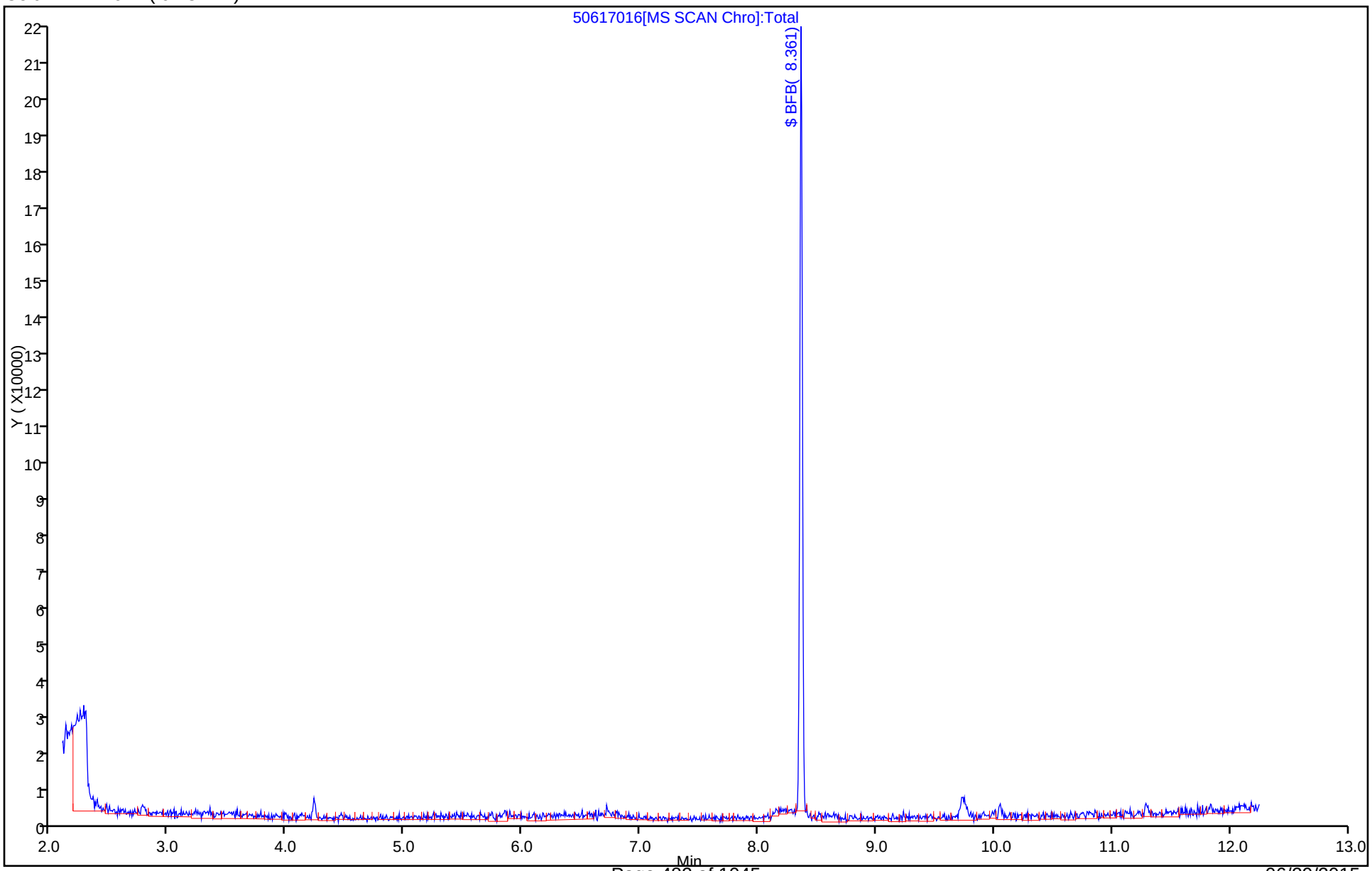
Report Date: 18-Jun-2015 11:19:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D

Injection Date:	17-Jun-2015 11:58:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	16
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618004.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 18-Jun-2015 12:42:30 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0007459-004
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 15:25:30 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.360	8.360	0.000	0	75202	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

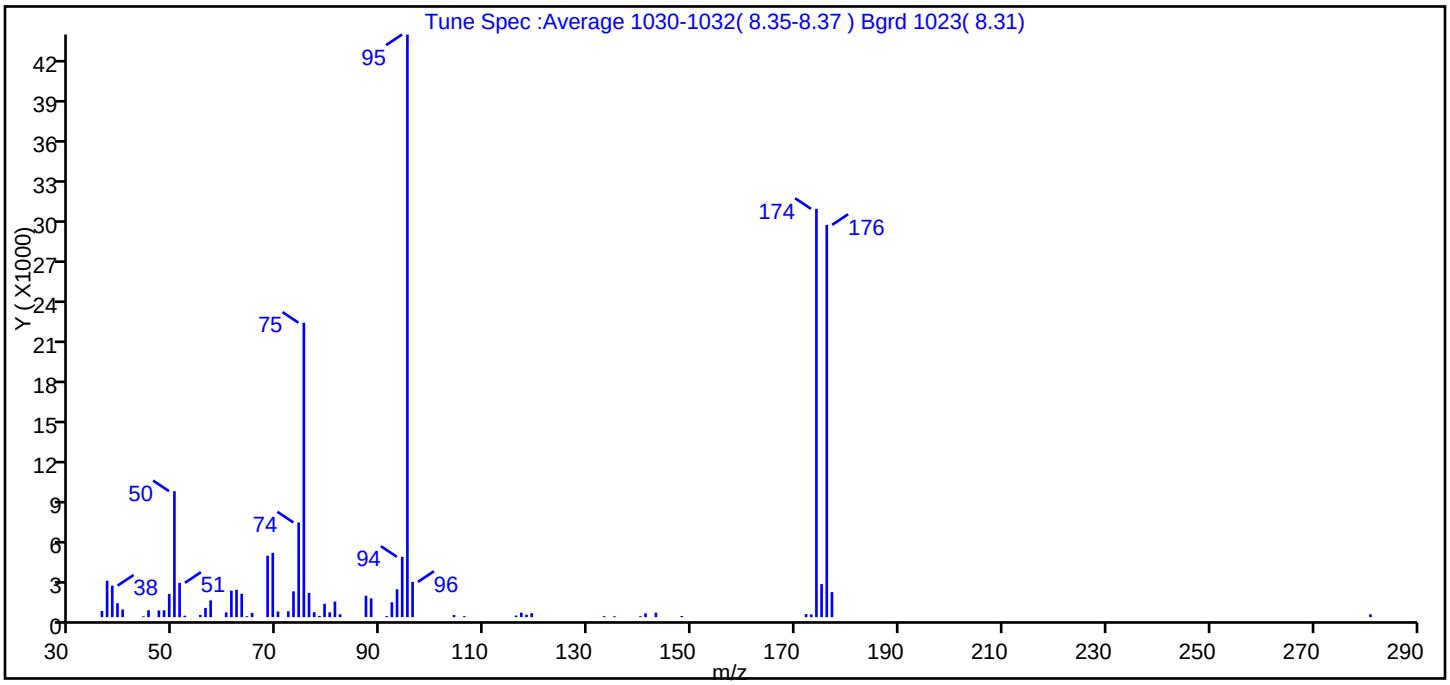
VOABFB25_00063 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618004.D
Injection Date: 18-Jun-2015 12:42:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.6
75	30 to 60% of m/z 95	50.5
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.5 (0.7)
174	50 to 120% of m/z 95	70.1
175	5 to 9% of m/z 174	5.7 (8.1)
176	Greater than 95% but less than 101% of m/z 174	67.3 (96.1)
177	5 to 9% of m/z 176	4.3 (6.4)

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618004.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 18-Jun-2015 12:42:30
Spectrum: Tune Spec :Average 1030-1032(8.35-8.37) Bgrd 1023(8.31)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	459	60.00	352	79.00	982	118.00	181
37.00	2691	61.00	1961	80.00	351	119.00	292
38.00	2328	62.00	2018	81.00	1151	133.00	75
39.00	1031	63.00	1728	82.00	209	135.00	68
40.00	569	64.00	71	87.00	1584	140.00	67
44.00	60	65.00	313	88.00	1389	141.00	279
45.00	511	68.00	4538	91.00	78	143.00	337
47.00	495	69.00	4752	92.00	1095	148.00	84
48.00	510	70.00	418	93.00	2059	172.00	233
49.00	1713	72.00	428	94.00	4455	173.00	201
50.00	9304	73.00	1909	95.00	43056	174.00	30168
51.00	2535	74.00	6997	96.00	2602	175.00	2444
52.00	105	75.00	21752	104.00	154	176.00	28984
55.00	163	76.00	1792	106.00	74	177.00	1852
56.00	682	77.00	367	116.00	121	281.00	210
57.00	1241	78.00	91	117.00	337		

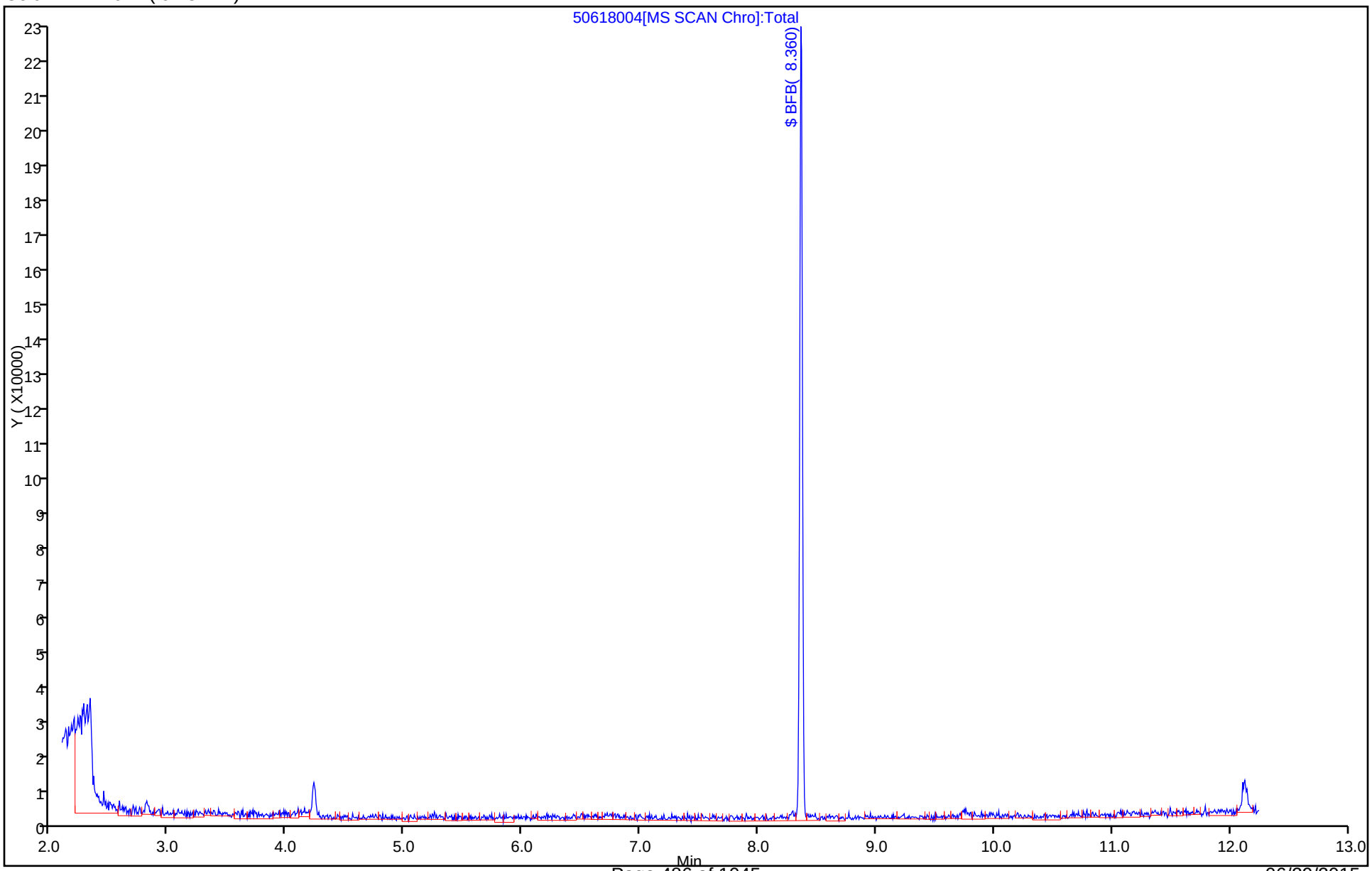
Report Date: 18-Jun-2015 15:25:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618004.D

Injection Date:	18-Jun-2015 12:42:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-Jun-2015 12:09:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0007474-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 14:56:35 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 12:21:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.366	8.366	0.000	0	49643	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

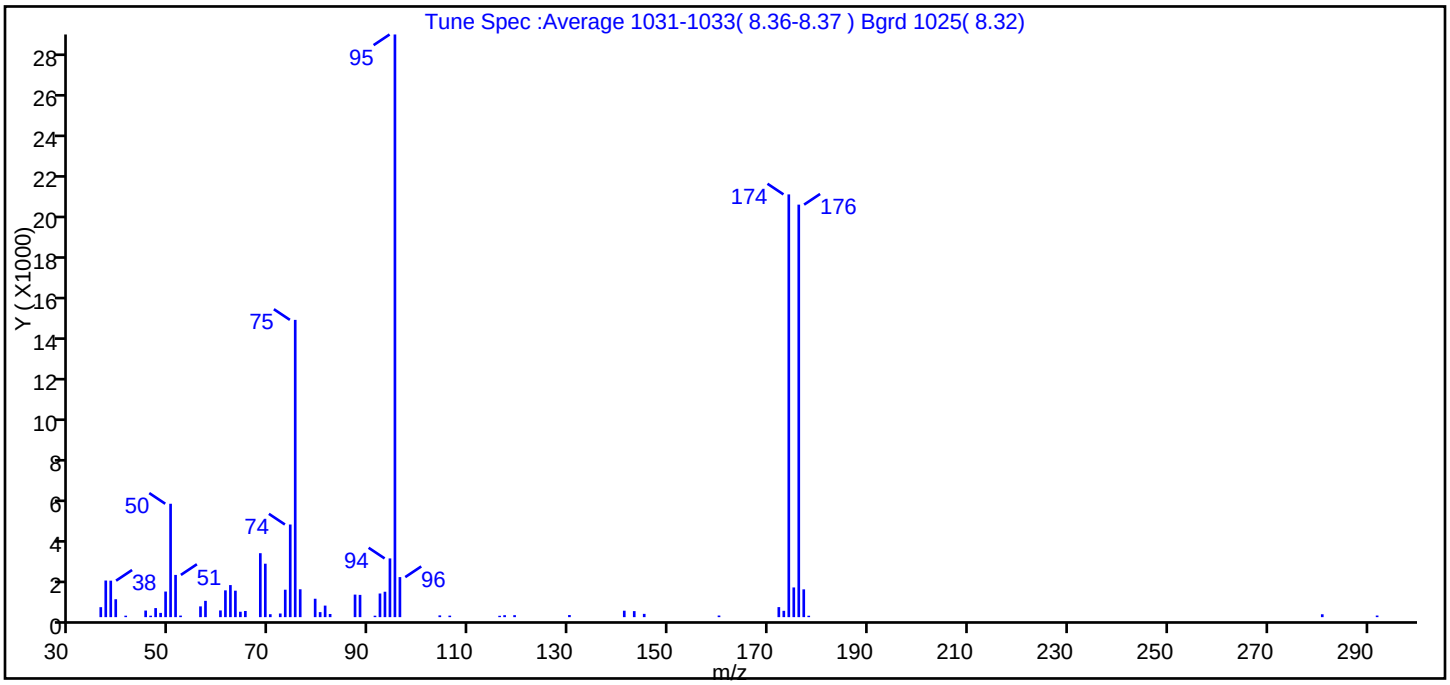
VOABFB25_00063 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619001.D
Injection Date: 19-Jun-2015 12:09:30 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	19.5
75	30 to 60% of m/z 95	51.0
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	1.1 (1.5)
174	50 to 120% of m/z 95	72.6
175	5 to 9% of m/z 174	5.1 (7.0)
176	Greater than 95% but less than 101% of m/z 174	70.8 (97.6)
177	5 to 9% of m/z 176	4.8 (6.7)

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 19-Jun-2015 12:09:30
Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1025(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 60

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	484	60.00	325	80.00	244	119.00	96
37.00	1777	61.00	1300	81.00	560	130.00	102
38.00	1770	62.00	1556	82.00	153	141.00	312
39.00	869	63.00	1284	87.00	1094	143.00	293
41.00	71	64.00	262	88.00	1080	145.00	159
45.00	320	65.00	299	91.00	70	160.00	78
46.00	70	68.00	3103	92.00	1147	172.00	487
47.00	439	69.00	2593	93.00	1233	173.00	307
48.00	206	70.00	142	94.00	2849	174.00	20512
49.00	1242	72.00	177	95.00	28272	175.00	1441
50.00	5502	73.00	1331	96.00	1943	176.00	20016
51.00	2049	74.00	4495	104.00	85	177.00	1349
52.00	76	75.00	14424	106.00	74	178.00	69
56.00	522	76.00	1352	116.00	66	281.00	140
57.00	791	79.00	893	117.00	95	292.00	78

Report Date: 19-Jun-2015 14:56:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619001.D

Injection Date:	19-Jun-2015 12:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 22-Jun-2015 08:36:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0007492-001
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 15:46:47 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 08:47:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.365	8.365	0.000	0	761303	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

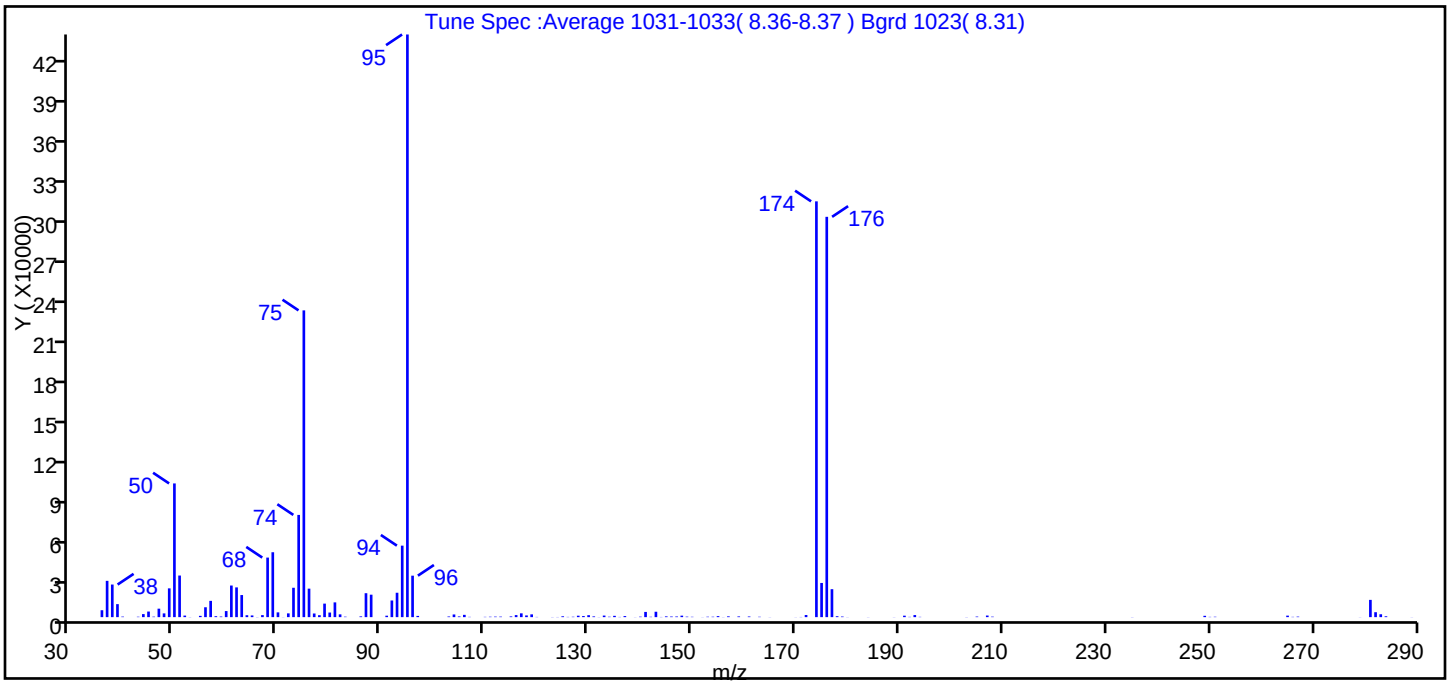
VOABFB25_00063 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622001.D
Injection Date: 22-Jun-2015 08:36:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	22.9
75	30 to 60% of m/z 95	52.6
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	71.4
175	5 to 9% of m/z 174	5.9 (8.2)
176	Greater than 95% but less than 101% of m/z 174	68.7 (96.3)
177	5 to 9% of m/z 176	4.8 (7.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622001.D\MSVOA_LL_CHHP5.rslt\spectra
Injection Date: 22-Jun-2015 08:36:30
Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1023(8.31)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5121	74.00	75672	123.00	112	163.00	283
37.00	26864	75.00	227072	124.00	118	165.00	79
38.00	24136	76.00	21096	125.00	631	170.00	70
39.00	9627	77.00	2699	126.00	176	171.00	130
40.00	397	78.00	1441	127.00	290	172.00	1571
43.00	304	79.00	10011	128.00	1070	174.00	307776
44.00	2253	80.00	3403	129.00	798	175.00	25304
45.00	4145	81.00	10928	130.00	1443	176.00	296320
46.00	357	82.00	2058	131.00	552	177.00	20696
47.00	6271	83.00	339	132.00	88	178.00	677
48.00	2777	86.00	566	133.00	1160	179.00	443
49.00	21312	87.00	17720	134.00	305	180.00	75
50.00	98976	88.00	16624	135.00	970	184.00	79
51.00	30800	91.00	1073	136.00	152	189.00	80
52.00	1151	92.00	12332	137.00	787	191.00	1087
53.00	107	93.00	18056	139.00	78	192.00	198
55.00	948	94.00	52920	140.00	351	193.00	1531
56.00	7317	95.00	431296	141.00	3866	194.00	212
57.00	12052	96.00	30696	142.00	263	203.00	104
58.00	700	97.00	912	143.00	3994	205.00	435
59.00	447	103.00	482	144.00	139	207.00	1182
60.00	4501	104.00	1986	145.00	566	208.00	360
61.00	23400	105.00	515	146.00	454	235.00	99
62.00	22024	106.00	1701	147.00	489	249.00	985
63.00	16353	107.00	199	148.00	1102	250.00	199
64.00	1421	110.00	211	149.00	362	251.00	301
65.00	1257	111.00	311	150.00	259	265.00	1116
66.00	103	112.00	388	152.00	76	266.00	211
67.00	1493	113.00	389	153.00	313	267.00	393
68.00	44088	115.00	539	154.00	304	279.00	75
69.00	48040	116.00	1512	155.00	757	281.00	12781
70.00	3530	117.00	2822	156.00	83	282.00	3656
71.00	84	118.00	1270	157.00	577	283.00	2133

Report Date: 22-Jun-2015 15:46:48 Chrom Revision: 2.2 14-May-2015 11:41:56
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622001.D\MSVOA_LL_CHHP5.rslt\spectra
Injection Date: 22-Jun-2015 08:36:30
Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1023(8.31)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	2791	119.00	2062	159.00	528	284.00	631
73.00	21744	120.00	154	161.00	480	289.00	72

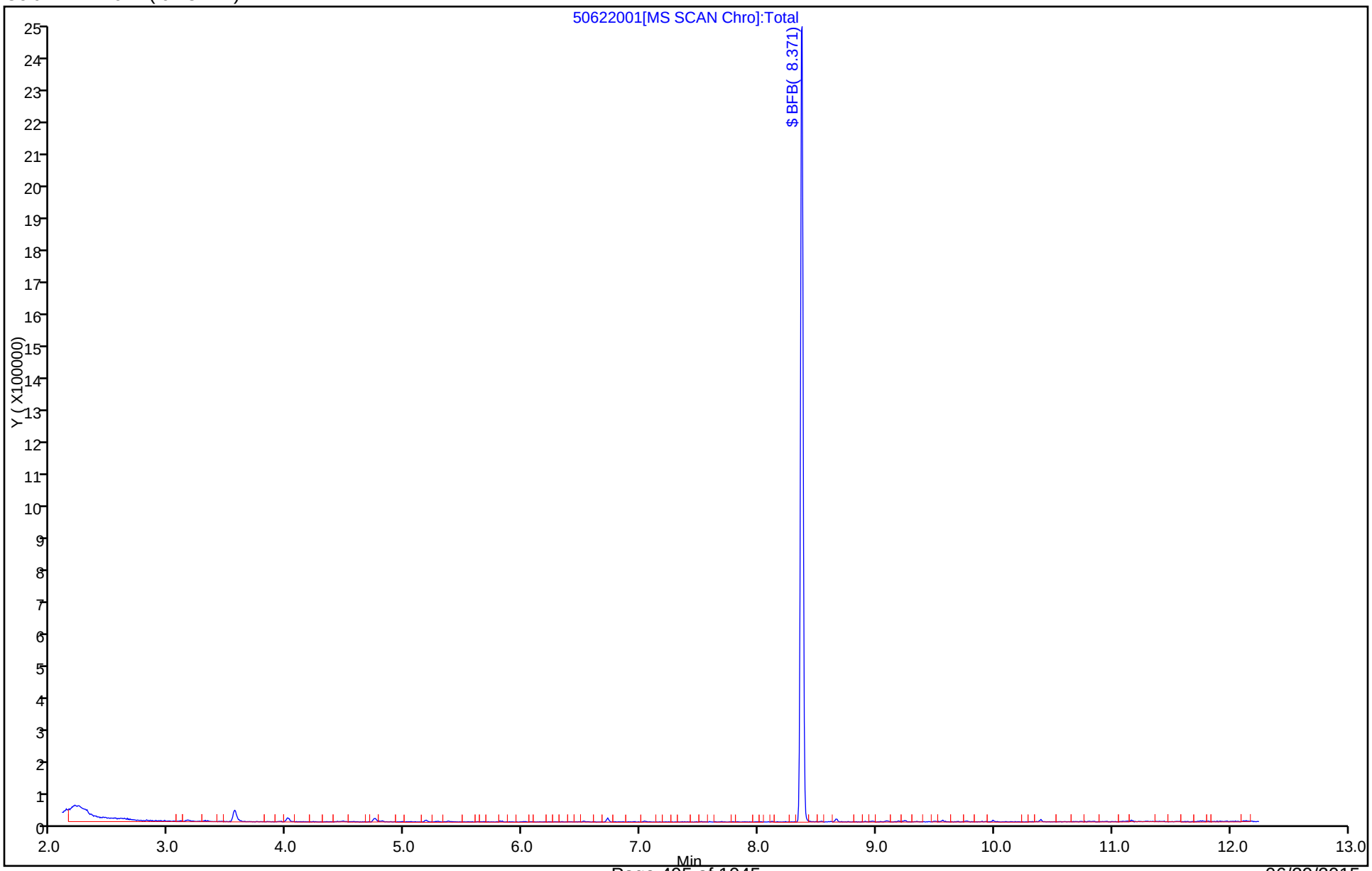
Report Date: 22-Jun-2015 15:46:48 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50622001.D

Injection Date:	22-Jun-2015 08:36:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-145455/7

Matrix: Water | Lab File ID: 50618007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 15:11

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145455/7

Matrix: Water Lab File ID: 50618007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/18/2015 15:11

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 145455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618007.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-Jun-2015 15:11:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007459-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 03:55:01 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 07:32:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.268	-0.005	0	121294	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.293	7.292	0.001	98	373487	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.388	0.001	90	82435	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.730	0.001	98	106964	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.563	6.566	-0.003	92	88310	50.0	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.940	6.937	0.003	0	130743	50.0	52.0	
$ 7 Toluene-d8 (Surr)	98	8.935	8.938	-0.003	94	333680	50.0	48.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.572	0.003	85	113363	50.0	45.1	
11 Dichlorodifluoromethane	85		1.620					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.936					ND	
15 Bromomethane	94		2.258					ND	
16 Chloroethane	64		2.398					ND	
17 Dichlorofluoromethane	67		2.666					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		2.936					ND	
20 Ethyl ether	59		3.043					ND	
21 Acrolein	56		3.232					ND	
22 1,1-Dichloroethene	96		3.341					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.420					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.633					ND	
27 Isopropyl alcohol	45		3.721					ND	
29 Acetonitrile	40		3.879					ND	
28 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.937					ND	
31 Methylene Chloride	84		4.138					ND	
32 2-Methyl-2-propanol	59		4.400					ND	
33 Acrylonitrile	53		4.521					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558					ND	
35 Methyl tert-butyl ether	73		4.576					ND	
36 Hexane	57		4.990					ND	
37 1,1-Dichloroethane	63		5.203					ND	
38 Vinyl acetate	43		5.245					ND	
39 2-Chloro-1,3-butadiene	53		5.302					ND	
41 Isopropyl ether	45		5.302					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.777					ND	
45 cis-1,2-Dichloroethene	96		5.951					ND	
44 2,2-Dichloropropane	77		5.951					ND	
46 2-Butanone (MEK)	43		5.957					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.032					ND	
48 Ethyl acetate	43		6.038					ND	
50 Methacrylonitrile	41		6.209					ND	
49 Chlorobromomethane	128		6.237					ND	
51 Tetrahydrofuran	42		6.255					ND	
52 Chloroform	83		6.383					ND	
53 1,1,1-Trichloroethane	97		6.541					ND	
54 Cyclohexane	56		6.614					ND	
56 Carbon tetrachloride	117		6.718					ND	
55 1,1-Dichloropropene	75		6.730					ND	
57 Isobutyl alcohol	41		6.924					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.022					ND	
61 Tert-amyl methyl ether	73		7.121					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.632					ND	
64 Trichloroethene	130		7.679					ND	
65 Ethyl acrylate	55		7.796					ND	
66 Methylcyclohexane	83		7.916					ND	
67 1,2-Dichloropropane	63		7.953					ND	
70 1,4-Dioxane	88		8.026					ND	
68 Dibromomethane	93		8.032					ND	
69 Methyl methacrylate	69		8.034					ND	
71 Dichlorobromomethane	83		8.226					ND	
72 2-Nitropropane	41		8.453					ND	
73 2-Chloroethyl vinyl ether	63		8.531					ND	
74 cis-1,3-Dichloropropene	75		8.677					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829					ND	
76 Toluene	91		9.005					ND	
77 trans-1,3-Dichloropropene	75		9.248					ND	
78 Ethyl methacrylate	69		9.309					ND	
79 1,1,2-Trichloroethane	97		9.443					ND	
80 Tetrachloroethene	164		9.516					ND	
81 1,3-Dichloropropane	76		9.601					ND	
82 2-Hexanone	43		9.662					ND	
83 n-Butyl acetate	43		9.780					ND	
84 Chlorodibromomethane	129		9.820					ND	
85 Ethylene Dibromide	107		9.930					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.392					ND	
87 Chlorobenzene	112		10.416					ND	
88 4-Chlorobenzotrifluoride	180		10.477					ND	
89 1,1,1,2-Tetrachloroethane	131		10.514					ND	
90 Ethylbenzene	106		10.514					ND	
91 m-Xylene & p-Xylene	106		10.648					ND	
92 o-Xylene	106		11.031					ND	
93 Styrene	104		11.049					ND	
94 Bromoform	173		11.232					ND	
95 Cyclohexanol	57		11.246					ND	
96 2-Chlorobenzotrifluoride	180		11.298					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.489					ND	
99 1,1,2,2-Tetrachloroethane	83		11.706					ND	
100 Bromobenzene	156		11.712					ND	
102 trans-1,4-Dichloro-2-buten	53		11.743					ND	
101 1,2,3-Trichloropropane	110		11.761					ND	
103 N-Propylbenzene	120		11.809					ND	
104 2-Chlorotoluene	126		11.901					ND	
105 3-Chlorotoluene	126		11.962					ND	
106 1,3,5-Trimethylbenzene	105		11.992					ND	
107 4-Chlorotoluene	126		12.022					ND	
108 tert-Butylbenzene	119		12.308					ND	
109 Pentachloroethane	167		12.341					ND	
110 1,2,4-Trimethylbenzene	105		12.369					ND	
111 1,2-dichloro-4-(trifluorom	214		12.412					ND	
112 sec-Butylbenzene	105		12.533					ND	
113 1,3-Dichlorobenzene	146		12.649					ND	
114 4-Isopropyltoluene	119		12.686					ND	
115 1,4-Dichlorobenzene	146		12.752					ND	
117 1,2,3-Trimethylbenzene	105		12.779					ND	
116 2,4-Dichloro-1-(triflourom	214		12.783					ND	
118 2,5-Dichlorobenzotrifluori	214		12.825					ND	
119 Benzyl chloride	91		12.870					ND	
120 n-Butylbenzene	91		13.099					ND	
121 1,2-Dichlorobenzene	146		13.111					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.908					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.042					ND	
124 1,3,5-Trichlorobenzene	180		14.093					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.462					ND	
126 1,2,4-Trichlorobenzene	180		14.723					ND	
127 Hexachlorobutadiene	225		14.869					ND	
128 Naphthalene	128		14.991					ND	
129 1,2,3-Trichlorobenzene	180		15.216					ND	
131 2,4,5-Trichlorotoluene	159		15.995					ND	
130 2,3,6-Trichlorotoluene	159		16.092					ND	
132 2-Methylnaphthalene	142		16.131					ND	
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-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
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

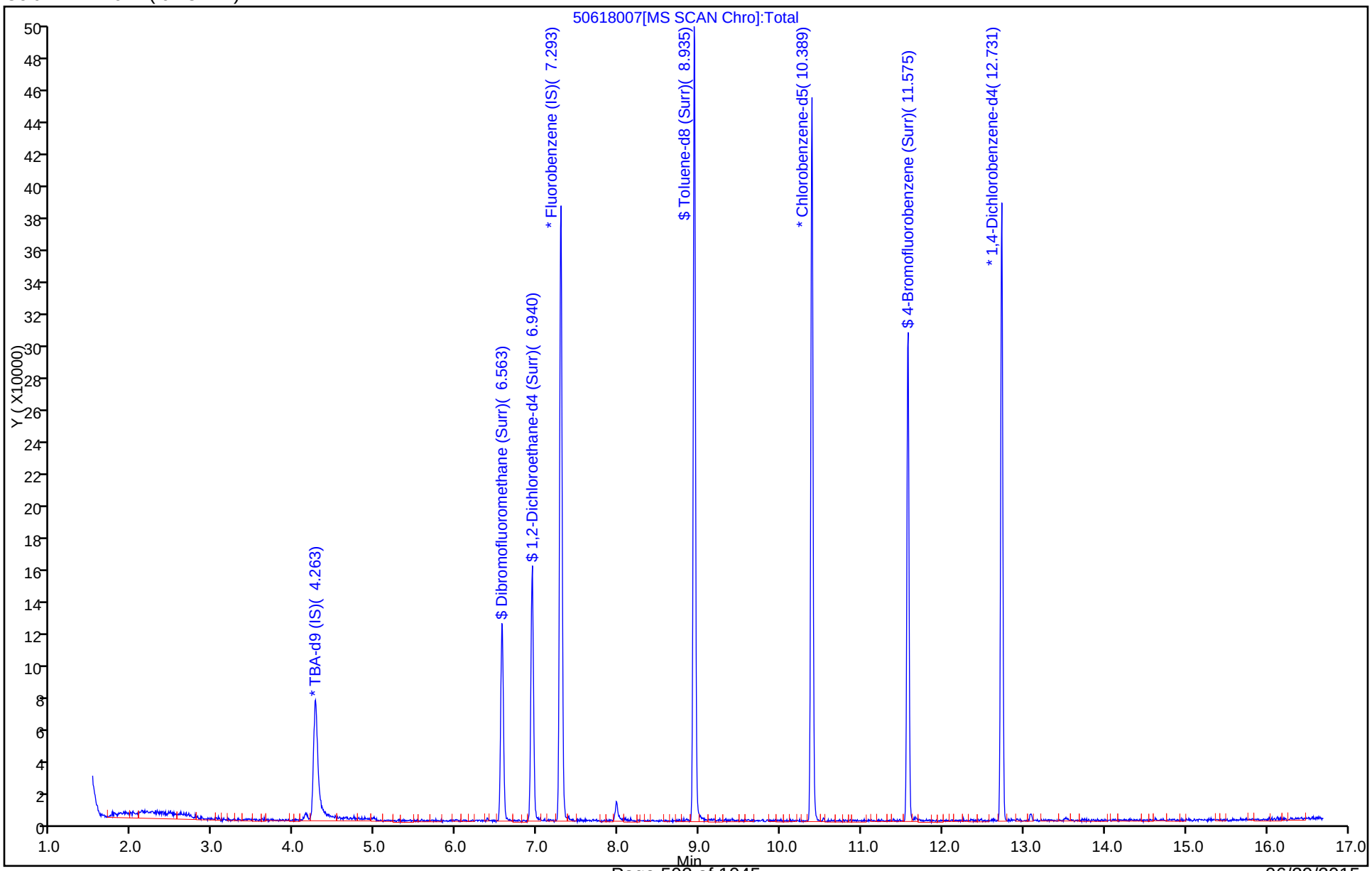
Report Date: 19-Jun-2015 07:32:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618007.D

Injection Date:	18-Jun-2015 15:11:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	7
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.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-145590/5

Matrix: Water | Lab File ID: 50619005.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 14:18

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145590/5

Matrix: Water Lab File ID: 50619005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/19/2015 14:18

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 145590 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-Jun-2015 14:18:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007474-005
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-Jun-2015 12:10:40 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: journetp Date: 20-Jun-2015 12:13:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.257	0.002	0	138449	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.286	0.003	98	351891	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.383	0.002	90	76944	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.731	-0.004	98	89892	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	93	86310	50.0	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	0	127568	50.0	53.9	
$ 7 Toluene-d8 (Surr)	98	8.937	8.931	0.006	95	324258	50.0	50.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.572	-0.001	85	101033	50.0	43.0	
11 Dichlorodifluoromethane	85		1.619					ND	
12 Chloromethane	50		1.765					ND	
13 Vinyl chloride	62		1.893					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.246					ND	
16 Chloroethane	64		2.392					ND	
17 Dichlorofluoromethane	67		2.665					ND	
18 Trichlorofluoromethane	101		2.702					ND	
19 Ethanol	45		2.949					ND	
20 Ethyl ether	59		3.055					ND	
21 Acrolein	56		3.231					ND	
22 1,1-Dichloroethene	96		3.347					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.414					ND	
24 Acetone	43		3.438					ND	
25 Iodomethane	142		3.541					ND	
26 Carbon disulfide	76		3.633					ND	
27 Isopropyl alcohol	45		3.709					ND	
29 Acetonitrile	40		3.867					ND	
28 3-Chloro-1-propene	76		3.919					ND	
30 Methyl acetate	43		3.937					ND	
31 Methylene Chloride	84		4.144					ND	
32 2-Methyl-2-propanol	59		4.399					ND	
33 Acrylonitrile	53		4.515					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		4.576					ND	
36 Hexane	57		4.983					ND	
37 1,1-Dichloroethane	63		5.202					ND	
38 Vinyl acetate	43		5.245					ND	
39 2-Chloro-1,3-butadiene	53		5.297					ND	
41 Isopropyl ether	45		5.297					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.771					ND	
45 cis-1,2-Dichloroethene	96		5.944					ND	
44 2,2-Dichloropropane	77		5.944					ND	
46 2-Butanone (MEK)	43		5.957					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.027					ND	
48 Ethyl acetate	43		6.033					ND	
50 Methacrylonitrile	41		6.209					ND	
49 Chlorobromomethane	128		6.236					ND	
51 Tetrahydrofuran	42		6.249					ND	
52 Chloroform	83	6.382	6.376	0.006	1	990		0.2658	
53 1,1,1-Trichloroethane	97		6.541					ND	
54 Cyclohexane	56		6.614					ND	
56 Carbon tetrachloride	117		6.711					ND	
55 1,1-Dichloropropene	75		6.729					ND	
57 Isobutyl alcohol	41		6.924					ND	
58 Benzene	78		6.942					ND	
59 1,2-Dichloroethane	62		7.015					ND	
61 Tert-amyl methyl ether	73		7.122					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.307					ND	
63 n-Butanol	56		7.627					ND	
64 Trichloroethene	130		7.672					ND	
65 Ethyl acrylate	55		7.797					ND	
66 Methylcyclohexane	83		7.915					ND	
67 1,2-Dichloropropane	63		7.946					ND	
70 1,4-Dioxane	88		8.025					ND	
69 Methyl methacrylate	69		8.034					ND	
68 Dibromomethane	93		8.037					ND	
71 Dichlorobromomethane	83		8.232					ND	
72 2-Nitropropane	41		8.448					ND	
73 2-Chloroethyl vinyl ether	63		8.530					ND	
74 cis-1,3-Dichloropropene	75		8.676					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
76 Toluene	91		9.004					ND	
77 trans-1,3-Dichloropropene	75		9.248					ND	
78 Ethyl methacrylate	69		9.309					ND	
79 1,1,2-Trichloroethane	97		9.442					ND	
80 Tetrachloroethene	164		9.515					ND	
81 1,3-Dichloropropane	76		9.601					ND	
82 2-Hexanone	43		9.655					ND	
83 n-Butyl acetate	43		9.780					ND	
84 Chlorodibromomethane	129		9.814					ND	
85 Ethylene Dibromide	107		9.929					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.385					ND	
87 Chlorobenzene	112		10.416					ND	
88 4-Chlorobenzotrifluoride	180		10.477					ND	
89 1,1,1,2-Tetrachloroethane	131		10.507					ND	
90 Ethylbenzene	106		10.513					ND	
91 m-Xylene & p-Xylene	106		10.647					ND	
92 o-Xylene	106		11.030					ND	
93 Styrene	104		11.048					ND	
94 Bromoform	173		11.237					ND	
95 Cyclohexanol	57		11.246					ND	
96 2-Chlorobenzotrifluoride	180		11.298					ND	
97 Isopropylbenzene	105		11.395					ND	
98 Cyclohexanone	55		11.484					ND	
99 1,1,2,2-Tetrachloroethane	83		11.705					ND	
100 Bromobenzene	156		11.705					ND	
102 trans-1,4-Dichloro-2-buten	53		11.742					ND	
101 1,2,3-Trichloropropane	110		11.760					ND	
103 N-Propylbenzene	120		11.809					ND	
104 2-Chlorotoluene	126		11.900					ND	
105 3-Chlorotoluene	126		11.961					ND	
106 1,3,5-Trimethylbenzene	105		11.991					ND	
107 4-Chlorotoluene	126		12.022					ND	
108 tert-Butylbenzene	119		12.308					ND	
109 Pentachloroethane	167		12.335					ND	
110 1,2,4-Trimethylbenzene	105		12.369					ND	
111 1,2-dichloro-4-(trifluorom	214		12.411					ND	
112 sec-Butylbenzene	105		12.533					ND	
113 1,3-Dichlorobenzene	146		12.648					ND	
114 4-Isopropyltoluene	119		12.691					ND	
115 1,4-Dichlorobenzene	146		12.752					ND	
116 2,4-Dichloro-1-(triflourom	214		12.776					ND	
117 1,2,3-Trimethylbenzene	105		12.779					ND	
118 2,5-Dichlorobenzotrifluori	214		12.819					ND	
119 Benzyl chloride	91		12.865					ND	
120 n-Butylbenzene	91		13.099					ND	
121 1,2-Dichlorobenzene	146		13.105					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.902					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.042					ND	
124 1,3,5-Trichlorobenzene	180		14.087					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.461					ND	
126 1,2,4-Trichlorobenzene	180		14.729					ND	
127 Hexachlorobutadiene	225		14.869					ND	
128 Naphthalene	128		14.991					ND	
129 1,2,3-Trichlorobenzene	180		15.210					ND	
131 2,4,5-Trichlorotoluene	159		15.988					ND	
130 2,3,6-Trichlorotoluene	159		16.098					ND	
132 2-Methylnaphthalene	142		16.131					ND	
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-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
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Reagents:

VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

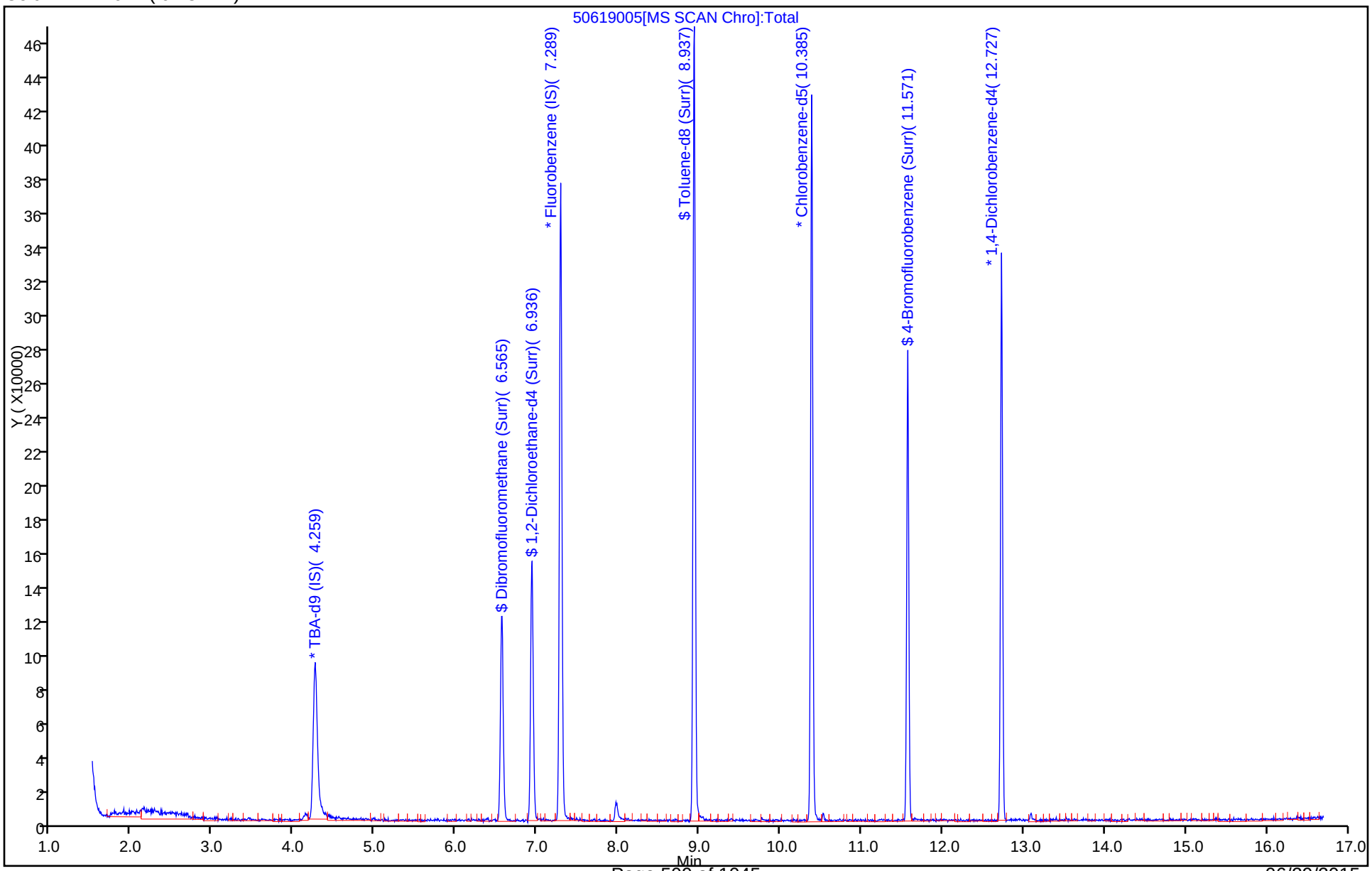
Report Date: 20-Jun-2015 12:13:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619005.D

Injection Date:	19-Jun-2015 14:18:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145689/5

Matrix: Water Lab File ID: 50629005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2015 11:12

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.: 145689 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145689/5

Matrix: Water Lab File ID: 50629005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2015 11:12

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.: 145689 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	85		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 22-Jun-2015 11:12:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007492-005
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 15:47:00 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 11:35:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.248	0.018	0	154716	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	460973	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.387	-0.001	89	98017	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	98	110313	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	92	102189	50.0	47.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	148186	50.0	47.8	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	95	398969	50.0	49.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	86	127853	50.0	42.7	
11 Dichlorodifluoromethane	85		1.620					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.936					ND	
15 Bromomethane	94		2.241					ND	
16 Chloroethane	64		2.387					ND	
17 Dichlorofluoromethane	67		2.666					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		2.941					ND	
20 Ethyl ether	59		3.044					ND	
21 Acrolein	56		3.232					ND	
22 1,1-Dichloroethene	96		3.342					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.415					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.628					ND	
27 Isopropyl alcohol	45		3.713					ND	
29 Acetonitrile	40		3.865					ND	
28 3-Chloro-1-propene	76		3.920					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84		4.139					ND	
32 2-Methyl-2-propanol	59		4.400					ND	
33 Acrylonitrile	53		4.516					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558					ND	
35 Methyl tert-butyl ether	73		4.577					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.246					ND	
39 2-Chloro-1,3-butadiene	53		5.295					ND	
41 Isopropyl ether	45		5.301					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.769					ND	
45 cis-1,2-Dichloroethene	96		5.945					ND	
44 2,2-Dichloropropane	77		5.945					ND	
46 2-Butanone (MEK)	43		5.958					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.025					ND	
48 Ethyl acetate	43		6.037					ND	
50 Methacrylonitrile	41		6.207					ND	
49 Chlorobromomethane	128		6.237					ND	
51 Tetrahydrofuran	42		6.250					ND	
52 Chloroform	83		6.383					ND	
53 1,1,1-Trichloroethane	97		6.536					ND	
54 Cyclohexane	56		6.615					ND	
56 Carbon tetrachloride	117		6.712					ND	
55 1,1-Dichloropropene	75		6.730					ND	
57 Isobutyl alcohol	41		6.931					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.022					ND	
61 Tert-amyl methyl ether	73		7.126					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.631					ND	
64 Trichloroethene	130		7.679					ND	
65 Ethyl acrylate	55		7.795					ND	
66 Methylcyclohexane	83		7.916					ND	
67 1,2-Dichloropropane	63		7.953					ND	
70 1,4-Dioxane	88		8.032					ND	
69 Methyl methacrylate	69		8.032					ND	
68 Dibromomethane	93		8.038					ND	
71 Dichlorobromomethane	83		8.227					ND	
72 2-Nitropropane	41		8.452					ND	
73 2-Chloroethyl vinyl ether	63		8.531					ND	
74 cis-1,3-Dichloropropene	75		8.677					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829					ND	
76 Toluene	91		9.005					ND	
77 trans-1,3-Dichloropropene	75		9.249					ND	
78 Ethyl methacrylate	69		9.310					ND	
79 1,1,2-Trichloroethane	97		9.443					ND	
80 Tetrachloroethene	164		9.516					ND	
81 1,3-Dichloropropane	76		9.602					ND	
82 2-Hexanone	43		9.656					ND	
83 n-Butyl acetate	43		9.778					ND	
84 Chlorodibromomethane	129		9.814					ND	
85 Ethylene Dibromide	107		9.930					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.386					ND	
87 Chlorobenzene	112		10.417					ND	
88 4-Chlorobenzotrifluoride	180		10.478					ND	
90 Ethylbenzene	106		10.514					ND	
89 1,1,1,2-Tetrachloroethane	131		10.514					ND	
91 m-Xylene & p-Xylene	106		10.648					ND	
92 o-Xylene	106		11.025					ND	
93 Styrene	104		11.049					ND	
94 Bromoform	173		11.232					ND	
95 Cyclohexanol	57		11.246					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.488					ND	
99 1,1,2,2-Tetrachloroethane	83		11.713					ND	
100 Bromobenzene	156		11.713					ND	
102 trans-1,4-Dichloro-2-buten	53		11.743					ND	
101 1,2,3-Trichloropropane	110		11.761					ND	
103 N-Propylbenzene	120		11.816					ND	
104 2-Chlorotoluene	126		11.901					ND	
105 3-Chlorotoluene	126		11.968					ND	
106 1,3,5-Trimethylbenzene	105		11.992					ND	
107 4-Chlorotoluene	126		12.023					ND	
108 tert-Butylbenzene	119		12.309					ND	
109 Pentachloroethane	167		12.339					ND	
110 1,2,4-Trimethylbenzene	105		12.370					ND	
111 1,2-dichloro-4-(trifluorom	214		12.412					ND	
112 sec-Butylbenzene	105		12.534					ND	
113 1,3-Dichlorobenzene	146		12.649					ND	
114 4-Isopropyltoluene	119		12.686					ND	
115 1,4-Dichlorobenzene	146		12.753					ND	
116 2,4-Dichloro-1-(triflourom	214		12.777					ND	
117 1,2,3-Trimethylbenzene	105		12.784					ND	
118 2,5-Dichlorobenzotrifluori	214		12.820					ND	
119 Benzyl chloride	91		12.869					ND	
120 n-Butylbenzene	91		13.100					ND	
121 1,2-Dichlorobenzene	146		13.112					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.903					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.043					ND	
124 1,3,5-Trichlorobenzene	180		14.092					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.462					ND	
126 1,2,4-Trichlorobenzene	180		14.724					ND	
127 Hexachlorobutadiene	225		14.870					ND	
128 Naphthalene	128		14.992					ND	
129 1,2,3-Trichlorobenzene	180		15.217					ND	
131 2,4,5-Trichlorotoluene	159		15.995					ND	
130 2,3,6-Trichlorotoluene	159		16.093					ND	
132 2-Methylnaphthalene	142		16.136					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_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

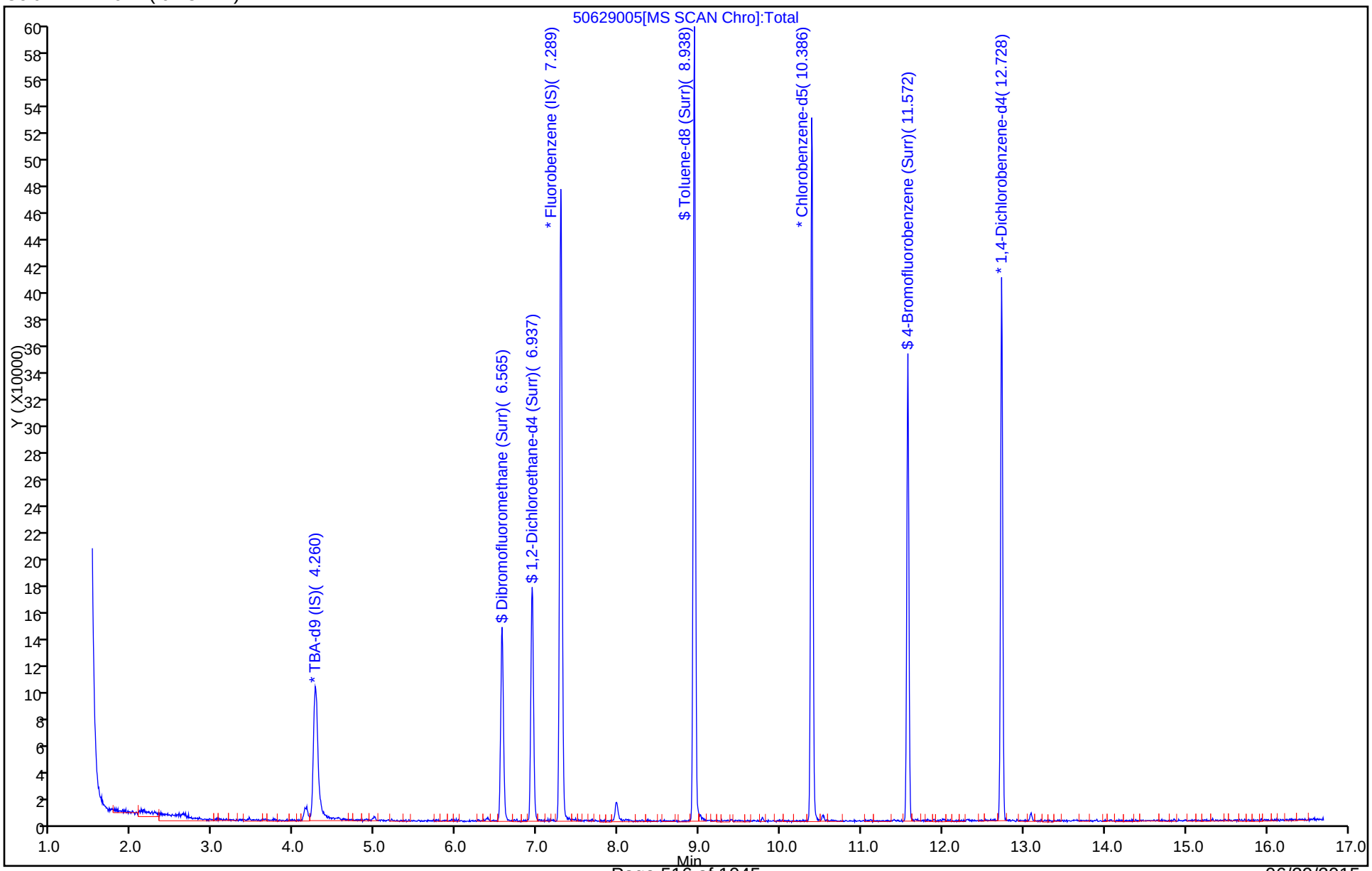
Report Date: 22-Jun-2015 15:47:15 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629005.D

Injection Date:	22-Jun-2015 11:12:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-145455/8

Matrix: Water | Lab File ID: 50618008.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 15:48

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.20		1.0	0.28
75-01-4	Vinyl chloride	9.35		1.0	0.23
74-83-9	Bromomethane	9.44		1.0	0.31
75-00-3	Chloroethane	9.17		1.0	0.21
75-35-4	1,1-Dichloroethene	8.99		1.0	0.30
67-64-1	Acetone	17.6		5.0	2.5
75-15-0	Carbon disulfide	9.02		1.0	0.21
75-09-2	Methylene Chloride	7.80		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.31		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.60		1.0	0.18
75-34-3	1,1-Dichloroethane	8.73		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.67		1.0	0.24
74-97-5	Bromochloromethane	8.89		1.0	0.18
78-93-3	2-Butanone (MEK)	18.8		5.0	0.55
67-66-3	Chloroform	9.20		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.03		1.0	0.29
56-23-5	Carbon tetrachloride	9.17		1.0	0.14
71-43-2	Benzene	9.28		1.0	0.11
107-06-2	1,2-Dichloroethane	9.06		1.0	0.21
79-01-6	Trichloroethene	8.92		1.0	0.14
78-87-5	1,2-Dichloropropane	9.21		1.0	0.095
75-27-4	Bromodichloromethane	8.92		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.34		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.3		5.0	0.53
108-88-3	Toluene	9.78		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.26		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.33		1.0	0.20
127-18-4	Tetrachloroethene	9.65		1.0	0.15
591-78-6	2-Hexanone	17.8		5.0	0.16
124-48-1	Dibromochloromethane	9.27		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.73		1.0	0.18
108-90-7	Chlorobenzene	9.47		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.61		1.0	0.28
100-41-4	Ethylbenzene	9.57		1.0	0.23
1330-20-7	Xylenes, Total	19.2		3.0	0.49
100-42-5	Styrene	9.97		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-145455/8

Matrix: Water Lab File ID: 50618008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/18/2015 15:48

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 145455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.89		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.88		1.0	0.20
107-13-1	Acrylonitrile	91.7		20	0.55
123-91-1	1,4-Dioxane	183	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	92		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618008.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-Jun-2015 15:48:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007459-008
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 16:08:03 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 16:06:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.268	0.006	0	111116	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	98	414505	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	91380	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	94	124001	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.566	-0.004	93	88687	50.0	45.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.937	-0.004	0	124432	50.0	44.6	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	95	372789	50.0	49.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.572	0.002	84	131087	50.0	47.0	
11 Dichlorodifluoromethane	85	1.622	1.620	0.002	99	115700	50.0	41.4	
12 Chloromethane	50	1.768	1.766	0.002	99	144724	50.0	46.0	
13 Vinyl chloride	62	1.895	1.900	-0.005	97	148336	50.0	46.7	
14 Butadiene	39	1.938	1.936	0.002	94	149597	50.0	44.0	
15 Bromomethane	94	2.254	2.258	-0.004	91	72849	50.0	47.2	
16 Chloroethane	64	2.382	2.398	-0.016	100	87601	50.0	45.8	
17 Dichlorofluoromethane	67	2.668	2.666	0.002	97	197588	50.0	46.7	
18 Trichlorofluoromethane	101	2.699	2.703	-0.005	92	160758	50.0	46.6	
20 Ethyl ether	59	3.045	3.043	0.002	93	107498	50.0	45.1	
21 Acrolein	56	3.228	3.232	-0.004	99	57020	150.0	124.6	
22 1,1-Dichloroethene	96	3.343	3.341	0.002	95	105542	50.0	45.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.410	3.420	-0.010	93	113818	50.0	45.9	
24 Acetone	43	3.441	3.439	0.002	98	60316	100.0	87.8	
25 Iodomethane	142	3.538	3.536	0.002	100	152512	50.0	47.0	
26 Carbon disulfide	76	3.629	3.633	-0.004	99	234398	50.0	45.1	
28 3-Chloro-1-propene	76	3.909	3.913	-0.004	89	61049	50.0	47.0	
30 Methyl acetate	43	3.933	3.937	-0.004	99	466712	250.0	219.1	
31 Methylene Chloride	84	4.134	4.138	-0.004	97	125928	50.0	39.0	
32 2-Methyl-2-propanol	59	4.402	4.400	0.002	90	63823	500.0	503.0	
33 Acrylonitrile	53	4.517	4.521	-0.004	99	473260	500.0	458.6	
34 trans-1,2-Dichloroethene	96	4.566	4.558	0.008	96	116232	50.0	46.6	
35 Methyl tert-butyl ether	73	4.572	4.576	-0.004	96	264673	50.0	43.0	
36 Hexane	57	4.986	4.990	-0.004	95	176399	50.0	45.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.203	-0.004	97	208222	50.0	43.7	
38 Vinyl acetate	43	5.247	5.245	0.002	98	196974	50.0	48.3	
45 cis-1,2-Dichloroethene	96	5.953	5.951	0.002	84	114597	50.0	43.3	
44 2,2-Dichloropropane	77	5.947	5.951	-0.004	58	90131	50.0	44.2	
46 2-Butanone (MEK)	43	5.965	5.957	0.008	81	94677	100.0	94.0	
49 Chlorobromomethane	128	6.233	6.237	-0.004	95	49581	50.0	44.4	
51 Tetrahydrofuran	42	6.251	6.255	-0.004	89	69666	100.0	84.1	
52 Chloroform	83	6.379	6.383	-0.004	95	201858	50.0	46.0	
53 1,1,1-Trichloroethane	97	6.543	6.541	0.002	96	148805	50.0	45.1	
54 Cyclohexane	56	6.610	6.614	-0.004	95	227705	50.0	46.1	
56 Carbon tetrachloride	117	6.714	6.718	-0.004	95	131473	50.0	45.8	
55 1,1-Dichloropropene	75	6.732	6.730	0.002	92	164990	50.0	45.6	
57 Isobutyl alcohol	41	6.927	6.924	0.002	90	77633	1250.0	1123.6	
58 Benzene	78	6.945	6.943	0.002	98	484729	50.0	46.4	
59 1,2-Dichloroethane	62	7.018	7.022	-0.004	97	161810	50.0	45.3	
62 n-Heptane	43	7.310	7.308	0.002	94	154289	50.0	45.2	
64 Trichloroethene	130	7.675	7.679	-0.004	97	110073	50.0	44.6	
66 Methylcyclohexane	83	7.918	7.916	0.002	94	184926	50.0	44.9	
67 1,2-Dichloropropane	63	7.949	7.953	-0.004	94	117262	50.0	46.1	
70 1,4-Dioxane	88	8.028	8.026	0.002	37	15972	1000.0	913.5	M
68 Dibromomethane	93	8.034	8.032	0.002	96	61833	50.0	44.9	
71 Dichlorobromomethane	83	8.228	8.226	0.002	99	123988	50.0	44.6	
73 2-Chloroethyl vinyl ether	63	8.526	8.531	-0.004	93	119079	100.0	86.9	
74 cis-1,3-Dichloropropene	75	8.672	8.677	-0.004	91	150190	50.0	46.7	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.829	-0.004	99	197568	100.0	91.3	
76 Toluene	91	9.001	9.005	-0.004	98	480425	50.0	48.9	
77 trans-1,3-Dichloropropene	75	9.250	9.248	0.002	97	122342	50.0	46.3	
78 Ethyl methacrylate	69	9.311	9.309	0.002	92	118509	50.0	47.1	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	94	88932	50.0	46.7	
80 Tetrachloroethene	164	9.518	9.516	0.002	95	90168	50.0	48.3	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	95	166437	50.0	47.8	
82 2-Hexanone	43	9.658	9.662	-0.004	98	123757	100.0	89.1	
84 Chlorodibromomethane	129	9.816	9.820	-0.004	91	71937	50.0	46.4	
85 Ethylene Dibromide	107	9.932	9.930	0.002	98	86597	50.0	48.6	
86 3-Chlorobenzotrifluoride	180	10.388	10.392	-0.004	83	142284	50.0	44.2	
87 Chlorobenzene	112	10.418	10.416	0.002	92	290525	50.0	47.4	
88 4-Chlorobenzotrifluoride	180	10.479	10.477	0.002	96	136986	50.0	45.2	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.514	-0.004	90	91016	50.0	48.1	
90 Ethylbenzene	106	10.516	10.514	0.002	99	161333	50.0	47.8	
91 m-Xylene & p-Xylene	106	10.650	10.648	0.002	0	197514	50.0	48.5	
92 o-Xylene	106	11.027	11.031	-0.004	97	185347	50.0	47.4	
93 Styrene	104	11.051	11.049	0.002	95	318358	50.0	49.9	
94 Bromoform	173	11.234	11.232	0.002	95	40726	50.0	49.4	
96 2-Chlorobenzotrifluoride	180	11.294	11.298	-0.004	95	137635	50.0	45.4	
97 Isopropylbenzene	105	11.398	11.396	0.002	97	477080	50.0	49.8	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.706	0.002	77	119068	50.0	49.4	
100 Bromobenzene	156	11.708	11.712	-0.004	96	106465	50.0	44.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.743	0.002	79	36984	50.0	45.3	
101 1,2,3-Trichloropropane	110	11.763	11.761	0.002	86	38586	50.0	45.1	
103 N-Propylbenzene	120	11.812	11.809	0.003	99	130977	50.0	45.9	
104 2-Chlorotoluene	126	11.903	11.901	0.002	95	109553	50.0	44.5	
105 3-Chlorotoluene	126	11.964	11.962	0.002	96	107291	50.0	42.1	

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	11.994	11.992	0.002	94	399628	50.0	48.2	
107 4-Chlorotoluene	126	12.024	12.022	0.002	99	121252	50.0	45.5	
108 tert-Butylbenzene	119	12.310	12.308	0.002	94	310655	50.0	47.1	
110 1,2,4-Trimethylbenzene	105	12.365	12.369	-0.004	98	383762	50.0	47.0	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.412	0.002	97	99871	50.0	41.8	
112 sec-Butylbenzene	105	12.529	12.533	-0.004	95	453988	50.0	47.7	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	96	197305	50.0	45.0	
114 4-Isopropyltoluene	119	12.688	12.686	0.002	97	370099	50.0	48.3	
115 1,4-Dichlorobenzene	146	12.754	12.752	0.002	95	208417	50.0	46.7	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.783	-0.004	96	87183	50.0	40.1	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.825	-0.004	0	105176	50.0	44.8	
120 n-Butylbenzene	91	13.095	13.099	-0.004	98	303285	50.0	46.3	
121 1,2-Dichlorobenzene	146	13.107	13.111	-0.004	95	181281	50.0	46.7	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.908	-0.004	73	15117	50.0	45.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.042	0.002	0	291055	150.0	131.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.462	0.002	0	180889	100.0	89.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.723	0.003	94	65973	50.0	47.5	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	97	35455	50.0	46.0	
128 Naphthalene	128	14.987	14.991	-0.004	98	160325	50.0	44.6	
129 1,2,3-Trichlorobenzene	180	15.212	15.216	-0.004	94	54419	50.0	48.2	
131 2,4,5-Trichlorotoluene	159	15.991	15.995	-0.004	0	16796	50.0	48.8	
130 2,3,6-Trichlorotoluene	159	16.094	16.092	0.002	94	18360	50.0	52.3	
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	95.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	89.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	93.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL		
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL		
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00002	Amount Added:	2.00	Units: uL		
voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

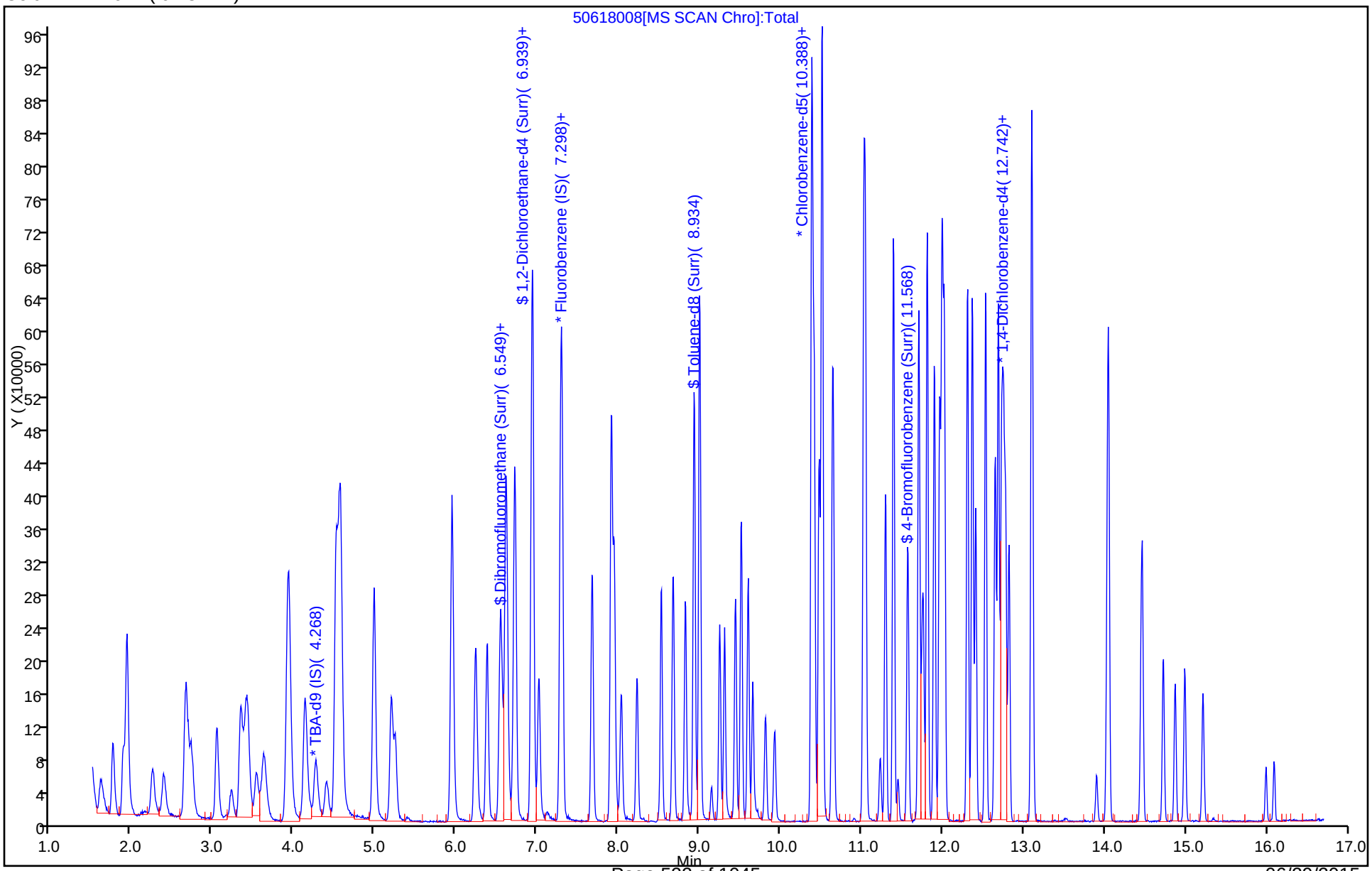
Report Date: 18-Jun-2015 16:15:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618008.D

Injection Date:	18-Jun-2015 15:48:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	8
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

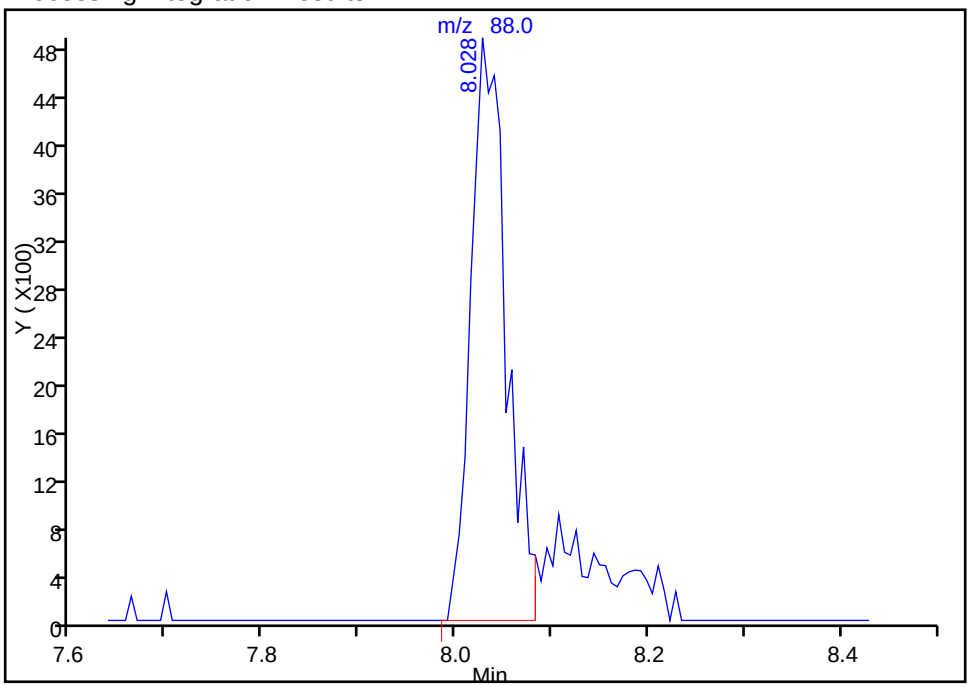
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618008.D				
Injection Date:	18-Jun-2015 15:48:30	Instrument ID:	CHHP5		
Lims ID:	LCS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	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

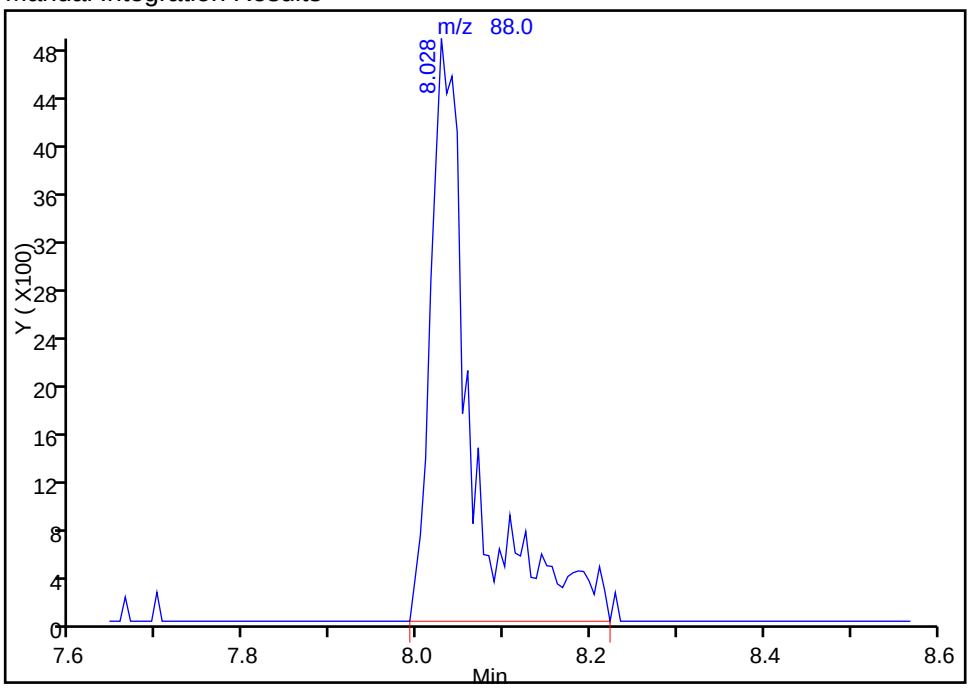
Processing Integration Results

RT: 8.03
Area: 12411
Amount: 709.8290
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 15972
Amount: 913.4952
Amount Units: ng



Reviewer: fergusond, 18-Jun-2015 16:06:34
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-145590/6

Matrix: Water | Lab File ID: 50619006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 14:55

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.18		1.0	0.28
75-01-4	Vinyl chloride	9.07		1.0	0.23
74-83-9	Bromomethane	9.37		1.0	0.31
75-00-3	Chloroethane	9.12		1.0	0.21
75-35-4	1,1-Dichloroethene	8.84		1.0	0.30
67-64-1	Acetone	21.4		5.0	2.5
75-15-0	Carbon disulfide	9.27		1.0	0.21
75-09-2	Methylene Chloride	8.11		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.33		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.53		1.0	0.18
75-34-3	1,1-Dichloroethane	8.84		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.94		1.0	0.24
74-97-5	Bromochloromethane	9.05		1.0	0.18
78-93-3	2-Butanone (MEK)	20.2		5.0	0.55
67-66-3	Chloroform	9.34		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.07		1.0	0.29
56-23-5	Carbon tetrachloride	9.45		1.0	0.14
71-43-2	Benzene	9.52		1.0	0.11
107-06-2	1,2-Dichloroethane	9.06		1.0	0.21
79-01-6	Trichloroethene	8.86		1.0	0.14
78-87-5	1,2-Dichloropropane	9.47		1.0	0.095
75-27-4	Bromodichloromethane	9.22		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.24		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.4		5.0	0.53
108-88-3	Toluene	9.92		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.97		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.65		1.0	0.20
127-18-4	Tetrachloroethene	9.23		1.0	0.15
591-78-6	2-Hexanone	21.5		5.0	0.16
124-48-1	Dibromochloromethane	9.68		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.85		1.0	0.18
108-90-7	Chlorobenzene	9.54		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.72		1.0	0.28
100-41-4	Ethylbenzene	9.53		1.0	0.23
1330-20-7	Xylenes, Total	19.0		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-145590/6

Matrix: Water | Lab File ID: 50619006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 14:55

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.3		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.90		1.0	0.20
107-13-1	Acrylonitrile	94.2		20	0.55
123-91-1	1,4-Dioxane	190	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619006.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Jun-2015 14:55:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007474-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 13:33:58 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 15:38:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.257	0.017	0	120623	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.286	0.000	97	404901	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.383	0.005	89	90362	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.731	-0.001	94	116707	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.559	0.003	93	86150	50.0	45.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.930	0.003	0	122330	50.0	44.9	
$ 7 Toluene-d8 (Surr)	98	8.934	8.931	0.003	95	368505	50.0	49.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	85	126091	50.0	45.7	
11 Dichlorodifluoromethane	85	1.616	1.619	-0.003	99	102167	50.0	37.4	
12 Chloromethane	50	1.762	1.765	-0.003	99	140934	50.0	45.9	
13 Vinyl chloride	62	1.896	1.893	0.003	97	140625	50.0	45.4	
14 Butadiene	39	1.938	1.942	-0.004	96	150380	50.0	45.3	
15 Bromomethane	94	2.255	2.246	0.009	91	70649	50.0	46.9	
16 Chloroethane	64	2.401	2.392	0.009	99	85154	50.0	45.6	
17 Dichlorofluoromethane	67	2.668	2.665	0.003	97	192778	50.0	46.7	
18 Trichlorofluoromethane	101	2.699	2.702	-0.003	98	156413	50.0	46.4	
20 Ethyl ether	59	3.052	3.055	-0.003	94	108356	50.0	46.5	
21 Acrolein	56	3.234	3.231	0.003	99	49386	150.0	110.5	
22 1,1-Dichloroethene	96	3.337	3.347	-0.010	95	101298	50.0	44.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.410	3.414	-0.004	93	110549	50.0	45.7	
24 Acetone	43	3.435	3.438	-0.003	90	71683	100.0	106.9	
25 Iodomethane	142	3.532	3.541	-0.009	100	151291	50.0	47.7	
26 Carbon disulfide	76	3.629	3.633	-0.004	100	235270	50.0	46.3	
28 3-Chloro-1-propene	76	3.909	3.919	-0.010	88	57508	50.0	45.3	
30 Methyl acetate	43	3.934	3.937	-0.003	98	474870	250.0	228.3	
31 Methylene Chloride	84	4.128	4.144	-0.016	96	126461	50.0	40.5	
32 2-Methyl-2-propanol	59	4.396	4.399	-0.003	92	67762	500.0	491.9	
33 Acrylonitrile	53	4.518	4.515	0.003	99	474833	500.0	471.0	
34 trans-1,2-Dichloroethene	96	4.560	4.570	-0.010	96	113717	50.0	46.6	
35 Methyl tert-butyl ether	73	4.578	4.576	0.002	95	256626	50.0	42.7	
36 Hexane	57	4.986	4.983	0.003	94	170977	50.0	45.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.202	-0.003	97	205943	50.0	44.2	
38 Vinyl acetate	43	5.242	5.245	-0.003	98	180374	50.0	45.2	
45 cis-1,2-Dichloroethene	96	5.947	5.944	0.003	86	115515	50.0	44.7	
44 2,2-Dichloropropane	77	5.941	5.944	-0.003	61	88589	50.0	44.5	
46 2-Butanone (MEK)	43	5.959	5.957	0.002	97	99217	100.0	100.8	
49 Chlorobromomethane	128	6.233	6.236	-0.003	94	49320	50.0	45.2	
51 Tetrahydrofuran	42	6.245	6.249	-0.004	90	68795	100.0	85.1	
52 Chloroform	83	6.379	6.376	0.003	95	200146	50.0	46.7	
53 1,1,1-Trichloroethane	97	6.537	6.541	-0.004	96	146035	50.0	45.3	
54 Cyclohexane	56	6.610	6.614	-0.004	97	217786	50.0	45.2	
56 Carbon tetrachloride	117	6.714	6.711	0.003	97	132350	50.0	47.2	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	92	159332	50.0	45.1	
57 Isobutyl alcohol	41	6.921	6.924	-0.003	88	76909	1250.0	1139.5	
58 Benzene	78	6.939	6.942	-0.003	98	485571	50.0	47.6	
59 1,2-Dichloroethane	62	7.018	7.015	0.003	97	158199	50.0	45.3	
62 n-Heptane	43	7.304	7.307	-0.003	94	156612	50.0	47.0	
64 Trichloroethene	130	7.681	7.672	0.009	96	106783	50.0	44.3	
66 Methylcyclohexane	83	7.912	7.915	-0.003	94	177994	50.0	44.2	
67 1,2-Dichloropropane	63	7.949	7.946	0.003	94	117786	50.0	47.4	
70 1,4-Dioxane	88	8.028	8.025	0.003	38	16264	1000.0	952.3	
68 Dibromomethane	93	8.034	8.037	-0.003	96	61551	50.0	45.8	
71 Dichlorobromomethane	83	8.229	8.232	-0.003	98	125203	50.0	46.1	
73 2-Chloroethyl vinyl ether	63	8.527	8.530	-0.003	93	115965	100.0	86.7	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	91	145153	50.0	46.2	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.822	0.003	98	196423	100.0	91.8	
76 Toluene	91	9.001	9.004	-0.003	98	481720	50.0	49.6	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	98	117204	50.0	44.8	
78 Ethyl methacrylate	69	9.311	9.309	0.002	92	112266	50.0	45.1	
79 1,1,2-Trichloroethane	97	9.445	9.442	0.003	93	90919	50.0	48.3	
80 Tetrachloroethene	164	9.512	9.515	-0.003	94	85296	50.0	46.2	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	96	168184	50.0	48.8	
82 2-Hexanone	43	9.658	9.655	0.003	98	147697	100.0	107.5	
84 Chlorodibromomethane	129	9.816	9.814	0.002	91	74298	50.0	48.4	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	97	86745	50.0	49.3	
86 3-Chlorobenzotrifluoride	180	10.388	10.385	0.003	84	140941	50.0	44.3	
87 Chlorobenzene	112	10.413	10.416	-0.004	92	289380	50.0	47.7	
88 4-Chlorobenzotrifluoride	180	10.473	10.477	-0.004	95	133927	50.0	44.7	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.507	0.003	89	91024	50.0	48.6	
90 Ethylbenzene	106	10.516	10.513	0.003	99	158945	50.0	47.7	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	196382	50.0	48.8	
92 o-Xylene	106	11.027	11.030	-0.003	98	179024	50.0	46.3	
93 Styrene	104	11.045	11.048	-0.003	95	318437	50.0	50.4	
94 Bromoform	173	11.234	11.237	-0.003	94	41861	50.0	51.4	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	95	134435	50.0	44.8	
97 Isopropylbenzene	105	11.392	11.395	-0.003	97	468465	50.0	49.5	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.705	-0.003	77	117963	50.0	49.5	
100 Bromobenzene	156	11.708	11.705	0.003	96	107260	50.0	47.2	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.742	0.003	82	31377	50.0	40.9	
101 1,2,3-Trichloropropane	110	11.763	11.760	0.003	88	39461	50.0	49.0	
103 N-Propylbenzene	120	11.812	11.809	0.003	99	131403	50.0	49.0	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	111859	50.0	48.3	
105 3-Chlorotoluene	126	11.964	11.961	0.003	96	106780	50.0	44.5	

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	11.994	11.991	0.003	93	393440	50.0	50.4	
107 4-Chlorotoluene	126	12.019	12.022	-0.003	99	118131	50.0	47.1	
108 tert-Butylbenzene	119	12.304	12.308	-0.004	94	299128	50.0	48.2	
110 1,2,4-Trimethylbenzene	105	12.365	12.369	-0.004	99	379137	50.0	49.3	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.411	0.003	98	99115	50.0	44.0	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	96	440831	50.0	49.2	
113 1,3-Dichlorobenzene	146	12.651	12.648	0.003	97	199217	50.0	48.2	
114 4-Isopropyltoluene	119	12.688	12.691	-0.003	97	359549	50.0	49.9	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	93	203342	50.0	48.4	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.776	0.003	96	90186	50.0	44.1	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	102883	50.0	46.5	
120 n-Butylbenzene	91	13.095	13.099	-0.004	98	290715	50.0	47.2	
121 1,2-Dichlorobenzene	146	13.107	13.105	0.002	95	174310	50.0	47.7	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.902	0.002	71	14324	50.0	45.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.042	0.002	0	265990	150.0	128.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.461	-0.003	0	154842	100.0	81.4	
126 1,2,4-Trichlorobenzene	180	14.726	14.729	-0.003	94	57196	50.0	43.8	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	97	31607	50.0	43.6	
128 Naphthalene	128	14.987	14.991	-0.004	97	128412	50.0	38.0	
129 1,2,3-Trichlorobenzene	180	15.212	15.210	0.002	94	43389	50.0	40.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.988	0.003	0	12957	50.0	40.8	
130 2,3,6-Trichlorotoluene	159	16.088	16.098	-0.010	95	12652	50.0	39.6	
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	95.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	91.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	91.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL		
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL		
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00002	Amount Added:	2.00	Units: uL		
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL		
voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

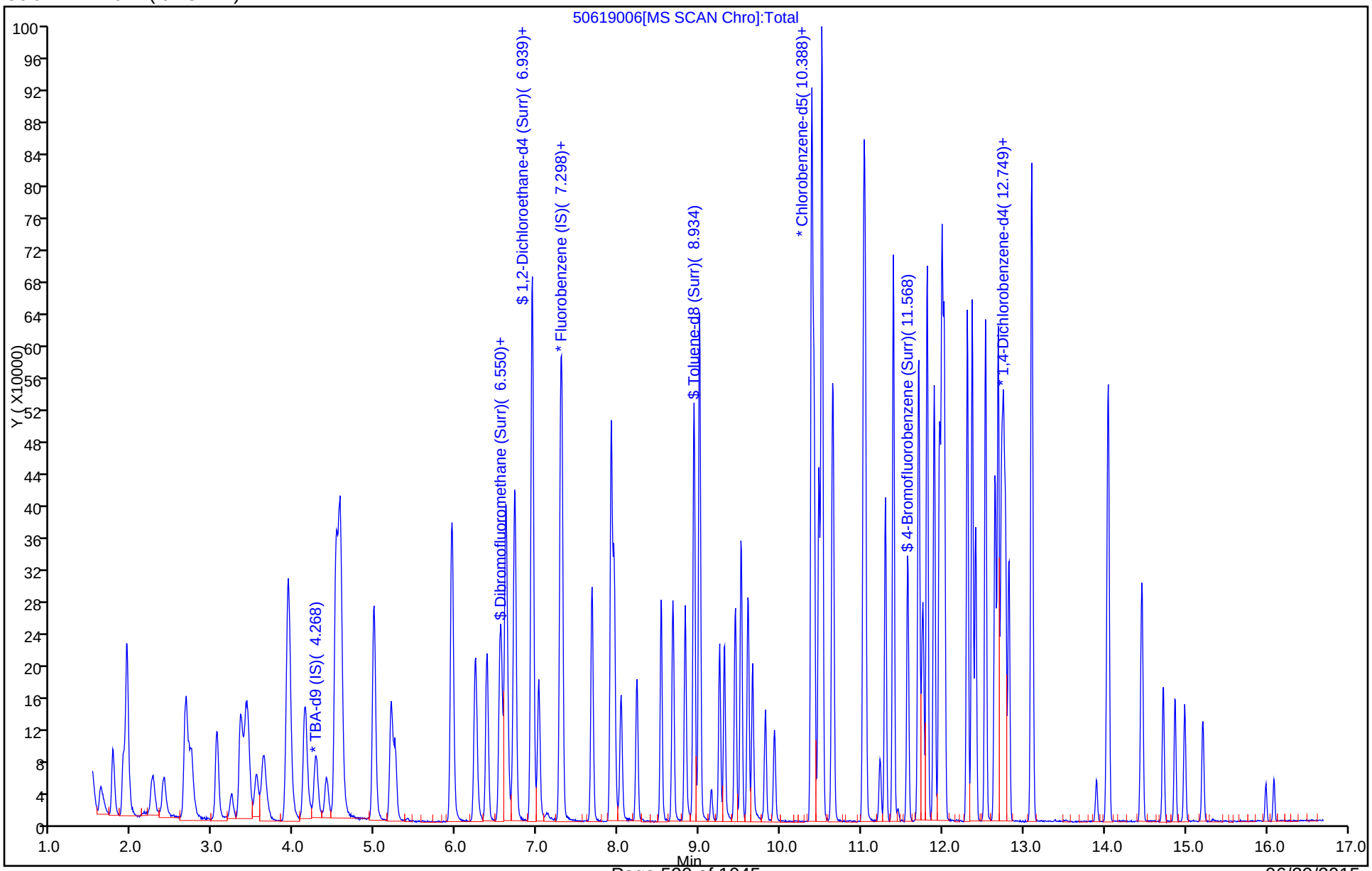
Report Date: 19-Jun-2015 15:49:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619006.D

Injection Date:	19-Jun-2015 14:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_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.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-145689/16

Matrix: Water | Lab File ID: 50629016.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 15:51

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.84		1.0	0.28
75-01-4	Vinyl chloride	8.32		1.0	0.23
74-83-9	Bromomethane	9.56		1.0	0.31
75-00-3	Chloroethane	9.18		1.0	0.21
75-35-4	1,1-Dichloroethene	8.16		1.0	0.30
67-64-1	Acetone	19.8		5.0	2.5
75-15-0	Carbon disulfide	8.73		1.0	0.21
75-09-2	Methylene Chloride	9.15		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.83		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.69		1.0	0.18
75-34-3	1,1-Dichloroethane	9.12		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.10		1.0	0.24
74-97-5	Bromochloromethane	9.72		1.0	0.18
78-93-3	2-Butanone (MEK)	18.1		5.0	0.55
67-66-3	Chloroform	9.45		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.72		1.0	0.29
56-23-5	Carbon tetrachloride	8.04		1.0	0.14
71-43-2	Benzene	9.34		1.0	0.11
107-06-2	1,2-Dichloroethane	9.96		1.0	0.21
79-01-6	Trichloroethene	9.12		1.0	0.14
78-87-5	1,2-Dichloropropane	9.18		1.0	0.095
75-27-4	Bromodichloromethane	9.41		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.07		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	14.3		5.0	0.53
108-88-3	Toluene	9.57		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.90		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.38		1.0	0.20
127-18-4	Tetrachloroethene	9.01		1.0	0.15
591-78-6	2-Hexanone	14.9		5.0	0.16
124-48-1	Dibromochloromethane	9.65		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.96		1.0	0.18
108-90-7	Chlorobenzene	9.45		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.79		1.0	0.28
100-41-4	Ethylbenzene	9.13		1.0	0.23
1330-20-7	Xylenes, Total	18.8		3.0	0.49
100-42-5	Styrene	9.66		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-145689/16

Matrix: Water Lab File ID: 50629016.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2015 15:51

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 145689 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.85		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.3		1.0	0.20
107-13-1	Acrylonitrile	105		20	0.55
123-91-1	1,4-Dioxane	213		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)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629016.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 22-Jun-2015 15:51:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007492-016
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 16:57:39 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 16:57:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.248	0.018	0	101770	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	306351	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.387	-0.001	88	68692	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	95	98348	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	92	64079	50.0	44.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.937	-0.006	0	95053	50.0	46.1	
$ 7 Toluene-d8 (Surr)	98	8.932	8.938	-0.006	94	260063	50.0	45.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.566	11.573	-0.007	85	96906	50.0	46.2	
11 Dichlorodifluoromethane	85	1.626	1.620	0.006	99	75860	50.0	36.7	
12 Chloromethane	50	1.772	1.766	0.006	100	102761	50.0	44.2	
13 Vinyl chloride	62	1.906	1.900	0.006	97	97619	50.0	41.6	
14 Butadiene	39	1.942	1.936	0.006	95	102473	50.0	40.8	
15 Bromomethane	94	2.271	2.241	0.030	88	54495	50.0	47.8	
16 Chloroethane	64	2.398	2.387	0.011	99	64823	50.0	45.9	
17 Dichlorofluoromethane	67	2.678	2.666	0.012	97	143197	50.0	45.8	
18 Trichlorofluoromethane	101	2.715	2.703	0.012	95	99494	50.0	39.0	
20 Ethyl ether	59	3.055	3.044	0.011	94	84002	50.0	47.6	
21 Acrolein	56	3.226	3.232	-0.006	97	35406	150.0	104.7	
22 1,1-Dichloroethene	96	3.341	3.342	-0.001	95	70758	50.0	40.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.415	0.005	93	64774	50.0	35.4	
24 Acetone	43	3.451	3.439	0.012	98	50339	100.0	99.2	
25 Iodomethane	142	3.536	3.536	0.000	100	110761	50.0	46.2	
26 Carbon disulfide	76	3.640	3.628	0.012	100	167551	50.0	43.6	
28 3-Chloro-1-propene	76	3.932	3.920	0.012	89	39350	50.0	41.0	
30 Methyl acetate	43	3.944	3.938	0.006	98	406251	250.0	258.1	
31 Methylene Chloride	84	4.144	4.139	0.005	97	104541	50.0	45.7	
32 2-Methyl-2-propanol	59	4.406	4.400	0.006	88	61000	500.0	524.9	
33 Acrylonitrile	53	4.528	4.516	0.012	97	399824	500.0	524.2	
34 trans-1,2-Dichloroethene	96	4.570	4.558	0.012	96	81406	50.0	44.1	
35 Methyl tert-butyl ether	73	4.582	4.577	0.005	97	220408	50.0	48.4	
36 Hexane	57	4.996	4.984	0.012	95	99007	50.0	34.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.203	5.197	0.006	97	160791	50.0	45.6	
38 Vinyl acetate	43	5.252	5.246	0.006	98	72708	50.0	24.1	
45 cis-1,2-Dichloroethene	96	5.951	5.945	0.006	86	88947	50.0	45.5	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	86	60393	50.0	40.1	
46 2-Butanone (MEK)	43	5.963	5.958	0.005	61	67303	100.0	90.4	
49 Chlorobromomethane	128	6.237	6.237	0.000	95	40091	50.0	48.6	
51 Tetrahydrofuran	42	6.255	6.250	0.005	87	59857	100.0	97.8	
52 Chloroform	83	6.383	6.383	0.000	95	153243	50.0	47.3	
53 1,1,1-Trichloroethane	97	6.541	6.536	0.005	97	106243	50.0	43.6	
54 Cyclohexane	56	6.614	6.615	-0.001	94	128776	50.0	35.3	
56 Carbon tetrachloride	117	6.718	6.712	0.006	95	85228	50.0	40.2	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	93	109838	50.0	41.1	
57 Isobutyl alcohol	41	6.925	6.931	-0.006	89	65062	1250.0	1274.1	
58 Benzene	78	6.943	6.943	0.000	98	360719	50.0	46.7	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	131598	50.0	49.8	
62 n-Heptane	43	7.308	7.308	0.000	92	85201	50.0	33.8	
64 Trichloroethene	130	7.679	7.679	0.000	96	83168	50.0	45.6	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	109765	50.0	36.0	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	95	86328	50.0	45.9	
70 1,4-Dioxane	88	8.026	8.032	-0.006	40	13734	1000.0	1062.8	
68 Dibromomethane	93	8.032	8.038	-0.006	97	47710	50.0	46.9	
71 Dichlorobromomethane	83	8.233	8.227	0.006	98	96659	50.0	47.1	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	94	83093	100.0	82.1	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	107728	50.0	45.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	116093	100.0	71.4	
76 Toluene	91	9.005	9.005	0.000	98	353243	50.0	47.8	
77 trans-1,3-Dichloropropene	75	9.255	9.249	0.006	99	88404	50.0	44.5	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	91	89687	50.0	47.4	
79 1,1,2-Trichloroethane	97	9.449	9.443	0.006	93	67146	50.0	46.9	
80 Tetrachloroethene	164	9.516	9.516	0.000	94	63271	50.0	45.1	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	95	128007	50.0	48.9	
82 2-Hexanone	43	9.656	9.656	0.000	98	77955	100.0	74.6	
84 Chlorodibromomethane	129	9.814	9.814	0.000	91	56282	50.0	48.2	
85 Ethylene Dibromide	107	9.930	9.930	0.000	98	66683	50.0	49.8	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	83	109708	50.0	45.4	
87 Chlorobenzene	112	10.416	10.417	-0.001	92	217745	50.0	47.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	106729	50.0	46.8	
90 Ethylbenzene	106	10.514	10.514	0.000	99	115771	50.0	45.7	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.514	-0.006	90	69697	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	141788	50.0	46.3	
92 o-Xylene	106	11.025	11.025	0.000	97	140702	50.0	47.9	
93 Styrene	104	11.049	11.049	0.000	94	231887	50.0	48.3	
94 Bromoform	173	11.232	11.232	0.000	94	30512	50.0	49.3	
96 2-Chlorobenzotrifluoride	180	11.293	11.299	-0.007	96	114225	50.0	50.1	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	347132	50.0	48.2	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.713	-0.007	77	93722	50.0	51.7	
100 Bromobenzene	156	11.706	11.713	-0.007	97	86284	50.0	45.1	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	76	22550	50.0	34.8	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	88	31226	50.0	46.0	
103 N-Propylbenzene	120	11.810	11.816	-0.006	99	95196	50.0	42.1	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	87527	50.0	44.8	
105 3-Chlorotoluene	126	11.962	11.968	-0.006	96	92793	50.0	45.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	93	305864	50.0	46.5	
107 4-Chlorotoluene	126	12.023	12.023	0.000	99	94748	50.0	44.8	
108 tert-Butylbenzene	119	12.308	12.309	-0.001	94	229255	50.0	43.8	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	308149	50.0	47.6	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	83923	50.0	44.2	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	334836	50.0	44.4	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	96	159153	50.0	45.7	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	96	275510	50.0	45.4	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	94	165623	50.0	46.8	
116 2,4-Dichloro-1-(triflourom	214	12.777	12.777	0.000	95	83494	50.0	48.5	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.820	-0.001	0	85692	50.0	46.0	
120 n-Butylbenzene	91	13.093	13.100	-0.007	99	233969	50.0	45.0	
121 1,2-Dichlorobenzene	146	13.105	13.112	-0.007	96	150279	50.0	48.8	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.903	-0.001	73	13062	50.0	49.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.043	0.006	0	294878	150.0	168.4	
124 1,3,5-Trichlorobenzene	180	14.085	14.092	-0.007	96	112574	50.0	59.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	188895	100.0	117.8	
126 1,2,4-Trichlorobenzene	180	14.718	14.724	-0.006	94	61551	50.0	55.9	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	96	30576	50.0	50.0	
128 Naphthalene	128	14.985	14.992	-0.007	98	158912	50.0	55.7	
129 1,2,3-Trichlorobenzene	180	15.210	15.217	-0.007	94	53090	50.0	59.2	
131 2,4,5-Trichlorotoluene	159	15.989	15.995	-0.006	0	18571	50.0	65.0	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	89	20449	50.0	69.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	89.6	
S 133 Xylenes, Total	106				0		100.0	94.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaW 135tcb A_00003	Amount Added:	2.00	Units: uL	
voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL	
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL	
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

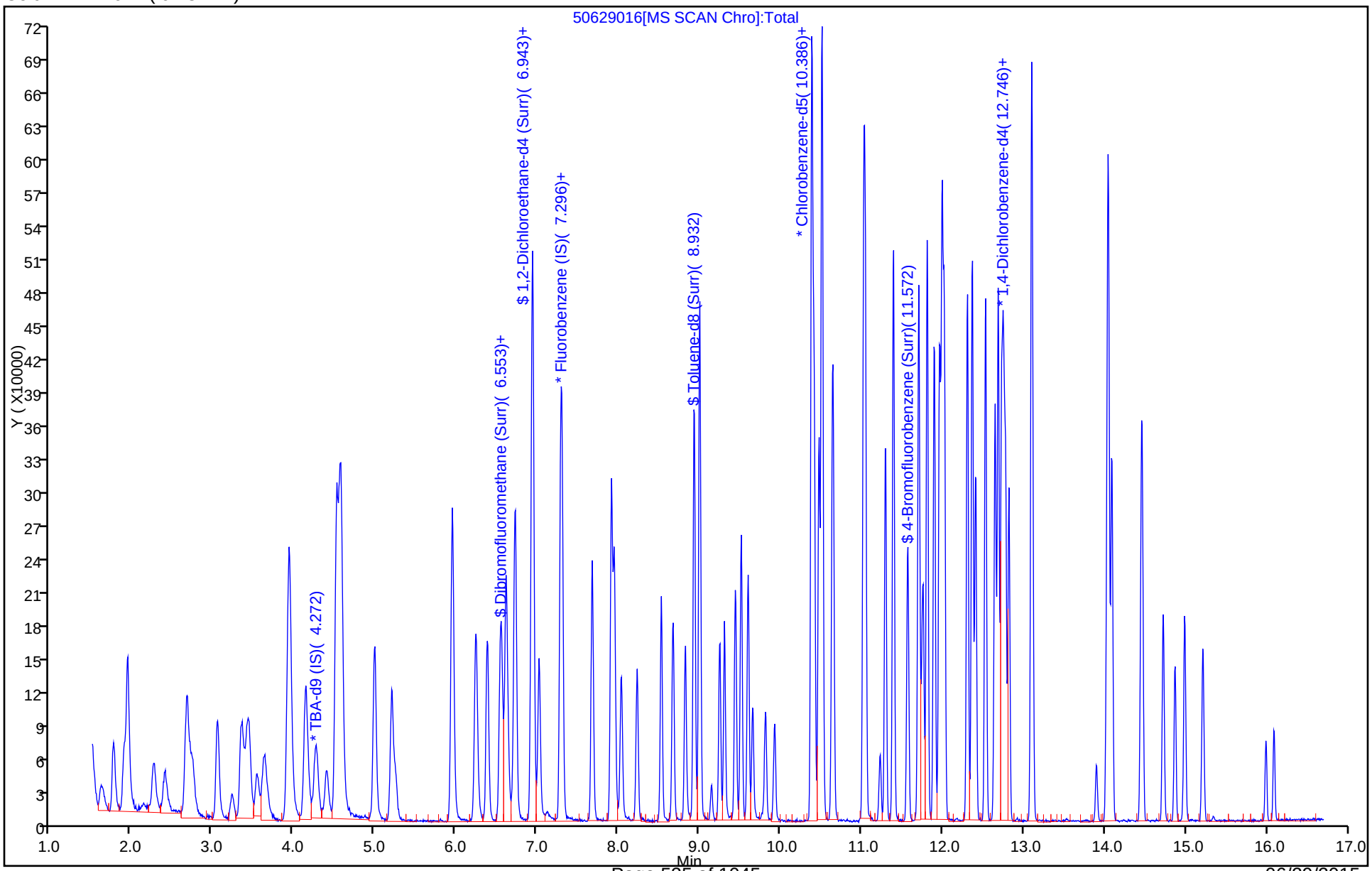
Report Date: 22-Jun-2015 16:57:47 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629016.D

Injection Date:	22-Jun-2015 15:51:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	16
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-145455/9

Matrix: Water | Lab File ID: 50618009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/18/2015 16:12

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.: 145455 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.75		1.0	0.28
75-01-4	Vinyl chloride	8.30		1.0	0.23
74-83-9	Bromomethane	8.53		1.0	0.31
75-00-3	Chloroethane	8.49		1.0	0.21
75-35-4	1,1-Dichloroethene	8.37		1.0	0.30
67-64-1	Acetone	16.8		5.0	2.5
75-15-0	Carbon disulfide	8.01		1.0	0.21
75-09-2	Methylene Chloride	8.11		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.54		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.80		1.0	0.18
75-34-3	1,1-Dichloroethane	8.46		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.67		1.0	0.24
74-97-5	Bromochloromethane	9.07		1.0	0.18
78-93-3	2-Butanone (MEK)	18.7		5.0	0.55
67-66-3	Chloroform	8.91		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.30		1.0	0.29
56-23-5	Carbon tetrachloride	8.20		1.0	0.14
71-43-2	Benzene	8.87		1.0	0.11
107-06-2	1,2-Dichloroethane	8.93		1.0	0.21
79-01-6	Trichloroethene	8.47		1.0	0.14
78-87-5	1,2-Dichloropropane	8.79		1.0	0.095
75-27-4	Bromodichloromethane	8.61		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.06		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.2		5.0	0.53
108-88-3	Toluene	9.23		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.03		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.26		1.0	0.20
127-18-4	Tetrachloroethene	8.65		1.0	0.15
591-78-6	2-Hexanone	18.4		5.0	0.16
124-48-1	Dibromochloromethane	8.98		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.53		1.0	0.18
108-90-7	Chlorobenzene	9.28		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.02		1.0	0.28
100-41-4	Ethylbenzene	9.15		1.0	0.23
1330-20-7	Xylenes, Total	18.1		3.0	0.49
100-42-5	Styrene	9.62		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-145455/9

Matrix: Water Lab File ID: 50618009.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/18/2015 16:12

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.: 145455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.76		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.66		1.0	0.20
107-13-1	Acrylonitrile	91.6		20	0.55
123-91-1	1,4-Dioxane	157	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	88		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618009.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 18-Jun-2015 16:12:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 180-0007459-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Jun-2015 14:26:14 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 18-Jun-2015 16:28:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.280	4.268	0.012	0	108899	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.292	-0.001	97	415930	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	92882	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	97	125655	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.566	-0.005	93	85455	50.0	44.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.937	0.001	0	125250	50.0	44.7	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	94	363432	50.0	47.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	85	131227	50.0	46.3	
11 Dichlorodifluoromethane	85	1.621	1.620	0.001	99	102031	50.0	36.4	
12 Chloromethane	50	1.774	1.766	0.008	99	138003	50.0	43.7	
13 Vinyl chloride	62	1.901	1.900	0.001	99	132073	50.0	41.5	
14 Butadiene	39	1.950	1.936	0.014	97	137109	50.0	40.2	
15 Bromomethane	94	2.260	2.258	0.002	91	66056	50.0	42.7	
16 Chloroethane	64	2.406	2.398	0.008	99	81428	50.0	42.5	
17 Dichlorofluoromethane	67	2.674	2.666	0.008	97	185850	50.0	43.8	
18 Trichlorofluoromethane	101	2.716	2.703	0.013	83	145950	50.0	42.1	
20 Ethyl ether	59	3.051	3.043	0.008	93	107026	50.0	44.7	
21 Acrolein	56	3.234	3.232	0.002	98	56350	150.0	122.7	
22 1,1-Dichloroethene	96	3.349	3.341	0.008	95	98547	50.0	41.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.420	0.008	94	101177	50.0	40.7	
24 Acetone	43	3.446	3.439	0.007	99	57830	100.0	83.9	
25 Iodomethane	142	3.550	3.536	0.014	100	148242	50.0	45.5	
26 Carbon disulfide	76	3.635	3.633	0.002	100	208729	50.0	40.0	
28 3-Chloro-1-propene	76	3.927	3.913	0.014	89	55430	50.0	42.5	
30 Methyl acetate	43	3.945	3.937	0.008	99	472678	250.0	221.2	
31 Methylene Chloride	84	4.140	4.138	0.002	98	129917	50.0	40.5	
32 2-Methyl-2-propanol	59	4.408	4.400	0.008	90	59633	500.0	479.5	
33 Acrylonitrile	53	4.523	4.521	0.002	99	474327	500.0	458.1	
34 trans-1,2-Dichloroethene	96	4.572	4.558	0.014	95	106915	50.0	42.7	
35 Methyl tert-butyl ether	73	4.584	4.576	0.008	97	271757	50.0	44.0	
36 Hexane	57	4.992	4.990	0.002	95	157195	50.0	40.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.205	5.203	0.002	96	202340	50.0	42.3	
38 Vinyl acetate	43	5.253	5.245	0.008	98	200673	50.0	49.0	
45 cis-1,2-Dichloroethene	96	5.953	5.951	0.002	84	115049	50.0	43.4	
44 2,2-Dichloropropane	77	5.953	5.951	0.002	56	83845	50.0	41.0	
46 2-Butanone (MEK)	43	5.959	5.957	0.002	62	94282	100.0	93.3	
49 Chlorobromomethane	128	6.239	6.237	0.002	95	50768	50.0	45.3	
51 Tetrahydrofuran	42	6.251	6.255	-0.004	88	66158	100.0	79.6	
52 Chloroform	83	6.385	6.383	0.002	95	196079	50.0	44.5	
53 1,1,1-Trichloroethane	97	6.543	6.541	0.002	96	137210	50.0	41.5	
54 Cyclohexane	56	6.616	6.614	0.002	94	200462	50.0	40.5	
56 Carbon tetrachloride	117	6.719	6.718	0.001	94	118018	50.0	41.0	
55 1,1-Dichloropropene	75	6.732	6.730	0.002	92	150512	50.0	41.5	
57 Isobutyl alcohol	41	6.926	6.924	0.002	91	68989	1250.0	995.0	
58 Benzene	78	6.944	6.943	0.001	98	465135	50.0	44.4	
59 1,2-Dichloroethane	62	7.024	7.022	0.002	98	160191	50.0	44.7	
62 n-Heptane	43	7.309	7.308	0.001	94	138019	50.0	40.3	
64 Trichloroethene	130	7.681	7.679	0.002	97	104884	50.0	42.4	
66 Methylcyclohexane	83	7.918	7.916	0.002	95	169642	50.0	41.0	
67 1,2-Dichloropropane	63	7.954	7.953	0.001	95	112221	50.0	43.9	
70 1,4-Dioxane	88	8.027	8.026	0.001	38	13743	1000.0	783.3	
68 Dibromomethane	93	8.033	8.032	0.001	97	61402	50.0	44.4	
71 Dichlorobromomethane	83	8.234	8.226	0.008	98	120107	50.0	43.1	
73 2-Chloroethyl vinyl ether	63	8.532	8.531	0.002	93	118196	100.0	86.0	
74 cis-1,3-Dichloropropene	75	8.678	8.677	0.002	91	146163	50.0	45.3	
75 4-Methyl-2-pentanone (MIBK	43	8.830	8.829	0.001	99	200264	100.0	91.1	
76 Toluene	91	9.007	9.005	0.002	98	460804	50.0	46.2	
77 trans-1,3-Dichloropropene	75	9.250	9.248	0.002	98	121329	50.0	45.2	
78 Ethyl methacrylate	69	9.311	9.309	0.002	91	119138	50.0	46.6	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	93	89710	50.0	46.3	
80 Tetrachloroethene	164	9.518	9.516	0.002	95	82164	50.0	43.3	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	96	164734	50.0	46.5	
82 2-Hexanone	43	9.658	9.662	-0.004	99	130063	100.0	92.1	
84 Chlorodibromomethane	129	9.816	9.820	-0.004	91	70862	50.0	44.9	
85 Ethylene Dibromide	107	9.925	9.930	-0.005	100	86232	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.388	10.392	-0.004	80	129533	50.0	39.6	
87 Chlorobenzene	112	10.418	10.416	0.002	92	289204	50.0	46.4	
88 4-Chlorobenzotrifluoride	180	10.479	10.477	0.002	96	124485	50.0	40.4	
89 1,1,1,2-Tetrachloroethane	131	10.509	10.514	-0.005	91	86801	50.0	45.1	
90 Ethylbenzene	106	10.515	10.514	0.001	99	156897	50.0	45.8	
91 m-Xylene & p-Xylene	106	10.649	10.648	0.001	0	186964	50.0	45.2	
92 o-Xylene	106	11.026	11.031	-0.005	97	179457	50.0	45.2	
93 Styrene	104	11.051	11.049	0.002	95	312230	50.0	48.1	
94 Bromoform	173	11.233	11.232	0.001	95	40867	50.0	48.8	
96 2-Chlorobenzotrifluoride	180	11.294	11.298	-0.004	95	127105	50.0	41.2	
97 Isopropylbenzene	105	11.398	11.396	0.002	97	458460	50.0	47.1	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.706	0.002	79	118339	50.0	48.3	
100 Bromobenzene	156	11.708	11.712	-0.004	95	107302	50.0	43.9	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.743	-0.005	79	37306	50.0	45.1	
101 1,2,3-Trichloropropane	110	11.763	11.761	0.002	87	38578	50.0	44.5	
103 N-Propylbenzene	120	11.811	11.809	0.002	99	124122	50.0	43.0	
104 2-Chlorotoluene	126	11.896	11.901	-0.005	95	107748	50.0	43.2	
105 3-Chlorotoluene	126	11.963	11.962	0.001	96	104634	50.0	40.5	

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	11.994	11.992	0.002	94	377276	50.0	44.9	
107 4-Chlorotoluene	126	12.024	12.022	0.002	99	116812	50.0	43.2	
108 tert-Butylbenzene	119	12.310	12.308	0.002	94	287611	50.0	43.0	
110 1,2,4-Trimethylbenzene	105	12.365	12.369	-0.004	98	379441	50.0	45.8	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.412	0.002	98	92613	50.0	38.2	
112 sec-Butylbenzene	105	12.529	12.533	-0.004	96	419956	50.0	43.6	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	97	194131	50.0	43.7	
114 4-Isopropyltoluene	119	12.687	12.686	0.001	97	345990	50.0	44.6	
115 1,4-Dichlorobenzene	146	12.754	12.752	0.002	93	202678	50.0	44.8	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.783	-0.004	95	90258	50.0	41.0	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.825	-0.004	0	89967	50.0	37.8	
120 n-Butylbenzene	91	13.095	13.099	-0.004	98	283783	50.0	42.8	
121 1,2-Dichlorobenzene	146	13.107	13.111	-0.004	94	179279	50.0	45.5	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.908	-0.010	74	14493	50.0	42.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.042	0.002	0	281896	150.0	126.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.462	-0.004	0	176068	100.0	86.0	
126 1,2,4-Trichlorobenzene	180	14.725	14.723	0.002	94	67197	50.0	47.8	
127 Hexachlorobutadiene	225	14.865	14.869	-0.004	96	33986	50.0	43.5	
128 Naphthalene	128	14.987	14.991	-0.004	98	164247	50.0	45.1	
129 1,2,3-Trichlorobenzene	180	15.218	15.216	0.002	95	53195	50.0	46.5	
131 2,4,5-Trichlorotoluene	159	15.991	15.995	-0.004	0	17684	50.0	50.5	
130 2,3,6-Trichlorotoluene	159	16.088	16.092	-0.004	95	16831	50.0	47.9	
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	90.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	86.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL	
voaWVA1st Res_00002	Amount Added:	2.00	Units: uL	
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL	
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

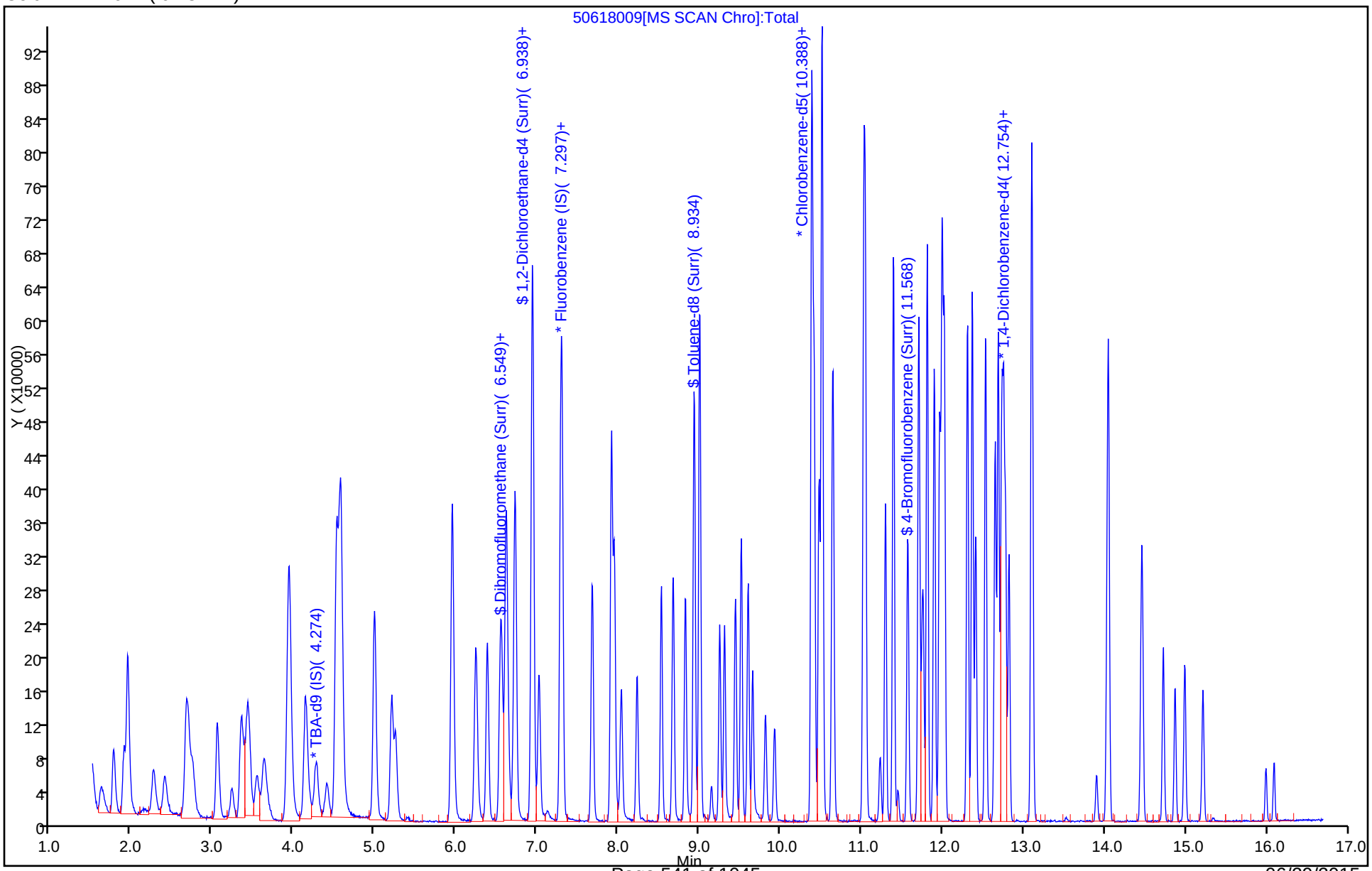
Report Date: 18-Jun-2015 16:28:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150618-7459.b\50618009.D

Injection Date:	18-Jun-2015 16:12:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCSD			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-145590/7

Matrix: Water | Lab File ID: 50619007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/19/2015 15:19

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.92		1.0	0.28
75-01-4	Vinyl chloride	8.67		1.0	0.23
74-83-9	Bromomethane	9.01		1.0	0.31
75-00-3	Chloroethane	9.15		1.0	0.21
75-35-4	1,1-Dichloroethene	8.59		1.0	0.30
67-64-1	Acetone	20.3		5.0	2.5
75-15-0	Carbon disulfide	8.89		1.0	0.21
75-09-2	Methylene Chloride	8.73		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.26		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.94		1.0	0.18
75-34-3	1,1-Dichloroethane	8.91		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.82		1.0	0.24
74-97-5	Bromochloromethane	9.79		1.0	0.18
78-93-3	2-Butanone (MEK)	20.8		5.0	0.55
67-66-3	Chloroform	9.41		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.78		1.0	0.29
56-23-5	Carbon tetrachloride	8.90		1.0	0.14
71-43-2	Benzene	9.44		1.0	0.11
107-06-2	1,2-Dichloroethane	9.53		1.0	0.21
79-01-6	Trichloroethene	9.10		1.0	0.14
78-87-5	1,2-Dichloropropane	9.52		1.0	0.095
75-27-4	Bromodichloromethane	9.49		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.37		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.3		5.0	0.53
108-88-3	Toluene	9.96		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.12		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.60		1.0	0.20
127-18-4	Tetrachloroethene	9.26		1.0	0.15
591-78-6	2-Hexanone	21.1		5.0	0.16
124-48-1	Dibromochloromethane	9.64		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	9.66		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.72		1.0	0.28
100-41-4	Ethylbenzene	9.43		1.0	0.23
1330-20-7	Xylenes, Total	19.4		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-145590/7

Matrix: Water Lab File ID: 50619007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/19/2015 15:19

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 145590 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.2		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	97.6		20	0.55
123-91-1	1,4-Dioxane	174	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		64-135
2037-26-5	Toluene-d8 (Surr)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	93		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619007.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 19-Jun-2015 15:19:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 180-0007474-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 19-Jun-2015 13:33:58 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 19-Jun-2015 15:39:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.257	0.008	0	121422	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.286	0.003	98	393758	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.383	0.008	89	87651	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.731	-0.004	97	121326	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	92	85520	50.0	46.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	0	120629	50.0	45.5	
$ 7 Toluene-d8 (Surr)	98	8.937	8.931	0.006	94	345721	50.0	47.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.572	-0.001	85	125303	50.0	46.8	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	98	94701	50.0	35.7	
12 Chloromethane	50	1.765	1.765	0.000	99	133204	50.0	44.6	
13 Vinyl chloride	62	1.899	1.893	0.006	99	130651	50.0	43.3	
14 Butadiene	39	1.941	1.942	-0.001	96	141559	50.0	43.8	
15 Bromomethane	94	2.258	2.246	0.012	89	66043	50.0	45.1	
16 Chloroethane	64	2.404	2.392	0.012	100	83009	50.0	45.7	
17 Dichlorofluoromethane	67	2.671	2.665	0.006	97	194221	50.0	48.4	
18 Trichlorofluoromethane	101	2.702	2.702	0.000	97	145758	50.0	44.5	
20 Ethyl ether	59	3.048	3.055	-0.007	93	105294	50.0	46.5	
21 Acrolein	56	3.231	3.231	0.000	97	50361	150.0	115.9	
22 1,1-Dichloroethene	96	3.346	3.347	-0.001	96	95767	50.0	42.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.414	0.012	94	104281	50.0	44.3	
24 Acetone	43	3.444	3.438	0.006	97	66242	100.0	101.5	
25 Iodomethane	142	3.541	3.541	0.000	99	147960	50.0	48.0	
26 Carbon disulfide	76	3.639	3.633	0.005	100	219516	50.0	44.5	
28 3-Chloro-1-propene	76	3.924	3.919	0.005	88	53841	50.0	43.6	
30 Methyl acetate	43	3.937	3.937	0.000	99	480159	250.0	237.3	
31 Methylene Chloride	84	4.137	4.144	-0.007	96	129779	50.0	43.6	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	88	66515	500.0	479.7	
33 Acrylonitrile	53	4.527	4.515	0.012	97	478465	500.0	488.1	
34 trans-1,2-Dichloroethene	96	4.563	4.570	-0.007	95	109783	50.0	46.3	
35 Methyl tert-butyl ether	73	4.575	4.576	-0.001	96	261574	50.0	44.7	
36 Hexane	57	4.989	4.983	0.006	93	156489	50.0	42.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.202	5.202	0.000	96	201803	50.0	44.5	
38 Vinyl acetate	43	5.257	5.245	0.012	98	188199	50.0	48.5	
45 cis-1,2-Dichloroethene	96	5.950	5.944	0.006	86	110790	50.0	44.1	
44 2,2-Dichloropropane	77	5.944	5.944	0.000	58	84302	50.0	43.5	
46 2-Butanone (MEK)	43	5.956	5.957	-0.001	66	99667	100.0	104.1	
49 Chlorobromomethane	128	6.236	6.236	0.000	95	51884	50.0	48.9	
51 Tetrahydrofuran	42	6.248	6.249	-0.001	89	69409	100.0	88.2	
52 Chloroform	83	6.382	6.376	0.006	95	196115	50.0	47.1	
53 1,1,1-Trichloroethane	97	6.540	6.541	-0.001	96	137509	50.0	43.9	
54 Cyclohexane	56	6.613	6.614	-0.001	96	205104	50.0	43.8	
56 Carbon tetrachloride	117	6.717	6.711	0.006	96	121279	50.0	44.5	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	92	147099	50.0	42.8	
57 Isobutyl alcohol	41	6.930	6.924	0.006	75	73414	1250.0	1118.5	
58 Benzene	78	6.942	6.942	0.000	97	468291	50.0	47.2	
59 1,2-Dichloroethane	62	7.021	7.015	0.006	97	161769	50.0	47.6	
62 n-Heptane	43	7.307	7.307	0.000	92	141071	50.0	43.5	
64 Trichloroethene	130	7.678	7.672	0.006	97	106649	50.0	45.5	
66 Methylcyclohexane	83	7.915	7.915	0.000	95	166485	50.0	42.5	
67 1,2-Dichloropropane	63	7.952	7.946	0.006	95	115054	50.0	47.6	
70 1,4-Dioxane	88	8.019	8.025	-0.006	38	14456	1000.0	870.4	
68 Dibromomethane	93	8.037	8.037	0.000	96	61390	50.0	46.9	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	125254	50.0	47.4	
73 2-Chloroethyl vinyl ether	63	8.530	8.530	0.000	93	114991	100.0	88.4	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	143023	50.0	46.8	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.822	0.006	98	190357	100.0	91.7	
76 Toluene	91	9.004	9.004	0.000	98	469285	50.0	49.8	
77 trans-1,3-Dichloropropene	75	9.247	9.248	-0.001	97	115643	50.0	45.6	
78 Ethyl methacrylate	69	9.308	9.309	-0.001	91	114674	50.0	47.5	
79 1,1,2-Trichloroethane	97	9.442	9.442	0.000	94	87712	50.0	48.0	
80 Tetrachloroethene	164	9.515	9.515	0.000	95	82944	50.0	46.3	
81 1,3-Dichloropropane	76	9.600	9.601	-0.001	97	164050	50.0	49.1	
82 2-Hexanone	43	9.655	9.655	0.000	99	140736	100.0	105.6	
84 Chlorodibromomethane	129	9.813	9.814	-0.001	91	71723	50.0	48.2	
85 Ethylene Dibromide	107	9.929	9.929	0.000	97	87783	50.0	51.4	
86 3-Chlorobenzotrifluoride	180	10.385	10.385	0.000	81	130479	50.0	42.3	
87 Chlorobenzene	112	10.415	10.416	-0.001	93	284215	50.0	48.3	
88 4-Chlorobenzotrifluoride	180	10.476	10.477	-0.001	96	121526	50.0	41.8	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	91	88287	50.0	48.6	
90 Ethylbenzene	106	10.513	10.513	0.000	99	152544	50.0	47.1	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	190788	50.0	48.8	
92 o-Xylene	106	11.024	11.030	-0.006	98	180075	50.0	48.0	
93 Styrene	104	11.048	11.048	0.000	95	310034	50.0	50.6	
94 Bromoform	173	11.231	11.237	-0.006	96	40430	50.0	51.2	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	122832	50.0	42.2	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	451961	50.0	49.2	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	83	117584	50.0	50.9	
100 Bromobenzene	156	11.711	11.705	0.006	96	108537	50.0	46.0	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	77	27553	50.0	34.5	
101 1,2,3-Trichloropropane	110	11.766	11.760	0.006	86	38899	50.0	46.5	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	125521	50.0	45.0	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	107222	50.0	44.5	
105 3-Chlorotoluene	126	11.961	11.961	0.000	96	100605	50.0	40.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.991	11.991	0.000	95	382210	50.0	47.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	118945	50.0	45.6	
108 tert-Butylbenzene	119	12.307	12.308	-0.001	94	289914	50.0	44.9	
110 1,2,4-Trimethylbenzene	105	12.368	12.369	-0.001	99	380748	50.0	47.6	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	91957	50.0	39.3	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	430009	50.0	46.2	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	197201	50.0	45.9	
114 4-Isopropyltoluene	119	12.685	12.691	-0.006	96	345359	50.0	46.1	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	202635	50.0	46.4	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.776	0.000	95	87037	50.0	40.9	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.819	0.006	0	90537	50.0	39.4	
120 n-Butylbenzene	91	13.098	13.099	-0.001	99	291175	50.0	45.4	
121 1,2-Dichlorobenzene	146	13.104	13.105	-0.001	95	178377	50.0	46.9	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.902	-0.001	75	14944	50.0	45.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.042	-0.001	0	263763	150.0	122.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.461	-0.006	0	165650	100.0	83.8	
126 1,2,4-Trichlorobenzene	180	14.723	14.729	-0.006	94	65837	50.0	48.5	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	97	33187	50.0	44.0	
128 Naphthalene	128	14.990	14.991	-0.001	97	156595	50.0	44.5	
129 1,2,3-Trichlorobenzene	180	15.209	15.210	-0.001	96	52149	50.0	47.2	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	14678	50.0	44.1	
130 2,3,6-Trichlorotoluene	159	16.091	16.098	-0.007	94	14511	50.0	43.3	
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	96.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL	
voaWVA1st Res_00002	Amount Added:	2.00	Units: uL	
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL	
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL	
voaW2-cle 2nd_00002	Amount Added:	2.00	Units: uL	
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent

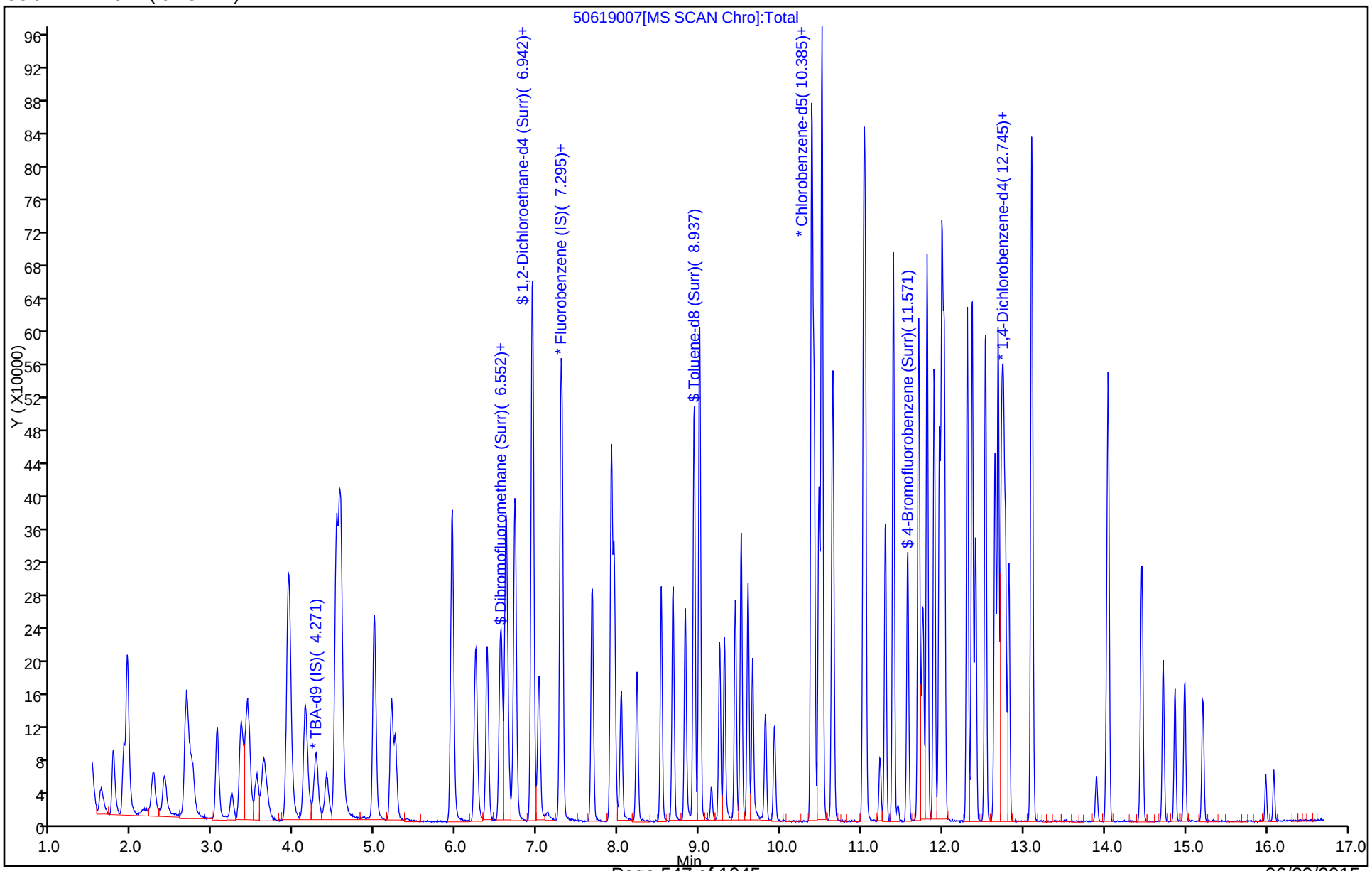
Report Date: 19-Jun-2015 15:39:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150619-7474.b\50619007.D

Injection Date:	19-Jun-2015 15:19:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCSD			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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 MS | Lab Sample ID: 180-45088-11 MS

Matrix: Water | Lab File ID: 50629014.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 15:04

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.: 145689 | 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	9.68		1.0	0.23
74-83-9	Bromomethane	9.55		1.0	0.31
75-00-3	Chloroethane	9.57		1.0	0.21
75-35-4	1,1-Dichloroethene	10.1		1.0	0.30
67-64-1	Acetone	21.4		5.0	2.5
75-15-0	Carbon disulfide	10.3		1.0	0.21
75-09-2	Methylene Chloride	7.70		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.33		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.08		1.0	0.18
75-34-3	1,1-Dichloroethane	9.61		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	20.9	F1	1.0	0.24
74-97-5	Bromochloromethane	9.09		1.0	0.18
78-93-3	2-Butanone (MEK)	19.4		5.0	0.55
67-66-3	Chloroform	9.39		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.5		1.0	0.29
56-23-5	Carbon tetrachloride	9.67		1.0	0.14
71-43-2	Benzene	9.53		1.0	0.11
107-06-2	1,2-Dichloroethane	9.18		1.0	0.21
79-01-6	Trichloroethene	22.6	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	9.28		1.0	0.095
75-27-4	Bromodichloromethane	9.37		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.12		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	14.7		5.0	0.53
108-88-3	Toluene	9.98		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.41		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.33		1.0	0.20
127-18-4	Tetrachloroethene	39.9	F1	1.0	0.15
591-78-6	2-Hexanone	16.7		5.0	0.16
124-48-1	Dibromochloromethane	9.65		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.52		1.0	0.18
108-90-7	Chlorobenzene	9.62		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.89		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.2		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 MS | Lab Sample ID: 180-45088-11 MS

Matrix: Water | Lab File ID: 50629014.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 15:04

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.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.84		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.85		1.0	0.20
107-13-1	Acrylonitrile	95.9		20	0.55
123-91-1	1,4-Dioxane	179	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629014.D
Lims ID: 180-45088-C-11 MS
Client ID: HD-COD-SW-17-0/1-0
Sample Type: MS
Inject. Date: 22-Jun-2015 15:04:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-C-11 MS
Misc. Info.: 180-0007492-014
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 16:15:01 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 15:45:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.248	0.026	0	166507	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.290	0.001	98	506004	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.387	0.001	89	115017	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.729	0.001	97	160985	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.560	0.001	93	107379	50.0	45.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.937	-0.005	0	150735	50.0	44.3	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	94	461790	50.0	48.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.573	0.001	86	169756	50.0	48.4	
11 Dichlorodifluoromethane	85	1.615	1.620	-0.005	100	167890	50.0	49.2	
12 Chloromethane	50	1.773	1.766	0.007	99	183739	50.0	47.9	
13 Vinyl chloride	62	1.907	1.900	0.007	97	187574	50.0	48.4	
14 Butadiene	39	1.938	1.936	0.002	95	208841	50.0	50.3	
15 Bromomethane	94	2.266	2.241	0.025	90	89995	50.0	47.8	
16 Chloroethane	64	2.406	2.387	0.019	100	111629	50.0	47.9	
17 Dichlorofluoromethane	67	2.674	2.666	0.008	98	252916	50.0	49.0	
18 Trichlorofluoromethane	101	2.704	2.703	0.001	97	203614	50.0	48.3	
20 Ethyl ether	59	3.051	3.044	0.007	94	131431	50.0	45.1	
21 Acrolein	56	3.227	3.232	-0.005	98	56899	150.0	101.9	
22 1,1-Dichloroethene	96	3.349	3.342	0.007	95	144127	50.0	50.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.422	3.415	0.007	95	145641	50.0	48.1	
24 Acetone	43	3.440	3.439	0.001	98	89628	100.0	106.9	
25 Iodomethane	142	3.538	3.536	0.002	100	178880	50.0	45.2	
26 Carbon disulfide	76	3.635	3.628	0.007	100	325597	50.0	51.3	
28 3-Chloro-1-propene	76	3.927	3.920	0.007	88	72832	50.0	45.9	
30 Methyl acetate	43	3.945	3.938	0.007	98	622984	250.0	239.6	
31 Methylene Chloride	84	4.140	4.139	0.001	97	152269	50.0	38.5	
32 2-Methyl-2-propanol	59	4.408	4.400	0.008	89	94251	500.0	495.7	
33 Acrylonitrile	53	4.523	4.516	0.007	98	604045	500.0	479.5	
34 trans-1,2-Dichloroethene	96	4.572	4.558	0.014	95	142087	50.0	46.6	
35 Methyl tert-butyl ether	73	4.578	4.577	0.001	97	341233	50.0	45.4	
36 Hexane	57	4.992	4.984	0.008	95	231606	50.0	49.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.205	5.197	0.008	96	279663	50.0	48.0	
38 Vinyl acetate	43	5.253	5.246	0.007	98	226546	50.0	45.5	
45 cis-1,2-Dichloroethene	96	5.947	5.945	0.002	83	336800	50.0	104.3	
44 2,2-Dichloropropane	77	5.947	5.945	0.002	41	117890	50.0	47.4	
46 2-Butanone (MEK)	43	5.959	5.958	0.001	41	119039	100.0	96.8	
49 Chlorobromomethane	128	6.239	6.237	0.002	95	61911	50.0	45.5	
51 Tetrahydrofuran	42	6.251	6.250	0.001	89	94773	100.0	93.8	
52 Chloroform	83	6.385	6.383	0.002	97	251450	50.0	46.9	
53 1,1,1-Trichloroethane	97	6.543	6.536	0.007	95	231842	50.0	57.6	
54 Cyclohexane	56	6.616	6.615	0.001	94	296296	50.0	49.2	
56 Carbon tetrachloride	117	6.719	6.712	0.007	94	169264	50.0	48.3	
55 1,1-Dichloropropene	75	6.731	6.730	0.001	92	212570	50.0	48.1	
57 Isobutyl alcohol	41	6.926	6.931	-0.005	81	98941	1250.0	1173.0	
58 Benzene	78	6.944	6.943	0.001	98	607606	50.0	47.6	
59 1,2-Dichloroethane	62	7.023	7.022	0.001	97	200146	50.0	45.9	
62 n-Heptane	43	7.309	7.308	0.001	93	207286	50.0	49.7	
64 Trichloroethene	130	7.680	7.679	0.001	97	340889	50.0	113.2	
66 Methylcyclohexane	83	7.918	7.916	0.002	94	250018	50.0	49.7	
67 1,2-Dichloropropane	63	7.948	7.953	-0.005	94	144128	50.0	46.4	
70 1,4-Dioxane	88	8.033	8.032	0.001	41	19084	1000.0	894.1	
68 Dibromomethane	93	8.033	8.038	-0.005	96	76730	50.0	45.6	
71 Dichlorobromomethane	83	8.234	8.227	0.007	98	159001	50.0	46.9	
74 cis-1,3-Dichloropropene	75	8.672	8.677	-0.005	92	179025	50.0	45.6	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.829	-0.005	98	200476	100.0	73.6	
76 Toluene	91	9.007	9.005	0.002	98	616739	50.0	49.9	
77 trans-1,3-Dichloropropene	75	9.250	9.249	0.001	97	156598	50.0	47.1	
78 Ethyl methacrylate	69	9.311	9.310	0.001	91	153663	50.0	48.5	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	93	111894	50.0	46.7	
80 Tetrachloroethene	164	9.518	9.516	0.002	95	469128	50.0	199.5	
81 1,3-Dichloropropane	76	9.603	9.602	0.001	95	214754	50.0	49.0	
82 2-Hexanone	43	9.658	9.656	0.002	99	145657	100.0	83.3	
84 Chlorodibromomethane	129	9.816	9.814	0.002	92	94294	50.0	48.3	
85 Ethylene Dibromide	107	9.925	9.930	-0.005	98	106688	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.388	10.386	0.002	91	205139	50.0	50.7	
87 Chlorobenzene	112	10.412	10.417	-0.005	92	371210	50.0	48.1	
88 4-Chlorobenzotrifluoride	180	10.479	10.478	0.001	96	193178	50.0	50.6	
90 Ethylbenzene	106	10.515	10.514	0.001	99	213531	50.0	50.3	
89 1,1,1,2-Tetrachloroethane	131	10.509	10.514	-0.005	91	117807	50.0	49.4	
91 m-Xylene & p-Xylene	106	10.643	10.648	-0.005	0	257879	50.0	50.3	
92 o-Xylene	106	11.026	11.025	0.001	97	247252	50.0	50.3	
93 Styrene	104	11.051	11.049	0.002	95	406067	50.0	50.5	
94 Bromoform	173	11.227	11.232	-0.005	96	51041	50.0	49.2	
96 2-Chlorobenzotrifluoride	180	11.294	11.299	-0.005	95	197166	50.0	51.6	
97 Isopropylbenzene	105	11.397	11.396	0.001	97	637646	50.0	52.9	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.713	-0.005	80	149392	50.0	49.3	
100 Bromobenzene	156	11.708	11.713	-0.005	96	140479	50.0	44.8	
102 trans-1,4-Dichloro-2-buten	53	11.744	11.743	0.001	78	40066	50.0	37.8	
101 1,2,3-Trichloropropane	110	11.763	11.761	0.001	87	49534	50.0	44.6	
103 N-Propylbenzene	120	11.811	11.816	-0.005	99	174131	50.0	47.0	
104 2-Chlorotoluene	126	11.896	11.901	-0.005	95	146981	50.0	46.0	
105 3-Chlorotoluene	126	11.963	11.968	-0.005	96	158237	50.0	47.8	
106 1,3,5-Trimethylbenzene	105	11.994	11.992	0.002	95	532914	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.018	12.023	-0.005	99	155491	50.0	44.9	
108 tert-Butylbenzene	119	12.310	12.309	0.001	94	423199	50.0	49.4	
110 1,2,4-Trimethylbenzene	105	12.365	12.370	-0.005	99	530830	50.0	50.1	
111 1,2-dichloro-4-(trifluorom	214	12.407	12.412	-0.005	97	150919	50.0	48.6	
112 sec-Butylbenzene	105	12.529	12.534	-0.005	95	613280	50.0	49.7	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	97	265646	50.0	46.6	
114 4-Isopropyltoluene	119	12.687	12.686	0.001	96	501405	50.0	50.4	
115 1,4-Dichlorobenzene	146	12.754	12.753	0.001	94	270206	50.0	46.6	
116 2,4-Dichloro-1-(triflourom	214	12.778	12.777	0.001	97	138687	50.0	49.2	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.820	0.001	0	159908	50.0	52.4	
120 n-Butylbenzene	91	13.095	13.100	-0.005	98	444050	50.0	52.2	
121 1,2-Dichlorobenzene	146	13.107	13.112	-0.005	95	237924	50.0	47.2	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.903	0.001	75	20513	50.0	47.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.043	0.002	0	494007	150.0	172.3	
124 1,3,5-Trichlorobenzene	180	14.092	14.092	0.000	97	138828	50.0	45.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.457	14.462	-0.005	0	301673	100.0	114.9	
126 1,2,4-Trichlorobenzene	180	14.725	14.724	0.001	94	103087	50.0	57.2	
127 Hexachlorobutadiene	225	14.871	14.870	0.001	90	54902	50.0	54.9	
128 Naphthalene	128	14.987	14.992	-0.005	98	253484	50.0	54.3	
129 1,2,3-Trichlorobenzene	180	15.212	15.217	-0.005	94	86654	50.0	59.1	
131 2,4,5-Trichlorotoluene	159	15.991	15.995	-0.005	0	32750	50.0	69.2	
130 2,3,6-Trichlorotoluene	159	16.088	16.093	-0.005	92	34997	50.0	72.5	
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	151.0	
S 133 Xylenes, Total	106				0		100.0	100.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

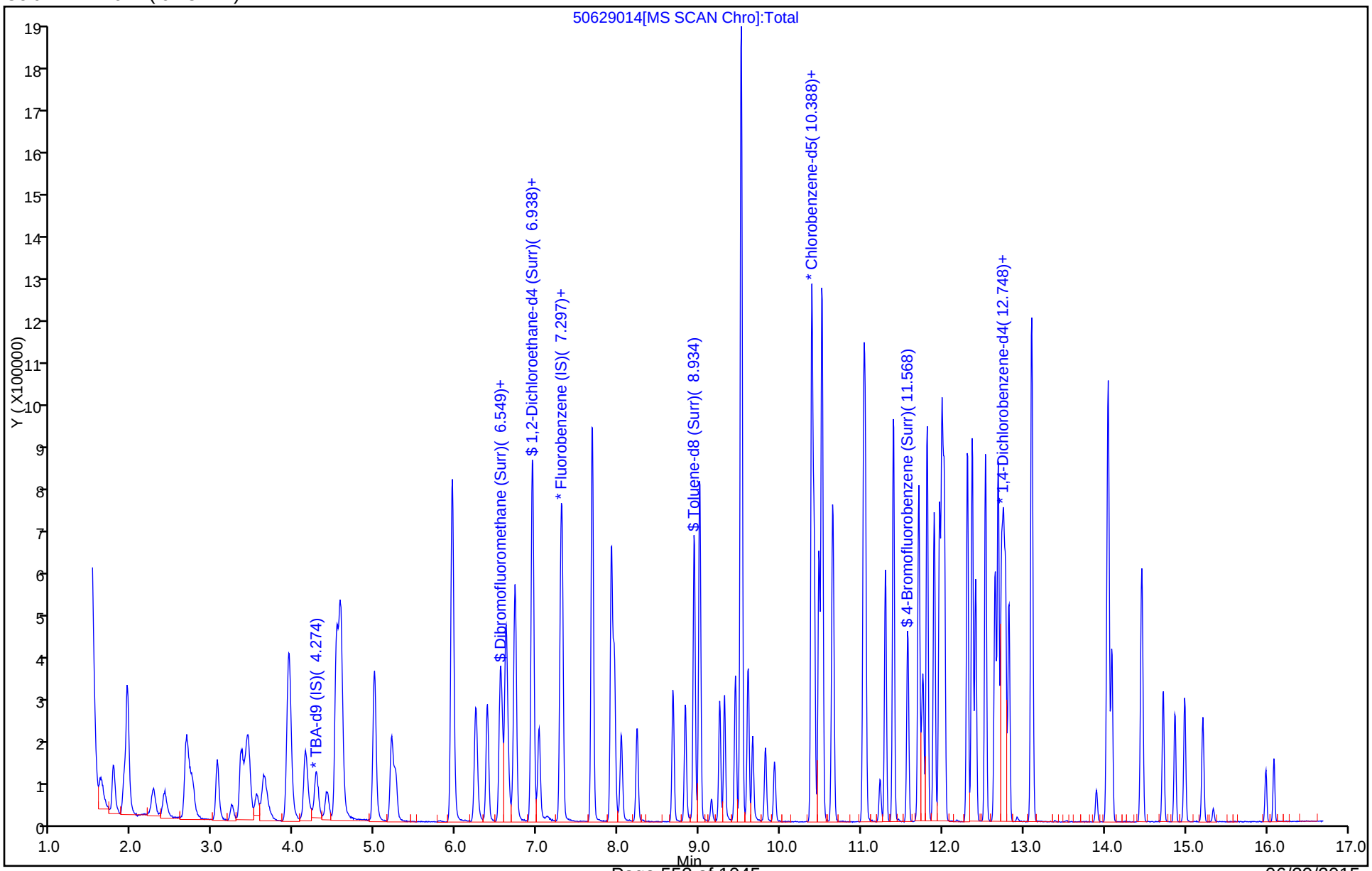
voaW 135tcb A_00003	Amount Added:	2.00	Units: uL		
voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL		
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL		
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL		
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

Report Date: 22-Jun-2015 16:16:14 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629014.D				
Injection Date:	22-Jun-2015 15:04:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-45088-C-11 MS			Worklist Smp#:	14
Client ID:	HD-COD-SW-17-0/1-0				
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)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 MSD | Lab Sample ID: 180-45088-11 MSD

Matrix: Water | Lab File ID: 50629015.D

Analysis Method: 8260C | Date Collected: 06/15/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/22/2015 15:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 145689 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.90		1.0	0.28
75-01-4	Vinyl chloride	9.81		1.0	0.23
74-83-9	Bromomethane	9.61		1.0	0.31
75-00-3	Chloroethane	9.49		1.0	0.21
75-35-4	1,1-Dichloroethene	9.97		1.0	0.30
67-64-1	Acetone	20.2		5.0	2.5
75-15-0	Carbon disulfide	9.95		1.0	0.21
75-09-2	Methylene Chloride	7.80		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.36		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.13		1.0	0.18
75-34-3	1,1-Dichloroethane	9.65		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	20.8	F1	1.0	0.24
74-97-5	Bromochloromethane	8.89		1.0	0.18
78-93-3	2-Butanone (MEK)	18.6		5.0	0.55
67-66-3	Chloroform	9.32		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.8		1.0	0.29
56-23-5	Carbon tetrachloride	9.65		1.0	0.14
71-43-2	Benzene	9.28		1.0	0.11
107-06-2	1,2-Dichloroethane	9.05		1.0	0.21
79-01-6	Trichloroethene	22.4	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	9.11		1.0	0.095
75-27-4	Bromodichloromethane	8.91		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.81		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	15.0		5.0	0.53
108-88-3	Toluene	9.81		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.03		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.09		1.0	0.20
127-18-4	Tetrachloroethene	39.6	F1	1.0	0.15
591-78-6	2-Hexanone	16.9		5.0	0.16
124-48-1	Dibromochloromethane	9.39		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.73		1.0	0.18
108-90-7	Chlorobenzene	9.73		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.69		1.0	0.28
100-41-4	Ethylbenzene	10.0		1.0	0.23
1330-20-7	Xylenes, Total	20.3		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-45088-11 MSD

Matrix: Water Lab File ID: 50629015.D

Analysis Method: 8260C Date Collected: 06/15/2015 10:10

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2015 15:27

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 145689 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.76		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	95.9		20	0.55
123-91-1	1,4-Dioxane	189	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		64-135
2037-26-5	Toluene-d8 (Surr)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629015.D
Lims ID: 180-45088-E-11 MSD
Client ID: HD-COD-SW-17-0/1-0
Sample Type: MSD
Inject. Date: 22-Jun-2015 15:27:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-45088-E-11 MSD
Misc. Info.: 180-0007492-015
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Jun-2015 15:47:00 Calib Date: 17-Jun-2015 18:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 22-Jun-2015 15:46:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.248	0.030	0	148448	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	489211	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.387	-0.001	92	109819	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	94	161872	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	93	103817	50.0	45.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	142233	50.0	43.2	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	436915	50.0	47.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	85	162847	50.0	48.6	
11 Dichlorodifluoromethane	85	1.625	1.620	0.005	99	155544	50.0	47.2	
12 Chloromethane	50	1.772	1.766	0.006	99	183716	50.0	49.5	
13 Vinyl chloride	62	1.911	1.900	0.011	98	183763	50.0	49.1	
14 Butadiene	39	1.942	1.936	0.006	94	202283	50.0	50.4	
15 Bromomethane	94	2.264	2.241	0.023	90	87495	50.0	48.0	
16 Chloroethane	64	2.392	2.387	0.005	99	106988	50.0	47.4	
17 Dichlorofluoromethane	67	2.672	2.666	0.006	97	234695	50.0	47.0	
18 Trichlorofluoromethane	101	2.714	2.703	0.011	85	196181	50.0	48.2	
20 Ethyl ether	59	3.049	3.044	0.005	93	130126	50.0	46.2	
21 Acrolein	56	3.238	3.232	0.006	99	53393	150.0	98.9	
22 1,1-Dichloroethene	96	3.347	3.342	0.005	96	138061	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.415	0.011	95	137859	50.0	47.1	
24 Acetone	43	3.444	3.439	0.005	98	81742	100.0	100.9	
25 Iodomethane	142	3.542	3.536	0.006	100	176660	50.0	46.1	
26 Carbon disulfide	76	3.633	3.628	0.005	100	305095	50.0	49.7	
28 3-Chloro-1-propene	76	3.919	3.920	-0.001	88	70393	50.0	45.9	
30 Methyl acetate	43	3.943	3.938	0.005	98	587089	250.0	233.6	
31 Methylene Chloride	84	4.144	4.139	0.005	97	148550	50.0	39.0	
32 2-Methyl-2-propanol	59	4.406	4.400	0.006	90	84258	500.0	497.0	
33 Acrylonitrile	53	4.527	4.516	0.011	97	583866	500.0	479.4	
34 trans-1,2-Dichloroethene	96	4.570	4.558	0.012	97	137839	50.0	46.8	
35 Methyl tert-butyl ether	73	4.582	4.577	0.005	96	331545	50.0	45.6	
36 Hexane	57	4.996	4.984	0.012	95	221331	50.0	48.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.209	5.197	0.012	97	271497	50.0	48.2	
38 Vinyl acetate	43	5.251	5.246	0.005	97	225475	50.0	46.8	
45 cis-1,2-Dichloroethene	96	5.951	5.945	0.006	83	323929	50.0	103.8	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	85	118552	50.0	49.3	
46 2-Butanone (MEK)	43	5.963	5.958	0.005	41	110548	100.0	93.0	
49 Chlorobromomethane	128	6.237	6.237	0.000	94	58508	50.0	44.4	
51 Tetrahydrofuran	42	6.255	6.250	0.005	88	85063	100.0	87.0	
52 Chloroform	83	6.383	6.383	0.000	95	241234	50.0	46.6	
53 1,1,1-Trichloroethane	97	6.541	6.536	0.005	96	229256	50.0	58.9	
54 Cyclohexane	56	6.614	6.615	-0.001	94	283551	50.0	48.7	
56 Carbon tetrachloride	117	6.717	6.712	0.005	95	163383	50.0	48.3	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	92	206878	50.0	48.4	
57 Isobutyl alcohol	41	6.930	6.931	-0.001	91	96645	1250.0	1185.1	
58 Benzene	78	6.942	6.943	-0.001	98	572352	50.0	46.4	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	190820	50.0	45.2	
62 n-Heptane	43	7.307	7.308	-0.001	93	195001	50.0	48.4	
64 Trichloroethene	130	7.679	7.679	0.000	97	326431	50.0	112.1	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	242332	50.0	49.8	
67 1,2-Dichloropropane	63	7.952	7.953	-0.001	95	136858	50.0	45.6	
70 1,4-Dioxane	88	8.031	8.032	-0.001	39	19512	1000.0	945.5	
68 Dibromomethane	93	8.037	8.038	-0.001	96	71924	50.0	44.3	
71 Dichlorobromomethane	83	8.232	8.227	0.005	97	146072	50.0	44.5	
74 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	92	167189	50.0	44.1	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.829	-0.001	98	194757	100.0	74.9	
76 Toluene	91	9.005	9.005	0.000	98	578861	50.0	49.0	
77 trans-1,3-Dichloropropene	75	9.254	9.249	0.005	98	143492	50.0	45.2	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	90	145231	50.0	48.0	
79 1,1,2-Trichloroethane	97	9.449	9.443	0.006	93	104049	50.0	45.4	
80 Tetrachloroethene	164	9.516	9.516	0.000	95	444647	50.0	198.0	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	96	197296	50.0	47.1	
82 2-Hexanone	43	9.656	9.656	0.000	97	140830	100.0	84.3	
84 Chlorodibromomethane	129	9.814	9.814	0.000	90	87615	50.0	47.0	
85 Ethylene Dibromide	107	9.929	9.930	-0.001	98	104089	50.0	48.6	
86 3-Chlorobenzotrifluoride	180	10.392	10.386	0.006	92	188796	50.0	48.8	
87 Chlorobenzene	112	10.416	10.417	-0.001	93	358485	50.0	48.6	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	97	179491	50.0	49.3	
90 Ethylbenzene	106	10.513	10.514	-0.001	99	202625	50.0	50.0	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.514	-0.007	91	110245	50.0	48.5	
91 m-Xylene & p-Xylene	106	10.647	10.648	-0.001	0	252912	50.0	51.7	
92 o-Xylene	106	11.024	11.025	-0.001	97	235645	50.0	50.2	
93 Styrene	104	11.049	11.049	0.000	95	385855	50.0	50.3	
94 Bromoform	173	11.231	11.232	-0.001	95	48304	50.0	48.8	
96 2-Chlorobenzotrifluoride	180	11.298	11.299	-0.001	95	184617	50.0	50.7	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	607700	50.0	52.8	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.713	-0.007	78	148319	50.0	51.2	
100 Bromobenzene	156	11.706	11.713	-0.007	96	137361	50.0	43.6	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.743	-0.001	80	38960	50.0	36.6	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	87	49023	50.0	43.9	
103 N-Propylbenzene	120	11.809	11.816	-0.007	99	167335	50.0	45.0	
104 2-Chlorotoluene	126	11.900	11.901	-0.001	95	139680	50.0	43.5	
105 3-Chlorotoluene	126	11.961	11.968	-0.007	97	146407	50.0	44.0	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	93	515966	50.0	47.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.022	12.023	-0.001	99	154124	50.0	44.3	
108 tert-Butylbenzene	119	12.308	12.309	-0.001	94	411618	50.0	47.8	
110 1,2,4-Trimethylbenzene	105	12.363	12.370	-0.007	98	516555	50.0	48.4	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.412	-0.001	98	143286	50.0	45.9	
112 sec-Butylbenzene	105	12.527	12.534	-0.007	95	608028	50.0	49.0	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	263409	50.0	46.0	
114 4-Isopropyltoluene	119	12.685	12.686	-0.001	97	498947	50.0	49.9	
115 1,4-Dichlorobenzene	146	12.752	12.753	-0.001	93	267117	50.0	45.8	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.777	-0.001	95	143286	50.0	50.5	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.820	-0.001	0	149816	50.0	48.8	
120 n-Butylbenzene	91	13.093	13.100	-0.007	98	447221	50.0	52.3	
121 1,2-Dichlorobenzene	146	13.105	13.112	-0.007	95	247727	50.0	48.8	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.903	-0.007	77	21847	50.0	50.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.043	0.000	0	516943	150.0	179.4	
124 1,3,5-Trichlorobenzene	180	14.091	14.092	-0.001	97	149261	50.0	48.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.456	14.462	-0.006	0	334157	100.0	126.6	
126 1,2,4-Trichlorobenzene	180	14.723	14.724	-0.001	94	121538	50.0	67.1	
127 Hexachlorobutadiene	225	14.869	14.870	-0.001	97	60767	50.0	60.4	
128 Naphthalene	128	14.985	14.992	-0.007	98	311042	50.0	66.3	
129 1,2,3-Trichlorobenzene	180	15.210	15.217	-0.007	94	104131	50.0	70.6	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	44765	50.0	88.9	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	96	46660	50.0	91.1	
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	150.6	
S 133 Xylenes, Total	106				0		100.0	101.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaW 135tcb A_00003	Amount Added:	2.00	Units: uL		
voaWAcro2nd R_00005	Amount Added:	6.00	Units: uL		
voaWEE2nd Res_00003	Amount Added:	2.00	Units: uL		
voaWket2nd Re_00002	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00128	Amount Added:	2.00	Units: uL		
voaWVA2nd Res_00007	Amount Added:	2.00	Units: uL		
VOA8260INT_00038	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00038	Amount Added:	2.00	Units: uL	Run Reagent	

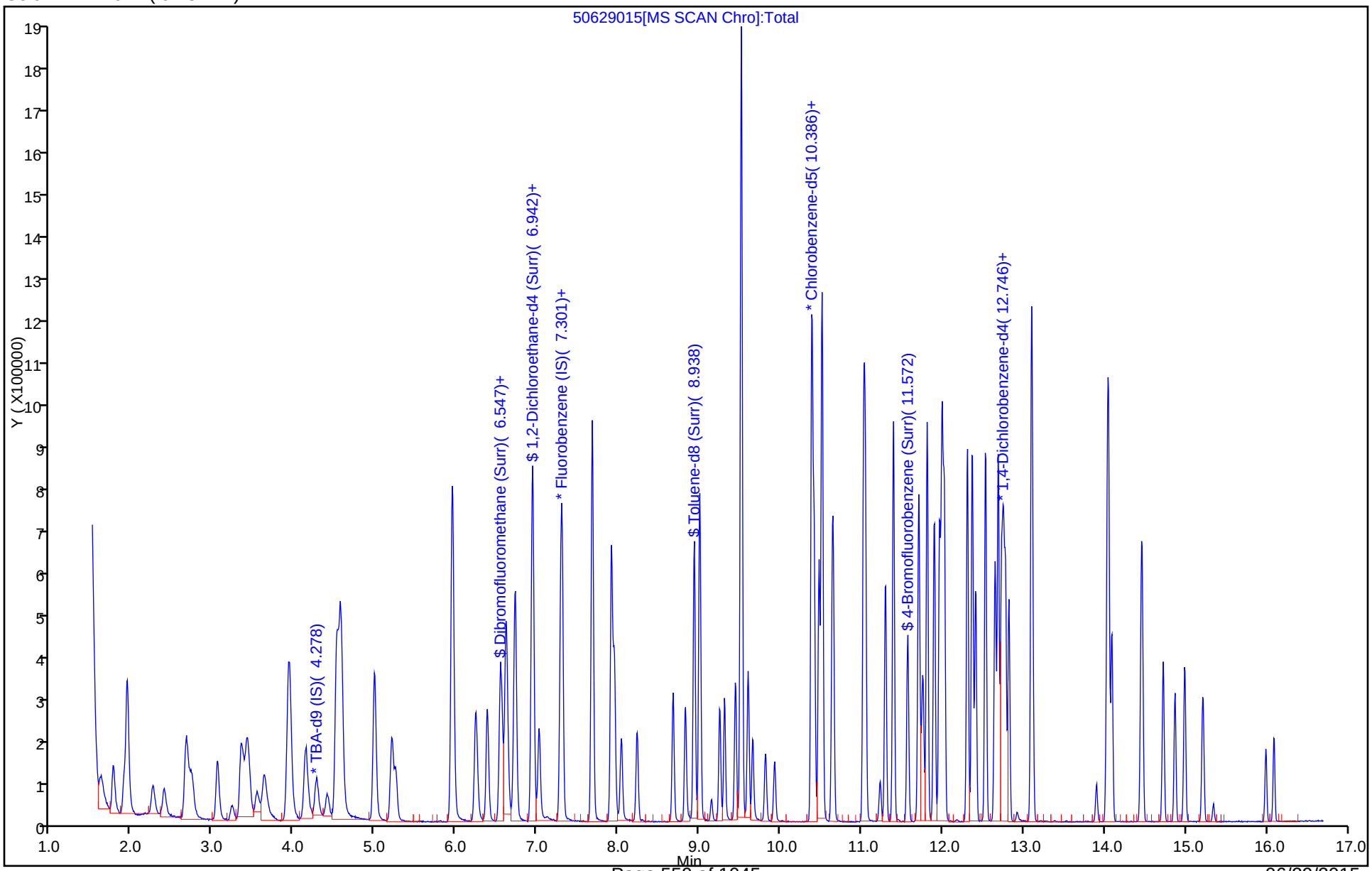
Report Date: 22-Jun-2015 15:47:37 Chrom Revision: 2.2 14-May-2015 11:41:56

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150622-7492.b\50629015.D

Injection Date:	22-Jun-2015 15:27:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-45088-E-11 MSD			Worklist Smp#:	15
Client ID:	HD-COD-SW-17-0/1-0				
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)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Start Date: 06/17/2015 11:58

Analysis Batch Number: 145277 End Date: 06/17/2015 18:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-145277/16		06/17/2015 11:58	1	50617016.D	DB-624 0.18(mm)
IC 180-145277/6		06/17/2015 14:07	1	50617006.D	DB-624 0.18(mm)
ICIS 180-145277/7		06/17/2015 14:30	1	50617007.D	DB-624 0.18(mm)
IC 180-145277/8		06/17/2015 14:54	1	50617008.D	DB-624 0.18(mm)
IC 180-145277/9		06/17/2015 15:18	1	50617009.D	DB-624 0.18(mm)
IC 180-145277/10		06/17/2015 15:42	1	50617010.D	DB-624 0.18(mm)
IC 180-145277/11		06/17/2015 16:06	1	50617011.D	DB-624 0.18(mm)
IC 180-145277/12		06/17/2015 16:29	1	50617012.D	DB-624 0.18(mm)
IC 180-145277/17		06/17/2015 18:04	1	50617017.D	DB-624 0.18(mm)
LODV 180-145277/18		06/17/2015 18:27	1		DB-624 0.18(mm)
ICV 180-145277/19		06/17/2015 18:51	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Start Date: 06/18/2015 12:42

Analysis Batch Number: 145455 End Date: 06/18/2015 23:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-145455/4		06/18/2015 12:42	1	50618004.D	DB-624 0.18(mm)
CCVIS 180-145455/2		06/18/2015 13:28	1	50618002.D	DB-624 0.18(mm)
ZZZZZ		06/18/2015 13:28	1		DB-624 0.18(mm)
CCV 180-145455/3		06/18/2015 13:52	1	50618003.D	DB-624 0.18(mm)
LODV 180-145455/5		06/18/2015 14:19	1		DB-624 0.18(mm)
MB 180-145455/7		06/18/2015 15:11	1	50618007.D	DB-624 0.18(mm)
LCS 180-145455/8		06/18/2015 15:48	1	50618008.D	DB-624 0.18(mm)
LCSD 180-145455/9		06/18/2015 16:12	1	50618009.D	DB-624 0.18(mm)
ZZZZZ		06/18/2015 17:23	1		DB-624 0.18(mm)
ZZZZZ		06/18/2015 18:10	1		DB-624 0.18(mm)
ZZZZZ		06/18/2015 18:34	1		DB-624 0.18(mm)
ZZZZZ		06/18/2015 19:46	1		DB-624 0.18(mm)
ZZZZZ		06/18/2015 20:10	1		DB-624 0.18(mm)
180-45088-1	HD-COD-SW-6-0/1-0	06/18/2015 21:45	1	50618023.D	DB-624 0.18(mm)
180-45088-2	HD-COD-SW-7-0/1-0	06/18/2015 22:09	1	50618024.D	DB-624 0.18(mm)
180-45088-3	HD-COD-SW-8-0/1-0	06/18/2015 22:33	1	50618025.D	DB-624 0.18(mm)
180-45088-4	HD-COD-SW-9-0/1-0	06/18/2015 22:56	1	50618026.D	DB-624 0.18(mm)
180-45088-5	HD-COD-SW-10-0/1-0	06/18/2015 23:20	1	50618027.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Start Date: 06/19/2015 12:09

Analysis Batch Number: 145590 End Date: 06/19/2015 23:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-145590/1		06/19/2015 12:09	1	50619001.D	DB-624 0.18(mm)
CCVIS 180-145590/2		06/19/2015 12:52	1	50619002.D	DB-624 0.18(mm)
ZZZZZ		06/19/2015 12:52	1		DB-624 0.18(mm)
CCV 180-145590/3		06/19/2015 13:16	1	50619003.D	DB-624 0.18(mm)
MB 180-145590/5		06/19/2015 14:18	1	50619005.D	DB-624 0.18(mm)
LCS 180-145590/6		06/19/2015 14:55	1	50619006.D	DB-624 0.18(mm)
LCSD 180-145590/7		06/19/2015 15:19	1	50619007.D	DB-624 0.18(mm)
ZZZZZ		06/19/2015 17:21	1		DB-624 0.18(mm)
ZZZZZ		06/19/2015 17:45	1		DB-624 0.18(mm)
ZZZZZ		06/19/2015 18:09	10		DB-624 0.18(mm)
ZZZZZ		06/19/2015 18:33	1		DB-624 0.18(mm)
180-45088-6	HD-COD-SW-11-0/1-0	06/19/2015 19:21	1	50619017.D	DB-624 0.18(mm)
180-45088-7	HD-COD-SW-12-0/1-0	06/19/2015 19:45	1	50619018.D	DB-624 0.18(mm)
180-45088-8	HD-COD-SW-13-0/1-0	06/19/2015 20:09	1	50619019.D	DB-624 0.18(mm)
180-45088-9	HD-COD-SW-15-0/1-0	06/19/2015 20:33	1	50619020.D	DB-624 0.18(mm)
180-45088-10	HD-COD-SW-16-0/1-0	06/19/2015 20:57	1	50619021.D	DB-624 0.18(mm)
180-45088-12	HD-COD-SW-20-0/1-0	06/19/2015 21:21	1	50619022.D	DB-624 0.18(mm)
180-45088-13	HD-COD-SW-26-0/1-0	06/19/2015 21:44	1	50619023.D	DB-624 0.18(mm)
180-45088-14	HD-COD-SW-27-0/1-0	06/19/2015 22:08	1	50619024.D	DB-624 0.18(mm)
180-45088-15	HD-COD-SW-28-0/1-0	06/19/2015 22:33	1	50619025.D	DB-624 0.18(mm)
180-45088-16	HD-COD-SW-29-0/1-0	06/19/2015 22:56	1	50619026.D	DB-624 0.18(mm)
180-45088-17	HD-QC1-0/1-1	06/19/2015 23:20	1	50619027.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHHP5 Start Date: 06/22/2015 08:36

Analysis Batch Number: 145689 End Date: 06/22/2015 16:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-145689/1		06/22/2015 08:36	1	50622001.D	DB-624 0.18(mm)
CCVIS 180-145689/2		06/22/2015 09:10	1	50622002.D	DB-624 0.18(mm)
ZZZZZ		06/22/2015 09:10	1		DB-624 0.18(mm)
CCV 180-145689/3		06/22/2015 09:50	1		DB-624 0.18(mm)
LODV 180-145689/4		06/22/2015 10:25	1		DB-624 0.18(mm)
MB 180-145689/5		06/22/2015 11:12	1	50629005.D	DB-624 0.18(mm)
180-45088-18	HD-QC1-0/1-2	06/22/2015 13:06	1	50629009.D	DB-624 0.18(mm)
180-45088-11 MS	HD-COD-SW-17-0/1-0 MS	06/22/2015 15:04	1	50629014.D	DB-624 0.18(mm)
180-45088-11 MSD	HD-COD-SW-17-0/1-0 MSD	06/22/2015 15:27	1	50629015.D	DB-624 0.18(mm)
LCS 180-145689/16		06/22/2015 15:51	1	50629016.D	DB-624 0.18(mm)
180-45088-11	HD-COD-SW-17-0/1-0	06/22/2015 16:40	1	50629018.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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 06-16-2015-5.d

Lab ID: LCS 180-145170/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.57	103	90-110	
Chloride	50.0	51.4	103	90-110	
Sulfate	50.0	50.7	101	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 06-17-2015-5.d

Lab ID: LCS 180-145223/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.52	101	90-110	
Chloride	50.0	50.5	101	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 06-17-2015-5.d

Lab ID: LCS 180-145224/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.54	102	90-110	
Chloride	50.0	50.6	101	90-110	
Sulfate	50.0	50.4	101	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 06-16-2015-13.d

Lab ID: 180-45088-2 MS Client ID: HD-COD-SW-7-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	2.9	4.16	98	80-120	
Chloride	25.0	43	66.8	94	80-120	
Sulfate	25.0	25	48.9	94	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 06-17-2015-13.d

Lab ID: 180-45088-11 MS Client ID: HD-COD-SW-17-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	3.5	4.67	94	80-120	H
Chloride	25.0	140	157	88	80-120	4
Sulfate	25.0	34	57.0	92	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 06-16-2015-14.d

Lab ID: 180-45088-2 MSD Client ID: HD-COD-SW-7-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	4.15	97	0	20	80-120	
Chloride	25.0	66.7	94	0	20	80-120	
Sulfate	25.0	48.6	93	1	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.: 180-45088-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 06-17-2015-14.d

Lab ID: 180-45088-11 MSD Client ID: HD-COD-SW-17-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	4.72	98	1	20	80-120	H
Chloride	25.0	158	93	1	20	80-120	4
Sulfate	25.0	58.0	96	2	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.: 180-45088-1

SDG No.:

Lab File ID: A-ICS2100 A 06-16-2015-6.d Lab Sample ID: MB 180-145170/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 06/16/2015 13:28

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-145170/4	A-ICS2100 A 06-16-2015-4.d	06/16/2015 12:57
	LCS 180-145170/5	A-ICS2100 A 06-16-2015-5.d	06/16/2015 13:13
HD-COD-SW-6-0/1-0	180-45088-1	A-ICS2100 A 06-16-2015-7.d	06/16/2015 13:47
HD-COD-SW-9-0/1-0	180-45088-4	A-ICS2100 A 06-16-2015-8.d	06/16/2015 14:02
HD-COD-SW-11-0/1-0	180-45088-6	A-ICS2100 A 06-16-2015-9.d	06/16/2015 14:17
HD-COD-SW-27-0/1-0	180-45088-14	A-ICS2100 A 06-16-2015-10.d	06/16/2015 14:33
HD-COD-SW-28-0/1-0	180-45088-15	A-ICS2100 A 06-16-2015-11.d	06/16/2015 14:51
HD-COD-SW-7-0/1-0	180-45088-2	A-ICS2100 A 06-16-2015-12.d	06/16/2015 15:08
HD-COD-SW-7-0/1-0 MS	180-45088-2 MS	A-ICS2100 A 06-16-2015-13.d	06/16/2015 15:25
HD-COD-SW-7-0/1-0 MSD	180-45088-2 MSD	A-ICS2100 A 06-16-2015-14.d	06/16/2015 15:43
	CCB 180-145170/16	A-ICS2100 A 06-16-2015-16.d	06/16/2015 16:17
HD-QC1-0/1-1	180-45088-17	A-ICS2100 A 06-16-2015-17.d	06/16/2015 16:35
	CCB 180-145170/28	A-ICS2100 A 06-16-2015-28.d	06/16/2015 20:20

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: A-ICS2100 A 06-17-2015-6.d Lab Sample ID: MB 180-145223/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 06/17/2015 07:33

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-145223/4	A-ICS2100 A 06-17-2015-4.d	06/17/2015 07:03
	LCS 180-145223/5	A-ICS2100 A 06-17-2015-5.d	06/17/2015 07:18
HD-COD-SW-8-0/1-0	180-45088-3	A-ICS2100 A 06-17-2015-10.d	06/17/2015 11:45
HD-COD-SW-10-0/1-0	180-45088-5	A-ICS2100 A 06-17-2015-11.d	06/17/2015 12:02
HD-COD-SW-17-0/1-0	180-45088-11	A-ICS2100 A 06-17-2015-12.d	06/17/2015 12:20
HD-COD-SW-17-0/1-0 MS	180-45088-11 MS	A-ICS2100 A 06-17-2015-13.d	06/17/2015 12:37
HD-COD-SW-17-0/1-0 MSD	180-45088-11 MSD	A-ICS2100 A 06-17-2015-14.d	06/17/2015 12:54
	CCB 180-145223/16	A-ICS2100 A 06-17-2015-16.d	06/17/2015 13:29

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab File ID: B-ICS2100 B 06-17-2015-6.d Lab Sample ID: MB 180-145224/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 06/17/2015 07:46

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-145224/4	B-ICS2100 B 06-17-2015-4.d	06/17/2015 07:11
	LCS 180-145224/5	B-ICS2100 B 06-17-2015-5.d	06/17/2015 07:29
HD-COD-SW-26-0/1-0	180-45088-13	B-ICS2100 B 06-17-2015-10.d	06/17/2015 11:07
HD-COD-SW-12-0/1-0	180-45088-7	B-ICS2100 B 06-17-2015-11.d	06/17/2015 11:25
HD-COD-SW-15-0/1-0	180-45088-9	B-ICS2100 B 06-17-2015-12.d	06/17/2015 11:42
HD-COD-SW-13-0/1-0	180-45088-8	B-ICS2100 B 06-17-2015-13.d	06/17/2015 12:00
HD-COD-SW-16-0/1-0	180-45088-10	B-ICS2100 B 06-17-2015-14.d	06/17/2015 12:17
	CCB 180-145224/16	B-ICS2100 B 06-17-2015-16.d	06/17/2015 12:52
HD-COD-SW-20-0/1-0	180-45088-12	B-ICS2100 B 06-17-2015-21.d	06/17/2015 14:18
HD-COD-SW-29-0/1-0	180-45088-16	B-ICS2100 B 06-17-2015-22.d	06/17/2015 14:36
	CCB 180-145224/24	B-ICS2100 B 06-17-2015-24.d	06/17/2015 15:10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 | Lab Sample ID: 180-45088-1

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-7.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 10:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 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.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3	B	0.10	0.0062
16887-00-6	Chloride	110	B	1.0	0.20
14808-79-8	Sulfate	19		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-7.d
Lims ID: 180-45088-A-1 Lab Sample ID: 180-45088-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 16-Jun-2015 13:47:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-007
Misc. Info.: 7 180-45088-A-1
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:32 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

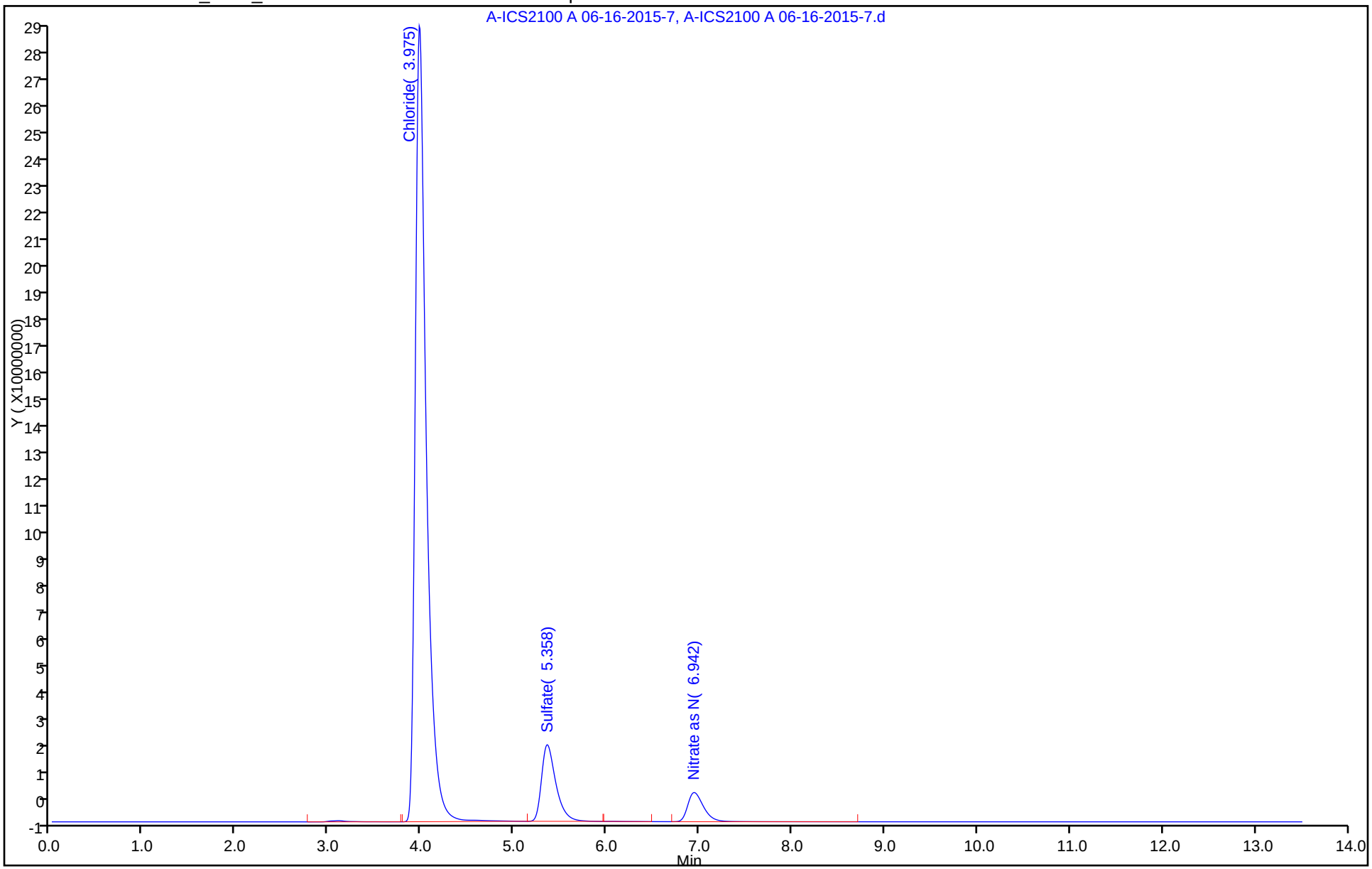
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.975	3.983	-0.008	2369166255	110.2	
3 Sulfate	5.358	5.325	0.033	295279738	18.7	
5 Nitrate as N	6.942	6.942	0.000	124116179	2.32	

Report Date: 16-Jun-2015 17:29:35 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-7.d

Injection Date:	16-Jun-2015 13:47:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-1	Lab Sample ID:	180-45088-1	Worklist Smp#:	7
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 | Lab Sample ID: 180-45088-2

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-12.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 11:25

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 15:08

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.9	B	0.10	0.0062
16887-00-6	Chloride	43	B	1.0	0.20
14808-79-8	Sulfate	25		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-12.d
Lims ID: 180-45088-A-2 Lab Sample ID: 180-45088-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 16-Jun-2015 15:08:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-012
Misc. Info.: 12 180-45088-A-2
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:52:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

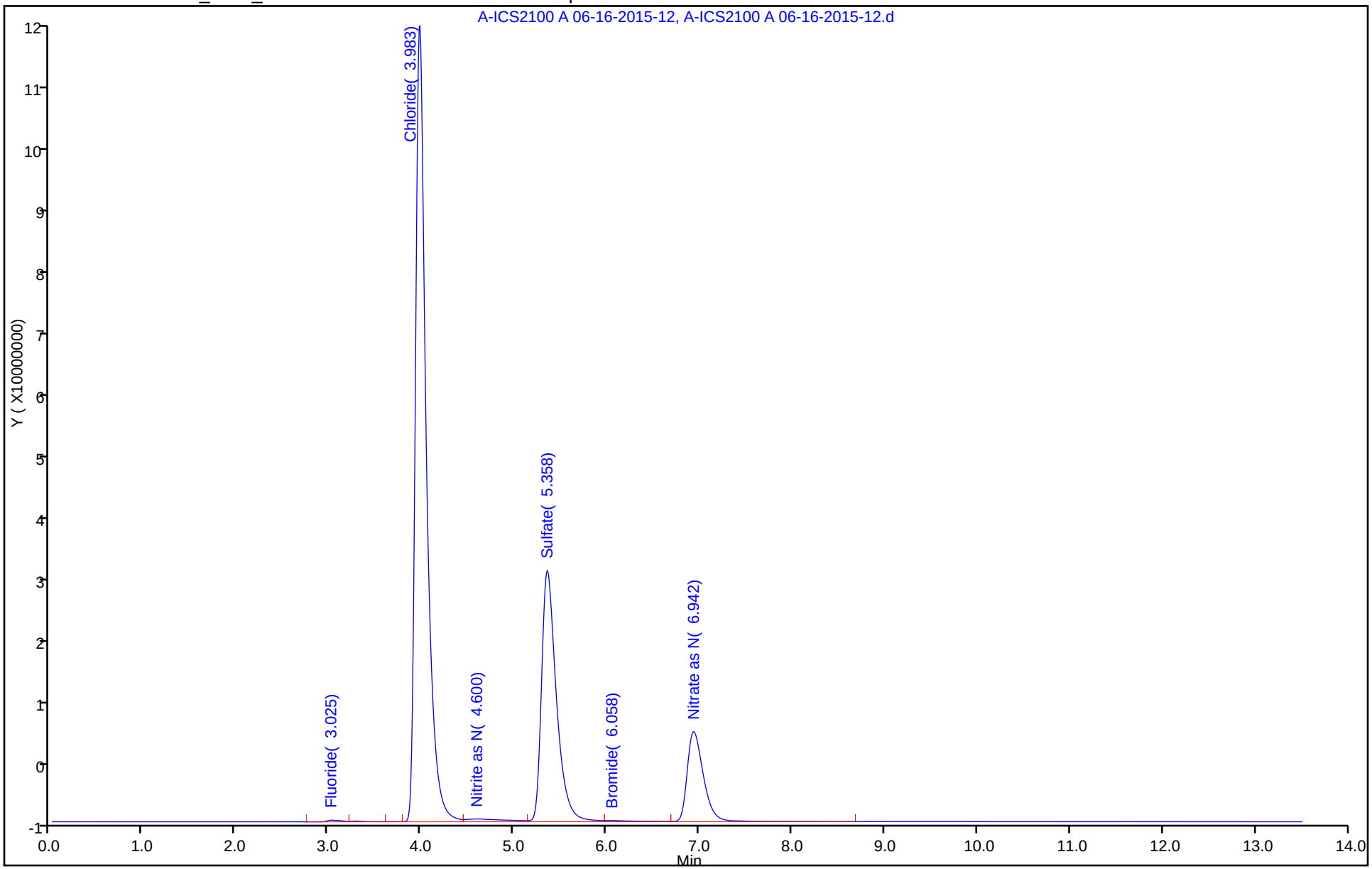
Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	242603H	0.0669	
2 Chloride	3.983	3.983	0.000	926760998	43.1	
7 Nitrite as N	4.600	4.617	-0.017	11889429	0.2215	
3 Sulfate	5.358	5.325	0.033	399381756	25.4	
4 Bromide	6.058	6.058	0.000	4139591	0.4531	
5 Nitrate as N	6.942	6.942	0.000	156948963	2.93	
6 Orthophosphate as P		9.367			ND	

Report Date: 16-Jun-2015 17:52:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-12.d				
Injection Date:	16-Jun-2015 15:08:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-2	Lab Sample ID:	180-45088-2	Worklist Smp#:	12
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 | Lab Sample ID: 180-45088-3

Matrix: Water | Lab File ID: A-ICS2100 A 06-17-2015-10.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 08:45

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 11:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.9	H B	0.10	0.0062
16887-00-6	Chloride	51	B	1.0	0.20
14808-79-8	Sulfate	26		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-10.d
Lims ID: 180-45088-A-3 Lab Sample ID: 180-45088-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 11:45:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-010
Misc. Info.: 10 180-45088-A-3
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:52:56 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

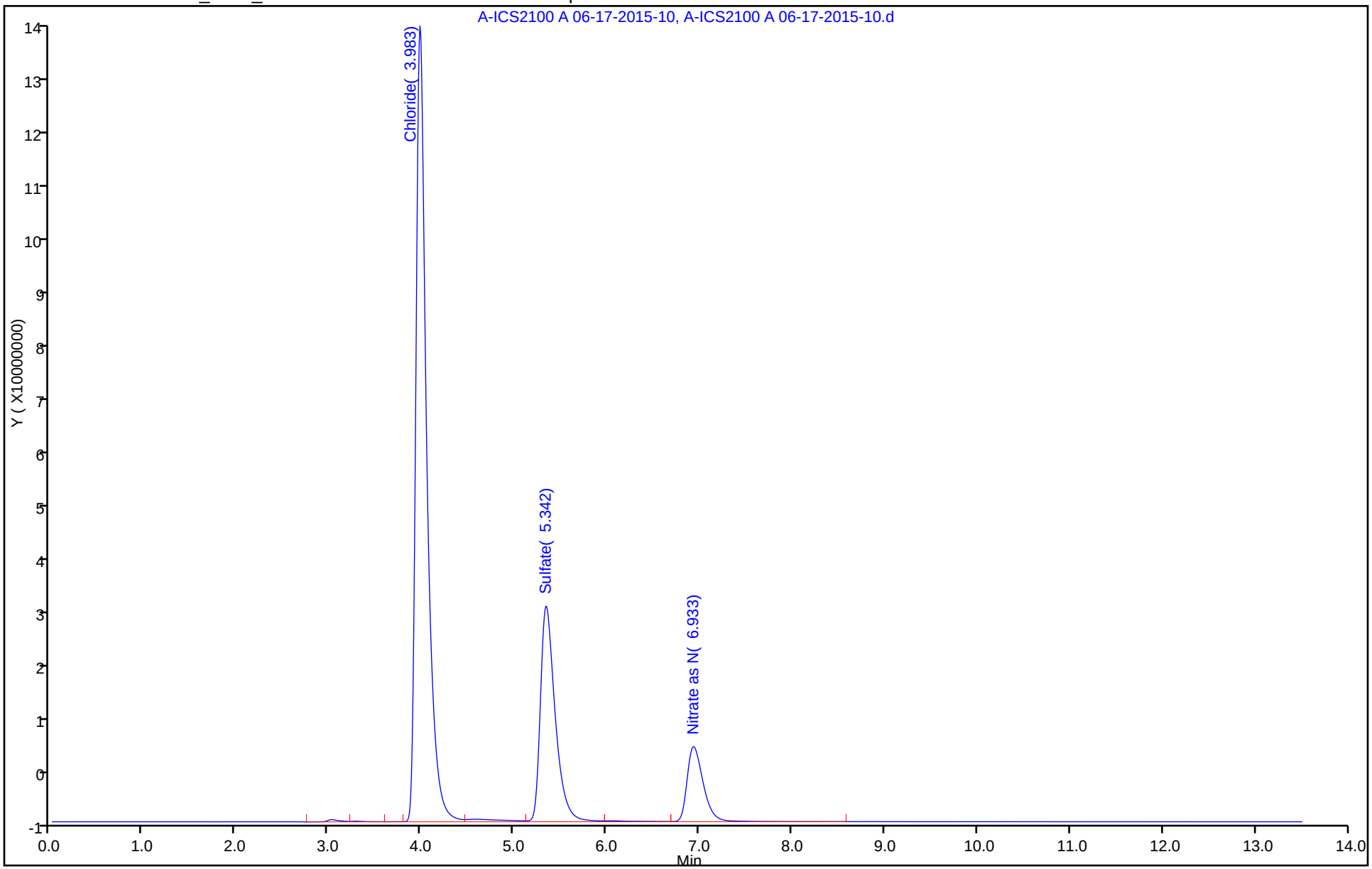
Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.975	0.008	1106235719	51.5	
3 Sulfate	5.342	5.325	0.017	409783012	26.0	
5 Nitrate as N	6.933	6.933	0.000	155975759	2.91	

Report Date: 17-Jun-2015 13:53:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-10.d				
Injection Date:	17-Jun-2015 11:45:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-3	Lab Sample ID:	180-45088-3	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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 | Lab Sample ID: 180-45088-4

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-8.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 12:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 14:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.1	B	0.10	0.0062
16887-00-6	Chloride	78	B	1.0	0.20
14808-79-8	Sulfate	31		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-8.d
Lims ID: 180-45088-A-4 Lab Sample ID: 180-45088-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 16-Jun-2015 14:02:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-008
Misc. Info.: 8 180-45088-A-4
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:32 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

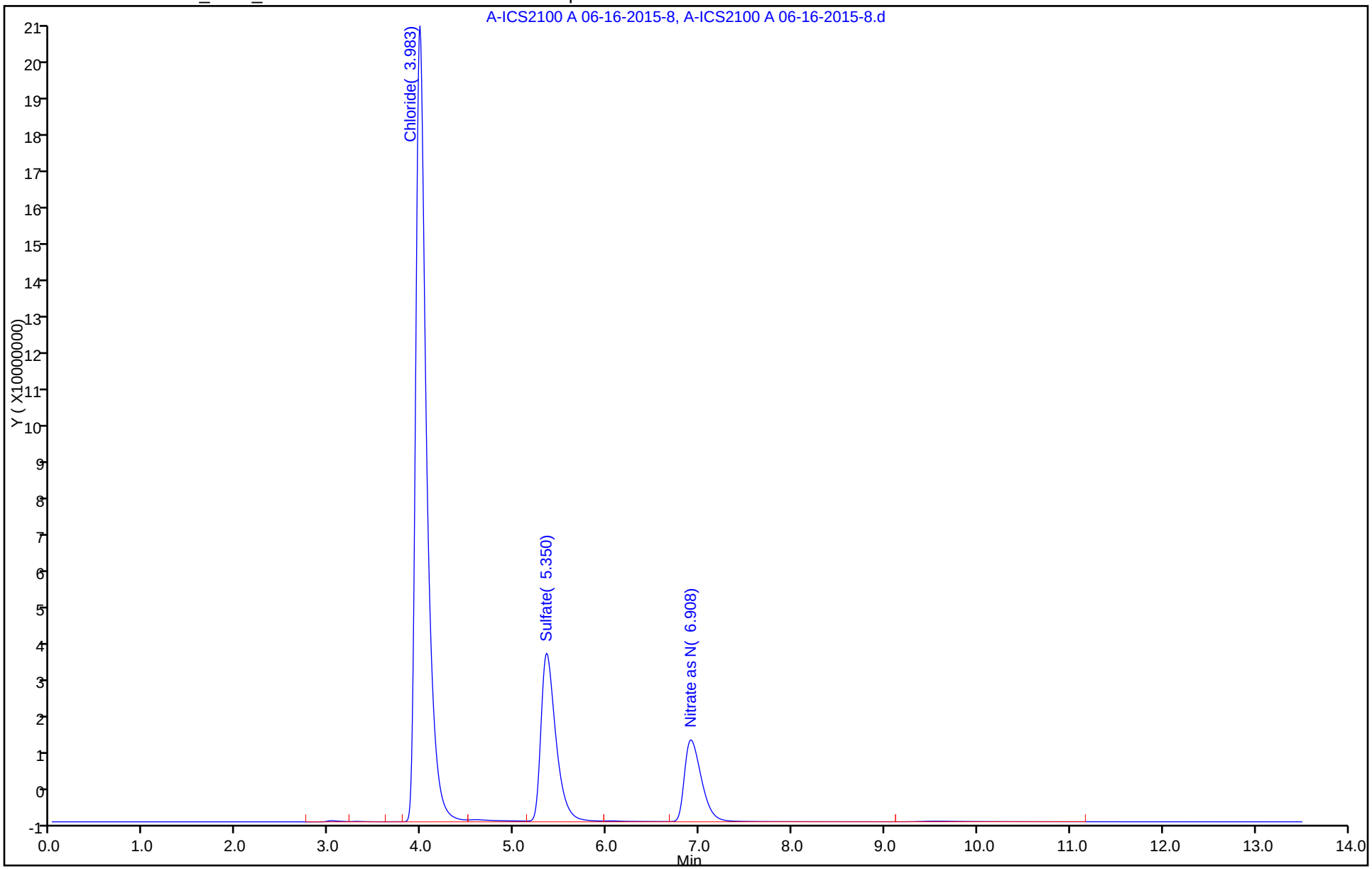
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.983	0.000	1672186064	77.8	
3 Sulfate	5.350	5.325	0.025	486455243	30.9	
5 Nitrate as N	6.908	6.942	-0.034	270787069	5.05	

Report Date: 16-Jun-2015 17:29:35 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-8.d

Injection Date:	16-Jun-2015 14:02:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-4	Lab Sample ID:	180-45088-4	Worklist Smp#:	8
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		



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Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 | Lab Sample ID: 180-45088-5

Matrix: Water | Lab File ID: A-ICS2100 A 06-17-2015-11.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 09:25

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 12:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.8	H B	0.10	0.0062
16887-00-6	Chloride	130	B	1.0	0.20
14808-79-8	Sulfate	31		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-11.d
Lims ID: 180-45088-A-5 Lab Sample ID: 180-45088-5
Client ID: HD-COD-SW-10-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 12:02:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-011
Misc. Info.: 11 180-45088-A-5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:52:56 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

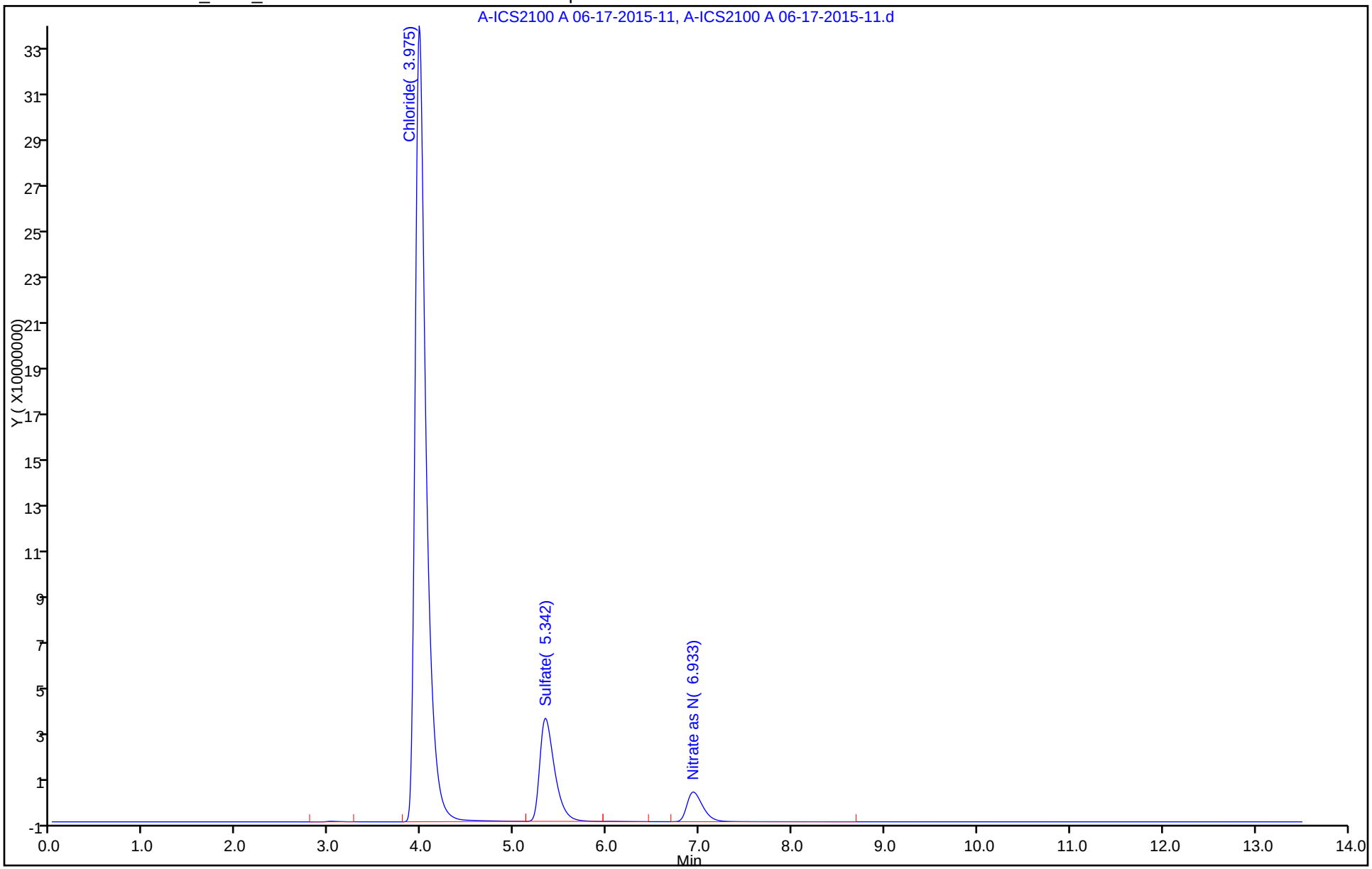
Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.975	3.975	0.000	2784240041	129.5	
3 Sulfate	5.342	5.325	0.017	485556387	30.9	
5 Nitrate as N	6.933	6.933	0.000	150354713	2.81	

Report Date: 17-Jun-2015 13:53:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-11.d				
Injection Date:	17-Jun-2015 12:02:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-5	Lab Sample ID:	180-45088-5	Worklist Smp#:	11
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 | Lab Sample ID: 180-45088-6

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-9.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 13:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 14:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.4	B	0.10	0.0062
16887-00-6	Chloride	73	B	1.0	0.20
14808-79-8	Sulfate	19		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-9.d
Lims ID: 180-45088-A-6 Lab Sample ID: 180-45088-6
Client ID: HD-COD-SW-11-0/1-0
Sample Type: Client
Inject. Date: 16-Jun-2015 14:17:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-009
Misc. Info.: 9 180-45088-A-6
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:32 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

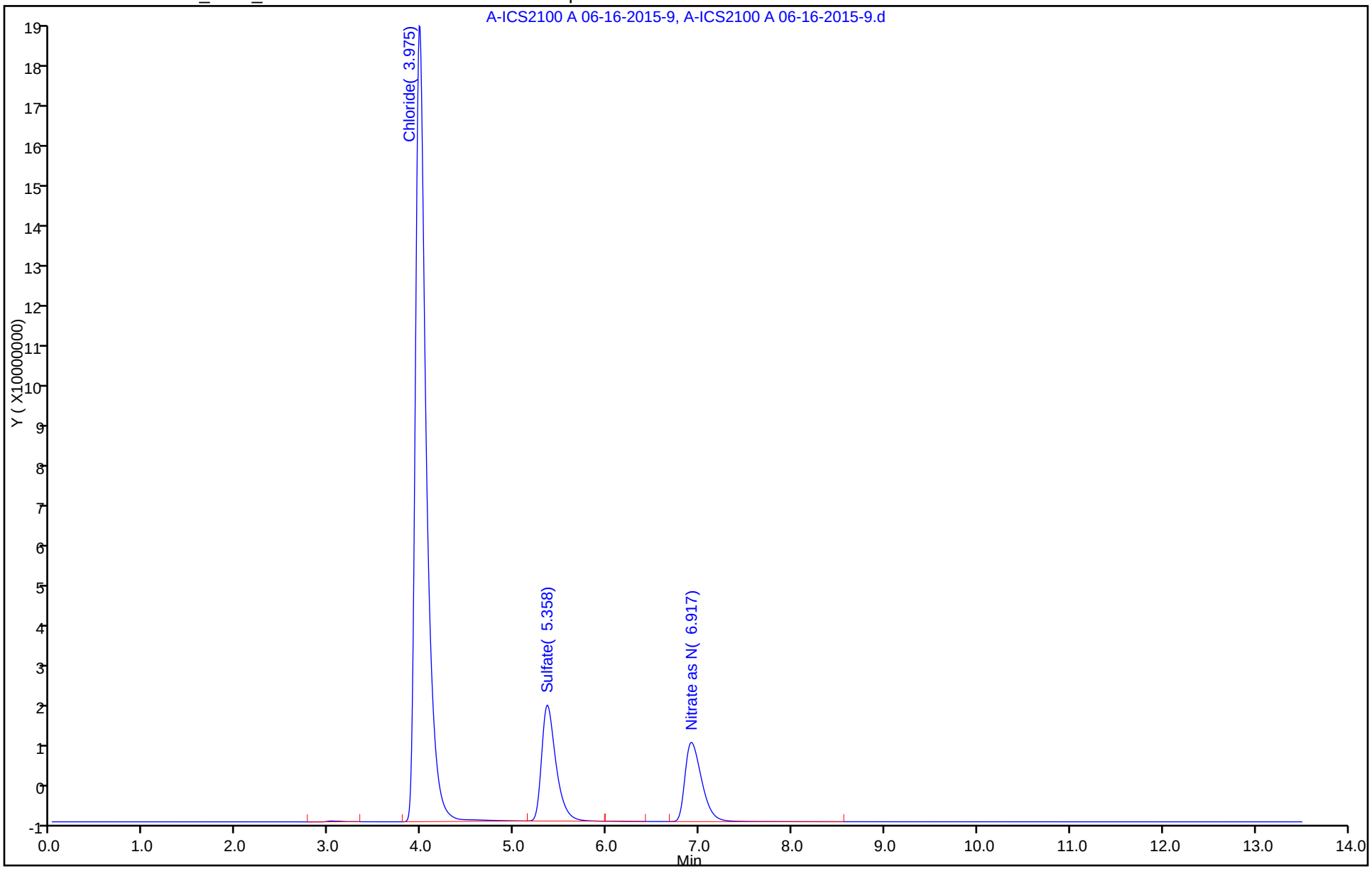
Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.975	3.983	-0.008	1559353820	72.5	
3 Sulfate	5.358	5.325	0.033	297812605	18.9	
5 Nitrate as N	6.917	6.942	-0.025	236872522	4.42	

Report Date: 16-Jun-2015 17:29:35 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-9.d				
Injection Date:	16-Jun-2015 14:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-6	Lab Sample ID:	180-45088-6	Worklist Smp#:	9
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 | Lab Sample ID: 180-45088-7

Matrix: Water | Lab File ID: B-ICS2100 B 06-17-2015-11.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 13:25

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 11:25

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	7.5		0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	40		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-11.d
Lims ID: 180-45088-A-7 Lab Sample ID: 180-45088-7
Client ID: HD-COD-SW-12-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 11:25:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-011
Misc. Info.: 11 180-45088-A-7
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

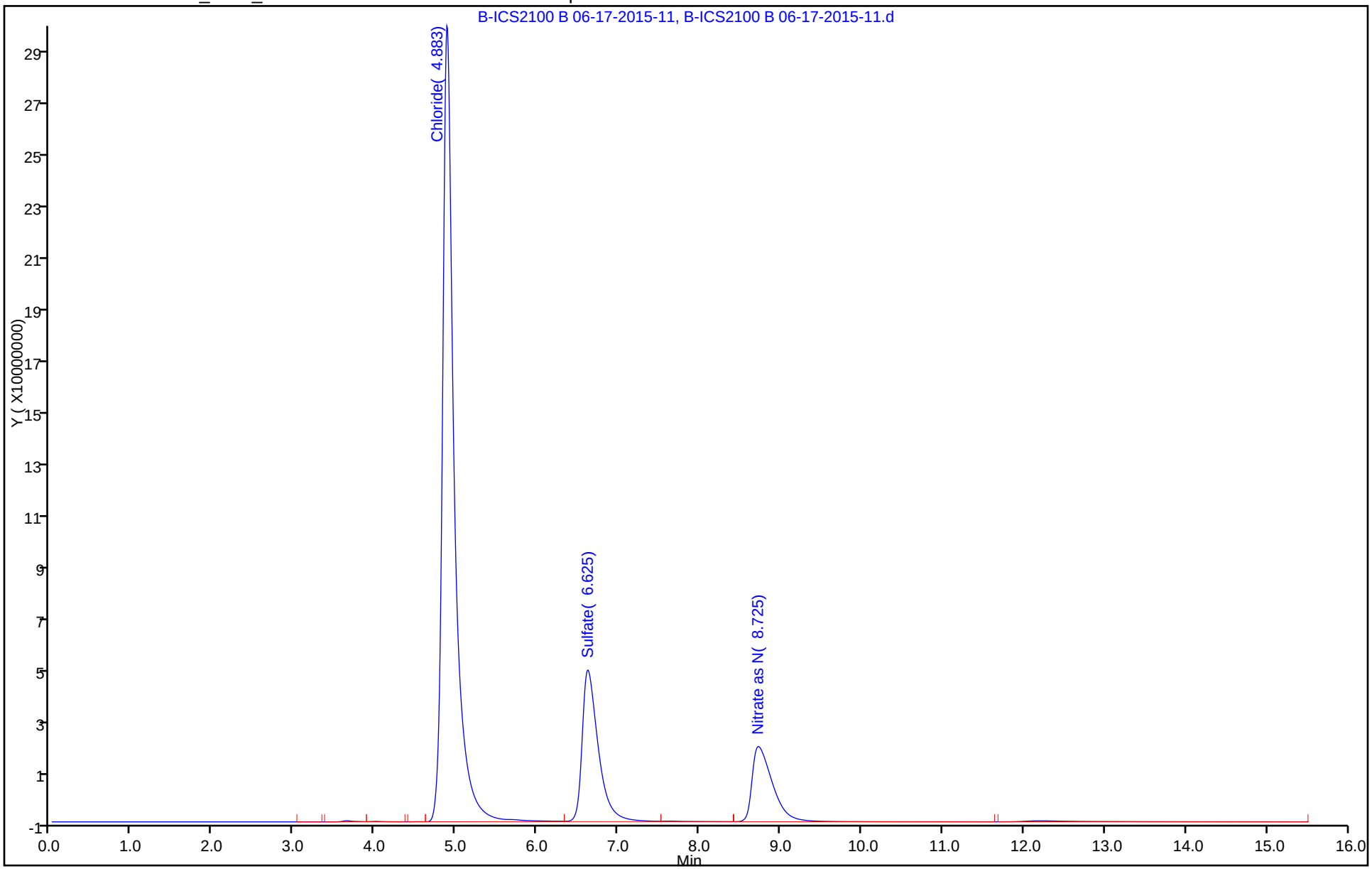
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.883	4.892	-0.009	3022054864	113.3	
3 Sulfate	6.625	6.617	0.008	791041056	40.4	
5 Nitrate as N	8.725	8.808	-0.083	493792591	7.46	

Report Date: 18-Jun-2015 11:27:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-11.d

Injection Date:	17-Jun-2015 11:25:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-7	Lab Sample ID:	180-45088-7	Worklist Smp#:	11
Client ID:	HD-COD-SW-12-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-45088-8

Matrix: Water Lab File ID: B-ICS2100 B 06-17-2015-13.d

Analysis Method: 300.0 Date Collected: 06/15/2015 09:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 12:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.8	H	0.10	0.0062
16887-00-6	Chloride	55		1.0	0.20
14808-79-8	Sulfate	25		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-13.d
Lims ID: 180-45088-A-8 Lab Sample ID: 180-45088-8
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 12:00:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-013
Misc. Info.: 13 180-45088-A-8
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

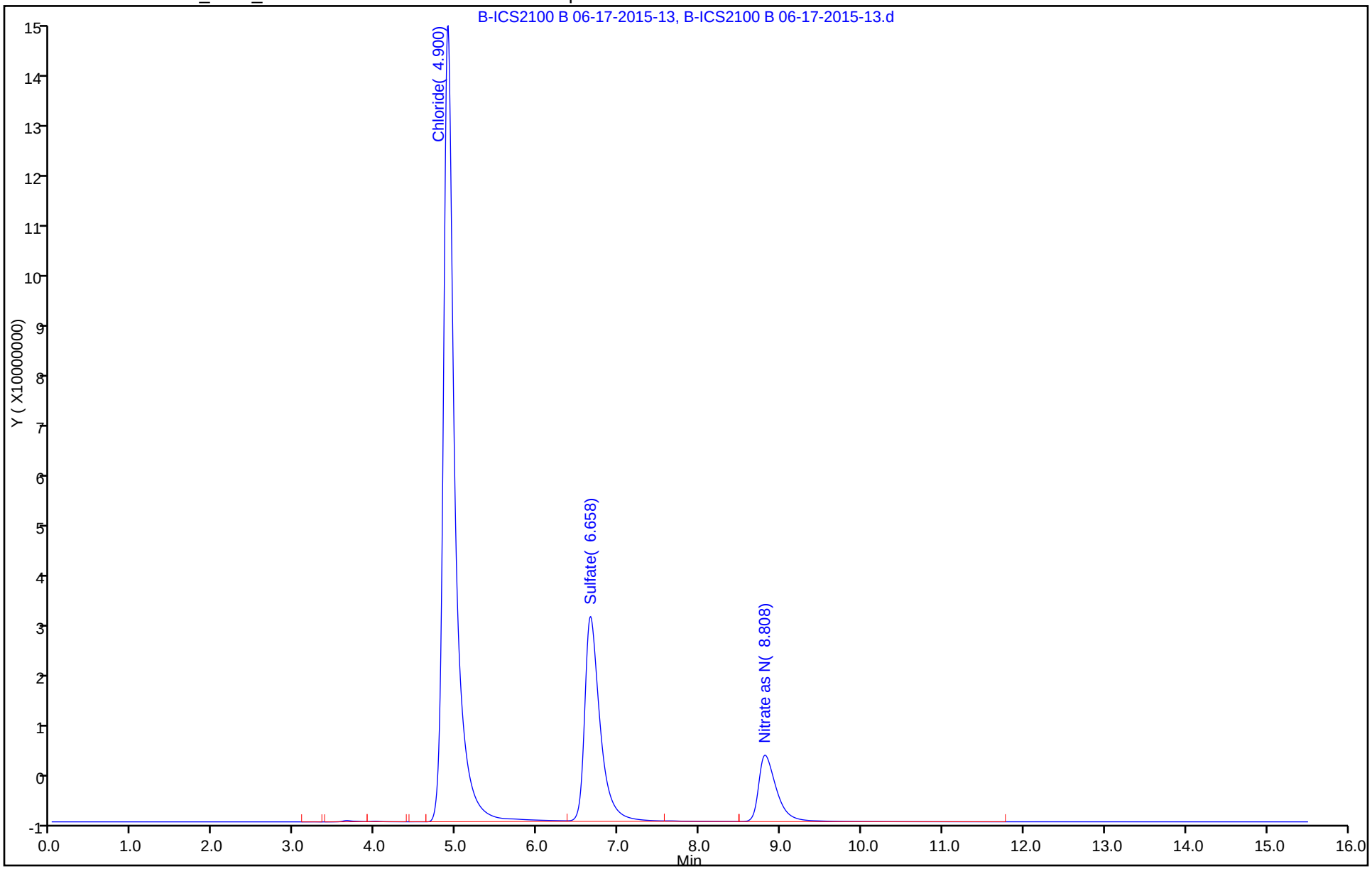
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.900	4.892	0.008	1457713780	54.7	
3 Sulfate	6.658	6.617	0.041	496967311	25.3	
5 Nitrate as N	8.808	8.808	0.000	187045332	2.83	

Report Date: 18-Jun-2015 11:27:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-13.d

Injection Date:	17-Jun-2015 12:00:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-8	Lab Sample ID:	180-45088-8	Worklist Smp#:	13
Client ID:	HD-COD-SW-13-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 | Lab Sample ID: 180-45088-9

Matrix: Water | Lab File ID: B-ICS2100 B 06-17-2015-12.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 13:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 11:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.7		0.10	0.0062
16887-00-6	Chloride	140		1.0	0.20
14808-79-8	Sulfate	37		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-12.d
Lims ID: 180-45088-A-9 Lab Sample ID: 180-45088-9
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 11:42:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-012
Misc. Info.: 12 180-45088-A-9
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

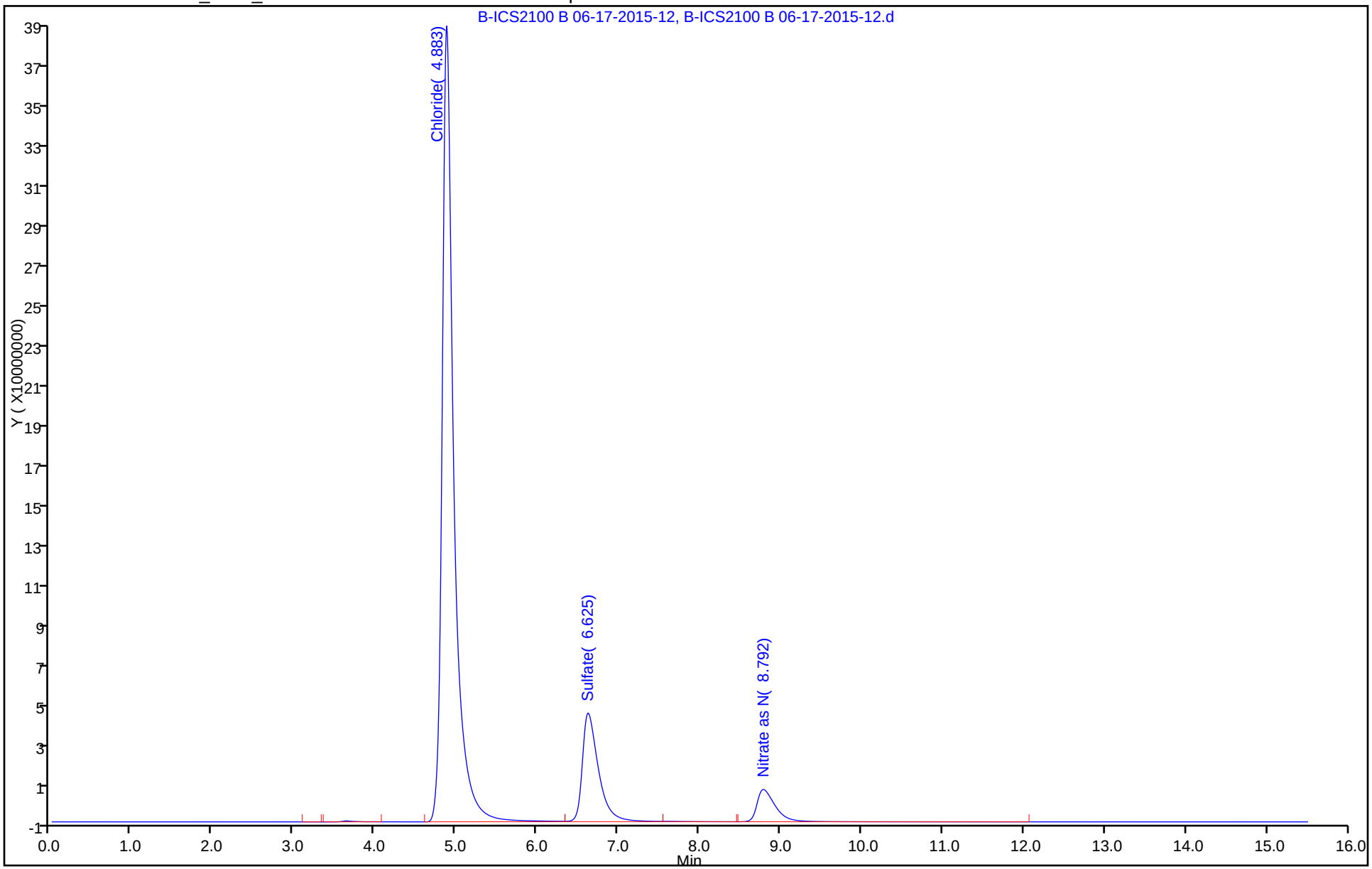
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.883	4.892	-0.009	3849386154	144.3	
3 Sulfate	6.625	6.617	0.008	721071350	36.8	
5 Nitrate as N	8.792	8.808	-0.016	242898545	3.68	

Report Date: 18-Jun-2015 11:27:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-12.d

Injection Date:	17-Jun-2015 11:42:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-9	Lab Sample ID:	180-45088-9	Worklist Smp#:	12
Client ID:	HD-COD-SW-15-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 | Lab Sample ID: 180-45088-10

Matrix: Water | Lab File ID: B-ICS2100 B 06-17-2015-14.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 09:45

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 12:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.8	H	0.10	0.0062
16887-00-6	Chloride	54		1.0	0.20
14808-79-8	Sulfate	25		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-14.d
Lims ID: 180-45088-A-10 Lab Sample ID: 180-45088-10
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 12:17:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-014
Misc. Info.: 14 180-45088-A-10
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

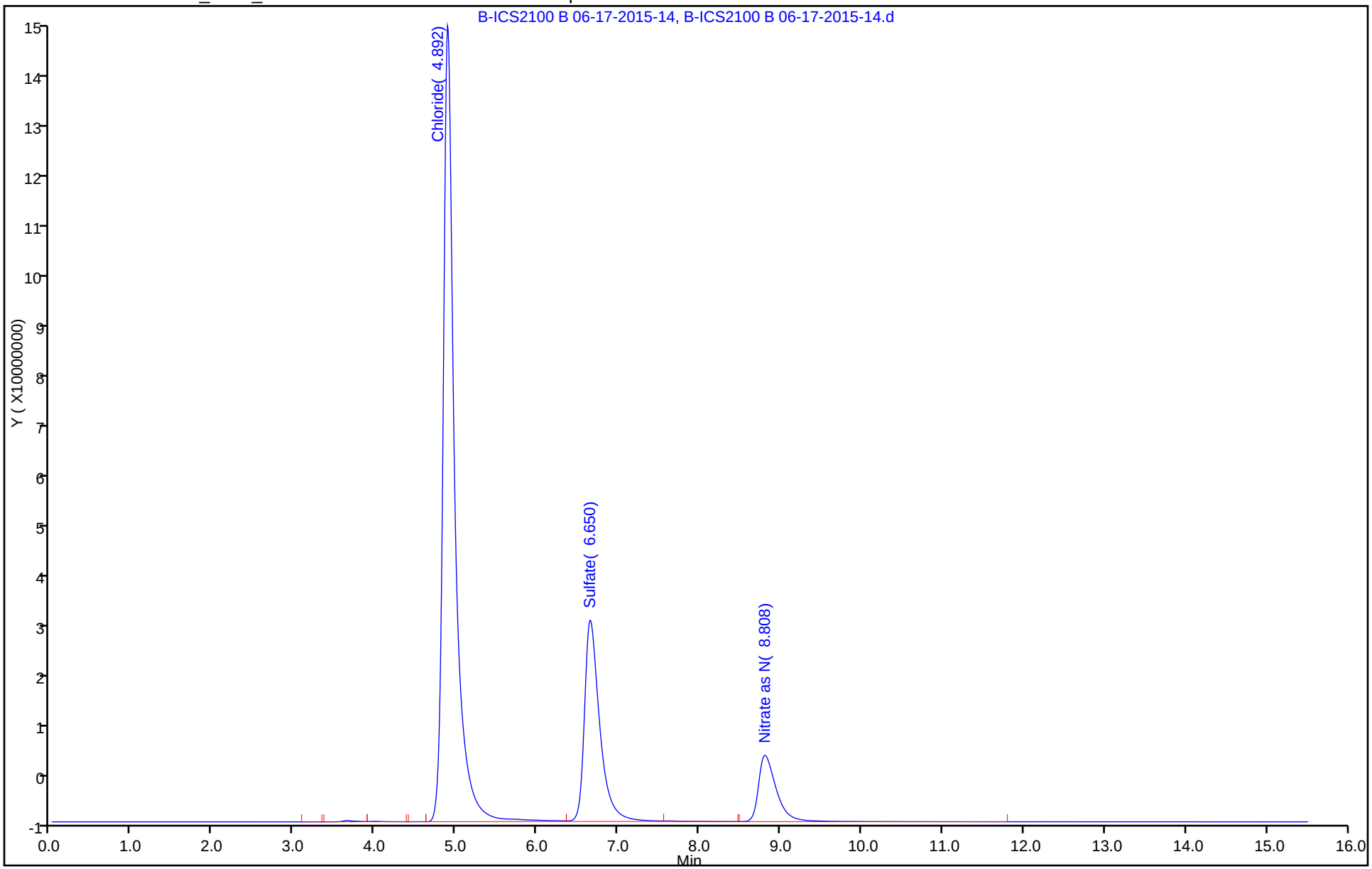
Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.892	4.892	0.000	1441016767	54.1	
3 Sulfate	6.650	6.617	0.033	482729619	24.6	
5 Nitrate as N	8.808	8.808	0.000	185172010	2.80	

Report Date: 18-Jun-2015 11:27:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-14.d				
Injection Date:	17-Jun-2015 12:17:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-10	Lab Sample ID:	180-45088-10	Worklist Smp#:	14
Client ID:	HD-COD-SW-16-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-45088-11

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-12.d

Analysis Method: 300.0 Date Collected: 06/15/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 12:20

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5	H B	0.10	0.0062
16887-00-6	Chloride	140	B	1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-12.d
Lims ID: 180-45088-A-11 Lab Sample ID: 180-45088-11
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 12:20:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-012
Misc. Info.: 12 180-45088-A-11
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:52:56 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

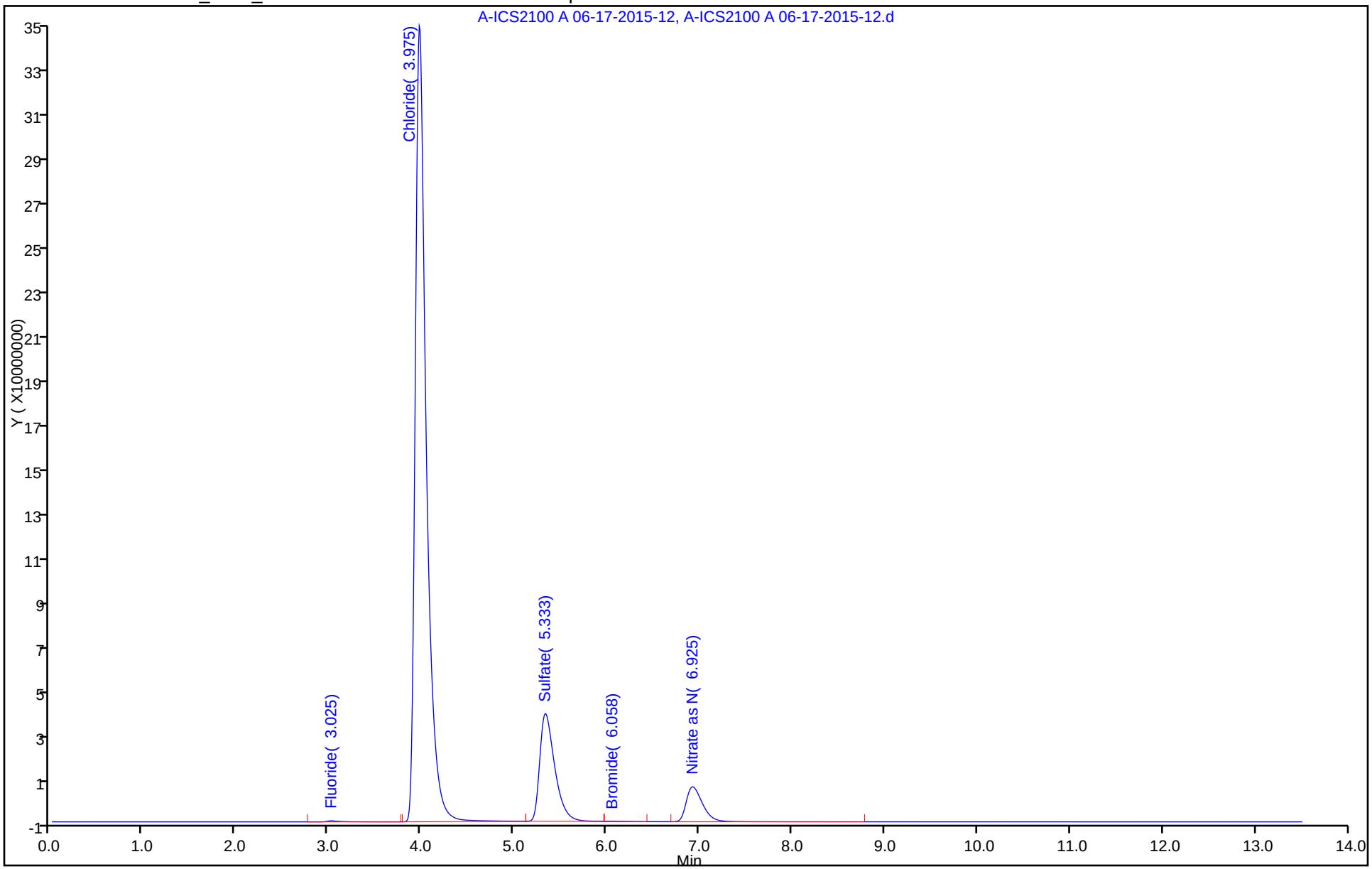
Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	469881H	0.1222	
2 Chloride	3.975	3.975	0.000	2905084978	135.1	
7 Nitrite as N		4.617			ND	
3 Sulfate	5.333	5.325	0.008	533820240	34.0	
4 Bromide	6.058	6.058	0.000	471932	0.0652	
5 Nitrate as N	6.925	6.933	-0.008	187301363	3.50	
6 Orthophosphate as P		9.367			ND	

Report Date: 17-Jun-2015 13:53:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-12.d				
Injection Date:	17-Jun-2015 12:20:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-11	Lab Sample ID:	180-45088-11	Worklist Smp#:	12
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 | Lab Sample ID: 180-45088-12

Matrix: Water | Lab File ID: B-ICS2100 B 06-17-2015-21.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 10:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 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.: 145224 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.2	H	0.10	0.0062
16887-00-6	Chloride	120		1.0	0.20
14808-79-8	Sulfate	16		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-21.d
Lims ID: 180-45088-A-12 Lab Sample ID: 180-45088-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 14:18:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-021
Misc. Info.: 21 180-45088-A-12
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:42 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

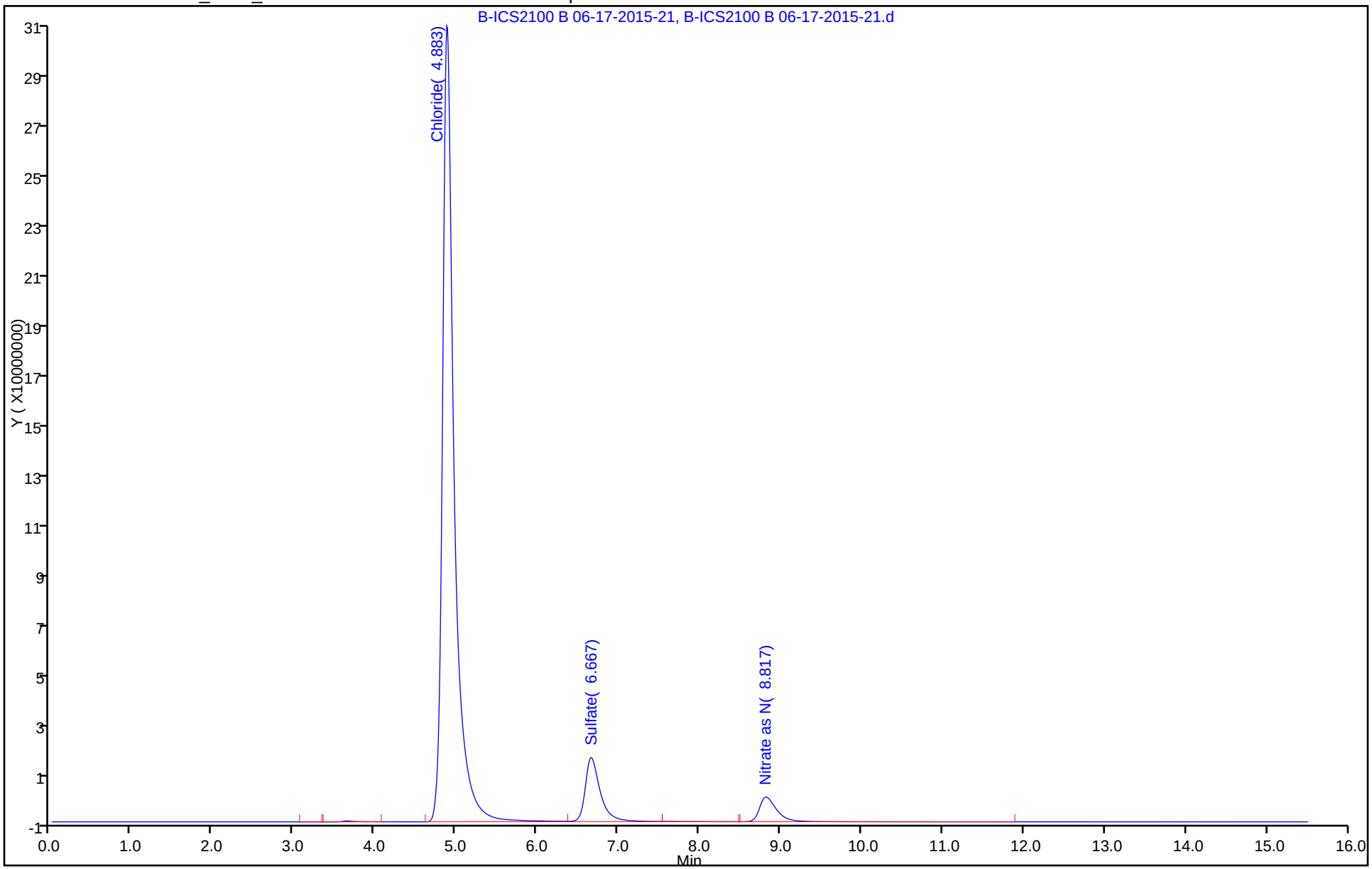
Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.883	4.900	-0.017	3081882536	115.5	
3 Sulfate	6.667	6.625	0.042	320082116	16.2	
5 Nitrate as N	8.817	8.817	0.000	142128523	2.15	

Report Date: 18-Jun-2015 11:27:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-21.d				
Injection Date:	17-Jun-2015 14:18:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-12	Lab Sample ID:	180-45088-12	Worklist Smp#:	21
Client ID:	HD-COD-SW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 | Lab Sample ID: 180-45088-13

Matrix: Water | Lab File ID: B-ICS2100 B 06-17-2015-10.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 11:10

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 11:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.0		0.10	0.0062
16887-00-6	Chloride	57		1.0	0.20
14808-79-8	Sulfate	26		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-10.d
Lims ID: 180-45088-A-13 Lab Sample ID: 180-45088-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 11:07:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-010
Misc. Info.: 10 180-45088-A-13
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

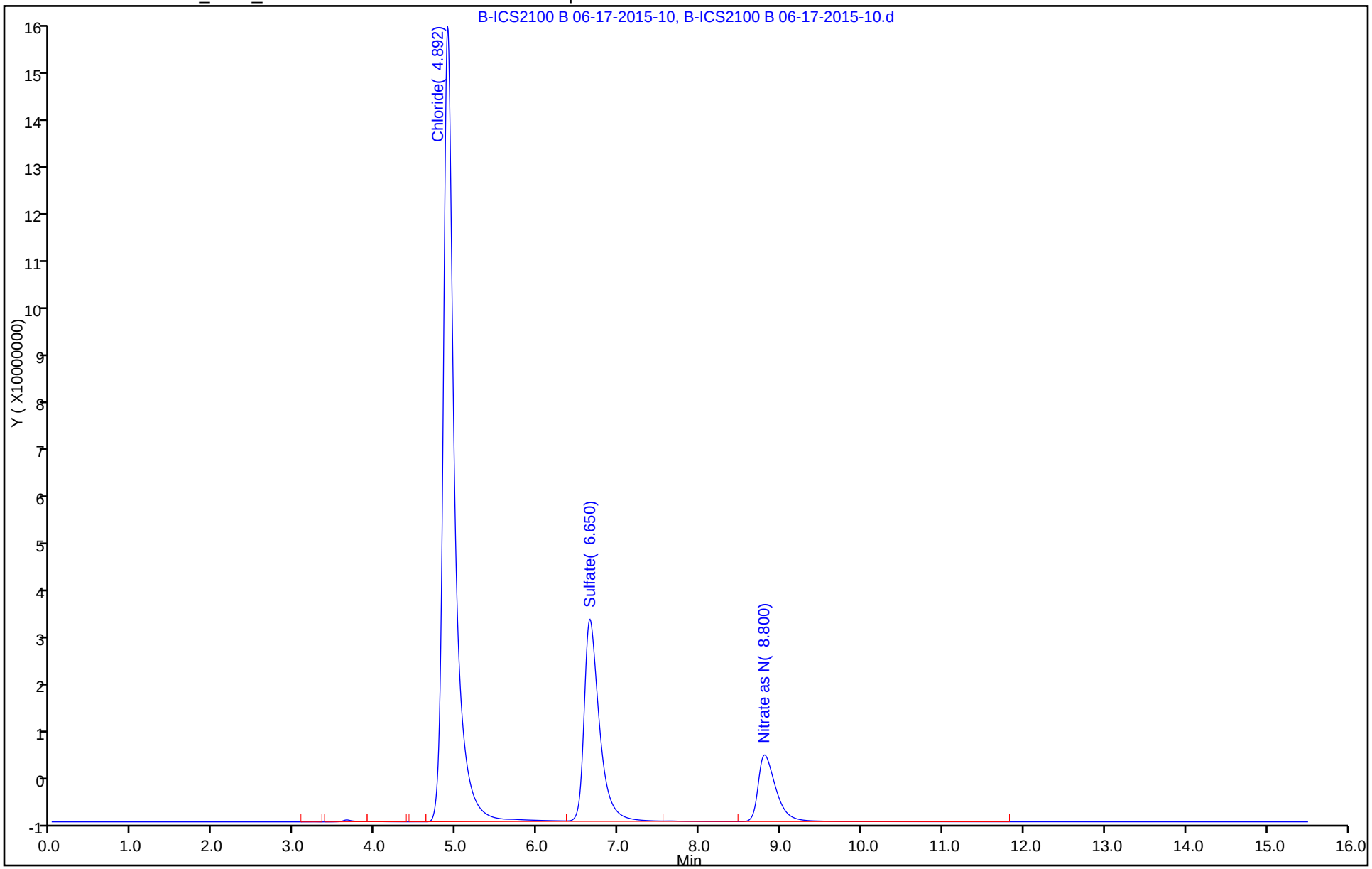
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.892	4.892	0.000	1513520292	56.8	
3 Sulfate	6.650	6.617	0.033	513583325	26.2	
5 Nitrate as N	8.800	8.808	-0.008	197685164	2.99	

Report Date: 18-Jun-2015 11:27:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-10.d

Injection Date:	17-Jun-2015 11:07:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-13	Lab Sample ID:	180-45088-13	Worklist Smp#:	10
Client ID:	HD-COD-SW-26-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 | Lab Sample ID: 180-45088-14

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-10.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 13:45

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 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.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.9	B	0.10	0.0062
16887-00-6	Chloride	56	B	1.0	0.20
14808-79-8	Sulfate	26		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-10.d
Lims ID: 180-45088-A-14 Lab Sample ID: 180-45088-14
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 16-Jun-2015 14:33:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-010
Misc. Info.: 10 180-45088-A-14
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:52:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

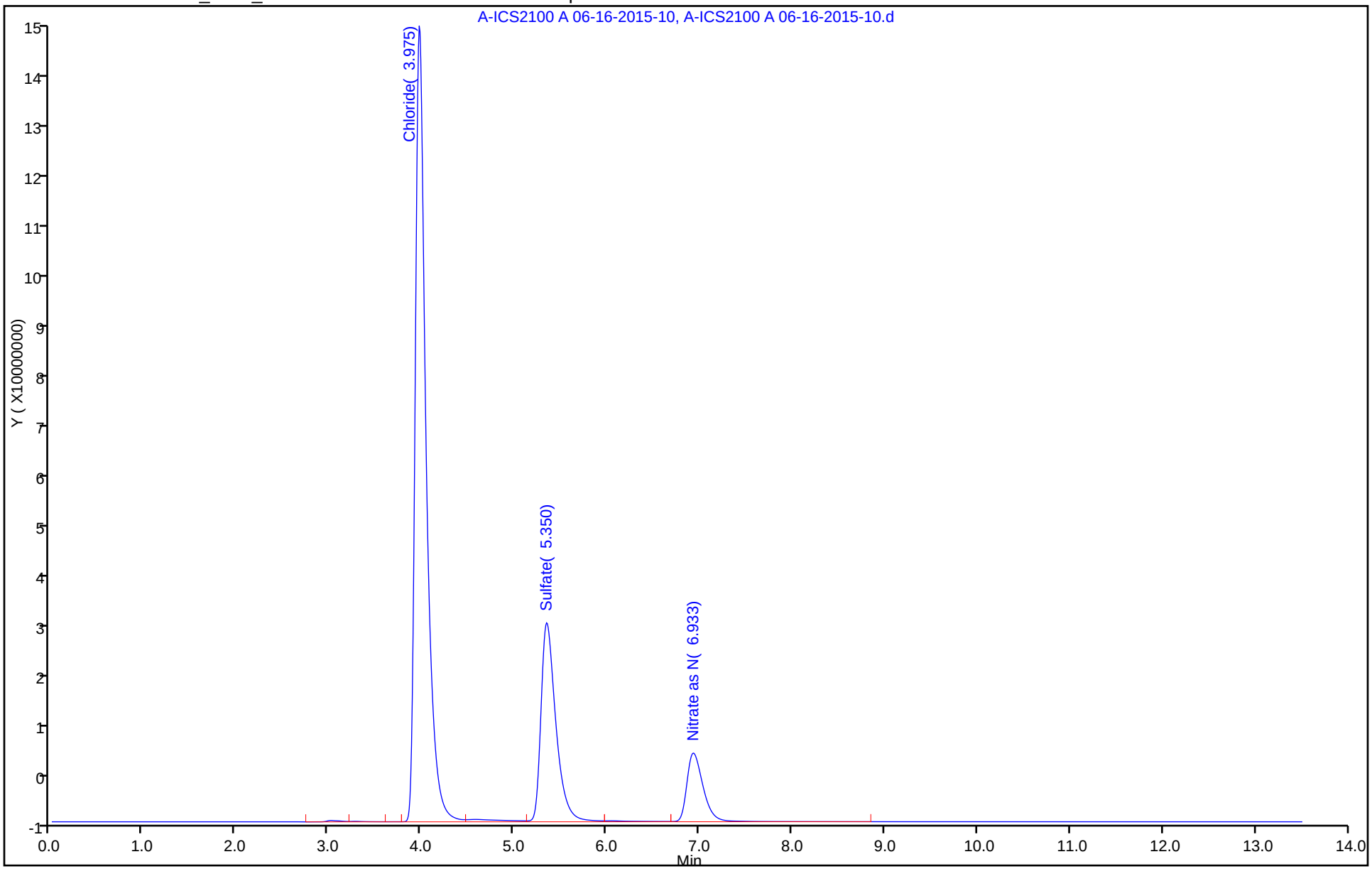
Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.975	3.983	-0.008	1205413407	56.1	
3 Sulfate	5.350	5.325	0.025	412996934	26.3	
5 Nitrate as N	6.933	6.942	-0.009	156084592	2.92	

Report Date: 16-Jun-2015 17:52:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-10.d				
Injection Date:	16-Jun-2015 14:33:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-14	Lab Sample ID:	180-45088-14	Worklist Smp#:	10
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 | Lab Sample ID: 180-45088-15

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-11.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 13:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 14:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.8	B	0.10	0.0062
16887-00-6	Chloride	90	B	1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-11.d
Lims ID: 180-45088-A-15 Lab Sample ID: 180-45088-15
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 16-Jun-2015 14:51:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-011
Misc. Info.: 11 180-45088-A-15
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:52:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

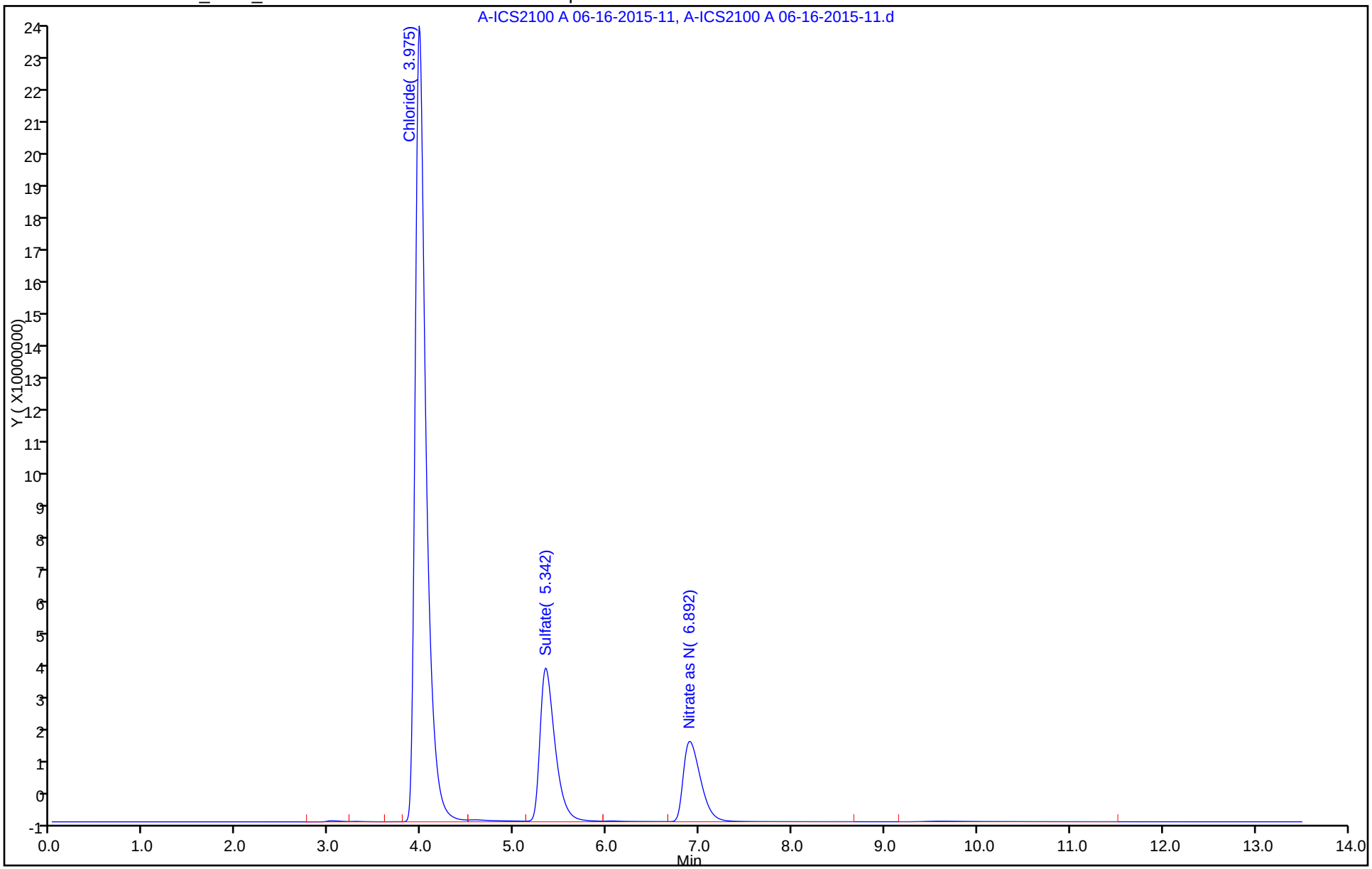
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.975	3.983	-0.008	1942023499	90.3	
3 Sulfate	5.342	5.325	0.017	518736555	33.0	
5 Nitrate as N	6.892	6.942	-0.050	313606918	5.85	

Report Date: 16-Jun-2015 17:52:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-11.d

Injection Date:	16-Jun-2015 14:51:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-15	Lab Sample ID:	180-45088-15	Worklist Smp#:	11
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 | Lab Sample ID: 180-45088-16

Matrix: Water | Lab File ID: B-ICS2100 B 06-17-2015-22.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 08:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/17/2015 14:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.0	H	0.10	0.0062
16887-00-6	Chloride	55		1.0	0.20
14808-79-8	Sulfate	27		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-22.d
Lims ID: 180-45088-A-16 Lab Sample ID: 180-45088-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 17-Jun-2015 14:36:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-022
Misc. Info.: 22 180-45088-A-16
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:42 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

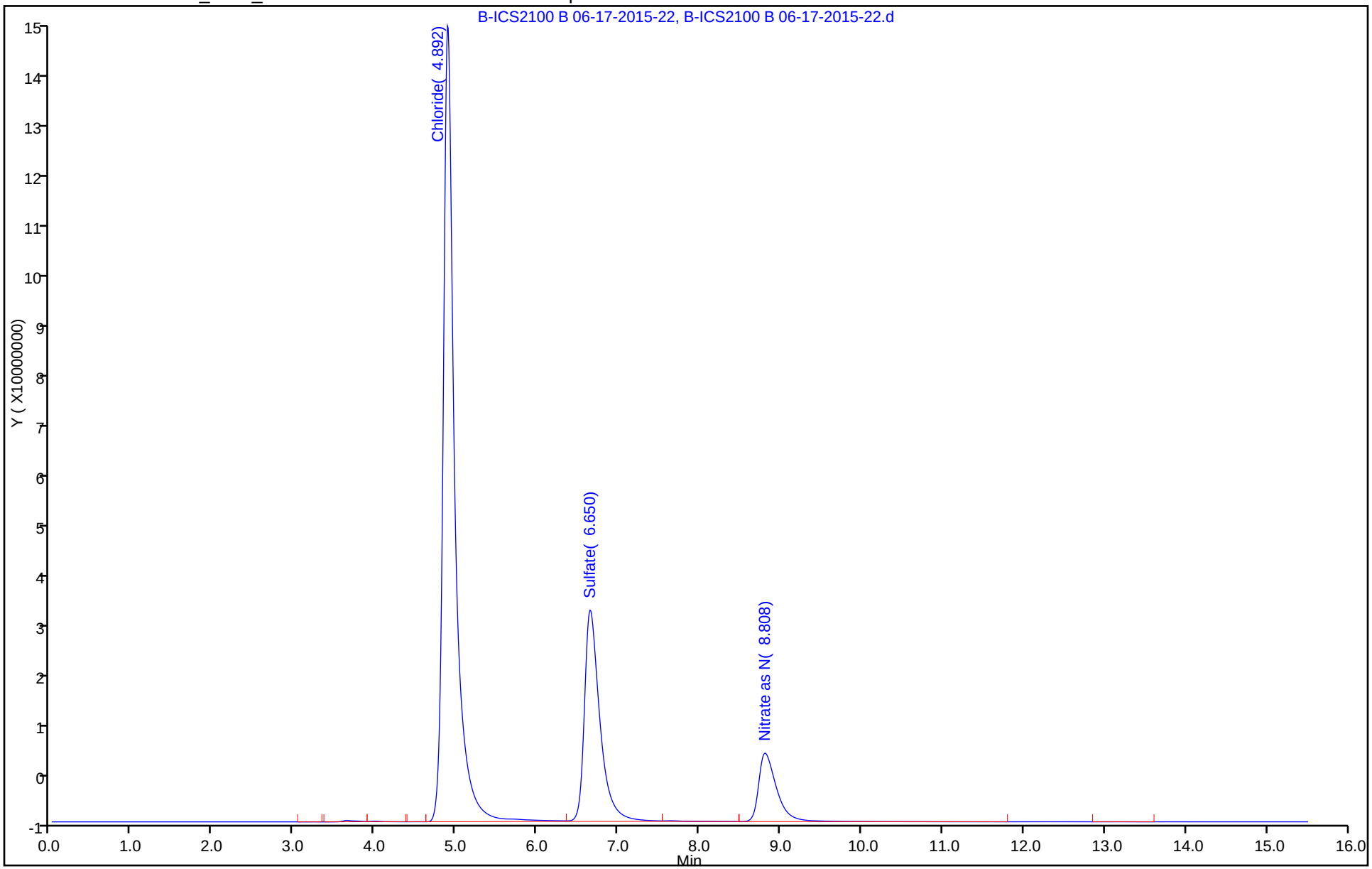
Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.892	4.900	-0.008	1477211925	55.4	
3 Sulfate	6.650	6.625	0.025	526911541	26.9	
5 Nitrate as N	8.808	8.817	-0.009	197178714	2.99	

Report Date: 18-Jun-2015 11:27:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-22.d				
Injection Date:	17-Jun-2015 14:36:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-45088-A-16	Lab Sample ID:	180-45088-16	Worklist Smp#:	22
Client ID:	HD-COD-SW-29-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-45088-17

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-17.d

Analysis Method: 300.0 Date Collected: 06/15/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 16:35

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 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	140	B	1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-17.d
Lims ID: 180-45088-A-17 Lab Sample ID: 180-45088-17
Client ID: HD-QCI-0/1-1
Sample Type: Client
Inject. Date: 16-Jun-2015 16:35:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007412-017
Misc. Info.: 17 180-45088-A-17
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 04:18:00 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

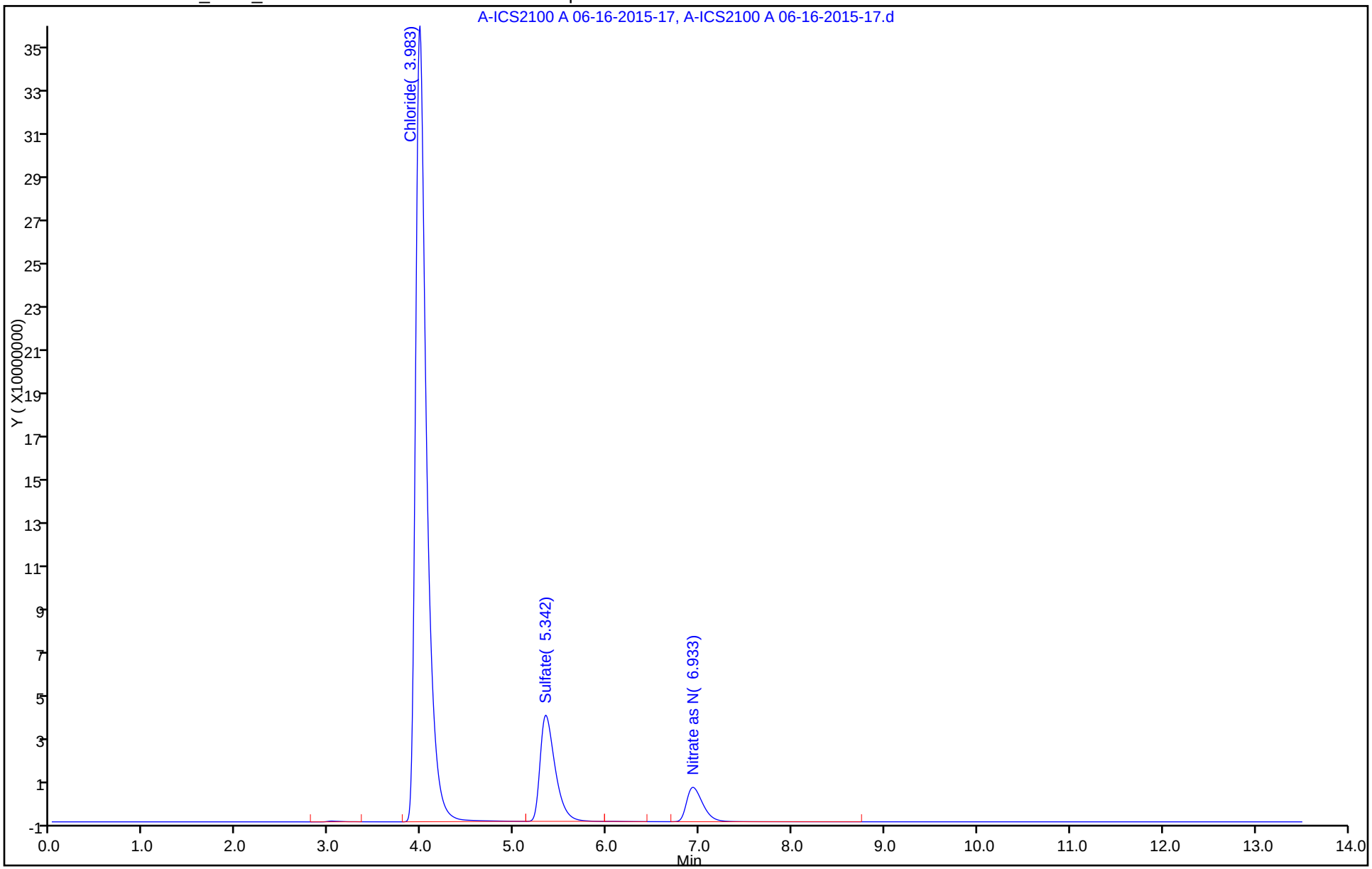
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	3.983	0.000	2982680477	138.7	
3 Sulfate	5.342	5.325	0.017	539989883	34.4	
5 Nitrate as N	6.933	6.942	-0.009	189697577	3.54	

Report Date: 17-Jun-2015 06:39:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-17.d

Injection Date:	16-Jun-2015 16:35:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-17	Lab Sample ID:	180-45088-17	Worklist Smp#:	17
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 VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.083	3.092	3.092	3.092	3.092	3.083	3.083	3.083			2.733 - 3.433	3.088
Chloride	4.067	4.067	4.067	4.058	4.058	4.050	4.042	4.033			3.700 - 4.400	4.055
Nitrite as N	4.708	4.708	4.708	4.708	4.708	+++++	+++++	+++++			4.450 - 4.950	4.708
Sulfate	5.433	5.433	5.425	5.408	5.367	5.325	5.275	5.258			5.025 - 5.725	5.366
Bromide	6.192	6.200	6.200	6.192	6.183	6.158	6.133	6.117			5.817 - 6.517	6.172
Nitrate as N	7.125	7.133	7.125	7.108	7.083	7.042	7.000	6.975			6.825 - 7.325	7.074
Orthophosphate as P	+++++	9.467	9.442	9.400	9.308	9.233	9.150	9.092			9.117 - 9.617	9.299

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	3455360 4386234	3874176 4081731	4200910 4084534	4193692 3739261	Lin2	-32984.443	4116745.50							0.9970		0.9950
Chloride	19689183 21359131	22242308 20493892	22712075 21671984	21258789 20612105	Lin2	-1514627.6	21518415.5							0.9980		0.9950
Nitrite as N	71586720 45200728	55889756 +++++	54188364 +++++	47372184 +++++	Lin2	1204022.56	48249506.8							0.9950		0.9950
Sulfate	16543334 15539008	17164970 14900977	17026632 15700707	15569128 14708371	Lin2	1203615.18	15684762.0							0.9970		0.9950
Bromide	8559145 9078427	10040729 9121705	10072858 9728017	8753657 9279629	Lin2	-144748.46	9455171.83							0.9970		0.9950
Nitrate as N	40718480 53252602	52290872 51583541	55641962 54966225	51654104 52320137	Lin2	-629659.24	53744179.8							0.9990		0.9950
Orthophosphate as P	+++++ 20034764	14182088 19801129	17226090 21353245	17663285 20080471	Lin	-1838363.9	20663065.4							0.9980		0.9950

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Fluoride	Lin2	172768 20408654	968544 30634003	2100455 37392605	4193692	10965585	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	19689183 2049389234	111211541 3250797562	227120751 4122421026	425175787	1067956527	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3579336 +++++	13972439 +++++	27094182 +++++	47372184	113001820	0.0500 +++++	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	16543334 1490097661	85824852 2355106108	170266320 2941674111	311382557	776950423	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	1711829 182434104	10040729 291840519	20145715 371185166	35014627	90784267	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2035924 257917705	13072718 412246685	27820981 523201370	51654104	133131506	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin	+++++ 99005645	3545522 160149338	8613045 200804708	17663285	50086909	+++++ 5.00	0.250 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:

Lin = Linear
Lin2 = Linear 1/conc^2

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-May-2015 12:31:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:36 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:34:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	172768H	0.0500	0.0500	
2 Chloride	4.067	4.050	0.017	19689183	1.00	0.9854	
7 Nitrite as N	4.708	4.700	0.008	3579336	0.0500	0.0492	
3 Sulfate	5.433	5.375	0.058	16543334	1.00	0.9780	
4 Bromide	6.192	6.167	0.025	1711829	0.2000	0.1964	
5 Nitrate as N	7.125	7.075	0.050	2035924	0.0500	0.0496	
6 Orthophosphate as P	9.467	9.367	0.100	427235	0.0500	0.1096	

Reagents:

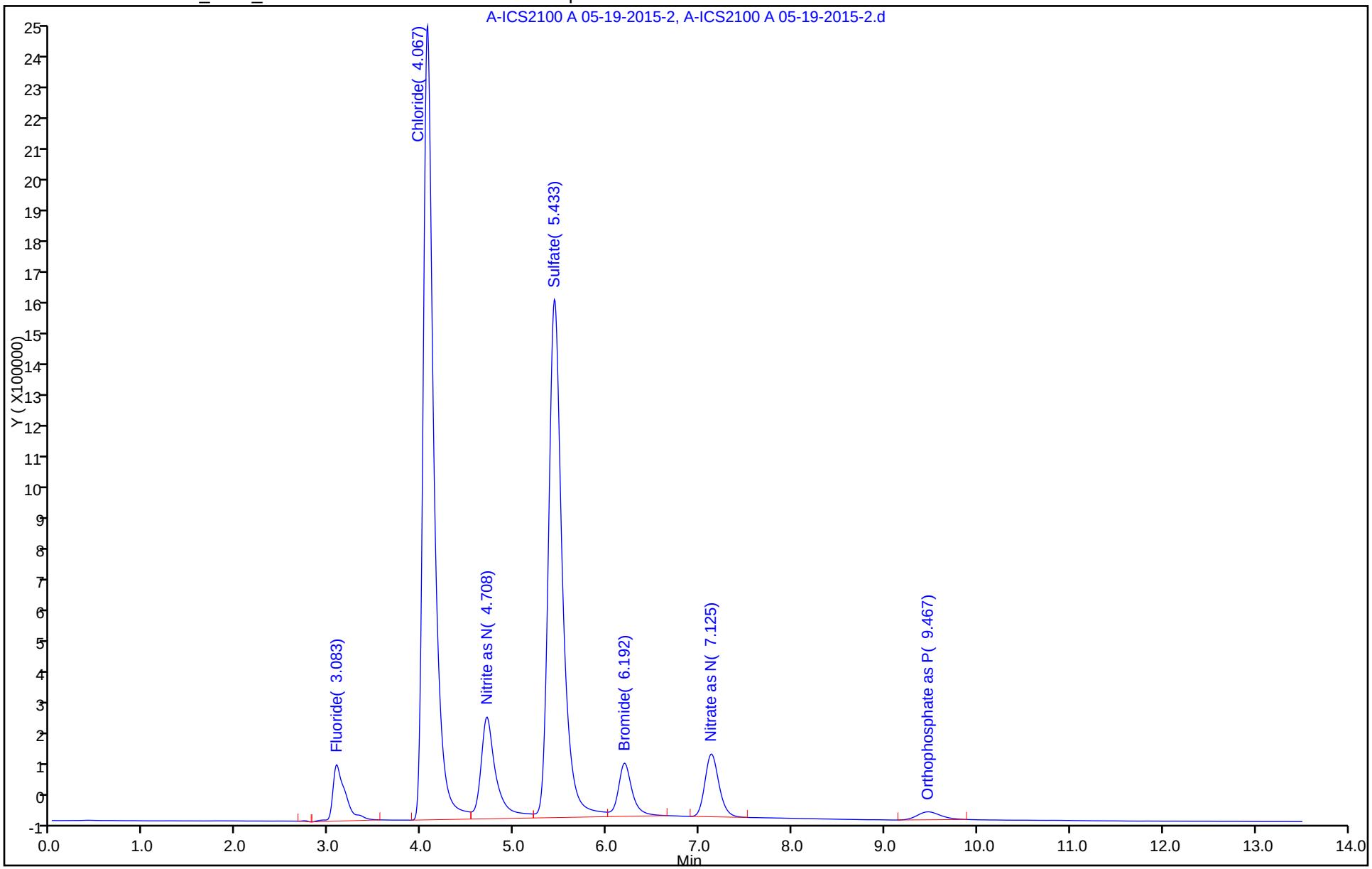
ICSTDL2_00179 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-2.d

Injection Date:	19-May-2015 12:31:00	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\20150519-7010.b\A-ICS2100 A 05-19-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-May-2015 12:46:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:37 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.083	0.009	968544H	0.2500	0.2433	
2 Chloride	4.067	4.050	0.017	111211541	5.00	5.24	
7 Nitrite as N	4.708	4.700	0.008	13972439	0.2500	0.2646	
3 Sulfate	5.433	5.375	0.058	85824852	5.00	5.40	
4 Bromide	6.200	6.167	0.033	10040729	1.00	1.08	
5 Nitrate as N	7.133	7.075	0.058	13072718	0.2500	0.2550	
6 Orthophosphate as P	9.467	9.367	0.100	3545522	0.2500	0.2606	

Reagents:

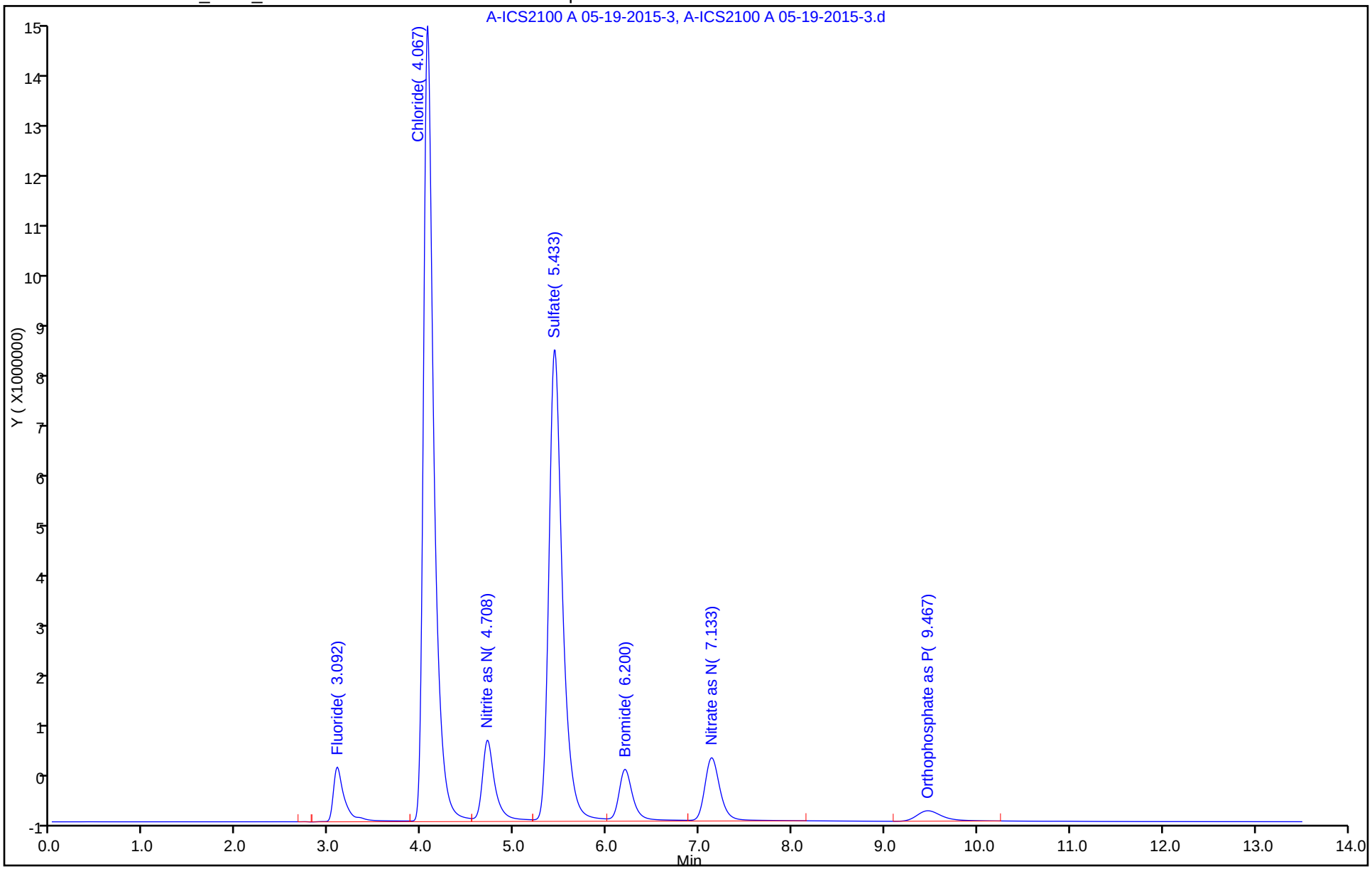
ICSTDL3_00225 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-3.d

Injection Date:	19-May-2015 12:46:00	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\20150519-7010.b\A-ICS2100 A 05-19-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 19-May-2015 13:01:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:38 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:34:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	2100455H	0.5000	0.5182	
2 Chloride	4.067	4.067	0.000	227120751	10.0	10.6	
7 Nitrite as N	4.708	4.708	0.000	27094182	0.5000	0.5366	
3 Sulfate	5.425	5.425	0.000	170266320	10.0	10.8	
4 Bromide	6.200	6.200	0.000	20145715	2.00	2.15	
5 Nitrate as N	7.125	7.125	0.000	27820981	0.5000	0.5294	
6 Orthophosphate as P	9.442	9.442	0.000	8613045	0.5000	0.5058	

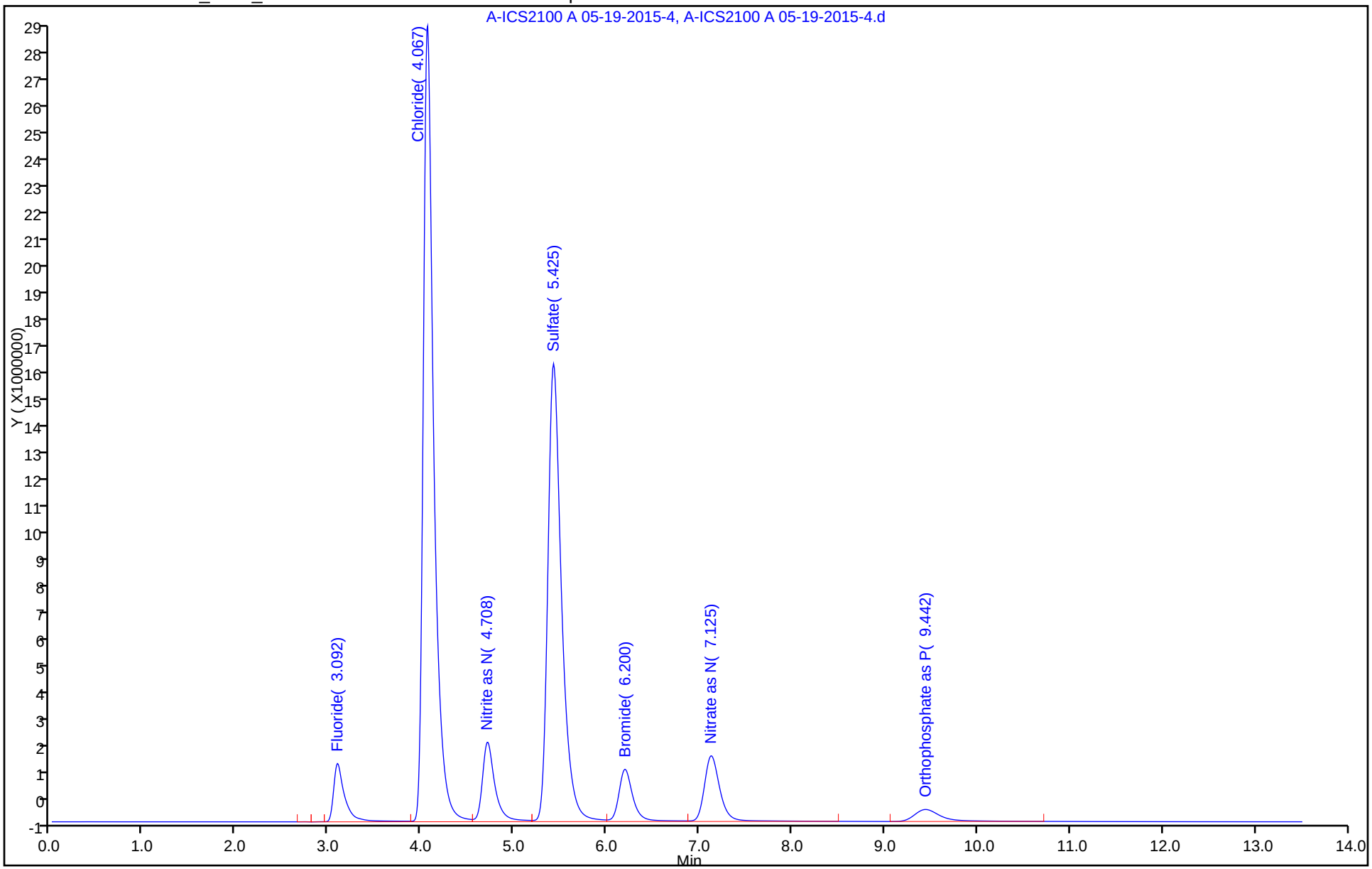
Reagents:

ICSTDL4_00150 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-4.d				
Injection Date:	19-May-2015 13:01:00	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\20150519-7010.b\A-ICS2100 A 05-19-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-May-2015 13:17:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:38 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	4193692H	1.00	1.03	
2 Chloride	4.058	4.067	-0.009	425175787	20.0	19.8	
7 Nitrite as N	4.708	4.708	0.000	47372184	1.00	0.9569	
3 Sulfate	5.408	5.425	-0.017	311382557	20.0	19.8	
4 Bromide	6.192	6.200	-0.008	35014627	4.00	3.72	
5 Nitrate as N	7.108	7.125	-0.017	51654104	1.00	0.9728	
6 Orthophosphate as P	9.400	9.442	-0.042	17663285	1.00	0.9438	

Reagents:

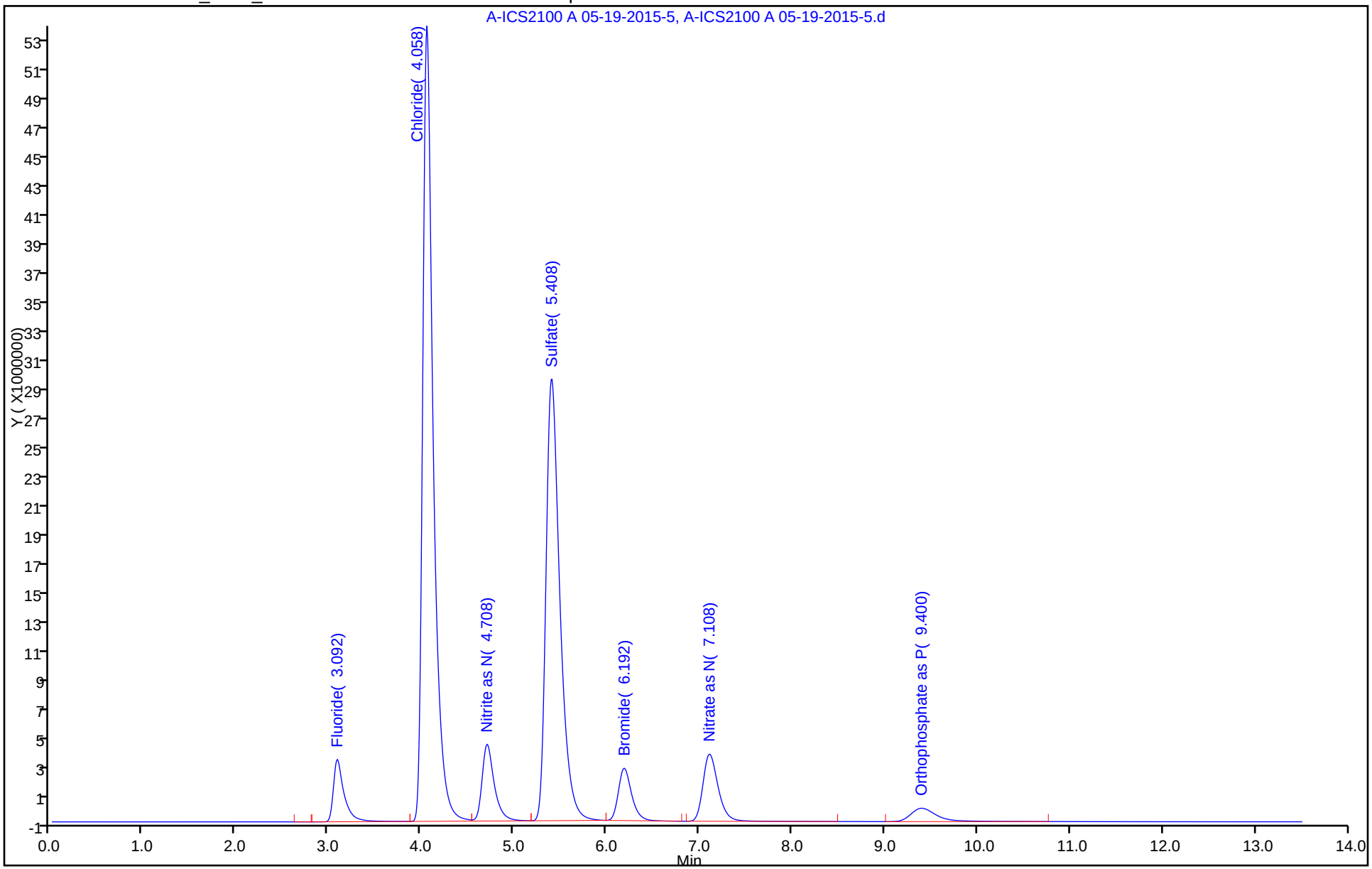
ICSTDL5_00156 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-5.d

Injection Date:	19-May-2015 13:17:00	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		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-May-2015 13:32:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:39 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	10965585H	2.50	2.67	
2 Chloride	4.058	4.067	-0.009	1067956527	50.0	49.7	
7 Nitrite as N	4.708	4.708	0.000	113001820	2.50	2.32	
3 Sulfate	5.367	5.425	-0.058	776950423	50.0	49.5	
4 Bromide	6.183	6.200	-0.017	90784267	10.0	9.62	
5 Nitrate as N	7.083	7.125	-0.042	133131506	2.50	2.49	
6 Orthophosphate as P	9.308	9.442	-0.134	50086909	2.50	2.51	

Reagents:

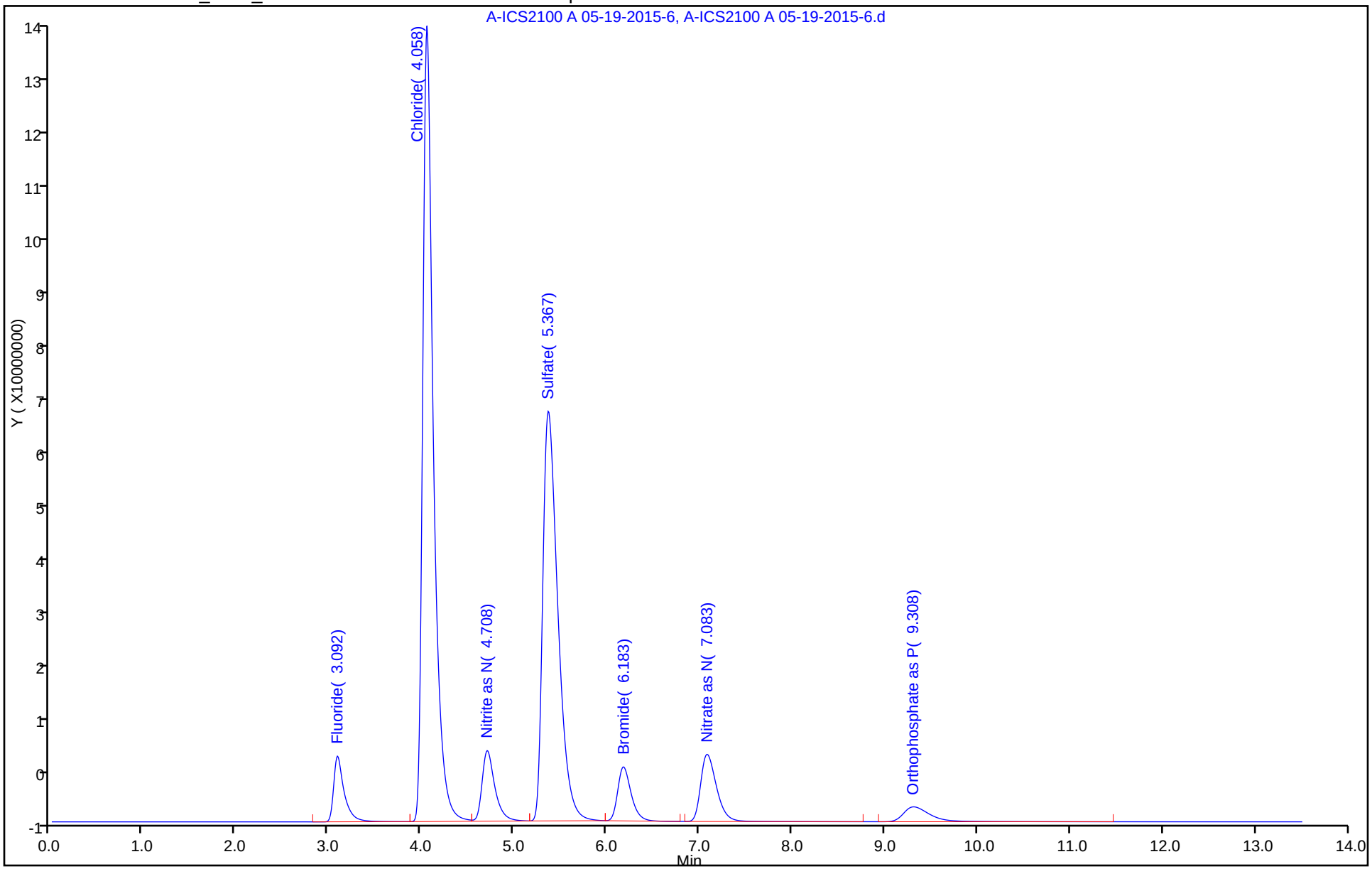
ICSTDL6_00228 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-6.d

Injection Date:	19-May-2015 13:32:00	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\20150519-7010.b\A-ICS2100 A 05-19-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-May-2015 13:47:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-007
Misc. Info.: 7 IC L7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:39 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	20408654H	5.00	4.97	
2 Chloride	4.050	4.067	-0.017	2049389234	100.0	95.3	
7 Nitrite as N	4.700	4.708	-0.008	209281469	5.00	4.31	
3 Sulfate	5.325	5.425	-0.100	1490097661	100.0	94.9	
4 Bromide	6.158	6.200	-0.042	182434104	20.0	19.3	
5 Nitrate as N	7.042	7.125	-0.083	257917705	5.00	4.81	
6 Orthophosphate as P	9.233	9.442	-0.209	99005645	5.00	4.88	

Reagents:

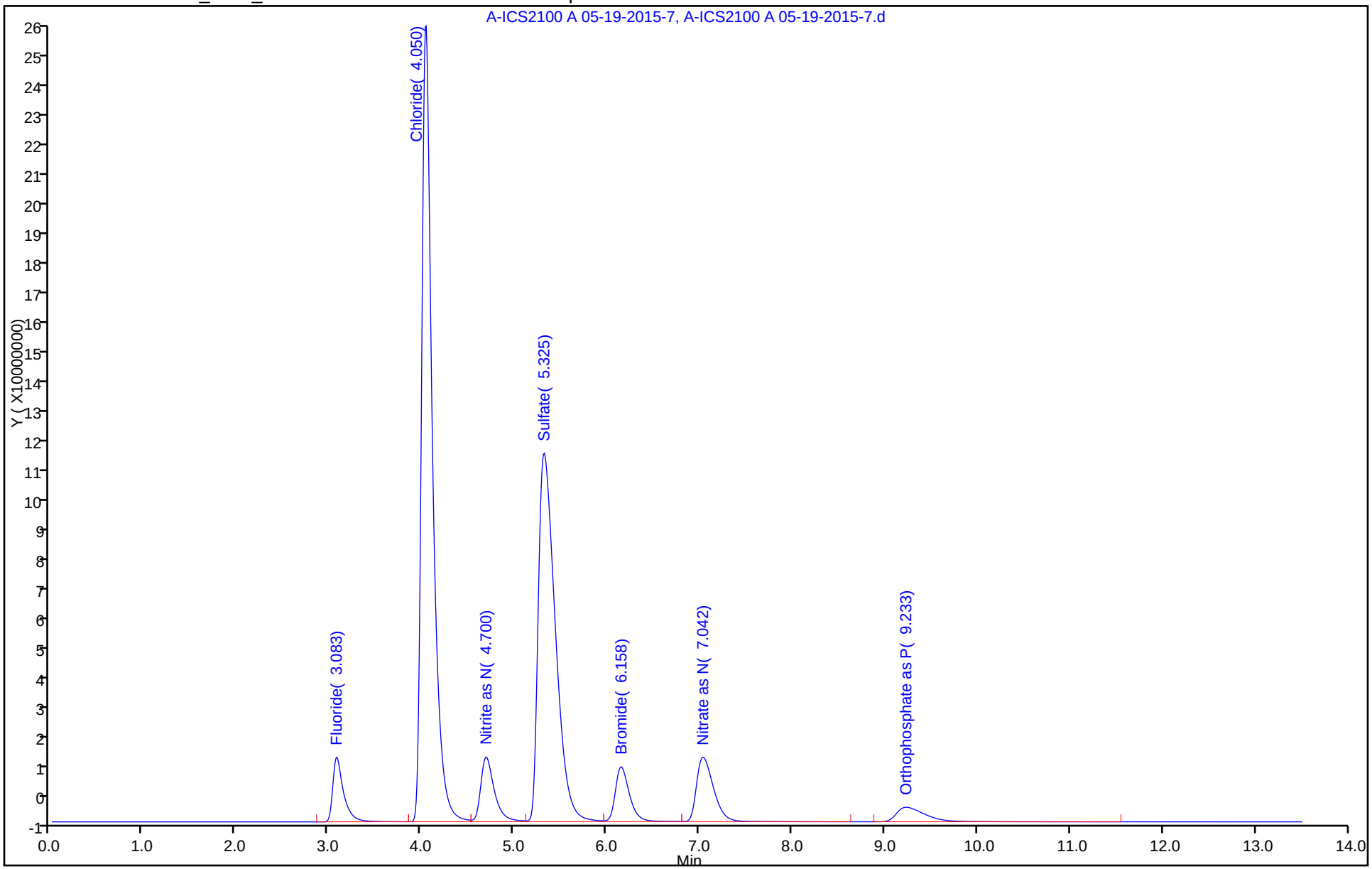
ICSTDL7_00149 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-7.d

Injection Date:	19-May-2015 13:47:00	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		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 19-May-2015 14:03:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:40 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:35:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	30634003H	7.50	7.45	
2 Chloride	4.042	4.067	-0.025	3250797562	150.0	151.1	
7 Nitrite as N	4.683	4.708	-0.025	312548798	7.50	6.45	
3 Sulfate	5.275	5.425	-0.150	2355106108	150.0	150.1	
4 Bromide	6.133	6.200	-0.067	291840519	30.0	30.9	
5 Nitrate as N	7.000	7.125	-0.125	412246685	7.50	7.68	
6 Orthophosphate as P	9.150	9.442	-0.292	160149338	7.50	7.84	

Reagents:

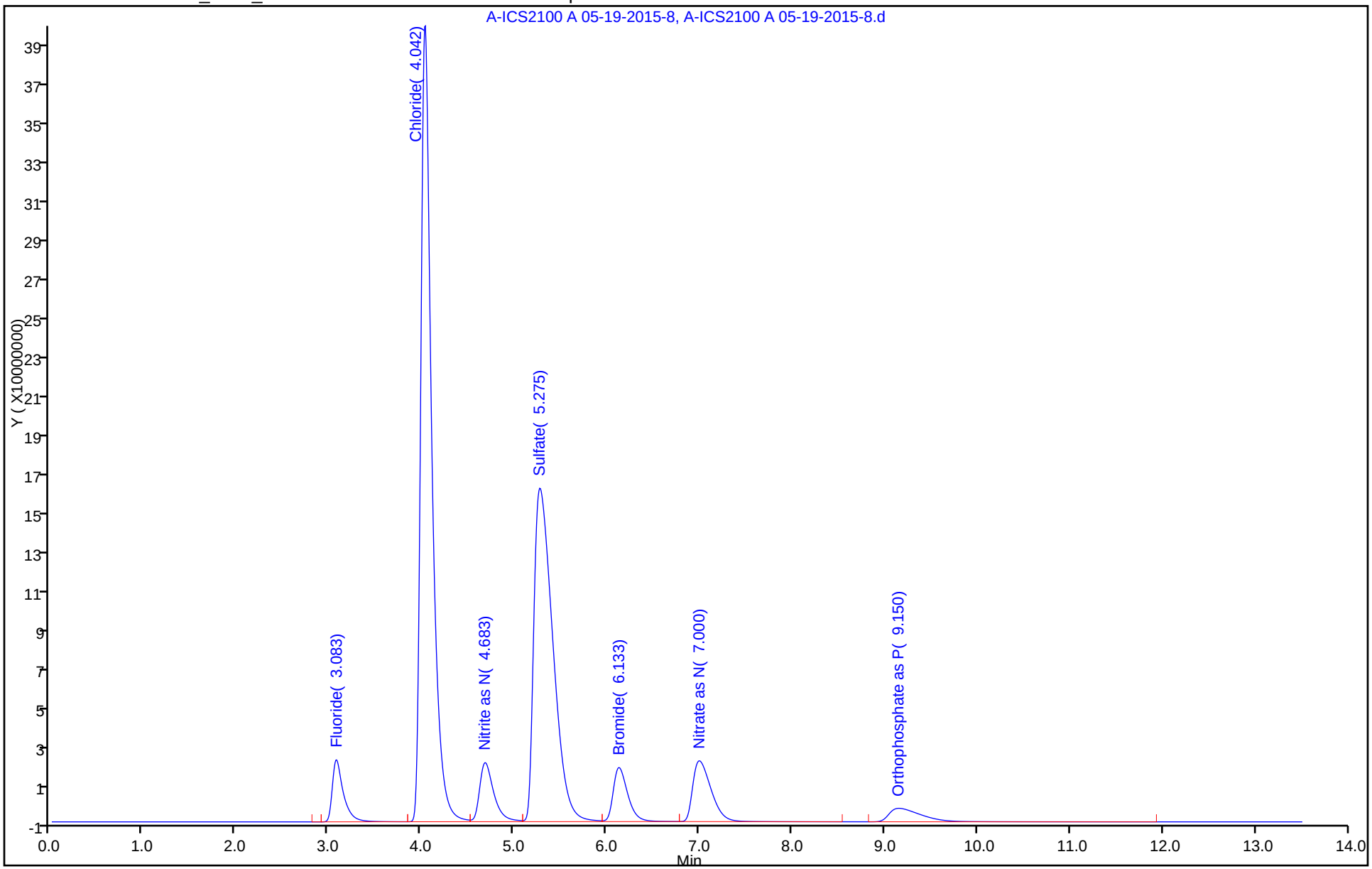
ICSTDL8_00118 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-8.d

Injection Date:	19-May-2015 14:03:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-May-2015 14:18:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:40 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:38:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	37392605H	10.0	9.09	
2 Chloride	4.033	4.067	-0.034	4122421026	200.0	191.6	
7 Nitrite as N	4.683	4.708	-0.025	385383668	10.0	7.96	
3 Sulfate	5.258	5.425	-0.167	2941674111	200.0	187.5	
4 Bromide	6.117	6.200	-0.083	371185166	40.0	39.3	
5 Nitrate as N	6.975	7.125	-0.150	523201370	10.0	9.75	
6 Orthophosphate as P	9.092	9.442	-0.350	200804708	10.0	9.81	

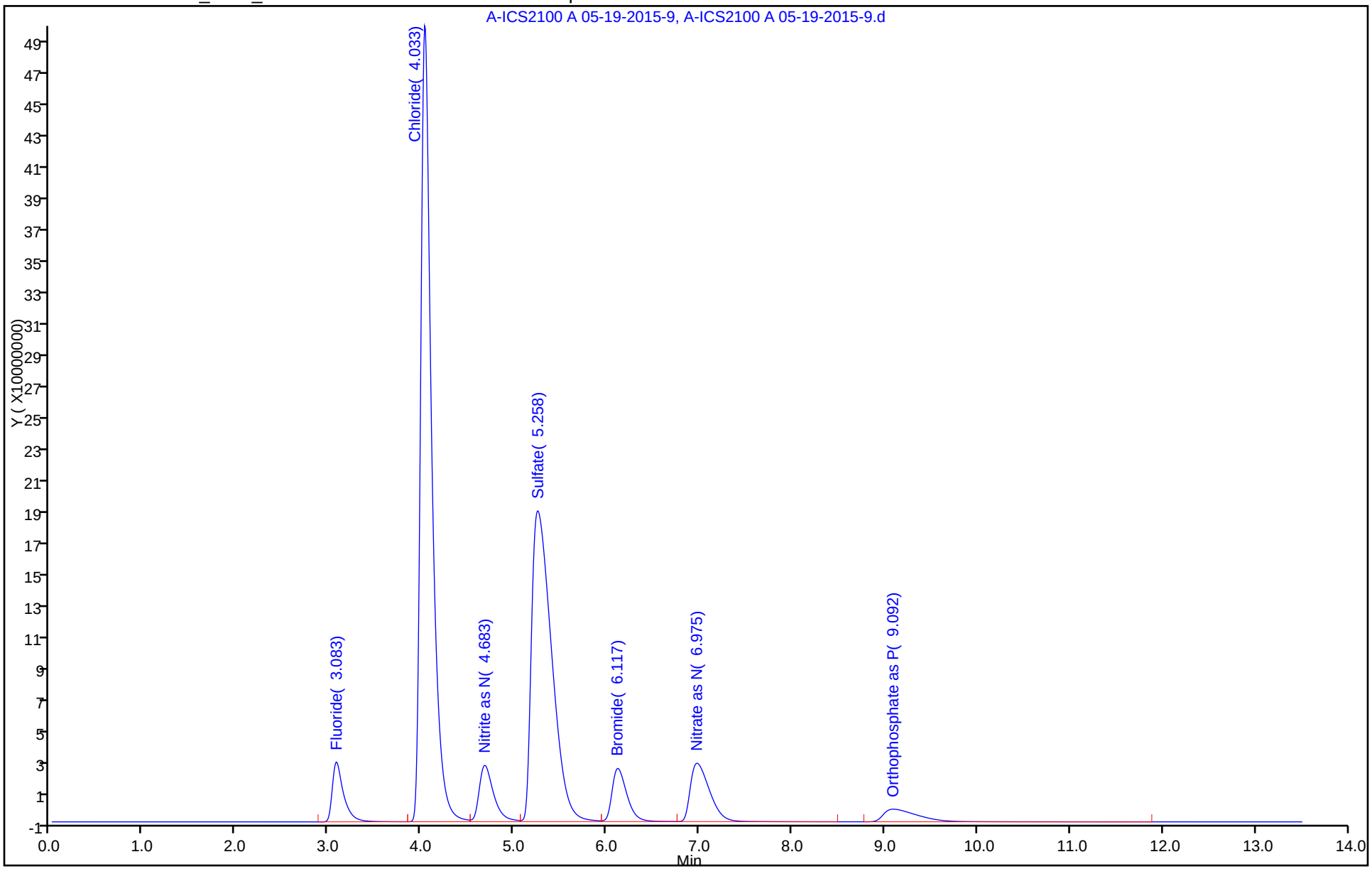
Reagents:

ICSTDL9_00119 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Injection Date:	19-May-2015 14:18:00	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 VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.658	3.658	3.658	3.667	3.667	3.667	3.667	3.675			3.308 - 4.008	3.665
Chloride	4.950	4.950	4.942	4.942	4.933	4.933	4.925	4.917			4.592 - 5.292	4.937
Nitrite as N	5.817	5.817	5.817	5.817	5.817	5.817	+++++	+++++			5.567 - 6.067	5.817
Sulfate	6.858	6.850	6.833	6.808	6.750	6.683	6.625	6.575			6.483 - 7.183	6.748
Bromide	7.817	7.817	7.808	7.808	7.783	7.767	7.733	7.717			7.458 - 8.158	7.781
Nitrate as N	9.100	9.100	9.083	9.067	9.017	8.967	8.917	8.875			8.833 - 9.333	9.016
Orthophosphate as P	+++++	+++++	12.633	12.600	12.467	12.317	12.183	12.083			12.133 - 13.133	12.381

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	46484040 44488770	41188952 43022992	45611308 42521689	45839580 41976790	Lin2	142149.513	43397203.3							0.9980		0.9950
Chloride	25085564 26660142	26222144 26369330	26666796 26648824	26747431 26853496	Lin2	-1610994.2	26686961.8							1.0000		0.9950
Nitrite as N	76927840 57882564	60781072 54059356	61607114 +++++	61339242 +++++	Lin2	972853.413	57624405.7							0.9980		0.9950
Sulfate	23335222 19577256	20457294 19212636	19964310 19359210	19887329 19477723	Lin2	3912770.84	19478213.4							1.0000		0.9950
Bromide	835850 915403	853785 881845	884616 868328	909169 849773	Lin2	-9816.0251	883383.993							0.9990		0.9950
Nitrate as N	55575600 66453469	60515684 66412101	63992838 67380292	65497209 68126262	Lin2	-571568.42	66232763.7							0.9990		0.9950
Orthophosphate as P	+++++ 26468473	+++++ 26383080	23630620 26946762	24921352 27192225	Lin2	-1805036.3	27076969.6							1.0000		0.9950

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Fluoride	Lin2	2324202 215114961	10297238 318912666	22805654 419767900	45839580	111221925	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	25085564 2636933019	131110722 3997323672	266667960 5370699112	534948618	1333007108	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3846392 270296782	15195268 +++++	30803557 +++++	61339242	144706410	0.0500 5.00	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	23335222 1921263587	102286469 2903881535	199643096 3895544554	397746587	978862804	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	167170 17636894	853785 26049842	1769232 33990920	3636676	9154030	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2778780 332060506	15128921 505352191	31996419 681262618	65497209	166133672	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	+++++ 131915399	+++++ 202100715	11815310 271922248	24921352	66171182	+++++ 5.00	+++++ 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:
Lin2 = Linear 1/conc^2 by height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Apr-2015 15:44:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-002
Misc. Info.: 3659 ic l2
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	2324202	0.0500	0.0503	
2 Chloride	4.950	4.942	0.008	25085564	1.00	1.00	
7 Nitrite as N	5.817	5.817	0.000	3846392	0.0500	0.0499	
3 Sulfate	6.858	6.833	0.025	23335222	1.00	1.00	
4 Bromide	7.817	7.808	0.009	167170H	0.2000	0.2004	
5 Nitrate as N	9.100	9.083	0.017	2778780	0.0500	0.0506	
6 Orthophosphate as P	12.667	12.633	0.034	870881	0.0500	0.0988	

Reagents:

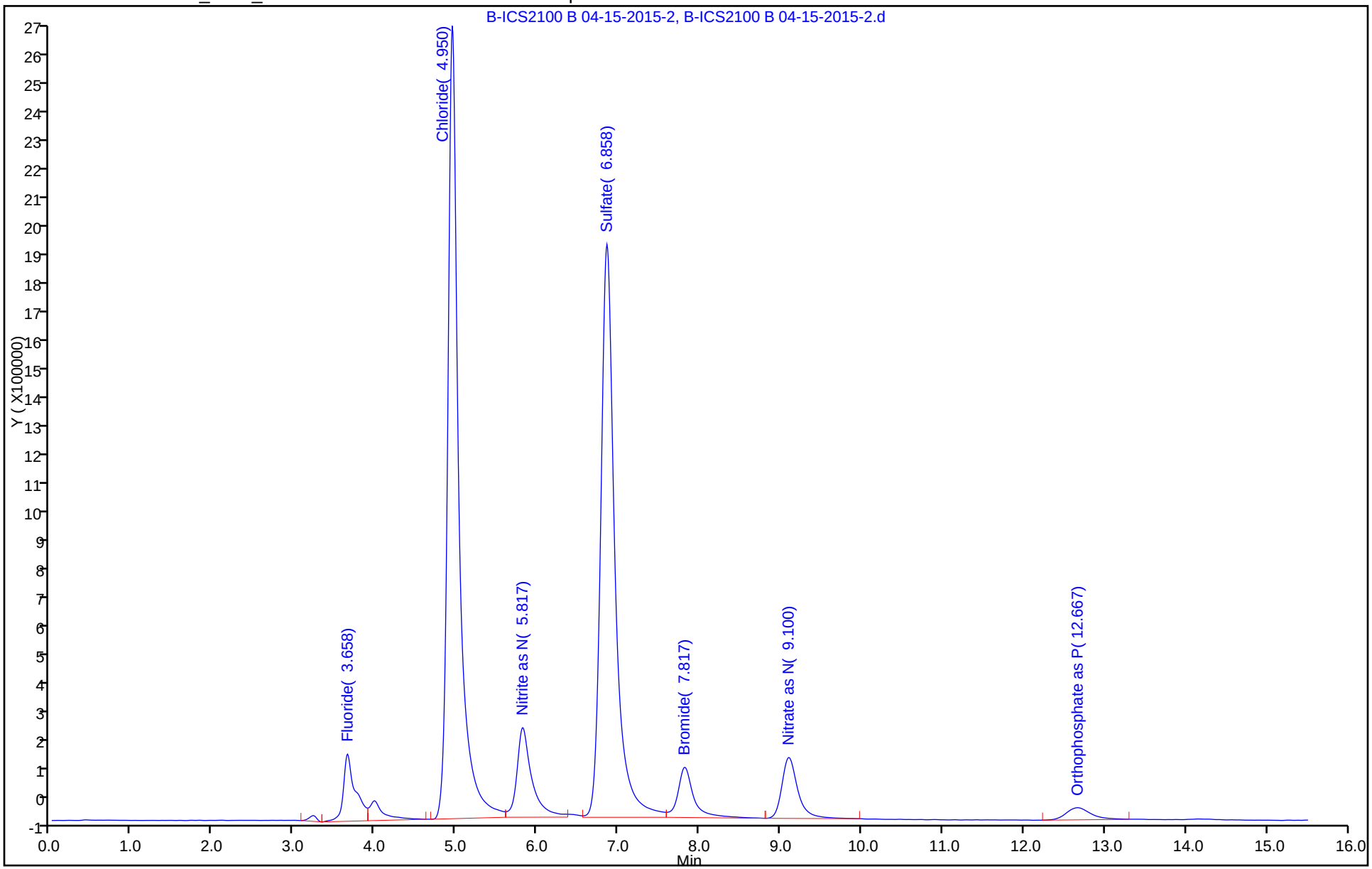
ICSTDL2_00171 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d

Injection Date:	15-Apr-2015 15:44:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Apr-2015 16:01:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-003
Misc. Info.: 27860 ic l3
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	10297238	0.2500	0.2340	
2 Chloride	4.950	4.942	0.008	131110722	5.00	4.97	
7 Nitrite as N	5.817	5.817	0.000	15195268	0.2500	0.2468	
3 Sulfate	6.850	6.833	0.017	102286469	5.00	5.05	
4 Bromide	7.817	7.808	0.009	853785H	1.00	0.9776	
5 Nitrate as N	9.100	9.083	0.017	15128921	0.2500	0.2371	
6 Orthophosphate as P	12.667	12.633	0.034	5299466	0.2500	0.2624	

Reagents:

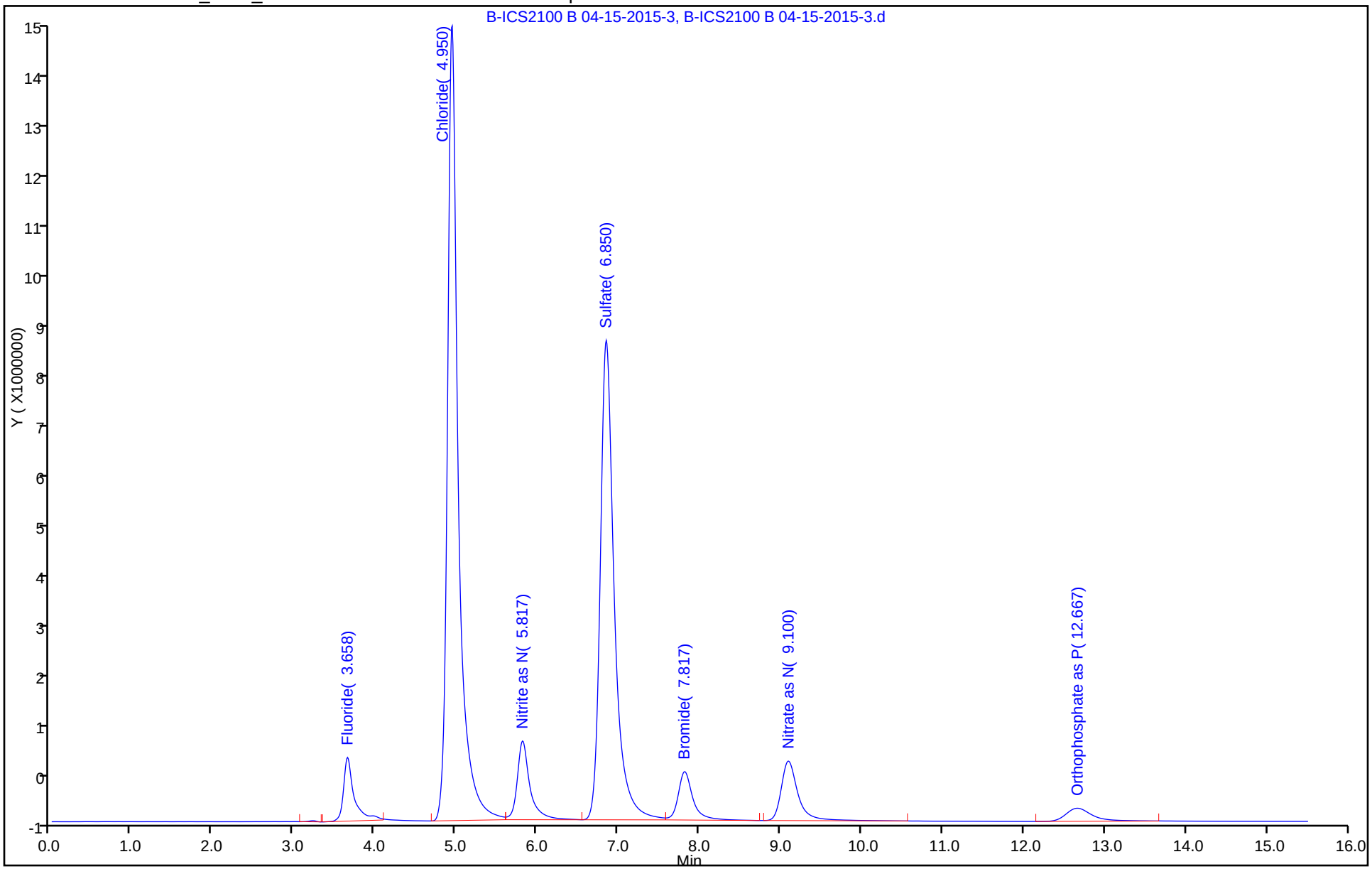
ICSTDL3_00209 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d

Injection Date:	15-Apr-2015 16:01:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 15-Apr-2015 16:19:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-004
Misc. Info.: 21504 icrt l4
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:57:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	22805654	0.5000	0.5222	
2 Chloride	4.942	4.942	0.000	266667960	10.0	10.1	
7 Nitrite as N	5.817	5.817	0.000	30803557	0.5000	0.5177	
3 Sulfate	6.833	6.833	0.000	199643096	10.0	10.0	
4 Bromide	7.808	7.808	0.000	1769232	2.00	2.01	H
5 Nitrate as N	9.083	9.083	0.000	31996419	0.5000	0.4917	
6 Orthophosphate as P	12.633	12.633	0.000	11815310	0.5000	0.5030	

Reagents:

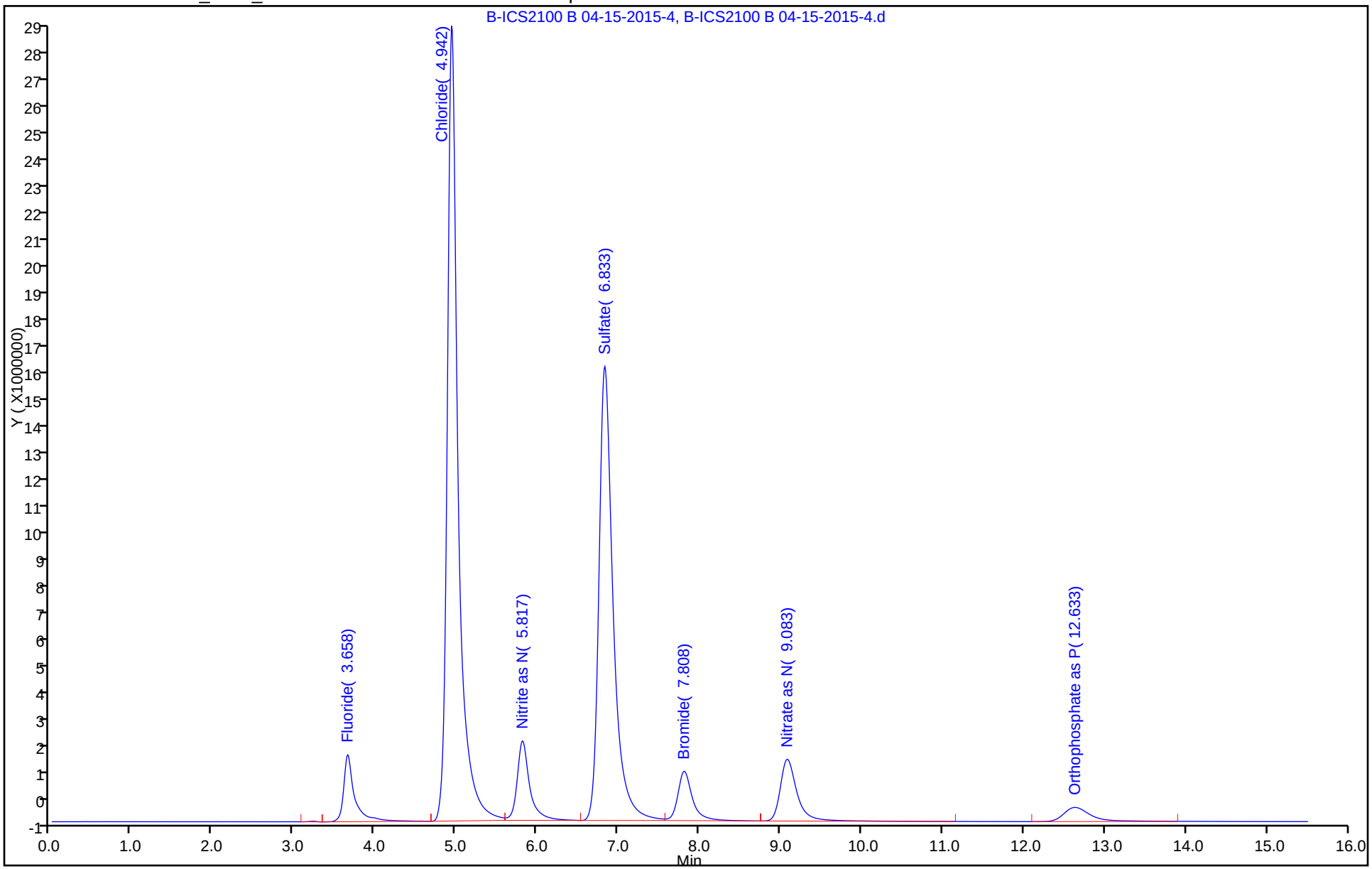
ICSTDL4_00143 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d

Injection Date:	15-Apr-2015 16:19:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Apr-2015 16:36:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-005
Misc. Info.: 13847 ic l5
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	45839580	1.00	1.05	
2 Chloride	4.942	4.942	0.000	534948618	20.0	20.1	
7 Nitrite as N	5.817	5.817	0.000	61339242	1.00	1.05	
3 Sulfate	6.808	6.833	-0.025	397746587	20.0	20.2	
4 Bromide	7.808	7.808	0.000	3636676	4.00	4.13	H
5 Nitrate as N	9.067	9.083	-0.016	65497209	1.00	1.00	
6 Orthophosphate as P	12.600	12.633	-0.033	24921352	1.00	0.9871	

Reagents:

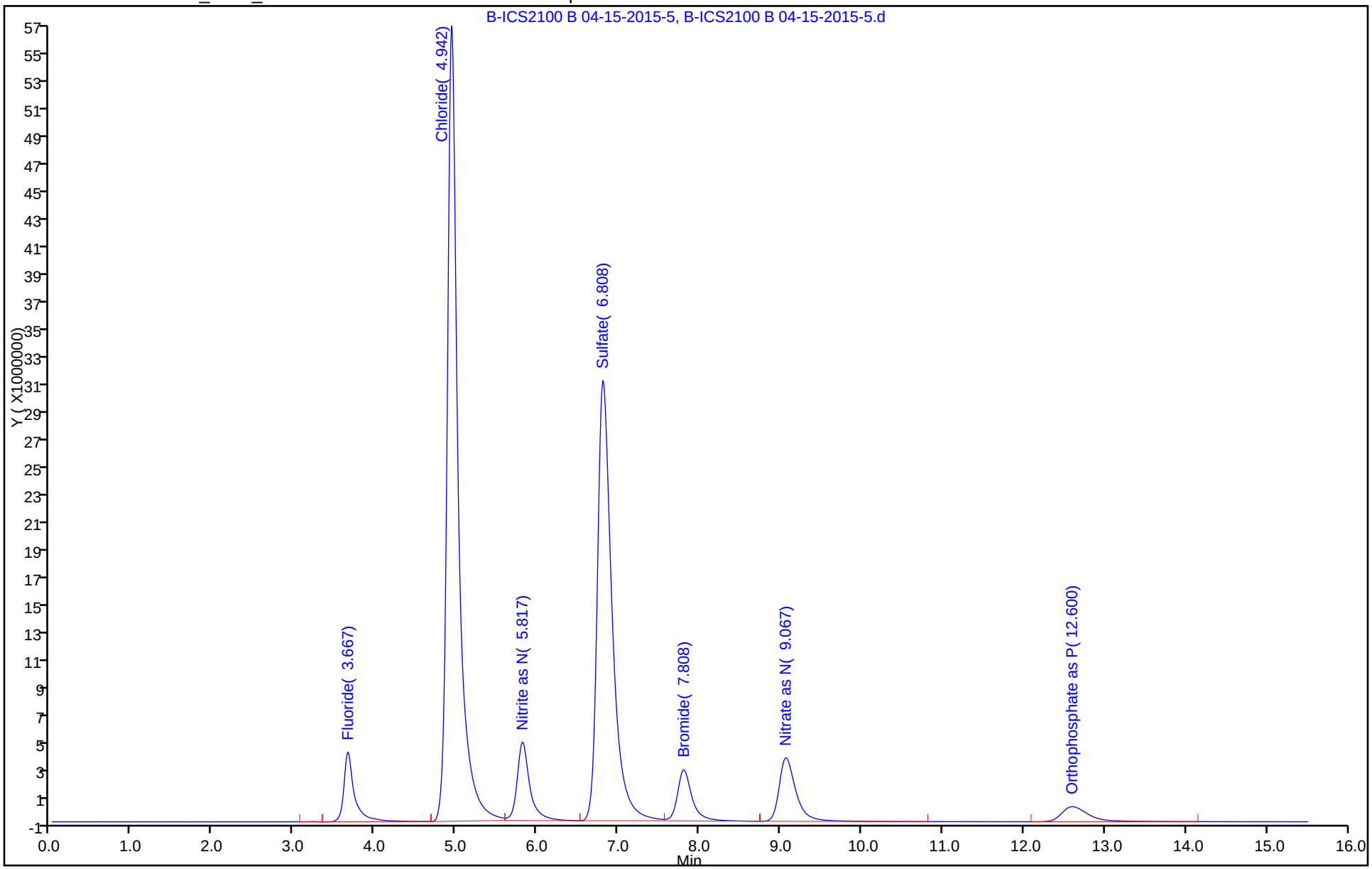
ICSTDL5_00145 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d

Injection Date:	15-Apr-2015 16:36:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Apr-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-006
Misc. Info.: 10546 ic l6
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	111221925	2.50	2.56	
2 Chloride	4.933	4.942	-0.009	1333007108	50.0	50.0	
7 Nitrite as N	5.817	5.817	0.000	144706410	2.50	2.49	
3 Sulfate	6.750	6.833	-0.083	978862804	50.0	50.1	
4 Bromide	7.783	7.808	-0.025	9154030H	10.0	10.4	
5 Nitrate as N	9.017	9.083	-0.066	166133672	2.50	2.52	
6 Orthophosphate as P	12.467	12.633	-0.166	66171182	2.50	2.51	

Reagents:

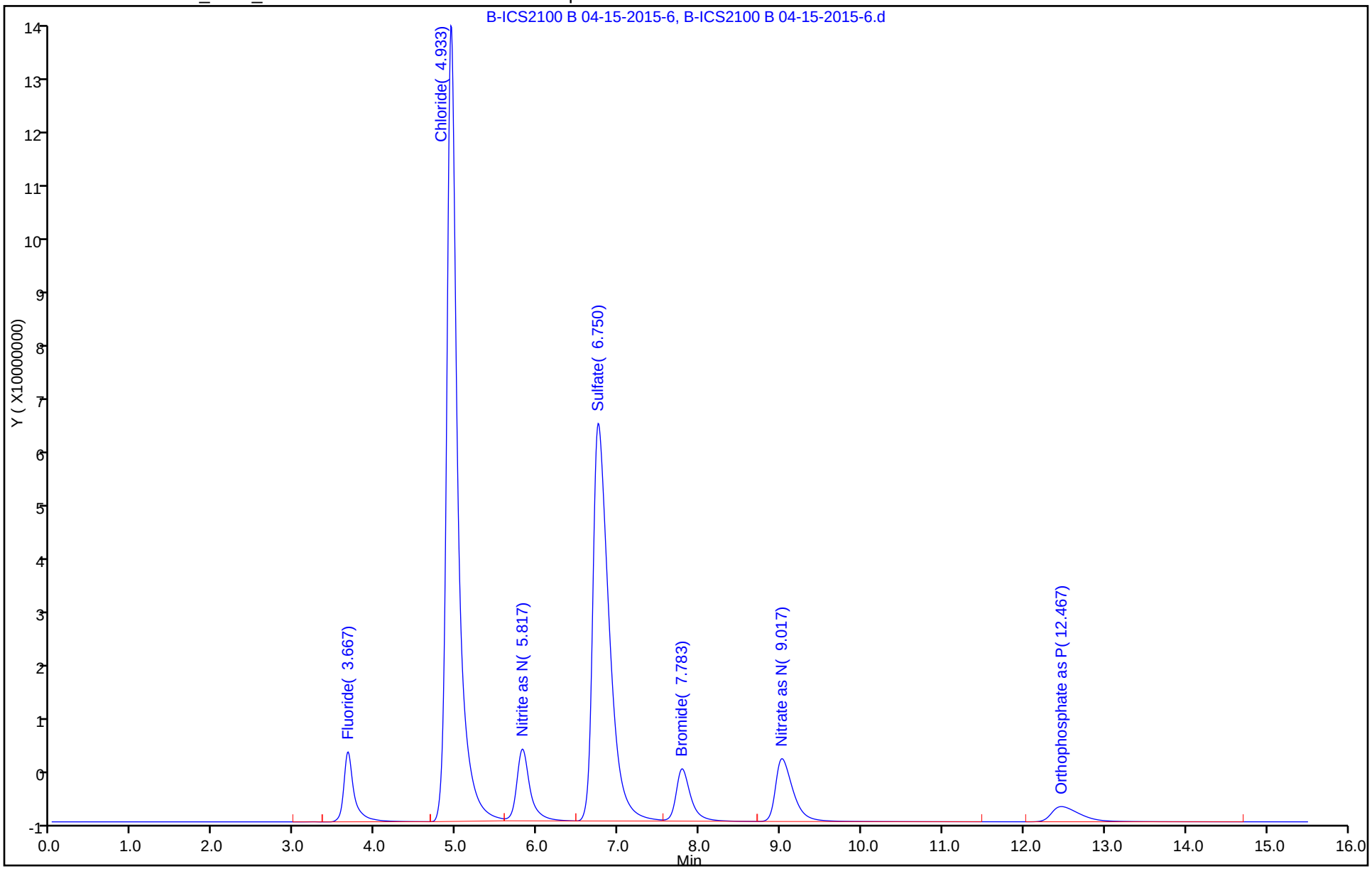
ICSTDL6_00213 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d

Injection Date:	15-Apr-2015 16:53:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Apr-2015 17:11:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-007
Misc. Info.: 9005 ic l7
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	215114961	5.00	4.95	
2 Chloride	4.933	4.942	-0.009	2636933019	100.0	98.9	
7 Nitrite as N	5.817	5.817	0.000	270296782	5.00	4.67	
3 Sulfate	6.683	6.833	-0.150	1921263587	100.0	98.4	
4 Bromide	7.767	7.808	-0.041	17636894	20.0	20.0	H
5 Nitrate as N	8.967	9.083	-0.116	332060506	5.00	5.02	
6 Orthophosphate as P	12.317	12.633	-0.316	131915399	5.00	4.94	

Reagents:

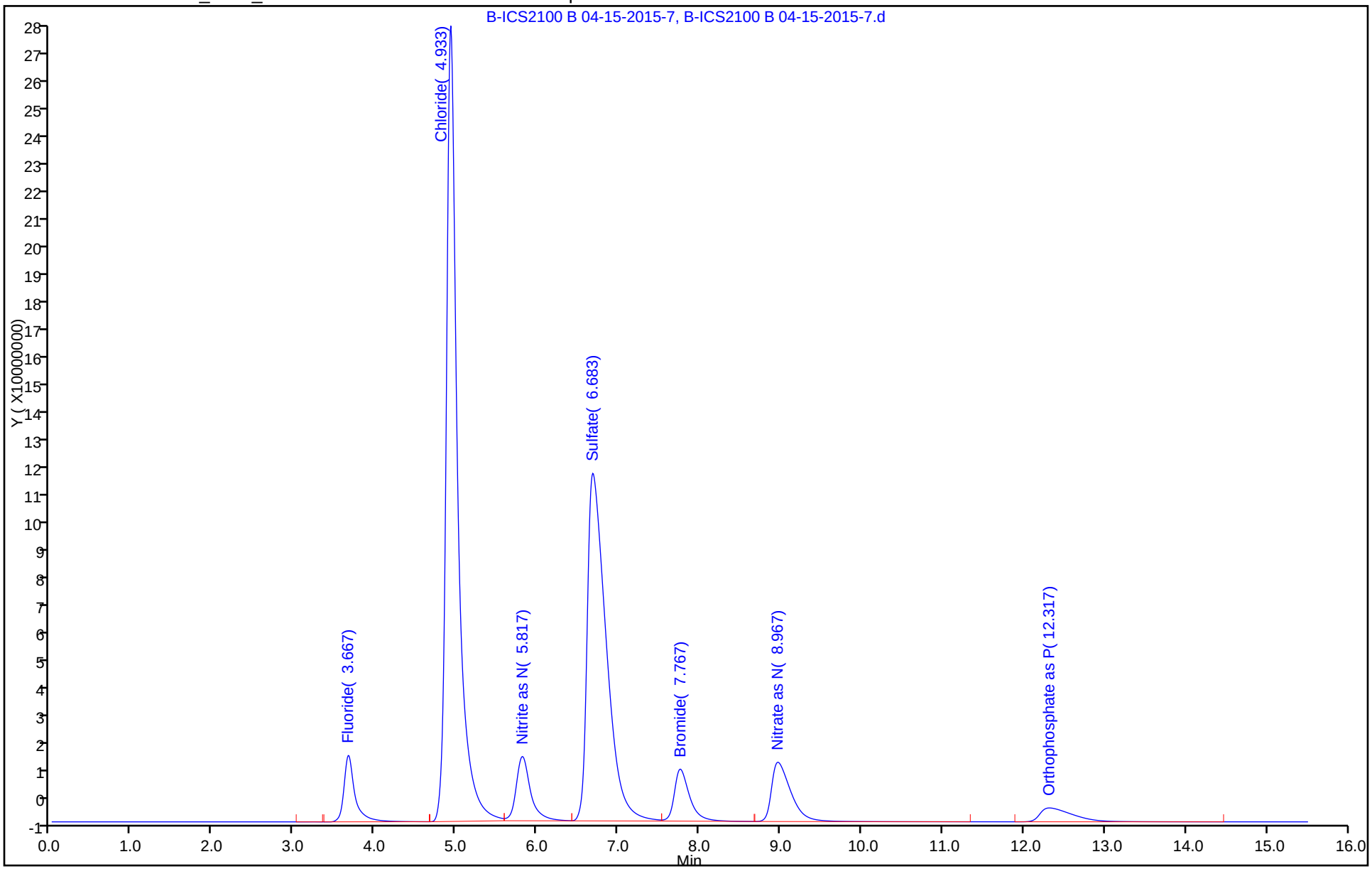
ICSTDL7_00141 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d

Injection Date:	15-Apr-2015 17:11:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 15-Apr-2015 17:28:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-008
Misc. Info.: 7430 ic l8
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 12:00:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	318912666	7.50	7.35	
2 Chloride	4.925	4.942	-0.017	3997323672	150.0	149.8	
7 Nitrite as N	5.808	5.817	-0.009	362807489	7.50	6.28	
3 Sulfate	6.625	6.833	-0.208	2903881535	150.0	148.9	
4 Bromide	7.733	7.808	-0.075	26049842	H	30.0	29.5	
5 Nitrate as N	8.917	9.083	-0.166	505352191	7.50	7.64	
6 Orthophosphate as P	12.183	12.633	-0.450	202100715	7.50	7.53	

Reagents:

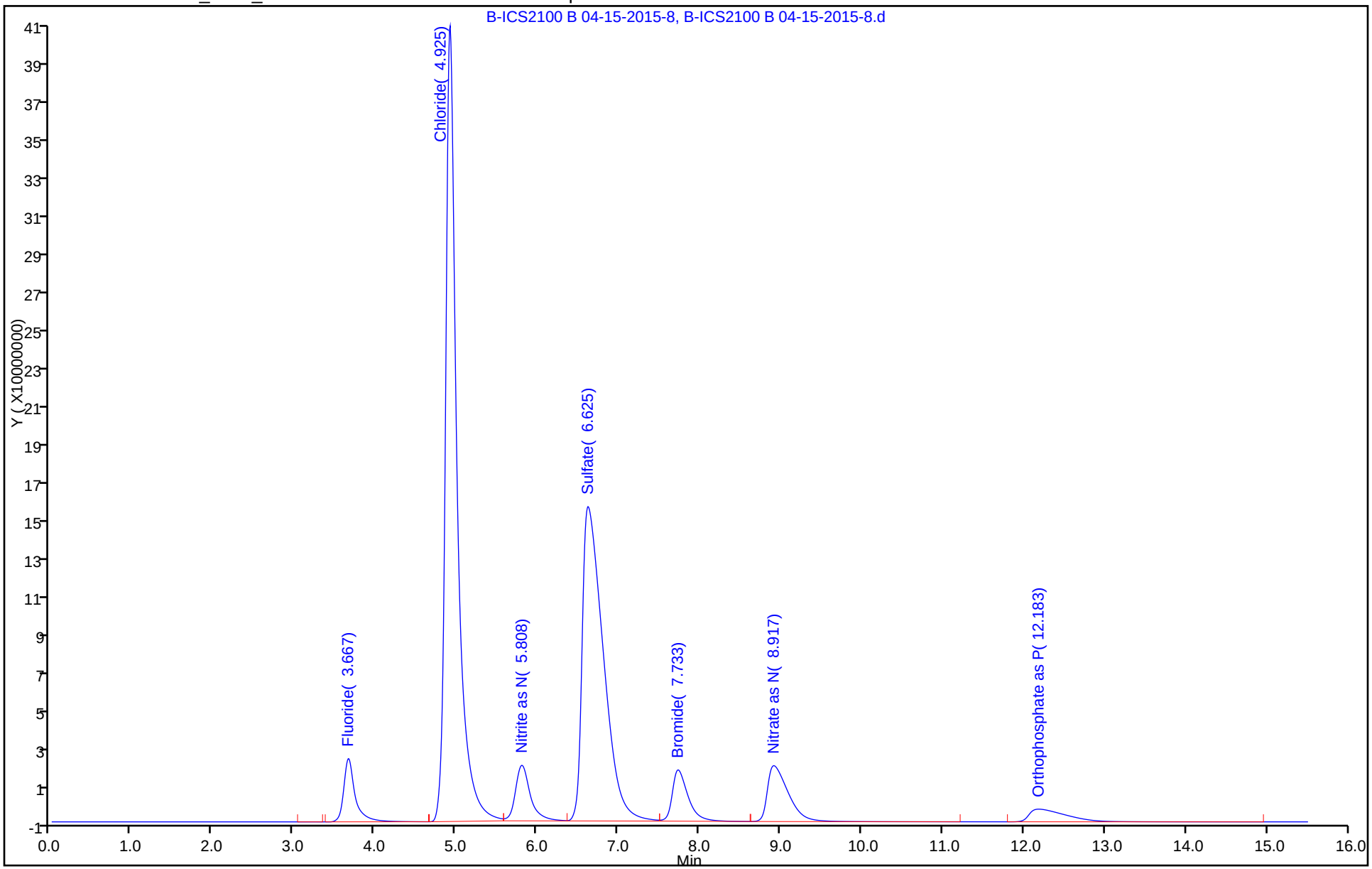
ICSTDL8_00112 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d

Injection Date:	15-Apr-2015 17:28:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 15-Apr-2015 17:45:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-009
Misc. Info.: 4878 ic l9
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:58:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.675	3.658	0.017	419767900	10.0	9.67	
2 Chloride	4.917	4.942	-0.025	5370699112	200.0	201.3	
7 Nitrite as N	5.808	5.817	-0.009	499624168	10.0	8.65	
3 Sulfate	6.575	6.833	-0.258	3895544554	200.0	199.8	
4 Bromide	7.717	7.808	-0.091	33990920	40.0	38.5	H
5 Nitrate as N	8.875	9.083	-0.208	681262618	10.0	10.3	
6 Orthophosphate as P	12.083	12.633	-0.550	271922248	10.0	10.1	

Reagents:

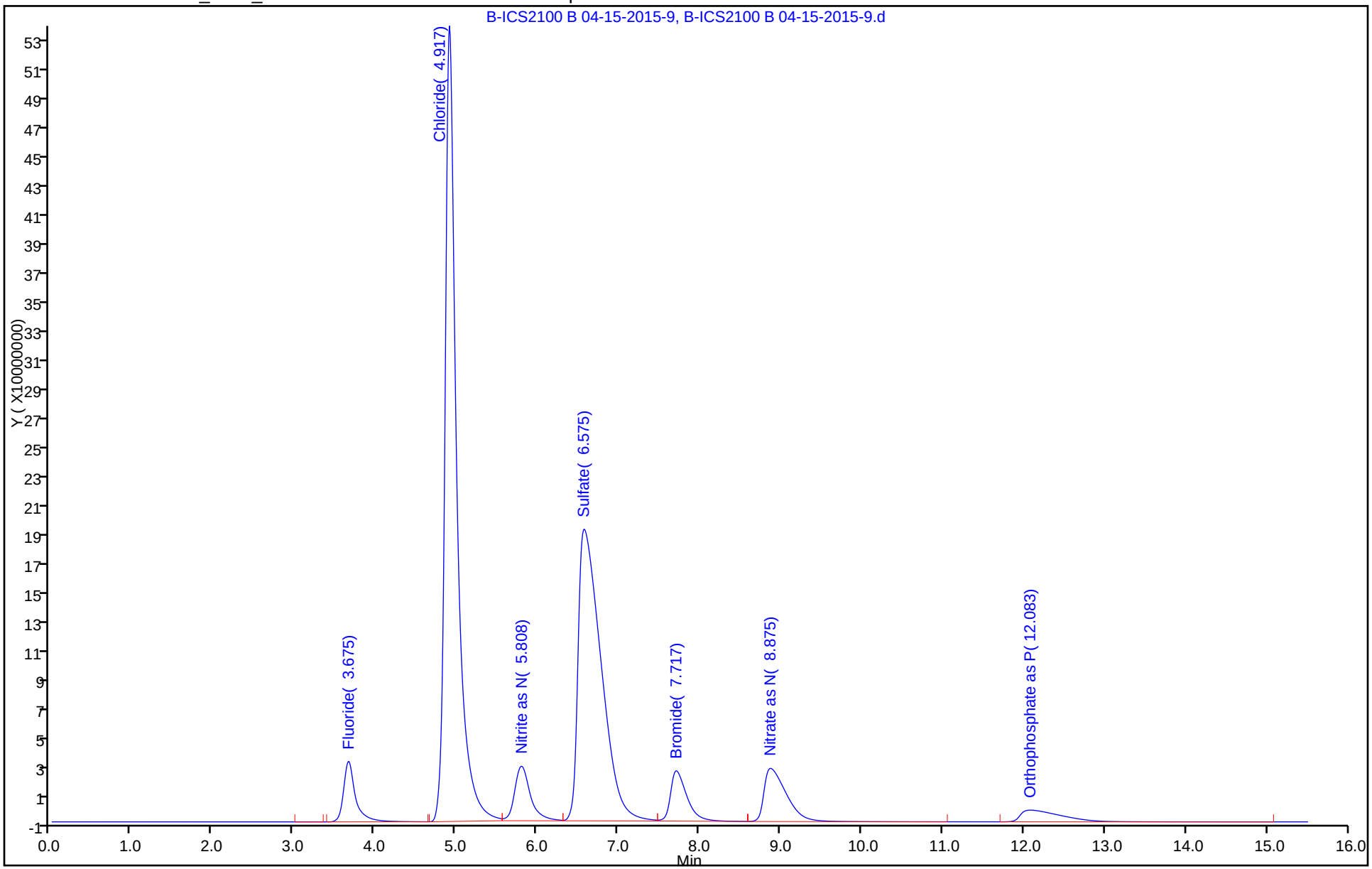
ICSTDL9_00115 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Injection Date:	15-Apr-2015 17:45:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: ICV 180-145170/2 Calibration Date: 06/16/2015 12:27

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4328191		3.16	3.00	5.4	10.0
Chloride	Lin2		21892943		61.1	60.0	1.9	10.0
Nitrite as N	Lin2	54847550	47598727		2.94	3.00	-2.2	10.0
Sulfate	Lin2		15979317		61.1	60.0	1.8	10.0
Bromide	Lin2		9966576		12.7	12.0	5.5	10.0
Nitrate as N	Lin2		53575912		3.00	3.00	0.0	10.0
Orthophosphate as P	Lin		18862059		2.83	3.00	-5.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: ICV 180-145170/2 Calibration Date: 06/16/2015 12:27

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.69	3.39
Chloride	3.98	3.64	4.34
Nitrite as N	4.61	4.38	4.88
Sulfate	5.32	4.98	5.68
Bromide	6.06	5.72	6.42
Nitrate as N	6.93	6.70	7.20
Orthophosphate as P	9.34	9.08	9.58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Jun-2015 12:27:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:37 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.042	-0.009	12984573H	3.00	3.16	
2 Chloride	3.983	3.992	-0.009	1313576569	60.0	61.1	
7 Nitrite as N	4.608	4.625	-0.017	142853298	3.00	2.94	E
3 Sulfate	5.317	5.325	-0.008	958759049	60.0	61.1	
4 Bromide	6.058	6.067	-0.009	119598906	12.0	12.7	
5 Nitrate as N	6.933	6.950	-0.017	160727736	3.00	3.00	
6 Orthophosphate as P	9.342	9.333	0.009	56586178	3.00	2.83	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

Reagents:

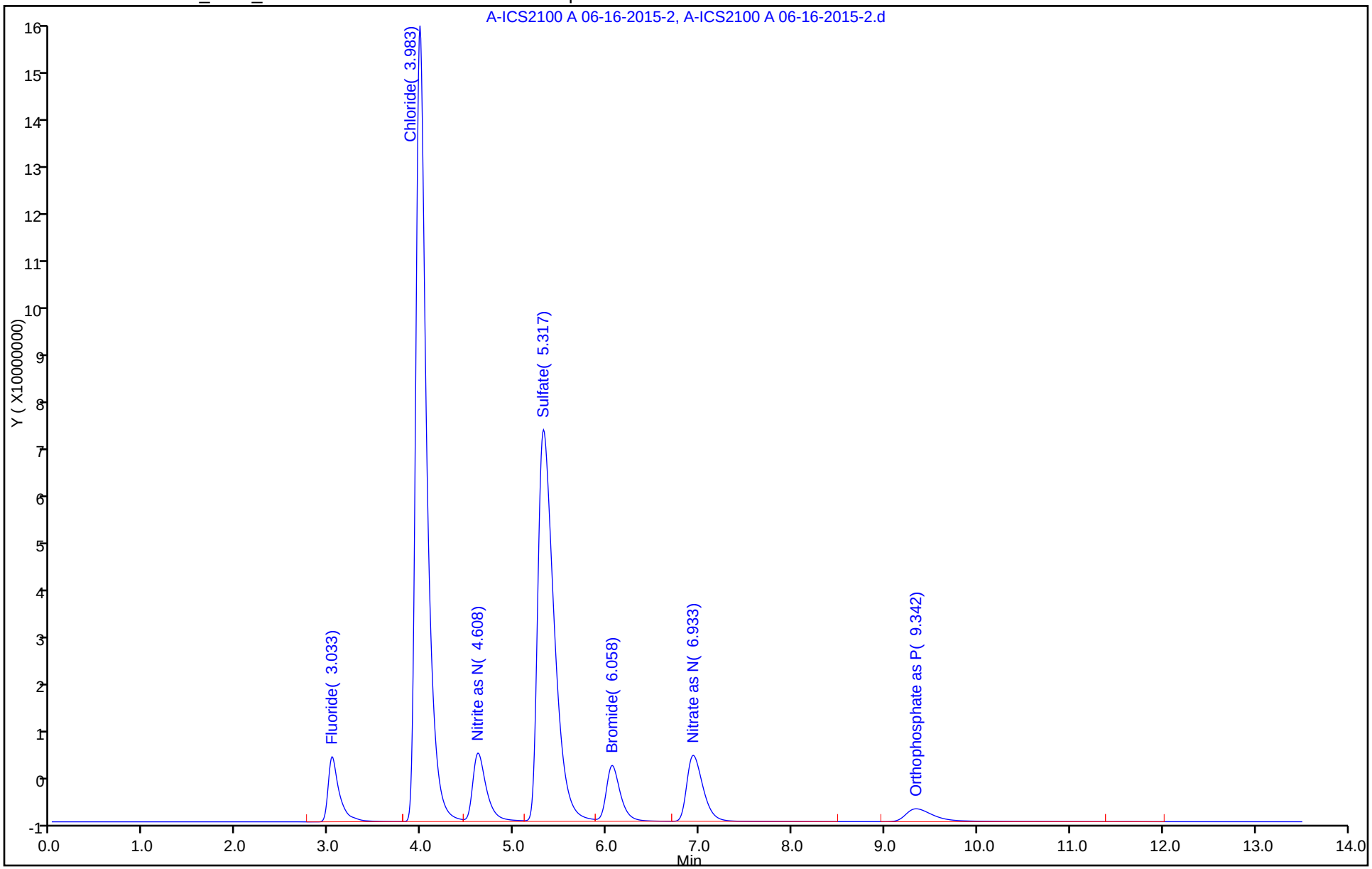
icicv_01288 Amount Added: 1.00 Units: mL

Report Date: 16-Jun-2015 17:29:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-2.d

Injection Date:	16-Jun-2015 12:27:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145170/3 Calibration Date: 06/16/2015 12:42

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4311486		2.63	2.50	5.1	10.0
Chloride	Lin2		21970589		51.1	50.0	2.2	10.0
Nitrite as N	Lin2	54847550	46601956		2.39	2.50	-4.4	10.0
Sulfate	Lin2		15811572		50.3	50.0	0.7	10.0
Bromide	Lin2		9817955		10.4	10.0	4.0	10.0
Nitrate as N	Lin2		54645296		2.55	2.50	2.1	10.0
Orthophosphate as P	Lin		18477849		2.32	2.50	-7.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145170/3 Calibration Date: 06/16/2015 12:42

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.04	2.69	3.39
Chloride	3.99	3.64	4.34
Nitrite as N	4.63	4.38	4.88
Sulfate	5.33	4.98	5.68
Bromide	6.07	5.72	6.42
Nitrate as N	6.95	6.70	7.20
Orthophosphate as P	9.33	9.08	9.58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Jun-2015 12:42:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:37 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.042	3.042	0.000	10778716H	2.50	2.63	
2 Chloride	3.992	3.992	0.000	1098529433	50.0	51.1	
7 Nitrite as N	4.625	4.625	0.000	116504891	2.50	2.39	
3 Sulfate	5.325	5.325	0.000	790578576	50.0	50.3	
4 Bromide	6.067	6.067	0.000	98179548	10.0	10.4	
5 Nitrate as N	6.950	6.950	0.000	136613240	2.50	2.55	
6 Orthophosphate as P	9.333	9.333	0.000	46194623	2.50	2.32	

Reagents:

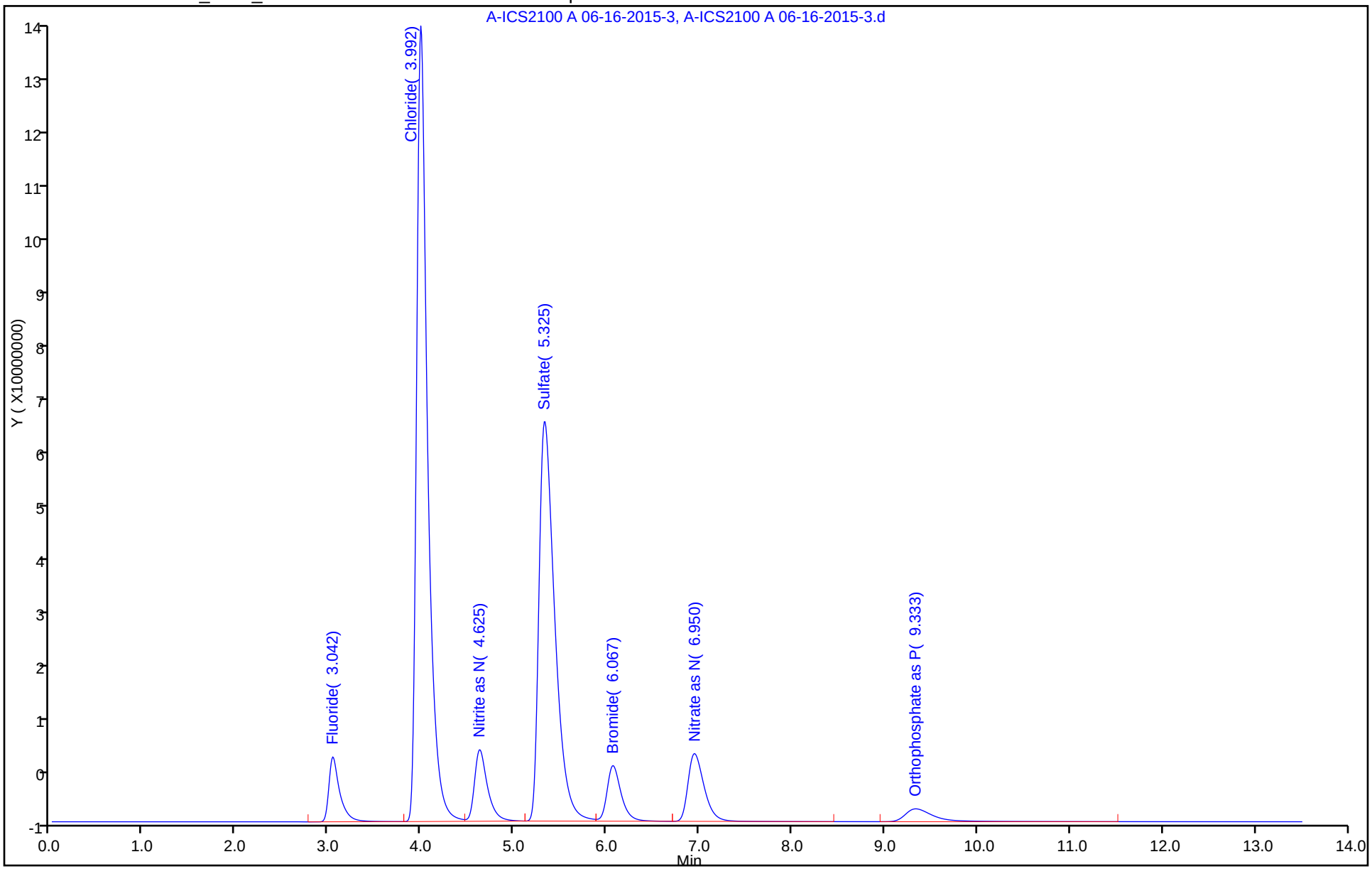
icccv_01256 Amount Added: 1.00 Units: mL

Report Date: 16-Jun-2015 17:29:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-3.d

Injection Date:	16-Jun-2015 12:42:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145170/15 Calibration Date: 06/16/2015 16:00

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4099456		2.50	2.50	-0.1	10.0
Chloride	Lin2		20844867		48.5	50.0	-3.0	10.0
Nitrite as N	Lin2	54847550	44227815		2.27	2.50	-9.3	10.0
Sulfate	Lin2		14925738		47.5	50.0	-5.0	10.0
Bromide	Lin2		9295996		9.85	10.0	-1.5	10.0
Nitrate as N	Lin2		51926394		2.43	2.50	-2.9	10.0
Orthophosphate as P	Lin		15938054		2.02	2.50	-19.3*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145170/15 Calibration Date: 06/16/2015 16:00

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	3.98	3.63	4.33
Nitrite as N	4.62	4.37	4.87
Sulfate	5.33	4.98	5.68
Bromide	6.06	5.71	6.41
Nitrate as N	6.94	6.69	7.19
Orthophosphate as P	9.37	9.12	9.62

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Jun-2015 16:00:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-015
Misc. Info.: 15 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:52:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	10248639H	2.50	2.50	
2 Chloride	3.983	3.983	0.000	1042243330	50.0	48.5	
7 Nitrite as N	4.617	4.617	0.000	110569537	2.50	2.27	
3 Sulfate	5.325	5.325	0.000	746286901	50.0	47.5	
4 Bromide	6.058	6.058	0.000	92959963	10.0	9.85	
5 Nitrate as N	6.942	6.942	0.000	129815986	2.50	2.43	
6 Orthophosphate as P	9.367	9.367	0.000	39845135	2.50	2.02	

Reagents:

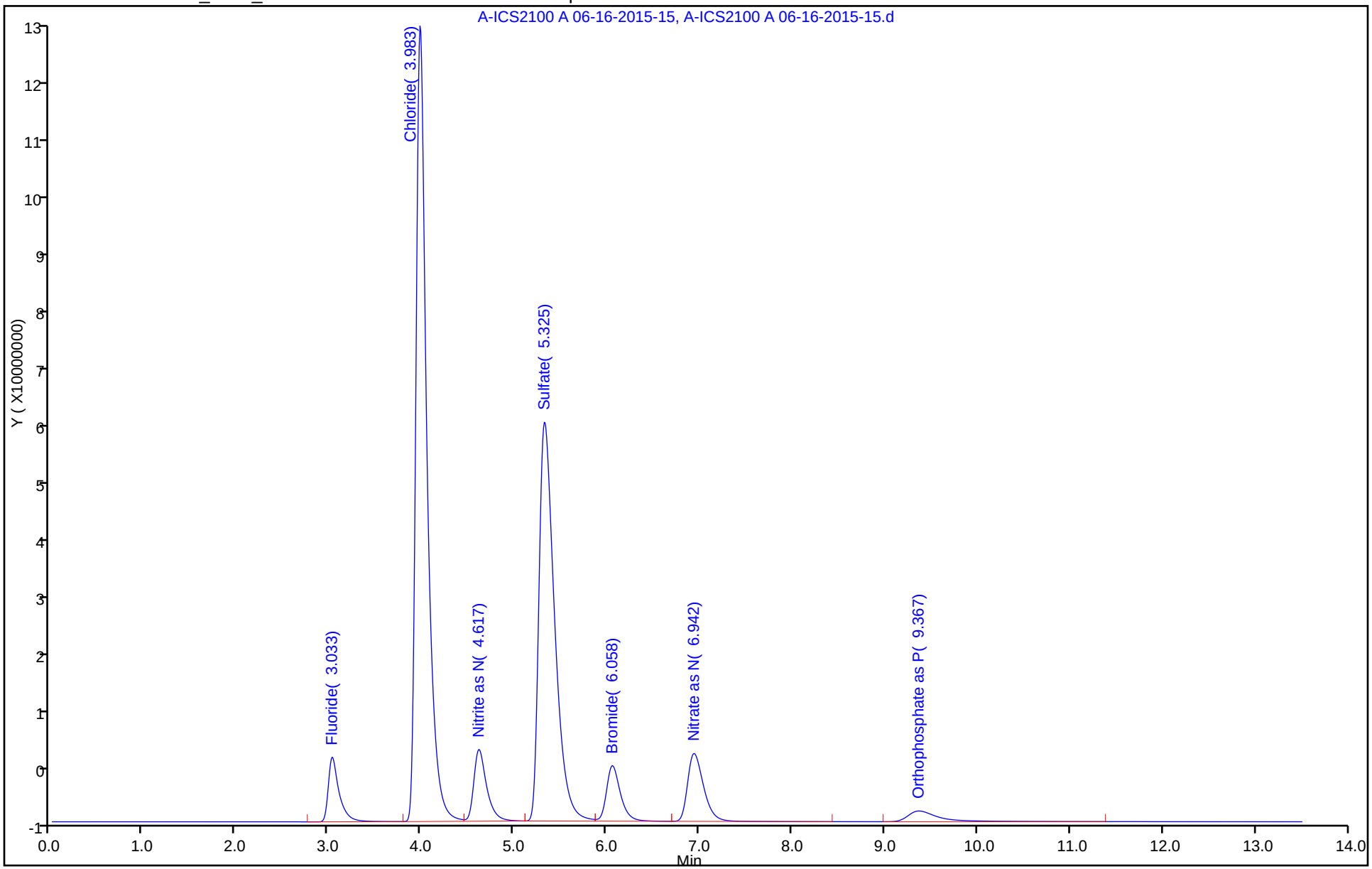
icccv_01256 Amount Added: 1.00 Units: mL

Report Date: 16-Jun-2015 17:52:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-15.d

Injection Date:	16-Jun-2015 16:00:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145170/27 Calibration Date: 06/16/2015 20:03

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4051830		2.47	2.50	-1.3	10.0
Chloride	Lin2		20717786		48.2	50.0	-3.6	10.0
Nitrite as N	Lin2	54847550	44011834		2.26	2.50	-9.8	10.0
Sulfate	Lin2		14794036		47.1	50.0	-5.8	10.0
Bromide	Lin2		9237596		9.79	10.0	-2.1	10.0
Nitrate as N	Lin2		51529732		2.41	2.50	-3.7	10.0
Orthophosphate as P	Lin		16864802		2.13	2.50	-14.8*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145170/27 Calibration Date: 06/16/2015 20:03

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-16-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	3.98	3.63	4.33
Nitrite as N	4.63	4.38	4.88
Sulfate	5.33	4.98	5.68
Bromide	6.07	5.72	6.42
Nitrate as N	6.94	6.69	7.19
Orthophosphate as P	9.33	9.08	9.58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Jun-2015 20:03:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-027
Misc. Info.: 6895 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 06:40:01 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	10129576H	2.50	2.47	
2 Chloride	3.983	3.983	0.000	1035889282	50.0	48.2	
7 Nitrite as N	4.625	4.625	0.000	110029586	2.50	2.26	
3 Sulfate	5.325	5.325	0.000	739701814	50.0	47.1	
4 Bromide	6.067	6.067	0.000	92375956	10.0	9.79	
5 Nitrate as N	6.942	6.942	0.000	128824331	2.50	2.41	
6 Orthophosphate as P	9.333	9.333	0.000	42162005	2.50	2.13	

Reagents:

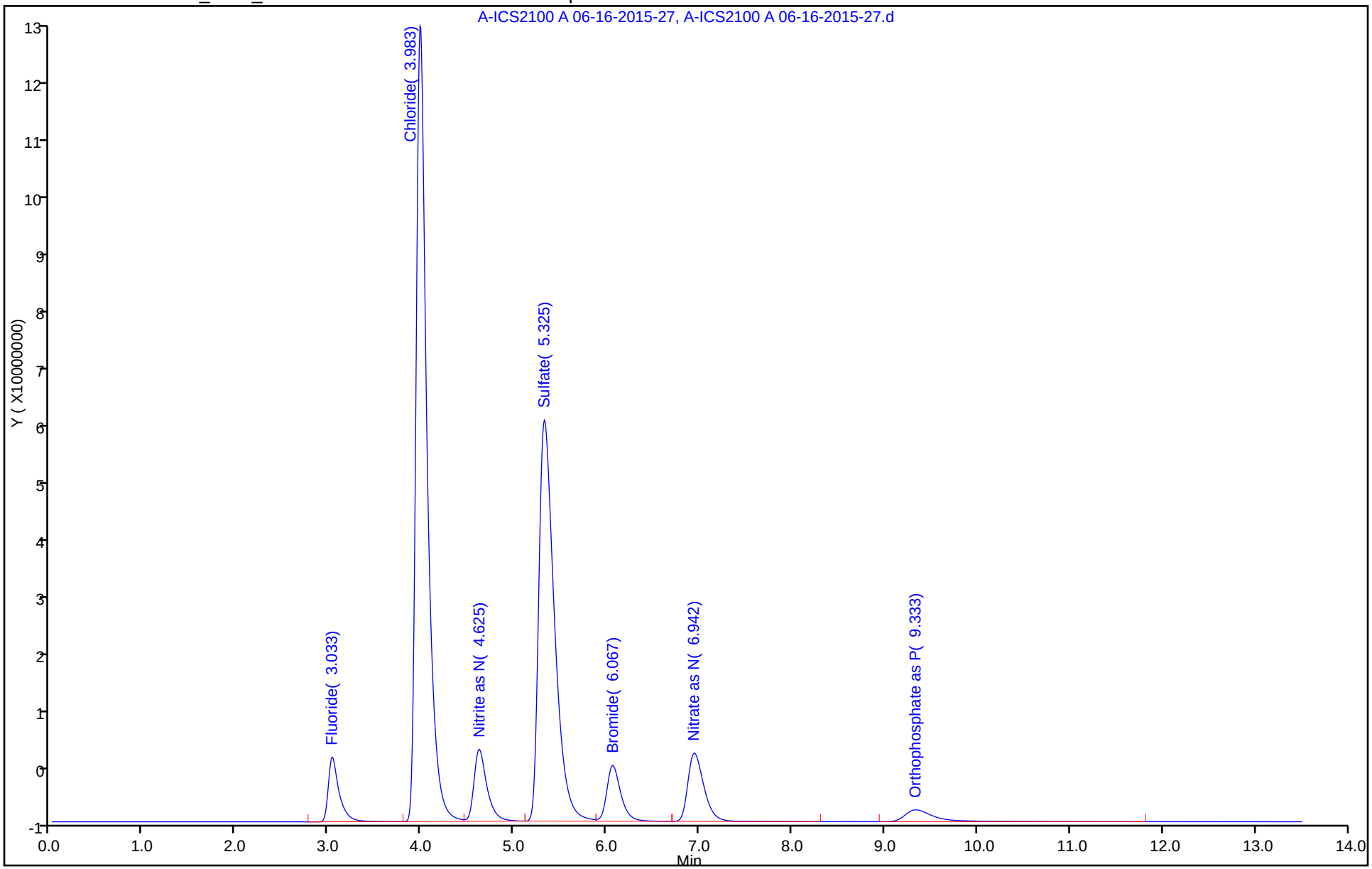
icccv_01256 Amount Added: 1.00 Units: mL

Report Date: 17-Jun-2015 06:40:01 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-27.d

Injection Date:	16-Jun-2015 20:03:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: ICV 180-145223/2 Calibration Date: 06/17/2015 06:32

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-17-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4292710		3.14	3.00	4.5	10.0
Chloride	Lin2		21601946		60.3	60.0	0.5	10.0
Nitrite as N	Lin2	54847550	47205336		2.91	3.00	-3.0	10.0
Sulfate	Lin2		15808797		60.4	60.0	0.7	10.0
Bromide	Lin2		9735612		12.4	12.0	3.1	10.0
Nitrate as N	Lin2		52890245		2.96	3.00	-1.2	10.0
Orthophosphate as P	Lin		18374801		2.76	3.00	-8.1	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: ICV 180-145223/2 Calibration Date: 06/17/2015 06:32

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-17-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	3.98	3.63	4.33
Nitrite as N	4.62	4.38	4.88
Sulfate	5.32	4.98	5.68
Bromide	6.06	5.71	6.41
Nitrate as N	6.93	6.69	7.19
Orthophosphate as P	9.33	9.09	9.59

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 17-Jun-2015 06:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:37:35 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	12878129H	3.00	3.14	
2 Chloride	3.983	3.983	0.000	1296116785	60.0	60.3	
7 Nitrite as N	4.617	4.625	-0.008	141672653	3.00	2.91	E
3 Sulfate	5.317	5.325	-0.008	948527836	60.0	60.4	
4 Bromide	6.058	6.058	0.000	116827348	12.0	12.4	
5 Nitrate as N	6.933	6.942	-0.009	158670735	3.00	2.96	
6 Orthophosphate as P	9.325	9.342	-0.017	55124402	3.00	2.76	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

Reagents:

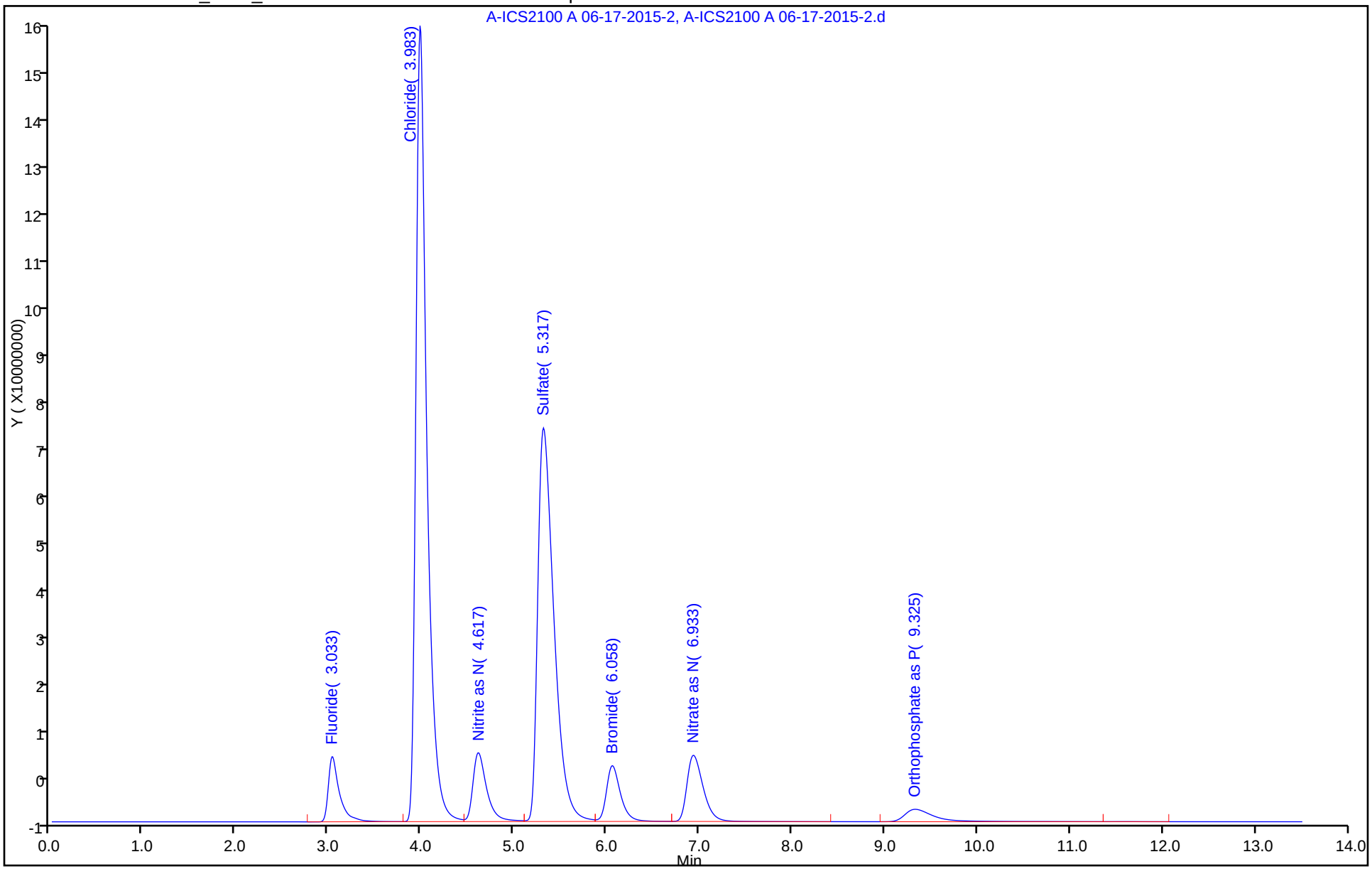
icicv_01289 Amount Added: 1.00 Units: mL

Report Date: 17-Jun-2015 13:37:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-2.d

Injection Date:	17-Jun-2015 06:32:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145223/3 Calibration Date: 06/17/2015 06:47

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-17-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4426443		2.70	2.50	7.8	10.0
Chloride	Lin2		22327731		52.0	50.0	3.9	10.0
Nitrite as N	Lin2	54847550	47479539		2.44	2.50	-2.6	10.0
Sulfate	Lin2		16207256		51.6	50.0	3.2	10.0
Bromide	Lin2		9886421		10.5	10.0	4.7	10.0
Nitrate as N	Lin2		55649683		2.60	2.50	4.0	10.0
Orthophosphate as P	Lin		18695422		2.35	2.50	-6.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145223/3 Calibration Date: 06/17/2015 06:47

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-17-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	3.98	3.63	4.33
Nitrite as N	4.63	4.38	4.88
Sulfate	5.33	4.98	5.68
Bromide	6.06	5.71	6.41
Nitrate as N	6.94	6.69	7.19
Orthophosphate as P	9.34	9.09	9.59

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2015 06:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:37:35 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	11066108H	2.50	2.70	
2 Chloride	3.983	3.983	0.000	1116386545	50.0	52.0	
7 Nitrite as N	4.625	4.625	0.000	118698847	2.50	2.44	
3 Sulfate	5.325	5.325	0.000	810362824	50.0	51.6	
4 Bromide	6.058	6.058	0.000	98864214	10.0	10.5	
5 Nitrate as N	6.942	6.942	0.000	139124208	2.50	2.60	
6 Orthophosphate as P	9.342	9.342	0.000	46738556	2.50	2.35	

Reagents:

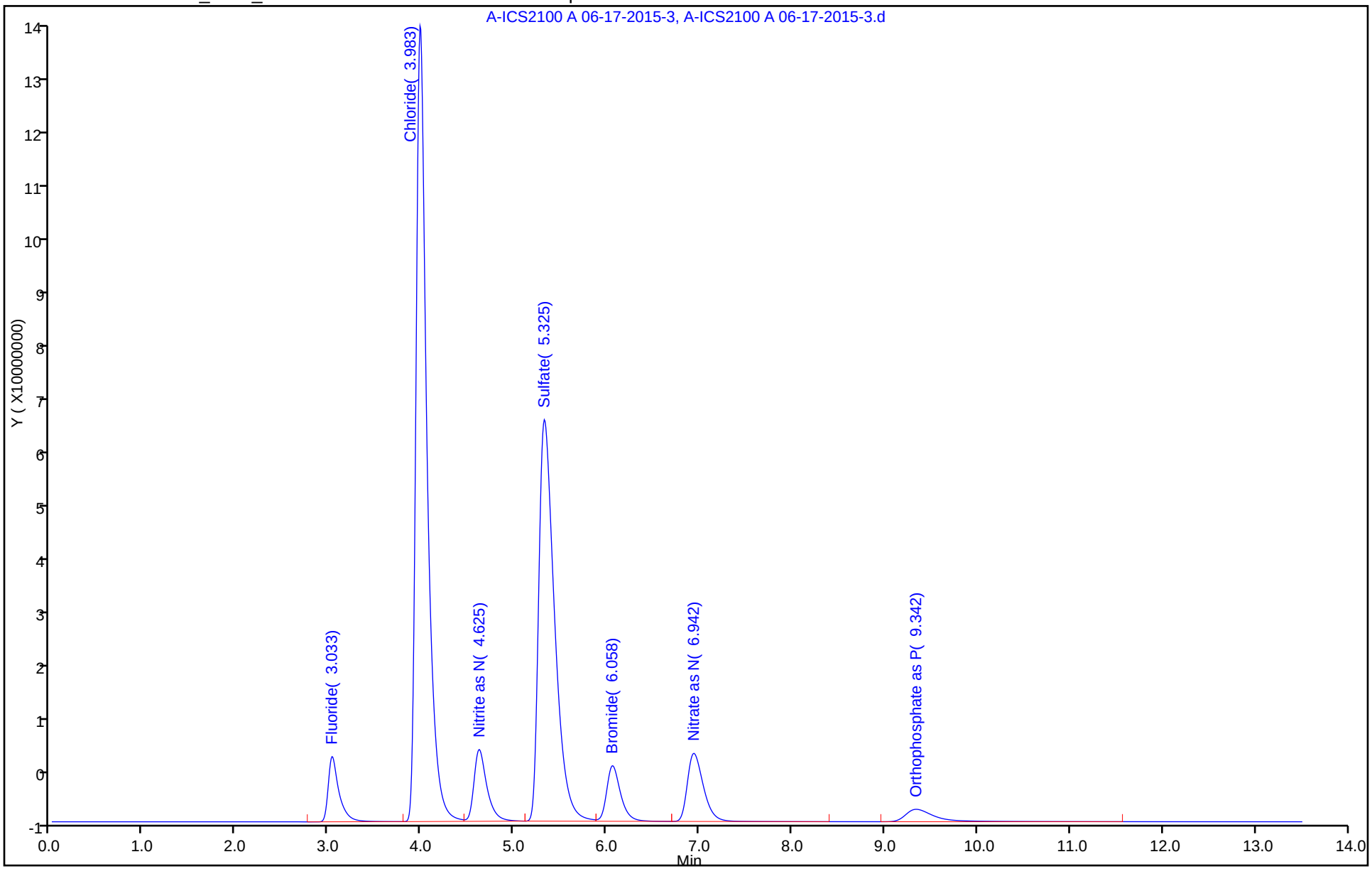
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 17-Jun-2015 13:37:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-3.d

Injection Date:	17-Jun-2015 06:47:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145223/15 Calibration Date: 06/17/2015 13:12

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-17-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4193610		2.55	2.50	2.2	10.0
Chloride	Lin2		21333029		49.6	50.0	-0.7	10.0
Nitrite as N	Lin2	54847550	45083215		2.31	2.50	-7.6	10.0
Sulfate	Lin2		15229112		48.5	50.0	-3.1	10.0
Bromide	Lin2		9397591		9.95	10.0	-0.5	10.0
Nitrate as N	Lin2		52961912		2.48	2.50	-1.0	10.0
Orthophosphate as P	Lin		16502053		2.09	2.50	-16.6*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145223/15 Calibration Date: 06/17/2015 13:12

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 06-17-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	3.98	3.63	4.33
Nitrite as N	4.62	4.37	4.87
Sulfate	5.33	4.98	5.68
Bromide	6.06	5.71	6.41
Nitrate as N	6.93	6.68	7.18
Orthophosphate as P	9.37	9.12	9.62

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2015 13:12:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-015
Misc. Info.: 15 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:53:10 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

First Level Reviewer: hartmanm Date: 17-Jun-2015 13:37:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	10484025H	2.50	2.55	
2 Chloride	3.975	3.975	0.000	1066651432	50.0	49.6	
7 Nitrite as N	4.617	4.617	0.000	112708037	2.50	2.31	
3 Sulfate	5.325	5.325	0.000	761455612	50.0	48.5	
4 Bromide	6.058	6.058	0.000	93975905	10.0	9.95	
5 Nitrate as N	6.933	6.933	0.000	132404781	2.50	2.48	
6 Orthophosphate as P	9.367	9.367	0.000	41255132	2.50	2.09	

Reagents:

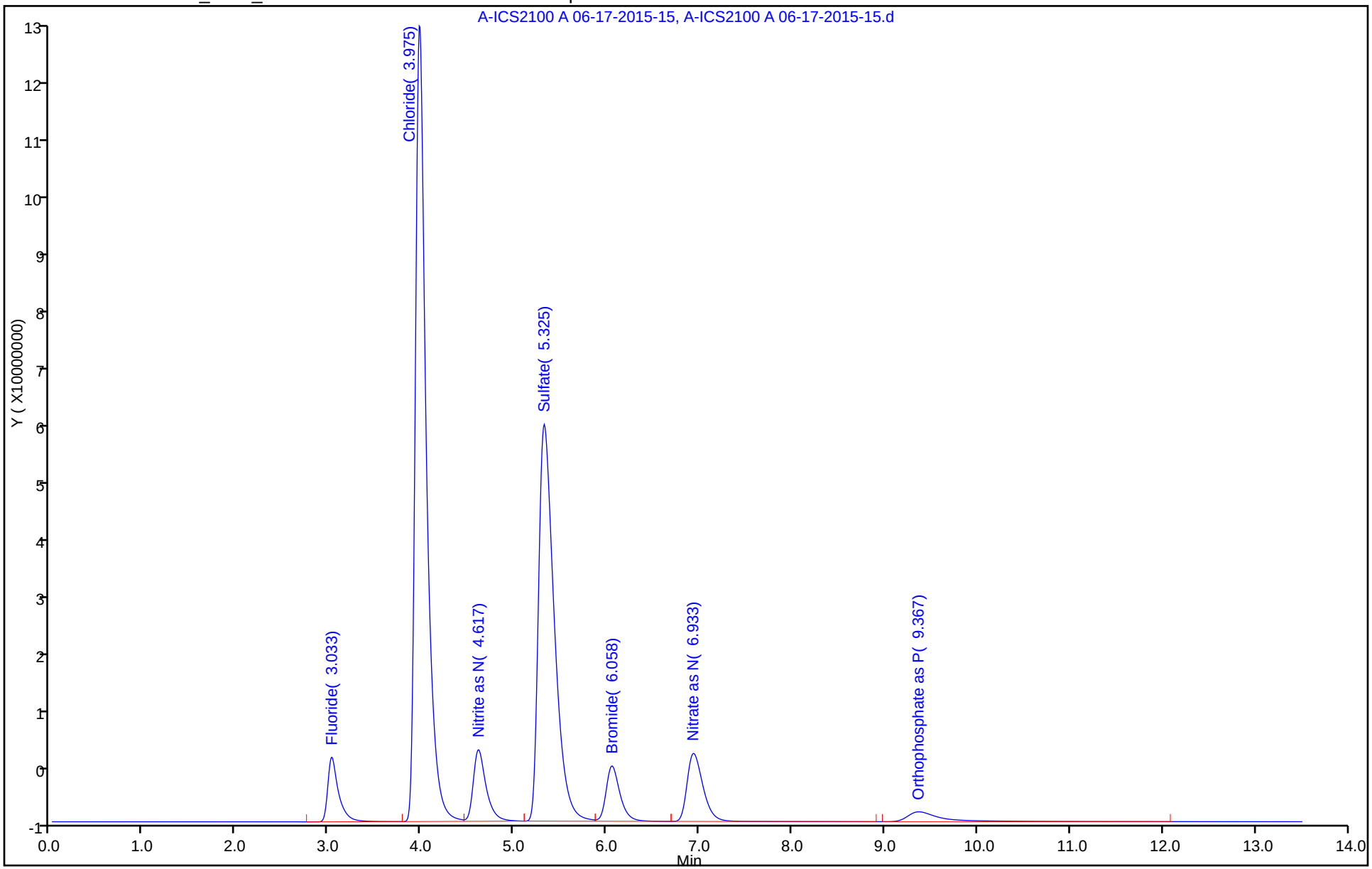
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 17-Jun-2015 13:53:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-15.d

Injection Date:	17-Jun-2015 13:12:00	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.: 180-45088-1

SDG No.:

Lab Sample ID: ICV 180-145224/2 Calibration Date: 06/17/2015 06:37

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		44285508		3.06	3.00	1.9	10.0
Chloride	Lin2		26229510		59.0	60.0	-1.6	10.0
Nitrite as N	Lin2	62099531	57517426		2.98	3.00	-0.7	10.0
Sulfate	Lin2		19352324		59.4	60.0	-1.0	10.0
Bromide	Lin2		881485		12.0	12.0	-0.1	10.0
Nitrate as N	Lin2		64319618		2.92	3.00	-2.6	10.0
Orthophosphate as P	Lin2		22659692		2.58	3.00	-14.1*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: ICV 180-145224/2 Calibration Date: 06/17/2015 06:37

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.90	4.55	5.25
Nitrite as N	5.73	5.49	5.99
Sulfate	6.61	6.28	6.98
Bromide	7.64	7.30	8.00
Nitrate as N	8.81	8.57	9.07
Orthophosphate as P	11.88	11.46	12.46

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 17-Jun-2015 06:37:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:17 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	132856523	3.00	3.06	
2 Chloride	4.900	4.900	0.000	1573770627	60.0	59.0	
7 Nitrite as N	5.733	5.742	-0.009	172621299	3.00	2.98	
3 Sulfate	6.608	6.625	-0.017	1161139460	60.0	59.4	
4 Bromide	7.642	7.650	-0.008	10577818	12.0	12.0	H
5 Nitrate as N	8.808	8.817	-0.009	192958855	3.00	2.92	
6 Orthophosphate as P	11.883	11.958	-0.075	67979075	3.00	2.58	

Reagents:

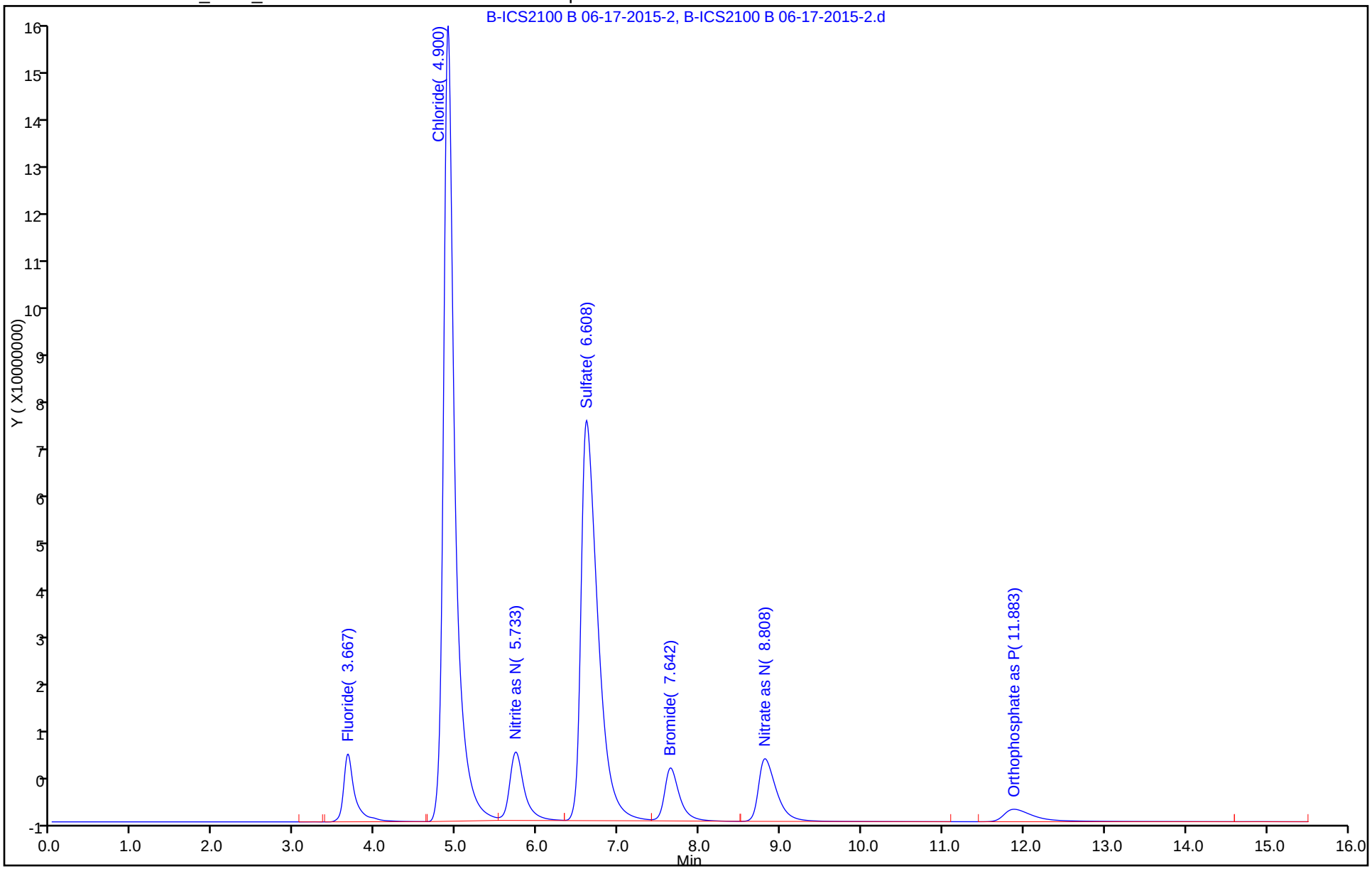
icicv_01289 Amount Added: 1.00 Units: mL

Report Date: 18-Jun-2015 11:27:35 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-2.d

Injection Date:	17-Jun-2015 06:37:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145224/3 Calibration Date: 06/17/2015 06:54

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43713367		2.51	2.50	0.6	10.0
Chloride	Lin2		26924407		50.5	50.0	1.0	10.0
Nitrite as N	Lin2	62099531	58177757		2.51	2.50	0.3	10.0
Sulfate	Lin2		19656815		50.3	50.0	0.5	10.0
Bromide	Lin2		898402		10.2	10.0	1.8	10.0
Nitrate as N	Lin2		67044068		2.54	2.50	1.6	10.0
Orthophosphate as P	Lin2		22839112		2.18	2.50	-13.0*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145224/3 Calibration Date: 06/17/2015 06:54

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.89	4.54	5.24
Nitrite as N	5.74	5.49	5.99
Sulfate	6.62	6.27	6.97
Bromide	7.64	7.29	7.99
Nitrate as N	8.81	8.56	9.06
Orthophosphate as P	11.90	11.40	12.40

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2015 06:54:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-003
Misc. Info.: 3 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	109283418	2.50	2.51	
2 Chloride	4.892	4.892	0.000	1346220335	50.0	50.5	
7 Nitrite as N	5.742	5.742	0.000	145444392	2.50	2.51	
3 Sulfate	6.617	6.617	0.000	982840765	50.0	50.3	
4 Bromide	7.642	7.642	0.000	8984017H	10.0	10.2	
5 Nitrate as N	8.808	8.808	0.000	167610169	2.50	2.54	
6 Orthophosphate as P	11.900	11.900	0.000	57097780	2.50	2.18	

Reagents:

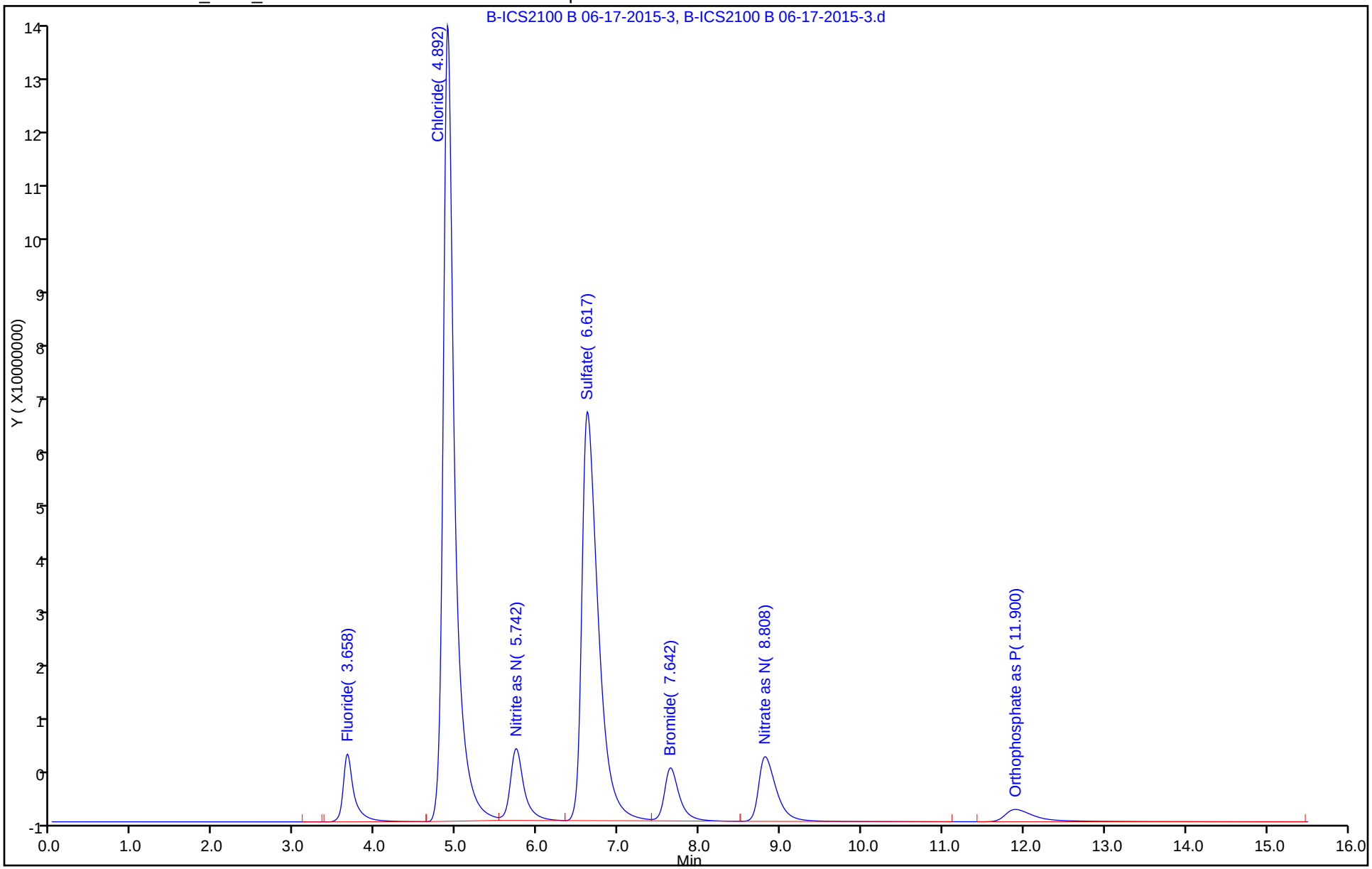
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 18-Jun-2015 11:27:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-3.d

Injection Date:	17-Jun-2015 06:54:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145224/15 Calibration Date: 06/17/2015 12:34

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		41321451		2.38	2.50	-4.9	10.0
Chloride	Lin2		25866849		48.5	50.0	-3.0	10.0
Nitrite as N	Lin2	62099531	55445622		2.39	2.50	-4.5	10.0
Sulfate	Lin2		18699198		47.8	50.0	-4.4	10.0
Bromide	Lin2		853720		9.68	10.0	-3.2	10.0
Nitrate as N	Lin2		64043736		2.43	2.50	-3.0	10.0
Orthophosphate as P	Lin2		20586137		1.97	2.50	-21.3*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145224/15 Calibration Date: 06/17/2015 12:34

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.90	4.55	5.25
Nitrite as N	5.74	5.49	5.99
Sulfate	6.63	6.28	6.98
Bromide	7.65	7.30	8.00
Nitrate as N	8.82	8.57	9.07
Orthophosphate as P	11.91	11.41	12.41

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2015 12:34:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-015
Misc. Info.: 15 CCV
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:42 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	103303628	2.50	2.38	
2 Chloride	4.900	4.900	0.000	1293342461	50.0	48.5	
7 Nitrite as N	5.742	5.742	0.000	138614056	2.50	2.39	
3 Sulfate	6.625	6.625	0.000	934959901	50.0	47.8	
4 Bromide	7.650	7.650	0.000	8537202H	10.0	9.68	
5 Nitrate as N	8.817	8.817	0.000	160109339	2.50	2.43	
6 Orthophosphate as P	11.908	11.908	0.000	51465343	2.50	1.97	

Reagents:

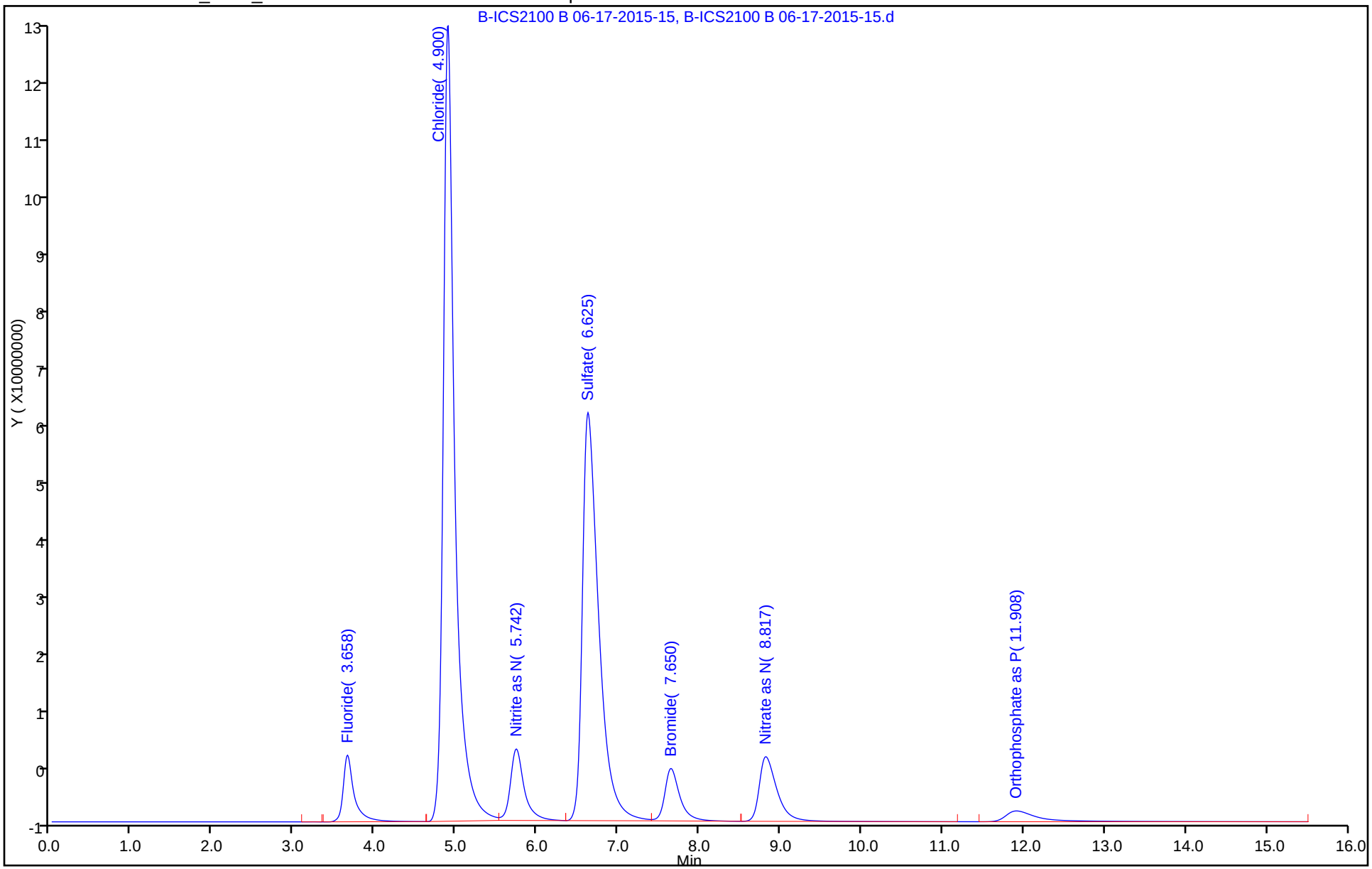
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 18-Jun-2015 11:27:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-15.d

Injection Date:	17-Jun-2015 12:34:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145224/23 Calibration Date: 06/17/2015 14:53

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-23.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		41633310		2.40	2.50	-4.2	10.0
Chloride	Lin2		26101809		49.0	50.0	-2.1	10.0
Nitrite as N	Lin2	62099531	55838232		2.41	2.50	-3.8	10.0
Sulfate	Lin2		18693609		47.8	50.0	-4.4	10.0
Bromide	Lin2		872204		9.88	10.0	-1.2	10.0
Nitrate as N	Lin2		64291985		2.44	2.50	-2.6	10.0
Orthophosphate as P	Lin2		20761744		1.98	2.50	-20.7*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: CCV 180-145224/23 Calibration Date: 06/17/2015 14:53

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 06-17-2015-23.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.90	4.55	5.25
Nitrite as N	5.74	5.49	5.99
Sulfate	6.63	6.28	6.98
Bromide	7.65	7.30	8.00
Nitrate as N	8.82	8.57	9.07
Orthophosphate as P	11.91	11.41	12.41

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-23.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2015 14:53:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-023
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:45 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	104083276	2.50	2.40	
2 Chloride	4.900	4.900	0.000	1305090456	50.0	49.0	
7 Nitrite as N	5.742	5.742	0.000	139595579	2.50	2.41	
3 Sulfate	6.625	6.625	0.000	934680465	50.0	47.8	
4 Bromide	7.650	7.650	0.000	8722042H	10.0	9.88	
5 Nitrate as N	8.817	8.817	0.000	160729962	2.50	2.44	
6 Orthophosphate as P	11.908	11.908	0.000	51904361	2.50	1.98	

Reagents:

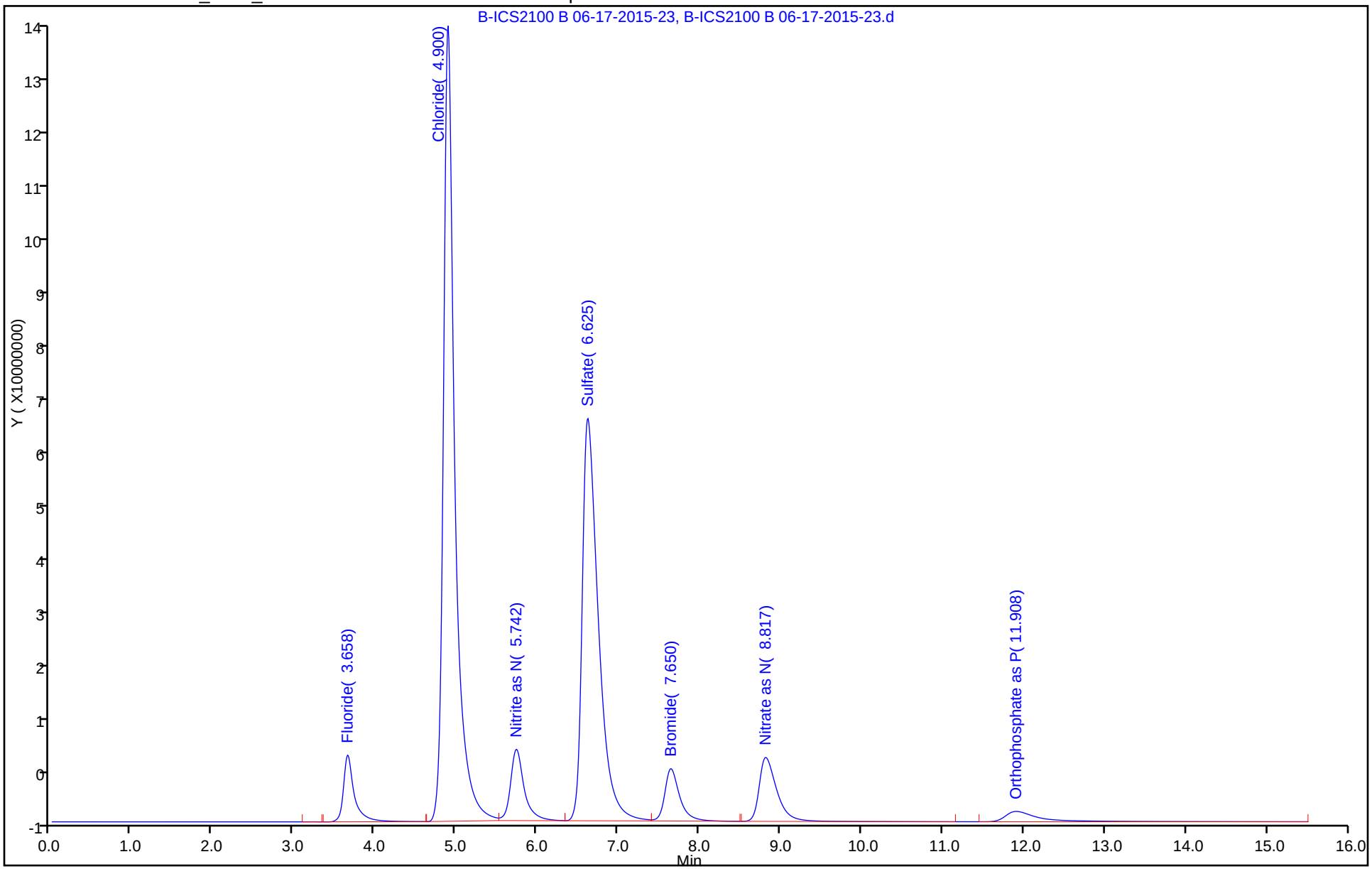
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 18-Jun-2015 11:27:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-23.d

Injection Date:	17-Jun-2015 14:53:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	23
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145170/6

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 13:28

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0136	J	0.10	0.0062
16887-00-6	Chloride	0.257	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 16-Jun-2015 13:28:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:32 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

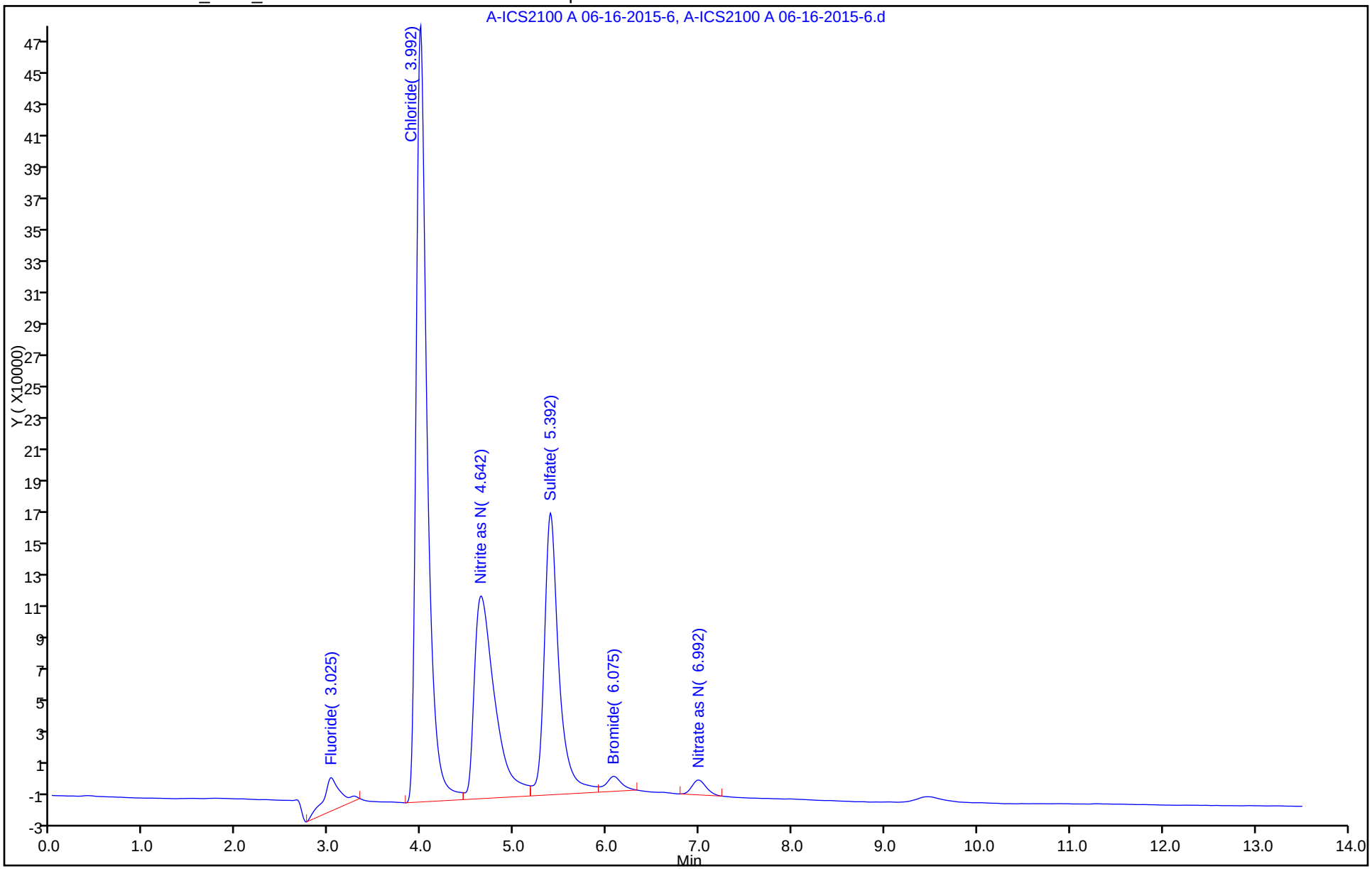
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	20724H		0.0130	
2 Chloride	3.992	3.983	0.009	4008558		0.2567	
7 Nitrite as N	4.642	4.617	0.025	1954628		0.0156	
3 Sulfate	5.392	5.325	0.067	1934492		0.0466	
4 Bromide	6.075	6.058	0.017	111439		0.0271	
5 Nitrate as N	6.992	6.942	0.050	98928		0.0136	
6 Orthophosphate as P		9.367				ND	

Report Date: 16-Jun-2015 17:29:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-6.d

Injection Date:	16-Jun-2015 13:28:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145223/6

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 07:33

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0142	J	0.10	0.0062
16887-00-6	Chloride	0.280	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 17-Jun-2015 07:33:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:37:30 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

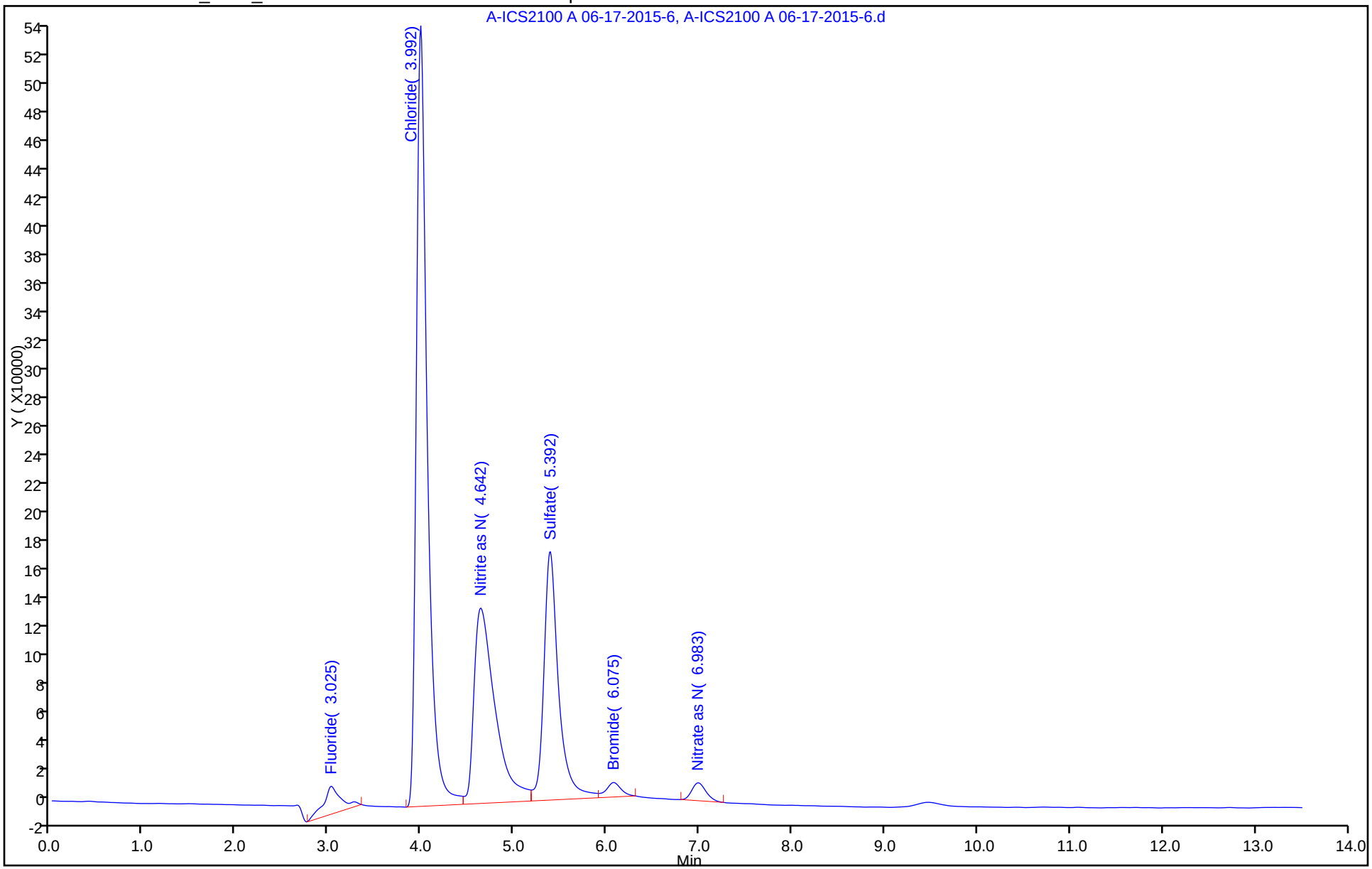
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	19430H		0.0127	
2 Chloride	3.992	3.975	0.017	4501190		0.2796	
7 Nitrite as N	4.642	4.617	0.025	2174555		0.0201	
3 Sulfate	5.392	5.325	0.067	1921632		0.0458	
4 Bromide	6.075	6.058	0.017	113920		0.0274	
5 Nitrate as N	6.983	6.933	0.050	133372		0.0142	
6 Orthophosphate as P		9.367				ND	

Report Date: 17-Jun-2015 13:37:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-6.d

Injection Date:	17-Jun-2015 07:33:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-145224/6

Matrix: Water Lab File ID: B-ICS2100 B 06-17-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 07:46

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 17-Jun-2015 07:46:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

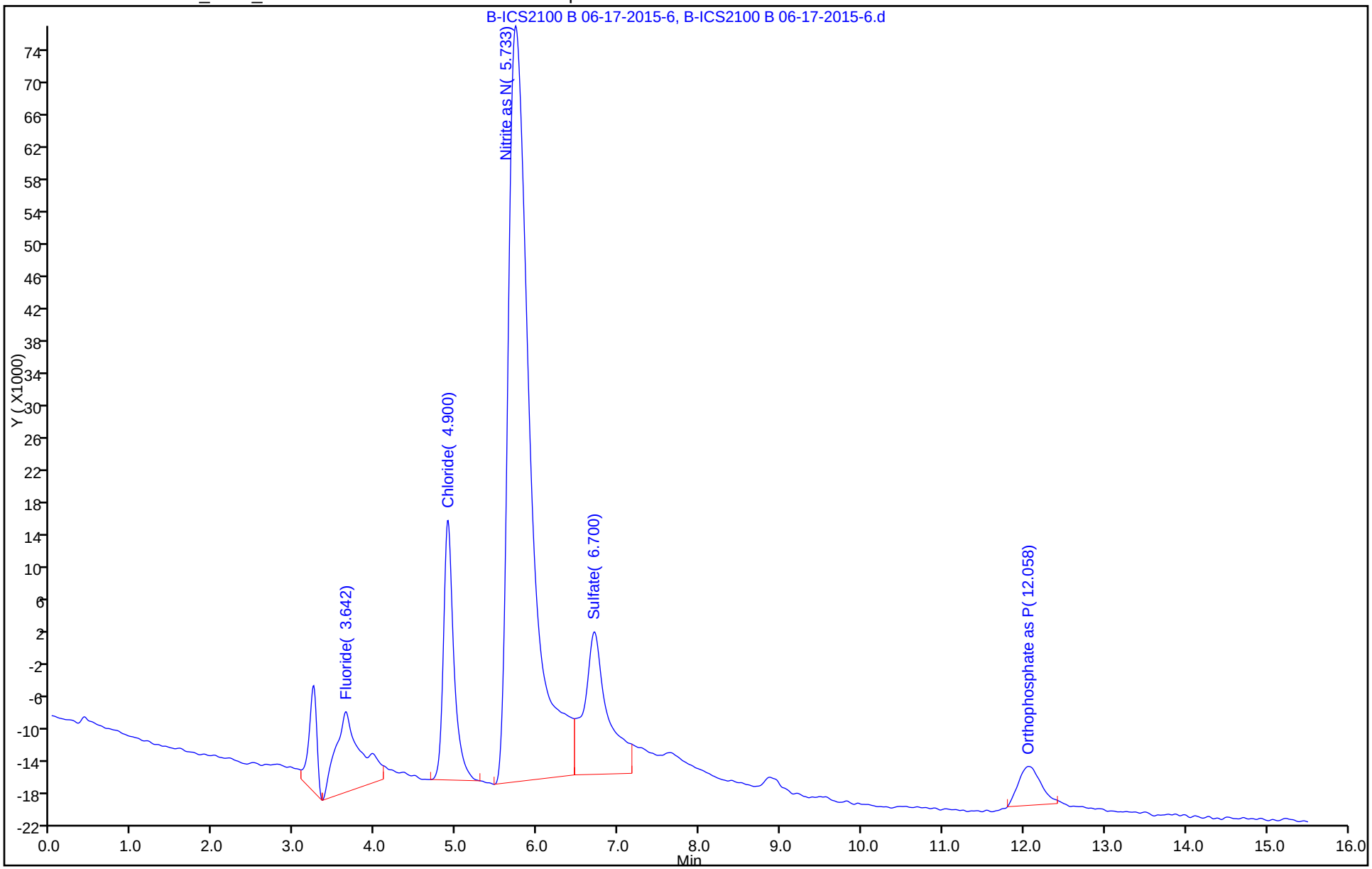
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	213075		0.001634	
2 Chloride	4.900	4.892	0.008	285516		0.0711	
7 Nitrite as N	5.733	5.742	-0.009	1780755		0.0140	
3 Sulfate	6.700	6.617	0.083	357879		-0.1825	
4 Bromide		7.642				ND	
5 Nitrate as N		8.808				ND	
6 Orthophosphate as P	12.058	11.900	0.158	91857		0.0701	

Report Date: 18-Jun-2015 11:27:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-6.d

Injection Date:	17-Jun-2015 07:46:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145170/4

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 12:57

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0145	J	0.10	0.0062
16887-00-6	Chloride	0.299	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-Jun-2015 12:57:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:32 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

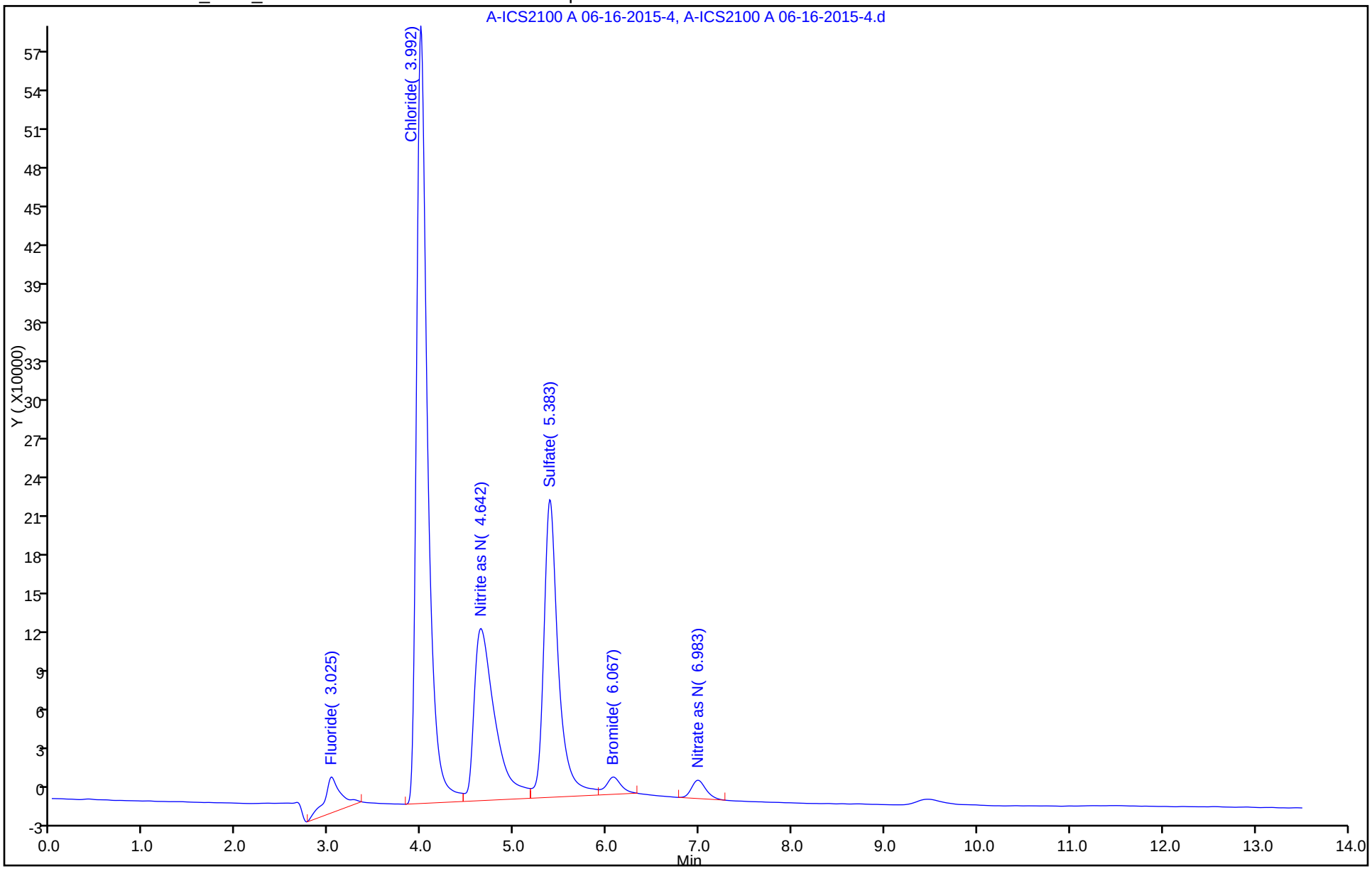
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	27240H		0.0146	
2 Chloride	3.992	3.983	0.009	4923196		0.2992	
7 Nitrite as N	4.642	4.617	0.025	2046582		0.0175	
3 Sulfate	5.383	5.325	0.058	2485127		0.0817	
4 Bromide	6.067	6.058	0.009	151236		0.0313	
5 Nitrate as N	6.983	6.942	0.041	151163		0.0145	
6 Orthophosphate as P		9.367				ND	

Report Date: 16-Jun-2015 17:29:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-4.d

Injection Date:	16-Jun-2015 12:57:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145170/16

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 16:17

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0168	J	0.10	0.0062
16887-00-6	Chloride	0.294	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-Jun-2015 16:17:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-016
Misc. Info.: 16 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:37 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

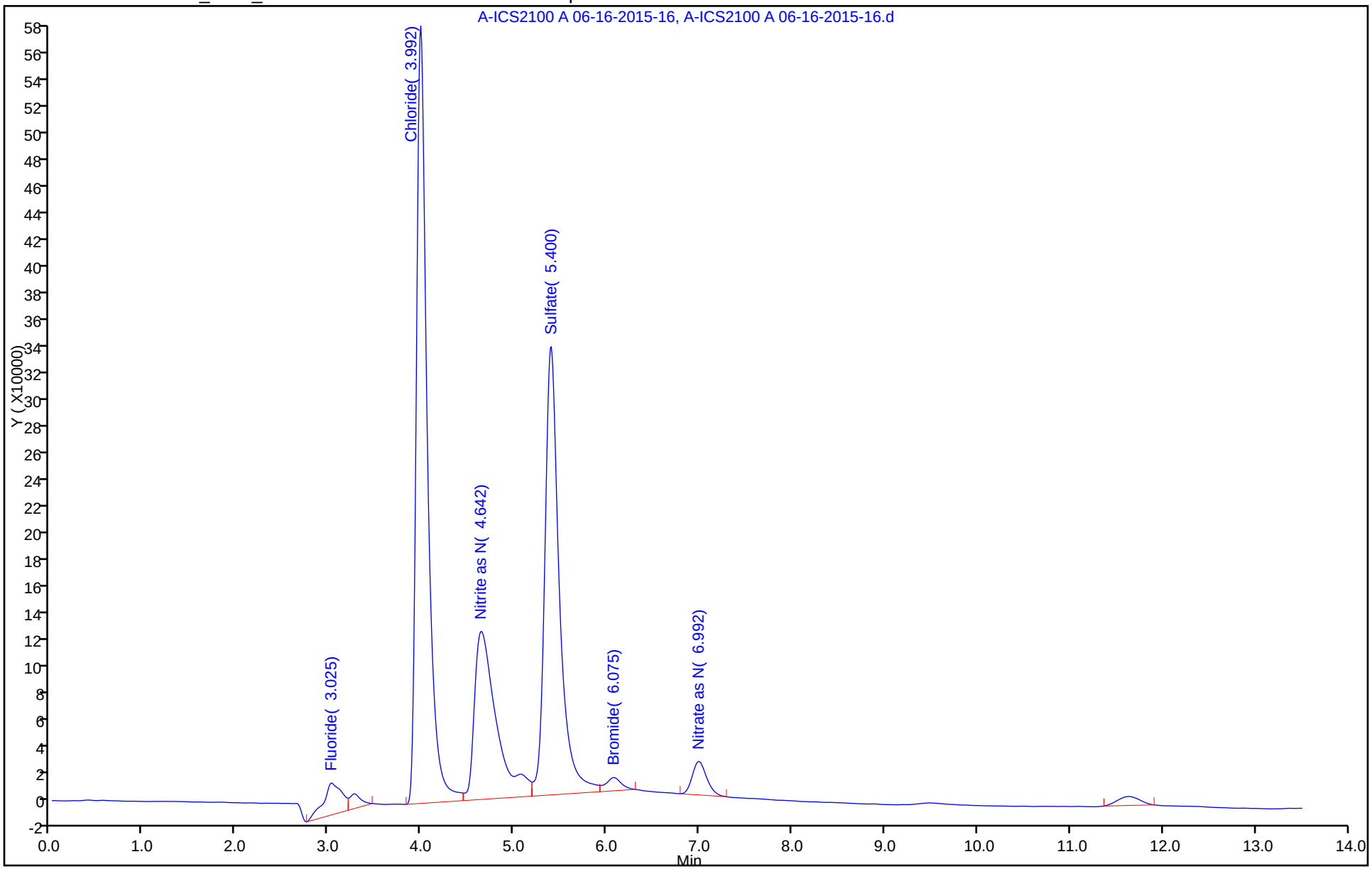
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.042	-0.017	23916H		0.0138	
2 Chloride	3.992	3.992	0.000	4813167		0.2941	
7 Nitrite as N	4.642	4.625	0.017	2086522		0.0183	
3 Sulfate	5.400	5.325	0.075	3683070		0.1581	
4 Bromide	6.075	6.067	0.008	117010		0.0277	
5 Nitrate as N	6.992	6.950	0.042	271441		0.0168	
6 Orthophosphate as P		9.333				ND	

Report Date: 16-Jun-2015 17:52:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-16.d

Injection Date:	16-Jun-2015 16:17:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145170/28

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 20:20

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0145	J	0.10	0.0062
16887-00-6	Chloride	0.211	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-Jun-2015 20:20:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-028
Misc. Info.: 3502 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 06:40:01 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

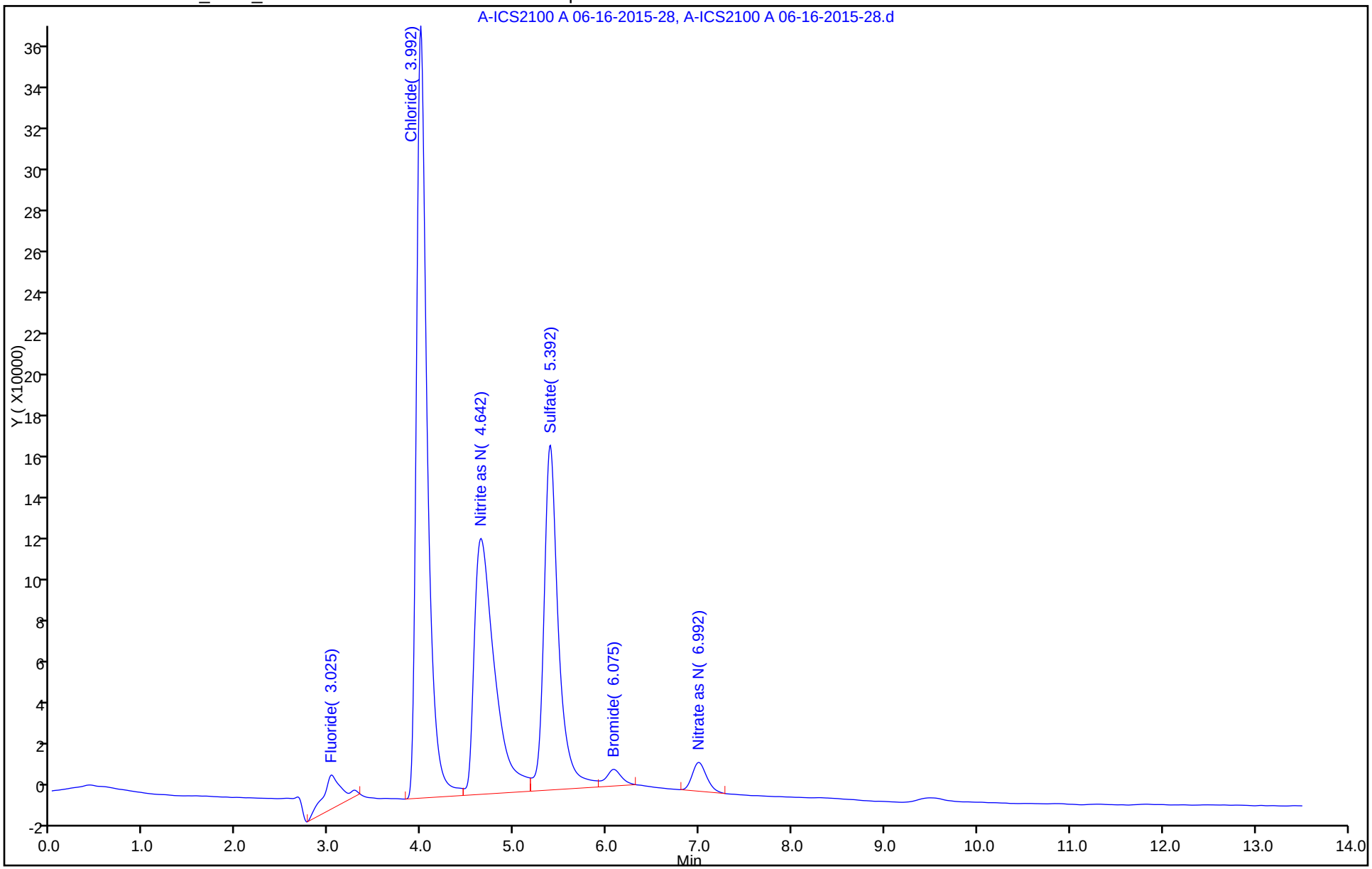
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	16316H		0.0120	
2 Chloride	3.992	3.983	0.009	3019640		0.2107	
7 Nitrite as N	4.642	4.625	0.017	1894192		0.0143	
3 Sulfate	5.392	5.325	0.067	1823086		0.0395	
4 Bromide	6.075	6.067	0.008	94653		0.0253	
5 Nitrate as N	6.992	6.942	0.050	148950		0.0145	
6 Orthophosphate as P		9.333				ND	

Report Date: 17-Jun-2015 06:40:02 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-28.d

Injection Date:	16-Jun-2015 20:20:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145223/4

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 07:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0149	J	0.10	0.0062
16887-00-6	Chloride	0.313	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Jun-2015 07:03:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:37:30 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

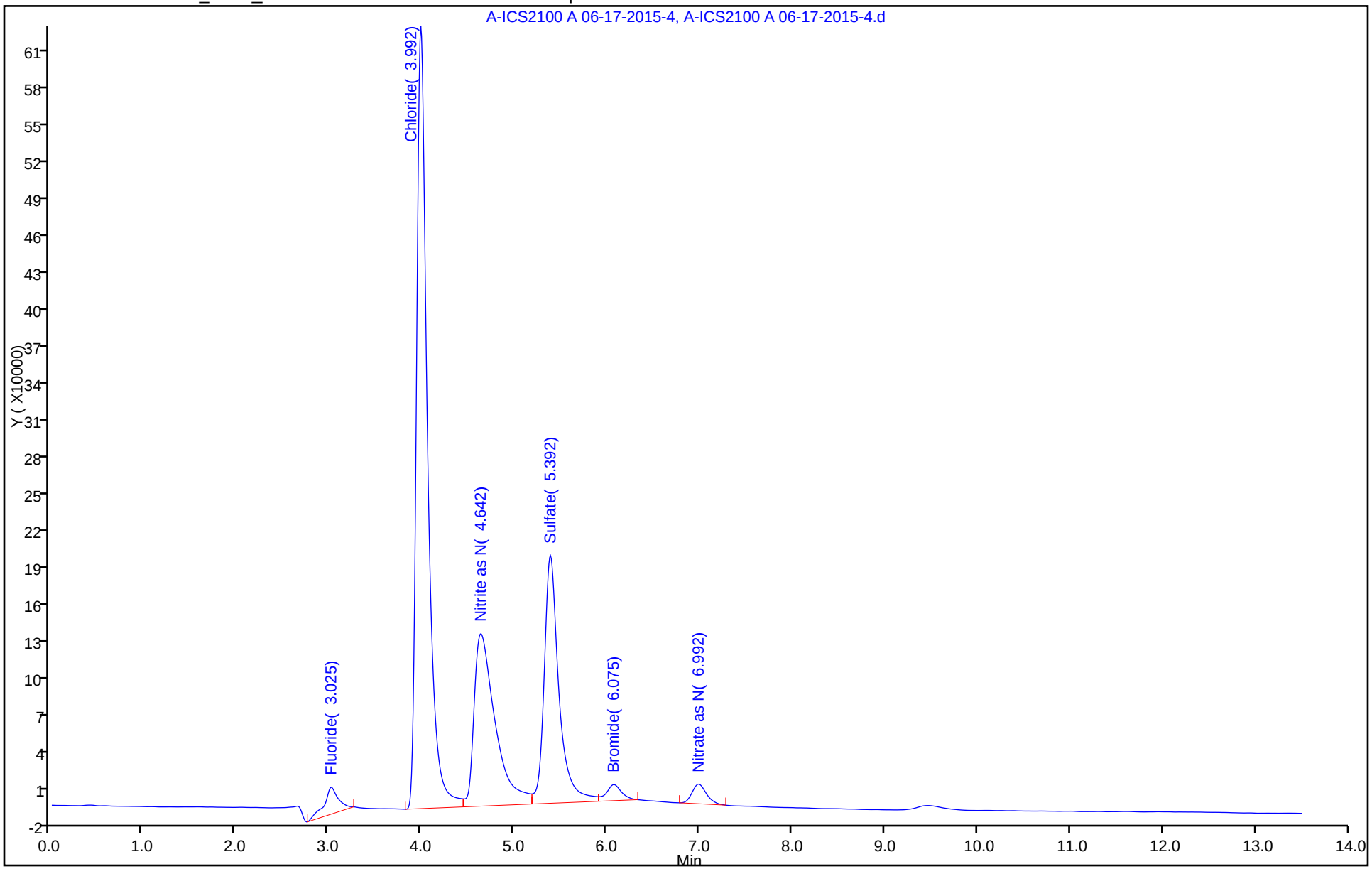
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	21558H		0.0132	
2 Chloride	3.992	3.975	0.017	5226423		0.3133	
7 Nitrite as N	4.642	4.617	0.025	2209323		0.0208	
3 Sulfate	5.392	5.325	0.067	2207014		0.0640	
4 Bromide	6.075	6.058	0.017	148169		0.0310	
5 Nitrate as N	6.992	6.933	0.059	171213		0.0149	
6 Orthophosphate as P		9.367				ND	

Report Date: 17-Jun-2015 13:37:35 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-4.d

Injection Date:	17-Jun-2015 07:03:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145223/16

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 13:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0191	J	0.10	0.0062
16887-00-6	Chloride	0.469	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Jun-2015 13:29:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-016
Misc. Info.: 16 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:53:10 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

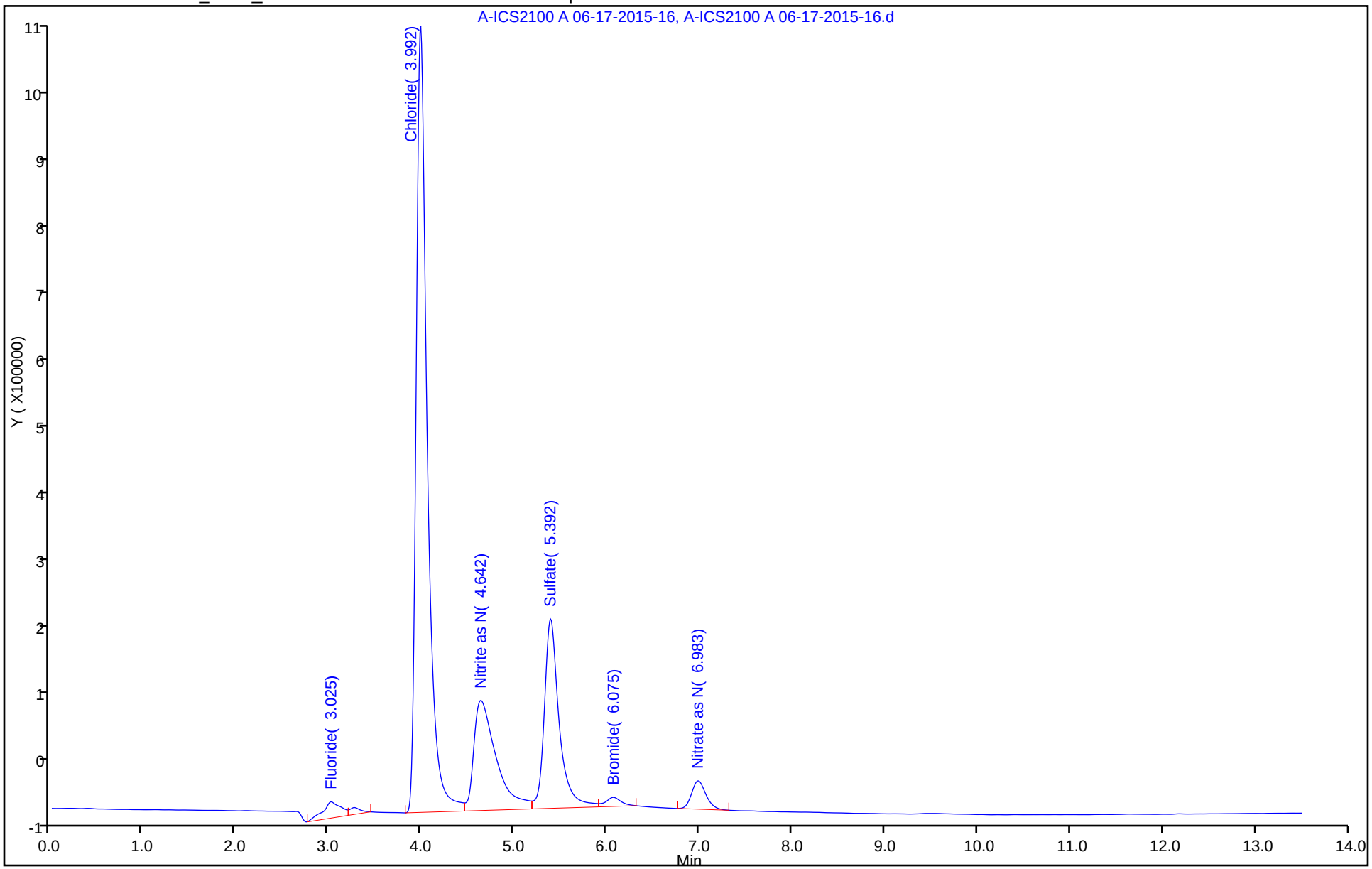
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.033	-0.008	21150H		0.0131	
2 Chloride	3.992	3.975	0.017	8586197		0.4694	
7 Nitrite as N	4.642	4.617	0.025	2415083		0.0251	
3 Sulfate	5.392	5.325	0.067	2752189		0.0987	
4 Bromide	6.075	6.058	0.017	138283		0.0299	
5 Nitrate as N	6.983	6.933	0.050	398021		0.0191	
6 Orthophosphate as P		9.367				ND	

Report Date: 17-Jun-2015 13:53:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-16.d

Injection Date:	17-Jun-2015 13:29:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145224/4

Matrix: Water Lab File ID: B-ICS2100 B 06-17-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 07:11

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Jun-2015 07:11:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-004
Misc. Info.: 4 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

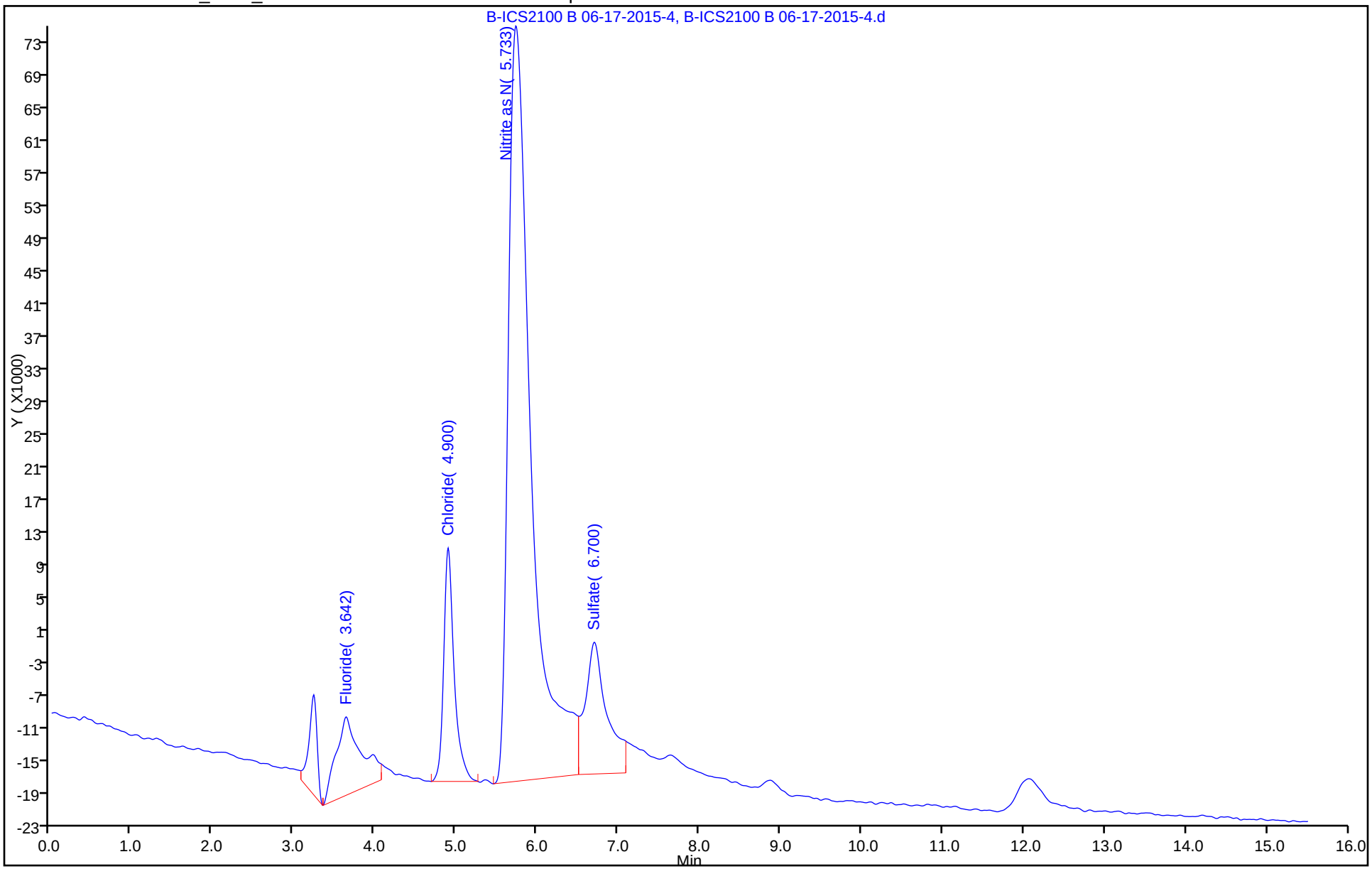
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	206123		0.001474	
2 Chloride	4.900	4.892	0.008	257180		0.0700	
7 Nitrite as N	5.733	5.742	-0.009	1820519		0.0147	
3 Sulfate	6.700	6.617	0.083	302534		-0.1853	
4 Bromide		7.642				ND	
5 Nitrate as N		8.808				ND	
6 Orthophosphate as P		11.900				ND	

Report Date: 18-Jun-2015 11:27:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-4.d

Injection Date:	17-Jun-2015 07:11:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145224/16

Matrix: Water Lab File ID: B-ICS2100 B 06-17-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 12:52

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0153	J	0.10	0.0062
16887-00-6	Chloride	0.340	J	1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Jun-2015 12:52:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-016
Misc. Info.: 16 CCB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:42 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

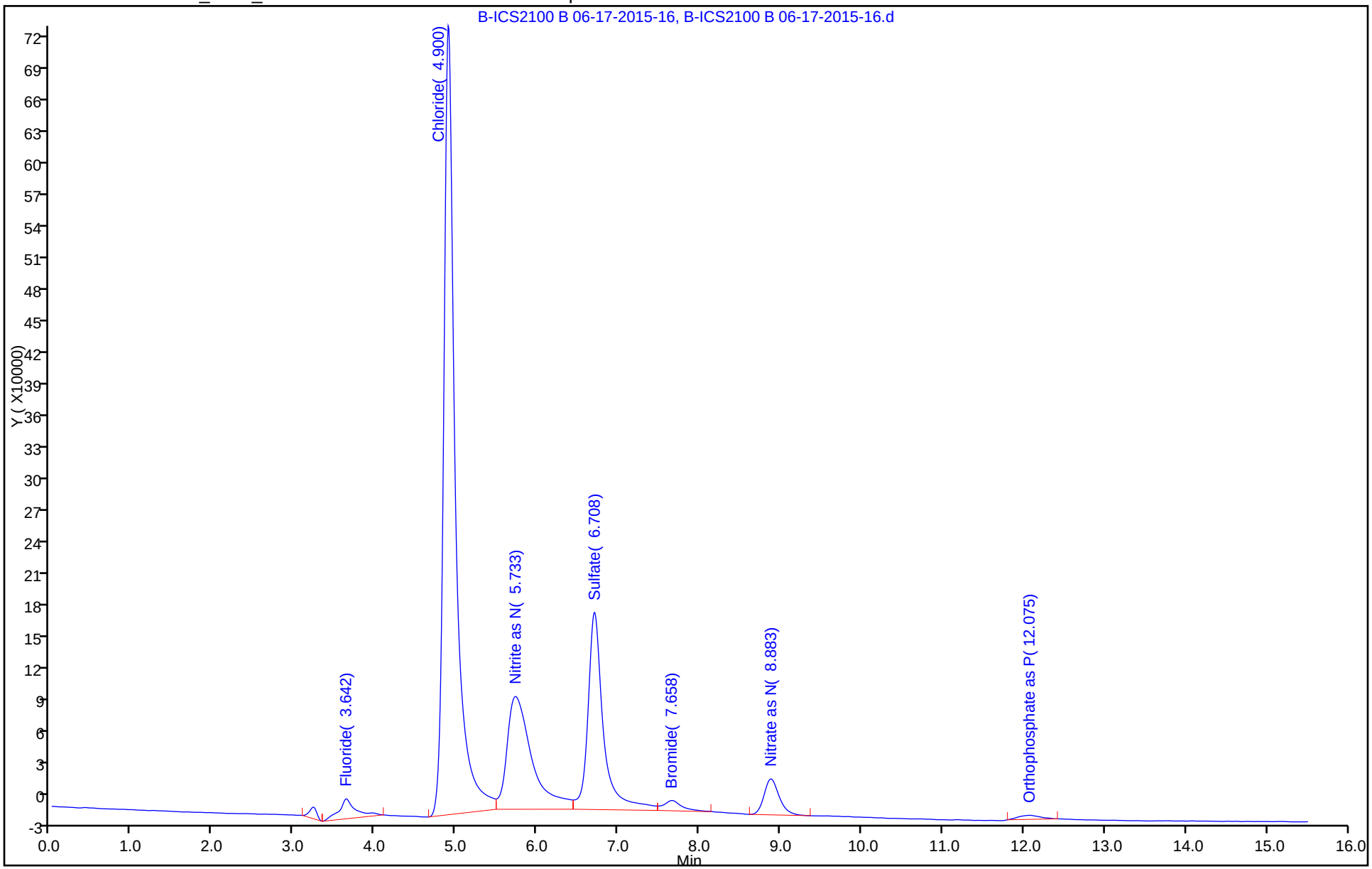
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	273502		0.003027	
2 Chloride	4.900	4.900	0.000	7449724		0.3395	
7 Nitrite as N	5.733	5.742	-0.009	2297862		0.0230	
3 Sulfate	6.708	6.625	0.083	2486696		-0.0732	
4 Bromide	7.658	7.650	0.008	9705H		0.0221	
5 Nitrate as N	8.883	8.817	0.066	443542		0.0153	
6 Orthophosphate as P	12.075	11.908	0.167	72066		0.0693	

Report Date: 18-Jun-2015 11:27:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-16.d

Injection Date:	17-Jun-2015 12:52:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-145224/24

Matrix: Water Lab File ID: B-ICS2100 B 06-17-2015-24.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 15:10

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-24.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Jun-2015 15:10:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-024
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:45 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

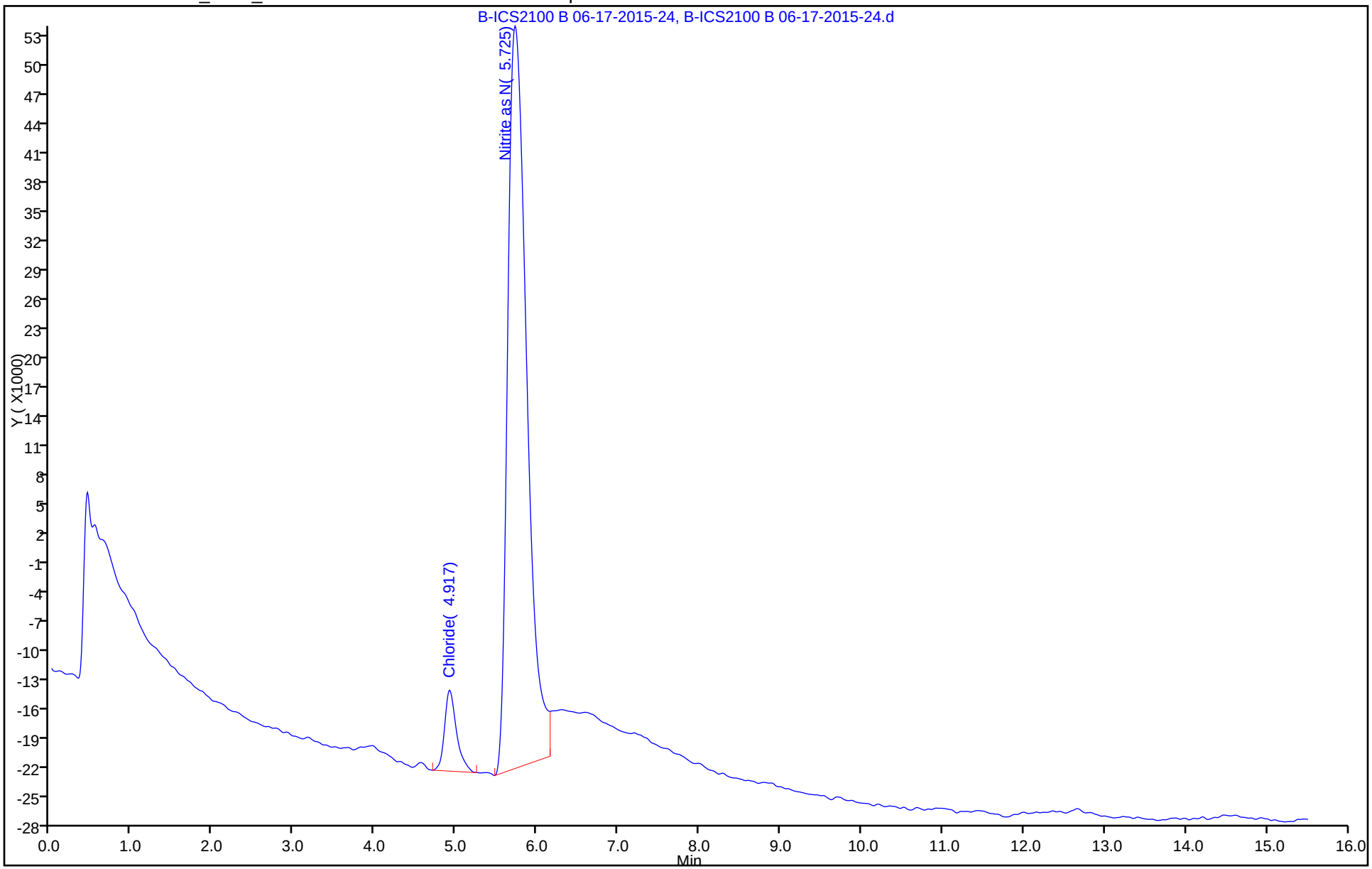
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.658				ND	
2 Chloride	4.917	4.900	0.017	84890		0.0635	
7 Nitrite as N	5.725	5.742	-0.017	1243113		0.004690	
3 Sulfate		6.625				ND	
4 Bromide		7.650				ND	
5 Nitrate as N		8.817				ND	
6 Orthophosphate as P		11.908				ND	

Report Date: 18-Jun-2015 11:27:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-24.d

Injection Date:	17-Jun-2015 15:10:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-145170/5

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 13:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.57		0.10	0.0062
16887-00-6	Chloride	51.4		1.0	0.20
14808-79-8	Sulfate	50.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 16-Jun-2015 13:13:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:29:32 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	10926924H	2.50	2.66	
2 Chloride	3.983	3.983	0.000	1105478939	50.0	51.4	
7 Nitrite as N	4.617	4.617	0.000	117548282	2.50	2.41	
3 Sulfate	5.325	5.325	0.000	796832451	50.0	50.7	
4 Bromide	6.058	6.058	0.000	99042539	10.0	10.5	
5 Nitrate as N	6.942	6.942	0.000	137755719	2.50	2.57	
6 Orthophosphate as P	9.358	9.367	-0.009	46735266	2.50	2.35	

Reagents:

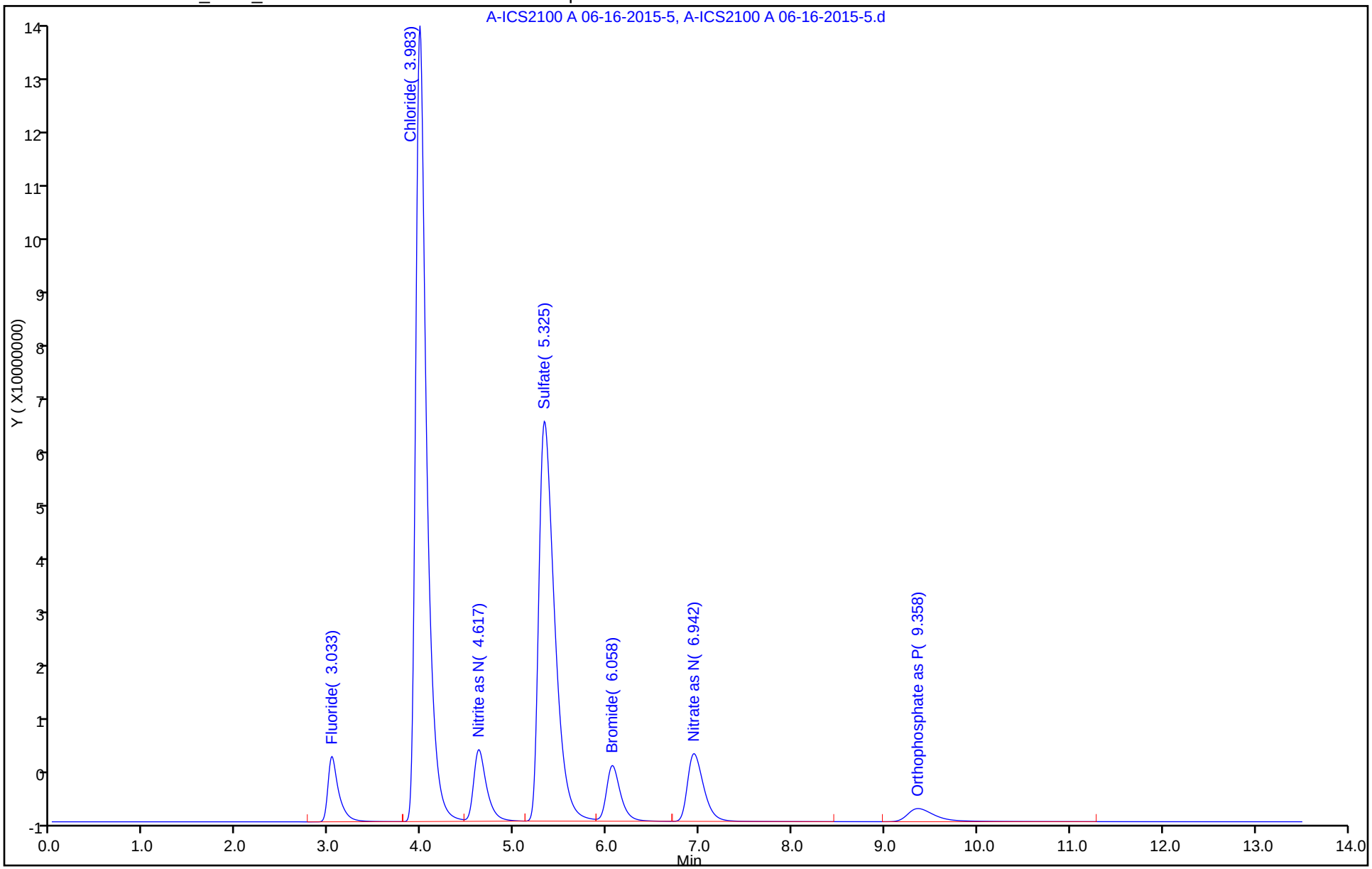
icccv_01256 Amount Added: 1.00 Units: mL

Report Date: 16-Jun-2015 17:29:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-5.d

Injection Date:	16-Jun-2015 13:13:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-145223/5

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 07:18

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.52		0.10	0.0062
16887-00-6	Chloride	50.5		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\20150617-7434.b\A-ICS2100 A 06-17-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 17-Jun-2015 07:18:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:37:30 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	10773247H	2.50	2.62	
2 Chloride	3.983	3.975	0.008	1084584768	50.0	50.5	
7 Nitrite as N	4.625	4.617	0.008	115544385	2.50	2.37	
3 Sulfate	5.325	5.325	0.000	781635436	50.0	49.8	
4 Bromide	6.058	6.058	0.000	95995569	10.0	10.2	
5 Nitrate as N	6.942	6.933	0.009	135058536	2.50	2.52	
6 Orthophosphate as P	9.342	9.367	-0.025	45199017	2.50	2.28	

Reagents:

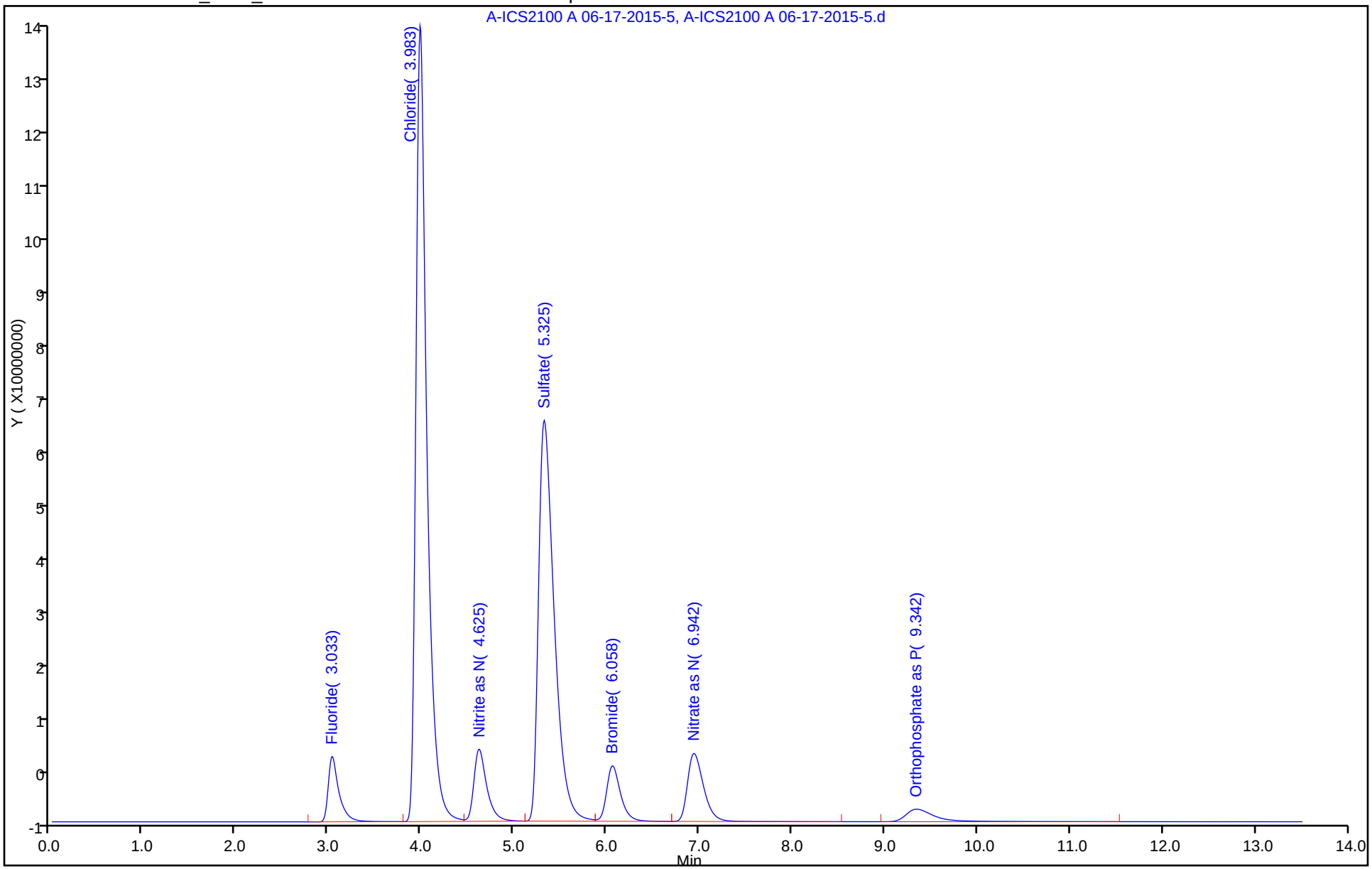
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 17-Jun-2015 13:37:35 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-5.d

Injection Date:	17-Jun-2015 07:18:00	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.: 180-45088-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-145224/5

Matrix: Water Lab File ID: B-ICS2100 B 06-17-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 07:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145224 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.54		0.10	0.0062
16887-00-6	Chloride	50.6		1.0	0.20
14808-79-8	Sulfate	50.4		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 17-Jun-2015 07:29:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007435-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 18-Jun-2015 11:27:35 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	109195741	2.50	2.51	
2 Chloride	4.892	4.892	0.000	1347553816	50.0	50.6	
7 Nitrite as N	5.742	5.742	0.000	145545519	2.50	2.51	
3 Sulfate	6.617	6.617	0.000	985757287	50.0	50.4	
4 Bromide	7.642	7.642	0.000	8982906H	10.0	10.2	
5 Nitrate as N	8.808	8.808	0.000	167571957	2.50	2.54	
6 Orthophosphate as P	11.908	11.900	0.008	57554330	2.50	2.19	

Reagents:

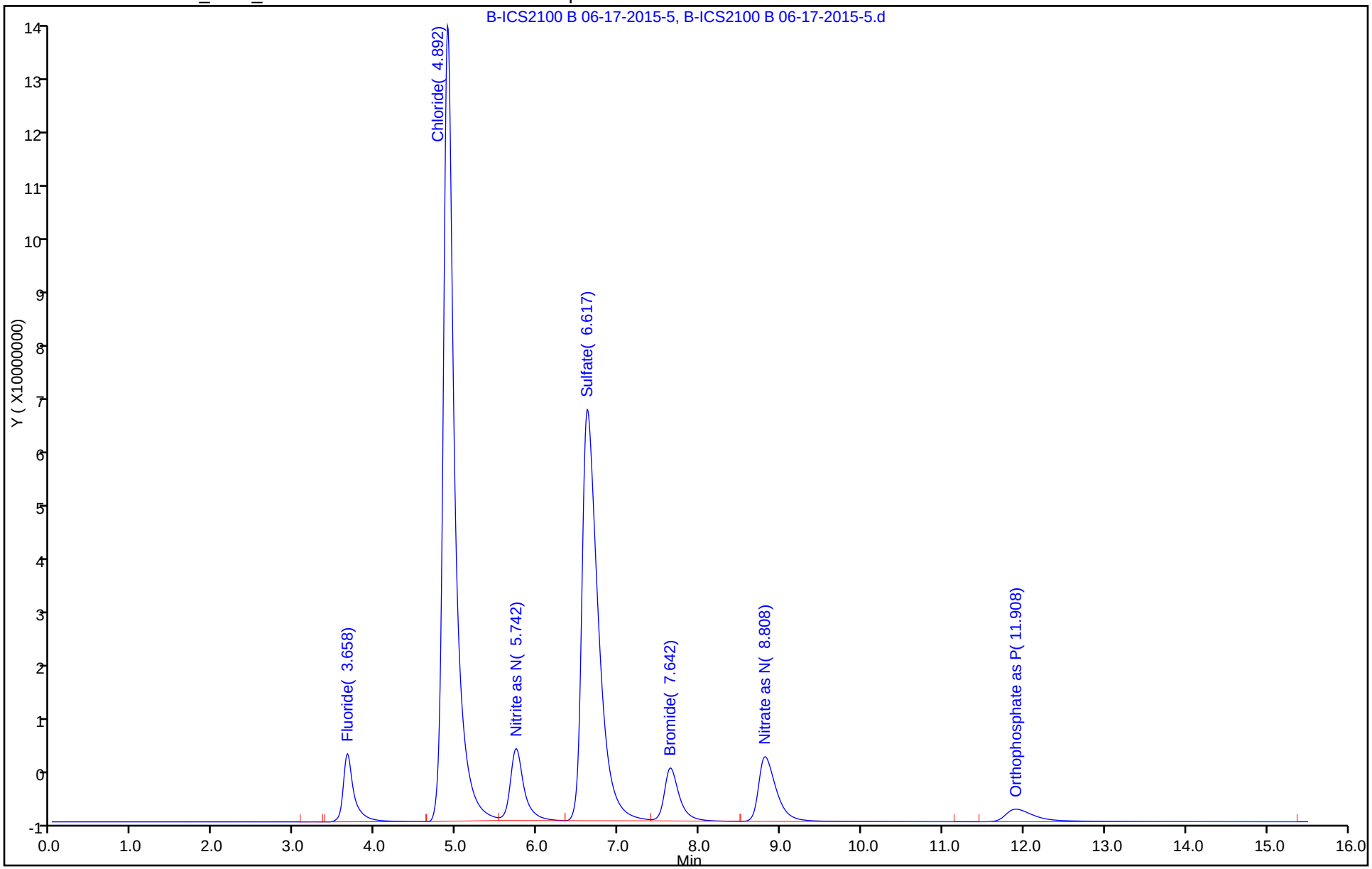
icccv_01257 Amount Added: 1.00 Units: mL

Report Date: 18-Jun-2015 11:27:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150617-7435.b\B-ICS2100 B 06-17-2015-5.d

Injection Date:	17-Jun-2015 07:29:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 MS | Lab Sample ID: 180-45088-2 MS

Matrix: Water | Lab File ID: A-ICS2100 A 06-16-2015-13.d

Analysis Method: 300.0 | Date Collected: 06/15/2015 11:25

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/16/2015 15:25

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.16		0.10	0.0062
16887-00-6	Chloride	66.8		1.0	0.20
14808-79-8	Sulfate	48.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-13.d
Lims ID: 180-45088-A-2 MS
Client ID:
Sample Type: MS
Inject. Date: 16-Jun-2015 15:25:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-013
Misc. Info.: 13 180-45088-A-2 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:52:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	5188232H	1.25	1.27	
2 Chloride	3.983	3.983	0.000	1434846812	25.0	66.8	
7 Nitrite as N	4.592	4.617	-0.025	11824957		0.2201	
3 Sulfate	5.333	5.325	0.008	767538607	25.0	48.9	
4 Bromide	6.067	6.058	0.009	50868719	5.00	5.40	
5 Nitrate as N	6.925	6.942	-0.017	222744628	1.25	4.16	
6 Orthophosphate as P	9.542	9.367	0.175	14309203	1.25	0.7815	

Reagents:

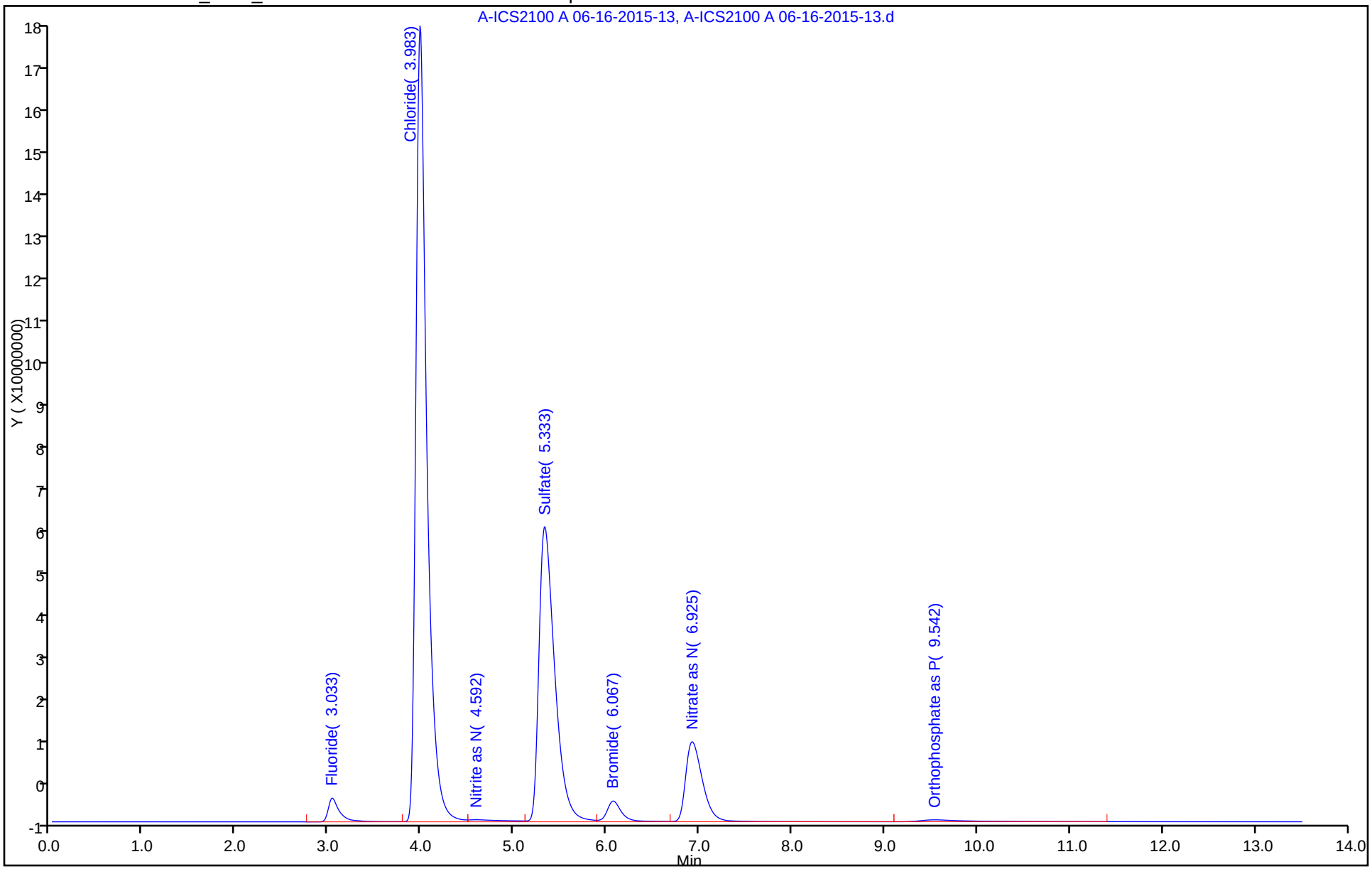
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 16-Jun-2015 17:52:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-13.d

Injection Date:	16-Jun-2015 15:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-2 MS			Worklist Smp#:	13
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 MS Lab Sample ID: 180-45088-11 MS

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-13.d

Analysis Method: 300.0 Date Collected: 06/15/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 12:37

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.67	H	0.10	0.0062
16887-00-6	Chloride	157	4	1.0	0.20
14808-79-8	Sulfate	57.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-13.d
Lims ID: 180-45088-A-11 MS
Client ID: HD-COD-SW-17-0/1-0
Sample Type: MS
Inject. Date: 17-Jun-2015 12:37:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-013
Misc. Info.: 13 180-45088-A-11 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:52:56 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	5127224H	1.25	1.25	
2 Chloride	3.975	3.975	0.000	3378516468	25.0	157.1	
7 Nitrite as N		4.617				ND	
3 Sulfate	5.308	5.325	-0.017	895846436	25.0	57.0	
4 Bromide	6.067	6.058	0.009	45083594	5.00	4.78	
5 Nitrate as N	6.908	6.933	-0.025	250251537	1.25	4.67	
6 Orthophosphate as P		9.367			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

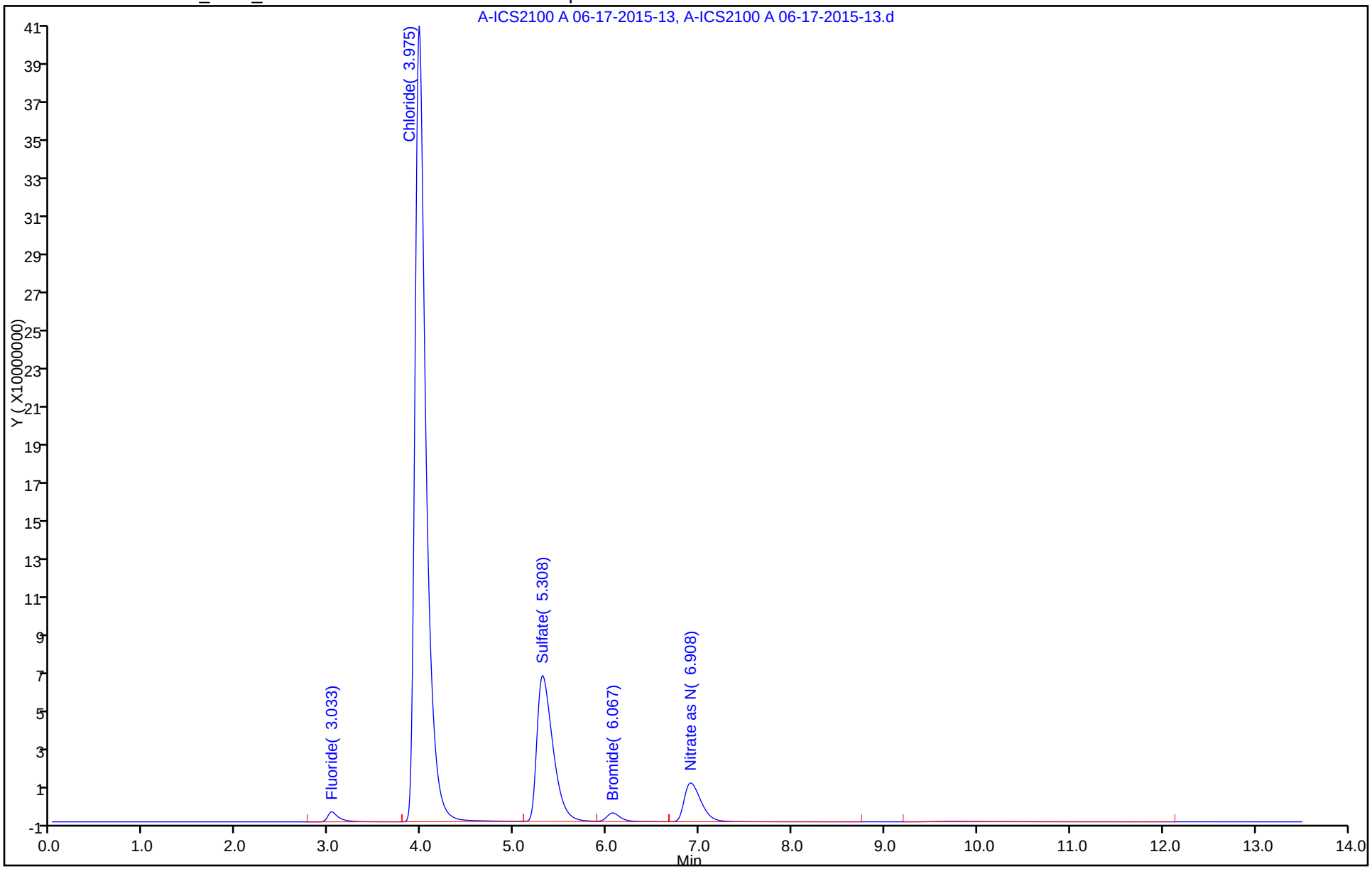
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 17-Jun-2015 13:53:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-13.d				
Injection Date:	17-Jun-2015 12:37:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-11 MS			Worklist Smp#:	13
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 MSD Lab Sample ID: 180-45088-2 MSD

Matrix: Water Lab File ID: A-ICS2100 A 06-16-2015-14.d

Analysis Method: 300.0 Date Collected: 06/15/2015 11:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/16/2015 15:43

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.15		0.10	0.0062
16887-00-6	Chloride	66.7		1.0	0.20
14808-79-8	Sulfate	48.6		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-14.d
Lims ID: 180-45088-A-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 16-Jun-2015 15:43:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007427-014
Misc. Info.: 14 180-45088-A-2 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 16-Jun-2015 17:52:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK007

First Level Reviewer: hartmanm Date: 16-Jun-2015 17:24:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	5183195H	1.25	1.27	
2 Chloride	3.983	3.983	0.000	1432770134	25.0	66.7	
7 Nitrite as N	4.592	4.617	-0.025	11670342		0.2169	
3 Sulfate	5.333	5.325	0.008	763671824	25.0	48.6	
4 Bromide	6.067	6.058	0.009	50656179	5.00	5.37	
5 Nitrate as N	6.917	6.942	-0.025	222183701	1.25	4.15	
6 Orthophosphate as P	9.542	9.367	0.175	14284196	1.25	0.7803	

Reagents:

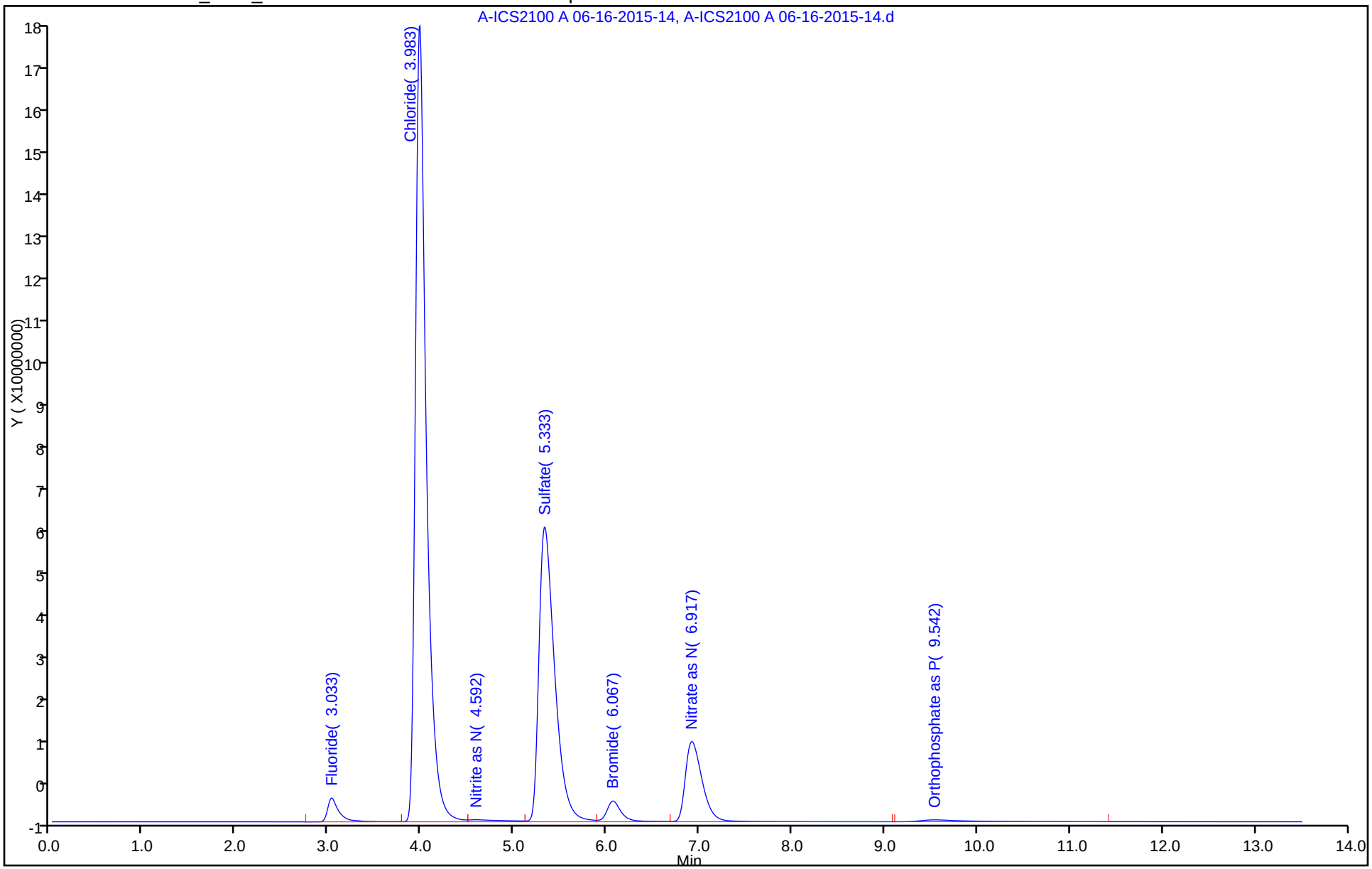
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 16-Jun-2015 17:52:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150616-7427.b\A-ICS2100 A 06-16-2015-14.d

Injection Date:	16-Jun-2015 15:43:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-2 MSD			Worklist Smp#:	14
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.: 180-45088-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-45088-11 MSD

Matrix: Water Lab File ID: A-ICS2100 A 06-17-2015-14.d

Analysis Method: 300.0 Date Collected: 06/15/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/17/2015 12:54

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 145223 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.72	H	0.10	0.0062
16887-00-6	Chloride	158	4	1.0	0.20
14808-79-8	Sulfate	58.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-14.d
Lims ID: 180-45088-A-11 MSD
Client ID: HD-COD-SW-17-0/1-0
Sample Type: MSD
Inject. Date: 17-Jun-2015 12:54:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007434-014
Misc. Info.: 14 180-45088-A-11 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 17-Jun-2015 13:52:56 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK051

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.033	3.033	0.000	5300359	H	1.25	1.30
2 Chloride	3.975	3.975	0.000	3406094004		25.0	158.4
7 Nitrite as N		4.617					ND
3 Sulfate	5.308	5.325	-0.017	910865991		25.0	58.0
4 Bromide	6.067	6.058	0.009	46839768		5.00	4.97
5 Nitrate as N	6.908	6.933	-0.025	252922994		1.25	4.72
6 Orthophosphate as P		9.367				ND	ND

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

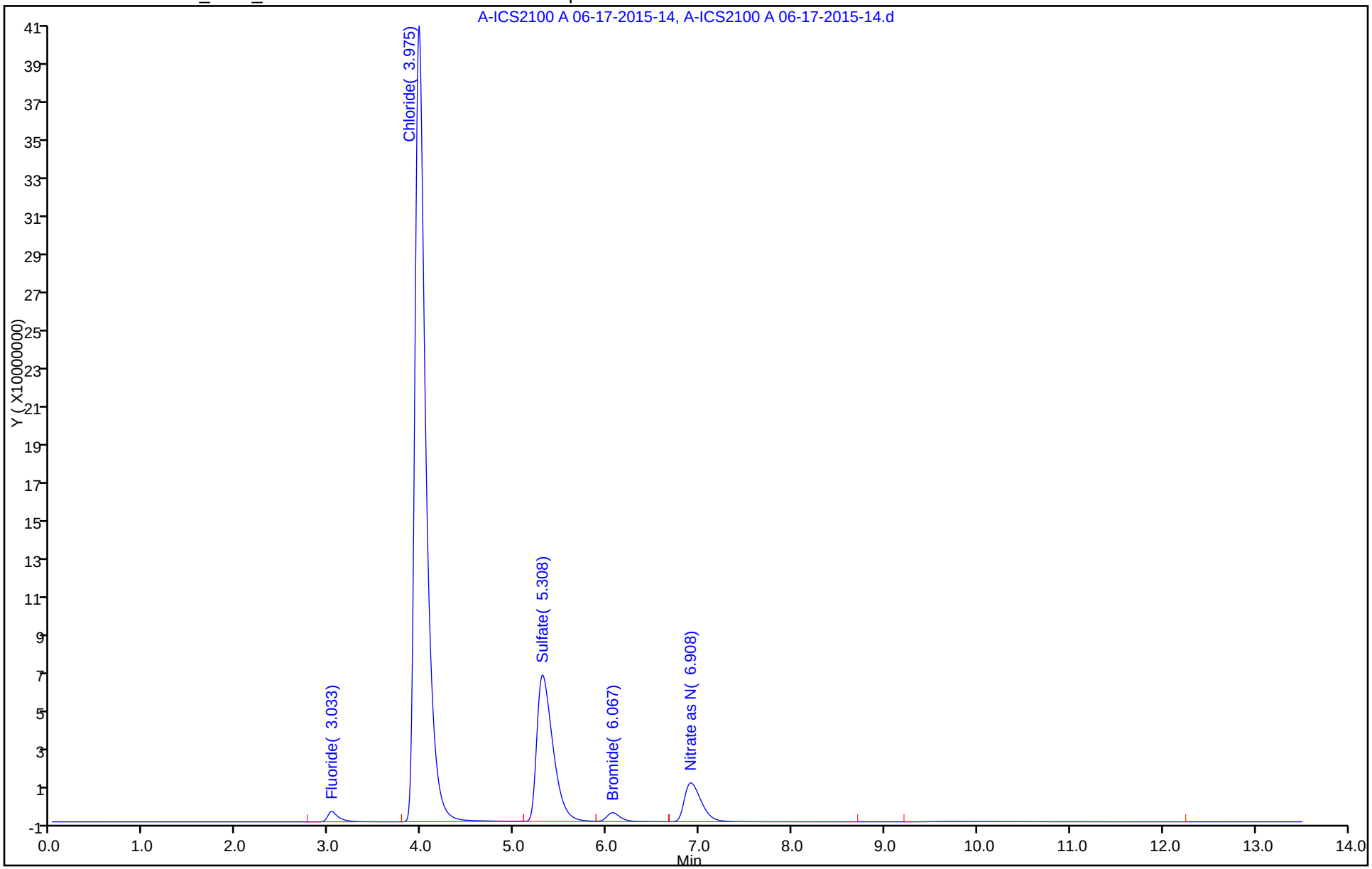
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 17-Jun-2015 13:53:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150617-7434.b\A-ICS2100 A 06-17-2015-14.d				
Injection Date:	17-Jun-2015 12:54:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-45088-A-11 MSD			Worklist Smp#:	14
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		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/15/2015 14:54

Analysis Batch Number: 138618 End Date: 04/15/2015 19:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2015 14:54	1		AS-18
IC 180-138618/2		04/15/2015 15:44	1	B-ICS2100 B 04-15-2015-2.d	AS-18
IC 180-138618/3		04/15/2015 16:01	1	B-ICS2100 B 04-15-2015-3.d	AS-18
ICRT 180-138618/4		04/15/2015 16:19	1	B-ICS2100 B 04-15-2015-4.d	AS-18
IC 180-138618/5		04/15/2015 16:36	1	B-ICS2100 B 04-15-2015-5.d	AS-18
IC 180-138618/6		04/15/2015 16:53	1	B-ICS2100 B 04-15-2015-6.d	AS-18
IC 180-138618/7		04/15/2015 17:11	1	B-ICS2100 B 04-15-2015-7.d	AS-18
IC 180-138618/8		04/15/2015 17:28	1	B-ICS2100 B 04-15-2015-8.d	AS-18
IC 180-138618/9		04/15/2015 17:45	1	B-ICS2100 B 04-15-2015-9.d	AS-18
ZZZZZ		04/15/2015 18:03	1		AS-18
ZZZZZ		04/15/2015 18:20	1		AS-18
ZZZZZ		04/15/2015 18:37	1		AS-18
ICV 180-138618/13		04/15/2015 18:55	1		AS-18
CCV 180-138618/14		04/15/2015 19:12	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/19/2015 12:31

Analysis Batch Number: 142103 End Date: 05/20/2015 00:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-142103/2		05/19/2015 12:31	1	A-ICS2100 A 05-19-2015-2.d	AS-18
IC 180-142103/3		05/19/2015 12:46	1	A-ICS2100 A 05-19-2015-3.d	AS-18
ICRT 180-142103/4		05/19/2015 13:01	1	A-ICS2100 A 05-19-2015-4.d	AS-18
IC 180-142103/5		05/19/2015 13:17	1	A-ICS2100 A 05-19-2015-5.d	AS-18
IC 180-142103/6		05/19/2015 13:32	1	A-ICS2100 A 05-19-2015-6.d	AS-18
IC 180-142103/7		05/19/2015 13:47	1	A-ICS2100 A 05-19-2015-7.d	AS-18
IC 180-142103/8		05/19/2015 14:03	1	A-ICS2100 A 05-19-2015-8.d	AS-18
IC 180-142103/9		05/19/2015 14:18	1	A-ICS2100 A 05-19-2015-9.d	AS-18
ZZZZZ		05/19/2015 14:33	1		AS-18
ZZZZZ		05/19/2015 14:52	1		AS-18
ZZZZZ		05/19/2015 15:08	1		AS-18
ICV 180-142103/13		05/19/2015 15:23	1		AS-18
CCV 180-142103/14		05/19/2015 15:38	1		AS-18
CCB 180-142103/15		05/19/2015 15:54	1		AS-18
ZZZZZ		05/19/2015 16:12	1		AS-18
ZZZZZ		05/19/2015 16:29	1		AS-18
ZZZZZ		05/19/2015 19:45	1		AS-18
ZZZZZ		05/19/2015 20:08	1		AS-18
ZZZZZ		05/19/2015 20:23	1		AS-18
ZZZZZ		05/19/2015 20:38	1		AS-18
ZZZZZ		05/19/2015 20:54	1		AS-18
ZZZZZ		05/19/2015 21:09	1		AS-18
ZZZZZ		05/19/2015 21:24	1		AS-18
ZZZZZ		05/19/2015 21:41	1		AS-18
CCV 180-142103/26		05/19/2015 21:58	1		AS-18
CCB 180-142103/27		05/19/2015 22:15	1		AS-18
ZZZZZ		05/19/2015 22:33	1		AS-18
ZZZZZ		05/19/2015 22:50	1		AS-18
ZZZZZ		05/19/2015 23:07	1		AS-18
ZZZZZ		05/19/2015 23:25	1		AS-18
ZZZZZ		05/19/2015 23:42	1		AS-18
CCV 180-142103/38		05/19/2015 23:59	1		AS-18
CCB 180-142103/39		05/20/2015 00:16	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 06/16/2015 12:11

Analysis Batch Number: 145170 End Date: 06/16/2015 23:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/16/2015 12:11	1		AS-18
ICV 180-145170/2		06/16/2015 12:27	1	A-ICS2100 A 06-16-2015-2.d	AS-18
CCV 180-145170/3		06/16/2015 12:42	1	A-ICS2100 A 06-16-2015-3.d	AS-18
CCB 180-145170/4		06/16/2015 12:57	1	A-ICS2100 A 06-16-2015-4.d	AS-18
LCS 180-145170/5		06/16/2015 13:13	1	A-ICS2100 A 06-16-2015-5.d	AS-18
MB 180-145170/6		06/16/2015 13:28	1	A-ICS2100 A 06-16-2015-6.d	AS-18
180-45088-1	HD-COD-SW-6-0/1-0	06/16/2015 13:47	1	A-ICS2100 A 06-16-2015-7.d	AS-18
180-45088-4	HD-COD-SW-9-0/1-0	06/16/2015 14:02	1	A-ICS2100 A 06-16-2015-8.d	AS-18
180-45088-6	HD-COD-SW-11-0/1-0	06/16/2015 14:17	1	A-ICS2100 A 06-16-2015-9.d	AS-18
180-45088-14	HD-COD-SW-27-0/1-0	06/16/2015 14:33	1	A-ICS2100 A 06-16-2015-10.d	AS-18
180-45088-15	HD-COD-SW-28-0/1-0	06/16/2015 14:51	1	A-ICS2100 A 06-16-2015-11.d	AS-18
180-45088-2	HD-COD-SW-7-0/1-0	06/16/2015 15:08	1	A-ICS2100 A 06-16-2015-12.d	AS-18
180-45088-2 MS	HD-COD-SW-7-0/1-0 MS	06/16/2015 15:25	1	A-ICS2100 A 06-16-2015-13.d	AS-18
180-45088-2 MSD	HD-COD-SW-7-0/1-0 MSD	06/16/2015 15:43	1	A-ICS2100 A 06-16-2015-14.d	AS-18
CCV 180-145170/15		06/16/2015 16:00	1	A-ICS2100 A 06-16-2015-15.d	AS-18
CCB 180-145170/16		06/16/2015 16:17	1	A-ICS2100 A 06-16-2015-16.d	AS-18
180-45088-17	HD-QC1-0/1-1	06/16/2015 16:35	1	A-ICS2100 A 06-16-2015-17.d	AS-18
ZZZZZ		06/16/2015 16:52	50		AS-18
ZZZZZ		06/16/2015 17:37	1		AS-18
ZZZZZ		06/16/2015 17:53	1		AS-18
ZZZZZ		06/16/2015 18:12	25		AS-18
ZZZZZ		06/16/2015 18:37	25		AS-18
ZZZZZ		06/16/2015 18:53	25		AS-18
ZZZZZ		06/16/2015 19:11	25		AS-18
ZZZZZ		06/16/2015 19:28	250		AS-18
ZZZZZ		06/16/2015 19:45	25		AS-18
CCV 180-145170/27		06/16/2015 20:03	1	A-ICS2100 A 06-16-2015-27.d	AS-18
CCB 180-145170/28		06/16/2015 20:20	1	A-ICS2100 A 06-16-2015-28.d	AS-18
ZZZZZ		06/16/2015 20:37	50		AS-18
ZZZZZ		06/16/2015 20:55	500		AS-18
ZZZZZ		06/16/2015 21:12	100		AS-18
ZZZZZ		06/16/2015 21:29	1000		AS-18
ZZZZZ		06/16/2015 21:45	1		AS-18
ZZZZZ		06/16/2015 22:00	10		AS-18
ZZZZZ		06/16/2015 22:15	1		AS-18
ZZZZZ		06/16/2015 22:31	10		AS-18
ZZZZZ		06/16/2015 22:46	25		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 06/16/2015 12:11

Analysis Batch Number: 145170 End Date: 06/16/2015 23:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-145170/38		06/16/2015 23:01	1		AS-18
CCB 180-145170/39		06/16/2015 23:16	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 06/17/2015 06:17

Analysis Batch Number: 145223 End Date: 06/17/2015 19:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/17/2015 06:17	1		AS-18
ICV 180-145223/2		06/17/2015 06:32	1	A-ICS2100 A 06-17-2015-2.d	AS-18
CCV 180-145223/3		06/17/2015 06:47	1	A-ICS2100 A 06-17-2015-3.d	AS-18
CCB 180-145223/4		06/17/2015 07:03	1	A-ICS2100 A 06-17-2015-4.d	AS-18
LCS 180-145223/5		06/17/2015 07:18	1	A-ICS2100 A 06-17-2015-5.d	AS-18
MB 180-145223/6		06/17/2015 07:33	1	A-ICS2100 A 06-17-2015-6.d	AS-18
ZZZZZ		06/17/2015 10:44	1		AS-18
ZZZZZ		06/17/2015 11:00	1		AS-18
ZZZZZ		06/17/2015 11:15	1		AS-18
180-45088-3	HD-COD-SW-8-0/1-0	06/17/2015 11:45	1	A-ICS2100 A 06-17-2015-10.d	AS-18
180-45088-5	HD-COD-SW-10-0/1-0	06/17/2015 12:02	1	A-ICS2100 A 06-17-2015-11.d	AS-18
180-45088-11	HD-COD-SW-17-0/1-0	06/17/2015 12:20	1	A-ICS2100 A 06-17-2015-12.d	AS-18
180-45088-11 MS	HD-COD-SW-17-0/1-0 MS	06/17/2015 12:37	1	A-ICS2100 A 06-17-2015-13.d	AS-18
180-45088-11 MSD	HD-COD-SW-17-0/1-0 MSD	06/17/2015 12:54	1	A-ICS2100 A 06-17-2015-14.d	AS-18
CCV 180-145223/15		06/17/2015 13:12	1	A-ICS2100 A 06-17-2015-15.d	AS-18
CCB 180-145223/16		06/17/2015 13:29	1	A-ICS2100 A 06-17-2015-16.d	AS-18
ZZZZZ		06/17/2015 13:46	5		AS-18
ZZZZZ		06/17/2015 14:04	50		AS-18
ZZZZZ		06/17/2015 14:21	5		AS-18
ZZZZZ		06/17/2015 14:38	5		AS-18
ZZZZZ		06/17/2015 14:56	5		AS-18
ZZZZZ		06/17/2015 15:13	50		AS-18
ZZZZZ		06/17/2015 15:30	50		AS-18
ZZZZZ		06/17/2015 15:48	50		AS-18
ZZZZZ		06/17/2015 16:05	5		AS-18
ZZZZZ		06/17/2015 16:22	50		AS-18
CCV 180-145223/27		06/17/2015 16:40	1		AS-18
CCB 180-145223/28		06/17/2015 16:57	1		AS-18
ZZZZZ		06/17/2015 17:14	5		AS-18
ZZZZZ		06/17/2015 17:32	50		AS-18
ZZZZZ		06/17/2015 17:49	10		AS-18
ZZZZZ		06/17/2015 18:06	100		AS-18
ZZZZZ		06/17/2015 18:23	10		AS-18
ZZZZZ		06/17/2015 18:41	100		AS-18
CCV 180-145223/35		06/17/2015 18:56	1		AS-18
CCB 180-145223/36		06/17/2015 19:11	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 06/17/2015 06:20

Analysis Batch Number: 145224 End Date: 06/17/2015 18:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/17/2015 06:20	1		AS-18
ICV 180-145224/2		06/17/2015 06:37	1	B-ICS2100 B 06-17-2015-2.d	AS-18
CCV 180-145224/3		06/17/2015 06:54	1	B-ICS2100 B 06-17-2015-3.d	AS-18
CCB 180-145224/4		06/17/2015 07:11	1	B-ICS2100 B 06-17-2015-4.d	AS-18
LCS 180-145224/5		06/17/2015 07:29	1	B-ICS2100 B 06-17-2015-5.d	AS-18
MB 180-145224/6		06/17/2015 07:46	1	B-ICS2100 B 06-17-2015-6.d	AS-18
ZZZZZ		06/17/2015 10:11	1		AS-18
ZZZZZ		06/17/2015 10:28	1		AS-18
ZZZZZ		06/17/2015 10:47	1		AS-18
180-45088-13	HD-COD-SW-26-0/1-0	06/17/2015 11:07	1	B-ICS2100 B 06-17-2015-10.d	AS-18
180-45088-7	HD-COD-SW-12-0/1-0	06/17/2015 11:25	1	B-ICS2100 B 06-17-2015-11.d	AS-18
180-45088-9	HD-COD-SW-15-0/1-0	06/17/2015 11:42	1	B-ICS2100 B 06-17-2015-12.d	AS-18
180-45088-8	HD-COD-SW-13-0/1-0	06/17/2015 12:00	1	B-ICS2100 B 06-17-2015-13.d	AS-18
180-45088-10	HD-COD-SW-16-0/1-0	06/17/2015 12:17	1	B-ICS2100 B 06-17-2015-14.d	AS-18
CCV 180-145224/15		06/17/2015 12:34	1	B-ICS2100 B 06-17-2015-15.d	AS-18
CCB 180-145224/16		06/17/2015 12:52	1	B-ICS2100 B 06-17-2015-16.d	AS-18
ZZZZZ		06/17/2015 13:09	2.5		AS-18
ZZZZZ		06/17/2015 13:26	25		AS-18
ZZZZZ		06/17/2015 13:44	1		AS-18
ZZZZZ		06/17/2015 14:01	10		AS-18
180-45088-12	HD-COD-SW-20-0/1-0	06/17/2015 14:18	1	B-ICS2100 B 06-17-2015-21.d	AS-18
180-45088-16	HD-COD-SW-29-0/1-0	06/17/2015 14:36	1	B-ICS2100 B 06-17-2015-22.d	AS-18
CCV 180-145224/23		06/17/2015 14:53	1	B-ICS2100 B 06-17-2015-23.d	AS-18
CCB 180-145224/24		06/17/2015 15:10	1	B-ICS2100 B 06-17-2015-24.d	AS-18
ZZZZZ		06/17/2015 15:28	1		AS-18
ZZZZZ		06/17/2015 15:45	10		AS-18
ZZZZZ		06/17/2015 16:02	1		AS-18
ZZZZZ		06/17/2015 16:20	10		AS-18
ZZZZZ		06/17/2015 16:37	1		AS-18
ZZZZZ		06/17/2015 16:54	10		AS-18
ZZZZZ		06/17/2015 17:11	1		AS-18
ZZZZZ		06/17/2015 17:29	10		AS-18
ZZZZZ		06/17/2015 17:46	1		AS-18
ZZZZZ		06/17/2015 18:03	10		AS-18
CCV 180-145224/35		06/17/2015 18:21	1		AS-18
CCB 180-145224/36		06/17/2015 18:38	1		AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-45088-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-45088-1
HD-COD-SW-7-0/1-0	180-45088-2
HD-COD-SW-8-0/1-0	180-45088-3
HD-COD-SW-9-0/1-0	180-45088-4
HD-COD-SW-10-0/1-0	180-45088-5
HD-COD-SW-11-0/1-0	180-45088-6
HD-COD-SW-12-0/1-0	180-45088-7
HD-COD-SW-13-0/1-0	180-45088-8
HD-COD-SW-15-0/1-0	180-45088-9
HD-COD-SW-16-0/1-0	180-45088-10
HD-COD-SW-17-0/1-0	180-45088-11
HD-COD-SW-20-0/1-0	180-45088-12
HD-COD-SW-26-0/1-0	180-45088-13
HD-COD-SW-27-0/1-0	180-45088-14
HD-COD-SW-28-0/1-0	180-45088-15
HD-COD-SW-29-0/1-0	180-45088-16
HD-QC1-0/1-1	180-45088-17

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-45088-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 10:35

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	56000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	9600	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	41000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-45088-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 11:25

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	40000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5400	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	8700	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	27000	500	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: 180-45088-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 08:45

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	40000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4800	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	7900	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	26000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-45088-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 12:30

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	53000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	9700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	9600	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	36000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-45088-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 09:25

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8900	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	50000	500	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: 180-45088-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:15

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	83000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2300	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	29000	500	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: 180-45088-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:25

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	72000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	18000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	12000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	56000	500	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: 180-45088-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 09:15

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	47000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5500	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	8700	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	28000	500	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: 180-45088-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:40

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	91000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	55000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-45088-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 09:45

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	44000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	8400	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	28000	500	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: 180-45088-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 10:10

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5900	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	19000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	60000	500	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: 180-45088-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 10:40

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	65000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	49000	500	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: 180-45088-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 11:10

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	46000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	8700	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	29000	500	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: 180-45088-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:45

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	45000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4900	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	9300	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	28000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-45088-15

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:00

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	69000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	13000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	45000	500	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: 180-45088-16

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 08:30

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	44000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5800	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	8600	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	28000	500	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: 180-45088-17

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 08:00

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	60000	500	3.8	ug/L		B	1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

ICV Source: MICVX_00033 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	ICV 180-145681/5 06/19/2015 08:35				CCV 180-145681/10 06/19/2015 08:57				CCV 180-145681/34 06/19/2015 10:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	39000		40000	97	50100		50000	100	49000		50000	98
Magnesium	40100		40000	100	50800		50000	102	48100		50000	96
Potassium	39400		40000	98	49600		50000	99	48300		50000	97
Sodium	39500		40000	99	50300		50000	101	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.: 180-45088-1

SDG No.:

ICV Source: MICVX_00033 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	CCV 180-145681/46 06/19/2015 11:25				CCV 180-145681/58 06/19/2015 12:13							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49100		50000	98	49100		50000	98				
Magnesium	49000		50000	98	50700		50000	101				
Potassium	49200		50000	98	50100		50000	100				
Sodium	48600		50000	97	50100		50000	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

ICV Source: MICVX_00033 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	ICV 180-146255/5 06/25/2015 14:36				CCV 180-146255/10 06/25/2015 14:54				CCV 180-146255/22 06/25/2015 15:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	38000		40000	95	48000		50000	96	48800		50000	98
Magnesium	39600		40000	99	48100		50000	96	47400		50000	95
Potassium	38100		40000	95	47300		50000	95	47200		50000	94
Sodium	39100		40000	98	47600		50000	95	47800		50000	96

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.: 180-45088-1

SDG No.:

ICV Source: MICVX_00033 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	CCV 180-146255/34 06/25/2015 16:35				CCV 180-146255/45 06/25/2015 17:20							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	48800		50000	98	48000		50000	96				
Magnesium	46800		50000	94	47400		50000	95				
Potassium	47300		50000	95	47200		50000	94				
Sodium	46900		50000	94	47200		50000	94				

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.: 180-45088-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-145681/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	477	J	95	70-130
Potassium	500	478	J	96	70-130
Magnesium	500	483	J	97	70-130
Sodium	500	470	J	94	70-130

Lab Sample ID: CRI 180-145681/65 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	469	J	94	70-130
Potassium	500	484	J	97	70-130
Magnesium	500	482	J	96	70-130
Sodium	500	469	J	94	70-130

Lab Sample ID: CRI 180-146255/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	439	J	88	70-130
Potassium	500	452	J	90	70-130
Magnesium	500	462	J	92	70-130
Sodium	500	457	J	91	70-130

Lab Sample ID: CRI 180-146255/56 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	469	J	94	70-130
Potassium	500	469	J	94	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.: 180-45088-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-146255/56 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Magnesium	500	457	J	91	70-130
Sodium	500	460	J	92	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.: 180-45088-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-145681/6 06/19/2015 08:39		CCB1 180-145681/11 06/19/2015 09:03		CCB3 180-145681/35 06/19/2015 10:40		CCB4 180-145681/47 06/19/2015 11:31	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	13.8	J	12.4	J	12.2	J	13.9	J
Magnesium	500	1.45	J	ND		ND		ND	
Potassium	500	7.62	J	6.78	J	ND		ND	
Sodium	500	9.55	J	11.1	J	9.70	J	5.83	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB5 180-145681/59 06/19/2015 12:20							
		Found	C	Found	C	Found	C	Found	C
Calcium	500	14.7	J						
Magnesium	500	ND							
Potassium	500	ND							
Sodium	500	6.54	J						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-146255/6 06/25/2015 14:40		CCB1 180-146255/11 06/25/2015 15:02		CCB2 180-146255/23 06/25/2015 15:51		CCB3 180-146255/35 06/25/2015 16:42	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	3.23	J	3.84	J	3.95	J	4.10	J
Magnesium	500	1.43	J	ND		ND		ND	
Potassium	500	ND		ND		ND		ND	
Sodium	500	ND		4.75	J	ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB4 180-146255/46 06/25/2015 17:26							
		Found	C	Found	C	Found	C	Found	C
Calcium	500	3.70	J						
Magnesium	500	ND							
Potassium	500	ND							
Sodium	500	ND							

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-145252/1-A

Instrument Code: M Batch No.: 145681

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	11.6	J		6020A
7440-09-7	Potassium	ND			6020A
7439-95-4	Magnesium	1.87	J		6020A
7440-23-5	Sodium	4.58	J		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-145430/1-A

Instrument Code: M Batch No.: 146255

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	6.11	J		6020A
7440-09-7	Potassium	ND			6020A
7439-95-4	Magnesium	ND			6020A
7440-23-5	Sodium	ND			6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: ICSA 180-145681/8 Instrument ID: M

Lab File ID: M50619A.xml ICS Source: MICSAX_00068

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**103100**	**103**
Magnesium	**100000**	**100200**	**100**
Potassium	**100000**	**101000**	**101**
Sodium	**100000**	**100600**	**101**
Aluminum	*100000*	*99990*	*100*
Antimony		*0.151*	
Arsenic		*-0.0010*	
Barium		*0.132*	
Beryllium		*0.0220*	
Boron		*0.597*	
Cadmium		*0.186*	
Chromium		*0.543*	
Cobalt		*0.0450*	
Copper		*1.21*	
Iron	*100000*	*101400*	*101*
Lead		*0.197*	
Manganese		*0.444*	
Molybdenum	*2000*	*2379*	*119*
Nickel		*-0.666*	
Selenium		*0.292*	
Silicon		*15.7*	
Silver		*0.0300*	
Strontium		*0.656*	
Thallium		*0.0170*	
Tin		*0.0980*	
Titanium	*2000*	*2073*	*104*
Vanadium		*-0.282*	
Zinc		*2.21*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Lab Sample ID: ICSAB 180-145681/9 Instrument ID: M

Lab File ID: M50619A.xml ICS Source: MICSABX_00072

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**106267**	**106**
Magnesium	**100000**	**103067**	**103**
Potassium	**100000**	**102967**	**103**
Sodium	**100000**	**104900**	**105**
Aluminum	*100000*	*102200*	*102*
Antimony	*20.0*	*21.0*	*105*
Arsenic	*20.0*	*22.3*	*111*
Barium	*20.0*	*20.3*	*101*
Beryllium	*20.0*	*21.2*	*106*
Boron	*50.0*	*49.6*	*99*
Cadmium	*20.0*	*20.8*	*104*
Chromium	*20.0*	*21.2*	*106*
Cobalt	*20.0*	*20.5*	*102*
Copper	*20.0*	*21.4*	*107*
Iron	*100000*	*105700*	*106*
Lead	*20.0*	*21.4*	*107*
Manganese	*22.5*	*21.6*	*96*
Nickel	*20.0*	*19.5*	*98*
Selenium	*50.0*	*55.2*	*110*
Silicon	*500*	*520*	*104*
Silver	*20.0*	*19.6*	*98*
Strontium	*25.0*	*20.9*	*84*
Thallium	*20.0*	*20.5*	*102*
Tin	*100*	*102*	*102*
Titanium	*2000*	*2128*	*106*
Vanadium	*20.0*	*19.8*	*99*
Zinc	*25.0*	*24.3*	*97*

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.: 180-45088-1

SDG No.:

Lab Sample ID: ICSA 180-146255/8 Instrument ID: M

Lab File ID: M50625A.xml ICS Source: MICSAX_00068

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**105800**	**106**
Magnesium	**100000**	**99750**	**100**
Potassium	**100000**	**99610**	**100**
Sodium	**100000**	**102800**	**103**
Aluminum	*100000*	*97840*	*98*
Antimony		*-0.274*	
Arsenic		*0.0240*	
Barium		*0.124*	
Beryllium		*0.0050*	
Boron		*0.246*	
Cadmium		*0.176*	
Chromium		*0.525*	
Cobalt		*0.0410*	
Copper		*1.34*	
Iron	*100000*	*105600*	*106*
Lead		*0.208*	
Manganese		*0.471*	
Molybdenum	*2000*	*2128*	*106*
Nickel		*-0.148*	
Selenium		*-0.136*	
Silicon		*20.1*	
Silver		*0.143*	
Strontium		*0.712*	
Thallium		*-0.0050*	
Tin		*0.0460*	
Titanium	*2000*	*2198*	*110*
Vanadium		*-0.219*	
Zinc		*2.65*	

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.: 180-45088-1

SDG No.:

Lab Sample ID: ICSAB 180-146255/9 Instrument ID: M

Lab File ID: M50625A.xml ICS Source: MICSABX_00072

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**109433**	**109**
Magnesium	**100000**	**106433**	**106**
Potassium	**100000**	**104900**	**105**
Sodium	**100000**	**104700**	**105**
Aluminum	*100000*	*101790*	*102*
Antimony	*20.0*	*21.5*	*107*
Arsenic	*20.0*	*23.1*	*116*
Barium	*20.0*	*21.0*	*105*
Beryllium	*20.0*	*21.1*	*106*
Boron	*50.0*	*50.8*	*102*
Cadmium	*20.0*	*20.5*	*102*
Chromium	*20.0*	*21.2*	*106*
Cobalt	*20.0*	*20.6*	*103*
Copper	*20.0*	*21.4*	*107*
Iron	*100000*	*106300*	*106*
Lead	*20.0*	*22.0*	*110*
Manganese	*22.5*	*21.3*	*95*
Molybdenum	*2000*	*2187*	*109*
Nickel	*20.0*	*20.2*	*101*
Selenium	*50.0*	*57.9*	*116*
Silicon	*500*	*573*	*115*
Silver	*20.0*	*18.6*	*93*
Strontium	*25.0*	*22.1*	*89*
Thallium	*20.0*	*21.0*	*105*
Tin	*100*	*106*	*106*
Titanium	*2000*	*2306*	*115*
Vanadium	*20.0*	*20.2*	*101*
Zinc	*25.0*	*25.6*	*102*

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-COD-SW-17-0/1-0 MS Lab ID: 180-45088-11 MS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

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	156000		100000		50000	106	75-125		6020A
Potassium	55700		5900		50000	99	75-125		6020A
Magnesium	63700		19000		50000	90	75-125		6020A
Sodium	107000		60000		50000	94	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-COD-SW-17-0/1-0 MSD Lab ID: 180-45088-11 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

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	159000		50000	112	75-125	2	20		6020A
Potassium	55900		50000	100	75-125	0	20		6020A
Magnesium	61800		50000	86	75-125	3	20		6020A
Sodium	103000		50000	85	75-125	4	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-COD-SW-17-0/1-0 PDS Lab ID: 180-45088-11 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	159000		100000		50000	111	75-125		6020A
Potassium	58200		5900		50000	104	75-125		6020A
Magnesium	65200		19000		50000	93	75-125		6020A
Sodium	108000		60000		50000	95	75-125		6020A

SSR = Spiked Sample Result

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

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-145252/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	55400		111	80	120		6020A
Potassium	50000	51300		103	80	120		6020A
Magnesium	50000	46300		93	80	120		6020A
Sodium	50000	45000		90	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 180-145430/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	48400		97	80	120		6020A
Potassium	50000	44400		89	80	120		6020A
Magnesium	50000	41600		83	80	120		6020A
Sodium	50000	42400		85	80	120		6020A

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-45088-11

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-45088-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	100000		92700		10		6020A
Potassium	5900		5740		3.6		6020A
Magnesium	19000		18900		1.0		6020A
Sodium	60000		58700		2.2		6020A

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

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-45088-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-45088-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-45088-1

SDG No.:

Instrument ID: M Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		1500000	6020A
Potassium		450000	6020A
Magnesium		1500000	6020A
Sodium		450000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-145252/1-A	06/17/2015 08:47	145252		50	50
LCS 180-145252/2-A	06/17/2015 08:47	145252		50	50
180-45088-2	06/17/2015 08:47	145252		50	50
180-45088-5	06/17/2015 08:47	145252		50	50
180-45088-6	06/17/2015 08:47	145252		50	50
180-45088-7	06/17/2015 08:47	145252		50	50
180-45088-8	06/17/2015 08:47	145252		50	50
180-45088-10	06/17/2015 08:47	145252		50	50
180-45088-11	06/17/2015 08:47	145252		50	50
180-45088-11 MS	06/17/2015 08:47	145252		50	50
180-45088-11 MSD	06/17/2015 08:47	145252		50	50
180-45088-12	06/17/2015 08:47	145252		50	50
180-45088-13	06/17/2015 08:47	145252		50	50
180-45088-15	06/17/2015 08:47	145252		50	50
180-45088-16	06/17/2015 08:47	145252		50	50
180-45088-17	06/17/2015 08:47	145252		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-145430/1-A	06/18/2015 10:29	145430		50	50
LCS 180-145430/2-A	06/18/2015 10:29	145430		50	50
180-45088-1	06/18/2015 10:29	145430		50	50
180-45088-3	06/18/2015 10:29	145430		50	50
180-45088-4	06/18/2015 10:29	145430		50	50
180-45088-9	06/18/2015 10:29	145430		50	50
180-45088-14	06/18/2015 10:29	145430		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/19/2015 07:01 End Date: 06/19/2015 15:51

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-145681/1			07:01																										
STD1 180-145681/2 IC	1		08:25	X	X	X	X																						
STD2 180-145681/3 IC	1		08:28	X	X	X	X																						
STD3 180-145681/4 IC	1		08:32	X	X	X	X																						
ICV 180-145681/5	1		08:35	X	X	X	X																						
ICB 180-145681/6	1		08:39	X	X	X	X																						
CRI 180-145681/7	1		08:43	X	X	X	X																						
ICSA 180-145681/8	1		08:46	X	X	X	X																						
ICSAB 180-145681/9	1		08:50	X	X	X	X																						
CCV 180-145681/10	1		08:57	X	X	X	X																						
CCB1 180-145681/11	1		09:03	X	X	X	X																						
ZZZZZZ			09:07																										
ZZZZZZ			09:11																										
ZZZZZZ			09:14																										
ZZZZZZ			09:18																										
ZZZZZZ			09:22																										
ZZZZZZ			09:26																										
ZZZZZZ			09:30																										
ZZZZZZ			09:33																										
ZZZZZZ			09:37																										
ZZZZZZ			09:41																										
CCV 180-145681/22			09:45																										
CCB2 180-145681/23			09:51																										
ZZZZZZ			09:55																										
ZZZZZZ			09:59																										
ZZZZZZ			10:03																										
ZZZZZZ			10:07																										
ZZZZZZ			10:10																										
ZZZZZZ			10:14																										
ZZZZZZ			10:18																										
ZZZZZZ			10:22																										
ZZZZZZ			10:26																										
ZZZZZZ			10:29																										
CCV 180-145681/34	1		10:33	X	X	X	X																						
CCB3 180-145681/35	1		10:40	X	X	X	X																						
ZZZZZZ			10:44																										
ZZZZZZ			10:47																										
MB 180-145252/1-A	1	R	10:54	X	X	X	X																						
LCS 180-145252/2-A	1	R	10:58	X	X	X	X																						
180-45088-2	1	T	11:02	X	X	X	X																						
180-45088-5	1	T	11:06	X	X	X	X																						
180-45088-6	1	T	11:09	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/19/2015 07:01 End Date: 06/19/2015 15:51

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					
180-45088-7	1	T	11:13	X	X	X	X																					
180-45088-8	1	T	11:17	X	X	X	X																					
180-45088-10	1	T	11:21	X	X	X	X																					
CCV 180-145681/46	1		11:25	X	X	X	X																					
CCB4 180-145681/47	1		11:31	X	X	X	X																					
180-45088-11	1	T	11:35	X	X	X	X																					
180-45088-11 SD	5	T	11:39	X	X	X	X																					
180-45088-11 MS	1	T	11:43	X	X	X	X																					
180-45088-11 MSD	1	T	11:47	X	X	X	X																					
180-45088-11 PDS	1	T	11:50	X	X	X	X																					
180-45088-12	1	T	11:54	X	X	X	X																					
180-45088-13	1	T	11:58	X	X	X	X																					
180-45088-15	1	T	12:02	X	X	X	X																					
180-45088-16	1	T	12:06	X	X	X	X																					
180-45088-17	1	T	12:09	X	X	X	X																					
CCV 180-145681/58	1		12:13	X	X	X	X																					
CCB5 180-145681/59	1		12:20	X	X	X	X																					
ZZZZZZ			12:24																									
ZZZZZZ			12:27																									
ZZZZZZ			12:31																									
ZZZZZZ			12:35																									
ZZZZZZ			12:39																									
CRI 180-145681/65	1		12:46	X	X	X	X																					
ZZZZZZ			12:49																									
ZZZZZZ			12:53																									
ZZZZZZ			12:57																									
ZZZZZZ			13:01																									
CCV 180-145681/70			13:05																									
CCB6 180-145681/71			13:08																									
ZZZZZZ			13:12																									
ZZZZZZ			13:16																									
ZZZZZZ			13:20																									
ZZZZZZ			13:26																									
ZZZZZZ			13:30																									
ZZZZZZ			13:34																									
ZZZZZZ			13:38																									
ZZZZZZ			13:42																									
ZZZZZZ			13:45																									
ZZZZZZ			13:49																									
CCV 180-145681/82			13:53																									
CCB7 180-145681/83			14:00																									
ZZZZZZ			14:03																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/19/2015 07:01 End Date: 06/19/2015 15:51

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			14:07																										
ZZZZZZ			14:11																										
ZZZZZZ			14:15																										
ZZZZZZ			14:19																										
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:30																										
ZZZZZZ			14:34																										
ZZZZZZ			14:38																										
CCV 180-145681/94			14:42																										
CCB8 180-145681/95			14:48																										
ZZZZZZ			14:52																										
ZZZZZZ			14:56																										
ZZZZZZ			15:00																										
ZZZZZZ			15:03																										
ZZZZZZ			15:07																										
ZZZZZZ			15:11																										
ZZZZZZ			15:15																										
CCV 180-145681/103			15:19																										
CCB9 180-145681/104			15:25																										
ZZZZZZ			15:29																										
ZZZZZZ			15:33																										
ZZZZZZ			15:37																										
ZZZZZZ			15:40																										
CCV 180-145681/109			15:44																										
CCB10 180-145681/110			15:51																										

Prep Types:
R = Total Recoverable
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/25/2015 07:59 End Date: 06/25/2015 18:48

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-146255/1			07:59																										
STD1 180-146255/2 IC	1		14:25	X	X	X	X																						
STD2 180-146255/3 IC	1		14:29	X	X	X	X																						
STD3 180-146255/4 IC	1		14:32	X	X	X	X																						
ICV 180-146255/5	1		14:36	X	X	X	X																						
ICB 180-146255/6	1		14:40	X	X	X	X																						
CRI 180-146255/7	1		14:43	X	X	X	X																						
ICSA 180-146255/8	1		14:47	X	X	X	X																						
ICSAB 180-146255/9	1		14:51	X	X	X	X																						
CCV 180-146255/10	1		14:54	X	X	X	X																						
CCB1 180-146255/11	1		15:02	X	X	X	X																						
ZZZZZZ			15:06																										
ZZZZZZ			15:10																										
ZZZZZZ			15:14																										
ZZZZZZ			15:18																										
ZZZZZZ			15:21																										
ZZZZZZ			15:25																										
ZZZZZZ			15:29																										
ZZZZZZ			15:33																										
ZZZZZZ			15:37																										
ZZZZZZ			15:40																										
CCV 180-146255/22	1		15:44	X	X	X	X																						
CCB2 180-146255/23	1		15:51	X	X	X	X																						
ZZZZZZ			15:54																										
ZZZZZZ			15:58																										
ZZZZZZ			16:02																										
MB 180-145430/1-A	1	R	16:09	X	X	X	X																						
LCS 180-145430/2-A	1	R	16:12	X	X	X	X																						
180-45088-1	1	T	16:16	X	X	X	X																						
180-45088-3	1	T	16:20	X	X	X	X																						
180-45088-4	1	T	16:24	X	X	X	X																						
180-45088-9	1	T	16:28	X	X	X	X																						
180-45088-14	1	T	16:31	X	X	X	X																						
CCV 180-146255/34	1		16:35	X	X	X	X																						
CCB3 180-146255/35	1		16:42	X	X	X	X																						
ZZZZZZ			16:46																										
ZZZZZZ			16:49																										
ZZZZZZ			16:53																										
ZZZZZZ			16:57																										
ZZZZZZ			17:01																										
ZZZZZZ			17:04																										
ZZZZZZ			17:08																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/25/2015 07:59 End Date: 06/25/2015 18:48

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			17:12																										
ZZZZZZ			17:16																										
CCV 180-146255/45	1		17:20	X	X	X	X																						
CCB4 180-146255/46	1		17:26	X	X	X	X																						
ZZZZZZ			17:30																										
ZZZZZZ			17:34																										
ZZZZZZ			17:38																										
ZZZZZZ			17:42																										
ZZZZZZ			17:45																										
ZZZZZZ			17:49																										
ZZZZZZ			17:53																										
CCV 180-146255/54			17:57																										
CCB5 180-146255/55			18:04																										
CRI 180-146255/56	1		18:11	X	X	X	X																						
ZZZZZZ			18:15																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
ZZZZZZ			18:27																										
ZZZZZZ			18:30																										
ZZZZZZ			18:34																										
ZZZZZZ			18:38																										
CCV 180-146255/64			18:42																										
CCB6 180-146255/65			18:48																										

Prep Types:
R = Total Recoverable
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/19/2015 End Date: 06/19/2015

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 180-145681/2 I	08:25	100		100		100		100		100	
STD2 180-145681/3 I	08:28	96		102		97		89		93	
STD3 180-145681/4 I	08:32	98		101		99		99		100	
ICV 180-145681/5	08:35	99		104		99		94		97	
ICB 180-145681/6	08:39	112		110		106		105		102	
CRI 180-145681/7	08:43	103		107		102		102		101	
ICSA 180-145681/8	08:46	68		77		80		75		83	
ICSAB 180-145681/9	08:50	65		74		79		74		82	
CCV 180-145681/10	08:57	82		89		90		86		89	
CCB1 180-145681/11	09:03	90		93		97		97		98	
CCV 180-145681/34	10:33	82		86		86		83		84	
CCB3 180-145681/35	10:40	86		90		91		93		93	
MB 180-145252/1-A	10:54	82		88		93		96		98	
LCS 180-145252/2-A	10:58	44		48		66		65		73	
180-45088-2	11:02	48		49		69		70		77	
180-45088-5	11:06	48		52		68		67		75	
180-45088-6	11:09	48		47		69		68		76	
180-45088-7	11:13	43		46		66		66		75	
180-45088-8	11:17	44		44		67		66		75	
180-45088-10	11:21	48		47		68		69		77	
CCV 180-145681/46	11:25	86		98		96		92		97	
CCB4 180-145681/47	11:31	109		109		105		107		106	
180-45088-11	11:35	55		53		69		68		75	
180-45088-11 SD	11:39	81		81		82		82		85	
180-45088-11 MS	11:43	55		53		68		65		70	
180-45088-11 MSD	11:47	51		51		67		65		72	
180-45088-11 PDS	11:50	49		51		67		64		71	
180-45088-12	11:54	60		54		68		68		74	
180-45088-13	11:58	51		48		69		68		76	
180-45088-15	12:02	47		47		68		67		75	
180-45088-16	12:06	50		46		68		67		76	
180-45088-17	12:09	43		45		66		64		73	
CCV 180-145681/58	12:13	94		104		97		94		97	
CCB5 180-145681/59	12:20	108		115		106		108		107	
CRI 180-145681/65	12:46	101		103		92		94		92	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/19/2015 End Date: 06/19/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-145681/2 I	08:25	100		100		100					
STD2 180-145681/3 I	08:28	94		94		88					
STD3 180-145681/4 I	08:32	98		98		99					
ICV 180-145681/5	08:35	97		97		95					
ICB 180-145681/6	08:39	102		101		100					
CRI 180-145681/7	08:43	99		98		89					
ICSA 180-145681/8	08:46	87		86		87					
ICSAB 180-145681/9	08:50	86		86		82					
CCV 180-145681/10	08:57	91		92		85					
CCB1 180-145681/11	09:03	98		98		99					
CCV 180-145681/34	10:33	87		88		80					
CCB3 180-145681/35	10:40	94		94		97					
MB 180-145252/1-A	10:54	101		102		105					
LCS 180-145252/2-A	10:58	88		90		83					
180-45088-2	11:02	91		92		84					
180-45088-5	11:06	87		89		80					
180-45088-6	11:09	90		93		85					
180-45088-7	11:13	89		91		82					
180-45088-8	11:17	89		91		83					
180-45088-10	11:21	91		93		86					
CCV 180-145681/46	11:25	101		101		88					
CCB4 180-145681/47	11:31	106		105		102					
180-45088-11	11:35	87		88		78					
180-45088-11 SD	11:39	90		90		86					
180-45088-11 MS	11:43	82		84		70					
180-45088-11 MSD	11:47	86		87		74					
180-45088-11 PDS	11:50	85		87		73					
180-45088-12	11:54	84		86		75					
180-45088-13	11:58	90		92		82					
180-45088-15	12:02	89		91		81					
180-45088-16	12:06	89		92		82					
180-45088-17	12:09	88		90		79					
CCV 180-145681/58	12:13	99		100		86					
CCB5 180-145681/59	12:20	105		105		103					
CRI 180-145681/65	12:46	92		91		81					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/25/2015 End Date: 06/25/2015

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 180-146255/2 I	14:25	100		100		100		100		100	
STD2 180-146255/3 I	14:29	80		82		81		74		78	
STD3 180-146255/4 I	14:32	91		84		85		85		86	
ICV 180-146255/5	14:36	96		92		88		84		87	
ICB 180-146255/6	14:40	105		98		96		95		94	
CRI 180-146255/7	14:43	97		98		95		93		89	
ICSA 180-146255/8	14:47										
CCV 180-146255/10	14:54					76				72	
CCB1 180-146255/11	15:02	83		86		90		91		92	
CCV 180-146255/22	15:44	85		75		81		74		75	
CCB2 180-146255/23	15:51	100		88		91		93		91	
MB 180-145430/1-A	16:09	95		85		86		87		86	
LCS 180-145430/2-A	16:12	44		39		52		50		56	
180-45088-1	16:16	48		41		54		52		58	
180-45088-3	16:20	44		37		51		50		56	
180-45088-4	16:24	42		37		50		49		56	
180-45088-9	16:28	43		38		51		49		55	
180-45088-14	16:31	41		36		49		48		54	
CCV 180-146255/34	16:35	79		73		77		71		73	
CCB3 180-146255/35	16:42	105		92		90		90		89	
CCV 180-146255/45	17:20	82		75		78		72		73	
CCB4 180-146255/46	17:26	98		90		90		92		90	
CRI 180-146255/56	18:11	115		92		99		92		89	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/25/2015 End Date: 06/25/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-146255/2 I	14:25	100		100		100					
STD2 180-146255/3 I	14:29	82		81		77					
STD3 180-146255/4 I	14:32	90		90		94					
ICV 180-146255/5	14:36	87		86		84					
ICB 180-146255/6	14:40	94		94		94					
CRI 180-146255/7	14:43	94		94		95					
ICSA 180-146255/8	14:47					72					
CCV 180-146255/10	14:54	80		80		74					
CCB1 180-146255/11	15:02	95		96		100					
CCV 180-146255/22	15:44	79		78							
CCB2 180-146255/23	15:51	92		91		97					
MB 180-145430/1-A	16:09	89		89		92					
LCS 180-145430/2-A	16:12	70		71		70					
180-45088-1	16:16	70		71		67					
180-45088-3	16:20	70		71		73					
180-45088-4	16:24	70		71		71					
180-45088-9	16:28	68		69		66					
180-45088-14	16:31	67		68		69					
CCV 180-146255/34	16:35	78		78		71					
CCB3 180-146255/35	16:42	89		89		92					
CCV 180-146255/45	17:20	77		76							
CCB4 180-146255/46	17:26	91		91		97					
CRI 180-146255/56	18:11	89		89		91					

Dilution Corrected Concentrations

STD1 1565410 INT STD 6/19/2015 8:25:11 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	08:25:30	100.323%	0.010	-0.036	0.013	0.000	-0.268	0.071	-0.006
2	08:25:50	106.651%	0.017	-0.047	0.003	0.000	0.040	-0.041	-0.025
3	08:26:09	93.026%	-0.026	0.082	-0.016	0.000	0.228	-0.031	0.031
x		100.000%	0.000	-0.000	-0.000	0.000	0.000	-0.000	-0.000
σ		6.818%	0.023	0.072	0.015	0.000	0.250	0.062	0.028
%RSD		6.818	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	08:25:30	-0.002	0.364	0.000	0.042	1.277	-0.173	102.226%	0.022
2	08:25:50	-0.086	-1.199	0.000	0.471	-1.062	-0.111	99.239%	-0.030
3	08:26:09	0.089	0.835	0.000	-0.513	-0.215	0.284	98.536%	0.008
x		0.000	0.000	0.000	0.000	0.000	-0.000	100.000%	0.000
σ		0.088	1.065	0.000	0.494	1.184	0.248	1.959%	0.027
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.959	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:25:30	-0.002	0.012	-0.002	-0.699	-0.651	-0.001	-0.003	-0.002
2	08:25:50	0.005	0.002	-0.002	0.656	0.209	-0.000	0.000	-0.010
3	08:26:09	-0.003	-0.013	0.003	0.043	0.442	0.002	0.003	0.012
x		-0.000	0.000	-0.000	-0.000	0.000	0.000	0.000	-0.000
σ		0.005	0.012	0.003	0.679	0.576	0.002	0.003	0.011
%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	08:25:30	-0.006	0.021	-0.049	-0.042	-0.047	-0.116	0.000	-0.000
2	08:25:50	-0.007	-0.063	0.027	0.022	-0.049	0.015	0.000	-0.000
3	08:26:09	0.012	0.042	0.021	0.020	0.096	0.101	0.000	0.001
x		-0.000	-0.000	-0.000	0.000	0.000	-0.000	0.000	0.000
σ		0.011	0.055	0.043	0.037	0.084	0.110	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	08:25:30	99.480%	-0.270	-0.248	99.963%	-0.006	-0.006	0.020	0.012
2	08:25:50	100.787%	0.050	0.057	100.125%	0.000	-0.005	-0.017	-0.010
3	08:26:09	99.733%	0.219	0.191	99.912%	0.005	0.011	-0.004	-0.002
x		100.000%	-0.000	-0.000	100.000%	0.000	0.000	-0.000	-0.000
σ		0.693%	0.248	0.225	0.111%	0.006	0.010	0.019	0.011
%RSD		0.693	0.000	0.000	0.111	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	08:25:30	100.513%	-0.086	-0.022	-0.045	-0.004	0.001	99.121%	99.419%
2	08:25:50	101.519%	0.027	-0.001	0.030	0.008	-0.000	99.919%	99.460%
3	08:26:09	97.968%	0.060	0.023	0.015	-0.004	-0.001	100.961%	101.121%
x		100.000%	-0.000	-0.000	0.000	-0.000	0.000	100.000%	100.000%
σ		1.830%	0.077	0.022	0.040	0.007	0.001	0.923%	0.971%
%RSD		1.830	0.000	0.000	0.000	0.000	0.000	0.923	0.971

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:25:30	-0.002	-0.002	0.000	-0.001	-0.000	100.943%
2	08:25:50	0.001	0.001	-0.001	-0.001	-0.001	99.049%
3	08:26:09	0.000	0.001	0.001	0.002	0.001	100.009%
x		-0.000	-0.000	0.000	-0.000	-0.000	100.000%
σ		0.002	0.002	0.001	0.002	0.001	0.947%
%RSD		0.000	0.000	0.000	0.000	0.000	0.947

STD2 1594024 6/19/2015 8:28:36 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:36	92.798%	201.600	0.148	0.237	0.000	103300.000	103400.000	102900.000
2	08:28:56	94.997%	201.300	0.175	0.223	0.000	96400.000	97020.000	96730.000
3	08:29:15	99.659%	197.200	0.094	0.187	0.000	100300.000	99620.000	100400.000
x		95.818%	200.000	0.139	0.216	0.000	100000.000	100000.000	100000.000
σ		3.503%	2.470	0.041	0.026	0.000	3437.000	3189.000	3082.000
%RSD		3.656	1.235	29.810	12.040	0.000	3.437	3.189	3.082
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:36	1024.000	8.064	0.000	98460.000	97820.000	96780.000	105.941%	0.164
2	08:28:56	977.700	5.760	0.000	99870.000	99390.000	100100.000	101.595%	0.156
3	08:29:15	997.900	6.164	0.000	101700.000	102800.000	103100.000	99.748%	0.088
x		1000.000	6.662	0.000	100000.000	100000.000	100000.000	102.428%	0.136
σ		23.410	1.230	0.000	1613.000	2539.000	3174.000	3.179%	0.042
%RSD		2.341	18.470	0.000	1.613	2.539	3.174	3.104	30.660
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:36	199.100	196.300	972.900	49010.000	48720.000	195.700	194.000	193.700
2	08:28:56	202.200	201.100	1015.000	50550.000	50660.000	199.800	201.400	200.300
3	08:29:15	198.700	202.500	1012.000	50440.000	50620.000	204.500	204.600	206.000
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		1.881	3.249	23.530	860.300	1107.000	4.409	5.461	6.116
%RSD		0.940	1.625	2.353	1.721	2.214	2.205	2.730	3.058
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:36	191.300	194.800	197.500	199.700	201.000	201.400	0.000	198.200
2	08:28:56	201.800	202.000	198.500	198.900	198.900	198.100	0.000	201.000
3	08:29:15	206.900	203.200	204.000	201.300	200.100	200.500	0.000	200.700
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		7.944	4.560	3.518	1.230	1.060	1.743	0.000	1.533
%RSD		3.972	2.280	1.759	0.615	0.530	0.871	0.000	0.767
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:36	95.414%	-0.259	-0.208	87.845%	198.700	198.500	198.500	198.400
2	08:28:56	97.154%	0.260	0.174	88.941%	201.000	201.000	201.000	201.300
3	08:29:15	97.742%	0.497	0.538	89.824%	200.400	200.400	200.500	200.200
x		96.770%	0.166	0.168	88.870%	200.000	200.000	200.000	200.000
σ		1.211%	0.387	0.373	0.991%	1.192	1.317	1.346	1.455
%RSD		1.251	233.400	222.100	1.115	0.596	0.658	0.673	0.728
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:36	92.111%	-0.046	0.173	0.199	197.800	198.900	93.051%	93.285%
2	08:28:56	93.417%	0.054	0.257	0.239	201.000	200.800	94.003%	93.502%
3	08:29:15	94.339%	0.162	0.304	0.295	201.200	200.300	95.830%	95.123%
x		93.289%	0.057	0.245	0.245	200.000	200.000	94.295%	93.970%
σ		1.119%	0.104	0.066	0.048	1.938	0.999	1.412%	1.005%
%RSD		1.200	182.700	27.170	19.720	0.969	0.500	1.498	1.069
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	08:28:36	193.100	192.300	190.600	189.700	190.400	90.473%		
2	08:28:56	199.000	200.200	201.000	201.300	201.800	86.942%		
3	08:29:15	207.900	207.500	208.400	209.000	207.800	85.665%		
x		200.000	200.000	200.000	200.000	200.000	87.693%		
σ		7.449	7.625	8.909	9.700	8.822	2.491%		
%RSD		3.725	3.813	4.454	4.850	4.411	2.840		

STD3 1594025 6/19/2015 8:32:12 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	104.988%	0.008	200.800	206.000	0.000	13.060	10.500	9.923
2	08:32:32	95.644%	0.021	203.500	199.900	0.000	11.590	9.637	8.979
3	08:32:51	92.919%	0.023	195.700	194.100	0.000	11.570	9.160	8.676
x		97.851%	0.017	200.000	200.000	0.000	12.070	9.766	9.193
σ		6.330%	0.008	4.002	5.989	0.000	0.856	0.680	0.650
%RSD		6.469	45.100	2.001	2.995	0.000	7.087	6.968	7.073

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	4.325	9999.000	0.000	11.270	15.840	60.270	104.883%	196.500
2	08:32:32	4.179	10090.000	0.000	9.441	20.460	65.610	101.786%	201.700
3	08:32:51	4.279	9915.000	0.000	10.380	16.480	55.520	97.394%	201.800
x		4.261	10000.000	0.000	10.360	17.600	60.460	101.354%	200.000
σ		0.075	85.850	0.000	0.915	2.502	5.051	3.763%	3.068
%RSD		1.753	0.859	0.000	8.827	14.220	8.354	3.713	1.534

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	0.021	-0.005	0.171	25.200	21.480	0.022	0.108	0.157
2	08:32:32	0.030	0.041	0.151	23.030	20.240	0.028	0.089	0.131
3	08:32:51	0.054	0.023	0.160	24.020	21.410	0.027	0.055	0.156
x		0.035	0.020	0.161	24.080	21.040	0.026	0.084	0.148
σ		0.017	0.023	0.010	1.085	0.697	0.003	0.027	0.015
%RSD		49.170	115.600	6.300	4.504	3.314	12.640	31.760	10.170

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	0.232	1.839	1.780	0.484	1.555	1.526	0.000	0.039
2	08:32:32	0.162	1.615	1.802	0.979	1.927	2.234	0.000	0.035
3	08:32:51	0.148	1.898	1.657	1.020	2.355	2.427	0.000	0.037
x		0.181	1.784	1.747	0.828	1.945	2.063	0.000	0.037
σ		0.045	0.149	0.078	0.298	0.401	0.474	0.000	0.002
%RSD		24.880	8.366	4.467	36.050	20.590	23.000	0.000	6.266

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	100.151%	199.600	197.500	99.808%	0.058	0.068	0.104	-0.572
2	08:32:32	99.488%	199.400	200.800	98.805%	0.071	0.055	0.052	-0.518
3	08:32:51	98.495%	201.000	201.700	97.365%	0.072	0.077	0.045	-0.520
x		99.378%	200.000	200.000	98.659%	0.067	0.067	0.067	-0.536
σ		0.833%	0.847	2.220	1.228%	0.007	0.011	0.032	0.030
%RSD		0.839	0.424	1.110	1.245	11.120	16.980	47.850	5.652

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	100.744%	198.600	200.500	201.100	0.086	0.219	97.725%	97.187%
2	08:32:32	99.901%	199.600	198.800	198.400	0.041	0.192	98.377%	98.186%
3	08:32:51	100.607%	201.800	200.700	200.500	0.062	0.178	99.184%	99.019%
x		100.418%	200.000	200.000	200.000	0.063	0.196	98.428%	98.131%
σ		0.452%	1.636	1.071	1.428	0.022	0.020	0.731%	0.917%
%RSD		0.451	0.818	0.535	0.714	35.740	10.400	0.742	0.935

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:12	0.040	0.045	0.031	0.030	0.033	98.631%
2	08:32:32	0.046	0.049	0.032	0.027	0.033	98.649%
3	08:32:51	0.054	0.046	0.031	0.033	0.035	99.879%
x		0.047	0.047	0.031	0.030	0.033	99.053%
σ		0.007	0.002	0.000	0.003	0.001	0.716%
%RSD		14.950	3.814	0.458	10.120	3.239	0.722

ICV 1613162 6/19/2015 8:35:49 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	101.415%	84.370	82.550	87.780	0.000	40540.000	40330.000	40340.000
2	08:36:08	97.897%	83.700	74.320	82.520	0.000	38530.000	39850.000	40170.000
3	08:36:27	98.625%	83.750	83.260	83.460	0.000	39450.000	40740.000	39930.000
x		99.312%	104.926%	100.055%	105.732%	0.000	98.764%	100.769%	100.357%
σ		1.857%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.870	0.448	6.209	3.312	0.000	2.547	1.099	0.513

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	412.600	4393.000	0.000	39460.000	37950.000	38740.000	106.788%	76.150
2	08:36:08	402.300	4466.000	0.000	39750.000	37620.000	39140.000	103.604%	77.010
3	08:36:27	405.000	4539.000	0.000	38980.000	38570.000	38970.000	102.188%	78.880
x		101.657%	111.651%	0.000	98.497%	95.123%	97.371%	104.193%	96.681%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.356%	n/a
%RSD		1.324	1.638	0.000	0.981	1.268	0.518	2.261	1.805

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	76.500	78.040	379.600	18800.000	18760.000	78.090	79.190	79.760
2	08:36:08	78.740	80.210	384.600	19260.000	19180.000	78.130	79.370	80.180
3	08:36:27	78.200	80.290	385.800	19050.000	19070.000	78.410	79.910	80.880
x		97.265%	99.393%	95.831%	95.180%	95.013%	97.764%	99.359%	100.344%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.503	1.610	0.862	1.223	1.149	0.222	0.473	0.705

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	78.710	77.880	76.950	78.990	81.170	82.620	0.000	73.260
2	08:36:08	81.680	79.020	78.710	80.520	82.230	81.960	0.000	74.280
3	08:36:27	81.460	80.590	78.990	80.320	80.370	81.720	0.000	75.030
x		100.770%	98.953%	97.770%	99.927%	101.570%	102.627%	0.000	92.734%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.048	1.720	1.414	1.041	1.147	0.572	0.000	1.196

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	99.325%	80.650	81.210	94.143%	78.080	78.380	77.260	77.870
2	08:36:08	98.597%	82.090	83.670	93.704%	78.400	78.640	78.630	77.930
3	08:36:27	100.074%	82.730	83.150	95.197%	78.230	78.830	77.640	77.570
x		99.332%	102.280%	103.344%	94.348%	97.796%	98.274%	97.308%	97.236%
σ		0.738%	n/a	n/a	0.767%	n/a	n/a	n/a	n/a
%RSD		0.743	1.305	1.565	0.813	0.204	0.287	0.908	0.251

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	95.695%	76.300	84.250	85.530	75.620	76.720	95.284%	95.460%
2	08:36:08	96.714%	76.770	85.250	85.090	76.840	76.310	97.571%	97.494%
3	08:36:27	97.922%	77.450	85.030	85.200	76.260	76.580	99.261%	99.070%
x		96.777%	96.052%	106.055%	106.590%	95.302%	95.670%	97.372%	97.341%
σ		1.114%	n/a	n/a	n/a	n/a	n/a	1.996%	1.810%
%RSD		1.152	0.755	0.616	0.273	0.803	0.278	2.050	1.860

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:35:49	76.410	75.210	74.180	71.910	72.820	95.963%
2	08:36:08	78.880	77.790	77.200	74.960	75.960	95.213%
3	08:36:27	81.120	80.330	79.590	77.160	78.210	93.294%
x		98.504%	97.221%	96.238%	93.344%	94.578%	94.824%
σ		n/a	n/a	n/a	n/a	n/a	1.376%
%RSD		2.986	3.293	3.522	3.532	3.575	1.452

ICB 6/19/2015 8:39:28 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	124.314%	0.048	0.284	0.301	0.000	9.287	1.473	1.642
2	08:39:47	110.889%	0.007	0.231	0.386	0.000	9.834	1.128	1.396
3	08:40:06	101.334%	-0.009	0.303	0.365	0.000	9.530	1.231	1.319
x		112.179%	0.015	0.273	0.351	0.000	9.550	1.277	1.452
σ		11.544%	0.029	0.037	0.045	0.000	0.274	0.177	0.168
%RSD		10.291	191.300	13.680	12.710	0.000	2.872	13.900	11.590

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	2.660	0.815	0.000	7.514	12.140	13.090	114.205%	0.034
2	08:39:47	2.817	2.596	0.000	7.864	13.020	12.750	108.146%	0.049
3	08:40:06	2.839	2.896	0.000	7.466	17.490	15.530	108.760%	0.048
x		2.772	2.102	0.000	7.615	14.220	13.790	110.370%	0.044
σ		0.098	1.125	0.000	0.218	2.870	1.518	3.335%	0.009
%RSD		3.528	53.510	0.000	2.857	20.190	11.000	3.022	19.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	0.024	0.026	0.054	9.237	5.921	0.003	0.079	0.196
2	08:39:47	0.024	0.023	0.041	9.659	6.840	0.003	0.105	0.172
3	08:40:06	0.022	0.010	0.042	8.465	7.209	0.003	0.069	0.167
x		0.023	0.020	0.046	9.120	6.656	0.003	0.084	0.179
σ		0.001	0.008	0.008	0.605	0.663	0.000	0.019	0.015
%RSD		4.828	42.990	16.600	6.635	9.965	13.150	22.400	8.620

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	0.168	1.315	1.188	0.171	0.742	0.845	0.000	0.017
2	08:39:47	0.177	1.388	1.338	0.327	0.986	0.770	0.000	0.015
3	08:40:06	0.224	1.390	1.332	0.487	1.260	1.219	0.000	0.015
x		0.189	1.364	1.286	0.328	0.996	0.944	0.000	0.016
σ		0.030	0.043	0.085	0.158	0.259	0.240	0.000	0.001
%RSD		15.920	3.143	6.597	48.150	26.040	25.460	0.000	7.205

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	105.673%	0.452	0.472	105.640%	0.011	0.010	0.024	0.082
2	08:39:47	106.035%	1.068	1.054	105.739%	0.010	0.016	0.006	0.008
3	08:40:06	105.468%	1.468	1.320	104.537%	0.017	0.026	0.004	0.026
x		105.726%	0.996	0.949	105.305%	0.013	0.017	0.011	0.039
σ		0.287%	0.512	0.434	0.667%	0.004	0.008	0.011	0.038
%RSD		0.272	51.370	45.750	0.633	27.840	45.830	97.580	98.970

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	102.342%	-1.742	0.051	0.041	0.016	0.045	100.849%	99.861%
2	08:39:47	101.721%	0.068	0.153	0.116	0.025	0.036	102.546%	101.919%
3	08:40:06	102.184%	-0.838	0.148	0.114	0.035	0.041	102.258%	102.130%
x		102.082%	-0.838	0.117	0.090	0.025	0.041	101.884%	101.303%
σ		0.323%	0.905	0.057	0.043	0.009	0.004	0.908%	1.253%
%RSD		0.316	108.000	48.870	47.440	36.620	10.510	0.892	1.237

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:28	0.015	0.014	0.019	0.016	0.021	99.861%
2	08:39:47	0.028	0.024	0.030	0.022	0.025	100.202%
3	08:40:06	0.026	0.025	0.022	0.023	0.026	100.193%
x		0.023	0.021	0.024	0.021	0.024	100.085%
σ		0.007	0.006	0.005	0.004	0.003	0.194%
%RSD		30.380	29.160	22.300	18.430	11.710	0.194

CRI 1554040 6/19/2015 8:43:07 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:43:07	107.610%	1.006	20.050	19.490	0.000	463.200	474.000	478.500
2	08:43:26	102.754%	1.135	18.910	19.250	0.000	462.300	467.800	481.800
3	08:43:45	99.605%	1.018	19.990	21.040	0.000	484.500	490.600	489.900
x		103.323%	105.287%	98.245%	99.642%	0.000	93.992%	95.495%	96.685%
σ		4.033%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.903	6.803	3.261	4.877	0.000	2.676	2.462	1.206
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:43:07	30.680	488.600	0.000	465.600	457.000	464.000	113.266%	4.454
2	08:43:26	31.020	510.500	0.000	484.000	500.800	483.800	106.722%	4.626
3	08:43:45	30.750	488.300	0.000	484.500	479.000	484.100	101.852%	4.630
x		102.730%	99.163%	0.000	95.612%	95.784%	95.462%	107.280%	91.398%
σ		n/a	n/a	0.000	n/a	n/a	n/a	5.727%	n/a
%RSD		0.586	2.569	0.000	2.250	4.574	2.413	5.338	2.198
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:43:07	0.823	1.905	5.022	50.440	46.560	0.493	1.099	2.189
2	08:43:26	1.028	2.051	4.983	49.990	46.070	0.473	1.060	2.246
3	08:43:45	0.850	1.989	4.926	50.690	47.620	0.501	1.052	2.238
x		90.011%	99.090%	99.538%	100.751%	93.501%	97.744%	107.014%	111.227%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		12.350	3.711	0.975	0.704	1.690	2.955	2.367	1.379
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:43:07	2.201	5.736	5.737	1.161	5.760	5.832	0.000	4.473
2	08:43:26	2.064	5.822	5.544	1.167	5.752	5.530	0.000	4.533
3	08:43:45	2.313	5.736	6.034	1.104	5.909	5.539	0.000	4.469
x		109.653%	115.290%	115.430%	114.406%	116.139%	112.673%	0.000	89.829%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.693	0.858	4.272	3.034	1.529	3.051	0.000	0.799
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:43:07	102.730%	2.861	2.959	102.223%	1.002	1.050	1.129	0.966
2	08:43:26	102.499%	3.069	3.027	102.806%	1.012	1.020	0.997	1.048
3	08:43:45	101.611%	3.155	3.169	101.436%	1.043	1.031	1.051	1.005
x		102.280%	60.559%	61.037%	102.155%	101.931%	103.357%	105.886%	100.641%
σ		0.591%	n/a	n/a	0.688%	n/a	n/a	n/a	n/a
%RSD		0.578	4.990	3.503	0.673	2.101	1.440	6.269	4.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:43:07	101.533%	3.974	1.810	1.823	9.407	9.194	97.322%	96.618%
2	08:43:26	100.015%	4.005	1.899	1.950	9.308	9.307	98.066%	97.602%
3	08:43:45	100.183%	3.925	1.934	1.972	9.624	9.675	100.739%	100.067%
x		100.577%	79.353%	94.039%	95.768%	94.466%	93.922%	98.709%	98.096%
σ		0.832%	n/a	n/a	n/a	n/a	n/a	1.797%	1.776%
%RSD		0.827	1.017	3.388	4.202	1.710	2.678	1.820	1.811
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	08:43:07	0.992	0.994	1.008	1.019	1.015	86.971%		
2	08:43:26	1.053	1.000	1.021	1.035	1.018	88.832%		
3	08:43:45	1.013	0.996	1.003	1.023	1.027	90.714%		
x		101.921%	99.671%	101.044%	102.553%	101.993%	88.839%		
σ		n/a	n/a	n/a	n/a	n/a	1.871%		
%RSD		3.065	0.314	0.908	0.782	0.615	2.107		

ICSA 1616919 6/19/2015 8:46:45 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	75.255%	0.034	0.287	0.618	0.000	100400.000	100700.000	100100.000
2	08:47:04	64.684%	0.015	0.275	0.585	0.000	101600.000	102000.000	102500.000
3	08:47:23	63.661%	0.016	0.333	0.588	0.000	99620.000	98680.000	97940.000
x		67.867%	0.022	0.298	0.597	0.000	100600.000	100400.000	100200.000
σ		6.419%	0.010	0.031	0.018	0.000	1011.000	1653.000	2289.000
%RSD		9.458	47.980	10.300	3.093	0.000	1.006	1.646	2.284

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	98790.000	14.760	0.000	98940.000	95950.000	99650.000	81.848%	2019.000
2	08:47:04	101600.000	17.380	0.000	102400.000	99410.000	103800.000	76.221%	2115.000
3	08:47:23	99580.000	14.860	0.000	101600.000	100200.000	105900.000	74.022%	2085.000
x		99990.000	15.670	0.000	101000.000	98510.000	103100.000	77.364%	2073.000
σ		1436.000	1.485	0.000	1822.000	2252.000	3178.000	4.036%	49.310
%RSD		1.436	9.479	0.000	1.804	2.286	3.082	5.217	2.379

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	-0.337	0.463	0.460	98110.000	99930.000	0.040	-0.670	1.426
2	08:47:04	-0.287	0.580	0.415	104100.000	104300.000	0.054	-0.654	1.323
3	08:47:23	-0.222	0.585	0.458	101900.000	103100.000	0.042	-0.676	1.399
x		-0.282	0.543	0.444	101400.000	102500.000	0.045	-0.666	1.383
σ		0.058	0.069	0.025	3035.000	2268.000	0.007	0.012	0.054
%RSD		20.440	12.700	5.612	2.994	2.213	15.840	1.728	3.875

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	1.127	2.241	1.539	-0.011	0.133	0.331	0.000	0.656
2	08:47:04	1.285	2.215	1.723	0.045	0.371	0.445	0.000	0.649
3	08:47:23	1.210	2.160	1.513	-0.037	0.373	0.505	0.000	0.663
x		1.208	2.205	1.592	-0.001	0.292	0.427	0.000	0.656
σ		0.079	0.041	0.114	0.042	0.138	0.089	0.000	0.007
%RSD		6.545	1.880	7.166	3563.000	47.140	20.820	0.000	1.014

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	80.224%	2133.000	2353.000	75.272%	0.026	0.025	0.160	0.164
2	08:47:04	79.849%	2152.000	2377.000	74.946%	0.041	0.040	0.230	0.181
3	08:47:23	80.255%	2169.000	2405.000	75.058%	0.023	0.033	0.170	0.160
x		80.109%	2152.000	2379.000	75.092%	0.030	0.033	0.186	0.168
σ		0.226%	18.050	26.080	0.166%	0.009	0.008	0.038	0.011
%RSD		0.282	0.839	1.096	0.221	31.470	23.890	20.220	6.767

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	82.586%	-0.016	0.119	0.077	0.105	0.125	86.062%	84.984%
2	08:47:04	82.714%	0.136	0.155	0.131	0.150	0.148	86.162%	86.683%
3	08:47:23	83.711%	0.173	0.179	0.130	0.145	0.124	87.832%	87.236%
x		83.004%	0.098	0.151	0.113	0.134	0.132	86.685%	86.301%
σ		0.616%	0.100	0.030	0.031	0.025	0.013	0.995%	1.174%
%RSD		0.742	102.300	19.830	27.530	18.620	10.090	1.147	1.360

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:45	0.013	0.016	0.194	0.173	0.178	92.235%
2	08:47:04	0.021	0.017	0.199	0.199	0.201	86.411%
3	08:47:23	0.012	0.016	0.207	0.213	0.214	83.624%
x		0.015	0.017	0.200	0.195	0.197	87.423%
σ		0.005	0.000	0.006	0.021	0.018	4.394%
%RSD		33.420	2.354	3.132	10.510	9.196	5.026

ICSAB 1616920 6/19/2015 8:50:24 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	66.431%	22.140	46.190	48.690	0.000	103600.000	103500.000	102300.000
2	08:50:45	66.453%	20.840	50.260	48.940	0.000	104400.000	105300.000	103800.000
3	08:51:04	62.702%	20.500	52.190	51.080	0.000	106700.000	106400.000	103100.000
x		65.195%	105.801%	99.092%	99.144%	0.000	104.932%	105.110%	103.025%
σ		2.159%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.312	4.080	6.176	2.652	0.000	1.534	1.393	0.719

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	101000.000	516.100	0.000	101000.000	97320.000	104300.000	78.578%	2100.000
2	08:50:45	101600.000	517.400	0.000	104700.000	107500.000	108300.000	71.875%	2144.000
3	08:51:04	104000.000	527.700	0.000	103200.000	100000.000	106200.000	71.950%	2139.000
x		102.217%	104.081%	0.000	102.987%	101.605%	106.252%	74.134%	106.377%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.849%	n/a
%RSD		1.567	1.222	0.000	1.785	5.169	1.881	5.191	1.135

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	20.080	21.210	21.090	103600.000	104100.000	20.400	19.960	21.120
2	08:50:45	20.060	21.230	22.170	107300.000	107200.000	20.720	19.510	21.520
3	08:51:04	19.400	21.170	21.560	106200.000	106700.000	20.370	19.130	21.320
x		99.230%	106.022%	93.935%	105.690%	105.971%	102.489%	97.663%	106.603%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.963	0.135	2.507	1.775	1.557	0.945	2.141	0.917

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	21.290	24.240	23.210	22.190	56.070	55.990	0.000	20.810
2	08:50:45	21.580	24.560	23.460	22.240	54.830	55.830	0.000	20.960
3	08:51:04	21.390	24.200	23.290	22.340	54.550	54.460	0.000	21.000
x		107.105%	97.333%	93.271%	111.282%	110.303%	110.858%	0.000	104.610%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.698	0.793	0.544	0.324	1.468	1.514	0.000	0.476

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	79.196%	2221.000	2450.000	75.132%	19.430	19.530	20.390	20.170
2	08:50:45	78.504%	2245.000	2472.000	73.998%	19.800	19.430	21.020	20.170
3	08:51:04	78.210%	2263.000	2487.000	73.723%	19.490	19.850	20.840	20.540
x		78.637%	112.147%	123.485%	74.284%	97.880%	98.023%	103.752%	101.479%
σ		0.506%	n/a	n/a	0.747%	n/a	n/a	n/a	n/a
%RSD		0.643	0.948	0.773	1.005	1.006	1.127	1.552	1.056

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	82.385%	100.800	20.400	20.590	20.100	20.130	84.859%	84.355%
2	08:50:45	81.644%	102.000	21.000	21.580	20.360	20.200	85.911%	86.096%
3	08:51:04	81.571%	102.700	21.710	21.730	20.560	20.480	86.127%	86.953%
x		81.867%	101.816%	105.201%	106.506%	101.709%	101.352%	85.632%	85.801%
σ		0.451%	n/a	n/a	n/a	n/a	n/a	0.678%	1.324%
%RSD		0.550	0.977	3.122	2.900	1.121	0.926	0.792	1.543

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:24	19.550	19.180	20.250	20.190	20.110	84.824%
2	08:50:45	20.490	20.680	21.760	21.730	21.700	80.904%
3	08:51:04	21.680	21.560	22.540	22.420	22.300	78.747%
x		102.872%	102.362%	107.586%	107.224%	106.849%	81.492%
σ		n/a	n/a	n/a	n/a	n/a	3.081%
%RSD		5.185	5.861	5.419	5.336	5.297	3.781

CCV 1594026 6/19/2015 8:57:01 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	81.629%	114.200	98.820	107.200	0.000	52110.000	51480.000	51160.000
2	08:57:20	89.524%	102.300	96.890	95.700	0.000	48120.000	49390.000	49410.000
3	08:57:39	73.585%	108.600	104.100	103.800	0.000	50660.000	50980.000	51690.000
x		81.579%	108.335%	99.929%	102.252%	0.000	100.593%	101.232%	101.507%
σ		7.970%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		9.769	5.500	3.721	5.792	0.000	4.014	2.149	2.347

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	530.300	5315.000	0.000	49890.000	47730.000	50130.000	91.441%	97.640
2	08:57:20	489.900	4882.000	0.000	48420.000	46980.000	49390.000	87.805%	98.980
3	08:57:39	510.300	5199.000	0.000	50380.000	48050.000	50690.000	86.480%	103.500
x		102.033%	102.643%	0.000	99.127%	95.172%	100.140%	88.575%	100.056%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.569%	n/a
%RSD		3.958	4.377	0.000	2.057	1.156	1.303	2.900	3.095

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	96.410	96.740	494.500	24790.000	24860.000	100.900	101.500	103.800
2	08:57:20	94.980	97.830	498.500	25200.000	25220.000	99.850	104.200	103.800
3	08:57:39	98.930	100.400	506.000	25380.000	25210.000	99.970	100.500	101.400
x		96.774%	98.312%	99.932%	100.501%	100.389%	100.236%	102.074%	102.999%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.067	1.890	1.169	1.205	0.818	0.570	1.830	1.336

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	104.000	103.900	103.300	103.700	106.700	106.200	0.000	93.690
2	08:57:20	104.500	105.700	106.700	103.300	107.900	105.900	0.000	94.910
3	08:57:39	100.200	105.400	104.600	102.700	107.900	108.200	0.000	95.080
x		102.920%	105.019%	104.870%	103.238%	107.507%	106.766%	0.000	94.558%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.271	0.916	1.636	0.488	0.633	1.158	0.000	0.799

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	90.761%	98.540	99.200	86.518%	98.180	98.070	100.000	99.030
2	08:57:20	89.967%	101.800	103.000	85.692%	98.340	98.340	99.770	99.010
3	08:57:39	90.182%	102.900	104.300	85.267%	98.330	99.440	100.900	100.400
x		90.303%	101.092%	102.164%	85.826%	98.284%	98.615%	100.241%	99.463%
σ		0.411%	n/a	n/a	0.636%	n/a	n/a	n/a	n/a
%RSD		0.455	2.251	2.601	0.741	0.090	0.737	0.622	0.776

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	89.052%	95.100	92.090	91.980	94.960	95.260	89.736%	90.212%
2	08:57:20	89.397%	95.310	91.590	93.660	95.330	95.630	91.995%	91.897%
3	08:57:39	89.514%	95.410	91.220	92.280	95.870	95.920	91.624%	92.339%
x		89.321%	95.275%	91.634%	92.641%	95.384%	95.604%	91.118%	91.483%
σ		0.240%	n/a	n/a	n/a	n/a	n/a	1.212%	1.122%
%RSD		0.269	0.167	0.476	0.968	0.481	0.348	1.330	1.227

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:01	99.810	99.190	98.890	99.280	99.340	84.848%
2	08:57:20	102.300	101.300	101.100	100.800	101.700	84.394%
3	08:57:39	101.700	101.900	101.600	102.100	102.100	85.504%
x		101.262%	100.805%	100.532%	100.744%	101.069%	84.915%
σ		n/a	n/a	n/a	n/a	n/a	0.558%
%RSD		1.266	1.408	1.432	1.413	1.491	0.657

CCB1 6/19/2015 9:03:28 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:47	92.850%	-0.026	0.186	0.095	0.000	11.070	1.173	1.024
2	09:04:06	88.032%	0.005	0.102	0.117	0.000	10.970	0.704	0.837
3	09:04:26	90.199%	-0.006	0.025	0.028	0.000	11.170	1.219	0.981
x		90.360%	-0.009	0.104	0.080	0.000	11.070	1.032	0.947
σ		2.413%	0.016	0.081	0.046	0.000	0.097	0.285	0.098
%RSD		2.670	167.400	77.370	57.510	0.000	0.873	27.660	10.330
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:47	2.819	-5.646	0.000	7.497	8.360	12.860	95.425%	0.049
2	09:04:06	2.740	-4.223	0.000	5.854	19.820	11.940	93.869%	0.118
3	09:04:26	2.620	-6.095	0.000	6.999	15.430	12.280	89.353%	0.098
x		2.727	-5.321	0.000	6.783	14.540	12.360	92.883%	0.089
σ		0.100	0.978	0.000	0.842	5.781	0.464	3.154%	0.036
%RSD		3.682	18.370	0.000	12.420	39.770	3.754	3.395	40.530
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:47	0.021	0.012	0.036	4.421	3.583	0.000	0.054	0.169
2	09:04:06	0.032	0.025	0.033	4.935	4.396	0.004	0.071	0.211
3	09:04:26	0.014	0.001	0.040	9.285	5.587	0.001	0.068	0.212
x		0.022	0.013	0.037	6.214	4.522	0.002	0.065	0.197
σ		0.009	0.012	0.004	2.673	1.008	0.002	0.009	0.025
%RSD		40.410	95.880	10.190	43.010	22.280	111.400	13.890	12.460
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:47	0.161	1.357	1.491	0.106	0.304	0.639	0.000	0.020
2	09:04:06	0.178	1.472	1.421	0.086	0.425	0.334	0.000	0.013
3	09:04:26	0.223	1.397	1.616	0.080	0.707	0.259	0.000	0.014
x		0.187	1.408	1.509	0.091	0.479	0.410	0.000	0.016
σ		0.032	0.058	0.099	0.013	0.207	0.201	0.000	0.004
%RSD		17.090	4.145	6.560	14.780	43.180	49.020	0.000	23.190
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:47	97.148%	1.291	1.367	96.851%	-0.009	-0.007	-0.019	-0.016
2	09:04:06	95.506%	2.202	2.135	96.215%	-0.011	-0.008	-0.006	0.001
3	09:04:26	97.087%	2.532	2.481	96.472%	-0.004	-0.006	0.002	0.006
x		96.580%	2.009	1.994	96.513%	-0.008	-0.007	-0.008	-0.003
σ		0.930%	0.643	0.570	0.320%	0.004	0.001	0.011	0.012
%RSD		0.963	32.000	28.600	0.332	45.410	14.210	137.800	410.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:47	97.524%	-0.054	0.639	0.578	0.012	0.019	96.985%	96.422%
2	09:04:06	97.948%	0.033	0.709	0.703	0.011	0.042	98.236%	98.142%
3	09:04:26	98.052%	0.050	0.744	0.724	0.048	0.037	98.545%	98.715%
x		97.841%	0.009	0.698	0.668	0.024	0.033	97.922%	97.760%
σ		0.279%	0.056	0.054	0.079	0.021	0.012	0.826%	1.193%
%RSD		0.285	591.100	7.720	11.830	89.650	37.240	0.844	1.221
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:03:47	0.013	0.007	0.020	0.017	0.020	99.448%		
2	09:04:06	0.013	0.016	0.020	0.015	0.018	99.022%		
3	09:04:26	0.013	0.010	0.025	0.017	0.023	99.064%		
x		0.013	0.011	0.022	0.016	0.020	99.178%		
σ		0.000	0.004	0.003	0.001	0.003	0.235%		
%RSD		3.135	40.340	14.450	8.301	12.610	0.237		

MB 180-145385/1-A 6/19/2015 9:07:17 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	09:07:36	97.460%	0.002	-0.094	0.076	0.000	1.254	-0.001	0.244
2	09:07:55	89.101%	0.024	0.097	0.029	0.000	1.699	0.455	0.048
3	09:08:14	85.529%	0.005	-0.110	0.037	0.000	1.711	0.155	0.210
x		90.697%	0.010	-0.036	0.047	0.000	1.555	0.203	0.167
σ		6.123%	0.012	0.115	0.025	0.000	0.261	0.231	0.105
%RSD		6.752	116.800	322.300	53.240	0.000	16.760	114.000	62.740
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:36	0.847	-5.534	0.000	0.561	0.646	2.995	97.145%	-0.037
2	09:07:55	0.924	-3.570	0.000	-0.147	2.361	2.843	96.654%	0.047
3	09:08:14	1.080	-3.595	0.000	-0.078	0.780	2.735	93.880%	0.118
x		0.951	-4.233	0.000	0.112	1.262	2.858	95.893%	0.043
σ		0.119	1.127	0.000	0.390	0.954	0.131	1.761%	0.078
%RSD		12.470	26.610	0.000	347.600	75.580	4.571	1.836	182.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:36	-0.005	-0.015	0.011	2.729	0.707	-0.002	0.013	0.009
2	09:07:55	0.009	-0.005	0.012	1.129	1.633	-0.001	0.006	-0.000
3	09:08:14	-0.004	0.000	0.017	4.198	1.529	0.000	-0.001	0.045
x		-0.000	-0.007	0.013	2.685	1.290	-0.001	0.006	0.018
σ		0.008	0.008	0.003	1.535	0.507	0.001	0.007	0.024
%RSD		2744.000	112.900	25.850	57.170	39.300	123.700	125.700	135.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:36	-0.011	0.828	0.799	-0.024	-0.049	0.064	0.000	0.001
2	09:07:55	0.016	0.815	0.827	0.066	0.234	0.155	0.000	0.003
3	09:08:14	-0.001	0.802	0.682	0.067	0.149	0.254	0.000	0.003
x		0.002	0.815	0.769	0.036	0.111	0.157	0.000	0.003
σ		0.014	0.013	0.077	0.052	0.145	0.095	0.000	0.001
%RSD		833.500	1.589	10.020	145.200	130.700	60.310	0.000	42.970
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:36	98.021%	0.610	0.490	98.841%	-0.008	-0.007	-0.032	-0.015
2	09:07:55	97.736%	1.054	1.103	98.294%	-0.006	-0.006	-0.041	-0.029
3	09:08:14	96.942%	1.325	1.316	98.068%	-0.013	-0.004	-0.026	-0.014
x		97.566%	0.996	0.970	98.401%	-0.009	-0.005	-0.033	-0.019
σ		0.559%	0.361	0.429	0.397%	0.004	0.002	0.008	0.008
%RSD		0.573	36.210	44.240	0.404	39.140	30.930	23.060	42.870
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:36	98.529%	-0.109	0.312	0.354	0.011	0.020	96.007%	96.148%
2	09:07:55	98.728%	-0.016	0.358	0.366	0.035	0.028	97.543%	98.092%
3	09:08:14	99.241%	-0.022	0.400	0.383	0.020	0.026	98.196%	98.138%
x		98.832%	-0.049	0.356	0.368	0.022	0.025	97.249%	97.460%
σ		0.368%	0.052	0.044	0.015	0.012	0.004	1.124%	1.136%
%RSD		0.372	105.900	12.400	3.964	54.270	17.130	1.156	1.165
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:07:36	0.004	0.001	0.002	0.001	0.003	99.176%		
2	09:07:55	0.006	0.003	0.001	-0.005	0.002	99.366%		
3	09:08:14	0.005	0.004	0.001	-0.002	0.001	98.552%		
x		0.005	0.003	0.001	-0.002	0.002	99.031%		
σ		0.001	0.001	0.000	0.003	0.001	0.426%		
%RSD		15.280	48.530	22.510	139.200	31.680	0.430		

PB 180-145222/1-B 6/19/2015 9:11:04 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	09:11:24	96.130%	-0.008	0.039	-0.007	0.000	1.483	0.058	0.074
2	09:11:43	87.056%	-0.016	-0.112	0.057	0.000	1.574	0.297	-0.049
3	09:12:02	93.929%	0.003	-0.155	-0.060	0.000	1.343	-0.035	0.207
x		92.372%	-0.007	-0.076	-0.004	0.000	1.467	0.107	0.077
σ		4.733%	0.009	0.102	0.059	0.000	0.116	0.171	0.128
%RSD		5.124	135.300	134.500	1592.000	0.000	7.915	160.400	165.600
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:24	0.977	-4.612	0.000	0.550	5.460	3.674	99.578%	-0.011
2	09:11:43	1.053	-2.456	0.000	-0.307	5.831	3.656	95.530%	0.001
3	09:12:02	0.955	-6.598	0.000	0.702	3.426	5.589	92.657%	0.014
x		0.995	-4.555	0.000	0.315	4.906	4.306	95.922%	0.001
σ		0.051	2.072	0.000	0.544	1.295	1.111	3.477%	0.013
%RSD		5.158	45.470	0.000	172.700	26.400	25.790	3.625	1035.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:24	0.002	-0.006	0.017	1.780	0.005	-0.003	0.022	0.025
2	09:11:43	-0.018	-0.039	0.006	0.282	0.626	-0.001	0.013	0.013
3	09:12:02	0.013	-0.001	0.003	1.974	0.620	-0.001	-0.001	0.012
x		-0.001	-0.015	0.008	1.345	0.417	-0.002	0.011	0.017
σ		0.016	0.020	0.007	0.926	0.357	0.001	0.012	0.008
%RSD		1423.000	131.300	87.200	68.810	85.640	69.440	104.200	45.660
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:24	0.017	0.976	0.881	-0.013	0.148	0.103	0.000	0.001
2	09:11:43	0.000	0.760	0.771	0.019	0.058	0.101	0.000	0.005
3	09:12:02	0.015	0.811	0.901	0.058	0.174	0.145	0.000	0.005
x		0.011	0.849	0.851	0.021	0.127	0.116	0.000	0.004
σ		0.009	0.113	0.070	0.035	0.061	0.025	0.000	0.003
%RSD		84.250	13.280	8.262	166.900	47.980	21.290	0.000	73.450
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:24	97.971%	0.451	0.498	97.838%	-0.006	-0.006	0.018	0.009
2	09:11:43	97.781%	0.899	0.882	97.269%	-0.003	-0.003	-0.001	0.000
3	09:12:02	97.965%	1.079	1.063	97.755%	-0.011	0.001	-0.028	-0.016
x		97.906%	0.810	0.814	97.621%	-0.007	-0.003	-0.004	-0.002
σ		0.108%	0.324	0.289	0.308%	0.004	0.003	0.023	0.013
%RSD		0.110	39.950	35.440	0.315	53.150	124.700	611.300	661.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:24	98.456%	-0.124	0.192	0.143	0.027	0.025	95.895%	95.636%
2	09:11:43	98.836%	-0.067	0.205	0.216	0.014	0.034	96.597%	96.663%
3	09:12:02	98.888%	-0.029	0.234	0.216	0.024	0.036	97.580%	97.752%
x		98.726%	-0.073	0.210	0.191	0.022	0.031	96.691%	96.684%
σ		0.236%	0.048	0.022	0.042	0.007	0.006	0.846%	1.058%
%RSD		0.239	65.330	10.370	22.010	32.750	17.850	0.875	1.094
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:11:24	0.002	0.001	0.002	-0.000	0.002	97.358%		
2	09:11:43	0.004	0.002	0.001	0.001	0.002	97.584%		
3	09:12:02	0.006	0.001	0.001	-0.000	0.001	96.262%		
x		0.004	0.002	0.001	0.000	0.002	97.068%		
σ		0.002	0.001	0.001	0.001	0.001	0.707%		
%RSD		49.510	43.210	66.250	318.000	32.800	0.728		

LCS 180-145385/2-A 6/19/2015 9:14:51 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	09:15:10	75.628%	45.670	854.900	858.100	0.000	43250.000	43910.000	43750.000
2	09:15:30	70.947%	48.950	836.500	863.200	0.000	42010.000	42450.000	42630.000
3	09:15:49	67.569%	50.990	941.200	988.900	0.000	46580.000	45960.000	45250.000
x		71.381%	48.540	877.600	903.400	0.000	43940.000	44110.000	43880.000
σ		4.047%	2.686	55.880	74.110	0.000	2363.000	1763.000	1311.000
%RSD		5.669	5.535	6.367	8.203	0.000	5.377	3.998	2.988
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:15:10	1730.000	8428.000	0.000	44110.000	42290.000	44830.000	77.071%	875.800
2	09:15:30	1755.000	8508.000	0.000	44990.000	43300.000	45760.000	74.117%	907.400
3	09:15:49	1853.000	8842.000	0.000	45920.000	44950.000	46960.000	69.899%	887.000
x		1779.000	8593.000	0.000	45010.000	43510.000	45850.000	73.696%	890.100
σ		65.070	219.400	0.000	908.400	1342.000	1070.000	3.605%	16.030
%RSD		3.657	2.553	0.000	2.018	3.084	2.335	4.891	1.801
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:15:10	447.900	178.500	454.700	992.000	1009.000	454.500	453.900	227.200
2	09:15:30	455.400	177.600	460.200	1026.000	1024.000	455.300	459.700	226.500
3	09:15:49	453.300	179.500	455.400	1006.000	1000.000	448.600	446.800	230.000
x		452.200	178.500	456.800	1008.000	1011.000	452.800	453.500	227.900
σ		3.857	0.963	2.980	17.290	11.730	3.650	6.435	1.828
%RSD		0.853	0.539	0.652	1.715	1.160	0.806	1.419	0.802
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:15:10	230.000	492.300	488.700	36.350	9.948	10.190	0.000	886.000
2	09:15:30	224.900	487.700	485.200	35.870	10.540	10.600	0.000	889.200
3	09:15:49	229.900	496.600	492.000	36.670	10.940	10.410	0.000	891.000
x		228.300	492.200	488.600	36.300	10.480	10.400	0.000	888.700
σ		2.897	4.436	3.424	0.405	0.498	0.207	0.000	2.520
%RSD		1.269	0.901	0.701	1.114	4.754	1.994	0.000	0.284
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:15:10	84.223%	893.400	978.000	80.595%	44.840	44.780	46.270	41.000
2	09:15:30	83.633%	906.400	995.300	79.466%	44.550	45.130	46.850	41.800
3	09:15:49	83.207%	924.400	1016.000	79.153%	45.070	45.300	46.780	42.200
x		83.688%	908.100	996.300	79.738%	44.820	45.070	46.630	41.670
σ		0.510%	15.590	18.920	0.759%	0.262	0.267	0.318	0.612
%RSD		0.609	1.716	1.899	0.951	0.585	0.593	0.683	1.468
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:15:10	84.879%	1761.000	482.000	469.600	1748.000	1711.000	89.925%	90.381%
2	09:15:30	84.419%	1763.000	478.400	470.600	1754.000	1715.000	90.076%	90.871%
3	09:15:49	83.528%	1764.000	486.200	475.400	1743.000	1706.000	90.745%	91.428%
x		84.275%	1763.000	482.200	471.900	1748.000	1711.000	90.249%	90.894%
σ		0.687%	1.552	3.905	3.090	5.400	4.399	0.436%	0.524%
%RSD		0.815	0.088	0.810	0.655	0.309	0.257	0.484	0.576
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:15:10	40.750	40.760	17.180	16.870	16.850	93.950%		
2	09:15:30	43.390	43.430	18.190	18.180	18.110	89.768%		
3	09:15:49	44.990	44.980	18.590	18.530	18.440	88.521%		
x		43.040	43.060	17.990	17.860	17.800	90.746%		
σ		2.143	2.136	0.723	0.875	0.837	2.843%		
%RSD		4.979	4.960	4.019	4.900	4.701	3.133		

LCSD 180-145385/3-A 6/19/2015 9:18:39 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	09:18:58	72.671%	48.180	909.200	942.900	0.000	45030.000	43900.000	43250.000
2	09:19:17	67.697%	49.420	886.300	946.100	0.000	43290.000	44170.000	45050.000
3	09:19:36	66.850%	45.910	878.000	858.800	0.000	41820.000	42810.000	42250.000
x		69.073%	47.840	891.100	915.900	0.000	43380.000	43630.000	43520.000
σ		3.145%	1.781	16.150	49.530	0.000	1610.000	720.400	1419.000
%RSD		4.553	3.724	1.812	5.408	0.000	3.712	1.651	3.262

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:58	1804.000	8932.000	0.000	45430.000	44420.000	45600.000	76.120%	890.000
2	09:19:17	1828.000	8954.000	0.000	45410.000	43500.000	46300.000	74.175%	884.900
3	09:19:36	1727.000	8652.000	0.000	45110.000	44250.000	46370.000	72.444%	900.100
x		1786.000	8846.000	0.000	45310.000	44060.000	46090.000	74.246%	891.700
σ		52.780	168.100	0.000	177.000	486.300	425.700	1.839%	7.744
%RSD		2.955	1.901	0.000	0.391	1.104	0.924	2.477	0.869

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:58	448.700	175.700	448.400	932.300	949.300	449.700	452.500	228.800
2	09:19:17	459.600	179.400	446.800	940.200	942.900	443.300	438.100	219.000
3	09:19:36	467.700	180.900	450.500	950.500	960.100	445.900	442.500	223.500
x		458.700	178.700	448.600	941.000	950.800	446.300	444.400	223.800
σ		9.541	2.683	1.880	9.118	8.713	3.246	7.372	4.913
%RSD		2.080	1.502	0.419	0.969	0.916	0.727	1.659	2.195

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:58	228.700	491.500	492.700	37.480	10.570	10.520	0.000	884.400
2	09:19:17	224.200	483.300	482.500	36.770	10.180	10.290	0.000	899.800
3	09:19:36	223.400	485.100	484.500	36.280	10.980	10.120	0.000	892.000
x		225.400	486.600	486.600	36.840	10.580	10.310	0.000	892.100
σ		2.869	4.295	5.371	0.605	0.400	0.199	0.000	7.689
%RSD		1.273	0.883	1.104	1.642	3.779	1.928	0.000	0.862

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:58	81.614%	925.400	1012.000	78.417%	45.500	45.900	46.490	41.670
2	09:19:17	80.538%	935.200	1032.000	77.106%	45.950	45.830	47.220	42.460
3	09:19:36	81.097%	947.300	1044.000	77.916%	45.270	45.490	46.910	41.740
x		81.083%	936.000	1029.000	77.813%	45.570	45.740	46.870	41.960
σ		0.538%	10.970	15.860	0.662%	0.343	0.219	0.365	0.437
%RSD		0.664	1.172	1.541	0.850	0.753	0.478	0.780	1.041

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:58	81.449%	1778.000	480.500	472.700	1759.000	1730.000	88.142%	88.072%
2	09:19:17	81.477%	1793.000	481.900	468.000	1760.000	1728.000	87.598%	88.688%
3	09:19:36	83.087%	1771.000	474.600	462.500	1756.000	1713.000	86.927%	88.647%
x		82.004%	1781.000	479.000	467.700	1758.000	1724.000	87.556%	88.469%
σ		0.938%	11.340	3.893	5.111	1.912	9.267	0.609%	0.345%
%RSD		1.144	0.637	0.813	1.093	0.109	0.538	0.695	0.389

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:58	41.990	41.760	17.650	17.400	17.500	89.573%
2	09:19:17	44.380	44.200	18.470	18.350	18.300	87.184%
3	09:19:36	45.580	45.770	18.890	19.000	18.880	85.065%
x		43.980	43.910	18.330	18.250	18.230	87.274%
σ		1.826	2.021	0.629	0.802	0.692	2.255%
%RSD		4.152	4.604	3.429	4.396	3.794	2.584

180-45091-D-3-B 6/19/2015 9:22:26 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	09:22:45	77.536%	0.009	14.050	13.740	0.000	61180.000	67.080	66.440
2	09:23:04	75.987%	0.046	12.260	13.740	0.000	61710.000	72.520	66.340
3	09:23:23	71.452%	-0.014	13.300	13.020	0.000	61550.000	64.750	66.140
x		74.992%	0.014	13.200	13.500	0.000	61480.000	68.120	66.300
σ		3.162%	0.030	0.901	0.416	0.000	275.000	3.987	0.155
%RSD		4.216	219.400	6.822	3.082	0.000	0.447	5.853	0.233

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:22:45	37.240	77.210	0.000	167.400	416.600	443.400	76.229%	0.534
2	09:23:04	37.820	77.820	0.000	168.200	439.300	447.600	72.014%	0.656
3	09:23:23	37.670	73.520	0.000	168.700	426.800	448.300	70.680%	0.594
x		37.580	76.190	0.000	168.100	427.600	446.400	72.975%	0.595
σ		0.297	2.324	0.000	0.667	11.330	2.673	2.896%	0.061
%RSD		0.791	3.051	0.000	0.397	2.649	0.599	3.969	10.320

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:22:45	-0.067	0.075	0.308	98.520	93.470	0.325	1.289	0.519
2	09:23:04	-0.096	0.025	0.290	96.320	98.660	0.304	1.130	0.596
3	09:23:23	0.026	0.045	0.292	96.020	91.440	0.278	1.286	0.615
x		-0.046	0.048	0.297	96.950	94.520	0.302	1.235	0.577
σ		0.064	0.025	0.010	1.367	3.721	0.023	0.091	0.051
%RSD		139.100	51.750	3.362	1.409	3.937	7.756	7.361	8.819

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:22:45	0.231	0.468	0.430	1.351	26.340	26.980	0.000	2.892
2	09:23:04	0.191	0.595	0.394	1.245	25.770	27.040	0.000	2.902
3	09:23:23	0.182	0.406	0.376	1.826	26.340	27.980	0.000	2.906
x		0.201	0.489	0.400	1.474	26.150	27.330	0.000	2.900
σ		0.026	0.096	0.028	0.310	0.332	0.560	0.000	0.007
%RSD		12.880	19.680	6.896	20.990	1.271	2.048	0.000	0.259

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:22:45	81.278%	13.120	13.170	79.458%	0.003	0.004	-0.015	-0.026
2	09:23:04	80.914%	15.410	15.430	79.170%	0.003	0.002	-0.019	-0.030
3	09:23:23	79.914%	15.520	15.710	78.720%	0.000	0.006	-0.060	-0.069
x		80.702%	14.680	14.770	79.116%	0.002	0.004	-0.032	-0.042
σ		0.706%	1.355	1.392	0.372%	0.001	0.002	0.025	0.024
%RSD		0.875	9.230	9.427	0.471	70.650	49.270	79.390	57.370

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:22:45	82.884%	4.426	-0.103	-0.119	0.244	0.264	86.131%	86.681%
2	09:23:04	82.924%	4.907	-0.069	-0.089	0.227	0.241	87.481%	87.795%
3	09:23:23	82.037%	4.864	-0.059	-0.058	0.297	0.276	87.242%	88.317%
x		82.615%	4.733	-0.077	-0.089	0.256	0.260	86.951%	87.598%
σ		0.501%	0.266	0.023	0.030	0.037	0.018	0.720%	0.835%
%RSD		0.607	5.628	29.990	34.410	14.290	6.765	0.829	0.953

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:22:45	0.537	0.537	0.026	0.027	0.027	90.307%
2	09:23:04	0.480	0.462	0.037	0.033	0.033	87.736%
3	09:23:23	0.424	0.412	0.031	0.030	0.033	86.287%
x		0.480	0.470	0.031	0.030	0.031	88.110%
σ		0.056	0.063	0.005	0.003	0.003	2.036%
%RSD		11.720	13.460	16.660	9.212	11.050	2.311

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:34	76.970%	-0.026	8.983	11.610	0.000	58520.000	178.300	177.700
2	09:26:53	74.495%	0.048	10.810	10.940	0.000	59500.000	185.600	181.500
3	09:27:12	67.849%	0.001	10.080	10.910	0.000	57970.000	183.800	189.000
x		73.105%	0.007	9.957	11.150	0.000	58660.000	182.600	182.700
σ		4.717%	0.037	0.920	0.397	0.000	777.500	3.755	5.712
%RSD		6.452	518.900	9.239	3.562	0.000	1.325	2.057	3.126
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:34	2.176	74.130	0.000	149.600	1254.000	1245.000	73.329%	0.263
2	09:26:53	2.318	74.860	0.000	151.000	1272.000	1276.000	69.632%	0.307
3	09:27:12	2.374	80.360	0.000	164.300	1341.000	1393.000	62.376%	0.409
x		2.289	76.450	0.000	155.000	1289.000	1305.000	68.446%	0.326
σ		0.102	3.407	0.000	8.118	46.170	77.890	5.572%	0.075
%RSD		4.458	4.457	0.000	5.239	3.582	5.971	8.141	23.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:34	-0.027	0.064	10.400	17.520	18.020	0.239	0.481	0.481
2	09:26:53	0.064	0.039	10.510	18.690	19.250	0.236	0.473	0.499
3	09:27:12	-0.156	0.057	10.940	20.690	20.330	0.271	0.538	0.538
x		-0.039	0.053	10.620	18.970	19.200	0.249	0.497	0.506
σ		0.111	0.013	0.285	1.604	1.157	0.019	0.035	0.029
%RSD		280.600	24.830	2.684	8.455	6.025	7.805	7.115	5.693
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:34	0.101	0.685	0.680	0.774	13.370	13.980	0.000	4.314
2	09:26:53	0.069	0.578	0.619	0.609	13.380	13.930	0.000	4.260
3	09:27:12	0.127	0.755	0.659	0.701	14.370	13.910	0.000	4.295
x		0.099	0.672	0.653	0.695	13.710	13.940	0.000	4.290
σ		0.029	0.089	0.031	0.083	0.579	0.036	0.000	0.027
%RSD		29.650	13.250	4.819	11.890	4.221	0.257	0.000	0.637
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:34	80.621%	3.030	3.072	80.216%	-0.007	-0.005	-0.034	-0.033
2	09:26:53	80.224%	3.861	3.969	78.708%	-0.012	-0.000	-0.072	-0.055
3	09:27:12	79.122%	4.152	4.137	77.996%	-0.000	-0.007	-0.045	-0.040
x		79.989%	3.681	3.726	78.973%	-0.006	-0.004	-0.050	-0.042
σ		0.777%	0.582	0.573	1.133%	0.006	0.004	0.020	0.011
%RSD		0.971	15.810	15.370	1.435	91.610	88.920	39.430	25.880
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:34	82.633%	1.374	-0.152	-0.154	0.177	0.215	86.987%	88.013%
2	09:26:53	82.587%	1.603	-0.132	-0.128	0.225	0.222	87.039%	88.091%
3	09:27:12	82.191%	1.554	-0.127	-0.130	0.209	0.210	88.171%	89.018%
x		82.470%	1.510	-0.137	-0.137	0.204	0.216	87.399%	88.374%
σ		0.243%	0.121	0.013	0.015	0.024	0.006	0.669%	0.559%
%RSD		0.295	7.990	9.772	10.690	11.960	2.841	0.766	0.633
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:26:34	0.093	0.094	0.031	0.028	0.028	89.453%		
2	09:26:53	0.105	0.102	0.027	0.030	0.030	87.196%		
3	09:27:12	0.098	0.101	0.037	0.023	0.031	86.663%		
x		0.099	0.099	0.032	0.027	0.030	87.771%		
σ		0.006	0.004	0.005	0.004	0.002	1.481%		
%RSD		6.490	3.979	17.100	14.160	5.337	1.687		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:22	72.179%	-0.001	9.647	11.020	0.000	62090.000	193.100	192.800
2	09:30:41	70.991%	-0.001	11.690	11.120	0.000	63470.000	194.300	189.300
3	09:31:01	63.826%	0.045	10.230	11.040	0.000	62940.000	197.700	195.800
x		68.999%	0.014	10.520	11.060	0.000	62830.000	195.000	192.600
σ		4.519%	0.026	1.053	0.053	0.000	695.400	2.423	3.244
%RSD		6.549	184.500	10.010	0.476	0.000	1.107	1.242	1.684
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:22	43.580	81.080	0.000	157.800	1483.000	1443.000	71.292%	0.096
2	09:30:41	43.710	87.060	0.000	155.100	1454.000	1501.000	70.207%	0.189
3	09:31:01	45.040	89.220	0.000	162.000	1430.000	1490.000	67.296%	0.387
x		44.110	85.790	0.000	158.300	1456.000	1478.000	69.598%	0.224
σ		0.805	4.216	0.000	3.479	26.320	30.850	2.066%	0.149
%RSD		1.826	4.915	0.000	2.198	1.808	2.087	2.969	66.430
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:22	-0.131	0.044	12.190	90.570	87.350	0.278	0.753	0.571
2	09:30:41	-0.092	0.028	12.050	84.890	83.780	0.285	0.842	0.475
3	09:31:01	-0.139	0.114	12.630	91.490	88.700	0.301	0.773	0.529
x		-0.121	0.062	12.290	88.980	86.610	0.288	0.789	0.525
σ		0.025	0.046	0.304	3.577	2.541	0.012	0.047	0.048
%RSD		21.000	73.980	2.471	4.020	2.934	4.108	5.915	9.121
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:22	0.180	2.115	2.035	0.789	14.340	15.350	0.000	4.909
2	09:30:41	0.121	2.206	2.250	0.559	14.430	14.910	0.000	4.868
3	09:31:01	0.129	2.064	2.032	0.982	14.740	15.390	0.000	4.870
x		0.143	2.128	2.105	0.777	14.500	15.220	0.000	4.882
σ		0.032	0.072	0.125	0.211	0.213	0.264	0.000	0.023
%RSD		22.330	3.364	5.936	27.210	1.470	1.737	0.000	0.465
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:22	80.199%	0.813	0.805	78.931%	-0.015	-0.014	-0.062	-0.039
2	09:30:41	79.210%	1.405	1.329	78.440%	-0.019	-0.007	-0.042	-0.038
3	09:31:01	78.981%	1.512	1.600	77.941%	-0.015	-0.010	-0.052	-0.038
x		79.463%	1.243	1.244	78.437%	-0.016	-0.010	-0.052	-0.038
σ		0.647%	0.377	0.404	0.495%	0.002	0.003	0.010	0.001
%RSD		0.815	30.290	32.460	0.631	13.620	31.210	19.440	1.993
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:22	82.187%	0.523	-0.164	-0.185	0.457	0.519	87.667%	88.028%
2	09:30:41	82.629%	0.760	-0.146	-0.167	0.457	0.468	88.343%	89.961%
3	09:31:01	83.303%	0.739	-0.198	-0.159	0.448	0.476	88.744%	89.795%
x		82.706%	0.674	-0.169	-0.170	0.454	0.487	88.251%	89.261%
σ		0.562%	0.131	0.026	0.014	0.005	0.028	0.544%	1.071%
%RSD		0.679	19.500	15.540	7.977	1.062	5.668	0.617	1.200
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:30:22	0.041	0.039	0.038	0.027	0.035	93.646%		
2	09:30:41	0.043	0.051	0.038	0.031	0.037	90.304%		
3	09:31:01	0.055	0.045	0.044	0.036	0.040	88.702%		
x		0.047	0.045	0.040	0.031	0.037	90.884%		
σ		0.008	0.006	0.003	0.005	0.002	2.523%		
%RSD		16.290	12.390	8.281	15.620	6.661	2.776		

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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	09:34:11	73.368%	-0.002	9.561	10.920	0.000	55380.000	218.300	216.700
2	09:34:30	71.003%	0.025	11.060	10.760	0.000	55070.000	216.500	217.500
3	09:34:49	73.892%	-0.014	9.659	9.704	0.000	51440.000	199.000	204.200
x		72.754%	0.003	10.090	10.460	0.000	53960.000	211.300	212.800
σ		1.539%	0.020	0.838	0.661	0.000	2193.000	10.710	7.482
%RSD		2.115	650.900	8.307	6.317	0.000	4.064	5.069	3.516

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:11	112.900	124.600	0.000	186.000	936.900	976.800	76.653%	0.719
2	09:34:30	119.600	132.400	0.000	187.300	1017.000	1004.000	73.199%	0.878
3	09:34:49	106.500	113.600	0.000	183.400	957.300	985.800	68.345%	1.049
x		113.000	123.500	0.000	185.600	970.400	988.900	72.732%	0.882
σ		6.522	9.446	0.000	1.976	41.710	13.890	4.174%	0.166
%RSD		5.771	7.648	0.000	1.065	4.298	1.405	5.738	18.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:11	0.073	0.236	23.800	494.600	479.300	0.381	2.753	0.695
2	09:34:30	-0.086	0.266	24.450	516.900	485.500	0.376	2.608	0.771
3	09:34:49	-0.037	0.302	25.590	529.500	514.900	0.371	2.810	0.893
x		-0.017	0.268	24.610	513.700	493.200	0.376	2.724	0.786
σ		0.082	0.033	0.906	17.650	19.030	0.005	0.105	0.100
%RSD		479.800	12.290	3.679	3.435	3.858	1.321	3.836	12.690

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:11	0.402	5.828	5.927	1.475	32.790	33.610	0.000	5.356
2	09:34:30	0.469	5.964	5.789	1.664	32.430	33.170	0.000	5.447
3	09:34:49	0.513	5.806	5.939	2.368	33.260	34.470	0.000	5.345
x		0.462	5.866	5.885	1.836	32.830	33.750	0.000	5.382
σ		0.056	0.086	0.083	0.470	0.414	0.663	0.000	0.056
%RSD		12.120	1.463	1.414	25.630	1.261	1.964	0.000	1.036

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:11	81.221%	0.411	0.440	80.271%	-0.014	-0.013	0.001	0.012
2	09:34:30	80.975%	0.727	0.775	79.701%	-0.014	-0.012	-0.051	-0.024
3	09:34:49	81.044%	0.902	0.968	79.495%	-0.011	-0.004	-0.015	-0.014
x		81.080%	0.680	0.728	79.822%	-0.013	-0.010	-0.021	-0.009
σ		0.127%	0.249	0.268	0.402%	0.001	0.005	0.027	0.019
%RSD		0.157	36.610	36.750	0.504	10.890	52.910	124.500	211.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:11	84.119%	0.335	-0.179	-0.179	2.209	2.283	87.007%	88.092%
2	09:34:30	83.507%	0.495	-0.176	-0.205	2.204	2.300	88.736%	89.674%
3	09:34:49	83.670%	0.573	-0.150	-0.179	2.340	2.354	89.617%	90.505%
x		83.765%	0.468	-0.168	-0.188	2.251	2.312	88.453%	89.423%
σ		0.317%	0.121	0.016	0.015	0.077	0.037	1.328%	1.226%
%RSD		0.379	25.940	9.632	7.824	3.427	1.599	1.501	1.371

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:11	0.048	0.043	0.266	0.249	0.255	94.225%
2	09:34:30	0.045	0.050	0.257	0.261	0.257	90.923%
3	09:34:49	0.061	0.054	0.265	0.263	0.264	87.612%
x		0.051	0.049	0.263	0.258	0.259	90.920%
σ		0.008	0.006	0.005	0.008	0.005	3.307%
%RSD		16.190	11.320	1.835	3.043	1.867	3.637

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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	09:37:59	73.722%	0.011	7.645	7.982	0.000	1866.000	3259.000	3323.000
2	09:38:18	69.569%	0.013	9.839	9.360	0.000	2040.000	3592.000	3631.000
3	09:38:37	63.284%	0.031	8.294	9.029	0.000	1968.000	3608.000	3592.000
x		68.858%	0.018	8.592	8.790	0.000	1958.000	3486.000	3515.000
σ		5.255%	0.011	1.127	0.719	0.000	87.770	196.800	167.900
%RSD		7.632	59.950	13.110	8.180	0.000	4.483	5.645	4.776

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:59	340.400	4251.000	0.000	861.100	22620.000	23630.000	71.476%	0.335
2	09:38:18	374.300	4708.000	0.000	951.700	24960.000	26160.000	63.016%	0.220
3	09:38:37	361.900	4598.000	0.000	914.700	23020.000	24300.000	69.046%	0.493
x		358.900	4519.000	0.000	909.200	23530.000	24700.000	67.846%	0.349
σ		17.180	238.800	0.000	45.580	1253.000	1312.000	4.356%	0.137
%RSD		4.788	5.284	0.000	5.013	5.324	5.313	6.420	39.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:59	0.634	0.150	150.000	85.650	103.900	1.951	3.974	4.500
2	09:38:18	0.647	0.161	157.200	85.770	103.900	2.101	4.145	4.900
3	09:38:37	0.599	0.126	144.900	74.480	94.630	1.888	3.781	4.389
x		0.627	0.146	150.700	81.970	100.800	1.980	3.966	4.596
σ		0.025	0.018	6.163	6.487	5.377	0.110	0.183	0.269
%RSD		3.976	12.160	4.090	7.914	5.332	5.529	4.602	5.844

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:59	4.772	10.660	10.780	0.017	0.651	0.837	0.000	41.290
2	09:38:18	4.905	10.650	10.840	0.110	0.620	0.814	0.000	41.320
3	09:38:37	4.429	10.440	10.280	-0.001	0.451	0.750	0.000	41.450
x		4.702	10.580	10.630	0.042	0.574	0.800	0.000	41.360
σ		0.246	0.129	0.304	0.060	0.108	0.045	0.000	0.086
%RSD		5.222	1.217	2.859	142.100	18.720	5.633	0.000	0.207

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:59	79.588%	0.186	0.276	79.647%	-0.015	-0.011	0.051	0.043
2	09:38:18	79.069%	0.538	0.538	78.549%	-0.011	-0.007	0.043	0.059
3	09:38:37	77.612%	0.687	0.611	78.115%	-0.009	-0.006	0.063	0.058
x		78.756%	0.470	0.475	78.770%	-0.011	-0.008	0.052	0.053
σ		1.024%	0.257	0.176	0.790%	0.003	0.003	0.010	0.009
%RSD		1.301	54.680	37.160	1.002	25.200	35.800	19.420	16.280

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:59	83.192%	0.249	-0.186	-0.217	73.450	74.570	85.663%	86.657%
2	09:38:18	82.096%	0.406	-0.180	-0.176	73.300	74.450	87.302%	87.814%
3	09:38:37	82.508%	0.424	-0.194	-0.190	73.640	73.600	87.090%	88.072%
x		82.599%	0.359	-0.187	-0.194	73.460	74.210	86.685%	87.514%
σ		0.553%	0.097	0.007	0.021	0.170	0.530	0.891%	0.754%
%RSD		0.670	26.870	3.588	10.740	0.232	0.714	1.028	0.861

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:59	0.032	0.029	0.069	0.066	0.064	93.709%
2	09:38:18	0.030	0.030	0.072	0.065	0.067	90.313%
3	09:38:37	0.036	0.036	0.067	0.060	0.064	89.974%
x		0.033	0.032	0.069	0.064	0.065	91.332%
σ		0.003	0.004	0.003	0.003	0.002	2.065%
%RSD		8.807	12.540	3.637	5.223	3.229	2.261

180-45139-I-1-A 6/19/2015 9:41:29 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	09:41:49	60.679%	2.195	375.600	390.000	0.000	57170.000	25950.000	25410.000
2	09:42:08	56.603%	2.841	365.400	399.900	0.000	54880.000	25390.000	25060.000
3	09:42:28	55.562%	2.613	369.900	373.400	0.000	52830.000	24420.000	24110.000
x		57.615%	2.550	370.300	387.800	0.000	54960.000	25250.000	24860.000
σ		2.705%	0.328	5.114	13.390	0.000	2170.000	774.000	676.400
%RSD		4.694	12.860	1.381	3.452	0.000	3.949	3.065	2.721
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:49	8780.000	27370.000	0.000	10890.000	166500.000	170800.000	63.527%	183.000
2	09:42:08	8671.000	25280.000	0.000	10520.000	162000.000	163500.000	62.877%	176.900
3	09:42:28	8774.000	26550.000	0.000	11000.000	162900.000	174700.000	58.147%	186.900
x		8742.000	26400.000	0.000	10800.000	163800.000	169700.000	61.517%	182.300
σ		61.780	1055.000	0.000	254.700	2399.000	5719.000	2.937%	5.076
%RSD		0.707	3.995	0.000	2.358	1.465	3.371	4.774	2.785
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:49	42.060	65.730	2467.000	20280.000	20430.000	12.480	92.100	593.400
2	09:42:08	41.210	61.410	2357.000	20090.000	20190.000	12.440	93.450	585.300
3	09:42:28	45.110	66.430	2514.000	21020.000	21280.000	12.570	92.910	602.500
x		42.790	64.520	2446.000	20460.000	20630.000	12.500	92.820	593.700
σ		2.051	2.715	80.940	488.900	570.300	0.070	0.676	8.616
%RSD		4.793	4.208	3.309	2.389	2.764	0.558	0.729	1.451
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:49	593.300	10110.000	10320.000	5.178	2.317	2.836	0.000	439.800
2	09:42:08	596.900	10120.000	10120.000	5.310	1.839	2.805	0.000	439.900
3	09:42:28	599.700	10340.000	10460.000	5.495	2.031	3.024	0.000	439.100
x		596.600	10190.000	10300.000	5.328	2.062	2.888	0.000	439.600
σ		3.213	127.800	172.400	0.159	0.240	0.119	0.000	0.424
%RSD		0.538	1.255	1.674	2.990	11.650	4.106	0.000	0.097
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:49	81.899%	17.440	18.350	70.858%	0.164	0.148	50.220	50.030
2	09:42:08	81.995%	18.230	18.330	70.970%	0.169	0.153	50.100	50.610
3	09:42:28	81.236%	18.070	19.050	70.052%	0.160	0.184	50.410	50.030
x		81.710%	17.910	18.580	70.627%	0.164	0.162	50.240	50.220
σ		0.413%	0.418	0.408	0.501%	0.005	0.019	0.157	0.335
%RSD		0.506	2.336	2.195	0.709	2.831	11.890	0.312	0.666
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:49	77.051%	11.590	4.712	4.868	177.800	177.200	84.497%	85.554%
2	09:42:08	77.150%	11.600	4.880	4.937	176.800	178.400	85.334%	86.768%
3	09:42:28	77.849%	11.590	4.889	4.845	177.100	177.900	85.939%	87.869%
x		77.350%	11.590	4.827	4.883	177.200	177.800	85.257%	86.730%
σ		0.435%	0.005	0.100	0.048	0.487	0.632	0.724%	1.158%
%RSD		0.563	0.045	2.064	0.974	0.275	0.355	0.849	1.335
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:41:49	0.269	0.252	1107.000	1029.000	1061.000	85.569%		
2	09:42:08	0.281	0.278	1182.000	1095.000	1128.000	81.745%		
3	09:42:28	0.290	0.279	1203.000	1128.000	1156.000	81.682%		
x		0.280	0.270	1164.000	1084.000	1115.000	82.999%		
σ		0.010	0.015	50.410	50.480	49.170	2.226%		
%RSD		3.710	5.601	4.330	4.658	4.409	2.682		

CCV 1594026 6/19/2015 9:45:27 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	09:45:27	85.551%	103.800	92.980	100.200	0.000	49380.000	50450.000	49230.000
2	09:45:46	78.872%	100.400	93.890	96.860	0.000	47730.000	48830.000	48070.000
3	09:46:05	79.804%	106.800	95.100	103.000	0.000	50070.000	50690.000	50540.000
x		81.409%	103.641%	93.990%	100.021%	0.000	98.123%	99.977%	98.557%
σ		3.617%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.443	3.069	1.133	3.088	0.000	2.459	2.021	2.503

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:27	484.500	5141.000	0.000	48250.000	46110.000	48600.000	90.562%	95.510
2	09:45:46	487.100	5021.000	0.000	49330.000	47310.000	49430.000	86.314%	95.710
3	09:46:05	491.100	4921.000	0.000	48890.000	46790.000	50360.000	82.383%	95.670
x		97.511%	100.559%	0.000	97.645%	93.473%	98.923%	86.420%	95.631%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.090%	n/a
%RSD		0.673	2.191	0.000	1.105	1.278	1.782	4.733	0.109

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:27	95.160	97.110	469.400	24010.000	23740.000	94.710	96.220	97.190
2	09:45:46	95.960	99.840	482.600	24200.000	24220.000	96.320	96.940	99.920
3	09:46:05	97.220	98.930	504.900	25390.000	25370.000	100.200	103.800	103.200
x		96.115%	98.626%	97.121%	98.124%	97.771%	97.065%	98.990%	100.114%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.083	1.409	3.693	3.051	3.442	2.885	4.229	3.026

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:27	98.590	101.600	101.800	100.800	106.600	106.500	0.000	93.450
2	09:45:46	97.870	102.700	101.800	101.300	105.000	105.200	0.000	95.290
3	09:46:05	103.300	106.400	107.500	105.100	105.600	105.400	0.000	95.450
x		99.925%	103.567%	103.715%	102.409%	105.731%	105.720%	0.000	94.729%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.969	2.457	3.170	2.271	0.754	0.638	0.000	1.175

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:27	87.164%	92.580	93.480	83.264%	98.460	98.710	98.070	98.930
2	09:45:46	86.353%	94.750	95.190	82.622%	98.680	99.170	99.630	99.370
3	09:46:05	87.518%	95.930	97.100	83.647%	98.520	99.150	99.300	99.480
x		87.012%	94.420%	95.258%	83.178%	98.553%	99.009%	99.000%	99.257%
σ		0.598%	n/a	n/a	0.518%	n/a	n/a	n/a	n/a
%RSD		0.687	1.803	1.901	0.623	0.116	0.261	0.831	0.291

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:27	86.248%	94.540	89.660	90.440	94.660	95.000	89.391%	89.415%
2	09:45:46	86.723%	96.250	89.700	90.680	95.110	95.320	89.962%	90.381%
3	09:46:05	87.194%	96.390	92.510	92.690	96.190	95.660	91.551%	92.000%
x		86.722%	95.723%	90.621%	91.271%	95.321%	95.326%	90.301%	90.598%
σ		0.473%	n/a	n/a	n/a	n/a	n/a	1.119%	1.307%
%RSD		0.545	1.077	1.804	1.355	0.822	0.346	1.240	1.442

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:27	102.400	102.800	103.800	103.300	103.500	83.107%
2	09:45:46	104.000	105.200	105.600	105.300	105.200	83.321%
3	09:46:05	106.600	105.600	106.700	107.200	106.700	82.797%
x		104.341%	104.558%	105.325%	105.280%	105.126%	83.075%
σ		n/a	n/a	n/a	n/a	n/a	0.263%
%RSD		1.988	1.464	1.397	1.875	1.508	0.317

CCB2 6/19/2015 9:51:55 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:14	102.697%	-0.009	0.147	0.374	0.000	8.527	0.696	0.644
2	09:52:34	99.936%	0.001	0.542	0.403	0.000	8.419	0.611	0.580
3	09:52:53	94.886%	-0.017	0.179	0.395	0.000	8.214	0.976	0.458
x		99.173%	-0.008	0.289	0.391	0.000	8.387	0.761	0.561
σ		3.961%	0.009	0.219	0.015	0.000	0.159	0.191	0.094
%RSD		3.994	110.300	75.800	3.875	0.000	1.898	25.090	16.850
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:14	2.559	-7.984	0.000	5.962	12.310	13.270	96.919%	-0.019
2	09:52:34	2.551	-9.029	0.000	6.273	17.040	13.110	94.118%	0.099
3	09:52:53	2.387	-7.879	0.000	5.469	14.620	13.460	93.488%	0.013
x		2.499	-8.297	0.000	5.901	14.660	13.280	94.842%	0.031
σ		0.098	0.636	0.000	0.405	2.367	0.174	1.827%	0.061
%RSD		3.901	7.662	0.000	6.869	16.150	1.312	1.926	196.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:14	0.014	0.025	0.047	7.486	3.603	0.003	0.061	0.187
2	09:52:34	0.004	0.010	0.052	9.492	4.736	0.004	0.081	0.188
3	09:52:53	0.008	0.013	0.048	6.784	3.850	0.004	0.086	0.209
x		0.009	0.016	0.049	7.921	4.063	0.003	0.076	0.195
σ		0.005	0.008	0.003	1.405	0.596	0.001	0.013	0.012
%RSD		58.930	50.980	6.086	17.740	14.660	17.860	17.710	6.316
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:14	0.165	1.586	1.631	0.013	0.322	0.287	0.000	0.020
2	09:52:34	0.184	1.601	1.451	0.240	0.371	0.553	0.000	0.016
3	09:52:53	0.214	1.370	1.593	0.098	0.381	0.478	0.000	0.016
x		0.188	1.519	1.559	0.117	0.358	0.440	0.000	0.017
σ		0.025	0.129	0.095	0.115	0.032	0.138	0.000	0.002
%RSD		13.100	8.509	6.093	97.670	8.880	31.310	0.000	11.950
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:14	98.612%	0.447	0.490	98.613%	-0.012	-0.003	0.009	0.009
2	09:52:34	96.883%	1.071	1.049	98.080%	-0.007	-0.003	-0.012	-0.013
3	09:52:53	97.632%	1.339	1.269	98.448%	-0.005	0.005	-0.024	-0.024
x		97.709%	0.953	0.936	98.380%	-0.008	-0.001	-0.009	-0.010
σ		0.867%	0.458	0.401	0.273%	0.004	0.004	0.017	0.017
%RSD		0.888	48.050	42.870	0.278	47.350	795.100	186.800	176.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:14	98.203%	0.154	0.727	0.761	0.038	0.038	95.753%	95.004%
2	09:52:34	97.530%	0.325	0.791	0.812	0.045	0.044	96.405%	96.272%
3	09:52:53	97.947%	0.339	0.767	0.797	0.011	0.047	97.034%	97.242%
x		97.893%	0.273	0.762	0.790	0.031	0.043	96.397%	96.173%
σ		0.340%	0.103	0.032	0.026	0.018	0.005	0.640%	1.122%
%RSD		0.347	37.850	4.256	3.328	55.960	11.380	0.664	1.167
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:52:14	0.018	0.019	0.022	0.025	0.027	96.911%		
2	09:52:34	0.017	0.017	0.022	0.031	0.032	96.950%		
3	09:52:53	0.017	0.017	0.022	0.030	0.027	97.286%		
x		0.018	0.018	0.022	0.029	0.029	97.049%		
σ		0.001	0.001	0.000	0.003	0.003	0.206%		
%RSD		3.057	7.212	1.037	10.730	8.980	0.213		

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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	09:56:05	59.639%	3.741	384.500	382.700	0.000	56890.000	28830.000	28730.000
2	09:56:24	57.299%	4.043	378.000	392.000	0.000	55120.000	29710.000	30010.000
3	09:56:44	53.942%	4.244	365.300	366.200	0.000	56010.000	29350.000	29510.000
x		56.960%	4.009	375.900	380.300	0.000	56010.000	29300.000	29420.000
σ		2.863%	0.253	9.779	13.090	0.000	887.600	442.700	644.000
%RSD		5.027	6.305	2.601	3.442	0.000	1.585	1.511	2.189
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:05	14790.000	42770.000	0.000	9445.000	203200.000	202300.000	71.215%	184.900
2	09:56:24	15140.000	41100.000	0.000	9547.000	200100.000	208100.000	67.041%	183.800
3	09:56:44	15530.000	41920.000	0.000	10050.000	217900.000	219100.000	63.517%	198.100
x		15150.000	41930.000	0.000	9679.000	207100.000	209800.000	67.258%	188.900
σ		370.400	834.600	0.000	321.700	9501.000	8509.000	3.853%	7.955
%RSD		2.445	1.991	0.000	3.324	4.589	4.055	5.729	4.210
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:05	37.640	80.590	3391.000	20580.000	20630.000	16.100	117.500	755.300
2	09:56:24	36.400	81.550	3416.000	20850.000	20970.000	16.370	119.200	749.300
3	09:56:44	38.740	84.460	3619.000	22050.000	21750.000	16.820	120.100	765.000
x		37.590	82.200	3475.000	21160.000	21120.000	16.430	118.900	756.600
σ		1.169	2.015	125.100	781.300	573.300	0.366	1.315	7.922
%RSD		3.110	2.451	3.600	3.692	2.715	2.230	1.106	1.047
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:05	768.700	15250.000	15390.000	5.296	1.265	2.287	0.000	484.400
2	09:56:24	832.300	15440.000	15570.000	4.927	1.622	2.283	0.000	481.400
3	09:56:44	841.300	15840.000	16040.000	5.272	1.709	2.376	0.000	486.000
x		814.100	15510.000	15670.000	5.165	1.532	2.315	0.000	483.900
σ		39.560	302.100	336.100	0.207	0.235	0.052	0.000	2.339
%RSD		4.859	1.948	2.145	4.001	15.370	2.259	0.000	0.483
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:05	89.773%	12.350	12.970	73.883%	0.277	0.231	75.810	75.400
2	09:56:24	90.311%	12.760	13.310	74.101%	0.229	0.228	75.480	74.920
3	09:56:44	88.538%	12.970	13.410	72.849%	0.235	0.234	75.990	74.730
x		89.541%	12.690	13.230	73.611%	0.247	0.231	75.760	75.020
σ		0.909%	0.315	0.232	0.669%	0.026	0.003	0.258	0.345
%RSD		1.015	2.477	1.752	0.909	10.510	1.106	0.341	0.461
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:05	79.805%	11.080	6.617	6.350	257.700	259.700	87.429%	88.121%
2	09:56:24	81.084%	11.140	6.570	6.467	257.200	258.500	88.114%	89.031%
3	09:56:44	80.613%	11.230	6.337	6.590	258.400	258.100	88.657%	89.388%
x		80.501%	11.150	6.508	6.469	257.800	258.800	88.067%	88.847%
σ		0.647%	0.080	0.150	0.120	0.555	0.827	0.616%	0.654%
%RSD		0.804	0.714	2.300	1.857	0.215	0.319	0.699	0.736
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:56:05	0.274	0.293	1649.000	1536.000	1578.000	87.155%		
2	09:56:24	0.309	0.309	1767.000	1645.000	1681.000	84.469%		
3	09:56:44	0.315	0.312	1786.000	1658.000	1714.000	84.253%		
x		0.299	0.305	1734.000	1613.000	1658.000	85.292%		
σ		0.022	0.010	74.140	67.060	70.790	1.616%		
%RSD		7.442	3.224	4.276	4.157	4.271	1.895		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	59.906%	-0.011	1409.000	1422.000	0.000	169000.000	34240.000	34270.000
2	10:00:12	59.557%	0.020	1402.000	1434.000	0.000	180100.000	36890.000	35860.000
3	10:00:32	53.805%	0.024	1446.000	1544.000	0.000	180400.000	36820.000	36850.000
x		57.756%	0.011	1419.000	1467.000	0.000	176500.000	35980.000	35660.000
σ		3.426%	0.019	23.830	67.020	0.000	6514.000	1506.000	1300.000
%RSD		5.932	179.100	1.680	4.569	0.000	3.690	4.186	3.645

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	199.000	9508.000	0.000	15870.000	121500.000	129400.000	67.660%	3.670
2	10:00:12	215.400	9980.000	0.000	17070.000	129300.000	138900.000	59.661%	4.563
3	10:00:32	203.800	10030.000	0.000	17110.000	132600.000	141800.000	56.753%	5.536
x		206.100	9841.000	0.000	16690.000	127800.000	136700.000	61.358%	4.590
σ		8.404	289.500	0.000	704.500	5725.000	6478.000	5.648%	0.934
%RSD		4.078	2.942	0.000	4.222	4.480	4.738	9.205	20.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	1.285	2.102	132.900	564.000	651.600	0.583	5.018	30.350
2	10:00:12	1.416	2.312	142.700	599.500	677.000	0.624	5.734	32.190
3	10:00:32	1.572	2.371	145.200	610.100	702.300	0.691	5.857	32.620
x		1.424	2.262	140.300	591.200	676.900	0.633	5.536	31.720
σ		0.144	0.141	6.508	24.110	25.360	0.055	0.453	1.205
%RSD		10.100	6.252	4.639	4.078	3.747	8.645	8.178	3.798

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	29.010	116.100	116.900	1.591	3.195	5.954	0.000	744.400
2	10:00:12	31.330	125.400	124.000	1.736	3.270	6.261	0.000	744.100
3	10:00:32	30.910	123.600	123.400	1.927	3.171	6.522	0.000	754.400
x		30.420	121.700	121.400	1.751	3.212	6.246	0.000	747.600
σ		1.234	4.942	3.908	0.169	0.052	0.284	0.000	5.873
%RSD		4.057	4.061	3.218	9.621	1.615	4.551	0.000	0.786

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	75.878%	32.780	33.870	71.245%	0.015	0.019	0.352	0.361
2	10:00:12	74.112%	33.050	33.850	70.022%	0.018	0.008	0.407	0.362
3	10:00:32	73.056%	33.780	34.270	68.817%	0.017	0.015	0.277	0.316
x		74.349%	33.200	34.000	70.028%	0.017	0.014	0.345	0.346
σ		1.426%	0.514	0.240	1.214%	0.001	0.006	0.065	0.027
%RSD		1.917	1.547	0.705	1.734	7.269	39.090	18.790	7.679

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	77.727%	0.373	1.965	1.866	71.990	72.650	84.640%	85.673%
2	10:00:12	76.591%	0.473	2.030	1.982	74.080	74.240	85.650%	86.703%
3	10:00:32	76.129%	0.458	2.011	1.928	72.810	73.640	84.602%	85.922%
x		76.816%	0.435	2.002	1.925	72.960	73.510	84.964%	86.099%
σ		0.823%	0.054	0.034	0.058	1.052	0.804	0.594%	0.537%
%RSD		1.071	12.450	1.679	3.011	1.442	1.093	0.700	0.624

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:53	0.022	0.022	10.330	9.371	9.818	81.293%
2	10:00:12	0.022	0.020	10.690	9.922	10.190	78.908%
3	10:00:32	0.020	0.021	10.930	10.020	10.370	77.894%
x		0.021	0.021	10.650	9.772	10.130	79.365%
σ		0.001	0.001	0.301	0.351	0.284	1.745%
%RSD		4.734	6.415	2.825	3.594	2.803	2.199

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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	10:03:41	70.290%	-0.001	45.190	47.310	0.000	60110.000	7827.000	7889.000
2	10:04:00	63.507%	0.030	41.590	45.400	0.000	58150.000	7361.000	7382.000
3	10:04:19	64.121%	-0.012	42.620	47.110	0.000	60910.000	7792.000	7664.000
x		65.973%	0.006	43.140	46.610	0.000	59720.000	7660.000	7645.000
σ		3.751%	0.022	1.853	1.051	0.000	1422.000	259.300	253.900
%RSD		5.686	383.600	4.295	2.254	0.000	2.382	3.386	3.322

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:41	129.600	201.600	0.000	2853.000	212000.000	211700.000	78.073%	1.456
2	10:04:00	120.700	201.700	0.000	2822.000	210900.000	215400.000	76.123%	1.411
3	10:04:19	121.500	181.300	0.000	2860.000	215600.000	214000.000	73.611%	5.166
x		123.900	194.800	0.000	2845.000	212800.000	213700.000	75.936%	2.678
σ		4.899	11.760	0.000	20.580	2443.000	1875.000	2.237%	2.155
%RSD		3.952	6.033	0.000	0.724	1.148	0.877	2.946	80.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:41	1.241	0.095	13.900	187.400	378.100	0.369	0.969	1.320
2	10:04:00	1.108	0.218	14.280	187.300	388.800	0.410	0.814	1.410
3	10:04:19	1.009	0.136	13.770	182.000	377.300	0.417	0.935	1.454
x		1.119	0.149	13.990	185.600	381.400	0.399	0.906	1.395
σ		0.117	0.062	0.268	3.076	6.461	0.026	0.082	0.068
%RSD		10.410	41.800	1.913	1.657	1.694	6.466	9.006	4.899

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:41	1.135	6.586	6.171	1.138	0.344	1.112	0.000	341.700
2	10:04:00	1.312	6.938	6.599	1.619	0.544	1.145	0.000	345.300
3	10:04:19	1.201	6.889	6.658	1.327	0.609	1.096	0.000	347.000
x		1.216	6.804	6.476	1.361	0.499	1.118	0.000	344.700
σ		0.089	0.191	0.266	0.242	0.138	0.025	0.000	2.690
%RSD		7.360	2.805	4.099	17.810	27.730	2.220	0.000	0.780

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:41	81.203%	2.897	3.024	77.451%	-0.015	-0.008	-0.006	0.020
2	10:04:00	80.634%	3.261	3.328	76.631%	-0.006	-0.016	0.023	0.022
3	10:04:19	81.068%	3.383	3.491	77.593%	-0.011	-0.008	0.075	0.046
x		80.968%	3.180	3.281	77.225%	-0.011	-0.011	0.030	0.029
σ		0.297%	0.253	0.237	0.519%	0.004	0.005	0.041	0.014
%RSD		0.367	7.940	7.218	0.673	38.810	44.490	135.000	48.240

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:41	81.131%	0.007	0.021	0.039	26.010	26.240	87.309%	88.403%
2	10:04:00	82.370%	0.064	0.066	0.043	26.090	25.990	87.825%	88.540%
3	10:04:19	82.446%	0.086	0.072	0.074	26.290	26.230	88.530%	89.643%
x		81.982%	0.052	0.053	0.052	26.130	26.160	87.888%	88.862%
σ		0.738%	0.041	0.028	0.019	0.141	0.142	0.613%	0.680%
%RSD		0.900	78.240	52.200	36.390	0.538	0.542	0.697	0.765

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:41	0.002	0.003	0.258	0.221	0.224	84.311%
2	10:04:00	0.003	0.001	0.254	0.210	0.237	82.616%
3	10:04:19	0.004	0.003	0.248	0.245	0.248	81.126%
x		0.003	0.002	0.253	0.226	0.236	82.684%
σ		0.001	0.001	0.005	0.018	0.012	1.594%
%RSD		34.790	63.910	2.010	7.925	5.205	1.927

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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	10:07:28	67.949%	0.067	159.700	167.100	0.000	95310.000	4832.000	4897.000
2	10:07:47	60.379%	0.019	160.900	165.900	0.000	98900.000	4864.000	4949.000
3	10:08:06	58.267%	0.036	152.600	162.200	0.000	94470.000	4857.000	4854.000
x		62.198%	0.041	157.800	165.100	0.000	96230.000	4851.000	4900.000
σ		5.091%	0.025	4.468	2.543	0.000	2353.000	16.960	47.950
%RSD		8.185	60.580	2.832	1.540	0.000	2.445	0.349	0.979

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:28	497.800	7113.000	0.000	9537.000	40810.000	43440.000	69.551%	4.742
2	10:07:47	474.800	6957.000	0.000	9380.000	39740.000	43500.000	65.231%	4.899
3	10:08:06	490.700	7200.000	0.000	10020.000	43730.000	46670.000	57.603%	5.411
x		487.800	7090.000	0.000	9644.000	41420.000	44530.000	64.128%	5.017
σ		11.740	123.100	0.000	330.700	2065.000	1849.000	6.050%	0.350
%RSD		2.407	1.736	0.000	3.429	4.986	4.152	9.434	6.974

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:28	6.231	0.844	75.800	635.200	644.600	0.481	3.016	4.527
2	10:07:47	6.227	0.839	80.040	672.800	677.100	0.535	3.220	4.737
3	10:08:06	6.561	1.030	85.970	730.200	713.400	0.552	3.271	4.857
x		6.340	0.904	80.600	679.400	678.400	0.523	3.169	4.707
σ		0.192	0.109	5.107	47.830	34.430	0.037	0.135	0.167
%RSD		3.020	12.040	6.336	7.041	5.076	7.071	4.258	3.545

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:28	4.056	38.980	38.330	6.159	-0.050	0.669	0.000	324.800
2	10:07:47	4.212	39.300	39.950	6.455	0.302	0.460	0.000	327.100
3	10:08:06	4.331	41.740	41.800	6.256	0.319	0.713	0.000	327.500
x		4.200	40.010	40.030	6.290	0.190	0.614	0.000	326.500
σ		0.138	1.507	1.736	0.151	0.208	0.135	0.000	1.467
%RSD		3.279	3.766	4.336	2.394	109.600	21.980	0.000	0.449

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:28	74.112%	6.097	6.238	71.784%	-0.012	-0.010	0.020	0.019
2	10:07:47	73.206%	6.119	6.329	70.536%	-0.013	-0.007	-0.037	-0.019
3	10:08:06	72.480%	6.371	6.555	69.468%	-0.006	-0.007	-0.059	-0.023
x		73.266%	6.196	6.374	70.596%	-0.010	-0.008	-0.025	-0.008
σ		0.818%	0.152	0.163	1.159%	0.004	0.002	0.040	0.023
%RSD		1.116	2.458	2.563	1.642	38.460	20.980	160.600	305.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:28	75.148%	0.031	0.618	0.626	82.370	83.980	81.267%	82.553%
2	10:07:47	76.123%	0.143	0.585	0.580	83.270	82.930	81.495%	82.257%
3	10:08:06	74.988%	0.089	0.659	0.643	82.660	83.630	82.167%	82.992%
x		75.420%	0.088	0.620	0.617	82.770	83.510	81.643%	82.601%
σ		0.614%	0.056	0.037	0.033	0.463	0.536	0.468%	0.370%
%RSD		0.814	64.320	5.984	5.271	0.559	0.642	0.573	0.448

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:28	0.007	0.007	1.744	1.560	1.629	78.854%
2	10:07:47	0.004	0.005	1.789	1.607	1.696	77.130%
3	10:08:06	0.003	0.007	1.781	1.610	1.685	77.092%
x		0.005	0.007	1.771	1.592	1.670	77.692%
σ		0.002	0.001	0.024	0.028	0.036	1.006%
%RSD		45.060	19.140	1.357	1.751	2.165	1.295

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	56.498%	-0.011	167.400	179.500	0.000	108100.000	5521.000	5508.000
2	10:11:33	57.690%	0.036	169.200	181.400	0.000	105100.000	5324.000	5440.000
3	10:11:53	55.958%	0.006	172.900	178.800	0.000	106500.000	5402.000	5417.000
x		56.715%	0.011	169.800	179.900	0.000	106600.000	5416.000	5455.000
σ		0.886%	0.024	2.829	1.344	0.000	1505.000	99.380	47.480
%RSD		1.563	223.100	1.666	0.747	0.000	1.412	1.835	0.870

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	25.770	7050.000	0.000	10410.000	41540.000	44390.000	67.339%	2.303
2	10:11:33	25.610	6988.000	0.000	10490.000	43030.000	45420.000	64.429%	2.225
3	10:11:53	26.410	7044.000	0.000	11050.000	45840.000	48940.000	57.177%	2.209
x		25.930	7027.000	0.000	10650.000	43470.000	46250.000	62.982%	2.246
σ		0.422	34.170	0.000	347.400	2180.000	2388.000	5.233%	0.050
%RSD		1.628	0.486	0.000	3.262	5.014	5.163	8.309	2.235

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	5.767	0.175	13.230	86.550	126.800	0.338	2.197	2.717
2	10:11:33	5.640	0.208	13.430	91.410	126.500	0.342	2.181	2.641
3	10:11:53	6.259	0.216	14.210	94.900	131.400	0.386	2.261	2.917
x		5.889	0.200	13.620	90.960	128.200	0.355	2.213	2.758
σ		0.327	0.022	0.517	4.194	2.713	0.026	0.042	0.143
%RSD		5.555	10.820	3.794	4.611	2.116	7.431	1.901	5.174

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	2.267	4.900	5.259	6.276	0.092	0.762	0.000	339.800
2	10:11:33	2.154	5.357	5.327	6.622	0.311	0.561	0.000	340.600
3	10:11:53	2.423	5.554	5.189	6.896	0.483	0.731	0.000	343.500
x		2.281	5.270	5.258	6.598	0.295	0.685	0.000	341.300
σ		0.135	0.335	0.069	0.311	0.196	0.108	0.000	1.940
%RSD		5.936	6.361	1.315	4.716	66.360	15.820	0.000	0.568

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	71.911%	6.446	6.718	70.983%	-0.017	-0.017	-0.091	-0.065
2	10:11:33	72.042%	6.767	6.760	70.893%	-0.017	-0.013	-0.080	-0.055
3	10:11:53	72.008%	6.782	6.673	70.382%	-0.014	-0.003	-0.038	-0.032
x		71.987%	6.665	6.717	70.753%	-0.016	-0.011	-0.070	-0.051
σ		0.068%	0.190	0.044	0.324%	0.002	0.007	0.028	0.017
%RSD		0.095	2.845	0.649	0.458	9.774	62.230	39.990	33.780

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	75.420%	-0.111	0.651	0.641	75.500	75.300	82.010%	82.632%
2	10:11:33	75.057%	-0.035	0.653	0.610	75.390	75.240	81.983%	83.413%
3	10:11:53	75.981%	-0.043	0.624	0.568	74.170	74.550	83.306%	85.067%
x		75.486%	-0.063	0.643	0.607	75.020	75.030	82.433%	83.704%
σ		0.466%	0.042	0.016	0.037	0.737	0.417	0.757%	1.243%
%RSD		0.617	66.080	2.548	6.084	0.982	0.556	0.918	1.486

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:14	-0.001	-0.002	0.299	0.281	0.289	82.325%
2	10:11:33	0.001	-0.002	0.309	0.301	0.308	80.732%
3	10:11:53	-0.000	0.000	0.325	0.311	0.311	80.425%
x		-0.000	-0.001	0.311	0.298	0.302	81.161%
σ		0.001	0.001	0.013	0.015	0.012	1.020%
%RSD		743.000	92.250	4.181	5.112	4.009	1.256

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:02	53.688%	0.141	316.000	324.200	0.000	189100.000	19070.000	19030.000
2	10:15:21	53.853%	0.142	305.600	329.600	0.000	187100.000	18670.000	18480.000
3	10:15:40	52.730%	0.164	306.800	328.800	0.000	201500.000	20770.000	20280.000
x		53.424%	0.149	309.500	327.500	0.000	192600.000	19500.000	19260.000
σ		0.607%	0.013	5.670	2.882	0.000	7792.000	1118.000	920.000
%RSD		1.135	8.535	1.832	0.880	0.000	4.046	5.731	4.776
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:02	2129.000	24060.000	0.000	33840.000	160700.000	161900.000	65.607%	14.630
2	10:15:21	1989.000	23190.000	0.000	33060.000	158900.000	164100.000	61.298%	13.630
3	10:15:40	2165.000	25280.000	0.000	37650.000	179200.000	181000.000	55.256%	16.120
x		2094.000	24180.000	0.000	34850.000	166300.000	169000.000	60.720%	14.790
σ		92.940	1048.000	0.000	2456.000	11240.000	10490.000	5.200%	1.250
%RSD		4.439	4.337	0.000	7.047	6.758	6.208	8.564	8.452
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:02	16.230	4.035	119.200	2111.000	2120.000	1.154	9.372	17.050
2	10:15:21	16.350	4.038	124.400	2218.000	2303.000	1.214	10.000	17.600
3	10:15:40	17.310	4.164	130.900	2326.000	2359.000	1.204	9.993	18.240
x		16.630	4.079	124.900	2219.000	2261.000	1.191	9.790	17.630
σ		0.590	0.074	5.848	107.600	125.000	0.032	0.362	0.594
%RSD		3.548	1.814	4.683	4.850	5.527	2.710	3.694	3.371
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:02	16.180	15.860	16.200	12.340	1.388	2.384	0.000	1145.000
2	10:15:21	17.210	16.550	16.400	12.890	1.421	2.406	0.000	1145.000
3	10:15:40	17.080	17.080	17.730	12.470	1.353	2.263	0.000	1151.000
x		16.820	16.500	16.780	12.570	1.387	2.351	0.000	1147.000
σ		0.558	0.610	0.835	0.284	0.034	0.077	0.000	3.436
%RSD		3.317	3.698	4.978	2.264	2.437	3.282	0.000	0.300
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:02	72.701%	7.453	7.642	67.327%	-0.009	-0.007	0.283	0.327
2	10:15:21	72.535%	7.785	7.712	66.878%	-0.006	-0.006	0.324	0.299
3	10:15:40	71.810%	7.713	8.007	66.690%	0.003	-0.008	0.260	0.304
x		72.349%	7.650	7.787	66.965%	-0.004	-0.007	0.289	0.310
σ		0.474%	0.175	0.194	0.327%	0.007	0.001	0.033	0.015
%RSD		0.655	2.283	2.490	0.489	157.200	16.240	11.280	4.822
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:02	72.906%	0.131	1.423	1.481	216.000	217.700	80.312%	81.158%
2	10:15:21	72.903%	0.179	1.468	1.448	215.700	218.500	81.362%	82.282%
3	10:15:40	71.749%	0.203	1.461	1.495	220.100	220.000	82.224%	83.552%
x		72.520%	0.171	1.451	1.475	217.300	218.800	81.300%	82.331%
σ		0.667%	0.036	0.024	0.024	2.455	1.165	0.958%	1.197%
%RSD		0.920	21.340	1.681	1.649	1.130	0.533	1.178	1.454
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:15:02	0.032	0.037	2.718	2.452	2.559	77.125%		
2	10:15:21	0.042	0.047	2.863	2.579	2.724	74.168%		
3	10:15:40	0.046	0.046	2.789	2.630	2.707	74.218%		
x		0.040	0.044	2.790	2.554	2.663	75.170%		
σ		0.007	0.006	0.073	0.092	0.091	1.693%		
%RSD		17.240	13.280	2.602	3.604	3.414	2.253		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:49	56.877%	0.117	302.400	325.200	0.000	186300.000	18280.000	17920.000
2	10:19:08	55.019%	0.023	275.200	287.500	0.000	177100.000	16790.000	17310.000
3	10:19:27	55.481%	-0.010	281.500	311.300	0.000	183100.000	18370.000	18600.000
x		55.792%	0.043	286.400	308.000	0.000	182200.000	17810.000	17940.000
σ		0.967%	0.066	14.230	19.050	0.000	4676.000	887.500	646.500
%RSD		1.734	152.200	4.970	6.184	0.000	2.566	4.982	3.603
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:49	72.200	19650.000	0.000	32820.000	152400.000	154200.000	64.106%	2.071
2	10:19:08	67.750	18410.000	0.000	32230.000	151500.000	154100.000	62.661%	2.277
3	10:19:27	71.540	19580.000	0.000	34650.000	152000.000	167300.000	54.258%	2.233
x		70.500	19210.000	0.000	33230.000	152000.000	158500.000	60.341%	2.194
σ		2.401	696.200	0.000	1261.000	442.800	7576.000	5.318%	0.109
%RSD		3.406	3.624	0.000	3.795	0.291	4.780	8.813	4.945
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:49	12.280	1.074	19.640	55.670	187.000	0.491	6.433	13.360
2	10:19:08	12.480	1.174	19.880	54.730	188.200	0.449	6.008	13.350
3	10:19:27	13.160	1.263	21.480	62.620	197.500	0.513	6.767	14.690
x		12.640	1.171	20.340	57.680	190.900	0.485	6.402	13.800
σ		0.463	0.095	1.000	4.310	5.745	0.032	0.381	0.767
%RSD		3.666	8.085	4.919	7.473	3.009	6.698	5.944	5.560
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:49	13.670	3.083	3.318	10.970	1.117	2.133	0.000	1092.000
2	10:19:08	13.340	3.128	2.697	10.790	1.380	2.098	0.000	1104.000
3	10:19:27	13.590	3.445	3.507	11.000	1.134	2.277	0.000	1096.000
x		13.530	3.219	3.174	10.920	1.210	2.169	0.000	1097.000
σ		0.175	0.197	0.423	0.115	0.147	0.095	0.000	6.095
%RSD		1.297	6.130	13.340	1.050	12.150	4.378	0.000	0.556
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:49	69.532%	7.898	8.164	66.731%	-0.007	-0.014	0.005	0.012
2	10:19:08	69.395%	8.043	8.196	66.235%	-0.015	-0.012	-0.030	-0.027
3	10:19:27	69.466%	8.250	8.181	66.449%	-0.011	-0.012	-0.111	-0.058
x		69.465%	8.064	8.180	66.472%	-0.011	-0.013	-0.045	-0.024
σ		0.068%	0.177	0.016	0.249%	0.004	0.001	0.060	0.035
%RSD		0.099	2.193	0.193	0.374	34.420	10.130	131.900	144.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:49	71.845%	-0.094	1.527	1.610	167.800	168.100	79.859%	80.729%
2	10:19:08	72.452%	-0.004	1.565	1.504	166.200	167.200	80.271%	81.459%
3	10:19:27	72.146%	0.001	1.641	1.590	167.600	168.800	81.204%	82.066%
x		72.148%	-0.032	1.578	1.568	167.200	168.100	80.444%	81.418%
σ		0.304%	0.053	0.058	0.056	0.899	0.800	0.689%	0.669%
%RSD		0.421	164.900	3.671	3.577	0.538	0.476	0.856	0.822
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:18:49	0.023	0.020	0.136	0.139	0.139	76.206%		
2	10:19:08	0.025	0.023	0.160	0.152	0.154	75.292%		
3	10:19:27	0.020	0.023	0.159	0.149	0.158	74.097%		
x		0.023	0.022	0.152	0.147	0.150	75.198%		
σ		0.003	0.002	0.014	0.007	0.010	1.058%		
%RSD		12.660	7.452	9.179	4.535	6.602	1.407		

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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	10:22:36	59.854%	0.065	481.700	492.000	0.000	292400.000	11450.000	10950.000
2	10:22:56	53.126%	0.075	473.000	488.900	0.000	287100.000	10800.000	10860.000
3	10:23:15	51.774%	-0.009	463.200	465.700	0.000	274200.000	10350.000	10140.000
x		54.918%	0.044	472.700	482.200	0.000	284600.000	10870.000	10650.000
σ		4.328%	0.046	9.258	14.370	0.000	9335.000	555.100	445.300
%RSD		7.881	105.000	1.959	2.981	0.000	3.280	5.108	4.182
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:36	1032.000	17750.000	0.000	24580.000	98290.000	104900.000	59.532%	11.350
2	10:22:56	1002.000	17360.000	0.000	22580.000	90070.000	98100.000	63.963%	7.157
3	10:23:15	985.100	17020.000	0.000	24190.000	98660.000	104800.000	57.059%	9.267
x		1007.000	17370.000	0.000	23790.000	95670.000	102600.000	60.185%	9.258
σ		23.910	365.100	0.000	1060.000	4855.000	3910.000	3.498%	2.097
%RSD		2.376	2.101	0.000	4.458	5.074	3.811	5.811	22.650
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:36	8.756	1.381	121.900	646.600	678.100	0.522	5.306	13.900
2	10:22:56	8.098	1.306	118.600	606.200	653.500	0.459	4.860	13.000
3	10:23:15	8.734	1.443	126.300	664.200	690.600	0.556	5.047	13.740
x		8.530	1.377	122.300	639.000	674.000	0.512	5.071	13.550
σ		0.374	0.068	3.832	29.760	18.870	0.049	0.224	0.480
%RSD		4.382	4.955	3.134	4.657	2.799	9.619	4.416	3.546
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:36	12.210	27.380	28.940	8.705	0.836	1.441	0.000	721.700
2	10:22:56	11.230	26.690	26.200	8.949	0.562	1.297	0.000	725.600
3	10:23:15	11.780	27.730	28.340	8.731	0.708	1.209	0.000	719.500
x		11.740	27.260	27.830	8.795	0.702	1.316	0.000	722.300
σ		0.489	0.531	1.439	0.134	0.137	0.117	0.000	3.057
%RSD		4.168	1.948	5.172	1.522	19.550	8.891	0.000	0.423
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:36	70.897%	15.830	15.620	67.906%	-0.016	-0.008	-0.026	0.001
2	10:22:56	70.134%	15.490	15.760	66.444%	-0.011	-0.012	0.013	0.003
3	10:23:15	70.952%	15.720	15.740	66.277%	-0.003	-0.010	-0.035	-0.003
x		70.661%	15.680	15.710	66.876%	-0.010	-0.010	-0.016	0.001
σ		0.457%	0.176	0.077	0.896%	0.007	0.002	0.026	0.003
%RSD		0.647	1.120	0.487	1.340	66.570	21.830	163.100	398.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:36	71.991%	0.237	0.764	0.808	194.400	195.000	79.335%	79.981%
2	10:22:56	72.612%	0.261	0.825	0.769	193.100	192.500	80.612%	81.573%
3	10:23:15	72.699%	0.272	0.840	0.843	192.500	192.100	81.251%	82.060%
x		72.434%	0.257	0.810	0.807	193.300	193.200	80.399%	81.205%
σ		0.386%	0.018	0.040	0.037	1.012	1.539	0.976%	1.087%
%RSD		0.533	6.915	4.931	4.537	0.523	0.797	1.214	1.339
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:22:36	0.018	0.017	1.035	0.959	1.019	76.240%		
2	10:22:56	0.013	0.015	1.080	0.991	1.044	75.730%		
3	10:23:15	0.020	0.014	1.091	0.996	1.047	75.566%		
x		0.017	0.015	1.068	0.982	1.037	75.845%		
σ		0.004	0.001	0.030	0.020	0.015	0.351%		
%RSD		21.540	7.694	2.789	2.031	1.475	0.463		

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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	10:26:24	55.905%	0.038	442.800	478.500	0.000	272800.000	10190.000	9907.000
2	10:26:44	51.022%	0.009	460.300	473.900	0.000	287200.000	10680.000	10600.000
3	10:27:03	50.832%	0.044	452.100	462.100	0.000	254200.000	9360.000	9723.000
x		52.586%	0.031	451.700	471.500	0.000	271400.000	10080.000	10080.000
σ		2.876%	0.019	8.785	8.468	0.000	16530.000	669.200	464.400
%RSD		5.469	61.790	1.945	1.796	0.000	6.091	6.640	4.608
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:24	98.510	15300.000	0.000	22060.000	85950.000	93030.000	64.255%	3.481
2	10:26:44	108.300	16500.000	0.000	24460.000	95330.000	101300.000	56.359%	3.931
3	10:27:03	100.300	14990.000	0.000	22410.000	87790.000	94630.000	61.030%	3.369
x		102.300	15600.000	0.000	22980.000	89690.000	96310.000	60.548%	3.594
σ		5.191	794.100	0.000	1296.000	4972.000	4372.000	3.970%	0.297
%RSD		5.072	5.091	0.000	5.641	5.544	4.540	6.557	8.266
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:24	7.454	0.600	22.540	22.140	107.300	0.381	4.000	9.133
2	10:26:44	7.549	0.592	24.140	21.910	108.200	0.373	4.001	9.504
3	10:27:03	7.321	0.613	22.240	19.380	100.300	0.358	3.581	8.859
x		7.441	0.602	22.970	21.140	105.300	0.371	3.861	9.165
σ		0.115	0.011	1.021	1.530	4.341	0.012	0.242	0.324
%RSD		1.541	1.791	4.446	7.235	4.124	3.246	6.270	3.530
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:24	7.392	3.157	3.036	7.824	0.560	1.295	0.000	701.400
2	10:26:44	8.278	3.639	3.592	7.776	0.625	1.284	0.000	704.400
3	10:27:03	7.302	2.821	2.784	8.161	0.697	1.502	0.000	705.300
x		7.657	3.206	3.137	7.921	0.627	1.360	0.000	703.700
σ		0.539	0.411	0.413	0.210	0.069	0.123	0.000	2.065
%RSD		7.041	12.810	13.180	2.651	10.960	9.044	0.000	0.293
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:24	70.182%	17.360	18.030	67.077%	-0.024	-0.016	-0.064	-0.033
2	10:26:44	69.447%	17.560	17.710	66.019%	-0.011	-0.016	-0.092	-0.056
3	10:27:03	69.159%	17.850	18.030	66.320%	-0.017	-0.004	-0.028	-0.026
x		69.596%	17.590	17.920	66.472%	-0.017	-0.012	-0.061	-0.038
σ		0.528%	0.244	0.184	0.545%	0.007	0.007	0.032	0.016
%RSD		0.758	1.390	1.025	0.820	39.450	56.130	51.810	40.940
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:24	72.478%	-0.059	0.870	0.865	152.800	152.800	79.934%	80.916%
2	10:26:44	72.227%	-0.054	0.825	0.883	153.500	155.400	81.192%	82.810%
3	10:27:03	72.294%	-0.036	0.875	0.862	153.500	154.100	80.407%	82.356%
x		72.333%	-0.050	0.857	0.870	153.200	154.100	80.511%	82.027%
σ		0.130%	0.012	0.028	0.011	0.416	1.282	0.635%	0.989%
%RSD		0.180	24.470	3.233	1.321	0.272	0.832	0.789	1.206
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:26:24	0.011	0.007	0.132	0.125	0.132	78.647%		
2	10:26:44	0.009	0.007	0.141	0.126	0.136	77.323%		
3	10:27:03	0.017	0.010	0.142	0.120	0.134	77.434%		
x		0.012	0.008	0.139	0.124	0.134	77.801%		
σ		0.004	0.001	0.006	0.003	0.002	0.734%		
%RSD		35.090	18.040	4.112	2.507	1.515	0.944		

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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	10:30:13	62.473%	0.336	40.890	41.910	0.000	22420.000	6399.000	6470.000
2	10:30:32	60.541%	0.243	38.600	41.590	0.000	22130.000	6317.000	6401.000
3	10:30:51	61.513%	0.315	41.010	40.210	0.000	21270.000	6224.000	6201.000
x		61.509%	0.298	40.160	41.240	0.000	21940.000	6314.000	6357.000
σ		0.966%	0.049	1.358	0.906	0.000	601.700	87.710	139.300
%RSD		1.570	16.360	3.382	2.196	0.000	2.743	1.389	2.192

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:13	684.900	2919.000	0.000	2169.000	24040.000	25620.000	69.937%	3.847
2	10:30:32	684.600	2917.000	0.000	2171.000	23760.000	25870.000	67.338%	3.513
3	10:30:51	664.500	2751.000	0.000	2206.000	24040.000	25920.000	62.415%	3.327
x		678.000	2862.000	0.000	2182.000	23940.000	25810.000	66.563%	3.562
σ		11.710	96.390	0.000	20.640	163.900	160.500	3.820%	0.264
%RSD		1.727	3.368	0.000	0.946	0.685	0.622	5.739	7.405

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:13	1.309	0.964	418.200	1373.000	1307.000	3.000	4.886	5.648
2	10:30:32	1.436	0.927	419.400	1400.000	1345.000	3.047	5.248	5.675
3	10:30:51	1.164	0.906	440.500	1474.000	1448.000	3.324	5.411	6.287
x		1.303	0.932	426.000	1416.000	1367.000	3.124	5.182	5.870
σ		0.136	0.030	12.500	52.460	73.010	0.175	0.269	0.361
%RSD		10.440	3.168	2.934	3.705	5.342	5.597	5.182	6.159

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:13	5.684	26.530	26.380	0.878	0.123	0.263	0.000	129.800
2	10:30:32	5.714	25.790	25.730	1.183	-0.082	0.426	0.000	130.100
3	10:30:51	5.970	27.920	27.640	1.052	0.194	0.441	0.000	131.400
x		5.789	26.750	26.580	1.038	0.078	0.377	0.000	130.400
σ		0.157	1.079	0.969	0.153	0.143	0.099	0.000	0.849
%RSD		2.718	4.034	3.647	14.770	184.000	26.160	0.000	0.651

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:13	76.417%	0.223	0.348	76.121%	-0.015	-0.015	0.116	0.131
2	10:30:32	75.968%	0.507	0.557	75.841%	-0.018	-0.018	0.162	0.165
3	10:30:51	75.719%	0.489	0.516	74.889%	-0.014	-0.006	0.071	0.119
x		76.035%	0.406	0.474	75.617%	-0.015	-0.013	0.116	0.138
σ		0.354%	0.159	0.111	0.646%	0.002	0.006	0.046	0.024
%RSD		0.465	39.150	23.410	0.854	14.080	46.190	39.470	17.450

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:13	78.360%	-0.169	-0.097	-0.130	57.700	58.430	84.402%	85.622%
2	10:30:32	79.016%	-0.145	-0.111	-0.095	57.220	58.370	85.813%	87.046%
3	10:30:51	78.407%	-0.150	-0.101	-0.120	58.420	58.040	85.838%	87.483%
x		78.594%	-0.155	-0.103	-0.115	57.780	58.280	85.351%	86.717%
σ		0.366%	0.013	0.007	0.018	0.600	0.207	0.822%	0.973%
%RSD		0.466	8.104	7.107	15.330	1.039	0.355	0.963	1.123

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:13	0.012	0.008	5.871	5.418	5.607	88.743%
2	10:30:32	0.012	0.010	6.131	5.614	5.855	87.699%
3	10:30:51	0.015	0.011	6.389	5.855	6.087	85.090%
x		0.013	0.010	6.130	5.629	5.850	87.177%
σ		0.002	0.002	0.259	0.218	0.240	1.882%
%RSD		14.460	18.150	4.222	3.880	4.106	2.158

CCV 1594026 6/19/2015 10:33:50 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	10:33:50	81.194%	106.700	98.070	98.090	0.000	47200.000	48050.000	47980.000
2	10:34:10	83.802%	104.200	95.620	96.440	0.000	47340.000	48450.000	48270.000
3	10:34:29	80.877%	105.200	95.020	98.050	0.000	47780.000	48410.000	48030.000
x		81.958%	105.357%	96.234%	97.528%	0.000	94.883%	96.608%	96.187%
σ		1.605%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.959	1.200	1.682	0.962	0.000	0.637	0.462	0.315
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:50	487.800	5122.000	0.000	48040.000	45470.000	48400.000	90.233%	95.020
2	10:34:10	489.300	4995.000	0.000	48410.000	45580.000	48610.000	84.498%	97.270
3	10:34:29	470.400	4861.000	0.000	48570.000	45700.000	49850.000	83.461%	95.960
x		96.504%	99.860%	0.000	96.683%	91.165%	97.900%	86.064%	96.083%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.648%	n/a
%RSD		2.177	2.616	0.000	0.560	0.250	1.602	4.238	1.176
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:50	96.690	99.220	494.000	24730.000	24460.000	97.710	99.420	99.320
2	10:34:10	97.200	99.650	504.900	25670.000	25600.000	102.400	104.500	104.800
3	10:34:29	98.990	98.880	500.700	25490.000	25540.000	100.300	103.100	102.600
x		97.623%	99.249%	99.967%	101.183%	100.792%	100.129%	102.356%	102.226%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.238	0.388	1.097	1.974	2.538	2.349	2.579	2.691
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:50	100.300	100.600	100.700	100.700	106.000	106.100	0.000	93.620
2	10:34:10	103.500	104.200	103.000	102.800	106.400	106.000	0.000	94.540
3	10:34:29	100.700	103.400	102.900	102.400	105.200	107.400	0.000	95.550
x		101.490%	102.744%	102.204%	101.945%	105.868%	106.512%	0.000	94.573%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.742	1.823	1.302	1.085	0.588	0.735	0.000	1.021
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:50	85.344%	91.300	91.340	82.330%	98.200	97.770	98.390	98.970
2	10:34:10	85.350%	92.510	92.790	82.189%	97.180	97.280	99.100	100.100
3	10:34:29	86.158%	93.370	94.090	83.025%	98.110	98.500	101.000	100.500
x		85.617%	92.393%	92.742%	82.515%	97.829%	97.849%	99.511%	99.854%
σ		0.468%	n/a	n/a	0.448%	n/a	n/a	n/a	n/a
%RSD		0.547	1.127	1.485	0.543	0.577	0.623	1.380	0.792
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:50	83.991%	94.680	90.370	91.370	95.350	95.110	85.786%	86.067%
2	10:34:10	84.029%	95.650	92.030	92.480	95.480	95.650	87.956%	88.337%
3	10:34:29	84.981%	96.230	92.230	92.170	95.120	95.500	88.209%	88.628%
x		84.334%	95.519%	91.544%	92.007%	95.315%	95.416%	87.317%	87.677%
σ		0.561%	n/a	n/a	n/a	n/a	n/a	1.332%	1.402%
%RSD		0.665	0.820	1.115	0.621	0.195	0.291	1.525	1.599
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:33:50	103.000	104.200	102.800	102.600	103.900	79.351%		
2	10:34:10	106.000	106.800	105.100	105.400	106.600	79.452%		
3	10:34:29	104.900	106.400	104.700	104.900	106.300	80.861%		
x		104.625%	105.803%	104.195%	104.305%	105.613%	79.888%		
σ		n/a	n/a	n/a	n/a	n/a	0.844%		
%RSD		1.459	1.299	1.175	1.431	1.425	1.056		

CCB3 6/19/2015 10:40:19 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	10:40:38	86.030%	0.005	0.657	0.509	0.000	9.803	0.742	0.911
2	10:40:57	87.470%	-0.006	0.142	0.418	0.000	9.235	0.471	0.583
3	10:41:16	84.654%	-0.016	0.304	0.405	0.000	10.070	0.572	0.312
x		86.051%	-0.005	0.368	0.444	0.000	9.703	0.595	0.602
σ		1.408%	0.010	0.264	0.057	0.000	0.426	0.137	0.300
%RSD		1.636	193.800	71.680	12.820	0.000	4.395	23.080	49.830

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:38	2.465	-8.074	0.000	5.192	9.420	12.490	94.085%	0.003
2	10:40:57	2.335	-9.578	0.000	4.827	12.860	12.150	88.596%	-0.002
3	10:41:16	2.533	-11.000	0.000	5.285	23.360	11.800	87.168%	-0.000
x		2.444	-9.550	0.000	5.101	15.220	12.150	89.950%	0.000
σ		0.101	1.462	0.000	0.242	7.264	0.349	3.652%	0.002
%RSD		4.112	15.310	0.000	4.744	47.740	2.872	4.060	478.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:38	-0.000	0.020	0.046	3.532	1.715	0.000	0.054	0.184
2	10:40:57	0.010	-0.011	0.044	4.482	2.978	0.004	0.060	0.183
3	10:41:16	0.028	0.037	0.049	4.216	2.984	0.001	0.083	0.144
x		0.013	0.015	0.046	4.077	2.559	0.002	0.066	0.170
σ		0.014	0.025	0.002	0.490	0.731	0.002	0.015	0.023
%RSD		111.700	161.500	5.355	12.030	28.560	118.800	23.230	13.310

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:38	0.197	1.418	1.383	-0.015	0.129	0.121	0.000	0.018
2	10:40:57	0.199	1.298	1.334	0.030	0.336	0.227	0.000	0.019
3	10:41:16	0.134	1.431	1.554	0.048	0.169	0.369	0.000	0.017
x		0.177	1.382	1.424	0.021	0.211	0.239	0.000	0.018
σ		0.037	0.073	0.116	0.032	0.110	0.125	0.000	0.001
%RSD		20.880	5.297	8.129	153.100	51.970	52.110	0.000	4.225

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:38	90.652%	-0.031	-0.068	93.417%	-0.014	-0.011	-0.055	-0.034
2	10:40:57	91.265%	0.102	0.137	93.254%	-0.009	-0.011	-0.024	-0.017
3	10:41:16	90.470%	0.142	0.244	93.143%	-0.013	-0.002	-0.051	-0.036
x		90.796%	0.071	0.104	93.272%	-0.012	-0.008	-0.044	-0.029
σ		0.417%	0.091	0.158	0.138%	0.003	0.005	0.017	0.011
%RSD		0.459	127.700	151.600	0.147	21.760	65.110	38.540	36.770

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:38	92.875%	-0.061	0.624	0.581	0.038	0.046	92.520%	93.006%
2	10:40:57	92.980%	0.005	0.630	0.616	0.017	0.037	93.578%	94.252%
3	10:41:16	93.651%	0.008	0.651	0.602	0.026	0.029	94.666%	94.625%
x		93.168%	-0.016	0.635	0.600	0.027	0.037	93.588%	93.961%
σ		0.421%	0.039	0.014	0.018	0.011	0.009	1.073%	0.848%
%RSD		0.452	240.200	2.254	2.921	38.460	23.460	1.147	0.902

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:38	0.003	0.002	0.020	0.018	0.021	97.571%
2	10:40:57	0.003	0.006	0.022	0.018	0.021	97.296%
3	10:41:16	0.003	0.005	0.023	0.022	0.024	97.056%
x		0.003	0.005	0.022	0.019	0.022	97.307%
σ		0.000	0.002	0.002	0.002	0.002	0.258%
%RSD		10.970	51.770	7.938	12.730	8.812	0.265

180-45165-B-2-A 6/19/2015 10:44:09 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	10:44:28	72.566%	0.036	38.960	42.780	0.000	26760.000	7165.000	6991.000
2	10:44:47	67.175%	0.014	41.930	44.870	0.000	26600.000	7394.000	7444.000
3	10:45:06	60.738%	-0.012	44.830	45.070	0.000	25110.000	7145.000	7139.000
x		66.826%	0.013	41.910	44.240	0.000	26160.000	7235.000	7191.000
σ		5.922%	0.024	2.934	1.269	0.000	912.600	138.500	230.800
%RSD		8.861	185.900	7.002	2.869	0.000	3.489	1.915	3.210
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:28	58.660	2219.000	0.000	2263.000	27390.000	29800.000	76.932%	0.153
2	10:44:47	64.790	2295.000	0.000	2299.000	27810.000	29830.000	73.510%	0.250
3	10:45:06	63.480	2365.000	0.000	2288.000	28310.000	30410.000	72.012%	0.195
x		62.310	2293.000	0.000	2283.000	27840.000	30010.000	74.152%	0.199
σ		3.229	73.450	0.000	18.680	459.900	346.200	2.522%	0.049
%RSD		5.183	3.203	0.000	0.818	1.652	1.153	3.401	24.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:28	0.127	0.136	5.815	131.900	147.700	0.078	1.042	3.594
2	10:44:47	0.104	0.135	5.578	117.400	143.700	0.079	0.960	3.445
3	10:45:06	0.173	0.140	5.768	122.400	141.800	0.084	0.964	3.430
x		0.134	0.137	5.720	123.900	144.400	0.080	0.989	3.490
σ		0.035	0.003	0.126	7.378	3.002	0.003	0.046	0.090
%RSD		26.160	1.848	2.200	5.955	2.079	3.770	4.685	2.589
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:28	3.530	3.415	3.253	0.083	0.237	0.416	0.000	156.600
2	10:44:47	3.622	3.259	3.853	0.139	0.327	0.388	0.000	157.100
3	10:45:06	3.310	3.462	3.453	0.230	0.188	0.446	0.000	158.300
x		3.487	3.379	3.519	0.150	0.251	0.417	0.000	157.300
σ		0.160	0.106	0.306	0.074	0.071	0.029	0.000	0.843
%RSD		4.597	3.140	8.687	49.120	28.300	7.000	0.000	0.536
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:28	80.135%	0.722	0.724	80.448%	-0.002	-0.003	-0.040	-0.026
2	10:44:47	79.322%	0.722	0.763	80.064%	-0.009	0.001	-0.056	-0.050
3	10:45:06	78.121%	0.789	0.861	78.362%	-0.002	-0.002	-0.091	-0.045
x		79.193%	0.744	0.782	79.625%	-0.004	-0.001	-0.063	-0.040
σ		1.013%	0.038	0.070	1.110%	0.004	0.002	0.026	0.012
%RSD		1.280	5.171	8.977	1.394	88.090	199.100	41.600	30.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:28	83.385%	-0.111	0.378	0.360	40.470	40.770	89.790%	90.460%
2	10:44:47	83.403%	-0.042	0.349	0.392	40.570	40.780	89.975%	91.200%
3	10:45:06	83.269%	-0.050	0.342	0.331	40.170	40.270	89.991%	91.730%
x		83.352%	-0.068	0.356	0.361	40.400	40.610	89.919%	91.130%
σ		0.072%	0.038	0.019	0.030	0.210	0.292	0.112%	0.637%
%RSD		0.087	55.690	5.402	8.393	0.521	0.720	0.124	0.699
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:44:28	0.007	0.011	0.266	0.232	0.252	96.610%		
2	10:44:47	0.013	0.007	0.276	0.258	0.267	93.362%		
3	10:45:06	0.008	0.006	0.287	0.256	0.271	93.038%		
x		0.009	0.008	0.276	0.249	0.263	94.336%		
σ		0.003	0.003	0.010	0.015	0.010	1.975%		
%RSD		33.200	31.820	3.730	5.898	3.765	2.094		

180-45165-B-2-A SD@5 6/19/2015 10:47:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	76.540%	0.021	8.811	9.310	0.000	5384.000	1463.000	1459.000
2	10:48:36	77.418%	-0.015	8.676	9.118	0.000	5299.000	1419.000	1390.000
3	10:48:55	68.658%	0.013	8.522	9.465	0.000	5451.000	1452.000	1476.000
x		74.205%	0.006	8.670	9.298	0.000	5378.000	1445.000	1442.000
σ		4.824%	0.019	0.144	0.174	0.000	76.080	23.070	45.670
%RSD		6.501	293.300	1.665	1.868	0.000	1.415	1.597	3.168

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	13.680	474.900	0.000	460.200	5499.000	5703.000	85.100%	-0.030
2	10:48:36	12.900	449.500	0.000	454.000	5729.000	5830.000	81.223%	0.084
3	10:48:55	12.550	475.600	0.000	468.400	5653.000	5857.000	81.135%	0.073
x		13.040	466.600	0.000	460.800	5627.000	5796.000	82.486%	0.043
σ		0.579	14.890	0.000	7.203	117.200	82.280	2.264%	0.063
%RSD		4.437	3.191	0.000	1.563	2.083	1.420	2.745	147.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	0.017	0.029	1.189	24.420	29.290	0.015	0.236	0.738
2	10:48:36	-0.025	0.011	1.208	25.510	30.600	0.018	0.271	0.709
3	10:48:55	0.016	-0.004	1.200	22.360	27.660	0.013	0.167	0.712
x		0.003	0.012	1.199	24.100	29.180	0.015	0.225	0.720
σ		0.024	0.017	0.010	1.601	1.476	0.002	0.053	0.016
%RSD		895.900	134.800	0.805	6.646	5.059	15.690	23.500	2.234

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	0.790	1.359	1.402	-0.136	-0.111	0.080	0.000	30.830
2	10:48:36	0.717	1.381	1.414	-0.036	0.013	0.218	0.000	31.060
3	10:48:55	0.658	1.420	1.493	0.025	-0.081	0.172	0.000	31.380
x		0.722	1.387	1.436	-0.049	-0.060	0.157	0.000	31.090
σ		0.066	0.031	0.049	0.081	0.065	0.070	0.000	0.274
%RSD		9.192	2.217	3.441	164.900	108.500	44.880	0.000	0.880

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	89.050%	-0.316	-0.312	90.905%	-0.014	-0.013	-0.041	-0.026
2	10:48:36	88.598%	-0.179	-0.180	90.163%	-0.006	-0.013	-0.067	-0.050
3	10:48:55	88.528%	-0.098	-0.080	90.622%	-0.014	-0.011	-0.022	-0.015
x		88.725%	-0.198	-0.191	90.563%	-0.011	-0.012	-0.043	-0.030
σ		0.283%	0.110	0.117	0.375%	0.005	0.001	0.022	0.018
%RSD		0.320	55.600	61.150	0.414	40.570	9.234	51.790	59.260

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	93.368%	-0.139	0.197	0.115	8.092	8.000	97.374%	98.038%
2	10:48:36	93.603%	-0.097	0.173	0.153	8.171	8.243	98.568%	99.132%
3	10:48:55	93.410%	-0.049	0.175	0.148	7.944	8.098	99.630%	99.873%
x		93.460%	-0.095	0.182	0.139	8.069	8.114	98.524%	99.014%
σ		0.125%	0.045	0.014	0.021	0.115	0.122	1.129%	0.923%
%RSD		0.134	47.160	7.544	15.020	1.426	1.507	1.146	0.932

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:16	0.000	-0.003	0.069	0.066	0.065	98.846%
2	10:48:36	-0.001	-0.001	0.068	0.058	0.064	98.138%
3	10:48:55	-0.000	-0.002	0.067	0.061	0.066	98.023%
x		-0.000	-0.002	0.068	0.062	0.065	98.336%
σ		0.000	0.001	0.001	0.004	0.001	0.446%
%RSD		142.300	51.970	1.091	6.324	1.605	0.453

MB 180-145252/1-A 6/19/2015 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	10:55:02	83.218%	0.028	-0.105	0.215	0.000	4.416	1.761	1.674
2	10:55:21	82.972%	-0.026	0.009	0.225	0.000	4.455	1.558	1.937
3	10:55:40	80.765%	-0.015	0.369	0.272	0.000	4.872	1.743	2.001
x		82.318%	-0.005	0.091	0.237	0.000	4.581	1.687	1.871
σ		1.350%	0.029	0.248	0.030	0.000	0.253	0.113	0.173
%RSD		1.640	634.200	271.800	12.690	0.000	5.519	6.677	9.258

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:02	1.756	-11.000	0.000	0.709	9.892	11.720	90.533%	0.006
2	10:55:21	1.927	-10.450	0.000	0.758	12.980	11.180	88.176%	-0.063
3	10:55:40	1.815	-9.854	0.000	1.012	7.933	11.980	84.051%	-0.072
x		1.833	-10.440	0.000	0.827	10.270	11.630	87.587%	-0.043
σ		0.087	0.573	0.000	0.163	2.542	0.410	3.281%	0.043
%RSD		4.752	5.488	0.000	19.680	24.760	3.530	3.746	100.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:02	0.005	-0.001	0.225	2.924	0.685	0.002	0.055	0.180
2	10:55:21	0.006	0.001	0.216	0.762	1.263	0.002	0.046	0.233
3	10:55:40	-0.009	-0.011	0.205	1.224	0.701	0.003	0.056	0.242
x		0.001	-0.004	0.216	1.637	0.883	0.002	0.053	0.219
σ		0.009	0.007	0.010	1.139	0.329	0.001	0.006	0.034
%RSD		1654.000	170.100	4.533	69.550	37.280	29.480	11.090	15.480

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:02	0.215	1.425	1.343	-0.114	0.191	0.059	0.000	0.028
2	10:55:21	0.206	1.462	1.447	-0.045	-0.061	0.033	0.000	0.033
3	10:55:40	0.165	1.512	1.497	-0.081	-0.014	0.085	0.000	0.028
x		0.195	1.466	1.429	-0.080	0.039	0.059	0.000	0.030
σ		0.027	0.044	0.079	0.035	0.134	0.026	0.000	0.003
%RSD		13.590	2.976	5.508	43.250	347.700	44.770	0.000	8.744

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:02	93.284%	-0.778	-0.773	95.465%	-0.012	-0.013	-0.041	-0.026
2	10:55:21	93.196%	-0.700	-0.664	96.125%	-0.018	-0.012	-0.032	-0.028
3	10:55:40	93.771%	-0.634	-0.667	96.224%	-0.011	-0.014	-0.010	-0.000
x		93.417%	-0.704	-0.702	95.938%	-0.014	-0.013	-0.028	-0.018
σ		0.310%	0.072	0.062	0.412%	0.003	0.001	0.016	0.015
%RSD		0.332	10.230	8.835	0.430	24.110	8.640	56.960	85.380

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:02	96.877%	-0.226	-0.139	-0.171	0.016	0.033	99.802%	100.758%
2	10:55:21	97.199%	-0.204	-0.128	-0.139	0.030	0.050	101.553%	102.229%
3	10:55:40	98.863%	-0.195	-0.121	-0.127	0.034	0.044	102.399%	103.245%
x		97.647%	-0.208	-0.129	-0.146	0.027	0.042	101.251%	102.078%
σ		1.066%	0.016	0.009	0.023	0.010	0.008	1.324%	1.250%
%RSD		1.091	7.729	7.095	15.590	36.500	19.820	1.308	1.225

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:02	-0.004	-0.005	0.018	0.015	0.018	105.300%
2	10:55:21	-0.004	-0.004	0.019	0.022	0.021	104.729%
3	10:55:40	-0.004	-0.005	0.015	0.017	0.017	105.144%
x		-0.004	-0.005	0.017	0.018	0.018	105.057%
σ		0.000	0.000	0.002	0.003	0.002	0.295%
%RSD		5.777	9.375	13.450	18.970	11.980	0.281

LCS 180-145252/2-A 6/19/2015 10:58:30 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	10:58:50	45.536%	49.640	938.900	1008.000	0.000	45420.000	45620.000	45470.000
2	10:59:09	44.980%	50.220	936.200	926.300	0.000	44530.000	44980.000	44570.000
3	10:59:28	40.272%	49.870	920.300	921.700	0.000	45110.000	46980.000	48700.000
x		43.596%	49.910	931.800	951.900	0.000	45020.000	45860.000	46250.000
σ		2.892%	0.292	10.080	48.460	0.000	452.000	1020.000	2170.000
%RSD		6.634	0.585	1.082	5.091	0.000	1.004	2.225	4.692
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	1852.000	8958.000	0.000	51260.000	49100.000	53990.000	49.324%	1022.000
2	10:59:09	1792.000	8688.000	0.000	50140.000	50650.000	55500.000	48.359%	1049.000
3	10:59:28	1878.000	9109.000	0.000	52600.000	53130.000	56810.000	46.607%	1046.000
x		1841.000	8918.000	0.000	51330.000	50960.000	55430.000	48.097%	1039.000
σ		44.000	213.700	0.000	1232.000	2031.000	1410.000	1.377%	14.860
%RSD		2.390	2.396	0.000	2.399	3.986	2.543	2.863	1.431
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	541.000	204.600	538.900	1080.000	1049.000	516.100	478.400	238.400
2	10:59:09	532.900	201.600	548.900	1090.000	1081.000	521.600	478.300	235.000
3	10:59:28	547.900	204.800	541.700	1094.000	1054.000	507.400	481.400	239.900
x		540.600	203.700	543.200	1088.000	1061.000	515.000	479.400	237.700
σ		7.554	1.790	5.170	7.262	16.860	7.174	1.752	2.502
%RSD		1.397	0.879	0.952	0.667	1.589	1.393	0.365	1.052
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	245.300	507.700	500.500	37.220	10.470	10.330	0.000	1022.000
2	10:59:09	246.000	507.200	505.900	37.070	10.580	10.650	0.000	1025.000
3	10:59:28	240.600	514.000	511.900	37.640	10.890	10.470	0.000	1032.000
x		243.900	509.600	506.100	37.310	10.650	10.480	0.000	1026.000
σ		2.914	3.810	5.675	0.293	0.214	0.162	0.000	5.105
%RSD		1.194	0.748	1.121	0.785	2.008	1.542	0.000	0.498
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	66.843%	1066.000	1198.000	66.308%	48.700	48.790	51.170	43.580
2	10:59:09	65.709%	1072.000	1206.000	64.580%	48.860	49.180	50.720	42.550
3	10:59:28	65.794%	1072.000	1199.000	64.986%	48.690	49.340	50.820	43.580
x		66.115%	1070.000	1201.000	65.291%	48.750	49.100	50.900	43.240
σ		0.632%	3.107	4.310	0.904%	0.098	0.282	0.239	0.592
%RSD		0.955	0.290	0.359	1.384	0.201	0.575	0.470	1.369
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	72.472%	1983.000	514.800	503.300	1946.000	1912.000	87.292%	89.117%
2	10:59:09	72.705%	1985.000	513.800	504.700	1955.000	1904.000	88.775%	89.929%
3	10:59:28	72.905%	1980.000	511.800	501.200	1950.000	1915.000	88.845%	90.868%
x		72.694%	1983.000	513.500	503.100	1950.000	1910.000	88.304%	89.971%
σ		0.216%	2.462	1.490	1.779	4.563	5.612	0.877%	0.876%
%RSD		0.298	0.124	0.290	0.354	0.234	0.294	0.993	0.974
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:58:50	51.260	51.380	21.530	21.660	21.610	82.979%		
2	10:59:09	52.260	52.880	22.020	22.040	22.050	82.447%		
3	10:59:28	52.650	52.920	22.010	21.950	22.060	83.544%		
x		52.060	52.400	21.850	21.880	21.910	82.990%		
σ		0.718	0.875	0.280	0.198	0.260	0.549%		
%RSD		1.379	1.671	1.282	0.904	1.185	0.661		

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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	11:02:37	53.200%	0.008	22.330	24.180	0.000	26470.000	8664.000	8559.000
2	11:02:56	45.647%	-0.007	24.330	24.650	0.000	27680.000	9019.000	8939.000
3	11:03:15	43.721%	-0.026	22.850	23.000	0.000	26470.000	8450.000	8508.000
x		47.523%	-0.008	23.170	23.940	0.000	26870.000	8711.000	8669.000
σ		5.010%	0.017	1.042	0.847	0.000	696.200	287.600	235.600
%RSD		10.543	206.900	4.498	3.539	0.000	2.591	3.301	2.718

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:37	99.720	2101.000	0.000	5217.000	36620.000	39780.000	51.086%	2.441
2	11:02:56	104.600	2235.000	0.000	5474.000	37850.000	40940.000	48.638%	2.089
3	11:03:15	98.180	2026.000	0.000	5398.000	37270.000	40080.000	46.026%	2.462
x		100.800	2121.000	0.000	5363.000	37240.000	40270.000	48.583%	2.331
σ		3.326	106.000	0.000	131.600	615.000	602.000	2.531%	0.210
%RSD		3.299	4.999	0.000	2.454	1.651	1.495	5.209	8.999

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:37	1.106	0.580	65.180	226.700	241.800	0.405	0.628	3.374
2	11:02:56	3.009	0.596	62.980	220.300	237.900	0.364	0.481	3.415
3	11:03:15	0.739	0.586	67.510	223.700	246.600	0.391	0.577	3.508
x		1.618	0.587	65.220	223.600	242.100	0.387	0.562	3.432
σ		1.219	0.008	2.268	3.180	4.403	0.021	0.074	0.069
%RSD		75.320	1.317	3.477	1.423	1.819	5.473	13.230	1.997

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:37	3.475	11.840	11.260	0.763	0.192	0.433	0.000	96.030
2	11:02:56	3.343	12.010	11.430	0.893	0.129	0.594	0.000	95.380
3	11:03:15	3.279	12.250	11.660	0.896	0.224	0.285	0.000	96.240
x		3.366	12.030	11.450	0.851	0.181	0.437	0.000	95.890
σ		0.100	0.205	0.199	0.076	0.048	0.154	0.000	0.448
%RSD		2.971	1.707	1.734	8.917	26.600	35.300	0.000	0.468

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:37	69.998%	5.851	5.854	70.714%	-0.005	-0.001	-0.056	-0.044
2	11:02:56	69.373%	6.592	6.492	70.343%	-0.002	0.001	-0.062	-0.007
3	11:03:15	67.908%	6.182	6.059	68.631%	0.001	0.002	-0.083	-0.056
x		69.093%	6.209	6.135	69.896%	-0.002	0.001	-0.067	-0.036
σ		1.073%	0.371	0.326	1.111%	0.003	0.001	0.014	0.025
%RSD		1.552	5.973	5.308	1.590	181.000	238.200	21.120	70.730

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:37	77.185%	2.262	0.851	0.822	32.790	33.230	90.275%	91.268%
2	11:02:56	77.388%	2.343	0.812	0.891	33.700	33.370	90.626%	91.980%
3	11:03:15	76.172%	2.315	0.894	0.883	33.060	33.470	91.317%	92.617%
x		76.915%	2.307	0.852	0.865	33.180	33.360	90.739%	91.955%
σ		0.651%	0.041	0.041	0.038	0.467	0.120	0.530%	0.675%
%RSD		0.846	1.769	4.774	4.382	1.407	0.359	0.584	0.734

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:37	0.448	0.436	1.260	1.170	1.221	83.710%
2	11:02:56	0.384	0.397	1.238	1.199	1.211	84.153%
3	11:03:15	0.352	0.340	1.298	1.166	1.215	85.123%
x		0.395	0.391	1.265	1.178	1.216	84.329%
σ		0.049	0.049	0.030	0.018	0.005	0.723%
%RSD		12.380	12.430	2.407	1.561	0.432	0.858

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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	11:06:23	54.603%	0.090	45.890	46.230	0.000	48900.000	16200.000	16750.000
2	11:06:42	44.290%	0.096	41.530	47.830	0.000	50660.000	17200.000	16790.000
3	11:07:01	45.099%	-0.026	44.430	42.520	0.000	49780.000	16210.000	16080.000
x		47.997%	0.053	43.950	45.530	0.000	49780.000	16540.000	16540.000
σ		5.735%	0.069	2.216	2.726	0.000	877.300	572.400	396.600
%RSD		11.949	129.800	5.041	5.988	0.000	1.762	3.461	2.398

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:23	24.870	4114.000	0.000	8556.000	88640.000	95830.000	59.711%	0.780
2	11:06:42	24.690	4169.000	0.000	9273.000	98650.000	108200.000	48.915%	1.001
3	11:07:01	22.240	3930.000	0.000	8928.000	95340.000	104000.000	46.423%	0.713
x		23.930	4071.000	0.000	8919.000	94210.000	102700.000	51.683%	0.832
σ		1.469	125.200	0.000	358.800	5097.000	6289.000	7.064%	0.151
%RSD		6.138	3.075	0.000	4.023	5.410	6.125	13.667	18.150

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:23	0.475	8.225	9.682	45.360	118.400	0.291	0.328	0.714
2	11:06:42	-0.690	9.379	11.110	57.000	131.800	0.341	0.281	0.719
3	11:07:01	-0.767	8.954	11.010	53.380	126.000	0.317	0.518	0.784
x		-0.328	8.853	10.600	51.920	125.400	0.316	0.375	0.739
σ		0.696	0.584	0.796	5.958	6.685	0.025	0.126	0.039
%RSD		212.400	6.594	7.508	11.480	5.331	7.990	33.440	5.288

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:23	0.493	3.724	3.665	0.202	0.153	0.505	0.000	224.100
2	11:06:42	0.477	4.073	4.130	-0.474	0.183	0.555	0.000	238.100
3	11:07:01	0.475	4.521	4.066	0.297	0.118	0.349	0.000	227.900
x		0.482	4.106	3.954	0.008	0.151	0.469	0.000	230.000
σ		0.010	0.399	0.252	0.420	0.033	0.108	0.000	7.243
%RSD		2.012	9.720	6.374	4952.000	21.660	22.940	0.000	3.149

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:23	67.403%	0.958	1.093	66.676%	-0.011	-0.007	0.042	0.113
2	11:06:42	68.205%	1.568	1.504	67.150%	-0.016	-0.001	0.080	0.112
3	11:07:01	67.815%	1.352	1.543	66.844%	-0.005	-0.012	0.051	0.091
x		67.808%	1.293	1.380	66.890%	-0.011	-0.007	0.058	0.105
σ		0.401%	0.310	0.250	0.241%	0.005	0.005	0.020	0.012
%RSD		0.591	23.960	18.090	0.360	50.140	79.670	35.040	11.770

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:23	72.206%	0.596	0.175	0.168	54.930	54.960	82.137%	83.686%
2	11:06:42	75.694%	0.729	0.222	0.239	54.930	55.120	88.901%	90.798%
3	11:07:01	75.497%	0.770	0.198	0.177	55.620	55.950	90.030%	92.009%
x		74.466%	0.698	0.198	0.195	55.160	55.340	87.023%	88.831%
σ		1.959%	0.091	0.023	0.038	0.400	0.534	4.268%	4.497%
%RSD		2.631	13.020	11.760	19.640	0.726	0.965	4.905	5.062

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:23	0.101	0.103	0.196	0.151	0.172	76.875%
2	11:06:42	0.100	0.103	0.172	0.178	0.169	81.940%
3	11:07:01	0.101	0.108	0.176	0.159	0.171	82.343%
x		0.101	0.105	0.182	0.163	0.171	80.386%
σ		0.001	0.003	0.013	0.014	0.002	3.047%
%RSD		0.554	2.687	7.085	8.570	1.066	3.791

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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	11:10:10	48.187%	0.011	13.920	12.470	0.000	29850.000	17370.000	17180.000
2	11:10:29	50.339%	0.010	14.450	11.190	0.000	29740.000	16450.000	16670.000
3	11:10:48	44.797%	0.035	11.340	12.550	0.000	28140.000	16560.000	16380.000
x		47.774%	0.019	13.240	12.070	0.000	29240.000	16790.000	16740.000
σ		2.794%	0.014	1.664	0.763	0.000	958.000	500.600	408.000
%RSD		5.848	73.930	12.570	6.324	0.000	3.276	2.981	2.437

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:10	286.900	3232.000	0.000	2372.000	77470.000	83700.000	49.644%	7.635
2	11:10:29	295.100	3053.000	0.000	2284.000	76660.000	83190.000	45.809%	8.072
3	11:10:48	266.700	3008.000	0.000	2329.000	74260.000	82700.000	45.478%	8.130
x		282.900	3098.000	0.000	2328.000	76130.000	83200.000	46.977%	7.946
σ		14.590	118.900	0.000	43.880	1667.000	498.500	2.316%	0.270
%RSD		5.156	3.838	0.000	1.885	2.190	0.599	4.929	3.404

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:10	-1.072	2.564	20.420	402.300	426.800	0.239	-0.029	2.016
2	11:10:29	0.479	2.474	20.530	397.500	435.300	0.316	0.086	2.111
3	11:10:48	-0.491	2.539	20.620	401.300	436.100	0.252	-0.040	2.001
x		-0.361	2.525	20.520	400.400	432.700	0.269	0.006	2.043
σ		0.784	0.046	0.102	2.543	5.159	0.041	0.070	0.059
%RSD		217.100	1.839	0.495	0.635	1.192	15.390	1237.000	2.899

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:10	1.761	8.095	8.294	-0.212	0.097	0.388	0.000	109.700
2	11:10:29	1.889	7.980	8.313	0.303	0.394	0.409	0.000	110.700
3	11:10:48	1.826	8.178	7.699	-0.101	0.331	0.389	0.000	109.800
x		1.825	8.084	8.102	-0.004	0.274	0.396	0.000	110.100
σ		0.064	0.099	0.349	0.271	0.157	0.012	0.000	0.535
%RSD		3.495	1.228	4.309	7560.000	57.120	2.986	0.000	0.486

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:10	69.883%	0.054	0.003	69.153%	0.005	0.001	-0.080	-0.039
2	11:10:29	68.377%	0.271	0.265	67.559%	-0.001	0.011	-0.048	-0.040
3	11:10:48	68.394%	0.351	0.274	66.873%	0.004	0.006	-0.085	-0.049
x		68.885%	0.225	0.180	67.861%	0.003	0.006	-0.071	-0.043
σ		0.865%	0.154	0.154	1.170%	0.003	0.005	0.020	0.005
%RSD		1.255	68.170	85.200	1.724	118.600	85.370	28.630	12.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:10	77.067%	0.405	0.102	0.061	34.240	34.170	89.785%	91.601%
2	11:10:29	75.740%	0.533	0.093	0.139	34.520	34.580	90.709%	93.181%
3	11:10:48	75.964%	0.538	0.147	0.119	34.360	34.300	90.490%	92.998%
x		76.257%	0.492	0.114	0.106	34.370	34.350	90.328%	92.593%
σ		0.710%	0.076	0.029	0.040	0.142	0.210	0.483%	0.864%
%RSD		0.931	15.380	25.410	37.910	0.412	0.611	0.535	0.933

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:10	0.048	0.042	1.344	1.229	1.256	84.931%
2	11:10:29	0.050	0.049	1.361	1.238	1.278	83.804%
3	11:10:48	0.053	0.050	1.326	1.210	1.270	85.121%
x		0.050	0.047	1.343	1.226	1.268	84.619%
σ		0.002	0.004	0.017	0.014	0.011	0.712%
%RSD		4.318	9.208	1.287	1.164	0.899	0.841

180-45088-B-7-A 6/19/2015 11:13:38 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:13:57	45.412%	0.034	204.300	211.700	0.000	56930.000	11970.000	11980.000
2	11:14:16	41.212%	0.084	193.000	202.800	0.000	55390.000	11850.000	11860.000
3	11:14:35	41.460%	-0.005	202.400	197.000	0.000	54550.000	11280.000	11900.000
x		42.695%	0.038	199.900	203.800	0.000	55620.000	11700.000	11910.000
σ		2.357%	0.044	6.023	7.426	0.000	1206.000	368.800	59.010
%RSD		5.520	117.800	3.013	3.643	0.000	2.168	3.151	0.496
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:13:57	7.820	3118.000	0.000	18510.000	66360.000	71190.000	47.822%	2.053
2	11:14:16	7.895	2888.000	0.000	18270.000	66660.000	72600.000	44.561%	1.806
3	11:14:35	7.966	3060.000	0.000	18300.000	65280.000	72900.000	44.744%	2.077
x		7.894	3022.000	0.000	18360.000	66100.000	72230.000	45.709%	1.979
σ		0.073	119.600	0.000	129.500	728.900	912.400	1.833%	0.150
%RSD		0.926	3.958	0.000	0.706	1.103	1.263	4.009	7.583
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:13:57	-0.922	1.291	14.550	354.500	393.400	0.431	17.170	2.305
2	11:14:16	-1.734	1.343	15.010	369.100	414.200	0.483	18.670	2.473
3	11:14:35	0.430	1.314	14.300	349.500	406.000	0.404	16.650	2.238
x		-0.742	1.316	14.620	357.700	404.500	0.439	17.500	2.339
σ		1.093	0.026	0.364	10.220	10.450	0.040	1.049	0.121
%RSD		147.300	1.968	2.489	2.856	2.583	9.076	5.997	5.188
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:13:57	1.953	26.850	26.180	-0.300	0.230	0.573	0.000	153.500
2	11:14:16	2.202	27.030	27.090	-0.224	-0.051	0.691	0.000	157.200
3	11:14:35	2.001	26.530	25.330	-0.787	-0.005	0.622	0.000	156.000
x		2.052	26.800	26.200	-0.437	0.058	0.629	0.000	155.600
σ		0.132	0.250	0.877	0.305	0.151	0.059	0.000	1.895
%RSD		6.438	0.933	3.347	69.870	260.500	9.404	0.000	1.218
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:13:57	66.355%	18.470	19.700	66.229%	-0.009	-0.017	-0.066	-0.034
2	11:14:16	65.386%	19.190	19.890	65.172%	-0.015	-0.003	-0.090	-0.059
3	11:14:35	65.508%	19.580	19.800	65.336%	-0.006	-0.002	-0.050	-0.022
x		65.750%	19.080	19.800	65.579%	-0.010	-0.007	-0.069	-0.038
σ		0.527%	0.565	0.097	0.569%	0.005	0.008	0.020	0.019
%RSD		0.802	2.960	0.489	0.868	47.040	116.400	29.500	48.790
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:13:57	74.608%	0.738	0.394	0.373	18.290	17.710	87.954%	89.702%
2	11:14:16	74.373%	0.917	0.440	0.432	18.120	18.380	88.699%	91.328%
3	11:14:35	74.558%	0.870	0.418	0.445	18.050	18.350	90.554%	92.564%
x		74.513%	0.842	0.417	0.416	18.150	18.150	89.069%	91.198%
σ		0.124%	0.093	0.023	0.039	0.123	0.376	1.339%	1.435%
%RSD		0.166	11.060	5.443	9.259	0.675	2.070	1.503	1.574
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:13:57	0.032	0.030	0.661	0.638	0.649	81.736%		
2	11:14:16	0.037	0.040	0.710	0.652	0.675	81.935%		
3	11:14:35	0.030	0.038	0.722	0.666	0.679	82.761%		
x		0.033	0.036	0.698	0.652	0.668	82.144%		
σ		0.003	0.005	0.032	0.014	0.016	0.544%		
%RSD		10.300	15.250	4.600	2.097	2.447	0.662		

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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	11:17:44	47.294%	0.031	24.870	22.400	0.000	27410.000	8174.000	8426.000
2	11:18:03	42.633%	-0.026	21.110	23.020	0.000	29030.000	8809.000	9094.000
3	11:18:23	42.878%	0.059	22.210	21.760	0.000	28180.000	8795.000	8604.000
x		44.268%	0.021	22.730	22.400	0.000	28210.000	8593.000	8708.000
σ		2.623%	0.044	1.937	0.633	0.000	810.600	362.800	346.200
%RSD		5.925	204.400	8.524	2.825	0.000	2.874	4.222	3.976

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:44	215.400	2132.000	0.000	5463.000	43080.000	46970.000	47.838%	4.979
2	11:18:03	244.100	2187.000	0.000	5433.000	43950.000	46460.000	44.057%	4.979
3	11:18:23	222.000	2027.000	0.000	5534.000	44920.000	47940.000	39.640%	4.452
x		227.200	2115.000	0.000	5477.000	43980.000	47120.000	43.845%	4.804
σ		15.020	81.090	0.000	51.730	916.000	749.800	4.103%	0.304
%RSD		6.613	3.833	0.000	0.945	2.083	1.591	9.358	6.332

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:44	0.743	1.271	66.410	460.900	470.500	0.474	0.684	3.399
2	11:18:03	0.458	1.332	68.090	466.200	471.800	0.519	0.782	3.365
3	11:18:23	1.085	1.415	72.730	511.800	512.600	0.468	0.856	3.416
x		0.762	1.339	69.080	479.600	485.000	0.487	0.774	3.393
σ		0.314	0.072	3.271	27.980	23.920	0.028	0.086	0.026
%RSD		41.140	5.398	4.735	5.835	4.933	5.699	11.140	0.772

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:44	3.072	10.830	11.480	0.403	-0.060	0.569	0.000	119.600
2	11:18:03	3.199	11.420	12.270	-0.028	0.307	0.418	0.000	119.600
3	11:18:23	3.206	12.110	12.700	0.401	0.205	0.319	0.000	120.700
x		3.159	11.450	12.150	0.259	0.151	0.435	0.000	120.000
σ		0.075	0.639	0.622	0.248	0.189	0.126	0.000	0.624
%RSD		2.388	5.582	5.118	96.020	125.400	28.930	0.000	0.520

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:44	67.524%	5.145	5.116	67.173%	-0.021	-0.012	-0.084	-0.024
2	11:18:03	66.253%	5.044	5.124	66.614%	-0.015	-0.013	-0.021	-0.016
3	11:18:23	66.165%	5.203	5.269	64.896%	-0.014	-0.012	-0.077	-0.036
x		66.648%	5.131	5.170	66.228%	-0.017	-0.012	-0.061	-0.026
σ		0.761%	0.081	0.086	1.187%	0.004	0.001	0.034	0.010
%RSD		1.141	1.569	1.669	1.792	22.580	4.347	56.550	39.280

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:44	75.645%	0.353	0.177	0.176	39.380	39.000	89.202%	90.594%
2	11:18:03	74.599%	0.514	0.204	0.189	38.470	39.040	88.938%	91.351%
3	11:18:23	73.272%	0.584	0.245	0.251	38.760	40.070	90.165%	92.214%
x		74.505%	0.484	0.209	0.205	38.870	39.370	89.435%	91.386%
σ		1.189%	0.118	0.034	0.040	0.467	0.608	0.646%	0.810%
%RSD		1.596	24.480	16.520	19.460	1.202	1.543	0.723	0.887

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:44	0.029	0.030	1.648	1.565	1.594	82.788%
2	11:18:03	0.032	0.031	1.758	1.630	1.662	82.977%
3	11:18:23	0.038	0.034	1.711	1.619	1.652	83.443%
x		0.033	0.032	1.706	1.605	1.636	83.069%
σ		0.005	0.002	0.055	0.035	0.036	0.337%
%RSD		14.620	5.672	3.251	2.165	2.218	0.406

180-45088-B-10-A 6/19/2015 11:21:13 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	11:21:32	51.465%	-0.009	18.610	20.770	0.000	28460.000	8523.000	8480.000
2	11:21:51	47.925%	-0.007	21.650	21.060	0.000	26760.000	8122.000	7978.000
3	11:22:11	43.412%	-0.006	20.970	21.990	0.000	29710.000	8599.000	8637.000
x		47.600%	-0.007	20.410	21.270	0.000	28310.000	8414.000	8365.000
σ		4.036%	0.002	1.599	0.636	0.000	1481.000	256.000	344.300
%RSD		8.480	21.880	7.835	2.990	0.000	5.233	3.042	4.115
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:32	119.500	2008.000	0.000	4998.000	40000.000	43250.000	48.462%	1.895
2	11:21:51	108.800	1893.000	0.000	4826.000	38820.000	42800.000	45.377%	2.065
3	11:22:11	114.500	2090.000	0.000	5248.000	40890.000	44600.000	45.794%	2.087
x		114.200	1997.000	0.000	5024.000	39900.000	43550.000	46.544%	2.016
σ		5.343	99.030	0.000	211.900	1035.000	935.100	1.674%	0.105
%RSD		4.677	4.960	0.000	4.218	2.593	2.147	3.597	5.213
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:32	1.166	0.446	57.060	236.900	271.500	0.374	0.601	3.424
2	11:21:51	0.752	0.541	58.220	251.800	274.000	0.372	0.383	3.340
3	11:22:11	1.728	0.542	54.850	229.200	259.000	0.335	0.397	3.169
x		1.215	0.509	56.710	239.300	268.100	0.360	0.461	3.311
σ		0.490	0.055	1.710	11.470	8.024	0.022	0.122	0.130
%RSD		40.310	10.860	3.016	4.794	2.992	6.119	26.470	3.924
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:32	3.426	9.591	9.053	-0.306	0.037	0.515	0.000	112.600
2	11:21:51	3.256	9.483	9.111	0.455	0.076	0.469	0.000	112.800
3	11:22:11	3.170	8.948	8.885	0.500	-0.040	0.366	0.000	112.900
x		3.284	9.341	9.016	0.216	0.024	0.450	0.000	112.800
σ		0.130	0.344	0.118	0.453	0.059	0.076	0.000	0.156
%RSD		3.971	3.687	1.305	209.200	245.100	16.960	0.000	0.138
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:32	68.270%	2.525	2.426	69.238%	-0.018	-0.014	-0.038	-0.030
2	11:21:51	67.934%	2.787	2.708	68.938%	-0.016	-0.003	-0.073	-0.039
3	11:22:11	66.385%	2.776	2.736	67.730%	-0.016	-0.011	-0.051	-0.030
x		67.530%	2.696	2.623	68.635%	-0.016	-0.009	-0.054	-0.033
σ		1.006%	0.148	0.172	0.798%	0.001	0.006	0.018	0.005
%RSD		1.489	5.504	6.541	1.163	6.268	58.870	32.960	15.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:32	77.053%	0.155	0.093	0.067	35.270	35.790	90.295%	91.942%
2	11:21:51	77.077%	0.178	0.113	0.058	36.080	35.320	91.191%	93.513%
3	11:22:11	76.454%	0.241	0.098	0.081	35.940	36.260	92.067%	93.780%
x		76.861%	0.191	0.101	0.069	35.760	35.790	91.184%	93.079%
σ		0.353%	0.045	0.010	0.011	0.431	0.471	0.886%	0.993%
%RSD		0.459	23.340	10.350	16.510	1.205	1.318	0.972	1.067
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:21:32	0.020	0.021	1.356	1.319	1.307	85.353%		
2	11:21:51	0.024	0.021	1.360	1.257	1.310	85.823%		
3	11:22:11	0.024	0.021	1.343	1.258	1.301	86.929%		
x		0.022	0.021	1.353	1.278	1.306	86.035%		
σ		0.003	0.000	0.009	0.036	0.005	0.809%		
%RSD		11.220	0.737	0.664	2.802	0.357	0.941		

CCV 1594026 6/19/2015 11:25:08 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	11:25:08	87.320%	101.100	93.370	97.540	0.000	47140.000	47670.000	48060.000
2	11:25:28	88.297%	104.100	98.930	103.400	0.000	48880.000	49780.000	48830.000
3	11:25:47	82.529%	104.700	98.330	103.000	0.000	49900.000	50880.000	50200.000
x		86.049%	103.302%	96.879%	101.325%	0.000	97.282%	98.887%	98.053%
σ		3.087%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.588	1.847	3.150	3.244	0.000	2.873	3.299	2.212
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:08	483.000	4874.000	0.000	47990.000	45390.000	47430.000	102.449%	91.860
2	11:25:28	485.200	4920.000	0.000	48990.000	47260.000	50010.000	95.406%	94.990
3	11:25:47	498.900	4977.000	0.000	50680.000	47160.000	49890.000	97.059%	95.140
x		97.808%	98.475%	0.000	98.435%	93.210%	98.220%	98.305%	93.995%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.683%	n/a
%RSD		1.765	1.041	0.000	2.769	2.254	2.968	3.746	1.973
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:08	91.880	93.540	471.500	23560.000	23280.000	90.170	90.570	92.100
2	11:25:28	95.490	95.470	498.400	24890.000	24960.000	98.200	98.000	97.320
3	11:25:47	94.100	94.160	494.600	24610.000	24910.000	94.260	94.350	97.100
x		93.821%	94.391%	97.630%	97.409%	97.544%	94.210%	94.309%	95.505%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.943	1.042	2.986	2.890	3.930	4.265	3.941	3.094
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:08	92.380	97.810	97.960	96.870	104.500	103.300	0.000	93.910
2	11:25:28	97.880	103.200	102.300	99.200	102.000	103.100	0.000	95.180
3	11:25:47	96.640	102.200	103.500	101.100	103.700	105.600	0.000	95.990
x		95.632%	101.079%	101.242%	99.048%	103.373%	104.014%	0.000	95.027%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.019	2.846	2.866	2.121	1.235	1.300	0.000	1.105
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:08	94.549%	89.030	90.090	90.796%	97.050	98.430	99.140	98.580
2	11:25:28	97.290%	91.070	92.190	92.839%	98.700	99.360	101.300	100.900
3	11:25:47	97.179%	92.150	93.260	93.269%	98.390	98.750	100.700	100.500
x		96.339%	90.749%	91.846%	92.301%	98.048%	98.848%	100.363%	100.006%
σ		1.552%	n/a	n/a	1.321%	n/a	n/a	n/a	n/a
%RSD		1.611	1.746	1.758	1.431	0.892	0.475	1.099	1.253
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:08	96.263%	94.200	89.380	89.900	95.120	95.520	98.975%	98.890%
2	11:25:28	96.755%	96.070	92.690	93.500	96.560	97.850	101.198%	101.484%
3	11:25:47	97.882%	95.790	91.260	92.220	97.420	98.020	102.354%	102.289%
x		96.967%	95.355%	91.111%	91.870%	96.367%	97.132%	100.842%	100.888%
σ		0.830%	n/a	n/a	n/a	n/a	n/a	1.717%	1.777%
%RSD		0.856	1.063	1.822	1.984	1.207	1.437	1.703	1.761
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:25:08	103.900	104.800	103.900	104.000	105.000	87.575%		
2	11:25:28	107.400	108.600	107.700	106.700	108.100	86.593%		
3	11:25:47	107.900	108.700	108.900	107.800	108.900	88.768%		
x		106.404%	107.373%	106.861%	106.164%	107.345%	87.646%		
σ		n/a	n/a	n/a	n/a	n/a	1.089%		
%RSD		2.057	2.047	2.433	1.824	1.898	1.243		

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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	11:32:07	109.902%	0.023	0.347	0.269	0.000	5.991	0.725	0.766
2	11:32:26	109.283%	0.024	0.093	0.199	0.000	5.849	0.491	0.586
3	11:32:45	107.351%	-0.018	0.099	0.232	0.000	5.643	0.325	0.663
x		108.845%	0.010	0.180	0.233	0.000	5.828	0.513	0.672
σ		1.331%	0.024	0.145	0.035	0.000	0.175	0.201	0.090
%RSD		1.223	247.100	80.890	14.930	0.000	2.998	39.120	13.400

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:07	2.524	-9.265	0.000	4.247	15.110	14.090	113.956%	-0.030
2	11:32:26	2.282	-10.240	0.000	4.562	17.720	13.350	107.009%	-0.000
3	11:32:45	2.317	-10.510	0.000	5.125	19.760	14.110	104.463%	0.019
x		2.374	-10.010	0.000	4.645	17.530	13.850	108.476%	-0.003
σ		0.131	0.656	0.000	0.445	2.331	0.432	4.914%	0.025
%RSD		5.512	6.552	0.000	9.581	13.300	3.121	4.530	702.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:07	0.029	-0.003	0.039	2.216	2.807	0.003	0.060	0.148
2	11:32:26	0.029	-0.006	0.041	4.210	2.789	0.001	0.065	0.163
3	11:32:45	0.011	-0.007	0.037	2.655	2.482	0.000	0.085	0.191
x		0.023	-0.005	0.039	3.027	2.692	0.002	0.070	0.168
σ		0.011	0.002	0.002	1.047	0.182	0.002	0.013	0.022
%RSD		46.150	39.270	5.952	34.600	6.774	100.000	19.170	12.960

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:07	0.173	1.415	1.565	-0.034	0.273	0.096	0.000	0.017
2	11:32:26	0.153	1.337	1.516	0.105	0.492	0.351	0.000	0.017
3	11:32:45	0.193	1.491	1.603	0.056	0.406	0.402	0.000	0.015
x		0.173	1.414	1.561	0.042	0.390	0.283	0.000	0.016
σ		0.020	0.077	0.044	0.070	0.111	0.164	0.000	0.001
%RSD		11.380	5.442	2.802	167.000	28.320	57.970	0.000	8.259

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:07	104.587%	-0.066	-0.034	107.131%	-0.003	-0.004	-0.008	0.021
2	11:32:26	104.647%	0.219	0.290	106.181%	-0.010	-0.000	0.013	0.025
3	11:32:45	105.213%	0.344	0.338	106.923%	-0.007	0.002	-0.021	0.000
x		104.816%	0.166	0.198	106.745%	-0.007	-0.001	-0.005	0.015
σ		0.345%	0.210	0.202	0.499%	0.003	0.003	0.017	0.013
%RSD		0.329	126.700	102.100	0.468	47.500	313.900	336.100	86.060

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:07	104.889%	-0.744	0.551	0.598	0.032	0.046	104.590%	103.889%
2	11:32:26	105.684%	-0.658	0.665	0.637	0.017	0.048	106.312%	105.564%
3	11:32:45	107.000%	-0.595	0.690	0.659	0.019	0.033	107.027%	105.613%
x		105.858%	-0.666	0.635	0.631	0.022	0.042	105.976%	105.022%
σ		1.066%	0.075	0.074	0.031	0.008	0.008	1.253%	0.982%
%RSD		1.007	11.190	11.660	4.875	35.730	19.160	1.182	0.935

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:07	0.019	0.012	0.021	0.017	0.022	101.901%
2	11:32:26	0.017	0.014	0.021	0.024	0.023	102.345%
3	11:32:45	0.017	0.015	0.025	0.022	0.027	100.387%
x		0.018	0.014	0.022	0.021	0.024	101.544%
σ		0.001	0.002	0.002	0.004	0.003	1.027%
%RSD		7.650	14.180	9.866	17.770	11.090	1.011

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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	11:35:57	53.200%	-0.026	43.620	45.530	0.000	55690.000	17630.000	17830.000
2	11:36:16	56.452%	-0.026	47.660	47.080	0.000	64650.000	19990.000	20000.000
3	11:36:35	56.171%	-0.026	42.930	45.520	0.000	59710.000	18270.000	18200.000
x		55.274%	-0.026	44.740	46.040	0.000	60010.000	18630.000	18680.000
σ		1.802%	0.000	2.551	0.898	0.000	4485.000	1221.000	1162.000
%RSD		3.261	0.000	5.702	1.949	0.000	7.474	6.554	6.219
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:57	6.517	3655.000	0.000	5734.000	93050.000	99750.000	55.699%	0.453
2	11:36:16	7.743	3977.000	0.000	6154.000	97100.000	105400.000	53.785%	0.290
3	11:36:35	6.804	3566.000	0.000	5960.000	95090.000	104200.000	49.456%	0.683
x		7.021	3733.000	0.000	5949.000	95080.000	103100.000	52.980%	0.475
σ		0.641	216.400	0.000	210.000	2026.000	2978.000	3.198%	0.198
%RSD		9.131	5.798	0.000	3.529	2.131	2.888	6.037	41.570
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:57	-1.152	4.471	21.240	19.090	94.930	0.149	-0.325	0.908
2	11:36:16	-1.842	4.491	22.970	21.460	97.210	0.156	-0.269	1.087
3	11:36:35	0.282	4.713	23.600	23.330	109.500	0.151	-0.231	1.165
x		-0.904	4.558	22.600	21.290	100.600	0.152	-0.275	1.053
σ		1.083	0.135	1.223	2.128	7.858	0.003	0.047	0.132
%RSD		119.900	2.953	5.411	9.994	7.814	2.200	17.050	12.510
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:57	0.714	5.011	4.982	0.181	0.676	1.066	0.000	207.500
2	11:36:16	0.720	4.952	4.700	0.386	0.718	0.728	0.000	208.200
3	11:36:35	0.673	5.015	5.051	0.355	0.700	0.916	0.000	207.600
x		0.703	4.993	4.911	0.308	0.698	0.903	0.000	207.700
σ		0.025	0.035	0.186	0.111	0.021	0.169	0.000	0.357
%RSD		3.610	0.705	3.779	35.950	2.976	18.730	0.000	0.172
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:57	71.133%	8.266	8.646	68.907%	-0.005	-0.010	-0.047	-0.039
2	11:36:16	68.363%	8.792	9.150	67.285%	-0.003	-0.004	-0.104	-0.073
3	11:36:35	68.359%	8.555	8.856	66.433%	-0.017	-0.008	-0.088	-0.067
x		69.285%	8.538	8.884	67.542%	-0.009	-0.008	-0.080	-0.059
σ		1.600%	0.263	0.253	1.257%	0.007	0.003	0.029	0.018
%RSD		2.310	3.086	2.848	1.861	86.580	42.550	36.660	30.530
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:57	76.916%	0.387	2.075	2.043	44.390	44.330	90.673%	91.397%
2	11:36:16	73.305%	0.516	2.038	1.974	44.760	44.440	84.689%	86.789%
3	11:36:35	73.225%	0.508	1.791	1.779	44.520	44.510	84.881%	86.243%
x		74.482%	0.470	1.968	1.932	44.550	44.420	86.747%	88.143%
σ		2.108%	0.073	0.155	0.137	0.187	0.091	3.401%	2.831%
%RSD		2.831	15.420	7.856	7.065	0.419	0.204	3.920	3.212
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:35:57	0.029	0.029	0.154	0.145	0.147	80.870%		
2	11:36:16	0.032	0.030	0.140	0.133	0.141	76.247%		
3	11:36:35	0.019	0.030	0.155	0.138	0.142	75.710%		
x		0.027	0.029	0.149	0.139	0.143	77.609%		
σ		0.007	0.001	0.009	0.006	0.003	2.837%		
%RSD		25.260	2.111	5.756	4.301	2.108	3.655		

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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	11:39:45	86.865%	0.005	9.687	9.244	0.000	11830.000	3654.000	3785.000
2	11:40:04	82.757%	0.040	7.851	9.434	0.000	11390.000	3658.000	3734.000
3	11:40:24	73.799%	-0.014	7.524	9.212	0.000	12000.000	3755.000	3807.000
x		81.140%	0.010	8.354	9.297	0.000	11740.000	3689.000	3775.000
σ		6.681%	0.027	1.166	0.120	0.000	315.000	56.850	37.150
%RSD		8.234	265.900	13.960	1.291	0.000	2.684	1.541	0.984

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:45	2.547	760.400	0.000	1135.000	17710.000	18440.000	83.209%	0.135
2	11:40:04	2.770	770.800	0.000	1151.000	17310.000	18500.000	81.048%	0.096
3	11:40:24	2.830	805.100	0.000	1154.000	17750.000	18670.000	78.171%	0.080
x		2.716	778.800	0.000	1147.000	17590.000	18540.000	80.809%	0.104
σ		0.149	23.370	0.000	10.260	240.900	116.300	2.528%	0.028
%RSD		5.500	3.000	0.000	0.895	1.370	0.627	3.128	27.320

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:45	-0.124	0.946	4.241	11.820	21.100	0.022	0.049	0.375
2	11:40:04	-0.154	0.930	4.340	3.345	21.530	0.034	0.007	0.389
3	11:40:24	0.021	0.930	4.445	3.366	19.680	0.025	0.008	0.374
x		-0.085	0.935	4.342	6.178	20.770	0.027	0.021	0.380
σ		0.094	0.009	0.102	4.890	0.971	0.007	0.024	0.009
%RSD		109.500	0.949	2.353	79.140	4.674	24.340	113.300	2.259

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:45	0.320	2.163	2.337	-0.203	-0.087	0.102	0.000	39.830
2	11:40:04	0.308	2.166	2.312	-0.123	-0.151	0.225	0.000	40.130
3	11:40:24	0.333	2.139	2.447	-0.170	-0.018	0.068	0.000	40.000
x		0.320	2.156	2.365	-0.165	-0.085	0.132	0.000	39.980
σ		0.012	0.015	0.072	0.040	0.067	0.083	0.000	0.150
%RSD		3.862	0.681	3.037	24.310	78.480	62.770	0.000	0.376

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:45	81.771%	0.802	0.835	82.421%	-0.017	-0.017	-0.040	-0.026
2	11:40:04	82.131%	1.047	1.022	82.710%	-0.013	-0.011	-0.005	-0.016
3	11:40:24	81.483%	1.048	0.950	81.902%	-0.018	-0.016	-0.029	-0.014
x		81.795%	0.966	0.936	82.344%	-0.016	-0.014	-0.025	-0.019
σ		0.325%	0.142	0.095	0.409%	0.003	0.003	0.018	0.006
%RSD		0.397	14.690	10.120	0.497	16.030	23.600	73.730	33.980

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:45	85.033%	-0.227	-0.190	-0.236	8.707	8.951	88.675%	89.290%
2	11:40:04	85.325%	-0.154	-0.214	-0.240	8.878	8.702	90.216%	90.606%
3	11:40:24	84.875%	-0.158	-0.201	-0.184	8.766	8.874	89.579%	90.391%
x		85.078%	-0.180	-0.202	-0.220	8.784	8.843	89.490%	90.096%
σ		0.228%	0.041	0.012	0.031	0.087	0.127	0.774%	0.706%
%RSD		0.268	23.080	5.996	14.230	0.989	1.441	0.865	0.784

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:45	-0.003	-0.001	0.049	0.043	0.049	86.823%
2	11:40:04	0.004	0.001	0.048	0.049	0.049	84.976%
3	11:40:24	0.001	0.003	0.059	0.050	0.053	85.545%
x		0.001	0.001	0.052	0.047	0.050	85.781%
σ		0.004	0.002	0.006	0.004	0.002	0.946%
%RSD		476.500	169.300	11.340	7.646	4.646	1.103

180-45088-B-11-B MS 6/19/2015 11:43:15 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	11:43:34	56.231%	49.390	963.100	1030.000	0.000	106100.000	63740.000	62880.000
2	11:43:53	56.307%	46.110	967.800	1023.000	0.000	108200.000	64760.000	63460.000
3	11:44:13	51.590%	46.610	990.000	1036.000	0.000	106200.000	64120.000	64690.000
x		54.709%	47.370	973.600	1030.000	0.000	106800.000	64210.000	63680.000
σ		2.702%	1.763	14.350	6.104	0.000	1162.000	513.000	921.200
%RSD		4.938	3.722	1.474	0.593	0.000	1.088	0.799	1.447

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:43:34	1818.000	12740.000	0.000	54970.000	145400.000	153500.000	53.810%	1004.000
2	11:43:53	1817.000	12480.000	0.000	56330.000	154100.000	156200.000	51.927%	1007.000
3	11:44:13	1925.000	13020.000	0.000	55670.000	144400.000	158300.000	52.049%	997.000
x		1853.000	12750.000	0.000	55660.000	148000.000	156000.000	52.595%	1003.000
σ		61.780	265.300	0.000	676.200	5314.000	2365.000	1.054%	5.270
%RSD		3.333	2.081	0.000	1.215	3.591	1.516	2.003	0.526

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:43:34	520.400	203.400	533.800	1052.000	1090.000	501.600	478.200	235.500
2	11:43:53	528.300	205.500	552.500	1069.000	1140.000	503.300	477.100	237.200
3	11:44:13	511.800	197.800	529.600	1024.000	1055.000	478.900	446.300	224.000
x		520.200	202.200	538.600	1048.000	1095.000	494.600	467.200	232.200
σ		8.222	4.010	12.200	22.700	42.650	13.660	18.120	7.150
%RSD		1.581	1.983	2.265	2.166	3.894	2.761	3.879	3.079

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:43:34	237.100	476.300	468.900	35.720	10.040	10.220	0.000	1176.000
2	11:43:53	240.400	473.400	472.700	35.530	9.946	10.110	0.000	1174.000
3	11:44:13	232.100	470.100	462.900	36.720	9.800	10.050	0.000	1184.000
x		236.500	473.200	468.200	35.990	9.928	10.130	0.000	1178.000
σ		4.154	3.083	4.961	0.640	0.120	0.083	0.000	4.913
%RSD		1.756	0.651	1.060	1.777	1.209	0.817	0.000	0.417

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:43:34	68.703%	1070.000	1192.000	65.265%	47.080	47.060	48.660	41.680
2	11:43:53	67.788%	1072.000	1202.000	63.923%	47.190	47.290	48.010	41.270
3	11:44:13	66.431%	1069.000	1207.000	64.412%	46.940	47.340	48.130	40.520
x		67.640%	1070.000	1200.000	64.533%	47.070	47.230	48.270	41.160
σ		1.143%	1.457	7.467	0.679%	0.126	0.151	0.348	0.587
%RSD		1.690	0.136	0.622	1.052	0.267	0.319	0.722	1.425

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:43:34	70.558%	1929.000	502.200	496.300	1940.000	1906.000	82.935%	84.157%
2	11:43:53	69.768%	1937.000	499.300	492.800	1940.000	1900.000	81.602%	83.182%
3	11:44:13	69.733%	1932.000	498.200	491.000	1941.000	1898.000	82.536%	83.573%
x		70.020%	1933.000	499.900	493.400	1940.000	1901.000	82.358%	83.637%
σ		0.466%	4.014	2.057	2.736	0.769	4.357	0.684%	0.491%
%RSD		0.666	0.208	0.412	0.555	0.040	0.229	0.831	0.587

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:43:34	52.790	53.360	22.160	21.940	22.180	69.859%
2	11:43:53	53.590	53.910	22.710	22.400	22.550	69.145%
3	11:44:13	53.830	54.080	22.630	22.470	22.510	70.111%
x		53.400	53.790	22.500	22.270	22.410	69.705%
σ		0.543	0.377	0.293	0.291	0.206	0.501%
%RSD		1.017	0.701	1.304	1.306	0.919	0.719

180-45088-B-11-C MSD 6/19/2015 11:47:04 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	11:47:23	50.789%	48.280	965.100	972.500	0.000	101000.000	61820.000	61530.000
2	11:47:42	49.295%	47.830	989.700	994.500	0.000	104100.000	62750.000	61240.000
3	11:48:01	52.631%	48.010	996.600	989.800	0.000	102400.000	62090.000	62750.000
x		50.905%	48.040	983.800	985.600	0.000	102500.000	62220.000	61840.000
σ		1.671%	0.224	16.570	11.550	0.000	1531.000	478.000	802.300
%RSD		3.283	0.466	1.685	1.172	0.000	1.494	0.768	1.297

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:23	1788.000	12060.000	0.000	55220.000	153500.000	158700.000	53.594%	1024.000
2	11:47:42	1810.000	12090.000	0.000	55470.000	148700.000	160100.000	48.960%	1028.000
3	11:48:01	1794.000	12630.000	0.000	57040.000	150200.000	158700.000	49.621%	1018.000
x		1797.000	12260.000	0.000	55910.000	150800.000	159200.000	50.725%	1023.000
σ		11.380	320.400	0.000	988.800	2416.000	783.100	2.506%	4.900
%RSD		0.633	2.613	0.000	1.769	1.602	0.492	4.941	0.479

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:23	531.500	207.400	554.300	1078.000	1127.000	498.100	472.900	229.700
2	11:47:42	497.200	198.100	563.500	1061.000	1105.000	492.300	462.200	226.700
3	11:48:01	542.500	209.300	565.500	1096.000	1164.000	515.800	488.900	240.300
x		523.700	204.900	561.100	1079.000	1132.000	502.100	474.700	232.200
σ		23.640	5.967	5.985	17.680	29.850	12.250	13.400	7.161
%RSD		4.513	2.912	1.067	1.640	2.638	2.440	2.824	3.083

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:23	237.100	476.800	475.200	36.360	10.150	10.970	0.000	1207.000
2	11:47:42	229.000	480.200	479.500	36.070	10.250	10.760	0.000	1219.000
3	11:48:01	241.200	481.200	478.800	36.860	10.430	11.040	0.000	1214.000
x		235.800	479.400	477.900	36.430	10.280	10.920	0.000	1213.000
σ		6.207	2.310	2.306	0.397	0.145	0.142	0.000	6.074
%RSD		2.632	0.482	0.483	1.089	1.408	1.297	0.000	0.501

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:23	69.116%	1088.000	1223.000	65.926%	47.480	47.550	49.850	42.040
2	11:47:42	67.200%	1089.000	1226.000	64.453%	47.540	47.770	49.070	42.050
3	11:48:01	65.912%	1096.000	1226.000	63.040%	47.230	47.780	48.720	40.460
x		67.409%	1091.000	1225.000	64.473%	47.420	47.700	49.210	41.520
σ		1.612%	4.489	1.272	1.443%	0.169	0.132	0.580	0.917
%RSD		2.392	0.411	0.104	2.239	0.356	0.277	1.178	2.210

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:23	73.472%	1955.000	500.200	486.300	1959.000	1924.000	86.419%	87.735%
2	11:47:42	72.916%	1961.000	507.100	503.400	1985.000	1928.000	87.622%	89.242%
3	11:48:01	69.705%	1972.000	505.300	494.900	1964.000	1915.000	82.783%	84.112%
x		72.031%	1963.000	504.200	494.900	1969.000	1922.000	85.608%	87.029%
σ		2.033%	8.758	3.577	8.572	13.600	6.441	2.519%	2.636%
%RSD		2.823	0.446	0.710	1.732	0.691	0.335	2.942	3.029

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:23	52.800	53.350	22.270	22.220	22.440	74.718%
2	11:47:42	53.880	53.950	22.370	22.580	22.530	76.047%
3	11:48:01	54.340	54.910	22.810	22.820	22.790	70.762%
x		53.670	54.070	22.480	22.540	22.590	73.842%
σ		0.787	0.786	0.288	0.303	0.180	2.749%
%RSD		1.467	1.453	1.281	1.344	0.798	3.723

180-45088-B-11-A PDS 6/19/2015 11:50:53 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	55.527%	51.460	1027.000	1106.000	0.000	113500.000	68570.000	67390.000
2	11:51:32	48.966%	52.950	1031.000	1024.000	0.000	105600.000	62420.000	61950.000
3	11:51:52	41.939%	49.260	1015.000	1031.000	0.000	103500.000	64180.000	66260.000
x		48.810%	51.220	1024.000	1054.000	0.000	107500.000	65060.000	65200.000
σ		6.795%	1.855	8.444	45.240	0.000	5253.000	3166.000	2868.000
%RSD		13.922	3.621	0.824	4.294	0.000	4.885	4.866	4.398

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	2002.000	13720.000	0.000	58630.000	147900.000	158300.000	55.688%	1097.000
2	11:51:32	1850.000	12460.000	0.000	58120.000	147600.000	159500.000	48.524%	1091.000
3	11:51:52	1989.000	12990.000	0.000	57820.000	143600.000	157900.000	48.898%	1064.000
x		1947.000	13060.000	0.000	58190.000	146400.000	158600.000	51.037%	1084.000
σ		84.400	631.100	0.000	410.000	2400.000	808.300	4.032%	17.280
%RSD		4.335	4.834	0.000	0.705	1.640	0.510	7.901	1.594

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	556.700	213.400	572.100	1109.000	1195.000	542.500	512.100	245.700
2	11:51:32	580.300	222.600	605.300	1189.000	1224.000	561.800	516.300	252.600
3	11:51:52	518.000	207.000	563.300	1078.000	1144.000	486.000	461.500	226.300
x		551.700	214.300	580.200	1126.000	1188.000	530.100	496.700	241.500
σ		31.440	7.822	22.110	57.430	40.290	39.420	30.490	13.600
%RSD		5.699	3.650	3.811	5.102	3.392	7.436	6.139	5.633

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	246.200	497.500	491.000	37.970	10.790	11.520	0.000	1247.000
2	11:51:32	252.800	518.700	517.900	39.720	10.940	11.570	0.000	1265.000
3	11:51:52	231.700	494.400	495.600	37.840	10.830	10.650	0.000	1262.000
x		243.600	503.500	501.500	38.510	10.860	11.240	0.000	1258.000
σ		10.810	13.230	14.370	1.047	0.078	0.520	0.000	9.269
%RSD		4.438	2.628	2.865	2.718	0.719	4.622	0.000	0.737

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	67.034%	1137.000	1279.000	64.089%	43.270	43.300	51.550	43.300
2	11:51:32	67.959%	1130.000	1275.000	64.394%	42.490	43.030	51.030	44.100
3	11:51:52	66.435%	1129.000	1278.000	63.548%	42.750	43.080	51.740	43.340
x		67.143%	1132.000	1278.000	64.010%	42.840	43.140	51.440	43.580
σ		0.768%	4.283	2.197	0.428%	0.398	0.144	0.367	0.452
%RSD		1.143	0.378	0.172	0.669	0.929	0.333	0.713	1.037

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	69.352%	2093.000	532.700	520.700	2057.000	1999.000	80.645%	82.324%
2	11:51:32	72.160%	2101.000	547.100	533.900	2082.000	2036.000	87.284%	88.515%
3	11:51:52	71.691%	2104.000	538.500	528.100	2075.000	2035.000	87.251%	89.781%
x		71.068%	2099.000	539.400	527.600	2071.000	2023.000	85.060%	86.873%
σ		1.504%	5.875	7.257	6.603	12.990	20.720	3.824%	3.990%
%RSD		2.117	0.280	1.345	1.252	0.627	1.024	4.495	4.593

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:51:12	56.520	57.120	23.610	23.630	23.720	68.852%
2	11:51:32	57.960	58.230	23.670	24.000	23.830	73.480%
3	11:51:52	57.210	57.330	23.560	23.560	23.690	76.368%
x		57.230	57.560	23.610	23.730	23.740	72.900%
σ		0.724	0.593	0.054	0.237	0.072	3.791%
%RSD		1.265	1.030	0.229	0.999	0.305	5.201

180-45088-B-12-A 6/19/2015 11:54:42 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	11:55:01	64.149%	0.002	22.760	23.930	0.000	47590.000	10840.000	10630.000
2	11:55:21	57.975%	-0.011	22.500	23.160	0.000	49770.000	11210.000	11230.000
3	11:55:40	56.239%	-0.010	19.090	21.590	0.000	48320.000	10560.000	10930.000
x		59.454%	-0.006	21.450	22.890	0.000	48560.000	10870.000	10930.000
σ		4.158%	0.007	2.043	1.193	0.000	1113.000	325.900	296.600
%RSD		6.993	118.200	9.527	5.212	0.000	2.292	2.998	2.713

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:01	70.320	2020.000	0.000	2870.000	58700.000	61860.000	57.770%	1.615
2	11:55:21	70.820	2178.000	0.000	3045.000	60920.000	65860.000	53.321%	1.602
3	11:55:40	73.340	2167.000	0.000	3108.000	63120.000	68150.000	50.499%	2.579
x		71.490	2122.000	0.000	3008.000	60910.000	65290.000	53.863%	1.932
σ		1.617	88.080	0.000	123.000	2213.000	3181.000	3.666%	0.560
%RSD		2.262	4.151	0.000	4.090	3.633	4.873	6.806	29.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:01	-0.672	0.559	22.920	175.700	225.100	0.249	0.236	3.073
2	11:55:21	-0.019	0.592	24.330	176.200	226.000	0.260	0.062	3.084
3	11:55:40	-0.016	0.607	24.810	179.400	227.700	0.215	0.074	3.103
x		-0.236	0.586	24.020	177.100	226.300	0.241	0.124	3.087
σ		0.378	0.025	0.983	2.017	1.356	0.023	0.097	0.015
%RSD		160.100	4.184	4.090	1.139	0.599	9.611	78.100	0.486

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:01	2.844	6.049	6.088	-0.359	-0.108	0.346	0.000	186.100
2	11:55:21	2.655	6.377	6.118	0.294	0.000	0.548	0.000	187.600
3	11:55:40	2.836	6.507	6.294	-0.420	-0.099	0.442	0.000	189.300
x		2.778	6.311	6.167	-0.162	-0.069	0.445	0.000	187.600
σ		0.107	0.236	0.112	0.396	0.060	0.101	0.000	1.613
%RSD		3.864	3.745	1.811	244.600	87.390	22.610	0.000	0.860

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:01	69.402%	6.098	6.035	69.046%	-0.007	-0.003	-0.011	-0.006
2	11:55:21	68.154%	6.664	6.711	68.082%	-0.002	-0.008	-0.094	-0.045
3	11:55:40	67.488%	5.997	6.273	67.362%	-0.010	-0.006	-0.052	-0.024
x		68.348%	6.253	6.340	68.163%	-0.007	-0.006	-0.052	-0.025
σ		0.972%	0.359	0.343	0.845%	0.004	0.002	0.042	0.019
%RSD		1.422	5.748	5.412	1.239	60.410	39.870	80.200	78.240

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:01	74.047%	1.749	0.322	0.329	48.180	47.610	84.022%	85.379%
2	11:55:21	73.220%	1.713	0.329	0.319	47.610	48.040	83.927%	86.061%
3	11:55:40	73.164%	1.685	0.340	0.296	47.190	47.480	85.045%	86.353%
x		73.477%	1.716	0.331	0.314	47.660	47.710	84.331%	85.931%
σ		0.494%	0.032	0.009	0.017	0.498	0.292	0.620%	0.500%
%RSD		0.673	1.874	2.741	5.432	1.045	0.612	0.735	0.581

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:01	0.563	0.534	0.733	0.665	0.709	73.930%
2	11:55:21	0.517	0.491	0.757	0.664	0.695	75.176%
3	11:55:40	0.435	0.459	0.695	0.637	0.683	75.710%
x		0.505	0.495	0.728	0.655	0.696	74.939%
σ		0.065	0.038	0.032	0.016	0.013	0.913%
%RSD		12.810	7.643	4.358	2.452	1.853	1.219

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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	11:58:48	55.475%	-0.010	19.870	20.720	0.000	28930.000	9097.000	8850.000
2	11:59:07	48.287%	0.030	23.250	22.930	0.000	29290.000	8843.000	8685.000
3	11:59:26	47.602%	0.012	21.840	19.970	0.000	27840.000	8495.000	8453.000
x		50.454%	0.011	21.650	21.210	0.000	28690.000	8812.000	8663.000
σ		4.361%	0.020	1.698	1.541	0.000	755.000	302.300	199.500
%RSD		8.644	185.800	7.842	7.266	0.000	2.632	3.431	2.303

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:48	132.900	2216.000	0.000	4938.000	41780.000	45450.000	51.410%	2.374
2	11:59:07	141.600	2223.000	0.000	4909.000	41670.000	46620.000	47.413%	2.708
3	11:59:26	133.900	2098.000	0.000	5028.000	42870.000	46180.000	44.301%	2.618
x		136.100	2179.000	0.000	4958.000	42110.000	46090.000	47.708%	2.567
σ		4.779	70.410	0.000	61.700	667.200	591.900	3.564%	0.173
%RSD		3.511	3.231	0.000	1.244	1.585	1.284	7.469	6.736

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:48	1.024	0.605	96.470	340.600	361.000	0.431	0.599	4.643
2	11:59:07	0.658	0.632	100.800	356.100	377.500	0.437	0.681	4.618
3	11:59:26	2.105	0.685	99.360	347.300	370.000	0.493	0.541	4.643
x		1.263	0.641	98.870	348.000	369.500	0.454	0.607	4.635
σ		0.752	0.040	2.189	7.739	8.291	0.034	0.071	0.014
%RSD		59.590	6.308	2.214	2.224	2.244	7.475	11.640	0.313

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:48	4.514	9.980	10.580	0.229	0.048	0.473	0.000	100.700
2	11:59:07	4.545	11.150	10.790	-0.400	0.042	0.327	0.000	100.800
3	11:59:26	4.522	10.490	11.000	0.555	0.129	0.277	0.000	101.200
x		4.527	10.540	10.790	0.128	0.073	0.359	0.000	100.900
σ		0.016	0.587	0.212	0.485	0.048	0.102	0.000	0.269
%RSD		0.347	5.566	1.967	379.400	66.540	28.380	0.000	0.267

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:48	69.918%	1.899	1.919	69.511%	-0.015	-0.016	-0.063	-0.033
2	11:59:07	68.508%	2.328	2.387	67.819%	-0.016	-0.015	-0.092	-0.036
3	11:59:26	68.441%	2.420	2.383	67.379%	-0.012	-0.006	-0.074	-0.016
x		68.956%	2.216	2.230	68.236%	-0.014	-0.012	-0.076	-0.028
σ		0.834%	0.278	0.269	1.126%	0.002	0.005	0.015	0.011
%RSD		1.210	12.550	12.060	1.649	14.390	43.180	19.140	38.140

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:48	76.448%	0.528	0.086	0.087	34.350	34.880	89.923%	90.981%
2	11:59:07	75.634%	0.587	0.103	0.099	34.790	34.520	90.423%	92.332%
3	11:59:26	76.331%	0.589	0.143	0.117	34.550	34.210	90.482%	92.638%
x		76.138%	0.568	0.110	0.101	34.560	34.540	90.276%	91.984%
σ		0.440%	0.035	0.029	0.015	0.216	0.335	0.307%	0.882%
%RSD		0.578	6.131	26.540	14.710	0.625	0.970	0.340	0.959

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:48	0.185	0.185	1.819	1.680	1.749	80.245%
2	11:59:07	0.206	0.194	1.814	1.713	1.737	81.639%
3	11:59:26	0.184	0.193	1.771	1.639	1.695	83.687%
x		0.192	0.191	1.801	1.677	1.727	81.857%
σ		0.013	0.005	0.027	0.037	0.029	1.731%
%RSD		6.623	2.465	1.479	2.206	1.650	2.115

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	51.722%	0.044	131.200	132.900	0.000	43680.000	12120.000	12320.000
2	12:02:54	48.628%	0.011	128.100	132.400	0.000	44840.000	12390.000	12660.000
3	12:03:14	41.033%	0.106	143.000	149.500	0.000	46280.000	12770.000	13080.000
x		47.127%	0.054	134.100	138.300	0.000	44930.000	12430.000	12680.000
σ		5.500%	0.048	7.862	9.736	0.000	1303.000	324.200	380.800
%RSD		11.671	89.520	5.865	7.041	0.000	2.901	2.609	3.003

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	434.000	3095.000	0.000	12980.000	64180.000	68120.000	49.192%	8.722
2	12:02:54	475.800	3210.000	0.000	12570.000	62310.000	67440.000	48.218%	7.529
3	12:03:14	474.200	3262.000	0.000	13190.000	65230.000	71650.000	44.434%	8.445
x		461.300	3189.000	0.000	12910.000	63900.000	69070.000	47.281%	8.232
σ		23.650	85.270	0.000	315.600	1479.000	2260.000	2.514%	0.625
%RSD		5.126	2.674	0.000	2.444	2.315	3.272	5.317	7.586

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	0.290	2.200	92.740	757.400	774.400	1.119	1.151	8.058
2	12:02:54	1.521	2.379	94.940	785.300	791.600	1.120	1.336	8.401
3	12:03:14	1.637	2.241	93.150	759.100	777.700	1.115	1.217	8.056
x		1.149	2.273	93.610	767.200	781.200	1.118	1.235	8.172
σ		0.746	0.094	1.171	15.640	9.171	0.003	0.094	0.199
%RSD		64.930	4.123	1.251	2.039	1.174	0.240	7.604	2.429

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	8.073	35.480	34.970	0.511	-0.035	0.459	0.000	134.500
2	12:02:54	8.089	34.870	35.310	0.465	-0.073	0.525	0.000	134.600
3	12:03:14	7.884	35.150	34.580	-0.175	0.054	0.625	0.000	136.100
x		8.015	35.170	34.950	0.267	-0.018	0.536	0.000	135.100
σ		0.114	0.307	0.367	0.384	0.065	0.084	0.000	0.919
%RSD		1.420	0.873	1.050	143.800	367.000	15.650	0.000	0.681

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	69.252%	11.140	11.380	68.254%	0.010	0.014	0.075	0.151
2	12:02:54	68.339%	10.920	11.710	66.284%	0.006	0.024	0.168	0.155
3	12:03:14	66.193%	11.220	11.720	66.468%	0.018	0.026	0.141	0.191
x		67.928%	11.090	11.600	67.002%	0.011	0.021	0.128	0.166
σ		1.570%	0.155	0.195	1.088%	0.006	0.006	0.048	0.022
%RSD		2.311	1.400	1.685	1.623	55.830	29.080	37.450	13.230

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	74.794%	0.290	0.127	0.112	33.050	33.820	88.947%	90.113%
2	12:02:54	74.980%	0.481	0.112	0.100	33.360	33.350	89.162%	90.834%
3	12:03:14	74.498%	0.460	0.115	0.144	34.040	33.980	89.914%	92.083%
x		74.757%	0.410	0.118	0.118	33.480	33.720	89.341%	91.010%
σ		0.243%	0.105	0.008	0.023	0.506	0.331	0.508%	0.996%
%RSD		0.325	25.540	6.443	19.440	1.511	0.981	0.568	1.095

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:34	0.100	0.104	13.140	12.180	12.590	80.163%
2	12:02:54	0.108	0.110	13.250	12.370	12.730	81.072%
3	12:03:14	0.108	0.106	13.260	12.180	12.710	82.457%
x		0.105	0.107	13.220	12.240	12.680	81.231%
σ		0.005	0.003	0.067	0.108	0.074	1.155%
%RSD		4.551	2.856	0.509	0.883	0.582	1.422

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	57.844%	0.022	27.430	27.550	0.000	28390.000	8567.000	8458.000
2	12:06:41	46.460%	0.013	28.850	29.980	0.000	28160.000	8791.000	8964.000
3	12:07:00	44.375%	0.118	25.090	27.460	0.000	27480.000	8368.000	8394.000
x		49.560%	0.051	27.120	28.330	0.000	28010.000	8575.000	8605.000
σ		7.250%	0.058	1.901	1.429	0.000	477.100	211.500	312.000
%RSD		14.628	114.700	7.010	5.045	0.000	1.703	2.467	3.626

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	207.000	2032.000	0.000	5819.000	40800.000	45270.000	47.744%	3.155
2	12:06:41	223.500	2150.000	0.000	5680.000	39650.000	43400.000	47.334%	3.939
3	12:07:00	203.400	2077.000	0.000	5949.000	41340.000	44630.000	43.868%	4.552
x		211.300	2086.000	0.000	5816.000	40600.000	44430.000	46.315%	3.882
σ		10.720	59.690	0.000	134.500	859.600	952.600	2.129%	0.700
%RSD		5.076	2.861	0.000	2.312	2.117	2.144	4.597	18.030

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	1.315	0.769	91.980	457.700	464.000	0.550	0.881	4.653
2	12:06:41	2.072	0.814	82.740	424.500	432.200	0.533	0.654	4.094
3	12:07:00	1.731	0.826	88.730	451.300	444.000	0.547	0.776	4.371
x		1.706	0.803	87.820	444.500	446.700	0.543	0.770	4.373
σ		0.379	0.030	4.687	17.640	16.070	0.009	0.114	0.280
%RSD		22.220	3.719	5.338	3.968	3.599	1.729	14.770	6.399

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	4.547	16.290	15.650	0.488	0.022	0.498	0.000	110.600
2	12:06:41	4.233	15.310	15.550	0.338	-0.169	0.233	0.000	111.400
3	12:07:00	4.239	15.310	15.690	0.699	-0.100	0.451	0.000	110.200
x		4.339	15.640	15.630	0.508	-0.082	0.394	0.000	110.700
σ		0.179	0.567	0.074	0.181	0.097	0.141	0.000	0.625
%RSD		4.135	3.623	0.476	35.690	117.900	35.810	0.000	0.564

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	69.081%	22.550	22.520	68.210%	-0.023	-0.016	-0.003	0.034
2	12:06:41	67.247%	22.740	23.200	67.661%	-0.014	-0.006	0.005	0.035
3	12:07:00	67.361%	23.120	23.120	66.431%	-0.015	-0.016	-0.011	0.004
x		67.896%	22.800	22.940	67.434%	-0.017	-0.013	-0.003	0.024
σ		1.027%	0.290	0.372	0.911%	0.005	0.006	0.008	0.017
%RSD		1.513	1.273	1.622	1.351	27.180	48.270	259.900	71.170

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	76.061%	0.074	0.035	0.050	38.150	37.980	89.006%	90.520%
2	12:06:41	75.319%	0.173	0.058	0.078	38.410	38.630	89.397%	91.749%
3	12:07:00	75.072%	0.183	0.052	0.059	38.300	38.430	89.842%	92.161%
x		75.484%	0.143	0.048	0.062	38.290	38.350	89.415%	91.476%
σ		0.515%	0.060	0.012	0.014	0.131	0.335	0.418%	0.854%
%RSD		0.682	42.210	24.800	22.620	0.342	0.872	0.468	0.933

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:22	0.074	0.079	2.802	2.614	2.683	80.061%
2	12:06:41	0.080	0.081	2.823	2.646	2.689	82.126%
3	12:07:00	0.086	0.082	2.811	2.632	2.707	83.166%
x		0.080	0.081	2.812	2.631	2.693	81.784%
σ		0.006	0.001	0.011	0.016	0.013	1.580%
%RSD		7.497	1.572	0.376	0.618	0.469	1.932

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	42.940%	-0.005	50.460	55.330	0.000	65990.000	19540.000	19370.000
2	12:10:28	42.998%	0.016	43.420	44.820	0.000	54940.000	16300.000	16090.000
3	12:10:47	42.622%	-0.026	46.420	47.900	0.000	59590.000	17430.000	16940.000
x		42.853%	-0.005	46.770	49.350	0.000	60170.000	17760.000	17470.000
σ		0.203%	0.021	3.530	5.403	0.000	5551.000	1641.000	1701.000
%RSD		0.473	397.400	7.548	10.950	0.000	9.226	9.241	9.737

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	5.349	3940.000	0.000	6110.000	96410.000	104700.000	48.961%	0.217
2	12:10:28	4.875	3613.000	0.000	5935.000	96310.000	102500.000	44.570%	0.646
3	12:10:47	4.646	3446.000	0.000	6023.000	97370.000	104500.000	40.749%	0.365
x		4.957	3666.000	0.000	6023.000	96690.000	103900.000	44.760%	0.409
σ		0.358	251.400	0.000	87.740	583.600	1230.000	4.109%	0.218
%RSD		7.231	6.857	0.000	1.457	0.604	1.184	9.181	53.310

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	-1.713	5.597	9.575	67.640	135.300	0.109	-0.252	1.044
2	12:10:28	-0.685	5.961	9.779	74.330	144.100	0.125	-0.255	1.054
3	12:10:47	0.716	5.944	9.861	75.530	144.600	0.125	-0.276	1.179
x		-0.561	5.834	9.738	72.500	141.300	0.120	-0.261	1.092
σ		1.220	0.205	0.147	4.249	5.197	0.009	0.013	0.075
%RSD		217.500	3.519	1.510	5.860	3.678	7.940	4.892	6.879

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	0.750	104.900	103.000	-0.482	0.291	0.688	0.000	204.900
2	12:10:28	0.701	106.400	107.600	-1.068	0.290	0.704	0.000	205.600
3	12:10:47	0.702	111.600	111.000	0.870	0.839	0.999	0.000	207.400
x		0.717	107.600	107.200	-0.227	0.473	0.797	0.000	206.000
σ		0.028	3.557	4.017	0.994	0.317	0.175	0.000	1.301
%RSD		3.883	3.304	3.747	438.200	66.860	21.980	0.000	0.632

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	66.220%	11.010	11.360	65.213%	-0.011	-0.006	0.023	0.033
2	12:10:28	65.211%	10.740	11.400	64.211%	-0.017	-0.009	-0.037	0.045
3	12:10:47	65.277%	11.270	11.570	63.899%	-0.017	-0.010	0.001	0.035
x		65.569%	11.010	11.440	64.441%	-0.015	-0.008	-0.004	0.037
σ		0.565%	0.264	0.114	0.686%	0.004	0.002	0.031	0.007
%RSD		0.861	2.401	0.999	1.065	25.510	24.260	698.800	17.470

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	72.833%	0.066	-0.125	-0.146	43.180	43.050	86.971%	88.407%
2	12:10:28	73.114%	0.111	-0.125	-0.119	43.500	43.160	87.769%	89.463%
3	12:10:47	72.482%	0.122	-0.114	-0.139	43.190	43.920	89.457%	91.293%
x		72.810%	0.100	-0.121	-0.134	43.290	43.380	88.066%	89.721%
σ		0.316%	0.030	0.006	0.014	0.184	0.474	1.269%	1.460%
%RSD		0.435	29.720	5.271	10.320	0.424	1.092	1.441	1.628

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:09	0.050	0.053	0.168	0.141	0.155	78.397%
2	12:10:28	0.054	0.058	0.160	0.153	0.156	79.471%
3	12:10:47	0.060	0.057	0.178	0.137	0.157	80.276%
x		0.055	0.056	0.168	0.144	0.156	79.382%
σ		0.005	0.003	0.009	0.008	0.001	0.943%
%RSD		9.475	4.722	5.331	5.521	0.707	1.187

CCV 1594026 6/19/2015 12:13:45 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	12:13:45	93.120%	107.400	99.750	105.100	0.000	49100.000	50530.000	50390.000
2	12:14:04	93.031%	104.900	101.600	106.700	0.000	50520.000	51220.000	51590.000
3	12:14:24	94.595%	102.500	94.940	101.300	0.000	50690.000	51060.000	50020.000
x		93.582%	104.924%	98.777%	104.347%	0.000	100.210%	101.878%	101.337%
σ		0.879%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.939	2.360	3.500	2.679	0.000	1.742	0.707	1.621

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:45	503.900	5100.000	0.000	48960.000	45960.000	47780.000	106.693%	92.490
2	12:14:04	518.300	5110.000	0.000	50400.000	47210.000	49870.000	103.744%	94.430
3	12:14:24	510.400	5204.000	0.000	50880.000	47840.000	49720.000	102.837%	94.900
x		102.175%	102.759%	0.000	100.160%	94.008%	98.252%	104.425%	93.939%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.016%	n/a
%RSD		1.410	1.126	0.000	1.989	2.037	2.373	1.930	1.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:45	91.870	92.620	476.700	23960.000	24070.000	95.670	95.740	96.180
2	12:14:04	94.230	96.020	492.600	24590.000	24670.000	95.130	95.000	97.030
3	12:14:24	94.190	94.430	489.700	24550.000	24450.000	94.050	95.220	98.020
x		93.428%	94.357%	97.271%	97.477%	97.582%	94.953%	95.320%	97.078%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.444	1.806	1.742	1.447	1.242	0.870	0.396	0.946

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:45	96.430	101.300	101.000	99.600	104.600	105.500	0.000	95.050
2	12:14:04	96.660	101.700	102.900	101.200	106.300	104.800	0.000	95.970
3	12:14:24	98.330	101.400	104.100	99.050	104.800	104.700	0.000	96.190
x		97.138%	101.437%	102.646%	99.934%	105.225%	105.010%	0.000	95.735%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.070	0.201	1.536	1.091	0.914	0.421	0.000	0.630

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:45	94.839%	90.610	91.300	92.888%	97.920	98.660	98.400	98.620
2	12:14:04	96.635%	91.260	92.520	93.434%	98.870	98.400	100.200	101.000
3	12:14:24	98.789%	93.170	93.970	94.801%	99.120	98.780	100.300	100.800
x		96.754%	91.675%	92.599%	93.707%	98.637%	98.611%	99.639%	100.134%
σ		1.978%	n/a	n/a	0.985%	n/a	n/a	n/a	n/a
%RSD		2.044	1.451	1.445	1.051	0.640	0.198	1.073	1.316

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:45	96.180%	94.940	89.760	90.430	96.720	96.610	97.583%	97.874%
2	12:14:04	96.843%	96.470	91.660	91.720	98.460	99.130	98.941%	99.245%
3	12:14:24	98.308%	97.030	90.710	92.030	97.670	99.660	101.286%	101.318%
x		97.110%	96.145%	90.709%	91.395%	97.617%	98.469%	99.270%	99.479%
σ		1.089%	n/a	n/a	n/a	n/a	n/a	1.873%	1.734%
%RSD		1.122	1.125	1.046	0.926	0.891	1.657	1.887	1.743

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:45	104.700	105.200	103.800	104.300	105.900	85.348%
2	12:14:04	107.600	109.500	108.000	108.200	109.500	84.661%
3	12:14:24	107.700	109.000	107.800	107.100	108.900	86.404%
x		106.691%	107.873%	106.514%	106.537%	108.085%	85.471%
σ		n/a	n/a	n/a	n/a	n/a	0.878%
%RSD		1.597	2.186	2.220	1.871	1.792	1.027

CCB5 6/19/2015 12:20:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:32	115.567%	-0.011	0.237	0.337	0.000	6.568	1.235	0.974
2	12:20:52	106.340%	-0.009	0.394	0.390	0.000	6.471	1.088	0.908
3	12:21:11	101.139%	-0.018	0.178	0.391	0.000	6.588	1.241	0.954
x		107.682%	-0.013	0.270	0.373	0.000	6.542	1.188	0.945
σ		7.307%	0.004	0.112	0.031	0.000	0.063	0.086	0.034
%RSD		6.786	34.790	41.420	8.254	0.000	0.961	7.273	3.558
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:32	2.242	-11.810	0.000	4.124	16.100	13.100	116.428%	-0.031
2	12:20:52	2.576	-10.330	0.000	3.000	12.760	14.200	115.876%	-0.007
3	12:21:11	2.430	-10.230	0.000	4.005	15.410	16.710	112.489%	0.076
x		2.416	-10.790	0.000	3.710	14.760	14.670	114.931%	0.013
σ		0.167	0.887	0.000	0.617	1.765	1.853	2.133%	0.056
%RSD		6.928	8.222	0.000	16.640	11.960	12.630	1.856	441.300
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:32	0.020	0.021	0.045	4.976	2.104	0.002	0.051	0.156
2	12:20:52	0.013	0.009	0.035	4.323	2.418	0.002	0.065	0.149
3	12:21:11	0.017	0.027	0.036	3.099	2.865	0.007	0.064	0.164
x		0.016	0.019	0.039	4.133	2.462	0.004	0.060	0.157
σ		0.003	0.009	0.006	0.953	0.382	0.003	0.008	0.007
%RSD		20.710	48.510	14.810	23.060	15.510	80.210	12.680	4.625
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:32	0.181	1.430	1.480	-0.039	0.243	0.310	0.000	0.014
2	12:20:52	0.199	1.341	1.430	0.059	0.240	0.396	0.000	0.020
3	12:21:11	0.196	1.337	1.129	0.084	0.469	0.540	0.000	0.024
x		0.192	1.370	1.346	0.035	0.317	0.415	0.000	0.019
σ		0.010	0.053	0.190	0.065	0.132	0.116	0.000	0.005
%RSD		5.032	3.840	14.130	187.700	41.470	28.030	0.000	26.250
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:32	106.382%	0.045	-0.044	108.573%	-0.005	-0.009	-0.025	-0.062
2	12:20:52	105.750%	0.193	0.274	107.421%	-0.008	-0.009	-0.022	-0.056
3	12:21:11	105.580%	0.213	0.245	107.281%	-0.008	-0.007	-0.035	-0.058
x		105.904%	0.150	0.159	107.758%	-0.007	-0.008	-0.027	-0.058
σ		0.423%	0.092	0.176	0.709%	0.002	0.001	0.007	0.003
%RSD		0.399	61.100	110.900	0.658	24.390	14.240	24.740	4.914
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:32	106.920%	1.459	0.546	0.536	0.013	0.026	104.444%	103.711%
2	12:20:52	107.712%	1.424	0.592	0.539	0.057	0.041	105.383%	104.480%
3	12:21:11	107.493%	1.175	0.557	0.583	0.021	0.040	106.439%	105.743%
x		107.375%	1.353	0.565	0.553	0.030	0.036	105.422%	104.645%
σ		0.409%	0.155	0.024	0.026	0.023	0.009	0.998%	1.026%
%RSD		0.381	11.440	4.244	4.740	77.360	24.220	0.947	0.981
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:20:32	0.025	0.029	0.021	0.016	0.020	103.369%		
2	12:20:52	0.025	0.027	0.024	0.019	0.023	103.298%		
3	12:21:11	0.031	0.031	0.020	0.020	0.023	102.643%		
x		0.027	0.029	0.022	0.018	0.022	103.103%		
σ		0.003	0.002	0.002	0.002	0.001	0.400%		
%RSD		12.530	7.114	9.396	12.380	6.074	0.388		

MB 180-145398/1-A 6/19/2015 12:24:03 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	12:24:23	118.922%	-0.011	0.251	0.260	0.000	-3.184	-0.079	-0.090
2	12:24:42	116.493%	-0.026	-0.065	0.288	0.000	-3.315	-0.218	-0.354
3	12:25:02	108.618%	0.016	0.210	0.143	0.000	-3.292	-0.287	-0.273
x		114.677%	-0.007	0.132	0.230	0.000	-3.264	-0.195	-0.239
σ		5.386%	0.021	0.172	0.077	0.000	0.070	0.106	0.135
%RSD		4.697	289.000	130.400	33.450	0.000	2.147	54.270	56.660

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:23	0.571	-13.350	0.000	-2.786	4.877	4.055	117.690%	-0.024
2	12:24:42	0.482	-14.480	0.000	-2.936	3.062	4.477	112.472%	-0.037
3	12:25:02	0.590	-13.080	0.000	-2.147	4.666	3.586	110.205%	-0.036
x		0.548	-13.640	0.000	-2.623	4.202	4.039	113.456%	-0.032
σ		0.058	0.745	0.000	0.419	0.993	0.446	3.838%	0.007
%RSD		10.540	5.463	0.000	15.970	23.620	11.030	3.383	22.540

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:23	0.010	-0.023	0.017	-0.123	-0.617	0.001	0.012	0.016
2	12:24:42	-0.005	-0.009	0.008	3.646	-0.230	0.000	0.009	-0.006
3	12:25:02	0.012	0.006	0.012	1.619	0.012	-0.001	0.009	0.027
x		0.006	-0.009	0.012	1.714	-0.278	0.000	0.010	0.012
σ		0.010	0.014	0.004	1.886	0.317	0.001	0.002	0.017
%RSD		168.500	159.400	34.010	110.100	114.100	341.600	18.100	135.800

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:23	0.009	0.804	0.751	-0.102	-0.143	-0.035	0.000	0.007
2	12:24:42	0.012	0.816	0.772	-0.106	0.245	0.034	0.000	0.006
3	12:25:02	0.027	0.813	0.729	-0.045	0.098	0.110	0.000	0.010
x		0.016	0.811	0.751	-0.085	0.066	0.036	0.000	0.008
σ		0.010	0.006	0.021	0.034	0.196	0.073	0.000	0.002
%RSD		60.060	0.761	2.848	40.130	294.800	200.400	0.000	24.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:23	106.674%	-0.562	-0.546	108.278%	-0.013	-0.012	-0.017	-0.049
2	12:24:42	105.859%	-0.410	-0.451	108.159%	-0.010	-0.009	-0.011	-0.055
3	12:25:02	107.467%	-0.439	-0.410	107.990%	-0.011	-0.002	-0.028	-0.070
x		106.667%	-0.470	-0.469	108.142%	-0.011	-0.008	-0.019	-0.058
σ		0.804%	0.080	0.070	0.145%	0.001	0.005	0.008	0.011
%RSD		0.754	17.120	14.880	0.134	12.450	64.440	44.470	18.630

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:23	106.889%	1.093	0.203	0.177	0.013	0.049	104.185%	102.618%
2	12:24:42	107.780%	1.341	0.224	0.202	0.033	0.021	105.255%	104.215%
3	12:25:02	108.339%	1.478	0.211	0.221	0.037	0.023	105.871%	106.008%
x		107.669%	1.304	0.213	0.200	0.027	0.031	105.104%	104.280%
σ		0.731%	0.195	0.010	0.022	0.013	0.015	0.853%	1.696%
%RSD		0.679	14.970	4.813	10.980	45.740	50.160	0.811	1.626

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:23	0.010	0.013	-0.002	0.001	-0.000	103.643%
2	12:24:42	0.012	0.014	-0.002	-0.001	0.001	102.309%
3	12:25:02	0.015	0.014	-0.004	0.001	0.001	102.294%
x		0.012	0.014	-0.003	0.000	0.001	102.749%
σ		0.002	0.000	0.001	0.001	0.001	0.774%
%RSD		17.680	2.932	43.250	338.500	133.400	0.754

LCS 180-145398/2-A 6/19/2015 12:27:51 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	12:28:11	57.114%	44.770	924.700	934.400	0.000	43180.000	45060.000	43930.000
2	12:28:30	50.078%	44.130	855.800	918.900	0.000	43980.000	44640.000	44250.000
3	12:28:49	46.329%	46.620	894.400	897.700	0.000	40910.000	42370.000	40420.000
x		51.174%	45.170	891.700	917.000	0.000	42690.000	44020.000	42870.000
σ		5.476%	1.293	34.520	18.440	0.000	1592.000	1448.000	2123.000
%RSD		10.700	2.862	3.872	2.011	0.000	3.729	3.289	4.954

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:11	1802.000	8516.000	0.000	47320.000	44760.000	49560.000	59.648%	918.800
2	12:28:30	1835.000	8676.000	0.000	49050.000	49150.000	52520.000	53.091%	975.700
3	12:28:49	1642.000	8073.000	0.000	46400.000	45700.000	49210.000	55.896%	911.900
x		1760.000	8422.000	0.000	47590.000	46540.000	50430.000	56.212%	935.500
σ		103.200	312.200	0.000	1347.000	2316.000	1817.000	3.290%	35.000
%RSD		5.867	3.707	0.000	2.831	4.977	3.603	5.853	3.741

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:11	487.400	179.900	482.100	974.000	959.500	483.000	457.800	222.200
2	12:28:30	502.400	191.400	514.100	1015.000	988.100	474.300	447.900	223.300
3	12:28:49	484.100	179.800	479.400	943.600	950.300	460.000	424.300	207.800
x		491.300	183.700	491.900	977.700	965.900	472.400	443.400	217.800
σ		9.772	6.667	19.270	36.040	19.690	11.580	17.210	8.667
%RSD		1.989	3.630	3.917	3.686	2.039	2.451	3.881	3.980

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:11	226.500	441.500	437.700	32.650	8.398	9.240	0.000	972.800
2	12:28:30	222.300	448.100	448.600	33.770	8.940	9.120	0.000	981.900
3	12:28:49	211.100	428.100	427.800	31.200	8.484	8.997	0.000	984.900
x		220.000	439.200	438.000	32.540	8.607	9.119	0.000	979.900
σ		7.942	10.210	10.390	1.288	0.291	0.121	0.000	6.329
%RSD		3.611	2.325	2.373	3.959	3.381	1.330	0.000	0.646

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:11	71.559%	1043.000	1171.000	70.098%	46.750	47.180	46.610	39.610
2	12:28:30	69.588%	1049.000	1183.000	68.423%	47.270	47.200	47.200	40.130
3	12:28:49	68.832%	1055.000	1185.000	66.504%	47.010	47.430	47.810	39.160
x		69.993%	1049.000	1180.000	68.342%	47.010	47.270	47.210	39.630
σ		1.408%	6.094	7.806	1.799%	0.261	0.138	0.603	0.486
%RSD		2.012	0.581	0.662	2.632	0.555	0.292	1.278	1.226

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:11	75.145%	1934.000	489.100	481.600	1909.000	1863.000	89.711%	91.220%
2	12:28:30	75.687%	1912.000	479.900	473.300	1885.000	1850.000	89.974%	91.790%
3	12:28:49	75.358%	1929.000	482.400	473.400	1901.000	1851.000	90.110%	92.406%
x		75.397%	1925.000	483.800	476.100	1898.000	1855.000	89.932%	91.805%
σ		0.273%	11.130	4.742	4.750	11.890	7.241	0.203%	0.593%
%RSD		0.362	0.578	0.980	0.998	0.626	0.390	0.226	0.646

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:11	53.790	53.810	22.470	22.380	22.470	76.601%
2	12:28:30	53.040	53.590	22.350	22.280	22.450	78.653%
3	12:28:49	52.730	53.220	22.360	22.330	22.330	79.730%
x		53.190	53.540	22.390	22.330	22.410	78.328%
σ		0.545	0.297	0.064	0.047	0.076	1.590%
%RSD		1.024	0.554	0.285	0.213	0.340	2.029

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:58	53.365%	49.050	945.600	972.200	0.000	45380.000	46410.000	46940.000
2	12:32:17	48.632%	46.610	945.700	921.700	0.000	45120.000	45730.000	44680.000
3	12:32:36	47.708%	43.180	842.300	854.000	0.000	41400.000	42370.000	42010.000
x		49.902%	46.280	911.200	916.000	0.000	43960.000	44840.000	44550.000
σ		3.034%	2.948	59.660	59.320	0.000	2229.000	2167.000	2471.000
%RSD		6.081	6.370	6.548	6.476	0.000	5.069	4.832	5.548
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:58	1924.000	8900.000	0.000	49410.000	49330.000	52610.000	51.949%	975.200
2	12:32:17	1831.000	8725.000	0.000	49010.000	48910.000	52500.000	51.382%	1014.000
3	12:32:36	1675.000	7975.000	0.000	48120.000	48770.000	53140.000	46.494%	1005.000
x		1810.000	8533.000	0.000	48840.000	49000.000	52750.000	49.942%	998.200
σ		126.200	491.100	0.000	660.600	293.800	346.800	2.999%	20.470
%RSD		6.972	5.756	0.000	1.352	0.600	0.657	6.006	2.051
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:58	509.500	193.700	510.300	1001.000	998.500	489.800	467.600	227.900
2	12:32:17	535.700	199.800	524.500	1055.000	1030.000	498.100	473.400	234.500
3	12:32:36	506.600	201.100	551.900	1074.000	1054.000	492.500	478.000	232.300
x		517.300	198.200	528.900	1043.000	1028.000	493.500	473.000	231.600
σ		16.030	3.936	21.130	38.230	27.900	4.245	5.198	3.358
%RSD		3.098	1.986	3.995	3.664	2.716	0.860	1.099	1.450
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:58	233.700	463.000	465.300	34.250	8.367	9.177	0.000	972.100
2	12:32:17	236.600	462.800	461.700	33.880	8.990	9.252	0.000	973.800
3	12:32:36	233.500	470.300	462.100	33.950	9.068	9.762	0.000	987.900
x		234.600	465.400	463.000	34.030	8.809	9.397	0.000	977.900
σ		1.732	4.284	1.960	0.197	0.384	0.319	0.000	8.673
%RSD		0.738	0.920	0.423	0.579	4.359	3.390	0.000	0.887
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:58	70.374%	1043.000	1174.000	68.471%	47.160	47.230	46.180	39.230
2	12:32:17	68.066%	1045.000	1177.000	66.659%	46.950	47.660	47.640	39.500
3	12:32:36	67.288%	1051.000	1176.000	65.761%	46.550	47.100	45.990	40.270
x		68.576%	1046.000	1176.000	66.964%	46.890	47.330	46.600	39.660
σ		1.605%	4.333	1.532	1.380%	0.306	0.294	0.902	0.541
%RSD		2.340	0.414	0.130	2.062	0.653	0.622	1.936	1.365
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:58	74.958%	1909.000	480.100	480.200	1878.000	1823.000	89.494%	90.844%
2	12:32:17	73.184%	1906.000	482.900	473.100	1867.000	1833.000	87.309%	88.410%
3	12:32:36	73.855%	1913.000	486.000	481.700	1887.000	1826.000	89.339%	91.340%
x		73.999%	1909.000	483.000	478.300	1877.000	1827.000	88.714%	90.198%
σ		0.896%	3.377	2.977	4.624	10.400	5.371	1.219%	1.568%
%RSD		1.211	0.177	0.616	0.967	0.554	0.294	1.374	1.738
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:31:58	53.740	53.970	22.330	22.240	22.280	76.536%		
2	12:32:17	53.670	54.130	22.290	22.200	22.320	74.734%		
3	12:32:36	53.710	54.220	22.330	22.240	22.290	77.459%		
x		53.710	54.110	22.310	22.230	22.300	76.243%		
σ		0.034	0.126	0.023	0.022	0.025	1.386%		
%RSD		0.063	0.234	0.105	0.099	0.110	1.818		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	50.623%	0.010	62.270	65.580	0.000	68280.000	10400.000	10330.000
2	12:36:06	46.262%	0.053	73.040	73.760	0.000	74110.000	10930.000	10670.000
3	12:36:26	48.300%	-0.008	76.030	74.690	0.000	71150.000	10490.000	10470.000
x		48.395%	0.018	70.440	71.340	0.000	71180.000	10610.000	10490.000
σ		2.182%	0.031	7.239	5.016	0.000	2917.000	283.700	171.900
%RSD		4.509	170.000	10.280	7.030	0.000	4.098	2.675	1.639

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	7.774	19370.000	0.000	1276.000	45460.000	49010.000	49.027%	1.528
2	12:36:06	8.002	19880.000	0.000	1318.000	45100.000	49560.000	46.060%	2.269
3	12:36:26	7.799	19640.000	0.000	1304.000	43110.000	48210.000	49.147%	1.618
x		7.858	19630.000	0.000	1299.000	44560.000	48930.000	48.078%	1.805
σ		0.125	257.600	0.000	21.490	1267.000	680.400	1.749%	0.404
%RSD		1.593	1.312	0.000	1.654	2.844	1.391	3.637	22.390

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	2.825	2.862	3.363	11.530	46.600	0.211	0.926	2.917
2	12:36:06	2.563	2.471	3.222	9.091	44.430	0.205	0.892	2.957
3	12:36:26	2.310	2.801	3.291	9.325	46.720	0.197	0.850	2.745
x		2.566	2.712	3.292	9.983	45.910	0.204	0.889	2.873
σ		0.257	0.211	0.071	1.348	1.289	0.007	0.038	0.113
%RSD		10.020	7.767	2.146	13.500	2.808	3.359	4.318	3.931

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	2.339	2.741	2.848	1.202	0.541	1.196	0.000	166.200
2	12:36:06	2.352	3.040	2.871	1.234	0.463	1.175	0.000	165.900
3	12:36:26	2.521	2.719	2.525	1.442	0.482	1.356	0.000	165.700
x		2.404	2.833	2.748	1.293	0.495	1.243	0.000	165.900
σ		0.102	0.179	0.194	0.130	0.041	0.099	0.000	0.246
%RSD		4.227	6.329	7.040	10.070	8.215	7.953	0.000	0.148

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	66.485%	7.933	7.927	65.215%	-0.007	-0.006	-0.089	-0.056
2	12:36:06	65.408%	8.262	8.435	64.359%	-0.011	-0.006	-0.126	-0.107
3	12:36:26	63.163%	7.910	8.017	62.296%	-0.009	-0.003	-0.108	-0.097
x		65.019%	8.035	8.126	63.957%	-0.009	-0.005	-0.108	-0.087
σ		1.695%	0.197	0.271	1.500%	0.002	0.001	0.019	0.027
%RSD		2.607	2.454	3.338	2.346	22.920	29.160	17.290	31.560

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	72.887%	1.527	0.504	0.478	44.810	44.740	86.784%	88.397%
2	12:36:06	72.211%	1.529	0.533	0.527	43.780	44.800	85.311%	87.267%
3	12:36:26	69.072%	1.396	0.557	0.546	44.670	44.550	80.828%	82.758%
x		71.390%	1.484	0.531	0.517	44.420	44.700	84.308%	86.141%
σ		2.036%	0.076	0.026	0.035	0.560	0.132	3.102%	2.983%
%RSD		2.852	5.119	4.933	6.824	1.260	0.295	3.680	3.463

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:46	0.422	0.428	0.096	0.083	0.089	76.245%
2	12:36:06	0.397	0.400	0.085	0.090	0.085	75.511%
3	12:36:26	0.362	0.361	0.089	0.081	0.090	72.597%
x		0.394	0.396	0.090	0.085	0.088	74.784%
σ		0.030	0.034	0.005	0.005	0.002	1.930%
%RSD		7.715	8.568	6.060	5.415	2.611	2.580

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:36	83.475%	-0.026	16.410	14.740	0.000	14880.000	2124.000	2168.000
2	12:39:55	69.745%	0.013	14.790	17.220	0.000	15780.000	2292.000	2328.000
3	12:40:14	74.070%	0.011	15.520	15.270	0.000	14570.000	2115.000	2090.000
x		75.763%	-0.001	15.570	15.740	0.000	15080.000	2177.000	2195.000
σ		7.020%	0.022	0.812	1.305	0.000	627.900	99.710	121.000
%RSD		9.265	1928.000	5.215	8.293	0.000	4.165	4.580	5.512
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:36	1.879	4138.000	0.000	244.300	8288.000	8647.000	79.160%	0.272
2	12:39:55	2.252	4498.000	0.000	253.900	8615.000	8760.000	77.204%	0.164
3	12:40:14	1.747	4005.000	0.000	243.100	8346.000	8604.000	73.433%	0.263
x		1.960	4214.000	0.000	247.100	8416.000	8670.000	76.599%	0.233
σ		0.262	255.200	0.000	5.882	174.500	80.530	2.911%	0.060
%RSD		13.370	6.057	0.000	2.380	2.073	0.929	3.800	25.630
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:36	0.553	0.488	0.618	0.661	8.013	0.045	0.168	0.645
2	12:39:55	0.665	0.536	0.617	-3.704	7.931	0.040	0.125	0.588
3	12:40:14	0.461	0.593	0.649	-0.120	9.537	0.032	0.209	0.614
x		0.560	0.539	0.628	-1.054	8.493	0.039	0.167	0.616
σ		0.102	0.053	0.018	2.327	0.904	0.007	0.042	0.028
%RSD		18.230	9.756	2.904	220.700	10.650	17.230	25.300	4.574
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:36	0.506	1.587	1.400	-0.084	-0.168	0.327	0.000	32.120
2	12:39:55	0.414	1.360	1.408	0.361	-0.144	0.315	0.000	32.130
3	12:40:14	0.549	1.433	1.404	-0.111	-0.183	0.302	0.000	32.370
x		0.490	1.460	1.404	0.056	-0.165	0.315	0.000	32.210
σ		0.069	0.116	0.004	0.265	0.020	0.012	0.000	0.143
%RSD		14.080	7.938	0.304	477.300	12.120	3.926	0.000	0.443
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:36	79.224%	0.806	0.784	80.783%	-0.011	-0.009	-0.054	-0.035
2	12:39:55	77.138%	0.995	1.099	78.359%	-0.012	-0.011	-0.070	-0.045
3	12:40:14	77.310%	1.254	1.085	77.550%	-0.011	-0.014	-0.068	-0.050
x		77.891%	1.018	0.990	78.897%	-0.011	-0.011	-0.064	-0.043
σ		1.158%	0.225	0.178	1.682%	0.001	0.002	0.009	0.008
%RSD		1.486	22.100	17.980	2.132	6.568	22.250	13.690	18.160
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:36	80.687%	-0.050	-0.238	-0.204	9.210	8.918	85.993%	86.354%
2	12:39:55	80.164%	0.045	-0.217	-0.237	8.871	8.932	86.489%	86.740%
3	12:40:14	80.081%	0.018	-0.236	-0.239	9.226	8.772	86.383%	87.287%
x		80.311%	0.004	-0.230	-0.227	9.102	8.874	86.288%	86.794%
σ		0.328%	0.049	0.012	0.020	0.201	0.089	0.261%	0.468%
%RSD		0.409	1127.000	5.203	8.743	2.205	0.998	0.303	0.540
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:39:36	0.105	0.090	0.021	0.021	0.023	80.855%		
2	12:39:55	0.094	0.100	0.017	0.022	0.023	81.325%		
3	12:40:14	0.104	0.097	0.016	0.026	0.019	80.221%		
x		0.101	0.096	0.018	0.023	0.022	80.800%		
σ		0.006	0.005	0.002	0.003	0.002	0.554%		
%RSD		5.922	5.416	13.540	12.660	11.110	0.686		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:21	102.499%	0.924	20.210	20.940	0.000	474.400	487.000	496.500
2	12:46:41	100.581%	1.108	19.710	19.810	0.000	453.400	469.600	470.800
3	12:47:00	100.396%	1.030	19.860	21.110	0.000	478.700	485.400	478.400
x		101.159%	102.083%	99.650%	103.107%	0.000	93.766%	96.137%	96.384%
σ		1.164%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.151	9.021	1.282	3.426	0.000	2.892	2.004	2.733
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:21	31.960	512.200	0.000	490.100	495.900	471.500	106.980%	4.949
2	12:46:41	30.000	477.900	0.000	481.900	480.600	473.400	102.149%	4.206
3	12:47:00	29.580	480.600	0.000	480.400	499.800	461.700	99.574%	4.664
x		101.712%	98.047%	0.000	96.830%	98.424%	93.776%	102.901%	92.123%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.760%	n/a
%RSD		4.166	3.894	0.000	1.075	2.062	1.339	3.654	8.142
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:21	0.928	2.032	4.917	47.130	45.090	0.510	1.179	2.156
2	12:46:41	0.950	2.009	4.928	47.360	47.140	0.511	1.224	2.250
3	12:47:00	0.880	1.972	5.058	47.600	47.450	0.511	1.136	2.161
x		91.957%	100.218%	99.352%	94.722%	93.123%	102.105%	117.979%	109.443%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.866	1.508	1.576	0.496	2.752	0.139	3.767	2.425
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:21	2.233	5.889	6.022	0.941	5.624	5.613	0.000	4.635
2	12:46:41	2.139	5.800	5.860	1.008	5.387	5.788	0.000	4.513
3	12:47:00	2.152	5.745	6.122	1.200	5.273	5.702	0.000	4.605
x		108.727%	116.223%	120.033%	104.971%	108.559%	114.014%	0.000	91.692%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.330	1.248	2.203	12.800	3.297	1.540	0.000	1.384
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:21	91.346%	2.878	2.708	93.262%	1.022	0.993	0.995	1.003
2	12:46:41	91.016%	2.655	2.638	93.250%	1.037	1.015	1.063	1.077
3	12:47:00	92.158%	2.684	2.657	94.159%	1.023	1.044	1.065	1.190
x		91.507%	54.777%	53.355%	93.557%	102.736%	101.749%	104.084%	109.008%
σ		0.588%	n/a	n/a	0.521%	n/a	n/a	n/a	n/a
%RSD		0.642	4.418	1.358	0.557	0.817	2.529	3.797	8.612
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:21	92.466%	4.480	1.621	1.574	9.290	9.582	90.616%	90.090%
2	12:46:41	92.285%	3.751	1.643	1.704	9.282	9.509	91.638%	90.023%
3	12:47:00	92.596%	3.594	1.698	1.700	9.429	9.237	92.286%	92.071%
x		92.449%	78.832%	82.705%	82.962%	93.335%	94.427%	91.514%	90.728%
σ		0.156%	n/a	n/a	n/a	n/a	n/a	0.842%	1.163%
%RSD		0.169	11.990	2.409	4.471	0.887	1.926	0.920	1.282
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:46:21	1.033	1.032	1.045	1.056	1.052	80.402%		
2	12:46:41	1.040	1.058	1.085	1.049	1.066	81.186%		
3	12:47:00	1.086	1.070	1.087	1.085	1.072	82.208%		
x		105.308%	105.309%	107.241%	106.337%	106.328%	81.265%		
σ		n/a	n/a	n/a	n/a	n/a	0.905%		
%RSD		2.697	1.849	2.245	1.831	0.958	1.114		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:12	117.478%	-0.011	0.314	0.545	0.000	-3.388	-0.126	-0.002
2	12:50:31	109.316%	-0.026	0.356	0.408	0.000	-3.262	-0.049	-0.379
3	12:50:50	108.504%	-0.026	0.508	0.477	0.000	-3.387	-0.252	-0.317
x		111.766%	-0.021	0.393	0.477	0.000	-3.345	-0.142	-0.233
σ		4.963%	0.009	0.102	0.068	0.000	0.073	0.102	0.202
%RSD		4.441	42.420	26.000	14.350	0.000	2.169	72.110	86.760
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:12	0.538	-14.210	0.000	-3.650	4.626	1.181	110.378%	-0.019
2	12:50:31	0.630	-13.560	0.000	-2.628	3.480	4.352	104.819%	-0.024
3	12:50:50	0.508	-13.590	0.000	-3.204	5.177	1.489	102.685%	-0.040
x		0.558	-13.780	0.000	-3.161	4.428	2.341	105.961%	-0.028
σ		0.064	0.365	0.000	0.512	0.866	1.749	3.972%	0.011
%RSD		11.400	2.650	0.000	16.210	19.550	74.700	3.748	40.280
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:12	0.010	0.008	0.017	1.035	-1.063	0.003	0.020	0.011
2	12:50:31	0.021	0.003	0.011	0.778	-1.505	-0.000	0.014	0.023
3	12:50:50	0.016	-0.012	0.013	2.191	-1.429	0.002	0.012	0.001
x		0.016	-0.000	0.014	1.335	-1.332	0.002	0.016	0.012
σ		0.006	0.011	0.003	0.752	0.236	0.002	0.004	0.011
%RSD		35.570	3489.000	21.120	56.370	17.750	111.000	26.450	94.650
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:12	0.010	0.840	0.859	-0.080	-0.357	0.154	0.000	0.019
2	12:50:31	0.028	0.884	0.905	-0.146	-0.260	0.031	0.000	0.013
3	12:50:50	0.017	0.817	0.839	-0.063	-0.093	0.185	0.000	0.016
x		0.018	0.847	0.868	-0.096	-0.237	0.124	0.000	0.016
σ		0.010	0.034	0.034	0.044	0.133	0.082	0.000	0.003
%RSD		51.950	4.031	3.883	45.450	56.340	65.980	0.000	18.170
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:12	93.311%	-0.466	-0.478	95.624%	-0.016	-0.010	-0.014	-0.013
2	12:50:31	93.441%	-0.301	-0.284	95.773%	-0.009	-0.007	-0.009	-0.001
3	12:50:50	93.997%	-0.276	-0.296	95.908%	-0.002	-0.005	-0.018	-0.014
x		93.583%	-0.348	-0.353	95.768%	-0.009	-0.007	-0.014	-0.009
σ		0.364%	0.103	0.109	0.142%	0.007	0.003	0.005	0.007
%RSD		0.389	29.620	30.820	0.148	79.220	36.860	34.620	78.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:12	93.377%	-0.120	-0.348	-0.356	0.029	0.047	90.846%	89.601%
2	12:50:31	93.045%	-0.030	-0.334	-0.350	0.036	0.049	92.275%	90.905%
3	12:50:50	93.466%	-0.044	-0.334	-0.349	0.034	0.025	92.500%	92.174%
x		93.296%	-0.065	-0.339	-0.352	0.033	0.040	91.874%	90.893%
σ		0.222%	0.049	0.008	0.004	0.003	0.013	0.897%	1.286%
%RSD		0.238	75.290	2.270	1.161	10.180	32.160	0.977	1.415
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:50:12	0.037	0.041	0.001	-0.001	0.001	92.335%		
2	12:50:31	0.037	0.039	0.000	0.001	0.001	91.131%		
3	12:50:50	0.040	0.035	0.001	0.002	0.002	91.251%		
x		0.038	0.038	0.001	0.001	0.001	91.572%		
σ		0.002	0.003	0.000	0.001	0.000	0.664%		
%RSD		4.348	7.388	39.430	168.700	39.610	0.725		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:00	51.385%	49.380	949.200	996.500	0.000	43290.000	45140.000	46090.000
2	12:54:19	45.846%	51.390	1000.000	1061.000	0.000	46710.000	46220.000	45940.000
3	12:54:39	46.579%	47.690	907.100	940.000	0.000	42490.000	44350.000	45750.000
x		47.937%	49.480	952.200	999.100	0.000	44160.000	45240.000	45930.000
σ		3.008%	1.854	46.720	60.380	0.000	2242.000	936.300	168.100
%RSD		6.276	3.746	4.907	6.044	0.000	5.076	2.070	0.366
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:00	1938.000	9039.000	0.000	51180.000	51150.000	54810.000	51.773%	1045.000
2	12:54:19	1914.000	9055.000	0.000	52000.000	51870.000	54840.000	51.492%	1044.000
3	12:54:39	1888.000	8552.000	0.000	50580.000	50870.000	54860.000	48.199%	1049.000
x		1913.000	8882.000	0.000	51250.000	51300.000	54830.000	50.488%	1046.000
σ		25.070	285.800	0.000	715.200	513.400	26.380	1.987%	2.603
%RSD		1.310	3.218	0.000	1.395	1.001	0.048	3.936	0.249
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:00	544.800	210.100	555.900	1088.000	1070.000	526.000	499.000	243.900
2	12:54:19	538.500	201.100	542.600	1059.000	1018.000	504.900	466.300	230.000
3	12:54:39	539.200	206.900	549.600	1091.000	1075.000	515.600	488.600	234.900
x		540.800	206.000	549.400	1079.000	1054.000	515.500	484.700	236.300
σ		3.463	4.585	6.649	17.630	31.730	10.590	16.700	7.048
%RSD		0.640	2.225	1.210	1.634	3.010	2.054	3.446	2.983
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:00	242.600	505.800	500.800	36.420	10.470	10.670	0.000	1006.000
2	12:54:19	236.600	499.400	494.800	36.440	9.738	10.060	0.000	1019.000
3	12:54:39	240.300	503.000	492.000	35.480	10.270	9.819	0.000	1027.000
x		239.800	502.700	495.900	36.110	10.160	10.180	0.000	1018.000
σ		3.055	3.160	4.484	0.547	0.377	0.436	0.000	10.360
%RSD		1.274	0.629	0.904	1.514	3.713	4.285	0.000	1.018
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:00	68.328%	1060.000	1192.000	66.123%	49.310	49.560	50.520	43.200
2	12:54:19	65.816%	1060.000	1209.000	64.516%	49.290	49.890	51.660	43.370
3	12:54:39	66.441%	1070.000	1206.000	64.565%	48.790	49.360	50.720	43.240
x		66.862%	1063.000	1202.000	65.068%	49.130	49.600	50.970	43.270
σ		1.308%	5.640	8.845	0.914%	0.297	0.267	0.605	0.091
%RSD		1.956	0.530	0.736	1.405	0.604	0.538	1.186	0.209
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:00	72.088%	1980.000	509.000	502.100	1964.000	1924.000	85.298%	86.818%
2	12:54:19	71.278%	1990.000	514.900	500.700	1968.000	1926.000	85.657%	87.920%
3	12:54:39	71.910%	1975.000	507.200	501.400	1966.000	1917.000	85.811%	88.535%
x		71.758%	1982.000	510.400	501.400	1966.000	1922.000	85.589%	87.758%
σ		0.426%	7.867	4.022	0.665	1.983	4.741	0.263%	0.870%
%RSD		0.593	0.397	0.788	0.133	0.101	0.247	0.308	0.991
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:54:00	53.980	54.120	22.640	22.730	22.780	75.026%		
2	12:54:19	54.570	54.740	23.070	23.040	22.990	75.842%		
3	12:54:39	54.720	55.060	22.960	23.130	22.960	76.794%		
x		54.420	54.640	22.890	22.970	22.910	75.887%		
σ		0.392	0.476	0.223	0.214	0.114	0.885%		
%RSD		0.720	0.872	0.975	0.930	0.495	1.166		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	52.290%	0.043	6.771	6.925	0.000	1781.000	25100.000	24610.000
2	12:58:07	50.685%	0.010	7.397	7.035	0.000	1839.000	25110.000	25050.000
3	12:58:26	46.786%	-0.007	5.898	6.363	0.000	1722.000	23900.000	24350.000
x		49.920%	0.015	6.689	6.774	0.000	1781.000	24700.000	24670.000
σ		2.830%	0.026	0.753	0.361	0.000	58.020	700.400	356.200
%RSD		5.669	167.400	11.250	5.326	0.000	3.258	2.835	1.444

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	4.872	3985.000	0.000	1186.000	130200.000	132800.000	53.114%	0.732
2	12:58:07	5.786	3980.000	0.000	1212.000	123200.000	133300.000	49.679%	0.877
3	12:58:26	5.192	3863.000	0.000	1245.000	123400.000	134000.000	48.031%	0.742
x		5.283	3943.000	0.000	1215.000	125600.000	133400.000	50.275%	0.784
σ		0.464	69.320	0.000	29.690	3994.000	584.400	2.593%	0.081
%RSD		8.777	1.758	0.000	2.445	3.180	0.438	5.158	10.320

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	-1.461	0.475	153.900	669.600	720.800	0.247	-0.597	0.968
2	12:58:07	-0.263	0.448	156.100	683.200	756.700	0.255	-0.506	1.039
3	12:58:26	0.169	0.448	158.400	694.700	753.500	0.249	-0.413	1.031
x		-0.518	0.457	156.200	682.500	743.700	0.250	-0.506	1.012
σ		0.844	0.016	2.242	12.560	19.850	0.004	0.092	0.039
%RSD		162.900	3.398	1.436	1.840	2.669	1.609	18.180	3.847

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	1.228	1394.000	1397.000	-0.508	-0.058	0.316	0.000	1029.000
2	12:58:07	1.085	1441.000	1440.000	-0.017	-0.067	0.466	0.000	1035.000
3	12:58:26	1.189	1430.000	1427.000	-0.266	-0.148	0.528	0.000	1049.000
x		1.167	1422.000	1422.000	-0.263	-0.091	0.437	0.000	1038.000
σ		0.074	24.750	22.200	0.246	0.049	0.109	0.000	10.210
%RSD		6.318	1.741	1.562	93.310	54.390	24.930	0.000	0.984

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	68.702%	4.680	4.675	67.946%	-0.004	-0.004	0.179	0.239
2	12:58:07	68.447%	5.247	5.126	67.986%	-0.004	0.004	0.182	0.197
3	12:58:26	68.157%	4.640	4.812	66.545%	0.002	-0.006	0.169	0.184
x		68.435%	4.856	4.871	67.492%	-0.002	-0.002	0.176	0.207
σ		0.272%	0.340	0.231	0.821%	0.004	0.005	0.007	0.029
%RSD		0.398	6.996	4.744	1.216	185.700	254.500	3.987	13.820

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	74.576%	1.171	-0.141	-0.094	145.000	145.200	85.895%	88.127%
2	12:58:07	75.401%	1.171	-0.112	-0.104	143.800	144.800	87.166%	89.125%
3	12:58:26	75.244%	1.058	-0.136	-0.125	143.500	144.000	88.697%	90.603%
x		75.074%	1.134	-0.130	-0.108	144.100	144.700	87.252%	89.285%
σ		0.438%	0.065	0.016	0.016	0.768	0.626	1.403%	1.246%
%RSD		0.584	5.750	12.000	14.600	0.533	0.433	1.608	1.396

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:48	0.521	0.524	2.027	1.913	1.954	78.835%
2	12:58:07	0.431	0.457	2.041	1.896	1.961	79.509%
3	12:58:26	0.374	0.401	2.023	1.889	1.946	80.922%
x		0.442	0.461	2.031	1.899	1.954	79.755%
σ		0.074	0.061	0.009	0.013	0.007	1.065%
%RSD		16.770	13.350	0.459	0.664	0.373	1.336

180-45152-G-2-A SD@5 6/19/2015 1:01:16 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	13:01:35	80.939%	0.019	2.171	2.074	0.000	347.600	5018.000	4915.000
2	13:01:54	73.921%	-0.014	1.829	1.927	0.000	379.600	5386.000	5387.000
3	13:02:13	77.285%	0.009	1.757	2.073	0.000	359.500	5075.000	5002.000
x		77.382%	0.004	1.919	2.025	0.000	362.200	5160.000	5101.000
σ		3.510%	0.017	0.221	0.085	0.000	16.160	198.100	251.200
%RSD		4.536	377.100	11.520	4.180	0.000	4.461	3.840	4.924

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:01:35	1.404	779.400	0.000	216.800	21720.000	23360.000	81.995%	0.072
2	13:01:54	1.637	853.200	0.000	224.100	21800.000	22940.000	80.614%	0.075
3	13:02:13	1.336	781.800	0.000	222.500	22550.000	23790.000	76.564%	0.071
x		1.459	804.800	0.000	221.100	22020.000	23360.000	79.724%	0.073
σ		0.158	41.910	0.000	3.858	460.800	423.900	2.823%	0.002
%RSD		10.810	5.208	0.000	1.745	2.092	1.815	3.541	2.424

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:01:35	-0.035	0.121	29.430	128.000	141.400	0.058	-0.019	0.238
2	13:01:54	0.251	0.073	28.580	120.200	137.000	0.052	-0.041	0.187
3	13:02:13	0.078	0.099	28.280	123.100	140.400	0.041	-0.029	0.223
x		0.098	0.098	28.760	123.800	139.600	0.050	-0.030	0.216
σ		0.144	0.024	0.599	3.926	2.303	0.008	0.011	0.026
%RSD		146.700	24.890	2.082	3.172	1.650	16.730	37.770	12.050

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:01:35	0.245	283.700	284.800	0.096	-0.303	0.080	0.000	200.900
2	13:01:54	0.274	285.400	289.700	-0.090	-0.250	0.183	0.000	201.700
3	13:02:13	0.256	291.400	288.300	-0.045	-0.133	-0.024	0.000	201.000
x		0.258	286.800	287.600	-0.013	-0.229	0.080	0.000	201.200
σ		0.015	4.020	2.520	0.097	0.087	0.103	0.000	0.428
%RSD		5.680	1.402	0.876	754.800	38.240	129.700	0.000	0.213

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:01:35	84.229%	0.150	0.169	83.640%	-0.016	-0.010	-0.055	-0.022
2	13:01:54	83.539%	0.430	0.463	85.370%	-0.018	-0.011	0.039	0.033
3	13:02:13	83.607%	0.520	0.506	83.944%	-0.017	-0.013	0.005	0.028
x		83.792%	0.367	0.380	84.318%	-0.017	-0.011	-0.004	0.013
σ		0.380%	0.193	0.183	0.924%	0.001	0.002	0.048	0.031
%RSD		0.454	52.610	48.300	1.095	3.749	17.230	1197.000	234.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:01:35	87.486%	-0.041	-0.343	-0.340	28.000	28.590	92.212%	92.727%
2	13:01:54	87.838%	-0.003	-0.321	-0.341	28.630	28.950	93.015%	93.809%
3	13:02:13	88.220%	-0.015	-0.333	-0.348	28.650	28.600	94.135%	95.384%
x		87.848%	-0.020	-0.333	-0.343	28.430	28.710	93.121%	93.973%
σ		0.367%	0.019	0.011	0.004	0.367	0.207	0.966%	1.336%
%RSD		0.418	96.700	3.319	1.249	1.290	0.722	1.037	1.422

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:01:35	0.106	0.097	0.399	0.364	0.368	86.500%
2	13:01:54	0.110	0.112	0.402	0.370	0.383	87.506%
3	13:02:13	0.127	0.107	0.406	0.361	0.383	87.111%
x		0.114	0.105	0.402	0.365	0.378	87.039%
σ		0.011	0.008	0.003	0.005	0.008	0.507%
%RSD		9.670	7.335	0.830	1.245	2.224	0.583

CCV 1594026 6/19/2015 1:05:11 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	13:05:11	106.037%	111.600	102.900	108.700	0.000	52570.000	53420.000	52560.000
2	13:05:31	111.519%	107.700	102.900	103.600	0.000	50840.000	50190.000	50750.000
3	13:05:50	108.361%	108.700	104.300	109.300	0.000	50890.000	50380.000	50590.000
x		108.639%	109.334%	103.355%	107.196%	0.000	102.867%	102.654%	102.604%
σ		2.751%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.533	1.824	0.800	2.925	0.000	1.908	3.529	2.135

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:11	528.900	5402.000	0.000	50030.000	46160.000	48230.000	114.844%	94.470
2	13:05:31	507.000	5141.000	0.000	49920.000	47570.000	50310.000	110.653%	95.980
3	13:05:50	525.400	5324.000	0.000	50860.000	48700.000	49910.000	110.596%	94.430
x		104.088%	105.783%	0.000	100.543%	94.951%	98.968%	112.031%	94.960%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.436%	n/a
%RSD		2.262	2.535	0.000	1.018	2.682	2.228	2.175	0.933

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:11	95.120	96.210	477.300	23770.000	23520.000	93.230	95.200	96.740
2	13:05:31	96.970	98.500	495.100	25000.000	24810.000	99.690	100.600	102.100
3	13:05:50	97.230	96.270	490.300	24440.000	25110.000	99.800	101.100	103.300
x		96.443%	96.992%	97.514%	97.608%	97.928%	97.577%	98.967%	100.695%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.195	1.343	1.893	2.528	3.448	3.856	3.303	3.448

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:11	96.880	99.380	98.100	98.730	104.600	105.400	0.000	94.040
2	13:05:31	100.700	103.500	102.700	100.200	104.600	105.800	0.000	94.800
3	13:05:50	101.200	102.800	103.000	101.300	104.400	104.800	0.000	95.400
x		99.600%	101.915%	101.249%	100.087%	104.521%	105.319%	0.000	94.749%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.381	2.183	2.701	1.309	0.135	0.493	0.000	0.720

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:11	100.014%	92.000	92.150	94.878%	98.730	100.100	100.500	99.360
2	13:05:31	100.413%	93.650	94.260	95.603%	99.880	99.670	100.400	99.480
3	13:05:50	100.827%	95.550	95.410	96.594%	99.010	98.800	99.600	100.000
x		100.418%	93.735%	93.941%	95.692%	99.205%	99.525%	100.174%	99.623%
σ		0.407%	n/a	n/a	0.861%	n/a	n/a	n/a	n/a
%RSD		0.405	1.894	1.760	0.900	0.607	0.666	0.500	0.354

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:11	95.810%	96.180	90.570	91.940	96.880	97.930	96.077%	95.293%
2	13:05:31	97.847%	97.070	90.710	92.760	99.410	98.370	97.967%	97.243%
3	13:05:50	99.439%	96.710	92.280	92.850	98.790	99.340	98.774%	98.770%
x		97.699%	96.653%	91.186%	92.517%	98.358%	98.549%	97.606%	97.102%
σ		1.819%	n/a	n/a	n/a	n/a	n/a	1.384%	1.743%
%RSD		1.862	0.460	1.045	0.541	1.342	0.731	1.418	1.795

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:11	102.000	103.800	101.200	101.300	103.100	84.942%
2	13:05:31	104.600	105.200	103.000	103.300	104.600	84.761%
3	13:05:50	104.700	105.900	103.500	104.400	105.500	86.557%
x		103.741%	104.966%	102.583%	103.000%	104.382%	85.420%
σ		n/a	n/a	n/a	n/a	n/a	0.989%
%RSD		1.474	0.987	1.153	1.506	1.177	1.158

CCB6 6/19/2015 1:08:43 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	13:09:02	122.298%	-0.012	0.573	0.768	0.000	8.333	2.472	2.426
2	13:09:21	112.385%	0.006	0.614	0.768	0.000	8.070	1.855	2.170
3	13:09:40	121.887%	-0.004	0.606	0.766	0.000	7.562	2.287	1.881
x		118.857%	-0.003	0.598	0.767	0.000	7.988	2.205	2.159
σ		5.608%	0.009	0.022	0.001	0.000	0.392	0.317	0.273
%RSD		4.719	274.800	3.670	0.155	0.000	4.904	14.360	12.630

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:09:02	2.601	-8.919	0.000	5.984	13.090	16.040	123.247%	0.018
2	13:09:21	2.684	-9.307	0.000	6.367	20.730	15.730	117.865%	-0.016
3	13:09:40	2.670	-9.469	0.000	5.680	22.170	15.310	117.030%	0.132
x		2.652	-9.232	0.000	6.010	18.660	15.690	119.381%	0.044
σ		0.044	0.283	0.000	0.344	4.882	0.365	3.374%	0.077
%RSD		1.669	3.066	0.000	5.728	26.160	2.329	2.826	174.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:09:02	0.031	0.008	0.058	24.230	10.840	0.005	0.061	0.166
2	13:09:21	0.036	0.015	0.058	13.180	11.930	0.007	0.089	0.165
3	13:09:40	0.044	0.021	0.059	11.590	11.190	0.004	0.059	0.182
x		0.037	0.015	0.058	16.330	11.320	0.005	0.070	0.171
σ		0.007	0.007	0.001	6.888	0.553	0.002	0.017	0.010
%RSD		18.410	45.980	1.096	42.170	4.889	28.100	23.730	5.605

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:09:02	0.163	1.328	1.451	0.120	1.070	1.126	0.000	0.028
2	13:09:21	0.199	1.323	1.251	0.392	1.526	1.428	0.000	0.022
3	13:09:40	0.177	1.447	1.440	0.266	1.143	1.173	0.000	0.027
x		0.180	1.366	1.380	0.259	1.246	1.242	0.000	0.026
σ		0.019	0.071	0.112	0.136	0.245	0.163	0.000	0.003
%RSD		10.320	5.163	8.133	52.480	19.670	13.080	0.000	12.100

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:09:02	107.687%	1.600	1.643	109.258%	0.010	0.013	0.006	-0.063
2	13:09:21	108.774%	2.036	1.957	109.521%	0.008	0.007	0.013	-0.065
3	13:09:40	108.839%	2.052	2.151	107.979%	0.006	0.004	0.028	-0.044
x		108.433%	1.896	1.917	108.919%	0.008	0.008	0.016	-0.057
σ		0.647%	0.257	0.256	0.825%	0.002	0.004	0.012	0.012
%RSD		0.597	13.530	13.370	0.757	19.720	55.580	74.410	20.560

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:09:02	106.836%	2.225	1.055	1.112	0.080	0.055	103.370%	102.019%
2	13:09:21	106.837%	2.657	1.194	1.201	0.009	0.049	104.114%	103.294%
3	13:09:40	106.211%	2.419	1.175	1.126	0.035	0.046	104.902%	104.261%
x		106.628%	2.434	1.141	1.147	0.042	0.050	104.129%	103.191%
σ		0.361%	0.216	0.075	0.048	0.036	0.004	0.766%	1.125%
%RSD		0.339	8.891	6.589	4.193	86.460	8.584	0.736	1.090

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:09:02	0.086	0.084	0.029	0.034	0.031	96.219%
2	13:09:21	0.074	0.082	0.032	0.032	0.035	96.660%
3	13:09:40	0.084	0.082	0.030	0.033	0.033	96.746%
x		0.081	0.082	0.030	0.033	0.033	96.542%
σ		0.006	0.001	0.002	0.001	0.002	0.283%
%RSD		7.387	1.281	5.783	2.371	4.801	0.293

180-45152-G-2-B MS 6/19/2015 1:12:32 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	13:12:51	54.543%	46.830	899.700	974.800	0.000	46230.000	68400.000	67840.000
2	13:13:10	49.700%	50.080	924.800	963.400	0.000	45720.000	71010.000	70530.000
3	13:13:30	48.148%	49.100	946.300	988.800	0.000	45830.000	67440.000	65330.000
x		50.797%	48.670	923.600	975.700	0.000	45930.000	68950.000	67900.000
σ		3.336%	1.667	23.330	12.750	0.000	265.500	1847.000	2599.000
%RSD		6.567	3.426	2.526	1.306	0.000	0.578	2.679	3.828

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:12:51	1883.000	12390.000	0.000	49950.000	166700.000	181900.000	50.933%	997.500
2	13:13:10	1909.000	12760.000	0.000	52030.000	187200.000	185900.000	50.488%	988.200
3	13:13:30	1806.000	11870.000	0.000	50120.000	180600.000	183000.000	47.205%	990.700
x		1866.000	12340.000	0.000	50700.000	178100.000	183600.000	49.542%	992.100
σ		53.790	447.000	0.000	1155.000	10480.000	2065.000	2.036%	4.807
%RSD		2.883	3.623	0.000	2.277	5.880	1.125	4.110	0.484

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:12:51	522.900	196.600	695.800	1730.000	1817.000	518.500	480.700	237.700
2	13:13:10	528.400	198.400	687.000	1704.000	1760.000	498.700	460.900	226.800
3	13:13:30	482.000	192.400	701.500	1709.000	1822.000	510.300	481.600	239.900
x		511.100	195.800	694.800	1714.000	1800.000	509.200	474.400	234.800
σ		25.380	3.051	7.286	13.680	34.730	9.914	11.660	7.061
%RSD		4.965	1.558	1.049	0.798	1.929	1.947	2.457	3.007

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:12:51	242.200	1846.000	1839.000	37.970	10.410	10.620	0.000	1986.000
2	13:13:10	230.500	1822.000	1842.000	36.770	10.300	11.230	0.000	2012.000
3	13:13:30	241.700	1882.000	1865.000	37.490	11.180	11.120	0.000	2025.000
x		238.200	1850.000	1849.000	37.410	10.630	10.990	0.000	2008.000
σ		6.647	30.130	14.330	0.606	0.479	0.327	0.000	19.770
%RSD		2.791	1.629	0.775	1.619	4.513	2.979	0.000	0.985

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:12:51	69.315%	1055.000	1193.000	66.265%	47.650	47.420	49.340	42.920
2	13:13:10	67.653%	1051.000	1196.000	65.248%	47.480	47.580	49.980	42.110
3	13:13:30	66.956%	1055.000	1200.000	63.916%	47.240	47.660	49.750	42.500
x		67.975%	1054.000	1196.000	65.143%	47.460	47.550	49.690	42.510
σ		1.212%	2.591	3.722	1.178%	0.206	0.122	0.327	0.406
%RSD		1.783	0.246	0.311	1.808	0.435	0.256	0.658	0.955

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:12:51	72.540%	1948.000	510.800	505.200	2090.000	2040.000	84.957%	86.776%
2	13:13:10	72.022%	1952.000	507.700	501.700	2096.000	2043.000	85.061%	87.228%
3	13:13:30	71.280%	1961.000	514.600	507.000	2090.000	2037.000	86.460%	87.824%
x		71.948%	1954.000	511.000	504.600	2092.000	2040.000	85.493%	87.276%
σ		0.633%	6.449	3.464	2.680	3.335	3.234	0.839%	0.525%
%RSD		0.880	0.330	0.678	0.531	0.159	0.159	0.981	0.602

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:12:51	53.100	53.290	24.580	24.400	24.470	72.589%
2	13:13:10	53.210	53.560	24.520	24.710	24.530	73.921%
3	13:13:30	54.780	54.190	24.630	24.430	24.570	73.371%
x		53.700	53.680	24.580	24.520	24.520	73.294%
σ		0.939	0.464	0.056	0.171	0.048	0.670%
%RSD		1.749	0.865	0.226	0.699	0.197	0.914

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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	13:16:38	49.148%	49.430	1028.000	1010.000	0.000	46900.000	72070.000	71480.000
2	13:16:57	41.877%	53.260	1020.000	1045.000	0.000	49450.000	72970.000	72710.000
3	13:17:16	42.131%	50.440	953.000	1015.000	0.000	47180.000	68790.000	70330.000
x		44.385%	51.040	1000.000	1023.000	0.000	47840.000	71280.000	71510.000
σ		4.127%	1.985	41.070	18.740	0.000	1399.000	2200.000	1193.000
%RSD		9.297	3.889	4.106	1.831	0.000	2.923	3.086	1.668

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:38	1926.000	12670.000	0.000	54710.000	200100.000	195900.000	47.186%	1050.000
2	13:16:57	1949.000	13370.000	0.000	54390.000	180400.000	197600.000	46.379%	1059.000
3	13:17:16	1811.000	12340.000	0.000	53280.000	179700.000	193500.000	42.983%	1079.000
x		1895.000	12790.000	0.000	54130.000	186700.000	195700.000	45.516%	1063.000
σ		73.830	528.100	0.000	752.200	11540.000	2062.000	2.230%	15.060
%RSD		3.895	4.129	0.000	1.390	6.179	1.054	4.900	1.417

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:38	513.900	210.200	735.100	1854.000	1897.000	535.100	500.300	245.300
2	13:16:57	555.400	210.300	743.900	1865.000	1865.000	501.400	472.900	233.000
3	13:17:16	571.600	216.900	760.100	1891.000	1936.000	542.800	507.500	243.300
x		547.000	212.500	746.400	1870.000	1899.000	526.400	493.600	240.500
σ		29.730	3.850	12.680	19.120	35.640	22.010	18.280	6.565
%RSD		5.435	1.812	1.698	1.023	1.877	4.181	3.704	2.729

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:38	246.400	1970.000	1963.000	37.880	10.770	10.460	0.000	2126.000
2	13:16:57	240.900	1944.000	1952.000	39.130	11.030	10.840	0.000	2128.000
3	13:17:16	251.000	2017.000	1994.000	38.640	10.770	12.050	0.000	2135.000
x		246.100	1977.000	1970.000	38.550	10.860	11.110	0.000	2130.000
σ		5.043	37.420	21.610	0.627	0.150	0.833	0.000	4.651
%RSD		2.049	1.893	1.097	1.626	1.386	7.496	0.000	0.218

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:38	65.718%	1122.000	1268.000	63.020%	50.490	50.230	52.630	44.680
2	13:16:57	65.061%	1119.000	1269.000	62.814%	50.150	50.010	52.270	44.620
3	13:17:16	64.627%	1121.000	1268.000	61.505%	49.810	50.240	53.030	44.770
x		65.135%	1121.000	1268.000	62.446%	50.150	50.160	52.640	44.690
σ		0.550%	1.172	0.519	0.822%	0.343	0.124	0.379	0.073
%RSD		0.844	0.105	0.041	1.316	0.684	0.248	0.719	0.163

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:38	69.811%	2065.000	538.900	531.200	2216.000	2161.000	84.020%	85.750%
2	13:16:57	70.957%	2046.000	525.400	523.500	2195.000	2133.000	84.768%	86.521%
3	13:17:16	69.795%	2055.000	539.700	527.800	2188.000	2128.000	84.642%	86.340%
x		70.187%	2056.000	534.700	527.500	2200.000	2141.000	84.477%	86.204%
σ		0.667%	9.784	8.047	3.836	14.320	17.820	0.401%	0.403%
%RSD		0.950	0.476	1.505	0.727	0.651	0.832	0.474	0.467

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:38	57.400	57.300	26.370	25.970	26.090	71.052%
2	13:16:57	58.190	58.710	26.350	26.360	26.270	72.246%
3	13:17:16	57.330	57.840	25.890	26.000	26.210	73.056%
x		57.640	57.950	26.200	26.110	26.190	72.118%
σ		0.481	0.712	0.273	0.216	0.094	1.008%
%RSD		0.834	1.229	1.042	0.826	0.358	1.398

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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	13:20:25	54.966%	0.074	6.363	7.661	0.000	1780.000	24470.000	24810.000
2	13:20:44	50.642%	0.010	8.225	7.591	0.000	1607.000	22630.000	22430.000
3	13:21:03	49.564%	0.029	7.110	8.183	0.000	1763.000	24480.000	24930.000
x		51.724%	0.037	7.233	7.812	0.000	1717.000	23860.000	24060.000
σ		2.859%	0.033	0.937	0.323	0.000	95.480	1069.000	1407.000
%RSD		5.526	87.840	12.960	4.140	0.000	5.562	4.482	5.849

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:25	3.990	3952.000	0.000	1217.000	121700.000	129000.000	51.999%	0.645
2	13:20:44	3.570	3681.000	0.000	1166.000	118300.000	128600.000	49.306%	0.721
3	13:21:03	4.109	3700.000	0.000	1162.000	116400.000	127000.000	49.236%	0.741
x		3.890	3778.000	0.000	1181.000	118800.000	128200.000	50.180%	0.702
σ		0.283	151.400	0.000	30.600	2672.000	1062.000	1.575%	0.050
%RSD		7.271	4.009	0.000	2.590	2.250	0.829	3.139	7.159

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:25	-0.868	0.482	157.300	671.500	736.700	0.245	-0.388	0.811
2	13:20:44	-0.506	0.468	163.500	700.200	742.400	0.256	-0.472	0.760
3	13:21:03	0.347	0.469	156.700	655.000	710.100	0.222	-0.391	0.744
x		-0.342	0.473	159.100	675.600	729.700	0.241	-0.417	0.772
σ		0.624	0.008	3.775	22.890	17.240	0.017	0.048	0.035
%RSD		182.300	1.667	2.372	3.388	2.362	7.092	11.460	4.532

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:25	0.958	1438.000	1441.000	-0.438	0.163	0.515	0.000	991.000
2	13:20:44	0.804	1440.000	1439.000	0.136	0.093	0.378	0.000	995.200
3	13:21:03	0.931	1448.000	1450.000	0.259	-0.264	0.510	0.000	1005.000
x		0.898	1442.000	1443.000	-0.014	-0.003	0.468	0.000	996.900
σ		0.082	5.014	5.849	0.372	0.229	0.078	0.000	6.951
%RSD		9.109	0.348	0.405	2579.000	8837.000	16.680	0.000	0.697

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:25	70.473%	4.606	4.810	69.890%	-0.009	-0.011	0.151	0.194
2	13:20:44	69.038%	5.766	5.676	68.319%	-0.013	-0.005	0.169	0.201
3	13:21:03	68.353%	5.206	5.263	67.904%	-0.012	-0.011	0.136	0.197
x		69.288%	5.193	5.250	68.704%	-0.011	-0.009	0.152	0.197
σ		1.082%	0.580	0.433	1.047%	0.002	0.004	0.017	0.004
%RSD		1.562	11.180	8.248	1.524	17.920	41.900	10.900	1.995

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:25	75.626%	1.295	-0.007	0.075	138.900	140.500	86.419%	88.012%
2	13:20:44	76.054%	1.240	0.069	0.031	139.400	140.300	87.400%	89.096%
3	13:21:03	75.477%	1.054	0.040	0.065	138.900	139.400	88.246%	89.959%
x		75.719%	1.196	0.034	0.057	139.100	140.100	87.355%	89.022%
σ		0.299%	0.126	0.039	0.023	0.292	0.591	0.914%	0.976%
%RSD		0.396	10.530	113.400	40.920	0.210	0.422	1.047	1.096

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:25	0.683	0.682	2.997	2.735	2.847	77.079%
2	13:20:44	0.592	0.565	2.930	2.709	2.803	79.109%
3	13:21:03	0.510	0.523	2.970	2.753	2.840	79.973%
x		0.595	0.590	2.966	2.732	2.830	78.721%
σ		0.087	0.083	0.034	0.022	0.023	1.486%
%RSD		14.560	14.020	1.134	0.798	0.825	1.887

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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	13:27:09	110.303%	-0.018	0.751	1.186	0.000	-3.615	0.344	0.096
2	13:27:28	107.376%	-0.001	1.066	1.312	0.000	-3.704	0.505	0.006
3	13:27:48	116.854%	0.005	1.026	1.115	0.000	-3.743	0.160	0.042
x		111.511%	-0.005	0.948	1.204	0.000	-3.687	0.336	0.048
σ		4.853%	0.012	0.171	0.100	0.000	0.066	0.172	0.046
%RSD		4.352	250.900	18.070	8.296	0.000	1.787	51.200	95.220

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:09	0.534	-14.080	0.000	-2.673	3.994	3.529	109.011%	-0.026
2	13:27:28	0.837	-11.760	0.000	-2.494	7.328	3.454	113.523%	-0.021
3	13:27:48	0.638	-13.640	0.000	-3.000	5.312	3.691	111.064%	0.037
x		0.670	-13.160	0.000	-2.722	5.545	3.558	111.199%	-0.003
σ		0.154	1.231	0.000	0.257	1.679	0.121	2.259%	0.035
%RSD		22.990	9.350	0.000	9.422	30.290	3.407	2.032	1058.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:09	0.024	0.015	0.018	1.382	-1.744	0.004	0.025	-0.001
2	13:27:28	0.018	-0.001	0.018	-1.917	-1.793	0.001	0.020	0.032
3	13:27:48	0.025	0.016	0.013	-1.352	-1.505	0.005	0.023	0.011
x		0.022	0.010	0.016	-0.629	-1.681	0.004	0.023	0.014
σ		0.004	0.009	0.003	1.764	0.154	0.002	0.002	0.017
%RSD		17.060	91.780	18.630	280.600	9.177	57.200	10.840	118.400

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:09	0.002	0.947	1.109	-0.125	-0.113	0.009	0.000	0.026
2	13:27:28	-0.002	1.042	1.121	-0.072	-0.266	0.111	0.000	0.014
3	13:27:48	0.001	0.981	1.065	-0.095	-0.035	-0.008	0.000	0.019
x		0.001	0.990	1.098	-0.097	-0.138	0.037	0.000	0.020
σ		0.002	0.048	0.030	0.027	0.117	0.064	0.000	0.006
%RSD		339.700	4.859	2.711	27.520	85.150	172.600	0.000	32.200

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:09	93.018%	-0.165	-0.132	94.092%	-0.018	-0.019	0.014	0.013
2	13:27:28	101.649%	-0.034	-0.003	103.199%	-0.018	-0.013	-0.026	-0.018
3	13:27:48	102.540%	0.147	0.103	102.972%	-0.018	-0.013	0.022	0.013
x		99.069%	-0.017	-0.011	100.088%	-0.018	-0.015	0.003	0.003
σ		5.259%	0.156	0.118	5.193%	0.000	0.004	0.026	0.018
%RSD		5.309	909.200	1082.000	5.189	1.181	24.240	778.600	718.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:09	91.640%	-0.158	-0.326	-0.342	0.039	0.042	90.217%	89.252%
2	13:27:28	101.758%	-0.115	-0.323	-0.336	0.017	0.062	100.618%	99.487%
3	13:27:48	102.475%	-0.117	-0.323	-0.333	0.046	0.039	101.363%	100.511%
x		98.625%	-0.130	-0.324	-0.337	0.034	0.048	97.399%	96.416%
σ		6.059%	0.024	0.002	0.004	0.015	0.012	6.231%	6.226%
%RSD		6.144	18.470	0.511	1.250	45.040	26.090	6.397	6.457

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:09	0.097	0.087	-0.000	-0.001	0.001	88.947%
2	13:27:28	0.096	0.091	0.001	-0.001	0.001	96.015%
3	13:27:48	0.095	0.099	0.002	0.002	0.002	95.477%
x		0.096	0.092	0.001	0.000	0.001	93.480%
σ		0.001	0.006	0.001	0.002	0.000	3.934%
%RSD		0.854	6.789	120.000	1567.000	33.350	4.209

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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	13:30:56	57.114%	49.680	915.000	935.700	0.000	42550.000	42560.000	43300.000
2	13:31:16	46.816%	48.540	916.700	968.800	0.000	42390.000	44040.000	44350.000
3	13:31:35	43.866%	51.180	1015.000	996.200	0.000	46480.000	47780.000	46540.000
x		49.265%	49.800	949.000	966.900	0.000	43810.000	44790.000	44730.000
σ		6.955%	1.327	57.450	30.300	0.000	2318.000	2688.000	1654.000
%RSD		14.118	2.665	6.054	3.134	0.000	5.293	6.001	3.699

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:56	1791.000	8657.000	0.000	46280.000	45750.000	49670.000	59.633%	937.900
2	13:31:16	1754.000	8458.000	0.000	47110.000	45810.000	48660.000	54.578%	941.500
3	13:31:35	1846.000	8598.000	0.000	51710.000	50710.000	55450.000	45.337%	993.400
x		1797.000	8571.000	0.000	48370.000	47420.000	51260.000	53.183%	957.600
σ		46.380	102.600	0.000	2927.000	2845.000	3663.000	7.250%	31.060
%RSD		2.582	1.197	0.000	6.052	5.998	7.146	13.631	3.244

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:56	494.800	190.700	482.300	960.300	958.200	484.000	454.800	226.100
2	13:31:16	478.600	183.000	487.100	963.800	966.900	470.600	447.400	218.800
3	13:31:35	517.000	198.700	538.100	1079.000	1049.000	507.300	472.800	238.800
x		496.800	190.800	502.500	1001.000	991.400	487.300	458.300	227.900
σ		19.290	7.820	30.900	67.570	50.050	18.530	13.040	10.100
%RSD		3.883	4.099	6.150	6.750	5.049	3.802	2.844	4.430

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:56	228.900	484.200	488.900	37.360	10.240	11.360	0.000	969.800
2	13:31:16	221.100	485.600	483.700	36.000	10.200	10.480	0.000	985.300
3	13:31:35	242.500	537.000	531.800	38.190	10.760	10.820	0.000	995.600
x		230.800	502.300	501.500	37.180	10.400	10.890	0.000	983.500
σ		10.810	30.060	26.410	1.104	0.311	0.441	0.000	12.990
%RSD		4.685	5.985	5.267	2.970	2.993	4.048	0.000	1.321

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:56	65.184%	1046.000	1172.000	63.029%	48.040	48.330	50.420	42.800
2	13:31:16	64.716%	1038.000	1175.000	63.354%	48.110	48.480	50.400	43.420
3	13:31:35	65.065%	1049.000	1180.000	63.460%	48.060	48.420	50.810	43.630
x		64.988%	1044.000	1176.000	63.281%	48.070	48.410	50.540	43.290
σ		0.243%	5.665	4.024	0.225%	0.038	0.079	0.232	0.432
%RSD		0.374	0.542	0.342	0.355	0.078	0.162	0.460	0.998

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:56	67.662%	1914.000	510.100	497.500	1911.000	1869.000	77.479%	78.766%
2	13:31:16	69.049%	1937.000	514.300	505.000	1924.000	1872.000	81.951%	83.486%
3	13:31:35	70.477%	1948.000	520.600	509.800	1933.000	1895.000	85.689%	87.139%
x		69.063%	1933.000	515.000	504.100	1922.000	1879.000	81.706%	83.130%
σ		1.407%	17.240	5.298	6.184	10.880	14.280	4.111%	4.198%
%RSD		2.038	0.892	1.029	1.227	0.566	0.760	5.031	5.050

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:56	49.100	49.200	21.610	21.640	21.650	71.142%
2	13:31:16	50.570	50.730	22.250	22.190	22.290	74.910%
3	13:31:35	51.950	52.070	22.730	22.680	22.650	77.139%
x		50.540	50.670	22.200	22.170	22.200	74.397%
σ		1.422	1.438	0.561	0.521	0.505	3.032%
%RSD		2.813	2.837	2.526	2.352	2.276	4.075

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:44	59.838%	0.020	8.286	7.915	0.000	20.430	6.038	7.961
2	13:35:04	54.769%	0.007	8.114	7.721	0.000	19.800	5.675	6.049
3	13:35:24	51.049%	0.009	6.978	7.130	0.000	18.070	5.800	4.936
x		55.218%	0.012	7.793	7.589	0.000	19.430	5.838	6.315
σ		4.412%	0.007	0.711	0.409	0.000	1.223	0.184	1.530
%RSD		7.990	55.660	9.124	5.390	0.000	6.292	3.155	24.230
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:44	24.060	-4.672	0.000	12.830	95.980	84.850	53.038%	0.598
2	13:35:04	23.300	-5.040	0.000	11.470	76.750	85.970	49.718%	0.409
3	13:35:24	23.100	-7.620	0.000	10.060	85.610	80.090	49.445%	0.539
x		23.490	-5.777	0.000	11.450	86.120	83.640	50.734%	0.515
σ		0.505	1.607	0.000	1.388	9.627	3.120	2.000%	0.096
%RSD		2.148	27.810	0.000	12.120	11.180	3.731	3.943	18.680
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:44	-1.094	0.341	0.517	11.940	10.730	0.136	0.483	0.309
2	13:35:04	-1.624	0.370	0.548	16.030	13.150	0.126	0.542	0.283
3	13:35:24	-0.344	0.340	0.497	14.110	11.170	0.121	0.483	0.267
x		-1.021	0.350	0.521	14.030	11.680	0.128	0.502	0.286
σ		0.643	0.017	0.026	2.043	1.286	0.008	0.034	0.021
%RSD		63.010	4.809	4.921	14.560	11.000	6.063	6.809	7.483
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:44	0.316	12.970	12.830	-0.025	0.070	0.375	0.000	0.220
2	13:35:04	0.351	12.940	12.890	-0.549	-0.063	0.199	0.000	0.196
3	13:35:24	0.315	13.020	12.050	0.150	-0.049	0.142	0.000	0.173
x		0.327	12.970	12.590	-0.141	-0.014	0.238	0.000	0.196
σ		0.021	0.041	0.472	0.364	0.073	0.121	0.000	0.024
%RSD		6.302	0.318	3.753	256.900	515.600	50.910	0.000	12.100
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:44	71.008%	4.773	4.761	74.275%	-0.019	-0.011	-0.040	-0.020
2	13:35:04	69.221%	5.519	5.501	71.187%	-0.011	-0.006	-0.091	-0.070
3	13:35:24	68.628%	5.066	5.249	70.881%	-0.012	-0.011	-0.074	-0.047
x		69.619%	5.119	5.171	72.114%	-0.014	-0.009	-0.068	-0.046
σ		1.239%	0.376	0.376	1.878%	0.005	0.003	0.026	0.025
%RSD		1.779	7.348	7.280	2.604	34.720	31.630	38.470	54.980
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:44	77.577%	1.284	-0.058	-0.047	0.269	0.330	88.524%	89.879%
2	13:35:04	76.890%	1.407	-0.019	-0.033	0.226	0.247	88.547%	89.663%
3	13:35:24	77.192%	1.199	-0.023	-0.073	0.176	0.191	88.505%	90.836%
x		77.220%	1.297	-0.034	-0.051	0.223	0.256	88.525%	90.126%
σ		0.344%	0.104	0.021	0.020	0.046	0.070	0.021%	0.624%
%RSD		0.445	8.048	63.690	40.060	20.780	27.400	0.024	0.692
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:34:44	0.610	0.589	0.181	0.199	0.192	87.022%		
2	13:35:04	0.552	0.529	0.209	0.204	0.199	86.475%		
3	13:35:24	0.469	0.444	0.190	0.193	0.192	88.332%		
x		0.544	0.520	0.193	0.199	0.194	87.276%		
σ		0.071	0.073	0.014	0.006	0.004	0.954%		
%RSD		13.000	14.050	7.466	3.006	2.122	1.093		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	58.364%	-0.026	5.234	5.422	0.000	2018.000	2495.000	2507.000
2	13:38:53	55.344%	0.007	4.581	5.600	0.000	2087.000	2452.000	2431.000
3	13:39:12	48.557%	-0.026	4.908	5.852	0.000	2038.000	2591.000	2695.000
x		54.088%	-0.015	4.908	5.625	0.000	2048.000	2513.000	2544.000
σ		5.022%	0.019	0.326	0.216	0.000	35.480	71.240	136.200
%RSD		9.285	123.900	6.651	3.840	0.000	1.733	2.835	5.353

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	30.770	4388.000	0.000	1494.000	7837.000	8163.000	58.391%	1.229
2	13:38:53	32.280	4126.000	0.000	1502.000	7538.000	7861.000	52.991%	1.021
3	13:39:12	32.610	4478.000	0.000	1681.000	8493.000	8935.000	48.327%	1.107
x		31.890	4330.000	0.000	1559.000	7956.000	8320.000	53.236%	1.119
σ		0.983	182.400	0.000	105.800	488.800	553.900	5.036%	0.104
%RSD		3.082	4.213	0.000	6.786	6.143	6.658	9.460	9.332

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	-0.700	0.282	237.500	376.800	357.700	1.509	0.697	5.426
2	13:38:53	-0.478	0.236	236.100	368.900	367.200	1.524	0.650	5.413
3	13:39:12	-1.448	0.281	251.700	397.600	380.300	1.532	0.664	5.443
x		-0.875	0.266	241.800	381.100	368.400	1.521	0.670	5.427
σ		0.508	0.026	8.605	14.860	11.320	0.012	0.024	0.015
%RSD		58.060	9.880	3.559	3.899	3.072	0.777	3.570	0.281

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	5.558	72.180	72.910	0.189	-0.291	0.184	0.000	26.660
2	13:38:53	5.381	74.790	74.730	0.235	-0.209	0.423	0.000	26.980
3	13:39:12	5.512	76.080	77.170	-0.922	-0.159	0.360	0.000	27.450
x		5.483	74.350	74.940	-0.166	-0.220	0.322	0.000	27.030
σ		0.092	1.986	2.137	0.655	0.067	0.124	0.000	0.394
%RSD		1.671	2.671	2.852	394.700	30.380	38.410	0.000	1.459

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	69.539%	0.471	0.555	69.847%	-0.020	-0.018	0.026	0.054
2	13:38:53	69.309%	0.863	0.850	69.203%	-0.019	-0.011	0.043	0.068
3	13:39:12	67.045%	1.100	1.095	67.654%	-0.022	-0.015	0.056	0.075
x		68.631%	0.812	0.833	68.901%	-0.020	-0.015	0.042	0.066
σ		1.379%	0.318	0.270	1.127%	0.001	0.004	0.015	0.011
%RSD		2.009	39.150	32.450	1.636	6.452	26.470	36.530	16.580

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	74.953%	0.141	-0.176	-0.174	16.850	17.120	85.440%	86.869%
2	13:38:53	74.420%	0.198	-0.128	-0.155	16.880	17.160	86.846%	88.527%
3	13:39:12	74.198%	0.207	-0.147	-0.181	17.130	17.370	86.983%	88.436%
x		74.524%	0.182	-0.151	-0.170	16.950	17.220	86.423%	87.944%
σ		0.388%	0.036	0.024	0.014	0.154	0.136	0.854%	0.932%
%RSD		0.521	19.690	16.090	8.078	0.906	0.787	0.988	1.060

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:33	0.176	0.170	0.262	0.242	0.255	84.384%
2	13:38:53	0.196	0.186	0.255	0.247	0.253	84.027%
3	13:39:12	0.181	0.193	0.280	0.239	0.254	86.087%
x		0.184	0.183	0.266	0.243	0.254	84.833%
σ		0.010	0.012	0.013	0.004	0.001	1.101%
%RSD		5.588	6.385	4.865	1.686	0.321	1.298

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:22	55.035%	-0.026	5.147	5.731	0.000	2237.000	2900.000	2776.000
2	13:42:41	51.370%	0.063	4.672	4.927	0.000	2155.000	2648.000	2702.000
3	13:43:00	44.752%	0.035	5.678	4.837	0.000	2303.000	2699.000	2924.000
x		50.385%	0.024	5.166	5.165	0.000	2232.000	2749.000	2801.000
σ		5.212%	0.046	0.503	0.492	0.000	74.460	133.100	112.900
%RSD		10.344	192.800	9.740	9.533	0.000	3.336	4.842	4.030
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:22	139.700	4906.000	0.000	1674.000	8690.000	9183.000	51.155%	5.073
2	13:42:41	132.000	4917.000	0.000	1664.000	8784.000	9236.000	46.752%	6.232
3	13:43:00	141.900	5089.000	0.000	1730.000	9302.000	9420.000	46.334%	5.368
x		137.900	4971.000	0.000	1689.000	8926.000	9280.000	48.080%	5.557
σ		5.165	102.800	0.000	35.410	329.600	124.600	2.671%	0.602
%RSD		3.746	2.067	0.000	2.096	3.693	1.342	5.555	10.840
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:22	-0.374	0.347	256.200	1085.000	1035.000	1.542	0.710	11.170
2	13:42:41	0.621	0.303	262.900	1092.000	1071.000	1.500	0.627	11.090
3	13:43:00	-1.344	0.304	266.900	1128.000	1083.000	1.461	0.645	10.680
x		-0.366	0.318	262.000	1102.000	1063.000	1.501	0.661	10.980
σ		0.982	0.025	5.420	22.910	25.010	0.041	0.044	0.264
%RSD		268.700	7.742	2.069	2.080	2.353	2.701	6.629	2.408
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:22	11.300	77.290	77.840	-0.503	-0.527	0.265	0.000	26.820
2	13:42:41	11.130	78.770	80.500	-0.156	-0.327	0.425	0.000	26.940
3	13:43:00	10.610	78.480	77.910	-0.667	-0.388	0.293	0.000	27.210
x		11.010	78.180	78.750	-0.442	-0.414	0.328	0.000	26.990
σ		0.359	0.781	1.516	0.261	0.102	0.086	0.000	0.201
%RSD		3.262	0.998	1.925	59.090	24.730	26.160	0.000	0.744
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:22	70.556%	-0.124	-0.083	67.801%	-0.015	-0.012	0.125	0.127
2	13:42:41	69.463%	0.106	0.168	66.811%	-0.016	-0.010	0.104	0.121
3	13:43:00	68.129%	0.247	0.224	66.123%	-0.021	-0.009	0.097	0.092
x		69.383%	0.076	0.103	66.911%	-0.018	-0.010	0.109	0.113
σ		1.215%	0.187	0.164	0.843%	0.003	0.002	0.014	0.019
%RSD		1.752	244.900	158.600	1.260	19.040	17.820	13.160	16.580
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:22	73.040%	0.151	-0.223	-0.215	18.660	18.670	85.310%	87.113%
2	13:42:41	72.608%	0.224	-0.182	-0.211	18.830	18.660	85.221%	87.282%
3	13:43:00	72.831%	0.208	-0.201	-0.195	18.990	18.880	85.361%	87.973%
x		72.826%	0.194	-0.202	-0.207	18.830	18.740	85.297%	87.456%
σ		0.216%	0.038	0.020	0.011	0.165	0.126	0.071%	0.456%
%RSD		0.297	19.700	10.010	5.122	0.878	0.673	0.083	0.521
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:42:22	0.126	0.130	0.582	0.516	0.541	80.968%		
2	13:42:41	0.118	0.134	0.593	0.512	0.558	82.836%		
3	13:43:00	0.125	0.137	0.550	0.516	0.535	83.665%		
x		0.123	0.133	0.575	0.514	0.545	82.490%		
σ		0.005	0.003	0.022	0.003	0.012	1.381%		
%RSD		3.811	2.435	3.853	0.493	2.195	1.675		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	50.652%	0.028	5.619	5.277	0.000	2578.000	4436.000	4456.000
2	13:46:30	49.671%	0.029	5.200	5.019	0.000	2633.000	4316.000	4170.000
3	13:46:49	44.030%	0.036	4.737	5.110	0.000	2718.000	4450.000	4298.000
x		48.118%	0.031	5.185	5.135	0.000	2643.000	4401.000	4308.000
σ		3.574%	0.004	0.441	0.131	0.000	70.830	73.430	143.400
%RSD		7.427	13.710	8.503	2.546	0.000	2.680	1.668	3.329

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	43.470	4488.000	0.000	2160.000	17280.000	18120.000	46.763%	0.574
2	13:46:30	40.200	4201.000	0.000	2151.000	17820.000	18540.000	42.656%	0.533
3	13:46:49	41.610	4454.000	0.000	2179.000	17420.000	18420.000	42.240%	0.665
x		41.760	4381.000	0.000	2164.000	17510.000	18360.000	43.887%	0.591
σ		1.638	156.700	0.000	14.400	279.000	217.500	2.500%	0.068
%RSD		3.921	3.578	0.000	0.665	1.594	1.184	5.697	11.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	-1.184	0.265	377.200	173.700	183.700	1.749	1.369	2.885
2	13:46:30	-1.004	0.278	385.600	173.300	188.700	1.907	1.345	2.773
3	13:46:49	-0.466	0.373	376.700	169.200	177.300	1.909	1.174	2.707
x		-0.885	0.305	379.900	172.100	183.200	1.855	1.296	2.788
σ		0.374	0.059	4.996	2.509	5.680	0.092	0.106	0.090
%RSD		42.210	19.300	1.315	1.458	3.100	4.971	8.206	3.229

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	2.651	74.970	74.930	-0.117	-0.325	0.306	0.000	48.280
2	13:46:30	2.571	75.530	76.230	0.125	-0.165	0.382	0.000	48.970
3	13:46:49	2.695	77.830	76.270	-0.766	-0.238	0.397	0.000	49.270
x		2.639	76.110	75.810	-0.253	-0.242	0.362	0.000	48.840
σ		0.063	1.518	0.764	0.461	0.080	0.048	0.000	0.509
%RSD		2.374	1.994	1.008	182.100	32.960	13.390	0.000	1.043

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	66.533%	-0.359	-0.229	66.265%	-0.024	-0.020	0.026	0.035
2	13:46:30	65.115%	-0.093	-0.151	65.433%	-0.017	-0.015	0.010	0.028
3	13:46:49	63.944%	-0.067	-0.077	63.943%	-0.020	-0.019	-0.030	0.032
x		65.197%	-0.173	-0.152	65.214%	-0.020	-0.018	0.002	0.032
σ		1.296%	0.162	0.076	1.176%	0.003	0.002	0.029	0.003
%RSD		1.988	93.420	49.630	1.804	15.490	13.650	1591.000	10.990

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	71.612%	0.101	-0.139	-0.167	18.580	18.250	83.902%	86.368%
2	13:46:30	71.562%	0.133	-0.141	-0.161	18.200	18.520	85.032%	87.471%
3	13:46:49	70.904%	0.154	-0.139	-0.144	18.840	18.500	85.497%	87.018%
x		71.359%	0.129	-0.140	-0.158	18.540	18.420	84.810%	86.952%
σ		0.395%	0.027	0.002	0.012	0.322	0.152	0.821%	0.554%
%RSD		0.554	20.730	1.139	7.494	1.738	0.824	0.967	0.638

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:11	0.105	0.109	0.254	0.231	0.242	80.113%
2	13:46:30	0.112	0.109	0.240	0.252	0.245	81.876%
3	13:46:49	0.111	0.109	0.282	0.242	0.254	82.462%
x		0.109	0.109	0.259	0.241	0.247	81.483%
σ		0.004	0.000	0.021	0.011	0.007	1.223%
%RSD		3.305	0.233	8.280	4.432	2.664	1.501

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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	13:50:00	53.173%	0.025	4.249	5.358	0.000	2616.000	4106.000	4050.000
2	13:50:19	46.869%	-0.007	3.734	4.537	0.000	2515.000	4130.000	4012.000
3	13:50:38	45.575%	0.014	4.553	4.519	0.000	2413.000	3814.000	4161.000
x		48.539%	0.011	4.179	4.805	0.000	2515.000	4017.000	4074.000
σ		4.065%	0.016	0.414	0.479	0.000	101.500	175.800	77.760
%RSD		8.374	153.700	9.917	9.978	0.000	4.037	4.375	1.908

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:00	29.700	4564.000	0.000	2028.000	16180.000	17420.000	49.864%	0.462
2	13:50:19	29.780	4422.000	0.000	1977.000	16410.000	17490.000	47.336%	0.435
3	13:50:38	30.290	4503.000	0.000	2038.000	16450.000	17660.000	45.017%	0.679
x		29.920	4496.000	0.000	2014.000	16350.000	17520.000	47.406%	0.525
σ		0.319	71.170	0.000	32.520	147.100	122.900	2.425%	0.134
%RSD		1.066	1.583	0.000	1.615	0.900	0.701	5.115	25.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:00	-2.430	0.187	329.800	63.990	75.110	2.109	0.874	2.645
2	13:50:19	-0.196	0.201	326.900	63.670	75.460	2.098	0.911	2.454
3	13:50:38	-0.003	0.199	340.900	66.440	74.580	2.111	1.104	2.687
x		-0.876	0.196	332.500	64.700	75.050	2.106	0.963	2.595
σ		1.349	0.008	7.403	1.519	0.447	0.007	0.123	0.124
%RSD		154.000	3.934	2.226	2.348	0.595	0.335	12.820	4.791

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:00	2.613	73.640	73.210	0.015	-0.363	0.238	0.000	45.920
2	13:50:19	2.638	71.930	74.420	-0.603	-0.368	0.170	0.000	46.760
3	13:50:38	2.634	73.050	72.620	-0.189	-0.142	0.373	0.000	46.910
x		2.628	72.870	73.420	-0.259	-0.291	0.261	0.000	46.530
σ		0.014	0.869	0.915	0.315	0.129	0.103	0.000	0.535
%RSD		0.524	1.192	1.247	121.600	44.240	39.580	0.000	1.150

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:00	68.161%	-0.515	-0.462	67.920%	-0.019	-0.021	0.028	0.034
2	13:50:19	65.801%	-0.454	-0.347	66.849%	-0.016	-0.018	0.001	0.040
3	13:50:38	64.969%	-0.341	-0.348	65.496%	-0.017	-0.013	-0.005	0.043
x		66.310%	-0.437	-0.386	66.755%	-0.018	-0.017	0.008	0.039
σ		1.656%	0.089	0.066	1.215%	0.002	0.004	0.018	0.005
%RSD		2.497	20.290	17.120	1.819	10.060	22.300	222.500	12.890

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:00	73.502%	-0.181	-0.258	-0.291	18.520	18.420	85.481%	86.538%
2	13:50:19	73.063%	-0.092	-0.285	-0.279	18.500	18.610	85.272%	87.384%
3	13:50:38	72.351%	-0.110	-0.237	-0.268	18.350	18.290	86.067%	87.462%
x		72.972%	-0.128	-0.260	-0.279	18.460	18.440	85.607%	87.128%
σ		0.581%	0.047	0.024	0.011	0.097	0.162	0.412%	0.512%
%RSD		0.797	36.810	9.373	4.059	0.524	0.877	0.482	0.588

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:00	0.080	0.079	0.084	0.093	0.089	81.516%
2	13:50:19	0.082	0.085	0.092	0.077	0.090	83.534%
3	13:50:38	0.088	0.083	0.108	0.090	0.093	84.028%
x		0.083	0.083	0.094	0.087	0.091	83.026%
σ		0.004	0.003	0.012	0.008	0.002	1.331%
%RSD		5.260	4.048	12.760	9.445	2.266	1.603

CCV 1594026 6/19/2015 1:53:37 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	105.089%	107.700	98.040	102.500	0.000	49530.000	50870.000	50960.000
2	13:53:57	102.735%	109.900	100.400	108.100	0.000	52710.000	53100.000	52030.000
3	13:54:16	96.983%	108.400	96.210	102.200	0.000	49970.000	51330.000	51440.000
x		101.602%	108.652%	98.209%	104.254%	0.000	101.476%	103.532%	102.955%
σ		4.170%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.104	1.062	2.131	3.233	0.000	3.394	2.276	1.046

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	497.600	5184.000	0.000	48790.000	46230.000	48260.000	105.586%	97.620
2	13:53:57	533.200	5371.000	0.000	50910.000	49280.000	50700.000	100.796%	99.480
3	13:54:16	509.800	5245.000	0.000	51240.000	48150.000	49970.000	108.039%	98.650
x		102.705%	105.335%	0.000	100.625%	95.776%	99.288%	104.807%	98.582%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.684%	n/a
%RSD		3.531	1.817	0.000	2.647	3.224	2.515	3.515	0.946

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	97.780	99.330	490.600	24730.000	24530.000	99.260	99.640	101.300
2	13:53:57	99.770	100.800	501.900	25050.000	25150.000	101.300	103.100	105.600
3	13:54:16	99.670	99.100	493.100	24790.000	24730.000	97.350	96.890	98.500
x		99.074%	99.746%	99.038%	99.432%	99.211%	99.298%	99.888%	101.825%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.132	0.930	1.194	0.679	1.272	1.974	3.135	3.529

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	100.600	101.600	102.200	103.400	107.600	108.800	0.000	94.890
2	13:53:57	104.600	104.000	103.000	103.600	107.500	106.200	0.000	95.440
3	13:54:16	97.210	101.900	99.840	101.600	105.600	106.600	0.000	95.020
x		100.791%	102.491%	101.686%	102.867%	106.879%	107.213%	0.000	95.117%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.660	1.309	1.608	1.082	1.058	1.313	0.000	0.299

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	87.457%	92.040	92.790	85.274%	100.500	101.300	99.220	100.100
2	13:53:57	90.113%	93.870	93.400	87.418%	100.300	100.900	100.500	101.100
3	13:54:16	94.862%	94.830	94.180	90.921%	100.500	101.000	102.000	101.000
x		90.811%	93.580%	93.454%	87.871%	100.425%	101.066%	100.570%	100.756%
σ		3.751%	n/a	n/a	2.851%	n/a	n/a	n/a	n/a
%RSD		4.131	1.514	0.747	3.244	0.117	0.182	1.404	0.553

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	85.657%	97.380	91.170	91.810	98.510	99.410	87.022%	86.288%
2	13:53:57	88.394%	97.730	92.220	93.610	99.930	99.650	89.760%	89.239%
3	13:54:16	94.368%	96.610	90.730	91.820	99.070	99.730	94.441%	94.770%
x		89.473%	97.238%	91.373%	92.414%	99.169%	99.595%	90.408%	90.099%
σ		4.455%	n/a	n/a	n/a	n/a	n/a	3.751%	4.306%
%RSD		4.979	0.590	0.840	1.118	0.718	0.168	4.149	4.779

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:37	103.300	105.000	102.900	103.400	102.800	76.779%
2	13:53:57	105.200	106.700	104.600	104.700	106.300	78.933%
3	13:54:16	105.300	106.400	105.800	106.000	107.200	82.943%
x		104.584%	106.042%	104.414%	104.729%	105.435%	79.552%
σ		n/a	n/a	n/a	n/a	n/a	3.128%
%RSD		1.075	0.855	1.409	1.262	2.195	3.932

CCB7 6/19/2015 2:00:05 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:24	121.761%	-0.004	0.397	0.205	0.000	6.328	1.421	1.287
2	14:00:44	115.004%	-0.003	0.376	0.404	0.000	6.910	1.279	1.349
3	14:01:03	114.238%	-0.026	0.575	0.360	0.000	7.018	1.156	1.194
x		117.001%	-0.011	0.449	0.323	0.000	6.752	1.285	1.277
σ		4.140%	0.013	0.109	0.104	0.000	0.371	0.132	0.078
%RSD		3.538	121.300	24.320	32.290	0.000	5.495	10.300	6.122
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:24	2.529	-11.060	0.000	6.226	17.770	15.480	118.587%	-0.009
2	14:00:44	2.849	-9.438	0.000	6.520	16.530	16.380	118.143%	-0.055
3	14:01:03	2.741	-9.419	0.000	5.827	16.760	15.870	116.707%	0.000
x		2.706	-9.971	0.000	6.191	17.020	15.910	117.812%	-0.021
σ		0.163	0.940	0.000	0.347	0.659	0.451	0.983%	0.029
%RSD		6.016	9.431	0.000	5.614	3.873	2.837	0.834	138.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:24	0.016	0.033	0.055	8.021	2.935	0.003	0.069	0.191
2	14:00:44	0.002	0.018	0.046	6.922	3.806	0.000	0.076	0.184
3	14:01:03	0.039	0.030	0.045	6.168	3.333	0.004	0.107	0.165
x		0.019	0.027	0.049	7.037	3.358	0.002	0.084	0.180
σ		0.019	0.008	0.006	0.932	0.436	0.002	0.020	0.013
%RSD		96.070	30.100	11.690	13.240	12.990	82.370	24.100	7.313
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:24	0.193	1.700	1.730	-0.000	0.357	0.293	0.000	0.020
2	14:00:44	0.197	1.702	1.802	0.019	0.267	0.428	0.000	0.024
3	14:01:03	0.146	1.708	1.677	0.090	0.367	0.561	0.000	0.020
x		0.179	1.703	1.736	0.036	0.330	0.427	0.000	0.021
σ		0.028	0.004	0.063	0.048	0.055	0.134	0.000	0.002
%RSD		15.810	0.234	3.612	131.300	16.590	31.350	0.000	11.520
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:24	108.595%	-0.118	-0.146	109.878%	-0.014	-0.011	-0.013	-0.072
2	14:00:44	108.552%	0.174	0.151	110.315%	-0.010	-0.014	-0.027	-0.095
3	14:01:03	107.543%	0.285	0.226	108.986%	-0.014	-0.005	-0.021	-0.091
x		108.230%	0.114	0.077	109.727%	-0.012	-0.010	-0.020	-0.086
σ		0.595%	0.208	0.197	0.677%	0.002	0.005	0.007	0.012
%RSD		0.550	183.700	254.500	0.617	16.780	47.980	34.250	14.060
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:00:24	107.663%	2.222	0.534	0.501	0.035	0.034	103.798%	101.847%
2	14:00:44	107.384%	2.466	0.540	0.539	0.047	0.038	105.277%	103.058%
3	14:01:03	108.711%	2.221	0.549	0.500	0.040	0.036	106.201%	104.354%
x		107.920%	2.303	0.541	0.513	0.041	0.036	105.092%	103.086%
σ		0.699%	0.141	0.008	0.023	0.006	0.002	1.212%	1.254%
%RSD		0.648	6.126	1.425	4.395	14.420	6.002	1.153	1.216
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:00:24	0.042	0.037	0.026	0.017	0.023	98.290%		
2	14:00:44	0.044	0.043	0.018	0.025	0.024	98.642%		
3	14:01:03	0.041	0.045	0.032	0.023	0.027	98.095%		
x		0.042	0.041	0.025	0.022	0.025	98.342%		
σ		0.001	0.004	0.007	0.004	0.002	0.278%		
%RSD		3.203	10.280	27.690	19.840	8.933	0.282		

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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	14:04:14	53.960%	0.041	4.463	5.241	0.000	2888.000	4519.000	4602.000
2	14:04:34	48.432%	-0.008	5.291	4.538	0.000	2811.000	4571.000	4591.000
3	14:04:53	50.354%	0.065	4.834	4.876	0.000	2643.000	4144.000	4304.000
x		50.915%	0.033	4.863	4.885	0.000	2781.000	4411.000	4499.000
σ		2.806%	0.037	0.415	0.352	0.000	125.600	233.100	169.200
%RSD		5.512	112.600	8.529	7.197	0.000	4.517	5.283	3.760

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:14	38.660	4895.000	0.000	2266.000	17580.000	18520.000	52.239%	0.488
2	14:04:34	37.940	4865.000	0.000	2289.000	17490.000	18510.000	50.243%	0.777
3	14:04:53	35.510	4599.000	0.000	2205.000	17370.000	18760.000	45.978%	0.739
x		37.370	4787.000	0.000	2253.000	17480.000	18600.000	49.487%	0.668
σ		1.647	163.000	0.000	43.410	109.100	141.400	3.198%	0.157
%RSD		4.407	3.406	0.000	1.927	0.624	0.760	6.463	23.520

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:14	-0.169	0.203	343.500	157.200	168.700	2.408	1.177	3.424
2	14:04:34	-0.171	0.235	336.500	157.900	168.200	2.498	1.026	3.178
3	14:04:53	-2.367	0.215	359.500	170.200	177.200	2.491	1.163	3.272
x		-0.902	0.218	346.500	161.800	171.400	2.466	1.122	3.291
σ		1.268	0.016	11.770	7.344	5.047	0.050	0.083	0.124
%RSD		140.500	7.287	3.398	4.540	2.946	2.046	7.437	3.765

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:14	3.161	78.340	78.000	-0.091	0.127	0.445	0.000	48.200
2	14:04:34	3.417	78.020	78.100	0.197	0.077	0.592	0.000	48.310
3	14:04:53	3.665	79.880	79.350	0.147	0.114	0.452	0.000	48.700
x		3.414	78.750	78.480	0.084	0.106	0.496	0.000	48.410
σ		0.252	0.996	0.751	0.154	0.026	0.083	0.000	0.263
%RSD		7.385	1.265	0.958	182.900	24.810	16.700	0.000	0.544

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:14	72.215%	-0.305	-0.169	71.846%	-0.003	-0.010	0.047	0.086
2	14:04:34	70.611%	-0.019	-0.033	70.465%	-0.008	-0.013	-0.009	0.059
3	14:04:53	71.218%	0.136	0.012	69.874%	-0.018	-0.010	0.058	0.103
x		71.348%	-0.063	-0.063	70.728%	-0.010	-0.011	0.032	0.083
σ		0.810%	0.224	0.095	1.012%	0.008	0.002	0.036	0.022
%RSD		1.135	356.100	149.500	1.430	77.070	14.240	111.400	27.150

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:14	76.939%	0.071	2.421	2.466	19.170	19.440	88.526%	90.000%
2	14:04:34	76.654%	0.139	2.229	2.293	19.010	19.500	88.980%	91.116%
3	14:04:53	76.212%	0.120	1.998	1.956	19.850	19.360	89.503%	91.198%
x		76.602%	0.110	2.216	2.238	19.340	19.430	89.003%	90.771%
σ		0.366%	0.035	0.212	0.260	0.441	0.069	0.489%	0.669%
%RSD		0.478	32.200	9.559	11.610	2.280	0.355	0.550	0.737

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:14	0.067	0.070	0.093	0.086	0.093	84.622%
2	14:04:34	0.068	0.075	0.085	0.088	0.089	85.460%
3	14:04:53	0.075	0.074	0.092	0.081	0.090	85.379%
x		0.070	0.073	0.090	0.085	0.091	85.154%
σ		0.004	0.003	0.004	0.004	0.002	0.462%
%RSD		6.339	3.463	4.726	4.125	2.469	0.543

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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	14:08:02	48.975%	0.011	5.705	4.776	0.000	2628.000	3891.000	3890.000
2	14:08:22	44.271%	0.056	4.653	4.683	0.000	2535.000	3721.000	3877.000
3	14:08:41	46.938%	0.052	4.113	4.492	0.000	2441.000	3518.000	3556.000
x		46.728%	0.039	4.824	4.650	0.000	2535.000	3710.000	3775.000
σ		2.359%	0.025	0.810	0.145	0.000	93.640	186.600	189.200
%RSD		5.048	63.000	16.790	3.113	0.000	3.694	5.030	5.013

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:02	32.320	5035.000	0.000	2065.000	15750.000	16620.000	48.857%	0.911
2	14:08:22	31.390	4748.000	0.000	2022.000	15430.000	16470.000	47.650%	0.768
3	14:08:41	29.810	4380.000	0.000	1998.000	15950.000	16750.000	42.761%	0.759
x		31.170	4721.000	0.000	2029.000	15710.000	16610.000	46.423%	0.813
σ		1.270	328.000	0.000	33.890	263.800	138.000	3.228%	0.085
%RSD		4.073	6.947	0.000	1.671	1.679	0.831	6.953	10.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:02	0.740	0.324	254.100	292.300	292.300	1.374	0.706	5.021
2	14:08:22	0.401	0.382	261.400	292.500	297.600	1.341	0.652	5.083
3	14:08:41	-1.367	0.371	274.300	311.400	316.200	1.419	0.586	5.518
x		-0.075	0.359	263.300	298.700	302.000	1.378	0.648	5.207
σ		1.131	0.031	10.210	10.970	12.550	0.040	0.060	0.271
%RSD		1501.000	8.612	3.879	3.673	4.155	2.873	9.285	5.198

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:02	5.130	61.260	60.400	-1.150	0.078	0.270	0.000	44.120
2	14:08:22	5.117	60.210	59.510	0.109	-0.096	0.581	0.000	44.340
3	14:08:41	5.644	63.990	62.580	-0.315	-0.258	0.339	0.000	44.360
x		5.297	61.820	60.830	-0.452	-0.092	0.397	0.000	44.280
σ		0.301	1.952	1.579	0.641	0.168	0.163	0.000	0.138
%RSD		5.679	3.158	2.595	141.700	182.800	41.170	0.000	0.311

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:02	68.471%	-0.472	-0.321	68.899%	-0.016	-0.017	0.002	0.041
2	14:08:22	67.459%	-0.221	-0.223	67.451%	-0.007	-0.006	0.015	0.061
3	14:08:41	67.105%	-0.202	-0.148	67.062%	-0.015	-0.008	0.027	0.042
x		67.678%	-0.298	-0.231	67.804%	-0.013	-0.010	0.015	0.048
σ		0.709%	0.151	0.087	0.968%	0.005	0.006	0.012	0.012
%RSD		1.048	50.580	37.750	1.428	37.090	56.920	83.590	24.350

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:02	75.096%	-0.076	0.498	0.606	17.350	17.370	87.506%	89.397%
2	14:08:22	75.597%	-0.042	0.551	0.506	17.250	17.440	88.218%	90.684%
3	14:08:41	74.354%	0.004	0.529	0.496	17.820	17.620	88.125%	90.323%
x		75.016%	-0.038	0.526	0.536	17.470	17.470	87.950%	90.135%
σ		0.625%	0.040	0.027	0.061	0.309	0.130	0.387%	0.664%
%RSD		0.834	106.400	5.065	11.310	1.769	0.744	0.440	0.737

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:02	0.055	0.058	0.185	0.177	0.176	83.949%
2	14:08:22	0.059	0.058	0.185	0.171	0.176	85.011%
3	14:08:41	0.063	0.063	0.189	0.177	0.182	84.558%
x		0.059	0.059	0.186	0.175	0.178	84.506%
σ		0.004	0.003	0.003	0.004	0.003	0.533%
%RSD		6.332	4.929	1.442	2.122	1.948	0.630

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:50	53.371%	-0.009	3.534	4.055	0.000	2235.000	2665.000	2707.000
2	14:12:10	45.844%	0.013	4.836	4.555	0.000	2394.000	2952.000	2897.000
3	14:12:29	47.613%	0.012	4.161	4.292	0.000	2201.000	2530.000	2481.000
x		48.943%	0.005	4.177	4.301	0.000	2277.000	2715.000	2695.000
σ		3.936%	0.013	0.651	0.250	0.000	103.200	215.500	208.100
%RSD		8.041	236.300	15.590	5.812	0.000	4.535	7.936	7.724
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:50	31.130	4597.000	0.000	1701.000	8601.000	8899.000	47.798%	0.933
2	14:12:10	33.410	5075.000	0.000	1800.000	8758.000	9077.000	48.535%	0.937
3	14:12:29	29.150	4473.000	0.000	1647.000	8387.000	9033.000	45.615%	0.805
x		31.230	4715.000	0.000	1716.000	8582.000	9003.000	47.316%	0.892
σ		2.129	317.600	0.000	77.440	186.200	92.830	1.519%	0.075
%RSD		6.818	6.736	0.000	4.513	2.170	1.031	3.210	8.372
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:50	-0.459	0.253	239.300	363.400	339.600	1.420	0.792	5.186
2	14:12:10	-0.643	0.242	225.200	316.300	313.100	1.333	0.764	4.909
3	14:12:29	-0.362	0.160	232.300	338.800	330.400	1.318	0.639	5.016
x		-0.488	0.218	232.300	339.500	327.700	1.357	0.732	5.037
σ		0.143	0.051	7.038	23.570	13.450	0.055	0.081	0.140
%RSD		29.240	23.400	3.030	6.942	4.105	4.075	11.110	2.776
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:50	5.153	62.360	61.930	-0.101	-0.273	0.343	0.000	28.460
2	14:12:10	4.799	61.050	60.280	-0.023	-0.247	0.125	0.000	27.880
3	14:12:29	5.096	60.000	60.070	-0.669	0.047	0.311	0.000	28.550
x		5.016	61.140	60.760	-0.264	-0.158	0.260	0.000	28.300
σ		0.190	1.178	1.017	0.353	0.178	0.117	0.000	0.366
%RSD		3.787	1.927	1.675	133.600	112.600	45.300	0.000	1.293
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:50	68.943%	-0.615	-0.651	70.025%	-0.024	-0.017	0.030	0.056
2	14:12:10	67.024%	-0.482	-0.575	68.662%	-0.021	-0.020	0.016	0.041
3	14:12:29	66.517%	-0.475	-0.490	67.134%	-0.020	-0.015	0.037	0.030
x		67.495%	-0.524	-0.572	68.607%	-0.022	-0.017	0.028	0.042
σ		1.280%	0.079	0.081	1.446%	0.002	0.002	0.010	0.013
%RSD		1.896	15.040	14.110	2.108	7.388	13.630	37.410	31.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:50	75.120%	-0.119	0.068	0.034	17.200	16.870	87.331%	88.686%
2	14:12:10	74.731%	-0.101	0.057	0.080	17.430	16.790	87.363%	89.438%
3	14:12:29	73.995%	-0.081	0.047	0.062	17.480	17.060	87.429%	89.422%
x		74.615%	-0.100	0.057	0.058	17.370	16.910	87.374%	89.182%
σ		0.572%	0.019	0.011	0.023	0.150	0.141	0.050%	0.429%
%RSD		0.766	18.750	18.410	39.710	0.862	0.835	0.057	0.482
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:11:50	0.039	0.035	0.229	0.212	0.220	82.659%		
2	14:12:10	0.045	0.043	0.261	0.215	0.233	85.437%		
3	14:12:29	0.043	0.040	0.248	0.227	0.241	85.503%		
x		0.042	0.039	0.246	0.218	0.232	84.533%		
σ		0.003	0.004	0.016	0.008	0.011	1.624%		
%RSD		7.928	9.948	6.413	3.646	4.601	1.921		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	51.512%	0.063	3.668	4.326	0.000	2128.000	2623.000	2560.000
2	14:15:58	42.492%	-0.026	4.198	4.271	0.000	2127.000	2486.000	2528.000
3	14:16:17	41.972%	-0.026	4.500	4.580	0.000	2182.000	2599.000	2636.000
x		45.325%	0.003	4.122	4.393	0.000	2145.000	2570.000	2575.000
σ		5.364%	0.052	0.421	0.165	0.000	31.470	73.280	55.500
%RSD		11.835	1552.000	10.220	3.749	0.000	1.467	2.852	2.155

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	19.500	4451.000	0.000	1703.000	8576.000	8779.000	46.401%	1.309
2	14:15:58	18.490	4528.000	0.000	1605.000	8333.000	8890.000	44.995%	1.511
3	14:16:17	19.250	4487.000	0.000	1722.000	8674.000	9082.000	42.514%	1.351
x		19.080	4489.000	0.000	1677.000	8528.000	8917.000	44.637%	1.390
σ		0.527	38.810	0.000	62.520	175.800	153.500	1.968%	0.107
%RSD		2.760	0.865	0.000	3.729	2.061	1.722	4.409	7.673

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	-2.230	0.230	254.800	464.900	429.900	1.343	0.600	2.291
2	14:15:58	0.742	0.280	248.700	447.400	410.700	1.165	0.461	2.107
3	14:16:17	0.028	0.269	239.000	444.800	411.900	1.202	0.576	1.965
x		-0.487	0.260	247.500	452.400	417.500	1.236	0.546	2.121
σ		1.552	0.026	7.934	10.930	10.740	0.094	0.074	0.163
%RSD		318.700	10.060	3.206	2.416	2.573	7.584	13.640	7.703

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	2.069	63.710	64.520	0.282	-0.358	0.476	0.000	26.720
2	14:15:58	2.028	61.760	61.370	-0.059	-0.137	0.353	0.000	26.980
3	14:16:17	2.032	62.210	62.730	0.153	-0.007	0.182	0.000	26.710
x		2.043	62.560	62.870	0.126	-0.168	0.337	0.000	26.800
σ		0.022	1.019	1.583	0.172	0.177	0.148	0.000	0.154
%RSD		1.101	1.628	2.517	137.100	105.900	43.840	0.000	0.574

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	67.843%	-0.721	-0.690	67.724%	-0.002	0.001	0.032	0.069
2	14:15:58	65.789%	-0.549	-0.534	65.061%	-0.009	0.003	0.018	0.046
3	14:16:17	65.009%	-0.505	-0.519	64.785%	-0.011	0.002	0.010	0.056
x		66.214%	-0.592	-0.581	65.857%	-0.008	0.002	0.020	0.057
σ		1.464%	0.114	0.095	1.623%	0.005	0.001	0.011	0.012
%RSD		2.211	19.310	16.270	2.464	60.510	59.820	56.770	20.420

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	73.292%	-0.051	-0.026	0.016	17.920	18.200	85.740%	87.690%
2	14:15:58	72.627%	-0.024	0.021	0.035	18.160	18.300	85.631%	87.752%
3	14:16:17	71.575%	-0.004	0.002	0.051	18.520	18.440	86.728%	88.386%
x		72.498%	-0.026	-0.001	0.034	18.200	18.310	86.033%	87.943%
σ		0.866%	0.024	0.024	0.018	0.302	0.123	0.605%	0.385%
%RSD		1.194	90.850	2609.000	51.730	1.661	0.671	0.703	0.438

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:15:38	0.033	0.038	0.136	0.112	0.123	81.901%
2	14:15:58	0.041	0.042	0.127	0.125	0.129	83.770%
3	14:16:17	0.042	0.034	0.138	0.120	0.129	84.493%
x		0.039	0.038	0.134	0.119	0.127	83.388%
σ		0.005	0.004	0.006	0.007	0.004	1.337%
%RSD		13.320	11.360	4.342	5.520	2.959	1.604

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:26	49.910%	-0.026	3.389	4.122	0.000	1785.000	2586.000	2570.000
2	14:19:45	50.112%	0.010	3.020	3.425	0.000	1736.000	2423.000	2451.000
3	14:20:04	42.819%	0.038	2.721	3.747	0.000	1787.000	2532.000	2615.000
x		47.614%	0.007	3.043	3.765	0.000	1769.000	2514.000	2545.000
σ		4.153%	0.032	0.334	0.348	0.000	28.930	83.350	84.750
%RSD		8.723	446.800	10.980	9.257	0.000	1.635	3.316	3.329
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:26	19.350	4510.000	0.000	1538.000	7515.000	7982.000	47.189%	0.871
2	14:19:45	16.720	4238.000	0.000	1455.000	7434.000	7890.000	43.896%	0.698
3	14:20:04	17.850	4197.000	0.000	1550.000	7662.000	8001.000	40.957%	0.861
x		17.980	4315.000	0.000	1514.000	7537.000	7958.000	44.014%	0.810
σ		1.318	170.500	0.000	52.110	115.700	59.570	3.117%	0.097
%RSD		7.333	3.951	0.000	3.441	1.535	0.749	7.083	12.020
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:26	-0.356	1.173	262.300	342.300	335.700	1.123	0.976	0.852
2	14:19:45	0.011	1.137	280.000	363.600	363.600	1.285	0.913	0.944
3	14:20:04	-0.381	1.132	281.500	361.100	354.800	1.250	1.189	0.883
x		-0.242	1.147	274.600	355.700	351.400	1.220	1.026	0.893
σ		0.219	0.022	10.670	11.610	14.250	0.085	0.144	0.047
%RSD		90.590	1.916	3.886	3.263	4.057	7.009	14.090	5.215
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:26	1.030	23.230	22.500	-0.285	-0.455	0.178	0.000	22.380
2	14:19:45	1.018	23.710	22.770	0.354	0.005	0.393	0.000	22.930
3	14:20:04	1.014	23.190	23.310	-0.098	-0.394	0.227	0.000	22.880
x		1.021	23.380	22.860	-0.010	-0.281	0.266	0.000	22.730
σ		0.008	0.290	0.410	0.329	0.250	0.113	0.000	0.304
%RSD		0.806	1.241	1.793	3371.000	88.680	42.360	0.000	1.340
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:26	67.544%	-0.774	-0.750	67.909%	-0.019	-0.018	-0.054	-0.025
2	14:19:45	66.626%	-0.673	-0.627	66.478%	-0.026	-0.018	-0.101	-0.051
3	14:20:04	65.668%	-0.600	-0.556	65.933%	-0.021	-0.010	-0.077	-0.040
x		66.613%	-0.682	-0.644	66.773%	-0.022	-0.016	-0.077	-0.038
σ		0.938%	0.088	0.098	1.020%	0.004	0.005	0.024	0.013
%RSD		1.409	12.840	15.230	1.528	17.820	29.310	30.540	34.310
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:26	73.826%	-0.154	-0.129	-0.113	13.850	14.140	86.321%	88.052%
2	14:19:45	72.239%	-0.139	-0.105	-0.077	14.050	14.080	86.585%	88.609%
3	14:20:04	71.740%	-0.108	-0.106	-0.110	13.790	14.240	86.787%	89.260%
x		72.602%	-0.134	-0.113	-0.100	13.900	14.150	86.564%	88.640%
σ		1.089%	0.024	0.013	0.020	0.140	0.078	0.234%	0.605%
%RSD		1.501	17.630	11.790	19.940	1.004	0.551	0.270	0.683
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:19:26	0.036	0.031	0.116	0.102	0.102	82.517%		
2	14:19:45	0.034	0.037	0.095	0.102	0.098	82.700%		
3	14:20:04	0.036	0.031	0.093	0.100	0.096	84.657%		
x		0.035	0.033	0.101	0.101	0.099	83.291%		
σ		0.001	0.003	0.012	0.001	0.003	1.186%		
%RSD		4.166	9.841	12.210	1.304	3.176	1.424		

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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	14:23:13	60.640%	-0.011	3.655	3.427	0.000	1656.000	758.800	785.900
2	14:23:33	57.973%	0.021	2.478	3.719	0.000	1639.000	757.300	750.900
3	14:23:52	50.800%	-0.008	3.478	3.783	0.000	1663.000	773.800	771.200
x		56.471%	0.001	3.203	3.643	0.000	1653.000	763.300	769.300
σ		5.089%	0.018	0.635	0.190	0.000	12.380	9.104	17.560
%RSD		9.011	2685.000	19.810	5.208	0.000	0.749	1.193	2.283
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:13	29.460	4566.000	0.000	1366.000	2723.000	2823.000	49.169%	1.399
2	14:23:33	32.200	4285.000	0.000	1335.000	2615.000	2823.000	48.701%	1.927
3	14:23:52	29.080	4372.000	0.000	1342.000	2728.000	2953.000	44.926%	1.875
x		30.250	4407.000	0.000	1347.000	2689.000	2866.000	47.599%	1.734
σ		1.702	144.000	0.000	16.270	64.080	74.930	2.327%	0.291
%RSD		5.627	3.268	0.000	1.208	2.384	2.614	4.888	16.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:13	-1.396	0.339	120.000	407.800	377.700	1.470	0.328	0.846
2	14:23:33	-0.317	0.286	116.000	384.100	369.900	1.389	0.277	0.761
3	14:23:52	-1.268	0.299	124.200	425.500	389.600	1.569	0.398	0.840
x		-0.994	0.308	120.100	405.800	379.100	1.476	0.334	0.816
σ		0.589	0.028	4.089	20.750	9.886	0.091	0.060	0.047
%RSD		59.290	9.094	3.406	5.113	2.608	6.133	18.080	5.777
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:13	0.781	5.891	6.102	-0.377	-0.374	0.082	0.000	15.880
2	14:23:33	0.782	6.503	6.142	-0.036	-0.342	0.077	0.000	16.000
3	14:23:52	0.888	6.352	5.853	-0.531	-0.418	0.076	0.000	16.120
x		0.817	6.249	6.032	-0.315	-0.378	0.078	0.000	16.000
σ		0.061	0.319	0.156	0.253	0.038	0.003	0.000	0.120
%RSD		7.482	5.098	2.593	80.390	10.060	3.907	0.000	0.750
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:13	63.912%	-0.764	-0.778	65.658%	-0.019	-0.020	-0.061	-0.023
2	14:23:33	63.242%	-0.679	-0.712	65.310%	-0.020	-0.017	-0.079	-0.040
3	14:23:52	61.591%	-0.665	-0.670	63.493%	-0.020	-0.015	-0.086	-0.044
x		62.915%	-0.703	-0.720	64.820%	-0.020	-0.017	-0.075	-0.036
σ		1.195%	0.054	0.054	1.162%	0.001	0.002	0.013	0.011
%RSD		1.899	7.621	7.555	1.793	4.283	12.960	16.710	31.530
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:13	68.634%	-0.184	-0.110	-0.121	11.740	11.710	77.715%	79.126%
2	14:23:33	68.710%	-0.178	-0.114	-0.140	11.890	11.810	77.833%	79.631%
3	14:23:52	67.844%	-0.189	-0.093	-0.126	11.890	11.690	78.336%	79.630%
x		68.396%	-0.184	-0.106	-0.129	11.840	11.740	77.961%	79.462%
σ		0.480%	0.006	0.011	0.010	0.084	0.063	0.330%	0.292%
%RSD		0.701	3.031	10.470	7.457	0.706	0.532	0.423	0.367
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:23:13	0.026	0.023	0.203	0.184	0.197	74.844%		
2	14:23:33	0.027	0.022	0.214	0.183	0.202	75.833%		
3	14:23:52	0.019	0.024	0.186	0.172	0.190	76.857%		
x		0.024	0.023	0.201	0.180	0.197	75.845%		
σ		0.004	0.001	0.014	0.006	0.006	1.007%		
%RSD		18.690	5.040	7.171	3.526	3.035	1.327		

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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	14:27:01	42.384%	-0.026	190.400	203.000	0.000	1017000.000	43930.000	45250.000
2	14:27:21	40.307%	0.018	197.200	206.800	0.000	1030000.000	46140.000	46390.000
3	14:27:40	40.912%	-0.004	204.700	207.100	0.000	1067000.000	47680.000	46270.000
x		41.201%	-0.004	197.400	205.600	0.000	1038000.000	45920.000	45970.000
σ		1.068%	0.022	7.152	2.283	0.000	26130.000	1889.000	625.400
%RSD		2.592	529.600	3.623	1.110	0.000	2.518	4.113	1.360
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:01	17.570	11020.000	0.000	172000.000	286400.000	282500.000	49.375%	2.215
2	14:27:21	18.290	11210.000	0.000	176000.000	289000.000	281300.000	48.867%	2.255
3	14:27:40	17.670	11210.000	0.000	175500.000	289000.000	282800.000	48.418%	2.368
x		17.840	11150.000	0.000	174500.000	288100.000	282200.000	48.887%	2.279
σ		0.393	108.700	0.000	2185.000	1458.000	834.900	0.479%	0.079
%RSD		2.199	0.976	0.000	1.252	0.506	0.296	0.980	3.475
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:01	0.177	1.073	793.200	36030.000	36100.000	1.868	4.637	8.522
2	14:27:21	0.760	0.974	770.100	35190.000	35880.000	1.843	4.352	8.480
3	14:27:40	0.102	1.071	772.800	35440.000	35510.000	1.798	4.057	8.530
x		0.346	1.039	778.700	35560.000	35830.000	1.836	4.349	8.511
σ		0.360	0.056	12.660	431.200	301.000	0.036	0.290	0.027
%RSD		104.000	5.430	1.626	1.213	0.840	1.939	6.660	0.316
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:01	1.063	3.590	3.597	59.830	0.441	11.580	0.000	4050.000
2	14:27:21	0.845	3.786	3.862	58.400	0.512	11.030	0.000	4010.000
3	14:27:40	0.950	4.032	4.534	57.210	0.311	10.350	0.000	4004.000
x		0.953	3.803	3.998	58.480	0.422	10.990	0.000	4022.000
σ		0.109	0.222	0.483	1.313	0.102	0.614	0.000	24.910
%RSD		11.460	5.830	12.080	2.245	24.220	5.588	0.000	0.619
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:01	58.854%	6.441	6.766	54.530%	-0.012	-0.015	-0.065	-0.056
2	14:27:21	59.967%	6.177	6.629	54.970%	-0.015	-0.012	-0.066	-0.046
3	14:27:40	60.391%	6.530	6.753	55.698%	-0.013	-0.012	-0.075	-0.042
x		59.738%	6.383	6.716	55.066%	-0.013	-0.013	-0.068	-0.048
σ		0.794%	0.184	0.076	0.590%	0.001	0.001	0.005	0.007
%RSD		1.328	2.880	1.126	1.071	10.710	11.030	7.880	14.120
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:01	60.586%	-0.091	-0.116	-0.058	788.100	790.400	71.005%	72.404%
2	14:27:21	61.067%	-0.073	-0.095	-0.040	797.700	790.900	71.030%	72.869%
3	14:27:40	61.747%	-0.045	-0.091	-0.017	799.700	797.700	72.798%	74.259%
x		61.133%	-0.070	-0.101	-0.038	795.200	793.000	71.611%	73.177%
σ		0.583%	0.023	0.014	0.021	6.220	4.063	1.028%	0.965%
%RSD		0.954	33.280	13.680	54.070	0.782	0.512	1.436	1.319
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:27:01	0.019	0.019	26.710	25.530	26.280	56.422%		
2	14:27:21	0.025	0.022	26.560	25.860	26.380	57.000%		
3	14:27:40	0.023	0.018	26.730	26.120	26.420	57.867%		
x		0.022	0.020	26.670	25.840	26.360	57.096%		
σ		0.003	0.002	0.094	0.293	0.075	0.727%		
%RSD		12.930	11.600	0.351	1.134	0.285	1.274		

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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	14:30:49	49.938%	0.046	202.300	216.300	0.000	1145000.000	59110.000	58360.000
2	14:31:08	48.037%	0.049	215.800	226.800	0.000	1187000.000	60560.000	59820.000
3	14:31:27	48.106%	0.030	212.600	223.100	0.000	1143000.000	58600.000	58450.000
x		48.694%	0.042	210.200	222.100	0.000	1158000.000	59430.000	58880.000
σ		1.078%	0.010	7.071	5.333	0.000	25100.000	1015.000	814.700
%RSD		2.214	24.810	3.363	2.402	0.000	2.167	1.708	1.384

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:49	14.110	12110.000	0.000	169700.000	329600.000	325800.000	56.274%	2.446
2	14:31:08	14.760	12160.000	0.000	174400.000	334600.000	327100.000	54.946%	2.618
3	14:31:27	16.230	12670.000	0.000	172500.000	330900.000	325600.000	57.692%	2.691
x		15.030	12310.000	0.000	172200.000	331700.000	326200.000	56.304%	2.585
σ		1.084	311.600	0.000	2332.000	2567.000	843.000	1.373%	0.125
%RSD		7.213	2.531	0.000	1.354	0.774	0.258	2.439	4.849

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:49	0.084	0.849	963.200	5747.000	5462.000	1.164	-0.002	8.755
2	14:31:08	-0.216	0.868	958.400	5613.000	5496.000	1.180	0.061	8.869
3	14:31:27	0.060	0.889	946.200	5606.000	5383.000	1.092	-0.167	8.569
x		-0.024	0.869	955.900	5656.000	5447.000	1.145	-0.036	8.731
σ		0.167	0.020	8.781	79.610	57.990	0.047	0.118	0.152
%RSD		695.600	2.321	0.919	1.408	1.065	4.120	329.900	1.735

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:49	0.582	5.200	5.680	2.321	0.308	11.430	0.000	3907.000
2	14:31:08	0.587	5.140	4.257	3.373	0.334	11.750	0.000	3871.000
3	14:31:27	0.690	5.155	5.008	2.707	0.073	11.190	0.000	3894.000
x		0.620	5.165	4.982	2.800	0.239	11.460	0.000	3891.000
σ		0.061	0.031	0.712	0.532	0.144	0.283	0.000	18.060
%RSD		9.794	0.607	14.290	19.010	60.170	2.468	0.000	0.464

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:49	64.441%	-0.362	-0.398	59.600%	-0.020	-0.016	-0.022	-0.021
2	14:31:08	65.598%	-0.320	-0.313	60.001%	-0.019	-0.015	0.005	-0.000
3	14:31:27	69.239%	-0.352	-0.274	63.429%	-0.014	-0.019	-0.053	-0.047
x		66.426%	-0.345	-0.328	61.010%	-0.018	-0.017	-0.023	-0.023
σ		2.504%	0.022	0.064	2.105%	0.003	0.002	0.029	0.023
%RSD		3.769	6.336	19.390	3.450	16.660	11.590	124.300	102.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:49	63.945%	-0.080	-0.189	-0.145	565.400	566.700	72.947%	73.313%
2	14:31:08	64.697%	-0.076	-0.166	-0.109	570.400	574.600	74.643%	75.340%
3	14:31:27	69.119%	-0.078	-0.140	-0.075	573.100	575.100	78.794%	79.982%
x		65.920%	-0.078	-0.165	-0.110	569.600	572.100	75.461%	76.211%
σ		2.796%	0.002	0.025	0.035	3.942	4.687	3.008%	3.419%
%RSD		4.241	2.827	14.940	32.010	0.692	0.819	3.986	4.486

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:49	0.021	0.019	0.375	0.360	0.356	55.501%
2	14:31:08	0.023	0.018	0.367	0.332	0.349	57.010%
3	14:31:27	0.017	0.019	0.355	0.389	0.360	62.275%
x		0.020	0.019	0.365	0.360	0.355	58.262%
σ		0.003	0.001	0.010	0.029	0.005	3.556%
%RSD		14.380	3.004	2.669	7.918	1.532	6.104

180-45129-E-2-A SD@5 6/19/2015 2:34:18 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	14:34:37	88.514%	0.045	43.790	46.530	0.000	249400.000	11760.000	11490.000
2	14:34:57	84.492%	0.070	45.780	46.270	0.000	235800.000	11500.000	11260.000
3	14:35:16	82.141%	0.039	46.350	48.350	0.000	246700.000	11740.000	11510.000
x		85.049%	0.051	45.310	47.050	0.000	243900.000	11660.000	11420.000
σ		3.223%	0.016	1.344	1.133	0.000	7206.000	145.900	137.000
%RSD		3.789	31.290	2.966	2.408	0.000	2.954	1.251	1.199
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:37	3.607	2523.000	0.000	30840.000	50910.000	55400.000	100.778%	0.440
2	14:34:57	3.179	2471.000	0.000	30620.000	51860.000	55620.000	99.620%	0.574
3	14:35:16	3.967	2536.000	0.000	31290.000	52730.000	56490.000	97.398%	0.308
x		3.584	2510.000	0.000	30920.000	51830.000	55840.000	99.265%	0.441
σ		0.394	34.540	0.000	339.100	912.500	572.200	1.718%	0.133
%RSD		11.000	1.376	0.000	1.097	1.760	1.025	1.730	30.180
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:37	0.212	0.154	157.600	1033.000	1005.000	0.239	0.210	1.578
2	14:34:57	-0.102	0.208	161.800	1034.000	1019.000	0.232	0.111	1.581
3	14:35:16	-0.110	0.200	159.900	1033.000	996.600	0.233	0.145	1.608
x		0.000	0.187	159.800	1034.000	1007.000	0.235	0.155	1.589
σ		0.184	0.029	2.075	0.719	11.360	0.004	0.050	0.016
%RSD		203000.000	15.560	1.299	0.070	1.128	1.744	32.470	1.029
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:37	0.224	2.331	2.225	0.505	-0.169	2.536	0.000	760.800
2	14:34:57	0.214	2.268	2.046	0.394	0.011	2.633	0.000	765.300
3	14:35:16	0.185	2.301	2.099	0.468	0.148	2.467	0.000	757.500
x		0.208	2.300	2.123	0.456	-0.003	2.545	0.000	761.200
σ		0.020	0.032	0.092	0.056	0.159	0.084	0.000	3.911
%RSD		9.776	1.385	4.336	12.370	4727.000	3.282	0.000	0.514
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:37	86.406%	-0.777	-0.821	84.686%	-0.015	-0.011	-0.035	-0.014
2	14:34:57	85.426%	-0.745	-0.791	83.617%	-0.013	-0.017	0.009	0.006
3	14:35:16	86.681%	-0.762	-0.762	84.999%	-0.020	-0.015	-0.032	-0.022
x		86.171%	-0.761	-0.791	84.434%	-0.016	-0.014	-0.019	-0.010
σ		0.660%	0.016	0.030	0.725%	0.004	0.003	0.025	0.014
%RSD		0.766	2.083	3.773	0.858	22.660	19.750	127.500	143.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:37	83.736%	-0.290	-0.345	-0.360	112.800	113.100	86.765%	86.532%
2	14:34:57	83.334%	-0.284	-0.318	-0.343	112.300	112.500	87.311%	87.379%
3	14:35:16	84.133%	-0.252	-0.341	-0.340	114.000	113.900	88.576%	89.110%
x		83.734%	-0.275	-0.335	-0.347	113.100	113.200	87.551%	87.673%
σ		0.400%	0.020	0.014	0.011	0.890	0.725	0.929%	1.314%
%RSD		0.477	7.418	4.321	3.153	0.787	0.641	1.061	1.499
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:34:37	0.007	0.008	0.089	0.085	0.088	73.996%		
2	14:34:57	0.012	0.007	0.098	0.095	0.097	73.916%		
3	14:35:16	0.008	0.010	0.104	0.098	0.100	74.831%		
x		0.009	0.008	0.097	0.093	0.095	74.248%		
σ		0.002	0.002	0.007	0.007	0.006	0.506%		
%RSD		26.820	22.640	7.636	7.167	6.570	0.682		

180-45129-E-2-B MS 6/19/2015 2:38:07 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	14:38:26	55.216%	50.430	1120.000	1140.000	0.000	1145000.000	106900.000	107100.000
2	14:38:46	52.688%	50.310	1077.000	1128.000	0.000	1153000.000	107300.000	106600.000
3	14:39:05	56.190%	49.860	1087.000	1088.000	0.000	1125000.000	104300.000	104100.000
x		54.698%	50.200	1095.000	1119.000	0.000	1141000.000	106200.000	105900.000
σ		1.808%	0.299	22.420	27.260	0.000	14320.000	1612.000	1621.000
%RSD		3.305	0.596	2.048	2.437	0.000	1.255	1.518	1.530

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:26	2064.000	21860.000	0.000	200600.000	340000.000	331300.000	76.879%	872.800
2	14:38:46	2129.000	22550.000	0.000	206600.000	341000.000	332100.000	73.028%	879.800
3	14:39:05	1950.000	20610.000	0.000	202900.000	340700.000	332400.000	71.199%	894.200
x		2048.000	21680.000	0.000	203400.000	340600.000	331900.000	73.702%	882.300
σ		90.590	984.900	0.000	3022.000	477.700	591.200	2.899%	10.930
%RSD		4.423	4.544	0.000	1.486	0.140	0.178	3.934	1.238

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:26	497.500	171.400	1284.000	5773.000	5559.000	458.100	399.800	205.400
2	14:38:46	500.600	175.700	1328.000	5928.000	5623.000	465.300	407.500	206.800
3	14:39:05	501.900	174.800	1324.000	5994.000	5799.000	469.100	420.000	213.700
x		500.000	174.000	1312.000	5898.000	5660.000	464.200	409.100	208.700
σ		2.234	2.249	24.570	113.600	124.600	5.619	10.210	4.464
%RSD		0.447	1.293	1.873	1.926	2.201	1.211	2.495	2.139

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:26	195.300	380.100	379.500	34.460	8.337	21.250	0.000	4842.000
2	14:38:46	198.800	387.400	386.300	35.370	8.602	20.520	0.000	4849.000
3	14:39:05	206.300	392.500	392.200	35.200	8.686	20.540	0.000	4872.000
x		200.200	386.700	386.000	35.010	8.541	20.770	0.000	4854.000
σ		5.639	6.215	6.324	0.481	0.182	0.419	0.000	15.840
%RSD		2.817	1.607	1.638	1.374	2.130	2.020	0.000	0.326

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:26	69.480%	1055.000	1254.000	63.584%	43.670	43.580	44.770	34.740
2	14:38:46	69.267%	1058.000	1253.000	63.279%	43.560	43.560	44.450	35.260
3	14:39:05	68.591%	1071.000	1264.000	62.553%	43.650	43.990	45.280	35.890
x		69.113%	1061.000	1257.000	63.138%	43.630	43.710	44.830	35.300
σ		0.464%	8.244	5.962	0.530%	0.062	0.241	0.415	0.576
%RSD		0.672	0.777	0.474	0.839	0.143	0.552	0.926	1.631

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:26	65.443%	2018.000	515.200	500.900	2719.000	2614.000	72.710%	73.587%
2	14:38:46	66.350%	1992.000	504.700	499.600	2653.000	2588.000	74.193%	74.533%
3	14:39:05	66.181%	2017.000	518.100	481.100	2677.000	2587.000	74.446%	74.938%
x		65.991%	2009.000	512.700	493.800	2683.000	2597.000	73.783%	74.353%
σ		0.483%	14.430	7.053	11.100	33.200	15.360	0.938%	0.693%
%RSD		0.731	0.718	1.376	2.247	1.237	0.592	1.271	0.932

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:26	54.250	54.360	22.780	22.870	22.810	55.170%
2	14:38:46	53.960	53.790	22.630	22.730	22.740	56.638%
3	14:39:05	54.490	54.390	22.520	22.620	22.510	56.703%
x		54.230	54.180	22.640	22.740	22.690	56.170%
σ		0.268	0.337	0.131	0.126	0.158	0.867%
%RSD		0.495	0.623	0.579	0.552	0.694	1.544

CCV 1594026 6/19/2015 2:42:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	125.523%	116.500	109.200	112.300	0.000	53080.000	53680.000	53910.000
2	14:42:22	120.911%	120.800	104.800	106.800	0.000	53480.000	54330.000	53690.000
3	14:42:42	111.773%	124.000	112.200	109.000	0.000	55100.000	55410.000	54870.000
x		119.402%	120.438%	108.752%	109.353%	0.000	107.770%	108.948%	108.314%
σ		6.998%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.861	3.108	3.394	2.551	0.000	1.995	1.605	1.162

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	537.500	5733.000	0.000	50010.000	44440.000	47570.000	129.416%	92.750
2	14:42:22	536.200	5684.000	0.000	50180.000	44930.000	48210.000	128.056%	96.680
3	14:42:42	542.400	5866.000	0.000	50570.000	45100.000	48530.000	131.292%	93.940
x		107.743%	115.215%	0.000	100.507%	89.644%	96.203%	129.588%	94.457%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.625%	n/a
%RSD		0.608	1.632	0.000	0.570	0.767	1.008	1.254	2.136

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	94.610	95.940	480.800	24430.000	24290.000	98.880	102.200	103.200
2	14:42:22	95.740	97.150	498.000	25350.000	25280.000	101.700	107.100	106.300
3	14:42:42	97.050	96.890	485.800	24690.000	24410.000	98.070	101.900	102.900
x		95.800%	96.662%	97.642%	99.308%	98.635%	99.564%	103.720%	104.142%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.271	0.657	1.812	1.908	2.182	1.937	2.833	1.824

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	103.400	99.890	99.860	103.400	107.300	108.000	0.000	92.810
2	14:42:22	105.500	101.100	101.200	104.400	106.000	109.300	0.000	93.550
3	14:42:42	101.500	100.100	99.700	102.800	106.000	106.600	0.000	93.470
x		103.480%	100.345%	100.256%	103.519%	106.394%	107.928%	0.000	93.278%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.939	0.648	0.827	0.804	0.701	1.251	0.000	0.433

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	100.021%	92.790	92.340	99.194%	97.060	97.530	96.970	98.540
2	14:42:22	100.511%	94.300	93.680	99.941%	97.530	97.250	96.800	98.640
3	14:42:42	101.971%	95.290	95.010	100.430%	98.170	98.080	97.930	99.150
x		100.834%	94.128%	93.679%	99.855%	97.587%	97.621%	97.233%	98.777%
σ		1.015%	n/a	n/a	0.622%	n/a	n/a	n/a	n/a
%RSD		1.006	1.334	1.424	0.623	0.571	0.434	0.627	0.334

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	95.218%	95.770	90.070	90.540	97.960	98.770	89.840%	89.208%
2	14:42:22	95.887%	97.000	90.790	90.380	99.330	98.880	91.386%	89.597%
3	14:42:42	96.222%	96.510	89.770	90.920	99.480	99.450	92.584%	91.330%
x		95.776%	96.425%	90.212%	90.611%	98.923%	99.036%	91.270%	90.045%
σ		0.511%	n/a	n/a	n/a	n/a	n/a	1.376%	1.130%
%RSD		0.534	0.641	0.584	0.307	0.849	0.370	1.507	1.255

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:03	101.800	105.700	99.670	99.890	99.350	78.468%
2	14:42:22	102.600	107.300	100.900	100.900	100.300	79.393%
3	14:42:42	102.800	107.100	101.100	100.900	100.700	80.318%
x		102.411%	106.681%	100.575%	100.580%	100.123%	79.393%
σ		n/a	n/a	n/a	n/a	n/a	0.925%
%RSD		0.515	0.778	0.787	0.596	0.694	1.165

CCB8 6/19/2015 2:48:31 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	14:48:50	118.440%	-0.011	1.272	1.348	0.000	19.110	2.291	2.523
2	14:49:10	118.209%	-0.011	1.067	1.606	0.000	16.560	2.300	2.177
3	14:49:29	119.450%	-0.011	1.401	1.291	0.000	16.030	1.729	2.206
x		118.699%	-0.011	1.247	1.415	0.000	17.230	2.107	2.302
σ		0.660%	0.000	0.168	0.168	0.000	1.646	0.327	0.192
%RSD		0.556	0.491	13.510	11.880	0.000	9.549	15.520	8.340
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:50	2.947	-5.332	0.000	7.936	17.730	16.810	140.135%	0.018
2	14:49:10	2.979	-6.421	0.000	7.506	13.480	15.340	136.298%	0.041
3	14:49:29	2.806	-5.997	0.000	7.717	17.130	14.670	131.469%	0.011
x		2.911	-5.917	0.000	7.720	16.110	15.610	135.967%	0.023
σ		0.092	0.549	0.000	0.215	2.298	1.096	4.342%	0.016
%RSD		3.157	9.278	0.000	2.789	14.270	7.020	3.194	67.500
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:50	0.032	0.033	0.053	6.334	2.969	0.005	0.103	0.169
2	14:49:10	0.042	0.011	0.055	4.847	3.243	0.001	0.097	0.207
3	14:49:29	0.025	-0.002	0.062	7.136	3.649	0.008	0.088	0.221
x		0.033	0.014	0.057	6.106	3.287	0.005	0.096	0.199
σ		0.008	0.017	0.005	1.161	0.342	0.004	0.008	0.027
%RSD		25.140	125.000	8.348	19.020	10.420	80.770	7.996	13.750
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:50	0.237	1.583	1.474	-0.025	0.268	0.323	0.000	0.050
2	14:49:10	0.226	1.640	1.595	0.046	0.455	0.416	0.000	0.039
3	14:49:29	0.215	1.667	1.668	0.091	0.515	0.557	0.000	0.040
x		0.226	1.630	1.579	0.037	0.413	0.432	0.000	0.043
σ		0.011	0.043	0.098	0.058	0.129	0.118	0.000	0.007
%RSD		4.963	2.628	6.198	156.300	31.320	27.320	0.000	15.230
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:50	107.667%	0.397	0.377	111.855%	-0.012	-0.011	0.014	-0.078
2	14:49:10	108.538%	0.705	0.713	112.508%	-0.009	-0.010	-0.010	-0.001
3	14:49:29	108.034%	0.881	0.747	111.796%	-0.009	-0.011	0.019	0.014
x		108.080%	0.661	0.612	112.053%	-0.010	-0.011	0.007	-0.022
σ		0.437%	0.245	0.204	0.395%	0.002	0.001	0.016	0.049
%RSD		0.405	37.070	33.370	0.353	16.990	8.016	212.500	228.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:50	106.372%	2.717	0.487	0.497	0.034	0.072	95.236%	94.184%
2	14:49:10	103.733%	-0.012	0.554	0.541	0.038	0.041	97.207%	95.082%
3	14:49:29	106.234%	-0.004	0.592	0.580	0.064	0.041	97.351%	95.931%
x		105.446%	0.900	0.544	0.539	0.045	0.051	96.598%	95.066%
σ		1.486%	1.574	0.053	0.041	0.017	0.018	1.182%	0.874%
%RSD		1.409	174.800	9.708	7.667	36.760	34.670	1.223	0.919
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:48:50	0.062	0.059	0.026	0.025	0.025	91.659%		
2	14:49:10	0.070	0.062	0.023	0.023	0.028	90.895%		
3	14:49:29	0.059	0.060	0.028	0.026	0.027	91.009%		
x		0.064	0.060	0.026	0.025	0.027	91.188%		
σ		0.005	0.002	0.002	0.001	0.002	0.412%		
%RSD		8.315	2.598	9.393	5.894	6.216	0.452		

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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	14:52:41	64.781%	53.980	1114.000	1182.000	0.000	1102000.000	111100.000	110300.000
2	14:53:00	63.772%	51.510	1097.000	1088.000	0.000	1104000.000	105700.000	103300.000
3	14:53:20	59.535%	52.250	1085.000	1127.000	0.000	1119000.000	106500.000	106400.000
x		62.696%	52.580	1099.000	1132.000	0.000	1108000.000	107800.000	106700.000
σ		2.784%	1.265	14.570	47.410	0.000	9439.000	2897.000	3529.000
%RSD		4.440	2.406	1.326	4.187	0.000	0.852	2.689	3.309

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:41	2191.000	23140.000	0.000	204400.000	338800.000	330900.000	82.315%	873.500
2	14:53:00	2031.000	21280.000	0.000	200000.000	332400.000	328100.000	78.283%	883.800
3	14:53:20	2071.000	21780.000	0.000	199900.000	336300.000	330600.000	76.740%	911.900
x		2097.000	22060.000	0.000	201400.000	335800.000	329900.000	79.113%	889.700
σ		83.450	960.900	0.000	2563.000	3259.000	1580.000	2.879%	19.840
%RSD		3.978	4.355	0.000	1.272	0.970	0.479	3.639	2.230

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:41	510.300	179.000	1297.000	5863.000	5597.000	477.900	420.800	215.500
2	14:53:00	513.100	179.600	1333.000	6065.000	5811.000	484.400	423.000	214.200
3	14:53:20	514.800	181.800	1341.000	6032.000	5802.000	480.900	431.000	216.900
x		512.700	180.100	1324.000	5987.000	5737.000	481.100	425.000	215.500
σ		2.286	1.473	23.780	108.200	121.300	3.277	5.386	1.346
%RSD		0.446	0.818	1.796	1.808	2.115	0.681	1.268	0.625

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:41	211.500	387.300	387.200	35.280	8.820	18.960	0.000	4841.000
2	14:53:00	208.700	393.300	392.300	35.550	8.730	19.170	0.000	4822.000
3	14:53:20	211.500	397.200	400.100	36.340	8.402	18.950	0.000	4838.000
x		210.500	392.600	393.200	35.720	8.651	19.030	0.000	4834.000
σ		1.610	4.980	6.505	0.552	0.220	0.124	0.000	10.050
%RSD		0.764	1.269	1.654	1.546	2.544	0.650	0.000	0.208

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:41	71.768%	1075.000	1273.000	65.854%	44.200	44.080	44.530	35.720
2	14:53:00	71.414%	1086.000	1280.000	64.792%	44.260	44.600	45.870	35.560
3	14:53:20	70.613%	1088.000	1280.000	64.442%	44.760	44.930	45.650	36.250
x		71.265%	1083.000	1278.000	65.030%	44.410	44.530	45.350	35.840
σ		0.592%	7.416	4.183	0.735%	0.306	0.426	0.722	0.357
%RSD		0.831	0.685	0.328	1.131	0.689	0.958	1.592	0.995

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:41	66.659%	2043.000	525.800	519.800	2767.000	2682.000	73.982%	73.717%
2	14:53:00	67.291%	2023.000	523.800	515.600	2725.000	2650.000	73.814%	73.759%
3	14:53:20	66.674%	2036.000	523.600	490.600	2713.000	2655.000	73.686%	74.232%
x		66.875%	2034.000	524.400	508.700	2735.000	2662.000	73.827%	73.903%
σ		0.361%	10.170	1.213	15.810	28.380	16.920	0.148%	0.286%
%RSD		0.539	0.500	0.231	3.108	1.038	0.635	0.201	0.387

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:41	56.250	55.840	23.350	23.230	23.220	54.192%
2	14:53:00	56.090	55.790	23.110	23.210	23.390	54.151%
3	14:53:20	55.720	55.300	22.510	23.010	22.970	56.000%
x		56.020	55.650	22.990	23.150	23.200	54.781%
σ		0.273	0.297	0.434	0.125	0.210	1.056%
%RSD		0.487	0.534	1.887	0.538	0.904	1.928

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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	14:56:31	61.184%	0.003	209.100	214.500	0.000	1178000.000	66490.000	66150.000
2	14:56:50	58.570%	0.127	202.000	206.600	0.000	1228000.000	64660.000	63610.000
3	14:57:09	58.957%	0.156	196.500	214.300	0.000	1222000.000	63450.000	63440.000
x		59.570%	0.095	202.600	211.800	0.000	1209000.000	64870.000	64400.000
σ		1.411%	0.081	6.340	4.507	0.000	27770.000	1528.000	1517.000
%RSD		2.368	85.450	3.130	2.128	0.000	2.296	2.355	2.356

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:31	53.450	12870.000	0.000	191700.000	311300.000	300100.000	80.415%	3.803
2	14:56:50	52.730	12350.000	0.000	188900.000	306200.000	301000.000	76.707%	3.770
3	14:57:09	51.590	12240.000	0.000	189500.000	306100.000	300700.000	76.213%	3.981
x		52.590	12490.000	0.000	190000.000	307900.000	300600.000	77.778%	3.851
σ		0.937	338.200	0.000	1506.000	2935.000	435.000	2.297%	0.113
%RSD		1.782	2.708	0.000	0.793	0.954	0.145	2.953	2.942

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:31	1.132	1.979	1406.000	7323.000	6899.000	1.316	1.291	10.360
2	14:56:50	0.066	1.989	1423.000	7376.000	6950.000	1.331	1.250	10.560
3	14:57:09	0.319	1.969	1421.000	7303.000	6823.000	1.319	1.180	10.540
x		0.506	1.979	1416.000	7334.000	6891.000	1.322	1.240	10.480
σ		0.557	0.010	9.428	37.420	64.350	0.008	0.056	0.112
%RSD		110.100	0.526	0.666	0.510	0.934	0.569	4.539	1.069

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:31	1.316	17.140	17.030	3.909	0.267	14.650	0.000	3929.000
2	14:56:50	1.278	17.770	17.420	3.382	0.461	13.840	0.000	3962.000
3	14:57:09	1.217	17.250	17.140	3.808	0.465	14.430	0.000	3913.000
x		1.270	17.390	17.200	3.700	0.397	14.310	0.000	3935.000
σ		0.050	0.335	0.200	0.280	0.113	0.422	0.000	25.090
%RSD		3.914	1.926	1.164	7.556	28.460	2.950	0.000	0.638

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:31	69.086%	4.626	4.680	64.124%	-0.007	-0.003	0.067	0.035
2	14:56:50	68.593%	4.932	5.175	63.461%	-0.005	-0.006	0.032	0.032
3	14:57:09	69.876%	4.855	4.808	63.602%	-0.005	0.000	0.067	0.035
x		69.185%	4.804	4.888	63.729%	-0.006	-0.003	0.056	0.034
σ		0.647%	0.159	0.257	0.349%	0.001	0.003	0.020	0.002
%RSD		0.935	3.317	5.255	0.548	22.660	107.900	36.300	4.652

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:31	65.581%	1.208	0.470	0.580	769.200	769.300	71.796%	71.811%
2	14:56:50	66.035%	1.194	0.503	0.633	767.200	768.700	73.058%	72.933%
3	14:57:09	66.666%	1.019	0.542	0.549	773.700	769.800	72.782%	73.181%
x		66.094%	1.141	0.505	0.587	770.000	769.300	72.546%	72.642%
σ		0.545%	0.106	0.036	0.042	3.303	0.575	0.663%	0.730%
%RSD		0.825	9.270	7.054	7.207	0.429	0.075	0.914	1.005

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:31	0.362	0.376	1.007	0.928	0.974	53.044%
2	14:56:50	0.340	0.321	0.991	0.975	0.979	54.200%
3	14:57:09	0.295	0.289	0.980	0.933	0.977	54.759%
x		0.333	0.329	0.993	0.945	0.977	54.001%
σ		0.034	0.044	0.013	0.026	0.003	0.875%
%RSD		10.200	13.380	1.359	2.720	0.259	1.620

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	71.919%	0.299	251.000	273.900	0.000	1033000.000	227700.000	230200.000
2	15:00:38	68.606%	0.301	254.200	274.500	0.000	1062000.000	229500.000	226300.000
3	15:00:57	66.203%	0.163	246.800	268.700	0.000	1087000.000	218300.000	219000.000
x		68.909%	0.255	250.700	272.400	0.000	1061000.000	225100.000	225200.000
σ		2.870%	0.079	3.734	3.226	0.000	26940.000	6008.000	5715.000
%RSD		4.165	31.070	1.489	1.184	0.000	2.540	2.668	2.538

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	776.700	7727.000	0.000	9297.000	445200.000	430800.000	87.650%	15.500
2	15:00:38	778.900	7566.000	0.000	9036.000	437500.000	423400.000	88.002%	15.170
3	15:00:57	742.400	7272.000	0.000	8978.000	434000.000	425700.000	87.219%	15.550
x		766.000	7522.000	0.000	9104.000	438900.000	426600.000	87.624%	15.410
σ		20.470	230.800	0.000	170.300	5702.000	3801.000	0.392%	0.205
%RSD		2.673	3.068	0.000	1.870	1.299	0.891	0.448	1.330

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	0.930	3.484	2814.000	7470.000	7041.000	2.020	0.470	13.320
2	15:00:38	1.275	3.379	2749.000	7260.000	6916.000	1.944	0.673	13.390
3	15:00:57	1.000	3.405	2797.000	7366.000	7056.000	1.905	0.561	13.560
x		1.068	3.423	2786.000	7365.000	7004.000	1.956	0.568	13.420
σ		0.182	0.055	33.750	105.000	76.520	0.058	0.102	0.125
%RSD		17.060	1.595	1.211	1.426	1.092	2.982	17.950	0.930

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	4.657	11.300	10.730	11.130	-0.051	8.761	0.000	2649.000
2	15:00:38	4.643	11.020	11.040	10.240	0.143	8.563	0.000	2650.000
3	15:00:57	4.716	11.060	11.470	10.810	0.082	8.388	0.000	2640.000
x		4.672	11.130	11.080	10.730	0.058	8.571	0.000	2646.000
σ		0.039	0.154	0.369	0.455	0.099	0.187	0.000	5.546
%RSD		0.834	1.386	3.330	4.238	171.200	2.181	0.000	0.210

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	80.420%	3.680	3.708	69.545%	-0.019	-0.017	0.085	0.024
2	15:00:38	81.230%	3.838	4.115	69.860%	-0.012	-0.009	0.054	0.040
3	15:00:57	81.392%	3.986	4.162	69.893%	-0.012	-0.010	0.067	0.056
x		81.014%	3.834	3.995	69.766%	-0.014	-0.012	0.069	0.040
σ		0.521%	0.153	0.250	0.192%	0.004	0.004	0.016	0.016
%RSD		0.643	3.989	6.253	0.275	26.750	36.570	22.690	39.860

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	70.216%	0.255	0.015	0.106	1347.000	1311.000	75.364%	74.443%
2	15:00:38	70.908%	0.347	0.025	0.073	1342.000	1300.000	77.952%	76.986%
3	15:00:57	71.574%	0.356	0.080	0.110	1340.000	1293.000	77.206%	76.460%
x		70.899%	0.319	0.040	0.096	1343.000	1301.000	76.841%	75.963%
σ		0.679%	0.056	0.035	0.020	3.301	8.937	1.332%	1.342%
%RSD		0.957	17.550	87.170	21.200	0.246	0.687	1.734	1.767

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:19	0.106	0.099	3.924	3.709	3.812	53.840%
2	15:00:38	0.111	0.111	4.022	3.772	3.859	55.522%
3	15:00:57	0.102	0.099	3.940	3.628	3.756	56.964%
x		0.106	0.103	3.962	3.703	3.809	55.442%
σ		0.004	0.007	0.052	0.072	0.052	1.563%
%RSD		3.925	6.613	1.318	1.944	1.359	2.820

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:06	76.763%	0.103	295.900	316.000	0.000	772700.000	75150.000	74110.000
2	15:04:26	71.908%	0.099	312.800	323.300	0.000	778400.000	75180.000	72370.000
3	15:04:45	67.858%	0.106	321.900	331.700	0.000	797800.000	76320.000	75450.000
x		72.176%	0.103	310.200	323.600	0.000	783000.000	75550.000	73970.000
σ		4.458%	0.004	13.210	7.868	0.000	13140.000	667.400	1544.000
%RSD		6.177	3.629	4.259	2.431	0.000	1.678	0.883	2.088
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:06	29.920	11310.000	0.000	98090.000	341300.000	332400.000	92.606%	4.613
2	15:04:26	29.050	10900.000	0.000	96000.000	333100.000	330000.000	88.316%	4.130
3	15:04:45	30.740	11240.000	0.000	98910.000	346200.000	338700.000	83.708%	4.600
x		29.900	11150.000	0.000	97670.000	340200.000	333700.000	88.210%	4.448
σ		0.845	218.200	0.000	1501.000	6628.000	4495.000	4.450%	0.275
%RSD		2.826	1.957	0.000	1.537	1.948	1.347	5.045	6.184
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:06	2.776	2.821	358.200	3692.000	3617.000	1.638	0.542	5.035
2	15:04:26	0.989	3.041	365.400	3758.000	3766.000	1.729	0.901	5.350
3	15:04:45	3.118	2.839	359.700	3696.000	3627.000	1.656	0.877	5.224
x		2.295	2.900	361.100	3715.000	3670.000	1.674	0.774	5.203
σ		1.143	0.122	3.777	36.980	83.310	0.048	0.201	0.159
%RSD		49.830	4.222	1.046	0.996	2.270	2.885	25.920	3.049
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:06	0.554	4.346	4.707	9.666	0.262	9.826	0.000	3346.000
2	15:04:26	0.615	4.428	4.782	9.559	0.392	9.038	0.000	3351.000
3	15:04:45	0.614	4.500	4.412	10.200	0.450	10.200	0.000	3345.000
x		0.594	4.425	4.634	9.809	0.368	9.686	0.000	3347.000
σ		0.035	0.077	0.196	0.344	0.096	0.592	0.000	3.597
%RSD		5.913	1.735	4.222	3.505	26.190	6.107	0.000	0.108
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:06	78.058%	0.123	0.159	74.027%	-0.009	-0.008	0.001	-0.003
2	15:04:26	77.688%	0.379	0.362	72.540%	-0.019	-0.007	0.042	0.020
3	15:04:45	77.791%	0.399	0.413	72.079%	-0.017	-0.014	0.018	0.003
x		77.846%	0.300	0.311	72.882%	-0.015	-0.010	0.020	0.006
σ		0.191%	0.154	0.135	1.018%	0.005	0.004	0.021	0.012
%RSD		0.245	51.370	43.180	1.397	35.310	37.950	102.700	184.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:06	74.083%	0.051	-0.038	0.052	641.900	640.300	78.293%	78.572%
2	15:04:26	74.915%	0.125	-0.002	0.114	639.200	641.400	78.663%	78.569%
3	15:04:45	74.006%	0.101	-0.018	0.083	642.600	647.800	80.584%	81.027%
x		74.335%	0.092	-0.019	0.083	641.200	643.200	79.180%	79.389%
σ		0.504%	0.037	0.018	0.031	1.785	4.078	1.230%	1.419%
%RSD		0.678	40.350	93.500	37.180	0.278	0.634	1.553	1.787
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:04:06	0.063	0.058	0.389	0.379	0.368	59.774%		
2	15:04:26	0.062	0.065	0.388	0.357	0.382	59.186%		
3	15:04:45	0.055	0.059	0.372	0.386	0.385	61.448%		
x		0.060	0.060	0.383	0.374	0.378	60.136%		
σ		0.004	0.004	0.009	0.015	0.009	1.174%		
%RSD		7.077	6.226	2.433	4.060	2.447	1.952		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	87.175%	0.392	213.300	231.800	0.000	280700.000	58260.000	58410.000
2	15:08:13	74.657%	0.421	223.500	233.500	0.000	294900.000	61330.000	61430.000
3	15:08:32	75.679%	0.368	210.000	232.200	0.000	280500.000	59390.000	58270.000
x		79.170%	0.394	215.600	232.500	0.000	285400.000	59660.000	59370.000
σ		6.951%	0.027	7.045	0.913	0.000	8269.000	1553.000	1784.000
%RSD		8.780	6.756	3.267	0.393	0.000	2.898	2.603	3.005

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	1815.000	8919.000	0.000	5275.000	203600.000	198700.000	89.564%	38.030
2	15:08:13	1889.000	9264.000	0.000	5403.000	205400.000	200300.000	87.425%	37.460
3	15:08:32	1775.000	8898.000	0.000	5279.000	200900.000	195800.000	86.348%	41.070
x		1826.000	9027.000	0.000	5319.000	203300.000	198300.000	87.779%	38.850
σ		58.040	205.400	0.000	72.320	2246.000	2304.000	1.637%	1.942
%RSD		3.178	2.276	0.000	1.360	1.105	1.162	1.865	4.998

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	6.178	8.520	1993.000	4447.000	4279.000	4.063	4.896	12.220
2	15:08:13	6.672	8.508	1984.000	4411.000	4260.000	3.953	4.337	12.240
3	15:08:32	5.548	8.582	1998.000	4441.000	4222.000	3.980	4.791	12.110
x		6.132	8.537	1992.000	4433.000	4254.000	3.999	4.675	12.190
σ		0.563	0.040	6.894	19.270	28.790	0.057	0.297	0.070
%RSD		9.185	0.467	0.346	0.435	0.677	1.425	6.346	0.576

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	11.020	32.650	33.060	4.186	-0.592	2.238	0.000	1302.000
2	15:08:13	10.880	32.900	32.990	4.525	-0.405	2.497	0.000	1313.000
3	15:08:32	10.310	32.570	32.420	3.490	-0.271	2.028	0.000	1312.000
x		10.740	32.710	32.820	4.067	-0.422	2.254	0.000	1309.000
σ		0.377	0.172	0.348	0.528	0.161	0.235	0.000	5.989
%RSD		3.508	0.524	1.062	12.980	38.180	10.430	0.000	0.458

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	102.499%	3.254	3.494	77.053%	-0.014	-0.015	0.247	0.254
2	15:08:13	100.906%	3.294	3.496	76.349%	-0.017	-0.020	0.241	0.233
3	15:08:32	101.102%	3.295	3.711	75.747%	-0.015	-0.010	0.236	0.245
x		101.502%	3.281	3.567	76.383%	-0.015	-0.015	0.241	0.244
σ		0.869%	0.023	0.125	0.654%	0.002	0.005	0.005	0.011
%RSD		0.856	0.709	3.495	0.856	11.570	31.440	2.231	4.349

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	77.203%	-0.013	-0.155	-0.058	440.700	443.400	84.416%	84.534%
2	15:08:13	76.975%	0.061	-0.157	-0.067	441.700	444.900	85.064%	85.471%
3	15:08:32	77.179%	0.077	-0.143	-0.075	442.200	438.600	85.565%	85.571%
x		77.119%	0.042	-0.152	-0.067	441.500	442.300	85.015%	85.192%
σ		0.125%	0.048	0.008	0.008	0.755	3.307	0.576%	0.572%
%RSD		0.162	115.300	5.013	12.680	0.171	0.748	0.677	0.671

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:07:54	0.055	0.060	7.253	6.635	6.928	64.671%
2	15:08:13	0.055	0.055	7.312	6.523	6.921	66.920%
3	15:08:32	0.054	0.063	7.157	6.516	6.881	67.108%
x		0.055	0.059	7.241	6.558	6.910	66.233%
σ		0.001	0.004	0.078	0.067	0.025	1.356%
%RSD		1.697	6.588	1.083	1.019	0.364	2.047

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:42	64.456%	0.029	114.400	121.800	0.000	1141000.000	16760.000	16850.000
2	15:12:01	60.294%	0.107	116.600	124.300	0.000	1196000.000	17290.000	17030.000
3	15:12:20	60.651%	0.077	121.600	122.700	0.000	1205000.000	17290.000	16890.000
x		61.801%	0.071	117.500	122.900	0.000	1181000.000	17110.000	16920.000
σ		2.307%	0.039	3.662	1.244	0.000	34820.000	308.400	95.840
%RSD		3.733	55.180	3.116	1.012	0.000	2.950	1.802	0.566
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:42	29.360	10150.000	0.000	364700.000	31450.000	35320.000	80.718%	23.350
2	15:12:01	30.060	10770.000	0.000	377600.000	32730.000	36000.000	79.413%	23.160
3	15:12:20	29.430	10290.000	0.000	371300.000	32310.000	35630.000	77.211%	23.310
x		29.620	10400.000	0.000	371200.000	32160.000	35650.000	79.114%	23.270
σ		0.382	322.700	0.000	6489.000	651.400	337.100	1.773%	0.103
%RSD		1.289	3.102	0.000	1.748	2.025	0.946	2.240	0.441
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:42	7.999	6.685	35.950	484.300	458.400	5.770	37.880	13.060
2	15:12:01	8.543	6.704	36.550	466.100	436.500	5.539	36.880	12.470
3	15:12:20	7.115	6.706	36.420	472.700	447.500	5.627	37.660	12.770
x		7.885	6.699	36.310	474.400	447.500	5.646	37.480	12.770
σ		0.720	0.011	0.315	9.200	10.960	0.116	0.526	0.295
%RSD		9.134	0.169	0.868	1.939	2.450	2.062	1.404	2.307
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:42	1.111	2.408	2.667	38.560	1.332	22.090	0.000	2445.000
2	15:12:01	1.079	2.413	2.471	38.800	1.091	22.110	0.000	2447.000
3	15:12:20	1.165	2.329	1.929	38.610	1.241	20.040	0.000	2430.000
x		1.118	2.383	2.356	38.650	1.221	21.410	0.000	2440.000
σ		0.043	0.047	0.383	0.127	0.121	1.191	0.000	9.483
%RSD		3.880	1.963	16.230	0.328	9.927	5.560	0.000	0.389
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:42	69.941%	2.079	2.197	65.323%	-0.012	-0.006	-0.029	-0.024
2	15:12:01	69.843%	2.266	2.268	64.642%	-0.005	-0.001	0.016	-0.001
3	15:12:20	70.160%	2.179	2.356	63.921%	0.000	0.003	0.034	0.018
x		69.981%	2.175	2.273	64.629%	-0.006	-0.002	0.007	-0.002
σ		0.162%	0.094	0.080	0.701%	0.006	0.004	0.033	0.021
%RSD		0.232	4.301	3.510	1.085	110.100	278.500	452.200	856.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:11:42	66.118%	1.136	0.023	0.025	117.800	117.200	71.554%	71.103%
2	15:12:01	65.626%	1.124	0.051	0.055	118.200	117.800	71.996%	71.835%
3	15:12:20	66.766%	1.164	0.072	0.098	116.700	117.000	72.097%	72.894%
x		66.170%	1.141	0.049	0.059	117.500	117.400	71.883%	71.944%
σ		0.572%	0.020	0.025	0.037	0.786	0.432	0.289%	0.900%
%RSD		0.864	1.793	51.130	61.640	0.668	0.368	0.402	1.252
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:11:42	0.019	0.029	0.436	0.424	0.424	54.904%		
2	15:12:01	0.032	0.033	0.412	0.422	0.418	56.243%		
3	15:12:20	0.038	0.034	0.423	0.457	0.435	55.637%		
x		0.030	0.032	0.424	0.434	0.425	55.595%		
σ		0.010	0.003	0.012	0.019	0.009	0.671%		
%RSD		32.170	8.503	2.758	4.454	2.021	1.207		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	67.717%	0.226	165.700	166.900	0.000	1091000.000	21840.000	21320.000
2	15:15:48	66.344%	0.245	168.700	171.700	0.000	1113000.000	22070.000	21770.000
3	15:16:07	64.475%	0.127	166.300	173.800	0.000	1140000.000	21870.000	21790.000
x		66.179%	0.199	166.900	170.800	0.000	1115000.000	21930.000	21630.000
σ		1.627%	0.063	1.617	3.513	0.000	24790.000	127.300	262.700
%RSD		2.458	31.780	0.969	2.056	0.000	2.224	0.580	1.215

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	222.900	11950.000	0.000	366000.000	53260.000	60070.000	83.756%	10.110
2	15:15:48	199.100	11910.000	0.000	368800.000	54260.000	60360.000	82.108%	10.610
3	15:16:07	202.100	12140.000	0.000	373300.000	55120.000	60600.000	80.726%	10.160
x		208.000	12000.000	0.000	369400.000	54210.000	60340.000	82.197%	10.290
σ		12.950	121.400	0.000	3652.000	929.600	266.400	1.517%	0.278
%RSD		6.224	1.012	0.000	0.989	1.715	0.442	1.846	2.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	4.324	10.710	148.600	45180.000	45460.000	13.100	24.370	15.580
2	15:15:48	4.831	10.810	150.800	45430.000	45640.000	13.280	25.470	15.570
3	15:16:07	6.239	10.780	148.500	44440.000	44740.000	12.830	24.050	15.760
x		5.131	10.760	149.300	45020.000	45280.000	13.070	24.630	15.640
σ		0.992	0.054	1.305	514.100	478.900	0.228	0.747	0.108
%RSD		19.330	0.506	0.874	1.142	1.058	1.745	3.033	0.691

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	2.375	6.434	6.490	32.220	1.798	25.400	0.000	2268.000
2	15:15:48	2.323	6.757	6.953	32.810	2.065	24.470	0.000	2266.000
3	15:16:07	2.207	6.513	5.628	32.850	2.379	24.390	0.000	2271.000
x		2.302	6.568	6.357	32.630	2.081	24.750	0.000	2268.000
σ		0.086	0.168	0.673	0.353	0.291	0.561	0.000	2.631
%RSD		3.732	2.564	10.580	1.082	13.990	2.266	0.000	0.116

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	70.630%	27.480	27.800	64.312%	0.006	0.008	0.059	0.040
2	15:15:48	70.481%	27.560	27.840	64.297%	0.011	0.013	0.001	-0.004
3	15:16:07	71.332%	27.240	27.990	64.230%	0.019	0.013	0.087	0.052
x		70.814%	27.430	27.880	64.280%	0.012	0.011	0.049	0.029
σ		0.454%	0.167	0.099	0.044%	0.007	0.003	0.044	0.029
%RSD		0.642	0.608	0.355	0.068	54.070	28.830	89.830	101.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	66.245%	0.312	0.143	0.139	4030.000	3950.000	69.534%	69.036%
2	15:15:48	66.791%	0.390	0.117	0.206	4018.000	3897.000	70.644%	69.755%
3	15:16:07	66.433%	0.364	0.151	0.197	3996.000	3901.000	72.234%	71.223%
x		66.489%	0.355	0.137	0.181	4015.000	3916.000	70.804%	70.005%
σ		0.277%	0.040	0.018	0.037	17.050	29.390	1.357%	1.115%
%RSD		0.417	11.150	13.150	20.290	0.425	0.750	1.917	1.592

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:29	0.042	0.033	1.642	1.551	1.593	52.467%
2	15:15:48	0.041	0.037	1.661	1.615	1.654	52.284%
3	15:16:07	0.043	0.037	1.685	1.608	1.667	53.528%
x		0.042	0.036	1.663	1.591	1.638	52.760%
σ		0.001	0.002	0.022	0.035	0.040	0.672%
%RSD		2.279	5.766	1.301	2.199	2.416	1.273

CCV 1594026 6/19/2015 3:19:06 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	15:19:06	155.299%	120.300	110.800	110.300	0.000	53600.000	54370.000	52930.000
2	15:19:25	151.789%	117.400	102.300	103.400	0.000	51930.000	53500.000	52620.000
3	15:19:44	151.593%	115.800	100.500	101.700	0.000	51650.000	53410.000	52580.000
x		152.894%	117.808%	104.550%	105.135%	0.000	104.781%	107.521%	105.419%
σ		2.086%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.364	1.962	5.270	4.302	0.000	2.015	0.991	0.363

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:06	534.700	5967.000	0.000	49580.000	43600.000	45920.000	157.302%	91.450
2	15:19:25	527.300	5776.000	0.000	50160.000	44340.000	47170.000	153.953%	93.220
3	15:19:44	529.600	5853.000	0.000	50560.000	45370.000	47880.000	151.006%	94.390
x		106.109%	117.304%	0.000	100.199%	88.874%	93.980%	154.087%	93.021%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.150%	n/a
%RSD		0.709	1.638	0.000	0.982	2.001	2.115	2.044	1.588

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:06	95.250	94.770	469.300	24030.000	23630.000	97.890	102.200	103.700
2	15:19:25	97.630	97.880	487.100	24740.000	24580.000	102.200	106.700	108.300
3	15:19:44	97.730	98.660	488.700	24810.000	24780.000	102.700	105.900	108.400
x		96.870%	97.102%	96.343%	98.095%	97.321%	100.929%	104.972%	106.808%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.453	2.123	2.238	1.761	2.542	2.622	2.290	2.509

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:06	102.500	98.030	95.710	104.400	106.000	109.600	0.000	91.700
2	15:19:25	106.500	99.260	100.600	106.000	107.000	109.000	0.000	93.100
3	15:19:44	106.600	100.500	99.740	105.800	107.600	110.200	0.000	93.040
x		105.162%	99.272%	98.685%	105.402%	106.863%	109.584%	0.000	92.613%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.221	1.258	2.646	0.833	0.764	0.561	0.000	0.859

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:06	110.669%	87.800	87.200	108.265%	96.980	96.380	93.240	93.530
2	15:19:25	110.195%	88.780	88.820	107.394%	97.850	99.160	96.940	99.000
3	15:19:44	111.454%	90.580	89.760	107.838%	96.810	97.030	94.970	94.990
x		110.773%	89.052%	88.596%	107.832%	97.215%	97.524%	95.046%	95.843%
σ		0.636%	n/a	n/a	0.436%	n/a	n/a	n/a	n/a
%RSD		0.574	1.586	1.463	0.404	0.574	1.494	1.948	2.953

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:06	103.834%	91.920	86.290	88.050	98.940	98.230	89.522%	87.088%
2	15:19:25	100.843%	96.250	90.290	90.250	101.000	101.000	90.014%	87.406%
3	15:19:44	105.760%	92.850	86.800	87.390	98.490	99.430	90.338%	87.261%
x		103.479%	93.670%	87.791%	88.567%	99.461%	99.542%	89.958%	87.252%
σ		2.477%	n/a	n/a	n/a	n/a	n/a	0.410%	0.159%
%RSD		2.394	2.434	2.478	1.692	1.322	1.385	0.456	0.182

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:06	104.600	108.500	102.600	102.300	102.200	70.816%
2	15:19:25	106.500	110.900	105.400	105.600	104.700	69.458%
3	15:19:44	107.600	112.100	105.700	105.600	105.700	68.271%
x		106.218%	110.493%	104.554%	104.488%	104.184%	69.515%
σ		n/a	n/a	n/a	n/a	n/a	1.273%
%RSD		1.447	1.628	1.643	1.822	1.755	1.831

CCB9 6/19/2015 3:25:34 PM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:53	141.053%	-0.001	1.394	1.354	0.000	37.940	2.761	2.868
2	15:26:12	140.194%	-0.001	0.895	1.373	0.000	34.450	2.784	2.805
3	15:26:31	142.460%	0.005	1.188	1.399	0.000	33.430	3.096	2.860
x		141.235%	0.001	1.159	1.375	0.000	35.270	2.880	2.844
σ		1.144%	0.004	0.251	0.023	0.000	2.368	0.187	0.034
%RSD		0.810	314.800	21.640	1.648	0.000	6.714	6.488	1.194
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:53	3.101	0.133	0.000	14.630	18.510	17.580	178.119%	-0.037
2	15:26:12	3.060	-0.228	0.000	14.140	17.730	18.130	176.884%	-0.011
3	15:26:31	3.252	-0.875	0.000	15.030	18.870	17.280	170.778%	-0.002
x		3.138	-0.323	0.000	14.600	18.370	17.660	175.260%	-0.017
σ		0.101	0.511	0.000	0.447	0.584	0.428	3.931%	0.018
%RSD		3.228	158.000	0.000	3.059	3.177	2.426	2.243	107.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:53	0.011	0.018	0.058	5.715	3.244	0.007	0.070	0.181
2	15:26:12	0.025	0.041	0.051	6.907	3.920	0.004	0.066	0.176
3	15:26:31	0.021	0.014	0.061	6.440	3.548	0.005	0.098	0.190
x		0.019	0.024	0.057	6.354	3.571	0.005	0.078	0.182
σ		0.008	0.015	0.005	0.601	0.339	0.002	0.018	0.007
%RSD		39.820	60.070	9.436	9.453	9.481	32.080	22.690	3.609
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:53	0.157	1.403	1.566	0.056	0.284	0.458	0.000	0.053
2	15:26:12	0.136	1.453	1.402	0.111	0.322	0.595	0.000	0.045
3	15:26:31	0.171	1.580	1.510	0.154	0.295	0.774	0.000	0.044
x		0.155	1.479	1.493	0.107	0.300	0.609	0.000	0.047
σ		0.017	0.091	0.084	0.049	0.019	0.159	0.000	0.005
%RSD		11.180	6.163	5.593	45.620	6.423	26.100	0.000	10.610
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:53	142.859%	-0.105	-0.152	120.494%	-0.013	-0.008	0.059	0.047
2	15:26:12	144.326%	0.182	0.156	121.343%	-0.010	-0.007	0.048	-0.474
3	15:26:31	143.495%	0.214	0.200	121.767%	-0.005	-0.008	0.030	-0.517
x		143.560%	0.097	0.068	121.201%	-0.009	-0.008	0.046	-0.315
σ		0.736%	0.175	0.192	0.648%	0.004	0.000	0.014	0.314
%RSD		0.513	181.000	282.000	0.535	44.970	6.290	31.340	99.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:53	114.440%	-0.194	0.530	0.534	0.035	0.074	78.689%	72.267%
2	15:26:12	116.270%	17.280	0.574	0.531	0.073	0.065	81.161%	75.973%
3	15:26:31	115.282%	17.920	0.582	0.609	0.069	0.069	80.660%	74.187%
x		115.331%	11.670	0.562	0.558	0.059	0.069	80.170%	74.142%
σ		0.916%	10.280	0.028	0.044	0.021	0.005	1.307%	1.853%
%RSD		0.794	88.080	4.980	7.881	35.690	6.958	1.630	2.500
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:25:53	0.028	0.021	0.019	0.025	0.022	41.251%		
2	15:26:12	0.034	0.029	0.014	0.025	0.024	43.764%		
3	15:26:31	0.034	0.024	0.025	0.024	0.025	40.478%		
x		0.032	0.025	0.019	0.025	0.024	41.831%		
σ		0.003	0.004	0.006	0.001	0.001	1.718%		
%RSD		10.230	16.610	29.720	2.620	6.092	4.107		

180-45098-B-1-A @10 6/19/2015 3:29:24 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	15:29:43	146.792%	0.048	2.540	2.334	0.000	1167.000	15560.000	15330.000
2	15:30:03	136.026%	0.061	2.399	2.288	0.000	1201.000	15920.000	15620.000
3	15:30:22	139.874%	0.131	1.972	2.117	0.000	1117.000	14910.000	14880.000
x		140.897%	0.080	2.304	2.246	0.000	1162.000	15460.000	15270.000
σ		5.455%	0.044	0.296	0.114	0.000	42.270	514.200	371.300
%RSD		3.872	55.470	12.840	5.073	0.000	3.639	3.326	2.431

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:43	191.700	1156.000	0.000	2960.000	25000.000	26180.000	142.845%	0.033
2	15:30:03	202.300	1201.000	0.000	3047.000	25570.000	26830.000	137.687%	0.103
3	15:30:22	190.600	1135.000	0.000	2907.000	24900.000	26460.000	136.680%	0.065
x		194.900	1164.000	0.000	2971.000	25160.000	26490.000	139.071%	0.067
σ		6.451	33.570	0.000	70.530	364.200	327.800	3.307%	0.035
%RSD		3.311	2.885	0.000	2.374	1.448	1.237	2.378	52.280

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:43	-0.026	-0.008	2481.000	21970.000	22140.000	19.090	3.914	14.960
2	15:30:03	0.140	0.001	2580.000	22700.000	22760.000	19.680	4.112	15.310
3	15:30:22	-0.167	0.003	2592.000	22860.000	22910.000	19.640	4.232	15.280
x		-0.018	-0.001	2551.000	22510.000	22600.000	19.470	4.086	15.180
σ		0.154	0.006	61.070	473.800	408.500	0.332	0.161	0.197
%RSD		872.100	502.700	2.394	2.104	1.807	1.703	3.934	1.300

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:43	14.730	380.800	376.000	-0.216	-0.348	0.518	0.000	77.500
2	15:30:03	14.650	388.300	384.700	-0.055	-0.400	0.490	0.000	78.050
3	15:30:22	14.930	387.400	384.400	0.027	-0.356	0.636	0.000	77.640
x		14.770	385.500	381.700	-0.081	-0.368	0.548	0.000	77.730
σ		0.147	4.096	4.953	0.124	0.028	0.077	0.000	0.286
%RSD		0.993	1.062	1.298	151.700	7.630	14.130	0.000	0.368

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:43	147.447%	-0.612	-0.605	95.210%	-0.009	-0.007	0.331	0.379
2	15:30:03	146.122%	-0.570	-0.503	95.233%	-0.007	-0.007	0.387	0.322
3	15:30:22	148.927%	-0.455	-0.457	96.475%	-0.007	-0.003	0.345	0.275
x		147.499%	-0.545	-0.522	95.639%	-0.008	-0.006	0.354	0.325
σ		1.403%	0.081	0.076	0.724%	0.001	0.002	0.029	0.052
%RSD		0.951	14.840	14.530	0.757	15.890	43.360	8.257	15.880

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:43	85.822%	-0.228	0.419	0.330	3.579	3.733	63.774%	57.605%
2	15:30:03	85.788%	-0.185	0.375	0.396	3.639	3.594	63.241%	57.692%
3	15:30:22	87.300%	-0.203	0.384	0.399	3.669	3.739	65.869%	59.752%
x		86.303%	-0.205	0.393	0.375	3.629	3.689	64.295%	58.350%
σ		0.863%	0.021	0.023	0.039	0.046	0.082	1.389%	1.215%
%RSD		1.000	10.430	5.960	10.380	1.265	2.217	2.161	2.083

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:43	0.022	0.031	0.466	0.446	0.435	28.136%
2	15:30:03	0.038	0.031	0.419	0.488	0.465	24.810%
3	15:30:22	0.055	0.035	0.540	0.508	0.504	25.186%
x		0.038	0.032	0.475	0.481	0.468	26.044%
σ		0.017	0.002	0.061	0.031	0.034	1.822%
%RSD		43.800	6.560	12.880	6.515	7.361	6.995

180-45098-B-1-A SD@50 6/19/2015 3:33:12 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	15:33:31	163.631%	0.002	0.626	0.895	0.000	233.100	3001.000	2965.000
2	15:33:51	152.142%	0.016	0.854	0.881	0.000	237.400	3081.000	3002.000
3	15:34:10	158.119%	0.038	0.677	0.700	0.000	226.800	2917.000	2920.000
x		157.964%	0.018	0.719	0.825	0.000	232.400	2999.000	2963.000
σ		5.746%	0.018	0.120	0.109	0.000	5.341	82.060	40.950
%RSD		3.637	98.870	16.630	13.190	0.000	2.298	2.736	1.382
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:31	36.300	203.500	0.000	591.900	5009.000	4953.000	147.363%	-0.044
2	15:33:51	38.260	209.400	0.000	593.800	5102.000	5046.000	145.671%	-0.043
3	15:34:10	37.050	201.500	0.000	594.300	5036.000	5081.000	142.093%	-0.016
x		37.210	204.800	0.000	593.300	5049.000	5026.000	145.042%	-0.034
σ		0.989	4.118	0.000	1.254	47.690	65.930	2.690%	0.016
%RSD		2.659	2.011	0.000	0.211	0.945	1.312	1.855	45.910
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:31	-0.019	0.028	542.500	4870.000	4638.000	4.332	0.967	3.609
2	15:33:51	0.008	0.004	531.500	4795.000	4432.000	4.253	0.860	3.356
3	15:34:10	-0.016	-0.001	560.200	5025.000	4719.000	4.506	1.052	3.624
x		-0.009	0.011	544.800	4897.000	4596.000	4.363	0.960	3.530
σ		0.015	0.015	14.470	117.700	147.700	0.130	0.096	0.151
%RSD		163.700	143.400	2.656	2.404	3.213	2.969	10.010	4.274
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:31	3.612	90.440	92.380	-0.075	0.249	0.336	0.000	21.090
2	15:33:51	3.269	86.570	86.560	-0.062	0.062	0.275	0.000	18.940
3	15:34:10	3.504	93.070	93.040	-0.000	0.407	0.399	0.000	21.050
x		3.462	90.030	90.660	-0.046	0.239	0.337	0.000	20.360
σ		0.176	3.266	3.564	0.040	0.173	0.062	0.000	1.229
%RSD		5.073	3.628	3.932	87.260	72.170	18.390	0.000	6.034
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:31	115.454%	-0.722	-0.736	110.034%	-0.022	-0.019	0.110	0.075
2	15:33:51	129.852%	-0.650	-0.680	110.111%	-0.020	-0.022	0.088	0.074
3	15:34:10	116.677%	-0.646	-0.607	110.969%	-0.019	-0.016	0.081	0.059
x		120.661%	-0.673	-0.674	110.371%	-0.020	-0.019	0.093	0.069
σ		7.983%	0.043	0.065	0.519%	0.002	0.003	0.015	0.009
%RSD		6.616	6.379	9.581	0.470	8.069	17.850	16.050	12.690
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:31	102.230%	-0.303	0.003	-0.014	0.707	0.692	88.381%	85.240%
2	15:33:51	102.999%	-0.278	-0.002	0.002	0.725	0.687	89.796%	87.238%
3	15:34:10	106.138%	-0.277	0.002	-0.021	0.717	0.713	91.610%	88.478%
x		103.789%	-0.286	0.001	-0.011	0.716	0.698	89.929%	86.985%
σ		2.070%	0.014	0.003	0.012	0.009	0.014	1.618%	1.634%
%RSD		1.995	5.054	310.300	105.300	1.270	1.979	1.800	1.879
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:33:31	0.012	0.012	0.105	0.083	0.095	68.718%		
2	15:33:51	0.018	0.010	0.108	0.095	0.101	70.546%		
3	15:34:10	0.012	0.012	0.113	0.095	0.103	71.776%		
x		0.014	0.011	0.108	0.091	0.100	70.346%		
σ		0.004	0.001	0.004	0.007	0.004	1.539%		
%RSD		24.650	8.441	3.670	7.291	4.122	2.188		

180-45098-B-1-B MS @10 6/19/2015 3:37:00 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	15:37:19	156.967%	5.480	96.040	96.470	0.000	6234.000	19950.000	19860.000
2	15:37:39	137.556%	6.203	104.400	103.500	0.000	6503.000	20480.000	20540.000
3	15:37:58	137.533%	5.746	102.800	102.100	0.000	6344.000	20720.000	20770.000
x		144.019%	5.810	101.100	100.700	0.000	6360.000	20380.000	20390.000
σ		11.214%	0.366	4.429	3.720	0.000	135.000	393.200	473.500
%RSD		7.786	6.292	4.383	3.695	0.000	2.123	1.929	2.322
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:19	406.000	2182.000	0.000	8146.000	31340.000	32710.000	136.705%	97.710
2	15:37:39	412.100	2272.000	0.000	8399.000	32170.000	33710.000	129.464%	99.390
3	15:37:58	422.600	2274.000	0.000	8313.000	32140.000	33380.000	130.528%	97.700
x		413.600	2243.000	0.000	8286.000	31890.000	33270.000	132.232%	98.270
σ		8.392	52.300	0.000	128.700	475.300	506.200	3.910%	0.971
%RSD		2.029	2.332	0.000	1.553	1.491	1.522	2.957	0.988
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:19	48.770	19.220	2779.000	24640.000	24280.000	71.890	55.690	41.860
2	15:37:39	49.890	19.950	2847.000	24780.000	24470.000	71.940	56.420	42.320
3	15:37:58	48.800	19.500	2751.000	24260.000	23810.000	69.550	54.140	40.910
x		49.160	19.560	2792.000	24560.000	24190.000	71.130	55.410	41.700
σ		0.639	0.367	49.450	268.500	343.400	1.366	1.166	0.718
%RSD		1.301	1.877	1.771	1.093	1.420	1.920	2.104	1.721
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:19	40.500	450.700	440.800	3.390	0.509	1.310	0.000	164.000
2	15:37:39	41.130	457.000	447.500	3.427	0.292	1.092	0.000	164.200
3	15:37:58	38.950	448.400	442.100	3.367	0.299	1.240	0.000	164.500
x		40.190	452.000	443.500	3.395	0.367	1.214	0.000	164.200
σ		1.124	4.440	3.576	0.030	0.123	0.112	0.000	0.265
%RSD		2.796	0.982	0.806	0.889	33.630	9.188	0.000	0.161
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:19	147.905%	83.490	89.250	103.548%	5.243	5.164	5.290	4.736
2	15:37:39	145.685%	84.300	90.200	101.214%	5.207	5.236	5.627	4.720
3	15:37:58	144.258%	86.160	92.770	100.538%	5.177	5.275	5.465	4.932
x		145.950%	84.650	90.740	101.767%	5.209	5.225	5.461	4.796
σ		1.838%	1.371	1.818	1.579%	0.033	0.056	0.169	0.118
%RSD		1.259	1.620	2.003	1.552	0.636	1.077	3.091	2.463
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:19	100.015%	197.300	52.630	52.940	207.300	208.200	90.841%	88.292%
2	15:37:39	97.560%	198.100	52.160	52.940	207.400	207.400	89.464%	87.801%
3	15:37:58	96.383%	201.600	52.540	53.950	210.300	211.100	90.716%	88.752%
x		97.986%	199.000	52.440	53.280	208.400	208.900	90.340%	88.281%
σ		1.854%	2.281	0.250	0.585	1.714	1.950	0.762%	0.476%
%RSD		1.892	1.146	0.477	1.097	0.822	0.934	0.843	0.539
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:37:19	4.621	4.502	2.418	2.450	2.403	79.302%		
2	15:37:39	4.973	4.885	2.589	2.579	2.566	75.408%		
3	15:37:58	5.007	4.909	2.587	2.571	2.593	75.061%		
x		4.867	4.766	2.532	2.534	2.521	76.590%		
σ		0.214	0.229	0.098	0.072	0.103	2.355%		
%RSD		4.392	4.798	3.881	2.860	4.091	3.074		

180-45098-B-1-C MSD @10 6/19/2015 3:40:49 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	15:41:08	146.638%	5.741	100.600	104.200	0.000	6430.000	20860.000	20980.000
2	15:41:27	130.814%	5.765	105.600	102.800	0.000	6700.000	21910.000	21830.000
3	15:41:46	131.030%	5.529	104.400	105.400	0.000	6622.000	21770.000	21670.000
x		136.161%	5.678	103.500	104.200	0.000	6584.000	21510.000	21490.000
σ		9.074%	0.130	2.616	1.313	0.000	138.700	568.700	447.700
%RSD		6.664	2.285	2.527	1.260	0.000	2.107	2.643	2.083

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:08	411.000	2233.000	0.000	8256.000	31430.000	32610.000	140.236%	95.850
2	15:41:27	432.700	2350.000	0.000	8600.000	32610.000	33860.000	135.381%	97.120
3	15:41:46	439.800	2301.000	0.000	8522.000	33160.000	34380.000	130.136%	97.920
x		427.800	2295.000	0.000	8460.000	32400.000	33610.000	135.251%	96.960
σ		15.000	58.750	0.000	180.500	885.800	909.200	5.051%	1.042
%RSD		3.507	2.560	0.000	2.133	2.734	2.705	3.735	1.075

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:08	46.900	18.660	2741.000	23980.000	23590.000	66.190	51.350	39.470
2	15:41:27	47.670	18.950	2778.000	23990.000	23660.000	66.000	50.940	39.090
3	15:41:46	48.100	19.350	2813.000	24510.000	24380.000	68.220	53.920	40.190
x		47.560	18.980	2777.000	24160.000	23880.000	66.800	52.070	39.580
σ		0.604	0.343	36.050	306.400	438.200	1.235	1.617	0.556
%RSD		1.270	1.808	1.298	1.268	1.835	1.849	3.105	1.404

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:08	38.990	450.700	443.800	3.324	0.655	1.307	0.000	162.100
2	15:41:27	38.790	458.000	450.700	3.528	0.780	1.469	0.000	163.000
3	15:41:46	39.550	461.000	455.700	3.509	0.688	1.516	0.000	164.600
x		39.110	456.600	450.100	3.454	0.708	1.431	0.000	163.200
σ		0.397	5.262	5.958	0.113	0.065	0.110	0.000	1.261
%RSD		1.015	1.152	1.324	3.272	9.160	7.688	0.000	0.773

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:08	156.527%	83.920	89.900	109.127%	5.116	5.058	5.186	4.489
2	15:41:27	155.514%	85.070	91.350	108.500%	5.153	5.136	5.136	4.505
3	15:41:46	156.230%	86.410	92.640	108.656%	4.991	5.074	5.447	4.455
x		156.090%	85.130	91.300	108.761%	5.087	5.089	5.256	4.483
σ		0.521%	1.246	1.370	0.327%	0.085	0.041	0.167	0.025
%RSD		0.334	1.464	1.501	0.300	1.671	0.808	3.170	0.564

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:08	105.392%	202.700	51.970	52.080	205.100	203.300	97.101%	94.510%
2	15:41:27	106.113%	200.200	51.470	51.640	203.500	203.200	99.028%	96.143%
3	15:41:46	106.560%	202.300	52.260	52.170	203.900	203.700	99.757%	97.329%
x		106.022%	201.800	51.900	51.960	204.200	203.400	98.629%	95.994%
σ		0.589%	1.341	0.399	0.284	0.822	0.263	1.372%	1.415%
%RSD		0.556	0.665	0.769	0.546	0.403	0.129	1.391	1.474

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:08	4.741	4.609	2.575	2.476	2.516	84.186%
2	15:41:27	4.821	4.829	2.718	2.617	2.633	82.429%
3	15:41:46	5.136	4.979	2.725	2.757	2.717	81.477%
x		4.899	4.805	2.673	2.617	2.622	82.698%
σ		0.209	0.186	0.085	0.141	0.101	1.374%
%RSD		4.264	3.872	3.164	5.369	3.841	1.662

CCV 1594026 6/19/2015 3:44:45 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	15:44:45	155.248%	107.800	97.710	99.540	0.000	49840.000	50570.000	50450.000
2	15:45:04	143.521%	112.900	101.900	100.400	0.000	50980.000	52650.000	51760.000
3	15:45:23	144.796%	113.800	97.470	101.100	0.000	50180.000	51950.000	51710.000
x		147.855%	111.516%	99.008%	100.348%	0.000	100.670%	103.447%	102.609%
σ		6.434%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.352	2.894	2.490	0.774	0.000	1.157	2.043	1.449
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:45	494.200	5407.000	0.000	48740.000	44910.000	46740.000	148.643%	95.620
2	15:45:04	507.300	5578.000	0.000	50550.000	47110.000	48190.000	140.731%	97.140
3	15:45:23	513.100	5438.000	0.000	50700.000	46880.000	48770.000	141.214%	97.230
x		100.971%	109.483%	0.000	100.000%	92.599%	95.802%	143.529%	96.661%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.435%	n/a
%RSD		1.919	1.666	0.000	2.179	2.610	2.182	3.090	0.936
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:45	95.730	96.710	465.100	23650.000	23440.000	99.290	103.800	104.300
2	15:45:04	100.100	102.100	490.500	24900.000	24600.000	102.500	105.600	106.300
3	15:45:23	98.460	98.860	488.100	24610.000	24570.000	103.300	104.900	108.200
x		98.101%	99.219%	96.255%	97.544%	96.812%	101.695%	104.770%	106.258%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.255	2.731	2.914	2.672	2.726	2.077	0.849	1.872
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:45	103.500	99.420	100.100	105.700	108.200	110.100	0.000	92.900
2	15:45:04	106.500	101.900	102.100	105.100	107.500	108.000	0.000	94.030
3	15:45:23	105.900	102.300	102.600	105.900	106.500	107.700	0.000	93.750
x		105.275%	101.201%	101.610%	105.555%	107.399%	108.616%	0.000	93.559%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.509	1.538	1.345	0.348	0.772	1.217	0.000	0.630
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:45	114.556%	91.060	91.520	109.101%	99.490	99.220	97.810	98.740
2	15:45:04	115.401%	93.660	93.810	109.474%	99.930	99.580	98.930	100.100
3	15:45:23	116.189%	94.260	94.230	109.217%	100.500	100.200	100.100	100.100
x		115.382%	92.995%	93.186%	109.264%	99.957%	99.673%	98.950%	99.619%
σ		0.816%	n/a	n/a	0.191%	n/a	n/a	n/a	n/a
%RSD		0.708	1.831	1.565	0.175	0.483	0.511	1.167	0.768
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:45	106.448%	98.140	92.880	93.990	100.400	100.400	97.149%	94.813%
2	15:45:04	107.006%	98.740	92.910	93.460	101.900	102.200	98.734%	96.990%
3	15:45:23	107.699%	99.140	92.820	94.230	102.300	102.200	100.038%	97.649%
x		107.051%	98.671%	92.869%	93.893%	101.512%	101.571%	98.640%	96.484%
σ		0.627%	n/a	n/a	n/a	n/a	n/a	1.447%	1.484%
%RSD		0.586	0.507	0.047	0.418	0.992	1.041	1.466	1.538
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:44:45	103.500	105.200	103.100	103.200	104.100	78.800%		
2	15:45:04	104.900	105.300	103.600	104.400	105.100	80.661%		
3	15:45:23	107.000	107.300	106.000	106.700	107.400	80.480%		
x		105.138%	105.937%	104.224%	104.755%	105.551%	79.981%		
σ		n/a	n/a	n/a	n/a	n/a	1.026%		
%RSD		1.686	1.137	1.461	1.743	1.604	1.283		

CCB10 6/19/2015 3:51:13 PM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	180.673%	-0.016	0.455	0.456	0.000	28.620	2.645	3.112
2	15:51:51	176.930%	-0.016	0.269	0.401	0.000	25.730	3.025	2.976
3	15:52:10	173.543%	-0.021	0.427	0.384	0.000	25.320	2.964	2.873
x		177.048%	-0.018	0.384	0.413	0.000	26.560	2.878	2.987
σ		3.567%	0.003	0.100	0.038	0.000	1.799	0.204	0.120
%RSD		2.015	16.210	26.110	9.093	0.000	6.775	7.097	4.006

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	2.759	-7.838	0.000	12.800	20.400	18.760	160.454%	0.010
2	15:51:51	2.901	-8.093	0.000	12.870	19.990	16.620	159.888%	-0.030
3	15:52:10	2.645	-8.190	0.000	12.940	15.710	18.890	157.722%	0.040
x		2.768	-8.040	0.000	12.870	18.700	18.090	159.355%	0.006
σ		0.128	0.182	0.000	0.069	2.597	1.273	1.442%	0.035
%RSD		4.623	2.261	0.000	0.537	13.890	7.036	0.905	558.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	0.029	0.031	0.075	11.850	5.987	0.007	0.066	0.186
2	15:51:51	0.014	0.027	0.077	11.960	5.315	0.011	0.075	0.220
3	15:52:10	0.019	0.013	0.078	11.500	5.672	0.005	0.102	0.201
x		0.020	0.024	0.077	11.770	5.658	0.008	0.081	0.202
σ		0.008	0.009	0.002	0.238	0.336	0.003	0.019	0.017
%RSD		38.690	39.570	2.509	2.023	5.934	34.690	23.110	8.473

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	0.220	1.655	1.553	0.037	0.526	0.365	0.000	0.056
2	15:51:51	0.183	1.690	1.653	0.142	0.770	0.647	0.000	0.059
3	15:52:10	0.185	1.522	1.520	0.068	0.472	0.564	0.000	0.052
x		0.196	1.622	1.575	0.082	0.590	0.525	0.000	0.056
σ		0.021	0.089	0.069	0.054	0.159	0.145	0.000	0.003
%RSD		10.680	5.488	4.383	65.830	26.950	27.530	0.000	6.134

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	124.739%	0.220	0.222	124.658%	-0.011	-0.012	0.071	0.038
2	15:51:51	125.350%	0.614	0.575	124.968%	-0.013	-0.003	0.052	0.031
3	15:52:10	135.509%	0.626	0.662	125.502%	-0.015	-0.011	0.042	0.021
x		128.533%	0.487	0.486	125.043%	-0.013	-0.009	0.055	0.030
σ		6.049%	0.231	0.233	0.427%	0.002	0.005	0.015	0.009
%RSD		4.706	47.420	47.850	0.341	13.460	61.300	26.990	29.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	115.824%	0.481	0.755	0.708	0.088	0.081	103.086%	100.809%
2	15:51:51	117.275%	0.589	0.780	0.838	0.068	0.064	105.960%	102.705%
3	15:52:10	119.136%	0.783	0.795	0.784	0.079	0.088	105.658%	103.211%
x		117.411%	0.618	0.777	0.777	0.078	0.078	104.901%	102.242%
σ		1.660%	0.153	0.021	0.065	0.010	0.012	1.579%	1.266%
%RSD		1.414	24.770	2.644	8.405	12.280	16.070	1.506	1.239

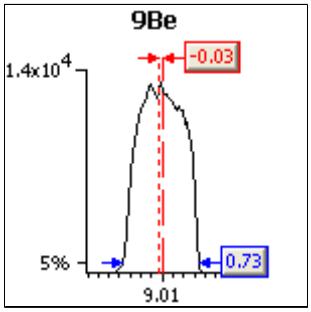
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:32	0.034	0.034	0.018	0.020	0.023	95.276%
2	15:51:51	0.038	0.041	0.029	0.027	0.029	95.450%
3	15:52:10	0.036	0.035	0.026	0.031	0.030	94.593%
x		0.036	0.037	0.024	0.026	0.027	95.106%
σ		0.002	0.004	0.006	0.005	0.004	0.453%
%RSD		6.025	9.800	22.620	20.840	14.310	0.477

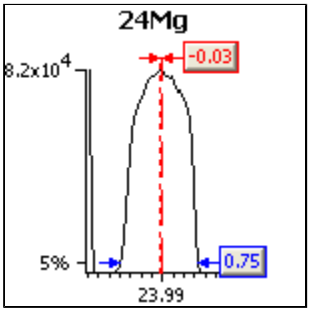
Performance Report

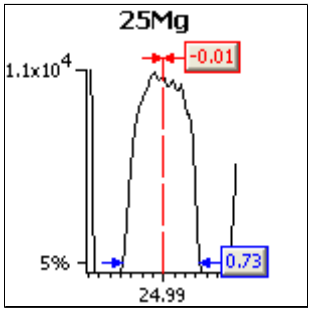
Sample details
Sample name : ITUNE
Acquired at : 6/19/2015 7:01:47 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

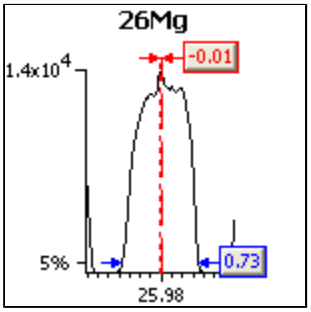
Mass Calibration verification

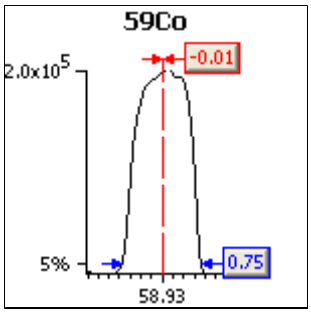
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

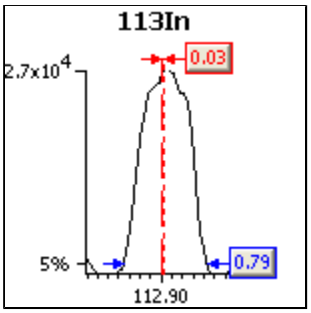


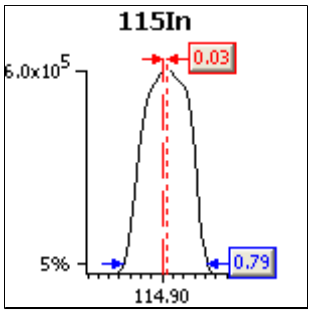


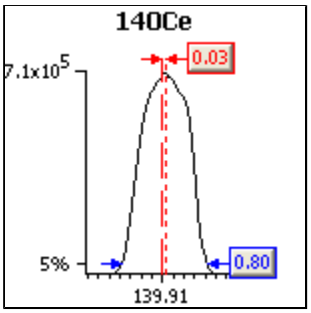


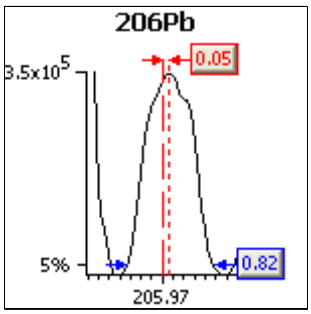


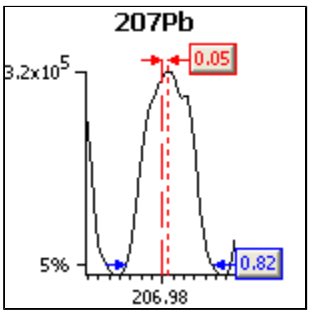


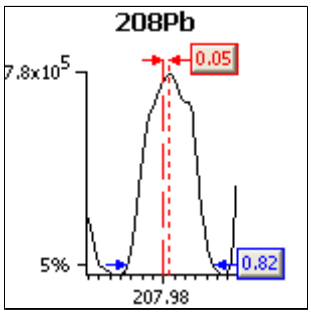












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.73	-0.03
24Mg	0.90	0.45	0.10	0.75	-0.03
25Mg	0.90	0.45	0.10	0.73	-0.01
26Mg	0.90	0.45	0.10	0.73	-0.01
59Co	0.90	0.45	0.10	0.75	-0.01
113In	0.90	0.45	0.10	0.79	0.03
115In	0.90	0.45	0.10	0.79	0.03
140Ce	0.90	0.45	0.10	0.80	0.03
206Pb	0.90	0.45	0.10	0.82	0.05
207Pb	0.90	0.45	0.10	0.82	0.05
208Pb	0.90	0.45	0.10	0.82	0.05

Sample details
Sample name : ITUNE
Acquired at : 6/19/2015 7:01:47 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-125
Lens 1	2.0
Focus	25.7
D1	-37.6
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.92
Sampling Depth	150

Minor	
Lens 2	-22.7
Lens 3	-149.8
Forward power	1404
Horizontal	97
Vertical	349
D2	-160
DA	-80.0
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
He/H2	0.00
He/NH3	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	7:02:35 AM	0	11384	75977	10167	12243	440476	189489	15
2	7:04:01 AM	0	11074	75757	10041	12177	428808	186660	19
3	7:05:26 AM	0	11030	75090	10045	12082	422518	187894	12
4	7:06:51 AM	0	10903	73902	9885	12097	418824	185118	16
5	7:08:16 AM	0	10575	72241	9662	11790	407144	180862	16
x		0	10993	74593	9960	12078	423554	186005	15
σ		0.11	293.00	1543.07	194.22	173.60	12315.34	3292.64	2.42
%RSD		119.523	2.665	2.069	1.950	1.437	2.908	1.770	15.660

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	7:02:35 AM	81	0	26354	607830	10223	693588	8518	340284
2	7:04:01 AM	100	0	26302	601470	10267	691729	8418	340226
3	7:05:26 AM	90	0	25727	599564	9839	687109	8327	338045
4	7:06:51 AM	85	0	25721	592486	9734	680704	8174	334303
5	7:08:16 AM	75	0	25785	591663	8918	676602	8240	331401
x		86	0	25978	598603	9796	685946	8335	336852
σ		9.64	0.10	321.41	6705.78	543.33	7210.77	137.19	3898.60
%RSD		11.168	82.402	1.237	1.120	5.546	1.051	1.646	1.157

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:02:35 AM	312677	744270	0
2	7:04:01 AM	311300	742405	0
3	7:05:26 AM	310352	738335	0
4	7:06:51 AM	308072	733362	0
5	7:08:16 AM	304334	725188	0
x		309347	736712	0
σ		3265.99	7684.19	0.09
%RSD		1.056	1.043	59.265

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:02:35 AM	0
2	7:04:01 AM	0

3	7:05:26 AM	0
4	7:06:51 AM	0
5	7:08:16 AM	0
x		0.0122
σ		0.00
%RSD		0.8154

Result : The performance report passed.

Dilution Corrected Concentrations

STD1 1565410 INT STD 6/25/2015 2:25:53 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:12	99.451%	-0.009	-0.019	-0.003	0.000	0.032	-0.043	-0.045
2	14:26:32	102.758%	0.004	0.050	0.001	0.000	-0.097	0.013	0.015
3	14:26:52	97.792%	0.005	-0.031	0.002	0.000	0.065	0.029	0.029
x		100.000%	0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000
σ		2.528%	0.008	0.044	0.002	0.000	0.086	0.038	0.039
%RSD		2.528	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	14:26:12	0.013	-0.168	0.000	-0.246	1.736	0.157	101.253%	-0.014
2	14:26:32	-0.019	-0.473	0.000	0.556	0.286	0.381	97.602%	-0.010
3	14:26:52	0.006	0.640	0.000	-0.310	-2.022	-0.538	101.146%	0.024
x		0.000	-0.000	0.000	0.000	0.000	-0.000	100.000%	0.000
σ		0.017	0.575	0.000	0.483	1.895	0.479	2.078%	0.021
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	2.078	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:12	-0.002	0.007	0.000	0.088	0.325	-0.000	-0.017	-0.004
2	14:26:32	0.003	0.002	-0.002	0.977	0.039	0.001	0.020	0.016
3	14:26:52	-0.001	-0.009	0.002	-1.065	-0.364	-0.000	-0.003	-0.011
x		-0.000	-0.000	-0.000	0.000	0.000	-0.000	0.000	-0.000
σ		0.003	0.008	0.002	1.024	0.347	0.001	0.019	0.014
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:12	0.004	0.013	-0.031	0.017	-0.021	0.088	0.000	0.001
2	14:26:32	0.012	0.004	0.021	-0.002	0.105	-0.005	0.000	-0.001
3	14:26:52	-0.016	-0.018	0.010	-0.015	-0.083	-0.083	0.000	-0.000
x		0.000	0.000	0.000	0.000	-0.000	-0.000	0.000	-0.000
σ		0.014	0.016	0.027	0.016	0.096	0.086	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	14:26:12	99.190%	-0.024	-0.058	100.476%	0.002	-0.003	0.000	0.003
2	14:26:32	99.398%	-0.021	-0.008	99.381%	-0.002	0.003	0.015	0.009
3	14:26:52	101.413%	0.046	0.067	100.142%	0.000	0.000	-0.015	-0.013
x		100.000%	-0.000	0.000	100.000%	0.000	0.000	0.000	-0.000
σ		1.228%	0.040	0.063	0.561%	0.002	0.003	0.015	0.011
%RSD		1.228	0.000	0.000	0.561	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	14:26:12	99.575%	-0.007	0.021	0.024	-0.000	-0.003	99.129%	98.921%
2	14:26:32	99.784%	0.012	-0.013	-0.021	0.001	0.004	99.898%	100.412%
3	14:26:52	100.642%	-0.005	-0.008	-0.003	-0.001	-0.001	100.973%	100.667%
x		100.000%	-0.000	-0.000	-0.000	0.000	0.000	100.000%	100.000%
σ		0.565%	0.010	0.018	0.023	0.001	0.003	0.926%	0.943%
%RSD		0.565	0.000	0.000	0.000	0.000	0.000	0.926	0.943

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:12	-0.001	0.001	0.002	-0.000	0.000	98.419%
2	14:26:32	0.002	-0.001	-0.001	0.000	-0.000	100.412%
3	14:26:52	-0.001	-0.000	-0.001	0.000	0.000	101.170%
x		0.000	0.000	0.000	-0.000	-0.000	100.000%
σ		0.002	0.001	0.002	0.000	0.000	1.421%
%RSD		0.000	0.000	0.000	0.000	0.000	1.421

STD2 1594024 6/25/2015 2:29:14 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	14:29:14	81.845%	196.800	0.482	0.191	0.000	100800.000	100300.000	101200.000
2	14:29:33	78.689%	205.900	0.111	0.229	0.000	101700.000	99480.000	98490.000
3	14:29:52	79.792%	197.300	0.076	0.338	0.000	97440.000	100200.000	100300.000
x		80.109%	200.000	0.223	0.253	0.000	100000.000	100000.000	100000.000
σ		1.602%	5.077	0.225	0.076	0.000	2259.000	455.200	1375.000
%RSD		2.000	2.538	100.700	30.190	0.000	2.259	0.455	1.375

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:14	1002.000	9.418	0.000	101300.000	100100.000	99570.000	81.795%	0.118
2	14:29:33	992.700	9.832	0.000	98090.000	99000.000	100100.000	82.795%	0.093
3	14:29:52	1006.000	10.350	0.000	100600.000	100900.000	100300.000	81.396%	0.080
x		1000.000	9.866	0.000	100000.000	100000.000	100000.000	81.995%	0.097
σ		6.622	0.467	0.000	1689.000	938.900	390.400	0.721%	0.020
%RSD		0.662	4.731	0.000	1.689	0.939	0.390	0.879	20.090

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:14	203.400	204.600	1005.000	50700.000	51200.000	204.100	205.100	205.100
2	14:29:33	197.200	194.900	987.000	49300.000	48990.000	196.500	195.700	196.400
3	14:29:52	199.300	200.500	1008.000	49990.000	49810.000	199.400	199.200	198.500
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		3.154	4.842	11.400	701.000	1118.000	3.789	4.747	4.582
%RSD		1.577	2.421	1.140	1.402	2.235	1.895	2.374	2.291

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:14	205.200	201.700	200.600	200.600	200.600	198.000	0.000	200.700
2	14:29:33	199.000	199.100	199.700	199.200	198.300	200.200	0.000	199.200
3	14:29:52	195.800	199.100	199.700	200.300	201.100	201.800	0.000	200.100
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		4.812	1.502	0.545	0.724	1.536	1.905	0.000	0.754
%RSD		2.406	0.751	0.272	0.362	0.768	0.953	0.000	0.377

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:14	80.862%	-0.333	-0.272	74.101%	200.600	199.600	198.900	199.700
2	14:29:33	80.664%	-0.146	-0.133	73.362%	197.900	199.700	199.300	198.700
3	14:29:52	80.295%	-0.179	-0.191	73.284%	201.500	200.800	201.700	201.600
x		80.607%	-0.219	-0.199	73.583%	200.000	200.000	200.000	200.000
σ		0.288%	0.100	0.070	0.451%	1.877	0.662	1.510	1.474
%RSD		0.357	45.550	35.280	0.613	0.939	0.331	0.755	0.737

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:14	78.085%	0.250	0.147	0.117	201.000	200.700	81.480%	80.532%
2	14:29:33	77.492%	0.053	0.126	0.125	200.500	199.600	81.852%	81.622%
3	14:29:52	77.527%	-0.173	0.130	0.160	198.500	199.700	83.071%	81.493%
x		77.701%	0.043	0.134	0.134	200.000	200.000	82.134%	81.216%
σ		0.332%	0.212	0.011	0.023	1.304	0.615	0.832%	0.595%
%RSD		0.428	490.300	8.387	17.220	0.652	0.308	1.014	0.733

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:29:14	194.100	193.400	193.700	193.300	193.200	78.862%
2	14:29:33	202.900	202.200	201.800	202.200	201.500	76.045%
3	14:29:52	203.000	204.500	204.600	204.400	205.400	75.847%
x		200.000	200.000	200.000	200.000	200.000	76.918%
σ		5.133	5.856	5.667	5.888	6.233	1.686%
%RSD		2.566	2.928	2.834	2.944	3.116	2.192

STD3 1594025 6/25/2015 2:32:50 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:50	93.305%	0.043	206.900	206.000	0.000	21.420	15.120	14.690
2	14:33:09	91.423%	0.052	186.400	190.900	0.000	19.750	13.450	14.140
3	14:33:28	86.968%	0.008	206.700	203.100	0.000	20.280	13.900	13.560
x		90.566%	0.034	200.000	200.000	0.000	20.490	14.160	14.130
σ		3.255%	0.024	11.820	8.001	0.000	0.856	0.862	0.564
%RSD		3.594	68.150	5.908	4.000	0.000	4.177	6.087	3.992
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:50	6.770	10140.000	0.000	20.350	40.170	83.740	85.660%	205.700
2	14:33:09	6.971	9821.000	0.000	19.540	41.180	76.430	83.762%	195.600
3	14:33:28	6.828	10040.000	0.000	20.010	34.000	77.640	81.196%	198.800
x		6.856	10000.000	0.000	19.970	38.450	79.270	83.540%	200.000
σ		0.104	161.700	0.000	0.408	3.888	3.917	2.241%	5.171
%RSD		1.511	1.617	0.000	2.042	10.110	4.941	2.682	2.586
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:50	0.057	0.016	0.241	17.000	18.720	0.038	0.081	0.203
2	14:33:09	0.014	0.017	0.232	11.500	17.770	0.028	0.087	0.171
3	14:33:28	0.015	0.016	0.205	12.900	15.400	0.026	0.077	0.184
x		0.029	0.016	0.226	13.800	17.300	0.030	0.082	0.186
σ		0.024	0.000	0.019	2.856	1.713	0.007	0.005	0.016
%RSD		84.440	2.932	8.368	20.690	9.901	21.900	6.634	8.614
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:50	0.287	2.998	2.917	0.479	1.286	1.502	0.000	0.055
2	14:33:09	0.214	3.015	3.076	0.481	0.975	1.378	0.000	0.054
3	14:33:28	0.201	3.112	2.968	0.333	0.832	1.028	0.000	0.059
x		0.234	3.042	2.987	0.431	1.031	1.302	0.000	0.056
σ		0.046	0.062	0.081	0.085	0.232	0.246	0.000	0.003
%RSD		19.850	2.022	2.715	19.650	22.500	18.880	0.000	5.009
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:50	85.487%	198.200	198.100	85.303%	0.100	0.102	0.060	-0.461
2	14:33:09	85.466%	198.900	197.700	84.243%	0.116	0.106	0.025	-0.482
3	14:33:28	84.068%	202.900	204.200	84.732%	0.130	0.112	0.045	-0.443
x		85.007%	200.000	200.000	84.760%	0.115	0.107	0.043	-0.462
σ		0.813%	2.538	3.643	0.531%	0.015	0.005	0.017	0.020
%RSD		0.957	1.269	1.822	0.626	12.860	4.919	40.250	4.226
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:50	85.340%	199.700	196.200	196.900	0.088	0.212	88.376%	88.481%
2	14:33:09	86.414%	197.200	196.100	197.100	0.081	0.228	90.651%	90.084%
3	14:33:28	85.342%	203.100	207.800	206.100	0.106	0.205	89.566%	90.186%
x		85.699%	200.000	200.000	200.000	0.092	0.215	89.531%	89.584%
σ		0.620%	2.979	6.737	5.268	0.013	0.012	1.138%	0.956%
%RSD		0.723	1.489	3.369	2.634	14.070	5.639	1.271	1.067
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:32:50	0.044	0.038	0.048	0.050	0.052	92.644%		
2	14:33:09	0.033	0.036	0.050	0.051	0.051	94.107%		
3	14:33:28	0.028	0.031	0.057	0.055	0.054	94.388%		
x		0.035	0.035	0.052	0.052	0.052	93.713%		
σ		0.008	0.004	0.005	0.003	0.002	0.936%		
%RSD		22.470	11.230	9.430	5.088	3.356	0.999		

ICV 1613162 6/25/2015 2:36:27 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	14:36:27	102.142%	78.910	83.760	82.090	0.000	38880.000	38520.000	38740.000
2	14:36:46	97.293%	80.640	81.660	82.340	0.000	38690.000	38780.000	39640.000
3	14:37:05	89.580%	81.110	82.500	81.140	0.000	39580.000	39370.000	40460.000
x		96.338%	100.280%	103.299%	102.321%	0.000	97.620%	97.223%	99.041%
σ		6.335%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.576	1.446	1.277	0.771	0.000	1.206	1.122	2.170
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:27	392.200	4318.000	0.000	38000.000	37600.000	37820.000	95.757%	78.960
2	14:36:46	388.000	4345.000	0.000	38140.000	37370.000	37980.000	90.315%	80.720
3	14:37:05	411.200	4536.000	0.000	38170.000	37610.000	38200.000	89.624%	77.200
x		99.282%	109.988%	0.000	95.262%	93.817%	95.003%	91.899%	98.699%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.359%	n/a
%RSD		3.116	2.693	0.000	0.234	0.362	0.493	3.655	2.233
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:27	76.530	79.080	383.200	19460.000	19610.000	82.170	83.100	83.370
2	14:36:46	79.610	81.590	393.500	20050.000	19980.000	82.870	83.820	83.040
3	14:37:05	77.280	79.360	386.700	19360.000	19270.000	80.160	81.780	82.000
x		97.259%	100.011%	96.950%	98.105%	98.099%	102.169%	103.628%	103.504%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.069	1.724	1.344	1.903	1.813	1.720	1.252	0.863
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:27	81.960	79.130	79.750	79.070	80.030	81.550	0.000	75.770
2	14:36:46	82.700	81.410	80.430	81.010	82.430	81.370	0.000	77.120
3	14:37:05	82.980	80.470	81.050	79.710	81.360	82.190	0.000	77.280
x		103.189%	100.420%	100.514%	99.913%	101.594%	102.129%	0.000	95.903%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.638	1.429	0.804	1.237	1.481	0.528	0.000	1.076
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:27	89.693%	83.880	82.940	85.064%	78.630	78.810	77.080	76.070
2	14:36:46	88.181%	85.190	85.200	83.432%	79.400	79.220	77.960	77.210
3	14:37:05	87.283%	84.140	84.620	82.731%	79.030	78.510	77.140	77.200
x		88.386%	105.503%	105.315%	83.742%	98.775%	98.558%	96.740%	96.035%
σ		1.218%	n/a	n/a	1.197%	n/a	n/a	n/a	n/a
%RSD		1.378	0.818	1.394	1.429	0.487	0.454	0.638	0.850
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:27	86.876%	76.650	84.630	83.430	78.960	78.370	86.142%	85.106%
2	14:36:46	86.901%	77.980	84.630	82.410	78.030	79.050	87.256%	85.580%
3	14:37:05	86.927%	77.860	84.140	81.820	78.230	78.130	87.008%	86.244%
x		86.901%	96.870%	105.581%	103.192%	98.011%	98.145%	86.802%	85.643%
σ		0.026%	n/a	n/a	n/a	n/a	n/a	0.585%	0.572%
%RSD		0.029	0.951	0.338	0.985	0.622	0.611	0.674	0.667
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:36:27	78.820	78.460	77.160	74.930	76.240	85.008%		
2	14:36:46	82.040	82.490	80.580	78.460	79.650	83.287%		
3	14:37:05	82.370	82.370	80.220	78.950	79.980	83.435%		
x		101.346%	101.379%	99.152%	96.806%	98.278%	83.910%		
σ		n/a	n/a	n/a	n/a	n/a	0.954%		
%RSD		2.417	2.828	2.365	2.827	2.637	1.137		

ICB 6/25/2015 2:40:05 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	14:40:05	108.475%	-0.003	0.118	0.216	0.000	3.106	1.558	1.464
2	14:40:25	103.074%	-0.016	0.405	0.082	0.000	2.821	1.646	1.513
3	14:40:44	103.927%	0.011	0.023	0.313	0.000	2.342	1.406	1.311
x		105.159%	-0.003	0.182	0.204	0.000	2.756	1.537	1.429
σ		2.904%	0.013	0.199	0.116	0.000	0.386	0.122	0.105
%RSD		2.761	457.500	109.300	57.160	0.000	14.000	7.910	7.372

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:05	0.558	5.111	0.000	5.377	6.782	3.816	98.876%	-0.063
2	14:40:25	0.495	3.740	0.000	4.903	3.513	2.256	98.926%	-0.018
3	14:40:44	0.474	3.552	0.000	4.344	7.543	3.621	97.277%	0.043
x		0.509	4.135	0.000	4.874	5.946	3.231	98.360%	-0.013
σ		0.044	0.851	0.000	0.517	2.141	0.850	0.938%	0.053
%RSD		8.640	20.580	0.000	10.610	36.000	26.320	0.954	414.100

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:05	0.000	-0.023	0.024	4.179	4.106	-0.001	-0.001	0.025
2	14:40:25	-0.001	-0.008	0.017	1.496	3.849	0.002	-0.021	0.029
3	14:40:44	-0.018	-0.011	0.012	0.914	3.158	-0.000	-0.015	0.029
x		-0.006	-0.014	0.018	2.196	3.704	0.000	-0.012	0.028
σ		0.010	0.008	0.006	1.742	0.490	0.001	0.010	0.003
%RSD		159.000	57.080	33.720	79.290	13.240	405.400	84.090	9.001

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:05	0.011	0.184	0.156	0.173	0.491	0.465	0.000	0.004
2	14:40:25	0.033	0.218	0.230	0.260	0.398	0.568	0.000	0.005
3	14:40:44	0.019	0.254	0.156	0.190	0.350	0.517	0.000	0.003
x		0.021	0.219	0.181	0.208	0.413	0.517	0.000	0.004
σ		0.011	0.035	0.043	0.046	0.072	0.052	0.000	0.001
%RSD		52.660	15.840	23.570	22.260	17.350	9.993	0.000	22.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:05	95.153%	-0.392	-0.268	95.115%	0.023	0.025	0.025	0.019
2	14:40:25	95.643%	-0.130	-0.102	94.489%	0.015	0.022	-0.003	-0.013
3	14:40:44	96.087%	-0.230	-0.138	95.574%	0.023	0.024	0.014	0.007
x		95.627%	-0.251	-0.169	95.060%	0.020	0.024	0.012	0.004
σ		0.467%	0.132	0.087	0.545%	0.004	0.002	0.014	0.016
%RSD		0.488	52.820	51.530	0.573	21.080	6.496	122.100	394.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:05	93.719%	0.017	-0.266	-0.251	0.017	0.011	92.699%	92.547%
2	14:40:25	93.958%	0.435	-0.255	-0.225	0.005	0.009	94.289%	93.376%
3	14:40:44	95.117%	0.040	-0.244	-0.229	0.006	0.004	95.574%	95.732%
x		94.265%	0.164	-0.255	-0.235	0.009	0.008	94.187%	93.885%
σ		0.747%	0.235	0.011	0.014	0.007	0.003	1.440%	1.653%
%RSD		0.793	143.000	4.301	5.896	75.200	41.670	1.529	1.760

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:05	0.016	0.010	0.005	0.008	0.008	92.650%
2	14:40:25	0.006	0.009	0.010	0.008	0.008	94.613%
3	14:40:44	0.008	0.007	0.007	0.004	0.006	96.083%
x		0.010	0.009	0.007	0.006	0.007	94.449%
σ		0.005	0.002	0.003	0.002	0.001	1.722%
%RSD		53.500	19.360	39.230	38.480	10.030	1.824

CRI 1554040 6/25/2015 2:43:44 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	14:43:44	97.759%	1.118	19.420	20.100	0.000	486.300	473.600	483.900
2	14:44:03	98.048%	1.030	17.090	18.270	0.000	440.900	438.900	442.000
3	14:44:22	96.436%	0.992	19.110	18.290	0.000	443.200	449.500	459.000
x		97.414%	104.670%	92.691%	94.425%	0.000	91.363%	90.802%	92.323%
σ		0.859%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.882	6.187	6.835	5.586	0.000	5.596	3.909	4.563
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:43:44	28.910	541.800	0.000	456.900	439.000	447.200	98.082%	4.467
2	14:44:03	27.580	501.600	0.000	445.300	431.200	428.100	98.745%	4.524
3	14:44:22	27.340	494.000	0.000	453.200	428.800	440.500	95.564%	4.286
x		93.145%	102.492%	0.000	90.362%	86.601%	87.713%	97.464%	88.516%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.678%	n/a
%RSD		3.040	5.018	0.000	1.309	1.236	2.209	1.721	2.802
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:43:44	0.920	1.898	4.620	44.450	47.950	0.495	1.106	2.159
2	14:44:03	0.852	1.803	4.473	40.410	44.730	0.486	0.895	2.080
3	14:44:22	0.833	1.750	4.505	41.040	46.400	0.454	0.988	2.084
x		86.843%	90.828%	90.654%	83.939%	92.719%	95.645%	99.651%	105.374%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.245	4.131	1.707	5.181	3.472	4.560	10.620	2.122
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:43:44	2.223	5.341	5.321	1.224	5.621	5.731	0.000	4.522
2	14:44:03	2.021	5.329	5.204	1.123	5.589	5.675	0.000	4.466
3	14:44:22	2.044	5.380	5.026	1.230	5.420	5.998	0.000	4.469
x		104.803%	107.005%	103.677%	119.236%	110.865%	116.024%	0.000	89.720%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.258	0.500	2.861	5.013	1.942	2.975	0.000	0.705
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:43:44	95.609%	2.669	2.738	93.853%	0.988	1.071	1.063	1.034
2	14:44:03	94.626%	2.913	2.830	92.289%	1.088	1.054	0.936	1.085
3	14:44:22	95.745%	2.836	2.841	93.344%	1.040	1.055	1.012	1.036
x		95.327%	56.127%	56.059%	93.162%	103.852%	106.026%	100.352%	105.194%
σ		0.610%	n/a	n/a	0.798%	n/a	n/a	n/a	n/a
%RSD		0.640	4.444	2.016	0.856	4.832	0.909	6.366	2.754
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:43:44	89.133%	3.785	1.641	1.613	9.603	9.689	92.964%	91.993%
2	14:44:03	89.296%	3.360	1.647	1.577	9.615	9.596	94.438%	94.349%
3	14:44:22	89.746%	4.349	1.642	1.682	9.249	9.437	95.262%	95.376%
x		89.392%	76.622%	82.161%	81.192%	94.891%	95.738%	94.221%	93.906%
σ		0.317%	n/a	n/a	n/a	n/a	n/a	1.164%	1.735%
%RSD		0.355	12.950	0.185	3.266	2.190	1.332	1.235	1.847
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:43:44	0.889	0.904	0.937	0.945	0.940	93.939%		
2	14:44:03	0.907	0.920	0.928	0.966	0.940	94.418%		
3	14:44:22	0.898	0.902	0.899	0.927	0.915	96.941%		
x		89.789%	90.855%	92.149%	94.614%	93.155%	95.099%		
σ		n/a	n/a	n/a	n/a	n/a	1.613%		
%RSD		0.981	1.047	2.130	2.049	1.569	1.696		

ICSA 1616919 6/25/2015 2:47:24 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:24	55.296%	-0.004	0.037	0.386	0.000	104500.000	103500.000	102900.000
2	14:47:43	53.947%	0.009	0.294	0.097	0.000	101400.000	99340.000	96800.000
3	14:48:03	53.606%	0.010	0.262	0.255	0.000	102500.000	100100.000	99520.000
x		54.283%	0.005	0.198	0.246	0.000	102800.000	101000.000	99750.000
σ		0.894%	0.008	0.140	0.145	0.000	1597.000	2196.000	3075.000
%RSD		1.646	147.300	71.030	58.730	0.000	1.553	2.175	3.082
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:24	99090.000	21.140	0.000	99040.000	101000.000	105300.000	56.581%	2168.000
2	14:47:43	97740.000	20.600	0.000	99900.000	101100.000	107100.000	54.251%	2228.000
3	14:48:03	96690.000	18.650	0.000	99890.000	102200.000	104900.000	52.448%	2198.000
x		97840.000	20.130	0.000	99610.000	101400.000	105800.000	54.427%	2198.000
σ		1202.000	1.312	0.000	497.800	639.300	1150.000	2.072%	30.360
%RSD		1.228	6.516	0.000	0.500	0.630	1.087	3.807	1.381
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:24	-0.321	0.497	0.485	106300.000	106500.000	0.041	-0.148	1.332
2	14:47:43	-0.207	0.557	0.475	105000.000	106900.000	0.043	-0.115	1.454
3	14:48:03	-0.127	0.520	0.452	105600.000	106000.000	0.040	-0.180	1.383
x		-0.219	0.525	0.471	105600.000	106400.000	0.041	-0.148	1.390
σ		0.097	0.030	0.017	652.800	464.100	0.002	0.032	0.061
%RSD		44.560	5.708	3.630	0.618	0.436	4.072	22.010	4.401
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:24	1.433	2.640	1.878	0.094	-0.180	0.175	0.000	0.708
2	14:47:43	1.380	2.657	1.912	0.071	-0.116	0.148	0.000	0.713
3	14:48:03	1.204	2.657	1.998	-0.093	-0.113	0.087	0.000	0.714
x		1.339	2.651	1.929	0.024	-0.136	0.137	0.000	0.712
σ		0.120	0.010	0.062	0.102	0.038	0.045	0.000	0.003
%RSD		8.930	0.360	3.219	419.000	27.790	33.070	0.000	0.418
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:24	59.025%	2125.000	2107.000	65.009%	0.114	0.112	0.172	0.208
2	14:47:43	58.010%	2140.000	2131.000	63.413%	0.159	0.145	0.221	0.156
3	14:48:03	57.687%	2164.000	2145.000	63.802%	0.155	0.163	0.135	0.165
x		58.241%	2143.000	2128.000	64.074%	0.143	0.140	0.176	0.176
σ		0.698%	19.660	19.120	0.832%	0.025	0.026	0.044	0.027
%RSD		1.198	0.918	0.899	1.299	17.490	18.440	24.750	15.570
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:24	63.909%	0.048	-0.296	-0.304	0.133	0.121	69.088%	68.404%
2	14:47:43	62.954%	0.048	-0.255	-0.253	0.172	0.131	69.260%	68.846%
3	14:48:03	63.209%	0.041	-0.272	-0.287	0.138	0.121	69.722%	69.175%
x		63.357%	0.046	-0.274	-0.281	0.147	0.124	69.356%	68.808%
σ		0.495%	0.004	0.021	0.026	0.022	0.006	0.328%	0.387%
%RSD		0.781	8.990	7.521	9.252	14.600	4.474	0.473	0.562
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:47:24	-0.009	-0.004	0.200	0.196	0.201	73.523%		
2	14:47:43	-0.004	-0.005	0.202	0.208	0.205	72.024%		
3	14:48:03	-0.010	-0.006	0.225	0.203	0.217	71.103%		
x		-0.008	-0.005	0.209	0.202	0.208	72.217%		
σ		0.003	0.001	0.014	0.006	0.009	1.222%		
%RSD		39.700	17.120	6.692	2.822	4.202	1.691		

ICSAB 1616920 6/25/2015 2:51:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	53.405%	21.330	51.410	48.530	0.000	103300.000	106000.000	103900.000
2	14:51:22	47.630%	21.320	50.330	53.530	0.000	108700.000	108600.000	111000.000
3	14:51:42	48.653%	20.730	49.750	50.320	0.000	102100.000	102900.000	104400.000
x		49.896%	105.634%	100.995%	101.583%	0.000	104.707%	105.822%	106.432%
σ		3.081%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.176	1.634	1.663	4.996	0.000	3.374	2.684	3.742

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	99300.000	568.400	0.000	104500.000	105200.000	109100.000	53.113%	2302.000
2	14:51:22	107800.000	597.000	0.000	106200.000	107700.000	111000.000	50.373%	2340.000
3	14:51:42	98270.000	552.700	0.000	104000.000	105400.000	108200.000	49.175%	2277.000
x		101.776%	114.546%	0.000	104.906%	106.102%	109.440%	50.887%	115.324%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.019%	n/a
%RSD		5.110	3.925	0.000	1.121	1.332	1.286	3.967	1.376

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	20.470	21.180	21.260	105900.000	107200.000	20.340	20.250	21.360
2	14:51:22	20.470	21.220	21.640	107500.000	108600.000	21.130	20.470	21.880
3	14:51:42	19.750	21.140	20.910	105500.000	108600.000	20.460	19.880	21.380
x		101.143%	105.906%	92.474%	106.307%	108.099%	103.226%	101.000%	107.691%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.068	0.168	1.716	1.034	0.746	2.069	1.464	1.385

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	21.310	25.460	24.780	22.310	56.910	57.560	0.000	22.050
2	14:51:22	21.460	25.610	25.330	23.470	58.050	59.010	0.000	22.080
3	14:51:42	21.310	25.660	25.060	23.530	58.700	59.010	0.000	22.250
x		106.801%	102.310%	100.238%	115.513%	115.777%	117.055%	0.000	110.616%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.395	0.420	1.099	2.975	1.564	1.425	0.000	0.490

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	59.223%	2186.000	2181.000	63.466%	18.500	18.880	20.480	20.750
2	14:51:22	58.275%	2188.000	2187.000	62.101%	18.660	18.810	20.410	20.120
3	14:51:42	57.369%	2200.000	2194.000	61.303%	18.520	19.010	20.580	20.240
x		58.289%	109.557%	109.347%	62.290%	92.806%	94.483%	102.456%	101.842%
σ		0.927%	n/a	n/a	1.094%	n/a	n/a	n/a	n/a
%RSD		1.591	0.347	0.296	1.756	0.474	0.542	0.407	1.643

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	61.763%	105.500	21.510	21.190	20.880	21.040	67.234%	65.957%
2	14:51:22	61.747%	106.200	21.570	20.940	20.830	21.110	66.654%	66.641%
3	14:51:42	61.535%	105.800	21.390	21.260	20.580	20.790	68.916%	68.340%
x		61.682%	105.825%	107.445%	105.649%	103.812%	104.912%	67.601%	66.979%
σ		0.127%	n/a	n/a	n/a	n/a	n/a	1.175%	1.227%
%RSD		0.206	0.329	0.411	0.813	0.767	0.818	1.738	1.832

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:03	20.380	20.670	21.590	21.690	21.700	66.059%
2	14:51:22	20.860	21.160	21.990	22.060	22.130	66.704%
3	14:51:42	20.690	21.180	22.060	21.880	22.020	66.838%
x		103.218%	105.019%	109.395%	109.395%	109.751%	66.534%
σ		n/a	n/a	n/a	n/a	n/a	0.417%
%RSD		1.173	1.370	1.172	0.855	1.009	0.626

CCV 1594026 6/25/2015 2:54:41 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	68.330%	99.580	98.100	99.960	0.000	48590.000	47630.000	48010.000
2	14:55:01	65.531%	102.200	96.240	103.500	0.000	46660.000	48240.000	48180.000
3	14:55:20	66.620%	103.900	94.460	95.550	0.000	47630.000	46990.000	47970.000
x		66.827%	101.902%	96.269%	99.687%	0.000	95.260%	95.238%	96.104%
σ		1.411%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.112	2.141	1.890	4.019	0.000	2.027	1.317	0.232

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	480.100	5164.000	0.000	47720.000	46790.000	47660.000	67.800%	96.880
2	14:55:01	470.300	5200.000	0.000	46580.000	46830.000	47760.000	68.479%	99.000
3	14:55:20	464.100	5039.000	0.000	47460.000	46730.000	48540.000	66.414%	100.500
x		94.297%	102.686%	0.000	94.502%	93.571%	95.971%	67.564%	98.791%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.052%	n/a
%RSD		1.713	1.640	0.000	1.264	0.113	1.000	1.557	1.842

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	92.350	92.810	464.300	23820.000	23950.000	93.500	97.300	99.770
2	14:55:01	94.360	94.770	473.200	24380.000	24170.000	95.730	94.180	96.670
3	14:55:20	93.880	93.050	467.100	23800.000	24390.000	94.570	94.060	97.570
x		93.531%	93.545%	93.643%	96.011%	96.687%	94.599%	95.179%	98.006%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.128	1.145	0.974	1.367	0.914	1.180	1.932	1.629

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	99.390	103.200	102.700	100.900	107.600	107.300	0.000	91.370
2	14:55:01	96.700	102.700	102.300	101.600	108.300	109.100	0.000	91.410
3	14:55:20	98.850	104.000	103.400	101.900	111.300	110.200	0.000	92.850
x		98.313%	103.324%	102.801%	101.463%	109.042%	108.852%	0.000	91.874%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.448	0.625	0.545	0.488	1.813	1.326	0.000	0.918

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	75.195%	104.000	106.400	67.939%	98.080	98.710	101.200	100.700
2	14:55:01	75.724%	104.700	107.000	68.520%	98.290	98.990	101.100	100.900
3	14:55:20	75.626%	105.800	108.800	68.347%	99.250	100.100	103.000	102.400
x		75.515%	104.834%	107.385%	68.269%	98.539%	99.250%	101.772%	101.362%
σ		0.281%	n/a	n/a	0.298%	n/a	n/a	n/a	n/a
%RSD		0.372	0.823	1.158	0.437	0.635	0.715	1.041	0.922

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	72.072%	97.330	95.050	93.520	94.250	94.440	79.323%	78.682%
2	14:55:01	72.468%	96.770	96.300	95.330	95.710	95.170	80.296%	80.167%
3	14:55:20	72.544%	98.300	98.540	97.380	96.480	96.540	80.517%	80.330%
x		72.362%	97.469%	96.627%	95.410%	95.480%	95.384%	80.046%	79.726%
σ		0.253%	n/a	n/a	n/a	n/a	n/a	0.636%	0.908%
%RSD		0.350	0.796	1.830	2.023	1.186	1.122	0.794	1.139

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:54:41	102.900	104.100	103.300	103.100	103.400	72.007%
2	14:55:01	100.700	101.800	100.900	102.200	101.800	74.951%
3	14:55:20	102.100	102.300	101.900	102.600	102.100	75.765%
x		101.873%	102.714%	102.035%	102.632%	102.451%	74.241%
σ		n/a	n/a	n/a	n/a	n/a	1.977%
%RSD		1.085	1.163	1.210	0.431	0.848	2.663

CCB1 6/25/2015 3:02:48 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	87.232%	0.008	0.018	-0.139	0.000	4.553	1.012	0.983
2	15:03:26	77.701%	0.002	-0.239	-0.214	0.000	5.161	1.222	0.937
3	15:03:46	83.765%	0.000	0.042	-0.102	0.000	4.541	0.969	0.936
x		82.899%	0.003	-0.060	-0.152	0.000	4.752	1.068	0.952
σ		4.824%	0.004	0.156	0.057	0.000	0.355	0.135	0.027
%RSD		5.820	122.800	260.500	37.610	0.000	7.461	12.670	2.805

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	0.899	3.749	0.000	4.245	0.919	4.102	86.847%	0.112
2	15:03:26	0.856	3.073	0.000	4.756	5.114	4.289	83.289%	0.183
3	15:03:46	0.827	1.556	0.000	2.811	6.501	3.117	87.469%	0.045
x		0.861	2.793	0.000	3.937	4.178	3.836	85.868%	0.113
σ		0.036	1.124	0.000	1.009	2.906	0.630	2.255%	0.069
%RSD		4.210	40.230	0.000	25.620	69.560	16.420	2.627	60.870

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	0.015	0.004	0.010	3.816	4.987	0.000	-0.015	0.028
2	15:03:26	-0.000	-0.010	0.009	4.690	4.410	-0.001	-0.005	0.034
3	15:03:46	0.005	-0.011	0.005	3.047	3.510	0.000	-0.016	0.023
x		0.007	-0.006	0.008	3.851	4.302	-0.000	-0.012	0.029
σ		0.008	0.008	0.002	0.822	0.745	0.001	0.006	0.005
%RSD		114.700	148.200	30.130	21.360	17.310	993.600	49.230	18.690

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	-0.005	0.586	0.566	0.097	0.093	0.196	0.000	0.005
2	15:03:26	0.030	0.618	0.501	0.052	0.289	0.194	0.000	0.003
3	15:03:46	0.038	0.608	0.531	0.098	0.229	0.242	0.000	0.007
x		0.021	0.604	0.533	0.082	0.204	0.211	0.000	0.005
σ		0.023	0.016	0.033	0.026	0.100	0.027	0.000	0.002
%RSD		110.300	2.720	6.096	31.880	49.170	12.760	0.000	40.100

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	89.528%	1.801	1.798	90.993%	-0.001	-0.000	-0.006	-0.002
2	15:03:26	89.339%	1.940	1.920	89.955%	0.004	0.001	-0.049	-0.030
3	15:03:46	90.415%	1.810	1.810	90.682%	0.002	-0.001	0.004	0.005
x		89.761%	1.850	1.843	90.544%	0.002	0.000	-0.017	-0.009
σ		0.574%	0.078	0.067	0.533%	0.002	0.001	0.028	0.018
%RSD		0.640	4.202	3.632	0.589	130.400	896.000	167.600	204.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	91.094%	0.155	0.543	0.609	0.021	0.014	92.562%	94.417%
2	15:03:26	91.451%	0.119	0.552	0.534	0.013	0.007	95.321%	95.665%
3	15:03:46	92.056%	0.207	0.486	0.529	0.016	0.008	96.013%	96.692%
x		91.534%	0.160	0.527	0.557	0.016	0.010	94.632%	95.591%
σ		0.486%	0.044	0.036	0.045	0.004	0.004	1.826%	1.139%
%RSD		0.531	27.570	6.824	8.076	25.740	36.830	1.929	1.192

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:07	0.016	0.018	0.010	0.011	0.009	99.329%
2	15:03:26	0.017	0.021	0.007	0.011	0.009	100.943%
3	15:03:46	0.017	0.020	0.007	0.009	0.008	99.651%
x		0.017	0.019	0.008	0.010	0.009	99.974%
σ		0.000	0.002	0.002	0.001	0.001	0.854%
%RSD		1.504	8.430	20.160	9.494	8.587	0.855

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:57	81.476%	-0.008	-0.387	-0.108	0.000	4.776	1.650	1.194
2	15:07:17	78.338%	-0.007	-0.379	-0.099	0.000	4.760	1.616	1.126
3	15:07:36	69.947%	0.003	-0.109	-0.108	0.000	4.877	1.229	1.301
x		76.587%	-0.004	-0.291	-0.105	0.000	4.804	1.498	1.207
σ		5.960%	0.006	0.158	0.005	0.000	0.063	0.234	0.088
%RSD		7.782	163.600	54.360	5.187	0.000	1.318	15.600	7.284
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:57	1.933	8.589	0.000	4.124	5.844	5.202	82.454%	0.046
2	15:07:17	1.779	7.610	0.000	3.321	7.572	3.881	84.423%	-0.003
3	15:07:36	1.895	7.327	0.000	2.850	6.678	2.633	81.851%	0.016
x		1.869	7.842	0.000	3.432	6.698	3.905	82.909%	0.020
σ		0.080	0.662	0.000	0.644	0.864	1.285	1.345%	0.025
%RSD		4.280	8.443	0.000	18.780	12.910	32.900	1.623	124.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:57	0.006	0.002	0.013	3.148	2.049	-0.002	-0.025	0.042
2	15:07:17	0.002	0.014	0.017	1.240	1.349	0.001	-0.024	0.014
3	15:07:36	0.011	0.001	0.017	-0.182	1.004	-0.001	-0.019	0.026
x		0.006	0.006	0.016	1.402	1.467	-0.001	-0.023	0.028
σ		0.004	0.007	0.002	1.671	0.532	0.002	0.003	0.014
%RSD		73.350	126.200	12.700	119.200	36.290	258.100	14.880	50.180
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:57	0.027	0.816	0.775	0.030	-0.000	0.096	0.000	0.010
2	15:07:17	0.012	0.768	0.630	0.035	-0.009	0.052	0.000	0.004
3	15:07:36	0.011	0.718	0.681	0.017	-0.185	0.046	0.000	0.007
x		0.017	0.767	0.695	0.027	-0.065	0.065	0.000	0.007
σ		0.009	0.049	0.074	0.009	0.105	0.027	0.000	0.003
%RSD		52.550	6.355	10.590	34.340	161.400	42.050	0.000	39.190
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:57	87.307%	-0.182	-0.149	88.718%	0.543	0.537	0.006	0.022
2	15:07:17	87.436%	-0.193	-0.163	88.195%	0.560	0.562	-0.004	0.029
3	15:07:36	88.229%	-0.242	-0.338	88.997%	0.572	0.560	-0.029	0.000
x		87.657%	-0.206	-0.217	88.637%	0.558	0.553	-0.009	0.017
σ		0.499%	0.032	0.106	0.407%	0.015	0.014	0.018	0.015
%RSD		0.569	15.740	48.670	0.460	2.620	2.532	203.100	88.710
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:57	89.478%	-0.597	0.026	-0.007	0.023	0.020	92.746%	92.868%
2	15:07:17	90.108%	-0.803	-0.034	0.013	0.014	0.022	95.506%	96.166%
3	15:07:36	91.179%	-0.580	-0.012	-0.009	0.016	0.007	96.161%	97.097%
x		90.255%	-0.660	-0.007	-0.001	0.018	0.016	94.804%	95.377%
σ		0.860%	0.124	0.030	0.012	0.005	0.008	1.813%	2.222%
%RSD		0.953	18.810	441.900	1441.000	25.770	51.960	1.912	2.330
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:06:57	-0.001	0.004	0.005	0.008	0.007	99.583%		
2	15:07:17	0.001	0.003	0.007	0.016	0.009	100.035%		
3	15:07:36	-0.001	-0.001	0.007	0.008	0.008	101.530%		
x		-0.000	0.002	0.007	0.011	0.008	100.383%		
σ		0.001	0.003	0.001	0.004	0.001	1.019%		
%RSD		407.600	118.400	18.940	41.740	12.530	1.015		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:46	43.830%	49.760	957.400	999.300	0.000	44490.000	43420.000	44060.000
2	15:11:05	43.071%	48.710	892.500	910.100	0.000	43250.000	41990.000	44150.000
3	15:11:24	40.194%	51.320	1030.000	962.700	0.000	44830.000	44990.000	44760.000
x		42.365%	49.930	960.100	957.400	0.000	44190.000	43470.000	44330.000
σ		1.918%	1.314	68.960	44.890	0.000	833.200	1498.000	381.000
%RSD		4.528	2.631	7.183	4.689	0.000	1.885	3.447	0.860
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:46	1730.000	8777.000	0.000	47590.000	48490.000	50430.000	41.594%	994.700
2	15:11:05	1756.000	8885.000	0.000	47550.000	49370.000	51480.000	37.827%	1021.000
3	15:11:24	1803.000	9298.000	0.000	49410.000	50530.000	52590.000	38.201%	1035.000
x		1763.000	8987.000	0.000	48180.000	49460.000	51500.000	39.207%	1017.000
σ		36.890	274.900	0.000	1059.000	1021.000	1080.000	2.076%	20.630
%RSD		2.092	3.059	0.000	2.198	2.064	2.097	5.294	2.028
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:46	486.000	190.100	496.900	1017.000	1038.000	488.000	482.600	241.500
2	15:11:05	503.100	199.100	539.500	1066.000	1112.000	517.800	500.300	252.100
3	15:11:24	525.700	201.600	521.000	1038.000	1075.000	495.500	493.700	245.100
x		505.000	196.900	519.100	1041.000	1075.000	500.400	492.200	246.200
σ		19.930	6.045	21.370	24.780	36.840	15.510	8.930	5.372
%RSD		3.948	3.069	4.116	2.381	3.427	3.099	1.814	2.182
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:46	246.600	494.600	497.800	37.440	10.360	11.020	0.000	982.400
2	15:11:05	254.300	513.800	515.500	38.520	10.680	10.940	0.000	1005.000
3	15:11:24	253.500	511.100	516.000	38.050	10.910	10.760	0.000	999.900
x		251.500	506.500	509.800	38.000	10.650	10.910	0.000	995.800
σ		4.233	10.420	10.370	0.541	0.277	0.132	0.000	11.980
%RSD		1.683	2.056	2.035	1.423	2.596	1.213	0.000	1.203
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:46	54.497%	1062.000	1099.000	52.480%	50.160	50.930	51.350	44.900
2	15:11:05	53.831%	1082.000	1117.000	51.294%	51.430	51.870	52.090	45.350
3	15:11:24	53.242%	1085.000	1127.000	51.675%	50.510	50.840	50.850	46.550
x		53.856%	1076.000	1114.000	51.817%	50.700	51.210	51.430	45.600
σ		0.628%	12.490	14.080	0.605%	0.658	0.573	0.625	0.855
%RSD		1.166	1.161	1.264	1.168	1.298	1.119	1.216	1.874
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:46	58.707%	1969.000	509.700	502.500	1966.000	1917.000	74.245%	75.020%
2	15:11:05	57.717%	2017.000	525.400	515.100	1996.000	1974.000	72.389%	73.387%
3	15:11:24	57.501%	2004.000	519.400	517.100	1997.000	1952.000	73.531%	74.659%
x		57.975%	1997.000	518.200	511.600	1987.000	1948.000	73.388%	74.356%
σ		0.643%	24.650	7.892	7.898	17.450	28.450	0.936%	0.858%
%RSD		1.109	1.234	1.523	1.544	0.878	1.461	1.276	1.154
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:10:46	46.630	47.790	19.980	19.960	20.040	75.349%		
2	15:11:05	47.500	48.150	20.040	20.430	20.350	74.863%		
3	15:11:24	50.690	51.560	21.380	21.180	21.390	70.792%		
x		48.280	49.170	20.470	20.520	20.590	73.668%		
σ		2.134	2.081	0.791	0.617	0.706	2.503%		
%RSD		4.421	4.232	3.863	3.008	3.425	3.397		

LCSD 180-145707/3-A 6/25/2015 3:14:14 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	15:14:33	59.737%	51.430	1003.000	968.700	0.000	49560.000	48120.000	49990.000
2	15:14:52	57.912%	51.090	969.200	1017.000	0.000	47600.000	46330.000	48460.000
3	15:15:11	59.544%	49.460	939.600	884.200	0.000	45970.000	46590.000	44810.000
x		59.065%	50.660	970.700	956.800	0.000	47710.000	47020.000	47750.000
σ		1.003%	1.051	31.960	67.390	0.000	1800.000	967.000	2663.000
%RSD		1.697	2.075	3.292	7.044	0.000	3.772	2.057	5.578
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:33	1973.000	10690.000	0.000	53800.000	53990.000	55820.000	51.491%	1082.000
2	15:14:52	1923.000	10110.000	0.000	51890.000	52410.000	54530.000	51.759%	1107.000
3	15:15:11	1701.000	9198.000	0.000	50680.000	52680.000	53090.000	47.200%	1087.000
x		1865.000	10000.000	0.000	52120.000	53030.000	54480.000	50.150%	1092.000
σ		144.700	753.900	0.000	1574.000	846.700	1364.000	2.559%	13.290
%RSD		7.758	7.538	0.000	3.020	1.597	2.504	5.102	1.217
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:33	519.000	210.500	535.700	1096.000	1131.000	540.000	536.200	271.000
2	15:14:52	528.400	200.900	525.500	1080.000	1112.000	527.800	520.200	260.400
3	15:15:11	533.500	215.100	556.100	1110.000	1132.000	532.800	537.100	264.200
x		527.000	208.900	539.100	1095.000	1125.000	533.500	531.200	265.200
σ		7.361	7.218	15.570	15.090	11.090	6.164	9.520	5.382
%RSD		1.397	3.456	2.888	1.378	0.986	1.155	1.792	2.029
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:33	273.000	562.900	557.500	41.800	11.890	11.540	0.000	969.100
2	15:14:52	261.700	552.000	548.800	41.650	11.510	11.850	0.000	984.700
3	15:15:11	266.700	559.000	563.100	41.990	11.440	11.360	0.000	970.300
x		267.100	558.000	556.500	41.810	11.610	11.580	0.000	974.700
σ		5.668	5.516	7.192	0.167	0.241	0.249	0.000	8.701
%RSD		2.122	0.989	1.292	0.400	2.076	2.146	0.000	0.893
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:33	65.833%	1060.000	1085.000	62.581%	49.920	50.250	51.950	45.450
2	15:14:52	65.330%	1085.000	1110.000	62.310%	50.260	50.580	53.020	46.050
3	15:15:11	64.687%	1078.000	1100.000	61.282%	49.080	49.380	51.910	45.960
x		65.283%	1074.000	1098.000	62.058%	49.750	50.070	52.290	45.820
σ		0.574%	12.960	12.300	0.685%	0.612	0.619	0.631	0.323
%RSD		0.880	1.206	1.120	1.104	1.230	1.236	1.206	0.705
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:33	67.298%	2002.000	529.100	525.200	1982.000	1941.000	77.756%	78.003%
2	15:14:52	66.511%	2042.000	544.200	534.200	2013.000	1951.000	77.368%	77.622%
3	15:15:11	66.726%	1994.000	526.600	519.300	1959.000	1917.000	78.041%	78.424%
x		66.845%	2013.000	533.300	526.200	1985.000	1936.000	77.721%	78.016%
σ		0.406%	25.340	9.545	7.486	26.980	17.720	0.338%	0.401%
%RSD		0.608	1.259	1.790	1.422	1.359	0.915	0.435	0.515
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:14:33	50.620	51.440	21.570	21.670	21.750	70.128%		
2	15:14:52	50.740	51.470	21.590	21.660	21.770	71.552%		
3	15:15:11	51.230	52.160	21.490	21.640	21.690	70.541%		
x		50.860	51.690	21.550	21.660	21.740	70.740%		
σ		0.322	0.407	0.052	0.014	0.042	0.733%		
%RSD		0.634	0.787	0.242	0.063	0.195	1.036		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	51.552%	-0.003	4.065	3.915	0.000	176.300	44.810	47.630
2	15:18:41	50.866%	0.053	4.058	3.442	0.000	171.100	41.640	43.310
3	15:19:00	47.141%	0.043	3.522	3.204	0.000	173.400	47.460	47.030
x		49.853%	0.031	3.882	3.521	0.000	173.600	44.640	45.990
σ		2.374%	0.030	0.312	0.362	0.000	2.630	2.913	2.336
%RSD		4.761	94.820	8.024	10.290	0.000	1.515	6.525	5.078

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	14.110	35.840	0.000	28.900	199.600	256.200	43.281%	1.664
2	15:18:41	12.970	35.810	0.000	27.450	257.200	261.800	41.540%	1.202
3	15:19:00	14.210	35.760	0.000	29.220	279.900	255.400	39.809%	1.496
x		13.760	35.800	0.000	28.530	245.600	257.800	41.543%	1.454
σ		0.691	0.038	0.000	0.944	41.360	3.452	1.736%	0.234
%RSD		5.023	0.107	0.000	3.308	16.840	1.339	4.179	16.080

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	-0.535	0.542	1.287	38.210	41.810	0.105	0.478	6.085
2	15:18:41	-1.594	0.532	1.360	35.710	42.020	0.099	0.529	5.933
3	15:19:00	-0.677	0.522	1.337	36.260	44.580	0.107	0.458	5.905
x		-0.936	0.532	1.328	36.730	42.800	0.104	0.488	5.974
σ		0.575	0.010	0.037	1.311	1.542	0.004	0.037	0.097
%RSD		61.470	1.843	2.812	3.570	3.602	3.786	7.542	1.619

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	5.856	12.680	12.820	0.042	-0.429	0.163	0.000	1.451
2	15:18:41	6.103	12.480	12.820	0.266	-0.347	0.186	0.000	1.411
3	15:19:00	5.948	12.180	12.480	0.270	-0.442	0.219	0.000	1.474
x		5.969	12.450	12.710	0.193	-0.406	0.189	0.000	1.445
σ		0.125	0.251	0.194	0.131	0.051	0.028	0.000	0.032
%RSD		2.092	2.017	1.527	67.830	12.680	14.740	0.000	2.230

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	55.317%	11.880	11.930	56.915%	0.114	0.096	-0.054	-0.059
2	15:18:41	55.316%	9.867	9.709	56.574%	0.109	0.102	-0.073	-0.066
3	15:19:00	54.596%	7.597	7.780	56.269%	0.096	0.103	-0.099	-0.056
x		55.076%	9.780	9.806	56.586%	0.106	0.100	-0.075	-0.060
σ		0.416%	2.140	2.076	0.323%	0.009	0.004	0.023	0.005
%RSD		0.755	21.890	21.170	0.571	8.759	3.895	30.060	8.333

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	60.364%	5.728	0.145	0.131	2.879	3.002	71.319%	71.997%
2	15:18:41	61.004%	4.636	0.122	0.071	2.935	3.110	72.858%	73.304%
3	15:19:00	60.673%	3.716	0.078	0.079	2.945	2.992	72.278%	73.314%
x		60.681%	4.693	0.115	0.094	2.920	3.035	72.152%	72.872%
σ		0.320%	1.007	0.034	0.033	0.036	0.065	0.777%	0.758%
%RSD		0.528	21.450	29.300	34.770	1.224	2.153	1.077	1.040

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:18:22	0.647	0.672	1.184	1.071	1.130	78.785%
2	15:18:41	0.591	0.587	1.212	1.135	1.175	75.971%
3	15:19:00	0.509	0.511	1.200	1.137	1.167	77.148%
x		0.582	0.590	1.198	1.114	1.157	77.301%
σ		0.069	0.080	0.014	0.038	0.024	1.413%
%RSD		11.860	13.640	1.164	3.388	2.084	1.828

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:11	62.782%	-0.016	1.684	1.848	0.000	13.920	2.864	2.713
2	15:22:30	61.690%	0.007	1.575	1.778	0.000	13.000	2.827	3.227
3	15:22:49	60.723%	0.053	1.432	1.396	0.000	11.820	2.690	2.572
x		61.732%	0.014	1.564	1.674	0.000	12.910	2.794	2.837
σ		1.030%	0.035	0.126	0.243	0.000	1.050	0.092	0.344
%RSD		1.669	243.300	8.084	14.520	0.000	8.130	3.276	12.140
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:11	3.260	9.233	0.000	3.240	13.560	17.810	53.141%	0.357
2	15:22:30	3.100	7.835	0.000	2.845	29.550	18.700	53.601%	0.211
3	15:22:49	3.266	7.498	0.000	1.978	23.100	17.660	52.423%	0.218
x		3.209	8.189	0.000	2.688	22.070	18.060	53.055%	0.262
σ		0.095	0.920	0.000	0.646	8.043	0.564	0.593%	0.082
%RSD		2.945	11.240	0.000	24.020	36.450	3.124	1.118	31.370
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:11	-0.018	0.109	0.249	3.100	7.119	0.016	0.108	1.284
2	15:22:30	-0.040	0.108	0.262	2.162	6.087	0.016	0.071	1.194
3	15:22:49	0.144	0.093	0.257	1.108	6.165	0.014	0.101	1.274
x		0.029	0.103	0.256	2.124	6.457	0.015	0.094	1.251
σ		0.101	0.009	0.007	0.997	0.575	0.001	0.020	0.049
%RSD		352.300	8.686	2.591	46.930	8.899	6.215	20.980	3.926
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:11	1.221	3.101	2.946	-0.215	-0.341	-0.050	0.000	0.194
2	15:22:30	1.165	2.964	3.038	-0.112	-0.411	0.003	0.000	0.213
3	15:22:49	1.170	2.888	2.700	-0.016	-0.556	-0.038	0.000	0.194
x		1.185	2.984	2.895	-0.114	-0.436	-0.028	0.000	0.200
σ		0.031	0.108	0.175	0.100	0.110	0.028	0.000	0.011
%RSD		2.603	3.618	6.040	87.070	25.150	98.470	0.000	5.406
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:11	65.878%	0.794	0.754	67.777%	-0.007	-0.005	-0.043	-0.045
2	15:22:30	64.219%	0.572	0.679	66.254%	-0.002	-0.005	-0.072	-0.047
3	15:22:49	65.351%	0.425	0.415	65.737%	0.003	-0.002	-0.054	-0.042
x		65.149%	0.597	0.616	66.589%	-0.002	-0.004	-0.056	-0.045
σ		0.847%	0.186	0.178	1.061%	0.005	0.002	0.015	0.003
%RSD		1.301	31.140	28.970	1.593	214.800	46.370	25.770	5.810
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:11	69.962%	0.866	-0.503	-0.474	0.623	0.588	78.453%	78.663%
2	15:22:30	69.614%	0.765	-0.484	-0.494	0.568	0.598	78.553%	78.714%
3	15:22:49	69.728%	0.635	-0.484	-0.489	0.556	0.624	79.596%	79.535%
x		69.768%	0.755	-0.490	-0.486	0.582	0.603	78.867%	78.971%
σ		0.178%	0.116	0.011	0.010	0.036	0.019	0.633%	0.489%
%RSD		0.255	15.350	2.213	2.131	6.136	3.086	0.803	0.620
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:22:11	0.145	0.155	0.250	0.233	0.236	79.110%		
2	15:22:30	0.134	0.151	0.259	0.228	0.237	81.468%		
3	15:22:49	0.127	0.132	0.243	0.212	0.233	82.288%		
x		0.135	0.146	0.251	0.224	0.236	80.955%		
σ		0.009	0.012	0.008	0.011	0.002	1.650%		
%RSD		6.734	8.473	3.302	4.871	0.939	2.038		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:59	46.969%	47.410	915.600	920.600	0.000	42450.000	41580.000	41130.000
2	15:26:19	43.576%	44.800	894.300	888.700	0.000	40590.000	40040.000	42550.000
3	15:26:38	39.675%	48.970	932.200	944.500	0.000	42210.000	41580.000	43050.000
x		43.407%	47.060	914.000	918.000	0.000	41750.000	41070.000	42240.000
σ		3.650%	2.107	19.000	27.980	0.000	1011.000	886.900	996.400
%RSD		8.408	4.478	2.079	3.049	0.000	2.422	2.160	2.359
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:59	1603.000	8211.000	0.000	44660.000	47320.000	50060.000	38.361%	976.400
2	15:26:19	1681.000	8306.000	0.000	46490.000	49740.000	52480.000	37.124%	980.600
3	15:26:38	1761.000	8643.000	0.000	46490.000	50090.000	52390.000	36.484%	1014.000
x		1682.000	8386.000	0.000	45880.000	49050.000	51640.000	37.323%	990.300
σ		78.830	226.900	0.000	1055.000	1506.000	1370.000	0.954%	20.430
%RSD		4.688	2.706	0.000	2.300	3.071	2.653	2.557	2.063
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:59	487.900	198.400	521.400	1096.000	1100.000	498.700	493.400	250.700
2	15:26:19	496.000	192.000	515.300	1089.000	1124.000	504.700	492.000	247.500
3	15:26:38	503.600	194.900	515.400	1062.000	1093.000	494.500	476.200	244.400
x		495.800	195.100	517.400	1083.000	1106.000	499.300	487.200	247.500
σ		7.845	3.224	3.496	18.040	16.080	5.112	9.574	3.158
%RSD		1.582	1.653	0.676	1.666	1.454	1.024	1.965	1.276
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:59	246.100	498.000	498.300	36.010	9.984	10.030	0.000	966.600
2	15:26:19	251.500	508.600	499.400	37.200	10.260	10.100	0.000	967.800
3	15:26:38	249.300	505.500	509.100	38.030	10.210	10.910	0.000	991.700
x		249.000	504.000	502.300	37.080	10.150	10.350	0.000	975.400
σ		2.746	5.417	5.969	1.015	0.146	0.490	0.000	14.140
%RSD		1.103	1.075	1.188	2.738	1.434	4.732	0.000	1.449
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:59	54.084%	1044.000	1084.000	52.113%	49.090	49.400	50.120	44.280
2	15:26:19	53.724%	1045.000	1077.000	51.661%	48.390	49.580	50.770	45.070
3	15:26:38	52.244%	1079.000	1105.000	49.685%	50.270	50.770	51.940	45.530
x		53.350%	1056.000	1089.000	51.153%	49.250	49.920	50.950	44.960
σ		0.975%	19.780	14.310	1.291%	0.951	0.744	0.923	0.633
%RSD		1.828	1.873	1.314	2.524	1.931	1.491	1.812	1.409
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:59	57.070%	1955.000	503.900	504.300	1940.000	1907.000	71.662%	72.344%
2	15:26:19	57.366%	1939.000	505.300	499.800	1946.000	1897.000	72.392%	73.187%
3	15:26:38	56.143%	1974.000	514.900	513.600	1992.000	1939.000	71.601%	72.639%
x		56.860%	1956.000	508.100	505.900	1960.000	1915.000	71.885%	72.723%
σ		0.638%	17.610	5.943	7.047	28.310	21.960	0.440%	0.428%
%RSD		1.122	0.900	1.170	1.393	1.445	1.147	0.612	0.588
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:25:59	46.060	46.940	20.680	20.710	20.750	72.495%		
2	15:26:19	47.870	48.900	21.380	21.470	21.480	71.098%		
3	15:26:38	49.950	51.120	22.230	22.200	22.220	69.593%		
x		47.960	48.990	21.430	21.460	21.480	71.062%		
σ		1.943	2.094	0.773	0.748	0.731	1.452%		
%RSD		4.052	4.275	3.604	3.484	3.403	2.043		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	44.013%	47.340	913.800	873.700	0.000	39730.000	39570.000	39390.000
2	15:30:05	44.372%	44.670	890.500	870.600	0.000	38800.000	37210.000	37780.000
3	15:30:24	42.435%	46.630	949.600	917.300	0.000	41050.000	39210.000	40070.000
x		43.607%	46.210	918.000	887.200	0.000	39860.000	38660.000	39080.000
σ		1.030%	1.382	29.790	26.090	0.000	1134.000	1271.000	1178.000
%RSD		2.363	2.991	3.245	2.940	0.000	2.846	3.288	3.015

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	1573.000	7947.000	0.000	46070.000	47810.000	49860.000	38.206%	976.500
2	15:30:05	1536.000	7713.000	0.000	44110.000	46800.000	49310.000	36.934%	1005.000
3	15:30:24	1582.000	7994.000	0.000	42570.000	44660.000	48290.000	36.571%	932.800
x		1564.000	7885.000	0.000	44250.000	46420.000	49150.000	37.237%	971.500
σ		24.370	150.200	0.000	1756.000	1612.000	796.100	0.859%	36.470
%RSD		1.559	1.905	0.000	3.969	3.473	1.620	2.307	3.754

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	495.600	191.400	496.800	1049.000	1080.000	494.000	482.700	243.300
2	15:30:05	485.700	194.900	506.900	1073.000	1125.000	494.800	476.100	237.900
3	15:30:24	470.700	181.300	494.200	1029.000	1065.000	485.800	465.200	234.900
x		484.000	189.200	499.300	1050.000	1090.000	491.500	474.700	238.700
σ		12.510	7.072	6.706	21.640	30.870	4.965	8.804	4.257
%RSD		2.584	3.737	1.343	2.060	2.832	1.010	1.855	1.783

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	244.400	494.000	493.100	36.400	9.764	10.900	0.000	942.000
2	15:30:05	239.900	489.700	486.500	36.360	10.210	10.100	0.000	935.300
3	15:30:24	242.100	483.400	487.500	35.480	9.381	10.270	0.000	932.500
x		242.100	489.000	489.000	36.080	9.784	10.420	0.000	936.600
σ		2.234	5.308	3.573	0.524	0.414	0.421	0.000	4.888
%RSD		0.923	1.086	0.731	1.453	4.231	4.040	0.000	0.522

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	52.833%	1034.000	1061.000	50.499%	48.680	49.390	49.020	43.900
2	15:30:05	52.750%	1016.000	1041.000	50.419%	48.130	48.730	49.590	43.630
3	15:30:24	52.362%	1024.000	1047.000	50.259%	47.720	47.800	48.420	43.610
x		52.648%	1025.000	1050.000	50.392%	48.180	48.640	49.010	43.710
σ		0.251%	9.236	10.370	0.122%	0.481	0.797	0.587	0.161
%RSD		0.477	0.901	0.988	0.242	0.999	1.639	1.197	0.367

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	55.515%	1875.000	487.700	482.200	1887.000	1837.000	69.755%	70.199%
2	15:30:05	55.607%	1882.000	485.800	481.800	1880.000	1829.000	70.039%	71.454%
3	15:30:24	56.512%	1848.000	481.800	471.200	1856.000	1810.000	71.095%	71.944%
x		55.878%	1868.000	485.100	478.400	1874.000	1825.000	70.296%	71.199%
σ		0.551%	17.820	3.012	6.225	16.200	14.200	0.706%	0.900%
%RSD		0.986	0.954	0.621	1.301	0.864	0.778	1.005	1.264

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:46	49.310	50.530	21.660	21.710	21.810	64.541%
2	15:30:05	48.410	49.620	21.250	21.350	21.340	67.201%
3	15:30:24	46.660	48.020	20.370	20.530	20.590	69.450%
x		48.130	49.390	21.090	21.200	21.250	67.064%
σ		1.347	1.268	0.659	0.605	0.614	2.457%
%RSD		2.799	2.568	3.122	2.852	2.888	3.664

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	45.625%	51.800	1009.000	1041.000	0.000	44110.000	43290.000	44760.000
2	15:33:52	43.271%	48.770	1018.000	988.200	0.000	44250.000	44380.000	46400.000
3	15:34:11	41.057%	51.750	986.400	944.400	0.000	44230.000	42280.000	44330.000
x		43.318%	50.770	1005.000	991.200	0.000	44200.000	43320.000	45160.000
σ		2.285%	1.737	16.350	48.430	0.000	76.850	1053.000	1096.000
%RSD		5.274	3.420	1.628	4.886	0.000	0.174	2.430	2.426

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	1886.000	9644.000	0.000	47890.000	51520.000	54270.000	39.842%	1118.000
2	15:33:52	1817.000	9619.000	0.000	49610.000	52020.000	53520.000	37.372%	1132.000
3	15:34:11	1800.000	9269.000	0.000	50840.000	52650.000	54750.000	37.445%	1161.000
x		1834.000	9511.000	0.000	49450.000	52060.000	54180.000	38.219%	1137.000
σ		45.170	209.900	0.000	1483.000	567.700	619.600	1.405%	21.880
%RSD		2.463	2.207	0.000	3.000	1.090	1.144	3.677	1.925

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	529.400	212.300	548.000	1126.000	1185.000	534.100	507.400	263.300
2	15:33:52	535.900	211.400	568.900	1180.000	1256.000	556.000	531.600	272.700
3	15:34:11	560.700	215.500	553.800	1144.000	1182.000	523.300	503.000	257.500
x		542.000	213.100	556.900	1150.000	1208.000	537.800	514.000	264.500
σ		16.510	2.156	10.770	27.670	41.570	16.670	15.380	7.658
%RSD		3.047	1.012	1.934	2.406	3.442	3.099	2.992	2.895

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	270.300	545.200	550.400	41.390	10.640	11.280	0.000	1055.000
2	15:33:52	275.100	557.100	565.100	41.360	10.960	11.620	0.000	1049.000
3	15:34:11	262.800	541.900	545.200	41.100	10.830	11.200	0.000	1062.000
x		269.400	548.000	553.600	41.280	10.810	11.370	0.000	1055.000
σ		6.180	7.996	10.290	0.158	0.160	0.221	0.000	6.467
%RSD		2.294	1.459	1.858	0.384	1.483	1.946	0.000	0.613

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	53.041%	1156.000	1191.000	50.685%	46.080	46.520	54.810	47.490
2	15:33:52	53.203%	1156.000	1188.000	50.723%	45.720	46.200	54.260	47.570
3	15:34:11	52.579%	1164.000	1198.000	50.176%	45.780	47.020	55.440	47.220
x		52.941%	1159.000	1193.000	50.528%	45.860	46.580	54.840	47.430
σ		0.324%	4.291	5.264	0.305%	0.190	0.411	0.590	0.184
%RSD		0.612	0.370	0.441	0.604	0.414	0.883	1.076	0.388

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	56.413%	2189.000	560.300	555.300	2090.000	2040.000	70.077%	70.649%
2	15:33:52	56.431%	2184.000	562.600	551.800	2089.000	2039.000	70.455%	71.211%
3	15:34:11	55.828%	2199.000	573.000	572.000	2114.000	2067.000	70.795%	71.426%
x		56.224%	2191.000	565.300	559.700	2098.000	2049.000	70.442%	71.095%
σ		0.343%	7.701	6.790	10.810	14.130	16.120	0.359%	0.401%
%RSD		0.611	0.352	1.201	1.931	0.674	0.787	0.510	0.565

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:32	53.410	54.320	22.870	22.550	22.800	67.550%
2	15:33:52	53.170	54.490	22.720	22.840	22.870	68.107%
3	15:34:11	55.610	56.720	24.000	23.850	23.910	66.230%
x		54.060	55.180	23.200	23.080	23.190	67.296%
σ		1.347	1.341	0.700	0.682	0.623	0.964%
%RSD		2.491	2.431	3.017	2.956	2.684	1.432

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:20	39.504%	0.125	18.740	18.760	0.000	140800.000	24420.000	25010.000
2	15:37:39	37.655%	0.149	19.710	19.680	0.000	151100.000	26410.000	26800.000
3	15:37:58	36.575%	0.116	18.570	16.260	0.000	132200.000	23270.000	24850.000
x		37.911%	0.130	19.010	18.230	0.000	141400.000	24700.000	25550.000
σ		1.481%	0.017	0.615	1.768	0.000	9446.000	1589.000	1082.000
%RSD		3.907	13.220	3.233	9.694	0.000	6.682	6.431	4.236
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:20	87.060	4030.000	0.000	2218.000	207800.000	220100.000	35.646%	2.375
2	15:37:39	94.420	4142.000	0.000	2261.000	209600.000	228500.000	35.485%	2.172
3	15:37:58	85.450	3675.000	0.000	2062.000	195100.000	212300.000	34.793%	1.633
x		88.980	3949.000	0.000	2180.000	204200.000	220300.000	35.308%	2.060
σ		4.783	243.700	0.000	104.800	7890.000	8110.000	0.453%	0.383
%RSD		5.376	6.172	0.000	4.808	3.865	3.681	1.283	18.610
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:20	-0.241	0.509	2970.000	31130.000	31690.000	0.547	0.504	2.888
2	15:37:39	-0.380	0.432	2975.000	31750.000	31780.000	0.565	0.518	2.825
3	15:37:58	-0.562	0.383	2822.000	30210.000	30120.000	0.522	0.698	2.668
x		-0.394	0.441	2922.000	31030.000	31200.000	0.545	0.573	2.794
σ		0.161	0.063	86.860	774.500	935.000	0.022	0.109	0.114
%RSD		40.820	14.350	2.972	2.496	2.997	4.002	18.940	4.066
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:20	1.888	14.260	14.590	4.321	-0.472	0.379	0.000	750.100
2	15:37:39	1.881	14.440	13.950	3.600	-0.187	0.470	0.000	748.400
3	15:37:58	1.714	13.550	13.720	4.597	-0.464	0.328	0.000	701.800
x		1.828	14.080	14.090	4.173	-0.374	0.392	0.000	733.400
σ		0.099	0.473	0.449	0.515	0.162	0.072	0.000	27.430
%RSD		5.389	3.355	3.190	12.330	43.260	18.370	0.000	3.739
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:20	49.165%	4.273	4.578	44.725%	0.038	0.028	-0.001	0.029
2	15:37:39	48.796%	3.245	3.664	44.480%	0.026	0.016	-0.069	-0.020
3	15:37:58	50.349%	2.124	2.289	46.573%	0.016	0.011	-0.081	-0.039
x		49.436%	3.214	3.510	45.259%	0.027	0.018	-0.050	-0.010
σ		0.811%	1.075	1.152	1.144%	0.011	0.008	0.043	0.035
%RSD		1.641	33.440	32.820	2.528	41.350	45.710	85.490	359.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:20	52.388%	2.225	0.777	0.821	171.600	172.400	65.079%	66.080%
2	15:37:39	51.849%	1.866	0.577	0.679	171.500	173.700	66.434%	66.525%
3	15:37:58	53.882%	1.541	0.320	0.346	161.600	162.400	69.164%	70.308%
x		52.706%	1.877	0.558	0.615	168.200	169.500	66.892%	67.638%
σ		1.053%	0.342	0.229	0.244	5.752	6.182	2.080%	2.323%
%RSD		1.998	18.220	41.040	39.560	3.419	3.646	3.110	3.435
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:37:20	0.404	0.419	2.105	1.894	2.003	61.290%		
2	15:37:39	0.358	0.372	2.175	1.899	2.034	61.757%		
3	15:37:58	0.285	0.292	1.890	1.714	1.773	69.081%		
x		0.349	0.361	2.056	1.836	1.937	64.043%		
σ		0.060	0.064	0.149	0.106	0.143	4.369%		
%RSD		17.120	17.760	7.224	5.763	7.387	6.823		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	41.373%	0.034	21.490	24.340	0.000	30900.000	11050.000	11980.000
2	15:41:26	43.251%	0.065	25.770	22.360	0.000	29730.000	11150.000	10980.000
3	15:41:45	39.395%	0.213	24.050	22.240	0.000	29530.000	11180.000	10850.000
x		41.340%	0.104	23.770	22.980	0.000	30050.000	11120.000	11270.000
σ		1.928%	0.096	2.153	1.182	0.000	737.600	70.170	618.200
%RSD		4.664	92.160	9.057	5.144	0.000	2.454	0.631	5.486

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	253.100	3480.000	0.000	2215.000	96650.000	101800.000	39.128%	3.385
2	15:41:26	241.400	3251.000	0.000	2135.000	95110.000	101100.000	37.266%	3.063
3	15:41:45	235.900	3349.000	0.000	2204.000	94550.000	102200.000	35.588%	3.298
x		243.500	3360.000	0.000	2185.000	95430.000	101700.000	37.328%	3.249
σ		8.759	115.000	0.000	43.330	1086.000	548.700	1.771%	0.166
%RSD		3.597	3.424	0.000	1.983	1.138	0.540	4.744	5.119

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	1.104	0.975	22.460	344.000	414.400	0.442	3.262	0.944
2	15:41:26	-0.383	1.020	24.130	350.700	421.100	0.462	3.364	1.094
3	15:41:45	-0.516	1.017	24.780	370.000	436.800	0.485	3.348	1.136
x		0.068	1.004	23.790	354.900	424.100	0.463	3.325	1.058
σ		0.899	0.025	1.196	13.490	11.510	0.022	0.055	0.101
%RSD		1313.000	2.511	5.026	3.801	2.714	4.701	1.647	9.548

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	0.832	4.628	4.392	0.091	-0.075	0.473	0.000	300.800
2	15:41:26	1.073	4.598	4.614	0.051	0.024	0.525	0.000	302.700
3	15:41:45	1.039	5.101	4.717	0.472	0.023	0.648	0.000	303.100
x		0.981	4.776	4.574	0.205	-0.009	0.548	0.000	302.200
σ		0.131	0.282	0.166	0.232	0.057	0.090	0.000	1.247
%RSD		13.310	5.906	3.628	113.600	622.000	16.470	0.000	0.413

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	52.621%	-0.057	-0.017	50.335%	0.023	0.015	-0.037	-0.022
2	15:41:26	51.785%	-0.053	0.018	49.507%	0.033	0.012	-0.060	-0.039
3	15:41:45	51.070%	-0.060	-0.074	48.176%	0.027	0.016	-0.053	-0.032
x		51.825%	-0.057	-0.024	49.339%	0.028	0.014	-0.050	-0.031
σ		0.776%	0.003	0.046	1.089%	0.005	0.002	0.012	0.008
%RSD		1.498	5.770	190.900	2.207	17.830	15.140	23.010	26.970

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	55.956%	0.688	-0.148	-0.092	38.040	38.180	69.642%	70.223%
2	15:41:26	55.919%	0.656	-0.164	-0.162	38.550	37.900	69.908%	70.631%
3	15:41:45	55.483%	0.582	-0.139	-0.176	37.430	37.630	69.931%	71.134%
x		55.786%	0.642	-0.150	-0.143	38.010	37.900	69.827%	70.663%
σ		0.263%	0.055	0.013	0.045	0.560	0.277	0.161%	0.456%
%RSD		0.472	8.500	8.435	31.290	1.474	0.731	0.230	0.645

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:06	0.179	0.179	0.703	0.655	0.680	69.766%
2	15:41:26	0.174	0.180	0.733	0.703	0.707	69.742%
3	15:41:45	0.173	0.182	0.739	0.688	0.713	69.317%
x		0.175	0.180	0.725	0.682	0.700	69.608%
σ		0.003	0.001	0.019	0.025	0.018	0.253%
%RSD		1.818	0.680	2.650	3.600	2.515	0.363

CCV 1594026 6/25/2015 3:44:43 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	15:44:43	87.503%	105.600	101.800	104.300	0.000	49250.000	47610.000	47460.000
2	15:45:02	85.416%	108.000	104.000	98.960	0.000	46670.000	46750.000	47370.000
3	15:45:21	80.718%	105.300	103.500	104.000	0.000	47410.000	46600.000	47430.000
x		84.546%	106.329%	103.079%	102.408%	0.000	95.558%	93.972%	94.838%
σ		3.475%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.110	1.389	1.103	2.917	0.000	2.780	1.155	0.100

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:43	465.000	5245.000	0.000	46930.000	46650.000	48740.000	76.372%	100.400
2	15:45:02	462.900	5042.000	0.000	47000.000	47040.000	48620.000	75.804%	100.700
3	15:45:21	479.900	5350.000	0.000	47760.000	47170.000	48890.000	73.880%	101.200
x		93.851%	104.250%	0.000	94.459%	93.914%	97.501%	75.352%	100.757%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.306%	n/a
%RSD		1.969	3.003	0.000	0.975	0.574	0.283	1.733	0.363

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:43	99.630	100.600	483.800	25000.000	24770.000	98.190	103.800	104.100
2	15:45:02	98.510	98.720	484.500	24470.000	24640.000	99.070	98.330	100.900
3	15:45:21	96.340	98.970	481.100	24300.000	24680.000	99.680	104.400	104.400
x		98.158%	99.441%	96.625%	98.361%	98.784%	98.979%	102.190%	103.122%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.704	1.047	0.375	1.472	0.263	0.760	3.287	1.911

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:43	102.000	104.500	104.200	103.200	108.700	109.000	0.000	90.880
2	15:45:02	101.000	102.500	101.700	102.200	107.800	108.600	0.000	90.140
3	15:45:21	101.500	103.900	104.100	104.200	109.800	110.000	0.000	91.440
x		101.487%	103.615%	103.343%	103.194%	108.771%	109.199%	0.000	90.824%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.493	1.002	1.364	0.971	0.897	0.673	0.000	0.717

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:43	81.289%	88.540	90.660	73.520%	99.810	100.700	100.200	100.400
2	15:45:02	81.797%	90.020	91.440	74.079%	98.450	99.460	100.100	101.000
3	15:45:21	80.822%	93.330	96.230	73.467%	100.600	100.400	101.400	101.600
x		81.303%	90.630%	92.775%	73.689%	99.633%	100.181%	100.576%	100.992%
σ		0.488%	n/a	n/a	0.339%	n/a	n/a	n/a	n/a
%RSD		0.600	2.705	3.254	0.460	1.106	0.642	0.671	0.619

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:43	74.740%	96.430	93.500	92.000	95.240	95.960	78.605%	77.960%
2	15:45:02	74.848%	97.290	93.320	91.970	94.990	95.190	78.938%	78.418%
3	15:45:21	74.764%	97.730	95.650	94.760	96.210	95.610	79.495%	78.893%
x		74.784%	97.150%	94.154%	92.911%	95.481%	95.586%	79.013%	78.424%
σ		0.057%	n/a	n/a	n/a	n/a	n/a	0.450%	0.466%
%RSD		0.076	0.682	1.375	1.723	0.675	0.400	0.570	0.594

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:43	104.700	106.400	105.000	105.800	105.400	67.887%
2	15:45:02	104.700	105.300	105.400	105.100	105.300	68.725%
3	15:45:21	102.800	103.200	103.200	103.800	104.100	70.783%
x		104.067%	104.960%	104.522%	104.911%	104.933%	69.132%
σ		n/a	n/a	n/a	n/a	n/a	1.490%
%RSD		1.062	1.583	1.123	0.978	0.675	2.156

CCB2 6/25/2015 3:51:08 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	15:51:27	102.556%	-0.009	0.614	0.705	0.000	-2.390	1.322	0.958
2	15:51:46	95.511%	0.006	0.814	0.617	0.000	-2.048	1.130	1.085
3	15:52:05	101.770%	-0.009	0.578	0.381	0.000	-2.571	0.972	0.814
x		99.945%	-0.004	0.668	0.568	0.000	-2.336	1.141	0.952
σ		3.861%	0.009	0.127	0.168	0.000	0.265	0.176	0.136
%RSD		3.863	204.200	18.990	29.590	0.000	11.350	15.390	14.230
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:27	0.924	2.907	0.000	-0.547	8.058	3.736	88.787%	-0.037
2	15:51:46	0.974	3.210	0.000	-0.258	7.252	3.627	85.891%	-0.057
3	15:52:05	0.782	2.196	0.000	-1.226	3.123	4.474	89.639%	-0.037
x		0.893	2.771	0.000	-0.677	6.144	3.946	88.106%	-0.044
σ		0.099	0.521	0.000	0.497	2.647	0.461	1.965%	0.011
%RSD		11.120	18.800	0.000	73.390	43.090	11.670	2.230	26.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:27	0.022	-0.005	0.013	2.948	1.886	-0.001	-0.024	0.028
2	15:51:46	0.008	-0.020	0.009	2.455	2.848	-0.000	-0.015	0.025
3	15:52:05	0.008	0.005	0.009	1.299	1.038	0.000	-0.019	0.029
x		0.012	-0.007	0.010	2.234	1.924	-0.001	-0.019	0.027
σ		0.008	0.013	0.002	0.847	0.905	0.001	0.005	0.002
%RSD		63.970	182.300	23.870	37.910	47.050	147.200	24.510	7.008
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:27	-0.006	0.631	0.627	0.031	0.101	0.059	0.000	0.003
2	15:51:46	0.006	0.581	0.594	0.083	0.057	0.235	0.000	0.006
3	15:52:05	0.041	0.582	0.579	0.102	0.058	0.105	0.000	0.005
x		0.014	0.598	0.600	0.072	0.072	0.133	0.000	0.005
σ		0.024	0.028	0.024	0.036	0.025	0.091	0.000	0.001
%RSD		173.500	4.743	4.043	50.680	34.680	68.840	0.000	29.870
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:27	91.669%	-0.418	-0.417	92.541%	-0.001	-0.001	-0.031	0.009
2	15:51:46	90.405%	-0.386	-0.366	92.896%	-0.005	-0.005	-0.049	-0.000
3	15:52:05	91.718%	-0.570	-0.512	92.388%	-0.003	-0.010	-0.031	-0.018
x		91.264%	-0.458	-0.432	92.608%	-0.003	-0.005	-0.037	-0.003
σ		0.744%	0.098	0.074	0.261%	0.002	0.004	0.010	0.014
%RSD		0.816	21.490	17.060	0.282	66.700	80.410	28.270	460.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:27	90.074%	-0.770	0.500	0.501	0.035	0.008	90.210%	88.719%
2	15:51:46	91.022%	-0.850	0.471	0.476	0.024	0.005	91.912%	92.098%
3	15:52:05	91.883%	0.216	0.405	0.367	0.023	0.006	92.504%	93.200%
x		90.993%	-0.468	0.458	0.448	0.027	0.006	91.542%	91.339%
σ		0.905%	0.594	0.049	0.071	0.007	0.002	1.191%	2.335%
%RSD		0.995	126.800	10.630	15.850	24.090	24.590	1.301	2.556
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:51:27	0.058	0.061	0.009	0.011	0.009	95.585%		
2	15:51:46	0.057	0.058	0.010	0.007	0.010	96.618%		
3	15:52:05	0.054	0.054	0.007	0.011	0.007	97.693%		
x		0.056	0.058	0.009	0.010	0.009	96.632%		
σ		0.002	0.003	0.002	0.002	0.001	1.054%		
%RSD		3.981	5.963	18.780	19.770	14.400	1.091		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	45.634%	0.030	22.970	20.810	0.000	28790.000	11480.000	11650.000
2	15:55:36	40.935%	0.069	20.700	20.260	0.000	31430.000	11240.000	11230.000
3	15:55:56	40.589%	0.052	22.780	21.810	0.000	30290.000	11180.000	11380.000
x		42.386%	0.050	22.150	20.960	0.000	30170.000	11300.000	11420.000
σ		2.818%	0.019	1.259	0.789	0.000	1323.000	157.000	211.800
%RSD		6.649	38.740	5.687	3.764	0.000	4.384	1.389	1.855

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	397.400	3537.000	0.000	2304.000	97520.000	102400.000	39.121%	7.657
2	15:55:36	412.100	3845.000	0.000	2404.000	97550.000	102000.000	38.291%	6.058
3	15:55:56	408.300	3720.000	0.000	2287.000	98970.000	105400.000	37.598%	6.639
x		405.900	3701.000	0.000	2332.000	98010.000	103300.000	38.337%	6.785
σ		7.596	155.100	0.000	62.920	829.400	1825.000	0.763%	0.809
%RSD		1.871	4.190	0.000	2.699	0.846	1.767	1.989	11.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	-1.936	1.296	15.800	597.200	677.400	0.339	0.911	1.278
2	15:55:36	1.486	1.249	15.780	611.500	678.900	0.358	0.995	1.232
3	15:55:56	3.829	1.325	15.590	588.400	659.200	0.337	0.892	1.287
x		1.127	1.290	15.720	599.000	671.800	0.345	0.933	1.266
σ		2.899	0.039	0.120	11.670	10.960	0.011	0.055	0.029
%RSD		257.300	2.985	0.763	1.948	1.631	3.334	5.897	2.328

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	1.003	5.311	5.636	0.049	0.231	0.936	0.000	314.100
2	15:55:36	1.101	5.578	5.475	0.459	0.244	0.737	0.000	319.200
3	15:55:56	1.002	5.209	5.324	0.042	0.274	0.761	0.000	317.800
x		1.035	5.366	5.478	0.183	0.250	0.811	0.000	317.100
σ		0.056	0.190	0.156	0.238	0.022	0.108	0.000	2.658
%RSD		5.456	3.548	2.841	130.100	8.833	13.370	0.000	0.839

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	52.483%	-0.454	-0.420	50.474%	0.029	0.015	-0.103	-0.069
2	15:55:36	51.018%	-0.562	-0.472	48.600%	0.027	0.017	-0.069	-0.051
3	15:55:56	50.990%	-0.702	-0.642	49.006%	0.025	0.014	-0.057	-0.046
x		51.497%	-0.573	-0.512	49.360%	0.027	0.016	-0.076	-0.056
σ		0.854%	0.124	0.116	0.986%	0.002	0.001	0.024	0.012
%RSD		1.659	21.650	22.700	1.997	7.627	7.804	30.740	21.930

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	56.141%	0.663	1.472	1.426	38.900	39.230	70.134%	70.756%
2	15:55:36	55.522%	0.584	1.073	1.104	39.260	39.650	69.870%	70.622%
3	15:55:56	56.015%	0.516	0.785	0.856	39.140	39.620	70.839%	71.333%
x		55.893%	0.587	1.110	1.129	39.100	39.500	70.281%	70.904%
σ		0.327%	0.074	0.345	0.286	0.181	0.235	0.501%	0.378%
%RSD		0.585	12.520	31.110	25.340	0.464	0.596	0.713	0.533

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:17	0.075	0.082	0.574	0.539	0.556	71.650%
2	15:55:36	0.074	0.078	0.584	0.532	0.547	71.450%
3	15:55:56	0.068	0.075	0.606	0.559	0.584	69.874%
x		0.072	0.078	0.588	0.543	0.562	70.991%
σ		0.004	0.004	0.016	0.014	0.019	0.973%
%RSD		5.537	4.531	2.800	2.562	3.463	1.370

180-45256-B-4-B 6/25/2015 3:58:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	67.231%	-0.006	8.583	9.191	0.000	49370.000	170.600	180.500
2	15:59:30	64.415%	0.005	10.380	9.718	0.000	54130.000	181.500	181.000
3	15:59:49	62.357%	-0.016	9.584	9.129	0.000	50930.000	186.700	191.600
x		64.668%	-0.005	9.517	9.346	0.000	51480.000	179.600	184.400
σ		2.447%	0.011	0.902	0.324	0.000	2428.000	8.207	6.240
%RSD		3.783	197.900	9.479	3.465	0.000	4.717	4.570	3.384

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	3.128	108.800	0.000	142.500	1593.000	1594.000	60.661%	0.228
2	15:59:30	3.140	105.800	0.000	142.500	1522.000	1604.000	59.243%	0.053
3	15:59:49	3.354	105.800	0.000	142.700	1652.000	1613.000	57.923%	0.243
x		3.207	106.800	0.000	142.600	1589.000	1603.000	59.275%	0.174
σ		0.127	1.712	0.000	0.139	65.160	9.288	1.369%	0.106
%RSD		3.968	1.603	0.000	0.097	4.101	0.579	2.310	60.660

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	0.040	0.069	11.260	18.400	24.170	0.267	0.524	0.406
2	15:59:30	-0.142	0.043	11.100	18.860	23.080	0.289	0.606	0.426
3	15:59:49	-0.246	0.070	11.470	18.890	24.060	0.260	0.560	0.486
x		-0.116	0.061	11.280	18.720	23.770	0.272	0.563	0.439
σ		0.145	0.016	0.186	0.274	0.600	0.015	0.041	0.041
%RSD		124.800	25.510	1.652	1.464	2.522	5.465	7.339	9.367

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	0.142	3.077	3.172	0.838	13.650	15.210	0.000	4.976
2	15:59:30	0.136	3.321	3.307	1.104	13.900	15.470	0.000	5.031
3	15:59:49	0.125	2.977	3.115	0.895	14.380	15.440	0.000	5.079
x		0.134	3.125	3.198	0.946	13.970	15.380	0.000	5.029
σ		0.008	0.177	0.098	0.140	0.373	0.141	0.000	0.051
%RSD		6.246	5.648	3.072	14.760	2.668	0.920	0.000	1.023

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	66.793%	-1.433	-1.413	66.051%	-0.013	-0.013	-0.030	-0.013
2	15:59:30	66.622%	-1.334	-1.380	65.204%	-0.009	-0.016	-0.053	-0.030
3	15:59:49	66.086%	-1.468	-1.356	64.725%	-0.014	-0.016	-0.050	-0.041
x		66.501%	-1.412	-1.383	65.327%	-0.012	-0.015	-0.044	-0.028
σ		0.369%	0.069	0.029	0.671%	0.003	0.001	0.012	0.014
%RSD		0.554	4.919	2.079	1.027	22.820	9.902	27.810	49.710

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	68.325%	0.023	-0.456	-0.454	0.271	0.259	76.501%	76.296%
2	15:59:30	69.204%	0.016	-0.458	-0.450	0.239	0.290	76.897%	77.224%
3	15:59:49	68.447%	0.000	-0.447	-0.459	0.238	0.249	77.441%	77.145%
x		68.659%	0.013	-0.454	-0.454	0.249	0.266	76.946%	76.888%
σ		0.476%	0.012	0.006	0.004	0.018	0.022	0.472%	0.514%
%RSD		0.694	88.840	1.254	0.971	7.395	8.166	0.613	0.669

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:05	0.012	0.016	0.075	0.063	0.066	75.373%
2	15:59:30	0.009	0.017	0.073	0.071	0.070	77.767%
3	15:59:49	0.015	0.014	0.077	0.074	0.070	79.065%
x		0.012	0.016	0.075	0.069	0.069	77.402%
σ		0.003	0.002	0.002	0.006	0.002	1.873%
%RSD		24.540	9.546	2.694	8.282	3.407	2.420

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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	16:02:59	84.391%	-0.008	1.413	1.966	0.000	11040.000	40.970	40.850
2	16:03:18	83.451%	-0.016	1.777	1.901	0.000	10520.000	37.160	37.900
3	16:03:37	86.876%	0.008	1.678	1.814	0.000	10620.000	38.790	36.620
x		84.906%	-0.005	1.623	1.894	0.000	10730.000	38.970	38.450
σ		1.770%	0.012	0.189	0.076	0.000	275.500	1.910	2.172
%RSD		2.084	232.700	11.620	4.033	0.000	2.568	4.902	5.648

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	2.267	28.720	0.000	27.040	310.800	326.800	77.238%	-0.042
2	16:03:18	2.150	24.780	0.000	26.890	275.100	321.300	75.641%	0.078
3	16:03:37	2.127	22.990	0.000	27.400	326.600	313.700	72.757%	0.006
x		2.181	25.500	0.000	27.110	304.200	320.600	75.212%	0.014
σ		0.076	2.931	0.000	0.265	26.420	6.610	2.271%	0.060
%RSD		3.462	11.500	0.000	0.976	8.686	2.062	3.020	443.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	0.068	-0.009	2.269	0.187	3.059	0.055	0.111	0.156
2	16:03:18	-0.055	-0.019	2.261	-1.612	3.127	0.057	0.105	0.194
3	16:03:37	0.037	-0.001	2.327	2.465	3.010	0.050	0.087	0.142
x		0.017	-0.009	2.286	0.347	3.065	0.054	0.101	0.164
σ		0.064	0.009	0.036	2.043	0.059	0.004	0.012	0.027
%RSD		386.400	97.860	1.572	589.200	1.917	7.156	12.110	16.380

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	0.107	1.179	1.090	0.219	2.619	3.017	0.000	1.044
2	16:03:18	0.116	1.167	1.122	0.346	2.478	3.128	0.000	1.018
3	16:03:37	0.100	1.230	1.260	0.253	2.633	3.230	0.000	1.075
x		0.108	1.192	1.157	0.272	2.577	3.125	0.000	1.046
σ		0.008	0.033	0.090	0.066	0.086	0.107	0.000	0.029
%RSD		7.427	2.798	7.813	24.110	3.318	3.419	0.000	2.734

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	75.346%	-1.045	-1.076	78.832%	-0.011	-0.018	-0.044	-0.024
2	16:03:18	74.483%	-1.044	-1.072	77.307%	-0.013	-0.012	-0.037	-0.026
3	16:03:37	74.954%	-1.027	-1.013	76.899%	-0.017	-0.016	-0.041	-0.026
x		74.928%	-1.039	-1.054	77.680%	-0.014	-0.016	-0.041	-0.025
σ		0.432%	0.010	0.035	1.019%	0.003	0.003	0.004	0.002
%RSD		0.577	0.991	3.347	1.312	24.360	18.160	8.970	6.129

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	78.360%	0.040	-0.462	-0.475	0.109	0.083	82.005%	80.666%
2	16:03:18	78.469%	0.123	-0.477	-0.461	0.073	0.064	82.451%	81.705%
3	16:03:37	78.933%	0.236	-0.478	-0.478	0.080	0.080	82.699%	82.147%
x		78.588%	0.133	-0.472	-0.471	0.087	0.076	82.385%	81.506%
σ		0.304%	0.098	0.009	0.009	0.019	0.010	0.352%	0.760%
%RSD		0.387	73.870	1.886	1.853	21.550	13.190	0.427	0.933

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	0.023	0.023	0.016	0.013	0.014	82.598%
2	16:03:18	0.024	0.028	0.015	0.016	0.016	82.585%
3	16:03:37	0.027	0.025	0.014	0.016	0.017	83.109%
x		0.025	0.025	0.015	0.015	0.016	82.764%
σ		0.002	0.002	0.001	0.002	0.001	0.299%
%RSD		7.648	9.094	6.109	13.280	8.494	0.361

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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	16:09:43	102.849%	0.004	-0.047	-0.136	0.000	-0.939	0.314	0.408
2	16:10:02	91.730%	-0.009	-0.222	-0.118	0.000	-0.866	0.456	0.342
3	16:10:22	90.497%	-0.008	0.071	-0.097	0.000	-0.962	0.546	0.439
x		95.025%	-0.004	-0.066	-0.117	0.000	-0.922	0.439	0.396
σ		6.803%	0.007	0.148	0.020	0.000	0.050	0.117	0.050
%RSD		7.160	176.200	223.700	16.680	0.000	5.468	26.700	12.580

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:43	0.833	3.536	0.000	-2.909	5.350	6.413	85.707%	-0.041
2	16:10:02	0.788	3.585	0.000	-2.640	4.775	5.736	85.662%	-0.019
3	16:10:22	0.746	3.259	0.000	-2.951	8.130	6.184	84.377%	-0.025
x		0.789	3.460	0.000	-2.833	6.085	6.111	85.249%	-0.029
σ		0.044	0.176	0.000	0.169	1.794	0.345	0.756%	0.012
%RSD		5.528	5.085	0.000	5.960	29.490	5.637	0.886	40.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:43	-0.017	-0.012	0.009	-2.810	-1.513	-0.001	0.106	0.006
2	16:10:02	-0.012	-0.031	0.010	-4.873	-2.752	-0.002	0.107	0.021
3	16:10:22	-0.016	-0.006	0.010	-3.730	-1.960	-0.002	0.079	0.024
x		-0.015	-0.016	0.009	-3.804	-2.075	-0.002	0.098	0.017
σ		0.003	0.013	0.001	1.034	0.627	0.000	0.016	0.010
%RSD		18.290	81.170	7.933	27.170	30.230	24.870	16.090	56.930

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:43	0.009	0.812	0.711	-0.018	-0.251	0.025	0.000	0.013
2	16:10:02	0.035	0.826	0.802	-0.030	-0.235	-0.046	0.000	0.014
3	16:10:22	0.027	0.795	0.847	0.005	-0.373	0.029	0.000	0.015
x		0.024	0.811	0.787	-0.014	-0.286	0.002	0.000	0.014
σ		0.014	0.016	0.069	0.018	0.076	0.042	0.000	0.001
%RSD		57.200	1.932	8.770	126.100	26.490	1756.000	0.000	7.024

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:43	85.243%	-1.614	-1.585	86.582%	-0.011	-0.014	-0.041	0.004
2	16:10:02	86.165%	-1.606	-1.597	87.577%	-0.010	-0.010	-0.016	0.013
3	16:10:22	87.268%	-1.596	-1.614	88.078%	-0.014	-0.016	-0.022	-0.006
x		86.226%	-1.605	-1.599	87.412%	-0.012	-0.013	-0.026	0.004
σ		1.014%	0.009	0.015	0.762%	0.002	0.003	0.013	0.010
%RSD		1.175	0.585	0.909	0.871	19.260	21.090	49.780	267.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:43	86.523%	-0.899	-0.525	-0.511	0.029	0.014	87.866%	87.090%
2	16:10:02	85.613%	-0.699	-0.513	-0.517	0.009	0.012	88.101%	88.618%
3	16:10:22	85.383%	-0.252	-0.523	-0.516	0.007	0.014	89.470%	89.883%
x		85.840%	-0.617	-0.520	-0.515	0.015	0.013	88.479%	88.530%
σ		0.603%	0.331	0.006	0.003	0.012	0.001	0.866%	1.398%
%RSD		0.702	53.690	1.249	0.636	81.160	7.867	0.979	1.579

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:43	0.001	0.006	0.004	0.006	0.005	92.356%
2	16:10:02	0.001	0.006	0.004	0.004	0.004	91.353%
3	16:10:22	0.003	0.003	0.004	0.008	0.005	93.048%
x		0.002	0.005	0.004	0.006	0.005	92.252%
σ		0.001	0.002	0.000	0.002	0.001	0.852%
%RSD		69.070	35.350	9.152	37.780	19.440	0.924

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	44.854%	48.170	992.700	977.500	0.000	43890.000	42700.000	42720.000
2	16:13:25	44.251%	49.070	974.100	965.200	0.000	41030.000	40260.000	42270.000
3	16:13:44	42.214%	49.760	962.900	948.700	0.000	42120.000	41700.000	39740.000
x		43.773%	49.000	976.600	963.800	0.000	42350.000	41550.000	41580.000
σ		1.384%	0.801	15.020	14.440	0.000	1440.000	1227.000	1604.000
%RSD		3.161	1.635	1.538	1.498	0.000	3.401	2.952	3.857

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	1735.000	8783.000	0.000	45060.000	46580.000	48360.000	40.232%	971.900
2	16:13:25	1644.000	8484.000	0.000	44050.000	46300.000	48360.000	39.914%	981.500
3	16:13:44	1611.000	8251.000	0.000	43930.000	46750.000	48530.000	37.260%	994.100
x		1663.000	8506.000	0.000	44350.000	46550.000	48420.000	39.135%	982.500
σ		64.270	266.900	0.000	620.200	227.700	100.900	1.632%	11.120
%RSD		3.865	3.138	0.000	1.399	0.489	0.208	4.170	1.132

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	486.700	191.100	505.900	1009.000	1058.000	506.300	487.500	245.400
2	16:13:25	470.900	186.800	504.300	1030.000	1063.000	495.500	491.200	243.500
3	16:13:44	503.000	201.400	513.200	1043.000	1066.000	496.200	487.000	246.100
x		486.900	193.100	507.800	1027.000	1062.000	499.300	488.600	245.000
σ		16.060	7.531	4.724	17.360	3.881	6.066	2.317	1.355
%RSD		3.298	3.900	0.930	1.690	0.365	1.215	0.474	0.553

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	249.800	530.900	532.400	37.330	10.170	11.110	0.000	993.700
2	16:13:25	247.400	530.100	526.700	38.860	10.100	10.480	0.000	995.400
3	16:13:44	245.200	541.700	541.900	37.950	10.620	10.410	0.000	1001.000
x		247.400	534.200	533.700	38.040	10.300	10.670	0.000	996.700
σ		2.318	6.444	7.691	0.769	0.281	0.384	0.000	3.812
%RSD		0.937	1.206	1.441	2.021	2.726	3.601	0.000	0.382

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	52.724%	1087.000	1123.000	50.476%	50.500	50.990	51.700	46.080
2	16:13:25	52.228%	1080.000	1126.000	49.889%	51.660	51.220	52.260	46.220
3	16:13:44	51.645%	1095.000	1127.000	49.443%	50.760	51.420	53.190	45.430
x		52.199%	1087.000	1125.000	49.936%	50.970	51.210	52.380	45.910
σ		0.540%	7.721	2.628	0.518%	0.607	0.214	0.753	0.418
%RSD		1.034	0.710	0.234	1.038	1.191	0.417	1.436	0.910

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	56.087%	1987.000	517.300	510.100	1972.000	1939.000	69.299%	70.655%
2	16:13:25	55.478%	2011.000	524.500	523.300	2002.000	1949.000	69.898%	70.717%
3	16:13:44	54.903%	2035.000	522.100	517.400	2005.000	1955.000	70.515%	71.135%
x		55.490%	2011.000	521.300	516.900	1993.000	1948.000	69.904%	70.836%
σ		0.592%	23.840	3.638	6.573	18.380	7.929	0.608%	0.261%
%RSD		1.067	1.185	0.698	1.272	0.922	0.407	0.870	0.369

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:06	46.490	47.540	19.850	19.920	19.950	70.965%
2	16:13:25	48.590	50.010	20.550	20.610	20.690	69.541%
3	16:13:44	50.310	51.470	21.150	21.250	21.310	68.233%
x		48.460	49.680	20.520	20.590	20.650	69.580%
σ		1.912	1.986	0.652	0.663	0.681	1.367%
%RSD		3.946	3.998	3.179	3.219	3.300	1.964

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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	16:16:54	49.737%	0.012	20.370	21.340	0.000	39880.000	9064.000	9625.000
2	16:17:14	44.490%	-0.000	22.130	21.540	0.000	43100.000	10180.000	10070.000
3	16:17:33	48.316%	0.027	21.500	19.560	0.000	39050.000	8790.000	9176.000
x		47.514%	0.013	21.330	20.810	0.000	40680.000	9344.000	9623.000
σ		2.714%	0.014	0.895	1.088	0.000	2136.000	735.400	446.100
%RSD		5.712	107.500	4.197	5.225	0.000	5.251	7.871	4.636
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:54	42.420	2088.000	0.000	3268.000	53730.000	56020.000	43.292%	2.045
2	16:17:14	44.530	2134.000	0.000	3231.000	56180.000	58140.000	39.754%	1.643
3	16:17:33	39.150	1912.000	0.000	3023.000	52510.000	54730.000	39.686%	1.486
x		42.030	2045.000	0.000	3174.000	54140.000	56300.000	40.910%	1.725
σ		2.708	117.300	0.000	131.800	1870.000	1722.000	2.063%	0.288
%RSD		6.442	5.737	0.000	4.153	3.454	3.059	5.043	16.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:54	1.642	0.948	24.370	154.000	194.400	0.261	0.903	4.817
2	16:17:14	-0.445	0.849	25.500	154.400	198.300	0.274	0.981	5.237
3	16:17:33	-2.167	0.851	24.680	144.700	193.300	0.227	0.781	4.971
x		-0.323	0.883	24.850	151.100	195.300	0.254	0.889	5.008
σ		1.908	0.057	0.582	5.484	2.620	0.024	0.101	0.212
%RSD		590.000	6.414	2.344	3.630	1.341	9.528	11.370	4.241
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:54	4.576	65.600	66.550	0.152	-0.290	0.185	0.000	181.700
2	16:17:14	4.956	67.140	68.420	0.200	-0.193	0.308	0.000	180.800
3	16:17:33	4.984	64.980	65.680	-0.266	-0.273	0.387	0.000	179.700
x		4.839	65.900	66.880	0.029	-0.252	0.293	0.000	180.700
σ		0.228	1.115	1.398	0.256	0.052	0.102	0.000	1.017
%RSD		4.712	1.691	2.090	892.000	20.690	34.770	0.000	0.563
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:54	54.856%	4.859	5.014	52.724%	0.013	0.003	0.061	0.051
2	16:17:14	52.988%	3.881	4.222	51.737%	0.007	0.005	0.020	0.053
3	16:17:33	52.899%	3.277	3.238	50.498%	0.013	0.008	0.026	0.060
x		53.581%	4.006	4.158	51.653%	0.011	0.006	0.036	0.055
σ		1.105%	0.798	0.890	1.115%	0.003	0.003	0.022	0.005
%RSD		2.062	19.930	21.400	2.159	29.640	51.750	61.970	8.931
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:54	57.889%	1.711	0.009	0.052	47.000	47.680	69.805%	69.995%
2	16:17:14	57.910%	1.466	0.035	0.023	47.020	47.400	70.599%	71.218%
3	16:17:33	57.254%	1.206	0.045	0.032	47.150	46.800	70.164%	71.286%
x		57.684%	1.461	0.030	0.036	47.060	47.290	70.189%	70.833%
σ		0.373%	0.253	0.019	0.015	0.081	0.448	0.397%	0.726%
%RSD		0.646	17.310	63.170	40.470	0.171	0.947	0.566	1.026
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:16:54	0.532	0.520	0.847	0.767	0.816	67.860%		
2	16:17:14	0.448	0.452	0.858	0.788	0.826	65.514%		
3	16:17:33	0.382	0.379	0.851	0.775	0.821	67.078%		
x		0.454	0.451	0.852	0.777	0.821	66.817%		
σ		0.075	0.071	0.005	0.011	0.005	1.195%		
%RSD		16.620	15.650	0.621	1.367	0.592	1.788		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:42	43.911%	0.016	22.140	24.160	0.000	26990.000	7849.000	8206.000
2	16:21:02	44.825%	-0.000	22.890	21.970	0.000	25030.000	7673.000	7600.000
3	16:21:21	42.858%	-0.016	23.090	23.310	0.000	25500.000	7609.000	7929.000
x		43.865%	-0.000	22.710	23.150	0.000	25840.000	7710.000	7912.000
σ		0.985%	0.016	0.502	1.105	0.000	1019.000	124.100	303.800
%RSD		2.245	5825.000	2.209	4.772	0.000	3.942	1.609	3.840
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:42	171.500	2107.000	0.000	4773.000	37370.000	40160.000	38.446%	3.562
2	16:21:02	160.700	1846.000	0.000	4805.000	38190.000	39430.000	36.103%	4.074
3	16:21:21	171.200	1996.000	0.000	4798.000	38180.000	39380.000	35.706%	3.555
x		167.800	1983.000	0.000	4792.000	37920.000	39660.000	36.752%	3.730
σ		6.167	130.900	0.000	16.880	469.300	436.000	1.481%	0.298
%RSD		3.675	6.600	0.000	0.352	1.238	1.099	4.028	7.979
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:42	1.057	1.062	68.220	359.400	396.100	0.460	0.785	3.888
2	16:21:02	1.498	1.037	70.830	392.600	413.500	0.457	1.014	3.778
3	16:21:21	1.551	1.042	69.400	373.800	414.200	0.486	1.018	4.074
x		1.369	1.047	69.480	375.300	407.900	0.468	0.939	3.913
σ		0.271	0.013	1.306	16.640	10.280	0.016	0.133	0.150
%RSD		19.820	1.226	1.880	4.433	2.519	3.425	14.160	3.825
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:42	3.639	20.560	21.550	0.691	-0.264	0.473	0.000	116.700
2	16:21:02	3.639	21.460	22.380	0.060	-0.341	0.284	0.000	118.800
3	16:21:21	3.482	21.750	21.920	0.257	-0.150	0.299	0.000	118.700
x		3.587	21.260	21.950	0.336	-0.252	0.352	0.000	118.100
σ		0.091	0.620	0.413	0.323	0.096	0.105	0.000	1.150
%RSD		2.525	2.916	1.882	96.180	38.040	29.790	0.000	0.974
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:42	51.794%	11.440	11.460	50.994%	-0.001	-0.008	-0.019	-0.008
2	16:21:02	51.003%	11.480	11.560	49.883%	-0.001	-0.003	-0.067	-0.019
3	16:21:21	50.072%	11.320	11.610	48.947%	-0.002	-0.011	-0.046	0.016
x		50.956%	11.410	11.540	49.941%	-0.001	-0.008	-0.044	-0.004
σ		0.862%	0.085	0.078	1.025%	0.000	0.004	0.024	0.018
%RSD		1.691	0.742	0.679	2.052	36.900	55.990	54.240	470.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:42	56.728%	0.641	-0.111	-0.116	38.780	38.870	69.350%	70.266%
2	16:21:02	55.770%	0.641	-0.130	-0.139	39.590	39.370	69.716%	71.310%
3	16:21:21	55.612%	0.541	-0.166	-0.176	38.970	39.340	69.817%	71.159%
x		56.037%	0.608	-0.136	-0.144	39.110	39.200	69.628%	70.912%
σ		0.604%	0.058	0.028	0.031	0.425	0.284	0.246%	0.565%
%RSD		1.077	9.534	20.770	21.360	1.086	0.724	0.353	0.796
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:20:42	0.109	0.131	1.954	1.849	1.876	73.334%		
2	16:21:02	0.118	0.124	2.036	1.828	1.950	72.537%		
3	16:21:21	0.128	0.120	2.107	1.936	1.998	71.491%		
x		0.118	0.125	2.032	1.871	1.941	72.454%		
σ		0.009	0.006	0.077	0.057	0.062	0.924%		
%RSD		7.884	4.562	3.789	3.042	3.175	1.276		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	45.005%	0.015	103.400	97.580	0.000	35040.000	9431.000	9486.000
2	16:24:51	40.530%	0.053	102.900	106.100	0.000	37400.000	10030.000	9891.000
3	16:25:10	39.006%	0.002	101.600	98.250	0.000	34320.000	9148.000	9483.000
x		41.514%	0.023	102.700	100.700	0.000	35590.000	9536.000	9620.000
σ		3.118%	0.026	0.930	4.753	0.000	1614.000	449.100	234.900
%RSD		7.511	114.200	0.906	4.722	0.000	4.536	4.710	2.441

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	53.870	2395.000	0.000	9713.000	50200.000	52810.000	36.949%	2.203
2	16:24:51	54.970	2550.000	0.000	10040.000	50970.000	53620.000	36.078%	2.186
3	16:25:10	53.580	2436.000	0.000	9347.000	49190.000	52000.000	36.745%	2.060
x		54.140	2460.000	0.000	9699.000	50120.000	52810.000	36.591%	2.150
σ		0.735	80.220	0.000	345.900	896.600	808.800	0.456%	0.078
%RSD		1.358	3.261	0.000	3.567	1.789	1.532	1.245	3.624

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	-0.225	0.986	32.900	142.800	177.300	0.379	0.891	2.651
2	16:24:51	1.810	0.902	32.000	132.700	173.400	0.359	0.820	2.618
3	16:25:10	3.141	0.883	31.510	124.300	162.600	0.311	0.847	2.569
x		1.575	0.924	32.140	133.200	171.100	0.350	0.853	2.613
σ		1.695	0.055	0.703	9.278	7.587	0.035	0.036	0.041
%RSD		107.600	5.930	2.189	6.964	4.435	10.080	4.182	1.579

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	2.403	18.730	18.170	0.630	-0.129	0.479	0.000	128.800
2	16:24:51	2.363	18.460	18.130	0.495	-0.186	0.238	0.000	127.500
3	16:25:10	2.237	17.450	17.770	0.429	-0.293	0.406	0.000	123.000
x		2.334	18.210	18.020	0.518	-0.203	0.374	0.000	126.500
σ		0.087	0.674	0.221	0.102	0.083	0.124	0.000	3.033
%RSD		3.722	3.704	1.227	19.750	41.030	33.080	0.000	2.399

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	49.869%	8.149	8.444	49.431%	-0.000	-0.012	-0.031	-0.027
2	16:24:51	50.412%	8.234	8.325	49.122%	-0.012	-0.007	-0.111	-0.054
3	16:25:10	49.920%	7.983	8.291	48.600%	-0.009	-0.002	-0.056	-0.032
x		50.067%	8.122	8.353	49.051%	-0.007	-0.007	-0.066	-0.038
σ		0.300%	0.128	0.080	0.420%	0.006	0.005	0.041	0.015
%RSD		0.599	1.575	0.959	0.856	86.860	73.760	61.650	38.850

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	55.355%	0.403	-0.169	-0.195	26.600	25.970	69.156%	69.801%
2	16:24:51	55.682%	0.433	-0.205	-0.163	26.070	25.940	69.175%	70.444%
3	16:25:10	55.514%	0.366	-0.240	-0.224	24.820	25.740	70.142%	71.964%
x		55.517%	0.401	-0.205	-0.194	25.830	25.880	69.491%	70.736%
σ		0.164%	0.033	0.036	0.030	0.914	0.126	0.564%	1.111%
%RSD		0.295	8.337	17.360	15.710	3.540	0.488	0.811	1.570

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	0.060	0.054	1.201	1.045	1.143	69.783%
2	16:24:51	0.067	0.061	1.155	1.093	1.137	69.492%
3	16:25:10	0.054	0.048	1.134	1.083	1.099	72.289%
x		0.060	0.054	1.163	1.073	1.127	70.521%
σ		0.006	0.007	0.034	0.025	0.024	1.538%
%RSD		10.440	12.060	2.923	2.361	2.125	2.181

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	46.780%	-0.016	47.160	47.600	0.000	52330.000	15620.000	15890.000
2	16:28:40	39.827%	0.001	50.920	50.900	0.000	57140.000	16290.000	16310.000
3	16:28:59	41.171%	0.001	50.810	50.960	0.000	56520.000	16350.000	16990.000
x		42.593%	-0.005	49.630	49.820	0.000	55330.000	16090.000	16390.000
σ		3.688%	0.010	2.140	1.924	0.000	2616.000	404.100	553.800
%RSD		8.659	212.100	4.313	3.862	0.000	4.727	2.512	3.378

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	7.000	3647.000	0.000	5218.000	85470.000	88760.000	39.659%	0.227
2	16:28:40	7.130	3793.000	0.000	5365.000	86980.000	92330.000	38.594%	0.581
3	16:28:59	7.206	3528.000	0.000	5149.000	86620.000	91190.000	37.003%	0.575
x		7.112	3656.000	0.000	5244.000	86360.000	90760.000	38.419%	0.461
σ		0.104	132.500	0.000	110.500	789.100	1822.000	1.337%	0.203
%RSD		1.468	3.623	0.000	2.108	0.914	2.007	3.480	43.990

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	-0.592	5.617	8.682	3.279	76.830	0.112	0.254	0.828
2	16:28:40	1.246	5.767	8.962	2.234	69.290	0.107	0.326	0.764
3	16:28:59	0.206	5.727	9.212	3.691	78.520	0.108	0.195	0.811
x		0.287	5.703	8.952	3.068	74.880	0.109	0.258	0.801
σ		0.922	0.078	0.265	0.751	4.913	0.002	0.066	0.033
%RSD		321.400	1.364	2.960	24.470	6.562	2.223	25.450	4.170

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	0.501	10.240	9.431	0.350	0.155	0.806	0.000	205.300
2	16:28:40	0.429	9.696	10.020	-0.157	0.199	0.583	0.000	207.300
3	16:28:59	0.399	9.994	9.989	-0.670	0.054	0.961	0.000	204.400
x		0.443	9.978	9.815	-0.159	0.136	0.783	0.000	205.700
σ		0.052	0.275	0.333	0.510	0.074	0.190	0.000	1.469
%RSD		11.810	2.755	3.394	320.700	54.480	24.280	0.000	0.714

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	51.488%	9.909	10.200	49.474%	-0.009	-0.006	-0.032	-0.006
2	16:28:40	50.135%	10.070	10.590	47.874%	-0.008	-0.006	-0.080	-0.019
3	16:28:59	50.738%	10.560	10.170	48.450%	-0.001	-0.012	-0.017	0.020
x		50.787%	10.180	10.320	48.599%	-0.006	-0.008	-0.043	-0.002
σ		0.678%	0.341	0.237	0.811%	0.004	0.003	0.033	0.019
%RSD		1.335	3.350	2.297	1.668	67.670	40.230	76.790	1089.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	55.600%	0.211	-0.417	-0.404	42.930	42.590	68.437%	69.376%
2	16:28:40	54.342%	0.213	-0.397	-0.389	42.940	42.620	67.935%	69.153%
3	16:28:59	54.585%	0.170	-0.403	-0.419	42.310	43.090	68.685%	69.797%
x		54.842%	0.198	-0.406	-0.404	42.730	42.770	68.353%	69.442%
σ		0.667%	0.025	0.011	0.015	0.360	0.282	0.382%	0.327%
%RSD		1.217	12.400	2.633	3.771	0.842	0.660	0.559	0.471

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:20	0.048	0.047	0.234	0.234	0.239	67.281%
2	16:28:40	0.045	0.059	0.260	0.243	0.249	65.590%
3	16:28:59	0.050	0.053	0.268	0.248	0.252	66.039%
x		0.047	0.053	0.254	0.242	0.247	66.304%
σ		0.003	0.006	0.018	0.007	0.007	0.876%
%RSD		5.485	11.310	6.959	2.985	2.682	1.321

180-45088-B-14-A 6/25/2015 4:31:49 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	16:32:08	44.549%	-0.000	24.540	23.330	0.000	27680.000	9094.000	9297.000
2	16:32:28	39.656%	0.001	22.810	23.220	0.000	26790.000	8955.000	9209.000
3	16:32:47	37.928%	0.039	26.570	25.640	0.000	28510.000	9444.000	9295.000
x		40.711%	0.013	24.640	24.060	0.000	27660.000	9165.000	9267.000
σ		3.434%	0.022	1.880	1.364	0.000	860.600	251.700	50.160
%RSD		8.436	166.500	7.629	5.668	0.000	3.112	2.746	0.541

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:08	104.200	2267.000	0.000	4937.000	43750.000	45080.000	36.853%	1.849
2	16:32:28	106.700	2175.000	0.000	4889.000	43190.000	45010.000	37.031%	1.927
3	16:32:47	102.800	2117.000	0.000	4835.000	43270.000	45030.000	32.900%	2.097
x		104.600	2187.000	0.000	4887.000	43410.000	45040.000	35.595%	1.958
σ		1.971	75.780	0.000	50.890	305.800	35.880	2.335%	0.127
%RSD		1.884	3.466	0.000	1.041	0.705	0.080	6.561	6.478

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:08	1.240	1.253	74.370	249.500	294.400	0.357	0.735	3.133
2	16:32:28	1.158	1.176	70.120	240.000	273.400	0.372	0.652	2.883
3	16:32:47	-0.576	1.249	76.920	266.600	310.200	0.384	0.786	3.130
x		0.607	1.226	73.800	252.000	292.700	0.371	0.724	3.049
σ		1.025	0.043	3.434	13.500	18.450	0.013	0.068	0.143
%RSD		168.800	3.515	4.652	5.357	6.303	3.605	9.363	4.705

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:08	2.756	109.400	108.400	0.897	0.026	0.428	0.000	115.700
2	16:32:28	2.751	104.200	105.800	0.427	-0.243	0.471	0.000	116.200
3	16:32:47	2.837	109.700	110.800	0.439	-0.112	0.628	0.000	116.100
x		2.781	107.800	108.300	0.587	-0.110	0.509	0.000	116.000
σ		0.048	3.085	2.510	0.268	0.134	0.106	0.000	0.287
%RSD		1.742	2.862	2.317	45.620	122.500	20.770	0.000	0.248

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:08	49.165%	1.074	1.162	48.179%	0.008	0.023	-0.023	-0.012
2	16:32:28	48.251%	1.202	1.106	47.614%	0.008	0.008	-0.045	-0.008
3	16:32:47	48.009%	1.216	0.997	46.796%	0.003	0.009	-0.082	-0.039
x		48.475%	1.164	1.088	47.530%	0.006	0.013	-0.050	-0.020
σ		0.609%	0.078	0.084	0.695%	0.003	0.008	0.030	0.017
%RSD		1.257	6.724	7.746	1.463	44.540	62.700	59.420	85.150

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:08	53.861%	0.258	-0.274	-0.255	33.550	33.860	67.091%	67.669%
2	16:32:28	53.630%	0.269	-0.287	-0.242	34.380	34.460	67.109%	67.961%
3	16:32:47	52.928%	0.264	-0.267	-0.276	34.170	34.280	67.406%	67.862%
x		53.473%	0.264	-0.276	-0.258	34.030	34.200	67.202%	67.831%
σ		0.486%	0.006	0.010	0.017	0.432	0.305	0.177%	0.148%
%RSD		0.909	2.191	3.673	6.738	1.270	0.893	0.263	0.219

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:08	0.039	0.040	0.905	0.819	0.854	67.485%
2	16:32:28	0.044	0.045	0.902	0.825	0.858	70.016%
3	16:32:47	0.030	0.036	0.898	0.850	0.869	68.743%
x		0.038	0.040	0.901	0.831	0.860	68.748%
σ		0.007	0.004	0.004	0.016	0.008	1.265%
%RSD		18.530	11.110	0.395	1.968	0.908	1.841

CCV 1594026 6/25/2015 4:35:44 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	16:35:44	78.344%	109.400	104.000	106.900	0.000	49320.000	48140.000	48470.000
2	16:36:04	77.943%	106.100	101.800	96.470	0.000	47120.000	47420.000	46620.000
3	16:36:23	79.227%	102.600	96.550	94.890	0.000	44390.000	43980.000	45330.000
x		78.505%	106.039%	100.782%	99.428%	0.000	93.882%	93.030%	93.608%
σ		0.657%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.837	3.214	3.790	6.575	0.000	5.266	4.777	3.370

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:44	484.500	5439.000	0.000	48620.000	48720.000	49690.000	71.063%	103.900
2	16:36:04	437.900	5094.000	0.000	47240.000	46110.000	48300.000	75.235%	100.500
3	16:36:23	442.000	4886.000	0.000	46140.000	46160.000	48530.000	72.276%	99.600
x		90.960%	102.795%	0.000	94.663%	93.990%	97.680%	72.858%	101.354%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.146%	n/a
%RSD		5.668	5.434	0.000	2.620	3.179	1.522	2.946	2.244

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:44	97.290	100.300	493.100	25240.000	25250.000	102.900	104.000	105.700
2	16:36:04	96.450	97.430	460.400	24030.000	23840.000	93.530	98.070	100.500
3	16:36:23	96.160	97.860	471.300	24040.000	23970.000	98.230	98.080	98.890
x		96.633%	98.512%	94.989%	97.745%	97.402%	98.225%	100.039%	101.697%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.610	1.547	3.505	2.856	3.197	4.781	3.394	3.499

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:44	103.700	107.400	105.600	104.500	108.400	109.100	0.000	92.150
2	16:36:04	98.840	102.400	101.100	101.000	105.300	105.600	0.000	92.440
3	16:36:23	98.370	103.500	103.500	103.400	109.800	108.900	0.000	91.460
x		100.315%	104.432%	103.400%	102.965%	107.862%	107.888%	0.000	92.016%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.960	2.509	2.146	1.755	2.124	1.816	0.000	0.547

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:44	76.792%	88.410	90.370	70.562%	99.280	100.600	102.000	101.700
2	16:36:04	76.736%	90.760	92.450	70.467%	99.810	100.200	102.100	101.600
3	16:36:23	78.065%	91.850	94.340	70.462%	98.430	99.750	101.200	100.600
x		77.198%	90.340%	92.388%	70.497%	99.175%	100.203%	101.758%	101.278%
σ		0.752%	n/a	n/a	0.056%	n/a	n/a	n/a	n/a
%RSD		0.974	1.943	2.144	0.080	0.700	0.439	0.513	0.618

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:44	72.239%	97.040	93.210	91.920	95.720	96.040	77.018%	76.744%
2	16:36:04	72.729%	97.480	94.940	93.900	95.330	95.870	78.019%	77.457%
3	16:36:23	73.538%	96.420	93.720	92.590	95.060	94.610	79.654%	78.872%
x		72.835%	96.982%	93.957%	92.806%	95.370%	95.508%	78.231%	77.691%
σ		0.656%	n/a	n/a	n/a	n/a	n/a	1.331%	1.083%
%RSD		0.901	0.551	0.948	1.088	0.350	0.817	1.701	1.394

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:44	101.800	102.800	102.500	103.600	103.600	70.453%
2	16:36:04	102.500	103.100	103.100	103.400	103.200	71.509%
3	16:36:23	102.400	102.800	102.700	103.300	103.000	72.310%
x		102.211%	102.895%	102.769%	103.438%	103.262%	71.424%
σ		n/a	n/a	n/a	n/a	n/a	0.931%
%RSD		0.372	0.150	0.294	0.121	0.283	1.304

CCB3 6/25/2015 4:42:12 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:32	111.319%	0.003	-0.092	-0.019	0.000	-3.141	1.216	0.993
2	16:42:51	103.998%	0.011	-0.076	-0.138	0.000	-2.977	1.171	1.059
3	16:43:10	100.836%	-0.002	-0.021	-0.070	0.000	-2.870	0.984	1.120
x		105.385%	0.004	-0.063	-0.076	0.000	-2.996	1.123	1.057
σ		5.377%	0.007	0.037	0.060	0.000	0.136	0.123	0.063
%RSD		5.102	176.200	59.380	78.710	0.000	4.542	10.980	5.991
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:32	0.924	2.621	0.000	-1.691	1.592	4.099	94.096%	-0.034
2	16:42:51	1.035	2.624	0.000	-0.637	5.054	4.252	88.380%	-0.022
3	16:43:10	0.978	2.233	0.000	-1.833	0.534	3.942	92.861%	0.016
x		0.979	2.493	0.000	-1.387	2.393	4.098	91.779%	-0.013
σ		0.055	0.225	0.000	0.653	2.364	0.155	3.008%	0.026
%RSD		5.663	9.018	0.000	47.110	98.790	3.776	3.277	193.300
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:32	0.011	-0.008	0.008	1.027	2.798	0.001	-0.001	0.023
2	16:42:51	0.017	-0.010	0.018	2.280	2.951	0.001	-0.018	0.017
3	16:43:10	0.018	-0.003	0.014	1.042	2.045	0.003	-0.012	0.016
x		0.015	-0.007	0.014	1.450	2.598	0.002	-0.010	0.019
σ		0.004	0.004	0.005	0.719	0.485	0.001	0.009	0.004
%RSD		23.240	52.690	35.270	49.620	18.670	58.130	85.900	20.230
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:32	0.009	0.611	0.628	0.129	0.061	0.287	0.000	0.007
2	16:42:51	0.004	0.656	0.564	0.125	0.189	0.350	0.000	0.006
3	16:43:10	0.024	0.611	0.611	0.096	0.134	0.268	0.000	0.008
x		0.012	0.626	0.601	0.117	0.128	0.302	0.000	0.007
σ		0.011	0.026	0.033	0.018	0.064	0.043	0.000	0.001
%RSD		87.860	4.210	5.545	15.270	50.300	14.330	0.000	15.560
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:32	89.458%	-0.489	-0.546	90.913%	0.003	0.001	0.018	0.009
2	16:42:51	89.919%	-0.528	-0.552	89.348%	-0.003	-0.001	-0.017	-0.010
3	16:43:10	89.181%	-0.593	-0.661	90.706%	-0.000	0.001	0.015	0.010
x		89.520%	-0.537	-0.586	90.322%	-0.000	0.000	0.005	0.003
σ		0.373%	0.053	0.065	0.850%	0.003	0.001	0.020	0.011
%RSD		0.417	9.849	11.030	0.941	1078.000	310.400	369.600	334.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:32	88.983%	0.288	0.608	0.608	0.014	0.012	88.139%	86.522%
2	16:42:51	88.439%	0.232	0.587	0.581	0.025	0.008	89.235%	89.465%
3	16:43:10	88.291%	0.134	0.559	0.561	0.009	0.008	90.148%	89.513%
x		88.571%	0.218	0.585	0.583	0.016	0.009	89.174%	88.500%
σ		0.364%	0.078	0.024	0.024	0.009	0.003	1.006%	1.713%
%RSD		0.412	35.770	4.151	4.107	54.220	26.910	1.128	1.936
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:42:32	0.018	0.022	0.009	0.011	0.011	90.632%		
2	16:42:51	0.017	0.020	0.011	0.007	0.010	92.258%		
3	16:43:10	0.018	0.014	0.010	0.006	0.008	92.313%		
x		0.018	0.019	0.010	0.008	0.009	91.734%		
σ		0.001	0.004	0.001	0.003	0.001	0.955%		
%RSD		2.911	21.840	6.683	38.020	12.630	1.041		

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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	16:46:21	41.826%	0.250	270.600	259.900	0.000	83240.000	13750.000	14360.000
2	16:46:41	36.976%	0.115	260.800	266.700	0.000	78900.000	12870.000	13110.000
3	16:47:00	35.821%	0.081	268.000	262.400	0.000	80950.000	12770.000	13190.000
x		38.208%	0.149	266.500	263.000	0.000	81030.000	13130.000	13560.000
σ		3.187%	0.090	5.045	3.430	0.000	2170.000	538.700	701.800
%RSD		8.340	60.380	1.893	1.304	0.000	2.678	4.103	5.178

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:21	969.500	7205.000	0.000	6687.000	206000.000	209700.000	36.671%	12.740
2	16:46:41	891.700	7078.000	0.000	6181.000	192100.000	210600.000	34.709%	11.850
3	16:47:00	920.900	7364.000	0.000	6394.000	205400.000	217200.000	33.734%	13.230
x		927.400	7216.000	0.000	6420.000	201200.000	212500.000	35.038%	12.610
σ		39.320	143.700	0.000	253.900	7848.000	4087.000	1.496%	0.703
%RSD		4.240	1.991	0.000	3.954	3.901	1.923	4.270	5.573

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:21	-0.076	1.473	5836.000	2483.000	2655.000	5.161	4.581	3.288
2	16:46:41	1.694	1.420	5785.000	2487.000	2633.000	5.152	4.380	3.370
3	16:47:00	2.012	1.435	5952.000	2543.000	2602.000	5.070	3.940	3.298
x		1.210	1.443	5857.000	2504.000	2630.000	5.128	4.300	3.319
σ		1.125	0.027	85.640	33.930	26.690	0.050	0.328	0.045
%RSD		92.970	1.881	1.462	1.355	1.015	0.984	7.622	1.358

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:21	2.965	18.460	18.920	1.359	-0.031	1.115	0.000	977.300
2	16:46:41	3.049	18.510	18.510	1.269	-0.118	0.913	0.000	991.300
3	16:47:00	2.685	18.460	18.200	1.503	0.055	1.175	0.000	988.800
x		2.900	18.480	18.550	1.377	-0.031	1.068	0.000	985.800
σ		0.191	0.027	0.361	0.118	0.087	0.138	0.000	7.485
%RSD		6.573	0.148	1.944	8.548	279.100	12.890	0.000	0.759

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:21	48.534%	-0.340	-0.293	45.013%	0.009	0.001	0.063	0.046
2	16:46:41	47.191%	-0.345	-0.462	43.914%	0.005	0.017	0.008	0.028
3	16:47:00	46.875%	-0.535	-0.450	43.162%	0.002	0.012	-0.037	-0.022
x		47.533%	-0.407	-0.402	44.030%	0.006	0.010	0.011	0.017
σ		0.881%	0.112	0.094	0.931%	0.003	0.008	0.050	0.035
%RSD		1.854	27.410	23.450	2.114	61.780	80.390	448.800	201.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:21	51.449%	0.502	1.408	1.432	175.300	175.700	64.438%	65.287%
2	16:46:41	50.797%	0.507	1.046	1.014	175.100	177.700	65.234%	66.361%
3	16:47:00	49.892%	0.423	0.788	0.789	176.800	178.600	65.268%	66.356%
x		50.713%	0.477	1.080	1.078	175.700	177.300	64.980%	66.002%
σ		0.782%	0.047	0.311	0.327	0.881	1.473	0.470%	0.618%
%RSD		1.542	9.880	28.820	30.280	0.501	0.831	0.723	0.937

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:21	0.029	0.033	2.743	2.462	2.597	62.836%
2	16:46:41	0.024	0.029	2.749	2.639	2.667	62.515%
3	16:47:00	0.029	0.034	2.765	2.598	2.688	62.671%
x		0.027	0.032	2.752	2.566	2.651	62.674%
σ		0.003	0.003	0.011	0.092	0.047	0.161%
%RSD		9.756	8.265	0.407	3.601	1.787	0.256

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:08	33.710%	0.413	354.700	347.900	0.000	157800.000	23320.000	23210.000
2	16:50:28	33.012%	0.404	340.500	349.800	0.000	159100.000	22470.000	23040.000
3	16:50:47	32.371%	0.391	345.100	338.400	0.000	156600.000	22580.000	23580.000
x		33.031%	0.403	346.800	345.300	0.000	157800.000	22790.000	23270.000
σ		0.670%	0.011	7.218	6.081	0.000	1240.000	459.300	274.200
%RSD		2.029	2.827	2.082	1.761	0.000	0.785	2.015	1.178
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:08	4756.000	11860.000	0.000	7555.000	173900.000	182300.000	33.466%	53.410
2	16:50:28	4883.000	11830.000	0.000	7574.000	181600.000	191900.000	30.864%	50.940
3	16:50:47	4977.000	11690.000	0.000	7914.000	182600.000	186800.000	30.090%	54.860
x		4872.000	11790.000	0.000	7681.000	179400.000	187000.000	31.474%	53.070
σ		110.800	94.170	0.000	202.100	4760.000	4803.000	1.769%	1.981
%RSD		2.275	0.798	0.000	2.632	2.654	2.568	5.620	3.733
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:08	9.104	7.314	6859.000	9710.000	9766.000	17.330	17.750	13.560
2	16:50:28	7.610	7.585	7252.000	10300.000	10410.000	18.220	18.060	14.200
3	16:50:47	9.179	7.599	7200.000	10220.000	10350.000	17.370	17.310	13.810
x		8.631	7.499	7104.000	10080.000	10180.000	17.640	17.710	13.860
σ		0.885	0.160	213.500	321.900	355.800	0.503	0.378	0.320
%RSD		10.260	2.139	3.005	3.194	3.497	2.849	2.135	2.309
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:08	12.890	70.690	71.820	3.986	-0.555	0.956	0.000	859.400
2	16:50:28	13.620	75.010	75.260	3.951	-0.500	0.703	0.000	868.700
3	16:50:47	12.110	73.820	73.050	3.434	-0.315	0.688	0.000	866.100
x		12.870	73.170	73.380	3.791	-0.456	0.782	0.000	864.800
σ		0.753	2.228	1.748	0.309	0.126	0.150	0.000	4.768
%RSD		5.850	3.045	2.382	8.152	27.560	19.240	0.000	0.551
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:08	51.998%	-0.927	-0.918	42.245%	0.024	0.010	0.899	0.850
2	16:50:28	51.374%	-0.934	-0.831	42.265%	0.036	0.019	0.858	0.821
3	16:50:47	51.113%	-0.949	-0.902	41.382%	0.016	0.019	0.917	0.910
x		51.495%	-0.937	-0.884	41.964%	0.025	0.016	0.891	0.860
σ		0.455%	0.011	0.046	0.504%	0.010	0.005	0.030	0.045
%RSD		0.884	1.203	5.240	1.201	39.790	31.580	3.374	5.270
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:08	49.305%	0.474	0.135	0.088	310.600	313.600	64.435%	65.579%
2	16:50:28	49.124%	0.472	0.040	0.120	313.400	315.100	65.251%	66.014%
3	16:50:47	48.599%	0.405	0.055	0.061	316.300	316.600	64.984%	66.042%
x		49.009%	0.451	0.077	0.090	313.500	315.100	64.890%	65.878%
σ		0.367%	0.039	0.051	0.029	2.834	1.538	0.416%	0.259%
%RSD		0.748	8.694	66.720	32.830	0.904	0.488	0.641	0.394
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:50:08	0.085	0.086	12.850	11.940	12.520	59.929%		
2	16:50:28	0.085	0.084	13.050	12.010	12.650	60.153%		
3	16:50:47	0.079	0.096	12.930	12.020	12.520	61.020%		
x		0.083	0.088	12.940	11.990	12.560	60.367%		
σ		0.004	0.006	0.102	0.047	0.073	0.576%		
%RSD		4.710	7.274	0.784	0.392	0.581	0.955		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	37.076%	0.937	916.100	930.700	0.000	155200.000	18500.000	18690.000
2	16:54:15	30.631%	1.128	922.100	932.300	0.000	150500.000	19080.000	19240.000
3	16:54:34	28.781%	1.245	1012.000	942.600	0.000	154700.000	18500.000	18390.000
x		32.163%	1.103	949.900	935.200	0.000	153500.000	18700.000	18770.000
σ		4.355%	0.155	53.500	6.463	0.000	2594.000	334.900	430.100
%RSD		13.539	14.060	5.632	0.691	0.000	1.690	1.791	2.291

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	8367.000	15210.000	0.000	34950.000	161100.000	169500.000	34.298%	90.600
2	16:54:15	8363.000	16570.000	0.000	37850.000	164100.000	171400.000	31.775%	86.030
3	16:54:34	8066.000	15430.000	0.000	35310.000	160700.000	172200.000	31.220%	86.800
x		8266.000	15730.000	0.000	36030.000	162000.000	171000.000	32.431%	87.810
σ		172.600	731.400	0.000	1579.000	1862.000	1388.000	1.640%	2.448
%RSD		2.088	4.648	0.000	4.383	1.150	0.812	5.057	2.787

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	14.480	14.240	6061.000	16230.000	16440.000	39.270	1604.000	12.840
2	16:54:15	12.610	14.300	6116.000	16830.000	16860.000	40.140	1678.000	13.780
3	16:54:34	14.080	14.250	6085.000	16180.000	15970.000	37.590	1568.000	12.630
x		13.720	14.260	6087.000	16410.000	16420.000	39.000	1617.000	13.080
σ		0.982	0.030	27.610	359.400	444.600	1.296	55.840	0.613
%RSD		7.157	0.208	0.454	2.190	2.707	3.323	3.454	4.686

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	12.020	5067.000	5033.000	7.069	-0.199	1.186	0.000	604.400
2	16:54:15	12.660	5328.000	5180.000	7.259	-0.195	1.104	0.000	616.300
3	16:54:34	12.360	5207.000	5141.000	7.263	-0.214	1.062	0.000	618.200
x		12.350	5201.000	5118.000	7.197	-0.203	1.117	0.000	612.900
σ		0.320	131.000	76.170	0.111	0.010	0.063	0.000	7.456
%RSD		2.594	2.519	1.488	1.536	4.861	5.674	0.000	1.216

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	62.570%	-0.885	-0.790	42.223%	0.376	0.387	1102.000	1067.000
2	16:54:15	60.987%	-0.904	-0.726	41.525%	0.362	0.396	1102.000	1069.000
3	16:54:34	60.237%	-0.911	-0.814	40.711%	0.373	0.390	1104.000	1070.000
x		61.265%	-0.900	-0.777	41.486%	0.370	0.391	1103.000	1069.000
σ		1.191%	0.013	0.045	0.757%	0.008	0.004	1.305	1.692
%RSD		1.944	1.468	5.836	1.824	2.050	1.096	0.118	0.158

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	49.010%	0.671	0.123	0.135	210.500	210.900	64.556%	65.368%
2	16:54:15	48.165%	0.683	0.136	0.134	211.900	212.300	65.151%	65.823%
3	16:54:34	47.941%	0.608	0.048	0.072	211.400	211.500	64.708%	65.997%
x		48.372%	0.654	0.102	0.114	211.300	211.500	64.805%	65.729%
σ		0.564%	0.040	0.048	0.036	0.707	0.710	0.310%	0.324%
%RSD		1.165	6.127	46.760	31.700	0.335	0.336	0.478	0.494

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:56	0.174	0.188	13.010	12.080	12.620	61.011%
2	16:54:15	0.179	0.198	13.570	12.020	12.820	61.404%
3	16:54:34	0.179	0.196	13.420	12.500	12.990	61.278%
x		0.177	0.194	13.340	12.200	12.810	61.231%
σ		0.003	0.005	0.288	0.267	0.186	0.200%
%RSD		1.600	2.838	2.157	2.187	1.449	0.327

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	39.251%	0.337	8113.000	8219.000	0.000	178500.000	11630.000	11830.000
2	16:58:02	36.717%	0.397	8711.000	8201.000	0.000	185500.000	11660.000	11820.000
3	16:58:21	34.731%	0.579	7936.000	8049.000	0.000	167900.000	11420.000	11650.000
x		36.900%	0.438	8253.000	8156.000	0.000	177300.000	11570.000	11770.000
σ		2.266%	0.126	406.400	93.100	0.000	8856.000	132.000	99.250
%RSD		6.140	28.780	4.924	1.141	0.000	4.995	1.142	0.843

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	1220.000	9331.000	0.000	40270.000	94870.000	96980.000	36.334%	11.010
2	16:58:02	1176.000	8853.000	0.000	38350.000	91730.000	95660.000	35.873%	11.570
3	16:58:21	1134.000	8644.000	0.000	39220.000	94270.000	98530.000	34.502%	11.370
x		1177.000	8943.000	0.000	39280.000	93630.000	97060.000	35.570%	11.310
σ		43.190	352.200	0.000	961.300	1668.000	1435.000	0.953%	0.284
%RSD		3.670	3.939	0.000	2.447	1.781	1.479	2.678	2.512

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	-23.190	1303.000	10710.000	2076.000	2088.000	82.960	44250.000	83.530
2	16:58:02	-10.270	1334.000	10690.000	2092.000	2063.000	84.590	44990.000	82.810
3	16:58:21	-20.990	1318.000	10670.000	2036.000	2077.000	81.630	42420.000	81.250
x		-18.150	1319.000	10690.000	2068.000	2076.000	83.060	43890.000	82.530
σ		6.916	15.600	20.030	28.440	12.170	1.485	1323.000	1.166
%RSD		38.100	1.183	0.187	1.375	0.586	1.788	3.014	1.413

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	86.180	701.900	709.700	1.613	1.725	2.467	0.000	340.700
2	16:58:02	84.110	699.200	693.900	1.408	1.669	2.570	0.000	340.100
3	16:58:21	80.880	698.800	709.100	1.566	1.542	2.481	0.000	344.300
x		83.730	699.900	704.200	1.529	1.645	2.506	0.000	341.700
σ		2.670	1.689	8.962	0.108	0.094	0.056	0.000	2.256
%RSD		3.189	0.241	1.273	7.031	5.698	2.216	0.000	0.660

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	53.320%	-1.385	-0.805	45.330%	0.127	0.142	198.600	194.700
2	16:58:02	53.190%	-1.425	-0.734	45.267%	0.163	0.133	197.500	195.000
3	16:58:21	52.447%	-1.428	-0.811	44.449%	0.126	0.144	201.200	196.300
x		52.986%	-1.413	-0.783	45.015%	0.139	0.139	199.100	195.300
σ		0.471%	0.024	0.043	0.492%	0.021	0.006	1.909	0.844
%RSD		0.890	1.719	5.467	1.093	15.240	4.226	0.959	0.432

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	51.944%	0.241	-0.024	-0.033	43.640	43.210	65.456%	65.906%
2	16:58:02	52.061%	0.240	0.023	0.020	43.830	43.500	66.011%	66.358%
3	16:58:21	51.594%	0.235	-0.028	-0.005	43.380	43.580	66.124%	66.834%
x		51.866%	0.239	-0.010	-0.006	43.620	43.430	65.864%	66.366%
σ		0.243%	0.003	0.028	0.027	0.229	0.191	0.357%	0.464%
%RSD		0.469	1.343	288.200	459.600	0.525	0.440	0.543	0.699

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:43	0.111	0.111	2.138	1.896	2.007	60.323%
2	16:58:02	0.102	0.103	2.130	1.916	2.006	61.322%
3	16:58:21	0.100	0.120	2.125	1.981	2.009	62.531%
x		0.104	0.111	2.131	1.931	2.007	61.392%
σ		0.006	0.008	0.006	0.045	0.002	1.106%
%RSD		5.697	7.603	0.303	2.324	0.091	1.801

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	56.672%	0.095	1769.000	1698.000	0.000	37730.000	2439.000	2471.000
2	17:01:49	50.854%	0.093	1683.000	1561.000	0.000	36160.000	2277.000	2274.000
3	17:02:08	51.631%	0.105	1490.000	1619.000	0.000	36730.000	2325.000	2342.000
x		53.052%	0.097	1647.000	1626.000	0.000	36870.000	2347.000	2362.000
σ		3.159%	0.006	143.000	68.810	0.000	793.400	83.320	100.100
%RSD		5.954	6.671	8.680	4.232	0.000	2.152	3.550	4.238

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	251.200	2004.000	0.000	8161.000	18490.000	19580.000	49.434%	2.367
2	17:01:49	238.700	1869.000	0.000	8082.000	17940.000	18730.000	48.133%	1.763
3	17:02:08	242.200	1916.000	0.000	8200.000	18710.000	19360.000	47.519%	2.186
x		244.000	1930.000	0.000	8148.000	18380.000	19220.000	48.362%	2.106
σ		6.459	68.610	0.000	59.910	399.900	443.400	0.978%	0.310
%RSD		2.647	3.555	0.000	0.735	2.175	2.307	2.022	14.730

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	-3.131	278.500	2172.000	429.600	438.300	18.280	9965.000	19.580
2	17:01:49	-5.653	265.500	2198.000	425.300	428.800	18.580	10020.000	19.500
3	17:02:08	-6.851	263.100	2141.000	417.400	435.400	18.250	9759.000	19.290
x		-5.212	269.000	2171.000	424.100	434.100	18.370	9913.000	19.460
σ		1.899	8.307	28.480	6.232	4.882	0.186	135.900	0.149
%RSD		36.430	3.088	1.312	1.469	1.125	1.010	1.371	0.768

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	19.690	169.700	170.000	0.262	0.025	0.317	0.000	72.670
2	17:01:49	20.020	171.400	171.900	0.170	0.091	0.495	0.000	74.150
3	17:02:08	20.230	167.400	170.500	0.358	0.041	0.363	0.000	73.110
x		19.980	169.500	170.800	0.263	0.053	0.392	0.000	73.310
σ		0.267	2.003	0.958	0.094	0.034	0.093	0.000	0.758
%RSD		1.338	1.181	0.561	35.680	65.350	23.620	0.000	1.034

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	62.433%	-1.724	-1.562	59.749%	0.022	0.028	40.670	40.570
2	17:01:49	59.996%	-1.709	-1.534	58.297%	0.030	0.034	40.710	40.500
3	17:02:08	60.493%	-1.720	-1.588	58.722%	0.026	0.026	40.280	40.190
x		60.974%	-1.718	-1.562	58.923%	0.026	0.029	40.560	40.420
σ		1.288%	0.008	0.027	0.746%	0.004	0.005	0.237	0.205
%RSD		2.113	0.442	1.739	1.267	14.610	15.480	0.584	0.506

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	64.516%	-0.030	-0.497	-0.476	9.015	8.760	74.920%	75.157%
2	17:01:49	63.377%	-0.036	-0.485	-0.500	9.217	9.031	74.567%	75.049%
3	17:02:08	64.079%	-0.025	-0.499	-0.490	9.075	8.794	75.605%	75.982%
x		63.991%	-0.031	-0.494	-0.489	9.102	8.862	75.031%	75.396%
σ		0.575%	0.006	0.008	0.012	0.104	0.147	0.528%	0.510%
%RSD		0.898	18.500	1.540	2.388	1.139	1.664	0.704	0.677

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:30	0.012	0.010	0.447	0.402	0.432	72.625%
2	17:01:49	0.011	0.013	0.429	0.406	0.420	74.284%
3	17:02:08	0.009	0.011	0.455	0.407	0.424	74.177%
x		0.011	0.012	0.444	0.405	0.425	73.695%
σ		0.002	0.001	0.013	0.003	0.006	0.928%
%RSD		14.560	11.990	3.009	0.624	1.520	1.260

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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	17:05:18	40.067%	47.610	8907.000	8944.000	0.000	221300.000	54940.000	54140.000
2	17:05:37	39.831%	49.140	8846.000	8929.000	0.000	216300.000	51910.000	53490.000
3	17:05:56	38.696%	48.820	9101.000	8843.000	0.000	229900.000	55510.000	55360.000
x		39.532%	48.520	8952.000	8905.000	0.000	222500.000	54120.000	54330.000
σ		0.733%	0.803	133.000	54.470	0.000	6909.000	1937.000	949.600
%RSD		1.854	1.656	1.486	0.612	0.000	3.105	3.579	1.748

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:18	3930.000	19080.000	0.000	84730.000	134000.000	141200.000	40.633%	968.000
2	17:05:37	3961.000	19330.000	0.000	87360.000	141500.000	146500.000	37.943%	1023.000
3	17:05:56	4267.000	19950.000	0.000	85000.000	140800.000	145200.000	37.662%	980.400
x		4053.000	19450.000	0.000	85690.000	138800.000	144300.000	38.746%	990.400
σ		186.500	446.500	0.000	1448.000	4155.000	2796.000	1.640%	28.670
%RSD		4.601	2.295	0.000	1.689	2.994	1.938	4.233	2.894

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:18	452.000	1425.000	10710.000	3283.000	3387.000	538.400	43400.000	299.400
2	17:05:37	472.200	1479.000	11070.000	3407.000	3528.000	541.800	44060.000	313.500
3	17:05:56	458.600	1489.000	10910.000	3468.000	3542.000	551.700	45250.000	310.100
x		460.900	1464.000	10900.000	3386.000	3486.000	544.000	44240.000	307.600
σ		10.290	34.470	179.700	94.330	85.640	6.882	933.800	7.365
%RSD		2.233	2.355	1.649	2.786	2.457	1.265	2.111	2.394

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:18	300.500	1125.000	1128.000	35.430	11.070	11.690	0.000	1229.000
2	17:05:37	310.300	1176.000	1192.000	37.240	11.450	12.020	0.000	1229.000
3	17:05:56	308.400	1169.000	1161.000	36.840	11.190	11.940	0.000	1238.000
x		306.400	1157.000	1160.000	36.500	11.240	11.880	0.000	1232.000
σ		5.171	27.680	31.970	0.951	0.192	0.174	0.000	5.072
%RSD		1.688	2.393	2.756	2.605	1.708	1.460	0.000	0.412

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:18	56.352%	1048.000	1107.000	46.473%	47.990	48.170	246.500	236.500
2	17:05:37	55.260%	1063.000	1118.000	46.074%	47.870	47.800	248.800	238.500
3	17:05:56	54.876%	1060.000	1120.000	46.088%	48.210	48.020	247.900	239.900
x		55.496%	1057.000	1115.000	46.212%	48.020	48.000	247.700	238.300
σ		0.766%	8.339	7.213	0.227%	0.176	0.187	1.171	1.715
%RSD		1.380	0.789	0.647	0.490	0.365	0.389	0.473	0.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:18	52.147%	2018.000	518.900	514.700	2013.000	1965.000	66.152%	66.755%
2	17:05:37	52.186%	2001.000	522.400	510.700	2007.000	1960.000	66.259%	66.481%
3	17:05:56	52.455%	2026.000	524.600	519.600	2032.000	1985.000	65.437%	66.579%
x		52.263%	2015.000	522.000	515.000	2018.000	1970.000	65.950%	66.605%
σ		0.168%	12.630	2.892	4.455	12.970	13.550	0.447%	0.139%
%RSD		0.321	0.627	0.554	0.865	0.643	0.688	0.678	0.209

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:18	48.560	49.610	22.570	22.360	22.560	60.809%
2	17:05:37	49.510	50.910	23.030	22.810	22.980	60.812%
3	17:05:56	50.530	52.000	23.420	23.510	23.630	59.870%
x		49.530	50.840	23.010	22.890	23.050	60.497%
σ		0.988	1.197	0.422	0.579	0.539	0.543%
%RSD		1.994	2.355	1.836	2.530	2.339	0.898

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	46.773%	47.290	8333.000	8773.000	0.000	211200.000	49730.000	51560.000
2	17:09:25	39.779%	51.260	8788.000	8909.000	0.000	219100.000	53770.000	54070.000
3	17:09:44	40.628%	48.640	8926.000	9017.000	0.000	239200.000	58600.000	58650.000
x		42.393%	49.060	8682.000	8900.000	0.000	223200.000	54030.000	54760.000
σ		3.817%	2.015	310.300	122.600	0.000	14450.000	4440.000	3596.000
%RSD		9.003	4.107	3.574	1.378	0.000	6.477	8.218	6.567

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	3270.000	18260.000	0.000	82520.000	136500.000	142800.000	44.200%	997.100
2	17:09:25	3383.000	19000.000	0.000	80620.000	134800.000	142400.000	41.585%	1005.000
3	17:09:44	3583.000	19540.000	0.000	87140.000	141500.000	146900.000	40.781%	1000.000
x		3412.000	18930.000	0.000	83430.000	137600.000	144000.000	42.189%	1001.000
σ		158.700	641.900	0.000	3353.000	3476.000	2498.000	1.788%	4.185
%RSD		4.650	3.390	0.000	4.018	2.526	1.735	4.238	0.418

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	461.900	1441.000	10600.000	2413.000	2502.000	526.300	43060.000	301.800
2	17:09:25	473.800	1476.000	10680.000	2460.000	2543.000	536.900	44410.000	301.600
3	17:09:44	460.000	1490.000	10950.000	2531.000	2639.000	557.000	45520.000	311.900
x		465.200	1469.000	10740.000	2468.000	2561.000	540.100	44330.000	305.100
σ		7.512	24.950	187.300	59.310	70.250	15.570	1233.000	5.870
%RSD		1.615	1.699	1.743	2.403	2.743	2.883	2.781	1.924

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	304.600	1102.000	1097.000	35.340	10.810	11.660	0.000	1217.000
2	17:09:25	306.600	1125.000	1129.000	36.760	10.930	12.590	0.000	1229.000
3	17:09:44	306.800	1142.000	1143.000	37.350	10.680	12.420	0.000	1223.000
x		306.000	1123.000	1123.000	36.480	10.810	12.220	0.000	1223.000
σ		1.205	20.170	23.880	1.033	0.129	0.493	0.000	6.027
%RSD		0.394	1.796	2.127	2.832	1.191	4.034	0.000	0.493

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	57.470%	1069.000	1123.000	47.566%	48.620	48.460	245.600	237.500
2	17:09:25	56.049%	1057.000	1123.000	46.795%	48.320	48.330	247.600	238.000
3	17:09:44	57.011%	1059.000	1120.000	47.238%	48.110	47.770	247.700	238.300
x		56.843%	1062.000	1122.000	47.200%	48.350	48.190	247.000	237.900
σ		0.725%	6.013	2.169	0.387%	0.258	0.371	1.179	0.397
%RSD		1.276	0.566	0.193	0.820	0.534	0.769	0.477	0.167

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	52.708%	2028.000	520.300	515.000	2036.000	1977.000	65.514%	65.540%
2	17:09:25	52.604%	2029.000	519.400	513.700	2015.000	1966.000	65.518%	66.104%
3	17:09:44	53.157%	2015.000	526.600	519.100	2020.000	1958.000	65.702%	66.193%
x		52.823%	2024.000	522.100	515.900	2024.000	1967.000	65.578%	65.946%
σ		0.294%	7.911	3.955	2.790	11.270	9.696	0.107%	0.354%
%RSD		0.556	0.391	0.758	0.541	0.557	0.493	0.163	0.537

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:06	51.330	52.480	23.180	23.380	23.370	56.209%
2	17:09:25	50.250	51.780	22.920	22.780	22.980	58.005%
3	17:09:44	49.980	51.210	22.490	22.450	22.530	59.666%
x		50.520	51.820	22.870	22.870	22.960	57.960%
σ		0.717	0.639	0.349	0.470	0.423	1.729%
%RSD		1.419	1.233	1.527	2.056	1.841	2.983

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:54	45.199%	53.550	8929.000	9079.000	0.000	227900.000	55600.000	56860.000
2	17:13:13	44.693%	51.120	8988.000	8832.000	0.000	224100.000	56000.000	54490.000
3	17:13:32	39.971%	56.340	9297.000	9746.000	0.000	230700.000	57610.000	57450.000
x		43.287%	53.670	9071.000	9219.000	0.000	227600.000	56400.000	56270.000
σ		2.884%	2.611	197.900	472.800	0.000	3321.000	1065.000	1565.000
%RSD		6.662	4.865	2.182	5.129	0.000	1.459	1.889	2.782
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:54	3066.000	18870.000	0.000	86710.000	138500.000	143700.000	43.827%	1059.000
2	17:13:13	2889.000	17340.000	0.000	83100.000	135000.000	142700.000	41.192%	1072.000
3	17:13:32	3089.000	18320.000	0.000	84420.000	137100.000	141800.000	41.147%	1037.000
x		3015.000	18170.000	0.000	84740.000	136800.000	142700.000	42.056%	1056.000
σ		109.200	774.300	0.000	1831.000	1765.000	950.800	1.535%	18.040
%RSD		3.621	4.260	0.000	2.161	1.290	0.666	3.649	1.709
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:54	494.400	1466.000	10680.000	3038.000	3106.000	594.400	43480.000	324.600
2	17:13:13	479.100	1484.000	11030.000	3080.000	3140.000	581.200	43050.000	328.600
3	17:13:32	493.900	1460.000	10720.000	3028.000	3090.000	580.400	42880.000	321.900
x		489.100	1470.000	10810.000	3049.000	3112.000	585.300	43140.000	325.000
σ		8.683	12.720	191.600	27.650	25.630	7.889	309.300	3.382
%RSD		1.775	0.866	1.773	0.907	0.824	1.348	0.717	1.040
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:54	323.100	1118.000	1126.000	40.200	12.220	13.300	0.000	1344.000
2	17:13:13	326.900	1147.000	1141.000	41.280	12.120	12.500	0.000	1344.000
3	17:13:32	318.800	1103.000	1126.000	39.090	11.600	12.750	0.000	1313.000
x		322.900	1122.000	1131.000	40.190	11.980	12.850	0.000	1334.000
σ		4.037	22.210	8.740	1.096	0.328	0.408	0.000	18.260
%RSD		1.250	1.979	0.773	2.727	2.741	3.176	0.000	1.369
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:54	55.429%	1139.000	1193.000	48.941%	44.320	44.500	244.100	236.700
2	17:13:13	55.364%	1123.000	1190.000	48.813%	43.800	44.040	242.200	235.000
3	17:13:32	55.783%	1100.000	1157.000	49.177%	42.740	42.870	236.600	228.800
x		55.525%	1121.000	1180.000	48.977%	43.620	43.800	241.000	233.500
σ		0.226%	19.600	19.690	0.185%	0.804	0.843	3.875	4.177
%RSD		0.406	1.749	1.668	0.377	1.844	1.925	1.608	1.789
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:54	53.878%	2169.000	564.000	556.100	2159.000	2101.000	67.152%	67.616%
2	17:13:13	54.174%	2165.000	568.500	562.400	2158.000	2099.000	67.902%	68.056%
3	17:13:32	55.446%	2091.000	544.300	540.400	2101.000	2024.000	67.940%	69.215%
x		54.499%	2142.000	558.900	552.900	2140.000	2074.000	67.665%	68.296%
σ		0.833%	44.000	12.910	11.310	33.050	43.840	0.444%	0.826%
%RSD		1.529	2.054	2.309	2.046	1.545	2.113	0.656	1.210
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:12:54	54.450	55.900	24.520	24.630	24.800	59.871%		
2	17:13:13	53.940	55.610	24.680	24.500	24.650	61.641%		
3	17:13:32	52.390	53.450	23.420	23.710	23.640	63.805%		
x		53.590	54.990	24.200	24.280	24.360	61.772%		
σ		1.071	1.340	0.687	0.498	0.632	1.970%		
%RSD		1.999	2.437	2.839	2.052	2.594	3.190		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	46.588%	0.597	1032.000	1039.000	0.000	175900.000	18980.000	19670.000
2	17:17:02	42.136%	0.394	968.300	988.200	0.000	166200.000	18450.000	18720.000
3	17:17:21	39.762%	0.522	1047.000	1076.000	0.000	173900.000	19880.000	20440.000
x		42.828%	0.504	1016.000	1034.000	0.000	172000.000	19100.000	19610.000
σ		3.465%	0.103	41.960	44.140	0.000	5120.000	720.300	864.300
%RSD		8.090	20.350	4.130	4.267	0.000	2.977	3.771	4.407

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	4591.000	11490.000	0.000	37920.000	167100.000	173400.000	40.803%	55.860
2	17:17:02	4468.000	11610.000	0.000	38840.000	168800.000	175700.000	40.554%	59.980
3	17:17:21	5019.000	12010.000	0.000	39840.000	172600.000	180500.000	38.738%	55.370
x		4693.000	11700.000	0.000	38870.000	169500.000	176500.000	40.031%	57.070
σ		289.300	272.600	0.000	962.700	2790.000	3594.000	1.127%	2.530
%RSD		6.164	2.330	0.000	2.477	1.646	2.036	2.816	4.433

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	7.189	8.067	6411.000	9028.000	9126.000	39.960	1849.000	7.507
2	17:17:02	9.253	8.262	6364.000	8872.000	8855.000	39.010	1778.000	7.095
3	17:17:21	6.634	8.309	6368.000	9108.000	9154.000	39.060	1803.000	7.166
x		7.692	8.213	6381.000	9003.000	9045.000	39.350	1810.000	7.256
σ		1.380	0.128	26.320	119.700	164.900	0.537	36.090	0.220
%RSD		17.940	1.563	0.412	1.330	1.824	1.364	1.993	3.035

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	6.248	5645.000	5603.000	3.787	0.003	1.199	0.000	719.200
2	17:17:02	6.190	5636.000	5598.000	3.959	-0.034	1.294	0.000	724.100
3	17:17:21	6.569	5680.000	5601.000	3.509	0.253	1.204	0.000	720.800
x		6.336	5654.000	5601.000	3.752	0.074	1.233	0.000	721.300
σ		0.204	23.340	2.492	0.227	0.156	0.054	0.000	2.497
%RSD		3.224	0.413	0.045	6.047	210.100	4.352	0.000	0.346

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	58.115%	4.026	4.293	48.260%	0.151	0.159	1084.000	1062.000
2	17:17:02	57.317%	3.221	3.376	47.421%	0.162	0.183	1102.000	1083.000
3	17:17:21	56.506%	2.609	2.867	47.254%	0.171	0.169	1095.000	1076.000
x		57.313%	3.285	3.512	47.645%	0.161	0.170	1094.000	1073.000
σ		0.804%	0.710	0.723	0.539%	0.010	0.012	8.966	10.480
%RSD		1.404	21.620	20.570	1.132	6.118	7.200	0.820	0.976

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	53.870%	2.045	0.039	0.052	176.500	176.200	66.259%	67.041%
2	17:17:02	52.760%	1.764	0.034	0.032	175.600	177.600	66.615%	67.243%
3	17:17:21	52.890%	1.486	0.010	-0.008	176.500	177.600	66.525%	67.032%
x		53.173%	1.765	0.028	0.025	176.200	177.100	66.466%	67.105%
σ		0.607%	0.280	0.015	0.031	0.492	0.810	0.185%	0.119%
%RSD		1.141	15.830	55.750	122.000	0.279	0.458	0.278	0.178

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:42	0.662	0.674	6.010	5.600	5.832	63.922%
2	17:17:02	0.588	0.636	6.229	5.653	5.930	63.418%
3	17:17:21	0.590	0.572	6.196	5.804	5.984	63.066%
x		0.613	0.628	6.145	5.686	5.915	63.469%
σ		0.043	0.051	0.118	0.106	0.077	0.431%
%RSD		6.942	8.199	1.926	1.861	1.306	0.678

CCV 1594026 6/25/2015 5:20:19 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	86.307%	103.100	115.400	116.000	0.000	46290.000	45490.000	46580.000
2	17:20:38	85.511%	106.100	114.200	120.700	0.000	47550.000	47650.000	48010.000
3	17:20:58	73.933%	110.600	129.500	126.600	0.000	47710.000	47140.000	47490.000
x		81.917%	106.598%	119.682%	121.087%	0.000	94.368%	93.521%	94.721%
σ		6.926%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		8.454	3.515	7.105	4.358	0.000	1.659	2.417	1.532

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	455.800	5179.000	0.000	46880.000	45350.000	48080.000	76.370%	103.600
2	17:20:38	461.800	5108.000	0.000	47280.000	47880.000	48310.000	73.999%	102.000
3	17:20:58	488.000	5439.000	0.000	47580.000	46200.000	47600.000	73.266%	97.070
x		93.709%	104.836%	0.000	94.501%	92.951%	95.994%	74.545%	100.867%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.622%	n/a
%RSD		3.652	3.323	0.000	0.745	2.771	0.758	2.176	3.353

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	99.180	98.200	480.300	24840.000	24820.000	103.200	107.300	108.500
2	17:20:38	98.790	99.320	492.800	25520.000	25550.000	101.500	101.200	102.500
3	17:20:58	95.400	94.790	474.800	23970.000	24590.000	99.990	102.100	106.000
x		97.790%	97.436%	96.531%	99.095%	99.949%	101.551%	103.522%	105.656%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.124	2.418	1.905	3.136	2.003	1.572	3.173	2.852

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	105.700	105.700	105.800	106.100	110.800	109.400	0.000	93.590
2	17:20:38	103.500	102.400	103.100	102.200	110.000	106.400	0.000	91.900
3	17:20:58	102.800	102.700	101.200	103.300	108.400	107.900	0.000	91.630
x		103.975%	103.621%	103.338%	103.864%	109.723%	107.930%	0.000	92.369%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.461	1.776	2.244	1.911	1.075	1.390	0.000	1.150

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	77.949%	93.060	93.550	72.094%	101.800	102.600	101.300	101.900
2	17:20:38	78.427%	93.650	95.570	71.765%	99.660	101.000	101.300	101.700
3	17:20:58	77.147%	94.350	96.440	71.526%	100.500	99.710	99.640	99.880
x		77.841%	93.686%	95.187%	71.795%	100.638%	101.081%	100.730%	101.164%
σ		0.647%	n/a	n/a	0.285%	n/a	n/a	n/a	n/a
%RSD		0.831	0.690	1.561	0.397	1.059	1.420	0.934	1.106

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	72.743%	97.820	94.710	93.020	98.500	97.750	76.381%	75.455%
2	17:20:38	72.632%	98.180	94.700	93.070	97.060	96.570	76.935%	75.934%
3	17:20:58	73.341%	96.210	95.610	93.950	96.250	96.170	77.786%	76.794%
x		72.906%	97.404%	95.009%	93.350%	97.269%	96.833%	77.034%	76.061%
σ		0.381%	n/a	n/a	n/a	n/a	n/a	0.708%	0.678%
%RSD		0.523	1.074	0.551	0.562	1.174	0.849	0.919	0.892

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:19	105.300	107.600	105.100	105.600	106.500	67.685%
2	17:20:38	103.900	105.600	105.500	105.700	105.800	68.630%
3	17:20:58	102.000	103.400	103.200	104.400	104.400	69.863%
x		103.713%	105.545%	104.597%	105.243%	105.560%	68.726%
σ		n/a	n/a	n/a	n/a	n/a	1.092%
%RSD		1.572	1.977	1.204	0.658	0.982	1.589

CCB4 6/25/2015 5:26:50 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	17:27:09	99.444%	-0.002	11.410	11.770	0.000	-2.446	1.455	1.201
2	17:27:28	95.038%	-0.002	9.902	11.030	0.000	-2.531	1.078	1.057
3	17:27:47	98.183%	0.019	10.360	10.660	0.000	-2.727	1.011	1.272
x		97.555%	0.005	10.560	11.150	0.000	-2.568	1.182	1.176
σ		2.269%	0.012	0.774	0.564	0.000	0.144	0.239	0.110
%RSD		2.326	233.100	7.329	5.061	0.000	5.618	20.260	9.323
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:09	1.059	3.386	0.000	-1.281	4.334	4.042	89.686%	-0.059
2	17:27:28	1.009	3.085	0.000	-1.650	2.433	3.474	91.093%	0.060
3	17:27:47	1.037	3.030	0.000	-1.635	4.994	3.594	89.189%	-0.080
x		1.035	3.167	0.000	-1.522	3.921	3.703	89.989%	-0.026
σ		0.025	0.192	0.000	0.209	1.330	0.300	0.988%	0.075
%RSD		2.439	6.061	0.000	13.730	33.920	8.089	1.098	287.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:09	0.039	-0.011	0.012	4.982	3.541	-0.001	-0.024	0.023
2	17:27:28	0.007	-0.009	0.021	2.658	2.907	0.001	0.004	-0.004
3	17:27:47	0.026	0.000	0.012	3.124	2.448	0.002	0.002	0.026
x		0.024	-0.006	0.015	3.588	2.965	0.001	-0.006	0.015
σ		0.016	0.006	0.005	1.230	0.549	0.001	0.016	0.017
%RSD		68.720	89.510	33.780	34.270	18.520	141.900	261.700	111.400
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:09	0.024	0.702	0.502	0.082	0.233	0.137	0.000	0.003
2	17:27:28	-0.014	0.600	0.583	0.050	0.076	0.075	0.000	0.007
3	17:27:47	0.057	0.556	0.651	0.066	0.036	0.170	0.000	0.006
x		0.022	0.619	0.579	0.066	0.115	0.127	0.000	0.005
σ		0.035	0.075	0.074	0.016	0.104	0.049	0.000	0.002
%RSD		158.700	12.130	12.850	24.130	90.410	38.080	0.000	39.450
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:09	89.099%	-0.556	-0.512	91.437%	-0.002	-0.001	-0.037	0.035
2	17:27:28	90.208%	-0.510	-0.477	92.118%	-0.002	-0.002	-0.037	0.026
3	17:27:47	89.973%	-0.559	-0.577	93.098%	-0.002	-0.005	-0.061	-0.012
x		89.760%	-0.541	-0.522	92.218%	-0.002	-0.003	-0.045	0.016
σ		0.584%	0.028	0.051	0.835%	0.000	0.002	0.014	0.025
%RSD		0.651	5.114	9.686	0.905	16.290	74.500	30.800	153.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:09	90.133%	-1.550	0.440	0.453	0.018	0.010	90.410%	90.141%
2	17:27:28	89.777%	-1.307	0.471	0.375	0.017	0.019	91.616%	91.635%
3	17:27:47	90.701%	-0.818	0.459	0.473	0.013	0.004	92.152%	91.952%
x		90.204%	-1.225	0.457	0.433	0.016	0.011	91.392%	91.243%
σ		0.466%	0.373	0.016	0.052	0.003	0.007	0.892%	0.967%
%RSD		0.517	30.430	3.393	11.990	16.520	67.210	0.976	1.060
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:27:09	0.067	0.077	0.010	0.009	0.009	94.947%		
2	17:27:28	0.075	0.064	0.008	0.012	0.009	97.203%		
3	17:27:47	0.065	0.060	0.007	0.007	0.008	97.835%		
x		0.069	0.067	0.009	0.009	0.009	96.662%		
σ		0.005	0.009	0.002	0.002	0.001	1.518%		
%RSD		7.467	12.820	20.490	21.980	7.283	1.571		

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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	17:31:00	114.018%	-0.004	7.065	6.741	0.000	3.549	1.330	1.316
2	17:31:19	104.327%	-0.016	6.976	7.869	0.000	4.915	1.483	1.309
3	17:31:38	103.386%	-0.003	7.478	7.405	0.000	4.470	1.444	1.429
x		107.244%	-0.007	7.173	7.338	0.000	4.311	1.419	1.351
σ		5.885%	0.007	0.268	0.567	0.000	0.697	0.079	0.067
%RSD		5.488	99.540	3.738	7.727	0.000	16.160	5.597	4.994

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:00	0.960	3.017	0.000	-0.845	9.329	7.517	96.018%	-0.022
2	17:31:19	0.989	3.148	0.000	0.596	3.667	7.514	90.198%	-0.017
3	17:31:38	0.897	3.392	0.000	-0.220	8.419	5.796	90.506%	-0.003
x		0.949	3.186	0.000	-0.156	7.138	6.942	92.241%	-0.014
σ		0.047	0.190	0.000	0.723	3.041	0.993	3.275%	0.010
%RSD		4.960	5.966	0.000	462.300	42.600	14.300	3.551	72.130

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:00	0.020	0.024	0.341	0.849	-0.407	0.011	0.792	0.044
2	17:31:19	0.008	0.017	0.333	2.207	-0.427	0.009	0.869	0.037
3	17:31:38	0.006	0.004	0.320	3.004	-0.258	0.005	0.795	0.015
x		0.011	0.015	0.331	2.020	-0.364	0.009	0.819	0.032
σ		0.007	0.010	0.011	1.089	0.093	0.003	0.044	0.015
%RSD		63.600	68.410	3.297	53.930	25.430	35.650	5.324	46.810

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:00	0.005	0.880	0.837	0.008	-0.013	0.075	0.000	0.041
2	17:31:19	0.040	0.905	1.003	0.034	0.027	-0.004	0.000	0.041
3	17:31:38	0.028	0.894	0.921	0.032	-0.209	0.093	0.000	0.038
x		0.024	0.893	0.920	0.025	-0.065	0.054	0.000	0.040
σ		0.018	0.012	0.083	0.015	0.126	0.052	0.000	0.002
%RSD		73.970	1.379	9.004	59.970	193.700	95.020	0.000	5.592

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:00	92.911%	-1.156	-1.147	95.059%	-0.009	-0.008	0.009	0.022
2	17:31:19	92.442%	-1.094	-1.073	93.437%	-0.008	-0.015	0.036	0.036
3	17:31:38	92.608%	-1.160	-1.131	94.464%	-0.006	-0.016	-0.028	-0.006
x		92.654%	-1.137	-1.117	94.320%	-0.008	-0.013	0.006	0.018
σ		0.238%	0.037	0.039	0.821%	0.002	0.004	0.032	0.021
%RSD		0.256	3.264	3.464	0.870	22.810	32.930	572.800	121.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:00	91.257%	0.133	0.072	0.081	0.049	0.034	90.772%	91.426%
2	17:31:19	90.873%	-0.048	0.078	0.053	0.051	0.030	91.204%	90.890%
3	17:31:38	92.460%	0.127	0.066	0.017	0.037	0.041	92.689%	92.825%
x		91.530%	0.071	0.072	0.050	0.046	0.035	91.555%	91.714%
σ		0.828%	0.103	0.006	0.032	0.008	0.006	1.006%	0.999%
%RSD		0.904	145.600	8.735	64.320	16.540	16.050	1.099	1.089

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:00	0.054	0.063	0.004	0.005	0.004	96.235%
2	17:31:19	0.061	0.060	0.003	0.006	0.005	95.311%
3	17:31:38	0.064	0.058	0.004	0.006	0.004	96.171%
x		0.059	0.060	0.004	0.005	0.004	95.905%
σ		0.005	0.003	0.001	0.000	0.001	0.516%
%RSD		8.779	4.420	14.450	8.387	16.000	0.538

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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	17:34:49	45.838%	51.800	959.400	975.900	0.000	48660.000	48320.000	50560.000
2	17:35:08	44.732%	51.470	953.900	922.100	0.000	46020.000	44940.000	46530.000
3	17:35:28	41.286%	51.580	976.200	963.400	0.000	48240.000	47510.000	48200.000
x		43.952%	51.620	963.200	953.800	0.000	47640.000	46920.000	48430.000
σ		2.374%	0.167	11.610	28.130	0.000	1418.000	1766.000	2025.000
%RSD		5.401	0.323	1.205	2.950	0.000	2.976	3.762	4.182

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:49	1682.000	9860.000	0.000	52260.000	53130.000	55560.000	41.347%	1070.000
2	17:35:08	1557.000	9311.000	0.000	51170.000	51750.000	54830.000	39.151%	1108.000
3	17:35:28	1696.000	9908.000	0.000	50860.000	52340.000	56640.000	39.358%	1107.000
x		1645.000	9693.000	0.000	51430.000	52410.000	55670.000	39.952%	1095.000
σ		76.560	331.700	0.000	735.300	692.500	909.600	1.213%	21.820
%RSD		4.654	3.422	0.000	1.430	1.321	1.634	3.035	1.992

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:49	482.200	189.700	480.800	984.200	986.200	454.200	465.200	233.100
2	17:35:08	488.800	196.300	495.000	996.900	997.800	472.200	458.300	226.800
3	17:35:28	482.200	182.900	466.200	938.600	975.300	462.900	447.700	222.300
x		484.400	189.600	480.700	973.200	986.400	463.100	457.000	227.400
σ		3.793	6.723	14.380	30.640	11.260	9.018	8.791	5.452
%RSD		0.783	3.545	2.991	3.149	1.141	1.947	1.923	2.398

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:49	239.300	476.700	472.400	35.610	9.360	10.410	0.000	896.700
2	17:35:08	231.900	473.400	478.100	36.640	10.040	11.060	0.000	902.300
3	17:35:28	230.100	476.500	468.900	35.410	9.895	10.420	0.000	906.700
x		233.800	475.500	473.200	35.890	9.766	10.630	0.000	901.900
σ		4.894	1.818	4.647	0.661	0.360	0.376	0.000	5.045
%RSD		2.094	0.382	0.982	1.842	3.682	3.541	0.000	0.559

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:49	54.133%	1117.000	1149.000	52.562%	46.080	46.610	46.850	40.500
2	17:35:08	54.437%	1122.000	1145.000	52.667%	45.430	46.350	47.130	40.940
3	17:35:28	54.028%	1136.000	1177.000	52.090%	46.320	46.860	48.000	41.400
x		54.199%	1125.000	1157.000	52.440%	45.940	46.600	47.330	40.950
σ		0.213%	9.750	17.740	0.307%	0.457	0.255	0.598	0.450
%RSD		0.392	0.867	1.533	0.586	0.996	0.546	1.263	1.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:49	56.811%	2054.000	548.700	545.500	1820.000	1771.000	69.090%	69.893%
2	17:35:08	57.110%	2042.000	538.000	539.000	1799.000	1758.000	70.553%	70.940%
3	17:35:28	56.707%	2085.000	547.300	547.000	1843.000	1794.000	69.965%	70.701%
x		56.876%	2060.000	544.700	543.800	1821.000	1774.000	69.869%	70.512%
σ		0.209%	22.420	5.846	4.271	21.990	18.370	0.736%	0.548%
%RSD		0.368	1.088	1.073	0.785	1.207	1.035	1.054	0.778

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:49	42.100	42.680	17.890	17.970	17.920	69.645%
2	17:35:08	44.120	45.180	18.610	18.540	18.600	67.668%
3	17:35:28	45.320	46.620	19.350	19.200	19.290	67.243%
x		43.840	44.830	18.620	18.570	18.600	68.185%
σ		1.628	1.990	0.730	0.617	0.687	1.282%
%RSD		3.714	4.439	3.921	3.324	3.693	1.880

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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	17:38:38	53.884%	-0.003	18.320	17.890	0.000	133.900	17.740	17.740
2	17:38:57	47.213%	0.043	20.230	18.640	0.000	139.200	20.350	18.970
3	17:39:16	46.283%	-0.001	17.280	17.980	0.000	142.800	21.030	20.320
x		49.127%	0.013	18.610	18.170	0.000	138.700	19.710	19.010
σ		4.146%	0.026	1.494	0.408	0.000	4.485	1.736	1.294
%RSD		8.440	200.000	8.028	2.246	0.000	3.235	8.808	6.805
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:38	6.886	14.510	0.000	28.090	68.560	70.520	43.344%	0.520
2	17:38:57	6.964	14.760	0.000	27.330	60.810	75.540	41.227%	0.629
3	17:39:16	7.274	14.600	0.000	28.480	73.130	77.510	38.794%	0.820
x		7.041	14.620	0.000	27.970	67.500	74.520	41.121%	0.657
σ		0.205	0.127	0.000	0.586	6.230	3.603	2.277%	0.152
%RSD		2.915	0.865	0.000	2.095	9.230	4.835	5.536	23.140
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:38	-1.907	0.505	0.324	3.404	8.278	0.014	0.200	0.455
2	17:38:57	-0.120	0.440	0.323	2.203	8.689	0.011	0.216	0.401
3	17:39:16	0.533	0.495	0.339	1.754	9.357	0.017	0.163	0.463
x		-0.498	0.480	0.329	2.454	8.775	0.014	0.193	0.440
σ		1.263	0.035	0.009	0.853	0.545	0.003	0.027	0.034
%RSD		253.700	7.274	2.799	34.760	6.208	22.920	13.940	7.664
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:38	0.474	9.909	10.380	-0.156	-0.253	0.077	0.000	0.465
2	17:38:57	0.376	9.597	10.310	0.209	-0.382	0.255	0.000	0.467
3	17:39:16	0.435	9.708	9.610	-0.473	-0.450	0.023	0.000	0.463
x		0.429	9.738	10.100	-0.140	-0.362	0.118	0.000	0.465
σ		0.049	0.158	0.427	0.341	0.100	0.121	0.000	0.002
%RSD		11.510	1.624	4.223	243.300	27.620	102.400	0.000	0.414
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:38	54.937%	2.635	2.745	57.465%	-0.009	-0.007	-0.080	-0.042
2	17:38:57	53.893%	1.983	2.104	55.157%	-0.009	-0.009	-0.082	-0.075
3	17:39:16	53.393%	1.182	1.175	56.522%	-0.005	-0.011	-0.134	-0.095
x		54.074%	1.933	2.008	56.381%	-0.008	-0.009	-0.099	-0.070
σ		0.788%	0.728	0.789	1.161%	0.002	0.002	0.030	0.027
%RSD		1.457	37.640	39.320	2.058	30.190	24.710	30.830	37.880
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:38	60.974%	1.593	-0.179	-0.200	0.443	0.436	71.748%	72.840%
2	17:38:57	59.707%	1.385	-0.160	-0.170	0.374	0.406	72.227%	72.599%
3	17:39:16	60.350%	1.099	-0.232	-0.185	0.427	0.364	72.652%	73.494%
x		60.344%	1.359	-0.191	-0.185	0.415	0.402	72.209%	72.978%
σ		0.633%	0.248	0.037	0.015	0.036	0.036	0.453%	0.463%
%RSD		1.049	18.230	19.390	8.068	8.726	8.995	0.627	0.634
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:38:38	0.479	0.476	0.213	0.193	0.199	76.853%		
2	17:38:57	0.384	0.389	0.210	0.184	0.193	79.982%		
3	17:39:16	0.319	0.317	0.211	0.196	0.199	78.883%		
x		0.394	0.394	0.211	0.191	0.197	78.573%		
σ		0.081	0.080	0.002	0.006	0.004	1.588%		
%RSD		20.430	20.180	0.725	3.399	1.801	2.020		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	71.164%	-0.016	6.285	6.509	0.000	28.270	4.738	4.437
2	17:42:45	72.141%	0.023	5.675	6.041	0.000	27.370	5.038	4.291
3	17:43:04	65.861%	0.016	6.171	6.302	0.000	27.740	4.026	4.166
x		69.722%	0.007	6.044	6.284	0.000	27.790	4.601	4.298
σ		3.379%	0.021	0.324	0.235	0.000	0.456	0.520	0.135
%RSD		4.847	277.500	5.363	3.733	0.000	1.641	11.290	3.149

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	1.635	3.196	0.000	1.890	22.980	20.810	60.392%	0.007
2	17:42:45	1.726	2.537	0.000	2.479	21.880	22.260	58.730%	0.065
3	17:43:04	1.664	1.945	0.000	1.790	17.430	22.050	58.596%	0.065
x		1.675	2.559	0.000	2.053	20.760	21.710	59.239%	0.046
σ		0.047	0.626	0.000	0.372	2.938	0.784	1.001%	0.033
%RSD		2.786	24.450	0.000	18.140	14.150	3.613	1.689	72.780

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	-0.419	0.158	0.070	-2.352	0.023	-0.000	0.187	0.134
2	17:42:45	-0.642	0.168	0.076	-1.227	0.239	0.004	0.152	0.099
3	17:43:04	0.062	0.181	0.068	-3.758	0.064	0.001	0.187	0.095
x		-0.333	0.169	0.071	-2.445	0.108	0.001	0.175	0.109
σ		0.360	0.012	0.004	1.268	0.115	0.002	0.020	0.021
%RSD		108.100	6.834	6.271	51.870	106.100	163.600	11.380	19.280

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	0.090	12.030	12.030	-0.063	-0.362	0.044	0.000	0.111
2	17:42:45	0.101	12.330	12.460	-0.257	-0.467	-0.001	0.000	0.108
3	17:43:04	0.128	12.480	12.700	-0.089	-0.443	0.082	0.000	0.112
x		0.106	12.280	12.400	-0.137	-0.424	0.041	0.000	0.110
σ		0.020	0.229	0.339	0.105	0.055	0.042	0.000	0.002
%RSD		18.530	1.863	2.735	77.170	13.010	100.600	0.000	1.840

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	68.260%	-0.785	-0.741	69.546%	-0.009	-0.012	-0.025	-0.016
2	17:42:45	67.759%	-0.865	-0.725	69.680%	-0.005	-0.004	-0.056	-0.036
3	17:43:04	68.035%	-0.872	-0.858	69.197%	-0.008	-0.010	-0.085	-0.050
x		68.018%	-0.841	-0.775	69.474%	-0.007	-0.009	-0.055	-0.034
σ		0.251%	0.048	0.073	0.249%	0.002	0.004	0.030	0.017
%RSD		0.369	5.735	9.388	0.358	31.020	46.540	54.050	49.950

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	70.329%	0.240	-0.542	-0.532	0.078	0.086	77.909%	77.332%
2	17:42:45	70.651%	0.217	-0.535	-0.531	0.125	0.100	77.728%	77.811%
3	17:43:04	70.437%	0.199	-0.509	-0.536	0.083	0.107	79.605%	78.586%
x		70.472%	0.219	-0.529	-0.533	0.095	0.098	78.414%	77.910%
σ		0.164%	0.020	0.017	0.003	0.025	0.011	1.035%	0.633%
%RSD		0.232	9.209	3.277	0.533	26.530	11.060	1.321	0.812

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:25	0.129	0.130	0.038	0.051	0.045	80.504%
2	17:42:45	0.130	0.130	0.051	0.045	0.048	82.231%
3	17:43:04	0.124	0.124	0.046	0.045	0.044	81.695%
x		0.128	0.128	0.045	0.047	0.045	81.477%
σ		0.003	0.004	0.007	0.003	0.002	0.884%
%RSD		2.293	3.003	15.140	7.069	4.819	1.085

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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	17:46:13	50.344%	50.020	1031.000	994.100	0.000	46040.000	43840.000	43550.000
2	17:46:32	46.411%	49.260	980.700	1008.000	0.000	44280.000	44500.000	44810.000
3	17:46:51	44.762%	49.690	1010.000	999.500	0.000	44740.000	42970.000	41730.000
x		47.172%	49.660	1007.000	1001.000	0.000	45020.000	43770.000	43360.000
σ		2.868%	0.380	25.050	7.056	0.000	913.800	769.300	1548.000
%RSD		6.079	0.766	2.487	0.705	0.000	2.030	1.758	3.570
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:13	1674.000	9240.000	0.000	48160.000	48120.000	50940.000	45.081%	1020.000
2	17:46:32	1728.000	9535.000	0.000	47770.000	49610.000	51370.000	43.303%	987.200
3	17:46:51	1632.000	8813.000	0.000	45680.000	47800.000	49200.000	41.402%	1002.000
x		1678.000	9196.000	0.000	47200.000	48510.000	50510.000	43.262%	1003.000
σ		48.340	362.800	0.000	1332.000	967.500	1148.000	1.840%	16.250
%RSD		2.881	3.946	0.000	2.821	1.994	2.273	4.253	1.620
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:13	494.800	197.300	508.200	1017.000	1053.000	512.700	501.000	248.300
2	17:46:32	479.000	189.800	485.500	994.600	1013.000	495.500	491.500	247.700
3	17:46:51	483.700	189.800	491.100	1002.000	1036.000	478.100	464.100	233.800
x		485.800	192.300	495.000	1004.000	1034.000	495.400	485.500	243.200
σ		8.108	4.324	11.840	11.500	20.330	17.320	19.150	8.229
%RSD		1.669	2.249	2.392	1.144	1.966	3.496	3.945	3.383
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:13	249.300	499.900	499.900	38.000	9.792	10.550	0.000	973.400
2	17:46:32	250.100	505.500	503.800	38.580	9.994	10.310	0.000	985.500
3	17:46:51	237.800	489.400	488.800	36.450	9.816	9.997	0.000	966.600
x		245.700	498.300	497.500	37.680	9.868	10.290	0.000	975.200
σ		6.899	8.165	7.770	1.101	0.110	0.279	0.000	9.600
%RSD		2.808	1.639	1.562	2.922	1.117	2.714	0.000	0.984
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:13	56.165%	1124.000	1160.000	54.005%	50.260	50.540	49.940	45.360
2	17:46:32	54.998%	1145.000	1168.000	52.490%	50.160	50.730	51.220	45.370
3	17:46:51	55.121%	1131.000	1156.000	52.573%	49.260	50.100	50.740	44.630
x		55.428%	1133.000	1161.000	53.023%	49.890	50.460	50.630	45.120
σ		0.641%	10.880	6.118	0.851%	0.550	0.324	0.649	0.424
%RSD		1.157	0.960	0.527	1.606	1.102	0.643	1.282	0.939
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:13	58.152%	2070.000	530.700	523.300	1977.000	1919.000	70.031%	70.714%
2	17:46:32	57.160%	2091.000	540.100	533.900	2008.000	1961.000	69.922%	71.169%
3	17:46:51	56.990%	2056.000	538.100	533.700	1968.000	1925.000	70.942%	71.787%
x		57.434%	2072.000	536.300	530.300	1984.000	1935.000	70.299%	71.224%
σ		0.627%	17.430	4.953	6.082	21.370	22.530	0.560%	0.539%
%RSD		1.092	0.841	0.924	1.147	1.077	1.164	0.796	0.756
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:46:13	49.880	51.050	21.480	21.600	21.600	65.583%		
2	17:46:32	50.510	51.660	21.340	21.460	21.520	66.604%		
3	17:46:51	46.610	47.330	19.290	19.800	19.720	72.493%		
x		49.000	50.010	20.700	20.950	20.950	68.227%		
σ		2.094	2.344	1.228	1.000	1.063	3.730%		
%RSD		4.274	4.687	5.933	4.771	5.077	5.467		

180-45214-F-1-C MSD 6/25/2015 5:49:41 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	17:50:00	44.322%	54.290	1034.000	988.300	0.000	41490.000	41260.000	41570.000
2	17:50:19	42.839%	49.450	966.100	944.000	0.000	40170.000	39640.000	40740.000
3	17:50:39	42.288%	50.250	948.600	892.000	0.000	38630.000	37880.000	38450.000
x		43.150%	51.330	982.900	941.500	0.000	40100.000	39590.000	40250.000
σ		1.052%	2.598	45.040	48.200	0.000	1429.000	1691.000	1618.000
%RSD		2.438	5.062	4.583	5.119	0.000	3.563	4.271	4.020
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:00	1664.000	8619.000	0.000	43830.000	46030.000	48710.000	40.375%	995.300
2	17:50:19	1662.000	8793.000	0.000	46020.000	47610.000	50270.000	38.818%	992.300
3	17:50:39	1516.000	8049.000	0.000	42560.000	46810.000	49250.000	36.831%	1026.000
x		1614.000	8487.000	0.000	44140.000	46820.000	49410.000	38.674%	1005.000
σ		84.820	389.200	0.000	1748.000	788.400	794.400	1.777%	18.730
%RSD		5.255	4.586	0.000	3.959	1.684	1.608	4.594	1.864
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:00	498.100	196.300	510.100	1026.000	1056.000	501.600	490.700	246.700
2	17:50:19	478.300	194.800	496.000	1012.000	1029.000	483.700	484.200	235.300
3	17:50:39	505.700	197.000	518.100	1038.000	1052.000	495.600	475.800	240.200
x		494.000	196.000	508.100	1025.000	1045.000	493.600	483.600	240.700
σ		14.150	1.134	11.200	12.850	14.510	9.104	7.464	5.682
%RSD		2.865	0.578	2.204	1.253	1.387	1.844	1.544	2.360
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:00	252.700	511.300	511.600	38.230	9.824	11.120	0.000	1002.000
2	17:50:19	240.000	507.700	504.300	39.130	10.360	10.610	0.000	1003.000
3	17:50:39	243.200	508.500	518.500	38.560	10.840	10.850	0.000	1021.000
x		245.300	509.100	511.500	38.640	10.340	10.860	0.000	1009.000
σ		6.622	1.895	7.106	0.455	0.507	0.258	0.000	10.720
%RSD		2.699	0.372	1.389	1.178	4.907	2.376	0.000	1.062
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:00	52.112%	1108.000	1140.000	50.719%	51.020	51.930	52.530	45.580
2	17:50:19	51.726%	1106.000	1146.000	50.098%	50.770	51.540	53.100	46.740
3	17:50:39	50.584%	1118.000	1153.000	49.090%	51.030	52.380	53.370	46.810
x		51.474%	1110.000	1146.000	49.969%	50.940	51.950	53.000	46.380
σ		0.794%	6.488	6.620	0.822%	0.150	0.424	0.428	0.692
%RSD		1.543	0.584	0.578	1.645	0.294	0.817	0.808	1.492
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:00	55.277%	2051.000	538.300	526.500	2016.000	1976.000	68.614%	69.353%
2	17:50:19	55.341%	2055.000	535.400	534.200	2023.000	1969.000	69.269%	70.318%
3	17:50:39	54.502%	2062.000	545.300	536.000	2034.000	1975.000	69.738%	70.332%
x		55.040%	2056.000	539.700	532.200	2024.000	1973.000	69.207%	70.001%
σ		0.467%	5.439	5.120	5.076	9.043	3.636	0.565%	0.561%
%RSD		0.848	0.265	0.949	0.954	0.447	0.184	0.816	0.802
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:50:00	48.940	49.770	20.630	20.810	20.720	69.073%		
2	17:50:19	50.290	51.910	21.590	21.260	21.550	67.898%		
3	17:50:39	50.780	52.860	21.730	21.720	21.790	68.059%		
x		50.000	51.510	21.320	21.260	21.350	68.344%		
σ		0.951	1.583	0.601	0.454	0.563	0.637%		
%RSD		1.902	3.073	2.820	2.133	2.637	0.932		

180-45214-F-1-A PDS 6/25/2015 5:53:29 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	17:53:48	38.950%	58.780	1100.000	1087.000	0.000	46100.000	44840.000	46200.000
2	17:54:07	42.371%	53.110	1030.000	1018.000	0.000	44490.000	43020.000	43030.000
3	17:54:26	41.844%	53.890	1033.000	964.900	0.000	42350.000	40150.000	41890.000
x		41.055%	55.260	1055.000	1023.000	0.000	44310.000	42670.000	43710.000
σ		1.842%	3.070	39.260	61.470	0.000	1884.000	2364.000	2235.000
%RSD		4.487	5.556	3.723	6.007	0.000	4.251	5.541	5.114

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:48	1868.000	9945.000	0.000	50100.000	52110.000	53960.000	38.755%	1099.000
2	17:54:07	1643.000	8453.000	0.000	47110.000	47710.000	51890.000	38.785%	1058.000
3	17:54:26	1684.000	8639.000	0.000	47260.000	49810.000	53500.000	36.886%	1071.000
x		1732.000	9012.000	0.000	48160.000	49880.000	53120.000	38.142%	1076.000
σ		119.900	812.800	0.000	1686.000	2200.000	1087.000	1.088%	21.160
%RSD		6.921	9.019	0.000	3.500	4.411	2.046	2.852	1.966

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:48	530.900	208.800	527.200	1081.000	1127.000	525.700	529.400	263.900
2	17:54:07	498.400	209.800	544.900	1122.000	1158.000	529.600	523.700	259.800
3	17:54:26	523.400	207.300	544.400	1101.000	1143.000	533.600	518.400	257.000
x		517.600	208.600	538.800	1101.000	1143.000	529.600	523.800	260.200
σ		16.980	1.267	10.060	20.640	15.460	3.929	5.480	3.508
%RSD		3.281	0.608	1.866	1.874	1.353	0.742	1.046	1.348

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:48	266.500	554.700	563.600	42.640	11.710	11.860	0.000	1076.000
2	17:54:07	256.700	553.100	553.500	41.670	11.720	11.840	0.000	1068.000
3	17:54:26	259.200	549.900	552.900	41.870	11.600	11.940	0.000	1076.000
x		260.800	552.600	556.700	42.060	11.680	11.880	0.000	1073.000
σ		5.065	2.459	6.033	0.513	0.067	0.049	0.000	4.285
%RSD		1.942	0.445	1.084	1.220	0.571	0.413	0.000	0.399

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:48	51.138%	1166.000	1205.000	49.563%	45.960	46.680	57.040	50.120
2	17:54:07	50.769%	1164.000	1201.000	49.348%	45.910	46.840	57.430	49.830
3	17:54:26	50.073%	1160.000	1198.000	49.008%	46.110	46.490	56.820	49.230
x		50.660%	1164.000	1201.000	49.306%	45.990	46.670	57.100	49.730
σ		0.541%	3.097	3.281	0.280%	0.105	0.173	0.308	0.457
%RSD		1.068	0.266	0.273	0.568	0.227	0.371	0.539	0.919

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:48	54.865%	2201.000	579.300	572.200	2140.000	2101.000	69.427%	70.014%
2	17:54:07	54.321%	2215.000	575.400	572.900	2145.000	2084.000	69.238%	70.631%
3	17:54:26	54.670%	2187.000	575.000	569.600	2133.000	2089.000	70.020%	71.000%
x		54.619%	2201.000	576.600	571.600	2139.000	2091.000	69.561%	70.548%
σ		0.275%	14.040	2.376	1.748	5.805	8.550	0.408%	0.498%
%RSD		0.504	0.638	0.412	0.306	0.271	0.409	0.587	0.707

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:48	56.040	56.890	23.240	23.340	23.400	66.293%
2	17:54:07	54.550	55.970	22.750	22.660	22.800	68.790%
3	17:54:26	55.540	57.020	23.100	23.070	23.170	67.758%
x		55.380	56.630	23.030	23.030	23.120	67.614%
σ		0.761	0.571	0.252	0.341	0.302	1.254%
%RSD		1.375	1.009	1.095	1.482	1.306	1.855

CCV 1594026 6/25/2015 5:57:16 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	17:57:36	91.631%	105.300	103.300	106.800	0.000	47020.000	45380.000	46260.000
2	17:57:55	86.072%	106.600	104.100	106.900	0.000	47860.000	47440.000	47920.000
3	17:58:15	82.625%	108.100	102.000	100.600	0.000	45700.000	46410.000	46820.000
x		86.776%	106.699%	103.125%	104.741%	0.000	93.722%	92.827%	93.998%
σ		4.544%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.236	1.292	0.993	3.462	0.000	2.327	2.219	1.790

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:36	462.900	5204.000	0.000	45880.000	45930.000	47220.000	78.249%	98.340
2	17:57:55	460.000	5164.000	0.000	47850.000	46220.000	47080.000	77.481%	98.140
3	17:58:15	462.700	5245.000	0.000	48160.000	47270.000	48310.000	78.517%	99.630
x		92.377%	104.088%	0.000	94.592%	92.950%	95.074%	78.082%	98.704%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.538%	n/a
%RSD		0.348	0.779	0.000	2.610	1.518	1.419	0.689	0.823

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:36	95.240	94.130	469.300	24010.000	24500.000	102.100	103.400	104.600
2	17:57:55	95.940	98.170	478.700	25030.000	24730.000	99.700	103.100	102.100
3	17:58:15	98.490	98.640	476.200	24330.000	23920.000	96.720	98.630	102.200
x		96.557%	96.978%	94.952%	97.834%	97.528%	99.504%	101.709%	102.967%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.767	2.556	1.028	2.114	1.710	2.702	2.629	1.383

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:36	105.200	103.700	102.000	104.700	109.000	110.300	0.000	91.150
2	17:57:55	102.300	102.800	103.800	102.900	107.700	109.800	0.000	92.370
3	17:58:15	101.000	101.400	101.700	103.100	109.300	109.000	0.000	91.850
x		102.848%	102.647%	102.503%	103.567%	108.652%	109.687%	0.000	91.793%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.094	1.100	1.072	0.922	0.742	0.605	0.000	0.665

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:36	80.824%	96.830	98.680	72.959%	100.700	101.500	101.500	100.600
2	17:57:55	79.806%	99.570	100.800	73.038%	101.800	102.100	101.700	100.600
3	17:58:15	80.544%	100.500	102.000	73.130%	100.800	101.500	102.300	102.400
x		80.391%	98.953%	100.470%	73.042%	101.108%	101.724%	101.860%	101.196%
σ		0.526%	n/a	n/a	0.085%	n/a	n/a	n/a	n/a
%RSD		0.654	1.915	1.652	0.117	0.591	0.332	0.421	1.024

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:36	74.254%	98.640	93.970	93.020	96.920	96.770	78.329%	77.312%
2	17:57:55	74.408%	99.450	95.760	96.040	97.280	96.700	79.333%	77.983%
3	17:58:15	74.679%	98.890	96.950	97.710	97.050	97.140	78.972%	78.484%
x		74.447%	98.993%	95.562%	95.590%	97.083%	96.870%	78.878%	77.926%
σ		0.215%	n/a	n/a	n/a	n/a	n/a	0.509%	0.588%
%RSD		0.289	0.419	1.568	2.488	0.187	0.245	0.645	0.755

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:36	106.300	107.400	105.800	106.200	106.700	68.474%
2	17:57:55	105.000	106.000	104.200	104.700	105.000	70.574%
3	17:58:15	104.700	105.400	104.500	104.700	105.000	70.975%
x		105.330%	106.279%	104.837%	105.193%	105.578%	70.008%
σ		n/a	n/a	n/a	n/a	n/a	1.343%
%RSD		0.792	0.972	0.780	0.789	0.893	1.919

CCB5 6/25/2015 6:04:09 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	18:04:28	105.984%	0.017	2.730	2.752	0.000	-2.833	1.271	1.281
2	18:04:47	101.097%	-0.009	2.767	2.473	0.000	-2.838	1.137	1.153
3	18:05:06	105.069%	0.011	2.385	2.338	0.000	-2.904	1.203	1.041
x		104.050%	0.006	2.627	2.521	0.000	-2.858	1.203	1.159
σ		2.598%	0.014	0.211	0.211	0.000	0.040	0.067	0.120
%RSD		2.497	224.600	8.026	8.379	0.000	1.400	5.599	10.360
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:28	1.168	5.915	0.000	-0.356	5.533	4.558	95.003%	0.107
2	18:04:47	1.144	4.502	0.000	-0.209	7.962	4.485	89.555%	0.027
3	18:05:06	1.198	4.032	0.000	-0.214	4.993	4.877	88.913%	-0.022
x		1.170	4.816	0.000	-0.260	6.163	4.640	91.157%	0.037
σ		0.027	0.980	0.000	0.084	1.581	0.209	3.346%	0.066
%RSD		2.314	20.350	0.000	32.220	25.660	4.493	3.671	175.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:28	-0.005	-0.034	0.022	2.563	2.654	0.002	-0.015	0.025
2	18:04:47	0.016	-0.015	0.019	1.591	2.433	0.001	0.003	0.044
3	18:05:06	0.006	-0.007	0.020	0.254	1.196	-0.001	0.017	0.035
x		0.006	-0.019	0.020	1.469	2.094	0.001	0.002	0.034
σ		0.011	0.014	0.002	1.159	0.786	0.001	0.016	0.009
%RSD		186.700	74.400	9.237	78.870	37.500	141.500	1029.000	27.250
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:28	0.042	0.724	0.637	0.130	0.115	0.205	0.000	0.006
2	18:04:47	-0.003	0.625	0.648	0.090	-0.003	0.217	0.000	0.004
3	18:05:06	0.014	0.644	0.562	0.081	0.075	0.197	0.000	0.007
x		0.017	0.664	0.616	0.100	0.062	0.206	0.000	0.006
σ		0.023	0.053	0.047	0.026	0.060	0.010	0.000	0.001
%RSD		130.000	7.912	7.578	26.050	96.810	4.903	0.000	23.890
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:28	91.243%	0.050	0.070	93.026%	-0.003	-0.001	-0.014	-0.010
2	18:04:47	92.540%	0.096	-0.011	93.158%	-0.004	-0.004	-0.042	0.024
3	18:05:06	92.210%	-0.151	-0.213	93.113%	-0.001	-0.008	-0.014	0.044
x		91.998%	-0.002	-0.052	93.099%	-0.002	-0.004	-0.023	0.019
σ		0.674%	0.131	0.146	0.067%	0.001	0.003	0.016	0.027
%RSD		0.732	7924.000	282.100	0.072	58.680	76.840	71.210	140.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:28	90.145%	0.455	0.688	0.671	0.015	0.004	90.357%	89.971%
2	18:04:47	89.838%	-1.364	0.630	0.600	0.007	0.005	91.561%	91.213%
3	18:05:06	91.240%	-1.320	0.529	0.502	0.021	0.010	92.059%	92.249%
x		90.408%	-0.743	0.615	0.591	0.014	0.006	91.326%	91.145%
σ		0.737%	1.038	0.081	0.085	0.007	0.003	0.875%	1.141%
%RSD		0.815	139.700	13.120	14.400	50.870	50.830	0.958	1.252
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:04:28	0.148	0.152	0.012	0.010	0.010	92.869%		
2	18:04:47	0.131	0.132	0.009	0.009	0.008	95.665%		
3	18:05:06	0.141	0.134	0.009	0.007	0.009	94.560%		
x		0.140	0.140	0.010	0.009	0.009	94.365%		
σ		0.009	0.011	0.002	0.001	0.001	1.408%		
%RSD		6.139	7.597	18.850	15.470	10.250	1.493		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:08	118.421%	1.017	19.470	20.070	0.000	472.500	451.600	457.000
2	18:12:27	112.161%	0.998	20.580	20.310	0.000	466.600	468.100	472.000
3	18:12:46	114.983%	0.771	18.590	18.960	0.000	440.800	447.700	442.800
x		115.188%	92.850%	97.721%	98.902%	0.000	91.995%	91.156%	91.458%
σ		3.135%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.722	14.730	5.097	3.659	0.000	3.659	2.377	3.197
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:08	28.160	529.000	0.000	475.700	469.700	465.900	93.333%	5.215
2	18:12:27	28.640	551.800	0.000	483.300	481.700	478.700	90.234%	4.852
3	18:12:46	26.950	508.200	0.000	449.100	429.500	460.900	92.764%	5.305
x		93.050%	105.928%	0.000	93.874%	92.062%	93.708%	92.111%	102.483%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.650%	n/a
%RSD		3.114	4.115	0.000	3.821	5.932	1.958	1.791	4.683
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:08	0.983	2.029	4.750	51.370	47.640	0.513	1.051	2.330
2	18:12:27	0.937	2.006	4.852	51.090	51.720	0.515	1.034	2.222
3	18:12:46	0.894	1.899	4.675	46.130	45.360	0.505	1.048	2.213
x		93.804%	98.908%	95.176%	99.055%	96.483%	102.206%	104.462%	112.743%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.739	3.525	1.867	5.953	6.686	0.977	0.860	2.893
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:08	2.282	5.526	5.090	1.192	5.550	5.534	0.000	4.394
2	18:12:27	2.367	5.615	5.263	1.357	5.358	6.069	0.000	4.293
3	18:12:46	2.238	5.110	5.344	1.191	5.469	5.418	0.000	4.325
x		114.777%	108.346%	104.645%	124.677%	109.181%	113.473%	0.000	86.751%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.848	4.975	2.483	7.677	1.768	6.119	0.000	1.192
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:08	99.104%	2.909	2.821	92.564%	1.107	1.076	1.049	1.037
2	18:12:27	99.461%	2.993	2.990	92.446%	1.063	1.081	0.965	1.035
3	18:12:46	97.348%	3.046	3.106	90.725%	1.103	1.092	0.968	0.959
x		98.638%	59.656%	59.447%	91.912%	109.135%	108.287%	99.380%	101.034%
σ		1.131%	n/a	n/a	1.029%	n/a	n/a	n/a	n/a
%RSD		1.147	2.303	4.827	1.120	2.227	0.773	4.771	4.369
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:08	89.031%	3.770	1.880	1.848	9.780	9.535	88.995%	87.029%
2	18:12:27	89.750%	3.915	1.921	1.836	9.573	9.669	89.211%	89.187%
3	18:12:46	89.014%	4.271	1.818	1.903	9.688	9.726	89.101%	89.180%
x		89.265%	79.708%	93.642%	93.105%	96.804%	96.434%	89.102%	88.465%
σ		0.420%	n/a	n/a	n/a	n/a	n/a	0.108%	1.244%
%RSD		0.470	6.474	2.749	1.917	1.069	1.017	0.121	1.406
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:12:08	0.972	0.996	0.914	0.955	0.928	91.371%		
2	18:12:27	0.996	1.009	0.929	0.929	0.936	91.043%		
3	18:12:46	1.001	1.026	0.940	0.963	0.942	91.191%		
x		98.990%	101.030%	92.741%	94.885%	93.548%	91.202%		
σ		n/a	n/a	n/a	n/a	n/a	0.164%		
%RSD		1.559	1.506	1.400	1.824	0.768	0.180		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	115.603%	-0.016	0.729	0.994	0.000	-2.869	0.227	0.199
2	18:16:17	108.446%	-0.010	1.005	0.688	0.000	-3.136	0.427	0.238
3	18:16:36	105.969%	0.004	0.738	0.842	0.000	-2.972	0.170	0.193
x		110.006%	-0.007	0.824	0.842	0.000	-2.992	0.275	0.210
σ		5.003%	0.010	0.157	0.153	0.000	0.135	0.135	0.025
%RSD		4.548	136.700	19.080	18.170	0.000	4.512	49.090	11.720

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	1.066	3.144	0.000	-1.182	11.700	8.985	95.177%	-0.041
2	18:16:17	1.056	2.643	0.000	-1.536	11.470	11.710	96.873%	-0.009
3	18:16:36	1.065	2.619	0.000	-1.774	19.160	12.420	92.771%	-0.033
x		1.062	2.802	0.000	-1.497	14.110	11.040	94.940%	-0.028
σ		0.006	0.297	0.000	0.298	4.375	1.815	2.061%	0.017
%RSD		0.560	10.580	0.000	19.890	31.000	16.440	2.171	59.410

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	-0.012	-0.016	0.017	0.541	-1.324	-0.000	0.005	0.063
2	18:16:17	0.002	-0.006	0.026	-1.931	-1.220	0.002	-0.011	0.056
3	18:16:36	-0.008	0.003	0.021	-0.653	-1.086	0.003	-0.035	0.053
x		-0.006	-0.006	0.021	-0.681	-1.210	0.001	-0.014	0.057
σ		0.007	0.009	0.005	1.237	0.120	0.002	0.020	0.005
%RSD		121.700	145.900	23.070	181.600	9.877	110.600	149.300	9.057

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	0.062	15.030	15.310	0.039	-0.103	0.048	0.000	0.010
2	18:16:17	0.045	15.040	14.780	-0.004	-0.065	0.035	0.000	0.010
3	18:16:36	0.058	15.290	15.220	0.004	-0.108	0.067	0.000	0.013
x		0.055	15.120	15.100	0.013	-0.092	0.050	0.000	0.011
σ		0.009	0.146	0.287	0.023	0.024	0.016	0.000	0.002
%RSD		15.520	0.967	1.902	180.500	25.750	32.760	0.000	15.050

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	93.733%	-1.109	-1.068	94.468%	-0.008	-0.007	-0.027	0.003
2	18:16:17	93.270%	-1.093	-1.124	93.427%	-0.003	-0.011	0.001	0.027
3	18:16:36	91.056%	-1.137	-1.167	92.351%	-0.006	-0.011	-0.040	-0.030
x		92.687%	-1.113	-1.120	93.415%	-0.006	-0.010	-0.022	-0.000
σ		1.431%	0.023	0.050	1.059%	0.002	0.002	0.021	0.028
%RSD		1.544	2.033	4.456	1.134	39.280	20.760	96.770	9243.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	90.439%	-0.283	-0.205	-0.210	0.048	0.015	88.424%	87.006%
2	18:16:17	91.310%	-0.594	-0.216	-0.197	0.031	0.032	90.186%	90.381%
3	18:16:36	90.743%	0.236	-0.220	-0.201	0.033	0.015	90.262%	89.941%
x		90.831%	-0.214	-0.214	-0.203	0.037	0.020	89.624%	89.109%
σ		0.442%	0.419	0.008	0.007	0.009	0.010	1.040%	1.835%
%RSD		0.487	195.900	3.726	3.301	25.150	48.530	1.160	2.059

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:57	0.086	0.082	0.022	0.021	0.022	96.175%
2	18:16:17	0.070	0.074	0.023	0.022	0.021	96.118%
3	18:16:36	0.066	0.063	0.022	0.022	0.020	97.155%
x		0.074	0.073	0.022	0.022	0.021	96.483%
σ		0.011	0.010	0.001	0.001	0.001	0.583%
%RSD		14.260	13.690	4.386	4.926	5.884	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	18:19:45	48.383%	50.620	992.400	983.300	0.000	42970.000	42380.000	43390.000
2	18:20:04	45.444%	49.320	982.100	1004.000	0.000	44920.000	44420.000	43920.000
3	18:20:24	43.571%	49.940	943.400	896.900	0.000	41780.000	42110.000	42200.000
x		45.799%	49.960	972.700	961.600	0.000	43220.000	42970.000	43170.000
σ		2.426%	0.650	25.840	56.950	0.000	1584.000	1261.000	880.100
%RSD		5.297	1.302	2.657	5.923	0.000	3.664	2.935	2.039
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:45	1733.000	8804.000	0.000	47300.000	48480.000	49930.000	42.964%	1005.000
2	18:20:04	1714.000	8954.000	0.000	46250.000	47730.000	50020.000	39.430%	1023.000
3	18:20:24	1629.000	8456.000	0.000	45840.000	47200.000	50200.000	38.768%	1023.000
x		1692.000	8738.000	0.000	46460.000	47800.000	50050.000	40.387%	1017.000
σ		55.620	255.200	0.000	752.200	640.900	135.300	2.256%	10.430
%RSD		3.287	2.920	0.000	1.619	1.341	0.270	5.585	1.026
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:45	494.600	193.100	493.700	1014.000	1070.000	503.100	491.000	242.900
2	18:20:04	497.300	192.400	509.300	1030.000	1068.000	503.600	502.700	252.800
3	18:20:24	487.800	195.300	520.500	1074.000	1099.000	506.300	524.000	257.700
x		493.200	193.600	507.900	1040.000	1079.000	504.300	505.900	251.100
σ		4.909	1.502	13.480	30.780	17.340	1.733	16.740	7.552
%RSD		0.995	0.776	2.654	2.961	1.607	0.344	3.309	3.007
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:45	249.100	491.100	496.100	38.470	9.984	10.880	0.000	1003.000
2	18:20:04	251.200	506.400	510.400	38.090	10.900	10.850	0.000	1008.000
3	18:20:24	254.600	517.100	512.000	39.840	10.610	11.750	0.000	1025.000
x		251.600	504.800	506.200	38.800	10.500	11.160	0.000	1012.000
σ		2.773	13.090	8.803	0.922	0.467	0.513	0.000	11.400
%RSD		1.102	2.594	1.739	2.377	4.446	4.593	0.000	1.127
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:45	54.032%	1098.000	1132.000	51.843%	51.120	51.660	52.660	46.280
2	18:20:04	52.702%	1088.000	1134.000	50.977%	51.360	51.560	52.920	46.060
3	18:20:24	51.471%	1111.000	1158.000	50.059%	52.340	52.840	53.050	46.750
x		52.735%	1099.000	1141.000	50.960%	51.600	52.020	52.880	46.360
σ		1.281%	11.510	14.480	0.893%	0.645	0.709	0.195	0.354
%RSD		2.428	1.047	1.268	1.751	1.250	1.363	0.368	0.764
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:45	56.726%	2045.000	529.900	523.300	2023.000	1966.000	70.689%	71.507%
2	18:20:04	56.679%	2035.000	526.800	527.000	2028.000	1979.000	71.023%	71.988%
3	18:20:24	56.073%	2060.000	540.500	531.400	2045.000	2003.000	70.591%	71.488%
x		56.493%	2047.000	532.400	527.200	2032.000	1982.000	70.767%	71.661%
σ		0.364%	12.520	7.192	4.063	11.250	18.790	0.227%	0.283%
%RSD		0.645	0.612	1.351	0.771	0.554	0.948	0.321	0.395
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:19:45	50.060	51.320	21.330	21.480	21.510	69.233%		
2	18:20:04	49.830	51.380	21.300	21.300	21.230	70.244%		
3	18:20:24	50.960	52.720	21.710	21.770	21.720	70.291%		
x		50.280	51.810	21.450	21.520	21.490	69.923%		
σ		0.602	0.794	0.227	0.237	0.248	0.598%		
%RSD		1.196	1.533	1.057	1.103	1.153	0.855		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	44.851%	56.180	1085.000	1020.000	0.000	44350.000	43590.000	44980.000
2	18:23:52	44.396%	51.130	959.100	925.000	0.000	40270.000	40520.000	41590.000
3	18:24:12	43.372%	51.090	920.300	911.900	0.000	41740.000	41410.000	41820.000
x		44.206%	52.800	988.300	952.300	0.000	42120.000	41840.000	42800.000
σ		0.757%	2.929	86.360	58.970	0.000	2064.000	1579.000	1895.000
%RSD		1.713	5.548	8.738	6.192	0.000	4.900	3.774	4.429

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	1762.000	8943.000	0.000	47100.000	49200.000	51760.000	39.770%	1037.000
2	18:23:52	1673.000	8636.000	0.000	47010.000	49600.000	52010.000	39.585%	1051.000
3	18:24:12	1634.000	8936.000	0.000	46290.000	48110.000	50430.000	38.421%	1050.000
x		1690.000	8838.000	0.000	46800.000	48970.000	51400.000	39.259%	1046.000
σ		65.780	175.400	0.000	447.800	771.300	850.200	0.731%	7.946
%RSD		3.892	1.985	0.000	0.957	1.575	1.654	1.862	0.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	528.400	205.100	533.200	1090.000	1105.000	527.500	512.900	253.700
2	18:23:52	524.700	202.200	524.800	1042.000	1076.000	507.600	493.300	245.700
3	18:24:12	530.700	200.400	506.400	1023.000	1047.000	494.000	502.300	240.800
x		527.900	202.600	521.500	1052.000	1076.000	509.700	502.800	246.700
σ		3.032	2.358	13.720	34.480	28.740	16.860	9.809	6.526
%RSD		0.574	1.164	2.631	3.278	2.671	3.308	1.951	2.645

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	252.700	513.900	511.400	37.640	10.210	11.200	0.000	1006.000
2	18:23:52	247.200	508.800	508.100	38.320	9.987	10.870	0.000	1003.000
3	18:24:12	243.000	511.500	511.200	38.720	10.470	10.990	0.000	1001.000
x		247.600	511.400	510.200	38.230	10.220	11.020	0.000	1003.000
σ		4.851	2.562	1.809	0.550	0.240	0.169	0.000	2.689
%RSD		1.959	0.501	0.355	1.439	2.352	1.529	0.000	0.268

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	52.968%	1111.000	1148.000	51.029%	50.560	51.110	52.620	46.360
2	18:23:52	52.470%	1099.000	1141.000	50.522%	51.190	51.310	52.680	47.400
3	18:24:12	52.521%	1125.000	1155.000	50.668%	50.680	50.980	51.790	45.690
x		52.653%	1112.000	1148.000	50.740%	50.810	51.130	52.370	46.480
σ		0.274%	12.980	6.630	0.261%	0.333	0.165	0.501	0.864
%RSD		0.521	1.167	0.578	0.514	0.656	0.323	0.956	1.859

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	55.436%	2049.000	533.800	531.900	2020.000	1978.000	67.996%	68.447%
2	18:23:52	54.987%	2040.000	536.600	530.700	2040.000	1980.000	68.803%	69.058%
3	18:24:12	55.377%	2046.000	532.000	529.300	2029.000	1971.000	68.119%	68.637%
x		55.267%	2045.000	534.100	530.600	2029.000	1976.000	68.306%	68.714%
σ		0.244%	4.707	2.298	1.346	9.968	4.802	0.435%	0.313%
%RSD		0.441	0.230	0.430	0.254	0.491	0.243	0.637	0.455

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:33	49.120	49.720	21.050	21.290	21.130	65.106%
2	18:23:52	51.600	52.240	21.730	21.530	21.700	63.227%
3	18:24:12	51.060	52.320	21.550	21.330	21.540	63.678%
x		50.590	51.430	21.440	21.380	21.460	64.004%
σ		1.307	1.477	0.350	0.128	0.293	0.981%
%RSD		2.584	2.872	1.632	0.599	1.367	1.533

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:22	90.946%	0.007	676.000	623.800	0.000	100300.000	21420.000	21470.000
2	18:27:41	86.350%	-0.000	650.300	615.900	0.000	100200.000	20100.000	20470.000
3	18:28:00	86.239%	0.008	662.400	652.000	0.000	96900.000	20390.000	19900.000
x		87.845%	0.005	662.900	630.600	0.000	99160.000	20630.000	20620.000
σ		2.686%	0.004	12.850	18.970	0.000	1956.000	691.300	793.800
%RSD		3.058	87.790	1.938	3.008	0.000	1.973	3.350	3.850
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:22	92.880	2699.000	0.000	401.300	1044.000	1037.000	81.352%	67.800
2	18:27:41	90.570	2587.000	0.000	391.100	1062.000	1055.000	80.364%	63.680
3	18:28:00	87.910	2622.000	0.000	406.300	981.100	1070.000	76.954%	67.220
x		90.450	2636.000	0.000	399.600	1029.000	1054.000	79.557%	66.230
σ		2.490	57.070	0.000	7.734	42.540	16.440	2.307%	2.230
%RSD		2.753	2.165	0.000	1.935	4.133	1.559	2.900	3.366
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:22	23.590	0.076	15.450	-1.405	0.282	0.064	1.299	1.280
2	18:27:41	23.540	0.073	15.680	-1.252	0.134	0.045	1.279	1.271
3	18:28:00	24.240	0.095	16.070	-1.609	0.790	0.041	1.186	1.253
x		23.790	0.082	15.730	-1.422	0.402	0.050	1.255	1.268
σ		0.387	0.012	0.311	0.179	0.345	0.013	0.060	0.013
%RSD		1.626	14.670	1.973	12.570	85.720	25.300	4.798	1.056
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:22	0.639	8.846	8.973	14.300	0.804	2.197	0.000	3.305
2	18:27:41	0.621	8.733	9.108	14.690	0.840	2.109	0.000	3.313
3	18:28:00	0.618	9.117	9.096	14.920	0.951	1.892	0.000	3.435
x		0.626	8.899	9.059	14.640	0.865	2.066	0.000	3.351
σ		0.011	0.197	0.075	0.311	0.077	0.157	0.000	0.073
%RSD		1.797	2.217	0.829	2.125	8.856	7.579	0.000	2.174
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:22	78.633%	4.114	4.033	75.231%	-0.001	-0.006	-0.080	-0.176
2	18:27:41	79.746%	3.906	3.954	76.383%	-0.001	-0.007	-0.065	-0.144
3	18:28:00	76.293%	4.140	4.032	72.865%	-0.006	-0.007	-0.074	-0.057
x		78.224%	4.053	4.006	74.826%	-0.003	-0.007	-0.073	-0.126
σ		1.763%	0.128	0.045	1.794%	0.003	0.000	0.008	0.062
%RSD		2.253	3.164	1.132	2.397	114.700	6.451	10.510	49.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:22	77.809%	4.402	8.757	8.699	0.869	1.014	79.692%	78.850%
2	18:27:41	79.358%	3.857	8.652	8.799	1.012	0.898	80.931%	79.624%
3	18:28:00	75.521%	0.416	9.146	9.097	1.029	1.014	79.497%	79.054%
x		77.562%	2.892	8.852	8.865	0.970	0.975	80.040%	79.176%
σ		1.931%	2.162	0.261	0.207	0.088	0.067	0.778%	0.401%
%RSD		2.489	74.750	2.943	2.337	9.029	6.826	0.972	0.506
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:27:22	0.923	0.912	0.005	0.010	0.008	65.097%		
2	18:27:41	0.663	0.663	0.010	0.011	0.011	66.676%		
3	18:28:00	0.520	0.541	0.008	0.010	0.010	67.309%		
x		0.702	0.706	0.008	0.010	0.009	66.361%		
σ		0.204	0.189	0.002	0.001	0.002	1.139%		
%RSD		29.100	26.800	32.840	7.485	16.260	1.717		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	81.222%	0.010	218.400	223.600	0.000	58160.000	11170.000	11490.000
2	18:31:29	72.645%	-0.016	228.900	237.300	0.000	64190.000	12050.000	12640.000
3	18:31:48	73.942%	-0.016	221.500	228.900	0.000	63350.000	12050.000	11920.000
x		75.936%	-0.008	222.900	229.900	0.000	61900.000	11750.000	12020.000
σ		4.623%	0.015	5.378	6.910	0.000	3267.000	505.300	583.500
%RSD		6.088	197.400	2.413	3.006	0.000	5.278	4.299	4.855

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	1.149	5543.000	0.000	2936.000	24420.000	24980.000	72.866%	0.532
2	18:31:29	1.413	6094.000	0.000	3039.000	24660.000	25520.000	69.494%	0.452
3	18:31:48	1.377	5712.000	0.000	3038.000	24940.000	25550.000	65.577%	0.523
x		1.313	5783.000	0.000	3005.000	24670.000	25350.000	69.312%	0.503
σ		0.143	282.100	0.000	59.430	260.200	319.500	3.648%	0.044
%RSD		10.910	4.878	0.000	1.978	1.054	1.260	5.263	8.757

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	7.627	-0.311	4.318	403.000	418.600	0.080	1.899	4.912
2	18:31:29	7.423	-0.315	4.492	415.300	425.500	0.080	2.055	5.043
3	18:31:48	7.477	-0.312	4.539	433.300	448.100	0.082	2.151	5.136
x		7.509	-0.313	4.450	417.200	430.700	0.081	2.035	5.030
σ		0.105	0.002	0.117	15.210	15.440	0.001	0.127	0.113
%RSD		1.403	0.655	2.620	3.645	3.584	1.554	6.252	2.240

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	4.962	29.020	29.310	5.326	0.213	1.114	0.000	285.100
2	18:31:29	5.076	29.220	29.570	5.284	0.232	1.220	0.000	287.100
3	18:31:48	5.035	30.050	30.460	5.555	0.182	1.219	0.000	287.100
x		5.024	29.430	29.780	5.388	0.209	1.185	0.000	286.400
σ		0.058	0.547	0.602	0.146	0.025	0.061	0.000	1.184
%RSD		1.150	1.859	2.022	2.708	11.960	5.136	0.000	0.414

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	74.494%	4.257	4.229	71.947%	-0.011	-0.016	-0.064	-0.041
2	18:31:29	73.447%	4.282	4.297	70.754%	-0.015	-0.016	-0.073	-0.052
3	18:31:48	71.791%	4.369	4.456	69.075%	-0.013	-0.014	-0.068	-0.041
x		73.244%	4.303	4.328	70.592%	-0.013	-0.015	-0.068	-0.045
σ		1.363%	0.059	0.116	1.443%	0.002	0.001	0.004	0.006
%RSD		1.861	1.370	2.690	2.044	16.170	5.856	6.550	14.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	74.541%	0.214	-0.382	-0.390	39.150	39.700	79.313%	78.617%
2	18:31:29	73.279%	0.241	-0.362	-0.352	39.630	39.470	79.245%	78.328%
3	18:31:48	72.739%	0.203	-0.390	-0.377	40.450	40.080	80.131%	79.409%
x		73.520%	0.219	-0.378	-0.373	39.740	39.750	79.563%	78.785%
σ		0.925%	0.019	0.014	0.020	0.656	0.307	0.493%	0.560%
%RSD		1.258	8.842	3.817	5.295	1.651	0.772	0.619	0.711

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:10	0.199	0.205	0.173	0.166	0.167	73.956%
2	18:31:29	0.177	0.182	0.171	0.174	0.169	76.699%
3	18:31:48	0.153	0.174	0.163	0.171	0.159	76.465%
x		0.176	0.187	0.169	0.171	0.165	75.707%
σ		0.023	0.016	0.005	0.004	0.006	1.520%
%RSD		13.220	8.518	3.130	2.359	3.484	2.008

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	76.812%	0.011	22.210	22.960	0.000	12900.000	10560.000	10670.000
2	18:35:17	73.792%	0.031	21.360	23.090	0.000	12270.000	9976.000	10580.000
3	18:35:36	72.318%	0.022	20.320	21.270	0.000	12320.000	10170.000	10040.000
x		74.308%	0.021	21.300	22.440	0.000	12500.000	10230.000	10430.000
σ		2.291%	0.010	0.943	1.017	0.000	346.400	295.100	340.500
%RSD		3.083	46.380	4.428	4.530	0.000	2.772	2.884	3.265

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	1300.000	979.400	0.000	5603.000	36710.000	36920.000	68.987%	0.224
2	18:35:17	1312.000	966.600	0.000	5380.000	36270.000	36930.000	68.935%	0.169
3	18:35:36	1249.000	935.100	0.000	5407.000	34730.000	36050.000	67.927%	0.211
x		1287.000	960.300	0.000	5463.000	35900.000	36640.000	68.616%	0.201
σ		33.480	22.800	0.000	121.700	1037.000	503.700	0.597%	0.029
%RSD		2.601	2.374	0.000	2.228	2.888	1.375	0.871	14.290

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	1.076	0.309	51.210	2.762	41.880	0.099	1.036	1.540
2	18:35:17	1.048	0.342	51.290	7.813	36.820	0.112	1.055	1.476
3	18:35:36	0.987	0.314	49.810	-0.476	38.540	0.108	0.953	1.410
x		1.037	0.322	50.770	3.366	39.080	0.106	1.015	1.475
σ		0.045	0.018	0.837	4.177	2.573	0.007	0.054	0.065
%RSD		4.384	5.553	1.649	124.100	6.585	6.596	5.344	4.396

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	1.545	26.120	25.890	0.687	0.047	0.395	0.000	100.400
2	18:35:17	1.455	25.950	26.640	0.709	-0.031	0.591	0.000	101.800
3	18:35:36	1.428	25.130	25.800	0.659	-0.100	0.374	0.000	101.400
x		1.476	25.730	26.110	0.685	-0.028	0.454	0.000	101.200
σ		0.061	0.532	0.463	0.025	0.073	0.119	0.000	0.684
%RSD		4.165	2.069	1.774	3.638	262.500	26.330	0.000	0.676

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	74.419%	-0.658	-0.652	72.052%	-0.009	-0.012	-0.031	-0.025
2	18:35:17	73.906%	-0.498	-0.624	72.079%	-0.008	-0.010	-0.028	-0.021
3	18:35:36	72.831%	-0.651	-0.653	71.153%	-0.008	-0.014	-0.050	-0.034
x		73.719%	-0.602	-0.643	71.762%	-0.008	-0.012	-0.036	-0.027
σ		0.810%	0.090	0.017	0.527%	0.001	0.002	0.012	0.007
%RSD		1.099	14.980	2.572	0.734	7.107	16.150	32.410	25.150

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	75.329%	0.104	-0.397	-0.384	67.830	67.420	81.996%	80.927%
2	18:35:17	75.617%	0.083	-0.393	-0.381	66.960	67.370	82.701%	81.802%
3	18:35:36	75.080%	0.078	-0.384	-0.390	67.000	67.780	82.600%	82.028%
x		75.342%	0.088	-0.391	-0.385	67.260	67.520	82.432%	81.585%
σ		0.269%	0.014	0.007	0.004	0.490	0.226	0.381%	0.582%
%RSD		0.357	15.580	1.761	1.166	0.728	0.334	0.463	0.713

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:58	0.095	0.099	0.045	0.042	0.044	81.297%
2	18:35:17	0.100	0.090	0.052	0.051	0.049	81.677%
3	18:35:36	0.090	0.084	0.054	0.043	0.047	81.938%
x		0.095	0.091	0.051	0.045	0.047	81.638%
σ		0.005	0.007	0.005	0.005	0.002	0.322%
%RSD		5.592	8.163	9.077	10.340	4.779	0.395

180-45318-A-1 SD@5 6/25/2015 6:38:27 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	18:38:46	89.642%	-0.016	5.744	5.527	0.000	2751.000	2151.000	2239.000
2	18:39:06	88.709%	0.016	5.493	5.394	0.000	2723.000	2172.000	2260.000
3	18:39:25	81.974%	0.001	5.932	5.035	0.000	2720.000	2142.000	2165.000
x		86.775%	0.000	5.723	5.319	0.000	2731.000	2155.000	2221.000
σ		4.184%	0.016	0.220	0.255	0.000	17.570	15.480	49.730
%RSD		4.821	12100.000	3.845	4.786	0.000	0.643	0.718	2.239
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:46	280.600	205.400	0.000	1136.000	7255.000	7297.000	75.966%	0.119
2	18:39:06	280.000	209.800	0.000	1126.000	7448.000	7596.000	72.284%	0.042
3	18:39:25	268.600	202.100	0.000	1138.000	7399.000	7516.000	72.487%	0.006
x		276.400	205.700	0.000	1133.000	7367.000	7470.000	73.579%	0.056
σ		6.781	3.858	0.000	6.456	100.400	154.800	2.070%	0.058
%RSD		2.453	1.875	0.000	0.570	1.363	2.072	2.813	103.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:46	0.244	0.055	10.790	15.110	24.170	0.021	0.235	0.363
2	18:39:06	0.233	0.055	10.950	15.340	23.430	0.024	0.207	0.402
3	18:39:25	0.224	0.072	11.070	14.140	23.030	0.029	0.251	0.415
x		0.234	0.060	10.940	14.860	23.550	0.025	0.231	0.393
σ		0.010	0.010	0.142	0.638	0.579	0.004	0.022	0.027
%RSD		4.246	15.980	1.294	4.293	2.458	15.380	9.677	6.789
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:46	0.395	4.610	4.568	0.164	-0.170	0.098	0.000	21.850
2	18:39:06	0.406	4.715	4.640	0.154	0.010	0.114	0.000	22.070
3	18:39:25	0.390	4.614	4.261	0.208	-0.051	0.188	0.000	22.050
x		0.397	4.646	4.490	0.175	-0.070	0.133	0.000	21.990
σ		0.008	0.059	0.202	0.029	0.092	0.048	0.000	0.124
%RSD		2.031	1.280	4.487	16.360	130.100	36.200	0.000	0.564
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:46	71.987%	-0.746	-0.804	80.371%	-0.014	-0.015	-0.033	-0.016
2	18:39:06	72.194%	-0.784	-0.889	80.769%	-0.010	-0.016	-0.008	0.000
3	18:39:25	71.887%	-0.869	-0.857	79.576%	-0.012	-0.012	-0.043	-0.018
x		72.023%	-0.800	-0.850	80.239%	-0.012	-0.014	-0.028	-0.011
σ		0.157%	0.063	0.043	0.607%	0.002	0.002	0.018	0.010
%RSD		0.217	7.884	5.084	0.757	17.320	14.000	63.320	88.020
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:46	79.795%	-0.040	-0.523	-0.498	13.620	13.510	83.245%	82.959%
2	18:39:06	80.752%	0.144	-0.526	-0.525	13.500	13.470	83.927%	83.243%
3	18:39:25	80.832%	0.080	-0.507	-0.520	13.200	13.590	85.331%	84.205%
x		80.459%	0.061	-0.518	-0.514	13.440	13.530	84.168%	83.469%
σ		0.577%	0.093	0.010	0.014	0.215	0.063	1.063%	0.653%
%RSD		0.717	153.000	1.966	2.817	1.601	0.465	1.263	0.783
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:38:46	0.067	0.071	0.015	0.026	0.020	88.399%		
2	18:39:06	0.065	0.072	0.020	0.027	0.023	89.686%		
3	18:39:25	0.068	0.067	0.022	0.018	0.019	90.376%		
x		0.066	0.070	0.019	0.024	0.021	89.487%		
σ		0.002	0.003	0.004	0.005	0.002	1.003%		
%RSD		2.277	4.153	18.730	20.470	10.180	1.121		

CCV 1594026 6/25/2015 6:42:24 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	88.132%	106.500	97.750	95.240	0.000	47670.000	47260.000	47930.000
2	18:42:43	85.303%	106.500	102.600	101.400	0.000	47370.000	47960.000	48010.000
3	18:43:02	86.049%	98.640	93.440	97.250	0.000	44310.000	44580.000	45230.000
x		86.495%	103.872%	97.927%	97.959%	0.000	92.897%	93.202%	94.113%
σ		1.466%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.695	4.360	4.673	3.197	0.000	4.009	3.830	3.362

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	475.900	5441.000	0.000	47760.000	46920.000	48010.000	80.106%	102.700
2	18:42:43	471.000	5254.000	0.000	47410.000	46850.000	47990.000	77.461%	100.300
3	18:43:02	439.800	4991.000	0.000	46620.000	46120.000	47110.000	77.118%	102.500
x		92.450%	104.573%	0.000	94.525%	93.260%	95.406%	78.228%	101.825%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.635%	n/a
%RSD		4.241	4.320	0.000	1.244	0.947	1.074	2.090	1.332

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	98.800	101.200	480.000	25050.000	24760.000	101.900	107.400	106.200
2	18:42:43	96.730	96.950	483.900	24630.000	24350.000	99.870	102.900	103.000
3	18:43:02	96.000	98.700	479.600	24770.000	24530.000	100.300	101.300	101.100
x		97.178%	98.952%	96.230%	99.258%	98.189%	100.693%	103.846%	103.427%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.498	2.157	0.498	0.861	0.851	1.057	3.031	2.517

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	106.000	104.800	104.800	105.400	107.400	110.400	0.000	92.230
2	18:42:43	102.200	103.600	103.600	104.900	109.400	107.400	0.000	91.610
3	18:43:02	101.400	102.900	102.700	103.400	109.500	108.000	0.000	91.970
x		103.223%	103.776%	103.710%	104.590%	108.775%	108.601%	0.000	91.937%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.357	0.918	1.015	1.030	1.066	1.471	0.000	0.336

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	79.894%	92.020	93.860	71.871%	102.100	103.300	103.800	104.500
2	18:42:43	81.391%	92.220	94.530	72.596%	102.100	102.800	103.000	102.600
3	18:43:02	80.965%	94.280	95.560	72.138%	101.500	101.500	102.800	102.000
x		80.750%	92.841%	94.651%	72.202%	101.912%	102.554%	103.200%	103.024%
σ		0.771%	n/a	n/a	0.366%	n/a	n/a	n/a	n/a
%RSD		0.955	1.346	0.900	0.507	0.355	0.927	0.552	1.264

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	72.614%	99.300	96.040	94.380	98.630	98.820	75.922%	75.086%
2	18:42:43	74.040%	99.530	95.050	94.920	97.800	97.440	77.436%	76.684%
3	18:43:02	74.233%	99.640	96.640	95.750	97.010	97.250	78.221%	77.115%
x		73.629%	99.491%	95.909%	95.017%	97.812%	97.834%	77.193%	76.295%
σ		0.884%	n/a	n/a	n/a	n/a	n/a	1.169%	1.069%
%RSD		1.201	0.174	0.841	0.722	0.829	0.878	1.514	1.401

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:24	98.000	99.040	97.750	98.630	98.670	73.112%
2	18:42:43	97.180	98.060	97.180	97.860	97.730	74.901%
3	18:43:02	97.760	98.730	97.910	98.230	98.310	75.308%
x		97.646%	98.609%	97.615%	98.240%	98.240%	74.440%
σ		n/a	n/a	n/a	n/a	n/a	1.168%
%RSD		0.433	0.506	0.391	0.390	0.482	1.569

CCB6 6/25/2015 6:48:54 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	109.537%	-0.010	0.478	0.618	0.000	-1.432	1.458	1.459
2	18:49:34	106.423%	0.004	0.568	0.533	0.000	-1.259	1.721	1.526
3	18:49:53	102.475%	-0.003	0.545	0.521	0.000	-1.250	1.603	1.464
x		106.145%	-0.003	0.530	0.557	0.000	-1.313	1.594	1.483
σ		3.539%	0.007	0.047	0.053	0.000	0.103	0.132	0.037
%RSD		3.334	231.100	8.858	9.489	0.000	7.812	8.265	2.519

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	1.174	4.792	0.000	-0.321	5.158	3.988	92.908%	-0.033
2	18:49:34	1.219	4.398	0.000	-0.214	9.264	4.568	92.743%	0.009
3	18:49:53	1.276	4.427	0.000	-0.324	4.641	4.776	92.532%	-0.012
x		1.223	4.539	0.000	-0.286	6.354	4.444	92.727%	-0.012
σ		0.051	0.220	0.000	0.063	2.533	0.408	0.188%	0.021
%RSD		4.205	4.841	0.000	21.870	39.870	9.190	0.203	172.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	0.025	0.006	0.020	2.821	2.627	0.004	0.014	0.024
2	18:49:34	0.005	-0.017	0.020	4.552	2.431	0.002	0.001	0.036
3	18:49:53	0.020	0.006	0.024	2.492	0.575	0.004	0.007	0.013
x		0.017	-0.002	0.021	3.288	1.878	0.003	0.007	0.024
σ		0.010	0.013	0.003	1.106	1.132	0.001	0.007	0.011
%RSD		61.510	843.100	12.090	33.650	60.310	27.810	88.980	46.310

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	0.033	0.618	0.611	0.124	0.115	0.372	0.000	0.009
2	18:49:34	0.048	0.641	0.641	0.069	0.038	0.166	0.000	0.007
3	18:49:53	0.072	0.606	0.587	0.074	0.097	0.160	0.000	0.008
x		0.051	0.622	0.613	0.089	0.084	0.232	0.000	0.008
σ		0.020	0.018	0.027	0.030	0.040	0.121	0.000	0.001
%RSD		38.990	2.825	4.451	33.940	48.110	51.880	0.000	16.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	92.455%	-0.510	-0.568	94.121%	-0.004	-0.008	0.007	0.033
2	18:49:34	91.850%	-0.623	-0.643	93.878%	0.000	-0.006	-0.007	0.029
3	18:49:53	92.669%	-0.687	-0.682	93.436%	-0.001	-0.000	0.011	0.031
x		92.325%	-0.607	-0.631	93.812%	-0.002	-0.005	0.004	0.031
σ		0.425%	0.090	0.058	0.348%	0.002	0.004	0.009	0.002
%RSD		0.460	14.790	9.161	0.371	149.800	88.660	248.500	7.459

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	91.138%	-0.620	0.543	0.565	0.023	0.019	92.445%	91.754%
2	18:49:34	91.520%	-0.648	0.473	0.506	0.024	0.015	92.550%	93.035%
3	18:49:53	91.964%	-0.492	0.507	0.445	0.013	0.011	93.031%	93.154%
x		91.541%	-0.587	0.507	0.505	0.020	0.015	92.676%	92.647%
σ		0.413%	0.084	0.035	0.060	0.006	0.004	0.312%	0.776%
%RSD		0.452	14.240	6.945	11.910	31.040	24.830	0.337	0.838

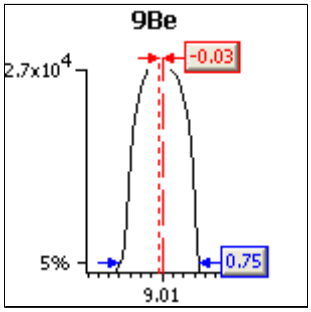
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	0.038	0.035	0.006	0.009	0.009	96.905%
2	18:49:34	0.035	0.037	0.008	0.011	0.009	97.794%
3	18:49:53	0.032	0.032	0.008	0.011	0.008	98.323%
x		0.035	0.035	0.007	0.010	0.009	97.674%
σ		0.003	0.003	0.001	0.001	0.001	0.716%
%RSD		9.723	7.564	15.390	9.775	9.756	0.734

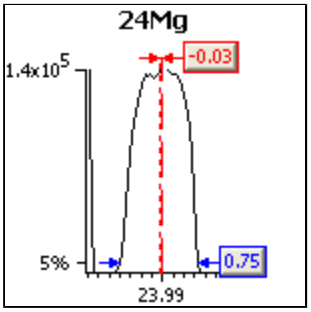
Performance Report

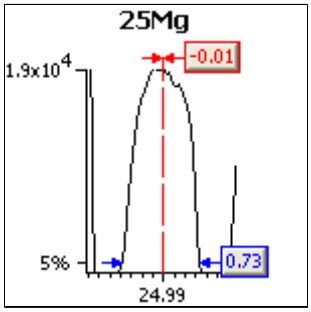
Sample details
Sample name : ITUNE
Acquired at : 6/25/2015 7:59:51 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

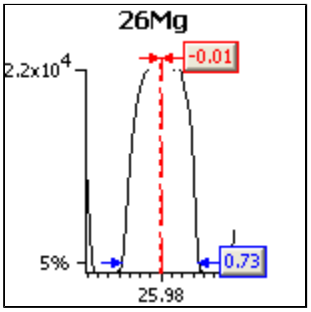
Mass Calibration verification

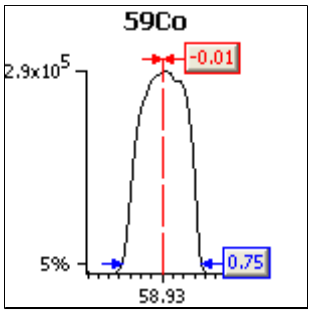
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

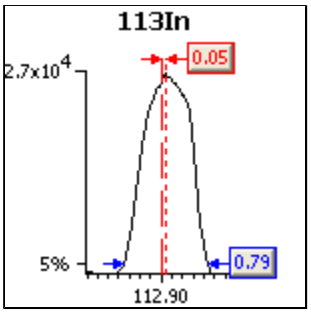


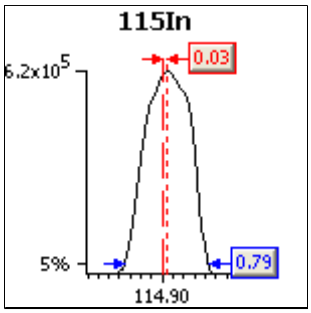


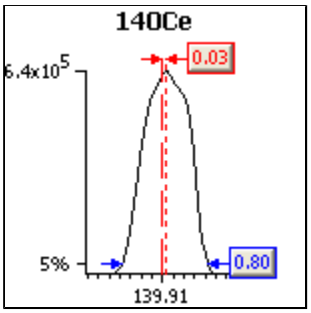


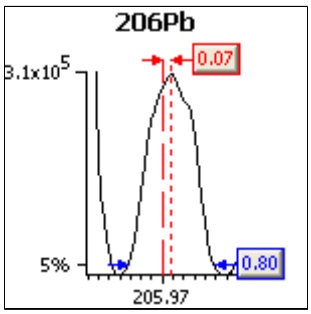


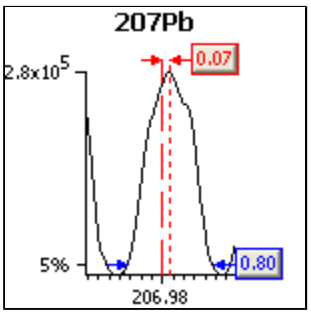


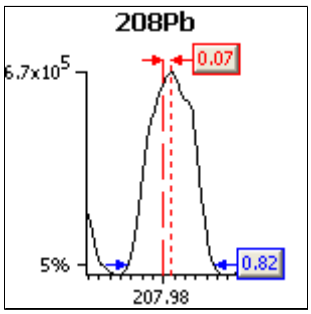












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.75	-0.03
24Mg	0.90	0.45	0.10	0.75	-0.03
25Mg	0.90	0.45	0.10	0.73	-0.01
26Mg	0.90	0.45	0.10	0.73	-0.01
59Co	0.90	0.45	0.10	0.75	-0.01
113In	0.90	0.45	0.10	0.79	0.05
115In	0.90	0.45	0.10	0.79	0.03
140Ce	0.90	0.45	0.10	0.80	0.03
206Pb	0.90	0.45	0.10	0.80	0.07
207Pb	0.90	0.45	0.10	0.80	0.07
208Pb	0.90	0.45	0.10	0.82	0.07

Sample details
Sample name : ITUNE
Acquired at : 6/25/2015 7:59:51 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-125
Lens 1	2.0
Focus	25.7
D1	-37.6
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.92
Sampling Depth	150

Minor	
Lens 2	-22.7
Lens 3	-149.8
Forward power	1404
Horizontal	97
Vertical	349
D2	-160
DA	-80.0
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
He/H2	0.00
He/NH3	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	8:00:39 AM	0	25698	137709	18638	22066	575367	289412	7
2	8:02:04 AM	0	24676	135963	18144	21579	569403	284454	9
3	8:03:29 AM	0	24880	134511	18105	21684	568110	284371	7
4	8:04:55 AM	0	25303	135456	18113	21853	572229	286129	7
5	8:06:20 AM	0	25032	135639	18267	21571	576177	284329	13
x		0	25118	135856	18253	21751	572257	285739	8
σ		0.07	397.10	1168.46	224.55	209.89	3549.00	2188.30	2.65
%RSD		136.931	1.581	0.860	1.230	0.965	0.620	0.766	31.547

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	8:00:39 AM	92	0	26274	616482	5790	643818	13903	293032
2	8:02:04 AM	81	0	26607	617438	5641	645828	13387	294037
3	8:03:29 AM	74	0	26506	622650	5776	650685	13297	297190
4	8:04:55 AM	72	0	26655	625058	5697	654155	13445	302089
5	8:06:20 AM	83	0	26566	617370	5695	644920	14041	298007
x		80	0	26522	619800	5720	647881	13615	296871
σ		7.79	0.05	148.70	3816.60	62.24	4379.19	333.91	3584.32
%RSD		9.700	70.711	0.561	0.616	1.088	0.676	2.453	1.207

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	8:00:39 AM	270258	643760	0
2	8:02:04 AM	268093	644009	0
3	8:03:29 AM	272264	647739	0
4	8:04:55 AM	276672	658982	0
5	8:06:20 AM	273885	652171	0
x		272234	649332	0
σ		3296.63	6385.77	0.09
%RSD		1.211	0.983	72.436

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	8:00:39 AM	0
2	8:02:04 AM	0

3	8:03:29 AM	0
4	8:04:55 AM	0
5	8:06:20 AM	0
x		0.0210
σ		0.00
%RSD		2.9507

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Batch Number: 145252 Batch Start Date: 06/17/15 09:30 Batch Analyst: Hartsock, Bobbi M

Batch Method: 3005A Batch End Date: 06/17/15 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00022	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-145252/1		3005A, 6020A		50 mL	50 mL				
LCS 180-145252/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-45088-B-2	HD-COD-SW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-5	HD-COD-SW-10-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-6	HD-COD-SW-11-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-7	HD-COD-SW-12-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-8	HD-COD-SW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-10	HD-COD-SW-16-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-11	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-11 MS	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-45088-B-11 MSD	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-45088-B-12	HD-COD-SW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-13	HD-COD-SW-26-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-15	HD-COD-SW-28-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-16	HD-COD-SW-29-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-17	HD-QC1-0/1-1	3005A, 6020A	T	50 mL	50 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Batch Number: 145252 Batch Start Date: 06/17/15 09:30 Batch Analyst: Hartsock, Bobbi M

Batch Method: 3005A Batch End Date: 06/17/15 13:30

Batch Notes	
Batch Comment	Metals B1
First End time	13:30
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	09:30
ID number of the thermometer	IP1-14 CF=0.0 G5
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Batch Number: 145430 Batch Start Date: 06/18/15 11:50 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 06/18/15 15:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00022	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-145430/1		3005A, 6020A		50 mL	50 mL				
LCS 180-145430/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-45088-B-1	HD-COD-SW-6-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-3	HD-COD-SW-8-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-4	HD-COD-SW-9-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-9	HD-COD-SW-15-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-45088-B-14	HD-COD-SW-27-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals B6
First End time	15:50
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#5
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	11:50
ID number of the thermometer	IP4-14 CF=+1.0 F2
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-45088-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-45088-1
HD-COD-SW-7-0/1-0	180-45088-2
HD-COD-SW-8-0/1-0	180-45088-3
HD-COD-SW-9-0/1-0	180-45088-4
HD-COD-SW-10-0/1-0	180-45088-5
HD-COD-SW-11-0/1-0	180-45088-6
HD-COD-SW-12-0/1-0	180-45088-7
HD-COD-SW-13-0/1-0	180-45088-8
HD-COD-SW-15-0/1-0	180-45088-9
HD-COD-SW-16-0/1-0	180-45088-10
HD-COD-SW-17-0/1-0	180-45088-11
HD-COD-SW-20-0/1-0	180-45088-12
HD-COD-SW-26-0/1-0	180-45088-13
HD-COD-SW-27-0/1-0	180-45088-14
HD-COD-SW-28-0/1-0	180-45088-15
HD-COD-SW-29-0/1-0	180-45088-16
HD-QC1-0/1-1	180-45088-17

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-45088-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 10:35

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	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	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-45088-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 11:25

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	110	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	110	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-45088-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 08:45

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	110	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	110	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-45088-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 12:30

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	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	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-10-0/1-0 Lab Sample ID: 180-45088-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 09:25

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-45088-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:15

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	16	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: 180-45088-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:25

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	150	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-45088-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 09:15

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	110	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	110	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-45088-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:40

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	230	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-16-0/1-0 Lab Sample ID: 180-45088-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 09:45

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	110	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	100	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-45088-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 10:10

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	230	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-20-0/1-0 Lab Sample ID: 180-45088-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 10:40

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-45088-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 11:10

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-45088-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:45

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	120	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-45088-15

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 13:00

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	150	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	4.0	5.0	0.41	mg/L	J		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-45088-16

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 08:30

Reporting Basis: WET Date Received: 06/17/2015 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	110	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	110	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-45088-17

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG ID.:

Matrix: Water Date Sampled: 06/15/2015 08:00

Reporting Basis: WET Date Received: 06/17/2015 10:15

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	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	4.0	5.0	0.41	mg/L	J		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Analyst: PGJ Batch Start Date: 06/26/2015

Reporting Units: mg/L Analytical Batch No.: 146209

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	09:33	Total Alkalinity as CaCO3 to pH 4.5	129	125	103	80-120		WALK125PPMCCV_00087
14	CCB	09:33	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				J	
			Carbonate Alkalinity as CaCO3	ND					
25	CCV	09:33	Total Alkalinity as CaCO3 to pH 4.5	131	125	105	80-120		WALK125PPMCCV_00087
26	CCB	09:33	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				J	
			Carbonate Alkalinity as CaCO3	ND					

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.: 180-45088-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 146209 Date: 06/26/2015 09:33							
SM 2320B	MB 180-146209/2	Total Alkalinity as CaCO3 to pH 4.5	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-146209/2	Bicarbonate Alkalinity as CaCO3	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-146209/2	Carbonate Alkalinity as CaCO3	ND		mg/L	5.0	1

FORM III-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 146209 Date: 06/26/2015 09:33								
SM 2320B	HD-COD-SW-6-0/1-0	180-45088-1	Total Alkalinity as CaCO3 to pH 4.5	140	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-45088-1 DU	Total Alkalinity as CaCO3 to pH 4.5	139	mg/L	0	20	
SM 2320B	HD-COD-SW-6-0/1-0	180-45088-1	Bicarbonate Alkalinity as CaCO3	130	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-45088-1 DU	Bicarbonate Alkalinity as CaCO3	139	mg/L	3	20	
SM 2320B	HD-COD-SW-6-0/1-0	180-45088-1	Carbonate Alkalinity as CaCO3	4.0	mg/L			J
SM 2320B	HD-COD-SW-6-0/1-0	180-45088-1 DU	Carbonate Alkalinity as CaCO3	ND	mg/L	NC	20	
Batch ID: 146209 Date: 06/26/2015 09:33								
SM 2320B	HD-COD-SW-17-0/1-0	180-45088-11	Total Alkalinity as CaCO3 to pH 4.5	240	mg/L			
SM 2320B	HD-COD-SW-17-0/1-0	180-45088-11 DU	Total Alkalinity as CaCO3 to pH 4.5	244	mg/L	0.8	20	
SM 2320B	HD-COD-SW-17-0/1-0	180-45088-11	Bicarbonate Alkalinity as CaCO3	230	mg/L			
SM 2320B	HD-COD-SW-17-0/1-0	180-45088-11 DU	Bicarbonate Alkalinity as CaCO3	236	mg/L	0.8	20	
SM 2320B	HD-COD-SW-17-0/1-0	180-45088-11	Carbonate Alkalinity as CaCO3	7.9	mg/L			
SM 2320B	HD-COD-SW-17-0/1-0	180-45088-11 DU	Carbonate Alkalinity as CaCO3	7.92	mg/L	0	20	

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.: 180-45088-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 146209	Date: 06/26/2015 09:33										
						LCS Source: WALK250PPMPi_00095					
SM 2320B	LCS 180-146209/1	Total Alkalinity as CaCO3 to pH 4.5	261		mg/L	250	105	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: 180-45088-1

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: 180-45088-1

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.: 180-45088-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 06/26/2015 09:33 End Date: 06/26/2015 09:33

Lab Sample Id	D/F	Type	Time	Analytes																												
				Alk	BALKCC	CarAlk																										
LCS 180-146209/1	1	T	09:33	X																												
MB 180-146209/2	1	T	09:33	X	X	X																										
180-45088-1	1	T	09:33	X	X	X																										
180-45088-1 DU	1	T	09:33	X	X	X																										
180-45088-2	1	T	09:33	X	X	X																										
180-45088-3	1	T	09:33	X	X	X																										
180-45088-4	1	T	09:33	X	X	X																										
180-45088-5	1	T	09:33	X	X	X																										
180-45088-6	1	T	09:33	X	X	X																										
180-45088-7	1	T	09:33	X	X	X																										
180-45088-8	1	T	09:33	X	X	X																										
180-45088-9	1	T	09:33	X	X	X																										
CCV 180-146209/13	1		09:33	X																												
CCB 180-146209/14	1		09:33	X	X	X																										
180-45088-10	1	T	09:33	X	X	X																										
180-45088-11	1	T	09:33	X	X	X																										
180-45088-11 DU	1	T	09:33	X	X	X																										
180-45088-12	1	T	09:33	X	X	X																										
180-45088-13	1	T	09:33	X	X	X																										
180-45088-14	1	T	09:33	X	X	X																										
180-45088-15	1	T	09:33	X	X	X																										
180-45088-16	1	T	09:33	X	X	X																										
180-45088-17	1	T	09:33	X	X	X																										
ZZZZZZ			09:33																													
CCV 180-146209/25	1		09:33	X																												
CCB 180-146209/26	1		09:33	X	X	X																										
ZZZZZZ			09:33																													
CCV 180-146209/28			09:33																													
CCB 180-146209/29			09:33																													

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-026

Analyst: MTN / A. Johnson **Date:** 6.26.15
Reviewed By: [illegible] **Date:** N A
pH Meter ID: Accumet XL40 #2 **AD Batch:** 146209
pH 4 Start: 3.98 **pH 4 End:** 4.04

Job Number(s): 180-45088-1, 45324, 45301

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)\,(N)(50{,}000)}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

$CO_3^{\ 2}$ = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	$CO_3^{\ 2}$	HCO_3	Results	OH^-	$CO_3^{\ 2}$	HCO_3
P = 0	0	0	T	P = ½T	0	2P	0
P < ½T	0	2P	T-2P	P > ½T	2P-T	2(T-P)	0
				P = T	T	0	0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-026

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										
MB										
180-45088-1										
-1X										
-2										
-3										
-4										
-5										
-6										
-7										
-8										
-9										
CCV										
CCB										
180-45088-10										
-11										
-11X										
-12										
-13										
-14										
-15										
-16										
-17										
180-45324-1										
CCV										
CCB										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-026

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^2	HCO_3
180-45301-1	8.10	50	0	5.0	0.0198	PA.0				
CCV	10.4	1	3.0	6.5	1	120%				
CCB	5.10	50	0	0.1	0.0198	1.98				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Batch Number: 146209 Batch Start Date: 06/26/15 09:33 Batch Analyst: Johnson, Paul

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-146209/1		SM 2320B		50 mL	10.62 SU	0.0 mL	6.5 mL	6.5 mL	0.0 mL
MB 180-146209/2		SM 2320B		50 mL	5.68 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	8.32 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	8.30 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	50 mL	8.26 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	50 mL	8.24 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	50 mL	8.40 SU	0.0 mL	0.2 mL	0.2 mL	0.0 mL
180-45088-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	50 mL	8.31 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	50 mL	8.48 SU	0.0 mL	0.4 mL	0.4 mL	0.0 mL
180-45088-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	50 mL	8.37 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	50 mL	8.30 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	50 mL	8.42 SU	0.0 mL	0.2 mL	0.2 mL	0.0 mL
CCV 180-146209/13		SM 2320B		50 mL	10.44 SU	0.0 mL	2.9 mL	2.9 mL	0.0 mL
CCB 180-146209/14		SM 2320B		50 mL	5.64 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	50 mL	8.34 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	50 mL	8.35 SU	0.0 mL	0.2 mL	0.2 mL	0.0 mL
180-45088-A-11 DU	HD-COD-SW-17-0/1-0	SM 2320B	T	50 mL	8.37 SU	0.0 mL	0.2 mL	0.2 mL	0.0 mL
180-45088-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	50 mL	8.36 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	50 mL	8.31 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	50 mL	8.33 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
180-45088-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	50 mL	8.41 SU	0.0 mL	0.1 mL	0.1 mL	0.0 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.: 180-45088-1

SDG No.:

Batch Number: 146209 Batch Start Date: 06/26/15 09:33 Batch Analyst: Johnson, Paul

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
180-45088-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	50 mL	8.29 SU	0.0 mL	0 mL	0 mL	0.0 mL
180-45088-A-17	HD-QC1-0/1-1	SM 2320B	T	50 mL	8.34 SU	0.0 mL	0.1 mL	0.1 mL	0.0 mL
CCV 180-146209/25		SM 2320B		50 mL	10.46 SU	0.0 mL	3.1 mL	3.1 mL	0.0 mL
CCB 180-146209/26		SM 2320B		50 mL	5.61 SU	0.0 mL	0 mL	0 mL	0.0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-146209/1		SM 2320B		6.7 mL	6.7 mL	Case 2	257.4 mg/L	0 mg/L	3.960000000000004 mg/L
MB 180-146209/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-45088-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	6.9 mL	6.9 mL	Case 2	3.96 mg/L	0 mg/L	134.64 mg/L
180-45088-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	7.0 mL	7 mL	Case 1	0 mg/L	0 mg/L	138.6 mg/L
180-45088-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	5.4 mL	5.4 mL	Case 1	0 mg/L	0 mg/L	106.92 mg/L
180-45088-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	5.5 mL	5.5 mL	Case 1	0 mg/L	0 mg/L	108.9 mg/L
180-45088-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	7.0 mL	7 mL	Case 2	7.92 mg/L	0 mg/L	134.64 mg/L
180-45088-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	11.3 mL	11.3 mL	Case 2	3.96 mg/L	0 mg/L	221.76 mg/L
180-45088-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 2	15.84 mg/L	0 mg/L	213.84 mg/L
180-45088-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	7.9 mL	7.9 mL	Case 2	3.96 mg/L	0 mg/L	154.44 mg/L
180-45088-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	5.8 mL	5.8 mL	Case 1	0 mg/L	0 mg/L	114.84 mg/L
180-45088-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	11.8 mL	11.8 mL	Case 2	7.92 mg/L	0 mg/L	229.68 mg/L
CCV 180-146209/13		SM 2320B		3.6 mL	3.6 mL	Case 2	114.84 mg/L	0 mg/L	13.86 mg/L
CCB 180-146209/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-45088-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	5.4 mL	5.4 mL	Case 2	3.96 mg/L	0 mg/L	104.94 mg/L
180-45088-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	12.0 mL	12 mL	Case 2	7.92 mg/L	0 mg/L	233.64 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.: 180-45088-1

SDG No.:

Batch Number: 146209 Batch Start Date: 06/26/15 09:33 Batch Analyst: Johnson, Paul

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-45088-A-11 DU	HD-COD-SW-17-0/1-0	SM 2320B	T	12.1 mL	12.1 mL	Case 2	7.92 mg/L	0 mg/L	235.62 mg/L
180-45088-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	6.5 mL	6.5 mL	Case 2	3.96 mg/L	0 mg/L	126.72 mg/L
180-45088-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	6.5 mL	6.5 mL	Case 2	3.96 mg/L	0 mg/L	126.72 mg/L
180-45088-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	6.4 mL	6.4 mL	Case 2	3.96 mg/L	0 mg/L	124.74 mg/L
180-45088-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	7.9 mL	7.9 mL	Case 2	3.96 mg/L	0 mg/L	154.44 mg/L
180-45088-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	5.6 mL	5.6 mL	Case 1	0 mg/L	0 mg/L	110.88 mg/L
180-45088-A-17	HD-QC1-0/1-1	SM 2320B	T	11.8 mL	11.8 mL	Case 2	3.96 mg/L	0 mg/L	231.66 mg/L
CCV 180-146209/25		SM 2320B		3.5 mL	3.5 mL	Case 2	122.76 mg/L	0 mg/L	7.92 mg/L
CCB 180-146209/26		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00087	WALK250PPMPi 00095	
LCS 180-146209/1		SM 2320B		128.7 mg/L	261.36 mg/L	50 mL		50 mL	
MB 180-146209/2		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-45088-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	1.98 mg/L	138.6 mg/L	50 mL			
180-45088-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	0 mg/L	138.6 mg/L	50 mL			
180-45088-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	0 mg/L	106.92 mg/L	50 mL			
180-45088-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	0 mg/L	108.9 mg/L	50 mL			
180-45088-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	3.96 mg/L	142.56 mg/L	50 mL			
180-45088-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	1.98 mg/L	225.72 mg/L	50 mL			
180-45088-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	7.92 mg/L	229.68 mg/L	50 mL			
180-45088-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	1.98 mg/L	158.4 mg/L	50 mL			
180-45088-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	0 mg/L	114.84 mg/L	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-45088-1

SDG No.:

Batch Number: 146209 Batch Start Date: 06/26/15 09:33 Batch Analyst: Johnson, Paul

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00087	WALK250PPMPi 00095	
180-45088-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	3.96 mg/L	237.6 mg/L	50 mL			
CCV 180-146209/13		SM 2320B		57.42 mg/L	128.7 mg/L	50 mL	50 mL		
CCB 180-146209/14		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-45088-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	1.98 mg/L	108.9 mg/L	50 mL			
180-45088-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	3.96 mg/L	241.56 mg/L	50 mL			
180-45088-A-11 DU	HD-COD-SW-17-0/1-0	SM 2320B	T	3.96 mg/L	243.54 mg/L	50 mL			
180-45088-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	1.98 mg/L	130.68 mg/L	50 mL			
180-45088-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	1.98 mg/L	130.68 mg/L	50 mL			
180-45088-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	1.98 mg/L	128.7 mg/L	50 mL			
180-45088-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	1.98 mg/L	158.4 mg/L	50 mL			
180-45088-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	0 mg/L	110.88 mg/L	50 mL			
180-45088-A-17	HD-QC1-0/1-1	SM 2320B	T	1.98 mg/L	235.62 mg/L	50 mL			
CCV 180-146209/25		SM 2320B		61.38 mg/L	130.68 mg/L	50 mL	50 mL		
CCB 180-146209/26		SM 2320B		0 mg/L	1.98 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.: 180-45088-1

SDG No.:

Batch Number: 146209 Batch Start Date: 06/26/15 09:33 Batch Analyst: Johnson, Paul

Batch Method: SM 2320B Batch End Date:

Batch Notes	
pH Buffer 1 ID	1179927 ph 2
pH Buffer 2 ID	1568035 ph 4
pH Buffer 3 ID	1525375 ph 7
pH Buffer 4 ID	1538765 ph 10
pH Buffer 5 ID	1535729 ph 13
Sulfuric Acid Lot Number	1594371
Sulfuric Acid Vendor	Ricca
Nominal Amount Used	50 mL
pH Meter ID	Accumet XL94102132
Probe ID	VTY1 3085
Normality of first Titrant	0.0198 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 RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information

Client Contact: Allan Miller
Company: Groundwater Sciences Corporation
Address: 2601 Market Place Street, Suite 310
City: Harrisburg
State, Zip: PA, 17110-9307
Phone: 717-901(Tel)
Email: amiller@groundwatersciences.com
Project Name: Harley Davidson
Site: Harley-Davidson York

Sampler: Kaitlin Flemity
Phone: 631-766-2976
Due Date Requested:
TAT Requested (days): 2 week
PO #: Purchase Order not required
WO #: 10012.16.0005
Project #: 18010144
SSOW#:

Lab PM: Gamber, Carrie L
E-Mail: carrie.gamber@testamericainc.com

Carrier Tracking No(s):

COC No: 180-24703-4180.1

180-45088-02 Chain of Custody

Analysis

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs $8260B	Total Ca, Mg, Na, K	Alk (carb/bicarb) SO4, Cl, NO3	Total Number of containers	Special Instructions/Note:
			Preservation Code				A	N			
HD-COD-SW-6-0/1-0	6/15/15	1035	G	W	N	N	X	X	X	5	
HD-COD-SW-7-0/1-0		1125					X	X	X	5	
HD-COD-SW-8-0/1-0		0845					X	X	X	5	
HD-COD-SW-9-0/1-0		1230					X	X	X	5	
HD-COD-SW-10-0/1-0		0925					X	X	X	5	
HD-COD-SW-11-0/1-0		1315					X	X	X	5	
HD-COD-SW-12-0/1-0		1325					X	X	X	5	
HD-COD-SW-13-0/1-0		0915					X	X	X	5	
HD-COD-SW-15-0/1-0		1340					X	X	X	5	
HD-COD-SW-16-0/1-0		0945					X	X	X	5	
HD-COD-SW-17-0/1-0	↓	1010	↓	↓	↓	↓	X	X	X	5	

Preservation Codes: A - HCL; N - HNO3

Special Instructions/Note: 16.0005

Special Instructions/Note:
M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA
Other: Z (HNO3)

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: KBF	6/15/15 1425	GSC		6/15/15 1425	TAL-PIT
Relinquished by:	6/15/15 1700	TA	Pauline Watson	6-17-15	TAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10:15	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Kerri Lin Fleming	Lab PM: Gamber, Carrier Tracking No(s):	COC No: 180-24703-4180.2
Client Contact: Allan Miller	Phone: 631-766-2076	E-Mail: carrie.gamber@testamericainc.com	Page: Page 2 of 3 KBF
Company: Groundwater Sciences Corporation		Analysis Requested	Job #: 10012.16.0005

Address: 2601 Market Place Street, Suite 310	Due Date Requested:	
City: Harrisburg	TAT Requested (days): 2 weeks	
State, Zip: PA, 17110-9307		
Phone: 717-901(Tel)	PO #: Purchase Order not required	
Email: amiller@groundwatersciences.com	WO #: 10012.16.0005	
Project Name: Harley Davidson	Project #: 18010144	
Site: Harley-Davidson, York PA	SSOW#:	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other: Z (HNO3)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs 8260B	Total Na, Ca, Mg, K	Alk (bicarb/carb) SO4, Cl, NO3	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	L		
HD-COD-SW-17-0/1-0 MS	6/15/15	1010	G	W	N	Y	X	X	X	7	
HD-COD-SW-17-0/1-0 MSD		1010				Y	X	X	X	7	
HD-COD-SW-20-0/1-0		1040				N	X	X	X	6	
HD-COD-SW-26-0/1-0		1110				N	X	X	X	6	
HD-COD-SW-27-0/1-0		1345				N	X	X	X	6	
HD-COD-SW-28-0/1-0		1300				N	X	X	X	6	
HD-COD-SW-29-0/1-0		0830				N	X	X	X	6	
HD-QC1-0/1-1		0800				N	X	X	X	6	
HD-QC1-0/1-2	↓	1200	↓	↓	↓	N	X			2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

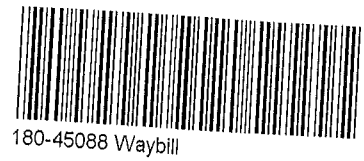
Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	KBF	6/15/15 1425	GSC		6/15/15 1425	TAKOP
2		6/15/15 1700	TA	Dellina Walton	6-17-15	TA
3		Date/Time:	Company	Received by:	Date/Time: 10:15	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:



180-45088 Waybill

ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
301 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 15JUN15
ACTWGT: 53.0 LB
CAD: 8490299/INET3610

BILL RECIPIENT

537J1/80DE/EE4B

SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058 REF:
INV: DEPT:
PO:

FedEx Express

J151215022301uv

2 of 2
MPS# 7738 3712 1472
0263
Mstr# 7738 3712 1027

TUE - 16 JUN AA
STANDARD OVERNIGHT

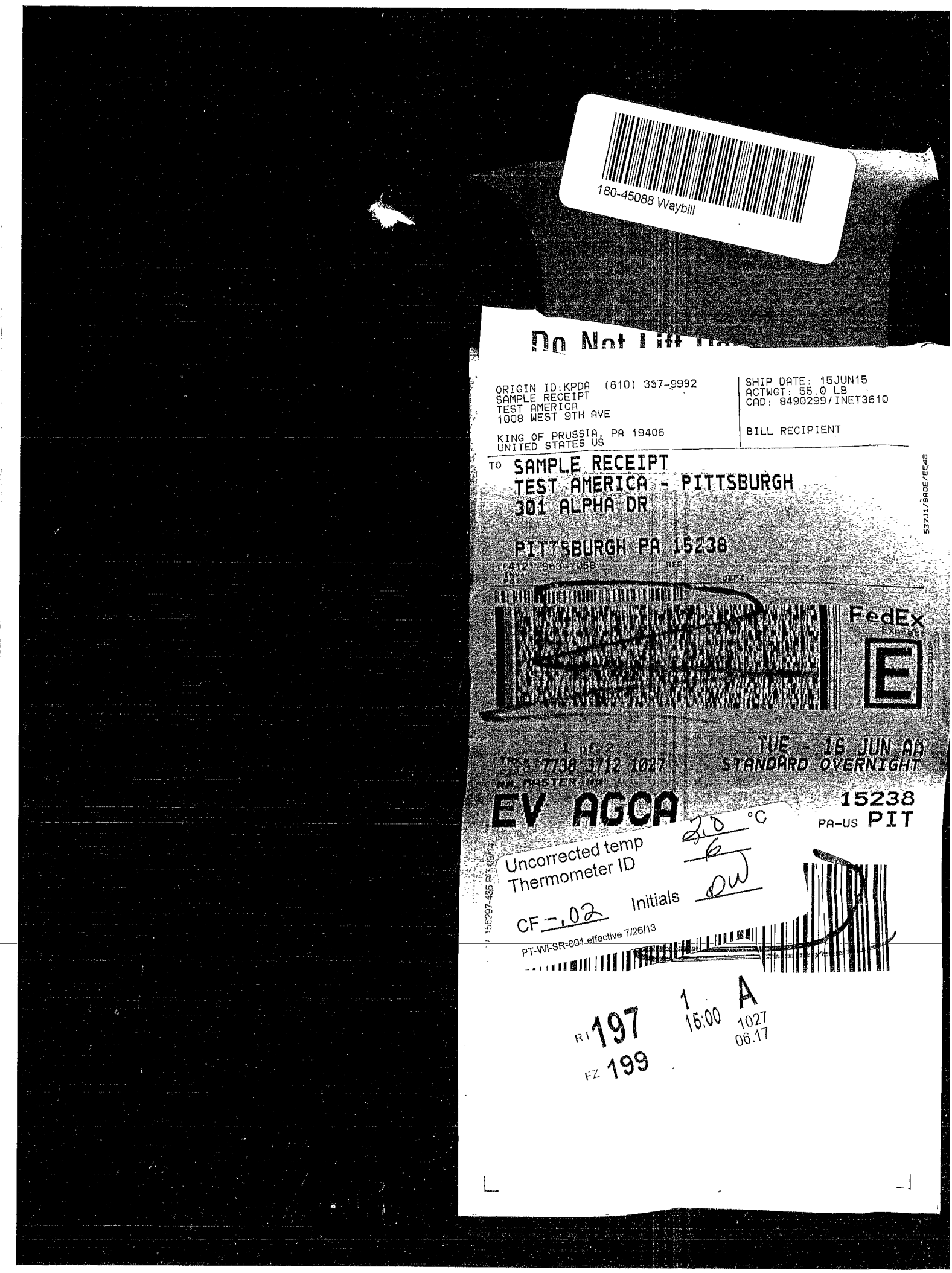
0201

15238
PA-US PIT

EV AGCA

2.1 °C
Uncorrected temp
Thermometer ID 1
Initials
CF -0.2

PT-WI-SR-001 effective 7/26/13


180-45088 Waybill
Do Not Lift
ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US
SHIP DATE: 15JUN15
ACTWGT: 55.0 LB
CAD: 8490299/INET3610
BILL RECIPIENT
TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
FedEx
Express
1 of 2
7738 3712 1027
TUE - 16 JUN AB
STANDARD OVERNIGHT
MASTER AIR
EV AGCA
15238
PA-US PIT
Uncorrected temp 2.0 °C
Thermometer ID 6
CF -.02 Initials DW
PT-WI-SR-001 effective 7/26/13
RT 197
FZ 199
1
15:00
A
1027
06.17

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-45088-1

Login Number: 45088
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	False	
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	

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-45088-1

Login Number: 45088
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	
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	